PLN-8991-103

DMS-100* FAMILY

ALL PRODUCT COMPUTING-MODULE LOADS

Volume 15 of 15

RETIRED BUILDING BLOCK
ENGINEERING MANUALS

97Q4 Standard 05.03 December 1997

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* DMS-100 is a trademark of NORTEL Limited.

MCAM (BROWN)

PEC CODE: NTZZ38VA

CPC CODE:

RATING: Standard

REPLACES: N/A

REPLACED BY: NTZZ60NA

ABBREVIATION NAME: MCAM

ENGINEERING DESCRIPTION: The Meridian Cabinet Auxiliary Module (MCAM) can house two PTMs (which can be configured for OAU function), one dual STM shelf and a Power Distribution Panel (PDP).

REFERENCE DOCUMENTATION: MSNX37AB 00 08
SLZZ60NA 00 01 REL 01

MARKETS: Applicable markets:

Wireless

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NTZZ38VA EMC10-12-MCAM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 14	ECM 492 05	New insert.
93 05 05	ECM 492 07	Retire insert. Add EDRAM and associated EDRAM Wiring Option Remove IDRAM from STM shelf Add international service circuits
95 12 01	ECM 492 27	Retire building block.

The MCAM (BROWN) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	MCAM Cabinet	NTNX37AB		1			AP
	MTXD Designation Label	P0712628		1			AP
	Frame Supv Panel	NT7X34AA	FSP	1	60		AP-01
	PTM Shelf Assembly	NT2X58CA	PTM	1	47		AP-01
@	IMTM Common Packfill	NT2X58AY			47		RUL27
	MCAM Common CP (PTM sh. 47)	NTNX37NH			47	1	RUL1
	MTM Wiring Option Kit	NTNX37WA					RUL1
@	Trunk Module Interface	NT2X45BA			47	1	RUL47
@	Trunk Module Proc (32K)	NT0X70AC			47	2	RUL45
@	Trunk Module Proc (UK)	NT0X70AA			47	2	RUL45
@	INT'L Trunk Module Proc	NT0X70BA			47	2	RUL45
@	Trunk Module Control	NT2X53AA			47	3	RUL46
@	A-Law CODEC & Tones (Turkey)	NT2X59BA			47	4	RUL48
@	A-Law TM CODEC E/W BT Tone	NT2X59CA			47	4	RUL48
@	A-Law CODEC E/W CEP Tone	NT2X59DA			47	4	RUL48
	Trans'n Term Trunk	NT2X71AA			47	5-16	RUL4
	Loop Around Test Line	NT2X75AA			47	5-16	RUL9
@	Loop Around TST LN A-LAW	NT2X75BA			47	5-16	RUL9
	102 mw Test	NT1X00AB			47	5-16	RUL10
@	102 Test mw -20 db Int'l	NT1X00AE			47	5-16	RUL16
	102 Test mw -20 db	NT1X00AF			47	5-16	RUL11
	TTU-trans Test Module	NT2X47AD			47	5-16	RUL12
@	TTU-trans Test Module Int'l	NT2X47BA			47	5-16	RUL15
	Dig'l Filter CP	NT2X56AB			47	5-16	RUL12
@	Dig'l Filter CP Int'l	NT2X56BA			47	5-16	RUL15
	TTT-Test Sig Gen	NT1X90AA			47	5-16	RUL13
@	A-LAW Test Signal Gen CP	NT1X90BA			47	5-16	RUL13
@	PCM Level Meter	NT2X96AA			47	5-16	RUL13
@	A-LAW PCM Level Meter CP	NT2X96BA			47	5-16	RUL13
@	Conference Tone Gen. A-Law	NT3X68BA			47	5-15	RUL41
@	MF Dual Tone	NT3X68BB			47	5-15	RUL41
@	Call Waiting Tone Gen.	NT3X68BC			47	5-15	RUL41
@	6 Party Conf Ckt A-Law	NT3X67BB			47	04-07 12-15	RUL28
	OAU Dead SYS w Common AUD	NT3X82AB			47	05	RUL29
	OAU Alarm Transfer	NT3X83AA			47	07	RUL29
	MTA	NT3X09BA			47	8-11	RUL17
	101 Comm Test LIne	NT5X30AA			47	5-7,	RUL2

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Jack Ended Trunk CP	NT1X54AA			47	12,16 6,7, 12,16	RUL7
Miscellaneous Scanner	NT0X10AA			47	7,12,16	RUL5
Scan Dist'n Card	NT2X57AA			47	7,12,16	RUL6
IC/OG Test Trunk	NT2X90AD			47	15	RUL8
Comp Bal NTWK(900 ohm)	NT2X77AA			47		RUL3
PTM Shelf Assembly	NT2X58CA	PTM	1	33		AP-01
MTXD - PTM	NTZZ38HM			33		RUL1
@ IMTM Common Packfill	NT2X58AY			33		RUL27
@ Trunk Module Interface	NT2X45BA			33	1	RUL47
@ Trunk Module Proc (32K)	NT0X70AC			33	2	RUL45
@ Trunk Module Proc (UK)	NT0X70AA			33	2	RUL45
@ INT'L Trunk Module Proc	NT0X70BA			33	2	RUL45
@ Trunk Module Control	NT2X53AA			33	3	RUL46
@ A-Law CODEC & Tones (Turkey)	NT2X59BA			33	4	RUL48
@ A-Law TM CODEC E/W BT Tone	NT2X59CA			33	4	RUL48
@ A-Law CODEC E/W CEP Tone	NT2X59DA			33	4	RUL48
Trans'n Term Trunk	NT2X71AA			33	5-16	RUL4
Loop Around Test Line	NT2X75AA			33	5-16	RUL9
@ Loop Around TST LN A-LAW	NT2X75BA			33	5-16	RUL9
102 mw Test	NT1X00AB			33	5-16	RUL10
@ 102 Test mw -20 db Int'l	NT1X00AE			33	5-16	RUL16
TTU-trans Test Module	NT2X47AD			33	5-16	RUL12
@ TTU-trans Test Module Int'l	NT2X47BA			33	5-16	RUL15
Dig'l Filter CP	NT2X56AB			33	5-16	RUL12
@ Dig'l Filter CP Int'l	NT2X56BA			33	5-16	RUL15
TTT-Test Sig Gen	NT1X90AA			33	5-16	RUL13
@ A-LAW Test Signal Gen CP	NT1X90BA			33	5-16	RUL13
@ PCM Level Meter	NT2X96AA			33	5-16	RUL13
@ A-LAW PCM Level Meter CP	NT2X96BA			33	5-16	RUL13
@ Conference Tone Gen. A-Law	NT3X68BA			33	5-15	RUL41
@ MF Dual Tone	NT3X68BB			33	5-15	RUL41
@ Call Waiting Tone Gen.	NT3X68BC			33	5-15	RUL41
@ 6 Party Conf Ckt A-Law	NT3X67BB			33	04-07, 12-15	RUL28
OAS Dead SYS w Common AUD	NT3X82AB			33	05	RUL29
OAS Alarm Transfer	NT3X83AA			33	07	RUL29
101 Comm Test LIne	NT5X30AA			33	5-12,16	RUL2
Jack Ended Trunk CP	NT1X54AA			33	6-12,16	RUL7

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Miscellaneous Scanner	NT0X10AA			33	7-9, 12,16	RUL5
	Scan Dist'n Card	NT2X57AA			33	7-9, 12,16	RUL6
	IC/OG Test Trunk	NT2X90AD			33	15	RUL8
	Comp Bal NTWK(900 ohm)	NT2X77AA			33		RUL3
	Service Trk Mod Shelf Assy	NT7X3004	STM	1	19	1	AP-01
	Filler Face Plate	NT0X50AG			19	1,2	RUL19
	Filler Face Plate	NT0X50AC			19	3	RUL19
	TM Control Card	NT4X65AB			19	4,12	RUL19
	EDRAM CP	NT1X80AA			19	4,5,6	RUL49
	Dram Controller CP	NT1X75BA			19	5	RUL20
	Dram Memory CP	NT1X77AA			19	6-11	RUL20
	EDRAM Wiring Option Kit	NTNX37ED					RUL49
	Dram Wiring Option	NTNX29AB			19		RUL21
@	Audio Tone Det (For UK)	NT2X48CC			19	5-8,10 13-16,18	RUL43
@	Conference Tone Gen. A-Law	NT3X68BA			19	5-8,10, 13-16,18	RUL41
@	MF Dual Tone	NT3X68BB			19	5-8,10, 13-16,18	RUL41
@	Call Waiting Tone Gen.	NT3X68BC			19	5-8,10, 13-16,18	RUL41
	6 Port Conf CP	NT3X67AA			19	5-8,10 13-16,18	RUL23
@	A-LAW 6 Port Conf CP	NT3X67BA			19	5-8,10 13-16,18	RUL23
	4 Chnl Mf RCVR	NT2X48BA			19	5-8,10 13-16,18	RUL24
	4 Chnl DTMF RCVR	NT2X48BB			19	5-8,10 13-16,18	RUL24
@	A-LAW DTMF RCVR	NT2X48CC			19	5-8,10 13-16,18	RUL24
@	Loop Around Test Line	NT2X75BA			19	5-8,10, 13-16,18	RUL42
	Loop Around Test Line	NT2X75AA			19	5-8,10, 11,13-16, 18	RUL9
	102 mw Test	NT1X00AB			19	5-8,10, 11,13-16, 18	RUL10

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
@ Audio Tone Det (UK A-Law)	NT5X29BA			19	5,8,13 16	RUL44
Group Codec Card	NT2X59AA			19	9,17	RUL19
Filler Face Plate	NT0X50AA			19	19	RUL19
Power Converter	NT2X70AE			19	20	RUL19
Codec Wiring Option	NTNX29AC			19		RUL22
Des’n Label (NT1X75AA)	P0666364			19		RUL14
Des’n Label (NT1X77AA)	P0661427			19		RUL14
Des’n Label (NT2X48BA)	P0656335			19		RUL14
Des’n Label (NT2X48BB)	P0653620			19		RUL14
Des’n Label (NT2X59AA)	P0643110			19		RUL14
Des’n Label (NT3X67AA)	P0653623			19		RUL14
Des’n Label (NT3X67BA)	P0677822			19		RUL14
Des’n Label (NT4X65AB)	P0689662			19		RUL14
Power Dist’n Panel	NTNX24BA	PDP	1	00		AP-01
Meridian Cabinet Assy	NTNX25AA	FW	1			AP-01
Filler Face plate	NT0X50AA					RUL18
Filler Face plate	NT0X50AC					RUL18
Filler Face plate	NT0X50AG					RUL18
Filler Face plate	NT0X50AE					RUL18
Des’n Label (NT0X10AA)	P0656328					RUL14
Des’n Label (NT0X50AA)	P0578498					RUL14
Des’n Label (NT0X50AC)	P0580258					RUL14
Des’n Label (NT0X50AE)	P0591361					RUL14
Des’n Label (NT0X50AG)	P0685986					RUL14
Des’n Label (NT1X00AB)	P0661425					RUL14
Des’n Label (NT1X00AE)	P0677809					RUL14
Des’n Label (NT1X54AA)	P0656330					RUL14
Des’n Label (NT1X90AA)	P0661423					RUL14
Des’n Label (NT2X47AD)	P0676174					RUL14
Des’n Label (NT2X47BA)	P0677812					RUL14
Des’n Label (NT2X56AB)	P0661422					RUL14
Des’n Label (NT2X56BA)	P0677815					RUL14
Des’n Label (NT2X57AA)	P0656327					RUL14
Des’n Label (NT2X71AA)	P0661419					RUL14
Des’n Label (NT2X72AA)	P0656333					RUL14
Des’n Label (NT2X75AA)	P0657680					RUL14
Des’n Label (NT2X90AD)	P0688244					RUL14
Des’n Label (NT2X96AA)	P0661424					RUL14

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Des'n Label (NT3X09BA)	P0664847					RUL14
Des'n Label (NT5X30AA)	P0656329					RUL14
Des'n Label (NT3X68BA)	P0675056					RUL14
Des'n Label (NT3X68BB)	P0675057					RUL14
Des'n Label (NT3X68BC)	P0675058					RUL14
Des'n Label (NT2X75BA)	P0677212					RUL14
Des'n Label (NT2X48CC)	P0678469					RUL14
Des'n Label (NT5X29BA)	P0742815					RUL14
Des'n Label (NT0X70AC)	P0664846					RUL14
Des'n Label (NT0X70AA)	P0622869					RUL14
Des'n Label (NT0X70BA)	P0664115					RUL14
Des'n Label (NT2X53AA)	P0558337					RUL14
Des'n Label (NT2X45BA)	P0677811					RUL14
Des'n Label (NT2X59BA)	P0678465					RUL14
Des'n Label (NT2X59CA)	P0677817					RUL14
Des'n Label (NT2X59DA)	P0677246					RUL14
Right Door Assembly-Brown	NTNX2552		1			AP
Left Door Assembly-Brown	NTNX2550		1			AP
Cabinet Type Label (Brown)	P0699472		1			AP
Left Door Label (Brown)	P0699464		1			AP
Right Door Label (Brown)	P0695230		1			AP
End Panel Ass'y Right-Grey	NTNX2517					RUL25
End Panel Ass'y Left-Grey	NTNX2518					RUL25
Anchor Kit (Earthquake Slab)	NTNX2540					RUL25
Anchor Kit (EQ cmptr Floor)	NTNX2578					RUL25
Anchor Kit (Non-EQ Slab)	NTNX2579					RUL25
Anchor Kit (Non-EQ cmp Flr)	NTNX2580					RUL25

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ38VA	MD	NTZZ60NA

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.

@ These circuit packs are for international applications.

NOTES:

RULES:

AP 1) When PEC NTZZ38VA is ordered, these items are provided.

2) The MCAM PDP comes equipped with "A" feed fuse panel and "B" feed fuse panel equipped with 42 ea. 20a fuses, 43 ea. 1-1/3 fuses and 1 ea. 10a fuse.

3) For more information on the PTM (MTM) Shelf Assembly NT2X58CA, see EMA2-01-MTM-1.

RUL1 1) The MCAM cabinet building block may be packfilled as follows:

NTZZ38HM equips two (2) PTM, (one each on shelf position 33 and 47). This packfill is standard for initial MTXD MCAM cabinets. Additional service and maintenance circuits can be added based on customer needs using detailed engineering.

NTNX37NH: equips one (1) PTM on shelf position 47 only. This packfill NTNX37NH includes the MTM control cp NT4X65AB. Always provide MTM Controller Wiring Kit NTNX37WA when NTNX37NH Common CP is provided.

RUL2 1) Provide NT5X30AA on MCAM as required when additional test lines are required (see RUL3).

2) No more than four (4) per shelf.

RUL3 1) Provide one (1) NT2X77AA Balance Network 900 ohms on MCAM for each NT5X30AA and NT2X90AD provisioned.

RUL4 1) Provide NT2X71AA on MCAM as required for AC open or short termination testing to check stability of trunks with negative impedance type repeaters.

RUL5 1) Provide NT0X10AA on MCAM as required when scan points are required (two circuits per pack, and seven scan points per circuit).

RUL6 1) Provide NT2X57AA on MCAM as required when signal distribution points are required (two circuits per pack and seven points per circuit).

RUL7 1) Provide NT1X54AA on MCAM as required when additional circuits for access to switching network for analog (vf) test equipment required (two circuits per pack).

RUL8 1) Provide NT2X90AD on MCAM as required for test trunks and 14 local test desk or 3 local test cabinet (provides interface for one test trunk) (see RUL3).

RUL9 1) Provide NT2X75AA on MCAM as required when loop around test line is required for measuring near to far end trunk transmission losses (one loop around circuit per pack).

2) For international markets, provide the NT2X75BA on MCAM in accordance with RULE9, item 1.

RUL10 1) Provide NT1X00AB on MCAM as required when additional 102 test milliwatt is required.

RUL11 1) Provide one (1) NT1X00AF on MCAM as required when 102 milliwatt test is required.

RUL12 1) Provide one (1) NT2X47AD (left, odd slot) and one (1) NT2X56AB (right, even slot) for each additional transmission test unit required.

RUL13 1) Provide one (1) NT1X90AA (left, odd slot) and NT2X96AA (right, even slot) for additional transmission termination trunks.

2) Provision the NT1X90BA and the NT2X96BA for international markets in accordance with RUL13, item 1.

RUL14 1) Provide one per circuit pack provisioned of the appropriate label (NT codes on label should be same as circuit pack provisioned). Affix label on shelf upper designation strip in appropriate position.

RUL15 1) Provide one (1) NT2X47BA (left, odd slot) and one (1) NT2X56BA (right, even slot) for International Transmission Test Unit required.

RUL16 1) Provide NT1X00AE when International 102 milliwatt test is required.

RUL17 1) Provide one (1) NT3X09BA MTA circuit pack on PTM as follows:

One NT3X09BA Slot 8 for 1st & 2nd MCLM bays in the lineup
One NT3X09BA Slot 9 for 3rd & 4th MCLM bays in the lineup
One NT3X09BA Slot 10 for 5rd & 6th MCLM bays in the lineup

RUL18 1) Provide Filler Face Plates on unequipped STMs/PTMs as follows:

Unequipped STM shelf		Unequipped PTM shelf	
Slot 1:	NT0X50AG	Slots 1-16:	NT0X50AC
Slots 3-18:	NT0X50AC	Slot 17:	NT0X50AG
Slot 19:	NT0X50AA	Slot 19:	NT0X50AA
Slot 20:	NT0X50AE	Slot 20:	NT0X50AE

RUL19 1) When any STM is required on MCAM shelf position 19, and the slots are not equipped by packfills, the following circuit packs must first be provisioned as indicated:

Filler Face Plate	NT0X50AG	slot	1,2
Filler Face Plate	NT0X50AC	slot	3
TM Control Card	NT4X65AB	slots	4,12
Group Codec Card	NT2X59AA	slots	9,17
Filler Face Plate	NT0X50AA	slot	19
Power Converter	NT2X70AE	slot	20

RUL20 1) Provide one (1) NT1X75BA DRAM Control CP and NT1X77AA DRAM Memory CP as required for DRAM in even numbered (left) STM. The NT1X75BA replaces the NT1X75AA and is required for two stage dialing.

2) Each NT1X77AA provides up to 31 seconds of recording.

RUL21 1) DRAM wiring option NTNX29AB is required when NT1X75BA is provisoned on shelf 19 (even numbered or left most STM).

RUL22 1) D1 CODEC wiring option NTNX29AC isrequired when other than DRAM STMs are equipped on shelf 19 (even numbered or left most STM).

RUL23 1) Provide NT3X67AA 6-port conference circuit pack for 3 or 6 port conference requirements.

RUL24 1) Quantity one of each NT2X48BA and NT2X48BB is required for test purposes.

2) For international markets, provision NT2X48CC A-LAW based Dual-Tone Multifrequency Receiver in accordance with RULE24, item 1.

RUL25 1) Provide one 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) End Panel Ass'y Right-Grey (NTNX2517) if the cabinet is at the end of a cabinet line-up.
one (1) End Panel Ass'y Left-Grey (NTNX2518)
if the cabinet is at the begining of a cabinet line-up.

RUL26 1) Provide one Frame Mounting Kit when installing cabinet in a Non-Earthquake zone. Use NTNX2579 kit for slab type flooring or NTNX2580 for computer flooring.

RUL27 1) The IMTM Common Circuit Packfill contains those cards that are to be provisioned with each IMTM Shelf Assembly ordered for international applications (Turkey).

RUL28 1) Provision NT3X67BB as one (1) 6-port circuit or as two (2) 3-port circuits.

RUL29 1) Refer to section EMA14-01-000 for further information on the NT3X82AB and the NT3X83AA.

RUL41 1) Provision (1 or more) of these circuit packs on an MTM shelf along with (1 or more) designation labels per customer requirement. An NT0X50AC Filler Plate should be placed in the next higher position.

RUL42 1) Provision (1 or more) of this circuit pack along with the designation label P0677212 per customer requirement.

RUL43 1) Provision (1 or more) of this circuit pack along with the designation label P0678469 per customer requirement.

RUL44 1) Provision (1 or more) of this circuit pack along with the designation label P0742815 when ATD is required by the customer. An NT0X50AC Filler Plate should be provided in the next two (higher) slot positions.

RUL45 1) Provision two (2) of these circuit packs along with its designation label when a module processor is required by the customer.

RUL46 1) Provision two (2) of these circuit packs along with its designation label when a TM control pack is required by the customer.

RUL47 1) Provision two (2) of these circuit packs along with its designation label when a Trunk Module Interface is required by the customer.

RUL48 1) Provision two (2) of these circuit packs along with its designation label when A-Law is required by the customer.

RUL49 1) Provide one NTNX37ED wiring option when Enhanced DRAM (EDRAM) is required by the customer. This option adds two new bulkhead connectors C0 2N and C0 3N, for the EDRAM network connections. Wiring kit NTNX29AB cannot be provided if the NTNX37ED (EDRAM) kit is provided.

2) Provision up to three NT1X80AA EDRAM cards in slots 4,5 or 6 of shelf 19 as required by the by the customer. Provide the first EDRAM in slot 4. When EDRAM is provided, the even numbered STM is no longer available.

MCGM (GREY)

PEC CODE: NTZZ38NA

CPC CODE:

RATING: Standard

REPLACES: N/A

REPLACED BY: NTZZ60JA

ABBREVIATION NAME: MCGM

ENGINEERING DESCRIPTION: The MCGM frame provides the capability to add custom feature hardware when required, for example, DIO, MTD, DDU, ROS, MTM, and STM modules.

Note that the MCGM cabinet can interface to four (4) network ports maximum.

REFERENCE DOCUMENTATION: MSNX47BA 00 08
SLZZ60JA 00 01 REL 01

MARKETS: Applicable markets:

Wireless

ISSUE AUTHOR: Jim Large Dept. 5849 (RCH)

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NTZZ38NA EMC10-13-MCGM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 14	ECM 492 05	New insert.
93 05 05	ECM 492 07	Retire insert.
95 12 01	ECM 492 27	Retire building block.

