TABLE A-FEATURES

EQUIPMENT				EQUIPMENT OR CIRCUIT DATA					SD EQUIVALENT		
DESCRIPTION	REF NOTE	RAT-ING	LIST OR GROUP	QTY	EQUIPMENT OR CIRCUIT	L/G OR FIG	WRG	APP	SCHEMATIC	FIG	OPT
EQUIPMENT AND APPARATUS REQUIRED TO UPGRADE COMMUNICATIONS MODULE PROCESSOR (CMP) MEMORY. REQUIRED FOR SOFTWARE RELEASE 5E10 OR LATER. PROVIDES KITS FOR UPGRADING TWO (2) TN1368 CORE BOARDS TO TN1800 CORE BOARDS LOCATED IN A CABINET IN THE FIELD.	53 56 57		1								
EQUIPMENT AND APPARATUS REQUIRED TO UPGRADE COMMUNICATIONS MODULE PROCESSOR (CMP) MEMORY. REQUIRED FOR SOFTWARE RELEASE 5E10 OR LATER. PROVIDES KIT FOR UPGRADING ONE (1) TN1368 CORE BOARD. (INTENDED TO BE USED ON SPARE PACKS).	53 56 57		2								
EQUIPMENT AND APPARATUS REQUIRED TO UPGRADE COMMUNICATIONS MODULE PROCESSOR (CMP) MEMORY. REQUIRED FOR SOFTWARE RELEASE 5E10 OR LATER. PROVIDES ONE (1) TN1800 CORE BOARD. (INTENDED FOR PACKS HELD AT PIC SITES). DA EFF:08/12/96 FE:ED5D740-30,G3A	53	DA	3								
EQUIPMENT AND APPARATUS REQUIRED TO UPGRADE COMMUNICATIONS MODULE PROCESSOR (CMP) MEMORY. REQUIRED FOR SOFTWARE RELEASE 5E10 OR LATER. PROVIDES ONE (1) TN1800 CORE BOARD. (INTENDED FOR PACKS HELD AT PIC SITES). REPL:ED5D740-30,G3	53		3A								

END OF TABLE-A

ENGINEERING NOTES

51. THIS DOCUMENT IS TO BE TREATED JUST AS A DETAIL CHANGE SHEET (DCS) WOULD BE TREATED. COPY OF COMPLETE PACKAGE TO BE FORWARDED TO CRAFTSPERSON.

53. GROUP 1 PROVIDES A KIT TO MODIFY TWO CIRCUIT PACKS LOCATED IN ONE COMMUNICATION MODULE IN THE FIELD. GROUP 2 PROVIDES A KIT TO MODIFY ONE CIRCUIT PACK IN THE FIELD. INTENDED TO BE USED ON SPARE CIRCUIT PACKS. GROUP 3 3A PROVIDES A PACK ROTATION OPTION FOR UPGRADING CIRCUIT PACKS HELD AT PIC SITES.

54. AFTER EQUIPPING CIRCUIT PACKS, THE CLI VALUE MUST BE CHANGED.

55. FOR ENGINEERING CHANGE PROCEDURES (ECP), CONSULT TABLE CA.

56. $FOR ORDERING PURPOSES, CONSULT TABLE J AND ORDER DESIRED$ $ED/GROUP BY THE COMCODE NUMBER LISTED.$

57. THIS KIT IS AVAILABLE ONLY FOR TN1368 PACKS THAT ARE AT 10:10 (INTERCHANGEABILITY MARKING) OR LATER. IF THE CUSTOMER'S PACKS ARE PRE 10:10, THEY SHOULD ORDER CLASS B CHANGE PCN B1424. THIS WILL BRING THE PACKS TO THE APPROPRIATE CLASS A LEVEL IN ADDITION TO THE MEMORY UPGRADE AND CONVERSION TO TN1800.
FOR HELP WITH THE CLASS B, CALL $DENNIS FERGUSON$ GLOBAL CHANGE NOTICE ENGINEERING AT TOWN & COUNTRY MISSOURI ON $314-891-4317$ 636-891-3756.

ISSUE NOTES

ORIG ISS: 07/28/93 CHANGE CLASS:

DRAFT: PK	ENGR: JRK	SUPV: PPK	CERTIFIED: 07/28/93	ISSUE: 1

PI1= SL ITEM 1200 'S' ADDED.

ORIG ISS: 07/28/93 CHANGE CLASS: MF

DRAFT: JRK	ENGR: JRK	SUPV:	CERTIFIED: 03/30/94	ISSUE: 2

C54508 - IN TABLE A: RERATED GROUP 3 TO DA. ADDED GROUP 3A.
IN ENG. NOTES: REVISED NOTE 53 TO ADD GROUP 3A.
IN STOCKLIST: ADDED ITEMS 1201, 1051, 1141. LINED-OUT ITEMS 1050, 1060, 1140, 1150.

ORIG ISS: 07/28/93 CHANGE CLASS: A

DRAFT: RMW	ENGR: RMW	SUPV: DWS	CERTIFIED: 04/28/95	ISSUE: 3

H7618 - ENG NOTES: NOTE 52 REMOVED.
MFG NOTES: NOTE 16 MOVED TO COMCODED KIT DWGS, NOTE 15 UPDTD TO SHOW LABEL COMCODE FOR NEW CKT MOD.
MISC TABLE: TABLE J REMOVED, UPDT TABLE CA TO INCORPORATE NEW CKT MOD AND ITS RELATED INFORMATION.
IN STOCKLIST: ITEMS 1020,1035,1040,1051,1070,1080,1110,1141 LINED OUT; ITEMS 1021,1085,1111,1165 ADDED.

ORIG ISS: 07/28/93 NDD NBR: NDD5D740NW-3 CHANGE CLASS: M

DRAFT: PMR	ENGR: PMR	SUPV: DWM	CERTIFIED: 08/12/96	ISSUE: 4

H7618 - GRAPHIC SHEETS B1,B2,B3 UPDATED IN ISSUE 4 WERE LEFT OUT OF THE CERTIFICATION/MERGE PROCEDURE.

ORIG ISS: 07/28/93 NDD NBR: NDD5D740NW-3 CHANGE CLASS: M

DRAFT: PMR	ENGR: PMR	SUPV: DWM	CERTIFIED: 09/23/96	ISSUE: 5

H8508 - IN ENGINEERING NOTES: LINEDOUT NOTE 56; ADDED NOTE 57 AND NOTE REFERENCE TO TABLE A LISTS 1 AND 2.
IN STOCKLIST: IN ITEM 1201 CHANGED NOTE REFERENCE S TO X.
IN TABLE CA AND SHEETS B3,B4,B5: LINEDOUT ALL REFERENCES TO CM1 RELATED INFORMATION (TABLE CA SECTIONS 1.1.1, 1.1.3, 1.4.1, 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.3.1, 3.3.3, 3.3.4, 4.2.1 AFFECTED)
IN TABLE CA, SECTION 1.1.1: CHANGED 5E10 TO 5E12.
IN SHEETS B4 AND B5: CHANGED AT&T TO LUCENT TECHNOLOGIES.
UPDATE SHEET INDEX.

ORIG ISS: 07/28/93 NDD NBR: NDD5D740NW-4 CHANGE CLASS: M

DRAFT: PMR	ENGR: PMR	SUPV: RJP	CERTIFIED: 12/04/98	ISSUE: 6

H09001 - IN ENGINEERING NOTE 57, LINEOUT "DENNIS FERGUSON" AND "314-891-4317"; ADD "636-891-3756"; CHANGE "GCNE" TO "GLOBAL CHANGE NOTICE ENGINEERING".
IN TABLE CA, LINEOUT SECTION 1.3.

ORIG ISS: 07/28/93 NDD NBR: WS9900004 CHANGE CLASS: ME

DRAFT: PMR	ENGR: PMR	SUPV: RJP	CERTIFIED: 01/14/00	ISSUE: 7

SHEET INDEX

SHT NBR / ISSUE	A1 THRU A1 ISSUE 7										
SHT NBR / ISSUE	D1 THRU D5 ISSUE 7										
SHT NBR	B1	B2	B3	B4	B5						
ISSUE	5	5	6	6	6						
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TABLE OF CONTENTS

