
Meridian 1

Option 11C Compact

Input/Output Guide

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General

This Guide contains all Overlay modules applicable to Meridian 1 switches equipped with Generic X27 software. Overlays are classified as being either Administration Overlays or Maintenance Overlays.

Option 11C Compact systems and this Guide

Many features and services offered with Option 11C Compact systems are similar (if not identical) to those found with other Meridian 1 systems. For this reason, this guide often refers to those systems. When using this guide with Option 11C Compact, references to Option 11 and Option 11C should also be considered as references to Option 11C Compact.

A list of features and services available with Option 11C Compact is located in the *Option 11C Compact Features and Services Guide*.

Administration modules document input and output in the Meridian prompt-response system. When the data administrator loads an Administration Overlay into memory on a Terminal, the switch outputs a prompt. The data administrator may then type a response to answer that prompt. If the response is valid, the program outputs the next prompt. If the response is invalid, an SCHxxxx message is output. To configure or change a feature, the data administrator may have to respond specifically to several prompts.

Maintenance modules document input and output in the command entry system. The Meridian 1 command entry system may be used to:

- view and print status of switch information
- perform background tests
- disable, enable and test system hardware (e.g., a particular phone)

When a data administrator loads a Maintenance overlay into memory on a Terminal, the administrator may then type in any command documented in that overlay. (The term “overlay” is synonymous with the terms “load”, “LD” and “overlay program”.)

A listing of Feature Packages appears twice in this NTP. An alphabetical listing (sorted by Package mnemonic) of Feature Packages can be found on [page 21](#). A numerical listing (sorted by Package number) of Feature Packages can be found on [page 27](#).

Format of input/output NTP

This NTP presents both maintenance overlays and data administration overlays. Overlay programs are identified by LD XX or LD XXX where XX or XXX is the overlay number. Maintenance overlays and data administration overlays are intermingled in this NTP, appearing in numerical order as separate modules.

Format of Administration Overlays

Two general table types appear in each administration overlay. The first table type is the *Prompts and responses* table. It appears at the front of each load and often follows introductory text. The second general table concludes each Administration overlay and is titled *Alphabetical list of prompts*.

The *Prompts and responses* table

Many *Prompts and responses* tables present a complete list of an overlays prompts. When this is the case, they are simply titled *Prompts and responses*. Other *Prompts and responses* tables present only a subset of an overlays prompts. When this is the case, they are titled *Prompts and responses by task, data block or feature*.

In some overlays, both the complete prompt list and several prompt subsets are presented. When both types of list appear in an overlay, a *Table of contents* box appears to help you find a particular prompt listing.

All *Prompts and responses* tables list prompts in the order in which they are output in each overlay. Acceptable responses or response variables are listed beside each prompt. A brief explanation of the prompt is provided in a *Comment* column.

Subprompts are indented with a hyphen. To have subprompts appear on the

TTY, the data administrator must enter specific responses at the previous non-indented prompt.

The *Alphabetical list of prompts* table

This table provides a more detailed description of a response.

Note that in an *Alphabetical list of prompts* table:

- a** Responses are actual alternatives and not generic variables.
- b** The comment entry is often expansive and may explain the prompt, the response, or both.

Format of Maintenance Overlays

Two general tables appear in each maintenance overlay. The first general table is titled “*Basic commands*”. It appears at the front of each load and often follows introductory text. The second general table concludes each Maintenance overlay and is titled “*Alphabetical list of commands*”.

The *Basic commands* Table

This table presents an abbreviated listing of that overlays’s entire command selection. A brief description of the command is presented beside each command.

The *Alphabetical list of commands* Table

This table provides a more detailed description of a given command.

Note that in an *Alphabetical list of commands* table:

- a** The description is often expansive.
- b** The package column provides the mnemonic of the package that must be equipped on the switch in order to receive this prompt.

Notational conventions

- 1 Although input can be accepted in upper or lower case, most prompts will translate the response to upper case. Exceptions include prompts such as NAME in LD 95 and DES in LD 17.
- 2 Lowercase variables are used in this book to represent many possible responses. The following table lists a few key variables which appear throughout this NTP:

Variable	Meaning
aa	Text string
aaa bbb	Alphabetic or alphanumeric characters
c	Customer Number (0)
c (u)	Terminal Number (TN) Card, Unit; where unit is optional
c u	Terminal Number (TN) Card and Unit
c 0 0 u	Terminal Number (TN). A TN consists of a card, two filler digits, and a unit.
dn	Directory Number (DN)
hh mm	Hours (0 - 23) and Minutes (00 - 59)
loop	Network Loop Number (0-159)
mmm	Month (JAN - DEC) when used in a date.
nnn xxx	Numeric characters
xxx	Numeric value (such as a DN)
yy mm dd	Year (00 - 99), Month (1 - 12) and Day (1 - 31)

- 3 **<cr>** denotes that the carriage return key is to be depressed without inputting any data. The carriage return leaves the existing value unchanged, or enters the default value if there is no existing value.
- 4 **<space>** denotes that the space bar is to be depressed instead of **<cr>**.

- 5 **<value>** denotes a variable value, generally for a prompt response.
For example, **<NIPN>** is the value responded to the NIPN prompt and **<min>** is a minimum value.
- 6 Default values are shown in parentheses
- 7 A range of numbers is denoted by giving the lower and upper limits of the range. For example, given the range **0 - (2) - 3**, the user may manually enter 0, 1, 2, or 3, or carriage return (press **<cr>**) to enter the default of 2.
- 8 Default values are shown in brackets in the response column where applicable. Pressing **<cr>** enters the default.
- 9 Where applicable, precede an entry with an **X** to delete that entry or set your entry to default value.

Related documentation

Feature description

Feature information is provided in the *Features and Services* NTP.

Operational testing

Information and instruction regarding the testing of features and services for telephone sets and attendant (ATT) consoles is contained in the *Features and Services* NTP.

Communicating with the system

To communicate with the system, the following input/output devices at either on-site (local) or remote locations are required:

- TTY or VDT terminal as an input/output device
- RS-232-C compatible printer as an output only device
- maintenance telephone set as an input only device

The input/output system can operate with terminals having the following characteristics:

- Interface: RS-232-C
- Code: ASCII
- Speed: 110, 300, 1200, 2400, 4800, 9600 and 19200 baud
- Loop Current: 20 mA

Accessing the system

Logging in and out

When you access the system through a system terminal, a login procedure is required (refer to [Procedure 1 on page 9](#)). All system passwords are initially set as 0000, but you can change passwords through the Configuration Record (LD 17). See also “Limited Access to Overlays” in the *Features and services* NTP.

Level 1 password. This general password is used in the log in sequence to provide general access to the system by service personnel. Once the system is accessed, the service personnel may then perform any necessary administration or maintenance tasks.

Level 2 password. This administrative password is known and used only by the data administration manager. The password is used to protect the system configuration record and is required when using LD 17 to change either the general or the administrative passwords.

Local and remote access

Input/output terminals may operate either locally or remotely. However, data modems are required for terminals located more than 50 ft (15 m) from the central control interface. Both local and remote terminals interface with the system through Serial Data Interface (SDI) packs.

Many devices can be installed at local and remote locations. When a system terminal is installed locally, it is connected directly to a SDI Card. When a system terminal is installed at a remote location, modems (or data sets) and a telephone line are required between the terminal and the SDI card.

HOST mode access

A system terminal is connected through an SDI port. SDI ports are defined in LD 17 and may be configured for different types of outputs. For example, one terminal may be defined for traffic reports, another for maintenance messages. Two ports may be defined for the same output.

It is possible to log in as a HOST. When in the HOST mode, the outputs defined for the port are only output to that port. Thus the port is no longer limited to the speed of the slowest port sharing the output types. This is useful for applications, such as MAT, which require high speed ports. Once the HOST port has logged out, the outputs to the other ports are restored.

To configure a system terminal, see the “System and limited access passwords” in the configuration record (LD 17). See also OVL403 and OVL404 messages, which are output to the ports affected by a HOST log in.

Line mode interface log in procedure

With Line Mode interface enabled (LON), the backspace can be used to edit input. The entered information (responses, for example) is not processed until the <CR> is entered. When the Line Mode is disabled (LOF), the system terminal interface operates as it did by default.

Procedure 1

Logging in and out

1 Press <cr>

— If the response is: **OVL111 nn TTY** or **OVL111 nn SL-1**

That means: Someone else is logged into the system. When they have logged off, press <cr> and go to Step 2.

— If the response is: **OVL111 nn IDLE** or **OVL111 nn BKGD**

That means: You are ready to log into the system. Go to Step 2.

— If the response is: **OVL000 >**

That means: This is the program identifier which indicates that you are already logged into the system. Go to Step 4.

2 Enter: **LOGI**, then press <cr>

The normal response is: **PASS?**

If there is any other response, refer to the message text in the System Error Messages NTP.

3 Enter: **Level 1 or Level 2 password** and press <cr>.

If the password is correct, the system responds with the prompt: >

- 4 Load a program by entering: **LD XX or LD XXX**(where X represents the overlay program number).
- 5 Perform tasks
- 6 End the program by entering: **END** or ********
7. Always end the log in session with: **LOGO**

The background routines are then loaded automatically.

Access through the maintenance telephone

A telephone functions as a maintenance telephone when you define the class-of-service as MTA (maintenance telephone allowed) in the Multi-line Telephone Administration program (LD 11). A maintenance telephone allows you to send commands to the system, but you can only use a subset of the commands that can be entered from a system terminal.

You can test tones and outpulsing through the maintenance telephone. Specific commands for those tests are given in the Tone and Digit Switch and Digitone Receiver Diagnostic (LD 34).

To access the system using the maintenance telephone, see [Procedure 2 on page 11](#). To enter commands, press the keys that correspond to the letters and numbers of the command (for example, to enter LD 42 return, key in 53#42##). [Table 2 on page 11](#) shows the translation from a keyboard to a dial pad.

The following overlays (LDs) ARE accessible from a maintenance telephone: 30, 32, 33, 34, 35, 36, 37, 38, 42, 43, 45, 46, 60, 61, 62

The following overlays (LDs) ARE NOT accessible from a maintenance telephone: 31, 40, 48, 77, 80, 92, 96, 135, 137, 143

Note: To use the maintenance telephone, the loop for that telephone must be operating.

Table 2
Translation from keyboard to dial pad

Keyboard				Dial pad
			1	1
A	B	C	2	2
D	E	F	3	3
G	H	I	4	4
J	K	L	5	5
M	N	O	6	6
P	R	S	7	7
T	U	V	8	8
W	X	Y	9	9
			0	0
			Space or #	#
			Return	##
			*	*
Note: There is no equivalent for Q or Z on a dial pad.				

Procedure 2
Access through the maintenance telephone

- 1 Press the prime DN key.
- 2 Place the set in maintenance mode by entering: **xxxx91**
 Where: “xxxx” is the customer Special Prefix (SPRE) number. It is defined in the Customer Data Block and can be printed using LD 21. The SPRE number is typically “1” (which means you would enter 191).
- 3 Check for busy tone by entering “return” : **##**
 - If there is no busy tone, go to Step 4.
 - If there is a busy tone, a program is active. To end an active program and access the system enter: ********
- 4 Load a program by entering: **53#xx##**
 Where: “xx” represents the number of the overlay program

- 5 Perform tasks.
- 6 To exit the program and return the telephone to call processing mode, enter: ****

Background routines are then loaded automatically.

Accessing Meridian Mail Compact

The system allows access to Meridian Mail Compact Administration & Maintenance through a shared terminal. To access the Meridian Mail system, log in and enter: AX. To exit from Meridian Mail, press the Control key and the closed square bracket (]) simultaneously.

System memory and disk space

The following memory information is output when an administration program is loaded. This information is used to plan the addition of new features, such as speed call lists, which require memory.

MEM AVAIL: (U/P): pppppp USED: qqqqqq TOT: rrrrrr

or (depending on the total amount of memory)

MEM AVAIL: (U-ppppp1 P-ppppp2): USED: qqqqqq TOT: rrrrrr

Legend:

Element	Definition
ppppp1	Amount of unprotected memory available for use (in words)
ppppp2	Amount of protected memory available for use (in words)
pppppp	Total memory available for use (ppppp1 + ppppp2) (in words)
qqqqqq	Total amount of memory used (in words)
rrrrrr	Total amount of memory (in words)
xxxxx	Floppy disk records available for storage of additional data

Low memory and disk warnings

If the amount of memory is low, the following message is output:

WARNING: LOW MEMORY

When this message appears avoid performing further administration changes which require more memory. These changes may be lost during the next data dump.

When low memory problems occur, a review of system memory is recommended. Memory may be reclaimed by removing unused features. For example, the system may have speed call lists which are no longer used and can be removed.

Preview of overlay content

System information, call information, features and services are all controlled by overlays (LDs). Data blocks are used to control this information. Listed below are some of the items accessible through the overlays.

Type	Overlay(s)	Item
Terminal Number data block	10, 11, 12, 14	<ul style="list-style-type: none"> busy lamp field Class of Service (CLS) feature access and requirements key assignments route assignment telephone features (# of key strips, data modules) telephone type trunk access trunk type
Customer data block	15	<ul style="list-style-type: none"> attendant console information customer number feature access codes incoming call identification intercept options Listed Directory Number (LDN) night service Recorded Announcement (RAN)
Route data block	16	<ul style="list-style-type: none"> access codes Call Detail Recording (CDR) information code restrictions network trunk features route number trunk route type trunking features (timers, starting arrangements)
Configuration data block	17	<ul style="list-style-type: none"> input/output devices network loop usage number of memory modules number of network loops system parameters (call register, buffer sizes, traffic)

Multi-User Login

Meridian 1 Multi-User Login (MULTI_USER) (package 242) enables up to three users to log in, load, and execute overlays simultaneously. These three users are in addition to an attendant console or maintenance terminal. The multi-user capability increases the efficiency of craftpersons by enabling them to perform tasks in parallel. To facilitate this operating environment, Multi-User Login includes significant functionality:

- Database conflict prevention
- Additional user commands
- TTY log files
- TTY directed I/O

With multiple overlays operating concurrently, there is the potential for a database conflict if two or more overlays attempt to modify the same data structure. Multi-User Login software prevents such conflicts. When a user requests that an overlay be loaded, the software determines if it could pose a potential conflict with an overlay that is already executing. If no conflict exists, the requested overlay is loaded. If a conflict does exist, the system issues the following message:

```
OVL429-OVERLAY CONFLICT
```

The user can try again later, or try to load a different overlay.

Multi-User Login also introduces several new user commands. With these commands, the user has the ability to:

- communicate with other users
- determine who is logged into the system
- halt and resume background and midnight routines
- initiate and terminate terminal monitoring
- change printer output assignment

User commands

A user can issue any of the commands listed and described in [Table 3, “New user commands,” on page 18](#) at the > prompt (after login but with no overlay executing), or from within an overlay. To issue a command from within an overlay, precede the command with an exclamation point (!).

For example, to issue the WHO command from within an overlay, type:

```
!WHO
```

Table 3
New user commands

Command	Description
WHO	Displays user name, port ID, and overlay loaded for each logged-in terminal, as well as the user's MON and SPRT commands (see below).
SEND xx	Sends a message to logged-in terminal xx. When the system responds with a "SEND MSG:" prompt, enter the message text yy...yy (up to 80 characters). The text of a message is considered private and therefore is not written to any log file.
SEND ALL	Sends a message to all logged-in terminals. When the system responds with a "SEND MSG:" prompt, enter the message text yy...yy (up to 80 characters). The text of a message is considered private and therefore is not written to any log file.
SEND OFF	Prevents messages sent by other terminals from appearing at the user's terminal.
SEND ON	Enables messages sent by other terminals to appear at the user's terminal.
FORC xx	Forces terminal xx to log off (the requesting user must log in with LAPW or a level 2 password).
HALT	Stops background and midnight routines during a login session.
HALT OFF	Resumes halted background and midnight routines.
MON xx	Initiates monitoring for terminal xx (the requesting user must log in with LAPW or a level 2 password). The monitored terminal receives a message at the beginning and end of the monitored period.
MON OFF	Turns off the monitor function.
SPRT xx	Assigns printer output to port xx.
SPRT OFF	Resets printer output assignment.

For more information on Multi-User Login, consult the *Management Applications NTP*.

Maintenance display codes

Maintenance displays are located on the faceplate of certain Meridian SL-1 circuit cards. A maintenance display code is a one-, two-, or three-digit alphanumeric code which can indicate the status of the system and identify faulty equipment. For a detailed definition of these codes, see the section titled "HEX" in the System Error Messages NTP.

Time and date of fault

The system identifies the time that faults are detected. When a diagnostic message is output, a timestamp is output within 15 minutes. The format is:

TIMxxx hh:mm dd/mm/yy CPU x

Where: **xxx** is the system ID

The time, date, and system ID are set in LD 2.

Alphabetical List of Packages

Listed below is a comprehensive alphabetical list of packages which may be equipped on this system. For a numerical list of available packages, refer to the section titled [“Numerical List of Packages” on page 27](#).

Note: A list of features and services available with this system is located in the *Features and Services Guide*.

Mnemonic	Feature Name	Number
AAA	Attendant Alternative Answering	174
AAB	Automatic Answerback	47
ACDA	Automatic Call Distribution, Package A	45
ACDB	Automatic Call Distribution, Package B	41
ACDC	Automatic Call Distribution Package C	42
ACDD	ACD Package D	50
ACNT	ACD Activity Code	155
ADMINSET	Set Based Administration	256
AINS	Automatic Installation	200
ALRM_FILTER	Alarm Filtering	243
ANI	Automatic Number Identification	12
ANIR	ANI Route Selection	13
AOP	Attendant Overflow Position	56
ARIE	Aries Digital Sets	170
ATX	Autodial Tandem Transfer	258
AUXS	ACD D Auxiliary Security	114
AWU	Automatic Wakeup	102
BACD	Basic Automatic Call Distribution	40
BARS	Basic Alternate Route Selection	57

Mnemonic	Feature Name	Number
BASIC	Basic Call Processing	0
BAUT	Basic Authorization Code	25
BGD	Background Terminal Facility	99
BKI	Attendant Break-In/Trunk Offer	127
BQUE	Basic Queuing	28
BRTE	Basic Routing	14
CAB	Charge Account/Authorization Code	24
CALL ID	Call ID (for AML applications)	247
CBC	Call-by-Call Service	117
CCDR	Calling line Identification in Call Detail Recording	118
CCOS	Controlled Class Of Service	81
CCRC	Customer Controlled Routing	215
CDR	Call Detail Recording	4
CDRE	Call Detail Recording Expansion (7 digit)	151
CDRQ	ACD CDR Queue Record	83
CDRX	Call Detail Recording Enhancement	259
CHG	Charge Account for CDR	23
CPCI	Called Party Control on Internal Calls	310
CPND	Calling Party Name Display	95
CPP	Calling Party Privacy	301
CPRK	Call Park	33
CSL	Command Status Link	77
CTY	Call Detail Recording on Teletype Terminal	5
DCON	M2250 Attendant Console	140
DCP	Directed Call Pickup	115
DDSP	Digit Display	19
DHLD	Deluxe Hold	71
DI	Dial Intercom	21
DKS	Digit Key Signaling	180
DLDN	Departmental Listed Directory Number	76
DNDG	Do-Not-Disturb, Group	16
DNDI	Do-Not-Disturb, Individual	9
DNIS	Dialed Number Identification System	98
DNXP	Directory Number Expansion (7 Digit)	150

Mnemonic	Feature Name	Number
DRNG	Distinctive Ringing	74
DSET	M2000 Digital Sets	88
EAR	Enhanced ACD Routing	214
ECCS	Enhanced Controlled Class of Service	173
EES	End-To-End Signaling	10
EMUS	Enhanced Music	119
ENS	Enhanced Night Service	133
ESA	Emergency Services Access	329
ESA_CLMP	Emergency Services Access	331
ESA_PAGE	Emergency CDR and Page	199
ESA_SUPP	Emergency Services Access	330
EOVF	ACD Enhanced Overflow	178
FCC68	FCC Compliance for DID Answer Supervision	223
FCA	Forced Charge Account	52
FCBQ	Flexible Call Back Queuing	61
FCDR	New Format CDR	234
FDID	Flexible DID	362
FFC	Flexible Feature Codes	139
FNP	Flexible Numbering Plan	160
FTC	Flexible Tones and Cadences	125
FTDS	Fast Tone and Digit Switch	87
GRP	Group Call	48
HIST	History File	55
HOT	Enhanced Hot Line	70
HSE	Hospitality Screen Enhancement	208
HVS	Meridian Hospitality Voice Services	179
IAP3P	ISDN Application Processor 3rd Party Vendors	153
ICDR	Internal CDR	108
IDC	Incoming DID Digit Conversion	113
IEC	Inter-Exchange Carrier	149
IMS	Integrated Message System UST and UMG are part of IMS Package.	35
INTR	Intercept Treatment	11
ISDN	Integrated Services Digital Network	145
IVR	Hold in Queue for IVR	218

Mnemonic	Feature Name	Number
LMAN	Automatic Call Distribution Load Management (C2)	43
LNK	ACDD, Auxiliary Link Processor	51
LNR	Last Number Redial	90
LSEL	Automatic Line Selection	72
MAID	Maid ID for Room Status	210
MAT	MAT 5.0	296
MCT	Malicious Call Trace	107
MLIO	Multilanguage CPND	211
MLS	Meridian Link Server	209
MLWU	Multilanguage Wakeup	206
MPO	Multi-Party Operations	141
MR	PPM/Message Registration	101
MSB	Make Set Busy	17
MSDL	Multipurpose Serial Data Link	222
MULTI_USER	Multi-User Login	242
MUS	Music	44
MUSBRD	Music Broadcast	328
MWC	Message Waiting Center	46
NARS	Network Alternate Route Selection	58
NAS	Network Attendant Service	159
NCOS	Network Class Of Service	32
NFCR	New Flexible Code Restriction	49
NGCC	Next Generation Call Centre	311
NGEN	New Generation Connectivity	324
NI2	North America National ISDN Class II Equipment	291
NMS	Network Management Services	175
NTWK	Advanced ISDN Network Services	148
ODAS	Office Data Administration System	20
OOD	Optional Outpulsing Delay	79
OPEN_ALARM	Open Alarms	315
OPTF	Optional Features	1
PBXI	1.5 Mbit Digital Trunk Interface	75
PHTN	Phantom TN	254
PMSI	Property Management System Interface	103

Mnemonic	Feature Name	Number
POVR	Priority Override/Forced Camp-On	186
PRA	International Primary Rate Access (CO)	146
PXLT	Pretranslation	92
RAN	Recorded Announcement	7
RANBRD	Recorded Announcement Broadcast	327
RMS	Room Status	100
ROA	Recorded Overflow Announcement	36
SACP	Semi-Automatic Camp-On	181
SCDR	Station Activity Records	251
SCI	Station Category Indication	80
SCMP	Station Camp-On	121
SECL	Series Call	191
SNR	Stored Number Redial	64
SR	Set Relocation	53
SSAU	Station Specific Authorization Codes	229
SS5	500 Set Dial Access to Features	73
SS25	2500 Set Features	18
SSC	System Speed Call	34
SUPV	Supervisory Attendant Console	93
TAD	Time and Date	8
TBAR	Trunk Barring	132
THF	Trunk Hook Flash (Centrex)	157
TOF	Automatic Call Distribution, Timed Overflow Queuing	111
TVS	Trunk Verification from Station	110
VIP	VIP Automatic Wakeup	212
VMBA	Voice Mailbox Administration	246
XCT0	M1 Enhanced Conference, TDS and MFS	204
XCT1	M1 Superloop Administration (LD 97)	205
XPE	Meridian 1 XPE	203

Numerical List of Packages

Listed below is a comprehensive numerical list of available packages which may be equipped on this system. For an alphabetical list of packages, see [“Alphabetical List of Packages” on page 21](#).

Note: A list of features and services available with this system is located in the *Option 11C Compact Features and Services Guide*.

Number	Mnemonic	Name
0	BASIC	Basic Call Processing
1	OPTF	Optional Features
4	CDR	Call Detail Recording, Teletype Terminal
5	CTY	Call Detail Recording, Teletype Terminal
7	RAN	Recorded Announcement
8	TAD	Time and Date
9	DNDI	Do Not Disturb Individual
10	EES	End-to-End Signaling
11	INTR	Intercept Treatment
12	ANI	Automatic Number Identification
13	ANIR	Automatic Number Identification, Route Selection
14	BRTE	Basic Routing
16	DNDG	Do Not Disturb Group
17	MSB	Make Set Busy
18	SS25	Special Service for 2500 Sets
19	DDSP	Digit Display
20	ODAS	Office Data Administration System
21	DI	Dial Intercom
23	CHG	Charge Account for CDR

Number	Mnemonic	Name
24	CAB	Charge Account/Authorization code
25	BAUT	Basic Authorization code
28	BQUE	Basic Queuing
29	NTRF	Network Traffic must have NWK packages.
32	NCOS	Network Class of Service
33	CPRK	Call Park
34	SSC	System Speed Call
35	IMS	Integrated Message Services. UST and UMG are part of the IMS package.
36	ROA	Recorded Overflow Announcement
37	NSIG	Network Signaling
39	NSC	Network Speed Call
40	BACD	Basic Automatic Call Distribution
41	ACDB	Automatic Call Distribution, Package B
42	ACDC	Automatic Call Distribution, Package C
43	LMAN	Automatic Call Distribution, Load Management Reports
44	MUS	Music
45	ACDA	Automatic Call Distribution, Package A
46	MWC	Message Waiting Center
47	AAB	Automatic Answerback
48	GRP	Group call
49	NFCR	New Flexible Code Restriction
50	ACDD	ACD Package D
51	LNK	ACDD, Auxiliary Link Processor
52	FCA	Forced Charge Account
53	SR	Set Relocation
55	HIST	History File
56	AOP	Attendant Overflow Position
57	BARS	Basic Alternate Route Selection
58	NARS	Network Alternate Route Selection
59	CDP	Coordinated Dialing Plan
61	FCBQ	Flexible Call Back Queuing
63	NAUT	Network Authorization code
64	SNR	Stored Number Redial
70	HOT	Enhanced Hot Line

Number	Mnemonic	Name
71	DHLD	Deluxe Hold
72	LSEL	Automatic Line Selection
73	SS5	500 Set Dial Access to Features
74	DRNG	Distinctive Ringing
75	PBXI	1.5 Mbit Digital Trunk Interface
76	DLDN	Departmental Listed Directory Number
77	CSL	Command Status Link
79	OOD	Optional Outpulsing Delay
80	SCI	Station Category Information
81	CCOS	Controlled Class of Service
83	CDRQ	ACD CDR Queue Record
87	FTDS	Fast Tone and Digit Switch
88	DSET	M2000 Digital Sets
90	LNR	Last Number Redial
92	PXLT	Pretranslation
93	SUPV	Supervisory Console
95	CPND	Calling Party Name Display
98	DNIS	Dialed Number Identification System
99	BGD	Background Terminal Facility
100	RMS	Room Status
101	MR	PPM/Message Registration
102	AWU	Automatic Wakeup
103	PMSI	Property Management System Interface
107	MCT	Malicious Call Trace
108	ICDR	Internal CDR
110	TVS	Trunk Verification from Station
111	TOF	Automatic Call Distribution, Timed Overflow Queuing
113	IDC	Incoming Digit Conversion
114	AUXS	ACD D Auxiliary Security
115	DCP	Directed Call Pickup
117	CBC	Call by Call Service
118	CCDR	Calling Line Identification in Call Detail Recording
119	EMUS	Enhanced Music
121	SCMP	Station Camp-On

Number	Mnemonic	Name
125	FTC	Flexible Tones and Cadences
127	BKI	Attendant Break-In/Trunk Offer
132	TBAR	Trunk Barring
133	ENS	Enhanced Night Service
139	FFC	Flexible Feature Codes
140	DCON	M2250 Attendant Console
141	MPO	Multi-Party Operations
145	ISDN	Integrated Services Digital Network
146	PRA	International Primary Rate Access (CO)
148	NTWK	Advanced ISDN Network Services
149	IEC	Inter-Exchange Carrier
150	DNXP	DN Expansion (7 digit)
151	CDRE	CDR Expansion (7 digit)
153	IAP3P	ISDN Application Processor Third Party Vendors
155	ACNT	ACD Activity Code
157	THF	Trunk Hook Flash (Centrex)
160	FNP	Flexible Numbering Plan
162	SAR	Scheduled Access Restrictions
164	LAPW	Limited Access to Overlays
170	ARIE	Aries Digital Sets
173	ECCS	Enhanced Controlled Class of Service
174	AAA	Attendant Alternative Answering
175	NMS	Network Message Service
178	EOVF	ACD Enhanced Overflow
179	HVS	Meridian Hospitality Voice Service
186	POVR	Priority Override/Forced Camp-On
191	SECL	Series Call
199	ESA_PAGE	Emergency CDR and Page
200	AINS	Automatic Installation (Option 11 only)
203	XPE	Meridian 1 XPE
204	XCT0	M1 Enhanced Conference, TDS and MFS
206	MLWU	Multilanguage Wakeup
208	HSE	Hospitality Screen Enhancement
209	MLS	Meridian Link Server

Number	Mnemonic	Name
210	MAID	Maid ID for Room Status
211	MLIO	Multilanguage CPND
212	VIP	VIP Automatic Wakeup
214	EAR	Enhanced ACD Routing
215	CCRC	Customer Controlled Routing
218	IVR	Hold in Queue for IVR
205	XCT1	M1 Superloop Administration (LD 97)
222	MSDL	Multi-purpose Serial Data Link
223	FCC68	FCC Compliance for DID Answer Supervision
229	SSAU	Station Specific Authorization Codes
242	MULTI_USER	Multi-User Login
243	ALRM_FILTER	Alarm Filtering
246	VMBA	Voice Mailbox Administration
247	CALL ID	Call ID (for AML applications)
251	SCDR	Station Activity Records
254	PHTN	Phantom TN
256	ADMINSET	Set Based Administration
258	ATX	Autodial Tandem Transfer
259	CDRX	Enhanced Call Detail Recording
291	NI2	North American National ISDN Class II Equipment
296	MAT	MAT 5.0
310	CPCI	Called Party Control on Internal Calls
311	NGCC	Next Generation Call Center
324	NGEN	Next Generation Connectivity
327	RANBRD	Recorded Announcement Broadcast
329	ESA	Emergency Services Access
330	ESA_SUPP	Emergency Services Access
331	ESA_CLMP	Emergency Services Access
334	CBC_PKG	NI2 Call by Call Service Selection
315	OPEN ALARM	Open Alarms
362	FDID	Flexible DID

LD 01—Template audit

Templates are used to store data which is common to many telephones. This includes items such as key functions and Class of Service. The Template Audit program saves protected memory by eliminating unused or duplicate telephone templates.

LD 1 also performs the following consistency checks.

User Count Scan

All telephones in the system are scanned to find the total number of users for a template.

If a template is found to have no users, the entire template is removed with the warning message 'NO USERS FOUND'. If a template is found to have an incorrect user count, the correct user count is written to the template, and the warning message 'USER COUNT LOW' or 'USER COUNT HIGH' is output. If the user count is accurate, the message 'USER COUNT OK' is output.

Duplicate Template Scan

Each template is checked against every other template for possible duplication. A template is considered a duplicate of another if all of the following conditions are met:

- the checksums are the same
- the template lengths and the hunt offsets are the same
- all template entries are the same

If a match is found, the warning message 'DUPLICATE OF xxxx' is output. A scan is then initiated to locate all users of the current template and move them to the matched template.

For each of these users found, the template number in the telephone data block and the user count is updated. After all of the users of the current template are moved to the matched template, the current template is removed.

Template Checksum Audit

A checksum is a binary sum of the template length, hunt offset, and template entries. The checksum is calculated for each template and compared with the existing template checksum. If the existing checksum is correct, the message 'CHECKSUM OK' is output. Otherwise, the checksum is corrected with the warning message 'CHECKSUM WRONG'.

Key Lamp Strip Audit

Two checks are made to correct Key Lamp Strip (KLS) corruption. First, the template length is compared to the number of KLS indicated in the protected line block. The second check verifies that the last word of the template reflects a 'NULL' key.

If these checks detect any discrepancies, they are corrected with the warning message 'CORRUPTED KLS'.

These corrections alter the checksum of the template. This is identified and corrected by the checksum audit.

Operating parameters

Due to the Real Time impact of this program and the large amount of data being scanned, the template audit should be run during low traffic hours.

The template audit should not be aborted unless it is critically necessary. If it does become necessary to interrupt execution of the audit, be aware that the templates may be corrupted.

If a system initialization occurs during the template audit, the program is automatically aborted. It should be restarted as soon as possible after this occurs.

The audit printout only appears on the TTY that requested the template audit program run.

Template Audit cannot be run as a background task.

To confirm that extraneous templates have been removed and that all counts have been corrected to their proper value, re-run the audit program.

A datadump (LD 43) should be run after a template audit is executed.

Sample operation

The audit begins when the program (LD 1) is loaded. All templates are scanned in the following sequence, beginning with template one:

- 1 Single line telephones
- 2 Multi-line telephones

Following is an example of the system information which is generated during a Template Audit:

```

TEMPLATE AUDIT
STARTING PBX TEMPLATE SCAN
TEMPLATE 0001 USER COUNT LOW      CHECKSUM OK
TEMPLATE 0002 USER COUNT HIGH     CHECKSUM OK
TEMPLATE 0003 NO USERS FOUND
      .
      .
      .
STARTING SLI TEMPLATE SCAN
TEMPLATE 0001 USER COUNT OK       CHECKSUM OK
      .
      .
      .
TEMPLATE 0067 USER COUNT OK       CHECKSUM WRONG
TEMPLATE 0068 USER COUNT OK       CHECKSUM OK DUPLICATE
OF 0014
      .
TEMPLATE 0082 USER COUNT OK       CHECKSUM OK
      .
TEMPLATE 0120 USER COUNT OK
TEMPLATE AUDIT COMPLETE

```

Note: The report does not print out that template inconsistencies have been corrected.

LD 01

LD 02—Traffic

Contents

- Basic commands
- How to use traffic commands
- Set traffic report schedules
- Set report types
- System reports
- Customer reports
- Network report
- Set customer for feature key usage measurement
- Stop printing of title, date and time
- Set traffic measurement on selected terminals
- Set blocking probability for Line Load Control (LLC)
- Set time and date
- Set daily time adjustment
- Set system ID
- Set thresholds
- Perform threshold tests on last reports
- Print last reports

Basic commands

ASUM	Print Alarm/Exception summary
ASUM A	Print all the alarms that have at least one occurrence
ASUM E	Print all the alarms that have escalated
BWTM	Set the date and time for the clock to move backward
CITM	Clear Individual Traffic Measurement from TNs
COPC C R R	Clear one or more customer report types
COPN C R R	Clear one or more network report types
COPS R R	Clear one or more system report types
FWTM	Set the date and time for the clock to move forward
IDLT 0	No title is printed unless further data is also printed
IDLT 1	The title is always printed
INVC C R R ...	Print one or more of the last customer reports
INVN C R R ...	Print one or more of the last network reports
INVS R R ...	Print one or more of last system reports
ITHC C TH	Perform threshold tests on customer reports
ITHS TH	Perform threshold tests on system reports
SCFT C	Set the customer to be measured for feature key usage
SCTL X	Set blocking probability
SDTA X X Y	Set the time of day adjustment
SDST	Enable or disable the automatic daylight savings time adjustment
SITM	Set Individual Traffic Measurement on terminals
SLLC X	Activate Line Load Control at Level X
SOPC C R R	Set one or more customer report types
SOPN C R R	Set one or more network report types
SOPS R R	Set one or more system report types
SSHC C	Set customer report schedule
SSHS	Set system report schedule
SSID SID	Change the system ID number
STAD	Set the time and date
STHC C TH TV	Set the customer thresholds
STHS TH TV	Set the system thresholds
TCFT	Print current customer being measured for feature key usage
TDST	Query the daylight savings time adjustment information
TDTA X	Print the current time of day adjustment
TITM	Print the current TNs with Individual Traffic Measurement set
TLLC	Print current LLC level and blocking probability
TOPC C	Print the current customer report types
TOPN C	Print the current network report types
TOPS	Print the current system report types
TSHC C	Print current customer report schedule
TSHS	Print current system report schedule

TSID	Print the current system ID number
TTAD	Print the current time and date
TTHC C TH	Print the current customer thresholds
TTHS TH	Print the current system thresholds

How to use traffic commands

The Traffic Control program is used to set traffic options, system ID, date and time. The conventions used to describe the traffic commands are:

- data entered by the user is shown in upper case, data output by the system is shown in lower case
- a period (.) prompt indicates that the system is ready to receive a new command
- a double dash (--) indicates that the system is ready to receive data
- a <cr> indicates that the return key should be pressed

Note: The message TFC000 output on your switch indicates that the traffic program is running.

Set traffic report schedules

To print current customer report schedule:

```
TSHC C sd sm ed em  
sh eh so  
d d ...
```

To print current system report schedule:

```
TSHS sd sm ed em  
sh eh so  
d d ...
```

To set customer report schedule:

```
SSHC C sd sm ed em -- SD SM ED EM  
sh eh so -- SH EH SO  
d d ... -- D D ...<cr>
```

To set system report schedule:
SSHS sd sm ed em -- SD SM ED EM
sh eh so -- SH EH SO
d d ... -- D D ...<cr>

Legend

C = customer number

D = day of the week:

- 1 = Sunday
- 2 = Monday
- 3 = Tuesday
- 4 = Wednesday
- 5 = Thursday
- 6 = Friday
- 7 = Saturday

ED = end day (1-31)

EH = end hour (0-23)

EM = end month (1-12)

SD = start day (1-31)

SH = start hour (0-23)

SM = start month (1-12)

SO = schedule options:

- 0 = no traffic scheduled
- 1 = hourly on the hour
- 2 = hourly on the half-hour
- 3 = every half-hour

Example

To change the system reports schedule:

```
SSHS 25 4 16 7 -- 1 10 1 12  
12 21 2 -- 0 23 1  
2 3 4 5 6 -- 1 7<cr>
```

Old schedule

start time: April 25 at 12 noon

end time: July 16 at 9 P.M.

frequency: hourly on the half-hour (SO = 2)

days of the week: Monday to Friday

New schedule

start time: October 1 at 12 midnight

end time: December 1 at 11 P.M.

frequency: hourly on the hour (SO = 1)

days of the week: Sunday and Saturday

Note 1: In order to obtain traffic reports at the scheduled intervals, the output device must have prompt USER = TRF in (LD 17). If TRF is not defined for any device, reports are still generated to allow the printing of the last reports.

Note 2: Half hour start and end times are not possible.

System reports

To print the current report types: TOPS r r ...

To set one or more report types: SOPS r r ... -- R R ...<cr>

To clear one or more report types: COPS r r ... -- R R ...<cr>

Legend

R is traffic report type:

1 = networks

2 = service loops

3 = dial tone delay

4 = processor load

5 = selected terminals

7 = junctor group traffic

8 = CSL and ISDN/AP links

9 = D-channel

Note 1: To use the print command enter a space (not a carriage return) after the customer number.

Note 2: If no reports are currently set, NIL is output by the system.

Customer reports

To print the current report types: TOPC C r r ...

To set one or more report types: SOPC C r r ... -- R R<cr>

To clear one or more report types: COPC C r r ... -- R R<cr>

Legend

C = customer number

R is traffic report type:

1 = networks

2 = trunks

3 = customer console measurements

4 = individual console measurement

5 = feature key usage

6 = Radio Paging

7 = Call Park

8 = messaging and auxiliary processor links

9 = Network Attendant Service

Note 1: To use the print command enter a space (not a carriage return) after the customer number.

Note 2: If no reports are currently set, NIL is output by the system. For report 5, see “Set customer for feature key usage measurement”.

Network reports

To print the current report types: TOPN C r r ...

To set one or more report types: SOPN C r r ... -- R R<cr>

To clear one or more report types: COPN C r r ... -- R R<cr>

Legend

C = customer number

R is traffic report type:

1 = route list measurements

2 = network class of service measurements

3 = incoming trunk group measurements

Note 1: To use the print command enter a space (not a carriage return) after the customer number.

Note 2: If no reports are currently set, NIL is output by the system.

Set customer for feature key usage measurement

To print current customer being measured: TCFT c

To set the customer to be measured: SCFT c -- C

Note: Where C is the customer number. Only one customer can have feature measurement set at a time.

Stop printing of title, date and time

It is possible to suppress the printing of the title (TFS000), date and time in cases where traffic measurement is scheduled but no other data is printed. The command format is:

IDLT 0,1

0 = no title is printed unless further data is also printed

1 = the title is always printed

Set traffic measurement on selected terminals

These commands are used to print, set and clear the Individual Traffic Measurement (ITM) class of service for given terminal numbers for traffic report TFS005. Telephone sets, trunk and DTI channels can have this class of service. Terminals with ITM set are included in the groups for which Line Traffic Measurements are recorded.

Note: Do not use these commands on superloops or octal density cards.

To print the current TNs with ITM set: TITM

Example

```
TITM
tn 4 1      (unit on TN 4 1 has ITM set)
card 2 1    (all units on card 2 1 has ITM set)
chnl 3 18   (loop 34 channel 18 has ITM set)
```

To set ITM on terminals: SITM

Example

```
SITM      (prints current settings)
loop 05   (all units on loop 5 have ITM set)
tn 4 1    (unit on TN 4 1 has ITM set)
card 2 1  (all units on card 2 1 has ITM set)
chnl 4 18 (only loop 4 channel 18 has ITM set)
-- 8 1 1  (set ITM on all units on this card)
-- 1 1    (set ITM on this unit)
-- <cr>   (stop "--" prompt)
```

To clear line traffic TNs: CITM (the ITM class of service is removed from all units)

Example

```
CITM          (print current settings)
tn 4 1        (unit on TN 4 1 has ITM set)
card 1 1      (all units on card 2 1 has ITM set)
chnl 34 18    (only loop 34 channel 18 has ITM set)
-- 5          (clear ITM on all units on this loop)
-- 11 3 4 1   (clear ITM on this unit)
-- 19 1 1     (clear ITM on all units on this card)
-- 34 18      (clear ITM on this loop 34 channel 18)
-- <cr>      (stop "--" prompt)
```

To clear line traffic TNs: CITM (the ITM class of service is removed from all units)

Set blocking probability for Line Load Control (LLC)

To print current LLC level and blocking probability: TLLC

To set blocking probability: SCTL X aaa

To activate Line Load Control at level X : SLLC X

Legend

x = F, S or T (for LLC level F, S, or T)
aaa = blocking probability in %

Set time and date

To print the current time and date:

TTAD day-of-week day month year hour minute second

Example

STAD WED 24 11 1976 15 41 49

To set the time and date:

STAD DAY MONTH YEAR HOUR MINUTE SECOND

Example

STAD 24 11 1976 15 41 49

Note: Except for the year, the other entries in the time of day output are 2-digit numbers. The year may be any year from 1901 to 2099 inclusive. It may be input as a full 4-digit field or as a 2-digit short form. The 2-digit short form is assumed to be in the range 1976 to 2075 and the appropriate addition is made when calculating the day-of-week and leap years.

Set and print Daylight Savings Time

The daylight savings time adjustment can be programmed to take place automatically. You can set the date to change to daylight savings, and to return to standard time. This information can be queried at any time.

The following commands are accepted by this program for this capability. The system clock **MUST ALREADY** be set for the daylight savings time to be updated. This information survives sysload.

- FWTM = Set the date and time for the clock to move forward.
- BWTM = Set the date and time for the clock to move backward.
- SDST = Enable or disable the automatic change.
- TDST = Query the change information.

To implement these commands, use the following.

- FWTM <month> <week> <day> <hour>
month = 1-(4)-12 [January-December]
week = (1)-5, L [1st-5th, L is the last week of the month]
day = (1)-7 [Sunday-Saturday]
hour = 1-(2)-22 [Midnight-11:00 pm]
- BWTM <month> <week> <day> <hour>
month = 1-(10)-12 [January-December]
week = (1)-5, L [1st-5th, L is the last week of the month]
day = (1)-7 [Sunday-Saturday]
hour = 1-(2)-22 [Midnight-11:00 pm]
- SDST ON, (OFF)
ON enables the automatic change capability
OFF disables the automatic change capability
- TDST <CR>
The output reflects the input format to indicate the change information.

Set system ID

Each Meridian 1 system has a unique system ID number (SID) selected from 0000 to 9999. The 4-digit ID number can be printed or set by the following commands.

To print the current SID: TSID sid

To change the SID: SSID sid -- SID

Set thresholds

To print the current system thresholds: TTHS TH tv

To set the system thresholds: STHS TH tv -- TV

The system thresholds (TH) and range of values (TV) are:

1 = dial tone speed (range 0.00% to 99.9%)

2 = loop traffic (range 000 to 999 CCS)

3 = junctor group traffic (range 0000 to 9999 CCS)

To print the current customer thresholds: TTHC C TH tv

To set the customer thresholds: STHC C TH tv -- TV

Legend

The thresholds (TC) and range of values (TV) for customer C are:

- 1 = incoming matching loss (TV range 00.0% to 99.9%)
- 2 = outgoing matching loss (TV range 00.0% to 99.9%)
- 3 = average Speed of Answer (TV range 00.0 to 99.9 seconds)
- 4 = percent All Trunks Busy (TV range 00.0% to 99.9%)
- 5 = percent OHQ Overflow (TV range 00.0% to 99.9%)

Perform threshold tests on last reports

To perform threshold tests on customer reports: ITHC C TH

Legend

C = customer number

TH is the threshold type:

- 1 = incoming matching loss
- 2 = outgoing matching loss
- 3 = average speed of answer
- 4 = percent all trunks busy
- 5 = percent OHQ overflow

To perform threshold tests on system reports: ITHS TH

Legend

TH is the threshold type:

- 1 = dial tone speed
- 2 = loop traffic
- 3 = junctor group traffic

Note: When a threshold test passes, OK is output.

Print last reports

The last traffic reports can be printed or tested against threshold values. Data accumulating for the next reports is not accessible.

To print one or more of the last customer reports: INVC C R R ...

Legend

C = customer number

R is traffic report type:

- 1 = networks
- 2 = trunks
- 3 = customer console measurements
- 4 = individual console measurement
- 5 = feature key usage
- 6 = Radio Paging
- 7 = Call Park
- 8 = messaging and auxiliary processor links
- 9 = Network Attendant Service

To print one or more of the last network reports: INVN C R R ...

Legend

C = customer number

R is traffic report type:

- 1 = route list measurements
- 2 = network class of service measurements
- 3 = incoming trunk group measurements

To print one or more of last system reports: INVS R R ...

Legend

R is traffic report type:

- 1 = networks (per loop)
- 2 = services
- 3 = dial tone delay
- 4 = processor load
- 5 = selected terminals
- 7 = junctor group traffic
- 8 = CSL and ISDN/AP links
- 9 = D-channel

Print alarm and exception filter summary

Release 19 and later provide alarms status summaries in this overlay. The alarms printed by this overlay are discussed in the *x11 Software Management NTP*.

Enter any of the following commands at the dot (.) prompt.

Command	Description	Release
ASUM	Print Alarm/Exception summary	alm_filter-19
ASUM A	Print all the alarms that have at least one occurrence	alm_filter-21
ASUM E	Print all the alarms that have escalated	alm_filter-21

Issued: November 1998
Status: Draft

LD 10 — Analog (500/2500) Telephone Administration

This Overlay program allows data blocks for the 500/2500, DTMF type telephones and Displayphone 1000/220 to be created or modified.

When the Overlay is loaded the available system memory and disk records are output in a header as follows:

```
PBX000
MARP information
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx
DISK RECS AVAIL: xxx
```

Incremental Software Management (ISM) also provides a header to indicate system configuration limits as follows:

```
TNS AVAIL: xxxxx USED: xxxxx TOT: xxxxx
ACD AGENTS AVAIL: xxx USED: xxx TOT: xxx
AST SET AVAIL: xxxxx USED: xxxxx TOT: xxxxx
```

Inputting one asterisk will cause the system to reissue the last prompt, and two asterisks will cause a restart of the Overlay at REQ.

Overlay programs 10, 11, 20 and 32 are linked thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another.

LD 10

The input processing has also been enhanced. Prompts ending with a colon (:) allow the user to enter either:

- 1 a question mark (?) followed by a carriage return (<cr>) to get a list of valid responses to that prompt or
 - 2 an abbreviated response. The system then responds with the nearest match. If there is more than one possible match the system responds with SCH0099 and the input followed by a question mark and a list of possible responses. The user can then enter the valid response.
-

Prompts and responses

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Prompts and responses

Prompt	Response	Comment
REQ:	a...a	Request
TYPE:	a...a	Type of data block (TYPE responses begin on page 82)
CFTN	c u	Copy From Terminal Number (c u ranges are defined on page 81)
SFMT	a...a	Select format for copy command (a...a = TNDN, TN, DN, or AUTO)
TN	c u	Terminal Number (c u ranges are defined on page 81)
DELETE_VMB	(YES) NO	Delete Voice Mailbox
ECHG	(NO) YES	Easy Change
- ITEM	aaaa yyy	Item (aaaa = Program mnemonic ; yyy = its new value)
TOTN	c u	To Terminal Number (c u ranges are defined on page 81)
CDEN	aa	Card Density (aa = SD, DD, 4D, or 8D)
DES	d...d	Office Data Administration System Station Designator
CUST	(0)	Customer number
DIG	0-2045 0-99	Dial Intercom Group number and Member number

LD 10

DN	x...x yyy	Directory Number and CLID entry (Range is (0)-value entered for SIZE prompt in LD 15 minus one)
- MARP	(NO) YES	Multiple Appearance Redirection Prime
- CPND	aaa	Calling Party Name Display
-- CPND_LANG	aaa	Calling Party Name Display Language (aa = (ROM) or KAT)
-- NAME	aaaa,bbbb	Calling Party Name Display Name
-- XPLN	xx	Expected name length
- DISPLAY_FMT	aaaa,bbbb	Display Format for Calling Party Name Display
-VMB	aaa	Voice Mailbox (aaa = NEW, CHG, or OUT)
-- VMB_COS	0-127	Voice Mailbox Class Of Service
-- SECOND_DN	x...x	Second DN sharing the Voice Mailbox
-- THIRD_DN	x...x	Third DN sharing the Voice Mailbox
-- KEEP_MSGS	(NO) YES	Preserve Meridian Mail messages and current password
AST	(NO) YES	Associate Set assignment
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group
HUNT	x...x	Hunt DN of the next station in the Hunt chain
TGAR	0-(1)- 31	Trunk Group Access Restriction
LDN	a...a	Departmental Listed DN (a...a = (NO), 0-3, or 0-5)
NCOS	(0)-99	Network Class Of Service group number
RNPG	(0)-4095	Ringing Number Pickup Group
XLST	(0)-254	Pretranslation group with which this station is associated
SCPW	xxxx	Station Control Password
SGRP	(0)-999	Scheduled Access Restriction group number
WRLS	(NO) YES	TN corresponds to a portable personal telephone
CLS	a...a	Class of Service options (CLS responses begin on page 62)
MAUT	(NO) YES	Modify assigned authorization codes for this telephone
- SPWD	xxxx	Secure data password
- AUTH	n xxxx	Authorization code
RCO	(0)-2	Ringing cycle option for Call Forward No Answer
DCLP	0-159	Dealer Conference Loop
LNRS	4-(16)-31	Last Number Redial Size
TEN	1-51	Tenant Number
OHID	(0)-9	Off-Hook Alarm Security DN index
PLEV	0-(2)-7	Priority Level
SCI	(0)-7	Station Category Indication priority level
FCAR	(NO) YES	Forced Charge Account Restriction

LANG	(0)-5	Language choice for Automatic Wake Up service
MLWU_LANG	(0)-5	Language choice for Automatic Wake Up service
PLEV	0-(2)-7	Priority Level
SPID	x...x	Supervisor Position ID
PRI	(1)-48	Priority level for ACD Agent
AACD	(NO) YES	AST ACD telephone
ARTO	(0)-3	Alternate Redirection Time Option for call redirection
FTR	a...a x...x	Feature name and related data (FTR responses begin on page 71)

Prompts and responses by task

Add a telephone

Prompt	Response	Comment
REQ:	NEW 1-255	Request = NEW 1-255
TYPE:	a...a	Type of data block (TYPE responses begin on page 82)
TN	c u	Terminal Number (c u ranges are defined for TN on page 81)
CDEN	aa	Card Density (aa = SD, DD, 4D, or 8D)
DES	d...d	Office Data Administration System Station Designator
CUST	(0)	Customer number
DIG	0-2045 0-99	Dial Intercom Group number and Member number
DN	x...x yyy	Directory Number and CLID entry (Range is (0)-value entered for SIZE prompt in LD 15 minus one)
- MARP	(NO) YES	Multiple Appearance Redirection Prime
- CPND	aaa	Calling Party Name Display
-- CPND_LAN	aaa	Calling Party Name Display Language (aaa = (ROM) or KAT)
-- NAME	aaaa,bbbb	Calling Party Name Display Name
-- XPLN	xx	Expected name length
- DISPLAY_FMT	aaaa,bbbb	Display Format for Calling Party Name Display
- VMB	aaa	Voice Mailbox (aaa = NEW, CHG or OUT)
-- VMB_COS	0-127	Voice Mailbox Class Of Service
-- SECOND_DN	x...x	Second DN sharing the Voice Mailbox
-- THIRD_DN	x...x	Third DN sharing the Voice Mailbox
-- KEEP_MSGS	(NO) YES	Preserve Meridian Mail messages and current password
AST	(NO) YES	Associate Set assignment
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group
HUNT	x...x	Hunt DN of the next station in the Hunt chain
TGAR	0-(1)- 31	Trunk Group Access Restriction
LDN	aaa	Departmental Listed DN (aaa = (NO), 0-3, or 0-5)
NCOS	(0)-99	Network Class of Service group number
RNPG	(0)-4095	Ringing Number Pickup Group
XLST	(0)-254	Pretranslation group with which this station is associated

SCPW	xxxx	Station Control Password
SGRP	(0)-999	Scheduled Access Restriction Group number
WRLS	(NO) YES	TN corresponds to a portable personal telephone
CLS	a...a	Class of Service options (CLS options begin on page 62)
MAUT	(NO) YES	Modify assigned authorization codes for this telephone
- SPWD	xxxx	Secure Data Password
- AUTH	n xxxx	Authorization code
RCO	(0)-2	Ringing Cycle Option for Call Forward No Answer
DCLP	0-159	Dealer Conference Loop
LNRS	4-(16)-31	Last Number Redial Size
TEN	1-51	Tenant Number
OHID	(0)-9	Off-Hook Alarm Security DN index
SCI	(0)-7	Station Category Indication priority level
FCAR	(NO) YES	Forced Charge Account Restriction
LANG	(0)-5	Language choice for Automatic Wake Up service
MLWU_LANG	(0)-5	Language choice for Automatic Wake Up service
PLEV	0-(2)-7	Priority Level
SPID	x...x	Supervisor Position ID
PRI	(1)-48	Priority level for ACD Agent
AACD	(NO) YES	AST ACD telephone
ARTO	(0)-3	Alternate Redirection Time Option for call redirection
FTR	a...a x...x	Feature name and related data (FTR options begin on page 71)

LD 10

Copy a set

Prompt	Response	Comment
REQ:	CPY 1-32	Request = CPY x
TYPE:	a...a	Type of data block
CFTN	c u	Copy from Terminal Number (c u ranges are defined on page 81)
SFMT	aaaa	Select Format. You may respond to SFMT with: AUTO, TNDN, TN or DN. Subprompts follow each of these responses as follows:
	AUTO	The system provides the new TNs, DN and ACD position ID for ACD telephones are provided by the system.
- TN	c u	TN of new set (c u ranges are defined on page 81)
- DN	x...x	DN of new set
- POS	xxxx	ACD position ID
	TNDN	Manual selection of TNs, DN and ACD position IDs for ACD telephones. TN, DN and are prompted -n- times as defined by the CPY command.
- TN	c u	TN of new set (c u ranges are defined on page 81)
- DN	x...x	DN of new set
- POS	xxxx	ACD position ID
	TN	New DN and ACD position IDs for ACD telephones are provided by the system. TN is prompted -n- times as defined in the CPY command.
- DN	x...x	DN of new set
- POS	xxxx	ACD position ID
- TN	c u	TN of new set (c u ranges are defined on page 81)
	DN	The new TNs are provided by the system. You are prompted for the starting TN and each DN and ACD position ID for ACD telephones. DN and/or POS are prompted n times as defined in the CPY command.
- TN	c u	TN of new set (c u ranges are defined on page 81)
- DN	x...x	DN of new set
- POS	xxxx	ACD position ID

Easy change

Prompt	Response	Comment
REQ:	CHG	Request = CHG
TYPE:	a...a	Type of data block
TN	c u	Terminal Number (c u ranges are defined on page 81)
ECHG	YES	Easy Change
ITEM	aaaa yyy	Item (aaaa = Program mnemonic ; yyy = its new value)

Remove a telephone

When removing more than one telephone at a time, you are prompted for the starting TN. The next consecutive assigned TNs are removed.

Prompt	Response	Comment
REQ:	OUT 1-32	Request = OUT x
TYPE:	a...a	Type of data block
TN	c u	Terminal Number (c u ranges are defined on page 81)
DELETE_VMB	(YES) NO	Delete Voice Mailbox

Move a telephone

Telephones with mixed directory numbers can only be moved to a TN on the same loop unless the prompt MLDN = YES in LD 17.

Prompt	Response	Comment
REQ:	MOV	Request = MOV
TYPE:	a...a	Type of data block
TN	c u	Terminal Number (c u ranges are defined on page 81)
TOTN	c u	To Terminal Number

Alphabetical list of prompts

Prompt	Response	Comment
AACD	(NO) YES	Associate set (AST) ACD telephone
ARTO	(0)-3	Alternate Redirection Time Option for call redirection, defined in the customer data block. Prompted if CLS = RTDA.
AST	(NO) YES	Associate Set assignment For sets associated with ISDN Applications Protocol features.
AUTH	n xxxx	Authorization code. Where: <ul style="list-style-type: none"> n = number (1-6) of assigned authorization code xxxx = assigned authorization code (Any customer authorization code assigned in LD 88 is valid.) <p>AUTH is prompted when CLS = AUTR (Class of Service = Authorization code required).</p>
CAC	(0)-10	Category code Category Code range for outgoing CNI of MFC trunks when Multifrequency Compelled Signaling (MFC) package 128 is equipped.
CDEN	SD DD 4D 8D	Single Density Card Double Density Card Quadruple Density Card Octal Density Card If REQ=NEW and the loop is a superloop, the default is 4D. If REQ=NEW and the XOPS card is to be configured on the loop, set CDEN to DD. If REQ=CHG, the card density is not changed.
CFTN	c u	Copy From Terminal Number. Prompted if REQ = CPY. For Meridian: c u = card, unit Use this TN as a template for the new sets. Associate set (AST) assignments are not copied to the new telephones.
CLS		Class of Service options The following CLS assignments determine the calling options and features available to an analog telephone. Defaults are shown in parentheses. Enter each non-default option required, separated by a space.

Prompt	Response	Comment
		Access Restrictions
	(CTD)	Conditionally Toll Denied
	CUN	Conditionally Unrestricted
	FR1	Fully Restricted class 1
	FR2	Fully Restricted class 2
	FRE	Fully Restricted
	SRE	Semi-Restricted
	TLD	Toll Denied
	UNR	Unrestricted
	(ABDD)	Abandoned call record and time to answer denied
	ABDA	Abandoned call record and time to answer allowed
	(AGTD)	ACD services for 500/2500 type telephone sets denied
	AGTA	ACD services for 500/2500 type telephone sets allowed
		An AGTA entry will not be validated if you do not define FEAT = ACD in the same pass through this overlay.
	(ARHD)	Audible Reminder of Held Call Denied
	ARHA	Audible Reminder of Held Call Allowed
	(ASCD)	Alarm Security Denied
	ASCA	Alarm Security Allowed
		Mutually exclusive with Three-Party Service Allowed (TSA)
	(AUTU)	Unrestricted Authcode
	AUTD	Denied Authcode
	AUTR	Restricted Authcode
		When the CLS is changed from AUTR to either AUTU or AUTD, all previous telephone authorization code information is removed. Must have Station Specific Authorization Codes (SSAU) package 229.
	(BNRD)	Busy Number Redial Denied
	BNRA	Busy Number Redial Allowed
		Must have ADL configured and Flexible Feature Codes (FFC) package 139.
	(C6D)	Six-Party Conference Denied
	C6A	Six-Party Conference Allowed
		C6A requires Transfer Allowed (XFA) Class of Service.

LD 10

Prompt	Response	Comment
(CCSD)	Controlled Class of Service Denied	
CCSA	Controlled Class of Service Allowed	
		CCSA is required for the Electronic Lock feature. See the Flexible Feature Codes section in the <i>X11 features and services</i> NTP. Must have Controlled Class of Service (CCOS) package 81.
(CDMD)	CDMD denies record generation	
CDMA	CDMA allows external station activity records to be generated for the set	
(CFHD)	Call Forward/HUNT Override Denied	
CFHA	Call Forward/HUNT Override Allowed	
(CFTD)	Call Forward by Call Type Denied	
CFTA	Call Forward by Call Type Allowed	
		Call Forward by Call Type enhances Hunt and Call Forward No Answer. CFTA requires Hunting Allowed (HTA) and/or Call Forward Allowed (FNA) Class of Service.
(CFXD)	Call Forward All Calls to external DN Denied	
CFXA	Call Forward All Calls to external DN Allowed	
		Examples of external DNs are: <ul style="list-style-type: none">• Route Access Code• ESN Access Code• CDP Distant Steering Code
		When Denied, a call can only be forwarded to the following internal DNs: <ul style="list-style-type: none">• Single or multi-line telephone• Attendant DN or CAS local attendant DN• Listed DN as defined in LD 15• Message center DN where MWC = YES
(CLBD)	Deactivate Calling Party Number and Name per-line blocking	
CLBA	Activate Calling Party Number and Name per-line blocking	
		The user may still request CPP by dialing the CPP code.
(CLTD)	Network Call Trace from this telephone Denied	
CLTA	Network Call Trace from this telephone Allowed	

Prompt	Response	Comment
	(CNDD) CNDA	Call Number Display Denied Call Number Display Allowed
		Allows user to see calling or called name associated with the number dialed if CPND is set up for the customer associated with the portable personal telephone. Allowed if WRLS = YES.
	(CNID) CNIA	Call Number Information Denied Call Number Information Allowed
	(CWD) CWA	Call Waiting Denied Call Waiting Allowed The telephone should also have CLS = HTD (Hunting Denied) since hunting takes precedence.
	(CWND) CWNA	Call Waiting Notification Denied Call Waiting Notification Allowed Must have Call Waiting Notification (CWNT) package 225.
	(DDGA) DDGD	DN display on other set Allowed DN display on other set Denied
	(DTN) DIP MNL	Digitone. DTN is used for 2500, UNITY and digitone telephones. Dial Pulse. DIP is used for 500, rotary and dial pulse telephones. . Manual service. MNL is used for manual service to the attendant and Flexible Hot Line
	(DPUD) DPUA	DN Pickup Denied DN Pickup Allowed DN Pickup is not allowed on telephones in group zero (RNPG = 0). Must have Directed Call Pickup (DCP) package 115.
	(EHTD) EHTA	Enhanced Hot Line Denied Enhanced Hot Line Allowed Cannot be assigned with LLC1, LLC2, LLC3, LNA, MNL or Permanent Hold feature.
	(FAXD) FAXA	Fax denied Fax allowed. ISDN call is generated with 3.1 KHz Bearer Capability. Set is a modem or a FAX machine.
	(FND) FNA	Call Forward No answer Denied Call Forward No answer Allowed

LD 10

Prompt	Response	Comment
(GPUD)	Group Pickup Denied	
GPUA	Group Pickup Allowed	Group Pickup is not allowed on telephones in group zero. Must have Directed Call Pickup (DCP) package 115.
(HTD)	Hunting Denied	
HTA	Hunting Allowed	
(LDTD)	Line Disconnect Tone Denied	
LDTA	Line Disconnect Tone Allowed	
(LLCN)	Line Load Control off	
LLC1	Line Load Control Class 1	
LLC2	Line Load Control Class 2	
LLC3	Line Load Control Class 3	
(LND)	Last Number Redial Denied	
LNA	Last Number Redial Allowed	Must have OPT = LRA in LD 15
(LPD)	Message Waiting Lamp Denied	
LPA	Message Waiting Lamp Allowed	If a modem is connected to a port on the message waiting line card, that port should be defined as LPD. With LPA the modem may be damaged by the message waiting lamp voltage 150 V.
(LPR)	Low Priority station	
HPR	High Priority station	High Priority will place this set or trunk at the top of the dial tone queue.
(MBXD)	Multi-Party Operation (MPO) Blind Transfer Denied. When CLS = MBXD, blind transfers occur with mis-operation treatment.	
MBXA	Multi-Party Operation (MPO) Blind Transfer Allowed. When CLS = MBXA, blind transfers occur without mis-operation treatment. To configure CLS = MBXA, CLS must first be defined as TSA or XFA. Multi-Party Operations (MPO) package 141 must be equipped to enter MBXD or MBXA.	
(MCRD)	Multiple Call Arrangement Denied	
MCRA	Multiple Call Arrangement Allowed	

Prompt	Response	Comment
(MCTD)		Malicious Call Trace signal Denied
MCTA		Malicious Call Trace signal Allowed MCT is applied on a TN basis.
(MRD)		Message Registration Denied
MRA		Message Registration Allowed
(MWD)		Message Waiting Denied
MWA		Message Waiting Allowed
(NAMA)		Name display Allowed
NAMD		Name display Denied
(OCBD)		Outgoing Call Barring Denied
OCBA		Outgoing Call Barring Allowed Must have FFC and NFCR packages.
OPS		Off-Premises Station (default if CDEN is DD)
ONS		On-Premises Station (default for all others)
(OVDD)		Override Denied
OVDA		Override Allowed Must have Flexible Feature Codes (FFC) package 139
(PGND)		Deny PAGENET access
PGNA		Allow PAGENET access PGND/A allowed if PAGENET package 307 is equipped.
(PUD)		Call Pickup Denied
PUA		Call Pickup Allowed Default changes to PUA if Ringing Number Pickup Group (RNPG) is defined. Call Pickup is not allowed on telephones in group zero or RNPG = 0.
(RTDD)		Call Redirection by Time of day denied
RTDA		Call Redirection by Time of day allowed If CLS = RTDD, AFD/AHNT/AEFD/AEHT will be removed, and ARTO will be reset to zero.
(SFD)		Second Level CFNA Denied
SFA		Second Level CFNA Allowed In Release 15 and later, SFA only requires FNA Class of Service.

LD 10

Prompt	Response	Comment
(SHL) LOL		Short line Class of Service Long line Class of Service (default if CLS = OPS) Enter ALC Loss Plan Class of Service to be used for determining the Loss Plan Classification for this unit. If neither SHL or LOL is specified for a NEW unit, then SHL will be set as the default.
(SMSD) SMSA		Standalone Mail Server Denied Standalone Mail Server Allowed
(SPKD) SPKA		Speaker Denied Speaker Allowed Must have On-Hold on Loudspeaker (OHOL) package 196.
(SWD) SWA		Station-to-Station Call Waiting Denied Station-to-Station Call Waiting Allowed Enhances Call Waiting Allowed. Must have CLS = CWA. Must also have CLS = HTD, because hunting takes precedence over Station-to-Station Call Waiting.
(TENA) TEND		Tenant Service Allowed Tenant Service Denied Multi-Tenant must be configured in LD 93 before the default is TENA.
(THFD) THFA		Centrex Trunk Switch Hook Flash on this set denied Centrex Trunk Switch Hook Flash on this set allowed
TSA		Three-Party Service allowed TSA is mutually exclusive with ASCA and XFA. If TSA is requested and XFA is currently set, then XFA will be changed to XFD.
(TVD) TVA		Trunk Verification from station Denied Trunk Verification from station Allowed
(ULAD) ULAA		Set Based Administration User Access Denied Set Based Administration User Access Allowed
(USMD) USMA		Meridian 911 position Denied Meridian 911 position Allowed Must have Meridian 911 (M911) package 224
(USRD) USRA		User Selectable Call Redirection Denied User Selectable Call Redirection Allowed

Prompt	Response	Comment
	(WTA) WTD	Warning Tone Allowed Warning Tone Denied
	(XFD) XFA XFR	Call Transfer Denied Call Transfer Allowed Call Transfer Restricted
		TSA is mutually exclusive with XFA. If TSA is requested and XFA is currently set, then XFA will be changed to XFD. The most recently entered CLS overwrites the prior CLS of the same category. Note that one can specify XFR instead of XFD.
	(XHD) XHA	Exclusive Hold Denied Exclusive Hold Allowed
	(XRD) XRA	Ring Again Denied Ring Again Allowed
		Must have CLS= XFA. RANA may be activated if OPT = RNA in LD 15. When OPT = RND in LD 15, all sets with CLS = XRA will be able to activate only Ring Again Busy.
CPND	NEW CHG OUT	Calling Party Name Display Add data block Change existing data block Remove existing data block Must have CPND data block defined in LD 95.
CPND_LANG	(ROM) KAT	Calling Party Name Display Language Roman Katakana CPND_LANG applies when FTR = CPND. CPND_LANG appears only when Multi-Language I/O (MLIO) package 211 is equipped.
CUST	(0)	Customer number
DCLP	0-159	Dealer Conference Loop DCLP input defines the conference loop assigned to the unit. The loop should be in the same group as the unit.

LD 10

Prompt	Response	Comment
DELETE_VMB	(YES) NO	Delete Voice Mailbox Remove the Voice Mailbox from the Meridian 1 and Meridian Mail Remove the Voice Mailbox from the Meridian 1 Prompted if REQ = OUT and TN has an associated Voice Mailbox. Allowed if the DN is either a single appearance or a multiple appearance DN on a single TN.
DES	d...d	ODAS Station Designator Enter a 1- 6 alphanumeric character representing an Office Data Administration System (ODAS) Station Designator
DIG	0-2045 0-99	Dial Intercom Group (DIG) number and Dial Intercom Member (DIM) numbers. The value entered for the member number cannot be equal to the SPRE code. In the case of double-digit values, the first digit cannot be the same as the SPRE code. For example, if SPRE = 1, the member number cannot be 10, 11...19. Single line telephones assigned as Dial Intercom sets can only make calls within their own dial intercom groups. No DN can be assigned to them. If any member in the group has a two digit member number, all members have a two digit number. The system enters leading zeros. Must have maximum number of Dial Intercom Groups (DGRP) defined in LD 15.
DISPLAY_FMT	(FIRST, LAST) LAST, FIRST	Display Format for CPND name May be input as FIRST To view names as John Doe May be input as Last To view names as Doe John
DN	x...x yyy	Directory Number (x...x) and CLID entry (yyy) The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. DN is not prompted if DIG is defined. Range for CLID entry is: [(0) - (value entered for SIZE prompt in LD 15 minus 1)]

Prompt	Response	Comment
		<p>If the new DN entered already exists, one of the following messages will be output when the TNB is updated:</p> <ul style="list-style-type: none"> • MIX (DN entered already appears on another set) • PVR (DN is a Private Line number) • HNT (DN exists and is defined as Hunting Allowed) • FNA (DN exists and has Forward No Answer) <p>Before the DN can be modified, the station DN must be removed from all Group Hunt lists in which it is a member.</p>
ECHG	(NO) YES	<p>Easy Change. Prompted when REQ = CHG. This allows change to any prompt in this program without toggling through all the prompts.</p>
FCAR	(NO) YES	<p>Forced Charge Account Must use Forced Charge Account Restrict from using Forced Charge Account Prompted if FCAF = YES in LD 15 and CLS = TLD, CUN or CTD. TLD is recommended.</p>
FTR		<p>Enter the feature name and related data. Precede feature mnemonic with X to remove it from the allowed features for the telephone. Prompted with Special Service for 2500 sets (SS25) package 18.</p>
	ACD x...x yyyy	<p>The ACD DN and the ACD position (POS ID) The ACD queue must be set in LD 23. ACD can be up to 4 digits; up to 7 digits with Directory Number Expansion (DNXP) package 150. An ACD entry is only allowed if you have already defined CLS = AGTA in the same pass through this overlay.</p>
	ADL nn x..x	<p>Auto Dial Auto Dial cannot be configured if Hot Line is defined. nn = number of digits, up to 31 maximum in Auto Dial DN x..x = Auto Dial DN Auto Dial is required for BNRA. Must have Flexible Feature Codes (FFC) package 139.</p>
	AEFD y...y	<p>Alternate External Flexible Call Forward DN, up to 13 digits. Remove by setting CLS = RTDD or CFTD. Where yyyy = Alternate Redirection DN.</p>

LD 10

Prompt	Response	Comment
AEHT y...y		Alternate External Hunt DN, up to 13 digits. Remove by setting CLS = RTDD or CFTD. Where yyyy = Alternate Redirection DN.
AFD y...y		Alternate Flexible Call Forward DN, up to 13 digits. Remove by setting CLS = RTDD. Where yyyy = Alternate Redirection DN.
AHNT y...y		Alternate Hunt DN, up to 13 digits. Remove by setting CLS = RTDD. Where yyyy = Alternate Redirection DN.
CFW nn x...x		<p>Call Forward all calls</p> <p>Valid entries are any integer in the range of (4)-31.</p> <p>Where: nn = maximum number of digits in the CFW DN; it must be large enough to hold the customer Reply DN.</p> <p>Where: x...x = Call Forward DN</p> <p>If the Enhanced System Access feature is configured, valid entries are 4, 8, 12, (16), 20, 24, 28, 31. Numbers between 4 and 31 are rounded up to the next valid number.</p> <p>If the Enhanced System Access feature is not configured, you may input any integer in the range of (4)-23.</p>
DCFW nn x...x		<p>Default Call Forward</p> <p>Where: nn = maximum number of digits in the DCFW DN.</p> <p>Valid entries for nn are: 4, 8, 12, 16, 20, 24, 28, 31.</p> <p>Where: x...x = Default Call Forward DN.</p>
EFD x...x		<p>External Flexible call forward DN (a Group Hunt pilot DN can be entered)</p> <p>This is the DN to which external no answer calls are routed when Class of Service is Call Forward by Call Type allowed (CLS = CFTA). Must also have CLS = FNA.</p>

Prompt	Response	Comment
		<p>EFD is only used if one of the following customer options are defined in LD 15:</p> <ul style="list-style-type: none"> • FNAD = FDN • FNAT = FDN • FNAL = FDN <p>Listed DNs, Departmental Listed DNs and prime DNs are accepted as valid input. EFD can be up to 13 digits.</p>
EHT x...x		<p>External Hunt DN</p> <p>This is the DN to which external busy calls Hunt when Class of Service is Call Forward by Call Type allowed (CLS = CFTA). Must also have CLS = HTA.</p> <p>Listed DNs, Departmental Listed DNs and prime DNs are accepted as valid input. A Group Hunt pilot DN can be entered with up to:</p> <ul style="list-style-type: none"> • 4 digits without DNX package 150 • 7 digits with DNX package 150 • 13 digits for Network Call Redirection
FAXS x...x		<p>Facsimile server and command sequence</p> <p>The command sequence includes the following:</p> <ul style="list-style-type: none"> • Wx = waiting time of 0 to 9 seconds • Cxxx = control command digits • Oxxxx = originating or designated fax DN • D = the called fax DN <p>For HiMail server, if the designated fax DN is 1234: FTR FAXS W6 O1234 C#10* D C## W4, or FTR FAXS W6 O1234 C#20* D C## W4</p> <p>For Phi-Net server, if the designated fax DN is 1234: FTR FAXS W4 C30 O1234 C*0 D C#</p> <p>The facsimile server TNs must have Digitone (DTN) Class of Service and cannot have FNA, CWA, or FBA Class of Service, or FTR CFW feature.</p> <p>Use the HUNT feature to define the DN of the next port on the facsimile server.</p>

LD 10

Prompt	Response	Comment
FDN x...x	Flexible Call Forward No Answer	The DN cannot be an LDN A Group Hunt pilot DN can be entered of up to: <ul style="list-style-type: none">• 4 digits without DNXF package 150• 7 digits with DNXF package 150• 13 digits for Network Call Redirection FDN is used for internal calls, if CLS is CFTA and FNA. FDN is used for all calls if CLS is CFTD and FNA. FDN requires that CLS = MWA or FNA. FDN is only used if one or more of the following customer options are defined in LD 15: <ul style="list-style-type: none">• FNAD = FDN• FNAT = FDN• FNAL = FDN
HOT D nn x...x	Direct entry for one way Enhanced Hot Line. Where:	<ul style="list-style-type: none">• nn = up to 31 digits maximum in Target DN• x...x = Terminating DN CLS = EHTA and DIP or DTN.
HOT D nn x...x yyyy	Direct entry for two way Enhanced Hot Line. Where:	<ul style="list-style-type: none">• nn = up to 31 digits maximum in Target DN• x...x = Terminating DN• yyyy = optional two way Hot Line DN. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. CLS = EHTA and DIP or DTN.
HOT nn x...x	Flexible Hot Line. Where: nn = up to 31 digits maximum in Target DN and x...x = Terminating DN.	Flexible Hot Line requires that CLS = MNL.

Prompt	Response	Comment
HOT L bbb		<p>One way list entry for Enhanced Hot Line Where: bbb = list entry position from Hot Line list in LD 18. The Hot Line list NCOS overrides the set NCOS.</p> <p>Enhanced Hot Line requires CLS = EHTA, LLCN, PHTD and DIP or DTN. To remove Hot Line DN, change CLS EHTA to EHTD.</p> <p>Hot Line DNs can be programmed with * as operands only if OPAO is enabled.</p>
HOT L bbb x...x		<p>Two way list entry for Enhanced Hot Line. Where:</p> <ul style="list-style-type: none"> • bbb = list entry position • xxxx = optional two way Hot Line DN. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. <p>Enhanced Hot Line requires CLS = EHTA, LLCN, PHTD and DIP or DTN. To remove Hot Line DN, change CLS EHTA to EHTD.</p> <p>Hot Line DNs can be programmed with * as operands only if OPAO is enabled.</p>
ICF x...x		<p>Internal Call Forward and Forward DN length.</p> <p>Valid entries for x...x are: any integer in the range of (4)-31.</p>
ISP 1-(75)-255		<p>Enable hook flash disconnect supervision with flash timer in 10 milliseconds units. If the numeric parameter is not entered and the saved value is null, it is defaulted to 75 (750 ms). Otherwise, it does not change.</p>
XISP		<p>Disable hook flash disconnect supervision.</p>
OSP (1)		<p>Enable battery reversal answer and disconnect supervision for outgoing calls with absolute and assumed answer indication.</p>
OSP 2		<p>Enable battery reversal answer and disconnect supervision for outgoing calls with absolute answer indication only.</p> <p>If the numeric parameter is not entered and the saved value is null, it is defaulted to 1. Otherwise, it does not change.</p>
XOSP		<p>Disable battery reversal answer and disconnect supervision</p>

LD 10

Prompt	Response	Comment
	PHD	Permanent Hold. Allowed with CLS = XFA.
	RDL nn	Stored Number Redial Where: nn = DN length 4, 8, 12, (16), 24, 28, 31. Numbers between 5 and 30 are rounded up to the next valid number. Allowed with CLS = XFA.
	SCC 0-8190	Speed Call Controller list number The speed call list must be defined in LD 18.
	SCU 0-8190	Speed Call User list number The speed call list must be defined in LD 18.
	SSU 0-4095	System Speed call User list number The speed call list must be defined in LD 18.
HUNT	x...x	Hunt DN of the next station in the Hunt chain A Group Hunt pilot DN can be entered of up to: <ul style="list-style-type: none">• 4 digits without DNXP package 150• 7 digits with DNXP package 150• 13 digits with Release 14 and later Precede with X to remove. With Call Forward and Hunt by Call Type, this is the Hunt DN for: <ul style="list-style-type: none">• internal calls if CLS = CFTA, or• all busy calls if CLS = CFTD A Control directory number (CDN) can be defined as a Hunt DN for both physical and phantom 500/2500 sets. When a CDN is configured in this way, a call which comes to a busy DN can be Hunting or Call Forward Busy to a CDN.
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group Assign Associate (AST) telephones to an USM group defined in LD 15. These groups determine which status messages are sent to the host computer for an AST telephone. The default Group 0 sends no messages, while Group 1 sends all messages.

Prompt	Response	Comment
ITEM	aaaa yy	Change any prompt Respond with the desired program mnemonic (aaaa) and its new value (yy). ITEM is reprompted until only a carriage return <cr> is entered.
KEEP_MSGS	(NO) YES	Keep Messages Preserve Meridian Mail messages and current password
LDN	(NO) 0-5	Departmental Listed Directory Number is not activated for this set Departmental Listed Directory Number (LDN) as defined in LD 15.
LNRS	4-(16)-31	Last Number Redial Size Enter the maximum number of digits that can be stored. Valid entries are 4, 8, 12, (16), 24, 28, 31. Invalid entries are rounded up to the next valid entry. Prompted if CLS = LNA.
MARP	(NO) YES	Multiple Appearance Redirection Prime Use TN as the Multiple Appearance DN Redirection Prime. The MARP prompt, or MARP information, is given only when assigning a DN.
MAUT	(NO) YES	Modify assigned authorization codes for this telephone Prompted with Station Specific Authorization Codes (SSAU) package 229 and CLS = AUTR.
MLWU_LANG		Language choice for Automatic Wake Up service. Prompted with Multi-Language Wake Up (MLWU) package 206. This entry defines the language presented for the Automatic Wake Up recorded announcement (RAN) for language 0 through 5 as follows:
	(0)	See RAN1/RAN2 in LD 15
	1	See LA11/LA12 in LD 15
	2	See LA21/LA22 in LD 15
	3	See LA31/LA32 in LD 15
	4	See LA41/LA42 in LD 15
	5	See LA51/LA52 in LD 15
	X	Remove entry

LD 10

Prompt	Response	Comment
NAME	aaaa,bbbb	Calling Party Name Display Name First name comma Last name. For example, John Doe is entered as John,Doe. The first single comma is treated as the delimiter. Up to 27 characters (including the comma) may be input. The last occurrence of the first comma group serves as the name delimiter and is translated into a space between the first and last name.
	aaaa	When the delimiter is omitted, the input is stored as a first name.
	aaaa, ,bbbb	When the delimiter follows the input, the input is stored as the first name. When the delimiter precedes the input, the input is stored as a last name.
NCOS	(0)-99	Network Class of Service group number.
OHID	(0)-9	Off-Hook Alarm Security DN index Enter the index number 0- 9 of the DN defined by LD 15 prompt ODNx. When a dial tone or interdigit timeout occurs on a set with Alarm Security Allowed (ASCA) Class of Service, the set is intercepted to a predefined DN.
PLEV	0-(2)-7	Priority Level Where: 2 = set can override sets of level 1 and 2, and can be overridden by sets of level 2 - 7. Prompted with Priority Override/ Forced Camp-On (POVR) package 186.
POS	xxxx	ACD position ID. Prompted when SFMT = AUTO, TNDN, TN or DN.
PRI	(1)-32	Priority level for ACD Agent. Valid range. The agent with the lowest number assigned has the highest priority and is the first ACD agent to receive calls. (Priority 1 has the highest priority level)
		PRI is prompted if Automatic Call Distribution, Priority Agent package 116 is equipped and CLS = AGTA.
RCO	(0)-2	Ringling cycle option for Call Forward No Answer Prompted when CLS = FNA or MWA (or both).

Prompt	Response	Comment
REQ:		Request A colon following a prompt indicates enhanced processing. Enhanced processing allows a user to either view a list of possible responses or input an abbreviated response.
	?	To get a list of valid responses
	CHG	Change existing data block
	CPY n	Copy or create 1 to 32 new station data block or blocks automatically from the specified station data block.
	END	Exit Overlay program
	MOV	Move data block from one TN to another
	NEW X	Add new data block or blocks Follow NEW with a value of 1- 255 to create that number of consecutive telephone data block or blocks.
	OUT X	Remove data block or blocks Follow OUT with a value of 1- 255 to remove that number of consecutive telephones.
<p>This load is linked with LDs 11, 20 and 32. You may enter one of the responses listed below at the REQ: prompt. Then go to that Load and follow its Prompts and Responses sequence.</p> <p>LD 32: CDSP CMIN CONV CPWD DISC DISI DISL DISN DISS DISU DSCT DSPS DSXP ENCT ENLC ENLG ENLL ENLN ENLS ENLU ENPS ENXP IDC IDCS IDU LBSY LDIS LIDL LMNT PBXT SDLC STAT SUPL TRK XNTT XPCT XPEC</p> <p>LD 20: LTN LUC LUDU LUU LUVU PRT</p> <p>LD 11: CHG CPY MOV NEW OUT</p>		
RNPG	(0)-4095	Ringing Number Pickup Group To remove a telephone from a group, enter 0 in response to the RNPG prompt.

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Prompt	Response	Comment
SCI	(0)-7	Station Category Indication priority level The Station Category number 1 to 7 must be defined as attendant console Incoming Call Indicator in LD 15 prompt ICI = CA1 - CA7.
SCPW	xxxx	Station Control Password The Station Control password is used for the Electronic Lock and Remote Call Forward features. This entry must equal the Station Control Password Length (SCPL) as defined in LD 15. Not prompted if SCPL = 0. See Flexible Feature Codes in the X11 features and services NTP.
SECOND_DN	x...x	Second Directory Number sharing the Voice Mailbox. This number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
	X	Enter the letter "X" to delete the second directory number
SFMT		Select Format for the copy command The DN may be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. The POS prompt appears if CLS = AGTA.
	TNDN	Manual selection of TNs, DNs and ACD position IDs for ACD telephones. TN, DN and POS are prompted -n- times as defined by the CPY command.
	TN	The new DNs and ACD position IDs for ACD telephones are provided by the system. You are prompted for the starting DN, ACD position ID and each TN. TN is prompted n times as defined in the CPY command.
	DN	The new TNs are provided by the system. You are prompted for the starting TN and each DN and ACD position ID for ACD telephones. DN and/or POS are prompted n times as defined in the CPY command.
	AUTO	The new TNs, DNs and ACD position ID for ACD telephones are provided by the system. You are prompted for the starting TN, DN and ACD position ID.
SGRP	(0)-999	Scheduled Access Restriction Group Number Prompted with Schedule Access Restrictions (SAR) package 162. The group must be defined in LD 88.

Prompt	Response	Comment
SPID	x...x	<p>Supervisor Position ID</p> <p>This input assigns an agent to a supervisor when agent lamps are not assigned on the supervisor telephone.</p> <p>This number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. However, ISDN applications can accept up to 13 digits.</p> <p>Prompted for ACD packages B, C and D when CLS = AGTA.</p>
SPWD	xxxx	<p>Secure Data Password</p> <p>Prompted if the password is defined in LD 15. If the password is not entered, the security codes will not print when PRT is requested.</p>
TEN	1-51	<p>Multi-Tenant Number</p> <p>Enter the Multi-Tenant number for this telephone. Prompted with Multiple-Tenant Service (TENS) package 86 and Tenant Service enabled.</p>
TGAR	0-(1)-31	<p>Trunk Group Access Restriction. The default of (1) automatically blocks direct access.</p>
THIRD_DN	x...x X	<p>Third DN sharing the Voice Mailbox</p> <p>Third Directory Number. This number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p> <p>Deletes the third directory number</p>
TN	c u	<p>Terminal Number</p> <p>TN appears when REQ = NEW, CHG, MOV or OUT. The TN defines the location of the telephone set.</p> <p>The ranges for the 16-port MLC are: c = 1-30 and u = 0-15</p> <p>The ranges for the 4-port MLC are: c = 2, 4, 6, 12, 14, 16, 22, 24, 26 and u = 0-3. (The CDEN prompt appears for cards that could be 4 or 16 port cards. The 4-port MLC can be used only in a 6-slot cabinet, and should have CDEN set to SD.</p> <p>The ranges for phantom DNs are: c = 41-60 and u = 0-15. (PHANTOM is printed out when the card is a phantom.)</p>
TOTN	c u	<p>To Terminal Number. Prompted when REQ = MOV.</p> <p>General TN format</p>

LD 10

Prompt	Response	Comment
TYPE:		Type of data block. A colon following a prompt indicates enhanced processing. Enhanced processing allows a user to either view a list of possible responses or input an abbreviated response. Note: LD 10 is linked with LDs 11, 20 and 32. You may enter any of the response options listed for the TYPE prompt in LDs 11 and 20 or any of the commands listed in LD 32. See “Overlay programs 10, 11, 20 and 32 are linked thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another.” on page 53 for further information.
	?	To get a list of valid responses
	500	500/2500 telephone set data block
	CARDSLT	Single- line telephone line card
	OOSLST	Out-of-Service Single Line Terminal unit
VMB	NEW CHG OUT	Add Voice Mailbox Change Voice Mailbox Remove Voice Mailbox Prompted with Voice Mailbox Administration (VMBA) package 246.
VMB_COS	0-127	Voice Mailbox Class of Service
WRLS	(NO) YES	TN corresponds to a portable personal telephone. Must have Meridian 1 Companion Option (MCMO) package 240.
XLST	(0)-254	Pretranslation group If the user wants to use a 16-button DTMF ABCD set as a call forward destination station to deactivate the call forward all calls function, then XLST must be set equal to the table number defined in LD 18.
XPLN	xx	Expected name length (this value should be set to a sufficient length for current and future names for that DN) When REQ=NEW, the XPLN prompt defines the maximum name length for that particular DN or DIG. The XPLN for a DN cannot be changed without deleting that name entry. XPLN must range from the actual length of the name string to MXLN, or defaults to DFLN.

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LD 11—Meridian Digital Telephone Administration

This Overlay program allows data blocks for SL-1, Displayphone 1200, M1000 series, M2000 series, and M3000 digital telephones to be created or modified.

When the Overlay is loaded the available system memory and disk records are output in a header as follows:

```
SL1000
MARP information
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx
DISK RECS AVAIL: xxx
```

Incremental Software Management (ISM) also provides a header to indicate system configuration limits and appears as follows:

```
TNS AVAIL: xxxxx USED: xxxxx TOT: xxxxx
ACD AGENTS AVAIL: xxx USED: xxx TOT: xxx
AST SET AVAIL: xxxxx USED: xxxxx TOT: xxxxx
```

Input one asterisk to cause the system to reissue the last prompt, and two asterisks to cause a restart of the Overlay at REQ.

Overlay programs 10, 11, 20 and 32 are linked, thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another.

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The input processing has also been enhanced so that prompts ending with a colon (:) allow the user to enter either:

- 1 a question mark (?) followed by a carriage return (<cr>) to get a list of valid responses to that prompt, or
 - 2 an abbreviated response, the system then responds with the nearest match. If there is more than one possible match the system responds with SCH0099 and the input followed by a question mark and a list of possible responses. The user can then enter the valid response.
-

Prompts and responses

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Prompts and responses

Prompt	Response	Comment
REQ:	a...a	Request
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
CFTN	c u	Copy From Terminal Number (c u ranges are defined on page 134)
SFMT	a...a	Select Format (a...a = TNDN, TN, DN, or AUTO)
TN	c u	Terminal Number (c u ranges are defined on page 134)
DELETE_VMB	(YES) NO	Delete Voice Mailbox
ECHG	(NO) YES	Easy Change
- ITEM	aaaa yyy	Item (aaaa = Program mnemonic ; yyy = its new value)
TOTN	c u	To Terminal Number (c u ranges are defined on page 134)
CDEN	8D	Card Density (aa = 8D)
DES	d...d	Office Data Administration System Station Designator
CUST	0	Customer number
KLS	1-7	Number of Key/Lamp Strips

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AOM	0-2	Number of Add-on Modules
FDN	x...x	Flexible CFNA DN
TGAR	0-(1)-31	Trunk Group Access Restriction
LDN	aaa	Departmental Listed Directory Number (aaa = (NO), 0-3, or 0-5)
NCOS	(0)-99	Network Class of Service group
RNPG	(0)-4095	Ringling Number Pickup Group
SSU	0-4095	System Speed call list number
XLST	(0)-7	Pretranslation group associated with this station
SCPW	xxxx	Station Control Password
SGRP	(0)-999	Scheduled Access Restriction Group number
CLS	a...a	Class of Service (CLS responses begin on page 101)
ARTO	(0)-3	Alternate Redirection Time Option for call redirection
AFD	x...x	Alternate Flexible Call Forward DN
AHNT	x...x	Alternate Hunt DN
AEFD	x...x	Alternate External Flexible Call Forward DN
AEHT	x...x	Alternate External Hunt DN
MAUT	(NO) YES	Modify authorization codes for this telephone
- SPWD	xxxx	Secure Data Password
- AUTH	n xxxx	Authorization code
RCO	(0)-2	Ringling Cycle Option for Call Forward No Answer
EFD	x...x	Flexible CFNA DN for External calls
HUNT	x...x	Hunt DN of next station in hunt chain
EHT	x...x	External Hunt DN
LHK	(0)-69	Last Hunt Key number limit
LNRS	4-(16)-31	Last Number Redial Size
TEN	1-511	Tenant number
OHID	(0)-9	Off-Hook Alarm Security DN index for off-hook or interdigit timeout.
FSVC	(0)-9	Forced Out-of-Service Off-Hook Alarm Security DN index
SCI	(0)-7	Station Category Indication priority level
DTYP	aaa	Data Station Type
- TOV	(0)-3	Timeout Value for the data port
- DTAO	a...a	Data Option (a...a = (MPDA) or MCA)
- PSEL	a...a	Protocol Selection (a...a = (DMDM) or TLNK)
- OPE	(NO) YES	Change data port Operating Parameters

- PSDS	(NO) YES	Public Switched Data Service option
- TRAN	a...a	Port Transmission type (a...a = (ASYN) or SYN)
- PAR	a...a	Parity (a...a = (SPACE), EVEN, ODD, or MARK)
- DTR	(OFF) ON	Data Terminal Ready settings
- DUP	aaaa	Duplex (aaaa = (FULL) or HALF)
- HOT	(OFF) ON	Hotline
- AUT	(ON) OFF	Auto-answer
- AUTB	(ON) OFF	Auto Baud rate
- BAUD	0-(7)-8	Data rate in bps for the data port
- DCD	(ON) OFF	Dynamic Carrier Detect
- PRM	(ON) OFF	Prompt for terminal or host mode
- VLL	(OFF) ON	Virtual Leased Line
- MOD	(NO) YES	Mode
- INT	(OFF) ON	Meridian 1/SL-100 Interworking
- CLK	(OFF) ON	Clock
- DEM	aaa	Data Equipment Mode (aaa = (DCE) or DTE)
- DLNG	aaa	Language preference for DAC prompts (aaa = (ENG) or FRN)
- KBD	(ON) OFF	Keyboard Dialing
- V25	(NO) YES	V.25 bis option (synchronous mode only)
- HDLC	(NO) YES	High Level Data Link Control
- RTS	(ON) OFF	Request To Send (applies only to asynchronous mode)
- WIRE	(OFF) ON	Wire test
- PBDO	(OFF) ON	Port Busy when DTR off
LPK	(0)-69	Line Preference Key
PLEV	0-(2)-7	Priority Level
FCAR	(NO) YES	Forced Charge Account Restricted
LTN	1-253 0-15	Logical TN and AUX link number
SPID	x...x	ACD Supervisor Position ID DN
AST	xx yy	Associate Set Assignment for Meridian Link applications
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group
ITNA	(NO) YES	Idle TN for the Third Party Application
DGRP	(1)-5	Device Group
PRI	(1)-32	Priority level for ACD agent
LANG	a	Language choice for Automatic Wakeup (AWU) calls (a = (0)-5 or X)

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MLWU_LANG	a	Language choice for Automatic Wakeup (AWU) calls (a = (0)-5 or X)
DTMK	x...x	Data Mode Key number for a dynamic voice/data TN
DNDR	(0)-120	Directory Number Delayed Ringing in seconds
KEY	xx aaa yyyy	Telephone function key assignments (KEY responses begin on page 115)
- MARP	(NO) YES	Multiple Appearance Redirection Prime
- CPND	aaa	Calling Party Name Display
--	aaa	Calling Party Name Display Language (aaa = (ROM) or KAT)
CPND_LANG		
-- NAME	aaaa,bbbb	Calling Party Name Display name
-- XPLN	xx	Expected Name Length
-- DISPLAY_FMT		
	aaaa,bbbb	Display Format for CPND name
- VMB	aaa	Voice Mailbox
-- VMB_COS	0-127	Voice Mailbox Class of Service
--	x...x	Second DN sharing the voice mailbox
SECOND_DN		
-- THIRD_DN	x...x	Third DN sharing the voice mailbox
--	(NO) YES	Preserve Meridian Mail messages and current password
KEEP_MSGS		

Prompts and responses by task

Add a voice telephone

Prompt	Response	Comment
REQ:	NEW	Request = NEW
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
TN	c u	Terminal Number (c u ranges are defined on page 134)
CDEN	aa	Card Density (aa = SD, DD, 4D, or 8D)
DES	d...d	Office Data Administration System Station Designator
CUST	0	Customer number
KLS	1-7	Number of Key/Lamp Strips
AOM	0-2	Number of Add-on Modules
FDN	x...x	Flexible CFNA DN
TGAR	0-(1)-31	Trunk Group Access Restriction
LDN	aaa	Departmental Listed Directory Number (aaa = (NO), 0-3, or 0-5)
NCOS	(0)-99	Network Class of Service group
RNPG	(0)-4095	Ringling Number Pickup Group
SSU	0-4095	System Speed Call list number
XLST	(0)-7	Pretranslation group associated with this station
SCPW	xxxx	Station Control Password
SGRP	(0)-999	Scheduled Access Restriction Group number
CLS	aaaa	Class of Service (CLS responses begin on page 101)
ARTO	(0)-3	Alternate Redirection Time Option for call redirection
AFD	x...x	Alternate Flexible Call Forward DN
AHNT	x...x	Alternate Hunt DN
AEFD	x...x	Alternate External Flexible Call Forward DN
AEHT	x...x	Alternate External Hunt DN
MAUT	(NO) YES	Modify authorization codes for this telephone

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- SPWD	xxxx	Secure Data Password
- AUTH	n xxxx	Authorization code
RCO	(0)-2	Ringling Cycle Option for Call Forward No Answer
EFD	x...x	Flexible CFNA DN for External calls
HUNT	x...x	Hunt DN of next station in hunt chain
EHT	x...x	External Hunt DN
LHK	(0)-69	Last Hunt Key number limit
LNRS	4-(16)-31	Last Number Redial Size
TEN	1-511	Tenant number
OHID	(0)-9	Off-Hook Alarm Security DN index for off-hook or interdigit timeout.
F SVC	(0)-9	Forced Out-of-Service Off-Hook Alarm Security DN index
SCI	(0)-7	Station Category Indication priority level
LPK	(0)-69	Line Preference Key
PLEV	0-(2)-7	Priority Level
FCAR	(NO) YES	Forced Charge Account Restricted
LTN	1-253 0-15	Logical TN and AUX link number
SPID	x...x	ACD Supervisor Position ID DN
AST	xx yy	Associate Set Assignment for Meridian Link applications
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group
ITNA	(NO) YES	Idle TN for the Third Party Application
DGRP	(1)-5	Device Group
PRI	(1)-32	Priority level for ACD agent
LANG	(0)-5 X	Language choice for Automatic Wake Up (AWU) calls
MLWU_LANG	a	Language choice for Automatic Wakeup (AWU) calls (a = (0)-5 or X)
DTMK	x...x	Data Mode Key number for a dynamic voice/data TN
DNDR	(0)-120	Directory Number Delayed Ringing (in seconds)
KEY	xx aaa yyyy	Telephone function key assignments (KEY responses begin on page 115)
- MARP	(NO) YES	Multiple Appearance Redirection Prime
- CPND	aaa	Calling Party Name Display (aaa = NEW, CHG or OUT)

-- CPND_LANG	aaa	Calling Party Name Display Language (aaa = (ROM) or KAT)
-- NAME	aaaa,bbbb	Calling Party Name Display name
-- XPLN	xx	Expected Name Length
-- DISPLAY_FMT		
	aaaa,bbbb	Display Format for CPND name
- VMB	aaa	Voice Mailbox
-- VMB_COS	0-127	Voice Mailbox Class of Service
-- SECOND_DN	x...x	Second DN sharing the Voice Mailbox
-- THIRD_DN	x...x	Third DN sharing the Voice Mailbox
-- KEEP_MSGS	(NO) YES	Preserve Meridian Mail Messages and current password

Add a data telephone

The following prompts apply to M2006, M2008, M2216, M2616 data ports (MPDA), DAC card units and Meridian Communications Adapter (MCA) only:

All operating parameter information is stored in the MPDA. If the hardware does not exist, the parameter information is lost. The hardware must be connected before configuring the operating parameters in this program. In the event that the parameters are lost, it is possible to enter the data through the data adapter. It is not necessary to re-enter the program.

Prompt	Response	Comment
REQ:	NEW	Request = NEW
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
TN	c u	Terminal Number (c u ranges are defined on page 134)
CDEN	8D	Card Density (aa = 8D)
DES	d...d	Office Data Administration System Station Designator
CUST	0	Customer number
KLS	1-7	Number of Key/Lamp Strips
AOM	0-2	Number of Add-on Modules
FDN	x...x	Flexible CFNA DN
TGAR	0-(1)-31	Trunk Group Access Restriction
LDN	aaa	Departmental Listed Directory Number (aaa = (NO), 0-3, or 0-5)
NCOS	(0)-99	Network Class of Service group
RNPG	(0)-4095	Ringing Number Pickup Group
SSU	0-4095	System Speed call list number
XLST	(0)-7	Pretranslation group associated with this station
SCPW	xxxx	Station Control Password
SGRP	(0)-999	Scheduled Access Restriction Group number
CLS	aaaa	Class of Service (CLS responses begin on page 101)
ARTO	(0)-3	Alternate Redirection Time Option for call redirection
AFD	x...x	Alternate Flexible Call Forward DN
AHNT	x...x	Alternate Hunt DN
AEFD	x...x	Alternate External Flexible Call Forward DN
AEHT	x...x	Alternate External Hunt DN

MAUT	(NO) YES	Modify authorization codes for this telephone
- SPWD	xxxx	Secure Data Password
- AUTH	n xxxx	Authorization code
RCO	(0)-2	Ring cycle option for Call Forward No Answer
DTYP	aaa	Data station Type
TOV	(0)-3	Timeout Value for the Data port
DTAO	a...a	Data Option (a...a = (MPDA) or MCA)
PSEL	a...a	Protocol Selection (a...a = (DMDM) or TLNK)
OPE	(NO) YES	Change data port Operating Parameters
- PSDS	(NO) YES	Public Switched Data Service option
- TRAN	a...a	Port Transmission type (a...a = (ASYN) or SYN)
- PAR	a...a	Parity (a...a = (SPACE), EVEN, ODD, or MARK)
- DTR	(OFF) ON	Data Terminal Ready settings
- DUP	aaaa	Duplex (aaaa = (FULL) or HALF)
- HOT	(OFF) ON	Hotline
- AUT	(ON) OFF	Auto Answer
- AUTB	(ON) OFF	Auto Baud rate
- BAUD	0-(7)-8	Enter the data rate in bps for the data port
- DCD	(ON) OFF	Dynamic Carrier Detect
- PRM	(ON) OFF	Prompt for terminal or host mode
- VLL	(OFF) ON	Virtual Leased Line
- MOD	(NO) YES	Mode
- INT	(OFF) ON	Meridian 1/SL-100 Interworking
- CLK	(OFF) ON	Clock
- DEM	aaa	Data Equipment Mode (aaa = (DCE) or DTE)
- DLNG	aaa	Language preference for DAC prompts (aaa = (ENG) or FRN)
- KBD	(ON) OFF	Keyboard Dialing
- V25	(NO) YES	V.25 bis option, synchronous mode only
- HDLC	(NO) YES	High Level Data Link Control
- RTS	(ON) OFF	Request To Send (applies to asynchronous mode only)
WIRE	(OFF) ON	Wire test
PBDO	(OFF) ON	Port Busy when DTR off
EFD	x...x	Flexible CFNA DN for External calls
HUNT	x...x	Hunt DN of next station in hunt chain
EHT	x...x	External Hunt DN
LHK	(0)-69	Last Hunt Key number limit

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LNRS	4-(16)-31	Last Number Redial Size
TEN	1-511	Tenant number
OHID	(0)-9	Off-Hook Alarm Security DN index for off-hook or interdigit timeout.
FSVC	(0)-9	Forced Out of Service Off-Hook Alarm Security DN index
SCI	(0)-7	Station Category Indication priority level
LPK	(0)-69	Line Preference Key
PLEV	0-(2)-7	Priority Level
FCAR	(NO) YES	Forced Charge Account Restricted
LTN	1-253 0-15	Logical TN and AUX link number
SPID	x...x	ACD Supervisor Position ID DN
AST	xx yy	Associate Set Assignment for Meridian Link applications
IAPG	(0)-15	Meridian Link Unsolicited Status Message (USM) group
ITNA	(NO) YES	Idle TN for the Third Party Application
DGRP	(1)-5	Device Group
PRI	(1)-32	Priority level for ACD agent
LANG	(0)-5 X	Language choice for Automatic Wake Up (AWU) calls
MLWU_LANG	aaaa,bbbb	Language choice for Automatic Wake Up (AWU) calls
DTMK	x...x	Data Mode Key number for a dynamic voice/data TN
DNDR	(0)-120	Directory Number Delayed Ringing (in seconds)
KEY	xx aaa yyyy	Telephone function key assignments (KEY responses begin on page 115)
- MARP	(NO) YES	Multiple Appearance Redirection Prime
- CPND	aaa	Calling Party Name Display
-- CPND_LANG	aaa	Calling Party Name Display Language
-- NAME	aaaa,bbbb	Calling Party Name Display name
-- XPLN	xx	Expected NameLength
-- DISPLAY_FMT	aaa	Display Format for CPND name
- VMB	aaa	Voice Mailbox
-- VMB_COS	0-127	Voice Mailbox Class of Service
-- SECOND_DN	x...x	Second DN sharing the Voice Mailbox
-- THIRD_DN	x...x	Third DN sharing the Voice Mailbox
-- KEEP_MSGS	(NO) YES	Preserve Meridian Mail Messages and current password

Copy a telephone

ACD supervisory telephones cannot be copied. Associate set (AST) assignments are not copied to the new telephones.

Prompt	Response	Comment
REQ:	CPY n	Request = CPY n
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
CFTN	c u	Copy From Terminal Number (c u ranges are defined on page 134)
SFMT	aaaa	Select Format. You may respond to SFMT with: AUTO, TNDN, TN or DN. Subprompts follow each of these responses as follows:
	AUTO	The system provides the new DNs or position IDs (for ACD telephones) and TNs by automatically selecting consecutive unused DNs or ACD position IDs and TNs.
- TN	c u	TN of new set (c u ranges are defined on page 134)
- DN	xxxx	DN of new set
- POS	xxxx	ACD position ID of new set
	TNDN	Manual selection of DNs or ACD position IDs and TNs. You are prompted for the DN or ACD position ID and TN of each new telephone.
- TN	c u	TN of new set (c u ranges are defined on page 134)
- DN	xxxx	DN of new set
- POS	xxxx	ACD Position ID of new set
	TN	The new DNs or ACD Position IDs are provided by the system. You are prompted for the starting DN or ACD Position ID and each TN. TN is prompted -n- times as defined in the CPY command.
- TN	c u	TN of new set (c u ranges are defined on page 134)
- DN	xxxx	DN of new set
- POS	xxxx	ACD Position ID of new set
	DN	The new TNs are provided by the system. You are prompted for the starting TN and each DN or ACD Position ID.
- TN	c u	TN of new set (c u ranges are defined on page 134)
- DN	xxxx	DN of new set
- POS	xxxx	ACD Position ID of new set

Easy change

Prompt	Response	Comment
REQ:	CHG	Request = CHG
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
TN	c u	Terminal Number (c u ranges are defined on page 134)
ECHG	YES	Easy Change
ITEM	aaaa bbbb	Item (aaaa = Program mnemonic ; yyy = its new value)

Move a telephone

If moving a voice unit with an associated data unit , the data unit must also be moved. On NT8D02 Digital Line Card, both voice and data TNs can be moved by entering MOV PAIR in response to the REQ prompt.

Prompt	Response	Comment
REQ:	a...a	Request = MOVE or MOV PAIR
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
TN	c u	Terminal Number (c u ranges are defined on page 134)
TOTN	c u	To Terminal Number

Remove a telephone

Before removing an ACD agent telephone, first remove the associated AGT key on the supervisor's telephone.

Prompt	Response	Comment
REQ:	OUT	Request = OUT
TYPE:	a...a	Type of data block (TYPE responses begin on page 135)
TN	c u	Terminal Number (c u ranges are defined on page 134)

Alphabetical list of prompts

Prompt	Response	Comment
AEFD	x...x	Alternate External Flexible Call Forward DN. Remove by setting CLS = RTDD or CFTD. Alternate Redirection DN (up to 13 digits)
AEHT	x...x	Alternate External Hunt DN. Remove by setting CLS = RTDD or CFTD. Alternate Redirection DN (up to 13 digits)
AOM	0-2	Number of Add-on Modules. AOM appears if TYPE = M2216 and M2616.
AFD	x...x	Alternate Flexible Call Forward DN. Remove by setting CLS = RTDD. Alternate Redirection DN (up to 13 digits)
AHNT	x...x	Alternate Hunt DN. Remove by setting CLS = RTDD. Alternate Redirection DN (up to 13 digits)
ARTO	(0)-3	Alternate Redirection Time Option for call redirection, defined in the customer data block. ARTO is prompted if CLS = RTDA.
AST	xx yy	Associate Set Assignment for Meridian Link applications A maximum of two DN keys, xx and yy, can be controlled by the host computer. Precede with X to delete.
AUT	(ON) OFF	Enable Auto-Answer Do not enable Auto-Answer
AUTB	(ON) OFF	Auto Baud rate enabled Auto Baud rate disabled AUTB is prompted if TYPE = R232 or R422 and if HOT = OFF.
AUTH	n xxxx	Authorization code. Where: <ul style="list-style-type: none"> n = the number of the assigned authorization code (1-6) xxxx = assigned authorization code (Any authorization code assigned in LD 88 is valid). <p>AUTH appears when CLS = Authorization Code Required (AUTR).</p>
BAUD		Baud rate

LD 11

Prompt	Response	Comment
	0-(7)-8	<p>Enter data rate in bps for data port on M2006, M2008, M2216 and M2616 telephones and Data Access Card.</p> <p>The following values apply to:</p> <ul style="list-style-type: none">• MPDA-1• MCA with DTAO = MPDA and TRAN = ASYN• MCA with DTAO = MCA• TYPE = MCU and TRAN = ASYN <p>Where: 0 = 110, 1 = 150, 2 = 300, 3 = 600, 4 = 1200, 5 = 2400, 6 = 4800, (7) = 9600, and 8 = 19,200</p>
	0-(11)-12	<p>The following values apply to:</p> <ul style="list-style-type: none">• MCA with DTAO = MPDA, with MCA hardware• TRAN = SYN, MCA with TRAN = SYN• MCA with DTAO = MCA <p>Where: 0 = 1200, 1 = 2400, 2 = 3600, 3 = 4800, 4 = 7200, 5 = 9600, 6 = 14,400, 7 = 19,200, 8 = 38,400, 9 = 40,800, 10 = 48,000, (11) = 56000, and 12 = 64,000.</p> <p>BAUD is only prompted if AUTB (Auto Baud Rate) = OFF.</p>
CDEN	SD DD 4D 8D	<p>Single Card Density Double Card Density Quadruple Card Density Octal Card Density</p> <p>CDEN defaults to the density of the network loop. CDEN is not prompted for superloops.</p>
CFTN	c u	<p>Copy From Terminal Number General TN format</p> <p>For Meridian: c u = card, unit</p> <p>Use this TN as a template for new sets. ACD supervisory sets cannot be copied. Associate set (AST) assignments are not copied to the new sets.</p> <p>Phantom TNs, the system checks to be sure that TNs are not moved or copied from phantom TNs to non-Phantom TNs or visa versa.</p> <p>CFTN appears if REQ = CPY.</p>

Prompt	Response	Comment
CLK	(OFF) ON	Clock off Clock on
CLS		Class of Service options The following CLS assignments determine the calling options and features available to the telephone. Defaults are shown in parentheses. Enter each non-default option required, separated by a space. Access Restrictions : (CTD) Conditionally Toll Denied CUN Conditionally Unrestricted FR1 Fully Restricted class 1 FR2 Fully Restricted class 2 FRE Fully Restricted SRE Semi-Restricted TLD Toll Denied UNR Unrestricted (AAD) Automatic Answerback Denied AAA Automatic Answerback Allowed Automatic Answerback can be used on M2112, M2317, M2616, M3000 and SL-1 telephones with handsfree capability. A special hardware kit is required for SL-1 sets and Companion 4 speakerphones. Automatic Answerback must have CLS = HFA for M2616 telephones. CLS AAA or AAK keys are not allowed for M2317 TNs. (ABDD) Abandoned call record and time to answer Denied ABDA Abandoned call record and time to answer Allowed Digit Display ADD Automatic Digit Display, default for M2008, M2216, M2317, M2616, M3000 DDS Delay Display, display activates after call is answered NDD No Digit Display, default for SL-1, M2006, M2009, M2112, M2018 TDD Touchphone Digit Display with Enhanced Automatic Digit Display, TDD class of service is applicable to all Meridian 1 proprietary sets except for the M2016. (AGN) ACD Agent SPV ACD Supervisor

LD 11

Prompt	Response	Comment
(ARHD)	Audible Reminder of Held Call Denied	
ARHA	Audible Reminder of Held Call Allowed	
(ASCD)	Alarm Security Denied	
ASCA	Alarm Security Allowed	
(AUTU)	Unrestricted Authorization code Class of Service	
AUTD	Denied Authorization code Class of Service	
AUTR	Restricted Authorization code Class of Service	
		When the CLS is changed from AUTR to AUTU or AUTD, all previous telephone authorization code information is removed. This Class of Service is valid only when Station Specific Authorization Codes (SSAU) package 229 is equipped.
(AWCD)	Auto wake-up controller denied	
AWCA	Auto wake-up controller allowed	
(CCSD)	Controlled Class of Service Denied	
CCSA	Controlled Class of Service Allowed	
		CCSA is required for the Electronic Lock feature. Must have Controlled Class of Service (CCOS) package 81.
(CDMD)	CDMD denies external station activity records to be generated for the set	
CDMA	CDMA allows external station activity records to be generated for the set	
(CFHD)	Call Forward Hunt Override Denied	
CFHA	Call Forward Hunt Override Allowed	
(CFTD)	Call Forward by Call Type Denied/Allowed	
CFTA	If response is CFTA, you must also designate HTA, FNA or both.	
(CFXD)	Call Forward All Calls to External DN Denied	
CFXA	Call Forward All Calls to External DN Allowed	

Prompt	Response	Comment
		Examples of external DNs are: <ul style="list-style-type: none"> • Route Access Code • ESN Access Code • CDP Distant Steering Code
		When denied, a call can only be forwarded to the following internal DNs: <ul style="list-style-type: none"> • Single or multi-line telephone • Attendant DN or CAS local attendant DN • Listed DN as defined in LD 15 • Message Center DN where MWC = YES
(CLBD) CLBA		Deactivate Calling Party Number and Name per-line blocking Activate Calling Party Number and Name per-line blocking The user may still request CPP by dialing the CPP code.
(CLTD) CLTA		Network Call Trace from this telephone Denied Network Call Trace from this telephone Allowed
(CMSD) CMSA		Command and Status link Denied Command and Status link Allowed CMSA is not supported by M2009, M2018, M2112, M2317, and M3000.
(CNDD) CNDA		Call Party Name Display Denied Call Party Name Display Allowed CNDA allows user names to be displayed on the telephone's digit display.
(CNID) CNIA		Call Number Information Denied Call Number Information Allowed
(CNTD) CNTA		Network ACD Countdown Denied Network ACD Countdown Allowed Only allowed on ACD agent telephones.
(CPFA) CPFD		Forced Camp-On from another set Allowed Forced Camp-On from another set Denied
(CPTA) CPTD		Forced Camp-On to another set Allowed. CPTA is the default for VCE TNs. Forced Camp-On to another set Denied
(DDGA)		DN Display on other set Allowed

LD 11

Prompt	Response	Comment
	DDGD	DN Display on other set Denied
	(DDV) ADV	Data Port Verification Denied Data Port Verification Allowed
	(DELD) DELA	Dealer Denied Dealer Allowed Must have On-Hold On Loudspeaker (OHOL) package 196.
	(DNDD) DNDA	Dialed Name Display Denied Dialed Name Display Allowed DNDA allows the display of the originally dialed DN's names on redirected calls. Name display applies to M2317, M3000 or Meridian Modular telephones with displays. Must have Calling Party Name Display (CPND) package 95. Must also have CLS = CNDA. CLS is not DTA.
	(DOS) AOS	ACD Supervisory Set Denied observation of other supervisory sets ACD Supervisory Set Allowed observation of other supervisory sets Must have CLS = SPV.
	(DPUD) DPUA	DN Pickup Denied DN Pickup Allowed
	(DRG1) DRG2 DRG3 DRG4	Digital telephone distinctive ringing High fast tone, frequency 667 Hz/500 Hz, warble rate 10.4 Hz High slow tone, frequency 667 Hz/ 500 Hz, warble rate 2.6 Hz Low fast tone, frequency 333 Hz/ 250 Hz, warble rate 10.4 Hz Low slow tone, frequency 333 Hz/ 250 Hz, warble rate 2.6 Hz DRG3 and DRG4 distinctive ringing for M2006 and M2008 telephones are different.
	DRG3 DRG4	Low fast tone, frequency 1600/ 2000 Hz, warble rate 10.0 Hz Low slow tone, frequency 1600/ 2000 Hz, warble rate 2.5 Hz
	(DSX) DSI	Data Service access or IS Server TN Denied Data Service access or IS Server TN Allowed CLS is automatically set to DTA.

Prompt	Response	Comment
(FBD) FBA	Call Forward Busy Denied Call Forward Busy Allowed	This feature sends DID calls encountering a busy condition to the attendant. Call Forward Busy should have Hunting and Call Waiting denied, CLS = HTD and CWD, since Hunting and Call Waiting take precedence over FBA.
(FITD) FITA	Flexible Incoming Tones Denied Flexible Incoming Tones Allowed	For SL-1 sets OPT must be SBA in LD 15. For Digital sets OPT must be DBA in LD 15.
(FLXD) FLXA	Flexible voice/data Denied Flexible voice/data Allowed	FLXA is only allowed for Aries sets. By entering FLXA, you may configure dynamic voice/data TNs by assigning VCE to the upper TN (unit 16-31) and DTA to the lower TN (unit 0-15). You also have the option of designating a SCR key as DTM (data mode). Warning: If connecting the Aries set only to the TCM loop, this option should not be specified. External equipment which can use this capability should be connected. Warning: When changing from CLS DTA to CLS VCE, CLS WTA should also be assigned to avoid conflict with CLS CPTA. CLS CPTA is the default for VCE TNs.
(FND) FNA	Call Forward No Answer Denied Call Forward No Answer Allowed	
(FRN) ENG	French language display English language display	For M2317 alphanumeric display sets.
(GPUD) GPIUA	Group Pickup Denied Group Pickup Allowed	Group Pickup is not allowed on telephones in group zero, RNPG = 0.

LD 11

Prompt	Response	Comment
(HFD) HFA	Digital Telephone Handsfree Denied Digital Telephone Handsfree Allowed	Only available for M2616 telephones. Handsfree capability on all other telephones is a function of the hardware and does not require HFA Class of Service in order to operate.
(HTD) HTA	Hunting Denied Hunting Allowed	
(ICDD) ICDA	Internal Call Detail Recording Denied Internal Call Detail Recording Allowed	
(IMD) IMA	Integrated Messaging Service Attendant Denied Integrated Messaging Service Attendant Allowed	
(IRD) IRA	Incoming Ringing Line Preference Denied Incoming Ringing Line Preference Allowed	
(LLCN) LLC1 LLC2 LLC3	Line Load Control off Class 1 Class 2 Class 3	
(LND) LNA	Last Number Redial Denied Last Number Redial Allowed Must have OPT = LRA in LD 15.	
(LPR) HPR	Low Priority Station High Priority Station High Priority will place this set or trunk at the top of the dial tone queue.	
(MCTD) MCTA	Malicious Call Trace Denied Malicious Call Trace Allowed The MCT key must be removed before changing MCTA to MCTD. MCT is applied on a TN basis.	
(MRD) MRA	Message Registration Denied Message Registration Allowed	
(MTD) MTA	Maintenance Telephone Denied Maintenance Telephone Allowed	

Prompt	Response	Comment
(MWD)	Message Waiting Denied	
MWA	Message Waiting Allowed	If CLS = MWA and there is no Message Waiting Key (MWK) defined, then the red Message Waiting LED lights to indicate Message Waiting notification.
(NAMA)	Name Display on other set Allowed	
NAMD	Name Display on other set Denied	
(NID)	Non-ringing Incoming Line Preference Denied	
NIA	Non-ringing Incoming Line Preference Allowed	
(OLD)	Outgoing Line Preference Denied	
OLA	Outgoing Line Preference Allowed	
(ONDD)	One Number Delivery Denied for a portable	
ONDA	One Number Delivery Allowed for a portable	
(PGND)	Deny PAGENET access	
PGNA	Allow PAGENET access	PGND/A allowed if PAGENET package 307 is equipped.
(POD)	Privacy Override Denied	
POA	Privacy Override Allowed	The Privacy Optional feature is used with multiple appearance DN's.
(PUD)	Call Pickup Denied	
PUA	Call Pickup Allowed	Default changes to PUA if Ringing Number Pickup Group (RNPG) is defined. Call Pickup is not allowed on telephones in group zero or RNPG = 0.
(RDLA)	Automatic Redial Allowed	
RDLA	Automatic Redial Denied	
(RTDD)	Call Redirection by Time of day denied	
RTDA	Call Redirection by Time of day allowed	
(SFD)	Second level CFNA Denied	
SFA	Second level CFNA Allowed	SFA only requires the FNA Class of Service.

LD 11

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Prompt	Response	Comment
	(SWD) SWA	Station-to-Station Call Waiting Denied Station-to-Station Call Waiting Allowed A Call Waiting key or CWT must be defined. Must have CLS = HTD since hunting takes precedence.
	(TENA) TEND	Tenant Service Allowed Tenant Service Denied Multi-Tenant must be configured in LD 93 before the default is TENA.
	(ULAD) ULAA	Deny access to Set Based Administration Allow access to Set Based Administration Must have Set Based Administration (ADMINSET) package 256.
	(USMD) USMA	Meridian 911 position denied Meridian 911 position allowed Must have Meridian 911 (M911) package 224.
	(USRD) USRA	User Selectable Call Redirection Denied User Selectable Call Redirection Allowed
	VCE DTA	Voice Terminal Data Terminal VCE is used for voice TNs. DTA is used for data. For digital line cards, units 0-23 default to CLS = VCE, and units 24-31 default to CLS = DTA.
	(VMD) VMA	Server Voice Messaging Denied Server Voice Messaging Allowed
	(WTA) WTD	Warning Tone Allowed Warning Tone Denied
	(XHD) XHA	Exclusive Hold Denied Exclusive Hold Allowed
CPND	NEW OUT CHG	Calling Party Name Display New CPND entry Delete CPND entry Change CPND entry Must have Calling Party Name Display (CPND) package 95 and CPND data block defined in LD 95.