The MCGM (GREY) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	MCGM Cabinet	NTNX47BA		1			AP
	MTXD Designation Label	P0712628		1			AP
	Frame Supv Panel	NTNX26MA	FSP	1	60		AP-01
	DS-5R Modem Shelf	NT5X09BA			47		RUL1
*	9600 Bd Modem Card	049P026-004			47	1-16	RUL1
@	4800 Bd Modem Card	051P006-002			47	1-16	RUL1
	MCGM Modem Hardware Kit	NTNX47AN			47		RUL1
	Dual I/O Equipment Shelf	NTNX3401	DIO		47		RUL2
	MCGM DIO Hardware Kit	NTNX47BC			47		RUL2
	MTXD - I/O Basic (Universal)	NTZZ38AM			47	01	RUL2
	I/O Terminal Control CP	NT1X67BC			47	7-10, 19,20	RUL2
	I/O Terminal Control CP	NT1X67BD			47	7-10, 19,20	RUL2
	X25LAPB Link Cont CP	NT6X91BB			47	7-10, 19,20	RUL2
	MTD Control CP	NT1X68BC			47	11,21	RUL2
	DDU Control CP	NT1X55DA			47	6,17	RUL2
	Enhanced Multi Protocol CP	NT1X89BA			47	7-10, 19,20	RUL2
	Filler Face Plate	NT0X50BA			47	6-14, 17-24	RUL2
	Filler Face Plate	NT0X50BE			47	01,25	RUL2
	Filler Face Plate	NT0X50BF			47	04,15	RUL2
	Dual I/O Equipment Shelf	NTNX3401	DIO		47,19		RUL19
&	HDLC cp for CSC link(4800 BD)	NT6X91AB			47,19	6-13 17-23	RUL19
	HDLC cp for CSC link(9600 BD)	NT6X91CA			47,19	6-13 17-23	RUL19
	HDLC cp for MTX link(9600 BD)	NT6X91BA			47,19	6-13 17-23	RUL19
	DS-5R Modem Shelf	NT5X09BA			33,05		RUL20
	4800 BD Modem Card	051P006-002			33,05	1-15	RUL20
	9600SP BD Modem Card	049M037-011			33,05	1-15	RUL20
*	9600 BD Modem Card	049P026-004			33,05	1-15	RUL20
	DIO/Modem hardware Kit(1pr)	NTNX47BL			47,33		RUL21
	DIO/Modem hardware Kit(2pr)	NTNX47BM			47,33,19,05		RUL21
	Desig. Label (NT2X70AE)	P0698943					RUL17
	Desig. Label (NT1X89BA)	P0708961					RUL17

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Desig. Label (NT1X67BC)	P0623517					RUL17
	Desig. Label (NT1X67BD)	P0657675					RUL17
	Desig. Label (NT6X91BB)	P0689833					RUL17
	Desig. Label (NT1X68BC)	P0616642					RUL17
	Desig. Label (NT1X55DA)	P0688790					RUL17
	Desig. Label (NT0X50BA)	P0599141					RUL17
	Desig. Label (NT0X50BE)	P0599142					RUL17
	Desig. Label (NT0X50BF)	P0599143					RUL17
	Magnetic Tape Drive	A0277744	MTD		05,19,33		RUL3
	MTD Mounting Hardware	NT0X44AD					RUL3
	MTD Cable (READ)	NTNX4757					RUL3
	MTD Cable (WRITE)	NTNX4758					RUL3
	MTD Cable (CONTROL)	NTNX4759					RUL3
	Dual Disc Drive Unit	NT4X00AF	DDU		05		RUL4
	MCGM DDU Hardware Kit	NTNX47AK			05		RUL4
#	NT-Mercury 8" Disk Drive	8211D-19-063			05	10,18	RUL4
%	5.25" 220 MB Disk Drive	NT4X00AG			05	10,18	RUL4
	DDU H/W Kit	NT4X0038			05		RUL4
	Power Converter CP	NT1X78AA			05	02,26	RUL4
	Desig. Label (NT1X78AA)	P0668410					RUL17
	Filler Face Plate 2.6"	NT0X50BE			05	02,26	RUL4
	Desig. Label (NT0X50BE)	P0599142					RUL17
	Strat II Rem Osc Shelf	NT3X95AA	ROS		33		RUL5
	Stratum 2.5 ISG ROS	NT3X95BB	ROS		33		RUL5
	MCGM ROS Hardware Kit	NTNX47AS			33		RUL5
	Maint Trunk Module	NT2X58CA	MTM		05,19,33		RUL7
	Maint Trunk Module/DRAM	NT2X58CB	MTM		05,19,33		RUL7
	Trunk Module I/F CP	NT2X45AB				01	RUL18
	Trunk Module Proc CP (32K)	NT0X70AC				02	RUL18
	Trunk Module Control CP	NT2X53AA				03	RUL18
	Group Codec CP	NT2X59AA				04	RUL18
	Multi OP Power Conv CP	NT2X09AA				17	RUL18
	Filler Face Plate	NTOX50AA				19	RUL18
	+-5/12V Power Conv CP	NT2X70AE				20	RUL18
	Desig. Label (NT2X70AE)	P0698943				20	RUL18
	Desig. Label (NT2X59AA)	P0643110				04	RUL18
	Desig. Strip	P0701655					RUL18
	Dead Sys Alm w/Unique Aud	NT3X82AA					RUL7
	Dead Sys Alm w/Common Aud	NT3X82AB					RUL7
	OAU Alm Transfer CP	NT3X83AA					RUL7
	Misc Scan CP	NT0X10AA					RUL7
	Signal Dist CP	NT2X57AA					RUL7
	Desig. Label (NT3X82AA)	P0689912					RUL17

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Desig. Label (NT3X82AB)	P0702196					RUL17
Desig. Label (NT3X83AA)	P0688413					RUL17
Desig. Label (NT0X10AA)	P0656328					RUL17
Desig. Label (NT2X57AA)	P0656327					RUL17
MCGM MTM Hardware Kit	NTNX47AJ			33		RUL7
MCGM MTM Hardware Kit	NTNX47AH			19		RUL7
MCGM MTM Hardware Kit	NTNX47AG			05		RUL7
MCGM MTM/DRA Hardware Kit	NTNX47BK			33		RUL7
MCGM MTM/DRA Hardware Kit	NTNX47BJ			19		RUL7
MCGM MTM/DRA Hardware Kit	NTNX47BH			05		RUL7
Service Trunk Module	NT7X3004	STM		05,19, 33,47		RUL8
MCGM STM Hardware Kit	NTNX47BG			47		RUL8
MCGM STM Hardware Kit	NTNX47BF			33		RUL8
MCGM STM Hardware Kit	NTNX47BE			19		RUL8
MCGM STM Hardware Kit	NTNX47BD			05		RUL8
TM Controler CP	NT4X65AB				04,12	RUL9
Power Converter CP	NT2X70AE				20	RUL9
Filler Face Plate	NT0X50AG				1	RUL9
Filler Face Plate	NT0X50AC				3	RUL9
Filler Face Plate	NT0X50AA				19	RUL9
Desig. Label (NT0X50AG)	P0685986					RUL17
Desig. Label (NT0X50AC)	P0580258					RUL17
Desig. Label (NT0X50AA)	P0578498					RUL17
STM DRAM Wiring Option	NTNX29AB			05,19, 33,47		RUL10
Dram Controler CP	NT1X75BA				05	RUL10
A-Law Dram Controller CP	NT1X75DA				05	RUL10
Dram Memory CP	NT1X77AA				06-11	RUL10
Desig. Strip	P0706654					RUL10
STM CODEC Wiring Option	NTNX29AC			05,19, 33,47		RUL11
Group Codec CP	NT2X59AA				09	RUL11
6 Pt Conf CP	NT3X67BA				05-08, 10	RUL11
4 Ch MF Rcvr CP	NT2X48BA				05-08, 10	RUL11
4 Ch DTMF Rcvr CP	NT2X48BB				05-08, 10	RUL11
4 Ch DTMF Rcvr	NT2X48CC				05-08, 10	RUL11
Desig. Strip	P0706655					RUL11
STM CODEC Wiring Option	NTNX29AC			05,19, 33,47		RUL12
Group Codec CP	NT2X59AA				17	RUL12

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
6 Pt Conf CP	NT3X67BA				13-16, 18	RUL12
4 Ch MF Rcvr CP	NT2X48BA				13-16, 18	RUL12
4 Ch DTMF Rcvr CP	NT2X48BB				13-16, 18	RUL12
Desig. Label (NT2X59AA)	P0643110					RUL17
Desig. Label (NT3X67BA)	P0677822					RUL17
Desig. Label (NT2X48BA)	P0656335					RUL17
Desig. Label (NT2X48BB)	P0653620					RUL17
Audio Tone Detector CP	NT5X29AB				05-08, 13,16	RUL13
Desig. Label (NT5X29AB)	P0706693					RUL17
Auto Service Observing CP	NT5X29AC				05-08, 13,16	RUL13
Desig. Label (NT5X29AC)	P0654974					RUL17
Filler Face Plate	NT0X50AC				06,07, 09-11 14,15, 17-19	RUL13
Desig. Label (NT0X50AC)	P0580258					RUL17
Desig. Strip	P0698920					RUL13
Network Port Cable (PL0)	NTNX4740					RUL6
Network Port Cable (PL1)	NTNX4741					RUL6
MTXD - Filler Panel Assy Kit	NTZZ38EM			05,19, 33,47		RUL14
25-pin Blkhd Cover Plate	P0686749		28	47		RUL15
Mounting Screws	P0180923		56	47		RUL15
10" Cooling Unit	NTNX27CA	CU		00		AP-01
Common Framework	NTNX25AA	FW	1			AP-01
IMTM Common Packfill	NT2X58AY					RUL22
102 mw Test	NT1X00AB				05-16	RUL24
TTU-trans Test Module Int'l	NT2X47BA				05-16	RUL25
Dig'l Filter CP Int'l	NT2X56BA				05-16	RUL25
A-LAW Test Signal Gen CP	NT1X90BA				05-16	RUL26
A-LAW PCM Level Meter CP	NT2X96BA				05-16	RUL26
6 Party Conf Ckt A-Law	NT3X67BB				04-07, 12-15	RUL27
OAS Dead SYS w Common AUD	NT3X82AB				05	RUL28
OAS Alarm Transfer	NT3X83AA				07	RUL28
101 Comm Test LIne	NT5X30AA				05-07,	RUL29

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Jack Ended Trunk CP	NT1X54AA				06,07	RUL32
Miscellaneous Scanner	NT0X10AA				07,12, 16	RUL30
Scan Dist'n Card	NT2X57AA				07,12, 16	RUL31
Anchor Kit E'qke Slab	NTNX2540					RUL16
Anchor Kit E'qke Cmptr	NTNX2578					RUL16
Anchor Kit Non-e.q Slab	NTNX2579					RUL16
Anchor Kit Non-e.q Cmptr	NTNX2580					RUL16
Cabinet Type Label (Grey)	P0687611		2			AP
Door Label Left (Grey)	P0677704		2			AP
Door Label Right (Grey)	P0699158		2			AP
Door Right - Grey	NTNX2513		2			AP
Door Left - Grey	NTNX2515		2			AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ38NA	MD	NTZZ60JA

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.

NT-Mercury 8" Disk Drive 8211D-19-063; Rating change pending. Check availability dates.

% New product 5.25" 220 MB Disk Drive NT4X00AG will replace the Mercury (8" disk drive approximately 2Q91. Check RTO/RTS dates.)

* The 049P026-004 9600 BD Modem Card replaces the 049P026-003 9600 BD Modem Card.

@ 4800 Baud modem CP, 051P006-002 is A&M.

& HDLC CP for CSC link (4800BD) NT6X91AB is A&M.

NOTES:

1) The MTD is to be installed in the MCGM cabinet just prior to shipment to job site.

2) All provisioned items are to be installed by the shop unless otherwise specified in the MCGM cabinet assembly drawing.

3) ROS shelf cannot be provisioned in the same MCGM cabinet with a DDU. When a DIO is provided at shelf position 47, shelf position 05 must be reserved for DDU or MTD. MTD requires two (2) shelf positions.

4) When the MCGM cabinet is ordered as an extension, the following labels should be ordered:

   QTY 1 P0687620
   QTY 1 P0695393
   QTY 1 P0695425
   QTY 1 P0580231
   QTY 1 P0580232
   QTY 1 P0695392 (FOR MSL100 JOBS)
   QTY 1 P0588059 (FOR DMS300 JOBS)
   QTY 1 P0622886 (FOR DMS250 JOBS)

5) For more information on the MTM Shelf Assembly NT2X58CA, see EMA2-01-MTM-1.

RULES:

AP 1) When PEC NTZZ38NA is ordered, these items are provided.

AP-01 1) These items are always provided with PEC NTNX47BA.

RUL1 1) Provide NT5X09BA GDC modem shelf per customer requirements. The NT5X09BA Modem Shelf can accomodate up to 16 rack mounted modem cards. The NT5X09BA GDC modem shelf may be provisioned as follows:

   9600 Bd Modem Card 049P026-004 A0378923 GDC Sync/Async
   4800 Bd Modem Card 051P006-002 A0301068 GDC R Sync

2) The NT5X09BA GDC modem shelf is for Richardson or Bramalea use only. It is not approved for INS (RTP).

3) Provide one NTNX47AN MCGM Modem hardware kit when Modem Shelf is provisioned. The Modem Shelf hardware kit includes all cables and associated hardware required when the modem shelf is provisioned in the MCGM cabinet.

RUL2 1) The DIO shelf can only be provisioned in shelf location 47. The DIO shelf is provisioned for both IOCs, one on the left side of the shelf, the second on the right side.
The following building block is always required when a DIO is equipped:

NTZZ38AM MTXD - I/O Basic (Universal)

2) The following circuit packs are provisionable when a DIO is first equipped as above:

		LEFT IOC	RIGHT IOC
NT1X67BC	I/O Terminal Control CP	Slot 7,8,9,10	Slot 19,20
NT1X67BD	I/O Terminal Control CP	Slot 7,8,9,10	Slot 19,20
NT1X89BA	Enhanced MPC CP	Slot 7,8,9,10	Slot 19,20
NT6X91BB	X25LAPB Link Cont CP	Slot 7,8,9,10	Slot 19,20
NT1X68BC	MTD Control CP	Slot 11	Slot 21
NT1X55DA	DDU Control CP	Slot 06	Slot 17

NT1X67BC is the standard terminal controller CP. The NT1X67BD terminal controller CP provides the Auto Dial-back security feature when used with a modem. The customer must have the Enhanced Security software package in the switch in order to utilitze the Auto Dial-back feature.

3) The following filler face plates are to provisioned when a slot is not equipped as above:

		LEFT IOC	RIGHT IOC
NT0X50BA	Filler Face Plate	Slot 6-14	Slot 17-24
NT0X50BE	Filler Face Plate	Slot 01	Slot 25
NT0X50BF	Filler Face Plate	Slot 04	Slot 15

4) Provision the Mag Tape Controller circuit packs in slot 11 of the DIO shelf if the MTD is mounted in shelf position 05 or 33 of the MCGM.

Provision the MAG Tape Controller circuit packs in slot 21 of the DIO shelf if the MTD is mounted in shelf position 19 of the MCGM.

Provision the Disc Drive Controller circuit packs in slots 6 and 17 of the DIO.

5) Provide one MCGM DIO hardware kit when DIO is provisioned. The DIO hardware kit includes all cables and associated hardware required when a DIO shelf is provisioned in the MCGM cabinet.

RUL3 1) Provide per requirements of office features (see note 1). MTD requires two (2) shelf positions, ie; 05(&19), 19(&33) or 33(&47).

RUL4 1) Provision one (1) NT4X00AF DDU shelf at position 05 to accommodate a max of two (2) NT-MERCURY Disk Drives 8211D-19-063 or two (2) 5.25" Disk Drives NT4X00AG.

2) Provide one NTNX47AK MCGM DDU hardware kit when DDU shelf assembly NT4X00AF is provisioned. The DDU hardware kit includes all cables and associated hardware required when a DDU shelf is provisioned in the MCGM cabinet.

3) Provide a maximum of two (2) disk drives per NT4X00AF Dual Disk Drive Unit shelf. The first DDU will mount in position 12 and the second DDU will mount in position 18.

4) Provide one NT1X78AA and one designation label P0668410 per Disk Drive provided. Otherwise, provide one Filler Face Plate NT0X50AE and one Designation Label P0599142.

5) Provide one (1) NT4X0032 DDU H/W kit per disk drive to mount disk drive on the NT4X00AF DDU shelf (maximum of two per shelf).

RUL5 1) Provision per MS3X95AA or MS3X95BB Remote Oscillator Shelf (ROS) to accommodate customer requirements for Stratum Clocking as required. Refer to the respective Engineering Manual sections for packfill requirements and provisioning on the shelf.

NT3X95AA ROS Stratum II/NT40/Non-ISG Office
NT3X95BB ROS Stratum 2.5/DMS-Core/ISG Office

2) Provide one (1) MCGM ROS Hardware Kit NTNX47AS when the ROS is provisioned.

RUL6 1) One each of these cables to be provided when one or more of the following shelves are provisioned on the MCGM:

NT2X52AG TM8	NT2X58CA MTM	NT5X00AD TAN
NT2X5228 T8A	NT2X58CB MTM	NT7X3004 STM

RUL7 1) Provision per MS2X58CA or MS2X58CB to accommodate customer requirements for each MTM required. Refer to engineering manual for packfill requirements as follows:

NT2X58CA	EMA2-01-MTM-1
NT2X58CB	EMA2-01-MTM-2

2) When OAU (Office Alarm Unit) function is to be provided in the MCGM cabinet, provide two (2) NT2X58CA MTMs and appropriate Common CP Mount the MTM in shelf position 05 and 19. MTM in shelf position 19 is MTM 01. Configure the MTM/OAU as follows:

	PEC	NAME	SH POS	SLOT
Dead System Alarm	NT3X82**	MTM:00	05	05
Dead System Alarm	NT3X82**	MTM:01	19	05
OAU Alm Transfer	NT3X83AA	MTM:01	19	07
Misc Scan CP	NT0X10AA	MTM:01	19	08
Signal Dist CP	NT2X57AA	MTM:01	19	09

** = AA for Unique Audible Alarms
AB for Common Audible Alarms

3) Provide one of the following hardware kits as required for each MTM shelf provided. The hardware kits include all cables and associated hardware required when MTM shelf is provisioned in the MCGM cabinet except Network Port cables.

NTNX47AJ when a MTM shelf is provisioned in SHF POS 33.
NTNX47AH when a MTM shelf is provisioned in SHF POS 19.
NTNX47AG when a MTM shelf is provisioned in SHF POS 05.

4) Provide one of the following hardware kits as required for each MTM/DRA NT2X58CB shelf provided. The hardware kits include all cables and associated hardware required when MTM/DRA shelf is provisioned in the MCGM cabinet except Network Port cables.

NTNX47BK when a MTM/DRA shelf is provisioned in SHF POS 33.
NTNX47BJ when a MTM/DRA shelf is provisioned in SHF POS 19.
NTNX47BH when a MTM/DRA shelf is provisioned in SHF POS 05.

RUL8 1) Provision one NT7X3004 STM/STM shelf and oneof the following hardware kits as required for each STM/STM required. The hardware kits include all cables and associated hardware required when STM/STM shelf is provisioned except for network port cables. A maximum of two (2) STM shelves may be provisioned per MCGM cabinet.

NTNX47BG when a STM shelf is provisioned in SHF POS 47.
NTNX47BF when a STM shelf is provisioned in SHF POS 33.
NTNX47BE when a STM shelf is provisioned in SHF POS 19.
NTNX47BD when a STM shelf is provisioned in SHF POS 05.

RUL9 1) Always provide these items when STM shelf NT7X3004 is provisioned for shelf locations 05, 19, 33 or 47.

2) Provide Filler Face Plate NT0X50AC and Designation Label P02250058 as required in slots 5-11, 13-16 and 8 of shelves 05, 19, 33 or 47 when these STM slots are unequipped.

RUL10 1) Provision NTNX29AB DRAM Wiring option and listed circuit packs when a STM shelf is provisioned for shelf locations 05, 19, 33 or 47 and DRAM option is a customer requirement. DRAM is always provisioned on the left (even numbered) STM of the STM/STM shelf.

2) The NT1X75BA replaces the NT1X75AA and is required for two stage dialing.

3) Provide one (1) NT1X75DA DRAM Control CP and NT1X77AA DRAM Memory CP as required for international applications of the DRAM in even numbered (left) STM. The NT1X75DA is the A-Law version of the NT1X75BA and functions similarly.

RUL11 1) Provision NTNX29AC CODEC Wiring option when a STM shelf is provisioned for shelf locations 05, 19, 33 or 47 and CODEC option is a reuirement for the left half of the shelf. Also provision one (1) NT2X59AB and any combination of NT3X67BA’s, NT2X48BA’s or NT2X48BB’s for slot locations 5-8 and 10. Provision designation labels as needed for each circuit pack provided.

2) For international markets, provision NT2X48CC A-LAW based Dual-Tone Multifrequency Receiver in accordance with RULE11, item 1.

RUL12 1) Provision NTNX29AC CODEC Wiring option when a STM shelf is provisioned for shelf locations 05, 19, 33 or 47 and CODEC option is a requirement for the right half of the shelf. Also provision one (1) NT2X59AB and any combination of

NT3X67BA's, NT2X48BA's or NT2X48BB's for slot locations 13-16 and 18. Provision designation labels as needed for each circuit pack provided. Also see RUL12, item 2.

RUL13 1) Provision either NT5X29AB and designation label P0706693 or NT5X29AC and designation label P0654974 Audio Tone Detectors as needed when NT7X3004 STM shelf has been provisioned in shelf locations 05, 19, 33 or 47. Provision one P0698920 shelf designation strip when Audio Tone Detectors are specified for all four slot positions of an STM shelf.

2) Provision Filler Face Plates per the following table:

NT5X29 CP POS	Filler CP POS
05	6,7
08	9-11
13	14,15
16	17-19

RUL14 1) Provide one (1) NTZZ38EM MTXD Filler Panel Assembly Kit for each unequipped shelf position 05, 19, 33, 47.

RUL15 1) Provide this hardware if mounting position 47 is unequipped or if MTD is mounted in shelf pos 33 (& 47).

RUL16 1) Provide one (1) earthquake kit per MCGM cabinet when cabinet is installed at site in the following seismic (earthquake) zones:

ATC	Zones 6 & 7
NEBS	Zone 4
UBC	Zone 4

Provide one (1) NTNX2540 earthquake kit for slab type flooring. Provide one (1) NTNX2578 earthquake kit for computer floor.

2) Provide one (1) NTNX2579 anchor kit for non-earthquake zone site with a slab floor.

3) Provide one (1) NTNX2580 anchor kit for non-earthquae zone site with a computer floor.

RUL17 1) Provide one (1) label per circuit pack provisioned. (NT code on label should be the same as circuit pack provisioned.) Affix designation label to appropriate position on the designation strip.

RUL18 1) These circuit packs must be provided whenever an MTM or MTM/DRA shelf assembly is provisioned for shelf positions 05, 19, or 33. Additional packs may be provisioned for slot positions 05-16 as needed for customer requirements (see Engineering Manual EMA 14-01-000, Tables A-3 and A-4.

RUL19 1) For MTXD applications only: provision the modem shelves and DIO's in pairs. The first pair will assign at pos.47(DIO) and 33(DS-5) and the second pair will assign at pos. 19(DIO) and 05(DS-5).

2) Due to bulkhead limitations DS-5 modem shelves located at positions 33 and 05 may only be connected internally to DIO and externally VIA tip & ring connections only at CO01 and CO02 on the bulkhead. THERE ARE NO RS232 CONNECTIONS AVAILABLE FOR THIS MTXD CONFIGURATION.

3) Provision one NT6X91AB or one NT6X91CA per each CSC active link plus an additional amount for modem pooling determined by Customer Engineering. Provision one NT6X91BA for each MTX link. The maximum number of HDLC cp's per DIO is 15: slots 6-23.

4) Provision the HDLC cp's evenly accross both IO's in the DIO starting with slot 6,17,07,18,08,19 etc.:

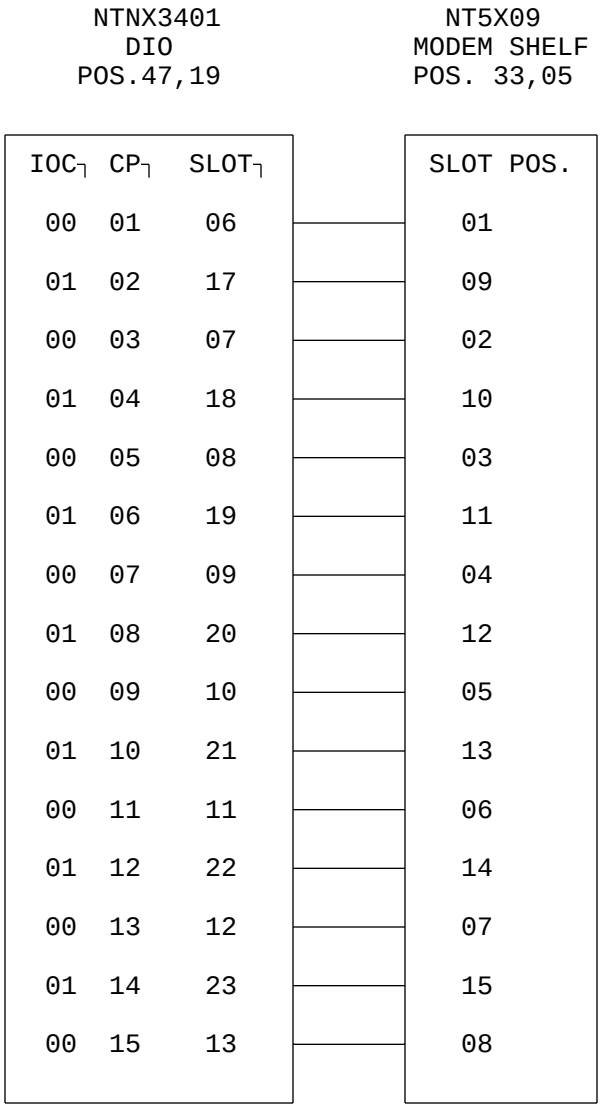

Figure 1. NT6X91 Provisioning in the DIO.

RUL20 1) For MTXD applications only: provision the modem shelves and DIO's in pairs. The first pair will assign at pos.47(DIO) and 33(DS-5) and the second pair will assign at pos. 19(DIO) and 05(DS-5).

2) Provision one 4800 baud modem for each NT6X91AB cp for a CSC link. Provision one 9600 baud modem for each NT6X91CA cp for a CSC link. Provision one 9600 baud modem for each NT6X91BA cp for an MTX link.

RUL21 1) For MTXD applications only: provision one NTNX47BL for the addition of one DIO/Modem pair at shelf pos. 47,33.

2) For MTXD applications only: provision one NTNX47BM for the addition of two DIO/Modem pairs. The first pair is assigned to pos. 47,33; the second pair is assigned to pos. 19,05.

3) Both kits, the NTNX47BL and NTNX47BM, include all hardware and cable harnessing required to install and cable the two units together and to the bulkhead.

RUL22 1) The IMTM Common Circuit Packfill contains those cards that are to be provisioned with each IMTM Shelf Assembly ordered for international applications (Turkey).

RUL23 1) Provide NT2X75AA on MCGM as required when loop around test line is required for measuring near to far end trunk transmission losses (one loop around circuit per pack).

2) For international markets, provide the NT2X75BA on MCGM in accordance with RULE9, issue 1.

RUL24 1) Provide NT1X00AB on MCGM as required when additional 102 test milliwatt is required.

RUL25 1) Provide one (1) NT2X47BA (left, odd slot) and one (1) NT2X56BA (right, even slot) for International Transmission Test Unit required.

RUL26 1) Provide one (1) NT1X90AA (left, odd slot) and NT2X96AA (right, even slot) for additional transmission termination trunks.

2) Provision the NT1X90BA and the NT2X96BA for international markets in accordance with RUL15, issue 1.

RUL27 1) Provision NT3X67BB as one (1) 6-port circuit or as two (2) 3-port circuits.

RUL28 1) Refer to section EMA14-01-000 for further information on the NT3X82AB and the NT3X83AA.

RUL29 1) Provide NT5X30AA on MCGM as required when additional test lines are required.

2) No more than four (4) per shelf.

RUL30 1) Provide NT0X10AA on MCGM as required when scan points are required (two circuits per pack, and seven scan points per circuit).

RUL31 1) Provide NT2X57AA on MCGM as required when signal distribution points are required (two circuits per pack and seven points per circuit).

RUL32 1) Provide NT1X54AA on MCGM as required when additional circuits for access to switching network for analog (vf) test equipment required (two circuits per pack).

MCEX (GREY)

PEC CODE: NTZZ38HA

CPC CODE: B0237249

RATING: MD

REPLACES: N/A

REPLACED BY: NTZZ60EA

ABBREVIATION NAME: MCEX

ENGINEERING DESCRIPTION: The MCEX cabinet is used to provide the initial Magnetic Tape Drive (MTD) and Disk Drive Unit (DDU) capability on the MTXD.