RT13

DETAIL CHANGE SPECIFICATION FOR
5ESS SWITCH
CMP CORE BOARD MEMORY MODULE
UPGRADE FEATURE

DWG SIZE C2 | ISSUE 7

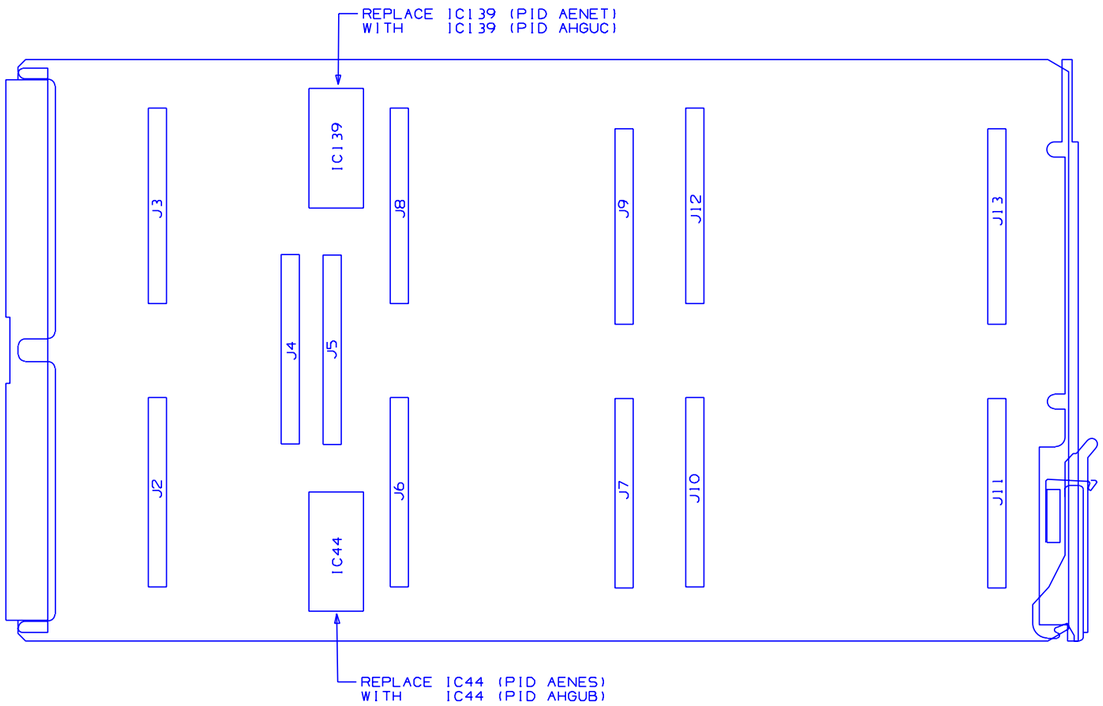
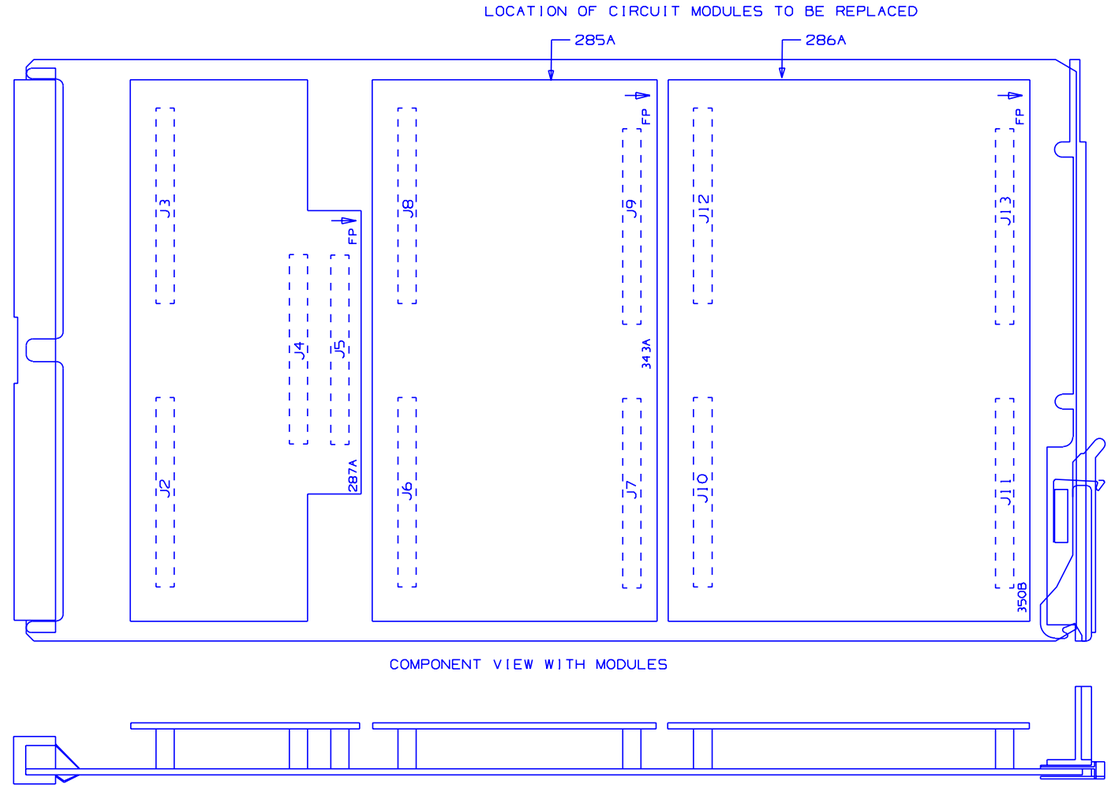


FIGURE 1
PACK LAYOUT SHOWING IC'S TO BE REPLACED
(CIRCUIT MODULES REMOVED)



COMPONENT VIEW WITH MODULES

SIDE VIEW WITH MODULES

FIGURE 2
PACK LAYOUT WITH CIRCUIT MODULES

CMP CORE BOARD
MEMORY MODULE
UPDATE FEATURE

DWG SIZE	ISSUE
C2	5

LUCENT TECHNOLOGIES INC	ED5D740-30 PRINTED IN U.S.A.	SHEET B1

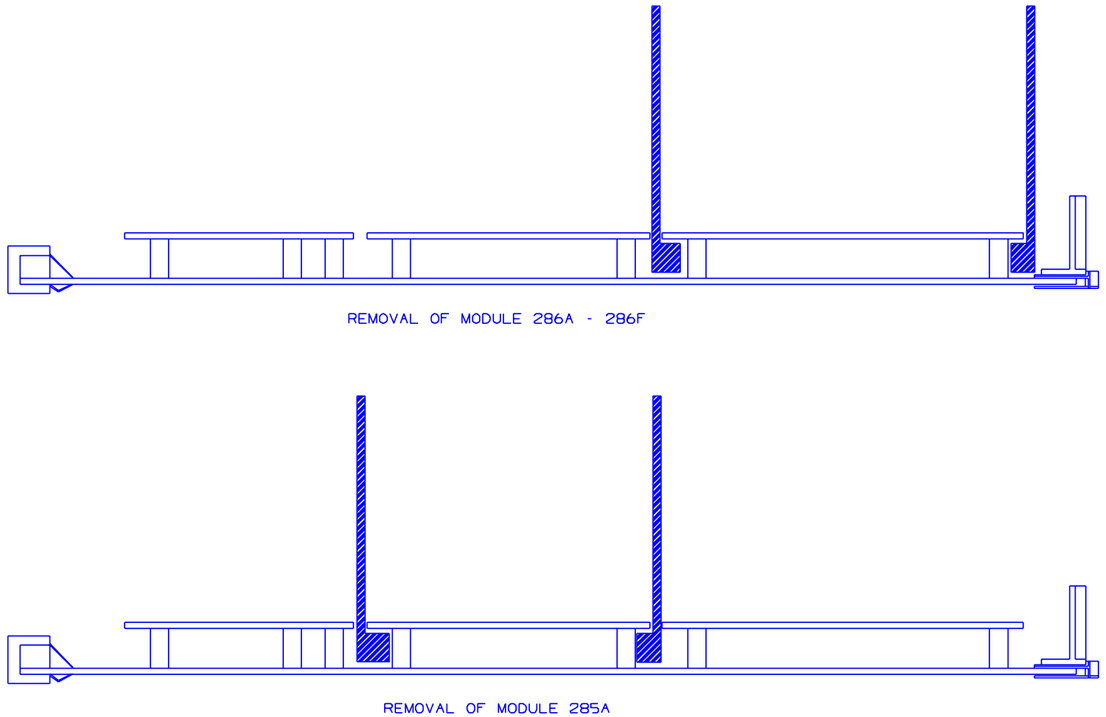


FIGURE 3
CIRCUIT MODULE REMOVER TOOL POSITIONS

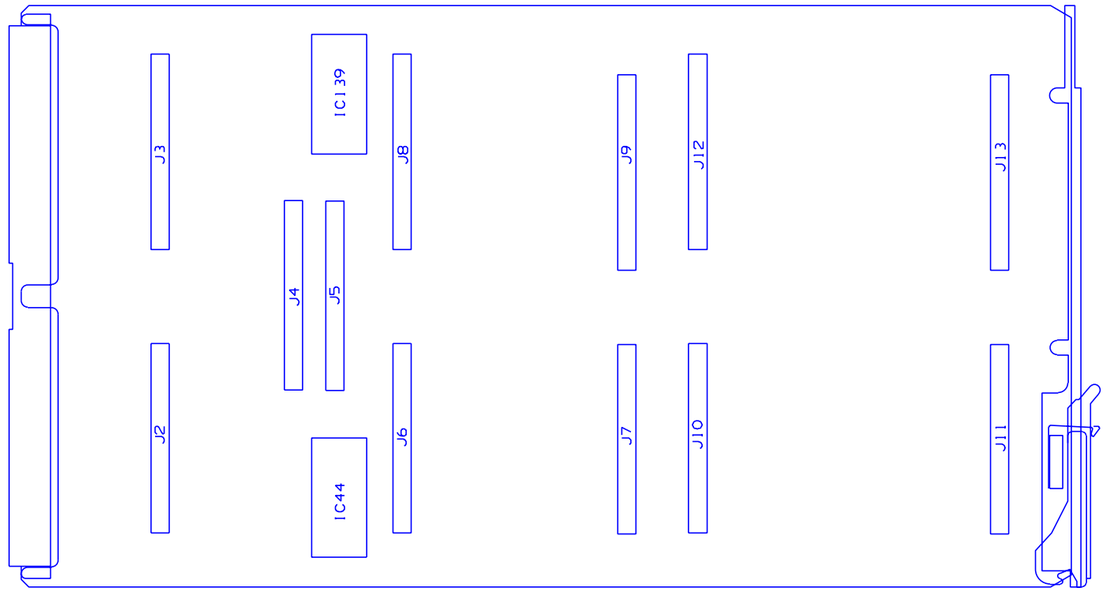
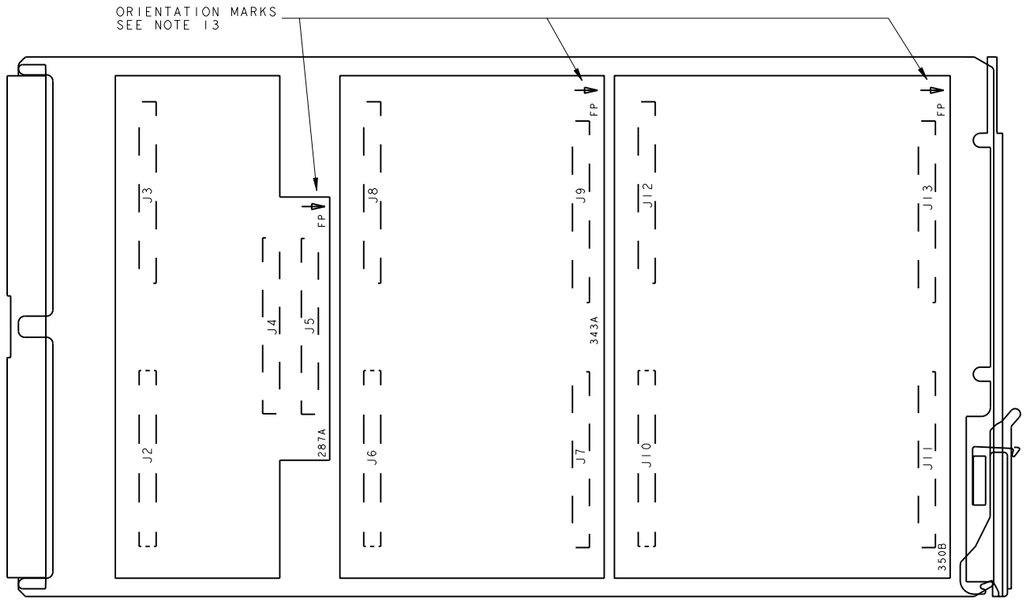