Prompt	Response	Comment
CPND_LANG	(ROM) KAT	Calling Party Name Display Language Roman Katakana
CUST	(0)	Customer number
DCD	(ON) OFF	Dynamic Carrier Detect Enables Dynamic CD Carrier Detect starts as inactive and follows the state of the call. DCD is only prompted if TYPE = R232.
DELETE_VMB	(YES) NO	Delete Voice Mailbox Remove the Voice Mailbox from the Meridian 1 and Meridian Mail Remove the Voice Mailbox from the Meridian 1 DELETE_VMB is prompted if REQ = OUT and TN has an associated Voice Mailbox. DELETE_VMB is allowed if the DN is a single appearance or multiple appearance DN on a single TN.
DEM	(DCE) DTE	Data Equipment Mode. Prompted if TYPE = R232. Data Carrier Equipment Data Terminal Equipment
DES	d...d	Designator The response d...d represents an Office Data Administration System (ODAS) Station Designator of 1-6 alphanumeric characters.
DGRP	(1)- 5	Device Group DGRP designates an AST BCS set into a specific device group. It is recommended that an AST phantom (BCS) TN should be a non-display BCS set. An AST BCS set of a phantom loop cannot be an ACD set.
DISPLAY_FMT	(FIRST, LAST) LAST, FIRST	Display Format for CPND name May be input as FIRST To view names as John Doe May be input as LAST To view names as Doe John

LD 11

Prompt	Response	Comment
DLNG	(ENG) FRN	Language preference for the DAC prompts. English French Prompted if TYPE = R232 or R422.
DN	x...x	Directory Number DN is prompted when using the copy command. DN can be up to 4 digits, up to 7 digits if Directory Number Expansion (DNXP) package 150 is equipped. ISDN applications can accept up to 13 digits.
DNDR	(0)-120	Delay Value in seconds. A DNDR value of 0 disables this feature. If the DNDR value is an odd number, then it is incremented to the next even number.
DTAO	(MPDA) MCA	Data Option, not prompted if TYPE = MCU. Software for Meridian Programmable Data Adapter Software for Meridian Communications Adapter The DTAO prompt determines the downloaded data, system, and operating parameters.
DTMK	x...x	Data Mode Key number for a dynamic voice/data TN. DTMK is prompted if the TN has both CLS = VCE and CLS = FLXA. There can be only one data mode key per TN. Any response to DTMK will overwrite a previous setting. When changing from CLS = DTA to CLS = VCE, CLS = WTA should also be assigned to avoid conflict with CLS = CPTA. Where x...x = number of the SCR/SCN key to be designated as the data mode key. This cannot be key 00.
	<cr>	No data mode key. TN is not a dynamic voice/data TN.

Prompt	Response	Comment
DTR	(OFF) ON	Data Terminal Ready settings Dynamic DTR Forced DTR, force the data port to always be ready for transmission. With the Data Access Card (DAC). DTR is prompted if TYPE = R232.
DTYP	(IOS) IDS ODS	Data Station Type Inbound/Outbound Data Station Inbound Data Station Outbound Data Station
DUP	(FULL) HALF	Full Duplex Half Duplex
ECHG	(NO) YES	Easy Change This allows change to any prompt in this program without having to <cr> through all unrelated prompts. ECHG is prompted when REQ = CHG.
EFD	x...x	Flexible CFNA DN for External calls EFD is the DN to which external calls are routed when there is no answer, if one of the following customer options is defined in LD 15: <ul style="list-style-type: none"> • FNAD = FDN • FNAT = FDN • FNAL = FDN <p>The DN can be up to 4 digits without Directory Number Expansion (DNXP) package 150, 7 digits with DNXP package 150, or 13 digits.</p> <p>Call Forward by Call Type Allowed and Forward No Answer must be defined as the Class of Service (CLS = CFTA and FNA). LDNs, DLDNs, and Prime DNs will be accepted as valid input.</p>

LD 11

Prompt	Response	Comment
EHT	x...x	<p>External Hunt DN</p> <p>EHT is the DN hunted for by external busy calls when:</p> <ul style="list-style-type: none">• Class of Service is Call Forward by Call Type Allowed (CFTA) and Hunting Allowed (HTA)• the LD 15 prompt FNAD, FNAT, or FNAL = HNT <p>This DN can be up to 4 digits without Directory Number Expansion (DNXP) package 150, 7 digits with DNXP package 150, or 13 digits.</p> <p>LDNs, DLDNs, and Prime DNs are accepted as valid input. To remove EFD or EHT DNs, change CFTA Class of Service to CFTD. Prompted when CFTA is defined.</p>
	000	<p>Short Hunt for external calls</p>
FCAR	(NO) YES	<p>Forced Charge Account Restricted</p> <p>Must use Forced Charge Account</p> <p>Restricted from using Forced Charge Account</p> <p>Prompted if FCAF = YES in LD 15 and CLS = TLD, CUN or CTD.</p>
FDN	x...x	<p>Flexible CFNA DN</p> <p>FDN is used for internal calls, if CLS is CFTA and FNA. FDN is used for all calls if CLS is CFTD and FNA.</p> <p>FDN can be up to 4 digits without Directory Number Expansion (DNXP) package 150, 7 digits with DNXP package 150, or 13 digits.</p> <p>A Group Hunt pilot DN can be entered. Precede with X to delete.</p> <p>FDN requires CLS = MWA or FNA. FDN is only used if one or more of the following customer options are defined in LD 15:</p> <ul style="list-style-type: none">• FNAD = FDN• FNAT = FDN• FNAL = FDN
FSVC	(0)-9	<p>Forced Out-of-Service Off-Hook Alarm Security DN index.</p> <p>When Forced Out-of-Service condition occurs on a digital telephone with Alarm Security Allowed (ASCA) Class of Service, the telephone is intercepted to a predefined DN.</p> <p>Enter the index number (0)-9 of the DN defined by LD 15 prompts ODN 0-9. ODN is the acronym for Change Off-Hook Alarm Security Directory Number options (OHAS DN).</p>
HDLC	(NO) YES	<p>High Level Data Link Control</p>

Prompt	Response	Comment
		Prompted if V25 = YES.
HOT	(OFF) ON	Hotline Hotline is inactive for data port. Enables Hotline for data port. If HOT = ON, Auto Baud is forced OFF for the Data Access Card.
HUNT	x...x	Hunt DN of next station in hunt chain This Hunt DN can be up to 4 digits without Directory Number Expansion (DNXP) package 150, or 7 digits with Directory Number Expansion (DNXP) package 150, or 13 digits. Precede with X to delete.
	000	Short Hunting A Group Hunt pilot DN can be entered. A Control directory number (CDN) can be defined as a Hunt DN for both physical and phantom 500/2500 sets. When a CDN is configured in this way, a call which comes to a busy DN can be Hunting or Call Forward Busy to a CDN. With Call Forward and Hunt by Call Type, this is the Hunt DN for : <ul style="list-style-type: none"> • internal calls if CLS = CFTA, or • for all busy calls if CLS = CFTD
IAPG	0- 9 (0)-15	Meridian Link Unsolicited Status Message (USM) group IAPG assigns AST DNs to a status message group defined in LD 15. These groups determine which status messages are sent for an AST set. The default Group 0 sends no messages, while Group 1 sends all messages.
INT	ON (OFF)	Meridian 1/SL-100 Interworking Enable Meridian 1 and SL-100 interworking Do not enable Meridian 1 and SL-100 interworking

LD 11

Prompt	Response	Comment
ITEM	aaaa yy	Respond with the desired program mnemonic (aaaa) and its new value (yyy). ITEM is reprompted until only a carriage return <cr> is entered. For example: REQ CHG TYPE SL1 TN III ss cc uu ECHG YES ITEM KEY 07 ADL KEY <cr> - KEY is prompted until <cr> is entered ITEM <cr> REQ
	<cr>	Return to REQ
ITNA	(NO)	Idle TN for the Third Party Application. Do not identify an Associated Set (AST) to be used only by Third Party Application
	YES	Identify an Associated Set (AST) to be used only by Third Party Application
KBD	(ON) OFF	Enable Keyboard Dialing for data port Enables Hayes mode
KEEP_MSGS	(NO) YES	Preserve Meridian Mail Messages and current password

Prompt	Response	Comment
KEY	xx aaa yyyy (ccc <i>or</i> D)	<p>Telephone function key assignments</p> <p>The following key assignments determine calling options and features available to a telephone. Note that KEY is prompted until just a carriage return <cr> is entered.</p> <p>Where:</p> <ul style="list-style-type: none"> • xx = key number • aaa = key name or function • yyyy = additional information required for the key • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character "D". When the character "D" is entered, the system searches the DN keys from key 0 up to find a DN key a CLID entry. The CLID associated with the found DN key will then be used. <p>Note: The position of the (ccc or D) field varies depending on the key name or function.</p> <p>You may enter a CLID entry if aaa = ACD key, HOT d, HOT L, MCN, MCR, PVN, PVR, SCN or SCR. Type xx NUL to remove a key function or feature.</p> <p>Some data ports require specific key assignments. Refer to the <i>Meridian Data Services</i> NTPs for information regarding these requirements.</p> <p>Key number limits that can be assigned are as follows:</p> <ul style="list-style-type: none"> • 0-5 for M2006 • 0-7 for M2008 • 0-59 for M2616, varies with number of add-on modules • 0-69 for SL1, varies with number of key/lamp strips <p>If either the Meridian Programmable Data Adapter (MPDA) or the Display Module is equipped, then key 7 on sets M2008, M2216, and M2616 sets and key 5 on set M2006 will become Program keys which cannot be used as function keys.</p> <p>Any printout of the TN block will not show key 7 because it is a local function key.</p>

LD 11

Prompt	Response	Comment
		<p>On the M2616, if CLS = HFA, key 15 on the voice TN defaults to the Handsfree key. No other feature assignment is accepted.</p> <p>Primary and secondary data DNs must be unique.</p> <p>A station SCR, SCN, MCR, or MCN DN must be removed as a member from all Group Hunt lists before the DN can be modified.</p>
xx AAG	ACD Answer Agent key	Must have CLS = SPV.
xx AAK	Automatic Answerback key	<p>AAA CLS and AAK key cannot be assigned to the same telephone. Only one type of Automatic Answerback is allowed. M2616 telephone must have CLS = HFA.</p>
xx ACD yyyy (ccc or D) zzz	Automatic Call Distribution key	<p>Where:</p> <ul style="list-style-type: none">• xx = key number (<i>must be key 0</i>)• yyyy = ACD DN or Message Center DN• ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1.• D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used.• zzzz = agent's position ID <p>yyyy and zzzz can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p>
xx ACNT	Activity Code entry key	<p>This key must have an associated lamp and applies to ACD-D and ACD-MAX only. ADS data block must be configured in LD 23.</p>

Prompt	Response	Comment
xx ADL yy z...z		Autodial key Where: <ul style="list-style-type: none"> • xx = key number • yy = maximum length of the ADL DN. valid entries are: 4, 8, 12, (16), 20, 24, 28, 31. Note that other values are rounded up to the next valid number. • z...z = actual Autodial DN (this entry is optional)
xx AGT yyyy		ACD Agent status key Where: yyyy = agent's ID. The agent ID number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Must have CLS = SPV.
xx AMG		ACD Answer Emergency call key Must have CLS = SPV. The Answer Emergency Key can be defined as a secondary supervisor's Position ID. The secondary supervisor's Position ID can be NULL by default. The Position ID of the ACD set cannot be changed once the ACD set is acquired as a Human Agent.
xx AO3		Three-Party Conference key
xx AO6		Six-Party Conference key
xx ARC		Attendant Recall key
xx ASP		ACD Supervisor call key(must have CLS = AGN)
xx AWC		ACD Calls Waiting key Must have CLS = AGN and Supervisor Position ID or SPID must be configured.
xx BFS TN		Busy Forward Status key Where: TN = Terminal Number to be screened. A Key cannot be assigned to a BRI set.

LD 11

Prompt	Response	Comment
xx CA yy z...z		Combined No Hold Conference and Autodial key Where: <ul style="list-style-type: none">• yy = maximum length of the CA DN. Valid entries are: 4, 8, 12, (16), 20, 24, 28, 31.• z...z = actual Autodial DN (this entry is optional)
xx CAS		Centralized Attendant Service key
xx CFW yy z...z		Call Forward key Where: yy = maximum length of the CFW DN Valid entries for M2317 or M3000 sets are any integer in the range of (4)-23. For all other BCS type sets, you may enter any integer in the range of (4)-31. Where: z...z = Call Forward DN or range of DN's where calls are to be forwarded (the target DN). A Group Hunt DN can be entered. If CLS = CFXD, the Call Forward number must be an internal DN.
xx CH D yy z...z		Combined No Hold Conference and Direct Hotline key Where: <ul style="list-style-type: none">• yy = number of digits in target DN (1-31)• z...z = target DN
xx CH L yyy		Combined No Hold Conference and Hotline List key Where: yyy = 0-999 for Hotline list entry as defined in LD 18.
xx CHG		Charge account key
xx COS		Controlled Class of Service key
xx CPN		Calling Party Number key
xx CS yyyy		Combined No Hold Conference and Speed Call key Where: yyyy = Speed Call list number from 0-8190. Not available on M3000 telephones.

Prompt	Response	Comment
xx CWT		<p>Call Waiting key</p> <p>Only one CWT Key is allowed. Should have CLS = HTD since Hunting takes precedence.</p>
xx DAG		<p>Display ACD Agents key</p> <p>This key displays the status of ACD agents appearing on the supervisor's telephone. Must have CLS = SPV and ADD or DDS.</p>
xx DIG yyyy zz R/V		<p>Dial Intercom Group key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = group number, from 0-2045. • zz = member number from 0-99. The zz value cannot be equal to or share the first digit of a 2 digit number with the SPRE code. For example, if SPRE = 1, zz cannot be 1, 10, 11...19. • R = Ring option • V = Voice option <p>Must have maximum number of Dial Intercom Groups DGRP defined in LD 15.</p> <p>If any member in a group has a two-digit member number, then all members have a two-digit number. The system adds leading zeros to other entries.</p> <p>Prompted with Dial Intercom (DI) package 21.</p>
xx DPU		<p>Directed Call Pickup key</p> <p>Key is optional, dial access code can be used if CLS = DPUA. Not available on M3000 telephones. This prompt appears with Directed Call Pickup (DCP) package 115.</p>
xx DRC yyy		<p>DID Route Control key</p> <p>Where: yyy = route number = 0-511</p>
xx DSP		<p>Display key</p> <p>This key must have an associated key/lamp pair.</p>

LD 11

Prompt	Response	Comment
xx DWC yyyy		<p>ACD Supervisor Display Waiting Calls key</p> <p>Where: yyyy = ACD DN. Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p> <p>A maximum of eight DWC keys can be assigned per queue on eight supervisors. Agent sets can only have 1 SWC key for their own queue.</p> <p>ACD agent telephones can support the display waiting calls key. Must have CLS = SPV and ADD or DDS.</p> <p>The key can be used with supervisors and agents.</p>
xx EMR		<p>ACD Emergency key(must have CLS = AGN)</p>
xx ENI yyyy		<p>ACD Enable Interflow key</p> <p>Where: yyyy = DN. The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p> <p>Only one is allowed per ACD DN. Must have CLS = SPV.</p>
xx EOVR		<p>Enhanced Override key</p>
xx GPU		<p>Group Call Pickup key</p> <p>The key is optional because a dial access code can be used if CLS = GPU. Not available on M3000 telephones. Allowed with Directed Call Pickup (DCP) package 115.</p>
xx GRC yy		<p>Group Call key</p> <p>Where: yy = 0-63 for Group number as defined in LD 18</p>

Prompt	Response	Comment
nn HOT D dd num DN m (ccc or D)		Two-way Hotline key
		Where:
		<ul style="list-style-type: none"> • dd = number of digits dialed • num = target_number (terminating DN is a maximum of 31 digits) • DN = two-way hotline DN • m = one of the following Terminating Modes: H = Hotline (default), N = Non-ringing, R = Ringing, or V = Voice • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used.
xx HOT D nn x...x		Direct entry for One-way Enhanced Hotline key
		Where:
		<ul style="list-style-type: none"> • nn = number of digits dialed • x...x = Hotline terminating DN up to a 31 digit maximum
xx HOT D nn x...x xxxx (ccc or D)		Direct entry for Two-way Enhanced Hotline key
		Where:
		<ul style="list-style-type: none"> • nn = number of digits in Target DN • x...x = Terminating DN up to a 31 digit maximum • xxxx = optional two way Hotline DN. The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used.

LD 11

Prompt	Response	Comment
nn HOT I dd num m	Intercom key	Where: <ul style="list-style-type: none">• dd = number of digits dialed• num = target_number (terminating DN max 31 digits)• m = one of the following Terminating Modes: V = Voice (default), N = Non-ringing, or R = Ringing
xx HOT L bbb	One-way Hotline key	Where: bbb = Hotline list entry = 0-999. The Hotline list entry is defined in LD 18. Note that the Hotline list NCOS overrides the set NCOS.
xx HOT L bbb xxxx (ccc or D)	Two-way list entry for Enhanced Hotline key	Where: <ul style="list-style-type: none">• bbb = List entry = 0-999• xxxx = Two-way Hotline DN. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.• ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1.• D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. Hotline list entry is defined in LD 18. Note that the Hotline list NCOS overrides set NCOS.
xx ICF nn xxxx	Internal Call Forward key	Where: nn = Forward DN length. Valid entries are any integer in the range of (4)-31. Where: xxxx = Forward DN (this entry is optional) An ICF key can be configured if Call Forward is enabled.
xx MCK	Message Cancellation Key	This key should only be programmed on Message Center sets.

Prompt	Response	Comment
xx MCN yyyy	(ccc or D)	<p>Multiple Call Non-Ringing key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = DN • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. <p>The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. The DN cannot appear simultaneously on a PBX set DN or as an SCR DN or SCN DN.</p> <p>Once the MCN key has been defined, MARP is prompted.</p>
xx MCR yyyy	ccc,D	<p>Multiple Call Ringing key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = DN • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D and may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. <p>The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. The DN cannot appear simultaneously on a PBX set DN or as a SCR Single Call or SCN DN.</p> <p>Once the MCR key has been defined MARP is prompted.</p>
xx MIK		<p>Message Indication Key</p> <p>This key should only be programmed on Message Center sets.</p>
xx MMM		<p>Voice/Data display key</p> <p>Only key numbers 0-7 can be assigned for the M2008. M2x16 varies with additional add-on modules. Maximum key number is 59.</p> <p>The Data Port requires specific key assignments. An ISDL line card, vintage C or higher, is required for M2006, M2008, M2216 and M2616 telephones.</p>

LD 11

Prompt	Response	Comment
xx MRK	Message Registration Key	Requires PPM/Message Registration (MR) package 101 and CLS = ADD or DDS.
xx MSB	Make Set Busy key	
xx MWK yyyy	Message Waiting Key	Where: yyyy = DN. The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. With the Network Message Service feature equipped, the NMS-DN can be up to 13 digits.
xx NHC	No Hold Conference key	
xx NRD	Not Ready key	AGN or SPV Class of Service must be assigned.
xx NSVC yyyy	Night Service key(must have CLS = SPV)	Where: yyyy = ACD DN associated with that Night Service. The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
xx NUL	Removes function or feature from key	
xx OBV	Observe ACD agent key(must have CLS = SPV)	
xx OVB	Overflow Position Busy key	
xx OVR	Override key	
xx PRK	Call Park key	The Transfer (TRN), or Six-Party Conference (A06) key plus a Dial Access code can be used instead of the Park key.
xx PRS	Privacy Release key	

Prompt	Response	Comment
xx PVN yyyy	(ccc or D)	<p>Private Line Non-Ringing key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = DN • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. <p>The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Must have Private Line Directory Number (PRDN) defined in LD 14.</p>
xx PVR yyyy	(ccc or D)	<p>Private Line Ringing key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = DN • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. <p>The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Must have Private Line Directory Number (PRDN) defined in LD 14.</p>
xx RAG		ACD Ring Agent key(must have CLS =SPV)
xx RDL yy		<p>Redial stored number key</p> <p>Where: yy = number of digits = 4, 8, 12, (16), 20, 23. Numbers between 5 and 22 are rounded up to the next valid number.</p>
xx RGA		<p>Ring Again key</p> <p>RANA may be activated if OPT = RNA in LD 15. When OPT = RND in LD 15, all sets with the RGA key will only be able to activate Ring Again Busy.</p>
xx RLS		<p>Release key</p> <p>Requires CLS = LVXA. Key/lamp pair is not required.</p>

LD 11

Prompt	Response	Comment
xx RMK		Room Status Key
xx RNP yyyy		Ringling Number Pickup key Where: yyyy = Ringling Number Pickup group number is optional If the group number is not entered, the key will pick up the group number assigned to the station. If the group number is entered, the key will pick up calls in the specified group yyyy.
xx SCC yyyy		Speed Call Controller key Where: yyyy = SCL list number = 0-8190. SCL must be defined in LD 18.
xx SCN yyyy (ccc or D)		Single Call Non-Ringing key Where: <ul style="list-style-type: none">• yyyy = DN• ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1.• D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Once the SCN key has been defined, MARP is prompted.

Prompt	Response	Comment
xx SCR yyyy	(ccc or D)	<p>Single Call Ringing key</p> <p>Where:</p> <ul style="list-style-type: none"> • yyyy = DN • ccc = CLID entry of (0)-N, where N = the value entered at the SIZE prompt in LD 15 minus 1. • D = the character D may be entered to search a CLID entry from key 0 and up to find a DN key. The CLID associated with the found DN key will then be used. <p>The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Use a single appearance DN to terminate VCC Voice Call or SIG Signaling calls.</p> <p>Once the SCR key has been defined, MARP is prompted.</p>
xx SCU yyyy		<p>Speed Call User key</p> <p>Where: yyyy = SCL list number = 0-8190. SCL must be defined in LD 18.</p>
xx SIG yyyy		<p>Signal key</p> <p>Where: yyyy = Single appearance DN.</p> <p>The DN can be up to 4 digits, up to 7 digits with DNXP package 150. Key/lamp is not required.</p>
xx SSC yyyy		<p>System Speed Call controller key</p> <p>Where: yyyy = SSC list number = 0-4095. SSC list must be defined in LD 18.</p>
xx SSU yyyy		<p>System Speed Call User key</p> <p>Where: yyyy = SSC list number = 0-4095. SSC list must be defined in LD 18.</p>
xx TAD		<p>Time and Date key</p> <p>For SL-1 sets only, must have CLS = ADD or DDS, cannot be key 0.</p>
xx THF		<p>Centrex Trunk Switch Hook Flash key</p>

LD 11

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Prompt	Response	Comment
	xx TRC	Malicious Call Trace key Key/lamp not required. MCT is applied on a TN basis. This key can be configured on ACD telephones. Allowed when CLS = MCTA.
	xx TRN	Call Transfer key
	xx USR	User Selectable Call Redirection key
	xx UST	User Status key(must have UST = YES in LD15 and UST = YES in LD 23)
	xx VCC yyyy	Voice Call key Where: yyyy = Single appearance DN. Not available on M3000 telephones.
	xx WUK	Guest entry of automatic Wakeup key (Key/lamp pair is required)
KLS	1-7	Number of key/lamp strips, including add-on key/lamp modules. Prompted if TYPE = SL-1
LDN	(NO)	Departmental Listed Directory Number (LDN) is not activated for this set
	0-5	Departmental LDN as defined in LD 15
LHK	(0)-7 (0)-59 (0)	Last Hunt Key number limit For M2008 For M2616, varies with number of add-on modules No Last Hunt Key or remove Last Hunt Key (used for Internal/External Short Hunt)
LNRS	4-(16)-31	Last Number Redial Size Enter the maximum number of digits that can be stored. Valid entries are 4, 8, 12, (16), 24, 28, or 31. Invalid entries are rounded up to the next valid entry.
LPK	(0)-5 (0)-7 (0)-59	Line Preference Key limit (last key scanned for Automatic Line Preference) For M2006 For M2008 For M2616, varies with number of add-on modules
LTN	1-253 0-15	Logical TN and AUX link number

Prompt	Response	Comment
		This prompt appears when CLS = IMA and the valid APL link is defined in LD15.
MARP	(NO) YES	Multiple Appearance Redirection Prime Use TN as the Multiple Appearance DN Redirection Prime. The MARP prompt, or MARP information, appears following the DN KEY designation, and is associated with those DN assignments.
MAUT	(NO) YES	Modify Authorization Codes for this telephone This prompt appears with Station Specific Authorization Codes (SSAU)package 229 and CLS = AUTR.
MIN	x...x	Mobile Identification Number for a portable. Length is 10 BCD Digits.
MLWU_LANG		Language choice for Automatic Wakeup (AWU) calls. This entry defines the language presented for the Automatic Wakeup Recorded Announcement (RAN), for language 0 through 5 as follows:
	(0)	See RAN1/RAN2 in LD 15
	1	See LA11/LA12 in LD 15
	2	See LA21/LA22 in LD 15
	3	See LA31/LA32 in LD 15
	4	See LA41/LA42 in LD 15
	5	See LA51/LA52 in LD 15
	X	Remove entry
MOD	(NO) YES	Mode Network is required for Meridian Programmable Data Adapter Modem synchronizes to clock in external device, such as QMT21
MPHI	(NO) YES	Meridian Communications Unit used as MPH interface Prompted if TYPE = MCU.
MPR	0-511	Modem Pool Route number

LD 11

Prompt	Response	Comment
NAME	aaaa,bbbb	Calling Party Name Display name First name comma Last name. For example, John Doe is entered as John,Doe. The first single comma is treated as the delimiter. Up to 27 characters (including the comma) may be input. The last occurrence of the first comma group serves as the name delimiter and is translated into a space between the first and last name.
	aaaa	When the delimiter is omitted, the input is stored as a first name.
	aaaa,	When the delimiter follows the input, the input is stored as the first name.
	,bbbb	When the delimiter precedes the input, the input is stored as a last name.
NCOS	(0)-99	Network Class of Service group
OHID	(0)-9	Off-Hook Alarm Security DN index for off-hook or interdigit timeout. When a dial tone or interdigit timeout occurs on a set with Alarm Security Allowed (ASCA) Class of Service, the set is intercepted to a predefined DN. Enter the index number (0)-9 of the DN defined by LD 15 prompts ODNx.
OPE	(NO) YES	Change data port Operating Parameters
PAR	(SPAC) EVEN ODD MARK	Space Parity Even Parity Odd Parity Mark Parity
PBDO	(OFF) ON	Port Busy when DTR off Disabled Key 7 is automatically assigned as the Make Set Busy (MSB) key Switching to any other mode will force PBDO to OFF. Prompted if TYPE = R232 in operating modes 8 or 12.
PLEV	0-(2)-7	Priority Level, prompted with Priority Override/Forced Camp-On (POVR) package 186. 2 = set can override sets of level 1 and 2, and can be overridden by sets of level 2-7.

Prompt	Response	Comment
POS	xxxx	ACD position ID. Prompted when SFMT = AUTO, TNDN, TN or DN.
PRI	(1)-48 (1)-32	<p>Priority level for Automatic Call Distribution (ACD) agent Valid range for machine types STE, NT, RT, XT, and system Options 21E, 51, 51C, 61, 61C, 71, 81 and 81C. Valid range for all other system options.</p> <p>The agent with the lowest number assigned has the highest priority and is the first ACD agent to receive calls. (Where Priority 1 has the highest priority level).</p> <p>PRI is prompted with Automatic Call Distribution, Priority Agent (PAGT) package 116 and CLS = AGN or SPV.</p>
PRM	(ON) OFF	<p>Prompt for terminal or host mode Terminal or Keyboard dial mode, prompts are output by data unit Host mode prompts are not output by data unit</p>
PSDS	(NO) YES	<p>Public Switched Data Service option With PSDS = YES, transmission will be synchronous and the baud will be 56K or 64K. 56K is the default.</p>
PSEL	(DMDM)	<p>Protocol Selection, DM-DM or T-link DMDM is used by Meridian 1 data devices such as ASIM, AIM, ADM, SADM, Asynchronous Data Option or ADO, and MPDA. MCA can use both protocols.</p>
	TLNK	<p>TLNK protocol is used by SL-100 and DMS data devices This prompt appears if DTAO = MCA, or TYPE = MCU</p>
RCO	(0)-2	<p>Ringing cycle option for Call Forward No Answer This prompt appears when CLS = FNA or MWA (or both)</p>
REQ:		<p>Request A colon following a prompt indicates enhanced processing. Enhanced Processing allows a user to either view a list of possible responses or input an abbreviated response.</p>
	?	To get a list of possible responses
	CHG	Change existing data block
	CPY 1-32	Copy or create 1 to 32 new station data block(s) automatically from the specified station data block.

LD 11

Prompt	Response	Comment
	END	Exit overlay program
	MOV	Move data block from one TN to another.
	MOV PAIR	Move voice TN and data TN data blocks on Digital Line Card
	NEW	Add new data block to the system
	OUT	Remove data block
		Before removing an ACD agent telephone, first remove the associated AGT key on the supervisor's telephone. Select OUT and then NEW when switching resources between virtual and actual ACD DNs, to avoid unwanted information on ACD-D reports.
		Note: This load is linked with LDs 11, 20 and 32. You may enter one of the responses listed below to the REQ: prompt. Then go to that Load and follow its Prompts and Responses sequence. See "Overlay programs 10, 11, 20 and 32 are linked, thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another." on page 85 for further information.
		LD 32: CDSP CMIN CONV CPWD DISC DISI DISL DISN DISS DISU DSCT DSPS DSXP ENCT ENLC ENLG ENLL ENLN ENLS ENLU ENPS ENXP IDC IDCS IDU LBSY LDIS LIDL LMNT PBXT SDLC STAT SUPL TRK XNTT XPCT XPEC
		LD 20: LTN LUC LUDU LUU LUVU PRT
		LD 10: CHG CPY MOV NEW OUT
RNPG	(0)-4095	Ringling Number Pickup Group Valid range To remove a telephone from a group, enter 0 in response to the RNPG prompt.
RTS	(ON) OFF	Request To Send applies only to asynchronous mode.
SCI	(0)-7	Station Category Indication priority level The station category number 1 to 7 must be defined as attendant console Incoming Call Indicator. LD 15 prompt ICI = CA1-CA7.
SCPW	xxxx	Station Control Password

Prompt	Response	Comment
		Must equal Station Control Password Length (SCPL) as defined in LD 15. Not prompted if SCPL = 0. Precede with X to delete.
SECOND_DN		Second DN sharing the Voice Mailbox
	x...x	Second Directory Number. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
	X	Deletes the second directory number
SFMT		Select one of the following formats for the copy command. The DN may be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
	TNDN	Manual selection of TNs and DN or ACD position IDs for ACD telephones. The TN and DN or POS for ACD set prompts repeat n times as specified under the CPY n command. TN c u TN of new set DN xxxx DN of new set POS xxxx ACD position ID of new set
	TN	The new DNs or ACD position IDs for ACD telephones are provided by the system. You are prompted for the starting TN and DN or ACD position ID for ACD telephones and each TN. The TN prompt repeats n times as specified under the CPY n command. TN c u TN of new set DN xxxx DN of new set POS xxxx ACD position ID of new set
	DN	The new TNs are provided by the system. You are prompted for the starting TN and each DN or ACD position ID for ACD telephones. The DN or POS for ACD sets prompt repeats n times as specified under the CPY n command. TN c u TN of new set DN xxxx DN of new set POS xxxx ACD position ID of new set
	AUTO	The new TNs and DNs or ACD position IDs for ACD telephones are provided by the system. You are prompted for the starting TN and DN or ACD position ID for ACD telephones. TN c u TN of new set DN xxxx DN of new set POS xxxx ACD position ID of new set

LD 11

Prompt	Response	Comment
SGRP	(0)-999	Scheduled Access Restriction group number This prompt appears with Scheduled Access Restrictions (SAR) package 162. Must have group defined in LD 88.
SPID	x...x	Supervisor Position ID DN SPID is prompted for ACD packages B, C, and D when CLS = AGN. SPID can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
SPWD	xxxx	Secure Data Password This prompt appears only if the password is defined in LD 15. If the password is not entered, the security codes will not print when PRT is requested.
SSU	0-4095	System Speed Call List number Precede Speed Call list with X to delete.
TEN	1-511	Tenant number This prompt appears if Multi-tenant is configured for the customer.
TGAR	0-(1)-31	Trunk Group Access Restriction: The default of (1) automatically blocks direct access.
THIRD_DN	x...x	Third DN sharing the Voice Mailbox Third Directory Number. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
	X	Deletes the third directory number
TN	c u	Terminal Number. The TN defines the location of the telephone set. TN appears when REQ = NEW, CHG, MOV, MOV PAIR or OUT. Ranges are: c = 1-30; u = 0-31 Note: Units 0-23 default to CLS = VCE, and units 24-31 default to CLS = DTA.
TOTN	c u	To Terminal Number General TN format This prompt appears when REQ = MOV or MOV PAIR.

Prompt	Response	Comment
TOV		Timeout Value for the Data port, for M2006, M2008, M2216 and M2616 data port only
	(0)	No Timeout
	1	15 minutes
	2	30 minutes
	3	60 minutes
TRAN		Port transmission type for the data port on M2006, M2008, M2216, M2616 telephones
	(ASYN)	Asynchronous data transmission
	SYN	Synchronous data transmission
		Asynchronous data modules cannot be set as synchronous. An MMPO with DTAO, MPDA, or MMPO supports SYN.
TYPE:		Type of data block
		A colon following a prompt indicates Enhanced Processing. Enhanced Processing allows a user to either view a list of possible responses or input an abbreviated response.
		Note: LD 11 is linked with LDs 10, 20 and 32. You may enter any of the response options listed for the TYPE prompt in LDs 10 and 20 or any of the commands listed in LD 32. See “Overlay programs 10, 11, 20 and 32 are linked, thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another.” on page 85 for further information.
	?	To get a list of possible responses
	2006	M2006 Digital telephone. Rel 15 & later; 1 DN per set.
	2008	M2008 Digital telephone.
	2009	M2009 Digital telephone.
	2016	M2009 Digital telephone
	2018	M2018 Digital telephone.
	2112	M2112 Digital telephone.
	2216	M2216 Digital ACD telephone.
	2616	M2616 Digital telephone.

LD 11

Prompt	Response	Comment
	CARDMLT	Multi-line Telephone Line Card.
	MCU	Meridian Communications Unit.
	OOSMLT	Out of Service Multi-Line Terminal Unit. Entering OOSMLT allows the administrator to mark any unit, regardless of card density or type, "Out of Service".
V25	(NO) YES	V.25 bis option, synchronous mode only.
VLL	(OFF) ON	Virtual Leased Line
VMB	NEW CHG OUT	Voice Mailbox Add Voice Mailbox Change Voice Mailbox Remove Voice Mailbox This prompt appears with Voice Mailbox Administration (VMBA) package 246.
VMB_COS	0-127	Voice Mailbox Class of Service Valid range
WIRE	(OFF) ON	Wire test. Prompted if TYPE = R232 or R422. Wire test disabled System automatically tests wiring/cabbling when DAC installed.
XLST	(0)-254	Pretranslation group associated with this station. Valid range
XPLN	xx	Expected name length

LD 12—Attendant Consoles

This program allows data blocks for attendant consoles to be created or modified.

When the overlay is loaded the available system memory and disk records are output in a header as follows:

```
ATT000  
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx  
DISK RECS AVAIL: xxx
```

Incremental Software Management (ISM) also provides a header to indicate system configuration limits. For LD 12, the header appears as follows:

```
TNS AVAIL: xxxxx USED: xxxxx TOT: xxxxx
```

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, MOV)
TYPE	a...a	Type of data block (a...a = 2250 or PWR)
TN	c u	Terminal Number (c u ranges are defined on page 143)
SETN	c u	Second Terminal Number (c u ranges are defined on page 143)
CDEN	aa	Card Density of Second Terminal Number (aa = SD or DD)
TOTN	c u	To Terminal Number (c u ranges are defined on page 143)
CUST	(0)	Customer number
ANUM	1-63	Attendant Number
SSU	yyyy	System Speed Call User list number
ICDR	(ICDD) ICDA	Internal Call Detail Recording (Denied) Allowed
- ABAN	(ABDD) ABDA	Abandoned call record and time to answer (Denied) Allowed
CPND	(CNDD) CNDA	Call Party Name Display feature (Denied) Allowed
- DNDI	(DNDD) DNDA	Dialed Name Display (Denied) Allowed
LANG	(00)-15	Language to download to M2250 on Sysload
EBLF	(BLFD) BLFA	Enhanced Busy Lamp Field (Denied) Allowed
SGRP	(0)-999	Scheduled Access Restriction Group number
AADN	xxxx	Attendant Alternate Answering DN
KEY	xx aaa yyyy	Key (KEY responses begin on page 140)

Alphabetical list of prompts

Prompt	Response	Comment
AADN	x...x	Attendant Alternate Answering DN This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. The DN must be a valid station DN or ACD DN. This prompt appears with Attendant Alternative Answering (AAA) package 174.
ABAN	(ABDD) ABDA	Abandoned call record and time to answer Denied Abandoned call record and time to answer Allowed ABDA generates a B-Record in CDR reports. Refer to the <i>Call Detail Reporting</i> NTP for more information. ABAN appears with New Format Call Detail Recording (FCDR) package 234.
ANUM	1-63	Attendant Number
CPND	(CNDD) CNDA	Call Party Name Display feature Denied Call Party Name Display feature Allowed Prompted when TYPE = 1250/2250 and has Calling Party Name Display (CPND) package 95 and OPT = IDP in LD 15.
CUST	(0)	Customer number
DNDI	(DNDD) DNDA	Dialed Name Display Denied Dialed Name Display Allowed Prompted if TYPE is 1250/2250 and CPND = CNDA.
EBLF	(BLFD) BLFA	Enhanced Busy Lamp Field Denied Enhanced Busy Lamp Field Allowed Prompted when TYPE = 1250/2250 and OPT = IBL or ILF in LD 15.
ICDR	(ICDD) ICDA	Internal Call Detail Recording Denied Internal Call Detail Recording Allowed ICDA generates an L-Record in CDR reports. Refer to the <i>Call Detail Reporting</i> NTP for more information. ICDR is prompted with Internal Call Detail Recording (ICDR) package 108.

LD 12

Prompt	Response	Comment
KEY	xx aaa yyyy	Console Key. Where: <ul style="list-style-type: none">• xx = key number 0-9 for QCW consoles, 0-19 for M1250 and M2250 consoles• aaa = key name or function• yyyy = additional information required for the key
	xx ADL yy z...z	Autodial key. Where: <ul style="list-style-type: none">• xx = key number• yy = maximum length of the ADL DN. The maximum length is 31 digits.• z...z = actual Autodial DN is optional
	xx BKI	Break-In key
	00 BVR	Allow Busy Verify on key 0.
	xx CHG	Charge account key
	xx COS	Controlled Class of Service key
	xx CPN	Calling Party Number key
	xx DCW	Display Call Waiting key
	xx DDL	Do Not Disturb Individual key
	xx DDT	Display Date key
	xx DPD	Display Destination key
	xx DPS	Display Source key
	xx DRC	DID Route Control key
	xx DTM	Display Time key
	xx EES	End-to-End Signaling key (cannot be key 0 or 1)
	xx GND yy	Group Do Not Disturb key Where: yy = group number = 0-99

Prompt	Response	Comment
xx MCK		Message Cancellation Key. Turns off indication at a telephone.
xx MDT		Maintain Change/Display Date key
xx MIK		Message Indication Key Turns on indication at a telephone.
xx MTM		Maintain Change/Display Time key
xx NAS		Network Attendant Service key
xx NUL		Remove feature or function from key
xx PAG yyyy		Paging key Where: yyyy = Route Access Code. This number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. The route must be defined in LD 16.
xx PRG		Attendant Administration Program key
xx PRK		Call Park key
xx RDL		Redial stored number
xx RFW		Attendant Remote Call Forward key
xx RTC		Routing Controls key This key will activate the NCOS map defined in LD 86. Must have Network Class of Service (NCOS) package 32.
xx SACP		Semi-Automatic Camp-On key Must have Semi-Automatic Camp-On (SACP) package 181.
xx SCC yyyy		Speed Call Controller key Where: yyyy = list number = 0-8190.
xx SECL		Series Call key Must have Series Call (SECL) package 191
xx SSC yyyy		

LD 12

Prompt	Response	Comment
		System Speed Call controller key Where: yyyy = list number = 0-4095.
	xxTHF	Trunk Switch Hook Flash key
	xx TRC	Malicious Call Trace key Must have Malicious Call Trace (MCT) package 107.
LANG	(00)-15	Language to download to M2250 on Sysload Language choices: <ul style="list-style-type: none">• (00) - English• 01 - French• 02 - Spanish• 03 - German• 04 - Italian• 05 - Norwegian• 06 - Gaelic• 07 - Turkish• 08 - Katakana• 09 - People's Republic of China• 10 - Taiwan• 11 - Korean• 12 - Polish• 13 - Czech/Slovak• 14 - Hungarian• 15 - No language assigned
REQ	CHG END MOV NEW	Request Change existing data Exit overlay program Move from one TN to another. CAUTION: There is a possibility of data corruption when consoles are moved using this response. Add new data to the system
SETN	c u	Second Terminal Number General TN format

SETN must have same card as the primary TN .

Prompt	Response	Comment
SGRP	(0)-999	Scheduled Access Restriction (SAR) Group number Prompted with SAR package 162. Must have group defined in LD 88.
SSU	yyyy	System Speed Call User list number Where: yyyy = 0-4095.
TN	c u	Terminal Number. The TN defines the location of the console. The range values are as follows: c = 1-30 and u = 0-23.
TOTN	c u	To Terminal Number General TN format For Meridian: c u = card, unit TOTN is prompted when REQ = MOV. TOTN cannot be a phantom loop.
TYPE		Type of data block
	2250	M2250 Console data block M2250 requires an ISDL Card or a Digital Line Card.
	PWR	Power data block TN used for power or Attendant Supervisory Module (ASM). Third and fourth TNs used for power, or third TN for ASM and fourth and fifth TNs used for power.

LD 12

Page 144 of 860 Alphabetical list of prompts

LD 13—Digitone Receivers, Tone Detectors, Multifrequency Senders and Receivers

This program enables the administrator to create or modify data blocks for the following:

- Digitone Receivers (DTR)
- Multifrequency Receivers (MFR)

These cards are used by 2500-type telephones and trunks that send DTMF tones to the system, and by MF trunks to send MF tones to the system. All 2500 sets and some trunks must have Class of Service (CLS) defined as Digitone (DTN).

When the overlay is loaded the available system memory and disk records are output in a header as follows:

```
DTR000
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx
DISK RECS AVAIL: xxx
```

Incremental Software Management (ISM) also provides a header to indicate system configuration limits. For LD 13, the header appears as follows:

```
TNS AVAIL: xxxxxx USED: xxxxxx TOT: xxxxxx
```

LD 13

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, MOV, NEW, or OUT)
TYPE	a...a	Type of data block (a...a = DTR)
TN	c u	Terminal Number (c u ranges are defined on page 147)
TOTN	c u	To Terminal Number (c u ranges are defined on page 147)

Alphabetical list of prompts

Prompt	Response	Comment
REQ		Request
	CHG	Change existing data
	END	Exit overlay program
	MOV	Move from one TN to another
		CAUTION: There is a possibility of data corruption when Digitone Receivers are moved using this response.
	NEW	Add new data to the system
	OUT	Remove information from data block
TN	c u	Terminal Number, where c=0, u=0-15
TOTN	c u	To Terminal Number
TYPE		Type of data block
	DTR	Digitone Receiver data block

LD 13

Page 148 of 860 Alphabetical list of prompts

LD 14—Trunk Data Block

This program allows data blocks for trunks to be created or modified.

When the Overlay is loaded the available system memory and disk records are output in a header as follows:

```
TRK000
MEM AVAIL: (U/P): xxxxxx  USED: xxxxxx  TOT: xxxxxxxx
DISK RECS AVAIL: xxx
TNS AVAIL: (U/P): xxxxxx  USED: xxxxxx  TOT: xxxxxxxx
```

Incremental Software Management (ISM) also provides a header to indicate system configuration limits. For LD 14, the header appears as follows:

```
TNS AVAIL: xxxxxx  USED: xxxxxx  TOT: xxxxxx
```

After making any changes to the trunk data block, IPE trunk cards must be downloaded with **ENLC c** command in LD 32.

Inputting one asterisk will cause the system to reissue the last prompt, and two asterisks will cause a restart of the Overlay at REQ.

Prompts and responses

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, MOV, LCHG, NEW x, or OUT x)
TYPE	a...a	Type of data block (TYPE responses begin on page 161)
T_TN	l ch	Loop number and channel for tandem PRI connection
- IPRI	l ch	Loop number and channel for incoming PRI channel
- OPRI	l ch	Loop number and channel for outgoing PRI channel
TN	c u	Terminal Number (c u ranges are defined on page 161)
DES	x...x	Designator field for trunk (0-16 character alphanumeric)
CDEN	aa	Card Density (aa = 4D)
XTRK	a...a	Extended Trunk (a...a = EXUT)
FWTM	(NO) YES	Firmware Timing for trunk hook flash
SXS	(NO) YES	Step-by-step CO trunk
TOTN	c u	To Terminal Number
SIGL	aaa	Level 3 Signaling
CUST	0	Customer number
SFEX	(NO) YES	Special digital FEX trunk
NCOS	xx	Network Class of Service group
RTMB	0-127 1-254	Route number, Member number
PRDN	xxxx	Private Line Directory Number
CMF	(NO) YES	Call Modification Features restriction
NGRP	(0)-9	Night Service Group number
NITE	xxxx	Night Service directory number
ATDN	xxxx	Auto Terminate DN
AST	(NO) YES	Associated trunk for CTI Trunk Monitoring and Control.
IAPG	(0) - 15	Event Group for USM message.
MNDN	xxxx	Manual Directory Number
TGAR	0-(1)-31	Trunk Group Access Restriction
SIGL	aaa	Trunk Signaling (SIGL responses begin on page 157)
XDIC	aaa	Outpulsing for DIC trunks (aaa = (MUT) or NOR)
EMTY	aaa	E & M Type (aaa = (TY2), TY1, or BPO)

CPAD	a...a	Carrier Pad out or Carrier Pad in for 4-wire E & M duplex trunks (a...a = (COUT) or CIN)
LDOP	a...a	Loop Dial Outpulsing (a...a = (LOOP) or BOP)
TIMP	x...x	Termination Impedance
BIMP	a...a	Balance Impedance (a...a = 3COM, (600), 900, or 3CM2)
STRI	a...a	Start arrangement Incoming (a...a = DDL, IMM, OWK, PTSD, SACK, RT, or WNK)
STRO	a...a	Start arrangement Outgoing (a...a = DDL, IMM, OWK, PTSD, SACK, RT, or WNK)
SUPN	(NO) YES	Answer and disconnect Supervision required
- STYP	a...a	Supervision Type (a...a = ARF, BAT, BST, BTS, JDID, JCO, LBS, PIP, and PSP)
CLS	a...a	Class of Service (CLS responses begin on page 152)
FCAR	(NO) YES	Forced Charge Account
ADID	xxxx	AIOD four-digit Trunk Identifier
CFLP	0-159	Music Conference Loop

Alphabetical list of prompts

Prompt	Response	Comment														
AST	(NO) YES	Associated trunk for CTI Trunk Monitoring and Control.														
ATDN	x...x	<p>Auto Terminate DN</p> <p>This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. A Group Hunt pilot DN can be entered.</p> <p>If a DNIS route is defined, then the response can only be an ACD DN. If no DN is assigned, the NITE number of the trunk will be used.</p> <p>Must have AUTO = YES in LD 16.</p>														
BIMP	3COM (600) 900 3CM2	<p>3-component Complex Impedance</p> <p>Not prompted for RAN which exclusively uses 600</p> <p>Not prompted for XEM trunks</p> <p>For XUT trunks, the Termination Impedance (TIMP) must be compatible with the Balance Impedance (BIMP). See prompt TIMP for allowed combinations of BIMP/TIMP.</p> <p>When using the Enhanced Universal Trunk card , only 600 or 900 ohm terminating impedance is allowed. However, more Terminating and Balance Impedance (BIMP) combinations are available.</p> <p>The Terminating and Balance Impedance options are listed below.</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th><u>TIMP</u></th> <th><u>BIMP</u></th> </tr> </thead> <tbody> <tr> <td>600</td> <td>600</td> </tr> <tr> <td>600</td> <td>3COM</td> </tr> <tr> <td>900</td> <td>3COM</td> </tr> <tr> <td>900</td> <td>900</td> </tr> <tr> <td>900</td> <td>3CM2</td> </tr> <tr> <td>600</td> <td>3CM2</td> </tr> </tbody> </table>	<u>TIMP</u>	<u>BIMP</u>	600	600	600	3COM	900	3COM	900	900	900	3CM2	600	3CM2
<u>TIMP</u>	<u>BIMP</u>															
600	600															
600	3COM															
900	3COM															
900	900															
900	3CM2															
600	3CM2															
CFLP	29,30,31,62	Music Conference Loop														
CLS		<p>Class of Service options for trunks. Defaults are shown in parantheses. Enter each non-default option required, followed by a space.</p> <p>(APN) ACD Priority not required</p> <p>APY ACD Priority required</p>														

Prompt	Response	Comment
		Applies only to COT, WAT, DID and FEX trunks.
(DIP)		Dial Pulse
DTN		Digitone
MFR		Multifrequency Receiver for Feature Group D
(ECD)		Echo Canceling Denied
ECA		Echo Canceling Allowed
		ECA indicates Echo suppression equipment is connected to trunk.
(LNT)		Loop Start Non-supervisory Trunk
JDID		Japan DID (JDID not valid for XCOT trunks)
JCO		Japan CO capabilities allowed. JCO should only be accepted with SIGL = LOP. Japan PSTN trunks, (QPC686), not allowed for XUT/XEM.
		Answer NO to prompt SUPN for an unsupervised trunk, instead of using LNT. For supervised trunks answer YES to SUPN then enter the appropriate supervision type at prompt STYP.
(LPR)		Low Priority
HPR		High Priority
		DID and TIE trunks should use HPR and be installed in card slot 1. Superloops do not require any trunks assigned as high priority.
(MID)		Manual Incoming Denied
MIA		Manual Incoming Allowed
		Make-break ratio for dial pulse dialing
(P10)		10 pulses per second
P12		(see explanation below)
P20		20 pulses per second
		All three make-break ratios can be set for XUT, XUTJ and XEM trunks. See prompts P10R, P12R and P20R in LD 97.
		Use P10 for PPS1 and P12 for PPS2 XUT/XEM trunks. P12 applies only to XUT, XUTJ and XEM trunks.
(THFD)		Centrex Switchhook Flash Denied
THFA		Centrex Switchhook Flash Allowed

LD 14

Prompt	Response	Comment
	(TRC)	Transmission Class of Service
	NTC	Transmission Compensated
	VNL	Non-Transmission Compensated
		Via Net Loss
		The default depends on the signaling type (SIGL)
		<ul style="list-style-type: none">• DX2 = VNL• DX4 = VNL• EAM = VNL• EM4 = VNL• GRD = NTC• LDR = NTC• LOP = NTC• OAD = NTC
		VNL Class of Service is allowed with Universal Trunk Tie trunks.
		<ul style="list-style-type: none">• NTC and VNL are equivalent to TIE designation• TRC is equivalent to LINK designation• TIE = PBX-PBX connections via leased line• LINK = PBX-PBX connections on-premises
	(CTD)	Conditionally Toll Denied. CTD is the default for trunk types: TIE, CSA, ATVN, FGD, and IDA
	CUN	Conditionally Unrestricted
	FR1	Fully Restricted class 1
	FR2	Fully Restricted class 2
	FRE	Fully Restricted
	SRE	Semi-Restricted
	TLD	Toll Denied
	UNR	Unrestricted. Only UNR is allowed for CO, FX and WATS trunks. UNR is the default for all trunk types <i>except</i> : TIE, CSA, ATVN, FGD, and IDA
	(WTA)	Warning Tone Allowed
	WTD	Warning Tone Denied
CMF		Call Modification restriction
	(NO)	Call Modifications allowed
	YES	Call Modifications not allowed

Prompt	Response	Comment
CPAD	(COUT) CIN	Carrier Pad Out for 4-wire E & M duplex trunks Carrier Pad In for 4-wire E & M duplex trunks With CPAD = CIN, a 7 dB pad attenuates the trunk input and a 16 dB pad attenuates the trunk output.
CUST	0	Customer number
DES	x...x	Designator field for trunk groups of 0-16 alphanumeric characters (DES is an optional entry)
EMTY	(TY2) TY1 X	E & M Type 4-wire E&M Type 2 4-wire E&M Type 1 Precede with X to delete
FCAR	(NO) YES	Forced Charge Account
FWTM	(NO) YES	Firmware Timing for Trunk Hook Flash is not used by the card Firmware timing for Trunk Hook Flash is used by the card This prompt appears if Collect Call Blocking (CCB) package 290, Malicious Call Trace (MCT) package 107 or Trunk Hook Flash (THF) package 157 are enabled.
IAPG	(0) - 15	Event Group for USM message.
IPRI	l ch	Incoming PRI channel This is the PRI channel through which the Meridian 1 gains access to the PSPDN. Where: <ul style="list-style-type: none"> • Loop = PRI loop number • Channel = PRI channel that holds the incoming nailed up connection (between 1-23)
LDOP	(LOOP) BOP	Loop Dial Outputting Loop outputting for Loop Dial Repeating signalling Battery Outputting for Loop Dial Repeating signalling
MNDN	x...x	Manual Directory Number This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. A Group Hunt pilot DN can be entered. CLS should be MIA.

LD 14

Prompt	Response	Comment
MTN	c u	This Modem Terminal Number can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. A Group Hunt pilot DN can be entered. CLS should be MIA.
NCOS	(0)-99	Network Class of Service group
NGRP	(0)-9	Night Service Group number NGRP appears when ENS = YES in LD15. This prompt replaces the NITE prompt. If ENS is changed from NO to YES while Night Service is in effect, the system verifies that the NITE number defined is a group number or a DN. If a night DN or 0000 is defined, the existing NITE number is used.
NITE	x...x	Night Service directory number This DN can be up to 4 digits, up to seven digits with Directory Number Expansion (DNXP) package 150. A Group Hunt pilot DN can be entered. Night Service applies to trunks terminating at the attendant. This prompt takes precedence over the NITE and NIT1-NIT4 prompts in LD 15. If a DN is defined here, the call goes to this DN. If there is no DN here, the call goes to the defined LD 15 NITE prompts. Precede with X to remove.
OPRI	l ch	Outgoing PRI channel (the PRI channel through which the Meridian 1 gains access to the PSPDN) Where: Loop = PRI loop number and Channel = PRI channel that holds the outgoing nailed up connection (between 1-23).
PRDN	x...x	Private Line Directory Number PRDN must be defined in LD 11. This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.

Prompt	Response	Comment
REQ		Request
	CHG	Change existing data block
	END	Exit overlay program
	LCHG	Print date and time that a trunk data block was last changed. The change can be the result of a NEW, OUT, or CHG command.
	MOV	Move data block from one TN to another. MOV cannot be used to move a Phantom TN.
	NEW x	Add new data block to the system. Follow NEW with a value of 1-255 to create that number of consecutive trunks. You are not allowed to create more than one Phantom TN at a time. When a value different than 1 is entered for the creation of a Phantom TN, it is simply ignored and only one TN is created.
	OUT x	Remove data block. Follow OUT with a value of 1-255 to remove that number of consecutive trunks.
RLDN	x...x	Release Link trunk Directory Number This DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
RTMB	0-127 1-254	Route number and Member number B-Channel Signaling is output if CHTY = BCH in LD 16. A/B Bit Signaling is output if CHTY = ABCH in LD 16. To use the ISDN Semi Permanent Connection (ISPC) link, this entry must be an ISL TIE route.
SFEX	(NO) YES	Special digital FEX trunk This is used on Digital Trunk Interface (DTI).
SIGL		Level 3 signaling
	DX2	2-wire duplex
	DX4	4-wire duplex. The Enhanced Universal Trunk card uses DX4 signaling.
	EAM	E&M 2-wire
	EM4	E&M 4-wire
	GRD	Ground start
	LDR	Loop Dial Repeating
	LOP	Loop start
	OAD	Outgoing Automatic, incoming dial

LD 14

Prompt	Response	Comment
STRI		<p>Start arrangement Incoming</p> <p>Your response to STRI determines which type of signaling will be used by the trunk to initiate digit sending or collection. Your STRI response should reflect the type of operation in use at the near end.</p>
DDL		<p>Delayed Dial</p> <p>The terminating trunk returns an off-hook to the originating trunk, which is interpreted as an instruction not to send digits immediately. This delay allows the terminating end to find and attach digit collections equipment. When the equipment is attached, the terminating end returns on-hook which is interpreted as a signal to start sending digits.</p> <p>For this application on incoming calls, the Meridian SL-1 sends a non-programmable 256-384 ms pulse. For outgoing calls, the Meridian SL-1 expects a delay-dial pulse from the far end to terminate before sending digits. Some types of delay-dial operation can also be accommodated by the IMM option.</p>
IMM		<p>Immediate</p> <p>The terminating trunk is not expected to return a pulse telling the originating end to begin sending digits. In this application for incoming calls, the Meridian SL-1 returns a 256-384 ms off-hook/on-hook wink to the far end. This wink accommodates certain types of delay-dial operation.</p> <p>For outgoing calls, the Meridian SL-1 starts a 300 ms timer when the outgoing trunk is seized. Digits are sent out when an off-hook/on-hook wink returned from the far end ends, or when the 300 ms timer expires (whichever occurs first).</p>
OWK		<p>Off-Hook Wink for RLR trunks equipped with signaling converter</p> <p>This mode of operation is similar to wink except that the Meridian SL-1 waits one second after seizure before sending a wink start pulse. This arrangement applies only to release link remote trunks.</p>

Prompt	Response	Comment
	WNK	<p>Wink or Fast Flash</p> <p>The terminating trunk sends an off-hook/on-hook wink as in DDL operation. However, in WNK operation the pulse is interpreted as a signal that digit collection equipment has been attached. The pulse is expected to be of 140-290 ms duration.</p> <p>For this application, the Meridian SL-1 first waits 128-256 ms after seizure and then returns a 256 ms pulse to the far end. After this , the Meridian SL-1 is ready to collect digits. On outgoing calls, the Meridian SL-1 waits until the wink pulse is finished before sending digits.</p>
STRO		<p>Start arrangement Outgoing</p> <p>Your response to STRO determines which type of signaling will be used by the trunk to initiate digit sending or collection. Your STRO response should reflect the type of operation in use at the far end.</p>
	DDL	Delayed Dial
	IMM	Immediate
	OWK	Off-Hook Wink for RLR trunks equipped with signaling converter
	WNK	Wink or Fast Flash
STYP		<p>Supervision Type. STYP is prompted when SUPN = YES.</p> <p>For IPE equipment or with XUT/EXUT, only one of BST, PIP, JDID, or JCO will be accepted.</p>
	BST	<p>Both Supervised Trunk</p> <p>Incoming and Outgoing supervised LOP CO/FEX/WATS trunk. BST and PIP are mutually exclusive.</p>
	(PSP)	<p>Polarity Sensitive Pack. PSP is the default when SIGL = GRD.</p> <p>Outgoing supervised LOP or GRD start CO/FEX/WATS trunk</p>
	(PIP)	<p>Polarity Insensitive Pack. PIP is the default when SIGL = LOP.</p> <p>Outgoing supervised Loop start CO/FEX/WATS trunk. PIP and BST are mutually exclusive.</p>

LD 14

Prompt	Response	Comment
SUPN	(NO) YES	<p>Answer and disconnect supervision required</p> <p>For ground start trunks disconnect supervision is detected even if SUPN = NO.</p> <p>The operation of answer supervision is affected if Federal Communications Commission Compliance for DID Answer Supervision (FC68) package 223 is equipped.</p> <p>SUPN will automatically be prompted YES for DID LOP.</p>
SXS	(NO) YES	<p>Step-by-step CO trunk</p> <p>Only prompted for Universal Trunks XTRK or XUT when TYPE = CO. The central office reverses polarity on outgoing calls.</p>
T_TN	l ch	<p>Tandem PRI connection. Where:</p> <ul style="list-style-type: none">• Loop = PRI loop number• Channel = PRI channel that holds the outgoing nailed up connection (between 1-23) <p>If the connection exists, both channels are displayed. Prompted if TYPE = TCON.</p>
TGAR	0-(1)-31	<p>Trunk Group Access Restriction</p> <p>The default of (1) automatically blocks direct access.</p>
TIMP	(600) 900 1200	<p>Termination Impedance. Prompted if XTRK = XEM or XUT.</p> <p>600 ohms 900 ohms 1200 ohms</p> <p>Use 1200 ohms for RAN trunks and (600) or 900 for all others.</p> <p>When using the Enhanced Universal Trunk card, only 600 or 900 ohm terminating impedance is allowed. However, more Terminating and Balance impedance (BIMP) combinations are available.</p>

Prompt	Response	Comment																								
		<p>The terminating and balance impedance options are:</p> <table> <thead> <tr> <th><u>TIMP</u></th> <th><u>BIMP</u></th> </tr> </thead> <tbody> <tr> <td>600</td> <td>600</td> </tr> <tr> <td>600</td> <td>3COM</td> </tr> <tr> <td>900</td> <td>3COM</td> </tr> <tr> <td>900</td> <td>900</td> </tr> <tr> <td>900</td> <td>3CM2</td> </tr> <tr> <td>600</td> <td>3CM2</td> </tr> </tbody> </table> <p>For XUT trunks, the Termination Impedance or TIMP must be compatible with the Balance Impedance or BIMP. The following combination of BIMP/TIMP are allowed:</p> <table> <thead> <tr> <th><u>Timp Impedance</u></th> <th><u>Bimp Impedance</u></th> </tr> </thead> <tbody> <tr> <td>600 ohms</td> <td>3-component or 3com</td> </tr> <tr> <td>900 ohms</td> <td>3-component or 3com</td> </tr> <tr> <td>600 ohms</td> <td>600 ohms</td> </tr> <tr> <td>1200 ohms</td> <td>600 ohms</td> </tr> </tbody> </table> <p>For XEM trunks, TIMP must be set to 600. When CLS = JDID, TIMP must be set to 600.</p>	<u>TIMP</u>	<u>BIMP</u>	600	600	600	3COM	900	3COM	900	900	900	3CM2	600	3CM2	<u>Timp Impedance</u>	<u>Bimp Impedance</u>	600 ohms	3-component or 3com	900 ohms	3-component or 3com	600 ohms	600 ohms	1200 ohms	600 ohms
<u>TIMP</u>	<u>BIMP</u>																									
600	600																									
600	3COM																									
900	3COM																									
900	900																									
900	3CM2																									
600	3CM2																									
<u>Timp Impedance</u>	<u>Bimp Impedance</u>																									
600 ohms	3-component or 3com																									
900 ohms	3-component or 3com																									
600 ohms	600 ohms																									
1200 ohms	600 ohms																									
TN	c u	Terminal Number c = 1-30 and u = 0-3																								
	l ch	<p>Loop and channel for digital trunks, where:</p> <ul style="list-style-type: none"> • l = loop 1-5; ch = channel 1-24 for 1.5 Mb/s DTI/PRI 																								
TOTN		To Terminal Number. TOTN is prompted when REQ = MOV. TOTN cannot be a phantom loop.																								
	c u	General TN format																								
	l ch	New loop and channel for digital trunks.																								
TYPE	ADM	Add-on Data Module data block Data port interfacing with a data line card																								
	AWR	Automatic Wake Up RAN/Music trunk data block.																								
	CAA	Common Control Switching Arrangement (CCSA) Automatic Number Identification (ANI) trunk data block																								
	CAM	CAMA trunk data block																								
	COT	Central Office Trunk data block																								

LD 14

Prompt	Response	Comment
CSA		Common Control Switching Arrangement access line data block
DIC		Dictation trunk data block
DID		Direct Inward Dial trunk data block. Per FCC regulations, DID trunks used in the U.S. must be properly designated for answer supervision. Refer to FCC Compliance for DID Answer Supervision in X11 features and services..
FEX		Foreign Exchange trunk data block
FGDT		Feature Group D Trunk data block
ISA		Integrated Services Access trunk data block. Also called Call-By-Call service trunk type. There is no provision against the use of non-QPC237 trunk types for the analog ISA service route. Only TIE and ISA trunks are applicable for directly connecting SL-1 PBX to SL-1 PBX.
MCA		Meridian Communications Adapter.
MCU		Meridian Communications Unit.
MDM		Modem/Data Module data block. Data port interfacing with QPC60 500/2500 type card.
MUS		Music trunk data block
PAG		Paging trunk data block
RAN		Recorded Announcement trunk data block
RCD		Recorder trunk data block
RLM		Release Link Main trunk data block
RLR		Release Link Remote trunk data block
TCON		Tandem Connection for MPH and PRI connections
TIE		TIE trunk data block

Prompt	Response	Comment
	WAT	Wide Area Telephone Service trunk data block
XDIC	(MUT) NOR	Mute outpulsing for DIC trunks Normal outpulsing for DIC trunks
XTRK	EXUT	Extended trunk. Prompted for superloops when defining the first unit. Enhanced Extended Universal Trunk

LD 14

Page 164 of 860 Alphabetical list of prompts

LD 15—Customer Data Block

This program allows data blocks for customers to be created or modified. When the Overlay is loaded, the available system memory and disk records are output in a header as follows:

```
CDB000
MEM AVAIL: (U/P): xxxxxx  USED: xxxxxx  TOT: xxxxxxxx
DISK RECS AVAIL: xxx
```

Overlay program 15 allows changes to be made by entering the desired gate opener mnemonic at the TYPE: prompt. The prompt sequence associated with that gate opener is then prompted in the usual manner. Once the end of the sub prompts has been reached, the Customer Data Block is updated and saved.

Enhanced input processing is applied to the REQ: and TYPE: prompts in LD 15. Thus, if the prompt ends with a colon a list of possible responses may be obtained by entering ? followed by a carriage return. The REQ: and TYPE: prompts also accept abbreviated responses, thus allowing the user to only enter the first three unique characters of the gateway name.

Prompts and responses

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Prompts and responses

Customer data block

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	CDB	Customer Data Block
CUST	0	Customer number
AML_DATA	(NO) YES	Change Application Module Link options (see p. 168)
ANI_DATA	(NO) YES	Change Automatic Number Identification numbers (see p. 169)
ATT_DATA	(NO) YES	Change Attendant Console options (see p. 169)
AWU_DATA	(NO) YES	Change Automatic Wake Up options (see p. 171)
CCS_DATA	(NO) YES	Change Controlled Class of Service options (see p. 172)
CDR_DATA	(NO) YES	Change CDR and Charge Account options (see p. 173)
FCR_DATA	(NO) YES	Change New Flexible Code Restriction options (see p. 174)
FFC_DATA	(NO) YES	Change Flexible Feature Code options (see p. 174)
FTR_DATA	(NO) YES	Change Features and options (see p. 175)
IMS_DATA	(NO) YES	Change Intergraded Message Service options (see p. 176)
INT_DATA	(NO) YES	Change Intercept treatment options (see p. 176)
LDN_DATA	(NO) YES	Change Departmental Listed Directory Numbers (see p. 178)
MPO_DATA	(NO) YES	Change Multi-Party Options (see p. 179)
NET_DATA	(NO) YES	Change ISDN and ESN Networking options (see p. 180)
NIT_DATA	(NO) YES	Change Night Service options (see p. 182)
OAS_DATA	(NO) YES	Change Off-Hook Alarm Security options (see p. 182)
PWD_DATA	(NO) YES	Change Customer related Passwords (see p. 183)
RDR_DATA	(NO) YES	Change Call Redirection (see p. 184)
ROA_DATA	(NO) YES	Change Recorded Overflow Announcement options (see p. 185)
TIM_DATA	(NO) YES	Change Timers (see p. 186)
TST_DATA	(NO) YES	Change Test lines (see p. 187)

Note: This *Prompts and responses* table does not list prompts which appear under each gate opener. To find prompts which appear under a given gate opener, refer to the page listed in the *Comment* section of this table.

LD 15

Default Customer Data Block

Prompt	Response	Comment
REQ:	NEW	Request = NEW
TYPE:	DEFAULT	Type = DEFAULT (Default Customer Data Block)
CUST	0	Customer number
ANI_DATA		Automatic Number Identification prompts are automatically output when adding a new customer
ANAT	x...x	ANI billing number for attendants making ANI calls
ANLD	x...x	ANI Listed DN

Data Block: AML (Application Module Link)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	AML_DATA	Application Module Link
CUST	0	Customer number
OPT	a..a	Options (OPT responses begin on page 215)
VSID	0-15	Value-Added Server Identifier
GP02	n n n n n n	Group 2 status events 1, 2, 3, 4, 5 or 6 assigned
GP03	n n n n n n	Group 3 status events 1, 2, 3, 4, 5 or 6 assigned
GP04	n n n n n n	Group 4 status events 1, 2, 3, 4, 5 or 6 assigned
GP05	n n n n n n	Group 5 status events 1, 2, 3, 4, 5 or 6 assigned
GP06	n n n n n n	Group 6 status events 1, 2, 3, 4, 5 or 6 assigned
GP07	n n n n n n	Group 7 status events 1, 2, 3, 4, 5 or 6 assigned
GP08	n n n n n n	Group 8 status events 1, 2, 3, 4, 5 or 6 assigned
GP09	n n n n n n	Group 9 status events 1, 2, 3, 4, 5 or 6 assigned
GP10	n n n n n n	Group 10 status events 1, 2, 3, 4, 5 or 6 assigned
GP11	n n n n n n	Group 11 status events 1, 2, 3, 4, 5 or 6 assigned
GP12	n n n n n n	Group 12 status events 1, 2, 3, 4, 5 or 6 assigned
GP13	n n n n n n	Group 13 status events 1, 2, 3, 4, 5 or 6 assigned
GP14	n n n n n n	Group 14 status events 1, 2, 3, 4, 5 or 6 assigned
GP15	n n n n n n	Group 15 status events 1, 2, 3, 4, 5 or 6 assigned

Data Block: ANI (Automatic Number Identification)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	ANI_DATA	Automatic Number Identification
CUST	0	Customer number
ANAT	x...x	ANI Attendant Billing number
ANLD	x...x	ANI Listed Directory Number

Data Block: ATT (Attendant Consoles)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	ATT_DATA	Attendant Consoles
CUST	0	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
ATDN	(0)-x...x	Attendant Directory Number
NCOS	(0)-99	Network Class of Service for all attendant consoles for this customer
CWUP	(NO) YES	Call Waiting queue Update
CWCL	(0)-255 (0)-255	Call Waiting Call Limit
CWTM	(0)-511 (0)-511	Call Waiting Time
CWBZ	(NO) YES (NO) YES	Call Waiting Buzz
MATT	(NO) YES	Consoles used as Message Center
LFTN	c u	Lamp Field array Terminal Number
LFTN	c u	Second Lamp Field array Terminal Number
LFFD	x00...x00	First Directory Number of lamp field array
ATIM	(0)-126	Attendant Alternative Answering Timer
AQTT	1-(30)-255	Attendant Queue Timing Threshold in seconds
AODN	x...x	Attendant Overflow DN
SPVC	(0)-63	Supervisory Console
- SBLF	(NO) YES	Standard Busy Lamp Field

LD 15

IDBZ	YES	Individual Attendant DN Buzzing-on for IADN calls in the attendant queue. NO = Individual Attendant DN Buzzing-off for IADN calls in the attendant queue (default).
FBUZ	xx yy	Flexible Priority Buzzing cadence for IADN and Attendant Emergency Code calls, where: xx = Priority Buzzing - on phase yy = Priority Buzzing - off phase The PBUZ range is from 2 to 16 seconds. If the value entered is an odd number between 2 and 16, it is rounded down to the next lowest even integer.
RTSA	aaaa	Recall To Same Attendant (aaaa = (RSAD), RSAA, or RSAX)
SACP	aaaa	Semi-Automatic Camp-On (aaaa = (NO), ALL, or SNGL)
ABDN	(NO) YES	Activation of the Attendant Blocking of DN feature
IRFR	(NO) YES	Internal Attendant Remote Call Forward Password
- IRFP	x...x	Internal Attendant Remote Call Forward Password
XRFR	(NO) YES	External Attendant Remote Call Forward Password
- XRFP	x...x	External Attendant Remote Call Forward Password
AFNT	(0)-126	Attendant Forward No Answer Timer (must be an even number)
AFBT	(0)- <i>AFNT</i>	Attendant Forward Buzz Tone (Entry can be equal to or less than response to AFNT prompt and must be an even number)
ICI	0-19 aaaa	Attendant Incoming Call Indicators
RICI	xx xx...	ICI key numbers that may receive Recorded Overflow Announcement

Data Block: AWU (Automatic Wake Up Data)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	AWU_DATA	Automatic Wake Up Data
CUST	0-99	Customer number
AWU	(NO) YES	Automatic Wake Up
ATRC	(NO) YES	Attendant Recall allowed
RANF	0-511	Music route TYPE must be AWR in LD 16
RAN1	0-511	Primary Ran route TYPE must be AWR in LD 16
RAN2	0-511	Secondary RAN route TYPE must be AWR in LD 16
LA11	0-511	Primary RAN route for Language1
LA12	0-511	Secondary RAN route for Language1
LA21	0-511	Primary RAN route for Language 2
LA22	0-511	Secondary RAN route for Language 2
LA31	0-511	Primary RAN route for Language 3
LA32	0-511	Secondary RAN route for Language 3
LA41	0-511	Primary RAN route for Language 4
LA42	0-511	Secondary RAN route for Language 4
LA51	0-511	Primary RAN route for Language 5
LA52	0-511	Secondary RAN route for Language 5
R2BN	0-23 0-59	RAN2 Begin time; hour, minute
R2ED	0-23 0-59	RAN2 End time; hour, minute
NRWU	2-(5)	Number of Rings for Wake Up before recall to attendant
TAWU	1-(3)	Number of Tries for an unanswered AWU call
- WUD	(NO) YES	Is Wake-up Delimiter required
- - STE	(NO) YES	Is Standard Time Entry allowed?

LD 15

Data Block: CCS (Controlled Class of Service)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	CCS_DATA	Controlled Class of Service
CUST	(0)	Customer number
CCRS	aaa	Controlled Class of Service (CCOS) Restricted Service (aaa = (UNR), CTD, FR1, FR2, FRE, SRE, or TLD)
ECC1	aaa	Enhanced Controlled Class of Service level 1 (aaa = (UNR), CTD, FR1, FR2, FRE, SRE, or TLD)
ECC2	aaa	Enhanced Controlled Class of Service level 2 (aaa = (UNR), CTD, FR1, FR2, FRE, SRE, or TLD)
CNCS	0-99	Network Controlled Class of Service for Electronic Lock
PELK	(NO) YES	Electronic Lock on Private Lines

Data Block: CDR (Call Detail Recording)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	CDR_DATA	Call Detail Recording
CUST	0	Customer number
CDR	(NO) YES	CDR for this customer
IMPH	(NO) YES	CDR for Incoming Packet data call
OMPH	(NO) YES	CDR for Outgoing Packet data call
AXID	(NO) YES	Auxiliary Identification output in CDR record
TRCR	(NO) YES	Carriage Return sent after each CDR message
CDPR	(NO) YES	Coordinated Dialing Plan Record option
ECDR	(NO) YES	End-to-End Signaling digits in CDR record
PORT	0-15	CDR port
- CNI	a...a	Calling Number Identification (a...a = (DGTS), CLID, or NONE)
CHLN	(0)-23	Charge account number Length
FCAF	(NO) YES	Forced Charge Account active
CHMN	(1)- <i>CHLN</i>	Minimum number of digits for FCA code (Entry can be equal to or less than response to prompt CHLN)
FCNC	0-99	FCA Network Class of Service

LD 15

Data Block: FCR (Flexible Code Restriction)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	FCR_DATA	New Flexible Code Restriction
CUST	(0)	Customer number
NFCR	(NO) YES	Enable New Flexible Code Restriction
- MAXT	1-255	Maximum number of NFCR translation tables
- OCB1	(0) - (MAXT-1), 255	NFCR tree number to be used for OCB level. Your entry can be up to your response to the MAXT prompt minus 1 or 255. 255 is a special entry which disallows this level.
- OCB2	(0) - (MAXT-1), 255	NFCR tree number to be used for OCB level 2. Your entry can be up to your response to the MAXT prompt 1 one or 255. 255 is a special entry which disallows this level.
- OCB3	(0) - (MAXT-1), 255	NFCR tree number to be used for OCB level 3. Your entry can be up to your response to the MAXT prompt minus 1 or 255. 255 is a special entry which disallows this level.
IDCA	(NO) YES	Incoming DID Digit Conversion allowed
- DCMX	1- 255	Maximum number of IDC conversion tables

Data Block: FFC (Flexible Feature Codes)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	FFC_DATA	Flexible Feature Code
CUST	(0)	Customer number
CCRS	aaa	Controlled Class of Service (CCOS) Restricted Service
SCPL	0-8	Station Control Password Length
SBUP	(YES) NO	Enable use of station control passwords for set based administration user level access
- PWD2	xxxx	PWD2 password for confirmation
FFCS	(NO) YES	Change Flexible Feature Code end-of-dialing indicator
- STRL	1-3	String Length of end-of-dial indicator
- STRG	xxx	String to indicate end-of-dialing (Enterable characters are digits 0-9, *, and #.)
ADLD	(0)-20	Auto Dial Delay in seconds

Data Block: FTR (Features and options)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	FTR_DATA	Customer Features and options
CUST	(0)	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
DGRP	(0)-2046	Maximum number of Dial Intercom Groups
IRNG	(NO) YES	Intercom Ring
PKND	(1)-4	Number of digits Dialed for Group Pickup
DNDL	(NO) YES	Do Not Disturb lamp on 500/2500 telephones
SPRE	xxxx	Special Prefix number (1-4 digits)
PREO	(0) 1	Pretranslation Option
SRCD	xxxx	Set Relocation Security Code
EEST	(NO) YES	End-to-End Signaling Tone to originating party
- DTMF	(YES) NO	DTMF feedback tone
TTBL	(0)-31	Tone Table number
MUS	(NO) YES	Music for sets
- MUSR	0-127	Music Route for sets
ALDN	x...x	Alarm Directory Number
ALRM	(NO) YES	Malicious Call Trace Alarm for internal or external calls
TIME	0-(15)	Time for the alarm in minutes
INT	NO YES	Internal
RECD	(NO) YES	Recorder
- MCRT	0-127	Malicious Call Trace Recording Route number as defined in LD 16
PORT	0-15	Serial Data Interface Port Monitor
STCB	(NO) YES	Station Camp-On Busy allowed
MCDC	(NO) YES	Malicious Call DN/CLID printing allowed
IDEF	(NO) YES	Internal/external definition
ARDL_ATTEMPT	1-(30)-60	Automatic Redial number of attempts
MTAR	(NO) YES	Disable (enable) Meridian Mail Trunk Access Restriction
LEND	(NO) YES	List Entry Number Delimiter
MSCD	(NO) YES	Mandatory Speed Call Delimiter
CPCI	(NO) YES	Called Party Control on Internal Call (is not) is allowed

LD 15

Data Block: IMS (Integrated Message Service)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	IMS_DATA	Change Integrated Messaging System features
CUST	(0)	Customer number
IMS	(NO) YES	Change Integrated Message System
- SAMM	(NO) YES	Standalone Meridian Mail
- IMA	(NO) YES	Integrated Messaging System enabled
-- APL	0-15	Auxiliary Processor Link number for IMS
- UST	(NO) YES	User Status Update enabled
-- APL	0-15	Auxiliary Processor Link number for UST
- UMG	(NO) YES	User-to-User Messaging enabled
-- APL	0-15	Auxiliary Processor Link number for UMG

Data Block: INT (Intercept Treatments)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	INT_DATA	Change Intercept Treatment
CUST	(0)	Customer number
ACCD	(OVF OVF OVF ATN)	Access Denied
- RANR	0-127	Intercept Recorded Announcement Route number
CTVN	(OVF OVF OVF ATN)	Call To Vacant Number
- RANR	0-127	Intercept Recorded Announcement Route number
MBNR	(OVF OVF OVF ATN)	Maintenance Busy Numbers
- RANR	0-127	Intercept Recorded Announcement Route number
CTRC	(OVF NAP OVF NAP)	Restricted Call
- RANR	0-127	Intercept Recorded Announcement Route number
CLDN	(NAP OVF NAP NAP)	Calls to LDN
- RANR	0-127	Intercept Recorded Announcement Route number
NINV	(OVF OVF OVF ATN)	Invalid NARS/BARS call
- RANR	0-127	Intercept Recorded Announcement Route number
NITR	(OVF OVF OVF ATN)	NARS/BARS Invalid Translation

- RANR	0-127	Intercept Recorded Announcement Route number
NRES	(OVF OVF OVF ATN)	NARS/BARS Restricted calls
- RANR	0-127	Intercept Recorded Announcement Route number
NBLK	(OVF OVF OVF ATN)	NARS/BARS Blocked calls
- RANR	0-127	Intercept Recorded Announcement Route number
RCLE	(ATN OVF ATN ATN)	Redirection Count Limit Exceeded as defined by TRCL
- RANR	0-127	Intercept Recorded Announcement Route number
CONG	aaa	Congestion tone for all trunks busy condition (aaa = (OVF) or BSY)
DLT	aaa	Direct Inward System Access Lockout treatment (aaa = (OVF), ATN, or OFA)
LLT	aaa	Flexible Line Lockout treatment (aaa = (OVF), ATN, or OFA)
DNDT	aaa	Do Not Disturb intercept Treatment (aaa = (BST), ATT, or RAN)
- RRT	0-127	Intercept Recorded Announcement Route number

LD 15

Data Block: LDN (Listed Directory Numbers)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	LDN_DATA	Departmental Listed Directory Numbers
CUST	(0)	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
DLDN	(NO) YES	Departmental Listed Directory Numbers
LDN0	xxxx	Listed Directory Number 0
LDA0	1-63 ALL	Attendant consoles associated with LDN0
LDN1	x...x	Listed DN 1
LDA1	a...a	Attendant consoles associated with LDN1 (a...a = 1-63 or ALL)
LDN2	x...x	Listed DN 2
LDA2	a...a	Attendant consoles associated with LDN2 (a...a = 1-63 or ALL)
LDN3	x...x	Listed DN 3
LDA3	a...a	Attendant consoles associated with LDN3 (a...a = 1-63 or ALL)
LDN4	x...x	Listed DN 4
LDA4	a...a	Attendant consoles associated with LDN4 (a...a = 1-63 or ALL)
LDN5	x...x	Listed DN 5
LDA5	a...a	Attendant console associated with LDN5 (a...a = 1-63 or ALL)
ICI	0-19 aaaa	Attendant Incoming Indicators
LDBZ	n n n n n n	The DLDN groups which should be buzzed when an LDN/emergency code call is in the attendant queue, where: n = 0, 1, 2, 3, 4, and/or 5.

Data Block: MPO (Multi-Party Operations)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	MPO_DATA	Multi-Party Operations
CUST	(0)	Customer number
FMOP	(NO) YES	Flexible Misoperation Options
- RGNA	xxx yyy	Ringling No Answer treatment
- AOCS	xxx yyy	All Other Cases
- RCY1	1-(6)-15	Number of Cycles of Re-ringing before forwarding or disconnecting
- RCY2	1-(4)-15	Number of Cycles of Ringing before forwarding to transferring station
- RALL	(NO) YES	Mandatory recall is required prior to dialing control digits
- CDTO	2-(14)	Control digit timeout; in multiples of two seconds
IFLS	(NO) YES	Ignore Switchhook Flash signal from 500/2500 sets
MHLD	(NO) YES	Manual Hold after inquiry enabled
PCDS	(NO) YES	Programming of Control Digits required
- CNFD	0-(1)-9, *, #	Control Digit for Conference
- TGLD	0-(2)-9, *, #	Control Digit for Toggle
- DISD	0-(3)-9, *, #	Control Digit for Disconnect
CCDO	(NO) YES	Consultation Connection Disconnect Option alternative treatment
AFCO	(YES) NO	(Automatic)/Manual Forced Camp-On
- ACNS	aaa	Attendant Clearing during Night Service (aaa = (NO), EXT, or ALL)

LD 15

Data Block: NET (Networking)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	NET_DATA	Networking
CUST	(0)	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
AC2	aaaa	Access Code 2 as defined in LD 86 (aaaa = NPA, NXX, INTL, SPN, or LOC)
ISDN	(NO) YES	Integrated Services Digital Network
- PNI	(0)- 32700	Private Network Identifier
- CLID	(NO) YES	(Do not allow) Allow Calling Line Identification option
-- SIZE	0-(256)-4000	CLID entry size
-- INTL	0- 9999	Country code (1-4 digits)
-- ENTRY	xx	CLID entry to be configured
--- HNTN	0- 999999	National code for home national number (1-6 digits)
--- HLCL	0- 99 ... 99	Local code for home local number or Listed DN (1-12 digits)
--- DIDN	a...a	Use DN as DID (a...a = YES, NO or SRCH)
--- HLOC	0- x...x	Home location code (ESN) (1-7 digits)
--- LSC	0- x...x	Local steering code (1-7 digits)
- PINX_DN	xx....x	Node DN
- MBG	(0)-65535	Multi-location Business Group
- BSGC	0-(65535)	Business Sub Group Consult-only
- RCNT	0-(5)	Redirection Count for ISDN calls
- PSTN	(NO) YES	Public Service Telephone Networks
-- TNDM	0-(15)-31	Tandem Threshold/Loop Avoidance Limit value permitted in a network connection
-- PCMC	0-(15)-31	Pulse Code Modulation Conversions permitted, μ -Law to A- Law or A- Law to μ -Law, in a network connection
- SATD	0-(1)-5	Satellite Delays
TRNX	(NO) YES	(Prevent) Allow transfer on ringing of supervised external trunks across the network
EXTT	(NO) YES	(Prevent) Allow connection of supervised external trunks via either call transfer or conference

MWNS	(NO) YES	Message Waiting Indication Non Specified Information string to recognize.
VNR	(NO) YES	Vacant Number Routing
- RLI	0-999	Route List Index as defined in LD 86
- FLEN	1-(16)	Flexible length of digits expected
- CDPL	1-(10)	Flexible length of VNR CDP
- LOCL	1-(10)	Flexible length of VNR LOC
NIT	2-(8)	Network Alternate Route Selection (NARS) Interdigit Timer
FOPT	0-(14)-30	Flexible Orbiting Prevention Timer

LD 15

Data Block: NIT (Night Service)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	NIT_DATA	Night Service
CUST	(0)	Customer number
NIT1	x...x	First Night Service DN by Time of Day
TIM1	hh mm	Hour and Minute for First Night Service DN
NIT2	x...x	Second Night Service DN by Time of Day
TIM2	hh mm	Hour and Minute for Second Night Service DN
NIT3	x...x	Third Night Service DN by Time of Day
TIM3	hh mm	Hour and Minute for Third Night Service DN
NIT4	x...x	Fourth Night Service DN by Time of Day
TIM4	hh mm	Hour and Minute for Fourth Night Service DN
ENS	(NO) YES	Enhanced Night Service enabled
- NWT	(NO) YES	Night Call Waiting Tone enabled
- NNT	0-253	Night Number Table
- NSO	(NO) YES	Enhanced Night Service enabled

Data Block: OAS (Off Hook Alarm Security)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	OAS_DATA	Change Off-Hook Alarm Security options
CUST	(0)	Customer number
ODN0	xxxx	OHAS DN for zone 0
ODN1	xxxx	OHAS DN for zone 1
ODN2	xxxx	OHAS DN for zone 2
ODN3	xxxx	OHAS DN for zone 3
ODN4	xxxx	OHAS DN for zone 4
ODN5	xxxx	OHAS DN for zone 5
ODN6	xxxx	OHAS DN for zone 6
ODN7	xxxx	OHAS DN for zone 7
ODN8	xxxx	OHAS DN for zone 8
ODN9	xxxx	OHAS DN for zone 9
ASTM	1-(30)-63	OHAS off-hook or interdigit timeout timer in seconds

Data Block: PWD (Password)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	PWD_DATA	Password
CUST	(0)	Customer number
SPWD	xxxx	Secure data password for LD 88 authcodes and LD 24 DISA
- PWD2	xxxx	Second level administration Password

Data Block: RDR (Call Redirection)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	RDR_DATA	Call Redirection
CUST	(0)	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
FNAD	aaa	Call Forward No Answer treatment for DID calls (aaa = (HNT), ATT, NO, or FDN)
FNAT	aaa	Call Forward No Answer treatment for external Trunk non-DID calls (aaa = (HNT), ATT, NO, or FDN)
FNAL	aaa	Call Forward No Answer treatment for All other calls including trunk calls marked as internal (aaa = (HNT), ATT, NO, or FDN)
CFTA	(NO) YES	Call Forward to Trunk Access code allowed
CCFWDN	x...x	Customer Call Forward DN (maximum: 23 digits)
CFNA	1-(4)-15	Number of normal ringing cycles for Call Forward No Answer (CFNA)
CFN0	1-(4)-15	Number of normal ringing cycles for CFNA, Option 0
CFN1	1-(4)-15	Number of normal ringing cycles for CFNA, Option 1
CFN2	1-(4)-15	Number of normal ringing cycles for CFNA, Option 2
DFN0	1-(4)-15	Number of distinctive ringing cycles for CFNA, Option 0
DFN1	1-(4)-15	Number of distinctive ringing cycles for CFNA, Option 1
DFN2	1-(4)-15	Number of distinctive ringing cycles for CFNA, Option 2
DNDH	(NO) YES	Do Not Disturb Hunting allowed
MDID	(NO) YES	No Answer DID calls routed to Message Center
NDID	(NO) YES	No Answer non-DID calls routed to Message Center
MWFB	(NO) YES	DID calls to busy telephones routed to Message Center
TRCL	(0)-7	Total Redirection Count Limit
CRTOD	(NO) YES	Change Call Redirection by Time Of Day alternate time options
- CRT0	SH SM EH EM	Alternate time option 0, denotes time when Alternate Redirection DN will be used. (SH SM = Start time, EH EM = End time)
- CRT1	SH SM EH EM	Alternate time option 1 (SH SM = Start time; EH EM = End time)
- CRT2	SH SM EH EM	Alternate time option 2 (SH SM = Start time; EH EM = End time)
- CRT3	SH SM EH EM	Alternate time option 3 (SH SM = Start time; EH EM = End time)

Data Block: ROA (Recorded Overflow Announcement)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	ROA_DATA	Recorded Overflow Announcement
CUST	(0)	Customer number
OPT	a...a	Options (OPT responses begin on page 215)
FRRT	0-127	First RAN route
- FRT	0-(20)-2044	Time delay in seconds for the first RAN route
SRRT	0-127	Second RAN route number for ROA
- SRT	0-(40)-2044	Time delay in seconds for the second RAN route
WAIT	aaa	Treatment during Waiting time for ROA (aaa = (RGB), MUS, or SIL)
- MURT	0-127	Music Route
RICI	0-19	ICI key numbers that may receive ROA

LD 15

Data Block: TIM (Timers)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	TIM_DATA	Timers
CUST	(0)	Customer number
FLSH	20-(45)-768	Switchhook Flash timing
PHDT	1-(30)-63	Permanent Hold Timer
DIND		Set the dial tone, first digit and Interdigit timeouts for non-DTMF sets
	0-(30)-60	Dial tone timeout
	0-(30)-60	First digit timeout
	0-(30)-60	Interdigit timeout
DIDT		Set the dial tone, first digit and Interdigit timeouts for DTMF sets
	0-(14)-30	Dial tone timeout
	0-(14)-30	First digit timeout
	0-(14)-30	Interdigit timeout
LDTT	2-(6)-30	Line disconnect tone timer for 500/2500 telephones in seconds
BOTO	2-(14)-60	Busy tone/Overflow tone Timeout
DBRC	2-(60)-120	Duration Between Reminder Cadences for Audible Reminder of Held Call
RTIM	xxx yyy zzz	Recall Timers for Slow Answer, Camp-On and Call Waiting
ATIM	(0)-126	Attendant Alternative Answering Timer
AQTT	1-(30)-255	Attendant Queue Timing Threshold in seconds
ADLD	(0)-20	Auto Dial Delay in seconds
HWTT	0-(300)-600	Length of Howler Tone in seconds
NIT	2-(8)	Network Alternate Route Selection Interdigit Timer
FOPT	0-(14)-30	Flexible Orbiting Prevention Timer

Data Block: TST (Test lines)

Prompt	Response	Comment
REQ:	CHG	Change existing data block
TYPE:	TST_DATA	Test lines for transmission testing
CUST	(0)	Customer number
T100	xxxx	DN for Type-100 test line
REF0	xxxx	DN for Reference trunk 0
TST0	xxxx	DN for Test trunk 0
REF1	xxxx	DN for Reference trunk1
TST1	xxxx	DN for Test trunk 1
REF2	xxxx	DN for Reference trunk 2
TST2	xxxx	DN for Test trunk 2
REF3	xxxx	DN for Reference trunk 3
TST3	xxxx	DN for Test trunk 3

LD 15

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Alphabetical list of prompts

Prompt	Response	Comment
ABDN	(NO) YES	Activation of the Attendant Blocking of DN Prompted with Semi-Automatic Camp-On (SACP) package 181.
AC2	NPA NXX INTL SPN LOC	Access Code 2 E.164 National E.164 Subscriber International Special Number Location Code Enter call types that use Access Code 2 (AC2) Multiple responses are permitted. If a numbering plan is not entered here, it is automatically defaulted to Access Code1 (AC1).
ACCD	(OVF OVF OVF ATN)	Access Denied
ACNS	(NO) EXT ALL	Attendant Clearing during Night Service No automatic treatment External calls only All calls This prompt appears when the Multi-Party Operations (MPO) package is equipped, MPOP = YES and FMOP = YES.
ADLD	(0)-120	Auto Dial Delay Time in two-second interval. Prompted with the Flexible Feature Codes (FFC) package 139. 0 = Auto Dial does not take place.
AFBT	(0)-2-AFNT	Attendant Forward Buzz Tone The number of seconds in 2 second intervals that the attendant is buzzed at full volume. Odd entries are rounded down to the next valid entry. If entry is 0, the original volume is in effect.
AFCO	(YES) NO	(Automatic)/Manual Forced Camp-On Prompted with Priority Override (POVR) package 186.
ALDN	x...x	Alarm Directory Number Must be a Single-Appearance 500-set DN. Precede with X to remove.

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Prompt	Response	Comment
ALRM	(NO) YES	Malicious Call Trace Alarm for internal or external calls ALRM has to set to YES if the alarm is to be rung for any call (external or internal) when MCT is activated.
AML_DATA	(NO) YES	Change Application Module Link options
ANAT	x...x	ANI Attendant Billing Number Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. In either case, together with ANLD (ANI listed DN), the total number of digits must be seven. Prompted with Automatic Number Identification (ANI) package 12.
ANI_DATA	(NO) YES	Change Automatic Number Identification options
ANLD	xxxxx	Automatic Number Identification (ANI) Listed Directory Number May be 0-5 digits, depending on the length of ANAT. The combined number of digits for ANAT and ANLD must be 7. Prompted with Automatic Number Identification (ANI) package 12.
	X	Enter the letter X to clear the field
AOCS	xxx yyy	All Other Cases Where: xxx is for internal calls and yyy or ATN is for external calls Valid entries for xxx and yyy are: <ul style="list-style-type: none">• AAR - forward to attendant or Night Service after re-ringing for RCY1 cycles• ATN - forward to attendant or Night Service (ATN is the default for yyy or external calls)• DAR - disconnect after re-ringing for RCY1 cycles• DIS - disconnect default for xxx or internal calls• OVF - provide overflow tone• STD - standard operation.
AODN	x...x	Attendant Overflow DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry. Prompted with Attendant Overflow Postion (AOP) package 56.

Prompt	Response	Comment
APAD	x y	<p>Alternative Pad. Where: x = trunk pad selection and y = conference pad selection</p> <p>Valid inputs for x are:</p> <ul style="list-style-type: none"> • (0) = default North America • 1 = Australia • 2 = New Zealand • 3 = Italy • 4 = China EPE or EPE/IPE systems • 5 = China pure IPE system • 6-7 = future usage currently set to default <p>Valid inputs for y are:</p> <ul style="list-style-type: none"> • (0) = default North America • 1 = Alternative Conference pads selected <p>The default = 0 when REQ = NEW. The default is the existing value when REQ = CHG. Alternative Conference pads are only provided on specific Conference cards.</p>
APL	0 - 15	Auxiliary Processor Link number
AQTT	1-(30)-255	Attendant Queue Timing Threshold in seconds
ASTM	1-(30)-63	<p>OHAS Off-Hook or interdigit timeout timer</p> <p>This timer is applied to telephones with Alarm Security Allowed (ASA) Class of Service. When the timer expires, the telephone is intercepted to the OHAS DN.</p> <p>ASTM applies to all OHAS DNs. If the telephone has Alarm Security Denied (ASD) Class of Service, the normal dial tone and interdigit timers are used. See LD 15 prompts DIND and DIDT.</p>
ATAC	xxxx	<p>Attendant Administration Access Code</p> <p>The entered code is not actually accepted until the correct password is entered in the next prompt.</p> <p>Prompted with Attendant Administration (AA) package 54.</p>
ATDN	(0)-x...x	<p>Attendant Directory Number</p> <p>Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Calls timed for recall by the DPNSS1 redirection feature are redirected to this number when the timer expires.</p>

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Prompt	Response	Comment
ATIM	(0)-126	Attendant Alternative Answering Timer This timer is in increments of two seconds, odd numbers are rounded down to the next valid input. Use ATIM = 0 to disable AAA. Prompted with Attendant Alternative Answering (AAA) package 174.
ATRC	(NO) YES	Attendant Recall allowed A YES response enables Attendant Recall for unanswered Automatic Wake Up (AWU) call attempts. The number of Wake Up tries is defined at the TAWU prompt. The number of rings for a Wake Up call is defined at the NRWU prompt.
ATT_DATA	(NO) YES	Change Attendant Console options
AWU	(NO) YES X	Enable Automatic Wake-Up All AWU related data is removed from CDB. Prompted with Automatic Wake-Up (AWU) package.
AWU_DATA	(NO) YES	Change Automatic Wake Up options
AXID	(NO) YES	Auxiliary Identification output in CDR record Auxiliary Identification provides the TN when the call involves a multiple appearance DN. Note: AXID must be set to YES in order to have Costed Call Records recorded on the Journal Call Processing Screen used in Hospitality applications.
BOTO	2-(14)-60	Busy tone/Overflow tone Timeout Odd entries are rounded down to a valid multiple of two seconds.
BSGC	0-(65535)	Business Sub Group Consult-only. Where: <ul style="list-style-type: none">• 0 = no indication• 1 - 65535 = Subgroup identifier This value is sent as the Multi-location Business Group Subgroup (MBGS) identifier or tenant number when an existing call has more than two different MBGSs. In this case a consultation connection will be allowed, but completion of a call modification, conference or transfer, will be disallowed. If BSGC = 0 then Call Transfer and Call Modifications may be restricted under certain circumstances. Ensure BSGC ≠ 0 if Call Transfer and Call Modifications to be allowed.

Prompt	Response	Comment
CANC	YES NO	Non Specified Information string for Message Waiting Cancellation.
CCDO	(NO)	Consultation Connection Disconnect Option alternative treatment is not required
	YES	Consultation Connection Disconnect Option alternative treatment is required
CCFWDN	x...x	Customer Call Forward DN. The maximum is now 23 (0-23) digits. CCFWDN allows subscribers to forward their phones to a central answering service by dialing a FFC. CCFWDN activates the regular Call Forward All Calls function, but without having to specify the DN to which calls will be forwarded. Customer Call Forward is only applicable to 500-type sets.
CCRS		Controlled Class of Service (CCOS) Restricted Service. This applies when CCRS is active. If CCRS is inactive, the set defaults to the TN class of service access restriction. Allowed access restrictions are:
	(UNR)	Unrestricted
	CTD	Conditionally Toll Denied
	CUN	Conditional Unrestricted
	FR1	Fully Restricted class 1
	FR2	Fully Restricted class 2
	FRE	Fully Restricted
	SRE	Semi-Restricted
	TLD	Toll Denied
		Prompted with Controlled Class of Service (CCOS) package 81.
CCS_DATA	(NO) YES	Change Controlled Class of Service options
CDPL	1-(10)	Flexible length of Vacant Number Routing (VNR) Coordinated Dialing Plan (CDP)

LD 15

Prompt	Response	Comment
CDPR	(NO) YES	Coordinated Dialing Plan Record option. CDPR appears with Coordinated Dialing Plan (CDP) package 59. Applies only to trunk routes with OPD = NO. Replace the Distant Steering Code (DSC) or Trunk Steering Code (TSC) with the Access Code (ACOD). The format is : ACOD + concluding digits Insert ACOD ahead of DSC or TSC. The format is : ACOD + DSC or TSC + concluding digits
CDR	(NO) YES	Change Call Detail Recording record Prompted with Call Detail Recording (CDR) package 4.
CDR_DATA	(NO) YES	Change CDR and Charge Account options
CDTO	2-(14)	Control digit timeout in multiples of 2 seconds.
CFNA	1-(4)-15	Number of normal ringing cycles for Call Forward No Answer If the Flexible Tones and Cadences (FTC) package 125 is equipped, this interval is tied to the number of cycles of NCAD ringing. Refer to 553-2711-180 Flexible Tone and Digit Switches.
CFN0	1-(4)-15	Number of normal ringing cycles for CFNA, Option 0 CFNA has three ringing cycle options. This assigns the normal ringing cycles for Option 0.
CFN1	1-(4)-15	Number of normal ringing cycles for CFNA
CFN2	1-(4)-15	Number of normal ringing cycles for CFNA
CFTA	(NO) YES	Call Forward to Trunk Access code not allowed Call Forward to Trunk Access code allowed
CHDN	x...x	CAS silent Hold DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
CHLN	(0)-23	Charge Account Number Length Prompted with Charge Account (CHG) package 23
CHMN	(1)-CHLN	Minimum number of digits for FCA code The range is from 1 to CHLN, where CHLN = Charge account Number Length.

Prompt	Response	Comment
CLDN	(NAP OVF NAP NAP)	Calls to LDN
CLID	(NO) YES	Do not allow Calling Line Identification option Allow Calling Line Identification option
CLS1	(UNR) CTD CUN FR1 FR2 FRE SRE TLD	Class of Service Unrestricted Conditionally Toll Denied Conditional Unrestricted Fully Restricted class 1 Fully Restricted class 2 Fully Restricted Semi-Restricted Toll Denied
CNCS	0-99	Controlled NCOS CNCS allows the user to select a controlled NCOS to be used when the set is locked. When a set is locked, the NCOS defined at this prompt is used as the set NCOS when a trunk call is made. Precede entry with X to remove.
CNFD	0-(1)-9, *, #	Control Digit for Conference
CONG	(OVFL) BUSY	Congestion tone for all trunks busy condition Overflow tone for all trunks busy condition Busy tone
CPAS	xxxx	Central Precedence answering station listed DN
CPCI	(NO) YES	Called Party Control on Internal Call is not allowed for the customer Called Party Control on Internal Call is allowed for the customer CPCI package 310 is required.
CRT0	SH SM EH EM	Alternate time option 0, denoting a time when the Alternate Redirection DN will be used. Where: <ul style="list-style-type: none"> • SH SM = Start time • EH EM = End time Both entries are in international time format and are entered as HH MM (hour = 00-23 ; minute = 00-59). The default value is 00 00 00 00. The default disables CRTOD for that alternate time option.

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Prompt	Response	Comment
CRT1	SH SM EH EM	Alternate time option 1, denoting a time when the Alternate Redirection DN will be used. See the prompt CRT0 for an explanation of the response format.
CRT2	SH SM EH EM	Alternate time option 2, denoting a time when the Alternate Redirection DN will be used. See the prompt CRT0 for an explanation of the response format.
CRT3	SH SM EH EM	Alternate time option 3, denoting a time when the Alternate Redirection DN will be used. See the prompt CRT0 for an explanation of the response format.
CRTOD	(NO) YES	Call Redirection by Time Of Day Do not change CRTOD alternate time options Change CRTOD alternate time options
CTRC	(OVF NAP OVF NAP)	Restricted Call
CTVN	(OVF OVF OVF ATN)	Call to Vacant Number
CUST	(0)	Customer number
CWBZ	(NO) YES (NO) YES	Call Waiting Buzz First field-Provide two second buzz on exceeding upper CWCL or CWTM threshold. Second field-Buzz on first call entering queue.
CWCL	(0)-255 (0)-255	Call Waiting Call Limit Lower and upper thresholds. The Call Waiting lamp starts flashing when number of calls in the queue exceeds the upper threshold. The lamp continues to flash until the number of calls in queue is less than the lower threshold. Enter 0 to disable this feature.
	(0)-1000 (0)-1000	Lower and upper thresholds defined as a percentage of the active consoles when OPT = FACA.

Prompt	Response	Comment
		When the FACA/FACD option is changed, a new value for CWCL must be set or the default values are used. The CWCL values for the tenant-level are set equal to the customer-level values. CWCL is also prompted in LD 93.
CWTM	(0)-511 (0)-511	Lower and upper thresholds for Call Waiting Time. The Call Waiting lamp starts flashing when the call in the queue exceeds the upper threshold. The lamp continues to flash until the wait time is less than the lower threshold. Enter 0 to disable this feature.
CWUP	(NO) YES	Call Waiting queue Update Prompted with M2250 Attendant Console (DCON) package 140. The M2250 type consoles can be notified every time there is a change to the Call Waiting queue.
DBRC	2-(60)-120	Duration Between Reminder Cadences for audible reminder of held call Odd entries are rounded up to a valid multiple of two seconds.
DCMX	1-255	Digit Conversion Maximum number of tables The sum of the values for MAXT and DCMX cannot exceed 255 or $MAXT + DCMX = 255$.
DFN0	1-(4)-15	Number of Distinctive Ringing cycles for CFNA, Option 0 CFNA has three ringing cycle options. This assigns the Distinctive Ringing cycles for Option 0.
DFN1	1-(4)-15	Number of Distinctive Ringing cycles for CFNA, Option 1
DFN2	1-(4)-15	Number of Distinctive Ringing cycles for CFNA, Option 2
DGRP	(0)-2046	Maximum number of Dial Intercom Groups (DIG) Prompted with Dial Intercom (DI) package 21
DIDN	(YES) NO SRCH	Precede the DN of the active DN key with the digits in HLCL Use digits in HLCL Find a DN key of the set from key 0 which has DIDN of a CLID entry set to YES

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Prompt	Response	Comment
DIDT	0-(14)-30 0-(14)-30 0-(14)-30	Dial tone and Interdigit timeout for DTMF sets. The 1st parameter is the time before first digit or the dial tone time. The 2nd parameter is the time between the first and second digits. The 3rd parameter is the time between digits after the second digit. Odd entries are rounded down to a valid multiple of two seconds. Note: When the Single Digit Access to Services feature is configured, it is recommended that the middle value (for first digit timeout) be set to a lower value than the default.
DIND	0-(30)-60 0-(30)-60 0-(30)-60	Dial tone and Interdigit timeout for non-DTMF sets. The 1st parameter is the time before first digit or the dial tone time. The 2nd parameter is the time between the first and second digits. The 3rd parameter is the time between digits after the second digit. Odd entries are rounded down to a valid multiple of two seconds. Note: When the Single Digit Access to Services feature is configured, it is recommended that the middle value (for first digit timeout) be set to a lower value than the default.
DISD	0-(1)-9, *, #	Control digit for Disconnect
DLDN	(NO) YES	Departmental Listed Directory Numbers. Prompted with Departmental Listed Directory Number (DLDN) package 76.
DLT	(OVF) ATN OFA	Direct Inward System Access (DISA) Lockout treatment Overflow tone Attendant Overflow then attendant
DNDH	(NO) YES	Do Not Disturb Hunting allowed Prompted with Meridian Hospitality Voice Services (MHVS) package 179.
DNDL	(NO) YES	Do Not Disturb Lamp on 500/2500 telephones Prompted with Do Not Disturb Individual (DNDI) package 9.

Prompt	Response	Comment
DNDT	(BST) ATT RAN	Do Not Disturb intercept Treatment Busy Tone Attendant RAN trunk Prompted with Do Not Disturb Individual (DNDI) package 9
DTMF	(NO) YES	End-to-End Signaling feedback tone Use the improved EES for single tone feedback Use the current EES for DTMF feedback tone
ECC1		Enhanced Controlled Class of Service level 1 ECC1 is prompted with Enhanced Control Class of Service (ECCS) package 173. This access restriction applies when CCRS is active. When CCRS is inactive, the set reverts to the Access Restrictions defined in LD 10 or LD 11. Allowed access restrictions are:
	(UNR) CTD CUN FR1 FR2 FRE SRE TLD	Unrestricted Conditionally Toll Denied Conditional Unrestricted Fully Restricted class 1 Fully Restricted class 2 Fully Restricted Semi-Restricted Toll Denied
ECC2		Enhanced Controlled Class of Service level 2 ECC2 is prompted with Enhanced Control Class of Service (ECCS) package 173. This access restriction applies when CCRS is active. When CCRS is inactive, the set reverts to the Access Restrictions defined in LD 10 or LD 11. Allowed access restrictions are:
	(UNR) CTD CUN FR1 FR2 FRE SRE TLD	Unrestricted Conditionally Toll Denied Conditional Unrestricted Fully Restricted class 1 Fully Restricted class 2 Fully Restricted Semi-Restricted Toll Denied
ECDR	(NO) YES	Print End-to-End Signaling digits in CDR record

LD 15

Prompt	Response	Comment
EEST	(NO) YES	End-to-End Signaling Tone to originating party Do not send feedback tone to the originator Send feedback tone to originator When EEST = NO <i>or</i> when EEST = YES and DTMF = NO, <i>Improved</i> End-to-End Signaling is used. When EEST = YES and DTMF = YES, <i>Enhanced</i> End-to-End Signaling is used. EEST is prompted with End-to-End Signaling (EES) package 10.
ELPL	1-15	Electronic Lock Password Length (number of digits)
ENS	(NO) YES	Enhanced Night Service enabled Prompted with Enhanced Night Service (ENS) package 133.
ENTRY	xx	CLID entry to be configured. CLID entries must be between 0 and the value entered at the SIZE prompt - 1. Precede entry or entries with X to delete. ENTRY is repeated until a <cr> is entered.
EXTT	(NO) YES	Prevent connection of supervised external trunks via either call transfer or conference Allow connection of supervised external trunks via either call transfer or conference
FCAF	(NO) YES	Forced Charge Account active Prompted with Forced Charge Account (FCA) package 52
FCNC	0-99	FCA Network Class of Service
FCR_DATA	(NO) YES	Change New Flexible Code Restriction options
FFC_DATA	(NO) YES	Change Flexible Feature Code options
FFCS	(NO) YES	Change Flexible Feature Code end-of-dialing indicator
FLEN	1-(16)	Flexible length of digits expected
FLSH	xxx	Switchhook Flash timing. Where: xxx = 20-(45)-768 The timing specified will be used for EPE equipment only. XPE equipment will use the FLSH specified in LD 97.

Prompt	Response	Comment
FMOP	(NO) YES	Flexible Misoperation options are not required Flexible Misoperation options are required
FNAD	(HNT) ATT FDN NO	Call Forward No Answer treatment for DID calls Hunt DN, defined in telephone data block CFNA to attendant Flexible CFNA DN, defined in telephone data block CFNA not allowed
FNAL	(HNT) ATT FDN NO	Call Forward No Answer treatment for all other calls including trunk calls marked as internal. An internal trunk call is a trunk call in which LD 16 prompt RCLS = INT. If FNAL = HNT, no answer calls are forwarded to the Hunt DN. Hunt DN (defined in telephone data block) CFNA to attendant Flexible CFNA DN (defined in telephone data block) CFNA not allowed
FNAT	(HNT) ATT FDN NO	Call Forward No Answer treatment for external Trunk non-DID calls. An external call is defined as a trunk call in which LD 16 prompt RCLS = EXT. If FNAT = FDN or HNT, then Call Forward by Call Type (CFCT) handles the call. Hunt DN, defined in telephone data block CFNA to attendant Flexible CFNA DN, defined in telephone data block CFNA not allowed
FNP	(YES) NO	Flexible Numbering Plan feature is enabled for customer.
FOPT	0-(14)-30	Flexible Orbiting Prevention Timer The number of seconds in two second intervals that CFW should be suspended on a set that has just forwarded a call off-node. Odd entries are rounded up to the next valid entry. A response of 0 disables FOPT.
FRRT	0-127	First Recorded Announcement or RAN Route for Recorded Overflow Announcement (ROA). Prompted with Recorded Overflow Announcement (ROA) package 36 and OPT = ROI. Enter X to remove

LD 15

Prompt	Response	Comment
FRT	0-(20)-2044	First RAN Time seconds before first RAN given.
FTR_DATA	(NO) YES	Change Features and options
GPXX	x	<p>Unsolicited status events 1, 2, 3, 4, 5 or 6</p> <p>Unsolicited status events are used with Meridian Link applications. Enter the message to be sent to the host computer for telephones in the group, where:</p> <ul style="list-style-type: none">• 0 = No status messages monitored• 1 = On-Hook• 2 = Off-Hook• 3 = Ringing• 4 = Active• 5 = Disconnect• 6 = Unringing <p>Precede the value with an X to remove a status from the Group report.</p> <p>The prompts GP02 through GP15 appear when Meridian Link package is equipped. Default values are in Group 0 and Group 1:</p> <ul style="list-style-type: none">• Group 0 = sends no messages• Group 1 = sends all messages <p>Groups 0 and 1 cannot be entered or changed here, but can be entered in response to the IAPG prompt in LD 10 and LD 11.</p>

Prompt	Response	Comment
GP02	n n n n n	<p>Group 2 status events</p> <p>The following comment applies to prompts GP03 through GP15:</p> <p>Unsolicited status events are used with Meridian Link applications. Enter the message to be sent to the host computer for telephones in the group, where:</p> <ul style="list-style-type: none"> • 0 = No status messages monitored • 1 = On-Hook • 2 = Off-Hook • 3 = Ringing • 4 = Active • 5 = Disconnect • 6 = Unringing <p>Precede the value with an X to remove a status from the Group report.</p> <p>Default values are in Group 0 and Group 1:</p> <ul style="list-style-type: none"> • Group 0 sends no messages • Group 1 sends all messages <p>Groups 0 and 1 cannot be entered or changed here, but can be entered in response to the IAPG prompt in LD 10 and LD 11.</p> <p>The prompt GP02 through GP15 are presented only with Integrated Services Digital Network Application Module Link for 3rd Party Vendors (IAP3P) package 153 equipped.</p>
GP03	n n n n n	Group 3 status events 1, 2, 3, 4, 5 or 6 assigned
GP04	n n n n n	Group 4 status events 1, 2, 3, 4, 5 or 6 assigned
GP05	n n n n n	Group 5 status events 1, 2, 3, 4, 5 or 6 assigned
GP06	n n n n n	Group 6 status events 1, 2, 3, 4, 5 or 6 assigned
GP07	n n n n n	Group 7 status events 1, 2, 3, 4, 5 or 6 assigned
GP08	n n n n n	Group 8 status events 1, 2, 3, 4, 5 or 6 assigned
GP09	n n n n n	Group 9 status events 1, 2, 3, 4, 5 or 6 assigned
GP10	n n n n n	Group 10 status events 1, 2, 3, 4, 5 or 6 assigned

LD 15

Prompt	Response	Comment
GP11	n n n n n	Group 11 status events 1, 2, 3, 4, 5 or 6 assigned
GP12	n n n n n	Group 12 status events 1, 2, 3, 4, 5 or 6 assigned
GP13	n n n n n	Group 13 status events 1, 2, 3, 4, 5 or 6 assigned
GP14	n n n n n	Group 14 status events 1, 2, 3, 4, 5 or 6 assigned
GP15	n n n n n	Group 15 status events 1, 2, 3, 4, 5 or 6 assigned
HLCL	0-99 ... 99	Local code for home local number or Listed directory number (1-12 digits). Precede with X to remove.
HLOC	100-99999999	Home Location Code (ESN) as defined in LD 90 Up to 7 digits with extended code. Prompted when ISDN=YES.
HMDN	xxxx	Home DN
HNTN	0-999999	National code for home national number (1-6 digits). Precede with X to remove.
HRCL	0-512	Hold Recall timer
HWTT	0-(300)-600	Length of Howler Tone in seconds. Prompted with Multi Language Wake Up (MLWU) package 206, and Operator Callback (OPCB) package 126. Where: 0 = continuous tone
ICI	x aaa	Attendant Incoming Call Indicators Where: x = 0-9 if OPT = IC1, or x = 0-19 if OPT = IC2. Where: aaa = ICI function name. Multiple responses can be entered for the same key.
	x CAy	ICI number, Station Category Indication priority level, (where y = 1-7)
	x CFB	ICI number, Call Forward Busy
	x CFN	ICI number, Call Forward No Answer
	x DFO	ICI number, dial 0 fully restricted
	x DLO	ICI number, dial 0
	x IAT	ICI number, Inter-Attendant call
	x IEN	ICI number, Idle Extension Notification

Prompt	Response	Comment
	x INT	ICI number, Intercept
	x LCT	ICI number, lockout intercept
	x LD0	ICI number, listed DN0
	x LD1	ICI number, listed DN1
	x LD2	ICI number, listed DN2
	x LD3	ICI number, listed DN3
	x LD4	ICI number, listed DN4
	x LD5	ICI number, listed DN5
	x MTR	ICI number, Meter Recall
	x MWC	ICI number, Message Waiting Calls
	x NCO	ICI number, Network CO trunk
	x NDID	ICI number, Network DID trunk
	x NFEX	ICI number, Network FEX trunk
	x NTIE	ICI number, Network TIE trunk
	x NUL	ICI number, remove ICI appearances
	x NWAT	ICI number, Network WAT trunk
	x RDI	ICI number, RDI intercept
	x RLL	ICI number, Recall
	x Ryyy Ryyy	ICI number, one or more Route numbers
	x TRK	ICI number, Trunk types and local route numbers
IDCA	(NO) YES	Incoming DID Digit Conversion Allowed NFCR must = YES before IDCA can = YES. Prompted with Incoming Digit Conversion (IDC) package 113
IDEF		Internal/external definition Network wide INY/EXT definition for Call Forward/Hunt by Call Type, Internal Call Forward, and Break In Indication Prevention.
	(NO)	A call will not be treated as internal or external according to the network wide definition of internal and external calls. When IDEF = NO, information that could have been entered previously at the IDEF prompt in LD 16 will not influence call treatment.
	YES	A call will be treated as internal or external according to the network wide definition of internal and external calls. Changing IDEF to NO and then back to YES will not reset the data entered in LD 16.

LD 15

Prompt	Response	Comment
IFLS	(NO) YES	Allow switchhook flash signal from 500/2500 sets Ignore switchhook flash signal from 500/2500 sets If YES then sets require ground buttons.
IMA	(NO) YES	Integrated Messaging System enabled Prompted when OPT=MCI
IMPH	(NO) YES	CDR for Incoming Packet data call
IMS	(NO) YES	Change Integrated Messaging System features Prompted with Integrated Message System (IMS) package 35.
IMS_DATA	(NO) YES	Change Intergraded Message Service options
INT	(NO) YES	Internal Malicious Call Trace Alarm If the alarm is to be rung when MCT is activated against internal calls ALRM = YES and INT = YES.
INTL	0-9999	Country code (1-4 digits). Precede with X to remove.
INT_DATA	(NO) YES	Change Intercept Treatment options
INTR	(NO) YES	Change Intercept Treatment Intercept treatments determine the action performed when a user makes an invalid call. Each intercept prompt requires four entries representing the type call: <ul style="list-style-type: none">• first entry = station/DISA• second entry = attendant extended• third entry = TIE trunk• fourth entry = CCSA/DID trunk One of the following responses is required for each entry: <ul style="list-style-type: none">• ATN = Intercept to Attendant• BSY = Busy Tone• NAP = Not Applicable• OVF = Overflow Tone• RAN = Intercept to Recorded Announcement• SRC1-SRC8 = Announcement Source Channel The defaults are shown for each Intercept prompt. If RAN is specified, you are prompted for the RAN route number.

Prompt	Response	Comment
IRFP	x...x	Internal Attendant Remote Call Forward Password The password length is 1-8 digits. The password is numeric only.
IRFR	(NO) YES	Internal Attendant Remote Call Forward Password Required
IRNG	(NO) YES	Intercom Ring Distinctive Ringing for Dial Intercom
ISDN	(NO) YES	Integrated Services Digital Network allowed for customer Prompted when ISDN signaling package 145 is equipped and at least one PRA link is configured.
ITH1	1-255	Visual Indication Threshold 1 TH1 ð calls in queue ð ITH2
ITH2	1-255	Visual Indication Threshold 2 ITH2 ð calls in queue ð ITH3
ITH3	1-255	Visual Indication Threshold 3 calls in queue > ITH3
LA11	0-511	Primary RAN route for Language 1 Prompted with Multi-Language Wake Up (MLWU) package 206.
LA12	0-511	Secondary RAN route for Language 1
LA21	0-511	Primary RAN route for Language 2
LA22	0-511	Secondary RAN route for Language 2
LA31	0-511	Primary RAN route for Language 3
LA32	0-511	Secondary RAN route for Language 3
LA41	0-511	Primary RAN route for Language 4
LA42	0-511	Secondary RAN route for Language 4
LA51	0-511	Primary RAN route for Language 5
LA52	0-511	Secondary RAN route for Language 5

LD 15

Prompt	Response	Comment
LADN	x...x	Local Attendant Directory Number This must be different from the DN entered for ATDN. Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
LDA0	1-63 ALL	Attendant consoles associated with LDN0 Allow LDN0 on all attendants. Precede X to remove.
LDA1	1-63 ALL	Attendant consoles associated with LDN1 Allow LDN1 on all attendants. Precede with X to remove.
LDA2	1-63 ALL	Attendant consoles associated with LDN2 Allow LDN2 on all attendants. Precede X to remove.
LDA3	1-63 ALL	Attendant consoles associated with LDN3 Allow LDN3 on all attendants. Precede X to remove.
LDA4	1-63 ALL	Attendant consoles associated with LDN4 Attendant consoles associated with LDN4
LDA5	1-63 ALL	Attendant console associated with LDN5 Attendant console associated with LDN5
LDBZ	n n n n n n ALL	Listed Directory Number Bussing groups 0,1,2,3,4,or 5. The Departmental Listed Directory Number groups which should be buzzed when a Listed Directory Number/Code Blue call is in the attendant queue. Precede with 'X' to remove.
LDN_DATA	(NO) YES	Change Departmental Listed Directory Numbers
LDN0	x...x	Listed Directory Number 0 Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry. LDN0 must be defined for ISDN PRI DID service. The length of LDN0 determines the number of trailing digits translated as the dialed DN on PRI DID routes.
LDN1	x...x	Listed DN 1 Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry.
LDN2	x...x	Listed DN 2

Prompt	Response	Comment
		Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry.
LDN3	x...x	Listed DN 3 Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry.
LDN4	x...x	Listed DN 4 Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry.
LDN5	x...x	Listed DN 5 Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Precede with X to remove an entry.
LDNT	(NO) YES	Listed Directory Number Tone Special tone to CAS main attendant when presented with LDN calls.
LDTT	2-(6)-30	Line disconnect tone timer for 500/2500 telephones in seconds
LEND	(NO) YES	List Entry Number Delimiter A delimiter (*) is neither required nor allowed between the list entry number and telephone number A delimiter (*) is required between the list entry number and telephone number. LEND is prompted with packages scc-1 or ssc-34
LFFD	x00..x00	First DN of lamp field array for ILF. The system shows the status of the next 150 consecutive DNs. Last two digits of first DN must be 00. First DN must start on even 100 (e. g., 3400 is acceptable, but 3450 is not). Precede with X to remove. Prompted when OPT = ILF.
LFTN	c u	Lamp Field array Terminal Number LFTN is prompted again for a second lamp field array. For Supervisory Console, when assigning lamp field array to show Attendant status, enter the secondary TN of the console. To remove the second LFTN, enter "0". To remove both LFTNs, enter XLF in response to prompt OPT. Prompted when OPT = ILF. Not allowed for 2000/3000 series telephones.
LINK	(NO) YES	ACD DNIS Link option. Prompted if OPT = DNI.