REFERENCE DOCUMENTATION: MSNX32AA 00 07
SLZZ38HA 00 01 REL 01

MARKETS: Applicable markets:

Wireless

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NTZZ38HA EMC10-17-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 14	ECM 492 05	New insert.
93 05 05	ECM 492 07	Retire insert.
94 04 11	ECM 492 11	EC 01842694 - Remove NT0X50BA fillers from slots 6,12,13,23.
95 04 25	ECM 492 19	JEL: Make corrections per NTNX33CA EMA section.
95 06 12	ECM 492 21	DGB: Make corrections to match NTNX32AA.
95 10 06	ECM 492 26	DKG: MD this Building Block and replace with the NTZZ60EA.
95 12 01	ECM 492 27	JEL: Make corrections so that the building block match EMA for NTNX32AA.
95 12 21	ECM 492 29	JEL: Replacing the door labels left with the new NORTEL door labels left.

The MCEX (GREY) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	MCEX Cabinet	NTNX32AA		1			AP
	MTXD Designation Label	P0712628		1			AP
	Cabinet Assembly	NTNX25AA	FW				AP-01
	Frame Supervisory Panel	NT7X34AA	FSP	1	60		AP-01
	MTXD - Filler Panel Assy Kit	NTZZ38EM			33,47		RUL7
	MTXD - MTD Assembly	NTZZ38DM			19		RUL2
	Filler Panel	P0684448			58		RUL14
	DIO Shelf Assembly	NTNX3401	DIO	1	19		AP-01
	Designation strip (shelf)	P0696637		1	19		AP
	MTXD - I/O Basic (Universal)	NTZZ38AM			19	1	RUL3
	IOC SCSI DDU CP	NT1X55FA			19	6-12 17-22	RUL12
#	Terminal Controller	NT1X67BC		A/R	19	8,11-13 19,21-23	RUL4
	Terminal Controller	NT1X67BD		A/R	19	8,11-13 19,21-23	RUL4
#	Enhanced MPC CP	NT1X89BA			19	8,11-13 19,21-23	RUL4
	Enhanced MPC CP	NT1X89BB		A/R	19	8,11-13 19,21-23	RUL4
	NEMAS Circuit Pack	NT6X91BA		A/R	19	9,10, 20	RUL4
	X25LAPB Control Card	NT6X91BB		A/R	19	9,10, 20	RUL4
	Cook 9-TK Tape Cont.	NT1X68BC			19	6,17	RUL10
	Mag Tape Drive Wiring Kit	NTNX32PA			19	6,17	RUL11
	Filler Face Plate	NT0X50BA	FFP	A/R	19	6-13, 17-24	RUL5
	Filler Face Plate	NT0X50BE	FFP	A/R	19	25	RUL5
	Filler Face Plate	NT0X50BF	FFP	A/R	19	4,15	RUL5
	V.35 Cable Ass'y	NTMX4723					RUL13
	RS232 (EMPC) Cable Ass'y	NTMX4724					RUL13
	RS232 (HDLC) Cable Ass'y	NTMX4725					RUL13
	RS232 or Current Loop	NTMX4726					RUL13
	Cover Plate	P0686749					RUL13
	Cover Plate Screws	P0670923					RUL13
	Desig. Label (NT1X55FA)	P0800155			19	6-12 17-22	RUL6
#	Desig. Label (NT1X67BC)	P0623517			19	8,11-13 19,21-23	RUL6
	Desig. Label (NT1X67BD)	P0657675			19	8,11-13 19,21-23	RUL6

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Desig. Label (NT1X68BC)	P0616642			19	6,17	RUL6
#	Desig. Label (NT1X89BA)	P0708961			19	8,11-13 19,21-23	RUL6
	Desig. Label (NT1X89BB)	P0800156			19	8,11-13 19,21-23	RUL6
	Desig. Label (NT6X91BA)	P0675184			19	9,10,20	RUL6
	Desig. Label (NT6X91BB)	P0689833			19	9,10,20	RUL6
	Desig. Label (NT0X50BA)	P0599141		A/R	19	6-13 17-24	RUL6
	Desig. Label (NT0X50BE)	P0599142		A/R	19	25	RUL6
	Desig. Label (NT0X50BF)	P0599143		A/R	19	15	RUL6
#	DDU Shelf Assembly	NT4X00AF	DDU	1	05		AP-01
#	MTXD - DDU Assembly	NTZZ38CM			05	2	RUL1
	Filler Panel	NT0X84AA			05		AP-01
	Cabinet Type Label (Grey)	P0699150		2			AP
#	Door Label Left (Grey)	P0677704		2			AP
	Door Label Left (Grey)	P0818848		2			AP
	Door Label Right (Grey)	P0699158		2			AP
	Door Right - Grey	NTNX2513		2			AP
	Door Left - Grey	NTNX2515		2			AP
	Earthquake Mounting Kit	NTNX2540					RUL8
	Earthquake Mounting Kit	NTNX2578					RUL8
	Non-EQ Frame Mounting Kit	NTNX2579					RUL9
	Non-EQ Frame Mounting Kit	NTNX2580					RUL9

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT4X00AF	MD	NT1X55FA (Note 3)
NTZZ38CM	MD	None (Note 4)
NT1X67BC	MD	NT1X67BD
NT1X89BA	MD	NT1X89BB
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) The MTD and the Disk Drive Units and the mounting hardware for both should be assigned to the frame so that they are installed before the frame is shipped.

2) The doors must be assigned to the frame. Do not ship the doors as loose items.

3) The NT1X55FA IOC SCSI DDU CP replaeces the 5.25" 220 MB DDU (NT4X00AG), the NT-Mercury 8" Disk Drive 8211D-19-063 & Priam disk drive. The NT1X55FA also replaces all earlier versions of the NT1X55 and the NT4X00 products.

4) The NTZZ38CM building block contains parts replaced by the NT1X55FA and is no longer appropriate.

RULES:

AP 1) When PEC NTZZ38HA is ordered, these items are provided.

AP-01 1) These items are always provided with PEC NTNX32AA.

RUL1 1) Provide one (1) NTZZ38CM MTXD - DDU Assembly as reqiured.

RUL2 1) Provide one (1) NTZZ38DM, MTXD - MTD Assembly as required (Note 1).

RUL3 1) Provide one (1) NTZZ38AM for the basic I/O cards for the IOC shelf.

RUL4 1) Provide specific application cards in slots indicated as required by the customer.

2) Slots 8,11-13,19,21-23 are provisionable for EIA or current loop operation.

3) NT1X89BA as provisioned for V.35 EIA port operation can only be used in slots 12, 13, 21 or 23.

4) The NT1X67BC is the standard terminal controller CP. The NT1X67BD terminal controller CP provides the Auto Dial-back security feature when used with a modem. The customer must have the Enhanced Security software package in the switch in order to utilitze the Auto Dial-back feature.

5) Always provision a minimum of one NT1X89BB on initial installations for TurboLink Interface.

RUL5 1) Provide appropriate Filler Face Plate for any unused card slot.

RUL6 1) Provide one (1) Designation Label corresponding to each card provisioned.

RUL7 1) Provide two (2) NTZZ38EM MTXD Filler Panel Assembly Kits if an MTD is not provisioned.

RUL8 1) Provide one (1) mounting kit when installing frame in ATC zone 6 and 7, NEBS zone 4, and UBC zone 4.

2) Provide one (1) NTNX2540 for slab flooring

3) Provide one (1) NTNX2578 for computer flooring

RUL9 1) Provide one (1) mounting kit when installing frame into a non- earthquake zone.

2) Provide one (1) NTNX2579 for slab flooring

3) Provide one (1) NTNX2580 for computer flooring

RUL10 1) Provide one (1) NT1X68AA in slot 17 if a MTD is equipped in shelf 33, slot 6 is dedicated for external connection(See RUL11).

RUL11 1) provision one (1) NTNX32PA MTD wiring kit when MTD is mounted in an adjacent cabinet to the MCEX. If IOC 01 fo the DIO on shelf 19 is not being used. The MTD controller card must go in slot 6 of IOC 00. If this is the case, provision the NTNX32PA wiring kit for the read/ write/control cables.

2) Provide one (1) NTNX2579 for slab flooring

3) Provide one (1) NTNX2580 for computer flooring

RUL12 1) Provide one (1) NT1X55FA IOC SCSI DDU CP (Capacity 220 MB) in place of the (NT1X55DA) DDU Controller, (NT4X00AF) DDU shelf, and (NT4X00AG) DDU. Provide two (NT1X55FA) SCSI DDU CPs in place of two (2) NT1X55DA & one (1) NT4X00AF/AG combination. IOC 00 & 01 should contain a minum of one pack each.

2) The NT1X55FA IOC SCSI DDU CP requires two (2) card slots. This CP can mount in any two (2) slot locations from 6-12, 17-22, depending on the availability of the locations (except for IOC 0). For example, the NT1X55FA CP can mount in slots 6&7, 7&8, 8&9, 9&10, 10&11, or 11&12, and so forth. When mounting NT1X55FA in IOC 0, only mount the CP in slots 6&7. RUL13 Provide specific application cards in slots indicated as required by the customer.

1) Slots 8, 11-13, 19, 21-23 are provisionable for EIA or current loop operation. Provide (1) NTMX4726 cable for each slot.

2) Slots 8, 11-13, 19, 21-23 are provisionable for NT1X67FA, NT1X67DB, and NT6X91BB. Provide (1) NTMX4725 cable for each slot.

3) NT1X89BB as provisioned for V.35 EIA port operation can only be used in slots 12, 13, 21, or 23. Provide (1) NTMX4723 cable for each slot.

4) Always provision a minimum of (1) NT1X89BB on initial installations for TurboLink interface or Async/Sync RS232 devices (X.25). Provide (1) NTMX4724 for each slot.

5) Provision a minimum of (1) NT1X89BB for CCMIC applications. For redundant links provide (2) NT1X89BB circuit packs. See above rules regarding what slots are available for RS232 (EIA) and V.35 physical interfaces.

6) The 25 pin bulkhead cover plate (P0686749) can be provisioned up to 42 places assuming that a NTMX47__ is not provisioned. Each plate requires (2) screws (P0670923). This means subtract a cover plate for each NTMX47__ cable provisioned. RUL14 Provide (1) filler panel (P0684448) if a MTD is provisioned.

MCTM - ISDN (BROWN)

PEC CODE: NTZZ38FA

CPC CODE:

RATING: Standard

REPLACES: N/A

REPLACED BY: NTZZ60CA

ABBREVIATION NAME: MCTM-ISDN (MCTMI)

ENGINEERING DESCRIPTION: The Meridian Cabinet Trunk Module - ISDN (MCTM-ISDN) is used to house:

two (2) ICPs or
two (2) DTCs or
one (1) ICP and one (1) DTC.

This building block is only intended for North American applications at this time.

This building block is based on the NTNX33CA cabinet.

REFERENCE DOCUMENTATION: MSNX33CA 00 06
SLZZ38FA 00 01 REL 01

MARKETS: Applicable markets:

Wireless

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NTZZ38FA EMC10-21-MCTM-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 02 14	ECM 492 05	New insert.
93 05 05	ECM 492 07	Retire insert.
95 12 01	ECM 492 27	Retire building block.

The MCTM - ISDN (BROWN) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MCTM - ISDN Cabinet	NTNX33CA		1			AP
MTXD Designation Label	P0712628		1			AP
Temperature Sensor	NTNX4005		1	70		AP-01
Frame Supv Panel	NTNX26NA	FSP	1	60		AP-01
Meridian Cabinet Assy	NTNX25AA	FW	1			AP-01
37 Pin cover plate	NTNX33CP					RUL7
ISDN Cont Arry Shf Assy	NT6X0223	CPA1	1	47		AP-01
ISDN Cont Arry Shf Assy	NT6X0223	CPA0	1	33		AP-01
MTX-ICP Common CP (< BCS32+)	NTZZ38WA			33	6	RUL1
MTX-ICP Common CP (>=BCS32+)	NTZZ38XA			33	6	RUL1
MTX-ICP Common CP (XPM PLUS)	NTZZ38YA			33	6	RUL1
Time Switch	NT6X44AA		2	33,47	14	RUL1
Desig. Label (NT6X44AA)	P0698316		2	33,47	14	RUL1
Digital Cellular Time Switch	NTAX78AA		2	33,47	14	RUL1
Desig. Label (NTAX78AA)	P0737140		2	33,47	14	RUL1
10 DS30A LCM Interfaces	NTZZ02KA			33	6,7	RUL1
DS1 I/F CP	NT6X50AB			33,47	5-1	RUL2
Desig. Label (NT6X50AB)	P0690976					RUL2
Digital Trunk Controller	NTZZ04BA		1	33	6	RUL14
30 Universal Tone Rcvr Ccts	NTZZ02FA		1	33	15	RUL14
Continuity Tone Detector	NT6X70AA		2	33,47	13	RUL14
PCM30 Interface CP	NT6X27BB			33,47	1-4	RUL6
Filler Faceplate	NT0X50AA		18	33,47	5,6,7,13,16,17,19,23,24	RUL6
Master Processor Mem Plus CP	NT6X47AC		4	33,47	9,10	RUL6
Sig Proc Mem Plus CP	NT6X46BB		2	33,47	11	RUL6
XPM Processor CP	NT6X45BA		4	33,47	8,12	RUL6
Time Switch	NT6X44EA		2	33,47	14	RUL6
Universal Tone Receiver	NT6X92CA		2	33,47	15	RUL6
Msg Prot & Download Tones CP	NT6X69LB		2	33,47	18	RUL6
Channel Sup Message	NT6X42AA		2	33,47	20	RUL6
Speech Bus Formatter (Turkey)	NT6X41AA		2	33,47	21	RUL6
DS-512 Network Interface	NTZZ02HB		1	33	22	RUL1,6
16 DS30 Network Interfaces	NTZZ02GA		1	33	22	RUL1,6
Power Convertor	NT2X70AE		2	33,47	25	RUL6
Fiber cover plate	P0738373		2	33,47		RUL13
ISDN Cont Arry Shf Assy	NT6X0223	CPA1	1	19		AP-01

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISDN Cont Arry Shf Assy	NT6X0223	CPA0	1	05		AP-01
MTX-ICP Common CP (< BCS32+)	NTZZ38WA			05		RUL1
MTX-ICP Common CP (>=BCS32+)	NTZZ38XA			05		RUL1
MTX-ICP Common CP (XPM PLUS)	NTZZ38YA			05		RUL1
10 DS30A LCM Interfaces	NTZZ02KA			05	6,7	RUL1
DS1 I/F CP	NT6X50AB			05,19	5-1	RUL2
Desig. Label (NT6X50AB)	P0690976					RUL2
Digital Trunk Controller	NTZZ04BA		1	05	6	RUL14
30 Universal Tone Rcvr Ccts	NTZZ02FA		1	05	15	RUL14
Continuity Tone Detector	NT6X70AA		2	05,19	13	RUL14
PCM30 Interface CP	NT6X27BB			05,19	1-4	RUL6
Filler Faceplate	NT0X50AA		18	05,19	5,6,7,13,16,17,19,23,24	RUL6
Master Processor Mem Plus CP	NT6X47AC		4	05,19	9,10	RUL6
Sig Proc Mem Plus CP	NT6X46BB		2	05,19	11	RUL6
XPM Processor CP	NT6X45BA		4	05,19	8,12	RUL6
Time Switch	NT6X44EA		2	05,19	14	RUL6
Universal Tone Receiver	NT6X92CA		2	05,19	15	RUL6
Msg Prot & Download Tones CP	NT6X69LB		2	05,19	18	RUL6
Channel Sup Message	NT6X42AA		2	05,19	20	RUL6
Speech Bus Formatter (Turkey)	NT6X41AA		2	05,19	21	RUL6
DS-512 Network Interface	NTZZ02HB		1	05	22	RUL1,6
16 DS30 Network Interfaces	NTZZ02GA		1	05	22	RUL1,6
Power Convertor	NT2X70AE		2	05,19	25	RUL6
Fiber cover plate	P0738373		2	05,19		RUL13
Upper Module Filler Kit	NT6X02AB		1	33,47		RUL1
Jumper Kit Non-ISDN	NTRX36NI		1	05,19,33,47		RUL7
DS-512 Fiber Interface hardware kit	NTNX33SD			05,19,33,47		RUL8
DS30A Fiber Interface hardware kit (NT6X48AA)	NTNX33DT			05,33		RUL9
DS30A Fiber Interface hardware kit (XPM)	NTNX33DU			05,33		RUL10
DS1 Link Interface hardware kit (XPM)	NTNX33DV			05,33		RUL10

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DS30A Fiber Interface hardware kit (XPM)	NTNX33DS			05,19 33,47		RUL11
Cooling Unit	NTNX27CA	CU	1	00		AP-01
Cabinet Type Label (Brown)	P0699471		2			AP
Door Right - Brown	NTNX2552		2			AP
Door Left - Brown	NTNX2550		2			AP
Door Label Left (Brown)	P0699464		2			AP
Door Label Right (Brown)	P0695230		2			AP
Anchor Kit Earthquake-Slab	NTNX2540					RUL5
Anchor Kit Earthquake-Comp	NTNX2578					RUL5
Anchor Kit Non-E/Q-Slab	NTNX2579					RUL5
Anchor Kit Non-E/Q-Comp	NTNX2580					RUL5

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ38FA	MD	NTZZ60CA

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 MCTM-ISDN must be in the same lineup as the serving network if the serving network is a JNET (Junctored Network).

2) Each equipped controller requires direct cabling to sixteen network ports.

3) The DS1 ports for each DTC are fully wired to filter connectors in the rear bulkhead for use as digital trunks or to connect remote modules or both. The DS1 ports are fully connectorized using the new Bandpass RF Filter for improved EMI performance. Additionally, cabling and connectors allow the rear bulkhead to interface to the ISDN Packet Handler.

4) The NTZZ38FA can be provisioned with 2-shelf Common Peripheral Control modules for non-ISDN functions. If a module is provisioned for non-ISDN functions (DTC), the NTBX01AB circuit packs are not required.

5) When upgrading ISDN XPM modules to XPM PLUS, the modules must be equipped with the Enhanced ISDN Sig Pre-Proc (EISP) CP NTBX01AB. If the ISDN XPM modules being upgraded to XPM PLUS are equipped with the ISDN Sig Pre-Proc (ISP) CP NTBX01AA, then replacement by the NTBX01AB CP and Desig. Labels P0735418 is mandatory.

RULES:

AP 1) When PEC NTZZ38FA is ordered, these items are provided.

AP-01 1) These items are always provided with PEC NTNX33CA.

RUL1 1) Provide one (1) MTX - ICP Common CP (XPM PLUS) building block (NTZZ38YA) if provisioning ICP functionality, using XPM PLUS.
The Time Switch CPs (NT6X44AA for analog, NTAX78AA for analog and digital cellular) are provisionable in this building block.

If digital and analog functionality is required, provide: two (2) NTAX78AA Time Switch CPs and two (2) P0737140 CP designation labels.

If analog only functionality is required, provide: two (2) NT6X44AA Time Switch CPs and two (2) P0698316 CP designation labels.

2) Provide one (1) MTX - ICP Common CP (>= BCS32+) building block (NTZZ38XA) if provisioning ICP functionality, using

the standard XPM processor packfill using BCS32+ or later software.
The Time Switch CPs (NT6X44AA for analog, NTAX78AA for analog and digital cellular) are provisionable in this building block.

If digital and analog functionality is required, provide: two (2) NTAX78AA Time Switch CPs and two (2) P0737140 CP designation labels.

If analog only functionality is required, provide: two (2) NT6X44AA Time Switch CPs and two (2) P0698316 CP designation labels.

3) Provide one (1) MTX - ICP Common CP (< BCS32+) building block (NTZZ38WA) if provisioning ICP functionality, using the standard XPM processor packfill using software releases lower than BCS32+.
The analog Time Switch CPs (NT6X44AA) are included in this building block.

4) Provide up to two (2) NTZZ02KA DS30A Interface building blocks if the ICP is used in digital cellular applications with Meridian Digital Signal Processing cabinets (MDSPs).

5) Provide one NT6X02AB CPCE Filler Kit as required when upper module position (shf pos 33, 47) is unequipped.

6) Provide Filler Faceplates (NT0X50AA) for all unused slots.

7) Provide one (1) NTZZ02GA building block for DS30 (copper) connection of a DTC/ICP module to the DMS network module.

Provide one (1) NTZZ02HB building block for DS512 (fiber) connection of a DTC/ICP module to the DMS network module.
Network interface building blocks, DS30 (NTZZ02GA), DS512 (NTZZ02HB), are provided in a quantity of one (1) per module.

RUL2 1) For DTC/ICP applications provide a maximum of ten (10) NT6X50AB DS1 I/F EFF circuit packs in slots 1-5, both shelves of the module.

2) NT6X50AB DS1 I/F Extended Frame Format (EFF) 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).

3) One NT6X50AB EFF DS1 I/F circuit pack provides two DS1 ports.

4) For each module, 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.

RUL3 1) Provide Filler Face Plate NT0X50AA and designation label P0578498 on shelves 05, 19, 33 and 47 in slots 1-7, 13 and 16 when unequipped.

RUL4 1) Provision one (1) earthquake mounting kit when installing in the following earthquake zones:

ATC	Zone 6
NEBS	Zone 4
UBC	Zone 4

Provide NTNX2540 earthquake anchor kit for slab flooring. Provide NTNX2578 earthquake anchor kit for computer type flooring.

RUL5 1) Provision 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.

RUL6 1) Provision the following circuit packs when a PDTC is required for international applications.
Quantities indicated are for each module.
Module 0 (zero) mounts in cabinet locations 05 and 19, module 1 (one) mounts in cabinet locations 33 and 47.

2) Provide NT6X27BB PCM30 circuit packs in the quantity required by the customer up to a maximum of 8 per module. Provision filler faceplates in positions not occupied by PCM-30 CPs.

3) Provide one (1) NTZZ02GA building block for DS30 (copper) connection of the a PDTC module to the DMS network module.

Provide one (1) NTZZ02HB building block for DS512 (fiber) connection of the a PDTC module to the DMS network module. Network interface building blocks, DS30 (NTZZ02GA), DS512 (NTZZ02HB), are provided in a quantity of one (1) per module.

DESCRIPTION	PEC	QTY	CP POS
PCM30 Interface CP	NT6X27BB	AR	1-4
Filler Faceplate	NT0X50AA	18	5,6,7, 13,16, 17,19, 23,24
Master Processor Mem Plus CP	NT6X47AC	4	9,10
Sig Proc Mem Plus CP	NT6X46BB	2	11
XPM Processor CP	NT6X45BA	4	8,12
Time Switch	NT6X44EA	2	14
Universal Tone Receiver	NT6X92CA	2	15
Msg Prot & Download Tones CP	NT6X69LB	2	18
Channel Sup Message	NT6X42AA	2	20
Speech Bus Formatter (Turkey)	NT6X41AA	2	21
DS-512 Network Interface	NTZZ02HB	1	22
16 DS30 Network Interfaces	NTZZ02GA	1	22
Power Convertor	NT2X70AE	2	25
Designation strip (shelf)	P0713212	2	

RUL7 1) Provide one kit per shelf to provide backplane wiring for non-ISDN functionality.

RUL8 1) Provide one kit per shelf 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.

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

RUL9 1) Provide one NTNX33DT DS30A cable kit when provisioning NT6X48AA ciruit packs.

(1) NTNX3305 FOR SHELF 05

(1) NTNX3306 FOR SHELF 05

(1) NTNX3313 FOR SHELF 05

(1) NTNX3314 FOR SHELF 05

(1) NTNX3315 FOR SHELF 05

(1) NTNX3316 FOR SHELF 05

(1) NTNX3307 FOR SHELF 33

(1) NTNX3308 FOR SHELF 33

(1) NTNX3319 FOR SHELF 33

(1) NTNX3320 FOR SHELF 33

(1) NTNX3321 FOR SHELF 33

(1) NTNX3322 FOR SHELF 33

RUL10 1) Provide one NTNX33DU DS30A cable kit when NTNX33SD is NOT required.

(1) NTNX3317 FOR SHELF 05

(1) NTNX3318 FOR SHELF 05

(1) NTNX3323 FOR SHELF 33

(1) NTNX3324 FOR SHELF 33

3. NTNX33DV DS-1 LINK CABLE HARDWARE KIT

RULE: Provision when NT6X50’s or NTBX01’s are required f DS-1 interfacing.

(1) NTNX3317 FOR SHELF 05

(1) NTNX3318 FOR SHELF 05

(1) NTNX3323 FOR SHELF 33

(1) NTNX3324 FOR SHELF 33

RUL11 1) Provide one NTNX33DS DS30 cable kit when NO FIBER interface is required. These cable provide XPM interface to network.

(1) NTMX3310, NTMX3312 FOR SHELF 05,19

(1) NTMX3311, NTMX3313 FOR SHELF 33,47

(4) P0638261 CONNECTOR KEY BRACKET - 2 PER MODULE

RUL12 1) Provide up to 16 NTNX33CP 37 pin cover plates for unused positions depending on what local cables are ordered from kits NTNX33DT and NTNX33DU.

RUL13 1) Provide P0738373 fiber cover plate to modified bulkeads where ns required.

RUL14 1) Provide one (1) NTZZ04BA Digital Trunk Controller and one (1) NTZZ02FA 30 Universal Tone Rcvr Ccts building blocks if provisioning a domestic DTC.

2) Provide two (2) NT6X70AA Continuity Tone Detector CPs if the module requires CCS signalling and continuity checking.