FIGURE 4
CIRCUIT MODULE CONNECTOR POSITIONS ON MAIN BOARD

CMP CORE BOARD
MEMORY MODULE
UPDATE FEATURE

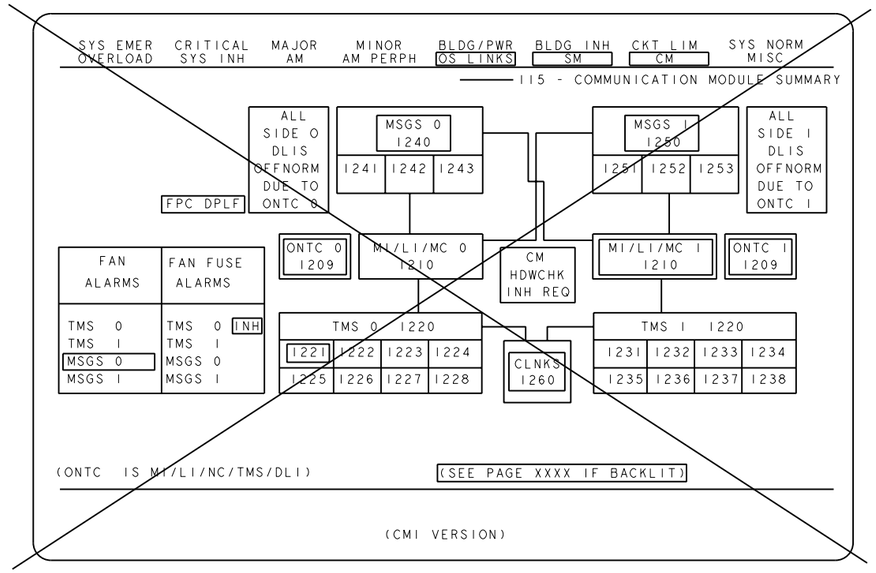
DWG SIZE C2 | ISSUE 5

LUCENT TECHNOLOGIES INC | ED5D740-30 PRINTED IN U.S.A. | SHEET B2



COMPONENT VIEW WITH MODULES

FIGURE 5
CIRCUIT MODULE ORIENTATION



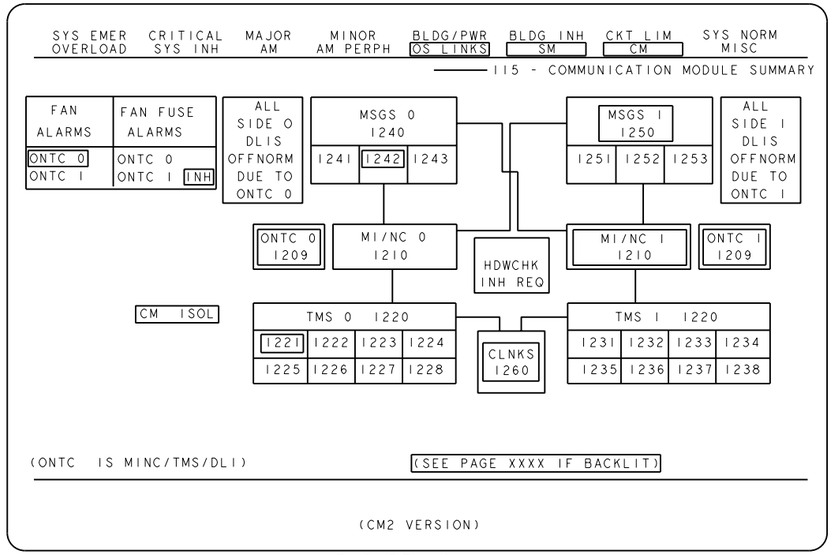


FIGURE 6
COMMUNICATION MODULE SUMMARY - MCC DISPLAY PAGE 115 (CMI & CM2)

ABBREVIATIONS:

CLNKS	COMMUNICATION LINKS
CM	COMMUNICATION MODULE
DLI	DUAL LINK INTERFACE
DPLF	DUPLEX FEATURE
FPC	FOUNDATION PERIPHERAL CONTROLLER
HDWCHK	HARDWARE CHECK
INH	INHIBIT
LI	LINK INTERFACE
MI	MESSAGE INTERFACE
MSGS	MESSAGE SWITCH
NC	NETWORK CLOCK
OFFNORM	OFF-NORMAL
ONTC	OFFICE NETWORK TIMING COMPLEX
REQ	REQUEST
TMS	TIME-MULTIPLEXED SWITCH

CMP CORE BOARD
MEMORY MODULE
UPDATE FEATURE

THIRD ANGLE PROJN

DWG SIZE C2 | ISSUE 6

LUCENT TECHNOLOGIES | ED5D740-30 | SHEET NO. B3

MODELED BY: | DATE: 28-Sep-98

DRAWING NAME=ED5D740-30
MODEL/ASM NAME=MODEL NAME

SYS EMER OVERLOAD | CRITICAL SYS INH | MAJOR AM | MINOR AM PERPH | BLDG/PWR OS LINKS | BLDG INH SM | CKT LIM CM | SYS NORM MISC

1240 - MSGS 0 SUMMARY

INHIBIT

ALLOW

REMOVE
230 MSGS 0
260 MSCU 0

RESTORE
330 MSGS 0
360 MSCU 0

DIAGNOSE
530 MSGS 0
560 MSCU 0

OP CFGSTAT
930 MSGS 0
960 MSCU 0

FORCE ACTIVE
400 SET MSCU 0
402 CLR FORCE

TO CU 0 & 1

MSCU 0 ACT

COMM 0-1, 8-9	COMM 2-7	COMM 10-15
SEE PAGE 1241	SEE PAGE 1242	SEE PAGE 1243

TO MI/LI/NC 0 & 1

(CMI VERSION)

SYS EMER OVERLOAD | CRITICAL SYS INH | MAJOR AM | MINOR AM PERPH | BLDG/PWR OS LINKS | BLDG INH SM | CKT LIM CM | SYS NORM MISC

1241 — MSGS 0 — COMMUNITIES 0-1 , 8-9

INHIBIT
640 FPC 0
650 PPC 0
6XX CMP XX

ALLOW
740 FPC 0
750 PPC 0
7XX CMP XX

REMOVE
240 FPC 0
250 PPC 0
2XX CMP XX

RESTORE
340 FPC 0
350 PPC 0
3XX CMP XX

DIAGNOSE
540 FPC 0
550 PPC 0
5XX CMP XX

SWITCH
440 FPC 0
450 PPC 0
4XX CMP XX

OP CFGSTAT
940 FPC 0
950 PPC 0
9XX CMP XX

COMM 0	COMM 1	COMM 8	COMM 9
	PPC 0 STBY		
	FPC 0 ACT		
	CMP 00 ACT		

(SEE PAGE 1850,XX CMP XX PRIM INH & RCVRY CNTL)

(CMI VERSION)

SYS EMER OVERLOAD | CRITICAL SYS INH | MAJOR AM | MINOR AM PERPH | BLDG/PWR OS LINKS | BLDG INH SM | CKT LIM CM | SYS NORM MISC

1240 - MSGS 0 SUMMARY

INHIBIT
660 MSCU 0

ALLOW
760 MSCU 0

REMOVE
230 MSGS 0
260 MSCU 0

RESTORE
330 MSGS 0
360 MSCU 0

DIAGNOSE
530 MSGS 0
560 MSCU 0

OP CFGSTAT
930 MSGS 0
960 MSCU 0

FORCE ACTIVE
400 SET MSCU 0
402 CLR FORCE

TO CU 0 & 1

MSCU 0 ACT

COMM 0-1, 8-9	COMM 2-7	COMM 10-15
SEE PAGE 1241	SEE PAGE 1242	SEE PAGE 1243

TO MI/NC 0 & 1

(CM2 VERSION)

SYS EMER OVERLOAD | CRITICAL SYS INH | MAJOR AM | MINOR AM PERPH | BLDG/PWR OS LINKS | BLDG INH SM | CKT LIM CM | SYS NORM MISC

1241 — MSGS 0 — COMMUNITIES 0-1 , 8-9

INHIBIT
640 FPC 0
650 PPC 0
6XX CMP XX

ALLOW
740 FPC 0
750 PPC 0
7XX CMP XX

REMOVE
240 FPC 0
250 PPC 0
2XX CMP XX

RESTORE
340 FPC 0
350 PPC 0
3XX CMP XX

DIAGNOSE
540 FPC 0
550 PPC 0
5XX CMP XX

SWITCH
440 FPC 0
450 PPC 0
4XX CMP XX

OP CFGSTAT
940 FPC 0
950 PPC 0
9XX CMP XX

COMM 0	COMM 1	COMM 8	COMM 9
CMP 00 ACT	PPC 0 STBY		
	FPC 0 ACT		

(SEE PAGE 1850,XX CMP XX PRIM INH & RCVRY CNTL)