LD 15

Prompt	Response	Comment
LLT	(OVF) ATN OFA	Flexible Line Lockout Treatment Overflow tone Attendant Overflow, then Attendant
LOCL	1-(10)	Flexible length of Vacant Number Routing (VNR) Location digits (LOC). Enter the maximum number of LOC digits expected by VNR.
LSC	1-9999999	<p>Local Steering Code. LSC can be one to seven digits.</p> <p>LSCs are required if the CDP DNs are longer than the local PDNs. The CLID sent for a CDP call is composed of the LSC defined in LD 15 plus the PDN of the calling set.</p> <p>Various ISDN network features depend on the CLID as the return address for sending feature control messages. Multiple LSCs may be defined in LD 87 for CDP but only one LSC can be defined here for the CLID.</p> <p>The LSC prompt appears only if the user has a five or six digit dialing plan, or if the DPNSS software package is equipped. LSC is prompted here if ISDN = NO, otherwise LSC is a sub-prompt of ISDN.</p> <p>Precede with X to remove</p>
MAIN	(NO) YES	CAS Main
MATT	(NO) YES	Consoles used as Message Center Prompted with Message Waiting Center (MWC) package 46 and OPT = MCI.
MAXT	1-255	<p>Maximum number of NFCR translation tables</p> <p>Once defined a lower value cannot be entered for MAXT. The sum of the values for MAXT and DCMX cannot exceed 255 or MAXT + DCMX ≤ 255 per customer.</p>

Prompt	Response	Comment
MBG	(0)-65535	Multi-location Business Group. Where: <ul style="list-style-type: none"> • 0 = no indication • 1 = reserved for public network • 2-65535 = Business Group Identifiers <p>This parameter is used to define the Multi-location Business Group. It is not currently used by the MSL-1, but is added for interfacing with systems that require it.</p>
MBNR	(OVF OVF OVF ATN)	Maintenance Busy Numbers
MCDC	(NO) YES	Malicious Call DN/CLID printing allowed
MCR	(NO) YES	Mini-CDR equipped
MCRT	xxxx	Malicious Call Trace Recorder route number as defined in LD 16.
MDID	(NO) YES	No Answer DID calls routed to Message Center Prompted with Message Waiting Center (MWC) package 46 and OPT = MCI.
MFID	a	Manufacturer Identifier. a = any alpha character 'X' followed by the Manufacturer Identifier of the Message Waiting Indication Non Specified Information table to delete. 'XALL' to remove all the existing Message Waiting Indication Non Specified Information tables.
MHLD	(NO) YES	Manual Hold after inquiry is not required Manual Hold after inquiry is required
MPO_DATA	(NO) YES	Change Multi Party Options
MPOP	(NO) YES	Multi-Party Operations Do not define certain multi-party options Define certain multi-party options Prompted with Multi-Party Operations (MPO) package 141.
MSCD	(NO) YES	Mandatory Speed Call Delimiter End of dial speed call delimiter is optional A delimiter is required to store the number. A confirmation tone is given if this option is configured.

LD 15

Prompt	Response	Comment
		MSCD is prompted with package scc-1.
MSSC	a	a = any alphanumeric character Manufacturer-specific service character for Message Waiting Notification.
MTAR	(NO) YES	Disable Meridian Mail Trunk Access Restriction Enable Meridian Mail Trunk Access Restriction MTAR is prompted if OPT = MCI and Message Center (MWC) package 46 is equipped.
MURT	0-511 X	Music Route Prompted if WAIT = MUS. To remove.
MUS	(NO) YES	Music for Sets Prompted with Enhanced Music (EMUS) package 119.
MUSR	(0)-511	Music Route for Sets The default is route "0" which is not normally a music route. Enter X to remove. Prompted if MUS = YES.
MWFB	(NO) YES	DID calls to busy telephones routed to Message Center Prompted with Message Waiting Center (MWC) package 46 and when OPT = MCI.
NBLK	(OVF OVF OVF ATN)	NARS/BARS blocked calls
NCOS	(0)-99	Network Class of Service for all Attendant consoles in this customer.
NDID	(NO) YES	No Answer non-DID calls routed to Message Center Prompted with Message Waiting Center (MWC) package 46 and when OPT = MCI.
NET_DATA	(NO) YES	Change ISDN and ESN networking options

Prompt	Response	Comment
NFCR	(NO) YES	New Flexible Code Restriction Do not enable New Flexible Code Restriction Enable New Flexible Code Restriction To build an IDC table in LD 49, NFCR and IDCA must be set to YES. NFCR is prompted with New Flexible Code Restriction (NFCR) package 49.
NFNA	(0)-63	Night Forward No Answer ring cycles The number of times a DID/DOD and CO trunk call will ring a set before being disconnected during Night Service. Prompted if OPT = DNCA.
NFNS	(0)-504	Night Forward No Answer Seconds If a value is entered for this prompt all outgoing CO/DOD trunk calls in a waiting state, and all incoming CO/DID trunk calls in the answered state will be disconnected after the time in seconds expires as entered in this prompt. The entered value must be a multiple of 8. Prompted if OPT = DNCS.
NINV	(OVF OVF OVF ATN)	Invalid NARS/BARS call
NIT	2-(8)	Network Alternate Route Selection (NARS) Interdigit Timer
NIT_DATA	(NO) YES	Change Night Service options
NIT1	x...x	First Night Service DN by time of day Up to four night service DNs can be defined. The time of day is specified by the prompts TIM1 to TIM4.
NIT2	x...x	Second Night Service DN by time of day
NIT3	x...x	Third Night Service DN by time of day
NIT4	x...x	Fourth Night Service DN by time of day
NIT5	x...x	Network Alternate Route Selection Interdigit Timer
NITR	(OVF OVF OVF ATN)	NARS/BARS invalid translation
NNT	0-253	Night Number Table

LD 15

Prompt	Response	Comment
		Speed Call List number designated to be used as the Night Number Table
NOTI	(NO) YES	Non Specified Information string for Message Waiting Notification.
NRES	(OVF OVF OVF ATN)	NARS/BARS calls which are restricted by Supplemental Digit Restriction (SDRR) intercept treatment. See prompt INTR for details.
NRWU	2-(5)	Number of Rings for Wake Up before recall to attendant
NSCP	(NO) YES	Network Station Camp-On to sets on this node allowed
NSO	0-9	Night Service Option number
NWT	(NO) YES	Night Call Waiting Tone enabled
OAS_DATA	(NO) YES	Change Off-Hook Alarm Security options
OCB1	(0) – [MAXT-1]	Outgoing Call Barring level 1 NFCR tree number to be used for OCB level 1. You may enter any digit between zero and your response to the MAXT prompt minus one. The default entry to OCB1 is zero (0).
	255	255 is a special entry which disallows this level.
OCB2	(0) – [MAXT-1]	Outgoing Call Barring level 2 NFCR tree number to be used for OCB level 2. You may enter any digit between zero and your response to the MAXT prompt minus one. The default entry to OCB2 is zero (0).
	255	255 is a special entry which disallows this level.
OCB3	(0) – [MAXT-1]	Outgoing Call Barring level 3 NFCR tree number to be used for OCB level 3. You may enter any digit between zero and your response to the MAXT prompt minus one. The default entry to OCB3 is zero (0).
	255	255 is a special entry which disallows this level.
ODN0	xxxx	OHAS DN for zone 0
ODN1	xxxx	OHAS DN for zone 1
ODN2	xxxx	OHAS DN for zone 2

Prompt	Response	Comment
ODN3	xxxx	OHAS DN for zone 3
ODN4	xxxx	OHAS DN for zone 4
ODN5	xxxx	OHAS DN for zone 5
ODN6	xxxx	OHAS DN for zone 6
ODN7	xxxx	OHAS DN for zone 7
ODN8	xxxx	OHAS DN for zone 8
ODN9	xxxx	OHAS DN for zone 9
OHAS	(NO) YES	Off-Hook Alarm Security Enter X to remove the OHAS DNs for the following zones.
OMPH	(NO) YES	CDR for outgoing packet data call This is the Call Detail Records for an outgoing packet data call from the Meridian Packet Handler to the Public Switched Packet Data Network
OPT	aaa	Options Multiple options separated by spaces are allowed in response to the OPT prompt. The last option must be followed by a carriage return <cr>. The <cr> inputs the options selected and is followed by either the next prompt or a system message.
	(BIND) BBIN EBIN	Break-In Indication Denied Basic Break-In Indication Extended Break-In Indication Only with Attendant Break-In (BKI) package 127.
	(BIXA) BIXD	Break-In to external call Allowed Break-In to external call Denied Only with Attendant Break-In (BKI) package 127.
	(BLA) BLD	Break-In to Line Lockout Set Allowed Break-In to Line Lockout Set Denied Only with Attendant Break-In (BKI) package 127.

LD 15

Prompt	Response	Comment
	(CFO) CFF	Call Forward Originating Call Forward Forwarding Either the Originating or Forwarding party's Class of Service is used to determine access to services or features on Call Forward.
	(CFRD) CFRA	Call Forward Reminder tone for 500/2500 telephone Call Forward Reminder tone for 500/2500 telephone
	(COX) COP	Central Office call No Priority for Ringing Central Office call Priority for Ringing Number Pickup or RNPU and Group Call Pickup GPUA
	(CPD) CPA	Call Park Denied Call Park Allowed. Call Park (CPRK) package 33 must be equipped.
	CPN	CPN enables the Call Park Network wide (CPRKNET) option. CPRKNET package 306 must be equipped.
	(CTD) CTA	Camp-On Tone Denied Camp-On Tone Allowed
	(CWRD) CWRA	CFNA treatment for Call Waiting calls on a DN Denied CFNA treatment for Call Waiting calls on a DN Allowed
	(DBD) DBA	Flexible Incoming Tones Denied on digital sets Flexible Incoming Tones Allowed on digital sets
	(DNCA)	If DNCA is entered, all DID/CO or DOD calls are disconnected after the number of ring cycles defined by the response to the NFNA prompt while the system is in Night Service.
	(DNX) DNI	ACD Dialed Number Identification Service feature excluded ACD Dialed Number Identification Service feature Included Only with Dialed Number Identification Service (DNIS) package 98
	(DSX) DSI	Data Services or server IS Excluded Data Services or server IS Included Only with Attendant Break-In (BKI) package 127.
	(FKA) FKD	Forward Key Allowed Forward Key Denied
	(HLPD) HLPA	Individual Hold Lamp Option Denied. Individual Hold Lamp Option Allowed.

Prompt	Response	Comment
(HRLD) HRLA		Individual Hold Release Option Denied. Individual Hold Release Option Allowed.
(HTU) HTR		Hot Line access Unrestricted Hot Line access Restricted If Restricted only Hot Line calls may terminate on Hot Line DN's. Only with Enhanced Hot Line (HOT) package 70.
(HVD) HVA		Handsfree Voice call Denied Handsfree Voice call Allowed
(IC1) IC2		Incoming Call Indicator key/lamp strips One key/lamp strip = 10 ICIs Two key/lamp strips = 20 ICIs
(IHD) IHA		Individual Hold Denied Individual Hold Allowed
(LOD) LOA		Lockout Denied Lockout Allowed LOA locks an attendant out of re-entering an established call on the console Hold key. The attendant can override with the Barge-In feature.
(LRD) LRA		Last Number Redial Denied Last Number Redial Allowed Only with Last Number Redial (LNR) package 90.
(MCTD) MCTA		Malicious Call Trace signal Denied Malicious Call Trace signal Allowed Only with Malicious Call Trace (MCT) package 107
(MCX) MCI		Message Center Excluded Message Center Included
(MWUD) MWUA		Message Waiting Unconditional Denied Message Waiting Unconditional Allowed
(PVCA) PVCD		Prevention of reciprocal Call Forward Allowed Prevention of reciprocal Call Forward Denied
(REA) RED		Release on Exclusion Allowed Release on Exclusion Denied

LD 15

Prompt	Response	Comment
	(RND) RNA	Ring Again No Answer Denied Ring Again No Answer Allowed
	(ROX) ROI	Recorded Overflow Announcement Excluded Recorded Overflow Announcement Included This treatment applies exclusively to congested consoles with Recorded Overflow Announcement (ROA) package 36.
	(RTD) RTA	Coordinated Dialing Plan routing feature Denied Coordinated Dialing Plan routing feature Allowed RTA allows DID routing with Distant Steering Codes over CO and WATS trunks. Only with Call Detail Recording (CDP) package 59.
	(RTR) ROR	Terminating side of call determines ringing or buzzing cadence used Originating side of call determines ringing or buzzing cadence used Only with Flexible Tones and Cadences (FTC) package 125.
	(SBD) SBA	Flexible Incoming Tones Denied for SL-1 telephones Flexible Incoming Tones Allowed for SL-1 telephones Only with Flexible Tones and Cadences (FTC) package 125.
	(SDDE) SDAL	Single Digit Access denied Single Digit Access allowed
	(SYD) SYA	Secrecy Denied Secrecy Allowed
	(TTAD) TTAA	Time To Answer and Abandoned call records Denied Time To Answer and Abandoned call records Allowed Only with New Format CDR (FCDR) package 234.
	(VOBD) VOBA	Make Set Busy and Voice Call Override Enhancement Denied Make Set Busy and Voice Call Override Enhancement Allowed
	(XBL) IBL	Exclude Enhanced Busy Lamp Field Include Enhanced Busy Lamp Field IBL and ILF cannot be used together. Only with M2250 Attendant Console (DCON) package 140.
	(XDP) IDP	Exclude Digit Display Include Digit Display

Prompt	Response	Comment
	(XLDN) NLDN	Network-wide LDN denied Network-wide LDN allowed
	(XLF) ILF	Exclude Busy Lamp Field array Include Busy Lamp Field array Busy Lamp Field Array is only used on QCW type consoles. IBL and ILF cannot be used together.
	(XTG) ITG	Exclude key/lamp expansion module Include key/lamp expansion module Used as Trunk Group Busy field or supervisory lamp field
PBL		Call presented has higher precedence.
K	(ATN) RAN CPAS OVF	Attendant Ran trunk Central Precedence answering station Overflow tone
PCDS	(NO) YES	Programming of Control Digits is not required Programming of Control Digits is required
PCMC	0-(15)-31	Pulse Code Modulation Conversions permitted in a network connection, μ -Law to A- Law or A- Law to μ -Law, in a network connection
PELK	(NO) YES	Do not enable Electronic Lock on Private Lines Enable Electronic Lock on Private Lines
PFAN	(ATN) RAN CPAS	Intercept if dialed DN fails to answer (Call waiting) Attendant Ran trunk Central Precedence answering station
PFNA	(ATN) RAN CPAS	Intercept if dialed DN fails to answer Attendant Ran trunk Central Precedence answering station

LD 15

Prompt	Response	Comment
PHDT	1-(30)-63	Permanent Hold Timer Number of two second intervals between reminders, for example: 30 = 60 seconds. If Audible Reminder of Held Calls (ARHC) is enabled then DBRC takes precedence over PHDT. Prompted with 2500 Set Features (SS25) package 18.
PHIP	(ATN) RAN CPAS OVF	Precedence dialed is higher than allowed. Attendant Ran trunk Central Precedence answering station Overflow tone
PICP	(ATN) RAN CPAS OVF	Intercept treatment if called party cannot be preempted. Attendant Ran trunk Central Precedence answering station Overflow tone
PINT	(NO) YES	Change precedence Intercept treatment.
PINX_DN	xx...x	Node DN
PKND	(1)-4	Number of digits Dialed for Group Pickup Prompted with Directed Call Pickup (DCP) package 115. To determine the number of digits, count the number of digits of the highest number RNPG group.
PNI	1-32700	Private Network Identifier Each customer data block must have a unique PNI when multi-customer option is equipped. The PNI in the CDB functions as a logical customer number for routing incoming non-call-associated Transaction Capability Application Part (TCAP) facility messages to the appropriate ESN translations. PNI = 1 is typical for customer 0. It must be matched by the PNI in the far end RDB. Default PNI = 0 prevents the operation of features such as NRAG, NACD and NMS. Within one network, use the same value for PNI in both LD 15 and LD 16. When inter-working with different networks, the LD 15 PNI is for the local system and the LD 16 PNI is for the target or remote switch.
PORT	0-15	CDR port

Prompt	Response	Comment
	<cr>	Stop PORT prompt To remove a CDR port, change CDR = NO. Exit and re-enter LD 15, select CDR = YES, then add only the desired CDR port numbers. Precede with X to remove.
PORT	(0)-15	Serial Data Interface Port Monitor One Serial Data Interface Port Monitor per customer is recommended.
PREO	(0) 1	Pretranslation Option Disabled Enabled To enable the Pretranslation feature, the Pretranslation data block or Calling Group to Speed Call correlation must be configured in LD 18. Prompted with Pretranslation (PXLT) package 92.
PRMT	aaa	aaa = sequence of any alphanumeric character. max of 126 characters. Subsequent Non Specified Information parameters for Message Waiting notification. 'PRMT' is re-prompted until <CR> is entered, then the next prompt 'CANC' is prompted.
PSTN	(NO) YES	Public Service Telephone Networks Limit the number of PSTNs allowed in a network connection to one PSTN. The default (NO) puts no limit on the number of PSTN connections.
PWD_DATA	(NO) YES	Customer related passwords
PWD2	x...x	Second level administration Password Password length is 4-16 characters and is defined in LD 17. The SPWD password is not updated unless the PWD2 password is entered correctly. PWD2 must be entered before new ATAC is accepted.
R2BN	0-23 0-59	RAN2 Begin time
R2ED	0-23 0-59	RAN2 End time
RALL	(NO) YES	Mandatory Recall is not required prior to dialing control digits Mandatory Recall is required prior to dialing control digits

LD 15

Prompt	Response	Comment
RAN1	0-127	Primary Ran route. Use RAN1 as the Primary route for Language 0 in a Multi Language AWU application. The route must be unique. TYPE must = AWR in LD 16.
RAN2	0-127	Secondary RAN route. Use RAN2 as the Secondary route for Language 0 in a Multi Language AWU application. The route must be unique. TYPE must = AWR in LD 16.
RANF	0-127	Music route. TYPE must = AWR in LD 16.
RANR	0-127	RAN Route number
RCLE	(ATN OVF ATN ATN)	Redirection Count Limit Exceeded as defined by TRCL ATN is not allowed for attendant calls. NAP is not allowed for any field for RCLE.
RCNT	0-(1)-5	Redirection Count for ISDN calls Maximum number of inter-node hops allowed in a network redirection call, only enforced when ISDN = YES. This field must be set to greater than 0 for a network redirection to take place.
RCY1	1-(6)-15	Number of Cycles of Re-ringing before forwarding to attendant or disconnecting. Applies only if RGNA = DAR or AAR.
RCY2	1-(4)-15	Number of Cycles of Ringing before forwarding to transferring station Valid only for the RGNA option.
RDR_DATA	(NO) YES	Change Call Redirection
RECD	(NO) YES	Malicious Call Trace Recorder is not activated Malicious Call Trace Recorder is activated Not prompted when defining a new customer.
REF0	xxxx	DN for Reference trunk 0
REF1	xxxx	DN for Reference trunk 1
REF2	xxxx	DN for Reference trunk 2

Prompt	Response	Comment
REF3	xxxx	DN for Reference trunk 3
REQ:		Request A colon following a prompt indicates enhanced processing. Enhanced processing allows a user to either view a list of possible responses or input an abbreviated response.
	?	Get a list of possible responses
	CHG	Change existing data block
	END	Exit overlay program
	NEW	Add new data block to the system
	OUT	Remove data block
RGNA	xxx yyy	Ringling No Answer treatment Where xxx is for internal calls and yyy is for external calls. Valid entries for xxx and yyy are: <ul style="list-style-type: none"> • AAR - Forward to Attendant or Night Service after re-ringing for RCY1 cycles • ATN - Forward to Attendant or Night Service • DAR - Disconnect After Re-ringing for RCY1 cycles • DIS - Disconnect • OVF - provide Overflow Tone • (STD) - Standard Operation (this is the default)
RICI	xx	ICI key numbers that may receive ROA Where: x = 0-9 if OPT = IC1 or 0-19 if OPT = IC2 Precede with X to remove.
RLA	0-127	Release Link route number. Route 31 is no longer an exclusively private route, unless designated as such in LD 16.
RLI	0-999	Route List Index
ROA_DATA	(NO) YES	Change Recorded Overflow Announcement
RPA	(NO) YES	Radio Paging Allowed
RR	0-127	RAN route number.

LD 15

Prompt	Response	Comment
RTIM	xxx yyy zzz	<p>Recall. Where:</p> <ul style="list-style-type: none">• xxx = 0-(30)-378 (for Slow-Answer)• yyy = 0-(30)-510 (for Camp-On)• zzz = 0-(30)-510 (for Call waiting) <p>These timers indicate in seconds the elapsed time before attendant recall. Slow Answer must be a multiple of six seconds while Camp-On and Call Waiting must be a multiple of two seconds, with odd numbers are rounded down.</p> <p>To change one timer all three fields must be input.</p> <p>For recalls timed at the local node using the redirection feature developed for DPNSS, no distinction can be made between Call Waiting calls and Slow-Answer recalls. The Slow-Answer value is used in both cases.</p>
RTSA	(RSAD) RSAA RSAX	<p>Recall To Same Attendant Denied Recall To Same Attendant Allowed Recall to Same Attendant allowed, with queuing on busy attendant</p>
SACP	(NO) SNGL ALL	<p>Semi-Automatic Camp-On not allowed Semi-Automatic Camp-On on a per-call basis Semi-Automatic Camp-On for all occurrences</p>
SATD	0-(1)-5	<p>Satellite Delays. Number of satellite delays allowed in a network connection</p>
SBLF	(NO) YES	<p>Standard Busy Lamp Field Prompted when response to SPVC is in the range 1-63.</p>
SBUP	(YES) NO	<p>Enable use of station control passwords for set based administration user level access.</p> <p>If SBUP = YES, a user needs to dial the User FFC followed by the Station Control Password to access User Level changes. If SBUP = NO, a user needs to dial only the User FFC.</p>
SCPL	0-8	<p>Station Control Password Length</p> <p>Must match network wide. SCPL replaces ELPL prompt.</p> <p>Enter "0" to disable the Electronic Lock (ELK) and Remote Call Forward (RCFW) features. A data dump and SYSLOAD are required to implement a change in the password length.</p>

Prompt	Response	Comment
SDFL	384-(1024)-2048	Signal Destination Flash Timing
SIZE	0-(256)-400 0	Specify maximum number of CLID entries needed.
SPRE	xxxx	Special Prefix number (1-4 digits) Precede with X to remove. The prefix must not conflict with the numbering plan.
SPVC	(0) 1-63	Supervisory console No Supervisor console Attendant number of Supervisory console Prompted with Supervisory Attendant Console (SPVC) package 93.
SPWD	xxxx	Secure Data Password Precede with X to remove. This password is entered when using LD 88 for authorization codes and LD 24 for Direct Inward System Access (DISA) block.
SRCD	0000-9999	Set Relocation Security Code. Default is (0000). Precede with X to remove. Prompted with Set Relocation (SR) package 53.
SRRT	0-127 X	Second RAN Route for ROA. Enter X to remove.
SRT	2-(40)-2044	Second RAN Time, in seconds before second RAN given
STCB	(NO) YES	Station Camp-On Busy allowed
STRG	(#), xxx	String to indicate end-of-dialing Up to three characters are allowed as defined by STRL. Valid entries are: digits 0 through 9, asterisk or *, and octothorpe or #. Default is (#). The default (#) cannot be used with the Outpulsing, Asterisk, and Octothorpe (OPAO) feature package 104.
STRL	1-3	String Length of end-of-dial indicator
T100	xxx...x	DN for Type-100 test line

LD 15

Prompt	Response	Comment
TGLD	0-(1)-9, *, #	Control digit for Toggle
TIM_DATA	(NO) YES	Change Timers
TIM1	hh mm	Hour and Minute for First Night Service DN. Enter the hour and minute for First Night Service DN. Where: hh = 0-23, mm = 0-59 Enter X to remove the time. TIM1 should be set earlier than TIM2, 3 and 4. If no time is entered here, the system assumes a 24-hour clock.
TIM2	hh mm	Time for Second Night Service DN
TIM3	hh mm	Time for Third Night Service DN
TIM4	hh mm	Hour and Minute for Fourth Night Service DN For all of the entries in the Night Service Time of Day (NSTOD) feature, entering X for the DN deletes the existing value for that entry. Entering <cr> allows the user to select an existing entry, or skip to another entry.
TIME	0-(15)	Malicious Call Trace Alarm Time
TNDM	0-(15)-31	Tandem threshold/loop avoidance limit This is the value permitted in a network connection. If the value entered is greater than 25, then 25 will be used for DPNSS calls. Prompted when Integrated Services Digital Network (ISDN) package 145 and ISDN Supplementary Features (ISDN INTL SUP) package 161.
TRCL	(0)-7	Total Redirection Count Limit Number of times that a call can be redirected before being intercepted. (0) means that redirection is not limited by this feature, but is limited by various configurations.
TRCR	(NO) YES	Carriage Return sent after each CDR message Note: TRCR must be set to YES in order to have Costed Call Records recorded on the Journal Call Processing Screen used in Hospitality applications.
TRNX	(NO)	Prevent transfer on ringing of supervised external trunks across a private network

Prompt	Response	Comment
	YES	Allow transfer on ringing of supervised external trunks across a private network
TST_DATA	(NO) YES	Change Test lines
TST0	xxxx	DN for Test Trunk 0
TST1	xxxx	DN for Test Trunk 1
TST2	xxxx	DN for Test Trunk 2
TST3	xxxx	DN for Test Trunk 3
TSTL	(NO) YES	<p>Test Lines for this customer</p> <p>Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p> <p>The following prompts are used for transmission testing. Refer to NTP 553-2001-325 Transmission Capabilities.</p>
TTBL	(0)-31	<p>Tone Table number</p> <p>Table 0, North American default values, is created when the first customer is created. Refer to the <i>Flexible Tone and Digit Switches</i> NTP for other tables.</p> <p>Prompted with Flexible Tones and Cadences (FTC) package 125.</p>
TYPE:	CDB DEFAULT ?	<p>Type of data block</p> <p>Customer Data Block</p> <p>Default Customer Data Block (when REQ = NEW)</p> <p>Get list of possible responses</p> <p>You may directly access a given data block by entering the first three or all the letters of one of the responses listed below.</p> <p>A colon following a prompt indicates enhanced processing. Enhanced processing allows a user to either view a list of possible responses or input an abbreviated response.</p> <p>You may view the revised <i>Prompts and responses</i> sequence for LD 15 on page 167.</p> <p>Gate openers:</p>
	AML_DATA	Application Module Link options
	ANI_DATA	Automatic Number Identification numbers

LD 15

Prompt	Response	Comment
	ATT_DATA	Attendant Console options
	AWU_DATA	Automatic Wake Up options
	CCS_DATA	Controlled Class of Service options
	CDR_DATA	CDR and Charge Account options
	FCR_DATA	New Flexible Code Restriction options
	FFC_DATA	Flexible Feature Code options
	FTR_DATA	Features and options
	IMS_DATA	Intergraded Message Service options
	INT_DATA	Intercept treatment options
	LDN_DATA	Departmental Listed Directory Numbers
	MPO_DATA	Multi-Party Options
	NET_DATA	ISDN and ESN Networking options
	NIT_DATA	Night Service options
	OAS_DATA	Off-Hook Alarm Security options
	PWD_DATA	Customer related Passwords
	RDR_DATA	Call Redirection
	ROA_DATA	Recorded Overflow Announcement options
	TIM_DATA	Timers
	TST_DATA	Test lines
UBRI	(OVF NAP NAP NAP)	Universal BRI
UMG	(NO) YES	User to User Messaging enabled
UST	(NO) YES	User Status Update enabled
VNR	(NO) YES	Vacant Number Routing Prompted with Flexible Numbering Plan (FNP) package 160.
VSID	0-15	Value added Server Identifier Enter the identifier number of the Value-Added Server or VAS providing the services such as Voice Messaging. Enter X to remove the VSID.
WAIT	(RGB) MUS SIL	Treatment during waiting time for ROA Ringback Music Silence
WUD	(NO)	Wake-up Delimiter is not required

Prompt	Response	Comment
	YES	Wake-up Delimiter is required A time entered during use of the Automatic Wake Up FFC Delimiter feature is valid only if the user enters “#” at the end of the time digits.
XRFP	x...x	External Attendant Remote Call Forward Password The password length is 1-8 digits. The password is numeric only.
XRFR	(NO) YES	External Attendant Remote Call Forward Password Required

LD 15

Page 230 of 860 Alphabetical list of prompts

Issued: November 1998
Status: Draft

LD 16—Route Data Block, Automatic Trunk Maintenance

This Overlay program allows data for trunk routes, ATM schedule hours, or ATM routes to be created or modified.

When the Overlay is loaded the available system memory and disk records are output in a header as follows:

```
RDB000  
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx  
DISK RECS AVAIL: xxxx
```

Trunk route 31 is no longer reserved for Private routes. Private routes can be configured individually by the customer on any available CO trunk route.

After making any changes to the route data block, IPE trunk cards must be downloaded with **ENLC c** command in LD 32.

Prompts and responses

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RDB: Route data block

Prompt	Response	Comment
REQ	aaaa	Request (aaaa = CHG, END, LCHG, NEW, or OUT)
TYPE	RDB	Type of data block = RDB (Route data block)
CUST	(0)	Customer number
DMOD	nn	Default model
ROUT	0-127	Route Number
DES	x...x	Designator field for trunk (0-16 character alphanumeric)
TKTP	a...a	Trunk Type (TKTP responses begin on page 274)
PRIV	(NO) YES	Private Line Route
ESN	(NO) YES	Electronic Switched Network or ESN pad control
SIGL	a...a	Layer 3 Signaling (a...a = APNS, BEL, DAS, DPN, NT4, or NTS)
CNVT	(NO) YES	Conventional (applies only to Tie trunks)
- DDMI	(0)-255	Digit Manipulation Index
- ATDN	(0)-x...x	Attendant DN
SAT	(NO) YES	Satellite used for trunk route via earth orbiting satellite
RCLS	aaa	Route Class (aaa = (EXT) or INT)
IDEF	(NET) LOC	Internal/external definition
DTRK	(NO) YES	Digital Trunk Route

- IFC	a...a	Interface type for route (IFC responses are listed on page 252)
- CLID	OPTx	Calling Line Identification (x = 0, 1, 2, 3, 4, or 5)
- PROG	a...a	Progress signal (a...a = NCHG, MALE, or MCON)
- SBN	(NO) YES	Send Billing Number
- SIDE	aaa	Meridian SL-1 Node Type (aaa = (NET) or USR)
- RCAP	a...a	Remote Capabilities (RCAP responses can be found on page 263)
BCOT	(0) - 4000	B-Channel Overload Control timer
INTC	(NO) YES	Speech calls to data sets are (NO = rejected; YES = intercepted) by the an attendant
ISDN	(NO) YES	Integrated Services Digital Network option
- MODE	a...a	Mode of operation (a...a = APN, ISLD, or PRA)
- DCH	0-15	D channel number
- DCHI	1-15	DCHI port number
- IFC	a...a	Interface type for route (IFC responses are listed on page 252)
- SBN	(NO) YES	Send Billing Number
- SRVC	a...a	Service type for AT&T ESS connections (SRVC responses can be found on page 268)
- - SRPM	0-(15)-255	Service Parameter
- - PNI	(0)-32700	Private Network Identifier
- NCNA	(YES) NO	Network Calling Name Allowed
- NCRD	(NO) YES	Network Call Redirection
- - TRO	(NO) YES	Trunk Route Optimization
- INAC	(NO) YES	Insert ESN Access Code to incoming private network call
- NSF	(NO) YES	Network Service Facility
- COTR	0-511	DID/CO Trunk Reference route number
- TIER	0-511	Tie Reference route number
- WATR	0-511	Wide Area Telephone Service or WATS Reference route
- CHTY	a...a	Channel Type (a...a = (BCH) or ABCH)
- CTYP	a...a	Call Type for outgoing direct dialed TIE route (a...a = (UNKN), CDP, INTL, LOC, NPA, NXX, or SPN)
- INAC	(NO) YES	Insert ESN Access Code
- ISAR	(NO) YES	Integrated Service Access Route
- - RTN	0-511	Route Number
- - CBCR	(NO) YES	Service route indicator
- - FACY	(NO) YES	Facility indicator

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-- SID	0-511	Service Identification
-- MIN	0-254	Minimum number of channels
-- MAX	1-254	Maximum number of channels
-- PRIM	(YES) NO	Primary
-- NCOS	(0)-99	Network Class of Service group number
-- CLS	a...a	Class of Service (a...a = (CTD), CUN, FR1, FR2, FRE, SRE, TLD, or UNR)
-- TGAR	0-(1)-31	Trunk Group Access Restrictions
- IEC	001-999	Inter-Exchange Carrier ID
CPFXS	(YES) NO	Customer-defined Prefixes
HNTN	0-9999	Home National Number
HLCL	0-9999	Home Local Number
ADDP	(NO) YES	Add Public Prefixes
- DSEL	aaa	Data Selection (aaa = (VOD), DTA, TDN, 3VC, 3DA, or VCE)
PTYP	a...a	Port Type at far end (PTYP responses begin on page 262)
AUTO	(NO) YES	Auto terminate
- DNIS	(NO) YES	ACD DNIS route
-- NDGT	x	Number of DNIS Digits (aaa = 3 or 4)
-- WDGT	a	First or last 4 DNIS digits to be sent on APL and HSL (a = (L) or F)
-- DCDR	(NO) YES	Include DNIS number in CDR records
IANI	(NO) YES	In-Band Automatic Number Identification route
RTYP	aaa	Recording device for RAN trunks (aaa = AUD, CAP, CK2, CKM, CON, DGT, LVL, or PUL)
- LGTH	4-(60)- 7200	Maximum message length in seconds
- GRD	aaaa	Ground Start Arrangement (aaaa = (IDLE) or PLAY)
REP	1-15	Repetitions of recorded announcements
POST	aaa	RAN Post announcement treatment (aaa = DIS or ATT)
STRT	aaa	Start arrangement (aaa = IMM or DDL)
WAIT	(RGB) MUS	Ringback for calls queueing for RAN trunk
- MRT	0 - 511	Music route for RAN queueing
ASUP	aaa	Answer Supervision returned by RAN to originator (aaa = (NO), YES, or CO)
SIGL	aaa	Signaling interface for CAMA trunks (aaa = BEL, NT4, or NT5)
FORM	aaa	Format for CAMA trunk signaling (aaa = M1A, M2B, or M3C)
AUDN	xxxx	Auto termination DN for ISA service routes

ICOG	aaa	Incoming and Outgoing trunk (aaa = IAO, ICT, or OGT)
RANX	(NO) YES	RAN for calls diverted to external trunks
- RANR	0-511	RAN Route number for the desired RAN route
SRCH	aaa	Search method for outgoing trunk member (aaa = (LIN) or RRB)
TRMB	(YES) NO	Tromboning
STEP	0-511	Alternate trunk route for outgoing trunks
FACN	(0) - 99999	Tie or FX facility number
BAND	(0) - 99	OUTWATS band number
ACOD	x...x	Access Code for the trunk route
CLEN	0 - (1)- 3999	CLID entry number
CPP	(NO) YES	Calling Party Privacy Flag
- TCPP	(NO) YES	CPP flag for incoming non-ISDN trunk call tandemed to this trunk route
- DTPI	(*67) nnnn	Privacy indicator for a digitone trunk
- DPPI	(1167) nnnn	Privacy indicator for a dial-pulse trunk
TARG	0-(1)-31	Trunk Access Restriction Group
BILN	(NO) YES	Billing Number Required
- BLEN	1-(10)-16	Billing Number Length
- BNUM	0-x...x	Billing number (1 to 16 digits depending on BLEN)
- BDSP	(NO) YES	Billing Number Displayed
ATGT	(0)-60	ADM Trunk Guard Timer
ASTP	1-(2)-15	ADM Step-Forward ring cycles
BDCT	YES, NO	Allow Broadcast capability
SGRP	(0)-999	Scheduled Access Restriction Group
OABS	0-9	Actual outgoing toll digits to be ignored for Code Restriction
IABS	(0)-3	Number of incoming digits to be absorbed
CAT	00-99	CAMA trunk route category digits
ID	(0)-9	Identification digit for CAMA trunk routes
STRK	(NO) YES	Super Trunk group feature
SPTO	(NO) YES	Super Trunk Option
ANKP	(NO) YES	KP signal suppressed
INST	(0)-99999999	Insert
JDGT	1-(4)	Japan central office Digits
IDC	(NO) YES	Incoming DID Digit Conversion on this route
- DCNO	(0)-254	Day IDC tree number

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- NDNO	0-254	Night IDC tree number
- DEXT	(NO) YES	Display External dialed digits
- - DNAM	(NO) YES	Display IDC Name
ANTK	x...x	ANI identifier number
SIGO	a...a	Signaling arrangement (a...a = (STD), ESN2, ESN3, ESN5, ETN, or EN19)
- STYP	aaaa	Standard Signaling Type (aaaa = (SDAT) or STDN)
MFC	(NO) YES	Multifrequency Compelled or MFC Signaling
ICIS	(YES) NO	Incoming Identifier Send
ICDN	x...x a...a	Incoming route DN (x...x = 1-7 digit CLID DN; a...a = (NO) or CLID entry of 0-125 for trunk DN)
ICNP	a...a	Incoming Numbering Plan (a...a = (UKWN), PUB, or PRV)
ICNT	a...a	Incoming Numbering Type (a...a = (UKWN), INTL, NTN, LCL, LOC, CDP or SPN)
ICPS	(YES) NO	Incoming Presentation Status
OGIS	(YES) NO	Outgoing Identifier Send
OGDN	x...x a...a	Outgoing route DN (x...x = 1-7 digit CLID DN; a...a = (NO) or CLID entry of 0-125 for trunk DN)
OGNP	a...a	Outgoing Numbering Plan (a...a = (UKWN), PUB, or PRV)
OGNT	a...a	Outgoing Numbering Type (a...a = (UKWN), INTL, NTN, LCL, LOC, CDP or SPN)
OGPS	(YES) NO	Outgoing Presentation Status
CNTL	(NO) YES	Changes to Controls or timers
- TIMR	aaa xxx	Trunk Timers (TIMR range definitions begin on page 270)
- SST	xx y	Seizure Supervision Timer in seconds
NEDC	aaa	Near End Disconnect Control (aaa = ORG or ETH)
FEDC	aaa	Far End Disconnect Control (aaa = (ORG), ETH, JNT, or FEC)
CPDC	(NO) YES	SL-1 is the only Controlling Party on incoming calls
SPCT	aaa	Speech Path Cut-Through (aaa = (IMM) or DLY)
DLTN	(NO) YES	Dial Tone on originating calls
- TOV	(0)-3	Data Timeout Value
- PSEL	aaaa	Protocol Selection (aaaa = (DMDM) or TLNK)
- OPE	(NO) YES	Change data port Operating parameters
- - PSDS	(NO) YES	Public Switched Data Service option
- - TRAN	a...a	Transmission mode (a...a = (ASYN) or SYN)
- - PAR	a...a	Parity for data port (a...a = (SPAC), EVEN, MARK, or ODD)
- - DTR	(OFF) ON	Data Terminal Ready

-- DUP	aaaa	Duplex for data port (aaaa = (FULL) or HALF)
-- DCD	(ON) OFF	Data Carrier Detect
-- MOD	(NO) YES	Mode for synchronous operation
-- INT	(OFF) ON	Interworking
-- CLK	(OFF) ON	Clock source for synchronous operation
-- V25	(NO) YES	V.25 bis option for synchronous operation
-- HDLC	(NO) YES	High Level Data Link Control
-- DEM	aaa	Data Equipment Mode (aaa = (DCE) or DTE)
-- PBDO	(OFF) ON	Port Busy upon DTR Off
ANDT	(NO) YES	Automatic Number Identification Dial Tone
HOLD	ic dc ht	Hold failure threshold
SEIZ	ic dc	Seize failure threshold
RGFL	ic dc	Ring Failure threshold
RVSD	ic dc	Reversed wired CO trunk threshold
ILLR	ic dc	Illegal Ring threshold
SVFL	ic dc	Supervision Failure
DRNG	(NO) YES	North American Distinctive Ringing for incoming calls
BTUA	(NO) YES	Block Transfer of Unanswered Call
CDR	(NO) YES	Call Detail Recording
- INC	(NO) YES	CDR records generated on incoming calls
- LAST	(NO) YES	CDR record printing content option for redirected calls
- TTA	(NO) YES	Time To Answer output in CDR
- ABAN	(NO) YES	Abandoned call records output for this route
- QREC	(NO) YES	CDR ACD Q initial connection records to be generated
- OAL	(NO) YES	CDR on outgoing calls
-- OTL	(NO) YES	CDR on Outgoing Toll calls
-- AIA	(NO) YES	Answered call Identification Allowed
-- OAN	(YES) NO	CDR timing starts On Answer supervision of outgoing calls
-- OPD	(NO) YES	Outpulsed Digits in CDR
- CDRX	(NO) YES	Print CDRX records on multiple call transfer for non-PPM outgoing calls
NATL	(YES) NO	North American Toll scheme
- TDG	x...x	Toll Digits
MUS	(NO) YES	Music On-Hold
- MRT	0-511	Music Route number

LD 16

MR	aaa	Message Registration (aaa = (NO), DURC, ENDC, PPM, RVB, STAC, or XLD)
DSPD	(NO) YES	Real Time AOC Display
RACD	(NO) YES	Route traffic information in ACD Reports
RUCS	0-9999	Route Unit Cost
RURC	x y	Route Unit Reference Cost
RUCF	x y	Route Unit Conversion Factor
MULT	(NO) YES	Multiplier for Charge Information
DSPT	0-(10)-60	Charge Display Timer
MANO	(NO) YES	Manual Outgoing trunk route
EQAR	(NO) YES	Enable Equal Access Restrictions
- GCR	(NO) YES	General Carrier Restriction to restrict Equal Access calls
- - NTOL	(DENY) ALLOW	North American Toll calls (i.e., 1+calls)
- - ITOL	(DENY) ALLOW	International Toll calls (i.e., 011+calls)
- SCR	(NO) YES	Selective Carrier Restriction to restrict Equal Access calls
FRL	0-7 0-254	Facility Restriction Level
OHQ	(NO) YES	Off-Hook Queuing
OHQT	(0)-63	Off-Hook Queue Threshold
CBQ	(NO) YES	Call Back Queuing
NDIG	(2)-7	Number of Digits
AUTH	(NO) YES	Authcode
TDET	(NO) YES	Tone Detector required
TTBL	(0)-31	Tone Table number
OHTD	(NO) YES	Off-Hook Timer Delay
PLEV	0-(2)-7	Priority Level
OPR	(NO) YES	Outpulsing Route
OPDL	(0)-8064	Outpulsing Delay in milliseconds
MCTS	(NO) YES	Malicious Call Trace Signal
- MCCD	0-8	Malicious Call Trace request string
- MCDT	(0)-4	Malicious Call Trace Delay Time in seconds
- MCTM	(0)-30	Malicious Call Trace request Timer id
- MTND	(NO) YES	Malicious Call Trace Tandem Disconnect delay
FGNO	(0)-127	Feature Group D block number
ALRM	(NO) YES	Malicious Call Trace Alarm is allowed for external calls
DCTI	(0)-511	Time (in seconds) that an extension is allowed to ring or be On-hold or Call Park before the trunk is disconnected

Release Mechanism Options

The following table indicates whether a release signal is acknowledged or not. YES indicates the release signal is acknowledged, NO indicates the release signal is not acknowledged.

Table 4
Release Mechanism Options

RLSM Option	Incoming Calls		Outgoing Calls	
	Originator On-Hooks first	Terminator On-Hooks first	Originator On-Hooks first	Terminator On-Hooks first
0	NO	NO	NO	NO
1	NO	NO	NO	YES
2	NO	NO	YES	NO
3	NO	NO	YES	YES
4	NO	YES	NO	NO
5	NO	YES	NO	YES
6	NO	YES	YES	NO
7	NO	YES	YES	YES
8	YES	NO	NO	NO
9	YES	NO	NO	YES
10	YES	NO	YES	NO
11	YES	NO	YES	YES
12	YES	YES	NO	NO
13	YES	YES	NO	YES
14	YES	YES	YES	NO
15	YES	YES	YES	YES

LD 16

Alphabetical list of prompts

Prompt	Response	Comment
ABAN	(NO) YES	Abandoned call records output for this route
ACOD	x...x	Access Code for the trunk route The ACOD must not conflict with the numbering plan. Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
ADDP	(NO)	Add Public Prefixes The prefixes 0 (National) or 00 (International) <i>are not</i> added to the Calling Party Number if the Type of Number (TON) is Public on the set/attendant displays
	YES	The prefixes 0 (National) or 00 (International) <i>are</i> added to the Calling Party Number if the Type of Number (TON) is Public on the set/attendant displays
AIA	(NO) YES	Answered call Identification Allowed Enter YES to output an "A" in the CDR TerID field to indicate answered calls. Prompted when OAL = YES or OTL = YES.
AIOD	(NO) YES	Identification of outgoing calls
ALRM	(NO) YES	Malicious Call Trace Alarm is allowed for external calls
ANDT	(NO) YES	Automatic Number Identification Dial Tone
ANKP	(NO) YES	KP signal suppressed
ANTK	x...x	ANI identifier number Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. In either case, together with ANLD and ANI Listed DN in LD 15, the total number of digits must be no less than 7.
ASTP	1-(2)-15	ADM Step-forward ring cycles

Prompt	Response	Comment
ASUP	(NO) YES CO	Do not return Answer Supervision by RAN to originator Return Answer Supervision by RAN to originator Return Answer supervision only if the originator is a CO trunk The operation of answer supervision is affected with FCC Compliance for DID Answer Supervision (FC68) package 223. Refer to FCC Compliance for DID Answer Supervision, in X11 features and services.
ATDN	(0)-x...x	Attendant DN of conventional main, ESN main, ESN node or ETN node. Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
ATGT	(0)-60	Add on Data Module (ADM) Trunk Guard Timer Two-second increments up to one minute, odd entries are rounded down to the next valid number.
AUDN	xxxx	Auto termination DN for ISA service routes Prompted when ISAR = YES and AUTO = YES. This must be an existing DN, and cannot be deleted. When DNIS = YES, it must be an ACD DN.
AUTH	(NO) YES	Authcode to be prompted for incoming NARS/BARS calls
AUTO	(NO) YES	Auto-Terminate The route members terminate on DN defined by response to ATDN prompt in LD 14. The route members terminate normally. Only ACD DNs or DISA DNs support Auto-Terminate trunks. In order to set AUTO = YES for TIE, DID and CCSA trunks, all members of the route must have STRI = IMM in LD 14.
BDCT	YES, NO	Allow Broadcast capability. NO = Deny Broadcast capability (default). If BDCT = YES, no conference loop is required. Each Music trunk has 64 broadcast connections.
BDSP	(NO) YES	Billing Number is not displayed at the CO Billing Number is displayed at the CO
BILN	(NO)	Billing Number is not required

LD 16

Prompt	Response	Comment
	YES	Billing Number is required
BLEN	1-(10)-16	Billing Number Length
BNUM	0-9999	Billing Number Depending on your response to BLEN, BNUM can be from 1 to 16 digits. If BLEN is changed, a new BNUM must be entered. If the BNUM entered is less than the BLEN specified, the BNUM will be padded with leading zeros.
BTUA	(NO) YES	Block Transfer of Unanswered call
CAT	00-99	CAMA Trunk route category digits Prompted if SIGL = NT4 or NT5
CBQ	(NO) YES	Call Back Queuing Use only for incoming TIE calls.
CBCR	(NO) YES	Service route indicator
CDR	(NO) YES	Call Detail Recording Set and change CDR options for this route.
CDRX	(NO) YES	Print CDRX records on multiple call transfer for non-PPM outgoing calls. This prompt appears if CDRX package is equipped and MR is not equal to PPM. Also CDR = YES, TKTP = COT or DID for International DID/DOD and ICOG cannot be ICT.
CHTY	(BCH) ABCH	Channel Type B-channel A/B bit signaling Prompted when DTRK = YES, ISDN = YES and Mode = PRA.
CLK	(OFF) ON	External Clock source Internal Clock source Prompted if TKTP = MCU and TRAN = SYN
CLS	(CTD) CUN FR1	Class of Service access restriction. Prompted if TKTP = TIE. Conditionally Toll Denied Conditionally Unrestricted Fully restricted class 1

Prompt	Response	Comment
	FR2	Fully restricted class 2
	FRE	Fully restricted
	SRE	Semi-Restricted
	TLD	Toll Denied
	UNR	Unrestricted
CLID		Calling Line Identification. CLID is prompted only for UIPE-based protocols.
	OPT0	Prefix = 0 for North American dialing plan. OPT0 is the default for ESIG and ISIG interfaces.
	OPT1	Prefix = 1 for international PFXs in CLID. Any numbering type is supported. OPT1 is the default for all EuroISDN interfaces.
	OPT2	Prefix = 2, for international PFXs in CLID. CCITT numbering types supported are: UKWN, INTL, NPA, and NXX. OP2 is the default for CO/DID routes for the Telecom New Zealand interface.
	OPT3	Prefix = 3 for international PFXs in CLID. Only the NXX number type is supported. OPT3 is the default for TIE routes for the Telecom New Zealand interface.
	OPT4	For international COs, if the call originates from a CO trunk type, add nothing. Otherwise, add PFX1 and PFX2. OPT4 is the default for the Hong Kong, Singapore, and Thailand interfaces.
	OPT5	This is the same as OPT4, except it supports a maximum of 10 digits in the CLID. OPT5 is the default for the Austrian interface.
CPFXS		Customer-defined Prefixes option.
	(YES)	When constructing the Calling or Connected Line Identification, the prefixes are retrieved from the Customer Data Block via the PFX1 and PFX2 prompts in LD 15, as is currently done.
	NO	When constructing the Calling or Connected Line Identification, the prefixes are retrieved from the Route Data Block via the HNTN and HLCL prompts in LD 16.
CNTL	(NO) YES	Changes to controls or timers
CNTY		Country
	(ESTI)	ETS 300-102 basic protocol
	NET	ETSI network side protocol

LD 16

Prompt	Response	Comment
CNVT	(NO) YES	Conventional switch route Prompted with Network Signaling (NSIG) package 37.
COTR	0-127	DID/CO Trunk Reference route number Determines how incoming public call types are handled for the associated Integrated Service Access route or ISA. Prompted when TKTP = ISA and IFC = D100 or SL-1 and NSF = NO or YES. Precede with X to delete.
CPDC	(NO) YES	SL-1 is the only controlling party on incoming calls. If CDPC = YES, the connection stays up until it is disconnected by SL-1. This is used for 911 emergency services.
CPP	(NO) YES	Calling party privacy flag. A response of YES indicates that the CPP feature is recognized in this trunk route. CPP is prompted only if: <ol style="list-style-type: none">1. CPP package 301 is equipped2. trunk is either OGT or IAO3. non-ISDN option4. trunk route type = COT, DID, FEX or WAT
CTYP	(UKWN) CDP INTL LOC NPA NXX SPN	Call Type for outgoing direct dialed TIE route Unknown Call type Coordinated Dialing Plan International number Location code National number Subscriber number Special Number for other than international number format The CTYP is used by the receiving switch so that it can associate a call with a call type and perform ESN access code insertion. This option only applies to direct dialing using trunk access codes. NARS and BARS dialing do not apply here. If you intend to respond YES to prompt ISAR, use the default <cr> for this prompt. If ISAR = YES, then CTYP prints UNWN and does not permit you to enter a response.
CUST	0	Customer number associated with this route

Prompt	Response	Comment
DCD	(ON)	Data Carrier Detect Data Carrier Detect lead follows state of lead on device to which it is connected.
	OFF	Data Carrier Detect lead forced active. Prompted if TKTP = R232 or MCU.
DCDR	(NO) YES	Include DNIS number in CDR records This prompt appears for ISDN routes to support Network ACD.
DCH	0-15	D Channel number
DCNO	(0)-254	Day IDC tree number
DCTI	(0)-511	Time, in seconds, that an extension is allowed to ring or be On-Hold or Call Park before the trunk is disconnected.
		Respond with a value equal to the number of seconds a set is to ring after recall, plus the value of the Call Park Recall Timer. The Call Park Recall Timer is defined in LD 50 in response to the CPTM prompt.
		Default or <cr> means that the condition goes on indefinitely. The value stored - which will be the closest lower multiple of four - is echoed back upon entry.
DDMI	(0)-127	Digit Manipulation Index Basic Alternate Route Selection
	(0)-255	Network Alternate Route Selection Prompted with either Basic Alternate Route Selection (BARS) package 57 or Network Alternate Route Selection (NARS) package 58.
DEM	(DCE)	Data Equipment Mode. Prompted if TKTP = R232.
	DTE	Data Carrier Equipment Data Terminal Equipment
DES	x...x	Designator field for trunk groups of 0-16 alphanumeric characters (this is an optional entry)
DEXT	(NO)	Display External dialed digits
	YES	Do not display original digits Display original digits pre converted Prompted if AUTO = NO, DNIS = NO and IDC = YES.
DGTP		Digital Trunk Type for route.
	DTI	1.5 Mb/s DTI (If BRIP = NO, then default is DTI)

LD 16

Prompt	Response	Comment
	PRI	ISDN 23B + D (If BRIP = YES, then default is PRI)
DLTN	(NO) YES	Dial Tone on originating calls Provide dial tone to the far end when the trunk has been accessed from the far end.
DNAM	(NO) YES	Display IDC name Prompted with Calling Party Name Display (CPND) package 95. Prompted following NDNO if DNIS = YES.
DNIS	(NO) YES	ACD DNIS route Prompted with Automatic Call Distribution Package D (ACDD) package 50, and the RTYP = TIE or DID.
DPPI	(1167) nnnn	Privacy indicator for a dial-pulse trunk. Any arbitrary digit (0-9) sequence up to 4 digits may be entered. If CPP prompt is changed from NO to YES and <cr> is entered, DPPI defaults to 1167.
DRNG		North American Distinctive Ringing for incoming calls
	(NO)	For TIE trunks to provide normal ringing (i.e., make/ break/ make/ break, 0.25 sec./ 0.25 sec./ 2.25 sec. to incoming calls terminating on stations)
	YES	For CO trunks to provide distinctive ringing (i.e., make/break, one second/two seconds to incoming calls terminating on stations). Distinctive Ringing only applies to CAM, COT, DID, FEX, TIE and WAT trunks. These trunks cannot be configured as outgoing only for prompt ICOG.
DSBL	(0)-100	Percentage of trunks to be disabled if loss or noise reaches the out-of-service limit
DSEL		Data Selection
	(VOD)	Voice or Data route
	DTA	Data-only route
	TDN	Transparent Data Network
	VCE	Voice-only route
	3DA	Data route and 3.1 kHz
	3VC	Voice route and 3.1 kHz
		Prompted if DGTP = DTI, DTI2 or JDMI.

Prompt	Response	Comment
DSPD	(NO) YES	Real Time Advice Of Charge Display Do not display charge information during call Display charge information during call DSPD applies to Aries sets (M2006, M2008, M2016, M2216, and M2616) on a per route basis. To activate this feature, the prompt MR must be set to either DURC or ENDC.
DSPT	0-(10)-60	Charge Display Timer in seconds DSPT determines how long charge information is display at the end of the call.
DTPI	(*67) nnnn	Privacy indicator for a digitone trunk Any arbitrary digit (0-9) sequence up to 4 digits can be specified. Only the first digit may be an asterisk (*). If CPP prompt is changed from NO to YES and <cr> is entered, DTPI defaults to *67.
DTR	(OFF) ON	Data Terminal Ready. Prompted if TKTP = R232 or MCU. DTR lead follows state of the lead on the device to which it is connected DTR lead always forced active
DTRK	(NO) YES	Digital Trunk Route. Prompted with PBX Interface for: <ul style="list-style-type: none"> • DTI/CPI (PBXI) pkg 75
DTYP	(IOP) IDP ODP	Inbound/Outbound Data Port Inbound Data Port Outbound Data Port
DUP	(FULL) HALF	Duplex for data port Full duplex Half duplex Prompted if TKTP = MCU.
EML	0-15	Expected Measured Loss (in dB)
EQAR	(NO) YES	Enable Equal Access Restrictions Prompted when TKTP = CO, FEX, WAT, or ISA, and ICOG = OGT, or IAO.

LD 16

Prompt	Response	Comment
ESN	(NO) YES	<p>Electronic Switched Network pad control for NT8D15 XEM card.</p> <p>This only applies to trunk routes whose members may use 4-wire E&M or DX signaling on an Electronic Switched Network. This prompt is the replacement for the ESN switch setting on the QPC237 circuit card.</p> <p>When YES is selected, a 1 dB improvement in loss levels is provided on trunk to trunk calls using the NT8D15 units.</p> <p>Prompted with Network Alternate Route Selection (NARS) package 58 and Meridian 1 Extended Peripheral Equipment (XPE) package 203.</p>
FACY	(NO) YES	<p>Facility indicator for Private or TIE connection.</p> <p>Tie connection in the NSF IE Private connection in the NSF IE</p> <p>Trunk routes to a DMS-250 automatically have FACY set to YES. All others default to NO.</p> <p>FACY is prompted when TKTP = TIE, ISAR = YES, and IFC = D100, D250 or S100.</p>
FEDC		<p>Far End Disconnect Control</p> <p>This entry should correspond to the type of disconnect control used by the far end apparatus of this trunk route. Loop start trunks may be assigned either ORG or ETH.</p>
	(ORG)	<p>Originating end control</p> <p>The apparatus recognizes conditions on the near end only for calls originated by the Meridian SL-1. This does not allow trunk to trunk connections.</p>
	ETH	<p>Either end control</p> <p>Conditions at the near end are recognized for both incoming and outgoing calls. This allows trunk to trunk connections subject to normal access restrictions. (e.g., TGAR)</p>

Prompt	Response	Comment
	FEC	<p>Far end control</p> <p>FEC allows trunk to trunk connections. FEC involves the following sequences for disconnect at the near end:</p> <p>When the near end goes on-hook first, the DSI (half disconnect) timer starts. If the far end of the trunk goes on-hook before the DSI timer runs out, then the trunk is idled immediately and the DSI timer is cancelled. If the DSI timer expires, the trunk is locked out until an on-hook is received from the far-end, at which time the SL-1 idles the trunk.</p>
	JNT	<p>Joint control</p> <p>JNT disallows trunk to trunk connections.</p>
FORM	M1A M2B M3C	<p>Format 1 for CAMA trunk signaling</p> <p>Format 2 for CAMA trunk signaling</p> <p>Format 3 for CAMA trunk signaling</p>
FRL	0-7 0-254	Facility Restriction Level (FRL) and New Flexible Code Restriction (NFCR) tree number for this route
HDLC	(NO) YES	<p>High level Data Link Control</p> <p>Prompted if TKTP = MCU and V25 = YES.</p>
HLCL	0-9999	<p>Home Location Number</p> <p>This number is similar to PFX2 number prompted in LD 15. It is added to this overlay so that this prefix can be configured on a route basis as required in some countries (e.g., Italy).</p> <p>As is the case with PFX2, the HLCL prefix can be from one-to-four digits long. This prompt is displayed only if CPFXS = NO.</p> <p>If only a <CR> is entered, this prompt keeps its previous configuration. If no value was configured previously, no value will be configured.</p> <p>Enter X to delete the digits.</p>

LD 16

Prompt	Response	Comment
HNTN	0-9999	<p>Home National Number</p> <p>This number is similar to the PFX1 number prompted in LD 15. It is added to this overlay so that this prefix can be configured on a route basis as required in some countries (e.g., Italy).</p> <p>As is the case with PFX1, the HNTN prefix can be from one-to-four digits long. This prompt is displayed only if CPFXS = NO.</p> <p>If only a <CR> is entered, this prompt keeps its previous configuration. If no value was configured previously, no value will be configured.</p> <p>Enter X to delete the digits.</p>
HOLD	ic dc ht	<p>Hold failure threshold. Where:</p> <ul style="list-style-type: none">• ic = increment counter = 1-(2)-31• dc = decrement count = 1-(2)-31• ht = minimum hold time = 1-(40)-127 seconds <p>The failure to hold applies to trunks which are not properly seized but disconnected sooner than the minimum hold or ht.</p> <p>See prompt ILLR for a description of increment count (ic) and decrement count (dc) values. The default for AID trunks is 2 1 40.</p>
HOUR	0-23	<p>Hour to start Automatic Trunk Maintenance test</p> <p>The system outputs xx:15 indicating the test start times are performed 15 minutes after the hour to avoid interactions with traffic reports.</p>
IABS	(0)-3	<p>Number of Incoming digits to be Absorbed</p> <p>For CCSA trunks only.</p>
IANI	(NO) YES	<p>In-band Automatic Number Identification route</p> <p>ISDN must be (NO) for this feature to be enabled. Prompted if AUTO = YES.</p>
ICDN	xxxx xxx xxxx (NO)	<p>CLID DN for incoming route (1-7 digits) and CLID entry (0-125) for trunk DN</p> <p>CLID DN for incoming route (1-7 digits) and CLID is not generated for trunk DN</p> <p>ICDN is prompted if ICIS = NO or if the trunk route is not ISDN.</p>
ICIS	(YES)	<p>Incoming Identifier Send</p> <p>Use CLID/CNI from incoming ISDN/R2MFC trunk</p>

Prompt	Response	Comment
	NO	Do not use CLID/CNI from incoming ISDN/R2MFC trunk ICIS is prompted for incoming routes when ISDN = YES or if the table type of MFCI = R2MF.
ICNP	(UKWN) PRV PUB	Incoming Numbering Plan Unknown Private Public ICNP is prompted if table type of MFCI = R2MF and ICIS = YES. ICNP is prompted only if the CLID entry for ICDN = 0-125.
ICNT	(UKWN) INTL NTN LCL LOC CDP SPN	Incoming Numbering Type Unknown International National Local Location Coordinated Dialing Plan Special number ICNT is prompted if table type of MFCI = R2MF and ICIS = YES. ICNT is prompted if CLID entry for ICDN = 0-125.
ICOG	IAO ICT OGT	Incoming and/or Outgoing trunk Incoming and Outgoing Incoming only Trunk Outgoing only Trunk
ICPS	(YES) NO	Incoming Presentation Status Provide Trunk DN Do not provide Trunk DN ICPS is prompted if table type of MFCI = R2MF and ICIS = YES. ICPS is prompted if the CLID entry for ICDN = 0-125.
ID	(0)-9	Identification digit for CAMA trunk routes
IDC	(NO) YES	Incoming DID Digit Conversion on this route
IDEF	(NET) LOC	Internal/external definition Use network information to define a call as internal or external. Calls over the selected route will receive a network treatment as defined by available network information. Use local data to define a call as internal or external. Internal calls will receive an internal treatment if RCLS = INT. External calls will receive an external treatment if RCLS = EXT. IDEF is prompted in LD 16 if IDEF = YES in LD 15.

LD 16

Prompt	Response	Comment
IDTB	0-7	ID table index to be used by this Meridian 911 route
IEC	001-999	Inter-Exchange Carrier ID Precede with X to remove entry. If no value is entered "???" is printed in the route data block. Prompted when TKTP = COT, FEX or WAT.
	(0) - xxx (0) - xxxxx	Inter-Exchange carrier providing the service. Prompted if IFC = NI2 and SRVC is 0 - 16, 18, 21 - 31.
IFC		Interface type for this PRI route. The IFC of an ISA route and its service route must match.
	(SL1) D100 D250	Meridian SL-1 Meridian DMS-100 Interface to Meridian DMS-250
	ESS4 ESS5	Interface to AT&T ESS#4 Interface to AT&T ESS#5
	ISIG NI2 S100	ISO Q reference signalling point (QSIG) Interface ID NI-2 TR-1268 interface type Meridian SL-100
ILLR	ic dc	Illegal Ring threshold. Where: <ul style="list-style-type: none">• ic = increment count = 0-(2)-15• dc = decrement count = 0-(2)-15 ILLR specifies illegal ringing on a seized trunk. ILLR is only prompted for COT, FEX and WAT trunks. The increment count (ic) and decrement count (dc) control the rate at which detected failures exceed the trunk error threshold. A counter (initially set to zero) records trunk successes and failures. The counter is incremented by the IC value each time a failure is detected, and by the DC value when a valid trunk condition is detected.

Prompt	Response	Comment
		<p>When the counter value exceeds the trunk threshold value (30), the overflow indicator is set, and a TRKxxx message displays. A high IC value increases the counter more rapidly than a low IC value, thus causing the counter to exceed the threshold with fewer detected failures.</p> <p>The threshold counter only preserves positive values. If the counter contains a negative value, it automatically resets to zero. The next detected failure immediately increases the counter toward the threshold value, enabling quicker trunk failure detection.</p> <p>ic dc = threshold percentage</p> <ul style="list-style-type: none"> • 41 = 20% • 21 = 33% • 32 = 40% • 22 = 50% • 24 = 67% • 13 = 75% • 14 = 80% • 17 = 88% <p>The RSET command in LD 36 and LD 41 resets the threshold counters to zero.</p>
INAC	(NO) YES	<p>Insert ESN Access Code to incoming private network call</p> <p>INAC permits an ESN access code to be automatically added to an incoming ESN call from a private network.</p> <p>If INAC = YES, then digit insertion (INST) for NARS or BARS calls is bypassed and Access Code 1 (AC1) is used for all call types. However, calls may be specifically defined to use Access Code 2 (AC2) in LD 15 at the AC2 prompt.</p> <p>INAC is prompted when the route type is either a TIE trunk or an IDA trunk with DPNSS1 signaling.</p>
INC	(NO) YES	CDR records generated on incoming calls
INST	0-99999999 <cr> X	<p>Insert. Not prompted when DNIS = YES.</p> <p>Digits to be inserted before leading digit</p> <p>No digits are entered</p> <p>To remove entry</p>
INT	(OFF)	<p>Interworking</p> <p>Far end data unit is not a DMS-100 or SL-100 Data Unit</p>

LD 16

Prompt	Response	Comment
	ON	Far end data unit is a DMS-100 or SL-100 Data Unit Prompted if TKTP = MCU.
INTC	(NO) YES	Do not intercept voice calls which call data sets to an attendant Intercept voice calls which call data sets to an attendant
ISAR	(NO) YES	Integrated Service Access Route denied Integrated Service Access Route allowed This prompt indicates whether this route is to be used as a service or reference route for the Integrated Service Access or ISA feature. ISAR can only be YES when there are no trunk assignments in LD 14.
ISDN	(NO) YES	Integrated Services Digital Network Defaults to YES when DGTP = PRI or PRI2 and REQ = NEW. Prompted for BRI routes when REQ = CHG. Prompted when ISDN = YES in LD 15 and with ISDN package 145.
ITOL	(DENY) ALOW	Deny International toll calls (i.e., 011+calls) Allow International toll calls
JDGT	1-(4)	Japan central office Digits This indicates the number of address digits sent from the CO to the Meridian 1. If the number of digits is not known, set the parameter to (4).
LAST	(NO) YES	CDR record printing content option for redirected calls. The Terminating ID field in the CDR record will contain the one before the last party. The Terminating ID field in the CDR record will contain the last party.
LMNL	0-15	Loss deviation Maintenance Limit (in dB)
LOUT	0-15	Loss Out-of-Service deviation limit (in dB)
MANO	(NO) YES	Manual Outgoing trunk route Define the manual DN in LD 14 at prompt MNDN.

Prompt	Response	Comment
MAX	1-254	<p>Maximum number of channels allowed on the ISA route, service dependent.</p> <p>For example, if MAX = 8 for Tie routes, no more than 8 channels can used simultaneously for Tie calls. Prompted when:</p> <ol style="list-style-type: none"> 1. ISAR = YES and IFC = ESS4, or 2. NSF = YES and IFC = SL-1 or D100 for the selected ISA route defined by response to RTN prompt.
MCCD	0- 8	The call trace request string can be 0-8 digits in length. Valid digits are 0-9, *, #.
MCDT	(0)-4	Digit string delay time is in seconds. Granularity is 1 second.
MCTS	(NO) YES	Malicious Call Trace Signal
MIN	0-254	<p>Minimum number of channels allowed on the ISA route, service dependent</p> <p>For example, if MIN = 2 for Tie routes, at least two channels will be available for Tie calls.</p> <p>Prompted when:</p> <ul style="list-style-type: none"> • ISAR = YES and IFC = ESS4 • NSF = YES and IFC = SL1 or D100 for the selected ISA route defined by response to RTN prompt.
MOD	(NO) YES	<p>Network Mode for synchronous operation</p> <p>Modem Mode for synchronous operation</p> <p>Prompted if TKTP = MCU and TRAN = SYN.</p>
MODE		Mode of operation
	PRA	ISDN/PRA route, DTRK must be YES PRA allowed only if ISDN = YES.
	<cr>	<p>Default is NULL for service/reference routes</p> <p>If you enter YES to prompt ISAR, then use the default <cr> for this prompt. If ISAR is YES, then MODE prints NULL and does not allow a response.</p>

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Prompt	Response	Comment
MR		Message Registration If a 1TR6 trunk route is created where TKTP = COT or DID, MR is automatic and is not prompted. However, if TKTP = TIE, then MR is not applicable to the route and is not prompted.
	(NO)	The route is not metered. If MR is set to NO, the trunk should have a Polarity Insensitive Class of Service in LD 14. (CLS = PIP)
	DURC	The AOC information is decoded during and at the end of the call. IFC must be set to NUME or SWIS.
	ENDC PPM RVB	The AOC information is decoded at the end of the call Buffered PPM signals to be counted on this route Reverse Battery signal from PSTN for CO interrupted as supervisory signal and used as MR on this route.
	STAC XLD	Activation of the AOC-S sub-service M & MM Lead non-buffered is used. This is the only metering type allowed for TKTP = IDA and SIGL = DAS. MR is not prompted for Danish and Swedish EuroISDN interfaces as AOC is not supported for those countries.
MRAT	5-30	Modem Ring Again Timer, in minutes
MRT	0-127	Music Route number
MTND	(NO) YES	Malicious Call Trace Tandem Disconnect delay for AXE10 interface If set to YES the disconnect operation is delayed at the node closest to the CO for up to MCTM time when the call is a tandem call.
MULT	(NO) YES	Multiplier for Charge Information Do not change calculation of charge information. Provide the exact cost of charge information if the RURC exponent is configured to the value of the multiplier. Your response to MULT should be YES when the Central Office sends charge information in one hundredth of currency and the currency multiplier is less than 1. The multiplier exponent should be equal to the RURC exponent. This is only used with functional protocol.
MUS	(NO) YES	Music on Hold

Prompt	Response	Comment
MXTI	0-(5)-15	Maximum Time to wait for the far end to connect to test line (in seconds)
NATL	(YES) NO	<p>North American Toll scheme; a toll call has 0 or 1 as first or second digit.</p> <p>If NXX second digit is "1" set NATL to "NO" and answer "0" "1" to TDG. All toll digits for TDG prompt can be removed by a YES response if REQ = CHG. Repeat LD 16 with a NO response to add toll digits.</p>
NCNA	(YES) NO	Network Calling Name Allowed Prompted if ISDN = Yes.
NCOS	(0)-99	Network Class of Service group number. Prompted if TKTP = TIE.
NCRD	(NO)YES	<p>Network Call Redirection allowed</p> <p>YES allows Network Call Redirection messages to be sent or blocked if NCRD = (NO).</p> <p>Network Call Redirection can occur without having NCRD = YES. This prompt only controls the sending of Network Call Redirection messages, not the actual redirection of the call.</p> <p>When NCRD = YES, the message supplied provides information for the CLID display. When NCRD = (NO), the call is redirected without the CLID redirection information if CLID is enabled.</p> <p>It is appropriate to set NCRD = (NO) when your network interfaces with a network that is equipped with an ISDN version earlier than Release 14.</p>
NDGT	1-(4)-7	Number of DNIS Digits expected
NDIG	(2)-10	Number of Digits in numbering plan at conventional main switch Prompted if SIGO = STD and CBQ = YES.
NDNO	0-254	<p>Night IDC tree number</p> <p>When REQ = NEW default is the DCNO tree defined. Otherwise, there is no default value.</p>

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Prompt	Response	Comment
NEDC		Near End Disconnect Control This entry determines the type of control exercised by the Meridian SL - 1 on trunk disconnections.
	(ORG)	Originating end control The far-end on-hook condition is recognized only for incoming calls. Far end conditions are ignored for outgoing calls. ORG is default for TIE, DID and CCSA trunks.
	ETH	Either end control If the far end goes on-hook for either incoming or outgoing calls, the on-hook condition is recognized and the call is disconnected. ETH is the default for all trunks except TIE, DID and CCSA trunks.
NMNL	27-90	Noise Maintenance Limit (in dBm)
NOUT	27-90	Noise Out-of-Service limit (in dBm)
NPA	nnn	Numbering Plan Area
NPID	0-9	Numbering Plan Digit or Information Digit If <CR> is entered, the NPID table is created.
NSF	(NO) YES	Network Service Facility Prompted when TKTP = ISA and IFC = D100 or SL1. When NSF = YES, the ATB traffic counter is incremented when the MAX value is reached in the service route.
NTOF	(YES) NO	Near To Far measurement See prompts REF, TST and PADL.
NTOL	(DENY) ALLOW	Deny North American Toll calls (i.e., 1+ calls) Allow North American Toll calls
OABS	0-9	Actual outgoing toll digits to be ignored for Code Restriction OABS is frequently used with 1+calls. Precede with X to remove.
OAL	(NO) YES	CDR on outgoing calls If answer supervision is defined for the trunk, CDR records will only be generated on call completion.

Prompt	Response	Comment
OAN	(YES) NO	CDR timing starts On Answer supervision of outgoing calls Prompted if OAL or OTL = YES. This prompt only applies to trunks with answer supervision CLS = PSP, or SUPN = YES. With International Supplementary Features (SUPP) package 131, the default is NO. Without SUPP package 131, the default is YES.
OGDN	xxxx xxx xxxx (NO)	CLID DN for outgoing route (1-7 digits) and CLID entry (0-125) for trunk DN CLID DN for outgoing route (1-7 digits) and CLID is not generated for trunk DN OGDN is prompted if ICIS = NO or if the trunk route is not ISDN.
OGIS	(YES) NO	Outgoing Identifier Send Use CLID/CNI from incoming ISDN/R2MFC trunk or from the the calling set. If OGIS = YES and the incoming trunk is R2MFC, the CNI from the incoming trunk CLID/CNI will be used in the CLID. Do not use CLID/CNI from incoming ISDN/R2MFC trunk or from the the calling set. OGIS is prompted for outgoing routes when ISDN = YES or if table table of MFCL = R2MF.
OGNP	(UKWN) PRV PUB	Outgoing Numbering Plan Unknown numbering plan Private Public OGNP is prompted only if the CLID entry for OGDN = 0-125.
OGNT	(UKWN) CDP INTL LCL LOC NTN SPN	Outgoing Numbering Type Unknown numbering type Coordinated dialing plan International number Local number Location number National number Special Number OGNT is prompted if CLID entry for OGDN = 0-125.
OGPS	(YES) NO	Outgoing Presentation Status Provide Trunk DN Do not provide Trunk DN OGPS is prompted if the CLID entry for OGDN = 0-125.
OHQ	(NO) YES	Off-Hook Queuing Used in NARS for incoming TIE callers.

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Prompt	Response	Comment
OHQT	(0)-63	Off-Hook Queue Threshold BARS/NARS availability test. Compare with current P3 calls.
OHTD	(NO) YES	Off-Hook Timer Delay Masks the far end Off-Hook for up to 384 ms measured from the end of the interdigit pause of the digit send out. Masks the far end Off-Hook for up to 2 seconds.
OPD	(YES) NO	Outpulsed Digits in CDR Dialed digits in CDR System must be initialized for changes to the OPD settings to take effect. Prompted when OTL = YES, OAL = YES or OAN = YES.
OPE	(NO) YES	Change data port or operating parameters Prompted only if TKTP = R232, R422 or MCU.
OTL	(NO) YES	CDR on Outgoing Toll calls If answer supervision is defined for the trunk, CDR records will only be generated on call completion. Prompted when OAL = NO and Route = CAMA, CO, DID, FX, or WATS.
PADL	0-63	Pad factor for loop around (in dB) This is the far end tone level, plus the total pad loss at both ends on two trunks.
PADT	0-63	Pad factor for T100 test line (in dB) This is the near end tone level, plus the total pad loss at both ends.
PAR	(SPAC) EVEN MARK ODD	Data port Parity Space Even Mark Odd Prompted if TKTP = R232, R422 or MCU.
PBDO	(OFF) ON	Port Busy upon DTR Off Prompted if TKTP = R232, DEM = DCE and DTR = OFF.
PLEV	0-(2)-7	Priority Level Priority Level 2 sets can override sets of Level 1 and 2, and can be overridden by sets of Level 2-7. Prompted with Priority Override/Forced Camp-On (POVR) package 186.

Prompt	Response	Comment
PNI	(0)-32700	<p>Private Network Identifier</p> <p>Each customer data block must have a unique PNI when equipped with the multi-customer option. PNI = 1 is typical for customer 0. It must match the PNI in the far end CDB in order to support such features as NRAG, NACD and NMS.</p> <p>The PNI in the RDB functions as a logical customer number for routing outgoing non-call-associated Transaction Capability Application Part or TCAP facility messages to the appropriate ESN translations within the far end PBX.</p> <p>Using the default value of PNI = 0 prevents operation of features such as NRAG, NACD and NMS.</p>
POST	DIS ATT	<p>RAN Post announcement treatment</p> <p>Disconnect after maximum repetitions</p> <p>Route to attendant after maximum repetitions</p>
PRIV	(NO) YES	<p>Route is not a Private line route</p> <p>Route is a Private line route</p> <p>Any COT route can be a private route.</p> <p>Prompted if TKTP = COT and REQ = NEW.</p>
PROG		<p>Progress</p>
	NCHG	<p>Send a PROGRESS signal when a CALL PROCEEDING message which contains a progress Indicator Information Element is received at the Meridian 1 EuroISDN gateway.</p> <p>NCHG is the default for all interfaces but the Austrian interface.</p>
	MALE	<p>Send an ALERT signal when a CALL PROCEEDING message which contains a progress Indicator Information Element is received at the Meridian 1 EuroISDN gateway.</p>
	MCON	<p>Send a CONNECT signal when a CALL PROCEEDING message which contains a progress Indicator Information Element is received at the Meridian 1 EuroISDN gateway.</p> <p>MCON the default for the Austrian interface.</p>
PSDS	(NO) YES	<p>Public Switched Data Service</p> <p>Prompted if TKTP = MCU.</p>
PSEL	(DMDM)	<p>DM-DM Protocol Selection</p>

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Prompt	Response	Comment
	TLNK	T-link Protocol Selection TLNK protocol is used by SL-100 and DMS data devices, DM-DM is used by Meridian 1 data devices such as ASIM, AIM, ADM, SADM, Asynch Data Option or ADO, and MPDA. MCA uses both protocols. PSEL is prompted if TKTP = R232, R422, or MCU.
PTYP		Port Type at far end The response to this prompt is used in determining the required transmission level. Refer to the <i>International Loss and Level Plan</i> NTP for more information.
<i>Analog TIE trunk routes:</i>		
(ATT)		Analog TIE trunks
AOT		Analog TIE trunk, used instead of ATT whenever the PBX has one or more digital satellite trunk routes or DST to any digital satellite PBX which includes OPX telephones.
AST		Satellite PBX TIE or ESN trunks if SAT = YES
<i>Digital TIE trunk routes:</i>		
(DTT)		Digital or combination TIE trunk
DCT		Combination satellite PBX TIE trunk
DST		Digital satellite PBX TIE trunk (allowed if SAT = YES or NO)
<i>Analog CO trunk routes:</i>		
(ACO)		Analog CO trunk
ATO		Analog toll office trunk
<i>Digital CO, FEX, DID, and WAT trunk routes:</i>		
(DCO)		Digital or combination CO port
DTO		Digital or combination Toll Office trunk
<i>1.5 Mb/s PRI TIE trunk routes:</i>		
(PRI)		B-Channel port classification
DTT		Digital or combination TIE trunk
DCT		Combination satellite PBX TIE trunk
DST		Digital Satellite PBX TIE trunk
<i>1.5 Mb/s PRI CO, FEX, DID, and WAT trunk routes:</i>		

Prompt	Response	Comment
	(PRI) DCO DTO	B-Channel port classification Analog CO trunk Analog toll office trunk
QREC	(NO) YES	CDR ACD Q initial connection records to be generated
RACD	(NO) YES	Route traffic information in ACD Reports Enter YES only if the route is used as the Interflow DN of at least one ACD DN and the Interflow Trunk traffic is desired. Prompted for COT, TIE, DID, WAT, and FEX trunk types only. Allowed for RAN trunks . Actual ACD Report format output examples are included in the <i>ACD Management Reporting NTP</i> .
RANR	0-127	RAN Route number for the desired RAN route.
RANX	(NO) YES	RAN for calls diverted to external trunks RAN not requested when a call is forwarded to this route. RAN requested when a call is forwarded to this route. Prompted when: <ol style="list-style-type: none"> 1. TKTP = COT 2. RPA = NO 3. DSEL = VCE or VOD 4. ICOG = IAO or OGT
RCAP	NAC NCT ND1 ND2 ND3 NDS RVQ	Remote Capabilities. Precede with X to remove a configured capability. This prompt will be repeated until <cr> is entered. Network access data.NAC is allowed if IFC = SL1. Enter XNAC to remove NAC from Remote Capabilities. Network Call Trace Network Name Display 1 Network Name Display 2 Network Name Display 3. This ensures the same level of service between the MCDN and QSIG name display services. Name Display Services Remote Virtual Queuing
RCLS	(EXT) INT	Route Class marked as external Route Class marked as internal Applies only to CAA, COT, CSA, DID, FEX, TIE, FGDT, or WATS trunks.

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Prompt	Response	Comment
REF	n...n	Reference loop around DN, range is 2 to 10 digits
REP	1-15	Repetitions of recorded announcements
REQ		Request
	CHG	Change existing data block
	END	Exit overlay program
	OUT	Remove data block
	LCHG	Print date and time that a trunk data block was last changed. The change can be the result of a NEW, OUT, or CHG command.
	NEW	Add new data block to the system
RGFL	ic dc	Ring Failure threshold. Where: <ul style="list-style-type: none">ic = increment count = 1-(2)-31dc = decrement count = 1-(2)-31 RGFL specifies the percentage threshold for trunks which fail to produce the expected ringing and ground changes. See prompt ILLR for a description of ic and dc values. RGFL is not prompted for AID, CAM, CSA, RLM, RLR and TIE trunks The default for RAN and MUS trunks is 12 6.
ROUT	0-127	Route number This range applies for all machines.
RTN	0-127	Route Number for any configured ISA route Prompted if TKTP = TIE.
RTYP		Recording device for RAN trunks
	AUD	Audichron or Cook 212, required for XUT trunks
	CAP	Code-a-Phone
	CK2	Cook 201 or QAY1
	CKM	Cook 201 Multichannel
	CON	NT7M Digital Recorders
	DGT	213300 and 213400 Digital Recorders
	LVL	Level start/stop (Enhanced Universal Trunk cards)
	MCON	Continuous multi-channel
	MPUL	Pulse start/stop, multichannel.
		These modes supports independent RAN trunks. Request the RAN broadcast package.

Prompt	Response	Comment
	PUL	<p>Pulse start/stop (Enhanced Universal Trunk cards)</p> <p>The Enhanced Universal Trunk cards work with CAP, CK2, or AUD RAN interfaces. The Pulse and Level start/stop options are used in conjunction with the RAN interface selected.</p> <p>The maximum length of the message allowed by software depends on the X11 Release as follows:</p> <ul style="list-style-type: none"> • AUD = 64 seconds in all Releases •
RUCF	x y	<p>Route Unit Conversion Factor</p> <p>Formula for Route Unit Conversion Factor is: $X*10^{(-Y)}$</p> <p>Where:</p> <ul style="list-style-type: none"> • $x = 0-(1)-9999$ • $y = (0)-3$ <p>This results in a range of .001 to 9999.</p> <p>If the Central Office sends the call charge in AOC units (instead of AOC currency), RUCF is used to convert this charge into PPM format.</p> <p>Call Charge scenarios:</p> <ol style="list-style-type: none"> 1. When call charge in sent in currency: Displayed charge = (Received charge/RURC) * RUCS 2. When call charge in sent in AOC units: Displayed charge = (Received charge * RUCF) * RUCS units <p>RUCF is not prompted for Danish and Swedish EuroISDN.</p>
RUCS	0-9999	<p>Route Unit Cost</p> <p>RUCS may be used in Motel/Hotel type environments to calculate the margin the Meridian 1 administrator wants to make per unit.</p> <p>Call Charge scenarios:</p> <ol style="list-style-type: none"> 1. When call charge in sent in currency: Displayed charge = (Received charge/RURC) * RUCS 2. When call charge in sent in AOC units: Displayed charge = (Received charge * RUCF) * RUCS units <p>When REQ = NEW, RUCS defaults to the UCST value in CDB. RUCS is prompted when MR = PPM or XLD.</p>

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Prompt	Response	Comment
RURC	x y	<p>Route Unit Reference Cost</p> <p>Formula for Route Unit reference Cost is: $X * 10^{(-Y)}$</p> <p>Where:</p> <ul style="list-style-type: none">• x = 0 - 9999• y = (0) - 3 <p>This gives a range from.001 to 9999.</p> <p>Call Charge scenarios:</p> <ol style="list-style-type: none">1. When call charge in sent in currency: Displayed charge = (Received charge/RURC) * RUCS2. When call charge in sent in AOC units: Displayed charge = (Received charge * RUCF) * RUCS units <p>The default value for x is identical to the previously entered RUCS value.</p>
RVSD	ic dc	<p>Reversed wired CO trunk threshold. Where:</p> <ul style="list-style-type: none">• ic = increment count = 1-(8)-31• dc = decrement count = 1-(31) <p>RVSD specifies the percentage threshold for CO trunks which have tip and ring or other trunk wiring problems. See prompt ILLR for a description of ic and dc values.</p> <p>Prompted for COT, FEX and WATS trunks.</p>
SAT	(NO) YES	<p>Satellite used for trunk route via earth orbiting satellite</p> <p>This prompt has no relation to the trunk route function connecting a main PBX to a satellite PBX.</p>
SBN	(NO) YES	<p>Do not send Billing Number on this route</p> <p>Send Billing Number on this route</p>

Prompt	Response	Comment
SEIZ	ic dc	<p>Seize failure threshold. Where:</p> <ul style="list-style-type: none"> ic = increment count = 1-(2)-31 dc = decrement count = 1-(2)-31 <p>SEIZ specifies the percentage threshold of trunks which request seizure but are not seized (either no response from the far end or response is too late). See prompt ILLR for a description of ic and dc values.</p> <p>The default for AID trunks is 2 1. The default for RAN and MUS trunks is 12 6.</p>
SGRP	(0)-999	<p>Scheduled access restriction group Prompted with Scheduled Access Restrictions (SAR) package 162. Must have group defined in LD 88.</p>
SID	0-127	<p>Service Identification for the route</p> <p>Used to poll switches for traffic, ACD or CDR reports. Allows NSF to be turned on or off. The service route ID must match the far end.</p> <p>Prompted if NSF = YES and TKTP = TIE/WAT/FX/COT.</p>
SIDE	(NET) USR	<p>Meridian SL-1 Node Type Network User</p> <p>SIDE defaults to NET if IFC = SL1. SIDE defaults to USR if IFC = 1TR6, NUME or D70. Prompted if IFC = SL-1.</p>
SIGL	BEL NT4 NT5	<p>Signaling interface for CAMA trunks Bell method NT400 method NT500 method</p>
SIGO	(STD) ESN2 ESN3 ESN5 ETN EN19	<p>Signaling arrangement</p> <p>Standard signaling arrangement Supports NCOS, TCOS and CCBQ call types Supports network call transfer, Satellite Link Control and all ESN2 call types. It does not support DTI calls. Either ESN2 or ESN3 is recommended for ISA.</p> <p>Supports DTI data calls plus all other types. Electronic TIE Network signaling arrangement ESN Transparent Data Networking data call. Allowed when TKTP = TIE for PRI and DTI trunks.</p>

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Prompt	Response	Comment
SPCT	(IMM) DLY	Speech Path Cut-Through Immediate cut-through Delayed cut-through
SPTO	(NO) YES	Super Trunk Option 7-10 digit outpulsing on ANI calls 3 digit outpulsing on ANI calls Response must be YES for outpulsing to begin after three digits.
SRCH	(LIN)	Linear Hunting Search method for outgoing trunk member. Start with the highest trunk number, used for 2-way trunks.
	RRB	Round Robin Hunting Search for outgoing trunk member. Start with next lower trunk than the one seized, used for outgoing trunks.
SRPM	0-(15)-255	Service Parameter. Prompted if SRVC = WATB.
SRVC		Service type provisioned for AT&T ESS connections (where IFC = ESS#4 or ESS#5) Prompted if ISDN = YES and IFC = ESS4 or ESS 5. Prompted with Inter Exchange Carrier (IEC) package 149.
	(NNSF)	No Network Specific Facility or NSF IE sent. NSF refers to the services provided on a Call-by-Call basis.
	ACC	Accunet Data service
	I800	International 800 service
	IWAT	In-WATs service for AT&T interface
	LDS	Long Distance Service
	M800	MEGACOM 800 service
	MEG	MEGACOM service
	Q900	ATT&T Multiquest 900 service
	SDN	Software Defined Network service
	WATB	Wide Area Telephone Service Parameter Band for AT&T ESS#5
	WATM	Wide Area Telephone Maximal service for AT&T ESS#5
SSL	0-15	Special Service List Number. Used to identify special service calls on this route. Must be previously defined in LD 18.

Prompt	Response	Comment
SST	xx y	<p>Seizure Supervision Timer</p> <p>Timer for trunks with delay dial or DDL, wink or WNK and ground or GRD start arrangements. Where:</p> <p>xx = minimum value. Therefore:</p> <ul style="list-style-type: none"> • xx = 1-(3)-15 seconds for GRD start • xx = 5 seconds for DDL and WNK <p>y = increment value of 0-7 seconds</p>
STEP	0-511	<p>Alternate trunk route for outgoing trunks</p> <p>STEP cannot be defined for an ISA route. Route 31 is no longer an exclusively private route, unless configured as one in LD 16.</p> <p>Precede with X to delete.</p> <p>For dataport, it is only possible to step to a similar ADM data route.</p>
STND	(YES) NO	Standard T100 test line (STND is 5.5 seconds and is followed by silent termination at the far end)
STRK	(NO) YES	Super Trunk group feature
STRT	IMM DDL	<p>Start arrangement</p> <p>Immediately connect call to recording</p> <p>Delay call connection until start of recording</p>
STYP	(SDAT) STDN	<p>Standard Signaling Type</p> <p>Standard Data signaling for voice and data (DM-DM, non-tandem PSDS).</p> <p>Standard Transparent Data Networking for voice and data and TDN calls. STDN is applicable to calls on DTI trunks only.</p> <p>This prompt appears when SIGO = STD.</p>
SVFL	ic dc	<p>Supervision Failure. Where:</p> <ul style="list-style-type: none"> • ic = increment count = 1-(2)-31 • dc = decrement count = 1-(2)-31 <p>SVFL specifies the percentage threshold for trunks which fail to obtain supervision. See prompt ILLR for a description of ic and dc values.</p> <p>Prompted for only AID, CAM, CSA, RLM, RLR and TIE trunks. The default for AID trunks is 2 1.</p>

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Prompt	Response	Comment
T100	n...n	T100 test line Directory Number, 2 to 10 digits
TARG	0-(1)-31	Trunk Access Restriction Group range Enter the list of all TGAR in LD 10, LD 11 and LD 14 which have restricted access to this route. Multiple groups may be defined or deleted. To delete entries, enter Xnn. List all entries to be deleted (Xnn, Xnn, ...). Entries must be separated by a space.
T CPP	(NO) YES	CPP flag for an incoming non-ISDN trunk call tandemed to this trunk route. If T CPP = YES, then an incoming non-ISDN trunk call tandemed to this outgoing trunk route will carry the Privacy Indicator. T CPP is prompted only if CPP = YES or if CPP package 301 is equipped and the trunk route has the ISDN option.
TDG	x... x	Toll Digits. Where: x = 0-9 Actual digits after the trunk access code which indicate toll calls. Precede with X to remove. If all digits are removed, the digits revert to the North American toll scheme. Prompted when NATL = NO.
TFD	(0) - 3600	Timed forced disconnect for paging trunks (30 second increments). TFD must be defined individually for each route.
TGAR	0-(1)-31	Trunk Group Access Restrictions: Prompted if TKTP = TIE, ISAR = YES, and ISDN = YES.
TIER	0-511	Tie Reference route number Determines how incoming TIE or private call types are handled for the associated Integrated Service Access route or ISA. Precede with X to delete. Prompted when TKTP = ISA, IFC = D100 or SL-1 and NSF = YES.
TIMR	aaa xxx	Trunk Timers. Where: <ul style="list-style-type: none">• aaa = timer mnemonic• xxx = timer value in milliseconds unless stated otherwise

AAD (384)-2048

Prompt	Response	Comment
		Address Acknowledge Delay timer
		AAD is the minimum time for the system to delay before sending the address acknowledge signal to the central office. Inputs are in increments of 128 ms. Allowed only if Japan trunks and Meridian 1 packages are equipped.
ATO 128-(4992)-6528		ANI Timeout timer in milliseconds.
CRD 0-(512)-639		CO Release Delay timer.
DDL 0-(70)-511		Dial Delay timer
DSI 128-(34944)-499200		Disconnect Supervision timer
EESD 0-(1024)-4992		End to End Signalling Delay timer.
		The outpulsing DTMF tone using EES (or IEES) is delayed "EESD" ms after the sending of the first recall signal to the Norstar. If EESD = 0, the timer is not started and the buffered digits will not be outpulsed.
		The EESD timer is accepted if ACRL package 236 is equipped and if the route is analog TIE.
EOD 128-(13952)-32640		End-of-Dial timer, non-digitone trunks
		For DID incoming calls in the U.S., to comply with FCC regulations, the EOD timer expires at 19,968 ms, even if configured otherwise. All other call types utilize the configured timer parameters.
		Refer to X11 features and services for complete details concerning the FCC Compliance feature.

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Prompt	Response	Comment
FLH 0-(510)-32640		<p>Hook Flash timer (in msec.) The range for Centrex Switchhook flash timer is 256-(512)-1536. For CAS, it is recommended that the timer be set at 768 or greater.</p> <p>This timer must be at least 256 ms shorter than the remote OGF timer and 256 ms shorter than the ICF timer.</p> <ul style="list-style-type: none">• 60-89 ms = Digit 1 is sent• 90 ms = Hard coded for XFCOT hook flash• 91-255 ms = Digit 1 is sent• 256-1536 ms = Existing software controlled hook switch flash <p>Range for Centrex Switchhook flash timer is 60-(510)-1536 msec (the value is rounded to the nearest 10 msec).</p> <p>Software controlled Centrex/Trunk Switch Flash timer range of 60-127 msec is done by sending digit 1.</p> <p>The range of 128-1536 msec is already controlled by Centrex Switchhook Flash feature.</p> <p>Firmware flash user can enter any value from 60 to 1536.</p> <p>FWTM must be YES in LD 14 for the trunk associated with this route, if firmware timing is to be used.</p>
GRD 0-(896)-32640		<p>Guard timer (response disallowed)</p>
ICF 0-(512)-32640		<p>Incoming Flash timer</p>
LEXT 50-(100)-350		<p>Loop Extender timer</p> <p>The minimum amount of time the Meridian 1 waits to determine whether the tip is ground. When the time is expired, the loop is closed to outpulsing. The time is in milliseconds.</p>
MAD 0-(500)-1000		<p>Minimum Answer Delay timer</p> <p>The minimum amount of time the Meridian 1 remains On-Hook after the called party is first alerted. Inputs are in steps of 100 ms, numbers are rounded up to next valid entry. Allowed only if Japan trunks and Meridian 1 packages are equipped.</p>

Prompt	Response	Comment
NBL 128-(4096)-32640		Enblock Long dialing timer Long timeout period set to check if all digits have been entered.
NBS 128-(2048)-32640		Enblock Short dialing timer Short timeout period set to check if all digits have been entered.
NRAG (30)-240		Network Ring Again timer or DPNSS duration for T6 and T7 timers, in minutes. Currently, only 30 minutes is supported.
NRD 128-(10112)-32640		No Ringing Detector change
ODT 256-(4096)-16128		End-of-dial timer for DIGITONE trunks
OGF 0-(512)-32640		Outgoing Flash timer
RGV 128-(640)-1920		Ring Validation timer
RTD 0-(12)-60		Tone Detector Response Timer in seconds. An odd numbered entry is rounded up to the next even number.
SFB 3-(3)-255		Seize Fail Busy timer This timer controls the time that a trunk is held busy following a seize acknowledge failure or call collision. The recommended value for trunks with seizure supervision is 25 seconds. The recommended value for trunks with no seizure supervision is 3 seconds. This value applies to all analog trunks except those which use the ARP timer.
TFD (0)-3600		Timed Forced Disconnect, in 30 second increments. TFD applies to CO, DIC, FEX, PAG, TIE and WATS routes.

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Prompt	Response	Comment
	VGD 0-(6)-31	VNS Guard timer The time allowed for the trunk call to disconnect in seconds. This is the guard timer on the associated VNS DN.
	VSS (0)-1-2-1023	VNS Set Speechpath Timer. Where: <ul style="list-style-type: none">• 0 = Do not answer the bearer channel until the terminating party answers• 1 = Answer the bearer channel immediately on arrival• 2-1023 = Answer the bearer channel after the specified seconds (rounded down to 2-second multiple) if the terminating party has not already answered.
TKTP		Trunk Type You must respond to this prompt when REQ = NEW.
ADM		Add-on Data Module associated with a Data Interface Card i.e., DLC, 4PDLC, AILC
AID		Automatic Incoming Outgoing Dial trunk.
AWR		Automatic Wake Up trunk block for RAN/Music Requires AWU package
CAA		Common Control Switching Arrangement Automatic Number Identification data block Requires Automatic Number Identification (ANI) package 12.
CAM		Central Automatic Message Accounting trunk data block
COT		Central Office Trunk data block Supported for ISDN BRI Trunk Access feature.
CSA		Common Control Switching Arrangement access line data block
DIC		Dictation trunk data block
DID		Direct Inward Dialing trunk data block Supported for ISDN BRI Trunk Access feature.
FEX		Foreign Exchange trunk data block

Prompt	Response	Comment
	ISA	Integrated Service Access route or Call-by-Call route type For ISDN applications, only TIE or ISA Trunks can connect a SL-1 directly to another SL-1. Requires Call-by-Call service (CBC) package 117. Must have ISDN configured in LD 15 and LD 17.
	MCU	Meridian Communications Unit port
	MUS	Music trunk data block Requires Music (MUS) package 44.
	PAG	Paging trunk data block
	RAN	Recorded Announcement trunk data block Requires Recorded Announcement (RAN) package 7.
	RCD	Emergency Recorder trunk data block Requires Basic Automatic Call Distribution (BACD) package 40.
	TIE	TIE trunk data block
	WAT	Wide Area Telephone Service trunk data block
TOV	(0) 1 2 3	Data Timeout Value No timeout 15 minutes 30 minutes 60 minutes Prompted if TKTP = R232, R422 or MCU.
TRAN	(ASYN) SYN	Asynchronous Transmission mode Synchronous Transmission mode If PSDS = YES, then TRAN must be SYN. Prompted if TKTP = MCU.
TRMB	(YES) NO	Tromboning allowed. Incoming call on route may be routed directly back out on the same route. Tromboning denied. Incoming trunk call on route may not be routed directly back out on the same route. Only applies to calls routed using NARS/BARS or CDP. Does not apply to calls redirected by HUNT, Forward All Calls, or Forward No Answer.

LD 16

Prompt	Response	Comment
TRMT	(NONE), FAIL, TEST, NPA	Numbering Plan Digit or Information Digit treatment FAIL = Interrupts the NPD/ID as an ANI failure TEST = Interrupts the call as a 911 test call (for 922T calls only) This prompt appears when the Meridian 911 (M911) package 224 is equipped.
TRO	(NO) YES	Trunk Route Optimization Prompted if NCRD = YES and IFC = SL-1.
TST	n...n	Test loop around DN, range is 2 to 10 digits
TTA	(NO) YES	Time To Answer output in CDR
TTBL	(0)-31	Tone Table number Table (0), North American default values, is created when the first customer is created. Refer to LD 56 for other tables.
TYPE	RDB	Route type Route Data Block.
V25	(NO) YES	V.25 bis option for synchronous operation Prompted if TKTP = MCU and TRAN = SYN.
VRAT	(NO) YES	Answer an attendant extended call over VNS immediately on the incoming bearer trunk
WATR	0-511	Wide Area Telephone Service or WATS Reference route number Determines how incoming WATS call types are handled for the associated Integrated Service Access route or ISA. Precede with X to delete. Prompted when TKTP = ISA, IFC = D250 or SL-1 and NSF = YES.
WDGT	(L) F	First or last 4 DNIS digits to be sent on APL and HSL link. WDGT has no effect on AML links. All DNIS digits will be sent for AML. Prompted if NDGT is greater than 4. Also used for CDR when the New Format CDR (FCDR) package 234 is disabled.

LD 17—Configuration Record 1

System configuration defines system hardware and software parameters. Overlay program 17 is used to modify the following parameters:

- passwords
- buffer sizes*
- number of CPU*
- voice or data loops*
- tone and digit loops*
- conference loops*
- memories*
- automatic maintenance routines
- teletypewriters and modem
- server configurations

* When modifying these parameters, the system must be initialized to effect the change. After initialization, load Overlay 17 and check the amount of unprotected memory before the data dump. When adding memory a SYSLOAD is required. See the Conversion Procedures for parallel reload.

When the Overlay is loaded the available system memory and disk records are output in a header as follows:

```
CFN000
MEM AVAIL: (U/P): xxxxxx USED: xxxxx TOT: xxxxxxxx
DISK RECS AVAIL: xxx
DCH AVAIL: XX USED: XX TOT: 64
AML AVAIL: XX USED: XX TOT: 16
```

Notes on ISDN Configuration

ISDN configuration may be changed by adding the primary D-channel followed by the optional backup D-channel. Be sure to observe the following:

- Primary and back-up D-channels must be on the same card type (DCHI or MSDL)
- Primary D-channel parameters are automatically copied to the back-up D-channel.
- Disable both ends of a D-channel before making any changes to the D-channel.
- Changes to the D-channel pair should be made to the primary D-channel first (except for BCHL and RCVP).
- The backup D-channel must be removed prior to removing the primary D-channel.

- When a backup D-channel is configured for a primary D-channel, the USR of the primary can be changed from SHA to ISLD or PRI, but not from ISLD to PRI or SHA.
 - The ADAN DCH MOVE command allows the primary D-channels to move to a new logical number (NDCH), card type (CTYP), device number (DNUM), and port designation (PORT) when adding MSDL cards. You do not need to remove any D-channels or B-channels when using this command with MSDL cards.
-

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Prompts and responses

Configuration Record 1

Prompt	Response	Comment
REQ	CHG	Request
TYPE	CFN	Configuration Record
ADAN	aaa bbb x	Action Device And Number (aaa = NEW, CHG, MOV or OUT ; bbb = I/O device type ; x = port number) (see page 282)
PWD	(NO) YES	Change Password options (see page 285)
PARM	(NO) YES	Parameters for Interface and transmission mode (see page 287)
CEQU	(NO) YES	Change to Common Equipment (see page 290)
OVLY	(NO) YES	Overlay (see page 290)
VAS	(NO) YES	Value added server configuration (see page 291)
ATRN	(NO) YES	Change Transmission Parameters of MeridianModular / Aries Telephone (see page 292)
ALARM	(NO) YES	Change Alarm Filter (see page 293)

Note: This *Prompts and responses* table does not list prompts which appear under each gate opener. To find prompts which appear under a given gate opener, refer to the page listed in the *Comment* section of this table.

Gate Opener: ADAN (Action Device and Number)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	ADAN	Action Device And Number
- ADAN	aaa bbb x	Action Device And Number (aaa = NEW, CHG, MOV or OUT; bbb = I/O device type; x = port number)
- SIZE	(0)-65534	Size of History File buffer in characters
- PDCH	0-15	Primary D-channel associated with a backup D-channel
-CARD	0-9	Card Slot for the I/O device
-PORT	0-2	Port number on the card
- CTYP	a...a	Card Type (CTYP responses can be found on page 305)
- DES	d...d	Designator
- BPS	xxxxx	Bits Per Second
- PARY	aaaa	Parity type (aaaa = (NONE) ODD, or EVEN)
-STOP	(1)-1x5-2	Number of Stop bits (To configure value of 1.5, enter 1x5)
- BITL	x	Data Bit Length (aaa = (5), 6, 7, or 8)
- FLOW	(NO) YES	Flow Control
- -BCST	(NO) YES	Broadcast ports affected by Flow Control
- PARM	aaaa bbb	Parameters for Interface and transmission mode (aaaa = R232 or R422 ; bbb = DCE or DTE)
- FUNC	aaa	MSDL card function (aaa = ABC, FCL, MOD, LME, or SCN)
- USER	a...a	Output message types (USER responses begin on page 331)
- XSM	(NO) YES	Extended System Monitor
- TTYLOG	0-65534	Log buffer size
BANR	(YES) NO	Optional Security Banner option
- CUST	xx	Customer number associated with this function
- SSUP	(NO) YES	Senior Supervisor
- - APRT	(NO) YES	ACD Printer
- STOP	(1)-1x5-2	Number of Stop bits (to configure value of 1.5, enter 1x5)
- USR	aaaa	User (aaaa = ISLD, PRI, SHA, SHAV, or VNS)
- IFC	a...a	Interface type for D-channel (IFC responses can be found on page 312)

-- PINX_CUST	0-99	This customer number will be used for the DN address translation associated with call independent connection messages received on this D-channel.
-- ISDN_MCNT	60-(300)-350	Layer 3 call control message count per 5 second time interval.
CLID	OPTx	Calling Line Identification (x= 0, 1, 2, 3, 4, or 5)
CO_TYPE	aaa	Central Office switch type (aaa = (STD) or ATT)
- RCVF	(NO) YES	Recovery to Primary
- DCHL	1-9	D-Channel PRI loop number
- BCHL	1-9	PRI loop number for Backup D-channel
- PRI	loop x	Primary Rate Interface
- OTBF	1-(32)-127	Output request Buffers
- DRAT	aaa	D-channel transmission Rate (aaa = (56K), 64KC, or 64KI)
- BPS	xxxxx	Bits Per Second
- PARM	aaaa bbb	Parameters for Interface and transmission mode (aaaa = R232 or R422 ; bbb = DCE or DTE)
- CLOK	aaa	Clock (aaa = EXT or INT)
- SIDE	aaa	Meridian 1 node type (aaa = (USR) or NET)
- CNEG	x	Channel Negotiation option (x = (1) or 2)
- RLS	xx	Release ID of the switch at the far end of the D-channel (set to Rls 22 for Option 11C Compact)
- RCAP	aaa	Remote Capabilities (RCAP options begin on page 323)
- NASA	(NO) YES	Network Attendant Service Allowed
- TIMR	(NO) YES	Change protocol timer value
-- T310	10-60	Timer used to determine how long SL-1 can wait for the response message when the QSIG outgoing call is in the U3 (outgoing call processing) state
-- INC_T306	0-(2)-T306	Variable timer for received disconnect message on incoming calls, allowing in-band tone to be heard when sent by the network
-- OUT_T306	0-(30)-T306	Variable timer for received disconnect message on outgoing calls, allowing in-band tone to be heard when sent by the network (entered in 2 second increments)
- LAPD	(NO) YES	Link Access Protocol for D-channel Change LAPD parameters
-- T23	1-(20)-31	Interface guard Timer or DCHI only
-- T200	2-(3)-40	Retransmission Timer
-- N200	1-(3)-8	Maximum Number of retransmissions

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-- N201	4-(260)	Maximum Number of octets in information element
-- T203	2-(10)-40	Maximum Time allowed without frames being exchanged
-- K	1-(7)-32	Maximum number of outstanding unacknowledged frames
- IADR	0-(3)-255	Individual Address for the data link level HDLC protocol
- RADR	0-(1)-255	Remote Address for the data link level HDLC protocol
- LCTL	(NO) YES	Change Link Control system parameters
-- T1	2-(4)-20	Retransmission Timer. Range in units of 0.5 seconds, (4) = two seconds
-- T2	0-(10)-255	Maximum Time allowed without a frame being exchanged
-- T3	2-(5)-255	Timer for initial link setup in units of 0.5 seconds for ESDI only
-- N1	xxx	Maximum Number of octets per HDLC information frame (xxx = 32, 64, 128, or (512))
-- N2	4-(8)-16	Maximum Number of retransmissions in steps of 1
-- K	1-(7)	Maximum number of outstanding frames
- LTHR	(NO) YES	Link Threshold. Change link performance thresholds for ESDI only
-- RXMT	1-(5)-20	Retransmission Threshold
-- CRC	1-(10)-20	CRC threshold
-- ORUR	1-(5)-255	Overrun/Underruns out-of-service threshold
-- ABOR	1-(5)-255	Number of Aborts before an out-of-service
- DCHI	0-15	D-channel Interface port number
- PORT	0-15	Port number (range varies according to system option and card/port type)

Gate Opener: PWD (Password)

The PWD2 prompt appears immediately following the TYPE = PWD entry, unless the LAPW password Multi User Login are enabled. To view LAPW prompts, LAPW package 149 must be equipped. LAPW users can change their passwords by entering the current password at prompt LPWD and entering the new password at the NLPW prompt.

Prompt	Response	Comment
REQ	CHG	Request
TYPE	PWD	Change Password options
- PWD2	x...x	Password 2
- LNAME_OPTION	(NO) YES	Require Log In Name for password access
- NPW1	x...x	New Password 1 (PWD1 Log In password)
-- LOGIN_NAME	aaa	Log In Name for password access
- NPW2	x...x	New Password 2 (PWD2)
-- LOGIN_NAME	aaa	Log In Name for password access
- LAPW	0-99	Limited Access to Overlays Password number
- PWTP	aaaa	Password Access Type (aaaa = (OVLY) or SBA)
-- PWnn	x...x	Password (you may enter new password for SBA)
- LOGIN_NAME	aaa	Log In Name for password access
- LEVL	aaaa	Access Level for Set Based Administration password (aaaa = (INST) or ADMN)
-- OVLA	xx xx ... xx	Overlays Allowed
-- CUST	aaa	Customer to be accessible by way of PWnn
-- TEN	aaa	Tenant to be accessible by way of PWnn
-- HOST	(NO) YES	Enable HOST mode Log In for password PWnn
-- MAT	(NO) YES	Enable MAT 5.0 Log In for password PWnn
--- MAT_READ_ONLY	(NO) YES	Restrict MAT 5.0 write access for password PWnn
-- OPT	a...a	Options for password PWnn (OPT responses can be found on page 319)
- LPWD	x...x	Limited Access to Overlays log on password to be changed
-- NLPW	x...x	New Limited Access to Overlay Log On Password for the user
- FLTH	0-(3)-7	Failed Log In Threshold

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- LOCK	0-(60)-270	Lockout time
- AUDT	(NO) YES	Audit Trail for password usage
- - SIZE	(50)-1500	Word Size of Audit Trail buffer
- INIT	(YES) NO	Initialize to reset locked-out ports

Gate Opener: PARM (System Parameters)

The following values should be set at the factory. However, it is recommended that these values be reviewed during initial system installation.

Prompt	Response	Comment
REQ	CHG	Request
TYPE	PARM	Change system parameters
- LPIB	96-5000	Low-Priority Input Buffers (range depends on system type)
- HPIB	16-5000	High-Priority Input Buffers (range depends on system type)
- 500B	16-5000	Output buffers for single line and digital telephones, and trunks (range depends on system type)
- NCR	x...x	Number of Call Registers, range depends on system type
- MGCR	0-NCR	Maximum number of Call Registers used by AUX messaging
- CSQI	(20)-255	Maximum number of Call Registers for CSL input queues
- CSQO	(20)-255	Maximum number of Call Registers for CSL/AML output queues
- TUBO	(no)-yes	AML Turbo - yes gives extra processing time for CSL input queues
- CFWS	(NO) YES	Call Forward Saved on SYSLOAD
- PCML	aa	Pulse Code Modulation Companding Law (aa = (MU) or A)
- ALRM	(NO) YES	Minor Alarm displayed on attendant consoles
- ERRM	aaa	Error Messages (aaa = ERR, BUG, or AUD)
- DTRB	xxx	Digitone Burst time in ms (xxx = 50, 60, 70, or (100))
- TMRK	xxx	Length of cadence increments in ms (xxx = 96 or (128))
- FCDR	aaa	Format for Call Detail Recording (aaa = (OLD) or NEW)
- PCDR	(NO) YES	Priority to CDR
- TPO	(NO) YES	Traffic Period Option
- TSO	(NO) YES	Trunk Period Option
- CLID	(NO) YES	Calling Line ID in the CDR
- DUR5	(NO) YES	Duration 0.5
- MLDN	(NO) YES	Multiple Loop DN
- NDRG	(NO) YES	New Distinctive Ringing
- MARP	(YES) NO	Multiple Appearance Redirection Prime feature allowed
- FRPT	aaaa	(Deny) or allow Access to incoming calls by FRE station (aaaa = (NEFR) or OLFR)

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- DCUS	0-5	Maximum number of ACD-ADS customers
- MSCL	0-8190	Maximum Speed Call Lists
- PMSI	(NO) YES	Modify Property Management Systems parameters
-- MANU	aaaa	PMS interface (aaaa = (PMS1), PMS2, or PMS3)
-- PMCR	a	Number of Call Registers used for PMSI (a = (x), y or 5)
-- PORT	0-15	Port number (range varies according to system option and card/port type)
-- XTMR	(0)-6	PMS acknowledgment time
-- XNUM	(1)-4	Number of retransmissions per message for PMSI
-- PMIN	(NO) YES	Minor alarm when the PMSI link is not responding
-- PTMR	(0)-31	Polling timer for PMSI
- NDIS	(20)-255	Number of Display messages for Background Terminal
- OCAC	(NO) YES	Support the Original Carrier Access Code format
- SBA_ADM_INS	0-(2)-63	Maximum Administrator and/or Installer Log Ins allowed at one time
- SBA_USER	0-(100)-500	Maximum User Log Ins allowed at one time
- NORTEL_ BRAND	YES, NO	“NORTEL” Electronic Brandline is displayed (default). “NORTEL” Electronic Brandline is not displayed. NORTEL_BRAND is only prompted when the ISM parameter is set to the default value.
MODIFY	YES, NO	Enter YES to make changes to Electronic Brandlining text.
PWD2	xxxx	Password 2. The second level administration password is needed to allow configuration of the Terminal Text Broadcast customized text string.
-- SUPPORTED _TEXT_ONLY	x...x	Change customized text string by text string input. Enter YES to input by text string, and the IDLE_DISP_STRING prompt is prompted. Enter NO to input character by character, and the IDLE_DISP_CHAR nn prompt is prompted.
-- IDLE_DISP _STRING	x...x	Enter the customized text string. IDLE_DISP_STRING is prompted only if SUPPPORTED_TEXT_ONLY = YES. A maximum of 24 supported characters are accepted and validated. For a blank display, enter <CR> only.

-- OK	YES, NO	Confirm the validated Terminal Text Broadcast customized text string (bbbb) entered at the IDLE_DISP_STRING prompt. Enter YES to keep the new text string as "bbbb". Enter NO to input a new Terminal Text Broadcast customized text string, and the Supported_TEXT_ONLY prompt is re-prompted.
-- IDLE_DISP_CHAR	nn	Enter the customized text string character by character. c = one supported character hh = 2 hexadecimal digits (0-9, A-F, a-f), representing a supported character. nn (01-24) is the position of the character in the customized text string. The IDLE_DISP_CHAR prompt is only prompted if SUPPORTED_TEXT_ONLY = NO. It is re-prompted until <CR> only is entered or until nn is the 24th character that has been entered.
-- OK	YES, NO	Confirm the validated Terminal Text Broadcast customized text string (cccc) entered at the IDLE_DISP_CHAR nn prompts, Enter YES to keep the new text string as "cccc". Enter NO to input a new Terminal Text Broadcast customized text string, and the SUPPORTED_TEXT_ONLY prompt is re-prompted.
BCAP	a...a	Bearer Capability (a...a = (SPEECH) or 3.1 KHZ)

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Gate Opener: CEQU (Common Equipment)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	CEQU	Change to Common Equipment parameters
- XCT	a...a	Extended Conference/TDS/MFS
- CONF	a...a	Conference loop
- DLOP	loop dd ff ...	Digital Trunk Interface Loop or Loops (l = loop number; dd = number of voice or data calls; ff = frame format)
-- MODE	aaaa	Mode of operation (aaaa = LINK, PRI, or TRK)
-- LCMT	aaa	Line Coding Method (aaa = (B8S) or AMI)
-- YALM	aaa	Yellow Alarm Method (aaa = (FDL) or DG2)
-- T1TE	(0) - 2	T1 Transmit Equalization; 0= 0-200 ft, 1 = 200 - 400 ft, 2 = 400 - 700 ft
-- TRSH	0-15	Threshold

Gate Opener: OVLY (Overlay)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	OVLY	Change Overlay area options
- SID	xxxx	System ID number
- BKGD	xx xx	Background Overlay task
- PBXH	00-23	Hour to perform Message Waiting lamp maintenance
- TODR	0-23	Time of Daily Routines
- DROL	xx xx	Daily Routine Overlays
-	(OFF) ON	Multi-User Log In
MULTI_USER		

Gate Opener: VAS (Value Added Server)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	VAS	Value Added Server configuration
- VSID	0-15	VAS Identifier
- DLOP	loop dd ff ...	Digital Trunk Interface Loop or Loops (l = loop number ; dd = number of voice or data calls ; ff = frame format)
ELAN	x	Associate Value Added Server ID (VSID) x with Application Module Link over Ethernet (ELAN) x
- AML	0-15	Application Module Link
-- SECU	(NO) YES	Security for Meridian Link applications
-- INTL	1-12	Interval for checking Meridian Link for overload in five second increments
-- MCNT	5-100000	Threshold for number of Meridian Link messages per time interval
-- CONF	aaa	CSL Configuration (aaa = DIR or IND)
- APPL	aaa VMBA	Application (aaa = NEW, CHG, or OUT; VMBA = Voice Mailbox administration)
--CUST	xx	Customer number
-- DATA_CORRECT	(OFF) ON	Enable Voice Mailbox Database correction
-- AUTO_AUDIT	(ON) OFF	Enable the Automatic Voice Mailbox database audit
-- SATN	l s c u	SADM/Data Line Card TN
-- IDLP	0-158	DTI loop number used for IND CSL loop
- DLOP	loop dd ff ...	Digital Trunk Interface Loop or Loops (l = loop number ; dd = number of voice or data calls ; ff = frame format)
- CMS	0-15	ESDI port number used for the CSL
-- SECU	(NO) YES	Security for Meridian Link applications
-- INTL	1-12	Interval
-- MCNT	5-100000	Message Count Threshold
-- CONF	aaa	CSL Configuration (aaa = DIR or IND)
-- SATN	l s c u	SADM/Data Line Card TN
-- IDLP	0-158	IND DTI Loop

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Gate Opener: ATRN (Aries Transmission)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	ATRN	Aries Transmission
- CODE	(0)-2	CODEC Coding Law
- SOLR	0-(1)-4	Sidetone Objective Loudness Rating
- ROLR	(0)-63	Receive Objective Loudness Rating
- AOLR	(0)-12 32-50	2216 ACD set Objective Loudness Rating
- TOLR	(0)-63	Transmit Objective Loudness Rating
- AGCD	(NO) YES	Automatic Gain Control Disabled
- VOLR	(NO) YES	Volume Reset
- HRLR	(0)-8, 32-40	Handsfree Receive Objective Loudness Rating
- HTLR	(0)-11, 32-54	Handsfree Transmit Objective Loudness Rating

Gate Opener: ALARM (Alarm filters)

Prompt	Response	Comment
REQ	CHG	Request
TYPE	ALARM	Change Alarm Filters
- FMT_OUTPUT	(OFF) ON	Enable/(disable) formatting for the alarm/exception output
- AF_STATUS	(OFF) ON	Alarm and Exception filtering
- A_FILTER	aaa	Alarm Filter entry (aaa = NEW, CHG, or OUT)
- TRIGGER	a...a	Trigger string for alarm tables
- SEVERITY	aaaa	Alarm Severity (aaaa = (NONE), CRITICAL, MAJOR, or MINOR)
- SUPPRESS	0-(5)-127	Alarm occurrence threshold (prior to suppressing)
- ESCALATE	0-(2)-127	Alarm occurrence threshold (prior to escalating)
- A_FILTER	<cr>	Enter carriage return at this prompt to see E_FILTER prompt)
- E_FILTER	aaa	Exception Filter entry (aaa = NEW, CHG, or OUT)
- TRIGGER	a...a	Trigger string for exception tables
- ADAN	aaa bbb x	Action Device And Number (aaa = NEW, CHG, MOV or OUT ; bbb = I/O device type ; x = port number)
- USER	FIL	Alarm filtering message output

ROLR / TOLR/ AOLR Offsets and Values

Offset	ROLR/AOLR	TOLR	Offset	ROLR/AOLR	TOLR
0	+45.00	-45.00	32	+45.00	-45.00
1	+45.85	-44.50	33	+44.15	-45.50
2	+46.70	-44.50	34	+43.30	-46.00
3	+47.55	-44.00	35	+42.45	-46.00
4	+48.40	-43.50	36	+41.60	-46.50
5	+49.25	-43.00	37	+40.75	-47.00
6	+50.10	-43.00	38	+39.90	-47.50
7	+50.95	-42.50	39	+39.05	-47.50
8	+51.80	-42.00	40	+38.20	-48.00
9	+52.65	-41.50	41	+37.35	-48.50
10	+53.50	-41.50	42	+36.50	-49.00
11	+54.35	-41.00	43	+35.65	-49.00
12	+55.20	-40.50	44	+34.80	-49.50
13	N.A.	-40.00	45	+33.95	-50.00
14	N.A.	-40.00	46	+33.10	-50.50
15	N.A.	-39.50	47	+32.25	-50.50
16	N.A.	-39.50	48	+31.40	-51.00
17	N.A.	-38.50	49	+30.55	-51.50
18	N.A.	-38.50	50	+29.70	-52.00
19	N.A.	-38.00	51	N.A.	-52.00
20	N.A.	-38.00	52	N.A.	-52.50
21	N.A.	-37.00	53	N.A.	-53.00
22	N.A.	-37.00	54	N.A.	-53.50
23	N.A.	-36.50	55	N.A.	-54.00
24	N.A.	-36.00	56	N.A.	-54.00
25	N.A.	-35.50	57	N.A.	-54.50
26	N.A.	-35.50	58	N.A.	-55.00
27	N.A.	-35.00	59	N.A.	-55.00
28	N.A.	-34.50	60	N.A.	-55.50
29	N.A.	-34.00	61	N.A.	-56.00
30	N.A.	-34.00	62	N.A.	-56.50
31	N.A.	-33.50	63	N.A.	-56.50

Note: ROLR values are for reset volume.