EMC11

MAINTENANCE AND TEST EQUIPMENT CHAPTER ALL

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MAINTENANCE AND TEST EQUIPMENT CHAPTER ALL

EMC11-01-KSS-1	TCS 1800 1A2 KEY SERVICE SYSTEM	NTZZ14GA
EMC11-01-MTS-1	MAP TELEPHONE SET	NTZZ14NA
EMC11-01-MTS-2	HANDSFREE UNIT	NTZZ14PA
EMC11-01-PRT-1	MAINTENANCE AND ADMINISTRATION POSITION	NTZZ14EA
EMC11-01-PRT-2	MAP KSR PRINTER (GEC-2120)	NTZZ14LA
EMC11-01-PRT-3	MAP KSR PRINTER (TI-820)	NTZZ14MA
EMC11-01-PRT-4	MAP PRINTER (DEC LA75S)	NTZZ14EB
EMC11-01-PRT-5	MAP PRINTER (DEC LA424)	NTZZ14EC
EMC11-01-VDU-1	HEWLETT PACKARD SERIES HP700/22 VDU	NTZZ14JA
EMC11-01-VDU-2	MAINTENANCE AND ADMINISTRATION POSITION	NTZZ14CA
EMC11-01-VDU-3	INTECOLOR COLORTREND 200R VDU	NTZZ14KA
EMC11-01-000	MAINTENANCE AREA PROVISIONING	NTZZ14AA

TCS 1800 1A2 KEY SERVICE SYSTEM

PEC CODE: NTZZ14GA

CPC CODE: B0231966

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZX18AB

ABBREVIATION NAME: 1A2

ENGINEERING DESCRIPTION: The Key System may be considered as ancilliary equipment to the Maintenance and Administration Position (MAP). The primary function of the Key System is to provide voice communications at the MAP and interface other circuits - such as FSP voice and data jacks, loudspeaker, and paging systems. This system mounts in locations outside of the switch area.

This Building Block provides a TCS 1800 Key System equipped to serve 20 Central Office Lines with up to 12 Telsets. However, only the MAP Telset is included in this Building Block, other sets must be provisioned.

REFERENCE DOCUMENTATION: SLZZ14GA 00 03
NTZZ14GA REL 03

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NTI: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NTI: Mark Sorrell Dept. 3471 (PPK)

NTZZ14GA EMC11-01-KSS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
92 11 20	ECM 607 04	Rating is changing to reflect limited quantities of required equipment. Also the NTZZ14NA and the NTZZ14PA are rated MD, this EMS will be updated to reflect this rating.
93 05 24	ECM 353 02	A&M the TCS 1800 key system.
96 03 21	ECM 353 05	MD NTZZ14GA per the Functional Block program.

The TCS 1800 1A2 Key Service System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
1A2 Line Card Shelf	TCS 1800A-1 L1		1			AP
QFF1B 2 Amp Fuse	A0205203		1			AP
QFF1F 1/4 Amp Fuse	A0205207		1			AP
QFF1H 3/4 Amp Fuse	A0205209		1			AP
QFF1H 3/4 Amp Fuse	A0205209		1			AP
QFF1B 2 Amp Fuse	A0205203		1			AP
QFF1B 2 Amp Fuse	A0205203		1			AP
QFF1B 2 Amp Fuse	A0205203		1			AP
QFF3A Dummy Fuse	A0205210		1			AP
QFF1C 3 Amp Fuse	A0205204		1	45		AP
1A2 Line Card	TCS 1800AA-1 L		10		01-10	AP
Isolation Mounting H/W	NT0X0013		4			AP
Pwr & Interrupter Card Equipped for 10V AC Lamp Signalling	TCS 1800AB-1 L1		1		11	AP
10V AC Power Supply	TCS 1800C-1 L1		1		11R	AP
Ringing Generator 20 Hz	TCS 1800AC-1 L1		1		12	AP
TCS 1800 Cust. Manual	TCS 1800M-1 L1		1			AP
# Map Telephone Set	NTZZ14NA					RUL1
# Autodialer 30B TelSet	KX-T1235D					RUL2
# Companion 3 handsfree	NTZZ14PA					RUL3

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
KX-T1235D	MD	NTZZ14NA
NTZZ14NA	MD	None
NTZZ14PA	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) 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.

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 NTZZ14GA is ordered, these items are provided.

RUL1 1) When a 30 Button telephone Set is required per Telco specifications provide one NTZZ14NA.

2) Refer to NOTE#2 above for standard key to line assignments.

RUL2 1) Provide the Panisonic KX-T1235D automatic dialer in conjunction with equipment per RUL1 as per Telco specifications.

RUL3 1) When a Hands-Free Unit is required for use with the 30 Button Telset provide one NTZZ14PA per 30 Button Phone.

MAP TELEPHONE SET

PEC CODE: NTZZ14NA

CPC CODE:

RATING: MD

REPLACES: Not Applicable

REPLACED BY: No Replacement

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The MAP Voice Communication Module may consists of a Telset at a minimum and other equipment such as Autodialer and Handsfree unit. This block defines a 30 Button Phone for use as the MAP voice communications Module.

REFERENCE DOCUMENTATION: SLZZ14NA 00 01
NTZZ14NA REL 01

MARKETS: Applicable markets:

Canada
US

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14NA EMC11-01-MTS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	Equipment on stocklist of BBLK is rated MD with no replacement.
96 08 27	ECM 607 11	Retire section.

The MAP Telephone Set is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Head Set Ivory Color	QSR2F		1			AP
Logic 20 Telset - Ash	2202-HWR-35-35-S		1			AP
Logic dialer color-ash	NT0C25AD-35		1			AP
Logic 20 Line Cord	NE-D100QA-87		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 NTZZ14NA is ordered, these items are provided.

HANDSFREE UNIT

PEC CODE: NTZZ14PA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY: No Replacement

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The MAP Voice Communication Module may consists of a Telset at a minimum and other equipment such as Autodialer and Handsfree unit. This block defines the Handsfree Unit for use as the MAP voice communications Module.

REFERENCE DOCUMENTATION: SLZZ14PA 00 01
NTZZ14PA REL 01

MARKETS: Applicable markets:

Canada
US

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14PA EMC11-01-MTS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	Equipment on stocklist of BBLK is rated MD with no replacement.
96 08 27	ECM 607 11	Retire section.

The Handsfree Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Companion 3 handsfree	QUS1C2-35		1			AP
Handsfree unit transform	NE-2012B-03		1			AP
5’6" transformer cord	NE-D3BN-87		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 NTZZ14PA is ordered, these items are provided.

MAINTENANCE AND ADMINISTRATION POSITION PRINTER

PEC CODE: NTZZ14EA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY: Replaced by the DEC LA424 and DEC LA75S

ABBREVIATION NAME: NTZZ14EA

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system for performing I/O functions. The secondary vehicle for providing this interface is the Keyboard Send and Receiver Printer (KSR, PRTR, or KSRP).

This Building Block provides one Digital Equipment Corporation (DEC) LA-120 KSR with the appropriate accessories.

REFERENCE DOCUMENTATION: MSZZ14EA 00 01
SLZZ14EA 00 01
NTZZ14EA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14EA EMC11-01-PRT-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	DEC LA-120 rated MD, replaced by the DEC LA75S and the DEC LA424.
96 08 27	ECM 607 11	Retire section.

The Maintenance and Administration Position Printer is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC LA120 KSR Printer	LA120-DA	KSR	1			AP
DEC LA120 Paper Basket	LAXX-NC		1			AP
DEC LA120 Pair Of Casters	LAXX-KB		1			AP
DEC LA120 Spare Ribbons	LAXXR-12		1			AP
DEC LA120 20MA CL Option	LA12X-AL					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 NTZZ14EA is ordered, these items are provided.

RUL1 1) Provide one (1) LA12X-AL (LA-120 Current Loop Option) per printer when the application requires 20mA Current Loop operation.

MAP KSR PRINTER (GEC-2120) NTZZ14LA

RATING: MD. Replaced by the DEC VT-420 VDU & LA75S or LA424 RO Printers

ABBREVIATION NAME: KSRP

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system for performing I/O functions. The secondary vehicle for providing this interface is the Keyboard Send and Receiver Printer (KSR PRTR or KSRP).

This Building Block provides one General Electric Corporation (GE) 2120 KSR Printer with the appropriate accessories.

REFERENCE DOCUMENTATION: MSZZ14LA 00 01
SLZZ14LA 00 01
NTZZ14LA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

NTZZ14LA EMC11-01-PRT-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	PEC change on the GE 2120 ribbon used Same CPC will be used for the new PEC.
92 11 20	ECM 607 04	Genicom 2120 is now rated MD, and replaced by the DEC VT-420 and the DEC LA75S or the DEC LA424 printer.

The MAP KSR Printer (GEC-2120) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	GE 2120 KSR Printer	2120AA1025B1	KSR	1			AP
	GE 2120 Tractor Kit Option	44A503688-G04		1			AP
	GE 2120 Pedestal	44C504415-G01		1			AP
	GE 2120 Paper Catch Tray	44C415313-001		1			AP
	GE 2120 Paper Supply Stand	44B503865-001		1			AP
&	GE 2120 Spare STD Ribbons	44A503637-G03		1			AP
	GE 2120 Spare STD Ribbons	44A503637-G14		1			AP
	GE 2120 20 mA Cur Lp Opt	44A503744-G01					RUL1

FLAGS:

& PEC change on the GE 2120 Ribbon, same CPC is used

NOTES:

1) The GE-2120 requires 100-220VAC power connection and power consumption is rated at 75watts.

2) The GE-2120 Ribbons are shipped in sets of three (3).

RULES:

AP 1) When PEC NTZZ14LA is ordered, these items are provided.

RUL1 1) Provide one (1) 44A503744-G01 (GE-2120 Current Loop Option) per printer when the application requires 20mA Current Loop operation.

MAP KSR PRINTER (TI-820)

PEC CODE: NTZZ14MA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY: Replaced by the Genicom 2120.

ABBREVIATION NAME: NTZZ14MA

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system for performing I/O functions. The secondary vehicle for providing this interface is the Keyboard Send and Receiver Printer (KSR PRTR or KSRP).

REFERENCE DOCUMENTATION: MSZZ14MA 00 01
SLZZ14MA 00 01
NTZZ14MA REL 01

MARKETS: Applicable markets:

Canada
US

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14MA EMC11-01-PRT-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	TI-820 MD'd, replaced by GE-2120.
96 08 27	ECM 607 11	Retire section.

The MAP KSR Printer (TI-820) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
TI-820 KSR Printer	ITEM-101	KSR	1			AP
TI-820 Terminal Stand	ITEM-610		1			AP
TI-820 Stand Mtd Paper Tray	ITEM-611		1			AP
TI-820 Spare Ribbons	ITEM-856		1			AP
TI-820 20 ma Cur Lp Option	ITEM-311					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:

1) The TI-820 Ribbons are shipped in a Box of six (6).

RULES:

AP 1) When PEC NTZZ14MA is ordered, these items are provided.

RUL1 1) Provide one (1) ITEM-311 (TI-820 Current Loop Option) per printer when the application requires 20mA Current Loop operation.

MAP PRINTER (DEC LA75S)

PEC CODE: NTZZ14EB

CPC CODE: B1101PR4

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZZ14ED

ABBREVIATION NAME: LA75S

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) LA75S Printer with the appropriate accessories.

REFERENCE DOCUMENTATION: SLZZ14EB 00 02
NTZZ14EB REL 01

MARKETS: Applicable markets:

Canada
US

ISSUE AUTHOR: NT: Mark Sorrell Dept. 3471 (PPK)

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

CONTACT: NT: Richard Mathias Dept. 3471 (PPK)

NTZZ14EB EMC11-01-PRT-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	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	Introduce the LA30 as a replacement for the LA75S.

The MAP Printer (DEC LA75S) is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	DEC LA75S Printer	LA75S-AA		1			AP
	Power Cord	BN19P-1K		1			AP-01
	Users Guide	EK-LA75-UG		1			AP-01
#	DEC Stand & Paper Catcher	LAXXS-DA		1			AP
	DEC Stand & Paper Catcher	LAXXS-DS		1			AP
	RS232 Connection Adapter	H8671-A		1			AP
	DEC Ribbon Cartridge	LA75R-KA		1			AP
	20 ma Current Loop Adapter	H8673-AC		1			AP
	RS-232 Slave Cable (10 ft.)	BC16E-10FT					RUL1
	RS-232 Slave Cable (25 ft.)	BC16E-25FT					RUL1
	RS-232 Slave Cable (50 ft.)	BC16E-50FT					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.

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 NTZZ14EB is ordered, these items are provided.

AP-01 1) This PEC is always provided on the LA75S-AA Printer, and is shown here for completeness and sparing information.

RUL1 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:	NTZZ14EC
CPC CODE:	B1101PR5
RATING:	MD
REPLACES:	Not Applicable
REPLACED BY:	NTZZ14EE
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)

NTZZ14EC EMC11-01-PRT-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	Introduce the LA424-CA as a replacement for the DEC LA-120.
96 08 27	ECM 607 11	MD LA424-CA see NTNX14EE for replacement.

The MAP Printer (DEC LA424) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC LA424 Printer	LA424-CA		1			AP
Power Cord	BN19P-1K		1			AP-01
Users Guide	EK-LA424		1			AP-01
DEC Stand & Paper Catcher	LA24X-PS		1			AP
RS232 Connection Adapter	H8671-D		1			AP
DEC Ribbon Cartridge	LA42R-KA		1			AP
20 ma Current Loop Adapter	H8673-AC		1			AP
RS-232 Slave Cable (10 ft.)	BC16E-10FT					RUL1
RS-232 Slave Cable (25 ft.)	BC16E-25FT					RUL1
RS-232 Slave Cable (50 ft.)	BC16E-50FT					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:

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 NTZZ14EC is ordered, these items are provided.

AP-01 1) This PEC is always provided on the LA424-CA Printer and is shown here for completeness and sparing information.

RUL1 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 VDU NTZZ14JA

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.

REFERENCE DOCUMENTATION: MSZZ14JA 00 01

SLZZ14JA 00 01

NTZZ14JA REL 01

The Hewlett Packard Series HP700/22 VDU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
HP700/22 Amber VDU W/Keybd	C1004A	VDU	1			AP
Portable Data Cord	NE-P4QDG		1			RUL1

RULES:

AP When Building Block NTZZ14JA is provided these items are always provided.

RUL1 1) Provide one (1) NE-P4QDG, Portable Data Cord, when NTZZ14JA is required for portable MAP applications.

MAINTENANCE AND ADMINISTRATION POSITION AMBER VDU

PEC CODE: NTZZ14CA

CPC CODE:

RATING: MD. Replaced by the VT-420

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: NTZZ14CA

ENGINEERING DESCRIPTION: The Maintenance and Administration Position (MAP) is the primary man/machine interface between the Telco personnel and the DMS system for performing I/O functions. The primary vehicle for providing this interface is the Video Display Unit (VDU).

This Building Block provides one Digital Equipment Corporation (DEC) VT-320 VDU and a spare Current Loop Adapter.

REFERENCE DOCUMENTATION: MSZZ14CA 00 01
SLZZ14CA 00 01
NTZZ14CA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14CA EMC11-01-VDU-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	VT-320 rated MD, replaced by VT-420.
96 08 27	ECM 607 11	Retire section.

The Maintenance and Administration Position Amber VDU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DEC VT320 Amber VDU W/Keybd	VT320-JA	VDU	1			AP
B & B RS232 CL Adapter	232CL2R		1			AP
Portable Data Cord	NE-P4QFP					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 NTZZ14CA is ordered, these items are provided.

RUL1 1) Provide one (1) NE-P4QFP, Portable Data Cord, when NTZZ14CA is is for portable MAP applications.

INTECOLOR COLORTREND 200R VDU

PEC CODE: NTZZ14KA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY: Replaced by DEC VT-340

ABBREVIATION NAME: VDU

ENGINEERING DESCRIPTION: The COLORTREND CT220R VDU is manufactured by INTECOLOR Corporation in Norcross, GA. It has a 14 inch screen which can be programmed to display in eight (8) foreground colors and eight (8) background colors. The CT220R is fully compatible with the DEC VT100 and VT220 terminals.

REFERENCE DOCUMENTATION: MSZZ14KA 00 01
SLZZ14KA 00 01
NTZZ14KA REL 01

MARKETS: Applicable markets:

Canada
US

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

MAIN CONTACT: NT: Mark Sorrell Dept. 3471 (PPK)

NTZZ14KA EMC11-01-VDU-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 11 20	ECM 607 04	The Colortrend CT220R is rated MD and has been replaced with the DEC VT340.
96 08 27	ECM 607 11	Retire section.

The Intecolor Colortrend 200R VDU is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Colortrend CT220R VDU	CT220R	VDU	1			AP
Colortrend CT220R Keyboard	105121		1			AP
CT220R Programmers Manual	999458		1			AP
Portable Data Cord	NE-P4QDG		1			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 NTZZ14KA is ordered, these items are provided.

RUL1 1) Provide one (1) NE-P4QDG, Portable Data Cord, when NTZZ14KA is required for portable MAP applications.

MAINTENANCE AREA PROVISIONING NTZZ14AA

RATING: Rate Change Pending

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Maintenance area consists of the MAP Furniture with Jacks, Video Display Unit for the desktop, Portable Video Display Unit, Key Service Module, Inverter, and Alarm Panels.

REFERENCE DOCUMENTATION: N/A

MARKETS: Applicable markets:

Canada
US

NTZZ14AA EMC11-01-000 CHANGE HISTORY

Engineering Manual Section Change History

DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 06	ECM 607 03	Introduce the LA75S and the LA424-CA printers which will replace the DEC LA-120 printer. The DEC VT-420 is also introduced which replaces the DEC VT-320.
92 11 20	ECM 607 04	ET15159 Corrects RUL4, Reference to NTZZ18AB should be NTZX18AB (NorStar). Introduce the VT340 Color Terminal as the replacement for the InterColor CT-220R which is rated MD. The GE-2120 is also rated MD and replaced by the DEC VT-420 and LA75S or LA424 printer.
93 03 05	ECM 607 07	This EMS is being retired. All ordering information can be found in other MAP related EMS sections.

The Maintenance Area Provisioning is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	MAP Furniture With Jacks	NTZZ14BA	MAP				RUL1
!	Amber VDU (VT-320)	NTZZ14CA	VDU				RUL2
!	Green VDU (VT-320)	VT-320GA	VDU				RUL2
!	White VDU (VT-320)	VT-320HA	VDU				RUL2
	Amber VDU (VT-420)	VT-420JA	VDU				RUL2
	Green VDU (VT-420)	VT-420HA	VDU				RUL2
	White VDU (VT-420)	VT-420GA	VDU				RUL2
#	Amber VDU (HP 700/22)	NTZZ14JA	VDU				RUL2
	Amber VDU (HP 700/44)	C1007A	VDU				RUL2
	Green VDU (HP 700/44)	C1007G	VDU				RUL2
	White VDU (HP 700/44)	C1007W	VDU				RUL2
*	Color VDU (CT-220R)	NTZZ14KA	VDU				RUL2
	Color VDU (VT-340)	VT-340GA	VDU				RUL2
&	Portable VDU Stand	VT2XX-AA					RUL2
	Portable VDU Stand	VT2XX-AF					RUL2
@	KSR Printer (DEC LA-120)	NTZZ14EA	KSR				RUL3
	RD Printer (DEC LA-75S)	LA75S-AA	RD				RUL3
	RD Printer (DEC LA-75S)	NTZZ14EB	RD				RUL3
	RD Printer (DEC LA-424)	LA424-CA	RD				RUL3
	RD Printer (DEC LA-424)	NTZZ14EC	RD				RUL3
%	KSR Printer (TI-820)	NTZZ14MA	KSR				RUL3
┌	KSR Printer (GE-2120)	NTZZ14LA	KSR				RUL3
$	TCS1800 Key Service Module	NTZZ14GA	1A2				RUL4
	NorStar Key Service Module	NTZX18AB	NKSM				RUL4
	Alarm Control & Display Pnl	NT0X63AA					RUL5
	Alarm Display Panel	NT0X63AB					RUL5
	Exit Alarm Panel	NT0X64AA					RUL5
¢	LaMarche 500 Watt Inverter	NTZZ14HA	INV				RUL6
	LaMarche 500 Watt Inverter	A31-500-48V-A6					RUL6

FLAGS:

! MD. Replaced by VT-420
& MD. Replaced by VT2XX-AF
@ MD. Replaced by the LA75S or the LA424.
% MD. Replaced by the GE-2120.
$ Provide the TCS1800 for extensions, NorStar for Initial Offices

* MD. Replaced by DEC VT-340.
¢ MD. Replaced by A31-500-48V-A6.
┌ MD. Replaced by DEC VT-420 and LA75S or LA424.

NOTES:

RULES:

AP 1) When PEC NTZZ14AA is ordered, these items are provided.

RUL1 1) Provide the NTZZ14BA MAP furniture e/w jacks as required.

RUL2 1) Provide one VDU per MAP, Portable MAP, and/or RTIF application in accordance with the following chart.

DMS-100 VDU APPLICATIONS

VDU	MAP	PORTABLE MAP	RTIF	VENDOR	VDU MODEL NO.	SCREEN COLOR
VT-420	x	x	X	DEC	VT-420JA	Amber
VT-420	x	x	X	DEC	VT-420HA	Green
VT-420	x	x	X	DEC	VT-420GA	White
C1007A	x	x	X	HP	700/44	Amber
C1007G	x	x	X	HP	700/44	Green
C1007W	x	x	X	HP	700/44	White
VT-340	x	x	X	DEC	VT-340GA	Color

2) Provide one VT2XX-AF per portable MAP/RTIF application.

RUL3 1) There are no KSR printers offered at this time. Provide the DEC VT-420 VDU and the DEC LA75S or the LA424 RO printer.

2) Provide one LA75S-AA or the LA-424 per customer specifications for a MAP RD Printer, and other RD printer requirements.

RUL4 1) Provide one NTZX18AB (NKSM) per office requiring a Digital 12-Line 1A2-Type Key System (See MSZZ14FA for provisionable phones). Note: Provide the NTZX18AB on intial jobs.

2) Provide one NTZZ14GA (TCS 1800 1A2 KSM) per office requiring a Analog 20-Line 1A2-Type Key System (See MSZZ14GA for provisionable phones). Note: Provide the NTZZ14GA on extensions only; check availability of parts before ordering.

RUL5 1) Provide Alarm Panels as specified by the Telco.

RUL6 1) Provide one A31-500-48V-A6 LaMarche Inverter to supply protected AC for MAP devices. Refer to ECM 289 for ISG requirements.

EMC13

MISCELLANEOUS SUBSYSTEMS CHAPTER ALL

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MISCELLANEOUS SUBSYSTEMS CHAPTER ALL

EMC13-01-DFMA-1	DF MOUNTING ADAPTER BROWN	NTZZ18SA
EMC13-01-DFMA-2	DF MOUNTING ADAPTER ASH	NTZZ18TA
EMC13-01-DTH-1	NSD DIGITAL TEST HEAD	NTZZ18HA
EMC13-01-INV-1	INVERTER	NTZZ18BA
EMC13-01-LIV-1	LAMARCHE 500 WATT INVERTER	NTZZ14HA
EMC13-01-MTA-1	METALLIC TEST ACCESS UNIT	NTZZ18CA
EMC13-01-ROTL-1	REMOTE OFFICE TEST LINE	NTZZ18EA
EMC13-01-TIF-1	16 TRUNK INTERFACE	NTZZ18RA
EMC13-01-TL-1	TELLABS 292BR CONFERENCE/ALERTING SYSTEM	NTZZ18FA
EMC13-01-TL-2	TELLABS 292 LINE EXPANSION SHELF	NTZZ18GA
EMC13-01-000	MISCELLANEOUS EQUIPMENT FRAME	NTZZ18AA
EMC13-01-001	MISCELLANEOUS EQUIPMENT FRAME	NTZZ18JA
EMC13-01-002	MISCELLANEOUS EQUIPMENT FRAME - US EARTH	NTZZ23AA
EMC13-01-004	MODEL B MISCELLANEOUS EQUIPMENT CABINET	NTZZ47PB
EMC13-03-HWK-11	DPP MOUNTING HARDWARE	NTZZ32QA
EMC13-05-PDM-1	RME POWER DISTRIBUTION MODULE	NTZZ12GA
EMC13-05-000	REMOTE MISCELLANEOUS EQUIPMENT FRAME	NTZZ15BA
EMC13-05-001	REMOTE MISCELLANEOUS EQPT FRAME W/PDC UN	NTZZ15AA
EMC13-05-002	REMOTE MISCELLANEOUS EQPT FRAME W/PDC	NTZZ15CA
EMC13-05-003	REMOTE MISCELLANEOUS EQUIPMENT FRAME	NTZZ15DA
EMC13-05-005	REMOTE MISCELLANEOUS EQUIPMENT FRAME STA	NTZZ15DB
EMC13-05-006	RME POWER DISTRIBUTION MODULE	NTZZ15CB
EMC13-05-007	CABINETIZED REMOTE MISCELLANEOUS EQUIPME	NTZZ31QA
EMC13-05-008	RME POWER DISTRIBUTION MODULE W/EAS	NTZZ15CC
EMC13-05-009	RME POWER DISTRIBUTION MODULE NON-EAS	NTZZ15CD
EMC13-06-000	SUPERNODE SPARE STORAGE CABINET	NTZZ27CA
EMC13-07-SDMS-B	DOORS AND MISCELLANEOUS HARDWARE(BROWN)	NTZZ30KA
EMC13-07-SDMS-G	DOORS AND MISCELLANEOUS HARDWARE(GRAY)	NTZZ30JA
EMC13-08-AAC	AUDIBLE ALARM CUTOFF CONTROL UNIT	NTZZ18WA
EMC13-08-AEU	AUDIBLE/VISUAL ALARM EXTENSION UNIT	NTZZ18VA
EMC13-08-ASY-1	COMMON EQUIPMENT SHELF ASSEMBLY	NTZZ18YA
EMC13-08-ASY-10	RM4200 BULKHEAD ASSEMBLY - CONFIG B	NTZZ23JA
EMC13-08-ASY-11	RM4200 BULKHEAD ASSEMBLY - CONFIG C	NTZZ23HA
EMC13-08-ASY-2	CMIS TERMINAL BLOCK ASSEMBLY	NTZZ18ZA
EMC13-08-ASY-3	BULKHEAD PLATE ASSEMBLY	NTZZ23BA
EMC13-08-ASY-4	RM4200 BULKHEAD ASSEMBLY	NTZZ23CA
EMC13-08-ASY-5	DTH/ROTL BULKHEAD ASSY	NTZZ23DA
EMC13-08-ASY-6	MLT BULKHEAD ASSEMBLY	NTZZ23EA
EMC13-08-ASY-7	ALARM EXT BULKHEAD ASSY	NTZZ23FA
EMC13-08-ASY-8	DAS BULKHEAD ASSEMBLY	NTZZ23GA
EMC13-08-ASY-9	RM4200 BULKHEAD ASSEMBLY - CONFIG A	NTZZ23KA
EMC13-08-ATT-1	AT&T MODEM MOUNTING UNIT (40B1)	NTZZ45AA
EMC13-08-ATT-2	AT&T MODEM MOUNTING UNIT (40A3)	NTZZ45BA
EMC13-08-DAS	DIGITAL ALARM SCANNER HARDWARE	NTZZ18XA
EMC13-08-DSS-1	RM4200 DATA SET SHELF 115VAC	NTZZ18MA
EMC13-08-DSS-2	RM4200 DATA SET SHELF -48VDC	NTZZ18NA
EMC13-08-DTH	DTH-ROTL UNIT	NTZZ18PA
EMC13-08-GDC-1	DS-5 DATA SET SHELF -48VDC	NTZZ45CA
EMC13-08-GDC-2	DS-6 DATA SET SHELF -48VDC	NTZZ45DA
EMC13-08-INV-1	LAMARCHE INVERTER UNIT	NTZZ18QC
EMC13-08-ISTC	INACTIVE SYSTEM TIMING CIRCUIT	NTZZ18LA
EMC13-08-LIV-1	LAMARCHE INVERTER UNIT	NTZZ18QA
EMC13-08-MLT	MULTIPLE LOOP TEST (MLT) APPLIQUE SHELF	NTZZ18UA

EMC13-08-NKA	NOKIA TF21462 MOUNTING UNIT	NTZZ45GA
EMC13-08-TL-3	TELLABS 1014U MOUNTING UNIT	NTZZ45HA
EMC13-08-TL-4	TELLABS 254A MOUNTING UNIT	NTZZ45JA
EMC13-08-TT-01	CABLE AND HARDWARE KIT FOR TELTREND MODE	NTZZ45NA
EMC13-09-MSS-1	CABINETIZED MISC SPARE STORAGE (BROWN) -	NTZZ27EB
EMC13-09-MSS-2	CABINETIZED MISC SPARE STORAGE (GREY) -	NTZZ27DB
EMC13-09-002	CMSS HARDWARE KIT - GREY	NTZZ27DA
EMC13-09-003	CMSS HARDWARE KIT - BROWN	NTZZ27EA
EMC13-09-004	CABINETIZED MISC SPARE STORAGE - MODEL B	NTZZ27FA

DF MOUNTING ADAPTER BROWN NTZZ18SA

RATING: MD Replaced by the NT0J04DC and the NT0J08AD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ18SA provides a brown-coloured adapter for mounting the 3703-Local Test Cabinet on a Distribution Frame.

