
DMS-100* FAMILY

ALL PRODUCT COMPUTING-MODULE LOADS

Volume 7 of 15

RETIRED ENGINEERING MANUALS

97Q4 Standard 05.03 December 1997

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DATA UNIT RACKMOUNT SHELF

PEC CODE: NT4X25BH

CPC CODE: B0219698

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NT4X25DH

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The Data Unit Rackmount Shelf shall be used for applications requiring a high concentration of data circuits, such as modem pooling. It can house up to sixteen datapath rackmount cards per office requirements.

REFERENCE DOCUMENTATION: MS4X25BH 00 08

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NTI: Barry Bond Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Barry Bond Dept. 3471 (PPK)

NT4X25BH EMR5-02-DRS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 08 24	----- ECM 277 06	Previous history not available ECD 018-38830 NT4X25BH is now rated MD, and replaced by the NT4X25DH. Retired Section.
94 05 11	ECM 277 08	

The Data Unit Rackmount Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
D.U. Power Supply Assembly	NT4X2554		1			AP
# Rckmnt Low Speed Data Unit	NT4X25AD				1-16	RUL1
Rckmnt High Speed Data Unit	NT4X25AV				1-16	RUL2
Loop Ext Low Speed Line I/F Unit	NT4X25AR				1-16	RUL3
# Loop Ext High Speed Line I/F Unit	NT4X25AS				1-16	RUL4
Rckmnt Low Speed EIA Cont	NT4X25CH				1-16	RUL5
Loop Back Data Unit						
Filler Face Plate	NT0X50AL		16		1-16	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT4X25AD NT4X25AS	MD MD	NT4X25CH No Replacement

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A minimum of one card must be provided per NT4X25BH.
- 2) This shelf can be ordered on a COEO or on a merchandise order basis.
- 3) This shelf is ordered on a COEO basis when it is being mounted on a DMS frame.

- 4) This shelf is ordered on a merchandise order basis by the customer when it is being mounted on a customer provided frame.
- 5) For Canadian applications the customer shall order the required quantity of cards on a merchandise order basis only (i.e. these cards are not to be ordered on a COEO).
- 6) For U.S. applications, when data unit cards are required in the central office (i.e. modem pooling, data links to DNC, etc), then these cards can be ordered on a COEO basis via the 110 spec. Otherwise, the customer shall order the required quantity of cards on a merchandise order basis.

RULES:

- AP 1) When PEC NT4X25BH is ordered, these items are provided.
- 2) The D.U. Power Supply Assembly, NT4X2554, is an always provided item. As part of spares provisioning, provide the appropriate number of spares.
- RUL1 1) The NT4X25AD Rackmount Low Speed Data Unit is a functional replacement to the stand-alone Low Speed Data Unit. The NT4X25AD can be ordered by the customer for customer premise datapath applications or it may be ordered by the Telco for Datapath Modem Pooling applications. This unit is replaced by NT4X25CH.
- RUL2 1) The NT4X25AV Rackmount High Speed Data Unit is a functional replacement to the stand-alone High Speed Data Unit. The NT4X25AV may be ordered by the customer for customer premise datapath applications.
- RUL3 1) The NT4X25AR Loop Extension Low Speed Line Interface Unit is part of a Datapath Data Unit loop extension system that increases the loop length beyond the 4.6 km limitation.
- RUL4 1) The NT4X25AS Loop Extension High Speed Line Interface Unit is the high speed equivalent to the NT4X25AR.
- NOTE: The NT4X25AS has been cancelled and has no replacement.
- RUL5 1) The NT4X25CH Rackmount Low Speed EIA Controlled Loop Back Data Unit is a functional replacement for the NT4X25AD. The NT4X25CH can be ordered by the customer for customer

premise datapath applications or it may be ordered by the
Telco for Datapath Modem Pooling applications.

RACKMOUNT DATA UNIT SHELF

PEC CODE: NT4X25DH

CPC CODE: B0228871

| RATING: MD

REPLACES: NT4X25BH

| REPLACED BY: UDS Data Units

ABBREVIATION NAME: DRS

ENGINEERING DESCRIPTION: The Data Unit Rackmount Shelf shall be used for applications requiring a high concentration of data circuits, such as modem pooling. It can house up to sixteen DATAPATH rack mount cards per office requirements.

REFERENCE DOCUMENTATION: MS4X25DH 01 01

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barry Bond Dept. 3471 (PPK)

NT4X25DH EMR5-02-DRS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 03 05	----- ECM 277 05	Previous history not available ET 16029 & 15989 add the NT4X2591 Data Unit Ground and Hardware for the NT4X25DH.
93 08 24	ECM 277 06	ECD 018-38830 NT4X25BH is now rated MD, and replaced by the NT4X25DH.
94 05 11	ECM 277 08	Corrected Power Supply Rule.
96 01 05	ECM 277 11	Retire document and MD all Data Units per EC 18-45599 and 18-45600. Use UDS Data Units instead.

The NT4X25DH Rackmount Data Unit Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Data Unit Rckmnt Low Speed	NT4X25AD				1-16	RUL1
# Data Unit Rckmnt High Speed	NT4X25AV				1-16	RUL2
# Data Unit Loop Interface Low Speed	NT4X25AR				1-16	RUL3
# Data Unit Loop Interface High Speed	NT4X25AS				1-16	RUL4
# Low Speed Rckmnt Auto Loop Back Data Unit	NT4X25CH				1-16	RUL5
# Data Unit Filler Plate	NT0X50AL				1-16	RUL6
# AC-DC Power Supply	NT4X25DK				P1	RUL7
# DC-DC Power Supply	NT4X25DL				P1	RUL7
# NT4X25DK Designation Label	P0733972				P1	RUL7
# Data Unit Grd & Hardware	NT4X2591					RUL8

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT4X25AD	MD	No Replacement
NT4X25AV	MD	No Replacement
NT4X25AR	MD	No Replacement
NT4X25AS	MD	No Replacement
NT4X25CH	MD	No Replacement
NT4X25AL	MD	No Replacement
NT4X25DK	MD	No Replacement
NT4X25DL	MD	No Replacement
P0733972	MD	No Replacement
NT4X2591	MD	No Replacement

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) A minimum of one card must be provided per NT4X25DH.
- 2) This shelf can be ordered on a COEO or on a merchandise order basis.
- 3) This shelf is ordered on a COEO basis when it is being mounted on a DMS frame.
- 4) This shelf is ordered on a merchandise order basis by the customer when it is being mounted on a customer provided frame.
- 5) For Canadian applications the customer shall order the required quantity of cards on a merchandise order basis only (i.e. these cards are not to be ordered on a COEO).
- 6) For U.S. applications, when data unit cards are required in the central office (i.e. modem pooling, data links to DNC, etc), then these cards can be ordered on a COEO basis via the 110 spec. Otherwise, the customer shall order the required quantity of cards on a merchandise order basis.

RULES:

- AP 1) When PEC NT4X25DH is ordered, these items are provided.
- RUL1 1) The NT4X25AD Rackmount Low Speed Data Unit is a functional replacement to the stand-alone Low Speed Data Unit. The NT4X25AD can be ordered by the customer for customer premise DATAPATH applications or it may be ordered by the Telco for Datapath Modem Pooling applications.
- RUL2 1) The NT4X25AV Rackmount High Speed Data Unit is a functional replacement to the stand-alone High Speed Data Unit. The NT4X25AV may be ordered by the customer for customer premise DATAPATH applications.

- RUL3 1) The NT4X25AR Loop Extension Low Speed Line Interface Unit is part of a Datapath Data Unit loop extension system that increases the loop length beyond the 4.6 km limitation.
- RUL4 1) The NT4X25AS Loop Extension High Speed Line Interface Unit is the high speed equivalent to the NT4X25AR.
- RUL5 1) The NT4X25CH Rackmount Low Speed EIA Controlled Loop Back Data Unit is a functional replacement for the NT4X25AD. The NT4X25CH can be ordered by the customer for customer premise DATAPATH applications or it may be ordered by the Telco for Datapath Modem Pooling applications.
- RUL6 1) The NT0X50AL Filler Face Plate should be provided in slots that are not equipped with data units (slots 1 - 16).
- RUL7 1) The NT4X25DK AC-DC power supply is required in applications where there is access to an inverter.
- 2) The NT4X25DL DC-DC power supply is required in applications where there is not access to an inverter.
- 3) The P0733972 Designation Label is required in applications using the NT4X25DK.
- RUL8 1) Provide one (1) NT4X2591 Data Unit Ground and Mounting Hardware per NT4X25DH Data shelf.

#6 SIGNALLING EQUIPMENT FRAME

NT5X08AA

RATING: MD. On new jobs replace by NT5X08AB.

ABBREVIATION NAME: N6E

ENGINEERING DESCRIPTION: The #6 Signalling Equipment Frame houses DMSCCITT #6 Common Channel Signalling Terminals and Modems. Two separate groups of up to 8 terminals and modems each are accommodated. Groups interface the CPU via separate CMC ports and are powered from separate feeds.

REFERENCE DOCUMENTATION: MS5X08AA 01 02

The #6 Signalling Terminal Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#6 Signalling Shf Assy	NT5X0802			65		AP
Filler Face Plate .875	NT0X50AA				01	AP
I/O Message Controller	NT1X62AA				02	AP
#6 Signalling Terminal	NT5X20AA				04	AP
#6 Signalling Terminal	NT5X20AA				06,08, 10,12, 14,16, 18	RUL1
Filler Face Plate 1.72	NT0X50AF				06,08, 10,12, 14,16, 18	RUL2
Filler Face Plate 1.72	NT0X50AF				20	AP
I/O Terminator	NT0X67AA				22	AP
Filler Face Plate 1.72	NT0X50AF				23	AP
Power Conv (+/-5V,+/-12V)	NT2X70AA				25	AP
Signalling Shelf Assembly	NT5X0802			51		AP
Filler Face Plate .875	NT0X50AA				01	AP
I/O Message Controller	NT1X62AA				02	AP
#6 Signalling Terminal	NT5X20AA				04	AP
#6 Signalling Terminal	NT5X20AA				06,08, 10,12, 14,16, 18	RUL1
Filler Face Plate 1.72	NT0X50AF				06,08, 10,12, 14,16, 18	RUL2
Filler Face Plate 1.72	NT0X50AF				20	AP
I/O Terminator	NT0X67AA				22	AP
Filler Face Plate 1.72	NT0X50AF				23	AP
Power CONV(+/-5V,+/-12V)	NT2X70AA				25	AP
Frame Supervisory Panel	NT0X28AE	FSP		45		AP
Modem Assembly Modified	NT5X0804				33	AP
Modem	C0054355				01	AP
Modem	C0054355				09	AP
Modem	C0054355				02-08, 10-16	RUL1

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Inverter Unit	NT0X87AA				13	AP
Inverter Unit	NT0X87AA				04	AP
Framework	NT0X25AA	FW				AP
Basic Assembly Wiring						

RULE:

- AP 1) When PEC NT5X08AA is ordered, these items are provided.
- 2) Each frame comes equipped with 2 #6 Signalling Terminal cards (NT5X20AA) equipped in slots 6504 and 5104 and 2 Modem cards (C0054355) equipped in slots 3301 and 3309. Together these comprise the first two signalling channels.
- RUL1 1) Provide one NT5X20AA and one C0054355 card for each additional signalling terminal (channel) required.

- 2) Provisioned cards are to be assigned to slots in the order listed below. There is a fixed interconnect relationship between slots at shelf position 33 and those at positions 65 and 51.

CHANNEL	NT5X20AA LOCATION	C0054355 LOCATION (SHLF POS 33)	NOTES
01	6504	01	01
09	5104	09	01
02	6506	02	
10	5106	10	
03	6508	03	
11	5108	11	
04	6510	04	
12	5110	12	
05	6512	05	
13	5112	13	
06	6514	06	
14	5114	14	
07	6516	07	
15	5116	15	
08	6518	08	
16	5118	16	

NOTES:

1. Always provided.

- RUL2 1) When customer requirements specify that Filler Face Plates are to be ordered provide one (1) NT0X50AF for each even-numbered location, 06-18, which is not to be equipped with a #6 Signalling Terminal card.

#6 SIGNALLING EQUIPMENT FRAME

NT5X08AB

RATING: MD

ABBREVIATION NAME: N6E

ENGINEERING DESCRIPTION: The #6 Signalling Equipment Frame houses DMS CCIT #6 Common Channel Signalling Terminal and Modems. Two separate groups of up to 8 terminals and modems each are accommodated. Groups interface the CPU via separate CMC ports and are powered from separate feeds.

| REFERENCE DOCUMENTATION: MS5X08AB 01 05

The #6 Signalling Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#6 Signalling Shelf Assembly	NT5X0802	STA1	1	65		AP
Filler Face Plate 0.875	NT0X50AA		1	65	01	AP
I/O Message Controller	NT1X62AA		1	65	02	AP
#6 Signalling Terminal	NT5X20AA		1	65	04	AP
#6 Signalling Terminal	NT5X20AA		1	65	06,08 10,12 14,16 18	RUL4
Filler Face Plate 1.72	NT0X50AF		1	65	06,08 10,12 14,16 18	RUL2
Filler Face Plate 1.72	NT0X50AF		1	65	20	AP
I/O Terminator	NT0X67AA		1	65	22	AP
Filler Face Plate 1.72	NT0X50AF		1	65	23	AP
Power Conv (+/-5V,+/-12V)	NT2X70AA		1	65	25	AP
#6 Singalling Shelf Assembly	NT5X0802	STA0	1	51		AP
Filler Face Plate .875	NT0X50AA		1	51	01	AP
I/O Message Controller	NT1X62AA		1	51	02	AP
#6 Signalling Terminal	NT5X20AA		1	51	04	AP
#6 Signalling Terminal	NT5X20AA		1	51	06,08 10,12 14,16 18	RUL4
Filler Face Plate 1.72	NT0X50AF		1	51	06,08 10,12 14,16 18	RUL4
Filler Face Plate 1.72	NT0X50AF		1	51	20	AP
I/O Terminator	NT0X67AA		1	51	22	AP
Filler Face Plate 1.72	NT0X50AF		1	51	23	AP
Power Conv (+/-5V,+/-12V)	NT2X70AA		1	51	25	AP
Frame Supervisory Panel	NT0X28AH	FSP	1	45		AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Modem Assembly Modified	NT5X0804	DSM	1	33		AP
Cover Panel Assembly	NT5X0806		2			AP
AC Power Supply Modified	NT5X0813					RUL3
Modem CP	C0054355		1	33	01	AP
Modem CP	C0054355		1	33	09	AP
Modem CP	C0054355			33	02-08	RUL4
Filler Panel	P0575239		1		18	AP
Inverter Unit	NT0X87AA	INV	1		13	AP
Inverter Unit	NT0X87AA	INV	1		04	AP
Cover Panel Assembly	NT5X0806		2		04	AP
Logic Return Cable Assembly	NT0X0008					RUL1
Power Converter PC Kit	NT2X70AZ					RUL5

RULE:

- AP 1) When PEC NT5X08AB is ordered, these items are provided.
- 2) Each frame comes equipped with 2 #6 Signalling Terminal cards (NT5X20AA) equipped in slots 65-04 and 51-04 and 2 Modem cards (C0054355) equipped in slots 33-01 and 33-09. Together these comprise the first two signalling channels.
- RUL1 1) Provide one (1) NT0X0008 Logic Return Cable Assembly per frame when extending existing offices not equipped with enhanced grounding per IS0X00.
- RUL2 1) When customer requirements specify that Filler Face Plates are to be ordered provide one (1) NT0X50AF for each even-numbered location, 06-18, on shelf positions 65,51, which is not to be equipped with a #6 Signalling Terminal card.
- RUL3 1) Supplied for NT5X0804 as a spare AC power supply if requested by the customer.
- RUL4 1) Provide one NT5X20AA and one C0054355 card for each additional signalling terminal (channel) required.

- 2) Provisioned cards are to be assigned to slots in the order listed below. There is a fixed interconnect relationship between slots at shelf position 33 and those at positions 65 and 51.

CHANNEL	NT5X20AA LOCATION		C0054355 LOCATION (SHLF POS 33)		NOTES
	SHF POS	CP POS	SH POS	CP POS	
01	65	04	33	01	AP
09	51	04	33	09	
02	65	06	33	02	AP
10	51	06	33	10	
03	65	08	33	03	
11	51	08	33	11	
04	65	10	33	04	
12	51	10	33	12	
05	65	12	33	05	
13	51	12	33	13	
06	65	14	33	06	
14	51	14	33	14	
07	65	16	33	07	
15	51	16	33	15	
08	65	18	33	08	
16	51	18	33	16	

TABLE 1

- | RUL5 1) Provide one (1) NT2X70AZ Power Converter PC Kit to modify the existing NT2X70__ to the NT2X70AE. This PC kit contains one (1) NT2X70AE and one (1) designation label.

MODEM EQUIPMENT FRAME

PEC CODE: NT0X43BA

CPC CODE:

| RATING: MD (Canadian Only)

REPLACES: Not Applicable

| REPLACED BY: NONE

ABBREVIATION NAME: MOE

ENGINEERING DESCRIPTION: The modem equipment frame is used to mount modem equipment in an office equipped with Isolated System Grounding. The modem shelves will be electrically isolated from the framework with the shelf chassis connected to the logic return bar.

EC 018-51379 manufacture discontinues the NT0X43BA modem equipment frame. There is no replacement for this bay. For Canadian offices, modems may be placed in the IOE frame. Reference ECM 289 and EMS NT0X43AD.

REFERENCE DOCUMENTATION: MS0X43BA 00 09

MARKETS: Applicable markets:

Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Otis Gibbs Dept. 3471 (PPK)

MAIN CONTACT: NTI: Otis Gibbs Dept. 3471 (PPK)

NT0X43BA EMR5-02-002 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 11 27	ECM 471 04	EC 018-37103 - Introduce LaMarche in place of NT0X87AA Inverter.
93 01 22	ECM 277 04	ECD 018-37552 Introduction of the NT4X25DH as replacement for NT4X25BH.
94 09 20	ECM 321 11	ECD 018-43573 replaced NTRX34DA with NTMX1665.
95 02 20	ECM 321 12	ECD 018-44074 MD'd NT0X87AA Inverter Unit (200W).
95 03 07	ECM 321 13	ECD 006-21517 MD'd LAMARCHE Inverter and replaced with NTRX31DH Inverter.
95 10 23	ECM 321 16	ECD 018-46054 Add new mounting pos. 20 for DSM shelf.
96 01 18	ECM 321 18	ECD 018-45600 MD NT4X2591 and NT4X25DH with no replacements.
97 08 07	ECM 321 19	ECD 018-49762 MD NT5X0806 and NT5X0810 with no replacements. The P097F813 mounting screw is no longer required for mounting the NT5X0806 or NT5X0810. Updated RUL4, paragraphs 1,2,3,4 & 5 with a reference to RUL4 paragraph 6.
97 09 23	ECM 321 20	EC 018-51379 MDs NT0X43BA Modem bay, NT5X09AA Data Set (Modem) Shelf and associated cable and connector PECs. This EMS will be retired as a result of the NT0X43BA being MD'ed.

The Modem Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Data Set (Modem) Shelf	NT5X09AA	DSM		12, 18, 20, 26, 52, 66		RUL2
# Cover Panel Assembly	NT5X0806					RUL2
# Support Bracket Assembly	NT5X0810					RUL2
# Screw HHT 216-24 x .500	P097F813					RUL2
Over Barrier Jumper	A0324131					RUL3
# Data Unit Rack Mount LS Shf	NT4X25BH			19, 32, 54, 66, 67		RUL4
# Data Unit Rack Mount LS Shf	NT4X25DH			19, 32, 54, 66, 67		RUL4
# Cable Assembly Ground	NT0X4318					RUL4
# Data Unit Grounding & Mounting Hardware	NT4X2591					RUL4
Frame Supervisory Panel	NT0X28AF	FSP	1	45		AP
Fr Supervisory Panel Cover	P0673914					AP
Equipment Shelf Assembly	NT3X25AA			10, 17, 24, 31, 38, 52, 59, 66		RUL6
# Connector & Housing Assy	NT0X4303			74		RUL6
# Cable Assembly	NT0X4311					RUL6
Inverter Unit (500W)	NTRX31DH			4, 12		RUL12
Inverter ISG KIT	NT0X43XD			4, 12		RUL12
Inverter Unit (200W)	NT0X87AA			4, 11		RUL8
LaMarche Inverter (500W)	A0367433			4, 11		RUL8
Isolation/Mounting Eqpt. for LaMarche Inverter	NTMX1665			4, 11		RUL8
Local Cable Assembly	NT0X0009					RUL8
Local Cable Assembly	NT0X4306					RUL8
# Local Cable Assembly	NT0X4304					RUL7
# Power Cable Assembly	NT0X4307					RUL9
# Power Cable Assembly	NT0X4308					RUL9
# Power Cable Assembly	NT0X4309					RUL9
# Power Cable Assembly	NT0X4310					RUL9
# Power Cable Assembly	NT0X4312					RUL9

Retired Equipment
Modem Equipment Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Power Cable Assembly	NT0X4313					RUL9
# Power Cable Assembly	NT0X4314					RUL9
# Power Cable Assembly	NT0X4315					RUL9
# Power Cable Assembly	NT0X4316					RUL9
# Power Cable Assembly	NT0X4317					RUL9
Cable Assembly	NT8X4801					RUL9
Cable Assembly	NT8X4802					RUL9
Cable Assembly	NT0X8849					RUL9
Wiring Drawing	WD0X43BA					RUL10
Wiring Drawing	LWJ0X43BA					RUL10
Hardware Lugs	A0288192					RUL11

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT4X25BH	MD	NT4X25DH
NTRX34DA	MD	NTMX1665
NT0X87AA	MD	A0367433
NT0X0009	MD	N/A
NT0X4306	MD	N/A
A0367433	MD	NTRX31DH
NTMX1665	MD	NT0X43XD
NT4X2591	MD	NONE
NT4X25DH	MD	NONE
NT5X0806	MD	NONE
NT5X0810	MD	NONE
P097F813	STD	N/A
NT0X43BA	MD	NONE
NT0X4303	MD	NONE
NT0X4304	MD	NONE
NT0X4307	MD	NONE
NT0X4308	MD	NONE
NT0X4309	MD	NONE
NT0X4310	MD	NONE
NT0X4311	MD	NONE
NT0X4312	MD	NONE
NT0X4313	MD	NONE
NT0X4314	MD	NONE
NT0X4315	MD	NONE
NT0X4316	MD	NONE
NT0X4317	MD	NONE
NT0X4318	MD	NONE

PEC	RATING	REPLACED BY PEC
NT5X09AA	MD	NONE

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X43BA is ordered, these items are provided.

RUL1 1) Reserved for future use.

RUL2 1) Provide one (1) Data Set (Modem) Shelf to accommodate up to sixteen (16) modems.

2) A maximum of four (4) Data Set Shelves may be mounted at positions 12,18,20,26,52 and 66. The Data Set Shelves must be located within 50 ft of the connecting IOC shelf.

Due to the standard alarm wiring sequence from the FSP, Data Set Shelves must be provisioned in the following sequence: 12, 26, 52 and 66. See RUL3 for further information on wiring.

3) When modem pooling is a requirement, the Data Set Shelf is associated with a Data Unit Rackmount LS Shelf, NT4X25BH/DH. For this application the Data Set Shelves will be mounted in positions 18 and 52 only with the associated Data Unit Shelf being mounted in positions 32 and 66 respectively.

4) When an new NTRX31DH inverter is mounted in position 12. The next DSM shelf is to be located at position 20. Otherwise, the DSM shelf is to be located in position 18.

- 5) NT5X0806 and NT5X0810 have been manufactured discontinued and are no longer required to be applied to each Data Set Shelf NT5X09AA (MD). In addition the P097F813 mounting screw is no longer required. DMS offices in the field do not have these items applied to NT5X09AA (MD). Systems Application Engineering should ensure that all office records are updated to remove reference to these items.
- RUL3 1) Provide two (2) Barrier Jumpers A0324131 when a third Data Set Shelf is provisioned to jumper the A and B feed power from the first shelf. Similarly provision an additional two (2) Barrier Jumpers A0324131 when a fourth Data Set Shelf is provisioned to jumper the power feeds from the second shelf.
- RUL4 1) Provide one (1) Data Unit Rackmount LS Shelf to accommodate up to sixteen (16) data units. Reference RUL4.6.
- 2) A maximum of four (4) Data Units may be equipped in positions 19, 32, 54 and 67. Reference RUL4.6.
- 3) When modem pooling is a requirement, the Data Unit Shelves would be equipped in positions 32 and 66 with the associated Data Set Shelves being equipped in positions 18 and 52 respectively. Reference RUL4.6.
- 4) Provide one (1) Data Unit Grounding & Mounting Hardware package NT4X2591 for each Data Unit Shelf NT4X25BH/DH (MD) provisioned. Reference RUL4.6.
- 5) Provide one (1) Cable Assembly Ground NT0X4318 (MD) for each NT4X25DH (MD) Data Unit Shelf provisioned for ground connection between NT4X25DH (MD) shelf and frame right upright. Reference RUL4.6.
- 6) The entire datapath product line is being MD'd per a decision by PLM and LOB primes. No direct replacements exist. The company will support ISDN products instead, and recommend Motorola UDS as a datapath supplier when it is necessary to support customers.
- RUL5 1) Reserved for future use.
- RUL6 1) Provide one (1) Common Equipment Shelf, NT3X25AA to accommodate up to two (2) stand alone modems or other stand alone units up to a maximum of eight (8) shelves per frame.

2) Provide one (1) Connector Housing Assembly NT0X4303 (MD) per frame when one (1) or more Equipment Shelf Assembly NT3X25AA is equipped.

3) Provide one (1) Cable Assembly NT0X4311 (MD) per equipment shelf NT3X25AA when the provisioned stand alone modems do not require protected AC from the inverter. Do not provision a mix of AC and non AC powered modems on the same shelf.

RUL7 1) Provide one (1) Local Cable Assembly NT0X4304 (MD) for each modem pooling arrangement up to a maximum of two (2) per frame. The modem pooling arrangement will consist of a Data Unit Shelf NT4X25BH/DH (MD) in positions 32 and 66 with an associated Data Set Shelf in positions 18 and 52.

RUL8 1) The LaMarche Inverter provides standard AC socket outlets for four (4) circuits (two dual outlets), and the maximum total consumption of units connected is not to exceed 500 Watts (120VAC nominal 4.15 Amps output). If the NT0X87AA is already equipped, the maximum total consumption is not to exceed 200 Watts. (A0367433 Inverter is MD'd and replaced with NTRX31DH).

2) Provide one LaMarche Inverter in position 04 per frame unless data shelves require separate power feeds. If separate power feeds are required, the two (2) LaMarche Inverters are mounted in positions 4 and 11.

3) If the NT0X87AA Inverter is provisioned, provide one (1) Inverter in position 4 when the Modem Frame is equipped with Equipment Shelf Assemblies NT3X25AA and/or one (1) or two (2) Data Unit Shelves NT4X25BH/DH (MD) provided a separate power source for the second Data Unit Shelf is not a requirement.

4) If the NT0X87AA is provisioned, provide two (2) Inverters (in positions 4 and 11) when the Modem Equipment Frame is equipped with two (2) Data Unit Shelves NT4X25BH and a separate power source is a requirement or when more than two Data Unit Shelves are equipped. (NT0X87AA Inverter is MD'd and replaced with NTRX31DH).

5) Always provide a LaMarche Inverter Isolation/mounting (ISG) Equipment kit (NTMX1665) for each LaMarche Inverter (A0367433) provided.

6) Only plugs J2, J3 and J4 may be assigned to equipment on the Modem Frame. Plug J1 has a given power output of ap-

proximately 170V AC and is intended to be used with a mechanical teletype which requires a greater power surge.

- 7) The number of stand alone data sets per inverter is determined by their total power consumption as listed below:

DEVICE	POWER CONSUMPTION
CTS 212AH	5.5 W
RIXON T212A	10.0 W
RIXON R212A	7.0 W
GDC Data Comm 4800	7.5 W
GDC 202T	10.0 W

- 8) Provide one (1) Local Cable Assembly NT0X0009 when an inverter (LaMarche or NT0X87AA) is provided in position 4. Provide one (1) Local Cable Assembly NT0X4306 when an inverter (LaMarche or NT0X87AA) is provided in position 11. These cables are provided to connect the inverter chassis to the logic return bar.

- RUL9 1) Provision the following power cable assemblies for a data set shelf in a modem pooling configuration with a data unit shelf.

NT5X09AA (MD) Data Set Shelf in Position 18:

QTY	PEC

1	NT0X4317 (MD)
1	NT0X4316 (MD)
1	NT0X4315 (MD)
1	NT0X4314 (MD)

NT5X09AA (MD) Data Set Shelf in Position 52:

QTY	PEC

1	NT0X4313 (MD)
1	NT0X4317 (MD)
1	NT0X4316 (MD)

- 2) Provision the following power cable assemblies for a data set shelf not equipped for modem pooling.

NT5X09AA (MD) Data Set Shelf in Position 12 (1st Shelf):

QTY	PEC

1 NT0X4312 (MD)
 * 1 NT8X4802
 1 NT0X4310 (MD)
 * 1 NT0X4313 (MD)

* Omit these cables when position 52 is equipped with data set shelf NT5X09AA (MD) (3rd shelf).

NT5X09AA (MD) Data Set Shelf in Position 26 (2nd Shelf):

QTY	PEC
* 1	NT8X4801
1	NT0X4309 (MD)
* 1	NT0X4308 (MD)
1	NT0X8849

* Omit these cables when position 66 is equipped with data set shelf NT5X09AA (MD) (4th shelf).

NT5X09AA (MD) Data Set Shelf in Position 52 (3rd Shelf):

QTY	PEC
1	NT0X4313 (MD)
1	NT0X4316 (MD)

NT5X09AA (MD) Data Set Shelf in Position 66 (4th Shelf):

QTY	PEC
2	NT0X4307 (MD)

RUL10 1) For field extensions provide one (1) each of wiring documents WD0X43BA and LWJ0X43BA.

RUL11 1) For field extensions provide four (4) A0288192 lugs per each NT0X87AA Inverter and two (2) A0288192 lugs per each NT5X09AA (MD) Data Set Shelf.

RUL12 1) Provide one (1) NTRX31DH Inverter and one (1) NT0X43XD IOE Inverter ISG Kit when 120 VAC (500 Watts) is required in the MOE frame.

PRODUCT CHANGE KIT
CLCE TOP FAN REMOVAL KIT

PEC CODE: NTRX30ZA

CPC CODE: B0235511

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: NTRX30ZA is a change kit used for removing electrical hazard which exists in unmodified CLCE when removing the CLCE Top Fan Unit.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: James Marsden Dept. 3471 (PPK)

NTRX30ZA EMR5-99-CLC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 12 22	ECM 619 12	Introduction of NTRX30ZA and incorporation of EC 024-83597 MD NTRX30ZA per EC 024-94287.
95 09 14	ECM 600 19	

The Product Change Kit CLCE Top Fan Removal Kit is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ADD	CLCE Fan Plate Assy	NTMX2658		2			AP-01
ADD	FSP Fan Base Plate	NTMX2659		1			AP-01

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTRX30ZA is ordered, these items are provided.

AP-01 1) This pec is always provided with the NTRX30ZA kit and is shown here for completeness.

RUL1 Order this kit (NTRX30ZA) for application to each NTRX30AA CLCE which requires CLCE Top Fan Removal hazard modification.

14 INCH DDU ENHANCEMENT

NT4X00AY

| RATING: MD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This change kit provides an enhancement to the 14" DDU by allowing the 14 inch disk drive to be replaced with an 8" DDU while it remains available, or a 5.25" DDU when it becomes available. When the 5.25" DDU becomes available, the 8" DDU will become MD. Please reference availability reports for DDU status.

REFERENCE DOCUMENTATION: N/A

The NT4X00AY is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	Disk to IOC Interconnect Cable	NT4X0006			XX		
REMOVE	Disk Power Cable	NT4X0009			XX		
REMOVE	14 Inch Disk Drive	See Note			XX		
REMOVE	IOC/Disk Drive Interface BP	NT4X0004			XX		
REMOVE	Disk Drive Controller CP	NT1X55AB		1	XX		RUL1
REMOVE	Cable Braid Assy	NT0X9538		1	XX		
REMOVE	Cable Braid Assy	NT0X9501		1	XX		
REMOVE	DDCS00 Switchbrd Cable	NT0X26BV		1	XX		NOTE1
REMOVE	DDCS01 Switchbrd Cable	NT0X26BW		1	XX		NOTE1
ADD	DDCS02 Switchbrd Cable	NT0X26ZV		1	XX		NOTE1
ADD	DDCS03 Switchbrd Cable	NT0X26ZW		1	XX		NOTE1
ADD	Disk Drive Mtg Brk Assembly	NT4X0043		2	XX		AP
\$ ADD	8" Mercury DDU	8211D-19-061		1	XX		RUL2
\$ OR	8" Mercury DDU	8211D-19-062		1	XX		RUL2
& OR	8" Mercury DDU	8211D-19-063		1	XX		RUL2
OR	5.25" DDU	NT4X00AG		1	XX		RUL2
ADD	DDU Pwr Cable	NT4X0045		1	XX		AP
ADD	Disk to IOC Interconn Cable	NT4X0046		1	XX		AP

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ADD	8" Disk Drive	NT1X55DA		1	XX		RUL1
	Controller CP						
ADD	Designation Label	P0688790		1	XX		RUL1

FLAGS:

\$ Rated MD. Replaced by 8211D-19-063.

& Rating Change Pending. Check Availability Reports.

NOTES:

- 1) Refer to PC4X00AY and CA0X15 for specific information concerning removal of existing 14 inch DDU switchboard cables and the addition of 8 inch DDU/5.25" DDU switchboard cables.
- 2) 'XX' refers to either position 04 or 18.
- 3) The PEC code for the 14 Inch Disk Drive may be A03000005, A03000006, or A03000006.

RULES:

- RUL1 1) Replace the associated disk drive controller CP NT1X55AB in an IOC shelf (NT1X61) or MDC shelf (NT2X76) with 8 inch disk drive controller CP NT1X55DA. Add designation label (P0688790) to shelf.
- RUL2 1) Replace the existing A03000005, A03000006, or A03000007 14 Inch Disk Drive Unit with the 8211D-19, as long as a version is available, or the 5.25" DDU (NT4X00AG), when it becomes available on the NT4X00AA, NT4X00AB, or NT4X00AC shelf.

INPUT/OUTPUT CONTROLLER PRODUCT CHANGE KIT

PEC CODE: NT1X61AX

CPC CODE: B0226022

| RATING: MD

| REPLACES: Not Applicable

| REPLACED BY: NT1X61AY

ABBREVIATION NAME: IOC

ENGINEERING DESCRIPTION: The Input/Output Controller Product Change Kit modifies the IOC Module NT1X61AB for DMS-Core applications.

| REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NT1X61AX EMR5-99-IOC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 94 07 08	----- ECM 613 22	Previous history not available ECD 018-42674 - MD's NT1X61AX

The Input/Output Controller Product Change Kit is comprised of the following:

The codes of the shelves and frames to which this change kit is applicable are as follows:

Frame Code Shelf Code

NT0X43AA/AB/AC/AD NT1X61AB, NT1X61AD
NT0X43AA NT1X61AA

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
REMOVE	I/O Msg Cont CP	NT1X62AB		1	X	2	
ADD	I/O Mst Cont CP	NT1X62CA		1	X	2	AP
ADD	Des Label (NT1X62CA)	P0686038		1	X	2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT1X61AX is ordered, these items are provided.

97/12/09

EMR7

MERIDIAN BUSINESS SERVICES EQUIPMENT CHAPTER

MERIDIAN BUSINESS SERVICES EQUIPMENT CHAPTER

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97/12/09

MERIDIAN BUSINESS SERVICES EQUIPMENT CHAPTER

EMR7-BSAC-1	BUSINESS SERVICE ATTENDANT CONSOLE	NT4X09AB
EMR7-BSAC-2	BUSINESS SERVICE ATTENDANT CONSOLE	NT4X09AE
EMR7-BSAC-3	BUSINESS SERVICE ATTENDANT CONSOLE	NT4X09AF
EMR7-BSAC-4	BUSINESS SERVICE ATTENDANT CONSOLE	NT4X09AG
EMR7-BSAC-5	BUSINESS SERVICE ATTENDANT CONSOLE	NT4X09AH
EMR7-COAX-2	COAX ELIMINATOR SHELF	NT4X25BS
EMR7-P-PHONE-1	MDC ELECTRONIC BUSINESS SETS (EBS)	NT4X20

97/12/09

BUSINESS SERVICE ATTENDANT CONSOLE

NT4X09AB

RATING: A & M.

ABBREVIATION NAME: BSAC

ENGINEERING DESCRIPTION: The Business Service Attendant Console is an optional feature of the Integrated Business Network (IBN).

REFERENCE DOCUMENTATION: N/A

The Business Service Attendant Console is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Attendant Console Main CP	NT4X08AA		1			AP
Keyboard Assembly	NT4X0904		1			AP
Keyboard Faceplate Assembly	NT4X0905		1			AP
KLD Assembly	NT4X0906		1			AP
KLD Faceplate Assembly	NT4X0908		1			AP

RULE:

- AP 1) When PEC NT4X09AB is ordered, these items are provided.
- 2) The Business Service Attendant Console comes equipped with a six (6) foot cable that has leads for voice, data and power.
- RUL1 1) Provide one Business Service Attendant Console (NT4X09AB) for each customer site requirement.
- RUL2 1) The wiring beyond the six (6) foot cable is to be engineered according to the CA4X09 drawing, Digital Multiplex Switching System DMS-100 Cabling Information For Business Service Attendant Console.
- RUL3 1) Customers who place merchandise orders will perform their own installation.

BUSINESS SERVICE ATTENDANT CONSOLE

NT4X09AE

RATING: Rating change pending.
August 1982.

ABBREVIATION NAME: BSAC

ENGINEERING DESCRIPTION: The Business Service Attendant Console is an optional feature of the Integrated Business Network (IBN). The NT4X09AE BSAC has English descriptions on the face plate.

REFERENCE DOCUMENTATION: N/A

The Business Service Attendant Console is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Attendant Console Main CP	NT4X08AA		1			AP
Keyboard Assembly	NT4X0904		1			AP
Keyboard Faceplate Assembly (English)	NT4X0905		1			AP
KLD Assembly	NT4X0906		1			AP
KLD Hooded Faceplate Assy	NT4X0912		1			AP
Cable Assembly	NT4X0903		1			AP
Design Insert (English)	P0623522		1			AP

RULE:

- AP 1) When PEC NT4X09AE is ordered, these items are provided.
- 2) The Business Service Attendant Console comes equipped with a six (6) foot cable that has leads for voice, data and power.
- 3) The BSAC comes equipped with a 6 foot connectorized cable assembly (cord) NT4X0903.
- RUL1 1) Provide one Business Service Attendant Console (NT4X09AE) for each customer site requirement.
- RUL2 1) The wiring beyond the six (6) foot cable is to be engineered according to the CA4X09 drawing, Digital Multiplex Switching System DMS-100 Cabling Information For Business Service Attendant Console.
- RUL3 1) Customers who place merchandise orders will perform their own installation.

BUSINESS SERVICE ATTENDANT CONSOLE

NT4X09AF

RATING: Rating change pending.
August 1982.

ABBREVIATION NAME: BSAC

ENGINEERING DESCRIPTION: The Business Service Attendant Console is an optional feature of the Integrated Business Network (IBN). The NT4X09AF BSAC has French descriptions on the face plate.

REFERENCE DOCUMENTATION: N/A

The Business Service Attendant Console is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Attendant Console Main CP	NT4X08AA		1			AP
Keyboard Assembly	NT4X0904		1			AP
Keyboard Faceplate Assembly (French)	NT4X0911		1			AP
KLD Assembly	NT4X0906		1			AP
KLD Hooded Faceplate Assy	NT4X0912		1			AP
Cable Assembly	NT4X0903		1			AP
Design Insert (French)	P0631768		1			AP

RULE:

- AP 1) When PEC NT4X09AF is ordered, these items are provided.
- 2) The Business Service Attendant Console comes equipped with a six (6) foot cable that has leads for voice, data and power.
- 3) The BSAC comes equipped with a 6 foot connectorized cable assembly (cord) NT4X0903.
- RUL1 1) Provide one Business Service Attendant Console (NT4X09AF) for each customer site requirement.
- RUL2 1) The wiring beyond the six (6) foot cable is to be engineered according to the CA4X09 drawing, Digital Multiplex Switching System DMS-100 Cabling Information For Business Service Attendant Console.
- RUL3 1) Customers who place merchandise orders will perform their own installation.

BUSINESS SERVICE ATTENDANT CONSOLE

NT4X09AG

| RATING: Rating Change Pending

ABBREVIATION NAME: BSAC

ENGINEERING DESCRIPTION: The Business Service Attendant Console is an optional feature of the Integrated Business Network (IBN). The NT4X09AG BSAC has English descriptions on the face plate.

REFERENCE DOCUMENTATION: N/A

The Business Service Attendant Console is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Attend Cons 1200B Main CP	NT4X08AB		1			AP
Keyboard Assembly	NT4X0904		1			AP
Keybrd Faceplate Assy (Eng)	NT4X0905		1			AP
KLD Assembly	NT4X0906		1			AP
KLD Hooded Faceplate Assy	NT4X0912		1			AP
Designation Insert (English)	P0623522		1			AP
Console Stand Assembly	NT4X0914		1			AP
Headset W/T Mark Std w/o Acc	QSR2F2					RUL1
Headset Std w/15 ft Cord	QSR2G1					RUL1
Headset Acc. Kit	QKP1A					RUL1
Supra Monaural Headset	HS0552-1					RUL1
Supra Binaural Headset	HS0554-1					RUL1
Pylon KTS-3 Power Supply	KTS-3					RUL2

MD. Replaced by MH0530-1.

- NOTE: 1) NT4X09AG is a replacement for the NT4X09AE to reflect the increase in baud rate to 1200.
- 2) The BSAC comes equipped with a six foot connectorized cable assembly (cord), NT4X0903.
- 3) Provide one Business Service Attendant Console (NT4X09AG) for each customer site required.
- 4) The wiring beyond the six (6) foot cable is to be engineered according to the CA4X09 drawing, Digital Multiplex Switching System DMS-100 Cabling Information For Business Service Attendant Console.
- 5) Customers who place merchandise orders will perform their own installation.

RULE:

- AP 1) When PEC NT4X09AG is ordered, these items are provided.
- 2) The console stand assembly, NT4X0914 is to be shipped loose.

- RUL1 1) Provide a minimum of one Head Set for each Attendant Console provided or as specified by the customer.
- 2) For Canadian offices, the QSR2F2, QSR2G1 or the QKP1A can be provided per customer requirements.
- 3) For U.S. offices, provide the Plantronics HS0552-1 Monaural headset as the default standard. This headset provides one eartip as opposed to the HS0554-1 which provides an eartip for each ear.
- RUL2 1) When the BSAC is installed less than 600 feet from the central office then it shall be powered from the MIS frame FSP using a 1-1/3 amp fuse, specify Fuse 12 of PIN 26 CONN (PWR & ALM).
- 2) For BSAC installations greater than 600 feet from the central office, provide the Pylon NF-3 Power system per Section EMA7-POWER-1.

BUSINESS SERVICE ATTENDANT CONSOLE

NT4X09AH

| RATING: Rating Change Pending

ABBREVIATION NAME: BSAC

ENGINEERING DESCRIPTION: The Business Service Attendant Console is an optional feature of the Integrated Business Network (IBN). The NT4X09AH BSAC has French descriptions on the face plate.

REFERENCE DOCUMENTATION: N/A

The Business Service Attendant Console is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Attend Cons 1200B Main CP	NT4X08AB		1			AP
Keyboard Assembly	NT4X0904		1			AP
Keybrd Faceplate Assy (Fch)	NT4X0911		1			AP
KLD Assembly	NT4X0906		1			AP
KLD Hooded Faceplate Assy	NT4X0912		1			AP
Designation Insert (French)	P0631768		1			AP
Console Stand Assembly	NT4X0914		1			AP
Headset W/T Mark Std w/o Acc	QSR2F2					RUL1
Headset Std w/15 ft Cord	QSR2G1					RUL1
Headset Acc. Kit	QKP1A					RUL1
Supra Monaural Headset	HS0552-1					RUL1
Supra Binaural Headset	HS0554-1					RUL1
Pylon KTS-3 Power Supply	KTS-3					RUL2

FLAGS:

MD. Replaced by MH0530-1.

- NOTE: 1) NT4X09AH is a replacement for the NT4X09AF to reflect the increase in baud rate to 1200.
- 2) The BSAC comes equipped with a six foot connectorized cable assembly (cord), NT4X0903.
- 3) Provide one Business Service Attendant Console (NT4X09AH) for each customer site requirement.
- 4) The wiring beyond the six (6) foot cable is to be engineered according to the CA4X09 drawing, Digital Multiplex Switching System DMS-100 Cabling Information For Business Service Attendant Console.
- 5) Customers who place merchandise orders will perform their own installation.

RULE:

- AP 1) When PEC NT4X09AH is ordered, these items are provided.

- 2) The console stand assembly, NT4X0914 is to be shipped loose.
- RUL1
- 1) Provide a minimum of one Head Set for each Attendant Console provided or as specified by the customer.
 - 2) For Canadian offices, the QSR2F2, QSR2G1 or the QKP1A can be provided per customer requirements.
 - 3) For U.S. offices, Provide the Plantronics HS0552-1 Monaural headset as the default standard. This headset provides one eartip as opposed to the HS0554-1 which provides an eartip for each ear.
- RUL2
- 1) When the BSAC is installed less than 600 feet from the central office then it shall be powered from the MIS frame FSP using a 1-1/3 amp fuse, specify Fuse 12 of PIN 26 CONN (PWR & ALM).
 - 2) For BSAC installations greater than 600 feet from the central office, provide the Pylon NF-3 Power System per section EMA7-POWER-1.

COAX ELIMINATOR SHELF

PEC CODE: NT4X25BS

CPC CODE: B0219703

RATING: MD

REPLACES: N/A

REPLACED BY: UDS Data Units

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Coax Eliminator Shelf is a 19 inch rack mount shelf which is used to mount up to sixteen (16) NT4X25DA and/or NT4X25AM Coax Eliminator Control Unit Interface cards required for a Coax Eliminator Data Unit System. The official name for the Coax Eliminator Data Unit system is 3270 Network Switched Access (3270 NSA). The function of the Coax Eliminator Data Unit System is to provide a means of connecting IBM 3270 type terminals to IBM 3270 type control units via twisted pair cable and the DMS/SL-100 switched network. Hence, the coax eliminator system is a combined data unit and coax terminal adaptor system. This system also allows for back-to-back (dedicated) as well as DMS/SL-100 circuit-switched (dialup) operation.

REFERENCE DOCUMENTATION: MS4X25BS 00 02

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: Rena Fisher Dept. 3471 (PPK)

| MAIN CONTACT: Rena Fisher Dept. 3471 (PPK)

NT4X25BS EMR7-COAX-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 03	----- ECM 346 03	Previous history not available Combine EMA7-COAX-1 with EMA7-COAX-2 sections to eliminate duplicate sec- tion PEC codes.
95 08 14	ECM 222 04	MD NT4X25AM and replace with NT4X25DA.
96 01 05	ECM 346 06	Retire document and MD all Data Units per EC 18-45599 and 18-45600. Use UDS Data Units instead.
97 09 12	ECM 591 05	MD NT0X33AC Circuit Pack Cage Assy. per EC 018-51332.

The Coax Eliminator Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Coax Eliminator B/P Assy	NT4X2529		1			AP
# Circuit Pack Cage Assy	NT0X33AC		1			AP
# Desig. Label (NT4X25BS)	P0665197		2			AP
# 3270NSA Coax Elim. CU I/F	NT4X25AM				1-16	RUL1
# 3174NSA Coax Elim. CU I/F	NT4X25DA				1-16	RUL1
Filler Face Plate	NT0X50AK				2-16	RUL2
# Desig. Label (NT4X25AM)	P0665198				1-16	RUL3
# Desig. Label (NT4X25DA)	P0700462				1-16	RUL4
# Coax Eliminator Term I/F	NT4X25AL					RUL5
# Coax Eliminator Shelf	NT4X25BS					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X33AC	MD	NONE
NT4X25AM	MD	NT4X25DA
NT4X2529	MD	NONE
P0665197	MD	NONE
NT4X25DA	MD	NONE
P0665198	MD	NONE
P0700462	MD	NONE
NT4X25AL	MD	NONE
NT4X25BS	MD	NONE

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

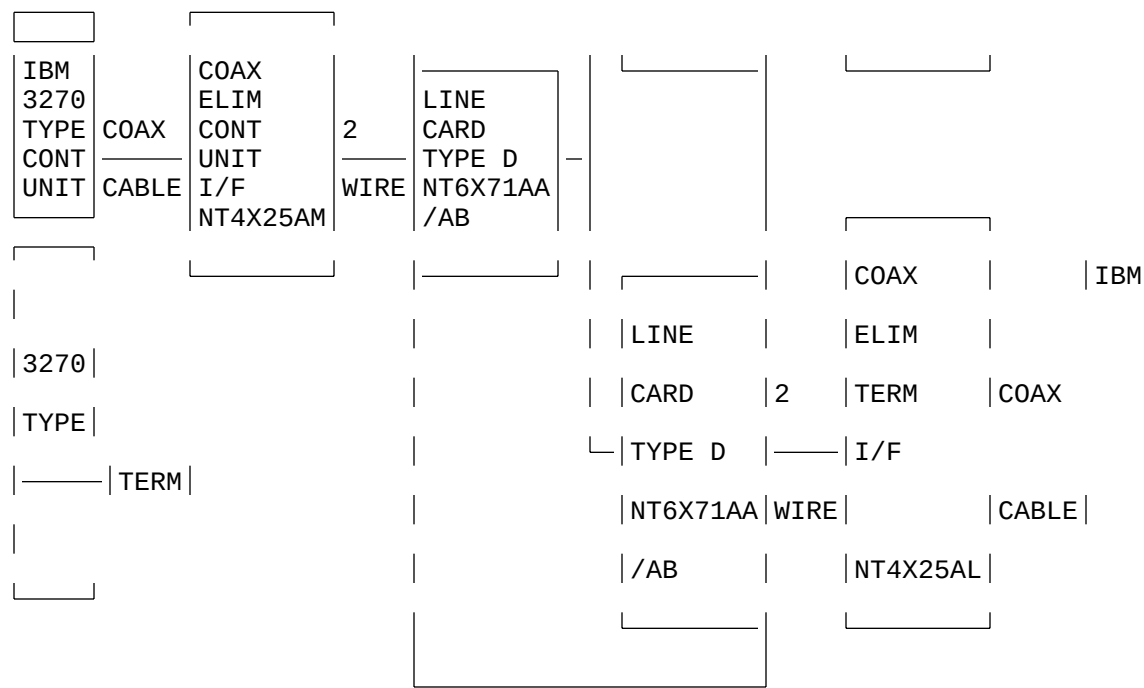
- 1) The NT4X25BS shelf is a 19 inch rack mounted shelf which is to be mounted on a customer provided standard 19 inch bay (relay rack). The shelf is 14 inches high. The rack must be a minimum of 22 inches deep to accommodate the shelf. The customer may choose to order NT0X25AB Common Framework (19 inch mounts) if a customer provided bay is not being provided.
- 2) If the NT4X25BS shelf is mounted with another NT4X25BS shelf or other equipment, customer provided cooling baffles or fans must be installed to allow for sufficient ventilation and cooling.

If inclined cooling baffles are used, a minimum allowance of 4.5 inches must be provided between each NT4X25BS shelf and other equipment shelves.

If forced air cooling is used, a minimum of 65 cfm air flow, evenly distributed throughout the shelf, is required to restrict the maximum internal temperature rise to 15 Celsius degrees (27 Fahrenheit degrees).

- 3) The NT4X25BS plugs into a standard 110V AC wall outlet.
- 4) The bay containing the NT4X25BS shelf and the required number of NT4X25DA/AM Coax Eliminator Control Unit Interface cards is normally located in the host computer room to allow local attachment of the control units. To reduce the length of coaxial cable required, the bay should be located as close to the IBM control unit as possible.
- 5) The customer shall order the required quantity of NT4X25DA cards on a merchandise order bases (i.e. not via a COEO).
- 6) The concept of the Coax Eliminator is to break the coax run and replace it with special purpose interface devices which are connected via twisted pair and the DMS/SL-100. The interface devices are two separate data units: one to interface to the IBM 3270 type terminal called the Coax Eliminator Terminal Interface, NT4X25AL, and one to interface to an IBM 3270 type control unit called the Coax Eliminator Control Unit Interface, NT4X25AM. See Figure 1.

The interface at the DMS/SL-100 is the standard data line card, line card type D, NT6X71AA/AB. See Figure 1.



DMS/SL-100

FIGURE 1

Figure 2. TYPICAL COAX ELIMINATOR DATA UNIT CONFIGURATION.

- 7) The customer shall order the required quantity of NT4X25AL and NT4X25BS on a merchandise order basis (i.e. not via a COE0).

RULES:

- AP 1) When PEC NT4X25BS is ordered, these items are provided.
- RUL1 1) Provide Coax Eliminator Control Unit Interface circuits as required by customer, in positions 1 to 16. Maximum of sixteen per shelf. Each card occupies one slot. Back card receives power from the shelf back plane.

- 2) The 3174NSA Coax Eliminator Control Interface, NT4X25DA, is a device which emulates a terminal in communication with the control unit. The NT4X25DA supports emulation of both DFT and CUT protocols, effectively converting them to the TCM link format and message set.
 - 3) The 3270NSA Coax Eliminator Control Interface, NT4X25AM, is functionally identical to the 3174NSA Coax Eliminator Control Interface, NT4X25DA, except that it only supports CUT protocol.
 - 4) A minimum of two (2) NT4X25DA cards and/or NT4X25AM cards must be installed in the shelf to satisfy the minimum load requirements of the shelf power supply.
 - 5) The NT4X25DA and NT4X25AM connects via customer provided coax cable (RG62A/U) to the control unit and is compatible with the IBM 3274, 3276, and 3174 type control units.
 - 6) Each NT4X25DA and NT4X25AM requires one line card type D, NT6X71AA/AB.
- RUL2 1) For every card position (2-16) not equipped with a NT4X25AM CP, provide one NT0X50AK Filler Face Plate.
- RUL3 1) Provide one Designation Label (P0665198) per NT4X25AM provisioned.
- RUL4 1) Provide one Designation Label (P0700462) per NT4X25DA provisioned.
- RUL5 1) The Coax Eliminator Terminal Interface, NT4X25AL, is a device which emulates a control unit in communication with the terminal.
- 2) The NT4X25AL connects via coax to the terminal and is normally co-located with the terminal, although a coax separation of up to 1500 meters can technically be realized.
 - 3) The connection between NT4X25AL and the IBM terminal is made via a length of customer provided coaxial cable (RG62A/U).
 - 4) The NT4X25AL is compatible with the following IBM terminal types:

3278 mod 2-5 monochrome
3279 colour display without convergence
3178 monochrome

IBM PC with IRMA (up/downloading is not supported)

The following features are also supported on the above mentioned terminals:

Extended Attributes (eg. 7 colours on 3279)
Light Pen

- 5) Each NT4X25AL requires one line card type D, NT6X71AA/AB.
 - 6) NT4X25AL comes with an external power supply which plugs into a standard 110V AC wall outlet.
 - 7) NT4X25AL must be located next to the terminal so that the RLS (release) key is easily accessible to the terminal user. This also reduces the length of coax cable required to connect the NT4X25AL to the terminal.
- RUL6 1) The Coax Eliminator Shelf, NT4X25BS, houses the NT4X25AM Coax Eliminator Control Unit Interface CP's. The NT4X25AM is the interface between the host computer's control unit and the DMS/SL-100 system.

MDC ELECTRONIC BUSINESS SETS (EBS)

NT4X20

RATING: MD. Replaced by P_PHONE.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The DMS-100 Electronic Business Set (EBS), designed to operate with Northern Telecom's Meridian Digital Centrex, provides subscribers with pushbutton access to a host of business features. The software assignable keys and the modular add-on units of the Business Set allow users to customize the set with the features that best suit their particular needs.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

NT4X20 EMR7-P-PHONE-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 02 18	----- ECM 195 04	Previous history not available. MD'd Electronic Business Sets (EBS) and replaced with Meridian Business Sets (MBS).

The MDC Electronic Business Sets (EBS) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# DMS/SL100 Bus Set Mod Basic	NT4X20AA					RUL1
# DMS/SL100 Bus Set Mod Basic	NT4X20AL					RUL1
# DMS/SL100 Bus Set Mod Disp	NT4X20AB					RUL3
# DMS/SL100 Bus Set Mod Disp	NT4X20AM					RUL3
# ESD Kitmod for Dis P-Phone	NT4X20AE					RUL2
# ESD Kitmod for Dis P-Phone	NT4X20AR					RUL2
# Display Set w Spade Tips	NT4X20AF					RUL4
# SL100 ACD Basic Set	NT4X20AH					RUL10
# SL100 ACD Display Set	NT4X20AK					RUL10
# IBN Disp Set 4X20AM e/w HD	NT4X20AT					RUL10

Optional Add-on Modules

# Hands Free Unit	NT1L00AA-35					RUL5
# Auto Answer Back Module	NT4X20AJ					RUL6
# 20 Button Add-on Module	NT4X20AC					RUL7
# 20 Button Add-on Expand.	NT4X20AG					RUL8
# 24V AC/DC Pwr Transformer	5324-000-401A					RUL9

FLAGS:

Manufacture Discontinued (MD)

NOTES:

- 1) The Teladapt connector is a connectorized jack (at the wall outlet side).

The Spade Tip is a horseshoe shaped connector which is screwed down (at the wall outlet side).

- 2) The Basic Business Set is equipped with the following:

- 1) a standard 12-button telephone key pad
- 2) eight assignable feature keys with associated Liquid Crystal Display (LCD) indicators
- 3) one assignable feature key without an LCD indicator

- 4) dedicated volume up feature key
 - 5) dedicated volume down feature key
 - 6) dedicated hold feature key
 - 7) dedicated release feature key
- 3) The Display Business Set has all the features of the Basic Business Set plus a 32 character alphanumeric digit LCD display. The display, made up of two lines of 16 characters centered above the key pad, is controlled by an internal microprocessor and shows information such as the following:
- 1) called number
 - 2) calling number
 - 3) time
 - 4) feature programming
- 4) Line Card Type C, NT6X21AB
- The Line Card Type C, NT6X21, is required to support the EBS.
- 5) The Business Set operates over a 2-wire (single pair) unloaded loop connected to a Line Card Type C located in either a DMS-100/MDC host office or a DMS-100 remote.
- Each loop (line card) can support a Business Set having the capability of carrying a maximum of three 20 button add-on modules and a Hands Free Unit.
- 6) Electronic Business Sets shall be provided on Merchandise Orders only for Canadian jobs.

RULES:

- RUL1
- 1) The NT4X20AA/AL is a Basic Business Set with no digit display. It comes equipped with Teladapt connectors.
 - 2) For Canadian markets, order NT4X20AA.
 - 3) For U.S. markets, order NT4X20AL.

- RUL2 1) The NT4X20AE/AR is a Basic Business Set with no digit display. It comes equipped with Spade tips.
- 2) For Canadian markets, order NT4X20AE.
- 3) For U.S. markets, order NT4X20AR.
- RUL3 1) The NT4X20AB/AM is a Display Business Set with digit display. It comes equipped with Teladapt connectors.
- 2) For Canadian markets, order NT4X20AB.
- 3) For U.S. markets, order NT4X20AM.
- RUL4 1) The NT4X20AF is a Display Business Set with digit display. It comes equipped with Spade tips. (For Canadian markets only.)
- RUL5 1) The NT1L00AA-35 Hands Free Unit is an optionally available module which may be connected to the left side of the Business Set.
- RUL6 1) The NT4X20AJ Auto Answer Back Module is an optionally available module which may be plugged into the Business Set to give it the Auto Answer Back feature. As a prerequisite, the Business Set must be equipped with a Hands Free Unit.
- RUL7 1) NT4X20AC 20 Button Add-On Module rated A&M may be used as the end add-on module for the EBS NT4X20AA/AB. On new jobs provide the NT4X20AG to provide the 20 Button Add-On option.
- 2) The NT4X20AC is a 20 Button Add-On Module which extends the capability of a Business Set by adding more feature keys. It features two rows of 10 buttons; the top two buttons in each row are not equipped with LCD and are used for features which do not require LCD display. The add-on module attaches to the right side of the Business Set.
- RUL8 1) NT4X20AG 20 Button Add-On Module Expandable
- The NT4X20AG is similar to the NT4X20AC 20 Button Add-On Module but, in addition to the other features, up to three modules may be used with each Business Set by plugging the second or third module into the previous one.
- 2) Up to three 20 key or button add-on modules may be attached to the right side of the Business Set providing up to 69

keys (56 of which have associated LCD indicators) which can be programmed with any combination of features and directory numbers. LCD indicators are used to minimize power consumption.

- 3) In cases where the NT4X20AC exists in the office and the EBS feature capability must be extended; provide a maximum of two (2) NT4X20AGs, and use the NT4X20AC as the last Add-On module for a maximum of three (3) Add-On Modules per EBS.

RUL9 1) Provide the 5324-000-401A (24V Transformer) for all Basic Sets configured as follows:

- a) Basic Set is equipped with two to three Add-On modules, or
- b) Basic Set is equipped with Handsfree Unit and two to three Add-On modules, or
- c) Basic Set is equipped with one Add-On Module and DC Loop Resistance exceeds 250 ohms.

2) Provide the 5324-000-401A (24V Transformer) for all Display Sets configured as follows:

- a) Display Set is equipped with two to three Add-On modules, or
- b) Display Set is equipped with Handsfree Unit and two to three Add-On modules, or
- c) Display Set is equipped with one Add-On Module and DC Loop Resistance exceeds 250 ohms.

RUL10 1) The NT4X20AT is a Display Business Set with digit display. It comes equipped with Teladapt connectors and is used with Automatic Call Distribution (ACD) Software Features.

2) The NT4X20AH and NT4X20AK are rated MD. On new jobs, provide NT4X20AT.

3) Note: An external 24V power source (Transformer Kit B0721411) is required when using NT4X20AT.

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EMR8

OPERATOR EQUIPMENT CHAPTER ALL

OPERATOR EQUIPMENT CHAPTER ALL

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OPERATOR EQUIPMENT CHAPTER ALL

EMR8-AOSS-1	AUXILIARY OPERATOR SERVICES SYSTEM	NT4X70AA
EMR8-AOSS-2	AUXILIARY OPERATOR SERVICES SYSTEM	NT4X70AB
EMR8-AOSS-3	AUXILIARY OPERATOR SERVICES SYSTEM	NT4X70AC
EMR8-AOSS-4	AUXILIARY OPERATOR SERVICES SYSTEM	NT4X70AD
EMR8-ITOPS4-1	ITOPS OPERATOR POSITION	NT4X71DA
EMR8-ITOPS4-2	ITOPS MODULAR POSITION -48V DC	NT4X71DC
EMR8-ITOPS4-3	ITOPS MODULAR POSITION -48V DC	NT4X71DD
EMR8-OOC-1	OVERSEAS OPERATOR CENTRE CONSOLE POSITIO	NT4X71BA
EMR8-OOC-2	OVERSEAS OPERATOR CENTRE MODULAR POSITIO	NT4X71BC
EMR8-OOC-3	OOC MODULAR FORCE MANAGER POSITION 110V	NT4X71BE
EMR8-TOPSPMP-1	TOPS POSITION CONTROLLER (TPC) PACK FILL	NTNX61AB
EMR8-TOPSPMP-10	TOPS POSITION CONTROLLER (TPC) PACK FILL	NTNX61AF
EMR8-TOPSPMP-2	TOPS POSITION CONTROLLER CP FILL	NTNX61AA
EMR8-TOPSPMP-3	AUXILIARY ACCESS EQUIPMENT CABINET	NTNX57AA
EMR8-TOPSPMP-4	TOPS POSITION CONTROLLER (TPC) PACK FILL	NTNX61AC
EMR8-TOPSPMP-5	TOPS POSITION CONTROLLER (TPC) PACK FILL	NTNX61AD
EMR8-TOPSPMP-6	TOPS POSITION CONTROLLER (TPC) PACK FILL	NTNX61AE
EMR8-TOPSPMP-7	TOPS MULTI-PURPOSE POSITION SYSTEM	NTNX51AA
EMR8-TOPSPMP-8	AUXILIARY ACCESS EQUIPMENT (AAE) CABINET	NTNX57AC
EMR8-TOPSPMP-9	POSITION CONTROLLER EQUIPMENT CABINET	NTNX60AA
EMR8-TOPSPMPX-1	TOPS MULTI-PURPOSE EXTENDED SYSTEM	NTNX51BA
EMR8-TOPS4-1	TOPS-4 CONSOLE POSITION 110V AC	NT4X71AA
EMR8-TOPS4-2	TOPS 4 CONSOLE POSITION -48V DC	NT4X71AB
EMR8-TOPS4-3	TOPS-4 MODULAR POSITION 110V AC	NT4X71AC
EMR8-TOPS4-4	TOPS-4 MODULAR POSITION -48V DC	NT4X71AD
EMR8-TOPS4-5	TOPS-4 MODULAR FM POSITION 110V AC	NT4X71AE
EMR8-TOPS4-6	TOPS-4 MODULAR FM POSITION -48V DC	NT4X71AF
EMR8-TOPS4-7	TOPS-4 CONSOLE POSITION -48V DC	NT4X71CB
EMR8-TOPS4-8	TOPS-4 MODULAR POSITION -48V DC	NT4X71CD
EMR8-TOPS4-9	TOPS-4 MODULAR FM POSITION -48V DC	NT4X71CF
EMR8-TUTOR-2	TOPS TUTOR 3B/OOC TRAINING ADAPTOR	NT4X77BA
EMR8-99-AOSS-1	ESD PRODUCT CHANGE KIT FOR AOSS POSITION	NT4X70AZ
EMR8-99-TOPS-1	TOPS 04 PRODUCT CHANGE KIT	NT4X73AX
EMR8-99-TOPS-2	TOPS 04 ESD PRODUCT CHANGE KIT	NT4X71AZ
EMR8-99-TOPS-3	TOPS 04 EQUAL ACCESS KEYCAP PRODUCT CHAN	NT4X76AH

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AUXILIARY OPERATOR SERVICES SYSTEM
CONSOLE POSITION 110V AC

PEC CODE: NT4X70AA

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Console position arranged for 110V AC
operation

REFERENCE DOCUMENTATION: MS4X70AA 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AA EMR8-AOSS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Console Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Equipment For 110V AOSS Pos	NT4X7000		1			AP
AOSS Furniture (Unit)	NT4X72AA		1			AP
CRT Stand	NPS50218					RUL1
Chair	AR					RUL2
Headset	AR					RUL3
AOSS ESD Kit	NT4X70AZ					RUL4

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge func-

tion can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance Position and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
This card mounts on a TM (Section EMA14-01-000).
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module con-

troller board. Voice response will be provided by the trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as intital position seziures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incomming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS positions.

RULES:

- AP 1) When PEC NT4X70AA is ordered, these items are provided.
- 2) NT4X7000 provides AOSS Display Unit (NT4X63AA), Controller (110V AC) Unit (NT4X73AE) and Jack Housing Assembly (NT4X7210).
- 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) One CRT Stand (IBM) is required for each IBM Visual Display Unit (VDU) provided by the customer. The stand will minimize the force necessary to move the IBM VDU in any horizontal direction on the work station upper shelf.
- RUL2 1) Chairs may be ordered with or without arms in any of the following colours:

Order No.	Description

OS301/4435	Dark Orange chair without arms
* A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
* OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
* OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
* A0288174	Camel chair with arms
C0058480	Brown chair without arms
C0057448	Brown chair with arms

* Rated MD.

- RUL3 1) The following headsets are available for U.S. applications as required by the customer:

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

The four (4) headsets listed above for U.S. application are being reclassified and their status should be checked before ordering. The replacement headset is the Plantronics Starmate E-Plus Model MH053-1.

- 2) The following headsets are available for Canadian applications as required by the customer:

CPC	Description
A0242363	Standard Headset QSR2F1
A0242365	10 Ft. Cord QSR2G1
A0242367	Supervisor Headset - 10 Ft. Cord QSR2H1

- RUL4 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AA, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

AUXILIARY OPERATOR SERVICES SYSTEM
CONSOLE POSITION -48V DC

PEC CODE: NT4X70AB

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Console position arranged for -48V DC operation.

REFERENCE DOCUMENTATION: MS4X70AB 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AB EMR8-AOSS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Console Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Equip For -48V DC AOSS Pos	NT4X7001		1			AP
AOSS Furniture (Unit)	NT4X72AA		1			AP
CRT Stand	NPS50218					RUL1
Chairs	AR					RUL2
Headset	AR					RUL3
AOSS ESD Kit	NT4X70AZ					RUL4

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge func-

tion can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance Position and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
This card mounts on a TM (Section EMA14-01-000).
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module con-

troller board. Voice response will be provided by the trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as intital position seziures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incomming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS

RULES:

- AP 1) When PEC NT4X70AB is ordered, these items are provided.
- 2) NT4X7001 provides AOSS Display Unit (NT4X63AA), Controller (-48V DC) Unit (NT4X73AF) and Jack Housing Assembly (NT4X7210).
 - 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) One CRT Stand (IBM) is required for each IBM Visual Display Unit (VDU) provided by the customer. The stand will minimize the force necessary to move the IBM VDU in any horizontal direction on the work station upper shelf.
- RUL2 2) Chairs may be ordered with or without arms in any of the following colors:

ORDER NO	DESCRIPTION
OS301/4435	Dark Orange chair without arms
* A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
* OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
* OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
* A0288174	Camel chair with arms
C0058480	Brown chair without arms
C0057448	Brown chair with arms

* Rated MD.

- RUL3 1) The following headsets are available for U.S. applications as required by the customer.

CPC	DESCRIPTION
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

The four (4) headsets listed above for U.S. application are being reclassified and their status should be checked before ordering. The replacement headset is the Plantronics Starmate E-Plus Model MH053-1.

- 2) The following headsets are available for Canadian applications as required by the customer.

CPC	DESCRIPTION
A0242363	STANDARD Headset QSR2F1
A0242365	10 ft cord QSR2G1
A0242367	Supervisor Headset - 10 ft card QSR2H1

- RUL4 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AB, for field application as required.

- 2) This change kit protects the system against electrostatic discharge.

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AUXILIARY OPERATOR SERVICES SYSTEM
MODULAR POSITION 110V AC

PEC CODE: NT4X70AC

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Modular position arranged for 110V AC
operation

REFERENCE DOCUMENTATION: MS4X70AL 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AC EMR8-AOSS-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Modular Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AOSS Display Unit	NT4X63AA		1			AP
Controller (100V AC) Unit	NT4X73AE		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		1			AP
Tray	P0616545		1			AP
AOSS ESD Kit	NT4X70AZ					RUL1

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge function can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
This card mounts on a TM (Section EMA14-01-000).
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module controller board. Voice response will be provided by the trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as initial position seizures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incoming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS.

RULES:

- AP 1) When PEC NT4X70AC is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AC, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

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AUXILIARY OPERATOR SERVICES SYSTEM
MODULAR POSITION -48V DC

PEC CODE: NT4X70AD

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Modular position arranged for -48V DC
operation

REFERENCE DOCUMENTATION: MS4X70AD 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AD EMR8-AOSS-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AOSS Display Unit	NT4X63AA		1			AP
Controller (-48V DC) Unit	NT4X73AF		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		2			AP
Tray	P0616545		1			AP
AOSS ESD Kit	NT4X70AZ					RUL1

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge function can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB* or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance Position and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB* mounts on a DCM (Section EMA2-01-DCM).
The NT6X50AA mounts on a DTC, LGC, LTC (Section EMA2-06-000).
* To be rated MD.

- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
This card mounts on a TM (Section EMA14-01-000).

- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.

- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module controller board. Voice response will be provided by the

trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as initial position seizures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incoming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS.

RULES:

- AP 1) When PEC NT4X70AD is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AD, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

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ITOPS MODULAR POSITION -48V DC

PEC CODE: NT4X71DD

CPC CODE: B0230486

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZ000AP/NTZ000AU

ABBREVIATION NAME: ITOPS

ENGINEERING DESCRIPTION: ITOPS is an international version of the
standard TOPS-04 hardware.

REFERENCE DOCUMENTATION: MS4X71DD 00 02

MARKETS: Applicable markets:

Asia/Pacific
CALA
Europe

ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71DD EMR8-ITOPS4-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-- -- --	--- --- --	Previous history not available
95 03 17	ECM 361 07	Introduce replacement for section.
95 04 05	ECM 361 08	Replace codes for chair provisioning.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The ITOPS Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ITOPS Controller	NT4X73DA		1			AP
ITOPS Monitor	A0367757		1			AP
Monitor Base	A0368519		1			AP
TOPS-04 Headset Jack Assy	NT4X7212		1			AP
ITOPS Keyboard	NT4X76CH					RUL1
Enhanced ITOPS Keyboard	NT4X76CM					RUL1
ITOPS Enhanced Keycap Kit	NT4X76CN					RUL1
ITOPS In-Charge Keyboard	NT4X76CK					RUL1
French ITOPS Keyboard	NT4X76EC					RUL1
French ITOPS In-Charge Keybd	NT4X76EB					RUL1
Chair	AR					RUL2
Headset	QSR2E					RUL3
TOPS-04 Adjust Furniture	NT4X78AA					RUL4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The number of ITOPS operator positions will be determined by the customer.

RULES:

- AP 1) When PEC NT4X71DD is ordered, these items are provided.

- RUL1 1) Provide one (1) NT4X76CH ITOPS Keyboard for each operator position for applications in BCS-28 or lower. Beginning in BCS-29, provide one (1) NT4X76CM Enhanced ITOPS Keyboard for each operator position.
- 2) To field upgrade an existing NT4X76CH ITOPS Keyboard to an NT4X76CM Enhanced ITOPS Keyboard for BCS-29 compatibility, provide one (1) NT4X76CN ITOPS Enhanced Keycap Kit.
- 3) Provide one (1) NT4X76CK ITOPS In-Charge Keyboard for each In-Charge and Assistance Position.
- 4) Provide one (1) NT4X76EC French ITOPS Keyboard for each operator position requiring a French man-machine interface.
- 5) Provide one (1) NT4X76EB French ITOPS In-Charge Keyboard for each In-Charge and Assistance Position requiring a French man-machine interface.

- RUL2 1) Chairs may be ordered in the following colors:

CPC Codes	Description
-----	-----
A0360810	Brown Chair
A0360811	Ultramarine Dark Chair
A0360812	Camel Light Chair

- RUL3 1) Provide one Venture 1 Operator Headset (RFI-internally-shielded), Model No. QSR2E, which is to be ordered separately, when specified by the customer.

- RUL4 1) Provide one (1) NT4X78AA T0PS-04 Adjustable Furniture when specified.

This includes the following:

PEC	DESCRIPTION
NT4X7801	Side Panel, Left
NT4X7802	Side Panel, Right
NT4X7803	Console, Upper
NT4X7804	Console, Lower

AUXILIARY OPERATOR SERVICES SYSTEM
CONSOLE POSITION -48V DC

PEC CODE: NT4X70AB

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Console position arranged for -48V DC operation.

REFERENCE DOCUMENTATION: MS4X70AB 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AB EMR8-AOSS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Console Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Equip For -48V DC AOSS Pos	NT4X7001		1			AP
AOSS Furniture (Unit)	NT4X72AA		1			AP
CRT Stand	NPS50218					RUL1
Chairs	AR					RUL2
Headset	AR					RUL3
AOSS ESD Kit	NT4X70AZ					RUL4

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge func-

tion can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance Position and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
This card mounts on a TM (Section EMA14-01-000).
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module con-

troller board. Voice response will be provided by the trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as initial position seizures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incoming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS

RULES:

- AP 1) When PEC NT4X70AB is ordered, these items are provided.
- 2) NT4X7001 provides AOSS Display Unit (NT4X63AA), Controller (-48V DC) Unit (NT4X73AF) and Jack Housing Assembly (NT4X7210).
 - 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) One CRT Stand (IBM) is required for each IBM Visual Display Unit (VDU) provided by the customer. The stand will minimize the force necessary to move the IBM VDU in any horizontal direction on the work station upper shelf.
- RUL2 2) Chairs may be ordered with or without arms in any of the following colors:

ORDER NO	DESCRIPTION
OS301/4435	Dark Orange chair without arms
* A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
* OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
* OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
* A0288174	Camel chair with arms
C0058480	Brown chair without arms
C0057448	Brown chair with arms

* Rated MD.

- RUL3 1) The following headsets are available for U.S. applications as required by the customer.

CPC	DESCRIPTION
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

The four (4) headsets listed above for U.S. application are being reclassified and their status should be checked before ordering. The replacement headset is the Plantronics Starmate E-Plus Model MH053-1.

- 2) The following headsets are available for Canadian applications as required by the customer.

CPC	DESCRIPTION
A0242363	STANDARD Headset QSR2F1
A0242365	10 ft cord QSR2G1
A0242367	Supervisor Headset - 10 ft card QSR2H1

- RUL4 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AB, for field application as required.

- 2) This change kit protects the system against electrostatic discharge.

AUXILIARY OPERATOR SERVICES SYSTEM
MODULAR POSITION 110V AC

PEC CODE: NT4X70AC

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Modular position arranged for 110V AC
operation

REFERENCE DOCUMENTATION: MS4X70AL 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AC EMR8-AOSS-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Modular Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AOSS Display Unit	NT4X63AA		1			AP
Controller (100V AC) Unit	NT4X73AE		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		1			AP
Tray	P0616545		1			AP
AOSS ESD Kit	NT4X70AZ					RUL1

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge function can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
This card mounts on a TM (Section EMA14-01-000).
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module controller board. Voice response will be provided by the trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as initial position seizures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incoming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS.

RULES:

- AP 1) When PEC NT4X70AC is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AC, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

AUXILIARY OPERATOR SERVICES SYSTEM
MODULAR POSITION -48V DC

PEC CODE: NT4X70AD

| RATING: MD

ABBREVIATION NAME: AOSS

ENGINEERING DESCRIPTION: AOSS Modular position arranged for -48V DC
operation

REFERENCE DOCUMENTATION: MS4X70AD 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AD EMR8-AOSS-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Auxiliary Operator Services System Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AOSS Display Unit	NT4X63AA		1			AP
Controller (-48V DC) Unit	NT4X73AF		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		2			AP
Tray	P0616545		1			AP
AOSS ESD Kit	NT4X70AZ					RUL1

- NOTE: 1) The AOSS Position consists of modified TOPS furniture designed to accommodate the AOSS Display Module and a Visual Display Unit (VDU) of an external Information Retrieval System.
- 2) As in the case of TOPS, the AOSS operator force can be subdivided into a number of Traffic Offices (up to 32) for administrative purposes. A DMS-200 or DMS-100/200 can serve one or more locations. Each AOSS location is defined as a Traffic Office or Team.
- 3) The AOSS system is comprised of operator positions, supervisory positions (assistance, in charge), monitors and printers, and service circuits.
- 4) The number of AOSS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 5) The number of AOSS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The assistance function can be assigned to any AOSS Operator Position so that the position will become an AOSS Assistance Position.
- 6) One AOSS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture. The in-charge function can be assigned to any AOSS Operator Position so that the position will become an AOSS In-Charge Position.

- 7) Two trunk circuits, digital (NT2X35AB* or NT6X50AA) or analog (NT2X72AA), are required for each AOSS Operator Position, AOSS Assistance Position and AOSS In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB* mounts on a DCM (Section EMA2-01-DCM).
The NT6X50AA mounts on a DTC, LGC, LTC (Section EMA2-06-000).
* To be rated MD.
- 8) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.
- 9) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each AOSS Position and AOSS TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).
- (NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)
- 10) Since AOSS positions are required to forward calls to other locations only in the event of emergency calls, calls to a distant assistance center, calls for language assistance or calls to the AOSS Assistance Position and In-Charge Position, provide a quantity of 3-port conference circuits equal to 10% of the total number of AOSS positions. There should be a minimum of two (2) per traffic office. A common pool of hot standby spares provisioned at 5% of requirements is recommended.
This card mounts on a TM (Section EMA14-01-000).
- 11) At least one AOSS Operator Position should be permanently installed in the DMS maintenance area for maintenance and reload purposes.
- 12) The training feature for AOSS will be provided by simulation of call types through firmware on the module controller board. Voice response will be provided by the

trainer on a separate jack. All AOSS Positions will be equipped with the training feature.

- 13) One TOM TTY is required per Traffic office. It provides traffic data pertaining to each Traffic Office.
- 14) One FM TTY is only required at one location in a multi-office AOSS configuration. It provides traffic data such as initial position seizures, work volume, average speed of answer, calls waiting, average work time, average number of occupied positions.
- 15) One MFADS port can be provided per office on an optional basis.
- 16) The SNAC TTY is optional and is used for recording trouble reports. It terminates on the I/O subsystem and does not require digital modems and incoming trunk terminations.
- 17) Five attenuator pads are required for each AOSS Controller Unit including any spare controller unit provided.
- 18) Chairs available - same as TOPS.

RULES:

- AP 1) When PEC NT4X70AD is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X70AZ ESD Kit, per AOSS position, NT4X70AD, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

ITOPS OPERATOR POSITION

NT4X71DA

RATING: MD. Replaced by NT4X71DC.

ABBREVIATION NAME: ITOPS

ENGINEERING DESCRIPTION: ITOPS is an international version of the standard TOPS-04 hardware. This version of ITOPS is intended for use in the Caribbean Expansion Plan.

REFERENCE DOCUMENTATION: MS4X71DA 00 02

The ITOPS Operator Position is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ITOPS Controller	NT4X73DA		1			AP
ITOPS +12V Monitor	NT4X74DA		1			AP
TOPS-04 Adjust Furniture	NT4X78AA		1			AP
ITOPS Keyboard	NT4X76CA					RUL1
ITOPS In-Charge Keyboard	NT4X76CE					RUL1
Chair	AR					RUL2
Headset	AR					RUL3

NOTE:

- 1) The NT4X71DA ITOPS Operator Position includes TOPS-04 furniture NT4X78AA.

This includes the following:

PEC	DESCRIPTION
A0336426	Side Panel, Left
A0336428	Side Panel, Right
A0336455	Console, Upper
A0336456	Console, Lower

- 2) The number of ITOPS operator positions will be determined by the customer.
- 3) One ITOPS In Charge Position is required per office. In small office configurations a separate assistance position will not be required as the function is performed by the In Charge Position.
- 4) Two trunk circuits (NT6X27AA) are required for ITOPS operator, in charge and assistance positions. One trunk circuit is required for each force manager position.
- 5) One trunk circuit is required for each TTY device.
- 6) One digital modem circuit NT3X02AA/NT3X03AA is required for each ITOPS position and for each ITOPS TTY device. A com-

mon pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.

- 7) One 3-port conference circuit NT3X67BA is required for each ITOPS operator position, assistance position and in charge position. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.

RULE:

- AP 1) When PEC NT4X71DA is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X76CA ITOPS Keyboard for each operator position.
- 2) Provide one (1) NT4X76CE ITOPS In Charge Keyboard for each in charge and assistance position.
- RUL2 1) Chairs may be ordered with or without arms in any of the following colours:

Order No.	Description
-----	-----
05301/4435	dark orange chair without arms
A0286466	dark orange chair with arms
05301/4462	dark emerald chair without arms
05302/4462	dark emerald chair with arms
05301/4436	crimson chair without arms
C0057911	crimson chair with arms
05301/4441	blue chair without arms
05302/4441	blue chair with arms
05301/4447	camel chair without arms
A0288174	camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

- RUL3 1) The following headsets are available as required by the customer.

CPC	Description
-----	-----
A0242363	standard headset QSR2F1
A0242365	10 ft. cord QSR2G1
A0242367	supervisor headset - 10ft cord QSR2H1

ITOPS MODULAR POSITION -48V DC

PEC CODE: NT4X71DC

RATING: MD

ABBREVIATION NAME: ITOPS

ENGINEERING DESCRIPTION: ITOPS is an international version of the
standard TOPS-04 hardware.

REFERENCE DOCUMENTATION: MS4X71DC 00 01

	ISSUE AUTHOR: NTI:	Richard Mathias	Dept. 3471	(PPK)
	MAIN CONTACT: NTI:	Richard Mathias	Dept. 3471	(PPK)

NT4X71DC EMR8-ITOPS4-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The ITOPS Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ITOPS Controller	NT4X73DA		1			AP
ITOPS +12V Monitor	NT4X74DA		1			AP
TOPS-04 Headset Jack Assy	NT4X7212		1			AP
ITOPS Keyboard	NT4X76CA					RUL1
Enhanced ITOPS Keyboard	NT4X76CL					RUL1
ITOPS Enhanced Keycap Kit	NT4X76CN					RUL1
ITOPS In-Charge Keyboard	NT4X76CE					RUL1
Chair	AR					RUL2
Headset	QSR2E					RUL3
TOPS-04 Adjust Furniture	NT4X78AA					RUL4

NOTES:

- 1) The number of ITOPS operator positions will be determined by the customer.

RULES:

- AP 1) When PEC NT4X71DC is ordered, these items are provided.
- RUL1 1) Provide one (1) NT4X76CA ITOPS Keyboard for each operator position for applications in BCS-28 or lower. Beginning in BCS-29, provide one (1) NT4X76CL Enhanced ITOPS Keyboard for each operator position. 2) To field upgrade an existing NT4X76CA ITOPS Keyboard to an NT4X76CL Enhanced ITOPS Keyboard for BCS-29 compatibility, provide one (1) NT4X76CN ITOPS Enhanced Keycap Kit.
- 3) Provide one (1) NT4X76CE ITOPS In Charge Keyboard for each in charge and assistance position.

- RUL2 1) Chairs may be ordered with or without arms in any of the following colours:

CPC Number	Colour	Description
-----	-----	-----
C0047985	Rust	Delta Cat. No. 3221
C0047986	Orange	Delta Cat. No. 3222
C0047987	Gold	Delta Cat. No. 3223
C0047988	Red	Delta Cat. No. 3224
C0047989	Yellow	Delta Cat. No. 3225
C0047990	Green	Delta Cat. No. 3226
C0047991	Blue	Delta Cat. No. 3227
C0047992	Black	Delta Cat. No. 3228

In addition to CPC number, the order must specify either with or without arms.

- RUL3 1) Provide one Venture 1 Operator Headset (RFI-internally-shielded), Model No. QSR2E, which is to be ordered separately, when specified by the customer.

- RUL4 1) Provide one (1) NT4X78AA TOPS-04 Adjustable Furniture when specified.

This includes the following:

PEC	DESCRIPTION
NT4X7801	Side Panel, Left
NT4X7802	Side Panel, Right
NT4X7803	Console, Upper
NT4X7804	Console, Lower

ITOPS MODULAR POSITION -48V DC

PEC CODE: NT4X71DD

CPC CODE: B0230486

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZ000AP/NTZ000AU

ABBREVIATION NAME: ITOPS

ENGINEERING DESCRIPTION: ITOPS is an international version of the
standard TOPS-04 hardware.

REFERENCE DOCUMENTATION: MS4X71DD 00 02

MARKETS: Applicable markets:

Asia/Pacific
CALA
Europe

ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71DD EMR8-ITOPS4-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-- -- --	--- --- --	Previous history not available
95 03 17	ECM 361 07	Introduce replacement for section.
95 04 05	ECM 361 08	Replace codes for chair provisioning.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The ITOPS Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ITOPS Controller	NT4X73DA		1			AP
ITOPS Monitor	A0367757		1			AP
Monitor Base	A0368519		1			AP
TOPS-04 Headset Jack Assy	NT4X7212		1			AP
ITOPS Keyboard	NT4X76CH					RUL1
Enhanced ITOPS Keyboard	NT4X76CM					RUL1
ITOPS Enhanced Keycap Kit	NT4X76CN					RUL1
ITOPS In-Charge Keyboard	NT4X76CK					RUL1
French ITOPS Keyboard	NT4X76EC					RUL1
French ITOPS In-Charge Keybd	NT4X76EB					RUL1
Chair	AR					RUL2
Headset	QSR2E					RUL3
TOPS-04 Adjust Furniture	NT4X78AA					RUL4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The number of ITOPS operator positions will be determined by the customer.

RULES:

- AP 1) When PEC NT4X71DD is ordered, these items are provided.

- RUL1 1) Provide one (1) NT4X76CH ITOPS Keyboard for each operator position for applications in BCS-28 or lower. Beginning in BCS-29, provide one (1) NT4X76CM Enhanced ITOPS Keyboard for each operator position.
- 2) To field upgrade an existing NT4X76CH ITOPS Keyboard to an NT4X76CM Enhanced ITOPS Keyboard for BCS-29 compatibility, provide one (1) NT4X76CN ITOPS Enhanced Keycap Kit.
- 3) Provide one (1) NT4X76CK ITOPS In-Charge Keyboard for each In-Charge and Assistance Position.
- 4) Provide one (1) NT4X76EC French ITOPS Keyboard for each operator position requiring a French man-machine interface.
- 5) Provide one (1) NT4X76EB French ITOPS In-Charge Keyboard for each In-Charge and Assistance Position requiring a French man-machine interface.

- RUL2 1) Chairs may be ordered in the following colors:

CPC Codes	Description
-----	-----
A0360810	Brown Chair
A0360811	Ultramarine Dark Chair
A0360812	Camel Light Chair

- RUL3 1) Provide one Venture 1 Operator Headset (RFI-internally-shielded), Model No. QSR2E, which is to be ordered separately, when specified by the customer.

- RUL4 1) Provide one (1) NT4X78AA T0PS-04 Adjustable Furniture when specified.

This includes the following:

PEC	DESCRIPTION
NT4X7801	Side Panel, Left
NT4X7802	Side Panel, Right
NT4X7803	Console, Upper
NT4X7804	Console, Lower

OVERSEAS OPERATOR CENTRE CONSOLE POSITION 110V AC

PEC CODE: NT4X71BA

| RATING: MD

ABBREVIATION NAME: OOC

ENGINEERING DESCRIPTION: Overseas Operator Centre Position is based on the DMS TOPS system. The OOC requirements represent new and altered concepts added to TOPS base.

REFERENCE DOCUMENTATION: MS4X71BA 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71BA EMR8-00C-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Overseas Operator Centre Console Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard						
Regular Type	NT4X76BA					RUL1
In-Charge Type	NT4X76BE					RUL1
Assistance Type	NT4X76BF					RUL1
Tops 00C EQUIP for 110V AC	NT4X7102		1			AP
Furniture Unit	NT4X72AA		1			AP
Chairs	AR					RUL2
Headsets	AR					RUL3
Keytops for outgoing trunk keys on regular keyboards	B0204174					RUL4
Mechanical lockout of certain keys	A0301128					RUL5

- NOTE: 1) The number of 00C Operator Positions required will be determined customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 2) The number of 00C Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with AC input only. Modular positions will be located on customer supplied furniture.
- 3) One 00C In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with AC input only. Modular positions will be located on customer supplied furniture.
- 4) All other TOPS associated equipment (i.e. TOPS TTY's interface circuits, digital modems, three port conference circuits, outgoing trunk keys, chairs, ect.) will be provided as required similar to TOPS-4 (Section EMA8-TOPS4-1).
- 5) The training position uses the TUTOR-3B as in TOPS-04 (Section EMA8-TUTOR-3B).

RULES:

- AP 1) When PEC NT4X71BA is ordered, these items are provided.
- 2) NT4X7102 provides the TOPS-00C Video Monitor (NT4X74BA), TOPS-00C Controller 110V AC (NT4X73BA), and Jack Housing Assembly (NT4X7210).
- 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).

RUL1 1) Provide one keyboard per position.

RUL2 1) Chairs may be ordered with or without arms in any of the following colors:

<u>Order No</u>	<u>Description</u>
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

RUL3 1) The following headsets are available for U.S. applications as required by the customer.

<u>CPC</u>	<u>Description</u>
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

2) The following headsets are available for Canadian applications as required by the customer.

<u>CPC</u>	<u>Description</u>
A0242363	STANDARD Headset QSR2F1
A0242365	10ft Cord QSR2G1
A0242367	Supervisor Headset - 10ft Cord QSR2H1

RUL4 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. Order blank keytops for any undesignated key positions.

RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.

OVERSEAS OPERATOR CENTRE MODULAR POSITION 110V AC

PEC CODE: NT4X71BC

| RATING: MD

ABBREVIATION NAME: OOC

ENGINEERING DESCRIPTION: Overseas Operator Centre Position is based on the DMS TOPS system. The OOC requirements represent new and altered concepts added to TOPS base.

REFERENCE DOCUMENTATION: MS4X71BC 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71BC EMR8-00C-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Overseas Operator Centre Modular Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard						
Regular Type	NT4X76BA					RUL1
In-Charge Type	NT4X76BE					RUL1
Assistance Type	NT4X76BF					RUL1
Tops OOC CTRL 110V AC	NT4X73BA		1			AP
Jack Housing Assembly	NT4X7210		1			AP
Video Monitor	NT4X74BA		1			AP
Chairs	AR					RUL2
Headsets	AR					RUL3
Keytops for o/g trunk keys on all reg type keyboards	B0204179					RUL4
Mechanical lockout of certain keys	A0301128					RUL5

- NOTE: 1) The number of OOC Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 2) The number of OOC Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with AC input only. Modular positions will be located on customer supplied furniture.
- 3) One OOC In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with AC input only. Modular positions will be located on customer supplied furniture.
- 4) All other TOPS associated equipment (i.e. TOPS TTY's interface circuits, digital modems, three port conference circuits, outgoing trunk keys, chairs, ect.) will be provided as required similar to TOPS-4 (Section EMA8-TOPS4-1).

RULES:

AP 1) When PEC NT4X71BC is ordered, these items are provided.

RUL1 1) Provide one keyboard per position.

RUL2 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

RUL3 1) The following headsets are available for U.S. applications as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

2) The following headsets are available for Canadian applications as required by the customer.

CPC	Description
A0242363	STANDARD Headset QSR2F1
A0242365	10ft Cord QSR2G1
A0242367	Supervisor Headset - 10ft Cord QSR2H1

- RUL4 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. Order blank keytops for any undesignated key positions.
- RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.

OOC MODULAR FORCE MANAGER POSITION 110V AC

PEC CODE: NT4X71BE

| RATING: MD

ABBREVIATION NAME: OOC

ENGINEERING DESCRIPTION: Overseas Operator Centre Position is based on the DMS TOPS system. The OOC requirements represent new and altered concepts added to TOPS base.

REFERENCE DOCUMENTATION: MS4X71BE 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71BE EMR8-00C-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The 00C Modular Force Manager Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops 00C CTRL 110V AC	NT4X73BA		1			AP
Video Monitor	NT4X74BA		1			AP
Chairs	AR					RUL2

- NOTE: 1) Only one Force Manager position is required at one location in a multi-office 00C configuration.
- 2) No 00C Modular Force Manager requirement is foreseen for -48V DC operation.

RULES:

- AP 1) When PEC NT4X71BC is ordered, these items are provided.
- RUL1 1) Provide one keyboard per position.
- RUL2 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

TOPS POSITION CONTROLLER (TPC) PACK FILL

NTNX61AB

| RATING: Manufacture Discontinued. Replaced by
NTNX61AC.

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: MSNX61AB 00 02

The TPC Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NT2X70AD		2	XX	1-3 25-27	AP AP
Aluminum Shield CP	NTNX54BA		1	XX	4	AP
4 Megabyte Memory CP	NTNX63AA		1	XX	5	RUL1
Filler Face Plate	NT0X50AA		1	XX	5	RUL1
Single Board Computer CP	NTNX64AA		1	XX	6	AP
4 Megabyte Memory CP	NTNX63AA		1	XX	7	AP
Filler Face Plate	NT0X50AA		6	XX	8-13	RUL3
High Speed Data Access CP	NTNX66AA		1	XX	13	RUL2
Parallel Input/Output CP	NTNX65AA		1	XX	14	AP
Filler Face Plate	NT0X50AA		3	XX	15,16, 20	AP
Floppy Disk and Control CP	NTNX68AA		1	XX	17-19	AP
Hard Drive and Control CP	NTNX68BA		1	XX	21-23	AP
TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

NOTE: 1) "XX" can be one of 05, 19, 33, 47.

RULE:

- AP 1) When PEC NTNX61AB is ordered, these items are provided.
- RUL1 1) Provide one NTNX63AA 4 Megabyte Memory CP at position 5 when the TPC load is configured with the software features of Directory Assistance (DA) or Operator Reference Database (ORDB). This requires a minimum of BCS27. If this CP is not required, provide one (1) NT0X50AA for position 5.
- RUL2 1) Provisioning of the NTNX66AA is based on the configuration of software features. As additional features become available, provisioning rules will be added. Refer to the following:

Feature	Pack Configuration
-----	-----
DA Only	(1) NTNX66AA in slot 13

- RUL3 1) Provision one NT0X50AA for each slot 8-13 that is not equipped.

TOPS POSITION CONTROLLER (TPC) PACK FILL

PEC CODE: NTNX61AF

CPC CODE: B0232468

| RATING: MD

REPLACES: NTNX61AE

| REPLACED BY: TOPS IWS (Intelligent Workstation)

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US
CALA
Europe
Asia/Pacific

| ISSUE AUTHOR: NTI: Dawn Yost Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Dawn Yost Dept. 3471 (PPK)

NTNX61AF EMR8-TOPSMP-10 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 20	ECM 606 10	Correct description of NTNX63AB. Use new EMS format.
97 03 04	ECM 606 20	Retired by EC 018-49251. Several TOPS MP PECs were MDed by this EC. See Equipment flagged table for details.

The TOPS Position Controller (TPC) Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Aluminum Shield CP	NTNX54BA		1	XX	4	AP
# Single Board Computer CP	NTNX64AB		1	XX	6	AP
# 8 Megabyte Memory CP	NTNX63AB		1	XX	7	AP
# Parallel Input/Output CP	NTNX65BA		1	XX	14	AP
Filler Face Plate	NT0X50AA		3	XX	05,15, 16,20	AP
# Floppy Disk and Control CP	NTNX68CA		1	XX	17-19	AP
# Hard Drive and Control CP	NTNX68DA		1	XX	21-23	AP
# TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX54BA	MD	No replacement.
NTNX64AB	MD	No replacement.
NTNX63AB	MD	No replacement.
NTNX65BA	MD	No replacement.
NTNX68CA	MD	No replacement.
NTNX68DA	MD	No replacement.
NTNX67BA	MD	No replacement.

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "XX" can be one of 05, 19, 33, 47.

RULES:

- AP 1) When PEC NTN61AF is ordered, these items are provided.

TOPS POSITION CONTROLLER PACK FILL

NTNX61AA

RATING: MD. Replaced by NTNX61AB.

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: N/A

The TPC Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NT2X70AD		2	XX	1-3	AP
					25-27	AP
Aluminum Shield CP	NTNX54BA		1	XX	4	AP
Single Board Computer CP	NTNX64AA		1	XX	6	AP
4 Megabyte Memory CP	NTNX63AA		1	XX	7	AP
Filler Face Plate	NT0X50AA		6	XX	5, 8, 13, 15, 16, 20	AP
Parallel Input/Output CP	NTNX65AA		1	XX	14	AP
Floppy Disk and Control CP	NTNX68AA		1	XX	17-19	AP
Hard Drive and Control CP	NTNX68BA		1	XX	21-23	AP
TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

NOTE: 1) "XX" can be one of 05, 19, 33, 47.

RULE:

AP 1) When PEC NTNX61AA is ordered, these items are provided.

AUXILIARY ACCESS EQUIPMENT CABINET

NTNX57AA

RATING: MD. Replaced by NTNX57AC.

ABBREVIATION NAME: AAE

ENGINEERING DESCRIPTION: The Auxiliary Access Equipment (AAE) Cabinet is to be used for TOPS MP support equipment only. The AAE Cabinet houses a Modem Shelf, a RS232 Patch Panel and a Power Distribution Panel (PDP).

REFERENCE DOCUMENTATION: MSNX57AA 00 01

The Auxiliary Access Equipment Cabinet is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SL-100 Cabinet	NTNX25BA		1			AP
AAE Bulkhead Assy	NTNX5708		1			AP
End Panel Assy, Right	NTNX2531		1			AP
End Panel Assy, Left	NTNX2532		1			AP
4" Filler Panel	P0688213		4	63,44, 33,22		AP
UDS Modem Shelf	62005220		3	56,37, 27		AP
UDS 212A Modem Card	62125086			56	1-16	RUL1
RS232 Patch Panel	P0687407		1	49		AP
Power Distribution Panel	NTNX24CA		1	04		AP, RUL2

RULE:

- AP 1) When PEC NTNX57AA is ordered, these items are provided.
- RUL1 1) Provide one 62125086 (A0336307) UDS 212A Modem card for each equipped TPC shelf. The 62125086 modem card will be mounted on the 62005208 (A0336497) modem shelf.
- RUL2 1) Provide a spare Alarm and Converter Drive CP NT0X91AA as required.

TOPS POSITION CONTROLLER PACK FILL

PEC CODE: NTNX61AC

| CPC CODE: B0229012

| RATING: MD

| REPLACES: NTNX61AB

| REPLACED BY: NTNX61AD

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: N/A

| MARKETS: Applicable markets:

| Canada
| US
| CALA
| Europe
| Asia/Pacific

| ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

| MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NTNX61AC EMR8-TOPSMP-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 20	ECM 606 10	Change rating to MD.

The TOPS Position Controller Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Aluminum Shield CP	NTNX54BA		1	XX	4	AP
Single Board Computer CP	NTNX64AA		1	XX	6	AP
4 Megabyte Memory CP	NTNX63AA		1	XX	7	AP
Parallel Input/Output CP	NTNX65AA		1	XX	14	AP
Filler Face Plate	NT0X50AA		3	XX	15,16, 20	AP
Floppy Disk and Control CP	NTNX68AA		1	XX	17-19	AP
Hard Drive and Control CP	NTNX68BA		1	XX	21-23	AP
TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "XX" can be one of 05, 19, 33, 47.

RULES:

AP 1) When PEC NTN61AC is ordered, these items are provided.

TOPS POSITION CONTROLLER PACK FILL

PEC CODE: NTNX61AD

| CPC CODE: B0229739

| RATING: MD

| REPLACES: NTNX61AC

| REPLACED BY: NTNX61AE

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: N/A

| MARKETS: Applicable markets:

| Canada
| US
| CALA
| Europe
| Asia/Pacific

| ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

| MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NTNX61AD EMR8-TOPSMP-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 20	ECM 606 10	Change rating to MD.

The TOPS Position Controller Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Aluminum Shield CP	NTNX54BA		1	XX	4	AP
Single Board Computer CP	NTNX64AA		1	XX	6	AP
4 Megabyte Memory CP	NTNX63AA		1	XX	7	AP
Parallel Input/Output CP	NTNX65AA		1	XX	14	AP
Filler Face Plate	NT0X50AA		3	XX	15,16, 20	AP
Floppy Disk and Control CP	NTNX68AA		1	XX	17-19	AP
Hard Drive and Control CP	NTNX68BA		1	XX	21-23	AP
TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "XX" can be one of 05, 19, 33, 47.

RULES:

AP 1) When PEC NTN61AD is ordered, these items are provided.

TOPS POSITION CONTROLLER (TPC) PACK FILL

PEC CODE: NTNX61AE

CPC CODE: B0230690

RATING: MD

REPLACES: NTNX61AD

REPLACED BY: NTNX61AF

ABBREVIATION NAME: TPC

ENGINEERING DESCRIPTION: The TOPS Position Controller (TPC) Pack Fill
is housed on a TPC shelf.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US
CALA
Europe
Asia/Pacific

ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NTNX61AE EMR8-TOPSMP-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 20	ECM 606 10	Change rating to MD. Correct description of NTNX63AB.
94 02 22	ECM 606 11	Retire this EMS. Correct equipment list to reflect an additional NT0X50AA filler.

The TOPS Position Controller (TPC) Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Aluminum Shield CP	NTNX54BA		1	XX	4	AP
Single Board Computer CP	NTNX64AA		1	XX	6	AP
8 Megabyte Memory CP	NTNX63AB		1	XX	7	AP
Parallel Input/Output CP	NTNX65AA		1	XX	14	AP
Filler Face Plate	NT0X50AA		4	XX	5, 15, 16, 20	AP
Floppy Disk and Control CP	NTNX68AA		1	XX	17-19	AP
Hard Drive and Control CP	NTNX68BA		1	XX	21-23	AP
TOPS EMI Shield/Load CP	NTNX67BA		1	XX	24	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "XX" can be one of 05, 19, 33, 47.

RULES:

- AP 1) When PEC NTNX61AE is ordered, these items are provided.

TOPS MULTI-PURPOSE POSITION SYSTEM

PEC CODE: NTNX51AA

CPC CODE: N/A

| RATING: MD

REPLACES: N/A

| REPLACED BY: TOPS IWS (Intelligent Workstation)

ABBREVIATION NAME: TOPS MP

ENGINEERING DESCRIPTION: The TOPS MP system is configured using the following frames and equipment to provide Toll and Assist, Directory Assistance or Operator Reference Database functions, depending on customer requirements.

REFERENCE DOCUMENTATION: MSNX51AA 00 08

MARKETS: Applicable markets:

Canada
US
CALA
Europe
Asia/Pacific

| ISSUE AUTHOR: NTI: Dawn Yost Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Dawn Yost Dept. 3471 (PPK)

NTNX51AA EMR8-TOPSMP-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
94 02 22	ECM 606 11	Add position labels and stand-alone modems. Change to latest EMS format. Add PECs for position to equipment list. Add straight blade power cord. MD TOPS MP adjustable desk. MD NTNX5303 and NTNX5306 headset jack assemblies.
97 03 04	ECM 606 20	Retired by EC 018-49251. Several TOPS MP PECs were MDed by this EC. See Equipment flagged table for details.

The TOPS Multi-Purpose Position System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Position Controller Equip.	NTNX60AA					RUL1
# Auxiliary Access Equipment	NTNX57AC					RUL2
TOPS Position						RUL3
# - TOPS MP Terminal Base Unit	NT0M90SA					RUL3
# - Monitor	NT0M92FA					RUL3
- Straight Blade Power Cord	NT0M96FC					RUL3
# - TOPS MP Adjustable Desk	NP154					RUL3
# - Ground Bar	NTNX5305					RUL3
# - Headset Jack Assy (7.25 ft)	NTNX5303					RUL3
# - Headset Jack Assy (6.5 ft)	NTNX5306					RUL3
- Headset Jack Assy (10 ft)	NTNX5308					RUL3
# - Keyboard (Engl Universal)	NT0M36AE					RUL3
- Keyboard (French Universal)	NT0M36AA					RUL3
- Keyboard (English IBM DA)	NT0M36AH					RUL3
# - Keyboard (TELMEX DA)	NT4X81EA					RUL3
# - Keyboard (English TA only)	NT4X81DA					RUL3
- Change Kit	NT0M36AF					RUL3
- Change Kit	NT0M96QE					RUL3
- Change Kit	NT0M36AK					RUL3
# - Change Kit	NT4X81EB					RUL3
Cabinet Top Cable Trough	NTNX55AA					RUL4
Anchor Assembly Methods	NTNX56AA					RUL5
	NTNX56BA					
	NTNX56CA					
	NT0X21AV					
	NT0X21AW					
T.A.M.I. Position						RUL6
Computer Based Training	A0361801					RUL8
Teledapt Cross Connect	A0355018					RUL9
Floor Mounting Template	P0696402					RUL10
Aisle Line Up Label	P0696219					RUL11
Honeywell Key Cap Rem Tool	A0398341					RUL12
Position Numbering Labels						RUL13
- (Pos. #0000 - #0071)	P0709162					
- (Pos. #0072 - #0143)	P0709163					
- (Pos. #0144 - #0215)	P0709164					
- (Pos. #0216 - #0287)	P0709165					
- (Pos. #0288 - #0359)	P0709166					
- (Pos. #0360 - #0431)	P0709167					
- (Pos. #0432 - #0503)	P0709168					
- (Pos. #0504 - #0575)	P0709169					
- (Pos. #0576 - #0647)	P0709170					
- (Pos. #0648 - #0719)	P0709171					
- (Pos. #0720 - #0791)	P0709172					

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
- (Pos. #0792 - #0863)	P0709173					
- (Pos. #0864 - #0935)	P0709174					
- (Pos. #0936 - #1007)	P0709175					
- (Pos. #1008 - #1023)	P0709176					
Stand-alone 202 S/T Modem						RUL14
Stand-alone 108 Modem						RUL15

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX60AA	MD	No replacement.
NTNX57AC	MD	No replacement.
NT0M92FA	MD	No replacement.
NT0M90SA	MD	No replacement.
NTNX5305	MD	No replacement.
NT0M36AE	MD	No replacement.
NT4X81EA	MD	No replacement.
NT4X81EB	MD	No replacement.
NTNX5303	MD	NTNX5308
NTNX5306	MD	NTNX5308
NT4X81DA	MD	NT0M36AE
NP154	MD	No replacement.

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTNX51AA is ordered, these items are provided.

- RUL1 1) One NTNX60AA provides from one to sixteen TOPS positions.
- 2) NTNX60AA line ups are limited to a minimum of one and a maximum of four PCE cabinets per line up and per AAE cabinet.
- 3) One cabinet width spacing is required between the PCE and AAE frames.
- 4) End Panels must be provisioned on each end of the PCE line up. Provide one NTNX2531 Right End panel (oriented by facing circuit pack side) per PCE line up. Provide one NTNX2532 Left End panel (oriented same) per PCE line up.
- 5) Provide the NTNX2544 kit for attaching adjacent frames internal to the line up. Provide four kits per adjacent frame for a non-earthquake site and six kits per adjacent frame for an earthquake site.
- 6) Provide the NTNX2545 kit for EMI contact hardware per each adjacent frame internal to the line up. One set per adjacent frame.
- RUL2 1) Maximum of one AAE frame per PCE line up.
- RUL3 1) The TOPS MP Adjustable Desk is MD. Integrated positions included the desk. Therefore, all positions must be provided as modular positions.

For each Operator position required, the following equipment must be supplied:

For TOPS MP Operator Position -

one (1) NT0M90SA TOPS MP Terminal Base Unit
one (1) NT0M92FA Monitor
one (1) NTNX5305 Ground Bar (1 per 128 positions)
two (2) NTNX5308 Headset Jack Assembly (10.0 feet)

EITHER one (1) NT0M36AE Keyboard (English Universal)
OR one (1) NT0M36AA Keyboard (French Universal)
OR one (1) NT0M36AH Keyboard (English IBM DA)
OR one (1) NT4X81EA Keyboard (TELMEX DA)

- 2) The TOPS MP terminal base unit includes a twist-lock power cord. Order one straight blade power cord per position if requested by the customer.

- 3) Change Kit NT0M36AF is available to convert a NT4X81DA keyboard to NT0M36AE equivalence. The keyboard produced by applying NT0M36AF to an NT4X81DA will be known as NT4X81DB (B0229511) and is functionally the same as the NT0M36AE keyboard but uses different artwork internally.
- 4) Provide one ground bar assembly (NTNX5305) for up to 128 positions. Up to eight positions can be daisy chained together and up to sixteen of the last positions can be tied back to the ground bar assembly.
- 5) Change Kit NT0M96QE is available to convert a NT0M90NA Controller to NT0M90SA, which includes the digital telephony circuit board.
- 6) Change Kit NT0M36AK is available to convert a NT0M36AE Keyboard to a NT0M36AH Keyboard.
- 7) Change Kit NT4X81EB is available to convert a NT0M36AE Keyboard to a NT4X81EA Keyboard. When the NT4X81EB change kit is applied to the NT0M36AE, the result will be a direct equivalent to the NT4X81EA. The NT4X18EA is for TELMEX.

- RUL4
- 1) Provide one NTNX55AA per PCE frame or AAE frame when overhead cable routing method is applied. Total height of cabinet and cable trough is 7 ft.
 - 2) Ceiling ladder rack method is recommended for cable routing from the PCE to the AAE and for cross aisle runs.
 - 3) Provide one cover plate set (front and back) to cover the gap between the two adjacent NTNX55AA cable troughs. A set consists of :

two (2) P0688822 Cover Plates
four (4) P0575598 Screws
four (4) P0242132 Washers
four (4) P049C096 Washers
two (2) P099Q132 Screws

- 4) Provide one end cover set for covering the cable trough at the end of a line up. A set consists of :

one (1) P0688821 End Cover
four (4) P0575598 Screws
six (6) P0242132 Washers
four (4) P049C096 Washers
two (2) P099Q132 Screws

- RUL5 1) Provide four (4) Anchor Assemblies per cabinet as outlined below. Provide two (2) P0688332 Isolation Pads per cabinet with all anchor methods.
- 2) Select appropriate Anchor Assembly for application from the following:
- NTNX56AA - Raised Floor Anchor Assembly for Cabinets
 - NTNX56BA - Concrete Anchor Assembly for Furniture
 - NTNX56CA - Raised Floor Anchor Assembly for Furniture
 - NT0X21AV - Concrete Anchor Assembly for Cabinets in an earthquake zone 1-3. Provide one set of NT0X21AH shims per cabinet.
 - NT0X21AW - Concrete Anchor Assembly for Cabinets in an earthquake zone 4-7. Provide one set of NT0X21AH shims per cabinet.
 - NT0X21AV - Concrete Anchor Assembly for Cabinets in a non-earthquake zone. Provide four A0329731 leveling feet per cabinet.
- RUL6 1) The T.A.M.I. position equipment may be customer supplied. The VDU is a VT100 compatible terminal with a 212 A/D compatible modem. If NT is to supply the TAMI position equipment, refer to ECM 607 for a VDU and printer, and ECM 633 for a modem.
- RUL8 1) Provide Computer Based Training (C.B.T.) system per customer requirements. One system will support up to sixteen (16) operator positions. C.B.T. system is # A0361801.
- 2) Provide one (1) 940-001-001T C.B.T. cabinet per system.
- RUL9 1) Provision one (1) BIX Block connector (A0355018) per 8 positions.
- RUL10 1) Provide one (1) floor mounting template P0696402 for new sites or as required for pre-installation floor planning.
- RUL11 1) Provide cabinet aisle designations P0696219 for PCE 0-7 and AAE 0-1.
- RUL12 1) Provide a minimum of one (1) Honeywell Keycap Removal Tool per site when Keycap Change Kits are ordered.
- RUL13 1) Provide two (2) sets of labels, choosing the range of position numbers to suit job requirements. The second set allows the customer to label spares when replacing failed equipment.

- RUL14 1) Provide one stand-alone 202 S/T modem for each SADS, FADS, TADS, HADS, NOTIS SNAC, QMFADS, QFADS or QTADS printer operating at 1200 baud. Refer to ECM 633 for modem ordering information.
- RUL15 1) Provide one stand-alone 108 modem for each SADS, FADS, TADS, HADS, NOTIS, SNAC, QMFADS, QFADS, QTADS, Voice Quote, Auto Voice Quote or Record printer operating at 300 baud. Refer to ECM 633 for modem ordering information.

AUXILIARY ACCESS EQUIPMENT (AAE) CABINET

PEC CODE: NTNX57AC

CPC CODE: B0227761

| RATING: MD

REPLACES: NTNX57AA

| REPLACED BY: TOPS IWS (intelligent Workstation)

ABBREVIATION NAME: AAE

ENGINEERING DESCRIPTION: The Auxiliary Access Equipment (AAE) Cabinet is used for TOPS MP support equipment only. The AAE Cabinet houses up to 5 Modem Shelves and a Power Distribution Panel (PDP).

REFERENCE DOCUMENTATION: ISNX57AC 00 04

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Dawn Yost Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Dawn Yost Dept. 3471 (PPK)

NTNX57AC EMR8-TOPSMP-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history available on PAS.
92 11 09	ECM 606 05	ET 15279 - Correct PEC code of 56K modem.
93 04 16	ECM 606 09	Dual HSDA feature available per EC 011-16855.
94 02 22	ECM 606 11	Format and content changes required to combine with MS on EC 024-91348.
97 03 04	ECM 606 20	Retired by EC 018-49251. Several TOPS MP PECs were MDed by this EC. See Equipment flagged table for details.

The Auxiliary Access Equipment (AAE) Cabinet is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
4" Filler Panel	P0688213		1	63		AP
UDS Modem Shelf	62005220		1	57		AP
UDS 212A Modem Card	62125086			57	1-16	RUL1
Filler Plate	P0687530		1	49		AP
UDS Modem Shelf	62005220		4	51, 42, 33, 24		RUL2
# Mounting Hardware kit	NTNX57AD		4	51, 42, 33, 24		RUL2
UDS D56 Modem Card	64565007			51, 42, 33, 24	1-16	RUL3
Filler Plate	P0687530		1	42, 33,		RUL5
Mounting Screws	P097F813		4	24		RUL5
# Power Distribution Panel	NTNX24CB		1	05		AP
# Alarm CP (for Dual HSDA)	NT0X91AG		1	05		RUL7
# PC Kit for Dual HSDA	NTNX5717		1			RUL7
# Hazard Plate Assembly	NTNX5707		1	00		AP
# SL-100 Cabinet	NTNX25BA		1			AP
P.D.P. Designation Strip	P0690932		1			RUL4
P.D.P. Designation Strip	P0690933		1			RUL4
# AAE Bulkhead Assy	NTNX5708		1			AP
End Panel Assy, Right	NTNX2531		1			AP
End Panel Assy, Left	NTNX2532		1			AP
# Door Assy Right Rear	NTNX2527		1			RUL6
Door Assy Left Rear	NTNX2529		1			RUL6
Door Assy Right Front	NTNX2536		1			RUL6
Door Assy Left Front	NTNX2538		1			RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX57AD	MD	No replacement.
NTNX24CB	MD	No replacement.
NT0X91AG	MD	No replacement.
NTNX5717	MD	No replacement.
NTNX5707	MD	No replacement.
NTNX25BA	MD	No replacement.
NTNX5708	MD	No replacement.
NTNX2527	MD	No replacement.

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTNX57AC is ordered, these items are provided.

RUL1 1) Provide one 62125086 (A0336307) UDS 212A Modem card for each equipped TPC shelf. The 62125086 modem card will be mounted on the NPS550632-01L6 (A0344310) modem shelf in position 57.

RUL2 1) UDS Modem Shelves are assigned according to the configuration (stand-alone, integrated TMS, or dual HSDA), application (DA, ORDB), and number of PCE frames. Use the rules below.

For a stand-alone configuration, provision a modem shelf in position 42 for ORDB. For DA, provision a modem shelf in position 33 for PCE 0 and 1, and another modem shelf in position 24 for PCEs 2 and 3.

For an integrated TMS configuration, provision a modem shelf in position 33 for PCE 0 and 1, and another modem shelf in position 24 for PCE 2 and 3.

For Dual HSDA configurations, provision modem shelves in position 51 and 42, in addition to the modem shelf/shelves provisioned for TMS in position(s) 33/24. The modem shelf in position 51 is FIELD APPLICATION ONLY for both extensions and initial orders. For Dual HSDA, modem shelves are needed in BOTH position 42 and 51, regardless of the number of PCEs supported by the AAE. (The HSDA in slot 8 of each TPC is connected to one modem on shelf 42 and one modem on shelf 51. This increases reliability.)

- 2) Provision one (1) mounting hardware kit for each modem shelf provisioned.

RUL3 1) Stand-alone Configurations (no TMS in office): One (1) D56 modem is required for each HSDA mounted in slot 8 of TPC shelves (to support the Operator Reference Database (ORDB) feature). These modems mount on the modem shelf in position 42 of the AAE. Two (2) D56 modems are required for each HSDA CP mounted in slot 13 of TPC shelves (to support DA). These modems mount on the shelves in positions 33 (for PCE 0,1) and 24 (for PCE 2,3) of the AAE.

- 2) Integrated TMS Configurations: Two (2) D56 modems are required for each TPC. These modems connect to an HSDA mounted in slot 13 of the TPC. These modems mount on shelves 33 (for PCE 0,1) and 24 (for PCE 2,3), and provide communication to the TMS.

- 3) Dual HSDA Configurations: In addition to the two (2) D56 modems required for HSDA CPs mounted in slot 13 (which handle communication to the TMS), two D56 modems are required for each HSDA mounted in slot 8. These modems mount in shelf positions 51 and 42. Each HSDA has one modem on shelf 51 and one modem on shelf 42. The HSDA CPs mounted in slot 8 allow direct communication to the CCI/NAS DA database, rather than routing this data through the TMS.

RUL4 1) Provide one each P.D.P Designation strips P0690932 and P0690933 for the NTNX57AC A.A.E cabinet only when it is configured as the second A.A.E. in a lineup.

RUL5 1) Provide one filler plate P0687530 and four (4) mounting screws P097F813 when no modem shelf is provided at mounting position 42,33 or 24 (one P0687530 & four screws per position).

- RUL6 1) Provision one (1) each of NTNX2527, NTNX2529, NTNX2536, and NTNX2538 door assemblies per cabinet.
- RUL7 1) Provide one (1) Dual HSDA PC Kit and one (1) Alarm CP per AAE configured for Dual HSDA. Field application only.

POSITION CONTROLLER EQUIPMENT CABINET

PEC CODE: NTNX60AA

CPC CODE: B0225350

| RATING: MD

REPLACES: n/a

| REPLACED BY: TOPS IWS (Intelligent Workstation)

ABBREVIATION NAME: PCE

ENGINEERING DESCRIPTION: The Position Controller Equipment (PCE) Cabinet houses up to four TOPS Position Controllers (TPCs). One PCE can support a maximum of 16 Operator Positions.

REFERENCE DOCUMENTATION: ISNX60AA

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

| ISSUE AUTHOR: NTI: Dawn Yost Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Dawn Yost Dept. 3471 (PPK)

NTNX60AA EMR8-TOPSMP-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history available on PAS.
92 11 09	ECM 606 05	ET 14099 - Correct provisioning of filler faceplate on TPC shelf.
93 04 16	ECM 606 09	Dual HSDA feature available per EC 011-16855.
93 07 20	ECM 606 10	MD items per EC 011-17450 and EC 011-17736.
94 02 22	ECM 606 11	Format and content changes required to combine with MS on EC 024-90677.
95 08 04	ECM 606 15	MD item per EC 011-21571
97 03 04	ECM 606 20	Retired by EC 018-49251. Several TOPS MP PECs were MDed by this EC. See Equipment flagged table for details.

The Position Controller Equipment Cabinet is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Frame Supervisory Panel	NTNX26CA		1	60		AP, RUL14
# Sonalert CP	NTNX59AA		1	60		RUL15
# TPC Shelf Assy	NTNX6101		4	XX		AP
# TPC Pack Fill	NTNX61AA			XX		RUL1
# TPC Pack Fill	NTNX61AB			XX		RUL1
# TPC Pack Fill	NTNX61AC			XX		RUL1
# TPC Pack Fill	NTNX61AD			XX		RUL1
# TPC Pack Fill	NTNX61AE			XX		RUL1
# TPC Pack Fill	NTNX61AF			XX		RUL1
Filler Face Plate	NT0X50AE			XX	1, 17, 21, 25	RUL2
# Aluminum Shield CP	NTNX54BA			XX	4	RUL2
Filler Face Plate	NT0X50AA			XX	5-16, 20, 24	RUL2
# High Speed Line I/F CP	NTNX62AA			XX	9-12	RUL3
# High Speed Line I/F CP	NTNX62AB			XX	9-12	RUL3
Filler Face Plate	NT0X50AA			XX	9-12	RUL4
# 4 Megabyte Memory CP	NTNX63AA			XX	5	RUL5
# 8 Megabyte Memory CP	NTNX63AB			XX	7	RUL5
Filler Face Plate	NT0X50AA			XX	5	RUL6
# High Speed Data Access CP	NTNX66AA			XX	8	RUL7
# High Speed Data Access CP	NTNX66AA			XX	13	RUL8
Filler Face Plate	NT0X50AA			XX	8, 13	RUL9
# Power Converter CP	NT2X70AD		2	XX	1, 25	RUL10
# Power Converter CP	NT2X70AE		2	XX	1, 25	RUL10
Power Converter CP	NT2X70AF		2	XX	1, 25	RUL10
Desig. Label (NTNX62AB)	P0703452			XX	9-12	RUL11
Desig. Label (NT0X50AA)	P0578498			XX	5-16, 20, 24	RUL11
Desig. Label (NT0X50AE)	P0591361			XX	1, 17, 21, 25	RUL11
Desig. Label (NTNX63AA)	P0703451			XX	5	RUL11
Desig. Label (NTNX63AB)	P0714711			XX	5	RUL11
Desig. Label (NTNX66AA)	P0703453			XX	8, 13	RUL11
Desig. Label (NT2X70AD)	P0664133			XX	1, 25	RUL11
Desig. Label (NT2X70AE)	P0698943			XX	1, 25	RUL11
Desig. Label (NT2X70AF)	P0809960			XX	1, 25	RUL11
# Cooling Unit	NTNX27BA		1	00		AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SL-100 Cabinet	NTNX25BA		1			AP
# PCE EMI Bulkhead Assy	NTNX6022		1			AP
FCC Label	P0634844		1			RUL12
# Door Assy Right Rear	NTNX2527		1			RUL13
Door Assy Left Rear	NTNX2529		1			RUL13
Door Assy Right Front	NTNX2536		1			RUL13
Door Assy Left Front	NTNX2538		1			RUL13

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX6101	MD	No replacement.
NTNX61AF	MD	No replacement.
NTNX54BA	MD	No replacement.
NTNX62AB	MD	No replacement.
NTNX63AB	MD	No replacement.
NTNX66AA	MD	No replacement.
NTNX6022	MD	No replacement.
NTNX25BA	MD	No replacement.
NTNX2527	MD	No replacement.
NTNX26CA	MD	No replacement.
NTNX27BA	MD	No replacement.
NTNX59AA	MD	No replacement.
NTNX61AA	MD	NTNX61AB
NTNX61AB	MD	NTNX61AC
NTNX61AC	MD	NTNX61AD
NTNX61AD	MD	NTNX61AE
NTNX61AE	MD	NTNX61AF
NTNX62AA	MD	NTNX62AB
NTNX63AA	MD	NTNX63AB
NT2X70AD	MD	NT2X70AE
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "XX" can be one of 05, 19, 33, 47.

RULES:

- AP 1) When PEC NTN60AA is ordered, these items are provided.
- RUL1 1) Provide one NTN61AF per each four operator positions required. NTN61AF replaces NTN61AE.
- RUL2 1) Provision fourteen (14) NT0X50AA Filler Face Plates, four (4) NT0X50AE Filler Face Plates, and one (1) NTN54BA Aluminum Shield CP for each shelf on which the TPC Pack Fill is not provided.
- RUL3 1) Provide one (1) NTN62AB HSLI CP per operator position.
- RUL4 1) Provide NT0X50AA filler face plates for each slot position 9-12 not filled with a NTN62AB CP.
- RUL5 1) Provide one (1) NTN63AA Memory CP at position 5 when the office is configured with BCS-27 or higher and the TPC pack fill is a NTN61AA, NTN61AB, NTN61AC, or NTN61AD. This applied when the NTN63AA was still available.
- Since the NTN63AA is MD, remove the NTN63AA from slot 7 and replace it with an NTN63AB. The removed NTN63AA can be moved to another TPC (in slot 5) to provide its additional memory. Therefore, when upgrading the memory in NTN61AA/AB/AC/AD packfills, the number of NTN63ABs required is half the number of TPCs.
- RUL6 1) If a NTN63AA is not required for position 5, provide one (1) NT0X50AA Filler Face Plate for position 5. If the TPC packfill is NTN61AE or NTN61AF, a filler face plate for position 5 is always provided in the packfill. Do not order a filler face plate for slot 5 with NTN61AE or NTN61AF.
- RUL7 1) Provision one (1) NTN66AA in slot 8 if ORDB is used WITHOUT TMS, or if DA is using Dual HSDA feature with the TMS.

- RUL8 1) Provision one (1) NTNX66AA in slot 13 if DA is used WITHOUT TMS, or with Integrated TMS, or with TMS/Dual HSDA Feature.
- RUL9 1) Provision one (1) NT0X50AA for each slot (8,13) that is not equipped.
- RUL10 1) Provision two (2) NT2X70AF Power Converter circuit packs for each TPC packfill (NTNX61AE or NTNX61AF) provided. Mount in slots 1 and 25 of the TPC shelf.
- RUL11 1) Provide one (1) Designation Label corresponding to each card provisioned. A designation label for the NTNX54BA is not available. Do NOT provide designation labels for cards provided with the packfill.
- RUL12 1) Provision one (1) P0634844 FCC Label per right front door (NTNX2536).
- RUL13 1) Provision one (1) each of NTNX2527, NTNX2529, NTNX2536, and NTNX2538 door assemblies per cabinet.
- RUL14 1) Provide spare NT6X36AA FSP Alarm CP and spare NT6X36AC FAN Sensor Alarm CPs as required.
- RUL15 1) The NTNX59AA was NEVER introduced. Do not order.

TOPS MULTI-PURPOSE EXTENDED SYSTEM

PEC CODE: NTNX51BA

| CPC CODE: n/a

| RATING: MD

| REPLACES: n/a

| REPLACED BY: IBM_DA_AOSS

| ABBREVIATION NAME: TOPS MPX

| ENGINEERING DESCRIPTION: The TOPS MPX (IBM DA AOSS) system is configured using the following equipment to provide Directory Assistance service using the IBM database and operator positions based on IBM PS2 terminals.

REFERENCE DOCUMENTATION: MSNX51BA 00 10

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

| MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NTNX51BA EMR8-TOPSMPX-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 02 22	ECM 606 08	ET 14229 & EC 024-85849 - Corrects the provisioning of MPX keyboards. MDs French positions and French keyboards. Introduces position to junction box cables. EC 011-16891 - MD current power strips and introduce new power strips. Miscellaneous corrections.
94 02 22	ECM 606 11	MD the NTNX51DB/DC/DD positions, base and monitor contained in them, NTNX5306, NTNX5153, and the UDS DSU. Refer to the replacement EMS for rules on the replacement items, which are listed in the flaglist. Change rating on this EMS to MD. Change to latest EMS format.

The TOPS Multi-Purpose Extended System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# PS2 Base (Type 1 & 2)	A0368914					RUL1
# PS2 Base (Type 1 & 2)	A0378954					RUL1
# PS2 Base (Type 3)	A0369202					RUL2
# PS2 Base (Type 3)	A0378953					RUL2
# Color Monitor	A0368912					RUL4
# Data Set Unit (UDS D56)	64565005					RUL5
Data Set Unit (GDC 56K)	NTNX5154					RUL5
# Twist-lock Power Strip	IBAR4-12HP					RUL6
Twist-lock Power Strip	A0384297					RUL6
# Straight Blade Power Strip	ISOBAR4-12HP					RUL7
Straight Blade Power Strip	A0384296					RUL7
# Integ. Hdset Jk Assem 6.5 ft	NTNX5306					RUL8
Integ. Hdset Jk Assem 10 ft	NTNX5308					RUL8
Integ. Hdset Jk Assem	NTNX5309					RUL8
# MPX Audio Card	NTNX51BC					RUL9
MPX Audio Card	NTNX51BD					RUL9
FC 6401 RTIC Card	A0369273					RUL10
# FC 1133 Token Ring Card	A0368911					RUL11
Position Numbering Labels						RUL12
- (Pos. #0000 - #0071)	P0709162					
- (Pos. #0072 - #0143)	P0709163					
- (Pos. #0144 - #0215)	P0709164					
- (Pos. #0216 - #0287)	P0709165					
- (Pos. #0288 - #0359)	P0709166					
- (Pos. #0360 - #0431)	P0709167					
- (Pos. #0432 - #0503)	P0709168					
- (Pos. #0504 - #0575)	P0709169					
- (Pos. #0576 - #0647)	P0709170					
- (Pos. #0648 - #0719)	P0709171					
- (Pos. #0720 - #0791)	P0709172					
- (Pos. #0792 - #0863)	P0709173					
- (Pos. #0864 - #0935)	P0709174					
- (Pos. #0936 - #1007)	P0709175					
- (Pos. #1008 - #1023)	P0709176					
TOPS MPX MAU Numbering Labels						RUL13
- (MAU #0000 - #0050)	P0709177					
- (MAU #0051 - #0101)	P0709178					
# TOPS MPX Keyboard	A0369201					RUL14
TOPS MPX Keyboard	A0379250					RUL14
# TOPS MPX Keyboard (English)	A0382150					RUL14
# TOPS MPX Keyboard (French)	A0379072					RUL14
# TOPS MPX Pos (Type 1) (Eng)	NTNX51CB					RUL15
# TOPS MPX Pos (Type 1) (Eng)	NTNX51DB					RUL15
# TOPS MPX Pos (Type 1) (Fre)	NTNX51EB					RUL15

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# TOPS MPX Pos (Type 2) (Eng)	NTNX51CC					RUL16
# TOPS MPX Pos (Type 2) (Eng)	NTNX51DC					RUL16
# TOPS MPX Pos (Type 2) (Fre)	NTNX51EC					RUL16
# TOPS MPX Pos (Type 3) (Eng)	NTNX51CD					RUL17
# TOPS MPX Pos (Type 3) (Eng)	NTNX51DD					RUL17
# TOPS MPX Pos (Type 3) (Fre)	NTNX51ED					RUL17
TOPS MPX Key Cap Kit	2CT55438					RUL18
Keyboard Label	P0715192					RUL18
Keyboard Template	P0714192					RUL19
# TOPS MPX PS2 Bracket Assy	NTNX5153					RUL20
T.R. Data Cbl, Posn-Junc Box	A0385644					RUL21
Voice Cbl, Posn-Junc Box	NT0R82AB					RUL21

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
A0368914	MD	A0378954
A0378954	MD	NTNX51FB
A0369202	MD	A0378953
A0378953	MD	NTNX51FB
A0368912	MD	NTNX51LD
64565005	MD	A0602029/NTNX5154
IBAR4-12HP	MD	A0384297
ISOBAR4-12HP	MD	A0384296
NTNX5306	MD	NTNX5308/NTNX5309
NTNX51BC	MD	NTNX51BD
A0368911	MD	A0602526
A0369201	MD	A0379250
A0382150	MD	No replacement.
A0379072	MD	No replacement.
NTNX51CB	MD	NTNX51DB
NTNX51DB	MD	NTNX51FB
NTNX51EB	MD	No replacement.
NTNX51CC	MD	NTNX51DC
NTNX51DC	MD	NTNX51FB
NTNX51EC	MD	No replacement.
NTNX51CD	MD	NTNX51DD
NTNX51DD	MD	NTNX51FB
NTNX51ED	MD	No replacement.
NTNX5153	MD	NTNX5122

- DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.
- A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.
- MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- RUL1 1) The A0378954 PS2 Base is included in the Type 1 and 2 system (NTNX51DB/DC) and is listed here for sparing purposes only. A0378954 replaces A0368914 which is MD. NTNX51CB and NTNX51CC are also MD. The TOPS MPX Positions normally have spares provided by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.
- RUL2 1) The A0378953 PS2 Base is included in the Type 3 system NTNX51DD, and is listed here for sparing purposes only. A0378953 replaces A0369202 which is MD. NTNX51CD is also MD. The TOPS MPX Positions normally have spares provided by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.
- RUL3 1) Reserved.
- RUL4 1) The color monitor is included in the NTNX51DB/DC/DD systems and is listed for sparing purposes only. The NTNX51DB/DC/DD systems replace the NTNX51CB/CC/CD systems which are MD. The TOPS MPX positions normally have spares provided by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.
- RUL5 1) Provide one 56K Data Set Unit for each Type 1 or Type 2 system supplied. Either the 64565005 UDS or NTNX5154 GDC DSU may be provided per Customer preference.
- RUL6 1) Provide one twist-lock power strip per position per customer requirement.
- RUL7 1) Provide one straight blade power strip per position per customer requirement.

- RUL8 1) Provide two headset jack assemblies per position. Provide the NTN5309 for connection to the TOPS MPX positions NTN51DB, NTN51DC and NTN51DD. The NTN5306 and NTN5308 Headset Jack Assemblies can also be ordered for connection to the NTN51DB, NTN51DC and NTN51DD, but the preferred Headset Jack Assembly for these positions is the NTN5309. NTN5306 or NTN5308 Headset Jack Assemblies are required for positions using the NTN51BC audio card. The Customer is to provide headsets that meet the generic headset requirements per TA-EOP-000314 published Bellcore in August, 1986.
- RUL9 1) Provision one (1) NTN51BD Digital Telephony Audio card for each position. This card will be inserted into the base unit by the supplier but must be ordered by Customer Engineering. Provide one NTN51BD for each spare Type 1/2 or 3 system or base unit provided. The NTN51BD replaces the NTN51BC which is rated MD.
- RUL10 1) The RTIC card is supplied with the base unit and does NOT need to be ordered by Customer Engineering for each position. This unit may be ordered for sparing individually if required.
- RUL11 1) The Token Ring card is supplied with the base unit and does NOT need to be ordered by Customer Engineering for each position. This unit may be ordered for sparing individually if required.
- RUL12 1) Provide two sets of designation labels per job requirements. The second set will allow the customer to label spares when replacing failed equipment.
- RUL13 1) Provide one P0709177 TOPS MPX MAU Numbering Label Sheet for each TOPS MPX system installation requiring up to four MIS frames. Provide one P0709178 TOPS MPX MAU Numbering Label Sheet for each system requiring five or more MIS frames.
- RUL14 1) The operator keyboard is supplied with the base unit and does NOT need to be ordered by Customer Engineering for each position. This unit is listed for sparing purposes only. The TOPS MPX Positions normally have spares provided by ordering entire PS2 positions, NTN51DB, NTN51DC and NTN51DD.
- RUL15 1) Provide one (1) NTN51DB for each Type 1 position per job requirements. The NTN51DB replaces the NTN51CB which is MD. The TOPS MPX Positions normally have spares provided

by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.

- RUL16 1) Provide one (1) NTNX51DC for each Type 2 position per job requirements. The NTNX51DC replaces the NTNX51CC which is MD. The TOPS MPX Positions normally have spares provided by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.
- RUL17 1) Provide one (1) NTNX51DD for each Type 3 position per job requirements. The NTNX51DD replaces the NTNX51CD which is MD. The TOPS MPX Positions normally have spares provided by ordering entire PS2 positions, NTNX51DB, NTNX51DC and NTNX51DD.
- RUL18 1) The 2CT55438 Keycap kit is available for customers that require position keyboard customization. Provide one (1) kit and one keyboard (P0715192) label per position for customers that require this capability. (Southern Bell).
- RUL19 1) Provide one keyboard template per position. Also provide this template for keyboards/positions provided as spares.
- RUL20 1) Provide one NTNX5153 TOPS MPX PS2 Bracket Assembly per NTNX51DB, NTNX51DC and NTNX51DD TOPS MPX position provided.
- RUL21 1) Provide one position to junction box data cable and one position to junction box voice cable for each Type 1, Type 2, or Type 3 position required. Also provide these cables for positions provided as spares.

TOPS-4 CONSOLE POSITION 110V AC

PEC CODE: NT4X71AA

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: Tops-4 is a new version of TOPS to facilitate the evolution of the TOPS position. The NT4X71AA is an AC Console Position applicable to Operator Positions, Assistance Positions and In-Charge Positions

REFERENCE DOCUMENTATION: MS4X71AA 00 03

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AA EMR8-TOPS4-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops-4 Console Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
Tops Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on regular type key- boards	ED1Y85-10					RUL2
Headset	AR					RUL4
Mechanical Lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
Blind Operatore Interface	NT4X01AA					RUL7
BOI Headset	A0324059					RUL7
TOPS ESD Kit	NT4X71AZ					RUL8
TOPS Modification Kit	NT4X73AX					RUL9
TOPS Kbd. Equal Access Kit	NT4X76AH					RUL10
Tops AC Console	NT4X7100					AP
Furniture Unit	NT4X72AA					AP

NOTES:

- 1) TOPS-4 can function with the same software packages as presently being used for Tops-3
- 2) Although TOPS-4 positions can coexist in the same Traffic Office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.
- 4) Unlike earlier vintage TOPS controllers, the new TOPS controller unit will not be equipped with an AC receptable.

As the controller does not provide for any external AC needs, any additional AC requirements must be accommodated by additional distribution of AC and provision of necessary receptacles.

- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each Tops-4 Operator Position, AOSS Assistance Position and Tops-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 10) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each Tops-4 Position and Tops-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes. These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each Tops-4 Assistance Position, In-Charge Position and Operator Position. A common pool of hot standby spares provisioned at 5% of requirements is recommended. This card mounts on a TM (Section EMA14-01-000).
- 12) TOPS Tone and Scrambler feature is available to scramble the speech of a subscriber heard by the operator during verification and to introduce an alerting tone to the subscriber when an operator must "barge-in" on an established connection.

The quantity of Tone and Scrambler (NT3J00AB) circuits is provisioned based on the average holding time of the line under verification by the operator.

The NT3J00AA Card Cage is used to house the tone and scrambler CP. (Up to 10 NT3J00AB circuits per NT3J00AA card cage).

The NT3J00AA Card Cage mounts on the MIS frame (Section 43E-03-000).

As an interface to the circuit, provide one (1) NT2X88 4-W E&M trunk (2 ckt's) for each Nt3J00AB. This CP mounts on a TM (Section EMA14-01-000).

One (1) scan point per NT3J00AA is required to detect an alarm condition on the unit. This CP mounts on a TM (Section EMA14-01-000).

RULES:

- AP 1) When PEC NT4X71AA is ordered, these items are provided.
- 2) NT4X7100 provides TOPS Monitor Assembly +12V OP (NT4X74AB), Controller (110V AC) Unit (NT4X73AE) and Jack Housing Assembly (NT4X7210).
- 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) Provide one keyboard per position. RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing

trunk class feature (keytop positions 5-11 inclusive) as required by the customer. 2) Due to the long lead time for ordering custom engraved keycaps, order seven blank keycaps per position in addition to the Telco specified quantity of custom engraved keycaps. 3) Refer to the TOPS-4 Keycap Table for provisioning codes for blank and custom engraved keycaps.

RUL3 1) Reserved for future use.

RUL4 1) The following headsets are available for U.S. applications as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

2) The following headsets are available for Canadian applications as required by the customer.

CPC	Description
A0242363	STANDARD Headset QSR2F1
A0242365	10ft Cord QSR2G1
A0242367	Supervisor Headset - 10ft Cord QSR2H1

RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.

RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.

RUL7 1) Tops BOI is a desk top unit with key-pad, digitally recorded speech CP's and split headset to be used by blind operators.

2) Provide one Desk top unit NT4X01AA and one headset A0324059 per BOI position.

- RUL8 1) Provide Product Change Kit NT4X71AZ per customer request to improve the protection against ESD events. NT4X71AZ provides sufficient materials to modify one TOPS 04 position.
- RUL9 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL10 1) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify one TOPS 04 keyboard.

TOPS 4 CONSOLE POSITION -48V DC

PEC CODE: NT4X71AB

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The NT4X71AB is a DC console position applicable to operator positions, Assistance Positions and In-Charge Positions

REFERENCE DOCUMENTATION: MS4X71AB 00 03

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AB EMR8-TOPS4-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops 4 Console Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
Tops Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on regular type key- boards	ED1Y85-10					RUL2
Headset	AR					RUL4
Mechanical Lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
TOPS ESD Kit	NT4X71AZ					RUL7
TOPS Modification Kit	NT4X73AX					RUL8
TOPS Kbd Equal Access Kit	NT4X76AH					RUL9
Tops DC Console	NT4X7101					AP
Furniture Unit	NT4X72AA					AP

- NOTE: 1) TOPS-4 can function with the same software packages as presently being used for Tops-3
- 2) Although TOPS-4 positions can coexist in the same Traffic Office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.
- 4) Unlike earlier vintage TOPS controllers, the new TOPS controller unit will not be equipped with an AC receptable. As the controller does not provide for any external AC needs, any additional AC requirements must be accommodated by additional distribution of AC and provision of necessary receptacles.

- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each Tops-4 Operator Position, AOSS and Tops-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 10) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each Tops-4 Position and Tops-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes. These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each Tops-4 Assistance Position, In-Charge Position and Operator Position.

tion. A common pool of hot standby spares provisioned at 5% of requirements is recommended. This card mounts on a TM (Section EMA14-01-000).

RULES:

- AP 1) When PEC NT4X71AB is ordered, these items are provided.
- 2) NT4X7101 provides TOPS Monitor Assembly +12V OP (NT4X74AB), Controller (-48V DC) Unit (NT4X73AF) and Jack Housing Assembly (NT4X7210).
- 3) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) Provide one keyboard per position. RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. 2) Due to the long lead time for ordering custom engraved keycaps, order seven blank keycaps per position in addition to the Telco specified quantity of custom engraved keycaps. 3) Refer to the TOPS-4 Keycap Table for provisioning codes for blank and custom engraved keycaps.
- RUL3 1) Reserved for future use.
- RUL4 1) The following headsets are available as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

- 2) The following headsets are available for Canadian applications as required by the customer.

CPC	Description

A0242363 STANDARD Headset QSR2F1
A0242365 10ft cord QSR2G1
A0242367 Supervisor Headset - 10ft cord QSR2H1

- RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.
- RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.
- RUL7 1) Provide Product Change Kit NT4X71AZ per customer request to improve the protection against ESD events. NT4X71AZ provides sufficient materials to modify one TOPS 04 position.
- RUL8 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL9 2) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify one TOPS 04 keyboard.

TOPS-4 MODULAR POSITION 110V AC

PEC CODE: NT4X71AC

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The NT4X71AC is an AC modular position applicable to operator positions, Assistance Positions and In-Charge Positions

REFERENCE DOCUMENTATION: MS4X71AC 00 03

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AC EMR8-TOPS4-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops-4 Modular Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
Tops Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on regular type key- boards	ED1Y85-10					RUL2
Headset	AR					RUL4
Mechanical Lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
TOPS ESD Kit	NT4X71AZ					RUL7
TOPS Modification Kit	NT4X73AX					RUL8
TOPS Kbd. Equal Access Kit	NT4X76AH					RUL9
Controller (110V AC) unit	NT4X73AE		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		1			AP
Traffic OP Pos Sys Pwr CA	NT4X7120		1			AP
TOPS Monitor Assy +12V OP	NT4X74AB		1			AP

- NOTE: 1) TOPS-4 can function with the same software packages as presently being used for Tops-3
- 2) Although TOPS-4 positions can coexist in the same Traffic Office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.
- 4) Unlike earlier vintage TOPS controllers, the new TOPS controller unit will not be equipped with an AC receptacle. As the controller does not provide for any external AC needs, any additional AC requirements must be accommodated

by additional distribution of AC and provision of necessary receptacles.

- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each Tops-4 Operator Position, Tops-4 Assistance Position and Tops-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-000).

The NT6X50AA mounts on a DTC (Section EMA2-06-000).

- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-000).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 10) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each Tops-4 Position and Tops-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes. These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each Tops-4 Assistance Position, In-Charge Position and Operator Position. A common pool of hot standby spares provisioned at 5% of requirements is recommended. These cards mount on a TM (Section EMA14-01-000).

RULES:

- AP 1) When PEC NT4X71AC is ordered, these items are provided.
- RUL1 1) Provide one keyboard per position. RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. 2) Due to the long lead time for ordering custom engraved keycaps, order seven blank keycaps per position in addition to the Telco specified quantity of custom engraved keycaps. 3) Refer to the TOPS-4 Keycap Table for provisioning codes for blank and custom engraved keycaps.
- RUL3 1) Reserved for future use.
- RUL4 1) The following headsets are available as required by the customer.
- | CPC | Description |
|----------|-------------------------------------|
| A0319420 | Omnidir headset eartip type |
| A0319015 | Omnidir headset earbud type |
| A0319421 | Omnidir noise canceling eartip type |
| A0319016 | Omnidir noise canceling earbud type |
- RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.
- RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.
- RUL7 1) Provide Product Change Kit NT4X71AZ per customer request to improve the protection against ESD events. NT4X71AZ provides sufficient materials to modify one TOPS 04 position.

- RUL8 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL9 1) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify on TOPS 04 keyboard.

TOPS-4 MODULAR POSITION -48V DC

PEC CODE: NT4X71AD

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The NT4X71AD is an DC modular position applicable to operator positions, Assistance Positions and In-Charge Positions.