HRLR / HTLR Offsets and Values

Offset	HRLR	HTLR	Offset	HRLR	HTLR
0	+42.00	-44.00	32	+42.00	-44.00
1	+42.85	-43.50	33	+41.15	-44.50
2	+43.70	-43.50	34	+40.30	-45.00
3	+44.55	-43.00	35	+39.45	-45.00
4	+45.40	-42.50	36	+38.60	-45.50
5	+46.25	-42.00	37	+37.75	-46.00
6	+47.10	-42.00	38	+36.90	-46.50
7	+47.95	-41.50	39	+36.05	-46.50
8	+48.80	-41.00	40	+35.20	-47.00
9	N.A.	-40.50	41	N.A.	-47.50
10	N.A.	-40.50	42	N.A.	-48.00
11	N.A.	-40.00	43	N.A.	-48.00
12	N.A.	N.A.	44	N.A.	-48.50
13	N.A.	N.A.	45	N.A.	-49.00
14	N.A.	N.A.	46	N.A.	-49.50
15	N.A.	N.A.	47	N.A.	-49.50
16	N.A.	N.A.	48	N.A.	-50.00
17	N.A.	N.A.	49	N.A.	-50.50
18	N.A.	N.A.	50	N.A.	-51.00
19	N.A.	N.A.	51	N.A.	-51.00
20	N.A.	N.A.	52	N.A.	-51.50
21	N.A.	N.A.	53	N.A.	-52.00
22	N.A.	N.A.	54	N.A.	-52.50
23	N.A.	N.A.	55	N.A.	N.A.
24	N.A.	N.A.	56	N.A.	N.A.
25	N.A.	N.A.	57	N.A.	N.A.
26	N.A.	N.A.	58	N.A.	N.A.
27	N.A.	N.A.	59	N.A.	N.A.
28	N.A.	N.A.	60	N.A.	N.A.
29	N.A.	N.A.	61	N.A.	N.A.
30	N.A.	N.A.	62	N.A.	N.A.
31	N.A.	N.A.	63	N.A.	N.A.

Note: All values are OLR ratings measured without inserted loss/gain for trunk card interfaces and computed per IEEE methods. Receive ratings are at a maximum volume. Transmit ratings are measured in an anechoic environment with less than 25 dBA room noise.

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Alphabetical list of prompts

Prompt	Response	Comment
500B	16-2048	Output buffers for single line and digital telephones, and trunks Buffers for single line telephones, trunks and Digital telephones
ABOR	1-(5)-255	Number of aborts before an out-of-service. Enter in units of 1, the number of aborts in 15 minutes before an out-of-service is enforced.
ADAN	NEW aaa x CHG aaa x MOV aaa x OUT aaa x	Action Device And Number Add I/O device. Where: aaa = type, x = port Change I/O device. Where: aaa = type, x = port Move I/O device. Where: aaa = type, x = port Remove I/O device. Where: aaa = type, x = port Where, aaa and x can be any of the following: 1. AML 0-15 = Application Module Link 2. BDCH 0-15 = Backup primary D-channel 3. DCH 0-15 = primary D-channel 7. HST = History file 8. PRT 0-15 = Printer port number 10. TRF = Traffic Log file 11. TTY 0-15 = Teletype port number Note: You cannot configure more than 16 TTY and HST files. If a HST file is one of 16 TTY files configured and a new TTY is defined, the HST file will be deleted since the TTY has higher priority than HST.

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Prompt	Response	Comment
		<p>The MOV command is not supported for AML, BDCH, HST, PRT, or TTY. MOV is supported for MSDL D-channels only. When using the MOV command, the D-channel must be disabled, as well as all associated PRI and DCH loops. This command is not allowed for a D-channel with a backup D-channel configured, and a backup D-channel cannot be moved to another physical address. MOV supports D-channels in PRI user mode only. It cannot be used if in shared or ISL mode. If the craftsperson attempts to move a configured D channel from the MSDL card to the DCHI card when the D channel interface is based on UIPE, the move will not be allowed.</p> <p>The D channel must be disabled before it can be outed, changed or moved. OUT is not allowed on device 0.</p> <p>Changes to I/O devices are saved before ADAN is reprompted. To indicate the data has been saved, one of the following is output:</p> <ul style="list-style-type: none">• ADAN DATA SAVED• ADAN DATA CHGED• ADAN DATA REMOVED• ADAN DATA MOVED <p>Entering 4 asterisks (****) after the ADAN prompt saves the changes and exits the overlay.</p>
AF_STATUS	(OFF) ON	This prompt enables (disables) the alarm and exception filtering. <CR> retains the current filtering status
AGCD	(NO) YES	Automatic Gain Control Disabled
ALARM	(NO) YES	Change Alarm filters Must have Alarm Filtering (ALRM_FILTER) package 243.
ALRM	(NO) YES	Minor Alarm displayed on attendant consoles. (NO) disables the minor alarm on consoles.
AML	0-15	Application Module Link

Prompt	Response	Comment
AOLR	(0)-12 32-50	<p>2216 ACD set Objective Loudness Rating</p> <p>The default value for the AOLR prompt will be the same default value as for ROLR prompt.</p> <p>See “ROLR / TOLR/ AOLR Offsets and Values” on page 294 to determine the decibel level which corresponds to your response to AOLR.</p>
APPL	NEW VMBA CHG VMBA OUT VMBA	<p>Application Add Voice Mailbox Change Voice Mailbox Remove Voice Mailbox</p> <p>This prompt allows the user to add, change, or remove an application associated with the VAS ID. The APPL prompt appears when VAS = NEW or CHG.</p>
APPL	ISAP	User application type: Meridian Link ISDN/AP
APRT	(NO) YES	<p>ACD printer APRT cannot be YES if prompt SSUP = YES.</p>
ATRN	(NO) YES	<p>Aries Transmission</p> <p>Change Transmission parameters for Meridian Modular or Aries telephones</p> <p>These transmission parameters are downloaded to Meridian Modular telephones:</p> <ul style="list-style-type: none"> • after sysload (except during parallel reload) • when enabling the loop, shelf or card • when the telephone is plugged in. <p>These values determine the loudness of the receiver and transmitter.</p> <p>Before changing these values, refer to the <i>Summary of Transmission Parameters</i> NTP and the <i>International Loss and Level Plan</i> planning and engineering NTP.</p>
AUDT	(NO) YES	Audit Trail for password usage Prompted for PWD1 and PWD2.
AUTO_AUDIT		Automatic Voice Mailbox database correction

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Prompt	Response	Comment
	(ON) OFF	When enabled, the Voice Mailbox data is audited every 5 days to ensure consistency between the Meridian Mail and Meridian 1 databases. The audit takes place during the daily routines every 5 days.
AXQI	(20)-255	Size of Auxiliary Input Queue Maximum lesser of 25% of the maximum number of call registers defined for the system, or 255.
AXQO	(20)-255	Size of Auxiliary Output Queue Maximum lesser of 25% of the maximum number of call registers defined for the system, or 255.
BANR		Optional Security Banner option. BANR is prompted when USER = SCH and/or MTC.
	(YES) NO	Enable security banner printing option Disable security banner printing option
		If BANR = YES, the following Security Banner will be printed at the time a login is attempted, whether or not the login is successful: <i>"Warning: The programs and data stored on this system are licensed to or are the property of NT/BNR and are lawfully available only to authorized users for approved purposes. Unauthorized access to any program or data on this system is not permitted. This system may be monitored at any time for operational reasons. Therefore, if you are not an authorized user, DO NOT ATTEMPT TO LOG IN."</i>
		The programmer will not modify an existing I/O block by hitting carriage return (<cr>) in response to BANR.
BCAP	(SPEECH) 3.1 KHZ	Bearer Capability Speech 3.1 KHZ
BCHI	1-15	Backup D-channel port number. Precede with "X" to remove.
BCHL	0-159 0-159 1-126	PRI loop number for Backup D-channel. Prompted when ADAN = BDCH. PRI loop number and interface identifier for DCHI when IFC = D70. Precede with X to remove.

Prompt	Response	Comment
BCST	(NO) YES	<p>Only this broadcast port is affected by flow control All broadcast ports of the same user type are affected by flow control.</p> <p>Use this prompt with caution. For example, if BSCT = YES, and a maintenance port receives an X-off command, system output to all maintenance ports will eventually be blocked.</p> <p>This prompt appears only if FLOW = YES. BSCT is not prompted for TTY_TYPE = LSL.</p>
BITL	(5), 6, 7, 8	Bit length. Prompted for asynchronous ESDI ports.
BKGD	30, 34, 36, 37, 38, 40, 43, 44, 45, 46	<p>Background overlay task</p> <p>Enter the diagnostic program number 30, 34 and so on, to run in background when the overlay area is idle.</p> <p>The customer may configure more than one overlay to be run in background. These overlays will run sequentially, one after the other.</p> <p>The data dump routine LD 43 should be reserved for the DROL to preserve data integrity.</p>
BPS	1200 2400 4800 9600 19200 48000 56000 64000	<p>Asynchronous baud rates (bits per second):</p> <p>1200 Bits Per Second 2400 Bits Per Second 4800 Bits Per Second. Default for AML ports. 9600 Bits Per Second. 19200 Bits Per Second 48000 Bits Per Second 56000 Bits Per Second 64000 Bits Per Second. Default for ISL D-channels.</p> <p>If the baud rate is set differently (that is, 4800) the system will return to the default TEMPORARILY if it is manually initialized. The entered baud rate will return when the initialization is complete.</p>

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Prompt	Response	Comment
CACH	(0) 2-32	<p>Cache</p> <p>CACH = the number of overlay programs in cache buffers. Up to 32 overlays can reside in system memory. This reduces the overlay loading time to about one second.</p> <p>The first time an overlay is requested by the LD xx command it is loaded from disk and placed in the cache memory. If cache area is full, the oldest used non-priority overlay in cache memory is replaced by the new overlay.</p> <p>In the event of data corruption to the overlay or cache memory, the problem can be corrected by a forced reload of the overlay from disk by the command "LD xx D". The DIST/ENLT cannot be used to force a reload of the current overlay.</p> <p>If a SYSLOAD of a new issue of software reduces the available memory, the number of cache buffers is reduced. When this occurs an OVL407 message is output. If this results in too many priority overlays, the highest number priority overlays are removed.</p> <p>Background or daily routine overlays are not stored in cache. If CACH = 0, all overlays are loaded from disk.</p> <p>CACH is not prompted for Options 11C, 51C, 61C, 81 and 81C.</p>
CDNO	0-15	<p>Serial Data Interface (SDI) Card number</p> <p>Number the SDI cards logically with the system. Keep a paper record of the number and physical location of each SDI card. Enter 0 if you are not using CDNO to keep track of SDI ports and cards.</p>
CEQU	(NO) YES	<p>Change to Common Equipment parameters</p>
CFWS	(NO) YES	<p>Call Forward Saved on SYSLOAD and reactivate on completion. To save information, set CFWS = YES.</p>
CLID	(NO) YES	<p>Calling Line ID in the CDR</p> <p>If CLID = NO, "XXXXXXXXXXXX" will be printed in CLID field of CDR record. Prompted when CDR = YES and the Integrated Services Digital Network (ISDN) package 145 is equipped.</p>
	OPT0	<p>Prefix = 0 for North American dialing plan. OPT0 is the default for ESIG and ISIG interfaces.</p>

Prompt	Response	Comment
	OPT1	Prefix = 1 for international PFXs in CLID. Any numbering type is supported. OPT1 is the default for all EuroISDN interfaces.
	OPT2	Prefix = 2, for international PFXs in CLID. CCITT numbering types supported are: UKWN, INTL, NPA, and NXX. OP2 is the default for CO/DID routes for the Telecom New Zealand interface.
	OPT3	Prefix = 3 for international PFXs in CLID. Only the NXX number type is supported. OPT3 is the default for TIE routes for the Telecom New Zealand interface.
	OPT4	For international COs, if the call originates from a CO trunk type, add nothing. Otherwise, add PFX1 and PFX2. OPT4 is the default for the Hong Kong, Singapore, and Thailand interfaces.
	OPT5	This is the same as OPT4, except it supports a maximum of 10 digits in the CLID. OPT5 is the default for the Austrian interface.
CLOK		Source of primary clock is either internal or external. Prompted for ISL D-channels and ESDI synchronous ports. Other D-channels are automatically set to EXT.
	EXT	External Clocking. When USR = ISLD, CLOK should be set to External. Default for ISL D-channels is EXT.
	INT	Internal Clocking. INT is used only during D-channel loopback tests, where one side is set to INT, the other is set to EXT. Default for ESDI AML ports is INT.
CMS	0-15	ESDI port number used for the CSL Synchronous ESDI port number used for the CSL. This must be the same value as the port number defined at the ADAN prompt. Precede with X to remove. Prompted when SYNC and USER = CMS.

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Prompt	Response	Comment
CODE	x xx xx xx	Code, prompted when DTD = TDS. A valid Hex Code for access to a flexible TDS table for a test tone, used to check a Dial Tone Detector or DTD. This code only applies when the tone generator is a TDS. If an XCT is used to generate the test tone the value in CODE will be ignored and the XCT will generate the dialtone specified in the FCT Table number 0 in LD 56.
CODE	(0) 1 2	CODEC Coding Law Mu or μ -Law for North America. This parameter is only used by the Meridian digital sets as part of the transmission parameters. A Law, inverted for Sweden only A Law, even-bit interleaved
CONF	DIR IND	Direct link CSL Configuration Indirect link CSL Configuration
CONF	29-31,62	Conference loop Use even-numbered loops for Conference. You may configure more than 16 Conference loops; however, enabling more than 16 Conference loops may cause the system to lock-up. Precede with X to remove.
CO_TYPE	(STD) ATT	Central Office switch type. Prompted if IFC = NI2. 100% compatible with Bellcore standard AT&T 5ESS
CRC	1-(10)-20	CRC threshold. Enter in units of 5 per cent. CRC establishes the % of Cyclic Redundancy Code (CRC) errors detected in 15 minutes before an out-of-service threshold is enforced. $\text{CRC} = (\# \text{ of packets retransmitted}) \div (\text{total} \# \text{ packets sent}).$

Prompt	Response	Comment
CSQI	(20)-255	<p>Maximum number of call registers for CSL input queues</p> <p>These call registers are used for Command and Status Link applications such as Meridian Link.</p> <p>Set CSQI and CSQO equal to the larger number of either:</p> <ol style="list-style-type: none"> 1. ACD agents or AST sets to be controlled by the host computer, or 2. 50. <p>Do not set CSQI and CSQO to a number exceeding 25 percent of the total number of call registers.</p>
CSQO	(20)-255	<p>Maximum number of call registers for CSL/AML output queues</p> <p>These call registers are used for Command and Status Link applications such as Meridian Link.</p> <p>Set CSQI and CSQO equal to the larger number of either:</p> <ol style="list-style-type: none"> 1. ACD agents or AST sets to be controlled by the host computer, or 2. 50. <p>Do not set CSQI and CSQO to a number exceeding 25 percent of the total number of call registers.</p>
CTYP		<p>Card Type (Input/output port card type)</p> <p>CPSI DCHI ESDI ELAN</p> <p>MSDL PTY</p> <p>Call Processor card D-channel Interface card Enhanced Serial Data Interface AML over Ethernet card</p> <p>Multi-purpose Serial Data Link Pseudo TTY</p> <p>Note: For a DCH on a TMDI card select MSDL.</p>
CUST	0 xxx	<p>Customer number associated with this function</p> <p>Customer to be accessible by way of PWnn.</p> <p>Enter the customer (0-99) and the associated Tenant numbers (entered at the TEN prompt) to have access with PWnn to overlays specified at prompt OVLA.</p>

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Prompt	Response	Comment
	ALL	All customers and associated tenants have access with this password.
	<cr>	No change to previous definitions. Precede with X to remove.
DATA_CORRECT (OFF) ON		Voice Mailbox Database Correction In enabled state, the Meridian Mail database is updated to match the Meridian 1 database when the database audit discovers a discrepancy.
DCHI	0-15	D-channel Interface port number When adding a D-channel the MEM AVAIL data is output after this prompt indicating the channel has been added. You can therefore abort the program and save the changes without going to the REQ prompt. Precede with X to remove.
DCHL	1-9	PRI loop number
DCUS	0-5	Maximum number of ACD-ADS customers
DDCS	0-159	Loop number for NT DPNSS/DASS hardware Precede with X to remove.
DENS	SDEN DDEN 4DEN	Single ports on SDI card Double ports on SDI card Quad ports on SDI card
DES	d...d	Designator (AML port designation) DES is used to identify the link and can be up to 16 alphanumeric characters: 0-9, and upper case (A-Z). Characters * and # are not allowed. Spaces are removed by the system. For example "MERIDIAN MAIL" becomes "MERIDIANMAIL". Use the underscore character instead, such as MERIDIAN_MAIL DES can be left blank or changed as required. If DES is already defined for a link, the system outputs the current name and re-prompts DES. Precede the existing DES with X to remove. Example: "XMERIDIAN_MAIL".

Prompt	Response	Comment
DLOP	loop dd ff	<p>Digital Trunk Interface Loop or Loops. Where:</p> <ul style="list-style-type: none"> • l = loop number 0-159 • dd = maximum number of simultaneous voice or data calls 0-(24) • ff = frame format D2, D3, D4, or ESF <p>The default for frame format ff is ESF if prompt MODE is set to PRI; D3 if MODE is set to DTI or LINK. Loop must be removed before a change to ff can be made.</p>
DLOP	L1 L2 Ln	<p>Digital Trunk Interface Loop or Loops</p> <p>Loop numbers of the DTI Loops associated with this VAS. Loops must have previously been defined as MODE = LINK. Precede with X to remove.</p>
DNUM	0-15	<p>Device number for I/O ports.</p> <p>All ports on the MSDL card share the same DNUM. The MSDL card address settings must match the DNUM value. For all other ports such as SDI, DCHI, etc., the device number should match the port address switch settings.</p> <p>To configure a D-channel on an even number port the card type must be SPDC or MSDL.</p>
DRAT	(56K) 64KC 64KI	<p>D-channel transmission Rate</p> <p>56 kb/s when LCMT is AMI</p> <p>64 kb/s clear. Allowed if LCMT = B8S for SL-1 to SL-1 only. Default for PRI2.</p> <p>64 kb/s inverted HDLC, 64 kb/s restricted</p> <p>DRAT must match the far end. In Release 15 and later, DRAT is not prompted when configuring the ISLD-channel because speed is controlled by the modem baud rate.</p>
DROL	30, 32, 34, 36, 37, 38, 40, 43, 44, 45, 46,60, 61	<p>Daily Routine Overlays. Daily or midnight routine programs are run once a day at the time specified by prompt TODR.</p>

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Prompt	Response	Comment
DTRB	(100) 50 60 70	Digitone Burst time in ms 100 ms bursts of DTMF with 100 ms interdigit pause 50 ms bursts of DTMF with 50 ms interdigit pause 60 ms bursts of DTMF with 90 ms interdigit pause 70 ms bursts of DTMF with 70 ms interdigit pause This determines the DTMF burst and interdigit pause for the Tone and Digit Switch or TDS. Burst time of 50 ms is used for the Fast TDS; 100 ms is used for the standard TDS. Burst time of 60 ms and 70 ms is used for international requirements.
DUPX	(FULL) HALF	Full Duplex mode Enter FULL if each end can simultaneously send and receive. Half Duplex mode
DUR5	(NO) YES	CDR call duration with 0.5 second accuracy. DUR5 does not apply to CDR data link. CDR call record output on TTY with 2.0 second duration accuracy. CDR call record output on TTY with 0.5 second duration accuracy for Japan. 0.5 second duration accuracy is available for outgoing trunks with answer supervision outside Japan.
ELAN	x	Application Module Link (AML) over Ethernet Associate Value Added Server ID (VSID) x with AML over Ethernet (ELAN) x. The configured VSID of the ELAN will be used to distinguish the connection between the Meridian 1 and each application in a multiple application Ethernet environment. If the Nortel X Call Center (NXCC) package 311 is not equipped, a maximum of 16 ELANs can be configured and supported in the range of 16 to 31.
ERRM	ERR BUG AUD	Error Messages (prompted when USER = MTC) Error monitor-hardware Error monitor-software Software Audit The messages, if enabled here, are output on the maintenance port. Precede with X to remove.

Prompt	Response	Comment
ESCALATE	0-(2)-127	Alarm occurrence threshold (prior to escalating) This determines the number of times a major alarm may occur before it becomes critical. Entering 0 disables the alarm escalation. This applies to major alarms only.
ESDI	YES NO	Enhanced Serial Data Interface Default is as previous if ADAN = CHG. The default is NO if ADAN = NEW and no ports on the card are configured, or if the other port is configured and is not ESDI. The default is YES if the other port is configured and is ESDI.
E_FILTER	NEW CHG OUT	Add an Exception Filter entry. Change an Exception Filter entry. Remove an Exception Filter entry. This is reprompted for subsequent exception filters. Up to 50 Exception Filters can be configured. Entering <CR> completes exception filter entries. Precede with X to remove.
FCDR	(OLD) NEW	Format for Call Detail Recording Use OLD for Pre-Release 18 CDR format. Information field location varies according to which features are equipped. Use NEW for Release 18 and later CDR format. Information field locations are fixed. Prompted when New Format CDR (FCDR) package 234 is equipped.
FLOW	(NO) YES (NONE) XON CTS	Flow control capability (X11 Release 18 and later) This prompt appears for Options: 51C,61C,81C. Flow control (X11 Release 17 and earlier) Prompted for asynchronous ESDI ports.
FLTH	0-(3)-7	Failed Log In Threshold Prompted for PWD2 users.
FMT_OUTPUT	(OFF) ON <CR>	Alarm Filters Formatted printing This prompt disables formatting for the alarm/exception output. This prompt enables formatting for the alarm/exception output. Retains the current formatting status.

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Prompt	Response	Comment
FRPT	(NEFR) OLFR	Access to incoming calls by FRE station denied Access to incoming calls by FRE station allowed If FRPT = OLFR, then a FRE station can do Ringing Number Pickup, Night Answer and receive modified calls.
FTYP	(3) 3S 5	3.5 inch high density floppy type 3.5 inch super density floppy type 5.25 inch floppy type Prompted if ADAN = FDK or HDK.
FUNC		MSDL card Function (Release 19 and later). This prompt is used when applying the MSDL card to the SDI application.
	ABD FCL MOD LME SCN	Autobaud Flow Control (XON/XOFF handling) Modem support Line Mode Editing Character Screening Precede with X to delete.
HIST	(0)-65534	History File buffer length The History File stores system messages in Protected Data or Pdata and uses an SDI port address. When full, new incoming messages overwrite the oldest messages. The History File survives initialization, but is lost during SYSLOAD or when the file length is changed. The History File cannot be created if all 16 I/O ports are defined. HIST is not prompted in X11 Release 18 and later. See prompt SIZE.
HOST	(NO) YES	Enable HOST mode Log In for password PWnn. When a HOST user logs in, the outputs defined for the port are only output to that port. For example, two ports are defined by prompt USER to output BUG and SCH messages. When a HOST user logs in to one of these ports, the other port does not require BUG and SCH messages until the HOST user logs out. This removes the restriction that ports with the same output must operate at the speed of the slowest port. This feature is primarily used by applications such as Meridian Manager.

Prompt	Response	Comment
HPIB	16-1000 16-5000	<p>High-Priority Input Buffers</p> <p>High-Priority Input Buffers for System Options 51C, 61C, 81 and 81C.</p> <p>Recommended for attendant consoles and DID/TIE trunks. High priority line or trunk cards are placed in slot 1 and assigned have CLS = HPR in LD 10, 11, 12 or 14. Superloops do not require any line or trunk cards assigned as high priority.</p> <p>Refer to Appendix 553-2201-151.</p>
HRLR	(0)-8, 32-40	<p>Handsfree Receive objective Loudness Rating</p> <p>The HRLR value is downloaded to Meridian Modular telephones after sysload, except when performing a parallel reload. Refer to the Transmission parameter and International loss and level plan NTP's before adjusting this value.</p> <p>The default is 0. The number entered in this field corresponds to an offset value. The offsets and their corresponding values are provided on page 295.</p>
HTLR	(0)-11, 32-54	<p>Handsfree Transmit Objective Loudness Rating</p> <p>The HTLR value is downloaded to Meridian Modular telephones after sysload, except when performing a parallel reload. Refer to the Transmission parameter and International loss and level plan NTP's before adjusting this value.</p> <p>The default is 0. The number entered in this field corresponds to an offset value. The offsets and their corresponding values are provided on page 295.</p>
IADR	0-(3)-255	<p>Individual Address for the data-link level HDLC protocol.</p> <p>The IADR and RADR prompts must be coordinated with the far end. If IADR is defined as 3, then RADR must be 1.</p>

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Prompt	Response	Comment
IDLE_DISP_CHAR	xx aaaa	<p>Change customized text string character by character, where xx (01 to 24) is the position of the character in the customized text string.</p> <p>The IDLE_DISP_CHAR prompt is only prompted if SUPPORTED_TEXT_ONLY = NO and is re-prompted until a <CR> is entered or xx = 24th character has been entered, thus allowing additional characters to be entered. Where:</p> <p>c = one supported character. hh = 2 hexadecimal digits (0-9, A-F, a-f) representing a supported character.</p>
IDLE_DISP_STRING	x...x	<p>Enter the customized text string. IDLE_DISP_STRING is prompted only if SUPPPORTED_TEXT_ONLY = YES. A maximum of 24 supported characters are accepted and validated. For a blank display, enter <CR> only.</p>
IDLP	0-158	<p>IND DTI Loop DTI loop number used for IND CSL loop. See DLOP prompt.</p>
IFC		<p>Interface type for D-channel. Note that when USR = ISLD or SHA, the interface is automatically entered as SL1.</p>
	(D100) D250	<p>Meridian DMS-100 Interface to Meridian DMS-250</p>
	ESS4 ESS5	<p>Interface to AT&T ESS#4 AT&T ESS#5</p>
	NI2 S100 SL1 SS12	<p>NI-2 TR-1268 interface type Meridian SL-100 Meridian SL-1 SYS-12 for Norway</p>
INC_T306	0-(2)-T306	<p>Variable timer for received disconnect message on incoming calls, allowing in-band tone to be heard when sent by the network.</p> <p>The network will stop sending tone after T306 expires, so the maximum time will be T306. T306 is 30 seconds (entered in 2 second increments).</p>

Prompt	Response	Comment
INIT	(YES) NO	Manual initialization to reset ports which were locked-out due to failed LOGI attempts. CAUTION: While established calls in progress are unaffected, calls in the signaling state will be aborted.
INTL	1-12	Interval Time interval for checking Meridian Link for overload in five second increments This is the interval for counting the number of messages on a Meridian Link. See prompt MCNT.
ISDN_MCNT	60-(300)-350	Layer 3 call control message count per 5 second time interval.
ISLM	1-382	Integrated Services Signaling Link Maximum. Maximum number of ISL trunks controlled by the D-channel. There is no default value.
K	1-(7)-32	Maximum number of outstanding frames This value should be the same for the Meridian 1 (near-end) and the host processor (far-end). Where: <ul style="list-style-type: none"> • 7 = recommended value for AUX applications • 2 = recommended value for CCITT
LAPD	(NO) YES	Link Access Protocol for D-channel Change LAPD parameters.
LAPW	0-99 <cr>	Enter Limited Access to Overlays Password number to be created, modified or deleted. No more password changes Precede with X to remove. LAPW is reprompted after the OPT prompt, thus allowing multiple Limited Access to Overlays Password users to be created. If the overlay is exited after the OPT prompt the LAPW information is saved. If the overlay is exited before the OPT prompt, the information is not saved.

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Prompt	Response	Comment
LCMT	(B8S) AMI	B8ZS Line Coding Method Alternate Mark Inversion, B7 Line Coding Method Release 19 and later, the default is B8ZS when the frame format is ESF. When the frame format is D2, D3, or D4, the default is AMI.
LCTL	(NO) YES	Change Link Control system parameters
LEVL	(INST) ADMN	Access Level for Set Based Administration password Access Level for Set Based Administration password
LNAME_OPTION	(NO) YES	<p>Require Log In name for password access</p> <p>If the option is changed to YES, each password currently in the system is given a default name which is used until new names are assigned.</p> <p>The default names applied to the passwords are:</p> <ul style="list-style-type: none">• ADMIN1 is applied to the current PWD1• ADMIN2 is applied to the current PWD2• USER0 is applied to the current Password 00• USER1 is applied to the current Password 01• (and so on to USER 99) <p>The following message is output before reprompting REQ: DEFAULT LOGIN NAMES SAVED.</p> <p>To login to the system with the LNAME_OPTION enabled, use: LOGIN ADMIN2 <cr> PASS (prompted by the system) Enter the current second level administration password.</p> <p>If the option is changed from YES to NO, random passwords are assigned by the system to ensure no password duplication. The default password for PWD2 is output to the terminal when this option is disabled. The following message is output:</p>

Prompt	Response	Comment
		<p>WARNING: PASSWORDS WILL BE CHANGED TO DEFAULT VALUES.</p> <p>OK? (Y/N)</p> <p>If Y is entered, the following appears:</p> <p>DEFAULT PASSWORDS SAVED</p> <p>PWD2 = <pwd2 password></p> <p>Note that entering YES forces the user to define passwords. If NO is entered, Log In name may still be entered, but is not required.</p> <p>To find the other default passwords assigned by the system, Load Overlay 22 and print PWD.</p> <p>With Multi-user Log In enabled, it is possible for more than one user to be logged in with the same name/password combination. However, no two Log In names can have the same password associated with them.</p>
LOCK	0 -(60)-270	<p>Lockout time, prompted for PWD1 and PWD2 users.</p> <p>The is the time, in minutes, that a port is locked out once the Failed Log In Threshold or FLTH has been exceeded.</p> <p>Messages of the lockout are displayed on maintenance terminals and supervisory stations.</p>
LOGIN_NAME	aaa aaaa	<p>Log In name for password access</p> <p>When LNAME_OPTION is YES, the names must be associated with each Log In password. This can be up to 11 alphanumeric characters (0-9, A-Z, a-z).</p>
LPIB	96-5000 96-1000	<p>Low-Priority Input Buffers for Options 51C/61C/81.</p> <p>Low-Priority Input Buffers all other options.</p> <p>Most stations and trunks are defined as low priority. See prompt HPIB. Refer to the <i>Memory Calculations Appendix</i> in the <i>Planning and Engineering NTPs</i>.</p>
LPWD	aaaa <cr>	<p>Enter current LAPW password to change user password.</p> <p>Leave Log In password unchanged</p> <p>This prompt appears only for LAPW users if PWD2 is entered.</p> <p>This prompt is used by Limited Access to Overlay users to change their password.</p>

LD 17

Prompt	Response	Comment
LTHR	(NO) YES	Link Threshold Change link performance thresholds for ESDI only.
MAGT	0-999 0-1200	Maximum number of ACD agent IDs per customer. Release 13 and later.
MANU	(PMS1) PMS2 PMS3	Standard PMS interface Requires <cr> HOD to recognize input message Updated RMS message is followed by the old RMS when a room DN checks IN or OUT.
MARP	(YES) NO	Multiple Appearance Redirection Prime feature allowed.
MAT	(NO) YES	Enable MAT 5.0 Log In for password PWnn Mat 5.0 users can remote log in from a PC to perform Alarm Management and Maintenance operations through a graphical interface. PWD1 and PWD2 users always have MAT 5.0 access.
MAT_READ_ONLY	(NO) YES	Do not restrict MAT 5.0 write access for password PWnn Restrict MAT 5.0 write access for password PWnn Read only provides MAT 5.0 users access to Alarm Mangement and Equipment View windows. However, read only users cannot clear or acknowledge alarms, and can only perform status commands. PWD1 and PWD2 users always have MAT 5.0 write access.
MCFN	x x x x x x	Number and size of SIMMs in options: 51C, 61C, 81C, 81. Where x = 0, 4, or 16 (for SIMM size in megabytes). The SIMM size depends on the CP card type. If size is not specified, the system assumes they are unequipped (ie. size = 0). This does not affect system operation.
MCNT	5-100000	Message Count Threshold Threshold for number of Meridian Link messages per time interval. The recommended setting is 400. With INTL = 4 and MCNT = 400, the maximum flow is 20 messages per second.

Prompt	Response	Comment
MGCR	0-NCR	Maximum number of call registers used by AUX messaging. MGCR is associated with the NCR prompt. It is the maximum number of call registers that can be queued for use by AUX messaging before extra processing time is allocated to handle them.
MLDN	(NO) YES	Multiple Loop DN. MLDN allows multiple appearance DNs to be on different loops.
MODE	LINK PRI TRK	Mode of operation Digital Link mode Primary Rate Interface mode Digital Trunk mode
MODIFY	YES, NO	Gateway to EBLN Terminal Text Broadcast configurations. Enter NO to keep existing configuration (default). Enter YES to prompt for further EBLN Terminal Text Broadcast configuration.
MSCL	0-8190 0-7999	Maximum number of Speed Call Lists that can be defined on the system for Release 13 and later. Maximum number of Speed Call lists and/or Group Hunt lists that can be defined per system. The system will default to 255 if converted from a prior release, and the Speed Call package is equipped. Otherwise, the default is 0.
MULTI_USER	(OFF) ON	Multi-User Log In
N1	32, 64, 128, (512)	Maximum Number of octets per HDLC information frame. An entry of 128 or 512 is recommended for ELAN.
N2	4-(8)-16	Maximum Number of retransmissions in steps of 1.
N200	1-(3)-8	Maximum Number of retransmissions
N201	4-(260)	Maximum Number of octets in information element

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Prompt	Response	Comment
NCR	26-2047	<p>Number of Call Registers</p> <p>The maximum number of call registers may be limited by the amount of system memory. In this case the number of call registers is the amount of protected memory available divided by the number of words per call register.</p> <p>Refer to the <i>Memory Calculations Appendix</i> in the <i>Planning and Engineering NTPs</i>.</p>
NDCH	0 - 15	<p>Move the primary D-channel to this logical number.</p> <p>ADAN MOV command is supported for D-channels.</p>
NDIS	(20)-255	<p>Number of Display messages for the Background Terminal (BGD).</p> <p>The NDIS entry determines the queue length for display messages for the BGD application.</p>
NLPW	x...x <cr>	<p>New Limited Access to Overlay log on password for the user</p> <p>Leave Log In password unchanged</p> <p>Valid characters are 0-9, A-Z and a-z. Length is 4 characters, 4-16 characters with Limited Access to Overlays (LAPW) package 164.</p>
NORTEL_ BRAND	YES, NO	<p>“NORTEL” Electronic Brandline is displayed (default).</p> <p>“NORTEL” Electronic Brandline is not displayed.</p> <p>NORTEL_BRAND is only prompted when the ISM parameter is set to the default value.</p>
NPW1	x...x <cr>	<p>New Password 1(PWD1 Log In password)</p> <p>No change</p> <p>Valid characters are 0-9, A-Z and a-z. Length is 4 characters, 4-16 characters with Limited Access to Overlays (LAPW) package 164.</p>
NPW2	x...x <cr>	<p>New Password 2 (PWD2)</p> <p>No change</p> <p>Valid characters are 0-9, A-Z and a-z. Length is 4 characters, 4-16 characters with Limited Access to Overlays (LAPW) package 164.</p>
NPWC	aaaa	<p>Enter New Mini-CDR password. Acceptable values range between 0-9 and A-Z.</p>

Prompt	Response	Comment
OCAC	(NO) YES	Support the Original Carrier Access Code format The expanded CAC format is automatically supported. OCAC should be set to YES before and during the interim period. If OCAC is not set properly, Equal Access screening will not function.
OPT		Options for password PWnn. Multiple entries must be separated by a space.
	(CFPA) CFPD	Configuration Prompts Allowed Configuration Prompts Denied CFPD allows access to prompts LPWD and NLPW to change one's own password.
	(DTD) DTA	Deny DN-TN correspondence (administrator access only) Allow DN-TN correspondence (administrator access only)
	(FEAD) FEAA	Deny Change Set Features (administrator & installer access) Allow Change Set Features (administrator & installer access)
	(FORCD) FORCA	Deny the Force command Allow the Force command
	(LLCD) LLCA	Line Load Control Denied Line Load Control Allowed Access to Line Load Control commands in LD 2. Release 12 and later.
	(MOND) MONA	Deny the Monitor command Allow the Monitor command
	(NAMD) NAMA	Deny Change CPND Names (administrator and installer access) Allow Change CPND Names (administrator and installer access)
	(PROD) PROA	Print Only Denied Print Only Allowed Restricts overlay access to printing functions only.
	(PSCA) PSCD	Printing of Speed Call lists Allowed Printing of Speed Call lists Denied Printing Speed Call lists can be allowed even though the overlay is restricted for all other functions.
	(TADD)	Deny Set Time and Date (administrator and installer access)

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Prompt	Response	Comment
	TADA	Allow Set Time and Date (administrator and installer access)
	(TOLD)	Deny Change Toll Restrictions (administrator and installer access)
	TOLA	Allow Change Toll Restrictions (administrator and installer access)
ORUR	1-(5)-255	Overrun/Underruns out-of-service threshold Enter in units of 1, the number of overrun/underrun in 15 minutes before an out-of-service is enforced.
OTBF	1-(32)-127	Output request buffers
OUT_T306	0-2-(30)-T306	Variable timer for received disconnect message on outgoing calls, allowing in-band tone to be heard when sent by the network. The network will stop sending tone after T306 expires, so the maximum time will be T306. T306 is 30 seconds (entered in 2 second increments).
OVLA	1-99 ALL XALL <cr>	List of Overlay programs from 1 to 99 to be accessible by way of password PWnn Overlay number To allow access to all overlays To deny access to all overlays No change to previous definitions Multiple entries must be separated by a space and the last entry must be followed by a carriage return. Precede with X to remove.
OVLY	(NO) YES	Overlay
PARM	(NO) YES	Gate opener for System Parameters.
	R232/R422 DCE/DTE	Parameters for Interface and transmission mode, prompted for MSDL ports. The RS-422 parameters are established with switch settings on the MSDL card. This prompt is used to verify those settings prior to enabling the card. RS-232 parameters are set both on the card and at this prompt. Both values must be entered even if only one of them is being changed. For example "R232 DCE." Default for AML is R232 DCE. Default for D-channels is R422 DTE.

Prompt	Response	Comment
PARY	(NONE) ODD EVEN	Parity type. Prompted for asynchronous ESDI ports. No parity bit Odd parity bit Even parity bit
PBXH	0-23	Hour to perform Message Waiting lamp maintenance
PCDR	(NO) YES	Priority to CDR YES gives CDR priority over call processing.
PCML	(MU) A	Pulse Code Modulation companding Law for the system μ -Law (use μ -Law for North America) A-Law
PDCH	0-15	Primary D-channel associated with a backup D-channel Both D-channels must be on the same card type that is DCHI or MSDL. Prompted if ADAN = BDCH
PINX_CUST	0-99	This customer number will be used for the DN address translation associated with call independent connection messages received on this D-channel. Prompted when IFC = ISGF.
PMCR	5 (x) y	Number of call registers used for PMSI. Minimum number of call registers to be configured is 5 The lesser of either 60 or 25 percent of the total system call registers The lesser of either 250 or 25 percent of the total system call registers For example, if you enter 65, but 25 percent of the system total is 45, the number entered by the system will be 45.
PMIN	(NO) YES	Minor alarm when the PMSI link is not responding. This is not prompted if XTMR = 0. When this prompt is Yes, the attendants minor alarm is activated when the PMSI link does not respond. Note that when the link responds again, the alarm is not cleared.
PMSI	(NO) YES	Modify Property Management Systems parameters This is prompted if Property Management Systems Interface (PMSI) is enabled.

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Prompt	Response	Comment
PORT		<i>Port number for MSDL cards, I/O devices, or PMSI ports :</i>
	0-2	Port number for the CP card
	1	Port number for the MSDL card
	0-7	Port number for Pseudo TTYs Prompted only when CTYP = MSDL (Multi-purpose Serial Data Link), CPSI (CP card), or PTY (Pseudo TTY).
PRI		Primary Rate Interface ISDN PRI architecture is composed of three protocol layers providing different services: <ul style="list-style-type: none">• layer 1: physical layer• layer 2: link layer• layer 3: network layer These layers provide a standard interface for voice and data communication. Each layer uses the services provided by the layer below, and builds on these services to perform functions for the layer above. Each layer or block can be modified without affecting the protocols in another layer.
	loop x	Enter loop number for additional PRI loops using the same D-channel and the interface ID for the additional loop numbers. Where: <ul style="list-style-type: none">• loop = 1-9 for PRI loop number• x = 2-15 for Interface ID The PRI prompt is used to assign the PRI loops controlled by the D-channel. Each loop is given an Interface ID. The PRI loop carrying primary D-channel (DCHI) and backup D-channel (BCHI) are assigned an Interface ID 0 and 1, respectively. The 14 remaining PRI loops that can be assigned to the D-channel are defined here and given an Interface ID of 2-15.
PRIM	0-15	Primary PMS port. To remove port, enter X.
PWD	(NO) YES	Change Password options

Prompt	Response	Comment
PWD2	x...x	<p>Password 2</p> <p>Enter current second level administration password. This password is required to change existing passwords PWD1 and PWD2.</p> <p>Valid characters are 0-9, A-Z and a-z. Length is 4 characters, 4-16 characters with Limited Access to Overlays (LAPW) package 164. Only a Limited Access to Overlays user will be able to change their own passwords.</p>
PWnn	x...x	<p>Password</p> <p>Valid characters are 0-9, A-Z and a-z. Length is 4 characters, 4-16 characters with Limited Access to Overlays (LAPW) package 164.</p> <p>Where: nn = number entered in response to LAPW prompt.</p> <p>Enter the LAPW password to be used for PWnn.</p>
PWTP	(OVLY) SBA	<p>OVLY Password Access Type</p> <p>SBA Password Access Type</p>
RADR	0-(1)-255	<p>Remote Address for the data-link level HDLC protocol</p> <p>The IADR and RADR prompts must be coordinated with the far-end. If IADR is defined as 3, then RADR must be 1.</p>
RCAP		<p>Remote Capabilities. Enter one or more values to define the capabilities of the far-end.</p>
	DV11	Diversion information is sent to remote switch.
	DV10	Diversion information is sent to remote switch.
	DV21	Rerouting requests from remote switch are processed.
		Rerouting requests from remote switch are processed.
	DV20	Diversion information is sent to remote switch. Rerouting requests from remote switch are processed.
		Diversion information is sent to remote switch.
	DV31	Rerouting requests from remote switch are processed.
		Precede with 'X' to remove capability.
	DV30	
	MSL	Remote D-channel is on a MSDL card
	MWI	Message Waiting Interworking with DMS-100

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Prompt	Response	Comment
	NAC	Network Access data. Enter XNAC to remove NAC as a remote capability. NAC is allowed if : <ul style="list-style-type: none">• the D-channel is defined on an MSDL card (i.e. CTYP=MSDL)• the D-channel interface type is SL1 (IFC=SL1)• software release of remote end is equivalent of x11 release 22 or greater (RLSS22)
	NCT	Network Call Trace supported
	ND1	Network Name Display method 1
	ND2	Network Name Display method 2
	ND3	Network Name Display method 3 . ND3 ensures the same level of service between the MCDN and QSIG name display services.
	NDS	Name Display Services
	RVQ	Remote Virtual Queuing RCAP is prompted until only <cr> is entered in response. Precede a value with X to remove. ND1 and ND2 are used with Network Call Party Name Display or NCPND. Both ends must have NCPND. ND1 requires Release 13 and later. ND2 requires Release 17 and later; or SL-100, DMS with BCS32 and later. RVQ requires Remote Virtual Queuing (ORC_RVQ) package 192.
	TAT	Invoke Trunk Anti-Tromboning operation if the far-end switch also supports this feature. TAT may be input if : TAT package is equipped, CTYP = MSDL, IFC = D100, SL1, S100 or D250.
RCVP	(NO) YES	Auto-recovery to primary D-channel option. RCVP is supported on SL-1 to SL-1 connections only. When RCVP = YES, the primary D-channel is automatically forced to be the active channel after it is brought up from a released state. This option must be coordinated with the far end. Both sides must be either YES or NO. If the two sides do not match, both sides default to NO. When IFC ≠ SL-1, RCVP changes to NO. For Backup DCH only.

Prompt	Response	Comment
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REQ	CHG END	Request: Change existing data block Request: Exit overlay program
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RLS	xx	<p>Release ID of the switch at the far-end of the D-channel.</p> <p>This is the software release at the far-end. If the far-end has an incompatible release, it prevents the sending of application messages.</p> <p>X27 software has the same protocol as X11 Rlse 22, therefore the the RLS should be set to 22 when connecting to a switch equipped with X27.</p> <p>Shown below is the relationship between the ISDN application, equipment and the Release ID X11 or BCS at the far-end.</p>
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<u>Application</u>	<u>Far-End</u>	<u>Minimum RLS</u>
Network Ring Again	SL-1	12
	SL-100	26
	DMS-100/250	26
Network ACD	SL-1	15
	SL-100	29
Network Message Service - Message Center	SL-1	15
Network Message Service - Meridian Mail	SL-1	16
Message Waiting Indication Interworking with DMS-100	SL-1	19
	DMS-100	36

The Release ID information is required and supported for connection to Northern Telecom equipment only. For connections to AT&T ESS#4 and ESS#5, set RLS = 1.

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Prompt	Response	Comment
ROLR	(0)-63	Receive Objective Loudness Rating The default is 0, indicating no change to the default +45 dB. The number entered in this field corresponds to an offset value. The offsets and their corresponding values are provided on page 294 . The ROLR value is downloaded to Meridian Modular telephones after sysload except when performing parallel reload. Refer to the Summary of Transmission Parameters NTP and the International Loss and Level Plan planning and engineering NTP before changing these values.
RXMT	1-(5)-20	Retransmission Threshold Enter in units of 5 per cent. RXMT is the % of retransmissions allowed in 15 minutes before out of service is enforced, or: $RXMT = (\# \text{ of packets retransmitted}) \div (\text{total } \# \text{ packets sent})$.
SATN	l s c u	TN of SADM/Data Line Card associated with IND CSL. For SL-1 telephone with CLS = CMSA.
SBA_ADM_INS	0-(2)-64	Maximum Administrator and/or Installer Log Ins allowed at one time.
SBA_USER	0-(50)-250	Maximum User Log Ins allowed at one time.
SECU	(NO) YES	Security for Meridian Link applications When set to NO, the host computer must specify both the TN and DN of the associate set in connect, answer and release messages. Prompted when the Integrated Services Digital Network Application Module Link for Third Party Vendors (IAP3P) package 153 is equipped for ISDN/AP Third Party.
SEVERITY	(NONE) CRITICAL MAJOR MINOR <CR>	Alarm Severity of a particular alarm entry No rating (default status) System operation is in jeopardy Serious condition, the system is operational Error condition detected, system operation not affected Retains current value
SID	xxxx	System ID number

Prompt	Response	Comment
		The SID is used for polling an SL-1 for ACD, CDR and traffic reports. It can also be printed and changed using LD 2.
SIDE	(USR) NET	Meridian 1 node type Slave to the controller Network, the controlling switch
		Prompted only if IFC = SL-1, ESIG or ISIG. Opposite sides of the PBX-to-PBX interface must be set as NET or USR. The call processing software uses these labels to handle call collision.
SIZE	(0)- 65534	Size of History File buffer in characters
		The History File stores system messages in Protected Data or P data and uses an SDI port address. The History File survives initialization, but is lost when SYSLOAD occurs or the length of the file is changed.
		The History File cannot be created if all 16 I/O ports are defined. Prompted if ADAN = HIST or TRF
	(50)-1500	Word Size of Audit Trail buffer The Size entered here must be a multiple of 50 for correct memory storage.
SOLR	0-(1)-4	Sidetone Objective Loudness Rating
		The SOLR value is downloaded to Meridian Modular telephones after sysload except when performing parallel reload.
		Before changing these values, refer to the <i>Summary of Transmission Parameters NTP</i> and the <i>International Loss and Level Plan</i> planning and engineering NTP.
	(1) 0 2 3 4	12 dB 7 dB 17 dB 22 dB sidetone disabled
		The default is 0, indicating no change to the default +45 dB. The number entered in this field corresponds to an offset value.
		The default value is 1 (12 dB). The recommended North American value for all releases is 1 (12 dB). Does not apply to M2216.
SSUP	(NO) YES	Senior Supervisor

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Prompt	Response	Comment
		Device assigned used by senior supervisor/load manager. Cannot be YES if prompt APRT is YES.
STOP	(1)-1X5-2	Number of stop bits To enter 1.5, use 1X5. (Options 51C, 61C, 81 and 81C do not support 1.5). Prompted for asynchronous ESDI ports.
SUPPORT ED_TEXT_ ONLY	x...x	Change customized text string by text string input. Enter YES to input by text string, and the IDLE_DISP_STRING prompt is prompted. Enter NO to input character by character, and the IDLE_DISP_CHAR nn prompt is prompted.
SUPPRESS	0-(5)-127	Alarm occurrence threshold (prior to suppressing) This determines the number of times an alarm may occur before it is no longer output. Entering 0 indicates that all alarm occurrences are output (no suppression)
SYNC	(NO) YES	Asynchronous mode of operation for ESDI port Synchronous mode of operation for ESDI port
T1	2-(4)-20	Retransmission Timer Range in units of 0.5 seconds, (4) = two seconds
T1TE	(0)-2	T1 transmit equalization; 0 = 0-200 ft, 1 = 200-400 ft, 2 = 400-700 ft
T2	0-(10)-255	Maximum Time allowed without a frame being exchanged.
T200	2-(3)-40	Retransmission Timer Entry is in units of 0.5 seconds.
T203	2-(10)-40	Maximum Time allowed without frames being exchanged Prior to Release 18.30H the default was 5 seconds, (.5 second units). With Release 18.30H and later the default is 10 seconds, (1 second units).
T23	1-(20)-31	Interface guard Timer or DCHI only This timer checks how long the interface takes to respond. Entry is in units of 0.5 seconds.

Prompt	Response	Comment
T3	2-(5)-255	Timer for initial link setup in units of 0.5 seconds for ESDI only.
T310	10-(30)-60 110-(120)	Timer used to determine how long SL-1 can wait for the response message when the QSIG outgoing call is in the U3 (outgoing call processing) state. Timer range prior to Release 22. Default = 30 seconds for QSIG. Timer range for Release 22. This range applies to PRI, PRI2, and BRI trunks in Release 22.
TDS	0, 2, 4...158	Tone and Digit Switch (TDS or Fast TDS service loop) Use even-numbered loops for Tone and Digit Switch (TDS). Precede with X to remove. Note: For Option 11C, all XTD/DTR units must be removed from the SSC card (card 0) before TDS 0 can be removed.
TEN	xxx ALL <cr>	Tenant to be accessible by way of PWnn All Tenants allowed No change to previous definitions. Precede with X to remove.
TIMR	(NO) YES	Change protocol timer value
TMRK	96, (128)	Length of cadence increments in ms Refer to the Flexible Tone and Digit Switch cards NTP. See CLN prompt in LD 56.
TODR	0-23	Time Of Daily Routines
TOLR	(0)-63	Transmit Objective Loudness Rating The default is 0, indicating no change to the default +45 dB. The number entered in this field corresponds to an offset value. The offsets and their corresponding values are provided on page 294 . The TOLR value is downloaded to Meridian Modular telephones after sysload except when performing parallel reload. Refer to the Summary of Transmission Parameters NTP and the International Loss and Level Plan planning and engineering NTP before changing these values.
TPO	(NO) YES	Do not enable Traffic Period option Enable Traffic Period option

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Prompt	Response	Comment
TRIGGER	a...a	Trigger string for alarm tables The trigger string can be up to 10 alphanumeric characters. At least one character must be alphabetic (a-z). Plus sign (+) can be used to indicate the "wild card" entry. For example, BUG++++ includes all BUG system messages. The mnemonics supported for this prompt are lists at the beginning of this overlay. A value must be entered; <CR> is not accepted
TRNS	(NONE) HELP BOTH	Selects which messages are going to be translated Help specific system messages are printed in English version Help is printed in translated version and specific system messages in English Help specific system messages are printed in translated version
TRSH	0-15	Threshold Digital Trunk Interface Threshold set defined in LD 73.
TSO	(NO) YES	Do not enable Trunk Period option Enable Trunk Period option
TTY	0-15	Pre-defined MSDL-SDI terminal number Prompted if ADAN = STA
TTYLOG	0-65534	Log buffer size When 0 is entered, there is no log file
TYPE		Type of data block
	ADAN	All input/output devices (includes D-channels)
	ALARM	Alarm filter configuration data When TYPE = ALARM, the system automatically prints out the current alarm and exception filters Must have Alarm Filtering (ALRM_FILTER) package 243.
	ATRN	Aries Transmission
	CEQU	Common Equipment parameters
	CFN	Configuration data block
	OVLY	Overlay area options
	PARM	System Parameters
	PWD	System Password and Limited Access to Overlay Password

Prompt	Response	Comment
		When entering yes, the PWD2 is prompted unless LAPW is used and Multi-User Log In is enabled.
USER	VAS	Value Added Server
		Output message types
		When ADAN = HST, users may be BUG, MCT, MTC, SCH and TRF. Prompted when ADAN is PRT, TTY or, HST.
	ACD	Automatic Call Distribution printer for reports
	ADM	Administrator SBA access level to be stored in the history file. Precede with X to remove.
	BUG	Software error
	CMS	Command and Status Link Port must be defined as a synchronous ESDI
	CSC	Customer Service Changes: Automatic Set Relocation
	CTY	CDR TTY port to output CDR records
	FIL	This is a special response which applies to Alarm Filtering message output. When a port is assigned this User type, only Alarm Filtered messages will be output. The messages listed at the TRIGGER prompt are the messages that appear for this user type. When AF_STATUS = OFF, no system messages are output to the port with FIL type. The output appears as shown below. The field definitions follow. <pre> <severity> <report id> <time> <date> <sequence number> <event> <tab> Operator data: <data> <tab> Expert data: <data> </pre>

LD 17

Prompt	Response	Comment
		<p>Where:</p> <p><u>severity</u>:</p> <ul style="list-style-type: none">• **** = Critical• *** = Major• ** = Minor• blank = None <p><u>report id</u>: The system message character string (BUG1234, ERR5683, etc.)</p> <p><u>time</u>: hh:mm:ss</p> <p><u>date</u>: dd/mm/yy</p> <p><u>sequence number</u>: The sequence the message appears. The range is 0-65535, and the numbers are right justified. Meridian 1 and auxiliary processor messages have separate sequence numbers.</p> <p><u>event</u>: This indicates the type of event that is being output: MSG (message), SET (set alarm), CLR (clear alarm).</p> <p><u>tab</u>: 6 character indent</p> <p><u>Operator data</u>: This contains additional information to help clear the fault. This field contains the additional message information (TN, loop number, etc.) that the message contains. Up to 30 characters will appear.</p> <p><u>Expert data</u>: This field may not always appear. It contains system expert information.</p>
HSL		ACD/D High-Speed AUX link
INS		Installer SBA access level to be stored in the history file. Precede with X to remove.
LSL		ACD/D Low-Speed AUX link.
MCT		Malicious Call Trace TTY port along with other users
MTC		Maintenance includes AUD, BUG and ERR if enabled by prompt ERRM in PARM. Use MTC for the system monitor or XSM.
NOO		No Overlay allowed

Prompt	Response	Comment
	PMS	Property Management System interface
	SCH	Service Change or any data base change
	TRF	Traffic
	USR	User SBA access level to be stored in the history file. Precede with X to remove.
USR		User. Precede any of the following with X to remove.
	PRI	Primary Rate Interface. D-channel for ISDN PRA only.
VAS	NEW CHG OUT <cr>	New Value Added Server Change Value Added Server Remove Value Added Server End VAS prompting sequence
VOLR	(NO) YES	Handset Volume Reset To have handset volume reset whenever the user hangs up or uses handsfree, set VOLR = YES.
VSID	0-15	VAS Identifier Identifier for the VAS providing the services, this includes IS, Data Services, Voice Messaging, Alpha terminals. The value entered here is associated with the value which may be entered at the EAML prompt. By responding to VSID, you are preparing to associate a link with a Value Added Server ID to allow message transmission.
VTRO	(NO) YES	Trunk Route Optimization before answer available over this D-channel for VNS. VTRO will be prompted if: <ul style="list-style-type: none"> 1. Advanced Network Services (NTWK) package 148 <i>is</i> equipped 2. Trunk Anti-Tromboning (TAT) package 293 <i>is not</i> equipped 3. VCRD = YES

LD 17

Prompt	Response	Comment
XCT	0	<p>Extended Conference/TDS/MFS</p> <p>Loop number for Conference/TDS/MFS card.</p> <p>You may configure more than 16 conference loops; however, enabling more than 16 conference loops may cause the system to lock-up.</p> <p>In multigroup systems (such as SL-1 XT and Option 71 systems) the NT8D17 should not be configured in loop 0/1.</p>
XNUM	(1)-4	<p>Number of retransmissions per message for PMSI.</p> <p>If XTMR = 0, this prompt does not appear.</p>
XSM	(NO) YES	<p>Extended System Monitor</p> <p>This is the SDI port for the Extended System Monitor. Prompt USER must be set to MTC (maintenance messages) for the system monitor port. Only one port can be XMS = YES.</p>
XTMR	(0)- 6	<p>PMS acknowledgment time (the time measured in seconds to wait for the acknowledgment message from the PMS)</p> <p>Where : 0 = no retransmission.</p>
YALM	(FDL) DG2	<p>Yellow Alarm Method</p> <p>Prompted only if the frame format is ESF. If YALM is not prompted, DG2 was set automatically. If YALM is prompted the response varies between countries.</p> <p>Release 19 and later, the default is FDL when the frame format is ESF. When the frame format is D2, D3, or D4, the default is DG2.</p>

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Status:	Draft

LD 18—Speed/Group Call, Pretranslation, and Hotline

This overlay allows data for Speed Call, System Speed Call, Group Call, Pretranslation, and Enhanced Hotline to be created or modified. The data may be printed using Overlay 20.

The Pretranslation List configuration now takes place in this program. To enable the Pretranslation feature in LD 15, the list must be configured here using the XLAT prompt.

Prompts and responses

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Compute Speed Call list memory size and disk records

Use this prompt sequence to determine if there are enough memory and disk records for new Speed Call and Hot Line lists. Compare the output with the “MEM AVAIL” and “DISK RECS AVAIL” values output before the REQ prompt. See also “System memory and disk space” at the beginning of this document.

Prompt	Response	Comment
REQ	COMP	Request = COMP (Compute disk and memory required for new lists)
TYPE	aaa	Type of data block, where: aaa = SCL, SSC or HTL (Speed Call, System Speed Call or Hot Line estimation)
NOLS	1-8191	Number of lists to be added
DNSZ	4-(16)-31	Maximum length of DNs allowed for new lists
SIZE	1-1000	Maximum number of DNs allowed in new lists

Configure Group Call lists

Prompt	Response	Comment
REQ	aaa	Request (REQ responses begin on page 341)
TYPE	GRP	Type of data block = GRP (Group Call list)
CUST	0-99	Customer number associated with this data block
GRNO	0-63	Group number for group call
GRPC	(YES) NO	Allow or deny group call control to the originator
STOR	xxx yyy...y	Entry number (0-19) and the digits stored with it

Configure Speed Call lists

Prompt	Response	Comment
REQ	aaa	Request (REQ responses begin on page 341)
TYPE	aaa	Type of data block, where aaa = SCL or SSC (Speed Call list or System Speed Call list)
LSNO	0-8190	List Number for Speed Call (SCL)
	0-4095	List Number for System Speed Call (SSC)
TOLS	0-8190	To List (New speed call list number)
NCOS	(0)-99	Network Class of Service for SSC
DNSZ	4-(16)-31	Maximum number of DNs allowed for Speed Call lists
SIZE	1-1000	Maximum number of DNs in Speed Call list
WRT	(YES) NO	Data is correct and can be updated in the data store
STOR	xxx yyy...y	Entry number (0-999) and the digits stored with it
WRT	(YES) NO	Data is correct and can be updated in the data store

Assign a Pretranslation group to Speed Call list

Prompt	Response	Comment
REQ	aaa	Request (REQ responses begin on page 341)
TYPE	PRE	Type of data block = Pretranslation calling group assignment
CUST	0	Customer number
XLAT	0-254	Pretranslation list calling group
PRE	0-8191	Pretranslation speed call list number. 8191 removes pretranslation for the group.
SDA	0-8191	Single Digit Access to services speed call list number. 8191 removes SDA for the group.

Configure Enhanced Hot Line lists

Prompt	Response	Comment
REQ	aaa	Request (REQ responses begin on page 341)
TYPE	HTL	Type of data block = Hot Line list
CUST	0-99	Customer number
LSNO	0-8190	List Number for Hotline (one for customer)
NCOS	0-4095	Network Class of Service for HTL
DNSZ	4-(16)-31	Maximum number of DN's allowed for Hot Line list
SIZE	1-1000	Maximum number of DN's in Hot Line list
WRT	(YES) NO	Data is correct and can be updated in the data store
STOR	xxx yyy...y	Entry number (0-999) and the digits stored with it
WRT	(YES) NO	Data is correct and can be updated in the data store

Configure Special Service lists

Prompt	Response	Comment
REQ	aaa	Request (REQ responses begin on page 341)
TYPE	SSL	Type of data block = Special Service Call list
SSL	1-15	Special Service List number
SSDG	xxxx	Special Service List for Emergency type 1
ALRM	YES, (NO)	Enter yes if an alarm call is to be triggered for type 1 emergency calls
CDR	YES, (NO)	Enter yes if a CDR record is required at the start of a type 1 call
SSDG	xxxx	Special Service List for Emergency type 2
ALRM	YES, (NO)	Enter yes if an alarm call is to be triggered for type 2 emergency calls
CDR	YES, (NO)	Enter yes if a CDR record is required at the start of a type 2 call
SSDG	xxxx	Special Service List for Emergency type 3
ALRM	YES, (NO)	Enter yes if an alarm call is to be triggered for type 3 emergency calls
CDR	YES, (NO)	Enter yes if a CDR record is required at the start of a type 3 call
SSDG	<cr>	End

Move from one group or list to another

Prompt	Response	Comment
REQ	MOV	Request = MOV
TYPE	aaa	Group or List Type (aaa = GHT, GRP, SCL, SSC, or SSL)
CUST	0-99	Customer number
LSNO	xxxx	List Number
TOLS	0-254	To List
GRNO	xx	Group Number
TOGR	0-63	To Group

Alphabetical list of prompts

Prompt	Response	Comment
ALRM	YES, (NO)	An alarm is (is not) triggered at the start of an emergency call
CDR	YES, (NO)	A CDR record is (is not) generated at the start of an emergency call
CUST	xx	Customer number associated with this function as defined in LD 15 Prompted when REQ = NEW or CHG and LSNO = <cr>
DNSZ	4-(16)-31	Directory Number Size Maximum length of DN allowed for Speed Call list or Group Hunt list. Range is 4, 8, 12, 16, 20, 24, 28, 31. For Speed Calling the default = 16. Numbers between 1 and 30 are rounded up to the next valid number. Once defined DNSZ should not be changed. Instead, print out the list, remove it with REQ = OUT and rebuild the list with the new DNSZ.
GRNO	0-63	Group Number for group call
GRP	0 - 4095 <CR> X	Ringin Number Pickup Group (RNPG) using this speed call list. Repeat for all groups sharing the same list. To reprompt "LSNO" To remove
GRPC	(YES) NO	Group Call originator does have control Group Call originator does not have control If GRPC = YES in the Group Call List, the originator has control : when the originator goes on hook, the call is terminated. If GRPC = NO and the originator goes on hook, the Group Call acts like a conference call : the call remains active until all members go on hook.
LSNO		List Number for Speed Call, System Speed Call, Group Hunting and Hotline
	0-4095 0-8190 <cr>	System Speed Call and Hot Line lists A Speed Call list associated with Call Pickup network wide groups. to end Use only when REQ = CHG and TYPE = GHT.

Prompt	Response	Comment
		List numbers exceeding four digits will have the left most digits truncated, and only the right most digits will be accepted. A Hot Line list uses a System Speed Call list entry, only one Hot Line list is allowed per customer. MSCL must be defined in LD 17.
NCOS	(0)-3 (0)-7 (0)-15 (0)-99	Network Class of Service CDP NFCR or BARS NARS Release 13 and later Prompted when TYPE = SSC or HTL.
NOLS	1-8191	Number of lists to be added. Prompted if REQ = COMP
REQ		Request
	CHG	Change existing data block
	COMP	Compute memory and disk requirements for new Speed Call, System Speed Call or Hot Line lists for Release 17.
	CPY xxx	Copy speed call data. Where: xxx = 1-100. The ability to copy multiple Speed Call and System Speed Call lists is supported.
	END	Exit overlay program
	MOV	Move data block from one group or list to another.
	NEW xxx	Add new data block. Where: xxx = 1-100. You can create multiple Speed Call and System Speed Call lists.
	OUT	Remove data block.
SIZE	1-1000 1-96	Maximum number of DNs in Speed Call or Hot Line lists Maximum number of DNs in Group Hunt list Once defined, SIZE should not be changed. Instead, print out the list in LD 20, remove it with REQ = OUT and rebuild the list with the new SIZE. SIZE is not prompted for TYPE = GRP or PRE.
SDA	0-8191	SCL number to use for Single Digit Access to this group. 8191 cancels SDAC for this group.

LD 18

Prompt	Response	Comment
SSDG	aaa	Designation for a type 1 emergency, a type 2 emergency, or a type 3 emergency.
SSL	x	Special Service List number
STOR	xxx yyy ... y	Store For TYPE = SCL, SSC, or HTL the input format is entry number and digits stored against it. Where: <ul style="list-style-type: none">• xxx = list entry number from 000 to 999• yyy ... y = digits stored with each list entry number xxx
	xx yyyy	For TYPE = GRP the input format is member number and member DN. Where: <ul style="list-style-type: none">• xx = member number (00-19)• yyyy = member DN <p>If the Directory Number Expansion (DNXP) package is equipped, up to seven digits are allowed; otherwise, only four digits can be entered.</p>
	xx yy	For TYPE = GHT the input format is Group Hunt entry and digits stored against it. Where: <ul style="list-style-type: none">• xx = GHT entry number from 00 to 95• yyyy = digits stored
	<cr>	Stop STOR prompt For Speed Call, System Speed Call or Hot Line the member number must conform with SIZE and the number of digits must conform to prompt DNSZ. Digits may include "*" and "#" if the Outpulsing, asterisk and octothorpe (OPAO) package 104 is equipped.
	xxx <space> <cr>	Remove entry
TOGR	0-63	To Group New group call group number.
TOLS	0-254	To List New speed call list number.
	0-8190	Release 13 and later

Prompt	Response	Comment
TYPE		Type of data block
	CPNW	Call Pickup Network Wide data
	GRP	Group call data block
	HTL	Hot Line data block
	PRE	Pretranslation data block
	SCL	Speed Call List or pretranslation data block
	SSC	System Speed Call data block
	SSL	Special Service List data block
WRT	(YES) NO	<p>Write Data is correct and can be updated in data store.</p> <p>The Prompt WRT follows prompts SIZE and STOR asking you to confirm the correctness of the data just entered. If data is correct, enter "YES" or <cr>.</p> <p>A response of "NO" causes the data just entered to be ignored and SCH3213 is output.</p> <p>A response of "*****" aborts the program. Only the last STOR value is lost. All previous values to which WRT was "YES" or <cr> are saved.</p> <p>The following information is output with the WRT prompt: ADDs: MEM: xxxxx DISK: yy.y</p> <p>Where:</p> <ul style="list-style-type: none"> • xxxxx = the amount of protected memory • yy.y = the number of disks records required for the new Speed Call list <p>Check the "MEM AVAIL" and "DISK RECS AVAIL" output values before the REQ prompt. See also "System memory and disk space" at the beginning of this document.</p>
XLAT	xxx yyyy	<ul style="list-style-type: none"> • Calling group number to translation Speed Call list number correlation, where:xxx = Pretranslation group number, 0-254 • xxx = Group 0 is used for trunks. • xxx = Group 1 is used for attendant consoles. • xxx = Groups 2-254 can be used for other calling groups. • yyyy = List number to be used for Pretranslation, 0-8191. 8191 is used to remove the group from pretranslation.

LD 18

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Prompt	Response	Comment
	<cr>	End the prompt group.

Issued:	November 1998
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LD 19—Code Restriction

Overlay program 19 allows data for code restrictions to be created or modified.

Code Restriction is used to control the digits that can be dialed on a COT or FEX trunk route by a Toll Denied (TLD), Conditionally Toll Denied (CTD) or Conditionally Unrestricted (CUN) Class of Service telephone. See also New Flexible Code Restriction in LD 49.

Prompts and responses

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ANI: Automatic Number Identification data block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	ANI	Type of data block = ANI (Automatic Number Identification)
ANII	0-31	ANI Data Block Index
ANIT	xxx	Invalid ANI treatment
NPA	200- 999	First 3 ANI digits in NPA format
3ANI	xxx	3 Digit ANI (denied) allowed
SLV3	NXX	Number of digits for screening
NXX	xxx yyy	Range of end-office numbers
SLV6	xxx	Number of digits for screening
- SUB	xxxx yyyy	Range of subscriber numbers

CRB: Code Restriction data block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	CRB	Type of data block = CRB (Code Restriction)
NCOS	0-99	NCOS value for subscribers
CUST	xx	Customer number associated with this data block
ROUT	0-511	Route number
TORT	0-511	To Route
CLR	aaaa	Codes (aaaa = DENY or ALLOW)
ALLOW	200-999 ... 200-999	NXX, NPA codes allowed
DENY	200-999 ... 200-999	NXX, NPA codes denied

Alphabetical list of prompts

Prompt	Response	Comment
3ANI	(DENY) NCOS xx	3 Digit ANI denied Apply invalid ANI treatment 3 Digit ANI allowed Use this NCOS value (0-99)
ADFT	(OVF) RAN nnn DN nnn . . . nnn	Intercept Treatment for Invalid Address format
ALLOW	200-999 ... 200-999 <cr>	NXX, NPA codes Allowed Proceed to next prompt Prompted when CLR = DENY or <cr>.
ANII	0-31	ANI Data Block Index When ANII = 0, there is no ANI screening; 1-31 is the ANI block index number.
ANIT	(OVF) RAN xxx DN xxxx NCOS xx	Invalid ANI treatment Overflow tone RAN route (0-511) Internal or external DN (1-16 digits) Network Class of Service value (0-99)
CCAN	aaa (YES) aaa NO	Call Categories on calls to Carrier, and ANI screening provided. Call Categories on calls to Carrier, and ANI screening not provided.
		aaa can be any of the following:
	NAM NA0	1 + (inside World Zone 1) 0 + (inside World Zone 1)* (see note below)
	INT IN0	1 + (outside World Zone 1) 0 + (outside World Zone 1)* (see note below)
	OPR	0 - calls
	SAM SAX SA0	1 + (Embodied SAC) 1 + (External SAC) 0 + (External SAC)* (see note below)
	CUT	Cut-Through

Prompt	Response	Comment
	(ALL)	All call types (Default when REQ = NEW) Note: aaa entries marked with the symbol * use zero; not the letter O. If the letter is entered in place of the number zero, no error appears. However, NAM and SAM will be overridden.
CCLS	IC INC CONS	Inter-Exchange Carrier Class International Carrier Class Consolidated Carrier Class
CDAN	(NO) YES	ANI Digits in CDR Records
CIC	0000-9999	Carrier ID. Response must be three or four digits.
CLR	DENY	Denied codes. If CLR = DENY all NPA/NXX codes are denied except those entered in response to prompt ALLOW (only ALLOW is prompted).
	ALLOW	Allowed codes. If CLR = ALLOW all NPA/NXX codes are allowed except those entered in response to prompt DENY (only DENY is prompted).
	<cr>	Proceed to next prompt when REQ = CHG When changing a CRB, if CLR = <cr> then both ALLOW and DENY are prompted. For a new CRB, CLR must = ALLOW or DENY.
CPAR	(NO) YES	Call Processing Parameters
CUST	xx	Customer number associated with this data block as defined in LD 15
DENY	200-999 ... 200-999 <cr>	NXX, NPA codes Denied Proceed to next prompt Prompted when CLR = ALLOW or <cr>.
DGTO	128-(640)-5000	Interdigits timeout The maximum time between two digits within the same field, in multiples of 128 milliseconds. 5000 rounds down to 4992.
ENBL	1-(12)-30	Long Enbloc dialing timeout Before initial string is complete on outgoing calls.

LD 19

Prompt	Response	Comment
ENBS	1-(5)-30	Short Enbloc dialing timeout After initial string is complete on outgoing calls.
FGNO	0-127	Feature Group D block number The system automatically assigns FGNO numbers in sequential order when REQ = NEW.
IFTO	2-(120)-254	Inter-field FGD Timeout in increments of 2 seconds The maximum time between two fields on incoming calls (in seconds).
IIT	(OVF) RAN nnn DN nnn . . . nnn	Intercept Treatment for Invalid IIs. Where: <ul style="list-style-type: none">• OVF = Overflow tone• RAN nnn = RAN route• DN nnn . . . nnn = Network or local DN
IITP	xx yyyy zz	Valid II, II Type, and NCOS for ANI screening bypass. Where: xx = II in range 00-99 yyyy = one of the following II types: <ul style="list-style-type: none">• REGU = Regular• 4A8P = 4 or 8 party• HOTL = Hotel/Motel• CLES = Coinless• TST3 = Test 3• AIOD = Automatic Identification of Outward Dialing• COIN = Coin• TST7 = Test 7 zz = optional NCOS number defining ANI screening bypass (00-99)

Prompt	Response	Comment
		When IITP = <CR> and REQ = NEW, the following shows the default arrangement. International codes (12-19) are left undefined.
		<u>xx</u> <u>yyy</u> <u>zz</u>
		00 REGU no
		01 4A8P no
		06 HOTL no
		07 CLES no
		10 TST3 no
		20 AIOD no
		27 COIN no
		95 ST7 no
INIT	(NO) YES	Length of Initial String
INTR	(NO) YES	Intercept Treatment
LAAC	AC1, AC2	Local Area Access Code Prompted with Network Alternate Route Selection (NARS) package 58.
LDAC	AC1, AC2	Long Distance Access Code Prompted with Network Alternate Route Selection (NARS) package 58.
MONT	0-(256)-2048	Minimum On-hook Time The minimum amount of time between acknowledgment wink and answer off-hook signal, in multiples of 128 milliseconds.
NCOS	0-99	NCOS value for subscribers Reprompts current level NPA, NXX, or SUB.
NPA	100-999 200-999	First 3 ANI digits in NPA format; prior to Release 19 First 3 ANI digits in NPA format; Release 19 and later. Only 3 digits are allowed, even when using 1+ dialing.
		NPA accepts only 3 digits for NPA even if 1 + dialing is in use.
	<cr>	Return to REQ

LD 19

Prompt	Response	Comment
NXX	xxx yyy <cr>	Range of end office numbers Prompted if SLV3 = NXX. Where: <ul style="list-style-type: none">• xxx = starting or only NXX• yyy = ending NXX (optional) Reprompts NPA
OPER	DN nnn. . . nnn RAN nnn	Treatment for 0+, 0- calls. Where: <ul style="list-style-type: none">• DN nnn . . . nnn = 1-16 digit network or local DN• RAN nnn = RAN route (0-511)
OVLP	(YES) NO	Overlapped outpulsing by Local Exchange Carrier (LEC)
PRES	(YES) NO	Presubscription
PRTD	(NO) ALL REJ	Printout Control for Invalid II or ANI Digits No printout Printout for all invalid ANI and II digits Printout all invalid II digits. Printout invalid ANI when not mapped to NCOS.
REQ	CHG END MOV NEW OUT PRT	Request Change the existing data block Exit overlay program Move data block to a new route Add new data block to the system Remove the data block Print FGD or ANI data block
ROUT	0-511	Route number
SAC	xxx xxx xxx . . . xxx	Service Access Codes. Default codes: 700, 800, 900, 601.
SHAN	(NO) YES	Show ANI Digits on Terminal Displays
SLV3	NXX NCOS xx	Number of digits for screening 6 or 10 digit screening. NXX prompt follows. NCOS xx = 3 digit screening (0-99), all NPA map to NCOS value, NPA is reprompted.

Prompt	Response	Comment
SLV6	SUB NCOS xx	10 digit screening level, SUB prompt appears next. Not allowed if an ending NXX level (yyy) was entered at NXX prompt. 6 digit screening level, reprompts NXX. All XXXX numbers under the NPA map to NCOS value (0-99)
SUB	xxxx yyyy	Range of subscriber numbers. Where: <ul style="list-style-type: none"> • xxxx = starting or only subscriber number • yyyy = ending subscriber number (optional)
TORT	0-511	To Route New route number TORT is prompted when REQ = MOV.
TYPE	ANI CRB FDGB	Type of data block ANI screening data block (for Feature Group D) Code Restriction data Block Feature Group D data Block

LD 19

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LD 20 to 22—Print Reports Guide

This module documents only those print reports which can be obtained in LDs 20, 21, and 22. In the Alphabetical list of many other Administration Overlays, you can find print options at the REQ and TYPE prompts.

To obtain a list of telephones which have particular features, refer to LD 81. Consult LD 93 to print data for Attendant Console groups. Consult LD 95 to print information for the Call Party Name Display (CPND) data block.

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(Part 4 of 4)

LD 20—Print Routine 1

Overlay program 20 allows data to be printed for the following blocks:

- all hunting
- group calls
- speed calls
- special services lists
- template data blocks
- terminal numbers
- pre-translation

Templates

Templates store telephone information in system memory. Telephones with the same configuration of keys and Class of Service share the same template. This makes efficient use of Protected Data Store. Template Audit (LD 1) is used to remove unused templates.

When printing the TN block, “MARP” is output next to a DN appearance if it is the MARP TN for that DN. When printing the DN block, “MARP” is output prior to the DES if it is the MARP TN. Refer to the features and services for an explanation of the MARP feature.

The security password may be required to print telephone and TN information. The password (SPWD) is required if the Station Security Authcode package (229) is equipped and the password is defined.

LD 20

LDs 10, 11, 20 and 32 are linked thus eliminating the need to exit one Overlay and enter another. Once one of the above Overlays has been loaded it is possible to add, print and get the status of a set without having to exit one Overlay and load another. The input processing has also been enhanced. Prompts ending with a colon (:) allow the user to enter either:

- 1 a question mark (?) followed by a carriage return (<cr>) to get a list of valid responses to that prompt, or
 - 2 an abbreviated response, the system then responds with the nearest match. If there is more than one possible match the system responds with SCH0099 and the input followed by a question mark and a list of possible responses. The user can then enter the valid response.
-

Prompts and responses

Prompt	Response	Comment
REQ:	a...a	Request (REQ responses begin on page 377)
TYPE:	a...a	Type of data block (Type responses begin on page 379)
TN	c u	Terminal Number (c u ranges are defined on page 378)
CDEN	aa	Card Density (aa = SD, DD, 4D, or 8D)
CUST	xx xx	Customer number
SPWD	xxxx	Security Password
DN	x...x	Directory Number
DATE	dd mmm yyyy	Date
PAGE	(NO) YES	Data printed on a per-page basis
- ADJUST PAPER THEN <cr>		Adjust Paper so that printing starts at top of sheet
DES	d...d	Designator
NACT	(NO) YES	Next Activity
AACS	NO YES	Application acquired set
SCNO	0-8190	Speed Call list Number
LSNO	0-8190	Speed Call or System Speed Call List Number
RNGE	xxxx yyyy	Range of list entries to be printed, inclusive from first entry number to last entry number.
HTNO	xxxx	Hunt Number
DGRP	0-2045	Dial Intercom Group
DMEM	0-99	Dial Intercom Group (DIG) Member number
FOR	a...a	For telephone type (a...a = 500, 2xxx, or SL1)
GRNO	0-63	Group Call Group Number
INFO	aaa	Information for templates (aaa = FRM, USE, USS, or DEF)
TEM	x...x	Template
EHNO	x...x	External Hunt DN

Alphabetical list of print reports

Analog set (500 & PBX) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	500	500/2500 type analog sets
	PBX	Private branch exchange sets
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
CUST	0	Customer number
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis
DES	d...d	Print all units with DES "d...d"
	d+	Print all units starting with "d"
	<cr>	Disregard DES

Attendant console (2250) data from LD 12

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	2250	M2250 Console
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
CUST	0	Customer number
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis

Business Communicaton Set (BCS) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	BCS	Business Communication Sets
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
CUST	0	Customer number
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis
DES	d...d	Print all units with DES "d...d"
	d+	Print all units starting with "d"
	<cr>	Disregard DES

Call Pickup Network Wide (CPNW) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	CPNW	Call Pickup Network Wide data
CUST	0	Customer number

Dial Intercom Group (DIG) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	DIG	Dial Intercom Group
CUST	0	Customer number
DGRP	0-2045	Dial Intercom Group
DMEM	0-99	Dial Intercom Group Member number

Digital set (2000 series, 3000, & Aries) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	2xxx	Meridian 1 proprietary sets. You may enter: 2000, 2003, 2006, 2008, 2009, 2016, 2018, 2112, 2216 or 2616.
	ARIE	Aries (M2006, M2008, M2016S, M2216, or M2616) sets and Meridian Communications Unit (MCU) data blocks
	BCS	Business Communication Set
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
CUST	0	Customer number
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis

Digitone Receiver (DTR) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	DTR	Digitone Receiver data
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity

Directory number (DNB) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	DNB	Directory number data block
CUST	0	Customer number
DN	x...x	Print for Directory Number
DATE	dd mmm yyyy	Print data from the date specified
	ACT	Print data from the last Activity
PAGE	(NO) YES	Data printed on a per-page basis
DES	d...d	Print all units with DES "d...d"
	d+	Print all units starting with "d"
	+	Print units with no DES assignment
	<cr>	Disregard DES
ADJUST PAPER THEN <cr>	<cr>	Adjust paper so that printing starts at top of sheet

Directory number (DNB) range data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	DNB	Directory Number block
CUST	0	Customer number
DN	xxxx...xxxx	Up to 8 DNs can be entered
DATE	dd mmm yyyy	Print data from the date specified
	ACT	Print data from the last Activity
PAGE	(NO) YES	Data printed on a per-page basis
DES	d...d	Print all units with DES "d...d"
	d+	Print all units starting with "d"
	+	Print units with no DES assignment
	<cr>	Disregard DES
ADJUST PAPER THEN <cr>	<cr>	Adjust paper so that printing starts at top of sheet

Group Call (GRP) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	GRP	Group Call
GRNO	0-63	Group Call Group Number

Hot Line List (HTL) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	HTL	Hot Line List
CUST	0	Customer number
RNGE	xxxx...xxxx	Range of Hot Line list entries (0-1000) to be printed for this customer
	<cr>	Print all entries in the Hot Line list

Hunting (HNT & EHT) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	HNT	Hunting
	EHT	External Hunting
CUST	0	Customer number
HTNO	x...x	Hunt Directory Number
EHNO	x...x	External Hunt Directory Number

Out of Service unit (OOSLT & OOSMLT) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	OOSLT	Single line TNs that are Out-of-Service
	OOSMLT	Multi-line TNs that are Out-of-Service
TN	c u	Terminal Number associated with the unit

Power (PWR) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	PWR	Power data block
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis

LD 20

Pretranslation (PRE) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	PRE	Pretranslation
CUST	0	Customer number

Speed call lists (SCL) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	SCL	Regular and System Speed Call Lists
LSNO	0-8190	List Number for Speed Call or System Speed Call
	<cr>	Print for all lists
RNGE	xxxx xxxx	Range of Speed Call entries (0-1000) to be printed
	<cr>	Print all entries

Special services lists (SSL) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	SSL	Special Services Lists
SSL	1-15	List Number for Special Services
	<cr>	Print for all lists

Tandem Connection (TCON) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	TCON	Tandem Connection for Meridian Packet Handler and PRI connections

Template (TEM) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	TEM	Templates
FOR	aaa	Print template information for telephone type
INFO	FRM	Print key/feature assignment template
	USE	Print number of users of the template
	USS	Print TN using the template
	DEF	Print number of templates defined and the number of templates allowed
TEMP	xxxx	Telephone template number
	<cr>	Print all templates

Terminal Number Block (TNB) data for telephones and trunks

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	TNB	Terminal Number Block
TN	c u,...	Terminal Number (Up to 6 TNs can be entered)
CDEN	SD, DD, 4D, 8D	Card Density
CUST	xx xx	Customer number
SPWD	xxxx	Security Password
TEN	0, 1-511	Tenant
DATE	dd mmm yyyy	Print data from date specified
PAGE	(NO) YES	Date printed on a per page basis
DES	d...d, d+, +	Designator
NACT	(NO) YES, END	Next Activity
AACS	a...a	Application acquired set (a...a = (NO), AGTH, or AGT)
ASID	x...x	Application Service ID
SMCB	1-17	Print set message control bitmap
SMOO	(NO) YES	(Do not set) Set message optimize option

LD 20

Terminal Number Block (TNB) range data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	TNB	Terminal Number Block
TN	c u-c u	Terminal Number Range

Trunk data: All Trunks

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	TRK	Trunk data block
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
CUST	0	Customer number
DATE	dd mmm yyyy	Print data from date specified
	ACT	Print data from last activity
PAGE	(NO) YES	Data printed on a per page basis

Trunk data: Specific Trunk types

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	ADM	Add-on Data Module
	AWR	Automatic Wake-Up RAN/Music trunks
	CAA	Common Control Switching Arrangement
	CAM	CAMA trunks
	COT	Central Office trunks
	CSA	Common control switching arrangement access line
	DIC	Dictation trunks
	DID	Direct inward dial trunks
	FEX	Foreign Exchange trunks
	ISA	Integrated services access trunks (ISDN)
	MCU	Meridian Communications Unit
	MDM	Modem/Data Module
	MUS	Music trunks
	PAG	Paging trunks
	RAN	Recorded announcement trunks
	RCD	Recorder trunks
	TIE	TIE trunks
	WAT	Wide Area Telephone service trunks
TN	c u	Terminal Number (card, unit)
CDEN	SD, DD, 4D, 8D	Single, Double, Quad or Octal Density
...		

Unused Card (LUC) data

Prompt	Response	Comment
REQ:	LUC	List Unused Card slots
TN	l s c	Terminal Number (loop, shelf, card)
	l ch	DTI/PRI loop and channel

Unused Directory Number (LUDN) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	LUDN	List Unused Directory Numbers
CUST	0	Customer number
DN	xxxx-xxxx	DN range

Unused Units (LUU) data

Prompt	Response	Comment
REQ:	LUU	List Unused Units
TYPE:		Peripheral equipment requiring TNs:
	500	Single line or analog sets
	2000	Digital sets and M2250 consoles
	DTR	Digitone Receiver
	MCU	Meridian Communications Unit
	TRK	All trunks
	a...a	Any specific trunk type (e.g., COT, DID, FEX, WAT, etc.)
TN	c u	Terminal Number

Unused Voice or Data unit (LUVU or LUDU) data

Prompt	Response	Comment
REQ:	LUVU	List Unused Voice Units
	LUDU	List Unused Data Units
TYPE:		Peripheral equipment requiring TNs:
	500	Single line or analog sets
	2000	Digital sets and M2250 consoles
	DTR	Digitone Receiver
	MCU	Meridian Communications Unit
	TRK	All trunks
	a...a	Any specific trunk type (e.g., COT, DID, FEX, WAT, etc.)
TN	xx...xxxx	Terminal Number

Voice Mailbox (VMB) data

Prompt	Response	Comment
REQ:	PRT	Print
TYPE:	VMB	Voice Mailbox information
CUST	<cr>	Customer number automatically appears. No entry is needed.
DN	xxxx	Print for Directory Number
VMB_STATE	nnnn	Print based on Voice Mailbox State

Alphabetical list of prompts

Prompt	Response	Comment
AACS	NO YES	Application acquired set The TN is not acquired by an application The TN is acquired by an application
ADJUST PAPER THEN <cr>	<cr>	Adjust paper then <cr> to start printing Start printing
ASID	x...x	Application Service ID from which the acquired request originated The ASID is used for sending the monitor/control messages to the application. The ASID value is updated based on the applications's Acquire message for the TN. Since the AML over Ethernet (ELAN) is used to communicate between the Meridian 1 and the application(s), the value of the existing VSID might be used to uniquely identify the application that has acquired this device. ASID is printed if AACS = YES.
CALB	1 2 ...	Call Filter Bitmap CALB applies to messages such as PCI, DN update, etc. This bitmap is downloaded by the application which is used to control the sending of messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding set message is enabled. CALB is printed if AACS = YES.
CDEN	SD DD 4D 8D <cr>	Single Card Density Double Card Density Quadruple Card Density Octal Card Density For all card densities
CUST	xx xx	Customer number Print data range from first to last customer. Not prompted when: <ol style="list-style-type: none"> 1. REQ = LUU or LUC 2. TYPE = SCL, DIG or TEM 3. a complete TN is entered

Prompt	Response	Comment
	<cr>	Print data blocks for all customers
DATE	dd mmm yyyy	Print data from date specified. Where: <ul style="list-style-type: none"> • dd = 1-31 • mmm = JAN-DEC • yyyy = year (e.g. 1993)
	<cr>	DATE is prompted for TN related data.
	ACT	Print data and show last activity date. Print data from last activity date.
DES	d...d	Designator Print all units with ODAS designator d...d
	d+	Print units starting with ODAS designator d
	+	Print units with no ODAS designator assigned
	<cr>	Disregard ODAS designator DES is prompted on TN related data The printing of data is subject to restrictions imposed by responses to TN and DATE.
DGRP	0-254	Dial Intercom Group DIG numbers per customer (Release 13 and earlier)
	0-2045	Release 14 and later
	<cr>	Print all Dial Intercom Groups for customer DGRP is prompted when TYPE = DIG
DMEM	0	Dial Intercom Group (DIG) Member number
	<cr>	Print all DIG member numbers
DN		Directory Number
	xxxx	Print data block for DN
	<cr>	Print data blocks for all DN
	xxxx <space>	If a space is entered after the Directory Number the system will reprompt for DN. A maximum of six DNs can be stacked and printed at one time.
		With Release 19 and later the following responses are valid for DN:
	x<cr>	All DNs starting with first digit x (X000-X999)
	xx<cr>	All DNs starting with first two digits xx (XX00-XX99)
	xxx<cr>	All DNs starting with first three digits xxx (XXX0-XXX9)

LD 20

Prompt	Response	Comment
	x-<cr> x-y<cr> xx-yyy<cr>	All DNs between X000-9999 All DNs between DN X000 through Y999 All DNs between DN XX00 through YYYY
	xxxx xxxx xxxx-yyyy	Two specific DNs. Up to a maximum of 8 DNs. All DNs between XXXX and YYYY
EHNO	xxxx	External HUNT DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. EHNO is prompted when TYPE = EHT
FOR	500 2xxx SL1	Print template information for telephone type Print data for 500/2500 telephones. Print data for 2000 type telephones (specify type). Print data for SL-1 telephones.
GRNO	0-63 <cr>	Group Call Group Number. Prompted when TYPE = GRP. Print all group call groups.
HTNO	x...x	Hunt Directory Number Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Prompted when TYPE = HNT.
INFO	FRM USE USS DEF	Information for Templates Print key/feature assignment template Print number of users of template Print TN using the template Print number of templates defined and number allowed Prompted when TYPE = TEM
LSNO	0-253 0-4095 0-8190	Speed Call or System Speed Call List Number prior to Release 14 System Speed Call Lists Release 14 and later Speed Call Lists Release 14 and later When inputting list number for printout, non-DN input exceeding 4 digits may be truncated. Only the 4 right-most digits will be accepted, and printed for Release 14 and later.
NACT	(NO) YES END	Next Activity Return to REQ prompt Print current system data and end overlay End overlay activity

Prompt	Response	Comment
PAGE	(NO) YES	Data printed on a per-page basis Prompted only on TN related data
REQ:		Request
	END	Exit overlay program
	LTN	List TN of TYPE specified
	LUC	Print Unused Card data blocks of TYPE specified
	LUDU	List Unused Data Units
	LUU	Print Unused Unit data blocks of TYPE specified
	LUVU	List Unused Voice Units
	PRT	Print data block for the TYPE specified.
		LD 32: CDSP CMIN CONV CPWD DISC DISI DISL DISN DISS DISU DSCT DSPS DSXP ENCT ENLC ENLG ENLL ENLN ENLS ENLU ENPS ENXP IDC IDCS IDU LBSY LDIS LIDL LMNT PBXT SDLC STAT SUPL TRK XNTT XPCT XPEC
		LD 10 or 11: CHG CPY MOV NEW OUT
RNGE	xxxx yyyy	Range of list entries to be printed, inclusive from first entry number to last entry number.
	<cr>	Print All members of a specified SCL or SSC list.
SCNO	0-253 0-8190 <cr>	Speed Call list Number Speed Call list Number - Release 13 and later Print all lists. Prompted when TYPE = SCL
SFNB	1 2 ...	Set Feature Notification Bitmap SFNB is used for messages such as: SFN (login), SFN (logout), ... This bitmap is downloaded by the application which is used to control the sending of SFN messages on behalf of the acquired TN. A numeric value is printed only if the corresponding message is enabled. SFNB is printed if AACS = YES.

LD 20

Prompt	Response	Comment
SFRB	1 2 ...	Set Feature Route Bitmap SFRB is used for messages such as: SFR (login), SFR (logout), ... This bitmap is downloaded by the application which is used to control the sending of SFR messages on behalf of the acquired TN. A numeric value is printed only if the corresponding message is enabled. SFRB is printed if AACS = YES.
SPWD	xxxx	Security Password. This prompt appears when: 1. the Station Specific Authcode package (229) is equipped 2. the security password is defined in LDs 10 and 11.
TEM	xxxx xxxxxxx <cr>	Template number Template number - Release 13 and later Print data for all templates. Prompted when TYPE = TEM
TEMP	xxxx	Telephone template number. Enter <cr> to print all templates.
TN		Terminal Number
	c u	Print data of the specified TYPE for this card, unit.
	l ch	Print data of the specified TYPE for this loop and channel (format for Digital Trunk and Primary Rate Interfaces).
	<cr>	Print data for all TNs of the specified TYPE.
	c u, c u	List of TNs (up to 6)
	c u, l ch	A TN and a trunk loop/channel can be entered on the same line
	c, c	All units within the specified starting and ending cards
	c u	All units, including the specified starting card and ending TN
	c u cu	All TNs starting with the specified TN and ending with the last TN Not prompted when TYPE = SCL, HNT, DIG, TEM, or GRP

Prompt	Response	Comment
TYPE:		Type of data block
		Note: This load is linked with LDs 10, 11 and 32. LD 20 permits you to enter LD 10 or 11 responses to the TYPE prompt or a command listed in LD 32.
	500	500/2500 telephone
	2006	M2006 Digital telephone
	2008	M2008 Digital telephone
	2009	M2009 Digital telephone
	2016	M2016 Digital telephone
	2018	M2018 Digital telephone
	2112	M2112 Digital telephone
	2216	M2216 Digital telephone (ACD terminal)
	2250	M2250 Console
	2616	M2616 Digital telephone
	ADM	Add-on Data Module Data port interfacing with a data line card
	ARIE	Aries (M2006, M2008, M2016S, M2216 and M2616) sets and Meridian Communications Unit (MCU) data blocks
	AWR	Automatic Wake-Up RAN/Music trunks
	CAA	Common Control Switching Arrangement (CCSA) Automatic Number Identification (ANI) trunk data block
	CAM	CAMA trunk data block
	COT	Central Office Trunk (PSTN) data block
	CPNW	Call Pickup Network Wide data
	CSA	Common Control Switching Arrangement access line

LD 20

Prompt	Response	Comment
	DIC	Dictation trunk data block
	DID	Direct Inward Dialing trunk data block
	DIG	Dial Intercom Group
	DNB	Directory Number Block
	DTR	Digitone Receiver
	EHT	External Hunting
	FEX	Foreign Exchange trunk
	GRP	Group call
	HNT	Hunting
	HTL	Hot Line
	LUDN	List Unused Directory Numbers.
	MCA	Meridian Communications Adapter
	MCU	Meridian Communications Unit
	MDM	Modem/Data Module. Data port interfacing with 500/2500 type card
	MUS	Music trunk
	OOSMLT	Out-of-Service Multi-Line Terminal
	OOSSLT	Out-of-Service Single Line Terminal
	PWR	Power data block
	R422	NT7D16 Data Access Card (Release 16 and later) (DAC) port in RS-422 mode data block
	RAN	Recorded Announcement trunk
	RCD	Recorder trunk

Prompt	Response	Comment
	SCL	Regular and System Speed Call Lists
	TEM	Template
	TIE	TIE trunk
	TNB	Terminal Number
	TRK	Trunk data block
	VMB	Voice Mailbox information
	WAT	Wide Area Telephone Service trunk
	<cr>	Print all
USFB	1 2 ...	<p>Unsolicited Status Message (USM) Filter Bitmap</p> <p>USFB applies to messages such as:</p> <ul style="list-style-type: none"> Onhook, Offhook, Ringing, Active, Disconnect, Unringing, Hold, Restore, Ready, Not Ready, Walkaway, Walkaway Return, Reserved, Unreserved, ... <p>This bitmap is downloaded by the application which is used to control the sending of USM messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding message set is enabled.</p> <p>USFB is printed if AACS = YES.</p>
VMB_STATE	nnnn	Print based on Voice Mailbox State

LD 20

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LD 21—Print Routine 2

Overlay program 21 allows data to be printed for the following:

- customer data blocks
- code restriction data blocks
- route data blocks
- trunks within a route
- associated TN

Set Relocation data

This prints the sets which have “relocated out”, but have not “relocated back in”. With Automatic Set Relocation the set's serial number, NT code, color code, and release are also printed.

Prompts ending with a colon (:) allow the user to enter either

- 1 a question mark (?) followed by a carriage return (<cr>) to get a list of valid responses to that prompt, or
- 2 an abbreviated response, the system then responds with the nearest match. If there is more than one possible match the system responds with SCH0099 and the input followed by a question mark and a list of possible responses. The user can then enter the valid response.

LD 21

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = END, LTM, or PRT)
TYPE	a...a	Type of data block (TYPE responses begin on page 390)
CUST	xx	Customer number associated with this data block
SIZE	0-4000	CLID entry size
RNGE	aa ... aa	CLID entry or entries to be printed
HOUR	0-23	All routes tested by ATM for this hour
OPR	(NO) YES	Outpulsing Route
ROUT	0-511	Route number
ACOD	x...x	Access Code for route
AACR	(NO) YES	The route (is not)/is acquired by the application
ASID	x...x	Application Service ID from which the aquired request originated

Alphabetical list of print reports

Application Module Link (AML) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	AML	Application Module Link
CUST	0-99	Customer number

Attendant Console (ATT) data from LD 15

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ATT	Attendant consoles
CUST	0	Customer number

Automatic Number Identification (ANI) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ANI	Automatic Number Identification
CUST	0-99	Customer number

Automatic Wake Up (AWU) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	AWU	Automatic Wake Up
CUST	0-99	Customer number

LD 21

Call Detail Recording (CDR) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CDR	CDR and Charge Account
CUST	0	Customer number

Call Redirection (RDR) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	RDR	Call Redirection options
CUST	0	Customer number

Code Restriction (CRB) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CRB	Code Restriction data
CUST	0	Customer number
ROUT	0-511	Route number to be printed

Controlled Class of Service (CCS) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CCS	Controlled Class of Service
CUST	0	Customer number

Customer data block (CDB)

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CDB	Customer data block
		Note: If you need information regarding System Passwords, print PWD_DATA field by itself. PWD_data will not be provided by printing CDB.
CUST	0	Customer number

Features and options (FTR) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	FTR	Features and Options
CUST	0	Customer number

Flexible Code Restriction (FCR) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	FCR	New Flexible Code restrictions
CUST	0	Customer number

Flexible Feature Codes (FFC) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	FFC	Flexible Feature Code
CUST	0	Customer number

LD 21

Integrated Message Service (IMS) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	IMS	Integrated Message Service
CUST	0	Customer number

ISDN Signaling Link (ISLL) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ISLL	ISDN Signaling Link trunk TN

Listed Directory Numbers (LDN) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	LDN	Departmental Listed Directory Numbers
CUST	0	Customer number

Multi-Party Operations (MPO) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	MPO	Multi-party options
CUST	0	Customer number

Networking (NET) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	NET	ISDN and ESN networking options
CUST	0	Customer number

Night Service (NIT) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	NIT	Night Service
CUST	0	Customer number

Off Hook Alarm Security (OAS) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	OAS	Off-Hook Alarm Security
CUST	0	Customer number

Password (PWD) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	PWD	Customer Related Passwords
CUST	0	Customer number

Recorded Overflow Announcement (ROA) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ROA	Recorded Overflow Announcement options
CUST	0	Customer number

LD 21

Route Data Block (RDB)

Prompt	Response	Comment
REQ	PRT	Print
TYPE	RDB	Route Data Block
CUST	0	Customer number
ROUT	0-511	Route number to be printed
	<cr>	Print data for all routes
ACOD	xxxx	Route access code

Set Relocation (SRDT) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	SRDT	Recent Set Relocation activity

Test lines (TST) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	TST	Test lines
CUST	0	Customer number

Timers (TIM) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	TIM	Timer options
CUST	0	Customer number

Trunk Members (LTM) data

Prompt	Response	Comment
REQ	LTM	List Trunk members
CUST	0	Customer number
ROUT	0-511	Route number to be printed
ACOD	xxxx	Route Access Code

Alphabetical list of prompts

Prompt	Response	Comment
AACR	(NO) YES	The route is not acquired by the application The route is acquired by the application
ACOD	x...x <cr>	Access Code for route Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Print data for all route access codes This prompt appears when ROUT = <cr>
ASID	x...x	Application Service ID from which the acquired request originated ASID is used for sending route status messages. The ASID value is updated based on the application's Acquire message for the route. Since the AML over Ethernet (ELAN) is used to communicate between the Meridian 1 and other applications, the VSID value might be used to uniquely identify the application which has acquired that device.
CALB	1 2 ...	Call Filter Bitmap CALB applies to messages such as PCI, DN update, etc. This bitmap is downloaded by the application which is used to control the sending of messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding set message is enabled. CALB is printed if AACR = YES.
CUST	xx xx <cr>	Customer number Print data range from first to last customer Not prompted when: <ul style="list-style-type: none"> • REQ = LUU or LUC • TYPE = SCL, DIG or TEM • a complete TN is entered Print data blocks for all customers
HOUR	0-23 <cr>	All routes tested by ATM for this hour Print routes tested by ATM for all hours
OPR	(NO) YES	Outpulsing Route

Prompt	Response	Comment
		This prompt appears when OPOA is equipped. Prompted on TN related data
REQ	END LTM PRT	Request Exit overlay program Print trunk route by TN and member number Print data block for the TYPE specified.
RNGE	aa ... aa	CLID entry to be printed You may print one CLID entry or several CLID entries. If you want to print several CLID entries, separate each entry with a comma. Each CLID entry must be between 0 and the number entered for the prompt SIZE in LD 15.
ROUT	0-127 0-511 <cr>	Route number For machine types NT, RT, XN, XT and system Options 51, 61, and 71 (Release 14 and later). Print data for all routes This prompt appears when TYPE = CRB or RDB
SFNB	1 2 ...	Set Feature Notification Bitmap SFNB is used for messages such as: SFN (login), SFN (logout), ... This bitmap is downloaded by the application which is used to control the sending of SFN messages on behalf of the acquired TN. A numeric value is printed only if the corresponding message is enabled. SFNB is printed if AACR = YES.
SIZE	- - -	CLID entry size. The SIZE prompt and the SIZE value print out automatically after the CUST prompt.
TYPE		Type of data block
	AML_DATA	Application Module Link
	ANI_DATA	Automatic Number Identification numbers
	ATT_DATA	Attendant Data
	CCS_DATA	Controlled Class of Service options

LD 21

Prompt	Response	Comment
AWU_DATA		Enable Automatic Wake-up
CDB		Customer Data Block Note: If you need information regarding System Passwords, print PWD_DATA field by itself. PWD_data will not be provided by printing CDB.
CDR_DATA		Call Detail Recording
CLID		Calling Line Identification entry data
CRB		Code Restriction data block
FCR_DATA		New Flexible Feature code options
FFC_DATA		Flexible Feature Codes
FTR_DATA		Feature
IMS_DATA		Integrated Messaging System
INT_DATA		Alarm ring for Internal calls
ISLL		IASL ISDN Signaling Link data block. This prompt appears when REQ = PRT.
LDN_DATA		Listed Directory Number
MPO_DATA		Multi-party options
NET_DATA		ISDN and ESN networking options
NIT_DATA		Night Service options
NPID		Numbering Plan Digit or Information Digit table
OAS_DATA		Off-Hook Alarm Security options
PWD_DATA		Print the system Passwords (Release 19 and later)
RDB		Route Data Block A printout of a route with the Night Key for DID Digit Manipulation (NKDM) active will show * opposite the value for DCNO or NDNO.

Prompt	Response	Comment
	RDR_DATA	Call Redirection
	ROA_DATA	Recorded Overflow Announcement
	SRDT	Set Relocation Data block
	TIM_DATA	System Speed Call
	TST_DATA	Loop Test trunk data
USFB	1 2 ...	<p>Unsolicited Status Message (USM) Filter Bitmap</p> <p>USFB applies to messages such as:</p> <ul style="list-style-type: none"> Onhook, Offhook, Ringing, Active, Disconnect, Unringing, Hold, Restore, Ready, Not Ready, Walkaway, Walkaway Return, Reserved, Unreserved, ... <p>This bitmap is downloaded by the application which is used to control the sending of USM messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding message set is enabled.</p> <p>USFB is printed if AACR = YES.</p>

LD 21

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LD 22—Print Routine 3

Overlay program 22 allows data to be printed for the following:

- Configuration Record
- DN to TN Matrix
- System Password number
- System Loop Limits
- software version
- tape ID
- issue number
- equipped feature packages
- System Incremental Software Management (ISM) parameters

Audit trail for Limited Access to Overlays (LAPW)

You must be logged in with the PWD1 or PWD2 password in order to print the Audit Trail. Printing of the Audit Trail deletes the Audit Trail information and resets the buffer.

Packages equipped

This prompt sequence prints the equipped software packages. The packages are printed in numerical order by package number, accompanied by the mnemonic. In addition, you can get the status of an individual package.

Issue and release

If the system has a “patch”, then a “+” is printed next to the issue number.

Read Only Memory (ROM)

This print option only applies to SL-1 ST and Option 21 systems.
UNKNOWN is output for all other systems.

System limits for Incremental Software Management (ISM)

This prints the ISM limits for TNs, ACD Positions, ACD DNs, AST sets, Application Module Links (AML), D-channels (DCH), ISDN BRI Digital Subscriber Loops (DSL) and LTID.

The output is as follows:

```
ACDN xxxx LEFT xxxx USED xxxx
AGNT xxxx LEFT xxxx USED xxxx
AML xxxx LEFT xxxx USED xxxx
AST xxxx LEFT xxxx USED xxxx
DCH xxxx LEFT xxxx USED xxxx
DSL xxxx LEFT xxxx USED xxxx
LTID xxxx LEFT xxxx USED xxxx
TNS xxxx LEFT xxxx USED xxxx
```

Prompts and responses

Prompt	Response	Comment
REQ	a...a	Request (a..a = END, ISS, ISSP, PRT, PWD, ROM, SLL, SLT, or TLD)
TYPE	a...a	Type of data block (TYPE responses begin on page 407)
PWD2	xxxx	Password 2
CUST	xx	Customer number associated with this data block
DN	xxxx	Print for Directory Number
CUST	xx	Customer number associated with this data block
DN	xxxx	Print for Directory Number
DATE	dd mmm yyy	ACT Date
PAGE	(NO) YES	Data printed on a per-page basis
- ADJUST PAPER THEN	<cr>	Adjust paper so that printing starts at top of sheet.
DES	d...d	Designator
NACT	(NO) YES	Next Activity
- VHST	aaa	View History File (aaa = (%ON) or %OFF)

Alphabetical list of print reports

Alarm and Exception Filter (ALARM) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ALARM	Print Filter and Exception tables. Must have Alarm Filtering (AFTR) package 243.

Audit trail (AUDT) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	AUDT	Audit trail. Must be logged in with the PWD1 or PWD2 password. Printing of the Audit trail deletes the Audit trail information and resets the buffer.

Common Equipment (CEQU) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CEQU	Common Equipment data

Configuration Record (CFN) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	CFN	Configuration record

History File (AHST & PHST) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	AHST	Print all of the History File
	PHST	Print the previous History File

History File (VHST) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	VHST	View the History File
VHST	(%ON)	Turn ON display features
	%OFF	Turn OFF display features
	BFIND aaa	Search backward in the History File
	BFIND	Repeats the previous backward search
	DOWN BOT	Moves to the top of the file
	DOWN	Move forward 6 lines in the History File
	FIND aaaa	Search Forward in the history file
	FIND	Repeats the previous forward search
	HELP	List valid responses
	NEXT BOT	Moves to the end of the file
	NEXT x	Move forward x lines in the History File, display all lines in between
	PREV TOP	Moves to the top of the file
	PREV x	Move backward x lines in the History File, display all lines in between
	TRF	View the system traffic log file
	TTYLOG n	View the log file for TTY port n
	UP TOP	Moves to the top of the file
	UP	Move backward 6 lines in the history file

Input/output device (ADAN) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ADAN	All I/O devices
	ADAN AML	Application Modules
	ADAN DCH	D-channel and backup D-channels
	ADAN HST	History Files
	ADAN PRT	System Ports
	ADAN TTY	System Terminals

Integrated Message Service (IMA) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	IMA	IMS Message Attendant
CUST	0-99	Customer number

Issue and Release (ISS)

Prompt	Response	Comment
REQ	ISS	Print Issue and Release

Meridian Modular Telephone (ATRN) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	ATRN	Meridian Modular Telephone transmission parameters

Overlay area (OVLY) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	OVLY	Overlay area information

Package (PKG) information

Prompt	Response	Comment
REQ	PRT	Print
TYPE	PKG	Software Packages
	PKG xxx	Check equipped/restricted status of package number xxx

Password (PWD) data

Prompt	Response	Comment
REQ	PWD	Action Request
PWD2	xxxx	Level 2 Password
	<cr>	Limited Access to Overlays

Password (PWD) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	PWD	Print System Passwords

Peripheral Software Version (PSWV) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	PSWV	Peripheral Software Versions

LD 22

System Limits (SLT) data

Prompt	Response	Comment
REQ	SLT	Print System Limits

System Parameters (PARM) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	PARM	System Parameters

System Patch (ISSP) data

Prompt	Response	Comment
REQ	ISSP	Print System and Patch Information

Tape ID (TID) data

Prompt	Response	Comment
REQ	TID	Print Tape ID

Value Added Server (VAS) data

Prompt	Response	Comment
REQ	PRT	Print
TYPE	VAS	Print Value Added Server data

Alphabetical list of prompts

Prompt	Response	Comment
ADJUST PAPER THEN	<cr>	Adjust paper then <cr> to start printing
	<cr>	Start printing
CUST	xx	Customer number Not prompted when: <ol style="list-style-type: none"> 1. REQ = LUU or LUC 2. TYPE = SCL, DIG or TEM 3. a complete TN is entered
	<cr>	Print data blocks for all customers
DATE	dd mmm yyyy	Print data from date specified. Where: <ul style="list-style-type: none"> • dd = 1-31 • mmm = JAN-DEC • yyyy = year e.g. 1993 DATE is prompted for TN related data
	<cr>	Print data and show last activity date
	ACT	Print data from last activity date
DES		Designator DES is prompted on TN related data The printing of data is subject to restrictions imposed by responses to TN and DATE.
	d...d	Print all units with ODAS designator ddddd
	d+	Print units starting with ODAS designator d
	+	Print units with no ODAS designator assigned
	<cr>	Disregard ODAS designator

Prompt	Response	Comment
DN	xxxx <cr> xxxx <space>	Directory Number Print data block for DN Print data blocks for all DN If a space is entered after the Directory Number the system will reprompt for DN. A maximum of six DNs can be stacked and printed at one time. With Release 19 and later the following responses are valid for DN:
	x<cr> xx<cr> xxx<cr>	All DNs starting with first digit x (X000-X999) All DNs starting with first two digits xx (XX00-XX99) All DNs starting with first three digits xxx (XXX0-XXX9)
	x-<cr> x-y<cr> xx-yyy<cr>	All DNs between X000-9999 All DNs between DN X000 through Y999 All DNs between DN XX00 through YYYY
	xxxx xxxx xxxx-yyy	Two specific DNs. Up to a maximum of 8 DNs. All DNs between XXXX and YYYY
NACT	(NO) YES END	Next Activity Return to REQ prompt Print current system data and end overlay End overlay activity
PAGE	(NO) YES	Data printed on a per-page basis Prompted only on TN related data
PWD2	x...x <cr>	Enter second level administration password (Password 2) to print information relating to all passwords. Valid characters are 0-9, A-Z, a-z. Length is 4-16 characters. To print only the information regarding the Limited Access to Overlay password used to login. PWD2 is prompted when REQ = PWD or TYPE = PWD.
REQ	END ISS ISSP PRT PWD SLT	Request Exit overlay program Print generic version and Issue (Rel 18 & earlier) Print System and Patch Information (Rel 19 & later) Print data block for TYPE specified Print the system Passwords Print System Limits : Incremental Software Management

Prompt	Response	Comment
	TID	Print the Tape ID.
TYPE		Type of data block
	ADAN	All I/O devices
	ADAN AML	Application Modules
	ADAN DCH	D-channel and backup D-channels
	ADAN HST	History Files
	ADAN PRT	System Ports
	ADAN TTY	System Terminals
	ADM	Add-on Data Module (Release 5 and later) Data port interfacing with a data line card
	AHST	All History File
	ALARM	Print Filter and exception tables
	ATRN	Print Meridian Modular Telephone Transmission parameters
	AUDT	Audit Trail buffer Only system Administrators are allowed to print the Audit Trail. They must first respond to PWD2 in LD 17 to define the password.
	CEQU	Common Equipment
	CFN	Configuration record data block
	CHID	Channel ID for ISDN Signaling Link (ISL)
	IMA	IMS Message Attendant
	IADN	Individual Attendant Directory Number
	ISS	Generic version and Issue (Release 18 and earlier)
	ISSP	System and Patch Information (Release 19 and later)
	OVLY	Print Overlay area information

LD 22

Prompt	Response	Comment
	PARM	System Parameters
	PHST	Previous History File All History File records since last request
	PKG	Packages equipped. For a list of packages, refer to pages 21 or 27 .
	PKG xxx	Check equipped/restricted status of package number xxx
	PSWV	Peripheral Software Version(s)
	PWD	Print the system Passwords (Release 19 and later)
	VAS	Value Added Server data
	VHST	View History File
VHST		View the History File
	(%ON) % OFF	Turn ON display features Turn OFF display features This command is used to enable or disable the following three display features: <ul style="list-style-type: none">• brackets to surround the current index ([])• percent symbol (%) preceding each History File line• relative location within the History File (in percentage) VHST accepts abbreviated responses.
	BFIND aaaa	Search backward in the History File This command can be used to search backward, starting at the current index location, for the string "aaaa." If necessary, the file will wrap until it returns to the same location. The text string can be up to 12 characters. Special characters like space, slash (/), and colon (:) are accepted. Leading or trailing spaces are ignored unless enclosed in double quotes. For example, the spaces denoted here are ignored: <SP><SP>INI<SP>. The spaces in this string, however, are included in the search: "<SP><SP>INI<SP>".

Prompt	Response	Comment
		When the string is found, the system displays the current index location. Five text lines are shown, with the middle line containing the sought string. The VHST prompt is re-displayed to allow more command use. If the string is not found, VHST is reprompted to allow more command use.
BFIND		Repeats the previous backward search
DOWN BOT		Moves to the top of the file
DOWN		Move forward 6 lines in the History File This command can be used to move forward in the History File, toward the end. If x exceeds the end of the file, the end will be shown. When the move is complete, VHST is reprompted to allow more command use.
FIND aaaa		Search Forward in the History File This command can be used to search forward, starting at the current index location, for the string "aaaa." If necessary, the file will wrap until it returns to the same location. The text string can be up to 12 characters. Special characters like space, slash (/), and colon (:) are accepted. Leading or trailing spaces are ignored unless enclosed in double quotes. For example, the spaces denoted here are ignored: <SP><SP>INI<SP>. The spaces in this string, however, are included in the search: "<SP><SP>INI<SP>". When the string is found, the system displays the current index location. Five text line are shown, with the middle line containing the sought string. The VHST prompt is re-displayed to allow more command use. If the string is not found, VHST is reprompted to allow more command use.
FIND		Repeats the previous forward search
HELP		List valid responses
NEXT BOT		Moves to the end of the file

LD 22

Prompt	Response	Comment
	NEXT x	<p>Move forward x lines in the History File, display all lines in between.</p> <p>This command can be used to view lines forward, toward the end of the file. The lines between the current index location, and the new one (x lines down) are displayed.</p> <p>If you enter only NEXT, the default of 20 lines is used for the move. When the move is complete, VHST is reprompted to allow more command use.</p>
	PREV TOP	<p>Moves to the top of the file</p>
	PREV x	<p>Move backward x lines in the History File, display all lines in between</p> <p>This command can be used to view lines backward, toward the top of the file. The lines between the current index location, and the new one (x lines up) are displayed.</p> <p>If you enter only PREV, the default of 20 lines is used for the move. When the move is complete, VHST is reprompted to allow more command use.</p>
	TRF	<p>View the system traffic log file</p>
	TTYLOG n	<p>View the log file for TTY port n</p>
	UP TOP	<p>Moves to the top of the file</p>
	UP	<p>Move backward 6 lines in the History File</p> <p>This command can be used to move backward in the History File, toward the top. If x exceeds the top of the file, the top will be shown. When the move is complete, VHST is reprompted to allow more command use.</p>

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LD 23—Automatic Call Distribution, Management Reports, Message Center

Overlay program 23 allows Automatic Call Distribution (ACD) data, schedules for management reports and Message Center data to be created, modified, or printed.

ACD groups are also used for Meridian Mail and various server applications. When this overlay is loaded the available system memory and disk records are output in a header. Refer to the introduction of this document for details.

Incremental Software Management (ISM) also provides a header to indicate system configuration limits. For LD 23, the header appears as follows:

ACD DNS AVAIL: xxxxx USED: xxxxx TOT: xxxxx

To prevent Virtual Agent information from appearing on ACD-D reports, do not make changes to Virtual Agents. If a change to a Virtual Agent is required, out the agent and rebuild it with REQ = NEW.

Prompts and responses

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Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request
TYPE	a...a	Type of data block (a...a = ACD, ADS, CDN, NACD, or SCB)
CUST	xx	Customer number associated with this data block
ACDN	x...x	ACD Directory Number
MWC	(NO) YES	Message Waiting Center
- IMS	(NO) YES	Integrated Messaging Service
-- CMS	(NO) YES	Command and Status link
-- IMA	(NO) YES	Integrated Messaging Allowed
-- IVMS	(NO) YES	Integrated Voice Messaging System
-- DNIS	(NO) YES	Dialed Number Identification Service
-- VSID	0-15	Value Added Server ID
-- EES	(NO) YES	End-to-End Signaling
-- APL	0-15	Auxiliary Processor Link number
-- UST	(NO) YES	User Status update
-- VSID	0-15	VAS ID of VAS providing VMS
-- APL	0-15	Auxiliary Processor Link number
-- UMG	(NO) YES	User-to-User Messaging

-- RAN	0-511	RAN route number
-- UMT	2-(6)-15	Update Message Time
AST	(NO) YES	Associated set
DSAC	(NO) YES	Data Services Access Code
- PRIM	(NO) YES	Primary DSAC
- VSID	0-15	Value Added Server ID
MAXP	xxxx	Maximum Positions
SDNB	(NO) YES	Secondary DN Blocking
BSCW	(NO) YES	Block Secondary DN Calls on Walkaway
ISAP	(NO) YES	Integrated Services Application Protocol
ASID	16-31 or (00)	Application service identity from which the acquired message originated
AACQ	(NO) YES	Applicaton Acquired Queue
- VSID	0-15	Value Added Server ID
ALOG	(NO) YES	Automatic Log In
RGAI	(NO) YES	Ring Again for Internal calls
ACAA	(NO) YES	ACD Agent while IDN on-hold Allowed
FRRT	0-511	First RAN route number for ACD
- FRT	0-2044	First RAN Time
SRRT	0-511	Second RAN route number for ACD
- SRT	0-2044	Second RAN Time
NRRT	0-127	Night RAN Route
FROA	(NO) YES	First RAN On Arrival
NCFW	x...x	Night Call Forward
FNCF	(NO) YES	Force Night Call Forward to busy ACD DN
FORC	(NO) YES	Force
- FCFT	0-(2)-30	Flexible Call Force Timer
SPCP	(NO) YES	Separate Post Call Processing
OBTN	aaa	Observation Tone (aaa = (NO), AGT, or ALL)
HSID	0-15	Host ID
CWTH	0-(1)-2047	Calls Waiting Threshold
NCWL	(NO) YES	New Call Waiting Lamp options
- CWLF	(0)-2047	Call Waiting Lamp Flash threshold
- CWLW	(0)-2047	Call Waiting Lamp Wink (fast flash) threshold

LD 23

BYTH	(0)-204	Busy Threshold
OVTH	0-(2047)	Overflow Threshold
TOFT	2-1800	Timed Overflow Threshold in seconds
HPQ	(NO) YES	High Priority Queue
- OCN	(NO) YES	Oldest Call in Network
OVDN	x...x x...x x...x	Overflow Directory Number(s)
IFDN	x...x	Interflow Directory Number
- BUSY	aaa bbb ccc ddd	Busy treatment
- AENI	(NO) YES	Automatically Enable Interflow
EMRT	0-511	Emergency Route
MURT	0-511	Music Route
RTPC	(NO) YES	Real Time Processing
STIO	0, 1, 2, ...15	Status Input/Output devices
TSFT	0-(20)-510	Telephone Service Factor Threshold in seconds
HOML	(YES) NO	Headset Or MSB key Log Out
RDNA	(NO) YES	Restricted DN Access
ACNT	xxxx	Account
DAL	(NO) YES	Data Agent Log In with the MSB key allowed
RPRT	(YES) NO	Management reporting and status display
RAGT	2-(4)-30	Reserve Agent
DURT	15-(30)-45	Duration Timer in minutes
RSND	(4)-16	Resend timer
FCTH	10-(20)-100	Flow Control Threshold
CRQS	0-(100)-255	Call Request Queue Size
DNRT	(NO) YES	Delay Night RAN Treatment
IVR	(NO) YES	Interactive Voice Response queue
- TRDN	xxxx	Treatment DN for IVR queue
CWNT	l s c u	Call Waiting Notification TN
CWNC	NO YES	Call Waiting Notification TN control

Prompts and responses by data block

ACD or SCB: Automatic Call Distribution (ACD-D) or Schedule data block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	aaa	Type of data block = ACD or SCB (Automatic Call Distribution or Schedule data block for ACD management reports)
CUST	xx	Customer number associated with this data block
CPRD	dd mm dd mm	Collection Period
SHR	0-23	Start Hour
EHR	0-23	Hour of day that data reporting ends
DOW	1-7	Days of Week for data collection
RFRQ	0-7	Frequency that Reports are to be generated
SFRQ	x	Status display update Frequency (1 or 2)
ROPT	1-4	Report Options
PRI0	0-15	Printer(s) for Output
PAGE	(NO) YES	Start at the top of a new page for each report
AID	(NO) YES	Agent ID mode
- IDLB	(1)-9999	Agent ID Lower Boundary
- IDUB	<i>IDLB</i> -(9999)	Agent ID Upper Boundary
- LOG	(0)-999	Maximum number of agents that can be logged in at any one time
SRPT	(NO) YES	Short Report option for report 4 (Agent position)
TOT4	(NO) YES	Totals on report 4

LD 23

ADS: Auxillary data system data block (includes Multiple Queue Assignment prompts)

Prompt	Response	Comment
REQ	aaa	Request
TYPE	ADS	Type of data block = ADS (Auxiliary Data System)
CUST	xx	Customer number associated with this data block
AID	(NO) YES	Agent ID mode
- IDLB	(1)-9999	Agent ID Lower Boundary
- IDUB	<i>IDLB</i> -(9999)	Agent ID Upper Boundary
- MQA	(NO) YES	(Don't allow)/Allow agents to use MQA functionality
-- MQAS	(NO) YES	(Don't allow)/Allow agents to specify a Supervisor ID during login
-- MQAP	(NO) YES	(Don't allow)/Allow agents to specify Priorities during login
-- MQCF	(NO) YES	(Don't allow)/Allow automatic Call Forwarding of Phantom TNs to agent sets at login
-- MCFD	x	Number of digits prepended to Agent IDs to find Phantom TNs to Call Forward to agents (x = (0), 1, 2, or 3)

Alphabetical list of prompts

Prompt	Response	Comment
AACQ	(NO) YES	Applicaton Acquired Queue The ACD DN is not acquired by the application The ACD DN is acquired by the application
ACAA	(NO) YES	Allow ACD calls to an agent on an Individual DN (IDN) Call On Hold The agent cannot place an IDN Call On Hold, and return to the idle queue. The agent can put an active IDN Call On Hold and press the in-calls to return to the idle agent queue.
ACDN	x...x	ACD Directory Number Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150
ACNT	x...x	Account (Default activity code) Maximum 4 digits (0 through 9). The # and * are not allowed. Prompted if the ADS data block is built, and CNTL = YES.
AENI	(NO) YES	Automatically Enable Interflow Prompted when IFDN is defined.
AID	(NO) YES	Customer will operate in Position ID mode. Customer will operate in Agent ID mode.
ALOG	(NO) YES	Provide Automatic Log In for agents on this DN. Set to YES for Meridian Mail applications. ALOG applies only to Command and Status Link (CMS) and Data Service Access Codes (DSAC). Prompted if IMS or ISAP = YES.
APL	0-15	Auxiliary Processor Link number Prompted if IMA = YES. The APL is defined in LD 17.
ASID	16-31 or (00)	Application service identity from which the acquired message originated

LD 23

Prompt	Response	Comment
AST	(NO) YES	Associated set Release 16 and earlier. Release 17 and later, the Associate Set assignments is performed in LD 10 and LD 11 for each ACD telephone. In Release 16 and earlier, the AST is assigned automatically to each telephone for an ACD DN with AST = YES.
BSCW	(NO) YES	Block Calls to the Secondary DN on Walkaway The caller to the source DN hears busy tone. Release 13 and later.
BUSY	aaa bbb ccc ddd	Interflow Busy Treatment for different originators Prompted if IFDN is defined. The possible options are: <ul style="list-style-type: none">• BSY = caller hears busy tone• SRC = caller is re-linked to source queue Enter BSY or SRC for each of the four different originators: <ul style="list-style-type: none">• aaa = Stations• bbb = Attendants• ccc = CO, FEX and WATS trunks• ddd = all other trunk types Defaults if the IFDN is an ACD DN, internal or external DN are: <ul style="list-style-type: none">• BSY BSY SRC BSY (3rd entry cannot be changed) Default if the IFDN is an attendant console: <ul style="list-style-type: none">• BSY SRC SRC BSY (only the 4th entry can be changed)
BYTH	(0)-2047	Busy Threshold at which the Calls Waiting lamp flashes and this queue ceases to accept overflowed calls. When BYTH = 0, overflow calls are not accepted by this target queue unless an agent is available. To delete existing entry, precede entry with X.