(CM2 VERSION)

ABBREVIATIONS:

ACT ACTIVE
COMM COMMUNITY
LI LINK INTERFACE
MI MESSAGE INTERFACE
MSCU MESSAGE SWITCH CONTROL UNIT
MSGS MESSAGE SWITCH
NC NETWORK CLOCK

FIGURE 7
MSGS 0 & 1 SUMMARY - MCC DISPLAY PAGE 1240/1250 (CMI & CM2)

ABBREVIATIONS:

ACT ACTIVE
CMP COMMUNICATION MODULE PROCESSOR
COMM COMMUNITY
FPC FOUNDATION PERIPHERAL CONTROLLER
MSGS MESSAGE SWITCH
PPC PUMP PERIPHERAL CONTROLLER

FIGURE 8
MSGS 0 & 1 COMMUNITIES 0-1, 8-9
MCC DISPLAY PAGE 1241/1251 (CMI & CM2)

CMP CORE BOARD
MEMORY MODULE
UPDATE FEATURE

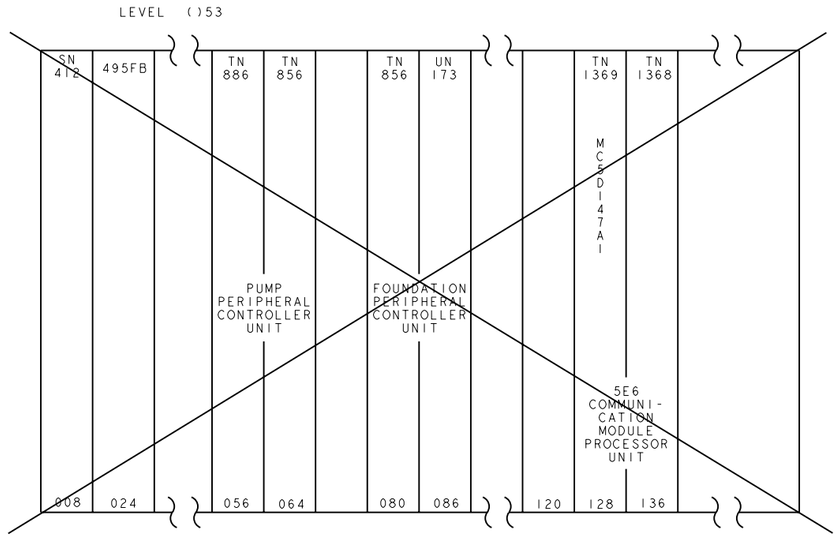
THIRD ANGLE PROJN

DWG SIZE C2 | ISSUE 6

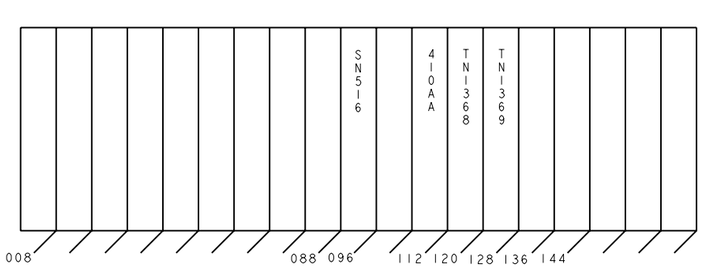
LUCENT TECHNOLOGIES | ED5D740-30 | SHEET NO. B4

MODELED BY: | DATE: 28-Sep-98

DRAWING NAME=ED5D740-30
MODEL/ASM NAME=MODEL NAME



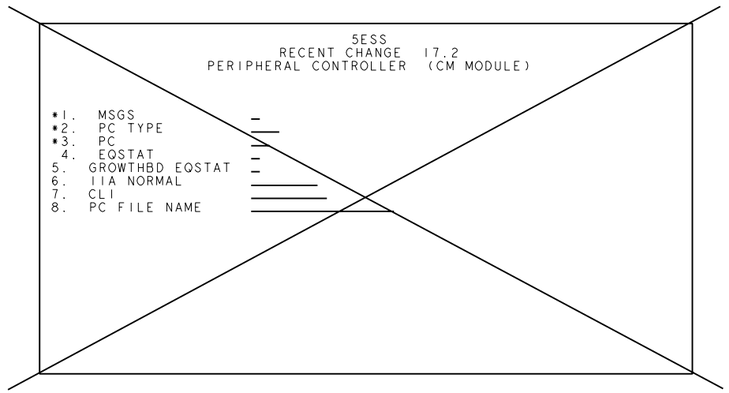
CMI MSPU SHELF LAYOUT WITH CMP



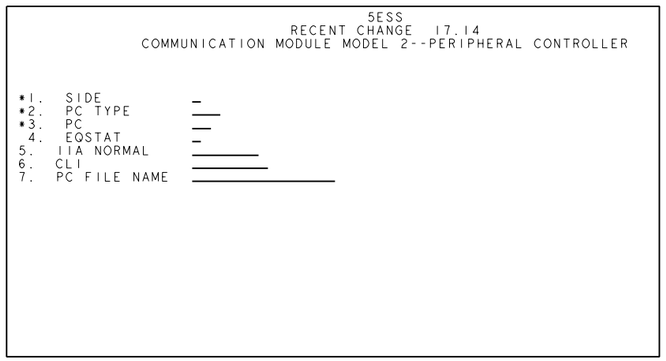
COMMUNICATIONS MODULE PROCESSOR UNIT

FIGURE 9

CMP UNIT POSITIONS



CMI APPLICATIONS



CM2 APPLICATIONS

FIGURE 10

RCV FIELD LAYOUT FOR CLI CHANGE

CMP CORE BOARD
MEMORY MODULE
UPDATE FEATURE

THIRD ANGLE PROJN

DWG SIZE C2

ISSUE 6

LUCENT TECHNOLOGIES

ED5D740-30

SHEET NO. B5

MODELED BY:

DATE: 28-Sep-98

STOCKLIST

ITEM NBR	LIST GROUP CODE	QTY PER CODE	PRODUCT IDENTIFIER	CODE	DESCRIPTION	REFERENCE POSITION	NOTE SYM	NOTE NBR
1010	1	2	106742596	343A	MODULE, CIRCUIT			14
1020	1	2	106742612	350A-AM6-SER1	MODULE, CIRCUIT			14
1021	1	2	107391831	350B	MODULE, CIRCUIT, DOUBLE SIDED			
1030	1	4	845622190		ASSEMBLY, DIP ADAPTER E/W WP-90551,L10 IC & KS-23136,L6 ADAPTER			
1035	1	4	406165316	WP90551L9	CIRCUIT, INTEGRATED, DIGITAL			
1040	1	4	403607864	KS23136L6	ADAPTER			
1050	1	2	476824578	KSZ2002L61	BAR CODE LABEL CLEI = E5PQABMAAB			15
1051	1	2	472109156	KSZ2002L61	BAR CODE LABEL CLEI = E5PQANYAAA			
1060	1	2	476751193	KSZ2002L61	BAR CODE LABEL CLEI = E5PQABMAAA			15
1070	1	2	846907830		TOOL, REMOVAL			
1080	1	2	ED5D685-10,G9		LABEL, DESIGNATION			
1085	1	1	847766201		KIT, UPGRADE 5ESS			
1100	2	1	106742596	343A	MODULE, CIRCUIT			14
1110	2	1	106742612	350A-AM6-SER1	MODULE, CIRCUIT			14
1111	2	1	107391831	350B	MODULE, CIRCUIT, DOUBLE SIDED			
1120	2	2	845622190		ASSEMBLY, DIP ADAPTER E/W WP-90551,L10 IC & KS-23136,L6 ADAPTER			
1125	2	2	406165316	WP90551L9	CIRCUIT, INTEGRATED, DIGITAL			
1130	2	2	403607864	KS23136L6	ADAPTER			
1140	2	1	476824578	KSZ2002L61	BAR CODE LABEL CLEI = E5PQABMAAB			15
1141	2	1	472109156	KSZ2002L61	BAR CODE LABEL CLEI = E5PQANYAAA			
1150	2	1	476751193	KSZ2002L61	BAR CODE LABEL CLEI = E5PQABMAAA			15
1160	2	2	846907830		TOOL, REMOVAL			
1165	2	1	847766219		KIT, UPGRADE 5ESS			
1200	3	1	106465891	TN1800	PACK,CIRCUIT CLEI = E5PQABMA		S	
1201	3A	1	107514390	TN1800	PACK,CIRCUIT CLEI = E5PQANYA		X	

******* END OF STOCKLIST *****

TABLE CA

ECP - TABLE OF CONTENTS

ENGINEERING CHANGE PROCEDURE
5ESS SWITCH
CMP CORE BOARD

*** CONTINUED ***

SHOP	INST	MANUFACTURING NOTES
X		12. THIS KIT SHALL BE PACKAGED IN SUCH A WAY AS TO ALLOW SHIPMENT WITHOUT PHYSICAL OR ELECTRICAL DAMAGE TO THE COMPONENTS.
X	X	13. REMOVE THE ETCHED "TN1368" CODE ON THE PWB AND REPLACE IT WITH AN INK STAMPED "TN1800". THE NEW CODE SHALL BE STAMPED IN BLACK 12 POINT (0.125) CHARACTERS PER WL-2151.
X	X	14. THE CIRCUIT MODULES SHOULD BE ORIENTED TO HAVE THE "FP" ARROW POINTING TO THE FACEPLATE END OF THE CIRCUIT PACK.
X	X	15. WHEN A TN1368 AM2 IS MODIFIED TO A TN1800 AM2, USE 472109156 LABEL. WHEN A TN1368 AM3 IS MODIFIED TO A TN1800 AM3, USE 472140987 LABEL. WHEN A TN1368 AM4 IS MODIFIED TO A TN1800 AM4, USE 472147875 LABEL. DISPOSE OF UNUSED LABEL PER LOCAL INSTRUCTIONS.