REFERENCE DOCUMENTATION: SLZZ18SA 00 01
NTZZ18SA REL 01

The DF Mount Adapter Brown is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Wall Mounting Kit	NT0J04DC		1	XX		AP
Dist. Frame Mounting Kit	NT0J08AD		1	XX		AP

NOTES:

RULES:

AP 1) When PEC NTZZ18SA is ordered, these items are provided.

DF MOUNTING ADAPTER ASH NTZZ18TA

RATING: MD Replaced by the NT0J04DC & NT0J04AD

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ18TA provides an ash-coloured adapter for mounting the 3703-Local Test Cabinet on a Distribution Frame.

REFERENCE DOCUMENTATION: SLZZ18TA 00 01
NTZZ18TA REL 01

The DF Mounting Adapter Ash is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Wall Mounting Kit	NT0J04DB		1	XX		AP
Dist. Frame Mounting Kit	NT0J08AD		1	XX		AP

RULES:

AP 1) When PEC NTZZ18TA is ordered, these items are provided.

NSD DIGITAL TEST HEAD NTZZ18HA

RATING: MD. Replaced by NT7F18AB.

ABBREVIATION NAME: DTH

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test Line (DTH-ROTL)

REFERENCE DOCUMENTATION: SLZZ18HA 00 02

NTZZ18HA REL 02

The NSD Digital Test Head is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Digital Test Head Unit	NT7F20AA		1			AP
Mounting Bracket 19 To 26	P0709355		2			AP-01
DTH Power Supply	NT5A23AA		1		0	AP-01
Control Processor Card	NT7F23AA		1		1	AP-01
ROM Pack	NT7F26AA		1		1R	AP
DS-0 Handler PCB	NT7F25AA		1		2	AP-01
Filler Face Plate	NT7F30AA		6		3-8	AP
VF Interface PCP	NT7F29AA		1		9	AP
Filler Face Plate	NT7F30BA		1		11-18	AP-01
Filler Face Plate	NT7F30CA		1		19	AP-01

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 futher notice.

RULES:

AP 1) When PEC NTZZ18HA is ordered, these items are provided.

AP-01 1) Items marked AP-01 are supplied with NT7F20AA and are listed for sparing purposes.

INVERTER

PEC CODE:	NTZZ18BA
CPC CODE:	B0232024
RATING:	MD
REPLACES:	Not applicable
REPLACED BY:	A31-500-48V-A6 LaMarche Inverter
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	NTZZ18BA block contains one NT0X87AA 200W Inverter and associated accessory equipment.
REFERENCE DOCUMENTATION:	SLZZ18BA 00 03 NTZZ18BA REL 02
MARKETS:	Applicable markets: Canada CALA Asia/Pacific Europe

ISSUE AUTHOR: NTI: Charles Maynard Dept. 3471 (PPK)

MAIN CONTACT: NTI: Charles Maynard Dept. 3471 (PPK)

NTZZ18BA EMC13-01-INV-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 09 09	ECM 602 11	The NTZZ18BA Inverter is being MD'd and replaced by the A31-500-48V-A6.

The Inverter is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AC Mounting Plate	NT0X07AU		1	XX		AP
Inverter	NT0X87AA		1	XX+4		AP
Metallic Regular Washer	P0284154		4			AP
External Tooth Lock Washer	P0183220		4			AP
Mounting Screws	P097F813		4			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 = Mounting position 00 or 26.

RULES:

AP 1) When PEC NTZZ18BA is ordered, these items are provided.

LAMARCHE 500 WATT INVERTER

PEC CODE: NTZZ14HA

CPC CODE: B0231967

RATING: MD

REPLACES: Not applicable

REPLACED BY: A31-500-48V-A6 LaMarche Inverter

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This Building Block contains one LaMarche 500 Watt inverter and the required accessory equipment.

REFERENCE DOCUMENTATION: SLZZ14HA 00 01
NTZZ14HA REL 01

MARKETS: Applicable markets:

US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Charles Maynard Dept. 3471 (PPK)

MAIN CONTACT: NTI: Charles Maynard Dept. 3471 (PPK)

NTZZ14HA EMC13-01-LIV-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 10 22	ECM 602 05	This Building Block contains only 2 (two) items, therefore detail provisioning information will be used instead of the BBLK. NTZZ14HA BBLK will be MD'd. This BBLK code was used in the following BBLKs: NTZZ23AA, NTZZ18AA, NTZZ18JA, NTZZ15BA, and NTZZ15DB.
93 09 09	ECM 602 11	This EMS is being retired. The rating of this BBLK is MD'd, replaced by the A31-500-48V-A6.

The LaMarche 500 Watt Inverter is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LaMarche 500W Inverter	A0367433		1			AP
Direct Powering Label	P0708015		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) The LaMarche inverter unit will terminate up to four (4) AC-powered units not to exceed 120VAC output.

2) 4-inches (2 above and below the unit) must be reserved for forced air cooling when rack/frame mounting this unit.

RULES:

AP 1) When PEC NTZZ14HA is ordered, these items are provided.

METALLIC TEST ACCESS UNIT

PEC CODE:	NTZZ18CA
CPC CODE:	B0232025
RATING:	MD
REPLACES:	Not applicable
REPLACED BY:	NT3X09BA
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	NTZZ18CA Block consists of Metallic Test Access Unit and cover.
REFERENCE DOCUMENTATION:	SLZZ18CA 00 01 NTZZ18CA REL 01
MARKETS:	Applicable markets: Canada US

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ18CA EMC13-01-MTA-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
96 11 27	ECM 602 28	MD per EC018-49694

The Metallic Test Access Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Metallic Test Access Unit	NT2X46AB		1			AP
MTA Unit Cover	P0588094		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 NTZZ18CA is ordered, these items are provided.

REMOTE OFFICE TEST LINE NTZZ18EA

RATING: MD. Replaced by NT7F18AB.

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ18EA block contains Remote Office Test Line and associated equipment.

REFERENCE DOCUMENTATION: MSZZ18EA 00 02

SLZZ18EA 00 02

NTZZ18EA REL 01

The Remote Office Test Line is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ROTL Power Supply	1056		1	29		AP
ROTL	1066-ROTL/52A		1	06		AP
Isolation Mounting Screw H/W	NT0X0013		12			AP
ROTL Spares Kit APC	1066-SPK		1			AP
Cable ROTL Pwr Supply to FSP	NT0X95CS		2			AP
ROTL 105 Test LN/RESP	1050-4W-TST			06	A10	AP-01
Option ROTL 105 Test LN/RESP	1050-4W-TST					RUL1

RULES:

AP 1) When PEC NTZZ18EA is ordered, these items are provided.

AP-01 1) Items marked AP-01 are supplied with 1066-ROTL/52A and are listed for sparing purposes.

RUL1 1) The optional 105 Test Line is a circuit pack that plugs into the ROTL unit.

2) Provide up to five (5) 105 Test Lines as per customer requirements.

3) Starting with slot position A10, the 105 Test Lines are assigned as follows:

Test Line #	1	2	3	4	5
Slot Position	A9	A8	A7	A6	A5

16 TRUNK INTERFACE NTZZ18RA

RATING: MD Replaced by the NT0J6_BA, where "_" = 4

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NTZZ18RA 16 Trunk Interface provides a 4-wire interface for a mixture of up to 16 dial-type and MDF Shoe-type test trunks.

REFERENCE DOCUMENTATION: SLZZ18RA 00 01
NTZZ18RA REL 01

The 16 Trunk Interface is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
16-Trunk Selector Option	NT0J04BP		1	XX		AP
16 Trk Mux Card	NT0J04BW		1	XX		AP

RULES:

AP 1) When PEC NTZZ18RA is ordered, these items are provided.

TELLABS 292BR CONFERENCE/ALERTING SYSTEM

PEC CODE:	NTZZ18FA
CPC CODE:	B0232028
RATING:	MD
REPLACES:	Not Applicable
REPLACED BY:	OEM Manual
ABBREVIATION NAME:	As follows

TL21-when provisioned as a 10-Line 292 System.
TL22-when provisioned as a 20-Line 292 System.
TL23-when provisioned as a 30-Line 292 System.
TL24-when provisioned as a 40-Line 292 System.
TL25-when provisioned as a 50-Line 292 System.
TL26-when provisioned as a 60-Line 292 System.

ENGINEERING DESCRIPTION: The Tellabs NTZZ18FA System is a multishelf multistation ringdown telephone conference circuit designed primarily for use in local emergency reporting and alerting applications and in business conferencing applications. The 292R System provides access up to a maximum of 60 local stations either from a dedicated telephone (i.e., master station) or from any local telephone line via a listed directory number.

REFERENCE DOCUMENTATION: SLZZ18FA 00 02
NTZZ18FA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ18FA EMC13-01-TL-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-------- 97 03 05	---------- ECM 602 29	Previous history not available MD and Retire EMS. See OEM Manual for ordering information.

The Tellabs 292BR Conference/Alerting System is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tellabs 292BR-1 Conf System	292BR-1		1			AP
291R/292R Common Eqpt Shelf	80-5033		1	x		AP-01
Tellabs 291/292 Fuse Module	9021		1	x	12	AP
292 10-Line Station Shelf	80-5034		1	x		AP-01
Tellabs Bypass Plug	50-4001		1	x		AP-01
2W ARD Conf Orig Line Ckt	9293			x	1-2	RUL1
2W ARD Conf Trk Access Ckt	9296			x	1-5	RUL2
2W Conf Amplifier module	9294		1	x	6	AP
Tellabs 291/292 Tone Supply	9121		1	x	7	AP
Tellabs 291/292 Ring Timer	9132		1	x	8	AP
Telab 292 Ringing Interrupt	9003A		1	x	9	AP
Tellabs 292 Long Timer	9133			x	10	RUL3
# 1-Digit DTMF Dial Decoder	6072			x	11	RUL4
1-Digit DTMF Dial Decoder	6073			x	11	RUL4
Tellabs 291/292 Fuse Module	9021		1	x	12	AP
Tellabs 291/292 Line Ckt	9291			x	1-10	RUL5
19 to 26 Inch Mtg Adapter	P0701391		4			AP
# Tellabs 292 Line Exp. Shelf	NTZZ18GA			x		RUL6

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
6072	MD	6073
NTZZ18GA	MD	See OEM Manual

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 292BR-1 requires 13 inches of rack space, 6-inches for each shelf and 1-inch cooling space in between.

2) The 'x' in the shelf position column indicates any MIS frame position with sufficient vertical space to mount the six (6) inch shelf and one (1) inch cooling space as required.

3) The 9021 is equipped with 13 Buss GMT-Type fuses rated at 0.25 Amps each, arranged in two groups - one of 6 fuses, and one of 7.

RULES:

AP 1) When PEC NTZZ18FA is ordered, these items are provided.

AP-01 1) Items marked AP-01 are supplied with 292BR-1 and are listed for sparing purposes.

RUL1 1) Provide one 9293 (2Wire Automatic Ringdown (ARD) Conference Originate Line Circuit Module) for manual conference origination. Slot #1 will be empty with manual only conferencing.

2) For combined automatic and manual conference origination, provide one 9293 in slot #1 and one 9296 (Trunk Access Module) in slot #2. Refer to RUL2 Below for automatic only conferencing.

RUL2 1) Provide one (1) 9296 (Trunk Access Modules) in slot #1 for Automatic Conferencing, however, two (2) 9296s in slots 1&2 is strongly recommended.

2) For combined automatic and manual conference origination, provide one 9293 in slot #1 and one 9296 (Trunk Access Module) in slot #2. Refer to RUL1 above for manual only conferencing.

3) Provide three (3) additional 9296 (Trunk Access Modules) in slots 3, 4, or 5 to allow three callers access to the Remote-Answer capabilities of the 292-System. Provisioning one 9296 in slot #3 would provide one caller access and two 9296s in slots 3&4 will provide two callers access to the Remote-Answer capabilities of the 292-System.

RUL3 1) Provide one 9133 (Long Interval Timer) to enable the 292-System to start a community siren and to control the duration of its operation.

2) The 9133 can be optioned for three (3) modes of operation: (1) Manual, (2) Fixed Time Interval, and (3) Fixed Time Interval with Override.

Manual: The siren operates only while the button is depressed.

Fixed Time Interval: The siren starts when the pushbutton is depressed and continues to operate until the predetermined interval has expired.

Fixed Time Interval with Override: The siren starts when the pushbutton is depressed and continues until the time interval has expired or until the pushbutton is depressed a second time.

RUL4 1) Provide one 6073 (Single Digit DTMF/Dial Decoder Module) in slot #11 in conjunction with the 9133 in slot #10 to provide any conference station in the system equipped with a DTMF telephone with the means to start a community siren by simply pressing the asterisk (*) pushbutton on the phone. The status of the 6072 has changed to MD.

2) In addition to the above, the 6073 module may be used to zone the the 292-System lines. The master station/dispatcher may selectively signal up to 11 groups of stations. This feature permits the dispatcher to call only those members required for a particular emergency (for for example paramedics can be assigned to one group, firemen to another group, other emergency members to another group, and so on).

RUL5 1) Provide up to 10 9291 (2Wire Automatic Ringdown (ARD) Conference Terminate Line Circuit Module) in slots 1 thru 10 for the always provided station shelf and each expansion shelf provided.

RUL6 1) The NTZZ18FA host system is always provided with the capability to mount up to 10 conference lines. Provide up to five NTZZ18GA Tellabs Line Expansion shelves with the NTZZ18FA system as required by the Telco. Each NTZZ18GA provides ten additional conference lines.

TELLABS 292 LINE EXPANSION SHELF

PEC CODE:	NTZZ18GA
CPC CODE:	B0232029
RATING:	MD
REPLACES:	Not Applicable
REPLACED BY:	OEM Manual
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	This block contains the equipment required for the NTZZ18GA Tellabs Line Expansion Shelf.
REFERENCE DOCUMENTATION:	SLZZ18GA 00 03 NTZZ18GA REL 02
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ18GA EMC13-01-TL-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-------- 97 03 05	---------- ECM 602 29	Previous history not available MD and Retire EMS. See OEM Manual for ordering information.

The Tellabs 292 Line Expansion Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tellabs 292 Line Exp. Shelf	292DR		1			AP
Tellabs 291/292 Fuse Module	9021		1	x	12	AP
19 to 26 Inch Mtg Adapter	P0701391		4	x		AP
Tellabs 291/292 Line Ckt	9291			x	1-10	RUL1

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
	MD	

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 NTZZ18GA requires six (6) inches of vertical frame mounting space.

RULES:

AP 1) When PEC NTZZ18GA is ordered, these items are provided.

RUL1 1) Provide one (1) 9291 (2Wire Automatic Ringdown (ARD) Conference Terminate Line Circuit Module) per additional conference line required (Maximum 10 per each NTZZ18GA).

MISCELLANEOUS EQUIPMENT FRAME

PEC CODE:	NTZZ18AA
CPC CODE:	B0232023
RATING:	MD
REPLACES:	NTZZ18JA/NTZZ23AA
REPLACED BY:	NTZZ18AB
ABBREVIATION NAME:	MIS
ENGINEERING DESCRIPTION:	The MIS is a general purpose equipment frame which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS office. Orderable multi-fuse FSP and grounding hardware provides full flexibility in the use of the frame.
REFERENCE DOCUMENTATION:	SLZZ18AA 00 02 NT0X02AB 01 34
MARKETS:	Applicable markets: Canada

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

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

NTZZ18AA EMC13-01-000 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
92 10 09	API 425 02	Include late issue 01 review comments and corrections noted per ET 14499 and ET 14559.
92 12 15	ECM 479 06	Add NT7F18BA and NT7F18CA - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URTO/URTS & RTO/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.
93 01 22	ECM 602 08	Introduce the GDC DS-6 Modem shelf for the MIS Frame. Common framework for the NTZZ18AA has been replaced with the NT0X25AH. The NT0X25AV is rated MD.
93 03 23	ECM 602 09	Change reference to RM-16M Modem Shelf from PEC to CPC which is supported by the MS. Frame Ground Bar NT0X9548 is replaced by the NT0X9504.
93 05 24	ECM 353 02	A&M the TCS 1800 Key System.
93 07 27	ECM 602 10	ECD 018-39718 introduces the NT0X9594 Ground Bar Assembly replacing the NT0X9504. ET 34143 replaces C0054375 with RA877.
93 09 09	ECM 602 11	NTZZ14HA BBLK for the LaMarche Inver- has been MD’d and replaced with the detail provisioning code which is the A31-500-48V-A6. The NTZZ18BA Inverter (NT0X87AA) is also MD’d and replaced by the LaMarche Inverter.
93 11 10	ECM 602 12	The NTZZ18JA BBLK is being MD’d and replaced by this BBLK (NTZZ18AA). The NTZZ24BA is being added to the list of provisionable entities on the NTZZ18AA. The Earthquake Framework is also being renamed to ’Universal Framework.’
94 02 23	ECM 602 13	MKT changed to Canada only. It is the

Engineering Manual Section Change History

DATE	DOCUMENT	REASON
		only MKT requiring NT0X9594 as AP.
94 09 09	ECM 560 01	Introduce the ESTU and ITM into the frame to meet Gate 2 deliverable requirements for an ECM.
95 01 26	ECM 602 19	Added AMH RTU and DRTU for use with CALRS. Also added NT0J04EB DRTU XFM.
95 03 20	ECM 602 20	ECD 6-21517: MD A0367433 Inverter and replaced with NTRX31DH. Changed NT5X69AA provisioning to show that it is no longer to be isolated. Added Grounding note 8. NTMX1665 Lamarche Iso Hdw MD and replaced by NT0X43XD. Revised Inverter Isolation requirements. Updated Inverter mounting locations.
95 03 21	ECM 602 21	ET 21899 Corrected typo in equipment list - NT0X42XD s/b NT0X43XD. Clarified Inverter Rule.
96 03 22	ECM 602 25	MD and retire section per BBRAT; replaced by NTZZ18AB.

The Miscellaneous Equipment Frame is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Miscellaneous Equip. Frame	NT0X02AB		1			AP
#	Universal Framework	NT0X25AV		1			AP
	Universal Framework	NT0X25AH		1			AP
	Terminal Block Assembly	NT3X25BA			77		RUL4
	20A Filt MIS Frame Supv Pnl	NT0X88AF	FSP	1	45		AP
	FSP Cover	P0673914		1	45		AP
#	LaMarche 500W Inverter	NTZZ14HA			04-34		RUL1
#	LaMarche 500W Inverter	A31-500-48V-A6			04-34		RUL1
	500VA AC 500W Inverter	NTRX31DH			04,13,22,31 52,60,70		RUL1
	Direct Powering Label	P0708015			04,13,22,31 52,60,70		RUL1
#	Lamarche Frame Isolation Kit	NTMX1665			04-34		RUL1
	IOE Inverter ISG Kit	NT0X43XD			04,13,22,31 52,60,70		RUL1
	Inverter Frame Ground Kit	NTMX1657			04,13,22,31 52,60,70		RUL1
	Hole Bushing	P0567227					RUL1
#	Lamarche Jumper Ground Kit	NTMX1658			04-34		RUL1
#	Inverter	NTZZ18BA			00-37		RUL1
	Metallic Test Access Unit	NTZZ18CA			73-50 39-04		RUL2
	Common Equipment Shelf	NT3X25AA					RUL3
	Alarm Extension	NTZZ18DA			04-38 51-72		RUL5
	AUD Alarm Cutoff Cntrl Unit	NT5X86AA					RUL6
#	Remote Office Test Line	NTZZ18EA			06		RUL7
	Central Alarm Applique Cct	NT5X72AB					RUL8
	MLT Applique Shelf	NT3J00BA					RUL9
#	3703 Local Test Cabinet Ash	NT0J04BA					RUL11
#	3703 Local Test Cab. Brown	NT0J04BB					RUL11
	LTC 4 Trunk 3 Wire	NT0J62BA					RUL11
	LTC 4 Trunk 4 Wire	NT0J63BA					RUL11
	LTC 16 Trunk 4 Wire	NT0J64BA					RUL11
	RTU-AMH 4-Trunk (for CALRS)	NTAN10AA					RUL26
	RTU-AMH 16-Trunk (for CALRS)	NTAN11AA					RUL26
	26" Mounting Adapters	NT0J04DD					RUL27
#	TCS 1800 1A2 Key System	NTZZ14GA			04-40, 50-73		RUL12
	Tellabs 292 Conf/Alert Systm	NTZZ18FA			05-32		RUL13

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
					51-66		
	Tellabs 292 Line Expnsn Shlf	NTZZ18GA			10-39		RUL13
					51-73		
	Inactive System Timing Cct		RUL14				
#	Digital Test Head ROTL	NTZZ18HA			05-21		RUL15
#	Digital Test Head ROTL	NT7F18AB			05-21		RUL15
	Digital Test Head ROTL	NT7F18AD			05-21		RUL15
	DTH-DTT Shelf	NT7F18BA			05-21		RUL15
	DTH ROTL/DTT	NT7F18CA			05-21		RUL15
	ESTU Master Module (EMM)	NT0J42BA			00-43, 51-75		RUL25
	ISDN Test Module (ITM)	NT0J43AA			00-39 51-71		RUL25
					51-58		
	RM70 Modem Card Cage 120V	905-5098-001					RUL16
	RM80 Modem Card Cage -48V	905-5118-001					RUL17
	RM90 Modem Card Cage 125V	905-5139-001					RUL18
	RM4200 Data Set Module 115V	905-5222-001					RUL19
	RM4200 Data Set Module -48V	905-5222-003					RUL19
	DC Redundant Modem Shelf	A0344310					RUL20
#	Data Unit RackMount Shelf	NT4X25BH					RUL21
	Data Unit RackMount Shelf	NT4X25DH					RUL21
	TOPS Tone and Scramble Cage	NT3J00AA					RUL22
	TOPS Tone and Scramble CP	NT3J00AB					RUL22
	Full Frame 19"-26" Mtg Adapt	P0706032					RUL23
	Full Frame 23’-26" Mtg Adapt	P0706033					RUL23
	GDC DS-6 Modem Shelf	A0380973					RUL24
	DS-6 Mounting Adapter	A0384166					RUL24
	PHM Screws	P0148634					RUL24
	Isolation Hardware	NT0X0013					RUL10
#	Ground Material Assembly	NT0X9548		1			AP
#	Ground Material Assembly	NT0X9504		1			AP
	Ground Material Assembly	NT0X9594		1			AP
	DRTU XFM	NT0J04EB					RUL28
	DRTU Mounting Brackets	P0596114					RUL28
	DRTU Mounting Bracket Screws	P0148634					RUL28
	DRTU-AMH (for CALRS)	NTAN60AA					RUL29
	26" Rack-mount Adapter	NTOJ14EA					RUL30

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X25AV	MD	NT0X25AH
NTZZ18EA	MD	NT7F18AB
NT0J04BA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04BB	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NTZZ18HA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT7F18AB	MD	NT7F18AD
NT4X25BH	MD	NT4X25DH
NTZZ14HA	MD	A31-500-48V-A6
NTZZ18BA	MD	A31-500-48V-A6
NT0X9548	MD	NT0X9504
NT0X9504	MD	NT0X9594
NTZZ14GA	A&M	NTZX18AB
A31-500-48V-A6	MD	NTRX31DH
NTMX1665	MD	NT0X43XD
NTMX1658	MD	NTMX1657

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 front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) The NT0X88AF FSP provides a total of up to twenty-four (48V filtered) ABS fuses and two (2) 10 amp CB (filtered) are required to power two Tell Labs fire report systems, or fifteen CAMA units, or one RTL unit, or ROTL unit, and up to six CAMA units but can never exceed 10 amp on a per feed basis.