Prompt	Response	Comment
CALB	1 2 ...	<p>Call Filter Bitmap</p> <p>CALB applies to messages such as PCI, DN update, etc.</p> <p>This bitmap is downloaded by the application which is used to control the sending of messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding set message is enabled.</p> <p>CALB is printed if AACR = YES.</p>
CDN	x...x	<p>Control DN</p> <p>Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p>
CEIL	0-(2047)	<p>CDN Ceiling value</p> <p>CEIL limits the number of unanswered calls a CDN can have at its default ACD DN at a time. New calls receive a busy signal once the ceiling is reached (CO trunks do not receive busy).</p>
CMS	(NO) YES	<p>Command and Status link</p> <p>If this ACD DN is to use the CSL, enter YES. Set to YES for Meridian Mail applications.</p>
CNTL	(NO) YES	<p>Control DN is in control.</p> <p>When CNTL = NO, CDN calls are sent to the Default ACD DN (DFDN).</p>
CPRD	sm sd em ed	<p>Collection Period: Month and day data collection is to start and end. Where:</p> <ul style="list-style-type: none"> • sm = start month (1-12) • sd = start day of month(1-31) • em = end month (1-12) • ed = end day of month(1-31)

LD 23

Prompt	Response	Comment
CRQS	0-(100)-255	<p>Call Request Queue Size</p> <p>It is recommended that CRQS be approximately 20% higher than the number of trunks available for networking. If the customer selects the OCN option, set this value at 5% over trunking capacity. This avoids reserving agents for calls on the network when trunking facilities are unavailable. Flow Control (FCTH) is typically set at 25% of the call request queue size.</p> <p>The CRQS must be defined for each ACD DN in the network. CRQS must be greater than FCTH. CRQS = 0 closes the queue.</p>
CUST	xx	Customer number associated with this data block as defined in LD 15.
CWLF	(0)-2047	<p>Call Waiting Lamp Flash threshold</p> <p>Prompted if NCWL = YES. CWLF must be greater than or equal to CWTH</p>
CWLW	(0)-2047	<p>Call Waiting Lamp Wink (fast flash) threshold</p> <p>Prompted if NCWL = YES. CWLW must be greater than or equal to CWLF</p>
CWNC	NO YES	<p>Alert rings for all calls</p> <p>Alert rings for only priority calls</p> <p>CWNC appears when a TN has been entered for CWNT. There is no default.</p>
CWNT	I s c u	Call Waiting Notification TN
CWTH	0-(1)-2047 0 X	<p>Calls Waiting Threshold: The number of Calls Waiting in queue that triggers the "calls waiting" indication.</p> <p>To disable</p> <p>To delete existing entry.</p>
DAL	(NO) YES	<p>Data Agent Log In with the MSB key allowed</p> <p>The data agent must be defined with a DTA Class of Service in LD 11. DAL is not prompted when IVMS or DSAC are set to "YES".</p> <p>Release 14 and later. Prompted if TYPE = SCB or ADS.</p>

Prompt	Response	Comment
DFDN	x...x	Local default ACD DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Calls to the CDN are directed to this ACD DN. RAN and Music, if provided, are as defined for the CDN. Any other ACD treatment, such as Night, is applied as if the caller directly dialed the ACD DN.
DNIS	(NO) YES	Dialed Number Identification Service Send (do not send) ACD/DNIS information across the link. Not prompted for Virtual Agents.
DNRT	(NO) YES	Delay Night RAN Treatment When DNRT = YES for an ACD DN there is a delay in routing calls to the night RAN. The call is delayed until the call has reached the end of the Night table and there are no outstanding call requests for the call. Prompted if a NACD Night table and a RAN route have been defined.
DOW	1-7	Days of Week for data collection Where: 1 = Sunday and 7 = Saturday
DSAC	(NO) YES	ACD DN is not an IS/Data Service Access Code ACD DN is an IS/Data Service Access Code Prompted when MWC = NO
DURT	15-(30)-45	Duration Timer (in minutes) DURT indicates how long a Target node honors a call request from the Source node. If the timer expires, the call is removed from the call request queue. If this timer is too large, the network call request queues may become overcrowded. If the timer is too small, waiting customers may be cut off from receiving services. This timer must be defined only for Target queues.
EES	YES (NO)	IVMS uses End-to-End Signaling to send tone. IVMS (does not use) End-to-End Signaling to send tone. Prompted when IMA = YES.
EHR	0-23	Hour of day that data reporting ends
EMRT	0-511	Emergency Recorder Trunk Route. The route and at least one trunk must exist before defining EMRT. Enter X to remove.

LD 23

Prompt	Response	Comment
FCFT	0-(2)-30	Flexible Call Force Timer (the time in seconds before Flexible Call Force is enforced)
FCTH	10-(20)-100	<p>Flow Control Threshold to allow additional calls into the call request queue</p> <p>The Flow Control option opens and closes the ACD DN for network calls. Once the number of Call Requests received over the network meets the call request queue size defined in LD 23, the queue is shut down (INACTIVE) for network calls. For the queue to open for network calls, the pending queue request size must drop to a value equal to the flow calls control.</p> <p>For example, a call request queue size of 50 with a flow control of 10 allows the queue to become inactive after 50 call requests are pending. After 10 calls or 10 Call Requests have been answered or removed, leaving 40 remaining in queue, the queue will reopen.</p>
FNCF	(NO) YES	Force Night Call Forward to busy ACD DN
FORC	(NO) YES	<p>Force</p> <p>Calls are forced to arrive in answered state. When FORC = Yes, the call arrives on Key 0 (in-calls key) in an answered state. Headsets are recommended for this option.</p>
FROA	(NO) YES	<p>First RAN On Arrival (the 1st RAN to be given to incoming calls immediately; FRT time ignored)</p> <p>If FROA = NO, the call is forced to wait FRT time. Recorded Announcement is only given if an idle agent is not found.</p>
FRRT	0-511	<p>First RAN Route number for ACD</p> <p>The route and at least one trunk must exist before defining FRRT. Enter X to remove.</p>
FRT	0-2044	<p>First RAN Time (the time in seconds allowed before unanswered incoming ACD calls are connected to the first RAN)</p> <p>Prompted if FRRT is defined. If a value is not entered FRT defaults to blank and there is no connection to the RAN.</p>
HMSB	(NO) YES	<p>Agent cannot activate Make Set Busy if an ACD call is on-hold</p> <p>Agent can activate Make Set Busy if ACD call is on-hold</p>

Prompt	Response	Comment
HOML		Handset Removal or Make Set Busy key (MSB key) log out. The HOML option allows an agent to log out by removing the headset or going on hook without using the Make Set Busy (MSB) key. Logout while on Agent Reserve causes a cancellation message.
	(NO)	Log out with only the Make Set Busy key
	YES	Log out with either handset removal or Make Set Busy key activation
		HOML is prompted if an Auxiliary Data System (ADS) or Schedule Block (SCB) exists.
HPQ		High Priority Queue (preference given to High Priority trunk calls)
	(NO)	Calls from the source queue's high priority trunks are presented after another queue's Timed Overflow queue (TOFQ) calls.
	YES	Calls from the source queue's high priority trunks are presented before another queue's Timed Overflow queue (TOFQ) calls.
		In an NACD environment, HPQ must be denied to receive the OCN prompt. (HPQ = No)
HSID	0-15	VAS ID for the Host Application Module Link. When the CCR and ML applications are both running, this HSID is the VSID assigned to the AML for Meridian Link in LD 17. The VSID prompt in this CDN configuration will match the VSID for the CCR AML port configured in LD 17.
IDLB	(1)-9999	Agent ID Lower Boundary With Release 19 and later, this prompt is used with the IDUB prompt to determine the maximum number of agents allowed by the system. The number must be within the parameters set by the IDLB and IDUB prompts. Prompted if TYPE = ADS or SCB and AID = YES
IDUB	<i>IDLB</i> -(9999)	Agent ID Upper Boundary With Release 19 and later, this prompt is used with the IDLB prompt to determine the maximum number of agents allowed by the system. The number must be within the parameters set by the IDLB and IDUB prompts. Prompted if TYPE = ADS or SCB and AID = YES

LD 23

Prompt	Response	Comment
IFDN	x...x	<p>Interflow Directory Number</p> <p>The Interflow Directory Number serves as the DN to which calls interflow. Prior to Release 22, IFDN can be up to 23 digits. For Release 22, IFDN can be up to 31 digits.</p> <p>Calls diverted to the IFDN are not routed by NACD. Network calls diverted to an IFDN lose all the network information, so that information cannot be displayed on the terminating telephone.</p> <p>A group hunt pilot DN can be entered. If the OPAO package is equipped, then # can be used in this DN.</p>
	X	<p>To delete existing entry.</p> <p>IFDN and NFCR are affected by the Outpulsing feature for Japan. Refer to the Feature Description in X11 Features and Services for details.</p> <p>Typing four asterisks (****) at the IFDN prompt will not let the user exit Overlay 23.</p>
IMA	(NO) YES	<p>Integrated Messaging Allowed (ACD DN assigned to IMS) Set to YES for Meridian Mail applications.</p>
IMS	(NO) YES	<p>Integrated Messaging Service</p> <p>Set to YES for Meridian Mail applications. IMA must be set to Yes in LD 15.</p>
ISAP	(NO) YES	<p>Integrated Services Application Protocol (ACD messages sent across the ISDN/AP link)</p> <p>Set to YES for Meridian Mail applications.</p>
IVMS	(NO) YES	<p>Integrated Voice Messaging System</p> <p>Set to YES for Meridian Mail applications.</p>
IVR	(NO) YES	<p>Interactive Voice Response queue</p> <p>An ACD queue must be defined as an IVR queue before the Treatment Request for IVR command can be used in Customer Controlled Routing (CCR) applications.</p>
	(0)-999	<p>Login maximum (the maximum number of agents that can be logged in at any one time)</p> <p>LOG cannot exceed MAGT value defined in LD 17.</p>

Prompt	Response	Comment
LOG	(0)-999	Login maximum (the maximum number of agents that can be logged in at any one time) LOG cannot exceed the MAGT value defined in LD 17
MAXP		Maximum Number of Agent Positions. The value of the MAXP can be increased to the allowed maximum or decreased to the current number agents.
	1-70	For M, S and MS
	1-120	For LE, N and ST
	1-240	For XN, RT, VLE, XL and Option 21
	1-500	For NT and Options 51 and 61
	1-1000	For XT
	1-1200	For Option 71 and 81
MCFD		Multiple Queue Assignment (MQA) Call Forwarding Digits MCFD is prompted if MQCF = YES.
	(0)	(0) digits prepended to Agent IDs to find Phantom TNs to Call Forward to agents.
	1	1 digit prepended to Agent IDs to find Phantom TNs to Call Forward to agents.
	2	2 digits prepended to Agent IDs to find Phantom TNs to Call Forward to agents.
	3	3 digits prepended to Agent IDs to find Phantom TNs to Call Forward to agents.
MQA	(NO) YES	Multiple Queue Assignment Don't allow agents to use MQA functionality Allow agents to use MQA functionality MQA is prompted if AID = YES and MQA package 297 is equipped. Warning: The HSL link must be disabled before you configure or change MQA.
MQAP	(NO) YES	MQA Priority option Don't allow agents to specify Priorities during login Allow agents to specify Priorities during login Prompted if MQA = YES and Priority Agent package 116 is equipped.
MQAS	(NO) YES	MQA Supervisor option Don't allow agents to specify a Supervisor ID during login Allow agents to specify a Supervisor ID during login Prompted if MQA = YES.

LD 23

Prompt	Response	Comment
MQCF	(NO)	MQA Call Forward option Don't allow automatic Call Forwarding of Phantom TNs to agent sets at login
	YES	Allow automatic Call Forwarding of Phantom TNs to agent sets at login Prompted if MQA = YES and Phantom TN package 254 is equipped.
MURT	0-511	Music Route number The route and at least one trunk must exist before defining MURT. Enter X to remove.
MWC	(NO) YES	Message Waiting Center (ACD DN is a message center DN) MWC is set to YES for Meridian Mail applications. Prompted if Message Waiting Center (MWC) package 46 is equipped.
NCFW	x...x	Night Call Forward DN for ACD calls (up to 23 digits) and Operator Revert DN for Meridian Mail (IMS, IVMS). NCFW is tracked on reports as interflow. Prior to Release 22, NCFW can be up to 23 digits. For Release 22, NCFW can be up to 31 digits. Precede NCFW entry with X to delete. Typing four asterisks (****) at the NCFW prompt will not let the user exit Overlay 23.
NCWL	(NO) YES	New Call Waiting Lamp options When NCWL = YES, the Busy Threshold and Overflow Threshold apply only to Overflow by Number and Interflow conditions, but do not change the lamp states. Calls in the Call Request and Local Flow-in queues are included when adding up the calls in queue for lamp state updates.
NRRT	0-511	Night RAN Route number assigned as night announcement for ACD calls. If NRRT and NCFW are both defined, then NRRT course first. The route and at least one trunk must exist before defining NRRT. Enter X to remove.
OBTN	(NO)	No Observation Tone given
	AGT	Audible Observe Tone to Agent only (post Release 14)
	ALL	Audible Observe Tone to all parties (post Release 14) Prior to Release 14, options are YES (NO); YES is equivalent to the AGT option in Release 14 and later

Prompt	Response	Comment
OCN	(NO) YES	<p>Accept Oldest Call in Network</p> <p>This feature determines if the oldest call in the network is answered ahead of calls to the Source location. Use caution with this feature. Because agents are reserved for network calls, agents may remain idle while calls wait in the local queue.</p> <p>To avoid reserving all the agents for network calls, split the ACD group into two areas: one area for all calls and the second area for a group of agents equal to the number of tie lines between the network locations. This solution allows local calls to overflow by time into the area for all calls.</p> <p>The OCN option must be defined only for Target queues.</p> <p>When OCN = YES and HPQ = NO, the system compares calls from queues for that target ACD DN. The highest priority call that has waited the longest is the call presented to the next available agent.</p> <p>When OCN = NO and HPQ = NO, the system selects the oldest call from the ACD DN's own Timed Overflow (TOF) queue. If there are no calls in the Source Timed Overflow queue, the system looks at calls in the Call Request queue and Source Timed Local Flow-in queue.</p> <p>When OCN = NO and HPQ = YES, the system presents calls from the agent's own TOF queue and High-Priority queues before presenting calls from Source TOF queues and Call Request queues.</p> <p>OCN is prompted if Network Automatic Call Distribution (NACD) package 207 equipped.</p>
OUTS	xxxx xxxx	<p>Routing Table entries to be removed</p> <p>Up to 20 entries at a time can be removed from the Enhanced Overflow (EOVF) or Network ACD (NACD) routing tables. Only 5 entries can be entered at OUTS at a time. OUTS is prompted until just <cr> is entered.</p> <p>Prompted if REQ = CHG. Remove routing tables by list entry number, not by ACD DN. Print the NACD data to see the ACD DN associated with each entry number.</p>

LD 23

Prompt	Response	Comment
OVBU	aaa bbb ccc ddd	<p>Overflow Busy treatment for specific call originator types when IFDN not defined.</p> <p>Enter the required treatment for Overflow calls:</p> <ul style="list-style-type: none">• LNK = caller is re-linked to source queue (the default value)• BSY = caller hears busy tone <p>Enter all four entries at the same appearance. Enter LNK or BSY for each of the four different originators:</p> <ul style="list-style-type: none">• aaa = Internal calls• bbb = Attendant calls• ccc = CO, FEX and WATS trunks (only LNK allowed in Release 17 and later)• ddd = DID and TIE trunks <p>If busy tone is configured for CO trunk calls, the calling or called party will be billed for the duration of the call, which is from the time the PBX returns answer supervision until the time the calling party disconnects.</p> <p>In Release 17 and later, BSY is not allowed for CO trunks. Prompted if there is no entry for IFDN.</p>
OVDN	x...x x...x x...x X Xxxxx	<p>Overflow ACD Directory Number(s) (maximum of three responses) Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.</p> <p>To remove ALL OVDNs for the ACD DN To delete a specific DN.</p> <p>Any new entry replaces the old data. The Overflow DN cannot be a CDN.</p>
OVFL	(NO) YES	<p>Overflow Tone</p> <p>Busy tone will be given to call Force overflow tone will be given to call by Mobility switch</p> <p>OVFL is prompted when a call arrives at a Controlled DN in default mode and when that call has exceeded the CDN-to-a-default-ACD-DN ceiling threshold.</p>

Prompt	Response	Comment
OVTH	0-(2047)	<p>Overflow Threshold</p> <p>OVTH represents the value at which the Calls Waiting lamp winks (Fast flashes), causing calls which are entering the queue to overflow.</p> <p>When OVTH = 0 overflow is attempted when all agents are busy. Enter X to delete existing entry.</p>
PAGE	(NO) YES	Start at the top of a new page for each report
PRIM	(NO) YES	Primary DSAC
PRIO	0-15	<p>Printer(s) for Output (establish the number(s) of devices used for output of reports)</p> <p>These output devices must have been defined in LD 17 as ACD printers. Precede with X to remove a device number.</p>
RAGT	2-(4)-30	<p>Number of seconds an agent in a remote target is reserved for an overflow call.</p> <p>The Reserve Agent Timer keeps the agent reserved until call presentation or timeout. The timer also prevents a situation where an agent may be reserved indefinitely.</p> <p>When an agent is reserved with Countdown Allowed (CNTA) CLS as defined in LD 11, the RAGT countdown is shown on the agent's Digit Display.</p> <p>The agent being reserved has a Reserve Agent Timer with countdown display. The countdown display starts when the Reserve Agent Timer (RAGT) starts, and counts down by increments of 2 seconds, to zero. If the call is not presented to the Target agent before the Reserve Agent Timer (RAGT) expires, that call remains at the originating Source queue. The Target agent is returned to the idle agent queue.</p> <p>If the Reserve Agent Timer is set too high, the agent is reserved waiting for calls. If the Reserve Agent Timer is set too low, the agent may be freed before the network facility can set up the call. Different timer settings can be tried through Load Management. Subsequent calls are presented to agents only after the Reserve Agent Timer has expired.</p> <p>The RAGT must be defined only for Target queues.</p>
RAN	0-511	Recorded Announcement Trunk Route Number for calls entering message queue (default NO RAN)

LD 23

Prompt	Response	Comment
RDNA	(NO) YES	Restricted DN Access Enter NO if use of DN keys is to be allowed without logging in. Enter YES to restrict agents from making outgoing calls when not logged in. Prompted if an Auxiliary Data System (ADS) or Schedule Block (SCB) exists.
REQ		Request
CHG		Change existing data Select OUT followed by NEW, instead of CHG when switching resources between virtual and actual ACD DNs to avoid unwanted information on ACD-D reports.
END		Exit Overlay program
LST		List ACD DNs (This includes ACD DNs, CDNs and NACD DNs)
NEW		Add new data to the system
OUT		Remove data block When removing an ACD DN from the Meridian 1 which is monitored by ACD-MAX, the DN is not automatically deleted from the ACD-MAX configuration.
PRT		Print the specified data
RFRQ		Report Frequency. See also ROPT prompt for Report Options.
	0	No reports
	1	All reports hourly on the hour
	2	All reports hourly on the half-hour
	3	All reports half-hourly
	4	Report 3 every quarter-hour, no other reports.
	5	Report 3 every quarter-hour, other reports hourly on the hour.
	6	Report 3 every quarter-hour, other reports hourly on the half-hour.
	7	Report 3 every quarter-hour, other reports every half-hour

Prompt	Response	Comment
RGAI	(NO) YES	<p>Ring Again for Internal calls</p> <p>When internal caller dials a queue with no available agents, fast ringback is provided. If RGAI = YES, the caller can activate Ring Again to be presented to the next available agent.</p> <p>Enter YES for Data Service Access Code. (DSAC). RGAI must = YES for DSAC.</p>
ROPT	1 2 3 4	<p>Report Options</p> <p>Agent group</p> <p>Queue</p> <p>Trunk routes</p> <p>Agent position</p> <p>Precede with X to disable a report. More than one option allowed. Any new entry replaces the old data.</p>
RPRT	(YES) NO	<p>Information about this ACD-DN (or CDN) will be included in management reports and status displays</p> <p>Information about this ACD-DN (or CDN) will be excluded in management reports and status displays.</p> <p>RPRT is prompted only if a SCB or an ADS block exists for this customer.</p>
RSND	(4)-16	<p>Message Resend timer (in seconds)</p> <p>This is the length of time the Source node waits for a response from the Target node after sending a Call Request message.</p> <p>When the Resend Timer expires, another message is sent. If the second Call Request message expires without a response, the Call Request is removed from the network queue. The Resend Timer should be changed only if the network uses multiple hops and ISL with lower baud rates.</p> <p>A single hop typically requires 100 ms of real time to set up the call. When the Resend Timer is too large, the control function of the timer to limit traffic to busy nodes is lost. If the Resend Timer is too small, the access of calls to nodes may be limited unnecessarily.</p> <p>The Resend Timer must be defined for the Source node and the Target nodes.</p>
RTPC	(NO) YES	<p>Real Time Processing</p> <p>The SAGP Load Management command does not take effect in real time.</p> <p>The SAGP Load Management command takes effect in real time.</p>

LD 23

Prompt	Response	Comment
SDNB	(NO) YES	Secondary DN Blocking Block calls to the Secondary DN while busy on ACD call.
SFNB	1 2 ...	Set Feature Notification Bitmap SFNB is used for messages such as: SFN (login), SFN (logout), ... This bitmap is downloaded by the application which is used to control the sending of SFN messages on behalf of the acquired TN. A numeric value is printed only if the corresponding message is enabled. SFNB is printed if AACR = YES.
SFRQ	1 2	Frequency of Status Display updates 30 seconds 60 seconds
SHR	0-23	Start Hour Hour of day that data reporting starts
SPCP	(NO) YES	Separate Post Call Processing (to enable separate DCP/PCP indication) When SPCP = YES, agents in Post Call Processing (PCP) are separated from agents in Direct Call Processing (DCP). Changing the SPCP option for an ACD DN changes all ACD DNs in the same customer group. Agent (AGT) key lamp states and display (DAG) field on supervisor telephones are affected by SPCP as follows: AGT key lamp steady: <ul style="list-style-type: none">• SPCP = YES; agent is on an ACD call• SPCP = NO; agent is on an ACD call or not ready (NRD) AGT key lamp fast flash: <ul style="list-style-type: none">• SPCP = YES; agent is on non-ACD call or NRD• SPCP = NO; agent is on non-ACD call

Prompt	Response	Comment
		<p>DAG Display ACD DN:</p> <ul style="list-style-type: none"> • SPCP = YES; displays # of agents on ACD calls • SPCP = NO; displays # of agents on ACD calls or NRD <p>DAG Display non-ACD DN:</p> <ul style="list-style-type: none"> • SPCP = YES; displays # of agents on non-ACD calls or NRD • SPCP = NO; displays # of agents on non-ACD calls <p>The SPCP option is a customer-wide option. A change to SPCP for any ACD queues affects all ACD queues for that customer.</p>
SRPT	(NO) YES	<p>Short Report option for report 4 (Agent position) Use the short report when more than one agent, each with a unique agent ID, logs into the same position ID during a report period.</p>
SRRT	0-511	<p>Second RAN Route number for ACD The route and at least one trunk must exist before defining SRRT. Enter X to remove.</p>
SRT	0-2044	<p>Second RAN Time Time in seconds before second RAN is connected to ACD calls. Prompted if SRRT is defined. There is no default for SRT.</p>
STIO	0, 1, 2,...15	<p>Status Input/Output devices Enter all Input/Output devices assigned for status displays. The device must be first defined in LD 17. Prompted if a Schedule Block (SCB) exists. Enter X to remove.</p>
TABL	x	<p>Table. Where: x = D (Day Table) or N (Night Table) The Day Table is mutually exclusive with TOFT. The Night Table is mutually exclusive with NCFW.</p>
TDNS	(NO) YES	<p>DNIS number is not an original Called Party of a defined CDN queue. DNIS number is an original Called Party of a defined CDN queue. TDNS = YES is recommended if a CDN is defined for the Mobility Control Point (MCP) application to control a Personal Communication Service (PCS) call.</p>

LD 23

Prompt	Response	Comment
TOFT	2-1800	<p>Timed Overflow Threshold (in seconds)</p> <p>In Release 14 and earlier, the TOFT range is 10 - 1800.</p> <p>Before defining the TOFT value, first delete that OVDN from its Source ACD DN. Then, enter the time, in seconds, that you want a call to wait in queue before it overflows to an OVDN.</p> <p>When REQ = CHG, and the OVDNs are answering TOF calls, an error message is output indicating the affected Target ACD DNs.</p> <p>Enter X to disable the feature. If no value is entered, NONE is printed.</p>
TOT4	(NO) YES	<p>Totals on report 4</p> <p>Averages are output on report 4 (Agent position)</p> <p>Totals are output on report 4 (Agent position)</p> <p>Prompted if ROPT = 4. If TOT4 = YES, HDCP column is output on report 1 and 4. Must have ACD-C enabled.</p>
TRDN	xxxx	<p>Treatment DN for IVR queue</p> <p>A treatment DN does not have to be a valid DN in the switch. If Meridian Mail is to be used for both Voice Messaging and IVR, a Treatment DN should not be the same as any Meridian Mail voice box. Enter X to remove.</p>
TRGT	xxxx tttt	<p>Target. Where:</p> <ul style="list-style-type: none">• xxxx = Target ACD DN• tttt = time (0-1800) in seconds <p>Up to 20 target ACD DNs can be defined. For each target, tttt is the total time from the call entering the ACD queue until a call request is sent to the target. TRGT rounds up to an even number.</p>
TSFT	0-(20)-510	<p>Telephone Service Factor Threshold (in seconds)</p> <p>Prompted if a Schedule Block (SCB) exits.</p>
TYPE		<p>Type of data block</p>
	ACD	<p>Automatic Call Distribution data block</p> <p>Requires Basic Automatic Call Distribution (BACD) package 40.</p>
	ADS	<p>Auxiliary Data System data block</p> <p>Requires Automatic Call Distribution Package C (ACDC) package 50.</p> <p>Not valid when REQ = PRT.</p>

Prompt	Response	Comment
	CDN	Control Directory Number data block This is a special DN created to specify a destination ACD DN to which incoming calls are directed. Multiple CDNs can direct calls to the same ACD DN providing different treatments based on the CDN parameters. Requires Enhanced ACD Routing (EAR) package 214.
	NACD	Network ACD data block Requires Network Automatic Call Distribution (NACD) package 207.
	SCB	Schedule data Block for ACD Management Reports Requires Automatic Call Distribution, Package C (ACDC) package 42.
UMG	(NO) YES	User to User Messaging
UMT	2-(6)-15	Update Message Time Silence interval in seconds after message queue alert tone.
USFB	1 2 ...	Unsolicited Status Message (USM) Filter Bitmap USFB applies to messages such as: <ul style="list-style-type: none"> Onhook, Offhook, Ringing, Active, Disconnect, Unringing, Hold, Restore, Ready, Not Ready, Walkaway, Walkaway Return, Reserved, Unreserved, ... <p>This bitmap is downloaded by the application which is used to control the sending of USM messages on behalf of the acquired TN. A numeric value would only be printed if the corresponding message set is enabled.</p> <p>USFB is printed if AACR = YES.</p>
UST	(NO) YES	User Status update
VSID	0-15	Value Added Server ID of VAS providing VMS VASs are external server equipment facilities such as Meridian Mail. Prompted if IMS or ISAP = YES. Must be defined in LD 17.

LD 23

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Issued:	November 1998
Status:	Draft

LD 24—Direct Inward System Access

Overlay program 24 allows data for the Direct Inward System Access (DISA) to be created, modified, and printed.

Prompts and responses by gate opener

DIS: Direct Inward System Access (DISA)

Prompt	Response	Comment
REQ	aaa	Request
TYPE	DIS	Type of data block = DIS (Direct Inward System)
CUST	xx	Customer number associated with this data block
SPWD	xxxx	Secure data Password
DN	x...x a...a	DISA Directory Number (x...x = 1-7 digit CLID DN ; a...a = (NO) for no CLID entry or 0-125 for CLID entry of DISA DN)
- CLPS	(YES) NO	Calling Party presentation status
- ISID	(YES) NO	(Use) Do not use CLID from ISDN trunk
SCOD	x...x	Security Code
AUTR	(NO) YES	Authorization Code required
TGAR	0-(1)-15	Trunk Group Access Restriction
NCOS	(0)-31	Network Class of Service
COS	aaa	Class of Service (aaa = (CTD), FR1, FR2, FRE, CUN, SRE, TLD, or UNR)
RANR	0-511, (X)	Route number for DISA RAN (Entering "X" removes the existing route and deactivates DISA RAN)
- RTMR	(0)-10-300	Route timer
DGTS	x...x	Digits for DISA Digit Insertion
- DLNT	(YES) NO	Dial tone needed after digit insertion
CRCS	x	Code Restriction Class of Service

Prompts and responses

ESA: Emergency Services Access Data Block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	ESA	Type of data block = ESA (Emergency Services Access)
CUST	xx	Customer number associated with this data block
ESDN	xxxx	Emergency services Directory Number
ESRT	0-511	Emergency Services Access route number
DDGT	x..x	Directing digits
DFCL	x..x	Default ESA Calling Number
OSDN	x..x	On-Site Notification station DN

Alphabetical list of prompts

Prompt	Response	Comment
AUTR	(NO) YES	Authorization Code required If YES, the user enters the authorization code but not the special prefix access code.
CLPS	(YES) NO	Calling Party presentation status. CLPS is prompted if CLID entry for DN prompt is 0-125. DISA DN presentation status No DISA DN presentation status
COS	(CTD) CUN FR1 FR2 FRE SRE TLD UNR	Conditionally Toll Denied Class of Service Conditionally Unrestricted Class of Service Fully Restricted class 1 Fully Restricted class 2 Fully Restricted Class of Service Semi-Restricted Class of Service Toll Denied Class of Service Unrestricted Class of Service
CRCS	x	Code Restriction Class of Service New Flexible Code Restriction (NFCR) must be activated at least once.
CUST	xx	Customer number associated with this data block as defined in LD 15.
DDGT	x..x	Directing digits (e.g. 1, 11, 911, etc.). Up to 4 digits are accepted. The configured digits are outputted as the called number if the outgoing trunk for the ESA call is a CAMA trunk.
DFCL	x..x	Default ESA Calling Number. The input must be the following lengths: * On a system that is not FNP packaged, 8 or 11 digits are accepted if the first digit of the input is '1'; otherwise the input must be 7 or 10 digit. * On a system that is FNP packaged, up to 16 digits are allowed to be entered. 'X' deletes the data. Note that the prompt does not expect a CLID entry number.

Prompt	Response	Comment
DGTS	x...x X	Digits for DISA Digit Insertion. A maximum of 31 digits can be defined. Removes existing digits and deactivates DISA Digits Insertion. Direct Private Network Access (DPNA) package 250 is required.
DLNT	(YES) NO	Dial tone needed after digit insertion Dial tone not needed after digit insertion
DN	x...x (NO) x...x 0-125	DISA Directory Number and CLID entry x...x = DISA DN ; (NO) = no CLID generated for DISA DN x...x = DISA DN ; 0-125 = CLID entry for DISA DN DN (represented in response by "x...x") can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. All trunk routes terminating in DISA must auto-terminate (LD 16 prompt AUTO = YES) and trunks must have ground start signaling (LD 14 prompt SIGL = GRD). The DN must be the same as prompt ATDN in LD 14.
ESDN	xxxx	Emergency services DN. Up to 4 digits are accepted.
ESRT	0-511	Emergency Services Access route number. Precede with "X" to delete the data. Route number of the following routes types are accepted as valid input: CAM COT DID FEX TIE WAT The route number of an ISA service route (LD16, ISAR = YES) can be entered for ESRT as long as the route type of the ISA service route is one of the above.
ISID	(YES) NO	Use CLID from ISDN trunk Do not use CLID from ISDN trunk

LD 24

Prompt	Response	Comment
NCOS	(0)-3 (0)-7 (0)-15 (0)-99	CDP Network Class of Service NFCR or BARS Network Class of Service NARS Network Class of Service Network Class of Service for Release 13 and later.
OSDN	x..x	On-Site Notification station DN. The input must be a valid single appearance internal DN. 'X' deletes the data. The On Site Notification function is dependent on the OSDN to locate and alert the OSN set in the event of an ESA call.
RANR	0 - 511 (X)	Route number for DISA RAN Removes existing route and deactivates DISA RAN. This prompt appears with Direct Private Network Access (DPNA) package 250 and Recorded Announcement (RAN) package 7.
REQ	CHG END NEW OUT PRT	Request Change existing data block Exit Overlay program Create a new DISA data block Remove a DISA data block Print DISA data block
RTMR	(0)-10-300	Route Timer RTMR = the maximum time (in seconds) that a caller can wait for an available RAN trunk before being removed from the RAN queue. A caller that has failed to capture a RAN trunk during the RTMR time limit will proceed with the call as if DISA RAN has completed. Entering "0" clears the timer and deactivates the DISA RAN timer.
SCOD	x...x	Security Code (1-8 digit DISA security access code) The security code can be changed using REQ = CHG, but is only removed by removing the entire DISA data block. Enter X to remove. Entering <cr> = no code or code not changed.
SPWD	xxxx	Secure Data Password Prompted only if the password is defined in LD 15. If the password is not entered, the security code will not print when PRT is requested.
TGAR	(0)-15 (0)-31 0-(1)-15	Trunk Group Access Restriction: Release 1 to 12 Trunk Group Access Restriction: Release 13 to 21 Trunk Group Access Restriction: Release 22 and later

Prompt	Response	Comment
TYPE	DIS ESA	Type of data block Direct Inward System data block Emergency Services Access data block

LD 24

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LD 26—Group Do Not Disturb

Overlay program 26 allows Do Not Disturb groups to be created, modified, and printed.

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request
TYPE	DND	Type of data block = DND (Do Not Disturb Group)
CUST	xx	Customer number associated with this data block
GPNO	0-99	Group Number or new Group Number to be formed
TOGP	0-99	Move to Group number
GRPx	0-99	Number of next Group to be moved
STOR	x...x	DN to be Stored
RMOV	x...x	Remove DN

Alphabetical list of prompts

Prompt	Response	Comment
CUST	xx	Customer number associated with this data block as defined in LD 15.
GPNO	0-99 <cr>	Group Number or new Group Number to be formed Print all Group Numbers. Prompted when REQ = PRT.
GRPx	0-99 <cr>	Number of next Group to be moved Proceed to next prompt.
REQ	CHG END MOV MRG NEW OUT PRT REM	Action Request Change existing data block. Exit Overlay program. Move a DN from one DND Group data block to another Group data block. Merge existing Group data blocks into a new Group (the old groups will still exist) data block. Create a New data block. Remove data block. Print DND Group data block. Remove an entry from a Group data block.
RMOV	x...x G0-G99	Remove DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Remove Group number
STOR	x...x G0-G99	DN to be stored Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Group number to be stored. Numbers may be added when REQ is CHG.
TOGP	0-99	Move To Group number
TYPE	DND	DND Group data block type

LD 28—Route Selection for Automatic Number Identification

Overlay program 28 allows data for Route Selection for Automatic Number Identification (RS-ANI) to be created, modified, and printed.

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request
TYPE	RSA	Type of data block = RSA (Route Selection ANI)
CUST	xx	Customer number associated with this function
RSAC	xxxx	RS-ANI Access Code digits
0-RT	x...x	0- calls, Route access code (calls to Public Network Operator)
0+RT	x...x	0+ calls, Route access code
1RT	x...x	1+ or IDDD (International Direct Distance Dial) calls Route access code
CORT	x...x	Central Office (local calls) Route access code

Alphabetical list of prompts

Prompt	Response	Comment
0+RT	x...x	0+ calls Route access code (for toll calls that require Public Network Operator assistance) Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150
0-RT	x...x	0- calls, Route access code (calls to Public Network Operator) Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150
1RT	x...x	1+ or IDDD (International Direct Distance Dial) calls, Route access code Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150
CORT	x...x	Central Office (local calls) Route access code Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150
CUST	xx	Customer number associated with this function as defined in LD 15
REQ		Request
	CHG	Change an existing data block
	END	Exit Overlay program
	NEW	Create a New data block
	OUT	Remove data block
	PRT	Print RSA data
RSAC	xxxx	RS-ANI Access Code digits
TYPE	RSA	Route Selection ANI data block

LD 30—Network and Signaling Diagnostic

This program is used to maintain Network loops. It may be run in background, loaded during the daily routines or loaded manually to enter commands.

Program operation

When invoked automatically by the system, the program performs the following tests:

- network memory of each enabled network card
- continuity of the speech path to each PE shelf (for enabled loops only)
- signaling channel to each line or trunk card (on enabled loops only)
- signaling channel through each Integrated Services digital line card to each Digital telephone or data TN
- clock controllers are switched (if either DTI2 or PRI2 are used when LD 30 is run in midnight mode, clock controllers will not be switched)

For the Integrated Voice Messaging System (IVMS), the program does not test Automatic Call Distribution (ACD) positions when the positions belong to IVMS-DN groups.

Digital telephones that pass the signaling test have their date and time updated to match the system clock.

Any SL-1 telephone or card that fails the signaling test may be disabled by this program. Use LD 32 to re-enable them.

If two or more PE cards are disabled on a loop, an NWS101 message is printed without the associated NWS301 messages to indicate card failures. However, the shelves that failed are known from the NWS201 messages. Therefore, the state of the individual cards can be determined by manually retesting using the SHLF command.

If NWS301 indicates a failure of the Peripheral Buffer or Controller card, the message may not be correct. Therefore the card should be retested using the SHLF command.

This program does not test attendant consoles or Automatically Identified Outward Dialing (AIOD) trunks. Equipment which has been disabled due either to overload or manual request is not tested.

How to use LD 30

When invoked manually, the Overlay may be used to:

- conduct a complete test, as when the program is invoked automatically, except for switching the clocks
- conduct a test on a specific PE shelf
- get the enable/disable status of network loops
- enable or disable network loops
- clear alarm indications and the maintenance display
- download peripheral software on superloops
- clear contents of the Controller maintenance display
- read contents of the Controller maintenance display

Basic commands

CDSP	Clear the maintenance display on active CPU to 00 or blank
CMAJ	Clear major alarm and reset power fail transfer
CMIN c	Clear minor alarm indication on attendant consoles for customer c
CMIN ALL	Clear minor alarm indication on all attendant consoles
DISL loop	Disable loop
DISL sl	Disable specified superloop.
END	Abort current test
ENLL loop	Enable network loop
ENLL sl	Enable specified superloop.
LDIS	List disabled loops
LENL	List enabled loops
LOOP loop, ALL	Test network memory on one or all loops
SHLF l s	Test loop l, shelf s
STAT	Get status of all network loops
STAT (loop)	Get status of specified loops
TTSM loop x y z	Test Time Switch Memory (TSM) of a loop
TTWI loop x y z	Test TSM when the timeslot junctor is idle

Superloop commands

The following commands are used with Controllers (NT8D01) and Network Cards (NT8D04 or NT8D18).

CPED I s	Clear contents of Controller maintenance display on loop I shelf s
DISL loop	Disable loop
END	Abort current test
ENLL loop (v)	Enable superloop, download peripheral software version v
LDIS	List disabled loops
LENL	List enabled loops
LOOP loop, ALL	Test network memory on one or all loops
RPED I s	Read contents of the Controller maintenance display
SHLF I s	Test loop I, shelf s
STAT	Get status of all network loops
STAT (loop)	Get status of specified loop
UNTT I s c (u)	Do a signaling test on specified card or unit

Alphabetical list of commands

Command	Description
CDSP	Clear the maintenance display on active CPU to 00 or blank.
CMAJ	Clear major alarm, reset power fail transfer and clear power fault alarm.
CMIN ALL	Clear minor alarm indication on all attendant consoles.
CMIN c	Clear minor alarm indication on attendant consoles for customer c.
CPED l s	Clear contents of Controller maintenance display on loop l shelf s. This also clears the buffer printed with the command RPED.
DISL loop	Disable loop. All calls in progress on this loop are disconnected. Peripheral cards remain software enabled and no LEDs are lit.
DISL sl	Disable specified superloop. Active calls on the superloop specified will be disconnected and line transfer will occur at the remote end.
END	Abort current test. If no test is in progress, message NWS002 is output.
ENLL loop	Enable network loop. This enables the network, performs a network memory test and tests continuity and signaling to all shelves on the loop. If it passes the test, OK is output. This does not re-enable any disabled cards on the loop. Use LD 32 ENLS or ENXP commands or enable each card individually. When enabling a network loop serving ISDL cards, the ISDL cards must be individually disabled, then re-enabled to ensure that service is restored to digital telephones. Service may also be restored to digital telephones by disconnecting and then reconnecting the telephone's line cord.

- ENLL loop (v)** Enable superloop, download peripheral software version v.
If version v is not specified, the software downloaded is current (c) or latest (l) version as defined in LD 97.
- ENLL sl** Enable specified superloop.
OK is output if superloop has been enabled. Establishing service of individual voice-and-data-capable carriers is dependant on the F/W state of that carrier.
- LDIS** List disabled loops. Response is:
11, 12, 1n: loop is a disabled loop, or
NONE: if no cards are disabled.
- LENL** List enabled loops. Response is:
11, 12, 1n: l is an enabled loop, or
NONE: if no cards are enabled.
- LOOP loop, ALL**
Test network memory on one or all loops.
Performs a network memory test, continuity test and signaling test on the specified loop, which can be either a value from 0 to 159 or ALL. If ALL is specified, every loop currently enabled is tested. All shelves on each loop are tested (except for attendant consoles). If no errors are detected, OK is output.
With X11 Release 20 and later, this command is used for XOPS cards. Out-of-Service units are not tested when this command is used. The range for units is 0-31, but only 0-7 are allowed on the XOPS card.
- RPED l s** Read contents of the Controller maintenance display.
This command lists the current and last 15 clock tracking states of the NT8D01 Controller. The tracking is indicated on the Controller maintenance display. The possible tracking modes are:
c0 = Controller is tracking to the network connected to port 0.
c1 = Controller is tracking to the network connected to port 1.
c2 = Controller is tracking to the network connected to port 2.
c3 = Controller is tracking to the network connected to port 3.
cF = Controller is not tracking any network.
See HEX messages for the interpretation of Controller maintenance display codes.

- SHLF I s** Test loop I, shelf s.
Performs a network memory test, continuity test and signaling test only on loop I shelf s. All line cards, idle trunk cards (except AIOD trunks) and idle SL-1 telephones are tested. If no errors are detected, OK is output.
With X11 Release 20 and later, this command is used for XOPS cards. Out-of-service units are not tested when this command is used.
- SLFT I s c** Invoke self-test for ISDN BRI line card. The card must be disabled.
- SLFT I s c type**
Self-test ISDN BRI line card. The card must be disabled.
Response is:
NWS637 selftest passed, or NWS632 selftest failed, where:
I = loop
s = shelf
c = card
type = self-test type (Long or Short)
- SLFT loop type**
Invoke self-test for MISP card.
The comprehensive test is run automatically when the MISP is enabled. The card must be disabled. Response is:
NWS632 self-test failed or **NWS637 self-test passed**
type = 1 (comprehensive), or
type = 2 (power-on-reset)
- STAT** Gives status of network loops (circuits), indicating how many are enabled and how many are disabled.
Response is: **x ENBL, y DSBL**

STAT loop Get status of a network loop.

Response is one of the following:

1. **UNEQ** = loop is unequipped.
2. **DSBL: RESPONDING** = loop is disabled and the Network card is responding. The loop may have been disabled because of:
 - a **DISL** command
 - b associated Peripheral Signaling (PS) card is disabled
 - c overload condition on associated loop. In this case an OVD message is output. An attempt to enable the loop may result in a recurrence of the overload.
3. **DSBL: NOT RESPONDING** = loop is disabled and the Network card is not responding. The card is missing, disabled by the faceplate switch or is faulty.
4. **x BUSY, y DSBL** = loop is enabled with x channels busy, y channels disabled.
5. **CTYF 11, 12...** = loop specified in the STAT command cannot receive speech from one or more loops (I1, I2). This usually indicates the LD 30 continuity test failed. Probable fault is the network card.

STEI l s c d Query the Terminal Endpoint Identifiers, and their corresponding USIDs

This command queries the TEIs, and their corresponding USIDs on the specified DSL with an established D-channel data link layer with the MISP. Output looks like:

```
MISP 111
      TEI      USID
      ---      ----
      nnn      nnnn
```

TEIT l s c d Perform TEI check on Digital Subscriber Loop d (0-7).

This test is carried out on a single specified DSL interface. It checks the existence of the defined TEIs and any possible duplication of TEIs. Duplicate TEIs are removed by the layer 2 task on the MISP.

TTSM loop x y z

Test Time Switch Memory (TSM) of a loop.
Tests the Time Switch Memory (TSM) of the network card.

Where:

loop = the network loop that may have a faulty TSM.

x = the network loop of the transmitting party.

y = the junctor used on the transmitting side of the call. Its value has a range of 0 to 7, unless the two loops are in the same group, in which case the junctor value to be entered is 15.

z = the timeslot used on the transmitting side of the call. Its value has a range of 2 to 31.

The values normally used in this command are the same values that appeared in the ERR3036 or ERR3037 message during call processing.

TTWI loop x y z

Test TSM when the timeslot junctors are idle. The command is usually used if error message NWS800 is output in response to TTSM.

Where:

loop = the network loop that may have a faulty TSM.

x = the loop ID (range 0 to 159) of the transmitting party.

y = the junctor used on the transmitting side of the call. Its value has a range of 0 to 7, unless the two loops are in the same group, in which case the junctor value to be entered is 15.

z = the timeslot (2-31) used on the transmitting side of the call.

This command waits for the timeslot z and junctor y to become available and will then execute the command.

UNTT l s c (u) Do a signaling test on specified card or unit. This command applies only to superloops.

With X11 Release 20 and later, this command is used for XOPS cards. Out-of-service units are not tested when this command is used. The range for units is 0-31, but only 0-7 are allowed on the XOPS card.

LD 30

LD 31—Telephone and Attendant Console Diagnostic

This program tests the keys and lamps of telephone sets and attendant consoles. The tests consist of pressing keys on a telephone and checking for the correct response. This diagnostic cannot be used for testing the DISPLAYPHONE 1200, or M3000.

After loading the program, any telephone in the system may invoke the test by dialing SPRE 92, (SPRE is the Special Service Prefix Code for the customer). No further inputs from the TTY are needed. If commands are input, the system responds with TRM001 indicating an invalid command.

To start the test:

- 1 Load program 31.
- 2 Dial SPRE 92 from the telephone to be tested.
- 3 Perform the steps given in the appropriate Table. The expected responses for LCD lamps, displays and tones are given. Each key need only be operated momentarily.

The volume keys (VOL UP and VOL DOWN) have eight levels. The level is adjusted by operating a key once for a change in one level. These keys control the audible level for ring volume, buzz volume and speech/tone volume.

LD 31

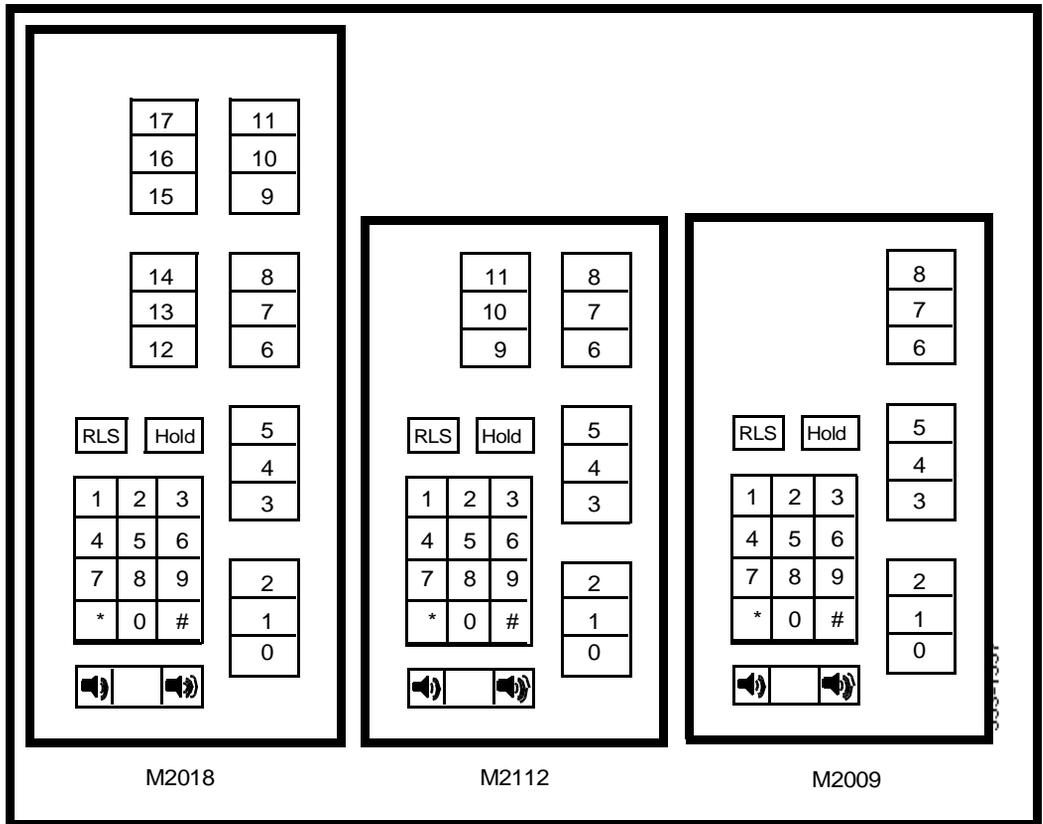
Note 1: When enabling a network loop with ISDLC packs, the ISDLC packs must be individually disabled and then re-enabled to restore service to digital telephones. Service may also be restored to digital telephones by disconnecting then reconnecting the telephone's line cord.

Note 2: Terminal diagnostics are provided by the M3000 itself. Refer to Meridian M3000 Description, Installation, Operation & Maintenance (553-2201-115).

M2009, M2018 and M2112 Telephone test

The M2000 key and lamp layout is shown in Figure 1. The test is provided in [Table 5](#).

Figure 1
M2000 Series Digital Telephone Key and LCD Layout



M2009, M2018, and M2112 Telephone test

After dialing the SPRE code 92, the M2009 telephone shows all LEDs lit and the display shows all 8's. For the M2018 and M2112, press the "*" key first.

Table 5
M2009, M2018, and M2112 Telephone test

Step	Key operated	LCD location and response	Display and Tones
1	Handset off-hook	All LCDs flash	blank display
2	Handset on-hook	All LCDs fast flash	blank display
3	Handset off-hook	All LCDs lit	blank display
4	Handset on-hook	All LCDs off	blank display
5	Dial Pad key 1	LCD 0 lit	1
6	Dial Pad key 2	LCD 1 lit	12
7	Dial Pad key 3	LCD 2 lit	123
8	Dial Pad key 4	LCD 3 lit	1234
9	Dial Pad key 5	LCD 4 lit	12345
10	Dial Pad key 6	LCD 5 lit	123456
11	Dial Pad key 7	LCD 6 lit	1234567
12	Dial Pad key 8	LCD 7 lit	12345678
13	Dial Pad key 9	LCDs 0 & 7 lit	123456789
14	Dial Pad key 0	LCDs 1 & 7 lit	1234567890
15	Dial Pad key *	All LCDs lit (except M2112) LCD 6 lit (M2112)	8888888888888888
16	Dial Pad key # Dial Pad key *	All LCDs off (except M2112) LCD 7 lit (M2112)?	blank display
17	Fixed key 0	LCD 0 lit	
18	Fixed key 1	LCD 1 lit	
19	Fixed key 2	LCD 2 lit	
20	Fixed key 3	LCD 3 lit	
21	Fixed key 4	LCD 4 lit	

Table 5
M2009, M2018, and M2112 Telephone test

Step	Key operated	LCD location and response	Display and Tones
22	Fixed key 5	LCD 5 lit	
23	Fixed key 6	LCD 6 lit	
24	Fixed key 7	LCD 7 lit	
25	Fixed key 8	LCD 8 lit	
26	Fixed key 9	LCD 9 lit	
27	Fixed key 10	LCD 10 lit	
28	Fixed key 11	LCD 11 lit	
29	Fixed key 12	LCD 12 lit	
30	Fixed key 13	LCD 13 lit	
31	Fixed key 14	LCD 14 lit	
32	Fixed key 15	LCD 15 lit	
33	Fixed key 16	LCD 16 lit	
34	Fixed key 17	LCD 17 lit	
35	HLD key	LCDs 0 to 4 lit	Dial tone
36	Handset off-hook	all LCDs flash	Dial tone from handset only
37	Handset on-hook	all LCDs fast flash	Dial tone from speaker
38	Handsfree key	LCD 0 to 2 lit	

M2006 and M2008 Telephone test

The M2006 and M2008 faceplate is shown in Figure 2. The M2006 test is provided in [Table 6](#). The M2008 test is provided in [Table 7](#).

Figure 2
Meridian M2006 and M2008 set

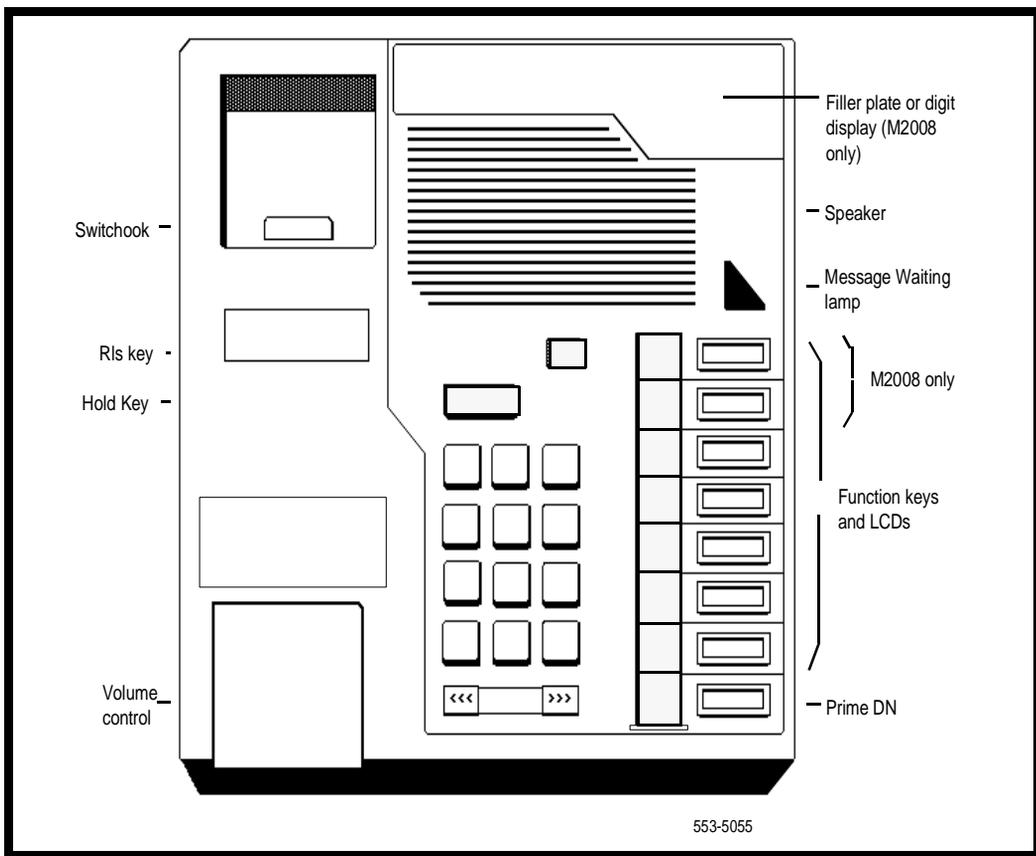


Table 6
Meridian M2006 Telephone test

Step	Key operated	LCD location and response	Display and Tones
Feature keys:			
1	Key 0	LCD 0 lit	
2	Key 1	LCD 1 lit	
3	Key 2	LCD 2 lit	
4	Key 3	LCD 3 lit	turn on Message Waiting LED
5	Key 4	LCD 4 lit	turn off Message Waiting LED
6	Key 5	LCD 5 lit, (if key 5 is not a Program key for data option)	
Keypad keys:			
7	Key 1	LCD 0 lit	
8	Key 2	LCD 1 lit	
9	Key 3	LCD 2 lit	
10	Key 4	LCD 3 lit	
11	Key 5	LCD 4 lit	
12	Key 6	LCD 0 and 4 lit	
13	Key 7	LCD 1 and 4 lit	
14	Key 8	LCD 2 and 4 lit	
15	Key 9	LCD 3 and 4 lit	
16	Key 0	LCD 1 and 4 lit	
17	Key *	all LCDs lit	
18	Key #	all LCDs off	
Fixed keys:			
19	HLD	LCD 0 to 4 lit	dial tone
20	Release	all LCDs off	
21	Off-hook	all LCDs flash	dial tone from handset only
22	On-hook	all LCDs fast flash	dial tone form speaker

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Table 6
Meridian M2006 Telephone test

Step	Key operated	LCD location and response	Display and Tones
23	Off-hook	all LCDs lit	
24	On-hook	all LCDs off	
25	HLD	LCD 0 to 4 lit	buzzer
26	HLD	end of test	

Table 7
Meridian M2008 Telephone test

Step	Key operated	LCD location and response	Display and Tones
Feature keys:			
1	Key 0	LCD 0 lit	display upper case letters
2	Key 1	LCD 1 lit	display lower case letters
3	Key 2	LCD 2 lit	display clear
4	Key 3	LCD 3 lit	display darkens
5	Key 4	LCD 4 lit	top line of display darkens
6	Key 5	LCD 5 lit	turn Message Waiting LED on
7	Key 6	LCD 6 lit	turn Message Waiting LED off
8	Key 7	LCD 7 lit	
Keypad keys:			
9	Key 1	LCD 0 lit	1 on display
10	Key 2	LCD 1 lit	2 on display
11	Key 3	LCD 2 lit	3 on display
12	Key 4	LCD 3 lit	4 on display
13	Key 5	LCD 4 lit	5 on display
14	Key 6	LCD 5 lit	6 on display
15	Key 7	LCD 6 lit	7 on display
16	Key 8	LCD 0 and 6 lit	8 on display
17	Key 9	LCD 1 and 6 lit	9 on display
18	Key 0	LCD 2 and 6 lit	0 on display
19	Key *	all LCDs lit	bottom line of display darkens
20	Key #	all LCDs off	display clear

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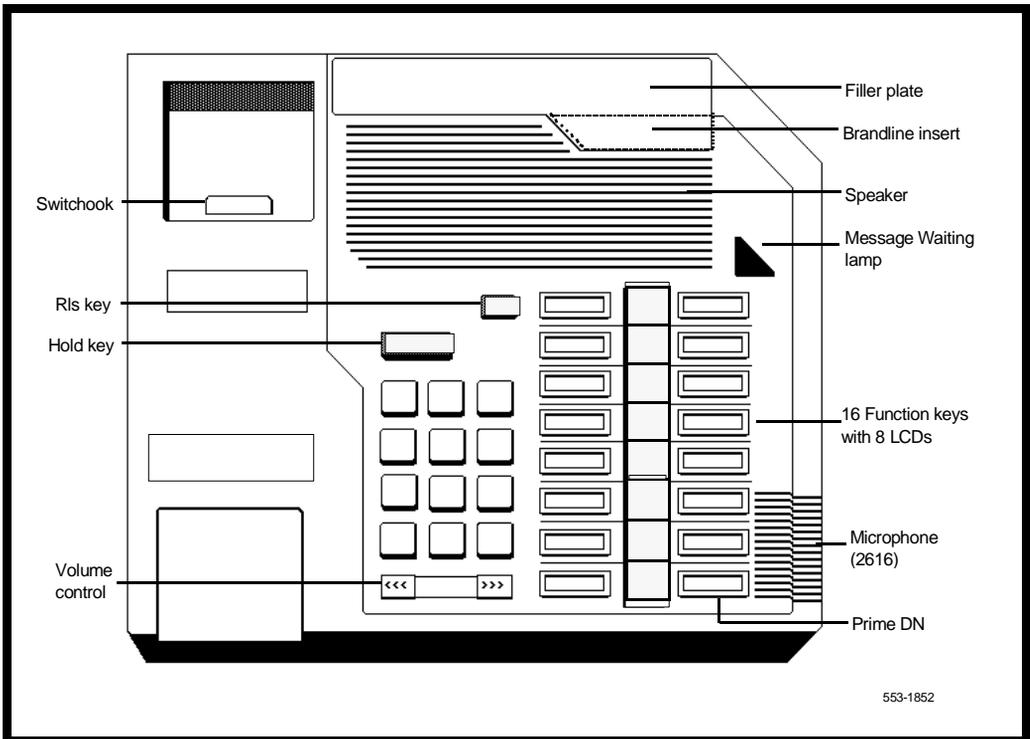
Table 7
Meridian M2008 Telephone test

Step	Key operated	LCD location and response	Display and Tones
Fixed keys:			
21	HLD	LCD 0 to 4 lit	
22	Release	all LCDs off	display clear
23	Off-hook	all LCDs flash	dial tone from handset only
24	On-hook	all LCDs fast flash	dial tone form speaker
25	Off-hook	all LCDs lit	display darkens
26	On-hook	all LCDs off	display clear
27	HLD	LCD 0 to 4 lit	buzzer
28	HLD	end of test	

M2216, M2016S and M2616 Telephone test

The set faceplate is shown in Figure 3. The M2216 test is provided in [Table 8](#). The M2016S and M2616 set test is provided in [Table 9](#).

Figure 3
M2216, M2016S and M2616 set



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Table 8
M2216 Telephone test

Step	Key operated	LCD location and response	Display and Tones
<i>Note:</i> Do not test key 7			
Feature keys:			
1	Key 0	LCD 0 lit	display upper case letters
2	Key 1	LCD 1 lit	display lower case letters
3	Key 2	LCD 2 lit	display clear
4	Key 3	LCD 3 lit	display darkens
5	Key 4	LCD 4 lit	top line of display darkens
6	Key 5	LCD 5 lit	turn Message Waiting LED on
7	Key 6	LCD 6 lit	turn Message Waiting LED off
8	Key n>7	LCD n lit	
Keypad keys:			
9	Key 1	LCD 0 lit	1 on display
10	Key 2	LCD 1 lit	2 on display
11	Key 3	LCD 2 lit	3 on display
12	Key 4	LCD 3 lit	4 on display
13	Key 5	LCD 4 lit	5 on display
14	Key 6	LCD 5 lit	6 on display
15	Key 7	LCD 6 lit	7 on display
16	Key 8	LCD 0 and 6 lit	78 on display
17	Key 9	LCD 1 and 6 lit	9 on display
18	Key 0	LCD 2 and 6 lit	0 on display
19	Key *	all LCDs lit	bottom line of display darkens
20	Key #	all LCDs off	display clear
Fixed keys:			
21	HLD	LCD 0 to 4 lit	dial tone
22	HLD	LCD 0 to 4 lit	buzzer
23	HLD	end of test	

Table 9
M2016S and M2616 Telephone test

Step	Key operated	LCD location and response	Display and Tones
Note: Do not test key 7			
Feature keys:			
1	Key 0	LCD 0 lit	display upper case letters
2	Key 1	LCD 1 lit	display lower case letters
3	Key 2	LCD 2 lit	display clear
4	Key 3	LCD 3 lit	display darkens
5	Key 4	LCD 4 lit	top line of display darkens
6	Key 5	LCD 5 lit	turn Message Waiting LED on
7	Key 6	LCD 6 lit	turn Message Waiting LED off
8	Key n>7	LCD n lit	
Keypad keys:			
9	Key 1	LCD 0 lit	1 on display
10	Key 2	LCD 1 lit	2 on display
11	Key 3	LCD 2 lit	3 on display
12	Key 4	LCD 3 lit	4 on display
13	Key 5	LCD 4 lit	5 on display
14	Key 6	LCD 5 lit	6 on display
15	Key 7	LCD 6 lit	7 on display
16	Key 8	LCD 0 and 6 lit	8 on display
17	Key 9	LCD 1 and 6 lit	9 on display
18	Key 0	LCD 2 and 6 lit	0 on display
19	Key *	all LCDs lit	top line of display darkens
20	Key #	all LCDs off	display clear
Fixed keys:			
21	Handsfree	LCD 15 lit (with no display) LCD 0-2 lit (with display)	
22	Release	all LCDs off	

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Table 9
M2016S and M2616 Telephone test

Step	Key operated	LCD location and response	Display and Tones
23	HLD	LCD 0 to 4 lit	dial tone from speaker
24	Off-hook	all LCDs flash	dial tone from handset
25	On-hook	all LCDs fast flash	dial tone from speaker
26	Off-hook	all LCDs lit	display darkens
27	On-hook	all LCDs off	display clear
28	HLD	LCD 0 to 4 lit	buzzer
29	HLD	end of test	

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M2250 Console

Table 10
M2250 Console

Step	Key operated	LCD location and response	Display and Tones
1	Select idle loop key		
2	Enter SPRE code 92	All LCDs lit except F1	888888888888888888. . . 888888888888888888. . .
3	Press dial pad #	All off	Active
4	Press dial key 1	D1 lit	1
5	Press dial key 2	E1 lit	12
6	Press dial key 3	D2 lit	123
7	Press dial key 4	E2 lit	1234
8	Press dial key 5	D3 lit	12345
9	Press dial key 6	E3 lit	123456
10	Press dial key 7	D4 lit	1234567
11	Press dial key 8	E4 lit	12345678
12	Press dial key 9	D5 lit	123456789
13	Press dial key 0	E5 lit	1234567890
14	Repeat step 4 until both lines of the display are full		12345678901234567. . . 12345678901234567. . .
15	Press dial pad *	All LCDs lit except F1	888888888888888888. . . 888888888888888888. . .
16	Press dial pad #	All LCD blank	ACTIVE
17	Press AK key 0	A0 lit	ABCDEFGHIJKLMN. . . NOPQRSTUVWXYZAB. . .
18	Press AK key 1	A1 lit	abcdefghijklmnopqrstuv wnopqrstuvwxyzabcdefg
19	Press AK key 2	A2 lit	Display shows series of dark squares
20	Press AK key 3	A3 lit	ACTIVE
21	Press AK key 4	A4 lit	ACTIVE

Table 10
M2250 Console

Step	Key operated	LCD location and response	Display and Tones
22	Press AK key 5	A5 lit	ACTIVE
23	Press AK key 6	A6 lit	ACTIVE
24	Press AK key 7	A7 lit	ACTIVE
25	Press AK key 8	A8 lit	ACTIVE
26	Press AK key 9	A9 lit	ACTIVE
27	Press BK key 0	B0 lit	ACTIVE
28	Press BK key 1	B1 lit	ACTIVE
29	Press BK key 2	B2 lit	ACTIVE
30	Press BK key 3	B3 lit	ACTIVE
31	Press BK key 4	B4 lit	ACTIVE
32	Press BK key 5	B5 lit	ACTIVE
33	Press BK key 6	B6 lit	ACTIVE
34	Press BK key 7	B7 lit	ACTIVE
35	Press BK key 8	B8 lit	ACTIVE
36	Press BK key 9	B9 lit	ACTIVE
37	Press CK key 0	C0 lit	IDLE
38	Press CK key 1	C1 lit	ACTIVE
39	Press CK key 2	C2 lit	ACTIVE
40	Press CK key 3	C3 lit	ACTIVE
41	Press CK key 4	C4 lit	ACTIVE
42	Press CK key 5	C5 lit	ACTIVE
43	Press CK key 6	C6 lit	ACTIVE
44	Press Icon key 1		C/H and ACTIVE
45	Press Icon key 2		BUSY
46	Press CK key 0	C1 lit	IDLE
47	Press GK key 0	GO lit	ACTIVE

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Table 10
M2250 Console

Step	Key operated	LCD location and response	Display and Tones
48	Press GK key 1	G1 lit	ACTIVE
49	Press GK key 2	G2 lit	ACTIVE
50	Press GK key 3	G3 lit	ACTIVE
51	Press GK key 4	G4 lit	ACTIVE
52	Press GK key 5	G5 lit	ACTIVE
53	Press GK key 6	G6 lit	ACTIVE
54	Press GK key 7	G7 lit	ACTIVE
55	Press GK key 8	G8 lit	ACTIVE
56	Press GK key 9	G9 lit	ACTIVE
57	Press FK key 1	G9 and F1 lit	[S] ACTIVE
58	Press AK key 0	A0 and F1 lit	[S] ACTIVE
59	Press AK key 1	A1 and F1 lit	[S] ACTIVE
60	Press AK key 2	A2 and F1 lit	[S] ACTIVE
61	Press AK key 3	A3 and F1 lit	[S] ACTIVE
62	Press AK key 4	A4 and F1 lit	[S] ACTIVE
63	Press AK key 5	A5 and F1 lit	[S] ACTIVE
64	Press AK key 6	A6 and F1 lit	[S] ACTIVE
65	Press AK key 7	A7 and F1 lit	[S] ACTIVE
66	Press AK key 8	A8 and F1 lit	[S] ACTIVE
67	Press AK key 9	A9 and F1 lit	[S] ACTIVE
68	Press GK key 0	G1 and F1 lit	[S] ACTIVE
69	Press GK key 1	G2 and F1 lit	[S] ACTIVE
70	Press GK key 2	G3 and F1 lit	[S] ACTIVE
71	Press GK key 3	G4 and F1 lit	[S] ACTIVE
72	Press GK key 4	G4 and F1 lit	[S] ACTIVE
73	Press GK key 5	G5 and F1 lit	[S] ACTIVE

Table 10
M2250 Console

Step	Key operated	LCD location and response	Display and Tones
74	Press GK key 6	G6 and F1 lit	[S] ACTIVE
75	Press GK key 7	G7 and F1 lit	[S] ACTIVE
76	Press GK key 8	G8 and F1 lit	[S] ACTIVE
77	Press GK key 9	G9 and F1 lit	[S] ACTIVE
78	Press Hold key	F1 and B0-4 lit	[S] Busy tone in handset
79	Press Hold key	F1 and B0-4 lit	[S] Buzz in speaker
80	Press Hold key	F1 and C0 lit	[S] NIGHT or BUSY
81	Press CK key 1	F1 and C1 lit	[S] NIGHT or BUSY
82	Dial SPRE 92	All LCDs lit	88888888888888888888. . . 88888888888888888888. . .
83	Press dialpad #	F1 lit	[S] ACTIVE
84	Press FK key 1		ACTIVE
85	Press FK key 2	All LCDs lit except F1	88888888888888888888. . . 88888888888888888888. . .
86	Press FK key 2	LCDs Flash at 120 ipm	Flash ACTIVE/NIGHT
87	Press FK key 2	LCDs Flash at 60 ipm	Flash ACTIVE/NIGHT
88	Press FK key 2	LCDs Flash at 30 ipm	Flash ACTIVE/NIGHT
89	Press Icon key 8	All LCDs off	ACTIVE
90	Press Icon key 7	B0-4 lit	ACTIVE, dial tone
91	Press FK key 5	All LCDs off	ACTIVE, dial tone
92	Press Icon key 7	B0-4 lit	ACTIVE
93	Press FK key 5	All LCDs off	ACTIVE
94	Press FK key 6	B0-4 lit	ACTIVE
95	Press FK key 6	All LCDs off	ACTIVE
96	Handset out	All LCDs off	ACTIVE
97	Handset in	B0-4 lit	ACTIVE
98	Handset out	All LCDs off	ACTIVE

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Table 10
M2250 Console

Step	Key operated	LCD location and response	Display and Tones
99	Handset in other side of console	B0-4 lit	ACTIVE
100	Press Hold key	B0-4 lit	ACTIVE, busy tone
101	Press Hold key	B0-4 lit	ACTIVE, Buzz in speaker
102	Press Hold key	C0 lit	NIGHT
103	End of test		

LD 32—Network and Peripheral Equipment Diagnostic

LD 32 performs checks and maintenance functions on network and Peripheral Signaling equipment. LD 32 will allow commands to be used for XTD cards. The STAT command will produce an output which has XTD, LDC or LGD appended where required.

this program is used to:

- get the status of Peripheral Signaling (PS), Controller and network cards
- get the status of PE shelves cards and units
- disable and enable PS, Controller and network cards
- disable and enable PE shelves, cards and units
- test message waiting lamps on 500/2500 sets
- test Message Waiting Lamps (MWL) on 2500 sets during midnight routines
- print set and card IDs on superloops
- convert packed TNs in hex to the loop, shelf, card, unit format

Note 1: Disabled DID trunks are placed in the answer state while disabled.

Note 2: If Recorded Telephone Dictation (RTDT) cards are to be software enabled or disabled, the Out-of-Service (OS) lead should be connected to ground. On completion of the task, ground can be removed.

Note 3: Card ID information is presented as follows:

CCCCCCCC-RRSSSS

Where:

Note 4: **CCCCCCCC** = is the order code

RR = is the release number

SSSS = is the serial number
After making any changes to the route data block, IPE TRUNK CARDS MUST BE DOWNLOADED by issuing the ENLC l s c command.

Note 5: When getting the status of a card relating to a trunk error (STAT), the term RVSD may appear with the trunk information. RVSD indicates that the software detected a reversed wired trunk for that unit.

Overlay 32 Linkage

Overlay programs 10, 11, 20 and 32 are linked, thus eliminating the need to exit one Overlay and enter another. Once one of the aforementioned Overlays has been loaded, it is possible to add, print and obtain the status of a set without having to exit one Overlay and load another.

Input processing has also been enhanced. Prompts ending with a colon (:) allow the user to enter either:

- 1** a question mark (?) followed by a carriage return (<cr>
This entry will present you with a list of valid responses to that prompt.
- 2** An abbreviated response
The system responds to this entry with the nearest match. If there is more than one possible match, the system responds with SCH0099, the input followed by a question mark, and a list of possible responses. The user can then enter a valid response.

Using Enable/Disable commands

All units on a loop go into maintenance busy mode when disabled using the DISL command. The shelves on a loop must be individually re-enabled via the ENLS command. Any telephones that were in lockout mode show as idle, then go into lockout mode again 30 seconds after any unit on the shelf requests dial tone.

When enabling a network loop serving ISDL cards, the ISDL cards must be individually disabled then re-enabled to ensure that service is restored to digital telephones. Service may also be restored to digital telephones by disconnecting, and then reconnecting the telephone's line cord.

Basic commands

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Basic commands

CDSP	Clear the maintenance display on active CPU to 00 or blank
CMIN	Clear the minor lamp on a system basis
CMIN ALL	Clear minor alarm indication on all attendant consoles
CONV tn	Convert packed TN (in hex) to loop, shelf, card and unit format
CONV I s c u	Convert loop, shelf, card and unit format to packed TN (in hex)
DISC I s c	Disable specified DTR/MFR card
DISI I s c	Disable specified card when it is idle
DISL loop	Disable network loop
DISR I s c u	Disable specified DTR/MFR card or unit
DISN loop	Disable network card containing specified loop
DISS I s	Disable specified shelf
DISU I s c u	Disable specified unit
DSCT I	Disable automatic background continuity tests for superloop
DSNW loop	Disable network card containing specified loop
DSPS x	Disable Peripheral Signaling card x
DSXP x	Disable controller x and all connected cards
END	Abort current test
ENLC I s c	Enable and reset specified DTR/MFR card
LBSY I s	List TNs of all busy units on specified shelf
LDIS I s	List TNs of all disabled units on specified shelf
LIDL I s	List TNs of all idle units on specified shelf

LLBD l s	List TNs of 500/2500 sets with defective MWLs
LMNT l s	List TNs of all maintenance busy units on specified shelf
MFR l s c u	Test specified MFR card or unit.
MFR l	Test all MFR units on loop l.
MFR <cr>	Test all MFR units
PBXH	Message Waiting lamp maintenance
PBXT ALL	Test all Message Waiting lamps
PBXT l (s c u)	Test Message Waiting lamps on loop (or shelf or card or unit)
SDLC l s c	Get status of specified ISDLC card
SDTR l s c u	List status of specified DTR/MFR card or unit.
SDTR <cr>	List the TN of all disabled DTR/MFR units
STAT	Get status of all configured loops in system
STAT (loop)	Give status of one or all loops
TRK l s c u	Seize specified trunk for outpulsing

Superloop commands

DISL sl	Disable specified superloop
DSCT sl	Disable automatic background continuity tests for a superloop
DSXP x	Disable Controller x and all associated PE cards
IDC l s c	Print card ID for PE card
IDCS x	Print card ID for all cards on shelf controlled by Controller x
IDUc u	Print set ID
LBSY l s	List TNs of all busy units on specified shelf
LDIS l s	List TNs of all disabled units on specified shelf
LIDL l s	List TNs of all idle units on specified shelf
STAT sl	Get status of superloop and separate carriers on that superloop
SUPL (sl)	Print data for one or all superloops

Alphabetical list of commands

Command	Description
CDSP	Clear the maintenance display on active CPU to 00 or blank.
CMIN	Clear the minor lamp on a system basis.
CMIN ALL	Clear minor alarm indication on all attendant consoles.
CMIN c	Clear minor alarm indication on attendant consoles for customer c.
CONV tn, CONV I s c u	Convert packed TN (in hex) to I s c u, or vice versa. The command format is: CONV tn - convert packed TN CONV I s c u - convert unpacked TN
CPWD I s c u	Clear directory password for M3000 set. Allows the M3000 Directory password of the specified M3000 set to be cleared. This allows a user to access the M3000 Directory if the password has been forgotten or if the user wants to change the current password.
DIS AUTO I s c u	Disable automatic link recovery option of a DSL.
DISC (BASE) I s c	Disable specified BRSC card. This command is also used to disable the ISDN Basic Rate Interface Signaling Concentrator (BRSC) card. Where: BASE = Disable only the basecode. If not specified, both the basecode and application are disabled. The application is disabled first unless BASE is entered. I = loop s = shelf c = card The card faceplate LED is turned on to indicate the card is disabled, and the IPC channel is eliminated. The "." prompt is given when the process is complete.

- DISC BRI l s c** Disable the BRSC ISDN BRI application. Where:
- BRI = the BRSC ISDN BRI application
 - l = loop
 - s = shelf
 - c = card
- All active and transient ISDN BRI calls are dropped, and all signaling and packet channels are torn down. The DSL software state remains the same, but the ISDN BRI line cards receive a disable message.
- DISC l s c** Disable specified DTR/MFR card.
- If BRI reference clock source is configured on this SILC the user will be prompted with:
- CLOCK SOURCE ON DSL #, PROCEED? ,**
where # = unit 0-7
- DISI l s c** Disable specified card when it is idle.
- If BRI reference clock source is configured on this SILC the user will be prompted with:
- CLOCK SOURCE ON DSL #, PROCEED? ,**
where # = unit 0-7
- DISL (appl) loop** Disable application on MISP loop. Where appl =
- BRIL (Basic Rate Interface Line), or
 - BRIT (Basic Rate Interface Trunk)
- DISL (appl) loop 1** Disable MISP loop.
- Where: appl =BRIL (Basic Rate Interface Line), BRIT (Basic Rate Interface Trunk), or BRIE (UIPE Basic Rate Interface Trunk).
- DISL (appl) loop (FDL)**
- Disable MISP application and loop. Where:
- appl = optional application name (BRIL)
 - loop = loop number
 - FDL = force download the application
- Entering 1 rather than FDL force downloads the application.

DISL loop	Disable network loop. See “Using the Enable/Disable commands” in the introduction. This command is also used for superloops and MISPs.
DISL sl	Disable specified superloop. Active calls on the superloop will be disconnected and line transfer will occur at the remote end.
DISN loop	Disable network card containing specified loop, where “loop” is the number of the even or odd loop. Not applicable to superloops.
DISR I s c u	Disable specified DTR/MFR card or unit. The LED should be lit on the XMFR card in response to this command.
DISS I s	Disables specified shelf. See “Using the Enable/Disable commands” in the introduction.
DISU BRI I s c	Disable ISDN BRI BRSC card.
DISU I s c d	Disable specified Digital Subscriber Loop 0-7. If BRI reference clock source is configured on the DSL the user will be prompted with: CLOCK SOURCE ON THIS DSL, PROCEED?
DISU I s c u	Disable specified unit. See “Using the Enable/Disable commands” in the introduction.

DLIF loop x	<p>Download an UIPE BRI trunk interface data file to a MISP loop. The MISP specified must have the BRIT UIPE loadware application. Where x may be:</p> <ul style="list-style-type: none">(0) = UIPE SL11 = ETSI QSIG2 = ISO QSIG..28 = ETSI QSIG GF29 = ISO QSIG GF <p>To achieve a successful download:</p> <ol style="list-style-type: none">1. the MISP basecode must be enabled2. the specified MISP must have the UIPE BRI trunk loadware configured3. the interface must be inactive (interpret this to mean that either the UIPE BRI trunk application must be disabled or no DSL of this interface type can be enabled)
DSCT loop	<p>Disable automatic background continuity tests for a superloop.</p>
DSIF L PDL2 I s c	<p>Disables the SAPI 16 interface number for BRSC on I s c for the MPH on loop L.</p>
DSIF L PDL2 L1	<p>Disables SAPI 16 interface number for BRIL on Loop L1 for MPH on loop L.</p>
DSIF I s c DSL BCH x	<p>Disables the link interface for B-channel x for DSL I s c bch. Where: x = 1–2</p>
DSIF I s c DSL DCH x	<p>Disables the link interface number for USID x for the DSL on I s c dch.</p>
DSIF loop PDNI Y	<p>Disable the link interface number Y for PDNI on Loop Y (1-3)</p>
DSNW loop	<p>Disable network card containing specified loop, where “loop” is the number of the even or odd loop. Not applicable to superloops.</p>

DSPS x Disables Peripheral Signaling (PS) card x and loops serviced by the card. Disabling PS card 0 interrupts service on loops 0 to 15. To re-enable the card, use the ENPS x command.

If this fails, a system initialization may be required. Use the disable command with discretion. Disabling a PS card disables up to 16 loops.

The following lists the group/PS/loop relationship:

<u>Group</u>	<u>PS</u>	<u>Loops</u>
0	0	0 to 15
0	1	16 to 31
1	2	32 to 47
1	3	48 to 63
2	4	64 to 79
2	5	80 to 95
3	6	96 to 111
3	7	112 to 127
4	8	128 to 143
4	9	144 to 159

DSRB l s c d Disable Remote Loop Back for specified BRI Trunk DSL

DSTS l s c d Disable Remote Loop Back test mode for specified BRI Trunk DSL

DSXP x Disable Controller x and all connected cards.

ENCT loop Enable automatic background continuity tests for loop.

END Abort current test. Stops outputting. Stops current test.

ENIF L PDL2 l s c Enables the SAPI 16 interface number for BRSC on l s c for MPH on loop L.

ENIF l s c DSL BCH x
Enables the link interface for B-channel x for DSL l s c bch.
Where: x = 1–2

ENIF l s c DSL DCH x
Enables the link interface number for USID x for the DSL on l s c dch.

ENIF loop PDNI Y Enables the link interface number Y for PDNI on Loop Y (1-3).

ENL AUTO I s c u Enable automatic link recovery option of a DSL.

ENLC (BASE) I s c (FDL/NST)

Enable specified card.

If the card resides on a disabled shelf, the status is output and enable is not performed. If card has been disabled by overload, the overload status entry is cleared.

Used to enable the ISDN Basic Rate Interface Signaling Concentrator (BRSC) card. The command format is shown here. ENLC (BASE) I s c u (FDL/NST)

Where:

BASE = enable only the BRSC basecode. If not specified, both the basecode and the application will be enabled.

I = loop

s = shelf

c = card

FDL = force download the basecode

NST = No self-test

The card faceplate is turned off to indicate the card is enabled, and the IPC channel is built.

ENLC BRI I s c (FDL)

Enable the BRSC ISDN BRI application. Where:

BRI = the BRSC ISDN BRI application

I = loop

s = shelf

c = card

FDL = force download the application

The application is force downloaded if:

- FDL is entered, or
- No application currently exists on the BRSC card, or
- There is a version number mismatch between the applications in the software and on the card.

- ENLC l s c** Enable and reset specified DTR/MFR card.
- If the card resides on a disabled shelf, the status is output and enable is not performed. If card has been disabled by overload, the overload status entry is cleared.
- This command causes the pack to perform a self test. If the pack self test passes, the LED will blink 3 times. If it fails, the LED will be lit solidly. A XMI message will be issued to indicate that the XMFR pack has powered up. This command can be used to enable a XMFR card.
- This command is also used for the S/T-Interface (SILC) and U-Interface (UILC) line cards.
- ENLG x** Enable group x. Equivalent to two ENPS commands. Refer to DSPS command for the relationships of groups, PS cards and loops.
- ENLL (appl) loop (FDL)** Enable MISP application, and loop. Where:
- appl = optional application name (BRIL)
 - loop = loop number
 - FDL = force download the application
- Entering 1 rather than FDL force downloads the application.
- ENLL (appl) loop 1** Enable MISP loop. Where:
- appl = optional application name (BRIL)
 - 1 = force downloads the application
- ENLL loop** Enable network loop.
- See "Using the Enable/Disable commands" in the introduction. This command is also used for Multi-purpose ISDN Signaling Processors (MISP).
- ENLL loop (v)** Enable superloop, download peripheral software version v. If version v is not specified, the software downloaded is current (c) or latest (l) version as defined in LD 97.
- ENLL sl** Enable specified Superloop. OK is output if the operation is successful.

LD 32

ENLN loop	Enable network card with specified loop, where loop is the even or odd numbered loop on the network card. Not applicable to superloops.
ENLR l s c u	Enable the specified DTR/MFR card. Meridian 1 software will issue a message to request XMFR to perform an echo test only when ENLR is issued to enable the XMFR card.
ENLS l s	Enable specified shelf. Where: l = loop and s = shelf. If the shelf is disabled by overload, the overload status entry is cleared.
ENLU l s c d	Enable Digital Subscriber Loop (0-7).
ENLU l s c u	Enable specified unit. If the unit resides on a disabled shelf or card, the status is output and enable is not performed. If the unit to be enabled is a 500/2500 message waiting telephone, test the unit prior to enabling.
ENNW loop	Enable network card with specified loop, where loop is the even or odd numbered loop on the network card. Not applicable to superloops.
ENPS x	Enables PS card x and all loops that were enabled at time of last DSPS command. Refer to DSPS command to find the relationships of groups, PS cards and loops.
ENRB l s c d	Enable Remote Loop Back for specified BRI Trunk DSL.
ENTS l s c d	Enable Remote Loop Back test mode for specified BRI Trunk DSL.
ENXP x (v)	Enable Controller x and associated PE cards, download software version v. Enable all PE cards connected to Controller x and the Controller itself. If version v is not specified, the software downloaded to the Controller is current (c) or latest (l) version as defined in LD 97.

ENXP XPC x (v) Enable Controller x, do not enable the associated PE cards, download software version v.

The cards connected to the Controller are not enabled by this command. If version v is not specified, the software downloaded to the Controller is current (c) or latest (l) version as defined in LD 97.

ESTU l s c d Establish D-channel link for the specified Digital Subscriber Loop (0-7).

FDIS NCAL <c DSL#> <conn_id>

Force disconnect the specified call-independent connection (as defined by its connection ID number)

Note that the command format for an Option 11C is:

STAT NCAL <c 0 0 DSL#><conn_id#>

FDIS NCAL <l s c DSL#> <conn_id>

Force disconnect the specified call-independent connection (as defined by its connection ID number)

IDC l s c

Print BRSC card and loadware version.

This command queries the BRSC card ID, the basecode, and the application version number. Where: l = loop, s = shelf, and c = card.

Output example:

```
BOOTCODE VERSION xx . . . x
BASECODE VERSION xx . . . x
BRI APPL VERSION xx . . . x
```

IDC l s c

Print MISP or XPE card ID.

The MISP card ID output format is:

```
CARDID: xxx. . . x
BASECODE VERSION: xxx. . . x
BRI LINE/TRUNK VERSION: xxx. . . x
BOOTCODE VERSION: xxx. . . x
```

The XPE card ID output format is:

=> XXXX CCCCCC-RRSSSS

Where:

xxxx = card type (i.e., XDTR, XUT, etc.)
CCCCCCCC = order code
RR = release number
SSSS = is the serial number

IDC l s c d Print ID of Digital Subscriber Loop 0-7.

IDC sl

Print card ID of optical packets and main boards for Fibre superloop and associated Controller(s)

The output format for the superloop card ID including optical packets is:

```
FNET VERS => xxx
FW IS SANE
aaaaaaaaaaaaa
PRIM: pppppppp
SEC: ssssssss
```

```
XPEC VERS => xxx
FW IS SANE
aaaaaaaaaaaaa
PRIM: pppppppp
SEC: ssssssss
```

Where:

1. **xxx** = loadware version
2. **aaaaaaaaaaaaa** = contents of ID EEPROM (FNET or FPEC)
3. **PRIM: pppppppp** = contents of ID EEPROM primary packet (if present)
4. **SEC: ssssssss** = contents of ID EEPROM secondary packet (if present)

IDC l s c Print card ID for PE card. The format is:

IDC l s c — print ID of specified line card

The format of the card ID is CCCCCCC-RRSSSS, where:

CCCCCCCC = order code
RR = release number
SSSS = serial number

For example, a Network Card (NT8D04AA) with a release of 01 and serial number of 00001 will have a card ID with:
NT8D04AA-010001

For BRI MISP cards, the output is:

```
CARDID: xxx...x
BASECODE VERSION: xxx...x
BRI LINE/TRUNK VERSION: xxx...x
BOOTCODE VERSION: xxx...x
```

IDCS x Print card ID for all cards on shelf controlled by Controller x. The card ID for all cards in shelf controlled by Controller x is output. The XPE card ID output format is:

```
=> XXXX CCCCCC-RRSSSS
```

Where:

```
XXXX = card type (i.e., XDTR, XUT, etc.)
CCCCCC = order code
RR = release number
SSSS = is the serial number
```

IDU l s c d Print set ID for Digital Subscriber Loop d (0-7)

IDU l s c u Print set ID. Print ID applies to the following set types: M2006, M2008, M2016, M2216 and M2616.

The output format of the set ID (M2008 for example) is:

```
ARIES TN:      l s c u
TN ID CODE:   M2008
NT CODE:     NT2K08WC
COLOR CODE:   xx
RLS CODE:     xx
SER NUM xxxxxx
```

The color codes are:

- 03 is black
- 35 is chameleon ash
- 93 is dolphin grey

LBSY l s List TNs of all busy units on specified shelf.

LDIS l s List TNs of all disabled units on specified shelf.

LIDL l s List TNs of all idle units on specified shelf.

LMNT I s	List TNs of all maintenance busy units on specified shelf.
MFR I s c u	Test specified MFR card or unit. During the MFR test, faulty MFR/XMFR packs are disabled and MFRxxx error messages are output.
MFR I	Test all MFR units on loop I During the MFR test, faulty MFR/XMFR packs are disabled and MFRxxx error messages are output.
MFR <cr>	Test all MFR units During the MFR test, faulty MFR/XMFR packs are disabled and MFRxxx error messages are output.
PBXH	Message Waiting lamp maintenance.
PBXT ALL	Test all Message Waiting lamps.
PBXT I (s c u)	Tests 500/2500 Message Waiting lamp on specified loop, shelf, card or unit. This is required after failed lamp is fixed.
PCON I s c d	Upload and print configuration and LAPD parameters for specified DSL. This command requires the specified DSL to be configured for the BRI Trunk Application. See example below: <pre>PCON 6 0 0 6 .DSL: 6 0 0 6 LINL PARAM CONFIRM TIME: 0:02:10 INTERFACE: SL-1 OPER MODE: USR T200: 2 T203: 20 N200: 3 N201: 260 K: 1 PROT #: 1</pre>
PERR loop	Upload and print Layer 2 error log for specified MISP.

PERR l s c Upload and print Layer 2 error log for specified SILC or UILC. This command requires the specified MISP or line card to be configured for the BRIT Application.

If error log is requested for a line card the error log for each DSL is printed. If error log is requested for a MISP the application global log is also printed.

Interpretation of error logs:

1st byte is DSL number or "80" for Application log.

2nd byte is number of non-zero logs.

If errors were logged the subsequent information is printed for each error type:

3rd byte is counter type code

4th byte is "HIGH" byte of count

5th byte is "LOW" byte of count

Examples follow :

PERR 6

```
.DSL: 6 0 0 6 ERR LOG CONFIRM TIME: 0:02:10
```

```
00 00 01 00 06 00 07 00
```

```
^          ^          ^          ^
```

```
DSL 0    DSL 1    DSL 6    DSL 7 (no errors
for all DSLs)
```

PERR 3

```
.DSL: 5 0 0 2 ERR LOG CONFIRM TIME: 0:02:10
```

```
80 01 4D 00 09
```

Where:

1st byte - 80 - indicates Application global log

2nd byte - 01 - is number of error logs

3rd byte - 4D - is counter type code

4th byte - 00 - is "HIGH" byte count

5th byte - 09 - is "LOW" byte counts for all DSLs

PLOG l s c d Upload and print protocol log for specified BRI Trunk DSL. The protocol log keeps record of up to 32 protocol types. Only non-zero counters are uploaded and printed.

This command requires the specified MISP or line card to be configured for the BRIT Application. See example below:

```
PLOG 6 0 0 6
.DSL: 6 0 0 6 PROTOCOL CONFIRM TIME: 0:02:10
17 117 <--Counter 17 shows 117 SABME frames
received with incorrect C/R bit
18 141 <--Counter 18 shows 141 supervisory
frames received with F=1
19 84 <--Counter 19 shows 84 unsolicited DM
responses with F=1
```

PMES l s c d Upload and print Layer 3 message log for specified DSL. This command requires the specified DSL to be configured for the BRI Trunk Application.

Each time a valid Layer 3 message is received by the MISP, a counter for that particular message is incremented. The log keeps track of up to 20 message types.

Only non-zero items are uploaded and printed. Making trunk calls will create a printable log. In the following example, 2 calls were made:

```
PMES 6 0 0 6
.DSL: 6 0 0 6 MSG LOG CONFIRM TIME: 0:02:10
ALERT: 2
PROC: 2
CONNECT: 2
DISCONN: 2
REL COP: 2
```

PTAB l s c d Upload and print Layer 3 Message configuration IE table for specified BRI trunk DSL. PTAB uploads what was downloaded when the Application was enabled.

PTAB l s c d <tbl #>

Upload and print specified Layer 3 Message configuration IE table for specified BRI trunk DSL. PTAB uploads what was downloaded when the Application was enabled.
Where: <tbl #> = table number.

- PTRF I s c d** Upload and print traffic report for specified BRI Trunk DSL. This command requires the specified DSL to be configured for the BRI Trunk Application. See example below:
- ```

PTRF 6 0 0 6
.DSL: 6 0 0 6 TRAFFIC CONFIRM TIME: 0:02:10
PEAK_I_US: 0 <-- Peak link usage (over a 5 second period)
for incoming traffic since the last time the traffic data was
uploaded. An integer 0 - 100 which represents the percentage
of the link capacity used.
AVRG_I_US: 0 <-- Average link usage for incoming traffic
since the traffic was last uploaded.
PEAK_O_US: 0 <-- Peak link usage (over a 5 second period)
for outgoing traffic since the last time the traffic data was
uploaded. An integer 0 - 100 which represents the percentage
of the link capacity used.
AVRG_O_US: 0 <-- Average link usage for outgoing traffic
since the traffic was last uploaded.
TIME: 0 <-- time since last traffic upload query
CONNECTED CALL: 2 <-- number of successfully
connected trunk calls

```
- RLBT I s c d** Perform Remote Loop Back Test on specified BRI Trunk DSL.
- RLSU I s c d** Release D-channel link for specified Digital Subscriber Loop (0-7).
- RMIF L PDL2 I s c** Disables and removes the SAPI 16 interface number for BRSC on I s c for MPH on loop L.
- RMIF L PDL2 L1** Disables and removes the SAPI 16 interface number for BRIL on Loop L1 for MPH on loop L.
- RMIF I s c DSL BCH x**  
Disables and removes the link interface for B-channel x for DSL I s c bch; where: x = 1-2
- RMIF loop PDNI Y** Disables and removes the link interface number Y for PDNI on Loop Y (1-3)

# LD 32

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDLC l s c       | Get status of specified ISDLC card.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| SDTR l s c u     | List status of specified DTR/MFR card or unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| SDTR <cr>        | List status of all disabled DTR/MFR units                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| STAT             | Get status of all configured loops in system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| STAT (appl) loop | Get status of MISP loop and application.<br>If appl = BRIL, the status of the BRI Line application is output.<br>If appl = BRIT, the status of the BRI Trunk application is output.<br>Typical response is:<br><pre>loop = MISP loopmm DSBL nn BUSY MISP lll : ENBL ACTIVATED timestamp BRIL : ENBL BRIT : ENBL</pre><br>If the card has been manually disabled, the response is:<br><pre>loop = MISP loopDISABLED RESPONDING MAN DSBL</pre><br>If the card has been disabled by the system, the response is:<br><pre>loop = MISP loopDISABLED RESPONDING SYS DSBL - aaa...a</pre><br>Where <b>aaa...a</b> is the reason as follows:<br><ul style="list-style-type: none"><li><b>a</b> <b>BOOTLOADING</b> = basecode is being downloaded to the MISP</li><li><b>b</b> <b>FATAL ERROR</b> = MISP has a serious problem</li><li><b>c</b> <b>OVERLOAD</b> = MISP overload (card inoperable)</li><li><b>d</b> <b>RESET THRESHOLD</b> = too many resets (card inoperable)</li><li><b>e</b> <b>SELF TESTING</b> = card is performing self-test</li><li><b>f</b> <b>SELFTEST FAILED</b> = self-test failed</li><li><b>g</b> <b>SELFTEST PASSED</b> = successfully completed self-test</li><li><b>h</b> <b>SHARED RAM TEST FAILED</b> = MISP memory problem (card inoperable)</li><li><b>i</b> <b>STUCK INTERRUPT</b> = MISP hardware failure (replace card)</li></ul> |

With the STAT BRIL or STAT BRIT option, the response is one of the following:

1. **APPLICATION ENBL**
2. **APPLICATION NOT CONFIGURED**
3. **APPLICATION NOT RESPONDING**
4. **APPLICATION MAN DSBL** (manually disabled)
5. **APPLICATION SYS DSBL - aaa..a** (system disabled)

Where: **aaa..a** is the reason as follows:

- a CLOSED** = application is closed by basecode on the card
- b CLOSED ERR** = error in closing the application
- c CORRUPTED** = application is corrupted on the card
- d DOWNLOADING** = application is being downloaded
- e ENABLED** = application is in active state
- f INACTIVE** = application is in inactive state
- g MNT BUSY** = application is in maintenance busy state
- h WAIT DSBL** = application is in process of being disabled
- i WAIT ENABLE** = application is in process of being enabled
- j WAIT ERASE** = application is being erased from the card
- k WAIT REMOVE** = application is being removed from the card

STAT (loop)

Give status of one or all loops. Response is one of the following:

1. **x BUSY, y DSBL** = loop enabled with x channels busy and y channels disabled.
2. **UNEQ** = loop unequipped.
3. **CTYF: 11 12** = loop specified in STAT command is unable to receive data from loops 11, 12, etc. (i.e., continuity test failed in most recent LD 45 loop test). Probable fault in network card.
4. **DSBL: NOT RESPONDING** = loop disabled. Network card not responding. Card missing, disabled by switch or faulty.

5. **DSBL: RESPONDING** = loop disabled but the network card responds. loop may have been disabled due to:
  - a manual request (DISL)
  - b associated Peripheral Signaling card being disabled
  - c overload condition on associated loop

**Note 1:** Overload conditions are indicated by OVD messages. An attempt to enable a loop which was disabled due to overload may result in a recurrence of the overload condition: the system's service may be impaired for about 2 minutes.

**Note 2:** For MISP loops see STAT (appl) loop command.

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STAT I s   | Get idle, busy or disabled status of units on specified shelf. Displays number of units idle, busy, disabled and maintenance busy for the specified shelf.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| STAT I s c | <p>Get status of any specified PE/IPE card. (e.g., digital line, analog, DTR, etc.)</p> <p>When getting the status of a card relating to a trunk error (STAT), the term RVSD may appear with the trunk information. RVSD indicates that the software has detected a reversed wired trunk for that unit.</p> <p>When getting the status of a card where ACD sets are defined, the printout will include MSB LOG OUT, MSB LOG IN, LOG IN, OR LOG OUT, according to the ACD set state.</p> <p>The output format for either a <i>S/T-Interface line card (SILC)</i> or an <i>U-Interface line card (UILC)</i> is:</p> <p>For BRI trunks:</p> <p>11 = UNIT II = DSL/UNIT number on the card =</p> <pre>swstate type L2_state L1_state dch_state clk (mode)</pre> <p>For BRI lines:</p> <p>11 = UNIT II = DSL/UNIT number on the card =</p> <pre>swstate type L2_state L1_state</pre> <p>If you are analyzing a <i>SILC</i> or an <i>UILC</i> card, <a href="#">Table 11</a> on <a href="#">page 504</a> lists and defines output fields and field responses. An output example can be found <a href="#">page 503</a>.</p> |

The output format for an *ISDN BRI card* is:

```
loop = UNIT sw_state DSL misp_state LC_state
```

With ISDN BRI BRSC cards, the basecode and application status are output.

```

APPLICATION MAIN STATE SUB STATE/ACTIVATION
 TIME
+-----+-----+-----+
BASECODE ENABLED xx/xx/xx x:xx
BRI ENABLED xx/xx/xx x:xx
+-----+-----+-----+
 IDLE 0 BUSY 0 DISABLED 8
MSBY 0
 TOTAL DSLs CONFIGURED 8

```

If you are analyzing an *ISDN BRI card*, see "STAT l s c d" command for a list of possible states.

### Output Example:

```

00 = UNIT 00 = IDLE LINE ESTA UP
01 = UNIT 01 = IDLE TRNK ESTA UP ESTA SREF (TE)
02 = UNIT 02 = IDLE LINE ESTA DOWN
03 = UNIT 03 = UNEQ
04 = UNIT 04 = UNEQ
05 = UNIT 05 = UNEQ
06 = UNIT 06 = DSBL TRNK DSBL UNEQ RLS (NT)
07 = UNIT 07 = DSBL TRNK DSBL UNEQ RLS (TE)

```

Table 11: STAT c Field and Response Definitions

| Field            | Field Definition                           | Response                                                                                                                                                                                        | Response Definition                                                                                                                                                                                                                                                                                        |
|------------------|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>swstate</b>   | state of DSL/UNIT in software              | <b>IDLE</b><br><b>BUSY</b><br><b>UNEQ</b><br><b>MBSY</b>                                                                                                                                        | no active call<br>active with a call<br>unequipped<br>maintenance busy                                                                                                                                                                                                                                     |
| <b>type</b>      | DSL type                                   | <b>LINE</b><br><b>TRNK</b>                                                                                                                                                                      | BRI line<br>BRI trunk                                                                                                                                                                                                                                                                                      |
| <b>L2_state</b>  | Layer 2 state of DSL/UNIT in MISP loadware | <b>UNEQ</b><br><b>IDLE</b><br><b>BUSY</b><br><b>MBSY</b><br><b>DSBL</b><br><b>ESTA</b><br><b>RLSU</b><br><b>TEST</b><br><b>RLBT</b><br><b>APDB</b><br><b>MPDB</b><br><b>MPNR</b><br><b>UTSM</b> | unequipped<br>no active call<br>active with a call<br>maintenance busy<br>disabled<br>D-channel link is established<br>D-channel link is released<br>test mode<br>remote loop back<br>application disabled<br>associated MISP disabled<br>associated MISP not responding<br>unable to send message to MISP |
| <b>L1_state</b>  | Layer 1 state of line card                 | <b>UNEQ</b><br><b>DOWN</b><br><b>LCNR</b><br><b>UP</b><br><b>UNDN</b><br><b>XPDB</b><br><b>UTSM</b>                                                                                             | unequipped<br>Layer 1 is down<br>line card not responding<br>Layer 1 is up<br>undefined DSL state<br>Associated XPEC is disabled<br>unable to send message to MISP                                                                                                                                         |
| <b>dch_state</b> | State of D-channel link in software        | <b>ESTA</b><br><b>RLSU</b><br><b>TEST-IDLE</b><br><b>TEST-RLBT</b>                                                                                                                              | D-channel link is established<br>D-channel link is released<br>test mode idle<br>test mode remote loop back                                                                                                                                                                                                |
| <b>clk</b>       | Clock mode                                 | <b>DSBL</b><br><b>PREF</b><br><b>SREF</b>                                                                                                                                                       | disabled<br>primary reference<br>secondary reference                                                                                                                                                                                                                                                       |
| <b>mode</b>      | Layer 1 mode of DSL                        | <b>NT</b><br><b>TE</b>                                                                                                                                                                          | Network Termination<br>Terminal Equipment                                                                                                                                                                                                                                                                  |

**STAT c d** Get status of specified Digital Subscriber Loop (0-7).  
 When getting the status of an unit where ACD sets are defined, the printout will *not* include MSB LOG OUT, MSB LOG IN, LOG IN, OR LOG OUT, according to the ACD set state.

The output format is:

```
DSL sw_state misp_state lc_state B1 status
B2 status
```

Table 12 defines output fields. [Table 13](#) on [page 506](#) lists and defines possible responses.

**Table 12**  
**STAT c u Field Definitions**

| Field                                         | Definition                                 |
|-----------------------------------------------|--------------------------------------------|
| <b>sw_state</b>                               | DSL software state                         |
| <b>misp_state</b>                             | DSL state on the MISP card                 |
| <b>lc_state</b>                               | DSL state on the BRI line card             |
| <b>swstate</b>                                | State of DSL/UNIT in software              |
| <b>L2_state</b>                               | Layer 2 state of DSL/UNIT in MISP loadware |
| <b>L1_state</b>                               | Layer 1 state of line card                 |
| <b>dch_state*</b>                             | State of D-channel link in software        |
| <b>clk*</b>                                   | Clock mode                                 |
| <b>b1_state</b>                               | State of first B-channel                   |
| <b>b2_state</b>                               | State of second B-channel                  |
| * these fields are output only for BRI trunks |                                            |

**Table 13**  
**STAT c u Response Definitions**

| <b>Response</b> | <b>Definition</b>                                  |
|-----------------|----------------------------------------------------|
| <b>APDB</b>     | MISP call application is disabled                  |
| <b>BUSY</b>     | Call is active                                     |
| <b>DOWN</b>     | Link layer is not established                      |
| <b>DSBL</b>     | DSL is disabled                                    |
| <b>ESTA</b>     | Link layer is established                          |
| <b>IDLE</b>     | No active calls                                    |
| <b>LCNR</b>     | Line card is not responding                        |
| <b>MBSY</b>     | DSL is in maintenance busy mode                    |
| <b>MPDB</b>     | MISP is disabled                                   |
| <b>MPNR</b>     | MISP not responding or message is lost             |
| <b>NTAN</b>     | DSL is not assigned to a MISP                      |
| <b>RLS</b>      | Link layer is not established                      |
| <b>UNDN</b>     | DSL is in an undefined state                       |
| <b>UNEQ</b>     | Unequipped                                         |
| <b>UP</b>       | Link layer is established                          |
| <b>UTSM</b>     | CPU is unable to send message to MISP or line card |
| <b>XTDB</b>     | Superloop is disabled                              |
| <b>XPDB</b>     | Controller is disabled                             |

STAT c u            Get status of specified unit. Table 14 lists and defines possible responses to STAT cu. The response may be normal, abnormal, or caused by an invalid equipment choice.

**Table 14**  
**STAT cu Responses**

| Type                                                 | Response                    | Definition                                                             |
|------------------------------------------------------|-----------------------------|------------------------------------------------------------------------|
| <b>Normal</b>                                        | IDLE                        | Idle                                                                   |
|                                                      | MBSY                        | Maintenance busy                                                       |
|                                                      | DSBL                        | Disabled                                                               |
|                                                      | DSBL                        | Virtual terminal on Meridian 1 / Meridian SL-1 disabled by Server      |
|                                                      | BUSY                        | In use by call processing                                              |
|                                                      | BUSY BARRED                 | Barring is applied to trunk with BARA Class of Service                 |
|                                                      | UNEQ                        | Terminal not defined in software                                       |
|                                                      | L500                        | Line is 500/2500 type                                                  |
|                                                      | MBCS                        | Maintenance set                                                        |
|                                                      | BCS                         | Normal SL-1 telephone                                                  |
|                                                      | TRK                         | Trunk                                                                  |
|                                                      | ATTN                        | Attendant console                                                      |
|                                                      | DTR                         | Digitone Receiver                                                      |
|                                                      | PWR                         | Console power unit                                                     |
| <b>Abnormal</b>                                      | CARD x DSBL (OVD)           | Card x disabled due to overload                                        |
|                                                      | DND xxx xxx                 | Do Not Disturb feature is active                                       |
|                                                      | SHELF DSBL (OVD)            | Shelf disabled due to overload                                         |
|                                                      | SIG FAULT                   | Outgoing signal circuitry fault detected on PS card under examination. |
|                                                      | WARNING: CRPTR NOT IN RANGE | TN's data is corrupted. Check BUG messages relating to the TN.         |
| <b>Responses caused by invalid equipment choice:</b> |                             |                                                                        |
|                                                      | EXT DSBL                    | Extender disabled                                                      |
|                                                      | LOOP NOT TERM               | Loop is not a terminal loop                                            |
|                                                      | LOOP UNEQ                   | Loop is unequipped                                                     |
|                                                      | SHELF UNEQ                  | Shelf is unequipped                                                    |
|                                                      | SHELF UNEQ                  | No 500 cards on shelf                                                  |
|                                                      | W/PBX CARDS                 |                                                                        |
|                                                      | CARD UNEQ                   | Card is unequipped                                                     |
|                                                      | CARD NOT PBX                | Card is not a PBX card                                                 |
|                                                      | UNIT UNEQ FOR MW            | Unequipped for Message Waiting                                         |
|                                                      | PER UNEQ                    | PS card is unequipped                                                  |
|                                                      | UNIT UNEQ                   | Unit is unequipped                                                     |

## STAT NCAL <c DSL#>

List all current call-independent connections on a given BRIT DSL. (Option 11)

The response format is as follows:

**NCALL CONN ID:** a number in the range of 1-9999 that identifies the call independent connection on a given DSL  
**CREF:** call reference number in HEX identifying independent connection  
**STATE:** current state of all call-independent connections (**IDLE**, **CONN\_REQ**, **CONN\_EST**)  
**TIME:** year month day hour:minute:second (the time when call independent connection request is made)  
**APPL:** applications using the call-independent connection (e.g., NACD, NMS,...)  
**ORIG:** originator  
**DEST:** destination

Note that the command format for an Option 11C is:

STAT NCAL <c 0 0 DSL#>

To enter this command, QsigGF package 305 is required.

## STAT NCAL <l s c DSL#>

List all current call-independent connections on a given BRIT DSL.

The response format is as follows:

**NCALL CONN ID:** a number in the range of 1-9999 that identifies the call independent connection on a given DSL  
**CREF:** call reference number in HEX identifying independent connection  
**STATE:** current state of all call-independent connections (**IDLE**, **CONN\_REQ**, **CONN\_EST**)  
**TIME:** year month day hour:minute:second (the time when call independent connection request is made)  
**APPL:** applications using the call-independent connection (e.g., NACD, NMS,...)  
**ORIG:** originator  
**DEST:** destination

To enter this command, QsigGF package 305 is required.

STAT NCAL <l s c DSL#> <conn\_ID>

List information pertaining to a specific call-independent connection (as defined by its connection ID)

The response format is as follows:

**NCALL CONN ID:** a number in the range of 1-9999 that identifies the call independent connection on a given DSL  
**CREF:** call reference number in HEX identifying independent connection  
**STATE:** current state of all call-independent connections (**IDLE**, **CONN\_REQ**, **CONN\_EST**)  
**TIME:** year month day hour:minute:second (the time when call independent connection request is made)  
**APPL:** applications using the call-independent connection (e.g., NACD, NMS,...)  
**ORIG:** originator  
**DEST:** destination

To enter this command, QsigGF package 305 is required.

STAT NWK loop

Check status of network card with specified loop, where loop is the even or odd numbered loop on the network card.

STAT PER x

Get status of PS card x.

If the PS card is disabled, the response is changed from DSBL to either:

1. **DSBL: NOT RESPONDING** = PS card x is either missing, faulty or disabled via the faceplate switch.
  - If there is a fault in the extender pair for the network shelf, the status of the PS card will also be:  
**DSBL: NOT RESPONDING.**
2. **DSBL: RESPONDING** = The PS card is disabled and responding to the CPU. The PS may have been disabled by manual request (DSPS) or the associated extender pair may have been manually disabled.

If neither of these conditions exists, the card may have been disabled because of an overload condition on the associated shelf. Check for OVD messages appearing in previous TTY output.

An attempt to enable a PS card which was disabled because of an overload may result in a recurrence of the overload condition: the system's service may be impaired for approximately 2 minutes.

**STAT sl**      Get current status of superloop and separate carriers on that superloop, based on data previously sent by the Carrier Interface F/W (LCIM).

For each carrier, the following fields will be displayed:

**S/W State**, **SPARE Status**, **NND Status**, **TSA** (Time Slot Availability) and **CALS**.

**TTSA** = Number of Traffic Timeslots currently available for voice and data calls out of a possible: 21 for T-1 and 27 for T-E.

**SPARE Status** indicates whether the carrier is spared and which carrier it is spared in.

**NND Status** indicates whether new data calls are disallowed on the timeslots being transmitted by the carrier.

**STIF L PDL2 l s c**      Displays link status for SAPI 16 interface of BRSC l s c for MPH on loop L.

**STIF L PDL2 L1**      Displays the link status for SAPI 16 interface of BRIL L1 for MPH on loop L.

**STIF l PDNI y**      Displays the link status for interface Y for PDNI.  
Where: Loop Y = 1-3

**STIF l s c DSL DCH x**      Displays the link status for B-channel X for the DSL l s c D.  
Where: BCH stands for B-channel and X = 1-2.

**SUPL (loop)**      Print data for all or specified superloop(s).

**TRK l s c u**      Seize specified trunk for outpulsing.

Command is valid at a maintenance telephone only. The specified trunk is connected to the maintenance telephone and a test call may be performed on the trunk. When the test call is completed, access sequence SPRE 91 must be redialed to use the maintenance telephone to input more commands.

|           |                                                                                                               |
|-----------|---------------------------------------------------------------------------------------------------------------|
| XNTT loop | Do self-test of Network card for specified superloop. The Network card must be disabled before the self-test. |
| XPCT x    | Do self-test on Controller x. The NT8D01 Controller must be disabled before the self-test.                    |
| XPEC (x)  | Print data for all or specified Controller(s).                                                                |

---

# LD 32

---

## LD 34—Tone and Digit Switch and Digitone Receiver Diagnostic

---

This program tests circuit cards used in generating and detecting tones. If loaded automatically in background or as part of the daily routines, it tests the hardware and performs fault detection and isolation. If invoked manually, commands can be issued to conduct the entire test or only certain parts of the test and to change card status.

The program tests the following circuit cards:

- Tone and Digit Switch (TDS)
- Flexible Tone and Digit Switch
- Digitone Receiver (DTR)

TDS circuit card outpulsers and channels are checked for timing errors, memory faults and Digitone frequency accuracy. Digitone receivers are checked for response to all Digitone frequencies. Tones and outpulses are tested from a maintenance set.

## Basic commands

|            |                                                                                        |
|------------|----------------------------------------------------------------------------------------|
| CDSP       | Clear the maintenance display on active CPU to 00 or blank                             |
| CMAJ       | Clear major alarm and reset power fail transfer                                        |
| CMIN ALL   | Clear minor alarm indication on all attendant consoles                                 |
| CMIN c     | Clear minor alarm indication on attendant consoles for customer c                      |
| DISR c (u) | Disable specified DTR/MFR card or unit. Applies to DTR or XTD packs.                   |
| DISX I     | Disable Conf/TDS/MFS card on loop I and I + 1                                          |
| DTR c (u)  | Test specified Digitone receiver card or unit. Applies to DTR and XTD packs.           |
| END        | Stop execution of current command                                                      |
| ENLL loop  | Enable tone and digit loop                                                             |
| ENLR c (u) | Enable the DTR/MFR card or unit. Applies to DTR and XTD packs.                         |
| ENLX I     | Enable Conf/TDS/MFS card on loop I and I + 1                                           |
| MFR        | Test all Automatic Number Identification Feature Group D Multifrequency receiver units |
| MFR c (u)  | Test Automatic Number Identification Feature Group D Multifrequency card or unit       |
| SDTR c (u) | Get status of specified DTR/MFR or XTD card or unit.                                   |
| STAT       | List TNs of all disabled DTRs and MFRs                                                 |
| STAT loop  | Get status TDS loop                                                                    |
| TDS loop   | Test outpulsers and channels on specified loop                                         |

---

## Maintenance telephone commands

The following commands are used from a Maintenance telephone to test and hear the various tones. Both the command and the dial pad equivalents (in parantheses) are shown.

ANNx#loop## (266x#loop##)

Provides signals coming through source number x of KAPSCH Digital Announcer or Music Interface. Where loop = Tone and Digit Switch loop number)

BSY#loop## (279#loop##)

Provide busy tone from tone and digit loop.

C## (2##)

Remove any active tone.

CMP#loop## (267#loop##)

Provide Camp-On tone from loop.

CUST#xx## (2878#xx##)

Test outpulsing for customer XX.

CWG#loop## (294#loop##)

Give call waiting tone from loop.

DIA#loop## (342#loop##)

Provide dial tone from tone and digit loop.

DRNG#loop## (3764#loop##)

Provide distinctive ringing from loop.

ITN#loop## (486#loop##)

Provide intrusion tone from loop.

JDRG#loop## (5374#loop##)

Provide distinctive ringing from loop.

JIDT#loop## (5438#loop##)

Provide interrupted dial tone from loop.

OPS#loop#x## (677#loop#x##)

Test outpulsing from Meridian 1/Meridian SL-1 to idle trunk.

# LD 34

ORD#loop## (673#loop##)

Provide override tone from loop.

OVF#loop## (683#loop##)

Provide overflow tone from loop.

PCRT#loop## (7278#loop##)

Test the Paid Call Restriction (PCR) tone after the TABL command.

RBK#loop## (725#loop##)

Provide ringback tone from loop.

RNG#loop## (764#loop##)

Provide ring tone from loop.

SDL#loop## (735#loop##)

Give special dial tone from loop.

TABL#xx## (8225#xx##)

Select table number xx. If this command is not issued before any tone request command, then table 0 is assumed (Generic X11 with supplementary features).

TLP#loop## (857#loop##)

Provide tone to last party from the tone and digit loop.

TST#loop## (878#loop##)

Provide test tone from loop.

XCTT#loop#t#c## (9288#loop#t#c##)

Test tone and cadence number on Conference/TDS/MFS card.