RT13

DETAIL CHANGE SPECIFICATION FOR
5ESS SWITCH
CMP CORE BOARD MEMORY MODULE
UPGRADE FEATURE

DWG SIZE C2 | ISSUE 7

LUCENT TECHNOLOGIES INC | ED5D740-30 | SHEET OF D1 11

** CONTINUED **
TABLE CA

MEMORY MODULE UPGRADE FEATURE
(ED5D740-30)

CONTENTS

1. GENERAL

1.1 SCOPE

1.1.1 ED5D740-30 PROVIDES THE 5E9 CMP CORE BOARD MEMORY ENHANCEMENT FEATURE AND IS TO BE INSTALLED PRIOR TO RETROFITTING TO SOFTWARE RELEASE 5E12. THE FIELD APPLICATION OF THIS FEATURE WILL CONSIST OF UPGRADING THE EXISTING TN1368 CORE BOARD MEMORY PACKS TO A TN1800 CODE WHICH PROVIDES THE FEATURE. THE PACKS ARE LOCATED IN THE $ COMMUNICATION MODULE 1 (CM1) MESSAGE SWITCH $ $ PERIPHERAL UNIT (MSPU) AND IN THE $ CM2 COMMUNICATION MODULE PROCESSOR UNIT (CMPU).

1.1.2 THIS ACCOMPANYING INSTALLATION ENGINEERING CHANGE PROCEDURE (ECP) IS THE REQUIRED DOCUMENT FOR INSTALLATION OF ED5D740-30 IN AN IN-SERVICE ENVIRONMENT. A STRUCTURED PROCEDURE IS PROVIDED FOR AN ON-SITE MODIFICATION OF THE AFFECTED CIRCUIT PACK(S). THE PROCEDURE: VERIFIES THE STARTING STATUS OF THE AFFECTED UNIT/PACK, REMOVES THE AFFECTED UNIT/PACK FROM SERVICE, ALLOWS FOR REMOVAL AND DETAILS THE MODIFICATION OF THE AFFECTED PACKS, AND INSERTS AND RESTORES THE PACK(S) AND/OR UNIT TO SERVICE DIAGNOSING UPON RESTORAL. CIRCUIT PACK HANDLING PRECAUTIONS ARE REFERENCED IN THE ECP FOR SAFE HANDLING OF PACKS DURING THE CHANGE PERIOD.

1.1.3 THE EQUIPMENT AFFECTED BY THIS MODIFICATION IS:

$J5D006AD-1	MESSAGE SWITCH PERIPHERAL UNIT (MSPU FOR CM1)$
J5D020AF-1	COMMUNICATION MODULE PROCESSOR UNIT (CMPU FOR CM2)

1.2 PURPOSE

1.2.1 THE PURPOSE OF THIS ECP IS TO DESCRIBE A SAFE PROCEDURE FOR THE INSTALLATION OF ED5D740-30 WITH A MINIMUM OF SERVICE DEGRADATION.

1.2.2 THE PROCEDURE IS DESIGNED SPECIFICALLY FOR WORKING OFFICES AND PROVIDES THE BASIS FOR A METHOD OF PROCEDURE (MOP). THE INSTALLER SHALL MAKE A DETAILED ANALYSIS AND PREPARE A MOP WITH REQUIRED APPROVALS.

1.2.3 BEFORE ANY VERIFICATION OR WORK IS STARTED, THIS PROCEDURE SHOULD BE JOINTLY REVIEWED BY INSTALLATION AND THE CUSTOMER REPRESENTATIVE. CLI CHANGES WILL HAVE TO BE MADE AND ODD INVOKED TO MAKE THE UPDATES. IF THE CUSTOMER ALLOWS INSTALLATION TO PERFORM THE DATABASE CHANGES, A PROCEDURE FROM THE CUSTOMER SHOULD BE AVAILABLE TO THE INSTALLER TO DO THIS WORK. THAT PROCEDURE MUST
*** CONTINUED ***

** CONTINUED **
TABLE CA
ALSO BE JOINTLY REVIEWED AND UNDERSTOOD BY ALL INVOLVED.

$1.3 INFORMATION REFERENCE$

$1.3.1 ECP ONLY COMMENTS AND/OR QUESTIONS MAY BE FORWARDED TO:$

$ M.J. MALNIC (MIKE)$
$ DEPT. NA5301900$
$2600 WARRENVILLE ROAD$
$LISLE, ILLINOIS 60532$
$TELEPHONE (708) 224-4518$

$ALL OTHER PROBLEMS MUST BE DIRECTED OR ESCALATED TO THE PROPER$ $SUPPORT ORGANIZATION.$

1.4 DOCUMENT REFERENCES

1.4.1 THE FOLLOWING IS A RECOMMENDED LIST OF DOCUMENTS THAT SHOULD BE AVAILABLE TO THE INSTALLER FOR REFERENCE OR TROUBLESHOOTING, IF NEEDED, DURING THE APPLICATION OF THIS ED.

ED5D740-30	COPY OF THE ED WHICH THIS ECP ACCOMPANIES
AT&T 235-105-110	SYSTEM MAINTENANCE REQUIREMENTS AND TOOLS (MCC DISPLAY PAGE REFERENCES)
AT&T 235-600-700	5ESS INPUT MESSAGE MANUAL
AT&T 235-600-750	5ESS OUTPUT MESSAGE MANUAL
$SD & CD-5D136-01	SCHEMATIC AND CIRCUIT DESCRIPTION OF THES$ $MSPU CIRCUIT FOR CM1$
SD & CD-5D178-01	SCHEMATIC AND CIRCUIT DESCRIPTION OF THE CMPU FOR CM2
ED-4C249-10	BELLPAC TECHNICAL REQUIREMENTS FOR NUMBERING AND LETTERING
METHOD OF PROCEDURE	
REQUIRED CIRCUIT PACK HANDLING PROCEDURES	
GENERAL EQUIPMENT MARKING PROCEDURES	

2. INSTALLERS EQUIPMENT

2.1 TOOL KITS

2.1.1 THE FOLLOWING TOOL KIT IS NECESSARY FOR APPLYING THIS ED:

- TOOL KIT 607	5ESS CIRCUIT PACK REPAIR KIT

2.2 INSTALLATION TOOLS

2.2.1 THE FOLLOWING TOOLS AND EQUIPMENT ARE NEEDED TO APPLY THIS ED:

- R-5680	INSERTION TOOL, I.C. (26-40 PINS) (P/O TK607)
- R-5681	EXTRACTION TOOL, I.C. (24-40 PINS) (P/O TK607)
- 846907830	TOOL (CORE BOARD REMOVER - PART OF FURNISHED KIT)

3. PROCEDURE

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TABLE CA

3.1 GENERAL

3.1.1 INSTALLATION OF ED5D740-30 WILL REQUIRE THE MODIFICATION OF EACH EQUIPPED AND SPARE TN1368 CMP CORE BOARD. THE MODIFICATION WILL CONSIST OF THE REPLACEMENT OF TWO IC(S) (IC44, IC139 - PID CODES AENES, AENET, RESP.) AND THE REMOVAL AND REPLACEMENT OF TWO CIRCUIT MODULES. SEE FIGURES 1 AND 2 FOR THE LOCATION OF THESE ITEMS FOR REPLACEMENT. A CLI UPDATE WILL ALSO BE REQUIRED AT THE TIME OF THE PACK MODIFICATION.

3.1.2 PRIOR TO BEGINNING THE CHANGE, A REVIEW OF THE LATEST REX OUTPUT RESULTS MAY BE MADE TO VERIFY THE WORKING STATUS OF THE CIRCUIT IN WHICH THE AFFECTED PACKS ARE LOCATED. ALSO, A REVIEW OF THE MCC PAGES FOR CM SUMMARY AND MSGS WILL BE MADE TO VISUALLY VERIFY THE SYSTEM STATUS OF THE UNITS IN WHICH THE AFFECTED PACKS ARE LOCATED.

3.1.3 AFTER INITIAL VERIFICATION, THE SUBJECT TN1368 PACK WILL BE REMOVED AND TAKEN TO A STATIC-FREE WORK AREA TO HAVE THE MODIFICATION APPLIED. IT IS RECOMMENDED TO USE A SPARE PACK IN PLACE OF THE SUBJECT PACK DURING THE MODIFICATION IN ORDER TO KEEP THE SYSTEM RUNNING DUPLEX (THE SPARE USED MUST PASS DIAGNOSTICS). AFTER MODIFICATION, THE SUBJECT PACK IS TO BE RETURNED TO ITS ORIGINAL UNIT POSITION, INSERTED, THE CLI UPDATED AND THE PACK DIAGNOSED. ALL PRECAUTIONS REGARDING ELECTROSTATIC DISCHARGE (ESD) "MUST" BE FOLLOWED DURING THIS PROCEDURE. PROPER HANDLING OF THE PACKS DURING THE MODIFICATION IS CRITICAL. HEED ALL WARNINGS AND CAUTIONS. ALL OFFICE SPARE TN1368 PACKS MUST BE HANDLED AND MODIFIED FOLLOWING THE SAME PROCEDURE.

3.1.4 IT IS RECOMMENDED TO APPLY THIS CHANGE DURING THE LOW TRAFFIC PERIOD(S) OF THE SUBJECT SYSTEM. THE LOWEST TRAFFIC PERIOD(S) MUST BE DETERMINED LOCALLY BY THE CUSTOMER RESPONSIBLE FOR THE SUBJECT SYSTEM.

3.1.5 IT IS RECOMMENDED THAT ONE INSTALLER BE ASSIGNED TO APPLY THIS CHANGE. THIS WAY, AN EXPERTISE IS DEVELOPED WHEN APPLYING THE ED, MAKING THE INSTALLER MORE EFFICIENT AND FAMILIAR WITH HANDLING THE CHANGE.