3) Wiring between FSP and units mounted on frame are to be connected using loose wiring methods. Where leads are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire color to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:

   TB2 on NT0X87AA use C0054383
   TB2 on NT0X88AA/AB/AC/AD/AE/AF use C0054383
   TB1 on NT0X88AA/AB/AC/AD/AE/AF use RA877
   TB3 on NT0X88AB/AD/AE/AF use C0054383

4) The FSP includes an FSP Cover, P0673914 to protect the FSP from foreign material. This cover requires no additional vertical frame space.

5) FSP fuse to terminal block cross reference can be found within the corresponding FSP sections that follow.

6) In provisioning miscellaneous equipment on this frame Job Engineering must:

   (i) Take into account the physical height (or effective clearance requirements) and base offset of each unit. (Base offset is the distance between the bottom of the unit and its lowest mounting hole.)

   (ii) Take into account the physical width of the unit and provide mounting adapters where necessary.

   (iii) Take into account the power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

   (iv) Establish the compatibility with DMS of any non-DMS unit being provided, if necessary by detailed interface study and ensure that such units are NTL standardized.

7) Modems and modem equipment are not to be mounted on this frame for Canadian applications. Instead, use the Modem Equipment Frame (MOE).

8) When adding any miscellaneous equipment not covered in this document, the customer engineer shall check with BNR grounding design authority to ensure that the following grounding rules are met for existing equipment prior to release of issue 01 34 of MS0X02AB:

   A) All AC powered Misc. eqpt must be isolated from the frame.

   B) DC powered Misc. equipment shall be treated as follows:

      1) If chassis is connected to battery return, isolate eqpt from this frame.

      2) If chassis is connected to logic return, isolate eqpt from this frame.

      3) If chassis is floating, mount eqpt directly on frame.

   For equipment installed subsequent to release and cut-in of MS0X02AB 01 34 and AD0X02AB 01 19:

   C) Inverters powering MAP positions, ISTC (NT5X69AA) and external protected AC outlets shall be non isolated and have their chasis ground connected to frame ground. The NT5X69AA unit shall also be non-isolated.

   D) Any new equipment added to MS0X02AB shall be evaluated per IS0X00 00 16 (or later) note 304 and mounted accordingly.

   E) No equipment requiring power from an isolated inverter shall be fed from a non isolated inverter and no equipment requiring power from a non isolated inverter shall be fed from an isolated inverter. If necessary two inverters shall be provided.

RULES:

AP 1) When PEC NTZZ18AA is ordered, these items are provided.

RUL1 1) For all applications, provide one NTRX31DH 500VA AC Inverter per four (4) 120VAC Protected AC feeds required which do not exceed 500 Watts output (250 Watts max each pair of outlets - Circuit 1 and 2). This unit requires one (1) 30-Amp fuse (NT0X42AS) at the PDC. When the RME frame contains PDC equipment, the mounting locations for the 500VA AC Inverters are restricted to 04, 22, and 31. Location 04 may be used only if the Inverter is non-isolated since the isolated ground bar used in this application does not extend to the bottom of the frame.

The Inverter has a failure mode switch to allow selction between breaker trip failure or breaker trip/inverter failure detection. .par

2) 1" above and below the the unit must be reserved for cooling on initial jobs.

3) When frame is used as a RME the inverter may mount in positions 04, 13, 22, 31, 52, 60, and 70 with the following restrictions. If the RME is used as a PDC the inverter may not mount in positions 13, 52, 60, or 70 (only positions 04, 22, and 31 are valid). Location 04 may be used if the RME is used as a PDC only if the Inverter is non-isolated since the isolated ground bar used in this application does not extend to the bottom of the frame.

4) Modem frame Applications - For ISG applications, provide 1 (one) NT0X43XD Kit per 500VA AC Inverter for grounding the inverter to the vertical ground bar.

5) Non-Modem Frame Applications - Each Inverter supplying End Aisle protected AC outlets and/or MAPs shall be non-isolated (mounted directly to the frame) using (1) NTMX1657 Kit and (3) P0567227 Bushings.

6) One P0708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

7) For Modem Pooling applications provide up to two (2) NTRX31DH 500VA AC Inverter Units. Assume one (1) Inverter can power up to twelve (12) data units.

8) When the inverter is powering external equipment (VDU’s, Printers, etc) an AC Mounting Plate, NT0X07AU, may be mounted on the rear of the frame at the same position as the Inverter Unit.

9) All AC powered Misc. eqpt must be isolated from the frame.

10) Inverters powering MAP positions, ISTC(NT5X69AA) and external protected AC outlets shall be non isolated and have their chasis ground connected to frame ground. The NT5X69AA unit shall also be non- isolated.

11) No equipment requiring power from an isolated inverter shall be fed from a non isolated inverter and no equipment requiring power from a non isolated inverter shall be fed from an isolated inverter. If necessary two inverters shall be provided.

RUL2 1) Provide one (1) NTZZ18CA Metallic Test Access Unit for each ten LM/RLM or LCMs when up to sixteen 2-wire test circuits are provided. (For Canadian Offices only)

2) A 1" space must be provided between adjacent switches to allow the mounting of the MTA Unit Cover.

3) For other information on mounting see AD2X46AB drawing.

RUL3 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accommodate miscellaneous stand alone units up to a maximum of ten shelves per frame.

RUL4 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect MIS frame mounted equipment.

2) Each assembly connects to the DF via a 50 pair cable.

RUL5 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL6 1) Provide one (1) NT5X86AA in conjunction with an Audible Alarm Cutoff Key Panel, NT5X86AB, when selective audible alarm cutoff control is required. Up to six audible circuits are controlled (see also Section EMA6-01-000). Maximum one circuit per system.

2) NT5X86AB does not mount on Miscellaneous Equipment Frame NT0X02AB. The location is to be determined by the customer.

RUL7 1) When the Remote Office Test Line (ROTL) feature is required, provide one (1) NTZZ18EA per office (for Canadian Offices Only).

RUL8 1) Provide one (1) NT5X72AB when NT5X72AA Central Alarm Display Panel is provided in the Alarm Center (see Section EMA6-01-000).

2) NT5X72AB is a 2" high panel mounted on the MIS.

RUL9 1) The NT3J00BA applique shelf is a multifunctional custom designed circuit pack holder used at present for loop test applications.

2) The NT3J00BA applique shelf is seven (7) inches high by twenty six (26) inches wide.

3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for circuit pack provisioning on the applique shelf.

RUL10 1) Miscellaneous hardware such as MTDs, etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in Miscellaneous Frame (NT0X02AB).

3) The following equipment (which mounts on a Miscellaneous Frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a MIS frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC	DESCRIPTION
NT5X58AA	1A2 Key Telephone System (MD’d equipment)
NT5X55AA	1A2 Key Telephone System Module (MD’d equip)

RUL11 1) The NT0J04BA and the NT0J04BB have been replaced by the NT0J6_BA Local Test Cabinet, where the "_" is substituted by a 2, 3, or 4, resulting in the NT0J62BA / NT0J63BA / NT0J64BA LTC.

2) Provide one (1) NT0J62BA/NT0J63BA/NT0J64BA LTC Mainframe along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This

unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

3) Refer to Engineering Manual Section for NT0J6_BA for more details on the NT0J63BA/NT0J63BA/NT0J64BA LTC.

4) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

RUL12 1) NTZZ14GA is A&M and replaced by NTZX18AB. Refer to NTZZ14GA Engineering Manual section for details for this old part. The NTZX18AB NORSTAR Key System Unit (NKSU) does not mount in the MIS Frame but on the wall next to the MAP. Refer to NTZX18AB Engineering Manual section for details.

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA Engineering Manual section for more details.

RUL14 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime should it occur.

2) The Inactive System Timing Circuit must be powered from an inverter mounted on the same MIS frame. The ISTC and the inverter must both be non-isolated.

RUL15 1) The DTH may be provided for any of three applications ROTL, DTT, or ROTL/DTT as follows:

* Provide NT7F18AD for DTH-ROTL Only Applications
* Provide NT7F18BA for DTH-DTT Only Applications
* Provide NT7F18CA for DTH-ROTL/DTT Only Applications

2) The NT7F18AA/AB/BA/CA or NT7F20AA is fused from the PDC or MIS Frame FSP at 10 amps.

3) The NT7F18AA/AB/BA/CA or NT7F20AA requires 14-inches plus 5- inches above and below the unit for cooling purposes for a total of 25- inches of vertical MIS frame space.

4) Refer to the NT7F18AA/AB/BA/CA or NT7F20AA Engineering Manual Section for DTH-ROTL provisioning details.

RUL16 1) The Rixon Data Set Shelf (RM70) is a 16 slot data set shelf used to mount eight (8) each of the following modems: R103J, R201C, Executive 212A, Intelligent R212A, or any combination of these modems totaling eight (8) dual slot modems per RM70 modem shelf.

2) Protected AC is required for this shelf. Provide one inverter per RM70 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM70 require seven (7) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5098-001 for more detailed engineering information.

RUL17 1) The Rixon RM80 is a rack mounted card cage equipped with 16 card slots and power supply. The shelf is used by NTI to house up to eight (8) CA208A/B modems.

2) Protected AC is required for this shelf. Provide one inverter per RM80 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM80 requires fourteen (14) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5118-001 for more detailed engineering information.

RUL18 1) The Rixon RM90 is a rack mounted card cage equipped with 18 card slots and power supply. The shelf is used by NTI to house up to nine (9) R96 modems.

2) Protected AC is required for this shelf. Provide one inverter per RM90 shelf installed.

3) All telephone, telephone line, and test connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM90 requires 10.5 inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5139-001 for more detailed engineering information.

RUL19 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 (where the -48V DC version is preferred).

2) The RM4200 requires a space of seven inches of vertical rack space, plus one inch above and below the shelf for convection cooling. 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 905-5222-003.

4) For more information on the RM4200 115VAC version, refer to section on 905-5222-001. Note this shelf requires protected AC as follows:

- If the 500VA AC inverter is used, one 500VA AC Inverter can power up to three (3) 115VAC RM4200 Shelves.

RUL20 1) Provide one (1) A0344310 23" DC Modem Shelf (RM16M) to accommodate up to sixteen UDS modem cards. (U.S. applications only). See Section EMA13-01-UDS-1 for more details.

2) A0344310 shelf requires a space of seven inches high.

3) The mounting adapters to convert the unit from 23" to 26" are always provided by UDS.

RUL21 1) Provide one (1) Data Unit Rackmount LS Shelf on the MIS Frame to accommodate up to sixteen (16) data units (U.S. applications only).

2) For more information on the Data Unit Rackmount LS shelf, NT4X25BH, see section EMA5-02-DRS-1.

3) For more information on the Data Unit Rackmount LS shelf, NT4X25DH, see section EMA5-02-DRS-2.

4) For more information on the Data Unit Rackmount LS shelf, NTZZ24BA, see section EMB5-02-DRS-1.

RUL22 1) The TOPS Tone & Scrambler scrambles the speech of a subscriber as 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.

2) The NT3J00AA card cage is seven (7) inches high and twenty six (26) inches wide. The NT3J00AB is packaged on a double wide circuit pack and should be located in odd slots 03 through 21. Spread all scrambler CPs evenly over all card cages. An NT3J0044 power supply is always provided in slot 01 of the card cage.

3) The NT3J00AA card cage should be fused at 1 1/3 amps with power terminations at the FSP on TB1-11 (-48V) and TB1-12 (GND) using 22AWG wire.

4) The NT3J00AA card cage is cabled to the distributing frame via three (3) NT0X26UE 50 pin connectorized cables.

RUL23 1) Provide two (2) P0706032 Full Frame 19" to 26" Mounting Adapters per Telco request.

2) Provide two (2) P0706033 Full Frame 23" to 26" Mounting Adapters per Telco request.

RUL24 1) Provide one (1) DS-6 Modem Shelf on the MIS Frame to accommodate up to sixteen (16) data units.

2) For more information on A0380973, see section EMA13-01-GDC-1.

RUL25 1) The EMM, NT0J42BA, is designed to provide ISDN 2B1Q Subscriber loop line test maintenance service for up to 2000 lines per EMM. The ITM, NT0J43AA, is optional equipment to the EMM that provides additional test features. Together they are referred to as ESTU, Enhanced Services Test Unit. Refer to EMA13-01-TL1-1 for provisioning information for ESTU.

RUL26 1) Provision NTAN1_AA RTU based on number of lines and testing requirements, for testing subscriber loop circuits via CALRS (please contact Prism Systems Engineering Department

for final configuration). This unit requires a 5 amp fuse for CO Battery and a 2 amp fuse for Alarm Battery.

2) Refer to Engineering Manual Section for NTAN1_AA for more details.

3) The RTU requires 20 inches (50.8 cm) of vertical rack space, 4 inches (10.16 cm) of cooling space above and below the unit.

RUL27 1) Provide mounting adapters NT0J04DD to convert the LTC/RTU from 23" mounting to 26" mounting, when mounting unit in an NT0X02AB type frame.

RUL28 1) Provide the DRTU to enable the NSSD model 3703-03 Local Test Cabinet (located in the host office)to test subscriber lines connected to a DMS Digital Remote Office or Pair Gain Device (eg. DMS1 Line).

2) Provide (2) P0596114 mounting brackets and (4) P0148634 mounting screws per each DRTU.

RUL29 1) Provide one (1) NTAN60AA to test lines in a Remote or Pair-Gain device from CALRS.

The DRTU is used as a slave device with the Local Test Cabinet or Remote Test Unit (XFM or AMH). The DRTU is approved for the following Digital Remotes: (1) RSC (2) RLM (3) RLCM (for RSE/RME frame mounting).

RUL30 1) Provide mounting adapter when mounting NTAN60AA in an MIS frame.

MISCELLANEOUS EQUIPMENT FRAME

PEC CODE:	NTZZ18JA
CPC CODE:	B0232883
RATING:	MD
REPLACES:	Not applicable
REPLACED BY:	NTZZ18AA
ABBREVIATION NAME:	MIS
ENGINEERING DESCRIPTION:	The MIS is a general purpose equipment frame which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS office. Orderable multifuse FSP and grounding hardware provides full flexibility in the use of the frame.
REFERENCE DOCUMENTATION:	SLZZ18JA 00 02 NTZZ18JA REL 02
MARKETS:	Applicable markets: US Canada

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

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

NTZZ18JA EMC13-01-001 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
92 10 09	API 425 02	Include late issue 01 review comments and corrections noted per ET 14499 and ET 14559.
92 12 15	ECM 479 06	Add NT7F18BA and NT7F18CA - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URTO/URTS & RTO/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.
93 01 22	ECM 602 08	Introduce the GDC DS-6 Modem shelf for the MIS Frame.
93 03 23	ECM 602 09	Change reference to RM-16M Modem Shelf from PEC to CPC which is supported by the MS.
93 05 24	ECM 353 02	A&M the TCS 1800 Key System
93 07 27	ECM 602 10	ECD 018-39718 introduces the NT0X9594 Ground Bar Assembly replacing the NT0X9504. ET 34143 replaces C0054375 with RA877.
93 09 09	ECM 602 11	NTZZ14HA BBLK for the LaMarche Inver- has been MD'd and replaced with the detail provisioning will use the A31-500-48V-A6.
93 11 10	ECM 602 12	This BBLK NTZZ18JA is being MD'd and replaced by the NTZZ18AA.
94 02 23	ECM 602 13	This BBLK is being RETIRED, already MD

The Miscellaneous Equipment Frame is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Miscellaneous Equip. Frame	NT0X02AB		1			AP
	Common Framework	NT0X25AA		1			AP
	Terminal Block Assembly	NT3X25BA			77		RUL4
	20A Filt MIS Frame Supv Pnl	NT0X88AF	FSP	1	45		AP
	FSP Cover	P0673914		1	45		AP
#	LaMarche 500W Inverter	NTZZ14HA			04-34		RUL1
	LaMarche 500W Inverter	A31-500-48V-A6			04-34		RUL1
	Direct Powering Label	P0708015			04-34		RUL1
	LaMarche Frame Isolation Kit	NTMX1665			04-34		RUL1
	LaMarche Frame Ground Kit	NTMX1657			04-34		RUL1
	LaMarche Jumper Ground Kit	NTMX1658			04-34		RUL1
	Common Equipment Shelf	NT3X25AA					RUL3
	Alarm Extension	NTZZ18DA			04-38 51-72		RUL5
	AUD Alarm Cutoff Cntrl Unit	NT5X86AA					RUL6
#	Remote Office Test Line	NTZZ18EA			06		RUL7
	Central Alarm Applique Cct	NT5X72AB					RUL8
	MLT Applique Shelf	NT3J00BA					RUL9
#	3703 Local Test Cabinet Ash	NT0J04BA					RUL11
#	3703 Local Test Cab. Brown	NT0J04BB					RUL11
	LTC 4 Trunk 3 Wire	NT0J62BA					RUL11
	LTC 4 Trunk 4 Wire	NT0J63BA					RUL11
	LTC 16 Trunk 4 Wire	NT0J64BA					RUL11
	26" LTC Mounting Adapters	NT0J04DD					RUL11
#	TCS 1800 1A2 Key System	NTZZ14GA			04-40, 50-73		RUL12
	Tellabs 292 Conf/Alert Systm	NTZZ18FA			05-32 51-66		RUL13
	Tellabs 292 Line Expnsn Shlf	NTZZ18GA			10-39 51-73		RUL13
	Inactive System Timing Cct	NT5X69AA					RUL14
#	Digital Test Head ROTL	NTZZ18HA			05-21		RUL15
#	Digital Test Head ROTL	NT7F18AB			05-21		RUL15
	Digital Test Head ROTL	NT7F18AD			05-21		RUL15
	DTH-DTT Shelf	NT7F18BA			05-21		RUL15
	DTH ROTL/DTT	NT7F18CA			05-21 51-58		RUL15
	RM70 Modem Card Cage 120V	905-5098-001					RUL16
	RM80 Modem Card Cage -48V	905-5118-001					RUL17
	RM90 Modem Card Cage 125V	905-5139-001					RUL18

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	RM4200 Data Set Module 115V	905-5222-001					RUL19
	RM4200 Data Set Module -48V	905-5222-003					RUL19
	DC Redundant Modem Shelf	A0344310					RUL20
#	Data Unit RackMount Shelf	NT4X25BH					RUL21
	Data Unit RackMount Shelf	NT4X25DH					RUL21
	Data Unit RackMount Shelf	NTZZ24BA					RUL21
	TOPS Tone and Scramble Cage	NT3J00AA					RUL22
	TOPS Tone and Scramble CP	NT3J00AB					RUL22
	Full Frame 19"-26" Mtg Adapt	P0706032					RUL23
	Full Frame 23’-26" Mtg Adapt	P0706033					RUL23
	GDC DS-6 Modem Shelf	A0380973					RUL25
	Mounting Adapter 19x10-1/2	A0384166					RUL25
	PHM Screws	P0148634					RUL25
	Isolation Hardware	NT0X0013					RUL10
#	Ground Material Assembly	NT0X9504		1			RUL24
	Ground Material Assembly	NT0X9594		1			RUL24

EQUIPMENT FLAGGED ’#’:

PEC	RATING	REPLACED BY PEC
NTZZ18EA	MD	NT7F18AB
NT0J04BA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04BB	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NTZZ18HA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT7F18AB	MD	NT7F18AD
NT4X25BH	MD	NT4X25DH/NTZZ24BA
NTZZ14HA	MD	A31-500-48V-A6
NTZZ14GA	A&M	NTZX18AB
NT0X9504	MD	NT0X9594

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 front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) The NT0X88AF FSP provides a total of up to twenty-four (48V filtered) ABS fuses and two (2) 10 amp CB (filtered) are required to power two Tell Labs fire report systems, or fifteen CAMA units, or one RTL unit, or ROTL unit, and up to six CAMA units but can never exceed 10 amp on a per feed basis.

3) Wiring between FSP and units mounted on frame are to be connected using loose wiring methods. Where leads are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire colour to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:

   TB2 on NT0X87AA use C0054383
   TB2 on NT0X88AA/AB/AC/AD/AE/AF use C0054383
   TB1 on NT0X88AA/AB/AC/AD/AE/AF use RA877
   TB3 on NT0X88AB/AD/AE/AF use C0054383

4) The FSP includes an FSP Cover, P0673914 to protect the FSP from foreign material. This cover requires no additional vertical frame space.

5) FSP fuse to terminal block cross reference can be found within the corresponding FSP sections that follow.

6) In provisioning miscellaneous equipment on this frame Job Engineering must:

(i) Take into account the physical height (or effective clearance requirements) and base offset of each unit. (Base offset is the distance between the bottom of the unit and its lowest mounting hole.)

(ii) Take into account the physical width of the unit and provide mounting adapters where necessary.

(iii) Take into account the power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

(iv) Establish the compatibility with DMS of any non-DMS unit being provided, if necessary by detailed interface study and ensure that such units are NT standardized.

RULES:

AP 1) When PEC NTZZ18JA is ordered, these items are provided.

RUL1 1) Provide one (1) A31-500-48V-A6 LaMarche Inverter for up to four (4) 120VAC powered units to be terminated, not to exceed 500W output.

2) When installing the LaMarche Inverter unit in a rack mounted configuration, 4-inches (2 above and below the unit) must be reserved for forced air cooling.

3) In ISG applications of the LaMarche Inverter, provide one (1) NTMX1665 (LaMarche Frame Isolation Kit) per inverter installed in a modem frame. The other grounding kits are not required in addition to the NTMX1665. This kit provides all mounting hardware required.

4) In Non-ISG applications of the aMarche Inverter for use in a Non- modem frame, provide one (1) NTMX1657 (LaMarche Frame Ground H/W Kit) for the first inverter installed and one (1) NTMX1658 (LaMarche Jumper Ground H/W Kit) for each additional inverter installed. These kits contain all the hardware required to mount the inverter on the frame in addition to the grounding hardware.

5) One P0708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

RUL2 1) Reserved

RUL3 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accomodate miscellaneous stand alone units up to a maximum of ten shelves per frame.

RUL4 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect MIS frame mounted equipment.

2) Each assembly connects to the DF via a 50 pair cable.

RUL5 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL6 1) Provide one (1) NT5X86AA in conjunction with an Audible Alarm Cutoff Key Panel, NT5X86AB, when selective audible alarm cutoff control is required. Up to six audible circuits are controlled (see also Section EMA6-01-000). Maximum one circuit per system.

2) NT5X86AB does not mount on Miscellaneous Equipment Frame NT0X02AB. The location is to be determined by the customer.

RUL7 1) When the Remote Office Test Line (ROTL) feature is required, provide one (1) NTZZ18EA per office (for Canadian Offices Only).

RUL8 1) Provide one (1) NT5X72AB when NT5X72AA Central Alarm Display Panel is provided in the Alarm Center (see Section EMA6-01-000).

2) NT5X72AB is a 2" high panel mounted on the MIS.

RUL9 1) The NT3J00BA applique shelf is a multifunctional custom designed circuit pack holder used at present for loop test applications.

2) The NT3J00BA applique shelf is seven (7) inches high by twenty six (26) inches wide.

3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for circuit pack provisioning on the applique shelf.

RUL10 1) Miscellaneous hardware such as MTDs, Inactive System Timing Circuit etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in Miscellaneous Frame (NT0X02AB).

3) The following equipment (which mounts on a Miscellaneous Frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a MIS frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC	DESCRIPTION
# NT5X69AA	Inactive System Timing Circuit
NT5X58AA	1A2 Key Telephone System (MD'd equipment)
NT5X55AA	1A2 Key Telephone System Module (MD'd equip)

The inactive system timing circuit must be powered from an inverter mounted on the same MIS frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.

RUL11 1) The NT0J04BA and the NT0J04BB have been replaced by the NT0J6_BA Local Test Cabinet, where the "_" is substituted by a 2, 3, or 4, resulting in the NT0J62BA / NT0J63BA / NT0J64BA LTC.

2) Provide one (1) NT0J62BA/NT0J63BB/NT0J64BA LTC Mainframe along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

3) Refer to Engineering Manual Section for NT0J6_BA for more details on the NT0J62BA/NT0J63BA/NT0J64BA LTC.

4) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

5) Provide mounting adapters NT0J04DD to convert the unit from 23" mounting to 26" mounting, when mounting unit in a NT0X02AB type frame.

RUL12 1) Refer to NTZZ14GA Engineering Manual section for details.

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA Engineering Manual section for more details.

RUL14 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime should it occur.

RUL15 1) The DTH may be provided for any of three applictions ROTL, DTT, or ROTL/DTT as follows:

* Provide NT7F18AD for DTH-ROTL Only Applications
* Provide NT7F18BA for DTH-DTT Only Applications
* Provide NT7F18CA for DTH-ROTL/DTT Only Applications

2) The NT7F18AA/AB/BA/CA or NT7F20AA is fused from the PDC or MIS Frame FSP at 10 amps.