---

## Alphabetical list of commands

| Command                   | Description                                                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| ANNx#loop## (266x#loop##) | Provides signals coming through source number x of KAPSCH Digital Announcer or Music Interface. Where: loop = Tone and Digit Switch loop number. |
| BSY#L## (279#L##)         | Provide busy tone from tone and digit loop L.                                                                                                    |
| C## (2##)                 | Remove any active tone.                                                                                                                          |
| CDSP                      | Clear the maintenance display on active CPU to 00 or blank.                                                                                      |
| CMAJ                      | Clear major alarm, reset power fail transfer and clear power fault alarm.                                                                        |
| CMIN ALL                  | Clear minor alarm indication on all attendant consoles.                                                                                          |
| CMIN c                    | Clear minor alarm indication on attendant consoles for customer c.                                                                               |
| CMP#loop## (267#loop##)   | Provide Camp-On tone from loop.                                                                                                                  |
| CUST#xx## (2878#xx##)     | Test outpulsing for customer XX.                                                                                                                 |
| CWG#loop## (294#loop##)   | Give call waiting tone from loop.                                                                                                                |
| DIA#L## (342#L##)         | Provide dial tone from tone and digit loop L.                                                                                                    |
| DISD c                    | Disable the specified Meridian 1/Meridian SL-1 Tone Detector card. Disables both units and lights the LED.                                       |
| DISD c u                  | Disable specified Dial Tone Detector.<br>If both units on the card are disabled, the LED lights.                                                 |

# LD 34

- DISL loop      Disable tone and digit loop.  
For Conference/TDS/MFS cards see note with ENLL command.
- DISR c (u)      Disable specified DTR/MFR or XTD card or unit.
- DISX I          Disable Conf/TDS/MFS card on loop I and I + 1.  
Disables the entire combined Conference, Tone and Digit Switch, and MF Sender (NT8D17) card. Both the even numbered TDS/MFS loop and adjacent conference loop are disabled. loop = 0, 2, 4, . . . 158
- The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card.
- The DISX and ENLX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card.
- This command can be used in LD 34, LD 38 and LD 46.
- DRNG#loop## (3764#loop##)  
Provide distinctive ringing from loop.
- DTD c u          Test specified Dial Tone Detector unit.  
Applies to DTD and XTD packs. The Dial Tone Detector Test (DTDT) parameters must be configured in the configuration record (LD 17). Faulty DTD packs are disabled. Only 50% of all Dial Tone Detectors in the system may be disabled.
- DTR c (u)          Test specified unit on Digitone receiver card or unit .  
This test may be performed while the card is enabled or disabled. If a disabled card passes the test, it is enabled automatically. This command also applies to the XTD.
- END              Stop execution of current command.
- ENLD c (u)      Enable Tone Detector on specified card or unit.

---

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENLL I                    | <p>Enable tone and digit switch loop I.</p> <p>For Conference/TDS/MFS cards the DISX and ENLX commands must be used whenever the faceplate switch of the card has been toggled. ENLL will software enable the card but the card will not be properly reset.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ENLR c (u)                | <p>Enable the DTR/MFR or XTD card or specified unit.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ENLX I                    | <p>Enable Conf/TDS/MFS card on loop I and I + 1.</p> <p>This command can be used in LD 34, LD 38 and LD 46.</p> <p>Enables the entire combined Conference, Tone and Digit Switch, and MF Sender (NT8D17) card. Both the even numbered TDS/MFS loop and adjacent conference loop are enabled. (loop = 0, 2, 4, . . . 158) The Conf/TDS card is not enabled automatically when it is inserted.</p> <p>Both loops must have been previously disabled. This command initiates card tests and the download of software.</p> <p>The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The DISX and ENLX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card.</p> <p>Enabling more than 16 conference loops may cause the system to lock-up.</p> |
| ITN#loop## (486#loop##)   | <p>Provide intrusion tone from loop.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| JDRG#loop## (5374#loop##) | <p>Provide distinctive ringing from loop.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| JIDT#loop## (5438#loop##) | <p>Provide interrupted dial tone from loop.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| MFR                       | <p>Test all Automatic Number Identification (ANI) Multifrequency receiver units.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| MFR loop                  | <p>Test all Automatic Number Identification (ANI) Multifrequency receivers on this loop.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

# LD 34

MFR c (u)        Test Automatic Number Identification (ANI) Multifrequency receiver card or unit.

OPS#L#xx## (677 #L #xx##)

Test outpulsing from Meridian 1/Meridian SL-1 to idle trunk.

Outpulses from tone and digit loop l using the 10 or 20 pps outpulser to any idle trunk. This command connects the Meridian 1/Meridian SL-1 maintenance telephone to the trunk, permitting a test call on the trunk to be made using the outpulsers selected.

Where :

xx = 10 or 20 representing the trunk class of service (LD 14 CLS = P10 or P20).

When the test call is completed, LD 34 must be reloaded by dialing SPRE + 91 before entering another command.

ORD#loop## (673#loop##)

Provide override tone from loop.

OVF#L## (683#L##)

Provide overflow tone from loop L.

PCRT#loop## (7278#loop##)

Test the Paid Call Restriction (PCR) tone after the TABL command.

RBK#L## (725#L##)

Provide ringback tone from loop L.

RNG#L## (764#L##)

Provide ring tone from loop L.

SDL#loop## (735#loop##)

Give special dial tone from loop.

SDTR

List the TNs of all disabled DTR/MFR or XTD units

SDTR

List all disabled DTR units

|                         |                                                                                                                                                                                                                                                                                                                             |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SDTR c (u)              | Get status of specified DTR/MFR or XTD card or unit.<br>If no parameters are entered, a list of all DTR/MFR TNs is output. If c is input, the status of the DTR/MFR units on the specified card are output. If c u is input, the status of the specified unit is output. Applies to DTR and XTD packs.                      |
| STAD                    | List all disabled Tone Detector units.                                                                                                                                                                                                                                                                                      |
| STAD c (u)              | Get status of Tone Detector card or unit.<br>The status is either idle, busy, maintenance busy or not equipped.                                                                                                                                                                                                             |
| STAT                    | List TNs of all disabled Digitone Receivers. NONE is output if there are no disabled Digitone Receivers.                                                                                                                                                                                                                    |
| STAT loop               | Get status TDS loop.<br>The response may include OPS DSBL, indicating that the outpulsing function of the TDS card has been disabled.                                                                                                                                                                                       |
| TABL#xx## (8225#xx##)   | Select table number xx. If this command is not issued before any tone request command, then table 0 is assumed (Generic X11 with supplementary features).                                                                                                                                                                   |
| TDET c (u)              | Perform self-test and tone detection on specified card or unit.<br>Performs the self-test and basic tone detection functions of the Meridian 1/Meridian SL-1 Tone Detector card or unit. This test may be performed while the card is enabled or disabled. If a disabled card passes the test, it is enabled automatically. |
| TDS loop                | Test outpulsers and channels on specified loop.<br>Tests the outpulsers and channels of the tone and digit switch at loop. Outpulsers and tones are tested with a maintenance telephone (see commands from maintenance telephone).                                                                                          |
| TLP#loop## (857#loop##) | Provide tone to last party from the tone and digit loop.                                                                                                                                                                                                                                                                    |
| TST#loop## (878#loop##) | Provide test tone from loop.                                                                                                                                                                                                                                                                                                |

# LD 34

XCTT# L#t#c## (9288# L#t#c##)

Test tone and cadence number on Conference/TDS/MFS card.

Where:

L = loop number of Conference/TDS/MFS (NT8D17) card

t = tone number

c = cadence number

Refer to Flexible Tone and Digit Switch cards (553-2711-180)  
for the Conference/TDS tone and cadence numbers.

---

---

## LD 36—Trunk Diagnostic

---

This program allows trunks to be tested either from on-site or from a remote test center.

When testing from on-site, individual trunks can be seized and a test call can be performed on the trunk in the normal manner.

When testing from a remote test center, a speech path must be set up to monitor the testing. This is accomplished by having the Option 11C Compact call a directory number (DN) at the test center. This allows for dial tone, outpulsing and test tones to be monitored as tests are performed on other trunks by inputting commands at the TTY.

When a trunk is seized, the system prompts DN? for a DN. When the DN is input, the system calls that number automatically. When the call is answered a pure tone indicates the validity of the speech path. New trunks can be tested in the same manner with the maintenance telephone.

### When to use LD 36

- clear minor alarms and the maintenance display
- query threshold overflows for specific customers and routes
- reset thresholds for specific trunks
- query number of days since an incoming call was received for a specific customer and route or trunk
- query the trunk with the most number of idle days for a specific customer and route

- query trunks for which no disconnect supervision was received
- test Automatic Number Identification (ANI) trunks.

*Note:* When defined as a midnight routine, this program searches for trunks not used during the day and updates the total number of days the trunks have been idle.

- enable, disable and request the status of Trunk circuit cards. (Disabled DID trunks are placed in the answer state)

*Note:* LD 36 can only be used for analog trunks, LD 60 must be used for diagnostics on digital trunks.

## Trunk Error Thresholds

Resident programs monitor all calls and note apparent errors. The errors are accumulated and, if they occur consistently (exceed a threshold) on any trunk, a diagnostic message which identifies the trunk is output to the TTY or printer. The trunk should be suspected of trouble and a manual test should be performed on the trunk.

A record is kept in memory for each threshold violation error message. At any time, all trunks which have been identified by such a message may be listed by entering the command LOVF for any trunk route. Once an identifying message has been printed, it will not be repeated for that trunk until the RSET command is entered for that trunk or an initialization has occurred.

Potentially, a trunk may fail by not detecting incoming calls. The Meridian 1/Meridian SL-1 threshold mechanism cannot be used to detect such failures so the Meridian 1/Meridian SL-1 maintains for each trunk a count of the number of days since an incoming call was received on each trunk.

Thus, customer reports that indicate incoming calls are not being processed can initiate a check for the trunk which has been without an incoming call for the longest interval via the LMAX command. This trunk should be tested first.

It is possible to determine for each trunk the number of days since an incoming call was processed via the LDIC command. Subsequent trunk tests should be performed on those trunks showing the highest counts until the trouble is located.

---

# LD 36

## Basic commands (LD 36)

|          |                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------|
| CALL     | Set up monitor link with test center                                                              |
| CALL c u | Set monitor link with test center on this trunk                                                   |
| CDSP     | Clear the maintenance display on active CPU to 00 or blank                                        |
| CMIN     | Clear the minor lamp on a system basis                                                            |
| CMIN ALL | Clear minor alarm indication on all attendant consoles                                            |
| CMIN c   | Clear minor alarm indication on attendant consoles for customer c (not applicable for Release 22) |
|          |                                                                                                   |
| DISC c   | Disable specified card for replacement                                                            |
| DISU c u | Disable specified unit                                                                            |
|          |                                                                                                   |
| END      | Terminate test in progress                                                                        |
| ENLC c   | Enable specified card                                                                             |
| ENLU c u | Enable specified unit                                                                             |
|          |                                                                                                   |
| LDIC c r | List number of days since last incoming call for specified customer and route                     |
| LDIC c u | List number of days since last incoming call on specified trunk                                   |
| LMAX c r | List trunk with maximum idle days for specified customer and route                                |
| LNDS c r | List trunks with no disconnect supervision for specified customer and route                       |
| LOVF c r | List threshold overflows for specified customer and route                                         |
|          |                                                                                                   |
| RAN c r  | Test recorded announcement device for specified customer and route                                |
| RLS      | Release trunk being tested                                                                        |
| RSET c u | Reset thresholds for specified trunk                                                              |
|          |                                                                                                   |
| STAT c   | Check card's software status                                                                      |
| TRK c u  | Seize trunk for testing                                                                           |
| TPPM c u | Test the specified PPM trunk                                                                      |

---

**Note:** If a trunk unit is controlled by APNSS, the STAT command will display the status of the D-channel.

## Alphabetical list of commands

| Command  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CALL     | <p>Set up monitor link with test center.</p> <p>Same as the CALL c command except any PTRS trunk in the system can be selected. The CALL command must be terminated using the * command.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| CALL c u | <p>This command sets up a monitor link (call) between the system and the test center on the trunk specified.</p> <p>The system prompts "DN?" for the directory number. When the PTRS directory number is entered, the system calls up that number automatically. When the call is answered, a pure tone indicates the validity of the link.</p> <p>This sequence can take up to 14 seconds on a trunk without answer supervision. The END command disconnects the call.</p> <p>The CALL c u command is not allowed when the diagnostic program is being run from a maintenance telephone. During the CALL command, On-Hook and Off-Hook signals from the maintenance telephone may initiate BUG105.</p> <p>When the monitor is enabled, a failed trunk is displayed as BUSY. The enable/disable command does not enable or disable the failed trunk unit (it stays in the BUSY state).</p> |
| CDSP     | Clear the maintenance display on active CPU to 00 or blank.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CMIN     | Clear the minor lamp on a system basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CMIN ALL | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CMIN c   | Clear minor alarm indication on attendant consoles for customer c. (not applicable for Release 22)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DISC c   | Disable specified card for replacement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DISU c u | Disable specified unit.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| END      | Terminate test in progress                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

# LD 36

|          |                                                                                                                                                                                                            |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENLC c   | Enable specified card.<br><br>If the card resides on a disabled shelf, its status is output and the enable is not performed. If the card has been disabled by an overload, the overload status is cleared. |
| ENLU c u | Enable specified unit. If unit resides on a disabled shelf or card, then status is output and enable is not performed.                                                                                     |
| LDIC c r | List number of days since last incoming call for specified customer (c) and route (r).                                                                                                                     |
| LDIC c u | List number of days since last incoming call on specified trunk.                                                                                                                                           |
| LMAX c r | List trunk with maximum idle days for specified customer and route                                                                                                                                         |
| LNDS c r | List trunks with no disconnect supervision for specified customer and route. (trunks for which no disconnect supervision was received, i.e., terminating party not going On-Hook after a call)             |
| LOVF c r | List threshold overflows for specified customer and route. The overflows are set when the resident trunk monitor outputs a diagnostic                                                                      |
| RAN c r  | Test recorded announcement device for specified customer and route.                                                                                                                                        |
| RSET c u | Reset thresholds for specified trunk.                                                                                                                                                                      |
| STAT c   | Check card's software status.                                                                                                                                                                              |
| TPPM c u | Test the specified PPM trunk. This command is not applicable when the Meridian 1/Meridian SL-1 is connected to 1 TR 6 international ISDN PRA.                                                              |

TRK c u      Seize trunk for testing.

Seizes the specified trunk for outpulsing and testing. If the command is issued from a maintenance telephone, dial tone is heard followed by outpulsing when the directory number is entered.

If a trunk is to be seized for outpulsing and testing from a remote test center (not a maintenance telephone), a monitor link must first be set up using the CALL c u command. This must not be over the trunk to be tested.

With the monitor link set up, the TRK c u command is input to select the trunk to be tested. The system then prompts with "DN?" and the directory number is input via the TTY. Normal speech path connections are made between the monitor link and the trunk being tested.

Disconnect by entering END, by going On-Hook if an SL-1 telephone is used or by entering \*. END also disconnects the monitor link.

---

This command cannot be used to seize an ISL trunk.

---

# LD 36

---

## **LD 37—Input/Output Diagnostic**

---

This program is used to diagnose faults with disk units, tape units, Teletypewriter (TTY) or Serial Data Interface (SDI) cards. It provides enable, disable, status and test functions on these devices. Problems are indicated in IOD messages.

Only some of the commands in this Overlay are supported. Refer to LD 137 for core commands.

Refer to LD 48 for I/O ports used with the following applications.

- Command and Status Links (CSL)
- Meridian Link
- Automatic Call Distribution (ACD)
- Integrated System Messaging Link
- Enhanced Serial Data Interface (ESDI) ports

### **Intelligent links (APL, HSL, LSL, and CMAC)**

A warning message is generated each time an intelligent link is accessed (enable, disable, test). The message is generated for the following types of links:

- APL
- ACD-D (HSL/LSL)
- CMAC (CMC)

The message allows the access to be aborted prior to performing the enable, test, etc. The warning appears in the following format:

DIS TTY N (link type) LINK (status) (y/n)

# LD 37

A response of y disables the hardware of the TTY regardless of the software status of the link. The status field provides the software status of the link.

Valid status entries are:

BAD = software status is invalid

DOWN = link is down

MAINT = link is up and in maintenance mode

FULL = link is full

EMPTY = link is empty

NOT EMPTY = link still contains data

## Basic commands

|            |                                                                                                                                                                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDSP       | Clear the maintenance display on active CPU to 00 or blank                                                                                                                                                                                                    |
| CMIN       | Clear the minor lamp on a system basis                                                                                                                                                                                                                        |
| CMIN ALL   | Clear minor alarm indication on all attendant consoles                                                                                                                                                                                                        |
| DIS MSG    | Disable incoming message monitoring for the primary PMSI port.                                                                                                                                                                                                |
| DIS MSGO   | Disable outgoing message monitoring for the primary PMSI port.                                                                                                                                                                                                |
| DIS PRT x  | Disable printer x                                                                                                                                                                                                                                             |
| DIS TTY x  | Disable TTY x.                                                                                                                                                                                                                                                |
| END        | Clear all test activity                                                                                                                                                                                                                                       |
| ENL MSGI   | Enable incoming message monitoring for the primary PMSI port.                                                                                                                                                                                                 |
| ENL MSGO   | Enable outgoing message monitoring for the primary PMSI port.                                                                                                                                                                                                 |
| ENL PRT x  | Enable printer x                                                                                                                                                                                                                                              |
| ENL TTY x  | Enable TTY x                                                                                                                                                                                                                                                  |
| PRT x      | Test printer x                                                                                                                                                                                                                                                |
| SET MON 0  | Set the monitoring display to be in alphanumeric format.<br>This applies to the primary PMSI port.                                                                                                                                                            |
| SET MON 1  | Set the monitoring display to be in hexadecimal format.<br>This applies to the primary PMSI port.                                                                                                                                                             |
| STAT       | Provide status of all input/output devices in system                                                                                                                                                                                                          |
| STAT MON   | Get the monitoring status for the primary PMSI port.<br>This command displays the status of the message monitoring for the primary port. For example, if MSGI, MSGO, and SET MON 0 are enabled, the display would be as follows.<br><br>MSGI:ON MSGO: ON ALPH |
| STAT PRT   | Provide status of all printers in system                                                                                                                                                                                                                      |
| STAT PRT x | Provide status of printer x                                                                                                                                                                                                                                   |
| STAT TTY   | Provide status of all TTY devices in system<br>This command enables you to get the status of the primary PMSI I/O port, and the Single Terminal Access (STA) administration terminal.                                                                         |
| STAT TTY x | Provide status of TTY x<br>This command also provides the status of the primary PMSI port.                                                                                                                                                                    |
| STAT XSM   | Provide status of the system monitor                                                                                                                                                                                                                          |
| TTY x      | Test TTY x                                                                                                                                                                                                                                                    |

## T1 Multipurpose Serial Digital Interface (TMDI) commands

The TMDI provides 1 port for ISDN Primary Rate D-channel (DCH) and 1 port for 1.5Mb/s Digital Trunk Interface (DTI).

The TMDI commands are listed below, **x** is the TMDI card number (defined by prompt DLOP in LD 17). These commands are provided in Link Diagnostic (LD 48) and D-channel Diagnostic (LD 96) and LD 42.

|                       |                                                      |
|-----------------------|------------------------------------------------------|
| DIS TMDI x (ALL)      | Disable TMDI card x (card)                           |
| ENL TMDI x (ALL, FDL) | Enable TMDI card x (card, Forced Download)           |
| RST TMDI x            | Reset TMDI card x                                    |
| SLFT TMDI x           | Invoke self-test for TMDI card x                     |
| STAT TMDI (x) (FULL)  | Get status of TMDI card (x) (additional information) |

---

**Note:** See “Alphabetical List of commands” in LD 48 for a complete description of these commands.

---

## Alphabetical list of commands

| Command    | Description                                                                                        |
|------------|----------------------------------------------------------------------------------------------------|
| CDSP       | Clear the maintenance display on active CPU to 00 or blank.                                        |
| CMIN       | Clear the minor lamp on a system basis.                                                            |
| CMIN ALL   | Clear minor alarm indication on all attendant consoles.                                            |
| CMIN c     | Clear minor alarm indication on attendant consoles for customer c. (not applicable for Release 22) |
| DIS MSG    | Disable incoming message monitoring for the primary PMSI port.                                     |
| DIS MSGO   | Disable outgoing message monitoring for the primary PMSI port.                                     |
| DIS MSI x  | Disable Mass Storage Interface card x.                                                             |
| DIS PRT x  | Disable printer x.                                                                                 |
| DIS TAPE x | Disable tape unit x.                                                                               |
| DIS TTY x  | Disable TTY x.                                                                                     |
| END        | Clear all test activity.                                                                           |
| ENL MSGI   | Enable incoming message monitoring for the primary PMSI port.                                      |
| ENL MSGO   | Enable outgoing message monitoring for the primary PMSI port.                                      |
| ENL MSI x  | Enable Mass Storage Interface card x.                                                              |
| ENL PRT x  | Enable printer x.                                                                                  |
| ENL TAPE x | Enable tape unit x.                                                                                |
| ENL TTY x  | Enable TTY x.                                                                                      |

# LD 37

|             |                                                                                                                                                                                                                                                                      |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MSI x       | Test Mass Storage unit x. This command runs the MSI DATA, MSI RW x and MSI SELF x tests.                                                                                                                                                                             |
| MSI DATA    | Test data validity in primary and backup device.                                                                                                                                                                                                                     |
| MSI RW x    | Test READ/WRITE ability of Mass Storage unit x.                                                                                                                                                                                                                      |
| MSI SELF x  | Perform self-test on MSI card and report result.                                                                                                                                                                                                                     |
| PRT x       | Test printer x.<br><br>Same as TTY test except that no keyboard input is expected and END command is not required. Where: * denotes that the printer is not yet available                                                                                            |
| SET MON 0   | Set the monitoring display to be in alphanumeric format. This applies to the primary PMSI port.                                                                                                                                                                      |
| SET MON 1   | Set the monitoring display to be in hexadecimal format. This applies to the primary PMSI port.                                                                                                                                                                       |
| STAT        | Provide status of all input/output devices in system.                                                                                                                                                                                                                |
| STAT LINK   | Provide status of all CDR links.                                                                                                                                                                                                                                     |
| STAT LINK x | Provide status of CDR data link x.                                                                                                                                                                                                                                   |
| STAT MON    | Get the monitoring status for the primary PMSI port.<br><br>This command displays the status of the message monitoring for the primary port. For example, if MSGI, MSGO, and SET MON 0 are enabled, the display would be as follows.<br><b>MSGI:ON MSGO: ON ALPH</b> |
| STAT MSI    | Provide status of all MSI cards.                                                                                                                                                                                                                                     |
| STAT MSI x  | Provide status of MSI card x associated with the active CPU.                                                                                                                                                                                                         |
| STAT PRT    | Provide status of all printers in system.                                                                                                                                                                                                                            |
| STAT PRT x  | Provide status of printer x.                                                                                                                                                                                                                                         |
| STAT TAPE   | Provide status of all magnetic tape devices.                                                                                                                                                                                                                         |

---

|             |                                                                                                                                                                                                              |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STAT TTY    | Provide status of all TTY devices in system.<br>Release 19 and later, this command enables you to get the status of the primary PMSI I/O port, and the Single Terminal Access (STA) administration terminal. |
| STAT TTY x  | Provide status of TTY x. Release 19 and later, this command also provides the status of the primary PMSI port.                                                                                               |
| STAT XSM    | Provide status of the system monitor. If there are no error conditions, PWR000 is output. Otherwise, the appropriate PWR messages are output.                                                                |
| TAPE x      | Test magnetic tape device x. This command combines the TAPE CTRL x, TAPE MOTN x, TAPE RW x and TAPE DATA tests.                                                                                              |
| TAPE CTRL x | Test control electronics on tape device x.                                                                                                                                                                   |
| TAPE DATA   | Test data on all 4 tracks.                                                                                                                                                                                   |
| TAPE MOTN x | Test motion and timing on tape device x.                                                                                                                                                                     |
| TAPE RW x   | Test READ/WRITE ability of tape device x.                                                                                                                                                                    |
| TTY x       | Test TTY x. Response is:<br><b>ABCDEFGHIJKLMNOPQRSTUVWXYZ</b><br><b>0123456789"#\$%*!&amp;()&lt;&gt;-.:,.? READY FOR INPUT</b><br>Anything entered on the keyboard will be echoed until END is input.        |

---

# LD 37

---

## LD 38—Conference Circuit Diagnostic

---

This program is used to detect and isolate circuit faults on the conference equipment in the system.

LD 38 can detect problems on the conference circuit such as:

- channel faults on the network card which interfaces a conference card to the system
- channel faults on the conference card
- conference faults associated with conferee group numbers
- switching faults controlling the attenuation feature.

The program is used to

- enable a specific conference card
- disable a specific conference card
- check status of channels and conferee groups
- clear alarms and displays

The program allows complete manual control in establishing a test conference, thus allowing the user to listen for noise and distortion. This includes:

- selection of a specific conference card
- selection of a specific conferee group
- stepping through all free channels and groups with special test conference.

## Basic commands

|                 |                                                                   |
|-----------------|-------------------------------------------------------------------|
| CDSP            | Clears the maintenance display on active CPU to 00 or blank       |
| CMIN ALL        | Clear minor alarm indication on all attendant consoles            |
| CMIN c          | Clear minor alarm indication on attendant consoles for customer c |
| CNFC loop       | Test conference loop                                              |
| CNFC MAN loop g | Set up for manual conference on conference group g                |
| CNFC STEP       | Ready TTY for testing conferee groups                             |
| DISL loop       | Disable conference loop                                           |
| DISX loop       | Disable Conf/TDS/MFS card on loop and loop - 1                    |
| END             | Abort all current test activity                                   |
| ENLL loop       | Enable conference loop                                            |
| ENLX loop       | Enable Conf/TDS/MFS card on loop and loop - 1                     |
| LCNF loop       | List busy and disabled conferee groups on specified loop          |
| STAT loop       | Provide status of conference card loop                            |
| STAT c u        | List conference card and group used by specified TN.              |

---

## Alphabetical list of commands

| Command         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDSP            | Clears the maintenance display on active CPU to 00 or blank.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CMIN ALL        | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| CMIN c          | Clear minor alarm indication on attendant consoles for customer c.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CNFC loop       | <p>Test conference loop.<br/>Tests conference loop for channel, group and switching faults.</p> <p><b>Note:</b> Both the conference loop and the adjacent TDS/MFS loop must be enabled to run the conference test.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CNFC MAN loop g | <p>Set up for manual conference on conference group g.</p> <p>Only one manual conference is be allowed at a time. The conference group range is 1-15. After this command, any telephone dialing SPRE 93 enters the conference, where SPRE is the special service prefix for the system.</p> <p>Going on-hook from that telephone takes it out of the conference. If going On-Hook causes the conference to go from a three-party to a two-party call processing may remove all conference equipment and establish the remaining two parties as a normal call.</p> <p>The END command, which normally removes all telephones in the manual conference, will no longer affect these two telephones, as they are no longer using the conference card.</p> <p>If the CNFC MAN command is entered from a maintenance set, the telephone automatically becomes part of the manual conference.</p> |
| CNFC STEP       | <p>Ready TTY for testing conferee groups.</p> <p>Readies the TTY into a special command mode for testing various channels and conferee groups audibly, using two telephones: one to monitor and one to act as a signal source. The CNFC MAN command should have been used previously to set up the two-party conference.</p> <p>Entering C on the command input device will step the conference on to the next available channel.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

# LD 38

Entering G will step to the next available conferee group.  
Entering an asterisk (\*) will revert back to the normal command mode.

Entering "END" or aborting LD 38 releases the manual conference.

DISL loop      Disable conference loop. For NT8D17 Conference/TDS/MFS cards, see ENLL command.

DISX loop      Disable NT8D17 Conf/TDS/MFS card.  
  
Disables the entire combined Conference, Tone and Digit Switch, and MF Sender (XCT) card. Both the even numbered and adjacent loop are disabled.

Where: loop = 1, 3, 5,... 159

The DISL and ENLL commands can be used on the even number loop for the conference function. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The DISX and ENLX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card.

This command can be used in LD 34, LD 38 and LD 46.

END            Abort all current test activity. There will be a 30 second time-out dial tone for phones still off-hook.

ENLL loop      Enable conference loop.  
  
For NT8D17 Conference/TDS/MFS cards the DISX and ENLX commands must be used whenever the faceplate switch of the card has been toggled. ENLL will software enable the card but the card will not be properly reset.

Enabling more than 16 conference loops may cause system to lock-up.

ENLX loop      Enable NT8D17 Conf/TDS/MFS card on loop and loop - 1.  
  
Enables all functions on the NT8D17 Conference/TDS card. Both the even numbered TDS/MFS loop and adjacent conference loop are enabled.

Where: loop = 1, 3, 5... 159

If one of the loops is already enabled, it is disabled and then both loops are enabled. The Conf/TDS card is not enabled automatically when it is inserted.

This command initiates card tests, downloads software and can be used in LD 34, LD 38 and LD 46.

The DISL and ENLL commands can be used on the even number loop for the conference function. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The DISX and ENLX commands are recommended.

Enabling more than 16 conference loops may cause the system to lock-up.

|           |                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LCNF loop | List busy and disabled conferee groups on specified loop.                                                                                                                                                                                                                                                                                                                          |
| STAT loop | Provide status of conference card loop. Output format is: <ol style="list-style-type: none"><li>1. <b>CNFC N DSBL N BUSY</b> = number of conferee groups disabled and busy</li><li>2. <b>CHAN N DSBL N BUSY</b> = number of channels disabled and busy</li><li>3. <b>UNEQ</b> = card is not equipped in the system</li><li>4. <b>DSBL</b> = card is disabled in software</li></ol> |
| STAT c u  | Lists which conference card and conferee group is being used by the specified terminal number.                                                                                                                                                                                                                                                                                     |

---

# LD 38

---

## LD 40, 42—Call Detail Recording Diagnostic

---

The Call Detail Recording (CDR) feature outputs call records to a single or multi-port tape drive storage system. The tapes are processed to produce billing reports.

The Pseudo TTY (PTY) and Call Processor (CP) cards do not support the CDR link maintenance commands (CDL, CTY) used in this Overlay. When using the STAT command in this LD, the output includes all the ports: CP and PTY.

### Automatic diagnostic routines

LD 40 is run in background, during the daily routines, or automatically in response to CDR faults. It performs the following:

- CDR Link test.
- CDR Controller status report.
- CDR data transmission/loss summary.

Fault indications reported by LD 40 are cleared after their corresponding CDM message is output. Faults in a multi-port CDR Tape Controller are reported to all Meridian 1/Meridian SL-1 systems connected to the controller. The fault records kept for each Meridian 1/Meridian SL-1 are maintained and cleared independently of each other by the controller.

Loading LD 40 manually runs the automatic fault-clearing routines. Also, similarly to LD 42, the “CDMA loaded today” flag which prevents LD 40 from being automatically loaded more than once a day are cleared. Thus, manually loading LD 40 or 42 allows faults detected in the afternoon to be reported, even though previous faults may have been detected and cleared in the morning.

To run CDMA in background, you must reload LD 40 after a trouble has been cleared using LD 42. CDM117 X 3 is printed after LD 40 has been reloaded, where X is the Meridian 1/Meridian SL-1 link or port number. This reload is required so that the Meridian 1/Meridian SL-1 can react again as soon as another error is detected.

## CDR maintenance mode and commands

Use LD 42 to:

- enable/disable/give status of CDR links and TTY
- perform diagnostic tests on CDR machines
- perform manual tape functions on CDR machines
- clear alarms and the maintenance display
- clear the maintenance display of CDR machines
- clear “CDMA loaded today” flags

The CDR storage system is put into maintenance mode to test the tape drive. While in maintenance mode, call records are saved in tape buffers. When all the buffer space is used up, incoming call records are lost. An 8K CDR machine can buffer about 600 call records; a 32K CDR can retain about 2500. Use the BUFF command to write the buffer contents to tape or output it to the I/O device.

## Enter maintenance mode

- 1 Load CDM (LD 42).
- 2 Issue the PORT command to specify the CDR port.
- 3 Issue the GET command to put the CDR into maintenance mode.

GET sends the “Request Maintmode” message to CDR and waits for CDR to grant MAINTMODE, which CDR will not do until it is finished its current activity on the drive.

When CDR grants Maintenance Mode, it also makes available a tape buffer for the use of the read/write and RBC functions. This buffer may be loaded with data by using the LOAD command and the contents can be output onto the TTY by using the BUFF command without indicating which buffer to output (it defaults to the active maintenance buffer).

## **Exit maintenance mode**

To ensure that CDR does not stay in maintenance mode forever, CDR starts a 30 second timer whenever it receives a request for maintenance mode. If this timer expires, CDR resets maintenance mode. To prevent this, CDM sends a message every 5 seconds to keep the CDR in maintenance mode.

If CDM does not send the message in time, CDR will reset maintenance mode and a CDM017 message will appear to indicate that maintenance mode has been lost. Pressing the UNLOAD button on CDR will also cancel maintenance mode.

The CDR may also be released from maintenance mode using the FREE command. When CDR leaves maintenance mode it returns to the state it was in before it entered maintenance mode. That is, if it was in a state in which it would not attempt to write on the drive, it will still not try to use the drive.

However, if it was using the drive before it entered the maintenance mode, it will use one of two methods to return to using the drive:

- If it left maintenance mode because of a time-out, it will rewind to LP and search for the first tape mark to locate the place where it should begin writing.
- If the FREE command was used to release it from maintenance mode, it will begin writing on the tape wherever the tape is. Thus, the tape should be left at the same point it was before maintenance mode was entered.

## Ensure tape integrity

The following procedure is recommended to ensure tape integrity if manual tasks are to be performed on the drive using CDM:

- 1 UNLOAD the call recording tape from the drive.
- 2 Mount a scratch tape and put the drive on line but do not use any of the CDR pushbuttons. Call records are now being stored in tape buffers so this should only be done at low traffic periods.
- 3 Use CDM to issue the PORT and GET commands.
- 4 Perform tests using manual functions.
- 5 Issue the FREE command.
- 6 UNLOAD the scratch tape.
- 7 Remount the call-recording tape and press RESTORE to get the tape to the proper position for writing. If the tape is nearly full, a new call recording tape might be loaded instead to save time.

## Verify proper recording

To verify that call records are being properly recorded on tape, the following procedure may be used:

- 1 Issue the PORT and GET commands to go into maintenance mode.
- 2 Issue the FUNC BKSP 1 command to position the tape just before the most recently written block.
- 3 Issue the FUNC READ command to read the most recently written block.
- 4 Issue the BUFF command to output the contents of the maintenance buffer on your I/O device.
- 5 Issue FREE to release the drive from maintenance mode.

This procedure may be modified easily to allow the checking of tape blocks older than the most recent. Extreme caution is advised, however, as it is easy to lose track of where the tape is positioned.

If it is suspected that the tape may not be positioned just after the last data block on tape when the FREE command is about to be issued, simply abort the program (\*\*\*) . This will cause the CDR machine to time out from maintenance mode after 30s, after which CDR will automatically restore tape position so that data recording can continue normally.

---

# LD 40, 42

## Basic commands

|                  |                                                                   |
|------------------|-------------------------------------------------------------------|
| BLOC             | Output hexadecimal contents of CDR tape block                     |
| BUFF             | Output contents of CDR maintenance mode buffer                    |
| BUFF x           | Output contents of tape buffer x                                  |
| CCDS x           | Clear maintenance display of CDR on link x                        |
| CDSP             | Clear the maintenance display on active CPU to 00 or blank        |
| CMIN AL          | Clear minor alarm indication on all attendant consoles            |
| CMIN c           | Clear minor alarm indication on attendant consoles for customer c |
| DIS LINK x       | Disable device on link x                                          |
| DIS SL1 x        | Disable CDR device x                                              |
| DIS TTY x        | Disable device x                                                  |
| DISP pg addr cnt | Display CDR storage                                               |
| ECHO x y         | Perform echo test on link x, y times                              |
| END              | Terminate command in progress                                     |
| ENL LINK x       | Enable link x                                                     |
| ENL SL1 x        | Enable SL-1 machine connected to CDR link x                       |
| ENL TTY x        | Enable TTY x                                                      |
| FREE             | Release CDR from maintenance mode                                 |
| FUNC function    | Initiate specified tape drive function                            |
| GET              | Put CDR tape unit into maintenance mode                           |
| LOAD xxxx        | Set buffer for a WRITE                                            |
| PORT             | Reset port                                                        |
| PORT x           | Set up links for commands to follow                               |
| STAT x           | Get status of SDI x                                               |
| STAT SL1 ALL, x  | Get status of one or all CDR ports                                |
| STOR pg addr     | Alter CDR storage information                                     |
| TEST x           | Write x sets of test records to tape                              |

---

## Alphabetical list of commands

| Command    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BLOC       | Output hexadecimal contents of CDR tape block.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| BUFF       | Output contents of CDR maintenance mode buffer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| BUFF x     | Output contents of tape buffer x.<br>For a single port CDR machine, $0 < x < 6$ . For a 32K machine, $0 < x < 29$ . The contents of the buffer may change while it is being output.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CCDS x     | Clear maintenance display of CDR on link x.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CDSP       | Clear the maintenance display on active CPU to 00 or blank.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| CMIN ALL   | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| CMIN c     | Clear minor alarm indication on attendant consoles for customer c.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| DIS LINK x | Disable device on link x.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DIS SL1 x  | Disable CDR device x.<br>This command should be issued before disconnecting another SL-1 machine from a multi-port CDR machine. DIS SL-1 x is the inverse of ENL SL-1 x.<br>The commands may NOT be used to disable the SDI port currently being used by the CDM program; i.e., "you can't disable yourself."<br>The enabled/disabled status of a SL-1 port in a multi-port CDR machine is maintained by the CDR machine only. If the CDR machine initializes for any reason - such as a power failure - then the enabled/disabled status of each SL-1 port is set according to whether the physical SDI device responds.<br>For this reason, the enabled/disabled status of a SL-1 port in a multi-port CDR machine should not be considered trustworthy over extended periods of time. |

# LD 40, 42

Note also that disabling a SDI port in the CDR using the DIS SL-1 x command causes the report "SL1 x DSBL <type> SOFT" to be given by STAT SL1 x. This status indication remains even after the SDI pack has been physically pulled out, until the next CDR initialization.

DIS TTY x      Disable device x. You may not disable the TTY you are logged into.

DISP pg addr cnt

Display CDR storage. Where:

pg =    memory page 0, 2 or 3.

cnt =    the number of words to output. If cnt is not entered, one word will be output. No checking is performed on the validity of the address. If an invalid address is provided, the CDR machine will trap with a response time-out.

This command can be used to continue printing buffer contents, if time-out or transmission error occurs using the BUFF x command, rather than reissuing BUFF x and starting from the beginning again. In this case, the command is: DISP O addr 100

addr = given by the last 4-digit hexadecimal code preceding the colon in the last printed line.

ECHO x y      Perform echo test on link x, y times.

A test pattern is sent to the CDR machine and the machine echoes it back. OK is output if a successful response indicates a fault-free link. If y is not provided, the test is performed once only.

END            Terminate command in progress. This command may be output at any time.

ENL LINK x    Enable link x. The specified link is checked for response and stuck interrupt. OK is output and the link enabled if the tests are passed.

ENL SL1 x     Enable SL-1 machine connected to CDR link x.

This command is only valid for multi-port CDR machines. It enables new SL-1 machines connected to the CDR machine to communicate with the CDR, without interruption of service to existing SL-1 machines.

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENL TTY x     | Enable TTY x.<br><br>The specified TTY is checked for response and stuck interrupt. OK is output and the TTY is enabled once the tests are passed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| FREE          | Release CDR from maintenance mode.<br><br>If the CDR tape drive is enabled, then the next tape block that CDR has to write will be written wherever the tape was left. Thus, if the FUNC command was used on a tape which is to contain valid CDR data, it is imperative that the user reposition the tape to the same position that CDR had it before the FUNC command was used.                                                                                                                                                                                                                                                                                                                                                               |
| FUNC function | Initiate specified tape drive function. Initiates the specified function on the tape drive.<br><br>"Function" may be one of:<br><ol style="list-style-type: none"><li>1. STAT = status function</li><li>2. WID = write ID burst function</li><li>3. WTM = write tape mark</li><li>4. WFB = write contents of the maintenance tape buffer</li><li>5. READ = read block into maintenance buffer</li><li>6. RBC = perform read back check into maintenance buffer</li><li>7. SKIP x = skip x blocks in hexadecimal number</li><li>8. ERG = erase gap</li><li>9. ERAS = erase to end of tape</li><li>10. BKSP x = backspace x blocks in hexadecimal number</li><li>11. REW = rewind</li><li>12. UNL = unload</li><li>13. TERM = terminate</li></ol> |

These commands correspond to the primitive tape functions supported by the CDR tape handler firmware. The FUNC STAT command causes the tape status to be printed at the TTY.

The tape status is the first word printed in response to the BLOC command and is the "status" field of a CDM122 error message. If the "unexpected interrupt" bit in the tape status is ON, a word corresponding to the "unexpected" field in a CDM122 message is printed.

# LD 40, 42

|           |                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GET       | <p>Put CDR tape unit into maintenance mode.</p> <p>When CDR is in this mode, it will not initiate any tape functions of its own. A tape buffer will be allocated for CDM to use for tape functions. Only one SL-1 system may put the CDR into maintenance mode at one time. See the description of maintenance mode.</p>      |
| LOAD xxxx | <p>Set buffer for a WRITE.</p> <p>The hexadecimal digits xxxx are propagated through the tape buffer allocated for maintenance mode. The command is used to set the buffer for a WRITE.</p>                                                                                                                                   |
| PORT      | <p>Reset port.</p> <p>Resets the port so that no port is active. Enter the following commands only after a PORT command, and only from a TTY:</p> <p>DISP<br/>STOR<br/>BLOC<br/>TEST x<br/>BUFF (continued on next page)<br/>BUFF x<br/>GET<br/>LOAD xxxx<br/>FUNC<br/>FREE<br/>ENL SL-1 x<br/>DIS SL-1 x<br/>STAT SL-1 x</p> |

PORT x Sets the links to which the following commands will apply. This command may only be entered from a TTY. Take care when using the following commands with PORT or PORT x, as the CDR may trap data or write erroneous data to tape.

DISP  
STOR  
BLOC  
TEST x  
BUFF  
BUFF x  
GET  
LOAD xxx  
FUNC  
FREE  
ENL SL-1 x  
DIS SL-1 x  
STAT SL-1 x

STAT Lists all SDI packs and specifies whether they are dedicated to data links or TTY; enabled or disabled. Output is:

```
SDI x <tty/link> <enbl/dsbl><messages> <naks>
<time-outs> <lost>
```

If the device is an enabled link, then the number of messages sent, the number of transmission errors and the number of lost call records are also output. See error code CDM121 for a description of the <> fields.

STAT SL1 ALL, x

Get status of one or all CDR ports. This command is used to output the status of ports in multiport CDR machines.

The format of the output is: **status type mode**

Where:

**status** = UNEQ (unequipped), DSBL (Disabled) or ENBL (enabled)

**type** = SNGL (single-port SDI) or DUAL (dual-port SDI)

**mode** = May be IDLE (normal idle), BUSY (normal busy), SOF (software-disabled), NOIS (disabled for too many interrupts), STUC (disabled for stuck interrupt condition) or EIA (disabled for having EIA device not ready)

# LD 40, 42

- STAT x            Get status of SDI x. Output is:
- `<tty/link> <enbl/dsbl/uneq> <messages> <naks>  
<time-outs> <lost>`
- See error code CDM121 for a description of the <> fields.
- 
- STOR pg addr    Alter CDR storage information.
- The old contents of the location is output and the user is prompted for the new contents. After entering the new contents, enter a space or carriage return.
- If a carriage return is entered, the command ends. If a space is entered, the contents of the next location are output and the user is prompted for input. If only the carriage return or space is entered (i.e., the new contents are not input), then the current word is not modified. If an invalid address is provided, CDR will response time-out.
- 
- TEST x            Write x sets of test records to tape.
- Before using this command, refer to the description of the maintenance mode prior to this table. If x is not given, the default is 1.
- As this command writes to tape, a scratch tape should be mounted before the command is executed. PORT and GET commands must be issued before this command can be used.
- Twenty blocks of data are written to the tape, then the tape is rewound and read to check the data. The number of errors found is output using a CDM035 message.
-

---

## LD 43—Equipment Datadump

---

This program is used to keep data on the system storage device up to date. When the datadump program is invoked, data in the read/write memory (including any that has been changed or added) is written to the storage device at the location reserved for it.

The program can be invoked daily as part of the daily routines or loaded manually. An incremental datadump occurs during the daily routines if database changes have been made.

### When the datadump fails

In the event of an unsuccessful initial dump, the office data on the tape or disk is suspect. Another datadump with spool option should be done on the same tape or disk; if successful, a transient error is indicated and normal procedures can be resumed. If this second attempt also fails, **DO NOT** attempt another datadump until the fault is isolated and corrected.

If the storage medium is not proved faulty and the storage device appears serviceable, datadumping to an OLD device, if available, may help to pinpoint the problem.

Except during the troubleshooting phase, storage medium which has failed to datadump successfully must not be left in the storage device. Should a SYSLOAD occur with such a storage medium, the load may terminate abnormally with unpredictable results.

### Low memory warning

Unprotected data store equal in size to the length of the records being written (i.e., 512 words) must be available to the datadump program.

# LD 43

A low memory warning message (SCH603) is issued when spare unprotected data store falls below a given threshold. Once this warning message has been issued, it is not possible to perform a datadump as the system requires spare unprotected data store equivalent to the size of a record on the storage medium (i.e., 512 words).

Users should ensure that these amounts of spare unprotected data store are available before attempting to perform a datadump.

## Basic commands

|                   |                                                                           |
|-------------------|---------------------------------------------------------------------------|
| BKO               | Copy data from primary to backup device                                   |
| DAT               | Print the data issue and creation date of the primary and backup database |
| EDD               | Invoke datadump program                                                   |
| EDD CLR           | Clear datadump inhibit flag                                               |
| EDD CN            | Save CND names (use prior to datadump)                                    |
| EDD HM            | Save AWU, RMS and MR data (prior to dump)                                 |
| EDD NBK           | Inhibit database backup                                                   |
| EDD SA            | Complete data dump and bypass software audit                              |
| PBX CF6 (ALLOWED) | Bit dumped with PBX data block                                            |
| RES               | Copy entire contents of backup to primary device                          |
| SWP               | Swap (exchange) main and “.bak” data files on the primary flash drive     |

---

## Alphabetical list of commands

| Command            | Description                                                                                                                                                                                                                                                        |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BKO                | Copy data base from primary device (Winchester disk) to backup device (floppy disk). BKO is applicable to systems with hard disk storage.                                                                                                                          |
| DAT                | Print the creation date of the main, secondary, or backup database.                                                                                                                                                                                                |
| EDD                | Invoke datadump program                                                                                                                                                                                                                                            |
| EDD CLR            | Clear datadump inhibit flag<br><br>This flag is set because SYSLOAD or the conversion programs detect incomplete or inconsistent equipment data. Exercise caution since the use of this option may result in incorrect data being written.                         |
| EDD CN             | Save CND names.<br><br>EDD CN saves the names associated with DNs for Caller's Name Display. Use Prior to datadump.                                                                                                                                                |
| EDD DP xx xx xx... | Dump patch<br><br>Customer data and the specified patches (xx xx...xx) are dumped onto disk. If no patch numbers are specified, then only customer data is dumped.                                                                                                 |
| EDD GP             | Get patches                                                                                                                                                                                                                                                        |
| EDD IWC            | Inhibits write check.<br><br>Caution: for Emergency Use Only. Inhibits write check. This command is useful when the standard commands for datadump fail and end-of-file cannot be found. It writes an end-of-file on tape and allows other commands to be invoked. |
| EDD NBK            | Inhibit database backup.<br><br>Indicates that a database backup should not be done after a datadump. (Applicable to hard disk storage with floppy disk backup). This command invokes a data dump and writes entered data to primary and internal backup drives.   |

|                   |                                                                                                                                                                                                                                                                                                                       |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EDD NS            | <p>Inhibit tape far-end spool.</p> <p>Tape will not spool to the far-end and will not perform write test. Default option is SP. Overlay program cannot be aborted until writing has either been completed or has failed.</p> <p>This command applies to systems equipped with tape units.</p>                         |
| EDD NX            | <p>Writes tape data records consistent in size with predefined system values. Default option is NX.</p>                                                                                                                                                                                                               |
| EDD SA            | <p>This command is used to complete the data dump and bypass the software audit of Peripheral Controller and superloop data.</p>                                                                                                                                                                                      |
| EDD SP            | <p>Spool tape to far-end. This command applies to systems equipped with tape units.</p> <p>Spools tape to the far-end in order to even the tension on the tape. Also writes a test record after the end of existing data to check for any write problems. If errors occur during test, data should remain intact.</p> |
| PBX CF6 (ALLOWED) | <p>Bit dumped with PBX data block.</p>                                                                                                                                                                                                                                                                                |
| RES               | <p>Copy entire contents of backup device to primary device.</p> <p>The RES command may be entered to restore files to the primary device from the external backup device.</p>                                                                                                                                         |
| SWP               | <p>Exchange (swap) main and secondary database files. A sysload is required for the swap to take effect.</p>                                                                                                                                                                                                          |

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# LD 43

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## LD 44—Software Audit

---

The audit program (LD 44) monitors system operation and provides an indication of the general state of system operation. The program is concerned mostly with the system software. When a software problem is encountered, the program outputs an AUD message and attempts to clear the problem automatically.

### Running software audit

The Audit program is enabled as a Background Program or Daily Routine in the configuration record. See prompts BKGD and DROL in LD 17. To load the Audit program manually, enter:

LD 44

R x

Where, x is the number of audit passes required.

Enter 0 for continuous auditing. R and x must be separated by a space or the system responds with:

**AUD REQ ERR.  
AUDIT**

The Meridian Mail MP data base audit (co-administration) is run during Audit if a data base mismatch is known by the system, or if it is being run manually.

# LD 44

---

## **LD 46—Multifrequency Sender Diagnostic for ANI**

---

This program is used to maintain the Multifrequency Sender card. The Multifrequency Sender pack provides multifrequency signals of Automatic Number Identification (ANI) digits over Centralized Automatic Message Accounting (CAMA) trunks to a toll switching CAMA, Traffic Operator Position System (TOPS) or Traffic Service Position System (TSPS).

The MFS diagnostic program can be run in background, during the daily routines, or manually to enter commands. It performs the following tests:

- checks that the MF Sender pack responds to system I/O functions
- tests the 30-channel memory locations, the 480 (30 x 16) digit buffer memory locations and the 64 First-in, First-out locations
- exercises all 15-digit codes with digit strings from 2 to 16 digits long and verifies both the 68 ms pulse width and whether each string outputs to completion

No check is possible on MFS frequencies used in each tone burst due to the lack of receivers in the system. Also, no check can be made as to whether the correct digits are being outpulsed.

## Basic commands

|               |                                                                                                   |
|---------------|---------------------------------------------------------------------------------------------------|
| CDSP          | Clear the maintenance display on active CPU to 00 or blank                                        |
| CMAJ          | Clear major alarm and reset power fail transfer                                                   |
| CMIN          | Clear the minor lamp on a system basis                                                            |
| CMIN ALL      | Clear minor alarm indication on all attendant consoles                                            |
| CMIN c        | Clear minor alarm indication on attendant consoles for customer c (not applicable for Release 22) |
| DISL loop     | Disable MFS loop                                                                                  |
| DISX loop     | Disable Conf/TDS/MFS card on loop and loop + 1                                                    |
| END           | Stop all current testing                                                                          |
| ENLL loop     | Enable loop                                                                                       |
| ENLX loop     | Enable Conf/TDS/MFS card on loop and loop + 1                                                     |
| MFS loop      | Test and enable MFS loop                                                                          |
| STAT loop     | Get status of MFS loop                                                                            |
| TONE loop     | Enter input mode to provide MF tone bursts                                                        |
| TONE loop ALL | Provide MF tone bursts for all digits on specified loop                                           |

---

## Alphabetical list of commands

| Command   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CDSP      | Clear the maintenance display on active CPU to 00 or blank.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| CMAJ      | Clear major alarm, reset power fail transfer and clear power fault alarm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| CMIN      | Clear the minor lamp on a system basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CMIN ALL  | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CMIN c    | Clear minor alarm indication on attendant consoles for customer c. (not applicable for Release 22)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DISL loop | Disable MFS loop. For NT8D17 Conference/TDS/MFS cards, see ENLL command.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DISX loop | <p>Disable NT8D17 Conference/TDS/MFS card on loop and loop + 1.</p> <p>Disables the entire combined Conference, Tone and Digit Switch, and MF Sender (XCT) card. Both the even numbered TDS/MFS loop and adjacent conference loop are disabled.</p> <p>Where: loop = 0, 2, 4, . . . 158</p> <p>The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card.</p> <p>The ENLX and DISX commands are recommended. The ENLX command must be used if the DISX command was used to disable the card.</p> <p>This command can be used in LD 34, LD 38 and LD 46.</p> |
| END       | Stop all current testing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| ENLL loop | <p>Enable loop.</p> <p>For NT8D17 Conference/TDS/MFS cards the DISX and ENLX commands must be used whenever the faceplate switch of the card has been toggled. ENLL will software enable the card but the card will not be properly reset.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

# LD 46

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENLX loop     | <p>Enable NT8D17 Conference/TDS/MFS card on loop and loop + 1.</p> <p>Enables all functions on the NT8D17 Conference/TDS card. Both the even numbered TDS/MFS loop and adjacent conference loop are enabled. Where: loop = 0, 2, 4. . . 158</p> <p>If one of the loops is already enabled, it is disabled and then both loops are enabled. Enabling more than 16 conference loops may cause system to lock-up.</p> <p>This command initiates card tests, downloads software and can be used in LD 34, LD 38 and LD 46.</p> <p>The DISL and ENLL commands can be used on the even number loop for the TDS/MFS functions. However, this only prevents the loop from being used by software and does not affect the hardware status of the card. The ENLX and DISX commands are recommended.</p> <p>The Conf/TDS card is not enabled automatically when it is inserted.</p> |
| MFS loop      | Test and enable MFS loop.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| STAT loop     | <p>Get status of MFS loop. Response is:</p> <p><b>LOOP UNEQ</b>—loop is unequipped</p> <p><b>LOOP DSBL</b>—loop is disabled</p> <p><b>CHAN yy</b>—number of channels busy</p> <p><b>xx DSBL yy BUSY</b>—number of channels disabled &amp; busy</p> <p><b>NOT MFS</b>—loop is not an MFS loop</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| TONE loop     | Enter input mode to provide MF tone bursts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| TONE loop ALL | Provide MF tone bursts for all digits on specified loop (1 to 9, 0, 11 to 15, in that order).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

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## LD 48—Link Diagnostic

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The Link Diagnostic program is used to maintain data links used with various special features and auxiliary data links. A maintenance telephone cannot use LD 48.

### Automatic Call Distribution Links

When equipped with the Automatic Call Distribution (ACD) feature, the Meridian 1/Meridian SL-1 is supplemented with an Auxiliary Data Store (ADS) minicomputer system. The auxiliary data processor is located external to the Meridian 1/Meridian SL-1 and is connected via a high-speed link and a low-speed link.

The high-speed link is used for transmission of ACD-related messages between the Meridian 1/Meridian SL-1 and the auxiliary processor; the low-speed link is used for transmission of maintenance/error messages between the maintenance TTY (connected to the Meridian 1/Meridian SL-1) and the auxiliary processor.

**Note:** When enabling a high-speed link (using the command “ENL HSL” or “ENL SDI HIGH” in LD 48 ), the craftsperson must log out of the TTY to receive a message from the switch which confirms that the high-speed link (HSL) has been enabled.

Each Auxiliary Processor Link (APL) consists of a single Serial Data Interface (SDI) port connected via an interface cable to an interface port on the auxiliary processor.

### ACD High speed and low speed link monitor

The ACD monitor diagnoses messages which flow across the link. This tool is useful to someone experienced with message formats and protocols.

## **APL monitor**

The APL monitor is a tool used to diagnose the messages flowing across the link. This is only useful for someone experienced with the message formats and protocols.

## **Integrated Messaging System Links**

The link maintenance capabilities provided for Integrated Messaging System (IMS) and Integrated Voice Messaging System (IVMS) links allow the link to be disabled/enabled and put into the maintenance mode.

The link software/hardware status can also be displayed. The program allows the craftsman to request that the printouts of all packed and/or unpacked messages be sent over a specified APL link.

Using print options (packed/unpacked messages) and observing the patterns of messages sent over the link, the most probable fault location (AUX, Meridian 1/Meridian SL-1 or SDI cable) can be determined.

## **Command and Status Links (CSL)**

The Command and Status Link is an application protocol used for communication between the Meridian 1/Meridian SL-1 CPU and an external Value Added Server such as the Meridian Mail MP. The CSL runs on an Enhanced Serial Data Interface (ESDI) card.

In addition to the tests in LD 48, resident firmware diagnostics for the CSLs and ESDIs can output CSA, ESDA, ESDI error messages.

---

## T1 Multipurpose Serial Digital Interface (TMDI) commands

The TMDI provides 1 port for ISDN Primary Rate D-channel (DCH) and 1 port for 1.5Mb/s Digital Trunk Interface (DTI).

The TMDI commands are listed below, **x** is the TMDI card number (defined by prompt DLOP in LD 17). These commands are provided in Link Diagnostic (LD 48) and D-channel Diagnostic (LD 96) and LD 42.

|                       |                                                      |
|-----------------------|------------------------------------------------------|
| DIS TMDI x (ALL)      | Disable TMDI card x (card)                           |
| DIS TMDI x u          | Disable TMDI card x unit u                           |
| ENL TMDI x (ALL, FDL) | Enable TMDI card x (card, Forced Download)           |
| ENL TMDI x u          | Enable TMDI card x unit u                            |
| RST TMDI x            | Reset TMDI card x                                    |
| SLFT TMDI x           | Invoke self-test for TMDI card x                     |
| STAT TMDI (x) (FULL)  | Get status of TMDI card (x) (additional information) |

---

### Application Module Link (AML)

An Application Module Link (AML) provides a connection to applications such as Meridian Link. The AML is configured on an Enhanced Serial Data Interface (ESDI).

### AML/CSL monitor

The AML monitor is a tool used to diagnose the messages flowing across the link. This is only useful for someone experienced with the message formats and protocols.

### Voice Mailbox Administration (VMBA)

Voice Mailbox Administration (VMBA) and Meridian Mail 9. It allows for Integrated Voice Mailbox Administration.

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## Basic commands

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## Basic commands

|                  |                                                                   |
|------------------|-------------------------------------------------------------------|
| ACMS x           | Automatic set-up for Command and Status link x                    |
| CMIN ALL         | Clear minor alarm indication on all attendant consoles            |
| CMIN c           | Clear minor alarm indication on attendant consoles for customer c |
| CON ESDI x       | Set up link layer of HDLC protocol                                |
| DIS AML x        | Disable AML x                                                     |
| DIS AML x AUTO   | Disable AUTO recovery on AML x (MSDL only)                        |
| DIS AML x LYR2   | Disable layer two on AML x                                        |
| DIS AML x LYR7   | Disable layer seven on AML x                                      |
| DIS AML x MDL    | Disable MDL error reporting on AML x (MSDL only)                  |
| DIS AML x MON    | Disable monitor on AML x (MSDL only)                              |
| DIS APL x        | Put software AUX link x in maintenance mode                       |
| DIS CMS x        | Disable Command and Status link x                                 |
| DIS ESDI x       | Disable ESDI x                                                    |
| DIS HSL          | Disable the high-speed link                                       |
| DIS ISDI x       | Disable hardware AUX link SDI x                                   |
| DIS MON          | Disable the monitor-bit of high-speed link data                   |
| DIS MSDL x (ALL) | Disable MSDL device x                                             |
| DIS MSGI x       | Disable the MSGI option                                           |
| DIS MSGO x       | Disable the MSGO option                                           |
| DIS PACI x       | Disable the PACI option                                           |
| DIS PACO x       | Disable the PACO option                                           |
| DIS PPRT x       | Disable packet message print option on link x                     |
| DIS PRNT         | Disable the print-bit of high-speed link data                     |
| DIS SDI HIGH     | Disable the SDI port for high-speed link                          |
| DIS SDI LOW      | Disable the SDI port for low-speed link                           |
| DIS STA x        | Disable the STA application.                                      |
| DIS UPRT x       | Disable unpacket message print on AUX link x                      |
| DSC ESDI x       | Disconnect the link                                               |
| ENL AML x        | Enable AML x                                                      |
| ENL AML x ACMS   | Enable automatic set-up on AML x (ESDI only)                      |
| ENL AML x AUTO   | Enable AUTO recovery on AML x (MSDL only)                         |
| ENL AML x FDL    | Force download loadware to the MSDL card and enable AML x         |
| ENL AML x LYR2   | Enable layer two on AML x                                         |
| ENL AML x LYR7   | Enable layer seven on AML x                                       |
| ENL AML x MDL    | Enable MDL error reporting on AML x (MSDL only)                   |

|                        |                                                                                  |
|------------------------|----------------------------------------------------------------------------------|
| ENL AML x MON          | Enable monitor on AML x (MSDL only)                                              |
| EST AML x              | Establish layer two on AML x                                                     |
| ENL APL x              | Put software AUX link x in non-maintenance mode                                  |
| ENL CMS x              | Enable CSL x                                                                     |
| ENL ESDI x             | Enable ESDI x                                                                    |
| ENL HSL                | Enable the high-speed link                                                       |
| ENL ISDI x             | Enable AUX link SDI x                                                            |
| ENL MON                | Print software information at maintenance TTY                                    |
| ENL MSDL x (ALL, FDL)  | Enable MSDL device x                                                             |
| ENL MSGI x             | Print incoming messages from link x                                              |
| ENL MSGO x             | Print outgoing messages from link x                                              |
| ENL PACI x             | Print incoming messages from link x                                              |
| ENL PACO x             | Print outgoing messages from link x                                              |
| ENL PPRT x             | Enable packet message print option on link x                                     |
| ENL PRNT               | Connect high-speed link to TTY                                                   |
| ENL SDI HIGH           | Enable SDI port for high-speed link                                              |
| ENL SDI LOW            | Enable SDI port for low-speed link                                               |
| ENL UPRT x             | Enable unpacked message print on link x                                          |
| ENLX MSGI x p          | Output incoming priority p messages from link x                                  |
| ENLX MSGO x p          | Output outgoing priority p messages from link x                                  |
| ENL STA x (FDL)        | Enable STA application. The MSDL card must be enabled to implement this command. |
| MAP AML (x)            | Get physical address and card name of one or all AMLs                            |
| MAP STA x              | Get information relating to the STA application.                                 |
| RLS AML x              | Release layer two on AML x                                                       |
| RSET ALL               | Stop printing all messages on a line card                                        |
| RSET BRIM              | Stop printing of messages on SILC/UILC, MISP or digital line card                |
| RSET IFx 1 PDL2 1      | Stop printing SAPI 16 interface messages.                                        |
| RSET IFx 1 PDNI n      | Stop printing network interface messages.                                        |
| RSET IFx l s c u BCH x | Stop printing B-channel terminal interface messages.                             |
| RSET IFx l s c u DCHx  | Stop printing D-channel terminal interface messages.                             |
| RESET IMSG l s c dsl   | Disable monitoring on incoming                                                   |
| RSET MISP loop AMO     | Stop MISP printing of audit messages on MISP card                                |
| RSET MISP loop DGB     | Exit MISP debug                                                                  |
| RSET MISP loop MNT     | Stop MISP printing of status messages on MISP card                               |
| RSET MISP loop MON     | Stop printing of input/output messages on MISP card                              |
| RSET MPHM              | Stop all Meridian Packet Handler message monitoring.                             |
| RSET OMSG l s c dsl    | Disable monitoring on outgoing                                                   |

---

|                      |                                                                                             |
|----------------------|---------------------------------------------------------------------------------------------|
| RSET TNx             | Stop printing messages on an ISDN BRI line card                                             |
| RST MSDL x           | Reset MSDL device x                                                                         |
| SET IMSG c dsl MON x | Set monitor on incoming msg                                                                 |
| SET OMSG c dsl MON x | Set monitor on outgoing msg                                                                 |
| SETM BRIM xxxx       | Set printing of messages on SILC/UILC, MISP or digital line card                            |
| SETM IFx 1 PDL2 1    | Set printing of SAPI 16 interface messages                                                  |
| SETM IFx 1 PDNI n    | Set printing of network interface messages.                                                 |
| SETM IFx c u BCHx    | Set printing of B-channel terminal interface messages.                                      |
| SETM IFx c u DCHx    | Set printing of D-channel terminal interface messages.                                      |
| SETM MISP loop AMO   | Set printing of audit messages on MISP card                                                 |
| SETM MISP loop DBG   | Set debug option on MISP card                                                               |
| SETM MISP loop MNT   | Set printing of status messages on MISP card                                                |
| SETM MISP loop MON   | Set printing of input/output messages on MISP card                                          |
| SETM MPHM xxxx       | Set printing of Meridian Packet Handler messages.<br>Where: xxxx = the MPHs to be monitored |
| SETM TNx c u, 31     | Set printing messages on a digital line card unit (u) or ISDN BRI line card (31)            |
| SETM TNx c u, dsl    | Set printing messages on a unit                                                             |
| SLFT AML x           | Invoke self-test for AML x                                                                  |
| SLFT ESDI x          | Invoke ESDI and run self-test                                                               |
| SLFT MSDL x          | Invoke self-test for MSDL device x                                                          |
| STAT AML (x)         | Get AML status                                                                              |
| STAT APL x           | Display status of AUX link x                                                                |
| STAT CMS x           | Get status of Command and Status link x                                                     |
| STAT CNFG            | Get status of link monitor/simulator configuration                                          |
| STAT CSDI x          | Get status of SDI port x                                                                    |
| STAT DSP LNK x       | Get status of all Displays on link x                                                        |
| STAT ESDI x          | Get status of ESDI x                                                                        |
| STAT HSL             | Get high-speed link status                                                                  |
| STAT ISDI x          | Get status of hardware AUX link SDI x                                                       |
| STAT LSL             | Get low-speed link status                                                                   |
| STAT MON (x)         | Get status of one or all message monitors                                                   |
| STAT MSDL (x [FULL]) | Get MSDL status                                                                             |
| STAT SDI HIGH        | Get status of high-speed link port                                                          |
| STAT SDI LOW         | Get status of low-speed link port                                                           |
| STAT STA x           | Get status of STA application.                                                              |
| SWCH AML x y         | Switch active (x) and standby (y) AML                                                       |
| SWCH CMS x y         | Switch active (x) and standby (y) CSL                                                       |
| UPLD AML x TBL x     | Upload parameter Table 1 to 4 from AML x (MSDL only)                                        |

---

## ACD High speed and low speed link commands

The following commands are used to enable, disable, test and check the status of an APL link.

*Note:* When enabling a high-speed link (using the command “ENL HSL” or “ENL SDI HIGH” in LD 48 ), the craftsperson must log out of the TTY to receive a message from the switch which confirms that the high-speed link (HSL) has been enabled.

|               |                                          |
|---------------|------------------------------------------|
| DIS HSL       | Disable the high-speed link              |
| DIS SDI HIGH  | Disable the SDI port for high-speed link |
| DIS SDI LOW   | Disable the SDI port for low-speed link  |
| ENL HSL       | Enable the high-speed link               |
| ENL SDI HIGH  | Enable SDI port for high-speed link      |
| ENL SDI LOW   | Enable SDI port for low-speed link       |
| STAT HSL      | Get high-speed link status               |
| STAT LSL      | Get low-speed link status                |
| STAT SDI HIGH | Get status of high-speed link port       |
| STAT SDI LOW  | Get status of low-speed link port        |

---

## ACD High speed and low speed link monitor commands

The monitor is a tool used to diagnose the messages flowing across the link. This is only useful for someone experienced with the message formats and protocols.

|              |                                                 |
|--------------|-------------------------------------------------|
| DIS MON      | Disable the monitor-bit of high-speed link data |
| DIS PRNT     | Disable the print-bit of high-speed link data   |
| ENL MON      | Print software information at maintenance TTY   |
| ENL PRNT     | Connect high-speed link to TTY                  |
| STAT MON (x) | Get status of one or all message monitors       |

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## AML commands

The AML commands are listed below, where **x** is the AML logical device number (defined by prompt ADAN in LD 17). Some of these commands only apply to AMLs on an MSDL card.

|                  |                                                           |
|------------------|-----------------------------------------------------------|
| DIS AML x        | Disable AML x                                             |
| DIS AML x AUTO   | Disable AUTO recovery on AML x (MSDL only)                |
| DIS AML x LYR2   | Disable layer two on AML x                                |
| DIS AML x LYR7   | Disable layer seven on AML x                              |
| DIS AML x MDL    | Disable MDL error reporting on AML x (MSDL only)          |
| DIS AML x MON    | Disable monitor on AML x (MSDL only)                      |
|                  |                                                           |
| ENL AML x        | Enable AML x                                              |
| ENL AML x ACMS   | Enable automatic set-up on AML x (ESDI only)              |
| ENL AML x AUTO   | Enable AUTO recovery on AML x (MSDL only)                 |
| ENL AML x FDL    | Force download loadware to the MSDL card and enable AML x |
| ENL AML x LYR2   | Enable layer two on AML x                                 |
| ENL AML x LYR7   | Enable layer seven on AML x                               |
| ENL AML x MDL    | Enable MDL error reporting on AML x (MSDL only)           |
| ENL AML x MON    | Enable monitor on AML x (MSDL only)                       |
| EST AML x        | Establish layer two on AML x                              |
|                  |                                                           |
| MAP AML (x)      | Get physical address and card name of one or all AMLs     |
|                  |                                                           |
| RLS AML x        | Release layer two on AML x                                |
|                  |                                                           |
| SLFT AML x       | Invoke self-test for AML x                                |
| STAT AML (x)     | Get AML status                                            |
| SWCH AML x y     | Switch active (x) and standby (y) AML                     |
|                  |                                                           |
| UPLD AML x TBL x | Upload parameter table 1 to 4 from AML x (MSDL only)      |

## AML over Ethernet (ELAN) commands

|            |                                          |
|------------|------------------------------------------|
| DIS ELAN   | Disable ELAN (server task)               |
| DIS ELAN x | Disable ELAN link number x (client task) |
| ENL ELAN   | Enable ELAN (server task)                |
| STAT ELAN  | Check status of all configured ELANs     |
| STAT ELAN  | Check status of ELAN x                   |

## AML/CSL monitor commands

The AML monitor is a tool used to diagnose the messages flowing across the link. This is only useful for someone experienced with the message formats and protocols. These commands apply to CSLs or AMLs on ESDI cards and AMLs on MSDL cards.

|                                  |                                                                                            |
|----------------------------------|--------------------------------------------------------------------------------------------|
| DIS MSGI x                       | Disable output of incoming layer seven messages on AML x                                   |
| DIS MSGO x                       | Disable output of outgoing layer seven messages on AML x                                   |
| DIS PACI x                       | Disable output of incoming layer two messages on AML x                                     |
| DIS PACO x                       | Disable output of outgoing layer two messages on AML x                                     |
| DISM MSGI <link#><msg1><msg2>... | Disable message input/output monitoring excluding those specified incoming messages        |
| DISM MSGO <link#><msg1><msg2>... | Disable message input/output monitoring excluding those specified outgoing messages        |
| DSIM MSGI <link#>                | Disable inclusive incoming message monitoring                                              |
| DSIM MSGO <link#>                | Disable inclusive outgoing message monitoring                                              |
| DSIP MSGI <link#><pri><pri>...   | Disable monitoring of inclusive priorities on incoming messages                            |
| DSIP MSGO <link#><pri><pri>...   | Disable monitoring of inclusive priorities on outgoing messages                            |
| DSIT MSGI <link#><l><s><c><u>    | Disable inclusive TN incoming message monitoring                                           |
| DSIT MSGO <link#><l><s><c><u>    | Disable inclusive TN outgoing message monitoring                                           |
| DSXP MSGI <link#><pri><pri>...   | Disable monitoring of exclusive priorities on incoming messages                            |
| DSXP MSGO <link#><pri><pri>...   | Disable monitoring of exclusive priorities on outgoing messages                            |
| DSXT MSGI <link#><l><s><c><u>    | Disable exclusive TN incoming message monitoring                                           |
| DSXT MSGO <link#><l><s><c><u>    | Disable exclusive TN outgoing message monitoring                                           |
| ENIM MSGI <link#><msg1><msg2>... | Enable inclusive input/output message monitoring of only those specified incoming messages |
| ENIM MSGO <link#><msg1><msg2>... | Enable inclusive input/output message monitoring of only those specified outgoing messages |
| ENIP MSGI <link#><pri><pri>...   | Enable inclusive input/output monitoring of incoming messages with specified priorities    |

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|                                  |                                                                                              |
|----------------------------------|----------------------------------------------------------------------------------------------|
| ENIP MSGO <link#><pri><pri>...   | Enable inclusive input/output monitoring of outgoing messages with specified priorities      |
| ENIT MSGI <link#><l><s><c><u>    | Enable inclusive input/output monitoring of incoming messages with specified TN              |
| ENIT MSGO <link#><l><s><c><u>    | Enable inclusive input/output monitoring of outgoing messages with specified TN              |
| ENL MSGI x                       | Enable output of incoming layer seven messages on AML x                                      |
| ENL MSGO x                       | Enable output of outgoing layer seven messages on AML x                                      |
| ENL PACI x                       | Enable output of incoming layer two messages on AML x                                        |
| ENL PACO x                       | Enable output of incoming layer two messages on AML x                                        |
| ENXM MSGI <link#><msg1><msg2>... | Enable message input/output monitoring excluding those specified incoming messages           |
| ENXM MSGO <link#><msg1><msg2>... | Enable message input/output monitoring excluding those specified outgoing messages           |
| ENXP MSGI <link#><pri><pri>...   | Enable input/output incoming message monitoring excluding messages with specified priorities |
| ENXP MSGO <link#><pri><pri>...   | Enable input/output outgoing message monitoring excluding messages with specified priorities |
| ENXT MSGI <link#><l><s><c><u>    | Enable input/output message monitoring excluding incoming messages with specified TN         |
| ENXT MSGO <link#><l><s><c><u>    | Enable input/output message monitoring excluding outgoing messages with specified TN         |
| FLSH                             | Disable monitor and flash buffers                                                            |
| STAT MON (x)                     | Get status of one or all message monitors                                                    |

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## Auxiliary Processor Link (APL) commands

The following commands are used to enable, disable, test and check the status of an APL link.

|                |                                                 |
|----------------|-------------------------------------------------|
| DIS APL x      | Put software AUX link x in maintenance mode     |
| DIS ISDI x     | Disable hardware AUX link SDI x                 |
| ENL APL x      | Put software AUX link x in non-maintenance mode |
| ENL ISDI x     | Enable AUX link SDI x                           |
| STAT APL x     | Display status of AUX link x                    |
| STAT DSP LNK x | Get status of all Displays on link x            |
| STAT ISDI x    | Get status of hardware AUX link SDI x           |

---

## APL monitor commands

The APL monitor is a tool used to diagnose the messages flowing across the link. This is only useful for someone experienced with the message formats and protocols.

|                |                                                    |
|----------------|----------------------------------------------------|
| DIS PPRT x     | Disable packet message print option on link x      |
| DIS UPRT x     | Disable unpacket message print on AUX link x       |
| ENL PPRT x     | Enable packet message print option on link x       |
| ENL UPRT x     | Enable unpacked message print on link x            |
| ENLX MSGI x p  | Output incoming priority p messages from link x    |
| ENLX MSGO x p  | Output outgoing priority p messages from link x    |
| STAT CNFG      | Get status of link monitor/simulator configuration |
| STAT CSDI x    | Get status of SDI port x                           |
| STAT DSP LNK x | Get status of all Displays on link x               |

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## T1 Multipurpose Serial Digital Interface (TMDI) commands

The TMDI provides 1 port for ISDN Primary Rate D-channel (DCH) and 1 port for 1.5Mb/s Digital Trunk Interface (DTI).

The TMDI commands are listed below, **x** is the TMDI card number (defined by prompt DLOP in LD 17). These commands are provided in Link Diagnostic (LD 48) and D-channel Diagnostic (LD 96) and LD 42.

|                       |                                                      |
|-----------------------|------------------------------------------------------|
| DIS TMDI x (ALL)      | Disable TMDI card x (card)                           |
| DIS TMDI x u          | Disable TMDI card x unit u                           |
| ENL TMDI x (ALL, FDL) | Enable TMDI card x (card, Forced Download)           |
| ENL TMDI x u          | Enable TMDI card x unit u                            |
| RST TMDI x            | Reset TMDI card x                                    |
| SLFT TMDI x           | Invoke self-test for TMDI card x                     |
| STAT TMDI (x) (FULL)  | Get status of TMDI card (x) (additional information) |

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## Voice Mailbox Administration (VMBA) commands

Voice Mailbox Administration (VMBA) allows for Integrated Voice Mailbox Administration. Refer to the *Features and services* NTP for complete details.

|                          |                                                                 |
|--------------------------|-----------------------------------------------------------------|
| DIS VMBA <vsid>          | Disable the Voice Mailbox Administration application            |
| DIS VMBA <vsid> AUDT     | Disable the mailbox database audit                              |
| DIS VMBA <vsid> UPLD     | Disable the mailbox database upload                             |
| ENL VMBA <vsid>          | Enable the Voice Mailbox Administration application             |
| ENL VMBA <vsid> AUDT     | Enable the mailbox database audit                               |
| ENL VMBA <vsid> UPLD     | Enable the mailbox database upload                              |
| STAT VMBA <vsid>         | Get the status for the Voice Mailbox Administration application |
| STAT VMBA <vsid><br>AUDT | Get the status for the Voice Mailbox database audit             |
| STAT VMBA <vsid><br>UPLD | Get the status for the Voice Mailbox database upload            |

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## Alphabetical list of commands

| Command           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMIN ALL          | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| CMIN c            | Clear minor alarm indication on attendant consoles for customer c.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| DIS AML x         | <p>Disable AML x.</p> <p>Whenever the third parameter (LYR2, LYR7, etc.) is not typed, the overlay defaults the third parameter of the DIS command to LYR2. Therefore, this command is equivalent to DIS AML x LYR2. Refer to DIS AML x LYR2 command definition, for more information.</p>                                                                                                                                                                                                                                    |
| DIS AML x<br>AUTO | Disable AUTO recovery on AML x (MSDL only). This command is not available for an ESDI AML.                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| DIS AML x LYR2    | <p>Disable layer two on AML x.</p> <p><b>MSDL Requirement:</b> The MSDL card must be enabled. The AML link state can be any state other than the disabled state, and should not be in the process of self-test. Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.</p> <p><b>MSDL Action:</b> The AML link state is changed to the disable state. The MSDL port on which the AML is configured is disabled.</p> <p><b>ESDI:</b> The ESDI port is disabled. The port must be idle.</p> |
| DIS AML x LYR7    | <p>Disable layer seven on AML x.</p> <p>The MSDL or ESDI card must be enabled. The AML layer two must be enabled and established, and AML layer seven must also be enabled.</p> <p>Example: ENL MSDL x followed by ENL AML x LYR2 followed by EST AML x followed by ENL AML x LYR7 must have been executed at an earlier time.</p> <p><b>Action:</b> A request to disable the AML layer seven is issued. SL-1 will stop sending polling messages to the far-end.</p>                                                          |

- DIS AML x MDL    Disable MDL error reporting on AML x (MSDL only).  
MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled.  
Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.  
MSDL Action: The MSDL AML loadware command to disable the debug monitor is sent to the MSDL card.  
This command is not available for ESDI AML.
- DIS AML x MON    Disable monitor on AML x (MSDL only).  
MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled.  
Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.  
MSDL Action: The MSDL AML loadware command to disable the debug monitor is sent to the MSDL card.  
This command is not available for ESDI AML.
- DIS APL x        Put software AUX link x in maintenance mode.
- DIS ELAN        Disable the ELAN (server task)
- DIS ELAN x      Disable ELAN link number x (client task)  
If the application ELAN client task cannot be established from the Meridian 1, the Meridian 1 can disable the client task with this command.
- DIS HSL        Disable the high-speed link.
- DIS ISDI x      Disable hardware AUX link SDI x.
- DIS MON        Disable the monitor-bit of high-speed link data.

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIS MSDL x (ALL) | <p>Disable MSDL device.</p> <p>When entered without the optional parameter, the disable MSDL command attempts to disable the MSDL card. Disabling the card via this command is permitted from either the Enabled (ENBL) state or the System Disabled (SYS DSBL) state.</p> <p>When attempted on an MSDL that does not have any ports enabled, this command will succeed. The only exception to this is when the disable card message needs to be sent to the card, and there is no buffer currently available for building the message (MSDL015 is output to the TTY). In this unusual situation, attempting the command again will most likely result in success.</p> <p>Application Overlays are not erased when the MSDL is disabled.</p> <p>If there are any ports that are still running in the MSDL card, the 'ALL' option must be used to force disable the active ports. As an alternative to this command, the craftsperson can use the commands provided by the applications to disable the ports (D-channels or AML) individually, and then use the 'DIS MSDL x' command.</p> <p>The command 'DIS MSDL x ALL' is not allowed if the active TTY (the terminal from which the command was entered) is supported on the MSDL card in question.</p> <p>Software disable the logical channel prior to disabling the physical DNUM port.</p> |
| DIS MSGI x       | <p>Disable printing of messages on link x at input queue level.<br/>Disable output of incoming layer seven messages on AML x.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| DIS MSGO x       | <p>Disable printing of messages on link x at output queue level.<br/>Disable output of outgoing layer seven messages on AML x.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| DIS PACI x       | <p>Disable printing of input messages on link x at input buffer level. (disable output of incoming layer two messages on AML x)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| DIS PACO x       | <p>Disable printing of output messages on link x at output buffer level. (disable output of outgoing layer two messages on AML x)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

- DIS PPRT x        Disable packet message print option on link x.
- DIS PRNT         Disable the print-bit of high-speed link data.
- DIS SDI HIGH     Disable the SDI port for high-speed link.
- DIS SDI LOW      Disable the SDI port for low-speed link.
- DIS STA x        Disable the STA application.
- This command disables the application, the administration port, and any other additional ports. The associated ports must be disabled before using this command. x = the logical ID number identifying the STA application.

DIS UPRT x        Disable unpacket message print on AUX link x.

DIS VMBA <vsid>

Disable the Voice Mailbox Administration application. This command is used to disable the Voice Mailbox Application. Enter the command in the following format:

**DIS VMBA <vsid> <NNNN>**

Where:

**vsid** = The VAS ID number associated with VMBA.

**NNNN** = AUDT or UPLD for the database audit or upload.

AUDT and UPLD are optional entries. The VAS ID must be entered.

The Voice Mailbox audit and upload functions are aborted when the application is disabled. Be sure to get the status of those functions before disabling the application.

DIS VMBA <vsid> AUDT

Disable the mailbox database audit. This command aborts the audit function whether it was invoked manually or automatically.

DIS VMBA <vsid> UPLD

Disable the mailbox database upload. This command aborts the audit function whether it was invoked manually or automatically.

- DISM MSGI <link#><msg1><msg2>...  
Disable message input/output monitoring excluding those specified incoming messages
- DISM MSGO <link#><msg1><msg2>...  
Disable message input/output monitoring excluding those specified outgoing messages
- DSIM MSGI <link#>  
Disable inclusive incoming message monitoring
- DSIM MSGO <link#>  
Disable inclusive outgoing message monitoring
- DSIP MSGI <link#><pri><pri>...  
Disable monitoring of inclusive priorities on incoming messages
- DSIP MSGO <link#><pri><pri>...  
Disable monitoring of inclusive priorities on outgoing messages
- DSIT MSGI <link#><l><s><c><u>  
Disable inclusive TN incoming message monitoring
- DSIT MSGO <link#><l><s><c><u>  
Disable inclusive TN outgoing message monitoring
- DSXP MSGI <link#><pri><pri>...  
Disable monitoring of exclusive priorities on incoming messages
- DSXP MSGO <link#><pri><pri>...  
Disable monitoring of exclusive priorities on outgoing messages
- DSXT MSGI <link#><l><s><c><u>  
Disable exclusive TN incoming message monitoring
- DSXT MSGO <link#><l><s><c><u>  
Disable exclusive TN outgoing message monitoring
- ENIM MSGI <link#><msg1><msg2>...

Enable inclusive input/output message monitoring of only those specified incoming messages

ENIM MSGO <link#><msg1><msg2>...

Enable inclusive input/output message monitoring of only those specified outgoing messages

ENIP MSGI <link#><pri><pri>...

Enable inclusive input/output monitoring of incoming messages with specified priorities

ENIP MSGO <link#><pri><pri>...

Enable inclusive input/output monitoring of outgoing messages with specified priorities

ENIT MSGI <link#><l><s><c><u>

Enable inclusive input/output monitoring of incoming messages with specified TN

ENIT MSGO <link#><l><s><c><u>

Enable inclusive input/output monitoring of outgoing messages with specified TN

ENL AML x            Enable AML x.

For MSDL: If AUTO recovery is off, then this command is the same as the ENL AML x LYR2 command. If AUTO recovery is on, an attempt is made to establish the link (layer two) and the application (layer seven).

For ESDI: This is the same as the ENL AML x LYR2 command.

ENL AML x ACMS

Enable automatic set-up on AML x (ESDI only). This command is valid only for ESDI AML and is not available on the MSDL AML. It is equivalent to ACMS x command.

ENL AML x AUTO

Enable AUTO recovery on AML x (MSDL only). This command is not available for ESDI AML links.

- ENL AML x FDL Force download loadware to the MSDL card and enable AML x.
- MSDL Requirement: The MSDL card must be enabled. The AML link state must be in the disable state. All other MSDL AML links configured on the same MSDL card must be in the disable state. Example: ENL MSDL x must have been executed at an earlier time.
- MSDL Action: The MSDL AML loadware is downloaded to the MSDL card. While download is in progress a series of dots are output. Once the command is executed successfully the ENL AML x LYR2 command is executed automatically.
- ENL AML x LYR2 Enable layer two on AML x.
- MSDL Requirement: The MSDL card must be enabled. The AML link state must be in the disable state. Example: ENL MSDL x must have been executed at an earlier time.
- MSDL Action: The AML link state is changed to the release state. The MSDL port on which the AML is configured is enabled. If the ENL AML x command is executed successfully, and MSDL AML auto recovery is in the enable state, then the EST AML x is issued automatically.
- ESDI: The ESDI port is enabled. The ESDI card must first be disabled.
- ENL AML x LYR7 Enable layer seven on AML x.
- MSDL Requirement: The MSDL card must be enabled. The AML link should not be in the simulation mode. The AML layer two must be enabled and established, and AML layer seven must be disabled.
- Example: ENL MSDL x followed by ENL AML x LYR2 followed by EST AML x must have been executed at an earlier time.
- MSDL Action: A request to enable the AML layer seven is issued. Polling messages are sent to the far end.
- ESDI: Layer seven is enabled for the ESDI AML. The ENL AML x (LYR2) command must be completed successfully first.

- ENL AML x MDL    Enable MDL error reporting on AML x (MSDL only).  
MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled.  
Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.  
MSDL Action: The MSDL AML loadware command to enable the MDL error reporting is sent to the MSDL card.  
This command is not available for ESDI AML links.
- ENL AML x MON    Enable monitor on AML x (MSDL only).  
MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled.  
Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.  
MSDL Action: The MSDL AML loadware command to enable the debug monitor is sent to the MSDL card  
This command is not available for ESDI AML links.
- ENL APL x        Put software AUX link x in non-maintenance mode.
- ENL ELAN        Enable ELAN server task  
When the application establishes connection to a Meridian 1 via this ELAN, a client process will be spawned for this application. The APP\_IP\_ID (Port ID and IP address) of each connection will be passed into the Meridian 1.
- ENL HSL         Enable the high-speed link.  
When enabling a high-speed link, the craftsperson must log out of the TTY to receive a message from the switch which confirms that the high-speed link (HSL) has been enabled.
- ENL IALM <vsid>    Enable the integrated alarms application on the specified VAS. A VAS011 message is printed if the application is successfully enabled and a VAS012 if it is not.
- ENL ISDI x       Enable AUX link SDI x.

- ENL MON                    Print software information at maintenance TTY.
- This command causes software information being sent to the auxiliary processor to be printed at the TTY. This information would include counts of Cumulative Negative Acknowledgments (NAKs), time-outs and many other control characteristics of the link.
- Use this command only when the ACD is handling light traffic. Otherwise, the TTY will be overloaded from the high volume of messages.
- 
- ENL MSDL x (FDL, ALL)    Enable MSDL card.
- When entered without any of the optional parameters, the enable MSDL command attempts to enable the MSDL card. Enabling the card via this command is only permitted if the card is currently in the Manually Disabled (MAN DSBL) state.
- The enable card succeeds if:
1. the card is resident in the shelf
  2. it has passed all the self-tests
  3. the MSDL base software has been downloaded and is responding
- If the MSDL base software and any configured application software has not been downloaded, or if the version of the software on the card is different from the version on the system disk, software download occurs. While download is in progress, a series of dots (".") are output.
- If the FDL (forced download) option is entered, the MSDL base software and all the configured applications will be downloaded regardless if the application already exists on the card. Following the download, the card will be enabled.
- If the ALL option is entered, the card will be enabled (provided the three conditions mentioned above are met), all the applications will be downloaded if necessary and then an attempt will be made to enable all the links/ports configured on the card.
- Additionally, the enable command with the ALL option can be entered when the card is already in the enabled state. This allows you to enable any disabled links/ports through one command. It is not possible to use both the ALL and the FDL options in the same command.
-

**ENL MSGI x**      Print incoming messages from link x. Enable output of incoming layer seven messages on AML x.

This command allows printing of all incoming message received over link x on the maintenance output device. The SSD signaling messages and the program input are not printed. This is typically used to check the validity of incoming messages for the different queues.

**ENL MSGO x**      Print outgoing messages from link x. Enable output of outgoing layer seven messages on AML x.

This command allows printing for all outgoing messages over link x on the maintenance output device. This is typically used to check the validity of outgoing messages sent from the application layer to the output queue.

**ENL PACI x**      Print incoming ESDI messages from link x. Enable output of incoming layer two messages on AML x.

When enabled, all incoming messages received on link x to the ESDI are printed on the maintenance TTY, including SSD signaling messages. Typically this is used to check the correctness of the incoming messages as received from the ESDI in the data block format.

**ENL PACO x**      Print outgoing ESDI messages from link x. Enable output of incoming layer two messages on AML x.

When enabled, all outgoing messages are sent through link x to the ESDI and are printed on the maintenance TTY. The message will be printed in the data block format required by the ESDI.

**ENL PPRT x**      Enable packet message print option on link x. Printouts can be up to 7 lines in length and are of the form:

```
APLO xxx y xxx. . . x
APLI xxx y xxx. . . x
```

Where:

**APLO** = the message is output from the Meridian 1  
**APLI** = the message is input to Meridian 1 from AUX  
**xxx** = number of the APL link.  
**y** = number from 0 to 6 indicating the printout line number of the message. This field is not used for ACK and NAK messages.

---

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ENL PRNT           | <p>Connect high-speed link to TTY.</p> <p>Disconnects the high-speed link from the AUX and connects it instead to an RS-232-C compatible TTY device. This disrupts communication between the Meridian 1 and the auxiliary processor. It enables ACD related messages (which would normally be sent to the auxiliary processor) to be printed at the TTY connected to the high-speed link.</p> <p>Normal communications between the Meridian 1 and the auxiliary processor will not continue if the ENL PRNT command is inputted while the Meridian 1 and auxiliary processor are still connected. A different message format is used between the Meridian 1 and the auxiliary processor. This condition will cause the HSL to go down because the auxiliary processor cannot interpret this other message format.</p> |
| ENL SDI HIGH       | <p>Enable SDI port for high-speed link.</p> <p>When enabling a high-speed link, the craftsperson must log out of the TTY to receive a message from the switch which confirms that the high-speed link (HSL) has been enabled.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| ENL SDI LOW        | <p>Enable SDI port for low-speed link.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ENL STA x<br>(FDL) | <p>Enable STA application. The MSDL card must be enabled to implement this command, where:</p> <p style="padding-left: 40px;">x = the logical ID number identifying the STA application.<br/>FDL = force download the application. If not invoked, the application is downloaded only when needed</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ENL UPRT x         | <p>Enable unpacked message print on link x. Printouts are of the form: <b>APLMxxx aa b c zzzz. . . z</b></p> <p>Where:</p> <p style="padding-left: 40px;"><b>APLMxxx</b> = indicates unpacked message over link xxx<br/><b>aa</b> = indicates the message length<br/><b>b</b> = indicates the application type<br/><b>c</b> = indicates the message type<br/><b>zzz</b> = these fields are the message body, depending on the application and message type</p>                                                                                                                                                                                                                                                                                                                                                        |

## ENL VMBA <vsid>

Enable the Voice Mailbox Administration application. Enter the command in the following format:

ENL VMBA <vsid> <NNNN> ALL/xxxx

Where:

vsid = The VAS ID number associated with VMBA.

NNNN = AUDT or UPLD for the mailbox database audit or upload functions.

ALL/xxxx = Enable NNNN for ALLDNs with Voice Mailboxes, or a specific DN (xxxx).

NNNN and ALL/xxxx are optional entries. The VAS ID must be entered to initiate this command.

## ENL VMBA <vsid> AUDT

Enable the mailbox database audit. Enter the command in the following format:

ENL VMBA <vsid> AUDT ALL/xxxx

The audit can be implemented for a specific Directory Number by entering the DN following the audit command:

ENL VMBA <vsid> AUDT xxxx

The upload can also be enabled for all DN's eligible for a Voice Mailbox by entering ALL following the audit command:

ENL VMBA <vsid> AUDT ALL

## ENL VMBA <vsid> UPLD

Enable the mailbox database upload. Enter the command in the following format:

ENL VMBA <vsid> UPLD ALL/xxxx

The upload can be implemented for a specific Directory Number by entering the DN following the upload command:

ENL VMBA <vsid> UPLD xxxx

The audit can also be enabled for all DN's configured with Voice Mailboxes by entering ALL following the upload command:

ENL VMBA <vsid> UPLD ALL

- ENLX MSGI x p** Output incoming priority p messages from link x.  
When enabled by the user, all incoming messages received on link x are output, excluding the messages with specified priorities, where “p” is the message priority, and where:
- 1 = the system priority
  - 2 = signaling priority
  - 3 = call processing priority
  - 4 = administration priority
- ENLX MSGO x p** Output outgoing priority p messages from link x.  
When enabled by the user, all outgoing messages sent through link x are output, excluding the messages with specified priorities, where “p” is the message priority, and where:
- 1 = the system priority
  - 2 = signaling priority
  - 3 = call processing priority
  - 4 = administration priority.
- EST AML x** Establish layer two on AML x.  
The layer two is established for the AML configured on the given MSDL port. The layer two is connected for the AML configured on the ESDI card.  
MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled and released.  
Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.  
MSDL Action: The MSDL AML link state is changed into the established state. If EST AML x executes successfully, and provided that the MSDL AML AUTO recovery is enabled, next the ENL AML x LYR7 is executed automatically.  
ESDI: Layer two is connected for the ESDI AML. The port must be enabled first.
- ENXM MSGI <link#><msg1><msg2>...**  
Enable message input/output monitoring excluding those specified incoming messages
- ENXM MSGO <link#><msg1><msg2>...**  
Enable message input/output monitoring excluding those specified outgoing messages

ENXP MSGI <link#><pri><pri>...

Enable input/output incoming message monitoring excluding messages with specified priorities

ENXP MSGO <link#><pri><pri>...

Enable input/output outgoing message monitoring excluding messages with specified priorities

ENXT MSGI <link#><l><s><c><u>

Enable input/output message monitoring excluding incoming messages with specified TN

ENXT MSGO <link#><l><s><c><u>

Enable input/output message monitoring excluding outgoing messages with specified TN

FLSH                    Disable monitor and flash buffers

MAP AML (x)            Get physical address and card name of one or all AMLs.

This command outputs the card name and physical card address and ports for one or all AMLs. This information is also output with the STAT AML command. For example:

```
MAP AML
AML: 05 ESDI: 04
AML: 12 MSDL:07 PORT:1
```

MAP STA x             Get information relating to the STA application.

This command displays the logical, physical, and port allocation information related to the STA application. If the ID number (x) is not specified, the information for all existing STAs is given.

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RLS AML x              | <p>Release layer two on AML x.</p> <p>The layer two is released for the AML link configured on the given MSDL port. The layer two is disconnected for the AML configured on the ESDI card.</p> <p>MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled and established. Example: ENL MSDL x followed by ENL AML x LYR2 followed by EST AML x must have been executed at an earlier time.</p> <p>MSDL Action: Prior to the execution of the RLS AML x, if the MSDL AML layer seven is enabled, the DIS AML x LYR7 is automatically executed. The MSDL AML state is changed to the release state.</p> <p>ESDI: The layer two is disconnected for the ESDI AML port. The port must be in the connected and idle state first.</p> |
| RSET ALL               | Stop printing all messages on a line card.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| RSET BRIM              | Stop printing of messages on SILC/UILC, MISP or digital line card.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| RSET IFx 1 PDL2 1      | Stop printing SAPI 16 interface messages.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RSET IFx 1 PDNI n      | Stop printing network interface messages.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RSET IFx I s c u BCH x | Stop printing B-channel terminal interface messages.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| RSET IFx I s c u DCHx  | Stop printing D-channel terminal interface messages.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| RSET IMSG I s c dsl    | Disable monitoring on incoming                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| RSET MISP x AMO        | Stop printing of audit messages on MISP specified.<br>Where: x = loop .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| RSET MISP x DGB        | Exit MISP debug. Where: x = loop .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

RSET MISP loop MNT

Stop printing of status messages on MISP specified.  
Where: x = loop.

RSET MISP x MON

Stop printing of input/output messages on MISP specified.  
Where: x = loop.

RSET MPHM

Stop all Meridian Packet Handler message monitoring.

RSET OMSG l s c dsl

Disable monitoring on outgoing

RSET TNx

Stop printing messages on an ISDN BRI line card.  
Where: x = 0-6 (TN0-TN6).

RST MSDL x

Reset MSDL card.

This command causes a power-on reset on the MSDL, followed by a series of short self-tests. Resetting the card via this command is only permitted if the card is in the Manually Disabled (MAN DSBL) state.

SET IMSG l s c dsl MON x

Set monitor on incoming msg

SET OMSG l s c dsl MON x

Set monitor on outgoing msg

## SETM BRIM xxxx

Set printing of messages on SILC/UILC, MISP, or digital line card.

This command is used to select various message types for printing on a given TN (defined by SETM TNx commands). The value of xxxx is a HEX word which determines the message types.

|    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |
|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|
| 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|    |    |    |    | X  |    |   |   |   |   | X | X | X | X | X | X |

Bit 0 = Input SSD message from BRI line cards.

Bit 1 = Output SSD message to BRI line cards.

Bit 2 = Input expedited (high priority) message from BRIL application on MISP.

Bit 3 = Output expedited (high priority) message from BRIL application on MISP.

Bit 4 = Input ring message from BRIL application on MISP.

Bit 5 = Output ring message from BRIL application on MISP.

Bit 11 = Call processing error message.

All other Bits are for future use. Note that the SETM TNx command must have been issued before issuing this command.

Examples:

To print input SSD and expedited messages:

```
SETM BRIM 0005 (i.e., 0000000000000101)
```

To print input and output expedited messages:

```
SETM BRIM 000C (i.e., 0000000000001100)
```

## SETM IFx 1 PDL2 1

Set printing of SAPI 16 interface messages.

## SETM IFx 1 PDNI n

Set printing of network interface messages.

## SETM IFx c u BCHx

Set printing of B-channel terminal interface messages.

## SETM IFx c u DCHx

Set printing of D-channel terminal interface messages.

## SETM MISP x AMO

Set printing of audit messages on MISP specified.

Where: x = loop.

These messages are sent from the MISP handler to the MISP basecode. This command is used to turn these messages back on once they have been turned off because:

- debug or monitor (MON) mode is enabled
- RSET x AMO command has been issued

## SETM MISP x DBG

Set debug option on MISP specified. Where: x = loop.

The card must be disabled first. The debug option has the following effect when the MISP is enabled:

- turns off the sanity timer
- stops interface handler audit messages
- no timestamp messages are sent to the MISP card

This command requires a password. The “dot” prompt indicates debug mode is turned on.

## SETM MISP x MNT

Set printing of status messages on MISP specified.

Where: x = loop.

These messages indicate:

- error indication messages from the MISP
- state of L1 on SILC/UILC and L2/L3 on MISP

This option setting is lost during an initialization.

**SETM MISP x MON**

Set printing of input/output messages on MISP card.  
Where: x = loop.

Both the expedited and ring input/output messages are printed. This command also sets the debug option and requires a password.

This command turns on all input/output messages. This may use up all system print registers and may cause system initialization. Therefore use this command with caution.

The debug option is turned off by a system initialization. Restarting debug will also restart the input/output monitoring.

DISABLE MISP prior to issuing this command, re-enable MISP after command issued.

**SETM MPHM xxxx**

Set printing of Meridian Packet Handler messages.  
Where: xxxx = the MPHs to be monitored

**SETM TNx c u, 31**

Set printing messages on a digital line card unit (u) or ISDN BRI line card (31). This command is used in conjunction with the SETM BRIM command.

The value x is a tag number (0-6). For ISDN BRI line cards, you must enter "l s c 31" for the address.

**SETM TNx c u, dsl**

Set printing messages on a unit. This command is used in conjunction with the SETM BRIM command. The value x is a tag number (0-6).

**SETM TNx y**

Set printing messages on a digital line card unit or ISDN BRI line card. Where:

x = tag number 0-6 (TN0-TN6)

y = l s c u (loop, shelf, card, and unit) or l s c dsl (loop, shelf, card, and digital subscriber loop).

If u = 31 when a S/T (SILC) or U (UILC) Interface Line Card is specified for the y parameter, then messages for that line card are printed. This command must be issued before the SET BRIM command.

- SLFT AML x**      Self-test on AML x.
- This command runs the local loop back test for MSDL AML, and the ESDI self-test for the ESDI AML.
- MSDL Requirement: The MSDL card must be enabled. The AML layer two must be disabled.
- Example: ENL MSDL x must have been executed at an earlier time.
- MSDL Action: The MSDL AML local loop back test is executed and upon completion of the test the MSDL AML port is set to the disable state.
- 
- SLFT MSDL x**      Execute a self-test on MSDL card x.
- This command causes a power-on reset on the MSDL, which will be followed by a complete set of self-tests. This command only executes self-tests if the card is in the Manually Disabled (MAN DSBL) state.
- If the self-tests pass, a message indicating this and card id is output.
- If the self-tests fail, a message is output describing which self-test failed. It is useful to note that the first test that fails will abort the self-test sequence, so this command only indicates one test failure, even if multiple tests might fail.
- 
- STAT AML (x)**      Get AML status.
- This command outputs the status of layer two and layer seven of one or all configured AMLs. The designation (DES) of the AML is output if it has been defined for the port in LD 17.
- Examples:
- ```
AML: 01 MSDL: 08 PORT: 00
LYR2: DSBL AUTO: OFF LYR7: DOWN
DES: MERIDIAN_MAIL
AML: 04 ESDI: 10
LYR2: EST AUTO: ON LYR7: ACTIVE
```
-
- STAT APL x** Display status of AUX link x.

STAT CNFG	<p>Get status of link monitor/simulator configuration.</p> <p>Display link monitor/simulator configuration status. The system will respond according to the current configuration as follows:</p> <ul style="list-style-type: none"> — *NOT CONFIG - if system is not configured — *CNFG INT/SIM CSLAPL x CSLSIM x if the system is in internal maintenance mode; shows link numbers of CSLSIM and CSL application program — *CNFG FLD CSL x if the system is in field maintenance mode; shows CSL link number
STAT CSDI x	Get status of SDI port x.
STAT DSP LNK x	Get status of all Displays on link x.
STAT ELAN	Check status of all configured AML over Ethernet (ELAN) links
STAT ELAN x	Check status of specific AML over Ethernet (ELAN) link x
STAT HSL	<p>Get high-speed link status. Response can be either:</p> <ol style="list-style-type: none"> 1. UP 2. DOWN, or 3. NOT READY
STAT ISDI x	Get status of hardware AUX link SDI x.

STAT MON (x) Get status of one or all message monitors.

The system will respond with the status. If all monitors are disabled, the response is:

```
MSGO DIS
MSGI DIS
PACO DIS
PACI DIS
X25I DIS
X25O DIS
```

If the monitor function is enabled, for outgoing messages on two links, the response is: **MSGO ENL CSL x**

STAT MSDL (x (FULL))

Get MSDL status.

This command outputs the status of MSDL cards. Without any optional parameters (no card number, etc.), the status of all MSDL cards in the system is output.

When a card number alone is provided with the command, the status of the card is output along with additional information regarding the applications configured on the card.

Specifically, for each D-channel or AML configured on the card, the application name, logical number and port status is output.

For example:

```
MSDL x: ENL
AML 11 DIS    PORT 1
DCH 25 OPER PORT 2
AML 03 OPER PORT 3
```

If the FULL option is entered along with the MSDL number, the Meridian 1 outputs all the information output for the 'STAT MSDL x' command along with the following additional information:

- card ID
- bootload firmware version
- basecode version
- basecode state
- when the basecode was activated (if it is active)
- each application version
- each application state
- when each the application was activated (if it is active)

The card status is output on the first line and can be any one of the following:

MSDL x: ENBL - card is enabled

MSDL x: MAN DSBL - card disabled by the DIS MSDL command

MSDL x: SYS DSBL reason - card has been disabled by the system

The system disabled state may be due to any of the following:

1. **SYS DSBL- NOT RESPONDING**

If the MSDL is in this state, the implication is that the Meridian 1 has attempted to communicate with the MSDL and was not successful. It is possible that the card is not present in the shelf. If it is present, then it is possible that the software on the card is unable to respond to messages from the Meridian 1.

Action: Check to see if the card is properly inserted in its slot. If it is (and has been for more than a few minutes), then check the console output for MSDL or ERR messages and take the appropriate action for the error message.

It may be that the rotary switch setting on the MSDL card is not set properly. To keep the Meridian 1 from continuously attempting recovery of the MSDL, use the 'DIS MSDL x' command to put the card in the Manually Disabled (MAN DSBL) state.

2. SYS DSBL- SELF-TESTING

If the MSDL is in this state, self-tests are in progress.

Action: Wait for self-tests to complete and for the Meridian 1 to examine the results. Under normal circumstances, self-tests take less than one minute to complete. However, when an erasable EPROM on the card has been cleared, self-tests may take between five and six minutes to complete. Therefore, it is prudent not to take any action at this time.

3. SYS DSBL- SELF-TESTS PASSED

This is a transient state. A card in a transient state has successfully completed self-tests and the Meridian 1 either is about to begin downloading the MSDL base software, or has just completed downloading the MSDL base software and is about to attempt to enable the card.

Action: Wait for the Meridian 1 to begin the next step of recovery. If a more immediate recovery is desired, use the 'DIS MSDL x' command followed by the 'ENL MSDL x' command. This causes essentially the same recovery action to be taken. However, it may be faster (since it is being done as a result of input from the craftsperson).

4. SYS DSBL- SELF-TESTS FAILED

If the MSDL is in this state, self-tests have executed and failed on this card.

Action: Use the 'STAT MSDL x' command to determine reason for self-test failure. Disable the MSDL card using the 'DIS MSDL x' command, then use the 'SLFT MSDL x' command to execute the self-tests again.

If the self-tests pass, attempt to enable the card using the 'ENL MSDL x' command. If the card fails the self-tests again, record the results and replace the card.

5. SYS DSBL- SRAM TESTS FAILED

If the MSDL is in this state, self-tests have executed and passed, however when the Meridian 1 attempted to perform read/write tests to the shared RAM on the MSDL, it detected a failure.

Action: Same as for self-test failure. If the attempt to enable the card fails, record the results and replace the card.

6. SYS DSBL- OVERLOAD

The Meridian 1 has received too many messages from the MSDL. This is considered to be unacceptable, in that this much of a demand may interfere with other system functions.

Action: If the MSDL is left in this state, the Meridian 1 will attempt to bring the card back into service within a few minutes. If this is not desired, disable the card using the 'DIS MSDL x' command.

It is also advisable to identify a specific port or application that may be responsible for the overload. The identification can be made by disabling individual links/ports on the MSDL and letting the remaining links/ports operate normally.

7. SYS DSBL- RESET THRESHOLD

If the MSDL is in this state, the Meridian 1 has detected more than four resets within ten minutes. This is considered to be unacceptable, as a normally operating card should not reset so often.

It is possible that the card may be in this state due to a Fatal Error or Self-test failure from which no recovery was successful. (As the recovery from Fatal Errors and Self-test failures begins with resetting the card, repeated attempts at recovery may cause the reset threshold to be reached.)

Action: Disable the card using the 'DIS MSDL x' command and execute the 'SLFT MSDL x' command. If self-tests pass, attempt to enable the card using the 'ENL MSDL x' command. If the problem recurs, try force downloading the software to the MSDL using the 'ENL MSDL x FDL' command.

If the problem continues to recur and resets continue because of a repeated fatal error, attempt to isolate the problem by disabling all links/ports controlled by one application (e.g., all D-channels or all AMLs). If no manual intervention is taken by the craftsperson, the Meridian 1 will attempt to bring the card back into service beginning at midnight.

8. SYS DSBL- FATAL ERROR

If the MSDL is in this state, the card encountered a fatal condition from which it could not recover. In response to the 'STAT' command, the cause of the fatal error will be displayed.

If the 'STAT' command is not entered while the card is in this state, the MSDL302 message printed at the time of the state transition will indicate the cause of the fatal error.

Action: The Meridian 1 will attempt to bring the card back into service automatically. While the card is in this state, it is recommended that the craftsperson do nothing. If the Meridian 1 is unable to recover the card, the system disabled substate will be changed to indicate the reason recovery was not possible. The craftsperson should then take the recommended action for that new substate.

9. SYS DSBL- NO RECOVERY ATTEMPTED UNTIL MIDNIGHT

When this is output after the SYS DSBL message, the Meridian 1 has attempted to recover the card but has repeatedly failed. One example of this condition is when the background recovery mechanism has failed to download the MSDL Base Code five times in a row.

Action: Disable the card using the 'DIS MSDL x' command, test the card using the 'SLFT MSDL x' command, and if self-tests pass, enable the card using the 'ENL MSDL x' command.

If downloading of the MSDL Base Code is necessary, it will be attempted in response to the enable command. If no manual intervention is taken, the Meridian 1 will again attempt recovery beginning at midnight.

STAT SDI HIGH	Get status of high-speed link port. The response can be either ENL (enabled) or DIS (disabled).
STAT SDI LOW	Get status of low-speed link port. The response can be either ENL (enabled) or DIS (disabled).
STAT STA x	<p>Get status of STA application.</p> <p>When x (STA ID number) is specified, the STA state, port number, port type, port state, and system description are displayed.</p> <p>If x is not specified, and the application is enabled, the state and port information is given.</p> <p>If x is not specified, and the application is in any state other than enabled, only the STA status is given. No port or system information is displayed. .</p>

Possible output follows:

1. Application state and Target state:
ENABLED, MANUAL DISABLE, SYSTEM DISABLE, AWAIT DISABLE, AWAIT APPL ENABLE, AWT CONF DOWNLOAD
2. Port type: **ADM, SYS, TTY**
3. Port state:
NO SDI/STA, DISABLED, ENABLED, TESTING, KEYBOARD TST, AWAIT VT-200, DTR DOWN, AUTOBAUDING, AWT AUTOBAUD, ABD SCANNING, DEFAULT ABD, NO MODEM, IN SESSION, AWAIT ENABLE

System description is entered as part of the port configuration. For the additional port used to shadow the STA application, the system description is SHADOW TTY.

STAT VMBA <vsid>

Get the status for the Voice Mailbox Administration application. Enter the command in the following format:

STAT VMBA <vsid> <NNNN>

Where:

vsid = the VAS ID where the VMBA is configured
NNNN = VMBA audit or upload function. You may enter either AUDT or UPLD, where:

AUDT = mailbox database audit, or

UPLD = mailbox database upload

AUDT and UPLD are optional entries. The VAS ID must be entered. The status output is shown below:

STAT VMBA <vsid>

VMBA <ACTIVE or INACTIVE>

AUDIT <ACTIVE or INACTIVE>

UPLOAD <ACTIVE or INACTIVE>

STAT VMBA <vsid> AUDT

AUDIT INACTIVE, or AUDIT ACTIVE

Where:

n AUDITED

n MISMATCHES FOUND/CORRECTED

n ERRORS

STAT VMBA <vsid> UPLD

UPLOAD INACTIVE, or UPLOAD ACTIVE

Where:

n UPLOADED

n DELETED

n ERRORS

STAT VMBA <vsid> AUDT

Get the status for the Voice Mailbox Database audit. Enter the command in the following format.

STAT VMBA <vsid> AUDT

The status output is shown below:

STAT VMBA <vsid> AUDT

AUDIT INACTIVE, or AUDIT ACTIVE

Where:

n AUDITED

n MISMATCHES FOUND/CORRECTED

n ERRORS

STAT VMBA <vsid> UPLD

Get the status for the Voice Mailbox Database upload. Enter the command in the following format.

STAT VMBA <vsid> UPLD

The status output is shown below:

STAT VMBA <vsid> UPLD

UPLOAD INACTIVE, or UPLOAD ACTIVE

Where:

n UPLOADED

n DELETED

n ERRORS

SWCH AML x y Switch active (x) and standby (y) AML. This is AML switchover, where x is the active AML switching to standby and y is the standby AML to become active.

UPLD AML x TBL y

Upload parameter table 1 to 4 from AML x (MSDL only).

The MSDL AML maintenance error log table, is uploaded from the MSDL card and is displayed on the TTY screen.

The parameter tables are:

TBL1 = AML maintenance error log table

TBL2 = AML downloaded parameter table

TBL3 = AML protocol error log table

TBL4 = AML traffic table

LD 48

MSDL Requirement: The MSDL card must be enabled. The AML layer two must be enabled.

Example: ENL MSDL x followed by ENL AML x LYR2 must have been executed at an earlier time.

Action: MSDL AML table is uploaded and is displayed on the TTY screen.

This command is not available for the ESDI card.

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LD 49—New Flexible Code Restriction and Incoming Digit Conversion

Overlay program 49 allows the building, changing, deleting, moving, and printing of code restriction trees and the cancellation of all New Flexible Code Restriction (NFCR) data.

Overlay program 49 also allows the building, changing, deleting, moving, and printing of Incoming DID Digit Conversion (IDC) data.

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request
TYPE	aaa	Type of data block (aaa = FCR or IDC)
FROM	0-99 0-254	Source customer and tree number
TO	0-99 0-254	Destination customer and tree number
CUST	xx	Customer number
DCNO	0-254	Digit Conversion tree Number
FDID	YES, (NO)	Flexible DID IDC table
IDGT	0-9999 0-9999	Incoming Digits
CRNO	(0)-254	Code Restriction tree Number
INIT	aaaa	Initial (aaaa = ALLOW or DENY)
- ALLOW	xxxx	Allow
- - UPDT	(YES) NO	Update Tree
- DENY	xxxx	Deny
- - UPDT	(YES) NO	Update Tree
FRCE	(NO) YES	Force
BYPS	xxxx	Bypass
- UPDT	(YES) NO	Update Tree

Alphabetical list of prompts

Prompt	Response	Comment
ALLOW	xxxx xxxx y...y	<p>Allow (Digit sequence to be allowed unconditionally) Prompted when INIT = DENY. Digit sequence to be conditionally allowed and maximum number of digits that can follow</p> <p>A maximum of 50 digits may be analyzed. Enter <cr> to end ALLOW prompt.</p>
BYPS	xxxx	<p>Bypass (Digit sequence to be bypassed)</p> <p>A maximum of 50 digits may be analyzed. Enter <cr> to end EYPS prompt.</p>
CRNO	(0)-254	<p>Code Restriction tree Number (NFCR tree number) The maximum number of trees allowed for a customer is defined by prompt MAXT in LD 15.</p>
CUST	xx <cr>	<p>Customer number For all customers Prompted when REQ = PRT.</p>
DCNO	0-254	Digit Conversion tree Number (IDC tree number)
DENY	xxxx	<p>Deny (Digit sequence to be denied)</p> <p>A maximum of 50 digits may be analyzed. Prompted when INIT = ALLOW.</p>
FRCE	(NO) YES	<p>Force the storage or release of data.</p> <p>If an entry for ALLOW, DENY or BYPS conflicts with existing data, FRCE is prompted.</p> <p>For example, ALLOW = 7 and the existing ALLOW = 7000. In this case enter "NO" to ignore the data, or "YES" to accept the change. A modification of this type may result in the loss of portions of the tree.</p> <p>If REQ = RLS and FRCE = YES, then all the customer's NFCR data is deleted. Prompt NFCR in LD 15 must be set to NO first.</p>
FROM	0-99 0-254	Source customer and tree number

LD 49

Prompt	Response	Comment
IDGT	0-9999 0-9999	Incoming Digits (DN or range of DNs to be converted) The external DNs to be converted is output and the users enter the internal DN. For example, to convert the external DN 3440 to 510, enter: Prompt: Response IDGT: 3440 3440: 510 To convert the external DNs in the range 3440 to 3465, enter: Prompt: Response IDGT: 3440 3465 3440: 444 3441: 445 . . 3465: 469 This is not a prompt. This is the DID directory number which delineates the following prompt.
INIT	ALLOW DENY	Initial To specify digit strings to be denied To specify digit strings to be allowed Entering DNs may be affected by the Outpulsing feature for Japan.
REQ		Request
	CHG END MOV	Change an existing data block Exit Overlay program Move existing data block to a new customer and/or NFCR tree data block
	NEW OUT PRT RLS RPL	Create a new data block Remove a specified NFCR tree data block Print NFCR tree data block Release all NFCR data blocks for a specified customer Replace data in the specified NFCR tree data block with new data
TO	0-99 0-254	Destination customer and tree number

Prompt	Response	Comment
TYPE	FCR IDC	Type of data block NFCR data block Incoming Digit Conversion data block
UPDT	(YES) NO	Update Tree Data is correct and can update the NFCR tree.

LD 49

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LD 50—Call Park and Modular Telephone Relocation

Overlay program 50 allows the implementation and administration of the Call Park and Meridian Modular Telephone Relocation features.

LD 50

Prompts and responses

Call Park data

Prompt	Response	Comment
REQ	aaa	Request
TYPE	CPK	Type of data block = CPK (Call Park)
CUST	xx	Customer number associated with this function
BLOC	1-5	Call Park block number
CPTM	30-(45)-240	Call Park Timer (in seconds)
RECA	(NO) YES	Recall parked call to attendant
SPDN	(0)-50 xxxx	Number of contiguous system park DN's and first DN
MURT	0-511	Music Route

Meridian Modular Telephone ID change during relocation

The serial number, NT code, color code or release information stored in a Meridian Modular Telephone may be changed during the relocation sequence. This can only be done after the set has “relocated out” and before it is “relocated in” to the new location. An application of this occurs when the terminal is being replaced with one of the same type and requires the same key configuration.

See Set Relocation Data in LD 21, and IDU: Print set ID command in LD 32.

Prompt	Response	Comment
REQ	aaa	Request = CHG or OUT
TYPE	MTRT	Type of data block = MTRT (Meridian Modular Telephone Relocation Table)
TN	l s c u	Terminal Number
SER	xxxxxx	Serial number
NTCD	xxxxxxxx	NT (product) Code
COLR	xx	Color
RLS	xx	Release

Alphabetical list of prompts

Prompt	Response	Comment
BLOC	1-5	Call Park block number Where:1-5 allows the system administrator to define the subsequent prompts. After subsequent prompts have been defined, the administrator is returned to the BLOC prompt until a carriage return (<cr>) is entered. The Primary Call Data Block (block 1) must be defined before any Secondary Call Park Blocks (2-5) can be added.
	ALL <cr>	Enter ALL when REQ = OUT to remove all Call Park Blocks Enter <cr> to return to the REQ prompt. BLOC is prompted if CPRKNET package 306 is equipped.
COLR	xx	Color of Meridian Modular Telephone. The color codes are: <ul style="list-style-type: none"> • 03 is black • 35 is chameleon ash • 93 is dolphin
CPTM	30-(45)-240 30-(45)-480	Call Park Timer (in seconds) Call Park recall time (in seconds) if CPRK package 33 is equipped The amount of time a call is held in the parked state before recalling the parking set or the attendant.
CUST	xx	Customer number associated with this function as defined in LD 15
MURT	0-511 X	Music Route number for parked calls Remove existing music route.
NTCD	xxxxxxx	New NT (product) Code of Meridian Modular Telephone
RECA	(NO) YES	Recall Attendant Unanswered parked calls recall the parking set Unanswered parked calls recall the attendant
REQ	CHG END NEW OUT PRT	Request Change existing data block Exit Overlay program. Create a new Call Park data block (not applicable if TYPE = MTRT) Remove data block Print call park data block (not applicable if TYPE = MTRT)

LD 50

Prompt	Response	Comment
RLS	xx	New Release of Meridian Modular Telephone
SER	xxxxxx	New Serial Number of Meridian Modular Telephone
SPDN	xx yyyy	System Park DNs Number of contiguous System Park DNs, and first DN Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Where: xx = # of contiguous System Park DNs. The range is: <ul style="list-style-type: none">• (0)-100 yyyy = First Call Park DN
TN	c u	Terminal Number Old Terminal Number of set in relocation table
TYPE	CPK MTRT	Type of data block Call Park data block Meridian Modular Telephone Relocation Table

LD 56—Flexible Tones and Cadences

Flexible Tones and Cadences (FTC) is an optional feature which is used to customize the tones provided to telephone users. FTC is primarily intended for international markets where tones which are different from the North American defaults are required.

Overlay program 56 allows the implementation and administration of tone and ringing parameters for one or more customers. If the FTC feature (package 125) is not equipped, North American tones and cadences are used.

An FTC table number can be entered for each trunk route at prompt TTBL in LD 16. Table 0 is the default for all trunk routes and contains the defaults for North America.

What are tones and cadences?

Tones are used to provide call status to telephone users. A tone is defined by both the frequency and volume of the sound.

Tones are provided in on and off phases. One or more cycles of on/off cycles make up a tone's cadence. For example, the default cadence for normal North American ringing is 2 seconds on, 4 seconds off, 2 seconds on, 4 seconds off, and so on.

Flexible Tone and Cadence (FTC) Tables

FTC tables define the tones and cadences used for various calling features. Up to 31 FTC tables can be created. Each table can be associated with one or more trunk routes by entering the table number in response to prompt TTBL in LD 16.

Master Cadence Table (MCAD)

The Master Cadence Table (MCAD) defines cadences that are controlled by software. These are used for single line sets (500/2500) and digital sets.

The MCAD can have 256 entries (0-255). Each entry can have up to 10 on/off phases each. Entry 0 is reserved for continuous tone and cannot be changed. Entries 1-15 are reserved for ringing cadences.

Most of the software cadences are continuously repetitive unless it is specified that the tone should end after the last phase. There are four exceptions to this rule: prompts ACBT, AOBT, INTU and OVRD cadences repeat the last 8 phases. This allows a special initial tone burst to be defined. To have the first cycle repeat, it must be defined as both the first and last cycle.

A cadence is defined at the CDNC prompt by entering the time for each on and off phase. The time depends on the settings for the TMRK prompt in LD17 which defines the software cadence increments as 96 or 128 ms. For each phase, enter the closest multiple of 5 ms equal to the multiple of 96 or 128 ms which gives the a time Š the time required.

The range for the first phase is 1-9999. The range for the second phase is 0-9999. Once an MCAD entry has been created, it can be changed but not removed.

For example, given LD 17 TMRK is set to 128 ms, and a repeating 2 seconds on, 4 seconds off cadence is required.