3.1.6 VERIFY THAT ALL MATERIAL AND EQUIPMENT REQUIRED FOR APPLYING THE CHANGE OF THIS ED IS ON SITE AND ALL POSSIBLE PRELIMINARY WORK BE COMPLETED PRIOR TO BEGINNING THE CHANGE. INCLUDED IN THE PRELIMINARY WORK SHOULD BE THE PREPARATION OF A STATIC-FREE WORK AREA. USE SECTION 5.1 OF THE "GENERAL INFORMATION AND PROCEDURES" THAT IS PROVIDED WITH TK-607, TOGETHER WITH THE INFORMATION BELOW, TO SET UP THE STATIC-FREE WORK AREA.

A. PROPERLY GROUND THE ANTI-STATIC MAT IN PREPARATION FOR THE CIRCUIT PACK WORK. REFER TO SECTION 5.1 OF TK-607 PROCEDURES.

B. ALL WRIST STRAPS MUST BE CONNECTED TO THE ANTI-STATIC MAT, WHEN AT THE WORK AREA, AND CONNECTED TO THE FRAME GROUND LUG, LOCATED BENEATH THE CABINET BEZEL, WHEN REMOVING/REPLACING CIRCUIT PACKS FROM/INTO THE UNIT.

C. THE WORK TABLE AND CHAIR TO BE USED SHOULD ALSO BE PROPERLY GROUNDED.

D. IN ALL CASES, THE CIRCUIT PACKS SHOULD BE STORED AND CARRIED IN THEIR ORIGINAL FACTORY CONTAINERS WHEREVER POSSIBLE. IF ORIGINAL CONTAINERS ARE UNAVAILABLE, R-5158 ANTI-STATIC BAGS MAY BE USED.

3.2 TN1368 CONVERSION TO TN1800

NOTE: INSTALLATION INTERFACE WITH THE SYSTEM MAY BE PERFORMED BY EITHER USING THE MCC (MENU) METHOD, OR BY PUTTING IN THE MESSAGES MANUALLY USING THE IM/OM. THIS ECP IS WRITTEN TO USE THE MCC MENU METHOD. IF THE IM/OM IS USED FOR MANUAL INPUT, THEN REFERENCE TO THE ASSOCIATED IM/OM MUST BE MADE. FOR MESSAGES NOT HAVING A MENU EQUIVALENT, THE IM/OM MESSAGE WILL BE DETAILED IN THIS ECP.

3.2.1 VISUALLY VERIFY THE SYSTEM STATUS OF EACH MSGS BY VIEWING MCC DISPLAY PAGE 115 (SEE FIGURE 6). NEXT, CHECK TO SEE THAT THERE ARE NO PROBLEMS WITH THE UNITS CONTAINING THE CMP CIRCUITS ($MSPU2$
*** CONTINUED ***

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$ FOR CM1 OR $ CMPU FOR CM2). VIEW MCC PAGES 1240/1241 (MSGS 0) AND 1250/1251 (MSGS 1) FOR THAT UNIT (SEE FIGURES 7 & 8).

NOTE: IF TROUBLE INDICATORS ARE PRESENT, HAVE THE PROBLEM RESOLVED BY THE CRAFT OR DETERMINE (WITH CRAFT) WHETHER THE SOURCE OF THE PROBLEM WILL AFFECT THIS CHANGE OR IF THE CHANGE WILL ADVERSELY AFFECT THE SYSTEM WHILE THE PROBLEM EXISTS. IF IT'S DETERMINED THAT THE PROBLEM HAS NO EFFECT, NOTE EACH PROBLEM ON A LOG SHEET AND CONTINUE WITH THE CHANGE.

3.2.2 CONTINUE WITH THE MODIFICATION $ FOR THE APPLICABLE SYSTEM $ $ UNIT (I.E., - CM1 OR CM2) $. CAREFULLY PERFORM THE FOLLOWING STEPS TO UPDATE THE SUBJECT TN1368 PACK TO TN1800.

CAUTION: IT IS IMPERATIVE THAT ANYONE HANDLING 5ESS SWITCH CIRCUIT PACKS BE AWARE OF, AND FOLLOW, THE GUIDELINES FOR CIRCUIT PACK HANDLING. ALL PRECAUTIONS REGARDING ELECTROSTATIC DISCHARGE (ESD) "MUST" BE CAREFULLY FOLLOWED. "WRIST STRAP MUST BE WORN"! ASSURE THAT THE WRIST STRAP HAS BEEN TESTED.

3.2.3 REMOVE THE SUBJECT $ MSGS (CM1) OR $ CMPU (CM2) THAT CONTAINS THE CMP CIRCUIT FROM SERVICE AND REMOVE POWER. USE MCC DISPLAY PAGE COMMANDS AS FOLLOWS (SEE FIGURES 7 AND 8). VIEW MCC PAGE 1241/1251 TO DETERMINE IF THE SUBJECT CMP NEEDS TO BE SWITCHED (SEE FIGURE 8), IF IT DOES, ENTER: POKE 4XX; WHERE XX - CMP#

$A. FOR CM1 APPLICATIONS, VIEW MCC DISPLAY PAGE 1240 (MSGS 0)$ $OR PAGE 1250 (MSGS 1). SEE FIGURE 7.$

$POKE 23Y; TO REMOVE THE MSPU UNIT, CONTAINING$ $THE SUBJECT CMP, FROM SERVICE.$ $(WHERE: Y = MSGS SIDE 0 OR 1)$

$AT FRAME EQL (0/1)53, VERIFY THAT THE MSPU UNIT IS OUT OF$ $SERVICE, THEN REMOVE POWER BY OPERATING THE "OFF" BUTTON$ $ON ITS ASSOCIATED CONTROL AND DISPLAY (C&D) PACK. SEE$ $FIGURE 9 FOR PACK LOCATIONS.$

B. FOR CM2 APPLICATIONS, VIEW MCC DISPLAY PAGE 1241 (MSGS 0) OR PAGE 1251 (MSGS 1). SEE FIGURE 8.

POKE 2XX; TO REMOVE THE SUBJECT CMP UNIT FROM SERVICE (WHERE: XX = CMP#)

AT FRAME EQL (5/6)62, VERIFY THAT THE CMP UNIT IS OUT OF SERVICE, THEN REMOVE POWER BY OPERATING THE "OFF" BUTTON ON ITS ASSOCIATED CONTROL AND DISPLAY (C&D) PACK. SEE FIGURE 9 FOR PACK LOCATIONS.

CAUTION: "WRIST STRAP MUST BE WORN"!

3.2.4 WITH POWER REMOVED FROM THE SUBJECT TN1368 PACK, CAREFULLY REMOVE THE PACK, STORE IT IN AN APPROVED ESD CONTAINER AND REPLACE IT WITH A SPARE TN1368 (SEE FIGURE 9). INSERT AND LATCH THE SPARE. RESTORE POWER BY OPERATING THE "ON" BUTTON ON THE UNIT C&D PACK AND DIAGNOSE AS FOLLOWS:

ON MCC DISPLAY PAGE 1241/1251, ENTER: POKE 5XX; TO DIAGNOSE THE CMP SPARE PACK.

$A. FOR CM1 APPLICATIONS:$ $UPON ATP, RESTORE THE OUT-OF-SERVICE MSGS TO SERVICE$ $UNCONDITIONALLY BY ENTERING THE FOLLOWING COMMAND:$

$POKE 33Y,UCL; MCC PAGE 1240/1250$ $(WHERE: Y = MSGS SIDE 0 OR 1)$

B. FOR CM2 APPLICATIONS:
UPON ATP, RESTORE THE OUT-OF-SERVICE CMP TO SERVICE UNCONDITIONALLY BY ENTERING THE FOLLOWING COMMAND:

*** CONTINUED ***

POKE 3XX,UCL; MCC PAGE 1241/1251
(WHERE: XX = CMP#)

LET THE SPARE RUN ACTIVE AND MONITOR ITS FUNCTION FOR 15 MINUTES TO ASSURE IT IS GOOD. DURING THIS TIME, CAREFULLY TAKE THE REMOVED PACK TO THE STATIC-FREE WORK AREA AND PREPARE FOR ITS MODIFICATION. THE PACK WILL HAVE TO LAY FLAT DUE TO THE REMOVAL OF THE TWO CIRCUIT MODULES. ARRANGE A PLACE ON THE ANTI-STATIC MAT TO DO THIS. VERIFY THAT THE MAT IS PROPERLY GROUNDED BEFORE PUTTING THE PACK ON IT. "WEAR GROUNDED WRIST STRAP"!

3.2.5 BEFORE BEGINNING THE MODIFICATION TO THE TN1368 PACK, GO BACK AND REVIEW THE STATUS OF THE SPARE CMP PACK BEING USED (MCC PAGE 1241/1251). THE SYSTEM SHOULD BE PERFORMING NORMALLY, THEN CONTINUE BY PERFORMING THE STEPS BELOW IN ORDER.

NOTE: FIGURE 1 MUST BE REFERENCED FOR LOCATIONS OF IC(S) BEING REPLACED AND FIGURE 2 FOR THE LOCATION AND CODES OF THE CIRCUIT MODULES BEING REPLACED. ALL REFERENCED FIGURES IN THE STEPS BELOW MUST BE VIEWED, AS RECOMMENDED, DURING MODIFICATION OF THE PACK.

A. THIS SECTION PROVIDES FOR REMOVAL OF CIRCUIT MODULES 285A AND 286A-286F. KEEP FIGURES 2 AND 3 AVAILABLE FOR REFERENCE WHILE THESE STEPS ARE BEING PERFORMED

A1. CAUTION: "WRIST STRAP IS TO BE WORN AT ALL TIMES"!

POSITION THE CIRCUIT MODULE REMOVAL TOOL UNDER THE MODULE SHOWN IN FIGURE 3 FOR THE REMOVAL OF THE 286A-286F MODULE.