REFERENCE DOCUMENTATION: MS4X71AD 00 03

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AD EMR8-TOPS4-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops-4 Modular Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
Tops Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on regular type key- boards	ED1Y85-10					RUL2
Headset	AR					RUL4
Mechanical Lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
TOPS ESD Kit	NT4X71AZ					RUL7
TOPS Modification Kit	NT4X73AX					RUL8
TOPS Kbd Equal Access Kit	NT4X76AH					RUL9
Controller (-48V DC) unit	NT4X73AF		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		1			AP
TOPS Monitor Assy +12V OP	NT4X74AB		1			AP

- NOTE: 1) TOPS-4 can function with the same software packages as presently being used for Tops-3
- 2) Although TOPS-4 positions can coexist in the same Traffic Office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.
- 4) Unlike earlier vintage TOPS controllers, the new TOPS controller unit will not be equipped with an AC receptacle. As the controller does not provide for any external AC needs, any additional AC requirements must be accommodated

by additional distribution of AC and provision of necessary receptacles.

- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions will be located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each Tops-4 Operator Position, Tops-4 Assistance Position and Tops-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.

The NT2X72AA mounts on a TM (Section EMA14-01-000).

The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 10) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each Tops-4 Position and Tops-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes. These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each Tops-4 Assistance Position, In-Charge Position and Operator Position. A common pool of hot standby spares provisioned at 5% of requirements is recommended. These cards mount on a TM (Section EMA14-01-000).

RULES:

AP 1) When PEC NT4X71AD is ordered, these items are provided.

RUL1 1) Provide one keyboard per position. RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. 2) Due to the long lead time for ordering custom engraved keycaps, order seven blank keycaps per position in addition to the Telco specified quantity of custom engraved keycaps. 3) Refer to the TOPS-4 Keycap Table for provisioning codes for blank and custom engraved keycaps.

RUL3 1) Reserved for future use.

RUL4 1) The following headsets are available as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.

RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.

RUL7 1) Provide Product Change Kit NT4X71AZ per customer request to improve the protection against ESD events. NT4X71AZ provides sufficient materials to modify one TOPS 04 position.

- RUL8 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL9 1) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify one TOPS 04 keyboard.

TOPS-4 MODULAR FM POSITION 110V AC

PEC CODE: NT4X71AE

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The Force Manager (FM) position consists of a video monitor with base, and a controller module for use with the customers desk.

REFERENCE DOCUMENTATION: MS4X71AE 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AE EMR8-TOPS4-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops-4 Modular FM Position 110V AC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Controller (110V AC) UNIT	NT4X73AE		1			AP
Tops Sys Pwr CA	NT4X7120		1			AP
Self LK CA Tie A.63 B2.72	P0633700		2			AP
Cable TIE MTG Base Prefer	P0633741		2			AP
Tops Monitor Assy +12V OP	NT4X74AB		1			AP
Chairs	AR					RUL1

- NOTE: 1) Only one TOPS Force Manager Position is required at one location in used a multi-office TOPS configuration.
- 2) This Force Manager Position applies to both TOPS-4 and AOSS applications.

RULES:

- AP 1) When PEC NT4X71AE is ordered, these items are provided.
- RUL1 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

TOPS-4 MODULAR FM POSITION -48V DC

PEC CODE: NT4X71AF

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The Force Manager (FM) position consists of a video monitor with base, and a controller module for use with the customers desk.

REFERENCE DOCUMENTATION: MS4X71AF 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AF EMR8-TOPS4-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The Tops-4 Modular FM Position -48V DC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Controller (-48V DC) UNIT	NT4X73AF		1			AP
Self LK CA Tie A.63 B2.72	P0633700		2			AP
Cable TIE MTG Base Prefer	P0633741		2			AP
Tops Monitor Assy +12V OP	NT4X74AB		1			AP
Chairs	AR					RUL1

- NOTE: 1) Only one TOPS Force Manager Position is required at one location in used a multi-office TOPS configuration.
- 2) This Force Manager Position applies to both TOPS-4 and AOSS applications.

RULES:

- AP 1) When PEC NT4X71AF is ordered, these items are provided.
- RUL1 1) Chairs may be ordered with or without arms in any of the following colors:

<u>Order No</u>	<u>Description</u>
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

TOPS-4 CONSOLE POSITION -48V DC
WITH IMPROVED CONTROLLER

PEC CODE: NT4X71CB

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The NT4X71CB is a DC console position applicable to Operator Positions, Assistance Positions and In-Charge Positions. It differs from the NT4X71AB TOPS-4 positions in its new controller, NT4X73CA, which has improved circuit protection and in that the furniture unit is provisionable.

REFERENCE DOCUMENTATION: MS4X71CB 00 02

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71CB EMR8-TOPS4-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS-4 Console Position -48V DC with Improved Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TOPS Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
TOPS Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on reg type keyboards	ED1Y85-10					RUL2
Chair	AR					RUL3
Headset	AR					RUL4
Mechanical lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
Improved Controller (-48VDC)	NT4X73CA					AP
TOPS-4 Headset Jack Assy	NT4X7212					AP
TOPS Monitor Assy +12V OP	NT4X74AB					AP
TOPS Furniture						
Adjustable	NT4X78AA					RUL7
Stand-Up	NT4X78AB					RUL7
Non-Adjustable	NT4X72AA					RUL7
Ticket Sorting Tray	P0616545					AP
TOPS-4 ESD Kit	NT4X71AZ					RUL8
TOPS Modification Kit	NT4X73AX					RUL9
TOPS Kbd. Equal Access Kit	NT4X76AH					RUL10

- NOTE: 1) TOPS-4 can function with the same software packages as presently being used for TOPS-3.
- 2) Although TOPS-4 positions can coexist in the same traffic office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.

- 4) Similar to the earlier controller, NT4X73AF, the new controller, NT4X73CA, is not equipped with an AC receptacle. As the controller does not provide for any external AC needs, any additional AC requirements must be accommodated by additional distribution of AC and provision of necessary receptacles.
- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each TOPS-4 Operator Position, AOSS and TOPS-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.
- 10) One TOPS Control Processor Circuit, NT3X02AA and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each TOPS-4 Position and TOPS-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes. These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each TOPS-4 Assistance Position, In-Charge Position and Operator Position. A common pool of hot standby spares provisioned at 5% of requirements is recommended. This card mounts on a TM (Section EMA14-01-000).
- 12) There are three choices of furniture available with the console model, NT4X71CB. They are Adjustable (NT4X78AA), Stand-Up (NT4X78AB) and Non-Adjustable (NT4X72AA).

RULES:

- AP 1) When PEC NT4X71CB is ordered, these items are provided.
- 2) NT4X72AA provides the Desk Assembly (P0616515), a Right Side Panel (P0616516) and a Left Side Panel (P0616517).
- RUL1 1) Provide one keyboard per position.
- RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. Order blank keytops for any undesignated key positions.
- RUL3 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4447	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

- RUL4 1) The following headsets are available as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

- 2) The following headsets are available for Canadian applications as required by the customer.

CPC	Description
A0242363	STANDARD Headset QSR2F1
A0242365	10ft cord QSR2G1
A0242367	Supervisor Headset - 10ft cord QSR2H1

- RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.

- RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.

- RUL7 1) Order as required one of the following furniture units:
- a) NT4X78AA, adjustable furniture work surface. It has a range adjustment of minimum 23.5" to maximum 28.5" from the floor.
 - b) NT4X78AB, stand-up furniture work surface. It has a range adjustment of minimum 33.5" to maximum 39" from the floor.
 - c) NT4X72AA, non-adjustable furniture. It is approximately 27 inches from the floor.

- RUL8 1) Provide one (1) NT4X71AZ ESD Kit per TOPS-4 position, NT4X71CB, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.

- RUL9 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL10 1) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify one TOPS 04 keyboard.

TOPS-4 MODULAR POSITION -48V DC
WITH IMPROVED CONTROLLER

PEC CODE: NT4X71CD

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The NT4X71CD is an DC modular position applicable to Operator positions, Assistance Positions and In-Charge Positions. It differs from the NT4X71AD TOPS-4 position in its new controller, NT4X73CA, which has improved circuit protection and in that the furniture unit is provisionable.

REFERENCE DOCUMENTATION: MS4X71CD 00 02

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71CD EMR8-TOPS4-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS-4 Modular Position -48V DC with Improved Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tops Keyboard English						
Regular Type	NT4X76AA					RUL1
In-Charge Type	NT4X76AB					RUL1
Assistance Type	NT4X76AC					RUL1
Equal Access Type	NT4X76AG					RUL1
Tops Keyboard French						
Regular Type	NT4X76AD					RUL1
In-Charge Type	NT4X76AE					RUL1
Assistance Type	NT4X76AF					RUL1
Keytops for outgoing trunk keys on regular type key- boards	ED1Y85-10					RUL2
Chair	AR					RUL3
Headset	AR					RUL4
Mechanical Lockout of certain keys	SW11486					RUL5
Cable Assembly	NT0X26CK					RUL6
Improved Controller (-48VDC)	NT4X73CA		1			AP
TOPS-4 Headset Jack Assy	NT4X7212		1			AP
TOPS Monitor Assy +12V OP	NT4X74AB		1			AP
TOPS-4 ESD Kit	NT4X71AZ					RUL7
TOPS Modification Kit	NT4X73AX					RUL8
TOPS Kbd. Equal Access Kit	NT4X76AH					RUL9

- NOTE: 1) TOPS-4 can function with the same software packages as presently being used for Tops-3
- 2) Although TOPS-4 positions can coexist in the same Traffic Office with TOPS-3 positions, our customers may not wish to mix the two types of positions together.
- 3) If a customer requires Toll Operator Services and does not presently have TOPS-3 positions, he must order the TOPS-4 version hardware.
- 4) Similar to the earlier controller, NT4X73AF, the new controller, NT4X73CA, is not equipped with an AC receptacle. As the controller does not provide for any external AC

needs, any additional AC requirements must be accommodated by additional distribution of AC and provision of necessary receptacles.

- 5) The number of TOPS Operator Positions required will be determined by the customer. They can be ordered in the console or modular configuration with Modular positions located on customer supplied furniture.
- 6) The number of TOPS Assistance Positions required will be determined by the customer (minimum one per Traffic Office). They can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 7) One TOPS In-Charge Position is required per Traffic Office. It can be ordered in the console or modular configuration with either AC or DC input. Modular positions will be located on customer supplied furniture.
- 8) Two trunk circuits, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), are required for each Tops-4 Operator Position, Tops-4 Assistance Position and Tops-4 In-Charge Position. One trunk circuit is required for the Force Manager Position. The customer shall decide whether to order digital or analog trunks.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).
- 9) One trunk circuit, digital (NT2X35AB or NT6X50AA) or analog (NT2X72AA), is required for each TOM TTY, FM TTY and MFADS port.
The NT2X72AA mounts on a TM (Section EMA14-01-000).
The NT2X35AB mounts on a DCM (Section EMA2-01-DCM).

The customer shall decide whether to order digital or analog trunks. Each trunk is connected to one digital modem. The customer must ensure that the corresponding modem exists at the TTY end.

- 10) One TOPS Control Processor Circuit, NT3X02AA, and one TOPS Digital Signal Processor Circuit, NT3X03AA, are required for each Tops-4 Position and Tops-4 TTY. A common pool of spares provisioned at 5% of requirements is recommended for hot standby purposes.
These cards mount on a TM (Section EMA14-01-000).

(NOTE: THIS IS NOT REQUIRED FOR THE SNAC TTY)

- 11) One 3-port conference circuit is required for each Tops-4 Assistance Position, In-Charge Position and Operator Position. A common pool of hot standby spares provisioned at 5% of requirements is recommended. These cards mount on a TM (Section EMA14-01-000).

RULES:

AP 1) When PEC NT4X71CD is ordered, these items are provided.

RUL1 1) Provide one keyboard per position.

RUL2 1) When a keyboard NT4X76AA, NT4X76AD or NT4X76AG is ordered, the job engineer shall specify a maximum of seven (7) keytops for outgoing trunk class feature (keytop positions 5-11 inclusive) as required by the customer. Order blank Keytops for any undesignated key positions.

RUL3 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4447	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

RUL4 1) The following headsets are available as required by the customer.

CPC	Description
A0319420	Omnidir headset eartip type
A0319015	Omnidir headset earbud type
A0319421	Omnidir noise canceling eartip type
A0319016	Omnidir noise canceling earbud type

- RUL5 1) Mechanical lockout of certain keys, when specified by the customer, shall be provided by ordering one lockout key for each keyswitch affected.
- RUL6 1) Provide one run of NT0X26CK cable per TOPS-4 position, length as required. NT0X26CK originates from the TOPS-4 position and terminates on the MDF. Order on spec 1400.
- RUL7 1) Provide one (1) NT4X71AZ ESD Kit per TOPS-4 position, NT4X71CD, for field application as required.
- 2) This change kit protects the system against electrostatic discharge.
- RUL8 1) Provide Product Change Kit NT4X73AX per customer request to provide internal position fusing and additional safety features. This kit provides sufficient materials to modify one TOPS 04 position.
- RUL9 1) Provide Product Change Kit NT4X76AH per customer request to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature (NTX187AA). This kit provides sufficient materials to modify one TOPS 04 keyboard.

TOPS-4 MODULAR FM POSITION -48V DC
WITH IMPROVED CONTROLLER

PEC CODE: NT4X71CF

| RATING: MD

ABBREVIATION NAME: TOPS4

ENGINEERING DESCRIPTION: The Force Manager (FM) position, NT4X71CF, consists of a video monitor with base, and a controller module for use with the customers desk. It differs from the NT4X71AF Force Manager Position in its new controller, NT4X73CA, which has improved circuit protection.

REFERENCE DOCUMENTATION: MS4X71CF 00 01

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71CF EMR8-TOPS4-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS-4 Modular FM Position -48V DC with Improved Controller is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Controller (-48V DC) Unit	NT4X73CA		1			AP
Tops Monitor Assy +12V OP	NT4X74AB		1			AP
Chairs	AR					RUL1

NOTE: 1) Only one TOPS Force Manager Position is required at one location if used in a multi-office TOPS configuration.

RULES:

AP 1) When PEC NT4X71CF is ordered, these items are provided.

RUL1 1) Chairs may be ordered with or without arms in any of the following colors:

Order No	Description
OS301/4435	Dark Orange chair without arms
A0286466	Dark Orange chair with arms
OS301/4462	Dark Emerald chair without arms
OS302/4462	Dark Emerald chair with arms
OS301/4436	Crimson chair without arms
C0057911	Crimson chair with arms
OS301/4441	Blue chair without arms
OS302/4441	Blue chair with arms
OS301/4427	Camel chair without arms
A0288174	Camel chair with arms
C0058480	brown chair without arms
C0057448	brown chair with arms

TOPS TUTOR 3B/00C TRAINING ADAPTOR

PEC CODE: NT4X77BA

| RATING: MD

ABBREVIATION NAME: TUTOR-3B/00C

ENGINEERING DESCRIPTION: Tutor-3B/00C training adaptor attaches to a
TOPS Overseas Operator Position for training
purposes.

REFERENCE DOCUMENTATION: MS4X77 01 02

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X77BA EMR8-TUTOR-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS Tutor 3B/00C Training Adaptor is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Traffic Simulator	NT4X77BB		1			AP
Display Unit	NT4X77BC		1			AP
Maintenance kit	NT4X77AD		1			RUL1

- NOTE: 1) The TOPS positions supplied for training purposes will be the same as those supplied for normal TOPS overseas operator purposes.
- 2) One set of training material is required per training adaptor. TOPS training material is required for use with the training adaptors. It consists of magnetic tapes and documentation. Arrangements for this material should be made with NTCL Marketing since training material will change from time to time in accordance with the addition of new features.

RULES:

- AP 1) When PEC NT4X77BA is ordered, these items are provided.
- RUL1 1) The NT4X77AD maintenance kit provides all materials required to clean the heads of the Tutor-3B cassette deck. Provide one maintenance kit per NT4X77BA.

ESD PRODUCT CHANGE KIT FOR AOSS POSITIONS

PEC CODE: NT4X70AZ

| RATING: MD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This change kit provides protection for the system against electrostatic discharge. It consists of a replacement jack housing assembly and a controller capacitor and lead assembly.

REFERENCE DOCUMENTATION: N/A

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X70AZ EMR8-99-AOSS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The codes of the AOSS positions to which this change is applicable are as follows:

NT4X70AA
NT4X70AB
NT4X70AC
NT4X70AD

The NT4X70AZ product change kit is comprised of the following removals and additions:

ACTION	EQUIPMENT	PEC	LOCATION	RULE
REMOVE	Jack Housing Assy	NT4X7210	NT4X72AA or underside of customer owned desk	
ADD	TOPS04 Headset Jack Assembly	NT4X7212	NT4X72AA or underside of customer owned desk	AP
ADD	TOPS04 Controller Capacitor & Lead Assy	NT4X7328	NT4X73() Controller	AP

NOTE: 1) Description of changes applies to the AOSS position.
2) Amount of material provided by NT4X70AZ is sufficient to modify one AOSS position.

RULES:

AP 1) When PEC NT4X70AZ is ordered, these items are provided.

TOPS 04 PRODUCT CHANGE KIT

PEC CODE: NT4X73AX

| RATING: MD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This change kit provides the TOPS 04 system with double fusing to allow easier fuse replacement when the power panel is distant from the TOPS position. A three foot disconnect cable is provided for manual disconnect of the TOPS position and monitor by the operator. Also included in the kit are a new cable to ground the monitor to the chassis and insulation materials for the keyboard base.

REFERENCE DOCUMENTATION: N/A

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X73AX EMR8-99-TOPS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS 04 Product Change Kit is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ADD	Fuse Bracket	NT4X7324		1			AP
ADD	TOPS Cable Assy.	NT4X7317		1			AP
ADD	Cable Assy.(Concord)	10.5SPEIAL		1			AP
ADD	Mounting Hardware	P0205652		2			AP
ADD	Mounting Hardware	P0249622		2			AP
ADD	Lock Washer	P0356522		2			AP
ADD	Lock Nut	P0627369		2			AP
ADD	Butt Splice	NPS50055-14L3		8			AP
ADD	Connector Power Cord	CPD02HB03		1			AP
ADD	Adapter Cable	NT4X7322		1			AP
ADD	Monitor Cable	NT4X7423		1			AP
ADD	Keyboard Bottom	P0685363		1			AP
ADD	Nylon Screws	P0691445		6			AP
ADD	Nylon Screws	P0691446		4			AP

RULES:

- AP 1) When PEC NT4X73AX is ordered, these items are provided.
- RUL1 1) If Product Change Kits NT4X73AX and NT4X71AZ are both applied to a TOPS 04 position, the keyboard bottom supplied in NT4X71AZ should be used.
- RUL2 1) To ensure that the latest grounding configuration is applied to the keyboard, the NT4X71AZ ESD kit is to be ordered and applied to all keyboards being modified with NT4X73AX.

TOPS 04 ESD PRODUCT CHANGE KIT

PEC CODE: NT4X71AZ

| RATING: MD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This change kit provides the TOPS 04 system with added safety against ESD events and improves overall robustness.

REFERENCE DOCUMENTATION: N/A

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X71AZ EMR8-99-TOPS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS 04 ESD Product Change Kit is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMV	Jack Housing Assy.	NT4X7210					
RMV	TOPS Keybd. Base	NT4X7612					
RMV	Screws	P0142993					
RMV	Screws	P0124483					
RMV	Keybd. Base Plate	P0685363					
ADD	TOPS Jack Assy.	NT4X7212		1			AP
ADD	TOPS Cap & Lead Assy	NT4X7328		1			AP
ADD	TOPS Keybd. Base	P0693197		1			AP
ADD	Nylon Screws	FHNY-008NA		6			AP
ADD	Nylon Screws	PHNY-018NA		4			AP
ADD	Nylon Hex Nuts	HNNY-632NA		4			AP
ADD	TOPS Monitor Cable	NT4X7434		1			AP
ADD	TOPS Monitor Cable	NT4X7435		1			AP

RULES:

- AP 1) When PEC NT4X71AZ is ordered, these items are provided.
- RUL1 1) If Product Change Kits NT4X73AX and NT4X71AZ are both applied to a TOPS 04 position, the keyboard bottom supplied in NT4X71AZ should be used.

TOPS 04 EQUAL ACCESS KEYCAP PRODUCT CHANGE KIT

PEC CODE: NT4X76AH

| RATING: MD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This change kit provides the keycaps required to upgrade a NT4X76AA keyboard to NT4X76AG equivalence for use with the Equal Access feature. Sufficient materials are provided to upgrade one keyboard.

REFERENCE DOCUMENTATION: N/A

| ISSUE AUTHOR: NTI: Richard Mathias Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Richard Mathias Dept. 3471 (PPK)

NT4X76AH EMR8-99-TOPS-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
95 08 04	ECM 580 01	MD per EC 011-19287 and 011-19285.

The TOPS 04 Equal Access Keycap Product Change Kit is comprised of the following:

ACTION	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RMV	"D" key (Pos. 45)	P0594281					
RMV	"P" key (Pos. 38)	P0594282					
ADD	TOPS 04 XFR/IC Cap	P0671155		1			AP
ADD	TOPS 04 KP/IC Cap	P0671156		1			AP

RULES:

AP 1) When PEC NT4X76AH is ordered, these items are provided.

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EMR9

CELLULAR MOBILE SUBSYSTEMS CHAPTER ALL

CELLULAR MOBILE SUBSYSTEMS CHAPTER ALL

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CELLULAR MOBILE SUBSYSTEMS CHAPTER ALL

EMR9-01-PMPM-1	PMPM COMMON CP (MTXM)	NT7X41DA
EMR9-01-PMPM-2	PMPM COMMON CP (MTXM)	NT7X41DB
EMR9-01-PMTC-1	PMTC COMMON CP (MTXM)	NT7X52DA
EMR9-01-PMTC-2	PMTC COMMON CP (MTXM)	NT7X52DB
EMR9-01-PMTC-3	PMTC COMMON CP (MTXM)	NT7X52DC
EMR9-01-PMTC-4	PMTC COMMON CP (MTXM)	NT7X52DD
EMR9-01-PMTC-5	PMTC COMMON CP (MTXM)	NT7X52DE
EMR9-01-SNPC-1	SNPC COMMON CP (MTXM)	NT7X42DA
EMR9-01-SNPC-2	SNPC COMMON CP (MTXM)	NT7X42DB
EMR9-01-001	PACKAGED MINI POWER MODULE FRAME	NT7X41AA
EMR9-01-002	SINGLE NETWORK PACKAGED CORE FRAME	NT7X42AA
EMR9-01-003	PACKAGED MINI TRUNK AND	NT7X52AA
EMR9-01-004	DMS PACKAGED SWITCH SYSTEMS	NT7X16
EMR9-02-CSC-1	CSC COMMON CP FILL	NT6X16AB
EMR9-03-CSC-1	CSC COMMON CP	NT6X16AA
EMR9-03-ICP-1	INTELLIGENT CELLULAR PERIPHERAL CP FILL	NTAX75DA
EMR9-03-000	SIMPLEX CELL SITE EQUIPMENT FRAME	NT6X15AA
EMR9-04-000	NOVATEL COMMON EQUIPMENT FRAME	NT3P60AA
EMR9-06-000	NOVATEL RADIO FREQUENCY FRAME	NT3P61AA
EMR9-98-0000	NT800DR ORDERING TABLES	T_NT800DR

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EMR9

CELLULAR MOBILE SUBSYSTEMS CHAPTER ALL

PMPM COMMON CP (MTXM)

PEC CODE: NT7X41DA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X41DA is the common circuit pack
fill for the PMPM frame.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X41DA EMR9-01-PMPM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMPM Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
10A Dist. Fuse	NT0X42AJ		2	68	F00, F14	AP
20A Dist. Fuse	NT0X42AK		1	68	F05	AP
30A Dist. Fuse	NT0X42AS		2	68	F01, F02	AP
10A Dist. Fuse	NT0X42AJ		1	64	F00	AP
20A Dist. Fuse	NT0X42AK		1	64	F05	AP
30A Dist. Fuse	NT0X42AS		2	64	F01, F02	AP
TM Network Interface	NT2X45AB		1	51	01	AP
TM Processor	NT0X70AC		1	51	02	AP
TM Control	NT2X53AA		1	51	03	AP
Group Codec	NT2X59AA		1	51	04	AP
OAS Dead Sys w Common Aud	NT3X82AB		1	51	05	AP
OAS Alarm Sending	NT3X84AA		1	51	06	AP
101 Comm Test Line	NT5X30AA		1	51	07	AP
Comp Bal Ntwk 900 Ohm	NT2X77AA		1	51	07	AP
Miscellaneous Scanner	NT0X10AA		1	51	10	AP
SD Card 1	NT2X57AA		1	51	11	AP
Jack Ended Trunk	NT1X54AA		1	51	12	AP
Test Signal Generator	NT1X90AA		1	51	15	AP
PCM Level Meter	NT2X96AA		1	51	16	AP
Multioutput Power Converter	NT2X09AA		1	51	17	AP
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
Power Conv +/-5V & 12V CP	NT2X70AD		1	51	20	AP
Mag Tape Drive 9 Track	NPS25128L1		1	18		AP
Pwr Conv. +/-5V, +12V, +24V	NT1X78AA		2	04	02, 26	AP
Desig. Strip (MTXM-A Feed)	P0686000		1	68		AP
Desig. Strip (MTXM-B Feed)	P0686002		1	64		AP
Desig. Strip (NT7X41AA)	P0696671		1	51		AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC
NT7X41DA	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X41AA.

RULES:

AP 1) When PEC NT7X41DA is ordered, these items are provided.

PMPM COMMON CP (MTXM)

PEC CODE: NT7X41DB

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X41DB is the common circuit pack
fill for the PMPM frame.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X41DB EMR9-01-PMPM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMPM Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
10A Dist. Fuse	NT0X42AJ		2	68	F00, F14	AP
20A Dist. Fuse	NT0X42AK		1	68	F05	AP
30A Dist. Fuse	NT0X42AS		2	68	F01, F02	AP
10A Dist. Fuse	NT0X42AJ		1	64	F00	AP
20A Dist. Fuse	NT0X42AK		1	64	F05	AP
30A Dist. Fuse	NT0X42AS		2	64	F01, F02	AP
TM Network Interface	NT2X45AB		1	51	01	AP
TM Processor	NT0X70AC		1	51	02	AP
TM Control	NT2X53AA		1	51	03	AP
Group Codec	NT2X59AA		1	51	04	AP
OAS Dead Sys w Common Aud	NT3X82AB		1	51	05	AP
OAS Alarm Sending	NT3X84AA		1	51	06	AP
101 Comm Test Line	NT5X30AA		1	51	07	AP
Comp Bal Ntwk 900 Ohm	NT2X77AA		1	51	07	AP
Miscellaneous Scanner	NT0X10AA		1	51	10	AP
SD Card 1	NT2X57AA		1	51	11	AP
Jack Ended Trunk	NT1X54AA		1	51	12	AP
Test Signal Generator	NT1X90AA		1	51	15	AP
PCM Level Meter	NT2X96AA		1	51	16	AP
Multioutput Power Converter	NT2X09AA		1	51	17	AP
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
Pwr Conv. +/-5V, +12V, +24V	NT1X78AA		2	04	02, 26	AP
Desig. Strip (MTXM-A Feed)	P0686000		1	68		AP
Desig. Strip (MTXM-B Feed)	P0686002		1	64		AP
Desig. Strip (NT7X41AA)	P0705453		1	51		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X41DB	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X41AA.

RULES:

AP 1) When PEC NT7X41DB is ordered, these items are provided.

PMTC COMMON CP (MTXM)

PEC CODE: NT7X52DA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X52DA is the common circuit pack
fill for the first PMTC frame (PMTC 00) in
the MTX Mini Packaged Switch System.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52DA EMR9-01-PMTC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMTC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Power Conv +/-5V & 12V CP	NT2X70AD		2	65	01,25	AP
I/O Msg Controller CP	NT1X62BB		2	65	04,15	AP
I/O Control Terminator	NT0X67AA		2	65	14,24	AP
TM Network Interface	NT2X45AB		2	51	01,09	AP
TM Processor	NT0X70AC		2	51	02,10	AP
TM Control	NT2X53AA		2	51	03,11	AP
Dig. Recorded Ann Cont	NT1X75AA		1	51	04	AP
DRA Recordable Memory	NT1X77AA		3	51	05-07	AP
102 Test (Milliwatt)	NT1X00AB		1	51	08	AP
Multioutput Pwr Converter	NT2X09AA		1	51	17	AP
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	51	20	AP
DS1 Interface CP	NT6X50AA		1	32	05	AP
Filler Face Plate 0.875	NT0X50AA		8	32	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	32	08,12	AP
Master Processor Memory CP	NT6X47AB		1	32	10	AP
Signal Processor Memory CP	NT6X46AB		1	32	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	32	11R	AP
Time Switch CP	NT6X44AB		1	32	14	AP
CPP Message Protocol CP	NT6X69AA		1	32	18	AP
CPCE Tone Generator CP	NT6X79AA		1	32	19	AP
Channel Supervision Msg CP	NT6X42AA		1	32	20	AP
Speech Bus Formatter CP	NT6X41AA		1	32	21	AP
DS30 Network Interface CP	NT6X40AA		2	32	22,23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	32	25	AP
DS1 Interface CP	NT6X50AA		1	18	05	AP
Filler Face Plate 0.875	NT0X50AA		8	18	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	18	08,12	AP
Master Processor Memory CP	NT6X47AB		1	18	10	AP
Signal Processor Memory CP	NT6X46AB		1	18	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	18	11R	AP
Time Switch CP	NT6X44AB		1	18	14	AP
CPP Message Protocol CP	NT6X69AA		1	18	18	AP
CPCE Tone Generator CP	NT6X79AA		1	18	19	AP

Retired Equipment
PMTC Common CP (MTXM)

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Channel Supervision Msg CP	NT6X42AA		1	18	20	AP
Speech Bus Formatter CP	NT6X41AA		1	18	21	AP
DS30 Network Interface CP	NT6X40AA		2	18	22, 23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	18	25	AP
Design. Strip (NT7X52AA)	P0696244		1	65		AP
Design. Strip (NT7X52AA)	P0696243		1	51		AP
Design. Strip (NT7X52AA)	P0696242		2	32, 18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52DA NT2X70AD	MD MD	MSL-100 Cab. Sys NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X52AA.

RULES:

AP 1) When PEC NT7X52DA is ordered, these items are provided.

PMTC COMMON CP (MTXM)

PEC CODE: NT7X52DB

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X52DB is the common circuit pack fill for the second PMTC frame (PMTC 01) in the MTX Mini Packaged Switch System.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52DB EMR9-01-PMTC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMTC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
DS1 Interface CP	NT6X50AA		1	32	05	AP
Filler Face Plate 0.875	NT0X50AA		8	32	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	32	08,12	AP
Master Processor Memory CP	NT6X47AB		1	32	10	AP
Signal Processor Memory CP	NT6X46AB		1	32	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	32	11R	AP
Time Switch CP	NT6X44AB		1	32	14	AP
CPP Message Protocol CP	NT6X69AA		1	32	18	AP
CPCE Tone Generator CP	NT6X79AA		1	32	19	AP
Channel Supervision Msg CP	NT6X42AA		1	32	20	AP
Speech Bus Formatter CP	NT6X41AA		1	32	21	AP
DS30 Network Interface CP	NT6X40AA		2	32	22,23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	32	25	AP
DS1 Interface CP	NT6X50AA		1	18	05	AP
Filler Face Plate 0.875	NT0X50AA		8	18	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	18	08,12	AP
Master Processor Memory CP	NT6X47AB		1	18	10	AP
Signal Processor Memory CP	NT6X46AB		1	18	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	18	11R	AP
Time Switch CP	NT6X44AB		1	18	14	AP
CPP Message Protocol CP	NT6X69AA		1	18	18	AP
CPCE Tone Generator CP	NT6X79AA		1	18	19	AP
Channel Supervision Msg CP	NT6X42AA		1	18	20	AP
Speech Bus Formatter CP	NT6X41AA		1	18	21	AP
DS30 Network Interface CP	NT6X40AA		2	18	22,23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	18	25	AP
Desig. Strip (NT7X52AA)	P0687194		1	65		AP
Desig. Strip (NT7X52AA)	P0687193		1	51		AP
Desig. Strip (NT7X52AA)	P0696242		2	32,18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52DB NT2X70AD	MD MD	MSL-100 Cab. Sys NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X52AA.

RULES:

AP 1) When PEC NT7X52DB is ordered, these items are provided.

PMTC COMMON CP (MTXM)

PEC CODE: NT7X52DC

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X52DC is the common circuit pack
fill for the third PMTC frame (PMTC 02) in
the MTX Mini Packaged Switch System.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52DC EMR9-01-PMTC-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMTC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
DS1 Interface CP	NT6X50AA		1	32	05	AP
Filler Face Plate 0.875	NT0X50AA		8	32	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	32	08,12	AP
Master Processor Memory CP	NT6X47AB		1	32	10	AP
Signal Processor Memory CP	NT6X46AB		1	32	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	32	11R	AP
Time Switch CP	NT6X44AB		1	32	14	AP
CPP Message Protocol CP	NT6X69AA		1	32	18	AP
CPCE Tone Generator CP	NT6X79AA		1	32	19	AP
Channel Supervision Msg CP	NT6X42AA		1	32	20	AP
Speech Bus Formatter CP	NT6X41AA		1	32	21	AP
DS30 Network Interface CP	NT6X40AA		2	32	22,23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	32	25	AP
DS1 Interface CP	NT6X50AA		1	18	05	AP
Filler Face Plate 0.875	NT0X50AA		8	18	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	18	08,12	AP
Master Processor Memory CP	NT6X47AB		1	18	10	AP
Signal Processor Memory CP	NT6X46AB		1	18	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	18	11R	AP
Time Switch CP	NT6X44AB		1	18	14	AP
CPP Message Protocol CP	NT6X69AA		1	18	18	AP
CPCE Tone Generator CP	NT6X79AA		1	18	19	AP
Channel Supervision Msg CP	NT6X42AA		1	18	20	AP
Speech Bus Formatter CP	NT6X41AA		1	18	21	AP
DS30 Network Interface CP	NT6X40AA		2	18	22,23	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		1	18	25	AP
Desig. Strip (NT7X52AA)	P0687194		1	65		AP
Desig. Strip (NT7X52AA)	P0687193		1	51		AP
Desig. Strip (NT7X52AA)	P0696242		2	32,18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52DC NT2X70AD	MD MD	MSL-100 Cab. Sys NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X52AA.

RULES:

AP 1) When PEC NT7X52DC is ordered, these items are provided.

PMTC COMMON CP (MTXM)

PEC CODE: NT7X52DD

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X52DD is the common circuit pack fill for the first PMTC frame (PMTC 00) in the MTX Mini Packaged Switch System.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52DD EMR9-01-PMTC-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMTC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
I/O Msg Controller CP	NT1X62BB		2	65	04,15	AP
I/O Control Terminator	NT0X67AA		2	65	14,24	AP
TM Network Interface	NT2X45AB		2	51	01,09	AP
TM Processor	NT0X70AC		2	51	02,10	AP
TM Control	NT2X53AA		2	51	03,11	AP
Dig. Recorded Ann Cont	NT1X75AA		1	51	04	AP
DRA Recordable Memory	NT1X77AA		3	51	05-07	AP
102 Test (Milliwatt)	NT1X00AB		1	51	08	AP
Multioutput Pwr Converter	NT2X09AA		1	51	17	AP
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
DS1 Interface CP	NT6X50AA		1	32	05	AP
Filler Face Plate 0.875	NT0X50AA		8	32	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	32	08,12	AP
Master Processor Memory CP	NT6X47AB		1	32	10	AP
Signal Processor Memory CP	NT6X46AB		1	32	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	32	11R	AP
Time Switch CP	NT6X44AB		1	32	14	AP
CPP Message Protocol CP	NT6X69AA		1	32	18	AP
CPCE Tone Generator CP	NT6X79AA		1	32	19	AP
Channel Supervision Msg CP	NT6X42AA		1	32	20	AP
Speech Bus Formatter CP	NT6X41AA		1	32	21	AP
DS30 Network Interface CP	NT6X40AA		2	32	22,23	AP
DS1 Interface CP	NT6X50AA		1	18	05	AP
Filler Face Plate 0.875	NT0X50AA		8	18	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	18	08,12	AP
Master Processor Memory CP	NT6X47AB		1	18	10	AP
Signal Processor Memory CP	NT6X46AB		1	18	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	18	11R	AP
Time Switch CP	NT6X44AB		1	18	14	AP
CPP Message Protocol CP	NT6X69AA		1	18	18	AP
CPCE Tone Generator CP	NT6X79AA		1	18	19	AP
Channel Supervision Msg CP	NT6X42AA		1	18	20	AP
Speech Bus Formatter CP	NT6X41AA		1	18	21	AP
DS30 Network Interface CP	NT6X40AA		2	18	22,23	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Strip (NT7X52AA)	P0705458		1	65		AP
Desig. Strip (NT7X52AA)	P0705459		1	51		AP
Desig. Strip (NT7X52AA)	P0705460		2	32,18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52DD	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on
NT7X52AA.

RULES:

AP 1) When PEC NT7X52DD is ordered, these items are provided.

PMTC COMMON CP (MTXM)

PEC CODE: NT7X52DE

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X52DE is the common circuit pack fill for the second PMTC frame (PMTC 01) in the MTX Mini Packaged Switch System.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52DE EMR9-01-PMTC-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The PMTC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		1	51	19	AP
DS1 Interface CP	NT6X50AA		1	32	05	AP
Filler Face Plate 0.875	NT0X50AA		8	32	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	32	08,12	AP
Master Processor Memory CP	NT6X47AB		1	32	10	AP
Signal Processor Memory CP	NT6X46AB		1	32	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	32	11R	AP
Time Switch CP	NT6X44AB		1	32	14	AP
CPP Message Protocol CP	NT6X69AA		1	32	18	AP
CPCE Tone Generator CP	NT6X79AA		1	32	19	AP
Channel Supervision Msg CP	NT6X42AA		1	32	20	AP
Speech Bus Formatter CP	NT6X41AA		1	32	21	AP
DS30 Network Interface CP	NT6X40AA		2	32	22,23	AP
DS1 Interface CP	NT6X50AA		1	18	05	AP
Filler Face Plate 0.875	NT0X50AA		8	18	06,07, 09,13, 15,16, 17,24	AP
LGC/DTC Processor CP	NT6X45AC		2	18	08,12	AP
Master Processor Memory CP	NT6X47AB		1	18	10	AP
Signal Processor Memory CP	NT6X46AB		1	18	11	AP
Comm Periph Ctl Term Bd	NT6X1205		1	18	11R	AP
Time Switch CP	NT6X44AB		1	18	14	AP
CPP Message Protocol CP	NT6X69AA		1	18	18	AP
CPCE Tone Generator CP	NT6X79AA		1	18	19	AP
Channel Supervision Msg CP	NT6X42AA		1	18	20	AP
Speech Bus Formatter CP	NT6X41AA		1	18	21	AP
DS30 Network Interface CP	NT6X40AA		2	18	22,23	AP
Desig. Strip (NT7X52AA)	P0687194		1	65		AP
Desig. Strip (NT7X52AA)	P0687193		1	51		AP
Desig. Strip (NT7X52AA)	P0705460		2	32,18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52DE	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X52AA.

RULES:

AP 1) When PEC NT7X52DE is ordered, these items are provided.

SNPC COMMON CP (MTXM)

PEC CODE: NT7X42DA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X42DA is the common circuit pack
fill for the SNPC frame.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X42DA EMR9-01-SNPC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC's 002-16188 and 002-15963.

EQUIPMENT

PEC

ABBR

QTY

SHF
POS

CP
POS

RULE

The SNPC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50BA		6	65	01,03, 05	AP
Diff Mem Bus I/F & Term	NT3X36BC		2	65	02	AP
16MW Memory Control CP	NT4X79AA		2	65	04	AP
1MW Memory CP	NT4X80AA		8	65	06-09	AP
16MW Memory BP Terminator	NT3X4309		2	65	21R	AP
Filler Face Plate 2.62	NT0X50BE		2	65	22	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		2	65	25	AP
Network Test Code CP	NT3X71AA		2	51	01	AP
Network Cross Point	NT3X70AA		16	51	02-09	AP
Network Control Processor	NT3X74AA		2	51	10	AP
Network Clock CP	NT3X76AB		2	51	11	AP
Ntwk Par to Ser Formatter	NT3X86AA		2	51	12	AP
Network P-Side Message Proc	NT3X75AA		2	51	13	AP
Ntwk Ser to Par Formatter	NT3X73AA		2	51	14	AP
Network Serial Port I/F	NT3X72AA		14	51	15-21	AP
# Port Extender Panel Assy	NT7X2618		2	51	15R	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		4	51	22,25	AP
Filler Face Plate 0.875	NT0X50BA		20	32	01-09, 19	AP
CMC Processor Interface CP	NT1X33BA		2	32	13	AP
CMC Common Control CP	NT1X37BA		2	32	14	AP
CMC Outgoing Control CP	NT1X34BA		2	32	15	AP
CMC Incoming Control CP	NT1X35BA		2	32	16	AP
CMC Peripheral I/F CP	NT1X36BB		4	32	17,18	AP
I/O Terminal Ctrl CP	NT1X67BC		2	32	20	AP
Disk Drive Ctrl Priam 806	NT1X55CA		2	32	21	AP
9 Track Tape Ctrl Cook (Plane 0)	NT1X68BC		1	32	22	AP
I/O Msg Controller	NT1X62BB		2	32	23	AP
CMC/IOC Backplane Term	NT3X4304		2	32	23R	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		2	32	25	AP
16MW Memory BP Terminator	NT3X4309		2	18	01R	AP
1MW Memory CP	NT4X80AA		6	18	06-08	AP
16MW Memory Control CP	NT4X79AA		2	18	09	AP
PS Cont Backpanel Term	NT3X4307		2	18	09R	AP
Balanced Data Port Ext CP	NT1X50BB		2	18	10	AP
Proc Backplane Term	NT3X4303		2	18	10R	AP
CMC Interface CP	NT1X51BA		2	18	11	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50BA		8	18	12,13, 15,20	AP
Processor 8KW ROM CP	NT1X46CD		2	18	14	AP
Processor Maintenance CP	NT1X48BA		2	18	16	AP
Proc Timing & Control CP	NT1X47BB		2	18	17	AP
Processor ALF CP	NT1X45BB		2	18	18	AP
Processor Stack CP	NT1X44BB		2	18	19	AP
Proc Prog Store Port CP	NT1X43CA		2	18	21	AP
Power Converter (5V/40A)	NT2X06BB		2	18	22	AP
# Power Conv +/-5V & 12V CP	NT2X70AD		2	18	25	AP
Desig. Strip (NT7X42AA)	P0693249		2	65		AP
Desig. Strip (NT7X42AA)	P0687188		2	51		AP
Desig. Strip (NT7X42AA)	P0693247		2	32		AP
Desig. Strip (NT7X42AA)	P0696598		2	18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X42DA	MD	MSL-100 Cab. Sys.
NT2X70AD	MD	NT2X70AF
NT7X2618	MD	MSL-100 Cab. Sys.

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X42AA.

RULES:

- AP 1) When PEC NT7X42DA is ordered, these items are provided.
- 2) This PEC provides all of the always provided packs for both planes (one plane takes up one bay).

SNPC COMMON CP (MTXM)

PEC CODE: NT7X42DB

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The NT7X42DB is the common circuit pack
fill for the SNPC frame.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X42DB EMR9-01-SNPC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC's 002-16188 and 002-15963.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The SNPC Common CP (MTXM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50BA		6	65	01,03, 05	AP
Diff Mem Bus I/F & Term	NT3X36BC		2	65	02	AP
16MW Memory Control CP	NT4X79AA		2	65	04	AP
1MW Memory CP	NT4X80AA		8	65	06-09	AP
16MW Memory BP Terminator	NT3X4309		2	65	21R	AP
Filler Face Plate 2.62	NT0X50BE		2	65	22	AP
Network Test Code CP	NT3X71AA		2	51	01	AP
Network Cross Point	NT3X70AA		16	51	02-09	AP
Network Control Processor	NT3X74AA		2	51	10	AP
Network Clock CP	NT3X76AB		2	51	11	AP
Ntwk Par to Ser Formatter	NT3X86AA		2	51	12	AP
Network P-Side Message Proc	NT3X75AA		2	51	13	AP
Ntwk Ser to Par Formatter	NT3X73AA		2	51	14	AP
Network Serial Port I/F	NT3X72AA		14	51	15-21	AP
# Port Extender Panel Assy	NT7X2618		2	51	15R	AP
Filler Face Plate 0.875	NT0X50BA		20	32	01-09, 19	AP
CMC Processor Interface CP	NT1X33BA		2	32	13	AP
CMC Common Control CP	NT1X37BA		2	32	14	AP
CMC Outgoing Control CP	NT1X34BA		2	32	15	AP
CMC Incoming Control CP	NT1X35BA		2	32	16	AP
CMC Peripheral I/F CP	NT1X36BB		4	32	17,18	AP
I/O Terminal Ctrl CP	NT1X67BC		2	32	20	AP
Disk Drive Ctrl Priam 806	NT1X55CA		2	32	21	AP
9 Track Tape Ctrl Cook (Plane 0)	NT1X68BC		1	32	22	AP
I/O Msg Controller	NT1X62BB		2	32	23	AP
CMC/IOC Backplane Term	NT3X4304		2	32	23R	AP
16MW Memory BP Terminator	NT3X4309		2	18	01R	AP
1MW Memory CP	NT4X80AA		6	18	06-08	AP
16MW Memory Control CP	NT4X79AA		2	18	09	AP
PS Cont Backpanel Term	NT3X4307		2	18	09R	AP
Balanced Data Port Ext CP	NT1X50BB		2	18	10	AP
Proc Backplane Term	NT3X4303		2	18	10R	AP
CMC Interface CP	NT1X51BA		2	18	11	AP
Filler Face Plate 0.875	NT0X50BA		8	18	12,13, 15,20	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Processor 8KW ROM CP	NT1X46CD		2	18	14	AP
Processor Maintenance CP	NT1X48BA		2	18	16	AP
Proc Timing & Control CP	NT1X47BB		2	18	17	AP
Processor ALF CP	NT1X45BB		2	18	18	AP
Processor Stack CP	NT1X44BB		2	18	19	AP
Proc Prog Store Port CP	NT1X43CA		2	18	21	AP
Power Converter (5V/40A)	NT2X06BB		2	18	22	AP
Desig. Strip (NT7X42AA)	P0705457		2	65		AP
Desig. Strip (NT7X42AA)	P0705456		2	51		AP
Desig. Strip (NT7X42AA)	P0705455		2	32		AP
Desig. Strip (NT7X42AA)	P0705454		2	18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X42DB	MD	MSL-100 Cab. Sys
NT7X2618	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) For more information on the frame refer to the section on NT7X42AA.

RULES:

- AP 1) When PEC NT7X42DB is ordered, these items are provided.
- 2) This PEC provides all of the always provided packs for both planes (one plane takes up one bay).

PACKAGED MINI POWER MODULE FRAME

PEC CODE: NT7X41AA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME: PMPM

ENGINEERING DESCRIPTION: The PMPM frame is a standard DMS frame which houses PDC panels, a PTM, an MTD, and a DDU.

This frame is part of the MTX Mini Packaged Switch System (NTZX04AA).

REFERENCE DOCUMENTATION: MS7X41AA

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X41AA EMR9-01-001 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC's 002-15963, 002-16188, 002-16146 and 002-15813.

The Packaged Mini Power Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Ground Plate Assembly	NT7X2410		1	72		AP
Fuse Panel "A" Feed 20A Dist. Fuse	NT0X42AB NT0X42AK	FPA	1	68 68	F07, F08	AP RUL9
Fuse Panel "B" Feed 20A Dist. Fuse	NT0X42AC NT0X42AK	FPB	1	64 64	F07, F08	AP RUL9
# PMPM Common CP (MTXM)	NT7X41DA					RUL1
# PMPM Common CP (MTXM)	NT7X41DB					RUL1
# PTM (Pkg Switch) Shf Assy	NT7X3501		1	51		AP
Miscellaneous Scanner	NT0X10AA			51	08, 09	RUL2
101 Comm. Test Line	NT5X30AA			51	08, 09 14	RUL2
Comp. Cal. Ntwk 900 Ohm	NT2X77AA			51	08, 09 14	RUL2
Jack Ended Trunk	NT1X54AA			51	13	RUL2
Trmsn Tst Mod Con Sig Gen	NT2X47AC			51	13	RUL3
Trmsn Tst Mod Dig Filter	NT2X56AB			51	14	RUL3
Filler Face Plate 1.12	NT0X50AC			51	08, 09 13, 14	RUL4
# Power Converter +/- 12V	NT2X70AE			51	20	RUL10
Power Converter Kit	NT2X70AZ			51	20	RUL10
Desig. Label for NT2X70AE	P0698943			51	20	RUL5
Desig. Label for NT0X10AA	P0656328			51	08, 09	RUL5
Desig. Label for NT1X54AA	P0656330			51	13	RUL5
Desig. Label for NT2X47AC	P0661421			51	13	RUL5
Desig. Label for NT2X56AB	P0661422			51	14	RUL5
Desig. Label for NT5X30AA	P0656329			51	08, 09 14	RUL5
Desig. Label for NT0X50AC	P0580258			51	08, 09 13, 14	RUL5
# PCPM Frame Supervisory Pnl	NT7X34BA	FSP	1	45		AP
# H/W for Mounting Cook Mag Tape Drive	NT0X44AH		1	18		AP
Mag Tape Drive Unit (Cook)	NT0X44AB	MTD		18		RUL11
Mag Tape Drive Unit (Cook)	209800-153	MTD		18		RUL11

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Dual Disk Drive Unit Shf	NT4X00AF	DDU	1	04		AP
# DMS Pkg Earthquake Frmwrk	NT0X25AL	FW	1			AP
# End Panel Assembly	NT7X4103					RUL8
# Power Cable Assembly	NT7X2443					RUL6
Conn PTL 25P Cable e/w	NT0X26YS					RUL7
Two 25 Pin EMI Filters						
Conn PTL 25P Cable e/w	NT0X26YT					RUL7
Two 25 Pin EMI Filters						
Conn PTL 25P Cable e/w	NT0X26YU					RUL7
Two 25 Pin EMI Filters						
Conn PTL 25P Cable e/w	NT0X26YW					RUL7
Two 25 Pin EMI Filters						
Conn NE-744A Cable e/w	NT0X26YZ					RUL7
One 37 Pin FLT						

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X41AA/DA/DB	MD	MSL-100 Cab. Sys
NT0X25AL	MD	No Replacement
NT0X44AH	MD	No Replacement
NT7X2410	MD	No Replacement
NT2X70AE	MD	NT2X70AF
NT7X34BA	MD	No Replacement
NT7X3501	MD	No Replacement
NT7X2443	MD	MSL Cab. Sys.
NT7X4103	MD	MSL Cab. Sys.

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NT7X41AA is ordered, these items are provided.
- 2) The PTM on shelf position 51 shall be PTM 00.
- RUL1 1) Provide one (1) NT7X41DB per PMPM frame when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- RUL2 1) For PTM 00 on shelf position 51, provide NT0X10AA, NT5X30AA and NT1X54AA as required.
- 2) For each NT5X30AA, provide one (1) NT2X77AA.
- RUL3 1) For PTM 00 on shelf position 51, provide NT2X47AC and NT2X45AB as required.
- 2) Note that if NT2X47AC is provided, then NT2X56AB must be provided and vice versa.
- RUL4 1) Provide one (1) Filler Face Plate NT0X50AC for each unequipped circuit pack position 08, 09, 13 or 14 as required.
- RUL5 1) Provide one (1) corresponding designation label for each NT0X10AA, NT1X54AA, NT2X47AC, NT2X56AB, NT5X30AA, NT0X50AC, NT2X70AD, or NT2X70AE supplied.
- RUL6 1) Provide two (2) NT7X2443 cables per frame to last frame in lineup (i.e. one set per office) when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- 2) These cables are to be hardwired to this frame in the shop prior to shipment to the job site per AD7X41AA Fig. K and L.
- RUL7 1) Provide one (1) cable per frame when frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- 2) These cables are to be hardwired to this frame in the shop prior to shipment to the job site per WD7X41AA.
- RUL8 1) Provide one (1) End Panel Assembly, NT7X4103, per PMPM frame when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- 2) This item is to be assembled in the shop.

- RUL9 1) When the office is equipped with frame PMTC01 (NTZX04CA), provide two (2) 20A Dist. Fuses per PMPM frame for the "A" and "B" feeds. Assign to:

SHF POS CP POS

68 F07
64 F07

- 2) When the office is equipped with frame PMTC02 (NTZX04DA), provide two (2) 20A Dist. Fuses per PMPM frame for the "A" and "B" feeds. Assign to:

SHF POS CP POS

68 F08
64 F08

- RUL10 1) Provide one (1) NT2X70AE Power Converter when NT7X41DB Common CP is equipped.

- 2) Per telco request, provide one (1) NT2X70AZ Power Converter Kit per NT7X41DA Common CP to upgrade power converter to NT2X70AE.

- | RUL11 1) These MTDS can be ordered only if PMPM Common CP (MTXM) NT7X41DB has been provided.

- | 2) The standard DMS MTD is the Cook Electric drive, NT0X44AB or 209800-153. Provide when frame is equipped as part of MTX-Mini Packaged System (NTZX04).

- | 3) If MTD is to be drop-shipped, the drive (209800-153) and its mounting hardware (NT0X44AD) are ordered separately on the appropriate specs.

- | 5) If MTD is not to be drop-shipped, the combined drive and hardware is ordered using NT0X44AB. 2) The NT9X95BA contains the NT9X9575 Cabinet Framework.

SINGLE NETWORK PACKAGED CORE FRAME

PEC CODE: NT7X42AA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME: SNPC

ENGINEERING DESCRIPTION: The SNPC frame is a double bay frame consisting of two identical SNPC bays each housing a Data Store (DS), a Network Cross-point Interface (NCI), a Central Message & I/O Device Controller Memory (MDM), Central Processor Unit & Memory (CPM), and a Cooling Unit (CU).

This frame is part of the MTX Mini Packaged Switch System (NTZX04AA).

REFERENCE DOCUMENTATION: MS7X42AA

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X42AA EMR9-01-002 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC's 002-16188, 002-15963 and 002-15813.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The Single Network Packaged Core Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# SNPC Common CP (MTXM)	NT7X42DA					RUL1
# SNPC Common CP (MTXM)	NT7X42DB					RUL1
# Data Store Shelf Assembly	NT7X3201	DS	2	65		AP
1 MW Memory CP	NT4X80AA			65	10-21	RUL2
Filler Face Plate 0.875	NT0X50BA			65	10-21	RUL3
# Power Converter +/- 12V	NT2X70AE			65	25	RUL13
Power Converter Kit	NT2X70AZ			65	25	RUL13
Desig. Label (NT2X70AE)	P0698943			65	25	RUL4
Desig. Label (NT4X80AA)	P0649156			65	10-21	RUL4
Desig. Label (NT0X50BA)	P0599141			65	10-21	RUL4
# NCI Shelf Assembly	NT7X2701	NCI	2	51		AP
# Power Converter +/- 12V	NT2X70AE			51	22, 25	RUL13
Power Converter Kit	NT2X70AZ			51	22, 25	RUL13
Desig. Label (NT2X70AE)	P0698943			51	22, 25	RUL4
DNPC Frame Supervisory Pnl	NT7X34AA	FSP	2	45		AP
# MDM Shelf Assembly	NT7X2801	MDM	2	32		AP
# MDM Device Conn Pnl Assy	NT7X2609		1	32P0	11R	AP
Filler Face Plate 0.875	NT0X50BA			32	01-09	RUL3
Sync Master Clock Cont	NT3X14BC			32	12	RUL5
Master Clock Generator	NT3X13BA			32	11	RUL5
Stratum 3 Sync Clk Mstr Osc	NT3X15CA			32	10	RUL5
I/O Terminal Ctrl CP	NT1X67BC			32P1	22	RUL7
Bit Sync Data Link Ctrl	NT1X67DB			32P1	22	RUL7
Filler Face Plate 0.875	NT0X50BA			32	10-12, 22	RUL3
# Power Converter +/- 12V	NT2X70AE			32	25	RUL13
Power Converter Kit	NT2X70AZ			32	25	RUL13
Desig. Label (NT2X70AE)	P0698943			32	25	RUL4
Desig. Label (NT3X14BC)	P0645683			32	12	RUL4
Desig. Label (NT3X13BA)	P0613352			32	11	RUL4
Desig. Label (NT3X15CA)	P0654973			32	10	RUL4
Desig. Label (NT1X67BC)	P0623517			32P1	22	RUL4
Desig. Label (NT1X67DB)	P0599148			32P1	22	RUL4
Desig. Label (NT0X50BA)	P0599141			32	10-12, 22	RUL4
# CPM Shelf Assembly	NT7X3101	CPM	2	18		AP
1 MW Memory CP	NT4X80AA			18	05-01	RUL8
Filler Face Plate 0.875	NT0X50BA			18	01-05, 14, 21	RUL3

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Power Converter +/- 12V	NT2X70AE			18	25	RUL13
Power Converter Kit	NT2X70AZ			18	25	RUL13
Desig. Label (NT2X70AE)	P0698943			18	25	RUL4
Desig. Label (NT4X80AA)	P0649156			18	05-01	RUL4
Desig. Label (NT0X50BA)	P0599141			18	01-05, 14, 21	RUL4
Cooling Inverter Unit	NT3X90AA	CU	2	04		AP
# DMS Pkg Earthquake Frwrk	NT0X25AL	FW	2			AP
# Upper Fan Unit Frame Top	NT7X2610		2			AP
PS Wiring 1.75 MW	NT7X42WB			18		RUL8
PS Wiring 1.75 MW to 2.0 MW	NT7X42WC			18		RUL8
PS Wiring 1.75 MW to 2.75 MW	NT7X42WD			18		RUL8
PS Wiring 3.0 MW to 8.0 MW	NT7X42WE			18		RUL8
DS Wiring 4.0 MW to 16.0 MW	NT7X42WF			65		RUL2
# Power Cable Assembly	NT7X4109		PLANE 0			RUL9, RUL12
# Power Cable Assembly	NT7X2432		PLANE 1			RUL10, RUL12
# Power Cable Assembly	NT7X2437		PLANE 0			RUL9, RUL12
# Power Cable Assembly	NT7X2454		PLANE 1			RUL10, RUL12
Power Cable Assembly	NT7X2456		PLANE 0			RUL11, RUL12

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X42AA	MD	MSL-100 Cab. Sys
NT0X25AL	MD	No Replacement
NT7X42DA/DB	MD	No Replacement
NT7X4109	MD	MSL Cab. Sys.
NT2X70AE	MD	NT2X70AF
NT7X2432/37/54	MD	MSL Cab. Sys.
NT7X2609/10	MD	MSL Cab. Sys.
NT7X2701	MD	MSL Cab. Sys.
NT7X2801	MD	MSL Cab. Sys.
NT7X3101	MD	MSL Cab. Sys.
NT7X3201	MD	No Replacement

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- DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.
- A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.
- MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) In column "SHF POS", P0 represents Plane 0 and P1 represents Plane 1. Therefore, 32P1 means shelf position 32 of plane 1 only.

RULES:

- AP 1) When PEC NT7X42AA is ordered, these items are provided.
- RUL1 1) Provide one (1) NT7X42DB per SNPC frame when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- RUL2 1) Data Store memory is accommodated on the DS shelf assembly (shelf position 65) by one (1) megaword memory cards.
- 2) When Data Store is provisioned in one (1) megaword steps from four (4) megawords up to 16 megawords, provide NT4X80AA as required in slot positions 10 to 21 per bay (i.e. need two (2) of each per frame).
- 3) When Data Store is provisioned in one (1) megaword steps from four (4) megawords up to 16 megawords, provide two (2) (one per plane) of NT7X42WF.
- RUL3 1) Provide one (1) NT0X50BA for each circuit pack position not equipped with a circuit pack.
- RUL4 1) Provide one (1) Designation Label per circuit pack provisioned of the appropriate label. PEC on label should be the same as the circuit pack provisioned.

- RUL5 1) If this is a non synchronizable office with an internal clock, provide two (2) (one per plane) of NT3X13BA in slot position 11.
- 2) If this is a Stratum III synchronizable slave or master office with internal clock, provide two (2) (one per plane) of NT3X14BC in CP position 12 and two (2) (one per plane) of NT3X15CA in CP position 10.
- RUL6 1) Reserved.
- RUL7 1) Provide one (1) NT1X67BC (to accommodate up to four I/O devices) or one (1) NT1X67DB (to accommodate remote transmission of AMA and OM data) on plane 1 only per customer requirements.
- RUL8 1) Program Store memory requirements are accommodated on the CPM shelf assembly (shelf position 18) by one (1) megaword memory cards.
- 2) The NT4X79AA cards (one per plane) and the first six (6) NT4X80AA cards (three per plane) are always provided via NT7X42DA/DB (i.e. the first three (3) megawords (MW) of program store memory are always provided).
- 3) If up to 1.75 MW of program store memory is required, provide two (2) (one per plane) of NT7X42WB per frame.
- 4) If from 1.75 MW to 2.0 MW of program store memory is required, provide two (2) (one per plane) of NT7X42WC per frame. If NT7X42WB was previously applied, remove NT7X42WB.
- 5) If from 1.75 MW to 2.75 MW of program store memory is required, provide two (2) (one per plane) of NT7X42WD per frame. If NT7X42WB or NT7X42WC was previously applied, remove NT7X42WB or NT7X42WC.
- 6) If from 3.0 MW to 8.0 MW of program store memory is required, provide two (2) (one per plane) of NT7X42WE per frame. If NT7X42WB, NT7X42WC or NT7X42WD was previously applied, remove NT7X42WB/WC/WD.
- 7) If from 3.0 MW to 8.0 MW of program store memory is required, provide NT4X80AA as required in slot positions 05 to 01 per bay (i.e. need two (2) of each per frame). Start provisioning in card position 05 and grow towards card position 01 in descending order.

- RUL9 1) Provide two (2) cables per SNPC bay 0 (i.e. plane 0) when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- RUL10 1) Provide two (2) cables per SNPC bay 1 (i.e. plane 1) when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- RUL11 1) Provide four (4) cables per SNPC bay 0 (i.e. plane 0) when this frame is provided as part of the MTX Mini Packaged Switch System (NTZX04AA).
- RUL12 1) These cables are to be hardwired to this frame in the shop prior to shipment to the job site per AD7X42AA Fig. G and H.
- | RUL13 1) For each NT7X42DB Common CP equipped, provide ten (10) NT2X70AE Power Donverter CPs as follows:
- one (1) per DS shelf,
 - two (2) per NCI shelf,
 - one (1) per MDM shelf,
 - one (1) per CPM shelf.

- | 2) Per telco request, for each NT7X42DA Common CP existing in the office, provide ten (10) NT2X70AZ Power Converter Product Change Kits as follows:

one (1) per DS shelf,
two (2) per NCI shelf,
one (1) per MDM shelf,
one (1) per CPM shelf.

PACKAGED MINI TRUNK AND
CELLULAR MODULE FRAME

PEC CODE: NT7X52AA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME: PMTC

ENGINEERING DESCRIPTION: The PMTC frame is a standard DMS frame which houses a Cellular Radio Controller (CRC), a Service Trunk Module (STM), a Digital Trunk Controller (DTC), and a Cooling Unit (CU).

This frame is part of the MTX Mini Packaged Switch System.

PMTC 00 is part of NTZX04EA.
PMTC 01 is part of NTZX04CA.
PMTC 02 is part of NTZX04DA.

REFERENCE DOCUMENTATION: MS7X52AA

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X52AA EMR9-01-003 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD product per EC's 002-16188, 002-15963, 002-16146 and 002-15813.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The Packaged Mini Trunk and Cellular Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# PMTC Common CP (MTXM)	NT7X52DA					RUL1
# PMTC Common CP (MTXM)	NT7X52DB					RUL2
# PMTC Common CP (MTXM)	NT7X52DC					RUL3
# PMTC Common CP (MTXM)	NT7X52DD					RUL1
# PMTC Common CP (MTXM)	NT7X52DE					RUL2
# PMTC Common CP (MTXM)	NT7X52DF					RUL3
# CRC Shelf Assembly	NT7X2104	CRC	1	65		AP
# Power Conv +/-5V & 12V CP	NT2X70AD			65	01, 25	RUL25
# Power Converter +/- 12V	NT2X70AE			65	01, 25	RUL25
Power Converter Kit	NT2X70AZ			65	01, 25	RUL25
I/O Msg Controller CP	NT1X62BB			65	04, 15	RUL4
MTX Data Link Controller CP	NT6X91AB			65	06-13, 17-23	RUL5
NEMAS CP	NT6X91BA			65	06-13, 17-23	RUL5
9.6KB MTX Lk Cont Host End	NT6X91CA			65	06-13, 17-23	RUL5
Bit Sync Data Link Ctrl	NT1X67DB			65	13	RUL6
I/O Control Terminator	NT0X67AA			65	14, 24	RUL4
Filler Face Plate 2.62	NT0X50AE			65	01, 25	RUL7
Filler Face Plate 1.72	NT0X50AF			65	04, 15	RUL7
Filler Face Plate 0.875	NT0X50AA			65	06-13, 14, 17-23, 24	RUL7
Desig. Label (NT2X70AD)	P0664133			65	01, 25	RUL8
Desig. Label (NT2X70AE)	P0698943			65	01, 25	RUL8
Desig. Label (NT1X62BB)	P0599146			65	04, 15	RUL8
Desig. Label (NT6X91AB)	P0672703			65	06-13, 17-23	RUL8
Desig. Label (NT6X91BA)	P0675084			65	06-13, 17-23	RUL8
Desig. Label (NT6X91CA)	P0686395			65	06-13, 17-23	RUL8
Desig. Label (NT1X67DB)	P0599148			65	13	RUL8
Desig. Label (NT0X67AA)	P0657673			65	14, 24	RUL8
Desig. Label (NT0X50AE)	P0591361			65	01, 25	RUL8
Desig. Label (NT0X50AA)	P0578498			65	06-13, 14, 17-23, 24	RUL8

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# STM Shelf Assembly	NT7X3001	STM	1	51		AP
TM Network Interface	NT2X45AB			51	01,09	RUL9
TM Processor	NT0X70AC			51	02,10	RUL9
TM Control	NT2X53AA			51	03,11	RUL9
Dgtl 4 Channel MF Rcvr	NT2X48BA			51	04-07, 08, 12-15, 16	RUL10
Dgtl 4 Chan Digitone Rcvr	NT2X48BB			51	04-07, 08, 12-15, 16	RUL10
6 Port Conference Circuit	NT3X67AA			51	04-07, 12-15	RUL10
Multioutput Power Converter	NT2X09AA			51	17	RUL9
# Power Conv +/-5V & 12V CP	NT2X70AD			51	20	RUL25
# Power Converter +/- 12V	NT2X70AE			51	20	RUL25
Power Donverter Kit	NT2X70AZ			51	20	RUL25
Filler Face Plate 1.12	NT0X50AC			51	01-03, 04-08, 12-16	RUL7
Filler Face Plate 2.62	NT0X50AE			51	20	RUL7
Desig. Label (NT2X45AB)	P0599374			51	01,09	RUL8
Desig. Label (NT0X70AC)	P0664846			51	02,10	RUL8
Desig. Label (NT2X53AA)	P0558337			51	03,11	RUL8
Desig. Label (NT2X48BA)	P0656335			51	04-07, 08, 12-15, 16	RUL8
Desig. Label (NT2X48BB)	P0653620			51	04-07, 08, 12-15, 16	RUL8
Desig. Label (NT3X67AA)	P0653623			51	04-07, 12-15	RUL8
Desig. Label (NT2X09AA)	P0688106			51	17	RUL8
Desig. Label (NT2X70AD)	P0664133			51	20	RUL8
Desig. Label (NT2X70AE)	P0698943			51	20	RUL8
Desig. Label (NT0X50AC)	P0580258			51	01-03, 04-08, 12-16	RUL8
Desig. Label (NT0X50AE)	P0591361			51	20	RUL8

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# PCSM Frame Supervisory Pnl	NT7X34CA	FSP	1	45		AP
Com Per Cont Array Shf Assy	NT6X0201		1	32		AP
DS1 Interface CP	NT6X50AA			32	04-01	RUL12
Filler Face Plate 0.875	NT0X50AA			32	04-01, 15,16	RUL7
# Power Converter +/- 12V	NT2X70AE			32	25	RUL25
Power Converter Kit	NT2X70AZ			32	25	RUL25
Desig. Label (NT2X70AE)	P0698943			32	25	RUL8
Desig. Label (NT6X50AA)	P0626878			32	04-01	RUL8
Desig. Label (NT0X50AA)	P0578498			32	04-01, 15,16	RUL8
Com Per Cont Array Shf Assy	NT6X0201		1	18		AP
DS1 Interface CP	NT6X50AA			18	04-01	RUL12
Filler Face Plate 0.875	NT0X50AA			18	04-01, 15,16	RUL7
# Power Converter +/- 12V	NT2X70AE			18	25	RUL25
Power Converter Kit	NT2X70AZ			18	25	RUL25
Desig. Label (NT2X70AE)	P0698943			18	25	RUL8
Desig. Label (NT6X50AA)	P0626878			18	04-01	RUL8
Desig. Label (NT0X50AA)	P0578498			18	04-01, 15,16	RUL8
Cooling Inverter Unit	NT3X90AB	CU	1	04		AP
# DMS Pkg Earthquake Frmwrk	NT0X25AL	FW	1			AP
# Upper Fan Unit Frame Top	NT7X2610		1			AP
# End Panel Assembly	NT7X5210					RUL13
Digital Rec Ann Wiring	NT7X52WA					RUL14
Conn PTL 18P 26 CA e/w	NT0X26YG					RUL15,
One 37 Pin Conn						17
Conn PTL 18P 26 CA e/w	NT0X26YH					RUL15,
One 37 Pin Conn						17
Conn PTL 18P 26 CA e/w	NT0X26YJ					RUL15,
One 37 Pin Conn						17
Conn PTL 18P 26 CA e/w	NT0X26YK					RUL15,
One 37 Pin Conn						17
Conn PTL 18P 26 CA e/w	NT0X26YL					RUL15,
One 37 Pin Conn						17

Retired Equipment
Packaged Mini Trunk and
Cellular Module Frame

NT7X52AA
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Conn PTL 18P 26 CA e/w One 37 Pin Conn	NT0X26YM					RUL15, 17

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Conn PTL 18P 26 CA e/w One 37 Pin Conn	NT0X26YN					RUL15, 17
Conn PTL 18P 26 CA e/w One 37 Pin Conn	NT0X26YP					RUL15, 17
Conn PTL 25P 26 CA e/w Two 25 Pin EMI Filters	NT0X26YQ					RUL15, 17
Conn PTL 25P 26 CA e/w Two 25 Pin EMI Filters	NT0X26YR					RUL15, 17
# Power Cable Assembly	NT7X4107					RUL16, 18
# Power Cable Assembly	NT7X4108					RUL16, 18
# Power Cable Assembly	NT7X4110					RUL16, 19
# Power Cable Assembly	NT7X2424					RUL16, 20
# Power Cable Assembly	NT7X2425					RUL16, 21
# Power Cable Assembly	NT7X2439					RUL16, 22
# Power Cable Assembly	NT7X2451					RUL16, 23
Power Cable Assembly	NT7X2456					RUL16, 24

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X52AA	MD	MSL-100 Cab. Sys.
NT7X52DA/DB/DC	MD	MSL-100 Cab. Sys.
NT7X52DD/DE/DF	MD	MSL-100 Cab. Sys.
NT7X2104	MD	No Replacement
NT2X70AD/AE	MD	NT2X70AF
NT7X3001	MD	MSL-100 Cab. Sys.
NT7X2610	MD	MSL-100 Cab. Sys.
NT7X5210	MD	MSL-100 Cab. Sys.
NT0X25AL	MD	No Replacement
NT7X2424/25/39/51	MD	MSL-100 Cab. Sys.
NT7X4107/08/10	MD	MSL-100 Cab. Sys.

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT7X52AA is ordered, these items are provided.

2)	FRAME	MODULE
	PMTC 00	CRC 0 & 1 STM 0 & 1 DTC 00
	PMTC 01	CRC 2 & 3 STM 2 & 3 DTC 01
	PMTC 02	CRC 4 & 5 STM 4 & 5 DTC 02

3) CRC

CP POS	BASE CKT. NO.	RANGE	CIRCUITS/CARD
6,17	00-03		4,2
7,18	04-07		4,2
8,19	08-11		4,2
9,20	12-15		4,2
10,21	16-19		4,2
11,22	20-23		4,2
12,23	24-27		4,2
13	28-31		4,2

STM

CP POS	BASE CKT. NO.	RANGE	CIRCUITS/CARD
4,12	00-15		16,6,4,2
5,13	10-15		6,4,2
6,14	16-21		6,4,2
7,15	22-27		6,4,2
8,16	26-29		4,2

- RUL1 1) Provide one (1) NT7X52DD per PMTC frame when this frame is provided as part of the MTX Mini Packaged Switch System (i.e. the first PMTC frame in the lineup (PMTC 00)). (NTZX04EA)
- RUL2 1) Provide one (1) NT7X52DE per PMTC frame when this frame is provided as part of the MTX Mini Packaged Switch System (i.e. the second PMTC frame in the lineup (PMTC 01)). (NTZX04CA)
- RUL3 1) Provide one (1) NT7X52DF per PMTC frame when this frame is provided as part of the MTX Mini Packaged Switch System (i.e. the third PMTC frame in the lineup (PMTC 02)). (NTZX04DA)
- | RUL4 1) Provide these circuit packs (NT1X62BB, and NT0X67AA) if any MTX Data Link Controller cards, NT6X91AB, are provisioned in either the left or the right CRC shelf.
- 2) These cards are provisionable on PMTC 01 and PMTC 02 only.
- 3) The left CRC corresponds to NT6X91AB's in card slots 06 to 13, the right CRC to card slots 17 to 23.
- RUL5 1) Provide one (1) 4800 baud modem for each NT6X91AB card for each CSC link.
- 2) Provide one (1) 9600 baud modem for each NT6X91BA card for each CSC link.
- 3) Provide one (1) 9600 buad modem for each NT6X91CA card for each CSC link.
- 4) These circuit packs are provisionable on PMTC 00, PMTC 01, and PMTC 02.
- 5) The system is expandable one (1) CSC link or MTX link at a time with a maximum of 15 provisioned per CRC shelf. Add NT6X91AB/BA/CA cards to CRC shelves in the following order:

CP NO.	CRC NO.	SHF POS	CP POS
1	00	65	06
2	01	65	17
3	00	65	07
4	01	65	18
5	00	65	08
6	01	65	19

7	00	65	09
8	01	65	20
9	00	65	10
10	01	65	21
11	00	65	11
12	01	65	22
13	00	65	12
14	01	65	23
15	00	65	13

RUL6 1) Provide this card, NT1X67DB, in CRC 0 as per customer requirements.

RUL7 1) Provide one Filler Face Plate for each unequipped circuit pack position.

RUL8 1) Provide one (1) per circuit pack provisioned of the appropriate Designation Label. PEC on label should be the same as the PEC of the circuit pack provisioned.

RUL9 1) These circuit packs (NT2X45AB, NT0X70AC, NT2X53AA, and NT2X09AA) must be provided when STM shelf is provisioned with any other circuit pack.

2) These cards are provisionable on PMTC 01 and PMTC 02 only.

RUL10 1) Provide these cards on STM shelf as per customer requirements.

2) The following are the valid assignments for these cards:

CARD	CP POS	SHF POS	FRAME
NT2X48BA	04-08	51	PMTC 01
NT2X48BA	04-08	51	PMTC 02
NT2X48BA	12-16	51	PMTC 00
NT2X48BA	12-16	51	PMTC 01
NT2X48BA	12-16	51	PMTC 02
NT2X48BB	04-08	51	PMTC 01
NT2X48BB	04-08	51	PMTC 02
NT2X48BB	12-16	51	PMTC 00
NT2X48BB	12-16	51	PMTC 01
NT2X48BB	12-16	51	PMTC 02
NT3X67AA	04-07	51	PMTC 01
NT3X67AA	04-07	51	PMTC 02
NT3X67AA	12-15	51	PMTC 00
NT3X67AA	12-15	51	PMTC 01
NT3X67AA	12-15	51	PMTC 02

RUL11 1) Reserved for future use.

RUL12 1) Provide NT6X50AA as per customer requirements as follows:

TRUNKS	SHF POS	CP POS
192	32,18	04
288	32,18	03
384	32,18	02
480	32,18	01

2) These circuit packs are provisionable on PMTC 00, PMTC 01, and PMTC 02.

3) The number of trunks indicated above are in addition to the maximum amount at the previous expansion increment. The first pair of NT6X50AA cards are provided in CP POS 05 via NT7X52DA/DB/DC/DD/DE/DF.

RUL13 1) Provide one (1) End Panel Assembly, NT7X5210, when the first PMTC frame (i.e. PMTC 00 via NTZX04EA) is ordered.

2) This is to be assembled in the shop.

3) When the second or third PMTC frame (i.e. PMTC 01 via NTZX04CA and PMTC 02 via NTZX04DA) is ordered, the End Panel Assembly will be moved to the last frame in the lineup.

RUL14 1) When the Digital Recorded Announcement feature is required, provide the Digital Recorded Announcement Wiring, NT7X52WA.

RUL15 1) These cables are to be hardwired to the frame in the shop prior to shipment to the job site per WD7X52AA.

RUL16 1) These cables are to be hardwired to the frame in the shop prior to shipment to the job site per AD7X52AA Fig. E and F.

RUL17 1) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04EA, NTZX04CA, NTZX04DA)

RUL18 1) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04EA)

RUL19 1) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04CA)

- RUL20 1) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04DA)
- RUL21 1) Provide two (2) cables per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04CA)
- 2) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04DA)
- RUL22 1) Provide one (1) cable per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04CA)
- 2) Provide two (2) cables per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04DA)
- RUL23 1) Provide two (2) cables per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04EA)
- RUL24 1) Provide four (4) cables per frame when this frame is provided as part of the MTX Mini Packaged Switch System. (NTZX04EA, NTZX04CA, NTZX04DA)
- | RUL25 1) For each NT7X52DD Common CP equipped, provide five (5) NT2X70AE Power Converter CPs as follows:
- two (2) per shelf position 65
one (1) per shelf position 51
one (1) per shelf position 32
one (1) per shelf position 18.
- | 2) For each NT7X52DE Common CP equipped, provide two (2) NT2X70AE Power Converter CPs as follows:
- one (1) per shelf position 32
one (1) per shelf position 18.
- | 3) For each NT7X52DF Common CP equipped, provide two (2) NT2X70AE Power Converter CP as follows:
- one (1) per shelf position 32
one (1) per shelf position 18.
- | 4) Per Telco request, for each NT7X52DA Common CP existing in the office, provide five (5) NT2X70AZ Power Converter Product Change Kits as follows:

two (2) per shelf position 65
one (1) per shelf position 51
one (1) per shelf position 32
one (1) per shelf position 18.

- | 5) Per Telco request, for each NT7X52DB Common CP existing in the office, provide two (2) NT2X70AZ Power Converter Product Change Kits as follows:

one (1) per shelf position 32
one (1) per shelf position 19

- | 6) Per Telco request, for each NT7X52DC Common CP existing in the office, provide two (2) NT2X70AZ Power Converter Product Change Kits as follows:

| one (1) per shelf position 32
one (1) per shelf position 18.

DMS PACKAGED SWITCH SYSTEMS
COMMON HARDWARE

PEC CODE: NT7X16

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This MS outlines the common hardware required for the DMS Packaged Switch Systems.

Packaged Switch System

1. MTX Mini Packaged Switch System

REFERENCE DOCUMENTATION: MS7X16

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: NTI: Jim Large Dept. 5849 (RICH)

NT7X16 EMR9-01-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 17	ECM 319 07	JEL: MD product per EC's 002-16188, 002-16146 and 002-16134.
95 06 09	ECM 319 08	JEL: MD products per EC 002-16146.

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

The DMS Packaged Switch Systems Common Hardware is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# MTX Mini Basic Com H/W (EMI) NT7X16CA						RUL1, RUL3
# MTX Mini PMTC Com H/W (EMI) NT7X16CB						RUL2, RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT7X16	MD	MSL-100 Cab. Sys
NT7X16CA/CB	MD	MSL-100 Cab. Sys

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

NOTE: 1) Relationship between the MTX Mini Supercodes and the MTX Mini Common Hardware equipment:

MTX MINI SUPERCODE	MTX MINI COMMON HARDWARE		REMARKS
	PEC	QUANTITY	
NTZX04AA NTZX04EA	NT7X16CA	1	] BASIC SYSTEM
NTZX04CA	NT7X16CB	1	
			480 PORT EXPANSION

NTZX04DA	NT7X16CB	1	480 PORT EXPANSION

RULES:

- AP 1) When PEC NT7X16 is ordered, these items are provided.
- RUL1 1) Provide one (1) NT7X16CA for an MTX Mini Basic System.
(See NOTE 1 above.)
- 2) NT7X16CA provides system designation labels, two (2) end panels, two (2) end guards and EMI panels, T-Bars, and frame junction kits for four (4) bays.
- RUL2 1) Provide one (1) NT7X16CB in an MTX Mini office for each of the following PMTC frames:
- PMTC 01 and PMTC 02
- (See NOTE 1 above.)
- 2) NT7X16CB provides EMI panels, T-Bars, and a frame junction kit for one (1) bay.
- RUL3 1) Earthquake anchors must be provided for MTX Mini frameworks per NTP 297-1001-450, DMS-100 Family Provisioning.

CSC COMMON CP

NT6X16AB

RATING: Rating Change Pending

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Cellular Telephone System is a trunked, cellular system designed to provide communications between subscribers using mobile or portable radio units and the telephone network.

REFERENCE DOCUMENTATION: N/A

The CSC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA				1-4	AP
Serial I/O CP	NT6X82AA		1	48	5	AP
Filler Face Plate 0.875	NT0X50AA		2	48	6,7	AP
LGC/DTC Processor CP	NT6X45AC		1	48	8	AP
Filler Face Plate 0.875	NT0X50AA		1	48	9	AP
Master Processor Memory CP	NT6X47AA		2	48	10,11	AP
Signal Processor Memory CP	NT6X46AA		1	48	12	AP
Comm Periph Ctl BP Paddle	NT6X1205		1	48	12	AP
LGC/DTC Processor CP	NT6X45AC		1	48	13	AP
Filler Face Plate CP	NT0X50AA		1	48	14	AP
Time Switch CP	NT6X44AA		1	48	15	AP
Filler Face Plate CP	NT0X50AA		1	48	16	AP
Message Interface CP	NT6X43AA		1	48	17	AP
Serial Link Interface CP	NT6X90AB		1	48	18	AP
Host Link Formatter CP	NT6X72AA		1	48	19	AP
Filler Face Plate CP	NT0X50AA		5	48	20-24	AP
Pwr Conv +/-4V & 12V CP	NT2X70AB		1	48	25	AP
Designation Strip	P0670786		1	48		AP
Filler Face Plate 0.875	NT0X50AA				1-4	AP
Serial I/O CP	NT6X82AA		1	29	5	AP
Filler Face Plate 0.875	NT0X50AA		2	29	6,7	AP
LGC/DTC Processor CP	NT6X45AC		1	29	8	AP
Filler Face Plate 0.875	NT0X50AA		1	29	9	AP
Master Processor Memory CP	NT6X47AA		2	29	10,11	AP
Signal Processor Memory CP	NT6X46AA		1	29	12	AP
Comm Periph Ctl BP Paddle	NT6X1205		1	29	12	AP
LGC/DTC Processor CP	NT6X45AC		1	29	13	AP
Filler Face Plate CP	NT0X50AA		1	29	14	AP
Time Switch CP	NT6X44AA		1	29	15	AP
Filler Face Plate CP	NT0X50AA		1	29	16	AP
Message Interface CP	NT6X43AA		1	29	17	AP
Serial Link Interface CP	NT6X90AB		1	29	18	AP
Host Link Formatter CP	NT6X72AA		1	29	19	AP
Filler Face Plate CP	NT0X50AA		5	29	20-24	AP
Pwr Conv +/-4V & 12V CP	NT2X70AB		1	29	25	AP
Designation Strip	P0670786		1	29		AP

RULE:

AP 1) When PEC NT6X16AB is ordered, these items are provided.

CSC COMMON CP

NT6X16AA

RATING: MD

ABBREVIATION NAME: SCSE

ENGINEERING DESCRIPTION: The Cellular Telephone System is a trunked, cellular system designed to provide communications between subscribers using mobile or portable radio units and the telephone network.

REFERENCE DOCUMENTATION: N/A

The CSC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Serial I/O CP	NT6X82AA		1	48	1	AP
Filler Face Plate 0.875	NT0X50AA		2	48	2-7	AP
LGC/DTC Processor CP	NT6X45AC		1	48	8	AP
Filler Face Plate 0.875	NT0X50AA		1	48	9	AP
Master Processor Memory CP	NT6X47AA		2	48	10, 11	AP
Signal Processor Memory CP	NT6X46AA		1	48	12	AP
Comm Periph Ctl BP Paddle	NT6X1205		1	48	12	AP
LGC/DTC Processor CP	NT6X45AC		1	48	13	AP
Filler Face Plate CP	NT0X50AA		1	48	14	AP
Time Switch CP	NT6X44AA		1	48	15	AP
Filler Face Plate CP	NT0X50AA		1	48	16	AP
Message Interface CP	NT6X43AA		1	48	17	AP
Serial Link Interface CP	NT6X90AB		1	48	18	AP
Host Link Formatter CP	NT6X72AA		1	48	19	AP
Filler Face Plate CP	NT0X50AA		5	48	20-24	AP
Pwr Conv +/-4V & 12V CP	NT2X70AB		1	48	25	AP
Designation Strip	P0670786		1	48		AP

RULE:

AP 1) When PEC NT6X16AA is ordered, these items are provided.

INTELLIGENT CELLULAR PERIPHERAL CP FILL

PEC CODE: NTAX75DA

CPC CODE: B

RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: ICP

ENGINEERING DESCRIPTION: The NTAX75DA is the common circuit pack
fill for ICP module - DO NOT USE

REFERENCE DOCUMENTATION: SLAX75DA

MARKETS: Applicable markets:

Wireless

ISSUE AUTHOR: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: Jim Large Dept. 5849 (RICH)

NTAX75DA EMR9-03-ICP-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 10 28	ECM 470 08	Format update only - DO NOT USE
95 04 25	ECM 470 19	JEL: EC 002-16213 replaces the
		NT2X70AE with the NT2X70AF.
95 05 30	ECM 470 20	JEL: EC 002-16213 MD's the NTAX75DA.

The Intelligent Cellular Peripheral CP Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		7	X+14	6, 7, 13, 17, 19, 23, 24	AP
LGC/DTC Processor CP	NT6X45BA		2	X+14	8, 12	AP
Mast Proc Memory Plus CP	NT6X47AB		2	X+14	9, 10	AP
Sig Proc Memory Plus CP	NT6X46BA		1	X+14	11	AP
Time Switch CP	NT6X44AA		1	X+14	14	AP
Universal Tone Receiver CP	NT6X92BB		1	X+14	15	AP
ISDN Signal Processor CP	NTBX01AA		1	X+14	16	AP
CPP Msg Protocol & Tone CP	NT6X69AB		1	X+14	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X+14	20	AP
Speech Bus Formatter	NT6X41AA		1	X+14	21	AP
DS-30 Network Interface CP	NT6X40AC		1	X+14	22	AP
# Power Converter CP	NT2X70AE		1	X+14	25	AP
Power Converter CP	NT2X70AF		1	X+14	25	AP
Desig. Strip for NTAX75DA	P0706568		1	X+14	1	AP
Filler Face Plate 0.875	NT0X50AA		7	X	6, 7, 13, 17, 19, 23, 24	AP
LGC/DTC Processor CP	NT6X45BA		2	X	8, 12	AP
Mast Proc Memory Plus CP	NT6X47AB		2	X	9, 10	AP
Sig Proc Memory Plus CP	NT6X46BA		1	X	11	AP
Time Switch CP	NT6X44AA		1	X	14	AP
Universal Tone Receiver CP	NT6X92BB		1	X	15	AP
ISDN Signal Processor CP	NTBX01AA		1	X	16	AP
CPP Msg Protocol & Tone CP	NT6X69AB		1	X	18	AP
Channel Supervision Mgs CP	NT6X42AA		1	X	20	AP
Speech Bus Formatter	NT6X41AA		1	X	21	AP
DS-30 Network Interface CP	NT6X40AC		1	X	22	AP
# Power Converter CP	NT2X70AE		1	X	25	AP
Power Converter CP	NT2X70AF		1	X	25	AP
Desig. Strip for NTAX75DA	P0706568		1	X	1	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTAX75DA is ordered, these items are provided.

SIMPLEX CELL SITE EQUIPMENT FRAME

NT6X15AA

RATING: MD

ABBREVIATION NAME: SCSE

ENGINEERING DESCRIPTION: The Cellular Telephone System is a trunked, cellular system designed to provide communications between subscribers using mobile or portable radio units and the telephone network.

REFERENCE DOCUMENTATION: MS6X15AA 00 05

The Simplex Cell Site Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cell Site Array Shf Assy	NT6X1601		1	48		AP
CSC Common CP	NT6X16AA		1			RUL2
Serial I/O CP	NT6X82AA			48	1-4	RUL3
Filler Face Plate 0.875	NT0X50AA			48	1-4	RUL3
Desig. Label for NT6X82AA	P0636539			48	1-4	RUL4
SCSE Frame Supervisory Panel	NT6X26AA	FSP		42		AP
Cage Filler Panel	P0575239			29		AP
CSC Radio Channel I/F Unit	NT6X15AC		1	29RL		RUL6
CSC Radio Channel I/F Unit	NT6X15AD		1	29RR		RUL6
CSC Shelf Assembly	NT6X15AL			15		AP
CSC Radio Channel I/F Unit	NT6X15AE		1	15RL		RUL6
CSC Radio Channel I/F Unit	NT6X15AF		1	15RR		RUL6
Equipment Shelf Assembly	NT6X1503			04		AP
Simplex Modem Cover	P0638280			03		AP
DC/AC Inverter 117V AC, 50W	A0297087			04L		AP
4800 Baud Modem	A0297086			04R		RUL5
EMI Package for 70" Frwrk	NT0X34CA		1			RUL7
Earthquake Protection Frame	NT0X21AH		1			RUL8
Level Equipment						
Earthquake Protection Frame	NT0X21AI		1			RUL8
Anchoring Equipment (0.38")						
Earthquake Protection Frame	NT0X21AK		1			RUL8
Isolation Equipment						

- NOTE: 1) NT6X15AA is the Simplex Cell Site Equipment Frame. It is a short frame, 70 inches high. It houses the Cell Site Controller (CSC) Module (in simplex mode), one stand alone modem and an inverter.
- 2) The CSC operates under the control of the Mobile Telephone Exchange (MTX) to control each of the radio channels at the site.

RULE:

- AP 1) When PEC NT6X15AA is ordered, these items are provided.
- 2) NT6X15AA is a single bay frame.
- RUL1 1) Provide one (1) NT0X25AF for the Simplex Cell Site Equipment Frame.
- RUL2 1) Provide one (1) NT6X16AA, CSC Common CP for the Cell Site Controller Module in simplex mode.
- RUL3 1) One (1) NT6X82AA, Serial I/O CP has a capacity for up to twenty radio channels. The number of NT6X82AA must be equal to the number of multiples of twenty radio channels. For the purposes of this rule, the number of radio channels is to be rounded up to the nearest multiple of twenty. The provisioning and assignment rules are as follows:
- 2) For the first twenty radio channels (channels 0-19) the NT6X82AA is located on slot position 5 and is always provided.
- 3) If the second group of twenty radio channels (channels 20-39) are required then provide one (1) NT6X82AA on slot position 4 otherwise provide one (1) NT0X50AA, Filler Face Plate 0.875 on slot 4.
- 4) If the third group of twenty radio channels (channels 40-59) are required then provide one (1) NT6X82AA on slot position 3 otherwise provide one (1) NT0X50AA, Filler Face Plate 0.875 on slot 3.
- 5) If the fourth group of twenty radio channels (channels 60-79) are required then provide one (1) NT6X82AA on slot position 2 otherwise provide one (1) NT0X50AA, Filler Face Plate 0.875 on slot position 2.
- 6) If the fifth group of twenty radio channels (channels 80-99) are required then provide one (1) NT6X82AA on slot position 1 otherwise provide one (1) NT0X50AA, Filler Face Plate 0.875 on slot position 1.
- RUL4 1) Provide one (1) corresponding designation label for each NT6X82AA supplied. The label is to be affixed to the respective equipped NT6X82AA slot position.
- RUL5 1) Provide one (1) A0297086, 4800 Baud Modem for the Simplex Cell Site Equipment Frame when Northern Telecom is to supply the modem. This is a GDC Data Comm 4800 stand alone (051A005-001) modem.

- RUL6 1) One CSC Radio Channel Interface Unit has a capacity for up to twenty radio channels. The number of CSC Radio Channel Interface Units must be equal to the number of multiples of twenty radio channels. For the purposes of this rule, the number of radio channels are rounded up to the nearest multiple of twenty. The provisioning and assignment rules are as follows:
- 2) For the first twenty radio channels (channels 0-19) one (1) CSC Radio Channel Interface Unit is always provided on the rear of shelf mounting position 48. This unit has no PEC of its own but it is identified by the code of its sub units (eg. NT6X84AA etc.).
- 3) For the second group of twenty radio channels (channels 20-39) if required provide one (1) CSC Radio Channel Interface Unit, NT6X15AC on the rear left of shelf on mounting position 29.
- 4) For the third group of twenty radio channels (channels 40-59), if required provide one (1) CSC Radio Channel Interface Unit, NT6X15AD on the rear right of shelf on mounting position 29.
- 5) For the fourth group of twenty radio channels (channels 60-79) if required provide one (1) CSC Radio Channel Interface Unit, NT6X15AE on the rear left of shelf on mounting position 15.
- 6) For the fifth group of twenty radio channels (channels 80-99) if required provide one (1) CSC Radio Channel Interface Unit, NT6X15AF on the rear right of shelf on mounting position 15.
- RUL7 1) Provide one (1) NT0X34CA for each Simplex Cell Site Equipment Frame.
- RUL8 1) Provide one (1) NT0X21AH, NT0X21AI and NT0X21AK for each simplex Cell Site Equipment Frame.

| NOVATEL COMMON EQUIPMENT FRAME

NT3P60AA

RATING: MD

ABBREVIATION NAME: CE

ENGINEERING DESCRIPTION: This equipment is for the NovAtel cell site
for Digital Ready ICP configuration.

REFERENCE DOCUMENTATION: N/A

The NovAtel Common Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Rack Interface Panel	NT3P20BC	RIP		42		RUL1
Blank Panel	NT3P25AH			37		RUL9
Alarm Control Unit	NT3P20GA	ACU		35		RUL2
Input Circuit Pack	NT3P20FA		8	35	1-8	AP
Output Circuit Pack	NT3P20EA		1	35	15	AP
Master Oscillator	NT3X20JB			33		RUL3
Cell Site Monitor	NT3P20MA			31		RUL4
RX Multicoupler	NT3P20HJ			25, 27 29		RUL5
Blank Panel	NT3P25AC			25, 27 29		RUL10
Blank Panel	NT3P25AG			25		RUL10
Rem. Cell Multiplexor I/F	NT3P50AA	RCMI		19, 13		RUL6
LAPD Link Card	NT3P50BA			19, 13	1-2, 14-15	RUL7
Port Card	NT3P50CA			19, 13	4-13 17-26	RUL8
Expansion Card	NT3P50DA			13	1, 14	RUL9
Blank Panel	NT3P25AA			13		RUL10
Blank Panel	NT3P25AB			01		RUL10
Anchoring Kit	NT3P40AA					RUL11

RULES:

- AP 1) When PEC NT3P60AA is ordered, these items are provided.
- 2) The NT3P20FA Input CP,s are always provided in slots 1-8.
 Slot 8 alarm points are for customer optional alarms.
- 3) The NT3P20EA Output CP is always provided in slot 15.

- RUL1 1) Provide one (1) for per CE frame to interconnect the components of the system and external equipment such as channel banks, and alarms.
- RUL2 1) Provide one Alarm Control Unit for the first CE frame for switch and customer optional alarms.
- RUL3 1) Provide one (1) per frame.
- RUL4 1) Provide one for the first frame. The CSM provides the control of the cell site based on instructions it receives from the MTX.
- RUL5 1) Provide a maximum three per frame per receive antenna on the first CE frame only. One is required for each pair of receive antennas.
- RUL6 1) Provisioning rules for RCMi shelf is as follows:
1-32 Channels - 1 RCMi
1-64 Channels - 2 RCMi
1-96 Channels - 3 RCMi
1-128 Channels - 4 RCMi
- 2) The RCMi shelf is a redundant configured shelf consisting of an A and B side. The A side going from slots 1-13 and the B side going from slots 14-26.
- RUL7 1) Provide two (2) LAPD cards per cell site.
- 2) A filler panel will always be provided in slot 3.

1) For redundant systems provide the following port cards.			
CHANNELS	CARDS	SLOTS	RCMI

8	8	6-7, 19-20	1
16	12	8-9, 21-22	1
24	16	10-11, 23-24	1
32	20	12-13, 25-26	1
40	24	6-7, 19-20	2
48	28	8-9, 21-22	2
56	32	10-11, 23-24	2
64	36	12-13, 25-26	2
72	40	6-7, 19-20	3
80	44	8-9, 21, 22	3
88	48	10-11, 23-24	3
96	52	12-13, 25-26	3
104	56	6-7, 19-20	4
112	60	8-9, 21-22	4
120	64	10-11, 23-24	4
128	68	12-13, 25-26	4

Always provide the first 4 port cards in slots 4-5, 17-18 for the ACU and CSM ports on the first RCMI.

RUL9 1) Provide two (2) expansion cards for each RCMI ordered after the first one has been provisioned. This cp connects the RCMI's together.

RUL10 1) Always provide one NT3P25AH for shelf 37 that is not equipped.

2) Always provide one NT3P25AA for shelf 13 that is not equipped.

2) Always provide one NT3P25AB for shelf 01 that is not equipped.

3) Always provide one NT3P25AC for shelf 25, 27, 29 that is not equipped.

4) Provide one NT3P25AG for second CE frame that will not be equipped with the multicouplers, ACU, Master Oscillator, CSM, and RIP.

RUL11 1) Provide one kit per frame.

2) Provide the following hardware for frame isolation with the anchoring kits:

1 - CND02658 - Newton A7058-2 Isolator Pad

4 - P0667992 - Newton A3062-2 Isolator Bushing

NOVATEL RADIO FREQUENCY FRAME

NT3P61AA

RATING: MD

ABBREVIATION NAME: RF

ENGINEERING DESCRIPTION: This equipment is for the NovAtel cell site
for Digital Ready on all applications.

REFERENCE DOCUMENTATION: N/A

The NovAtel Radio Frequency Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Rack Interface Panel	NT3P21BB	RIP		42		RUL1
Duplexer	NT3P21GD			39		RUL2
Power Amplifier Shelf	NT3P21CA			36, 28 09, 01		RUL3
Power Amplifiers	NT3P21CC			36, 28 09, 01		RUL4
Blank Panel	NT3P25AD			36, 28		RUL7
Blank Panel	NT3P25AC			34		RUL7
Transceiver Shelf	NT3P21NC			32, 05		RUL5
Transceiver	NT3P21HA			32, 05		RUL6
Transceiver	NT3P21HB			32, 05		RUL6
Transceiver	NT3P21HC			32, 05		RUL6
Transceiver	NT3P21HD			32, 05		RUL6
Transmit Combiner (8 CH)	NT3P21JC			20		RUL8
Blank Panel	NT3P25AD			20		RUL7
Transmit Combiner (8 CH)	NT3P21JD			12		RUL8
Anchoring Kit	NT3P40AA					RUL9
Conn Retaining Bracket	NT3P24AA					RUL10

NOTES:

- 1) The following are a list of cable kits for connections between the RF frames and the CE frame.

PEC	DESCRIPTION	CPC
NT3P35AA	Cable Kit, Basic, RF1 To CE (ICP)	A0371680
NT3P35BA	Cable Kit, Expansion, RF1 To CE (ICP)	A0371681
NT3P35AB	Cable Kit, Basic, RF1 To CE (CSC)	A0372156
NT3P35BB	Cable Kit, Expansion, RF1 To CE (CSC)	A0372157
NT3P35CA	Cable Kit, Basic, RF2 To CE (ICP)	A0371682
NT3P35DA	Cable Kit, Expansion, RF2 To CE (ICP)	A0371683
NT3P35CB	Cable Kit, Basic, RF2 To CE (CSC)	A0372158
NT3P35DB	Cable Kit, Expansion, RF2 To CE (CSC)	A0372159
NT3P35EA	Cable Kit, Basic, RF3 To CE (ICP)	A0371684
NT3P35FA	Cable Kit, Expansion, RF3 To CE (ICP)	A0371685
NT3P35EB	Cable Kit, Basic, RF3 To CE (CSC)	A0372160
NT3P35FB	Cable Kit, Expansion, RF3 To CE (CSC)	A0372161
NT3P35GA	Cable Kit, Basic, RF4 To CE (ICP)	A0371686
NT3P35HA	Cable Kit, Expansion, RF4 To CE (ICP)	A0371687

- 2) The basic RF has two (2) PA shleves in position 1,9, one (1) transceiver shelf in position 5, and one (1) 8 Channel Combiner.
- 3) The expansion RF adds two (2) PA shelves in position 28,36, one (1) Transceiver shelf in position 32 and one (1) 8 Channel Combiner in position 20.

RULES:

- RUL1 1) Provide one per frame. Each RF frame is equipped with a RIP that provides all voice, data, and alarm interface for the frame.
- RUL2 1) Provide one per frame. The duplexer is provisionable for some customers.
- RUL3 1) Provide one (1) per transceiver shelf.
- RUL4 1) Provide four per shelf.
- RUL5 1) Provide one (1) per 8 Channel Combiner.
- RUL6 1) Provide one per transceiver.
- 2) Provide eight NT3P21HB per shelf 32,05 for ICP non extended spectrum.

- 3) Provide eight NT3P21HC per shelf 32,05 for ICP extended spectrum.
 - 4) Provide eight NT3P21HA per shelf 32,05 for CSC non extended spectrum.
 - 5) Provide eight NT3P21HD per shelf 32,05 for CSC extended spectrum.
- RUL7 1) Always provide one NT3P25AD for shelf 36,28,20,09,01 that is not equipped.
- 2) Provide one NT3P25AC for each frame for shelf 34,32,05 that is not equipped.
- RUL8 1) Provide one shelf in position 12 for 8 channels and one in position 20 for 16 channels.
- RUL9 1) Provide one kit per frame.
- 2) Provide the following hardware for frame isolation with the anchoring kits:
- 1 - CND02658 - Newton A7058-2 Isolator Pad
 - 4 - P0667992 - Newton A3062-2 Isolator Bushing
- RUL10 1) Provide one bracket per RF frame

NT800DR ORDERING TABLES

PEC CODE: T_NT800DR

CPC CODE: None

RATING: MD

REPLACES: Not Applicable

REPLACED BY: SEE ECM438

ABBREVIATION NAME: TABLES

ENGINEERING DESCRIPTION: This is an equipment list for ordering NT800DR frames in a 'picklist' or tabular format.

REFERENCE DOCUMENTATION: Not Applicable

MARKETS: Applicable markets:
Wireless

ISSUE AUTHOR: NTI:	Richard Martin	Dept. 5849	(RICH)
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T NT800DR EMR9-98-0000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 10	ECM 534 05	change of provisioning rules
92 09 21	ECM 534 06	Format Correction only
92 10 22	ECM 438 08	Miscellaneous corrections and clarifications
92 11 24	ECM 534 07	Added NTAX40CA and NTAX40DA DRUM's and MD'd the NTAX40BA DRUM.
93 02 11	ECM 438 09	Added NT3P20FB Enhanced ACU Input Card as provisionable on the ACU(NOTE: The NT3P20FB is not available as of this ECM release; check availability before using!). Added 800CM to NT800DR Conversion information.
93 03 10	ECM 438 10	Correct 800CM to NT800 conversion codes for COAX Relay Kits.
93 04 16	ECM 534 08	Add ICRM building blocks.
93 05 24	ECM 438 11	Update 800CM to 800DR information.
93 06 02	ECM 534 10	Add 40dB attenuator for AX40CA DRUM.
93 06 10	ECM 438 12	Make NT3P20FB Enhanced ACU Input Card available for provisionable slots. Correct code NT3P24BA; it should be NT3P34BA(RMC Power Multiple).
93 08 02	ECM 438 13	Retire this section and include its information in Section 2 of ECM438.

The NT800DR Ordering Tables is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

RULES:

CE1 ORDERING

CE Type	w/o RMC	w/ RMC	Notes
CSC OMNI	NT3P60AC	NT3P60AB	1
CSC STSR 120	NT3P66AB	NT3P66AA	2
ICP OMNI	NT3P62AA	NT3P60AD	3
ICP STSR 120/60	NT3P64AB	NT3P64AA	4
ICP OTSR 120/60	NT3P64AB	NT3P64AA	4
ICP OMNI w/o RCMi	NT3P64AD	NT3P62AB	5
ICP SECT 60/120 w/o RCMi	NT3P64AD	NT3P64AC	6
Empty Frame	N/A	N/A	7

NOTES:

1. Equipped with 1 NTPAD and 1 NTPAD card. Second NTPAD and NTPAD cards ordered as required.
2. Equipped with 1 NTPAD and 1 NTPAD card. Second NTPAD and NTPAD cards ordered as required.
3. Equipped with 1 RCMi shelf, 2 LAPD cards and 2 port cards. Second RCMi shelf, Port cards ordered as required.
4. Equipped with 2 RCMi shelves, 2 LAPD cards, 2 Expansion cards, and 2 port cards. Port cards ordered as required.
5. Order this frame for initial OMNI ICRM based sites. The ICRM must be provisioned separately.
6. Order this frame for sectorized ICRM sites. Additional RMCs will be required for ICRM Based 60 sites (Frame only equipped with 3 RMCs).
7. The NT3P20AE is just the metal framework and the RIP. No items may be provisioned on it. All items to be placed in this frame must be shipped loose and installed in the field.

CE2 ORDERING

CE TYPE	PEC	Notes
CSC Filler	NT3P66BA	1
CSC 60 SECT	NT3P66BB	7
ICP OMNI	NT3P64BA	2
ICP STSR 120	NT3P64BA	2
ICP STSR 60	NT3P64BB	3
ICP OTSR 120	NT3P68BB	4
ICP OTSR 60	NT3P68BA	5
ICP OTSR w/o RCMI	NT3P68BC	

NOTES:

1. For CSC sites, a filler CE bay can be ordered to provide future mounting space for ICP/RCMI retrofit.
2. Equipped with RIP, 1 RCMI shelf, and 2 expansion cards. Only port cards and second RCMI shelf ordered as required.
3. Equipped with RIP, 1 RCMI shelf, 2 LAPD cards. Only port cards and second RCMI shelf ordered as required.
Systems Engineering must order the second RCMI shelf.
4. Equipped with RIP, 2 duplexors, 1 GCL, 1 RCMI, 2 Expansion cp's. LAPD cards from CE1 will be moved to CE2 and EXP. cp's from CE2 will be moved to CE1.
5. Equipped with RIP, 2 duplexors, 1 GCL, 2 RCMI. LAPD cp's from CE1 will be put into CE2 and Exp. cp's from CE2 will be moved to CE1.
6. Equipped with RIP, 2 duplexers, and GCL shelf. ICRM must be ordered separately and mounted on CE1.
7. Order this frame to acquire the 3 extra RMCs for a 60 degree site. The frame comes equipped with the 3 extra RMCs needed.

CE BAY INDIVIDUAL ITEMS

PART	PEC CODE	
RCMI Shelf Exp.	NT3P50EA	1
RCMI Port Card	NT3P50CA	
RMC 8-16 Exp.	NT3P20HM	2
RMC 8-16 Exp.	NT3P20HN	3
LAPD Card	NT3P50BA	
Expansion Card	NT3P50DA	
ACU Ribbon Cable	NT3P31AA	4
ICRM Shelf	NTAX86AA	7
ICRM EXP. Shelf	NTAX86AC	8
NTPAD	NT3P20CA	
NTPAD Card	NT3P20KA	
TAU OMNI ES	NT3P55BA	
TAU KIT ES STSR	NT3P55BB	5
TAU WIRING KIT	NT3P55CB	6
OTSR SPLITTER KIT	A0399495	9
DRUM (MD'd)	NTAX40BA	10
DRUM-Whip Antenna Config.	NTAX40CA	11
DRUM-Sniffer Port Config.	NTAX40DA	12
10dB Attenuator	A0297287	13
20dB Attenuator	A0382091	13
30dB Attenuator	A0381688	13

CE BAY INDIVIDUAL ITEMS - Continued

PART	PEC CODE	
Whip Antenna	80040217	14
RF Cable-Antenna	NTAX4021	14
40dB Attenuator	A0601731	14
8-Way Divider Kit	80040211	15
8-way Divider	40223007	15
Cable CSM to RF1 Dup.	01040753	15
RF Cable	NT3P30AK	15
Screw	29010206	15
Nut	30003100	15
Washer	30133100	15
Bracket	70041010	15
Attenuator Fixed N-Type	40323007	15
Connector COAX N Angle	21723020	15
Cable CSM to RF2 Dup.	01040873	15
Cable CSM to RF3 Dup.	NT3P30AD	15
Enhanced ACU Input Card	NT3P20FB	16
Cell Site Monitor	NT3P20MA	
RCMI Expansion Cable	01040126	
ICRM - Duplex	NTZZ38AA	7
ICRM - Simplex	NTZZ38BA	7
ICRM EXP - Duplex	NTZZ38CA	8
ICRM EXP - Simplex	NTZZ38DA	8

1. The RCMI expansion kit provides an RCMI shelf, Expansion cards and back plane cabling. All CE bays which do not have the second RCMI shelf AP must use this kit to provide a second RCMI shelf.
2. The NT3P20HK is the only RMC that can be expanded with the NT3P60HM expansion kit. All other RMC's are fixed at 8 ports.
3. The NT3P20HN expansion kit is used for sectorized CE1 frames only. This kit expands all 3 RMC's from 8 to 16 ports and is always provided on the sectorization frames.
4. Provide one NT3P31AA for every 1-2 extra alarm cp's ordered
5. Provide 1 NT3P55BB with each NT3P55BA for sectorized sites.
6. The wiring kit for the TAU is always required.
7. See Engineering Inserts for pack fill. All CE1 Bays ordered for initial sites must have the ICRM provisioned. It is recommended that the building blocks be ordered instead of the individual shelf.
8. If more than 10 radio port cards are required provision expansion shelf. It is recommended that the building blocks be ordered instead of the individual shelf.
9. OTSR SPLITTER KIT is used in specialized situations only. Consult Network Engineering for proper use.
10. The NTAX40BA DRUM is Manufacturer Discontinued.
11. The NTAX40CA DRUM is used for 60 degree sectored systems operating in digital mode and will use the whip antenna to monitor the RF signals from the main cellsite antennas. (NOTE: The NTAX40CA DRUM can also be used in OMNI and 120 degree sectored systems but is not recommended by BNR).
12. The NTAX40DA DRUM is used for OMNI or 120 degree sectored systems operating in digital mode and will monitor the RF signal by connecting to the sniffer port on the RF frame by way of the 8-way splitter on the CE1 bay.
13. The DRUM has an attenuator that is provisionable in three different values(10dB, 20dB, and 30dB). A detailed analysis of the selection criteria for this attenuator is provided in

IM1547. It is recommended that the customer be supplied with one of each since each site may be different.

For the NTAX40CA, DRUM-Whip Antenna Configuration, the selection criteria is summarized as follows:

The sum of the coupling from the base station antennas to the DRUM/CSM antenna, plus the cable loss of NTAX4021, plus the value of the attenuator must sum to a total in the range of 60 to 90dB.

For the NTAX40DA, DRUM-Sniffer Port Configuration, the selection criteria is summarized as follows:

The attenuator will not usually be required when using the standard duplexer, however, for non-standard configurations the sniffer port coupling plus the value of the attenuator must sum to a total of 50dB.

14. Provide one (1) Whip Antenna, 80040217, one (1) A0601731 40dB Attenuator, and one (1) RF Antenna Cable, NTAX4021, when using the NTAX40CA DRUM.
The NTAX4021 RF Antenna Cable is length provisionable.
15. When using the NTAX40DA DRUM, provide one (1) 01040873 CSM to RF2 Duplexer cable, one (1) NT3P30AD CSM to RF3 Duplexer cable for 120 degree sites, and one (1) 80040211 8-Way Divider Kit(or its individual piece parts) for either 120 or OMNI sites.

Existing sites may already have accessory equipment which comes in the RF cable kits.

8-Way Divider Kit(80040211) includes the following parts:

8-Way Divider	40223007	(QTY 1)
RF Cable	NT3P30AK	(QTY 1)
Cable CSM to RF1 Dup.	01040753	(QTY 1)
Screw	29010206	(QTY 4)
Nut	30003100	(QTY 4)
Washer	30133100	(QTY 4)
Bracket	70041010	(QTY 1)
Attenuator	40323007	(QTY 1)
Connector	21723020	(QTY 1)

16. The NT3P20FB is available for use in slots 9-12 for optional alarms. The NT3P20FB will replace the NT3P20FA in slots 1-8 when the current stock of the NT3P20FA is depleted.

RF BAYS

RF BAY	with DUP/COMB	w/o DUP	w/o COMB	w/o DUP/COMB
RF8 OMNI	NT3P61AC	NT3P61DA	NT3P61BA	NT3P61EA
RF8 SEC.	NT3P63AA	NT3P63DA	NT3P63BA	NT3P63EA
RF16 OMNI	NT3P61AB	NT3P61DB	NT3P61BB	NT3P61EB
RF16 SEC.	NT3P63AB	NT3P63DB	NT3P63BB	NT3P63EB

RF EXPANSION KITS

RF EXP	with COMB	w/o COMB	
OMNI 8-16	NT3P61CA	NT3P61CB	1
SEC. 8-16	NT3P63CA	NT3P63CB	1

NOTES:

- RF Expansion kits only include RF bay hardware.
Expansion Cable Kits must be ordered as required.

RF BAY INDIVIDUAL ITEMS

DESCRIPTION	PEC CODE	CPC CODE	NOVATEL CODE	
LIGHTNING ARRESTOR	NT3P22AB	A0399518	50923001	1
HELIAX JUMPER	NT3P22AC	A0399519	01041080	2
HELIAX JUMPER	NT3P30CA	A0359685	01040172	3

NOTES:

- This part is the same as NT3P21DA.
- This is a 6 ft piece of connectorized 1/2 inch RG214 cable.

3. This is a 6 ft piece of connectorized 1/2 inch Superflex cable.

TRANSCEIVERS

Transceiver Type	Pec Code	
CSC P1 non expanded	NT3P21HA	1
CSC P1 expanded	NT3P21HD	
ICP P2 non expanded	NT3P21HB	2
ICP P2 expanded	NT3P21HC	
ICP P3 DSAT expanded	NT3P21HE	
Upgrade Kit (P1ES to P3)	NT3P21HG	
Upgrade Kit (P1NES to P2NES)	NT3P21HH	

NOTES:

- 1 Only use P1 transceivers on CSC sites.
- 2 All ICP OMNI based cell sites should be provisioned with P3 radios. All ICP sectorized sites MUST have the P3 radio. Check availability.

POWER AMPS

Both CSC and ICP/RCMI cell sites should be provisioned with the NT3P21CD Dynamic Power Control PA. In order for the NT3P21CD PA to work in the NT800A frames the ribbon cables must be changed out. The NT800DR part number for this ribbon cable is 01041181. One cable per PA shelf.

RF BAY CABLE KITS (INCLUDES ALL INTER BAY CABLING)
(continued next page...)

RF Bay	CSC OMNI	ICP OMNI	STSR CSC 120	STSR ICP 120	STSR ICP 60
RF1 Basic	NT3P35AB	NT3P35AA	.	.	.
RF1 Exp	NT3P35BB	NT3P35BA	.	.	.
RF2 Basic	NT3P35CB	NT3P35CA	.	.	.
RF2 Exp	NT3P35DB	NT3P35DA	NT3P35AD (note 2)	NT3P35AF (note 2)	.
RF3 Basic	NT3P35EB	NT3P35EA	.	.	.
RF3 Exp	NT3P35FB	NT3P35FA	.	.	.
RF4 Basic	NT3P35GB	NT3P35GA	NT3P35BC	NT3P35BD	NT3P35AE (note 3)
RF4 Exp	NT3P35HB	NT3P35HA	NT3P35CC	NT3P35CD	.
RF5 Basic	N/A	N/A	NT3P35DC	NT3P35DD	.
RF5 Exp	N/A	N/A	NT3P35EC	NT3P35ED	.
RF6 Basic	N/A	N/A	NT3P35FC	NT3P35FD	.
RF6 Exp	N/A	N/A	NT3P35GC	NT3P35GD	.
Phase Hrn	NT3P33BA	NT3P33BA	NT3P33BA	NT3P33BA	

1

NOTES:

1. The PHASING HARNESS connects the output from the 4-port combiner on the EX BAY to the combiner on the appropriate RF bay so those ES radios will transmit in the correct sector. Therefore, a PHASING HARNESS is required for each non-EX RF BAY. For example, a 120 degree site will require 3 PHASING HARNESSES.
2. Provides cables for RF1, RF2 and RF3.
3. Provides cables for RF1 through RF6.
4. On new ICRM based sites still order the above cable kits and additionally order the ICRM specific cables, such as the TCM cable and other special cables, as outlined in ECM534.

RF BAY CABLE KITS (Continued)

RF Bay	OTSR ICP 120	OTSR ICP 60
RF1 Basic	.	.
RF1 Exp	.	.
RF2 Basic	.	.
RF2 Exp	NT3P35AH (note 2)	.
RF3 Basic	.	.
RF3 Exp	.	.
RF4 Basic	NT3P35BE	NT3P35AG (note 3)
RF4 Exp	NT3P35CE	.
RF5 Basic	NT3P35DE	.
RF5 Exp	NT3P35EE	.
RF6 Basic	NT3P35FE	.
RF6 Exp	NT3P35GE	.
Phase Hrn	NT3P33BA	

60 DEGREE ICRM SITES

For 60 degree ICRM sites not all RF cables are included in the standard 60 degree cable kits. Order additional cables below:

DESCRIPTION	PEC	QTY	
Impulse Suppressor	NT3P21DA	6	1
RMC to Ant. N-N 4.8m	01041080	6	1
CE1, CE2 RMC Multiple	01041161	1	2
Alarm Multiple Ribbon 8in	NT3P34AA	2	3
Alarm Multiple Ribbon 12in	NTAX8658	2	3
Alarm 3 Headed Cable	NTAX8656	1	4
RMC Power Multiple	NT3P34BA	2	5

NOTES:

1. These items are used in the 12 antenna configuration for the diversity receive path which bypasses the duplexer.
2. This cable is used to connect RMC3 in the CE1 BAY to RMC4 in the CE2 BAY.
3. This ribbon cable is used to multiple alarms from RMC4 to RMC5 and RMC4 to RMC6.
Use NT3P34AA for Cellwave RMC
Use NTAX8658 for Sinclair RMC
4. Used on CE1 to multiple HSM0, RMC and CSM.
5. This cable is used to multiple power from RMC4 to RMC5 and RMC4 to RMC6.

SPLIT LINE UP CABLE KITS

RF FRAME	OMNI	SECTORIZED	
RF4	NT3P35JA	NT3P35JC	1
RF5	NT3P35JA	NT3P35JC	1
RF6	NT3P35JA	NT3P35JC	1
RF7	NT3P35JB	NT3P35JD	2
RF8	NT3P35JB	NT3P35JD	2

THESE KITS ARE NOT AVAILABLE AT THIS TIME!!!!!!!!!!!!!! CHECK AVAIL-
ABILITY BEFORE USING!!!!!!

NOTES:

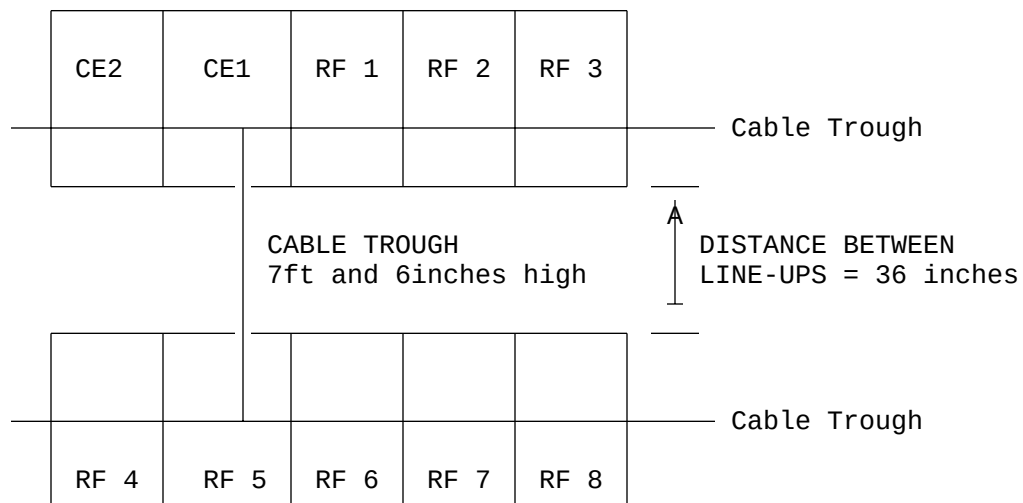
1. Includes:

- Quantity 1 RF bay cable kit
- Quantity 1 Heliac Jumper (connection to lightning
arrestor)
- Quantity 1 Lightning Arrestor
- Quantity 1 Alarm Cable
- Quantity 1 Data Cable Kit

2. Includes:

- Quantity 1 RF bay cable kit
- Quantity 1 Heliac Jumper (connection to lightning
arrestor)
- Quantity 1 Lightning Arrestor
- Quantity 1 Data Cable Kit

The following diagram shows the frame layout on which the split line up cable kits were based:



UPGRADE KITS FOR OMNI TO SECTORIZATION

RF FRAME	120 STSR	120 OTSR	
RF1,2,3 STD LINE-UP	NT3P36AB	NT3P36AF	1
RF4 STD LINE-UP	NT3P36AC	NT3P36AG	2
RF5 STD LINE-UP	NT3P36AD	NT3P36AH	3
RF6 STD LINE-UP	NT3P36AE	NT3P36AJ	2
RF4 SPLIT LINE-UP	NT3P35JE	NT3P35JE	2
RF5 SPLIT LINE-UP	NT3P35JE	NT3P35JE	2
RF6 SPLIT LINE-UP	NT3P35JE	NT3P35JE	2
RF7 SPLIT LINE-UP	NT3P35JF	NT3P35JF	2
RF8 SPLIT LINE-UP	NT3P35JF	NT3P35JF	2
GCL SHELF UPGRADE	NT3P36AK	NT3P36AK	
SPLITTER KIT A0399520	NT3P36AA	NT3P36AA	4

THESE KITS ARE NOT AVAILABLE AT THIS TIME!!!!!!!!!!!!!! CHECK AVAIL-
ABILITY BEFORE USING!!!!!!

NOTES:

1. This kit provides material for RF Bays 1, 2 and 3 including the following: (does not include splitter kit)

STSR

- Quantity of 2 RMC kits for the CE bay
- Quantity of 2 COAX switch kits
- Cable kit for RF1
- Cable kit for RF2
- Cable kit for RF3
- Quantity of 14, 50 OHM BNC loads
- Quantity of 3 coax protector kits

OTSR

- Quantity of 2 RMC kits for the CE bay
- Quantity of 1 CE1 frame kit
- Quantity of 1 CE2 frame kit

- Cable kit for RF1
- Cable kit for RF2
- Cable kit for RF3
- Quantity of 14, 50 OHM BNC loads
- Quantity of 5 coax protector kits

THESE KITS DO NOT INCLUDE THE SPLITTER KIT WHICH MUST BE ORDERED SEPARATELY.

2. Includes cabling only for specified frame.

3. Includes:

- Quantity 3 RMC Expansion kits
- Cable kit for RF5
- Quantity of 21, 50 OHM BNC loads

4. This kit provides the additional splitters and cables to upgrade one OMNI transceiver shelf to a sectorized transceiver shelf.

CE/RF BAY TO DF BLOCK (EXTERNAL CABLING)

CABLE	CON-CON	CON-NCN	BULK CABLE	NOTES	
RF Rev. to DF	NT0X96EP	NT0X96EQ	R0111469	1 per RF Bay	3
RF For. to DF	NT0X96EP	NT0X96EQ	R0111469	1 per RF Bay	3
ACU to MDF	NT0X96EM	NT0X96EN	R0101769	1 per ACU	1
TAU to MDF	NT0X96EP	NT0X96EQ	R0111469	2 per TAU	
RMRP to MDF	N/A	NT0X96FL	R0061282	1/overlay Aud.	2
RMRP to MDF	N/A	NT0X96FM	R0061282	1/overlay Aud.	2
RF RIP to MDF	N/A	NT0X96FN	R0114974	1/overlay Data	2
RF RIP to MDF	N/A	NT0X96FP	R0114974	1/overlay Data	2

NOTES:

1. Provide one ACU to MDF cable for every extra two cp ordered on the ACU.
2. For use when overlaying a NT800DR cell site.
3. Cables are not included in RF cable kits. Order separately.

MODEMS

56k MODEM	PEC	CONNECTOR CABLE	BULK CABLE	
Telco Systems 2476-01 Data Card	N/A	NT0X96ER	R0101768	
GDC 500 C/UXR 56K Data Ser.Unit	048A041-001	NT0X96ES NT0X96DZ	R0101768	4
Wescom 3633-14 DSU Channel Unit	N/A	N/A		
GDC -48 DC VOLT 56K Data Unit Chassis	010B017-001	NT0X96ES NT0X96DZ	R0101768	1 4
GDC 596 R/M Modem	048P041-001			
LAPD TO V.35 BLOCK	N/A	NT0X96DJ		3
DSUDP for DE4E SMART	NT4505	NT0X96DJ		

NOTES:

- 1.The -48 Volt GDC modem eliminates the requirement for AC inverters and is the recommended data unit. The GDC part numbers 010D500-003 (Single Width Chassis C<over), S-010B001-001(Datacom Chasis -48V DC, and 048P041-001 (500 C/UXR DSU Card) order the -48 Volt GDC modem.
- 2.Modem cables must be less than 7 meters in length.
- 3.Check availability of cable before ordering.
- 4.For Canadian applications only.

MISCELLANEOUS CELL SITE ITEMS

PEC	CPC	DESCRIPTION	NOTES
NT3P28BB	A0396672	Power Supply - RCM1	
NT3P28CD	A0396940	RIP CKT. Breaker 6 AMP	
NT3P28CC	A0396939	RIPCKT. Breaker 16 AMP	
NT3P28CB	A0396938	RIP CKT. Breaker 18 AMP	
NT3P28CA	A0396937	RIP CKT. Breaker 5 AMP	
A0367429	A0367429	ISOLATOR PAD	1 per Bay
	P0667992	ISOLATOR BUSHING	4 per Bay
NT3P41CA	A0391754	Newton Rack for Polyphasers	
NT3P41CB	A0391755	Newton EXT. Rack	
NT3P19AA	A0389813	NT800DR-CSC Cell Site Manual	
NT3P19AB	A0389814	NT800DR-ICP Cell Site Manual	
01041291	01041291	Cable 1/4> Superflex BNC-BNC	
01041274	01041274	Cable 1/4> Superflex BNC-BNC	
01041048	01041048	Cable RF BNC-BNC RG400 5.5	
01041696	01041696	Cable RF BNC-BNC RG400 7.0	
01041698	01041698	Cable RF BNC-BNC RG400 8.5	
01040264	01040264	Cable RF N-N 1/2> Superflex	
01041700	01041700	Cable Data 25 Pair 19'	
01041704	01041704	Cable Alarm 25 Pair 18'	

800CM TO NT800DR CONVERSION KITS

The 800CM product line can be converted into a ZEBRA product line that is functionally equivalent to the NT800 product line. The name ZEBRA is used because the end product has a mixed black and brown color.

The following conversion kits should be used:

ANALOG CONVERSION			1
PEC	CPC	KIT	
NT3P37AB	B0237917	Analog CE Frame Conversion Kit (800 AZ CE01 Kit) Includes: - 2 LAPD Cards - 2 Port Card Conversion Kits (for ACU/CSM interface) - ACU Firmware - CSM Firmware	
NT3P37AD	B0237918	Analog Basic RF Frame Conv. Kit (lower 8 channels of any RF frm.) (800 AZ RF 8 CH BAS KIT) Includes: - 1 Cable Harness(DPC/alarm)	2
NT3P37AH	B0237924	Analog Exp. RF Frame Conv. Kit (upper 8 channels of any RF frm.) (800 AZ RF 8 CH EXP KIT) Includes: - 1 Cable Harness(DPC/alarm)	3
NT3P21MC	A0351035	Analog Coax Relay Conversion Kit (1 req. for 1st basic RF frame) (800 AZ COAX SWITCH KIT) Includes: - 1 Coax Relay and Mounting Bar	

NOTE: The transceivers also need to be converted but are handled through a repair and return process that is managed by the marketing and CSO groups. The transceiver shelf conversion can be handled in two ways; either by a repair and return process like the transceivers, or by using the above mentioned kit for field upgrades. The repair and return process is the preferred method because the transceiver shelf conversion is quite involved.

In addition to the above required equipment(with the exception of the transceiver shelf kit as noted above), the following equipment may be needed for analog conversions. A site survey is necessary to complete the following requirements.

An NT3P20MA CSM is required. The CSM may or may not already be on the site. If no CSM exists on site, a CSM and a NT3P37CH CSM KIT will be required.

Either a mag mount antenna or sniffer port configuration will be required with the CSM depending on what type of duplexer the site has. (Does the duplexer have sniffer ports or not).

If the site currently has a GENNET, then an RCMI and a NT3P37CL GENNET TO RCMI KIT will be required. The cards in the RCMI will need to be provisioned according to existing rules, with the exception of the LAPD cards. The LAPD cards are included in the CE frame conversion kit.

New RF audio cables may be required for analog sites dependent upon the following:

- The customer requests new cables
- When the existing audio cables for channels 1-24 between RF1 and the CE bay are not long enough
- When the existing audio cables for channels 25-48 between RF2 and the CE bay are not equipped or are not long enough
- Two audio cables are always required for RF3

Two ACU to MDF cables are required.

The ACU requires a minimum of 8 input cards and 1 output control card. Additional cards may be required.

New MDF blocks may be required.

DR CONVERSION			1
PEC	CPC	KIT	
NT3P37AK	B0237926	DR CE Frame Conversion Kit (800 DZ CE01 Kit) Includes: - 2 LAPD Cards - 2 Port Card Conversion Kits (for ACU/CSM interface) - ACU Firmware - CSM Firmware - 1 RIP - 1 Power/Ground Cable Harness	
NT3P37AM	B0237928	DR Basic RF Frame Conversion Kit (lower 8 channels of any RF frm.) (800 DZ RF 8 CH BAS KIT) Includes: - 1 Transceiver Shelf Backplane - 2 PA Shelf Backplanes - 1 RIP PCB	2
NT3P37AS	B0237932	DR Expansion RF Frame Conv. Kit (upper 8 channels of any RF frm.) (800 DZ RF 8 CH EXP KIT) Includes: - 1 Transceiver Shelf Backplane - 2 PA Shelf Backplanes	3
NT3P21MD	A0351039	DR Coax Relay Conversion Kit (1 req. for 1st basic RF frame) (800 DZ COAX SWITCH KIT) Includes: - 1 Coax Relay and Mounting Bar	

NOTE: The transceivers also need to be converted but are handled through a repair and return process that is managed by the marketing and CSO groups.

In addition to the above required equipment, the following equipment may be needed for digital conversions. A site survey is necessary to complete the following requirements.

An NT3P20MA CSM is required. The CSM may or may not already be on the site. If no CSM exists on site, a CSM and a NT3P37CH CSM KIT will be required.

Either a mag mount antenna or sniffer port configuration will be required with the CSM depending on what type of duplexer the site has. (Does the duplexer have sniffer ports or not).

Two ACU to MDF cables are required.

New RF audio cables may be required if the length of the existing cables are not long enough to move to new MDF locations.

The ACU requires a minimum of 8 input cards and 1 output control card. Additional cards may be required.

New MDF blocks may be required.

COMMON CONVERSION KITS			1
PEC	CPC	KIT	
NT3P37AY	B0237937	Port Card Kit(for Radio Channels) (RCMI 800Z PORT CARD KIT) Includes: - 1 Face Plate - Firmware (1 piece)	

- 1) The DR conversion kits will become available before the ANALOG kits. Check availability before using!
- 2) A Basic RF frame or kit always refers to the lower 8 channels (1st 8 channels) of an RF frame.
- 3) An Extended RF frame or kit always refers to the top 8 channels (2nd 8 channels) of an RF frame.
- 4) Kits may contain other minor parts not specifically identified here (mounting screws, jumpers, cover plates, etc.)
- 5) 800CM cell sites are not all equipped with CSMS. CSMS are required for NT configurations and will have to be ordered as required.

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EMR10

MERIDIAN CABINET EQUIPMENT CHAPTER ALL

MERIDIAN CABINET EQUIPMENT CHAPTER ALL

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MERIDIAN CABINET EQUIPMENT CHAPTER ALL

EMR10-MACB-1	MERIDIAN APPLICATIONS CABINET BAY 1	NT1M41AA
EMR10-MACB-2	MERIDIAN APPLICATIONS CABINET BAY 2	NT1M41AP
EMR10-01-DLM-1	DIGITAL LINE MODULE COMMON CP	NT7X50EA
EMR10-01-DLM-2	DIGITAL LINE MODULE COMMON CP	NT7X50EB
EMR10-01-000	CUSTOMIZED DIGITAL LINE EQUIPMENT FRAME	NT7X50AA
EMR10-01-001	PACKAGED CORE DIGITAL MODULE FRAME	NT7X50BA
EMR10-02-IDTC-2	INTERNATIONAL DTC COMMON CP	NTNX33FB
EMR10-02-LGC-1	MERIDIAN CABINET TRUNK MODULE	NTNX33LA
EMR10-02-LGC-2	MERIDIAN CABINET TRUNK MODULE	NTNX33LB
EMR10-02-000	MERIDIAN CABINET TRUNK MODULE	NTNX33AA
EMR10-03-MCLM-1	MCLM-ISDN COMMON CP FILL (LOWER MODULE)	NTNX38NC
EMR10-03-MCLM-2	MCLM-ISDN COMMON CP FILL (UPPER MODULE)	NTNX38ND
EMR10-03-000	MERIDIAN CABINET LINE MODULE - ISDN	NTNX38BA
EMR10-04-000	MERIDIAN CABINET DIGITAL MODULE FRAME	NTNX50AA
EMR10-05-STM-1	MERIDIAN CABINET SERVICE MODULE	NTNX29LA
EMR10-05-STM-10	MCSM COMMON PACK FILL	NTNX29LK
EMR10-05-STM-11	MCSM COMMON PACK FILL	NTNX29LL
EMR10-05-STM-12	MCSM COMMON PACK FILL	NTNX29LM
EMR10-05-STM-2	MERIDIAN CABINET SERVICE MODULE	NTNX29LB
EMR10-05-STM-3	MERIDIAN CABINET SERVICE MODULE	NTNX29LC
EMR10-05-STM-4	MERIDIAN CABINET SERVICE MODULE	NTNX29LD
EMR10-05-STM-5	MERIDIAN CABINET SERVICE MODULE	NTNX29LE
EMR10-05-STM-6	MERIDIAN CABINET SERVICE MODULE	NTNX29LF
EMR10-05-STM-7	MCSM COMMON PACK FILL	NTNX29LG
EMR10-05-STM-8	MCSM COMMON PACK FILL	NTNX29LH
EMR10-05-STM-9	MCSM COMMON PACK FILL	NTNX29LJ
EMR10-05-000	MERIDIAN CABINET SERVICE MODULE	NTNX29AA
EMR10-05-001	MERIDIAN CABINET SERVICE MODULE	NTNX29BA
EMR10-06-CMC-1	CMC/NET COMMON CP	NTNX20LC
EMR10-06-MCCM-1	MERIDIAN CABINET CORE MODULE COMMON CP	NTNX20LA
EMR10-06-NET-1	MERIDIAN CABINET CORE MODULE	NTNX20LB
EMR10-06-000	MERIDIAN CABINET CORE MODULE FRAME	NTNX20AA
EMR10-07-MCMM-1	MERIDIAN CABINET MEMORY MODULE COMMON CP	NTNX21LA
EMR10-07-000	MERIDIAN CABINET MEMORY MODULE FRAME	NTNX21AA
EMR10-08-DSN-1	MERIDIAN CABINET NETWORK MODULE	NTNX40LA
EMR10-08-DSN-2	MERIDIAN CABINET NETWORK MODULE	NTNX40LB
EMR10-09-RIM-1	REMOTE INTERFACE AND MAINTENANCE COMMON	NT7X53AA
EMR10-09-000	MERIDIAN CABINET DIGITAL REMOTE FRAME	NTNX49AA
EMR10-10-MCRM-1	MERIDIAN CABINET REMOTE MODULE COMMON CP	NTNX17BA
EMR10-10-000	MERIDIAN CABINET REMOTE MODULE FRAME	NTNX17AA
EMR10-11-MCPM-1	MERIDIAN CABINET POWER MODULE COMMON CP	NTNX24LA
EMR10-11-000	MERIDIAN CABINET POWER MODULE	NTNX24AA
EMR10-12-MCAM-1	MCAM COMMON CP	NTNX37NA
EMR10-12-MCAM-4	MCAM COMMON CP	NTNX37ND
EMR10-12-MCAM-5	MCAM COMMON CP	NTNX37NE
EMR10-12-PTM-1	MERIDIAN CABINET AUXILIARY MODULE CP FIL	NTNX37LB
EMR10-12-STM-1	MERIDIAN CABINET AUXILIARY MODULE CP FIL	NTNX37LA
EMR10-12-000	MERIDIAN CABINET AUXILIARY MODULE	NTNX37AA
EMR10-13-000	MERIDIAN CABINET GENERAL MODULE FRAME	NTNX47AA
EMR10-14-000	MERIDIAN CABINET SPARE STORAGE FRAME	NTNX22AA
EMR10-18-000	MERIDIAN CORE MODULE	NTMX42AA
EMR10-19-MNET-1	MERIDIAN NETWORK/CPC COMMON CP	NTMX40NA
EMR10-19-MNET-2	MERIDIAN NETWORK/CPC COMMON CP	NTMX40NC

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EMR10-19-000	MERIDIAN NETWORK/CONTROLLER MODULE	NTMX40AA
EMR10-20-CPC-11	DTC/DTCI/LTC/LTCI COMMON CP (LOWER MODUL	NTNX33ND
EMR10-20-CPCI-1	MCTM-ISDN COMMON CP (LOWER MODULE)	NTNX33NA
EMR10-20-CPCI-2	MCTM-ISDN COMMON CP (UPPER MODULE)	NTNX33NB
EMR10-20-CPCI-3	DTC/DTCI/LTC/LTCI COMMON CP (UPPER MODUL	NTNX33NE
EMR10-22-MSB7-1	MERIDIAN CABINET SEVEN MODULE	NTNX12LA
EMR10-22-000	MERIDIAN CABINET SEVEN MODULE	NTNX12AA
EMR10-23-000	MERIDIAN CABINET DATA MODEM EXPANSION	NTNX95AA
EMR10-25-000	MERIDIAN CABINET CCS	NTNX34BA
EMR10-26-000	MERIDIAN CABINET CCS6 EXTENSION	NTNX94AA
EMR10-28-MCRM-1	MCRM-I COMMON CP	NTNX17CA
EMR10-28-MCRM-2	MCRM-I COMMON CP	NTNX17BB
EMR10-28-MCRM-3	MCRM-I COMMON CP	NTNX17CB
EMR10-28-000	MERIDIAN CABINET REMOTE MODULE-ISDN	NTNX17AB
EMR10-33-MCRM-3	MCRM PACKFILL	NTNX17BC
EMR10-34-RLCC-1	RLCC COMMON CP	NTNX14LA

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EMR10

MERIDIAN CABINET EQUIPMENT CHAPTER ALL

MERIDIAN APPLICATIONS CABINET BAY 1

PEC CODE: NT1M41AA

| CPC CODE: A0366494

| RATING: MD

| REPLACES: Not Applicable

| REPLACED BY: NT1M41CG

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The Meridian Applications Cabinet Bay 1 houses SRU's (Shared Resource Units) required for the TOPS VSN 24-Port and 48-Port system.

REFERENCE DOCUMENTATION:

| MARKETS: Applicable markets:

| US
| Canada

| ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

| MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NT1M41AA EMR10-MACB-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
93 09 10	ECM 495 10	Retire this section.

The Meridian Applications Cabinet Bay 1 is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Upper Cooling Unit	NT1M4114		1	66		AP
Frame Supervisory Panel	NT1M4116	FSP	1	61		AP
T1 SRU	NT4G23DA			47	02,04	RUL1
App. Processor 68020-10	NT4G25GB			47	06,08	RUL2
1/4 Wide SRU Filler	NT1M41AD			47	09	RUL3
Rack Converter SRU	NT4G50CA			47	10	RUL4
Double Shelf Assembly	NT1M41AN		1	33		AP
Voice Interface SRU	NT4G27CA			33	02,04 06,08	RUL5
1/4 Wide SRU Filler	NT1M41AD			33	09	RUL3
Rack Converter SRU	NT4G50CA			33	10	RUL4
Voice Interface SRU	NT4G27CA			19	02	RUL5
App. Processor 68020-10	NT4G25GB			19	04	RUL2
SCSI 350MB Disk Storage	NT4G20TB			19	08	RUL6
1/4 Wide SRU Filler	NT1M41AD			19	09	RUL3
Rack Converter SRU	NT4G50CA			19	10	RUL4
Double Shelf Assembly	NT1M41AN		1	05		AP
App. Processor 68020-10	NT4G25GB			05	02,07	RUL2
Prime Processor XP-6MB	NT4G16EF			05	04	RUL7
SCSI 80MB Storage SRU	NT4G20LC			05	05	RUL8
Lanlink SRU	NT4G14DB			05	08	RUL9
1/4 Wide SRU Filler	NT1M41AD			05	09	RUL3
Rack Converter SRU	NT4G50CA			05	10	RUL4
Lower Cooling Unit	NT1M4113		1	01		AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Designation Strip (Lime)	P0711389					RUL10
Designation Strip (Aqua)	P0711388					RUL11
NT Logo (Lime)	P0695226					RUL15
NT Logo (Aqua)	P0677704					RUL16
Frame Fail Lamp (Brown)	NT1M41BC					RUL12
Right Front Door (Brown)	NT1M41AT					RUL12
Left Front Door (Brown)	NT1M41AU					RUL12
Rgt Front/Rear Door (Brown)	NTNX2552					RUL12
Lft Front/Rear Door (Brown)	NTNX2550					RUL12
Right End Panel (Brown)	NTNX2531					RUL12
Left End Panel (Brown)	NTNX2532					RUL12
Frame Fail Lamp (Gray)	NT1M4104					RUL13
Right Front Door (Gray)	NT1M41AV					RUL13
Left Front Door (Gray)	NT1M41AW					RUL13
Rgt Front/Rear Door (Gray)	NTNX2513					RUL13
Lft Front/Rear Door (Gray)	NTNX2515					RUL13
Right End Panel (Gray)	NTNX2517					RUL13
Left End Panel (Gray)	NTNX2518					RUL13
Information Labels Kit	NT1M41CE					RUL14
Spares Kit	NT1M41BX					RUL17

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The NT1M41AA is required for both 24-Port and 48-Port Meridian-Cabinet TOPS VSN applications.
- 2) There are ten SRU mounting positions in each shelf position. Each mounting position is determined by the rightmost slot the SRU occupies. For example, the NT4G20TB SCSI 350MB Disk occupies slots 05 through 08: hence the NT4G20TB mounts on slot 08.

RULES:

- AP 1) When PEC NT1M41AA is ordered, these items are provided.
- RUL1 1) Provide 1 NT4G23DA T1 SRU in each of the specified mounting positions. A total of 2 NT4G23DA is required for this cabinet.
- RUL2 1) Provide 1 NT4G25GB Application Processor 68020-10 in each of the specified mounting positions. A total of 5 NT4G25GB is required for this cabinet. The Application Processor in slot 02 of shelf 05 must be equipped with the NT4G91FF DVIX Operating System (68020).
- RUL3 1) Provide 1 NT1M41AD 1/4 Wide SRU Filler in each of the specified mounting positions. A total of 4 NT1M41AD is required for this cabinet.
- RUL4 1) Provide 1 NT4G50CA Rack Converter SRU in each of the specified mounting positions. A total of 4 NT4G50CA is required for this cabinet.
- RUL5 1) Provide 1 NT4G27CA Voice Interface SRU in each of the specified mounting positions. A total of 5 NT4G27CA is required for this cabinet.
- RUL6 1) Provide 1 NT4G20TB SCSI 350MB Disk Storage in the specified mounting position. A total of 1 NT4G20TB is required for this cabinet.
- RUL7 1) Provide 1 NT4G16EF Prime Processor XP-6MB in the specified mounting position. A total of 1 NT4G16EF is required for this cabinet.
- RUL8 1) Provide 1 NT4G20LC SCSI 80MB Storage SRU in the specified mounting position. A total of 1 NT4G20LC is required for this cabinet.

- RUL9 1) Provide 1 NT4G14DB Lanlink SRU in the specified mounting position. A total of 1 NT4G14DB is required for this cabinet.
- RUL10 1) Provision two Designation Strips (Lime) if this is a brown cabinet.
- RUL11 1) Provision two Designation Strips (Aqua) if this is a gray cabinet.
- RUL12 1) Provision the NT1M41AT and NT1M41AU as the front doors and the NTNX2552 and NTNX2550 as the rear doors. The doors are installed in the shop and not in the field; they should be specified on the 134 spec only.
- 2) Provision the other items as required for a brown cabinet.
- RUL13 1) Provision the NT1M41AV and NT1M41AW as the front doors and the NTNX2513 and NTNX2515 as the rear doors. The doors are installed in the shop and not in the field; they should be specified on the 134 spec only.
- 2) Provision the other items as required for a gray cabinet.
- RUL14 1) Provision one NT1M41CE per system.
- RUL15 1) Provision two NT Logos (Lime) if this is a brown cabinet.
- RUL16 1) Provision two NT Logos (Aqua) if this is a gray cabinet.
- RUL17 1) Provision one NT1M41BX Spares Kit per system. This kit contains spare lamps and fuses.

MERIDIAN APPLICATIONS CABINET BAY 2

PEC CODE: NT1M41AP

| CPC CODE: A0366943

| RATING: MD

| REPLACES: Not Applicable

| REPLACED BY: NT1M41CH

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The Meridian Applications Cabinet Bay 2 houses SRU's (Shared Resource Units) required for the TOPS VSN 48-Port system in addition to the 24-port system.

REFERENCE DOCUMENTATION:

| MARKETS: Applicable markets:

| US
| Canada

| ISSUE AUTHOR: NTI: David Keilson Dept. 3471 (PPK)

| MAIN CONTACT: NTI: David Keilson Dept. 3471 (PPK)

NT1M41AP EMR10-MACB-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
93 09 10	ECM 495 10	Retire this section.