- 1 Determine the ON phase (2 seconds = 2000 ms)
 $2000/128 = 15.625 = 16$ (always round up)
 $128 \times 16 = 2048$ ms
multiple of 5 closet to 2048 ms = 2050
Entry for prompt CDNC = $2050/5 = 0410$
- 2 Determine the OFF phase (4 seconds = 4000 ms). By using the same calculation, the entry for prompt CDNC = 0820.
- 3 To define the cadence, respond to the prompts as follows:

REQ NEW, CHG
TYPE MCAD
WCAD 1-255
CDNC 0410 0820

To define the cadence: 2 s on, 4 s off, 4 s on, 2 s off, repeat cycle 1 and 2, enter:

CDNC 0410 0820 0820 0410

To define the cadence: 2 s on, then steady off, enter:

CDNC 0410, or
CDNC 0410 0000

If an odd number of non-zero phases are entered, software ends the tone after the last ON phase. Once a zero phase has been entered, it cannot be followed by non-zero phases. A carriage return at any phase results in zero for the remaining phases.

Once the cadence is defined, it can be entered in response to the CDNC prompt for a given feature. For example, CDNC is output after the Call Waiting tone prompt.

Firmware Cadence Table (FCAD)

The Firmware Cadence Table (FCAD) defines cadences that are controlled by an NT8D17 Conference/TDS/MFS card.

The FCAD can have 256 entries (0-255). Each entry can have up to 10 on/off phases. Entry 0 is reserved for continuous tone and cannot be changed. Entries 1-15 are reserved for ringing cadences. Each phase is in multiples of 5 ms.

FCAD cadences have the following capabilities:

- Each cadence may be defined to end at the “on” phase, the “off” phase, or repeat after a single pass through the defined on/off cycles. Any or all of the five cycles can be repeated.
- Unique tones can be defined for each “on” phase. These tones are permanently held in the Conference/TDS/MFS firmware.

In order to have the same cadences on 500/2500/digital telephones and SL-1 telephones, the MCAD and FCAD entries 0-15 are identical. Changes to MCAD entries 1-15 automatically change FCAD entries 1-15. The FCAD entries 1-15 can only be changed by changing the MCAD entries 1-15.

The Conference/TDS/MFS card must be disabled and then re-enabled to download changed firmware cadences.

Examples of creating firmware cadences:

1 For a cadence of 2 s on, 4 s off, repeat:

```
REQ NEW, CHG, PRT
TYPE FCAD
WCAD 1-255
CDNC 0410 0820
```

END REPT

CYCS 1 (on/off cycles to be repeated)

WTON NO (use default tone for this cadence)

2 For a cadence of 2 s on, 4 s off, 3 s on, 5 s off, repeat:

```
REQ NEW, CHG, PRT
TYPE FCAD
WCAD 1-255
CDNC 0410 0820 0614 0998
```

END REPT

CYCS 1 2 (on/off cycles to be repeated)

WTON NO (use default tone for this cadence)

3 For a cadence of:

0.1 s on at 950 Hz, 19 dB below overload A-law, 0.1 off

0.1 s on at 1400 Hz, 20 dB below overload A-law, 0.1 off

0.1 s on at 1800 Hz, 20 dB below overload A-law, steady off

```
REQ NEW, CHG, PRT
```

```
TYPE FCAD
```

```
WCAD 1-255
```

```
CDNC 0020 0020 0020 0020 0020
```

END OFF

WTON YES (define tones for this cadence)

TONES 134 135 136 (See NT8D17 Conference/TDS tone table)

TDS and NT8D17 Conference/TDS/MFS cards

There are two types of cards providing tones and cadences:

- Tone and Digit Switch (TDS) cards
- NT8D17 Conference, TDS and Multi-Frequency (MF) Sender card

There are a variety of TDS cards. Each card provides a different set of tones and cadences. When a TDS card is used for SL-1 sets, each tone and cadence is identified by a hexadecimal code. The decimal equivalents for these hex codes are entered at the TDSH prompt for each calling feature.

Refer to the the *Flexible Tones and Cadences* NTP for the appropriate codes.

When the NT8D17 Conference/TDS/MFS cards are used, the tones and cadences are defined by the following prompts:

- XCAD = 0-255 - entry in the Firmware Cadence Table (FCAD)
- XTON = 0-255 - tone stored in the card firmware
- CDNC = 0-255 - entry in Master Cadence Table (MCAD)

The ringing cadences for all telephones use the Master Cadence Table (MCAD). MCAD entries 1-15 are downloaded to the Peripheral Controller to provide ringing.

Time interval for Call Forward

For Call Forward No Answer (CFNA), the time interval before a call is forwarded is measured by the time interval for one ring cycle (defined at NCAD prompt) times the number of ring cycles (defined at CFNA prompt in LD 15).

All other types of ringing forward a call after this same time interval regardless of cadence. For example, those with a faster cadence will forward after more rings, those with a slower cadence after fewer rings.

Installing FTC

These steps outline the process to install the FTC feature and change the default tones and cadences for one or more calling features.

To assist in fault clearing, it is recommended that you keep a record of all changes.

- 1 Load Overlay 56
- 2 Define new MCAD cadences
- 3 Define new FCAD tones and cadences
- 4 Create one or more FTC tables (one for each trunk route requiring different tones and cadences)
- 5 Define the non-default tones and cadences for each FTC table
- 6 Enter the FTC table number for each trunk route (LD 16 prompt TTBL)
- 7 If a Conference/TDS/MFS card is equipped, then follow these steps:
 - a set options in LD 97
 - b initialize the system (INIT)
 - c disable and enable each Conf/TDS/MFS card (LD 34)
 - d disable and enable each Controller (LD 32)

Note 1: The Master Cadence Table (MCAD) defines cadences that are controlled by software. These are used for single line sets (500/2500) and digital sets.

MCAD can have up to 256 entries (0-255). Each entry can have up to 10 on/off phases. Entry 0 is reserved for continuous tone and cannot be changed. Entries are reserved for ringing cadences.

To define an MCAD cadence, enter the time for each on and off phase. Phases are in 5 ms increments. For example, enter 200 to have a phase last 1 second (200 x 5 ms = 1000 ms = 1 second).

The range for the first phase is 1-9999. The range for the second phase is 0-9999. Once an MCAD entry has been created, it can be changed but not removed.

Note 2: Prompts with the response `i bb c tt` are only prompted for systems equipped with Tone and Digit cards.

- `i` = internal (0) or external (1) source
- `bb` = burst
- `cc` = cadence
- `tt` = frequency/level

Prompts with the response `i bb c tt` define the Internal/External source, burst, cadence and frequency/level respectively. Enter the decimal equivalent (0-15) of the TDS Hex code (refer to 553-2711-180).

The first field is usually 0. If an external source is used the entry is 1 and the fourth field is 0-7 for the specified channel.

Note 3: The Firmware Cadence Table (FCAD) defines cadences that are controlled by the NT8D17 Conference/TDS/MFS card. These are used for SL-1 sets.

The FCAD can have up to 256 entries (0-255). Each entry can have up to 10 on-off phases. Entry 0 is reserved for continuous tone and cannot be changed.

FCAD cadences have the following capabilities:

- each cadence may be defined to end on the ON phase, OFF phase or repeat after a single pass through all defined on-off cycles. Any or all of the five on-off cycles can be repeated.
- a unique tone can be defined for each on phase. These tones are permanently held in the Conference/TDS/MFS firmware.

In order to have the same cadences for 500/2500 Digital and SL-1 sets, the MCAD and FCAD entries 0 through 15 are identical. Changes to MCAD entries 1 through 15 automatically change MCAD entries 1 through 15. FCAD entries 1 through 15 cannot be changed without changing the MCAD entries.

Note 4: The cadences for Software Controlled Cadence Tones AOBT (Agent Observe Tone), INTU (Intrusion tone) and OVRD (Override tone) do not repeat in the same manner as the other tones. All other tones repeat all on-off cycles from the first up to the fifth if all ten on and off times are programmed. However, these tones reserve cycle 1 for special use, providing a tone burst of a different length if desired, to emphasize the initial iteration of the tone cycle.

Note 5: A cycle of 200 3200 50 3200 will have a 200 millisecond tone followed by 3.2 seconds of silence. After this initial burst, the tone will repeat in a 50 millisecond on, 3.2 seconds off pattern as long as the time remains valid. However, if the pattern is intended to not have an initial burst, the first two entries must be repeated as the last two entries to obtain the correct sequence.

As an example, if the desired tone is repeating sequence of 50 ms on, 100 ms off, 100 ms on, 50 ms off, 50 ms on, 3500 ms off, the entry must be as follows:

50 100 100 50 50 3500 50 100

Prompts and responses

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LD 56

FCAD: Firmware Cadence data block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	FCAD	Type of data block = FCAD (Firmware Cadence)
WCAD	0-225	Cadence Number (0 is reserved for continuous tone and cannot be changed)
CDNC	xxxx xxxx ... xxxx	Cadence
END	a...a	End treatment for cadence (a...a = REPT, ON, or OFF)
- CYCS	x x x x	Cycles
- WTON	(NO) YES	Define Tones associated with the cadence
- - TONES	ttt ttt ...	NT8D17 tones (0-255) to be used with each phase of the cadence

FTC: Flexible Tones and Cadences data block

An FTC table number can be entered for each trunk route at prompt TTBL in LD16. Table 0 is the default for all trunk routes and contains the defaults for North America.

Prompt	Response	Comment
REQ	aaa	Request
TYPE	FTC	Type of data block = FTC (Flexible Tones and Cadences)
TABL	0-31	FTC Table number
USER	(NO) YES	Print users of this table and tone table values (tone table value only)
DFLT	0-31	Default to existing FTC tone table
RING	(NO) YES	Change the ringing feature definitions
- NCAD	(1)-255	Normal Cadence
- NBCS		Normal BCS (SL-1 set) ringing
- - TDSH	i bb c tt	TDS Hex (Default is 0032)
- - XTON	0-(2)-255	XCT Tone code
- DCAD	0-(2)-255	Distinctive Cadence
- DBCS		Distinctive BCS (SL-1 set) ringing
- - TDSH	i bb c tt	TDS Hex (Default is 0082)
- - XTON	0-(2)-255	XCT Tone code
- ICAD	0-(5)-255	Intercom Cadence
- IBCS		Intercom ringing for BCS (SL-1)sets
- - TDSH	i bb c tt	TDS Hex (Default is 0012)
- - XTON	0-(2)-255	XCT Tone code
- RCAD	0-(1)-255	Recall Cadence
- RBCS		Recall for BCS (SL-1) sets
- - TDSH	i bb c tt	TDS Hex (Default is 0032)
- - XTON	0-(2)-255	XCT Tone code

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- GCAD	0-(1)-255	Group Call Cadence
- GBCS		Group Call for BCS (SL-1) sets
-- TDSH	i bb c tt	TDS Hex (Default is 0082)
-- XTON	0-(2)-255	XCT Tone code
- HCAD	0-(1)-255	Held call reminder Cadence
- HBCS		Held call reminder ringing for BCS (SL-1) sets
-- TDSH	i bb c tt	TDS Hex(Default is 0082)
-- XTON	0-(2)-255	XCT Tone code
- PCAD	0-255	Recall or Misoperation Cadence
- PBCS		Recall or Misoperation ringing for BCS
-- TDSH	i bb c tt	TDS Hex (Default is 0032)
-- XTON	0-(4)-255	XCT Tone code
HCCT	(NO) YES	Hardware Controlled Cadences and Tones
- DIAL		Dial tone
- EEST		End-to-End Signaling Feedback Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0004)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	(0)-55	For EEST, this value is set to 0 no matter what is entered. XCT Cadence number (FCAD cadence number)
- SPCL		Special dial tone
-- TDSH	0 00 0 tt	TDS Hex (Default is 0004)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number (FCAD Cadence number)
- CDT		Control Dial Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0004)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- CFDT		Call Forward Dial Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0004)

-- XTON	0-(4)-255	XCT Tone code
-- XCAD	(0)-255	XCT
- MWDT		Message Waiting Dial Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0024)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	0-(17)-255	XCT Cadence number
- CFMW		Call Forward Message Waiting tone
-- TDSH	i bb c tt	TDS Hex (Default is 0024)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	0-(17)-255	XCT Cadence number
- BUSY		Busy tone
-- TDSH	i bb c tt	TDS Hex (Default is 0017)
-- XTON	0-(7)-255	XCT Tone code
-- XCAD	0-(16)-255	XCT Cadence number
- RGBK		Ringback tone
-- TDSH	i bb c tt	TDS Hex (Default is 0035)
-- XTON	0-(5)-255	XCT Tone code
-- XCAD	0-(1)-255	XCT Cadence number
- PREM		Preemption tone
-- TDSH	i bb c tt	TDS Hex (Default is 0006)
-- XTON	0-(6)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- PRBK		Precedence Ringback tone
-- TDSH	i bb c tt	TDS Hex (Default is 0008D)
-- XTON	0-(11)-255	XCT Tone code
-- XCAD	0-(2)-255	XCT Cadence number
- ARBK		ACD RGA (Ring Again) Ringback tone
-- TDSH	i bb c tt	TDS Hex (Default is 0008D)
-- XTON	0-(11)-255	XCT Tone code

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-- XCAD	0-(2)-255	XCT Cadence number
- FFCT		Flexible Feature Code Confirmation Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0004)
-- XTON	0-(4)-255	XCT tone code
-- XCAD	(0)-255	XCT Cadence number
- LIMIT		Log In Mode Tone for 500/2500 ACD sets
-- TDSH	i bb c tt	TDS Hex (Internal/External, burst, cadence and tone)
-- XTON	0-255	XCT Tone code
-- XCAD	0-255	XCT Cadence number
- NRMT		Not Ready (NRDY) Mode Tone for ACD sets
-- TDSH	i bb c tt	TDS Hex (Internal/External, burst, cadence and tone)
-- XTON	0-255	XCT Tone code
-- XCAD	0-255	XCT Cadence number
- AWUT		Automatic Wake Up special error Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0027)
-- XTON	0-(4)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- OVFL		Overflow tone
-- TDSH	i bb c tt	TDS Hex (Default is 0027)
-- XTON	0-(7)-255	XCT Tone code
-- XCAD	0-(17)-255	XCT Cadence number
- TEST		Test tone
-- TDSH	0 0 0 tt	TDS Hex (Default is 0008)
-- XTON	0-(8)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- ERWT		Expensive Route Warning Tone
-- TDSH	0 0 0 tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number

- PCWT		Precedence Call Waiting Tone
-- TDSH	0 0 0 tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number (FCAD Cadence number)
- ACFT		ACD Call Force Tone
-- TDSH	0 0 0 tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- TLP		Tone to Last Party
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	(0)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- TLPT	(0)-30	Tone to Last Party Timer in seconds. No tone = 0
- PATI		Patience tone Multi-Party Operations
-- TDSH	i bb c tt	TDS Hex (Default is 0000)
-- XTON	(0)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
CAB	(NO) YES	M911 Call Abandon on Answer tone
- TDSH	i bb cc tt	TDS external, burst, cadence and tone
- XTON	0-255	NT8D17 TDS Tone code
- XCAD	0-255	NT8D17 Cadence code for FCAD
CAST	(NO) YES	Centralized Attendant Service Tones
- LDN		Listed Directory Number tone
-- TDSH	i bb c tt	TDS Hex (Default is 0346)
-- XTON	(0)-255	XCT Tone code
-- XCAD	0-(24)-255	XCT Cadence number
-- CDNC	0-(16)-255	MCAD software Cadence number

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- DI0		Dial 0 Recall tone
-- TDSH	i bb c tt	TDS Hex (Default is 0283)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	0-(22)-255	XCT Cadence number
-- CDNC	0-(16)-255	MCAD software Cadence number
- HLDC		Hold Confirmation tone
-- TDSH	i bb c tt	TDS Hex (Default is 0346)
-- XTON	(0)-255	XCT Tone code
-- XCAD	0-(24)-255	XCT Cadence number
-- CDNC	0-(16)-255	MCAD software Cadence number
- CPNC		Camp-On Confirmation tone
-- TDSH	i bb c tt	TDS Hex (Default is 0243)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	0-(21)-255	XCT Cadence number
-- CDNC	0-(17)-255	MCAD software Cadence number
SCCT	(NO) YES	Software Controlled Cadences and Tones
ILIN		NXCC pending agent Login tone
ILOU		NXCC pending agent Logout tone
- CAMP		Camp-On tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(17)-255	MCAD software cadence number
- AOBT		Agent Observe Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(18)-255	MCAD software cadence number
- INTU		Intrusion tone

-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(19)-255	MCAD software cadence number
- CWT		Call Waiting Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(20)-255	MCAD software cadence number
- OBKT		Observe Blocking Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(17)-255	MCAD software cadence number
- OVRD		Override tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(18)-255	MCAD software cadence number
- OHQ		Off-Hook Queuing tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(3)-255	MCAD software cadence number
- SRT		Set Relocation Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(22)-255	MCAD software cadence number
- TMAT		Telephone Messaging Alert Tone

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-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(22)-255	MCAD software cadence number
- TMOT		Telephone Messaging OK Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(23)-255	MCAD software cadence number
- TSUT		Telephone Status Update Tone
-- TDSH	i bb c tt	TDS Hex (Default is 0003)
-- XTON	0-(3)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
-- CDNC	0-(23)-255	MCAD software cadence number
SRC	(NO) YES	Source
- SRC1		Source tone 1
-- TDSH	i bb c tt	TDS Hex (Default is 0000)
-- XTON	(0)-255	XCT Tone code
-- XCAD	(0)-255	XCT Cadence number
- SRC2		Source tone 2
- SRC3		Source tone 3
- SRC4		Source tone 4
- SRC5		Source tone 5
- SRC6		Source tone 6
- SRC7		Source tone 7
- SRC8		Source tone 8
PULS	(NO) YES	Pulse timers are to be changed
- P10	4 (8)	Codes for make/break ratio for 10 pps
- ID1	256-(768)-1024	Inter-Digit 1
- ID2	256-(512)-1024	Inter-Digit 2

- IDD	256-1024	Inter-Digit DTMF
- IDE	256-(384)	EOS interdigital pause in milliseconds

MCAD: Master cadence data block

Prompt	Response	Comment
REQ	aaa	Request
TYPE	MCAD	Type of data block = MCAD (Master cadence)
WACD	0-225	Cadence Number (0 is reserved for continuous tone and cannot be changed)
CDNC	xxxx xxxx ... xxxx	Cadence

RART: Route Access Restriction table data block

Prompt	Response	Comment
REQ	CHG	Request. REQ = NEW or OUT is not accepted for RART.
TYPE	RART	Type of data block = RART (Route Access Restriction table)
CUST	(0)-xx	Customer number
ROUT	(0)-127	Route
ART	1-63	Access Restriction Table

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RCDT: Route Category Default Table data block

Prompt	Response	Comment
REQ	CHG	Request. When TYPE = RCDT, you cannot enter NEW or OUT at the REQ prompt.
TYPE	RCDT	Type of data block = RCDT (Route Category Default table)
COT	(0)-63	COT, FEX, WAT. These route types will be assigned the entered ART when the route is created in LD16.
DID	(0)-63	These route types will be assigned the entered ART when the route is created in LD16
TIE	(0)-63	CAA, CAM, CSA, TIE
OTH	(0)-63	Other

TBAR: Trunk Barring data block

Prompt	Response	Comment
REQ	NEW CHG	Request
TYPE	TBAR	Type of data block = TBAR (Trunk Barring)
ART	1-63	Access Restriction Table
DENY	yyy yyy ...	Enter ART number denied to Originating Trunk Connection (OTC)

Print a customer defined route's ART course

Prompt	Response	Comment
REQ	PRT	Request
TYPE	aaa	Type of data block
CUST	(0)-xx	Customer number
ROUT	(0)-127	Route

Default Master Cadence (MCAD) tables

WCAD = DEFAULT MCAD TABLE (Master Cadence Table)

000	CDNC = 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000
001	CDNC = 0410 0800 0000 0000 0000 0000 0000 0000 0000 0000
002	CDNC = 0308 0076 0308 0076 0000 0000 0000 0000 0000 0000
003	CDNC = 0205 0000 0000 0000 0000 0000 0000 0000 0000 0000
004	CDNC = 0102 0102 0205 0819 0000 0000 0000 0000 0000 0000
005	CDNC = 0100 0100 0000 0000 0000 0000 0000 0000 0000 0000
016	CDNC = 0128 0000 0000 0000 0000 0000 0000 0000 0000 0000
017	CDNC = 0051 0000 0000 0000 0000 0000 0000 0000 0000 0000
018	CDNC = 0205 3072 0051 3072 0000 0000 0000 0000 0000 0000
019	CDNC = 0205 1229 0051 1229 0000 0000 0000 0000 0000 0000
020	CDNC = 0051 0026 0051 2048 0000 0000 0000 0000 0000 0000
021	CDNC = 0410 0000 0000 0000 0000 0000 0000 0000 0000 0000
022	CDNC = 0102 0000 0000 0000 0000 0000 0000 0000 0000 0000
023	CDNC = 0512 0000 0000 0000 0000 0000 0000 0000 0000 0000

Master Cadence (MCAD) table for Japan

001	CDNC = 0050 0050 0050 0450 0000 0000 0000 0000 0000 0000
002	CDNC = 0200 0400 0000 0000 0000 0000 0000 0000 0000 0000

Default Firmware Cadence (FCAD) tables

WCAD =	DEFAULT FCAD TABLE (Firmware Cadence Table)
000	Cadence number in the Master Cadence table (MCAD) CDNC = 0000 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
001	Cadence number in the Master Cadence table (MCAD) CDNC = 0410 0800 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
002	Cadence number in the Master Cadence table (MCAD) CDNC = 0308 0076 0308 0076 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 2 SPCL = NO
003	Cadence number in the Master Cadence table (MCAD) CDNC = 0205 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
004	Cadence number in the Master Cadence table (MCAD) CDNC = 0102 0102 0205 0819 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 2 SPCL = NO
005	Cadence number in the Master Cadence table (MCAD) CDNC = 0100 0100 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO

(Part 1 of 3)

WCAD =	DEFAULT FCAD TABLE (Firmware Cadence Table)
016	Cadence number in the Master Cadence table (MCAD) CDNC = 0100 0100 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
017	Cadence number in the Master Cadence table (MCAD) CDNC = 0050 0050 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
018	Cadence number in the Master Cadence table (MCAD) CDNC = 0010 0010 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
019	Cadence number in the Master Cadence table (MCAD) CDNC = 0040 0060 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
020	Cadence number in the Master Cadence table (MCAD) CDNC = 0015 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
021	Cadence number in the Master Cadence table (MCAD) CDNC = 0020 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
022	Cadence number in the Master Cadence table (MCAD) CDNC = 0020 0020 0020 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
(Part 2 of 3)	

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WCAD =	DEFAULT FCAD TABLE (Firmware Cadence Table)
023	Cadence number in the Master Cadence table (MCAD) CDNC = 0060 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
024	Cadence number in the Master Cadence table (MCAD) CDNC = 0020 0000 0020 0000 0020 0000 0000 0000 0000 0000 END = OFF SPCL = YES
025	Cadence number in the Master Cadence table (MCAD) CDNC = 0200 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
026	Cadence number in the Master Cadence table (MCAD) CDNC = 0050 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
027	Cadence number in the Master Cadence table (MCAD) CDNC = 0400 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
028	Cadence number in the Master Cadence table (MCAD) CDNC = 0125 0000 0000 0000 0000 0000 0000 0000 0000 0000 END = OFF SPCL = NO
029	Cadence number in the Master Cadence table (MCAD) CDNC = 0030 0070 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO

(Part 3 of 3)

Firmware Cadence (FCAD) table for Japan

WCAD =	DEFAULT FCAD TABLE (Cadence Table for JAPAN TDS)
001	Cadence number in the Master Cadence table (MCAD) CDNC = 0200 0400 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 2 SPCL = NO
002	Cadence number in the Master Cadence table (MCAD) CDNC = 0050 0050 0050 0450 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1 SPCL = NO
017	Cadence number in the Master Cadence table (MCAD) CDNC = 0100 0050 0000 0000 0000 0000 0000 0000 0000 0000 END = REPT CYCS = 1

Alphabetical list of prompts

Prompt	Response	Comment
ACFT		<p>ACD Call Force Tone</p> <p>When defining the hex codes for this tone, only the code for the frequency/level is required as the cadence is provided by software. Enter zero for the other values (e.g., TDSH = 0 0 0 xx, XTON = xxx, XCAD = 000).</p>
AOBT		<p>Agent Observe Tone</p> <p>This cadence repeats the last 8 on/off phases to allow for a special tone burst on the first cycle. For example, a cadence is defined as 3 s on, 3 s off, 1 s on, 3 s off.</p> <p>After the initial burst, the tone repeats in a 1 s on, 3 s off pattern. In order to repeat the initial 3 s burst, it must be entered as the first and last cycle because the first cycle is not repeated. In this case the cadence is defined as: 3 s on, 3 s off, 1 s on, 3 s off, 3 s on 3 s off.</p>
ARBK		ACD RGA (Ring Again) Ringback tone
ART	1-63 <cr>	<p>Access Restriction Table Return to REQ prompt</p> <p>ART remains unchanged Printing of the route category default table occurs</p>
AWUT		Automatic Wake Up special error Tone
BUSY		Busy tone
CAB	(NO) YES	M911 Call Abandon on Answer tone
CAMP		Camp-On tone
CAST	(NO)YES	<p>Centralized Attendant Service Tones</p> <p>Modification to the CAS (Centralized Attendant Service) tone definition.</p> <p>For systems with XCT cards, each feature requires a firmware cadence (XCAD), a software cadence (CNDN) and tone (XTON).</p> <p>Due to the finer resolution of the firmware cadence (5 ms) compared to the software (96/128 ms), you should allow the software cadence to be long enough to cover the full duration of the XCAD.</p>

Prompt	Response	Comment
		<p>For example, to define a cadence of 0.1 s on, 0.1 s off, 0.1 s on, steady off</p> <ul style="list-style-type: none"> • CDNC0020 0020 0020 0000 • END OFF • SPCL <p>The software cadence is then 0.3 s (600 ms). If the software precision is 128 ms, the software cadence is calculated as follows:</p> <ul style="list-style-type: none"> • $600 \text{ ms}/128 = 4.6 = 5$ (rounded up) • $128 \times 5 = 640$ <p>Entry to on phase = $640/5 = 0128$, and to define the cadence enter 0128 to prompt CDNC.</p>
CDNC	xxxx xxxx ... xxxx	<p>On-off phases for Cadence (ten on-off cycles)</p> <p>Entries 1 through 15 are reserved for ringing cadences. When defining the cadences in MCAD each phase entry is in 5 millisecond increments.</p> <p>The range for the first phase is 1-9999 increments. The range for the second phase is 0-9999 increments. The default is 0 0 0 0 0 0 0 0.</p> <p>Table shows the default MCAD Tables.</p>
	0-(16)-255	MCAD software cadence number
	0-(17)-255	MCAD software cadence number
	0-(19)-255	MCAD software cadence number (see <i>Note 5</i>)
	0-(18)-255	MCAD software cadence number (see <i>Note 5</i>)
	0-(20)-255	MCAD software cadence number
	0-(3)-255	MCAD software cadence number
	0-(22)-255	MCAD software cadence number
	0-(23)-255	MCAD software cadence number
CDT		Control Dial Tone

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Prompt	Response	Comment
CFDT		Call Forward Dial Tone
CFMW		Call Forward Message Waiting tone
COT	(0)-63	COT, FEX, WAT. These route types will be assigned the entered ART when the route is created in LD 16.
CPNC		Camp-On Confirmation tone
CUST	(0)-xx	Customer number
CWT		Call Waiting Tone
CYCS	x x x x	On-off Cycles (1 to 5) to be repeated. Default is no repeats. Prompted when END = REPT
DBCS		Distinctive BCS (SL-1 set) ringing
DCAD	0-(2)-255	Distinctive Cadence 500/2500 and Digital set ringing MCAD cadence number. (See <i>Notes 1 and 3</i>) It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt DBCS). DCAD is also used for SL-1 sets in systems with XCT cards.
DENY	yyy yyy ... ALL xALL Xyyy Xyyy .. <cr>	Enter ART number denied to Originating Trunk Connection (OTC) Deny all ARTs to OTC All ART numbers are allowed to OTC Enter ART numbers allowed to OTC Return to REQ prompt with no table being stored The ART is removed unless it is used as a default when REQ = OUT. REQ = NEW or OUT is disallowed for RART.
DFLT	0-31 <cr>	Default to existing FTC tone table Create tone table without defaulting Prompted when REQ = NEW
DIAL		Dial tone

Prompt	Response	Comment
DID	(0)-63	These route types will be assigned the entered ART when the route is created in LD 16
EEST		<p>End-to-End Signaling feedback Tone</p> <p>This prompt appears to indicate that the improved EES tone is used. There is actually no cadence.</p> <p>When using the Enhanced Conference/TDS card, the XCAD prompt is not printed, and the cadence is set to 0 no matter what is entered.</p>
END	REPT ON OFF	<p>End treatment for cadence</p> <p>Repeating cycles (defined by the CYCS prompt)</p> <p>End cadence on the “on” phase</p> <p>End cadence on the “off” phase</p>
ERWT		<p>Expensive Route Warning Tone</p> <p>When defining the hex codes for this tone, only the code for the frequency/level is required as the cadence is provided by software.</p> <p>Enter zero for the other values (e.g., TDSH = 0 0 0 xx, XTON = xxx, XCAD = 000).</p>
FFCT		<p>Flexible Feature Code Confirmation Tone</p> <p>This tone allows users of 500/2500 or multi-line telephone sets to receive a confirmation tone after activating/deactivating the following features:</p> <ul style="list-style-type: none"> • Call Forward activate/deactivate • Ring Again deactivate • Store/erase Stored Number Redial • all Automatic Wake Up codes • Speed Call store • any verification code
GBCS		Group Call ringing for BCS (SL-1) sets
GCAD	0-(1)-255	<p>Group Call Cadence</p> <p>500/2500 and Digital set Group Call Ringing Cadence MCAD cadence number</p> <p>It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt GBCS). GCAD is also used for SL-1 sets in systems with XCT cards.</p>

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Prompt	Response	Comment
HBCS		Held call ringing for BCS (SL-1) sets
HCAD	0-(1)-255	Held call reminder Cadence 500/2500 and Digital set held call reminder ringing cadence MCAD cadence number It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt HBCS). HCAD is also used for SL-1 sets in systems with XCT cards.
HCCT	(NO) YES	Hardware Controlled Cadences and Tones Modification of the hardware (TDS card) controlled cadence tone definitions allowed. For systems with XCT cards, each feature requires a firmware cadence (XCAD) and tone (XTON). For other TDS cards, the tone and cadence is defined by prompt TDSH.
HLDC		Hold Confirmation tone
IBCS		Intercom ringing for BCS (SL-1)sets Distinctive Dial Intercom ringing for BCS (SL-1) sets
ICAD	0-(5)-255	Intercom Cadence 500/2500 and Digital set Dial Intercom Distinctive ringing MCAD cadence number It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt IBCS). ICAD is also used for SL-1 sets in systems with XCT cards.
ID1	256-(768)-1024	Inter-Digit 1(P10 interdigit pause in milliseconds)
ID2	256-(512)-1024	Interdigit 2 (P20 interdigit pause in milliseconds)
IDD	256-1024	Interdigit DTMF pause in milliseconds Default is 512 if 100 is the response to prompt DTRB in LD 17. Otherwise, the default is 384.
IDE	256 - (384)	EOS interdigital pause in ms. Prompted if DDD package is equipped and PULS = YES.

Prompt	Response	Comment
ILIN		Nortel X Call Center (NXCC) pending agent Login tone
ILOU		Nortel X Call Center (NXCC) pending agent Logout tone
INTU		Intrusion tone This cadence repeats the last 8 on/off phases to allow for a special tone burst on the first cycle. For example, a cadence is defined as 3 s on, 3 s off, 1 s on, 3 s off. After the initial burst, the tone repeats in a 1 s on, 3 s off pattern. In order to repeat the initial 3 s burst, it must be entered as the first and last cycle because the first cycle is not repeated. In this case the cadence is defined as: 3 s on, 3 s off, 1 s on, 3 s off, 3 s on 3 s off.
LDN		Listed Directory Number tone
LIMT		Log In Mode Tone for 500/2500 ACD sets This is the tone setting for ACD services to 500/2500 agent sets. You must have Flexible Tones and Cadences (FTC) supported for this feature to function properly.
MWDT		Message Waiting Dial Tone
NBCS		Normal BCS (SL-1 set) ringing
NCAD	(1)-255	Normal Cadence 500/2500 and Digital set ringing MCAD cadence number. (<i>Notes 1 and 3</i>) It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt NBCS). NCAD is also used for SL-1 sets in systems with XCT (NT8D17 Conference/TDS) cards.
NRMT		Not Ready (NRDY) Mode Tone for ACD sets This is the tone setting for the NRDY function within ACD services to 500/2500 agent sets. You must have Flexible Tones and Cadences supported for this feature to function properly.
OBKT		Observe Blocking Tone
OHQ		Off-Hook Queuing tone
OTH	(0)-63	Other (ADM, DIC, MDM, PAG, RCD)

LD 56

Prompt	Response	Comment
	<cr>	These route types will be assigned the entered ART when the route is created in LD 16. Return to REQ prompt.
OVFL		Overflow tone
OVRD		Override tone
		This cadence repeats the last 8 on/off phases to allow for a special tone burst on the first cycle. For example, a cadence is defined as 3 s on, 3 s off, 1 s on, 3 s off. After the initial burst, the tone repeats in a 1 s on, 3 s off pattern. In order to repeat the initial 3 s burst, it must be entered as the first and last cycle because the first cycle is not repeated. In this case the cadence is defined as: 3 s on, 3 s off, 1 s on, 3 s off, 3 s on 3 s off.
P10	4 (8)	Codes for make/break ratio for 10 pps. Other make/break ratio (Prompt S10P in LD97) North American make/break ratio (Prompt S10P in LD97) (See also CLS P10 in LD 14)
PATI		Patience tone multi-party operations
PBCS		Recall or Misoperation ringing for BCS (SL-1) sets (default is SL-1 ringing tone TDS code)
PCAD	0-255	Recall or Misoperation Cadence 500/2500 and Digital set Recall or Misoperation ringing cadence MCAD cadence number It is recommended that the cadence used matches the cadence provided for SL-1 sets (prompt PBCS). PCAD is also used for SL-1 sets in systems with XCT cards.
PCWT		Precedence Call Waiting Tone When defining the TDS hex codes for this tone, only the code for the frequency/level is required as the cadence is provided by software. Enter zero for the other values (e.g., 0 0 0 xx).
PRBK		Precedence Ringback tone
PREM		Preemption tone

Prompt	Response	Comment
PULS	(NO) YES	Pulse timers are to be changed
RBCS		Call Park Recall ringing for BCS (SL-1) sets
RCAD	0-(1)-255	Recall Cadence 500/2500 and digital set Call Park recall ringing cadence MCAD cadence number. RCAD is also used for SL-1 sets in systems with XCT cards.
REQ	CHG END NEW OUT PRT	Request Change existing data block Exit Overlay program Add new data block to the system Remove data block Print data block
RGBK		Ringback tone
RING	(NO) YES	Change the Ringing feature definitions For systems with NT8D17 Conference/TDS cards, all telephones share the same ringing cadence. SL-1 telephones require an NT8D17 tone (XTON).
SCCT	(NO) YES	Software Controlled Cadences and Tones Modification of the Software Controlled Cadence Tone definitions allowed
SPCL		Special dial tone Only the code for the frequency/level is required as the cadence is provided by software. Enter 0 for the other values (e.g., TDSH = 0 0 0 xx, XTON = xxx, XCAD = 000).
SRC	(NO) YES	Source tones (SRC1 through SRC8) are required. Eight intercept Source tones can be defined. These tones are entered in LD 15 in response to the various intercept treatment prompts.
SRC1		Source tone 1 Prompts and default values for TDSH, XTON and XCAD are the same for all SRC1 through SRC8 prompts.
SRC2		Source tone 2

LD 56

Prompt	Response	Comment
SRC3		Source tone 3
SRC4		Source tone 4
SRC5		Source tone 5
SRC6		Source tone 6
SRC7		Source tone 7
SRC8		Source tone 8
SRT		Set Relocation Tone
TABL	0-31 <cr>	FTC Table number To associate a FTC table with a trunk route, enter the table number in response to prompt TTBL in LD 16. Prints all tables
TDSH	i bb c tt	Hexadecimal code for TDS. Internal/External, burst, cadence and tone (See <i>Note 2</i>) The default value of a TDSH prompt changes according to the tone-type prompt (e.g. NBCS, IBCS, HOWL, etc.) which precedes it.
TEST		Test tone
TIE	(0)-63	CAA, CAM, CSA, TIE These route types will be assigned the entered ART when the route is created in LD16.
TLP		Tone to Last Party
TLPT	(0)-30	Tone to Last Party Timer in seconds. No tone = 0.
TMAT		Telephone Messaging Alert Tone
TMOT		Telephone Messaging OK Tone
TONES	ttt ttt ...	NT8D17 tones (0-255) to be used with each phase of the cadence. Default is no tones (0 0 0 0 0). See "Default Firmware Cadence (FCAD) tables" on page 644.
TSUT		Telephone Status Update Tone

Prompt	Response	Comment
TYPE		Type of data block
	FCAD	Firmware Cadence data block
	FTC	Flexible Tones and Cadences data block
	MCAD	Master Cadence data block (Release 14 and later)
	RART	Route Access Restriction Table data block REQ = NEW or OUT is disallowed for RART.
	RCDT	Route Category Default Table data block REQ = NEW or OUT is disallowed for RCDT.
	TBAR	Trunk Barring data block
USER	(NO) YES	Print Users of this table and tone table values (tone table value only) Prompted when REQ = PRT
WCAD	0-225	Cadence number in the Firmware Cadence table (FCAD) Cadence number 0 is reserved for continuous tone and is not changeable.
WTON	(NO) YES	Define tones associated with the cadence. Prompted for systems equipped with Conference /TDS / MF Sender cards.
XCAD		XCT Cadence number (FCAD cadence number) The default range of a XCAD prompt changes according to the tone-type prompt (e.g. DBCS, HOWL, etc.) which precedes it.
XTON	0-255	XCT Tone code

LD 56

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LD 57—Flexible Feature Codes

Overlay program 57 allows the implementation and administration of the Flexible Feature Codes (FFC) software and hardware.

Up to 100 user access codes may be entered at a time for one or more different codes. After entering 100 user access codes, SCH8891 is output.

If the Directory Number Expansion (DNXP) package 150 is equipped, up to 7 digits are allowed for Flexible Feature Codes. Otherwise, a maximum of 4 digits can be entered.

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request
TYPE	FFC	Type of data block
CUST	xx	Customer number associated with this function
FFCT	(NO) YES	Flexible Feature Confirmation Tone
CEPT	(NO) YES	Conference European Des Postes Tel defaults
- REP*	0-9	Replacement for the * in the CEPT default codes
ALL	(NO) YES	Remove all Flexible Feature Codes
CODE	aaaa	Specific Flexible Feature Code type
- ADMN	ADMN xxxx	Set-based Administration sequence code Enter Flexible Feature Code
- ASRC	ASRC xxxx	Automatic Set Relocation code Enter Flexible Feature Code
- ATDA	ATDA xxxx	Autodial Activated Enter Flexible Feature Code
- ATDD	ATDD xxxx	Autodial Deactivated code Enter Flexible Feature Code
- AUTH	AUTH xxxx	Authorization code Enter Flexible Feature Code
- AWUA	AWUA xxxx	Automatic Wake Up Activate code Enter Flexible Feature Code
- AWUD	AWUD xxxx	Automatic Wake Up Deactivate code Enter Flexible Feature Code
- AWUV	AWUV xxxx	Automatic Wake Up Verify code Enter Flexible Feature Code
- BNRA	BNRA xxxx	Busy Number Redial code Enter Flexible Feature Code
- BNRD	BNRD xxxx	Busy Number Redial Deactivate code Enter Flexible Feature Code

- CCFA	CCFA xxxx	Customer Call Forward code Enter Flexible Feature Code
- CCFD	CCFD xxxx	Customer Call Forward Deactivate code Enter Flexible Feature Code
- CDRC	CDRC xxxx	CDR Charge Account code Enter Flexible Feature Code
- CFDD	CFDD xxxx	Call forward destination deactivation Enter Flexible Feature Code
- CFWA	CFWA xxxx	Call Forward All Calls Activate code Enter Flexible Feature Code
- CFWD	CFWD xxxx	Call Forward All Calls Deactivate code Enter Flexible Feature Code
- CFWV	CFWV xxxx	Call Forward All Calls Verify code Enter Flexible Feature Code
- COND	COND xxxx	Conference Diagnostics code Enter Flexible Feature Code
- CPAC	CPAC xxxx	Call Park Access Code Enter Flexible Feature Code
- CPP	CPP xxxx	Calling Party Privacy code Enter Flexible Feature Code
- CPRK	CPRK xxxx	Call Park code Enter Flexible Feature Code
- CSHF	CSHF xxxx	Centrex Switchhook Flash code Enter Flexible Feature Code
- CWGA	CWGA xxxx	Call Waiting Activated code Enter Flexible Feature Code
- CWGD	CWGD xxxx	Call Waiting Deactivated code Enter Flexible Feature Code

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- C6DS	C6DS xxxx	Six-Party Conference code Enter Flexible Feature Code
- DEAF	DEAF xxxx	Deactivate Feature code Enter Flexible Feature Code
- DPVS	DPVS xxxx	Data Port Verification code Enter Flexible Feature Code
- ELKA	ELKA xxxx	Electronic Lock Activate code Enter Flexible Feature Code
- ELKD	ELKD xxxx	Electronic Lock Deactivate code Enter Flexible Feature Code
- GRPF	GRPF xxxx	Group Call code Enter Flexible Feature Code
- GRCL	GRCL xxxx	Group Call List number code Enter Flexible Feature Code
- HOLD	HOLD xxxx	Permanent Hold code Enter Flexible Feature Code
- ICFA	ICFA xxxx	Internal Call Forward Activate code Enter Flexible Feature Code
- ICFD	ICFD xxxx	Internal Call Forward Deactivate code Enter Flexible Feature Code
- ICFV	ICFV xxxx	Internal Call Forward Verify code Enter Flexible Feature Code
- INST	INST xxxx	Set based administration Installer code Enter Flexible Feature Code
- IMS	IMS xxxx	Integrated Message System access code Enter Flexible Feature Code
- LILO	LILO xxxx	Log In-Log Out for 500/2500 ACD sets code Enter Flexible Feature Code

- MNTC	MNTC xxxx	Maintenance Access code Enter Flexible Feature Code
- MSBA	MSBA xxxx	Make Set Busy Activated code Enter Flexible Feature Code
- MSBD	MSBD xxxx	Make Set Busy Deactivated code Enter Flexible Feature Code
- MTRC	MTRC xxxx	Malicious Call Trace code Enter Flexible Feature Code
- MWRA	MWRA xxxx	Repeat Multiple Wake Up Activated code Enter Flexible Feature Code
- MWUA	MWUA xxxx	Multiple Wake Up Activated code Enter Flexible Feature Code
- MWUD	MWUD xxxx	Multiple Wake Up Deactivated code Enter Flexible Feature Code
- NRDY	NRDY xxxx	Not Ready Activation/Deactivation for 500/2500 ACD sets code Enter Flexible Feature Code
- OVRD	OVRD xxxx	Override and Priority Override code Enter Flexible Feature Code
- OCBA	OCBA xxxx	Outgoing Call Barring feature code Outgoing Call Barring feature
- OCBD	OCBD xxxx	Outgoing Call Barring Deactivate code Enter Flexible Feature Code
- OCBV	OCBV xxxx	Verify the Outgoing Call Barring feature code Enter Flexible Feature Code
- PUDN	PUDN xxxx	Pick Up DN code Enter Flexible Feature Code
- PUGR	PUGR xxxx	Pick Up Group code Enter Flexible Feature Code

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- PURN	PURN xxxx	Pick Up Ringing Number code Enter Flexible Feature Code
- RCFA	RCFA xxxx	Remote Call Forward Activate code Enter Flexible Feature Code
- RCFD	RCFD xxxx	Remote Call Forward Deactivate code Enter Flexible Feature Code
- RCFV	RCFV xxxx	Remote Call Forward Verify code Enter Flexible Feature Code
- RDLN	RDLN xxxx	Redial Last Number code Enter Flexible Feature Code
- RDNE	RDNE xxxx	Redial Number Erase code Enter Flexible Feature Code
- RDSN	RDSN xxxx	Redial Saved Number code Enter Flexible Feature Code
- RDST	RDST xxxx	Redial Store code Enter Flexible Feature Code
- RGAA	RGAA xxxx	Ring Again Activate code Enter Flexible Feature Code
- RGAD	RGAD xxxx	Ring Again Deactivate code Enter Flexible Feature Code
- RGAV	RGAV xxxx	Ring Again Verify code Enter Flexible Feature Code
- RMST	RMST xxxx	Room Status code Enter Flexible Feature Code
- RPAN	RPAN xxxx	Radio Paging Answer call code Enter Flexible Feature Code
- RPAX	RPAX xxxx	Radio Paging Access code Enter Flexible Feature Code

- SADS	SADS xxxx	SAR Disable code Enter Flexible Feature Code
- SAEN	SAEN xxxx	SAR Enable code Enter Flexible Feature Code
- SALK	SALK xxxx	SAR Lock code Enter Flexible Feature Code
- SAUN	SAUN xxxx	SAR Unlock code Enter Flexible Feature Code
- SCPC	SCPC xxxx	Station Control Password Change code Enter Flexible Feature Code
- SPCC	SPCC xxxx	Speed Call Controller code Enter Flexible Feature Code
- SPCU	SPCU xxxx	Speed Call User code Enter Flexible Feature Code
- SSPU	SSPU xxxx	System Speed Call User code Enter Flexible Feature Code
- TFAS	TFAS xxxx	Trunk Answer From Any Station code Enter Flexible Feature Code
- TRMD	TRMD xxxx	Terminal Diagnostics code Enter Flexible Feature Code
- TRVS	TRVS xxxx	Trunk Verification code Enter Flexible Feature Code
- USER	USER xxxx	Set based administration User code Enter Flexible Feature Code
- USCR	USCR xxxx	User Selectable Call Redirection code Enter Flexible Feature Code
- USTA	USTA xxxx	User Status code Enter Flexible Feature Code

Alphabetical list of prompts

Prompt	Response	Comment
ALL	(NO) YES	Remove all Flexible Feature Codes Prompted when REQ = OUT
ASRC	xxxx	Automatic Set Relocation Code
ATDA	xxxx	Autodial Activated
ATDD	xxxx	Autodial Deactivated
AUTH	xxxx	Authorization code
AWUA	xxxx	Auto Wake Up Activate code
AWUD	xxxx	Auto Wake Up Deactivate code
AWUV	xxxx	Auto Wake Up Verify
BNRA	xxxx	Activate the Busy Number Redial feature
BNRD	xxxx	Deactivate the Busy Number Redial feature
C6DS	xxxx	Six-Party Conference code
CCFA	xxxx	Activate the Customer Call Forward feature
CCFD	xxxx	Deactivate the Customer Call Forward feature
CDRC	xxxx	CDR Charge Account code
CEPT	(NO) YES	Conference European Des Postes Tel defaults are to be used. CEPT is prompted when REQ = NEW. If CEPT = YES, then all CEPT defaults will be set up. The default value for CPP is *67 if Calling Party Privacy (CPP) package 301 is equipped.
CFDD		Call forward destination deactivation code

Prompt	Response	Comment								
CFHO	xxxx	Call Forward/HUNT Override via FFC								
CFWA	xxxx	Call Forward All Calls Activate code								
CFWD	xxxx	Call Forward All Calls Deactivate code								
CFWV	xxxx	Call Forward All Calls Verify code								
CODE	aaaa	<p>Specific Flexible Feature Code (FFC) type. Where: aaa = FFC type to be changed. (e.g., AUTH, CPP, etc.)</p> <p>Two entries are required to change a specific FFC. First enter the mnemonic of the FFC to be changed and then carriage return <cr>. The switch will then prompt the mnemonic just entered. Respond to this second prompt by entering the numeric value desired for that Flexible Feature Code. See example below.</p> <p>The Flexible Feature Code may be up to 4 digits, or up to 7 digits with Directory Number Expansion (DNXP) package (150). CODE is prompted when ALL = NO.</p> <p>Example: to change the Flexible Feature Code for Call Park to 88, respond to CODE as follows:</p> <table border="0"> <tr> <td><u>Prompt</u></td> <td><u>Response</u></td> </tr> <tr> <td>CODE</td> <td>CPRK <cr></td> </tr> <tr> <td>CPRK</td> <td>88 <cr></td> </tr> <tr> <td>CODE</td> <td><cr> (No further prompts, return to REQ)</td> </tr> </table>	<u>Prompt</u>	<u>Response</u>	CODE	CPRK <cr>	CPRK	88 <cr>	CODE	<cr> (No further prompts, return to REQ)
<u>Prompt</u>	<u>Response</u>									
CODE	CPRK <cr>									
CPRK	88 <cr>									
CODE	<cr> (No further prompts, return to REQ)									
	ALL	All feature mnemonics that may have a Flexible Feature Code will be prompted.								
	<cr>	No further prompts, return to REQ.								
COND	xxxx	Conference Diagnostics code								
CPAC	xxxx	Call Park Access Code								
CPP	xxxx	Calling Party Privacy								
CPRK	xxxx	Call Park code								
CSHF	xxxx	Centrex Switchhook Flash code								

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Prompt	Response	Comment
CUST	xx	Customer number associated with this function as defined in LD 15
CWGA	xxxx	Call Waiting Activated
CWGD	xxxx	Call Waiting Deactivated
DEAF	xxxx	Deactivate Feature (deactivates RDLN, RGA, CFW, GHD and SNA codes. Same operation as ATDD, CFWD, MSBD, CWGD and RGAD
DPVS	xxxx	Data port verifications code
ELKA	xxxx	Electronic Lock Activate code
ELKD	xxxx	Electronic Lock Deactivate code
EOVR	xxxx	Enhanced Override (manual Forced Camp-On followed by Priority Override)
FFCT	(NO) YES	Flexible Feature Confirmation Tone This tone allows users of 500/2500 or multi-line telephone sets to receive a confirmation tone after activating/deactivating the following features: <ul style="list-style-type: none">• Call Forward activate, deactivate• Ring Again deactivate• Store/erase Stored Number Redial• all Automatic Wake Up codes• Speed Call store• any verification code
GRCL	xxxx	Group Call List number
GRPF	xxxx	Group Call
HOLD	xxxx	Permanent Hold code
ICFA	xxxx	Internal Call Forward Activate code
ICFD	xxxx	Internal Call Forward Deactivate code

Prompt	Response	Comment
ICFV	xxxx	Internal Call Forward Verify code
IMS	xxxx	Integrated Message System Access code
INST	xxxx	Set based administration Installer
LILO	xxxx	Login-Logout for 500/2500 ACD sets Dialing the number programmed here allows an ACD Agent on a 500/2500 telephone set to toggle between Login and Logout. There is no confirmation tone.
MNTC	xxxx	Maintenance Access code
MSBA	xxxx	Make Set Busy Activated.
MSBD	xxxx	Make Set Busy Deactivated.
MTRC	xxxx	Malicious Call Trace code
MWRA	xxxx	Multiple Wake Up Activated Automatic Wake Up (AWU) package 102 must be equipped for the MWU FFC codes to be available.
MWUA	xxxx	Repeat Multiple Wake Up Activated.
MWUD	xxxx	Multiple Wake Up Deactivated
NRDY	xxxx	Not Ready activation/deactivation for 500/2500 ACD sets Dialing the number programmed here allows an ACD Agent on a 500/2500 telephone set to toggle in and out of the Not Ready state like other ACD Agents. There is no confirmation tone returned.
OCBA	xxxx	Activate the Outgoing Call Barring feature
OCBD	xxxx	Deactivate the Outgoing Call Barring feature
OCBV	xxxx	Verify the Outgoing Call Barring feature
OVRD	xxxx	Override and Priority Override

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Prompt	Response	Comment
PUDN	xxxx	Pick Up DN code.
PUGR	xxxx	Pick Up Group code.
PURN	xxxx	Pick Up Ringing Number code.
RCFA	xxxx	Remote Call Forward Activate code.
RCFD	xxxx	Remote Call Forward Deactivate code.
RCFV	xxxx	Remote Call Forward Verify code.
RDLN	xxxx	Redial Last Number code.
RDNE	xxxx	Redial Number Erase code.
RDSN	xxxx	Redial Saved Number code.
RDST	xxxx	Redial Store code.
REP*	0-9	One digit replacement for the * in the CEPT default codes. The CEPT defaults will be defined again with this digit used in place of the “*”. In addition, the trailing # will be omitted. REP* is prompted only when REQ = NEW and CEPT = YES. Use <cr> to create only CEPT defaults. Note that digit replacement is blocked for CPP defaults.
	<cr>	No change to defaults
REQ	CHG END NEW OUT PRT	Request Change existing data. Exit Overlay program. Create a new data block. Remove Data Block. Print Data Block.
RGAA	xxxx	Ring Again Activate code.
RGAD	xxxx	Ring Again Deactivate code.

Prompt	Response	Comment
RGAV	xxxx	Ring Again Verify code.
RMST	xxxx	Room Status code
RPAN	xxxx	Radio Paging Answer call code
RPAX	xxxx	Radio Paging Access code
SADS	xxxx	SAR Enable code
SAEN	xxxx	SAR Lock code
SALK	xxxx	Ring Again Activate code
SAUN	xxxx	SAR Unlock code
SCPC	xxxx	Station Control Password Change code
SPCC	xxxx	Speed Call Controller code
SPCU	xxxx	Speed Call User code
SSPU	xxxx	System Speed Call User code
TFAS	xxxx	Trunk Answer From Any Station code
TRMD	xxxx	Terminal Diagnostics code
TRVS	xxxx	Trunk Verification code
TYPE	FFC	Flexible Feature Codes data block
USCR	xxxx	User Selectable Call Redirection
USER	xxxx	Set based administration User
USTA	xxxx	User Status code

LD 57

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LD 60—Digital Trunk Interface and Primary Rate Interface Diagnostic

The LD 60 diagnostic program can be run in midnight routines or loaded manually to enter commands.

This program is used to maintain the following on other systems:

- 1.5 Mb/s Digital Trunk Interface (DTI)
- Primary Rate Interface (PRI)

Basic Commands

DTI/PRI commands

ATLP (0), 1	Disable (default) or enable midnight auto loop test
CDSP	Clear maintenance display to 00 or blank
CMIN ALL	Clear minor alarm indication on all attendant consoles
CMIN c	Clear minor alarm indication on attendant consoles for customer c
DISI loop	Disable loop when all channels are idle
DISL loop	Disable network and DTI/PRI cards of loop
DLBK loop	Disable remote loop back test per RLBK command
DLBK I ch	Disable remote loop back test per RLBK I ch command
DSCH I ch	Disable channel ch of loop
ENCH loop	Enable all channels on 2.0 Mb/s DTI/PRI
ENCH I ch	Enable channel ch of DTI/PRI loop
ENLL loop	Enable network and DTI/PRI cards of loop
LCNT (loop)	List contents of alarm counters on one or all DTI/PRI loops
LOVF c r	List threshold overflows for customer c (0-99) and route r (0-511)
RCNT	Reset alarm counters of all DTI/PRI loops
RCNT loop	Reset alarm counter of DTI/PRI loop
RMST loop	Perform self-test on loop
RMST I ch	Perform self-test on specified channel (2.0 Mb/s DTI/PRI only)
RLBK loop	Close loop at carrier interface point for testing
RLBK I ch	Close channel ch at carrier interface point
RSET I ch	Reset thresholds for channel ch
SLFT loop	Invoke hardware self-test on loop
SLFT I ch	Invoke partial hardware self-test on channel ch
STAT	Get status of all loops
STAT loop	Get status of DTI/PRI loop
STAT I ch	Get status of channel ch

Clock controller commands

DIS CC x (0)	Disable system clock controller x (0)
DSYL loop	Disable yellow alarm processing for loop
ENCK loop	Enable the clock for loop
ENL CC x (0)	Enable system clock controller x (0)
ENYL loop	Enable yellow alarm processing for loop
SSCK x (0)	Get status of system clock x (0)

Alphabetical list of commands

Command	Description
ATLP (0), 1	<p>Disable (0) or enable (1) daily routine auto loop test. Where:</p> <ul style="list-style-type: none">1 = loop test enable; causes far-end to raise and clear yellow alarm0 = run the partial loop test; there is no interaction for far-end loop (default value) <p>LD 60 is included in the daily (midnight) routines if defined by LD 17 prompt DROL. ATLP is only run if LD 60 is included in the daily routines.</p> <p>If ATLP = 1, and all 24 channels on the loop are idle, then the DTI/PRI card is disabled and a self-test is performed on each channel. All DTI/PRI cards are tested, one at a time. If a D-channel is on the loop, it is temporarily released and reestablished. If one or more channels are busy, the test is not performed on the loop.</p> <p>If ATLP = 0, then an "AUTO TEST DSBL" message is output and only one channel is tested. The channel is randomly selected by software, it cannot be specified.</p>
CDSP	Clear maintenance display to 00 or blank.
CMIN ALL	Clear minor alarm indication on all attendant consoles.
CMIN c	Clear minor alarm indication on attendant consoles for customer c.
DIS CC x (0,1)	<p>Disable system clock controller 0 or 1.</p> <p>CPU 0 must be idle to disable CC 0. CPU 1 must be idle to disable CC 1. To switch CPUs, use the SPCU command in LD 35.</p>
DISI loop	<p>Disable DTI/PRI loop when all channels are idle.</p> <p>The network and DTI/PRI cards are then disabled and status LEDs are lit. Channel status is set to BSY. Enter END to abort. When the PRI is physically connected to a DCHI card, the D-channels must be disabled first using LD 96.</p>

DISL loop	<p>Disable network and DTI/PRI/DTI2/PRI2 cards of loop. (PRI & PRI2 loops cannot be disabled unless associated D-channel is disabled first using LD 96).</p> <p>Active calls are force disconnected by on-hook simulation. All channels are disabled and status LEDs are lit.</p>
DLBK loop	<p>Disable remote loop back test per RLBK command.</p> <p>Loop remains disabled.</p>
DLBK I ch	<p>Disable remote loop back test per RLBK loop ch command.</p> <p>The channel remains disabled.</p>
DSCH I ch	<p>Disable channel ch of loop l.</p>
DSCK loop	<p>Disables the clock for loop, which does not have to be previously defined as the primary or secondary clock source.</p>
DSYL loop	<p>Disable yellow alarm processing for loop.</p>
ENCH loop	<p>Enable all channels on DTI2 loop.</p>
ENCH I ch	<p>Enable channel ch of loop.</p> <p>For TIE trunks with A+B signaling, the channel is set to the same state as the far-end. The far-end refers to the status of the channels as presented by DTI T1 port.</p> <p>With B-channel signaling, channels are placed into the IDLE state and made available for calls.</p>
ENCK loop	<p>Enables the clock for loop, which must be previously defined as a primary or secondary clock source via service change.</p>
END	<p>Aborts the program.</p>
ENL CC x	<p>Enable system clock controller 0 or 1.</p>
ENLL loop	<p>Enable network and DTI/PRI/DTI2/PRI2 cards of loop.</p> <p>For TIE trunks with A+B signaling, the channels are set to the same status as the far-end; otherwise, the channels are set to idle status. The far-end refers to the status of the channels as presented by DTI T1 port. Status LEDs are deactivated.</p> <p>With B-channel signaling, channels are placed into the IDLE state and made available for calls.</p>

ENYL loop	Enable yellow alarm processing for loop.
EREF	Enables automatic switchover of primary and secondary reference clocks. Also enables recovery to primary or secondary clocks when loops associated with these clocks are automatically enabled.
LCNT (loop)	<p>List contents of alarm counters on one or all of the following cases:</p> <p>Case 1 1.5 Mb/s DTI/PRI</p> <p>The counters are:</p> <ul style="list-style-type: none">BPV = bipolar violation counterSLIPD = frame slip deletion counterSLIPR = frame slip repetition countLOSFA = loss of frame alignment counterOS_BPV = 24-hr bipolar violation countera For PRI with D2, D3, or D4 framing format, 24-hr bipolar violation counterb For PRI with Extended Superframe Format, 24-hr Cyclic Redundancy Check (CRC) counter <p>OS_LOSFA = 24-hr loss of frame alignment counter OS_YEL = 24-hr yellow alarm counter</p> <p>Case 2 2.0 Mb/S DTI</p> <p>The counters are:</p> <ul style="list-style-type: none">G1 alarmsBPV = bipolar violation counterFAP = frame alignment threshold counterSLP = maintenance threshold slip counterCRC = cyclic redundancy threshold counterAIS = alarm indication signalAIS64 = 64 Kb/s alarm indication signalFAL = loss of frame alignmentMFAL = loss of multiframe alignmentBIT3 = bit 3 errorBIT6 = bit 6 errorCFAS = loss of crc-4 multiframe alignment

Case 3 2.0 Mb/s PRI

The counters are:

BPV = bipolar violation counter
CRC = cyclic redundancy threshold counter
FAP = frame alignment threshold counter
SLP = maintenance threshold slip counter
AIS = alarm indication signal
LFAS = loss of frame alignment signal
LMAS = loss of multiframe alignment signal
RAI = remote alarm indication
LOS = loss of signal

- LOVF c r** List threshold overflows for customer c (0-99) and route r (0-511).
The overflows are set when the resident trunk monitor outputs a diagnostic message. Defined thresholds are HOLD, ILLR, REPT, SEIZ and SVFL (see LD 16).
- MREF** Disable switchover of system clocks.
Also disables recovery to primary or secondary reference clocks when loops associated with these clocks are automatically enabled.
- RCNT (loop)** Reset alarm counters for all or specified loop only.
If the DTI loop was disabled due to an error threshold overflow and the DTI may be enabled automatically when the counter is cleared, then before performing any command, such as test, that requires the DTI to be disabled you should:
1. disable the DTI
 2. list the counters with the LCNT command
 3. reset the counters with the RCNT command
 4. do the test commands
- RLBK loop** Close loop at carrier interface point for testing.
Allows the far-end to perform an external loop back test on the carrier span using the RMST command. This command closes the loop at the carrier interface point of the DTI/PRI. The DTI/PRI loop must be disabled first using the DISI or DISL loop commands.

RLBK I ch	<p>Close channel ch at carrier interface point.</p> <p>Allows the far-end to perform an external loop back test on the carrier span. The loop remains enabled, but closes the specified channel at the carrier interface point of the DTI/PRI. The DTI/PRI channel must be disabled first using the DSCH loop ch command.</p>
RMST loop	<p>Perform remote loop back test on loop. The far-end must be in the remote loop back mode. (RLBK command has been issued at the far-end)</p>
RMST I ch	<p>The far-end channel must be in the remote loop back mode. (RLBK command has been issued at the far-end)</p>
RSET I ch	<p>Reset thresholds for channel ch on loop I.</p>
SLFT loop	<p>Invoke DTI/PRI hardware self-test on loop.</p> <p>This command tests speech path continuity, zero code suppression, remote alarm detection, and A&B bit signaling. The loop must be disabled first using the DISI or DISL loop command.</p>
SLFT I ch	<p>Invoke partial hardware self-test on channel ch. The DTI/PRI channel must be disabled first using the DSCH command.</p>
SSCK x	<p>Get status of system clock 0 or 1. The SSCK command indicates the active controller as well as active primary or secondary reference clock source or free run.</p> <p>Response may be:</p> <ol style="list-style-type: none">1. AUTO SWREF CLK - ENBL = automatic switchover of system clocks enabled2. AUTO SWREF CLK - DSBL = automatic switchover of system clocks disabled3. CLOCK ACTIVE = the active controller4. DSBL = clock disabled5. ENBL = clock enabled6. REF CLK ERR = possible faulty cable from CC to DTI/PRI, or faulty Clock Controller7. SYSTEM CLOCK - FREE RUN, PREF or SREF = clock is in free run mode or tracking to the primary (PREF) or secondary (SREF) reference loop8. VCXO AGING ERROR = the timing crystal is faulty, replace the clock

STAT Get status of all digital loops. The types of loops are:

1. PRI = Primary Rate Interface
2. PRI2 = 2.0 Mb/s Primary Rate Interface
3. DTI = Digital Trunk Interface
4. DTI2 = 2.0 Mb/s Digital Trunk Interface
5. DLI = Digital Link Interface
6. JDMI = Japan Digital Multiplex Interface

STAT loop Get status of digital loop. Sample output:

```
AAA TRK LOOP x - BBBB
SERVICE RESTORE: YES/NO
YEL ALM PROCESS: YES/NO
ALARM STATUS: NO ALARM/RED(local) ALARM
```

Where: AAA may be :

1. DTI
2. DTI2
3. PRI
4. PRI2
5. TIE
6. DID
7. DTI LINK (DTI link loop = DLI)

Where: BBBB may be:

1. DSBL = Hardware of specified digital loop is disabled
2. ENBL = Hardware of specified digital loop is enabled
3. RLBK = Hardware of specified digital loop is in remote loop back mode
4. DISI PENDING = DSI command is in progress
5. TRACKING = system clock is tracked to this loop
6. IDLE = Hardware of specified digital loop is idle
7. SERVER RCVY = server has not recovered status of DTI LINK loop. Channels will not be allocated for call processing until this status is removed by the server
8. BUSY = Hardware of specified digital loop is busy
9. MSBY = Hardware of specified digital loop is in make busy mode

Where: **SERVICE RESTORE** may be:

1. YES = restore service automatically if alarm is removed
2. NO = loop can only be manually enabled

Where: **YEL ALARM PROCESS** may be:

1. YES = yellow alarm processing is enabled
2. NO = yellow alarm processing is disabled

Where: **ALARM STATUS** may be:

1. NO ALARM = no alarm active
2. RED = red (local) alarm active

Action 1:

1. list alarm counters (LCNT command)
2. check for DTA messages
3. go to the fault clearing section

Where:

YELLOW = yellow (remote) alarm active

WAITING = DTI/PRI card is not responding. The card either did not respond to a status check or did not respond when a red alarm was cleared. Go to Action 2.

Action 2:

1. check DTI/PRI status again
2. disable, then enable the DTI/PRIPRI

STATE OF SERVICE:

OOS = out-of-service

NNC = no new call

NNDC = no new data call

MNT = maintenance

When an alarm is present (group 2 error), it is a

REMOTE ALARM

REMOTE ALARM:

NS = alarm indication signal

RAI = remote alarm indication

LOCAL ALARM:**LOS** = loss of signal**LFAS** = loss of frame alignment signal**LMAS** = loss of multiframe alignment signal

STAT I ch

Get status of channel ch. Status may be:

1. **IDLE** = channel is enabled and is idle
2. **BUSY** = channel is enabled and is call processing busy or channel is in a lockout state (far-end is disabled)
3. **MBSY** = channel is being used for maintenance busy, the D-channel is down, or far-end channel is disabled
4. **DSBL** = channel is disabled
5. **DSBL (SERVER)** = channel is being used for server maintenance and is disabled for the duration (1.5 Mb/s DTI digital link interface only)
6. **FE MBSY** = near end is idle, far-end is maintenance busy
7. **FE DSBL** = near end is idle, far-end is disabled
8. **FE DSBL** = far-end B-channel is disabled
9. **FE MBSY** = far-end B-channel is in maintenance mode
10. **UNEQ** = channel is not equipped

When the loop is a Phantom loop, it is possible to receive the status messages: **TIE IDLE ISPC**, **TIE BUSY ISPC**, or **TIE MBSY ISPC**. Interpret these system responses as they are interpreted for the command STAT loop. See the section which outlines BBBB alternatives for the STAT loop command on [page 681](#).

SWCK

Switch system clock from active to standby.

The reference clock source remains unchanged.

TRCK aaa

Set clock controller tracking to primary, secondary or free run. Where aaa is:

PCK = track primary clock**SCLK** = track secondary clock**FRUN** = free run mode

Track primary clock (PCK) or secondary clock (SCLK) as the reference clock or go to free run (FRUN) mode.

LD 60

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LD 61—Message Waiting Lamps Reset

The Message Waiting Lamps Reset (MWL) program can be invoked automatically by the system as part of the daily routines or manually from an input device. It is used to deactivate all active Message Waiting lamps on user stations and reset the associated status in the system.

This program cannot be applied to digital sets.

When LD 61 is loaded manually, 'G' must be entered to initiate the task.

G command

Starts resetting the trouble status on all Message Waiting lamps. The program does not reset lamp status unless all message center sets are out-of-service (i.e., message center is closed and attendants are in Night Service).

Before running this program, all Message Center (MC) telephones must be taken out-of-service by “make telephone busy” and if attendants are set up to handle message calls, they must be in night mode.

LD 61

Issued:	November 1998
Status:	Draft

LD 73—Digital Trunk Interface

Overlay program 73 allows the implementation and administration of the Digital Trunk Interface (DTI) and Primary Rate Interface (PRI) software and hardware.

Prompts and responses

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Section	Page
Prompts and responses by data block: DDB: Digital data block	689

DDB: Digital data block

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, NEW, OUT, or PRT)
TYPE	DDB	Type of data block = DDB (Digital data block)
CLKN	1,3,5	Clock slot number
- PREF	1,3,5	Primary Reference
TRSH	0-15	Threshold set
RALM	1-(3)-128	Remote (yellow) Alarm clear threshold
BIPC	0-(2)-128	Bipolar violation Count threshold
LFAC	0-(3)-128	Loss of Frame Alignment Counter
BIPV	1-(3)-4 1-(2)-4	Bipolar Violation maintenance and out-of-service threshold
SRTK	1-(5)-24 1-(30)-3600	Slip Rate Tracking mode maintenance
SRNT	1-(15)-1024 1-(3)-1024	Slip Rate Non-Tracking
LFAL	1-(17)-10240	Loss of Frame Alignment maintenance and out-of-service thresholds
SRIM	(1)-127	Slip Rate Improvement Monitoring time in minutes
SRMM	1-(2)-127	Slip Rate Maintenance Maximum

Alphabetical list of prompts

Prompt	Response	Comment
BIPC BIPV	0-(2)-128 1-(3)-4 1-(2)-4	<p>Bipolar violation count threshold</p> <p>Bipolar Violation maintenance and Out-of-Service threshold</p> <p>The BIPV values determine the sensitivity of the loop to errors, where BIPV = 1 is the least tolerant to errors, and BIPV = 4 is the most tolerant.</p> <p>The maintenance threshold must be greater than the out-of-service threshold.</p> <p>The method of bit rate monitoring depends on the loop configuration:</p> <ol style="list-style-type: none"> 1. For DTI mode: bipolar violation thresholds 2. For PRI mode with D2, D3, or D4 framing format: bipolar violation thresholds 3. For PRI mode with Extended Superframe Format (ESF): Cyclic Redundancy Check (CRC) thresholds
CLKN	1,3,5	Clock slot number
LFAC	0-(3)-128	<p>Loss-of-Frame-Alignment Counter</p> <p>This is the maximum number of times a DTI/PRI loop can be taken out-of-service in 24 hours. If this threshold is reached the DTI/PRI must be restored to service manually.</p> <p>If "0" is entered, there is no limit on number of times that trunks can be taken out and automatically restored to service.</p>
LFAL	1-(17)-10240 1-(511)-10240	<p>Loss-of-Frame-Alignment maintenance and out-of-service thresholds</p> <p>The maintenance threshold must be greater than the out-of-service threshold.</p>

Prompt	Response	Comment
PREF	1,3,5 <cr>	<p>Primary Reference Source loop for clock controller If REQ = NEW and carriage return is entered, then Primary Reference is free-run mode.</p> <p>If REQ = CHG, then Primary Reference is not changed. The loop or card must already be defined in LD 17 (prompt DLOP). Use <cr> for free-running mode.</p> <p>Precede with X to remove</p>
RALM	1-(3)-128	<p>Remote (yellow) Alarm clear threshold</p> <p>This is the number of "remote alarm clear" signals received in 24 hours. If the threshold is reached the DTI/PRI must be restored to service manually.</p>
REQ	CHG END NEW OUT PRT	<p>Request</p> <p>Change existing data block</p> <p>Exit Overlay program</p> <p>Create a new data block</p> <p>Remove data block</p> <p>Print the specified data block</p>
SRIM	(1)-127	<p>Slip Rate Improvement Monitoring time (the amount of time in minutes before returning trunks either to service or to the SRGT state)</p> <p>After the tracking or non-tracking mode frame slippage out-of-service threshold is exceeded, the slip rate is monitored for improvement.</p> <p>If the non-tracking maintenance threshold exceeds SRMM or fewer times in the duration of this timer, then the trunks are returned to service. Otherwise, this timer is reset and monitoring continues.</p>
SRMM	1-(2)-127	<p>Slip Rate Maintenance Maximum</p> <p>Number of times the Slip Rate exceeds the maintenance limit while waiting for Slip Rate improvement during the time window specified at the SRIM prompt.</p>

LD 73

Prompt	Response	Comment
SRNT	1-(15)-1024 1-(3)-1024	<p>Slip Rate Non-Tracking mode maintenance and out-of-service thresholds</p> <p>These are frame slip rate thresholds for the non-tracking mode.</p> <p>The first value is the maintenance threshold in seconds. The second value is the out-of-service threshold in seconds, the amount of time in which 10 slips occur.</p>
SRTK	1-(5)-24 1-(30)-3600	<p>Slip Rate Tracking mode maintenance (in hours) and out-of-service thresholds (per hour)</p> <p>These are frame slip rate thresholds for the tracking mode.</p> <p>The first value is the maintenance threshold or the elapsed time (in hours) between frame slips. The default is 1 slip in 5 hours. The second value is the out-of-service threshold or the number of slips per hour. The default is 30 slips in 1 hour.</p>
TRSH	0-15	<p>Threshold set</p> <p>Enter this number in LD 17 when defining a DTI/PRI loop. Use X0-15 to remove TRSH.</p> <p>Note: The LD 17 DLOP/TRSH associated with this LD 73 TRSH must be removed first.</p> <p>Precede with X to remove.</p>
TYPE	DDB DTI PRI	<p>Type of data block</p> <p>1.5 Mb/s DTI data block</p> <p>1.5 Mb/s DTI with International 1.5/ 2.0 Mb/S Gateway (GPRI) package 167 data block</p> <p>1.5 Mb/s PRI data block with International 1.5/ 2.0 Mb/s Gateway (GPRI) package 167</p>

LD 77—Manual Print

LD 77 is used to print the signals that come from the peripheral packs to the common equipment.

Note: This Overlay is intended for people experienced with the message formats and protocols.

When to use LD 77

LD 77 can be useful in determining which peripheral pack (line or trunk) is causing a system overload in situations in which the CPU cannot narrow the problem to a specific Terminal Number (TN). Once the program is loaded from a tape, the user may request the system to print all the input messages from a specific area of peripheral equipment.

Manual Print can also be used to continuously send frequency combinations by defining the loop and terminal number of the MFE card, busying the channel, setting the read/write bit to write, defining the message and repeatedly sending it. This channel will not be available for regular signaling until the message sending is stopped and the channel is idled.

When a machine is carrying traffic, there will be a large number of valid messages generated from the peripheral equipment. Thus, the program will be most effective for trouble-shooting when:

- there is little system traffic
- message address range is restricted (i.e., looks only at one card)

This program has capabilities which are used by the software designers during development activities. The user is protected from accidental access to these commands (and resulting potential service degradation) as a password is required. This password is not available to customers.

LD 77 Output Format

All numerical input/output is in hexadecimal format. The output is in the following format:

<card> <terminal> <message> <time-stamp>

The loop, shelf and card fields identify the circuit pack generating the message.

Abbreviations for LD 77

The fields are defined as follows:

b = bypass bit value

cb = continuity bit

ch = chip on a given SSD Peripheral Signaling pack

g = group

c u = TN: loop, shelf, card, unit

ln = link

loop = network loop

m = module

p = page

ps = Peripheral Signaling pack

sh = Multigroup shelf

ts = time slot

v = desired lamp state; 0 = lit, 1 = dark

x = Multigroup bit

Some four-letter commands can be abbreviated to a one-letter command when entered from a TTY (but not an SL-1 telephone). The one-letter command is shown in parentheses after the four-letter mnemonic (e. g., ARPS (F) l s 32 can be entered as F l s 32).

LD 77 Input Format

All input is in decimal form, except message data which is in hexadecimal form. Space and carriage return are automatically done by the overlay when the expected number of digits are input. Therefore the number of input digits must be strictly entered for each input parameter. The number of letters specified in each parameter field dictate the number of hex or decimal digits that must be entered.

For example:

Enter for TN 1 0 2 0:

001 0 02 00

Enter for TN 156 1 15 30:

156 1 15 30

Basic commands

Only “P” commands can be used on superloops.

ANWK (B) loop ts	Read/write network card memory
ANWS (C) loop ts	Read/write network card memory (short)
ARPM loop 20	Print contents of timeslots in RPC
ARPM loop ts b s c u	Get contents of timeslot ts, loop
ARPS (F) loop ts	Read Remote Peripheral Switch memory
DENL loop	Get the density of loop
DISC	Call disconnect
DFTM (T) c u	Define unit to receive signaling messages
DLMP 0/1	Turn on/off lamp audit
DMTN	Monitor input and output SSD messages for 1 to 6 TNs
DRTM (N) c u	Stop printing messages
IMSG	Send input SSD messages from PE to Meridian 1 CPU
KALL	Call set up without specifying timeslots
KALS	Call set up with specifying timeslots
KILLx	Reset one or all TN being monitored
N	Stop print
P	Print all messages
P III	Print all messages from specified loop III
P III s	Print all messages from specified shelf III s
P III s cc	Print all messages from specified card III s cc
PRTM (P) III s cc uu	Print messages, as specified III s cc uu
WCTS loop	Print the current unit scan of loop
WMBY c u	Write the maintenance bit for the given unit to BUSY
WMUB c u	Write the maintenance bit for the given unit to NOT BUSY
XMSG	Send output SSD messages from Meridian 1 CPU to PE
XMII, XMIO	Send input/output XMI messages between the CPU and superloops
XRCL loop	Read contents of RPC control register for loop
XRSH loop	Read and print contents of SHEN register for loop
XRST loop	Read and print contents of STATUS register for loop
XTRP loop	Test remote RPC processor for loop
XTLP loop	Test local RPC processor for loop
XWCS loop xxxx	Writes RPC control/SHEN register for loop

Alphabetical list of commands

Command	Description
ANWK (B) loop ts	<p>Read/write network card memory. Access the specified network card memory to read and print one word. The word format is:</p> <pre><cb s c u x ln --></pre> <p>Where: cb = continuity bit, s = shelf, c = card, u = unit, x = multigroup bit and ln = link</p> <p>You can write in new data. To change the values, rekey the word after the dashes, substituting new values where appropriate.</p>
ANWS (C) loop ts	<p>Read/write network card memory (short). Access the specified network card memory (short form) to read and print one word. The multigroup bit and continuity field are not used.</p> <p>The word format is: <s c u ln --></p> <p>Where: s = shelf, c = card, u = unit and ln = link.</p> <p>You can write in new data. To change the values, rekey the word after the dashes, substituting new values where appropriate.</p>
ARPM loop 20	Prints contents of 32 timeslots in RPC associated with loop (20 hexadecimal = 32 decimal).
ARPM loop ts b s c u	<p>Get contents of timeslot ts, loop.</p> <p>The system prints data in the form "bscu", where b is the current value of the bypass bit in the Remote Peripheral Equipment Controller (RPC) memory (0 or 1) for that shelf, card and unit.</p> <p>The user can enter a new bypass bit for the RPC memory after the dash.</p>

ARPS (F) loop ts

Read Remote Peripheral Switch memory.

Access the specified Remote Peripheral Switch (RPS) memory to read and print one word.

The word format is: <cb s c u -->

Where: cb = continuity bit, s = shelf, c = card and u = unit.

You can write in new data. To change the values, rekey the word after the dashes, substituting new values where appropriate.

DENL loop Get the density of loop.

DFTM (T) s c u

Define unit to receive signaling messages.

DISC Call disconnect. Format is:

DISC

TN1 111 s cc uu

TN2 111 s cc uu

This command disconnects the call specified by the TNs. A scan of the connection memory is done prior to disconnecting the call, if no timeslot can be found for the specified TN, nothing is done. TN1 and TN2 are prompted by the program.

DLMP 0/1 Turn on/off lamp audit. Format is:

DLMP 0 = turn on lamp audit

DLMP 1 = turn off lamp audit

-
- DMTN** Monitor input and output SSD messages for 1 to 6 TNs. This command is used to monitor all SSD messages for the specified TN. TN is automatically prompted by the program. Up to 6 TNs can be monitored at the same time.
- Enter the DLPM and DMTN commands as follows:
- ```
DLMP 2
DMTN
TNx lll s cc uu
```
- Where: x = (1-6), TN index
- The output format is: **OSSD111 TN MSG TIME**
- Where:
- OSSD111** = header
  - TN** = packed TN
  - MSG** = SSD message content
  - TIME** = real time clock before output when work scheduler gets the input message
- DRTM (N) c u** Stop printing messages from the loop, shelf, card and unit. Only loop and shelf numbers are required.
- IMSG** Send input SSD messages from PE to Meridian 1 CPU. This command is used to simulate incoming SSD message from the peripheral equipment. The specified TN must be equipped.
- Format is:
- ```
IMSG
TN lll s cc uu
NUMBER MESSAGES mm
# TIMES TO SEND hhh
MSG DATA xxxx xxxx xxxx xxxx. . .
```
- Where:
- mm** = number of SSD messages (1-10) to be sent
 - hhh** = number of times (1-999) to simulate the SSD input message
 - xxxx** = SSD message content. Number of message contents depends on input of mm
- TN, NUMBER MESSAGES, # TIMES TO SEND, and MSG DATA** are prompted by the program.
-

KALL

Call set up without specifying timeslots.

This command is used to set up a simple call (intra or inter-group). The system finds an available timeslot for the specified TNs. The specified TN must be equipped, enabled and idle.

Format is:

KALL

TN1 111 s cc uu,

Loop 0 00 CH for Digital Trunk Cards.

TN2 111 s cc uu,

Loop 0 00 CH for Digital Trunk Cards.

TN1 and **TN2** are automatically prompted by the program.

If **AUDIT** is running, call(s) are disconnected, and **AUD17**, **AUD18**, **AUD19**, and/or **AUD31**, **AUD32** is printed.

Call setup command simply finds the available timeslots and sets up the connection memory and/or junctor memory. **BUG105**, **BUG330** may be printed if illegal sequences are carried out.

These commands are designed for lab use only, and should be used cautiously in a live switch.

KALS

Call set up with specifying timeslots.

This command will set up a call specified by the input TNs and the timeslots if both TNs are equipped, enable and idle. The specified timeslots will be used if they are idle, if the specified timeslot are occupied, then the call will not be set up. See Notes with the **KALL** command.

Format:

KALS

TN1 111 s cc uu,

Loop 0 00 CH for Digital Trunk Cards.

TN2 111 s cc uu,

Loop 0 00 CH for Digital Trunk Cards.

TIMESLOTS ts1 ts2

Where:

ts1 = specified timeslot of the **TN1**

ts2 = specified timeslot of the **TN2**

TN1, **TN2**, and **TIMESLOTS** are prompted by the program.

KILLx	Reset one or all TN being monitored. Where: x = the TN index number (1-6) entered with the DMTN command. Enter 7 to reset all the output monitored TNs.
N	Stop print.
P	Print all messages.
P III	Print all messages from specified loop. Enter the exact number of digits. Example: for loop 4, enter 004
P III s	Print all messages from specified shelf. Enter the exact number of digits. Example: for loop 4, enter 004.
P III s cc	Print all messages from specified card. Enter the exact number of digits. Example: for loop 4, enter 004.
PRTM (P) cc uu	Print messages, as specified. Only loop and shelf numbers are required. Enter the exact number of digits. (Example: for loop 4, enter 004.)
WCTS loop	Print the current unit scan of specified loop. Outputs shelf, card and unit.
WMBY c u	Write the maintenance bit for the given unit to BUSY.
WMUB c u	Write the maintenance bit for the given unit to NOT BUSY.
XMII, XMIO	<p>Send input/output XMI messages between the CPU and superloops.</p> <p>Send input/output XMI messages to the Peripheral Controller (NT8D01) or Network card (NT8D04). Use XMII for input messages from the Network card (NT8D04) to the CPU. Use XMIO for messages from the CPU to the Network.</p> <p>This command is used to simulate input/output XMI message. It may not be useful in LD 77, a similar command is available in resident debugger.</p>

Format:

```
XMII or XMIO
LOOP lll
NUMBER MESSAGES m
# TIMES TO SEND hhh
MSG DATA
cccc xxxx xxxxxxxx
cccc xxxx xxxxxxxx
cccc xxxx xxxxxxxx
```

Where:

lll = Loop number
m = Number of multiple XMI messages (1-6)
hhh = Number of times to send XMI messages (1-999)
cccc = Control word; cccc is defined as follows:

```
r  ss  applic  type
-  |  --  |  -----  |  -----  |
```

Where:

r = one bit msg ready flag, always sets to
ss = two bit sequence status field. ss may be:

- a B.00 : short message
- b B.01 : starting a long message (message has 6 or more words of data)
- c B.10 : continue a long msg
- d B.11 : end of a long msg

applic = six bit value for msg's intended application. appl may be:

- a B.000001 : for LD 30
- b B.000010 : for LD 32
- c B.000011 : for LD 45
- d B.000100 : for LD 77
- e B.000101 : for XPE parameter download
- f B.000110 : for XNET action request

type = seven bit value of message type

xxxx = message data

XMSG Send output SSD messages from Meridian 1 CPU to PE.
 This command is used to send output SSD message to the peripheral equipment TN. The specified loop of the TN must be enabled and responding.

Format:

```
XMSG
TN lll s cc uu,
TN l s c u, for Option 11 only
Loop 0 00 CH for Digital Trunk Cards.
NUMBER MESSAGES mm
# TIMES TO SEND hhh
MSG DATA xxxx xxxx xxxx. . . .
```

Where:

mm = number of SSD messages to be sent (1-10)
hhh = number of times to output SSD message (1-999)
xxxx = SSD message content. Number of message contents depends on the value of **mm**
TN, NUMBER MESSAGES, # TIMES TO SEND, and MSG DATA are prompted by the program.

XRCL loop Read contents of RPC control register.

XRSH loop Read and print contents of SHEN register.

XRST loop Read and print contents of STATUS register.

XTLP loop Test local RPC processor for loop.

XTRP loop Test remote RPC processor for loop.

XWCS loop **xxxx**
 Writes RPC control/SHEN register for loop with data **xxxx** in hexadecimal format.

LD 77

Page 704 of 860 Alphabetical list of commands

LD 80—Call Trace

LD 80 provides a means of tracing a call by looking at a snap shot of the transient data (such as call register contents) associated with the call. The trace commands operate only when this Overlay is active. If LD 80 is aborted (****), the trace functions stop. Note that when using the enhanced trace commands, the Overlay will not automatically abort (according to the defined time-out period) if calls are being traced.

When a system initialization occurs, all trace commands are removed, and the trace operation is stopped.

For Network Call Trace see NCT messages.

Enhanced Trace Commands require Multi-User Login functionality (package 242) to be enabled in LD 17. The enhanced commands are: DALL, DIST, ENTC, ENTD, GOTR, FITR, and STPT. These commands interact with each other only.

The enhanced trace commands can be disabled through a maintenance telephone by dialing the following: nn + 9913 + x + yy

Where:

- nn = customer SPRE access code
- 9913 = feature code to display for message display control
- x = action code (0 to deactivate)
- yy = message monitor code (02 for enhanced trace messages)

A second dial tone indicate that the command was successful. Overflow tone is heard if the command is entered incorrectly. Once this command has been entered, a user entering FITR from the TTY will receive the period (.) prompt.

When to use LD 80

There are three basic commands:

- TRAT for tracing attendant consoles
- TRAC for tracing by customer + DN
- TRAK for tracing sets and trunks
- TRAD for tracing calls through Computer PBX Interface (CPI), Digital Trunk Interface (DTI), Primary Rate Interface, or Digital Link Interface (DLI) loops.

The TRAC command can be used to print the tone detector TN if a tone detector is used at the time of the call trace.

Auxiliary data related to a call can be printed. The auxiliary data consists of information associated with the NARS/BARS/CDP features, if equipped, and the Ring Again (RGA) feature. This additional data can be retrieved by appending DEV to any of the TRAC commands. Example: TRAC L S C U
DEV

Originating and terminating information

The Call Trace originating and terminating party information depends on the types of telephone, console or trunk as shown below.

Single line telephones:

```
ORIG c u  cust dn 500
TERM c u  cust dn 500
```

Multi-line telephones:

```
ORIG c u  key# keytype cust dn settype
TERM c u  key# keytype cust dn settype
```

Attendant consoles

```
ORIG c u  cust att# lpk#  ATTN consoletype
TERM c u  cust att# lpk#  ATTN consoletype
```

Trunks:

```
ORIG c u  rtyp RMBR rrr mmm
TERM c u  rtyp RMBR rrr mmm
```

Where:

```
c u = TN
consoletype = console type (ATT, 1250, 2250)
cust = customer number
dn = directory number
key# = multi-line telephone key number
keytype = multi-line telephone key type (SCR, MCR, HOT, etc.)
lpk# = console loop key number
rrr mm = trunk route and member number
rtyp = trunk route type (TIE, CO, FX, etc.)
settype = multi-line telephone type (SL1, 2008, 2317, etc.)
```

LD 80

Example 1

Trace a call placed to a 500-type set

Configuration: active call from key 0 on an M2008, to 500-type telephone

Customer number: 00

Originator:

telephone type: M2008

TN: 004 00

DN: 5100 on SCR key 0

Terminator:

telephone type: 500

TN: 008 06

DN: 2121

Trace command:

TRAK 4 0 (c u), or

TRAC 0 5100 (customer and DN)

Output:

```
ACTIVE TN 004 0 00 00
ORIG 04 0 0 00 00 0 SCR 0 5100 2008
TERM 008 0 03 06 0 2121 500
DIAL DN 2121
MAIN PM ESTD
TALKSLOT ORIG 22 TERM 22
QUEUE NONE
```

Example 2**Trace an outgoing ISDN call**

Configuration: outgoing call from key 0 on an M2616, to 500-type telephone
 Originator:

telephone type: M2616
 TN: 016 00
 DN: 6050 on SCR key 0

Terminator:

Dialed DN: 7873107
 Outgoing PRI TIE trunk: loop 1 channel 16; route 24 member 12

Trace command:

TRAC 0 6050 (customer, DN), or
 TRAC 16 0 2 0 (l s c u)

Output:

```

ACTIVE TN    016  0  00 00
ORIG    016  0  00 00      0 SCR 0   6050   2317
TERM    001 16      TIE  RMBR  24  12
DIAL DN  7873107
MAIN PM  ESTD
TALKSLOT ORIG 13      TERM 13
QUEUE  NONE
---- ISDN PRA CALL (TERM) ----
CAL REF # = 16
BEARER CAP = VOICE
CALL STATE = 10      ACTIVE
CALLING NO = 4376050
CALLED NO  = 7873107

```

Example 3

Enhanced Trace command output

The enhanced call trace output includes a time stamp that appears on the first line of the output.

The TN or digital trunk prints out only when there has been a change to the call register. The TN or trunk is printed only once.

Sample output:

```
.14:00:02 12/25/1992  
  
KEY 0 MCR MARP ACTIVE TN 001 0 00 01  
  
ORIG 001 00 00 0 SCR MARP 1 5011 SL1  
  
TERM 001 0 00 03 0 MCR MARP 1 5006 SL1  
  
DIAL DN 5006  
  
MAIN_PM ESTD  
  
TALKSLOT ORIG 19 TERM 21  
  
QUEU NONE  
  
KEY 1 TRN IDLE  
  
KEY 2 AO3 IDLE  
  
.  
.  
.  
  
KEY 8 RND  
  
KEY 9 RLS  
  
.14:00:04 12/25/1992  
  
IDLE TN 001 04
```

Alphabetical list of Call Trace outputs

This section provides definitions of the data output by the various call trace commands.

A time stamp is printed with Call Trace output. The following information is added below the time stamp as necessary.

- A digital telephone with no active call register shows:
IDLE TN c 00 u
 - A locked out telephone or digital trunk shows:
LOCKOUT TN c 00 u (or l ch)
 - A disabled telephone or digital trunk shows:
DSBL TN c 00 u (or l ch)
 - A telephone or digital trunk that is in maintenance busy state shows:
MSBY TN c u (or l ch)
MSBY TN c u (or l ch) MARP shows if the TN is a MARP TN
- 1** ACTIVE — the call/key is active
 - 2** AUX_NARS — Network Automatic Route Selection (NARS) data to follow
 - 3** AUX_PM — auxiliary progress mark may be any of the following depending on the MAIN_PM:
 - a** ABSORBING = performing digit manipulation on the call
 - b** AWAIT ANI = waiting for Automatic Number Identification information
 - c** AWAITREPLY = CPU is waiting for a response during a dial sequence
 - d** BSYG = busy tone to originator
 - e** CDR-CALLRECORD = CPU is outputting a CDR record
 - f** CDR-TIMING = CPU is computing a CDR record
 - g** COMPLETE = dialing is complete
 - h** DNTRANS = DN translation to TN in progress

- i** FAREND-OFF = Validating farend answer signal
 - j** NARS = call is a network call
 - k** NOOUTPULS = outpulsing complete, originator receiving ringback
 - l** OUTPUTSING = outpulsing digits related to the call
 - m** OVLF = resources not available, returning overflow to originator
 - n** PAUSING = timed pause in a trunk call dialing sequence
 - o** SPEEDCALL = performing speed call
 - p** TEMPPATH = software timing, occurs when outpulsing digits on trunks
 - q** TOLLCHECK = checking access restrictions for the call
 - r** USCR = User Selectable Call Redirection programming, receiving dial tone
 - s** USCR_DIAL = USCR programming
-
- 4** AUX_RGAT_PM — Ring Again over trunk information
 - 5** BEARER CAP — bearer capability, such as voice, 64K clear, 64K restricted and 56K
 - 6** BUSY — unit or DN is busy
 - 7** CALL REF # — PRI call reference number assigned by the system
 - 8** CALL STATE — specifies the PRI call as active or inactive
 - 9** CALLED NO — PRI dialed number
 - 10** CALLING NO — PRI home location code and DN of originating party
 - 11** CONF — conference call

- 12** COS_ORIG, COS_TERM — class of service restrictions for originating and terminating party. Possible values are:
 - a** UNR = Unrestricted
 - b** TLD = Toll Denied
 - c** SRE = Semi-restricted
 - d** FRE = Fully Restricted
 - e** FR1 = Fully Restricted class 1
 - f** FR2 = Fully Restricted class 2
 - g** CUN = Conditionally Unrestricted
 - h** CTD = Conditionally Toll Denied
- 13** CSD — Confree Selectable Display Key
- 14** DARK_CONSOLE — the call is being temporarily released by a console. Also outputs three types of recall:
 - a** RLSED = console released the call is getting recall
 - b** FLASH = Flash recall
 - c** CAMP = Camp-On recall
- 15** DIAL DN— the dialed number
- 16** DIAL xxx yy TTR zz — TDS on loop xxx and timeslot yy connected to Digitone Receiver timeslot zz
- 17** DG_MAN xxx FCA_INDEX xxx TOD x — Digit Manipulation Index, Free Area Screening and Time Of Day value
- 18** DIRECT MW_CALL — Message Waiting indication is being given
- 19** DSBL — the unit has been disabled
- 20** DST — console destination information to follow
- 21** EMR100 — ACD emergency conference
- 22** EXP_ROUTE — identifies if an expensive route is being used for an ESN call
- 23** IDLE — TN or key is idle

- 24 HLD — number of calls On-Hold at the console
- 25 HOLD — call is On-Hold
- 26 LOCKOUT — the unit is in lockout state
- 27 LOOP — attendant console LPK key
- 28 MAIN_PM — this is the main progress mark which identifies the state of the call, possible values are listed below: (See also AUX_PM)
 - a BUSY = originator is receiving busy tone
 - b CDR = CPU is processing Call Detail Recording records
 - c DELAY DIAL = CPU is in a timing sequence while establishing a delay dial start trunk call
 - d DIAL = one or more digits have been dialed, system requires more digits
 - e ESTD = call is established between the originating and terminating party
 - f HALFDISC = Trunk with answer supervision has not received a disconnect signal from the far-end during trunk idling
 - g READY = CPU is ready to process a function for the originating TN
 - h REOR = originator is receiving intercept treatment
 - i RING = originator is receiving ringback tone
 - j WAIT = dial tone waiting queue
 - k WINKON = CPU is in a timing sequence while establishing a wink start trunk call
- 29 MARP — indicates the TN is Multiple Appearance Redirection Prime
- 30 MBSY — unit is in maintenance busy state
- 31 NARS_PM — NARS call progress mark
- 32 NEW_RLIST_INDEX NWQ_RLIST_ENTRY — network queue route list index and route list entry
- 33 NCOS_ORIG, NCOS_TERM — Network Class of Service for originating and terminating party

- 34 OHQ/CBQ — call is in the Off-Hook queue or Callback queue
- 35 OSN — On-Site Notification key
- 36 PRIORITY NWQ_EXT_ROUTE — the priority in the queue and extended route queuing
- 37 PTY SLOT — TDS priority timeslot; reserved by the CPU while a user is receiving tones (this timeslot may be required by the CPU to further process the call). Normally PTY SLOT is the same timeslot as SLOT.
- 38 QUEU — a call may be in one of the following CPU timing queues:
 - 128 = 128 ms timing queue
 - 2S = 2 second timing queue
 - CAD = cadence
 - CDR = Call Detail Recording processing queue
 - DIAL = dialing queue
 - IDLE = idle queue
 - NONE = call is not in a timing queue
 - RING = ringing queue
- 39 RCVR xx SET yy — timeslot to the Digitone Receiver (xx) and the telephone (yy)
- 40 RGAT_PM — Ring Again progress mark
- 41 RL_IND xx RL_ENT xx — NARS/BARS route list index and entry number
- 42 SRC — console source information to follow
- 43 SBSY — unit is software busy
- 44 SLOT — the timeslot used by the originator and terminator
- 45 TALKSLOT — identifies the timeslot and junctor (if applicable) used by the originator and terminator
- 46 TDTN — Tone Digit Switch loop and timeslot
- 47 TERM — originating party information, identifies the TN or DN where the call terminates, output depends on type of telephone or console

LD 80

Page 716 of 860 Alphabetical list of Call Trace outputs

48 TGAR_ORIG, TGAR_TERM — Trunk Group Access Restriction for
originating and terminating party

49 TTR = Digitone Receiver TN

Basic commands

DALL	Disable all enhanced trace commands.
DIST n	Disable the enhanced trace operation.
ENTC c u t	Enable the enhanced trace command for a TN.
ENTD l ch t	Enable the enhanced trace command for a digital trunk.
FITR	Get information about the enhanced trace function.
GOTR	Begin enhanced trace commands. This command starts the trace operation specified with the ENTC and ENTD commands.
STPT	Stop the enhanced trace command.
TRAC c acod	List route number, type and status of each trunk for customer c
TRAC c dn	Trace calls for customer c Directory Number or Local Steering Code dn
TRAC c r m	Trace calls, customer c, route r, member m
TRAK c u	Trace calls associated with this unit
TRAK c u k	Trace calls associated with key k on specified unit
TRAC x yyyy	Trace using customer number as DN
TRAC xx...xx DEV	Print auxiliary data
TRAC zzzz	Trace using TN of the set to be traced
TRAD loop ch	Trace DTI or DLI calls, channel ch of loop
TRAT c a	Trace calls, attendant a of customer c
TRAT c a k	Trace calls associated with key k of attendant console a for customer c
TRAO c u	Trace attendant calls, this unit
TRAO c u k	Trace attendant calls on key k
TRAO xx...xx DEV	Print auxiliary data

Alphabetical list of commands

Command	Description
DALL	<p>Disable all enhanced trace commands.</p> <p>This command disables all trace commands enabled with ENTC or ENTD command. You must stop the trace with the STPT command before disabling all the commands with DALL.</p>
DIST n	<p>Disable the enhanced trace operation.</p> <p>This command disables the trace command enabled with ENTC or ENTD command. This command is used once a trace command is started then stopped.</p> <p>Where: n = the entry number (as seen with the FITR command)</p>
ENTC c 00 u t	<p>Enable the enhanced trace command for a TN.</p> <p>This command enables the trace capability for the TN specified. Note that this command does not start the trace immediately. Use the GOTR command to begin the trace operation.</p> <p>Where: l = loop, s = shelf, c = card, u = unit and t = the length of time the trace command operates.</p> <p>The format for the trace command duration (t) is HHMM, where HH = hours (0-23) and MM = minutes (0-59). For example, for a duration of 5 minutes, t = 0005; for 1 hour, t = 0100</p> <p>The time duration must be at least 1 minute, and no more than 23 hours.</p>
ENTD l ch t	<p>Enable the enhanced trace command for a digital trunk.</p> <p>This command enables the trace capability for the TN specified. Note that this command does not start the trace immediately. Use the GOTR command to begin the trace operation.</p> <p>Where: l = loop, s = shelf, c = card, u = unit and t = the length of time the trace command operates.</p> <p>The format for the trace command duration (t) is HHMM, where HH = hours (0-23) and MM = minutes (0-59). For example, for a duration of 5 minutes, t = 0005; for 1 hour, t = 0100. The time duration must be at least 1 minute, and no more than 23 hours.</p>

FITR	<p>Get information about the enhanced trace function. This command queries the TNs or Digital trunks being traced with the ENTC and ENTD commands.</p> <p>The output is shown as follows:</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: left;">ENTRY</th> <th style="text-align: left;">TN or TRUNK</th> <th style="text-align: left;">TIME</th> <th style="text-align: left;">STATUS</th> </tr> </thead> <tbody> <tr> <td colspan="4">For example:</td> </tr> <tr> <td>1</td> <td>01 0 00 01</td> <td>0030</td> <td>OFF</td> </tr> <tr> <td>2</td> <td>001 04</td> <td>1200</td> <td>OFF</td> </tr> </tbody> </table>	ENTRY	TN or TRUNK	TIME	STATUS	For example:				1	01 0 00 01	0030	OFF	2	001 04	1200	OFF
ENTRY	TN or TRUNK	TIME	STATUS														
For example:																	
1	01 0 00 01	0030	OFF														
2	001 04	1200	OFF														
GOTR	<p>Begin enhanced trace commands. This command starts the trace operation specified with the ENTC and ENTD commands.</p>																
STPT	<p>Stop the enhanced trace command.</p> <p>This command stops the enhanced trace operation specified with the ENTC and ENTD commands. This can be used at any time during the trace operation. This does not disable the commands; they can be restarted with the GOTR command. When they are restarted, the duration timer is reset.</p> <p>For example: the timer is set at 30 minutes, but the trace is stopped after 2 minutes. When the trace is restarted (GOTR) the timer is set to 30 minutes.</p>																
TRAC c acod	List route number, type and status of each trunk for customer c.																
TRAC c dn	Trace calls for customer c Directory Number or Local Steering Code dn.																
TRAC c dn	Trace calls, this dn of customer c.																
TRAC c r m	Trace calls, customer c, route r, member m.																
TRAK c 00 u	Trace calls associated with this unit. If a trace is performed on a DTR, an error message is output.																
TRAK c 00 u k	Trace call associated with key k on specified unit.																
TRAC x yyyy	<p>Trace using customer number as DN.</p> <p>Where : x = customer number of the set to be traced and yyyy = DN of the key to be traced.</p>																

TRAC xx...xx DEV

Print the auxiliary data related to the call for Network Alternate Route Selection (NARS), Basic Alternate Route Selection (BARS), Coordinated Dialing Plan (CDP) or Ring Again (RGA), where equipped, as well as the normal data for command xx...xx. Command xx...xx can be any of the TRAC commands.

When TYP E is output, E = extended route (not expensive).

TRAC zzzz Trace using TN of the set to be traced.

Where : zzzz = TN of the set to be traced.

TRAD loop ch Trace DTI or DLI calls, channel ch of specified loop.

TRAT c a Trace calls for customer c, attendant a.

TRAT c a k Trace calls associated with key k of attendant console a for customer c.

TRAO c 00 u Trace attendant calls, this unit.

TRAO c 00 u k Trace attendant calls on key k.

TRAT xx...xx DEV

Print auxiliary data.

Print the auxiliary data related to the call for Network Alternate Route Selection (NARS), Basic Alternate Route Selection (BARS), Coordinated Dialing Plan (CDP) or Ring Again (RGA), where equipped, as well as the normal data for command xx...xx. Command xx...xx can be one of the TRAT commands.

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LD 81—Features and Station Print

Overlay program 81 is used to print a list or count of telephones with selected features. It also allows last service change date information to be printed.

A TN which is the Multiple Appearance Redirection Prime (MARP) is indicated by an “M” following FEAT (when TYPE = MCN, SCN, MCR, or SCR).

LD 81

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = LST, CNT, or END)
CUST	xx	Customer
DATE	a...a	Print data from activity date specified (You may enter : dd mmm yyyy or ACT)
PAGE	(NO) YES	Data printed on a per page basis
DES	d...d	1-6 alphanumeric character Office Data Administration System
FEAT	aaaa	Features requested (FEAT responses begin on page 723)
RNPG	xx yy	Ringling Number Pick Up Group
LSNO	xx yy	List Number
NCOS	xx yy	Network Class of Service
- ADJUST PAPER THEN <cr>	<cr>	Starts printing
NACT	(NO) YES	Next Activity

Alphabetical list of prompts

Prompt	Response	Comment
ADJUST PAPER THEN	<cr>	Starts printing Prompted when PAGE = YES
CUST	xx xx <cr>	One Customer or a range of Customer numbers All Customers
DATE	dd mmm yyyy	Print data from activity date specified. Where: <ul style="list-style-type: none"> • dd = day (0-31) • mmm = month (JAN-DEC) • yyyy = year
	ACT <cr>	Print data from last Activity date. Disregard date restrictions.
DES	d...d dddd d+ + <cr>	1-6 alphanumeric character Office Data Administration System (ODAS) Station Designator Print data for stations with specific DES. Print data for stations with a DES starting with d. Print data for all stations with no DES. Print data for all stations.
FEAT		Features requested Enter a specific feature mnemonic or one the following for groups of features: ALL, COS, DNK, SETS, SCL, RNP or 500. FEAT is repeated until <cr> is entered.
	2000 500	All M2000 telephones 500/2500 type telephone Print both MNL and DIP telephones. 2500 type telephones are requested by DTN entry.
	AAA AAD	Automatic Answerback Allowed Automatic Answerback Denied
	AAK	Automatic Answerback Key
	ACD	ACD in calls key

LD 81

Prompt	Response	Comment
	ACNT	Assignment of activity codes allowed
	ADD	Automatic Digit Display equipped
	ADL	Autodial key
	ADV	Data port Verification allowed
	AGN	ACD Agent
	AGT	ACD Agent's key
	AGTA	ACD services for 500/2500 telephone Allowed
	AGTD	ACD services for 500/2500 telephone Denied
	ALL	All features When REQ = LST, only the features actually programmed on telephones are listed along with the associated TN. Features not listed are RNPk, DIP and MNL. When REQ = CNT, features available in the system software are listed even if they are not programmed on any telephone. Not listed are RNPk, 500, 2500, SL-1, 2000, and 3000.
	AO3	Three-party conference key
	AO6	Six-party conference key
	ARC	Attendant Recall key
	ARHA	Audible Reminder of Held Call Allowed
	ARHD	Audible Reminder of Held Call Denied
	ASCA	Alarm Security Allowed
	ASCD	Alarm Security Denied
	AUTD	Authorization Code Denied
	AUTR	Authorization Code Restricted
	AUTU	Authorization Code Unrestricted
	BFS	Busy Forward Status key
	C6A	Six-Party Conference Allowed
	C6D	Six-Party Conference Denied

Prompt	Response	Comment
CA		Combined No Hold Conference and Autodial
CAS		Centralized Attendant Service
CCOS		Controlled Class of Service key
CCSA		Controlled Class of Service Allowed
CCSD		Controlled Class of Service Denied
CDCA		Conferee Display Count Allowed
CDCD		Conferee Display Count Denied
CDMA		Station Activity Records Allowed
CDMD		Station Activity Records Denied
CFHA		List/count sets with CFHA CLS
CFHD		List/count sets with CFHD CLS
CFTA		Call Forward by Call Type Allowed
CFTD		Call Forward by Call Type Denied
CFW		Call Forward key
CFXA		Call Forward number to External DN Allowed
CFXD		Call Forward number to External DN Denied
CHD		Combined No Hold Conference and Direct Hot Line
CHG		Charge Account key
CHL		Combined No Hold Conference and Hot Line list
CLTA		Network Call Trace Allowed
CLTD		Network Call Trace Denied
CMSA		Command and Status link Allowed
CNAA		CLASS Calling Name Multiple Data Format Allowed.
CNAD		CLASS Calling Name Denied.
CNIA		Call Number Identification Allowed
CNID		Call Number Identification Denied
CNTA		Network ACD Countdown Allowed
CNTD		Network ACD Countdown Denied

LD 81

Prompt	Response	Comment
CNUA		CLASS Calling Number Multiple Data Format Allowed.
CNUD		CLASS Calling Number Denied.
CNUS		CLASS Calling Number Single Data Format Allowed.
COS		Print stations with Class of Service restrictions. These are telephones with equipped with C6A, C6D, CMSA, CNDA, CNDD, CTD, CUN, DSI, FRE, FR1, FR2, NCOS, SFA, SFD, SRE, TLD, TTA, TTD, UNR and VMA.
CPN		Display Calling Party Number key
CS		Combined No Hold Conference and Speed Call
CSD		Conferee Selectable Display key
CTD		Conditionally Toll Denied
CUN		Conditionally Unrestricted
CWA		Call Waiting Allowed
CWD		Call Waiting Denied
CWT		Call Waiting key
DAG		ACD Display Agents key
DCFWD		Default call forward for Phantom TNs
DDGA		DN Display on other set Allowed
DDGD		DN Display on other set Denied
DDS		Digit Display allowed
DDV		Data port Verification denied
DIG		Dial Intercom Group
DIP		Dial Pulse telephone (500 type)
DNDA		Dialed Name Display Allowed
DNDD		Dialed Name Display Denied
DNK		Telephones with MCN, MCR, SCN, and SCR keys
DPU		DN Pickup key

Prompt	Response	Comment
	DPUA	DN Pickup Allowed
	DPUD	DN Pickup Denied
	DRC	DID Route Control
	DRG1	Digital telephone Distinctive Ringing (high/fast)
	DRG2	Digital telephone Distinctive Ringing (high/slow)
	DRG3	Digital telephone Distinctive Ringing (low/fast)
	DRG4	Digital telephone Distinctive Ringing (low/slow)
	DSP	Digit Display key
	DTA	Data set
	DTN	Digitone dial telephone (2500 type)
	DWC	ACD Display Waiting Calls key
	FAXS	Facsimile servers
	FBA	Call Forward Busy Allowed
	FBD	Call Forward Busy Denied
	FITA	Flexible Incoming Tones Allowed
	FITD	Flexible Incoming Tones Denied
	FLXA	Flexible voice/data TN allowed
	FLXD	Flexible voice/data TN denied
	FNA	Call Forward No Answer Allowed
	FND	Call Forward No Answer Denied
	FR1	Fully Restricted class 1
	FR2	Fully Restricted class 2
	FRE	Fully Restricted
	GPU	Group Call Pickup key
	GPUA	Group call Pickup Allowed
	GPUD	Group call Pickup Denied
	GRC	Group Recall key
	HFA	Handsfree Allowed M2616
	HFD	Handsfree Denied M2616

LD 81

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Prompt	Response	Comment
	HOTD	Enhanced Hot Line, Direct entry method
	HOTL	Enhanced Hot Line, List entry method
	HPR	High Priority station
	HTA	Hunting Allowed
	HTD	Hunting Denied
	HTL	Hot Line
	ICDA	Internal CDR Allowed
	ICDD	Internal CDR Denied
	ICF	Internal Call Forward key
	IMA	IMS or IVMS Allowed
	IRA	Incoming Ringing line preference Allowed
	IRD	Incoming Ringing line preference Denied
	KLS	Key/lamp Strip
	LDTA	Line Disconnect Tone allowed
	LDTD	Line Disconnect Tone denied
	LLC1	Line Load Control level 1
	LLC2	Line Load Control level 2
	LLC3	Line Load Control level 3
	LLCA	Line Load Control Allowed
	LLCN	Line Load Control off
	LNA	Last Number Redial Allowed
	LND	Last Number Redial Denied
	LNK	Last Number Redial Key
	LOL	Long Line Class of Service
	LPA	Message Waiting lamp Allowed
	LPD	Message Waiting lamp Denied
	LPR	Low Priority station
	(MBXD)	Multi-Party Operation (MPO) Blind Transfer Denied.

Prompt	Response	Comment
	MBXA	Multi-Party Operation (MPO) Blind Transfer Allowed. Multi-Party Operations (MPO) package 141 must be equipped to enter MBXD or MBXA.
	MCD	Message Center DN
	MCK	Message Cancellation Key
	MCN	Multiple Call Non-Ringing DN A TN which is the Multiple Appearance Redirection Prime (MARF) for the DN is indicated by an "M" in the output (MCN M).
	MCR	Multiple Call Ringing DN A TN which is the Multiple Appearance Redirection Prime (MARF) for the DN is indicated by an "M" in the output (MCN M).
	MCTA	Malicious Call Trace Allowed
	MCTD	Malicious Call Trace Denied
	MIK	Message Indication Key
	MNL	Manual service
	MON	TN(s) Monitored by at least one BFS key
	MRA	Message Registration Allowed
	MRD	Message Registration Denied
	MSB	Make Set Busy key
	MTA	Maintenance set Allowed
	MWA	Message Waiting Allowed
	MWD	Message Waiting Denied
	MWK	Message Waiting key
	NAMA	Name display on other set Allowed
	NAMD	Name display on other set Denied
	NCOS	Network Class of Service (COS)
	NDD	No Digit Display
	NHC	No Hold Conference
	NIA	Incoming non-ringing line preference Allowed

LD 81

Prompt	Response	Comment
	NID	Incoming non-ringing line preference Denied
	NKL	Notification Key Lamps
	NRD	ACD Not Ready key
	NSVC	ACD Night Service key for Supervisor Control
	OLA	Outgoing Line preference Allowed
	OLD	Outgoing Line preference Denied
	ONS	On Premise Station
	OPS	Off Premise Station
	OVB	Attendant Overflow position
	OVDA	Override Allowed (500/2500 telephone)
	OVDD	Override Denied (500/2500 telephone)
	OVR	Override key
	PHD	Permanent Hold
	POA	Optional Privacy Allowed
	POD	Optional Privacy Denied
	PRK	Park key
	PRS	Privacy Release key
	PUA	Call Pickup Allowed
	PUD	Call Pickup Denied
	PVN	Private Line Non-ringing phantom DN
	PVR	Private Line Ringing phantom DN
	RDL	Stored Number Redial
	RGA	Ring Again key
	RLS	Release key
	RNP	Ringing Number Pickup (includes PUA, PUD and RNPK)

Prompt	Response	Comment
	RNPK	Ringling Number Pickup key
	RTDA	Call Redirection by Time of day allowed
	RTDD	Call Redirection by Time of day denied
	SAR	Scheduled Access Restriction
	SCC	Speed Call Controller
	SCI	Station Category Indication Priority Level
	SCL	Speed Call (includes SCU and SCC)
	SCN	Single Call Non-ringing DN A TN which is the Multiple Appearance Redirection Prime (MARP) for the DN is indicated by an "M" in the output (MCN M).
	SCR	Single Call Ringing DN A TN which is the Multiple Appearance Redirection Prime (MARP) for the DN is indicated by an "M" in the output (MCN M).
	SCU	Speed Call User
	SETS	All telephones
	SFA	Second level Forwarding Allowed
	SFD	Second level Forwarding Denied
	SHL	Short Line Class of Service
	SIG	Buzz key to phantom DN
	SPV	ACD Supervisor
	SRE	Semi-Restricted
	SSC	System Speed Call Controller
	SSU	System Speed Call User
	SWA	Station-to-Station Call Waiting Allowed
	SWD	Station-to-Station Call Waiting Denied
	TAD	Time And Date key

LD 81

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Prompt	Response	Comment
	TDD	Touchphone Display
	THF	Centrex Trunk Switchhook Flash
	THFA	Centrex Trunk Switchhook Flash Allowed (500/2500 telephones)
	THFD	Centrex Trunk Switchhook Flash Denied (500/2500 telephones)
	TLD	Toll Denied
	TRC	Malicious Call Trace key
	TRN	Call Transfer key
	TSA	Three-Party Service Allowed
	TVA	Trunk Verification Allowed
	TVD	Trunk Verification Denied
	ULAA	User Level Access Allowed for set based administration
	ULAD	User Level Access Denied for set based administration
	UNR	Unrestricted
	USR	User Selectable Call Redirection key
	USRA	User Selectable Call Redirection allowed
	USRD	User Selectable Call Redirection denied
	UST	Telephone Status feature
	VCC	Voice Call to phantom DN
	VCE	Voice set
	VMA	Server Voice Messaging Allowed
	WTA	Warning Tone Allowed
	WTD	Warning Tone Denied
	WUK	Guest entry of Automatic Wake Up key
	XFA	Call Transfer Allowed
	XFD	Call Transfer Denied
	XHA	Exclusive Hold Allowed
	XHD	Exclusive Hold Denied

Prompt	Response	Comment
	XRA XRD	Ring Again Allowed Ring Again Denied
LSNO		List Number.
	0-8190 0-8190 <cr>	One Speed Call List Number or a range of list numbers Print all lists. LSNO is prompted when FEAT is SCL, SCU, SCC, SSC, SSU or CS.
NACT	(NO) YES END	Next Activity Return to REQ prompt. Print current system data and exit overlay. Exit Overlay program.
NCOS		Network Class of Service. NCOS is prompted when FEAT = COS or NCOS.
	0-99 0-99	One NCOS group number, or a range of group numbers for all features
PAGE	(NO) YES	Data printed on a per page basis
REQ	CNT END LST	Request Print a count of telephones equipped with the features specified in response to the FEAT prompt. Exit Overlay program. List telephones equipped with the features specified in response to the FEAT prompt.
RNPG	0-4095 0-4095 <cr>	Ringing Number Pickup Group. One Ringing Number Pickup Group number or a range of group numbers Print all groups. RNPG is prompted when FEAT = RNP, RNPk, PUA, PUD, DPU, DPUA, DPUD, GPU, GPUa or GPUD.
SGRP	0-999 0-999	Station Group One station group number or a range of station group numbers

LD 81

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LD 82—Print Hunt Chain, Multiple Appearance Group

Overlay program 82 allows the printing of hunting patterns and Multiple Appearance groups for system stations.

Refer to the Office Data Administration System NTP (553-2721-100) for detailed information regarding printouts for multiple appearance DN, single appearance DN appearing on telephones with multiple appearance DN, and hunting patterns.

A TN which is the Multiple Appearance Redirection Prime (MARP) is indicated by an “M” preceding the TN in the output.

LD 82

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = EHT, END, HNT, MAG, MAP)
CUST	xx xx	Customer number or range of customer numbers
DATE	a...a	Print data from activity date specified or last activity date (You may enter : dd mmm yyyy or ACT)
PAGE	(NO) YES	Data printed on a per-page basis
DES	a...a	Print all telephones with DES "dddddd"
DN	xxxx	Print specific DN
- ADJUST PAPER THEN	<cr>	
	<cr>	Starts printing
NACT	(NO) YES	Next Activity

Alphabetical list of prompts

Prompt	Response	Comment
ADJUST PAPER THEN	<cr> <cr>	Starts printing. Prompted when PAGE = YES
CUST	xx xx <cr>	Customer number or range of customer numbers Print data for all customers.
DATE	dd mmm yyyy	Print data from activity date specified. Where: <ul style="list-style-type: none"> • dd = day (0-31) • mmm = month (JAN-DEC) • yyyy = year
	ACT <cr>	Print data from last activity date. Disregard date restrictions.
DES	dddddd d+ + <cr>	Print all telephones with DES "dddddd" Print all telephones with DES "d" Print all telephones with no DES assignment Disregard DES
DN	xxxx xxxx xxxx ALL <cr>	Print specific DN Print range of DNs Print data when REQ = MAG or MAP Print data for all DNs DN may be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150.
NACT	(NO) YES END	Next Activity Return to REQ prompt Print current system data and exit Overlay Exit Overlay program
PAGE	(NO) YES	Data printed on a per-page basis
REQ	EHT END HNT	Request External Hunting pattern (except regular and short hunting) Exit Overlay program Hunting pattern (except short hunting and EHT)

LD 82

Prompt	Response	Comment
	MAG	Multiple Appearance Groups Print Multiple Appearance Groups including all Single Appearance DNs assigned on telephones having Multiple Call Assignments.
	MAP	Multiple Appearance Print Multiple Appearance DN and associated TNs. The hunt pattern displayed shows only the first TN in a MADN hunt group.

LD 83—Terminal Number Sort and Print

Overlay program 83 allows the printing of a list of TNs and of TN blocks in Designation (DES) order.

“MARF” is output after the DN when printing the TN block (NOT when using the LST command) if the TN is the Multiple Appearance Redirection Prime.

Prompts and responses

Prompt	Response	Comment
REQ	aaa	Request (aaa = END, LST, TNB)
CUST	xx xx	Customer number or range of customer numbers
DATE	a...a	Print data from activity date specified or last activity date (You may enter : dd mmm yyyy or ACT)
PAGE	(NO) YES	Data printed on a per-page basis
- ADJUST PAPER THEN <cr>	<cr>	Starts printing
NACT	(NO) YES	Next Activity

Alphabetical list of prompts

Prompt	Response	Comment
ADJUST PAPER THEN	<cr>	Starts printing
CUST	xx xx <cr>	Customer number or range of customer numbers Print data date for all customers
DATE	dd mmm yyyy	Print data from activity date specified. Where: dd = day (0-31) mmm = month (JAN-DEC) yyyy = year
	ACT <cr>	Print data from last activity date Disregard date restrictions
NACT	(NO) YES END	Next Activity Return to REQ prompt Print current system data and exit overlay Exit Overlay program
PAGE	(NO) YES	Data printed on a per-page basis
REQ	END LST TNB	Request Exit Overlay program Print List of TNs in designator order Print list of TN blocks in designator order

LD 84, 85—Set Designation Entry (ODAS)

Overlay program 84 allows the addition of line designators to existing single line (500/2500) sets.

Overlay program 85 allows the addition of line designators to existing multi-line (M2000, M2616 etc.) sets.

If currently active on a call, the station will be disconnected after the last <cr>.

Prompts and responses

Prompt	Response	Comment
TN	c u	Terminal Number
DES	d...d	1-6 character alphanumeric designator

LD 84, 85

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Alphabetical list of prompts

Prompt	Response	Comment
DES	d...d	1-6 character alphanumeric Office Data Administration System (ODAS) Station Designator
TN	c u END	Terminal Number Exit Overlay program

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LD 86—Electronic Switched Network 1

Overlay program 86 allows data defining the NARS/BARS/CDP features to be created, modified, and printed.