A2. **WARNING**: "DO NOT ATTEMPT TO REMOVE THE MODULE FROM EACH CONNECTOR DURING THE FIRST PASS. THIS CAN CAUSE OVERSTRESS OF THE BOARD AND COMPONENTS".

START AT THE FAR END OF THE CIRCUIT MODULE AND SLIDE THE REMOVAL TOOL INTO PLACE. GENTLY, BUT FIRMLY, ROLL THE TOOL UNTIL THE BOARD BEGINS TO LIFT FROM THE CONNECTORS AT THAT END. DO NOT DISCONNECT THAT END TOTALLY.

A3. POSITION THE REMOVAL TOOL NEAR THE CENTER OF THE MODULE AND AGAIN ROLL IT UNTIL THE BOARD BEGINS TO DISCONNECT FROM ITS CONNECTORS. FINALLY, POSITION THE TOOL AT THE END CLOSEST AND AGAIN ROLL IT AS ABOVE.

A4. NOTE: SOME MODULES MAY BECOME TOTALLY DISCONNECTED AFTER THE FIRST PASS, OTHERS MAY REQUIRE A SECOND PASS.

IF A SECOND PASS IS REQUIRED, CAREFULLY PERFORM STEPS A2 AND A3 AGAIN.

A5. CAREFULLY REMOVE AND SAFELY STORE THE REMOVED 286A-286F CIRCUIT MODULE IN AN ESD PROTECTED CONTAINER.

A6. NEXT, POSITION THE REMOVAL TOOL IN THE POSITION SHOWN IN FIGURE 3 FOR THE REMOVAL OF THE 285A MODULE.

A7. PERFORM STEPS A2 THRU A5 FOR THE 285A MODULE. REMEMBER TO AVOID FLEXING THE BOARD.

B. "THIS SECTION PROVIDES FOR THE REMOVAL OF TWO IC(S) ON THE MAIN BOARD (IC44,1C139). KEEP FIGURE 1 AVAILABLE FOR REFERENCE WHILE THESE STEPS ARE BEING PERFORMED".

B1. CAUTION: "WRIST STRAP IS TO BE WORN AT ALL TIMES"!

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CAREFULLY USE THE IC EXTRACTION TOOL (R-5681) AND REMOVE EACH AFFECTED IC SHOWN IN FIGURE 1.

CAUTION: THE IC(S) MAY BE HELD IN POSITION BY CLIPS AT EACH END. IF THIS IS THE CASE, THESE CLIPS WILL HAVE TO BE CAREFULLY RELEASED SO THAT THE EXTRACTION TOOL WILL WORK. HANDLE THE CLIPS CAREFULLY SO AS NOT TO SNAP THEM OFF.

IF THE EXTRACTION TOOL DOES NOT FIT OR WORK FOR THESE EPROM(S), THEN CAREFULLY REMOVE THE EPROM(S) WITH A NONCONDUCTIVE TOOL SUCH AS AN ORANGE STICK OR EQUIVALENT.

B2. CAREFULLY RELEASE THE RETAINING CLIPS AND LIFT THE IC OUT (IF USING THE EXTRACTION TOOL), OR GENTLY LIFT EACH END OF THE IC TO SLOWLY UNPLUG IT FROM ITS CONNECTOR. REMOVE IC44 (PID CODE AENES) AND IC139 (PID CODE AENET). REFER TO FIGURE 1 FOR LOCATIONS.

B3. PLACE THE REMOVED IC(S) ALONG WITH THE CIRCUIT MODULES PREVIOUSLY REMOVED.

C. "THIS SECTION PROVIDES FOR THE INSTALLATION OF THE TWO NEW INTEGRATED CIRCUITS REQUIRED WITH THIS FEATURE. AGAIN, KEEP FIGURE 1 AVAILABLE WHILE THESE STEPS ARE BEING PERFORMED".

C1. CAREFULLY ADD THE NEW IC44 (PID CODE AHGUB) IN THE LOCATION SHOWN IN FIGURE 1. USING THE IC INSERTION TOOL, CAREFULLY ALIGN THE TERMINALS OF THE IC UNIT WITH ITS CONNECTOR AND APPLY A STEADY PRESSURE TILL THE IC IS INSERTED AND THE CLIPS LOCK.

C2. CAREFULLY ADD THE NEW IC139 (PID CODE AHGUC) IN THE SAME MANNER INTO ITS CONNECTOR LOCATION AS SHOWN IN FIGURE 1.

D. "THIS SECTION PROVIDES FOR THE INSTALLATION OF THE NEW CIRCUIT MODULES 343A AND 350B REQUIRED WITH THIS FEATURE. KEEP FIGURES 4 AND 5 AVAILABLE WHILE THESE STEPS ARE BEING PERFORMED".

D1. FROM FIGURE 5, IT SHOULD BE NOTED THAT THE 343A MODULE WILL BE LOCATED IN THE CENTER OF THE BOARD AND THE 350B MODULE ON THE RIGHT. INSTALL THE 343A IN THE CENTER FIRST.

D2. LOCATE THE FOUR (4) CONNECTORS ASSOCIATED WITH THE 343A MODULE (FIGURE 4) AND CAREFULLY PLACE THE MODULE ON THEM. MAKE SURE THE MODULE ORIENTATION MARK (FIGURE 5) IS POINTING TOWARD THE FRONT (LATCH-END) OF THE PACK. BEFORE INSERTING THE MODULE, MAKE SURE "ALL" HEADER PINS LINE UP WITH THE CONNECTOR HOLES. IT IS VERY EASY TO BE ONE ROW OFF.

D3. GENTLY, BUT FIRMLY, BEGIN TO PRESS THE MODULE INTO PLACE. BEGIN AT THE FAR END OF THE MODULE AND WORK TOWARDS THE NEAREST END PRESSING AT POINTS ABOVE THE CONNECTOR. DO "NOT" TRY TO INSERT THE MODULE ON THE FIRST PASS, IT MAY OVERSTRESS THE BOARD. TRY NOT TO PRESS ON ANY COMPONENTS WHILE INSERTING THE BOARD.

"NOTE: SOME MODULES MAY BECOME SEATED ON THE FIRST PASS, BUT BE CAREFUL"!!

D4. BEFORE INSTALLING THE 350B MODULE, VISUALLY VERIFY THAT THE 343A MODULE HAS BEEN INSERTED IN ITS CONNECTORS PROPERLY. CONTINUE BY FOLLOWING D1 THRU D4 FOR THE 350B MODULE.

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E. "THIS SECTION PROVIDES FOR CHANGING THE PRESENT BOARD IDENTIFICATION BY RESTAMPING AND ADDING THE APPROPRIATE FACEPLATE LABEL. ALSO REFER TO MANUFACTURING NOTE 13 IN THE FRONT OF ED5D740-30".

E1. SET UP THE R-5740 CIRCUIT PACK HOLDING FIXTURE SUPPLIED WITH TOOL KIT 607. FOLLOW THE SETUP SHOWN IN PARAGRAPH 5.2 AND FIGURE 3 IN THE TOOL KIT "GENERAL INFORMATION AND PROCEDURES" DOCUMENT INCLUDED WITH THE KIT.

E2. "WRIST STRAP MUST BE WORN"!
CAREFULLY PLACE THE CIRCUIT PACK, NONCOMPONENT SIDE UP, ON THE HOLDING FIXTURE. LOCATE THE ETCHED "TN1368". CAREFULLY REMOVE THE DESIGNATION "1368" AND INK STAMP THE NEW DESIGNATION "1800" IN ITS PLACE. STAMP USING 1/8" CHARACTERS AND BLACK INK.

E3. ADD THE FACEPLATE LABEL FOR THE APPROPRIATE ARTMASTER VERSION (AM2, AM3 OR AM4). IF THE LABEL CANNOT BE IDENTIFIED BY ITS COMCODE NUMBER, THEN USE THE INTERCHANGEABILITY MARKING FOR IDENTIFICATION.

EE1. IF THE PWB ARTMASTER IS AM2, APPLY THE 472109156 COMCODED LABEL. THIS LABEL HAS AN INTERCHANGE-ABILITY MARKING OF "3:3"

EE2. IF THE PWB ARTMASTER IS AM3, APPLY THE 472140987 COMCODED LABEL. THIS LABEL HAS AN INTERCHANGE-ABILITY MARKING OF "3:4"

EE3. IF THE PWB ARTMASTER IS AM4, APPLY THE 472147875 COMCODED LABEL. THIS LABEL HAS AN INTERCHANGE-ABILITY MARKING OF "3:5".

3.3 CLI UPDATE

3.3.1 CAUTION: "WRIST STRAP MUST BE WORN"!

CAREFULLY PLACE THE MODIFIED PACK IN THE ESD PROTECTED CONTAINER AND RETURN TO THE SUBJECT CM CABINET. REMOVE FROM SERVICE THE $ MSGS $ $ (CM1) OR $ CMPU (CM2) USING THE SPARE CMP PACK AND REMOVE POWER. USE MCC DISPLAY PAGE COMMANDS AS FOLLOWS (SEE FIGURES 7 AND 8). VIEW MCC PAGE 1241/1251 TO DETERMINE IF THE SUBJECT CMP NEEDS TO BE SWITCHED (SEE FIGURE 8). IF IT DOES, ENTER: POKE 4XX; WHERE XX = CMP#

$A. FOR CM1 APPLICATIONS, VIEW MCC DISPLAY PAGE 1240 (MSGS 0)$ $OR PAGE 1250 (MSGS 1). SEE FIGURE 7.$

$POKE 23Y; TO REMOVE THE MSPU UNIT, CONTAINING$ $THE SUBJECT CMP, FROM SERVICE$ $(WHERE: Y = MSGS SIDE 0 OR 1)$

$AT FRAME EQL (0/1)53, VERIFY THAT THE MSPU UNIT IS OUT OF$ $SERVICE, THEN REMOVE POWER BY OPERATING THE "OFF" BUTTON$ $ON ITS ASSOCIATED CONTROL AND DISPLAY (C&D) PACK. SEE$ $FIGURE 9.$

B. FOR CM2 APPLICATIONS, VIEW MCC DISPLAY PAGE 1241 (MSGS 0) OR PAGE 1251 (MSGS 1). SEE FIGURE 8.

POKE 2XX; TO REMOVE THE SUBJECT CMP UNIT FROM SERVICE (WHERE: XX = CMP#)

AT FRAME EQL (5/6)62, VERIFY THAT THE CMP UNIT IS OUT OF SERVICE, THEN REMOVE POWER BY OPERATING THE "OFF" BUTTON ON ITS ASSOCIATED CONTROL AND DISPLAY (C&D) PACK. SEE FIGURE 9.