The Meridian Applications Cabinet Bay 2 is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Upper Cooling Unit	NT1M4114		1	66		AP
Frame Supervisory Panel	NT1M4116	FSP	1	61		AP
1/2 Wide SRU Filler	NT1M41AE			47	02,04 06,08	RUL1
1/4 Wide SRU Filler	NT1M41AD			47	09	RUL2
Rack Converter SRU	NT4G50CA			47	10	RUL3
Double Shelf Assembly	NT1M41AN		1	33		AP
T1 SRU	NT4G23DA			33	02	RUL4
1/2 Wide SRU Filler	NT1M41AE			33	04,08	RUL1
App. Processor 68020-10	NT4G25GB			33	06	RUL5
1/4 Wide SRU Filler	NT1M41AD			33	09	RUL2
Rack Converter SRU	NT4G50CA			33	10	RUL3
Voice Interface SRU	NT4G27CA			19	02,04 06,08	RUL6
1/4 Wide SRU Filler	NT1M41AD			19	09	RUL2
Rack Converter SRU	NT4G50CA			19	10	RUL3
Double Shelf Assembly	NT1M41AN		1	05		AP
1/2 Wide SRU Filler	NT1M41AE			05	02,04 06,08	RUL1
1/4 Wide SRU Filler	NT1M41AD			05	09	RUL2
Rack Converter SRU	NT4G50CA			05	10	RUL3
Lower Cooling Unit	NT1M4113		1	01		AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Jumper Cable	NT1M41AR		2			AP
Designation Strip (Lime)	P0711392					RUL7
Designation Strip (Aqua)	P0711391					RUL8
NT Logo (Lime)	P0695226					RUL13
NT Logo (Aqua)	P0677704					RUL14
Frame Fail Lamp (Brown)	NT1M41BC					RUL9
Right Front Door (Brown)	NT1M41AT					RUL9
Left Front Door (Brown)	NT1M41AU					RUL9
Rgt Front/Rear Door (Brown)	NTNX2552					RUL9
Lft Front/Rear Door (Brown)	NTNX2550					RUL9
Right End Panel (Brown)	NTNX2531					RUL10
Left End Panel (Brown)	NTNX2532					RUL10
Frame Fail Lamp (Gray)	NT1M4104					RUL11
Right Front Door (Gray)	NT1M41AV					RUL11
Left Front Door (Gray)	NT1M41AW					RUL11
Rgt Front/Rear Door (Gray)	NTNX2513					RUL11
Lft Front/Rear Door (Gray)	NTNX2515					RUL11
Right End Panel (Gray)	NTNX2517					RUL12
Left End Panel (Gray)	NTNX2518					RUL12
Spares Kit	NT1M41BX					RUL15

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The NT1M41AP is required for 48-Port Meridian-Cabinet TOPS VSN applications.
- 2) There are ten SRU mounting positions in each shelf position. Each mounting position is determined by the rightmost slot the SRU occupies. For example, the NT4G23DA T1 SRU occupies slots 01 through 02: hence the NT4G23DA mounts on slot 02.

RULES:

- AP 1) When PEC NT1M41AP is ordered, these items are provided.
- RUL1 1) Provide 1 NT1M41AE 1/2 Wide SRU Filler in each of the specified mounting positions. A total of 10 NT1M41AE is required for this cabinet.
- RUL2 1) Provide 1 NT1M41AD 1/4 Wide SRU Filler in each of the specified mounting positions. A total of 4 NT1M41AD is required for this cabinet.
- RUL3 1) Provide 1 NT4G50CA Rack Converter SRU in each of the specified mounting positions. A total of 4 NT4G50CA is required for this cabinet.
- RUL4 1) Provide 1 NT4G23DA T1 SRU in the specified mounting position. A total of 1 NT4G23DA is required for this cabinet.
- RUL5 1) Provide 1 NT4G25GB Application Processor 68020-10 in each of the specified mounting positions. A total of 1 NT4G25GB is required for this cabinet.
- RUL6 1) Provide 1 NT4G27CA Voice Interface SRU in each of the specified mounting positions. A total of 4 NT4G27CA is required for this cabinet.
- RUL7 1) Provision two Designation Strips (Lime) if this is a brown cabinet.
- RUL8 1) Provision two Designation Strips (Aqua) if this is a gray cabinet.
- RUL9 1) Provision the NT1M41AT and NT1M41AU as the front doors and the NTN2552 and NTN2550 as the rear doors. The doors are installed in the shop and not in the field; they should be specified on the 134 spec only.

2) Provision the other items as required for a brown cabinet.

RUL10 1) Provide 1 per brown cabinet line-up, if required.

RUL11 1) Provision the NT1M41AV and NT1M41AW as the front doors and the NTNX2513 and NTNX2515 as the rear doors. The doors are installed in the shop and not in the field; they should be specified on the 134 spec only.

2) Provision the other items as required for a gray cabinet.

RUL12 1) Provide 1 per gray cabinet line-up, if required.

RUL13 1) Provision two NT Logos (Lime) if this is a brown cabinet.

RUL14 1) Provision two NT Logos (Aqua) if this is a gray cabinet.

RUL15 1) Provision one NT1M41BX Spares Kit per system. This kit contains spare lamps and fuses.

DIGITAL LINE MODULE COMMON CP

PEC CODE: NT7X50EA

CPC CODE: B0223996

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DLM

ENGINEERING DESCRIPTION: The NT7X50EA is the Common Circuit Pack Fill for the DLM application.

The Digital Line Module is a subsidiary peripheral module which interfaces up to 160 IVD digital telephone sets.

In the host office, the DLM is interfaced to the network via a Line Group Controller (LGC) or Line Trunk Controller (LTC).

In the remote site, the DLM is interfaced to the LGC/LTC in the host office via a Remote Interface and Maintenance (RIM) Module.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X50EA EMR10-01-DLM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 23	----- ECM 347 05	Previous history not available MD the NTNX49AA and packfills per ECD002-16128, 16134, 16146 and 16225

The Digital Line Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NT6X53AA		1	X	1	AP
Digital Set Interface Proc	NT8X49AA		1	X	3	AP
Parallel-Space Time Switch	NT8X46AA		1	X	4	AP
LCM Processor	NT6X51AB		1	X	5	AP
Digroup Controller	NT6X52AA		1	X	6	AP
Dgtl Port Maintenance Card	NT8X55AA		1	X	13	AP
Digroup Controller	NT6X52AA		1	X	20	AP
LCM Processor	NT6X51AB		1	X	21	AP
Parallel-Space Time Switch	NT8X46AA		1	X	22	AP
Digital Set Interface Proc	NT8X49AA		1	X	23	AP
Power Converter	NT6X53AA		1	X	24	AP
Desig. Strip	P0679473		1			AP
Desig. Label (NT8X55AA)	P0689355		1	X	13	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) (a) In the host office, "X" can be one of:

- 1) 18,32,46 or 60 for CDLE frame
- 2) 18,32,46 or 60 for PCDM frame
- 3) 05,19,33 or 47 for MCDM frame

(b) In the remote site, "X" can be one of:

- 1) 05 or 33 for MCDR frame

- 2) (a) In the host office, for the CDLE and PCDM frame, the first DLM Common CP is assigned on the frame to shelf mounting position 18, the second is assigned to shelf mounting position 32, the third is assigned to shelf mounting position 46 and the fourth is assigned to shelf mounting position 60.

In the host office, for the MCDM frame, the first DLM Common CP is assigned on the frame to shelf mounting position 05, the second is assigned to shelf mounting position 19, the third is assigned to shelf mounting position 33 and the fourth is assigned to shelf mounting position 47.

- (b) In the remote site, for the MCDR frame, the first DLM Common CP is assigned on the frame to shelf mounting position 05 and the second is assigned to shelf mounting position 33.
- 3) (a) For more information on the frames in the host office, refer to the following:
- 1) for CDLE frame, refer to MS7X50AA Customized Digital Line Equipment Frame in Section EMA10-01-000
 - 2) for PCDM frame, refer to MS7X50BA Packaged Core Digital Module Frame in Section EMA10-04-000
 - 3) for MCDM frame, refer to MSNX50AA Meridian Cabinet Digital Module Frame in Section EMA10-04-000.
- (b) For more information on the frame in the remote site, refer to the following:
- 1) for MCDR frame, refer to MSNX49AA Meridian Cabinet Digital Remote Frame in Section EMA10-09-000.

RULES:

- AP 1) When PEC NT7X50EA is ordered, these items are provided.

DIGITAL LINE MODULE COMMON CP

PEC CODE: NT7X50EB

CPC CODE: B0232555

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: DLM

ENGINEERING DESCRIPTION: The NT7X50EB is the Common Circuit Pack Fill for the DLM application. This Common Circuit pack provides functionality for IVD, Meridian Modular sets, and Meridian Telecenter.

The Digital Line Module is a subsidiary peripheral module which interfaces up to 160 IVD digital telephone sets.

In the host office, the DLM is interfaced to the network via a Line Group Controller (LGC) or Line Trunk Controller (LTC).

In the remote site, the DLM is interfaced to the LGC/LTC in the host office via a Remote Interface and Maintenance (RIM) Module.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X50EB EMR10-01-DLM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 23	----- ECM 347 05	Previous history not available MD the NTNX49AA and packfills per ECD002-16128, 16134, 16146 and 16225

The Digital Line Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NT6X53AA		1	X	1	AP
Digital Set Interface Proc	NT8X49AC		1	X	3	AP
Parallel-Space Time Switch	NT8X46AA		1	X	4	AP
LCM Processor	NT6X51AB		1	X	5	AP
Digroup Controller	NT6X52AA		1	X	6	AP
Dgtl Port Maintenance Card	NT8X55AA		1	X	13	AP
Digroup Controller	NT6X52AA		1	X	20	AP
LCM Processor	NT6X51AB		1	X	21	AP
Parallel-Space Time Switch	NT8X46AA		1	X	22	AP
Digital Set Interface Proc	NT8X49AC		1	X	23	AP
Power Converter	NT6X53AA		1	X	24	AP
Desig. Strip	P0731674		1			AP
Desig. Label (NT8X55AA)	P0689355		1	X	13	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) (a) In the host office, "X" can be one of:

- 1) 18,32,46 or 60 for CDLE frame
- 2) 18,32,46 or 60 for PCDM frame
- 3) 05,19,33 or 47 for MCDM frame

(b) In the remote site, "X" can be one of:

- 1) 05 or 33 for MCDR frame
- 2) (a) In the host office, for the CDLE and PCDM frame, the first DLM Common CP is assigned on the frame to shelf mounting position 18, the second is assigned to shelf mounting position 32, the third is assigned to shelf mounting position 46 and the fourth is assigned to shelf mounting position 60.

In the host office, for the MCDM frame, the first DLM Common CP is assigned on the frame to shelf mounting position 05, the second is assigned to shelf mounting position 19, the third is assigned to shelf mounting position 33 and the fourth is assigned to shelf mounting position 47.

- (b) In the remote site, for the MCDR frame, the first DLM Common CP is assigned on the frame to shelf mounting position 05 and the second is assigned to shelf mounting position 33.
- 3) (a) For more information on the frames in the host office, refer to the following:
 - 1) for CDLE frame, refer to MS7X50AA Customized Digital Line Equipment Frame in Section EMA10-01-000
 - 2) for PCDM frame, refer to MS7X50BA Packaged Core Digital Module Frame in Section EMA10-04-000
 - 3) for MCDM frame, refer to MSNX50AA Meridian Cabinet Digital Module Frame in Section EMA10-04-000.
- (b) For more information on the frame in the remote site, refer to the following:
 - 1) for MCDR frame, refer to MSNX49AA Meridian Cabinet Digital Remote Frame in Section EMA10-09-000.

RULES:

- AP 1) When PEC NT7X50EB is ordered, these items are provided.

CUSTOMIZED DIGITAL LINE EQUIPMENT FRAME

PEC CODE: NT7X50AA

CPC CODE: B0223153

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: CDLE

ENGINEERING DESCRIPTION: The Customized Digital Line Equipment Frame is a standard DMS frame which houses four single shelf DLM modules. A fully equipped CDLE frame supports 640 IVD digital telephone sets (16 digital telephones per Digital Port card X 10 Digital Port cards per DLM X 4 DLM's per CDLE).

REFERENCE DOCUMENTATION: MS7X50AA 00 06

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X50AA EMR10-01-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 283 06	Previous history not available MD the NTN50AA, NT7X50AA, NT7X50BA and associated PECs per ECD002-16225, 16134,16146,16128,15963,15813 and 16188.

The Customized Digital Line Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Framework Assembly CDLE FSP	NT7X34EA	FSP	1	73		AP
DLM Common CP	NT7X50EA			60		RUL1
DLM Common CP	NT7X50EB			60		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	60		AP
Digital Port Card	NT8X47AA			60	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			60	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			60	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			60	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			60	7-11, 15-19	RUL4
Desig. Strip	P0679474			60		RUL1
DLM Common CP	NT7X50EA			46		RUL1
DLM Common CP	NT7X50EB			46		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	46		AP
Digital Port Card	NT8X47AA			46	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			46	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			46	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			46	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			46	7-11, 15-19	RUL4
Desig. Strip	P0679474			46		RUL1
DLM Common CP	NT7X50EA			32		RUL1
DLM Common CP	NT7X50EB			32		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	32		AP
Digital Port Card	NT8X47AA			32	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			32	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			32	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			32	7-11, 15-19	RUL4

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NT8X47BA)	P0689233			32	7-11, 15-19	RUL4
Desig. Strip	P0679474			32		RUL1
DLM Common CP	NT7X50EA			18		RUL1
DLM Common CP	NT7X50EB			18		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	18		AP
Digital Port Card	NT8X47AA			18	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			18	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			18	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			18	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			18	7-11, 15-19	RUL4
Desig. Strip	P0679474			18		RUL1
Lower Fan Unit	NT7X5010		1	04		AP
Earthquake EMI	NT0X25AH		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

1) NT7X50AA is a single bay frame which can be equipped with up to four (4) independent Digital Line Modules.

2) One DLM module is composed of one (1) shelf. Each CDLE frame can have up to four (4) DLM's. The first DLM is on shelf mounting position 18, the second DLM is on shelf mounting position 32, the third DLM is on shelf mounting position 46, and the fourth DLM is on shelf mounting position 60. The bare shelf assembly (NT7X4901) does not become a DLM until it is equipped with one DLM Common CP, NT7X50EA. Then the shelf assembly becomes a DLM that can house up to ten (10) Digital Port cards, NT8X47AA/BA.

One DLM module has two (2) logical units, unit 0 and unit 1. Unit 0 is on the left hand side of the shelf. Unit 1 is on the right hand side of the shelf (as viewed from the front of the shelf). The part of the DLM Common CP associated with unit 0 are the cards in circuit pack positions 1,3,4,5, and 6. The part of the DLM Common CP associated with unit 1 are the cards in circuit pack positions 20,21,22,23, and 24.

Unit 0 of the DLM module controls Digital Port cards, NT8X47AA/BA, mounted in slots 7,9,11,16, and 18. Unit 1 of the DLM module controls Digital Port cards, NT8X47AA/BA, mounted in slots 8,10,15,17 and 19.

3) One PCDM Frame Supervisory Panel, NT7X34EA, always contains one FSP Alarm CP, NT6X36AB.

RULES:

AP 1) When PEC NT7X50AA is ordered, these items are provided.

RUL1 1) Provide one(1) NT7X50EA, DLM Common CP, for each DLM module equipped in the CDLE frame.

2) Provide one (1) NT7X50EB, DLM Common CP, for each DLM module equipped in the CDLE frame. This Common CP contains the NT8X49AC CP for Meridian Telecenter, Meridian Modular Sets (ARIES), and all non-ARIES digital sets.

3) Provide one (1) P0679474 Designation Strip at the top of the shelf when not equipment with pack fill NT7X50EA.

RUL2 1) Provide up to ten (10) NT8X47AA/BA, Digital Port cards, as required, for each DLM module equipped in the CDLE frame.

- 2) One card is required for every sixteen (16) digital telephone sets.
 - 3) Provide these cards in the following circuit pack position sequence: 7, 19, 8, 18, 9, 17, 10, 16, 11, and 15.
- RUL3 1) Provide one (1) NT0X50AA, Filler Face Plate for each circuit pack position not equipped with a circuit pack.
- RUL4 1) Provide one (1) per circuit pack provisioned of the appropriate Designation Label. PEC on label should be the same as the PEC of the circuit pack provisioned.

PACKAGED CORE DIGITAL MODULE FRAME

PEC CODE: NT7X50BA

CPC CODE: B0224105

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCDM

ENGINEERING DESCRIPTION: The Packaged Core Digital Module Frame is a standard DMS frame which houses four single shelf DLM modules. A fully equipped PCDM frame supports 640 IVD digital telephone sets (16 digital telephones per Digital Port card X 10 Digital Port cards per DLM X 4 DLM's per PCDM).

REFERENCE DOCUMENTATION: MS7X50BA 00 05

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X50BA EMR10-01-001 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 283 06	Previous history not available MD the NTN50AA, NT7X50AA, NT7X50BA and associated PECs per ECD002-16225, 16134,16146,16128,15963,15813 and 16188.

The Packaged Core Digital Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
PCDM Frame Supervisory Panel	NT7X34EA	FSP	1	73		AP
DLM Common CP	NT7X50EA			60		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	60		AP
Digital Port Card	NT8X47AA			60	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			60	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			60	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			60	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			60	7-11, 15-19	RUL4
Desig. Strip	P0679474			60		RUL1
DLM Common CP	NT7X50EA			46		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	46		AP
Digital Port Card	NT8X47AA			46	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			46	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			46	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			46	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			46	7-11, 15-19	RUL4
Desig. Strip	P0679474			46		RUL1
DLM Common CP	NT7X50EA			32		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	32		AP
Digital Port Card	NT8X47AA			32	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			32	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			32	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			32	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			32	7-11, 15-19	RUL4
Desig. Strip	P0679474			32		RUL1

Retired Equipment
Packaged Core Digital Module Frame

NT7X50BA
EMR10-01-001
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DLM Common CP	NT7X50EA			18		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	18		AP
Digital Port Card	NT8X47AA			18	7-11, 15-19	RUL2
Enhanced Digital Port Card	NT8X47BA			18	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			18	7-11, 15-19	RUL3
Desig. Label (NT8X47AA)	P0679471			18	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			18	7-11, 15-19	RUL4
Desig. Strip	P0679474			18		RUL1
Lower Fan Unit	NT7X5010		1	04		AP
DMS Pkg Erthqk Frame Assy	NT0X25AL		1			AP
SL-100C PCLM Comm H/W (EMI)	NT7X16AE					RUL5
PCDM Connectorized Cable Asy	NT7X5031					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NT7X50BA is a single bay frame which can be equipped with up to four (4) independent Digital Line Modules.

- 2) One DLM module is composed of one (1) shelf. Each PCDM frame can have up to four (4) DLM's. The first DLM is on shelf mounting position 18, the second DLM is on shelf mounting position 32, the third DLM is on shelf mounting position 46, and the fourth DLM is on shelf mounting position 60. The bare shelf assembly (NT7X4901) does not become a DLM until it is equipped with one DLM Common CP, NT7X50EA. Then the shelf assembly becomes a DLM that can house up to ten (10) Digital Port cards, NT8X47AA/BA.

One DLM module has two (2) logical units, unit 0 and unit 1. Unit 0 is on the left hand side of the shelf. Unit 1 is on the right hand side of the shelf (as viewed from the front of the shelf). The part of the DLM Common CP associated with unit 0 are the cards in circuit pack positions 1,3,4,5, and 6. The part of the DLM Common CP associated with unit 1 are the cards in circuit pack positions 20,21,22,23, and 24.

Unit 0 of the DLM module controls Digital Port cards, NT8X47AA/BA, mounted in slots 7,9,11,16, and 18. Unit 1 of the DLM module controls Digital Port cards, NT8X47AA/BA, mounted in slots 8,10,15,17 and 19.

- 3) One PCDM Frame Supervisory Panel, NT7X34EA, always contains one FSP Alarm CP, NT6X36AB.

RULES:

- AP 1) When PEC NT7X50BA is ordered, these items are provided.
- RUL1 1) Provide one(1) NT7X50EA, DLM Common CP, for each DLM module equipped in the PCDM frame.
2) Provide one (1) P0679474 Designation Strip at the top of the shelf when not equipment with pack fill NT7X50EA.
- RUL2 1) Provide up to ten (10) NT8X47AA/BA, Digital Port cards, as required, for each DLM module equipped in the PCDM frame.
2) One card is required for every sixteen (16) IVD digital telephone sets.
3) Provide these cards in the following circuit pack position sequence: 7, 19, 8, 18, 9, 17, 10, 16, 11, and 15.
- RUL3 1) Provide one (1) NT0X50AA, Filler Face Plate, for each circuit pack position not equipped with a circuit pack.

- RUL4 1) Provide one (1) per circuit pack provisioned of the appropriate Designation Label. PEC on label should be the same as the PEC of the circuit pack provisioned.
- RUL5 1) Provide one (1) NT7X16AE, SL-100C PCLM Common Hardware (EMI), when the PCDM frame, NT7X50BA, is required in an SL-100C Packaged Switch configuration.
- RUL6 1) Provide one (1) NT7X5031 Cable per Digital Port Card (NT8X47AA) (maximum 40 cables per frame) when the frame is provided as part of SL-100C Packaged System.

INTERNATIONAL DTC COMMON CP

PEC CODE: NTN33FB

CPC CODE: B0237588

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTN33FC

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTN33FB is the common circuit pack fill used in the Digital Trunk Controller for International DTE applications such as NTN33FA International Cabinet DTE Fiber. replace NTN33TA and NT6X02GJ Common CPs in NTN33FA.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Ken Clisso Dept. 3471 (PPK)

MAIN CONTACT: NTI: Ken Clisso Dept. 3471 (PPK)

NTNX33FB EMR10-02-IDTC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 03 15	ECM 648 01	ECD 011-17311.
95 04 03	ECM 648 09	ECD 024-93969. MD NTNX33FB.

The International DTC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate	NT0X50AA		4	X+14,X	05,06	AP
Filler Faceplate	NT0X50AA		2	X+14,X	20	AP
Filler Faceplate	NT0X50AA		2	X+14,X	24	AP
Power Converter	NT2X70AE		2	X+14,X	25	AP
Designation Strip	P0741035		2	X+14,X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One Meridian IDTC Common CP can be assigned to the cabinet in shelf mounting positions 47 and 33 (X=33), and the other to shelf positions 19 and 05 (X=05).
- 2) Refer to the section on NTN33FA MCTM for more information on the cabinet.

RULES:

- AP 1) When PEC NTN33FB is ordered, these items are provided.

MERIDIAN CABINET TRUNK MODULE
LOWER MODULE COMMON CP

PEC CODE: NTNX33LA

CPC CODE: B0227067

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: LTC/DTC/LGC

ENGINEERING DESCRIPTION: The NTNX33LA is the common circuit pack fill to equip the lower two shelves (one module) of the MCTM cabinet. This module may be configured as LTC, DTC or LGC.

REFERENCE DOCUMENTATION: SLNX33LA

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: NTI: Joe Bragg Dept. 6457 (RNS)

NTNX33LA EMR10-02-LGC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 23 95 05 17	ECM 445 05 ECM 445 19	ATTACH THIS SECTION TO ECM445 MD the NTNX33AA and packfills per ECD002-15973 and ECD002-16039.

The Meridian Cabinet Trunk Module Lower Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC/DTC Processor CP	NT6X45BA		4	05,19	8,12	AP
Filler Face Plate	NT0X50AA		10	05,19	9,13, 17,19, 23,24	AP
Master Processor Memory CP	NT6X47AB		2	05,19	10	AP
Signal Processor Memory CP	NT6X46BA		2	05,19	11	AP
Time Switch CP	NT6X44AB		2	05,19	14	AP
Universal Tone Receiver	NT6X92BB		2	05,19	15	AP
CPP Message Protocol CP	NT6X69AB		2	05,19	18	AP
Channel Supv. Message CP	NT6X42AA		2	05,19	20	AP
Speech Bus Formatter	NT6X41AA		2	05,19	21	AP
DS30 Network Interface CP	NT6X40AC		2	05,19	22	AP
Power Converter	NT2X70AE		2	05,19	25	AP
Designation Strip	P0706012		2	05,19		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) This packfill is no longer used. It is replaced by NTNX33ND or XPM plus.

RULES:

AP 1) When PEC NTN33LA is ordered, these items are provided.

MERIDIAN CABINET TRUNK MODULE
UPPER MODULE COMMON CP

PEC CODE: NTNX33LB

CPC CODE: B0227068

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: LTC/DTC/LGC

ENGINEERING DESCRIPTION: The NTNX33LB is the common circuit pack fill to equip the upper two shelves (one module) of the MCTM cabinet. This module may be configured as LTC, DTC or LGC.

REFERENCE DOCUMENTATION: SLNX33LB

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: NTI: Joe Bragg Dept. 6457 (RNS)

NTNX33LB EMR10-02-LGC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 23 95 05 17	ECM 445 05 ECM 445 19	ATTACH THIS SECTION TO ECM445 MD the NTNX33AA and packfills per ECD002-15973 and ECD002-16039.

The Meridian Cabinet Trunk Module Upper Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC/DTC Processor CP	NT6X45BA		4	33,47	8,12	AP
Filler Face Plate	NT0X50AA		10	33,47	9,13, 17,19, 23,24	AP
Master Processor Memory CP	NT6X47AB		2	33,47	10	AP
Signal Processor Memory CP	NT6X46BA		2	33,47	11	AP
Time Switch CP	NT6X44AB		2	33,47	14	AP
Universal Tone Receiver	NT6X92BB		2	33,47	15	AP
CPP Message Protocol CP	NT6X69AB		2	33,47	18	AP
Channel Supv. Message CP	NT6X42AA		2	33,47	20	AP
Speech Bus Formatter	NT6X41AA		2	33,47	21	AP
DS30 Network Interface CP	NT6X40AC		2	33,47	22	AP
Power Converter	NT2X70AE		2	33,47	25	AP
Designation Strip	P0706012		2	33,47		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) This packfill is no longer used. It is replaced by NTNX33NE or XPM plus.

RULES:

Retired Equipment
Meridian Cabinet Trunk Module
Upper Module Common CP

NTNX33LB
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AP 1) When PEC NTN33LB is ordered, these items are provided.

MERIDIAN CABINET TRUNK MODULE
(MCTM)

PEC CODE: NTNX33AA

CPC CODE: B0225321

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTNX33CA

ABBREVIATION NAME: MCTM

ENGINEERING DESCRIPTION: The MCTM is a general purpose common peripheral controller equipment frame which houses Line Group Controller (LGC), Line Trunk Controller (LTC) and/or Digital Trunk Controller (DTC) equipment. The MCTM bay is comprised of one or two modules. The lower 2-shelf module is mounted on shelves 5 & 19 and the upper 2-shelf module is mounted on shelves 33 & 47. Either module may be configured as LTC, DTC or LGC.

REFERENCE DOCUMENTATION: MSNX33AA 00 09

MARKETS: Applicable markets:

US

ISSUE AUTHOR: Peter Szczesniak Dept. 2D69 (RCH)

MAIN CONTACT: Peter Szczesniak Dept. 2D69 (RCH)

NTNX33AA EMR10-02-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 23	ECM 445 05	ADD XPM PLUS AND FIBER CARDS
93 11 30	ECM 445 07	ADD NT6X02UF AND NT6X69LB
94 04 05	ECM 445 09	ADD NT6X78AB CLASS Modem Resource
94 04 14	ECM 445 10	Correct NT6X02XD kit to NT6X02XA.
94 11 30	ECM 445 13	ADD XPM+ paddlecard kit, NT6X02XG
95 01 12	ECM 445 15	Remove old XPM+ upgrade kits.
95 05 17	ECM 445 19	MD the NTNX33AA and packfills per ECD002-15973 and ECD002-16039.
97 06 02	ECM 445 33	Add NTMX76AB, replace NT6X92BB with NT6X92EA, NT6X62AA with NT6X62AB, & NT6X40FA with NT6X40FB. Showed that Packfills have been MD'd per ECD 101-00214.

The Meridian Cabinet Trunk Module (MCTM) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34DA	FSP	1	60		AP
# CPCE Pack Fill	NTNX33LB	CPC1		33		RUL1
CPCE Pack Fill	NTNX330A	CPC1		33		RUL1
Shelf Filler Kit	NT6X02AB			33		RUL11
CPCE Shelf Assembly	NT6X0201		1	47		AP
DS1 I/F Circuit Pack	NT6X50AA			47	1-5	RUL2
DS1 I/F Circuit Pack for EFF	NT6X50AB			47	1-5	RUL2
DTC CII/CMI Interface CP	NT6X55JA			47	1-5	RUL2
DS30A I/F Circuit Pack	NT6X48AA			47	6-7	RUL3
Continuity Tone Detector	NT6X70AA			47	13	RUL10
CLASS Modem Resource CP	NT6X78AB			47	13	RUL19
# Universal Tone Receiver	NT6X92BB			47	16	RUL4
Global Tone Receiver	NT6X92EA			47	16	RUL4
Universal Tone Receiver	NT6X92CA			47	15, 16	RUL4
# Special Tone Receiver	NT6X62AA			47	16	RUL9
Special Tone Receiver	NT6X62AB			47	16	RUL9
CPP Msg Protocol CP	NT6X69AC			47	18	RUL17
Msg & HDLC Signal Proc	NTMX76AB			47	18	RUL17
@ Msg Prot & Download Tones CP	NT6X69LB			47	18	RUL18
# DS-512 Link Cont. CP	NT6X40FA			47	22	RUL14
DS-512 Link Cont. CP	NT6X40FB			47	22	RUL14
DS-512 Link Cont. PB	NT6X40GA			47	22R	RUL14
Filler Face Plate	NT0X50AA			47	16	RUL5
CPCE Shelf Assembly	NT6X0201		1	33		AP
DS1 I/F Circuit Pack	NT6X50AA			33	1-5	RUL2
DS1 I/F Circuit Pack for EFF	NT6X50AB			33	1-5	RUL2
DTC CII/CMI Interface CP	NT6X55JA			33	1-5	RUL2
DS30A I/F Circuit Pack	NT6X48AA			33	6-7	RUL3
XPM Plus packfill change kit	NT6X02XG			33, 47	12	RUL15
Continuity Tone Detector	NT6X70AA			33	13	RUL10
CLASS Modem Resource CP	NT6X78AB			33	13	RUL19
# Universal Tone Receiver	NT6X92BB			33	16	RUL4
Global Tone Receiver	NT6X92EA			33	16	RUL4
Universal Tone Receiver	NT6X92CA			33	15, 16	RUL4
# Special Tone Receiver	NT6X62AA			33	16	RUL9
Special Tone Receiver	NT6X62AB			33	16	RUL9
CPP Msg Protocol CP	NT6X69AC			33	18	RUL17
@ Msg Prot & Download Tones CP	NT6X69LB			33	18	RUL18
Msg & HDLC Signal Proc	NTMX76AB			33	18	RUL17
# DS-512 Link Cont. CP	NT6X40FA			33	22	RUL14
DS-512 Link Cont. CP	NT6X40FB			33	22	RUL14

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Meridian Cabinet Trunk Module
(MCTM)

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS-512 Link Cont. PB	NT6X40GA			33	22R	RUL14
Filler Face Plate	NT0X50AA			33	16	RUL5
# CPCE Pack Fill	NTNX33LA	CPC0		05		RUL1
CPCE Pack Fill	NTNX330A	CPC0		05		RUL1
CPCE Shelf Assembly	NT6X0201		1	19		AP
DS1 I/F Circuit Pack	NT6X50AA			19	1-5	RUL2
DS1 I/F Circuit Pack for EFF	NT6X50AB			19	1-5	RUL2
DTC CII/CMI Interface CP	NT6X55JA			19	1-5	RUL2
DS30A I/F Circuit Pack	NT6X48AA			19	6-7	RUL3
Continuity Tone Detector	NT6X70AA			19	13	RUL10
CLASS Modem Resource CP	NT6X78AB			19	13	RUL19
# Universal Tone Receiver	NT6X92BB			19	16	RUL4
Global Tone Receiver	NT6X92EA			19	16	RUL4
Universal Tone Receiver	NT6X92CA			19	15,16	RUL4
# Special Tone Receiver	NT6X62AA			19	16	RUL9
Special Tone Receiver	NT6X62AB			19	16	RUL9
CPP Msg Protocol CP	NT6X69AC			19	18	RUL17
Msg & HDLC Signal Proc	NTMX76AB			19	18	RUL17
@ Msg Prot & Download Tones CP	NT6X69LB			19	18	RUL18
# DS-512 Link Cont. CP	NT6X40FA			19	22	RUL14
DS-512 Link Cont. CP	NT6X40FB			19	22	RUL14
DS-512 Link Cont. PB	NT6X40GA			19	22R	RUL14
Filler Face Plate	NT0X50AA			19	1-7	RUL5
CPCE Shelf Assembly	NT6X0201		1	05		AP
DS1 I/F Circuit Pack	NT6X50AA			05	1-5	RUL2
DS1 I/F Circuit Pack for EFF	NT6X50AB			05	1-5	RUL2
DTC CII/CMI Interface CP	NT6X55JA			05	1-5	RUL2
DS30A I/F Circuit Pack	NT6X48AA			05	6-7	RUL3
XPM Plus packfill change kit	NT6X02XG			05,19	12	RUL15
Continuity Tone Detector	NT6X70AA			05	13	RUL10
CLASS Modem Resource CP	NT6X78AB			05	13	RUL19
# Universal Tone Receiver	NT6X92BB			05	16	RUL4
Global Tone Receiver	NT6X92EA			05	16	RUL4
Universal Tone Receiver	NT6X92CA			05	15,16	RUL4
# Special Tone Receiver	NT6X62AA			05	16	RUL9
Special Tone Receiver	NT6X62AB			05	16	RUL9
CPP Msg Protocol CP	NT6X69AC			05	18	RUL17
@ Msg Prot & Download Tones CP	NT6X69LB			05	18	RUL18
Msg & HDLC Signal Proc	NTMX76AB			05	18	RUL17
# DS-512 Link Cont. CP	NT6X40FA			05	22	RUL14
# DS-512 Link Cont. CP	NT6X40FB			05	22	RUL14
DS-512 Link Cont. PB	NT6X40GA			05	22R	RUL14
Filler Face Plate	NT0X50AA			05	1-7	RUL5

Retired Equipment
Meridian Cabinet Trunk Module
(MCTM)

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cooling Unit	NTNX27CA	CU	1	00		AP
Common Framework	NTNX25AA	FW	1			AP
DS-512 Fiber Interface hardware kit, per cabinet	NTNX33SD					RUL13
Universal kit	NT6X02UF			05, 33		RUL16
Right Door Assembly-Grey	NTNX2513					RUL6
Left Door Assembly-Grey	NTNX2515					RUL6
Cabinet Type Label (Grey)	P0687618					RUL7
Left Door Label (Grey)	P0818848					RUL7
Right Door Label (Grey)	P0699158					RUL7
Right Door Assembly-Brown	NTNX2552					RUL6
Left Door Assembly-Brown	NTNX2550					RUL6
Cabinet Type Label (Brown)	P0699471					RUL7
Left Door Label (Brown)	P0818849					RUL7
Right Door Label (Brown)	P0695230					RUL7
Anchor Kit (Earthquake Slab)	NTNX2540					RUL8
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL8
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL8
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL8
Desig. Label (NT6X40FB)	P0854870					RUL14
Desig. Label (NT6X48AA)	P0626877					RUL3
Desig. Label (NT6X50AA)	P0626878					RUL2
Desig. Label (NT6X50AB)	P0690976					RUL2
Desig. Label (NT6X62AA)	P0657659					RUL9
Desig. Label (NT6X62AB)	P0745934					RUL9
Desig. Label (NT6X70AA)	P0628358					RUL10
Desig. Label (NT6X92BB)	P0686332					RUL4
Desig. Label (NT6X92EA)	P0871713					RUL4
Desig. Label (NT6X92CA)	P0677831					RUL4
Desig. Label (NT0X50AA)	P0578498					RUL5
Desig. Label (NTMX76AB)	P0871709					RUL17

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT6X92BB	MD	NT6X92EA
NTNX33LA	MD	NONE
NTNX33LB	MD	NONE
NTNX33LC	MD	NONE
NTNX33LD	MD	NONE
NTNX33PA	MD	NONE
NTNX33PC	MD	NONE
NT6X62AA	MD	NT6X62AB
NT6X40FA	STD	NT6X40FB

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MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The MCTM must be in the same aisle as the serving network.
- 2) Each equipped controller requires direct cabling to sixteen network ports. Only six controllers may be assigned to networks 00 and 01 (aisle A).
- 3) Aisles that house networks 02 & 03, 04 & 05, 06 & 07 and 08 & 09 must have space for four MCTM cabinets to maximize network port usage.

In a lineup with 1 MCNM/2 networks, only six control modules can be served by it if other peripherals (PTM, STM) must also be served by that MCNM/2 networks.

If no PTM/STM are to be served by that MCNM/2 networks, all eight control modules on four MCTM can be served by it.

One MCNM/2 networks has a maximum of 128 network ports.

- 4) ENI and ENET both refer to Enhanced Networks (ENET).
- @) These circuit packs are for international applications.

RULES:

- AP 1) When PEC NTN33AA is ordered, these items are provided.
- RUL1 1) Pack Fill NTN33LA mounts on shelves 05 and 19. (The two shelves are pack filled identically.)
- Pack Fill NTN33LB mounts on shelves 33 and 47. (The two shelves are pack filled identically.)
- Pack Fill NTN330A mounts on shelves 05,19 or 33,47 when PCM-24 is required for international systems. (The dual shelves are pack filled identically.)
- RUL2 1) NT6X50AA/NT6X50AB/NT6X55JA Circuit Packs are assigned in selected slots. First in the lower of the two shelves of the module and next in the upper of the two shelves, then the lower, then the upper etc. From the highest numbered slot (5) toward the lowest numbered slot (1). When slots 1-5 of any shelf is unequipped, provide Filler Face Plate NT0X50AA and designation label.
- 2) Digital Trunk Controller (DTC):
For DTC application, provide a maximum of ten NT6X50AA DS1 Interface Circuit Packs and Designation Label P0626878 in slots 1-5, both shelves of DTC. Provide NT6X50AB instead of NT6X50AA if Extended Frame Format (EFF) is required.
For DTC application when interfacing to Japan's NTT-NCCI#7, provide a maximum of ten NT6X55JA DTC CII/CMI Interface Circuit Packs in slots 1-5, both shelves of DTC.
- 3) Line Group Controller (LGC):
For LGC application, provide NT6X50AA DS1 Interface Circuit Packs and Designation Label P0626878 as required, in slots 1-5, both shelves of LGC to interface remote line equipment via DS1 spans. Provide NT6X50AB instead of NT6X50AA if Extended Frame Format (EFF) is required.
- 4) Line Trunk Controller (LTC):
For LTC application, first provide the DS30A Circuit Packs (RUL3) and assign links (0-19) to host line equipment. Second, provide the DS1 Interface Circuit Packs NT6X50AA

for digital trunks. Provide NT6X50AB instead of NT6X50AA if Extended Frame Format (EFF) is required.

- 5) One NT6X50AA/AB DS1 Interface Circuit Pack provides two DS1 ports or spans.

One NT6X55JA provides one CII span for communication and one CMI for monitor purposes.

The DS1 ports/spans are assigned in the following sequential order: 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19.

CII ports are all the even numbered peripheral ports and are assigned in the following order: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18.

CPA 0 LOWER SHELF 05/33		CPA 1 UPPER SHELF 19/47	
CP POS.	PORT#	CP POS.	PORT#
05	0	05	2
04	4	05	6
03	8	05	10
02	12	05	14
01	16	05	18

- 6) When NT6X50AA or NT6X50AB DS1 port CPs are provisioned on the same shelf with NT6X55JA CII port CPs, the CII port will be routed to the DSX panel since all ports on any one shelf position are in one connector on the bulkhead. The maximum length of cable used for the CII port must not exceed 300 feet.

RUL3 1) NT6X48AA DS30A Interface Circuit Pack Provisioning:

Digital Trunk Controller (DTC):

For DTC application, NT6X48AA DS30A Circuit Packs are not provisioned. Provide NT0X50AA Filler Face Plate and Designation Label P0578498 in slots 6 & 7 of both shelves of the DTC.

Line Group Controller (LGC):

For LGC application, first provide two pair NT6X48AA and Designation Label P0626877 in slots 6 & 7 of both shelves for DS30A links to host line equipment and assign DS30A

links. Second, the DS1 Interface Circuit Packs and Designation Labels (RUL2) are provided in slots 1-5 as required for DS1 interface to remote line equipment.

Line Trunk Controller (LTC):

For LTC application, first provide the DS30A Circuit Packs NT6X48AA and Designation Labels P0626877 to slots 6 & 7, both shelves of the LTC and assign links (0-19) to host line equipment. The DS1 Interface Circuit Packs are provided in slots 1-5 as required for DS1 interface to digital trunks.

The DS30A ports are assigned in the following sequential order: 19,17,18,16,15,13,14,12,11,9,10,8,7,5,6,4,3,1,2,0.

RUL4 1) NT6X92EA UTR is a combined service circuit that can perform the function of digitone receiver for lines and the MF receiver for trunks. One pair of NT6X92EA provides up to thirty circuits.

2) The UTR is assignable to slot 16 in the shelf. One member of the UTR pair is assigned to the lower shelf in the module and it's mate is assigned to slot 16 in the upper shelf of the same module.

3) UTR cards located in a particular DTC/LTC/LGC module will service all lines and trunks connected to that module including lines in ELMS and MCRUS (remotes).

4) The NT6X92CA UTR is used for international systems and has the same functionality as the NT6X92EA UTR.

The NT6X92CA UTR is assignable to slots 15 and 16 in the shelf. One member of the UTR pair is assigned to the lower shelf in the module and it's mate is assigned to slot 15 and 16 in the upper shelf of the same module.

RUL5 1) Provide Filler Face Plate NT0X50AA and Designation Label P0578498 in slots 1-7 and slot 16 when unequipped.

RUL6 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).

RUL7 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet.

2) Provide one left door label (grey or brown) per cabinet.

3) Provide one right door label (grey or brown) per cabinet.

- RUL8 1) Provide one Earthquake Mounting Kit when installing frame in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTNX2540 kit for slab type flooring or NTNX2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring.

- RUL9 1) NT6X62AB Special Tone Receiver (STR) provides call re-origination capabilities by scanning the DTC trunks in that control for special tones provided by the octothorpe (*) or pound (#) symbol.

The STR is assignable to slot 16 in the shelf. One member of the STR pair is assigned to the lower shelf in the module and it's mate is assigned to slot 16 in the upper shelf of the same module.

- 2) This CP is not provisionable for the NTNX330A CP fill.

- RUL10 1) Provide two (2) NT6X70AA Continuity Tone Detector (CTD) to handle CCS voice trunking for each DTC/LTC in which it is located.

The CTD is assignable to slot 13 in the NTNX33LA and NTNX33LB CP fills on shelves 05,19 and 33,47 respectively. One member of the CTD pair is assigned to the lower shelf in the module and it's mate is assigned to slot 13 in the upper shelf of the same module.

- 2) This CP is not provisionable for the NTNX330A CP fill.

- RUL11 1) Provide NT6X02AB Shelf Filler Kit when shelf 33,47 is not provided with a packfill.

- RUL12 1) Reserved

- RUL13 1) Provide one kit per cabinet to convert bulkhead for DS-512 fiber interface to the Enhanced Network (ENET) or the ENI module of the SNSE. The associated circuit packs are the NT6X40FA and NT6X40GA. a special cover plate, P0738373 is provided in the kit and will be placed on the bulkhead at 0P7 and 1P7 to route the fiber cable. This kit is used to convert existing cabinets in the field to fiber interface.

The cabling kits that have been created are limited, at this, time to provisioning a complete cabinet, i.e. both modules, or four shelves. Until new kits are provided on a "per

module basis", you will need to order the local cables individually. The following is a break down of the cables to assist in correct provisioning:

NTNX33SD DS-512 FIBER INTERFACE KIT

RULE: Provision for DS-512 interface to ENET

1 KIT PROVIDES:

(2) P0738373 COVER PLATE (has fiber port holes)

(2) NT6X02BU FIBER HARDWARE

RUL14 1) Provide two (2) NT6X40FB, DS512 XPM Interface CP, and two (2) NT6X40GA, DS512 Link Paddle Board, for each DTC/LGC/LTC module requiring a fiber interface to ENET. Mount the circuit packs in slot 22 and 22R respectively, of the upper and lower shelves of the peripheral module.

2) Do not mix the NT6X40CA Network Interface pack and the NT6X40GA Paddle Board on the same module. In addition, do not mix the NT6X40FB Network Interface pack and the NT6X40DA Paddle Board on the same module.

RUL15 1) Provide one (1) XPM Plus paddlec card upgrade kit NT6X02XG per module for the XPM PLUS upgrade on shelves 05 and 33 when it is required by job engineering. In addition, see product change document PC6X02XG for associated filler face plates and XPM PLUS paddlec cards.

RUL16 1) Provide two (2) NT6X02UF Universal fiber XPM kits and one (1) NTNX33SD DS-512 Fiber Interface hardware kit per cabinet when the controller is converted to DS-512 fiber interface to the ENET. These are provided for field upgrades of existing product.

RUL17 1) Provide two (2) NT6X69AC Message protocol cards for domestic systems using North American tones. 2) Provide the NTMX76AB that will provide Ext. Dist. Cap. Tone & Msg. when the Sonet Remote is to be placed more than 150 miles away from the host, up to 500 miles. A min S/W load of MSL04 is required.

RUL18 1) Provide two (2) NT6X69LB Message Protocol & Downloadable Tones CP for international applications with ENET.

- RUL19 1) Provide two (2) NT6X78AB, CLASS Modem Resource CP, for each LGC/LTC module that is handling CLASS-Calling Number Display. Mount circuit packs in slot 13 of the upper and lower shelves of the peripheral modules.
- 2) The source document for the CLASS document is ECM 332. Refer to that document before completing a job using CLASS.

MCLM-ISDN COMMON CP (LOWER MODULE)

PEC CODE: NTNX38NC

CPC CODE: B0230765

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: MCLM-ISDN

ENGINEERING DESCRIPTION: The MCLM-ISDN Common CP provides ckt packs for ISDN applications in the lower two shelves of the MCLM-ISDN cabinet. The LCMI, when equipped, can accomodate up to 384 line cards in eight line drawers.

REFERENCE DOCUMENTATION: SLNX38NC 00 03

MARKETS: Applicable markets:
US

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX38NC EMR10-03-MCLM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 15	----- ECM 461 02	Previous history not available MD the MCLMI and pack fills per ECD002-15529 and ECD002-16146.

The MCLM-ISDN Common CP (Lower Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISDN Line Drawer	NTBX32AA		8	05,19		AP
Fuse Panel	NTBX3112		2	05,19	17	AP
LCMI Digroup Control CP	NTBX35AA		2	05,19	19	AP
LCMI Digroup Control CP	NTBX35AA		2	05,19	20	AP
LCMI Processor CP	NTBX34AB		2	05,19	21	AP
Power Coverter	NT6X53EA		2	05,19	22	AP
Power Converter	NT6X53BA		2	05,19	25	AP
Designation Strip	P0697031		2	05,19		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) ISDN line drawers NTBX32AA are numbered from left to right as seen from the front.
- 2) ISDN line drawer NTBX32AA is divided into three line sub-groups having 16 slots each.
- 3) The Line Sub Groups are numbered as follows:

Frame Shelf Pos.	Line Drawer	Line Sub Group (LSG)
05	0	00, 01, 02
05	1	03, 04, 05

05	2	06, 07, 08
05	3	09, 10, 11
19	4	12, 13, 14
19	5	15, 16, 17
19	6	18, 19, 20
19	7	21, 22, 23

RULES:

AP 1) When PEC NTN38NC is ordered, these items are provided.

MCLM-ISDN COMMON CP (UPPER MODULE)

PEC CODE: NTNX38ND

CPC CODE: B0230765

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: MCLM-ISDN

ENGINEERING DESCRIPTION: The MCLM-ISDN Common CP provides ckt packs for ISDN applications in the upper two shelves of the MCLM-ISDN cabinet. The LCMI, when equipped, can accomodate up to 384 line cards in eight line drawers.

REFERENCE DOCUMENTATION: SLNX38ND 00 02

MARKETS: Applicable markets:
US

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX38ND EMR10-03-MCLM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 15	----- ECM 461 02	Previous history not available MD the MCLMI and pack fills per ECD002-15529 and ECD002-16146.

The MCLM-ISDN Common CP (Upper Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISDN Line Drawer	NTBX32AA		8	33,47		AP
Fuse Panel	NTBX3112		2	33,47	17	AP
LCMI Digroup Control CP	NTBX35AA		2	33,47	19	AP
LCMI Digroup Control CP	NTBX35AA		2	33,47	20	AP
LCMI Processor CP	NTBX34AB		2	33,47	21	AP
Power Coverter	NT6X53EA		2	33,47	22	AP
Power Converter	NT6X53BA		2	33,47	25	AP
Designation Strip	P0697031		2	33,47		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) ISDN line drawers NTBX32AA are numbered from left to right as seen from the front.
- 2) ISDN line drawer NTBX32AA is divided into three line sub-groups having 16 slots each.
- 3) The Line Sub Groups are numbered as follows:

Frame Shelf Pos.	Line Drawer	Line Sub Group (LSG)
33	0	00, 01, 02
33	1	03, 04, 05

33	2	06, 07, 08
33	3	09, 10, 11
47	4	12, 13, 14
47	5	15, 16, 17
47	6	18, 19, 20
47	7	21, 22, 23

RULES:

AP 1) When PEC NTN38ND is ordered, these items are provided.

MERIDIAN CABINET LINE MODULE - ISDN

PEC CODE: NTNX38BA

CPC CODE: B0228577

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTNX38CA

ABBREVIATION NAME: MCLM-ISDN

ENGINEERING DESCRIPTION: The Meridian Cabinet Line Module - ISDN (MCLM-ISDN) is a cabinet which houses two dual shelf LCMI modules. Each module houses eight line drawers each of which can support forty-eight line cards, 384 slots/LCMI and 768 slots MCLM-ISDN.

The primary function of the MCLM-ISDN is to support ISDN line cards; however, standard line cards are also supported.

REFERENCE DOCUMENTATION: SLNX38BA 00 06

MARKETS: Applicable markets:
US

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX38BA EMR10-03-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 15	----- ECM 461 02	Previous history not available MD the MCLMI and pack fills per ECD002-15529 and ECD002-16146. Make changes in response to ET24689.
95 06 27	ECM 461 03	

The Meridian Cabinet Line Module - ISDN is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supv Panel	NTNX26LA	FSP	1	60		AP
Ringing Generator	NT6X30AA		2	60	01,13	RUL9
ISDN Line Con Array Shf Assy	NTNX3826	LCAI	2	47,33		AP
MCLM-ISDN Common CP	NTNX38ND	LCMI		47,33		RUL1
ISDN Line Con Array Shf Assy	NTNX3826	LCAI	2	19,05		AP
MCLM-ISDN Common CP	NTNX38NC	LCMI		19,05		RUL1
Cooling Unit	NTNX27DA	CU	1	00		AP
Meridian Cabinet Assy	NTNX25AA	FW	1			AP
Drawer Identification Labels	P0690495					RUL2
Miscellaneous Line Cards						RUL3
Right Door Assembly-Gray	NTNX2513					RUL4
Left Door Assembly-Gray	NTNX2515					RUL4
Cabinet Type Label-Gray	P0687614					RUL5
Right Door Label-Gray	P0699158					RUL6
Left Door Label-Gray	P0677704					RUL6
Right Door Assembly-Brown	NTNX2552					RUL4
Left Door Assembly-Brown	NTNX2550					RUL4
Cabinet Type Label-Brown	P0699473					RUL5
Right Door Label-Brown	P0695230					RUL6
Left Door Label-Brown	P0699464					RUL6
Anchor Kit Earthquake-Slab	NTNX2540					RUL7
Anchor Kit Earthquake-Comp	NTNX2578					RUL7
Anchor Kit Non-E/Q-Slab	NTNX2579					RUL8
Anchor Kit Non-E/Q-Comp	NTNX2580					RUL8

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One LCMI module is composed of two (2) shelves. MCLM-ISDN can have up to two LCMIs. One LCMI occupies shelf positions 05 and 19 while the other is at positions 33 and 47. The two (2) bare shelf assemblies become an LCMI when they are equipped with an LCMI Common Cp. The shelf assembly then becomes an ISDN Line Card Array Shelf (LCAI) that can house up to four (4) ISDN line drawers. Within each LCMI, the LCAI is LCAI0 and the upper LCAI is LCAI1.
- 2) The always provided Frame Supervisory Panel NTNX26LA always contains two FSP Alarm CP NT6X36AA.
- 3) Maximum of eight (8) MCLM-ISDN in a lineup with MCAM as first cabinet in lineup.
- 4) MCLM-ISDN must be within 45 cable feet of serving MCTM cabinet.
- 5) MCLM-ISDN does not require direct cabling to network.
- 6) In an office equipped with both standard MCLM NTNX38AA and MCLM-ISDN NTNX38BA, all MCLM/LCM must be uniquely numbered (ie; LCM 01 and LCMI 01 cannot co-exist).
- 7) The NT6X30AA Ringing Generator contains the following always provided circuit packs:

NT6X37AA Ringing Amplifier CP
NT6X38AA Ringing Control CP

RULES:

- AP 1) When PEC NTN38BA is ordered, these items are provided.
- RUL1 1) Provide one NTN38NC per frame. This pack-fill will provide one LCMI module on the lower two shelves of the cabinet. This Common CP includes eight (8) "AMI" (Alternate Mark Inversion) ISDN line drawers.
- 2) Provide one NTN38ND per frame. This pack-fill will provide one LCMI module on the upper two shelves of the cabinet. This Common CP includes eight (8) "AMI" ISDN line drawers.
- RUL2 1) Provide one (1) P0690495 Line Sub Group Identification Label set per MCLM-ISDN cabinet. Each of this item contains two sets of labels for Line Sub Groups 00-23 housed in eight line drawers in each LCMI.
- RUL3 1) The following line cards may be assigned to the ISDN line drawer:

DESCRIPTION	PEC	SLOTS
ISDN 'U' Interface Line Card	NTBX25AB	2
ISDN 'S/T' Interface Card	NTBX26AA	2
Data Line Card	NT6X71AB	2
Business set Line Card	NT6X21AC	1
POTS Line Card	(various) *	1
IBERT	NT6X99AA	2

* Refer to Engineering Manual section EMA14-03-000, Table C, for a complete list of POTS Line Cards.

- 2) ISDN line cards may not be mixed in the same line subgroup (LSG). ISDN, business set and data type line cards can be mixed within the same sub-group as required. Refer to ECM 418 Integrated Services Digital Network (ISDN).
- 3) Refer to Engineering Manual section EMA2-19-LD-1 for complete information on the ISDN line drawer NTB32AA.
- RUL4 1) Provide 2 door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
- RUL5 1) Provide 2 cabinet type labels, one set for front, one set for rear of cabinet.

RUL6 1) Provide 2 door labels (2 left and 2 right, one set for front and one set for rear of cabinet).

RUL7 1) Provide one (1) earthquake mounting kit when installing cabinet in the following earthquake zones:

ATC	Zone 6
NEBS	Zone 4
UBC	Zone 4

RUL8 1) Provide one (1) frame anchor kit when installing frame in a non-earthquake zone.

Provide NTNX2579 anchor kit for slab flooring. Provide NTNX2580 anchor kit for computer type flooring.

RUL9 1) Provide 2 Ringing Generators (NT6X30AA) if any line cards are provided to the frame.

MERIDIAN CABINET DIGITAL MODULE FRAME

PEC CODE: NTNX50AA

CPC CODE: B0225319

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTND03AA

ABBREVIATION NAME: MCDM

ENGINEERING DESCRIPTION: The Meridian Cabinet Digital Module Frame is a cabinetized DMS frame which houses four single shelf DLM modules. A fully equipped MCDM frame supports 640 IVD digital telephone sets (16 digital telephones per Digital Port card X 10 Digital Port cards per DLM X 4 DLM's per MCDM). In the MSL100, the MCDM will support all the feature sets and the data terminals, in contrast to the MCLM which are intended to support analog sets only.

REFERENCE DOCUMENTATION: MSNX50AA 00 07

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NTNX50AA EMR10-04-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 24	----- ECM 283 06	Previous history not available MD the NTNX50AA, NT7X50AA, NT7X50BA and associated PECs per ECD002-16225, 16134,16146,16128,15963,15813 and 16188.

The Meridian Cabinet Digital Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MCDM Frame Supervisory Panel	NT7X34EB	FSP	1	60		AP
DLM Common CP	NT7X50EA			47		RUL1
DLM Common CP	NT7X50EB			47		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	47		AP
Enhanced Digital Port Card	NT8X47BA			47	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			47	7-11, 15-19	RUL3
Desig. Label (NT8X47BA)	P0689233			47	7-11, 15-19	RUL4
Desig. Label (NT0X50AA)	P0578498			47	7-11, 15-19	RUL4
DLM Common CP	NT7X50EA			33		RUL1
DLM Common CP	NT7X50EB			33		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	33		AP
Enhanced Digital Port Card	NT8X47BA			33	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			33	7-11, 15-19	RUL3
Desig. Label (NT8X47BA)	P0689233			33	7-11, 15-19	RUL4
Desig. Label (NT0X50AA)	P0578498			33	7-11, 15-19	RUL4
DLM Common CP	NT7X50EA			19		RUL1
DLM Common CP	NT7X50EB			19		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	19		AP
Enhanced Digital Port Card	NT8X47BA			19	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			19	7-11, 15-19	RUL3
Desig. Label (NT8X47BA)	P0689233			19	7-11, 15-19	RUL4
Desig. Label (NT0X50AA)	P0578498			19	7-11, 15-19	RUL4
DLM Common CP	NT7X50EA			05		RUL1
DLM Common CP	NT7X50EB			05		RUL1
Digital Line Mod Shf Assy	NT7X4901		1	05		AP

Retired Equipment
Meridian Cabinet Digital Module Frame

NTNX50AA
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Enhanced Digital Port Card	NT8X47BA			05	7-11, 15-19	RUL2
Filler Face Plate 0.875	NT0X50AA			05	7-11, 15-19	RUL4
Desig. Label (NT8X47BA)	P0689233			05	7-11, 15-19	RUL4
Desig. Label (NT0X50AA)	P0578498			05	7-11, 15-19	RUL4
Cooling Unit	NTNX27CA		1	01		AP
Meridian Cabinet Frame. Assy	NTNX25AA		1			AP
Anchor Mounting Kit (Earthquake Slab)	NTNX2540					RUL5
Anchor Mounting Kit (Earthquake Computer Flr)	NTNX2578					RUL5
Anchor Mounting Kit (Non-Earthquake Slab)	NTNX2579					RUL6
Anchor Mounting Kit (Non-Earthquake Comp Flr)	NTNX2580					RUL6
Door Assembly Left (Brown)	NTNX2550					RUL7
Door Assembly Right (Brown)	NTNX2552					RUL7
Door Assembly Left (Grey)	NTNX2515					RUL7
Door Assembly Right (Grey)	NTNX2513					RUL7
Door Label Left (Brown)	P0699464					RUL8
Door Label Right (Brown)	P0695230					RUL8
Door Label Left (Grey)	P0677704					RUL8
Door Label Right (Grey)	P0699158					RUL8
Cabinet Type Label (Brown)	P0699655					RUL9
Cabinet Type Label (Grey)	P0687610					RUL9
End Pnl Assy Left (Brown)	NTNX2553					RUL10
End Pnl Assy Right (Brown)	NTNX2546					RUL10
End Pnl Assy Left (Grey)	NTNX2518					RUL10
End Pnl Assy Right (Grey)	NTNX2517					RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTNX50AA is a cabinetized single bay frame which can be equipped with up to four (4) independent Digital Line Modules.
- 2) One DLM module is composed of one (1) shelf. Each MCDM frame can have up to four (4) DLM's. The first DLM is on shelf mounting position 05, the second DLM is on shelf mounting position 19, the third DLM is on shelf mounting position 33, and the fourth DLM is on shelf mounting position 47. The bare shelf assembly (NT7X4901) does not become a DLM until it is equipped with one DLM Common CP, NT7X50EA. Then the shelf assembly becomes a DLM that can house up to ten (10) Enhanced Digital Port cards, NT8X47BA.

One DLM module has two (2) logical units, unit 0 and unit 1. Unit 0 is on the left hand side of the shelf. Unit 1 is on the right hand side of the shelf (as viewed from the front of the shelf). The part of the DLM Common CP associated with unit 0 are the cards in circuit pack positions 1,3,4,5, and 6. The part of the DLM Common CP associated with unit 1 are the cards in circuit pack positions 20,21,22,23, and 24.

Unit 0 of the DLM module controls Enhanced Digital Port cards, NT8X47BA, mounted in slots 7,9,11,16, and 18. Unit 1 of the DLM module controls Enhanced Digital Port cards, NT8X47BA, mounted in slots 8,10,15,17 and 19.

- 3) One MCDM Frame Supervisory Panel, NT7X34EB, always contains one FSP Alarm CP, NT6X36AB.
- 4) One (1) Cooling Unit, NTNX27CA, always contains one Fan Management Unit CP, NTNX13AA.
- 5) The MCDM must be within 45 cable feet of the serving MCTM cabinet.

RULES:

- AP 1) When PEC NTNX50AA is ordered, these items are provided.
- RUL1 1) Provide one(1) NT7X50EA, DLM Common CP, for each DLM module equipped in the MCDM frame.
- 2) Provide one (1) NT7X50EB, DLM Common CP, for each DLM module equipped in the MCDM cabinet. This Common CP contains the NT8X49AC CP for Meridian Telecenter, Meridian Modular Sets (ARIES), and all non-ARIES digital sets.
- RUL2 1) Provide up to ten (10) NT8X47BA, Enhanced Digital Port cards, as required, for each DLM module equipped in the MCDM frame.
- 2) One card is required for every sixteen (16) IVD digital telephone sets.
- 3) Provide these cards in the following circuit pack position sequence: 7, 19, 8, 18, 9, 17, 10, 16, 11, and 15.
- RUL3 1) Provide one (1) NT0X50AA, Filler Face Plate, for each circuit pack position not equipped with a circuit pack.
- RUL4 1) Provide one (1) per circuit pack provisioned of the appropriate Designation Label. PEC on label should be the same as the PEC of the circuit pack provisioned.
- RUL5 1) For earthquake requirements, when installing the frame on slab type flooring in ATC Zone 6 and 7, NEBS Zone 4, and UBC Zone 4, provide one (1) Anchor Mounting Kit (Earthquake Slab), NTNX2540.
- 2) For earthquake requirements, when installing the frame on computer flooring in ATC Zone 6 and 7, NEBS Zone 4, and UBC Zone 4, provide one (1) Anchor Mounting Kit (Earthquake Computer Floor), NTNX2578.

- RUL6 1) For non-earthquake requirements, when installing the frame on slab type flooring, provide one (1) Anchor Mounting Kit (Non-Earthquake Slab), NTNX2579.
- 2) For non-earthquake requirements, when installing the frame on computer flooring, provide one (1) Anchor Mounting Kit (Non-Earthquake Computer Floor), NTNX2580.
- RUL7 1) For each brown cabinet required, provide two (2) Door Assembly Left (Brown), NTNX2550, and two (2) Door Assembly Right (Brown), NTNX2552.
- 2) For each grey cabinet required, provide two (2) Door Assembly Left (Grey), NTNX2515, and two (2) Door Assembly Right (Grey), NTNX2513.
- RUL8 1) For each brown cabinet required, provide two (2) Door Label Left (Brown), P0699464, and two (2) Door Label Right (Brown), P0695230.
- 2) For each grey cabinet required, provide two (2) Door Label Left (Grey), P0677704, and two (2) Door Label Right (Grey), P0699158.
- RUL9 1) For each brown cabinet required, provide two (2) Cabinet Type Label (Brown), P0699655.
- 2) For each grey cabinet required, provide two (2) Cabinet Type Label (Grey), P0687610.
- RUL10 1) If the brown MCDM cabinet is located at the left end of a line up, provide one (1) End Panel Assembly Left (Brown), NTNX2553, which will be mounted at the left end of the line up.
- 2) If the brown MCDM cabinet is located at the right end of a line up, provide one (1) End Panel Assembly Right (Brown), NTNX2546, which will be mounted at the right end of the line up.
- 3) If the grey MCDM cabinet is located at the left end of a line up, provide one (1) End Panel Assembly Left (Grey), NTNX2518, which will be mounted at the left end of the line up.
- 4) If the grey MCDM cabinet is located at the right end of a line up, provide one (1) End Panel Assembly Right (Grey), NTNX2517, which will be mounted at the right end of the line up.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LA

CPC CODE: B0227063

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LG

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LA STM pack fill provides circuit packs for a one shelf, two STM configuration for miscellaneous service circuits.

REFERENCE DOCUMENTATION: MSNX29LA

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LA EMR10-05-STM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Tone Generator-Call Waiting	NT3X68AC		1	X	05	AP
6 Port Conference Card	NT3X67AA		7	X	06,07, 13-16, 18	AP
MF Receiver Card	NT2X48BA		1	X	08	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
102 Test (Milliwatt)	NT1X00AB		1	X	10	AP
DTMF Receiver Card	NT2X48BB		1	X	11	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AE		1	X	20	AP
Designation Label	P0687827		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 47 or 33.

RULES:

AP 1) When PEC NTN29LA is ordered, these items are provided.

MCSM COMMON PACK FILL

PEC CODE: NTNX29LK

CPC CODE: B0232997

| RATING: MD.

REPLACES: NTNX29LD

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX29LK STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator and 6-port conference circuits.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LK EMR10-05-STM-10 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 05 09	ECM 449 14	Make changes per ECD 002-16210
97 02 19	ECM 449 24	To MD NTNX29LK per ECD 002-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		2	X	03,11	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Audio Tone Detector	NT5X29AB		2	X	05,13	RUL1
Audio Tone Detector	NT5X29AC		2	X	05,13	RUL1
Filler Face Plate	NT0X50AC		4	X	06,07, 14,15	AP
6 Port Conference Card	NT3X67AA		4	X	08,10, 16,18	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AF		1	X	20	AP
Shelf Designation Strip	P0689162		1	X		AP
Designation Label (NT5X29AB)	P0694963		2	X		RUL1
Designation Label (NT5X29AC)	P0654974		2	X		RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE NTNX29LK	MD MD	NT2X70AF None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 05, 19, 33 or 47.
- 2) CODEC Wiring option NTNX29AC is required when NTNX29LK Common CP is provisioned on shelf 05,19,33 or 47.

RULES:

- AP 1) When PEC NTN29LK is ordered, these items are provided.
- RUL1 1) Provide NTN29AB and label (P0694963) to provide tone detection of service observing circuits used by Remote Operator Number Identification (RONI) and Traffic Operator Position System (TOPS).
- 2) Provide NTN29AC and label (P0654974) to provide tone detector for audible ringing, answer and digitone multi-frequency tones.

MCSM COMMON PACK FILL

PEC CODE: NTNX29LL

CPC CODE: B0232997

| RATING: MD.

REPLACES: NTNX29LE

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX29LL STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator circuits.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LL EMR10-05-STM-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 05 09	ECM 449 14	Make changes per ECD 002-16210
97 02 19	ECM 449 24	To MD NTNX29LL per ECD 002-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Audio Tone Detector	NT5X29AB		4	X	5,8,13, 16	AP
Audio Tone Detector	NT5X29AC		4	X	5,8,13, 16	AP
Designation Label (NT5X29AC)	P0654974		4	X		AP
Filler Face Plate	NT0X50AC		10	X	6,7,9-11, 14,15, 17-19	AP
# Power Converter	NT2X70AF		1	X	20	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE NTNX29LL	MD MD	NT2X70AF None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 05, 19, 33 or 47.
- 2) ATD Wiring (NT5X29HK) on STM shelves is required for adding Audio Tone Detectors (ATDs) to slots 8 & 16.

RULES:

AP 1) When PEC NTN29LL is ordered, these items are provided.

MCSM COMMON PACK FILL

PEC CODE: NTNX29LM

CPC CODE: B0232997

| RATING: MD.

REPLACES: NTNX29LF

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX29LM STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator, one DRAM and miscellaneous service circuits.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LM EMR10-05-STM-12 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 05 09	ECM 449 14	Make changes per ECD 002-16210
96 06 03	ECM 449 21	Remove the NT1X75AA/BA and NT1X77AA per ECD002-16663.
97 02 19	ECM 449 24	To MD NTNX29LM per ECD 002-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AA		1	X	19	AP
Filler Face Plate	NT0X50AC		10	X	03,17, 18	AP
102 Test (Milliwatt)	NT1X00AB		1	X	16	AP
Loop Around Test Line	NT2X75AA		1	X	15	AP
MF Receiver Card	NT2X48BA		1	X	13	AP
DTMF Receiver Card	NT2X48BB		1	X	14	AP
Filler Face Plate	NT0X50AG		1	X	01	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Power Converter	NT2X70AF		1	X	20	AP
Designation Label (NT0X50AC)	P0580258		7	X	03,17, 18	AP
Designation Strip	P0698921		1	X		AP
Designation Label (NT2X70AF)	P0809960		1	X	20	AP

EQUIPMENT FLAGGED '##':

PEC	RATING	REPLACED BY PEC
NTNX29LM	MD	None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 05, 33 or 47.
- 2) DRAMs are no longer provided in the NTNX29LH. The NT1X75AA/BA and NT1X77AA are being MDed.

RULES:

AP 1) When PEC NTN29LM is ordered, these items are provided.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LB

CPC CODE: B0227064

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LH

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LB STM pack fill provides circuit packs for a one shelf, two STM configuration for 6-port conference circuits and one DRAM.

REFERENCE DOCUMENTATION: MSNX29LB

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LB EMR10-05-STM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
DRAM Conttroll CP	NT1X75AA (DRA)		1	X	05	AP
DRAM RAM Memory CP	NT1X77AA (DRA)		6	X	06-11	AP
6 Port Conference Card	NT3X67AA		5	X	13-16, 18	AP
Group CODEC Card	NT2X59AA		1	X	17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AE		1	X	20	AP
Designation Label	P0687828		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 05 or 19.
- 2) DRAM Wiring Option NTNX29AB is required when NTNX29LB common CP is provisioned on shelf 19.

RULES:

AP 1) When PEC NTN29LB is ordered, these items are provided.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LC

CPC CODE: B0227065

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LJ

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LC STM pack fill provides circuit packs for a one shelf, two STM configuration for quantity 10 6-port conference circuit packs.

REFERENCE DOCUMENTATION: MSNX29LC

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LC EMR10-05-STM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		2	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
6 Port Conference Card	NT3X67AA		10	X	05-08, 10, 13-16, 18	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AE		1	X	20	AP
Designation Label	P0687829		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "X" can be one of 05, 19, 33 or 47.

2) CODEC Wiring option NTN29AC is required when NTN29LC Common CP is provisioned on shelf 05 or 19.

RULES:

AP 1) When PEC NTN29LC is ordered, these items are provided.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LD

CPC CODE: B0227066

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LK

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LD STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator and 6-port conference circuits.

REFERENCE DOCUMENTATION: MSNX29LD

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LD EMR10-05-STM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		2	X	03,11	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Tone Det/DTMF Tone Gen	NT5X29AC				05,13	RUL1
Filler Face Plate	NT0X50AC		4	X	06,07, 14,15	AP
6 Port Conference Card	NT3X67AA		4	X	08,10, 16,18	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AE		1	X	20	AP
Shelf Designation Strip	P0689162		1	X		AP
Designation Label (NT5X29AB)	P0694963		1	X		RUL1
Designation Label (NT5X29AC)	P0654974		1	X		RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "X" can be one of 05, 19, 33 or 47.

2) CODEC Wiring Option NTN29AC is required when NTN29LD Common CP is provisioned on shelf 05 or 19.

RULES:

- AP 1) When PEC NTN29LD is ordered, these items are provided.
- RUL1 1) Provide as required. Attach designation label (one per pack provisioned) to shelf designation label in appropriate position.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LE

CPC CODE: B0228467

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LL

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LE STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator circuits.

REFERENCE DOCUMENTATION: MSNX29LE

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LE EMR10-05-STM-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Tone Det/DTMF Tone Gen	NT5X29AC		4	X	5,8,13, 16	AP
Designation Label (NT5X29AC)	P0654974		4	X		AP
Filler Face Plate	NT0X50AC		10	X	6,7,9-11,AP 14,15, 17-19	
# Power Converter	NT2X70AE		1	X	20	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "X" can be one of 05, 19, 33 or 47.

2) D1 Wiring on STM shelves is required for adding 56 audio tone detectors (ATDs).

RULES:

AP 1) When PEC NTN29LE is ordered, these items are provided.

MERIDIAN CABINET SERVICE MODULE
STM COMMON CP

PEC CODE: NTNX29LF

CPC CODE: B0228468

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX29LM

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX29LF STM pack fill provides circuit packs for a one shelf, two STM configuration to provide tone detector/DTMF tone generator, one DRAM and miscellaneous service circuits.

REFERENCE DOCUMENTATION: MSNX29LF

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: NTI: Charley Lord Dept. 6457 (RCH)

NTNX29LF EMR10-05-STM-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09	----- ECM 449 14	Previous history not available Make changes per ECD 002-16210

The Meridian Cabinet Service Module STM Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
DRAM Control CP	NT1X75AA (DRA)		1	X	05	AP
DRAM RAM Memory CP	NT1X77AA (DRA)		5	X	06-11	AP
MF Receiver Card	NT2X48BA		1	X	13	AP
DTMF Receiver Card	NT2X48BB		1	X	14	AP
Loop Around Test Line	NT2X75AA		1	X	15	AP
Designation Label (NT2X75AA)	P0657680		1	X	15	AP
102 Test (Milliwatt)	NT1X00AB		1	X	16	AP
Filler Face Plate	NT0X50AC		1	X	17	AP
Filler Face Plate	NT0X50AC		1	X	18	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AE		1	X	20	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "X" can be one of 05, 19, 33 or 47.

2) CODEC Wiring Option NTN29AC is required when NTN29LF Common CP is provisioned on shelf 05 or 19.

RULES:

AP 1) When PEC NTN29LF is ordered, these items are provided.

MCSM COMMON PACK FILL

PEC CODE: NTNX29LG

CPC CODE: B0232997

| RATING: MD.

REPLACES: None

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX29LG STM pack fill provides circuit packs for a one shelf, two STM configuration for miscellaneous service circuits.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LG EMR10-05-STM-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 97 02 19	----- ECM 449 24	Previous history not available To MD NTNX29LG per ECD 002-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		1	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Tone Generator-Call Waiting	NT3X68AC		1	X	05	AP
6 Port Conference Card	NT3X67AA		7	X	06,07, 13-16, 18	AP
MF Receiver Card	NT2X48BA		1	X	08	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
102 Test (Milliwatt)	NT1X00AB		1	X	10	AP
DTMF Receiver Card	NT2X48BB		1	X	11	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AF		1	X	20	AP
Designation Label	P0687827		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX29LG	MD	None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) 'X' can be on of 33 or 47.

RULES:

AP 1) When PEC NTN29LG is ordered, these items are provided.

MCSM COMMON PACK FILL

PEC CODE: NTNX29LH

CPC CODE: B0232997

| RATING: MD.

REPLACES:

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX29LH STM pack fill provides circuit packs for a one shelf, two STM configuration for 6-port conference circuits and one DRAM.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LH EMR10-05-STM-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
95 05 09	ECM 449 14	Make changes per ECD 002-16210
96 06 03	ECM 449 21	Remove the NT1X75AA/BA and NT1X77AA per ECD002-16663.
97 02 19	ECM 449 24	To MD the NTNX29LH per ECD 2-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group CODEC Card	NT2X59AA		1	X	17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
Filler Face Plate	NT0X50AC		8	X	03	AP
6 Port Conference Card	NT3X67AA		5	X	13-16, 18	AP
Filler Face Plate	NT0X50AG		1	X	01	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
Power Converter	NT2X70AF		1	X	20	AP
Designation Label (NT0X50AC)	P0580258		7	X		AP
Designation Strip	P0687828		1	X		AP
Designation Label (NT2X70AF)	P0809960		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX29LH	MD	None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 5,19,33 or 47.
- 2) DRAMs are no longer provided in the NTNX29LH. The NT1X75AA/BA and NT1X77AA are being MDed.
- 3) The DRAM Wiring Option NTNX29AB is required when the NTNX29LH Common Packfill is provisioned.

RULES:

AP 1) When PEC NTN29LH is ordered, these items are provided.

MCSM COMMON PACK FILL

PEC CODE: NTN29LJ

CPC CODE: B0232997

| RATING: MD.

REPLACES: NTN29LC

REPLACED BY: None

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTN29LJ STM pack fill provides circuit packs for a one shelf, two STM configuration for a quantity of 10 6-port conference circuit packs.

REFERENCE DOCUMENTATION: ISNX29AA 00 08

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29LJ EMR10-05-STM-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 09 97 02 19	----- ECM 449 14 ECM 449 24	Previous history not available Make changes per ECD 002-16210 MD the NTNX29LJ per ECD 002-17038

The MCSM COMMON PACK FILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	X	01	AP
Filler Face Plate	NT0X50AC		2	X	03	AP
TM Control Card	NT4X65AB		2	X	04,12	AP
6 Port Conference Card	NT3X67AA		10	X	05-08, 10, 13-16, 18	AP
Group CODEC Card	NT2X59AA		2	X	09,17	AP
Filler Face Plate	NT0X50AA		1	X	19	AP
# Power Converter	NT2X70AF		1	X	20	AP
Designation Label	P0687829		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF
NTNX29LJ	MD	None

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) "X" can be one of 05, 19, 33 or 47.
- 2) CODEC Wiring option NTNX29AC is required when NTNX29LJ Common Packfill is provisioned on shelf 05,19,33 or 47.

RULES:

AP 1) When PEC NTN29LJ is ordered, these items are provided.

MERIDIAN CABINET SERVICE MODULE

PEC CODE: NTNX29AA

CPC CODE: B0225315

| RATING: MD.

REPLACES: Not Applicable

REPLACED BY: NTNX47BA, Meridian Cabinet General Module

ABBREVIATION NAME: MCSM

ENGINEERING DESCRIPTION: The MCSM bay houses four shelves of Service Trunk Modules (STM) with two (2) STM on each shelf. These STMs contain digital service circuits which have no external connections, consequently, the MCSM only has system connections to network ports and power.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

CONTACT: NTI: David Cheek Dept. 6455 (RCH)

NTNX29AA EMR10-05-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 12 03	ECM 492 04	Update DRAM Controller and add international service circuits
94 03 18	ECM 449 09	Add EMI bulkhead filter kits
95 03 01	ECM 449 12	Fix NTNX29AC rule
95 05 09	ECM 449 14	Make changes per ECD 002-16210
95 05 23	ECM 449 16	Make changes to rules to reflect rules in ISNX29AA 00 08.
96 06 03	ECM 449 21	Remove the NT1X75AA/BA and NT1X77AA per ECD002-16663.
97 01 22	ECM 449 23	Change P0686033 to P0842624 per ECD002-16830.
97 02 19	ECM 449 24	MD the MCSM cabinet per ECD 2-17038

The Meridian Cabinet Service Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34DA	FSP	1	60		AP
STM Shelf Assembly	NT7X3004		1	47		AP
STM Pack Fill	NTNX29LG			47		RUL1
DRAM Wiring Option	NTNX29AB			47		RUL2
STM Pack Fill	NTNX29LJ			47		RUL1
CODEC Wiring Option	NTNX29AC			47		RUL3
STM Pack Fill	NTNX29LK			47		RUL1
STM Pack Fill	NTNX29LL			47		RUL9
ATD Wire Option	NT5X29HK			47		RUL9
STM Pack Fill	NTNX29LM			47		RUL1
STM Shelf Assembly	NT7X3004		1	33		AP
STM Pack Fill	NTNX29LG			33		RUL1
DRAM Wiring Option	NTNX29AB			33		RUL2
STM Pack Fill	NTNX29LJ			33		RUL1
CODEC Wiring Option	NTNX29AC			33		RUL3
STM Pack Fill	NTNX29LK			33		RUL1
STM Pack Fill	NTNX29LL			33		RUL9
ATD Wire Option	NT5X29HK			33		RUL9
STM Pack Fill	NTNX29LM			33		RUL1
STM Shelf Assembly	NT7X3004		1	19		AP
STM Pack Fill	NTNX29LH			19		RUL1
DRAM Wiring Option	NTNX29AB			19		RUL2
STM Pack Fill	NTNX29LJ			19		RUL1
CODEC Wiring Option	NTNX29AC			19		RUL3
STM Pack Fill	NTNX29LK			19		RUL1
STM Pack Fill	NTNX29LL			19		RUL9
ATD Wire Option	NT5X29HK			19		RUL9
STM Shelf Assembly	NT7X3004		1	05		AP
STM Pack Fill	NTNX29LH			05		RUL1
DRAM Wiring Option	NTNX29AB			05		RUL2
STM Pack Fill	NTNX29LJ			05		RUL1
CODEC Wiring Option	NTNX29AC			05		RUL3
STM Pack Fill	NTNX29LK			05		RUL1
STM Pack Fill	NTNX29LL			05		RUL9
ATD Wire Option	NT5X29HK			05		RUL9
STM Pack Fill	NTNX29LM			05		RUL1
DS-30 Cabling (External)	NTNX29BB		1			RUL7
DS-30 Cabling (JNET)	NTNX29CC		1			RUL8
Cable Duct Top Cover Plate	P0674549		1			RUL8

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Hex Nuts	P097Y374		6			RUL8
Cable Duct Bot. Cover Plate	P0685168		1			RUL8
Cooling Unit	NTNX27CA	CU	1	00		AP
Common Framework	NTNX25AA	FW	1			AP
Right Door Assembly-Grey	NTNX2513					RUL4
Left Door Assembly-Grey	NTNX2515					RUL4
Cabinet Type Label (Grey)	P0687617					RUL5
Left Door Label (Grey)	P0818848					RUL5
Right Door Label (Grey)	P0699158					RUL5
Right Door Assembly-Brown	NTNX2552					RUL4
Left Door Assembly-Brown	NTNX2550					RUL4
Cabinet Type Label (Brown)	P0699470					RUL5
Left Door Label (Brown)	P0818849					RUL5
Right Door Label (Brown)	P0695230					RUL5
Anchor Kit (Earthquake Slab)	NTNX2540					RUL6
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL6
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL6
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX29AA	MD	NTNX47BA

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The MCSM must be in the same aisle as the JNET (i.e. MCNM) in order to keep cabling internal to the cabinets and maintain EMI integrity.
- 2) When an ENET or ENI shelf in a SNSE will be used external cabling, a bulkhead and a filter kit must be provisioned for the MCSM.
- 3) Each MCSM requires direct cabling to eight network ports (i.e. one port per STM).

RULES:

- AP 1) When PEC NTN29AA is ordered, these items are provided.
- RUL1 1) Provide as required, see pack fill EMS for circuit pack listing.
- 2) The NTN29LM pack fill can not be placed in shelf 19.
- RUL2 1) Provide NTN29AB DRAM & CODEC Wiring Option, which provides the DRAM wiring for the left STM & CODEC wiring for the right STM, when Common CP NTN29LH (DRAM STM) is required on shelf 19 or when the NTN29LM is required on shelf 33 or 47. The NTN29AB is not required on shelf 5. The NTN29LH & NTN29LM no longer contain DRAM cards. The NT1X75AA/BA and NT1X77AA are being MDed.
- RUL3 1) Provide NTN29AC CODEC Wiring Option, which provides the CODEC wiring for both left and right STMs, when Common CP NTN29LJ or NTN29LK is required on shelves 5,19,33 or 47 or when the NTN29LG is required in shelves 33,47. This option provides CODEC wiring on both STMs of the shelf.
- RUL4 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
- RUL5 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet.
- 2) Provide two left door label (P0818848-Grey, P0818849-Brown) per cabinet.
- 3) Provide two right door label (P0699158-Grey, P0695230-Brown) per cabinet.

- RUL6 1) Provide one Earthquake Mounting Kit when installing frame in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTNX2540 kit for slab type flooring or NTNX2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring.
- RUL7 1) The NTNX29BB kit provisions a bulkhead (P0842624) and 2 cables (1 NTNX2905 and 1 NTNX2906). The kit will provide connectivity to the enhanced network module(ENET or ENI shelf in SNSE) via external DS30 ports.
- 2) Also provide 1 Filter Kit (NTNX29ES) when provisioning the NTNX29BB.
- RUL8 1) Provide 1 NTNX29CC when the MCSM is in the same lineup as the network (JNET).
- 2) Provide 1 Cable Duct Top Cover (P0674549), 1 Cable Duct Bottom Cover (P0685168) and 6 Hex Nuts (P097Y374) when the NTNX29BB is NOT provisioned (i.e. cabling within the lineup).
- RUL9 1) Provide the NT5X29HF ATD Wiring Option when the NTNX29LL STM Common Packfill is provided with NT5X29AB or NT5X29AC circuit packs in slot 8 & 16.

MERIDIAN CABINET SERVICE MODULE

PEC CODE: NTN29BA

CPC CODE: B0228622

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTN47BA, Meridian Cabinet General Module

ABBREVIATION NAME: MCSM-8

ENGINEERING DESCRIPTION: The MCSM cabinet houses four trunk module 8 wire with access (T8A) shelves. These modules are provided for metallic test by the test access network (TAN).

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

NTNX29BA EMR10-05-001 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
97 02 19	ECM 449 24	MD MCSM-8 cabinet per ECD 02-17038

The Meridian Cabinet Service Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34DA	FSP	1	60		AP
T8A Shelf Assy	NT2X5228	T8A	4	5,19 33,47		AP
TM Network Interface	NT2X45AB			5,19 33,47	01	RUL1
TM Processor Interface	NT0X70AC			5,19 33,47	02	RUL1
TM Control	NT2X53AA			5,19 33,47	03	RUL1
Group Codec	NT2X59AB			5,19 33,47	04	RUL1
Power Converter	NT2X09AA			5,19 33,47	20	RUL1
Designation Strip	P0703916			5,19 33,47		RUL2
Optional CP's				5,19 33,47	5-19	RUL6
Filler Face Plate	NT0X50AC			5,19 33,47	5-19	RUL7
Desig. Label NT0X50AC	P0580258			5,19	5-19	RUL7
Cooling Unit	NTNX27CA	CU		00		AP
Common Framework	NTNX25AA		1			AP
Anchor Kit (EQ Slab Flr)	NTNX2540					RUL3
Anchor Kit (EQ Com. Flr)	NTNX2578					RUL3
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL3
Anchor Kit (Non-EQ Com.Flr)	NTNX2580					RUL3
Right Door Assy (Gray)	NTNX2513					RUL4
Left Door Assy (Gray)	NTNX2515					RUL4
Door Label Right (Gray)	P0699158					RUL5
Door Label Left (Gray)	P0677704					RUL5
Right Door Assy (Brown)	NTNX2552					RUL4
Left Door Assy (Brown)	NTNX2550					RUL4
Door Label Right (Brown)	P0695230					RUL5
Door Label Left (Brown)	P0699464					RUL5
Cabinet Type Label (Gray)	P0687617					RUL5
Cabinet Type Label (Brown)	P0699470					RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX29BA	MD	NTNX47BA

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTNX29BA is ordered, these items are provided.
- RUL1 1) Customer Engineering to provide these packs for each trunk shelf (5,19,33,47) to be equipped.
- RUL2 1) Provide one (1) designation strip for each shelf equipped.
- RUL3 1) Provide one (1) earthquake mounting kit when installing frame in ATC zone 6-7, NEBS zone 4 and UBC zone 4. Use NTNX2540 for slab type flooring or NTNX2578 for computer flooring.
- 2) Provide one frame mounting kit when installing in a non-earthquake zone. Use NTNX2579 for slab floors and NTNX2580 for computer floors.
- RUL4 1) Provide two (2) NTNX2513 right (gray) doors for gray cabinets.
- 2) Provide two (2) NTNX2515 left (gray) doors for gray cabinets.

- 3) Provide two (2) NTNX2550 left (brown) doors for brown cabinets.
 - 4) Provide two (2) NTNX2552 right (brown) doors for brown cabinets.
- RUL5
- 1) Provide two (2) P0677704 Door labels left for gray cabinets.
 - 2) Provide two (2) P0699158 Door labels right for gray cabinets.
 - 3) Provide two (2) P0699464 Door labels left for brown cabinets.
 - 4) Provide two (2) P0695230 Door labels right for brown cabinets.
 - 5) Provide two (1) P0687617 cabinet type label (gray) for the cabinet.
 - 6) Provide two (1) P0699470 cabinet type label (brown) for the cabinet.
- RUL6
- 1) Provision up to 15 trunk circuit packs as per customer requirements. The provisionable packs can be assigned to slots 5-19. These circuit packs are listed below.

Description	PEC	Desig. Label	Notes
Conference Circuit	NT1X31AA	P0653621	1, 2
Digital 4 Channel MF Rec	NT2X48AA		2, 3
Digital 4 Channel Rec	NT2X48AB		2, 3
CAMA Pos Sig Trk	NT2X65AA	P0702197	
CCITT R1 Trk Ckt	NT5X03AA	P0702197	4
CCITT #5 Trk Ckt	NT5X04AA	P0702198	4
CCITT #6 Trk Ckt	NT5X06AA		
101 Comm Test Line	NT5X30AA	P0656329	5

Note:

- 1) Two 3-port circuit per circuit pack. Since each card utilizes 6 ports two adjacent slot on the right must be left vacant.
- 2) A maximum of one NT2X48AA or one NT2X48AB or two NT1X31AA cards are allowed per TM.

- 3) Four circuits per card, therefore the next adjacent slot on the right must be left vacant.
 - 4) These circuit packs are for DMS-300 use only.
 - 5) A maximum of 4 cards per TM may be assigned in the software as 101 test lines.
- RUL7 1) Provision filler face plates in any position not equipped with circuit packs.

CMC/NET COMMON CP

PEC CODE: NTNX20LC

CPC CODE: B0227062

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX20LC Common CP provides the circuit packs required on the MCCM frame when a third network is provided (on MCNM bay).

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX20LC EMR10-06-CMC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The CMC/NET Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		8	47	3,4	AP
Network Port CP	NT8X12AA		8	33	3,4	AP
CMC Periph Interface CP	NT1X36BB		8	19	11-14	AP
Desig. Label (NT8X12AA)	P0654992		8	47,33	3,4	AP
Desig. Label (NT1X36BB)	P0599144		8	19	11-14	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN20LC is ordered, these items are provided.

MERIDIAN CABINET CORE MODULE COMMON CP

PEC CODE: NTNX20LA

CPC CODE: B0227060

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX20LA MCCM Common CP provides the circuit packs for the CPM (duplicated), the MDC (duplicated), two IOCs (one each bay on the MDC shelf) and the first network.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX20LA EMR10-06-MCCM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The Meridian Cabinet Core Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Shelf Filler Kit	NT6X02AB		1	47		AP
Filler Face Plate	NT0X50AA		24	33	1-4, 6, 8, 11, 13, 18, 20, 22, 24	AP
Crosspoint CP	NT8X13AA		8	33	5, 7, 10, 12	AP
Network Port CP	NT8X12AA		8	33	14-17	AP
Test Code CP	NT8X14AA		2	33	9	AP
Net P-S MSC Processor CP	NT3X75BA		2	33	19	AP
Network Con Processor CP	NT3X74BB		2	33	21	AP
Network Clock CP	NT3X76AC		2	33	23	AP
Power Converter	NT2X70AE		2	33	25	AP
Designation Strip	P0687824		2	33		AP
Filler Face Plate	NT0X50BA		18	19	3, 11-14, 16, 18, 20, 22	AP
Sync Clock Controller CP	NT3X14BC		2	19	4	AP
CMC Processor I/F CP	NT1X33BA		2	19	5	AP
CMC Com Controller CP	NT1X37BA		2	19	6	AP
CMC Outgoing Controller CP	NT1X34BA		2	19	7	AP
CMC Incoming Controller CP	NT1X35BA		2	19	8	AP
CMC Periph Interface CP	NT1X36BB		4	19	9, 10	AP
I/O Terminal Cont CP	NT1X67BC		2	19	17	AP
MTD Controller CP	NT1X68BC		1	19	19	AP
					(PLANE 1)	
DDU Controller CP	NT1X55DA		2	19	21	AP
I/O Message Controller CP	NT1X62BB		2	19	23	AP
CMC/IOC BP Terminal	NT3X4304		2	19	23R	AP
Power Converter	NT2X70BA		2	19	25	AP
Designation Strip	P0687822		2	19		AP
16MW BP Terminal	NT3X4309		2	05	1R	AP
1MW Memory CP	NT4X80AA		8	05	5-8	AP
16MW Memory Controller CP	NT4X79AA		2	05	9	AP
Program Store BP Terminal	NT3X4307		2	05	9R	AP
Balance Data Port Extension	NT1X50DA		2	05	10	AP
Processor BP Terminal	NT3X4310		2	05	10R	AP
CMC Interface CP	NT1X51DA		2	05	11	AP
Filler Face Plate	NT0X50BA		8	05	12, 13, 15, 20	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Processor 8K ROM CP	NT1X46DA		2	05	14	AP
Processor Maintenance	NT1X48DA		2	05	16	AP
Proc Timing & Control	NT1X47DA		2	05	17	AP
Proc A.L.F. CP	NT1X45DA		2	05	18	AP
Proc Stack 4KW CP	NT1X44DA		2	05	19	AP
Proc 8MW PS Port	NT1X43DA		2	05	21	AP
Power Converter	NT2X06BB		2	05	22	AP
Power Converter	NT2X70BA		2	05	25	AP
Designation Strip	P0687821		2	05		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) NET0:00 (Network 00, Plane 0) and NET1:00 (Network 00, Plane 1) is on shelf position 33.
- 2) MDC0:00 (Message Device Controller 00, Plane 0) and MDC1:00 (Message Device controller 00, Plane 1) is on shelf position 19.
- 3) CPM0:00 (Central Processor Module 00, Plane 0) and CPM1:00 (Central Processor Module 00, Plane 1) is on shelf position 05.

RULES:

AP 1) When PEC NTN20LA is ordered, these items are provided.

MERIDIAN CABINET CORE MODULE
SECOND NETWORK COMMON CP

PEC CODE: NTNX20LB

CPC CODE: B0227061

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX20LB Common CP provides the circuit packs required to equip the second network located on the MCCM bays (duplicated).

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX20LB EMR10-06-NET-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The Meridian Cabinet Core Module Second Network Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		12	47	1, 2, 14-17	AP
Crosspoint CP	NT8X13AA		8	47	5, 7, 10, 12	AP
Filler Face Plate	NT0X50AA		20	47	3, 4, 6, 8, 11, 13, 18, 20, 22, 24	AP
Test Code CP	NT8X14AA		2	47	9	AP
Net P-S MSC Processor CP	NT3X75BA		2	47	19	AP
Network Con Processor CP	NT3X74BB		2	47	21	AP
Network Clock CP	NT3X76AC		2	47	23	AP
Power Converter	NT2X70AE		2	47	25	AP
Designation Strip	P0687874		2	47		AP
Network Port CP	NT8X12AA		4	33	1, 2	AP
Desig. Label (NT8X12AA)	P0687824		4	33	1, 2	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

, of 11; 1) NET0:01 (Network 01, Plane 0) and NET1:01 (Network 01, Plane 1) is on shelf position 47.

RULES:

AP 1) When PEC NTN20LB is ordered, these items are provided.

MERIDIAN CABINET CORE MODULE FRAME

PEC CODE: NTNX20AA

CPC CODE: B0225318

| RATING: MD

REPLACES: N/A

| REPLACED BY: NT9X01JB/MB

ABBREVIATION NAME: MCCM

ENGINEERING DESCRIPTION: This cabinet module contains the intelligence of the system - the central control. The MCCM is a double bay frame. They are the third and fourth cabinets in the first lineup (Row A) of the meridian cabinet host equipment. the two cabinets house the CPM (duplicated), the MDC (duplicated), two IOCs (one each bay on MDC shelf) and the first and second network.

REFERENCE DOCUMENTATION: MSNX20

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX20AA EMR10-06-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The Meridian Cabinet Core Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34AA	FSP	1	60		AP
DSN Shelf Assembly	NT8X1101		2	47		AP
MCCM Common CP	NTNX20LA			47		RUL1
Second Network Common CP	NTNX20LB			47		RUL2
CMC/NET Common CP	NTNX20LC			47		RUL3
DSN Shelf Assembly	NT8X1101		2	33		AP
MDC Shelf Assembly	NT2X7609		2	19		AP
I/O Terminal Controller	NT1X67BC			19	15, 19	RUL10
				PLANE0		
				19	15	
I/O Terminal Cont (Auto DB)	NT1X67BD			PLANE1		
				19	15, 19	RUL13
				PLANE0		
				19	15	
Bit Sync Data Link	NT1X67DB			PLANE1		
				19	15, 19	RUL9
				PLANE0		
				19	15	
Async Printer Output CP	NT1X67EA			PLANE1		
				19	15, 19	RUL12
				PLANE0		
				19	15	
Multi Protocol Controller	NT1X89AA			PLANE1		
				19	15, 19	RUL11
				PLANE0		
				19	15	
Filler Face Plate 0.875	NT0X50BA			PLANE1		
				19	15, 19	RUL7
				PLANE0		
				19	15	
Stratum 3 Master Clock	NT3X15CA			19	1	RUL14
Stratum 3 Master Clock	NT3X15DA			19	1	RUL14
I/O Message Controller CP	NT1X62CA			19	23	RUL17
				PLANE0, 1		
Network Con Processor CP	NT3X74BB			33, 47	21	RUL15
				PLANE0, 1		
Network Con Processor CP	NT3X76AC			33, 47	23	RUL16
				PLANE0, 1		

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CPM Shelf Assembly	NT3X4106		2	05		AP
1MW Memory Circuit Pack	NT4X80AA			05	4-1	RUL4
Cooling Unit	NTNX27CA	CU	2	00		AP
Common Framework	NTNX25AA	FW	2			AP
Right Door Assembly-Grey	NTNX2513					RUL6
Left Door Assembly-Grey	NTNX2515					RUL6
Cabinet Type Label (Grey)	P0687609					RUL7
Left Door Label (Grey)	P0677704					RUL7
Right Door Label (Grey)	P0699158					RUL7
Right Door Assembly-Brown	NTNX2552					RUL6
Left Door Assembly-Brown	NTNX2550					RUL6
Cabinet Type Label (Brown)	P0699466					RUL7
Left Door Label (Brown)	P0699464					RUL7
Right Door Label (Brown)	P0695230					RUL7
FCC Part 15 Label	P0634844					RUL7
FCC Part 68 Label	P0701061					RUL7
Anchor Kit (Earthquake Slab)	NTNX2540					RUL8
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL8
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL8
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL8
Desig. Label (NT1X67BC)	P0623517					RUL5
Desig. Label (NT1X67BD)	P0657675					RUL5
Desig. Label (NT1X67DB)	P0599148					RUL5
Desig. Label (NT1X67EA)	P0688824					RUL5
Desig. Label (NT1X89AA)	P0664841					RUL5
Desig. Label (NT0X50BA)	P0599141					RUL5
Desig. Label (NT3X15CA)	P0654973					RUL5
Desig. Label (NT3X15DA)	P0661434					RUL5
Desig. Label (NT4X80AA)	P0649156					RUL5
Desig. Label (NT3X74BB)	P0686094					RUL18
Desig. Label (NT3X76AC)	P0677803					RUL19
Desig. Label (NT1X62CA)	P0686038					RUL20

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTNXX20AA is ordered, these items are provided.
- RUL1 1) Provide one (1) NTNXX20LA per system. This pack fill includes duplicated MDC, CPM and one network.
- RUL2 1) Provide one (1) NTNXX20LB per system when office is provisioned for a second network (duplicated).
- RUL3 1) Provide one (1) NTNXX20LC per system when office is provisioned for three or more networks (duplicated).
- RUL4 1) System is always provided with 4.0 MW of program store memory per plane provisionable up to 8.0 MW per plane. Provide one (1) NT4X80AA per plane, for each 1MW of additional program store memory. Both bays should have equivalent amounts of program store memory. Start provisioning in slot position 04 and grow toward slot position 01.
- RUL5 1) Provide one label per circuit pack provisioned (NT code on label should be same as circuit pack provisioned). Affix designation label to appropriate position on designation strip.
- RUL6 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).

- RUL7 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet.
- 2) Provide one left door label (P0677704-Grey, P0699464-Brown) per cabinet.
- 3) Provide one right door label (P0699158-Grey, P0695230-Brown) per cabinet.
- 4) Provide one P0701061 MCCM01 FCC part 68 Label and one P0634844 MCCM01 FCC part 15 Label.
- RUL8 1) Provide one Earthquake Mounting Kit when installing frame in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTNX2540 kit for slab type flooring or NTNX2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring.
- RUL9 1) Provide one (1) NT1X67DB when bit synchronous data link transmission is required.
- RUL10 1) Provide one (1) NT1X67BC when I/O Terminal Controller is required.
- RUL11 1) Provide one (1) NT1X89AA when Multi Protocol Controller is required.
- RUL12 1) Provide one (1) NT1X67EA when High Speed Output, Single Port Controller - Asynchronous - is required.
- RUL13 1) Provide two (2) NT1X67BD I/O Terminal Control Circuit Packs for ETAS modems when auto dial-back feature is required and NTX293AA (Enhanced Security II) S/W feature package is provided. All other dial-up terminal devices will also require termination on the NT1X67BD I/O Terminal Control Circuit Pack for auto dial-back mode.
- RUL14 1) Provide slot 1 (both planes) with a NT3X15CA for Stratum III applications. If the office uses a Stratum II Remote Oscillator Shelf (ROS) NT3X95AA (located on an MCGM bay), provision a NT3X15DA in slot 1 (both planes).
- RUL15 1) Provide two (2) NT3X74BB cp's (one per plane) for SuperNode upgrades to each Network in the installed base MCCM.

- RUL16 1) Provide two (2) NT3X76AC cp's (one per plane) for SuperNode upgrades to each Network in the installed base MCCM.
- RUL17 1) Provide two (2) NT1X62CA cp's (one per plane) for SuperNode upgrades to each MDC/IOC shelf in the installed base MCCM.
- RUL18 1) Provide one (1) P0686094 Desig. Label for each NT3X74BB provisioned.
- RUL19 1) Provide one (1) P0677803 Desig. Label for each NT3X76AC provisioned.
- RUL20 1) Provide one (1) P0686038 Desig. Label for each NT1X62CA provisioned.

MERIDIAN CABINET MEMORY MODULE COMMON CP

PEC CODE: NTNX21LA

CPC CODE: B0227059

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX21LA Common Circuit Pack Fill for Meridian Cabinet Memory Module bay applications. It will provide two data store shelves (DS:00 & DS:01).

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX21LA EMR10-07-MCMM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The Meridian Cabinet Memory Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50BA		1	19	1	AP
Dif Memory Bus I/F CP	NT3X36BC		1	19	2	AP
Filler Face Plate	NT0X50BA		1	19	3	AP
16 MW Memory Controller CP	NT4X79AA		1	19	4	AP
Filler Face Plate	NT0X50BA		1	19	5	AP
1 MW Memory CP	NT4X80AA		8	19	6-13	AP
16 MW BP Terminal CP	NT3X4309		1	19	21R	AP
Filler Face Plate	NT0X50BE		1	19	22	AP
Power Converter	NT2X70BA		1	19	25	AP
Designation Strip	P0687780		1	19		AP
Filler Face Plate	NT0X50BA		1	05	1	AP
Dif Memory Bus I/F CP	NT3X36BC		1	05	2	AP
Filler Face Plate	NT0X50BA		1	05	3	AP
16 MW Memory Controller CP	NT4X79AA		1	05	4	AP
Filler Face Plate	NT0X50BA		1	05	5	AP
1 MW Memory CP	NT4X80AA		8	05	6-13	AP
16 MW BP Terminal CP	NT3X4309		1	05	21R	AP
Filler Face Plate	NT0X50BE		1	05	22	AP
Power Converter	NT2X70BA		1	05	25	AP
Designation Strip	P0687780		1	05		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN21LA is ordered, these items are provided.

MERIDIAN CABINET MEMORY MODULE FRAME

PEC CODE: NTNX21AA

CPC CODE: B0225320

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: MCMM

ENGINEERING DESCRIPTION: This MCMM is the second cabinet of the first line-up of the Meridian Cabinet SL100 Host equipment and acts as the Memory Extension Module for the core. It will provide the Mag Tape Drive and the two (2) Data Store Shelves, DS0:00 and DS1:00.

REFERENCE DOCUMENTATION: MSNX21

MARKETS: Applicable markets:

US
Canada
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX21AA EMR10-07-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 18	----- ECM 491 05	Previous history not available MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973.

The Meridian Cabinet Memory Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34AA	FSP	1	60		AP
MTD Mouting Hardware	NT0X44AD	MTD		33		RUL8
Cook Mag Tape Drive	209800-153			33		RUL8
MCMM Common Circuit Packs	NTNX21LA			19,05		RUL1
Data Store Shelf Assembly	NT7X3201	DS	1	19		AP
1MW Memory Circuit Pack	NT4X80AA			19	14-21	RUL2
Filler Face Plate 0.875	NT0X50BA			19	14-21	RUL3
Data Store Shelf Assembly	NT7X3201	DS	1	05		AP
1MW Memory Circuit Pack	NT4X80AA			05	14-21	RUL2
Filler Face Plate 0.875	NT0X50BA			05	14-21	RUL3
Desig. Label (NT4X80AA)	P0649156					RUL4
Desig. Label (NT0X50BA)	P0599141					RUL4
Common Framework	NTNX25AA	FW	1			AP
Right Door Assembly-Grey	NTNX2513					RUL5
Left Door Assembly-Grey	NTNX2515					RUL5
Cabinet Type Label (Grey)	P0687615					RUL6
Left Door Label (Grey)	P0677704					RUL6
Right Door Label (Grey)	P0699158					RUL6
Right Door Assembly-Brown	NTNX2552					RUL5
Left Door Assembly-Brown	NTNX2550					RUL5
Cabinet Type Label (Brown)	P0699469					RUL6
Left Door Label (Brown)	P0699464					RUL6
Right Door Label (Brown)	P0695230					RUL6
Anchor Kit (Earthquake Slab)	NTNX2540					RUL7
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL7
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL7
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL7

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTN21AA is ordered, these items are provided.
- RUL1 1) Provide one (1) NTN20LA Circuit Pack Fill for each MCM Cabinet provided in MSL-100 office.
- RUL2 1) The data store is equipped with 8.0 MW of memory and is expandable to 16.0 MW in steps of 1.0 MW (NT4X80AA). Expansion should occur from the lowest circuit pack position to the highest.
- RUL3 1) Provide one (1) NT0X50BA in all positions not equipped with active circuit packs.
- RUL4 1) Provide one label per circuit pack or Filler Face Plate provisioned. Place label at appropriate location on designation strip. RUL5 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet). RUL6 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet. 2) Provide one left door label (P0677704-Grey, P0699464-Brown) per cabinet. 3) Provide one right door label (P0699158-Grey, P0695230-Brown) per cabinet. RUL7 1) Provide one Earthquake Mounting Kit when installing frame in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTN2540 kit for slab type flooring or NTN2578 for computer flooring. 2) Pro-

vide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring. RUL8 1) Provide one Mag Tape Drive (209800-153) and one mouting hardware kit (NT0X44AD) per frame. This equipment will be installed at the manufacturers.

MERIDIAN CABINET NETWORK MODULE
(LOWER NUMBERED) NETWORK COMMON CP

PEC CODE: NTN40LA

CPC CODE: B0227074

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTN40LC

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTN40LA Common Pack Fill provides the lower numbered of two networks on the MCNM cabinet.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX40LA EMR10-08-DSN-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 06 14	----- ECM 491 06	Previous history not available Replace the NT2X70AE with the NT2X70AF per ECD002-16217.

The Meridian Cabinet Network Module (Lower Numbered) Network Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Shelf Filler Kit	NT6X02AB		1	19, 47		AP
Network Port CP	NT8X12AA		16	5, 33	1-4, 14-17	AP
Crosspoint CP	NT8X13AA		8	5, 33	5, 7, 10, 12	AP
Filler Face Plate	NT0X50AA		16	5, 33	6, 8, 11, 13, 18, 20, 22, 24	AP
Test Code CP	NT8X14AA		2	5, 33	9	AP
Net P-Side Msg Processor	NT3X75BA		2	5, 33	19	AP
Network Control Processor	NT3X74BB		2	5, 33	21	AP
Network Clock CP	NT3X76AC		2	5, 33	23	AP
#Power Converter	NT2X70AE		2	5, 33	25	AP
Designation Strip	P0687851		2	5, 33		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN40LA is ordered, these items are provided.

MERIDIAN CABINET NETWORK MODULE
(HIGHER NUMBERED) NETWORK COMMON CP

PEC CODE: NTNX40LB

CPC CODE: B0227075

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTNX40LD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX40LB Common Pack Fill provides the higher numbered of two networks on the MCNM cabinet.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX40LB EMR10-08-DSN-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 06 14	----- ECM 491 06	Previous history not available Replace the NT2X70AE with the NT2X70AF per ECD002-16217.

The Meridian Cabinet Network Module (Higher Numbered) Network Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		16	19,47	1-4, 14-17	AP
Crosspoint CP	NT8X13AA		8	19,47	5,7, 10,12	AP
Filler Face Plate	NT0X50AA		16	19,47	6,8,11, 13,18, 20,22, 24	AP
Test Code CP	NT8X14AA		2	19,47	9	AP
Net P-Side Msg Processor	NT3X75BA		2	19,47	19	AP
Network Control Processor	NT3X74BB		2	19,47	21	AP
Network Clock CP	NT3X76AC		2	19,47	23	AP
#Power Converter	NT2X70AE		2	19,47	25	AP
Designation Strip	P0687851		2	19,47		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTNX40LB is ordered, these items are provided.

Retired Equipment
Meridian Cabinet Network Module
(Higher Numbered) Network Common CP

NTNX40LB
EMR10-08-DSN-2
Page 3

REMOTE INTERFACE AND MAINTENANCE COMMON CP

PEC CODE: NT7X53AA

CPC CODE: B0226685

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: RIM

ENGINEERING DESCRIPTION: The NT7X53AA is the Common Circuit Pack Fill for the RIM application.

The Remote Interface and Maintenance (RIM) Module is a peripheral controller module, in a remote site, which is an interface between the DS-1 links to an LGC/LTC at the host and the DLM at the remote site.

The RIM Module supports maintenance and service circuits for the remote IVD port circuits.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X53AA EMR10-09-RIM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 23	----- ECM 347 05	Previous history not available MD the NTNX49AA and packfills per ECD002-16128, 16134, 16146 and 16225

The Remote Interface and Maintenance Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Multioutput Power Converter	NT2X09AA		1	X	01	AP
Filler Face Plate 1.125	NT0X50AC		1	X	03	AP
Filler Face Plate 1.125	NT0X50AC		1	X	04	AP
Filler Face Plate 1.125	NT0X50AC		1	X	05	AP
Filler Face Plate 1.125	NT0X50AC		1	X	08	AP
RMM Control CP	NT6X74AB		1	X	09	AP
Filler Face Plate 1.125	NT0X50AC		1	X	10	AP
Link Control Card	NT6X73AA		1	X	14	AP
Link Control Card	NT6X73AA		1	X	15	AP
Power Conv +/-5V & 12V CP	NT2X70AA		1	X	19	AP
Power Conv +/-5V & 12V CP	NT2X70AA		1	X	22	AP
Desig. Strip (NT7X53AA)	P0695209		1	X		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) "X" can be one of 19 or 47.

2) The first RIM Common CP is assigned on the frame to shelf mounting position 19 and the second is assigned to shelf mounting position 47.

3) For more information on the frame in the remote site, refer to the section on NTN49AA, Meridian Cabinet Digital Remote Frame.

RULES:

AP 1) When PEC NT7X53AA is ordered, these items are provided.

MERIDIAN CABINET DIGITAL REMOTE FRAME

PEC CODE: NTNX49AA

CPC CODE: B0226723

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTND03AA

ABBREVIATION NAME: MCDR

ENGINEERING DESCRIPTION: The Meridian Cabinet Digital Remote Frame is a cabinetized DMS frame which houses one (1) Remote Digital Line Module (RDLM).

Each RDLM consists of two (2) module types, the Digital Line Module (DLM) and the Remote Interface and Maintenance (RIM) Module.

Each RDLM consists of up to two (2) DLM and two (2) RIM. Each DLM has its own dedicated RIM mounted above it.

A fully equipped MCDR frame supports 320 IVD digital telephone sets (16 IVD sets per Digital Port card X 10 Digital Port cards per DLM X 2 DLM's per MCDR).

REFERENCE DOCUMENTATION: MSNX49AA

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NTNX49AA EMR10-09-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 23	----- ECM 347 05	Previous history not available MD the NTNX49AA and packfills per ECD002-16128, 16134, 16146 and 16225

The Meridian Cabinet Digital Remote Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34GA	FSP	1	60		AP
RIM Common CP	NT7X53AA			47		RUL1
RIM Shelf Assembly	NT7X5301		1	47		AP
Filler Face Plate 1.125	NT0X50AC			47	06,07	RUL2
Master Processor Memory CP	NT6X47AB			47	11	RUL3
LGC/DTC Processor CP	NT6X45AF			47	12	RUL3
ESA Clock and Tone CP	NT6X75AA			47	13	RUL3
DS-1 Interface CP	NT6X50AA			47	16,17, 18	RUL4
Filler Face Plate 0.875	NT0X50AA			47	11,12, 13,16, 17,18	RUL5
Desig. Label (NT0X50AC)	P0580258			47	06,07	RUL6
Desig. Label (NT6X47AB)	P0666374			47	11	RUL6
Desig. Label (NT6X45AF)	P0685029			47	12	RUL6
Desig. Label (NT6X75AA)	P0642015			47	13	RUL6
Desig. Label (NT6X50AA)	P0626878			47	16,17, 18	RUL6
Desig. Label (NT0X50AA)	P0578498			47	11,12, 13,16, 17,18	RUL6
DLM Common CP	NT7X50EA			33		RUL7
DLM Common CP	NT7X50EB			33		RUL7
DLM Shelf Assembly	NT7X4901		1	33		AP
Enhanced Digital Port Card	NT8X47BA			33	07-11, 15-19	RUL8
Filler Face Plate 0.875	NT0X50AA			33	07-12, 14-19	RUL5
Desig. Label (NT8X47BA)	P0689233			33	07-11, 15-19	RUL6
Desig. Label (NT0X50AA)	P0578498			33	07-12, 14-19	RUL6
RIM Common CP	NT7X53AA			19		RUL1
RIM Shelf Assembly	NT7X5301		1	19		AP
SD Card I	NT2X57AA			19	06	RUL2
Miscellaneous Scanner	NT0X10AA			19	07	RUL2
Master Processor Memory CP	NT6X47AB			19	11	RUL3
LGC/DTC Processor CP	NT6X45AF			19	12	RUL3
ESA Clock and Tone CP	NT6X75AA			19	13	RUL3
DS-1 Interface CP	NT6X50AA			19	16,17,	RUL4

Retired Equipment
Meridian Cabinet Digital Remote Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA			19	18 11, 12, 13, 16, 17, 18	RUL5
Desig. Label (NT2X57AA)	P0656327			19	06	RUL6
Desig. Label (NT0X10AA)	P0656328			19	07	RUL6
Desig. Label (NT6X47AB)	P0666374			19	11	RUL6
Desig. Label (NT6X45AF)	P0685029			19	12	RUL6
Desig. Label (NT6X75AA)	P0642015			19	13	RUL6
Desig. Label (NT6X50AA)	P0626878			19	16, 17, 18	RUL6
Desig. Label (NT0X50AA)	P0578498			19	11, 12, 13, 16, 17, 18	RUL6
DLM Common CP	NT7X50EA			05		RUL7
DLM Common CP	NT7X50EB			05		RUL7
DLM Shelf Assembly	NT7X4901		1	05		AP
Enhanced Digital Port Card	NT8X47BA			05	07-11, 15-19	RUL8
Filler Face Plate 0.875	NT0X50AA			05	07-12, 14-19	RUL5
Desig. Label (NT8X47BA)	P0689233			05	07-11, 15-19	RUL6
Desig. Label (NT0X50AA)	P0578498			05	07-12, 14-19	RUL6
Fan Unit	NTNX27CA		1	01		AP
Meridian Cabinet	NTNX25AA		1			AP
Anchor Mounting Kit (Earthquake Slab)	NTNX2540					RUL9
Anchor Mounting Kit (Earthquake Computer Flr)	NTNX2578					RUL9
Anchor Mounting Kit (Non-Earthquake Slab)	NTNX2579					RUL10
Anchor Mounting Kit (Non-Earthquake Comp Flr)	NTNX2580					RUL10
Door Assembly Left (Brown)	NTNX2550					RUL11
Door Assembly Right (Brown)	NTNX2552					RUL11
Door Assembly Left (Grey)	NTNX2515					RUL11
Door Assembly Right (Grey)	NTNX2513					RUL11
Door Label Left (Brown)	P0699464					RUL12
Door Label Right (Brown)	P0695230					RUL12

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Door Label Left (Grey)	P0677704					RUL12
Door Label Right (Grey)	P0699158					RUL12
Cabinet Type Label (Brown)	P0700922					RUL13
Cabinet Type Label (Grey)	P0700921					RUL13
End Pnl Assy Left (Brown)	NTNX2553					RUL14
End Pnl Assy Right (Brown)	NTNX2546					RUL14
End Pnl Assy Left (Grey)	NTNX2518					RUL14
End Pnl Assy Right (Grey)	NTNX2517					RUL14

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

1) NTNX49AA is a cabinetized single bay frame which can be equipped with one RDLM.

2) One RDLM consists of up to two (2) DLM and two (2) RIM.

The first DLM consists of a DLM on shelf position 05 and an RIM on shelf position 19. The second DLM consists of a DLM on shelf position 33 and an RIM on shelf position 47.

3) A DLM can house up to ten (10) Enhanced Digital Port Cards, NT8X47BA.

One DLM module has two (2) logical units, unit 0 and unit 1. Unit 0 is on the left hand side of the shelf. Unit 1 is on the right hand side of the shelf (as viewed from the

front of the shelf). The part of the DLM Common CP associated with unit 0 are the cards in circuit pack positions 1,3,4,5, and 6. The part of the DLM Common CP associated with unit 1 are the cards in circuit pack positions 20,21,22,23, and 24.

Unit 0 of the DLM module controls Enhanced Digital Port Cards, NT8X47BA, mounted in slots 7,9,11,16, and 18. Unit 1 of the DLM module controls Enhanced Digital Port Cards, NT8X47BA, mounted in slots 8,10,15, 17, and 19.

- 4) A RIM module can house up to three (3) provisionable trunk and service circuit cards.

The RIM module contains the cards required for the optional ESA capability.

The RIM module contains the cards required for DS-1 interface to the LGC/LTC in the host office.

- 5) One Frame Supervisory Panel, NT7X34GA, always contains the following:

1. One (1) FSP Alarm CP	NT6X36AA
2. One (1) Alarm and Converter Drive CP	NT0X91AA
3. Two (2) Converter Drive & Protect CP	NT0X91AE
4. Two (2) 10A Dist Fuses	NT0X42AJ

- 6) One Fan Unit, NTNX27CA, always contains the following:

1. One (1) Fan Management Unit CP	NTNX13AA

RULES:

AP	1) When PEC NTNX49AA is ordered, these items are provided.
RUL1	1) Provide one (1) NT7X53AA, RIM Common CP, for each RIM module equipped in the MCDR frame.
RUL2	1) When equipping the first RIM on shelf position 19, provide an SD Card I NT2X57AA and a Miscellaneous Scanner NT0X10AA on CP POS 06 and 07 respectively.

- 2) When equipping the second RIM on shelf position 47, provide Filler Face Plates NT0X50AC on CP POS 06 and 07.
- RUL3 1) Provide one (1) NT6X47AB Master Processor Memory CP, one (1) NT6X45AF LGC/DTC Processor CP, and one (1) NT6X75AA ESA Clock and Tone CP when Emergency Stand Alone (ESA) feature is required.
- RUL4 1) Provide a minimum of two (2) or a maximum of three (3) NT6X50AA DS-1 Interface cards as per traffic requirements. The first two (2) cards will mount on CP POS 16 and 17 respectively. The third card will mount on CP POS 18. Each card can accommodate two (2) DS-1 lines to the host LGC/LTC. DS-1 lines to the host range from two (2) to six (6).
- RUL5 1) Provide one (1) NT0X50AA, Filler Face Plate, for each circuit pack position not equipped with a circuit pack.
- RUL6 1) Provide one (1) per circuit pack provisioned of the appropriate Designation Label. PEC on label should be the same as the PEC of the circuit pack provisioned.
- RUL7 1) Provide one (1) NT7X50EA, DLM Common CP for each DLM module equipped in the MCDR frame. For information on the DLM, see EMA10-01-DLM-1. 2) Provide one (1) NT7X50EB, DLM Common CP for each DLM module equipped in the MCDR Frame when provisioning for all IVD sets, and for Meridian Telecenter.
- RUL8 1) Provide up to ten (10) NT8X47BA, Enhanced Digital Port Cards, as required, for each DLM module equipped in the MCDR frame.
- 2) One (1) card is required for every sixteen (16) IVD digital telephone sets.
- 3) Provide these cards in the following circuit pack position sequence: 7, 19, 8, 18, 9, 17, 10, 16, 11, and 15.
- RUL9 1) For earthquake requirements, when installing the frame on slab type flooring in ATC Zone 6 and 7, NEBS Zone 4, and UBC Zone 4, provide one (1) Anchor Mounting Kit (Earthquake Slab), NTNX2540.
- 2) For earthquake requirements, when installing the frame on computer flooring in ATC Zone 6 and 7, NEBS Zone 4, and UBC Zone 4, provide one (1) Anchor Mounting Kit (Earthquake Computer Floor), NTNX2578.

- RUL10 1) For non-earthquake requirements, when installing the frame on slab type flooring, provide one (1) Anchor Mounting Kit (Non-Earthquake Slab), NTNX2579.
- 2) For non-earthquake requirements, when installing the frame on computer flooring, provide one (1) Anchor Mounting Kit (Non-Earthquake Computer Floor), NTNX2580.
- RUL11 1) For each brown cabinet required, provide two (2) Door Assembly Left (Brown), NTNX2550, and two (2) Door Assembly Right (Brown), NTNX2552.
- 2) For each grey cabinet required, provide two (2) Door Assembly Left (Grey), NTNX2515, and two (2) Door Assembly Right (Grey), NTNX2513.
- RUL12 1) For each brown cabinet required, provide two (2) Door Label Left (Brown), P0699464, and two (2) Door Label Right (Brown), P0695230.
- 2) For each grey cabinet required, provide two (2) Door Label Left (Grey), P0677704, and two (2) Door Label Right (Grey), P0699158.
- RUL13 1) For each brown cabinet required, provide two (2) Cabinet Type Label (Brown), P0700922.
- 2) For each grey cabinet required, provide two (2) Cabinet Type Label (Grey), P0700921.
- RUL14 1) If the brown MCDR cabinet is located at the left end of a line up, provide one (1) End Panel Assembly Left (Brown), NTNX2553, which will be mounted at the left end of the line up.
- 2) If the brown MCDR cabinet is located at the right end of a line up, provide one (1) End Panel Assembly Right (Brown), NTNX2546, which will be mounted at the right end of the line up.
- 3) If the grey MCDR cabinet is located at the left end of a line up, provide one (1) End Panel Assembly Left (Grey), NTNX2518, which will be mounted at the left end of the line up.
- 4) If the grey MCDR cabinet is located at the right end of a line up, provide one (1) End Panel Assembly Right (Grey), NTNX2517, which will be mounted at the right end of the line up.

MERIDIAN CABINET REMOTE MODULE COMMON CP

PEC CODE: NTNX17BA

CPC CODE: B0227145

| RATING: MD.

REPLACES: Not Applicable

REPLACED BY: NTNX17BD

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX17BA is the common circuit pack fill to equip the MCRM bay. It contains circuit packs for one RMM and one two-shelf RCC.

REFERENCE DOCUMENTATION: ISNX17AA 00 10

MARKETS: Applicable markets:

US

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX17BA EMR10-10-MCRM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 04 26	----- ECM 326 08	Previous history not available Replace NT2X70AE with NT2X70AF with new pack fills

The Meridian Cabinet Remote Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group CODEC	NT2X59AA		1	49	1	AP
RMM Control CP	NT6X74AB		1	49	2	AP
Signal Scan CP	NT0X10AA		1	49	3	AP
Incoming/Outgoing Test Trk	NT2X90AD		1	49	4	AP
Balance Network	NT2X77AA		1	49	4	AP
LTU Analog Card	NT2X10AB		1	49	5	AP
LTU Digital Card	NT2X11AD		1	49	6	AP
Signal Distribution CP	NT2X57AA		1	49	7	AP
Incoming/Outgoing Test Trk	NT2X90AD		1	49	8	AP
Balance Network	NT2X77AA		1	49	8	AP
LTU Analog Card	NT2X10AB		1	49	9	AP
LTU Digital Card	NT2X11AD		1	49	10	AP
MTA CP	NT3X09BA		1	49	11	AP
Multi O/P Power Converter	NT2X09AA		1	49	17	AP
Filler Face Plate	NT0X50AA		1	49	19	AP
Power Converter CP	NT2X06AB		1	49	20	AP
Designation Strip	P0705924		1	49		AP
DS30A Interface CP	NT6X48AA		4	35, 21	6, 7	AP
LTC/DTC Processor CP	NT6X45BA		4	35, 21	8, 13	AP
Filler Face Plate	NT0X50AA		6	35, 21	9, 18, 24	AP
Master Processor Memory CP	NT6X47AB		4	35, 21	10, 11	AP
Signal Processor Memory CP	NT6X46BA		2	35, 21	12	AP
Time Switch CP	NT6X44AA		2	35, 21	15	AP
Universal Tone Receiver	NT6X92BB		2	35, 21	16	AP
CPP Message Protocol CP	NT6X69AB		2	35, 21	17	AP
Host Link Formatter	NT6X72AA		2	35, 21	19	AP
DS1 I/F Circuit Pack	NT6X50AA		2	35, 21	20	AP
Power Converter	NT2X70AE		2	35, 21	25	AP
Designation Strip	P0709523		2	35, 21		AP

EQUIPMENT FLAGGED '#':

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MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN17BA is ordered, these items are provided.

MERIDIAN CABINET REMOTE MODULE FRAME

PEC CODE: NTNX17AA

CPC CODE: B0226379

RATING: MD.

REPLACES: Not Applicable

REPLACED BY: NTNX17AC

ABBREVIATION NAME: MCRM

ENGINEERING DESCRIPTION: The MCRM is the first cabinet of an RSC-C equipment line-up. It will provide power for the line-up of bays. It will also house the RCC and RMM.

REFERENCE DOCUMENTATION: ISNX17AA 00 12

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: David O'Connell Dept. 2D69 (RICH)

MAIN CONTACT: NTI: David O'Connell Dept. 2D69 (RICH)

NTNX17AA EMR10-10-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 30	ECM 326 03	ADD XPM Plus
93 10 11	ECM 326 04	ADD Circuit packs
93 10 25	ECM 326 05	ADDS NTNX17BC to NTNX17AA EMA
94 04 07	ECM 326 06	ADD CLASS Modem Resource
95 03 10	ECM 326 07	Minor changes
95 04 26	ECM 326 08	Replaces NT2X70AE with NT2X70AF with new pack fills
95 06 22	ECM 326 09	Make changes per ECD002-16256.
95 07 19	ECM 326 10	Make changes per ET26029,ET26009 & ET26019.
96 04 23	ECM 326 13	MD the NTNX17AA per ECD002-16662.
96 08 01	ECM 326 14	Add the NT7X05AA to the MCRM per ECD002-16787.
97 10 28	ECM 326 15	Update the following per ECD 101-00734 Add provisioning considerations for the NT6X05DA Line Drawer For Remotes (ILDR).

The Meridian Cabinet Remote Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34AA	FSP	1	62		AP
RMM Shelf Assembly	NT6X1306	RMM	1	49		AP
MCRM Pack Fill	NTNX17BD			49		RUL1
# LTU-Analog Card	NT2X10AB			49	05,09	RUL21
LTU-Digital Card	NT2X11AD			49	06,10	RUL21
# MTU-Analog Card	NT2X10BA			49	05	RUL21
MTU-Digital Card	NT2X11BA			49	06	RUL21
Metallic Test Access CP	NT3X09BA			49	12,13	RUL4
DRA Controller CP	NT1X75AA			49	13	RUL10
Misc Scan Ckt Pack	NT0X10AA			49	14-16	RUL7
Signal Dist Ckt Pack	NT2X57AA			49	14-16	RUL8
INC/OG Test Trunk CP	NT2X90AD			49	14-16	RUL9
Bal Network	NT2X77AA			49	14-16	RUL9
DRA Memory CP	NT1X77AA			49	14-16	RUL10
Filler Face Plate	NT0X50AC			49		RUL6
Desig. Label (NT0X10AA)	P0656328					RUL11
Desig. Label (NT2X57AA)	P0656327					RUL11
Desig. Label (NT2X90AD)	P0688244					RUL11
Desig. Label (NT1X75AA)	P0666364					RUL11
Desig. Label (NT0X50AC)	P0580258			49	12-16	RUL6
Desig. Label (NT3X09BA)	P0664847			49	12,13	RUL4
RCC Shelf Assembly	NT6X1206	RCC	1	35		AP
MCRM Pack Fill	NTNX17BF			35		RUL1
DS1 I/F Circuit Pack	NT6X50AA			35	1-5 21-23	RUL2
DS1 I/F Circuit Pack	NT6X50AB			35	1-5 21-23	RUL2
DS30A Interface	NT6X48AA			35	06,07	RUL22
Peripheral Loader CP	NT7X05AA			35	12	RUL23
Unified Processor (XPM+)	NTMX77AA			35	13	RUL18
Bus Terminator (XPM+)	NTMX71AA			35	18R	RUL18
XPM+ Warning Label	P0690976			35		
Universal Tone Receiver	NT6X92BC			35	14	RUL3
CLASS Modem Resource	NT6X78AB			35	18	RUL20
Filler Face Plate	NT0X50AA			35		RUL5
Desig. Label (NT6X50AA)	P0626878			35	1-5 21-23	RUL2
Desig. Label (NT6X50AB)	P0690976			35	1-5 21-23	RUL2
Desig. Label (NT7X05AA)	P0845116			35	12	RUL23
Desig. Label (NT6X92BC)	P0737431			35	14	RUL3

Retired Equipment
Meridian Cabinet Remote Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NTMX77AA)	P0735493			35	13	RUL18
Desig. Label (NT0X50AA)	P0578498			35		RUL5
Desig. Label (NT6X78AB)	P0731980			35	18	RUL20
RCC Shelf Assembly	NT6X1206	RCC	1	21		AP
DS1 I/F Circuit Pack	NT6X50AA			21	1-5 21-23	RUL2
DS1 I/F Circuit Pack	NT6X50AB			21	1-5 21-23	RUL2
DS30A Interface	NT6X48AA			21	06,07	RUL22
Peripheral Loader CP	NT7X05AA			21	12	RUL23
Unified Processor (XPM+)	NTMX77AA			21	13	RUL18
Bus Terminator (XPM+)	NTMX71AA			21	18R	RUL18
XPM+ Warning Label	P0690976			21		RUL19
Universal Tone Receiver	NT6X92BC			21	14	RUL3
CLASS Modem Resource	NT6X78AB			21	18	RUL20
Filler Face Plate	NT0X50AA			21		RUL5
Desig. Label (NT6X50AA)	P0626878			21	1-5 21-23	RUL2
Desig. Label (NT6X50AB)	P0690976			21	1-5 21-23	RUL2
Desig. Label (NT7X05AA)	P0845116			21	12	RUL23
Desig. Label (NT6X92BC)	P0737431			21	14	RUL3
Desig. Label (NTMX77AA)	P0735417			21	13	RUL18
Desig. Label (NT0X50AA)	P0578498			21		RUL5
Desig. Label (NT6X78AB)	P0731980			21	18	RUL20
Cooling Unit	NTNX27CA	CU	1	17		AP
Power Distribution Panel	NTNX24DA	PDP	1	01		AP
Common Framework	NTNX25AA	FW	1			AP
PC Kit (RCC to XPM Plus)	NT6X12ZF		1			RUL17
MCS RSC Label Kit	NTNX1102					RUL15
Anchor Kit E'qke Slab	NTNX2540					RUL12
Anchor Kit E'qke Cmptr	NTNX2578					RUL12
Anchor Kit Non-E.Q Slab	NTNX2579					RUL12
Anchor Kit Non-E.Q Cmptr	NTNX2580					RUL12
Right Door Assembly-Grey	NTNX2513					RUL13
Left Door Assembly-Grey	NTNX2515					RUL13
Right Door Label-Grey	P0699158					RUL13

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Left Door Label-Grey	P0677704					RUL13
Left Door Label-Grey	P0818848					RUL13
Cabinet Type Label-Grey	P0687616					RUL14
Right Door Assembly-Brown	NTNX2552					RUL13
Left Door Assembly-Brown	NTNX2550					RUL13
Right Door Label-Brown	P0695230					RUL13
# Left Door Label-Brown	P0699464					RUL13
Left Door Label-Brown	P0818849					RUL13
Cabinet Type Label-Brown	P0699465					RUL14
Right End Pnl Ass'y (Grey)	NTNX2517					RUL16
Left End Pnl Ass'y (Grey)	NTNX2518					RUL16
Right End Pnl Ass'y (Brown)	NTNX2546					RUL16
Left End Pnl Ass'y (Brown)	NTNX2553					RUL16

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
P0677704	MD	P0818848
P0699464	MD	P0818849
NT2X10AB	MD	NT2X10BB
NT2X10BA	MD	NT2X10BB

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MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Cooling Unit contains a Fan Management Unit (FMU) NTNX13AA which is always provided with the cooling unit. Spares should be provided.

- 2) The following circuit packs should be used for new sites and field replacements NT6X50AB, NT6X92BC and NTMX77AA except when requested otherwise by customer.
- 3) The ISDN Line Drawer is a new LCM drawer type that will support ISDN line cards and contain the D-channel handler. The ISDN line drawer will co-exist with current POTS line drawers in a standard LCM. A maximum of two NT6X05DA Line Drawers can be provisioned per LCM. Only one ISDN line drawer per LCM shelf is allowable.

Implement the ISDN Line Drawer for Remotes (ILDR) in the MCLM & MCRU. Maximum of 2 line drawers per LCM is allowed. The number of ILDR drawers that can be provisioned on an XPM is dependent on equipment that subtends that XPM. The basic limitation is the number of available message channels on that equipment.

The following Table shows the equipment that can be subtended off a peripheral and the number of message channels that are allocated for that equipment. The bottom line shows the maximum resources available per XPM. Therefore, for example, if an RCC2 already has 4 RLCMs, 4 LCMs and an RMM subtending it, that would use up a total of 33 message channels ($4 \times 6 + 4 \times 2 + 1$), and leave a total of 12 message channels for ILDRs. Since each ILDR uses 2 message channels, a total of 6 ILDRs would be able to be provisioned on this RCC2.

It should be noted that the RCC2 already has software to check that these limits are not exceeded, and the ILDR will be included in this check. However, other peripherals (RCC+ and LTC+) do not have this capability and therefore this would have to be done manually. If this limitation is exceeded, functionality will be affected.

NODE	# MESSAGE CHANNELS	RELEVANT TO:		
		RCC2	RCC+	LTC+
LCM	2	Y	Y	Y
RLCM WITH ESA & RMM	6	Y	Y	Y
LCME	2	Y	N	N
SMS-R	2	Y	N	N
RMM ON RCC2 OR RCC+	1	Y	Y	N

ILDR	2	Y	Y	Y
DUAL CONFIGURATION	2	Y	Y	N
RCC2/RCC+	2	N	N	Y
TOTAL # OF CHANNELS AVAILABLE:		45	39	47

The limitations in the Table define the number of ILDs that can be provisioned per host shelf, and the limitation of 480 ISDN lines per host shelf defines the total quantity of ISDN lines that can be configured. As a general rule, the ILD message channels will limit the configuration assuming that no LCME is provisioned on the same host. If an LCME is provisioned on the same host, then the number of ISDN lines would probably be the limiting factor.

The ISDN line drawer is intended to be made available in all the DMS-100F frame and cabinet types provisionable with the RSC, RSC-S, MCRMS, MCRM, MCRU, MCLM and RLCM remote products. It is intended to be designed and engineerable in the following vehicles: RSC, RSC-S, MCRU, MCLM and and RLCM.

MCRM cannot be supported by LTCI or LGCI equipment at the host, when configured for ISDN Line Drawer. Also, remotes that subtends MCRM cannot be supported by LTCI or LGCI equipment at the host, when configured for ISDN Line Drawer.

ISDN Line Drawer for Remotes is for the North American Market ONLY.

During ESA of the RSC or RSC-S, the ISDN Line drawer will not be supported. If an RSC or RSC-S enters ESA, the ILDR call might survive the entry but no commitment is made to supporting any service within ESA.

Only 1 ILDR can be defined in each LCA (Line Concentrating Array). ISDN Line Drawer can not be applied to positions 0 or 10. Preferred positions for locating the ISDN Line Drawer is 8 or 18. This means that if the ILDR drawer number of the first ILDR is within the range 2 - 8, the next ILDR to be defined in this LCM will have its drawer number within the range 12 - 18. This limitation exists in order to permit an optimal heat dispersion in the LCM.

A maximum of seven (7) ISDN Line Drawers (NT6X05DA) per remote site can be applied to a single RSC Sonet.

A maximum of fourteen (14) ISDN Line Drawers (NT6X05DA) per remote site can be applied to a dual RSC Sonet.

If the MCRM requires Extended Distance Capability, it may be equipped with the NTMX76AA or NTMX76AB circuit packs. The host XPM for a RSC-S with EDC must also be equipped for HDLC messaging (NTMX76AA or NTMX76AB instead of NT6X69) and must utilize the Unified Processor (XPM PLUS). Refer to ECM-445 for details of provisioning XPM PLUS. The host DS1 interfaces must be 64Kb clear channel (NT6X50AB) to support ISDN and to ensure a protocol match with the NTMX81AA packs in the RCC2 shelf (NTMX81AA is electrically the same as NT6X50AB).

RULES:

- AP 1) When PEC NTN17AA is ordered, these items are provided.
- RUL1 1) Pack Fill NTN17BD provides XPM+ circuit packs to equip one RMM (shelf 49) and two RCC (shelves 35 and 21). See Engineering Manual for MCRM pack fill NTN17BD. The NTN17BD replaces the NTN17BA which is MDed. The NTN17BD pack fill provides XPM+ features for the NTN17AA.
- 2) Pack Fill NTN17BF provides XPM+ circuit packs for shelves 21 and 35. See Engineering Manual for MCRM pack fill NTN17BF. The NTN17BF replaces the NTN17BC which is MDed. The NTN17BF pack fill provides XPM+ features for NTN17AA cabinet. Also provide circuit packs for RMM shelf in POS 49 according to customer requirements.
- RUL2 1) Provide a maximum of nine (9) NT6X50AA, or NT6X50AB DS1 Interface CP for peripheral side trunking in the RCC per customer requirements. Provide one (1) Designation Label P0626878 per NT6X50AA. Provide one (1) P0690976 Designation Label for NT6X50AB. (See NOTE 2)
- 2) When provisioning NT6X50AB the host office must be at BCS31 or higher. The host must also be provisioned with NT6X45BA or higher for Non ISDN applications.

- 3) One NT6X50AA or NT6X50AB provides interfaces for up to two (2) T-1 Spans. The following table is a listing of DS1 ports per circuit pack location.

CP POS	5	4	3	2	1
SHF POS 35	PORTS 2, 3	PORTS 6, 7	PORTS 10, 11	PORTS 14, 15	PORTS 18, 19
SHF POS 21	PORTS 0, 1*	PORTS 4, 5	PORTS 8, 9	PORTS 12, 13	PORTS 16, 17

(rear view)

* Ports 0 and 1 are not available for peripheral side trunking.

- 4) P-Side Link Assignments:

First assign P-Side DS30A (NT6X48AA) links (2-19) to RSC-C line equipment. The DS30A ports are assigned in the following sequential order: 19, 17, 18, 16, 15, 13, 14, 12, 11, 9, 10, 8, 7, 5, 6, 4, 3, 2 (Ports 0 and 1 are reserved for RMM).

After DS30-A link assignments are made for RSC-C line equipment, assign P-Side DS1 links for digital trunks and MRCU. The DS1 ports are assigned in the following sequential order: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 (Ports 0 and 1 are reserved for RMM).

- 5) Provide a maximum of six (6) DS1 Interface Circuit Packs (in addition to the two (2) always provided by MCRM Common CP (NTNX17BD) and Designation Label P0690976 for the host interface from the RCC per customer requirements.
- 6) One NT6X50AA or NT6X50AB provides interfaces for up to two (2) T-1 Spans. The following table is a listing of DS1 ports (host I/F) per CP.

CP POS	20*	21	22	23
SHF POS 35	PORTS 2, 3*	PORTS 6, 7	PORTS 10, 11	PORTS 14, 15
SHF POS	PORTS	PORTS	PORTS	PORTS

21	0,1*	4,5	8,9	12,13

* CP POS 20 is always provided
with MCRM Common CP NTN17BD.

- 7) The number of RCCs terminating on the same host LGC/LTC is one. It can be two if the RCCs terminate local LCMs or DLMS only (no remotes or trunks).
- RUL3 1) NT6X92BB/BC UTR is a combined service circuit that can perform the function of digitone receiver for lines and the MF receiver for trunks. One pair of NT6X92BB/BC provides up to thirty circuits. One pair of NT6X92BB/BC is always provided by MCRM Common CP NTN17BD. For every additional pair of NT6X92BB/BC, provide two Designation Labels P0686332 for the NT6X92BB or P0737431 for the NT6X92BC. (See NOTE 2)
- 2) If additional UTR is required for traffic considerations, provide an additional pair in slot 14 of both shelves. NOTE: To allow sufficient current for the operation of the second UTR pair, the RCC is restricted to a maximum of twelve NT6X50AA/AB total circuit packs.
- 3) UTR cards located in a particular RCC module will service all lines and trunks connected to that module including lines from all RSC-C ELMs and DLMS and MCRUs (remotes).
- 4) NT6X92BC UTR replaces NT6X92BB for new sites and field replacements. NT6X92BC provides the same functions as the NT6X92BB. Provide designation label P0737431 with each NT6X92BC circuit pack required.
- RUL4 1) Provide MTA CP NT3X09BA and Designation Label P0664847 in slot 12 with the third MCLM cabinet provided. Provide MTA CP NT3X09BA and Designation Label P0664847 in slot 13 with the fifth MCLM cabinet provided.
- RUL5 1) Provide Filler Face Plate NT0X50AA and Designation Label P0578498 for each slot unequipped in shelf position 35 and 21.
- RUL6 1) Provide Filler Face Plate NT0X50AC and Designation Label P0580258 for each slot unequipped in shelf position 49.
- RUL7 1) Provide one Scan Circuit Pack NT0X10AA for every 14 scan points required in a remote office. When connected to out-

of-office leads, these circuit packs must be located in an even circuit pack position.

- RUL8 1) Provide one Miscellaneous SD TYPE 1 circuit pack NT2X57AA for every 14 signal distributor points required for the remote office.
- RUL9 1) Provide one Incoming/Outgoing Test Trunk circuit pack NT2X90AD (and one NT2X77AA per NT2X90AD) per customer requirements.
- RUL10 1) Provide one DRA Controller Circuit Pack NT1X75AA per customer requirements.
- 2) Provide a maximum of three DRA Memory Circuit Packs NT1X77AA.
- RUL11 1) Provide one (1) label per circuit pack provisioned. (NT code on label should be same as circuit pack provisioned.) Affix designation label to appropriate position on the designation strip.
- RUL12 1) Provide one (1) NTNX2540 earthquake kit for slab floor when bay is installed at site in the following seismic (earthquake) zones:
- ATC Zones 6 & 7
NEBS ZONE 4
UBC Zone 4
- 2) Provide one (1) NTNX2578 earthquake kit for computer floor when bay is installed at site in the following seismic (earthquake) zones:
- ATC Zones 6 & 7
NEBS Zone 4
UBC Zone 4
- 3) Provide one (1) NTNX2579 anchor kit for non-earthquake zone site with a slab floor.
- 4) Provide one (1) NTNX2580 anchor kit for non-earthquake zone site with a computer floor.
- RUL13 1) Provide 2 door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
- 2) Provide 2 right door labels and 2 left door labels per cabinet.

RUL14 1) Provide 2 cabinet type labels, one for front, one for rear of cabinet.

RUL15 1) Provide one set of MCS RSC Label Kit NTN1102 per MCRM.

RUL16 1) Provide one each left and right End Panel per lineup per customer requirements as follows:

NTNX2517 Right End Panel (Grey)
NTNX2518 Left End Panel (Grey)

NTNX2546 Right End Panel (Brown)
NTNX2553 Left End Panel (Brown)

- 2) Note that End Panels must be associated with the first MCRM (of the lineup) in the Configuration Section of the specification. It must not appear in the "Loose Items" section of the specification and must never "ship loose".

RUL17 1) Provide one Product change kit NT6X12ZF for each module to be converted to XPM Plus. To order XPM+ hardware separately the following is the contents of the NT6X12ZF change kit: (one Kit's hardware equips two shelves 21,35)

	QTY	CPC	PEC	DESC.
	2	B0234514	NTMX71AA	XPM+ TERMINATOR PADDLE BOARD
	2	B0230976	NTMX77AA	UNIFIED PROCESSOR
	2	P0735417	P0735417	DESIG. LABEL(NTMX77AA)
*	1MT	R0109647	R0109647	HOOK-UP WIRE, PAIR 26AWG
*	5MT	R0109836	R0109836	HOOK-UP WIRE, SINGLE 26AWG
*	1MT	R0111402	R0111402	HOOK-UP WIRE, PAIR 26AWG
	8	B0204315	NT0X50AA	FILLER FP .875

* NOTE: BE SURE TO ORDER THE WIRE IN METERS, syntax example:
P +1 R0109647 L= 1MT

- 2) The XPM+ wirings are permanently added to the NTN17AA cabinet by ECD002-16256, as part of the MD process of the MP/SP circuit packs.

RUL18 1) Provide for XPM+: refer to the NT6X12ZF EMA section for removal and addition of circuit packs and additions of wire wrapped connections provided in the NT6X12ZF kit. (also ref. RUL17)

- RUL19 1) Provide one (1) P0690976 XPM+ Warning Label per module or two per cabinet.
- RUL20 1) When the calling Number Delivery/Calling Number Display (CND) feature is ordered, provide two (2) NT6X78AB, CLASS Modem Resource CP, for each RCC module requiring the CND feature.
- 2) Mount circuit packs in slot 18 of the upper and lower shelves of the peripheral modules. NT6X78AB replaces NT6X78AA.
- 3) When the CMR Card (NT6X78AB) is provisioned the Messaging CP must be NT6X69AB or later.
- 4) Because of power restrictions, when the NT6X78AB is provisioned the total number of C-side and P-side NT6X50AA/ABs must not exceed 10 on the RCC.
- RUL21 1) Provide either 1 or 2 LTUs (i.e. NT2X10AB,NT2X11AD) or 1 MTU (i.e. NT2X10BA,NT2X11BA) and no LTUs. An LTU contains 1 circuit whereas an MTU contains 2 circuits.
- RUL22 1) Provide 4 DS30A port circuit packs (NT6X48AA) when LCMs are equiped at the RSC office. Assign the DS30A ports in the following sequence 19,17,18,16,15,13,14,12,11,9,10,8,7,5,6,4,3 and 2. Port 1 is reserved for use by the RMM.
- RUL23 1) Provide two (2) NT7X05AA and two (2) P0845116 as required by customer for slot 12 on shelves 21 & 35. Minimum software load required is MSL04.

MERIDIAN CABINET POWER MODULE COMMON CP

PEC CODE: NTNX24LA

CPC CODE: B0227058

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX24LA is the common circuit pack fill for the Meridian Cabinet Power Module bay application. It consists of all non-provisionable circuit packs on the MCPM bay including PTM 00, PTM 01 and the DDU. This packfill is for MSL-100 applications.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX24LA EMR10-11-MCPM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 19	----- ECM 523 04	Previous history not available MD the NTNX24AA, NTNX24LA and NTNX37AA per ECD002-15973, 002-16146 & 002-16128.

The Meridian Cabinet Power Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TM Interface	NT2X45AB		1	47	1	AP
TM Processor	NT0X70AC		1	47	2	AP
TM Control	NT2X53AA		1	47	3	AP
Group CODEC	NT2X59AA		1	47	4	AP
OAU Dead Sys w/Comm Audible	NT3X82AB		1	47	5	AP
Miscellaneous Scanner	NT0X10AA		1	47	7	AP
Signal Distribution CP	NT2X57AA		1	47	8	AP
TTU Cont & Signal Gen	NT2X47AD		1	47	9	AP
TTU Digital Filter	NT2X56AB		1	47	10	AP
TTT Signal Generator	NT1X90AA		1	47	11	AP
PCM Level Meter	NT2X96AA		1	47	12	AP
101 Communication Line	NT5X30AA		1	47	13	AP
Com Balance Network	NT2X77AA		1	47	13	AP
Jack Ended Trunk	NT1X54AA		1	47	14	AP
TOPS Control Processor	NT3X02AA		1	47	15	AP
TOPS Digital Signal Proc	NT3X03AA		1	47	16	AP
Multi O/P Power Converter	NT2X09AA		1	47	17	AP
Filler Face Plate	NT0X50AA		1	47	19	AP
Power Converter CP	NT2X70AE		1	47	20	AP
Designation Strip	P0687820		1	47		AP
TM Interface	NT2X45AB		1	33	1	AP
TM Processor	NT0X70AC		1	33	2	AP
TM Control	NT2X53AA		1	33	3	AP
Group CODEC	NT2X59AA		1	33	4	AP
OAU Dead Sys w/Comm Audible	NT3X82AB		1	33	5	AP
101 Communication Line	NT5X30AA		1	33	6	AP
Com Balance Network	NT2X77AA		1	33	6	AP
101 Communication Line	NT5X30AA		1	33	7	AP
Com Balance Network	NT2X77AA		1	33	7	AP
Multi O/P Power Converter	NT2X09AA		1	33	17	AP
Filler Face Plate	NT0X50AA		1	33	19	AP
Power Converter CP	NT2X70AE		1	33	20	AP
Designation Strip	P0687819		1	33		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN24LA is ordered, these items are provided.