3) The NT7F18AA/AB/BA/CA or NT7F20AA requires 14-inches plus 5- inches above and below the unit for cooling purposes for a total of 25-inches of vertical MIS frame space.

4) Refer to the NT7F18AA/AB/BA/CA or NT7F20AA Engineering Manual Section for DTH-ROTL provisioning details.

RUL16 1) The Rixon Data Set Shelf (RM70) is a 16 slot data set shelf used to mount eight (8) each of the following modems: R103J, R201C, Executive 212A, Intelligent R212A, or any combination of these modems totalling eight (8) dual slot modems per RM70 modem shelf.

2) Protected AC is required for this shelf. Provide one inverter per RM70 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM70 require seven (7) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5098-001 for more detailed engineering information.

RUL17 1) The Rixon RM80 is a rack mounted card cage equipped with 16 card slots and power supply. The shelf is used by NTI to house up to eight (8) CA208A/B modems.

2) Protected AC is required for this shelf. Provide one inverter per RM80 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM80 requires fourteen (14) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5118-001 for more detailed engineering information.

RUL18 1) The Rixon RM90 is a rack mounted card cage equipped with 18 card slots and power supply. The shelf is used by NTI to house up to nine (9) R96 modems.

2) Protected AC is required for this shelf. Provide one inverter per RM90 shelf installed.

3) All telephone, telephone line, and test connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM90 requires 10.5 inches of vertical mounting space and adaptersw for 26" MIS frame mounting.

5) Refer to section on 905-5139-001 for more detailed engineering information.

RUL19 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 (where the -48V DC version is preferred).

2) The RM4200 requires a space of seven inches of vertical rack space, plus one inch above and below the shelf for convection cooling. 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 905-5222-003.

4) For more information on the RM4200 115VAC version, refer to section on 905-5222-001. Note this shelf requires protected AC. If the LaMarche inverter is used, one LaMarche Inverter can power up to three (3) 115VAC RM4200 Shelves.

RUL20 1) Provide one (1) A0344310 23" DC Modem Shelf (RM16M) to accommodate up to sixteen UDS modem cards. (U.S. applications only). See Section EMA13-01-UDS-1 for more details.

2) A0344310 shelf requires a space of seven inches high.

3) The mounting adapters to convert the unit from 23" to 26" are always provided by UDS.

RUL21 1) Provide one (1) Data Unit Rackmount LS Shelf on the MIS Frame to accommodate up to sixteen (16) data units (U.S. applications only).

2) For more information on the Data Unit Rackmount LS shelf, NT4X25DH, see Section EMA5-03-DRS-1 and/or EMA5-03-DRS-2.

RUL22 1) The TOPS Tone & Scrambler scrambles the speech of a subscriber as 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.

2) The NT3J00AA card cage is seven (7) inches high and twenty six (26) inches wide. The NT3J00AB is packaged on a double wide circuit pack and should be located in odd slots 03 through 21. Spread all scrambler CPs evenly over all card cages. An NT3J0044 power supply is always provided in slot 01 of the card cage.

3) The NT3J00AA card cage should be fused at 1 1/3 amps with power terminations at the FSP on TB1-11 (-48V) and TB1-12 (GND) using 22AWG wire.

4) The NT3J00AA card cage is cabled to the distributing frame via three (3) NT0X26UE 50 pin connectorized cables.

RUL23 1) Provide two (2) P0706032 Full Frame 19" to 26" Mounting Adapters per Telco request.

2) Provide two (2) P0706033 Full Frame 23" to 26" Mounting Adapters per Telco request.

RUL24 1) Provide one (1) NT0X9594 per NTZZ18JA when the frame or any of its contents require grounding.

2) One (1) NT0X9594 must be provided for each MIS frame that is dedicated for modem equipment (U.S. applications only).

RUL25 1) Provide one (1) DS-6 Modem Shelf on the MIS Frame to accomodate up to sixteen (16) data units.

2) For more information on A0380973, see section EMA13-01-GDC-1.

MISCELLANEOUS EQUIPMENT FRAME - US EARTHQUAKE

PEC CODE: NTZZ23AA

CPC CODE: B0234831

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZZ18AA

ABBREVIATION NAME: MIS

ENGINEERING DESCRIPTION: The MIS is a general purpose equipment frame which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS office. Orderable multifuse FSP and grounding hardware provides full flexibility in the use of the frame.

REFERENCE DOCUMENTATION: SLZZ23AA 00 01
NTZZ23AA REL 01

MARKETS: Applicable markets:

US

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

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

NTZZ23AA EMC13-01-002 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
92 12 15	ECM 479 06	Add NT7F18BA and NT7F18CA - Note: Only PEC NT7F18AB and NT7F19AB may be provisioned until further notice. Check URTO/URTS & RTO/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.
93 01 22	ECM 602 08	Introduce the GDC DS-6 Modem shelf for the MIS Frame.
93 03 23	ECM 602 09	Change reference to RM-16M Modem Shelf from PEC to CPC which is supported by the MS. Frame Ground Bar NT0X9548 is replaced by the NT0X9504.
93 05 24	ECM 353 02	A&M the TCS 1800 Key System
93 07 27	ECM 602 10	ECD 018-39718 introduces the NT0X9594 Ground Bar Assembly replacing the NT0X9504. ET 34143 replaces C0054375 with RA877.
93 09 09	ECM 602 11	NTZZ14HA BBLK for the LaMarche Inver- has been MD’d, NTZZ14HA will be re-placed with detail provisioning with the A31-500-48V-A6.
93 11 10	ECM 602 12	This BBLK (NTZZ23AA) is being MD’d and is replaced by the NTZZ18AA.
94 02 23	ECM 602 13	This BBLK is being RETIRED, already MD

The Miscellaneous Equipment Frame - US Earthquake is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Miscellaneous Equip. Frame	NT0X02AB		1			AP
	Earthquake Common Framework	NT0X25AH		1			AP
	Terminal Block Assembly	NT3X25BA			77		RUL4
	20A Filt MIS Frame Supv Pnl	NT0X88AF	FSP	1	45		AP
	FSP Cover	P0673914		1	45		AP
#	LaMarche 500W Inverter	NTZZ14HA			04-34		RUL1
	LaMarche 500W Inverter	A31-500-48V-A6			04-34		RUL1
	Direct Powering Label	P0708015			04-34		RUL1
	LaMarche Frame Isolation Kit	NTMX1665			04-34		RUL1
	LaMarche Frame Ground Kit	NTMX1657			04-34		RUL1
	LaMarche Jumper Ground Kit	NTMX1658			04-34		RUL1
	Common Equipment Shelf	NT3X25AA					RUL3
	Alarm Extension	NTZZ18DA			04-38 51-72		RUL5
	AUD Alarm Cutoff Cntrl Unit	NT5X86AA					RUL6
#	Remote Office Test Line	NTZZ18EA			06		RUL7
	Central Alarm Applique Cct	NT5X72AB					RUL8
	MLT Applique Shelf	NT3J00BA					RUL9
	LTC 4 Trunk 3 Wire	NT0J62BA					RUL11
	LTC 4 Trunk 4 Wire	NT0J63BA					RUL11
	LTC 16 Trunk 4 Wire	NT0J64BA					RUL11
	26" LTC Mounting Adapters	NT0J04DD					RUL11
#	TCS 1800 1A2 Key System	NTZZ14GA			04-40, 50-73		RUL12
	Tellabs 292 Conf/Alert Systm	NTZZ18FA			05-32 51-66		RUL13
	Tellabs 292 Line Expnsn Shlf	NTZZ18GA			10-39 51-73		RUL13
	Inactive System Timing Cct	NT5X69AA					RUL14
#	Digital Test Head ROTL	NTZZ18HA			05-21		RUL15
#	Digital Test Head ROTL	NT7F18AB			05-21		RUL15
	Digital Test Head ROTL	NT7F18AD			05-21		RUL15
	DTH-DTT Shelf	NT7F18BA			05-21		RUL15
	DTH ROTL/DTT	NT7F18CA			05-21 51-58		RUL15
	RM70 Modem Card Cage 120V	905-5098-001					RUL16
	RM80 Modem Card Cage -48V	905-5118-001					RUL17
	RM90 Modem Card Cage 125V	905-5139-001					RUL18
	RM4200 Data Set Module 115V	905-5222-001					RUL19

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	RM4200 Data Set Module -48V	905-5222-003					RUL19
	DC Redundant Modem Shelf	A0344310					RUL20
#	Data Unit RackMount Shelf	NT4X25BH					RUL21
	Data Unit RackMount Shelf	NT4X25DH					RUL21
	Data Unit RackMount Shelf	NTZZ24BA					RUL21
	TOPS Tone and Scramble Cage	NT3J00AA					RUL22
	TOPS Tone and Scramble CP	NT3J00AB					RUL22
	Full Frame 19"-26" Mtg Adapt	P0706032					RUL23
	Full Frame 23'-26" Mtg Adapt	P0706033					RUL23
	GDC DS-6 Modem Shelf	A0380973					RUL25
	Mounting Adapter 19x10-1/2	A0384166					RUL25
	PHM Screws	P0148634					RUL25
	Isolation Hardware	NT0X0013					RUL10
#	Ground Material Assembly	NT0X9504		1			RUL24
	Ground Material Assembly	NT0X9594		1			RUL24

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ18EA	MD	NT7F18AB
NTZZ18HA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT7F18AB	MD	NT7F18AD
NT4X25BH	MD	NT4X25DH/NTZZ24BA
NTZZ14HA	MD	A31-500-48V-A6
NTZZ14GA	A&M	NTZX18AB
NT0X9504	MD	NT0X9594

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 front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) The NT0X88AF FSP provides a total of up to twenty-four (48V filtered) ABS fuses and two (2) 10 amp CB (filtered) are required to power two Tell Labs fire report systems, or fifteen CAMA units, or one RTL unit, or ROTL unit, and up to six CAMA units but can never exceed 10 amp on a per feed basis.

3) Wiring between FSP and units mounted on frame are to be connected using loose wiring methods. Where leads are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire colour to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:

   TB2 on NT0X87AA use C0054383
   TB2 on NT0X88AA/AB/AC/AD/AE/AF use C0054383
   TB1 on NT0X88AA/AB/AC/AD/AE/AF use RA877
   TB3 on NT0X88AB/AD/AE/AF use C0054383

4) The FSP includes an FSP Cover, P0673914 to protect the FSP from foreign material. This cover requires no additional vertical frame space.

5) FSP fuse to terminal block cross reference can be found within the corresponding FSP sections that follow.

6) In provisioning miscellaneous equipment on this frame Job Engineering must:

   (i) Take into account the physical height (or effective clearance requirements) and base offset of each unit. (Base offset is the distance between the bottom of the unit and its lowest mounting hole.)

(ii) Take into account the physical width of the unit and provide mounting adapters where necessary.

(iii) Take into account the power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

(iv) Establish the compatibility with DMS of any non-DMS unit being provided, if necessary by detailed interface study and ensure that such units are NTL standardized. Canadian applications. Instead, use the Modem Equipment Frame (MOE).

RULES:

AP 1) When PEC NTZZ23AA is ordered, these items are provided.

RUL1 1) Provide one (1) A31-500-48V-A6 LaMarche Inverter for up to four (4) 120VAC powered units to be terminated, not to exceed 500W output.

2) When installing the LaMarche Inverter unit in a rack mounted configuration, 4-inches (2 above and below the unit) must be reserved for forced air cooling.

3) In ISG applications of the LaMarche Inverter, provide one (1) NTMX1665 (LaMarche Frame Isolation Kit) per inverter installed in a modem frame. The other grounding kits are not required in addition to the NTMX1665. This kit provides all mounting hardware required.

4) In Non-ISG applications of the Lamarche Inverter for use in a Non- modem frame, provide one (1) NTMX1657 (LaMarche Frame Ground H/W Kit) for the first inverter installed and one (1) NTMX1658 (LaMarche Jumper Ground H/W Kit) for each additional inverter installed. These kits contain all the hardware required to mount the inverter on the frame in addition to the grounding hardware.

5) One P708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

RUL2 1) Reserved

RUL3 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accomodate miscellaneous stand alone units up to a maximum of ten shelves per frame.

RUL4 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect MIS frame mounted equipment.

2) Each assembly connects to the DF via a 50 pair cable.

RUL5 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL6 1) Provide one (1) NT5X86AA in conjunction with an Audible Alarm Cutoff Key Panel, NT5X86AB, when selective audible alarm cutoff control is required. Up to six audible circuits are controlled (see also Section EMA6-01-000). Maximum one circuit per system.

2) NT5X86AB does not mount on Miscellaneous Equipment Frame NT0X02AB. The location is to be determined by the customer.

RUL7 1) When the Remote Office Test Line (ROTL) feature is required, provide one (1) NTZZ18EA per office (for Canadian Offices Only). The ROTL has been replaced by the DTH-ROTL, refer to RULE 15.

RUL8 1) Provide one (1) NT5X72AB when NT5X72AA Central Alarm Display Panel is provided in the Alarm Center (see Section EMA6-01-000).

2) NT5X72AB is a 2" high panel mounted on the MIS.

RUL9 1) The NT3J00BA applique shelf is a multifunctional custom designed circuit pack holder used at present for loop test applications.

2) The NT3J00BA applique shelf is seven (7) inches high by twenty six (26) inches wide.

3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for circuit pack provisioning on the applique shelf.

RUL10 1) Miscellaneous hardware such as MTDs, Inactive System Timing Circuit etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in Miscellaneous Frame (NT0X02AB).

3) The following equipment (which mounts on a Miscellaneous Frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a MIS frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC	DESCRIPTION
# NT5X69AA	Inactive System Timing Circuit
NT5X58AA	1A2 Key Telephone System (MD'd equipment)
NT5X55AA	1A2 Key Telephone System Module (MD'd equip)

The inactive system timing circuit must be powered from an inverter mounted on the same MIS frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.

RUL11 1) Provide one (1) NT0J62BA / NT0J63BA / NT0J64BA LTC Mainframe along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

2) Refer to the Engineering Manual Section for NT0J6_BA for more details on the NT0J62BA / NT0J63BA / NT0J64BA LTC.

3) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

4) Provide mounting adapters NT0J04DD to convert the unit from 23" mounting to 26" mounting, when mounting unit in a NT0X02AB type frame.

RUL12 1) Refer to NTZZ14GA Engineering Manual section for details.

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA Engineering Manual section for more details.

RUL14 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime should it occur.

RUL15 1) The DTH may be provided for any of three applictions ROTL, DTT, or ROTL/DTT as follows:

* Provide NT7F18AD for DTH-ROTL Only Applications
* Provide NT7F18BA for DTH-DTT Only Applications
* Provide NT7F18CA for DTH-ROTL/DTT Only Applications

2) The NT7F18AA/AB/BA/CA or NT7F20AA is fused from the PDC or MIS Frame FSP at 10 amps.

3) The NT7F18AA/AB/BA/CA or NT7F20AA requires 14-inches plus 5- inches above and below the unit for cooling purposes for a total of 25-inches of vertical MIS frame space.

4) Refer to the NT7F18AA/AB/BA/CA or NT7F20AA Engineering Manual Section for DTH-ROTL provisioning details.

RUL16 1) The Rixon Data Set Shelf (RM70) is a 16 slot data set shelf used to mount eight (8) each of the following modems: R103J, R201C, Executive 212A, Intelligent R212A, or any combination of these modems totalling eight (8) dual slot modems per RM70 modem shelf.

2) Protected AC is required for this shelf. Provide one inverter per RM70 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM70 require seven (7) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5098-001 for more detailed engineering information.

RUL17 1) The Rixon RM80 is a rack mounted card cage equipped with 16 card slots and power supply. The shelf is used by NTI to house up to eight (8) CA208A/B modems.

2) Protected AC is required for this shelf. Provide one inverter per RM80 shelf installed.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM80 requires fourteen (14) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5118-001 for more detailed engineering information.

RUL18 1) The Rixon RM90 is a rack mounted card cage equipped with 18 card slots and power supply. The shelf is used by NTI to house up to nine (9) R96 modems.

2) Protected AC is required for this shelf. Provide one inverter per RM90 shelf installed.

3) All telephone, telephone line, and test connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM90 requires 10.5 inches of vertical mounting space and adaptersw for 26" MIS frame mounting.

5) Refer to section on 905-5139-001 for more detailed engineering information.

RUL19 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 (where the -48V DC version is preferred).

2) The RM4200 requires a space of seven inches of vertical rack space, plus one inch above and below the shelf for convection cooling. 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 905-5222-003.

4) For more information on the RM4200 115VAC version, refer to section on 905-5222-001. Note this shelf requires protected AC as follows:

- If the LaMarche inverter is used, one LaMarche Inverter can power up to three (3) 115VAC RM4200 Shelves.

RUL20 1) Provide one (1) A0344310 23" DC Modem Shelf (RM16M) to accommodate up to sixteen UDS modem cards. (U.S. applications only). See Section EMA13-01-UDS-1 for more details.

2) A0344310 shelf requires a space of seven inches high.

3) The mounting adapters to convert the unit from 23" to 26" are always provided by UDS.

RUL21 1) Provide one (1) Data Unit Rackmount LS Shelf on the MIS Frame to accommodate up to sixteen (16) data units (U.S. applications only).

2) For more information on the Data Unit Rackmount LS shelf, NT4X25DH, see Section EMA5-03-DRS-1 and/or EMA5-03-DRS-2.

RUL22 1) The TOPS Tone & Scrambler scrambles the speech of a subscriber as 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.

2) The NT3J00AA card cage is seven (7) inches high and twenty six (26) inches wide. The NT3J00AB is packaged on a double wide circuit pack and should be located in odd slots 03 through 21. Spread all scrambler CPs evenly over all card cages. An NT3J0044 power supply is always provided in slot 01 of the card cage.

3) The NT3J00AA card cage should be fused at 1 1/3 amps with power terminations at the FSP on TB1-11 (-48V) and TB1-12 (GND) using 22AWG wire.

4) The NT3J00AA card cage is cabled to the distributing frame via three (3) NT0X26UE 50 pin connectorized cables.

RUL23 1) Provide two (2) P0706032 Full Frame 19" to 26" Mounting Adapters per Telco request.

2) Provide two (2) P0706033 Full Frame 23" to 26" Mounting Adapters per Telco request.

RUL24 1) Provide one (1) NT0X9594 per NTZZ23AA when the frame or any of its contents require grounding.

2) One (1) NT0X9594 must be provided for each MIS frame is dedicated for modem equipment. (U.S. applications only).

RUL25 1) Provide one (1) DS-6 Modem Shelf on the MIS Frame to accomodate up to sixteen (16) data units.

2) For more information on A0380973, see section EMA13-01-GDC-1.

MODEL B MISCELLANEOUS EQUIPMENT CABINET (CMIS)

PEC CODE: NTZZ47PB

CPC CODE: B0240386

RATING: MD

REPLACES: NTZZ47PA

REPLACED BY: NTZZ47PC

ABBREVIATION NAME: CMIS

ENGINEERING DESCRIPTION: The CMIS cabinet Building Block may be configured as an EMC compliant (Closed) cabinet which houses NT Supported Equipment or as a Non-EMC (Open) cabinet which primarily houses Customer Preferred Equipment.

This CMIS cabinet Building Block can not be used for Non-EMC IDF applications since the MSP and Logic Return Busbar Kit are Always Provided. The IDF application requires that the frame be empty. This will required the job be engineered using the Detail Provisioning Engineering Manual Section.

REFERENCE DOCUMENTATION: MSRX56AA 01 06
ISRX59AU
MSZX16CA
NTP 297-1001-109

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

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

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

NTZZ47PB EMC13-01-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 04 08	ECM 683 04	Initial release. Replaces NTZZ47PA. NTZZ47PA was only released on API 445, not as a staandalone EMS. Changes from ZZ47PA to PB include: EC 018-41683, makes doors and power scheme provisionable. Remove EMC Divider and separate circuits and personality plates from kits per EC 18-41853. Chg'd # of Case/DATATEL RM4200 Shelf (was A0367419) and Modem DCM42225 (was DCM42221).
94 06 09	ECM 683 05	Include RMM Shelf provisioning info per ECD 24-92391. Clarify Inverter powering.
94 08 04	ECM 683 07	Compressed RMM provisioning into NTZZ45PA, a new EMS released in this release, to simplify ordering.
94 09 22	ECM 602 17	Required to MD NTZZ47PB due to cost delta due to Logic Busbar change. per ECD 24-92592.
94 11 22	ECM 683 12	No changes are being made to this EMS. It is just being re-released against ECM 683 to assure that everyone knows that it was MD and Retired on ECM 602 issue 17.

The Model B Miscellaneous Equipment Cabinet (CMIS) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Opt. MISC Equipment Cabinet	NTRX56AA		1			AP
CMIS Logic Return Busbar Kit	NTRX56CD		1			AP
C28 Cab Label Kit (English)	NTRX3541					AP
CMIS Mod. Supervisory Panel Kt	NTRX5610	MSP	1	61		AP
Modular Supervisory Panel	NTRX40AA	MSP	1	61		AP01
Alarm Module	NTRX41AA		1	61		AP01
Terminal Block (6X3)	P0737547		1	61	2R	AP01
Terminal Block 4X4	P0737326		1	61	4R	AP01
Thermal Breaker Module	NTRX43AA		3	61	7-9	AP01
Fuse 3/4 Amp Brown	A0205209		4	61	7 F01-	AP01
					F04	AP01
Fuse Block Designation Brown	P097P242		4	61	7 F01-	AP01
					F04	AP01
Fuse Dummy	A0205210		4	61	7 F05-	AP01
					F08	AP01
Breaker Module (10A)	NTRX42AA		2	61	10-11	AP01
CMIS External Power Filter Kit	NTRX56CA		1			RUL2
CMIS Horizontal Cabling Kit	NTRX56CB		1			RUL3
Talk Battery Mod Kit (B) 20Amp	NTRX56CF		1	61	01,13 14,15	RUL6
MSP Power & Battery	NTRX1670		2	61	13R	RUL6
Power Cable Desig Label	P0737501		2	61	13R	RUL6
Talk Battery Module 20 Amp	NTRX44AA		1	61	01	AP03
Breaker Module 20 Amp	NTRX42CA		1	61	13	AP03
Breaker Module 10 Amp	NTRX42AA		1	61	14	AP03
Fuse Module	NTRX43AA		1	61	15	AP03
Talk Battery Mod Kit (A) 20Amp	NTRX56CG			61	03,16 17,18	RUL6
MSP Pwr & Bat Rtn Cable	NTRX1670		2	61	16R	RUL6
Power Cable Desig Label	P0737502		2	61	16R	RUL6
Talk Battery Module 20 Amp	NTRX44AA		1	61	03	AP04
Breaker Module 20 Amp	NTRX42CA		1	61	16	AP04
Breaker Module 10 Amp	NTRX42AA		1	61	17	AP04
Fuse Module	NTRX43AA		1	61	18	AP04
FAN Pwr Control Module (-48 V)	NTRX54BA		1	61	19	RUL7
Desig Label (NTRX54BA)	P0741680		1	61	19	RUL7
MSP Desig Label (CU)	P0746680		1	61	03	RUL7

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MSP Blank Panel (Two Pos)	P0734475			61	01,03, 19	RUL8
MSP Blank Panel (One Pos)	P0734476			61	01R,03R	RUL8
				61	12,12R	
				61	13,13R	
				61	14,14R	
				61	15,15R	
				61	16,16R	
				61	17,17R	
				61	18,18R	
				61	19R	
Panel Mounting Screw	P0559409			61	01,01R	RUL8
				61	03,03R	
				61	12,12R	
				61	13,13R	
				61	14,14R	
				61	15,15R	
				61	16,16R	
				61	17,17R	
				61	18,18R	
				61	19,19R	
Cooling Unit Kit (Ten Inch)	NTRX92AA		1	00		RUL9
C28 Cab Label Kit (English)	NTRX3541		1			RUL10
CMIS MSP Fuse Desig Label	P0738236					RUL11
CMIS MSP Breaker Desig Label	P0746777					RUL11
CMIS MSP Fuse Desig Label	P0746678					RUL11
CMIS MSP Fuse Desig Label	P0746679					RUL11
Blank Conn Plate (Full Size)	P0715616					RUL12
CMIS Conn Plate Bulkhead Screw Kit (One Full Size)	NTRX34DS					RUL12
Blank Conn Plate (Half Size)	P0730259					RUL13
CMIS Connector Plate Bulkhead Screw Kit (Two Half Size)	NTRX34DT					RUL13
480 Pin Terminal Block Assy	NTRX34LA		1	49,55		RUL14
CMIS Universal Connector Plate(24 x 25-Pin)	P0737132		1			RUL14
CMIS Conn Plate Bulkhead Screw	NTRX34DS		1			RUL14
Cable Bracket	P0642031		1	49R		RUL14
Cable Bracket	P0642031		1	55R		RUL14
Screw Kit (One Full Size)	P097F813		4			RUL14
25-Pin Filter Adapter	A0316594			AR		RUL14
Female Screwlock	A0317136			AR		RUL14
Flat Washer	P0148330			AR		RUL14