3.3.2 CONNECT WRIST STRAP TO THE ESD GROUND LUG AND CAREFULLY REMOVE THE SPARE TN1368 FROM THE UNIT POSITION (SEE FIGURE 9) AND REPLACE IT WITH THE NOW TN1800 MODIFIED PACK. RESTORE POWER BY OPERATING THE "ON" BUTTON ON THE C&D PACK. ON THE C&D PACK, VERIFY THAT POWER HAS BEEN RESTORED BUT "DO NOT RETURN TO SERVICE OR DIAGNOSE AT THIS TIME".

3.3.3 UPDATE THE CLI VALUE FOR THE OUT-OF-SERVICE MSGS/CMPU. REFER TO FIGURE 10 FOR AN EXAMPLE OF THE RECENT CHANGE VIEWS THAT WILL

*** CONTINUED ***

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TABLE CA
BE CHANGED.

NOTE: THE VIEWS SHOWN IN FIGURE 10 ARE TO BE USED AS AN "EXAMPLE" ONLY. THEY MAY OR MAY NOT BE WHAT IS ACTUALLY VIEWED AT THIS TIME

NOTE: THE INSTALLER MUST BE FAMILIAR WITH USING RCV VIEWS FOR UPDATING ODD. ALL ODD CHANGES MUST BE REVIEWED WITH THE CUSTOMER AS INDICATED IN SECTION 1.2.3.

A. AT THE MCC, ACCESS ODD RECENT CHANGE/VERIFY (RCV) BY ENTERING: POKE 196.

B. UPON REACHING THE MENU PAGE, CHOOSE CLASS 17 (FORM 17) - CM MODULE.

C. CHOOSE THE APPROPRIATE "VIEW" NUMBER (17.X) FOR THE TYPE OF CM EQUIPPED IN THE SUBJECT SYSTEM. ENTER THE "VIEW" IN THE "UPDATE" MODE.

$VIEW 2 (17.2U) CM1$
VIEW 14 (17.14U) CM2

D. ENTER THE REQUIRED FIELD INFORMATION:

REQUIRED FIELDS - CM1
*1. MSGS _(ENTER OOS SIDE 0 OR 1)
*2. PC TYPE __(ENTER CMP)
*3. PC __(ENTER 0)

REQUIRED FIELDS - CM2
*1. SIDE _(ENTER OOS MSGS 0 OR 1)
*2. PC TYPE __(ENTER CMP)
*3. PC __(ENTER 0)

E. CONTINUE BY UPDATING THE PROPER FIELD FOR THE CM EQUIPPED:

$FOR VIEW 17.2 (CM1) UPDATE FIELD 7 FROM A 0 TO 1.$
FOR VIEW 17.14 (CM2) UPDATE FIELD 6 FROM A 0 TO 1.

F. UPDATE THE FORM AND EXIT.

3.3.4 VERIFY THE UPDATE BY DIAGNOSING THE AFFECTED CMP.

NOTE: ALL DEMAND PHASES ARE TO BE RUN TO ASSURE THAT ALL NEW MEMORY LOCATIONS CAN BE ACCESSED. THE DIAGNOSTIC SHOULD TAKE ABOUT 30 MINUTES.

$A. FOR CM1 APPLICATIONS:$
$RESTORE THE OUT-OF-SERVICE MSGS TO SERVICE UNCONDITIONALLY$ $THEN DIAGNOSE ITS CMP.$
$AT MCC PAGE 1240/1250, ENTER:$

$POKE 33Y,UCL; RESTORES THE MSGS TO SERVICE W/O A$ $DIAGNOSTIC (WHERE: Y = MSGS SIDE 0 OR 1)$

$RUN THE CMP DIAGNOSTIC WITH ALL DEMAND PHASES. INPUT THE$ $FOLLOWING MESSAGE AT THE MCC:$

$DGN:CMP=Y-Z,RAW,TLP,UCL,PH=1&&15;$
$(WHERE: Y = MSGS SIDE 0 OR 1 ; Z = CMP#)$

B. FOR CM2 APPLICATIONS:
RUN THE CMP DIAGNOSTIC WITH ALL DEMAND PHASES. INPUT THE FOLLOWING MESSAGE AT THE MCC:

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DGN:CMP=Y-Z,RAW,TLP,UCL,PH=1&&15;
(WHERE: Y = MSGS SIDE 0 OR 1 ; Z = CMP#)

THE DIAGNOSTIC RESULTS FOR THE MODIFIED CMP (CM1 OR CM2) SHOULD BE ATP. UPON ATP RESULTS, RESTORE THE SUBJECT CMP TO SERVICE UNCONDITIONALLY. AT THE MCC, PAGE 1241/1251, ENTER:

POKE 3XX,UCL; RESTORES THE CMP UNCONDITIONALLY
(WHERE: XX = CMP#)

AGAIN VIEW THE APPROPRIATE MCC PAGE TO VERIFY THE SUCCESSFUL OPERATION OF THE MSGS AND ASSOCIATED MODIFIED CMP. LET THE SYSTEM RUN FOR AT LEAST 15 MINUTES BEFORE STARTING WITH THE OTHER MSGS AND ITS CMP.

**** SAFE STOP POINT ****

"IT IS RECOMMENDED THAT AT THIS SAFE STOP POINT THE WORK ONLY BE INTERRUPTED FOR A SHORT PERIOD OF TIME, SUCH AS A LUNCHBREAK, ETC. THIS IS DUE TO THE FACT THAT ONE SIDE HAS THE UPDATE AND "CLI" CHANGE AND THE OTHER DOESN'T DO NOT END THE WORKSHIFT AT THIS TIME".

3.3.5 BEFORE CONTINUING WITH THE SECOND MSGS/CMPU, DIAGNOSE ALL SPARE TN1368 BOARDS USING THE UNMODIFIED SIDE. THEN CONTINUE WITH THE SECOND MSGS/CMPU BY AGAIN FOLLOWING THE PROCEDURE IN SECTION 3.2, "TN1368 MODIFICATION", AND SECTION 3.3, "CLI UPDATE". IF BOTH EQUIPPED TN1368 CORE BOARDS HAVE BEEN MODIFIED, CONTINUE BY MODIFYING THE SPARE(S).

3.3.6 USING ALL ESD PRECAUTIONS, CAREFULLY TAKE THE SPARE(S) TO THE STATIC-FREE WORK AREA. FOLLOW SECTION 3.2.5, PARTS A - E, FOR THE PACK MODIFICATION. BEFORE RETURNING THE SPARE(S) TO SHELF STOCK, DIAGNOSE THEM USING THE DEMAND PHASE INPUT MESSAGE AS SHOWN IN 3.3.4. TO VERIFY THE CHANGE. THEY ALSO SHOULD PASS ATP. HANDLE ALL PACKS CAREFULLY AS SPECIFIED EARLIER. CONTINUE WITH VERIFICATION AND COMPLETION.

4. VERIFICATION AND COMPLETION

4.1 VERIFICATION

4.1.1 ALL DIAGNOSTICS PERFORMED DURING RESTORALS SHOULD HAVE BEEN ATP AND ANY PROBLEM(S) ENCOUNTERED, RESOLVED. THERE SHOULD BE NO TROUBLE INDICATORS ASSOCIATED WITH THE CIRCUITS INVOLVED WITH THE CHANGE. MCC DISPLAY PAGES 115, 1240/1250, AND 1241/1251 SHOULD BE REVIEWED FOR SYSTEM STATUS AS BEFORE. THE STATUS SHOULD SHOW ALL CIRCUITS NORMAL.

4.2 COMPLETION

4.2.1 UPDATE THE UNIT DESIGNATION STRIP WITH THE NEW LABEL FOR THE TN1800 PACK. APPLY THE LABELS AT THE LOCATIONS SHOWN BELOW FOR THE SPECIFIC CM APPLICATION. REFER TO FIGURE 9 FOR PACK LOCATION INFORMATION.

$- FOR CM1 APPLICATIONS - EQL (0/1)53 - 136$

- FOR CM2 APPLICATIONS - EQL (5/6)62 - 120

4.2.2 WHEN THE CHANGE HAS BEEN APPLIED, THE INSTALLER SHALL STAMP THE ED NUMBER AND DATE OF APPLICATION ON THE APPLICATION PANEL LOCATED BENEATH THE REAR BEZEL OF THE AFFECTED CABINET. REFER TO THE STAMPING INFORMATION BELOW.

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4.2.3 WITH THE CLI CODE UPDATES COMPLETED, IT IS RECOMMENDED TO DO AN ODD BACKUP. THIS WILL ASSURE THAT OLD DATA WILL NOT REPLACE THE UPDATED DATA DUE TO A SYSTEM PROBLEM OR AN INITIALIZATION AND PUMP. ONLY THOSE ODD BLOCKS THAT HAVE BEEN ALTERED SINCE THE LAST ODD BACKUP WILL BE BACKED UP (DIFFERENTIAL BACKUP). ENTER THE FOLLOWING COMMAND:

```
BKUP:ODD;
```

WAIT FOR THE COMPLETION REPORT FROM THE BACKUP BEFORE CONSIDERING THIS PROCEDURE COMPLETE.

APPROVED:

_____ _____

M.J. MALNIC - ECP ORIGINATOR DATE

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