MERIDIAN CABINET POWER MODULE

PEC CODE: NTNX24AA

CPC CODE: B0225317

RATING: MD

REPLACES: N/A

REPLACED BY: NTNX37AB

ABBREVIATION NAME: MCPM

ENGINEERING DESCRIPTION: The MCPM is the first cabinet of the first lineup in the Meridian Cabinet SL100 host equipment. It can provide power for the first lineup of bays (Row A). It also houses the first two (2) PTMs for the office and the dual disk drives.

REFERENCE DOCUMENTATION: MSNX24

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI: Peter Szczesniak Dept. 2D69 (RNS)

MAIN CONTACT: NTI: Peter Szczesniak Dept. 2D69 (RNS)

NTNX24AA EMR10-11-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 19	----- ECM 523 04	Previous history not available MD the NTNX24AA, NTNX24LA and NTNX37AA per ECD002-15973, 002-16146 & 002-16128.
97 10 13	ECM 523 12	Update Cades to show the NTNX24YY kit which was created on ECD 002-15414 but never had the EMA updated. Also identified MD'ed codes.

The Meridian Cabinet Power Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NT7X34AA	FSP	1	60		AP
PTM Shelf Assembly	NT2X58CA		2	47, 33		AP
# MCPM Common CP (MSL-100)	NTNX24LA			47, 33		RUL1
MCPM Common CP (DMS250)	NTNX24LB			47, 33		RUL24
NTWK DS30 MTM PORTS TO BKHD KIT OPTN <Y>	NTNX24YY			47, 33		RUL30
DDU Shelf Assembly Unit	NT4X00AF		1	19		AP
Mercury 8" Disk Drive	NT8211D-19-063		2	19	10, 18	RUL28
# 5.25" 220MB Disk Drive	NT4X00AG		2	19	10, 18	RUL28
Pwr Converter For DDU	NT1X78AA		2	19	2, 26	RUL28
# Mercury DDU Hwr Kit	NT4X0038		2	19		RUL28
PDP Shelf Assembly	NTNX2401		1	00		AP
Power Distribution Panel	NTNX24BA	PDP	1	00		AP
PROVISIONABLE CIRCUIT PACKS MSL-100 (W/NTNX24LA)						
OAU Alarm Trans CP	NT3X83AA			47	6	RUL22
OAU Alarm Sending CP	NT3X84AA			47	6	RUL27
101 Com Test Line CP	NT5X30AA			33	8-13, 16	RUL4, 6
Trans'n Terminal Trunk	NT2X71AA			33	8-16	RUL7
Miscellaneous Scanner	NT0X10AA			33	9-11, 16	RUL8
Scan Distribution Card	NT2X57AA			33	9-11, 16	RUL9
Jack Ended Trunk CP	NT1X54AA			33	8-12, 16	RUL10
Incoming/Outgoing Test Trk	NT2X90AD			33	9-11, 16	RUL6, 11
Comp Bal Network (900 ohm)	NT2X77AA					RUL6
Loop Around Test Line	NT2X75AA			33	8-16	RUL12
# 102 MW Test	NT1X00AB			33	8-16	RUL13
# ROH Tone Generator	NT1X00AC			33	8-16	RUL14
# 102 TEST MW -20 DB	NT1X00AG			33	8-16	RUL25
# 102 TEST MW -15 DB	NT1X00AH			33	8-16	RUL26
TTU-Trans Test Module	NT2X47AD			33	9-15	RUL15
Digital Filter CP	NT2X56AB			33	10-16	RUL15
TTU-Test Signal Generator	NT1X90AA			33	9-15	RUL16
PCM Level Meter	NT2X96AA			33	10-16	RUL16
Tops Control Processor	NT3X02AA			33	9-15	RUL17
Tops Digital Controller	NT3X03AA			33	10-16	RUL17
Tone Generator-Call	NT3X68AC			33	8-16	RUL18
Tone Generator-Prmt	NT3X68AA			33	8-16	RUL19
Tone Generator-Dual Tone MF	NT3X68AB			33	8-16	RUL29
Filler Face Plate 1.12	NT0X50AC			33	8-16	RUL20

Retired Equipment
Meridian Cabinet Power Module

NTNX24AA
EMR10-11-000
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
4W E&M Type D1 600 I/F	NT2X72AA			33	9-11, 16	RUL23
OAU Alarm Trans CP	NT3X83AA			47	6	RUL22
OAU Alarm Sending CP	NT3X84AA			47	6	RUL27
101 com test line CP	NT5X30AA			33	11-12, 16	RUL4, 6
Trans'n Terminal Trunk	NT2X71AA			33	11-12	RUL7
					15-16	
				47	15-16	RUL7
Miscellaneous Scanner	NT0X10AA			33	11, 16	RUL8
Scan Distribution Card	NT2X57AA			33	11, 16	RUL9
Jack Ended Trunk CP	NT1X54AA			33	11-12, 16	RUL10
Incoming/Outgoing Test Trk	NT2X90AD			33	11, 16	RUL6, RUL11
Comp Bal Network (900 OHM)	NT2X77AA					RUL6
Loop Around Test Line	NT2X75AA			33	11-12	RUL12
					15-16	
				47	15-16	RUL12
# 102 MW Test	NT1X00AB			33	11-12	RUL13
					15-16	
				47	15-16	RUL13
# ROH Tone Generator	NT1X00AC			33	11-12	RUL14
					15-16	
				47	15-16	RUL13
# 102 Test MW -20 DB	NT1X00AG			33	11-12	RUL25
					15-16	
				47	15-16	RUL25
# 102 Test MW -15 DB	NT1X00AH			33	11-12	RUL26
					15-16	
				47	15-16	RUL26
TTU-Trans Test Module	NT2X47AD			33	11, 15	RUL15
				47	15	RUL15
Digital Filter CP	NT2X56AB			33	12, 16	RUL15
				47	16	RUL15
TTU-Test Signal Generator	NT1X90AA			33	11, 15	RUL16
				47	15	RUL16
PCM Level Meter	NT2X96AA			33	12, 16	RUL16
				47	16	RUL16
Tops Control Processor	NT3X02AA			33	11, 15	RUL17
				47	15	RUL17
Tops Digital Controller	NT3X03AA			33	12, 16	RUL17
				47	16	RUL17
Tone Generator-Call	NT3X68AC			33	11-12	RUL18
				47	15	RUL18
Tone Generator-PRMT	NT3X68AA			33	11-12	RUL19
				47	15	RUL19
Tone Generator-Dual Tone MF	NT3X68AB			33	11-12	RUL29
				47	15	RUL29

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 1.12	NT0X50AC			33	11, 12 15, 16	RUL20
4w E&M Type D1 600 I/F	NT2X72AA			47 33	3, 15, 16 11, 16	RUL20 RUL23
Common Framework	NTNX25AA	FW	1			AP
Right Door Assembly-Grey	NTNX2513					RUL2
Left Door Assembly-Grey	NTNX2515					RUL2
End Panel Assy-Right(Grey)	NTNX2517					RUL3
End Panel Assy-Left(Grey)	NTNX2518					RUL3
Cabinet Type Label (Grey)	P0687615					RUL3
Right Door Label (Grey)	P0699158					RUL3
Left Door Label (Grey)	P0818848					RUL3
Right Door Assembly-Brown	NTNX2552					RUL2
Left Door Assembly-Brown	NTNX2550					RUL2
Cabinet Type Label (Brown)	P0699469					RUL3
Left Door Label (Brown)	P0818849					RUL3
Right Door Label (Brown)	P0695230					RUL3
End Panel Assy-Right(Brown)	NTNX2546					RUL3
End Panel Assy-Left(Brown)	NTNX2553					RUL3
Anchor Kit (Earthquake Slab)	NTNX2540					RUL5
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL5
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL5
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL5
Desig. Label (NT5X30AA)	P0656329					RUL21
Desig. Label (NT2X71AA)	P0661419					RUL21
Desig. Label (NT0X10AA)	P0656328					RUL21
Desig. Label (NT2X57AA)	P0656327					RUL21
Desig. Label (NT1X54AA)	P0656330					RUL21
Desig. Label (NT2X90AD)	P0688244					RUL21
Desig. Label (NT2X75AA)	P0657680					RUL21
Desig. Label (NT1X00AB)	P0661425					RUL21
Desig. Label (NT1X00AC)	P0661420					RUL21
Desig. Label (NT2X47AD)	P0676174					RUL21
Desig. Label (NT2X56AB)	P0661422					RUL21
Desig. Label (NT1X90AA)	P0661423					RUL21
Desig. Label (NT2X96AA)	P0661424					RUL21
Desig. Label (NT3X02AA)	P0661202					RUL21
Desig. Label (NT3X03AA)	P0661203					RUL21
Desig. Label (NT3X68AC)	P0657674					RUL21
Desig. Label (NT3X68AA)	P0661782					RUL21
Desig. Label (NT3X83AA)	P0688413					RUL21
Desig. Label (NT3X84AA)	P0670780					RUL21

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NT1X78AA)	P0668410					RUL21
Desig. Label (NT3X68AB)	P0586905					RUL21
Desig. Label (NT2X72AA)	P0656333					RUL21
Desig. Label (NT0X50AC)	P0580258					RUL21

EQUIPMENT FLAGGED '#' :

PEC	RATING	REPLACED BY PEC
NTNX24LA	MD	no replacement
NTNX24LC	MD	no replacement
NT4X00AG	MD	no replacement
NT4X0038	MD	no replacement
NT1X00AB	MD	NT1X80AA
NT1X00AC	MD	NT1X80AA
NT1X00AG	MD	NT1X80AA
NT1X00AH	MD	NT1X80AA
P0677704	std	P0818848
P0699464	std	P0818849

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

FLAGS:

NOTES:

- 1) Disk drive is not to be shipped to manufacturing area and
mounted on frame. Order and ship disk drive directly to
job site or staging area as required.

- 2) Refer to EMA5 for information on the Dual Disk Drive Unit Shelf (NT4X00AF) and the DDUs (and other equipment) that can mount on this shelf.

RULES:

- AP 1) When PEC NTN24AA is ordered, these items are provided.
- 2) The MCPM PDP comes equipped with "A" feed fuse panel and "B" feed fuse panel equipped with 42 each 20A fuses, 43 each 1-1/3 fuses and 1 each 10A fuse.
- RUL1 1) Provide one (1) NTN24LA per frame when office is provided as MSL-100 system.
- RUL2 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
- RUL3 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet.
- 2) Provide two left door label (P0818848-Grey, P0818849-Brown) per cabinet. P0818848 replaced P0677704 & P0818849 replaced P0699464.
- 3) Provide two right door label (P0699158-GREY, P0695230-Brown) per cabinet.
- 4) Provide one right and one left End Panel Assemblies.
- RUL4 1) Provide NT5X30AA on MCPM00 as required for MSL-100 system when additional test lines are required (see RUL6).
- RUL5 1) Provide one Earthquake Mounting Kit when installing frame in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTN2540 kit for slab type flooring or NTN2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTN2579 kit for slab type flooring or NTN2580 for computer flooring.
- RUL6 1) Provide one (1) NT2X77AA Balance Network 900 ohms on MCPM00 for each NT5X30AA and NT2X90AD provisioned. NT2X77AA mounts on these trunk cards.

- RUL7 1) Provide NT2X71AA on MCPM00 as required for MSL-100 system for an AC open or short termination test to check stability of trunks with negative impedance type repeaters.
- RUL8 1) Provide NT0X10AA on MCPM00 as required for the MSL-100 system when additional scan points are required (two circuits per pack and seven scan points per circuit).
- RUL9 1) Provide NT2X57AA on MCPM00 as required for the MSL-100 system when additional signal distributor points are required (two circuits per pack and seven points per circuit).
- RUL10 1) Provide NT1X54AA on MCPM00 as required for MSL-100 system when additional circuits for access to switching network for analog (VF) test equipment required (two circuits per pack).
- RUL11 1) Provide NT2X90AD on MCPM00 as required for system test trunks and fourteen local test desk or three local test cabinet (provides interface for one test trunk) (see RUL6).
- RUL12 1) Provide NT2X75AA on MCPM00 as required for MSL-100 system when loop around test line is required for measuring near to far end trunk transmission losses (one loop around circuit per pack).
- RUL13 1) Provide NT1X00AB on MCPM00 as required for MSL-100 system when additional 102 Test Milliwatt is required.
- RUL14 1) Provide one (1) NT1X00AC on MCPM00 as required for MSL-100 system when receiver off hook tone generator is required.
- RUL15 1) Provide one (1) NT2X47AD (left, odd slot) and one NT2X56AB (right, even slot) for each additional transmission test unit required.
- RUL16 1) Provide one (1) NT1X90AA (left slot) and NT2X96AA (right slot) for additional transmsion termination trunks.
- RUL17 1) Provide one (1) NT3X02AA (left, odd slot) and one (1) NT3X03AA (right, even slot) to provide additional TOPS data channels (one pair required for each four TOPS position/TOPS TTY served) or one pair required for every four BSAC (NT4X09AG). Do not provide on same PTM with NT5X30AA (different software exec required)
- RUL18 1) Provide NT3X68AC as required when tone generator-call circuit pack is required. This circuit pack requires two slots. Leave next highest slot vacant.

- RUL19 1) Provide NT3X68AA as required when tone generator-PRMT circuit pack is required. This circuit pack requires two slots. Leave next highest slot vacant.
- RUL20 1) Provide (NT0X50AC) Filler Face Plates in all positions not equipped with circuit packs.
- RUL21 1) Provide one per circuit pack provisioned of the appropriate label (NT code on label should be same as circuit pack provisioned). Affix label on shelf upper designation strip in appropriate position.
- RUL22 1) Provide one (1) NT3X83AA OAU Alarm System Transfer Circuit Pack per MSL-100 system.
- RUL23 1) Provide one (1) NT2X72AA when Music-On-Hold feature is required. This card is also provisionable on the PTM/MCAM.
- RUL24 1) Provide one (1) NTN24LB when office is provided as a DMS250 system.
- RUL25 1) Provide one (1) NT1X00AG when 102 Test Milliwatt at -20DB is required. This card is also provisionable on PTM/MCAM frame.
- RUL26 1) Provide one (1) NT1X00AG when 102 Test Milliwatt at -15DB is required. This card is also provisionable on PTM/MCAM frame.
- RUL27 1) Provide one (1) NT3X84AA OAU Alarm Sending circuit pack when the dead system and checking feature is required.
- RUL28 1) Provide two NT-Mercury 8211D-19-063 Disk Drives or two 5.25" NT4X00AG 220MB Disk Drives, one in position 10 and one in position 18.
- 2) Provide two power converters (NT1X78AA) one in CP position 02 and one in CP position 26.
- 3) Provide two Disk Drive hardware kits (NT4X0038) for the two disk drives provided.
- RUL29 1) Provide NT3X68AB as provisioned when Tone Gen Dual Tone MF CP is required. This circuit pack requires two slots. Leave next highest slot vacant.
- RUL30 1) Provision one NTN24YY external to lineup wiring option <Y> for ENET upgrades.

MCAM COMMON CP

NTNX37NA

| RATING: A&M

ABBREVIATION NAME: MCAM

ENGINEERING DESCRIPTION: This MCAM common CP will equip two (2) PTM, (one each on shelf position 33 and 47) and two (2) STM (one odd, one even numbered) on shelf position 19.

REFERENCE DOCUMENTATION: N/A

Release 06.02

91 06 28

The MCAM Common Packfill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TM Interface	NT2X45AB		1	47	1	AP
TM Processor	NT0X70AC		1	47	2	AP
TM Control	NT2X53AA		1	47	3	AP
Group Codec Card	NT2X59AA		1	47	4	AP
OAU Dead SYS/Comm Aud	NT3X82AB		1	47	5	AP
OAU alarm transfer cp	NT3X83AA		1	47	6	AP
Miscellaneous Scanner	NT0X10AA		1	47	7	AP
MTA	NT3X09BA		1	47	8	AP
102 mw Test	NT1X00AB		1	47	11	AP
Signal Dist'n Card	NT2X57AA		1	47	12	AP
LTU - Analog Cp	NT2X10AB		1	47	13	AP
LTU - Digital Cp	NT2X11AD		1	47	14	AP
IC/OG Test Trunk	NT2X90AD		1	47	15	AP
900 Ohm Com Bal NTWK DtrBrd	NT2X77AA		1	47	15	AP
ROH Tone Gen	NT1X00AC		1	47	16	AP
Multi O/P Pwr Conv	NT2X09AA		1	47	17	AP
Filler Face Plate .875	NT0X50AA		1	47	19	AP
Power Converter	NT2X70AE		1	47	20	AP
PTM Des'n Strip (Shf 47)	P0701716		1	47		AP
TM Interface	NT2X45AB		1	33	1	AP
TM Processor	NT0X70AC		1	33	2	AP
TM Control	NT2X53AA		1	33	3	AP
Group Codec Card	NT2X59AA		1	33	4	AP
OAU Dead SYS/Comm Aud	NT3X82AB		1	33	5	AP
Call Waiting Tone Gen	NT3X68AC		1	33	6	AP
Filler Face Plate 1.25	NT0X50AC		1	33	7	AP
TTT-Test Sig Gen	NT1X90AA		1	33	9	AP
PCM Level Meter	NT2X96AA		1	33	10	AP
TTU-trans Test Module	NT2X47AD		1	33	11	AP
Dig'l Filter Cp	NT2X56AB		1	33	12	AP
Multi O/P Pwr Conv	NT2X09AA		1	33	17	AP
Filler Face Plate .875	NT0X50AA		1	33	19	AP
Power Converter	NT2X70AE		1	33	20	AP
PTM Des'n Strip (Shf 33)	P0701717		1	33		AP
Filler Face Plate 2.22	NT0X50AG		1	19	1	AP
Filler Face Plate 1.25	NT0X50AC		1	19	3	AP
TM Control Card	NT4X65AB		2	19	4, 12	AP
4 Chnl Mf RCVR	NT2X48BA		1	19	16	AP
Group Codec Card	NT2X59AA		1	19	17	AP
Filler Face Plate .875	NT0X50AA		1	19	19	AP
4 Chnl DTMF RCVR	NT2X48BB		1	19	18	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter	NT2X70AE		1	19	20	AP
STM/STM Des'n Strip	P0701719		1	19		AP

RULES:

AP 1) When PEC NTNX37NA is ordered, these items are provided.

MCAM COMMON CP

NTNX37ND

| RATING: A&M

ABBREVIATION NAME: MCAM

ENGINEERING DESCRIPTION: This MCAM common CP will equip one (1) PTM,
on shelf Posistion 33 only.

REFERENCE DOCUMENTATION: N/A

The NTN37ND MCAM Common Packfill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MCAM Various Shf Des Strip	P0701713		1	47		AP
TM Interface	NT2X45AB		1	33	1	AP
TM Processor	NT0X70AC		1	33	2	AP
TM Control	NT2X53AA		1	33	3	AP
Group Codec	NT2X59AA		1	33	4	AP
Multi O/P Pwr Conv	NT2X09AA		1	33	17	AP
Filler Face Plate	NT0X50AA		1	33	19	AP
Power Converter	NT2X70AE		1	33	20	AP
MCAM PTM Shf Des Strip	P0710712		1	33		AP

RULES:

AP 1) When PEC NTN37ND is ordered, these items are provided.

MCAM COMMON CP

NTNX37NE

| RATING: A&M

ABBREVIATION NAME: MCAM

ENGINEERING DESCRIPTION: This MCAM common CP will equip one (1) PTM,
on shelf Position 47 only.

REFERENCE DOCUMENTATION: N/A

The NTN37NE MCAM Common Packfill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TM Interface	NT2X45AB		1	47	1	AP
TM Processor	NT0X70AC		1	47	2	AP
TM Control	NT2X53AA		1	47	3	AP
Group Codec	NT2X59AA		1	47	4	AP
Multi O/P Pwr Conv	NT2X09AA		1	47	17	AP
Filler Face Plate	NT0X50AA		1	47	19	AP
Power Converter	NT2X70AE		1	47	20	AP
MCAM PTM Shf Des Strip	P0710712		1	47		AP

RULES:

AP 1) When PEC NTN37NE is ordered, these items are provided.

MERIDIAN CABINET AUXILIARY MODULE COMMON CP

NTNX37LB

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX37LB Common Pack Fill equips shelves 33 and 47 of the MCAM cabinet as two PTM shelves.

REFERENCE DOCUMENTATION: N/A

The Meridian Cabinet Auxiliary Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TM Interface	NT2X45AB		1	47	1	AP
TM Processor	NT0X70AC		1	47	2	AP
TM Control	NT2X53AA		1	47	3	AP
Group CODEC	NT2X59AA		1	47	4	AP
LTU Analog Card	NT2X10AB		1	47	5	AP
LTU Digital Card	NT2X11AD		1	47	6	AP
Incoming/Outgoing Test Trk	NT2X90AD		1	47	7	AP
Com Balance Network	NT2X77AA		1	47	7	AP
Multi O/P Power Converter	NT2X09AA		1	47	17	AP
Filler Face Plate	NT0X50AA		1	47	19	AP
Power Converter CP	NT2X70AE		1	47	20	AP
Designation Strip	P0687848		1	47		AP
TM Interface	NT2X45AB		1	33	1	AP
TM Processor	NT0X70AC		1	33	2	AP
TM Control	NT2X53AA		1	33	3	AP
Group CODEC	NT2X59AA		1	33	4	AP
LTU Analog Card	NT2X10AB		1	33	5	AP
LTU Digital Card	NT2X11AD		1	33	6	AP
Incoming/Outgoing Test Trk	NT2X90AD		1	33	7	AP
Com Balance Network	NT2X77AA		1	33	7	AP
Multi O/P Power Converter	NT2X09AA		1	33	17	AP
Filler Face Plate	NT0X50AA		1	33	19	AP
Power Converter CP	NT2X70AE		1	33	20	AP
Designation Strip	P0687848		1	33		AP

RULE:

AP 1) When PEC NTN37LB is ordered, these items are provided.

MERIDIAN CABINET AUXILIARY MODULE COMMON CP

NTNX37LA

RATING: Standard

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX37LA Common Pack Fill equips shelf 19 of the MCAM cabinet as STM/STM shelf with ten (10) 6-port conference cards.

REFERENCE DOCUMENTATION: N/A

The Meridian Cabinet Auxiliary Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate	NT0X50AG		1	19	1	AP
Filler Face Plate	NT0X50AC		2	19	3,11	AP
TM Control Card	NT4X65AB		2	19	4,12	AP
6-Port Conference CP	NT3X67AA		10	19	5-8, 10, 13-16, 18	AP
Group CODEC	NT2X59AA		2	19	9,17	AP
Filler Face Plate	NT0X50AA		1	19	19	AP
Power Converter CP	NT2X70AE		1	19	20	AP
Designation Strip	P0687847		1	19		AP

RULE:

AP 1) When PEC NTN37LA is ordered, these items are provided.

MERIDIAN CABINET AUXILIARY MODULE

PEC CODE: NTNX37AA

CPC CODE: B0225314

| RATING: MD

REPLACES: Not Applicable

| REPLACED BY: NTNX37AB

ABBREVIATION NAME: MCAM

ENGINEERING DESCRIPTION: The MCAM frame is similar to the MCPM and is the first cabinet in the second and all subsequent rows in the meridian cabinet sl100 host and it provides power for up to nine cabinets in its line-up. It can also provide two (2) PTM shelves and a double STM shelf as required.

REFERENCE DOCUMENTATION: MSNX37

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: NTI: Joe Bragg Dept. 6457 (RNS)

NTNX37AA EMR10-12-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 03 18 95 05 19	ECM 449 09 ECM 523 04	Add EMI bulkhead filter kits MD the NTNX24AA, NTNX24LA and NTNX37AA per ECD002-15973, 002-16146 & 002-16128.

The Meridian Cabinet Auxiliary Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Common Framework	NTNX25AA	FW	1			AP
Frame Supervisory Panel	NT7X34AA	FSP	1	60		AP
PTM Shelf Assembly	NT2X58CA		1	47		AP
PTM Common Circuit Pack	NTNX37LB	PTM		47		RUL1
Trans Terminal Trunk	NT2X71AA			47	12-16	RUL5
101 Comm Test Line	NT5X30AA			47	12-14	RUL3,4
Miscellaneous Scanner	NT0X10AA			47	12-14	RUL17
Scan Dist'n Card	NT2X57AA			47	12-14	RUL18
Jack Ended Trunk	NT1X54AA			47	12-14	RUL6
Incoming/Outgoing Test Trk	NT2X90AD			47	12-14	RUL7,4
Loop Around Test Line	NT2X75AA			47	12-16	RUL8
102 Test-MW Circuit	NT1X00AB			47	12-16	RUL9
ROH Tone Generator	NT1X00AC			47	12-16	RUL10
102 Test MW -20DB	NT1X00AG			47	12-16	RUL19
102 Test MW -15DB	NT1X00AH			47	12-16	RUL20
TTU-Trans Test Module	NT2X47AD			47	13,15	RUL21
Digital Filter CP	NT2X56AB			47	14,16	RUL21
TTU-Test Scan Gen	NT1X90AA			47	13,15	RUL22
PCM Level Meter	NT2X96AA			47	14,16	RUL22
Tops Control Proc	NT3X02AA			47	13,15	RUL23
Tops Digital Cont	NT3X03AA			47	14,16	RUL23
Tone Gen-Call Waiting	NT3X68AC			47	12-16	RUL24
Tone Gen - PRMT	NT3X68AA			47	12-16	RUL25
Tone Gen - DTMF	NT3X68AB			47	12-16	RUL26
Digital MTA CP	NT3X09BA			47	8-11	RUL12
Trunk Module Interface	NT2X45AB			47	1	RUL11
Trunk Module Processor	NT0X70AC			47	2	RUL11
Trunk Module Controller	NT2X53AA			47	3	RUL11
Trunk Module CODEC	NT2X59AA			47	4	RUL11
Power Converter	NT2X09AA			47	17	RUL11
Filler Face Plate	NT0X50AA			47	19	RUL11
Power Converter	NT2X70AE			47	20	RUL11
Filler Face Plate 1.12	NT0X50AC			47	8-16	RUL13
4W E&M Type D1 600 I/F	NT2X72AA			47	12-14	RUL15
PTM Shelf Assembly	NT2X58CA		1	33		AP
PTM Common Circuit Pack	NTNX37LB	PTM		33		RUL1
101 Com Test Line	NT5X30AA			33	8-16	RUL3,4
Trans'n Terminal Trunk	NT2X71AA			33	8-16	RUL5
Miscellaneous Scanner	NT0X10AA			33	8-16	RUL17
Scan Dist'n Card	NT2X57AA			33	8-16	RUL18
Jack Ended Trunk	NT1X54AA			33	8-16	RUL6

Retired Equipment
Meridian Cabinet Auxiliary Module

NTNX37AA
EMR10-12-000
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Incoming/Outgoing Test Trk	NT2X90AD			33	9-16	RUL7,4
Comp Bal Network (900 ohm)	NT2X77AA					RUL4
Loop Around Test Line	NT2X75AA			33	8-16	RUL8
102 Test-MW Circuit	NT1X00AB			33	8-16	RUL9
ROH Tone Generator	NT1X00AC			33	8-16	RUL10
102 Test MW -20DB	NT1X00AG			33	8-16	RUL19
102 Test MW -15DB	NT1X00AH			33	8-16	RUL20
TTU-Trans Test Module	NT2X47AD			33	9-15	RUL21
Digital Filter CP	NT2X56AB			33	10-16	RUL21
TTU-Test Scan Gen	NT1X90AA			33	9-15	RUL22
PCM Level Meter	NT2X96AA			33	10-16	RUL22
Tops Control Proc	NT3X02AA			33	9-15	RUL23
Tops Digital Cont	NT3X03AA			33	10-16	RUL23
Tone Gen-call Waiting	NT3X68AC			33	8-16	RUL24
Tone Gen - PRMT	NT3X68AA			33	8-16	RUL25
Tone Gen - DTMF	NT3X68AB			33	8-16	RUL26
Trunk Module Interface	NT2X45AB			33	1	RUL11
Trunk Module Processor	NT0X70AC			33	2	RUL11
Trunk Module Controller	NT2X53AA			33	3	RUL11
Trunk Module CODEC	NT2X59AA			33	4	RUL11
Power Converter	NT2X09AA			33	17	RUL11
Filler Face Plate	NT0X50AA			33	19	RUL11
Power Converter	NT2X70AE			33	20	RUL11
Filler Face Plate 1.12	NT0X50AC			33		RUL13
4W E&M Type D1 600 I/F	NT2X72AA			33	8-16	RUL15
STM Shelf Assembly	NT7X3004		1	19		AP
PDP Shelf Assembly	NTNX2401		1	00		AP
Power Distribution Panel	NTNX24BA		1	00		AP
Anchor Kit (Earthquake Slab)	NTNX2540					RUL16
Anchor Kit (Eq Computer Fl)	NTNX2578					RUL16
Anchor Kit (Non-Eq Slab)	NTNX2579					RUL16
Anchor Kit (Non-Eq Comp Fl)	NTNX2580					RUL16
Desig. Label (NT5X30AA)	P0656329					RUL14
Desig. Label (NT2X71AA)	P0661419					RUL14
Desig. Label (NT1X54AA)	P0656330					RUL14
Desig. Label (NT2X90AD)	P0688244					RUL14
Desig. Label (NT2X75AA)	P0657680					RUL14
Desig. Label (NT1X00AB)	P0661425					RUL14
Desig. Label (NT1X00AC)	P0661420					RUL14
Desig. Label (NT3X09BA)	P0664847					RUL14
Desig. Label (NT0X50AC)	P0580258					RUL14

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NT2X72AA)	P0656333					RUL14
Door Assy-Rt(Grey)	NTNX2513					RUL27
Door Assy-Left(Grey)	NTNX2515					RUL27
Cabinet Type label(Grey)	P0687613					RUL27
Door Label-Left(Grey)	P0677704					RUL27
Door Label-Rt(Grey)	P0699158					RUL27
End Panel Assy-Rt(Grey)	NTNX2517					RUL27
End Panel Assy-Left(Grey)	NTNX2518					RUL27
Door Assy-Rt(Brown)	NTNX2552					RUL27
Door Assy-Left(Brown)	NTNX2550					RUL27
Cabinet Type Label(Brown)	P0699474					RUL27
Door Label-Left(Brown)	P0699464					RUL27
Door Label-Rt(Brown)	P0695230					RUL27
End Panel Assy-Rt(Brown)	NTNX2546					RUL27
End Panel Assy-Left(Brown)	NTNX2553					RUL27

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) Provide NTNX29ES filter kit when this cabinet will be con-
verted to ENET in the field.

RULES:

- AP 1) When PEC NTN37AA is ordered, these items are provided.
- RUL1 1) When NTN37LB PTM Common CP is provisioned, two PTM (one each on shelves 33 and 47) are pack filled.
- RUL2 1) When NTN37LA STM Common CP is provisioned, one STM/STM shelf on position 19 is pack filled.
- RUL3 1) Provide NT5X30AA on MCAM as required for MSL-100 system when additional test lines are required (see RUL4).
- RUL4 1) Provide one NT2X77AA (Balance Network 900 ohms) for each NT5X30AA and NT2X90AD provisioned. NT2X77AA mounts on these trunk cards.
- RUL5 1) Provide NT2X71AA on MCAM as required for MSL-100 system for an AC open or short termination test to check stability of trunks with negative impedance type repeaters.
- RUL6 1) Provide NT1X54AA on MCAM as required for MSL-100 system when additional circuits for access to switching network for analog (VF) test equipment is required (two circuits per pack).
- RUL7 1) Provide NT2X90AD on MCAM as required for MSL-100 system test trunks and fourteen local test desk or three local test cabinet. (Provides interface for one test trunk.) (See RUL4)
- RUL8 1) Provide NT2X75AA on MCAM as required for the MSL-100 system when loop around test line is required for measuring near to far trunk transmission losses (one loop around circuit per pack).
- RUL9 1) Provide NT1X00AB on MCAM as required for the MSL-100 system when additional 102 test milliwatt is required.
- RUL10 1) Provide NT1X00AC on MCAM as required for MSL-100 system when receiver off hook tone generator is required.
- RUL11 1) Provide on MCAM if any circuit pack is provisioned in shelf position 33 or 47 and NTN37LB MCAM Common CP is not provisioned.
- RUL12 1) Provide one (1) NT3X09BA MTA Circuit Pack on MCAM as follows:
- Qty 1 NT3X09BA Slot 8 for 1st & 2nd MCLM bays in line-up
Qty 1 NT3X09BA Slot 9 for 3rd & 4th MCLM bays in line-up

Qty 1 NT3X09BA Slot 10 for 5th & 6th MCLM bays in line-up
Qty 1 NT3X09BA Slot 11 for 7th & 8th MCLM bays in line-up

- RUL13 1) Provide Filler Face Plates in all positions not equipped with active circuit packs.
- RUL14 1) Provide one per circuit pack provisioned of the appropriate label. Nt code on label should be same as circuit pack provisioned. Affix label on shelf designation strip in appropriate position.
- RUL15 1) Provide one (1) NT2X72AA when Music-On-Hold feature is required. This feature is also provisionable on the PTM/MCPM.
- RUL16 1) Provide one (1) NTN2540 Earthquake Kit when bay is installed at site in the following seismic (earthquake) zones:
- | | |
|------|-------------|
| ATC | Zones 6 & 7 |
| NEBS | Zone 4 |
| UBC | Zone 4 |
- RUL17 1) Provide NT0X10AA on MCAM as required for scan points (two circuits per pack, and seven scan points per circuit).
- RUL18 1) Provide NT2X57AA on MCAM as required for signal distribution (two circuits per pack and seven points per circuit).
- RUL19 1) Provide NT1X00AG on MCAM as required for the MSL-100 system for additional 102 Test Milliwatt at -20DB. Also provisionable on PTM/MCPM.
- RUL20 1) Provide NT1X00AH on MCAM as required for MSL-100 system for 102 Test Milliwatt at -15DB. Also provisionable on PTM/MCPM.
- RUL21 1) Provide NT2X47AD (left, odd slot) and NT2X56AB (right, even slot) for each additional transmission test unit required.
- RUL22 1) Provide NT1X90AA (left, odd slot) and NT2X96AB (right, even slot) for additional transmission termination trunks.
- RUL23 1) Provide NT3X02AA (left, odd slot) and NT3X03AA (right, even slot) for additional tops data channels (one pair required for every four tops position/tops tty served) or 1 pair for every four BSAC (NT4X09AG). do not provide on same PTM with NT5X30AA (different software exec required)

- RUL24 1) Provide NT3X68AC when tone generator call waiting circuit pack is required. This circuit pack requires two slots, leave next highest slot vacant.
- RUL25 1) Provide NT3X68AA when tone generator - PRTM circuit pack is required. This circuit pack requires two slots, leave next highest slot vacant.
- RUL26 1) Provide NT3X68AB when tone generator - DTMF circuit pack is required. This circuit pack requires two slots, leave next highest slot vacant.
- RUL27 1) Provide doors, labels, and end panel assemblies as required. grey for MSL-100 and brown for DMS250 frames unless otherwise stated. each frame requires two right doors, two left doors, two labels and end panel assemblies for the end of each line-up. doors and labels are for both front and back of frame.

MERIDIAN CABINET GENERAL MODULE FRAME

PEC CODE: NTNX47AA

CPC CODE: B0225312

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX47BA

ABBREVIATION NAME: MCGM

ENGINEERING DESCRIPTION: The MCGM frame provides the capability to add custom feature hardware when required, i.e. IOC, TM8 and ROTL equipment. It can be placed in any aisle.

REFERENCE DOCUMENTATION: MSNX47AA

MARKETS: Applicable markets:

US
Wireless

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

CONTACT: NTI: Joe Bragg Dept. 5849 (RCH)

CONTACT: NTI: Richard McNeill Dept. 5849 (RCH)

CONTACT: NTI: Walter Brown Dept. 5849 (RCH)

NTNX47AA EMR10-13-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 19	ECM 449 15	Make changes per EC 002-16042, EC 002-16128, EC 002-161146 and EC 002-15973

The Meridian Cabinet General Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NTNX26DA	FSP	1	60		AP
IOC Module	NT1X61AB	IOC		47		RUL1
MCGM IOC Hardware Kit	NTNX47AB	PTM		47		RUL2
25 Pin Bulkhead Cover Plate	P0686749		28	47		RUL11
Mounting Screws	P0180923		56	47		RUL11
Trunk Module 8 Wire	NT2X52AG	TM8		33		RUL3
MCGM TM8 Hardware Kit	NTNX47AC			33		RUL4
50 Pin Bulkhead Cover Plate	P0686751		8	33		RUL10
25 Pin Bulkhead Cover Plate	P0686749		4	33		RUL10
Mounting Screws	P0180923		24	33		RUL10
ROTL 1056 Power Supply	A0286473			22		RUL7
ROTL APC/1050 4W Test	A0286475					RUL7
ROTL Spares Kit	A0300305					RUL7
MCGM ROTL Hardware Kit	NTNX47AF			22		RUL8
Trunk Module 8 Wire	NT2X52AG	TM8		19		RUL3
MCGM TM8 Hardware Kit	NTNX47AD			19		RUL5
50 Pin Bulkhead Cover Plate	P0686751		8	19		RUL10
25 Pin Bulkhead Cover Plate	P0686749		4	19		RUL10
Mounting Screws	P0180923		24	19		RUL10
Trunk Module 8 Wire	NT2X52AG	TM8		05		RUL3
MCGM TM8 Hardware Kit	NTNT47AE			05		RUL6
50 Pin Bulkhead Cover Plate	P0686751		8	05		RUL10
25 Pin Bulkhead Cover Plate	P0686749		4	05		RUL10
Mounting Screws	P0180923		24	05		RUL10
ROTL/52A Responder	A0286474	ROTL		01		RUL7
MCGM ROTL Hardware Kit	NTNX47AF			01		RUL8
4" Filler Panel	P0684447			00		RUL9
4 Mounting Screws (4" Panel)	P097F813					RUL9
Common Framework	NTNX25AA	FW	1			AP
Earthquake Kit	NTNX2540					RUL12

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNT47AA	MD	NTNX47BA

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) All provisioned items are to be installed by the shop unless otherwise specified in the MCGM cabinet assembly drawing.
- 2) Quantity two (2) NT3X91AA (TM8), quantity two (2) NT6X18AA (LCM), quantity one (1) each NT0X10AA and NT2X57AA (PTM) and spares are required for ROTL operation.

RULES:

- AP 1) When PEC NTN47AA is ordered, these items are provided.
- RUL1 1) Provide one (1) NT1X61AB shelf to accommodate up to nine I/O Device Controllers, up to two Magnetic Tape Controllers or up to two Disk Drive Controller circuit packs. Shelf should be equipped per MS1X61AB to accommodate customer requirements.
- RUL2 1) Provide when an IOC shelf is provisioned in the MCGM cabinet. The NTN47AB IOC Hardware Kit includes all cables and associated hardware required when an IOC shelf is provisioned in the MCGM cabinet.
- RUL3 1) Provision per MS2X52AG to accommodate customer requirements for each TM8 required.
- RUL4 1) Provide when a TM8 shelf is provisioned in position 33. The NTN47AC TM8 Hardware Kit includes all cables and associated hardware required when TM8 shelf is provisioned in position 33.
- RUL5 1) Provide when a TM8 shelf is provisioned in position 19. The NTN47AD TM8 Hardware Kit includes all cables and associated hardware required when TM8 shelf is provisioned in position 19.
- RUL6 1) Provide when a TM8 shelf is provisioned in position 05. The NTN47AE TM8 Hardware Kit includes all cables and associated hardware required when TM8 shelf is provisioned in position 05.
- RUL7 1) Provide when Remote Office Test Line feature is required. Also see RUL10.

- RUL8 1) Provide when a ROTL is provisioned in the MCGM cabinet. The NTNX47AF ROTL Hardware Kit includes all cables and associated hardware required when ROTL units are provisioned in the MCGM cabinet. (See Note 2)
- RUL9 1) Provide one Filler Panel and Mounting Screws when a ROTL is not provisioned in the MCGM cabinet.
- RUL10 1) This hardware to be provisioned for each mounting position 05, 19 or 33 if unequipped. Note that if ROTL equipment is mounted in positions 01/22, it will use rear bulkhead outlets for position 05 and this hardware must be provided for position 19 and for position 33 if unequipped.
- RUL11 1) This hardware to be provisioned if mounting position 47 is unequipped.
- RUL12 1) Provide one (1) NTNX2540 Earthquake Kit when bay is installed at site in the following seismic (earthquake) zones:
- | | |
|------|-------------|
| ATC | Zones 6 & 7 |
| NEBS | Zone 4 |
| UBC | Zone 4 |

MERIDIAN CABINET SPARE STORAGE FRAME

PEC CODE: NTNX22AA

CPC CODE: B0226849

RATING: MD

REPLACES: N/A

REPLACED BY: NTNX22BA

ABBREVIATION NAME: MCSS

ENGINEERING DESCRIPTION: The MCSS frame is used to store spare circuit packs. It can be accessed from front and rear.

REFERENCE DOCUMENTATION: MSNX22

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Wireless

| ISSUE AUTHOR: Jim Large Dept. 5849 (RNS)

| MAIN CONTACT: Jim Large Dept. 5849 (RNS)

NTNX22AA EMR10-14-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 02 14 95 05 18	----- ECM 492 05 ECM 491 05	Previous history not available Add label and door provisioning rules. MD the MCCM (NTNX20AA) and it's pack- fill, the MCMM (NTNX21AA) and it's packfill, and the MCSS (NTNX22AA) per ECD002-16128, 002-16146 and 002-15973. JEL: Replacing the door labels left with the new NORTEL door labels left.
95 12 21	ECM 492 29	

The Meridian Cabinet Spare Storage Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Common Framework	NTNX25AA	FW	1			AP
Storage Shelf Assembly	NTNX2201		4			AP
Line Card Storage Chassis	NT3X55BA					RUL1
Anchor Kit (Earthquake Slab)	NTNX2540					RUL2
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL2
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL2
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL2
Cab. Type Label (MCSS, Grey)	P0687619		2			RUL3
Door Left (Grey)	NTNX2515		2			RUL3
Door Right (Grey)	NTNX2513		2			RUL3
# Door Label Left (Grey)	P0677704		2			RUL3
Door Label Left (Grey)	P0818848		2			RUL3
Door Label Right (Grey)	P0699158		2			RUL3
Cab. Type Label (MCSS, Brown)	P0699468		2			RUL3
Door Left (Brown)	NTNX2550		2			RUL3
Door Right (Brown)	NTNX2552		2			RUL3
# Door Label Left (Brown)	P0699464		2			RUL3
Door Label Left (Brown)	P0818849		2			RUL3
Door Label Right (Brown)	P0695230		2			RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
P0699464	MD	P0818849
P0677704	MD	P0818848

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NTNX2201 provides assembly and equipment required for one circuit pack shelf assembly equipped with capacity for a maximum of fifty-four circuit packs (.875" wide, 27 front and 27 rear) or forty-two circuit packs (1.25" wide, 21 front and 21 rear).

RULES:

- AP 1) When PEC NTNX22AA is ordered, these items are provided.
- RUL1 1) Provide one (1) Line Card Storage Chassis, NT3X55BA, to accommodate up to thirty (30) single slot new peripheral line cards or ten (10) double slot new peripheral line cards and ten (10) single slot new peripheral line cards and up to one (1) new peripheral I/O bus interface card. For the case of ten single slot line cards and ten double slot line cards, each double slot line card may be replaced by two single slot line cards.
- 2) Maximum of four chassis and three single slot cards in the shelf (front or rear). RUL2 1) Provide one (1) Earthquake Mounting Kit when installing cabinet in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTNX2540 kit for slab type flooring or NTNX2578 for computer flooring. 2) Provide one (1) Frame Mounting Kit when installing cabinet in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring.
- RUL3 1) Provide:
two (2) Cabinet Type Labels (MCSS, Grey) P0687619,
two (2) Door Left (Grey) (NTNX2515),
two (2) Door Right (Grey) (NTNX2513),
two (2) Door Label Left (Grey) (P0677704), and
two (2) Door Label Right (Grey) (P0699158)
for grey cabinets. 2) Provide two (2) Cabinet Type Labels (MCSS, Grey) (P0687619),
two (2) Door Left (Brown) (NTNX2550),
two (2) Door Right (Brown) (NTNX2552),
two (2) Door Label Left (Brown) (P0699464), and
two (2) Door Label Right (Brown) (P0695230)
for brown cabinets.

MERIDIAN CORE MODULE

PEC CODE: NTMX42AA

CPC CODE: B0238699

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME: MCOR

ENGINEERING DESCRIPTION: The Meridian Core Module Cabinet (MCOR) houses a fully duplicated central processor control (CPU), 8MW Program Store, 13MW Data Store and 10 CMC ports in a single cabinet. MCOR is the Primary Core Module for the SL100C system.

The MCOR Data Store can also be expanded to 16.0MW for MTXD applications.

REFERENCE DOCUMENTATION: MSMX42AA

MARKETS: Applicable markets:
Wireless

ISSUE AUTHOR: NTI: Doug Bramlett Dept. 5849 (RCH)

MAIN CONTACT: NTI: Doug Bramlett Dept. 5849 (RCH)

CONTACT: NTI: Jim Large Dept. 5849 (RCH)

CONTACT: NTI: Walter Brown Dept. 5849 (RCH)

CONTACT: NTI: Richard Martin Dept. 5849 (RCH)

NTMX42AA EMR10-18-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 06 12	ECM 492 21	DGB: Make corrections to match NTNX32AA.

The Meridian Core Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supv Panel	NT7X34AA	FSP	1	60		AP
# MCOR Common CP	NTMX42NA					RUL1
# DS Mem'Y/CMC/Clock Shf Assy	NTMX4501	MCC	2	5,47		AP
1MW Memory Ckt Pack	NT4X80AA			5,47	1-5	RUL3
4MW Memory Ckt Pack	NT4X80CA			5,47	1	RUL13
4MW Memory Bus Terminator	NT3X4311			5,47	1R	RUL14
Filler Face Plate .875	NT0X50BA			5,47	1-5	RUL6
SYNC Master Clock Osc'r	NT3X15CA			5,47	16	RUL4
SYNC Master Clock Osc'r	NT3X15DA			5,47	16	RUL4
CPU & PS Memory Shelf Assy	NT3X4106	CPM	2	19,33		AP
1MW Memory Ckt Pack	NT4X80AA			19,33	1-3	RUL7
Filler Face Plate .875	NT0X50BA			19,33	1-3	RUL6
Cooling Unit	NTNX27CA	CU	1	00		AP
Meridian Cabinet Assy	NTNX25AA	FW	1			AP
Des'n Label (NT0X50BA)	P0599141					RUL2
Des'n Label (NT3X14BC)	P0645683					RUL13
Des'n Label (NT3X15CA)	P0654973					RUL2
Des'n Label (NT3X15DA)	P0661434					RUL2
Des'n Label (NT4X80AA)	P0649156					RUL2
Des'n Label (NT4X80CA)	P0712102					RUL2
Right Door Assembly-Grey	NTNX2513					RUL8
Left Door Assembly-Grey	NTNX2515					RUL8
Cabinet Type Label (Grey)	P0700923					RUL9
Left Door Label (Grey)	P0677704					RUL9
Right Door Label (Grey)	P0699158					RUL9
Right Door Assembly-Brown	NTNX2552					RUL8
Left Door Assembly-Brown	NTNX2550					RUL8
Cabinet Type Label (Brown)	P0700924					RUL9
Left Door Label (Brown)	P0699464					RUL9
Right Door Label (Brown)	P0695230					RUL9
Anchor Kit (Earthquake Slab)	NTNX2540					RUL10
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL10
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL10
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL10

Retired Equipment
Meridian Core Module

NTMX42AA
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
FCC Marking Label	P0634844					RUL11
FCC Compliance Label	P0676164					RUL11
Desig. label for MTXD system	P0712628					RUL15

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTMX42AA/NA	MD	MSL-100 Cab. Sys.
NTMX4501	MD	No replacement

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Only three (3) CMC ports are wired out to the rear bulkhead for IOC or Networks not in the same lineup with the MCOR cabinet.

RULES:

- AP 1) When PEC NTMX42AA is ordered, these items are provided.
- RUL1 1) Provide one (1) NTMX42NA per MCOR frame. This pack fill includes duplicated Central Processor Control (CPU), 8MW PS, 13MW DS, and 10 CMC ports. Only three (3) CMC ports

are wired out to the rear bulkhead for IOC or Networks not in the same lineup with the MCOR cabinet.

- RUL2 1) Provide one label per circuit pack provisioned. (NT code on label should be same as circuit pack provisioned.) Affix designation label to appropriate position on designation strip.
- RUL3 1) Data Store is equipped with 8.0MW and is expandable to 13.0MW in steps of 1.0MW (NT4X80AA). Configure provisioned cards in descending order (slot 5 to slot 1).
- RUL4 1) Provide for Synchronizable Slave or Master office with Internal Clock. The NT3X15CA and NT3X15DA require two (2) slot positions.
Sync Master Clock Osc'r NT3X15CA Stratum 3 Internal or Slave
Sync Master Clock Osc'r NT3X15DA Stratum 2/3 Master Internal
or Master External
- RUL5 1) Reserved for future use.

- RUL6 1) Provide NT0X50BA as required in unequipped slots:
- Shelves 47, 05 slots 1-5
Shelves 33, 19 slots 1-3
- RUL7 1) Program Store is equipped with 5.0MW of memory and is expandable to 8.0MW in steps of 1.0MW (NT4X80AA). Configure provisionable cards in descending order (slot 3 to slot 1).
- RUL8 1) Provide two each door assemblies (2 left and 2 right, one set for front and one set for rear).
- RUL9 1) Provide two cabinet type labels, one for front, one for rear of cabinet.
- 2) Provide two (2) left door label (grey or brown) per cabinet.
- 3) Provide two (2) right door label (grey or brown) per cabinet.
- RUL10 1) Provide one Earthquake Mounting Kit when installing cabinet in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTN2540 kit for slab type flooring or NTN2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing cabinet in a Non-Earthquake zone. Use NTN2579 kit for slab type flooring or NTN2580 for computer flooring.
- RUL11 1) Provide one (1) P0634844 and one (1) P0676164 FCC Labels per system.
- RUL12 1) Until new designation strips are defined for the NTMX42NA MCOR Common CP fill, provide two (2) P0645683 Des'n Label (NT3X14BC). The NT3X14BC CP is always provided with the Common CP fill.
- RUL13 1) When provisioning for MTXD expand data store to 16.0MW.
- RUL14 1) When provisioning for 16.0MW provide one bus terminator per NT4X80CA CP.
- RUL15 1) When provisioning for MTXD office provide one P0712628 FSP designation label (MTXD) for each cabinet in each line-up.

| MERIDIAN NETWORK/CPC COMMON CP

NTMX40NA

RATING: A&M

ABBREVIATION NAME: MNET Common CP

ENGINEERING DESCRIPTION: The MNET Common CP provides a 64 port Dual Shelf Network (DSN) and a duplicated Common Peripheral Controller (CPC).

REFERENCE DOCUMENTATION: N/A

The Meridian Network/CPC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		16	33,47	14-17	AP
Crosspoint CP	NT8X13AA		8	33,47	5,7, 10,12	AP AP
Filler Face Plate	NT0X50AA		16	33,47	6,8, 11,13, 18,20, 22,24	AP AP AP AP
Test Code CP	NT8X14AA		2	33,47	9	AP
Net P-side Msg Proc	NT3X75BA		2	33,47	19	AP
Network Control Proc	NT3X74BB		2	33,47	21	AP
Network Clock CP	NT3X76AC		2	33,47	23	AP
Power Converter	NT2X70AE		2	33,47	25	AP
Designation Strip	P0705771		2	33,47		AP
LTC/DTC Proc CP	NT6X45BA		4	05,19	8,12	AP
Master Proc Mem CP	NT6X47AB		4	05,19	9,10	AP
Signal Proc Mem CP	NT6X46BA		2	05,19	11	AP
Time Switch CP	NT6X44AB		2	05,19	14	AP
Universal Tone Rcvr CP	NT6X92BB		2	05,19	15	AP
Filler Face Plate	NT0X50AA		8	05,19	17,19, 23,24	AP AP
CPP Msg Protocol CP	NT6X69AB		2	05,19	18	AP
Channel Supv Msg CP	NT6X42AA		2	05,19	20	AP
Speech Bus Formatter	NT6X41AA		2	05,19	21	AP
DS30 Network I/F CP	NT6X40AC		2	05,19	22	AP
Power Converter	NT2X70AE		2	05,19	25	AP
Designation Strip	P0705861		2	05,19		AP

RULES:

AP 1) When PEC NTMX40NA is ordered, these items are provided.

MERIDIAN NETWORK/CPC COMMON CP

PEC CODE: NTMX40NC

CPC CODE: B0234483

RATING: MD

REPLACES: Not Applicable

REPLACED BY: MSL-100 Cabinet System

ABBREVIATION NAME: MNET Common CP

ENGINEERING DESCRIPTION: The Meridian Network/Controller (MNET) houses a 64 port Dual Shelf Network (DSN), and a duplicated Common Peripheral Controller (CPC).

REFERENCE DOCUMENTATION: MSNX40AA 00 06

MARKETS: Applicable markets:

US
CANADA
WIRELESS

ISSUE AUTHOR: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: Jim Large Dept. 5849 (RICH)

NTMX40NC EMR10-19-MNET-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 25	ECM 492 19	JEL: EC 018-45164 replaces the NT2X70AE with the NT2X70AF. Also, makes clarifications per ET 21549. JEL: EC 002-16223 replace the NTMX40NC with the MSL-100 cabinet system.
95 06 06	ECM 492 20	

The Meridian Network/CPC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Network Port CP	NT8X12AA		8	33,47	14-17	AP
Crosspoint CP	NT8X13AA		8	33,47	5,7, 10,12	AP
Filler Face Plate	NT0X50AA		16	33,47	6,8, 11,13, 18,20, 22,24	AP
Test Code CP	NT8X14AA		2	33,47	9	AP
Net P-side Msg Proc	NT3X75BA		2	33,47	19	AP
Network Control Proc	NT3X74BB		2	33,47	21	AP
Network Clock CP	NT3X76AC		2	33,47	23	AP
# Power Converter	NT2X70AE		2	33,47	25	AP
Power Converter	NT2X70AF		2	33,47	25	AP
Designation Strip	P0705771		2	33,47		AP
LTC/DTC Proc CP	NT6X45BA		4	05,19	8,12	AP
Master Proc Mem CP	NT6X47AC		4	05,19	9,10	AP
Signal Proc Mem CP	NT6X46BB		2	05,19	11	AP
Time Switch CP	NT6X44AB		2	05,19	14	AP
Universal Tone Rcvr CP	NT6X92BB		2	05,19	15	AP
Filler Face Plate	NT0X50AA		8	05,19	17,19, 23,24	AP
CPP Msg Protocol CP	NT6X69AC		2	05,19	18	AP
Channel Supv Msg CP	NT6X42AA		2	05,19	20	AP
Speech Bus Formatter	NT6X41AA		2	05,19	21	AP
DS30 Network I/F CP	NT6X40AC		2	05,19	22	AP
# Power Converter	NT2X70AE		2	05,19	25	AP
Power Converter	NT2X70AF		2	05,19	25	AP
Designation Strip	P0705861		2	05,19		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT2X70AE	MD	NT2X70AF

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTMX40NC is ordered, these items are provided.

MERIDIAN NETWORK/CONTROLLER MODULE

PEC CODE: NTMX40AA

CPC CODE: B0228445

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTNX33CA

ABBREVIATION NAME: MNET

ENGINEERING DESCRIPTION: The Meridian Network/Controller (MNET) houses a 64 port Dual Shelf Network (DSN), and a duplicated Common Peripheral Controller (CPC).

REFERENCE DOCUMENTATION: MSMX40AA

ISMX40AA

SLMX40AA

MARKETS: Applicable markets:

Wireless

ISSUE AUTHOR: Jim Large Dept. 5849 (RICH)

MAIN CONTACT: Jim Large Dept. 5849 (RICH)

NTMX40AA EMR10-19-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 04 25	ECM 492 19	JEL: Added XPM Plus field upgrade kit.
95 06 06	ECM 492 20	JEL: EC 002-16128 replaces the NTMX40AA with the NTNX33CA. EC 002-16223 replaces the NTMX40NA/NB/NC with the MSL-100 Cabinet System.
95 06 12	ECM 492 21	DGB: Make clarifications to the flaglist.

The Meridian Network/Controller Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supv Panel	NTNX26NA	FSP	1	60		AP
# MNET Common CP	NTMX40NA					RUL1
# MNET Common CP	NTMX40NB					RUL1
# MNET Common CP	NTMX40NC					RUL1
XPM Plus Upgrade Kit	NTNX33ZA					RUL12
Network Shelf Assy	NT8X1101	DSN	2	33,47		AP
Network Port CP	NT8X12AA			33,47	1-4	RUL11
Com Periph Proc Shelf Assy	NT6X0215	CPC	2	05,19		AP
E.F.F. DS1 I/F CP	NT6X50AB			05,19	1-5	RUL3
D-Channel Handler	NTBX02AA			05,19	1-5	RUL3
DS30A I/F Circuit Pack	NT6X48AA			05,19	6,7	RUL4
Universal Tone Rcvr	NT6X92BB			05,19	16	RUL5
ISDN Pre-Processor CP	NTBX01AA			05,19	16	RUL7
\$ ISDN Pre-Processor (DICP)	NTBX01AB			05,19	16	RUL7
Filler Face Plate .875	NT0X50AA			05,19	1-7,13, 15,16	RUL6
Cooling Unit	NTNX27CA	CU	1	00		AP
Meridian Cabinet Assy	NTNX25AA	FW	1			AP
Network Junctor Cable	NT8X1104		4			AP
Desig. Label (NTBX01AA)	P0697918					RUL2
Desig. Label (NTBX02AA)	P0697919					RUL2
Desig. Label (NT0X50AA)	P0578498					RUL6
Desig. Label (NT6X48AA)	P0626877					RUL2
Desig. Label (NT6X50AB)	P0690976					RUL2
Desig. Label (NT6X92BB)	P0686332					RUL2
Desig. Label (NT8X12AA)	P0654992					RUL2
Right Door Assembly-Grey	NTNX2513					RUL8
Left Door Assembly-Grey	NTNX2515					RUL8
Cabinet Type Label (Grey)	P0700925					RUL9
Left Door Label (Grey)	P0677704					RUL9
Right Door Label (Grey)	P0699158					RUL9
Right Door Assembly-Brown	NTNX2552					RUL8
Left Door Assembly-Brown	NTNX2550					RUL8
Cabinet Type Label (Brown)	P0700926					RUL9
Left Door Label (Brown)	P0699464					RUL9
Right Door Label (Brown)	P0695230					RUL9

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Anchor Kit (Earthquake Slab)	NTNX2540					RUL10
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL10
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL10
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTMX40NA	MD	MSL-100 Cabinet Sy
NTMX40NB	MD	MSL-100 Cabinet Sy
NTMX40NC	MD	MSL-100 Cabinet Sy
NTMX40AA	MD	MSL-100 Cabinet Sy

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

\$ ISDN Pre-Processor (DICP) NTB01AB is a new product. Check availability before ordering.

- 1) RE: CPC (Common Peripheral Controller) and NT6X0215 CPC/ISDN shelf assembly:

Common Peripheral Array (CPA) 0 is the lower shelf in the module.

Common Peripheral Array (CPA) 1 is the upper shelf in the module.

RULES:

AP 1) When PEC NTMX40AA is ordered, these items are provided.

RUL1 1) Provide one (1) NTMX40NC per frame. This pack fill will provide one 64 port, Dual Shelf Network (DSN) and one duplicated Common Peripheral Controller (CPC). NTMX40NC replaces both the NTMX40NA and the NTMX40NB pack fills.

RUL2 1) Provide one label per circuit pack provisioned. (NT code on label should be same as circuit pack provisioned.) Affix designation label to appropriate position on designation strip.

RUL3 1) For DTC applications, provide a maximum of 10 NT6X50AB DS1 I/F EFF (Extended Frame Format) circuit packs in slots 1-5, both shelves of CPC.

2) NT6X50AB DS1 EFF I/F circuit packs are assigned in selected slots:

first in the shelf 05, then in shelf 19, from the highest numbered slot (5) toward the lowest number slot (1). When any slot 1-5 of either shelf is unequipped, provide Filler Face Plate NT0X50AA and Designation Label.

3) One DS1 I/F or NT6X50AB EFF DS1 I/F circuit pack provides two DS1 ports or spans.

4) The DS1 ports/spans are assigned in the following sequential order:
0,1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19.

5) It is possible to mix NT6X50AB and NTB02AA in any combination for LGCI operations.

6) At BCS28 or later, a minimum of three (3) or a maximum of ten (10) D-Channel Handler CPs will be provisioned. One of these DCH must be provided as a hot spare for BCS28 or later.

7) For LTCI/LGCI operation, a maximum of ten NTB02AA (D-Channel Handler - DCH) CPs are provisionable. D-Channel Handler CP is assigned to slots the same as the DS1 I/F circuit pack. D-Channel Handler CP ports are all the odd numbered peripheral ports and are assigned in the following order: 19, 17, 15, 13, 11, 9, 7, 5, 3, 1.

- 8) Each DCH CP has 32 "ports" available. One port is dedicated to the ISP (NTBX01AA). Each of the remaining 31 ports will handle up to four (4) multiplexed BRI D-Channels for a total of 124 BRI D-Channels maximum. (Also see RUL7.)

RUL4 1) NT6X48AA DS30A I/F circuit packs are not provisioned when CPC is used for DTC applications.

- 2) For LTC application, first, provide the DS30A circuit packs NT6X48AA and designation labels P0626877 to slots 6 & 7, both shelves of the LTC and assign links (0-19) to host line equipment. The DS1 I/F circuit packs are provided in slots 1-5 as required for DS1 I/F to digital trunks

- 3) The DS30A ports are assigned in the following sequential order: 19,17,18,16,15,13,14,12,11,9,10,8,7,5,6,4,3,1,2,0.

Slot 6 - 19,18,15,14,11,10,7,6,3 & 2

Slot 7 - 17,16,13,12,9,8,,4,1 & 0

RUL5 1) NT6X92BB UTR is a combined service circuit that can perform the function of digitone receiver for lines and the MF receiver for trunks. One pair of NT6X92BB provides up to thirty additional circuits.

The UTR is assignable to slot 16 in the shelf. One member of the UTR pair is assigned to the lower shelf in the module and its mate is assigned to slot 16 in the upper shelf of the same module.

UTR cards located in a particular DTC/LTC/LGC module will service all lines and trunks connected to that module.

- 2) Provide two (2) NTBX01AA ISDN Pre-Processor CP for LGCI/LTCI modules per customer requirements. These CPs are used in conjunction with DCH packs NTBX02AA.

The NTBX01AA is assignable to slot 16 in the shelf; one card is assigned to the lower shelf in the module and its mate is assigned to slot 16 in the upper shelf of the same module.

RUL6 1) Provide Filler Face Plate NT0X50AA and Designation Label P0578498 on shelves 05 and 19, in slots 1-7, 13, 15 and 16 when shelves are equipped with module packfill and these slots are unequipped.

- RUL7 1) The ISDN Signalling Pre-Processor (ISP) NTB01AA pair are used for LTCI/LGCI operations with DCH CPs (NTB02AA). (Also see RUL3.)
- 2) The ISDN Signalling Pre-Processor (ISP) NTB01AB pair are used for LTCI/LGCI operations with DCH CPs (NTB02AA) for Digital Integrated Cellular Peripheral (DICP ISP).
- RUL8 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
- RUL9 1) Provide two cabinet type labels, one for front, one for rear of cabinet.
- 2) Provide two (2) left door label (grey or brown) per cabinet.
- 3) Provide two (2) right door label (grey or brown) per cabinet.
- RUL10 1) Provide one Earthquake Mounting Kit when installing cabinet in ATC zone 6 and 7; NEBS zone 4; and UBC zone 4. Use NTN2540 kit for slab type flooring or NTN2578 for computer flooring.
- 2) Provide one Frame Mounting Kit when installing cabinet in a Non-Earthquake zone. Use NTN2579 kit for slab type flooring or NTN2580 for computer flooring.

RUL11 1) Provision Network Port CPs (NT8X12AA) as follows to provide junctor ports between Networks:

# System Networks	Provide NT8X12AA CP in these slots for each Network
-----	-----
1	None
2	Slots 1 and 2
3 and 4	Slots 1, 2, 3, and 4

RUL12 1) For field upgrade to XPM Plus for all applications use kit NTNX33ZA.

DTC/DTCI/LTC/LTCI COMMON CP (LOWER MODULE)

PEC CODE: NTNX33ND

CPC CODE: B0231981

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTNX33NL

ABBREVIATION NAME: DTC/DTCI/LTC/LTCI

ENGINEERING DESCRIPTION: The DTC/DTCI/LTC/LTCI Common CP provides circuit packs for ISDN applications in the lower two shelves of the MCTM-ISDN (MTCMI) cabinet. Each module can be provisioned for ISDN or Non-ISDN functionality.

REFERENCE DOCUMENTATION: MSNX33CA 00 20

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RICH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RICH)

CONTACT: NTI: Richard McNeill Dept. 5849 (RICH)

NTNX33ND EMR10-20-CPC-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 10 01	ECM 492 03	Change the abbreviation designation for the NTNX33ND.
92 12 03	ECM 492 04	Add fiber link controller.
93 05 07	ECM 445 04	ADD PROVISIONABLE CARDS, EC 2-15410
95 04 25	ECM 492 19	JEL: EC 024-93969 replaces the NT2X70AE with the NT2X70AF.
95 06 21	ECM 445 20	Make change per EC 002-16248.

The DTC/DTCI/LTC/LTCI Common CP (Lower Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Rcvr CP	NT6X92BB		2	05,19	15	AP
Filler Face Plate .875	NT0X50AA		8	05,19	17,19, 23,24	AP
Channel Supv Msg CP	NT6X42AA		2	05,19	20	AP
Speech Bus Formatter	NT6X41AA		2	05,19	21	AP
Power Converter	NT2X70AF		2	05,19	25	AP
Designation Strip	P0713972		2	05,19		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN33ND is ordered, these items are provided.

MCTM-ISDN COMMON CP (LOWER MODULE)

PEC CODE: NTNX33NA

CPC CODE: B0230367

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX33ND

ABBREVIATION NAME: MCTM-ISDN

ENGINEERING DESCRIPTION: The MCTM-ISDN Common CP provides circuit packs for ISDN applications (LTIC/DTCI) in the lower two shelves of the MCTM-ISDN cabinet.

REFERENCE DOCUMENTATION: ISNX33CA 01 13

MARKETS: Applicable markets:

US
Wireless

ISSUE AUTHOR: Phuong Ly Dept. 6457 (RICH)

MAIN CONTACT: Phuong Ly Dept. 6457 (RICH)

NTNX33NA EMR10-20-CPCI-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 08	----- ECM 445 18	Previous history not available Make corrections to NTAX78AB shelf positions per ET 22229. Change pack- fill NTNX33NA&NB and MD them per ET 22529.

The MCTM-ISDN Common CP (Lower Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Rcvr CP	NT6X92BB		2	05,19	15	AP
Filler Face Plate	NT0X50AA		8	05,19	17,19, 23,24	AP
CPP Msg Protocol CP	NT6X69AB		2	05,19	18	AP
Channel Supv Msg CP	NT6X42AA		2	05,19	20	AP
Speech Bus Formatter	NT6X41AA		2	05,19	21	AP
Power Converter	NT2X70AE		2	05,19	25	AP
Designation Strip	P0706012		2	05,19		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTNX33NA is ordered, these items are provided.

MCTM-ISDN COMMON CP (UPPER MODULE)

PEC CODE: NTNX33NB

CPC CODE: B0230368

| RATING: MD

REPLACES: N/A

REPLACED BY: NTNX33NE

ABBREVIATION NAME: MCTM-ISDN

ENGINEERING DESCRIPTION: This MCTM-ISDN Common CP provides circuit packs for ISDN applications (LTCl/DTCI) in the upper shelves of the MCTM-ISDN cabinet.

REFERENCE DOCUMENTATION: ISNX33CA 01 13

MARKETS: Applicable markets:

US
Wireless

ISSUE AUTHOR: Phuong Ly Dept. 6457 (RICH)

MAIN CONTACT: Phuong Ly Dept. 6457 (RICH)

NTNX33NB EMR10-20-CPCI-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 08	----- ECM 445 18	Previous history not available Make corrections to NTAX78AB shelf positions per ET 22229. Change pack- fill NTNX33NA&NB and MD them per ET 22529.

The MCTM-ISDN Common CP (Upper Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Rcvr CP	NT6X92BB		2	33,47	15	AP
Filler Face Plate	NT0X50AA		8	33,47	17,19, 23,24	AP
CPP Msg Protocol CP	NT6X69AB		2	33,47	18	AP
Channel Supv Msg CP	NT6X42AA		2	33,47	20	AP
Speech Bus Formatter	NT6X41AA		2	33,47	21	AP
Power Converter	NT2X70AE		2	33,47	25	AP
Designation Strip	P0706012		2	33,47		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN33NB is ordered, these items are provided.

DTC/DTCI/LTC/LTCI COMMON CP (UPPER MODULE)

PEC CODE: NTNX33NE

CPC CODE: B0231982

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTNX33NM

ABBREVIATION NAME: DTC/DTCI/LTC/LTCI

ENGINEERING DESCRIPTION: The DTC/DTCI/LTC/LTCI Common CP provides circuit packs for ISDN applications in the upper two shelves of the MCTM-ISDN (MCTMI) cabinet. This DTC/DTCI/LTC/LTCI Common CP NTNX33NE replaces packfill NTNX33NB. Each module can be provisioned for ISDN or Non-ISDN functionality.

REFERENCE DOCUMENTATION: MSNX33CA 00 20

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RICH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RICH)

CONTACT: NTI: Jim Large Dept. 5849 (RICH)

CONTACT: NTI: Richard McNeill Dept. 5849 (RICH)

NTNX33NE EMR10-20-CPCI-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 10 01	ECM 492 03	Change the abbreviation designation for the NTNX33NE.
92 12 03	ECM 492 04	Add fiber link controller.
93 05 07	ECM 445 04	ADD PROVISIONABLE PACKS, EC 2-15410
95 04 25	ECM 492 19	JEL: EC 024-93969 replaces the NT2X70AE with the NT2X70AF.
95 06 21	ECM 445 20	Make change per EC 002-16248.

The DTC/DTCI/LTC/LTCI Common CP (Upper Module) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Universal Tone Rcvr CP	NT6X92BB		2	33,47	15	AP
Filler Face Plate .875	NT0X50AA		8	33,47	17,19, 23,24	AP
Channel Supv Msg CP	NT6X42AA		2	33,47	20	AP
Speech Bus Formatter	NT6X41AA		2	33,47	21	AP
Power Converter	NT2X70AF		2	33,47	25	AP
Designation Strip	P0713972		2	33,47		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN33NE is ordered, these items are provided.

MERIDIAN CABINET SEVEN MODULE
LOWER MC7M MODULE COMMON CP

PEC CODE: NTNX12LA

CPC CODE: B0228210

| RATING: MD

REPLACES: N/A

REPLACED BY: N9X70BB/NT9X01MB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTNX12LA Common CP equips the lower two shelves of the MC7M cabinet. The message switch buffer 7 provides and maintains a path from the SS7 digital signaling link which is switched through the network to the SS7 signaling terminal. MSB7 00/01 also performs the message switching and distribution functions between the DTCs and the appropriate signaling terminal.

REFERENCE DOCUMENTATION: SLNX12LA

MARKETS: Applicable markets:
US

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

CONTACT: NTI: Joe Bragg Dept. 6457 (RCH)

NTNX12LA EMR10-22-MSB7-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 05 19	ECM 449 15	Make changes per EC 002-16042, EC 002-16128, EC 002-161146 and EC 002-15973

The Meridian Cabinet Seven Module Lower MC7M Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Power Converter CP	NT2X70AE		4	05,19	1,25	AP
Signal Terminal I/F	NT6X68AC		4	05,19	8,9	AP
Signal Terminal Buffer	NT6X67AA		2	05,19	10	AP
Master Signal Processor	NT6X45BA		4	05,19	11,16	AP
Master Processor Memory	NT6X47AB		2	05,19	13	AP
Signal Processor Memory	NT6X46BA		2	05,19	15	AP
DS30A LCM Interface	NT6X48AA		2	05,19	17	AP
Time Switch	NT6X44AB		2	05,19	18	AP
CPP Message Protocol	NT6X69AB		2	05,19	20	AP
Cannel Supervision Msg.	NT6X42AA		2	05,19	22	AP
Speech Bus Formatter	NT6X41AA		2	05,19	23	AP
DS30 Network Interface	NT6X40AC		2	05,19	24	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX12LA	MD	N/A

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTNX12LA is ordered, these items are provided.

MERIDIAN CABINET SEVEN MODULE

PEC CODE: NTNX12AA

CPC CODE: B0227672

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NT9X70BB/NT9X01MB

ABBREVIATION NAME: MC7M

ENGINEERING DESCRIPTION: The Meridian Cabinet Seven Module (MC7M) houses the hardware for SS7. The message switch buffer 7 (MSB7) interconnects in each DTC that supports SS7 trunks via an inter-peripheral message link (IPML). Each IPML consists of two (2) physical nailed up network connections. The signaling channels pass through the MSB7s time switch and terminate on the ST7. The MSB7 is a two shelf module similar to an LTC (5,19). MSB7 provides and maintains a path from the SS7 digital signaling link to SS7 signaling terminal (ST7) and it performs the message switching and distribution functions between the DTCs and the appropriate signaling terminal (ST). The ST interfaces with the MSB7 via shared memory. The STs are equipped in pairs to share the traffic load for reliability and performance. The STs are located in the MSB7 and ST shelves.

REFERENCE DOCUMENTATION: MSNX12AA

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Phuong Ly Dept. 6457 (RCH)

MAIN CONTACT: NTI: Phuong Ly Dept. 6457 (RCH)

CONTACT: NTI: Joe Bragg Dept. 6457 (RCH)

NTNX12AA EMR10-22-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 03 18 95 05 19	ECM 449 09 ECM 449 15	Add EMI bulkhead filter kits Make changes per EC 002-16042, EC 002-16128, EC 002-161146 and EC 002-15973

The Meridian Cabinet Seven Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NTNX26HA	FSP	1	60		AP
Signal Term Assy	NT6X0801		2	33,47		AP
Filler Face Plate Kit	NT6X02AB			33,47		RUL6
Msg Switch Buf 7 Assy	NT6X3201		2	05,19		AP
MSB7 PackFill	NTNX12LA	MSB7		05,19		RUL1
MSB7 PackFill(International)	NTNX12PA	MSB7		05,19		RUL1
CCS7 Signal Term.	NT6X66AA			05,19 33,47	4-7 4-11 17-24	RUL2
NTT-NCCI#7 Sig. Term.	NT6X66BA			05,19 33,47	4-7 4-11 17-24	RUL2
Power Converter	NT2X70AE			33,47	1,25	RUL3
Sig. Terminal I/F	NT6X68AC			05,19	8,9	RUL4
For International(NTT)	NT6X68CA			33,47	12,13 15,16	
STI With Terminator	NT6X68AD			19	8,9	RUL5
For International(NTT)	NT6X68DA			33,47	12,13 15,16	
Cooling Unit	NTNX27CA		1	00		AP
Anchor Kit (EQ Slab Flr)	NTNX2540					RUL7
Anchor Kit (EQ Com. Flr)	NTNX2578					RUL7
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL7
Anchor Kit (Non-EQ Com.Flr)	NTNX2580					RUL7
Right Door Assy (Gray)	NTNX2513					RUL8
Left Door Assy (Gray)	NTNX2515					RUL8
Door Label Right (Gray)	P0699158					RUL9
Door Label Left (Gray)	P0677704					RUL9
Right Door Assy (Brown)	NTNX2552					RUL8
Left Door Assy (Brown)	NTNX2550					RUL8
Door Label Right (Brown)	P0695230					RUL9
Door Label Left (Brown)	P0699464					RUL9
Cabinet Type Label (Gray)	P0695236					RUL9
Cabinet Type Label (Brown)	P0700929					RUL9

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTNX12AA	MD	NT9X70BB/NT9X01MB

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Provide NTNX29ES filter kit when this cabinet will be converted to ENET in the field.

RULES:

- AP 1) When PEC NTNX12AA is ordered, these items are provided.
- 2) Two always provided message switch buffer array shelves NT6X3201 on positions 5,19 and two NT6X0801 signaling terminal equipment shelves on position 33,47 make up the MSB7 00/01 and STE 0/1 respectively.
- RUL1 1) Provide one (1) NTNX12LA packfill to equip one MSB7 module in the MC7M cabinet for MSL-100 systems. One packfill will equip both shelves i.e. positions 5,19.
- 2) Provide one (1) NTNX12PA packfill to equip one MSB7 module in the MC7M cabinet for international use. One packfill will equip both shelves i.e. positions 5,19.
- RUL2 1) Provide one (1) signaling terminal (ST) CP (NT6X66AA per signaling link. In SS7 signaling links are provisioned in pairs. When customer requirements exceed the first eight (8) STs (located in MSB7 shelves 5, 19) additional ST cir-

cuit packs may be provisioned on STE0/1 shelves 33 and 47 in ST groups 2-5. Each ST group will have a maximum of 8. STs providing the MC7M with total capacity of 40. Provisioning of the ST CP is from the shelf higher circuit pack position to the lower circuit pack position. From position 7 to 4 on shelves 5,19.

- 2) Provide one (1) filler face plate , NT0X50AA in positions 4-7 in shelves 5,19 when not equipped with NT6X66AA CPs.
- 3) Provide one (1) signaling terminal (ST) NT6X66AA for CCITT #7 or signaling terminal (ST) NT6X66BA for NTT-NCCI #7 signaling link.
- 4) The two signaling terminal circuit packs associated with a signaling link pair (i.e. signaling layer) must be provided on separate ST groups. Each is powered by different power feeds (A & B) for reliability.
- 5) NT6X66AA ST circuit pack for CCITT #7 must communicate only with NT6X68AC or NT6X68AD signaling terminal interface circuit packs for this application.
- 6) NT6X66BA circuit packs for NTT-NCCI #7 must communicate only with NT6X68CA or NT6X68DA signaling terminal circuit packs for this application.

- 7) Do not mix NT6X66AA and NT6X66BA circuit packs in the same st group. The first ST pair (#0) is always provided.

Pair #	ST Position	ST Group	Pair #	ST Position	ST Group
=====	=====	=====	=====	=====	=====
0	05-07 19-07	0 1	11	33-04 33-24	3 2
1	05-06 19-06	0 1	12	47-11 47-17	5 4
2	05-05 19-05	0 1	13	47-10 47-18	5 4
3	05-04 19-04	0 1	14	47-09 47-19	5 4
4	33-11 33-17	3 2	15	47-08 47-20	5 4
5	33-10 33-18	3 2	16	47-07 47-21	5 4
6	33-09 33-19	3 2	17	47-06 47-22	5 4
7	33-08 33-20	3 2	18	47-05 47-23	5 4
8	33-07 33-21	3 2	19	47-04 47-24	5 4
9	33-06 33-22	3 2			
10	33-05 33-23	3 2			

RUL3 1) Provide two (2) NT2X70AE for each ST shelf.

RUL4 1) Provide two (2) NT6X68AC STI cards per the table below:

Shelf	Slot	ST Group	Provisioning Note
=====	=====	=====	=====
05	09	1	
19	09	1	When this is not the last ST group.
33	15,16	2	When this is not the last ST group.
33	12,13	3	When this is not the last ST group.
47	15,16	4	When this is not the last ST group.

RUL5 1) Provide two (2) NT6X68AD STI w/terminator per table below:

Shelf	Slot	ST Group	Provisioning Note
=====	=====	=====	=====
05	08	1	
19	08	1	When this is the last ST group.
33	15,16	2	When this is the last ST group.
33	12,13	3	When this is the last ST group.
47	15,16	4	When this is the last ST group.
47	12,13	5	When this is the last ST group.

RUL6 1) Provide one (1) NT6X02AB shelf filler kit for shelves 33,47 when not equipped. This kit will fill both shelves.

RUL7 1) Provide one (1) earthquake mounting kit when installing frame in ATC zone 6-7, NEBS zone 4 and UBC zone 4. Use NTNX2540 for slab type flooring or NTNX2578 for computer flooring.

2) Provide one frame mounting kit when installing in a non-earthquake zone. Use NTNX2579 for slab floors and NTNX2580 for computer floors.

RUL8 1) Provide two (2) NTNX2513 right (gray) doors for gray cabinets.

2) Provide two (2) NTNX2515 left (gray) doors for gray cabinets.

3) Provide two (2) NTNX2550 left (brown) doors for brown cabinets.

4) Provide two (2) NTNX2552 right (brown) doors for brown cabinets.

RUL9 1) Provide two (2) P0677704 Door labels left for gray cabinets.

- 2) Provide two (2) P0699158 Door labels right for gray cabinets.
- 3) Provide two (2) P0699464 Door labels left for brown cabinets.
- 4) Provide two (2) P0695230 Door labels right for brown cabinets.
- 5) Provide one (1) P0695236 cabinet type label (gray) for the cabinet.
- 6) Provide one (1) P0700929 cabinet type label (brown) for the cabinet.

MERIDIAN CABINET DATA MODEM EXPANSION

PEC CODE: NTNX95AA

CPC CODE: B0229953

| RATING: MD

REPLACES: N/A

| REPLACED BY: NTNX47BA

ABBREVIATION NAME: MCDE

ENGINEERING DESCRIPTION: In the CCIS/CCITT #6 environment, Phase Shift Keying (PSK) is used to transmit serial binary data over analog channels. The MCDE NTNX95AA houses analog 2400 baud modems which modulate/demodulate serial binary data (in dibits) to/from PSK. A DC modem is dedicated to each signalling terminal. The MCDE is provisioned in conjunction with the MC6E cabinet.

REFERENCE DOCUMENTATION: MSNX95AA 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NTNX95AA EMR10-23-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 464 12	Previous history not available MD the NTNX94AA and NTNX95AA per ECD002-16128.

The Meridian Cabinet Data Modem Expansion is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
2 Inch Filler Plate	P0684448		1	65		AP
Frame Supervisory Panel	NTNX26GA	FSP	1	60		AP
Filler Panel	P0575239		1	47		AP
Data Set Modem Shelf Modem Circuit Pack	NT5X09BA A0302338		1	33 33	1-16	AP RUL1
Filler Panel	P0705111		1	29		AP
Data Set Modem Shelf Modem Circuit Pack	NT5X09BA A0302338		1	19 19	1-16	AP RUL1
Filler Panel	P0705111		1	15		AP
Data Set Modem Shelf Modem Circuit Pack	NT5X09BA A0302338		1	05 05	1-16	AP RUL1
Cooling Unit	NTNX27CA	CU	1	00		AP
Merid Cab. Common Framework	NTNX25AA	FW	1			AP
Anchor Kit E'qke Slab Flr	NTNX2540					RUL2
Anchor Kit E'qke Cmptr Flr	NTNX2578					RUL2
Anchor Kit Non E.Q. Slab	NTNX2579					RUL2
Anchor Kit Non E.Q. Cmptr	NTNX2580					RUL2
Right Door Ass'y (grey)	NTNX2513					RUL3
Left Door Ass'y (grey)	NTNX2515					RUL3
Right Door Label (grey)	P0699158					RUL4
Left Door Label (grey)	P0677704					RUL4
Right Door Ass'y (brown)	NTNX2552					RUL3
Left Door Ass'y (brown)	NTNX2550					RUL3
Right Door Label (brown)	P0695230					RUL4
Left Door Label (brown)	P0699464					RUL4
Cabinet Label (grey)	P0704733					RUL5
Cabinet Label (brown)	P0704734					RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NTNX95AA is ordered, these items are provided.
- RUL1 1) Provision one (1) A0302338 Modem Circuit Pack for each Signalling Terminal equipped on MC6E cabinet.
- 2) Assign modem circuit packs to the always-provided NT5X09BA Data Set Modem Shelves in shelf position 05, 19, and 33 (in that order) as per the following table:

MC6E CABINET			MCDE CABINET	
ST GROUP	ST NO.	CP POS.	LOCATION OF MODEM CP ON NT5X09BA SHELF	
XX-	7	XX-04 (J08)	XX-08	(J08)
XX-	6	XX-05 (J07)	XX-07	(J07)
XX-	5	XX-06 (J06)	XX-06	(J06)
XX-	4	XX-07 (J05)	XX-05	(J05)
XX-	3	XX-08 (J04)	XX-04	(J04)
XX-	2	XX-09 (J03)	XX-03	(J03)
XX-	1	XX-10 (J02)	XX-02	(J02)
XX-	0	XX-11 (J01)	XX-01	(J01)

XX-	0	XX-17 (J09)	XX-09 (J09)
XX-	1	XX-18 (J10)	XX-10 (J10)
XX-	2	XX-19 (J11)	XX-11 (J11)
XX-	3	XX-20 (J12)	XX-12 (J12)
XX-	4	XX-21 (J13)	XX-13 (J13)
XX-	5	XX-22 (J14)	XX-14 (J14)
XX-	6	XX-23 (J15)	XX-15 (J15)
XX-	7	XX-24 (J16)	XX-16 (J16)

* Note: (Jnn) designate connectors on the STA6 and DSM shelves.

MC6E
SHELF POSITION

MCDE
SHELF POSITION

XX = 05, 19, 33

XX = 05, 19, 33

- RUL2 1) Provision one Earthquake mounting kit when installing cabinet in ATC Zone 6 or 7, NEBS Zone 4 and UBC Zone R. Use NTNX2540 kit for slab-type flooring or NTNX2578 for computer flooring.
- 2) Provision one frame mounting kit when installing cabinet in a non-earthquake zone. Use NTNX2579 kit for slab-type flooring or NTNX2580 for computer flooring.
- RUL3 1) When specifying brown cabinets, provision two NTNX2550 left door assemblies and two NTNX2552 right door assemblies - one for front and rear respectively.
- 2) When specifying grey cabinets, provision two NTNX2515 left door assemblies and two NTNX2513 right door assemblies - one each for front and rear respectively.
- RUL4 1) When specifying brown cabinets, provision two P0699464 left door labels and two P0695230 right door labels - one each for front and rear respectively.
- 2) When specifying grey cabinets, provision two P0677704 left door labels and two P0699158 right door labels - one each for front and rear respectively.
- RUL5 1) Provide two cabinet type labels. When specifying brown cabinets, use P0704734. When specifying grey cabinets, use P0704733.

MERIDIAN CABINET CCS#6 MODULE

PEC CODE: NTN34BA

CPC CODE: B0228621

| RATING: MD

REPLACES: Not Applicable

| REPLACED BY: NTN370BB

ABBREVIATION NAME: MC6M

ENGINEERING DESCRIPTION: The Meridan Cabinet CCS#6 Module houses the DMS common channel interoffice signaling (CCIS) hardware and DMS CCITT#6 Signaling (for DMS-300 application) hardware. The MC6M is composed of the message switch and buffer 6 (MSB6), signaling terminals (ST) and modems. For each pair of modems on the data set module (DSM) shelf there is a corresponding pair of CCIS-CCITT#6 signaling terminal NT6X65AA circuit packs provisioned on shelf 05 and 19. The MSB6 communicates with the digital trunk controller (DTC) via up to 4 network ports per plane. The MSB6 switches signaling messages between the STs and the CCIS or CCITT#6 trunks on the DTCs via the inter-peripheral message links (IMPLs), i.e. nailed-up connections through the network. The signaling terminal provides the interface function between the DMS and the signaling network. The MC6M has the capability of connecting to the Enhanced Network using copper connections with the assistance of new messaging protocols.

REFERENCE DOCUMENTATION: SLN34BA 00 09
MSN34BA 00 03
SLN34PA 00 03
SLN34PB 00 01

MARKETS:

Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX34BA EMR10-25-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 10 15	----- ECM 293 03	Previous History Not Available Introduction of NT6X69LB in MC6M to allow MC6M function in ENET appl. MD the NTNX34BA per ECD002-16128.
95 05 22	ECM 293 05	

The Meridian Cabinet CCS#6 Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supv Panel	NTNX26GA	FSP	1	60		AP
DC Modem Shelf Assy	NT5X09BA	DSM	1	34		AP
Cooling Unit	NTNX27CA	CU	1	00		AP
Common Framework	NTNX25AA	FW	1			AP
Msg. Switch & Buf.Sh. Assy	NT6X0701	MSB6	2	5,19		AP
MC6M Common CP	NTNX34PA			5,19		RUL1
MC6M Common CP	NTNX34PB			5,19		RUL1
Power Converter	NT2X70AD		4	5,19	1,25	RUL1
Power Converter	NT2X70AE		4	5,19	1,25	RUL1
Design Label (NT2X70AE)	P0698943		4	5,19	1,25	RUL1
CPP Message Protocol	NT6X69LA		2	5,19	20	RUL1
CPP Message Protocol	NT6X69LB		2	5,19	20	RUL1
Design Label (NT6X69LB)	P0713213		2	5,19	20	RUL1
CCITT#6 Sig'l Terminal	NT6X65AA			5,19		RUL5
Design Label (NT6X65AA)	P0626891			5,19		RUL5
Filler Face Plate	NT0X50AA			5,19		RUL6
Desig. Label (NT0X50AA)	P0578498					RUL6
Anchor Kit (Earthquake Slab)	NTNX2540					RUL2
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL2
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL2
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL2
Right Door Assembly-Grey	NTNX2513					RUL3
Right Door Label (Grey)	P0699158					RUL4
Left Door Assembly-Grey	NTNX2515					RUL3
Left Door Label (Grey)	P0677704					RUL4
Right Door Assembly (Brown)	NTNX2552					RUL3
Left Door Assembly (Brown)	NTNX2550					RUL3
Left Door Label (Brown)	P0699464					RUL4
Right Door Label (Brown)	P0695230					RUL4
Cabinet Type Label (Grey)	P0700303					RUL4
Cabinet Type Label (Brown)	P0700304					RUL4
Modem	A0302338					RUL7
Network Port Conn thru	NTNX3440					RUL8
Bulkhead Cable Kit						
Network Port Conn via	NTNX3441					RUL8
internal Cable Kit.						

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN34BA is ordered, these items are provided.

RUL1 1) Provide one (1) NTN34PA, MSB6 packfill to equip one MSB6 module in the MC6M cabinet. The MSB6 is a dual shelf peripheral, i.e. one NTN34PA consists of hardware for both shelf positions 5 and 19. The NTN34PA can only be used with JNET(Junctored Network)

(OR)

2) Provide one (1) NTN34PB, MSB6 packfill to equip one MSB6 module in the MC6M cabinet. The MSB6 is a dual shelf peripheral, i.e. one NTN34PB consists of hardware for both shelf positions 5 and 19. The NTN34PB can be used with ENET(Enhanced Network) or JNET.

3) Provide two (2) NT6X69LA circuit packs per NTN34PB when JNET termination is required. Note that NT6X69LA is Always Provided (AP) in the NTN34PA Common Circuit packfill.

4) Provide two (2) NT6X69LB circuit packs and two (2) P0713213 designation labels per NTN34PB when ENET termination is required.

- 5) Provide four (4) NT2X70AD or four (4) NT2X70AE power converters per cabinet. Designation label are not required for NT2X70AD as it is provided as part of the designation strip provided with common circuit pack NTN34PA or NTN34PB.
 - 6) Provide one (1) P0698943 designation label for each NT2X70AE.
- RUL2
- 1) Provide one (1) earthquake mounting kit when installing frame in ATC zone 6-7, NEBS zone 4 and UBC zone 4. Use NTN2540 for slab type flooring or NTN2578 for computer flooring.
 - 2) Provide one Frame Mounting Kit when installing frame in a Non-Earthquake zone. Use NTN2579 kit for slab type flooring or NTN2580 for computer flooring.
- RUL3
- 1) Provide two door assemblies (2 left and 2 right, one set for front and one set for rear of cabinet).
 - 2) Provide two left door assy (NTNX2515-Grey, NTN2550-Brown) per cabinet.
 - 3) Provide two right door assy (NTNX2513-Grey, NTN2552-Brown) per cabinet.
- RUL4
- 1) Provide two cabinet type labels, one set for front, one set for rear of cabinet (P0700303-Grey, P0700304-Brown).
 - 2) Provide two left door label (P0677704-Grey, P0699464-Brown) per cabinet.
 - 3) Provide two right door label (P0699158-Grey, P0695230-Brown) per cabinet.
- RUL5
- 1) Provide one NT6X65AA signaling terminal (ST) CP and one modem per signaling link. CCITT#6 signaling links are provisioned in pairs (i.e. signaling layer). The two ST circuit packs associated with a signaling layer must be provided on separate MSB6 shelves for reliability.

* NOTE: Only 1st pair of NT6X65AA signaling terminal (ST) CP provided in packfill NTN34BA. All modems provisionable including the modem for the 1st pair of signaling terminal.

	MODEM CHANNEL POSITION	SIGNALING TERMINAL
PAIR	ON DSM SHELF	NT6X65AA POSITION

* 1	34-01 34-09	05-11 19-11
2	34-02 34-10	05-10 19-10
3	34-03 34-11	05-09 19-09
4	34-04 34-12	05-08 19-08
5	34-05 34-13	05-07 19-07
6	34-06 34-14	05-06 19-06
7	34-07 34-15	05-05 19-05
8	34-08 34-16	05-04 19-04

2) Fill ST circuit packs from slot 10 to 04.

3) Provide one (1) P0626891 designation label for each NT6X65AA ordered.

RUL6 1) Provide (NT0X50AA) filler face plates in slot position 4-10 on shelves 5 and 19 when not equipped with active circuit packs.

2) Provide one label per filler face plate provisioned.

RUL7 1) Provide A0302338 one modem circuit pack per signaling link (i.e. two modems per signaling layer). For each pair of modems on the data set module shelf there is a corresponding pair of ST NT6X65AA circuit packs provisioned on shelves 05 and 19.

2) The provisioned A0302338 and NT6X65AA cards are to be assigned to slots in the order listed below. There are fixed interconnections slots at shelf position 34 and those at positions 05 and 19.

RUL8 1) Provide one (1) NTN3440 cable kit when the external network port connections are made thru the bulkhead.

- 2) Provide one (1) NTNX3441 cable kit when the external network port connections are made via internal cables.

MERIDIAN CABINET CCS6 EXTENSION

PEC CODE: NTNX94AA

CPC CODE: B0229952

| RATING: MD

REPLACES: N/A

| REPLACED BY: NT9X70BB

ABBREVIATION NAME: MC6E

ENGINEERING DESCRIPTION: The Meridian Cabinet CCS6 Extension houses the DMS CCITT No.6 signalling hardware (for DMS-300 applications). It houses up to 48 Signalling Terminals (ST) on three Signalling Terminal Array #6 shelves.

REFERENCE DOCUMENTATION: MSNX94AA 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NTNX94AA EMR10-26-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 464 12	Previous history not available MD the NTNX94AA and NTNX95AA per ECD002-16128.

The Meridian Cabinet CCS6 Extension is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
2 Inch Filler Plate	P0684448		1	65		AP
Frame Supervisory Panel	NTNX26HA	FSP	1	60		AP
Filler Panel	P0575239		1	47		AP
Signalling Terminal Shelf	NT6X08AA	STA62	1	33		AP
Power Converter CP	NT2X70AE			33	01, 25	RUL1
CCIS Signalling Terminal CP	NT6X65AA			33	04-11, 17-24	RUL2
Signalling Terminal I/F	NT6X68AA			33	12, 13 15, 16	RUL3
Sign. Term. I/F(with Termin.)	NT6X68AB			33	12, 13 15, 16	RUL3
Filler Face Plate (.875)	NT0X50AA			33	04-13, 15-24	RUL4
Filler Face Plate (2.62)	NT0X50AE			33	01, 25	RUL5
Signalling Terminal Shelf	NT6X08AA	STA61	1	19		AP
Power Converter CP	NT2X70AE			19	01, 25	RUL1
CCIS Signalling Terminal CP	NT6X65AA			19	04-11, 17-24	RUL2
Signalling Terminal I/F	NT6X68AA			19	12, 13 15, 16	RUL3
Sign. Term. I/F(with Termin.)	NT6X68AB			19	12, 13 15, 16	RUL3
Filler Face Plate (.875)	NT0X50AA			19	04-13, 15-24	RUL4
Filler Face Plate (2.62)	NT0X50AE			19	01, 25	RUL5
Signalling Terminal Shelf	NT6X08AA	STA60	1	05		AP
Power Converter CP	NT2X70AE			05	01, 25	RUL1
CCIS Signalling Terminal CP	NT6X65AA			05	04-11, 17-24	RUL2
Signalling Terminal I/F	NT6X68AA			05	12, 13 15, 16	RUL3
Sign. Term. I/F(with Termin.)	NT6X68AB			05	12, 13 15, 16	RUL3
Filler Face Plate (.875)	NT0X50AA			05	04-13, 15-24	RUL4
Filler Face Plate (2.62)	NT0X50AE			05	01, 25	RUL5
Cooling Unit	NTNX27CA	CU	1	00		AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Merid Cab. Common Framework	NTNX25AA	FW	1			AP
Anchor Kit E'qke Slab Flr	NTNX2540					RUL6
Anchor Kit E'qke Cmptr Flr	NTNX2578					RUL6
Anchor Kit Non E.Q. Slab	NTNX2579					RUL6
Anchor Kit Non E.Q. Cmptr	NTNX2580					RUL6
Right Door Ass'y (grey)	NTNX2513					RUL7
Left Door Ass'y (grey)	NTNX2515					RUL7
Right Door Label (grey)	P0699158					RUL8
Left Door Label (grey)	P0677704					RUL8
Right Door Ass'y (brown)	NTNX2552					RUL7
Left Door Ass'y (brown)	NTNX2550					RUL7
Right Door Label (brown)	P0695230					RUL8
Left Door Label (brown)	P0699464					RUL8
Cabinet Label (grey)	P0704731					RUL9
Cabinet Label (brown)	P0704732					RUL9
Desig. Label (NT2X70AE)	P0698943					RUL10
Desig. Label (NT6X68AA)	P0643138					RUL10
Desig. Label (NT6X68AB)	P0643139					RUL10
Desig. Label (NT6X65AA)	P0626891					RUL10

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTN94AA is ordered, these items are provided.

RUL1 1) Each Power Converter CP serves one ST group (half shelf). Provide maximum two (2) NT2X70AE Power Converter CP per shelf as per the following table:

Provision NT2X70AE in CP Pos'n: -----	When ST CP Equipped in CP Pos'n: -----
01	04 to 11
25	17 to 24

RUL2 1) Provide one NT6X65AA CCIS Signalling Terminal CP per signalling link. (Maximum 16 signalling terminals per shelf or 48 per cabinet). 2) Assign Signalling Terminal CPs to CP position as follows:

NTNX94AA CABINET (MC6E)			LOCATION OF MODEM CP ON NT5X09BA SHELF WHICH MOUNTS ON NTN95AA (MCDE)
ST GROUP	ST NO.	CP POS.	
XX-	7	XX-04 (J08)	XX-08 (J08)
XX-	6	XX-05 (J07)	XX-07 (J07)
XX-	5	XX-06 (J06)	XX-06 (J06)
XX-	4	XX-07 (J05)	XX-05 (J05)
XX-	3	XX-08 (J04)	XX-04 (J04)
XX-	2	XX-09 (J03)	XX-03 (J03)
XX-	1	XX-10 (J02)	XX-02 (J02)
XX-	0	XX-11 (J01)	XX-01 (J01)
XX-	0	XX-17 (J09)	XX-09 (J09)
XX-	1	XX-18 (J10)	XX-10 (J10)
XX-	2	XX-19 (J11)	XX-11 (J11)
XX-	3	XX-20 (J12)	XX-12 (J12)
XX-	4	XX-21 (J13)	XX-13 (J13)
XX-	5	XX-22 (J14)	XX-14 (J14)
XX-	6	XX-23 (J15)	XX-15 (J15)
XX-	7	XX-24 (J16)	XX-16 (J16)

* Note: (Jnn) designate connectors on the STA6 and DSM shelves.

MC6E
SHELF POSITIONMCDE
SHELF POSITION

XX = 05, 19, 33

XX = 05, 19, 33

RUL3 1) Provide NT6X68AA Signalling Terminal Interface CP
and NT6X68AB Signalling Terminal Interface With Terminator
CP as follows:

NO. OF ST GROUPS EQUIPPED	CIRCUIT PACK PEC	QTY.	SHELF POSN.	ASSIGN TO CIRCUIT PACK POSITION
1	NT6X68AA	0	05	-
	NT6X68AB	2	05	15 & 16
2	NT6X68AA	2	05	15 & 16
	NT6X68AB	2	05	12 & 13
3	NT6X68AA	4	05	12 & 13 15 & 16
	NT6X68AB	2	19	15 & 16
4	NT6X68AA	6	05	12 & 13 15 & 16
			19	15 & 16
	NT6X68AB	2	19	12 & 13
5	NT6X68AA	8	05	12 & 13 15 & 16
			19	12 & 13 15 & 16
	NT6X68AB	2	33	15 & 16
6	NT6X68AA	10	05	12 & 13 15 & 16
			19	12 & 13 15 & 16

			33	15 & 16
	NT6X68AB	2	33	12 & 13

- RUL4 1) Always provision one (1) NT0X50AA Filler Faceplate in CP position 14.
- 2) Provide NT0X50AA Filler Faceplate for each position not equipped with NT6X65AA, NT6X68AA or NT6X68AB CP.
- RUL5 1) Provide one NT0X50AE Filler Faceplate in position 01 or 25 when NT2X70AE is NOT provided in that position.
- RUL6 1) Provision one Earthquake mounting kit when installing cabinet in ATC Zone 6 or 7, NEBS Zone 4 and UBC Zone R. Use NTN2540 kit for slab-type flooring or NTN2578 for computer flooring.
- 2) Provision one frame mounting kit when installing cabinet in a non-earthquake zone. Use NTN2579 kit for slab-type flooring or NTN2580 for computer flooring.
- RUL7 1) When specifying brown cabinets, provision two NTN2550 left door assemblies and two NTN2552 right door assemblies - one for front and rear respectively.
- 2) When specifying grey cabinets, provision two NTN2515 left door assemblies and two NTN2513 right door assemblies - one each for front and rear respectively.
- RUL8 1) When specifying brown cabinets, provision two P0699464 left door labels and two P0695230 right door labels - one each for front and rear respectively.
- 2) When specifying grey cabinets, provision two P0677704 left door labels and two P0699158 right door labels - one each for front and rear respectively.
- RUL9 1) Provide two cabinet-type labels. When specifying brown cabinets, use P0704732; when specifying grey cabinets, use P0704731.
- RUL10 1) Provide one (1) Designation Label for each NT2X70AE, NT6X68AA, NT6X68AB, and NT6X65AA CP provisioned.

MCRM-I COMMON CP
MERIDIAN SL100 CABINET SYSTEM

PEC CODE: NTNX17CA

CPC CODE: B0231503

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: MCRM-I Common CP

ENGINEERING DESCRIPTION: The NTNX17CA is the common circuit packfill to equip the MCRM-I cabinet (NTNX17AB) for ISDN applications. It contains circuit packs for one Remote Maintenance Module (RMM) and one 2-shelf Remote Cluster Controller module (RCCI).

NTNX17CA MCRM-I Common CP will be replaced with NTNX17CB.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX17CA EMR10-28-MCRM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 02 16	----- ECM 326 12	Previous history not available MD the NTNX17CA.

The MCRM-I Common CP Meridian SL100 Cabinet System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group Codec Ckt Pack	NT2X59AA		1	49	1	AP
RMM Control Ckt Pack	NT6X74AB		1	49	2	AP
Misc Scan CP	NT0X10AA		1	49	3	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	4	AP
Bal Network	NT2X77AA		1	49	4	AP
Signal Distn CP	NT2X57AA		1	49	7	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	8	AP
Bal Network	NT2X77AA		1	49	8	AP
Metallic Test Access CP	NT3X09BA		1	49	11	AP
Multi O/P Pwr Converter	NT2X09AA		1	49	17	AP
Filler Face Plate	NT0X50AA		1	49	19	AP
Pwr Converter Comm Ftr	NT2X06AB		1	49	20	AP
Designation Strip - RMM	P0705924		1	49		AP
DS30A I/F Ckt Pack	NT6X48AA		4	21, 35	6, 7	AP
LTC/DTC Proc Ckt Pack	NT6X45BC		4	21, 35	8, 13	AP
Filler Face Plate	NT0X50AA		6	21, 35	9, 11, 24	AP
4MB MP Memory Ckt Pack	NT6X47AC		2	21, 35	10	AP
SP Memory Plus Ckt Pack	NT6X46BA		2	21, 35	12	AP
Univ Tone Rcvr (Domestic)	NT6X92BB		2	21, 35	14	AP
Time Switch Ckt Pack	NT6X44AA		2	21, 35	15	AP
ISDN Sig Pre-Proc Ckt Pack	NTBX01AA		2	21, 35	16	AP
CPP Msg Proto & Tone CP	NT6X69AB		2	21, 35	17	AP
Remote Formatter Pack	NT6X72AB		2	21, 35	19	AP
DS1 I/F CP	NT6X50AB		2	21, 35	20	AP
+5/12V Pwr Converter 50A	NT2X70AE		2	21, 35	25	AP
Designation Strip - RCC	P0714000		2	21, 35		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

Retired Equipment
MCRM-I Common CP
Meridian SL100 Cabinet System

NTNX17CA
EMR10-28-MCRM-1
Page 3

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position 49 is the Remote Maintenance Module (RMM).
- 2) Shelf positions 21 & 35 make up the Remote Cluster Controller ISDN module (RCCI).

RULES:

- AP 1) When PEC NTN17CA is ordered, these items are provided.

MCRM-I COMMON CP
MERIDIAN SL100 CABINET SYSTEM

PEC CODE: NTNX17BB

CPC CODE: B0234033

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: MCRM Common CP

ENGINEERING DESCRIPTION: The NTNX17BB is the common circuit packfill to equip the MCRMI cabinet (NTNX17AB) with circuit packs for one Remote Maintenance Module (RMM) and one 2-shelf Remote Cluster Controller module (RCC) for NON-ISDN applications.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX17BB EMR10-28-MCRM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 02 16	----- ECM 326 12	Previous history not available MD the NTNX17BB.

The MCRM-I Common CP Meridian SL100 Cabinet System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group Codec Ckt Pack	NT2X59AA		1	49	1	AP
RMM Control Ckt Pack	NT6X74AB		1	49	2	AP
Misc Scan CP	NT0X10AA		1	49	3	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	4	AP
Bal Network	NT2X77AA		1	49	4	AP
Signal Distn CP	NT2X57AA		1	49	7	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	8	AP
Bal Network	NT2X77AA		1	49	8	AP
Metallic Test Access CP	NT3X09BA		1	49	11	AP
Multi O/P Pwr Converter	NT2X09AA		1	49	17	AP
Filler Face Plate	NT0X50AA		1	49	19	AP
Pwr Converter Comm Ftr	NT2X06AB		1	49	20	AP
Designation Strip - RMM	P0705924		1	49		AP
DS30A I/F Ckt Pack	NT6X48AA		4	21, 35	6, 7	AP
LTC/DTC Proc Ckt Pack	NT6X45BA		4	21, 35	8, 13	AP
Filler Face Plate	NT0X50AA		4	21, 35	9, 11, 24	AP
4MB MP Memory Ckt Pack	NT6X47AC		4	21, 35	10	AP
SP Memory Plus Ckt Pack	NT6X46BB		2	21, 35	12	AP
Time Switch Ckt Pack	NT6X44AA		2	21, 35	15	AP
Univ Tone Rcvr (Domestic)	NT6X92BB		2	21, 35	16	AP
CPP Msg Proto & Tone CP	NT6X69AC		2	21, 35	17	AP
Remote Formatter Pack	NT6X72AA		2	21, 35	19	AP
DS1 I/F CP	NT6X50AB		2	21, 35	20	AP
+5/12V Pwr Converter 50A	NT2X70AE		2	21, 35	25	AP
Designation Strip - RCC	P0705923		2	21, 35		AP
Designation Label (NT6X69AC)	P0710476		2	21, 35	17	AP
Designation Label (NT6X46BB)	P0711664		2	21, 35	12	AP
Designation Label (NT0X50AA)	P0578498		2	21, 35	11	AP
Designation Label (NT6X50AB)	P0690976		2	21, 35	20	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position 49 is the Remote Maintenance Module (RMM).
- 2) Shelf positions 21 & 35 make up the Remote Cluster Controller (RCC).

RULES:

- AP 1) When PEC NTN17BB is ordered, these items are provided.

MCRM-I COMMON CP
MERIDIAN SL100 CABINET SYSTEM

PEC CODE: NTNX17CB

CPC CODE: B0234034

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: MCRM-I Common CP

ENGINEERING DESCRIPTION: The NTNX17CB is the common circuit packfill to equip the MCRM-I cabinet (NTNX17AB) for ISDN applications. It contains circuit packs for one Remote Maintenance Module (RMM) and one 2-shelf Remote Cluster Controller (RCCI).

This NTNX17CB replaces the NTNX17CA Common CP.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX17CB EMR10-28-MCRM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 02 16	----- ECM 326 12	Previous history not available MD the NTNX17CB.

The MCRM-I Common CP Meridian SL100 Cabinet System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group Codec Ckt Pack	NT2X59AA		1	49	1	AP
RMM Control Ckt Pack	NT6X74AB		1	49	2	AP
Misc Scan CP	NT0X10AA		1	49	3	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	4	AP
Bal Network	NT2X77AA		1	49	4	AP
Signal Distn CP	NT2X57AA		1	49	7	AP
INC/OG Test Trunk CP	NT2X90AD		1	49	8	AP
Bal Network	NT2X77AA		1	49	8	AP
Metallic Test Access CP	NT3X09BA		1	49	11	AP
Multi O/P Pwr Converter	NT2X09AA		1	49	17	AP
Filler Face Plate	NT0X50AA		1	49	19	AP
Pwr Converter Comm Ftr	NT2X06AB		1	49	20	AP
Designation Strip - RMM	P0705924		1	49		AP
DS30A I/F Ckt Pack	NT6X48AA		4	21, 35	6, 7	AP
LTC/DTC Proc Ckt Pack	NT6X45BC		4	21, 35	8, 13	AP
Filler Face Plate	NT0X50AA		6	21, 35	9, 11, 24	AP
4MB MP Memory Ckt Pack	NT6X47AC		2	21, 35	10	AP
SP Memory Plus Ckt Pack	NT6X46BB		2	21, 35	12	AP
Univ Tone Rcvr (Domestic)	NT6X92BB		2	21, 35	14	AP
Time Switch Ckt Pack	NT6X44AA		2	21, 35	15	AP
ISDN Sig Pre-Proc Ckt Pack	NTBX01AA		2	21, 35	16	AP
CPP Msg Proto & Tone CP	NT6X69AC		2	21, 35	17	AP
Remote Formatter Pack	NT6X72AB		2	21, 35	19	AP
DS1 I/F CP	NT6X50AB		2	21, 35	20	AP
+5/12V Pwr Converter 50A	NT2X70AE		2	21, 35	25	AP
Designation Strip - RCCI	P0714000		2	21, 35		AP
Designation Label (NT6X69AC)	P0710476		2	21, 35	17	AP
Designation Label (NT6X46BB)	P0711664		2	21, 35	12	AP
Designation Label (NT0X50AA)	P0578498		2	21, 35	11	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Shelf position 49 is the Remote Maintenance Module (RMM).
- 2) Shelf positions 21 & 35 make up the Remote Cluster Controller ISDN module (RCCI).

RULES:

- AP 1) When PEC NTN17CB is ordered, these items are provided.

MERIDIAN CABINET REMOTE MODULE-ISDN
MERIDIAN SL100 CABINET SYSTEM

PEC CODE: NTNX17AB

CPC CODE:

| RATING: MD

REPLACES: Not Applicable

| REPLACED BY: NTNX17AC

ABBREVIATION NAME: MCRM-I

ENGINEERING DESCRIPTION: The MCRM-I is a cabinetized version of the RSC-ISDN (Remote Switching Center with ISDN capabilities). The MCRM-I is the first cabinet of an RSC-ISDN equipment lineup. It provides power for the cabinets in the lineup it serves. It houses the RCCI module (two RCAI shelves) and the RMM module (one shelf).

The RCC module (the two lower shelves) can be used for non-ISDN as well as ISDN applications depending on choice of Common CP, and S/W load & exec. A wiring option is required for non-ISDN applications.

REFERENCE DOCUMENTATION: MSNX17AB 00 02

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: Joe Bragg Dept. 6457 (RNS)

NTNX17AB EMR10-28-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 02 16	----- ECM 326 12	Previous history not available MD the NTNX17AB.

The Meridian Cabinet Remote Module-ISDN Meridian SL100 Cabinet System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Supervisory Panel	NTNX26NA	FSP	1	62		AP
RMM Shelf Assembly	NT6X1301	RMM	1	49		AP
Metallic Test Access CP	NT3X09BA			49	12, 13	RUL2
INC Test Trunk Ckt Pack	NT3X04AA			49	14-16	RUL18
Misc Scan Ckt Pack	NT0X10AA			49	14-16	RUL3
Signal Dist'n Ckt Pack	NT2X57AA			49	14-16	RUL4
INC/OG Tes Trunk Ckt Pack	NT2X90AD			49	14-16	RUL5
Bal Network	NT2X77AA			49		RUL6
LTU Analog Card	NT2X10AB			49	5, 9	RUL14
LTU Digital Card	NT2X11AD			49	6, 10	RUL14
MTU Analog Card	NT2X10BA			49	5	RUL14
MTU Digital Card	NT2X11BA			49	6	RUL14
Filler Face Plate (1.12)	NT0X50AC			49	3-16	RUL8
Desig'N Label (NT3X09BA)	P0664847					RUL2
Desig'N Label (NT3X04AA)	P0688910					RUL18
Desig'N Label (NT2X57AA)	P0656327					RUL4
Desig'N Label (NT2X90AD)	P0688244					RUL5
Desig'N Label (NT0X10AA)	P0656328					RUL3
Desig'N Label (NT2X10AB)	P0664835					RUL14
Desig'N Label (NT2X11AD)	P0710810					RUL14
Desig'N Label (NT2X10BA)	P0707874					RUL14
Desig'N Label (NT2X11BA)	P0707876					RUL14
Desig'N Label (NT0X50AC)	P0580258					RUL8
RCCI Shelf Assembly	NT6X1206	RCAI	2	21, 35		AP
DS1 I/F Ckt Pack	NT6X50AB			21	4-1	RUL10
DS1 I/F Ckt Pack	NT6X50AB			35	5-1	RUL10
DS1 I/F Ckt Pack	NT6X50AB			21, 35	21-23	RUL11
D-Channel Handler CP	NTBX02AA			21	4-1	RUL15
D-Channel Handler CP	NTBX02AA			35	5-1	RUL15
Universal Tone Receiver	NT6X92BB			21, 35	14	RUL21
Class Modem Resource CP	NT6X78AA			21, 35	18	RUL16
Filler Face Plate (0.875)	NT0X50AA			21, 35		RUL9
Desig'N Label (NT6X50AB)	P0690976					RUL10
Desig'N Label (NT6X50AB)	P0690976					RUL11
Desig'N Label (NTBX02AA)	P0697919					RUL15
Desig'N Label (NT6X78AA)	P0699568					RUL16
Desig'N Label (NT6X92BB)	P0686332					RUL21
Desig'N Label (NT0X50AA)	P0578498					RUL9

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cooling Unit	NTNX27CA	CU	1	16		AP
Power Dist'n Panel	NTNX24DA	PDP	1	01		AP
Meridian Cabinet Assembly	NTNX25AA	FW	1			AP
MCRM-I Common CP	NTNX17CA					RUL1
MCRM-I Common CP	NTNX17CB					RUL1
MCRM Common CP (NON-ISDN)	NTNX17BB					RUL1
Non-ISDN Wiring Option Kit	NTNX17WA					RUL22
Field ISDN Wiring Option Kit	NTNX17WB					RUL22
Anchor Kit E'qke Slab	NTNX2540					RUL19
Anchor Kit E'qke Cmptr	NTNX2578					RUL19
Anchor Kit Non-E'qke Slab	NTNX2579					RUL19
Anchor Kit Non-E'qke Cmptr	NTNX2580					RUL19
Right Door Assembly - Grey	NTNX2513					RUL12
Left Door Assembly - Grey	NTNX2515					RUL12
Right Door Label - Grey	P0699158					RUL12
Left Door Label - Grey	P0677704					RUL12
MCRMI Cab't Type Label-Grey	P0731503					RUL12
Right Door Assembly - Brown	NTNX2552					RUL12
Left Door Assembly - Brown	NTNX2550					RUL12
Right Door Label - Brown	P0699463					RUL12
Left Door Label - Brown	P0699464					RUL12
MCRMI Cab't Type Label-Brwn	P0731502					RUL12
Right End Panel Assy - Grey	NTNX2517					RUL13
Left End Panel Assy - Grey	NTNX2518					RUL13
Right End Panel Assy - Brown	NTNX2546					RUL13
Left End Panel Assy - Brown	NTNX2553					RUL13
FCC Part 68 Compliance Label	P0701061					RUL20

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) When packfilled, RCAI (Remote Cluster Array-ISDN) shelves on shelf positions 21 and 35 comprise a two-shelf RCC Module (Remote Cluster Controller-ISDN or non-ISDN).
- 2) Cooling Unit contains a Fan Management Unit (FMU) NTN13AA which is always provided with the Cooling Unit. Spares should be provided.
- 3) If position 49-13 in the MCRM-I is provisioned with a NT3X09BA, the horizontal level 3 and 4 must be connected on the MDF.

SIGNAL	FROM CARD	PIN	PIN	TO CARD	SIGNAL
NAME	POS.	NO.	NO.	POS.	NAME
TT3	49-12	9A	9A	49-13	TT3
TT3	49-12	8A	8A	49-13	TT3
TT4	49-12	10A	10A	49-13	TT4
TT4	49-12	11A	11A	49-13	TT4

RULES:

- AP 1) When PEC NTN17AB is ordered, these items are provided.
- RUL1 1) Packfill NTN17CA provides circuit packs to equip one RMM (shelf 49) and one RCCI (shelves 21 and 35).

- 2) Packfill NTN17CB is a replacement for NTN17CA and will equip one RMM (shelf 49) and on RCCI (shelves 21 & 35) for ISDN applications. See RUL22.
- 3) Packfill NTN17BB equips the same RMM (shelf 49) and will equip the RCC (shelves 21 & 35) for non-ISDN applicaitons. See RUL22.
- RUL2 1) Provide MTA CP NT3X09BA and Designation Label P0664847 in slot 12 with the third MCLM cabinet terminated on the RMM.
- 2) Provide MTA CP NT3X09BA and Designation Label P0664847 in slot 13 with the fifth MCLM cabinet terminated on the RMM. See Note 3.
- RUL3 1) Provide one scan ckt pack NT0X10AA and Desig'n Label P0656328 for every fourteen scan points required in a remote office.
- RUL4 1) Provide one Miscellaneous SD Type 1 circuit pack NT2X57AA and Desig'n Label P0656327 for every fourteen signal distributer points required for the remote office.
- RUL5 1) Provide one Incoming/Outgoing Test Trunk ckt pack NT2X90AD and Desig'n Label P0688244 per customer requirements.
- RUL6 1) Provide one Balance Network NT2X77AA per NT2X90AD provided.
- RUL7 1) Reserved.
- RUL8 1) Provide one Filler Face Plate NT0X50AC (1.12 in) and Desig'n Label P0580258 in slots unequipped on RMM shelf position 49.
- RUL9 1) Provide one Filler Face Plate NT0X50AA (0.875 in) and Desig'n Label P0578498 in slots unequipped on RCC shelf positions 21 and 35.
- RUL10 1) Provide a maximum of nine (9) NT6X50AB DS1 I/F ckt packs and Desig'n Label P0690976 for peripheral side trunking in RCC per customer requirements.
- 2) One NT6X50AB provides interfaces for up to two (2) T1 spans. The following table is a listing of DS1 ports (P-side links) per circuit pack position:

CP POS	5	4	3	2	1

SH POS 35	PORTS 2,3	PORTS 6,7	PORTS 10,11	PORTS 14,15	PORTS 18,19

SH POS 21	PORTS 0,1*	PORTS 4,5	PORTS 8,9	PORTS 12,13	PORTS 16,17

(REAR VIEW)					

* Ports 0 & 1 are not available for P-Side Trunking.

- 2) P-side link assignments: First assign P-side DS30A (NT6X48AA) links (2-19) to RSC line equipment. The DS30A ports are assigned in the following sequential order: 19, 17, 18, 16, 15, 14, 13, 12, 11, 9, 10, 8, 7, 5, 6, 4, 3, 2 (ports 0 & 1 are reserved).

After DS30A link assignments are made for RSC line equipment, assign P-side DS1 links in the following sequential order: 2, 3, 4, 5, 6, 7, 8, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 (ports 0 & 1 are reserved).

- RUL11 1) Provide A maximum of six (6) NT6X50AB DS1 I/F ckt packs and Designation Labels P0690976 (in addition to the two always provided by the MCRMI Common CP NTN17CA in slots 20) for Host Interface (C-side links) from the RCC per customer requirements.
- 2) One NT6X50AB provides up to two (2) T1 spans to the Host. The following table is a listing of DS1 ports (C-side links) per circuit pack position:

CP					
POS	20*	21	22	23	

SH POS	PORTS	PORTS	PORTS	PORTS	
35	2,3*	6,7	10,11	14,15	

SH POS	PORTS	PORTS	PORTS	PORTS	
21	0,1*	4,5	8,9	12,13	

(FRONT VIEW)					

* NT6X50AB always provided in slots 20 with NTN17CA Common Cp.

- 3) The Host XPM can be LTC, LTCI, LGC or LGCI. The Host XPM need NOT be upgraded to a LGCI/LTCI unless it supports a

separate, local LCM in addition to the RCCI. The Host XPM must be LTC or LTCI if there are trunks off the RCCI.

- RUL12 1) Provide two left door assemblies and two right door assemblies per cabinet.
- 2) Provision two left door labels and two right door labels per cabinet.
- 3) Provision two cabinet type labels per cabinet.
- RUL13 1) Provide one each left and right End Panel per lineup per customer requirements.
- 2) Note that End Panels must be associated with the first MCRMI cabinet of the lineup in the Configuration Section of the specification. It must not appear in the Loose Items section of the specification and must never "ship loose".
- RUL14 1) Provide Line Test Unit or Multi Test Unit Ckt Packs and Designation Labels as follows:
- For LTU: NT2X10AB & Desig'n Label P0664835
NT2X11AD & Desig'n Label P0710810
- For MTU: NT2X10BA & Desig'n Label P0707874
NT2X11BA & Desig'n Label P0707876
- Note that the MTU pair are required for diagnostics when 2B1Q LCMEs home on the RCCI.
- RUL15 1) Provide a maximum of 9 D-Channel Handler ckt pack NTB02AA & Designation Label P0697919 per customer requirements. The RCCI has a total of 20 P-Side ports shared between DS30A, DS1 and optional Packet Handler interfaces. P-side ports 0 & 1 are always reserved for DS30A.
- 2) Each D-Channel Handler NTB02AA ckt pack uses one P-Side port and occupies one slot.
- 3) One additional D-Channel Handler NTB02AA should be provisioned for sparing. Each DCH provisioned reduces the number of P-Side DS1 card slots by one (2 T spans).
- 4) Ports for the D-Channel Handler are assigned starting from Port 19 and descending, using ODD ports only (19, 17, 15,...5, 3). See RUL10, ITEM 2) for slot vs port #.

- RUL16 1) When Calling Number Delivery/Calling Number Display feature is a customer requirement, provide two NT6X78AA Class Modem Resource CP and Designation Label P0699568.
- 2) Due to power limitations, use of the NT6X78AA CMR CP requires the following limitation on DS1 CPs;
- DS1 Cards (C-Side) + DS1 Cards (P-Side) <= 10 max
- RUL17 1) Reserved.
- RUL18 1) Provide one Incoming Test Trunk NT3X04AA for each AECO Local Test Board Interface circuit pack on an as required basis.
- RUL19 1) Provision one earthquake mounting kit when installing cabinet in an earthquake an ATC Zone 6 & 7; NEBS Zone 4; and UBC Zone 4. Use NTNX2540 for slab type flooring and NTNX2578 for computer flooring.
- 2) Provision one cabinet mounting kit when installing cabinet in a NON- earthquake zone. Use NTNX2579 for slab type flooring and use NTNX2580 for computer flooring.
- RUL20 1) Provision two FCC Part 68 Compliance Labels P0701061 per RSC System. Mount these labels inside the front and rear door of the MCRMI cabinet.
- RUL21 1) The MCRMI equipped for NON-ISDN operation (Common CP NTNX17BB, SEE RUL1) is equipped with one pair of UTR circuit packs and a second pair is provisionable if required. If the second UTR pair is required, provide two (2) NT6X92BB UTR circuit packs and two (2) Designation Labels P0686322.
- 2) If the second pair of UTR is provisioned, the number of NT6X50AB ckt packs is limited to a maximum of 12.
- 3) The RCCI is limited to the use of one UTR pair only when the CLASS Modem Resource cp NT6X78AA is required (See RUL16). Dual UTRs can be supported if that pack is not required.
- RUL22 1) For an initial order of MCRMI cabinet NTNX17AB for Non-ISDN function, always provide one NTNX17WA Non-ISDN Wiring Option Kit.
- 2) For field application when converting NTNX17AB MCRMI cabinet from Non-ISDN function to ISDN function, provide NTNX17WB Field Wiring Option Kit.

MCRM PACKFILL

PEC CODE: NTNX17BC

CPC CODE: B0232997

| RATING: MD.

REPLACES: Not Applicable

REPLACED BY: NTNX17BF

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The NTNX17BC provides non-XPM+ circuit packs for the MCRM bay. It contains circuit packs for one two-shelf RCC.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: NTI: Joe Bragg Dept. 6457 (RNS)

NTNX17BC EMR10-33-MCRM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 10 25 95 04 26	ECM 326 05 ECM 326 08	TYP0 correction Replace NT2X70AE with NT2X70AF with new pack fills

The MCRM PACKFILL is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LGC/DTC Signal Processor	NT6X45BD		1	21	08	AP
Filler Face Plate 0.875	NT0X50AA		1	21	09	AP
Master Mem. Proc. (ESA)	NT6X47AC		1	21	10	AP
Filler Face Plate 0.875	NT0X50AA		1	21	11	AP
Signal Processor	NT6X46BB		1	21	12	AP
LGC/DTC Signal Processor	NT6X45BD		1	21	13	AP
Time Switch	NT6X44AA		1	21	15	AP
UTR-Universal Tone Receiver	NT6X92BB		1	21	16	AP
CPP Message Protocol	NT6X69AC		1	21	17	AP
Host Link Formatter	NT6X72AB		1	21	19	AP
Filler Face Plate 0.875	NT0X50AA		1	21	24	AP
Power Converter	NT2X70AE		1	21	25	AP
LGC/DTC Signal Processor	NT6X45BD		1	35	08	AP
Filler Face Plate 0.875	NT0X50AA		1	35	09	AP
Master Mem. Proc. (ESA)	NT6X47AC		1	35	10	AP
Filler Face Plate 0.875	NT0X50AA		1	35	11	AP
Signal Processor	NT6X46BB		1	35	12	AP
LGC/DTC Signal Processor	NT6X45BD		1	35	13	AP
Time Switch	NT6X44AA		1	35	15	AP
UTR-Universal Tone Receiver	NT6X92BB		1	35	16	AP
CPP Message Protocol	NT6X69AC		1	35	17	AP
Host Link Formatter	NT6X72AB		1	35	19	AP
Filler Face Plate 0.875	NT0X50AA		1	35	24	AP
Power Converter	NT2X70AE		1	35	25	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Use this Circuit Packfill for Non-XPM+ applications.
The packfill provides the latest circuit pack vintages.

RULES:

- AP 1) When PEC NTN17BC is ordered, these items are provided.

RLCC COMMON CP

PEC CODE: NTNX14LA

CPC CODE: B0228121

| RATING: MD

REPLACES: Not Applicable

| REPLACED BY: NTNX14LC

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The RLCC or MCRU Common CP provides the always provided circuit packs for the RMM, HIE and the LCA shelves.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Joe Bragg Dept. 6457 (RNS)

MAIN CONTACT: NTI: Joe Bragg Dept. 6457 (RNS)

NTNX14LA EMR10-34-RLCC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 10 29	----- ECM 415 04	Previous history not available Corrected EMS so contents would match the stocklist of the NTNX14LA. The designation label P0639580 was removed from the EMS since it was not included on the stocklist.
95 01 27	ECM 415 07	Added Austrianlain circuit packs.
95 04 26	ECM 415 08	Moved EMS to section 10.
95 05 12	ECM 415 09	Replace NT2X70AE with NT2X70AF per ECD024-93969 and to bring EMA to agreement with ISNX14AA 01 06 section C.
95 05 19	ECM 415 10	Replace NTNX14LA with NTNX14LC per ET23459.

The RLCC Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Group CODEC	NT2X59AA			47	1	RUL5
A-law TM CODEC with BT tones	NT2X59CA			47	1	RUL1
Filler Face Plate	NT0X50AC			47	1-16	RUL5
RMM Control	NT6X74AB			47	2	RUL5
Metallic Test Unit Analog	NT2X10BA			47	3	RUL5
Metallic Test Unit Digital	NT2X11BA			47	4	RUL5
MTU Controller	NT4X97AA			47	4	RUL1
INC/OG Test Trunk	NT2X90AD			47	5, 7	RUL5
8X8 Metallic Test Access	NT3X09BA			47	6, 14	RUL5
MISC/Scanner	NT0X10AA			47	8, 16	RUL5
Digitone Receiver	NT2X48AB			47	9	RUL5
SD w/OAU MON	NT2X57AA			47	10, 15	RUL5
INC Test from AECO LTD	NT3X04AA			47	14	RUL5
Power Converter	NT2X09AA			47	17	RUL5
Filler Face Plate	NT0X50AG			47	17	RUL6
Filler Face Plate	NT0X50AA			47	19	RUL7
Power Converter	NT2X06AB			47	20	RUL5
Filler Face Plate	NT0X50AE			47	20	RUL6
Desig. Labels for LSGs	P0631765					RUL12
Desig. Label for NT2X59AA	P0643110			47	1	RUL13
Desig. Label for NT0X50AC	P0580258			47	1-16	RUL13
Desig. Label for NT6X74AB	P0663271			47	2	RUL13
Desig. Label for NT2X10BA	P0707874			47	3, 11	RUL13
Desig. Label for NT2X11BA	P0707876			47	4, 12	RUL13
Desig. Label for NT2X90AD	P0688244			47	5, 7, 13	RUL13
Desig. Label for NT3X09BA	P0664847			47	6, 14	RUL13
Desig. Label for NT0X10AA	P0656328			47	8, 16	RUL13
Desig. Label for NT2X48AB	P0676175			47	9	RUL13
Desig. Label for NT2X57AA	P0656327			47	10, 15	RUL13
Desig. Label for NT3X04AA	P0689910			47	14	RUL13
Desig. Label for NT2X09AA	P0688106			47	17	RUL13
Desig. Label for NT0X50AG	P0685986			47	17	RUL13
Desig. Label for NT0X50AE	P0591361			47	20	RUL13
Desig. Label for NT0X50AA	P0578498			47	19	RUL13
Desig. Label for NT2X06AB	P0591398			47	20	RUL13
Desig. Label for NT2X59CA	P0677817			47	1	RUL13
Desig. Label for NT4X97AA	P0677209			47	4	RUL13
RinginG Generator CP	NT6X60CA			33	1, 5	RUL2
RinginG Generator CP	NT6X60AE			33	1, 5	RUL2
Filler Face Plate	NT0X50AH			33	1, 5	RUL2
Filler Face Plate 2.22 IN.	NT0X50AG		1	33	9	AP
Filler Face Plate .875	NT0X50AA		2	33	12, 13	AP
Link Control CP	NT6X73AA		2	33	17, 18	AP

Retired Equipment
RLCC Common CP

NTNX14LA
EMR10-34-RLCC-1
Page 3

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Intl Link Control CP	NT6X73BA		2	33	17, 18	RUL1
DS1 Interface CP	NT6X50AA		2	33	19, 20	AP
Enhanced PCM30 Interface CP	NT6X27BB		2	33	19, 20	RUL1
Pwr Converter -5VOLT,12V	NT2X70AE		2	33	22, 25	AP
Power Converter 5V/15V CP	NT6X53AA		2	5, 19	1	AP
LCM Processor CP	NT6X51AA		2	5, 19	4	AP
Digroup Control CP	NT6X52AA		2	5, 19	5	AP
Basic line card	NT6X17AB			5, 19		RUL3
Full featured line card without +48V	NT6X18AA			5, 19		RUL3
Full featured line card with +48V	NT6X18AB			5, 19		RUL3
Business set	NT6X21AC			5, 19		RUL3
Interface for data unit	NT6X71AB			5, 19		RUL3
Interface for telephone with message waiting lamp	NT6X19AA			5, 19		RUL3
Japan General use line	NT6X33AA			5, 19		RUL3
Message waiting converter	NT6X20AA			5, 19		RUL3
Power converter (+48V)	NT6X23AA			5, 19		RUL3
Data above voice POTS	NT6X87AA			5, 19		RUL3
World line card	NT6X17BA			5, 19		RUL3, 4
P-Phone line card	NT6X21BC			5, 19		RUL3, 4
IBERT Test card	NT6X99AA			5, 19		RUL3, 4
Desig. Label (NT2X70AE)	P0698943		2			AP
Desig. Label (NT6X73BA)	P0681919		2			
Desig. Label (NT6X27BB)	P0739157		2			
Desig. Label (NT0X50AH)	P0670789			33	1, 5	RUL13
Desig. Label (NT6X60CA)	P0740744			33	1, 5	RUL13
Desig. Label (NT6X60AE)	P0725753			33	1, 5	RUL13
Desig. Label (NT6X51AA)	P0633541		2			AP
Desig. Label (NT6X52AA)	P0633542		2			AP
Desig. Label (NT6X53AA)	P0633543		2			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES: 1) Use this packfill as a guideline. Provision per customer requirements.

RULES:

AP 1) When PEC NTN14LA is ordered, these items are provided.

RUL1 1) Provide two (2) NT6X73BA and two (2) NT6X27BB cards for PCM-30 applications in Australia. Provide one (1) NT2X59CA A-law CODEC and one (1) NT4X97AA MTU controller for Australia applications.

RUL2 1) Provide two (2) NT6X60CA Ringing Generators when analog ringing is required in the office.

2) Provide two (2) NT6X60AE Ringing Generators when analog ringing is required in Australian use.

RUL3 1) Line cards are provisionable and spread according to standard DMS rules.

RUL4 1) For Australian use only.

RUL5 1) Refer to Table A, Section EMA14-01-000 for RMM provisionable circuit packs. Also refer to RUL9 for ESA provisioning.

2) Provide Filler Face Plate, NT0X50AC in slots not equipped with a circuit pack.

3) The following slots are provisionable, however, they are have fixed assignments for cabling efficiency. The following rules govern RMM card assignments:

SLOT	PEC	SLOT	PEC
====	=====	====	=====
03	NT2X10BA	10	NT2X57AA
04	NT2X11BA	11	NT2X10AB
05	NT2X90AD	12	NT2X11AA
06	NT3X09BA	*13	NT2X90AD
07	NT2X90AD	*14	NT3X09BA or NT3X04AA
08	NT0X10AA	*15	NT2X57AA
09	NT2X48AB	*16	NT0X10AA

* Slots 13 thru 16 are currently wired together to allow the operation of DRAM circuitry in these slots when the DRA software becomes available for remotes.

* The NT2X10BA, NT2X11BA LTU pair is not operational in these slots because of the DRA wiring and therefore should not be provisioned in slots 13 thru 16.

* All other applicable RMM CP's are allowed in slots 13 thru 16, however, these slots should be reserved whenever possible to allow for the future DRA application.

4) Provide one (1) NT2X59AA (Group Codec) if any cp's are provisioned in the RMM for slots 3 thru 8 or 10 thru 16.

5) If ESA is required, a NT2X48AB must be provisioned in slot 9. The NT2X48AB requires two slots.

RUL6 1) Provide one (1) NT0X50AG when the NT2X09AA is not provisioned in slot 17. Provide one (1) NT0X50AE when the NT2X09AA is not provisioned in slot 20.

RUL7 1) Provide one (1) NT0X50AA Filler Face Plate in positions shown when not equipped with a circuit pack.

RUL12 1) Provide one (1) P0631765 per RLCC. Each item contains LSG designation labels for twenty (20) Line Sub Groups (00-19) housed in ten (10) line drawers.

RUL13 1) Provide one (1) Designation Label for each of the indicated circuit packs supplied.

97/12/09

EMR11

MAINTENANCE AND TEST EQUIPMENT CHAPTER ALL

MAINTENANCE AND TEST EQUIPMENT CHAPTER ALL

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MAINTENANCE AND TEST EQUIPMENT CHAPTER ALL

EMR11-01-KSM-1	1A2 KEY TELEPHONE SYSTEM MODULE	NT5X55AA
EMR11-01-KSM-2	1A2 KEY TELEPHONE SYSTEM INTERRUPTER	NT5X55AB
EMR11-01-KSS-1	1A2 KEY TELEPHONE SYSTEM STAND ALONE UNI	NT5X58AA
EMR11-01-LOG-1	DMS-100F MAP VOICE COMMUNICATIONS MODULE	MAPVCOMM
EMR11-01-PRT-6	MAP PRINTER (DEC LA75+)	LA75S
EMR11-01-PRT-7	MAP PRINTER (DEC LA424)	LA424-CA
EMR11-01-VDU-1	HEWLETT PACKARD SERIES HP700/22 VDUS	HP700/22
EMR11-01-VDU-2	DEC VT-320 SERIES VDUS	VT-320
EMR11-01-VDU-3	HEWLETT PACKARD SERIES HP700/44 VDU	C1007_
EMR11-01-000	1A2 KEY TELEPHONE SYSTEM EQUIPMENT FRAME	NT5X56AA
EMR11-02-DRTU-1	NSSD MODEL 3704	NT0J04AA
EMR11-02-DRTU-2	NSSD MODEL 3704 DIGITAL REMOTE TEST UNIT	NT0J04AB
EMR11-02-DRTU-3	NSSD MODEL 3704 DIGITAL REMOTE TEST UNIT	NT0J04EA
EMR11-02-FPL-1	3703-03 LOCAL CONTROL FRONT PANEL BROWN	NT0J04BR
EMR11-02-FPL-2	NSSD MODEL 3703-03 LOCAL CONTROL FRONT P	NT0J04BM
EMR11-02-FPL-3	NSSD MODEL 3703-03 LOCAL CONTROL FRONT P	NT0J04BL
EMR11-02-000	NSSD MODEL 3703-03 LOCAL TEST CABINET (B	NT0J04BB
EMR11-02-001	NSSD MODEL 3703-03 LOCAL TEST CABINET (A	NT0J04BA

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1A2 KEY TELEPHONE SYSTEM MODULE

NT5X55AA

RATING: To be rated MD.

ABBREVIATION NAME: KSM

ENGINEERING DESCRIPTION: The 1A2 Key Telephone System Module mounts on the 1A2 equipment frame (NT5X56AA) and houses the QUN10D line cards and NE66MQ2A-50 connector blocks required by the 1A2 telephone system.

REFERENCE DOCUMENTATION: MS5X55AA 01 01

The 1A2 Key Telephone System Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frequency Generator	QGG1A		1	XX		AP
1A2 Key System Interrupter	NT5X55AB		1	XX		AP
NE66MQ2A-50 Connector Block	A0231286			XX	1-8	RUL1

NOTE:

- 1) "XX" in SHF POS can be one of 43, 7.

RULE:

- AP 1) When PEC NT5X55AA is ordered, these items are provided.
- 2) Refer to MS5X55AB (Section EMR11-01-KSM-2) for further provisioning.
- RUL1 1) Provide one (1) NE66MQ2A-50 Connector Block for each logic 10 or 20 or similar.
- 2) Provide a maximum of eight (8) NT66MQ2A-50 Connector Blocks per NT5X55AA.

1A2 KEY TELEPHONE SYSTEM INTERRUPTER

NT5X55AB

RATING: To be rated MD.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NT5X55AB is provided with the NT5X55AA.
NT5X55AB provides for the QUN10D KTU line
cards.

REFERENCE DOCUMENTATION: MS5X55AB 01 01

The 1A2 Key Telephone System Interrupter is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Panel	QPC12B		2	XX		AP
Interrupter Unit	NS15900L1		1	XX		AP
QUN10D KTU Line Card	A0263613			XX	1-28	RUL1

NOTE:

- 1) "XX" in SHF POS can be one of 43, 7. The SHF POS must be the same as the KSM NT5X55AA with which it is provided.

RULE:

AP	1) When PEC NT5X55AB is ordered, these items are provided. 2) Refer to MS5X55AA (Section EMR11-01-KSM-1) for further information.
RUL1	1) Provide one (1) QUN10D Line Card for each NT5X30 trunk circuit or for each outside access line to another local switcher. 2) Provide a maximum of twenty-eight (28) QUN10D line cards per NT5X55AB.

1A2 KEY TELEPHONE SYSTEM STAND ALONE UNIT

NT5X58AA

RATING: To be rated MD.

ABBREVIATION NAME: KSS

ENGINEERING DESCRIPTION: NT5X58AA is a small 1A2 Key Telephone system which occupies one shelf on the MIS frame. NT5X58AA can handle a maximum of seven lines and/or five telephone sets. For larger systems, a 1A2 Key Telephone System Module (KSM) NT5X55AA is provided.

REFERENCE DOCUMENTATION: MS5X58AA 01 01

The 1A2 Key Telephone System Stand Alone Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frequency Generator (QGG1A)	A0089954		1			AP
Key Service Unit (QUJ9B)	A0118190		1			AP
QUN10D KTU Line Card	A0263613				1-7	RUL1

RULE:

- AP 1) When PEC NT5X58AA is ordered, these items are provided.
- RUL1 1) Provide one QUN10D KTU line card for each NT5X30 trunk circuit or for each outside access line to another local switcher.
- 2) Provide a maximum of seven QUN10D line cards per NT5X58AA.

DMS-100F MAP VOICE COMMUNICATIONS MODULE

MAPVCOMM

RATING: MD. Replaced by Norstar Key System Unit.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The MAP Voice Communication Module is the basis of the Maintenance Administration Position (MAP) Voice Communications Module, which provides the operator with telephone links into and out of the DMS-100. The NT Logic Phones may be equipped with accessories designed to increase operator efficiency, such as an autodial unit, hands-free unit, and/or headsets. However, the Comdial and ITT 30 Button Telsets may be equipped with an autodialer only.

REFERENCE DOCUMENTATION: None

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR NTI: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT NTI: Lily Ahluwalia Dept. 3471 (PPK)

CONTACT NTC: Sandy Kwan Dept. S641 (BRW)

MAPVCOMM EMR11-01-LOG-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available.
93 04 30	ECM 244 10	MD Logic 10 and Logic 20 Telsets and retire EMA11-01-LOG-1.

The DMS-100F MAP Voice Communications Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# Comdial 30 Btn Set Ash	2861R-AS					RUL1
# ITT 30 Btn TelSet Ash	286144MBA56M					RUL1
# ITT 30 Btn TelSet Bge	286113MBA56M					RUL1
# Autodialer 30B TelSet	KX-T1235D					RUL2
# Modular Jck Adpt 30B Ph	AA-260A					RUL3
# Plantronics Starmate	MH-0530-1					RUL4
* Head Set Ivory Color	QSR2F					RUL4
* Ash Logic 10 Telphn Set	2200-FWR-31-35S					RUL5
* Ash Logic 10 Line Cord	NE-D50QE-87					RUL5
* Ash Logic 20 Telphn Set	2202-HWR-35-35S					RUL6
* Logic 20 Line Cord	NE-D100QA-87					RUL6
* Companion 3 handsfree	QUS1C-35					RUL7
* Handsfree unit transfrm	NE-2012B-03					RUL7
* 5'6" transformer cord	NE-D3BN-87					RUL7
* Logic dialer colour-ash	NT0C25AD-35					RUL8
% Logic 10 Rotary Dial Wh	QSK200BBX-20					RUL9
% Logic 10 Digitone White	QSK2200BBX-20					RUL9
& Logic 20 Rotary Dial Wh	QSK202ABX-20					RUL10
& Logic 20 Digitone White	QSK2202ABX-20					RUL10

FLAGS:

MD. Replace by refurbished Logic 20s for all jobs.
 % MD. Replaced by Comdial or ITT 30 Button Telsets on U.S. jobs.
 Replaced by 2200-FWR-31-35S on Canadian jobs.
 & MD. Replaced by refurbished 2202-HWR-35-35S (Logic 20 Telsets) on all jobs.
 * MD. Replaced by Norstar. Refer to EMA11-01-NKSU-1.

NOTES:

- 1) When the MAP is included in the Integrated Ground Plane, then MAP equipment may be powered from commercial AC. If the MAP is included in the Isolated Ground Plane, then the ISG topology power and grounding rules apply (Refer to Section 35000000 for applying ISG.)

- 2) Detailed below are the standard Logic Phone button assignments:

9	19	29
8	18	28
7	17	27
6	16	26
5 101 Local Test Line Term	15	25
4 Local Talk Line 2	14	24
3 Local Talk Line 1	13	23
2 101 Test Line Orig.	12	22
1 Headset/ Monitor	11	21
0 HOLD	10	20

RULES:

- AP 1) When PEC MAPVCOMM is ordered, these items are provided.
- RUL1 1) Equipment referenced with this RULE have been Manufacture Discontinued, however, requirements per this RULE (Item 2 thru 4) are retained for historical purposes only.
- 2) Provide either of the three Logic 30 telephone Set as per Telco requirements on US jobs as the base component of MAP-Type position Voice Communication Module.
- 3) Refer to NOTE#2 above for standard key to line assignments.
- 4) The ITT and Comdial 30-Button Phones may be equipped with equipment per RUL7 and RUL8.
- RUL2 1) Equipment referenced with this RULE have been Manufacture Discontinued, however, requirements per this RULE (Item 2) are retained for historical purposes only.
- 2) Provide the Panasonic KX-T1235D automatic dialer in conjunction with equipment per RUL1 as per Telco specifications. Additionally, equipment per RUL8 may be provided to work in conjunction with the 30-Button Phones (ITT/Comdial).
- RUL3 1) Equipment referenced with this RULE have been Manufacture Discontinued, however, requirements per this RULE (Item 2) are retained for historical purposes only.
- 2) Provide the Armiger AA-260A (Modular Jack Adapter) whenever the auto dialer or handsfree unit is provided, for either of the Logic 30 telephone sets per RULE#1 above.
- RUL4 1) Equipment referenced with this RULE have been Manufacture Discontinued, however, requirements per this RULE (Item 2 thru 3) are retained for historical purposes only.
- 2) Provide the Plantronics Starmate E-Plus headsets as per Telco specifications for headset with the Logic phone. This headset is incompatible with the Logic 30 telephone set and should NOT be ordered for this set.
- 3) Provide the QSR2F headset for the 2202-HWR-35-35S (Logic 20 Phone) as per Telco specifications.
- RUL5 1) Equipment referenced with this RULE is Manufacture Discontinued, however, requirements per this RULE are retained for historical purposes only.