Prompts and responses

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FEAT = DGT (Digit Manipulation)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	DGT	Feature = DGT (Digit manipulation)
MXLC	0-1000	Maximum number of LOC codes (NARS only)
DMI	(0)-999	Digit Manipulation Index numbers
DEL	(0)-19	Number of leading digits to be Deleted
INST	x...x	Insert
CTYP	a...a	Call Type to be used by the manipulated digits (a...a = (NCHG), INTL, NPA, NXX, LOC, CDP, SPN, or UKWN)

FEAT = ESN (Electronic Switched Network)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	ESN	Feature = ESN (Electronic switched network)
MXLC	0-1000	Maximum number of LOC codes (NARS only)
MXSD	xxx	Maximum number of Supplemental Digit restriction blocks
MXIX	xxx	Maximum number of Incoming Trunk Group exclusion tables
MXDM	0-256	Maximum number of Digit Manipulation tables
MXRL	xxx	Maximum number of Route Lists
MXFC	0-256	Maximum number of Free Calling area screening tables
MXFS	0-255	Maximum number of Free Special number screening tables
CDP	(YES) NO	Coordinated Dialing Plan feature for this customer
- MXSC	0-5000	Maximum number of Steering Codes
- NCDP	3-7	Number of digits in CDP DN (DSC + DN or LSC + DN)
AC1	xx	One or two digit NARS/BARS Access Code 1
AC2	xx	One or two digit NARS Access Code 2
DLTN	(YES) NO	NARS/BARS Dial Tone after dialing AC1 or AC2 access codes
ERWT	(YES) NO	Expensive Route Warning Tone
- ERDT	0-(6)-10	Expensive Route Delay Time
TODS	aa-aa	Time of Day Schedules
RTCL	(DIS) YES	Routing Controls
NMAP	xx yy	NCOS Map
ETOD	1-7	Extended Time of Day schedule
TGAR	(NO) YES	Check for Trunk Group Access Restrictions

LD 86

FEAT = ITGE (Incoming Trunk Exclusion)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	ITGE	Feature = ITGE (Incoming Trunk Exclusion)
MXLC	0-1000	Maximum number of LOC codes (NARS only)
ITEI	1-127	Incoming Trunk group Exclusion Index number
RTNO	0-127	Route Number associated with index

FEAT = RLB (Route List)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	RLB	Feature = RLB (Route list)
MXLC	0-1000	Maximum number of LOC codes (NARS only)
RLI	xxx	Route List Index to be accessed
ENTR	xxx	Entry number for NARS/BARS Route list
LTER	(NO) YES	Local Termination entry
ROUT	0-511	Route number
TOD	0-7	Time of Day schedule
CNV	(NO) YES	Conversion to LDN
EXP	(NO) YES	Expensive route
FRL	(0)-7	Facility Restriction Level
DMI	(0)-999	Digit Manipulation Index
FCI	(0)-255	Free Calling Area Screening Index number
FSNI	(0)-1-255	Free Special Number Screening Index
CBQ	(NO) YES	Call Back Queuing
ISSET	(0)-8	Initial Set
MFRL	aaa	Set Minimum Facility Restriction Level (aaa = (MIN) or 0-7)

Alphabetical list of prompts

Prompt	Response	Comment
AC1	xx xxxx	One or two digit NARS/BARS Access Code 1 One to four digit Flexible Numbering Plan Access Code 1 The access code cannot conflict with the numbering plan.
AC2	xx xxxx	One or two digit NARS Access Code 2 One to four digit Flexible Numbering Plan Access Code 2 The access code cannot conflict with the numbering plan.
CBQ	(NO) YES	Call-Back Queuing not allowed Call-Back Queuing allowed CBQ is not prompted if LTER = YES.
CDP	(YES) NO	Coordinated Dialing Plan feature for this customer
CNV	(NO) YES	Conversion to LDN required (NARS). Not prompted if route is TKTP = ADM or LTER = YES
CTYP	(NCHG) INTL NPA NXX LOC CDP SPN UKWN	Call Type to be used by the manipulated digits. This call type must be recognized by the far-end switch. Call type will not be changed Special number in International format NPA NXX Location Code Coordinated Dialing Plan Special Number other than International Unknown call type
CUST	xx	Customer number associated with this function as defined in LD 15
DEL	(0)-19	Number of leading digits to be Deleted
DLTN	(YES) NO	NARS/BARS Dial Tone after dialing AC1 or AC2 access codes
DMI	(0) (0)-31 (0)-255 (0)-999	Digit Manipulation Index numbers No digit manipulation required CDP NARS/BARS NARS/BARS with Flexible Numbering Plan (FNP) package 160

Prompt	Response	Comment
		The maximum number of Digit Manipulation tables is defined by prompt MXDM. DMI is not prompted if route TKTP = ADM.
ENTR	0-63 0-6 X0-X63	Entry number for NARS/BARS Route List Route list entry number for CDP To remove an entry
ERDT	0-(6)-10	Expensive Route Delay Time (in 2 second intervals)
ERWT	(YES) NO	Expensive Route Warning Tone Note: ERWT is not supported on TIE trunks. ERWT defaults to of three bursts of tone, but may be modified in LD 56 if Flexible Tones and Cadences (FTC) package 125 is equipped, to indicate that the call will be placed over an expensive route. The user has 3 choices: <ol style="list-style-type: none"> 1. go On-Hook and abort the call 2. remain On-Hook and accept the call 3. activate Ring Again
ETOD	1-7 X1-X7	Extended Time of Day schedule (day(s) of the week for special TOD schedule) Where:1 = Sunday and 7 = Saturday. To remove a day
EXP	(NO) YES	Expensive route Not prompted if route TKTP = ADM or LTER = YES
FCI	(0)-127 (0)-255	Free Calling area screening Index number BARS NARS Use 0 if no FCAS is required. Not prompted if route TKTP = ADM.
FEAT	DGT ESN ITGE RLB	Feature Digit manipulation data block ESN data block Incoming Trunk Group Exclusion data block Route List data Block
FRL	(0)-7	Facility Restriction Level
FSNI	(0)-1-255	Free Special Number screening Index
ID	x...x	Digits (up to 16) dialed to reach a remote attendant

LD 86

Prompt	Response	Comment
	<cr>	Leave ID unchanged, go to ALT prompt.
INST	x...x	Insert. Where x...x is: <ul style="list-style-type: none">• up to 31 leading digits may be inserted
ISSET	(0)-64	Initial Set. Number of entries in Initial Set for route list block.
ITEI	1-127 1-255	Incoming Trunk group Exclusion Index BARS NARS
LTER	(NO) YES	Local Termination entry
MFRL	(MIN) 0-7	Set Minimum Facility Restriction Level used to determine autocode prompting. Use default of MIN to set to the minimum FRL value.
MXDM	0-32 0-256 0-1000	Maximum number of Digit Manipulation tables (you must count Table 0 for the system) CDP NARS/BARS NARS/BARS with Flexible Numbering Plan (FNP) package 160 equipped
MXFC	0-127 0-255	Maximum Free Calling area screening tables BARS NARS Prompted when NARS/BARS equipped
MXFS	0-255	Maximum number of Free Special Number Screening tables
MXIX	0-127 0-255	Maximum number of Incoming Trunk Group Exclusion tables (use "0" if not required) BARS NARS
MXLC	0-999	Maximum number of LOC codes (NARS only)
MXRL	0-128 0-128 0-256 0-1000	Maximum number of Route Lists If MXRL = 0, the system will not allow the creation of any route lists. CDP BARS NARS NARS with Flexible Numbering Plan (FNP) package 160 equipped

Prompt	Response	Comment
MXSC	0-10000	Maximum number of Steering Codes
MXSD	(0)-1500	Maximum Supplemental Digit restriction blocks Range for both BARS and NARS
NCDP		Define DN length for CDP A Coordinated Dialing Plan (CDP) consists of the CDP code and the Directory Number (DN). This dialing plan does not need an access code because the CDP code is part of the internal dialing plan. The CDP code is one of the following: the Distant Steering Code (DSC) or the Local Steering Code (LSC)
	3-7	Number of digits in CDP DN (DSC + DN or LSC + DN)
	3-10	Number of digits in CDP DN with Directory Number Expansion (DNXP) package 150
NMAP	xx yy	NCOS Map (NCOS numbers to be applied for routing controls). Where: <ul style="list-style-type: none"> • xx = current NCOS number • yy = NCOS number to be applied for BARS/CDP or NARS when routing control is in effect. NCOS ranges: <ul style="list-style-type: none"> • 0-99
REQ	CHG END LCHG NEW OUT PRT	Request Change existing data block. Exit Overlay program. Print date and time that each data group was last changed (data groups include: ESN, DGT, RLB, and ITGE) Create new data block. Remove data block. Print data block.
RLI	0-127 0-255 0-999	Route List Index to be accessed CDP and BARS NARS FNP
ROUT	0-511	Route number Not prompted if LTER = YES.

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Prompt	Response	Comment
RTCL	(DIS) YES	Disable Routing Controls. Enable or modify Routing Controls.
RTNO	0-511	Route Number associated with index Precede with X to delete an existing route.
TGAR	(NO) YES	Check for Trunk Group Access Restrictions Ignore TGAR/TARG when call is placed through BARS. Examine TGAR/TARG when call is placed through BARS.
TOD	0-1 0-7	Time of Day schedule CDP NARS/BARS Precede with X to turn off schedule.
TODS	1-31 0 0-1 0-7 0-7 hh mm hh mm 0-1 hh mm hh mm X1-X31 X0 <cr>	Time of Day schedule Schedule period to be changed. Catch-all period. Start and stop times are not relevant for this period. The next prompt is ALST. CDP NARS/BARS Schedule number, start hour, start minute, end hour, end minute for NARS/BARS. Schedule number, start hour, start minute, end hour, end minute for CDP. Remove the schedule period Remove/clear all alternatives associated with period 0. This leaves the catch-all treatment as local attendant treatment. End NAS feature data setup and return to REQ prompt.
TONE	SCC DIAL	SCC dial tone type expected Normal dial tone type expected
TYPE	CC1 CC2 TIE	SCC Type 1 tone detector application SCC type 2 tone detector application On-network call tone detector application
VDCH	1-15	VNS D-channel number
VDMI	(0) 1-31	VNS Digit Manipulation Index number for the D-channel (ESN routing) No digit manipulation required CDP

Prompt	Response	Comment
	1-255	NARS/BARS
	0-999	With Flexible Numbering Plan (FNP) package 160

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LD 87—Electronic Switched Network 2

Overlay program 87 allows data which define the NARS/BARS/CDP features to be created, modified and printed.

Prompts and responses

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FEAT = CDP (Coordinated Dialing Plan)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	CDP	Feature = CDP (Coordinated Dialing Plan)
TYPE	aaa	Type of steering code (aaa = LSC, DSC, or TSC)
LSC	x...x	Local Steering Code
- DEL	0-4	Number of digits to be deleted
DSC	x...x	Distant Steering Code
- FLEN	(0)-24	Flexible Length number of digits
- DSP	aaa	Display (aaa = LSC, LOC, or DN)
- RLI	xxx	Route List to be accessed for Distant Steering Code
TSC	x...x	Trunk Steering Code
- FLEN	(0)-24	Flexible Length number of digits
- ITOH	(NO) YES	Inhibit Time-out option
- RLI	0-999	Route List to be accessed for trunk steering code

FEAT = FCAS (Free Calling Area Screening)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	FCAS	Feature = FCAS (Free Calling Area Screening)
FCI	xxx	Free Calling Area Screening Index number
NPA	xxx	Three-digit NPA code to be screened
NXX	aaaa	NXX codes for NPA (aaaa = DENY or ALLOW)
- DENY	xxx xxx	NXX code or range of codes to be Denied
- ALLOW	xxx xxx	NXX code or range of codes to be Allowed

FEAT = FSNS (Free Special Number Screening)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	FSNS	Feature = FSNS (Free Special Number Screening)
FSNI	1-255	Free Special Number screening Index
SPN	x...x	Special Number code to be screened
XXX	aaaa	Routing codes (aaaa = DENY or ALLOW)
- DENY	xxx xxx	Routing code or range of codes to be Denied
- ALLOW	xxx xxx	Routing code or range of codes to be Allowed

FEAT = NCTL (Network Control)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NCTL	Feature = NCTL (Network Control)
SCBQ	(NO) YES	Call-Back Queuing option
- CBTL	10-(20)-30	Call-Back Queue Time Limit
- RANE	0-511	RAN route number for CBQ offer to ESN stations
NRNG	0-99 1-99	NCOS Range
NCOS	(0)-99	Network Class of Service group number
- EQA	(NO) YES	Equal Access associated with this NCOS group
- FRL	(0)-7	Facility Restriction Level
- RWTA	(NO) YES	Expensive Route Warning Tone
- NSC	(NO) YES	Network Speed Call access allowed
- - LIST	0-253	List numbers to which System Speed Call has access
- CBQ	(NO) YES	Call Back Queuing eligibility
- ROUT	a	Call Back Queuing on Initial or All Routes (a = (I) or A)
- RADT	(0)-30	Route Advance Timer
- ARDL	a	ARDL network route selection is allowed from both initial and extended route sets or only the initial route set (a = (A) or I)
TOHQ	0-7	TCOS OHQ eligibility

Alphabetical list of prompts

Prompt	Response	Comment
ALOW	xxx xxx <cr>	Routing code (NXX) code or range of codes to be allowed Stop ALOW prompt
CBQ	(NO) YES	Call Back Queuing eligibility
CBTL	10-(20)-30	Call Back Queue Time Limit (in 2 second increments) This is the time in which the user must respond to Ring Again feature to accept the CBQ call. Applies to multi-line sets only.
CUST	0	Customer number associated with this function as defined in LD 15
DEL	0-4 0-7	Number of digits to be Deleted Up to 7 digits with Directory Number Expansion (DNXP) package 150
DENY	xxx xxx <cr>	Routing (NXX) code or range of codes to be denied Stop DENY prompt.
DMI	0-31 0-999	Digit Manipulation Index for LSC With Flexible Numbering Plan (FNP) package 160
DSC	xxxx	Distant Steering Code Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. This is reprompted until <CR> is entered.
DSP	(LSC) HLOC DN	Display Local Steering Code Home Location code Directory Number to be used for CLID Prompted with Flexible Numbering Plan (FNP) package 160 and ISDN are equipped.
EQA	(NO) YES	Equal Access associated with this NCOS group
FCI	1-127 1-255	Free Calling area screening Index number BARS NARS Table 0 is network reserved to indicate that no FCAS is applied.
FEAT	CDP FCAS	Feature Coordinated Dialing Plan Free Calling Area Screening

LD 87

Prompt	Response	Comment
	FSNS	Free Special Number Screening (allowed with Flexible Numbering Plan (FNP) package 160)
	NCTL	Network Control
FLEN	(0)-24	Flexible Length number of digits Prompted with Flexible Numbering Plan (FNP) package 160
FRL	(0)-7	Facility Restriction Level FRL is assigned to each NCOS. It determines the entries in a Route List (RLI) to which it has access. 0 is the most restrictive, 7 is the least restrictive and can access more entries.
FSNI	1-255	Free Special Number screening Index
ITOH	(NO) YES	Inhibit Time-out option
LIST	0-4095 <cr>	List numbers to which System Speed Call has access All lists Precede with X to remove SSC list.
LSC	xxxx	Local Steering Code Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. This is reprompted until <CR> is entered.
MPRI	(0)-3	Maximum Priority attainable in CBQ
NCOS NPA	(0)-99 xxx	Network Class of Service group number Three-digit NPA code to be screened (the first digit must be 2-9; the second and third digits can be 0-9). Omit the "1" in 1 + NPA format. The allowed responses are 200-999. Only 3 digits are allowed, even when using 1 + dialing. BARS allows up to 7 NPA codes per table with a maximum of 800 NXX codes each. Allow up to 15 NPA codes per table with BARS. NARS allows up to 15 NPA codes per table with a maximum of 800 NXX codes each.
	xxx yyy	Area code or extended NPA code translation. Where xxx & yyy = 200 - 999. FCAS accepts only three digits for the NPA, even if 1 + dialing in use.
NRNG	0-99 1-99	NCOS Range (starting and ending number for NCOS printing)

Prompt	Response	Comment
	<cr>	Pressed without defining the ending number, then only the NCOS with the starting number defined is printed. Prompted when REQ = PRT.
NSC	(NO) YES	Network Speed Call access allowed
NXX	DENY ALLOW	NXX codes to be denied for NPA NXX codes to be allowed for NPA
RADT	(0)-30	Route Advance Timer (in 30 second increments, where: 1 = 30 seconds and 30 = 15 minutes)
RANE	0-511	RAN route number for CBQ offer to ESN stations Enter X to remove RAN route.
REQ	CHG END LCHG NEW OUT PRT	Request Change existing data block Exit Overlay program Print date and time that each data group level was last changed (data groups include: NCTL, FCAS, FSNS, LSC, DSC, and TSC) Create new data block Delete existing data block Print data block
RLI	0-31 0-127 0-255 0-999	Route List accessed for trunk or distant steering code CDP BARS NARS Flexible Numbering Plan (FNP)
ROUT	(I) A	Call Back Queuing on Initial routes The system offers queuing only after examining ISET (Initial Set) entries. Call Back Queuing on All routes The system examines all entries in the route list, both ISET (Initial Set) and ESET (Extended Set) before offering queuing.
RWTA	(NO) YES	Expensive Route Warning Tone
SCBQ	(NO) YES	Call Back Queuing option
SPN	x...x	Special Number code to be screened SPN can be 1 to 19 digits

LD 87

Prompt	Response	Comment
TOHQ	0-7 <cr>	TCOS OHQ eligibility Which TCOS (i.e., FRL) are OHQ eligible (Up to 8 entries). No TCOS are OHQ eligible Precede with X to remove OHQ eligibility from a TCOS.
TSC	xxxx	Trunk Steering Code Up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. This is reprompted until <CR> is entered.
TYPE	LSC DSC TSC FSNS ALL	Local Steering Code Distant Steering Code Trunk Steering Code Free Special Number Screening Index All steering codes
XXX	DENY ALOW	Routing codes to be denied Routing codes to be allowed

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LD 88—Authorization Code

Overlay program 88 allows data for Basic Authorization Code (BAUT) and Network Authorization Code (NAUT) to be created, modified and printed.

Prompts and responses

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AUB or RAUB: Authcode or Room Authcode data block

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, NEW, OUT, or PRT)
TYPE	aaaa	Type = AUB (Authcode) or RAUB (Room Authcode)
CUST	0	Customer number associated with this function
SPWD	xxxx	Secure Data Password
ALEN	1-14	Authcode Length
ACDR	NO YES	Activate CDR for authcodes
AUTHCOD_ALARM	(OFF) ON	Authcode Alarm
RANR	0-511	RAN Route number
RTRY	(NO) YES	(Disable) Enable Authcode - last Retry
- RAN2	0-511	Route number for Authcode - last Retry RAN
CLAS	(0)-115	Class code value assigned to authcode (NAUT)
- COS	a...a	Class of Service (a...a = (CTD), CUN, FR1, FR2, FRE, SRE, TLD, UNR, IPNA, or IRGA)
- TGAR	1-(0)-31	Trunk Group Access Restriction
- NCOS	(0)-99	Network Class of Service
AUTO	YES NO	Automatically generate authcodes
- SECR	0000-9999	Security password (NAUT)
- NMBR	1-20000	Number of authcodes to be generated automatically
- CLAS	(0)-115	Class code to be automatically assigned

AUT : Authcode entries data block

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, NEW, OUT, or PRT)
TYPE	AUT	Type = AUT (Authcode entries)
CUST	0	Customer number associated with this function
SPWD	xxxx	Secure Data Password
CODE	xxxx	Authcode
SARC	NO YES	Scheduled Access Restriction (SAR) Code
- SERV	nnn...nnn	SAR Service functions for SARC
- SGRP	0-999	SGRP number
CLAS	(0)-115	Class code
SECR	0000-9999	Security password

SAR: Scheduled Access Restriction data block

Prompt	Response	Comment
REQ	aaa	Request (aaa = CHG, END, NEW, OUT, or PRT)
TYPE	SAR	Type = SAR (Scheduled Access Restriction)
CUST	0	Customer number associated with this function
SPWD	xxxx	Secure Data Password
SGRP	0-999	SAR Group number
SCDR	(NO) YES	Activate CDR for the SAR code feature
OFFP	1-8	Off-hour Period number
- STAR	hh mm	Start time
- STOP	hh mm	Stop time
- DAYS	d ... d	Respond with a new set of days to be used
- COS	a...a	Class of Service (a...a = (CTD), CUN, FR1, FR2, FRE, SRE, TLD, UNR, IPNA, or IRGA)
- TGAR	1-(0)-31	Trunk Group Access Restriction
- NCOS	(0)-99	Network Class of Service
ICR	(NO) YES	Incoming Calls are Restricted.
LOCK	(1)-8	Lock period

Alphabetical list of prompts

Prompt	Response	Comment
ACDR	(NO) YES	Activate CDR for authcodes. There is no default.
ALEN	1-4 1-7 1-14	Authcode Length (all authcodes are the same length). Room Authcode NAUT BAUT
AUTHCOD_ALARM	(OFF) ON	Disable Authcode Alarm Enable Authcode Alarm
AUTO	YES NO	Automatically generate authcodes. Prompted when Network Authorization Code (NAUT) package 63 is equipped and REQ = "NEW". ALEN must be a minimum of four digits.
CLAS	(0)-115	Class code value assigned to authcode. Cycle continues with CODE. Prompted when SARC = NO. When TYPE = "AUT", enter X to have authcode be an exempt code. When this data is printed, the month in which authcode was deactivated is output. Default is "0" when adding authcode entries.
	X <cr>	Exempt authcode End of input
CODE	xxxx ALL	Authcode (number of digits must equal the ALEN response). May be used to delete Authcodes if Network Authorization Code (NAUT) package 63 is equipped and codes were automatically generated.
COS	(CTD) CUN FR1 FR2 FRE SRE TLD UNR	Class of Service Conditionally Toll Denied Conditionally Unrestricted Fully Restricted class 1 Fully Restricted class 2 Fully Restricted Semi-Restricted Toll Denied Unrestricted
CUST	xx	Customer number associated with this function as defined in LD 15

Prompt	Response	Comment
DAYS	d...d	Respond with a new set of days to be used (a maximum of seven entries in range 1-7)
ICR	(NO) YES	Incoming Calls are Restricted.
LOCK	(1)-8	Lock period
NCOS	0-99	Network Class of Service (enter the new NCOS that will replace the NCOS of the station).
NMBR	1-50000	Number of authcodes to be generated automatically To generate up to 50,000 authcodes, the maximum entry at NMBR is 5000 each time it is prompted.
OFFP	1-8 <cr>	Off-hour Period number Go to ICR prompt.
RANR	0-511 X	RAN route number for "Authcode Last" prompt (NAUT) No RAN route
RAN2	0 - 511 X	Route number for Authcode - last Retry RAN Removes and deactivates Authcode-last Retry RAN
REQ	CHG END NEW OUT PRT	Request Change existing data block Exit Overlay program Create new data block Delete existing data block Print data block
RTRY	(NO) YES	Disable authcode - last Retry. Enable authcode - last Retry. Prompted with Direct Private Network Access (DPNA) package 250.
SARC	NO YES	Scheduled Access Restriction (SAR) Code is to be a Scheduled Access Restriction (SAR) authorization code.
SCDR	(NO) YES	Activate CDR for the SAR code feature.
SECR	0000-9999	Security password as entered during AUTO sequence Prompted when CODE = ALL. Cycle continues with CODE.

LD 88

Prompt	Response	Comment
SERV		SAR Service functions for SARC
	(END)	Enable Denied
	ENA	Enable Allowed
	(LKD)	Lock Denied
	LKA	Lock Allowed
	(DSD)	Disable Denied
	DSA	Disable Allowed
	(UND)	Unlock Denied
	UNA	Unlock Allowed
		Up to four entries can be made at once.
SGRP	0-999 ALL <cr>	Scheduled Access Restriction group (SGRP) number Authorization code is to be a customer SARC. End of SAR changes, return to REQ.
SPWD	xxxx	Secure Data Password (same password as defined for DISA on a per customer basis in LD 15). Prompt will not appear to user with a LAO password.
STAR	hh mm	Start time The current start time (hours and minutes) is printed individually after the prompt. Respond with the new start time.
	X	Remove value and return to OFFP.
STOP	hh mm	Stop time The current stop time (hours and minutes) is printed individually after the prompt. Respond with the new stop time.
	X	Remove value and return to OFFP.
TGAR	0-(1)-31	Trunk Group Access Restriction range
TYPE		Type of data block
	AUB	Authcode data block
	AUT	Authcode entries data block
	RAUB	Room Authcode data block (Hospitality Management)
	SAR	Scheduled Access Restriction data block

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LD 90—Electronic Switched Network 3

Overlay program 90 allows data for network translation tables to be generated and administered.

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NSCL: Network Speed Call List data block	773
NXX : Central Office Code Translation data block	773
SPN: Special Number Translation data block	774

HLOC: Home Location data block (NARS only)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	HLOC	Type = HLOC (Home Location code)
HLOC	x...x	Home Location code
- DMI	1-255	Digit Manipulation Index

HNPA: Home Number Plan area code data block

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	HNPA	Type = HNPA (Home Number plan area code transmission)
HNPA	xxx xxx yyy 1xxx 1xxx yyy	Home Numbering Plan Area code. A leading zero is not allowed. Home NPA (1+ dialing). Where xxx & yyy = 200 - 999.

LOC: Location code data block (NARS only)

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	LOC	Type = LOC (Location code)
LOC	x...x	Location code
- FLEN	(0)-24	Flexible Length
- RLI	xxx	Route List Index
- ITOH	(NO) YES	Inhibit Time Out Handler
- ITEI	xxx	Incoming Trunk group Exclusion Index
- LDN	xx...xx	Listed Directory Number
- DID	(NO) YES	Direct Inward Dial (DID)
- - MNXX	(NO) YES	Multiple NXX
- - SAVE	1-4	Saved digits
- - - OFFC	xxx	Office
- - RNGE	0-9999 0-9999	Range

NPA: Number Plan area code data block

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	NPA	Type = NPA (Number plan area code transmission)
NPA	xxx xxx yyy	Numbering Plan Area code translation
- RLI	xxx	Route List Index
- SDRR	a...a	Supplemental Digit Restriction or Recognition (a...a = ALLOW, ARRN, DDD, DENY, DID, ITED, LDDD, LDID, or STRK)
- - DENY	x...x	Number to be denied within the NPA
- - DMI	1-255	Digit Manipulation Index
- - - LDID	x...x	Local DID number to be recognized
- - LDDD	x...x	Local DDD number to be recognized
- - DID	x...x	Remote DID number to be recognized
- - DDD	x...x	Remote DDD number to be recognized
- - ITED	x...x	Incoming Trunk group Exclusion Digits
- - ALLOW	x...x	Allowed codes
- ITEI	xxx	Incoming Trunk group Exclusion Index

NSCL: Network Speed Call List data block

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	NSCL	Type = NSCL (Network Speed Call List)
- ITEI	xxx	Incoming Trunk group Exclusion Index
NSSC	xxx	Network Speed Call access Code
- SSCL	0-253	System Speed Call List number

NXX : Central Office Code Translation data block

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	NXX	Type = NXX (Central Office Code Translation)
NXX	xxx	Numbering Plan Exchange (Central Office)
- RLI	xxx	Route List Index
- SDRR	a...a	Supplemental Digit Restriction or Recognition (a...a = ALLOW, ARRN, DDD, DENY, DID, ITED, LDDD, LDID, or STRK)
- - DENY	x...x	Number to be denied within the NXX
- - DMI	1-255	Digit Manipulation Index
- - - LDID	x...x	Local DID number to be recognized
- LDDD	x...x	Local DDD number to be recognized
- - DID	x...x	Remote DID number to be recognized
- - DDD	x...x	Remote DDD number to be recognized
- - ITED	x...x	Incoming Trunk group Exclusion Digits
- - ALLOW	x...x	Allowed codes
- ITEI	xxx	Incoming Trunk group Exclusion index

SPN: Special Number Translation data block

Prompt	Response	Comment
REQ	a...a	Request (a...a = CHG, END, LCHG, NEW, OUT, or PRT)
CUST	xx	Customer number associated with this function
FEAT	NET	Feature = NET
TRAN	aaa	Translator (aaa = AC1, AC2, or SUM)
TYPE	SPN	Type = SPN (Special Number Translation)
SPN	xxx	Special Number translation
- FLEN	(0)-24	Flexible Length
-- INPL	(NO) YES	International Dialing Plan
- ITOH	(NO) YES	Inhibit Time-out Handler
- RLI	xxx	Route List Index
- CLTP	a...a	Type of call that is defined by the special number (a...a = (NONE), LOCL, NATL, INTL, SSER, or SERH)
- SDRR	a...a	Supplemental Digit Restriction or Recognition (a...a = ALLOW, ARRN, DDD, DENY, DID, ITED, LDDD, LDID, or STRK)
-- DENY	x...x	Number to be Denied
-- DMI	1-255	Digit Manipulation Index
--- LDID	x...x	Local DID number to be recognized
-- LDDD	x...x	Local DDD number to be recognized
-- DID	x...x	Remote DID number to be recognized
-- DDD	x...x	Remote DDD number to be recognized
-- ITED	x...x	Incoming Trunk group Exclusion Digits
-- ARRN	x...x	Alternate Routing Remote Number
-- STRK	x...x	Allowed codes for ADM/MDM
-- ALLOW	x...x	Allowed codes
--- ARLI	0-255 0-999	Alternative Route List Index

Alphabetical list of prompts

Prompt	Response	Comment
ALLOW	x...x	<p>Allowed codes for ADM/MDM to be recognized within the NXX, NPA or SPN</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none"> • 7-m (8-m for 1 + dialing) for NXX • 10-m (11-m for 1 + dialing) for NPA • 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
ARLI	0-255 0-999	<p>Alternative Route List Index</p> <p>Alternative Route List Index with Flexible Numbering Plan (FNP) package 160.</p> <p>The ARRAN prompt is repeated after the ARLI prompt until <cr> is entered (in response to ARRAN).</p>
ARRN	x...x	<p>Alternate Routing Remote Number to be recognized within the NXX, NPA or SPN.</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none"> • 7-m (8-m for 1 + dialing) for NXX • 10-m (11-m for 1 + dialing) for NPA • 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
CUST	xx	Customer number associated with this function as defined in LD 15.

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Prompt	Response	Comment
DDD	x...x	<p>Remote DDD number to be recognized within the NPA, NXX or SPN.</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none">• 7-m (8-m for 1 + dialing) for NXX• 10-m (11-m for 1 + dialing) for NPA• 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
	<cr>	Return to SDRR prompt.
DENY	x...x	<p>Number to be denied within the NPA,NXX,SPN, or SDR.</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none">• 7-m (8-m for 1 + dialing) for NXX• 10-m (11-m for 1 + dialing) for NPA• 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
	<cr>	Return to SDRR prompt.
DID	(NO) YES	<p>Direct Inward Dial (DID)</p> <p>This location arranged for DID.</p>

Prompt	Response	Comment
DID	x...x	<p>Remote DID number to be recognized within the NPA,NXX or SPN.</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none"> • 7-m (8-m for 1 + dialing) for NXX • 10-m (11-m for 1 + dialing) for NPA • 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p> <p>Precede with X to remove.</p>
	<cr>	Return to SDRR prompt.
DMI	1-255 1-999	<p>Digit Manipulation Index</p> <p>Digit Manipulation Index with Flexible Numbering Plan (FNP) package 160</p> <p>DMI is only prompted when the Directory Number Expansion (DNXP) package 150 is equipped and SDRR = LDID.</p>
FEAT	NET	<p>Feature</p> <p>Network translation tables</p>
FLEN	(0)-24	Flexible Length (the number of digits the system expects to receive before accessing a trunk and outpulsing these digits)
HLOC	x...x	Home Location code (3 digits) or extended code (3-7 digits)
HNPA	xxx xxx yyy 1xxx 1xxx yyy	<p>Home Numbering Plan Area code (a leading zero is not allowed)</p> <p>Home NPA (1+ dialing) (where xxx & yyy = 200 - 999)</p>
INPL	(NO) YES	<p>International Dialing Plan for special number</p> <p>Default to North American operation when FLEN = 0. Prompted with Flexible Numbering Plan (FNP) package 160, FLEN = 0 and SPN = 0, 00, 01, 011, 411, 611, 911, 800, 1800.</p>

LD 90

Prompt	Response	Comment
ITED	x...x	<p>Incoming Trunk group Exclusion Digits (number to be restricted within the NPA for the excluded trunk group)</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none">• 7-m (8-m for 1 + dialing) for NXX• 10-m (11-m for 1 + dialing) for NPA• 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
	<cr>	Return to SDRR prompt
ITEI	(0)-127 (0)-255	BARS Incoming Trunk group Exclusion Index NARS Incoming Trunk group Exclusion Index
ITOH	(NO) YES	Inhibit Time-Out Handler
LDDD	x...x	<p>Local DDD number to be recognized within the NPA, NXX, or SPN</p> <p>The maximum number of digits to be entered must be the lesser of 10 or:</p> <ul style="list-style-type: none">• 7-m (8-m for 1 + dialing) for NXX• 10-m (11-m for 1 + dialing) for NPA• 19-m for SPN <p>Where: m = number of digits entered for NPA, NXX, or SPN.</p> <p>These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.</p>
	<cr>	Return to SDRR prompt

Prompt	Response	Comment
LDID	x...x	Local DID number to be recognized within the NXX, NPA or SPN The maximum number of digits to be entered must be the lesser of 10 or: <ul style="list-style-type: none"> • 7-m (8-m for 1 + dialing) for NXX • 10-m (11-m for 1 + dialing) for NPA • 19-m for SPN Where: m = number of digits entered for NPA, NXX, or SPN. These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
	<cr>	Return to SDRR prompt
LDN	xx...xx	Listed Directory Number Up to 10 digit listed directory number, including NPA.
LOC	x...x	Location code (3 digits) or extended LOC (3-7 digits) Enter the location code (xxx) and the extended code (xxxx) separated by a space.
MNXX	(NO) YES	Multiple NXX codes and ranges This prompt should not be used with NARS DPNSS1.
NPA		Numbering Plan Area code translation, extended NPA code translation (a leading zero is not allowed)
	xxx	Area code translation
	xxx yyy	Extended NPA code translation 3-10 digits or 4-11 digits with 1+ dialing. Enter the NPA code (xxx) and the extended code (yyy) separated by a space.
	1xxx	Area code translation (1+ dialing)
	1xxx yyy	Extended NPA code translation (1+ dialing). Where: xxx & yyy = 200 - 999
NSCC	xxx	One to three-digit Network Speed Call access Code
NXX		Numbering Plan Exchange (Central Office) (A leading zero is not allowed).
	xxx	Office code translation

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Prompt	Response	Comment
	1xxx xxx yyy	Office code translation (1+ dialing) Extended NXX code translation 3-7 digits or 4-8 digits with 1+ dialing. Enter the NXX code (xxx) and the extended code (yyy) separated by a space.
	<cr>	Return to REQ.
OFFC	xxx	Office (NXX of the DID number) Prompted if MNXX = YES.
REQ	CHG END LCHG NEW OUT PRT	Request. Change existing data block. Exit Overlay program. Print date and time that each data group was last changed (data groups include: LOC, HLOC, NPA, HNPA, NXX, SPN and NSCL) Create new data block. Delete existing data block. Print data block.
RLI	0-127 0-255 0-999	BARS Route List Index NARS Route List Index Flexible Numbering Plan (FNP) Route List Index Must be in the range specified by prompt MXRL in LD 86, (i.e., 0 ≤ RLI < MXRL).
RNGE	0-9999 0-9999	Range (upper and lower limit for DID number range) Inputs must be the same number of digits as the number of trailing digits to be saved.
SAVE	1-4	Saved digits (number of trailing digits to be saved in dialed extension number - DID only) Must be 4 if MNXX = YES.

Prompt	Response	Comment
SDRR	ALLOW ARRN DDD DENY DID ITED LDDD LDID STRK <cr>	Supplemental Digit Restriction or Recognition Allowed codes Alternate Routing Remote Number Recognized remote Direct Distance Dial codes Restricted codes Recognized remote Direct Inward Dial codes Incoming Trunk group Exclusion Digits Recognized Local Direct Distance Dial codes Recognized Local Direct Inward Dial codes For ADM/MDM trunk groups Return to SPN
SPN	x...x	Special Number. Enter a carriage return or <cr> to return to the REQ prompt. Special Number translation Enter the SPN digits in groups of 3 or 4 digits, separated by a space (e.g., xxxx xxx xxxx). The SPN can be up to 19 digits long. The maximum length does not depend on whether or not the first digit of the SPN is a "1". The maximum number of groups allowed is 5.
SSCL	0-4095	System Speed Call List number
STRK	x...x	Allowed codes for ADM/MDM to be recognized within the NXX, NPA or SPN The maximum number of digits to be entered must be the lesser of 10 or: <ul style="list-style-type: none"> • 7-m (8-m for 1 + dialing) for NXX • 10-m (11-m for 1 + dialing) for NPA • 19-m for SPN Where: m = number of digits entered for NPA, NXX, or SPN. These numbers do not have to be leftwise unique. For non leftwise unique numbers, the longer number takes precedence over the shorter number. However, the exact same numbers (not leftwise unique and the same length) are still blocked.
TRAN	AC1 AC2 SUM	Translator Access Code 1 (NARS/BARS) Access Code 2 (NARS) Summary of Network Translations (allowed when REQ = PRT)

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Prompt	Response	Comment
TYPE		Type of data block
	ALL	If REQ = PRT, all of the following types will be printed
	HLOC	ESN Home Location Code translation data block (NARS only)
	HNPA	Home NPA translation code
	LOC	ESN Location Code translation data block (NARS only)
	NPA	Numbering Plan Area code translation data block
	NSCL	Network Speed Call List data block
	NXX	Central Office Code Translation data block
	SPN	Special code translation data block

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LD 95—Call Party Name Display

Overlay program 95 is used to define, change, remove or print information for the Call Party Name Display (CPND) data block and name assignment, on a per customer basis.

Prompts and responses

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Create or Change Calling Party Name Display (CPND)

Prompt	Response	Comment
REQ	aaa	Req = NEW or CHG
TYPE	CPND	Type = CPND (Calling Party Name Display)
CUST	xx	Customer number associated with this function
CNFG	aaaa	Configuration (aaaa = (ALON), REMO, or LOCL)
MXLN	5-(17)-27	Maximum Length
STAL	(NO) YES	Static Allocation of name storage
- DFLN	5-(13)-27	Default Length
DES	(NO) YES	Designator for Multiple Appearance DNs allowed
RESN	(NO) YES	Display of Reason for redirecting calls allowed
- CFWD	(F) aaaa	Mnemonic for Call Forward All Calls display
- CFNA	(N) aaaa	Mnemonic for Call Forward No Answer display
- HUNT	(B) aaaa	Mnemonic for Busy display
- NITC	(NI) aaaa	Mnemonic for Call Forward Non Intercom Call
- PKUP	(P) aaaa	Mnemonic for Call Pickup display
- XFER	(T) aaaa	Mnemonic for Call Transfer display
- AAA	(A) aaaa	Mnemonic for Attendant Alternative Answering display

Add Calling Party Name Display name

Prompt	Response	Comment
REQ	NEW	Req = NEW
TYPE	NAME	Type = NAME (CPND Name)
CUST	xx	Customer number associated with this function
CPND_LANG	aaa	CPND Language (aaa = (ROM) or KAT)
DIG	0-253 0-99	Dial Intercom Group
- LANG	aaa	Language (aaa = (ROM), KAT, or ALL)
- NAME	a...a	CPND Name in ASCII characters
- XPLN	xx	Expected Length
DISPLAY_FMT	aaaa	Display Format (aaaa = (LAST) or FIRST)
DN	x...x	Directory Number
- LANG	aaa	Language (aaa = (ROM), KAT, or ALL)
- NAME	a...a	CPND Name in ASCII characters
- XPLN	xx	Expected Length
DCNO	0-254	Digit Conversion table Number
- IDC	0-254	Incoming DID Digit Conversion number
- NAME	a...a	CPND Name in ASCII characters

Change Calling Party Name Display name

Prompt	Response	Comment
REQ	CHG	Req = CHG
TYPE	NAME	Type = NAME (CPND Name)
CUST	xx	Customer number associated with this function
CPND_LANG	aaa	CPND Language (aaa = (ROM) or KAT)
DIG	0-253 0-99	Dial Intercom Group
- NAME	a...a	CPND Name using ASCII characters
- DN	x...x	Directory Number
- NAME	a...a	CPND Name in ASCII characters
DCNO	0-254	Digit Conversion table Number
- IDC	0-254	Incoming DID Digit Conversion number
- NAME	a...a	CPND Name in ASCII characters

Remove Calling Party Name Display name

Prompt	Response	Comment
REQ	OUT	Req = OUT
TYPE	NAME	Type = NAME (CPND Name)
CUST	xx	Customer number associated with this function
CPND_LANG	aaa	CPND Language (aaa = (ROM) or KAT)
DIG	0-253 0-99	Dial Intercom Group
DN	x...x	Remove Directory Number x...x
	x...x y...y	Remove range of DN-defined names
	ALL	Remove all DN-defined names
DCNO	0-254	Digit Conversion table Number
- IDC	0-254	Incoming DID Digit Conversion number
ARE YOU SURE?	(YES) NO	(Confirm) or remove operation

Print Calling Party Name Display data and names

Prompt	Response	Comment
REQ	PRT	Req = PRT
TYPE	NAME	Type = NAME (CPND Name)
CUST	xx	Customer number associated with this function
CPND_LANG	aaa	CPND Language (aaa = (ROM) or KAT)
LANG	aaa	Language choice for name display (aaa = ROM or KAT)
PAGE	(NO) YES	Page headers and numbers printed (or not) if the Multiple DN/DIG is specified.
DIG	0-2045 0-99	Dial Intercom Group
SHRT	(NO) YES	Short form
- DN	x...x	Print single Directory Number x...x
	x...x y...y	Print range of Directory Numbers
	x/xx/xxx	Print all DNs starting with x, xx, or xxx
	ALL	Print all DNs
SHRT	(NO) YES	Short form
DCNO	0-254	Digit Conversion table Number
- IDC	nnn	Incoming DID Digit Conversion number
	ALL	All names defined are printed
SHRT	(NO) YES	Short form

Alphabetical list of prompts

Prompt	Response	Comment
AAA	aaa	Attendant Alternative Answering display mnemonic Default = A
ARE YOU SURE?	(YES) NO	(Confirm) or remove operation. The default response is YES.
CFNA	xxxx	Call Forward No Answer display mnemonic Default = N
CFWD	xxxx	Call Forward All Calls display mnemonic Default = F
CNFG	(ALON)	Configuration Standalone CPND configuration
CPND_LANG	(ROM) KAT	CPND language. Prompted when FTR = CPND. Roman CPND language Katakana CPND language
CUST	xx	Customer number associated with this function as defined in LD 15
DCNO	0-254	Digit Conversion table Number
DES	(NO) YES	Designator for Multiple Appearance DNs allowed Prompted when ODAS is equipped.
DFLN	5-(13)-27	Default character string Length Default to 13 or MXLN, whichever is less. Prompted when STAL = YES
DIG	0-2045 0-99 <cr>	Existing Dial Intercom Group number followed by member number To prompt DN If CPND Name already exists, an error message is returned. Prompted when DIG is equipped.
DISPLAY_FMT	(LAST) FIRST	Display format for CPND name Last name, First name (Doe, John) First name, Last name (John Doe)

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Prompt	Response	Comment
DN	xxxx	Directory Number (Existing eligible DN or Partial DN). The DN can be up to 4 digits, up to 7 digits with Directory Number Expansion (DNXP) package 150. Valid DN types are Single or Multiple line prime DN, trunk DN, attendant DN or ACD DN. If Partial DN, all possible DNs are printed.
	x...x y...y	Range of DN-defined names are deleted/printed. This entry is valid when REQ = OUT/PRT.
	ALL	All names defined are deleted/printed. ALL is a valid entry when REQ = OUT/PRT.
	x/xx/xxx	DNs starting with x, xx, or xxx are printed. This entry is valid when REQ = PRT.
	<cr>	To re-prompt DCNO If the CPND name is already defined, an error message is returned.
HUNT	xxxx	Busy display mnemonic Default = B
IDC	0-254	Incoming DID Digit Conversion number
	ALL	Existing complete or partial IDC number All Names defined
LANG		Language choice for name for CPND screen and set display. Allowed only if REQ = OUT.
	(ROM)	English display (Roman characters)
	KAT	Non-English display (Katakana characters)
	ALL	Remove ALL names from CPND data block for the DN or DIG selected.
	<cr>	Roman (English) display
MXLN	5-(17)-27	Maximum allowable CPND character string Length Once an MXLN is entered, it cannot be changed to a lower value via the CHG prompt.

Prompt	Response	Comment
NAME	a...a <cr>	CPND Name using ASCII characters If STAL = YES, then Name size < XPLN If STAL = NO, then Name size = number of characters entered. DIG is reprompted. to DN prompt
NITC	(NI) aaaa	Non intercom call NITC indicates that an intercom call terminated as a normal call.
PAGE	(NO) YES	Page headers and numbers not printed if the Multiple DN/DIG is specified. Page headers and numbers printed if the Multiple DN/DIG is specified. Page headers (date and page number) are not printed if a single DN/DIG is specified.
PKUP	xxxx	Call Pickup display mnemonic. Default = P.
REQ	CHG END NEW OUT PRT	Request. Change existing data block Exit Overlay program Create CPND data blocks and/or name strings Remove existing name or data block Print an existing Name or data block from the data base
RESN	(NO) YES	Display of Reason for redirecting calls allowed
SHRT	(NO) YES	Prints one DN or IDC per single line. (long form) Prints several DNs or IDCs on a single line. (one-line form) Prompted when DN = ALL, Range or Partial DN to be specified.
STAL	(NO) YES	Static Allocation of Name storage In a Hotel/Motel environment with Background Terminal facilities, STAL must be YES. STAL = YES is recommended whenever CPND Names change frequently, for efficient use of available memory (i.e., when a guest checks in).
TYPE	CPND NAME	Type of data block CPND data block CPND Name data block Allowed only if CPND data block is already defined.

LD 95

Prompt	Response	Comment
XFER	xxxx	Call Transfer display mnemonic Mnemonic for call transfer display in Network Call Redirection (NCRD). One to four characters are accepted. Default = T. Prompted if ISDN = YES in LD 15
XPLN	xx	Expected Length Range must be between the Input Name length and the MXLN, or it default to DFLN. This value should be set to a sufficient length to allow for current and future names to be entered. When REQ = NEW, the XPLN prompt defines the maximum name length for that particular entry. The XPLN for a DN cannot be changed without deleting that name entry.
	<cr>	This sets the XPLN to the input length, or DFLN whichever is greater. Re-prompts DIG. Prompted when STAL = YES

LD 96—D-channel Diagnostic

LD 96 is used to test and maintain D-channel links.

D-channels reside on T1 Multipurpose Digital Interface (TMDI) cards. A set of LD 96 commands are provided to support TMDI cards. The TMDI commands listed in LD 48 can also be used in LD 96.

Monitoring

D-channel message monitoring is used to analyze the Layer 3 protocol messages traveling between the near and far-end D-channels.

Commands in LD 96 allow selective message monitoring based on

- the D-channel
- the B- or ISL channel
- the message types for a specific feature
- any specific message

The following sections describe the various command formats.

Note 1: During high traffic some of the monitored messages may be lost.

Note 2: For the D-channel monitor messages to be displayed, the system terminal must have USER defined as MTC in LD 17.

D-channels

All message types, features and channels associated with a particular D-channel can be monitored. Monitoring of multiple D-channels for both incoming and outgoing messages is allowed.

The LD 96 commands to enable or disable monitoring of all incoming or outgoing messages on a D-channel are:

ENL MSGI x—enable monitoring of incoming messages
ENL MSGO x—enable monitoring of outgoing messages
DIS MSGI x—disable monitoring of incoming messages
DIS MSGO x—disable monitoring of outgoing messages

Where x is the DCI device number. For example, to enable monitoring of incoming messages on D-channel 5, enter:

ENL MSGI 5

The output includes all messages, features and channels for D-channel 5.

B-channels and ISL channels

You can monitor up to 5 ISL or B-channels, for each direction. If there is no specific channel selected, all channels are monitored. The commands follow:

For B-channels on all systems:

```
ENL MSGI x CH loop channel
ENL MSGO x CH loop channel
DIS MSGI x CH loop channel
DIS MSGO x CH loop channel
```

Where:

```
ENL = enable monitoring
DIS = disable monitoring
MSGI = incoming messages
MSGO = outgoing messages
```

ISDN features

You can select specific ISDN applications, such as Network Ring Again, for message monitoring. Only one or all ISDN applications can be monitored per D-channel at one time. The LD 96 commands are listed below, where x is the D-channel device number.

ENL MSGI x FEAT feature
ENL MSGO x FEAT feature
DIS MSGI x FEAT feature
DIS MSGO x FEAT feature

Where “feature” can be:

NCT = Network Call Trace
TAT = Trunk Anti-Tromboning

Message types

You can select specific types of messages to be monitored on a D-channel. The LD 96 commands are listed below, where **x** is the D-channel device number.

```
ENL MSGI x MSG msg1 msg2 msg3
ENL MSGO x MSG msg1 msg2 msg3
DIS MSGI x MSG msg1 msg2 msg3
DIS MSGO x MSG msg1 msg2 msg3
```

Up to three message types (msg1, msg2, msg3) can be entered per command. The default is “ALL”, which is all message types except SVC and SVCA. The message types are:

- 1 ALER = alerting
- 2 ALL = all primitives and all messages except SVC and SVCA
- 3 CAPR = call proceeding
- 4 CON = connect
- 5 CONA = connect ack
- 6 DISC = disconnect
- 7 FAC = facility
- 8 FACA = facility ack
- 9 FACR = facility reject
- 10 INFO = information
- 11 NOTF = notify
- 12 PRIM = all primitives (such as release indication)
- 13 PROC = call proceeding
- 14 PROG = progress
- 15 RLS = release
- 16 RLSC = release complete
- 17 RST = restart
- 18 RSTA = restart ack
- 19 STAT = status
- 20 STEN = status enquiry
- 21 STP = setup
- 22 STPA = setup ack
- 23 SVC = service
- 24 SVCA = service ack
- 25 UI = user information

Setting output format levels

There are three levels (0-2) of message decoding. The level determines the format of the data output to the system terminal. To set the output level enter the following.

```
SET MSGI x MON (0)-2
SET MSGO x MON (0)-2
```

Level 0 outputs the message as shown below.

```
DCH x y MSG msgtype REF xxxxxxxx CH zzzz TOD hh:mm:ss <more data>
```

Where:

```
x = D-channel number
y = "I" for incoming messages, "O" for outgoing messages
xxxxxxx = the call reference number
zzzz = the loop and channel number (or TN for ISL channels)
```

<more data> = additional lines of information, such as:

- 1 CALLED # = called number
- 2 CALLING # = calling number of originator
- 3 CAUSE = reason for action taken (e.g, unassigned number)
- 4 CONNECT # = connected number
- 5 FEAT = feature (such as Network Ring Again)
- 6 NUM PLAN = Numbering plan used (such as private)
- 7 PROGRESS = call progress description
- 8 REDIR REASON = reason the call was re-directed
- 9 REDN # = call redirection number
- 10 STATE = call state
- 11 STATUS = channel status
- 12 TYPE = type of channel

Level 1 outputs the raw data.

The format is:

DCH x y MSG msgtype REF xxxxxxxx TN zzzzzz CH# x CK x
<more data in hexadecimal>

Level 2 output identifies the individual Information Elements (IE) in the messages and their hexadecimal values. The possible IEs are:

- 1 BCAP = bearer capability
- 2 CAST = call state
- 3 CHGA = charge advice
- 4 CHID = channel ID
- 5 CHST = change status
- 6 CLED = called number
- 7 CLES = called party subaddress
- 8 CLNG = calling number
- 9 CLNS = calling party subaddress
- 10 CNS5 = codeset 5 connected number subaddress
- 11 CON# = connect number
- 12 CON5 = codeset 5 connected number
- 13 CSE = cause
- 14 DES6 = codeset 6 Destination IE
- 15 DISP = display
- 16 FAC = facility IE for codeset 0
- 17 FAC6 = codeset 6 facility IE
- 18 FIND = feature Indication
- 19 HLYR = higher layer compatibility
- 20 INFO = information request
- 21 KYPD = keypad
- 22 LLYR = low layer compatibility
- 23 LS5 = locking Shift to codeset 5
- 24 LS6 = locking shift to codeset 6
- 25 LS7 = locking Shift to codeset 7
- 26 NLS5 = codeset 5 non-locking shift
- 27 NLS6 = codeset 6 non-locking shift
- 28 NLSO = non-locking shift to codeset 0

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- 29 NOTI = notify indicator
- 30 NSF = network specific facility
- 31 ORG# = originating called number
- 32 ORG6 = codeset 6 Originating IE
- 33 PROG = progress indicator
- 34 RDG6 = codeset 6 redirecting number
- 35 REDG = redirecting number
- 36 REDN = redirection number
- 37 RETR = codeset 6 reason for return
- 38 RSTI = restart indicator
- 39 SHFT = shift
- 40 SIGN = signal
- 41 TACG = codeset 6 TTC advice charge
- 42 TNS = transit network selection
- 43 UNKN = unknown
- 44 UUI = user-user information

Deactivate monitor from a maintenance telephone

Once the system has been tied up or flooded with the monitored messages, it is very difficult, if not impossible, to use LD 96 to disable the monitors. In this case, a maintenance telephone with MTA Class of Service can be used to deactivate the monitor.

To activate or deactivate the monitor from a maintenance telephone, simply dial: SPRE 9913 x 01

Where:

SPRE = special function access code (defined in LD 15)
9913 = feature code to activate or deactivate the monitor
x = 0 to deactivate, 1 to activate
01 = DCH monitor ID

Note 1: Dial tone is provided if successful.

Note 2: Use “RST MON” to reactivate the monitor from LD 96.

Note 3: Deactivating the monitor by the maintenance telephone does not disable the monitor, but simply halts the output. If the monitor is deactivated and not disabled using the DIS MSGI and DIS MSGO commands, then the monitor becomes re-activated after a datadump and sysload.

Get monitor status

To determine the current status of the D-channel monitor, enter the following command, where x is the D-channel (DCHI or TMDI) port number.

```
STAT MON x
```

Output format:

```
***DCH MSGI x LEVEL y ACTV (where, y = format level)
```

```
MSG - msg1 msg2. . .
```

```
FEAT - feat
```

```
CH - loop channel (or l s c u for ISL)
```

```
***DCH MSGO x LEVEL y ACTV
```

```
MSG - msg1 msg2. . .
```

```
FEAT - feat
```

```
CH - loop channel (or l s c u for ISL)
```

If the monitor had been deactivated by the maintenance telephone, INACTV is output instead of ACTV.

T1 Multipurpose Digital Interface (TMDI)

The TMDI provides 2 ports for ISDN Primary Rate D-channel (DCH) and 1.5 Mb/s Digital Trunk Interface (DTI).

The TMDI commands are listed below, x is the TMDI card number (defined by prompt DLOP in LD 17).

```
DIS TMDI x (ALL)—Disable TMDI card
```

```
ENL TMDI x (FDL, ALL)—Enable TMDI card
```

```
RST TMDI x—Reset TMDI card x
```

```
STAT TMDI (x) (FULL)—Get TMDI status
```

```
SLFT TMDI x—Execute a self-test on TMDI x
```

These commands are also provided in Input/Output Diagnostic (LD 37), Link Diagnostic (LD 48) and Call Detail Recording Diagnostic (LD 42).

D-channel commands

The following commands are used to enable, disable, test and get the status of a D-channel. Refer to the LD 96 introduction for details on the use of these commands.

DIS AUTO x	Disable automatic recovery for DCH x
DIS DCH x	Disable DCH x
DIS MSGI x (options)	Disable the monitoring of incoming messages on D-channel x
DIS MSGI x FEAT y	Disable incoming monitoring for feature y messages on D Channel x. (See page 794 for feature choices)
DIS MSGO x (options)	Disable the monitoring of outgoing messages on D-channel x
DIS MSGO x FEAT y	Disable outgoing monitoring for feature y messages on D Channel x. (See page 794 for feature choices)
DIS SERV x	Disable service messages on D-channel x
DLIF DCH x	Force download of D channel x (For PRI UIPE application)
ENL AUTO x	Enable automatic recovery for DCH x
ENL DCH x (FDL)	Enable DCH x and attempt to establish the link, and force download to TMDI
ENL MSGI x (options)	Enable the monitoring of incoming messages on D-channel x
ENL MSGI x FEAT y	Enable incoming monitoring for feature y messages on D Channel x.
ENL MSGO x (options)	Enable the monitoring of outgoing messages on D-channel x
ENL MSGO x FEAT y	Enable outgoing monitoring for feature y messages on D Channel x.
ENL SERV x	Enable service messages on D-channel x
EST DCH x	Establish multiple frame operation on D-channel x
FDIS NCAL <DCH#> <conn_ID>	Force disconnect the specified call-independent connection
PLOG DCH x	Print protocol error log on DCH x
RLS DCH x	Release D-channel x
RST DCH x	Reset D-channel x, inhibit signaling
RST MON	Reset or reactivate monitoring on D-channels with enabled monitors
SDCH DCH x	Switch to the standby D-channel x
SET MSGI x MON (0)-2	Set monitor output format level for incoming messages on D-channel x

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SET MSGO x MON (0)-2	Set monitor output format level for outgoing messages on D-channel x
STAT DCH (x)	Get status of one or all D-channels
STAT NCAL <DCH#>	List all current call-independent connections on a given PRI D-channel.
STAT NCAL <DCH#> <conn_ID>	List information pertaining to a specific call-independent connection
STAT MON (x)	Display the incoming and outgoing monitoring status of one or all D-channels.
STAT SERV (x)	Get the enable/disable status of services messages for one or all D-channels

T1 Multipurpose Digital Interface (TMDI) commands

The TMDI commands are listed below, **x** is the TMDI device number (defined by prompt DLOP in LD 17). These commands are also provided in Input/Output Diagnostic (LD 37) and Link Diagnostic (LD 48) and LD 42.

DIS TMDI x (ALL)	Disable TMDI card x
ENL TMDI x (ALL, FDL)	Enable TMDI card x
RST TMDI x	Reset TMDI x
SLFT TMDI x	Invoke self-test
STAT TMDI (x [FULL])	Get TMDI status

T1 Multipurpose Digital Interface commands

The following commands are only available for D-channels on an TMDI port.

DIS LLB x	Disable local loop back mode on TMDI DCH x
DIS RLB x	Disable remote loop back mode on TMDI DCH x
DIS TEST x	Disable TEST mode on TMDI DCH x
DLIF DCH xx FDL	Force download a PRI interface table.
ENL LLB x	Enable local loop back mode on TMDI DCH x
ENL RLB x	Enable remote loop back mode on TMDI DCH x
ENL TEST x	Enable TEST mode on TMDI DCH x
MAP DCH x	Get physical address and switch settings for D-channels
PCON DCH x	Print configuration parameters on TMDI DCH x
PMES DCH x	Print incoming layer 3 messages on TMDI DCH x
PTRF DCH x	Print traffic report on TMDI DCH TMDI
PTRF DCH x	Print traffic report on TMDI DCH x
TEST LLB x	Start local loop back test on TMDI DCH x
TEST RLB x	Start remote loop back test on TMDI DCH x

Alphabetical list of commands

Command	Description
DIS AUTO x	Disable automatic recovery for DCH x
DIS DCH x	Disable DCH x. This changes the status of the DCH to DSBL and the status of the D-channel to DCH RST (reset).
DIS LLB x	Disable local loop back mode on TMDI DCH x. See "ENL TEST" command for details.
DIS MSGI x	Disable the monitoring of all incoming messages from D-channel x.
DIS MSGI x (options)	Disable the monitoring of all incoming messages from D-channel x. The available options are: <ol style="list-style-type: none"> 1. CH loop channel1: disable incoming messages on B-channel loop channel 2. CH l s c u: disable incoming messages on ISL-channel loop shelf card unit 3. FEAT feature: disable incoming messages for a PRI feature 4. MSG msg1 msg2 msg3: disable incoming message types Refer to the LD 96 introduction for details.
DIS MSGI x FEAT y	Disable incoming monitoring for messages on D Channel x.
DIS MSGO x	Disable the monitoring of outgoing messages from D-channel x.
DIS MSGO x (options)	Disable the monitoring of outgoing messages from D-channel x. Refer to DIS MSGI x (options) for the list of options.
DIS MSGO x FEAT y	Disable outgoing monitoring for messages on D Channel x.

DIS RLB x	Disable remote loop back mode on TMDI DCH x. See “ENL TEST” command for details.
DIS SERV x	Disable service messages on D-channel x. See “ENL SERV” for details. The D-channel must be disabled before disabling service messages.
DIS TEST x	Disable TEST mode on TMDI DCH x. See “ENL TEST” command for details. When the test mode state is disabled, the DCH link will go back to release state and the DCH background audit will then try to establish the link.
DIS TMDI x	Disable TMDI card x
DLIF DCH x	Force download of D channel x (For PRI UIPE application). Note that : <ol style="list-style-type: none">1. D channel specified must use the UIPE application2. D channel must be disabled3. D channels configured on the same TMDI card using the same interface must be disabled
DLIF DCH xx FDL	Force download a PRI interface table. To download the ISDN interface cable: <ol style="list-style-type: none">1. the D channel must be disabled2. the UIPE application must be active3. other D channels on the same TMDI card must be disabled
DWNL DCHI x (t)	Down load layer 3 message configuration table t and LAPD parameters from DCHI x. If table t is not specified, all table information is shown. This command is intended as a debugging tool for system designers.
ENL AUTO x	Enable automatic recovery for DCH x. Automatic recovery is initially enabled.
ENL DCH x (FDL)	

Enable DCH x and attempt to establish the link, and force download to TMDI. A self-test on the DCH runs automatically. If successful, then:

DCHI status: OPER

DCH status: EST

If this is not successful, then:

DCHI status: OPER

DCH status: RLS

FDL forces D-channel loadware to the TMDI card. This is optional.

- ENL LLB x Enable local loop back mode on TMDI DCH x. See "ENL TEST" command for details.
- ENL MSGI x Enable the monitoring of all incoming messages from D-channel x.
- ENL MSGI x (options) Enable the monitoring of all incoming messages from D-channel x. Refer to DIS MSGI x (options) for the list of options.
- ENL MSGI x FEAT y Enable incoming monitoring for messages on D Channel x.
- ENL MSGO x Enable the monitoring of all outgoing messages for D-channel x.
- ENL MSGO x (options) Enable the monitoring of all outgoing messages for D-channel x. Refer to DIS MSGI x (options) for the list of options.
- ENL MSGO x FEAT y Enable outgoing monitoring for messages on D Channel x.
- ENL RLB x Enable remote loop back mode on TMDI DCH x. See "ENL TEST" command for details.

ENL SERV x Enable service messages on D-channel x.

“Service” and “Service Acknowledge” messages are supported on individual PRA B channels, ISL channels and D-channels. They are used to coordinate channel status between the near and far end. A channel status can be in service, maintenance or out-of-service.

The primary and backup D-channel must be disabled before enabling service messages.

Make sure both ends support service messages before using this command. For Meridian 1/Meridian SL-1 to Meridian 1 / Meridian SL-1, both systems must have X11 Release 15 or higher or X27.

By default, SERV is disabled when the interface type is Meridian 1/Meridian SL-1 (LD 17 IFC = SL1).

When enabled, service messages are supported on individual PRA B-channels, ISL channels and D-channels. When disabled, service messages are provided automatically on D-channels with Backup D-channel configured.

For Meridian 1/Meridian SL-1 to DMS, or Meridian 1/Meridian SL-1 to AT&T only service messages on individual PRA B-channels and ISL channels are supported.

By default, SERV is disabled when the interface type is DMS (LD 17), and enabled when the interface type is AT&T (LD 17 IFC = ESS4/ESS5).

ENL TEST x Enable TEST mode on TMDI DCH x.

The DCH is put into TEST mode to perform the local loop back (LLB) or remote loop back (RLB) test. The DCH link can only be put in test mode if it is in the release or established state. If the link is in establish state, the DCH link is first released, and then put in test mode.

The local loop back test first tests the expedited interface, then the ring interface. The test consists of sending a data packet through each interface, which in turn is sent back by Layer 2. This data packet is then validated to ensure that the contents of the data packet are the same that were originally sent.

Example:

```
ENL TEST x enter TEST mode
ENL LLB x enter local loop back mode
TEST LLB x perform test (results are PASS or FAIL)
DIS LLB x exit local loop back mode
DIS TEST x exit TEST mode and restore link
```

The remote loopback test is used to verify the integrity of the physical link. This following test is only supported if both the D channels are on the TMDI card. To run the test the far-end must be in the remote loopback mode (ENL RLB x). The DCH running the test (near-end) must be in TEST mode.

Example:

Far-end:

```
ENL TEST x — enter TEST mode
ENL RLB x — enter remote loopback mode
DIS RLB x — exit remote loopback mode (after test)
DIS TEST x — exit TEST mode and restore link
```

Near-end:

```
ENL TEST x — enter TEST mode
TEST RLB x — perform test (results are PASS or FAIL)
DIS TEST x — exit TEST mode and restore link
```

If the far end is not an TMDI D-channel, use the RLBK command in LD60 to set up the remote loopback test.

ENL TMDI x Enable TMDI card x

- EST DCH x** Establish multiple frame operation on D-channel x.
- With the absence of the back-up D-channel, issuing the EST DCH x command clears all the B-channels on loop x. If backup D-channel is available, the system switches to the backup D-channel and the B-channels of loop x are not cleared.
- FDIS NCAL <DCH#> <conn_id>**
- Force disconnect the specified call-independent connection as defined by its connection ID number. The connection ID number is a number in the range of 1-9999 that identifies the call independent connection on a given DCH.
- MAP DCH x** Get physical address and switch settings for D-channels. This command outputs the card name and switch settings for D-channels. For example:
- ```
MAP DCH
DCH 15 DCHI 07
DCH 23 TMDI 09 PORT 2
```
- PCON DCH x** Print configuration parameters on TMDI DCH x. This command outputs the parameters originally downloaded when the D-channel was enabled. The output format is:
- ```
DCH : x LINK PARAM CONFIRM TIME: hh:mm:ss
TMDI x = 0-15
PORT x = 0-3
INTERFACE aaa = SL1, D100, D250, ESS4, S100, etc.
OPER MODE aaa bbb ccc ddd eee
```
- Where: aaa = RS422, RS232 ; bbb = DTE, DCE ; ccc = USR, NET ; ddd = baud rate ; eee = clock (EXT or INT CLK)
- ```
T200 xx (LAPD parameter)
T203 xx (LAPD parameter)
T200 xx (LAPD parameter)
N201 xx (LAPD parameter)
K xx (LAPD parameter)
N2X4 xx (LAPD parameter if INTERFACE is ITR6)
```
- PLOG DCH x** Print protocol error log-on DCH x.
- Protocol errors can be the result of PRI transmission problems and re-start procedures, or a protocol mismatch with the far end. The PLOG counters are cleared after the PLOG is printed or the DCH card is enabled.

When a protocol counter overflows, the PLOG is printed automatically and the counters are cleared. The counter is also cleared when the D-channel is disabled.

Response for TMDI DCH is:

```
DCH : xx MAINT CONFIRM TIME: hh:mm:ss
01 cc
11 cc
23 cc
```

Where:

**x** = DCH number  
**xxxx** = system real time (in hexadecimal)  
**yy** = maintenance indication primitive  
**zz** = maintenance indication task ID  
**01 02 03 . . . 16** = protocol error counters as listed below  
**cc** = protocol error counts

Only the non-zero counters are output. Protocol error counters:

01 = Count of missing PRI handshakes  
02 = Count of peer initiated re-establishment link  
03 = Count of unsuccessful retransmit N200 of SABME  
04 = Count of unsuccessful retransmit N200 of DISC  
05 = Count of N(R) errors  
06 = Count of I fields with length greater than N201  
07 = Count of undefined frames  
08 = Count of I fields but not allowed  
09 = Count of FRMR frames

10 = Count of CRC error frames  
11 = Count of REJ frames  
12 = Count of messages with less than 4 octets  
13 = Count of undefined protocol discriminators  
14 = Count of undefined message types  
15 = Count of messages missing mandatory information elements  
16 = Count of messages with undefined information elements

17 = Count of layer 1 reports of no external clock being received  
18 = Count of aborted frames  
19 = Count of SABME frames received with incorrect C/R bit

20 = Count of supervisory frames received with F = 1  
21 = Count of unsolicited DM responses with F = 1  
22 = Count of unsolicited UA responses with F = 1  
23 = Count of unsolicited UA responses with F = 0  
24 = Count of DM responses with F = 0  
25 = Number of times that no response was received from the far end after N200 retransmissions of RR or RNR  
26 = Count of frames received with incorrect header length  
27 = Number of times owner receiver busy condition was entered  
28 = Number of times peer receiver busy condition was entered  
29 = Count of messages with call reference length greater than 2

30 = Count of optional IEs received with invalid contents  
31 = Count of mandatory IEs received with invalid contents  
32 = Count of messages received with IE's not ordered correctly  
33 = Count of IEs which were repeated in received messages, but are only allowed to appear once per message  
34 = Count of IEs received with length exceeding the specified maximum length for the IE  
35 = Count of layer 3 messages from far-end with invalid call reference flag value of 0.  
36 = Count of layer 3 messages from far-end with invalid call reference flag value of 1.  
37 = Count of layer 3 messages from far-end with invalid global call reference.  
38 = Count of layer 3 messages from SL-1 that are too short.  
39 = Count of layer 3 messages from SL-1 containing an undefined message type.

40 = Count of layer 3 messages from SL-1 missing mandatory IE(s).  
41 = Count of layer 3 messages from SL-1 containing unsupported IE(s).  
42 = Count of layer 3 messages from SL-1 containing invalid operational IE(s).  
43 = Count of layer 3 messages from SL-1 containing invalid mandatory IE(s).  
44 = Count of layer 3 messages from SL-1 with IE(s) out of order.  
45 = Count of layer 3 messages from SL-1 containing repeated IE(s).  
46 = Count of layer 3 messages from far-end with an invalid call reference length.  
47 = Count of layer 3 messages from SL-1 with an invalid call reference flag value of 0.  
48 = Count of layer 3 messages from SL-1 with an invalid call reference flag value of 1.  
49 = Count of layer 3 messages from SL-1 with an invalid global call reference.

50 = Count of unexpected layer 3 messages received from the far-end.  
51 = Count of unexpected layer 3 messages received from the SL-1.  
52 = Count of unexpected layer 3 timer expirations.  
53 = Count of protocol messages received when D-channel is not in service or waiting for a Service Acknowledge message.

PMES DCH x    Print incoming layer 3 messages on TMDI DCH x.

The following data is kept by the TMDI DCH loadware and output when requested by this command or when one of the counters overflows:

```
DCH : xx
MSG LOG CONFIRM TIME: hh:mm:ss

SETUP: yy
CONNECT: yy
ALERT: yy
```

(Only non-zero counters are reported) (Where yy is the number of times a message was received)

When a counter overflows, the log is printed automatically and the counters are cleared. The counter is also cleared when the D-channel is disabled.

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PTAB DCH x (t) | Display layer 3 message configuration table t and LAPD parameters from DCH x. This command is intended as a debugging tool for system designers.                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| PTRF DCH x     | Print traffic report on TMDI DCH x.<br>The following traffic information is output: <ol style="list-style-type: none"> <li>1. <b>PEAK_I_US xx</b> % = peak incoming usage on the DCH link</li> <li>2. <b>AVRG_I_US xx</b> % = average incoming usage on the DCH link</li> <li>3. <b>PEAK_O_US xx</b> % = peak outgoing usage on the DCH link</li> <li>4. <b>AVRG_O_US xx</b> % = average outgoing usage on the DCH link</li> <li>5. <b>TIME xx</b> = time in seconds</li> <li>6. <b>CONNECTED CALLS xx</b>: = total number of established call-independent connections</li> </ol> |
| RLS DCH x      | Release D-channel x. The link is in a waiting state, ready to come back up at any time.<br><br>If you release the D-channel with active B-channels, then calls in progress are not affected. However, these calls are disconnected when you re-establish the D-channel.<br><br>When the automatic recovery feature is active, the B-channels are automatically re-established                                                                                                                                                                                                     |
| RST DCH x      | Reset D-channel x, inhibit signaling. Forces the link to reset (RST) state, but does not disable PRI or DCH                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| RST MON        | Reset or reactivate monitoring on D-channels with enabled monitors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RST TMDI x     | Reset TMDI x. The card must be disabled. This command causes the card to restart.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

- SDCH DCH x**    Switch to the standby D-channel x. This is only valid in a backup D-channel configuration.
- Releases a D-channel and switches over to the other D-channel as long as the other D-channel is in EST STBY, established standby mode.
- Where x is the standby D-channel number. This command changes the status of the active D-channel to standby, and changes the status of standby D-channel to active.
- This command is not applicable if the recovery to primary D-channel option (prompt RCVP = YES in LD 17) is used.
- This command is only applicable to Meridian 1/Meridian SL-1 to Meridian 1/Meridian SL-1 Backup D-channel interface (IFC = SL-1 in LD 17).
- 
- SET MSGI x MON (0)-2**
- Set monitor output format level for all incoming messages on D-channel x. Refer to Setting output format levels earlier in the section.
- 
- SET MSGO x MON (0) -2**
- Set monitor output format level for all outgoing messages on D-channel x. Refer to Setting output format levels earlier in the section.
- 
- SLFT TMDI x**    Perform self-test diagnostics on disabled TMDI card x. This command initiates a card reset, followed by other diagnostics.
- 
- STAT DCH x**    Get the present status of D-channel x, where x is the I/O port number (entering x to specify just one link is optional).
- DCH status may be:
- EST** = DCH link is established
  - EST STBY** = DCH link is established and is the standby
  - FAIL** = DCH link has failed
  - RLS** = DCH link is released
  - RST** = DCH link is in reset state
  - AEST, ARLS, RST** = these codes indicate intermediate background functions are being performed. Enter the STAT command again to determine final status.

STAT DCH (x) Get status of one or all D-channels.  
 If a DCH number is not entered, the status of all D-channels is output. The output format is:

**DCH x : aaaa bbbb cccc dddd x**

Where:

**x** = DCH number  
**aaaa** = application status  
**bbbb** = link status  
**cccc** = AUTO if autorecovery is enable  
**dddd** = BKUP x or PRIM x (associated primary or backup DCH)

Application status (**aaaa**):

**APRI** = Awaiting PRI response  
**CPRI** = Checking PRI  
**DIAG** = application has failed  
**DSBL** = application is disabled  
**OPER** = link is operational  
**RST** = application is in reset state  
**SDCH** = Setting D-channel

Link status (**bbbb**):

**AEST** = Awaiting establishment  
**ARLS** = Awaiting release  
**EST ACTV** = DCH link is established and active  
**EST STBY** = DCH link is established and is the standby  
**FAIL** = DCH link has failed  
**REST** = request establishment  
**RLS** = DCH link is released  
**RST** = DCH link is in reset state  
**TST** = Test mode

STAT MON (x) Display the incoming and outgoing monitoring status of one or all D-channels.

## STAT NCAL <DCH#>

List all current call-independent connections on a given PRI D-channel.

The response format is as follows:

**NCAL CONN\_ID:** The connection ID number is a number in the range of 1-9999 that identifies the call independent connection on a given DCH.

**CREF:** call reference number in HEX identifying independent connection

**STATE:** current state of all call-independent connections (**IDLE**, **CONN\_REQ**, **CONN\_EST**)

**TIME:** year month day hour:minute:second (the time when call independent connection request is made)

**APPL:** applications using the call-independent connection (eg. NACD, NMS, ...)

**ORIG:** originator

**DEST:** destination

## STAT NCAL <DCH#> <conn\_ID>

List information pertaining to a specific call-independent connection as defined by its connection ID number.

The response format is as follows:

**NCAL CONN\_ID:** The connection ID number is a number in the range of 1-9999 that identifies the call independent connection on a given DCH.

**CREF:** call reference number in HEX identifying independent connection

**STATE:** current state of all call-independent connections (**IDLE**, **CONN\_REQ**, **CONN\_EST**)

**TIME:** year month day hour:minute:second (the time when call independent connection request is made)

**APPL:** applications using the call-independent connection (eg. NACD, NMS, ...)

**ORIG:** originator

**DEST:** destination

## STAT SERV (x)

Get the enable/disable status of services messages for one or all D-channels. See "ENL SERV" for details.

|                         |                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| STAT TMDI<br><x> <FULL> | Report the status of the TMDI card, or all TMDI cards. If status is provided for all cards, status consists of enabled or disabled condition. If status is provided for only one card, the status also includes individual port condition. If the FULL option is used, the status includes information about the card ID and firmware installed on the card. |
| TEST LLB x              | Start local loop back test on TMDI DCH x. See “ENL TEST” command for details.                                                                                                                                                                                                                                                                                |
| TEST RLB x              | Start remote loop back test on TMDI DCH x. See “ENL TEST” command for details.                                                                                                                                                                                                                                                                               |

---

# LD 96

|         |               |
|---------|---------------|
| Issued: | November 1998 |
| Status: | Draft         |

---

## LD 97—Configuration Record 2

---

Overlay program 97 is used to specify several system parameters for XPE and other related equipment. These parameters include the minimum flash timing to download to the XPE packs when required.

Loss and Level Plan information may also be specified. Refer to the *International Loss and Level Plan planning and engineering* NTP for information regarding Loss and Level Plans prior to making any changes to the parameters defined in this Overlay.

## Prompts and responses

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---

## SUPL: Superloop parameters data block

| Prompt | Response | Comment                                          |
|--------|----------|--------------------------------------------------|
| REQ    | aaa      | Request (CHG, END, PRT)                          |
| TYPE   | SUPL     | Type = SUPL (Superloop)                          |
| SUPL   | 0-156    | Superloop number in multiples of 4               |
| XPE0   | x y z    | Extended Peripheral Equipment controller 0 (STD) |
| XPE1   | x y z    | Extended Peripheral Equipment controller 1 (STD) |

---

## SYSM: System Parameters for MSDL/MISP card

| Prompt | Response    | Comment                                             |
|--------|-------------|-----------------------------------------------------|
| REQ    | aaa         | Req = CHG or PRT                                    |
| TYPE   | SYSM        | Type = SYSM (System parameters for MSDL/MISP cards) |
| FDLC   | p1 p2 p3 p4 | Fast Download Control parameters                    |

---

## SYSP: System parameters for Peripheral Equipment

---

| Prompt | Response    | Comment                                                  |
|--------|-------------|----------------------------------------------------------|
| REQ    | aaa         | Req = CHG or PRT                                         |
| TYPE   | SYSP        | Type = SYSP (System parameters for Peripheral equipment) |
| INTN   | (NO) YES    | International companding law                             |
| CODE   | (0)-3       | Quite Code is used by Network Card firmware              |
| CONT   | 1-(4)-32767 | Continuity                                               |
| CRCF   | 1-(4)-32767 | Cyclic Redundancy Check (CRC) Failures                   |
| FLSH   | (120)-168   | Flash timing                                             |
| P10R   | (50)-70     | Pulse 10 Ratio                                           |
| P12R   | (50)-70     | Pulse 12 Ratio                                           |
| P20R   | (50)-70     | Pulse 20 Ratio                                           |

## XCTP: Conference/TDS/MF Sender card parameters data block

---

| Prompt | Response   | Comment                                                |
|--------|------------|--------------------------------------------------------|
| REQ    | aaa        | Request (CHG, END, PRT)                                |
| TYPE   | XCTP       | Type = XCTP (Conference/TDS/MF Sender card parameters) |
| CPAD   | x          | Conference PAD (x = (0) or 1)                          |
| DTMF   | 0-(14)-255 | Dual Tone Multifrequency                               |
| P10P   | 0-(30)-255 | Primary 10 Pulses per second                           |
| S10P   | 0-(31)-255 | Secondary 10 Pulses per second                         |
| 20PP   | 0-(32)-255 | 20 Pulses Per second                                   |

---

---

## XPE: Extended Peripheral Equipment shelf data block

| Prompt | Response | Comment                                            |
|--------|----------|----------------------------------------------------|
| REQ    | aaa      | Request (aaa = CHG, END, PRT)                      |
| TYPE   | XPE      | Type = XPE (Extended Peripheral Equipment shelves) |
| XPEC   | (0)-95   | Extended Peripheral Equipment Controller           |
| LOC    | xxxxxx   | Location code for Peripheral Controller            |
| MED    | (COP)    | Connection Media to Peripheral Controller          |
| RGTP   | x        | Ringin Generator Type (x = (8) or 16)              |

## Print information on Superloop or Extended PE shelves

| Prompt | Response | Comment                                  |
|--------|----------|------------------------------------------|
| REQ    | PRT      | Req = PRT                                |
| TYPE   | aaaa     | Type = SUPL or XPE                       |
| SUPL   | 0-156    | Superloop number in multiples of 4       |
| XPE    | 1-95     | Extended Peripheral Equipment controller |

## Alphabetical list of prompts

| Prompt | Response    | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 20PP   | 0-(32)-255  | 20 Pulses Per second<br>Tone table index for primary 20 pulses per second (pps) digit set. Use 32 for North American tones. Tone tables are defined in LD 56.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CODE   | (0)         | Quite Code is used by Network Card firmware<br>0 is the only valid entry. Entries 1-3 are for future use.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| CONT   | 1-(4)-32767 | Continuity. Maintenance threshold for number of continuity faults per timeslot.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| CPAD   | (0)<br>1    | Conference PAD<br>Use software PAD values<br>Use PAD values defined by switch settings on pack (NT8D17). The CNFC command in LD 38 will not do the attenuation testing when CPAD = 1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| CRCF   | 1-(4)-32767 | Cyclic Redundancy Check (CRC) Failures                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| DTMF   | 0-(14)-255  | Dual Tone Multifrequency (Tone table index of the first DTMF digit to be used). Use 14 for North American tones.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| FDLC   | p1 p2 p3 p4 | Fast Download Control parameters. Where <b>p1</b> can be: <ul style="list-style-type: none"> <li>1. (ALL) = All cards listed below</li> <li>2. DCH = D-Channel cards</li> <li>3. MSDL = Multipurpose Serial Data Link cards</li> <li>4. PRIE = Primary Rate Interface Universal ISDN Protocol Engine</li> <li>5. T1E1 = T1/E1 Multipurpose Digital Interface cards</li> <li>6. DITI = Digital Trunk Interface</li> </ul> Where <b>p2</b> can be: <ul style="list-style-type: none"> <li>1. (C) = Conditional download (only if there is a major fault in the firmware or after a power failure). "C" is the recommended setting.</li> <li>2. F = Force download after initialization. Entering "F" only applies to the first INIT following the entry. After the INIT, the system reverts to C (conditional).</li> </ul> |

| Prompt | Response    | Comment                                                                                                                                                                                                                                                                                                                                                    |
|--------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|        |             | <p>Where <b>p3</b> can be:</p> <ol style="list-style-type: none"> <li>1. (C) = Current version</li> <li>2. L = Latest version</li> <li>3. S = Specified version</li> </ol> <p>Where <b>p4</b> is :</p> <ul style="list-style-type: none"> <li>• xx (version number, if p3 = S).</li> </ul> <p>See LD 20-22 to print versions.</p>                          |
| FLSH   |             | Flash timing                                                                                                                                                                                                                                                                                                                                               |
|        | (120)-768   | <p>Switchhook Flash timing</p> <p>Establishes Switchhook Flash time in milliseconds for 500/2500 sets</p>                                                                                                                                                                                                                                                  |
| INTN   | (NO)<br>YES | <p>µ- International companding Law</p> <p>A- International companding Law</p>                                                                                                                                                                                                                                                                              |
| LOC    | xxxxxx      | <p>Location code for Peripheral Controller (0-6 characters)</p> <p>Should be equal to the column number assigned to the System Monitor and the Universal Equipment Module (UEM) that contains the Controller.</p> <p>For example: CxxMy</p> <p>Where:</p> <ul style="list-style-type: none"> <li>• xx = column number</li> <li>• y = UEM number</li> </ul> |
| MED    | (COP)       | Connection Media to Peripheral Controller (copper cabling)                                                                                                                                                                                                                                                                                                 |
| P10P   | 0-(30)-255  | <p>Primary 10 Pulses per second</p> <p>Tone table index for primary 10 pulses per second (pps) digit set. Use 30 for North American tones.</p>                                                                                                                                                                                                             |
| P10R   | (50)-70     | <p>Pulse 10 Ratio (make-break ratio for 10 PPS dial pulse dialing)</p> <p>Range is 50% to 70%, in steps of 1. For example, at 70% the signal is on for 30 ms and off for 70 ms producing the 100 ms cycle for one pulse.</p>                                                                                                                               |

# LD 97

| Prompt | Response          | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P12R   | (50)-70           | Pulse 12 Ratio (make-break ratio for 12 PPS dial pulse dialing)<br><br>Range is 50% to 70%, in steps of 1. For example, at 70% the signal is on for 30 ms and off for 70 ms producing the 100 ms cycle for one pulse.                                                                                                                                                                                                                                                                                                                                                  |
| P20R   | (50)-70           | Pulse 20 Ratio (make-break ratio for 20 PPS dial pulse dialing)<br><br>Range is 50% to 70%, in steps of 1. For example, at 70% the signal is on for 15 ms and off for 35 ms producing the 50 ms cycle for one pulse.                                                                                                                                                                                                                                                                                                                                                   |
| REQ    | CHG<br>END<br>PRT | Request<br>Modify existing data<br>Exit overlay<br>Print data block                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| RGTP   | (8) 16            | Ring Generator Type (8 or 16 concurrent ringers; 16 requires NT6D42CA Ringing Generator). This prompt determines the maximum number of 500/2500 telephones which can be in the active ringing state at the same time.<br><br>CAUTION: Do not set RGTP = 16 if you do not have the NT6D42 ringing generator. Exceeding the ringer capacity may cause intermittent overload alarms on the ringing generator.<br><br>The value is not passed to the Peripheral Controller card immediately after service change. That information is downloaded when the card is enabled. |
| S10P   | 0-(31)-255        | Secondary 10 Pulses per second<br><br>Tone table index for secondary 10 pulses per second (pps) digit set. Use 31 for North American tones. Tone tables are defined in LD 56.                                                                                                                                                                                                                                                                                                                                                                                          |
| SLOT   | (L) R             | Network Card is in Left or Right slot<br><br>Enter L (left) if the Network Card is located in the lower numbered network pair. For example, in superloop 0, enter L if the Network Card sits in the slot for network loops 0/1, enter R (right) for 2/3.                                                                                                                                                                                                                                                                                                               |
| SUPL   | 0-156<br>N0-N156  | Superloop number in multiples of 4<br>Precede loop number with N to create a phantom loop                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

| Prompt | Response     | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|--------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TYPE   |              | Type of data block<br><br>When modifying PE system parameters, the system must initialize for the changes to come into effect. The loop number for the Conference/TDS/MFS card is defined by prompt XCT in LD 17.                                                                                                                                                                                                                                                                                      |
|        | SYSM<br>SYSP | System parameters for MSDL/MISP cards.<br>System parameters. When modifying the PE system parameters, the system must initialize for the changes to come into effect.                                                                                                                                                                                                                                                                                                                                  |
|        | SUPL<br>XCTP | Superloop parameters<br>Conference/TDS/MF Sender card parameters. The loop number for the NT8D17 Conference/TDS/MFS card is defined by prompt XCT in LD 17.                                                                                                                                                                                                                                                                                                                                            |
|        | XNPD         | Extended Network/Digitone Receiver (Release 21 and earlier)                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|        | XPE          | Extended Peripheral Equipment shelves                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| XPE0   | x y z        | Extended Peripheral Equipment controller 0<br>Peripheral Controller number, starting segment and ending segment<br><br>Define the superloop configuration, where: <ul style="list-style-type: none"> <li>• x = Controller number (1-95) for superloop's shelf 0</li> <li>• y = starting shelf segment number (0-3)</li> <li>• z = ending shelf segment number (0-3)</li> </ul> Enter: X to remove XPE0 or <cr> Return to REQ prompt.                                                                   |
| XPE1   | x y z        | Extended Peripheral Equipment controller 1<br>Peripheral Controller number, starting segment and ending segment<br><br>Define the superloop configuration, where: <ul style="list-style-type: none"> <li>• x = Controller number (1-95) for superloop's shelf 1</li> <li>• y = starting shelf segment number (0-3)</li> <li>• z = ending shelf segment number (0-3)</li> </ul> Enter: <ul style="list-style-type: none"> <li>• X to remove XPE1</li> <li>• &lt;cr&gt; Return to REQ prompt.</li> </ul> |

# LD 97

| Prompt | Response | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| XPEC   | (0)-95   | <p>Extended Peripheral Equipment Controller (assign Peripheral Controller numbers; 0 for automatic)</p> <p>Block is built with segments of the peripheral shelf (RCI or FXPEC) which are associated with this SUPL (LCI or FXNET)</p> <p>Where:</p> <p>0 = Automatically assign Controller numbers. The system assigns the next available Controller number.</p> <p>1-95 = Manually assign Controller numbers</p> <p>Precede with X to remove. Remove all cards/TNs in the Controller shelf first. XPEC is prompted if SUPT=CARR or FIBR.</p> |

---

# LD 117—Ethernet and Alarm Management

---

This overlay command format allows the administrator to:

1. configure the Alarm Management feature
2. identify all Meridian 1 alarms
3. configure IP network interface addresses
4. perform all IP network related maintenance and diagnostic functions

Both Administration and Maintenance commands appear in this overlay.

## New Command Format

LD 117 uses a command line input interface (input parser) which has the following general structure (where “=>” is the command prompt):

```
=> COMMAND OBJECT [(FIELD1 value) (FIELD 2 value)... (FIELDx value)]
```

LD 117 offers the administrator the following configuration features:

1. **Context Sensitive Help** - Help is offered when “?” is entered. The Help context is determined by the position of the “?” entry in the command line. If you enter “?” in the COMMAND position, Help text will appear which presents all applicable command options. If you enter “?” in the OBJECT position, HELP text will appear which presents all applicable OBJECT options.
2. **Abbreviated Inputs** - The new input parser will recognize abbreviated inputs for commands, objects and object fields. For example, “N” can be entered for the command “NEW” or “R” can be entered for the object “Route”.

3. **Optional Fields** - Object fields with default values can be bypassed by the user on the command line. For example, to configure an object which consists of fields with default values, enter the command, enter the object name, press <return>, and the object will be configured with default values. All object fields do not have to be specified.
4. **Selective Change** - Instead of searching for a prompt within a lengthy prompt-response sequence, “Selective Change” empowers the administrator to directly access the object field to be changed.
5. **Service Change Error Message Consistency** - The parser simplifies usage of service change error messages. LD 117 displays only SCH0099 and SCH0105.

## New Alarm Management Capability

With the Alarm Management feature, all *processor-based system events* are processed and logged into a new disk-based System Event List (SEL). Events which are generated as a result of administration activities, such as SCH or ESN error messages, *are not* logged into the SEL. Events which are generated as a result of maintenance or system activities, like BUG and ERR error messages, *are* logged into the SEL. Unlike the previous System History File, this new System Event List survives Sysload, Initialization and power failures.

### The Event Collector

The Event Collector captures and maintains a list of all processor-based system events. The Event Collector also routes critical events to FIL TTY ports and lights the attendant console minor alarm lamp as appropriate. The System Event List (SEL) can be printed or browsed.

### The Event Server

The *Event Server* consists of two components:

1. **Event Default Table (EDT)**: This table associates events with a default severity. By using the CHG EDT command in LD 117, the EDT can be overridden so that all events default to a severity of either INFO or MINOR. The EDT can be viewed in LD 117.

### Sample Event Default Table (EDT)

| Error Code | Severity |
|------------|----------|
| ERR220     | Critical |
| IOD6       | Critical |
| BUG4001    | Minor    |

**Note:** Error codes which do not appear in the EDT will be assigned a default severity of MINOR.

2. Event Preference Table (EPT): This table contains site-specific preferences for event severities as well as criteria for severity escalation and alarm suppression. The administrator can configure the EPT to:
  - a override the default event severity assigned by the default table
  - b escalate event severity of frequently occurring minor or major alarms

### Sample Event Preference Table (EPT)

| Error Code          | Severity | Escalate Threshold (events/60 sec.) (see Note 2) |
|---------------------|----------|--------------------------------------------------|
| ERR??? (see Note 1) | Critical | 5                                                |
| INI???              | Default  | 7                                                |
| BUG1??              | Minor    | 0                                                |
| HWI363              | Major    | 3                                                |

**Note 3:** The “?” is a wildcard. See section below for explanation of wildcard entries.

**Note 4:** The window timer length defaults to 60 seconds. However, this value can be changed by the Administrator. Read [“Global Window Timer Length” on page 832](#) for more information.

### Wildcards

The special wildcard character “?” can be entered for the numeric segment of an error code entry in the EPT to represent a range of events. All events in the range indicated by the wildcard entry can then be assigned a particular severity or escalation threshold.

For example, if “ERR????” is entered and assigned a MAJOR severity in the EPT, all events from ERR0000 to ERR9999 are assigned MAJOR severity. If “BUG3?” is entered and assigned an escalation threshold of 5, the severity of all events from BUG0030 to BUG0039 will be escalated to the next higher severity if their occurrence rate exceeds 5 per time window.

## Escalation and Suppression Thresholds

The escalation threshold specifies a number of events per window timer length that when exceeded, will cause the event severity to be escalated up one level. The window timer length is set to 1 minute by default. Escalation occurs only for minor or major alarms. Escalation threshold values must be less than the universal suppression threshold value.

A suppression threshold suppresses events that flood the system and applies to all events. It is set to 15 events per minute by default.

### Global Window Timer Length

Both the escalation and suppression thresholds are measured within a global window timer length. The window timer length is set to 1 minute by default. However, the window timer length can be changed by using the CHG TIMER command in LD 117.

## TTY Output Format of Events

TTY event output can be formatted or unformatted. Formatted output is also called fancy format. Output format is configurable in LD 117 using the CHG FMT\_OUTPUT command.

### Fancy Format Output

Formatted output appears in the following template:

```
<severity> <report id> <date> <time> <prim_seq_no> <cp_id> <cp_ad>
DESCTXT: <descriptive text>
OPRDATA: <operator data>
EXPDATA: <expert data>
```

| Field              | Description                                                                                                                                                                                                                                                                                           |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <severity>         | "****" (critical); "***" (major); "**" (minor); " " (blank for info)                                                                                                                                                                                                                                  |
| <report id>        | The report id consists of an event category (e.g. BUG, ERR, etc.) and an event number (1200, 230, etc.). It is padded with blanks at the end to ensure it is 9 characters long (4 characters max. for category and 5 digits max. for number). Examples of report ids are: ERR230, ACD3560, and BUG30. |
| <date>             | DD/MM/YY                                                                                                                                                                                                                                                                                              |
| <time>             | HH:MM:SS                                                                                                                                                                                                                                                                                              |
| <prim_seq_no>      | Primary sequence number of the event (length of 5 digits)                                                                                                                                                                                                                                             |
| <cp_id>            | The Component ID is a 15 character string which indicates the id of the subsystem generating the alarm                                                                                                                                                                                                |
| <cp_ad>            | The Component address is a 15 character string which indicates the address of the subsystem generating the event                                                                                                                                                                                      |
| <descriptive text> | This is an optional string which describes an event                                                                                                                                                                                                                                                   |
| <operator data>    | This is an optional field which holds a 160 character string containing extra text or data to assist the operator in clearing a fault. This field contains any data output with a filtered SL-1 alarm (e.g. loop number, TN, etc.)                                                                    |
| <expert data>      | This is an optional variable length character string which contains extra text or data for a system expert or designer.                                                                                                                                                                               |

The following are samples of fancy format output:

```
*** BUG015 15/12/95 12:05:45 00345
EXPDATA: 04BEF0FC 05500FBA 05500EE2 05500EC6 05500EAA
BUG015 + 05500E72 + 05500E56 + 0550D96 + 055053A + 04D84E02 +
04D83CFC
BUG015 + 04D835CA 04D81BAE 04D7EABE 04F7EABE 04F7EDF2 04F7EFC
04F7E1B0
```

```
* ERR00220 15/12/92 12:05:27 00346
OPRDATA: 51
```

```
VAS0010 15/12/92 12:06:11 00347 VMBA VAS 5
```

## Unformatted Output

Unformatted data consists of only the report ID and perhaps additional text.  
The following is a sample of unformatted output:

```
BUG015
BUG015 + 04BEF0FC 05500FBA 05500EE2 05500EAA 0550E8E
BUG015 + 05500E72 05500E56 05500D96 0550053A 04D84E02
BUG015 + 04D835CA 04D81BAE 04D7EABE 04F7EDF2 04F7E2FC 04&E1B0
BUG015 + 04F7E148

ERR00220 51
VAS0010
```

## Ethernet and Point-to-Point Protocol

LD 117 may be used to configure and manage an IP network interface. The Meridian 1 is hardware-equipped for this advance with an Ethernet controller on the Small System Controller (SSC) card. Each SSC card is equipped with a Local Area Network Controller for Ethernet which is preconfigured with an unique Ethernet address.

An Ethernet address is a unique 48-bit long physical address assigned to the Ethernet controller on the SSC. On a single CPU M1 system, there is only one SSC which contains one Ethernet interface and an IP address which must be configured. Single CPU systems use only a Primary IP address.

Remote access to Meridian 1 switches is made possible with Point-to-Point Protocol (PPP). LD 117 may be used to configure IP addresses for Point-to-Point Protocol.

The Meridian 1 Ethernet interface is provided by the SSC pack with AUI cable on the back panel. The Point-to-Point Protocol (PPP) can be established via asynchronous connection to any Meridian 1 SDI port. The IP addresses for Ethernet and PPP interface can be configured in overlay 117, and defaults will be used for all new installation and upgrades.

## How to Configure Ethernet and Point-to-Point Protocol

The following tables explain how to configure IP addresses for Ethernet and Point-to-Point Protocol. These two tables are followed by examples.

| <b>Configure IP address for the Ethernet Interface</b> |                                                        |
|--------------------------------------------------------|--------------------------------------------------------|
| <b>Step</b>                                            | <b>Action</b>                                          |
| 1                                                      | Load Overlay 117                                       |
| 2                                                      | Create host entries                                    |
| 3                                                      | Assign host to primary and/or secondary IP address(es) |
| 4                                                      | Set up Ethernet subnet mask                            |
| 5                                                      | Set up routing entry                                   |

| <b>Configure IP address for the Point-to-Point Protocol Interface</b> |                                                        |
|-----------------------------------------------------------------------|--------------------------------------------------------|
| <b>Step</b>                                                           | <b>Action</b>                                          |
| 1                                                                     | Load Overlay 117                                       |
| 2                                                                     | Create host entries                                    |
| 3                                                                     | Assign host to primary and/or secondary IP address(es) |

### Example 1 Configure IP address for the Ethernet Interface

**Given:** Primary IP address: 47.1.1.10 ; Secondary IP address: 47.1.1.11; Subnet mask: 255.255.255.0; Default Gateway IP: 47.1.1.1

| Step | Action                                                                                                                                                                                                                                                    |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Load Overlay 117                                                                                                                                                                                                                                          |
| 2    | Create host entries. Enter one of the following commands:<br>NEW HOST PRIMARY_IP 47.1.1.10<br>NEW HOST SECONDARY_IP 47.1.1.10 (for Dual CPU only)<br>NEW HOST GATEWAY_IP 47.1.1.10 (if connected to customer LAN)                                         |
| 3    | Assign host to primary and/or secondary IP address(es). Enter one of the following commands:<br>CHG ELNK ACTIVE PRIMARY_IP<br>CHG ELNK INACTIVE SECONDARY_IP (for Dual CPU only)<br>Verify your IP address for Ethernet by entering the PRT ENLK command. |
| 4    | Set up Ethernet subnet mask. Enter the command:<br>CHG MASK 255.255.255.0<br>Verify subnet mask setting by entering the command: PRT MASK                                                                                                                 |
| 5    | Set up routing entry. Enter the command:<br>NEW ROUTE 0.0.0.0 47.1.1.1 (if connected to customer LAN)<br>*Note that 0.0.0.0 = network IP; 47.1.1.1 = gateway IP<br>Verify default routing by entering the command: PRT ROUTE                              |

**Note 1:** For a single CPU machine, the secondary IP is not used.

**Note 2:** The secondary IP is only accessible when a system is in split mode.

**Note 3:** The subnet mask must be the same value used for the M1 Ethernet network.

**Note 4:** The M1 private Ethernet is used by all M1 devices for system access and control. An internet gateway must be used to isolate the M1 private Ethernet from the customer LAN.

**Note 5:** Routing information is required if an internet gateway or router connects an M1 private network to the customer's LAN.

## Example 2 Configure IP address for the Point-to-Point Protocol Interface

**Given:** Local IP address: 172.1.1.1; Remote IP address 100.1.1.1

| Step | Action                                                                                                                                                                                                                                                                             |
|------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Load Overlay 117                                                                                                                                                                                                                                                                   |
| 2    | Create host entries. Enter one of the following commands:<br>NEW HOST LOCAL_PPP 172.1.1.1<br>NEW HOST REMOTE_PPP 100.1.1.1 (this entry is optional)                                                                                                                                |
| 3    | Assign host to primary and/or secondary IP address(es). Enter one of the following commands:<br>CHG PPP LOCAL LOCAL_PPP 0 (always use interface #0)<br>CHG PPP REMOTE REMOTE_PPP 0 (this entry is optional)<br>Verify your IP address(es) for PPP by entering the PRT PPP command. |

## Command and Object Descriptions

### Command Descriptions

| Command | Definition | Description                              |
|---------|------------|------------------------------------------|
| ****    | Abort      | Abort overlay                            |
| BROWSE  | Browse     | Browse an existing System Event List     |
| CHG     | Change     | Change/modify object configuration       |
| DIS     | Disable    | Disable Point-to-Point Protocol          |
| ENL     | Enable     | Enable Point-to-Point Protocol           |
| NEW     | New        | Add and configure new object             |
| OUT     | Out        | Delete existing object                   |
| PRT     | Print      | Print configuration of existing object   |
| RST     | Reset      | Reset Object                             |
| SET     | Set        | Set ELNK subnet mask to configured value |
| STAT    | Status     | Display object statistics                |
| UPDATE  | Update     | Update INET database                     |

## Object Descriptions

| Object        | Description                                                                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DBS           | Database                                                                                                                                                                                   |
| EDT           | Event Default Table: Table of default event entries and associated severities                                                                                                              |
| ELNK          | Ethernet interface                                                                                                                                                                         |
| ELNK ACTIVE   | Active Ethernet Link: Change the Primary IP address and host name                                                                                                                          |
| ELNK INACTIVE | Inactive Ethernet Link: Change the Secondary IP address and host name                                                                                                                      |
| EPT           | Event Preference Table: Table of customer's event entries with associated severities                                                                                                       |
| FMT_OUTPUT    | Formatted Output: Determine if system events uses formatted (also called fancy) or unformatted output. See <a href="#">"TTY Output Format of Events" on page 833</a> for more information. |
| HOST          | Host name                                                                                                                                                                                  |
| MASK          | Subnet mask                                                                                                                                                                                |
| OPEN_ALARM    | Open Simple Network Management Protocol (SNMP) traps setting                                                                                                                               |
| PPP           | Point-to-Point Protocol interface                                                                                                                                                          |
| PPP LOCAL     | Local Point-to-Point Protocol interface address                                                                                                                                            |
| PPP REMOTE    | Remote Point-to-Point Protocol interface address                                                                                                                                           |
| PTM           | Point-to-Point Protocol idle Timer                                                                                                                                                         |
| ROUTE         | Configure new routing entry                                                                                                                                                                |
| SELSIZE       | System Event List Size: Number of events in System Event Log                                                                                                                               |
| SEL           | System Event List                                                                                                                                                                          |
| SUPPRESS      | Suppress count: Number of times the same event is processed before it is suppressed                                                                                                        |
| TIMER         | Global window timer length. See <a href="#">"Global Window Timer Length" on page 832</a> for more information.                                                                             |

## Alphabetical list of Administration commands

The commands listed below use the following general structure (where “=>” is the command prompt):

=> COMMAND OBJECT [(FIELD1 value) (FIELD 2 value)... (FIELDx value)]

In the table below, COMMANDS and OBJECTS are in bold typeface and fields are in regular typeface. Fields enclosed in brackets ( ) are default values.

| => Command                        | Description                                                                                                                                                                                                                                                                                                                                       |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>BROWSE SEL UP</b> n            | Browse up n # of lines in System Event List (SEL)                                                                                                                                                                                                                                                                                                 |
| <b>BROWSE SEL DOWN</b> n          | Browse down n # of lines in SEL                                                                                                                                                                                                                                                                                                                   |
| <b>BROWSE SEL TOP</b>             | Browse to top of SEL                                                                                                                                                                                                                                                                                                                              |
| <b>BROWSE SEL BOT</b>             | Browse to bottom of SEL                                                                                                                                                                                                                                                                                                                           |
| <b>BROWSE SEL FIND</b> xxx        | Browse forward to find string xxx in SEL                                                                                                                                                                                                                                                                                                          |
| <b>BROWSE SEL BFIND</b> xxx       | Browse backward to find string xxx in SEL                                                                                                                                                                                                                                                                                                         |
| <b>CHG EDT NORMAL</b>             | Use Event Default Table (EDT) default severities                                                                                                                                                                                                                                                                                                  |
| <b>CHG EDT INFO</b>               | Override EDT; use INFO as default severity for all events except those specified in Event Preference Table (EPT)                                                                                                                                                                                                                                  |
| <b>CHG EDT MINOR</b>              | Override EDT; use MINOR as default severity for all events except those specified in Event Preference Table (EPT)                                                                                                                                                                                                                                 |
| <b>CHG ELNK ACTIVE</b> hostname   | Set Meridian 1 active Ethernet interface IP address                                                                                                                                                                                                                                                                                               |
| <b>CHG ELNK INACTIVE</b> hostname | Set Meridian 1 inactive Ethernet interface IP address                                                                                                                                                                                                                                                                                             |
| <b>CHG EPT</b> aa... a INFO x     | Change an Event Preference Table (EPT) entry to Information severity, where: <ul style="list-style-type: none"> <li>aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul> |

| => Command                        | Description                                                                                                                                                                                                                                                                                                              |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CHG EPT</b> aa... a EDT x      | Change EPT to NT-defined severity from EDT, where: <ul style="list-style-type: none"><li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li><li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li></ul> |
| <b>CHG EPT</b> aa... a MAJOR x    | Change an EPT entry to Major severity, where: <ul style="list-style-type: none"><li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li><li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li></ul>      |
| <b>CHG EPT</b> aa... a MINOR x    | Change an EPT entry to Minor severity, where: <ul style="list-style-type: none"><li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li><li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li></ul>      |
| <b>CHG EPT</b> aa... a CRITICAL x | Change an EPT entry to Critical severity, where: <ul style="list-style-type: none"><li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li><li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li></ul>   |
| <b>CHG FMT_OUTPUT</b> OFF         | Turn off formatted output                                                                                                                                                                                                                                                                                                |
| <b>CHG FMT_OUTPUT</b> ON          | Turn on formatted output                                                                                                                                                                                                                                                                                                 |
| <b>CHG MASK</b> nnn.nnn.nnn.nnn   | Change subnet mask                                                                                                                                                                                                                                                                                                       |
| <b>CHG PPP LOCAL</b> hostname     | Set Meridian 1 local Point-to-point Protocol interface IP address                                                                                                                                                                                                                                                        |
| <b>CHG PPP REMOTE</b> hostname    | Set Meridian 1 remote Point-to-point Protocol interface IP address                                                                                                                                                                                                                                                       |
| <b>CHG PTM</b> 0-60               | Change Point-to-point Protocol idle timer to specified value (in minutes)                                                                                                                                                                                                                                                |
| <b>CHG SELSIZE</b> 5-(500)-2000   | Change System Event List Size (number of events in SEL)                                                                                                                                                                                                                                                                  |

| => Command                        | Description                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>CHG SUPPRESS</b> 5-(15)-127    | Change global suppress for events (number of occurrences before event is suppressed)                                                                                                                                                                                                                                                  |
| <b>CHG TIMER</b> (1)-60           | Change global timer window length in minutes. See <a href="#">“Global Window Timer Length” on page 832</a> for more information.                                                                                                                                                                                                      |
| <b>NEW EPT</b> aa... a INFO x     | Assign Information severity to new EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul>         |
| <b>NEW EPT</b> aa... a EDT x      | Assign NT-defined severity from EDT to new EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul> |
| <b>NEW EPT</b> aa... a MAJOR x    | Assign Major severity to new EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul>               |
| <b>NEW EPT</b> aa... a MINOR x    | Assign Minor severity to new EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul>               |
| <b>NEW EPT</b> aa... a CRITICAL x | Assign Critical severity to new EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> <li>• x = optional entry to escalate value of EPT entry from (0)-Suppress value, as defined by default or your <b>CHG SUPPRESS</b> entry.</li> </ul>            |

| => Command                            | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>NEW HOST</b> hostname IPaddress    | <p>Configure a new host entry. The host name must exist in the host table.</p> <p>The default setting for the Primary IP address is: 137.135.128.253. The default setting for Primary Host Name is: PRIMARY_ENET.</p> <p>The default setting for the Secondary IP address is: 137.135.128.254. The default setting for the Secondary Host Name is: SECONDARY_ENET.</p> <p><b>Host Name Syntax:</b> A host name can be up to 16 characters in length. The first character of a host name must be a letter of the alphabet. A character may be a letter, number, or underscore(_). A period is used as a delimiter between domain names. Spaces and tabs are not permitted. No distinction is made between upper and lower case.</p> |
| <b>NEW ROUTE</b> networkIP gateway IP | Configure a new routing entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>OUT EPT</b> aa... a                | <p>Delete a single Event Preference Table (EPT) events, where:</p> <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>OUT EPT</b> ALL                    | Delete all entries in Event Default Table (EDT)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>OUT HOST</b> nnn                   | Delete configured host entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>OUT ROUTE</b> nn                   | Delete configured routing entry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>PRT EDT</b> aa... a                | <p>Print a single Event Default Table (EDT) event, where:</p> <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>PRT EDT</b> aa... a bb...b         | <p>Print a range of Event Default Table (EDT) events, where:</p> <ul style="list-style-type: none"> <li>• aa... a = first entry in EDT event range (e.g. BUG1000, ERR0025)</li> <li>• bb...b = last entry in EDT event range (e.g. BUG1000, ERR0025)</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>PRT ELNK</b>                       | Print active and inactive Ethernet interface IP addresses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| => Command             | Description                                                                                                                                                                                                                                              |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PRT EPT aa... a        | Print a single Event Preference Table (EPT) entry, where: <ul style="list-style-type: none"> <li>• aa... a = an event class with an event number (e.g. BUG1000, ERR0025)</li> </ul>                                                                      |
| PRT EPT aa... a bb...b | Print specific Event Preference Table (EPT) entry, where: <ul style="list-style-type: none"> <li>• aa... a = first entry in EPT event range (e.g. BUG1000, ERR0025)</li> <li>• bb...b = last entry in EPT event range (e.g. BUG1000, ERR0025)</li> </ul> |
| PRT EPT ALL            | Print all entries in Event Preference Table (EPT)                                                                                                                                                                                                        |
| PRT FMT_OUTPUT         | Print formatted output string                                                                                                                                                                                                                            |
| PRT HOST               | Print network host table entry(ies) information stored in database                                                                                                                                                                                       |
| PRT MASK               | Print subnet mask stored in database                                                                                                                                                                                                                     |
| PRT OPEN_ALARM         | Print open Simple Network Management Protocol (SNMP) traps setting                                                                                                                                                                                       |
| PRT PPP                | Print Point-to-point Protocol interface address(es)                                                                                                                                                                                                      |
| PRT PTM                | Print current Point-to-point Protocol idle timer settings                                                                                                                                                                                                |
| PRT ROUTE              | Print routing table entry(ies) information stored in database                                                                                                                                                                                            |
| PRT SEL nn             | Print most recent record(s) in system event list, where: nn = 0-(20)-SELSIZE. For example, if nn = 50, the 50 most recent events in the system event list will be printed.                                                                               |
| PRT SELSIZE            | Print System Event List size                                                                                                                                                                                                                             |
| PRT SUPPRESS           | Print global suppress value                                                                                                                                                                                                                              |
| PRT TIMER              | Print global timer window length (in minutes). See <a href="#">“Global Window Timer Length” on page 832</a> for more information.                                                                                                                        |
| OUT EPT ALL            | Delete all entries in Event Preference Table (EPT)                                                                                                                                                                                                       |
| OUT EPT aa...a         | Delete a single EPT entry, where: <ul style="list-style-type: none"> <li>• aa... a = first entry in EPT event range (e.g. BUG1000, ERR0025)</li> </ul>                                                                                                   |
| RST ELNK ACTIVE        | Reset Meridian 1 active Ethernet interface IP address to default value                                                                                                                                                                                   |

# LD 117

| <b>=&gt; Command</b>     | <b>Description</b>                                                         |
|--------------------------|----------------------------------------------------------------------------|
| <b>RST ELNK INACTIVE</b> | Reset Meridian 1 inactive Ethernet interface IP address to default value   |
| <b>RST MASK</b>          | Reset subnet mask to default                                               |
| <b>RST PPP LOCAL</b>     | Reset local Point-to-point Protocol interface IP address to default value  |
| <b>RST PPP REMOTE</b>    | Reset remote Point-to-point Protocol interface IP address to default value |
| <b>RST PTM</b>           | Reset Point-to-point Protocol idle timer to default                        |
| <b>UPDATE DBS</b>        | Rebuild INET database and renumber host and route entry ID                 |

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## Alphabetical list of Maintenance Commands

Maintenance commands share the same entry format as Administration commands.

| => Command                         | Description                                                                                                                                                                       |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>DIS HOST</b> n                  | Remove a host from the run time host table, where:<br>n = host entry number                                                                                                       |
| <b>DIS PPP</b>                     | Disable Point-to-point Protocol access (this enables PPPD)                                                                                                                        |
| <b>DIS ROUTE</b> n                 | Remove a route from the run time routing table, where:<br>n = route entry number                                                                                                  |
| <b>ENL HOST</b> n                  | Add a host to run time host table, where: n = host entry number                                                                                                                   |
| <b>ENL PPP</b>                     | Enable Point-to-point Protocol access (Enables PPPD command)                                                                                                                      |
| <b>ENL ROUTE</b> n                 | Add a route to run time routing table, where: n = route entry number                                                                                                              |
| <b>SET MASK</b>                    | Set ELNK subnet mask to configured value                                                                                                                                          |
| <b>SET OPEN_ALARM slot address</b> | Add an SNMP (Simple Network Management Protocol) trap destination slot address from 0 to 7.<br>The address format is: x.x.x.x. (TCP/IP)<br>To clear slot, set address to 0.0.0.0. |
| <b>STAT HOST</b>                   | Display current runtime host table status                                                                                                                                         |
| <b>STAT PPP</b>                    | Show Point-to-point Protocol connection status                                                                                                                                    |
| <b>STAT ROUTE</b>                  | Display host and network routing table                                                                                                                                            |

# LD 117

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## LD 135—Core Common Equipment Diagnostic

---

LD 135 provides diagnostic and maintenance information. It provides a means of performing the following functions:

- clearing minor and major alarms
- clearing and printing maintenance display contents for the primary Core
- testing the idle Core
- displaying CP card status and ID

When a status appears disabled, one or more Out-of-Service (OOS) messages may appear. Listed below are the possible OOS messages. (What actually appears are the numbers associated with the OOS text).

### Possible OOS Messages

- 0 = CP local bus parity threshold exceeded
- 1 = CP card HPM timeout threshold exceeded
- 9 = Port has been disabled by craftsman.
- 10 = Device is not accessible.
- 20 = CNI card has been manually disabled.
- 21 = Card test failed.
- 22 = Port test failed.
- 24 = Port interrupt line 0 disabled.
- 25 = Port interrupt line 1 disabled.
- 26 = Port interrupt line 2 disabled.
- 27 = Port interrupt line 3 disabled.

# LD 135

## Basic Commands

|          |                                                                                                   |
|----------|---------------------------------------------------------------------------------------------------|
| CMAJ     | Clear major alarm, and reset power fail transfer.                                                 |
| CMIN     | Clear the minor lamp on a system basis                                                            |
| CMIN ALL | Clear minor alarm indication on all attendant consoles                                            |
| CMIN c   | Clear minor alarm indication on attendant consoles for customer c (not applicable for Release 22) |
| MIDN     | Run midnight routines after LD 135 is aborted and TTY is logged out.                              |
| STAT CPU | Get the status and core numbers for both CPs.                                                     |
| STAT MEM | Print amount of configured memory.                                                                |

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## Alphabetical list of commands

| Command  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CMAJ     | Clear major alarm, and reset power fail transfer.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| CMIN     | Clear the minor lamp on a system basis.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CMIN ALL | Clear minor alarm indication on all attendant consoles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| CMIN c   | Clear minor alarm indication on attendant consoles for customer c. (not applicable for Release 22)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| MIDN     | Run midnight routines after LD 135 is aborted and TTY is logged out.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| STAT CPU | <p>Get the status and core numbers for both CPs. Possible responses are:</p> <ul style="list-style-type: none"><li><b>ENBL</b> = CP is running</li><li><b>IDLE</b> = CP is in standby</li><li><b>DSBL</b> = CP is disabled</li></ul> <p>If the status is DSBL, one of the following OOS reasons is printed:</p> <ul style="list-style-type: none"><li>0 = CP card local bus parity threshold exceeded</li><li>1 = CP card sanity timeout threshold exceeded</li><li>10 = Secondary CP is not accessible</li><li>16 = Secondary CP has a major fault</li></ul> <p>This command also prints out the results of the latest self-test, and the position of the MAINT/NORM switch.</p> |
| STAT MEM | Print amount of configured memory                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

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# LD 135

Page 852 of 860    Alphabetical list of commands

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## LD 137—Core Input/Output Diagnostic

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LD 137 provides SSC related diagnostic and maintenance information. Some commands in LD 37 can also be used. Refer to that program.

LD 137 provides a means of performing the following function.

— displaying the Security Device Identification of the Security Dongle

When a status appears disabled, one or more Out of Service (OOS) messages may appear. Listed below are the possible OOS messages:

- Unexpected interrupt fault monitor threshold exceeded
- Fault interrupt fault monitor threshold exceeded
- Processor exception fault monitor threshold exceeded
- ASIC interrupt fault monitor threshold exceeded
- Unrecognized error fault monitor threshold exceeded
- General event interrupt fault monitor threshold exceeded

## Basic Commands

|               |                                                                                        |
|---------------|----------------------------------------------------------------------------------------|
| DIS ELNK      | Disable the ethernet link on the SSC pack                                              |
| ENL ELNK      | Enable the ethernet link on the SSC pack                                               |
| ENL HOST n    | Add a host to run time host table                                                      |
| SDID          | Display Security Device Identification of Security Dongle(s)                           |
| STAT          | Get status of Ethernet.                                                                |
| STAT ELNK     | Display status of the ethernet link on the active SSC pack whether enabled or disabled |
| STAT HOST     | Display current run time host table status                                             |
| TEST ELNK INT | Test internal loop-back on Ethernet link                                               |
| TEST ELNK EXT | Test external loop-back on Ethernet link                                               |
| TEST ELNK TDR | Test the Time Domain Reflectometry                                                     |
| TTY x         | Test TTY x                                                                             |

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---

## Alphabetical list of commands

| Command    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DIS ELNK   | <p>Disable the ethernet link on the active SSC pack.</p> <p>An attempt is made to disable the Ethernet link. When the link is disabled, all activities will be terminated. The system displays <b>OK</b> to indicate that the link is disabled or <b>FAIL</b> to indicate that the link could not be disabled.</p>                                                                                                                                                                                                                                                                                                        |
| ENL ELNK   | <p>Enable the ethernet link on the active SSC pack.</p> <p>If the Ethernet link is down, entering this command will cause an attempt to restore the Ethernet link to normal operation state. However, if the system cannot successfully restore the link, the Ethernet link will remain disabled.</p> <p>If the link was already up, this command does not affect the current operation of it. The system displays <b>OK</b> to indicate that the link is now enabled or <b>FAIL</b> to indicate that the link could not be enabled.</p>                                                                                  |
| ENL HOST n | Add a host to run time host table.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| SDID       | Display Security Device Identification of Security Dongle(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| STAT       | <p>Get status of Ethernet.</p> <p>If Ethernet is disabled, the status (enabled or disabled) is displayed along with an OOS message.</p> <p>One of the following OOS messages may appear:</p> <ul style="list-style-type: none"><li>• Unexpected interrupt fault monitor threshold exceeded</li><li>• Fault interrupt fault monitor threshold exceeded</li><li>• Processor exception fault monitor threshold exceeded</li><li>• ASIC interrupt fault monitor threshold exceeded</li><li>• Unrecognized error fault monitor threshold exceeded</li><li>• General event interrupt fault monitor threshold exceeded</li></ul> |

# LD 137

- CMDU out-of-service
- Hard disk read error
- Hard disk write error
- Hard disk drive error
- CMDU does not respond, the disk drive may be missing
- CMDU has been disabled by the craftsperson
- CMDU is disabled because the IOP is out-of-service

**STAT ELNK**    Display status of the ethernet link on the active SSC pack whether enabled or disabled. The Ethernet address of this SSC is also displayed.

If the ethernet link is disabled, an OOS reason will be displayed containing the following information:

```
ELNK ENABLED
Ethernet (In unit number 0):
Host: aaaxxx
Internet address: xx.xxx.xx.xxx
Netmask: xxxxxxxxxx ; Subnetmask: xxxxxxxxxx
xxx packets received ; xxx packets sent
x input errors ; x output errors
x collisions
```

**STAT HOST**    Display current run time host table status.

**TEST ELNK EXT**    Test the external-loop back on Ethernet link.

The result displayed can be either: **PASS** or **FAIL**. A pass indicates that the system can transmit its own transmitted packet and a fail means the opposite.

**TEST ELNK INT**    Test the internal-loop back on Ethernet link.

The result displayed can be either: **PASS** or **FAIL**. A pass indicates that the system can receive its own transmitted packet and a fail means the opposite.

**TEST ELNK TDR**

**Test the Time Domain Reflectory**

The displayed result is used to determine the location of suspected cable faults. A confirm message is displayed to ask the user to enter YES or NO. The entry YES tells the system to stop the Ethernet communication and perform a DTR. The entry NO tells the system to ignore the command.

The Ethernet link remains disabled after this test. The user must enable it by command ENL ELNK.

TTY x

Test TTY x. Response is:

**ABCDEFGHIJKLMNOPQRSTUVWXYZ****0123456789"#\$%\*!&(<>-.:,.? READY FOR INPUT**

Anything entered on the keyboard will be echoed until END is input.

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# LD 137

Page 858 of 860    Alphabetical list of commands

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## LD 143—Customer Configuration Backup and Restore

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### Basic commands

|         |                           |
|---------|---------------------------|
| UPGRADE | Perform upgrade           |
| XBK     | Remote backup database    |
| XRT     | Remote restore database   |
| XSL     | Remote sysload the system |
| XVR     | Remote verify database    |

---

## Alphabetical list of commands

| Command | Description                                                                                                          |
|---------|----------------------------------------------------------------------------------------------------------------------|
| XBK     | Remote backup database<br>Backup the configuration files from the primary flash drive of the system onto a computer. |
| XRT     | Remote restore database<br>Restore the files from a computer into the primary flash drive of the system.             |
| XSL     | Remote sysload the system<br>Sysload the system from the primary flash drive.                                        |
| XVR     | Remote verify database<br>Verify the files on a computer with the files in the primary flash drive of the system.    |

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**P0890121**

Meridian 1  
**Option 11C Compact**  
Input/Output Guide

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