- | 2) The 2200-FWR-31-35S Logic 10 Phone and its associated accessories are not to be used in the US Market as the principal Logic Phone. This is due to internal changes in the Logic 10 phone, which render it incapable of being modified to accept a Headset Jack Assembly. The headset jack assembly is required for the Logic Phone telephone line labeled 'HeadSet Monitor'. The Headset Monitor line is used to interface the Logic Phone to a Headset or Portable Tape Recorder for loading the MTM mounted Digital Recorded Announcement Machine (DRAM).
- | 3) The 2200-FWR-31-35S (A0317230) is available in one color (ASH), from the Spare Parts Division in the Laurentien facility.
- | 4) Always provide the Line Cord (NE-D50QE-87) when provisioning the 2200-FWR-31-35S Logic 10 Phone.
- | RUL6 1) The 2202-HWR-35-35S Logic 20 Phone is MD'ed and the refurbished units are no longer provisionable. The requirements per this rule are retained for historical purposes only.
- | 2) Always provide the Line Cord (NE-D100QA-87) when provisioning the 2202-HWR-35-35S Logic 20 Phone.
- | RUL7 1) The Hands-Free Unit (QUS1C-35) and its associated accessories are Manufactured Discontinued. Requirements per this rule are retained for historical purposes only.
- | 2) The Hands-Free Unit (QUS1C-35) and its associated accessories are approved for use with the Logic 30 Phones. They may be provided with the Logic 10/20 Phones.
- | RUL8 1) The Logic Autodialer (NT0C25-35) is Manufacturer Discontinued. There are no refurbished units to provision and requirements per this item have been retained for historical purposes only.
- | 2) This unit is also provisionable on the MD'ed 30 Button Telset. (ITT/ Comdial).
- RUL9 1) The QSK200BBX-20 and QSK2200BBX-20 is Manufacturer Discontinued effective April 1, 1984.
- 2) Provide the Logic 10 Rotary or Digipules as per customer requirements as a MAP logic phone.

- RUL10 1) The QSK200BBX-20 and QSK2200BBX-20 is Manufacturer Discontinued effective April 1, 1984.
- 2) Provide the Logic 20 Rotary or Digipules as per customer requirements as a MAP logic phone.

MAP PRINTER (DEC LA75+)

PEC CODE: LA75S

CPC CODE:

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: LA30N-CA

ABBREVIATION NAME: LA75+

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system. The secondary vehicle for providing this interface is the Printer (PTR).

This Engineering Insert provides ordering information for the Digital Equipment Corporation (DEC) LA75+ Printer with the appropriate accessories.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NT: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

LA75S EMR11-01-PRT-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 08 06	----- ECM 607 03	Previous history not available Introduce the LA75S as a replacement for the LA-120.
92 11 20	ECM 607 04	Correct the DEC Printer Stand PEC; the PEC LAXXA-DA is not a valid DEC PEC, correct PEC is LAXXA-DS, the CPC is A0382512.
93 01 05	ECM 607 06	Correct the DEC Printer Stand PEC; the PEC LAXXS-DA is not a valid DEC PEC, correct PEC is LAXXS-DS, the CPC is A0382512 (correct history table from ECM 607 Issue 04).
96 08 27	ECM 607 11	LA75S is MD'd and replaced with LA30N-CA.

The MAP Printer (DEC LA75+) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC LA75+ Printer	LA75S-AA					RUL1
20 ma Current Loop Adapter	H8673-AC					RUL2
RS232 Connection Adapter	H8671-A					RUL2
! DEC Printer Stand / Catcher	LAXXS-DA					RUL3
DEC Printer Stand / Catcher	LAXXS-DS					RUL3
DEC Ribbon Cartridge	LA75R-KA					RUL4
RS-232 Slave Cable	BC16E-10FT					RUL5
RS-232 Slave Cable	BC16E-25FT					RUL5
RS-232 Slave Cable	BC16E-50FT					RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

! Rated MD. Replaced By LAXXS-DS.

NOTES:

- 1) If replacing the DEC LA-120 Printer, replace the existing Current Loop Adapter (LA12X-AL) with the H8673-AC CLA.

- 2) The original PEC of LAXXS-DA for the printer stand is incorrect. The correct PEC is LAXXS-DS, CPC A0382512.

RULES:

- AP 1) When PEC LA75S is ordered, these items are provided.
- RUL1 1) Provide one or more of the LA75S printer(s) per Telco requirements.
- RUL2 1) Provide one (1) H8673-AC Current Loop Adapter per LA75S-AA that will be equipped for current loop operation applications (such as stand-alone). The Current Loop Adapter is a critical circuit when operating in the Current Loop Mode, therefore, it is recommended that a CLA is always provided as spare equipment when the current loop application is required.
- 2) Provide one (1) H8671-A RS-232 Connection Adapter per LA75S-AA that will be equipped for RS-232 operation (such as modem stand-alone).
- 3) Note: Each LA75S-AA can only be equipped for Current Loop or Modem (RS-232) operation.
- RUL3 1) Provide one (1) DEC LAXXS-DS Desktop Stand / Paper Catcher per LA75S-AA printer.
- RUL4 1) Provide one (1) or more DEC LA75R-KA Ribbon Cartridge(s) per DEC LA75S-AA printer.
- RUL5 1) Provide proper length and quantity of cable(s) for interfacing this printer with the DEC VT-340 and/or VT-420 VDUs.

MAP PRINTER (DEC LA424)

PEC CODE: LA424-CA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: LA400-CA

| ABBREVIATION NAME: LA424

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system. The secondary vehicle for providing this interface is the Printer (PTR).

This Engineering Insert provides ordering information for the Digital Equipment Corporation (DEC) LA424 Printer with the appropriate accessories.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NT: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

LA424-CA EMR11-01-PRT-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 08 06	----- ECM 607 03	Previous history not available Introduce the DEC LA424-CA as a replacement for the LA-120. LA424-CA is MD and replaced by LA400-CA.
96 08 27	ECM 607 11	

The MAP Printer (DEC LA424) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC LA424 Printer	LA424-CA					RUL1
20 ma Current Loop Adapter	H8673-AA					RUL2
20 ma Current Loop Adapter	H8673-AC					RUL2
RS232 Connection Adapter	H8671-A					RUL2
DEC Stand & Paper Catcher	LA24X-PS					RUL3
DEC Ribbon Cartridge	LA24R-KA					RUL4
RS-232 Slave Cable	BC16E-10FT					RUL5
RS-232 Slave Cable	BC16E-25FT					RUL5
RS-232 Slave Cable	BC16E-50FT					RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) If replacing the DEC LA-120 Printer, replace the existing Current Loop Adapter (LA12X-AL) with the H8673-AC CLA.

RULES:

- AP 1) When PEC LA424-CA is ordered, these items are provided.
- RUL1 1) Provide one or more of the LA424 printer(s) per Telco requirement.
- RUL2 1) Provide one (1) H8673-AA Current Loop Adapter per LA424-CA that will be equipped for current loop operation applications (such as stand-alone) for Meridian Cabinet applications only. The Current Loop Adapter is a critical circuit when operating in the Current Loop Mode, therefore, it is recommended that a CLA is always provided as spare equipment when the current loop application is required.
- 2) Provide one (1) H8673-AC Current Loop Adapter per LA424-CA that will be equipped for current loop operation applications (such as stand-alone) for non-Meridian Cabinet applications only. The Current Loop Adapter is a critical circuit when operating in the Current Loop Mode, therefore, it is recommended that a CLA is always provided as spare equipment when the current loop application is required.
- 3) Provide one (1) H8671-A RS-232 Connection Adapter per LA424-CA that will be equipped for RS-232 operation (such as modem stand-alone).
- 4) Note: Each LA424-CA can only be equipped for Current Loop or Modem operation.
- RUL3 1) Provide one (1) DEC LA24X-PS Pedestal Stand / Paper Catcher per LA424-CA printer.
- RUL4 1) Provide one (1) or more DEC LA24R-KA Ribbon Cartridge(s) per DEC LA424-CA printer.
- RUL5 1) Provide proper length and quantity of cable(s) for interfacing this printer with the DEC VT-320 and/or VT-420 VDUs.

HEWLETT PACKARD SERIES HP700/22 VDUs
Hewlett Packard Series HP700/22 VDUs

HP700/22

| RATING: MD

ABBREVIATION NAME: VDU

ENGINEERING DESCRIPTION: The Hewlett Packard Series HP700/22 Video Display Units (VDUs) are ANSI-Compatible terminals designed to offer ergonomic features, high performance, powerful functionality and exceptional video quality. This unit is introduced as a direct replacement for the DEC VT-220 Series VDUs. This unit is available in three colors: Amber, Green and White.

REFERENCE DOCUMENTATION: N/A

The HP700/22 Series VDU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
HP700/22 Amber VDU W/Kybd	C1004A					RUL1
HP700/22 Green VDU W/Kybd	C1004G					RUL1
HP700/22 White VDU W/Kybd	C1004W					RUL1
& Inverter Unit	NT0X87AA					RUL2
LaMarche Inverter	A31-500-48V-46					RUL2
DEC Terminal Stand	VT2XX-AA					RUL3
Portable Map Cable	NE-P4QDG					RUL4

RULES:

- RUL1 1) Provide one or more of these units as a MAP Terminal or RTIF Terminal as required.
- 2) Provide VDU screen color in accordance with Telco preference.
- RUL2 1) Provide the A31-500-48V-46 LaMarche Inverter to provide protected AC in accordance with ISG specifications (see EMA17 grounding requirements) for U.S. applications only. Provide NT0X87AA for Canadian applications only.
- RUL3 1) Provide the terminal as required for portable applications of the VDU.
- RUL4 1) Provide one ADC Products Portable Map Cable per HP700/22 Series terminal to be used for PORTABLE MAP applications.

DEC VT-320 SERIES VDUS

PEC CODE: VT-320

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: Replaced by the VT-420

ABBREVIATION NAME: VDU

ENGINEERING DESCRIPTION: The DEC VT-320 Series Video Display Units (VDUs) are ANSI-Compatible terminals designed to offer ergonomic features, high performance, powerful functionality and exceptional video quality. This unit is introduced as a direct replacement for the DEC VT-220 Series VDUs. This unit is available in three colors: Amber, Green and White. These units are fully compatible with DMS-100F RS-232 applications. However, they are conditionally compatible for 20mA applications.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NT: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

VT-320 EMR11-01-VDU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 08 06	----- ECM 607 03	Previous history not available The VT-320 is now rated MD and is replaced by the VT-420. Retire section.
96 08 27	ECM 607 11	

The DEC VT-320 Series VDUs is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC VT320 Amber VDU W/Keybd	VT320-JA					RUL1
DEC VT320 Green VDU W/Keybd	VT320-GA					RUL1
DEC VT320 White VDU W/Keybd	VT320-HA					RUL1
B & B RS-232 CLA	232CL2R					AP
Inverter Unit	NT0X87AA					RUL2
Inverter Unit	NT0X87BA					RUL2
LaMarche Inverter	NPS50508-03L1					RUL2
! DEC Terminal Stand	VT2XX-AA					RUL3
DEC Terminal Stand	VT2XX-AF					RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) Provide the one 232CL2 Current Loop Adapter (CLA) per Telco request as maintenance spare equipment. Note the CLA is a critical circuit when operating this unit in the Current Loop Mode - therefore, it is recommended that a CLA is always provided as spare equipment.
- 2) When a DEC VT320 VDU PEC is provided, one CLA is provided.

RULES:

- AP 1) When PEC VT-320 is ordered, these items are provided.
- RUL1 1) Provide one or more of these units as a MAP Terminal or RTIF Terminal as required.
- 2) Provide VDU screen color in accordance with Telco preference.
- RUL2 1) Provide the NT0X87 Inverter/LaMarche inverter to provide protected AC in accordance with ISG specifications.
- RUL3 1) Provide the terminal as required for portable applications of the VDU.

HEWLETT PACKARD SERIES HP700/44 VDU

PEC CODE: C1007_

CPC CODE: A0378381, A0354154, and A0354153

| RATING: MD

REPLACES: Not Applicable

REPLACED BY:

ABBREVIATION NAME: VDU

ENGINEERING DESCRIPTION: The Hewlett Packard Series HP700/44 Video Display Units (VDUs) are ANSI-Compatible terminals designed to offer ergonomic features, high performance, powerful functionality and exceptional video quality. This unit is introduced as a direct replacement for the DEC VT-220 Series and the HP 700/22 VDUs.

The valid PECs are C1007A, C1007G, and C1007W which provide the amber, green, and the white screen units respectively.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

| ISSUE AUTHOR: NT: Richard Mathias Dept. 3471 (PPK)

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

C1007 EMR11-01-VDU-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
96 08 27	ECM 607 11	MD HP700/44 series VDU and use DEC VT-420 VDUs Series as replacement.

The Hewlett Packard Series HP700/44 VDU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
HP700/44 Amber VDU W/Keybd	C1007A	VDU	1			RUL1
HP700/44 Green VDU W/Keybd	C1007G	VDU	1			RUL1
HP700/44 White VDU W/Keybd	C1007W	VDU	1			RUL1
Portable Data Cord	NE-P4QDG		1			RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC C1007_ is ordered, these items are provided.

RUL1 1) These items are Manufacture Discontinued (MD) use DEC VT-420 VDUs as replacements. 2) The HP C1007_ VDU has three (3) hardware offerings as follows: C1007A HP 700/44 VDU Amber Screen C1007G HP 700/44 VDU Green Screen C1007W HP 700/44 VDU White Screen Provide the proper quantity and color of HP 700/44 VDUs.

RUL2 1) Provide one (1) NE-P4QDG, Portable Data Cord, when C1007A/G/W is required for portable MAP applications.

1A2 KEY TELEPHONE SYSTEM EQUIPMENT FRAME

NT5X56AA

RATING: To be rated MD.

ABBREVIATION NAME: 1A2

ENGINEERING DESCRIPTION: The 1A2 Key System is required for the maintenance communication system associated with the MAP and TTP key telephone set and provides multi-line key-set operation of communication trunks, monitor trunks and 101-type test lines.

REFERENCE DOCUMENTATION: MS5X56AA 01 03

The 1A2 Key Telephone System Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
1A2 Key System Module	NT5X55AA	KSM		43		RUL1
1A2 Key System Module	NT5X55AA	KSM		07		RUL1

RULE:

- RUL1 1) Provide one (1) NT5X55AA Key System Module to accommodate up to twenty-eight (28) line cards and eight (8) logic 10s, 20s.
- 2) A maximum of two (2) NT5X55AA are permitted per NT5X56AA. The first NT5X55AA is to be mounted at the top of the frame in position 43.

NSSD MODEL 3704 DIGITAL REMOTE TEST UNIT
(DRTU) (ASH)

NT0J04AA

| RATING: Manufacture Discontinued

ABBREVIATION NAME: DRTU

ENGINEERING DESCRIPTION: The NT0J04AA DRTU is a full function Local Test Cabinet (NT0J04BA) slave measurement device designed to test subscriber loops at Pair Gain remote terminal locations.

REFERENCE DOCUMENTATION: N/A

The NT0J04AA Ash colored NSSD Model 3704 Digital Remote Test Unit (DRTU) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Digital Remote Test Un Assy	NT0J0401		1			AP
19/23 Inch Mtg Bracket Ash	NT0J0417		1			AP
XFM Firmware Assy PCB	NT0J0414		1			AP
DRTU Control Assy PCB	NT0J0420		1			AP
DRTU Installation H/W Kit	NT0J0419		1			AP
DRTU Inst/Opn/Maint Manual	NT0J0424		1			AP
DRTU ESD Manual	NT3J0017		1			AP
NSSD 3703-03 LTC Ash	NT0J04BA					RUL1
Remote Access DCP Card	NT0J04BT					RUL2
System Upgrade Kit	NT0J04BK					RUL3
MLT Applique Shelf	NT3J00BA					RUL4
Signature Acc w/Off Hook Routing	NT3J00BE					RUL5
XFM Firmware Assy PCB	NT0J0414					RUL6
DRTU Control Assy PCB	NT0J0420					RUL6

NOTES:

- 1) The DRTU is an extension of the Local Test Cabinet (LTC) located at a DMS100F Remote office (i.e. RLM, RLCM, or RSC). The LTC must be configured to: (1) Provide DRTU control, and (2) Access the DRTU at a remote location.
- 2) Metallic Test Access (MTA). The test trunks which the LTC interfaces may be any of the available NT2X90 versions, and may be mulitpled across horizontals of each associate MTA.
- 3) The DRTU uses the EMTA feature to operate in the remote environment. Refer to NTP 297-2101-451 Section 105 for information on implementing the EMTA feature. Note in pre BCS24 offices the test trunk used to access the DRTU should be assigned to one of the lower-numbered MTA horizontals (1-7), where horizontal zero is preassigned.

- 4) Line Assignments. The DRTU will require five (5) Type A - line cards with directory numbers; three in the host and two in the remote. One of these lines must be equipped with the Automatic Line (AUL) feature.

RULES:

- AP 1) When PEC NT0J04AA is ordered, these items are provided.
- RUL1 1) Provide one NT0J04BA (Ash LTC) in the host office if office is not presently equipped with an LTC.
- 2) Refer to Engineering Manual Section EMA11-02-001 for more details on the NT0J04BA (Ash LTC).
- RUL2 1) Provide one NT0J04BT in the host office to provide the LTC with the capability of communicating with the DRTU.
- RUL3 1) Provide one NT0J04BK (Ash LTC Upgrade Kit)) in the host office if office is equipped with an Ash colored Model 3703-00/01 LTC.
- 2) Refer to Engineering Manual Section EMA11-02-001 for more details on the NT0J04BK (Ash LTC Upgrade Kit).
- RUL4 1) Provide one NT3J00BA (MLT Applique Shelf) in the host office.
- 2) If the NT3J00BA shelf is existing in the host, then ensure that space is available for equipment per RUL #5.
- 3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BA (MLT Applique Shelf).
- RUL5 1) Provide one NT3J00BE (Signature Off-Hook Routing Card) to enable the LTC to access the DRTU via the Automatic Line (AUL) line card.
- 2) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BE (Signature Off-Hook Routing Card).
- RUL6 1) Provide one (1) each of these items if the telco requests maintenance spares for the DRTU.

NSSD MODEL 3704 DIGITAL REMOTE TEST UNIT
(DRTU) (BROWN)

NT0J04AB

| RATING: Manufacture Discontinued.

ABBREVIATION NAME: DRTU

ENGINEERING DESCRIPTION: The NT0J04AB DRTU is a full function Local Test Cabinet (NT0J04BB) slave measurement device designed to test subscriber loops at Pair Gain remote terminal locations.

REFERENCE DOCUMENTATION: N/A

The NT0J04AB Brown colored NSSD Model 3704 Digital Remote Test Unit (DRTU) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Digital Remote Test Un Assy	NT0J0401		1			AP
19/23 Inch Mtg Bracket Brn	NT0J0418		1			AP
XFM Firmware Assy PCB	NT0J0414		1			AP
DRTU Control Assy PCB	NT0J0420		1			AP
DRTU Installation H/W Kit	NT0J0419		1			AP
DRTU Inst/Opn/Maint Manual	NT0J0424		1			AP
DRTU ESD Manual	NT3J0017		1			AP
NSSD 3703-03 LTC Brown	NT0J04BB					RUL1
Remote Access DCP Card	NT0J04BT					RUL2
System Upgrade Kit	NT0J04BD					RUL3
MLT Applique Shelf	NT3J00BA					RUL4
Signature Acc w/Off Hook Routing	NT3J00BE					RUL5
Brown 26" Mounting Adapters	NT0J1376					RUL6
XFM Firmware Assy PCB	NT0J0414					RUL7
DRTU Control Assy PCB	NT0J0420					RUL7

NOTES:

- 1) The DRTU is an extension of the Local Test Cabinet (LTC) located at a DMS100F Remote office (i.e. RLM, RLCM, or RSC). The LTC must be configured to: (1) Provide DRTU control, and (2) Access the DRTU at a remote location.
- 2) Metallic Test Access (MTA). The test trunks which the LTC interfaces may be any of the available NT2X90 versions, and may be mulitpled across horizontals of each associated MTA.
- 3) The DRTU uses the EMTA feature to operate in the remote environment. Refer to NTP 297-2101-451 Section 105 for information on implementing the EMTA feature. Note in pre BCS24 offices the test trunk used to access the DRTU should

be assigned to one of the lower-numbered MTA horizontals (1-7), where horizontal zero is preassigned.

- 4) Line Assignments. The DRTU will require five (5) Type A - line cards with directory numbers; three in the host and two in the remote. One of these lines must be equipped with the Automatic Line (AUL) feature.

RULES:

- AP 1) When PEC NT0J04BB is ordered, these items are provided.
- RUL1 1) Provide one NT0J04BB (Brown LTC) in the host office if office is not presently equipped with an LTC.
- 2) Refer to Engineering Manual Section EMA11-02-000 for more details on the NT0J04BB (Brown LTC).
- RUL2 1) Provide one NT0J04BT in the host office to provide the LTC with the capability of communicating with the DRTU.
- RUL3 1) Provide one NT0J04BD (Brown LTC Upgrade Kit)) in the host office if office is equipped with a Brown colored Model 3703-00/01 LTC.
- 2) Refer to Engineering Manual Section EMA11-02-000 for more details on the NT0J04BD (Brown LTC Upgrade Kit).
- RUL4 1) Provide one NT3J00BA (MLT Applique Shelf) in the host office.
- 2) If the NT3J00BA shelf is existing in the host, then ensure that space is available for equipment per RUL #5.
- 3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BA (MLT Applique Shelf).
- RUL5 1) Provide one NT3J00BE (Signature Off-Hook Routing Card) to enable the LTC to access the DRTU via the AUL line card.
- 2) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BE (Signature Off-Hook Routing Card).
- RUL6 1) Provide one (1) NT0J1376 (26" Brown Mounting Adapter) to provide twenty-six inch mounting of the DRTU in a RSE/RME frame.

RUL7 1) Provide one (1) each of these items if the telco requests

NSSD MODEL 3704
DIGITAL REMOTE TEST UNIT (DRTU) (ASH)

NT0J04EA

RATING: MD Replaced by the NT0J04EB

ABBREVIATION NAME: DRTU

ENGINEERING DESCRIPTION: The NT0J04EA DRTU is a full function Local Test Cabinet (NT0J04BA) slave measurement device designed to test subscriber loops at Pair Gain remote terminal locations.

REFERENCE DOCUMENTATION: N/A

The NT0J04EA Ash colored NSSD Model 3704 Digital Remote Test Unit (DRTU) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Digital Remote Test Un Assy	NT0J0401		1			AP
19/23 Inch Mtg Bracket Ash	NT0J0417		1			AP
XFM Firmware Assy PCB	NT0J0414		1			AP
DRTU Control Assy PCB	NT0J0420		1			AP
DRTU Installation H/W Kit	NT0J0419		1			AP
DRTU Inst/Opn/Maint Manual	NT0J0424		1			AP
DRTU ESD Manual	NT3J0017		1			AP
NSSD 3703-03 LTC Ash	NT0J04BA					RUL1
# System Upgrade Kit	NT0J04BK					RUL3
System Upgrade Kit	NT0J60AA					RUL3
MLT Applique Shelf	NT3J00BA					RUL4
Signature Acc w/Off Hook Routing	NT3J00BE					RUL5
XFM Firmware Assy PCB	NT0J0414					RUL6
DRTU Control Assy PCB	NT0J0420					RUL6

FLAGS:

MD. Replaced by NT0J60AA

NOTES:

- 1) The DRTU is an extension of the Local Test Cabinet (LTC) located at a DMS100F Remote office (i.e. RLM, RLCM, or RSC). The LTC must be configured to: (1) Provide DRTU control, and (2) Access the DRTU at a remote location.
- 2) Metallic Test Access (MTA). The test trunks which the LTC interfaces may be any of the available NT2X90 versions, and may be multiplied across horizontals of each associate MTA.

- 3) The DRTU uses the EMTA feature to operate in the remote environment. Refer to NTP 297-2101-451 Section 105 for information on implementing the EMTA feature. Note in pre BCS24 offices the test trunk used to access the DRTU should be assigned to one of the lower-numbered MTA horizontals (1-7), where horizontal zero is preassigned.
- 4) Line Assignments. The DRTU will require five (5) Type A - line cards with directory numbers; three in the host and two in the remote. One of these lines must be equipped with the Automatic Line (AUL) feature.

RULES:

- AP 1) When PEC NT0J04AA is ordered, these items are provided.
- RUL1 1) Provide one NT0J04BA (Ash LTC) in the host office if office is not presently equipped with an LTC.
- 2) Refer to Engineering Manual Section EMA11-02-001 for more details on the NT0J04BA (Ash LTC).
- RUL2 1) Reserved for future use.
- RUL3 1) Provide one NT0J60AA (LTC Upgrade Kit)) in the host office if office is equipped with an Ash colored Model 3703-00/01 LTC.
- 2) Refer to Engineering Manual Section EMA11-02-001 for more details on the NT0J60AA (LTC Upgrade Kit).
- RUL4 1) Provide one NT3J00BA (MLT Applique Shelf) in the host office.
- 2) If the NT3J00BA shelf is existing in the host, then ensure that space is available for equipment per RUL #5.
- 3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BA (MLT Applique Shelf).
- RUL5 1) Provide one NT3J00BE (Signature Off-Hook Routing Card) to enable the LTC to access the DRTU via the Automatic Line (AUL) line card.
- 2) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details on the NT3J00BE (Signature Off-Hook Routing Card).

- RUL6 1) Provide one (1) each of these items if the telco requests maintenance spares for the DRTU.

FRONT PANEL (BROWN)

NT0J04BR

| RATING: Manufacture Discontinued

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Local Control Front Panel for the Brown-colored LTC, used with the Wall or Desk mounting option. This panel provide facilities for 52A type head set jacks, keyboard, CRT display, and handset for operation of the NSSD Model 3703-03 DMS Brown Local Test Cabinet (LTC).

REFERENCE DOCUMENTATION: N/A

The Front Panel (Brown) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CRT Controller	NT0J0831		1			AP
CRT Assembly	NT0J0452		1			AP
Telephone Hand Set	A0334204		1			AP
NE-H4DUQA-35 Cord 1.8 M	A0274225		1			AP
Wall/Desk Mounting Kit	NT0J04CB					RUL1

NOTES:

- 1) Provide the NT0J04BR for local control only operation of the LTC (ie. the operator must be standing in front of the LTC to operate it).

RULES:

- AP 1) When PEC NT0J04BR is ordered, these items are provided.
- RUL1 1) Provide one NT0J04CB (Wall or Desk Mounting Kit) when providing this panel.

NSSD MODEL 3703-03 LOCAL CONTROL FRONT PANEL (ASH) NT0J04BL

RATING: MD Replaced by the NT0J6_BA

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Local Control Front Panel without the 52A head set jack facility. Provides keyboard, CRT display, and handset for operation of the Standard Ash-colored LTC.

REFERENCE DOCUMENTATION: N/A

The NSSD Model 3703-03 Local Control Front Panel (Ash) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CRT Controller	NT0J0830		1			AP
CRT Assembly	NT0J0452		1			AP
Telephone Hand Set	A0334805		1			AP

NOTES:

- 1) Provide the NT0J04BL for local control only operation of the LTC (ie. the operator must be standing in front of the LTC to operate it).

RULES:

- AP 1) When PEC NT0J04BL is ordered, these items are provided.

NSSD MODEL 3703-03 LOCAL CONTROL FRONT PANEL (ASH) NT0J04BL

RATING: MD Replaced by the NT0J6_BA

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Local Control Front Panel without the 52A head set jack facility. Provides keyboard, CRT display, and handset for operation of the Standard Ash-colored LTC.

REFERENCE DOCUMENTATION: N/A

The NSSD Model 3703-03 Local Control Front Panel (Ash) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CRT Controller	NT0J0830		1			AP
CRT Assembly	NT0J0452		1			AP
Telephone Hand Set	A0334805		1			AP

NOTES:

- 1) Provide the NT0J04BL for local control only operation of the LTC (ie. the operator must be standing in front of the LTC to operate it).

RULES:

- AP 1) When PEC NT0J04BL is ordered, these items are provided.

NSSD MODEL 3703-03 LOCAL TEST CABINET (BROWN)

NT0J04BB

RATING: MD Replaced by the NT0J6_BA

ABBREVIATION NAME: LTC

ENGINEERING DESCRIPTION: NSSD Model 3703-03 Local Test Cabinet (LTC)
Brown-colored An intelligent measurement
unit for automated subscriber lines testing
from the central office or from any remote
location.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

NT0J04BB EMR11-02-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
92 08 13	ECM 152 09	Corrected naming conventions and an erroneous reference of NT0J04AD to NT0J08AD.
93 02 01	ECM 152 11	ET 25873 Corrected the descriptions of the NT0J6_BA in RUL 2.

The NSSD Model 3703-03 Local Test Cabinet (Brown) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tip Ring Conditioner (TRC)	NT0J0824		1		11	AP
Tones Generator PCB (TONE)	NT0J0825		1		12	AP
Extra Fast Meter Two (XFM2)	NT0J0871		1		13	AP
Central Processor Sys (CPS)	NT0J0446		1		15	AP
Power Supply (NT0J0811)	NT0J0811		1		19	AP
Loop Test Assembly	NT0J0815		1			AP
& LTC Remote Front Panel BRN	NT0J04BG					RUL1
& Local Control Front Panel	NT0J04BQ					RUL1
&&Loc Cntrl Frnt Pnl For 52A	NT0J04BR					RUL1
! 4Trunk 4Wire PCB	NT0J04BN					RUL2
LTC 4 Trunk 3 Wire Option	NT0J62BA					RUL2
%4Trunk 3Wire PCB	NT0J04BU					RUL2
LTC 4 Trunk 4 Wire Option	NT0J63BA					RUL2
\$\$16 Trunk Interface	NTZZ18RA					RUL2
LTC 16 Trunk 4 Wire Option	NT0J64BA					RUL2
@ Wall/Desk Mounting Kit	NT0J04CB					RUL3
Wall Mounting Kit	NT0J04DC					RUL3
19" or 23" Rack Adapters	NT0J04BY					RUL3
26" Rack Adapters	NT0J04DD					RUL3
!!Remote Access DCP Card	NT0J04BT					RUL4
Remote Access DCP Card	NT0J04EC					RUL4
DF Mount Adapter Brown	NTZZ18SA					RUL3
Pair Identification Buzzer	NT0J04DE					RUL5
Trunk Calibrator	NT0J04DA					RUL6
% Spare Circuit Pack Kit	NT0J04BZ					RUL7
4 Trunk 3 Wire Spare CP Kit	NT0J66DA					RUL7
4 Trunk 4 Wire Spare CP Kit	NT0J66EA					RUL7
16 Trunk Spare CP Kit	NT0J66FA					RUL7
* System Upgrade Kit	NT0J04BD					RUL8
System Upgrade Kit	NT0J60AA					RUL8
# DRTU Brown	NT0J04AB					RUL9
DRTU Brown	NT0J04EB					RUL9
MLT Applique Shelf	NT3J00BA					RUL10
16 Trk Mux Card	NT0J04BW					RUL11

NT0J04BB

Retired Equipment

EMR11-02-000

NSSD Model 3703-03 Local Test Cabinet (Brown)

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
\$ DRTU Interface Option	NT0J04BS					RUL12
DRTU Interface Option 2	NT0J04ED					RUL12

FLAGS:

& Rate Change Pending. Included within the NT0J6_BA. && MD. No replacement. ! MD. Replaced by the NT0J62BA. %% MD. Replaced by the NT0J63BA. \$\$ MD. Replaced by the NT0J64BA. @ MD. Replaced by the NT0J04DC. !! MD. Replaced by the NT0J04EC. % MD. Replaced by the NT0J66DA / NT0J66EA / NT0J66FA. * MD. Replaced by the NT0J60AA. # MD. Replaced by the NT0J04EB. \$ MD. Replaced by the NT0J04ED.

NOTES: 1) Standard DMS100F LTC mainframe NT0J04BB; provide this unit as the base component of the NSSD Model 3703-03 Brown LTC.

- 2) The following items must be provided with the initial order when required, due to the fact that they must be factory installed:

* LTC Mainframe	* Front Panel
* Test Trunk Access Option	* Equipment Mounting Hardware

If the four units are not ordered with the initial order then the entire unit must be reordered on the update, other equipment may be added as required.

- 3) The LTC requires two (2) line cards (items 1) and 2)) for normal operation. If DRTU is installed in a remote office, then three (3) additional line cards (items 3), 4) and 5)) are required as follows:

1) POTS-1FR-DTMF	Data Line for Remote LTC Access
2) POTS-1FR-DTMF	Dual function line (Voice & DRTU CALL BACK)
3) POTS-1FR-DTMR-AVL	Data Line LTC to DRTU Interface via Signature Off-Hook Routing Card.

- 4) POTS-1FR-DTMF Remote Office Line Card - DRTU Data Line
- 5) POTS-1FR-DTMF Remote Office Line Card - DRTU Call Back Path

RULES:

- AP 1) When PEC NT0J04BB is ordered, these items are provided.
- RUL1 1) Provide the NT0J04BG for remote control only operation of the LTC via a standard DMS100 VDU or KSR printer using a 212A type modem. Equipment per RULE 4 must be provided to enable the Remote Access feature.
- 2) Provide the NT0J04BQ for local control operation of the LTC (ie. the operator must be standing in front of the LTC to operate it).
- 3) The NT0J04BR (Local Control Front Panel with 52A Headset Jacks) is manufacture discontinued. However, the following information is retained for historical purposes:
- Provide the NT0J04BR for local control of the LTC. This panel adds the 52A headset jack. The NT0J04CB per RUL4 must be provided with this front panel.
- RUL2 1) The NSSD Model 3703-03 LTC has three hardware offerings for accessing trunks as follows:
- 4Trunk 3Wire Access (NT0J62BA)
 - 4Trunk 4Wire Access (NT0J63BA)
 - 16Trunk 4Wire Access (NT0J64BA)
- Selecting the four (4) or sixteen (16) test trunk selector option depends entirely on the number test trunk access points desired by the telco. Any of the four (4) or sixteen (16) trunks can be used to access a normal test trunk or MDF appearance. However, the Four or Sixteen trunk access option is required for the basic operation of the LTC.
- 2) Provide the NT0J63BA (4-Trunk 4W Test Trunk Selector PCB) to access a mixture of up to four dial type and MDF Shoe type test trunks. This PCB is designed to access trunks on a DMS-100F or Western Electric Switching system.

3) Provide the NT0J64BA (16-Trunk Interface) to access a mixture of up to 16 dial-type and MDF Shoe-type test trunks. If the job requires upgrading an existing LTC Model 3703-00 or 3703-01, then provide the NT0J60AA Upgrade Kit in conjunction with the NT0J64BA.

4) Provide the NT0J62BA (4-Trunk 3W Test Trunk Selector PCB) to access a mixture of up to four dial type and MDF Shoe type test trunks. This PCB is designed to access trunks on all other Switching systems. Refer to RUL2 item 2 above.

RUL3 1) The LTC offers Desk, Wall, Equipment Rack (two options), and MDF mounting arrangements. Provisioning of a specific arrangement shall be per telco specifications.

2) The NT0J04CB mounting kit is Manufacturer Discontinued. It was provided for Wall, or Desk, or MDF mounting when the 52A type head set jacks were required. This option provides additional hardware which uses the space allocated for the shelf/drawer assembly included with the NT0J04DC. Note the NT0J04CB is always required in conjunction with the NT0J04BR - Local Control Front Panel.

3) Provide the Wall Mounting Kit, (NT0J04DC) in lieu of the NT0J04CB when mounting this unit on a wall surface and the 52A type head set jack is not required. This option provides a combination shelf/drawer that slides out from the bottom of the cabinet.

Note: This mounting kit is not for use with the NT0J04BR Local Control front panel for 52A type headset jacks.

4) Provide the 19" or 23" Rack Adapters, (NT0J04BY), when installing the LTC in equipment frames with a 19 or 23 inch width internal mounting space.

5) Provide the 26" Rack Adapters, (NT0J04DD), when installing the LTC in the DMS100F MIS/RME frame.

6) Provide the DF Mount Adapter Brown NTZZ18SA or NT0J08CB (Manufacture Discontinued) when installing this unit at the MDF. Provide the Distributing Frame Mounting Kit (NT0J08AD) in addition to the NT0J04CB for MDF mounting. When ordering these units specify the width of the DF, due to the fact that these MDF Mounting Bars are custom fitted.

RUL4 1) Provide one NT0J04EC (Remote Access DCP Card) to enable the remote interface ports to the LTC from a Local/Remote Data Terminal, Intelligent controller, Craft terminal, etc.

This option provides three remote access ports -- Dial-Up, Dedicated, and a Local EIA RS-232C.

- 2) This option may be factory or field installed. The LTC Upgrade Kit, (NT0J04BD), must be applied to the 3703-00/01 LTC models to upgrade them to 3703-03 standards prior to adding the Remote Access DCP Card NT0J04BT.

RUL5 1) Provide one NT0J04DE (MDF Pair Identifier Buzzer) to enable the LTC to perform a continuity check on a selected line. This is a separate unit which mounts to the wall mounting kit backboard and provides either a visual or combination visual and audio indication to alert the operator that the correct line has been selected.

- 2) Provide loose wiring for the NT0J04DE as follows, using 22 guage wire for Battery and Ground connections.

* Connect CO GND (ground) and CO BAT from the Pair Identifier/Buzzer to CO GND and CO -48V of the LTC Pair Identifier/Buzzer connector.

* Connect the TIP and RING from the Pair Identifier/Buzzer to the TIP and RING of the LTC Pair Identifier/Buzzer connector.

* When using the NT0J04DE with a remote unit, connect the Pair Identifier/Buzzer RMT terminal to the remote unit.

The 22ga wire must be shipped loose to the job site.

RUL6 1) Provide the NT0J04DA, (Trunk Calibrator), to provide a means of eliminating the effects of trunk length on the loop measurements.

- 2) DMS100 Digital Switching recommends the provisioning of one Trunk Calibrator for every DMS or remote pair gain terminal the LTC is to interface.

RUL7 1) Provide these spare kits to provide maintenance spares as recommended by the equipment manufacturer. All spare kits include the following packs:

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0811	48V Power Supply Assembly	A0334035
1	NT0J0871	Extra Fast Meter 2 (XFM2)	A0338612
1	NT0J0824	Tip & Ring Conditioner	A0337968
1	NT0J0815	Loop Test PCB Assembly	A0334805

1 NT0J0825 Tones Supply PCB A0337969

- 2) In addition to the spares provided above, the following spares are provided based on LTC configuration:

a) NT0J66DA: 4 Trunk 3 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0491	4 Channel Mux PCB Assembly	A0331738

b) NT0J66EA: 4 Trunk 4 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0828	IFC Board PCB Assembly	A0339423
1	NT0J0829	4 Channel MuxB PCB Assembly	A0339424

c) NT0J66FA: 4 Trunk 4 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0827	16 Channel Mux PCB Assembly	A0339422
1	NT0J0828	IFC Board PCB Assembly	A0339423

- 3) Other replaceable parts are not included in the above spare parts kit due to their reliability. Reference NTP 662-5101-203 Iss. 11 or later for other available parts that can be purchased for Model 3703-03 LTC.

- 4) When providing spare equipment in conjunction with a System Upgrade Kit, (NT0J60AA), provide spares for those items added with the upgrade only.

RUL8 1) The NT0J60AA System Upgrade Kit provides a new LTC card cage which features the following enhancements:

* Trunk Control Keys

* A Boost Key

* Four (4) More Ports:

Local EIA RS-232-C
Two (2) Dial-In Ports
Call-Back

* Four (4) Trunk Connectors Instead Of One (1)

- 2) Provide the System Upgrade Kit (NT0J04BD) to upgrade the 3703-00/01 LTC models to the Model 3703-03 standards.
 - 3) When provisioning this kit the serial number and color of the existing Model 3703-00/01 must be provided with the equipment order, as the card cage will be replaced and the existing serial number reused.
- RUL9
- 1) Provide the NT0J04EB (Brown DRTU) for installation in a DMS-100F Digital Remote Office (NT0X02AB type frame) as a remote component of the NSSD Model 3703-03 Local Test Cabinet (LTC), which extends all LTC subscriber line testing capabilities to subscriber lines connected to the remote office.
 - 2) The DRTU requires the following hardware for complete installation:
 - a) LTC Model 3703-03 (NT0J04BB) - installed in the host office.
 - b) Remote Access DCP - installed in LTC Model 3703-03 or modified Model 3703-00/01 LTC per Item C below and RUL4 above.
 - c) Upgrade Kit (NT0J04BD) - installed in existing LTC model 3703-00/01.
 - d) Signature Off Hook Routing PCB - one card per two DRTUs.
 - e) MLT Applique Shelf - installed in the host office; if shelf exists, then ensure space is available for the required number of NT3J00BE PCBs.
 - 3) Refer to Section EMA11-02-DRTU-2 (Brown DRTU) for detailed engineering information.
- RUL10
- 1) Provide one (1) NT3J00BA (MLT Applique Shelf) to accommodate the Signature Off Hook Routing PCB (NT3J00BE) if non-existent. Otherwise, ensure space is available for the NT3J00BE.
 - 2) Refer to Section EMA13-01-MLTS-1 for detailed engineering information.
- RUL11
- 1) Reserved for future use.

- RUL12 1) Provide one (1) NT0J04ED (DRTU I/F Card) whenever a DRTU is required and the NT0J04ED has not been previously provided.

| NSSD MODEL 3703-03 LOCAL TEST CABINET (ASH)

NT0J04BA

RATING: MD Replaced by the NT0J6_BA

ABBREVIATION NAME: LTC

ENGINEERING DESCRIPTION: NSSD Model 3703-03 Local Test Cabinet (LTC)
Ash-colored An intelligent measurement unit
for automated subscriber lines testing from
the central office or from any remote lo-
cation.

REFERENCE DOCUMENTATION: N/A

The NSSD Model 3703-03 Local Test Cabinet (Ash) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tip Ring Conditioner (TRC)	NT0J0824		1		11	AP
Tones Generator PCB (TONE)	NT0J0825		1		12	AP
Extra Fast Meter Two (XFM2)	NT0J0871		1		13	AP
Central Processor Sys (CPS)	NT0J0446		1		15	AP
Power Supply (NT0J0811)	NT0J0811		1		19	AP
Remote Control Only Frnt Pnl	NT0J04BH					RUL1
Local Control Front Panel	NT0J04BL					RUL1
& Loc Cntrl Frnt Pnl For 52A	NT0J04BM					RUL1
4-Trunk 4Wire Selector Opt	NT0J04BN					RUL2
4-Trunk 3Wire Selector Opt	NT0J04BU					RUL2
16-Trunk Interface	NTZZ18RA					RUL2
& Wall/Desk Mounting Kit	NT0J04CA					RUL3
19" or 23" Rack Adapters	NT0J04BX					RUL3
Wall Mounting Kit	NT0J04DB					RUL3
DF Mounting Adapter Ash	NTZZ18TA					RUL3
Remote Access DCP Card	NT0J04BT					RUL4
Pair Identification Buzzer	NT0J04DE					RUL5
Trunk Calibrator	NT0J04DA					RUL6
% Spare Circuit Pack Kit	NT0J04BZ					RUL7
4 Trunk 3 Wire Spare CP Kit	NT0J66DA					RUL7
4 Trunk 4 Wire Spare CP Kit	NT0J66EA					RUL7
16 Trunk Spare CP Kit	NT0J66FA					RUL7
* System Upgrade Kit	NT0J04BK					RUL8
System Upgrade Kit	NT0J60AA					RUL8
# DRTU Ash	NT0J04AA					RUL9
DRTU Ash	NT0J04EA					RUL9
MLT Applique Shelf	NT3J00BA					RUL10
16 Trk Mux Card	NT0J04BW					RUL11
\$ DRTU Interface Option	NT0J04BS					RUL12
DRTU Interface Option 2	NT0J04ED					RUL12

FLAGS:

- # MD. Replaced by NT0J04EA.
- \$ MD. Replaced by NT0J04ED.
- & Rating change pending. On new jobs provide the NT0J04BH or NT0J04BL LTC Front Panel.
- * MD. Replaced by the NT0J60AA.
- % MD. Replaced by the NT0J66DA / NT0J66EA / NT0J66FA.

- NOTE: 1) Optional DMS100F LTC mainframe NT0J04BA; provide this unit as the base component of the NSSD Model 3703-03 Ash LTC.
- 2) The following items must be provided with the initial order when required, due to the fact that they must be factory installed:

* LTC Mainframe	* Front Panel
* Test Trunk Access Option	* Equipment Mounting Hardware

If the four units are not ordered with the initial order then the entire unit must be reordered on the update, other equipment may be added as required.

- 3) The LTC requires two (2) line cards (items 1) and 2)) for normal operation. If DRTU is installed in a remote office, then three (3) additional line cards (items 3), 4) and 5)) are required as follows:

1) POTS-1FR-DTMF	Data Line for Remote LTC Access
2) POTS-1FR-DTMF	Dual function line (Voice & DRTU CALL BACK)
3) POTS-1FR-DTMR-AVL	Data Line LTC to DRTU Interface via Signature Off-Hook Routing Card.
4) POTS-1FR-DTMF	Remote Office Line Card - DRTU Data Line
5) POTS-1FR-DTMF	Remote Office Line Card - DRTU Call Back Path

RULES:

- AP 1) When PEC NT0J04BA is ordered, these items are provided.
- RUL1 1) Provide the NT0J04BH for remote control only operation of the LTC via a standard DMS100 VDU or KSR Printer using a 212A type modem. Equipment per RULE 4 must be provided to enable the Remote Access feature.
- 2) Provide the NT0J04BL for local control only operation of the LTC (ie. the operator must be standing in front of the LTC to operate it).

- 3) The NT0J04BM (Local Control Front Panel with 52A Headset Jacks) is Manufacture Discontinued (MD). However, the following information is retained for historical purposes.

Provide the NT0J04BM for local control of the LTC. This panel adds the 52A headset jack. The NT0J04CB must be provided with this front panel.

- RUL2 1) The NSSD Model 3703-03 LTC has three hardware offerings for accessing trunks as follows:

- 4Trunk 3Wire Access (NT0J04BU)
- 4Trunk 4Wire Access (NT0J04BN)
- 16Trunk 4Wire Access (NTZZ18RA)

Selecting the four (4) or sixteen (16) test trunk selector option depends entirely on the number test trunk access points desired by the telco. Any of the four (4) or sixteen (16) trunks can be used to access a normal test trunk or MDF appearance. However, the Four or Sixteen trunk access option is required for the basic operation of the LTC.

- 2) Provide the NT0J04BU (4-Trunk Test Trunk Selector PCB) to access a mixture of up to four dial type and MDF Shoe type test trunks.
- 3) Provide the NTZZ18RA 16-Trunk Interface to access a mixture of up to 16 dial-type and MDF Shoe-type test trunks. If the job requires upgrading an existing LTC Model 3703-00 or 3703-01, then provide the Upgrade Kit (NT0J04BD) in conjunction with the NTZZ18RA.
- 4) Provide the NT0J04BN (4-Trunk 4Wire Test Trunk Selector PCB) to access a mixture of up to four dial type and MDF Shoe type test trunks. This PCB is designed to access trunks on all other switching systems. Refer to RUL2 item 2 above.

- RUL3 1) The LTC offers Desk, Wall, Equipment Rack (two options), and MDF mounting arrangements. Provisioning of a specific arrangement shall be per telco specifications.
- 2) The NT0J04CA mounting kit is Manufacture Discontinued (MD), see RUL2. However, the NT0J04CA was provided for LTC Wall, Desk or MDF mounting when the 52A type head set jacks were required. This option provided additional hardware which uses the space allocated for the shelf/drawer assembly included with the NT0J04DB. Note the NT0J04CA is always re-

quired in conjunction with the NT0J04BM - Local Control Front Panel.

- 3) Provide the 19" or 23" Rack Adapters, (NT0J04BX), when installing the LTC in equipment frames a with 19 or 23 inch width internal mounting space.
- 4) Provide the Wall Mounting Kit, (NT0J04DB) in lieu of the NT0J04CA when mounting this unit on a wall surface, and the 52A type head set jack is not required. This option provides a combination shelf/drawer that slides out from the bottom of the cabinet.

Note: This mounting kit is not for use with the NT0J04BM Local Control Front Panel for the 52A Headset Jack.

- 5) Provide the Distributing Frame Mounting Kit, (NTZZ18TA), when installing this unit at the MDF. When ordering this unit specify the width of the DF, due to the fact that the mounting bars are custom fitted.

RUL4 1) Provide one NT0J04BT (Remote Access DCP Card) to enable the remote interface ports to the LTC from a Local/Remote Data Terminal, Intelligent controller, Craft terminals, etc. This option provides three remote access ports -- Dial-Up, Dedicated, and a Local EIA RS-232C.

- 2) This option may be factory or field installed. The LTC Upgrade Kit, (NT0J04BD), must be applied to the 3703-00/01 LTC models to upgrade them to 3703-03 standards prior to adding the Remote Access DCP Card NT0J04BT.

RUL5 1) Provide one NT0J04DE (MDF Pair Identifier Buzzer) to enable the LTC to perform a continuity check on a selected line. This is a separate unit which mounts to the wall mounting kit backboard and provides either a visual or combination visual and audio indication to alert the operator that the correct line has been selected.

- 2) Provide loose wiring for the NT0J04DE as follows, using 22 guage Wire for Battery and Ground connections.

* Connect CO GND (ground) and CO BAT from the Pair Identifier/Buzzer to CO GND and CO -48V of the LTC Pair Identifier/Buzzer connector.

* Connect the TIP and RING from the Pair Identifier/Buzzer to the TIP and RING of the LTC Pair Identifier/Buzzer connector.

- * When using the NT0J04DE with a remote unit, connect the Pair Identifier/Buzzer RMT terminal to the remote unit.

RUL6 1) Provide the NT0J04DA, (Trunk Calibrator), to provide a means of eliminating the effects of trunk length on the loop measurements.

2) DMS100 Digital Switching recommends the provisioning of one Trunk Calibrator for every DMS or remote pair gain terminal the LTC is to interface.

RUL7 1) Provide these spare kits to provide maintenance spares as recommended by the equipment manufacturer. All spare kits include the following packs:

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0811	48V Power Supply Assembly	A0334035
1	NT0J0871	Extra Fast Meter 2 (XFM2)	A0338612
1	NT0J0824	Tip & Ring Conditioner	A0337968
1	NT0J0815	Loop Test PCB Assembly	A0334805
1	NT0J0825	Tones Supply PCB	A0337969

2) In addition to the spares provided above, the following spares are provided based on LTC configuration:

a) NT0J66DA: 4 Trunk 3 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0491	4 Channel Mux PCB Assembly	A0331738

b) NT0J66EA: 4 Trunk 4 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0828	IFC Board PCB Assembly	A0339423
1	NT0J0829	4 Channel MuxB PCB Assembly	A0339424

c) NT0J66FA: 16 Trunk 4 Wire Configuration

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>	<u>CPC</u>
1	NT0J0827	16 Channel Mux PCB Assembly	A0339422
1	NT0J0828	IFC Board PCB Assembly	A0339423

3) Other replaceable parts are not included in the above spare parts kit due to their reliability. Reference NTP

662-5101-203 Iss. 11 or later for other available parts that can be purchased for Model 3703-03 LTC.

- 4) When providing spare equipment in conjunction with a System Upgrade Kit, (NT0J60AA), provide spares for those items added with the upgrade only.

RUL8 1) The NT0J60AA System Upgrade Kit provides a new LTC card cage which features the following enhancements:

- * Trunk Control Keys

- * A Boost Key

- * Four (4) More Ports:

- Local EIA RS-232-C

- Two (2) Dial-In Ports

- Call-Back

- * Four (4) Trunk Connectors Instead Of One (1)

- 2) Provide the System Upgrade Kit (NT0J04BK) to upgrade the 3703-00/01 LTC models to the Model 3703-03 standards.

- 3) When provisioning this kit the serial number and color of the existing Model 3703-00/01 must be provided with the equipment order, as the card cage will be replaced and the existing serial number reused.

RUL9 1) Provide the NT0J04EA (Ash DRTU) for installation in a DMS-100F Digital Remote Office (NT0X02AB type frame) as a remote component of the NSSD Model 3703-03 Local Test Cabinet (LTC), which extends all LTC subscriber line testing capabilities to subscriber lines connected to the remote office.

- 2) The DRTU requires the following hardware for complete installation:

a) LTC Model 3703-03 (NT0J04BA) - installed in the host office.

b) Remote Access DCP (NT0J04BT) - installed in LTC Model 3703-03 or modified Model 3703-00/01 LTC per Item C below and RUL4 above.

c) Upgrade Kit (NT0J04BK) - installed in existing LTC model 3703-00/01.

- d) Signature Off Hook Routing PCB - one card per two DRTUs.
 - e) MLT Applique Shelf - installed in the host office; if shelf exists, then ensure space is available for the required number of NT3J00BE PCBs.
- 3) Refer to Section EMA11-02-DRTU-1 (Ash DRTU) for detailed engineering information.
- RUL10 1) Provide one (1) NT3J00BA (MLT Applique Shelf) to accommodate the Signature Off Hook Routing PCB (NT3J00BE) if non-existent. Otherwise, ensure space is available for the NT3J00BE.
- 2) Refer to Section EMA13-01-MLTS-1 for detailed engineering information.
- RUL11 1) Reserved for future use.
- RUL12 1) Provide one NT0J04ED (DRTU I/F Card) whenever a DRTU is required and the NT0J04ED has not been previously provided.

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EMR12

DMS-100P PACKAGED SWITCH EQUIPMENT CHAPTER

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DMS-100P PACKAGED SWITCH EQUIPMENT CHAPTER

EMR12-01-000	PACKAGED CORE SERVICE TRUNK MODULE	NT7X29AD
EMR12-01-PCSM-1	PCSM COMMON CP FILL	NT7X29GF
EMR12-02-000	PACKAGED CORE TRUNK MODULE FRAME	NT7X33AD
EMR12-02-LTC-1	LTC COMMON CP FILL	NT7X33GJ
EMR12-02-SMS-1	SMR/SMS/SMU COMMON CP FILL	NT7X33GK
EMR12-03-000	PACKAGED CORE LINE MODULE FRAME	NT7X38AB
EMR12-04-000	PACKAGED CORE INTERFACE MODULE FRAME	NT7X45AB
EMR12-04-PTM-1	PCIM COMMON CP FILL	NT7X45GC
EMR12-04-PTM-2	PCIM COMMON CP FILL	NT7X45GD
EMR12-05-000	PACKAGED CORE POWER MODULE FRAME	NT7X24AD
EMR12-05-PCPM-1	PCPM COMMON CP FILL	NT7X24GD
EMR12-06-000	PACKAGED CORE BASIC MODULE FRAME	NT7X46AD
EMR12-06-PCBM-1	PCBM COMMON CP FILL	NT7X46GC
EMR12-07-000	PKGD CORE BASIC MODULE (POWER DIST ONLY)	NT7X46AE
EMR12-07-PDC-1	PCBM PDC FUSING	NT7X46GD

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EMR12

DMS-100P PACKAGED SWITCH EQUIPMENT CHAPTER

PACKAGED CORE SERVICE TRUNK MODULE FRAME

PEC CODE: NT7X29AD

CPC CODE: B0230942

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCSM

ENGINEERING DESCRIPTION: The NT7X29AD is a frame which houses five (5) Service Trunk Module (STM) shelves. It is used in the DMS-100P application.

REFERENCE DOCUMENTATION: MS7X29AD 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X29AD EMR12-01-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Service Trunk Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
STM Shelf Assembly	NT7X3004		1	65		AP
Power Conv +/-5V & 12V CP	NT2X70AA			65	01,20	RUL8
Power Conv +/-5V & 12V CP	NT2X70AE			65	01,20	RUL8
TM Controller CP	NT4X65AB			65	04,12	RUL8
6 Party Conference CP	NT3X67AA			65	05-09, 11,13-16, 18	RUL13
Multifrequency Dial Tone Gen	NT3X68AB			65	05-09, 11,13-16, 18	RUL2
Call Waiting Tone Generator	NT3X68AC			65	05-09, 11,13-16, 18	RUL12
TM Group Codec CP	NT2X59AA			65	10,17	RUL10
Design. Label (NT0X70AE)	P0698943			65		RUL3
Design. Label (NT2X59AA)	P0643110			65		RUL3
Design. Label (NT2X70AA)	P0586902			65		RUL3
Design. Label (NT3X67AA)	P0653623			65		RUL3
Design. Label (NT3X68AB)	P0665193			65		RUL3
Design. Label (NT3X68AC)	P0657674			65		RUL3
Design. Label (NT4X65AB)	P0689662			65		RUL3
STM Shelf Assembly	NT7X3004		1	51		AP
Power Conv +/-5V & 12V CP	NT2X70AA			51	01,20	RUL8
Power Conv +/-5V & 12V CP	NT2X70AE			51	01,20	RUL8
TM Controller CP	NT4X65AA			51	04,12	RUL8
TM Controller CP	NT4X65AB			51	04,12	RUL8
3 Port Conference CP	NT1X31AA			51	05-09, 13-16,18	RUL6
6 Party Conference CP	NT3X67AA			51	05-09, 11,13-16, 18	RUL13
Multifrequency	NT3X68AB			51	05-09, 11,13-16, 18	RUL2
Call Waiting Tone Generator	NT3X68AC			51	05-09, 11,13-16, 18	RUL12
Digital 4 Channel MF Rec. CP	NT2X48BA			51	05-09, 13-16,18	RUL7
Digital 4 Chan DT/MF Rec. CP	NT2X48BB			51	05-09, 13-16,18	RUL7
TM Group Codec CP	NT2X59AA			51	10,17	RUL10

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Design. Label (NT1X31AA)	P0653621			51		RUL3
Design. Label (NT2X48BA)	P0656335			51		RUL3
Design. Label (NT2X48BB)	P0653620			51		RUL3
Design. Label (NT2X59AA)	P0643110			51		RUL3
Design. Label (NT2X70AA)	P0586902			51		RUL3
Design. Label (NT2X70AE)	P0698943			51		RUL3
Design. Label (NT3X67AA)	P0653623			51		RUL3
Design. Label (NT3X68AB)	P0665193			51		RUL3
Design. Label (NT3X68AC)	P0657674			51		RUL3
Design. Label (NT4X65AB)	P0689662			51		RUL3
PCSM Frame Supervisory Panel	NT7X34CA		1	45		AP
STM Shelf Assembly	NT7X3004		1	32		AP
Power Conv +/-5V & 12V CP	NT2X70AA			32	01,20	RUL8
Power Conv +/-5V & 12V CP	NT2X70AE			32	01,20	RUL8
TM Controller CP	NT4X65AB			32	04,12	RUL8
6 Party Conference CP	NT3X67AA			32	05-09, 11,13-16, 18	RUL13
Multifreq. Dial Tone Gen CP	NT3X68AB			32	05-09, 11,13-16, 18	RUL2
Call Waiting Tone Generator	NT3X68AC			32	05-09, 11,13-16, 18	RUL12
TM Group Codec CP	NT2X59AA			32	10,17	RUL10
Design. Label (NT2X59AA)	P0643110			32		RUL3
Design. Label (NT2X70AA)	P0586902			32		RUL3
Design. Label (NT2X70AE)	P0698943			32		RUL3
Design. Label (NT3X67AA)	P0653623			32		RUL3
Design. Label (NT3X68AB)	P0665193			32		RUL3
Design. Label (NT3X68AC)	P0657674			32		RUL3
Design. Label (NT4X65AB)	P0689662			32		RUL3
STM Shelf Assembly	NT7X3004		1	18		AP
Power Conv +/-5V & 12V CP	NT2X70AA			18	01,20	RUL8
Power Conv +/-5V & 12V CP	NT2X70AE			18	01,20	RUL8
TM Controller CP	NT4X65AB			18	04,12	RUL8
6 Party Conference CP	NT3X67AA			18	04,11, 13-16,18	RUL13
Multifreq. Dial Tone Gen CP	NT3X68AB			18	05,11, 13-16,18	RUL2
Call Waiting Tone Generator	NT3X68AC			18	05,11, 13-16,18	RUL12
DRA Processor CP	NT1X75AA			18	05	RUL5

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DRA Standard Announcement	NT1X76AA			18	06-10	RUL4
DRA Standard Ann (French)	NT1X76BA			18	06-10	RUL4
DRA Recordable Memory CP	NT1X77AA			18	06-10	RUL11
3 Port Conference CP	NT1X31AA			18	14-16,18	RUL6
Digital 4 Channel MF Rec CP	NT2X48BA			18	14-16,18	RUL7
Digital 4 Chan DT/MF Rec CP	NT2X48BB			18	14-16,18	RUL7
TM Group Codec CP	NT2X59AA			18	17	RUL10
Design. Label (NT1X31AA)	P0653621			18		RUL3
Design. Label (NT1X75AA)	P0666364			18		RUL3
Design. Label (NT1X76AA)	P0666366			18		RUL3
Design. Label (NT1X76BA)	P0671178			18		RUL3
Design. Label (NT1X77AA)	P0661427			18		RUL3
Design. Label (NT2X48BA)	P0656335			18		RUL3
Design. Label (NT2X48BB)	P0653620			18		RUL3
Design. Label (NT2X59AA)	P0643110			18		RUL3
Design. Label (NT2X70AA)	P0586902			18		RUL3
Design. Label (NT2X70AE)	P0698943			18		RUL3
Design. Label (NT3X67AA)	P0653623			18		RUL3
Design. Label (NT3X68AB)	P0665193			18		RUL3
Design. Label (NT3X68AC)	P0657674			18		RUL3
Design. Label (NT4X65AB)	P0689662			18		RUL3
PCSM Common CP Fill	NT7X29GF			04		RUL1
STM Shelf Assembly	NT7X3004		1	04		AP
Power Conv +/-5V & 12V CP	NT2X70AA			04	01,20	RUL9
Power Conv +/-5V & 12V CP	NT2X70AE			04	01,20	RUL9
DRA Standard Announcement	NT1X76AA			04	06-09	RUL4
DRA Standard Ann (French)	NT1X76BA			04	06-09	RUL4
DRA Recordable Memory CP	NT1X77AA			04	06-09	RUL11
3 Port Conference CP	NT1X31AA			04	14-16,18	RUL6
6 Party Conference CP	NT3X67AA			04	14-16	RUL13
Multifreq Dial Tone Gen CP	NT3X68AB			04	14-16,18	RUL2
Call Waiting Tone Generator	NT3X68AC			04	14-16,18	RUL12
Digital 4 Channel MF Rec CP	NT2X48BA			04	14-16,18	RUL7
Digital 4 Chan DT/MF Rec CP	NT2X48BB			04	14-16,18	RUL7
Design. Label (NT1X31AA)	P0653621			04		RUL3
Design. Label (NT1X76AA)	P0666366			04		RUL3
Design. Label (NT1X76BA)	P0671178			04		RUL3
Design. Label (NT1X77AA)	P0661427			04		RUL3
Design. Label (NT2X48BA)	P0656335			04		RUL3
Design. Label (NT2X48BB)	P0653620			04		RUL3
Design. Label (NT2X70AA)	P0586902			04		RUL3
Design. Label (NT2X70AE)	P0698943			04		RUL3
Design. Label (NT3X67AA)	P0653623			04		RUL3
Design. Label (NT3X68AB)	P0665193			04		RUL3
Design. Label (NT3X68AC)	P0657674			04		RUL3

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS PKG Earthquake FRWK	NT0X25AL		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) There are five (5) STM shelf assemblies on this frame. Each STM shelf can accommodate two (2) STM modules as follows:

STM SHF POS	STM MODULE
65	08,09
51	06,07
32	04,05
18	02,03
04	00,01

RULES:

- AP 1) When PEC NT7X29AD is ordered, these items are provided.
- RUL1 1) Provide one NT7X29GF Common Circuit Pack Fill on the PCSM Frame.
- RUL2 1) For DMS-100P Vintage 1 Offices, provide NT3X68AB as required on the PCSM00 Frame as follows:
- | SHF POS | CP POS |
|---------|----------------------|
| 51 | 05-09,13,14,15,16,18 |
| 18 | 14,15,16,18 |
| 04 | 14,15,16,18 |
- 2) For DMS-100P Vintage 2 Offices (i.e. Swift Current is the only one), provide NT3X68AB as required on the PCSM00 Frame as follows:
- | SHF POS | CP POS |
|---------|-------------------------|
| 65 | 05-09,11,13,14,15,16,18 |
| 51 | 05-09,11,13,14,15,16,18 |
| 32 | 05-09,11,13,14,15,16,18 |
| 18 | 05,11,13,14,15,16,18 |
| 04 | 14,15,16 |
- RUL3 1) Provide one per circuit pack provisioned of the appropriate label. PEC code on label should be the same as the circuit pack provisioned. Stick the label on the shelf upper designation strip in the appropriate position.
- RUL4 1) Provide NT1X76AA/BA CP as required on the PCSM00 Frame, in SHF POS 04, CP POS 06 to 09 and SHF POS 18, CP POS 06 to 10. Provision the lowest numbered CP positions first. (See RUL5).
- RUL5 1) Provide one NT1X75AA CP on PCSM00, when the second Digital Recorded Announcement (DRA) System is required.
- 2) The first DRA System is assigned to SHF POS 04 and the second one is assigned to SHF POS 18.

- RUL6 1) Provide NT1X31AA when additional conference circuits are required. NT1X31AA provides two (2) 3 port circuits per card. Provide NT1X31AA as follows:

SHF POS	CP POS
51	05-09,13,14,15,16,18
18	14,15,16,18
04	14,15,16,18

- RUL7 1) Provide NT2X48BA CP and/or NT2X48BB CP as required as follows:

SHF POS	CP POS
51	05-09,13,14,15,16,18
18	14,15,16,18
04	14,15,16,18

- RUL8 1) For DMS-100P Vintage 1 Offices, provide on the PCSM Frame when service circuits are to be provisioned as follows:

- a) If service circuits are in POS 51-12 to 51-18, provide NT2X70AA/AE in POS 51-20 and NT4X65AA in POS 51-12.
- b) If service circuits are in POS 51-05 to 51-11, provide NT2X70AA/AE in POS 51-01 and NT4X65AA in POS 51-04.

- 2) For DMS-100P Vintage 2 Offices, provide on the PCSM Frame when service circuits are to be provisioned as follows:

- a) If service circuits are in POS 18-12 to 18-18, 32-12 to 32-18, 51-12 to 51-18, 65-12 to 65-18 as required, provide NT2X70AA/AE in POS 18-20, 32-20, 51-20, 65-20 and NT4X65AB in POS 18-12, 32-12, 51-12, 65-12 as required.
- b) If service circuits are in POS 18-05 to 18-11, 32-05 to 32-11, 51-05 to 51-11, 65-05 to 65-11 as required, provide NT2X70AA/AE in POS 18-01, 32-01, 51-01, 65-01 and NT4X65AB in POS 18-04, 32-04, 51-04, 65-04 as required.

- RUL9 1) Provide two (2) NT2X70AA/AE in POS 04-01,20.

- RUL10 1) For DMS-100P Vintage 1 Offices, provide NT2X59AA CPs as required on the PCSM Frame as follows:

- a) In POS 51-10 if any circuit packs are provisioned in 51-01 to 51-11, and
- b) In pos 51-17 if any circuit packs are provisioned in 51-13 to 51-20.
- 2) For DMS-100P Vintage 2 Offices, provide NT2X59AA CPs as required on the PCSM Frame as follows:
- a) In POS 18-17, 32-17, 51-17, 65-17 if any circuit packs are provisioned in pos 18-13 to 18-20, 32-13 to 32-20, 51-13 to 51-20, and 65-13 to 65-20, and
- b) In POS 32-10, 51-10, 65-10, if any circuit packs are provisioned in pos 32-01 to 32-11, 51-01 to 51-11, and 65-01 to 65-11.
- RUL11 1) Provide NT1X77AA CPs as required on the PCSM00 Frame when it is equipped with the Digital Recorded Announcement (DRA) and additional announcement memory (volatile memory) is required. provide NT1X77AA CPs in POS 04-06 to 04-09 and 18-06 to 18-10. Lowest circuit pack positions are to be provisioned first.
- 2) The first DRA system is assigned to SHF POS 04 and the second one is assigned to SHF POS 18.
- RUL12 1) For DMS-100P Vintage 1 Offices, provide NT3X68AC CPs as required on the PCSM00 Frame as follows:
- | SHF POS | CP POS |
|---------|----------------------|
| 51 | 05-09,13,14,15,16,18 |
| 18 | 14,15,16,18 |
| 04 | 14,15,16,18 |
- 2) For DMS-100P Vintage 2 Offices, provide NT3X68AC as required on the PCSM00 Frame as follows:
- | SHF POS | CP POS |
|---------|-------------------------|
| 65 | 05-09,11,13,14,15,16,18 |
| 51 | 05-09,11,13,14,15,16,18 |
| 32 | 05-09,11,13,14,15,16,18 |

18 05,11,13,14,15,16,18

04 14,15,16

RUL13 1) Provide NT3X67AA CPs when additional conference circuits are required. NT3X67AA provides one (1) 6 port circuit per card. Provide NT3X67AA as follows:

SHF POS CP POS

65 05-09,11,13,14,15,16,18.

51 05-09,11,13,14,15,16,18,

32 05-09,11,13,14,15,16,18,

18 04,11,13,14,15,16,18

04 14,15,16

PCSM COMMON CIRCUIT PACK FILL

PEC CODE: NT7X29GF

CPC CODE: B0230943

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X29GF is a common circuit pack fill
for the PCSM Frame NT7X29AD.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X29GF EMR12-01-PCSM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCSM Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		2	65	03,19	AP
Design Strip (NT7X29AC)	P0653618		1	65		AP
Filler Face Plate 0.875	NT0X50AA		2	51	03,19	AP
Design Strip (NT7X29AC)	P0653618		1	51		AP
Filler Face Plate 0.875	NT0X50AA		2	32	03,19	AP
Design Strip (NT7X29AC)	P0653618		1	32		AP
Filler Face Plate 0.875	NT0X50AA		2	18	03,19	AP
Design Strip (NT7X29AC)	P0653618		1	18		AP
Filler Face Plate 0.875	NT0X50AA		2	04	03,19	AP
TM Control Card CP	NT4X65AB		2	04	04,12	AP
Digital Rec Ann Proc CP	NT1X75AA		1	04	05	AP
102 Test Trunk CP	NT1X00AB		1	04	10	AP
Call Waiting Tone Gen	NT3X68AC		1	04	11	AP
6 Party Conference Ckt	NT3X67AA		2	04	13,18	AP
TM Group Codec CP	NT2X59AA		1	04	17	AP
Design Strip (NT7X29AC)	P0686396		1	04		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X29GF can be assigned on the frame.

- 2) For more information on the frame, refer to the section on NT7X29AD.

RULES:

- AP 1) When PEC NT7X29GF is ordered, these items are provided.

PACKAGED CORE TRUNK MODULE FRAME

PEC CODE: NT7X33AD

CPC CODE: B0230839

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCTM

ENGINEERING DESCRIPTION: The NT7X33AD is a frame which can house up to two (2) Line Trunk Controller (LTC) modules. Each LTC module is housed in two (2) adjacent shelves (i.e. a pair of shelves on positions 65 and 51, and a pair of shelves on positions 32 and 18). It is used in the DMS-100P application.

REFERENCE DOCUMENTATION: MS7X33AD 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X33AD EMR12-02-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Trunk Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LTC Common CP Fill	NT7X33GJ			51		RUL1
SMR/SMS/SMU Common CP Fill	NT7X33GK			51		RUL2
Perph CTL Array Shf Assy	NT7X3304		1	65		AP
DS1 Interface CP	NT6X50AA			65	01-05	RUL3
DS1 Interface CP	NT6X85AB			65	01-05	RUL10
DS30A LCM Interface CP	NT6X48AA			65	06, 07	RUL8
LGC/DTC Processor CP	NT6X45AC			65	08, 12	RUL11
LGC/DTC Processor CP	NT6X45BA			65	08, 12	RUL11
Filler Face Plate 0.875	NT0X50AA			65	09, 13	RUL5
					17, 23	
Filler Face Plate 0.875	NT0X50AA			65	09, 15,	RUL15
					16, 17	
Signal Processor Memory CP	NT6X46AB			65	11	RUL14
Signal Processor Memory CP	NT6X46BA			65	11	RUL14
SCM A Bit/B Word CP	NT6X81BA			65	13	RUL12
A Bit Message CP	NT6X86AA			65	13	RUL12
Time Switch CP	NT6X44AB			65	14	RUL12
Time Switch CP	NT6X44CA			65	14	RUL12
Universal Tone Receiver CP	NT6X92BB			65	15, 16	RUL9
MSG Interface CP	NT6X43AA			65	18	RUL12
MSG Interface CP	NT6X69AA			65	18	RUL12
MSG Interface CP	NT6X69AB			65	18	RUL12
Tone Generator CP	NT6X79AA			65	19	RUL12
SCM Pad/Ring CP	NT6X80AA			65	19	RUL12
SCM Pad/Ring CP	NT6X80BA			65	19	RUL12
CPC Backpanel Paddle Board	NT6X1205			65	20R	RUL14
DS30 Network Interface CP	NT6X40AA			65	22, 23	RUL7
DS30 Network Interface CP	NT6X40AC			65	22	RUL7
DS30 Network Interface CP	NT6X40BA			65	22	RUL7
Power Conv +/-5V & 12V CP	NT2X70AE			65	25	RUL6
Perph CTL Array Shf Assy	NT7X3304		1	51		AP
DS1 Interface CP	NT6X50AA			51	01-05	RUL3
DS1 Interface CP	NT6X85AB			51	01-05	RUL10
DS30A LCM Interface CP	NT6X48AA			51	06, 07	RUL8
Connector Key Bracket	P0638261			51	06R, 07R	RUL13
LGC/DTC Processor CP	NT6X45AC			51	08, 12	RUL11
LGC/DTC Processor CP	NT6X45BA			51	08, 12	RUL11
Filler Face Plate 0.875	NT0X50AA			51	09, 13	RUL5
					17, 23	
Filler Face Plate 0.875	NT0X50AA			51	09, 15,	RUL15
					16, 17	
Signal Processor Memory CP	NT6X46AB			51	11	RUL14

Retired Equipment
Packaged Core Trunk Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Signal Processor Memory CP	NT6X46BA			51	11	RUL14
SCM A Bit/B Word CP	NT6X81BA			51	13	RUL12
A Bit Message CP	NT6X86AA			51	13	RUL12
Time Switch CP	NT6X44AB			51	14	RUL12
Time Switch CP	NT6X44CA			51	14	RUL12
Universal Tone Receiver CP	NT6X92BB			51	15,16	RUL9
MSG Interface CP	NT6X43AA			51	18	RUL12
MSG Interface CP	NT6X69AA			51	18	RUL12
MSG Interface CP	NT6X69AB			51	18	RUL12
Tone Generator CP	NT6X79AA			51	19	RUL12
SCM Pad/Ring CP	NT6X80AA			51	19	RUL12
SCM Pad/Ring CP	NT6X80BA			51	19	RUL12
CPC Backpanel Paddle Board	NT6X1205			51	20R	RUL14
DS30 Network Interface CP	NT6X40AA			51	22,23	RUL7
DS30 Network Interface CP	NT6X40AC			51	22	RUL7
DS30 Network Interface CP	NT6X40BA			51	22	RUL7
Power Conv +/-5V & 12V CP (NT2X70AE)	NT2X70AE			51	25	RUL6
DTE Frame Supervisory Panel	NT7X34DA		1	45		AP
LTC Common CP Fill	NT7X33GJ			18		RUL1
SMR/SMS/SMU Common CP Fill	NT7X33GK			18		RUL2
Perph CTL Array Shf Assy	NT7X3304		1	32		AP
DS1 Interface CP	NT6X50AA			32	01-05	RUL3
DS1 Interface CP	NT6X85AB			32	01-05	RUL10
DS30A LCM Interface CP	NT6X48AA			32	06,07	RUL8
LGC/DTC Processor CP	NT6X45AC			32	08,12	RUL11
LGC/DTC Processor CP	NT6X45BA			32	08,12	RUL11
Filler Face Plate 0.875	NT0X50AA			32	09,13 17,23	RUL5
Filler Face Plate 0.875	NT0X50AA			32	09,15, 16,17	RUL15
Signal Processor Memory CP	NT6X46AB			32	11	RUL14
Signal Processor Memory CP	NT6X46BA			32	11	RUL14
SCM A Bit/B Word CP	NT6X81BA			32	13	RUL12
A Bit Message CP	NT6X86AA			32	13	RUL12
Time Switch CP	NT6X44AB			32	14	RUL12
Time Switch CP	NT6X44CA			32	14	RUL12
Universal Tone Receiver CP	NT6X92BB			32	15,16	RUL9
MSG Interface CP	NT6X43AA			32	18	RUL12
MSG Interface CP	NT6X69AA			32	18	RUL12
MSG Interface CP	NT6X69AB			32	18	RUL12
Tone Generator CP	NT6X79AA			32	19	RUL12
SCM Pad/Ring CP	NT6X80AA			32	19	RUL12

Retired Equipment
Packaged Core Trunk Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SCM Pad/Ring CP	NT6X80BA			32	19	RUL12
CPC Backpanel Paddle Board	NT6X1205			32	20R	RUL14
DS30 Network Interface CP	NT6X40AA			32	22, 23	RUL7
DS30 Network Interface CP	NT6X40AC			32	22	RUL7
DS30 Network Interface CP	NT6X40BA			32	22	RUL7
Power Conv +/-5V & 12V CP	NT2X70AE			32	25	RUL6
Perph CTL Array Shf Assy	NT7X3304		1	18		AP
DS1 Interface CP	NT6X50AA			18	01-05	RUL3
DS1 Interface CP	NT6X85AB			18	01-05	RUL10
DS30A LCM Interface CP	NT6X48AA			18	06, 07	RUL8
Connector Key Bracket	P0638261			18	06R, 07R	RUL13
LGC/DTC Processor CP	NT6X45AC			18	08, 12	RUL11
LGC/DTC Processor CP	NT6X45BA			18	08, 12	RUL11
Filler Face Plate 0.875	NT0X50AA			18	09, 13 17, 23	RUL5
Filler Face Plate 0.875	NT0X50AA			18	09, 15, 16, 17	RUL15
Signal Processor Memory CP	NT6X46AB			18	11	RUL14
Signal Processor Memory CP	NT6X46BA			18	11	RUL14
SCM A Bit/B Word CP	NT6X81BA			18	13	RUL12
A Bit Message CP	NT6X86AA			18	13	RUL12
Time Switch CP	NT6X44AB			18	14	RUL12
Time Switch CP	NT6X44CA			18	14	RUL12
Universal Tone Receiver CP	NT6X92BB			18	15, 16	RUL9
MSG Interface CP	NT6X43AA			18	18	RUL12
MSG Interface CP	NT6X69AA			18	18	RUL12
MSG Interface CP	NT6X69AB			18	18	RUL12
Tone Generator CP	NT6X79AA			18	19	RUL12
SCM Pad/Ring CP	NT6X80AA			18	19	RUL12
SCM Pad/Ring CP	NT6X80BA			18	19	RUL12
CPC Backpanel Paddle Board	NT6X1205			18	20R	RUL14
DS30 Network Interface CP	NT6X40AA			18	22, 23	RUL7
DS30 Network Interface CP	NT6X40AC			18	22	RUL7
DS30 Network Interface CP	NT6X40BA			18	22	RUL7
Power Conv +/-5V & 12V CP	NT2X70AE			18	25	RUL6
Cooling Inverter Unit Fan	NT3X90AB	CU	1	04		AP
DMS PKG Earthquake FRWK	NT0X25AL		1			AP
Connectorized PTL 25P 26 Cable CA Assembly E/W Two 25 Pin Connectors	NT0X26JZ					RUL16

Retired Equipment
Packaged Core Trunk Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Connectorized PTL 25P 26 Cable CA Assembly E/W Two 25 Pin Connectors	NT0X26KA					RUL16
Connectorized PTL 18P 26 Cable CA Assembly E/W One 37 Pin Connector	NT0X26QT					RUL16
Connectorized PTL 18P 26 Cable CA Assembly E/W One 37 Pin Connector	NT0X26QV					RUL16
Connectorized PTL 18P 26 Cable CA Assembly E/W One 37 Pin Connector	NT0X26QW					RUL16
Design. Label (NT6X50AA)	P0661418					RUL4
Design. Label (NT6X85AB)	P0686754					RUL4
Design. Label (NT6X48AA)	P0626877					RUL4
Design. Label (NT6X46AB)	P0668442					RUL4
Design. Label (NT6X81BA)	P0706627					RUL4
Design. Label (NT6X86AA)	P0666357					RUL4
Design. Label (NT6X44AB)	P0664134					RUL4
Design. Label (NT6X44CA)	P0707641					RUL4
Design. Label (NT6X92BB)	P0686332					RUL4
Design. Label (NT6X43AA)	P0666352					RUL4
Design. Label (NT6X69AA)	P0666353					RUL4
Design. Label (NT6X69AB)	P0698317					RUL4
Design. Label (NT6X79AA)	P0666354					RUL4
Design. Label (NT6X80AA)	P0666355					RUL4
Design. Label (NT6X80BA)	P0701257					RUL4
Design. Label (NT6X40AA)	P0698865					RUL4
Design. Label (NT6X40AC)	P0695397					RUL4
Design. Label (NT6X40BA)	P0705065					RUL4
Design. Label (NT2X70AE)	P0698943					RUL4

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NT7X33AD is a frame which can house up to two (2) Line Trunk Controller (LTC) modules. Each LTC module is housed in two (2) adjacent shelves (i.e. a pair of shelves on positions 65 and 51, and a pair of shelves on positions 32 and 18).
- 2) Mounting positions are as follows:

LTC Module	SHF POS
XX	65 51
XX	32 18

where XX is an even number for the lower positioned LTC module mounted on the PCTM Frame.

where XX is an odd number for the higher positioned LTC module mounted on the PCTM Frame.

The LTC are numbered from the bottom up in ascending order.

The even numbered lower positioned LTC module is equal to two (2) times the PCTM frame number (i.e. PCTM 00 LTC 00, PCTM 01 LTC 02, PCTM 02 LTC 04).

RULES:

- AP 1) When PEC NT7X33AD is ordered, these items are provided.
- RUL1 1) Provide minimum one (1) maximum two (2) NT7X33GJ LTC Common Circuit Pack Fill per frame.
- RUL2 1) Provide minimum one (1) maximum two (2) NT7X33GK SMR/SMS/SMU Common Circuit Pack Fill per frame.
- RUL3 1) Provide maximum ten (10) NT6X50AA per NT7X33GJ LTC Common Circuit Pack Fill when DS-1 interface is required. Assignment of DS-1 ports is job engineered. Port numbers and PCTM shelf positions are related as below. (Expansion is two ports at a time.)

CP POS	32-05	32-04	32-03	32-02	32-01
	65-05	65-04	65-03	65-02	65-01
PORTS	2, 3	6, 7	10, 11	14, 15	18, 19

CP POS	18-05	18-04	18-03	18-02	18-01
	51-05	51-04	51-03	51-02	51-01
PORTS	0, 1	4, 5	8, 9	12, 13	16, 17

These ports are available on even numbered LTCs (shelf 18,32) and on odd numbered LTCs (shelf 51,65).

- 2) Before shelves can be provisioned with NT6X48AA or NT6X50AA or NT6X85AB, the LTC must be equipped with a common circuit pack fill.
- a) When provisioning NT6X48AA, provide in CP position 06 first, then provide in CP position 07.

- b) When provisioning NT6X50AA and/or NT6X85AB on even numbered LTCs, the provisioning order is as follows:

(From first to last) 18-05 to 18-01, 32-05 to 32-01.

When provisioning these cards on odd numbered LTCs, begin with 51-05 and end with 65-01.

DS1 and DS30A port assignments cannot overlap. For even numbered LTCs, if 18-06 and 32-06 are equipped with NT6X48AA, 32-01 to 32-05 cannot be equipped with NT6X50AA or NT6X85AB. Conversely if NT6X50AA or NT6X85AB are equipped in any of 32-01 to 32-05, then 18-06 and 32-06 cannot be equipped with NT6X48AA. The same rules apply to positions 18-07 and 32-07, and to positions 18-01 to 18-05.

For odd numbered LTCs the same rules regarding port overlap apply, but refer to shelf 51 in place of 18 and 65 in place of 32.

- RUL4 1) Provide one per circuit pack provisioned of the appropriate label. (PEC code on label should be the same as the circuit pack provisioned.)
- 2) Stick label on shelf upper designation strip in the appropriate position.
- RUL5 1) Provide one (1) NT0X50AA Filler Face Plate for each unequipped position 9,13,17 and 23 per NT7X33GJ Common Circuit Pack Fill.
- RUL6 1) Provide two (2) NT2X70AD/AE circuit packs per NT7X33GJ/GK Common Circuit Pack Fill.
- RUL7 1) Provide four (4) NT6X40AA circuit packs per NT7X33GK SMR Common Circuit Pack Fill, in CP POS 22 and 23,
- 2) Provide two (2) NT6X40AC circuit packs per NT7X33GJ/GK LTC/SMU Common Circuit Pack Fill, in CP POS 22,
- 3) Provide two (2) NT6X40BA circuit pack per NT7X33GJ/GK LTC/SMS Common Circuit Pack Fill, in CP POS 22.
- RUL8 1) Provide a minimum of two (2) to a maximum of four (4) NT6X48AA circuit packs per NT7X33GJ/GK as per customer requirements.

- RUL9 1) Provide a minimum of two (2) to a maximum of four (4) NT6X92BB UTR circuit packs per NT7X33GJ when MF or DT receivers are required.
- RUL10 1) Provide a maximum of ten (10) NT6X85AB DS1 Interface Circuit Packs per NT7X33GK Common CP Fill as per customer requirements.
- RUL11 1) Provide four (4) NT6X45AC LGC/DTC circuit packs per NT7X33GK SMS/SMR Common CP Fill, in CP POS 8 and 12,
2) Provide four (4) NT6X45BA LGC/DTC circuit packs per NT7X33GJ/GK LTC/SMU Common CP Fill, in CP POS 8 and 12.
- RUL12 1) Provide circuit packs per NT7X33GJ or NT7X33GK Common CP Fills as per table below. A given feature must be provided in both shelves of the module; e.g., in SHF POS 18 and 32 or in 51 and 65.

CIRCUIT PACK POSITION		FEATURE
NT6X44AB	18-14 32-14 51-14 65-14	LINE TRUNK CONTROLLER (LTC)
NT6X69AA/AB	18-18 32-18 51-18 65-18	PROVIDE NT6X79AA IN POS 19 IF NT6X69AA IS PROVISIONED IN POS 18. PROVIDE NT0X50AA FILLER IN POS 19, IF NT6X69AB IS PROVISIONED IN POS 18.
NT6X79AA OR NT0X50AA	18-19 32-19 51-19 65-19	
NT6X81BA	18-13 32-13 51-13 65-13	SUBSCRIBER MODULE REMOTE or SUBSCRIBER CARRIER
NT6X44AB	18-14 32-14	

	51-14 65-14	MODULE RURAL (SMR)
NT6X43AA	18-18 32-18 51-18 65-18	
NT6X80AA	18-19 32-19 51-19 65-19	

CIRCUIT PACK POSITION		FEATURE
NT6X86AA	18-13 32-13 51-13 65-13	SUBSCRIBER CARRIER MODULE FOR SLC-96 (SMS)
NT6X44AB	18-14 32-14 51-14 65-14	
NT6X43AA	18-18 32-18 51-18 65-18	
NT6X80AA	18-19 32-19 51-19 65-19	

CIRCUIT PACK POSITION		FEATURE
NT6X86AA	18-13 32-13 51-13 65-13	SUBSCRIBER MODULE URBAN (SMU)
NT6X44CA	18-14 32-14	

	51-14 65-14	
NT6X69AB	18-18 32-18 51-18 65-18	
NT6X80BA	18-19 32-19 51-19 65-19	

- RUL13 1) Provide Connector Key Bracket P0638261 on SHELF POS 18 and 51, CP POS 06 and 07 REAR (on all LTCs). This is required for the porting and for the connections to the DS30A ports of the LTC module. The terminations to the DS30A ports of the LTC module are made by connectors A,B,C,D,E,F. Connectors A and D must always be connected. The relationship is shown below (for the Vintage 2 version).

SYSTEM	DS30A PORTS
2 PORT	A,D
3 PORT	A,B,D
4 PORT	A,B,C,D
5 PORT	A,B,C,D,E
6 PORT	A,B,C,D,E,F

- RUL14 1) Provide two (2) NT6X46BA CP per NT7X33GJ/GK Common CP Fill.
- 2) Provide two (2) NT6X46AB CP for SMS,SMR per NT7X33GK Common CP Fill. Provide two (2) NT6X1205 CPC Backpanel Paddle Boards when CP POS 11 is equipped with two (2) NT6X46AB per NT7X33GK SMS,SMR Common CP Fill.
- RUL15 1) Provide one (1) NT0X50AA Filler Face Plate for each unequipped CP position 09,15,16, and 17 per NT7X33GK Common CP Fill.
- RUL16 1) Provide a quantity of two (2) of each cable.

LTC COMMON CIRCUIT PACK FILL

PEC CODE: NT7X33GJ

CPC CODE: B0230840

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X33GJ is the common circuit pack fill
for the LTC application on the PCTM Frame
NT7X33AD.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X33GJ EMR12-02-LTC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The LTC Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MP Memory Plus CP	NT6X47AB		1	X+14	10	AP
Channel Supervision MGS CP	NT6X42AA		1	X+14	20	AP
Speech Bus Formatter CP	NT6X41AA		1	X+14	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP
Design Strip (NT7X30AC)	P0701256		1	X+14	1	AP
MP Memory Plus CP	NT6X47AB		1	X	10	AP
Channel Supervision MSG CP	NT6X42AA		1	X	20	AP
Speech Bus Formatter CP	NT6X41AA		1	X	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP
Design Strip (NT7X30AC)	P0701256		1	X	1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X33GJ can be assigned on the frame to shelf mounting positions 65 and 51 and the other to shelf mounting positions 32 and 18. For one module, X=18 and for the other module, X=51.
- 2) For more information on the frame, refer to the section on NT7X33AD.

RULES:

AP 1) When PEC NT7X33GJ is ordered, these items are provided.

SMR/SMS/SMU COMMON CIRCUIT PACK FILL

PEC CODE: NT7X33GK

CPC CODE: B0230841

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X33GK is the common circuit pack fill
for the SMR/SMS/SMU application on the PCTM
Frame NT7X33AD.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X33GK EMR12-02-SMS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The SMR/SMS/SMU Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MP Memory Plus CP	NT6X47AB		1	X+14	10	AP
Channel Supervision MGS CP	NT6X42AA		1	X+14	20	AP
Speech Bus Formatter CP	NT6X41AA		1	X+14	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X+14	24	AP
Design Strip (NT7X30AC)	P0701256		1	X+14	1	AP
MP Memory Plus CP	NT6X47AB		1	X	10	AP
Channel Supervision MGS CP	NT6X42AA		1	X	20	AP
Speech Bus Formatter CP	NT6X41AA		1	X	21	AP
Filler Face Plate 0.875	NT0X50AA		1	X	24	AP
Design Strip (NT7X30AC)	P0701256		1	X	1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X33GK can be assigned on the frame to shelf mounting positions 65 and 51, and the other to shelf mounting positions 32 and 18. For one module, X=18 and for the other module, X=51.
- 2) For more information on the frame, refer to the section on NT7X33AD.

RULES:

AP 1) When PEC NT7X33GK is ordered, these items are provided.

PACKAGED CORE LINE MODULE FRAME

PEC CODE: NT7X38AB

CPC CODE: B0230986

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCLM

ENGINEERING DESCRIPTION: The NT7X38AB is a frame which houses two (2) Line Concentrating Modules (LCM). It is used in the DMS-100P application.

REFERENCE DOCUMENTATION: MS7X38AB

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X38AB EMR12-03-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Line Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LCE Frame Supervisory Panel Ringing Generator CP	NT6X35AA NT6X30AA	FSP	1	72 72		AP RUL4
PCLM Shelf Assembly Line Drawer (Domestic)	NT7X3801 NT6X05AA	LD	1	55 55		AP RUL1
LCM Common Circuit Pack Fill (Domestic)	NT6X04AB	LCM1		38		RUL3
PCLM Shelf Assembly Line Drawer (Domestic)	NT7X3801 NT6X05AA	LD	1	38 38		AP RUL1
PCLM Shelf Assembly Line Drawer (Domestic)	NT7X3801 NT6X05AA	LD	1	21 21		AP RUL1
LCM CP Fill (Domestic)	NT6X04AB	LCM0		04		RUL3
PCLM Shelf Assembly Line Drawer (Domestic)	NT7X3801 NT6X05AA	LD	1	04 04		AP RUL1
Cable Support Bracket	P0664130			00		RUL5
DMS PKG Earthquake FRWK	NT0X25AL		1			AP
Designation Labels, LSG No.	P0631765					RUL2

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) NT7X38AB is a single bay frame which can be equipped with up to two (2) independent Line Concentrating Modules (LCM).
- 2) One (1) LCM module is composed of two (2) shelves. Each PCLM can have up to two (2) LCMs. One LCM is located on shelf mounting positions 38 and 55, and the other is located on shelf mounting positions 04 and 21. The two (2) bare shelf assemblies do not become an LCM until they are equipped with one (1) NT6X04AB, LCM Common Circuit Pack Fill. Then the shelf assembly becomes a Line Concentrating Array Shelf (LCA) that can house up to five (5) Line Drawers. Within each LCM, the lower LCA is LCA 0 and the upper LCA is LCA 1.
- 3) One (1) Frame Supervisory Panel, NT6X35AA always contains one (1) FSP Alarm CP, NT6X36AA. 4) Frames PCLM 00 to PCLM 05 are in one (1) frame lineup (i.e. the second frame lineup). Frames PCLM 06 to PCLM 11 are in one (1) frame lineup (i.e. the third frame lineup).

RULES:

- AP 1) When PEC NT7X38AB is ordered, these items are provided.
- RUL1 1) Provide one (1) Line Drawer (NT6X05AA) to accommodate up to sixty-four (64) Line Cards in two (2) logical drawers called Line Sub Group (LSG). Line Drawers are positioned in drawer positions 01-05 on each PCLM shelf assembly.
- 2) There can be a maximum of ten (10) LDs per Line Concentrating Module (LCM), and a maximum of twenty (20) LDs per PCLM Frame.
- 3) Mounting positions are as follows:

LCM Module	LD SHF POS	LSG
XX	55 38	10-19 00-09
XX	21 04	10-19 00-09

where XX is an even number for the lower positioned LCM module mounted on the PCLM Frame.

where XX is an odd number for the higher positioned LCM module mounted on the PCLM Frame.

The LCM are numbered from the bottom up in ascending order.

The even numbered lower positioned LCM module is equal to two (2) times the PCLM frame number (i.e. PCLM 00 LCM 00, PCLM 01 LCM 02, PCLM 02 LCM 04, ..., PCLM 11 LCM 22).

RUL2 1) Provide one (1) P0631765 per PCLM Frame provided. Each item contains LSG designation numbers for twenty (20) Line Sub Groups (00 through 19) housed in ten (10) Line Drawers.

RUL3 1) Provide one (1) NT6X04AB, LCM Common Circuit Pack Fill, for each LCM module equipped in the PCLM Frame.

RUL4 1) Provide two (2) NT6X30AA, Ringing Generator CP, if analogue ringing is required. Data Units and Business Sets do not require analogue ringing. Ringing type and level is set by switch settings in the Ringing Generators.

2) Even if there is only one (1) LCM per frame and if analogue ringing is required, then provide two (2) Ringing Generators. Normally one (1) Ringing Generator serves one (1) LCM. Under failure condition, the remaining good Ringing Generator can serve the two (2) LCMs. 3) The NT6X30AA Ringing Generator for domestic applications contains the following always provided circuit packs:

1 NT6X37AA Ringing Amplifier CP
1 NT6X38AA Ringing Control CP

Provide spare NT6X30AA, Ringing Generator.

4) The two (2) Ringing Generators are positioned horizontally within the FSP top cavity and occupy the whole frame width.

RUL5 1) Provide one (1) P0664130, Cable Support Bracket per NT7X38AB, PCLM Frame provided. Mount in SHF POS 00. This item is to be shipped loose.

PACKAGED CORE INTERFACE MODULE FRAME

PEC CODE: NT7X45AB

CPC CODE: B0230987

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCIM

ENGINEERING DESCRIPTION: For DMS-100P Vintage 1 Offices, the NT7X45AB (i.e. PCIM 00) is a frame which houses two (2) Packaged Trunk Modules (i.e. PTM 04 and PTM 05) and two (2) Inverters (i.e. INV 00 and INV 01). For DMS-100P Vintage 2 Offices, the NT7X45AB (i.e. PCIM 00) is a frame which houses one (1) Packaged Trunk Module (i.e. PTM 04), one (1) Trunk Module 8 Wire (i.e. TM8 00), and two (2) Inverters (i.e. INV 00 and INV 01). It is used in the DMS-100P application.

REFERENCE DOCUMENTATION: MS7X45AB 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X45AB EMR12-04-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Interface Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS PKG Earthquake FRWK	NT0X25AL		1			AP
Cage Filler Panel Assembly	NT0X84AA			65		RUL7
Cage Filler Panel Assembly	NT0X84AA			51		RUL7
DNPC Frame Supervisory Panel	NT7X34AA	FSP	1	45		AP
10 AMP Dist Fusing (F01-F04)	NT0X42AJ		4	45		AP
Fuse 1 1/3 AMP (F05-F06)	QFF1A		2	45		AP
Dummy Fuse (F07-F12)	QFF3A		6	45		AP
PTM Shelf Assembly	NT7X3501		1	32		AP
PCIM Common CP Fill	NT7X45GC			32		RUL1
PCIM Common CP Fill	NT7X45GD			32		RUL2
Miscellaneous Scan CP	NT0X10AA			32	05-11	RUL5
Signal Distribution Card	NT2X57AA			32	05-11	RUL3
Line Test Unit Analog CP	NT2X10AB			32	05-13	RUL6
Line Test Unit Digital CP	NT2X11AA			32	06-14	RUL6
Test Signal Generator	NT1X90AA			32	05-15	RUL10
PCM Level Meter CP	NT2X96AA			32	06-16	RUL10
Transmission Test Unit Cont	NT2X47AC			32	05-15	RUL12
TTM Digital Filter CP	NT2X56AB			32	06-16	RUL12
Jack Ended Trunk CP	NT1X54AA			32	05-14	RUL15
Transmission Term. Trunk CP	NT2X71AA			32	05-16	RUL14
Loop Around Test Line CP	NT2X75AA			32	05-16	RUL13
Remote Office Test Line CP	NT3X91AA			32	05-14	RUL9
2-W O/G Rev Batt. Trunk CP	NT2X83AA			32	05-14	RUL19
Incom/Out Test Trunk CP	NT2X90AC			32	05-14	RUL16
101 Communication Test Line	NT5X30AA			32	05-14	RUL17
Comp Balance Ntwrk, 900 Ohm	NT2X77AA			32	05-14	RUL8
Filler Face Plate 1.12	NT0X50AC			32	05-16	RUL18
Power Conv +/-5V & 12V CP	NT2X70AE			32	20	RUL23
PTM Shelf Assembly	NT7X3501		1	18		AP
PCIM Common CP Fill	NT7X45GC			18		RUL1
PCIM Common CP Fill	NT7X45GD			18		RUL2
Miscellaneous Scan CP	NT0X10AA			18	05-11	RUL5
Signal Distribution Card	NT2X57AA			18	05-11	RUL3
Line Test Unit Analog CP	NT2X10AB			18	05-13	RUL6
Line Test Unit Digital CP	NT2X11AA			18	06-14	RUL6
Test Signal Generator CP	NT1X90AA			18	05-15	RUL10
PCM Level Meter CP	NT2X96AA			18	06-16	RUL10
Trans Test Unit Controller	NT2X47AC			18	05-15	RUL12

Retired Equipment
Packaged Core Interface Module Frame

NT7X45AB
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TTM Digital Filter CP	NT2X56AB			18	06-16	RUL12
Jack Ended Trunk CP	NT1X54AA			18	05-14	RUL15
Trans Termination Trunk CP	NT2X71AA			18	05-16	RUL14
Loop Around Test Line CP	NT2X75AA			18	05-16	RUL13
Remote Office Test Line CP	NT3X91AA			18	05-14	RUL9
2-W O/G Rev Batt Trunk CP	NT2X83AA			18	05-14	RUL19
Incom/Out Test Trunk CP	NT2X90AC			18	05-14	RUL16
101 Communication Test CO	NT5X30AA			18	05-14	RUL17
Comp Balance Ntwrk, 900 Ohm	NT2X77AA			18	05-14	RUL8
Optional Trunk Circuit	AR			18	05-14	RUL21
Designation Strip for TM8	P0686569			18		RUL22
Filler Face Plate 1.12	NT0X50AC			18	05-16	RUL18
Power Conv +/-5V & 12V CP	NT2X70AE			18	20	RUL23
Inverter Unit and Mounting Hardware	NT0X87AA P097F813 P0284154 P0183220			11		RUL20
Inverter Unit and Mounting Hardware	NT0X87AA P097F813 P0284154 P0183220			04		RUL20
Design. Label (NT0X10AA)	P0656328					RUL4
Design. Label (NT2X57AA)	P0656327					RUL4
Design. Label (NT2X10AB)	P0664835					RUL4
Design. Label (NT2X11AA)	P0664838					RUL4
Design. Label (NT1X90AA)	P0661423					RUL4
Design. Label (NT2X96AA)	P0661424					RUL4
Design. Label (NT2X47AC)	P0661421					RUL4
Design. Label (NT2X56AB)	P0661422					RUL4
Design. Label (NT1X54AA)	P0656330					RUL4
Design. Label (NT2X71AA)	P0661419					RUL4
Design. Label (NT2X75AA)	P0657680					RUL4
Design. Label (NT3X91AA)	P0656332					RUL4
Design. Label (NT2X83AA)	P0666378					RUL4
Design. Label (NT2X90AC)	P0667768					RUL4
Design. Label (NT5X30AA)	P0656329					RUL4
Design. Label (NT2X70AE)	P0698943					RUL4
Connectorized PTL 25P	NT0X26PK					RUL11
Cable E/W Two 25 Pin D-Sub Conn						

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PL					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PM					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PN					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PP					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PQ					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PR					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PS					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PT					RUL11
Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn	NT0X26PV					RUL11

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

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A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) For DMS-100P Vintage 1 Offices, the NT7X45AB (i.e. PCIM 00) is a frame which can house up to two (2) Packaged Trunk Modules (i.e. PTM 04 and PTM 05). It also accommodates two (2) Inverters (i.e. INV 00 and INV 01), and two (2) Cage Filler Panel Assemblies.
- 2) For DMS-100P Vintage 2 Offices, the NT7X45AB (i.e. PCIM 00) is a frame which can house one (1) Packaged Trunk Module (i.e. PTM 04) and one (1) Trunk Module 8 Wire (i.e. TM8 00). It also accommodates two (2) Inverters (i.e. INV 00 and INV 01), and two (2) Cage Filler Panel Assemblies.
- 3) For DMS-100P Vintage 1 Offices, mounting positions for the modules are as follows:

Module	SHF POS

PTM 04	32

PTM 05	18

- 4) For DMS-100P Vintage 2 Offices, mounting positions for the modules are as follows:

Module	SHF POS

PTM 04	32

TM8 00 18

RULES:

- AP 1) When PEC NT7X45AB is ordered, these items are provided.
- RUL1 1) Provide a minimum of one (1) or a maximum of two (2) NT7X45GC PCIM Common CP Fill per PCIM frame as per Customer requirements.
- RUL2 1) Provide one NT7X45GD per PTM shelf when the shelf is not to be equipped with NT7X45GC. NT7X45GD provides a full set of filler face plates for an unused PTM shelf.
- RUL3 1) For DMS-100P Vintage 1 Offices, provide NT2X57AA on PCIM00 when additional signal distributor points are required as follows:
- | SHF POS | CP POS |
|---------|--------|
| 32 | 05-11 |
| 18 | 05-11 |
- 2) For DMS-100P Vintage 2 Offices, provide NT2X57AA on PCIM00 when additional signal distributor points are required as follows:
- | SHF POS | CP POS |
|---------|--------|
| 32 | 05-11 |
- 3) NT2X57AA has two (2) circuits per pack, seven (7) SD points per circuit (i.e. fourteen (14) SD points). However, because of wiring limitations on this frame, only twelve (12) SD points are available in CP POS 11.
- RUL4 1) Provide one (1) Designation Label for each CP supplied. Stick the label on the shelf upper designation strip in the appropriate position.
- RUL5 1) For DMS-100P Vintage 1 Offices, provide NT0X10AA on PCIM00 when additional scan points are required as follows:

SHF POS CP POS

32 05-11

18 05-11

- 2) For DMS-100P Vintage 2 Offices, provide NT0X10AA on PCIM00 when additional scan points are required as follows:

SHF POS CP POS

32 05-11

- 3) NT0X10AA has two (2) circuits per pack, seven (7) scan points per circuit (i.e. fourteen (14) scan points). However, because of wiring limitations on this frame, only twelve (12) scan points are available in CP POS 11.

- RUL6 1) For each additional Line Test Unit (LTU) required, provide one (1) of each NT2X10AB and NT2X11AA.
- 2) For DMS-100P Vintage 1 Offices, provide NT2X10AB and NT2X11AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTU	NT2X47AC NT2X56AB	18-05 TO 18-15 (ODD) 18-06 TO 18-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	18-05 TO 18-15 (ODD) 18-06 TO 18-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)
LTU	NT2X10AB NT2X11AA	18-05 TO 18-13 (ODD) 18-06 TO 18-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated. 3) For DMS-100P Vintage 2 Offices, provide NT2X10AB and NT2X11AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated.

- RUL7 1) Provide one (1) NT0X84AA Cage Filler Panel Assembly for each SHF POS 65 and 51.
- RUL8 1) Provide two (2) NT2X77AA for each NT2X83AA provided. 2) Provide one (1) NT2X77AA for each NT2X90AC or NT5X30AA provided.
- RUL9 1) Provide NT3X91AA as per Customer requirements. Each NT3X91AA provides two (2) trunk circuits per card.
- RUL10 1) For each additional Transmission Test Trunk (TTT) required, provide one (1) of each NT1X90AA and NT2X96AA. 2) For DMS-100P Vintage 1 Offices, provide NT1X90AA and NT2X96AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTU	NT2X47AC	18-05 TO 18-15 (ODD)

	NT2X56AB	18-06 TO 18-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	18-05 TO 18-15 (ODD) 18-06 TO 18-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)
LTU	NT2X10AB NT2X11AA	18-05 TO 18-13 (ODD) 18-06 TO 18-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated.

- 3) For DMS-100P Vintage 2 Offices, provide NT1X90AA and NT2X96AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated.

- RUL11 1) Provide one (1) of each cable on the PCIM Frame.
- RUL12 1) For each additional Transmission Test Unit (TTU) required, provide one (1) of each NT2X47AC and NT2X56AB.

- 2) For DMS-100P Vintage 1 Offices, provide NT2X47AC and NT2X56AB in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTU	NT2X47AC NT2X56AB	18-05 TO 18-15 (ODD) 18-06 TO 18-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	18-05 TO 18-15 (ODD) 18-06 TO 18-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)
LTU	NT2X10AB NT2X11AA	18-05 TO 18-13 (ODD) 18-06 TO 18-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated. 3) For DMS-100P Vintage 2 Offices, provide NT2X47AC and NT2X56AB in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
TTT	NT1X90AA NT2X96AA	32-05 TO 32-15 (ODD) 32-06 TO 32-16 (EVEN)
LTU	NT2X10AB NT2X11AA	32-05 TO 32-13 (ODD) 32-06 TO 32-14 (EVEN)

One of each pair type or any combination of pair types may be provided as required as long as the two circuit packs comprising a pair type are adjacent and in the correct odd or even position as indicated.

RUL13 1) For measuring near to far end trunk transmission losses, provide NT2X75AA Loop Around Test Line Circuit Pack as per Customer requirements. NT2X75AA has one (1) circuit per card.

2) For DMS-100P Vintage 1 Offices, provide NT2X75AA as shown below:

SHF POS	CP POS

32	05-16

18	05-16

3) For DMS-100P Vintage 2 Offices, provide NT2X75AA as shown below:

SHF POS	CP POS

32	05-16

RUL14 1) When an AC open or short circuit test or balanced termination test is required to check the stability of trunks with negative impedance type repeaters, provide NT2X71AA Transmission Termination Trunk Circuit Pack as per Customer requirements. One circuit pack is required in each of the test source and test office.

2) For DMS-100P Vintage 1 Offices, provide NT2X71AA as shown below:

SHF POS	CP POS

32	05-16

18	05-16

3) For DMS-100P Vintage 2 Offices, provide NT2X71AA as shown below:

SHF POS	CP POS

32	05-16

- RUL15 1) When additional circuits are required to allow analogue (VF) test equipment to access the switching network, provide NT1X54AA Jack Ended Trunk Circuit Pack as per Customer requirements. NT1X54AA has two (2) circuits per card.
- RUL16 1) For test trunk access to No. 14 Local Test Desk (LTD) or No. 3 Local Test Cabinet (LTC), provide NT2X90AC Incoming/Outgoing Test Trunk Circuit Pack as per Customer requirements. NT2X90AC has one (1) circuit per card.
- 2) For required Compromise Balance Networks, see RUL8.
- RUL17 1) For additional 101 Communication Test Lines, provide NT5X30AA 101 Communication Test Line Circuit as per Customer requirements. NT5X30AA has one (1) circuit per card.
- 2) For required Compromise Balance Networks, see RUL8.
- RUL18 1) Provide one (1) NT0X50AC Filler Face Plate 1.12 for each card position 05 to 16 that is unequipped.
- RUL19 1) For Automatic Board to Board Testing (ABBT) or analogue interface, provide NT2X83AA Two Wire Outgoing Reverse Battery Trunk Circuit as per Customer requirements. NT2X83AA has two (2) circuits per card.
- 2) For required Compromise Balance Networks, see RUL8.
- RUL20 1) Provide an NT0X87AA Inverter Unit on each of SHF POS 11 and 04.
- 2) For each NT0X87AA, provide the following Mounting Hardware:
- | | |
|----------|---|
| P097F813 | 4 |
| P0284154 | 1 |
| P0183220 | 1 |
- Since Isolated System Grounding (ISG) is not a requirement for the Inverter Units on this frame, discard Mounting Hardware NT0X0013 which is supplied with NT0X87AA. The above Mounting Hardware is used instead. Ground upper right hand corner of the Inverter Unit.
- RUL21 1) For DMS-100P Vintage 2 Offices, provide up to ten (10) trunk circuit packs as per Customer requirements from the following table:
- Trunk Circuits for TM8

Trunk Circuit Packs Description	PEC	CP POS
Trunk Inc. MF/DP RB Supv. 2W 900 Ohm	NT2X82AA	POS - 05 TO POS - 14
Trunk Outg. DP RB Supv. 2W 900 Ohm	NT2X83AA	
Recording Completing Trunk HI-LO T&R Coin	NT2X85AA	
2Wire Outgoing MF, RB Supv. 900 Ohm	NT2X92AA	
2Way PBX Trunk DID/DOD	NT2X95AA	
2Wire Incoming MF/DP RB Supv. Sleeve Control 900 Ohm	NT2X98AA	
101 Communication Test Line Ckt.	NT5X30AA	
Jack Ended Trunk CP	NT1X54AA	POS - 05 TO POS - 10, POS - 12 TO POS - 14
CAMA Position Signal Trunk	NT2X65AA	
CAMA Suspension & Calls Waiting Loop or E&M	NT2X66AA	
4Wire E&M, Type 1 Interface 600 Ohm	NT2X72AA	
4Wire E&M 600 Ohm Echo Supr. Control- ler	NT2X72AB	

Trunk Circuits for TM8 (cont.)

Trunk Circuit Packs Description	PEC	CP POS

4Wire E&M Echo Control, Low Gain	NT2X72AC	POS - 05 T0 POS - 10, POS - 12 T0 POS - 14
Trunk 4Wire SF Signal	NT2X78AA	
Trunk 2Wire E&M 900 Ohm	NT2X81AA	
Trunk 2Wire E&M 600 Ohm	NT2X81AB	
Toll Switch Trunk 3rd W Coin FX Ring	NT2X86AA	
Trunk 4Wire E&M 600 Ohm	NT2X88AA	
I/O Test Trunk	NT2X90AC	
Incoming Test Trunk For AECO Local Test Board Interface	NT3X04AA	
2Wire Outgoing Trk. AE/3CL	NT3X06AA	
2Wire Incoming Trk. Colocated AE/3CL	NT3X07AA	
Remote Office Test Line	NT3X91AA	

RUL22 1) When circuit packs are provided as per RUL21, provide one (1) P0686569 Designation Strip for TM8 on top of SHF POS 18.

RUL23 1) For each NT7X45GC PCIM Common CP Fill required, provide one (1) NT2X70AA or NT2X70AE Power Conv +/-5V & 12V CP.

PCIM COMMON CIRCUIT PACK FILL

PEC CODE: NT7X45GC

CPC CODE: B0231042

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X45GC is a common circuit pack fill
for the PTM shelf on the PCIM Frame
NT7X45AB.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X45GC EMR12-04-PTM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCIM Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Trk Module Interface	NT2X45AB		1	X	01	AP
Trunk Module Processor CP	NT0X70AA		1	X	02	AP
TM Control CP	NT2X53AA		1	X	03	AP
TM Group Codec CP	NT2X59AA		1	X	04	AP
Multi O/P PWR Converter CP	NT2X09AA		1	X	17	AP
Filler Face Plate 0.875	NT0X50AA		1	X	19	AP
Design Strip (NT7X45AA)	P0664834		1	X	1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X45GC can be assigned on the frame to shelf mounting position 32 (PTM 04) and the other to shelf mounting position 18 (PTM 05). For PTM 04, X=32 and for PTM 05, X=18.
- 2) For more information on the frame, refer to the section on NT7X45AB.

RULES:

- AP 1) When PEC NT7X45GC is ordered, these items are provided.

PCIM COMMON CIRCUIT PACK FILL

PEC CODE: NT7X45GD

CPC CODE: B0231080

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X45GD is a common circuit pack fill
for the PTM shelf on the PCIM Frame
NT7X45AB.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X45GD EMR12-04-PTM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCIM Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 1.125	NT0X50AC		4	X	01-04	AP
Filler Face Plate 1.75	NT0X50AF		1	X	17	AP
Filler Face Plate 0.875	NT0X50AA		1	X	19	AP
Filler Face Plate 2.62	NT0X50AE		1	X	20	AP
Design Strip (NT7X45AA)	P0664839		1	X	1	AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X45GD can be assigned on the frame to shelf mounting position 32 (PTM 04) and the other to shelf mounting position 18 (PTM 05). For PTM 04, X=32 and for PTM 05, X=18.
- 2) For more information on the frame, refer to the section on NT7X45AB.

RULES:

- AP 1) When PEC NT7X45GD is ordered, these items are provided.

PACKAGED CORE POWER MODULE FRAME

PEC CODE: NT7X24AD

CPC CODE: B0230985

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCPM

ENGINEERING DESCRIPTION: The NT7X24AD (i.e. PCPM 00) is a frame which houses four (4) Power Distribution Centre (PDC) panels and two Packaged Trunk Modules (i.e. PTM 00 and PTM 01). The PDC panels provide DC power fusing for the first frame lineup of the DMS-100 Packaged Switch.

REFERENCE DOCUMENTATION: MS7X24AD 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X24AD EMR12-05-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Power Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Plate Assembly	NT7X2410		1	72		AP
Fuse Panel "A" Feed	NT0X42AB		1	68		AP
Fuse Panel "B" Feed	NT0X42AC		1	64		AP
Fuse Panel "A" Feed	NT0X42AB		1	60		AP
Fuse Panel "B" Feed	NT0X42AC		1	56		AP
Filter Panel	NT0X42AG		1	51		AP
PCPM Frame Supervisory Panel	NT7X34BA		1	45		AP
10 AMP Dist Fusing (F01-F03)	NT0X42AJ		3	45		AP
PTM Shelf Assembly	NT7X3501		1	32		AP
Filler Face Plate 1.12	NT0X50AC			32	05	RUL14
OAU Alarm Transfer	NT3X83AA			32	06	RUL12
OAU Alarm Sending	NT3X84AA			32	06	RUL12
Filler Face Plate 1.12	NT0X50AC			32	15, 16	RUL6
Power Conv +/-5V & 12V CP	NT2X70AD			32	20	RUL13
Power Conv +/-5V & 12V CP	NT2X70AE			32	20	RUL13
Design. Label (NT0X50AC)	P0580258			32		RUL3
Design. Label (NT2X70AE)	P0698943			32		RUL3
Design. Label (NT3X84AA)	P0670780			32		RUL3
PTM Shelf Assembly	NT7X3501		1	18		AP
Filler Face Plate 1.12	NT0X50AC			18	05, 13	RUL14
Filler Face Plate 1.12	NT0X50AC			18	14-16	RUL6
Jack Ended Trunk CP	NT1X54AA			18	14-16	RUL7
Comp. Balance Net., 900 OHM	NT2X77AA			18	14-16	RUL8
101 Communication Test Line	NT5X30AA			18	14-16	RUL9
Loop Around Test Line CP	NT2X75AA			18	14-16	RUL10
Transmission Term. Trunk CP	NT2X71AA			18	14-16	RUL11
Trans. Test Unit Control CP	NT2X47AC			18	15	RUL2
Test Signal Generator 1 CP	NT1X90AA			18	15	RUL4
TOPS Control Processor CP	NT3X02AA			18	15	RUL5
TTM Digital Filter CP	NT2X56AB			18	16	RUL2
PCM Level Meter CP	NT2X96AA			18	16	RUL4
TOPS Digital Signal Proc CP	NT3X03AA			18	16	RUL5
Power Conv +/-5V & 12V CP	NT2X70AE			18	20	RUL13
Design. Label (NT0X50AC)	P0580258			18		RUL3
Design. Label (NT1X54AA)	P0656330			18		RUL3
Design. Label (NT1X90AA)	P0661423			18		RUL3

Retired Equipment
Packaged Core Power Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Design. Label (NT2X56AB)	P0661422			18		RUL3
Design. Label (NT2X47AC)	P0661421			18		RUL3
Design. Label (NT2X70AE)	P0698943			18		RUL3
Design. Label (NT2X71AA)	P0661419			18		RUL3
Design. Label (NT2X75AA)	P0657680			18		RUL3
Design. Label (NT2X96AA)	P0661424			18		RUL3
Design. Label (NT3X02AA)	P0661202			18		RUL3
Design. Label (NT3X03AA)	P0661203			18		RUL3
Design. Label (NT5X30AA)	P0656329			18		RUL3
Filler Panel	P0575239		1	04		AP
DMS PKG Earthquake Frwk	NT0X25AL		1			AP
PCPM Common CP Fill	NT7X24GD					RUL1
Conn PTL 25P Cable	NT0X26JA					RUL15
Conn PTL 25P Cable	NT0X26JB					RUL15
Conn PTL 25P Cable	NT0X26JC					RUL15
Conn PTL 25P Cable	NT0X26JD					RUL15
Conn PTL 25P Cable	NT0X26JE					RUL15

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

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Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The NT7X24AD (i.e. PCPM 00) is a frame which can house up
to two (2) Packaged Trunk Modules (i.e. PTM 00 and PTM 01).

It also accommodates four (4) Power Distribution Centre (PDC) panels. 2) Mounting positions for the PTMs are as follows:

Module SHF POS

PTM 00 32

PTM 01 18

- 3) PCPM 00 provides power for the first frame lineup for the following frames:

PCSM 00, PCTM 00, PCTM 01, PCTM 02

RULES:

- AP 1) When PEC NT7X24AD is ordered, these items are provided.
- RUL1 1) Provide one NT7X24GD PCPM Common Circuit Pack Fill per frame.
- RUL2 1) Provide one NT2X47AC and one NT2X56AB for each additional Transmission Test Unit required.
- 2) These circuit packs are to be provided in pairs in adjacent odd and even positions as shown:

Pair Type	PEC	Shelf Position
TTU	NT2X47AC NT2X56AB	18-15 18-16

These two circuit packs comprise a pair type and must be adjacent and in the correct odd or even position as indicated.

- RUL3 1) Provide one per circuit pack provisioned of the appropriate label. (NT PEC code on label should be the same as the circuit pack provisioned).
- 2) Stick the label on the shelf upper designation strip in the appropriate position.

- RUL4 1) Provide one NT1X90AA and one NT2X96AA for additional Transmission Termination Trunks required.
- 2) These circuit packs are to be provided in pairs in adjacent odd and even positions as shown:

Pair Type	PEC	Shelf Position
TTT	NT1X90AA NT2X96AA	18-15 18-16

These two circuit packs comprise a pair type and must be adjacent and in the correct odd or even position as indicated.

- RUL5 1) Provide one NT3X02AA and one NT3X03AA to provide additional TOPS data channels. (One pair required for each four TOPS positions/TOPS TTYs served).
- 2) These circuit packs are to be provided in pairs in adjacent odd and even positions as shown:

Pair Type	PEC	Shelf Position
TOPS	NT3X02AA NT3X03AA	18-15 18-16

These two circuit packs comprise a pair type and must be adjacent and in the correct odd or even position as indicated.

- RUL6 1) Provide one Filler Face Plate for each unequipped circuit pack position.
- RUL7 1) Provide NT1X54AA when additional circuits are required for access to switching network for analog (VF) test equipment. (Two circuits per pack). Shelf POS 18-14,15,16.
- RUL8 1) Provide one NT2X77AA for each NT5X30AA provided.
- RUL9 1) Provide a 101 Communication Test Line Circuit (NT5X30AA) when additional test lines are required. (See RUL8).

- RUL10 1) Provide as required when Loop Around Test Line is required for measuring near to far trunk transmission losses. (One Loop Around Test Line Circuit per pack).
- RUL11 1) Provide for an AC open or short termination test to check stability of trunks with negative impedance type repeaters.
- RUL12 1) Provide as required for one office alarm system NT3X83AA (OAU Alarm Transfer) or NT3X84AA (OAU Alarm Sending).
- RUL13 1) Provide two (2) NT2X70AD/AE Power Converter CP per NT7X24GD Common Circuit Pack Fill.
- RUL14 1) Provide one (1) NT0X50AC Filler Face Plate for each unequipped position 18-05,13 and 32-05 per NT7X24GD Common Circuit Pack Fill.
- RUL15 1) Provide one Connectorized PTL 25P Cable E/W Two 25 Pin D-Sub Conn per frame.

PCPM COMMON CIRCUIT PACK FILL

PEC CODE: NT7X24GD

CPC CODE: B0231041

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X24GD is the common circuit pack fill
for the PCPM Frame NT7X24AD.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X24GD EMR12-05-PCPM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCPM Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
20A Distribution Fusing	NT0X42AK		5	60	F00, F04-F07	AP
15AMP Distribution Fusing	NT0X42AQ		1	60	F08	AP
10A Dist Fusing	NT0X42AJ		1	60	F14	AP
Design Strip (NT7X24AC)	P0663280		1	60		AP
20A Distribution Fusing	NT0X42AK		4	56	F04-F07	AP
10A Distribution Fusing	NT0X42AJ		1	56	F14	AP
Design Strip (NT7X24AC)	P0663281		1	56		AP
Trk Module Interface	NT2X45AB		1	32	01	AP
Trunk Module Processor CP	NT0X70AA		1	32	02	AP
TM Control CP	NT2X53AA		1	32	03	AP
TM Group Codec CP	NT2X59AA		1	32	04	AP
Misc Scan Card CP	NT0X10AA		1	32	07	AP
Sig Dist Card CP	NT2X57AA		1	32	08	AP
Trans Tst Unit Controller	NT2X47AC		1	32	09	AP
TTM Digital Filter CP	NT2X56AB		1	32	10	AP
Test Signal Generator 1	NT1X90AA		1	32	11	AP
PCM Level Meter	NT2X96AA		1	32	12	AP
Loop Around Test Line	NT2X75AA		1	32	13	AP
Trans. Termination Trunk	NT2X71AA		1	32	14	AP
Multi O/P Pwr Converter	NT2X09AA		1	32	17	AP
Filler Face Plate 0.875	NT0X50AA		1	32	19	AP
Design Strip (NT7X24AC)	P0686281		1	32		AP
Trk Module Interface	NT2X45AB		1	18	01	AP
Trunk Module Processor CP	NT0X70AA		1	18	02	AP
TM Control CP	NT2X53AA		1	18	03	AP
TM Group Codec CP	NT2X59AA		1	18	04	AP
101 Commun. Test Lamp	NT5X30AA		3	18	06-08	AP
Compro. Bal Ntwk 900 Ohm	NT2X77AA		3	18	06-08	AP
Jack Ended Trunk CP	NT1X54AA		2	18	09,12	AP
Misc Scan Card CP	NT0X10AA		1	18	10	AP
Sig Dist Card CP	NT2X57AA		1	18	11	AP
Multi O/P Pwr Converter	NT2X09AA		1	18	17	AP
Filler Face Plate 0.875	NT0X50AA		1	18	19	AP
Design Strip (NT7X24AC)	P0686282		1	18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X24GD can be assigned on the frame.
- 2) For more information on the frame, refer to the section on NT7X24AD.

RULES:

- AP 1) When PEC NT7X24GD is ordered, these items are provided.

PACKAGED CORE BASIC MODULE FRAME

PEC CODE: NT7X46AD

CPC CODE: B0230988

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCBM

ENGINEERING DESCRIPTION: The NT7X46AD (PCBM 00) is a frame which houses four (4) Power Distribution Centre (PDC) panels and two (2) Packaged Trunk Modules (i.e. PTM 02 and PTM 03). The PDC panels provide DC power fusing for the second frame lineup of the DMS-100 Packaged Switch.

REFERENCE DOCUMENTATION: MS7X46AD 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X46AD EMR12-06-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Basic Module Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Plate Assembly	NT7X2410		1	72		AP
Fuse Panel "A" Feed	NT0X42AB		1	68		AP
Fuse Panel "B" Feed	NT0X42AC		1	64		AP
Fuse Panel "A" Feed	NT0X42AB		1	60		AP
Fuse Panel "B" Feed	NT0X42AC		1	56		AP
Filter Panel	NT0X42AG		1	51		AP
PCPM Frame Supervisory Panel	NT7X34BA		1	45		AP
10A Distribution Fusing (F01-F02)	NT0X42AJ		2	45		AP
PCBM Common CP Fill	NT7X46GC		1	18		RUL1
PTM Shelf Assembly	NT7X3501			32		AP
Remote MTA CP	NT3X09AA			32	12-16	RUL6
Remote MTA 8X8 Matrix	NT3X09BA			32	12-16	RUL6
MTA Connect. Modifications	NT7X46AC			32		RUL16
Metallic Test Access Wiring (NT3X09BA)	NT7X46WA					RUL15
Filler Face Plate 1.12	NT0X50AC			32	11-16	RUL5
Power Conv +/-5V & 12V CP	NT2X70AE			32	20	RUL17
Design. Label (NT2X70AE)	P0698943			32		RUL3
Design. Label (NT3X09AA)	P0653638			32		RUL3
Design. Label (NT3X09BA)	P0664847			32		RUL3
PTM Shelf Assembly	NT7X3501		1	18		AP
Remote MTA CP	NT3X09AA			18	16	RUL6
Remote MTA 8X8 Matrix	NT3X09BA			18	16	RUL6
MTA Connect. Modifications	NT7X46AC			18		RUL16
Jack Ended Trunk CP	NT1X54AA			18	09, 13-15	RUL2
Trans. Termination Trunk CP	NT2X71AA			18	09, 13-15	RUL4
Loop Around Test Line CP	NT2X75AA			18	09, 13-15	RUL9
Incom/Out Test Trunk CP	NT2X90AC			18	13-15	RUL13
101 Communication Test Line	NT5X30AA			18	09, 13-15	RUL7
Test Line Circuit Pack						
Compromise Balance Network, 900 Ohm	NT2X77AA			18	09, 13-15	RUL8

Retired Equipment
Packaged Core Basic Module Frame

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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TOPS Control Processor CP	NT3X02AA			18	13	RUL10
TOPS Digital Signal Proc CP	NT3X03AA			18	14	RUL10
Trans. Test Unit Control CP	NT2X47AC			18	13	RUL11
TTM Digital Filter CP	NT2X56AB			18	14	RUL11
Test Signal Generator CP	NT1X90AA			18	13	RUL12
PCM Level Meter CP	NT2X96AA			18	14	RUL12
Filler Face Plate 1.12	NT0X50AC			18	09, 13-16	RUL5
Power Conv +/-5V & 12V CP	NT2X70AE			18	20	RUL17
Design. Label (NT1X54AA)	P0656330			18		RUL3
Design. Label (NT1X90AA)	P0661423			18		RUL3
Design. Label (NT2X47AC)	P0661421			18		RUL3
Design. Label (NT2X56AB)	P0661422			18		RUL3
Design. Label (NT2X70AE)	P0698943			18		RUL3
Design. Label (NT2X71AA)	P0661419			18		RUL3
Design. Label (NT2X75AA)	P0657680			18		RUL3
Design. Label (NT2X90AC)	P0667768			18		RUL3
Design. Label (NT2X96AA)	P0661424			18		RUL3
Design. Label (NT3X02AA)	P0661202			18		RUL3
Design. Label (NT3X03AA)	P0661203			18		RUL3
Design. Label (NT3X09AA)	P0653638			18		RUL3
Design. Label (NT3X09BA)	P0664847			18		RUL3
Design. Label (NT5X30AA)	P0656329			18		RUL3
DMS PKG Earthquake FRWK	NT0X25AL		1			AP
Connectorized PTL 10P 26	NT0X26QG					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26QH					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26QJ					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26QK					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26QL					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26VS					RUL14
Cable CA Assembly E/W						
One 25 Pin Connector						
Connectorized PTL 10P 26	NT0X26QM					RUL14

Retired Equipment
Packaged Core Basic Module Frame

NT7X46AD
EMR12-06-000
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EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cable CA Assembly E/W One 25 Pin Connector						
Conn PTL 25P Cable E/W	NT0X26JA					RUL14
Two 25 Pin D Sub Conn						
Conn PTL 25P Cable E/W	NT0X26JB					RUL14
Two 25 Pin D Sub Conn						
Conn PTL 25P Cable E/W	NT0X26JC					RUL14
Two 25 Pin D Sub Conn						
Conn PTL 25P Cable E/W	NT0X26JD					RUL14
Two 25 Pin D Sub Conn						
Conn PTL 25P Cable E/W	NT0X26JE					RUL14
Two 25 Pin D Sub Conn						

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

1) The NT7X46AD (i.e. PCBM 00) is a frame which can house up
to two (2) Packaged Trunk Modules (i.e. PTM 02 and PTM 03).
It also accommodates four (4) Power Distribution Centre
(PDC) panels.

2) Mounting positions for the PTMs are as follows:

Module SHF POS

PTM 02 32

PTM 03 18

- 3) PCBM 00 provides power for the second frame lineup for the following frames:

PCIM 00, PCLM 00, PCLM 01, PCLM 02, PCLM 03, PCLM 04,
PCLM 05

RULES:

- AP 1) When PEC NT7X46AD is ordered, these items are provided.
- RUL1 1) Provide one (1) NT7X46GC PCBM Common CP Fill per PCBM 00 Frame.
- RUL2 1) When additional circuits are required to allow analogue (VF) test equipment to access the switching network, provide NT1X54AA Jack Ended Trunk Circuit Pack as per Customer requirements. NT1X54AA has two (2) circuits per card.
- RUL3 1) Provide one (1) Designation Label for each CP supplied. Stick the label on the shelf upper designation strip in the appropriate position.
- RUL4 1) When an AC open or short circuit test or balanced termination test is required to check the stability of trunks with negative impedance type repeaters, provide NT2X71AA Transmission Termination Trunk Circuit Pack as per Customer requirements. One circuit pack is required in each of the test source and test office.
- RUL5 1) Provide one (1) NT0X50AC Filler Face Plate 1.12 for each card position that is unequipped as follows:

SHF POS CP POS

32 11-16

18 09,13-16

- RUL6 1) For DMS-100P Vintage 1 Offices, provide NT3X09AA and NT3X09BA as shown below:

CARD	LINE CAPACITY	PCIM FR	SHELF POS	CP POS	SERVES PCLM

NT3X09AA	1280	00	32	12	00
NT3X09AA	2560	00	32	13	01
NT3X09AA	3840	00	32	14	02
NT3X09AA	5120	00	32	15	03
NT3X09AA	6400	00	32	16	04
NT3X09AA	7680	00	18	16	05
NT3X09BA	8960	00	32	12	00, 06
NT3X09BA	10240	00	32	13	01, 07
NT3X09BA	11520	00	32	14	02, 08
NT3X09BA	12800	00	32	15	03, 09
NT3X09BA	14080	00	32	16	04, 10
NT3X09BA	15360	00	18	16	05, 11

Each NT3X09AA provides metallic test access for one (1) PCLM frame. Each NT3X09BA provides metallic test access for two (2) PCLM frames. When the system size grows to 8960 lines and beyond, NT3X09BA replaces NT3X09AA on a slot for slot basis. 2) For DMS-100P Vintage 2 Offices, provide NT3X09BA as shown below:

CARD	LINE CAPACITY	PCIM FR	SHELF POS	CP POS	SERVES PCLM
NT3X09BA	2560	00	32	12	00, 01
NT3X09BA	5120	00	32	13	02, 03
NT3X09BA	7680	00	32	14	04, 05
NT3X09BA	10240	00	32	15	06, 07
NT3X09BA	12800	00	32	16	08, 09

NT3X09BA	15360	00	18	16	10,11

- RUL7 1) For additional 101 Communication Test Lines, provide NT5X30AA 101 Communication Test Line Circuit as per Customer requirements. NT5X30AA has one (1) circuit per card.
- 2) For required Compromise Balance Networks, see RUL8.
- RUL8 1) Provide one (1) NT2X77AA for each NT2X90AC or NT5X30AA provided.
- RUL9 1) For measuring near to far end trunk transmission losses, provide NT2X75AA Loop Around Test Line Circuit Pack as per Customer requirements. NT2X75AA has one (1) circuit per card.
- RUL10 1) For each additional TOPS data channel required, provide one (1) NT3X02AA and one (1) NT3X03AA. One (1) pair of cards is required for four (4) TOPS positions/TOPS TTYs. 2) Provide NT3X02AA and NT3X03AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	18-13 (ODD)
		18-14 (EVEN)
TTT	NT1X90AA NT2X96AA	18-13 (ODD)
		18-14 (EVEN)
TOPS	NT3X02AA NT3X03AA	18-13 (ODD)
		18-14 (EVEN)

The two circuit packs comprising a pair type must be adjacent and in the correct odd or even position as indicated.

- RUL11 1) For each additional Transmission Test Unit (TTU) required, provide one (1) of each NT2X47AC and NT2X56AB.
- 2) Provide NT2X47AC and NT2X56AB in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION

TTU	NT2X47AC NT2X56AB	18-13 (ODD) 18-14 (EVEN)
TTT	NT1X90AA NT2X96AA	18-13 (ODD) 18-14 (EVEN)
TOPS	NT3X02AA NT3X03AA	18-13 (ODD) 18-14 (EVEN)

The two circuit packs comprising a pair type must be adjacent and in the correct odd or even position as indicated.

- RUL12 1) For each additional Transmission Test Trunk (TTT) required, provide one (1) of each NT1X90AA and NT2X96AA.
- 2) Provide NT1X90AA and NT2X96AA in pairs in adjacent odd and even positions as shown below:

CP PAIR TYPE	PEC	SHELF & CP POSITION
TTU	NT2X47AC NT2X56AB	18-13 (ODD) 18-14 (EVEN)
TTT	NT1X90AA NT2X96AA	18-13 (ODD) 18-14 (EVEN)
TOPS	NT3X02AA NT3X03AA	18-13 (ODD) 18-14 (EVEN)

The two circuit packs comprising a pair type must be adjacent and in the correct odd or even position as indicated.

- RUL13 1) For test trunk access to No. 14 Local Test Desk (LTD) or No. 3 Local Test Cabinet (LTC), provide NT2X90AC Incoming/Outgoing Test Trunk Circuit Pack as per Customer requirements. NT2X90AC has one (1) circuit per card.
- 2) For required Compromise Balance Networks, see RUL8.
- RUL14 1) Provide one (1) of each cable on the PCBM 00 frame.
- RUL15 1) Provide wiring on PTM shelves for metallic test access utilizing NT3X09BA CP, when extending an existing office beyond 7680 lines.

- RUL16 1) Provide one (1) NT7X46AC per existing office for MTA utilizing NT3X09BA CP, which is to be extended beyond 7680 lines.
- RUL17 1) For each NT7X46GC PCBM Common CP Fill required, provide two (2) NT2X70AA or NT2X70AE Power Conv +/-5V & 12V CP.

PCBM COMMON CIRCUIT PACK FILL

PEC CODE: NT7X46GC

CPC CODE: B0231043

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X46GC is a common circuit pack fill
for the PCBM 00 Frame NT7X46AD.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X46GC EMR12-06-PCBM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCBM Common Circuit Pack Fill is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
10A Distribution Fusing	NT0X42AJ		9	68	00,01, 02,04, 06,08, 10,12, 14	AP
20A Distribution Fusing	NT0X42AK		5	68	05,07, 09,11 13	AP
Design Strip (NT7X46AA)	P0665195		1	68		AP
10A Distribution Fusing	NT0X42AJ		9	64	00,01, 02,04, 06,08, 10,12, 14	AP
20A Distribution Fusing	NT0X42AK		5	64	05,07, 09,11 13	AP
Design Strip (NT7X46AA)	P0665195		1	64		AP
10A Distribution Fusing	NT0X42AJ		2	60	00,14	AP
20A Distribution Fusing	NT0X42AK		1	60	01	AP
30A Distribution Fusing Kit	NT0X42AS		1	60	13	AP
Design Strip (NT7X46AB)	P0670770		1	60		AP
10A Distribution Fusing	NT0X42AJ		2	56	00,14	AP
20A Distribution Fusing	NT0X42AK		1	56	01	AP
30A Distribution Fusing Kit	NT0X42AS		1	56	13	AP
Design Strip (NT7X46AB)	P0670770		1	56		AP
Trk Module Interface CP	NT2X45AB		1	32	01	AP
Trunk Module Processor CP	NT0X70AA		1	32	02	AP
TM Control CP	NT2X53AA		1	32	03	AP
TM Group Codec CP	NT2X59AA		1	32	04	AP
Line Test Unit Analog CP	NT2X10AB		1	32	05	AP
Line Tst Unit Digital Card	NT2X11AA		1	32	06	AP
I/O Test Trunk CP	NT2X90AC		1	32	07	AP
Design Label (NT2X90AC)	P0667768		1	32	07	AP
Compro. Bal NTWK 900 OHM	NT2X77AA		1	32	07	AP
Sig Dist Card CP	NT2X57AA		1	32	08	AP
Trans Tst Unit Controller	NT2X47AC		1	32	09	AP
TTM Digital Filter CP	NT2X56AB		1	32	10	AP
Multi O/P PWR Converter CP	NT2X09AA		1	32	17	AP

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Face Plate 0.875	NT0X50AA		1	32	19	AP
Design Strip (NT7X46AA)	P0664138		1	32		AP
Trk Module Interface CP	NT2X45AB		1	18	01	AP
Trunk Module Processor CP	NT0X70AA		1	18	02	AP
TM Control CP	NT2X53AA		1	18	03	AP
TM Group Codec CP	NT2X59AA		1	18	04	AP
Line Test Unit Analog CP	NT2X10AB		1	18	05	AP
Line Tst Unit Digital Card	NT2X11AA		1	18	06	AP
I/O Test Trunk CP	NT2X90AC		1	18	07	AP
Design Label (NT2X90AC)	P0667768		1	18	07	AP
Compro. Bal NTWK 900 OHM	NT2X77AA		1	18	07	AP
Receiver Off-Hook Tone CP	NT1X00AC		1	18	08	AP
Misc Scan Card CP	NT0X10AA		1	18	10	AP
Test Signal Generator 1	NT1X90AA		1	18	11	AP
PCM Level Meter CP	NT2X96AA		1	18	12	AP
Multi O/P PWR Converter CP	NT2X09AA		1	18	17	AP
Filler Face Plate 0.875	NT0X50AA		1	18	19	AP
Design Strip (NT7X46AA)	P0664137		1	18		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X46GC can be assigned on the frame.
- 2) For more information on the frame, refer to the section on NT7X46AD.

RULES:

AP 1) When PEC NT7X46GC is ordered, these items are provided.

PACKAGED CORE BASIC MODULE
(POWER DIST. ONLY) FRAME

PEC CODE: NT7X46AE

CPC CODE: B0230989

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: PCBM

ENGINEERING DESCRIPTION: The NT7X46AE (i.e. PCBM 01) is a frame which houses two (2) Power Distribution Centre (PDC) panels. The PDC panels provide DC power fusing for the third frame lineup of the DMS-100 Packaged Switch.

REFERENCE DOCUMENTATION: MS7X46AE 00 01

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X46AE EMR12-07-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The Packaged Core Basic Module (Power Dist. Only) Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS PKG Earthquake FRWK	NT0X25AL		1			AP
Ground Plate Assembly	NT7X2410		1	72		AP
PCBM PDC Fusing Fuse Panel "A" Feed	NT7X46GD NT0X42AB		1	68		RUL1 AP
Fuse Panel "B" Feed	NT0X42AC		1	64		AP
4 Inch Filler Panel Assy	NT0X42AD		1	60		AP
4 Inch Filler Panel Assy	NT0X42AD		1	56		AP
Filter Panel	NT0X42AG		1	51		AP
PCPM Frame Supervisory Panel	NT7X34BA		1	45		AP
Cage Filler Panel Assy	NT0X84AA		1	32		AP
Cage Filler Panel Assy	NT0X84AA		1	18		AP
Cage Filler Panel Assy	NT0X84AA		1	04		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The NT7X46AE (i.e. PCBM 01) is a frame which houses two (2) Power Distribution Centre (PDC) panels. 2) PCBM 01 provides power for the third frame lineup for the following frames:

PCLM 06, PCLM 07, PCLM 08, PCLM 09, PCLM 10, PCLM 11

RULES:

- AP 1) When PEC NT7X46AE is ordered, these items are provided.
- RUL1 1) Provide one (1) NT7X46GD per NT7X46AE, PCBM01 Frame. It provides the DC power fuses for SHF POS 68 and 64.

PCBM PDC FUSING

PEC CODE: NT7X46GD

CPC CODE: B0231115

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NT7X46GD provides power distribution fuses for the PCBM 01 Frame NT7X46AE.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Joe Bragg Dept. 6457 (RCH)

MAIN CONTACT: Joe Bragg Dept. 6457 (RCH)

NT7X46GD EMR12-07-PDC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 05 25	----- ECM 487 02	Previous history not available MD Package Switch equipment per ECD002-15813,16146 and 16188.

The PCBM PDC Fusing is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
10A Distribution Fusing	NT0X42AJ		7	68	00,01, 03,05, 07,09, 11	AP
20A Distribution Fusing	NT0X42AK		6	68	02,04, 06,08, 10,12	AP
Design Strip (NT7X46AA)	P0665194		1	68		AP
10A Distribution Fusing	NT0X42AJ		7	64	00,01, 03,05, 07,09, 11	AP
20A Distribution Fusing	NT0X42AK		6	64	02,04, 06,08, 10,12	AP
Design Strip (NT7X46AA)	P0665194		1	64		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) One NT7X46GD can be assigned on the frame to shelf mounting positions 68 and 64.

- 2) For more information on the frame, refer to the section on NT7X46AE.

RULES:

- AP 1) When PEC NT7X46GD is ordered, these items are provided.

97/12/09

EMR13

MISCELLANEOUS SUBSYSTEMS CHAPTER ALL

MISCELLANEOUS SUBSYSTEMS CHAPTER ALL

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MISCELLANEOUS SUBSYSTEMS CHAPTER ALL

EMR13-01-CDA-2	COOK DIVISION DIGITAL ANNOUNCER	NT7M25__
EMR13-01-DSM-1	RM46A1 AUXILIARY DATA SET MODULE	905-5060-01
EMR13-01-DSM-2	117VAC RM40A/B DATA SET MODULE	905-5121-001
EMR13-01-DSM-3	-48VDC RM40A/B DATA SET MODULE	905-5121-004
EMR13-01-DSM-4	CASE/DATATEL STAND ALONE DATA SETS	T_CASE_MOD
EMR13-01-DSM-5	CASE RM80 DATA SET MODULE 117VAC	905-5118-001
EMR13-01-DSM-6	CASE RM90 DATA SET MODULE 125VAC	905-5139-001
EMR13-01-DSS-1	DM44R2 AUXILIARY DATA SET SHELF	905-5072-02
EMR13-01-DTH-1	DIGITAL TEST HEAD REMOTE OFFICE TEST LIN	NT7F20AA
EMR13-01-DTH-2	NSSD DIGITAL TEST HEAD	NT7F18AA
EMR13-01-DTH-3	NSSD DIGITAL TEST HEAD SPARES KIT	NT7F19AA
EMR13-01-DTH-4	DIGITAL TEST HEAD ROTL (REMOTE OFC TST L	NT7F18AB
EMR13-01-DTH-5	NSSD DIGITAL TEST HEAD SPARES KIT	NT7F19AB
EMR13-01-FSP-1	MISC EQPT FRAME SUPERVISORY PANEL	NT0X88AA
EMR13-01-FSP-2	REM SRV EQPT FRAME SUPERVISORY PANEL	NT0X88AC
EMR13-01-HDW-01	CHINA PACKAGING HARDWARE KITS	NT0X71CA
EMR13-01-MIS	ZONED MISCELLANEOUS EQUIPMENT CABINET MO	NTRX34AB
EMR13-01-MTMC-1	MAINTENANCE TRUNK MODULE COMMON CP	NT2X58CN
EMR13-01-MTMC-2	MAINTENANCE TRUNK MODULE COMMON CP	NT2X58CP
EMR13-01-RM-1	RCD ANN MODULE 6 CH 6.5 SEC MSG	NT0X03AA
EMR13-01-RM-2	RCD ANN MODULE 12 CH 6.5 SEC MSG	NT0X03AB
EMR13-01-RM-3	RCD ANN MODULE 6 CH 13.5 SEC MSG	NT0X03AC
EMR13-01-RM-4	RCD ANN MODULE 12 CH 13.5 SEC MSG	NT0X03AD
EMR13-01-RSM-1	REMOTE SERVICE MODULE	NT2X58AE
EMR13-01-RSM-2	REMOTE SERVICE MODULE	NT2X58CF
EMR13-01-RSMC-1	REMOTE SERVICE MODULE COMMON CP FILL	NT2X58CE
EMR13-01-RSMC-2	REMOTE SERVICE MODULE COMMON CP	NT2X58CM
EMR13-01-TL1-1	ENHANCED SERVICE TEST UNIT (ESTU)	NT0J42BA
EMR13-01-UDS-2	UDS STAND ALONE DATA SETS PROVISIONING	T_UDS_SA
EMR13-01-000	MISCELLANEOUS EQUIPMENT FRAME	NT0X02AA
EMR13-02-VDU-1	DEC VIDEO DISPLAY UNIT VT241	VT241
EMR13-02-000	4000DB1 DUAL DIAL BACK UNIT	905-5165-001
EMR13-04-000	CABINETIZED MISC SPARE STORAGE	NTRX49AA

97/12/09

COOK DIVISION DIGITAL ANNOUNCER

NT7M25__

RATING: Standard

ABBREVIATION NAME: CDA

ENGINEERING DESCRIPTION: The Cook Digital Announcer records analog messages in a digital format and stores the information in memory. When the appropriate signals are received for the interface circuits, the message is converted back to a analog format for output to the line requesting the message.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe

ISSUE AUTHOR NTI: Merdia Drummer Dept. 3471 (PPK)

MAIN CONTACT NTI: Merdia Drummer Dept. 3471 (PPK)

NT7M25 EMR13-01-CDA-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 03 06	API 420 01	Replace NT7M25 Series CDAs with the NT5M04 Series CDAs
92 08 21	API 420 02	No Change. EMS Maintained in until the API is Released as an ECM.
92 12 18	API 420 03	Correct Miscellaneous Typo's.
93 03 29	ECM 543 01	Incorporate Changes Per API420 Iss:03.

The Cook Division Digital Announcer is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	4-Chan 19" 64S RTA STB	NT7M25CV					RUL1
	4-Chan 26" 64S RR/RTA BRN	NT7M25DG					RUL2
	4-Chan 26" 128S RR/RTA BRN	NT7M25DN					RUL3
#	4-Chan 26" 64S RTA	NT7M25DY					RUL4
	4-Chan 26" 64S RR/RTA	NT7M25EA					RUL5
	4-Chan 26" 64S RTA BRN	NT7M25EB					RUL6
	Rechargeable Battery Pack	NT7M03BA					RUL7
	Hanset Cassette Adpter cord	213284					RUL8
	Hanset&Cord w/teladapt conn	213360					RUL9
	Remote Record/Ring Trip Kt	NT7M07BA					RUL10
	1-Line Ring Trip Acc Ckt	NT7M08BA					RUL11
	4-Line Ring Trip Acc Ckt	NT7M29BA					RUL12

FLAGS:

MD. Replaced by NT7M25FM.

NOTES:

- 1) The NT7M25-Series Digital Announcer (DA) from the Cook Division of Northern Telecom Inc. may be provided as a desk top or rack mount unit. However, only the rack mount units have been approved for use by Digital Switching. This unit may be used as an adjunct announcer to the DMS100F internal MTM mounted Digital Recorded Announcer Machine (DRAM), in a Remote Office environment.
- 2) The format of the message for the transmission medium and the number of lines accessible by a given CDA is dependant upon it's configuration and firmware (EPROMs) load. All CDA firmware packages provide the following features:
 - a) Operational Status: Indicates mode of operation (i.e. Select, On-Line, Alarm, etc.) on the front panel.

- b) Memory Usage: Displays the amount of available memory (in seconds) and provides a real time count down during recording or playback.
- c) Channel Activity: Displays active Audio output channels by number.
- d) Remote Operation: Illuminates a dedicated Remote indicator lamp when the CDA has accepted the security code and is under remote control.
- e) Fault Diagnostics: Built-In-Test - Alarm indicator illuminates on fault detection.
- f) Peg Count: Displays a running total of messages requests (up to 999,999).
- g) Extra Equipment: Allows the user to program up to 20 C/MC relay Control Signal operations for use as timing references, or for external devices.
- h) Special Information Tones: Allows the addition of industry standard tone patterns to the beginning of messages for electronic announcement identification.

NOTE: Specific firmware packages limit or add to the common features above.

- 3) The DMS100F approved configuration of the NT7M25-Series DAs are always provided with mounting adapters for 19 or 26 inch mounting. The physical dimensions of the DA and it's associated Expansion Chassis are:

Height: 3.50 inches (for the dual chassis configuration)
Width: 17.5 inches
Depth: 12.0 Inches

RULES:

- RUL1
- 1) Provide NT7M25CV announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.
 - 2) The NT7M25CV Digital Announcer is equipped with the following:

- a) 4-Port Demand Phase Fixed Phase F/W (1MSG) NT7M41CA
- b) 19 inch Mounting Brackets (19")
- c) Battery Backup (all approved units are e/w battery back-up)
- d) 64 second message length (64S)
- e) Ring Trip Access Circuit (RTA)
- f) Product Color Silvertone Black (STB)

RUL2 1) Provide NT7M25DG announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.

2) The NT7M25DG Digital Announcer is equipped as the NT7M25CV above, with the following exceptions:

- b) 26 inch Mounting Brackets (26")
- f) Product Color NT Brown (BRN)

RUL3 1) Provide NT7M25DN announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.

2) The NT7M25DN Digital Announcer is equipped as the NT7M25CV above, with the following exceptions:

- b) 26 inch Mounting Brackets (26")
 - d) 128 second message length (128S)
 - e) Remote Record and Ring Trip Access Circuit (RR/RTA)
 - f) Product Color NT Brown (BRN)
- RUL4 1) The NT7M25DY is rated Manufacture Discontinued (MD), however, information per item 2 and 3 below is retained for historical purposes. The NT7M25FM per RUL13 may be provisioned in lieu of this unit. 2) Provide NT7M25DY announcer for applications requiring four audio outputs and message length from one to sixty-four seconds. 3) The NT7M25DY Digital Announcer is equipped as the NT7M25CV above, with the following exceptions:

- a) Synchronous 4-Channel/Port (4-MSG) F/W NT7M41BA
- b) 26 inch Mounting Brackets (26")
- f) Product Color NT Brown (BRN)

RUL5 1) Provide NT7M25EA announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.

2) The NT7M25EA Digital Announcer is equipped as the NT7M25CV above, with the following exceptions:

- a) Synchronous 4-Channel/Port (4-MSG) F/W NT7M41BA
 - b) 26 inch Mounting Brackets (26")
 - e) Remote Record and Ring Trip Access Circuit (RR/RTA)
 - f) Product Color NT Brown (BRN)
- RUL6 1) Provide NT7M25EB announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.
- 2) The NT7M25EB Digital Announcer is equipped as the NT7M25CV above, with the following exceptions:
- b) 26 inch Mounting Brackets (26")
 - e) Remote Record and Ring Trip Access Circuit (RR/RTA)
 - f) Product Color NT Brown (BRN)
- RUL7 1) Provide the NT7M03BA (Rechargeable Battery Pack) as spare equipment for the CDA. If the power pack fails then the entire battery pack must be replaced as opposed to replacing one of the four cells.
- RUL8 1) Provide one 213284 Cassette Adapter Cord to facilitate direct connection of the cassette player to the CDA, without the use of a handset, for Voice Message recording directly from cassette player to CDA.
- RUL9 1) Provide one 213360 type 'G' handset and cord combination (modified for direct connect to a cassette player or other audio device) for recording voice messages on the CDA via the Modular Jack located on the front panel.
- 2) The cord is equipped with a miniature phone jack and audio plug for connection to the cassette player. The jack automatically disconnects the handset transmitter allowing recording without noise pickup.
- RUL10 1) The NT7M07BA Remote Record / Ring Trip Kit circuitry allows the Announcer to accept message changes from a remote telephone while simultaneously permitting the Announcer to operate as a stand alone device without the usual dependence on Central Office equipment. The Remote Record / Ring Trip Access circuit combines both functions on a single PCB. This kit may be field or factory installed.
- 2) The Remote Record circuits may be used wherever tone encoded (DTMF) type telephone communications are available. Remote Record functions can not be used in locations where only pulse or rotary dial type telephones are available.

- 3) The Ring Trip functions work well with both pulse or tone type telephones, but the Ring Trip functions are not intended for use with pay phones or party lines.
- 4) The Remote Record / Ring Trip Circuitry is equipped with a user programmable three digit security feature since the remote option allows changes to the announcements from any DTMF telephone.
- 5) The NT7M07BA Remote Record / Ring Trip Kit is equipped with the following:

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>
1	NT7M07AA	Remote Record / Ring Trip PCB
1	NT7M28AD	34-Pin Ribbon Cable
1	NT7M0103	FCC Compliance Label
1	P0665452	Cover Plate
2	704-0801	3/16 x 4-40 Screw
4	752-9512	Plastic Washer
4	706-0878	1/4 x 6-32 Screw

- RUL11 1) The NT7M08BA One Line Ring Trip Kit circuits match the Announcer directly to the subscriber line, allowing it to operate as a stand alone device without the usual dependence on Central Office interface equipment. This kit may be field or factory installed.

- 2) The Ring Trip Access (RTA) Circuit is fully automatic in operation. It will terminate a call upon receiving an internal end-of-message signal from the Digital Announcer, or if loop current is interrupted longer than 300 milliseconds.

- 3) One Ring Trip Access Circuit is required for each telephone line accessing the Cook Division Digital Announcer.

Note: Several single Line Ring Trip Access circuits may be wired in parallel if more than one telephone lines must access the announcer or the Four Line Ring Trip Access Circuit may be provided.

- 4) The NT7M08BA Ring Trip Access Kit is equipped with the following:

<u>QTY</u>	<u>PEC</u>	<u>DESCRIPTION</u>
1	NT7M08AA	Ring Trip Access PCB
1	NT7M28AD	34-Pin Ribbon Cable
1	NT7M09AA	Cable Assembly
1	NT7M0103	FCC Compliance Label

1	680-7264	Card Edge Connector
1	214533	Connector Retainer
2	704-0801	3/16 x 4-40 Screw
4	752-9512	Plastic Washer
4	706-0878	1/4 x 6-32 Screw

- RUL12 1) The NT7M29BA Four Line Ring Trip Kit circuits match the Announcer directly to the subscriber line, allowing it to operate as a stand alone device without the usual dependence on Central Office interface equipment. This kit may be field or factory installed.
- 2) The Ring Trip Access (RTA) Circuit is fully automatic in operation. It will terminate a call upon receiving an internal end-of-message signal from the Digital Announcer, or if loop current is interrupted longer than 300 milliseconds.
- 3) One Ring Trip Access Circuit is required for each telephone line accessing the Cook Division Digital Announcer. Note: Four Line Ring Trip Access circuits may be wired in parallel if more than four telephone lines must access the announcer.
- 4) The NT7M29BA Ring Trip Access Kit is equipped with the following:

QTY	PEC	DESCRIPTION
1	NT7M29AA	Multi-Ring Trip Access PCB
1	NT7M30AA	RJ-11 Jack Assembly
1	NT7M31AA	Cable Assembly
1	NT7M2603	FCC Compliance Label

- RUL13 1) Provide NT7M25FM announcer for applications requiring four audio outputs and message length from one to sixty-four seconds.
- 2) The NT7M25FM Digital Announcer is equipped with the following:
- a) 4-Port Fixed Length Message F/W NT7M41DA
 - b) 26 inch Mounting Brackets
 - c) Battery Backup (all approved units are e/w battery backup)
 - d) 64 second message length (64S)
 - e) Remote Record and Ring Trip Access Circuit (RR/RTA)
 - f) Product Color NT Brown (BRN)

RM46A1 Auxiliary DATA SET MODULE 117VAC

905-5060-01

RATING: Manufacture Discontinued.

ABBREVIATION NAME: DSM

ENGINEERING DESCRIPTION: The RM46A1 Rack Mount (RM) mounts in a 19/23 inch frame. It accommodates up to eight (8) C829 cards. Connections to Private Lines and optional manual loopback keys are made through two (2) 50-Pin female connectors. Connections to the modems are made through a 50-Pin male Connector.

REFERENCE DOCUMENTATION: N/A

Retired Equipment

RM46A1 Aux Data Set Mod Shf 117V AC EMR13-01-DSM-1
Case Rixon Data Communications Equipment Page 1

The Case Rixon RM46A1 Auxiliary Data Set Module Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# C829CR-L4 Data Aux. Set	905-5075-14				1-8	RUL1
# RM46A1 Mounting Bracket 19" to 23"	615-1022-01					RUL2
# RM46A1 Mounting Bracket 23" to 26"	615-1051-01					RUL2
# Inverter Unit	NT0X87AA					RUL3

FLAGS:

| # Rating Change Pending. See Note 4 below for replacements.

NOTE:

- 1) Provide one (1) A0318218 RM46A1 19" AC Data Auxiliary Set Shelf to provide a mounting enclosure for Data Auxiliary Sets, which provide standard terminations for four-wire Private Leased Line operation of modems for both non-loaded and loaded lines. This shelf can accommodate up to eight (8) Rixon Data Auxiliary Sets.
- 2) A0318218 shelf requires a vertical space of seven inches high.
- 3) Refer to the Installation Manual IM940 Section 2100 for Isolated System Grounding (ISG) requirements on new or extension applications.

- 4) The chart below defines replacements for the MD'ed products:

PRODUCT PEC	PRODUCT CPC	REPLACED BY	
		PEC	DESCRIPTION
905-5060-01	A0318218	No Replace'mt	Not Applicable
615-1022-01	A0318221	No Replace'mt	Not Applicable
615-1051-01	A0318220	No Replace'mt	Not Applicable
905-5075-14	A0318217	905-5224-002	RM4229-C Aux Data Set
905-5075-04	A0318216	905-5224-001	RM4229-S/A Aux Data Set
NT0X87AA	B0206512	A0367433	LaMarche 500W Inverter

RULE:

- RUL1 1) Provide one (1) C829CR-L4 (905-5075-14) Data Auxiliary Set to provide standard terminations for one (1) four-wire Private Leased Line modem, for both non-loaded and loaded lines.
- RUL2 1) Provide one each mounting adapters A0318221 and A0318220 to convert the unit from 19" to 23" and 23" to 26", respectively.
- RUL3 1) Provide one (1) NT0X87AA per the Engineering Manual Section 43E-03-000 RULE #5 for every three (3) A0318218 RM46A1 shelves provided. Use connectors J2-J4 on the Inverter as the RM46A1 does not require the surge voltage provided by connector J1.

117VAC RM40A/B DATA SET MODULE

905-5121-001

| RATING: Manufacture Discontinued.

ABBREVIATION NAME: DSM

ENGINEERING DESCRIPTION: The RM40A/B is a general purpose Data Set/Modem mounting enclosure that accommodates up to sixteen (16) single slot data sets or eight (8) dual slot data sets.

REFERENCE DOCUMENTATION: N/A

Retired Equipment

117VAC RM40A/B Data Set Module Shelf EMR13-01-DSM-2
Case Rixon Data Communications Equipment Page 1

The Case Rixon 117Vac Data Set Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# C108D/F/H-L1/2 SA Modem	905-5079-05				1-16	RUL1
# T108E/G/J-L1/20 Modem	905-5079-06				1-16	RUL2
\$ C202T-L1 CD Modem	905-5055-216				1-16	RUL3
\$ CA201C-L1C/1D DS 2400BD DU/PL	905-5085-002				1, 3, 5, 7, 9, 11, 13, 15	RUL4
\$ CA201C-L1D DS 2400BD PL OR/AN	905-5085-004				1, 3, 5, 7, 9, 11, 13, 15	RUL5
# C103J-L1 CD Modem	905-5081-11				1, 3, 5, 7, 9, 11, 13, 15	RUL6
# C113C-L1 Modem Card	905-5080-11				1, 3, 5, 7, 9, 11, 13, 15	RUL7
\$ C212A-L1A CD Modem	905-5084-264				1, 3, 5, 7, 9, 11, 13, 15	RUL8
\$ Data Modem T212A-11A/2	905-5123-001				1, 3, 5, 7, 9, 11, 13, 15	RUL9
Adapt. Plug For AJD XMIT	905-6582-01					RUL10
\$ Inverter Unit	NT0X87AA					RUL11

FLAGS:

Rating Change Pending.
\$ MD. See Note 2 for replacements.

NOTE:

- 1) Refer to the Engineering Manual Section EMA17 for Isolated System Grounding (ISG) requirements on new or extension applications.

2) The chart below defines replacements for the MD'd products.

PRODUCT PEC	PRODUCT CPC	REPLACED BY	
		PEC	DESCRIPTION
905-5055-216	A0288173	905-5185-003	RM4200 4202-C Modem
905-5085-002	A0318213	905-5220-002	RM4200 4201-C Modem
905-5085-004	A0318212	905-5220-002	RM4200 4201-C Modem
905-5084-264	A0345971	905-5223-002	RM4200 4212-C Modem
905-5123-001	TEA00039	905-5223-002	RM4200 4212-C Modem
NT0X87AA	B0206512	A0367433	LaMarche 500W Inverter

RULE:

- RUL1 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Therefore provide UDS 108 modems per Section EMA13-01-UDS-1.
- 2) Provide one 905-5079-05 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line origination is required. Note this modem has been typically used for TOPS3/4 I/O device operation.
- RUL2 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Therefore provide UDS 108 modem per Section EMA13-01-UDS-1.
- 2) Provide one 905-5079-06 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line answering capabilities are required.
- RUL3 1) Provide one 905-5055-216 C202T modem to provide asynchronous communications form 0-1200bps on Dial-up Lines or from 0-1800bps on PLLs, using Frequency Shift Keyed (FSK) modulation.
- 2) The C202T may be used for 4-wire Private Lease Line (PLL) operation at speeds up to 1800bps or 2-wire Dial-Up (DDD) operation at speeds up to 1400bps.

- RUL4 1) Provide the 905-5085-002 (CA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Lines or Dial-up facilities.

Note: This modem has been traditionally used for AMATPS, in both the BMC and DPP applications.

- RUL5 1) Provide the 905-5085-004 (TA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Line (PLL) facilities only.

- RUL6 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.

- 2) Provide one 905-5081-11 (C103-L1) single card slot modem to provide up to 300bps 4-Wire Full Duplex Asynchronous operation, where automatic line origination and answer operation is required. Note this modem has been typically used in lieu of the 108 series modems for TOPS3/4 I/O device operation, due to the fact that the C103J modem combines the capabilities of both 108 modem models into a single modem.

- RUL7 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.

- 2) Provide one 905-5080-11 (C113C-L1) single card slot modem to provide up to 300bps 2-Wire Asynchronous operation, where automatic line origination operation is required. Note this modem has been typically used for standard 300bps Dial-Up operation of I/O devices.

- RUL8 1) Provide one 905-5084-264 (C212A-L1A) for use as a Dial-Up modem, to provide 0-300 bps Asynchronous transmission or 1200 bps character synchronous transmission.

- 2) The modem is equipped with Automatic Answering and Dialing circuitry, for data only traffic. However, a single or multiple line phone may be used to manually originate data calls.

- RUL9 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.

- 2) Provide one 905-5123-001 (T212A-11A/2) for use as a Dial-Up modem, to provide 0-300 bps Asynchronous transmission or 1200 bps character synchronous transmission.

| RUL10 1) Provide one 905-6582-02 Permissive Transmit Cable Plug with the RM40A/B to introduce 9310 ohms resistance between the PR and PC input leads of connector P2 to provide a transmit level of -9dBm maximum.

| RUL11 1) Provide one (1) NT0X87AA per the Engineering Manual Section EMA13-01-000 RULE #5 for per 117Vac RM40A/B shelf provided. Use connectors J2-J4 on the Inverter as the RM46A1 does not require the surge voltage provided by connector J1.

-48VDC RM40A/B DATA SET MODULE

905-5121-004

| RATING: Manufacture Discontinued.

ABBREVIATION NAME: DSM

ENGINEERING DESCRIPTION: The RM40A/B is a general purpose Data Set/Modem mounting enclosure that accommodates up to sixteen (16) single slot data sets or eight (8) dual slot data sets.

REFERENCE DOCUMENTATION: N/A

The Case Rixon -48Vdc Data Set Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# C108D/F/H-L1/2 SA Modem	905-5079-05				1-16	RUL1
# T108E/G/J-L1/20 Modem	905-5079-06				1-16	RUL2
\$ C202T-L1 CD Modem	905-5055-216				1-16	RUL3
\$ CA201C-L1C/1D DS 2400BD DU/PL	905-5085-002				1, 3, 5, 7, 9, 11, 13, 15	RUL4
\$ CA201C-L1D DS 2400BD PL OR/AN	905-5085-004				1, 3, 5, 7, 9, 11, 13, 15	RUL5
# C103J-L1 CD Modem	905-5081-11				1, 3, 5, 7, 9, 11, 13, 15	RUL6
# C113C-L1 Modem Card	905-5080-11				1, 3, 5, 7, 9, 11, 13, 15	RUL7
\$ C212A-L1A CD Modem	905-5084-264				1, 3, 5, 7, 9, 11, 13, 15	RUL8
\$ Data Modem T212A-11A/2	905-5123-001				1, 3, 5, 7, 9, 11, 13, 15	RUL9
Adapt. Plug For AJD XMIT	905-6582-01					RUL10

FLAGS:

MD. No Replacement Available
| \$ MD. See Note 2 for replacements.

NOTE:

- | 1) Refer to the Engineering Manual Section EMA17 for Isolated System Grounding (ISG) requirements on new or extension applications.
- | 2) The chart below defines replacements for the MD'd products:

PRODUCT PEC	PRODUCT CPC	REPLACED BY	
		PEC	DESCRIPTION
905-5055-216	A0288173	905-5185-003	RM4200 4202-C Modem
905-5085-002	A0318213	905-5220-002	RM4200 4201-C Modem
905-5085-004	A0318212	905-5220-002	RM4200 4201-C Modem
905-5084-264	A0345971	905-5223-002	RM4200 4212-C Modem
905-5123-001	TEA00039	905-5223-002	RM4200 4212-C Modem

RULE:

- RUL1 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Provide equipment per RULE #3 for this requirement.
- 2) Provide one 905-5079-05 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line origination is required. Note this modem has been typically used for TOPS3/4 I/O device operation.
- RUL2 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Provide equipment per RULE #3 for this requirement.
- 2) Provide one 905-5079-06 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line answering capabilities are required.
- RUL3 1) Provide one 905-5055-216 C202T modem to provide asynchronous communications form 0-1200bps on Dial-up Lines or from 0-1800bps on PLLs, using Frequency Shift Keyed (FSK) modulation.
- RUL4 1) Provide the 905-5085-002 (CA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Lines or Dial-up facilities.

Note: This modem has been traditionally used for AMATPS, in both the BMC and DPP applications.

- RUL5 1) Provide the 905-5085-004 (TA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Line (PLL) facilities only.
- RUL6 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.
- 2) Provide one 905-5081-11 (C103-L1) single card slot modem to provide up to 300bps 4-Wire Full Duplex Asynchronous operation, where automatic line origination and answer operation is required. Note this modem has been typically used in lieu of the 108 series modems for TOPS3/4 I/O device operation, due to the fact that the C103J modem combines the capabilities of both 108 modem models into a single modem.
- RUL7 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.
- 2) Provide one 905-5080-11 (C113C-L1) single card slot modem to provide up to 300bps 2-Wire Asynchronous operation, where automatic line origination operation is required. Note this modem has been typically used for standard 300bps Dial-Up operation of I/O devices.
- RUL8 1) Provide one 905-5084-264 (C212A-L1A) for use as a Dial-Up modem, to provide 0-300 bps Asynchronous transmission or 1200 bps character synchronous transmission.
- 2) The modem is equipped with Automatic Answering and Dialing circuitry, for data only traffic. However, a single or multiple line phone may be used to manually originate data calls.
- RUL9 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Select another modem that provides similar features.
- 2) Provide one 905-5123-001 (T212A-11A/2) for use as a Dial-Up modem, to provide 0-300 bps Asynchronous transmission or 1200 bps character synchronous transmission.
- RUL10 1) Provide one 905-6582-02 Permissive Transmit Cable Plug with the RM40A/B to introduce 9310 ohms resistance between the

PR and PC input leads of connector P2 to provide a transmit level of -9dBm maximum.

CASE/DATATEL STAND ALONE DATA SETS

T_CASE_MOD

RATING: Cancelled. Replaced by 905-5222-00N.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Stand Alone Data sets may be provided for any installation requiring data sets. However, this is not the preferred means of meeting the customers data communications needs whenever a rack mounted alternative exists. Note, there are instances when provisioning stand alone units is the most efficient means of meeting Telco requirements.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US

T CASE MOD EMR13-01-DSM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 93 01 22	----- ECM 633 02	Previous history not available Information contained within this EMS is also included within 905-5222-00N. This section is being cancelled and retired. The PEC for this EMS is also changing from "CASEDSET" to "T_CASE_MOD".
93 01 22	ECM 633 03	ET 15539 is corrected in this EMS by correcting the reference to the PEC 905-5230-001 s/b 905-5230-011.

The Provisioning of Case/Datatel Stand Alone Data Sets is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RM4200 4201-S/A Modem	905-5220-001					RUL1
RM4200 4202-S/A Modem	905-5185-001					RUL2
RM4200 4208-S/A Modem	905-5227-001					RUL3
RM4200 4212-S/A Modem	905-5223-001					RUL4
RM4229-S/A Aux Data Set	905-5224-001					RUL5
RM4200 4222-S/A Modem	905-5230-011					RUL6
RM4200 4232-S/A Modem	905-5194-001					RUL7
RM4200 4296-S/A Modem	905-5191-001					RUL8

FLAGS:

NOTES:

- 1) Standalone modems should only be used when the quantity of modems and/or mounting conditions does not warrant the use of a modem shelf.

RULES:

- AP 1) When PEC T_CASE_MOD is ordered, these items are provided.
- RUL1 1) Provide the 4201 modem for Full Duplex Synchronous binary serial data transmission and reception over 3002-type four-wire (4W) private lines or half duplex over two-wire private lines and two-wire DDD switched network.
- 2) The 4201 is compatible with CASE, RIXON, and BELL 201B and 201C series modems, and UDS 201B/C modem.
- RUL2 1) Provide the 4202 modem for Asynchronous 4W Full Duplex operation on Private Leased Lines at speed of 0-1800 bps on conditioned lines.
- RUL3 1) Provide the 4208 modem for Synchronous 4W Full Duplex operation in A-Mode on Private Leased Lines at 4800bps.

- RUL4 1) Provide the 4212 modem for 2-Wire Dial-Up operation as follows:
- * 1200 bps Synchronous operation on FDX PSTN Line
 - * 1200 bps Character Asynchronous operation on FDX PSTN Lines
 - * 0-300 bps Asynchronous operation on FDX PSTN Lines
- RUL5 1) Provide the 4229 unit to terminate four-wire private line data channels.
- RUL6 1) Provide the 4222 full duplex modem for transmitting and receiving serial data over the 2 wire PSTN or over 2 wire PLL's. The modem operates at 1200 or 2400 bps synchronous or at 300/1200/2400 bps asynchronous.
- 2) The RM4222-C Stand-Alone modem is now provided as the replacements to the 905-5137-001 and the 905-5137-003 modems. Note that the 905-5137-001 & 003 are stand-alone modems.
- RUL7 1) Provide the 4232 full duplex modem for transmitting and receiving serial data over the 2 wire PSTN or over 4 wire PLL's. The modem operates at 1200/2400/4800/9600 bps synchronous or at 300/1200/2400/4800/9600 bps asynchronous.
- RUL8 1) Provide the 4296 full duplex modem for transmitting and receiving serial data over 4 wire PLL's. The modem operates at 9600 bps with synchronous timing.

CASE RM80 DATA SET MODULE 117VAC

905-5118-001

RATING: MD. Replaced by RM4200 Series Products

ABBREVIATION NAME: DSM

ENGINEERING DESCRIPTION: The RM80 Rack Mount (RM) mounts in a 19/23 inch frame. It accommodates up to eight (8) CA208A/B cards.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

905-5118-001 EMR13-01-DSM-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 11 03	----- ECM 633 02	Previous history not available This EMS is being retired because of functional replacement of the modem by the RM4200 Series product 4208 and RM80 shelf being MD'd by the manufact- urer.

The Case Rixon RM80 Data Set Module (DSM) Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# TA208A/B 4800 BD Card Modem	905-5116-002				1,3,5,7,9, 11,13,15	RUL1
RM80 23" Mounting Kit	905-6770-01					RUL2
\$ Inverter Unit	NT0X87AA					RUL3

FLAGS:

- # MD. Replaced by the RM4200 Series product model number 4208. This product is ordered via 905-5227-002 for a Rack Mount unit or 905-5227-001 for a Stand Alone unit.
- \$ Rating Change Pending. One new jobs use the A0367433 LaMarche Inverter, refer to Ready To Order and Ready To Ship (RT0/RTS and URT0/URTS) lists.

NOTES:

- 1) Provide one (1) 905-5118-001 (RM80) 19" Data Set Shelf to provide a mounting enclosure for TA208A/B Modem Cards.
- 2) RM80 shelf requires fourteen (14) inches of vertical space. The overall dimensions are: 14"H X 23"W X 14.5"D.
- 3) Refer to the Engineering Manual Section EMA17 for Isolated System Grounding (ISG) requirements on new or extension applications.

RULES:

- AP 1) When PEC 905-5118-001 is ordered, these items are provided.
- RUL1 1) Provide one (1) TA208A/B (905-5116-002) LSI modem for use as a Dial-up or Dedicated modem which transmits and receives synchronous data at 4800 bps. This modem is typically used with the BMC and DPP.
- RUL2 1) Provide one each mounting adapters 905-6770-01 and 615-1051-01 to convert the unit from 19" to 23" and 23" to 26", respectively.
- RUL3 1) Provide one (1) NT0X87AA per the Engineering Manual Section EMA13-01-000 RULE #5 for each RM80 shelf provided. Use connectors J2-J4 on the Inverter as the RM70 does not require the surge voltage provided by connector J1.

CASE RM90 DATA SET MODULE 125VAC

905-5139-001

RATING: MD. Replaced by RM4200 Series Products

ABBREVIATION NAME: DSM

ENGINEERING DESCRIPTION: The 905-5139-001 (RM90) is a general purpose modem enclosure equipped with eighteen (18) cards. Power for the modems is provided by a 125VAC rated receptacle strip mounted on the bottom rear of the unit.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

905-5139-001 EMR13-01-DSM-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-----	-----	Previous history not available
93 01 22	ECM 633 02	This EMS is being retired because of the functional replacement of the modems by the RM4200 Series products and the RM90 shelf being MD'd by the manufacturer.
93 01 22	ECM 633 03	ET 15539 is corrected in this EMS by changing RUL 3 to remove the PEC reference.
93 02 19	ECM 633 04	Correct errors in pec codes

The Case Rixon 905-5139-001 (RM90) Modem Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# R96 DSC 9600BD PL OR/AN	905-5131-004				1, 3, 5, 7, 9, 11, 13, 15	RUL1
# 4000DB1 Dual Dial Backup DSC	905-5165-001				1, 3, 5, 7, 9, 11, 13, 15	RUL2
RM46A1 Mount Bracket 19" to 23"	615-1022-01					RUL3
RM46A1 Mount Bracket 23" to 26"	615-1051-01					RUL3
\$ Inverter Unit	NT0X87AA					RUL4

FLAGS:

- # MD. Replaced by the RM4200 Series products. Refer to the EMS 905-5222-00N for Engineering and ordering information.
- \$ Rating Change Pending. One new jobs use the A0367433 LaMarche Inverter, refer to Ready To Order and Ready To Ship (RT0/RTS and URT0/URTS) lists.

NOTES:

- 1) Refer to the Installation Manual IM940 Section 2100 for Isolated System Grounding (ISG) requirements on new or extension applications.

RULES:

- AP 1) When PEC 905-5139-001 is ordered, these items are provided.
- RUL1 1) Provide one 905-5131-004 R96 modem card for data transmissions that require serial synchronous transmission at speeds up to 9600 bps such as the DPP, BMC, and others.
- 2) Provide an RM46A1 card cage and it's accessories as required when the R96 is provided.
- RUL2 1) Provide one 905-5165-002 (4000DB1) Dual Dial Backup Unit card as backup facilities for critical data lines.
- RUL3 1) Provide one (RM46A1 Mounting Adapter) to adapt the twenty-three (23) inch RM90 Modem Shelf to twenty-six (26) inch mounting.
- RUL4 1) Provide one (1) NT0X87AA per the Engineering Manual Section 43E-03-000 RULE #5 for each RM90 shelf provided. Use connectors J2-J4 on the Inverter as the RM90 does not require the surge voltage provided by connector J1.

DM44R2 AUXILIARY DATA SET SHELF

905-5072-02

| RATING: Manufacture Discontinued.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The DM44R2 is a two slot desk mount card cage designed to hold a C829 card and a CA201C, C202T, C108D/F/H, or C108E/G/J private line modem.

REFERENCE DOCUMENTATION: N/A

The Case Rixon DM44R2 Auxiliary Data Set is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Common Equip. Shelf Assy NT3X25AA						RUL1
Connector & Housing Assy NT0X4303						RUL1
\$ C829CR-L4 Data Aux. Set	905-5075-14					RUL2
# C108D/F/H-L1/2 SA Modem	905-5079-05					RUL3
# T108E/G/J-L1/20 Modem	905-5079-06					RUL4
\$ C202T-L1 CD Modem	905-5055-216					RUL5
\$ CA201C-L1C/1D DS 2400BD DU/PL	905-5085-002					RUL6
\$ CA201C-L1D DS 2400BD PL OR/AN	905-5085-004					RUL7
\$ Inverter Unit	NT0X87AA					RUL8

FLAGS:

MD. No replacement available.
| \$ MD. See Note 2 for replacements.

NOTE:

- 1) The DM44R2 physical dimensions are 4.0" High x 6.3" Wide x 13.3" Deep.

2) The chart below define replacements for the MD'ed products:

PRODUCT PEC	PRODUCT CPC	REPLACED BY	
		PEC	DESCRIPTION
905-5055-216	A0288173	905-5185-003	RM4200 4202-C Modem
905-5085-002	A0318213	905-5220-002	RM4200 4201-C Modem
905-5085-004	A0318212	905-5220-002	RM4200 4201-C Modem
905-5075-14	A0318217	905-5224-002	RM4229-C Aux Data Set
NT0X87AA	B0206512	A0367433	LaMarche 500W Inverter

RULE:

- RUL1 1) Provide one (1) NT3X25AA Common Equipment Shelf to accomodate up to three DM44R2 shelves when MIS frame mounting is required. Otherwise the DM44R2 shall be mounted at a miscellaneous location per Telco instructions.
- 2) Provide one (1) NT0X4303 Connector & Housing Assembly per frame when one (1) or more Common Equipment Shelves (NT3X25AA) is equipped.
- RUL2 1) Provide one (1) 905-5075-14 (C829CR-L4 Data Auxiliary Set) to provide standard terminations for four-wire Private Leased Line operation of modems for both non-loaded and loaded lines.
- RUL3 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Provide equipment per RULE #5 for this requirement.
- 2) Provide one 905-5079-05 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line origination is required. Note this modem has been typically used for TOPS3/4 I/O device operation.
- RUL4 1) This product is manufacturer discontinued. The following information is provided for record purposes only. Rixon is not replacing this unit. Therefore provide UDS 108 modems per Section EMA13-01-UDS-1.

- 2) Provide one 905-5079-06 single card slot modem to provide up to 300 bps 4-Wire Full Duplex Asynchronous operation, where automatic line answering capabilities are required.

RUL5 1) Provide one 905-5055-216 C202T modem to provide asynchronous communications, using Frequency Shift Keyed (FSK) modulation, at transmission rates of up to 1400bps on unconditioned lines or 1800bps on conditioned lines.

- 2) The C202T may be used for 4-wire Private Lease Line (PLL) operation at speeds up to 1800bps or 2-wire Dial-Up (DDD) operation at speeds up to 1400bps.

RUL6 1) Provide the 905-5085-002 (TA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Lines or Dial-up facilities.

Note: This modem has been traditionally used for AMATPS, in both the BMC and DPP applications.

RUL7 1) Provide the 905-5085-004 (TA201C) modem for data transmission applications requiring 2400bps Synchronous operation utilizing Private Leased Line (PLL) facilities only.

| RUL8 1) Provide one (1) NT0X87AA per the Engineering Manual Section EMA13-01-000 RULE #5 for every three (3) 905-5072-02 (DM44R2) shelves provided. Use connectors J2-J4 on the Inverter as the DM44R2 does not require the surge voltage provided by connector J1.

NSSD DIGITAL TEST HEAD REMOTE OFFICE TEST LINE NT7F20AA

| RATING: MD. Replace APC 1066 ROTL. Replaced By
NT7F18AA

ABBREVIATION NAME: DTH

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test
Line (DTH-ROTL)

REFERENCE DOCUMENTATION: Not Applicable

| MARKETS: Applicable markets:

| US
Canada

NT7F20AA EMR13-01-DTH-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 15	----- ECM 479 06	Previous history not available ADD DTT functionality to the NT7F20AA DTH-R0TL as provisionable equipment - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URT0/URTS & RT0/RTS Schedule for the Availability Dates for PECs NT7F18AD/BA/CA, NT7F38AB/BA NT7F19AC/BA/CA, PAD, and UDS DDS/MR1. All RAMP Jobs shall be processed as usual.

The NSSD Digital Test Head Remote Office Test Line is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Mounting Bracket 19 To 26	P0709355		2			AP
DTH Power Supply	NT5A23AA		1		0	AP
Control Processor Card	NT7F23AA		1		1	AP
! ROM Pack	NT7F26AA				1R	RUL1
ROM Pack	NT7F26AB				1R	RUL1
DS-0 Handler PCB	NT7F25AA				2	AP
Filler Face Plate	NT7F30AA				3-8	RUL2
VF Interface PCP	NT7F29AA				9	RUL3
Filler Face Plate	NT7F30BA		1		11-18	AP
Filler Face Plate	NT7F30CA		1		19	AP
DTH-ROTL Spares Kit	NT7F19AA					RUL1
DTH-ROTL TO ROTL/DTT UG Kit	NT7F38AB			XX		RUL4
DTH-ROTL/DTT Spares Kit	NT7F19AC			XX		RUL4
DS-0 Handler PCB	NT7F25AB			XX	4-7	RUL4
Common Equipment Shelf	NT3X25AA	CES				RUL5
Pkt Assembler Disassembler	A0382277	PAD				RUL5
UDS DDS/MR1 DSU/CSU	64565074					RUL5
DTH-DTT Cable Kit	NT7F27AA					RUL6
DTH-ROTL Cable Kit	NT7F27BA					RUL6
DTH-RS232 Cable 43 inches	NT7F27DA					RUL6
DTH-RS232 Cable 50 feet	NT7F27DB					RUL6
Amber Video Display Unit	C1007A					RUL7
Green Video Display Unit	C1007G					RUL7
White Video Display Unit	C1007W					RUL7

FLAGS:

! Rate Change Pending. Refer to URT0/URTS Schedule for Cut-In of the NT7F26AB.

NOTES:

- 1) The DTH is fused at 10 amps from the FSP Circuit Breaker or the PDC per job specific requirements.
- 2) The DTH is 14-inches high and requires 5-inches above and below the unit for cooling purposes, for a total of 24-inches of vertical MIS frame space.
- 3) The necessary mounting hardware is always provided with the NT7F20AA PEC.
- 4) This product is for US applications only until further notice.

RULES:

- AP 1) When PEC NT7F20AA is ordered, these items are provided.
- RUL1 1) Always provide the ROM Pack whenever provisioning the DTH for ROTL applications.
- RUL2 1) Provide NT7F30AA Filler Face Plates in unequipped slots 3 thru 8.
- RUL3 1) Provide one NT7F29AA to enable the DTH-ROTL function. This PCB also provides six 105 test lines.
- RUL4 1) Provide the Upgrade kit to upgrade an existing NT7F18AB ROTL to a NT7F18CA DTH-ROTL/DTT.
- 2) Refer to Engineering Manual Section NT7F38AB for more information on the Upgrade Kit. Provide one (1) Spares Kit when required per customer request.
- 3) When the DTH-ROTL to DTH-ROTL/DTT Kit is provisioned and the Telco specifies maintenance spares, provide one NT7F19CA per NT7F38AB provisioned.
- 4) When the ROTL to ROTL/DTT Kit is provisioned one (1) DS0 CP is always provided plus one is always provided with the NT7F18AD, however, additional DS0 CPs may be required.

Use the following calculations to determine the exact quantity of DS0 CPs required:

The following calculations are required to provision the DTH-ROTL, DTH-DTT, or DTH-ROTL/DTT:

- a. Calculate the number of Test Access Paths (TAP) required, using the formula: $N\_TAP = N\_OG / (192 * H)$, as follows:

$$N\_TAP = N\_OG / (192 * H)$$

- b. Calculate the number of 108 Test Lines (TL) required.

Using the formula: $N\_TL = N\_IT / (83.5 * H)$ or $N\_IR = N\_TL$. Select the greater of: the N_IT (Number of Incoming Trunks) or the N_IR (Number of Incoming Routes). Always round up to the next higher integer value.

- c. Calculate the number of DS-0 CPs required.

$N\_DS0 = ((N\_TAP + N\_TL) / 4 \text{ (round up)}) - 2$; the QTY Upgrade Kits NT7F38AB = QTY_EXISTING_NT7F20AA/18AA, OR 18AB

** Note: One DS0 is AP in NT7F38AB; Plus 1 in NT7F18AA/AB/20AA **

- d. Calculate the quantity of DTH shelves required.

$NT7F18CA = RUL4.4.c / 4 \text{ (Round Up) Minus (QTY\_OF\_EXISTING NT7F20AA, NT7F18AA, OR NT7F18AB)}$

- e. Reuse Filler Face Plates as required.

RUL5 1) Always provide one each of equipment referenced per this RULE when the DTH-DTT or DTH-ROTL/DTT application is provisioned.

RUL6 1) Cables referenced with this Rule shall be applied based on the product application and frame configuration as follows:

1. NT7F27AA - Always provision when DTH-ROTL/DTT or DTT only application is required.

2. NT7F27DA/DB - Provision as follows:

- a. When DTH-DTT and Common Equipment Shelf is installed the same frame provision three (3) NT7F27DA cables.

- b. When DTH-DTT and Common Equipment Shelf is installed in different frames provision one (1) NT7F27DA and two (2) NT7F27DB cables.

Note: NT7F27DA is simply a 43" version of the NT7F27DB

3. Refer to Figure 1 attached for the DTH-ROTL/DTT Typical Cabling Diagram.

- RUL7 1) Provision VDUs per telco specifications when the DTH-ROTL/DTT or DTH-DTT is provisioned. Note: VDU Cabling is always supplied with a 50ft length.

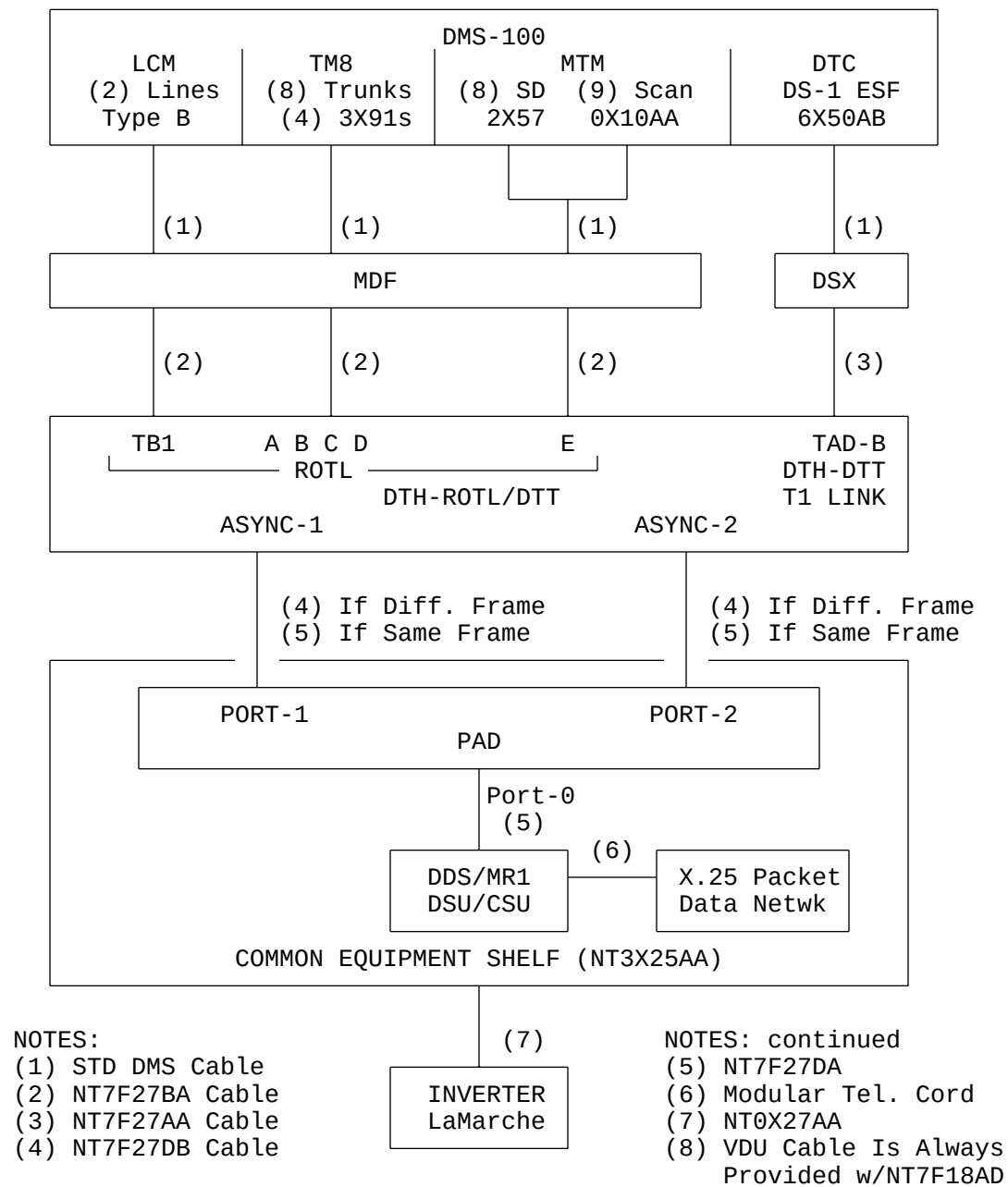


FIGURE 1: DTH-ROTL/DTT CONNECTIVITY DIAGRAM

NSSD DIGITAL TEST HEAD

NT7F18AA

| RATING: MD. Replaces NT7F20AA. Replaced by
NT7F18AB.

ABBREVIATION NAME: DTH

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test
Line (DTH-ROTL)

REFERENCE DOCUMENTATION: Not Applicable

| MARKETS: Applicable markets:

| US
| Canada

NT7F18AA EMR13-01-DTH-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 12 15	----- ECM 479 06	Previous history not available ADD DTT functionality to the NT7F18AA DTH-R0TL as provisionable equipment - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URT0/URTS & RT0/RTS Schedule for the Availability Dates for PECs NT7F18AD/BA/CA, NT7F38AB/BA NT7F19AC/BA/CA, PAD, and UDS DDS/MR1. All RAMP Jobs shall be processed as usual.

The NSSD Digital Test Head is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Shelf Assembly	NT7F22AA		1			AP
Mounting Bracket 19 To 26	P0709355		2			AP
DTH Power Supply	NT5A23AA		1		0	AP
Control Processor Card	NT7F23AA		1		1	AP
ROM Pack	NT7F26AB		1		1R	AP
DS-0 Handler PCB	NT7F25AA		1		2	AP
Filler Face Plate	NT7F30AA		6		3-8	AP
VF Interface PCP	NT7F29AA		1		9-10	AP
Filler Face Plate	NT7F30BA		1		11-18	AP
Filler Face Plate	NT7F30CA		1		19	AP
RS232 Cable	NT0X26AZ		1			AP
Gen. Description DTH Pub.	NT7F2002		1			AP
Inst. & Admin. DTH Pub.	NT7F2003		1			AP
Operations DTH Publication	NT7F2004		1			AP
Index of NTP's	NT7F2005		1			AP
DTH-ROTL Spares Kit	NT7F19AA					RUL1
DTH-ROTL TO ROTL/DTT UG Kit	NT7F38AB					RUL2
DTH-ROTL/DTT Spares Kit	NT7F19AC					RUL2
DS-0 Handler PCB	NT7F25AB			XX	4-7	RUL2
Common Equipment Shelf	NT3X25AA	CES				RUL3
Pkt Assembler Disassembler	A0382277	PAD				RUL3
UDS DDS/MR1 DSU/CSU	64565074					RUL3
DTH-ROTL/DTT Spares Kit	NT7F19AC					RUL4
DTH-DTT Cable Kit	NT7F27AA					RUL5
DTH-ROTL Cable Kit	NT7F27BA					RUL5
DTH-RS232 Cable 43 inches	NT7F27DA					RUL5
DTH-RS232 Cable 50 feet	NT7F27DB					RUL5
Amber Video Display Unit	C1007A					RUL6
Green Video Display Unit	C1007G					RUL6
White Video Display Unit	C1007W					RUL6

FLAGS:

NOTES:

- 1) The DTH is fused at 10 amps from the FSP Circuit Breaker or the PDC per job specific requirements.
- 2) The DTH is 14-inches high and requires 5-inches above and below the unit for cooling purposes, for a total of 24-inches of vertical MIS frame space.
- 3) The necessary mounting hardware is always provided with the NT7F18AA PEC.
- 4) This product is for US applications only until further notice.
- 5) Always provided RS232 Cable NT0X26AZ is 50 feet in length.

RULES:

AP 1) When PEC NT7F18AA is ordered, these items are provided.

RUL1 1) Refer to Engineering Manual Section NT7F19AA for more information on the Spares Kit. Provide one (1) Spares Kit when required per customer request.

RUL2 1) Provide the Upgrade kit to upgrade an existing NT7F18AA ROTL to a NT7F18CA DTH-ROTL/DTT.

2) Refer to Engineering Manual Section NT7F38AB for more information on the Upgrade Kit. Provide one (1) Spares Kit when required per customer request.

3) When the DTH-ROTL to DTH-ROTL/DTT Kit is provisioned and the Telco specifies maintenance spares, provide one NT7F19CA per NT7F38AB provisioned.

4) When the ROTL to ROTL/DTT Kit is provisioned one (1) DS0 CP is always provided plus one is always provided with the NT7F18AD, however, additional DS0 CPs may be required.

Use the following calculations to determine the exact quantity of DS0 CPs required:

The following calculations are required to provision the DTH-ROTL, DTH-DTT, or DTH-ROTL/DTT:

- a. Calculate the number of Test Access Paths (TAP) required, using the formula: $N\_TAP = N\_OG / (192 * H)$, as follows:

$$N\_TAP = N\_OG / (192 * H)$$

- b. Calculate the number of 108 Test Lines (TL) required.

Using the formula: $N\_TL = N\_IT / (83.5 * H)$ or $N\_IR = N\_TL$. Select the greater of: the N_IT (Number of Incoming Trunks) or N_IR (the Number of Incoming Routes). Always round up to the next higher integer value.

- c. Calculate the number of DS-0 CPs required.

$N\_DS0 = ((N\_TAP + N\_TL) / 4 \text{ (round up)}) - 2$; the
QTY Upgrade Kits NT7F38AB =
QTY_EXISTING_NT7F20AA/18AA, OR 18AB

** Note: One DS0 is AP in NT7F38AB; Plus 1 in
NT7F18AA/AB/20AA **

- d. Calculate the quantity of DTH shelves required.

NT7F18CA = $RUL2.4.c / 4 \text{ (Round Up)}$ Minus
(QTY_OF_EXISTING NT7F20AA, NT7F18AA, OR NT7F18AB)

- e. Reuse Filler Face Plates as required.

RUL3 1) Always provide one each of equipment referenced per this RULE when the DTH-DTT or DTH-ROTL/DTT application is provisioned.

RUL4 1) Provision this equipment to provide spare equipment for the DTH-ROTL/DTT function per Telco specifications.

RUL5 1) Cables referenced with this Rule shall be applied based on the product application and frame configuration as follows:

1. NT7F27AA - Always provision when DTH-ROTL/DTT or DTT only application is required.

2. NT7F27DA/DB - Provision as follows:

- a. When DTH-DTT and Common Equipment Shelf is installed the same frame provision three (3) NT7F27DA cables.

- b. When DTH-DTT and Common Equipment Shelf is installed in different frames provision one (1) NT7F27DA and two (2) NT7F27DB cables.

Note: NT7F27DA is simply a 43" version of the NT7F27DB

3. Refer to Figure 1 for a typical DTH=ROTL/DTT Cabling Diagram.

- RUL6 1) Provision VDUs per telco specifications when the DTH-ROTL/DTT or DTH-DTT is provisioned. Note: VDU Cabling is always supplied with a 50ft length.

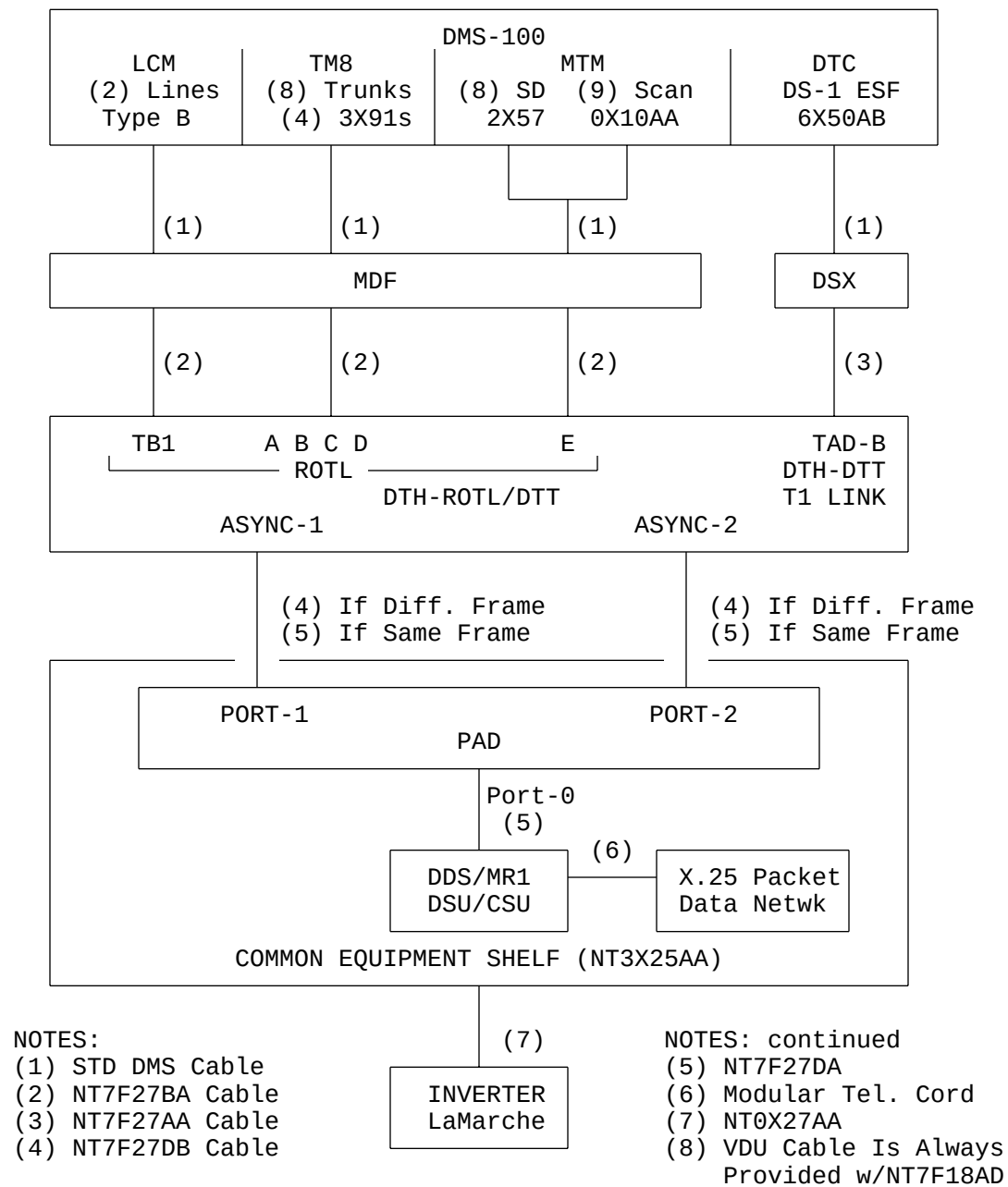


FIGURE 1: DTH-ROTL/DTT CONNECTIVITY DIAGRAM

| NSSD DIGITAL TEST HEAD SPARES KIT

NT7F19AA

| RATING: MD. Replaced by NT7F19AB.

ABBREVIATION NAME: DTH

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test
Line (DTH-ROTL) Spares Kit

REFERENCE DOCUMENTATION: Not Applicable

The NSSD Digital Test Head Spares Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTH Power Supply	NT5A23AA		1			AP
Control Processor Card	NT7F23AA		1			AP
ROM Pack	NT7F26AB		1			AP
DS-0 Handler PCB	NT7F25AA		1			AP
VF Interface PCP	NT7F29AA		1			AP

RULES:

| AP 1) When PEC NT7F19AA is ordered, these items are provided.

DIGITAL TEST HEAD ROTL (REMOTE OFC TST LN)

PEC CODE: NT7F18AB

| CPC CODE: A0389529

| RATING: MD.

| REPLACES: NT7F18AA

| REPLACED BY: NT7F18AD (ROTL Only) or NT7F18CA (ROTL/DTT).

ABBREVIATION NAME: DTH

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test
Line (DTH-ROTL)

REFERENCE DOCUMENTATION: MS7F18 01 01

MARKETS: Applicable markets:

US
Canada

| ISSUE AUTHOR: NTI: Merdia Drummer Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NT7F18AB EMR13-01-DTH-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 08 10	API 425 01	Initial introduction of this product via the subject Product Specification Include late issue 01 review comments and corrections noted per ET 14499 and ET 14559. ADD DTT functionality to the NT7F18AB DTH-ROTL as provisionable equipment - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URT0/URTS & RT0/RTS Schedule for the Availability Dates for PECs NT7F18AD/BA/CA, NT7F38AB/BA NT7F19AC/BA/CA, PAD, and UDS DDS/MR1. All RAMP Jobs shall be processed as usual.
92 10 06	API 425 02	
92 12 15	ECM 479 06	
93 08 17	ECM 479 07	Incorporate NSD DCN # 92-1151 MD PEC NT7F18AB and replace with NT7F18AD for ROTL Only apps or NT7F18CA for ROTL plus DTT applications (apps).

The Digital Test Head ROTL (Remote Ofc Tst Ln) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Shelf Assembly	NT7F22AA		1			AP
Mounting Bracket 19 To 26	P0709355		2			AP
DTH Power Supply	NT5A23AA		1		0	AP
Control Processor Card	NT7F23AA		1		1	AP
ROM Pack	NT7F26AB		1		1R	AP
DS-0 Handler PCB	NT7F25AB		1		2	AP
Filler Face Plate	NT7F30AA		6		3-8	AP
VF Interface PCP	NT7F29AA		1		9-10	AP
Dummy Panel	NT7F30BA		1		11-18	AP
Dummy Panel	NT7F30CA		1		19	AP
RS232 Cable	NT0X26AZ		1			AP
General Description Manual	NT7F2006		1			AP
Installation and Admin Man.	NT7F2007		1			AP
Installation and Admin Man.	NT7F2008		1			AP
DTH-ROTL Spares Kit	NT7F19AB		1			RUL1
DTH-ROTL TO ROTL/DTT UG Kit	NT7F38AB					RUL2
DTH-ROTL/DTT Spares Kit	NT7F19AC					RUL2
DS-0 Handler PCB	NT7F25AB			X	4-7	RUL2
Common Equipment Shelf	NT3X25AA	CES				RUL3
Pkt Assembler Disassembler	A0382277	PAD				RUL3
UDS DDS/MR1 DSU/CSU	64565074					RUL3
DTH-DTT Cable Kit	NT7F27AA					RUL4
DTH-ROTL Cable Kit	NT7F27BA					RUL4
DTH-RS232 Cable 43 inches	NT7F27DA					RUL4
DTH-RS232 Cable 50 feet	NT7F27DB					RUL4
Amber Video Display Unit	C1007A					RUL5
Green Video Display Unit	C1007G					RUL5
White Video Display Unit	C1007W					RUL5
Protected AC	INVERTER					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
Not Applicable		

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) The DTH is fused at 10 amps from the FSP Circuit Breaker or the PDC per job specific requirements.
- 2) The DTH is 14-inches high and requires 5-inches above and below the unit for cooling purposes, for a total of 24-inches of vertical MIS frame space.
- 3) The necessary mounting hardware is always provided with the NT7F18AB PEC.
- 4) Always provided RS232 Cable NT0X26AZ is 50 feet in length.

RULES:

- AP 1) When PEC NT7F18AB is ordered, these items are provided.
- RUL1 1) Refer to Engineering Manual Section NT7F19AB for more information on the Spares Kit. Provide one (1) Spares Kit when required per customer request.
- RUL2 1) Provide the Upgrade kit to upgrade an existing NT7F18AB ROTL to a NT7F18CA DTH-ROTL/DTT.
- 2) Refer to Engineering Manual Section NT7F38AB for more information on the Upgrade Kit. Provide one (1) Spares Kit when required per customer request.

- 3) When the DTH-ROTL to DTH-ROTL/DTT Kit is provisioned and the Telco specifies maintenance spares, provide one NT7F19CA per NT7F38AB provisioned.
- 4) When the ROTL to ROTL/DTT Kit is provisioned one (1) DS0 CP is always provided plus one is always provided with the NT7F18AD, however, additional DS0 CPs may be required.

Use the following calculations to determine the exact quantity of DS0 CPs required:

The following calculations are required to provision the DTH-ROTL, DTH-DTT, or DTH-ROTL/DTT:

- a. Calculate the number of Test Access Paths (TAP) required, using the formula: $N\_TAP = N\_OG / (192 * H)$, as follows:

$$N\_TAP = N\_OG / (192 * H)$$

- b. Calculate the number of 108 Test Lines (TL) required.

Using the formula - $N\_TL = N\_IT / (83.5 * H)$ or $N\_IR / (83.5 * H)$. Select the greater of: the number of Incoming Trunks or the number of Incoming Routes. Always round up to the next higher integer value.

- c. Calculate the number of DS-0 CPs required.

$$N\_DS0 = ((N\_TAP + N\_TL) / 4 \text{ (round up)}) - 2; \text{ the } QTY \text{ Upgrade Kits NT7F38AB} = QTY\_EXISTING\_NT7F20AA/18AA, \text{ OR } 18AB$$

** Note: One DS0 is AP in NT7F38AB; Plus 1 in NT7F18AA/AB/20AA **

- d. Calculate the quantity of DTH shelves required.

$$NT7F18CA = RUL2.4.c / 4 \text{ (Round Up) Minus } (QTY\_OF\_EXISTING \text{ NT7F20AA, NT7F18AA, OR NT7F18AB})$$

- e. Reuse Filler Face Plates as required.

- RUL3 1) Always provide one each of equipment referenced per this RULE when the DTH-DTT or DTH-ROTL/DTT application is provisioned.

- RUL4 1) Cables referenced with this Rule shall be applied based on the product application and frame configuration as follows:
1. NT7F27AA - Always provision when DTH-ROTL/DTT or DTT only application is required.
 2. NT7F27DA/DB - Provision as follows:
 - a. When DTH-DTT and Common Equipment Shelf is installed the same frame provision three (3) NT7F27DA cables.
 - b. When DTH-DTT and Common Equipment Shelf is installed in different frames provision one (1) NT7F27DA and two (2) NT7F27DB cables.
 3. NT7F27BA - Always provision when DTH-ROTL or DTH-ROTL/DTT application is required.
- Note:** NT7F27DA is simply a 43" version of the NT7F27DB
- RUL5 1) Provision VDUs per telco specifications when the DTH-ROTL/DTT or DTH-DTT is provisioned. Note: VDU Cabling is always supplied with a 50ft length.
- RUL6 1) Protected AC is required to power the Common Equipment Shelf (CES), thereby, providing protected AC for the equipment mounted on the CES.
- 2) The DMS-100 standard for providing local protected AC is the LaMarche Inverter (See ECM-602 for detailed engineering information).

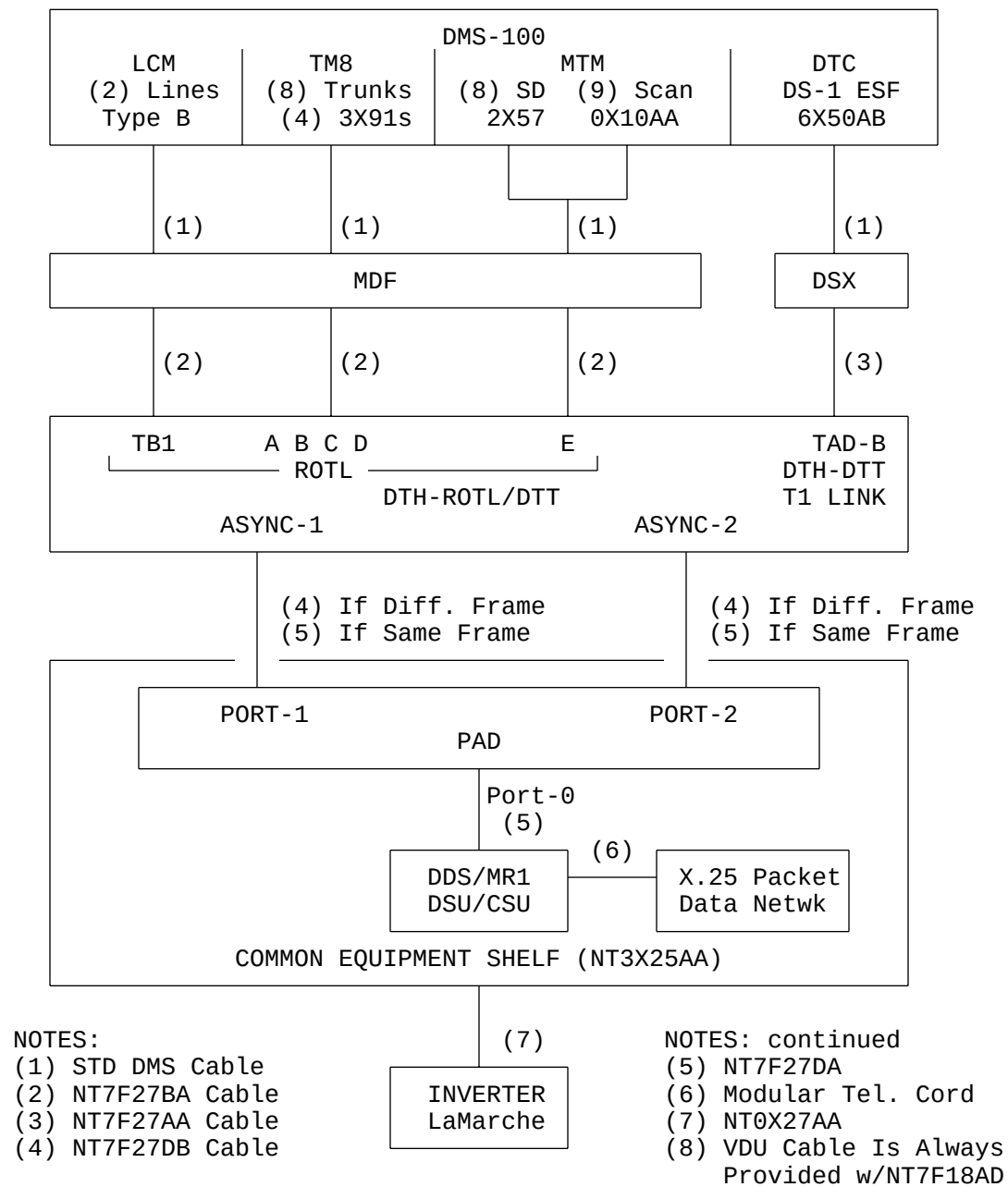


FIGURE 1: DTH-ROTL/DTT CONNECTIVITY DIAGRAM

NSSD DIGITAL TEST HEAD SPARES KIT

PEC CODE: NT7F19AB

CPC CODE: A0389530

| RATING: MD.

REPLACES: Not Applicable

| REPLACED BY: NT7F19AC

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test
Line (DTH-ROTL) Spares Kit.

REFERENCE DOCUMENTATION:

MARKETS: Applicable markets:

US
Canada

ISSUE AUTHOR: NTI: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NT7F19AB EMR13-01-DTH-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 94 03 23	----- ECM 479 09	Previous history not available To update format of EMS.
94 06 20	ECM 479 10	MD per NSD ECO 92-1151.

The NSSD Digital Test Head Spares Kit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTH Power Supply	NT5A23AA		1			AP
Control Processor Card	NT7F23AA		1			AP
ROM Pack	NT7F26AB		1			AP
DS-0 Handler PCB	NT7F25AB		1			AP
VF Interface PCP	NT7F29AA		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT7F19AB is ordered, these items are provided.

MISC EQPT FRAME SUPERVISORY PANEL

NT0X88AA

RATING: MD. Replaced by NT0X88AB.

ABBREVIATION NAME: FSP

ENGINEERING DESCRIPTION: N/A

REFERENCE DOCUMENTATION: MS0X88AA 01 03

The Misc Eqpt Frame Supervisory Panel is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Chassis Assembly	NT0X2805		1			AP
Card Cage Assembly	NT0X2807		1			AP
Chassis Assembly	NT0X2805		1			AP
Pwr Control and Alarm card	NT0X36AB		1		01	AP
Pwr Control and Alarm card	NT0X36AB				02	RUL1
Pwr Control and Alarm card	NT0X36AB				03	RUL1

RULE:

- AP 1) When PEC NT0X88AA is ordered, these items are provided.
- RUL1 1) Provide one Power Control and Alarm card (NT0X36AB) for each additional four alarm inputs (fuse guards etc) required.

REM SRV EQPT FR SUPERVISORY PANEL

NT0X88AC

RATING: MD. Replaced by NT0X88AD.

ABBREVIATION NAME: FSP

ENGINEERING DESCRIPTION: N/A

REFERENCE DOCUMENTATION: MS0X88AC 01 01

The RSE Frame Supervisory Panel is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Chassis Assembly	NT0X2805		1			AP
Card Cage Assembly	NT0X2807		1			AP
Front Panel Assembly No. 2	NT0X2810		1			AP
Pwr Control and Alarm card	NT0X36AB		1		01	AP
Pwr Control and Alarm card	NT0X36AB				02	RUL1
Fuse	AR				F01-03	RUL2
Fuse	AR				F04-16	RUL3

RULE:

- AP 1) When PEC NT0X88AC is ordered, these items are provided.
- 2) NOTE: Certain always-provided components, including three (3) 1.33 A alarm battery fuses are not listed here.
- RUL1 1) Provide one (1) Power Control and Alarm card, NT0X36AB, to interface up to four additional alarm inputs (fuse guards etc.) or if a RSM shelf is equipped in position 32 or 18 on the RSE frame.
- RUL2 1) Provide up to three (3) fuses in these locations to power RSE-mounted miscellaneous equipment. Select from the following according to required fuse rating:

FUSE RATING	PEC
10A	C0028890
15A	C0028891
20A	C0028892
DUMMY	A0205210

- 2) Provide one (1) alarm slave fuse, type QFF1A, A0205202 and one (1) corresponding Designation Disk - White, P097P235, for each fuse provisioned per item 1 above.

- 3) Provide one Dummy Fuse, A0205210, in each location which is not to be equipped with a fuse.

- RUL3 1) Provide up to thirteen (13) fuses in these locations to power Remote Service Module (RSM) or other RSE-mounted miscellaneous equipment. Select from the following according to required fuse rating and provide one corresponding Designation Disk for each fuse ordered:

FUSE RATING (AMPS)	FUSE		DESIGNATION DISC	
	TYPE	PEC	COLOUR	PEC
0.18	QFF1E	A0205206	Y	P097P239
0.25	QFF1F	A0205207	V	P097P240
0.50	QFF1G	A0205208	R	P097P241
0.75	QFF1H	A0205209	BR	P097P242
1.33	QFF1A	A0205202	WH	P097P235
2.0	QFF1B	A0205203	O	P097P236
3.0	QFF1C	A0205204	BL	P097P237
5.0	QFF1D	A0205205	G	P097P238

- 2) When used to power RSM shelves, provision shelf feed and talk battery fuses as follows and observe miscellaneous equipment assignment restriction:

RSM SHELF POS	SHELF FEED			SHELF TALK BATTERY			DO NOT ASGN MISC EQUIP TO:
	FUSE RATING	LOC	TERM ID	FUSE RATING	LOC	TERM ID	
65	5A	F05	TB1-12	1.33	F11	TB2-10	-
51	5A	F06	TB1-11	1.33	F10	TB2-9	TB2-1
32	5A	F04	TB1-10	1.33	F09	TB2-8	TB2-3
18	5A	F07	TB1-9	1.33	F08	TB2-7	TB2-5

- 3) Provide one Dummy Fuse, A0205210, in each location which is not to be equipped with a fuse.

FUSE LOC	MAX RATING (AMPS)	PDC FEED	FSP TERMINAL	COMMENT	NOTE
F01	20	1	-	Talk battery feed	
F02	20	1	TB1-7	MISC circuits	
F03	20	2	TB1-8	MISC circuits	
F04	5	1	TB2-3	MISC circuits, or	1
			TB1-10	RSM in POS 32	
F05	5	1	TB1-12	RSM in POS 65	1
F06	5	1	TB2-1	MISC circuits, or	1
			TB1-11	RSM in POS 51	
F07	5	1	TB2-5	MISC circuits, or	1
			TB1-9	RSM in POS 18	
F08	5	1	TB2-7	Talk battery, RSM POS 18	
F09	5	1	TB2-8	Talk battery, RSM POS 32	
F010	5	1	TB2-9	Talk battery, RSM POS 51	
F011	5	1	TB2-10	Talk battery, RSM POS 65	
F012	5	2	TB3-6	MISC circuits	
F013	5	2	TB3-7	MISC circuits	
F014	5	2	TB3-8	MISC circuits	
F015	5	2	TB3-9	MISC circuits	
F016	5	2	TB3-10	MISC circuits	
F017	1.33 FIXED	-	TB3-11	Alarm BAT. end AIS LP	
F018	1.33 FIXED	-	-	Alarm BAT. to PC card	
F019	1.33 FIXED	-	-	Alarm BAT. FSP jacks	

TABLE I

FSP FUSE/TERMINAL ASSIGNMENTS

NOTES:

- 1) See provisioning rule, RUL3, item 2.

CHINA PACKAGING HARDWARE KITS

PEC CODE: NT0X71CA

CPC CODE: B0242438

| RATING: MD

REPLACES: Not Applicable

REPLACED BY: NT0X71CB

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: This document describes the equipment used to provide an aesthetic improvement for frame-based DMS equipment for the China market. This equipment provides a cabinet system facade required by the Guangdong Post Telecommunications Administrative Bureau.

REFERENCE DOCUMENTATION:

MARKETS: Applicable markets:

Asia/Pacific
Canada
US

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NT0X71CA EMR13-01-HDW-01 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
95 11 21 97 02 28	ECM 589 01 ECM 589 02	Introduce China Packaging H/W Kits. MD NT0X71CA Door Kit per EC 018-50832. Replaced by EMS NT0X71CB Door Kit per EC 018-49063. Also MD parts NT0X25CA, NT0X25CB, and NT0X49EC per EC 018-50832.

The China Packaging Hardware Kits is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#Door Kit, Grey, 23.6 "	NT0X71CA		1			RUL1
Cable Trough Shield Kit	NT0X49ED		1			RUL2
Cable Trough End Shield	NT0X49EH		1			RUL3
Cable Trough End Shield	NT0X49EJ		1			RUL3
Endguard, Grey, 23.6 inches	NT0X73AJ		1			RUL4
End Panel, Grey, 23.6 inches	NT0X73AK		1			RUL5
Single Hotslide Junction kit	NT0X25CA		1			RUL6
Double Hotslide Junction kit	NT0X25CB		1			RUL7
Cable Trough Shield, Grey	NT0X49EC		2			RUL8
Main Cross Aisle (Variable)	NT0X75AH		1			RUL9
Cross Aisle Duct (37.5")	NT0X75AJ		1			RUL10
Cross Aisle Duct (25.5")	NT0X75AK		1			RUL11
Cross Aisle Duct (Variable)	NT0X75AL		1			RUL12
Cross Aisle Duct (Small)	NTRX55CU		1			RUL13
Cross Aisle Duct (Medium)	NTRX55CV		1			RUL14
Cross Aisle Duct (Large)	NTRX55CW		1			RUL15
Cross Aisle Duct (Rear/Vari)	NT0X24CX		1			RUL16
Cross Aisle Duct(Front/Vari)	NT0X24CY		1			RUL17
Cable Bay Frame Door Label	P0806548		1			RUL18
MSS Frame Door Label	P0806549		1			RUL18
DNI Frame Door Label	P0806550		1			RUL18
RME Frame Door Label	P0806551		1			RUL18
IRLCM Frame Door Label	P0806552		1			RUL18
PDC Frame Door Label	P0806553		1			RUL18
LCEI Frame Door Label	P0806554		1			RUL18
ILCE Frame Door Label	P0806555		1			RUL18
ITME Frame Door Label	P0806556		1			RUL18
LGEO Frame Door Label	P0806557		1			RUL18
ILGE Frame Door Label	P0806558		1			RUL18
DTEO Frame Door Label	P0806561		1			RUL18
IDTE Frame Door Label	P0806564		1			RUL18
IOE Frame Door Label	P0806566		1			RUL18
DSNE Frame Door Label	P0806567		1			RUL18
CCC Frame Door Label	P0806568		1			RUL18
SLC Frame Door Label	P0806573		1			RUL18
Mechanical Bay Frame Label	P0806589		1			RUL18
Blank Frame Door Label	P0808806		1			RUL18
PDTE Frame Door Label	P0809053		1			RUL18

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Screw Kit	NT0X71DA		1			RUL19
Grey Cable Duct Support	NT0X75AM		1			RUL20

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X71CA	MD	NT0X71CB
NT0X25CA	MD	N/A
NT0X25CB	MD	N/A
NT0X49EC	MD	N/A

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X71CA is ordered, these items are provided.

RUL1 1) NT0X71CA is MD and replaced with NT0X71CB. See EMS NT0X71CB for additional information. Provide one NT0X71CA door kit per NT0X25AA/AH based framework when aesthetic enhancement is required. This kit provides both front and rear doors as well as required adapters and mounting hardware. When mounting the NT0X71CA ON NT0X25AA common framework see rule 19.

RUL2 1) Provide one NT0X49ED Cable Trough Shield kit per frame when cables are being conveyed overhead using cable troughs.

This kit provides an aesthetic cover for the front and rear of the cable trough.

- RUL3 1) Provide one NT0X49EH Cable Trough End Shield at the end of each lineup when the NT0X75AH main cross-aisle duct is not being used. The NT0X49EH Cable Trough End Shield covers the open end of the outermost cable trough above the endguard/panel. 2) Provide one NTRX49EJ Cable Trough End Shield at the end of the line-up when the NT0X75AH Main Cross Aisle Duct is being used to convey cables between gaps in the line-ups.
- RUL4 1) Provide one NT0X73AJ End Guard at the end of each lineup that requires end aisle light inserts. When used immediately to the right of a line frame (when viewed from the front), maintain a 15 inch space between the end of the frame and any abstraction (wall, pillar, etc.) to permit the endguard to swing open for line card access. When mounting the NT0X73AJ end guard on frames equipped with line drawers, the minimum clearance to obstructions should be no less than 12 inches. For all non-line applications an 8 inch minimum clearance will suffice.
- RUL5 1) Provide one NT0X73AK End Panel at the end of each lineup that does not require end aisle inserts (for example, blank end panels at breaks in the lineup). When used immediately to the right of a line frame (when viewed from the front), maintain a 15 inch space between the end of the frame and any abstraction (wall, pillar, etc.) to permit the end panel to swing open for line card access. When mounting the NT0X73AK end guard on frames equipped with line drawers, the minimum clearance to obstructions should be no less than 12 inches. For all non-line applications an 8 inch minimum clearance will suffice.
- RUL6 1) MD without replacement. Provide one NT0X25CA Single Hotslide Junction kit ("Blending kit") for each C42 cabinet being co-located with 7' frames (NT0X25AH based) in a lineup. This kit provides an aesthetically pleasing transition from 28 inch deep cabinets to the frames that are equipped with the 23.6 inch deep NT0X71CA door kit.
- RUL7 1) MD without replacement. Provide one NT0X25CB Multiple Hotslide Junction kit ("Blending kit") for each additional C42 cabinet being added to a lineup which already contains the NT0X25CA kit. For adjacent Cabinets (C42) only.
- RUL8 1) MD without replacement. Provide one (1) NT0X49EC Cable Trough Shield Kit for each C42 cabinet using either the

NT0X25CA or NT0X25CB kits when cables are being conveyed using frame mounted troughs. This kit provides aesthetic covers for the troughs (two (2) for the front, and two (2) for the rear, four (4) covers total).

- RUL9 1) Provide one NT0X75AH Main Cross Aisle Bridge to provide a single intra-aisle cable conveyance across a gap in the NT0X25AH frame lineup. The length of the NT0X75AH can be determined as follows:

Length = lineup gap + 3.5 inches.

Note: The lineup gap is measured from the base of each frame.

- RUL10 1) Provide appropriate quantities of NT0X75AJ cross aisle cable duct to support cable conveyance between line-ups whose aisle width, measured from the base of each frame is 3.466 feet. The adjusted aisle width with the NT0X71CA facade in place will be 3.0 feet.

- RUL11 1) Provide appropriate quantities of NT0X75AK cross aisle cable duct to support cable conveyance between line-ups whose aisle width, measured from the base of each frame is 2.466 feet. The adjusted aisle width with the NT0X71CA facade in place will be 2.0 feet.

- RUL12 1) Provide appropriate quantities of NT0X75AL cross aisle cable duct to support cable conveyance between line-ups whose aisle width cannot be accommodated by the NT0X75AJ/AK cable duct. The NT0X75AL variable length cable duct dimension can be determined as follows:

Length = Aisle width (measured from base of frame) - 4.1 inches.

- RUL13 1) Provide appropriate quantities of NTRX55CU Cross Aisle Duct to support cable conveyance between C42 cabinets equipped with NTRX55BE cable troughs and lineups containing NT0X71CA enhanced aesthetics package. The NTRX55CU cross aisle duct-small accommodates aisle widths, measured from the base of opposing cabinets less the NT0X71CA facade, ranging from 23.00 to 31.23 inches.

- RUL14 1) Provide appropriate quantities of NTRX55CV Cross Aisle Duct to support cable conveyance between C42 cabinets equipped with NTRX55BE cable troughs and lineups containing NT0X71CA enhanced aesthetics package. The NTRX55CV cross aisle duct-medium accommodates aisle widths, measured from the base of

opposing cabinets less the NT0X71CA facade, ranging from 31.25 to 47.00 inches.

RUL15 1) Provide appropriate quantities of NTRX55CW Cross Aisle Duct to support cable conveyance between C42 cabinets equipped with NTRX55BE cable troughs and lineups containing NT0X71CA enhanced aesthetics package. The NTRX55CW cross aisle duct-large accommodates aisle widths, measured from the base of opposing cabinets less the NT0X71CA facade, ranging from 47.00 to 75.50 inches.

RUL16 1) Provide one NT0X24CX Cross Aisle Duct (Rear Access) to provide a single inter-aisle cable conveyance between a C42 cabinet utilizing the NT0X25AX cable trough and a lineup containing NT0X71CA frame treatments. The length of the NT0X24CX must be specified in the 411 Spec per the following:

Length = Aisle Width + 6.5 Inches

Note: The aisle width is measured from the base of each frame less the NT0X71CA facade.

RUL17 1) Provide one NT0X24CY Cross Aisle Duct (Front Access) to provide a single inter-aisle cable conveyance between a C42 cabinet utilizing the NT0X25AX cable trough and a lineup containing NT0X71CA frame treatments. The length of the NT0X24CY must be specified in the 411 Spec per the following:

Length = Aisle Width + 2.5 Inches

Note: The aisle width is measured from the base of each frame less the NT0X71CA facade.

RUL18 1) Provide one door label per frame, as needed. Reference NT0X60 for more label information.

RUL19 1) Provide one NT0X71DA screw kit when the NT0X71CA facade is applied on NT0X25AA framework. (The NT0X25AA common framework is used primarily for raised floor cable access).

RUL20 1) Provide appropriate quantity of NT0X75AM grey cable duct support to support the NT0X75AH main cross aisle duct on frame cable troughs.

ZONED MISCELLANEOUS EQUIPMENT CABINET MODEL A

PEC CODE: NTRX34AB

CPC CODE: B0233886

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: CMIS

ENGINEERING DESCRIPTION: The CMIS Model A is a general purpose equipment cabinet which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS office or Remote. The CMIS has been subdivided into eight (8) 7 inch sections or zones. A multi-fuse FSP and grounding hardware provides full flexibility in the use of the frame.

REFERENCE DOCUMENTATION: MSRX34AB 00 16
ISRX34AB 00 14
ADRX34AB 00 17
SLRX34AB 00 03

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Barry Bond Dept. 3471 (PPK)

NTRX34AB EMR13-01-MIS CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	ECD 01840395- Introduce EMI Power Filter Kit
93 07 14	ECM 655 03	ET16809 - Add mounting location. Add NTZZ45NA BB code for tel trends mod
93 08 17	ECM 479 07	ECD 92-1151 - MD NT7F18AB and replace it with NT7F18AD. Bldg. PEC impact is NTZZ18PA status change to MD and replaced by NTZZ18PB
93 08 19	ECM 543 03	ECD 01840612- Introduce NT5M04DT and NT5M08CF Digital Announcers into CMIS under building block codes NTZZ23MA and NTZZ23NA, respectively. ET 17189 - Clarify existing Digital Announcer information in rules and rules for NTRX34LA.
93 09 29	ECM 543 04	Introduce remaining NT approved CDA's into CMIS Mod A. Also, correct NT5M08CC to show as a Trunk i/f CDA under BB NTZZ23WA instead of a Line i/f CDA.
93 11 15	ECM 600 10	Add UDS modem shelf
93 12 24	ECM 479 08	ECD 018-41594- Replace the NT7F18AB in NTZZ18PA with NT7F18AD DTH/ROTL in NTZZ18PB.
94 03 23	ECM 479 09	ET 18509- In flaglist section, change NTZZ19AB to NT7F19AB and change NTZZ19AC to NT7F19AC. This was human error.
94 06 17	ECM 655 07	ET52443 - Add Terminal Block Covers.
95 04 17	ECM 655 08	ECD 006-21515 MD NTZZ18QA and replaced with NTZZ18QC due to A0367433 Lamarche Inverter being MD and replaced by NTRX31DH Inverter Unit (500W)
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The Zoned Miscellaneous Equipment Cabinet Model A is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS-100 6' Cabinet Assy	NTNX25EA		1			AP
Generic Bulkhead Assembly	NTRX2521		1			AP
Filler Panel Two Inch	P0684448		1	65		AP
CMIS Frame Supv Panel	NTRX45AA	FSP	1	60		RUL1
CMIS Frame Supv Panel With- Filtered -48V Talk Battery	NTRX45AB	FSP	1	60		RUL1
Filler Panel	P0654622		1	57		RUL1
Mounting Hardware	P097F813		4	57		RUL1
Mounting Hardware	P0284154		1	57		RUL1
Mounting Hardware	P0183220		1	57		RUL1
Power Filter Kit, EMI PC Kit	NTRX34KM		1			RUL39
Miscellaneous Equipment	AR					RUL2
# LaMarche Inverter Unit	NTZZ18QA	INV		05, 19, 12, 33, 40		RUL4
Lamarche Inverter Unit	NTZZ18QC	INV		05, 19, 12, 33, 40		RUL4
RM4200 Data Set Shf -48VDC	NTZZ18NA			09, 23, 37, 51		RUL7
RM4200 Data Set Shf 115VAC	NTZZ18MA			09, 23, 37, 51		RUL7
# RM4200 Bulkhead Assembly	NTZZ23CA			03, 18, 34, 49		RUL7
RM4200 Bulkhead Asy Config A	NTZZ23KA			03, 18, 34, 49		RUL7
RM4200 Bulkhead Asy Config B	NTZZ23JA			03, 18, 34, 49		RUL7
RM4200 Bulkhead Asy Config C	NTZZ23HA			03, 18, 34, 49		RUL7
# GDC DS-5 Modem Shelf -48V	NTZZ45CA			03, 18, 32, 46		RUL32
GDC DS-6 Modem Shelf -48V	NTZZ45DA			03, 18, 32, 46		RUL32
# DTH-ROTL Unit	NTZZ18PA	ROTL		07, 35		RUL8
DTT Ready DTH-ROTL Unit	NTZZ18PB	ROTL		07, 35		RUL8
DTH-ROTL Bulkhead Assy	NTZZ23DA			03, 34		RUL8
# DTH-ROTL Spares Kit	NT7F19AB					RUL8
DTH-ROTL Spares Kit	NT7F19AC					RUL8
Inactive System Timing Ckt	NTZZ18LA	ISTC		14, 28, 41, 46		RUL9
MLT Applique Shelf	NTZZ18UA	MLT		05, 12, 19, 26, 33, 40, 47, 54		RUL10
MLT Bulkhead Assembly	NTZZ23EA			03, 10, 18, 25, 34, 41, 49, 56		RUL10
Audible/Visual Alm Ext Unit	NTZZ18VA			04, 18, 32, 46		RUL11
Alarm Ext Bulkhead Assy	NTZZ23FA			03, 18, 34, 49		RUL11
Audible Alm Cutoff Cntrl	NTZZ18WA			06, 20, 34, 48		RUL12
Digital Alarm Scanner H/W	NTZZ18XA	DAS		07, 21, 35, 49		RUL13
DAS Bulkhead Assembly	NTZZ23GA			03, 18, 34, 49		RUL13
Common Equipment Shelf Assy	NTZZ18YA	CES		06, 13, 20, 27,		RUL14

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CMIS Terminal Block Assy	NTZZ18ZA			34, 41, 48, 55		
Bulkhead Plate Assembly	NTZZ23BA			25, 39, 53		RUL15
AT&T Modem Mounting Unit	NTZZ45AA		1	18, 34, 49		RUL15
(40B1)				05		RUL29
AT&T Modem Mounting Unit	NTZZ45BA			05, 19, 33, 47		RUL30
(40A3)						
Nokia TF21462 Mounting Unit	NTZZ45GA			20, 48		RUL33
Tellabs 1014U Mounting Unit	NTZZ45HA			08, 22, 36, 50		RUL34
Tellabs 254A Mounting Unit	NTZZ45JA			07, 21, 35, 49		RUL35
Terminal Block Assembly	NT3X25BA					RUL16
Blank Personality Plate-Full	P0715616			03, 18, 34, 49		RUL17
Blank Personality Plate-Half	P0730259			03, 10, 18, 25,		RUL17
				34, 41, 49, 56		
Bulkhead Srew Kit- One Full	NTRX34DS					RUL17
Bulkhead Srew Kit- Two Half	NTRX34DT					RUL17
Cooling Unit	NTNX27CA	CU		00		RUL3
CMIS FSP to CU Cable Assy	NTRX3451			00		RUL3
EMI Kit (EMI Doors)	NTRX2516		1			RUL18
EMI Ready Door Kit	NTRX2513		1			RUL18
Cable Trough Assembly	NTNX5511		1			RUL19
Leveling Foot Kit	NTRX2523		1			RUL20
Cover Plate	A0368391		2	60R		RUL42
Cover Plate	P0707193		1	63R		RUL42
Latch	P0707195		2	63R		RUL42
CMIS Label	P0726709					RUL6
Frame/Logic Gnd Cluster Kit	NTRX2520		1			AP
Caterpillar Grommet Material	R0112064					RUL21
Cover Plate (9 Pin)	P0715809					RUL22
Cover Plate (25 Pin)	P0715775					RUL22
Cover Plate (37 Pin)	P0715774					RUL22
Mounting Screws	P0670923		2			RUL22
Remote Maint. Mod. in CMIS	NTZZ45EA	RMM		5, 19, 33, 47		RUL31
RMM in CMIS Bulkhead Kit	NTZZ45FA			3, 18, 34, 49		RUL31
FISKARS Inverter (19in)	FISKARS 9552243	INV				RUL23
FISKARS Inverter Alarm	FISKARS 9520060					RUL23
FISKARS Inv. Cable Set	FISKARS 9116342					RUL23
RACAL MKIII High Density						
Modem Nest (Shelf)	RACAL MILGO 4415P228A03Z			UU		RUL24

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISG for RACAL MKIII	NTRX34DH		1	UU		AP
RACAL PSU301 230 VAC Power Supply	RACAL MILGO 411A0001			VV		RUL24
Rackmount Modem	RACAL VI2422PR			UU	SS	RUL25
RACAL Modem CA (DTE)	NTRX34FQ			UU	01,03,09	RUL25
RACAL Modem CA (DTE)	NTRX34FP			UU	05,07	RUL25
RACAL Modem CA (DTE)	NTRX34FS			UU	11	RUL25
RACAL Modem CA (DTE)	NTRX34FT			UU	13	RUL25
RACAL Modem CA (DTE)	NTRX34FV			UU	15	RUL25
RACAL Modem CA(VI2422PR TEL)	NTRX34GF			UU	09	RUL25
RACAL Modem CA(VI2422PR TEL)	NTRX34GG			UU	11	RUL25
RACAL Modem CA(VI2422PR TEL)	NTRX34GH			UU	05,07,13	RUL25
RACAL Modem CA(VI2422PR TEL)	NTRX34GJ			UU	01,03	RUL25
RACAL Modem CA(VI2422PR TEL)	NTRX34GK			UU	15	RUL25
Rackmount Modem RACAL DELTA 332	RACAL MILGO 425A0014			UU	SS	RUL26
RACAL Modem CA (CONTROL)	NTRX34FX			UU	01,03,09	RUL26
RACAL Modem CA (CONTROL)	NTRX34FW			UU	05,07	RUL26
RACAL Modem CA (CONTROL)	NTRX34FZ			UU	11	RUL26
RACAL Modem CA (CONTROL)	NTRX34GA			UU	13	RUL26
RACAL Modem CA (CONTROL)	NTRX34GC			UU	15	RUL26
RACAL Modem CA(DELTA332 TEL)	NTRX34GL			UU	09	RUL26
RACAL Modem CA(DELTA332 TEL)	NTRX34GM			UU	11	RUL26
RACAL Modem CA(DELTA332 TEL)	NTRX34GN			UU	05,07,13	RUL26
RACAL Modem CA(DELTA332 TEL)	NTRX34GP			UU	01,03	RUL26
RACAL Modem CA(DELTA332 TEL)	NTRX34GQ			UU	15	RUL26
25P Filter Adapter	A0316594					RUL27
Female Screwlock	A0317136					RUL27
Flat Washer	P0148330					RUL27
Cover Plate (25pin)	P0715775					RUL28
Screw .112-40X.250	P0670923					RUL28
RACAL MKIII Blkhd Cable Kit	NTRX34DO			WW		AP
CMIS Screw Kit (1 Full Size)	NTRX34DS		1	WW		AP
2-Chan 26" 1M RR/RTA FIXED	NT5M02CC	CDA				RUL36
4-Chan 26" 2M RR/RTA FIXED	NT5M04DU	CDA				RUL36
4-Chan 26" 1M RR/RTA SP/DMD	NT5M04DV	CDA				RUL36
6-Chan 26" 3M RR/RTA FIXED	NT5M06CB	CDA				RUL36

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
8-Chan 26" 1M RR/RTA SP/DMD	NT5M08CH	CDA				RUL36
8-Chan 26" 4M RR/RTA FIXED	NT5M08CG	CDA				RUL36
Pwr Cable Assy	NTRX34LF					RUL36
Pwr Cable Assy	NTRX34LE					RUL36
Frame Ground Cable Assy	NT0X9588					RUL36
480 Terminal Block Assembly	NTRX34LA					RUL36
4-Chan 26" 2M TRK CDA	NTZZ23MA	CDA				RUL40
8-Chan 26" 4M TRK CDA	NTZZ23NA	CDA				RUL40
2-Chan 4M TRK FIXED	NTZZ23PA	CDA				RUL40
4-Chan 2M TRK BASIC	NTZZ23QA	CDA				RUL40
4-Chan 2M TRK FIXED	NTZZ23RA	CDA				RUL40
4-Chan 1M TRK SP/DMD	NTZZ23SA	CDA				RUL40
6-Chan 3M TRK FIXED	NTZZ23TA	CDA				RUL40
8-Chan 4M TRK BASIC	NTZZ23UA	CDA				RUL40
8-Chan 1M TRK SP/DMD	NTZZ23VA	CDA				RUL40
8-Chan 4M TRK FIXED	NTZZ23WA	CDA				RUL40
Connector Plate	P0737132					RUL40
Screws	P0578123					RUL40
Cover Plate (25pin)	P0715775					RUL40
Mounting Screws	P0670923					RUL40
Teltrend Univ. Shlf. Assy.	USA 23-120					RUL37
TELTREND HARDWARE KIT	NTZZ45NA					RUL37
Power Cable(Teltrend Sh)	NTRX3447		2			RUL38
Power Cable(Teltrend Sh)	NT0X4312		2			RUL38
Power Cable(Teltrend Sh)	NT0X4314		2			RUL38
Power Cable(Teltrend Sh)	NT0X8849		2			RUL38
UDS Modem Shelf (RM16M)	62005237					RUL41
UDS Shelf Hardware Kit	NTRX34MS		1			RUL41
UDS Shelf Power Cables	NTRX3447		4			RUL41
UDS Shelf Power Cables	NT0X4312		4			RUL41
UDS Shelf Power Cables	NT0X4314		4			RUL41
UDS Shelf Power Cables	NT0X8849		4			RUL41
Alarm Cable	NTRX34MH		4			RUL41
DTE Cable	NTRX34MP		8			RUL41
DTE Cable	NTRX34MQ		8			RUL41
Telco/Telset Cables	NTRX34MK		1			RUL41
Telco/Telset Cables	NTRX34ML		1			RUL41
Telco/Telset Cables	NTRX34MM		1			RUL41
Telco/Telset Cables	NTRX34MN		1			RUL41
CMIS Univ. Conn. Plate	P0737132		1			RUL41
Cable Braid Assembly	NTRX34MT		1			RUL41
Mounting hardware	A0316594		8			RUL41

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Mounting hardware	A0317136		32			RUL41
Mounting hardware	P0148330		32			RUL41
MODEMS						RUL41

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ23CA	MD.	NTZZ23KA/JA/HA
NTZZ45CA	A&M.	NTZZ45DA
NTZZ18PA	MD	NTZZ18PB
NT7F19AB	MD	NT7F19AC
NTZZ18QA	MD	NTZZ18QC

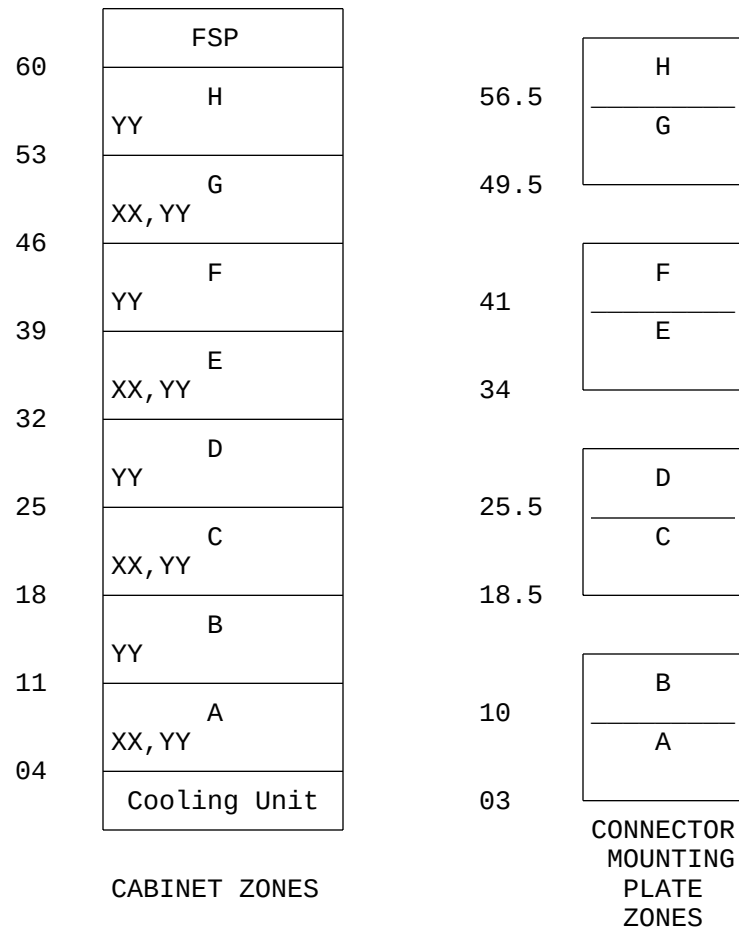
DEV - DEVELOPMENT. These products are in the development phase.
Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if
they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufac-
tured and cannot be ordered.

NOTES:

- 1) The CMIS has been divided into eight (8), 7 inch, zones as indicated below:



- YY indicates 7 inch sections.
- XX indicates 14 inch sections.
- Units which are 7 inches or less should be mounted in position YY.
- Units which are taller than 7 inches should be mounted in position XX.
- Equipment that is working together should be mounted together in one section.
- Personality Plates must be mounted in the same zone as the zone of the equipment it serves. Bulkhead runs down the length of the cabinet on the left hand side as viewed from the rear of the cabinet and it is always provided.

2) UU can be any of the following shelf positions: 21, 34, 49. (position 34 may be used when mounted as part of a package with FISKARS inverter).

VV can be any of the following shelf positions: 11, 22, 39 (only position 22 may be used for cabinet equipped with FISKARS inverter).

WW can be any of the following shelf positions: 18.5, 34, 49.5.

SS can be any of the following slot positions: 01, 03, 05, 07, 09, 11, 13, 15 (01 to 16 odd slots only).

RULES:

AP 1) When PEC NTRX34AB is ordered, these items are provided.

RUL1 1) Provide one (1) NTRX45AA, CMIS Frame Supervisory Panel, per cabinet except for cabinets used as a non-EMI IDF, OR

Provide one (1) NTRX45AB FSP when filtered -48V talk battery is required (when RMM is provided).

2) The following FSP fuses and designation discs, which are always provided in the unit building blocks, are to be mounted on the NTRX45AA or NTRX45AB FSP on a per unit basis (cooling unit, NTNX27CA, is assigned to fuses F14 and F15 on the AA Unit and F8, 13 on the AB Unit):

Fuse Amps	Fuse CPC	Desig Disc
1-1/3	A0205202	P097P235
2	A0205203	P097P236
3	A0205204	P097P237
5	A0205205	P097P238
0.180	A0205206	P097P239
1/4	A0205207	P097P240
1/2	A0205208	P097P241
3/4	A0205209	P097P242
Dummy	A0205210	N/A

UNIT	NUMBER OF FUSES	FUSE AMPS	FUSE DESIG NTRX45AA	RANGE NTRX45AB
NTNX27CA	2	3	F14, F15	F8, F13
NT5X69AA	1	1/4	F05-F13, F16-F24	F05-07 F14-16
RM4200 (-48 VDC)	2	5	F05-F13, F16	
NT7F18AB	NONE (CB)	10	CB1	
NT3J00BA	1	2	F05-F13, F16	F05-07 F14-16
NT5X85AA	5	1-1/3	F05-F13, F16-F24	
NT5X86AA	1	1-1/3	F05-F13 F16-F24	
PYLON RG-2	NONE	FUSED VIA NT5X85AA		
J1P056A-1 (DAS)	1	5	F05-F13, F16	CB1, 2
GDC DS-5	2	10	CB1, 2	
GDC DS-6	2	10	CB1, 2	
NT6X1306	1CB, 1Fuse	10		CB1-CB4
RMM	PER UNIT	3		F09-12
Teltrend	1	3	F05-F13, F16	F06-08 F14-16
UDS Modem Shelf	1	5	F05-F13, F16	F06-08 F14-16
NT5M02, 04, 06 08 series CDA's	1 per Unit	1 1/3	F05-F13, F16-24	F05-07 F14-16

- 3) Provide one (1) P0654622, Filler Panel, four (4) P097F813, one (1) P0284154, and one (1) P0183220, Mounting Hardware, per CMIS cabinet.

Do not provide the above equipment when the following units are provided in the indicated positions:

UNIT	MTG POS
NT3J00BA (MLT)	54
J1P056A-1 (DAS)	49
NT3X25AA (CES)	55

- RUL2 1) Provide miscellaneous equipment per office requirements.
- 2) Supported equipment for the CMIS is being introduced in a phased process. As additional equipment is supported it will be added to the following list. The following miscellaneous equipment is currently supported for use on the Zoned Cabinetized MIS:

Digital Test Head/Remote Office Test Line (ROTL)
Case/Datatel DC Modem Shelf
Case/Datatel AC Modem Shelf
Inactive System Timing Circuit (ISTC)
LaMarche Inverter (INV) MD
500VA AC Inverter (INV)
Multiple Loop Test Applique (MLT)
Audible/Visual Alarm Ext Unit
Audible Alarm Cutoff Cntrl Unit
Pylon Ringing Generator
Digital Alarm Scanner (DAS)
Common Equipment Shelf Assembly
CMIS Terminal Block Assembly
Terminal Block Assembly
RACAL Modem Shelf
FISKARS Inverter Unit
GDC DS-5 DC Modem Shelf (A&M)
GDC DS-6 DC Modem Shelf
AT&T Modem Mounting Unit (40B1)
AT&T Modem Mounting Unit (40A3)
Remote Maintenance Module
Nokia TF21462 Mounting Unit
Tellabs 1014U Mounting Unit
Tellabs 254A Mounting Unit
Teltrend

EMI Power Filter Kit
Cook Digital Announcer

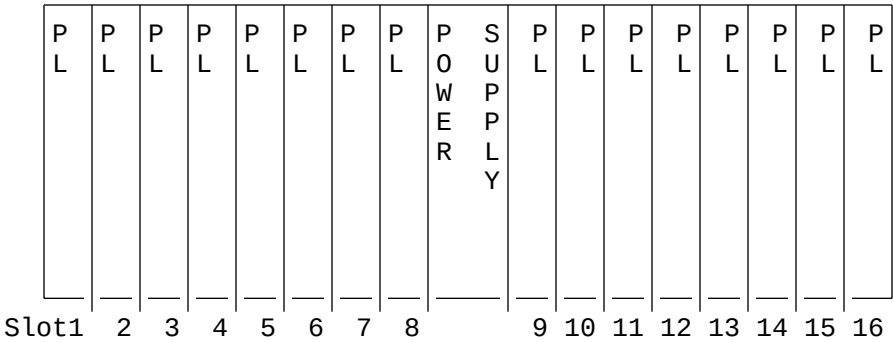
- 3) The cabling from each shelf to bulkhead and the required personality plate are always provided in the unit building blocks.
- RUL3 1) Provide one (1) NTNX27CA, Cooling Unit, and one (1) NTRX3451, CMIS FSP to CU Cable Assembly, per cabinet. Do not provide the above if the CMIS is being used as a non-EMI IDF.
- RUL4 1) Provide the 500va AC Inverter Unit on DMS-100 Cabinetized applications. This unit will terminate up to four (4) AC-powered units not to exceed 120VAC output.
- 2) The inverter will be powered directly from the CPDC. Connect the inverter's Term G to Logic Ground Bar.
- 3) The inverter unit takes up seven (7) inches of misc. space.
- 4) The Inverter is limited to INTRA-CMIS AC applications.
- RUL5 1) Miscellaneous hardware (such as Inactive System Timing Circuit) must be electrically isolated from the framework upon which they are mounted.
- The inactive system timing circuit must be powered from an inverter mounted on the same CMIS frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.
- ISG cabling kits are provided in the building blocks of each unit requiring isolation.
- RUL6 1) Provide one (1) P0726709, CMIS Label, per cabinet.
- RUL7 1) The Case/Datatel RM4200 Data Set Module is a 16 slot data set card mounting enclosure. The shelf is available in a -48V DC and a 115V AC version (the -48V DC version is preferred). The RM4200 Modem shelf is currently supported in three (3) configurations:

D A S	D A S	D A S	D A S	D A S	D A S	D A S	D A S	P O W E R	S U P P L Y	P L	P L	P L	P L	P L	P L	P L	P L
Slot1	2	3	4	5	6	7	8			9	10	11	12	13	14	15	16

RM4200 Shelf Layout Configuration A

D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D	P O W E R	S U P P L Y	D D D	D D D	D D D	D D D	D D D	D D D	D D D	D D D
Slot1	2	3	4	5	6	7	8			9	10	11	12	13	14	15	16

RM4200 Shelf Layout Configuration B



RM4200 Shelf Layout Configuration C

- 2) The RM4200 requires a space of seven inches of vertical rack space plus four inches of space below and three inches of space above the unit. Mounting adapters required to mount the shelf in a 19, 23 or 26 inch frame are always provided by the manufacturer.
- 3) For more information on the RM4200 -48VDC version, refer to the Engineering Manual Section for the PEC NTZZ18NA (905-5222-003).
- 4) For more information on the RM4200 115VAC version, refer to Engineering Manual Section for the PEC NTZZ18MA (905-5222-001). Note this shelf requires protected AC as follows:
 - If the LaMarche inverter (MD) or 500VA AC Inverter is used, one Inverter can power up to three (3) 115VAC RM4200 Shelves.
- 5) Provide one (1) NTZZ23KA, RM4200 Bulkhead Assembly, per RM4200 Data Set Shelf to support Configuration A, which allows DAS units in slots 1 - 8 and PL units in slots 9 - 16. This Bulkhead Assembly occupies 2 zones.
- 6) Provide one (1) NTZZ23JA, RM4200 Bulkhead Assembly, per RM4200 Data Set Shelf to support Configuration B, which allows DDD units in slots 1 - 8 and DDD units in slots 9 - 16. This Bulkhead Assembly occupies 2 zones.
- 7) Provide one (1) NTZZ23HA, RM4200 Bulkhead Assembly, per RM4200 Data Set Shelf to support Configuration C, which allows PL units in slots 1 - 8 and PL units in slots 9 - 16. This Bulkhead Assembly occupies 2 zones.

- RUL8
- 1) Provide the NTZZ18PB (DTH-ROTL) for all ROTL applications in all DMS-100 Markets.
 - 2) The NTZZ18PB is fused from the CMIS Frame FSP at 10 amps. The -48V terminal on the DTH-ROTL connects to TB1-12 and the 48V RTN terminal connects to TB1-3 (using #14 AWG). The Logic Gnd. terminal connects to the Logic Ground Bar.
 - 3) The DTH-ROTL takes up 14 inches of misc. space. Provide 3.5 inches of rack space above and below the unit.
 - 4) Provide one (1) NT7F19AC when DTH-ROTL Spares Kit is required.

- 5) Provide one (1) NTZZ23DA, DTH-ROTL Bulkhead Assy, per DTH-ROTL Unit. This Bulkhead Assembly occupies 2 zones.
- RUL9 1) Provide the NTZZ18LA when Inactive System Timing Circuit is required. The NTZZ18LA contains the NT5X69AA CP.
- 2) The NT5X69AA is powered from the FSP as follows:
- FSP to NT5X69AA : TS(A)11 (-48V)
FSP to NT5X69AA : TS(A)13 (GND)
- 3) The TS(A)-15 lead is connected to the bulkhead using a 9-pin connector with filter (1000-1600 pf).
- 4) The NT5X69AA takes up four (4) inches of misc. space.
- RUL10 1) Provide one (1) NTZZ18UA, Multiple Loop Test (MLT) Applique Shelf, for each ten MLT circuit packs when loop testing is required.
- 2) The MLT Applique Shelf is seven (7) inches high by 26 inches wide.
- 3) Provide one (1) NTZZ23EA, MLT Bulkhead Assembly, per MLT Applique Shelf. This Bulkhead Assembly occupies 1 zone. Provision half size blank plate in adjacent zone if unused.
- RUL11 1) Provide one (1) NTZZ18VA, Audible/Visual Alarm Extension Unit, per office when the number of Audible Alarm Panels (NT0X66AA) exceeds two and/or the number of Exit Alarm Display Panels (NT0X64AA) exceeds four. The Pylon RG-2 Ringing Generator, cables, and mounting hardware are always provided in the NTZZ18VA building block.
- 2) The NT5X85AA unit takes up two (2) inches of misc. space and the ringing generator takes up 3.5 inches.
- 3) Provide one (1) NTZZ23FA, Alarm Ext Bulkhead Assy, per NTZZ18VA, Alarm Extension Unit. This Bulkhead Assembly occupies 2 zones.
- RUL12 1) Provide one (1) NTZZ18WA, Audible Alarm Cutoff Control Unit, in conjunction with the NT5X86AB, Audible Cutoff Key Panel, when selective audible alarm cutoff control is required. Up to six audible circuits can be controlled. Maximum one circuit per system.
- 2) The NTZZ18WA unit takes up two (2) inches of misc. space.

- RUL13 1) Provide one (1) NTZZ18XA, Digital Alarm Scanner Hardware, when the DMS office is required to interface with the Bell Operating Companies Switching Control Centers (SCC). The telco is responsible for providing the J1P056A-1 DAS unit.
- 2) The DAS unit takes up 10 inches of misc. space. Provide two (2) inches of space above and below unit.
- 3) Provide one (1) NTZZ23GA, DAS Bulkhead Assembly, per Digital Alarm Scanner. This Bulkhead Assembly occupies 2 zones.
- RUL14 1) Provide one (1) NTZZ18YA, Common Equipment Shelf Assembly (CES), to provide 115VAC multiple outlets to power up to two (2) standalone modems and associated data telephone sets or other standalone equipment.
- 2) Sufficient space should be reserved above the CES to allow for mounting standalone equipment.
- RUL15 1) Provide one (1) NTZZ18ZA, CMIS Terminal Block Assembly, to allow signal connections through the bulkhead for units which do not have dedicated connector plates (NT5X69AA, NT3X25AA).
- 2) The NTZZ18ZA takes up five (5) inches of misc. space.
- 3) Provide one (1) NTZZ23BA, Bulkhead Plate Assembly, per CMIS Terminal Block Assembly. This Bulkhead Assembly occupies 2 zones.
- RUL16 1) Provide one (1) NT3X25BA, Terminal Block Assembly, for each 240 pins of cross connect field required.
- 2) Provide one (1) P0642031, Cable Support Bracket, and two (2) P097F813, Screw, for every two terminal blocks provided. Mount the Support Brackets in the top of the cabinet starting in the following positions: 60R, 54R, 47R, 42R, 36R, 30R, 25R, 18R, 12R, and 06R.
- 3) When the CMIS is used as an IDF it is non-EMI and separated from all line-ups. Only NT3X25BA units can be provisioned in the cabinet and no FSP or Cooling unit are required.
- 4) The NT3X25BA takes up five (5) inches of misc. space.
- 5) Mount the Terminal Block Assembly in the top of the cabinet in three (3) inch intervals working towards the bottom of the cabinet (63, 60, 57, 54, ...06).

- RUL17 1) Provide one (1) P0715616, Blank Personality Plate-Full Size, in all positions not provided with unit connector plates. Full size connector plates occupy two (2) zones.
- 2) Provide one (1) P0730259, Blank Personality Plate-Half Size, in all positions not provided with unit connector plates. Half size connector plates occupy one (1) zone.
- 3) Provide one (1) NTRX34DS, CMIS Conn Plate Bulkhead Srew Kit (one full size), per P0715616, Blank Personality Plate-Full Size.
- 4) Provide one (1) NTRX34DT, CMIS Conn Plate Bulkhead Srew Kit (two half size), per two P0730259, Blank Personality Plate-Half Size. The NTRX34DT does not have to be provisioned when a P0730259 is ordered in conjunction with the NTZZ23EA, MLT Bulkhead Assembly.
- RUL18 1) Provide one NTRX2516, EMI Kit (EMI Doors), per cabinet for EMI compliant applications.
- 2) Provide one NTRX2513, EMI Ready Door Kit, per cabinet for EMI Ready applications and when a cabinet is used for non-EMI IDF.
- RUL19 1) Provide one NTN5511, Cable Trough Assembly, per cabinet when overhead cabling is required.
- RUL20 1) Provide one NTRX2523, Leveling Foot Kit, per cabinet for Non-Earthquake offices.
- RUL21 1) Provide 3.6 meters of R0112064, Caterpillar Grommet Material, per cabinet when CMIS is used as a non-EMI IDF. This material is used to insulate edges of connector plate mounting holes.
- RUL22 1) Provide eight (8) P0715809, Cover Plate (9 Pin), and 16 P0670923, Mounting Screw, when the NTZZ18VA is provided but the NTZZ18WA is not.
- 2) Provide one (1) P0715775, Cover Plate (25 Pin), and two (2) P0670923, Mounting Screw, for each slot 1-16 on the RM4200 Modem Shelf not provided with a cable assembly.

RUL23 1) When -48 VDC to 220 VAC 50HZ inversion is required, (maximum load 800 VA, 600W), provide:

- one (1) FISKARS 9552243 Inverter (19in),
- one (1) FISKARS 9520060 Inverter Alarm, and
- one (1) FISKARS 9116342 Inverter Cable Set

to power up to three RACAL MKIII modem nests (shelves).

Requires STC supplied mounting brackets, and STC FISKARS AC/DC Distribution Panel, supplied at job site by STC.

RUL24 1) For each eight double (two inch) RACAL modems, provide:

- one (1) RACAL MILGO 4415P228A03Z
RACAL MKIII High Density Modem Nest (Shelf), and
- one (1) RACAL MILGO 411A0001
RACAL PSU301 230 VAC Power Supply.

- RUL25 1) Provide a maximum of eight (8) RACAL VI2422PR Rackmount Modems per RACAL MKIII shelf, per job requirements (in slots 1,3,5,7,9,11,13,15).

For each RACAL VI2422PR Rackmount Modem provided

- in position 01 or 03, provide:
 - one (1) NTRX34FQ RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GJ RACAL Modem Cable Assembly (provides telephone connection),
- in position 05 or 07, provide:
 - one (1) NTRX34FP RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GH RACAL Modem Cable Assembly (provides telephone connection),
- in position 09, provide:
 - one (1) NTRX34FQ RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GF RACAL Modem Cable Assembly (provides telephone connection),
- in position 11, provide:
 - one (1) NTRX34FS RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GG RACAL Modem Cable Assembly (provides telephone connection),
- in position 13, provide:
 - one (1) NTRX34FT RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GH RACAL Modem Cable Assembly (provides telephone connection), and/or
- in position 15, provide:
 - one (1) NTRX34FV RACAL Modem Cable Assembly (provides DTE Left connection), and
 - one (1) NTRX34GK RACAL Modem Cable Assembly (provides telephone connection).

- RUL26 1) Provide a maximum of eight (8) Rackmount Modem RACAL DELTA 332 RACAL MILGO 425A0014 Modems per RACAL MKIII shelf, per job requirements (in slots 1,3,5,7,9,11,13,15).

For each RACAL DELTA 332 Modem provided

- in position 01 or 03, provide:
 - one (1) NTRX34FX RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GP RACAL Modem Cable Assembly (provides telephone connection),
- in position 05 or 07, provide:
 - one (1) NTRX34FW RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GN RACAL Modem Cable Assembly (provides telephone connection),
- in position 09, provide:
 - one (1) NTRX34FX RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GL RACAL Modem Cable Assembly (provides telephone connection),
- in position 11, provide:
 - one (1) NTRX34FZ RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GM RACAL Modem Cable Assembly (provides telephone connection),
- in position 13, provide:
 - one (1) NTRX34GA RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GN RACAL Modem Cable Assembly (provides telephone connection), and/or
- in position 15, provide:
 - one (1) NTRX34GC RACAL Modem Cable Assembly (provides Control connection), and
 - one (1) NTRX34GQ RACAL Modem Cable Assembly (provides telephone connection).

- RUL27 1) For each RACAL VI2422PR Rackmount Modem Cable Assembly NTRX34GF, NTRX34GG, NTRX34GH, NTRX34GJ, NTRX34GK, and

for each RACAL DELTA 332 Modem Cable Assembly NTRX34GL, NTRX34GM, NTRX34GN, NTRX34GP, or NTRX34GQ, provide:

- one (1) A0316594 25P Filter Adapter,
- four (4) A0317136 Female Screwlocks, and
- four (4) P0148330 Flat Washers.

- RUL28 1) For each slot on a RACAL MKIII shelf not equipped with a modem provide:
- two (2) P0715775 Cover Plate (25pin), and
 - four (4) P0670923 Screws.112-40X.250.
- RUL29 1) Provide one (1) NTZZ45AA AT&T Modem Mounting Unit building block when a customer requires AT&T 40B1/46A2 functionality in the CMIS cabinet. One (1) 40B1 unit must always be provided with two (2) 46A2 units. The 40B1 and 46A2 units are always used together.
Two 46A2 units are provisioned in a 14 inch space. One 46A2 unit in the upper 7 inch space, the other unit in the lower 7 inch space.
One 40B1 unit is provisioned in a 14 inch space below the 46A2 units. A space of 7 inches must exist between the bottom of the lowest 46A2 unit provisioned above, and the top of the 40B1 unit.
- RUL30 1) Provide one (1) NTZZ45BA AT&T Modem Mounting Unit building block when a customer requires AT&T 40A3 functionality in the CMIS cabinet.
One 40A3 unit is provisioned in a 14 inch space. The first 40A3 unit is mounted in the lower 7 inch space. If a pair of 40A3 units are required, the second 40A3 is provided in the upper 7 inch space of the 14 inch zone. No spaces are required between 40A3 modem units.
- RUL31 1) Provide one (1) NTZZ45EA for each RMM required in CMIS for the RSC-S application up to a maximum of four (4). Mount the first NTZZ45EA in position 5 on the CMIS with each additional one mounting in 19, 33, then 47. The RMM requires 14 inches of vertical space on the CMIS frame. See insert EMB2-24-RMM-2 for more information on NTZZ45EA.
- 2) Provide one (1) NTZZ45FA Bulkhead Kit for each RMM required in CMIS for the RSC-S application. The following shows the mounting positions of the RMM on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

NTZZ45EA	NTZZ45FA
5	3 (zones A and B)
19	18.5 (zones C and D)
33	34 (zones E and F)
47	49.5 (zones G and H)

Connector mounting plate zones are explained in NOTE #1.
The connector plates in NTZZ45FA are full-size (14 inch). See
EMB2-24-ASY-1 for the stocklist of NTZZ45FA.

- RUL32 1) The GDC DS-5 and DS-6 Modem Shelves are 16 slot -48V data set card mounting enclosures. The primary differences being the method of interfacing the data units to external equipment. The DS-6 shelf comes equipped with the slots cabled to the left or right (user preference) side of the shelf to interface to business equipment. The DS-5 has 16 twenty-five (25) connectors mounted on the backplane for interfacing to the external equipment.
- 2) The DS-5/6 requires a space of 10.5 inches of vertical rack space plus four inches of space below and three inches of space above the unit. Mounting adapters required to mount the shelf in a 19 or 23 inch frame are always provided by the manufacturer.
- 3) For more information on the GDC DS-5 -48VDC version, refer to the Engineering Manual Section for the PEC NTZZ45CA (A0319455).
- 4) For more information on the GDC DS-6 -48VDC version, refer to the Engineering Manual Section for the PEC NTZZ45DA (A0380973).
- RUL33 1) See Insert EMB13-08-NKA for more information on NTZZ45GA. This building block provides the equipment necessary to apply the Nokia TF21462 Mounting Unit to the CMIS cabinet. The Nokia TF21462 shelf will be able to house the Nokia Power Interface Adapter, Multiplex Units and Data Interface Units.
- 2) The above Mux is a 31-channel multiplex equipment family whose bit rate is 2048 Kbit/s. It combines 30 (in data transfer 31) speech or data signals into one 2048 Kbit/s signal using time division multiplexing. This Multiplex Equipment represents the first stage of European digital multiplex hierarchy. Information is transferred on the bus by means of the frame with 32 time slots with 8 bits each, altogether 256 bits. The Mux unit function, in the outgoing direction is to control the time-division multiplexing and to generate the frame format for the outgoing signal. In the receive direction, the Mux unit receiver synchronizes its operation to the incoming signal frame phase and it controls demultiplexing.

- 3) The V35 Data Unit (DIU) contains five data channels which fulfill the CCITT Recommendation V35. This unit is used for connecting the channels to a 30-channel 2 Mbit/s PCM system in accordance with CCITT recommendations.
- 4) The customer is to provide all units with Nokia designations: TC21101 Mux is to be provided for each group of three TU2122.4 Data Interface Units. Provide one TV21611 Power Interface Adapter for each Nokia shelf. Each Nokia shelf can accommodate nine or less Data Interface Units. Thus when the Nokia TF21462 shelf is fully equipped it would consist of the following Cartridges: 1/ PIA Cartridge (holding Power Interface Adapter in slot 1), 2/ First Equipment Cartridge (holding Mux1 in slot2 and DIU1 to DIU3 in slots 3 to 5), 3/ Second Equipment Cartridge (holding Mux2 in slot6 and DIU4 to DIU6 in slots 7 to 9) and Third Equipment Cartridge (holding Mux3 in slot10 and DIU7 to DIU9 in slots 11 to 13). Connectors are front of DIU and Mux. On Mux COAX connectors are P4, P5, P6, P7 top to bottom and P3 is at bottom. On DIU P1 is at top and P2 at bottom. Nokia TF21462 is field mounted, but brackets, cables and connector plates are shop mounted.

- RUL34
- 1) See Insert EMB13-08-TL-3 for more information on NTZZ45HA. The Tellabs Mounting Unit building block provides the equipment necessary to apply the Tellabs 1014U mounting unit to the CMIS cabinet. The Tellabs 1014 Universal Shelf will be able to house the Tellabs 2W/4W Interface Unit/s and Ringing Generator/s (for DMS300 office).
 - 2) The customer is to supply all units with Tellabs designations such as 1014U, 6131 2W/4W Interface Unit and 8103 Ringing Generator. In a DMS300 office, one Tellabs 6131 2W/4W Interface Unit to be provided for each 101 Test Line. One Tellabs 8103 Ringing Generator is needed for every ten 101 Test Lines for a DMS office.
 - 3) The 1014U Connectorized Universal Mounting Shelf can be equipped with a maximum of 14 modules consisting of 8103 Ringing Generators and/or 6131 2W-4W terminal interface modules. The installer shall connect jumpers between the backplate and the module connector, as required. Cables are hardwired to terminal strip plate at rear of 1014U as per loose wiring document LWJRX34AB. Cables from 1014U hinged backplate to bulkhead must be secured so that hinged backplate can still open freely with cables hard wired to it. These cables should be secured with cable ties provided to slots at top rear left flange of shelf outside of flange. Cables are then run to bottom of shelf and then in a loop

up to and along rear top of backplate. Cables are then butted at top right of backplate. Wires are then run down right of backplate next to Gen TS and along bottom of backplate and are fanned upwards and hard wired to appropriate terminal blocks. All internal card edge connector wiring is dressed along inside top of shelf, looped at inside left rear of shelf run along wire guides at inside top of backplate and fanned downwards and hard wired to appropriate terminal blocks. When all wiring is completed backplate should swing freely at up to right angles to shelf.

- 4) The 6131 2 Wire to 4 Wire or 4 Wire to 4 Wire Terminal Interface Module provides transmission interface between a 2 Wire or 4 Wire metallic facility and a carrier channel or PBX. Both adjustable prescription-set loss and switch-selectable 2 Wire to 4 Wire or 4 Wire to 4 Wire operation are available. When optioned for 2 Wire to 4 Wire operation, the 6131's facility side 2 Wire port can be switch optioned for 600 or 900-ohm terminating impedance in series with 2.15 micro-Farad. The 6131 module mounts in one position of a Tellabs Mounting Shelf and plugs physically and electrically into a 56-pin connector at the rear of the shelf.
- 5) The 8103 Ringing Generator provides switch selectable 96V a.c. (nominal) sine-wave ringing voltage, at 20 or 30 Hz, from a nominal -48V d.c. power source. The output is capable of ringing 10 high impedance telephone ringers simultaneously. It is designed for direct plug-in installation in one module position of a Tellabs Mounting Shelf.
- 6) Tellabs 1014U is field mounted, but brackets, cables and connector plates are shop mounted. P0733320 connector plate, cables, filter adapters and hardware supplied as part of NTRX34DP Kit.

- RUL35
- 1) See Insert EMB13-08-TL-4 for more information on NTZZ45JA. The Tellabs Mounting Unit building block provides the equipment necessary to apply the Tellabs 254A mounting unit to the CMIS cabinet. The Tellabs 254A shelf will be able to house the Tellabs Power Convertors, Echo Canceller Modules and Compensation Modules.
 - 2) The 254A Mounting Assembly provide housing for upto six 254 Echo Canceller Modules and their associated 2543X Compensation Module and associated 5330 Power Convertors. PCM connections must be made to each 254X/A Echo Canceller Module installed in the 254X Mounting Assemblies. The 2543/X modules are Front Panel Access/High Level Compensation Mod-

ules for use with 254X Echo Cancellers. Modules with the front panel access feature allow all electrical connections to 254X Echo Cancellers to be made at the front of the 254 Mounting Assembly. The high level compensation feature provides individual compensation for all 30 or 31 voice-frequency (VF) channel circuits. Front panel access modules provide all of the necessary electrical connections for a single 254X Echo Canceller Module. The high level compensation feature is intended for use in applications where very high signal levels may be present at the Receive-In port of the 254X Echo Canceller. Detection and compensation for high level signals is done individually for all 30 or 31 voice frequency channels. Only channels which are receiving high level signals will be affected by the high level compensation circuit.

- 3) When the Tellabs 254A shelf is fully equipped it would consist of the following : Two Power Convertors 5330 (in slots 1 and 14). The 254X/A Echo Canceller and 2543/X compensation module 6 pairs would be provided in slots 2&3, 4&5, 6&7, 8&9, 10&11 and 12&13.
- 4) Cables are hardwired to indicated 5-pin terminal strips at rear of 254A as per loose wiring document LWJRX34AB.
- 5) Tellabs 254A is field mounted, but brackets, cables and connector plates are shop mounted. P0733321 connector plate, non job engineered cables, filter adapters and hardware supplied as part of NTRX34DQ Kit. Use NTRX34HW to run to Bulkhead, use NTRX34HY, HZ or JA to multiple J3 to J4, if specified for multiple units.

RUL36 1) When any one of the NT5M02,04,06 or 08 Series of digital announcers is required with Line Interface provide as follows: NT5M02--for 2 channels, 04--for 4 channels,06--for 6 channels & 08 for 8 channels.

- 2) Provide Local Cables for the Line Interface CDA as follows:

- * NTRX34LF - Digital Announcer Power Cable Assembly

Always provide one (1) per CDA to be equipped.

- * NTRX34LE - Digital Announcer Cable Assembly

Always provide one (1) cable per channel equipped. Also, always provide one (1) cable for the Ring Trip/Remote Record option when installed. A maximum

of nine (9) cables per unit may be provisioned (e.g. 8-Channel CDA /RR Feature = 1/Channel (8) plus 1 = 9).

* NT0X9588 - Frame Ground Cable Assembly

Always provide one per CDA

- 3) For Line interface CDA's, provide one P0642031 (Cable Support Bracket) and two (2) P097F813 Screws in positions indicated on rear of cabinet at unit Shelf POS + 0 IN. (See 5) for allowed unit mounting positions). For the NTRX34LA, provide 2 P0642031 6" apart starting at Shelf POS + 0 IN and 4 of the above mentioned screws.
- 4) Provide one 1 1/3 amp fuse per CDA installed.
- 5) The following are the legal mounting positions for the CDA's and associated NTRX34LA which is needed to cross connect the Line Interface CDA to the MDF:

UNIT	MTG POS	CONN PLATE	CONN PLT ZONE	NOTES
NT5M02CC NT5M04DU NT5M04DV NT5M06CB NT5M08CH NT5M08CG	SEE NOTES	These units connect to NTRX34LA which requires 1 P0737132		Mtg. positions are 4 8,11,13,15,18,20,22,27,29,32,34,36,39,42 Unit requires 2 inch of vertical space
NTRX34LA	49 55	P0737132	G H	

- 6) For line interface CDA's, provide one connector plate and 10 screws for each NTRX34LA.
- 7) The NTRX34LA introduced per ECN :18-39773 contains the following:

2 ea.	B0211584	NT3X25BA	TERMINAL BLOCK ASSEMBLY
6 ea.	B0236521	NTRX34LB	25PIN D-SUB CABLE ASSEMBLY
8 ea.	B0236522	NTRX34LC	25PIN D-SUB CABLE ASSEMBLY
6 ea.	B0236523	NTRX34LD	25PIN D-SUB CABLE ASSEMBLY

- 8) The following filter adapters and mounting hardware are required on a set per Line interface CDA installed.

UNIT	PROVIDE ADAPTERS	NOTE
NT5M02,4,6,8 Series	1-A0316594 4-A0317136 4-P0148330	1 ADAPTER & HARD_WARE/CONN AS REQD

- RUL37 1) The Teltrend Universal Shelf Assembly is customer provided only. This shelf can not be ordered through Northern Telecom. The Teltrend shelf requires six inches of vertical space.

- 2) When the Teltrend Universal Shelf Assembly is customer provided order Teltrend hardware kit.

- RUL38 1) Provide cables in the following table per Teltrend modem shelf:

Prv QTY	Cable Pec	when Teltrend Sh in
2	NTRX3447	05
2	NT0X4312	19
2	NT0X4314	33
2	NT0X8849	47

- RUL39 1) Provide NTRX34KM Power Filter Kit (EMI PC Kit) when EMI Filtering is required on the CMIS cabinet. This permits the powering of a CMIS from a CPDC that is not in the same lineup. The PCRX34KM change kit provides for the addition of an EMI Filter Unit and its associated wiring to the NTRX34AB cabinet. The NTRX3636 CMIS Power Filter Kit is mounted in the top of the cabinet towards the rear on the right.

Also, optionally provide a set (2-NTRX3657) of inverter cables when the first La Marche inverter is required. When a second inverter is required, provide another set of cables. Also, provide one lug (A0292996) and one boot (P0733299) with a set of inverter cables.

- RUL40 1) When the Trunk Interface Cook Digital announcer from the NT5M series is required, provide one of the following:

NTZZ23MA 4-Chan 26" 2M TRK CDA
 NTZZ23NA 8-Chan 26" 4M TRK CDA
 NTZZ23PA CDA 2-Chan 1M TRK Fixed
 NTZZ23QA CDA 4-Chan 2M TRK Basic
 NTZZ23RA CDA 4-Chan 2M TRK FIXED
 NTZZ23SA CDA 4-Chan 1M TRK SP/DMD
 NTZZ23TA CDA 6-Chan 3M TRK Fixed
 NTZZ23UA CDA 8-Chan 4M TRK BASIC
 NTZZ23VA CDA 8-Chan 1M TRK SP/DMD
 NTZZ23WA CDA 8-Chan 4M TRK Fixed

Refer to EMA13-01-CDA-3 for information on the function of each version of the CDA or to each building block EMS for the stocklist content.

- 2) The following are the legal mounting positions for the Trunk interface CDA's:

UNIT	MTG POS	CONN PLATE	CONN PLT ZONE	NOTES
NTZZ23MA NTZZ23NA NTZZ23PA NTZZ23QA NTZZ23RA NTZZ23SA NTZZ23TA NTZZ23UA NTZZ23VA NTZZ23WA	5-18 19-32 33-46 OR 47-60	P0737132	A,B C,D E,F G,H	Mount these CDA's in configuration shown below for a maximum 5 Trunk Interface CD per 14 inches of vertical space.

Configuration for Trunk interface CDA in CMIS

space 2 in.	14 in.
5th DA 2 in.	
space 1 in.	
4th DA 2 in.	
3rd DA 2 in.	
2nd DA 2 in.	
1st DA 2 in.	
space 1 in.	

- 3) Provide 1 P0737132 connector plate and 10 P0578123 screws per 1-5 Trunk interface CDA's provided in the 14" configuration.
- 4) Provide one 1 1/3 amp fuse per CDA installed.
- 5) For each unequipped connector position on the connector plate for the Trunk Interface CDA's, provide 1 P0715775 cover plate and 2 P0670923 mounting screws.

- RUL41
- 1) Provide one UDS modem shelf to hold upto 16 UDS rackmount modems.
 - 2) Provide one of each of the following items per UDS modem shelf:
NTRX34MK, NTRX34ML, NTRX34MM, NTRX34MN, NTRX34MS
P0737132, NTRX34MT.
 - 3) Provide the following items and quantities per UDS modem shelf:
8 - NTRX34MP (one cable per slot 1 to 8)

- 8 - NTRX34MQ (one cable per slot 9 to 16)
- 8 - A0316594
- 32 - A0317136
- 32 - P0148330

4) Provide cables in the following table per UDS modem shelf:

Prv QTY	Cable Pec	when Teltrend Sh in
4	NTRX3447	05
4	NT0X4312	19
4	NT0X4314	33
4	NT0X8849	47

5) Refer to EM Section 62005220 (EMA13-01-UDS-1) for applicable modems.

RUL42 1) For each CMIS provide the following hardware, per customer requirements, to provide terminal block shielding on power leads:

- (2) A0368391 Cover Plate
- (1) P0707193 Cover Plate
- (2) P0707195 Latch par

The above parts must be provisioned for UK markets and may be provisioned by customer request in other international markets.

MAINTENANCE TRUNK MODULE COMMON CP

PEC CODE: NT2X58CN

| CPC CODE: B0229315

| RATING: MD

| REPLACES: NT2X58CJ

| REPLACED BY: Not Applicable

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This MTM Common Circuit Pack fill contains those cards that are to be provided with each MTM Assembly (NT2X58CA) or each DRA Assembly (NT2X58CB).

REFERENCE DOCUMENTATION: N/A

| MARKETS: Applicable markets:

|
US
Canada
Europe
CALA

| ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NT2X58CN EMR13-01-MTMC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 06 20	----- ECM 266 16	Previous history unavailable MD and Retire per EC#018-46900.

The Maintenance Trunk Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Trunk Module I/F CP	NT2X45AB		1	X	1	AP
Trunk Module Processor CP	NT0X70AC		1	X	2	AP
TM/Control CP	NT2X53AA		1	X	3	AP
Group Codec CP	NT2X59AA		1	X	4	AP
Multi O/P Pwr Converter CP	NT2X09BA		1	X	17	AP
Filler Face Plate .875	NT0X50AA		1	X	19	AP
Design Label (NT2X09BA)	P0678476		1			AP
Designation Strip	P0701653		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 04,18,32,51, or 65.

RULES:

- AP 1) When PEC NT2X58CN is ordered, these items are provided.

MAINTENANCE TRUNK MODULE COMMON CP

PEC CODE: NT2X58CP

| CPC CODE: B0229316

| RATING: MD

| REPLACES: NT2X58CK

| REPLACED BY: Not Applicable

ABBREVIATION NAME: MTM

ENGINEERING DESCRIPTION: This MTM Common Circuit Pack fill contains those cards that are to be provided with each MTM Assembly (NT2X58CA) or each DRA Assembly (NT2X58CB).

REFERENCE DOCUMENTATION: N/A

| MARKETS: Applicable markets:

|
US
Canada
Europe
CALA

| ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NT2X58CP EMR13-01-MTMC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 06 20	----- ECM 266 16	Previous history unavailable MD and Retire per EC#018-46900.

The Maintenance Trunk Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Trunk Module Interface	NT2X45AB		1		1	AP
Trunk Module Processor CP	NT0X70AA		1		2	AP
TM Control CP	NT2X53AA		1		3	AP
TM Group Codec CP	NT2X59AA		1		4	AP
Multi OP Pwr Conv EMI Shld	NT2X09BA		1		17	AP
Filler FP .875	NT0X50AA		1		19	AP
Design Label (NT2X09BA)	P0678476		1			AP
Designation Strip	P0701652		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 04, 18, 32, 51 or 65.

RULES:

- AP 1) When PEC NT2X58CP is ordered, these items are provided.

RECORDED ANN. MOD 6 CHANNEL 6.5 SECOND MESSAGE

PEC CODE: NT0X03AA

CPC CODE: B0206506

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: RM

ENGINEERING DESCRIPTION: The RM accommodates one six-track Audichron magnetic recording machine facility for recording and distributing into the network recorded announcements of 6.5 second duration.

On new jobs replace by the Digital Recorded Announcement System. Refer to MS0X46AB, Section EMA2-01-000, MS2X58AG, Section EMR2-01-MTM-2 and Table A, Section EMA14-01-000, . for details.

REFERENCE DOCUMENTATION: MS0X03AA 01 02

MARKETS: Applicable markets:

US
CANADA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NT0X03AA EMR13-01-RM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 10 23	----- ECM 170 04	Previous history not available Reformat EMS, MD and Retire per EC018-46078.

The Recorded Ann. Mod 6 Channel 6.5 Second Message is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Recorder Announcer	NT0X0301		1			AP
Playback Amplifier	C0041652				01-06	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X03AA is ordered, these items are provided.

RUL1 1) Provide one Playback Amplifier, C0041652, per Recorded Announcement track to be utilized.

2) Maximum of six per NT0X03AA.

RECORDED ANN. MOD 12 CHANNEL 6.5 SECOND MESSAGE

PEC CODE: NT0X03AB

CPC CODE: B0206507

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: RM

ENGINEERING DESCRIPTION: The RM accommodates one twelve-track Audichron magnetic recording machine facility for recording and distributing into the network recorded announcements of 6.5 second duration.

On new job replace by the Digital Recorded Announcement System. Refer to MS0X46AB, Section EMA2-01-000, MS2X58AG, Section EMR2-01-MTM-2 and Table A, Section EMA14-01-000, for details.

REFERENCE DOCUMENTATION: MS0X03AB 01 02

MARKETS: Applicable markets:

US
CANADA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NT0X03AB EMR13-01-RM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 10 23	----- ECM 170 04	Previous history not available Reformat EMS, MD and Retire per EC018-46078.

The Recorded Ann. Mod 12 Channel 6.5 Second Message is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Recorder Announcer	NT0X0301			1		AP
Playback Amplifier	C0041652				01-12	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X03AB is ordered, these items are provided.

RUL1 1) Provide one Playback Amplifier, C0041652, per Recorded Announcement track to be utilized.

2) Maximum of twelve per NT0X03AB.

RECORDED ANN. MOD 6 CHANNEL 13.5 SECOND MESSAGE

PEC CODE: NT0X03AC

CPC CODE: B0207847

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: RM

ENGINEERING DESCRIPTION: The RM accommodates one six-track Audichron magnetic recording machine facility for recording and distributing into the network recorded announcement of 13.5 second duration.

On new jobs replace by the Digital Recorded Announcement System. Refer to MS0X46AB, Section EMA2-01-000, MS2X58AG, Section EMR2-01-MTM-2 and Table A, Section EMA14-01-000, for details.

REFERENCE DOCUMENTATION: MS0X03AC 01 02

MARKETS: Applicable markets:

US
CANADA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NT0X03AC EMR13-01-RM-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 10 23	----- ECM 170 04	Previous history not available Reformat EMS, MD and Retire per EC018-46078.

The Recorded Ann. Mod 6 Channel 13.5 Second Message is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Recorder Announcer	NT0X0301		1			AP
Playback Amplifier	C0041652				01-06	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X03AC is ordered, these items are provided.

RUL1 1) Provide one Playback Amplifier, C0041652, per Recorded Announcement track to be utilized.

2) Maximum of six per NT0X03AC.

RECORDED ANN. MOD 12 CHANNEL 13.5 SECOND MESSAGE

PEC CODE: NT0X03AD

CPC CODE: B0207849

| RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: RM

ENGINEERING DESCRIPTION: The RM accommodates one twelve-track Audichron magnetic recording machine facility for recording and distributing into the network recorded announcements of 13.5 second duration.

On new jobs relace by the Digital Recorded Announcement System. Refer to MS0X46AB, Section EMA2-01-000, MS2X58AG, Section EMR2-01-MTM-2 and Table A, Section EMA14-01-000, for details.

REFERENCE DOCUMENTATION: MS0X03AD 01 02

MARKETS: Applicable markets:

US
CANADA

ISSUE AUTHOR: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: Steve Martin Dept. 3471 (PPK)

NT0X03AD EMR13-01-RM-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 10 23	----- ECM 170 04	Previous history not available Reformat EMS, MD and Retire per EC018-46078.

The Recorded Ann. Mod 12 Channel 13.5 Second Message is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Recorder Announcer	NT0X0301			1		AP
Playback Amplifier	C0041652				01-12	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NT0X03AD is ordered, these items are provided.

RUL1 1) Provide one Playback Amplifier, C0041652, per Recorded Announcement track to be utilized.

2) Maximum of twelve per NT0X03AD.

REMOTE SERVICE MODULE

NT2X58AE

| RATING: MD. Replaced by NT2X58CF.

ABBREVIATION NAME: RSM

ENGINEERING DESCRIPTION: The Remote Service Module houses office maintenance, alarm and service circuits required for remote offices.

REFERENCE DOCUMENTATION: MS2X58AE 01 05

The Remote Service Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Rmt Service Module Shf Assy	NT2X5815		1	XX		AP
Filler Face Plate 1.125	NT0X50AC		2	XX	01,02	AP
Remote Service Module I/F	NT3X51AA		1	XX	03	AP
Group Codec	NT2X59AA		1	XX	04	AP
Trunk Card	AR			XX	05-16	RUL1
Filler Face Plate 1.125	NT0X50AC			XX	05-16	RUL2
Multioutput Power Converter	NT2X09AA		1	XX	17	AP
Filler Face Plate .875	NT0X50AA		1	XX	19	AP
Power Converter (5V/40A)	NT2X06AB		1	XX	20	AP
Designation Label (NT2X58AE)	P0629161		1	XX		AP

NOTES:

- 1) "XX" in SHF POS can be one of 65, 51, 32, 18.
- 2) Note, cabling distance between the RSM and Line Drawer (LD) position 19 of the connecting RLM must not exceed 25 feet.

RULE:

- AP 1) When PEC NT2X58AE is ordered, these items are provided.
- RUL1 1) The RSM provides slots to mount up to twelve (12) test line and trunk cards.
- 2) Refer to Table A-2, Section EMA14-01-000, for cards that can be mounted on an RSM.
- 3) The sum total of the maximum power dissipation per Table A-3 (Section EMA14-01-000) for all cards provisioned on any one shelf shall not exceed 110 watts.
- 4) When NT2X48AB is provisioned, locate in position 06 always.
- RUL2 1) When customer requirements specify that Filler Face Plates are to be ordered provide one (1) NT0X50AC for each location, 05-16, which is not to be equipped with a test line or a trunk card.

REMOTE SERVICE MODULE

PEC CODE: NT2X58CF

| CPC CODE: B0224135

| RATING: MD

| REPLACES: NT2X58AE

| REPLACED BY: Not Applicable

ABBREVIATION NAME: RSM

ENGINEERING DESCRIPTION: The Remote Service Module houses office maintenance, alarm and service circuits required for remote offices employing RLMS.

REFERENCE DOCUMENTATION: MS2X58CF 01 04

| MARKETS: Applicable markets:

| US
| Canada
| Europe
| CALA

| ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

| MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NT2X58CF EMR13-01-RSM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 96 06 20	----- ECM 266 16	Previous history unavailable MD and Retire per EC#018-46900.

The Remote Service Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RSM Shelf Assembly	NT2X5837		1	X		AP
Remote Svc Module Common CP	NT2X58CM			X		RUL1
Trunk Card	AR			X	05-16	RUL2
Filler Face Plate 0.875	NT0X50AC			X	05-16	RUL3
Power Converter +/- 5V, 12V	NT2X70AE			X	20	RUL4
Power Converter PC Kit	NT2X70AZ			X		RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 18, 32, 51, or 65.
- 2) Cabling distance between the RSM and Line Drawer (LD) position 19 of the connecting RLM must not exceed 25 feet.

RULES:

- AP 1) When PEC NT2X58CF is ordered, these items are provided.
- RUL1 1) Provide one (1) NT2X58CM Remote Service Module Common CP fill per RSM shelf.

- RUL2 1) The RSM provides slots to mount up to twelve (12) test line and trunk cards.
- 2) Refer to Table A-2, Section EMA14-01-000, for cards that can be mounted on an RSM.
- 3) The sum total of the maximum power dissipation per Table A-3 (Section EMA14-01-000) for all cards provisioned on any one shelf shall not exceed 110 watts.
- 4) When NT2X48AB is provisioned, locate in position 06 always.
- RUL3 1) Provide one (1) NT0X50AC Filler Face Plate for each slot 05-16 that is unequipped with a test line or a trunk card.
- RUL4 1) Provide one (1) NT2X70AE Power Converter CP per RSM shelf.
- RUL5 1) If requested by the Customer, provide one (1) NT2X70AZ Power Converter PC Kit to remove the existing NT2X70AA card and to add an NT2X70AE card. This PC Kit contains one (1) NT2X70AE and one (1) designation label.

| REMOTE SERVICE MODULE COMMON CP

NT2X58CE

RATING: MD. Replaced by NT2X58CM.

ABBREVIATION NAME: RSM

ENGINEERING DESCRIPTION: The RSM Common CP fill contains those cards that are to be provided with each NT2X58CF Remote Service Module.

REFERENCE DOCUMENTATION: N/A

The Remote Service Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Faceplate 1.125	NT0X50AC		2	X	1, 2	AP
RLM Serv Sh Interface CP	NT3X51AA		1	X	3	AP
TM Group Codec CP	NT2X59AA		1	X	4	AP
Multi O/P Pwr Converter	NT2X09AA		1	X	17	AP
Filler Faceplate .875	NT0X50AA		1	X	19	AP
Power Converter	NT2X70AA		1	X	20	AP
Designation Strip	P0677201		1	X		AP

NOTE:

- 1) X = Shelf Position 18, 32, 51 or 65.

RULE:

- AP 1) When PEC NT2X58CE is ordered, these items are provided.

REMOTE SERVICE MODULE COMMON CP

PEC CODE: NT2X58CM

CPC CODE: B0229320

| RATING: MD

REPLACES: NT2X58CE

REPLACED BY: N/A

ABBREVIATION NAME: RSM

ENGINEERING DESCRIPTION: The RSM Common CP fill contains those cards that are to be provided with each NT2X58CF Remote Service Module.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

MAIN CONTACT: NTI: James Marsden Dept. 3471 (PPK)

NT2X58CM EMR13-01-RSMC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 95 08 28	----- ECM 266 13	Previous history not available Change rating to MD. NT3X51AA being MDd without a replacement.

The Remote Service Module Common CP is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler FP 1.125	NT0X50AC		2		1, 2	AP
# RLM Serv Sh Interface CP	NT3X51AA		1		3	AP
Multi O/P Pwr Converter	NT2X09AA		1		17	AP
TM Group Codec CP	NT2X59AA		1		4	AP
Filler FP .875	NT0X50AA		1		19	AP
Designation Strip	P0701654		1			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT3X51AA	MD.	No Replacement

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

- 1) X = Shelf Position 18, 32, 51 or 65.

RULES:

- AP 1) When PEC NT2X58CM is ordered, these items are provided.

ENHANCED SERVICE TEST UNIT (ESTU)

PEC CODE: NT0J42BA

CPC CODE: A0393463

RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: ESTU

ENGINEERING DESCRIPTION: The Enhanced Service Test Unit (ESTU) is mounted on the NT0X02AB frame in either the MIS or RME configuration for Host or Remote Office applications. It is designed to provide ISDN 2B1Q Subscriber Loop Line Test Maintenance Service for up to 2000 lines per module within a DMS-100. This EMS gives the Phase 3 provisioning for the ESTU. This will eventually be the General Available (GA) product. This EMS is now at MD status and the EM section retired.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: NTI Jerry Palmer Dept. 3471 (PPK)

MAIN CONTACT: NTI Rena Fisher Dept. 3471 (PPK)

NT0J42BA EMR13-01-TL1-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 09 09	ECM 560 01	Introduce the ESTU and ITM into the frame to meet Gate 2 deliverable requirements for an ECM.
95 10 19	ECM 560 02	Changes rating of ISDN TL-1 ESTU (NT0J42BA) from standard to limited while making modifications and updates to product during gate revisit; per PLM.
96 03 19	ECM 560 05	RR61241: Remove NT0J4326 from equipment list. Corrected wiring PEC codes in equip. list and in RUL5. Included provisioning for F/W when upgrading phase 2 to phase 3. Change rating of this document from limited to standard.
97 09 15	ECM 560 06	MD the entire section due to low sales volume and EC 018-51464.

The Enhanced Service Test Unit (ESTU) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
# ESTU Master Module	NT0J42BA	EMM	1	00-75		AP
ESTU 26 Inch Mounting Adptr	NT0J42FA		1			RUL1
Cable Braid Assembly	NTMX1651		1			RUL2
Screw	P097F817		1			RUL2
Lock Washer	P097Y579		2			RUL2
Wiring (-48R)	R0106540		1			RUL5
Wiring (-48)	R0106542		1			RUL5
Lugs	A0351542		2			RUL5
# ISDN Test Module	NT0J43AA	ITM	1	00-71		RUL3
ESTU 26 Inch Mounting Adptr	NT0J42FA		1			RUL3
Cable Braid Assembly	NTMX1651		1			RUL2
Screw	P097F817		1			RUL2
Lock Washer	P097Y579		2			RUL2
Wiring (-48R)	R0106540		1			RUL5
Wiring (-48)	R0106542		1			RUL5
Lugs	A0351542		2			RUL5
EMM Firmware Kit	NT7F8105		1			RUL6

EQUIPMENT FLAGGED '#':

	PEC	RATING	REPLACED BY PEC
#	NT0J42BA	MD	No replacement
#	NT0J43AA	MD	No replacement
	NT0J4304	MD	No replacement
	NT0J4305	MD	No replacement
	NT0J4306	MD	No replacement

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

- AP 1) When PEC NT0J42BA is ordered, these items are provided.
- RUL1 1) The ISDN Integrated Testing ESTU hardware may be provisioned via NT0J42BA (EMM) and NT0J42FA (mounting adapters) for MIS and RME. Provide One ESTU per 2000 ISDN Lines. THE FOLLOWING IS AN EXAMPLE of how to mount the EMM and ITM. The EMM and ITM require 8 inches of continuous space.

Frame Assignments for test Units:

SHELF	UNIT
POS	ASSIGNMENTS
65	SPACING
64	NT0J42BA/FA EMM
63	NT0J42BA/FA EMM
62	SPACING
61	SPACING
60	ITM
59	ITM
58	SPACING

Note:

* ESTU Environmental Requirements

The EMM has slots on the side of the unit and emergency exhaust fans on the rear of the unit. Clearance must be maintained on the sides of the unit and behind the fans to allow the fans to draw air in from the sides of the unit and out the rear. The minimum clearance for the fans is two (2) inches and one (1) inch for the slots on the sides. There are no additional restrictions on the position of the EMM and ISDN with respect to other equipment in the frame.

- 2) Assign the individually provisioned ESTU to the frame per the availability of a eight (8) inch continuous space. Note: 2" for EMM, 1" above and below the EMM for cooling. For the ITM module, 2" for the unit, 1" cooling space below the ITM and a minimum 2" air space TOTAL between the EMM and ITM.

- RUL2 1) Provide one NTMX1651 to connect the ESTU frame ground via the double studs and lug on the back of the ESTU (left rear when viewed from front) to the MIS frame, frame ground. Also, provide one NTMX1651 to connect the frame ground on the ITM to the frame. Provide 1 P097F817 screws and 2 P097Y579 lock washers for each NTMX1651.
- RUL3 1) Provide one ISDN Test Module (ITM) and NT0J42BA (mounting adapters) per EMM to provide the following test functions:
- * Cold Start Verification
 - * Performance Monitoring Detection
 - * Threshold Crossing Verification Testing
- RUL4 1) Reserved for future use.
- RUL5 1) Provide one R0106540, R0106542, and two A0351542 for each EMM and for each ITM to power via the Frame Supervisory Panel.
- RUL6 1) Provide one NT7F8105 EMM firmware kit only when upgrading from ISDN TL-1 phase 2 to ISDN TL-1 phase 3.

UDS STAND ALONE DATA SETS
PROVISIONING OF UDS STAND ALONE DATA SETS

T_UDS_SA

RATING: Cancelled. Replaced by 62005220.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: Stand Alone Data sets may be provided for any installation requiring data sets. However, this is not the preferred means of meeting the customers data communications needs whenever a rack mounted alternative exists. Note, there are instances when provisioning stand alone units is the most efficient means of meeting Telco requirements.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:
US

T UDS SA EMR13-01-UDS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
----- 92 11 03	----- ECM 633 02	Previous history not available The data within this EMS is also included within EMS 62005220. This EMS is being cancelled and retired. The PEC for this EMS is also changing from "UDSDATA" to "T_UDS_SA".

The UDS Stand Alone Data Sets Provisioning of UDS Stand Alone Data Sets is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
300bps S/A MODEM 108	61035119					RUL1
2400bps AA MODEL 201B/C	62015141					RUL2
1200bps AA-AD 202S/D	62025199					RUL3
1200bps AA MODEL 202S/T	62025201					RUL4
4800bps AA MODEL 208A/B	62085064					RUL5
300-1200bps AA MODEL 212A	62125069					RUL6
300-1200bps AA-AD 212A/D	62125068					RUL7
! 300/1200/2400bps AA 224A	62245004					RUL9
3/12/2400BD AA-AD 2440	62245079					RUL9
@ DUAL DIAL BKUP (DDBU)	61025047					RUL10
D9.6 9600BD Modem SA	64965004					RUL11
56KBPS DSU Standalone	64565005					RUL12
1200bps AA 202S/T-R	62025201					RUL13
3/12/2400bps 224AT/D	62245005					RUL14
3/12/2400BD EC224A/D DS	62245027					RUL15

FLAGS:

| ! MD. Replaced by 62245079. @ MD. No Replacement.

NOTES:

- 1) Standalone modems should only be used when the quantity of modems and/or mounting conditions does not warrant the use of a modem shelf.
- 2) Provide the Rixon Data Auxiliary Set (RM46A1) Shelf and C829CR Cards in conjunction with the UDS RM16 Shelf and Modem Cards when Modems are to be used in a Dedicated Mode.
- 3) The standalone modem installation requires the telco to provide a RJ-11 or RJ-45 Telephone Jack to be installed near the modem.

RULES:

| AP 1) When PEC T_UDS_SA is ordered, these items are provided.

- RUL1 1) Provision the UDS 108 modem for dedicated 300bps connections for peripheral equipment, (printers, terminals, etc).
- RUL2 1) The UDS 201B/C (A0336308) may be used as a Private Leased Line modem or Dial-Up modem for applications requiring 2400bps synchronous operation.
- RUL3 1) Provision the 202S/D for dial-up terminal applications requiring asynchronous operations at 0-1200bps or 600-1200bps synchronous operation, and page refresh, where the communication path exceeds 1200 ft.
- RUL4 1) Provision the 202S/T for dedicated Full Duplex 4W or Dial Up Half Duplex 2W terminal applications requiring asynchronous communications 0-1200 baud operation, and page refresh, where the communication path exceeds 1200 feet.
- 2) When provisioning this modem or any other modem for dedicated Private Leased Line operation, special circuits are needed to interface between the modem and the cable pair. These circuits are referred to as Auxiliary Data Sets (ADS) (See Rule 13).
- RUL5 1) Provision the 208A/B for dedicated Full Duplex 4W or Dial-Up half Duplex 2W terminal applications requiring synchronous communications 4800 baud operation, and page refresh, where the communication path exceeds 1200 feet.
- 2) When provisioning this modem or any other modem for dedicated/Private Leased Line operation, special circuits are needed to interface between the modem and the cable pair. These circuits are referred to as Auxiliary Data Sets (ADS) (See Rule 13). requirement
- RUL6 1) Provision the 212A for Dial-up terminal applications requiring asynchronous communications 0-300/1200 baud operation, where the communication path exceeds 1200 feet.
- RUL7 1) Provision the 212A/D for Dial-Up terminal applications requiring asynchronous communications 0-1200 baud operation.
- RUL8 1) To be used at a later date.
- RUL9 1) Provision the 224A for Dial-Up terminal applications requiring asynchronous 0-300 bps or synchronous communications 1200-2400 bps operation, where the communication path exceeds 1200 feet.

- RUL10 1) The Dual Dial Backup Units are no longer available, the following rules are retained for historical purposes.
- 2) Provision the 720 Dual Dial Backup Unit (DDBU) for operation with EADAS or SCC Links with the DDBU in secure mode.
- 3) The UDS 720 DDBU is not end to end compatible with AT&T 48ER1 or 48FR1 dial backup units -- in cases where this mixed interface is required provide the Case Rixon 4000DB1 Dual Dial Backup Unit.
- 4) The DDBU may be used to temporarily re-establish a failed PLL; it may be used temporarily while waiting for a PLL to be installed, or it may be used for permanent 4-Wire full duplex PSTN operation.
- 5) In the U.S Market UDS 720 DDBU units SHALL NOT be provided for operation with DPP Units; this has been deemed a telco responsibility by Marketing - Digital Switching Division.
- RUL11 1) Provision the UDS Digital Data Service (DDS) D9.6K for applications requiring digital transmission at 9.6K, 4.8K, or 2.4K bps.
- 2) Typical applications for this device are (1) Local Area Data Channel (LADC) and (2) Limited Distance Modem (LDM).
- 3) The telco must provide a RJ48 8-pin modular jack (RJ45 type) or a 42A Block - both types have connections for the transmit and receive pair; to interface the combination DSU & CSU modem from UDS.
- RUL12 1) Provide two (2) UDS 56KBPS Digital Data Channel Service Units for applications requiring the High Speed Data Access (HSDA) Card NTN66.
- RUL13 1) Provision the 202S/T-R for dedicated Full Duplex 4W or Dial Up Half Duplex 2W terminal applications requiring:
- * asynchronous communications 0-1200 baud operation,
 - * Secondary Channel where baud rate is selectable from 5, 0-75, and 0-150 baud.
 - * and page refresh
- in applications where the communication path exceeds 1200 feet.

RUL14 1) Provision the 224AT/D for Dial-Up terminal applications requiring:

- * asynchronous or synchronous communications 0-2400bps operation,
- * Automatic Answer/Dial Capability, and
- * Hayes AT Command Set

where the communication path exceeds 1200 ft.

2) This modem operates like the 212A/D and is often provisioned in lieu of the 212A/D model, due to it's increased flexibility in operating speeds.

RUL15 1) Provision the EC224A/D for Dial-Up terminal applications requiring:

- * asynchronous or synchronous communications 0-2400bps operation,
- * Automatic Answer/Dial Capability,
- * Hayes AT Command Set, and
- * Error Correction capabilities within the modem

where the communication path exceeds 1200 ft.

2) This modem operates like the 212A/D and is often provisioned in lieu of the 212A/D model, due to it's increased flexibility in operating speeds.

MISCELLANEOUS EQUIPMENT FRAME

NT0X02AA

RATING: MD. Replaced by NT0X02AB

ABBREVIATION NAME: MIS

ENGINEERING DESCRIPTION: A standard DMS frame will be used to mount miscellaneous equipment. For example an MIS frame can hold Recorded Announcement Modules (RM).

REFERENCE DOCUMENTATION: MS0X02AA 01 02

The Miscellaneous Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Misc Eqpt Fr Supervisory Pnl Basic Assembly Wiring	NT0X88AA	FSP	1	45		

Description of Miscellaneous Equipment Frame:

1. a) The MIS provides space to mount items of the following equipment in addition to the above:

- 1) Recorded Announcement Modules (RM). The following functional types are available; equip each per the corresponding MS:

MODULE	PEC	MS
RCD ANN Module 6 CH 6.5 SEC MSG	NT0X03AA	MS0X03AA
RCD ANN Module 12 CH 6.5 SEC MSG	NT0X03AB	MS0X03AB
RCD ANN Module 6 CH 13.5 SEC MSG	NT0X03AC	MS0X03AC
RCD ANN Module 12 CH 13.5 SEC MSG	NT0X03AD	MS0X03AD

Provide one or more modules of the appropriate type to satisfy the recorded announcement needs of the office.

- 2) Metallic Test Access Shelf NT2X46AB. For every 16 test multiples required, provide one MTA per five (5) LME or RLM which require metallic test access.
- 3) Data Set Module NT1X60AA. Provide one as required to accommodate up to 16 modems. Equip per MS1X60AA. Locate here only if unit cannot be accommodated on an MTC (see MS0X43AA, Section EMR5-01-000 and MS0X43AB, Section EMR5-01-001).
- 4) DC/AC Inverter NT0X87AA for DSM, RM, MAP etc,
- 5) Other per-office type miscellaneous equipment.

- b) The number of items which can be accommodated on one MIS would depend on the types and quantities being provided.
2. a) Equip the MISC EQPT Frame Supervisory Panel per MS0X88AA.

RULE:

- RUL1 1) When customer requirements specify that Grilles and (or) Frame Doors are to be ordered for these frames, provide one NT0X08AH, one NT0X71AC and (or) one NT0X71AB per MIS as required. Mount NT0X71AC unit at front of frame and NT0X71AB unit at rear.

DIGITAL EQUIPMENT CORP. VIDEO DISPLAY UNIT
VT241 VDU

VT241

RATING: Rate Change Pending, Replaced By CT220R

ENGINEERING DESCRIPTION: This color VDU combines conversational text and graphics capabilities with human engineering. VT100 capabilities are also included.

REFERENCE DOCUMENTATION: N/A

The The Digital Equipment Corp. Video Display Unit VT241 VDU is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#	System Box/Processing Unit	VS240		1			AP
#	VT241 U.S. Keyboard Kit	VT24K-AA		1			RUL1
	VT200 Series Terminal Stand	VT2XX-AA		1			RUL2

FLAGS:

MD. Replaced by CT220 Refer to ECM-312 for engineering info.

NOTE:

- 1) Provide one inverter (NT0X87AA) per VDU requiring protected AC.

RULE:

- AP 1) When PEC VS240 is ordered, these items are provided.
- RUL1 1) Provide one VT24K-AA (Keyboard Kit) per VT241 VDU required, which consists of the keyboard, documentation, and options.
- RUL2 1) Provide one VT2XX-AA (Terminal Stand) as per telco requirements.

4000DB1 DUAL DIAL BACK UNIT

905-5165-001

RATING: Rating Change Pending. No approved replacement.

ABBREVIATION NAME: DDBU

ENGINEERING DESCRIPTION: The 4000DB1 is available in a stand alone and a card version and is designed to work in conjunction with Private Leased Line (PLL) systems. In case of data line failure the 4000DB1 will automatically or manually reestablish the data link via two (2) dial-up lines.

REFERENCE DOCUMENTATION: N/A

The Case Rixon 4000DB1 Dual Dial Backup unit is comprised of the following:

EQUIPMENT	PEC	CP POS	RULE
4-Wire Telephone Cable	115-0414-002	2	AP
8-Wire Telephone Cable	115-0414-007	1	AP
Programmable To Permissive Adapt	301-0011-01	1	AP
Wall Mount Transformer	905-7102-01	1	AP
Modular Jack Assembly	NT-625QA4		RUL1
# DEC VT-241 Color Graphics VDU	VT-241		RUL2
Colortrend CT220R VDU	CT220R		RUL2
# VT220 Black/White Monitor	VT220-A2		RUL2
# VT220 Green Monitor	VT220-B2		RUL2
# VT220 Amber Monitor	VT220-C2		RUL2
Cable 4000DB1 Control Port	905-7067-01		RUL3

FLAGS:

MD. Replaced by CT220.

NOTE:

- 1) The Case Rixon 4000DB1 has two (2) modes of operation which are:
 - a) Round Robin. One unit calls the other. The other unit answers the call then calls the first unit.
 - b) Two-Call. One unit places both calls. This mode is employed to simplify billing.
- 2) The 4000DB1 is available in a Desk and Card version. Presently the Desk Version is approved. Approval has been requested for the Card Version. This document will be updated to reflect the Card Version when the approval process is complete.

RULE:

- AP 1) Equipment always provided when a 4000DB1 is provided.
- RUL1 1) Provide three (3) modular jack assemblies to interface the 4000DB1 Leased Line, DDD/TX, and DDD/RX outputs.
- RUL2 1) Provide one (1) of these monitors when control of the 4000DB1 via an asynchronous VDU is required.
- RUL3 1) Provide one 905-7067-01 DTE (25-Pin) to DB1 Control Port Cable when the DB1 is optioned to be controlled via an asynchronous terminal to connect the asynchronous terminal to the DB1's control port.

CABINETIZED MISC SPARE STORAGE

PEC CODE: NTRX49AA

CPC CODE: B0235497

| RATING: MD

REPLACES: N/A

REPLACED BY: NTRX49BA

ABBREVIATION NAME: CMSS

ENGINEERING DESCRIPTION: The Cabinetized Miscellaneous Spare Storage (CMSS) provides for storage of spare circuit packs. The storage cabinet can be provisioned with up to four spare storage shelf assemblies which can hold 0.875, 1.125, or SuperNode size circuit packs.

REFERENCE DOCUMENTATION: SLRX49AA 00 01

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Ron Hogan Dept. 3471 (PPK)

MAIN CONTACT: NTI: James Marsden Dept. 3471 (PPK)

NTRX49AA EMR13-04-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 11 23	ECM 600 03	ET13529 resolution.
95 09 14	ECM 600 19	Make changes per EC 024-83896 MD NTRX49AA per EC 024-94287.

The Cabinetized Misc Spare Storage is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DMS-100 6' Cabinet Assy	NTNX25EA		1			AP
Utility Tray	P0700829		1	62		AP
Frame Ground Hardware Kit	NTRX2518		1			AP
Spare Storage Shelf Assembly	NTNX2201			05,19, 33,47		RUL1
Spare Storage Shelf Assembly	NTNX2203			06,20, 34,48		RUL2
Line Card Storage Chassis	NT3X55BA					RUL3
Leveling Foot Kit	NTRX2523					RUL4
CMSS Hardware Kit - Grey	NTZZ27DA			00		RUL5
CMSS Hardware Kit - Brown	NTZZ27EA			00		RUL5
Cable Trough Assembly (Grey)	NTNX5511					RUL6
Cable Trough Assembly (Brwn)	NTRX5544					RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC

DEV - DEVELOPMENT. These products are in the development phase. Please contact NPPM prior to ordering.

A&M - ADDITIONS & MAINTENANCE. These products can only be ordered if they are already in use in that office.

MD - MANUFACTURED DISCONTINUED. These products are no longer manufactured and cannot be ordered.

NOTES:

RULES:

AP 1) When PEC NTRX49AA is ordered, these items are provided.

- RUL1 1) Provide one (1) NTN2201, Spare Storage Shelf Assembly, to store up to fifty four (54) 0.875 inch spare circuit packs or up to forty two (42) 1.125 inch spare circuit packs. Always provision the NTN2201 from the bottom up.
- RUL2 1) Provide one (1) NTN2203, Spare Storage Shelf Assembly, to store up to two (2) power converters and twenty (20) SuperNode size (ECORE, ENET, LPP) cards on the front side and a maximum of twenty six (26) paddleboards on the rear side. Always provision the NTN2203 from the bottom up. When mixing NTN2201 with NTN2203, always provision the NTN2201 shelf assemblies first.
- RUL3 1) Provide one (1) NT3X55BA, Line Card Storage Chassis, to store a maximum of ten (10) Double Slot Line Cards or ten (10) Single Slot Line Cards plus one (1) IF card. Four (4) NT3X55BAs can be mounted in the NTN2201 shelf assembly from left to right.
- RUL4 1) Provide one (1) NTRX2523, Leveling Foot Kit, per cabinet for Non-Earthquake offices.
- RUL5 1) Provide one (1) NTZZ27DA, CMSS Hardware Kit - Grey, per grey CMSS cabinet.
- 2) Provide one (1) NTZZ27EA, CMSS Hardware Kit - Brown, per brown CMSS cabinet.
- RUL6 1) Provide one (1) NTN5511, Cable Trough Assembly (Grey), per grey cabinet when overhead cabling is required.
- 2) Provide one (1) NTRX5544, Cable Trough Assembly (Brown), per brown cabinet when overhead cabling is required.

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LISTING BY PRODUCT ENGINEERING CODE

<u>PEC</u>	<u>EQUIPMENT NAME</u>	<u>SECTION #</u>
AA-260A	Modular Jck Adpt 30B Ph	EMR11-01-LOG-1
APJ3485-S22	CROUSE-HINDS ELEC PLUG	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
A0089954	FREQUENCY GENERATOR (QGG1A)	EMR11-01-KSS-1
A0118190	KEY SERVICE UNIT (QUJ9B)	EMR11-01-KSS-1
A0231286	NE66MQ2A-50 CONNECTOR BLOCK	EMR11-01-KSM-1
A0242363	STANDARD HEADSET QSR2F1	EMR8-ITOPS4-1
A0242365	10 FT. CORD QSR2G1	EMR8-ITOPS4-1
A0242367	SUPERVISOR HEADSET - 10FT CORD	EMR8-ITOPS4-1
A0263613	QUN10D KTU LINE CARD	EMR11-01-KSM-2
		EMR11-01-KSS-1
A0265165	GDC202-9DR-AM DATA SET	EMR5-01-DSM-2
A0265166	GDC108-2AE DATA SET	EMR5-01-DSM-2
A0274225	NE-H4DUQA-35 CORD 1.8 M	EMR11-02-FPL-1
A0277744	Magnetic Tape Drive	EMR2-20-004
A0283945	BATTERIES	EMR2-13-000
A0285591	LINE DRAWER CUTOFF STRAP	EMR2-03-LD-2
		EMR2-19-LD-1
A0286466	DARK ORANGE CHAIR WITH ARMS	EMR8-ITOPS4-1
A0286473	ROTL 1056 Power Supply	EMR10-13-000
A0286474	ROTL/52A Responder	EMR10-13-000
A0286475	ROTL APC/1050 4W Test	EMR10-13-000
A0288174	CAMEL CHAIR WITH ARMS	EMR8-ITOPS4-1
A0292964	GDC 2400 Bd Modem Card	EMR2-20-004
A0297086	4800 BAUD MODEM	EMR9-03-000
A0297087	DC/AC INVERTER 117V AC, 50W	EMR9-03-000
A0300005	DISK DRIVE UNIT 33 MBYTE	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
A0300006	DISK DRIVE UNIT 66 MBYTE	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
A0300007	DISK DRIVE UNIT 154 MB	EMR5-01-DDU-2
		EMR5-01-DDU-3
A0300305	ROTL Spares Kit	EMR10-13-000
A0300700	GDC 4800 Bd Modem Card	EMR2-20-004
A0301068	GDC 4800 Bd Modem Card	EMR2-20-004
A0302338	Modem CP	EMR2-08-001
		EMR2-08-002
		EMR10-25-000
		EMR10-23-000
A0302484	HEATER	EMR2-13-001

A0316598	37 Pin Filter Adapters	EMR4-03-001
A0316825	GDC 4800 Bd Modem Card	EMR2-20-004
A0319292	Jumper	EMR2-13-I00
A0319453	GDC 9600 Bd Modem Card	EMR2-20-004
A0323984	CORE COOLING UNIT	EMR4-15-000
		EMR4-16-000
A0323985	YUASA BATTERIES	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
A0326501	GDC 1200 Bd Modem Card	EMR2-20-004
A0328534	GDC 1200/1800 Bd Modem Card	EMR2-20-004
A0334204	TELEPHONE HAND SET	EMR11-02-FPL-1
A0334805	TELEPHONE HAND SET	EMR11-02-FPL-2
		EMR11-02-FPL-3
A0336417	NT-Mercury DDU	EMR2-20-004
A0336877	Priam DDU	EMR2-20-004
A0345213	GDC 9600/4800 Bd Modem Card	EMR2-20-004
A0352268	Fiber Optic Cable	EMR4-03-001
A0360696	RG-59/U Coax.Cable Conn.	EMR2-13-I00
A0360953	RG-179/U Coax.Cable Conn.	EMR2-13-I00
A0367433	LaMarche Inverter	EMR2-08-001
		EMR2-08-002
A0368392	FSP Terminal Block (TB1)	EMR2-12-001
A0368911	FC 1133 Token Ring Card	EMR8-TOPSMPX-1
A0368912	Color Monitor	EMR8-TOPSMPX-1
A0368914	PS2 Base (Type 1 & 2)	EMR8-TOPSMPX-1
A0369201	TOPS MPX Keyboard	EMR8-TOPSMPX-1
A0369202	PS2 Base (Type 3)	EMR8-TOPSMPX-1
A0369273	FC 6401 RTIC Card	EMR8-TOPSMPX-1
A0378953	PS2 Base (Type 3)	EMR8-TOPSMPX-1
A0378954	PS2 Base (Type 1 & 2)	EMR8-TOPSMPX-1
A0379072	TOPS MPX Keyboard (French)	EMR8-TOPSMPX-1
A0379250	TOPS MPX Keyboard	EMR8-TOPSMPX-1
A0382150	TOPS MPX Keyboard (English)	EMR8-TOPSMPX-1
A0382277	PKT ASSEMBLER DISASSEMBLER	EMR13-01-DTH-1
		EMR13-01-DTH-2
		EMR13-01-DTH-4
A0384296	Straight Blade Power Strip	EMR8-TOPSMPX-1
A0384297	Twist-lock Power Strip	EMR8-TOPSMPX-1
A0385644	T.R. Data Cbl, Posn-Junc Box	EMR8-TOPSMPX-1
A31-500-48V-46	LAMARCHE INVERTER	EMR11-01-VDU-1
CIRCUIT	PROVISIONABLE	EMR10-11-000
COMPARTMENT	AUXILIARY	EMR2-13-I00
C0041652	PLAYBACK AMPLIFIER	EMR13-01-RM-1
		EMR13-01-RM-2
		EMR13-01-RM-3
		EMR13-01-RM-4
C0054355	MODEM CP	EMR2-08-000
		EMR5-02-000

C0054642	CORR TOOL CARRYING POUCH	EMR5-02-001 EMR2-13-000 EMR2-13-001 EMR2-13-I00
C0057448	BROWN CHAIR WITH ARMS	EMR8-ITOPS4-1
C0057911	CRIMSON CHAIR WITH ARMS	EMR8-ITOPS4-1
C0058480	BROWN CHAIR WITHOUT ARMS	EMR8-ITOPS4-1
C1004A	HP700/22 AMBER VDU W/KYBD	EMR11-01-VDU-1
C1004G	HP700/22 GREEN VDU W/KYBD	EMR11-01-VDU-1
C1004W	HP700/22 WHITE VDU W/KYBD	EMR11-01-VDU-1
C1007A	AMBER VIDEO DISPLAY UNIT	EMR13-01-DTH-1 EMR13-01-DTH-2 EMR13-01-DTH-4
C1007G	GREEN VIDEO DISPLAY UNIT	EMR13-01-DTH-1 EMR13-01-DTH-2 EMR13-01-DTH-4
C1007W	WHITE VIDEO DISPLAY UNIT	EMR13-01-DTH-1 EMR13-01-DTH-2 EMR13-01-DTH-4
HP700	HEWLETT PACKARD SERIES HP700/22 VD	EMR11-01-VDU-1
HS0552-1	SUPRA MONAURAL HEADSET	EMR7-BSAC-4 EMR7-BSAC-5
HS0554-1	SUPRA BINAURAL HEADSET	EMR7-BSAC-4 EMR7-BSAC-5
IBAR4-12HP	Twist-lock Power Strip	EMR8-TOPSPMPX-1
INVERTER	Protected AC	EMR13-01-DTH-4
ISOBAR4-12HP	Straight Blade Power Strip	EMR8-TOPSPMPX-1
J2427B-1L1	RECTIFIER	EMR2-13-000 EMR2-13-001 EMR2-13-I00
KTS-3	PYLON KTS-3 POWER SUPPLY	EMR7-BSAC-4 EMR7-BSAC-5
KX-T1235D	Autodialer 30B TelSet	EMR11-01-LOG-1
MAPVCOMM	DMS-100F MAP Voice Communications	EMR11-01-LOG-1
MH-0530-1	Plantronics Starmate	EMR11-01-LOG-1
NE-D100QA-87	Logic 20 Line Cord	EMR11-01-LOG-1
NE-D3BN-87	5'6" transformer cord	EMR11-01-LOG-1
NE-D50QE-87	Ash Logic 10 Line Cord	EMR11-01-LOG-1
NE-P4QDG	PORTABLE MAP CABLE	EMR11-01-VDU-1
NE-2012B-03	Handsfree unit transfrm	EMR11-01-LOG-1
NPS25128L1	Mag Tape Drive 9 Track	EMR9-01-PMPM-1
NS15900L1	INTERRUPTER UNIT	EMR11-01-KSM-2
NTAX74AA	CPM Processor	EMR2-25-RCC2-3
NTAX75DA	Intelligent Cellular Peripheral CP	EMR9-03-ICP-1
NTAX78AA	Enhanced Time Switch CP	EMR2-06-000
NTBX01AA	ISDN Pre-proc CP	EMR2-99-XPM-6 EMR2-99-XPM-12 EMR2-15-RCC-5 EMR2-15-RCCI-1

		EMR2-99-XPM-10
		EMR9-03-ICP-1
		EMR10-19-000
		EMR2-99-XPM-13
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
NTBX01AB	ENHANCED ISP CP	EMR2-24-RCC-1
		EMR2-99-XPM-6
		EMR2-99-XPM-12
		EMR2-15-RCC-5
		EMR2-99-XPM-10
		EMR10-19-000
		EMR2-99-XPM-13
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTBX01AC	Enhanced ISDN Sig. Pre-Proc	EMR2-06-SMA-1
		EMR2-06-SMA-2
NTBX01BA	Enhanced ISP	EMR2-25-RCC2-2
NTBX02AA	D Channel Handler	EMR2-15-RCC-5
		EMR2-25-RCC2-1
		EMR10-19-000
		EMR10-28-000
		EMR2-24-002
		EMR2-15-001
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTBX02BA	ISDN D-Channel Handler (DCH)	EMR2-24-002
		EMR2-15-001
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTBX30BA	ISDN LCMI to LCME Upgrade Kit	EMR2-97-LCME-1
NTBX31AB	LCME Fillers	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NTBX31BA	ISDN Enhanced Line Concentrating M	EMR2-19-LCME-1
		EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
NTBX31BB	LCME Common CP	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTBX31BC	LCME Common CP	EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTBX31PA	LCME Packfill Upgrade Kit	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3

NTBX31PB	LCME Upgrade Kit	EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTBX3112	Fuse Panel	EMR10-03-MCLM-1 EMR10-03-MCLM-2
NTBX3118	ISDN Line Conc Arr Shf Assy	EMR2-25-RCC2-1 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTBX32AA	ISDN Line Drawer	EMR2-19-LD-1 EMR10-03-MCLM-1 EMR10-03-MCLM-2
NTBX32BA	ISDN Enhanced Line Drawer	EMR2-97-LCME-1 EMR2-25-RCC2-1 EMR2-97-LCME-1 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTBX3201	ISDN Line Drawer Assy	EMR2-19-LD-1
NTBX34AA	LCMI Processor CP	EMR2-97-LCME-1
NTBX34AB	LCMI Processor CP	EMR10-03-MCLM-1 EMR10-03-MCLM-2 EMR2-97-LCME-1
NTBX34BA	LCME Processor CP	EMR2-19-LCME-1 EMR2-97-LCME-1
NTBX35AA	LCMI Digroup Control CP	EMR2-19-LCME-1 EMR10-03-MCLM-1 EMR10-03-MCLM-2 EMR2-97-LCME-1
NTBX36AA	ISDN Line Drawer BIC	EMR2-19-LD-1
NTBX40AA	Integrated Access Equipment Frame	EMR2-17-000
NTBX40BA	INTEGRATED ACCESS CONTROLLER CIRCU	EMR2-17-IAC-1 EMR2-17-000
NTBX40BB	INTEGRATED ACCESS CONTROLLER CIRCU	EMR2-17-IAC-2 EMR2-17-000
NTBX40BC	Int Access Ctrlr CP Fill	EMR2-17-000 EMR2-17-IAC-4
NTBX40BD	IAE SP Memory Upgrade Kit	EMR2-17-000
NTBX4011	Int Access Ctrlr Shf Assy	EMR2-17-000
NTBX43AA	ISDN SIG TERM BUFFER CP	EMR2-17-IAC-1 EMR2-17-IAC-2 EMR2-17-IAC-4
NTBX45AA	Signaling Terminal Cards	EMR2-17-000
NTBX72AA	LCME Battery & Ring. Router	EMR2-19-LCME-1 EMR2-97-LCME-1
NTEX01AA	Enhanced Multi-Purpose Cabinet	EMR2-12-002
NTEX0120	Composite Clock Cable Assy	EMR2-12-002
NTEX20AA	F-Bus A Terminator PB	EMR2-12-FLIS-1 EMR2-12-000

NTEX20BA	F-Bus B Terminator PB	EMR2-12-001 EMR2-12-FLIS-1 EMR2-12-000 EMR2-12-001
NTEX22AA	IPF Proc and FBUS I/F CP	EMR2-12-000 EMR2-12-001
NTEX22BA	IPF Proc and FBUS I/F (8Meg)	EMR2-12-000 EMR2-12-001 EMR2-12-002
NTEX22BB	Enhanced CPU-IPF CP (8Meg)	EMR2-12-000 EMR2-12-001 EMR2-12-002
NTEX25AA	Channel Bus Control Unit:0	EMR2-12-000 EMR2-12-001 EMR2-12-002
NTEX25BA	Channel Bus Control Unit:1	EMR2-12-000 EMR2-12-001 EMR2-12-002
NTEX26AA	Channel Bus Interface PB	EMR2-12-000 EMR2-12-001
NTEX28AA	DS30 Link I/F PB	EMR2-12-000 EMR2-12-001 EMR2-12-002
NTEX30AA	Frame Relay Analog I/F PB	EMR2-12-000 EMR2-12-001
NTEX31AA	Frame Relay Service I/F CP	EMR2-12-000 EMR2-12-001
NTEX31BA	Enhanced FRAP T1 Procc CP	EMR2-12-000
NTEX5001	OVERHEAD (FRAME) PWR BLK KIT	EMR3-05-000 EMR2-12-000 EMR4-03-001 EMR2-12-002
NTEX5009	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NTEX5011	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NTEX5013	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NTEX5015	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NTEX5017	Dual FSP Conn Panel Assy	EMR4-03-001
NTEX5018	Dual FSP Bulkhead Panel Assy	EMR4-03-001
NTEX5022	Inter-MS DS-30 Cable Assy	EMR4-03-001
NTEX5023	Inter-MS DS-30 Cable Assy	EMR4-03-001
NTEX5025	Bulkhead Conn Cover Plate	EMR2-12-000 EMR2-12-002
NTEX5070	9-Pin Cover Plate	EMR2-25-RCC2-2
NTEX5101	Overhead Power Block Kit	EMR2-12-001
NTEX70AA	Cable Trough Assy.(Grey)	EMR4-17-000
NTFX09AA	CBUS Interface PB	EMR2-12-000 EMR2-12-002
NTFX10AA	HDLC Frame Processor CP	EMR2-12-000 EMR2-12-002

NTFX33BA	International LGC/DTC Common CP	EMR2-20-ILGC-1
NTFX33BC	International LGC/DTC Common CP	EMR2-20-ILGC-4
NTFX33BD	International LGC/DTC Common CP	EMR2-20-ILGC-5
NTFX33CB	LGCI/DTCI Common Circuit pack (Off	EMR2-20-LGCI-2
NTFX37AA	International Cabinet Auxiliary Mo	EMR2-20-002
NTFX37AB	International Cabinet Auxiliary Mo	EMR2-20-003
NTFX37BA	IPTM Common Circuit Pack	EMR2-20-002
NTFX37BB	IPTM Common Circuit Pack	EMR2-20-002
NTFX3703	ESD Ground Terminator Assy	EMR2-20-003
		EMR2-20-004
NTFX3709	IMTM to Bulkhead Cable Assy	EMR2-20-003
NTFX3711	IMTM-DRA to Bulkhead Ca Assy	EMR2-20-003
NTFX3713	ESD Ground Panel Assembly	EMR2-20-003
NTFX47AA	International Cabinet General Modu	EMR2-20-004
NTFX47CA	MCGM MTM Hardware Kit	EMR2-20-004
NTFX47CB	MCGM MTM Hardware Kit	EMR2-20-004
NTFX47CC	MCGM MTM Hardware Kit	EMR2-20-004
NTFX47CD	MCGM MTM/DRA Hardware Kit	EMR2-20-004
NTFX47CE	MCGM MTM/DRA Hardware Kit	EMR2-20-004
NTFX47CF	MCGM MTM/DRA Hardware Kit	EMR2-20-004
NTFX47WA	Wiring for ICGM (Filtered)	EMR2-20-004
NTFX4701	ICGM/ENET DS30 Cable Assy	EMR2-20-002
		EMR2-20-003
		EMR2-20-004
NTFX4702	ICGM/ENET DS30 Cable Assy	EMR2-20-002
		EMR2-20-003
		EMR2-20-004
NTFX4703	ICGM Filtered Power Bulkhead	EMR2-20-004
NTFX4704	ICGM Non-Filtered Pwr Blkhd	EMR2-20-004
NTFX4709	ICGM FLT Alarm Cable Assy	EMR2-20-003
		EMR2-20-004
NTMX1659	Ground Cable	EMR2-08-001
		EMR2-08-002
NTMX1660	Ground Cable	EMR2-08-001
		EMR2-08-002
NTMX1661	LaMarche Upgrade Kit	EMR2-08-002
NTMX1662	LaMarche Upgrade Kit	EMR2-08-002
NTMX26BA	Frame Supervisory Panel	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX2658	CLCE Fan Plate Assy	EMR5-99-CLC-1
NTMX2659	FSP Fan Base Plate	EMR5-99-CLC-1
NTMX40AA	Meridian Network/Controller Module	EMR10-19-000
NTMX40NA	MERIDIAN NETWORK/CPC COMMON CP	EMR10-19-MNET-1
		EMR10-19-000
NTMX40NB	MNET Common CP	EMR10-19-000
NTMX40NC	Meridian Network/CPC Common CP	EMR10-19-MNET-2
		EMR10-19-000

NTMX70AA	XPM+ Paddlecard Kit	EMR2-99-XPM-13
NTMX70AB	XPM+ Paddleboard Kit	EMR2-15-002
		EMR2-06-000
NTMX7011	XPM+ Upgrade CP	EMR2-99-XPM-13
NTMX7012	XPM+ Upgrade CP	EMR2-99-XPM-13
NTMX7013	Cable Assy, XPM+	EMR2-99-XPM-13
NTMX7014	XPM+ Ribbon Cable	EMR2-99-XPM-13
NTMX71AA	XPM Plus Term PB	EMR2-99-XPM-6
		EMR2-99-XPM-12
		EMR2-15-RCC-5
		EMR2-99-XPM-9
		EMR2-99-XPM-10
		EMR2-99-XPM-8
		EMR2-06-SMA-1
		EMR2-06-SMA-2
		EMR2-99-XPM-11
		EMR2-99-XPM-13
		EMR10-10-000
		EMR2-15-002
		EMR2-06-000
NTMX72AA	POWER CONVERTER	EMR2-24-RCC-1
		EMR2-25-RCC2-3
NTMX73AA	PCM SIGNALLING PROCESSOR	EMR2-24-RCC-1
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX73AB	PCM Signaling Proc.	EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX74AA	DS30A INTERFACE CP	EMR2-24-RCC-1
		EMR2-25-RCC2-3
NTMX74AB	DS30A Interface CP	EMR2-25-RCC2-3
NTMX75AA	ENHANCED MATRIX CP	EMR2-24-RCC-1
		EMR2-25-RCC2-3
NTMX76AA	Extended Distance Messaging	EMR2-25-RCC2-2
		EMR2-25-RCC2-3
		EMR2-06-000
NTMX76AB	Msg & HDLC Signal Proc	EMR10-02-000
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
		EMR2-06-000
NTMX77AA	PROCESSOR	EMR2-24-RCC-1
		EMR2-99-XPM-6
		EMR2-99-XPM-12
		EMR2-15-RCC-5
		EMR2-99-XPM-9
		EMR2-99-XPM-10
		EMR2-99-XPM-8
		EMR2-06-SMA-1
		EMR2-06-SMA-2
		EMR2-99-XPM-11

		EMR2-99-XPM-13
		EMR10-10-000
		EMR2-15-002
		EMR2-25-RCC2-3
		EMR2-06-000
NTMX79AA	DS60 Extender CP	EMR2-25-RCC2-1
NTMX81AA	Dual DS1 Packlet	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NTMX82AA	Dual PCM30 Packlet	EMR2-24-002
		EMR2-25-RCC2-3
NTMX83AA	Filler Face Plate	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX85AA	REMOTE CLUSTER CONTROLLER 2 COMMON	EMR2-24-RCC-1
NTMX8501	Remote Cluster Controller #2	EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX8515	AML Upgrade Kit	EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX8601	RCC2 Extension Shelf	EMR2-25-RCC2-1
		EMR2-24-002
NTMX87AA	Quad Frame Carrier	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX87AB	Quad Carrier	EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX88AA	CRSC Extension Cabinet (CEXT)	EMR2-25-RCC2-1
NTMX88BA	CRSC Extension Cabinet (CEXT) Offs	EMR2-24-002
NTMX88WA	MTA Wiring Option	EMR2-25-RCC2-1
		EMR2-24-002
NTMX8801	Bulkhead Assembly	EMR2-24-002
NTMX8810	CA Assembly (SEND)	EMR2-24-002
NTMX8811	CA Assembly (RECV)	EMR2-24-002
NTMX8816	Auxiliary Alarm Cable	EMR2-24-002
		EMR2-25-RCC2-3
NTMX8891	Bulkhead Assembly	EMR2-24-002
NTMX8895	CA Assembly (SEND) CPMtoBHD	EMR2-24-002
NTMX8896	CA Assembly (RECV) CPMtoBHD	EMR2-24-002
NTMX89AA	Cabinetized Remote Switching Cente	EMR2-25-RCC2-2
NTMX89BA	Cabinetized Remote Switching Cente	EMR2-25-RCC2-3
NTMX8901	Bulkhead Assembly	EMR2-25-RCC2-3
NTMX8943	CRSC Standalone Power Kit	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTMX8945	CA Assembly (SEND)	EMR2-25-RCC2-3
NTMX8946	CA Assembly (RECV)	EMR2-25-RCC2-3
NTMX8955	ABS Cable	EMR2-25-RCC2-1

NTMX8991	Bulkhead Assembly	EMR2-25-RCC2-2
NTMX8995	CA Assembly (SEND) CPMtoBHD	EMR2-25-RCC2-3
NTMX8996	CA Assembly (RECV) CPMtoBHD	EMR2-25-RCC2-3
NTM609AB	ERROR CONTROL JUMPER	EMR5-01-DPP-2
NTNT47AE	MCGM TM8 Hardware Kit	EMR10-13-000
NTNX1102	MCS RSC Label Kit	EMR10-10-000
NTNX12AA	Meridian Cabinet Seven Module	EMR10-22-000
NTNX12LA	MSB7 PackFill	EMR10-22-000
		EMR10-22-MSB7-1
NTNX12PA	MSB7 PackFill(International)	EMR10-22-000
NTNX14LA	RLCC Common CP	EMR10-34-RLCC-1
NTNX14MA	RLCC COMMON CP	EMR2-16-RLCC-2
NTNX17AA	Meridian Cabinet Remote Module Fra	EMR10-10-000
NTNX17AB	Meridian Cabinet Remote Module-ISD	EMR10-28-000
NTNX17BA	Meridian Cabinet Remote Module Com	EMR10-10-MCRM-1
NTNX17BB	MCRM Common CP (NON-ISDN)	EMR10-28-000
		EMR10-28-MCRM-2
NTNX17BC	MCRM PACKFILL	EMR10-33-MCRM-3
NTNX17BD	MCRM Pack Fill	EMR10-10-000
NTNX17BF	MCRM Pack Fill	EMR10-10-000
NTNX17CA	MCRM-I Common CP	EMR10-28-000
		EMR10-28-MCRM-1
NTNX17CB	MCRM-I Common CP	EMR10-28-000
		EMR10-28-MCRM-3
NTNX17WA	Non-ISDN Wiring Option Kit	EMR10-28-000
NTNX17WB	Field ISDN Wiring Option Kit	EMR10-28-000
NTNX20AA	Meridian Cabinet Core Module Frame	EMR10-06-000
NTNX20LA	MCCM Common CP	EMR10-06-000
		EMR10-06-MCCM-1
NTNX20LB	Second Network Common CP	EMR10-06-000
		EMR10-06-NET-1
NTNX20LC	CMC/NET Common CP	EMR10-06-000
		EMR10-06-CMC-1
NTNX21AA	Meridian Cabinet Memory Module Fra	EMR10-07-000
NTNX21LA	MCMM Common Circuit Packs	EMR10-07-000
		EMR10-07-MCMM-1
NTNX22AA	Meridian Cabinet Spare Storage Fra	EMR10-14-000
NTNX2201	Spare Storage Shelf Assembly	EMR13-04-000
		EMR10-14-000
NTNX2203	Spare Storage Shelf Assembly	EMR13-04-000
NTNX24AA	Meridian Cabinet Power Module	EMR10-11-000
NTNX24BA	Power Distribution Panel	EMR10-12-000
		EMR2-20-002
		EMR2-20-003
		EMR10-11-000
NTNX24CA	POWER DISTRIBUTION PANEL	EMR8-TOPSMP-3
NTNX24DA	Power Dist'n Panel	EMR10-28-000
		EMR10-10-000

NTNX24LA	Meridian Cabinet Power Module Comm	EMR10-11-MCPM-1 EMR10-11-000
NTNX24LB	MCPM Common CP (DMS250)	EMR10-11-000
NTNX24YY	NTWK DS30 MTM PORTS TO	EMR10-11-000
NTNX2401	PDP Shelf Assembly	EMR10-12-000 EMR10-11-000
NTNX25AA	Common Framework	EMR10-06-000 EMR10-07-000 EMR10-12-000 EMR10-13-000 EMR10-25-000 EMR10-04-000 EMR10-09-000 EMR10-26-000 EMR10-23-000 EMR10-19-000 EMR10-03-000 EMR2-20-002 EMR2-20-003 EMR2-20-004 EMR10-14-000 EMR10-28-000 EMR10-10-000 EMR10-05-000 EMR10-05-001 EMR10-02-000 EMR10-11-000
NTNX25BA	SL-100 CABINET	EMR8-TOPSPM-3
NTNX25EA	Streamline Cabinet	EMR2-25-RCC2-1 EMR13-04-000 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTNX2513	Rgt Front/Rear Door (Gray)	EMR10-MACB-1 EMR10-MACB-2 EMR10-06-000 EMR10-07-000 EMR10-12-000 EMR10-22-000 EMR10-25-000 EMR10-04-000 EMR10-09-000 EMR10-26-000 EMR10-23-000 EMR10-19-000 EMR10-03-000 EMR2-20-002 EMR2-20-003 EMR2-20-004

NTNX2515	Lft Front/Rear Door (Gray)	EMR10-14-000
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR10-11-000
		EMR10-MACB-1
		EMR10-MACB-2
		EMR10-06-000
		EMR10-07-000
		EMR10-12-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000
		EMR10-26-000
		EMR10-23-000
		EMR10-19-000
		EMR10-03-000
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-14-000
		EMR10-28-000
NTNX2517	Right End Panel (Gray)	EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR10-11-000
		EMR10-MACB-1
		EMR10-MACB-2
		EMR10-12-000
		EMR10-04-000
		EMR10-09-000
NTNX2518	Left End Panel (Gray)	EMR2-20-002
		EMR2-20-003
		EMR10-28-000
		EMR10-10-000
		EMR10-11-000
		EMR10-MACB-1
		EMR10-MACB-2
		EMR10-12-000
		EMR10-04-000
		EMR10-09-000
		EMR2-20-002
		EMR2-20-003
		EMR10-28-000
		EMR10-10-000
		EMR10-10-000

NTNX2531	END PANEL ASSY, RIGHT	EMR10-11-000
		EMR8-TOPSMP-3
		EMR10-MACB-1
NTNX2532	END PANEL ASSY, LEFT	EMR10-MACB-2
		EMR8-TOPSMP-3
		EMR10-MACB-1
NTNX2540	Anchor Kit (Earthquake Slab)	EMR10-MACB-2
		EMR10-06-000
		EMR10-07-000
		EMR10-12-000
		EMR10-13-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000
		EMR10-26-000
		EMR10-23-000
		EMR10-19-000
		EMR10-03-000
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-14-000
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
NTNX2546	End Panel Assy-Rt(Brown)	EMR10-02-000
		EMR10-11-000
		EMR10-12-000
		EMR10-04-000
		EMR10-09-000
		EMR2-20-002
NTNX2550	Lft Front/Rear Door (Brown)	EMR2-20-003
		EMR10-28-000
		EMR10-10-000
		EMR10-10-000
		EMR10-11-000
		EMR10-MACB-1
		EMR10-MACB-2
		EMR10-06-000
		EMR10-07-000
		EMR10-12-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000
		EMR10-26-000
		EMR10-23-000
		EMR10-19-000

		EMR10-03-000
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-14-000
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR10-11-000
NTNX2552	Rgt Front/Rear Door (Brown)	EMR10-MACB-1
		EMR10-MACB-2
		EMR10-06-000
		EMR10-07-000
		EMR10-12-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000
		EMR10-26-000
		EMR10-23-000
		EMR10-19-000
		EMR10-03-000
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-14-000
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR10-11-000
NTNX2553	End Panel Assy-Left(Brown)	EMR10-12-000
		EMR10-04-000
		EMR10-09-000
		EMR2-20-002
		EMR2-20-003
		EMR10-28-000
		EMR10-10-000
		EMR10-11-000
NTNX2578	Anchor Kit (EQ cmpr Floor)	EMR10-06-000
		EMR10-07-000
		EMR10-12-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000

NTNX2579

Anchor Kit (Non-EQ Slab)

EMR10-26-000
EMR10-23-000
EMR10-19-000
EMR10-03-000
EMR2-20-002
EMR2-20-003
EMR2-20-004
EMR10-14-000
EMR10-28-000
EMR10-10-000
EMR10-05-000
EMR10-05-001
EMR10-02-000
EMR10-11-000
EMR10-06-000
EMR10-07-000
EMR10-12-000
EMR10-22-000
EMR10-25-000
EMR10-04-000
EMR10-09-000
EMR10-26-000
EMR10-23-000
EMR10-19-000
EMR10-03-000
EMR2-20-002
EMR2-20-003
EMR2-20-004
EMR10-14-000
EMR10-28-000
EMR10-10-000
EMR10-05-000
EMR10-05-001
EMR10-02-000
EMR10-11-000
EMR10-06-000
EMR10-07-000
EMR10-12-000
EMR10-22-000
EMR10-25-000
EMR10-04-000
EMR10-09-000
EMR10-26-000
EMR10-23-000
EMR10-19-000
EMR10-03-000
EMR2-20-002
EMR2-20-003
EMR2-20-004

NTNX2580

Anchor Kit (Non-EQ cmp Flr)

		EMR10-14-000
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR10-11-000
NTNX26DA	Frame Supervisory Panel	EMR10-13-000
NTNX26GA	Frame Supv Panel	EMR10-25-000
		EMR10-23-000
NTNX26HA	Frame Supervisory Panel	EMR10-22-000
		EMR10-26-000
NTNX26LA	Frame Supv Panel	EMR10-03-000
NTNX26MA	Frame Supv Panel	EMR2-20-004
NTNX26NA	Frame Supv Panel	EMR10-19-000
		EMR10-28-000
NTNX27CA	Fan Cooling Unit	EMR2-25-RCC2-1
		EMR10-06-000
		EMR10-22-000
		EMR10-25-000
		EMR10-04-000
		EMR10-09-000
		EMR10-26-000
		EMR10-23-000
		EMR10-19-000
		EMR2-06-RX46BA
		EMR2-20-004
		EMR10-28-000
		EMR10-10-000
		EMR10-05-000
		EMR10-05-001
		EMR10-02-000
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTNX27DA	Cooling Unit	EMR10-03-000
NTNX29AA	Meridian Cabinet Service Module	EMR10-05-000
NTNX29AB	DRAM Wiring Option	EMR10-05-000
NTNX29AC	CODEC Wiring Option	EMR10-05-000
NTNX29BA	Meridian Cabinet Service Module	EMR10-05-001
NTNX29BB	DS-30 Cabling (External)	EMR10-05-000
NTNX29CC	DS-30 Cabling (JNET)	EMR10-05-000
NTNX29LA	Meridian Cabinet Service Module	EMR10-05-STM-1
NTNX29LB	Meridian Cabinet Service Module	EMR10-05-STM-2
NTNX29LC	Meridian Cabinet Service Module	EMR10-05-STM-3
NTNX29LD	Meridian Cabinet Service Module	EMR10-05-STM-4
NTNX29LE	Meridian Cabinet Service Module	EMR10-05-STM-5
NTNX29LF	Meridian Cabinet Service Module	EMR10-05-STM-6
NTNX29LG	STM Pack Fill	EMR10-05-000

NTNX29LH	STM Pack Fill	EMR10-05-STM-7 EMR10-05-000
NTNX29LJ	STM Pack Fill	EMR10-05-STM-8 EMR10-05-000
NTNX29LK	STM Pack Fill	EMR10-05-STM-9 EMR10-05-000
NTNX29LL	STM Pack Fill	EMR10-05-STM-10 EMR10-05-000
NTNX29LM	STM Pack Fill	EMR10-05-STM-11 EMR10-05-000
NTNX33AA	Meridian Cabinet Trunk Module	EMR10-05-STM-12 EMR10-02-000
NTNX33FB	International DTC Common CP	EMR10-02-IDTC-2
NTNX33GD	International LGC/DTC Common Circu	EMR2-20-LGCI-3
NTNX33LA	Meridian Cabinet Trunk Module	EMR10-02-LGC-1 EMR10-02-000
NTNX33LB	Meridian Cabinet Trunk Module	EMR10-02-LGC-2 EMR10-02-000
NTNX33NA	MCTM-ISDN Common CP (Lower Module)	EMR10-20-CPCI-1
NTNX33NB	MCTM-ISDN Common CP (Upper Module)	EMR10-20-CPCI-2
NTNX33ND	DTC/DTCI/LTC/LTCI Common CP (Lower	EMR10-20-CPC-11
NTNX33NE	DTC/DTCI/LTC/LTCI Common CP (Upper	EMR10-20-CPCI-3
NTNX33OA	CPCE Pack Fill	EMR10-02-000
NTNX33SD	DS-512 Fiber Interface	EMR10-02-000
NTNX33ZA	XPM Plus Upgrade Kit	EMR10-19-000
NTNX34BA	Meridian Cabinet CCS#6 Module	EMR10-25-000
NTNX34PA	MC6M Common CP	EMR10-25-000
NTNX34PB	MC6M Common CP	EMR10-25-000
NTNX3401	Dual I/O Equipment Shelf	EMR2-20-004
NTNX3440	Network Port Conn thru	EMR10-25-000
NTNX3441	Network Port Conn via	EMR10-25-000
NTNX37AA	Meridian Cabinet Auxiliary Module	EMR10-12-000
NTNX37LA	MERIDIAN CABINET AUXILIARY MODULE	EMR10-12-STM-1
NTNX37LB	MERIDIAN CABINET AUXILIARY MODULE	EMR10-12-PTM-1 EMR10-12-000
NTNX37NA	MCAM COMMON CP	EMR10-12-MCAM-1
NTNX37ND	MCAM COMMON CP	EMR10-12-MCAM-4
NTNX37NE	MCAM COMMON CP	EMR10-12-MCAM-5
NTNX38BA	Meridian Cabinet Line Module - ISD	EMR10-03-000
NTNX38NC	MCLM-ISDN Common CP (Lower Module)	EMR10-03-MCLM-1 EMR10-03-000
NTNX38ND	MCLM-ISDN Common CP (Upper Module)	EMR10-03-MCLM-2 EMR10-03-000
NTNX3826	ISDN Line Con Array Shf Assy	EMR10-03-000
NTNX40LA	Meridian Cabinet Network Module	EMR10-08-DSN-1
NTNX40LB	Meridian Cabinet Network Module	EMR10-08-DSN-2
NTNX47AA	Meridian Cabinet General Module Fr	EMR10-13-000
NTNX47AB	MCGM IOC Hardware Kit	EMR10-13-000
NTNX47AC	MCGM TM8 Hardware Kit	EMR10-13-000

NTNX47AD	MCGM TM8 Hardware Kit	EMR2-20-004 EMR10-13-000 EMR2-20-004
NTNX47AE	MCGM TM8 Hardware Kit	EMR2-20-004
NTNX47AF	MCGM ROTL Hardware Kit	EMR10-13-000
NTNX47AK	MCGM DDU Hardware Kit	EMR2-20-004
NTNX47AN	MCGM Modem Hardware Kit	EMR2-20-004
NTNX47AS	MCGM ROS Hardware Kit	EMR2-20-004
NTNX47AV	MCGM T8A Hardware Kit	EMR2-20-004
NTNX47AW	MCGM T8A Hardware Kit	EMR2-20-004
NTNX47AX	MCGM T8A Hardware Kit	EMR2-20-004
NTNX47AY	MCGM TAN Hardware Kit	EMR2-20-004
NTNX47AZ	MCGM TAN Hardware Kit	EMR2-20-004
NTNX47BB	MCGM TAN Hardware Kit	EMR2-20-004
NTNX47BC	MCGM DIO Hardware Kit	EMR2-20-004
NTNX4757	MTD Cable (READ)	EMR2-20-004
NTNX4758	MTD Cable (WRITE)	EMR2-20-004
NTNX4759	MTD Cable (CONTROL)	EMR2-20-004
NTNX49AA	Meridian Cabinet Digital Remote Fr	EMR10-09-000
NTNX50AA	Meridian Cabinet Digital Module Fr	EMR10-04-000
NTNX51BA	TOPS Multi-Purpose Extended System	EMR8-TOPSMPX-1
NTNX51BC	MPX Audio Card	EMR8-TOPSMPX-1
NTNX51BD	MPX Audio Card	EMR8-TOPSMPX-1
NTNX51CB	TOPS MPX Pos (Type 1) (Eng)	EMR8-TOPSMPX-1
NTNX51CC	TOPS MPX Pos (Type 2) (Eng)	EMR8-TOPSMPX-1
NTNX51CD	TOPS MPX Pos (Type 3) (Eng)	EMR8-TOPSMPX-1
NTNX51DB	TOPS MPX Pos (Type 1) (Eng)	EMR8-TOPSMPX-1
NTNX51DC	TOPS MPX Pos (Type 2) (Eng)	EMR8-TOPSMPX-1
NTNX51DD	TOPS MPX Pos (Type 3) (Eng)	EMR8-TOPSMPX-1
NTNX51EB	TOPS MPX Pos (Type 1) (Fre)	EMR8-TOPSMPX-1
NTNX51EC	TOPS MPX Pos (Type 2) (Fre)	EMR8-TOPSMPX-1
NTNX51ED	TOPS MPX Pos (Type 3) (Fre)	EMR8-TOPSMPX-1
NTNX5153	TOPS MPX PS2 Bracket Assy	EMR8-TOPSMPX-1
NTNX5154	Data Set Unit (GDC 56K)	EMR8-TOPSMPX-1
NTNX5306	Integ. Hdset Jk Assem 6.5 ft	EMR8-TOPSMPX-1
NTNX5308	Integ. Hdset Jk Assem 10 ft	EMR8-TOPSMPX-1
NTNX5309	Integ. Hdset Jk Assem	EMR8-TOPSMPX-1
NTNX54BA	ALUMINUM SHIELD CP	EMR8-TOPSMP-1 EMR8-TOPSMP-2 EMR8-TOPSMP-4 EMR8-TOPSMP-5 EMR8-TOPSMP-6
NTNX5511	Cable Trough (Grey)	EMR2-25-RCC2-1 EMR2-06-RX46BA EMR13-04-000 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTNX57AA	AUXILIARY ACCESS EQUIPMENT CABINET	EMR8-TOPSMP-3

NTNX5708	AAE BULKHEAD ASSY	EMR8-TOPSMP-3
NTNX61AA	TOPS POSITION CONTROLLER PACK FILL	EMR8-TOPSMP-2
NTNX61AB	TOPS POSITION CONTROLLER PACK FILL	EMR8-TOPSMP-1
NTNX61AC	TOPS Position Controller Pack Fill	EMR8-TOPSMP-4
NTNX61AD	TOPS Position Controller Pack Fill	EMR8-TOPSMP-5
NTNX61AE	TOPS Position Controller (TPC) Pac	EMR8-TOPSMP-6
NTNX63AA	4 MEGABYTE MEMORY CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
NTNX63AB	8 Megabyte Memory CP	EMR8-TOPSMP-6
NTNX64AA	SINGLE BOARD COMPUTER CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
		EMR8-TOPSMP-6
NTNX65AA	PARALLEL INPUT/OUTPUT CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
		EMR8-TOPSMP-6
NTNX66AA	HIGH SPEED DATA ACCESS CP	EMR8-TOPSMP-1
NTNX67BA	TOPS EMI SHEILD/LOAD CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
		EMR8-TOPSMP-6
NTNX68AA	FLOPPY DISK AND CONTROL CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
		EMR8-TOPSMP-6
NTNX68BA	HARD DRIVE AND CONTROL CP	EMR8-TOPSMP-1
		EMR8-TOPSMP-2
		EMR8-TOPSMP-4
		EMR8-TOPSMP-5
		EMR8-TOPSMP-6
NTNX94AA	Meridian Cabinet CCS6 Extension	EMR10-26-000
NTNX95AA	Meridian Cabinet Data Modem Expans	EMR10-23-000
NTRX07	Endguard Insert Assemblies	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NTRX07AA	Streamline End Guard Insert	EMR2-25-RCC2-3
NTRX07AC	Streamline E/G Ins Assy CPDC	EMR2-25-RCC2-3
NTRX2512	Earthquake Anchor kit	EMR2-25-RCC2-2
NTRX2513	EMI Ready Door Kit	EMR2-06-RX46BA
NTRX2516	EMI Door Kit (Grey)	EMR2-25-RCC2-1
		EMR2-06-RX46BA
		EMR2-24-002
		EMR2-25-RCC2-2

NTRX2518	Frame Ground Hardware Kit	EMR2-25-RCC2-3 EMR13-04-000 EMR15-05-003
NTRX2519	Frame/Logic Ground H/W kit	EMR2-25-RCC2-1 EMR15-05-003 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTRX2523	Cabinet Levelling Equipment	EMR4-17-000 EMR2-25-RCC2-1 EMR2-06-RX46BA EMR13-04-000 EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3 EMR2-25-RCC2-1
NTRX2531	EMI Door Kit (Brown)	EMR2-24-002 EMR2-25-RCC2-2 EMR2-25-RCC2-3
NTRX26CZ	Cable Gender Change Adapter	EMR2-25-RCC2-2
NTRX30ZA	Product Change Kit	EMR5-99-CLC-1
NTRX34AB	CMIS Cabinetized	EMR15-05-003
NTRX3541	C28 English Label Kit	EMR2-06-RX46BA
NTRX3542	C28 German Label Kit	EMR2-06-RX46BA
NTRX36CA	XPM PLUS Packfill Change Kit	EMR2-99-XPM-9
NTRX36DA	XPM PLUS Packfill Change Kit	EMR2-99-XPM-10
NTRX3663	Power Filter Kit CRSC	EMR2-25-RCC2-3
NTRX46BA	Cabinetized International Peripher	EMR2-06-RX46BA
NTRX46BB	International CIPE Common CP	EMR2-06-RX46BA
NTRX46WA	PCM-30 2x8 PCB Wiring List	EMR2-06-RX46BA
NTRX4614	PCM-30 (Send) Cable Assy	EMR2-06-RX46BA
NTRX4615	PCM-30 (Receive) Cable Assy	EMR2-06-RX46BA
NTRX4616	CIPE PCM30 Coaxial PCB Assy	EMR2-06-RX46BA
NTRX4617	CIPE PCM30 Coaxial PCB Assy	EMR2-06-RX46BA
NTRX4618	CIPE PCM30 Coaxial PCB Assy	EMR2-06-RX46BA
NTRX4619	CIPE PCM30 Coaxial PCB Assy	EMR2-06-RX46BA
NTRX4620	PCM-30 Twist Pair I/F Assy	EMR2-06-RX46BA
NTRX4621	PCM-30 Twist Pair I/F Assy	EMR2-06-RX46BA
NTRX4622	DS30 Interface Cable Assy	EMR2-06-RX46BA
NTRX4625	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4626	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4627	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4628	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4629	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4630	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4631	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4632	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4633	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4634	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA

NTRX4635	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4636	DS-30A Interfce 6-Port Cable	EMR2-06-RX46BA
NTRX4637	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4638	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4639	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4640	DS-30A Interfce 4-Port Cable	EMR2-06-RX46BA
NTRX4641	CIPE MSP Kit	EMR2-06-RX46BA
NTRX47AB	Cabinetized Fiber International LG	EMR2-20-ILGC-3
NTRX49AA	Cabinetized Misc Spare Storage	EMR13-04-000
		EMR15-05-003
NTRX51AA	Cooling Unit (60 VDC)	EMR2-06-RX46BA
NTRX5544	Cable Trough (Brown)	EMR2-25-RCC2-1
		EMR13-04-000
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NTRX73	End Guards & Side Panels	EMR2-25-RCC2-1
		EMR15-05-003
		EMR2-25-RCC2-2
NTRX73AA	End Guard	EMR2-25-RCC2-3
NTRX73AB	End Guard Assembly	EMR2-25-RCC2-3
NTRX73AC	End Guard Assembly	EMR2-25-RCC2-3
NTZX1605	FG Collector Kit (Internal)	EMR15-05-003
NTZX1606	LG Collector Kit (Internal)	EMR15-05-003
NTZX1607	Core Cluster Equalizer Kit	EMR15-05-003
NTZX1608	FG External Kit	EMR15-05-003
NTZX1609	FG To BR Conn Kit (Internal)	EMR15-05-003
NTZX1610	FG To BR Conn Kit (External)	EMR15-05-003
NTZX1611	LG To BR Connection Kit	EMR15-05-003
NTZZ07FA	CDSN Cabinetized Dual	EMR15-05-003
NTZZ08DB	CLCE Cabinetized Line	EMR15-05-003
NTZZ12JA	STD1 Remote Maint. Module	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NTZZ12KA	EXT Filler Kit (Right)	EMR2-25-RCC2-1
		EMR2-24-002
NTZZ12WA	EXT Filler Kit (Left)	EMR2-25-RCC2-1
NTZZ12XA	RCC2 Shelf Packfill	EMR2-25-RCC2-2
NTZZ12XB	RCC2 Packfill w/o EISP	EMR2-25-RCC2-2
NTZZ12XF	RCC2 Packfill	EMR2-25-RCC2-2
NTZZ12ZA	RCC2 EDC Packfill	EMR2-25-RCC2-2
NTZZ13LA	CPDC Cabinetized Power	EMR15-05-003
NTZZ18RA	TRUNK INTERFACE	EMR11-02-001
		EMR11-02-000
NTZZ18SA	DF Mount Adapter Brown	EMR11-02-000
NTZZ18TA	DF MOUNTING ADAPTER ASH	EMR11-02-001
NTZZ20CA	CDNI Cabinetized Digital	EMR15-05-003
NTZZ21CA	CSLC Cabinetized Speech	EMR15-05-003
NTZZ22CA	CCPE Cabinetized Common	EMR15-05-003
NTZZ27DA	CMSS Hardware Kit - Grey	EMR13-04-000

NTZZ27EA	CMSS Hardware Kit - Brown	EMR13-04-000
NTZZ31AA	CTME Cabinetized Trunk	EMR15-05-003
NTZZ32AA	CIOE Cabinetized Input/	EMR15-05-003
NTZZ33AA	CLMI Cabinetized ISDN Line	EMR15-05-003
NTZZ37KA	RCC Offshore EXT CP Fill	EMR2-24-002
NTZZ46FA	Auxiliary Alarm Cable BB	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NTZZ46GA	BAMD Alarm/Power Cable BB	EMR2-25-RCC2-2
NTZZ99AG	UNIV 5.25" DDU UPGRADE KIT	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
NT0C25AD-35	Logic dialer colour-ash	EMR11-01-LOG-1
NT0J04AA	NSSD MODEL 3704 DIGITAL REMOTE TES	EMR11-02-001
		EMR11-02-DRTU-1
NT0J04AB	NSSD MODEL 3704 DIGITAL REMOTE TES	EMR11-02-DRTU-2
		EMR11-02-000
NT0J04AE	DRTU-BROWN UNIT	EMR2-13-000
NT0J04BA	NSSD 3703-03 LTC ASH	EMR11-02-DRTU-3
		EMR11-02-001
NT0J04BB	NSSD 3703-03 LTC BROWN	EMR11-02-DRTU-2
		EMR11-02-000
NT0J04BD	SYSTEM UPGRADE KIT	EMR11-02-DRTU-2
		EMR11-02-000
NT0J04BG	LTC Remote Front Panel BRN	EMR11-02-000
NT0J04BH	REMOTE CONTROL ONLY FRNT PNL	EMR11-02-001
NT0J04BK	SYSTEM UPGRADE KIT	EMR11-02-DRTU-3
		EMR11-02-001
NT0J04BL	NSSD MODEL 3703-03 LOCAL CONTROL F	EMR11-02-FPL-3
		EMR11-02-001
NT0J04BM	NSSD MODEL 3703-03 LOCAL CONTROL	EMR11-02-FPL-2
		EMR11-02-001
NT0J04BN	4TRUNK 4WIRE PCB	EMR11-02-001
		EMR11-02-000
NT0J04BQ	Local Control Front Panel	EMR11-02-000
NT0J04BR	NSSD MODEL 3703-03 LOCAL CONTROL F	EMR11-02-FPL-1
		EMR11-02-000
NT0J04BS	DRTU INTERFACE OPTION	EMR11-02-001
		EMR11-02-000
NT0J04BT	REMOTE ACCESS DCP CARD	EMR11-02-DRTU-2
		EMR11-02-001
		EMR11-02-000
NT0J04BU	3WIRE PCB	EMR11-02-001
		EMR11-02-000
NT0J04BW	16 TRK MUX CARD	EMR11-02-001
		EMR11-02-000
NT0J04BX	19" OR 23" RACK ADAPTERS	EMR11-02-001
NT0J04BY	19" or 23" Rack Adapters	EMR11-02-000
NT0J04BZ	SPARE CIRCUIT PACK KIT	EMR11-02-001
		EMR11-02-000

NT0J04CA	WALL/DESK MOUNTING KIT	EMR11-02-FPL-2 EMR11-02-001
NT0J04CB	WALL/DESK MOUNTING KIT	EMR11-02-FPL-1 EMR11-02-000
NT0J04DA	TRUNK CALIBRATOR	EMR11-02-001 EMR11-02-000
NT0J04DB	WALL MOUNTING KIT	EMR11-02-001
NT0J04DC	Wall Mounting Kit	EMR11-02-000
NT0J04DD	26" Rack Adapters	EMR11-02-000
NT0J04DE	PAIR IDENTIFICATION BUZZER	EMR11-02-001 EMR11-02-000
NT0J04EA	NSSD MODEL 3704	EMR11-02-DRTU-3 EMR11-02-001
NT0J04EB	DRTU Brown	EMR11-02-000
NT0J04EC	Remote Access DCP Card	EMR11-02-000
NT0J04ED	DRTU INTERFACE OPTION 2	EMR11-02-001 EMR11-02-000
NT0J0401	DIGITAL REMOTE TEST UN ASSY	EMR11-02-DRTU-2 EMR11-02-DRTU-3
NT0J0414	XFM FIRMWARE ASSY PCB	EMR11-02-DRTU-2 EMR11-02-DRTU-3
NT0J0417	19/23 INCH MTG BRACKET ASH	EMR11-02-DRTU-3
NT0J0418	19/23 INCH MTG BRACKET BRN	EMR11-02-DRTU-2
NT0J0419	DRTU INSTALLATION H/W KIT	EMR11-02-DRTU-2 EMR11-02-DRTU-3
NT0J0420	DRTU CONTROL ASSY PCB	EMR11-02-DRTU-2 EMR11-02-DRTU-3
NT0J0424	DRTU INST/OPN/MAINT MANUAL	EMR11-02-DRTU-2 EMR11-02-DRTU-3
NT0J0446	CENTRAL PROCESSOR SYS (CPS)	EMR11-02-001 EMR11-02-000
NT0J0452	CRT ASSEMBLY	EMR11-02-FPL-1 EMR11-02-FPL-2 EMR11-02-FPL-3
NT0J0811	POWER SUPPLY (NT0J0811)	EMR11-02-001 EMR11-02-000
NT0J0815	Loop Test Assembly	EMR11-02-000
NT0J0824	TIP RING CONDITIONER (TRC)	EMR11-02-001 EMR11-02-000
NT0J0825	TONES GENERATOR PCB (TONE)	EMR11-02-001 EMR11-02-000
NT0J0830	CRT CONTROLLER	EMR11-02-FPL-3
NT0J0831	CRT CONTROLLER	EMR11-02-FPL-1 EMR11-02-FPL-2
NT0J0871	EXTRA FAST METER TWO (XFM2)	EMR11-02-001 EMR11-02-000
NT0J1376	BROWN 26" MOUNTING ADAPTERS	EMR11-02-DRTU-2
NT0J41BA	DRTU CABLE KIT	EMR2-13-000 EMR2-13-001

NT0J42AA	DRTU UNIT	EMR2-13-000
		EMR2-13-001
NT0J60AA	SYSTEM UPGRADE KIT	EMR11-02-DRTU-3
		EMR11-02-001
		EMR11-02-000
NT0J62BA	LTC 4 Trunk 3 Wire Option	EMR11-02-000
NT0J63BA	LTC 4 Trunk 4 Wire Option	EMR11-02-000
NT0J64BA	LTC 16 Trunk 4 Wire Option	EMR11-02-000
NT0J66DA	4 TRUNK 3 WIRE SPARE CP KIT	EMR11-02-001
		EMR11-02-000
NT0J66EA	4 TRUNK 4 WIRE SPARE CP KIT	EMR11-02-001
		EMR11-02-000
NT0J66FA	16 TRUNK SPARE CP KIT	EMR11-02-001
		EMR11-02-000
NT0R82AB	Voice Cbl, Posn-Junc Box	EMR8-TOPSPMPX-1
NT0X00AZ	SPLICE PLATE ASSY (LRE&FGE)	EMR17-01-000
NT0X00BA	DMS-100 SYSTEM GROUNDING (NON-EMI)	EMR17-01-000
NT0X0003	SYSTEM GROUNDING HARDWARE	EMR17-01-000
NT0X0004	SYSTEM GROUNDING HARDWARE	EMR17-01-000
NT0X0006	LRE & FGE BUS HARDWARE	EMR17-01-000
NT0X0007	LRE & FGE BUS EXTENSION	EMR17-01-000
NT0X0008	LOGIC RETURN CABLE ASSEMBLY	EMR4-09-000
		EMR4-10-000
		EMR4-10-001
		EMR5-02-001
		EMR2-08-001
		EMR2-08-002
		EMR3-03-000
		EMR3-03-001
NT0X0009	Ground Cable	EMR2-08-001
		EMR2-08-002
		EMR2-15-RCC-5
		EMR2-11-000
		EMR2-15-001
		EMR2-15-000
		EMR2-15-002
		EMR2-06-000
NT0X0010	Logic Return Cable Assembly	EMR2-05-000
NT0X0011	LOGIC RETURN CABLE ASSEMBLY	EMR4-12-000
NT0X0012	LOGIC RETURN CABLE ASSEMBLY	EMR4-09-000
		EMR4-10-000
		EMR4-10-001
NT0X02AA	MISCELLANEOUS EQUIPMENT FRAME	EMR13-01-000
NT0X03AA	RECORDED ANN. MOD 6 CHANNEL 6.5 SE	EMR13-01-RM-1
NT0X03AB	RECORDED ANN. MOD 12 CHANNEL 6.5 S	EMR13-01-RM-2
NT0X03AC	RECORDED ANN. MOD 6 CHANNEL 13.5 S	EMR13-01-RM-3
NT0X03AD	RECORDED ANN. MOD 12 CHANNEL 13.5	EMR13-01-RM-4
NT0X0301	RECORDER ANNOUNCER	EMR13-01-RM-1
		EMR13-01-RM-2

NT0X10AA	MISC SCANNER	EMR13-01-RM-3
		EMR13-01-RM-4
		EMR2-01-0AU-1
		EMR2-01-0AU-2
		EMR2-13-000
		EMR2-13-001
		EMR10-12-MCAM-1
		EMR10-10-MCRM-1
		EMR2-13-I00
		EMR10-34-RLCC-1
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR10-09-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-PCBM-1
		EMR9-01-001
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-28-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-10-000
		EMR10-11-000
NT0X18AA	DIGITAL NETWORK INTERCONNECTING FR	EMR2-15-002
		EMR3-02-000
NT0X19AA	OPM CABINET ASSEMBLY	EMR2-13-000
		EMR2-13-001
NT0X19AB	IOPM Cabinet Assembly	EMR2-13-I00
		EMR2-13-000
NT0X1904	LEFT HAND BIX MOUNT COL	EMR2-13-001
		EMR2-13-I00
NT0X1905	RIGHT HAND MOUNTING COL	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
		EMR2-13-000
NT0X1929	MOUNTING PLATE ASSEMBLY	EMR2-13-001
		EMR2-13-000
NT0X1934	MOUNTING TEMPLATE	EMR2-13-001
		EMR2-13-000
NT0X1935	MOUNTING HARDWARE KIT	EMR2-13-001
		EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
NT0X1970	Mounting Template	EMR2-13-I00
		EMR2-13-001
NT0X1978	FMT-150B HARDWARE MTG KIT	EMR2-13-001
NT0X1979	DDM-1000 HARDWARE MTG KIT	EMR2-13-001

NT0X1980	DE-4E MTG KIT 4PIN-STUBLESS	EMR2-13-001
NT0X1981	DE-4E MTG KIT 5PIN-STUBLESS	EMR2-13-001
NT0X1982	DE-4E MTG KIT 5PIN-50FT STUB	EMR2-13-001
NT0X1989	SINGLE FMT-6 KIT	EMR2-13-000
		EMR2-13-001
NT0X1990	DUAL FMT-6 KIT	EMR2-13-000
		EMR2-13-001
NT0X21AH	EARTHQUAKE PROTECTION FRAME	EMR9-03-000
NT0X21AI	EARTHQUAKE PROTECTION FRAME	EMR9-03-000
NT0X21AK	EARTHQUAKE PROTECTION FRAME	EMR9-03-000
NT0X21AV	M12 Anchor Assembly	EMR4-17-000
NT0X24AA	CABINET FRAMEWORK	EMR4-15-000
		EMR4-16-000
NT0X24BD	BLANK SHELF ASSY	EMR3-05-000
		EMR4-15-000
		EMR4-16-000
		EMR4-13-000
		EMR2-12-002
NT0X24BJ	Cable Trough Junction	EMR4-17-000
NT0X24BT	FRAME FAIL LAMP (BROWN)	EMR3-05-000
		EMR2-12-000
		EMR2-12-001
		EMR2-12-002
NT0X24CA	LIGHT FIXTURE	EMR3-05-000
		EMR4-15-000
		EMR4-16-000
		EMR4-17-000
		EMR4-13-000
		EMR4-02-001
NT0X24CN	FRAME FAIL LAMP (GREY)	EMR3-05-000
		EMR2-12-000
		EMR2-12-001
		EMR2-12-002
NT0X24CR	Front & Rear X-Aisle Assy	EMR4-17-000
NT0X24CS	Rear X-Aisle Assembly	EMR4-17-000
NT0X24CU	REAR KICKPLATE ASS (GRAY)	EMR3-05-000
		EMR2-12-001
NT0X24CV	Single Hotslide Junction kit	EMR4-17-000
NT0X24CW	Double Hotslide Junction kit	EMR4-17-000
NT0X24CX	Front & Rear X-Aisle Assy	EMR4-17-000
NT0X24CY	Rear X-Aisle Assembly	EMR4-17-000
NT0X2416	Kick Plate Assembly (Grey)	EMR2-12-002
NT0X2430	KICK PLATE ASSEMBLY (BROWN)	EMR3-05-000
		EMR4-16-000
		EMR2-12-000
		EMR2-12-001
		EMR4-13-000
		EMR4-03-001
		EMR2-12-002

NT0X25AA	FRAMEWORK	EMR2-01-000
		EMR2-02-000
		EMR2-03-000
		EMR2-03-001
		EMR2-03-002
		EMR2-07-001
		EMR3-01-002
		EMR4-01-000
		EMR4-02-000
		EMR4-03-000
		EMR4-04-000
		EMR4-05-000
		EMR4-06-000
		EMR4-07-000
		EMR5-02-000
		EMR2-07-005
		EMR2-15-001
NT0X25AH	EARTHQUAKE FRAMEWORK	EMR2-07-002
		EMR2-07-006
		EMR10-01-000
NT0X25AL	DMS Pkg Erthqk Frame Assy	EMR2-15-001
		EMR10-01-001
		EMR12-05-000
		EMR12-01-000
		EMR12-02-000
		EMR12-03-000
		EMR12-04-000
		EMR12-06-000
		EMR12-07-000
		EMR9-01-001
		EMR9-01-002
NT0X25AS NT0X25AV NT0X25AY NT0X2516	Enhanced Core Cab Mech Assy Universal Frame (Canada) Spares Storage Shelf Assy KICK PLATE ASSEMBLY (GREY)	EMR9-01-003
		EMR4-06-001
		EMR2-15-001
		EMR4-06-001
		EMR3-05-000
		EMR4-16-000
		EMR2-12-000
		EMR2-12-001
		EMR4-13-000
		EMR4-03-001
		EMR13-01-DTH-2
NT0X26AZ	RS232 CABLE	EMR13-01-DTH-4
		EMR5-99-DDU-1
NT0X26BV NT0X26BW NT0X26GR NT0X26GS NT0X26GT NT0X26GV	DDCS00 SWITCHBRD DDCS01 SWITCHBRD Cable Assembly Cable Assembly Cable Assembly Cable Assembly	EMR5-99-DDU-1
		EMR2-11-000
		EMR2-11-000
		EMR2-11-000
		EMR2-11-000
		EMR2-11-000

NT0X26JA	Conn PTL 25P Cable	EMR12-05-000
		EMR12-06-000
NT0X26JB	Conn PTL 25P Cable	EMR12-05-000
		EMR12-06-000
NT0X26JC	Conn PTL 25P Cable	EMR12-05-000
		EMR12-06-000
NT0X26JD	Conn PTL 25P Cable	EMR12-05-000
		EMR12-06-000
NT0X26JE	Conn PTL 25P Cable	EMR12-05-000
		EMR12-06-000
NT0X26JZ	Connectorized PTL 25P	EMR12-02-000
NT0X26KA	Connectorized PTL 25P	EMR12-02-000
NT0X26PK	Connectorized PTL 25P	EMR12-04-000
NT0X26PL	Connectorized PTL 25P	EMR12-04-000
NT0X26PM	Connectorized PTL 25P	EMR12-04-000
NT0X26PN	Connectorized PTL 25P	EMR12-04-000
NT0X26PP	Connectorized PTL 25P	EMR12-04-000
NT0X26PQ	Connectorized PTL 25P	EMR12-04-000
NT0X26PR	Connectorized PTL 25P	EMR12-04-000
NT0X26PS	Connectorized PTL 25P	EMR12-04-000
NT0X26PT	Connectorized PTL 25P	EMR12-04-000
NT0X26PV	Connectorized PTL 25P	EMR12-04-000
NT0X26QG	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QH	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QJ	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QK	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QL	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QM	Connectorized PTL 10P 26	EMR12-06-000
NT0X26QT	Connectorized PTL 18P	EMR12-02-000
NT0X26QV	Connectorized PTL 18P	EMR12-02-000
NT0X26QW	Connectorized PTL 18P	EMR12-02-000
NT0X26VS	Connectorized PTL 10P 26	EMR12-06-000
NT0X26YG	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YH	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YJ	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YK	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YL	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YM	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YN	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YP	Conn PTL 18P 26 CA e/w	EMR9-01-003
NT0X26YQ	Conn PTL 25P 26 CA e/w	EMR9-01-003
NT0X26YR	Conn PTL 25P 26 CA e/w	EMR9-01-003
NT0X26YS	Conn PTL 25P Cable e/w	EMR9-01-001
NT0X26YT	Conn PTL 25P Cable e/w	EMR9-01-001
NT0X26YU	Conn PTL 25P Cable e/w	EMR9-01-001
NT0X26YW	Conn PTL 25P Cable e/w	EMR9-01-001
NT0X26YZ	Conn NE-744A Cable e/w	EMR9-01-001
NT0X26ZV	DDCS02 SWITCHBRD	EMR5-99-DDU-1
NT0X26ZW	DDCS03 SWITCHBRD	EMR5-99-DDU-1

NT0X28AA	FRAME SUPERVISORY PANEL	EMR4-01-000
		EMR4-05-000
NT0X28AB	FRAME SUPERVISORY PANEL	EMR4-02-000
		EMR4-03-000
		EMR4-04-000
		EMR4-06-000
NT0X28AC	FRAME SUPERVISORY PANEL	EMR3-01-000
		EMR3-01-001
		EMR3-01-002
NT0X28AD	FRAME SUPERVISORY PANEL	EMR5-01-000
		EMR5-01-001
NT0X28AE	FRAME SUPERVISORY PANEL	EMR5-02-000
NT0X28AF	FRAME SUPERVISORY PANEL	EMR4-06-000
		EMR4-07-000
		EMR4-08-000
		EMR4-09-000
		EMR4-10-000
		EMR4-10-001
		EMR4-12-000
NT0X28AG	FRAME SUPERVISORY PANEL	EMR3-01-003
		EMR3-01-004
		EMR3-01-005
NT0X28AH	FRAME SUPERVISORY PANEL	EMR5-02-001
NT0X28AJ	FRAME SUPERVISORY PANEL	EMR5-01-002
NT0X28AK	Frame Supervisory Panel	EMR3-03-000
		EMR3-03-001
NT0X28AM	Frame Supervisory Panel	EMR2-06-000
NT0X28AN	FRAME SUPERVISORY PANEL	EMR2-08-000
		EMR2-08-001
		EMR2-08-002
NT0X28AP	Frame Supervisory Panel	EMR2-17-000
		EMR2-11-000
NT0X28AR	RCE Frame Supervisory Panel	EMR2-15-000
NT0X28AS	Remote Cntrl Eqpt Fr Panel	EMR2-15-002
NT0X28EC	Remote Cntrl Eqpt Fr Panel	EMR2-15-RCC-5
		EMR2-15-001
NT0X2805	CHASSIS ASSEMBLY	EMR13-01-FSP-1
		EMR13-01-FSP-2
NT0X2807	CARD CAGE ASSEMBLY	EMR13-01-FSP-1
		EMR13-01-FSP-2
NT0X2810	FRONT PANEL ASSEMBLY NO. 2	EMR13-01-FSP-2
NT0X29AA	LINE FR SUPERVISORY PANEL	EMR2-03-000
		EMR2-03-001
		EMR2-04-000
NT0X29AB	LINE FR SUPERVISORY PANEL	EMR2-03-002
		EMR2-03-003
		EMR2-03-004
		EMR2-04-001
		EMR2-04-002

		EMR2-04-003
		EMR2-04-004
		EMR2-04-005
		EMR2-04-006
		EMR2-04-007
		EMR2-04-008
		EMR2-04-009
NT0X30AD	COOLING UNIT	EMR3-01-000
		EMR3-01-001
		EMR3-01-002
		EMR4-01-000
		EMR4-02-000
		EMR4-03-000
		EMR4-04-000
		EMR4-05-000
		EMR4-06-000
NT0X34CA	EMI PACKAGE FOR 70" FRWRK	EMR9-03-000
NT0X36AB	PWR CONTROL AND ALARM CARD	EMR13-01-FSP-1
		EMR13-01-FSP-2
NT0X41AB	MEMORY EXTENSION FRAME	EMR4-02-000
NT0X41AC	CENTRAL CONTROL COMPLEX FRAME	EMR4-01-000
NT0X41AD	LOCAL CABLE	EMR4-01-000
NT0X41AE	LOCAL CABLE	EMR4-01-000
NT0X41AF	DATA STORE LOCAL CABLE	EMR4-02-000
		EMR4-04-000
NT0X41AG	DATA STORE LOCAL CABLE	EMR4-02-000
		EMR4-04-000
NT0X41AJ	CENTRAL CONTROL COMPLEX (1MW) FRAM	EMR4-03-000
NT0X41AK	MEMORY EXTENSION FRAME	EMR4-04-000
NT0X41AM	PROGRAM STORE LOCAL CABLE	EMR4-02-000
NT0X41BA	SYNC OFF W/O EXT MA FREQ REF	EMR4-03-000
NT0X41BB	SYNC M OFF W EXT MA FREQ REF	EMR4-03-000
NT0X41BD	EXT MA FREQ REF, 10.24 MHZ	EMR4-03-000
NT0X41BE	EXT MA FREQ REF, 10.00 MHZ	EMR4-03-000
NT0X41BF	EXT MA FREQ REF, 5.00 MHZ	EMR4-03-000
NT0X41BG	EXT MA FREQ REF, 2.56 MHZ	EMR4-03-000
NT0X41BH	EXT MA FREQ REF, 2.048MHZ	EMR4-03-000
NT0X41BJ	EXT MA FREQ REF, 1.024MHZ	EMR4-03-000
NT0X41BK	EXT MA FREQ REF, 1.0 MHZ	EMR4-03-000
NT0X42AB	Fuse Panel "A" Feed	EMR12-05-000
		EMR12-06-000
		EMR12-07-000
		EMR9-01-001
NT0X42AC	Fuse Panel "B" Feed	EMR12-05-000
		EMR12-06-000
		EMR12-07-000
		EMR9-01-001
NT0X42AD	4 Inch Filler Panel Assy	EMR12-07-000
NT0X42AG	Filter Panel	EMR12-05-000

NT0X42AJ	10 AMP Dist Fusing (F01-F03)	EMR12-06-000
		EMR12-07-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR12-06-PCBM-1
		EMR12-07-PDC-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
NT0X42AK	20A Distribution Fusing	EMR12-05-PCPM-1
		EMR12-06-PCBM-1
		EMR12-07-PDC-1
		EMR9-01-001
		EMR9-01-PMPM-1
NT0X42AQ NT0X42AS	15AMP Distribution Fusing 30A Distribution Fusing Kit	EMR9-01-PMPM-2
		EMR12-05-PCPM-1
		EMR12-06-PCBM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
NT0X43AA NT0X43AB NT0X43AC NT0X4303 NT0X4306	MAG TAPE CENTRE FRAME MAG TAPE CENTRE FRAME MAGNETIC TAPE CENTRE FRAME CONNECTOR & HOUSING ASSY Ground Cable	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR13-01-DSS-1
		EMR2-08-001
NT0X44AA	MAG TAPE DRIVE UNIT (HP)	EMR2-08-002
		EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-01-000
NT0X44AB	MAG TAPE DRIVE UNIT (COOK)	EMR5-01-001
		EMR5-01-002
		EMR9-01-001
		EMR5-01-000
		EMR5-01-001
NT0X44AC	MTG HARDWARE FOR HP MTD	EMR5-01-002
		EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-01-000
NT0X44AD	MTG HARDWARE FOR COOK MTD	EMR5-01-001
		EMR5-01-002
		EMR10-07-000
		EMR2-20-004
		EMR5-01-000
NT0X44AE	COM & STAT CABLE COOK MTD	EMR5-01-001
		EMR5-01-002
		EMR5-01-000
		EMR5-01-001
		EMR5-01-002
NT0X44AF	READ DATA CABLE COOK MTD	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-01-000
		EMR5-01-001
NT0X44AG	WRITE DATA CABLE COOK MTD	EMR5-01-000
		EMR5-01-001

		EMR5-01-002
NT0X44AH	H/W for Mounting Cook Mag	EMR9-01-001
NT0X45AA	LINE MODULE EQUIPMENT FRAME	EMR2-03-000
NT0X45AB	LINE MODULE EQUIPMENT FRAME	EMR2-03-001
NT0X45AC	LINE MODULE EQUIPMENT FRAME	EMR2-03-002
NT0X45AD	LINE MODULE EQUIPMENT FRAME	EMR2-03-003
NT0X45AE	LINE MODULE EQUIPMENT FRAME	EMR2-03-004
NT0X45BA	REMOTE LINE MODULE EQUIPMENT FRAME	EMR2-04-000
NT0X45BB	REMOTE LINE MODULE FRAME	EMR2-04-001
NT0X45BC	REMOTE LINE MODULE FRAME (BAY 0)	EMR2-04-002
NT0X45BD	REMOTE LINE MODULE FRAME (BAY 1)	EMR2-04-003
NT0X45BE	REMOTE LINE MODULE FRAME	EMR2-04-004
NT0X45BF	REMOTE LINE MODULE FRAME (BAY 0)	EMR2-04-005
NT0X45BG	REMOTE LINE MODULE FRAME (BAY 1)	EMR2-04-006
NT0X45BH	REMOTE LINE MODULE EQUIPMENT FRAME	EMR2-04-007
NT0X45BJ	REMOTE LINE MODULE FRAME (BAY 0)	EMR2-04-008
NT0X45BK	REMOTE LINE MODULE FRAME (BAY 1)	EMR2-04-009
NT0X4504	LINE SHELF ASSEMBLY	EMR2-03-000
		EMR2-03-001
		EMR2-04-000
NT0X4509	REMOTE LINE MOD FRAME ASSY	EMR2-04-000
NT0X4510	REMOTE LINE MOD FRAME ASSY	EMR2-04-000
NT0X4516	LINE SHELF ASSEMBLY	EMR2-03-002
		EMR2-03-003
		EMR2-03-004
		EMR2-04-001
		EMR2-04-002
		EMR2-04-003
		EMR2-04-004
		EMR2-04-005
		EMR2-04-006
		EMR2-04-007
		EMR2-04-008
		EMR2-04-009
NT0X4517	REMOTE LINE MOD FRAME ASSY	EMR2-04-001
		EMR2-04-002
NT0X4518	REMOTE LINE MOD FRAME ASSY	EMR2-04-001
		EMR2-04-003
NT0X46AA	TRUNK MODULE EQUIPMENT FRAME	EMR2-01-000
NT0X48AA	NETWORK FRAME - FULL	EMR3-01-000
NT0X48AB	NETWORK FRAME - HALF	EMR3-01-001
NT0X48AC	NETWORK FRAME - QUARTER	EMR3-01-002
NT0X48AG	NETWORK FRAME - FULL	EMR3-01-003
NT0X48AH	NETWORK FRAME - HALF	EMR3-01-004
NT0X48AJ	NETWORK FRAME - QUARTER	EMR3-01-005
NT0X48AK	NTWK PC KIT - DMS SUPERNODE	EMR3-01-000
		EMR3-01-001
		EMR3-01-002
		EMR3-01-003

NT0X48AL	NTWK PC KIT - DMS SUPERNODE	EMR3-01-004
		EMR3-01-005
		EMR3-01-000
		EMR3-01-001
		EMR3-01-002
NT0X4800	NETWORK INTERFACE SHELF A	EMR3-01-003
		EMR3-01-004
		EMR3-01-005
		EMR3-01-NIA-1
		EMR3-01-000
NT0X4801	NETWORK I/F SHELF A	EMR3-01-001
		EMR3-01-002
		EMR3-01-003
		EMR3-01-004
		EMR3-01-005
NT0X4810	NETWORK INTERFACE SHELF B	EMR3-01-NIA-1
		EMR3-01-NIB-1
		EMR3-01-000
		EMR3-01-001
		EMR3-01-002
NT0X4811	NETWORK I/F SHELF B	EMR3-01-003
		EMR3-01-004
		EMR3-01-005
		EMR3-01-NIB-1
		EMR3-01-NC-1
NT0X4820	NETWORK CROSSPOINT SHELF	EMR3-01-000
		EMR3-01-001
		EMR3-01-002
		EMR3-01-003
		EMR3-01-004
NT0X4821	NETWORK X-POINT SHELF ASSY	EMR3-01-005
		EMR3-01-NC-1
		EMR2-01-IMTMC-1
		EMR2-01-IMTMC-2
		EMR2-01-IMTMC-3
NT0X50AA	FILLER FACE PLATE 0.875	EMR2-01-IMTMC-4
		EMR2-01-MTMC-1
		EMR2-01-MTMC-2
		EMR2-01-MTMC-3
		EMR2-01-MTMC-4
		EMR2-01-MTM-1
		EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR2-01-MTM-4
		EMR2-01-OAU-1
		EMR2-01-OAU-2
		EMR2-08-000
		EMR2-13-000
		EMR2-13-001

EMR2-14-HIE-1
EMR2-15-RCC-1
EMR2-15-RCC-4
EMR2-16-RLCC-2
EMR2-17-IAC-1
EMR2-17-IAC-2
EMR2-21-LTC-1
EMR3-03-INC-1
EMR3-04-NET-1
EMR3-04-NET-2
EMR3-04-NET-3
EMR4-01-CMC-1
EMR4-01-CPU-1
EMR4-01-DS-1
EMR4-01-PS-1
EMR4-02-DS-1
EMR4-03-CMC-1
EMR4-03-CPU-1
EMR4-03-DS-1
EMR4-03-PS-1
EMR4-04-DS-2
EMR4-05-CPU-1
EMR4-05-DS-1
EMR4-05-MDC-1
EMR4-05-PS-1
EMR4-06-DS-1
EMR5-01-IOC-1
EMR5-01-IOC-3
EMR5-02-000
EMR5-02-001
EMR8-TOPSMP-1
EMR8-TOPSMP-2
EMR9-02-CSC-1
EMR9-03-CSC-1
EMR9-03-000
EMR10-12-MCAM-1
EMR10-12-MCAM-4
EMR10-12-MCAM-5
EMR10-12-PTM-1
EMR10-12-STM-1
EMR10-19-MNET-1
EMR13-01-RSM-1
EMR13-01-RSMC-1
EMR8-TOPSMP-4
EMR8-TOPSMP-5
EMR2-99-LGC-2
EMR2-99-SMU-1
EMR2-99-SMR-1
EMR2-99-LGC-3

EMR2-99-LTC-2
EMR2-99-LTC-4
EMR2-99-LTC-6
EMR2-99-LGC-1
EMR2-99-LTC-1
EMR2-99-LTC-3
EMR2-99-LTC-5
EMR2-06-SMR-2
EMR2-06-SMR-3
EMR2-06-SMR-4
EMR2-06-SMR-5
EMR2-08-001
EMR2-08-002
EMR8-TOPSM-6
EMR2-99-XPM-6
EMR2-99-XPM-12
EMR2-15-RCC-5
EMR2-15-RCCI-1
EMR2-06-DTC-7
EMR5-01-IOC-2
EMR5-01-IOC-5
EMR2-06-DTC-3
EMR2-06-DTC-4
EMR2-06-DTC-5
EMR2-06-DTC-6
EMR2-99-XPM-9
EMR2-99-XPM-10
EMR2-99-XPM-8
EMR2-05-000
EMR2-06-SMU-4
EMR2-06-SMU-5
EMR2-06-SMA-1
EMR2-06-SMU-6
EMR2-06-LGC-8
EMR2-6-6X02AS
EMR2-6-6X02IC
EMR2-06-LGC-9
EMR2-06-SMS-5
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMS-8
EMR2-06-SMU-7
EMR2-6-6X02RA
EMR2-06-LTC-6
EMR2-06-6X02AI
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-ILGC-6

EMR2-06-IXPM-1
EMR2-06-IXPM-3
EMR2-06-LTC-5
EMR2-06-SMR-1
EMR2-06-LGC-1
EMR2-06-DTC-2
EMR2-06-SMSR-4
EMR2-06-SMSR-3
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4
EMR2-06-DTC-9
EMR2-06-SMSR-5
EMR2-6-IDTC-10
EMR2-06-IXPM-2
EMR2-20-ILGC-1
EMR2-20-ILGC-4
EMR2-20-ILGC-5
EMR10-02-IDTC-2
EMR2-06-SMU-8
EMR2-06-LGC-7
EMR2-20-ILGC-3
EMR5-01-IOC-4
EMR2-06-SMA-2
EMR10-10-MCRM-1
EMR10-33-MCRM-3
EMR2-13-I00
EMR2-25-RCC2-1
EMR10-20-CPCI-1
EMR10-20-CPCI-2
EMR2-20-LGCI-2
EMR10-05-STM-1
EMR10-05-STM-2
EMR10-05-STM-3
EMR10-05-STM-4
EMR10-05-STM-6
EMR2-06-SMSR-6
EMR2-06-SMS-9
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-06-MCCM-1
EMR10-06-NET-1
EMR10-34-RLCC-1
EMR10-11-MCPM-1
EMR10-12-000
EMR10-25-000

EMR10-04-000
EMR10-01-000
EMR10-01-001
EMR10-09-000
EMR10-26-000
EMR12-05-PCPM-1
EMR12-01-PCSM-1
EMR12-02-000
EMR12-02-LTC-1
EMR12-02-SMS-1
EMR12-04-PTM-1
EMR12-04-PTM-2
EMR12-06-PCBM-1
EMR9-03-ICP-1
EMR10-19-MNET-2
EMR10-19-000
EMR9-01-PMPM-1
EMR9-01-PMPM-2
EMR9-01-003
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR10-08-DSN-1
EMR10-08-DSN-2
EMR2-06-LTC-4
EMR10-20-CPC-11
EMR10-20-CPCI-3
EMR2-06-SMU-3
EMR2-99-SMU-2
EMR2-06-SMU-1
EMR2-06-SMU-2
EMR2-06-SMU-9
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-SMS-4
EMR2-06-SMS-3
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-06-SMSR-1
EMR2-06-SMSR-2
EMR2-99-XPM-11
EMR2-06-DTC-10
EMR2-06-DTCI-1
EMR2-17-000
EMR2-17-IAC-4
EMR2-06-RX46BA

EMR2-06-ILGC-7
EMR2-14-HIE-4
EMR2-14-HIE-2
EMR2-14-HIE-3
EMR2-14-HIE-5
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-7
EMR2-06-ILGC-5
EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2
EMR2-06-IDTC-3
EMR2-06-IDTC-6
EMR2-06-ILGC-2
EMR2-06-IDTC-8
EMR2-99-XPM-13
EMR3-03-000
EMR3-03-001
EMR3-03-NC-1
EMR3-03-NC0-1
EMR3-03-NC1-1
EMR3-03-NI-1
EMR13-01-RSMC-2
EMR2-15-RCC-3
EMR2-15-RCC-2
EMR2-15-RCC-6
EMR2-15-RCC-7
EMR2-15-RCC-8
EMR2-99-RCC-6
EMR2-11-000
EMR2-11-001
EMR2-22-RCC0-1
EMR2-22-RCC0-2
EMR2-20-002
EMR2-20-003
EMR2-20-004
EMR10-28-000
EMR10-28-MCRM-2
EMR10-28-MCRM-1
EMR10-28-MCRM-3
EMR10-10-000
EMR10-05-STM-7
EMR10-05-STM-8
EMR10-05-STM-9
EMR10-05-STM-10
EMR10-05-STM-12

NT0X50AC

FILLER FACE PLATE 1.125

EMR10-02-000
EMR2-24-002
EMR2-15-001
EMR2-15-000
EMR2-15-002
EMR2-25-RCC2-2
EMR2-25-RCC2-3
EMR2-06-000
EMR2-01-DCM-1
EMR2-01-DCM-2
EMR2-01-DCM-3
EMR2-01-DCM-4
EMR2-01-DCM-5
EMR2-01-DCM-6
EMR2-01-DES-1
EMR2-01-DES-2
EMR2-01-DES-3
EMR2-01-MTM-1
EMR2-01-MTM-2
EMR2-01-MTM-3
EMR2-01-MTM-4
EMR2-01-MTM-5
EMR2-01-OAU-1
EMR2-01-OAU-2
EMR2-01-TM2-1
EMR2-01-TM4-1
EMR2-01-TM8-1
EMR2-01-TM8-3
EMR2-02-TAN-1
EMR2-02-TAN-2
EMR2-03-LMC-1
EMR2-03-LMC-2
EMR2-03-LMC-3
EMR2-03-LMC-4
EMR2-04-RLC-1
EMR2-04-RLC-2
EMR2-04-RLC-3
EMR2-04-RLC-4
EMR2-13-000
EMR2-13-001
EMR10-12-MCAM-1
EMR10-12-STM-1
EMR13-01-RSM-1
EMR13-01-RSMC-1
EMR2-15-RCC-5
EMR2-01-DCM-7
EMR2-01-TM8-4
EMR2-05-000
EMR2-01-DCM-8

NT0X50AD FILLER FACE PLATE 1.125
NT0X50AE FILLER FACE PLATE 2.62

EMR2-13-I00
EMR2-25-RCC2-1
EMR10-05-STM-1
EMR10-05-STM-2
EMR10-05-STM-3
EMR10-05-STM-4
EMR10-05-STM-6
EMR10-05-STM-5
EMR10-34-RLCC-1
EMR10-12-000
EMR10-09-000
EMR10-09-RIM-1
EMR12-05-000
EMR12-04-000
EMR12-04-PTM-2
EMR12-06-000
EMR9-01-001
EMR9-01-003
EMR2-06-DTC-1
EMR13-01-RSMC-2
EMR2-20-002
EMR2-20-003
EMR2-20-004
EMR10-28-000
EMR10-10-000
EMR10-05-001
EMR10-05-STM-7
EMR10-05-STM-8
EMR10-05-STM-9
EMR10-05-STM-10
EMR10-05-STM-11
EMR10-05-STM-12
EMR2-24-002
EMR10-11-000
EMR2-15-001
EMR2-15-000
EMR2-15-002
EMR2-25-RCC2-2
EMR2-25-RCC2-3
EMR2-01-DES-1
EMR2-01-DES-3
EMR2-01-DCM-4
EMR2-01-DCM-5
EMR2-01-DCM-6
EMR2-01-DES-3
EMR2-01-OAU-1
EMR2-01-OAU-2
EMR3-03-INC-1
EMR4-05-CPU-1

		EMR4-05-DS-1
		EMR4-05-PS-1
		EMR4-06-DS-1
		EMR2-15-RCC-5
		EMR2-01-DCM-7
		EMR2-01-DCM-8
		EMR10-34-RLCC-1
		EMR10-26-000
		EMR12-04-PTM-2
		EMR9-01-003
		EMR2-17-000
		EMR3-03-NC-1
		EMR3-03-NC0-1
		EMR3-03-NC1-1
		EMR2-11-000
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
NT0X50AF	FILLER FACE PLATE 1.72	EMR4-05-MDC-1
		EMR5-01-IOC-3
		EMR5-02-000
		EMR5-02-001
		EMR5-01-IOC-2
		EMR12-04-PTM-2
		EMR9-01-003
NT0X50AG	FILLER FACE PLATE	EMR2-13-000
		EMR2-13-001
		EMR2-16-RLCC-2
		EMR10-12-MCAM-1
		EMR10-12-STM-1
		EMR2-15-RCC-5
		EMR2-05-000
		EMR2-13-I00
		EMR2-25-RCC2-1
		EMR10-05-STM-1
		EMR10-05-STM-2
		EMR10-05-STM-3
		EMR10-05-STM-4
		EMR10-05-STM-6
		EMR10-05-STM-5
		EMR10-34-RLCC-1
		EMR2-20-002
		EMR2-20-003
		EMR2-20-004
		EMR10-05-STM-7
		EMR10-05-STM-8
		EMR10-05-STM-9
		EMR10-05-STM-10
		EMR10-05-STM-11

NT0X50AH	FILLER FACE PLATE	EMR10-05-STM-12
		EMR2-25-RCC2-2
		EMR2-13-000
		EMR2-13-001
		EMR2-05-000
NT0X50AJ	FILLER FACE PLATE	EMR2-13-I00
		EMR10-34-RLCC-1
		EMR2-13-000
		EMR2-13-001
		EMR2-05-000
NT0X50AL	Filler Face Plate	EMR2-13-I00
		EMR5-02-DRS-1
		EMR4-07-CPU-1
		EMR4-07-DS-1
		EMR4-07-PS-1
NT0X50BA	FILLER FACE PLATE .875	EMR4-08-DS-1
		EMR4-10-CPM-1
		EMR4-10-DS-1
		EMR4-10-MDC-1
		EMR4-10-000
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR4-12-DS-1
		EMR4-99-EM
		EMR5-01-ROS-2
		EMR10-06-000
		EMR10-06-MCCM-1
		EMR10-07-000
		EMR10-07-MCMM-1
		EMR9-01-002
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR2-20-004
		EMR4-07-CPU-1
		EMR4-07-DS-1
NT0X50BE	FILLER FACE PLATE 2.62	EMR4-07-PS-1
		EMR4-08-DS-1
		EMR4-10-DS-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR4-12-DS-1
		EMR5-01-ROS-1
		EMR5-01-ROS-2
		EMR2-25-RCC2-1
		EMR10-07-MCMM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR2-20-004
		EMR2-25-RCC2-2

NT0X50BF	FILLER FACE PLATE 1.72	EMR4-10-MDC-1 EMR4-10-000 EMR5-01-ROS-1 EMR5-01-ROS-2 EMR2-20-004 EMR2-15-002 EMR2-25-RCC2-1 EMR2-25-RCC2-2 EMR2-25-RCC2-3 EMR2-15-002 EMR5-01-IOC-1 EMR5-01-IOC-3 EMR5-02-000 EMR5-02-001 EMR5-01-IOC-2 EMR5-01-IOC-5 EMR9-01-003 EMR9-01-PMTC-1 EMR9-01-PMTC-4 EMR2-20-004 EMR2-01-IMTMC-2 EMR2-01-MTMC-1 EMR2-01-MTMC-3 EMR2-01-MTM-1 EMR2-01-MTM-2 EMR2-01-MTM-3 EMR2-01-MTM-4 EMR2-01-OAU-1 EMR2-01-OAU-2 EMR2-01-TM2-1 EMR2-01-TM4-1 EMR2-01-TM8-1 EMR2-02-TAN-1 EMR2-02-TAN-2 EMR2-01-TM8-4 EMR12-05-PCPM-1 EMR12-04-PTM-1 EMR12-06-PCBM-1 EMR2-01-IMTMC-4 EMR2-01-MTMC-2 EMR2-01-MTMC-4 EMR10-12-MCAM-1 EMR10-12-MCAM-4 EMR10-12-MCAM-5 EMR10-12-PTM-1 EMR10-11-MCPM-1 EMR10-12-000 EMR9-01-PMPM-1 EMR9-01-PMPM-2
NT0X58AD NT0X58BK	Maintenance Tool Kit RSC-S Hardware kit	
NT0X58CE NT0X63AC NT0X67AA	Misc HW Kit Remote Alarm Panel I/O CONTROL TERMINATOR	
NT0X70AA	TRUNK MODULE PROCESSOR CP	
NT0X70AC	TRUNK MOD PROC (32K) CP	

		EMR9-01-003
		EMR9-01-PMTC-1
		EMR9-01-PMTC-4
		EMR10-05-001
NT0X70BA	INTERNATIONAL TRK MOD CP	EMR2-01-IMTMC-1
		EMR2-01-IMTMC-3
NT0X82AA	PERIF FRAME SUPERVISORY PNL	EMR2-01-000
		EMR2-02-000
NT0X84AA	FILLER PANEL	EMR2-13-001
		EMR4-01-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
		EMR4-08-000
		EMR4-09-000
		EMR4-10-000
		EMR4-10-001
		EMR4-12-000
		EMR12-04-000
		EMR12-07-000
		EMR2-11-000
		EMR2-20-004
NT0X87AA	INVERTER	EMR2-08-000
		EMR3-01-000
		EMR3-01-001
		EMR3-01-002
		EMR4-01-000
		EMR4-03-000
		EMR4-05-000
		EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-02-000
		EMR5-02-001
		EMR11-01-VDU-1
		EMR13-01-DSM-1
		EMR13-01-DSM-2
		EMR13-01-DSM-5
		EMR13-01-DSS-1
		EMR13-01-DSM-6
		EMR2-08-001
		EMR2-08-002
		EMR12-04-000
NT0X88AA	MISCELLANEOUS EQUIPMENT FRAME SUPE	EMR13-01-FSP-1
		EMR13-01-000
NT0X88AC	REMOTE SERVICE EQUIPMENT FRAME SUP	EMR13-01-FSP-2
NT0X91AA	Alarm & Converter Drive CP	EMR2-05-000
NT0X91AE	Alarm Drive & Prot Ckt NET	EMR2-05-000
NT0X95AA	ALARM INTERCONNECT CA ASSY	EMR4-02-000

NT0X95BA	POWER CABLE	EMR4-04-000
		EMR4-06-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
NT0X95BB	POWER CABLE	EMR4-08-000
		EMR4-12-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
NT0X95BC	POWER CABLE	EMR4-08-000
		EMR4-12-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
NT0X95BD	POWER CABLE	EMR4-08-000
		EMR4-12-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
NT0X95BF	POWER CABLE	EMR4-08-000
		EMR4-01-000
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
NT0X95BG	POWER CABLE	EMR4-08-000
		EMR4-09-000
		EMR4-10-001
		EMR4-01-000
		EMR4-02-000
NT0X95BJ	POWER CABLE	EMR4-04-000
		EMR4-06-000
		EMR4-08-000
		EMR4-09-000
		EMR4-10-001
NT0X95BK	POWER CABLE	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-01-000
		EMR5-01-001
NT0X9501	CABLE BRAID ASSY	EMR5-01-002
		EMR5-99-DDU-1
		EMR5-99-DDU-1
		EMR4-02-000
		EMR4-04-000
NT0X9538	CABLE BRAID ASSY	EMR4-06-000
		EMR4-08-000
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
NT0X9567	ALARM INTERCONNECT CA ASSY	EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
NT0X96AA	MAGNETIC TAPE CTRL CABLES	EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
NT0X96AB	MAGNETIC TAPE CTRL CABLES	EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002
		EMR5-01-002

NT0X96AC	MAGNETIC TAPE CTRL CABLES	EMR5-01-002
NT1L00AA-35	Hands Free Unit	EMR7-P-PHONE-1
NT1M41AA	Meridian Applications Cabinet Bay	EMR10-MACB-1
NT1M41AD	1/4 Wide SRU Filler	EMR10-MACB-1
		EMR10-MACB-2
NT1M41AE	1/2 Wide SRU Filler	EMR10-MACB-2
NT1M41AN	Double Shelf Assembly	EMR10-MACB-1
		EMR10-MACB-2
NT1M41AP	Meridian Applications Cabinet Bay	EMR10-MACB-2
NT1M41AR	Jumper Cable	EMR10-MACB-2
NT1M41AT	Right Front Door (Brown)	EMR10-MACB-1
		EMR10-MACB-2
NT1M41AU	Left Front Door (Brown)	EMR10-MACB-1
		EMR10-MACB-2
NT1M41AV	Right Front Door (Gray)	EMR10-MACB-1
		EMR10-MACB-2
NT1M41AW	Left Front Door (Gray)	EMR10-MACB-1
		EMR10-MACB-2
NT1M41BC	Frame Fail Lamp (Brown)	EMR10-MACB-1
		EMR10-MACB-2
NT1M41BX	Spares Kit	EMR10-MACB-1
		EMR10-MACB-2
NT1M41CE	Information Labels Kit	EMR10-MACB-1
NT1M4104	Frame Fail Lamp (Gray)	EMR10-MACB-1
		EMR10-MACB-2
NT1M4113	Lower Cooling Unit	EMR10-MACB-1
		EMR10-MACB-2
NT1M4114	Upper Cooling Unit	EMR10-MACB-1
		EMR10-MACB-2
NT1M4116	Frame Supervisory Panel	EMR10-MACB-1
		EMR10-MACB-2
NT1X00AB	102 TEST (MILLIWATT)	EMR10-12-MCAM-1
		EMR10-05-STM-1
		EMR10-05-STM-6
		EMR10-12-000
		EMR12-01-PCSM-1
		EMR9-01-PMTC-1
		EMR9-01-PMTC-4
		EMR10-05-STM-7
		EMR10-05-STM-12
		EMR10-11-000
NT1X00AC	ROH TONE GEN	EMR10-12-MCAM-1
		EMR10-12-000
		EMR12-06-PCBM-1
		EMR10-11-000
NT1X00AE	102 Test-MW Circuit	EMR2-20-002
NT1X00AG	102 Test MW -20DB	EMR10-12-000
		EMR10-11-000
NT1X00AH	102 Test MW -15DB	EMR10-12-000

NT1X31AA	3 Port Conference CP	EMR10-11-000
NT1X32AA	CENTRAL MESSAGE CONTROLLER	EMR12-01-000
		EMR4-01-CMC-1
		EMR4-01-000
NT1X32AB	CENTRAL MESSAGE CONTROLLER	EMR4-03-CMC-1
		EMR4-03-000
NT1X3201	CMC SHELF	EMR4-01-CMC-1
		EMR4-03-CMC-1
NT1X33AA	CMC PROCESSOR INTERFACE CP	EMR4-01-CMC-1
		EMR4-03-CMC-1
		EMR4-05-MDC-1
NT1X33BA	CMC PROCESSOR INTERFACE CP	EMR4-10-MDC-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X34AA	CMC OUTGOING CONTROL CP	EMR4-01-CMC-1
		EMR4-03-CMC-1
		EMR4-05-MDC-1
NT1X34BA	CMC OUTGOING CONTROL CP	EMR4-10-MDC-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X35AA	CMC INCOMING CONTROL CP	EMR4-01-CMC-1
		EMR4-03-CMC-1
		EMR4-05-MDC-1
NT1X35BA	CMC INCOMING CONTROL CP	EMR4-10-MDC-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X36AA	CMC PERIPHERAL INTERFACE CP	EMR4-01-CMC-1
		EMR4-03-CMC-1
NT1X36AB	CMC PERIPHERAL INTERFACE CP	EMR4-05-MDC-1
NT1X36BB	CMC PERIPHERAL INTERFACE CP	EMR4-10-MDC-1
		EMR4-10-000
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR10-06-CMC-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X37AA	CMC COMMON CONTROL CP	EMR4-01-CMC-1
		EMR4-03-CMC-1
		EMR4-05-MDC-1

NT1X37BA	CMC COMMON CONTROL CP	EMR4-10-MDC-1 EMR4-11-CCC-1 EMR4-11-CCC-2 EMR10-06-MCCM-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT1X41AA	CENTRAL PROCESSOR UNIT	EMR4-01-CPU-1 EMR4-01-000
NT1X41AB	CENTRAL PROCESSOR UNIT	EMR4-03-CPU-1 EMR4-03-000
NT1X4101	PROCESSOR SHELF	EMR4-01-CPU-1
NT1X4108	PROCESSOR SHELF	EMR4-03-CPU-1
NT1X42AA	E2A TELEMETRY SERIAL I/F CP	EMR4-10-000
NT1X43__	PROG STORE PORT CP	EMR4-99-EM
NT1X43AA	PROC PROG STORE PORT CP	EMR4-01-CPU-1 EMR4-03-CPU-1
NT1X43AC	PROC PROG STORE PORT CP	EMR4-05-CPU-1
NT1X43BC	PROC PROGRAM STORE PORT CP	EMR4-07-CPU-1
NT1X43BD	PROC PROGRAM STORE PORT CP	EMR4-10-CPM-1
NT1X43CA	PROC PROG STORE PORT CP	EMR4-11-CPU-2 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT1X43DA	PROC PROG STORE PORT CP	EMR4-11-CPU-1 EMR4-99-EM EMR10-06-MCCM-1
NT1X44__	PROCESSOR STACK CP	EMR4-99-EM
NT1X44AA	PROCESSOR STACK CP	EMR4-01-CPU-1 EMR4-03-CPU-1 EMR4-05-CPU-1
NT1X44BA	PROCESSOR STACK CP	EMR4-07-CPU-1
NT1X44BB	PROCESSOR STACK CP	EMR4-10-CPM-1 EMR4-11-CPU-2 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT1X44DA	PROCESSOR STACK 4KW CP	EMR4-11-CPU-1 EMR4-99-EM EMR10-06-MCCM-1
NT1X45__	PROCESSOR ALF CP	EMR4-99-EM
NT1X45AA	PROCESSOR ALF CP	EMR4-01-CPU-1 EMR4-03-CPU-1 EMR4-05-CPU-1
NT1X45BA	PROCESSOR ALF CP	EMR4-07-CPU-1
NT1X45BB	PROCESSOR ALF CP	EMR4-10-CPM-1 EMR4-11-CPU-2 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT1X45DA	PROCESSOR ALF CP	EMR4-11-CPU-1 EMR4-99-EM EMR10-06-MCCM-1

NT1X46__	PROCESSOR ROM CP	EMR4-99-EM
NT1X46AA	PROCESSOR ROM DMS-100 CP	EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X46BA	PROCESSOR ROM DMS-100 CP	EMR4-07-CPU-1
NT1X46CB	PROCESSOR ROM DMS-100 CP	EMR4-10-CPM-1
NT1X46CD	PROCESSOR 8KW ROM CP	EMR4-11-CPU-2
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X46DA	PROCESSOR 8KW ROM CP	EMR4-11-CPU-1
		EMR4-99-EM
		EMR10-06-MCCM-1
NT1X46EA	PROCESSOR 8KW ROM CP	EMR4-10-000
NT1X47__	PROC TIM & CONT CP	EMR4-99-EM
NT1X47AA	PROCESSOR TIMING & CONT CP	EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X47BA	PROC TIMING AND CONTROL CP	EMR4-07-CPU-1
NT1X47BB	PROC TIMING & CONTROL CP	EMR4-10-CPM-1
		EMR4-11-CPU-2
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X47DA	PROC TIMING AND CONTROL CP	EMR4-11-CPU-1
		EMR4-99-EM
		EMR10-06-MCCM-1
NT1X48AA	PROCESSOR MAINTENANCE CP	EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
		EMR4-99-EM
NT1X48BA	PROCESSOR MAINTENANCE CP	EMR4-07-CPU-1
		EMR4-10-CPM-1
		EMR4-99-EM
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X48CA	REM CONT PROCESSOR MAINT CP	EMR4-10-000
		EMR4-99-EM
NT1X48DA	PROCESSOR MAINTENANCE CP	EMR4-10-000
		EMR4-99-EM
		EMR10-06-MCCM-1
NT1X49AA	UNBALANCED DATA PORT EXT	EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X49BA	UNBALANCED DATA PORT EXT	EMR4-07-CPU-1
		EMR4-10-CPM-1
		EMR4-11-CCC-1
NT1X50AB	BAL DATA PORT EXTENDER CP	EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X50BB	BALANCED DATA PORT EXT CP	EMR4-07-CPU-1
		EMR4-10-CPM-1

NT1X50DA	Balance Data Port Extension	EMR9-01-SNPC-1
NT1X51AA	CMC INTERFACE CP	EMR9-01-SNPC-2
		EMR10-06-MCCM-1
		EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X51BA	CMC INTERFACE CP	EMR4-07-CPU-1
		EMR4-10-CPU-1
		EMR4-11-CCC-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X51DA	CMC Interface CP	EMR10-06-MCCM-1
NT1X52AA	PROCESSOR TERMINATION CP	EMR4-01-CPU-1
		EMR4-03-CPU-1
NT1X53__	4K ROM EXTENDER CP	EMR4-99-EM
NT1X53AA	4K ROM EXTENSION CARD	EMR4-01-CPU-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
NT1X53BA	4K ROM EXTENSION CARD	EMR4-07-CPU-1
NT1X54AA	Jack Ended Trunk	EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR9-01-001
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR2-20-002
		EMR10-11-000
NT1X55AB	DISK DRIVE	EMR5-99-DDU-1
NT1X55CA	Disk Drive Ctrl Priam 806	EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT1X55DA	8" DISK DRIVE	EMR5-99-DDU-1
		EMR10-06-MCCM-1
		EMR2-20-004
NT1X60AA	DATA SET MODULE	EMR5-01-DSM-1
		EMR5-01-000
		EMR5-01-001
NT1X60AB	DATA SET MODULE SHELF	EMR5-01-DSM-2
		EMR5-01-000
		EMR5-01-001
		EMR5-01-002
NT1X61AA	I/O CONTROLLER MODULE	EMR5-01-IOC-1
		EMR5-01-000
NT1X61AB	INPUT/OUTPUT CONTROLLER MODULE	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-01-IOC-2

		EMR10-13-000
NT1X61AC	INPUT/OUTPUT CONTROLLER COMMON CP	EMR5-01-IOC-3
NT1X61AD	Input/Output Controller Module	EMR5-01-IOC-4
NT1X61AE	Input/Output Controller Common CP	EMR5-01-IOC-5
		EMR5-01-IOC-4
NT1X61AX	IOC PC KIT	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR5-99-IOC-1
NT1X6101	I/O SHELF ASSY	EMR5-01-IOC-1
NT1X6106	I/O Shelf Assembly	EMR5-01-IOC-2
NT1X6112	I/O Shelf Assembly	EMR5-01-IOC-4
NT1X62AA	I/O MSG CONTROLLER	EMR5-01-IOC-1
		EMR5-02-000
		EMR5-02-001
NT1X62AB	I/O MESSAGE CONTROLLER CP	EMR4-05-MDC-1
		EMR5-99-IOC-1
		EMR5-01-IOC-2
		EMR5-01-IOC-4
NT1X62BB	I/O MESSAGE CONTROLLER CP	EMR4-10-MDC-1
		EMR4-10-000
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR9-01-003
		EMR9-01-PMTC-1
		EMR9-01-PMTC-4
NT1X62CA	I/O Mst Cont CP	EMR5-99-IOC-1
		EMR5-01-IOC-4
		EMR10-06-000
NT1X62CB	I/O Msg Controller	EMR5-01-IOC-4
		EMR2-20-004
NT1X67BC	I/O Terminal Controller	EMR10-06-000
		EMR10-06-MCCM-1
		EMR9-01-002
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR2-20-004
NT1X67BD	I/O Terminal Cont (Auto DB)	EMR10-06-000
		EMR2-20-004
NT1X67DB	Bit Sync Data Link	EMR10-06-000
		EMR9-01-002
		EMR9-01-003
NT1X67EA	Async Printer Output CP	EMR10-06-000
		EMR2-20-004
NT1X68BC	MTD Controller CP	EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR2-20-004

NT1X75AA	DRAM Conttrol CP	EMR10-05-STM-2 EMR10-05-STM-6 EMR12-01-000 EMR12-01-PCSM-1 EMR9-01-PMTC-1 EMR9-01-PMTC-4 EMR10-10-000
NT1X76AA	DRA Standard Announcement	EMR12-01-000
NT1X76BA	DRA Standard Ann (French)	EMR12-01-000
NT1X77AA	DRAM RAM Memory CP	EMR10-05-STM-2 EMR10-05-STM-6 EMR12-01-000 EMR9-01-PMTC-1 EMR9-01-PMTC-4 EMR10-10-000
NT1X78AA	PWR CONV +/-5V, +12V, +24V	EMR5-01-DDU-1 EMR5-01-DDU-2 EMR5-01-DDU-3 EMR5-01-ROS-1 EMR5-01-ROS-2 EMR9-01-PMPM-1 EMR9-01-PMPM-2 EMR2-20-004 EMR10-11-000
NT1X89AA	Multi Protocol Controller	EMR10-06-000
NT1X89BA	Enhanced Multi Protocol CP	EMR2-20-004
NT1X89BB	Multi Protocol Cont CP	EMR2-20-004
NT1X90AA	TEST SIGNAL GENERATOR	EMR10-12-MCAM-1 EMR10-11-MCPM-1 EMR10-12-000 EMR12-05-000 EMR12-05-PCPM-1 EMR12-04-000 EMR12-06-000 EMR12-06-PCBM-1 EMR9-01-PMPM-1 EMR9-01-PMPM-2 EMR10-11-000
NT1X90BA	TTU-Test Scan Gen	EMR2-20-002
NT2X02AA	LINE DRAWER INTERFACE	EMR2-03-LD-2
NT2X05AA	PWR CONV +24V, RNG GEN 20HZ	EMR2-03-LMC-1 EMR2-03-LMC-2 EMR2-04-RLC-1 EMR2-04-RLC-2
NT2X05AB	PWR CONV +24V, RNG GEN 20HZ	EMR2-03-LMC-3 EMR2-04-RLC-3
NT2X05AC	PWR CNV (+24V), RNG GEN(20HZ)	EMR2-03-LMC-4 EMR2-04-RLC-4
NT2X06AB	POWER CONVERTER (5V/40A)	EMR2-01-DCM-1

		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-MTM-1
		EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR3-01-NIA-1
		EMR3-01-NIB-1
		EMR3-01-NC-1
		EMR4-01-CMC-1
		EMR4-01-CPU-1
		EMR4-01-DS-1
		EMR4-01-PS-1
		EMR4-02-DS-1
		EMR4-03-CMC-1
		EMR4-03-CPU-1
		EMR4-03-DS-1
		EMR4-03-PS-1
		EMR4-04-DS-2
		EMR4-05-CPU-1
		EMR13-01-RSM-1
		EMR10-10-MCRM-1
		EMR10-34-RLCC-1
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR2-15-002
NT2X06BB	POWER CONVERTER (5V/40A)	EMR4-07-CPU-1
		EMR4-10-CPM-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT2X07AB	POWER CONVERTER (5V/12V)	EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR3-01-NIA-1
		EMR4-01-DS-1
		EMR4-01-PS-1
		EMR4-02-DS-1
		EMR4-03-DS-1
		EMR4-03-PS-1
		EMR4-04-DS-2

NT2X09AA	MULTI O/P POWER CONVERTER	EMR2-01-IMTMC-1
		EMR2-01-IMTMC-2
		EMR2-01-IMTMC-3
		EMR2-01-IMTMC-4
		EMR2-01-MTMC-1
		EMR2-01-MTMC-2
		EMR2-01-MTM-1
		EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR2-01-MTM-4
		EMR2-01-OAU-1
		EMR2-01-OAU-2
		EMR2-01-TM2-1
		EMR2-01-TM4-1
		EMR2-01-TM8-1
		EMR2-02-TAN-1
		EMR2-02-TAN-2
		EMR10-12-MCAM-1
		EMR10-12-MCAM-4
		EMR10-12-MCAM-5
		EMR10-12-PTM-1
		EMR13-01-RSM-1
		EMR13-01-RSMC-1
		EMR2-01-TM8-4
		EMR10-10-MCRM-1
		EMR10-34-RLCC-1
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR10-09-RIM-1
		EMR12-05-PCPM-1
		EMR12-04-PTM-1
		EMR12-06-PCBM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR9-01-003
		EMR9-01-PMTC-1
		EMR9-01-PMTC-4
		EMR13-01-RSMC-2
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-05-001
		EMR2-15-002
NT2X09BA	MULTI O/P PWR CONVERTER CP	EMR2-01-MTMC-3
NT2X10AB	TEST UNIT ANALOG	EMR2-01-MTMC-4
		EMR2-13-000
		EMR10-12-MCAM-1
		EMR10-12-PTM-1
		EMR10-10-MCRM-1

		EMR12-04-000
		EMR12-06-PCBM-1
		EMR2-20-002
		EMR10-28-000
		EMR10-10-000
NT2X10AC	LINE TEST UNIT ANALOG	EMR2-13-000
		EMR2-13-001
NT2X10BA	MULTI-LINE TEST UNIT ANALOG	EMR2-13-000
		EMR10-34-RLCC-1
		EMR2-20-002
		EMR10-28-000
		EMR10-10-000
NT2X11AA	TEST UNIT DIGITAL	EMR2-13-000
		EMR12-04-000
		EMR12-06-PCBM-1
NT2X11AC	TEST UNIT DIGITAL	EMR2-13-000
NT2X11AD	LINE TEST UNIT DIGITAL	EMR2-13-000
		EMR2-13-001
		EMR10-12-MCAM-1
		EMR10-12-PTM-1
		EMR10-10-MCRM-1
		EMR2-20-002
		EMR10-28-000
		EMR10-10-000
NT2X11BA	LINE TEST UNIT DIGITAL	EMR2-13-000
		EMR10-34-RLCC-1
		EMR2-20-002
		EMR10-28-000
		EMR10-10-000
NT2X12AA	DIGITAL ECHO SUPPRESSOR MODULE	EMR2-01-DES-1
NT2X12AB	DIGITAL ECHO SUPPRESSOR MODULE	EMR2-01-DES-2
NT2X12AD	DIGITAL ECHO SUPPRESSOR MODULE	EMR2-01-DES-3
NT2X1201	DES SHELF ASSY	EMR2-01-DES-1
NT2X1202	DES SHELF ASSY	EMR2-01-DES-3
NT2X14AA	LINE MODULE CONTROL SHELF	EMR2-03-LMC-1
		EMR2-03-000
NT2X14AB	REMOTE LINE MODULE CONTROL SHELF	EMR2-04-RLC-1
		EMR2-04-000
NT2X14AC	LINE MODULE CONTROL SHELF	EMR2-03-LMC-2
		EMR2-03-001
		EMR2-03-002
NT2X14AD	REMOTE LINE MODULE CONTROL SHELF	EMR2-04-RLC-2
		EMR2-04-001
		EMR2-04-002
		EMR2-04-003
NT2X14AE	LINE MODULE CONTROL SHELF	EMR2-03-LMC-3
		EMR2-03-003
NT2X14AF	REMOTE LINE MODULE CONTROL SHELF	EMR2-04-RLC-3
		EMR2-04-004

		EMR2-04-005
		EMR2-04-006
NT2X14AG	LINE MODULE CONTROL SHELF	EMR2-03-LMC-4
		EMR2-03-004
NT2X14AH	REMOTE LINE MODULE CONTROL SHELF	EMR2-04-RLC-4
		EMR2-04-007
		EMR2-04-008
		EMR2-04-009
NT2X14AZ	RLM CONTROL SHELF MUX KIT	EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X1401	LMC SHELF ASSEMBLY	EMR2-03-LMC-1
NT2X1407	LM/RLM CONTROL SHF ASSY	EMR2-04-RLC-1
NT2X1408	LMC SHELF ASSEMBLY	EMR2-03-LMC-2
NT2X1409	LM/RLM CONTROL SHELF ASSY	EMR2-04-RLC-2
NT2X1414	LMC SHELF ASSEMBLY	EMR2-03-LMC-3
NT2X1415	LM/RLM CONTROL SHELF ASSY	EMR2-04-RLC-3
NT2X1416	LMC SHELF ASSEMBLY	EMR2-03-LMC-4
NT2X1417	LM/RLM CONTROL SHELF ASSY	EMR2-04-RLC-4
NT2X16AB	I/O BUS INTERFACE	EMR2-03-LD-1
NT2X19AA	LINE DRAWER	EMR2-03-LD-1
		EMR2-03-000
		EMR2-03-001
		EMR2-04-000
NT2X19AC	LINE DRAWER	EMR2-03-LD-2
		EMR2-03-002
		EMR2-03-003
		EMR2-03-004
		EMR2-04-001
		EMR2-04-002
		EMR2-04-003
		EMR2-04-004
		EMR2-04-005
		EMR2-04-006
		EMR2-04-007
		EMR2-04-008
		EMR2-04-009
NT2X1901	LINE DRAWER ASSY	EMR2-03-LD-1
NT2X1910	LINE DRAWER ASSY	EMR2-03-LD-2
NT2X1914	LINE DRAWER CUTOFF STRAP	EMR2-03-LD-1
NT2X20AB	RINGING BUS MULTIPLEXER	EMR2-03-LD-1
NT2X21AA	TERM ADDRESS I/F & TONE GEN	EMR2-03-LMC-1
		EMR2-03-LMC-2
		EMR2-04-RLC-1
NT2X21AC	TERM ADDRESS I/F & TONE GEN	EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-2

NT2X22AA	CONNECTION MEM & TRANS MUX	EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
NT2X22AB	CONN MEM, TRM MUX, T/SPC SW	EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X23AA	RECEIVE MUX	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X24AB	SIGNALLING PROCESSOR	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X25AB	SIGNALLING PROCESSOR I/F	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X26AA	MASTER PROCESSOR	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X26AB	RLM MASTER PROCESSOR	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
NT2X27AA	RINGING GENERATOR I/F	EMR2-03-LMC-3

		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X27AB	RING GEN I/F DECIMONIC MF	EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X27AC	RING GEN I/F HARMONIC MF	EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X27AD	RING GEN I/F SYNC 16 HZ MF	EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X27AE	RING GEN I/F SYNCHROMONIC MF	EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X27AF	RNG GEN I/F 20 HZ 150V CODED	EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT2X31AA	DIGITAL CARRIER MODULE	EMR2-01-DCM-1
NT2X31AB	DIGITAL CARRIER MODULE	EMR2-01-DCM-2
NT2X31AC	DIGITAL CARRIER MODULE	EMR2-01-DCM-3
NT2X31AH	DIGITAL CARRIER MODULE	EMR2-01-DCM-5
NT2X31AJ	Digital Carrier Module	EMR2-01-DCM-7
NT2X31AK	DIGITAL CARRIER MODULE	EMR2-01-DCM-4
NT2X31AL	DIGITAL CARRIER MODULE	EMR2-01-DCM-6
NT2X31AP	DCM PRODUCT CHANGE KIT	EMR2-01-DCM-4
NT2X31AT	Digital Carrier Module	EMR2-01-DCM-8
NT2X3101	DCM SHELF ASSY	EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3

NT2X3110	DCM SHELF ASSY	EMR2-01-DCM-4
NT2X3111	DCM Shelf Assy	EMR2-01-DES-2
NT2X3126	DCM SHELF ASSY	EMR2-01-DCM-5
NT2X3128	DCM Shelf Assy	EMR2-01-DCM-7
NT2X32AA	DCM PROCESSOR	EMR2-01-DCM-6
		EMR2-01-DCM-8
		EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-5
		EMR2-01-DCM-6
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-01-DCM-7
NT2X33AA	CCM PROCESSOR	EMR2-01-DCM-8
		EMR2-01-DCM-1
NT2X33AB	DCM PROCESSOR	EMR2-03-LMC-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-5
		EMR2-01-DCM-6
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-01-DCM-7
NT2X33AE	DCM Control	EMR2-01-DCM-8
NT2X34AA	PERIPHERAL MSG PROCESSOR	EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-5
		EMR2-01-DCM-6
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-03-LMC-1
		EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-01-DCM-7
		EMR2-01-DCM-8
NT2X35AA	DCM LINE	EMR2-01-DCM-1
		EMR2-01-DCM-2

NT2X35AB	DCM LINE	EMR2-01-DCM-3
		EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-5
NT2X36AA	NETWORK INTERFACE	EMR2-01-DCM-6
		EMR2-01-DCM-7
		EMR2-01-DCM-8
		EMR2-01-DCM-1
		EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-5
		EMR2-01-DCM-6
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-03-LMC-1
		EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-01-DCM-7
		EMR2-01-DCM-8
NT2X37AA	DCM TONE	EMR2-01-DCM-1
NT2X37AB	DCM TONE	EMR2-01-DCM-2
		EMR2-01-DCM-3
		EMR2-01-DCM-5
		EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-01-DCM-7
		EMR2-01-DCM-8
NT2X37AC	DCM TONE	EMR2-01-DCM-4
		EMR2-01-DCM-6
NT2X38AA	DCM SIGNALLING	EMR2-01-DCM-1
NT2X38AB	DCM SIGNALLING	EMR2-01-DCM-2
		EMR2-01-DCM-5
NT2X38AC	DCM SIGNALLING	EMR2-01-DCM-3
		EMR2-01-DCM-4
		EMR2-01-DCM-6
		EMR2-01-DCM-7
		EMR2-01-DCM-8
		EMR2-01-DES-1
NT2X38AD	DCM SIGNALLING	EMR2-01-DES-2
		EMR2-01-DES-3
		EMR2-01-DES-3
NT2X41AA	OFFICE ALARM CIRCUIT NO.1	EMR2-01-OAU-1
NT2X42AA	OFFICE ALARM CIRCUIT NO.2	EMR2-01-OAU-2
		EMR2-01-OAU-1

NT2X43AB	OFFICE ALARM CIRCUIT NO.3	EMR2-01-OAU-2
		EMR2-01-OAU-1
NT2X45AA	TM NETWORK INTERFACE	EMR2-01-OAU-2
		EMR2-01-MTM-1
		EMR2-01-OAU-1
		EMR2-01-TM2-1
		EMR2-01-TM4-1
		EMR2-01-TM8-1
		EMR2-02-TAN-1
		EMR2-02-TAN-2
NT2X45AB	TRUNK MODULE I/F CP	EMR2-01-MTMC-1
		EMR2-01-MTMC-2
		EMR2-01-MTMC-3
		EMR2-01-MTMC-4
		EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR2-01-MTM-4
		EMR2-01-OAU-2
		EMR10-12-MCAM-1
		EMR10-12-MCAM-4
		EMR10-12-MCAM-5
		EMR10-12-PTM-1
		EMR2-01-TM8-4
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-PCPM-1
		EMR12-04-PTM-1
		EMR12-06-PCBM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR9-01-003
		EMR9-01-PMTC-1
		EMR9-01-PMTC-4
		EMR10-05-001
NT2X45BA	TRUNK MODULE INTERFACE CP	EMR2-01-IMTMC-1
		EMR2-01-IMTMC-2
		EMR2-01-IMTMC-3
		EMR2-01-IMTMC-4
NT2X47AC	Trans. Test Unit Control CP	EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR12-06-PCBM-1
		EMR9-01-001
NT2X47AD	TTU-TRANS TEST MODULE	EMR10-12-MCAM-1
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR10-11-000
NT2X47BA	TTU-Trans Test Module	EMR2-20-002

NT2X48AB	DIGITONE RECEIVER (ESA)	EMR2-13-000 EMR2-13-001
NT2X48BA	4 CHNL MF RCVR	EMR10-34-RLCC-1 EMR10-12-MCAM-1 EMR10-05-STM-1 EMR10-05-STM-6 EMR12-01-000 EMR9-01-003 EMR10-05-STM-7 EMR10-05-STM-12
NT2X48BB	4 CHNL DTMF RCVR	EMR10-12-MCAM-1 EMR10-05-STM-1 EMR10-05-STM-6 EMR12-01-000 EMR9-01-003 EMR10-05-STM-7 EMR10-05-STM-12
NT2X48CC	Digitone Receiver (ESA)	EMR2-13-I00
NT2X52AA	TRUNK MODULE 2 WIRE	EMR2-01-TM2-1
NT2X52AB	TRUNK MODULE 4 WIRE	EMR2-01-TM4-1
NT2X52AC	TRUNK MODULE 8 WIRE	EMR2-01-TM8-1
NT2X52AG	Trunk Module 8 Wire	EMR2-01-TM8-4 EMR10-13-000
NT2X52AP	TRUNK MODULE 8 WIRE	EMR2-01-TM8-3
NT2X52AU	PRODUCT CHANGE KIT	EMR2-01-TM8-1 EMR2-01-TM8-3 EMR2-01-TM8-4
NT2X52BB	Intl Trunk Module/8 Wire	EMR2-20-004
NT2X52CA	Intl ITM8 Common CP	EMR2-20-004
NT2X52CB	IT8A Common CP	EMR2-20-004
NT2X5201	TRK MODULE -120 PR SHF ASSY	EMR2-01-TM8-1 EMR2-01-TM8-4
NT2X5204	TRK MODULE -60 PR SHF ASSY	EMR2-01-TM4-1
NT2X5207	TRK MOD -30 PR SHF ASSY	EMR2-01-TM2-1
NT2X5221	8W TRUNK SHELF ASSEMBLY	EMR2-01-TM8-3
NT2X5228	Intl Trunk Module Assembly	EMR2-20-004 EMR10-05-001
NT2X53AA	TRUNK MODULE/CONTROL CP	EMR2-01-IMTMC-1 EMR2-01-IMTMC-2 EMR2-01-IMTMC-3 EMR2-01-IMTMC-4 EMR2-01-MTMC-1 EMR2-01-MTMC-2 EMR2-01-MTMC-3 EMR2-01-MTMC-4 EMR2-01-MTM-1 EMR2-01-MTM-2 EMR2-01-MTM-3 EMR2-01-MTM-4

NT2X56AB DIG'L FILTER CP

NT2X56BA Digital Filter CP
NT2X57AA SIGNAL DISTRIBUTOR

EMR2-01-OAU-1
EMR2-01-OAU-2
EMR2-01-TM2-1
EMR2-01-TM4-1
EMR2-01-TM8-1
EMR2-02-TAN-1
EMR2-02-TAN-2
EMR10-12-MCAM-1
EMR10-12-MCAM-4
EMR10-12-MCAM-5
EMR10-12-PTM-1
EMR2-01-TM8-4
EMR10-11-MCPM-1
EMR10-12-000
EMR12-05-PCPM-1
EMR12-04-PTM-1
EMR12-06-PCBM-1
EMR9-01-PMPM-1
EMR9-01-PMPM-2
EMR9-01-003
EMR9-01-PMTC-1
EMR9-01-PMTC-4
EMR10-05-001
EMR10-12-MCAM-1
EMR10-11-MCPM-1
EMR10-12-000
EMR12-05-000
EMR12-05-PCPM-1
EMR12-04-000
EMR12-06-000
EMR12-06-PCBM-1
EMR9-01-001
EMR10-11-000
EMR2-20-002
EMR2-01-OAU-1
EMR2-01-OAU-2
EMR2-13-000
EMR10-12-MCAM-1
EMR10-10-MCRM-1
EMR10-34-RLCC-1
EMR10-11-MCPM-1
EMR10-12-000
EMR10-09-000
EMR12-05-PCPM-1
EMR12-04-000
EMR12-06-PCBM-1
EMR9-01-PMPM-1
EMR9-01-PMPM-2
EMR2-20-002

		EMR2-20-003
		EMR2-20-004
		EMR10-28-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-10-000
		EMR10-11-000
NT2X58AA	MAINTENANCE TRUNK MODULE	EMR2-01-MTM-1
NT2X58AB	OFFICE ALARM UNIT	EMR2-01-OAU-1
NT2X58AC	MAINTENANCE TRUNK MODULE	EMR2-01-MTM-3
NT2X58AD	OFFICE ALARM UNIT	EMR2-01-OAU-2
NT2X58AE	REMOTE SERVICE MODULE	EMR13-01-RSM-1
NT2X58AG	MAINTENANCE TRUNK MODULE	EMR2-01-MTM-2
NT2X58AK	MAINTENANCE TRUNK MODULE	EMR2-01-MTM-4
NT2X58AN	MAINTENANCE TRUNK MODULE	EMR2-01-MTM-5
NT2X58AR	MAINTENANCE TRUNK MODULE COMMON CP	EMR2-01-MTMC-2
NT2X58AS	INTERNATIONAL MAINTENANCE TRUNK MO	EMR2-01-IMTMC-1
NT2X58AW	MAINTENANCE TRUNK MODULE COMMON CP	EMR2-01-MTMC-1
NT2X58AY	IMTM Common CP Turkey	EMR2-20-003
		EMR2-20-004
NT2X58BA	SCOPEDIAL U.K. IMTM COMMON CP	EMR2-01-IMTMC-2
NT2X58BB	IMTM Common CP U.K.	EMR2-20-003
		EMR2-20-004
NT2X58BC	IMTM Shelf Assembly (PTM)	EMR2-20-002
		EMR2-20-003
		EMR2-20-004
NT2X58BD	International MTM-DRA Shelf	EMR2-20-003
		EMR2-20-004
NT2X58CA	PTM Shelf Assembly	EMR10-12-000
		EMR10-11-000
NT2X58CC	INTERNATIONAL MAINTENANCE TRUNK MO	EMR2-01-IMTMC-3
NT2X58CE	REMOTE SERVICE MODULE COMMON CP	EMR13-01-RSMC-1
NT2X58CH	PC KIT TO PROVIDE NT0X70AC	EMR2-01-MTM-3
		EMR2-01-MTM-5
NT2X58CJ	MAINTENANCE TRUNK MODULE COMMON CP	EMR2-01-MTMC-4
NT2X58CK	MAINTENANCE TRUNK MODULE COMMON CP	EMR2-01-MTMC-3
NT2X58CL	IMTM Common CP Caribbean	EMR2-20-003
		EMR2-20-004
NT2X58CM	Remote Service Module Common CP	EMR13-01-RSMC-2
NT2X58DA	INTERNATIONAL MAINTENANCE TRUNK MO	EMR2-01-IMTMC-4
NT2X58DB	IMTM Common CP Mercury U.K.	EMR2-20-003
		EMR2-20-004
NT2X5801	MAINT TRK MODULE SHLF ASSY	EMR2-01-MTM-1
		EMR2-01-OAU-1
NT2X5808	MAINT TRK MODULE SHLF ASSY	EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR2-01-MTM-5
		EMR2-01-OAU-2

NT2X5815	RMT SERVICE MODULE SHF ASSY	EMR13-01-RSM-1
NT2X5819	MAINT TRUNK MODULE SHF ASSY	EMR2-01-MTM-4
NT2X59AA	GROUP CODEC CP	EMR2-01-MTMC-1
		EMR2-01-MTMC-2
		EMR2-01-MTMC-3
		EMR2-01-MTMC-4
		EMR2-01-MTM-1
		EMR2-01-MTM-2
		EMR2-01-MTM-3
		EMR2-01-MTM-4
		EMR2-01-TM2-1
		EMR2-01-TM4-1
		EMR2-01-TM8-1
		EMR10-12-MCAM-1
		EMR10-12-MCAM-4
		EMR10-12-MCAM-5
		EMR10-12-PTM-1
		EMR10-12-STM-1
		EMR13-01-RSM-1
		EMR13-01-RSMC-1
		EMR2-01-TM8-4
		EMR10-10-MCRM-1
		EMR10-05-STM-1
		EMR10-05-STM-2
		EMR10-05-STM-3
		EMR10-05-STM-4
		EMR10-34-RLCC-1
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-PCPM-1
		EMR12-01-000
		EMR12-01-PCSM-1
		EMR12-04-PTM-1
		EMR12-06-PCBM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR13-01-RSMC-2
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-05-STM-7
		EMR10-05-STM-8
		EMR10-05-STM-9
		EMR10-05-STM-10
		EMR2-15-002
		EMR10-05-001
NT2X59AB	Group Codec	EMR2-01-IMTMC-1
NT2X59BA	A-LAW CODEC & TONES CP	EMR2-01-IMTMC-2
NT2X59CA	A-LAW TM CODEC E/W BT TONE	EMR10-34-RLCC-1

NT2X59DA	A-LAW CODEC & TONES CP	EMR2-01-IMTMC-3
NT2X59EA	GROUP CODEC MERCURY 250 CP	EMR2-01-IMTMC-4
NT2X70AA	PWR CONV (+/-5V, +/-12V)	EMR2-01-DCM-5
		EMR2-01-DCM-6
		EMR2-01-DES-3
		EMR2-01-IMTMC-1
		EMR2-01-IMTMC-2
		EMR2-01-IMTMC-4
		EMR2-01-MTMC-1
		EMR2-01-MTMC-2
		EMR2-01-MTMC-3
		EMR2-01-MTMC-4
		EMR2-01-MTM-4
		EMR2-03-LMC-1
		EMR2-03-LMC-2
		EMR2-03-LMC-3
		EMR2-03-LMC-4
		EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
		EMR2-14-HIE-1
		EMR4-03-CPU-1
		EMR4-05-CPU-1
		EMR4-05-DS-1
		EMR4-05-MDC-1
		EMR4-05-PS-1
		EMR4-06-DS-1
		EMR5-01-IOC-3
		EMR5-02-000
		EMR5-02-001
		EMR13-01-RSMC-1
		EMR2-01-DCM-7
		EMR5-01-IOC-2
		EMR5-01-IOC-4
		EMR10-09-RIM-1
		EMR12-01-000
NT2X70AB	PWR CONV +/-5V & 12V CP	EMR3-03-INC-1
		EMR5-01-IOC-1
		EMR9-02-CSC-1
		EMR9-03-CSC-1
		EMR2-99-LTC-2
		EMR2-99-LTC-1
		EMR2-99-XPM-2
		EMR2-06-LGC-1
		EMR2-06-LGC-3
		EMR2-06-LGC-4
		EMR3-99-ZY
		EMR3-03-NC0-1

NT2X70AD

POWER CONVERTER +/-5V & 12V

EMR3-03-NC1-1
EMR3-03-NI-1
EMR2-11-000
EMR2-01-IMTMC-3
EMR2-08-MSB6-1
EMR2-15-RCC-1
EMR2-17-IAC-1
EMR2-17-IAC-2
EMR3-04-NET-1
EMR3-04-NET-2
EMR3-04-NET-3
EMR8-TOPSMP-1
EMR8-TOPSMP-2
EMR2-99-LTC-2
EMR2-99-LTC-1
EMR2-06-DTC-3
EMR2-06-DTC-4
EMR2-06-DTC-5
EMR2-06-LGC-8
EMR2-6-IDTC-8
EMR2-06-ILGC-6
EMR2-06-SMR-1
EMR2-06-DTC-2
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-6-IDTC-10
EMR10-25-000
EMR12-05-000
EMR9-01-PMPM-1
EMR9-01-SNPC-1
EMR9-01-003
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR2-06-SMU-1
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-17-000
EMR2-17-IAC-4
EMR2-14-HIE-2
EMR2-14-HIE-3
EMR2-14-HIE-5
EMR2-06-IDTC-1
EMR2-06-ILGC-1

NT2X70AE

PWR CONV DP +/- 5V,12V

EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2
EMR2-06-IDTC-3
EMR2-06-IDTC-6
EMR2-06-ILGC-2
EMR3-03-NC-1
EMR3-99-ZY
EMR2-15-RCC-3
EMR2-15-RCC-2
EMR2-11-000
EMR2-08-MSB6-2
EMR2-06-000
EMR2-01-MTM-5
EMR2-13-000
EMR2-16-RLCC-2
EMR10-12-MCAM-1
EMR10-12-MCAM-4
EMR10-12-MCAM-5
EMR10-12-PTM-1
EMR10-12-STM-1
EMR10-19-MNET-1
EMR2-08-002
EMR2-15-RCC-5
EMR2-06-SMU-4
EMR2-06-SMU-5
EMR2-06-SMA-1
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMS-8
EMR2-06-SMU-7
EMR2-06-SMSR-4
EMR2-06-SMSR-3
EMR2-01-DCM-8
EMR2-06-DTC-9
EMR2-06-SMSR-5
EMR2-06-IXPM-2
EMR2-20-ILGC-1
EMR2-20-ILGC-4
EMR2-20-ILGC-5
EMR10-02-IDTC-2
EMR2-20-ILGC-3
EMR5-01-IOC-4
EMR2-06-SMA-2
EMR2-20-LGCI-3
EMR10-10-MCRM-1
EMR10-33-MCRM-3

NT2X70AF

Power Converter

EMR2-13-I00
EMR10-20-CPCI-1
EMR10-20-CPCI-2
EMR2-20-LGCI-2
EMR10-05-STM-1
EMR10-05-STM-2
EMR10-05-STM-3
EMR10-05-STM-4
EMR10-05-STM-6
EMR10-05-STM-5
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-06-MCCM-1
EMR10-06-NET-1
EMR10-34-RLCC-1
EMR10-11-MCPM-1
EMR10-12-000
EMR10-22-000
EMR10-22-MSB7-1
EMR10-25-000
EMR10-26-000
EMR12-05-000
EMR12-01-000
EMR12-02-000
EMR12-04-000
EMR12-06-000
EMR9-03-ICP-1
EMR10-19-MNET-2
EMR9-01-001
EMR9-01-002
EMR9-01-003
EMR10-08-DSN-1
EMR10-08-DSN-2
EMR2-06-RX46BA
EMR2-11-000
EMR2-20-003
EMR2-20-004
EMR10-28-MCRM-2
EMR10-28-MCRM-1
EMR10-28-MCRM-3
EMR2-15-001
EMR2-15-002
EMR2-06-000
EMR5-01-I0C-4
EMR2-06-SMSR-6
EMR2-06-SMS-9
EMR9-03-ICP-1
EMR10-19-MNET-2
EMR10-20-CPC-11

NT2X70AY
NT2X70AZ

NT2X70AF Upgrade Kit
POWER CONVERTER PC KIT

EMR10-20-CPCI-3
EMR2-06-RX46BA
EMR2-20-004
EMR10-05-STM-7
EMR10-05-STM-8
EMR10-05-STM-9
EMR10-05-STM-10
EMR10-05-STM-11
EMR10-05-STM-12
EMR2-15-001
EMR2-15-002
EMR2-06-000
EMR2-06-000
EMR2-01-DCM-5
EMR2-01-DCM-6
EMR2-01-MTM-5
EMR2-03-LMC-1
EMR2-03-LMC-2
EMR2-03-LMC-3
EMR2-03-LMC-4
EMR2-04-RLC-1
EMR2-04-RLC-2
EMR2-04-RLC-3
EMR2-04-RLC-4
EMR2-13-000
EMR2-13-001
EMR4-06-000
EMR4-07-000
EMR4-08-000
EMR4-09-000
EMR4-10-000
EMR4-10-001
EMR4-12-000
EMR5-01-000
EMR5-01-001
EMR5-01-002
EMR5-02-001
EMR2-08-001
EMR2-08-002
EMR2-01-DCM-7
EMR9-01-001
EMR9-01-002
EMR9-01-003
EMR3-03-000
EMR3-03-001
EMR2-11-000
EMR4-07-CPU-1
EMR4-07-DS-1
EMR4-07-PS-1

NT2X70BA

POWER CONV (+/-5V,+/-12V)

		EMR4-08-DS-1
		EMR4-10-CPM-1
		EMR4-10-DS-1
		EMR4-10-MDC-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR4-12-DS-1
		EMR10-06-MCCM-1
		EMR10-07-MCMM-1
NT2X70KA	Power Converter 60V to +-5V	EMR2-06-RX46BA
NT2X71AA	Trans Terminal Trunk	EMR10-12-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR10-11-000
NT2X72AA	4W E&M Type D1 600 I/F	EMR10-12-000
		EMR10-11-000
NT2X75AA	Loop Around Test Line	EMR10-05-STM-6
		EMR10-12-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR2-20-002
		EMR10-05-STM-12
		EMR10-11-000
NT2X76AA	CENTRAL MESSAGE AND I/O DEVICE CON	EMR4-05-MDC-1
		EMR4-05-000
NT2X76AB	SYNC OFF.W/O EXT MA FREQ REF	EMR4-05-MDC-1
NT2X76AC	SYNC MA OF W EXT MA FREQ REF	EMR4-05-MDC-1
NT2X76AD	MA OFF W EXT 10.24 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
NT2X76AM	EXT MA FREQ REF, 10.24 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
		EMR4-10-000
NT2X76AN	EXT MA FREQ REF, 10.00 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
		EMR4-10-000
NT2X76AP	EXT MA FREQ REF, 5.00 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
		EMR4-10-000
NT2X76AR	EXT MA FREQ REF, 2.56 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
		EMR4-10-000
NT2X76AS	EXT MA FREQ REF, 2.048 MHZ	EMR4-05-MDC-1
		EMR4-10-MDC-1
		EMR4-10-000
NT2X76AT	EXT MA FREQ REF, 1.024 MHZ	EMR4-05-MDC-1

NT2X76AW	EXT MA FREQ REF, 1.0 MHZ	EMR4-10-MDC-1 EMR4-10-000 EMR4-05-MDC-1 EMR4-10-MDC-1 EMR4-10-000 EMR4-07-000 EMR4-09-000 EMR4-10-MDC-1 EMR4-10-001 EMR4-05-MDC-1 EMR4-10-MDC-1 EMR4-05-MDC-1 EMR4-10-MDC-1 EMR4-10-000 EMR4-10-000 EMR4-10-000 EMR4-05-MDC-1 EMR4-10-MDC-1 EMR4-10-000 EMR10-06-000 EMR10-12-MCAM-1 EMR10-12-PTM-1 EMR10-10-MCRM-1 EMR10-11-MCPM-1 EMR10-12-000 EMR12-05-000 EMR12-05-PCPM-1 EMR12-04-000 EMR12-06-000 EMR12-06-PCBM-1 EMR9-01-001 EMR9-01-PMPM-1 EMR9-01-PMPM-2 EMR2-20-002 EMR10-28-000 EMR10-28-MCRM-2 EMR10-28-MCRM-1 EMR10-28-MCRM-3 EMR10-10-000 EMR10-11-000 EMR12-04-000 EMR2-13-000 EMR2-13-I00 EMR12-04-000 EMR12-06-000 EMR12-06-PCBM-1 EMR2-13-001 EMR10-12-MCAM-1 EMR10-12-PTM-1 EMR10-10-MCRM-1
NT2X76BA	CEN MSG & I/O DEVICE CTLR	
NT2X76BB	SYNC OFF W/O EXT MA FREQ REF	
NT2X76BC	SYNC MA OF W EXT MA FREQ REF	
NT2X76CB	WRG: SYNC OFF W/O EXT MA	
NT2X76CC	WRG: SYNC MA OFF W EXT MA	
NT2X7601	MDC SHELF ASSEMBLY	
NT2X7606	CM & I/O DEVICE CTL SH ASS	
NT2X7609	MDC Shelf Assembly	
NT2X77AA	COMP BAL NTWK 900 OHM	
NT2X83AA	2-W O/G Rev Batt. Trunk CP	
NT2X90	INCOMING/OUTGOING TEST TRK	
NT2X90AC	Incoming/Outgoing Test Trk	
NT2X90AD	INCOMING/OUTGOING TEST TRK	

		EMR10-34-RLCC-1
		EMR10-12-000
		EMR2-20-002
		EMR10-28-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-10-000
		EMR10-11-000
NT2X96AA	PCM LEVEL METER	EMR10-12-MCAM-1
		EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR12-06-PCBM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR10-11-000
NT2X96BA	PCM Level Meter	EMR2-20-002
NT3E19AA	SINGLE-MODE PIGTAIL	EMR2-13-000
		EMR2-13-001
NT3E44AA	MULTI-MODE PIGTAIL	EMR2-13-000
		EMR2-13-001
NT3J00BA	MLT APPLIQUE SHELF	EMR11-02-DRTU-2
		EMR11-02-DRTU-3
		EMR11-02-001
		EMR11-02-000
NT3J00BE	SIGNATURE ACC W/OFF HOOK	EMR11-02-DRTU-2
		EMR11-02-DRTU-3
NT3J0017	DRTU ESD MANUAL	EMR11-02-DRTU-2
		EMR11-02-DRTU-3
NT3P20BC	RACK INTERFACE PANEL	EMR9-04-000
NT3P20EA	OUTPUT CIRCUIT PACK	EMR9-04-000
NT3P20FA	INPUT CIRCUIT PACK	EMR9-04-000
NT3P20GA	ALARM CONTROL UNIT	EMR9-04-000
NT3P20HJ	RX MULTICOUPLER	EMR9-04-000
NT3P20MA	CELL SITE MONITOR	EMR9-04-000
NT3P21BB	RACK INTERFACE PANEL	EMR9-06-000
NT3P21CA	POWER AMPLIFIER SHELF	EMR9-06-000
NT3P21CC	POWER AMPLIFIERS	EMR9-06-000
NT3P21GD	DUPLEXER	EMR9-06-000
NT3P21HA	TRANSCEIVER	EMR9-06-000
NT3P21HB	TRANSCEIVER	EMR9-06-000
NT3P21HC	TRANSCEIVER	EMR9-06-000
NT3P21HD	TRANSCEIVER	EMR9-06-000
NT3P21JC	TRANSMIT COMBINER (8 CH)	EMR9-06-000
NT3P21JD	TRANSMIT COMBINER (8 CH)	EMR9-06-000

NT3P21NC	TRANSCEIVER SHELF	EMR9-06-000
NT3P24AA	CONN RETAINING BRACKET	EMR9-06-000
NT3P25AA	BLANK PANEL	EMR9-04-000
NT3P25AB	BLANK PANEL	EMR9-04-000
NT3P25AC	BLANK PANEL	EMR9-04-000
		EMR9-06-000
NT3P25AD	BLANK PANEL	EMR9-06-000
NT3P25AG	BLANK PANEL	EMR9-04-000
NT3P25AH	BLANK PANEL	EMR9-04-000
NT3P40AA	ANCHORING KIT	EMR9-04-000
		EMR9-06-000
NT3P50AA	REM. CELL MULTIPLEXOR I/F	EMR9-04-000
NT3P50BA	LAPD LINK CARD	EMR9-04-000
NT3P50CA	PORT CARD	EMR9-04-000
NT3P50DA	EXPANSION CARD	EMR9-04-000
NT3P60AA	NOVATEL COMMON EQUIPMENT FRAME	EMR9-04-000
NT3P61AA	NOVATEL RADIO FREQUENCY FRAME	EMR9-06-000
NT3X02AA	TOPS Control Processor	EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-000
		EMR12-06-000
		EMR2-20-002
		EMR10-11-000
NT3X03AA	TOPS Digital Signal Proc	EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-000
		EMR12-06-000
		EMR2-20-002
		EMR10-11-000
NT3X04AA	INC TST TRK FOR AECO LTD	EMR2-13-000
		EMR10-34-RLCC-1
		EMR10-28-000
NT3X09AA	METALLIC TEST ACCESS	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
		EMR12-06-000
NT3X09BA	RMT METALLIC TEST ACCESS	EMR2-13-000
		EMR2-13-001
		EMR10-12-MCAM-1
		EMR10-10-MCRM-1
		EMR2-13-I00
		EMR10-34-RLCC-1
		EMR10-12-000
		EMR12-06-000
		EMR2-20-002
		EMR10-28-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3

NT3X13AA	MASTER CLOCK GENERATOR	EMR10-10-000 EMR4-01-CMC-1 EMR4-03-CMC-1 EMR4-05-MDC-1
NT3X13BA	MASTER CLOCK GENERATOR	EMR4-10-MDC-1 EMR4-10-000 EMR9-01-002
NT3X14AA	SYNC MASTER CLOCK CONT	EMR4-03-CMC-1 EMR4-05-MDC-1
NT3X14BA	SYNC MASTER CLOCK CONT	EMR4-10-MDC-1
NT3X14BB	SYNC MASTER CLOCK CONT	EMR4-05-MDC-1 EMR4-10-MDC-1
NT3X14BC	SYNC CLOCK CONTROLLER	EMR4-10-MDC-1 EMR4-10-000 EMR10-06-MCCM-1 EMR9-01-002
NT3X15AA	SYNC CLOCK MASTER OSC	EMR4-03-CPU-1 EMR4-05-MDC-1
NT3X15AB	SYNC CLOCK MASTER OSC	EMR4-03-CPU-1 EMR4-05-MDC-1
NT3X15BB	SYNCH CLOCK MASTER OSC	EMR4-10-MDC-1 EMR4-10-000
NT3X15CA	STRATUM 3 SYNC MASTER CLOCK	EMR4-10-MDC-1 EMR4-10-000 EMR10-06-000 EMR9-01-002
NT3X15DA	STRATUM 2 SYNC MSTR CLK CP	EMR4-10-000 EMR10-06-000
NT3X16AA	STRATUM II OSC. & INT. CP	EMR5-01-ROS-2
NT3X16BA	OSC. (DMS-CORE) & I/F CP	EMR5-01-ROS-1
NT3X17AA	NETWORK INCOMING X-POINT	EMR3-01-000 EMR3-01-001 EMR3-01-002 EMR3-01-003 EMR3-01-004 EMR3-01-005
NT3X18AA	NETWORK OUTGOING X-POINT	EMR3-01-000 EMR3-01-001 EMR3-01-002 EMR3-01-003 EMR3-01-004 EMR3-01-005
NT3X19AA	NETWORK SPEECH I/F	EMR3-01-000 EMR3-01-001 EMR3-01-002 EMR3-01-003 EMR3-01-004 EMR3-01-005
NT3X20AA	NETWORK TEST ACCESS	EMR3-01-NC-1

NT3X20JB	MASTER OSCILATOR	EMR9-04-000
NT3X21AA	NETWORK BUS I/F	EMR3-01-NIA-1
		EMR3-01-NIB-1
		EMR3-01-NC-1
NT3X22AA	NETWORK I/O I/F	EMR3-01-NIB-1
NT3X23AA	NETWORK SIGNALLING CONT	EMR3-01-NIB-1
NT3X23AB	NETWORK CROSS-POINT CONT	EMR3-01-NIB-1
NT3X24AA	NETWORK CLOCK	EMR3-01-NIB-1
NT3X25AA	COMMON EQUIPMENT SHELF	EMR13-01-DTH-1
		EMR13-01-DTH-2
		EMR13-01-DSS-1
		EMR13-01-DTH-4
NT3X31AA	PROGRAM STORE SHELF	EMR4-01-PS-1
		EMR4-01-000
		EMR4-02-000
NT3X31AB	DATA STORE SHELF	EMR4-01-DS-1
		EMR4-01-000
		EMR4-02-000
NT3X31AC	CONNECTORIZED DATA STORE SHELF	EMR4-02-DS-1
		EMR4-02-000
NT3X31AD	1M-WORD PROGRAM STORE SHELF	EMR4-03-PS-1
		EMR4-03-000
NT3X31AE	1M-WORD DATA STORE SHELF	EMR4-03-DS-1
		EMR4-03-000
		EMR4-04-000
NT3X31AF	1M-WORD CONNECTORIZED DATA STORE S	EMR4-04-DS-2
		EMR4-04-000
NT3X3101	P/CD STORE SHELF	EMR4-01-DS-1
		EMR4-01-PS-1
		EMR4-03-DS-1
		EMR4-03-PS-1
NT3X3106	P/CD STORE SHELF	EMR4-02-DS-1
		EMR4-04-DS-2
NT3X32AA	1M-WORD PROGRAM STORE SHELF	EMR4-05-PS-1
		EMR4-05-000
NT3X32AB	1M-WORD DATA STORE SHELF	EMR4-05-DS-1
		EMR4-05-000
		EMR4-06-000
NT3X32AC	1M-WORD CONNECTORIZED DATA STORE S	EMR4-06-DS-1
		EMR4-06-000
NT3X32AE	WRG: ADDRESS FOR DS:01	EMR4-05-DS-1
		EMR4-06-DS-1
		EMR4-07-DS-1
		EMR4-08-DS-1
NT3X32AF	WRG: ADDRESS FOR DS:02	EMR4-05-DS-1
		EMR4-06-DS-1
		EMR4-07-DS-1
		EMR4-08-DS-1
NT3X32AG	WRG: ADDRESS FOR DS:03	EMR4-05-DS-1

		EMR4-06-DS-1
		EMR4-07-DS-1
		EMR4-08-DS-1
NT3X32AH	WRG: ADDRESS FOR DS:04	EMR4-05-DS-1
		EMR4-06-DS-1
		EMR4-07-DS-1
		EMR4-08-DS-1
NT3X32AJ	WRG: ADDRESS FOR DS:05	EMR4-05-DS-1
		EMR4-07-DS-1
NT3X32BA	1M-WORD PROGRAM STORE SHELF	EMR4-07-PS-1
		EMR4-07-000
NT3X32BB	1M-WORD DATA STORE SHELF	EMR4-07-DS-1
		EMR4-07-000
		EMR4-08-000
NT3X32BC	1M-WORD CONNEXTORIZED DATA STORE S	EMR4-08-DS-1
		EMR4-08-000
NT3X32DA	4 M-WORD DATA STORE	EMR4-09-000
		EMR4-10-DS-1
		EMR4-10-001
		EMR4-12-000
NT3X32DB	4M-WORD CONNECTORIZED DATA STORE S	EMR4-12-DS-1
		EMR4-12-000
NT3X3201	P/D STORE SHELF	EMR4-05-DS-1
		EMR4-05-PS-1
		EMR4-07-DS-1
		EMR4-07-PS-1
NT3X3204	P/D STORE SHELF CONN	EMR4-06-DS-1
		EMR4-08-DS-1
NT3X3207	P/D STORE SHELF ASSY	EMR4-10-DS-1
NT3X3208	CONN DATA STOR SHF ASSY 4MW	EMR4-12-DS-1
NT3X3209	16MW DATA STORE SHF ASSY	EMR4-10-000
NT3X34AA	UNBALANCED MEM BUS TERM	EMR4-01-PS-1
		EMR4-03-DS-1
		EMR4-03-PS-1
NT3X35AB	BALANCED MEM BUS TERMINATOR	EMR4-01-DS-1
		EMR4-02-DS-1
		EMR4-03-DS-1
		EMR4-04-DS-2
NT3X36AB	BALANCED MEM BUS I/F CP	EMR4-01-DS-1
		EMR4-02-DS-1
		EMR4-03-DS-1
		EMR4-04-DS-2
		EMR4-05-DS-1
		EMR4-06-DS-1
NT3X36AC	DIFF. MEM BUS I/F & TERM	EMR4-05-DS-1
		EMR4-06-DS-1
NT3X36BB	DIFFERENTIAL MEM BUS I/F	EMR4-07-DS-1
		EMR4-08-DS-1
		EMR4-10-DS-1

NT3X36BC	DIFF MEM BUS I/F & TERM	EMR4-12-DS-1 EMR4-07-DS-1 EMR4-08-DS-1 EMR4-10-DS-1 EMR4-12-DS-1 EMR10-07-MCMM-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT3X37AA	UNBALANCED MEM BUS I/F CP	EMR4-01-PS-1 EMR4-03-DS-1 EMR4-03-PS-1 EMR4-05-DS-1 EMR4-05-PS-1
NT3X37AC	SNGL-END MEM BUS I/F & TERM	EMR4-05-DS-1 EMR4-05-PS-1
NT3X37BA	SINGLE-ENDED MEM BUS I/F	EMR4-07-DS-1 EMR4-07-PS-1
NT3X37BC	SNGL-END MEM BUS I/F & TERM	EMR4-10-DS-1 EMR4-07-DS-1 EMR4-07-PS-1 EMR4-10-DS-1 EMR4-11-CCC-1 EMR4-11-CCC-2
NT3X38AA	MEMORY CONTROLLER	EMR4-01-DS-1 EMR4-01-PS-1
NT3X39AA	16K MOS MEMORY CP FOR SPARE	EMR4-02-DS-1 EMR4-01-DS-1 EMR4-01-PS-1
NT3X40AA	64K MOS MEMORY CP FOR SPARE	EMR4-02-DS-1 EMR4-03-DS-1 EMR4-03-PS-1 EMR4-04-DS-2 EMR4-05-CPU-1 EMR4-05-DS-1 EMR4-05-PS-1
NT3X40BA	64K MOS MEMORY CP FOR SPARE	EMR4-06-DS-1 EMR4-07-CPU-1 EMR4-07-DS-1 EMR4-07-PS-1 EMR4-08-DS-1
NT3X41AA	CENTRAL PROCESSOR UNIT AND MEMORY	EMR4-05-CPU-1 EMR4-05-000
NT3X41AC	WRG: FOR ON-LINE MEM SPARE	EMR4-05-CPU-1
NT3X41AE	WRG: FOR FAST DUNIT OPTION	EMR4-07-CPU-1 EMR4-05-CPU-1
NT3X41AF	WRG: ADDRESS FOR DS:01	EMR4-07-CPU-1 EMR4-05-CPU-1
NT3X41AG	WRG: ADDRESS FOR DS:02	EMR4-07-CPU-1 EMR4-05-CPU-1

NT3X41AH	WRG: ADDRESS FOR DS:03	EMR4-07-CPU-1 EMR4-05-CPU-1 EMR4-07-CPU-1
NT3X41AJ	WRG: ADDRESS FOR DS:04	EMR4-05-CPU-1 EMR4-07-CPU-1
NT3X41BA	CENTRAL PROCESSOR UNIT AND MEMORY	EMR4-07-CPU-1 EMR4-07-000
NT3X41DA	CENTRAL PROC & MEM MOD	EMR4-09-000 EMR4-10-CPM-1 EMR4-10-001
NT3X4101	PROCESSOR SHELF	EMR4-05-CPU-1 EMR4-07-CPU-1
NT3X4104	PROCESSOR SHELF	EMR4-10-CPM-1
NT3X4106	CENTRAL PROC & MEM SHF ASSY	EMR4-10-000 EMR10-06-000
NT3X42AA	1M-WORD MEMORY CONTROLLER	EMR4-03-DS-1 EMR4-03-PS-1 EMR4-04-DS-2 EMR4-05-CPU-1 EMR4-05-DS-1 EMR4-05-PS-1 EMR4-06-DS-1
NT3X42BA	1M-WORD MEMORY CONTROLLER	EMR4-07-CPU-1 EMR4-07-DS-1 EMR4-07-PS-1 EMR4-08-DS-1
NT3X4302	1M-WORD BACKPLANE TERM	EMR4-03-DS-1 EMR4-03-PS-1 EMR4-04-DS-2 EMR4-05-CPU-1 EMR4-05-DS-1 EMR4-05-PS-1 EMR4-06-DS-1 EMR4-07-CPU-1 EMR4-07-DS-1 EMR4-07-PS-1 EMR4-08-DS-1 EMR4-10-CPM-1 EMR4-10-DS-1 EMR4-12-DS-1
NT3X4303	PROCESSOR BACKPLANE TERM	EMR4-05-CPU-1 EMR4-07-CPU-1 EMR4-10-CPM-1 EMR4-11-CCC-1 EMR4-11-CCC-2 EMR9-01-SNPC-1 EMR9-01-SNPC-2
NT3X4304	CMC/IOC BACKPLANE TERM	EMR4-05-MDC-1 EMR4-10-MDC-1

		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT3X4307	PS CONT BACKPANEL TERMINATOR	EMR4-10-CPM-1
		EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT3X4309	16MW MEMORY BP TERMINATOR	EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR10-07-MCMM-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT3X4310	Processor BP Terminal	EMR10-06-MCCM-1
NT3X45AA	CENTRAL CONTROL FRAME (DOUBLE BAY)	EMR4-05-000
NT3X45AB	MEMORY EXTENSION FRAME	EMR4-06-000
NT3X45AC	LOCAL CABLE CPM TO PS	EMR4-05-000
		EMR4-07-000
NT3X45AD	LOCAL CABLE DS TO DS	EMR4-09-000
		EMR4-10-001
NT3X45AE	LOCAL CABLE DS TO DS (CPM)	EMR4-05-000
		EMR4-07-000
NT3X45AF	DATA STORE LOCAL CABLE	EMR4-06-000
		EMR4-08-000
		EMR4-12-000
NT3X45AG	DATA STORE LOCAL CABLE	EMR4-06-000
		EMR4-08-000
NT3X45AH	LOCAL CABLE CCC TO MEX	EMR4-05-000
		EMR4-07-000
		EMR4-09-000
		EMR4-10-001
NT3X45AJ	LOCAL CABLE PS TO PS	EMR4-05-000
		EMR4-07-000
NT3X45AK	LOCAL CABLE CPM TO PS	EMR4-05-000
		EMR4-07-000
NT3X45AL	LOCAL CABLE CPM TO DS	EMR4-05-000
		EMR4-07-000
NT3X45AM	LOCAL CABLE PS TO PS (CPM)	EMR4-05-000
		EMR4-07-000
NT3X45AN	LOCAL CABLE CPM TO DS	EMR4-05-000
		EMR4-07-000
NT3X45CA	CENTRAL CONTROL COMPLEX FRAME (DOU	EMR4-07-000
NT3X45CB	MEMORY EXTENSION FRAME	EMR4-08-000
NT3X45DA	CENTRAL CONTROL FRAME (DOUBLE BAY)	EMR4-09-000
NT3X45DB	MEMORY EXTENSION FRAME	EMR4-12-000

NT3X45DW	CENTRAL CONTROL FRAME (DOUBLE BAY)	EMR4-10-001
NT3X45EA	CENTRAL CONTROL COMPLEX FRAME (DOU	EMR4-10-000
NT3X45ED	CCC COMMON CIRCUIT PACKS	EMR4-10-000
		EMR4-11-CCC-1
NT3X45EE	BASIC CPU CAPACITY COMMON CP	EMR4-11-CPU-2
NT3X45EF	ENHANCED CPU CAP COMMON CP	EMR4-10-000
		EMR4-11-CPU-1
NT3X45EH	ENHANCED CPU CAP COMMON CP	EMR4-10-000
NT3X45EJ	CCC COMMON CIRCUIT PACKS	EMR4-10-000
		EMR4-11-CCC-2
NT3X45EK	ENH LOADROUTE/CPU CAP CPF	EMR4-10-000
NT3X45EM	CPU CAPACITY ENHANCEMENT	EMR4-99-EM
NT3X47AA	RLM MESSAGE CONTROLLER	EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT3X48AA	RLM T-1 LINE CP	EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT3X49AA	RLM EXTENSION MEMORY	EMR2-04-RLC-1
		EMR2-04-RLC-2
		EMR2-04-RLC-3
		EMR2-04-RLC-4
NT3X51AA	REMOTE SERVICE MODULE I/F	EMR13-01-RSM-1
		EMR13-01-RSMC-1
		EMR13-01-RSMC-2
NT3X55BA	Line Card Storage Chassis	EMR13-04-000
		EMR10-14-000
NT3X65AA	ECHO SUPPRESSOR CP	EMR2-01-DES-1
		EMR2-01-DES-2
		EMR2-01-DES-3
NT3X67AA	6-PORT CONFERENCE CP	EMR10-12-STM-1
		EMR10-05-STM-1
		EMR10-05-STM-2
		EMR10-05-STM-3
		EMR10-05-STM-4
		EMR12-01-000
		EMR12-01-PCSM-1
		EMR9-01-003
		EMR10-05-STM-7
		EMR10-05-STM-8
		EMR10-05-STM-9
		EMR10-05-STM-10
NT3X68AA	Tone Gen - PRMT	EMR10-12-000
		EMR2-20-002
		EMR10-11-000
NT3X68AB	Tone Gen - DTMF	EMR10-12-000
		EMR12-01-000

NT3X68AC	CALL WAITING TONE GEN	EMR10-11-000 EMR10-12-MCAM-1 EMR10-05-STM-1 EMR10-12-000 EMR12-01-000 EMR12-01-PCSM-1 EMR2-20-002 EMR10-05-STM-7 EMR10-11-000
NT3X70AA	Network Cross Point	EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR3-03-001 EMR3-03-NC-1 EMR3-99-ZZ EMR3-03-NC0-1 EMR3-03-NC1-1
NT3X70AB	Ntwk Crosspoint plus gain	EMR3-03-001 EMR3-99-ZZ
NT3X70BA	NETWORK X-POINT A-LAW CP	EMR3-03-INC-1
NT3X71AA	NETWORK TEST CODE CP	EMR3-03-INC-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR3-03-NC-1 EMR3-03-NC0-1 EMR3-03-NC1-1
NT3X72AA	NETWORK SERIAL PORT I/F	EMR3-03-INC-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR3-03-NC-1 EMR3-03-NI-1
NT3X72AB	Network Serial Port I/F	EMR3-03-000 EMR3-03-001
NT3X73AA	NETWORK SERIAL TO PARALLEL	EMR3-03-INC-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR3-03-000 EMR3-03-001 EMR3-03-NC-1 EMR3-03-NI-1
NT3X74AA	NETWORK CONTROL PROC CP	EMR3-03-INC-1 EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR3-03-001 EMR3-03-NC0-1 EMR3-03-NC1-1
NT3X74AB	Network Ctrl Proc (DMS-Core)	EMR3-03-001
NT3X74BA	NTWK CONTROL PROC CP	EMR3-04-NET-1
NT3X74BB	NETWORK CONTROL PROC	EMR10-19-MNET-1 EMR10-06-000

		EMR10-06-MCCM-1
		EMR10-06-NET-1
		EMR10-19-MNET-2
		EMR10-08-DSN-1
		EMR10-08-DSN-2
NT3X75AA	NTWK P-SIDE MSG PROTOCOL	EMR3-03-INC-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR3-03-001
		EMR3-99-ZW
		EMR3-03-NI-1
NT3X75AB	NW P-Side Msg Proc (ISDN)	EMR3-03-001
		EMR3-99-ZW
NT3X75BA	NTWK P-SIDE MSG PROC CP	EMR3-04-NET-1
		EMR10-19-MNET-1
		EMR10-06-MCCM-1
		EMR10-06-NET-1
		EMR10-19-MNET-2
		EMR10-08-DSN-1
		EMR10-08-DSN-2
NT3X76AA	NETWORK CLOCK CP	EMR3-03-INC-1
		EMR3-04-NET-1
		EMR3-03-001
		EMR3-03-NC0-1
		EMR3-03-NC1-1
NT3X76AB	Network Clock CP	EMR9-01-SNPC-1
		EMR9-01-SNPC-2
NT3X76AC	NETWORK CLOCK (DMS-CORE)	EMR10-19-MNET-1
		EMR10-06-000
		EMR10-06-MCCM-1
		EMR10-06-NET-1
		EMR10-19-MNET-2
		EMR10-08-DSN-1
		EMR10-08-DSN-2
		EMR3-03-001
NT3X82AA	OAU Dead Sys/Unique Audibls	EMR2-20-003
		EMR2-20-004
NT3X82AB	OAS DEAD SYS W COMMON AUD	EMR10-12-MCAM-1
		EMR10-11-MCPM-1
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR2-20-003
		EMR2-20-004
NT3X83AA	OAU ALARM TRANSFER CP	EMR10-12-MCAM-1
		EMR12-05-000
		EMR2-20-003
		EMR2-20-004
		EMR10-11-000
NT3X84AA	OAU Alarm Sending	EMR12-05-000

NT3X86AA	NTWK PAR. TO SERIAL FORMAT	EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR10-11-000
		EMR3-03-INC-1
		EMR9-01-SNPC-1
		EMR9-01-SNPC-2
		EMR3-03-000
		EMR3-03-001
		EMR3-03-NC-1
		EMR3-03-NI-1
NT3X90AA	COOLING INVERTER UNIT	EMR3-01-003
		EMR3-01-004
		EMR3-01-005
		EMR4-02-000
		EMR4-04-000
		EMR4-06-000
		EMR4-07-000
		EMR4-08-000
		EMR4-09-000
		EMR4-10-000
NT3X90AB	COOLING INVERTER UNIT	EMR9-01-002
		EMR3-03-000
		EMR3-03-001
		EMR2-11-000
		EMR2-06-000
		EMR2-08-000
		EMR2-08-001
		EMR12-02-000
		EMR9-01-003
		EMR3-03-000
NT3X90AC	DC COOLING UNIT	EMR3-03-001
		EMR2-11-000
		EMR2-15-002
		EMR2-06-000
		EMR4-10-001
		EMR2-08-002
		EMR2-15-RCC-5
		EMR2-17-000
		EMR3-03-000
		EMR3-03-001
NT3X91AA NT3X93AA	Remote Office Test Line CP 256K MOS MEMORY CP	EMR2-11-000
		EMR2-15-001
		EMR2-15-002
		EMR2-06-000
		EMR12-04-000
		EMR4-10-CPM-1
		EMR4-10-DS-1
		EMR4-12-DS-1
		EMR4-10-CPM-1
NT3X94AA	4M-WORD MEMORY CONTROLLER	

NT3X94AB	4M-WORD MEMORY CONTROLLER	EMR4-10-DS-1
NT3X95AA	STRATUM II OSCILLATOR SHELF	EMR4-12-DS-1
NT3X95BA	REMOTE OSCILLATOR SHELF	EMR4-10-DS-1
NT3X95BB	Stratum 2.5 ISG Rmt Osc Shlf	EMR5-01-ROS-2
NT3X9501	REMOTE OSC. SHELF ASSY	EMR5-01-ROS-1
		EMR2-20-004
		EMR5-01-ROS-1
		EMR5-01-ROS-2
NT4G14DB	Lanlink SRU	EMR10-MACB-1
NT4G16EF	Prime Processor XP-6MB	EMR10-MACB-1
NT4G20LC	SCSI 80MB Storage SRU	EMR10-MACB-1
NT4G20TB	SCSI 350MB Disk Storage	EMR10-MACB-1
NT4G23DA	T1 SRU	EMR10-MACB-1
		EMR10-MACB-2
NT4G25GB	App. Processor 68020-10	EMR10-MACB-1
		EMR10-MACB-2
NT4G27CA	Voice Interface SRU	EMR10-MACB-1
		EMR10-MACB-2
NT4G50CA	Rack Converter SRU	EMR10-MACB-1
		EMR10-MACB-2
NT4X00AA	DISK DRIVE UNIT SHELF	EMR5-01-DDU-1
NT4X00AB	DISK DRIVE UNIT SHELF	EMR5-01-DDU-2
NT4X00AC	DISK DRIVE UNIT SHELF	EMR5-01-DDU-3
NT4X00AF	Dual Disk Drive Unit Shf	EMR9-01-001
		EMR2-20-004
		EMR10-11-000
NT4X00AG	5.25" DISK DRIVE UNIT	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
		EMR5-99-DDU-1
		EMR10-11-000
NT4X00AX	TOP COVER PROTECTION KIT	EMR5-01-DDU-2
		EMR5-01-DDU-3
NT4X00AY	DDU ENHANCEMENT KIT	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
		EMR5-99-DDU-1
NT4X00AZ	DDU ENHANCEMENT KIT	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
NT4X00BZ	ISOLATION HARDWARE KIT	EMR5-01-DDU-1
		EMR5-01-DDU-2
		EMR5-01-DDU-3
NT4X0001	DISK DRIVE UNIT ASSEMBLY	EMR5-01-DDU-1
NT4X0004	I/O/DISK DRIVE	EMR5-99-DDU-1
NT4X0006	DISK TO I/O	EMR5-99-DDU-1
NT4X0008	DISK DRIVE UNIT ASSEMBLY	EMR5-01-DDU-2
NT4X0009	DISK POWER CABLE	EMR5-99-DDU-1
NT4X0013	DISK DRIVE UNIT ASSEMBLY	EMR5-01-DDU-3

NT4X0031	Priam DDU	H/W Kit	EMR2-20-004
NT4X0032	NT-Mercury DDU	H/W Kit	EMR2-20-004
NT4X0038	Mercury DDU	Hwr Kit	EMR10-11-000
NT4X0043	DISK DRIVE	MTG	EMR5-99-DDU-1
NT4X0045	DDU PWR	CABLE	EMR5-99-DDU-1
NT4X0046	DISK TO	IOC	EMR5-99-DDU-1
NT4X08AA	ATTENDANT CONSOLE	MAIN CP	EMR7-BSAC-1
			EMR7-BSAC-2
			EMR7-BSAC-3
NT4X08AB	ATTEND CONS	1200B MAIN CP	EMR7-BSAC-4
			EMR7-BSAC-5
NT4X09AB	BUSINESS SERVICE ATTENDANT CONSOLE		EMR7-BSAC-1
NT4X09AE	BUSINESS SERVICE ATTENDANT CONSOLE		EMR7-BSAC-2
NT4X09AF	BUSINESS SERVICE ATTENDANT CONSOLE		EMR7-BSAC-3
NT4X09AG	BUSINESS SERVICE ATTENDANT CONSOLE		EMR7-BSAC-4
NT4X09AH	BUSINESS SERVICE ATTENDANT CONSOLE		EMR7-BSAC-5
NT4X0903	CABLE ASSEMBLY		EMR7-BSAC-2
			EMR7-BSAC-3
NT4X0904	KEYBOARD ASSEMBLY		EMR7-BSAC-1
			EMR7-BSAC-2
			EMR7-BSAC-3
			EMR7-BSAC-4
			EMR7-BSAC-5
NT4X0905	KEYBOARD FACEPLATE ASSEMBLY		EMR7-BSAC-1
			EMR7-BSAC-2
			EMR7-BSAC-4
NT4X0906	KLD ASSEMBLY		EMR7-BSAC-1
			EMR7-BSAC-2
			EMR7-BSAC-3
			EMR7-BSAC-4
			EMR7-BSAC-5
NT4X0908	KLD FACEPLACE ASSEMBLY		EMR7-BSAC-1
NT4X0911	KEYBOARD FACEPLATE ASSEMBLY		EMR7-BSAC-3
			EMR7-BSAC-5
NT4X0912	KLD HOODED FACEPLACE ASSY		EMR7-BSAC-2
			EMR7-BSAC-3
			EMR7-BSAC-4
			EMR7-BSAC-5
NT4X0914	CONSOLE STAND ASSEMBLY		EMR7-BSAC-4
			EMR7-BSAC-5
NT4X20	MDC Electronic Business Sets (EBS)		EMR7-P-PHONE-1
NT4X20AA	DMS/SL100 Bus Set Mod Basic		EMR7-P-PHONE-1
NT4X20AB	DMS/SL100 Bus Set Mod Disp		EMR7-P-PHONE-1
NT4X20AC	20 Button Add-on Module		EMR7-P-PHONE-1
NT4X20AE	ESD Kitmod for Dis P-Phone		EMR7-P-PHONE-1
NT4X20AF	Display Set w Spade Tips		EMR7-P-PHONE-1
NT4X20AG	20 Button Add-on Expand.		EMR7-P-PHONE-1
NT4X20AH	SL100 ACD Basic Set		EMR7-P-PHONE-1
NT4X20AJ	Auto Answer Back Module		EMR7-P-PHONE-1

NT4X20AK	SL100 ACD Display Set	EMR7-P-PHONE-1
NT4X20AL	DMS/SL100 Bus Set Mod Basic	EMR7-P-PHONE-1
NT4X20AM	DMS/SL100 Bus Set Mod Disp	EMR7-P-PHONE-1
NT4X20AR	ESD Kitmod for Dis P-Phone	EMR7-P-PHONE-1
NT4X20AT	IBN Disp Set 4X20AM e/w HD	EMR7-P-PHONE-1
NT4X25AD	Rckmnt Low Speed Data Unit	EMR5-02-DRS-1
NT4X25AR	Loop Ext Low Speed Line I/F	EMR5-02-DRS-1
NT4X25AS	Loop Ext High Speed Line	EMR5-02-DRS-1
NT4X25AV	Rckmnt High Speed Data Unit	EMR5-02-DRS-1
NT4X25BH	Data Unit Rackmount Shelf	EMR5-02-DRS-1
NT4X25CH	Rckmnt Low Speed EIA Cont	EMR5-02-DRS-1
NT4X2554	D.U. Power Supply Assembly	EMR5-02-DRS-1
NT4X65AA	TM Controller CP	EMR12-01-000
NT4X65AB	TM CONTROL CARD	EMR10-12-MCAM-1
		EMR10-12-STM-1
		EMR10-05-STM-1
		EMR10-05-STM-2
		EMR10-05-STM-3
		EMR10-05-STM-4
		EMR10-05-STM-6
		EMR10-05-STM-5
		EMR12-01-000
		EMR12-01-PCSM-1
		EMR10-05-STM-7
		EMR10-05-STM-8
		EMR10-05-STM-9
		EMR10-05-STM-10
		EMR10-05-STM-11
		EMR10-05-STM-12
NT4X71DA	ITOPS OPERATOR POSITION	EMR8-ITOPS4-1
NT4X71DC	ITOPS MODULAR POSITION -48V DC	EMR8-ITOPS4-2
NT4X7212	TOPS-04 HEADSET JACK ASSY	EMR8-ITOPS4-2
NT4X73DA	ITOPS CONTROLLER	EMR8-ITOPS4-1
		EMR8-ITOPS4-2
NT4X74DA	ITOPS +12V MONITOR	EMR8-ITOPS4-1
		EMR8-ITOPS4-2
NT4X76CA	ITOPS KEYBOARD	EMR8-ITOPS4-1
		EMR8-ITOPS4-2
NT4X76CE	ITOPS IN-CHARGE KEYBOARD	EMR8-ITOPS4-1
		EMR8-ITOPS4-2
NT4X76CL	ENHANCED ITOPS KEYBOARD	EMR8-ITOPS4-2
NT4X76CN	ITOPS ENHANCED KEYCAP KIT	EMR8-ITOPS4-2
NT4X78AA	TOPS-04 ADJUST FURNITURE	EMR8-ITOPS4-1
		EMR8-ITOPS4-2
NT4X79AA	16MW MEMORY CONTROL CP	EMR4-11-CCC-1
		EMR4-11-CCC-2
		EMR10-06-MCCM-1
		EMR10-07-MCMM-1
		EMR9-01-SNPC-1

NT4X80AA	1MW MEMORY CP	EMR9-01-SNPC-2 EMR4-10-000 EMR10-06-000 EMR10-06-MCCM-1 EMR10-07-000 EMR10-07-MCMM-1 EMR9-01-002 EMR9-01-SNPC-1 EMR9-01-SNPC-2 EMR2-13-000 EMR2-13-I00 EMR10-34-RLCC-1 EMR2-13-000 EMR2-13-I00 EMR13-01-DTH-1 EMR13-01-DTH-2 EMR13-01-DTH-3 EMR13-01-DTH-4 EMR13-01-DTH-5
NT4X97AA	TEST UNIT CTRLR	EMR2-02-TAN-1 EMR2-02-TAN-2 EMR2-20-004 EMR2-02-TAN-1 EMR2-02-TAN-2 EMR2-02-TAN-1 EMR2-02-TAN-2 EMR2-02-TAN-1 EMR2-02-TAN-2
NT4X98AA	TEST UNIT ANALOG	EMR5-02-000 EMR5-02-001 EMR2-08-001 EMR2-08-002 EMR5-02-000 EMR5-02-001 EMR2-08-000 EMR5-01-002 EMR5-02-001 EMR2-08-001 EMR2-08-002 EMR5-01-002 EMR5-02-001 EMR5-01-002 EMR2-20-004 EMR5-01-DSM-7 EMR10-25-000 EMR10-23-000
NT4X98BB	Metallic Test Unit Analog	
NT5A23AA	DTH POWER SUPPLY	
NT5X00AA	TEST ACCESS NETWORK MODULE	
NT5X00AB	TEST ACCESS NETWORK MODULE WITH TM	
NT5X00AD	Test Access Network Shelf	
NT5X0001	TEST ACCESS NET SHF ASSY	
NT5X01AA	RELAY CIRCUITS	
NT5X02AA	TEST POSN, TEST TRK CONT	
NT5X08AA	#6 SIGNALLING EQUIPMENT FRAME	
NT5X08AB	#6 SIGNALLING EQUIPMENT FRAME	
NT5X08AC	AC Modem Shelf	
NT5X0802	SIGNALLING SHF ASSY	
NT5X0804	DATA SET MODULE	
NT5X0806	COVER PANEL ASSEMBLY	
NT5X0810	DSM SHELF COVER MOUNTING HW	
NT5X0813	AC POWER SUPPLY MODIFIED	
NT5X09AA	DATA SET MODEM SHELF	
NT5X09BA	DC Modem Shelf Assy	

NT5X12AA	TEST ACCESS NETWORK EQUIPMENT FRAM	EMR2-02-000
NT5X13AA	Network Frame Planes Combined	EMR3-03-000
NT5X13AC	Network Common Circuit Pack	EMR3-03-001
		EMR3-03-NC-1
NT5X13BA	Network Frame Planes Combined	EMR3-03-001
NT5X13BB	NETWORK COMMON CP (INTERNATIONAL)	EMR3-03-INC-1
		EMR3-03-001
NT5X13ZW	ISDN Remotes Prod Chg Kit	EMR3-03-000
		EMR3-99-ZW
NT5X13ZX	DMS-Core Product Change Kit	EMR3-03-000
NT5X13ZY	Improved Power Supply Kit	EMR3-03-000
		EMR3-99-ZY
NT5X13ZZ	Gain Conversion Kit	EMR3-03-000
		EMR3-99-ZZ
NT5X15AA	Ntwk Crosspoint Shf Plane 0	EMR3-03-000
		EMR3-03-NC0-1
NT5X15AB	Ntwk Crosspoint Shf Plane 1	EMR3-03-000
		EMR3-03-NC1-1
NT5X1501	NW X-Point Plane 0 Shf Assy	EMR3-03-NC0-1
NT5X1504	NW X-Point Plane 1 Shf Assy	EMR3-03-NC1-1
NT5X1507	Ntwk Crosspoint Shf Plane 0	EMR3-03-001
NT5X1508	Ntwk Crosspoint Shf Plane 1	EMR3-03-001
NT5X16AA	Network I/F Shelf (Plane 0)	EMR3-03-000
		EMR3-03-NI-1
NT5X1601	Network I/F Shelf Assy	EMR3-03-NI-1
NT5X1606	Network I/F Shelf (Plane 0)	EMR3-03-001
NT5X20AA	SIGNALLING TERMINAL	EMR5-02-000
		EMR5-02-001
NT5X29AB	Audio Tone Detector	EMR10-05-STM-10
		EMR10-05-STM-11
NT5X29AC	Tone Det/DTMF Tone Gen	EMR10-05-STM-4
		EMR10-05-STM-5
		EMR10-05-STM-10
		EMR10-05-STM-11
NT5X29HK	ATD Wire Option	EMR10-05-000
NT5X30AA	101 Communication Line	EMR10-11-MCPM-1
		EMR10-12-000
		EMR12-05-000
		EMR12-05-PCPM-1
		EMR12-04-000
		EMR12-06-000
		EMR9-01-001
		EMR9-01-PMPM-1
		EMR9-01-PMPM-2
		EMR2-20-002
		EMR10-11-000
NT5X55AA	1A2 KEY TELEPHONE SYSTEM MODULE	EMR11-01-KSM-1
		EMR11-01-000
NT5X55AB	1A2 KEY SYSTEM INTERRUPTER	EMR11-01-KSM-1

		EMR11-01-KSM-2
NT5X56AA	1A2 KEY TELEPHONE SYSTEM EQUIPMENT	EMR11-01-000
NT5X58AA	1A2 KEY TELEPHONE SYSTEM STAND ALO	EMR11-01-KSS-1
NT6M01AB	DISTRIBUTIVE PROCESSING PERIPHERAL	EMR5-01-DPP-2
NT6M56AB	FAN FILTER	EMR5-01-DPP-2
NT6M56AD	FAN FILTER CP	EMR5-01-DPP-2
NT6M59AA	STATUS PANEL ASSEMBLY	EMR5-01-DPP-2
NT6M62BA	CPU/DMA CP	EMR5-01-DPP-2
NT6M64AA	EXTENDED MEMORY	EMR5-01-DPP-2
NT6M65AA	ERROR CONTROL II	EMR5-01-DPP-2
NT6M68AA	BUS TERMINATOR	EMR5-01-DPP-2
NT6M71AB	POWER SUPPLY ASSY	EMR5-01-DPP-2
NT6X01AA	Common Peripheral Controller Equip	EMR2-06-000
NT6X01XE	3 Processor Bkpnl XPM+ Upgrade Kit	EMR2-99-XPM-11
NT6X01XF	Auxiliary Fuse Panel Upg Kit	EMR2-06-000
NT6X0130	Auxiliary Fuse Panel	EMR2-06-000
NT6X02AA	LGC Common CP, or DTC Common CP, o	EMR2-06-LGC-1
NT6X02AB	Shelf Filler Kit	EMR10-06-MCCM-1
		EMR10-22-000
		EMR10-08-DSN-1
		EMR2-06-RX46BA
		EMR10-02-000
		EMR2-06-000
NT6X02AC	LGC Common CP, or DTC Common CP, o	EMR2-06-DTC-2
NT6X02AD	Line Trunk Controller Common CP	EMR2-06-LTC-1
NT6X02AE	Line Group Controller Common CP	EMR2-06-LGC-2
NT6X02AF	Digital Trunk Controller Common CP	EMR2-06-DTC-1
NT6X02AG	Line Trunk Controller Common CP	EMR2-06-LTC-3
NT6X02AH	Line Group Controller Common CP	EMR2-06-LGC-6
NT6X02AI	Digital Trunk Controller Common CP	EMR2-06-6X02AI
NT6X02AK	Line Trunk Controller Common CP	EMR2-06-LTC-2
NT6X02AL	Line Group Controller Common CP	EMR2-06-LGC-5
NT6X02AM	Digital Trunk Controller Common CP	EMR2-06-DTC-4
NT6X02AQ	Digital Trunk Controller Common CP	EMR2-06-DTC-5
NT6X02AR	Digital Trunk Controller Common CP	EMR2-06-DTC-3
NT6X02AS	Digital Trunk Controller Common CP	EMR2-6-6X02AS
NT6X02AT	Line Group Controller Common CP	EMR2-06-LGC-9
NT6X02AU	Line Trunk Controller Common CP	EMR2-06-LTC-5
NT6X02AW	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-3
NT6X02AY	Line Group Controller Common CP	EMR2-06-LGC-3
NT6X02AZ	Line Group Controller Common CP	EMR2-06-LGC-4
NT6X02BA	International Digital Trunk Contro	EMR2-06-IDTC-4
NT6X02BC	Scopedial U.K. LGC Common CP, or	EMR2-06-LGC-8
NT6X02BD	International Line Group Controlle	EMR2-06-ILGC-4
NT6X02BE	International Line Group Controlle	EMR2-06-IDTC-5
NT6X02BF	International Line Group Controlle	EMR2-06-ILGC-3
NT6X02BK	International Line Group Controlle	EMR2-06-ILGC-6
NT6X02BM	International Digital Trunk Contro	EMR2-06-IDTC-2
NT6X02BN	International Digital Trunk Contro	EMR2-06-IDTC-6

NT6X02BP	Universal ILGC/IDTC Common CP	EMR2-06-IXPM-1
NT6X02BQ	Product Change Kit	EMR2-11-000
NT6X02BU	Fiber I/F H/W Assembly	EMR2-06-RX46BA
		EMR2-06-000
NT6X02BW	International Line Group Controlle	EMR2-06-IXPM-3
NT6X02CA	Subscriber Module Remote Common CP	EMR2-06-SMR-1
NT6X02CC	Subscriber Module Remote Common CP	EMR2-06-SMR-2
NT6X02CK	SMU Common Circuit Pack Kit	EMR2-99-SMU-2
NT6X02CP	Subscriber Module Remote Common CP	EMR2-06-SMR-3
NT6X02CQ	Subscriber Module Remote Common CP	EMR2-06-SMR-4
NT6X02CS	Subscriber Module Remote Common CP	EMR2-06-SMR-5
NT6X02CT	SMR Common CP Fill Kit	EMR2-06-SMR-6
NT6X02DA	Subscriber Module For SLC-96 Commo	EMR2-06-SMS-1
NT6X02DB	Subscriber Module For SLC-96 Commo	EMR2-06-SMS-2
NT6X02DC	Subscriber Module For SLC-96 Commo	EMR2-06-SMS-4
NT6X02DD	Subscriber Module For SLC-96 Commo	EMR2-06-SMS-3
NT6X02DH	Subscriber Module For SLC-96 (SMS)	EMR2-06-SMS-6
NT6X02DJ	Subscriber Module For SLC-96 (SMS)	EMR2-06-SMS-5
NT6X02DM	Subscriber Module For SLC-96 (SMS)	EMR2-06-SMS-7
NT6X02DR	SUBSCRIBER MODULE SLC-96 W/O PROCE	EMR2-06-SMS-8
NT6X02DT	Subscriber Module - SLC-96	EMR2-06-SMS-9
NT6X02EA	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-1
NT6X02EB	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-2
NT6X02EF	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-6
NT6X02EG	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-4
NT6X02EK	Subscriber Module For DMS-1 Urban	EMR2-06-SMU-7
NT6X02EL	ISDN Subs Module For DMS-1 Urban C	EMR2-06-SMU-8
NT6X02EM	SUBSCRIBER MOD. DMS-1U PACKFILL W/	EMR2-06-SMU-5
NT6X02GA	International Digital Trunk Contro	EMR2-06-IDTC-3
NT6X02GB	International Digital Trunk Contro	EMR2-6-IDTC-9
NT6X02GJ	International DTC Common CP	EMR2-06-IDTC-8
NT6X02GM	International DTC/LGC Common Circu	EMR2-06-IXPM-2
NT6X02HA	International Line Group Controlle	EMR2-06-ILGC-2
NT6X02HB	International Line Group Controlle	EMR2-06-ILGC-7
NT6X02IA	Digital Trunk Controller Common CP	EMR2-06-DTC-6
NT6X02IC	Digital Trunk Controller Common CP	EMR2-06-DTC-7
		EMR2-6-6X02IC
NT6X02IG	Digital Trunk Controller Common CP	EMR2-06-DTC-9
NT6X02JA	International Digital Trunk Contro	EMR2-6-IDTC-10
NT6X02KA	International Digital Trunk Contro	EMR2-06-IDTC-1
NT6X02KB	International Line Group Controlle	EMR2-06-ILGC-1
NT6X02KC	International Digital Trunk Contro	EMR2-06-IDTC-7
NT6X02KD	International Line Group Controlle	EMR2-06-ILGC-5
NT6X02KE	International Digital Trunk Contro	EMR2-6-IDTC-11
NT6X02LA	Line Group Controller Common CP	EMR2-06-LGC-7
NT6X02LE	FXPM DTC Common CP (DMS250)	EMR2-06-DTC-10
NT6X02MA	Line Trunk Controller Common CP	EMR2-06-LTC-4
NT6X02PA	Subscriber Carrier Module-100S Rem	EMR2-06-SMSR-1
NT6X02PB	Subscriber Carrier Module-100S Rem	EMR2-06-SMSR-2

NT6X02PD	Subscriber Carrier Module-100S Rem	EMR2-06-SMSR-3
NT6X02PG	SUBSCRIBER MOD. SLC-96 REMOTE W/O	EMR2-06-SMSR-4
NT6X02PH	Subscriber Module - SLC-96 Remote	EMR2-06-SMSR-5
NT6X02PJ	Subscriber Module - SLC-96 Remote	EMR2-06-SMSR-6
NT6X02QA	International Digital Trunk Contro	EMR2-6-IDTC-8
NT6X02RA	Digital Trunk Controller Common CP	EMR2-6-6X02RA
NT6X02RC	Line Trunk Controller Common CP	EMR2-06-LTC-6
NT6X02RE	FXPM ISDN DTC Common CP (DMS250)	EMR2-06-DTCI-1
NT6X02TE	Subscriber Carrier Module-100 Acce	EMR2-06-SMA-1
NT6X02TF	Subscriber Carrier Module-100 Acce	EMR2-06-SMA-2
NT6X02UA	LGC/DTC OFFSHORE COMMON CP	EMR2-21-LTC-1
NT6X02UF	Universal kit	EMR10-02-000
		EMR2-06-000
NT6X02WC	NT6X86AB Change Kit	EMR2-06-000
NT6X02WE	NT6X80BB Change Kit	EMR2-06-000
NT6X02WG	NT6X80BB/86AB Change Kit	EMR2-06-000
NT6X02XA	XPM Plus Packfill Change Kit	EMR2-99-XPM-6
NT6X02XB	XPM Plus ISDN Packfill Change Kit	EMR2-99-XPM-12
NT6X02XC	XPM to XPM+ Upgrade Kit	EMR2-06-000
NT6X02XF	XPM PLUS Packfill Kit	EMR2-99-XPM-13
		EMR2-06-000
NT6X02XG	XPM Plus packfill change kit	EMR10-02-000
		EMR2-15-002
		EMR2-06-000
NT6X02YA	SMR to SMU Kit	EMR2-06-000
NT6X02YB	SMR to SMS Kit	EMR2-06-000
NT6X02YS	DTC Common CP Upgrade Kit	EMR2-06-000
NT6X02ZA	Product Change Kit	EMR2-11-000
NT6X02ZD	SMU Common Circuit Pack Kit	EMR2-06-SMU-9
NT6X02ZE	Product Change Kit (AA/AC to IA/LA	EMR2-99-XPM-2
NT6X02ZF	RCC PC Kit NT6X12AC TO CA	EMR2-15-002
NT6X02ZG	Conversion From SMR to DTC or LGC	EMR2-99-SMR-1
NT6X02ZH	Conversion From SMS To SMU Change	EMR2-99-SMU-1
NT6X02ZJ	Product Change Kit	EMR2-11-000
		EMR2-15-002
NT6X02ZN	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-6
NT6X02ZR	LGC Common Circuit Pack Change Kit	EMR2-99-LGC-1
NT6X02ZS	LGC Common Circuit Pack Change Kit	EMR2-99-LGC-2
NT6X02ZT	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-1
NT6X02ZU	LGC Common Circuit Pack Change Kit	EMR2-99-LGC-3
NT6X02ZV	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-2
NT6X02ZW	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-3
NT6X02ZY	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-4
NT6X02ZZ	LTC/LGC Common Circuit Pack Change	EMR2-99-LTC-5
NT6X0201	Com Per Cont Array Shf Assy	EMR9-01-003
		EMR10-02-000
		EMR2-06-000
NT6X0205	Wiring Option	EMR2-06-000
NT6X0215	Com Periph Proc Shelf Assy	EMR10-19-000

NT6X0216	Offshore CPC Shelf Assy	EMR2-06-RX46BA
NT6X0250	Universal Ground Point	EMR2-15-002
		EMR2-06-000
NT6X0251	Fiber Cable Conversion Kit	EMR2-06-000
NT6X03CA	Line Concentrating Equipment Frame	EMR2-07-003
NT6X03RA	LINE CONCENTRATING EQUIPMENT FRAME	EMR2-07-001
NT6X03RB	LCE FRAME E/W EARTHQUAKE FRAMEWORK	EMR2-07-002
NT6X03RC	Line Concentrating Equipment Frame	EMR2-07-005
NT6X03RD	Line Concentrating Equipment Frame	EMR2-07-006
NT6X0354	REAR PANELS (NON-EARTHQUAKE)	EMR2-07-001
		EMR2-07-003
		EMR2-07-005
NT6X0357	REAR PANEL E/Q	EMR2-07-002
		EMR2-07-003
		EMR2-07-006
NT6X0362	Paddle Board	EMR2-07-003
NT6X04AA	LINE CONCENTRATING MODULE COMMON C	EMR2-07-001
		EMR2-07-002
		EMR2-07-LCM-1
NT6X04AB	LCM Common CP	EMR2-07-003
		EMR2-07-005
		EMR2-07-006
		EMR2-07-LCM-2
		EMR12-03-000
NT6X04AC	LCM Common CP	EMR2-07-003
		EMR2-07-LCM-3
NT6X04BA	International LCM Common CP	EMR2-07-ILCM-1
NT6X04BB	International LCM Common CP	EMR2-07-ILCM-2
		EMR2-13-I00
NT6X04ZZ	EXTENDED LCM PROCESSOR PCKIT	EMR2-13-000
NT6X0401	LINE CON. ARRAY SHELF ASSY	EMR2-07-001
		EMR2-07-002
		EMR2-07-003
		EMR2-07-005
		EMR2-07-006
NT6X05AA	LINE DRAWER	EMR2-07-001
		EMR2-07-002
		EMR2-13-000
		EMR2-13-001
		EMR2-07-003
		EMR2-07-005
		EMR2-07-006
		EMR12-03-000
NT6X05AX	LINE DRAWER FILLER KIT	EMR2-13-000
		EMR2-13-001
		EMR2-07-005
		EMR2-07-006
		EMR2-13-I00
		EMR2-25-RCC2-1

		EMR2-97-LCME-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NT6X05BA	Line Drawer	EMR2-13-I00
NT6X06AA	MESSAGE SWITCHING 6 EQUIPMENT FRAM	EMR2-08-000
NT6X06AB	Message Switching 6 Equipment Fram	EMR2-08-001
NT6X06AC	Message Switching 6 Equipment Fram	EMR2-08-002
NT6X06WA	New Messaging Wiring option	EMR2-08-002
NT6X07AA	MSB6 COMMON CP	EMR2-08-MSB6-1
		EMR2-08-000
NT6X07AB	MSB6 Common CP	EMR2-08-001
		EMR2-08-002
		EMR2-08-MSB6-2
NT6X07AC	MSB6 Common CP	EMR2-08-MSB6-3
		EMR2-08-002
NT6X07AD	MSB6 Common CP	EMR2-08-002
NT6X07WA	PC Upgrade Kit for New Mes.	EMR2-08-002
NT6X0701	SIGN TERM ARRAY 6 SHF ASSY	EMR2-08-000
		EMR2-08-001
		EMR2-08-002
		EMR10-25-000
NT6X08AA	Signalling Terminal Shelf	EMR10-26-000
		EMR2-17-000
		EMR2-11-000
NT6X0801	Signal Term Assy	EMR10-22-000
NT6X10AA	Remote Controller Equipment Frame	EMR2-15-000
NT6X10AB	Remote Control Eqpt Kit	EMR2-15-001
		EMR2-15-000
		EMR2-15-002
NT6X10AC	Remote Controller Equipment Frame	EMR2-15-002
NT6X10AD	ISDN Remote Controller Equipment F	EMR2-15-001
NT6X10AE	International Frame RCEI	EMR2-15-RCC-5
NT6X10AH	Remote Control Eqpt Kit	EMR2-15-002
NT6X10AJ	Remote Control Eqpt Kit	EMR2-15-001
NT6X10WA	Wiring List	EMR2-15-RCC-5
NT6X10WB	Wiring List	EMR2-15-RCC-5
NT6X10ZA	NT6X10AC/AD to NT6X10DA	EMR2-15-001
		EMR2-15-002
NT6X10ZY	RCE Filler Panel PC Kit	EMR2-15-001
		EMR2-15-000
		EMR2-15-002
NT6X1003	Baffle Assembly	EMR2-05-000
		EMR2-15-000
NT6X1022	RCC to RCCI Change Kit	EMR2-15-002
NT6X1025	Comm Per Ctl Term Bd	EMR2-99-LGC-1
		EMR2-15-001
NT6X1029	26AWG Ca Assy(RMM Pwr Mon)	EMR2-15-002
NT6X11AA	COMMON CP	EMR2-13-000

		EMR2-13-001
		EMR2-14-HIE-1
		EMR2-05-000
NT6X11AB	HIE COMMON CP	EMR2-13-000
		EMR2-13-001
		EMR2-14-HIE-4
NT6X11BA	Host Interface Equipment Common CP	EMR2-14-HIE-2
NT6X11BB	HIE Common CP (Turkey/CEP)	EMR2-13-I00
		EMR2-14-HIE-5
NT6X11CA	Host I/F Equip Shf Assy	EMR2-05-000
NT6X11CB	Host I/F Equip Shf Assy	EMR2-05-000
NT6X11EA	Host Interface Equipment Common CP	EMR2-14-HIE-3
NT6X1101	HOST INTERFACE EQUIP ASSY	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
NT6X1104	Host I/F Equip Shf Assy	EMR2-05-000
NT6X12AA	REMOTE CLUSTER CONTROLLER COMMON C	EMR2-15-RCC-1
NT6X12AB	Remote Cluster Controller Common C	EMR2-15-RCC-3
		EMR2-15-000
		EMR2-15-002
NT6X12AC	RCC Common CP	EMR2-15-RCC-2
		EMR2-15-002
NT6X12AD	Remote Cluster Controller Common C	EMR2-15-RCC-6
		EMR2-15-002
NT6X12AE	Remote Cluster Controller Common C	EMR2-15-RCC-7
		EMR2-15-002
NT6X12AF	Remote Cluster Controller Common C	EMR2-15-RCC-8
		EMR2-15-002
NT6X12AG	RCC Common CP Fill (MP/SP)	EMR2-15-002
NT6X12AH	NT6X50AB Upgrade Kit	EMR2-15-002
NT6X12AK	Rmt Clster Cntrl Cmmn CP	EMR2-15-002
NT6X12AL	Rmt Clster Cntrl Cmmn CP	EMR2-15-002
NT6X12AN	RCC Common CP Fill (XPM+)	EMR2-15-002
NT6X12CA	REMOTE CLUSTER CONTROLLER COMMON C	EMR2-15-RCC-4
		EMR2-15-002
NT6X12DA	ISDN Remote Cluster Controller Com	EMR2-15-RCCI-1
		EMR2-15-001
NT6X12DB	PRCC Common CP	EMR2-15-RCC-5
		EMR2-22-RCC0-1
NT6X12DC	RCCI Common CP	EMR2-15-001
NT6X12DD	PRCC Common CP	EMR2-15-RCC-5
		EMR2-22-RCC0-2
NT6X12DE	RCCI Common CP XPM Plus	EMR2-15-001
NT6X12DF	PRCC Common CP	EMR2-15-RCC-5
		EMR2-22-RCC0-3
NT6X12ZB	PC Kit RCCI NT6X12DA-DC	EMR2-15-001
NT6X12ZC	RCC PC Kit NT6X12AD TO AG	EMR2-15-002
NT6X12ZD	PC KIT (6X12CA TO 6X12AG)	EMR2-99-RCC-6
		EMR2-15-002

NT6X12ZE	PC Kit RCCI NT6X12DC-DE	EMR2-15-001
NT6X12ZF	RCC to XPM PLUS Product Change Kit	EMR2-99-XPM-8
		EMR10-10-000
		EMR2-15-002
NT6X12ZG	Dual RCC PC Kit	EMR2-15-002
NT6X12ZJ	RCC PC Kit NT6X12AL TO AN	EMR2-15-002
NT6X12ZY	RCC Common CP Change Kit	EMR2-99-RCC-2
		EMR2-15-002
NT6X12ZZ	RCC PC Kit NT6X12AF TO CA	EMR2-15-002
NT6X1201	RCA Shelf Assembly	EMR2-15-000
		EMR2-15-002
NT6X1205	COMM PERIPH CTL TERM BD	EMR2-08-MSB6-1
		EMR2-11-MSB7-2
		EMR2-17-IAC-1
		EMR2-17-IAC-2
		EMR9-02-CSC-1
		EMR9-03-CSC-1
		EMR2-99-LGC-2
		EMR2-99-LTC-4
		EMR2-99-LTC-1
		EMR2-99-LTC-3
		EMR2-08-MSB6-3
		EMR2-06-SMR-4
		EMR2-08-002
		EMR2-06-DTC-5
		EMR2-6-6X02AS
		EMR2-06-LGC-9
		EMR2-6-IDTC-8
		EMR2-06-ILGC-6
		EMR2-06-LTC-5
		EMR2-06-SMR-1
		EMR2-06-LTC-1
		EMR2-06-LTC-3
		EMR2-06-LGC-6
		EMR2-06-LGC-3
		EMR2-6-IDTC-10
		EMR12-02-000
		EMR9-01-PMTC-1
		EMR9-01-PMTC-2
		EMR9-01-PMTC-3
		EMR9-01-PMTC-4
		EMR9-01-PMTC-5
		EMR2-06-SMU-3
		EMR2-99-SMU-2
		EMR2-06-SMU-1
		EMR2-06-SMS-1
		EMR2-06-SMS-2
		EMR2-06-SMS-4
		EMR2-06-IDTC-1

		EMR2-06-ILGC-1
		EMR2-06-IDTC-7
		EMR2-06-ILGC-5
		EMR2-06-IDTC-4
		EMR2-06-ILGC-4
		EMR2-06-IDTC-5
		EMR2-06-ILGC-3
		EMR2-06-IDTC-2
		EMR2-06-IDTC-3
		EMR2-06-IDTC-6
		EMR2-06-ILGC-2
		EMR2-15-RCC-3
		EMR2-15-RCC-6
		EMR2-15-RCC-8
		EMR2-08-MSB6-2
NT6X1206	RCCI Shelf Assembly	EMR10-28-000
		EMR10-10-000
		EMR2-15-001
NT6X1210	Remote Cntrl Array Sh Assy	EMR2-15-RCC-5
NT6X13AB	RMM COMMON CP	EMR2-13-000
		EMR2-13-001
		EMR2-05-000
		EMR2-25-RCC2-1
		EMR2-15-001
		EMR2-15-000
		EMR2-15-002
		EMR2-25-RCC2-2
NT6X13CA	Rmt Maint Module Shf Assy	EMR2-05-000
NT6X13DA	RMM Common CP	EMR2-13-I00
NT6X13EA	Remote Mtce Mod Common CP	EMR2-15-RCC-5
		EMR2-24-002
		EMR2-25-RCC2-3
NT6X1301	REMOTE MAINTENANCE MOD ASSY	EMR2-13-000
		EMR2-13-001
		EMR2-15-RCC-5
		EMR2-13-I00
		EMR2-25-RCC2-1
		EMR10-28-000
		EMR2-15-001
		EMR2-15-000
		EMR2-25-RCC2-2
NT6X1306	RMM Shelf Assembly	EMR10-10-000
		EMR2-24-002
		EMR2-15-002
		EMR2-25-RCC2-3
NT6X14CA	Remote Control and Maintenance Equ	EMR2-05-000
NT6X1402	Baffle Assembly	EMR2-05-000
NT6X1438	RMM Cable Assembly	EMR2-13-I00
		EMR2-25-RCC2-1

		EMR2-24-002
		EMR2-15-001
		EMR2-15-002
		EMR2-25-RCC2-2
NT6X1462	RCME Paddle Boards	EMR2-05-000
NT6X15AA	SIMPLEX CELL SITE EQUIPMENT FRAME	EMR9-03-000
NT6X15AC	CSC RADIO CHANNEL I/F UNIT	EMR9-03-000
NT6X15AD	CSC RADIO CHANNEL I/F UNIT	EMR9-03-000
NT6X15AE	CSC RADIO CHANNEL I/F UNIT	EMR9-03-000
NT6X15AF	CSC RADIO CHANNEL I/F UNIT	EMR9-03-000
NT6X15AL	CSC SHELF ASSEMBLY	EMR9-03-000
NT6X1503	EQUIPMENT SHELF ASSEMBLY	EMR9-03-000
NT6X16AA	CSC COMMON CP	EMR9-03-CSC-1
		EMR9-03-000
NT6X16AB	CSC COMMON CP	EMR9-02-CSC-1
NT6X1601	CELL SITE ARRAY SHF ASSY	EMR9-03-000
NT6X17AB	Basic line card	EMR10-34-RLCC-1
NT6X17BA	World line card	EMR10-34-RLCC-1
NT6X18AA	Full featured line card	EMR10-34-RLCC-1
NT6X18AB	Full featured line card	EMR10-34-RLCC-1
NT6X19AA	Interface for telephone	EMR10-34-RLCC-1
NT6X20AA	Message waiting converter	EMR10-34-RLCC-1
NT6X21AC	Business set	EMR10-34-RLCC-1
NT6X21BC	P-Phone line card	EMR10-34-RLCC-1
NT6X23AA	Power converter (+48V)	EMR10-34-RLCC-1
NT6X25AB	Frame Supervisory Panel	EMR2-05-000
NT6X25BB	FRAME SUPERVISORY PANEL	EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
NT6X2582	AC CIRCUIT BREAKER UG KIT	EMR2-13-001
NT6X26AA	SCSE FRAME SUPERVISORY PANEL	EMR9-03-000
NT6X27AB	PCM_30 Interface Card	EMR2-13-I00
		EMR2-14-HIE-2
		EMR2-14-HIE-3
		EMR2-14-HIE-5
NT6X27AC	PCM-30 Interface CP	EMR2-15-RCC-5
		EMR2-06-RX46BA
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
NT6X27BB	Enhanced PCM 30 Interface CP	EMR2-15-RCC-5
		EMR10-34-RLCC-1
		EMR2-06-RX46BA
NT6X28AA	PCM-30 Signalling CP	EMR2-06-RX46BA
NT6X30AA	RINGING GENERATOR CP	EMR2-07-001
		EMR2-07-002
		EMR2-07-003
		EMR2-07-005
		EMR2-07-006
		EMR2-25-RCC2-1

		EMR12-03-000
		EMR10-03-000
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NT6X30AB	RinginG Generator (UK)	EMR2-24-002
		EMR2-25-RCC2-3
NT6X30CA	Ring Generator	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NT6X3005	Ring Generator Filler	EMR2-25-RCC2-1
		EMR2-25-RCC2-2
NT6X31AA	Message Signalling 7 Frame	EMR2-11-000
NT6X32AA	MSB7 COMMON CP	EMR2-11-MSB7-1
		EMR2-11-000
NT6X32AB	MSB7 COMMON CIRCUIT PACK	EMR2-11-MSB7-2
		EMR2-11-000
NT6X32BA	MSB7 COMMON CP	EMR2-11-MSB7-4
		EMR2-11-000
NT6X32CA	MSB7 COMMON CIRCUIT PACK	EMR2-11-MSB7-3
		EMR2-11-000
NT6X32CC	MSB7 Common CP	EMR2-11-000
		EMR2-11-001
NT6X32DA	MSB7 Common CP (DPNSS)	EMR2-11-000
NT6X32DB	MSB7 Common CP (DPNSS)	EMR2-11-000
NT6X3201	Msg Switch Buf 7 Assy	EMR10-22-000
		EMR2-11-000
NT6X33AA	Japan General use line	EMR10-34-RLCC-1
NT6X35AA	LCE FRAME SUPERVISORY PANEL	EMR2-07-001
		EMR2-07-002
		EMR2-07-003
		EMR2-07-005
		EMR2-07-006
		EMR12-03-000
NT6X36AA	FSP Alarm CP	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NT6X36AB	Alarm CP for FSP	EMR2-25-RCC2-1
		EMR2-24-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NT6X40AA	DS30 NETWORK INTERFACE CP	EMR2-08-MSB6-1
		EMR2-08-MSB6-3
		EMR2-06-DTC-3
		EMR2-06-DTC-4
		EMR2-06-DTC-5
		EMR2-06-SMR-1
		EMR2-06-LGC-1
		EMR2-06-DTC-2

NT6X40AB DS-30 NETWORK I/F CP

NT6X40AC DS-30 NETWORK I/F CP

EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4
EMR12-02-000
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-99-SMU-2
EMR2-06-SMU-1
EMR2-06-SMU-9
EMR2-06-SMS-1
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-08-MSB6-2
EMR2-17-IAC-1
EMR2-17-IAC-2
EMR2-06-LGC-8
EMR2-06-ILGC-6
EMR2-6-IDTC-10
EMR2-17-IAC-4
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2
EMR2-06-IDTC-3
EMR2-06-ILGC-2
EMR2-11-000
EMR10-19-MNET-1
EMR2-08-002
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-IXPM-1
EMR2-06-IXPM-3
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR12-02-000
EMR9-03-ICP-1
EMR10-19-MNET-2

		EMR2-99-SMU-2
		EMR2-06-RX46BA
		EMR2-06-ILGC-7
		EMR2-06-IDTC-7
		EMR2-06-ILGC-5
		EMR2-06-IDTC-6
		EMR2-06-IDTC-8
		EMR2-11-000
		EMR2-06-000
NT6X40AD	DS30 Network Interface CP	EMR2-06-000
NT6X40BA	DS30 Network Interface CP	EMR12-02-000
		EMR2-99-SMU-2
		EMR2-06-SMU-9
		EMR2-06-SMS-2
		EMR2-06-000
NT6X40CA	DS-512 XPM Interface CP	EMR2-06-RX46BA
		EMR2-06-000
NT6X40DA	DS-512 XPM Paddle Board	EMR2-06-RX46BA
		EMR2-06-000
NT6X40FA	DS-512 XPM Interface CP	EMR2-06-RX46BA
		EMR10-02-000
		EMR2-06-000
NT6X40FB	DS-512 Link Cont. CP	EMR10-02-000
		EMR2-06-000
NT6X40GA	DS-512 XPM Paddle Board	EMR2-06-RX46BA
		EMR10-02-000
		EMR2-06-000
NT6X41AA	SPEECH BUS FORMATTER	EMR2-08-MSB6-1
		EMR2-11-MSB7-2
		EMR2-11-MSB7-3
		EMR2-17-IAC-1
		EMR2-17-IAC-2
		EMR2-21-LTC-1
		EMR10-19-MNET-1
		EMR2-08-MSB6-3
		EMR2-06-SMR-2
		EMR2-06-SMR-3
		EMR2-06-SMR-4
		EMR2-06-SMR-5
		EMR2-06-SMR-6
		EMR2-08-002
		EMR2-06-DTC-7
		EMR2-06-DTC-3
		EMR2-06-DTC-4
		EMR2-06-DTC-5
		EMR2-06-DTC-6
		EMR2-06-SMU-4
		EMR2-06-SMU-5
		EMR2-06-SMA-1

EMR2-06-SMU-6
EMR2-06-LGC-8
EMR2-6-6X02AS
EMR2-6-6X02IC
EMR2-06-LGC-9
EMR2-06-SMS-5
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMS-8
EMR2-06-SMU-7
EMR2-6-6X02RA
EMR2-06-LTC-6
EMR2-06-6X02AI
EMR2-06-LTC-5
EMR2-06-SMR-1
EMR2-06-LGC-1
EMR2-06-DTC-2
EMR2-06-SMSR-4
EMR2-06-SMSR-3
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4
EMR2-06-DTC-9
EMR2-06-SMSR-5
EMR2-06-SMU-8
EMR2-06-LGC-7
EMR2-06-SMA-2
EMR10-20-CPCI-1
EMR10-20-CPCI-2
EMR2-06-SMSR-6
EMR2-06-SMS-9
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR12-02-LTC-1
EMR12-02-SMS-1
EMR9-03-ICP-1
EMR10-19-MNET-2
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-06-LTC-4
EMR10-20-CPC-11
EMR10-20-CPCI-3

NT6X41AB

Speech Bus Format (Turkey)

EMR2-06-SMU-3
EMR2-06-SMU-1
EMR2-06-SMU-2
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-SMS-4
EMR2-06-SMS-3
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-06-SMSR-1
EMR2-06-SMSR-2
EMR2-06-DTC-10
EMR2-06-DTCI-1
EMR2-17-IAC-4
EMR2-11-001
EMR2-08-MSB6-2
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-ILGC-6
EMR2-06-IXPM-1
EMR2-06-IXPM-3
EMR2-6-IDTC-10
EMR2-20-ILGC-1
EMR2-20-ILGC-4
EMR2-20-ILGC-5
EMR2-20-ILGC-3
EMR2-20-LGCI-3
EMR2-06-RX46BA
EMR2-06-ILGC-7
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-7
EMR2-06-ILGC-5
EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2
EMR2-06-IDTC-3
EMR2-06-IDTC-6
EMR2-06-ILGC-2
EMR2-06-IDTC-8
EMR2-06-000
EMR2-08-MSB6-1
EMR2-11-MSB7-2
EMR2-11-MSB7-3
EMR2-17-IAC-1

NT6X41AC
NT6X42AAXPM Formatter/Clock CP
CHANNEL SUPERVISION MGS CP

EMR2-17-IAC-2
EMR2-21-LTC-1
EMR10-19-MNET-1
EMR2-08-MSB6-3
EMR2-06-SMR-2
EMR2-06-SMR-3
EMR2-06-SMR-4
EMR2-06-SMR-5
EMR2-06-SMR-6
EMR2-08-002
EMR2-06-DTC-7
EMR2-06-DTC-3
EMR2-06-DTC-4
EMR2-06-DTC-5
EMR2-06-DTC-6
EMR2-06-SMU-4
EMR2-06-SMU-5
EMR2-06-SMA-1
EMR2-06-SMU-6
EMR2-06-LGC-8
EMR2-6-6X02AS
EMR2-6-6X02IC
EMR2-06-LGC-9
EMR2-06-SMS-5
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMS-8
EMR2-06-SMU-7
EMR2-6-6X02RA
EMR2-06-LTC-6
EMR2-06-6X02AI
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-ILGC-6
EMR2-06-IXPM-1
EMR2-06-IXPM-3
EMR2-06-LTC-5
EMR2-06-SMR-1
EMR2-06-LGC-1
EMR2-06-DTC-2
EMR2-06-SMSR-4
EMR2-06-SMSR-3
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4

EMR2-06-DTC-9
EMR2-06-SMSR-5
EMR2-6-IDTC-10
EMR2-20-ILGC-1
EMR2-20-ILGC-4
EMR2-06-SMU-8
EMR2-06-LGC-7
EMR2-06-SMA-2
EMR2-20-LGCI-3
EMR10-20-CPCI-1
EMR10-20-CPCI-2
EMR2-20-LGCI-2
EMR2-06-SMSR-6
EMR2-06-SMS-9
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR12-02-LTC-1
EMR12-02-SMS-1
EMR9-03-ICP-1
EMR10-19-MNET-2
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-06-LTC-4
EMR10-20-CPC-11
EMR10-20-CPCI-3
EMR2-06-SMU-3
EMR2-06-SMU-1
EMR2-06-SMU-2
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-SMS-4
EMR2-06-SMS-3
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-06-SMSR-1
EMR2-06-SMSR-2
EMR2-06-DTC-10
EMR2-06-DTCI-1
EMR2-17-IAC-4
EMR2-06-RX46BA
EMR2-06-ILGC-7
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-7

		EMR2-06-ILGC-5
		EMR2-06-IDTC-4
		EMR2-06-ILGC-4
		EMR2-06-IDTC-5
		EMR2-06-ILGC-3
		EMR2-06-IDTC-2
		EMR2-06-IDTC-3
		EMR2-06-IDTC-6
		EMR2-06-ILGC-2
		EMR2-06-IDTC-8
		EMR2-11-001
		EMR2-08-MSB6-2
NT6X43AA	MESSAGE INTERFACE CP	EMR2-08-MSB6-1
		EMR9-02-CSC-1
		EMR9-03-CSC-1
		EMR2-99-LGC-2
		EMR2-99-SMU-1
		EMR2-99-SMR-1
		EMR2-99-LTC-4
		EMR2-99-LGC-1
		EMR2-99-LTC-1
		EMR2-99-LTC-3
		EMR2-08-MSB6-3
		EMR2-06-SMR-2
		EMR2-06-SMR-3
		EMR2-06-SMR-4
		EMR2-06-SMR-5
		EMR2-99-XPM-2
		EMR2-06-SMR-1
		EMR2-06-LGC-1
		EMR2-06-DTC-2
		EMR2-06-LTC-1
		EMR2-06-LGC-2
		EMR2-06-LGC-4
		EMR12-02-000
		EMR2-99-SMU-2
		EMR2-06-SMU-9
		EMR2-06-SMS-1
		EMR2-06-SMS-2
		EMR2-06-SMSR-1
		EMR2-08-MSB6-2
		EMR2-06-000
NT6X43BA	Msg Interface CP	EMR2-6-IDTC-8
		EMR2-06-IDTC-4
NT6X43CA	Message Interface CP	EMR2-06-LGC-8
NT6X43DA	MSG Interface CP	EMR2-06-ILGC-4
NT6X43EA	MSG Interface CP	EMR2-06-IDTC-5
NT6X43FA	MSG Interface CP	EMR2-06-IDTC-3
NT6X43GA	MSG Interface CP	EMR2-6-IDTC-10

NT6X44AA

TIME SWITCH CP

EMR2-15-RCC-1
EMR2-15-RCC-4
EMR2-17-IAC-1
EMR2-17-IAC-2
EMR9-02-CSC-1
EMR9-03-CSC-1
EMR2-06-SMR-4
EMR2-15-RCCI-1
EMR2-06-DTC-7
EMR2-06-DTC-3
EMR2-06-DTC-4
EMR2-06-DTC-5
EMR2-06-DTC-6
EMR2-6-6X02AS
EMR2-6-6X02IC
EMR2-06-LGC-9
EMR2-6-6X02RA
EMR2-06-LTC-6
EMR2-06-LTC-5
EMR2-06-SMR-1
EMR2-06-LGC-1
EMR2-06-DTC-2
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4
EMR2-06-LGC-7
EMR10-10-MCRM-1
EMR10-33-MCRM-3
EMR9-03-ICP-1
EMR2-06-LTC-4
EMR2-06-DTC-1
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-17-IAC-4
EMR2-15-RCC-3
EMR2-15-RCC-2
EMR2-15-RCC-6
EMR2-15-RCC-7
EMR2-15-RCC-8
EMR10-28-MCRM-2
EMR10-28-MCRM-1
EMR10-28-MCRM-3
EMR2-15-002
EMR2-06-000
EMR2-11-MSB7-2
EMR2-11-MSB7-3

NT6X44AB

TIME SWITCH

EMR10-19-MNET-1
EMR2-99-SMU-1
EMR2-06-SMR-2
EMR2-06-SMR-3
EMR2-06-SMR-5
EMR2-06-SMS-5
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMS-8
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-ILGC-6
EMR2-06-SMSR-4
EMR2-06-SMSR-3
EMR2-06-SMSR-5
EMR2-6-IDTC-10
EMR2-06-SMSR-6
EMR2-06-SMS-9
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR12-02-000
EMR10-19-MNET-2
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-99-SMU-2
EMR2-06-SMU-9
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-SMS-4
EMR2-06-SMS-3
EMR2-06-SMSR-1
EMR2-06-SMSR-2
EMR2-06-DTC-10
EMR2-06-DTCI-1
EMR2-06-ILGC-7
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-7
EMR2-06-ILGC-5
EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2

NT6X44BA NT6X44CA	Time Switch CP w M-Law to Time Switch	EMR2-06-IDTC-3
		EMR2-06-IDTC-6
		EMR2-06-ILGC-2
		EMR2-11-001
		EMR2-06-000
		EMR2-06-LGC-8
		EMR2-99-SMU-1
		EMR2-06-SMU-4
		EMR2-06-SMU-5
		EMR2-06-SMU-6
		EMR2-06-SMU-7
		EMR2-06-SMU-8
		EMR12-02-000
		EMR2-06-SMU-3
		EMR2-99-SMU-2
NT6X44EA	Time Switch CP	EMR2-06-SMU-1
		EMR2-06-SMU-2
		EMR2-06-SMU-9
		EMR2-15-RCC-5
		EMR2-06-IXPM-2
		EMR2-20-ILGC-1
		EMR2-20-ILGC-4
		EMR2-20-ILGC-5
		EMR2-20-ILGC-3
		EMR2-20-LGCI-3
		EMR2-06-RX46BA
		EMR2-06-IDTC-8
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
NT6X45--	XPM Processor CP	EMR2-99-XPM-9
		EMR2-99-XPM-10
		EMR2-99-XPM-8
		EMR2-99-XPM-11
		EMR2-99-XPM-13
NT6X45AA	LGC/DTC Processor	EMR2-99-LGC-3
		EMR2-99-LTC-2
		EMR2-99-LGC-1
		EMR2-99-LTC-1
		EMR2-99-LTC-3
		EMR2-99-LTC-5
		EMR2-99-XPM-2
		EMR2-06-LGC-1
		EMR2-06-DTC-2
		EMR2-06-DTC-1
NT6X45AC	LGC/DTC PROCESSOR CP	EMR2-08-MSB6-1
		EMR2-17-IAC-1
		EMR2-17-IAC-2
		EMR9-02-CSC-1
		EMR9-03-CSC-1

		EMR2-99-LGC-3
		EMR2-99-LTC-2
		EMR2-99-LGC-1
		EMR2-99-LTC-1
		EMR2-99-LTC-3
		EMR2-99-LTC-5
		EMR2-08-MSB6-3
		EMR2-06-SMR-4
		EMR2-08-002
		EMR2-06-DTC-4
		EMR2-06-DTC-5
		EMR2-06-LGC-8
		EMR2-06-SMR-1
		EMR2-06-LTC-1
		EMR2-06-LGC-2
		EMR2-06-LTC-3
		EMR2-06-LGC-6
		EMR2-06-LGC-3
		EMR2-06-LGC-4
		EMR12-02-000
		EMR9-01-PMTC-1
		EMR9-01-PMTC-2
		EMR9-01-PMTC-3
		EMR9-01-PMTC-4
		EMR9-01-PMTC-5
		EMR2-99-SMU-2
		EMR2-06-SMU-1
		EMR2-06-SMU-9
		EMR2-06-SMS-1
		EMR2-06-DTC-1
		EMR2-17-IAC-4
NT6X45AD	LGC/DTC Processor CP	EMR2-08-MSB6-2
		EMR2-6-IDTC-8
		EMR2-06-ILGC-6
		EMR2-6-IDTC-10
		EMR2-06-IDTC-1
		EMR2-06-ILGC-1
		EMR2-06-IDTC-7
		EMR2-06-ILGC-5
		EMR2-06-IDTC-4
		EMR2-06-ILGC-4
		EMR2-06-IDTC-5
		EMR2-06-ILGC-3
		EMR2-06-IDTC-2
		EMR2-06-IDTC-3
		EMR2-06-IDTC-6
		EMR2-06-ILGC-2
NT6X45AE	LGC/DTC PROCESSOR CP	EMR2-15-RCC-1
		EMR2-15-RCC-3

NT6X45AF	LGC/DTC PROCESSOR CP	EMR2-11-000
		EMR2-13-000
		EMR2-13-001
		EMR2-06-SMR-3
		EMR2-06-SMR-5
		EMR2-06-DTC-3
		EMR10-09-000
		EMR2-06-LTC-2
		EMR2-06-LGC-5
		EMR2-15-RCC-2
		EMR2-11-000
		EMR2-06-000
		EMR10-19-MNET-1
		EMR2-99-XPM-6
NT6X45BA	LTC/DTC PROC CP	EMR2-99-XPM-12
		EMR2-06-SMU-4
		EMR2-06-SMS-6
		EMR2-06-SMS-7
		EMR2-06-SMU-7
		EMR2-06-SMSR-3
		EMR2-20-ILGC-1
		EMR2-20-ILGC-4
		EMR2-20-ILGC-5
		EMR2-20-ILGC-3
		EMR10-10-MCRM-1
		EMR2-13-I00
		EMR2-20-LGCI-2
		EMR10-02-LGC-1
		EMR10-02-LGC-2
		EMR10-22-MSB7-1
		EMR12-02-000
		EMR9-03-ICP-1
		EMR10-19-MNET-2
		EMR2-99-SMU-2
		EMR2-06-RX46BA
		EMR2-06-IDTC-8
		EMR2-11-000
		EMR10-28-MCRM-2
		EMR2-06-000
		EMR2-11-000
		EMR2-06-000
		EMR2-15-RCC-5
		EMR2-15-RCCI-1
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR2-15-002
		EMR10-33-MCRM-3
NT6X45BB	LGC/DTC Processor CP	
NT6X45BC	LGC/DTC Processor CP	
NT6X45BD	LGC/DTC Signal Processor	

NT6X45CA	SMS Processor	EMR2-15-002 EMR2-99-SMU-2 EMR2-06-SMU-9 EMR2-06-SMS-2 EMR2-06-000
NT6X46--	Signaling Processor	EMR2-99-XPM-9 EMR2-99-XPM-10 EMR2-99-XPM-8 EMR2-99-XPM-11 EMR2-99-XPM-13
NT6X46AA	SIGNAL PROCESSOR MEMORY CP	EMR9-02-CSC-1 EMR9-03-CSC-1 EMR2-99-LGC-3 EMR2-99-LTC-2 EMR2-99-LTC-6 EMR2-99-LGC-1 EMR2-99-LTC-1 EMR2-99-LTC-3 EMR2-99-LTC-5 EMR2-99-XPM-2 EMR2-06-LGC-1 EMR2-06-DTC-2 EMR2-06-DTC-1
NT6X46AB	SIGNAL PROCESSOR MEMORY CP	EMR2-08-MSB6-1 EMR2-15-RCC-1 EMR2-17-IAC-1 EMR2-17-IAC-2 EMR2-99-LGC-3 EMR2-99-LTC-2 EMR2-99-LTC-6 EMR2-99-LGC-1 EMR2-99-LTC-1 EMR2-99-LTC-3 EMR2-99-LTC-5 EMR2-08-MSB6-3 EMR2-06-DTC-5 EMR2-06-LGC-8 EMR2-6-IDTC-8 EMR2-06-ILGC-6 EMR2-06-SMR-1 EMR2-06-LTC-1 EMR2-06-LGC-2 EMR2-06-LTC-3 EMR2-06-LGC-6 EMR2-06-LGC-3 EMR2-06-LGC-4 EMR2-6-IDTC-10 EMR12-02-000 EMR9-01-PMTC-1

		EMR9-01-PMTC-2
		EMR9-01-PMTC-3
		EMR9-01-PMTC-4
		EMR9-01-PMTC-5
		EMR2-99-SMU-2
		EMR2-06-SMU-1
		EMR2-06-SMS-1
		EMR2-06-SMS-2
		EMR2-06-IDTC-1
		EMR2-06-ILGC-1
		EMR2-06-IDTC-7
		EMR2-06-ILGC-5
		EMR2-06-IDTC-4
		EMR2-06-ILGC-4
		EMR2-06-IDTC-5
		EMR2-06-ILGC-3
		EMR2-06-IDTC-2
		EMR2-06-IDTC-3
		EMR2-06-IDTC-6
		EMR2-06-ILGC-2
		EMR2-15-RCC-3
		EMR2-08-MSB6-2
NT6X46AC	SIGNAL PROCESSOR MEMORY CP	EMR2-11-MSB7-2
		EMR2-06-SMR-4
		EMR2-6-6X02AS
		EMR2-06-LGC-9
		EMR2-06-LTC-5
		EMR2-06-SMU-3
		EMR2-06-SMS-4
		EMR2-15-RCC-6
		EMR2-15-RCC-8
NT6X46BA	SIG PROC MEMORY PLUS CP	EMR2-11-MSB7-3
		EMR2-15-RCC-4
		EMR10-19-MNET-1
		EMR2-06-SMR-2
		EMR2-06-SMR-5
		EMR2-99-XPM-6
		EMR2-99-XPM-12
		EMR2-15-RCCI-1
		EMR2-06-DTC-3
		EMR2-06-DTC-4
		EMR2-06-DTC-6
		EMR2-06-SMS-7
		EMR2-06-SMU-7
		EMR2-6-6X02RA
		EMR2-06-LTC-6
		EMR2-99-XPM-2
		EMR2-6-IDTC-11
		EMR2-6-IDTC-9

NT6X46BB

Signal Processor Memory CP

EMR2-06-IXPM-1
EMR2-06-IXPM-3
EMR2-20-ILGC-1
EMR2-06-LGC-7
EMR10-10-MCRM-1
EMR2-20-LGCI-2
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR12-02-000
EMR9-03-ICP-1
EMR2-06-LTC-4
EMR2-99-SMU-2
EMR2-06-SMU-2
EMR2-06-SMS-3
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-06-SMSR-1
EMR2-17-IAC-4
EMR2-06-ILGC-7
EMR2-15-RCC-2
EMR2-15-RCC-7
EMR2-99-RCC-6
EMR2-11-000
EMR2-22-RCC0-1
EMR10-28-MCRM-1
EMR2-06-000
EMR2-06-SMR-3
EMR2-08-002
EMR2-99-XPM-6
EMR2-99-XPM-12
EMR2-15-RCC-5
EMR2-06-SMU-4
EMR2-06-SMS-6
EMR2-06-SMSR-3
EMR2-20-ILGC-4
EMR2-20-ILGC-5
EMR2-20-ILGC-3
EMR10-33-MCRM-3
EMR10-19-MNET-2
EMR2-06-RX46BA
EMR2-06-IDTC-8
EMR2-99-RCC-6
EMR2-11-000
EMR2-22-RCC0-2
EMR10-28-MCRM-2
EMR10-28-MCRM-3
EMR2-15-001
EMR2-06-000

NT6X47--	MP Memory Plus CP	EMR2-99-XPM-9 EMR2-99-XPM-10 EMR2-99-XPM-8 EMR2-99-XPM-11 EMR2-99-XPM-13
NT6X47AA	MASTER PROCESSOR MEMORY CP	EMR9-02-CSC-1 EMR9-03-CSC-1 EMR2-99-LGC-3 EMR2-99-LTC-2 EMR2-99-LTC-6 EMR2-99-LGC-1 EMR2-99-LTC-1 EMR2-99-LTC-3 EMR2-99-LTC-5 EMR2-99-XPM-2 EMR2-06-LGC-1 EMR2-06-DTC-2 EMR2-06-DTC-1
NT6X47AB	MAST PROC MEMORY PLUS CP	EMR2-08-MSB6-1 EMR2-11-MSB7-2 EMR2-11-MSB7-3 EMR2-13-000 EMR2-13-001 EMR2-15-RCC-1 EMR2-15-RCC-4 EMR2-17-IAC-1 EMR2-17-IAC-2 EMR10-19-MNET-1 EMR2-99-LGC-3 EMR2-99-LTC-2 EMR2-99-LTC-6 EMR2-99-LGC-1 EMR2-99-LTC-1 EMR2-99-LTC-3 EMR2-99-LTC-5 EMR2-08-MSB6-3 EMR2-06-SMR-2 EMR2-06-SMR-4 EMR2-08-002 EMR2-99-XPM-6 EMR2-99-XPM-12 EMR2-15-RCCI-1 EMR2-06-DTC-3 EMR2-06-DTC-4 EMR2-06-DTC-5 EMR2-06-DTC-6 EMR2-06-LGC-8 EMR2-6-6X02AS EMR2-06-LGC-9

EMR2-6-6X02RA
EMR2-06-LTC-6
EMR2-99-XPM-2
EMR2-6-IDTC-8
EMR2-6-IDTC-11
EMR2-6-IDTC-9
EMR2-06-ILGC-6
EMR2-06-IXPM-1
EMR2-06-LTC-5
EMR2-06-SMR-1
EMR2-06-LTC-1
EMR2-06-LGC-2
EMR2-06-LTC-3
EMR2-06-LGC-6
EMR2-06-LGC-3
EMR2-06-LGC-4
EMR2-6-IDTC-10
EMR2-06-LGC-7
EMR10-10-MCRM-1
EMR2-13-I00
EMR10-02-LGC-1
EMR10-02-LGC-2
EMR10-22-MSB7-1
EMR10-09-000
EMR12-02-LTC-1
EMR12-02-SMS-1
EMR9-03-ICP-1
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-06-LTC-4
EMR2-06-SMU-3
EMR2-06-SMU-1
EMR2-06-SMU-2
EMR2-06-SMS-1
EMR2-06-SMS-2
EMR2-06-SMS-4
EMR2-06-SMS-3
EMR2-06-LTC-2
EMR2-06-LGC-5
EMR2-06-SMSR-1
EMR2-17-IAC-4
EMR2-06-ILGC-7
EMR2-06-IDTC-1
EMR2-06-ILGC-1
EMR2-06-IDTC-7
EMR2-06-ILGC-5

NT6X47AC

MP MEMORY PLUS CP

EMR2-06-IDTC-4
EMR2-06-ILGC-4
EMR2-06-IDTC-5
EMR2-06-ILGC-3
EMR2-06-IDTC-2
EMR2-06-IDTC-3
EMR2-06-IDTC-6
EMR2-06-ILGC-2
EMR2-06-IDTC-8
EMR2-15-RCC-3
EMR2-15-RCC-2
EMR2-15-RCC-6
EMR2-15-RCC-7
EMR2-15-RCC-8
EMR2-99-RCC-6
EMR2-11-001
EMR2-08-MSB6-2
EMR2-15-000
EMR2-06-000
EMR2-13-000
EMR2-13-001
EMR2-06-SMR-3
EMR2-06-SMR-5
EMR2-99-XPM-6
EMR2-99-XPM-12
EMR2-15-RCC-5
EMR2-06-SMU-4
EMR2-06-SMS-5
EMR2-06-SMS-6
EMR2-06-SMS-7
EMR2-06-SMU-7
EMR2-06-IXPM-3
EMR2-06-SMSR-3
EMR2-20-ILGC-1
EMR2-20-ILGC-4
EMR2-20-ILGC-5
EMR2-20-ILGC-3
EMR10-33-MCRM-3
EMR2-20-LGCI-2
EMR10-19-MNET-2
EMR2-06-SMSR-2
EMR2-06-RX46BA
EMR2-99-RCC-6
EMR2-22-RCC0-1
EMR2-22-RCC0-2
EMR10-28-MCRM-2
EMR10-28-MCRM-1
EMR10-28-MCRM-3
EMR2-15-001

NT6X48AA

DS30A LCM I/F CP

EMR2-06-000
EMR2-11-MSB7-2
EMR2-11-MSB7-3
EMR2-17-IAC-1
EMR2-15-RCC-5
EMR10-10-MCRM-1
EMR10-22-MSB7-1
EMR12-02-000
EMR10-19-000
EMR2-17-000
EMR2-06-RX46BA
EMR2-11-001
EMR10-28-MCRM-2
EMR10-28-MCRM-1
EMR10-28-MCRM-3
EMR10-10-000
EMR10-02-000
EMR2-15-001
EMR2-15-000
EMR2-15-002
EMR2-06-000

NT6X50AA

DS-1 INTERFACE CARD

EMR2-13-000
EMR2-13-001
EMR2-14-HIE-1
EMR2-15-RCC-1
EMR2-16-RLCC-2
EMR2-05-000
EMR10-10-MCRM-1
EMR10-34-RLCC-1
EMR10-09-000
EMR12-02-000
EMR9-01-003
EMR9-01-PMTC-1
EMR9-01-PMTC-2
EMR9-01-PMTC-3
EMR9-01-PMTC-4
EMR9-01-PMTC-5
EMR2-14-HIE-4
EMR2-15-RCC-3
EMR2-15-RCC-2
EMR10-10-000
EMR10-02-000
EMR2-15-000
EMR2-15-002
EMR2-06-000

NT6X50AB

DS-1 INTERFACE CP

EMR2-17-IAC-1
EMR2-15-RCCI-1
EMR10-19-000
EMR2-17-000

		EMR10-28-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR10-10-000
		EMR10-02-000
		EMR2-15-001
		EMR2-15-002
		EMR2-06-000
NT6X50EC	DS1 Echo Cancellation	EMR2-06-000
NT6X51AA	LCM PROCESSOR	EMR2-13-LCM-1
		EMR10-34-RLCC-1
		EMR2-07-LCM-1
NT6X51AB	LCM PROCESSOR CP	EMR2-07-ILCM-1
		EMR2-16-RLCC-2
		EMR2-07-LCM-2
		EMR2-07-LCM-3
		EMR2-07-ILCM-2
		EMR10-01-DLM-1
		EMR10-01-DLM-2
		EMR2-07-LCM-1
NT6X52AA	DIGROUP CONTROLLER	EMR2-07-ILCM-1
		EMR2-13-LCM-1
		EMR2-16-RLCC-2
		EMR2-07-LCM-2
		EMR2-07-LCM-3
		EMR10-34-RLCC-1
		EMR10-01-DLM-1
		EMR10-01-DLM-2
		EMR2-07-LCM-1
NT6X52AB	International Digroup Cont	EMR2-07-ILCM-2
		EMR2-07-ILCM-1
NT6X53AA	POWER CONVERTER	EMR2-13-LCM-1
		EMR2-16-RLCC-2
		EMR2-07-LCM-2
		EMR2-07-LCM-3
		EMR2-07-ILCM-2
		EMR10-34-RLCC-1
		EMR10-01-DLM-1
		EMR10-01-DLM-2
		EMR2-07-LCM-1
		EMR2-07-ILCM-1
NT6X53BA	Power Converter	EMR10-03-MCLM-1
		EMR10-03-MCLM-2
		EMR2-97-LCME-1
NT6X53CA	LCME Power Converter	EMR2-19-LCME-1
		EMR2-97-LCME-1
NT6X53EA	Power Coverter	EMR10-03-MCLM-1
		EMR10-03-MCLM-2

NT6X55AB	DS0A Interface CP	EMR2-97-LCME-1
NT6X55JA	DTC CII/CMI Interface CP	EMR2-06-000
NT6X60AA	RINGING GENERATOR	EMR10-02-000
		EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
NT6X60AE	Ringing Generator CP	EMR10-34-RLCC-1
NT6X60CA	Ringing Generator CP	EMR10-34-RLCC-1
NT6X62AA	Special Tone Receiver	EMR10-02-000
NT6X62AB	Special Tone Receiver	EMR10-02-000
		EMR2-06-000
NT6X65AA	CCIS SIGNALLING TERMINAL CP	EMR2-08-MSB6-1
		EMR2-08-000
		EMR2-08-MSB6-3
		EMR2-08-001
		EMR2-08-002
		EMR10-25-000
		EMR10-26-000
		EMR2-08-MSB6-2
NT6X66AA	CCS7 Signal Term.	EMR10-22-000
		EMR2-11-000
NT6X66AC	CCS7 Signalling Terminal CP	EMR2-11-000
NT6X66BA	NTT-NCCI#7 Sig. Term.	EMR10-22-000
NT6X66CA	DPNSS Signalling Term CP	EMR2-11-000
NT6X67AA	SIGNALLING TERM BUFFER CP	EMR2-08-MSB6-1
		EMR2-11-MSB7-2
		EMR2-11-MSB7-3
		EMR2-08-MSB6-3
		EMR2-08-002
		EMR10-22-MSB7-1
		EMR2-11-001
		EMR2-08-MSB6-2
NT6X68AA	SIGNALLING TERMINAL I/F CP	EMR2-08-MSB6-1
		EMR2-08-MSB6-3
		EMR2-08-001
		EMR2-08-002
		EMR10-26-000
		EMR2-08-MSB6-2
NT6X68AB	SIGNALLING TERMINAL CP	EMR2-08-MSB6-1
		EMR2-08-001
		EMR2-08-002
NT6X68AC	SIGNALLING TERMINAL I/F CP	EMR2-11-MSB7-2
		EMR2-11-MSB7-3
		EMR10-22-000
		EMR10-22-MSB7-1
		EMR2-11-000
		EMR2-11-001
NT6X68AD	STI With Terminator	EMR10-22-000
		EMR2-11-000

NT6X68CA	For International(NTT)	EMR10-22-000
NT6X68DA	For International(NTT)	EMR10-22-000
NT6X69AA	CPP MESSAGE PROTOCOL CP	EMR2-11-MSB7-2
		EMR2-15-RCC-1
		EMR2-99-LGC-2
		EMR2-99-SMR-1
		EMR2-99-LTC-4
		EMR2-99-LGC-1
		EMR2-99-LTC-1
		EMR2-99-LTC-3
		EMR2-99-RCC-2
		EMR2-06-DTC-4
		EMR2-06-DTC-5
		EMR2-6-6X02AS
		EMR2-06-LGC-9
		EMR2-6-6X02RA
		EMR2-06-LTC-6
		EMR2-06-LTC-5
		EMR2-06-LTC-3
		EMR2-06-LGC-6
		EMR2-06-LGC-3
		EMR12-02-000
		EMR9-01-PMTC-1
		EMR9-01-PMTC-2
		EMR9-01-PMTC-3
		EMR9-01-PMTC-4
		EMR9-01-PMTC-5
		EMR2-06-DTC-1
		EMR2-17-000
		EMR2-06-ILGC-3
		EMR2-15-RCC-3
		EMR2-15-RCC-6
		EMR2-15-RCC-7
NT6X69AB	CPP MSG PROTOCOL & TONE CP	EMR2-11-MSB7-3
		EMR2-15-RCC-4
		EMR10-19-MNET-1
		EMR2-99-SMU-1
		EMR2-99-RCC-2
		EMR2-15-RCCI-1
		EMR2-06-DTC-3
		EMR2-06-DTC-6
		EMR2-99-XPM-2
		EMR2-06-LGC-7
		EMR10-10-MCRM-1
		EMR10-20-CPCI-1
		EMR10-20-CPCI-2
		EMR10-02-LGC-1
		EMR10-02-LGC-2
		EMR10-22-MSB7-1

		EMR12-02-000
		EMR9-03-ICP-1
		EMR2-06-LTC-4
		EMR2-06-SMU-3
		EMR2-99-SMU-2
		EMR2-06-SMU-1
		EMR2-06-SMU-2
		EMR2-06-SMU-9
		EMR2-06-LTC-2
		EMR2-06-LGC-5
		EMR2-15-RCC-2
		EMR2-15-RCC-8
		EMR2-99-RCC-6
		EMR2-11-000
		EMR10-28-MCRM-1
NT6X69AC	ENHANCED MESSAGING CP	EMR2-06-000
		EMR2-24-RCC-1
		EMR2-06-SMR-6
		EMR2-06-SMA-1
		EMR2-06-SMU-8
		EMR10-33-MCRM-3
		EMR10-19-MNET-2
		EMR2-11-000
		EMR10-28-MCRM-2
		EMR10-28-MCRM-3
		EMR10-02-000
		EMR2-15-001
		EMR2-15-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
NT6X69AD	Enhanced Messaging CP	EMR2-06-000
		EMR2-15-002
		EMR2-25-RCC2-2
		EMR2-25-RCC2-3
		EMR2-06-000
NT6X69BB	CPP Message Protocol CP	EMR2-06-ILGC-6
NT6X69DA	MSG Interface CP	EMR2-06-IDTC-2
		EMR2-06-IDTC-6
NT6X69FA	CPP MSG Protocol & Tones	EMR2-6-IDTC-9
		EMR2-06-ILGC-7
		EMR2-06-ILGC-2
NT6X69KA	MSG Interface CP	EMR2-6-IDTC-11
		EMR2-06-IDTC-1
		EMR2-06-ILGC-1
		EMR2-06-IDTC-7
		EMR2-06-ILGC-5
NT6X69LA	CPP Message Protocol	EMR2-08-002
		EMR2-15-RCC-5
		EMR2-06-IXPM-1

NT6X69LB	CPP Msg Protocol & Downld CP	EMR2-06-IXPM-3
		EMR10-25-000
		EMR2-06-IDTC-8
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
		EMR2-08-002
		EMR2-20-ILGC-1
		EMR2-20-ILGC-4
		EMR2-20-ILGC-5
		EMR2-20-ILGC-3
		EMR2-20-LGCI-3
		EMR10-25-000
		EMR2-06-RX46BA
		EMR2-11-000
		EMR10-02-000
NT6X69MA	Message Protocol CP	EMR2-25-RCC2-3
		EMR2-11-000
NT6X70AA	Continuity Tone Detector CP	EMR2-06-RX46BA
		EMR10-02-000
NT6X71AB	Interface for data unit	EMR2-06-000
		EMR10-34-RLCC-1
		EMR2-15-RCC-1
		EMR2-15-RCC-4
		EMR9-02-CSC-1
		EMR9-03-CSC-1
		EMR10-10-MCRM-1
		EMR2-15-RCC-3
		EMR2-15-RCC-2
		EMR2-15-RCC-6
		EMR2-15-RCC-7
		EMR2-15-RCC-8
		EMR2-99-RCC-6
		EMR10-28-MCRM-2
		EMR2-15-002
NT6X72AB	Host Link Formatter CP	EMR2-15-RCCI-1
		EMR10-33-MCRM-3
		EMR2-99-RCC-6
		EMR10-28-MCRM-1
NT6X72BA	Host Link Formatter CP	EMR10-28-MCRM-3
		EMR2-15-002
		EMR2-22-RCC0-1
		EMR2-22-RCC0-2
NT6X73AA	LINK CONTROL CARD CP	EMR2-22-RCC0-3
		EMR2-14-HIE-1
		EMR2-16-RLCC-2
		EMR10-34-RLCC-1
NT6X73BA	Intl Link Control CP	EMR10-09-RIM-1
		EMR2-14-HIE-4
		EMR10-34-RLCC-1

NT6X74AB	RMM Control CP	EMR2-14-HIE-2
		EMR2-14-HIE-3
		EMR2-14-HIE-5
		EMR10-10-MCRM-1
		EMR10-34-RLCC-1
		EMR10-09-RIM-1
		EMR10-28-MCRM-2
		EMR10-28-MCRM-1
		EMR10-28-MCRM-3
		EMR2-15-002
NT6X75AA	ESA CLOCK AND TONE CARD	EMR2-13-000
		EMR2-13-001
		EMR10-09-000
NT6X75DA	ESA Clock and Tone Card(CEP)	EMR2-13-I00
NT6X78AA	CLASS Modem Resource CP	EMR2-06-RX46BA
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NT6X85AB	DS1 Interface CP	EMR12-02-000
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NT8X40WA	Wiring 3-Wire 220VAC Ph-Ph	EMR2-13-I00

NT8X40WB	Wiring 2-Wire 220VAC Sngl Ph	EMR2-13-I00
NT8X41AA	IOPM Fan Unit	EMR2-13-I00
NT8X45AA	PCM-30 Patch Panel	EMR2-13-I00
NT8X46AA	Parallel-Space Time Switch	EMR10-01-DLM-1
		EMR10-01-DLM-2
NT8X47AA	Digital Port Card	EMR10-01-000
		EMR10-01-001
NT8X47BA	Enhanced Digital Port Card	EMR10-04-000
		EMR10-01-000
		EMR10-01-001
		EMR10-09-000
NT8X48AA	DIST. PROCESSOR PERIPHERAL	EMR5-01-002
NT8X48AB	DIST. PROCESSOR PERIPHERAL	EMR5-01-002
NT8X48AD	DIST. PROCESSOR PERIPHERAL	EMR5-01-002
NT8X48BA	DIST. PROCESSOR PERIPHERAL	EMR5-01-002
NT8X49AA	Digital Set Interface Proc	EMR10-01-DLM-1
NT8X49AC	Digital Set Interface Proc	EMR10-01-DLM-2
NT8X55AA	Dgtl Port Maintenance Card	EMR10-01-DLM-1
		EMR10-01-DLM-2
NT8211D-19-063	Mercury 8" Disk Drive	EMR10-11-000
NT9X01AA	Computing Module Duplex Cabinet	EMR4-13-000
NT9X01BA	Dual Plane Combined Core Cabinet	EMR4-02-001
NT9X01CA	MESSAGE SWITCH SIMPLEX CABINET	EMR4-15-000
NT9X01FA	SuperNode Spare Storage Cabinet	EMR4-06-001
NT9X01FB	Filler Packfill	EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X01GA	MESSAGE SWITCH DUPLEX CABINET	EMR4-16-000
NT9X01JA	EMI Dual Plane Combined Core Cabin	EMR4-03-001
NT9X01PA	DPCC Meridian Cabinet Interface	EMR4-05-001
NT9X0101	COMMON CABINET EQUIPMENT	EMR3-05-000
		EMR4-15-000
		EMR4-16-000
		EMR2-12-000
		EMR2-12-001
		EMR4-13-000
		EMR4-02-001
		EMR2-12-002
NT9X0102	Frame Fail LP, Brown Kit	EMR2-24-002
		EMR2-25-RCC2-3
NT9X0105	Frame Fail LP, Brown Kit	EMR2-24-002
		EMR2-25-RCC2-3
NT9X0108	Series 60 EMI Kit	EMR4-03-001
		EMR4-02-001
NT9X0113	Common Cabinet Equipment	EMR4-03-001
NT9X0114	Power Access Panel	EMR4-06-001
NT9X0124	Alarm Cable Assy	EMR4-03-001
NT9X0145	DS30 I/F CA ASSY (DMS)	EMR4-15-000
		EMR4-16-000

		EMR2-12-001
		EMR4-03-001
		EMR4-02-001
NT9X0146	END OF AISLE LAMP CABLE	EMR4-15-000
		EMR4-16-000
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X0150	Coax Ca Assy (NT9X54AB)	EMR4-03-001
NT9X0158	Cable Assy	EMR4-03-001
NT9X0159	Coax Cable Assy	EMR4-03-001
NT9X0164	DS-30 Cable	EMR4-03-001
NT9X0167	CM P-BUS EXTN CABLE	EMR4-14-SLM-1
		EMR4-05-001
NT9X0171	LMS DS-30 X-Link Cable Assy	EMR2-12-000
NT9X0172	END OF AISLE LAMP CABLE	EMR4-15-000
		EMR4-16-000
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X0174	Frame Fail LP, Grey	EMR2-24-002
		EMR2-25-RCC2-3
NT9X0175	Composite Clk CA Assy	EMR4-03-001
		EMR4-02-001
NT9X0180	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NT9X0182	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NT9X0184	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NT9X0186	DS30 I/F Ca Assy (Mer)	EMR4-03-001
NT9X0188	Cabling Interface Kit (Mer)	EMR4-03-001
NT9X0190	Ethernet Cable Assembly	EMR2-12-000
		EMR2-12-001
NT9X0191	FRIU Cable Assembly	EMR2-12-000
		EMR2-12-001
NT9X0192	Coax Ca Assy (NT9X54AC/AD)	EMR4-03-001
		EMR4-02-001
NT9X0193	STP Cable Assembly	EMR2-12-000
		EMR2-12-002
NT9X0196	RS232C & Curr Loop Ca Assy	EMR4-03-001
		EMR4-02-001
NT9X03AA	FRAME SUPERVISORY PANEL	EMR4-15-000
		EMR4-16-000
NT9X0314	FSP SHORTING PLUG	EMR3-05-000
NT9X0320	Grounding Point Assy (front)	EMR2-12-001
NT9X0321	Grounding Point Assy (rear)	EMR2-12-001
NT9X0322	POWER CONNECTION BOOT KIT	EMR3-05-000
		EMR2-12-000
		EMR2-12-001
		EMR4-03-001
NT9X04AA	MESSAGE SWITCH PROCESSOR SHELF COM	EMR4-14-MSPS-1

		EMR4-15-000
		EMR4-16-000
		EMR4-02-001
NT9X04AB	MSG SW PROC SHF COMM CP	EMR4-14-MSPS-2
		EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X04AD	MSG SW MEMORY UPGRADE KIT	EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X04AE	MSG SW PROC SHF COMM CP	EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X04AF	MSG SW MEMORY UPGRADE KIT	EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X04AG	Msg Sw Proc Shf Comm CP	EMR4-03-001
		EMR4-02-001
NT9X04AH	Msg Sw Proc Shf Comm CP Fill	EMR4-03-001
		EMR4-02-001
NT9X04AX	Msg Sw Blkhd I/F Upgrade Kit	EMR4-03-001
NT9X04AY	Product Change Kit	EMR4-03-001
		EMR4-02-001
NT9X04AZ	MS Ext Clk I/F Upgrade Kit	EMR4-03-001
		EMR4-02-001
NT9X0401	MSG SW SIMPLEX SHF ASSY	EMR4-15-000
		EMR4-16-000
		EMR4-02-001
NT9X0440	Msg Sw Simplex Shf Assy	EMR4-03-001
NT9X05AB	ENHANCED NETWORK CABINET	EMR3-05-000
NT9X0520	DS-30 CABLE ASSEMBLY	EMR3-05-000
NT9X0522	FSP Bulking Cable Assembly	EMR4-03-001
NT9X0524	DS-512/DS-30 CABLE ASSEMBLY	EMR3-05-000
NT9X0530	V-BUS CABLE ASSEMBLY	EMR3-05-000
NT9X06AA	COMPUTING MODULE PROCESSOR SHELF C	EMR4-13-CMPS-1
		EMR4-13-000
		EMR4-02-001
NT9X06AB	COMPUTING MOD PROCESSOR	EMR4-13-CMPS-2
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X06AC	Computing Mod Processor	EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X06AD	Computing Mod Processor	EMR4-03-001

NT9X06AZ	CM Current Loop Upgrade Kit	EMR4-02-001
NT9X06CA	CM Processor Upgrade Kit	EMR4-03-001
		EMR4-02-001
		EMR4-13-000
		EMR4-02-001
NT9X06CC	CM Processor Upgrade Kit	EMR4-98-CMPS-1
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X0601	Computing Module Duplex	EMR4-13-000
		EMR4-02-001
NT9X0605	Computing Module Duplex	EMR4-03-001
NT9X07AA	CM SLM COMMON CP	EMR4-14-SLM-1
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X07AB	CM SLM Common CP	EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X0701	CM SLM Ext Shelf	EMR4-13-000
NT9X0702	CM SLM Ext Shelf Assy	EMR4-03-001
		EMR4-02-001
NT9X0757	CM P-BUS EXTN CABLE	EMR4-14-SLM-1
		EMR4-05-001
NT9X0801	ENHANCED NETWORK SHELF ASSY	EMR3-05-000
NT9X10AA	33 MHZ 88000 BRISC CPU CP	EMR4-03-001
		EMR4-02-001
NT9X10BA	60 MHZ 88110 BRISC CPU CP	EMR4-03-001
		EMR4-02-001
NT9X12AA	CPU PORT CP	EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-SLM-1
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X12AB	CPU Port CP	EMR4-13-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
NT9X12AC	CPU Port CP	EMR4-03-001
		EMR4-02-001
NT9X12AD	CPU Port CP	EMR4-03-001
		EMR4-02-001
NT9X13BA	CPU PROCESSOR CP (BCS24)	EMR4-13-CMPS-1
		EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X13BB	CPU Processor CP	EMR4-13-000
		EMR4-03-001

NT9X13BC	CPU Processor CP	EMR4-02-001 EMR4-13-000 EMR4-03-001 EMR4-02-001
NT9X13CA	Link General Processor CP	EMR2-12-001
NT9X13DA	CPU 16 MHZ CP	EMR2-12-LMS-1 EMR4-14-MSPS-1 EMR4-14-MSPS-2 EMR4-15-000 EMR4-16-000 EMR2-12-001 EMR4-03-001 EMR4-02-001
NT9X13DB	CPU 16 MHZ CP	EMR4-15-000 EMR4-16-000 EMR2-12-000 EMR2-12-001 EMR4-05-001 EMR4-03-001 EMR4-02-001
NT9X13DC	CPU 16 MHZ CP	EMR4-03-001 EMR4-02-001
NT9X13DD	CPU 16 MHZ CP(16 MB)	EMR4-03-001 EMR4-02-001
NT9X13EA	CPU Processor CP	EMR4-13-000 EMR4-03-001 EMR4-02-001
NT9X13FA	CPU CP	EMR3-05-000
NT9X13GA	CPU (68030) 33MHz Proc CP	EMR4-03-001 EMR4-02-001
NT9X13HA	CPU (68030) 40MHz Proc CP	EMR4-03-001 EMR4-02-001
NT9X13HB	CPU (68030) 40MHz Proc CP	EMR4-03-001 EMR4-02-001
NT9X13JA	CPU (68020) Processor CP	EMR4-03-001 EMR4-02-001
NT9X14AA	4MB MEMORY CP	EMR4-14-MSPS-1 EMR4-13-000 EMR4-02-001
NT9X14BB	MEMORY 6M CP	EMR2-12-LMS-1 EMR4-14-MSPS-2 EMR4-15-000 EMR4-16-000 EMR2-12-000 EMR4-13-000 EMR4-05-001 EMR4-03-001 EMR4-02-001
NT9X14DA	24Mb Memory CP	EMR4-13-000

NT9X14DB	APUX Processor Circuit Pack	EMR4-03-001
		EMR4-02-001
		EMR2-12-000
		EMR4-13-000
NT9X14EA	96Mb Memory CP	EMR4-03-001
		EMR4-02-001
		EMR4-03-001
		EMR4-02-001
NT9X15AA	MAPPER CP	EMR2-12-LMS-1
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-000
NT9X17AA	MS 4-PORT CP	EMR4-05-001
		EMR2-12-LMS-1
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-15-000
		EMR4-16-000
		EMR2-12-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
		EMR4-03-001
		EMR4-03-001
NT9X17AC	MS 4-Port CP for FLIS	EMR4-03-001
NT9X17AD	MS 4-Port CP	EMR4-03-001
NT9X17CA	MS 128-Port CP	EMR4-03-001
NT9X17DA	MS 64-Port CP	EMR4-02-001
		EMR4-03-001
		EMR4-02-001
		EMR2-12-LMS-1
NT9X19AA	FILLER FACE PLATE	EMR3-05-000
		EMR4-14-SLM-1
		EMR4-15-000
		EMR4-16-000
		EMR2-12-000
		EMR2-12-001
		EMR4-13-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
		EMR2-12-002
		EMR2-12-LIS-1
NT9X19BA	PB FILLER FACE PLATE	EMR2-12-LMS-1
		EMR3-05-000
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-14-SLM-1
		EMR4-15-000
		EMR4-16-000
		EMR2-12-FLIS-1

		EMR2-12-000
		EMR2-12-001
		EMR4-13-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
		EMR2-12-002
NT9X19EA	FILLER FACE PLATE	EMR2-12-LIS-1
		EMR2-12-LMS-1
		EMR2-12-000
NT9X20AA	DS512 PB	EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-05-001
NT9X20BB	DS-512 ENET/MS Fiber I/F PB	EMR4-03-001
		EMR4-02-001
NT9X20BC	ENET/MS Fiber Interface PB	EMR4-03-001
		EMR4-02-001
NT9X21AA	CM BUS TERMINATOR	EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-SLM-1
		EMR4-05-001
NT9X22CA	SUBSYSTEM CLOCK	EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-SLM-1
		EMR4-05-001
NT9X23AA	4XDS-30 PB	EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X23BA	DS-30 4-PORT CPNTA (STP)	EMR2-12-LMS-1
		EMR4-15-000
		EMR4-16-000
		EMR2-12-000
		EMR4-03-001
		EMR4-02-001
NT9X25AA	MS Port Expander PB	EMR4-03-001
		EMR4-02-001
NT9X25BA	MS Port Terminator PB	EMR4-03-001
		EMR4-02-001
NT9X26AA	REMOTE TERM I/F ADD	EMR2-12-LMS-1
		EMR3-05-000
		EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-000
		EMR4-05-001

NT9X26AB	REMOTE TERMINAL I/F PB	EMR4-03-001
		EMR4-02-001
		EMR3-05-000
		EMR2-12-000
		EMR4-03-001
NT9X26DA	BRISC RTIF PB	EMR4-02-001
		EMR4-03-001
NT9X26DB	BRISC RTIF PB	EMR4-02-001
		EMR4-03-001
NT9X26DC	BRISC RTIF Circuit Pack	EMR4-02-001
		EMR4-03-001
NT9X26EA	BRISC RTIF PB	EMR4-02-001
		EMR4-03-001
NT9X27AA	CM BUS Extender	EMR4-02-001
		EMR4-13-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
NT9X27BA	CM BUS EXTENSION PB	EMR4-14-SLM-1
		EMR4-05-001
NT9X30AA	+5V POWER CONVERTER	EMR2-12-LIS-1
		EMR2-12-LMS-1
		EMR3-05-000
		EMR4-13-CMPS-1
		EMR4-13-CMPS-2
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-14-SLM-1
		EMR2-12-FLIS-1
		EMR2-12-000
		EMR4-05-001
		EMR3-05-000
		EMR4-13-CMPS-1
		EMR4-13-CMPS-2
NT9X31AA	-5V 20A POWER CONVERTER CP	EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-FLIS-1
		EMR4-05-001
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-15-000
		EMR4-16-000
		EMR4-05-001
		EMR4-03-001
NT9X32AA	MS LOADING PADDLE BOARD	EMR4-02-001
		EMR3-05-000
		EMR3-05-000
		EMR3-05-000
		EMR3-05-000
NT9X35BA	16K X 16K CHAN XPT CP	EMR3-05-000
		EMR3-05-000
		EMR3-05-000
		EMR3-05-000
NT9X35CA	16K X 16K CHAN TERM XPT CP	EMR3-05-000
NT9X36BA	NETWORK CLOCK & MSG CP	EMR3-05-000
NT9X40BA	QUAD DS-512 FIBER I/F PB	EMR3-05-000

NT9X40BB	QUAD DS-512 FIBER I/F PB	EMR3-05-000
NT9X41BA	DS-30 INTERFACE PB	EMR3-05-000
NT9X44AA	System Load Module	EMR4-13-000
		EMR4-05-001
		EMR4-03-001
		EMR4-02-001
NT9X44AB	System Load Module II	EMR4-03-001
		EMR4-02-001
NT9X44AD	System Load Module III	EMR4-03-001
		EMR4-02-001
NT9X45BA	16 DS-30/3 DS-512 I/F PB	EMR3-05-000
NT9X46AA	PARALLEL PORT I/F PB	EMR4-14-SLM-1
		EMR4-05-001
NT9X47AA	POWER CONVERTER	EMR4-14-SLM-1
		EMR4-05-001
NT9X49CA	MS P-BUS TERMINATOR CP	EMR2-12-LMS-1
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-000
		EMR4-05-001
		EMR4-03-001
NT9X49CB	DMS-Bus Tracer CP for ENET	EMR4-03-001
		EMR4-02-001
NT9X52AA	T-BUS ACCESS CP	EMR2-12-LMS-1
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-000
		EMR4-05-001
NT9X53AA	MS CLOCK CP	EMR2-12-LMS-1
		EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR2-12-000
		EMR4-03-001
NT9X53AB	MS SYS CLK-EXT OPTION 1 CP	EMR4-05-001
		EMR4-03-001
		EMR4-02-001
NT9X53AC	Combined Clock CP	EMR4-03-001
NT9X53AD	DMS-Bus System Clock CP	EMR4-03-001
NT9X54AA	SUBSYSTEM CLOCK PB	EMR4-14-MSPS-1
		EMR4-14-MSPS-2
		EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X54AB	SUBSYSTEM CLOCK PB	EMR4-15-000
		EMR4-16-000
		EMR4-03-001
		EMR4-02-001
NT9X54AC	Subsystem Clock PB (Ext I/F)	EMR4-03-001

NT9X54AD	Subsystem Clock PB (Japan)	EMR4-02-001
NT9X62BA	SR512 Fiber Paddle Board	EMR4-03-001
NT9X6501	DS30 BLKHD I/F (LEFT) (DMS)	EMR4-02-001
		EMR4-03-001
		EMR4-15-000
		EMR4-16-000
		EMR4-03-001
NT9X6502	CABLE BULKHEAD	EMR4-02-001
		EMR4-15-000
		EMR4-16-000
		EMR2-12-001
		EMR4-02-001
NT9X6503	RIGHT FIBER I/F BULKHEAD PNL	EMR3-05-000
NT9X6506	LEFT FIBER I/F BULKHEAD PNL	EMR3-05-000
NT9X6507	Cable Bulkhead (right)	EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X6508	Cable Bulkhead (left)	EMR4-13-000
		EMR4-03-001
		EMR4-02-001
NT9X6509	Bulkhead Assembly (LF)	EMR2-12-000
		EMR2-12-001
NT9X6510	DS30 Blkhd I/F (left)(SL100)	EMR4-03-001
NT9X6511	DS30 Blkhd I/F (rt) (SL100)	EMR4-03-001
NT9X6513	DS30 Blkhd I/F (left) (Mer)	EMR4-03-001
NT9X6514	DS30 Blkhd I/F (rt) (Mer)	EMR4-03-001
NT9X6520	LEFT FILTER BULKHEAD PNL	EMR3-05-000
NT9X6521	RIGHT FILTER BULKHEAD PNL	EMR3-05-000
NT9X6530	LEFT FILTER BULKHEAD PNL	EMR3-05-000
NT9X6531	RIGHT FILTER BULKHEAD PNL	EMR3-05-000
NT9X6534	Bulkhead Assembly	EMR2-12-000
		EMR2-12-002
NT9X6536	Bulkhead Assembly (RT)	EMR2-12-000
		EMR4-03-001
NT9X6537	DS30 Blkhd I/F (rt) (SL100)	EMR4-03-001
NT9X6538	DS30 Blkhd I/F (rt) (Mer)	EMR4-03-001
NT9X6539	Cable Bulkhead (right)	EMR4-03-001
NT9X6540	Cable Bulkhead (right)	EMR4-03-001
NT9X6544	DS30 I/F Ca Assy Streamline	EMR4-03-001
NT9X6545	DS30 Blkhd I/F (rt) Strmline	EMR4-03-001
NT9X6546	DS30 Blkhd I/F left Strmline	EMR4-03-001
NT9X6556	MS Blkhd I/F (left)(DMS100)	EMR4-03-001
NT9X6557	DS30 Blkhd I/F (left)(SL100)	EMR4-03-001
NT9X6558	DS30 Blkhd I/F (left) (Mer)	EMR4-03-001
NT9X6580	Bulkhead Assembly Right	EMR2-12-002
NT9X70AA	Link Interface Module Cabinet	EMR2-12-001
NT9X70AZ	PC Kit for EIU/NIU Retrofit	EMR2-12-001
NT9X70BA	Link Interface Module Cabinet	EMR2-12-000
NT9X7020	NIU DS30 Cable to Bulkhead	EMR2-12-000

		EMR2-12-001
		EMR2-12-002
NT9X7021	NIU Inter CBC Cable	EMR2-12-000
		EMR2-12-001
		EMR2-12-002
NT9X7022	LIS Ethernet/FRS Bulkhead	EMR2-12-001
NT9X7025	LMS DS-30 X-Link Cable Assy	EMR2-12-000
NT9X71AA	LOCAL MESSAGE SWITCH SHELF COMMON	EMR2-12-LMS-1
		EMR2-12-001
NT9X71AB	Local Msg Switch Shf Com CP	EMR2-12-000
		EMR2-12-001
NT9X7101	Local Msg Switch Shf Assy	EMR2-12-000
		EMR2-12-001
NT9X72AA	LINK INTERFACE UNIT SHELF COMMON C	EMR2-12-LIS-1
		EMR2-12-001
NT9X72AC	Link I/F Unit Shelf Comm CP	EMR2-12-001
NT9X72AD	Link I/F Unit Shelf Comm CP	EMR2-12-001
NT9X72BA	LIU7/DCP Shelf Comm CP	EMR2-12-000
NT9X72CA	FLIS Common Circuit Pack Fill	EMR2-12-FLIS-1
		EMR2-12-002
NT9X7201	Link I/F Unit Shelf Assy	EMR2-12-001
NT9X7204	Link I/F Unit Shelf Assy	EMR2-12-000
		EMR2-12-002
NT9X73AA	LMS F-BUS RATE ADAPTER CP	EMR2-12-LMS-1
		EMR2-12-001
NT9X73BA	LMS F-BUS Rate Adapter CP	EMR2-12-000
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NT9X74DA	F-Bus Repeater CP	EMR2-12-000
		EMR2-12-001
NT9X75AA	F-Bus Interface CP	EMR2-12-001
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		EMR2-12-001
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NT9X76CA	JAPAN ISUP LIU7 Circuit Pack	EMR2-12-000
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		EMR2-12-001
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NT9X85AA	Ethernet Access Unit I/F PB	EMR2-12-000 EMR2-12-001
NT9X95AA	MECHANICAL H/W FOR C42(S/DMS) CABI	EMR4-17-000
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NT9X98AA	LIS Fiber INTF Paddle Board	EMR2-12-FLIS-1
NT9X9820	FLIS Cable Assembly	EMR2-12-002
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QKP1A	HEADSET ACC. KIT	EMR7-BSAC-4 EMR7-BSAC-5
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QMP6A5	GAS TUBE PROT. MOD QMP6A5	EMR2-13-000 EMR2-13-001 EMR2-13-I00
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QPP519	FAULT LOC/ORDER WIRE ACCESS	EMR2-13-000 EMR2-13-001
QRE3A	GREEN BIX CON RETAINERS	EMR2-13-000 EMR2-13-001 EMR2-13-I00
QRY18	OFFICE REPEATER	EMR2-13-000 EMR2-13-001
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QSK202ABX-20	Logic 20 Rotary Dial Wh	EMR11-01-LOG-1
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QSK2202ABX-20	Logic 20 Digitone White	EMR11-01-LOG-1
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QSR2F2	HEADSET W/T MARK STD W/O ACC	EMR7-BSAC-4 EMR7-BSAC-5
QSR2G1	HEADSET STD W/15 FT CORD	EMR7-BSAC-4 EMR7-BSAC-5
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		EMR2-13-000
QTH57A	LINE CARD REMOVAL TOOL	EMR2-13-I00
		EMR2-13-000
		EMR2-13-001
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		EMR2-13-000
		EMR2-13-001
		EMR2-13-I00
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R0109503	Jumper Wire NT-26CR GR/OR pr	EMR2-15-002
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049M037-011	9600 GDC Modem, Rckmnt	EMR5-01-DSM-7
051P006-002	4800 GDC Modem, Rckmnt	EMR5-01-DSM-7
053P001-002	1200 GDC Modem, Rckmnt	EMR5-01-DSM-7
053P001-003	1200 GDC Modem, Rckmnt	EMR5-01-DSM-7
05301	DARK ORANGE CHAIR WITHOUT ARMS	EMR8-ITOPS4-1
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2CT55438	TOPS MPX Key Cap Kit	EMR8-TOPSMPX-1
202-9DR	DATA SET SHELF GDC	EMR5-01-DSM-1
209800-153	MAGNETIC TAPE DRIVE (COOK)	EMR5-01-000
		EMR5-01-001
		EMR5-01-002
		EMR10-07-000
		EMR9-01-001
210566	MAGNETIC TAPE CTRL CABLES	EMR5-01-002
210567	MAGNETIC TAPE CTRL CABLES	EMR5-01-002
210568	MAGNETIC TAPE CTRL CABLES	EMR5-01-002

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2202-HWR-35-35S	Ash Logic 20 Telphn Set	EMR11-01-LOG-1
2861R-AS	Comdial 30 Btn Set Ash	EMR11-01-LOG-1
286113MBA56M	ITT 30 Btn TelSet Bge	EMR11-01-LOG-1
286144MBA56M	ITT 30 Btn TelSet Ash	EMR11-01-LOG-1
5324-000-401A	24V AC/DC Pwr Transformer	EMR7-P-PHONE-1
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		EMR13-01-DSM-6
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62025199	1200BPS AA-AD 202S/D	EMR13-01-UDS-2
62025201	1200BPS AA MODEL 202S/T	EMR13-01-UDS-2
62085064	4800BPS AA MODEL 208A/B	EMR13-01-UDS-2
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62125086	UDS 212A MODEM CARD	EMR8-TOPSM-3
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62245027	3/12/2400BD EC224A/D DS	EMR13-01-UDS-2
62245079	3/12/2400BD AA-AD 2440	EMR13-01-UDS-2
64565005	56KBPS DSU STANDALONE	EMR13-01-UDS-2
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8211D-19-063	MSD 8" DISK DRIVE UNIT	EMR5-01-DDU-3
		EMR5-99-DDU-1
8211D-19-61	MSD 8" DISK DRIVE UNIT	EMR5-01-DDU-1
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8211D-19-62	MSD 8" DISK DRIVE UNIT	EMR5-01-DDU-1
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8211D-19-63	MSD 8" DISK DRIVE UNIT	EMR5-01-DDU-1
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		EMR13-01-DSS-1
905-5060-01	CASE RIXON DATA COMMUNICATIONS EQU	EMR13-01-DSM-1

905-5072-02	CASE RIXON DATA COMMUNICATIONS EQU	EMR13-01-DSS-1
905-5075-14	C829CR-L4 DATA AUX. SET	EMR13-01-DSM-1
		EMR13-01-DSS-1
905-5079-05	C108D/F/H-L1/2 SA MODEM	EMR13-01-DSM-2
		EMR13-01-DSM-3
		EMR13-01-DSS-1
905-5079-06	T108E/G/J-L1/20 MODEM	EMR13-01-DSM-2
		EMR13-01-DSM-3
		EMR13-01-DSS-1
905-5080-11	C113C-L1 MODEM CARD	EMR13-01-DSM-2
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905-5081-11	C103J-L1 CD MODEM	EMR13-01-DSM-2
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905-5084-264	C212A-L1A CD MODEM	EMR13-01-DSM-2
		EMR13-01-DSM-3
905-5085-002	CA201C-L1C/1D DS 2400BD	EMR13-01-DSM-2
		EMR13-01-DSM-3
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905-5085-004	CA201C-L1D DS 2400BD PL	EMR13-01-DSM-2
		EMR13-01-DSM-3
		EMR13-01-DSS-1
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905-5118-001	CASE RM80 DATA SET MODULE 117VAC	EMR13-01-DSM-5
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905-5121-004	CASE RIXON DATA COMMUNICATIONS EQU	EMR13-01-DSM-3
905-5123-001	DATA MODEM T212A-11A/2	EMR13-01-DSM-2
		EMR13-01-DSM-3
905-5131-004	R96 DSC 9600BD PL OR/AN	EMR13-01-DSM-6
905-5139-001	CASE RM90 Data SET MODULE 125VAC	EMR13-01-DSM-6
905-5165-001	CASE RIXON DATA COMMUNICATIONS EQU	EMR13-02-000
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905-5185-001	RM4200 4202-S/A Modem	EMR13-01-DSM-4
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905-5194-001	RM4200 4232-S/A Modem	EMR13-01-DSM-4
905-5220-001	RM4200 4201-S/A Modem	EMR13-01-DSM-4
905-5223-001	RM4200 4212-S/A Modem	EMR13-01-DSM-4
905-5224-001	RM4229-S/A Aux Data Set	EMR13-01-DSM-4
905-5227-001	RM4200 4208-S/A Modem	EMR13-01-DSM-4
905-5230-011	RM4200 4222-S/A Modem	EMR13-01-DSM-4
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