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cover Plate (25-Pin)	P0715775			AR		RUL14
Mounting Screws	P0670923			AR		RUL14
Lamarche Inverter	A0367433		1	05,19,33		RUL15
CMIS Lamarche Inverter Kit	NTRX59AB		1	05,19,33		RUL15
Breaker Module Kit (20 Amp)	NTRX56CE		1	61	12	RUL15
MSP Pwr & Bat Rtn Cable	NTRX1670		2	61	12R	RUL15
Power Cable Desig Label	P0737501		2	61	12R	RUL15
Breaker Module 20 Amp	NTRX42CA		1	61	12	AP-02
CMIS DTH-ROTL KIT	NTRX59AC		1	07,35		RUL16
DTH/ROTL	NT7F18AD		1	07,35		RUL16
Connector Plate DTH/ROTL	P0730992		1	A/B,E/F		RUL16
CMIS DTH-ROTL Spares Kit	NT7F19AC		1			RUL16
Audible/Visual Alarm Ext Unit	NT5X85AA		1	04,18, 32,46		RUL17
CMIS Audible/Visual Alarm Extension kit	NTRX59AD		1	04,18, 32,46		RUL17
Conn. Plate A/V Alarm Ext Kit	P0730991		1	A/B,C/D E/F,G/H		RUL17
CMIS Pylon RG-2 Ring Gen Kit	NTRX59AE		1	08,22 36,50		RUL17
Pylon RG-2 Ring Generator	A0379066		1	08,22 36,50		RUL17
CMIS Audible Alarm Cutoff Kit	NTRX59AH		1	06,20, 34,48		RUL17
Audible Alarm Cutoff Control Unit	NT5X86AA		1	06,20, 34,48		RUL17
Inactive System Timing Circuit	NT5X69AA		1	14,28,32		RUL18
CMIS Inactive System Timing Circuit Kit	NTRX59AF		1	14,28,32		RUL18
115 V ac Power Cable Assy	NTRX34FO					RUL18
24 AWG Solid Wire (Green)	R0109636		6′	14,28,32		RUL18
25-Pin Filter Adapter	A0316594		1			RUL18
Female Screwlock	A0317136		4			RUL18
Flat Washer	P0148330		4			RUL18
Common Eqpt Shelf (115 V ac)	NT3X25AA	CES		06,13, 20,27 34,41 48,55		RUL19
CMIS Common Eqpt Shelf	NTRX59AG	CES		06,13, 20,27 34,41		RUL19

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CMIS Universal Connector	P0737132			48,55 A,B C,D E,F G,H		RUL19
115 V ac Power Cable Assy	NTRX34FO		1			RUL19
MLT Applique Shelf	NT3J00BA			05,12 19,26 33,40 47,54		RUL20
Conn Plate MLT Applique Shelf	P0730993			A,B C,D E,F G,H		RUL20
CMIS MLT Applique Shelf Kit	NTRX59AJ			05,12 19,26 33,40 47,54		RUL20
CMIS Connector Plate Bulkhead Screw Kit (Two Half Size)	NTRX34DT					RUL20
MLT Applique Ckt Pack	NT3J00BB			05,12 19,26 33,40 47,54	3-21	RUL20
Signature Off Hook Routing CP	NT3J00BE			05,12 19,26 33,40 47,54	3-21	RUL20
9-Pin Filter Adapter	A0344127			AR		RUL21
Female Screwlock	A0317136			AR		RUL21
Flat Washer	P0148330			AR		RUL21
Cover Plate (9-Pin)	P0715809			AR		RUL21
Mounting Screws	P0670923			AR		RUL21
37-Pin Filter Adapter	A0316599			AR		RUL21
Female Screwlock	A0317136			AR		RUL21
Flat Washer	P0148330			AR		RUL21
Cover Plate (37-Pin)	P0715774			AR		RUL21
Mounting Screws	P0670923			AR		RUL21
CMIS CASE/DATATEL RM4200 (-48 V dc) Modem Shelf	A0600770					RUL23
CMIS CASE/DATATEL RM4200 (-48 V dc) Modem Shelf Kit	NTRX59AK					RUL23
CASE/DATATEL Modem	DCM42011				1-16	RUL24

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CASE/DATATEL Modem	DCM42021				1-16	RUL25
CASE/DATATEL Modem	DCM42081				1-16	RUL26
CASE/DATATEL Modem	DCM42121				1-16	RUL27
CASE/DATATEL 829 Data Aux. Set	DCM42291				1-16	RUL28
CASE/DATATEL Modem	DCM42225				1-16	RUL29
CASE/DATATEL Modem	DCM42323				1-16	RUL30
CASE/DATATEL Modem	DCM42961				1-16	RUL31
CASE/DATATEL Adapter Plug For Adjustable Xmit Level	A0320894				P2,P4	RUL32
CASE/DATATEL Adapter Plug For Permissive Xmit Level	A0369235				P2,P4	RUL33
CASE/DATATEL Adapter Plug For Fixed Loss Loop Xmit Level	A0369236				P2,P4	RUL34
CMIS DANTEL Digital Alarm Scanner (DMS-100 to SCC Interface)	A0601999		1			RUL35
CMIS DANTEL Digital Alarm Scanner (DMS-100 to SCC Interface) Kit	NTRX59AL		1			RUL35
Remote Maint. Mod. in CMIS	NTZZ45PA	RMM		5,19,33,47		RUL36
C28 Cabinet Mechanicals	NTRX25AA					NOTE7
Cabinet Power and Grounding	NTZX16CA					NOTE8
Door and eqp labels	MS0X60AA					NOTE9

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 term EMC or Closed Cabinet as used in this document is defined as follows:

   A cabinet in which NT Supported equipment which by itself is not EMC compliant will be mounted and rendered EMC compliant by means of cabinet enclosure, bulkhead connector plates, and cable filtering or shielding as required.

2) The term Non-EMC or Open Cabinet as used in this document is defined as follows:

   A Cabinet in which Customer Preferred (Non NT Supported Equipment) will be mounted. This area will not require enclosure, filtering, or shielding of input/output signals at the cabinet level.

3) The following equipment must be mounted in the specified type of cabinet.

   In an EMC (Closed) cabinet:

   NTRX59AB / A0367433
   NTRX59AC / NT7F18AD
   NTRX59AD / NT5X85AA
   NTRX59AE / A0379066
   NTRX59AF / NT5X69AA
   NTRX59AG / NT3X25AA
   NTRX59AH / NT5X86AA
   NTRX59AJ / NT3J00BA
   NTRX59AU / NT6X1306
   NTRX34LA

   In a Non-EMC (Open) cabinet:

   NTRX59AK / A0600770
   NTRX59AL / A0601999

4) Detailed below is information relative to the generic placement of equipment and equipment personality plates:

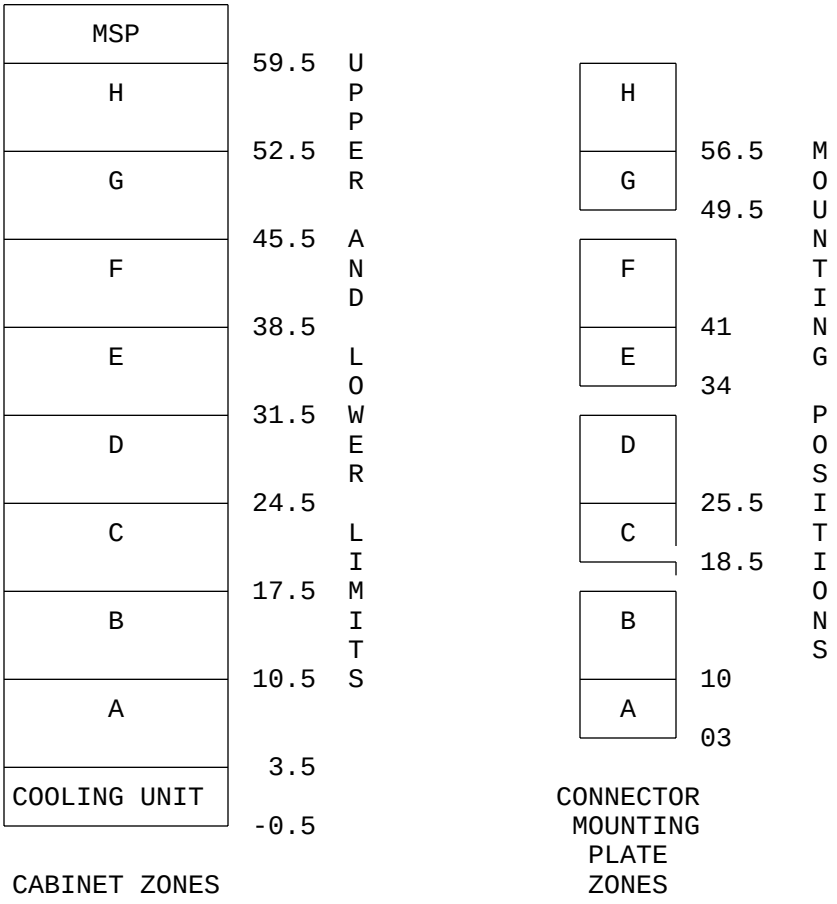
   Units can be mounted on the CMIS only in positions indicated. CMIS mounting space is divided into eight seven

inch zones labeled " A to H". Mounting positions given for units are the location of the lowest screw holding the unit or the units mounting bracket to the cabinet, as applicable. When a unit requires an associated connector mounting plate, the unit and associated plate mounting positions must be those shown opposite each other in the following table.

The following table covers all units mounting in zones A to H. Full size connector plates occupy two zones (A-B, C-D, E-F, or G-H). Half size connector plates occupy one zone. The terms, "personality plates" and "connector plates" refer to the same thing.

These plates mount on the four panel generic duct to form the EMI Bulkhead where internal and external (SWBD) cables connect. Mounting location and methods for cables and connector plates are shown on unit Assembly Drawings (AD).

Positions 03, 10, 18.5, 25.5, 34, 41, 49.5, and 56.5 indicated in the sketch below of connector plate zones refer to the position of the bottom mounting screw holding the plate on the duct, and the numeric positions are equivalent to and level with the equivalent equipment mounting positions on the cabinet.


MSP
H
G
F
E
D
C
B
A
COOLING UNIT
59.5
52.5
45.5
38.5
31.5
24.5
17.5
10.5
3.5
-0.5
UPPER AND LOWER LIMITS
CABINET ZONES
H
G
F
E
D
C
B
A
56.5
49.5
41
34
25.5
18.5
10
03
MOUNTING POSITIONS
CONNECTOR MOUNTING PLATE ZONES

5) Weight restrictions apply to equipment mounted in this cabinet. Total of provisionable equipment excluding Doors, Cooling Unit, Cable Trough, MSP, Internal Cables, and Connector Plates is not to exceed 580 pounds. Fifty-Six inches (56") of equipment mounting space is available for mounting units this leaves a maximum allowable loading of provisionable unit of 10.3 pounds per inch. No units documented in this EMS exceed this limit.

6) ISG (Isolated System Grounding) requirement must be applied to all units mounted in the cabinet. All units mounted in the cabinet must be electrically insulated from the cabinet if:

   Unit has Logic Return connected to Chassis Ground.

   Unit has Battery Return connected to Chassis Ground

   Unit has DC signal connections (metallic connection) to other equipment having logic return or battery return connected to chassis.

   Units isolated as defined above, must have their Chassis Ground connected to the Logic Return Busbar.

   The following units must be isolated from the cabinet.

   NTRX59AB / A0367433
   NTRX59AF / NT5X69AA
   NTRX59AG / NT3X25AA
   NTRX59AK / A0367419

7) The NTRX56AA has system level provisionable items covering the following:

   Seismic Zone provisioning

   Grounding options provisioning

   Cable routing options provisioning

   Cabinet Fail Lamp provisioning

   Cabinet door provisioning

   For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

8) For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.

9) Refer to MS0X60AA for equipment labeling.
10) The following Fuses and Fuse Designation Discs are provisionable on the NTRX40AA MSP on a per unit basis. It is not necessary to specify Battery Return or Fuse Connections as that is covered by the cabinet wiring document.

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	NONE

The equipment engineer must only specify unit, fuse(s) assigned, fuse amps, and designation disc. Fuses and designation discs to be specified are shown above.

11) NON-FILTERED BATTERY Source

Non-Filtered Battery A-Feed is supplied via fuses in shelf position61 Slot 08 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 10 (CB1, CB2).

Non-Filtered Battery B-Feed is supplied via fuses in shelf position 61 Slot 09 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 11 (CB3, CB4).

The total amperage of fuses in shelf position 61 slots 08 and 09, shall not exceed 30 Amps for a circuit breaker equipped CPDC or PDC.

For a circuit breaker equipped CPDC or PDC, total amperage of fuses supplied in shelf position 61 Slot 08 shall not exceed 10A if both CB1 and CB2 are assigned to units or 20A if only one of CB1 or CB2 is assigned.

For a circuit breaker equipped CPDC or PDC, total amperage of fuses supplied in shelf position 61 Slot 09 shall not exceed 10A if both CB3 and CB4 are assigned to units or 20A if only one of CB3 or CB4 is assigned.

The total amperage of fuses in shelf position 61 slots 08 and 09, shall not exceed 20 Amps for a PDC equipped with 30 Amp Fuses.

For a PDC equipped with 30 Amp Fuses, total amperage of fuses supplied in shelf position 61 Slot 08 shall not exceed 0A if both CB1 and CB2 are assigned to units or 10A if only one of CB1 or CB2 is assigned.

For a PDC equipped with 30 Amp Fuses, total amperage of fuses supplied in shelf position 61 Slot 09 shall not exceed 0A if both CB3 and CB4 are assigned to units or 10A if only one of CB3 or CB4 is assigned.

Non filtered battery provisionable fuses and assignable breakers on the NTRX40AA.

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AB A0367433	1 CB	20	MSP POS 12,CB05 ASSIGNMENT ID FIXED
NTRX59AC NT7F18AD	1 CB	10	MSP POS 10,CB01,02 MSP POS 11,CB03,04
NTRX59AD NT5X85AA	5	1-1/3	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AE A0379066			POWERED FROM NTRX59AD
NTRX59AF NT5X69AA	1	0.25	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AH NT5X86AA	1	1-1/3	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AJ NT3J00BA	1	2	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AK A0367419	1 1	5 5	MSP POS 08,F01-08 MSP POS 09,F01-08 (ONE FUSE MUST BE IN MODULE 08, THE OTHER IN MODULE 09.)
NTRX59AL A0601999	1	3	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AU NT6X1306	1 CB	10	MSP POS 10,CB01,02 MSP POS 11,CB03,04

12) FILTERED TALK BATTERY Source

Filtered battery A-Feed is supplied via fuses in shelf position 61 Slot 18 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 17.

Filtered battery B-Feed is supplied via fuses in shelf position 61 Slot 15 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 14.

The total amperage of fuses plus breakers used for Filtered Talk Battery shall notexceed 20 Amps for the A or B Feeds, individually.

If no CBs are used on a given circuit (A or B), then it may be fused to a maximum of 20 Amps.

If (1) 10 Amp CB is used on a given circuit (A or B), then it may be fuse to a maximum of 10 Amps.

If (2) 10 Amp CB are used on a given circuit (A or B), then no fuses may be assigned to that module.

Always provide dummy fuses A0205210 in unused fuse positions.

Each module may be equipped with a physical maximum of eight (8) fuses.

Filtered battery provisionable fuses and assignable breakers on the NTRX40AA.

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AU NT6X1306	1	5	MSP POS 18,F01-08 (A Feed) MSP POS 15,F01-08 (B Feed)

13) Customer provided hardware in an Non-EMC cabinet has yet to be defined.

RULES:

AP 1) When PEC NTZZ47PB is ordered, these items are provided.

AP01 1) Equipment always provided when PEC NTRX5610 is provided.

AP02 1) Equipment always provided when PEC NTRX56CE is provided.

AP03 1) Equipment always provided when PEC NTRX56CF is provided.

AP04 1) Equipment always provided when PEC NTRX56CG is provided.

AP-05 1) Equipment always provided when PEC NT6X13AB is provided.

RUL1 1) RESERVED

RUL2 1) Provide (1) NTRX56CA Kit per cabinet in cases where the office is arranged for external (vertical) power distribution.

2) When External Power Distribution Kits are provisioned, the power entering the cabinet from the power plant shall be treated as not EMC filtered. The kit contains a 13 position external power filter module, mounting hardware, cable tunnel covers, external power cable boots, cabinet internal power cables, and designation label.

RUL3 1) Provide (1) NTRX56CB per cabinet in offices where cabinets are arranged for horizontal power distribution.

2) Horizontal power distribution indicates a power delivery arrangement in which power, which has been filtered to reduce EMC, is distributed horizontally along the bottom of a cabinet lineup within the EMC envelope comprising that lineup.

3) When both PECs NTRX56CB and NTRX56CE are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737501 (label) for MSP Shelf Position 61 Slot 12R.

4) When both PECs NTRX56CB and NTRX56CF are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737501 (label) for MSP Shelf Position 61 Slot 13R.

5) When both PECs NTRX56CB and NTRX56CG are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737502 (label) for MSP Shelf Position 61 Slot 16R.

RUL4 1) RESERVED.

RUL5 1) RESERVED.

RUL6 1) Provide (1) NTRX56CF Talk Battery Mod Kit to provide Filtered Talk Battery (B-Feed) module in the MSP. Refer to the fuse NOTE earlier in this document for a listing of which equipment require Filtered Talk Battery.

2) Provide (1) NTRX56CG to provide Filtered Talk Battery (A-Feed) module in the MSP. Refer to the fuse NOTE earlier in this document for a listing of which equipment require Filtered Talk Battery.

3) FILTERED TALK BATTERY Source

Filtered battery A-Feed is supplied via fuses in shelf position 61 Slot 18 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 17.

Filtered battery B-Feed is supplied via fuses in shelf position 61 Slot 15 and/or dual 10 Amp Circuit Breaker in shelf position 61 slot 14.

The total amperage of fuses plus breakers used for Filtered Talk Battery shall notexceed 20 Amps for the A or B Feeds, individually.

If no CBs are used on a given circuit (A or B), then it may be fused to a maximum of 20 Amps.

If (1) 10 Amp CB is used on a given circuit (A or B), then it may be fuse to a maximum of 10 Amps.

If (2) 10 Amp CB are used on a given circuit (A or B), then no fuses may be assigned to that module.

Always provide dummy fuses A0205210 in unused fuse positions.

Each module may be equipped with a physical maximum of eight (8) fuses.

4) When both PECs NTRX56CB and NTRX56CE are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737501 (label) for MSP Shelf Position 61 Slot 12R.

5) When both PECs NTRX56CB and NTRX56CF are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737501 (label) for MSP Shelf Position 61 Slot 13R.

6) When both PECs NTRX56CB and NTRX56CG are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737502 (label) for MSP Shelf Position 61 Slot 16R.

RUL7 1) Provide (1) NTRX54BA, P0741680, and P0746680 when cooling unit is provided and office battery is -48V.

RUL8 1) Provide a quantity of P0734475 (MSP Blank Panel Two Position), P0734476 (MSP Blank Panel One Position), and P0559409 (Panel Mounting Screws), when equipment is not provided per the following:

When NTRX56CE is not provided, provide (2) P0734476 and (4) P0559409 to be equipped on MSP Slot Positions 2 and 2R.

When NTRX56CF is not provided, provide (7) P0734476, (2) P0734475, and (18) P0559409 to be equipped on MSP Slot Positions as follows:

MSP Filler Kit Slot #6

EQUIPMENT	PEC	QTY	POS	POS
MSP Blank Panel (Two Pos)	P0734475	1	61	01
MSP Blank Panel (One Pos)	P0734476	7	61	02R
				13,13R
				14,14R
				15,15R
Panel Mounting Screw	P0559409	18	61	01,02R
				13,13R
				14,14R
				15,15R

When NTRX56CG is not provided, provide (7) P0734476, (2) P0734475, and (18) P0559409 to be equipped on MSP Slot Positions as follows:

MSP Filler Kit Slot #7

EQUIPMENT	PEC	QTY	POS	POS
MSP Blank Panel (Two Pos)	P0734475	1	61	03
MSP Blank Panel (One Pos)	P0734476	7	61	04R
				16,16R
				17,17R
				18,18R
Panel Mounting Screw	P0559409	18	61	03,04R
				16,16R
				17,17R

18,18R

When NTRX54BA is not provided, provide (2) P0734476 and (4) P0559409 to be equipped on MSP Slot Positions 19 and 19R.

RUL9 1) Provide (1) NTRX92AA (Cooling Unit Kit) per cabinet under the following conditions:

NTRX59AB (Lamarche Inverter Kit) and Lamarche Inverter is provided in shelf position 05 and the following conditions apply. A Cooling unit is not required for any other Lamarche mounting positions except Shelf Position 05.

The total units connected to the Lamarche Inverter draws over 3.75 Amps at 120 V ac.

In cases where any unit other than the NTRX59AF (ISTC) is mounted in the 7" Zone immediately above the Inverter.

NOTE - NO UNIT EXCEPT THE NTRX59AF (ISTC) CAN MOUNT IN THE 7 INCH ZONE IMMEDIATELY ABOVE A LAMARCHE INVERTER SUPPLYING MORE THAN 3.75 AMPS.

2) When the NTRX59AJ (NT3J00BA) MLT is provisioned and power dissipation exceeds 150 Watts per unit. Power dissipation is calculated per the total number of CPs installed in the MLT Shelf. Each NT3J00BB CP dissipates 15 Watts, each NT3J00BE dissipates 25 Watts. Dissipation of more than 150 Watt is allowed only if the MLT shelf is mounted in shelf position 05 and a Cooling Unit is provisioned - or - the 7" mounting space immediately above the unit is left vacant, for example:

MOUNT IN 05, LEAVE 12 BLANK
OR MOUNT IN 12, LEAVE 19 BLANK
OR MOUNT IN 19, LEAVE 26 BLANK
OR MOUNT IN 26, LEAVE 33 BLANK
OR MOUNT IN 33, LEAVE 40 BLANK
OR MOUNT IN 40, LEAVE 54 BLANK

RUL10 1) Provide (1) NTRX3541 Label Kit for use in English Language applications.

RUL11 1) Provide Shelf Position ID Labels as follows when field upgrades which add units to the cabinet are provided.

2) Provide (1) P0738236 label when any unit is added.

3) Provide (1) P0746777 label when added units are assigned to breakers CB1, CB2, CB3 or CB4.

4) Provide (1) P0746678 label when added units are assigned to breakers CB09 or CB10.

5) Provide (1) P0746679 label when added units are assigned to breakers CB13 or CB14.

RUL12 1) Provide (1) P0715616 Full Size Blank Plate and (1) NTRX34DS CMIS Conn Plate Bulkhead Screw Kit in all connector mounting plate positions in EMC cabinets which are not provided with connector mounting plates associated with units.

RUL13 1) Provide (1) P0730259 (Half Size Blank Plate) when only one half of bulkhead opening is provided with Half Size Connector Plate associated with units. Provide (1) NTRX34DT for each (2) P0730259 and each combination of (1) NTRX59AJ and (1) P0730259.

RUL14 1) Provide (1) NTRX34LA, (1) P0737132, (1) NTRX34DS, (2) P0642031, and (4) P097F813 to provide a 480 Pin Wire Wrap Cross Connect field (20 25-Pin connectors-24 leads/conn) consisting of two rows of terminal blocks, terminal block to bulkhead cabling, and two cross cabinet cable brackets with mounting screws. Mounts in an EMC cabinet.

2) The NTRX34LA consists of two rows of terminal blocks. One row mounts in Shelf Position 49 and one row mounts in pos 55. (1) NTRX34LA and (1) P0737132 must be provided when any unit is provisioned which does not have its' own bulkhead connector plates and cables. Currently the NTRX59AF is the only unit in this catagory.

3) The EAE must specify which connector from the range C01-C20 on P0737132 plate to which each unit cable is assigned. Each cable requires one connector position. The appropriate switchboard cables must be assigned to corresponding connector position, so that the proper internal/external cable matchups are specified. The appropriate cable(s) from each unit to the NTRX34LA must be provisioned per carx---- documents.

4) Detailed below are the connector arrangement on the NTRX34LA:

TOP C21-C24 (NOT USED)
C17-C20
C13-C16

```
          C09-C12
          C05-C08
    BOT   C01-C04
```

The above depicts the P0737132 connector positions as seen from installer side of the NTRX34LA.

5) Provide (1) 25-Pin Filter Adapter set per cable connected to the NTRX34LA, Installer side. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
25-Pin Filter Adapter	A0316594	(1)
Female Screwlock	A0317136	(4)
Flat Washer	P0148330	(4)

6) Provide (1) 25-Pin Cover Plate set for any unused Installer side connectors on the NTRX34LA (i.e., not equipped with cables). The number of sets required is equal to 24 minus the number of ports used. (Minimum of (4) P0715775 and (8) P0670923. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
Cover Plate (25-Pin)	P0715775	(1)
Mounting Screws	P0760923	(2)

RUL15 1) Provision (1) Lamarche Inverter, A0367433, if requested by customer to provided 115 V ac to units in EMC cabinets (and mounted in same cabinet). Customer has the option of providing this circuit.

2) Provide (1) NTRX59AB (Lamarche Inverter Kit) per cabinet to provide support for an Inverter if it was provisioned or if customer is providing. This kit provides isolation and mounting hardware, and Logic Return Ground Cable.

3) The LAMARCHE Inverter provides standard AC socket outlets for (4) 120 V ac circuits ((2) dual outlets). The maximum total power consumption of all units connected to one Inverter shall not exceed 500 watts (120 V ac nominal, 4.15 amps output). (1) NTRX34FO (120 V ac Power Cord) is required to distribute power from the Inverter to each unit which requires PROTECTED AC. Refer to the rules for the unit requiring the power to determine the length of NTRX34FO.

Units listed in the chart below are the only units to date that may be assigned to the CMIS Model B which require this cable:

UNITS REQUIRING AC POWER (120 V ac)	SUPPLY CABLE (ONE PER UNIT)
NT5X69AA (NTRX59AF KIT)	NTRX34FO
NT3X25AA (NTRX59AG KIT)	NTRX34FO (FOR CONN TO LAMARCHE OR MULT TO PRECEDING NT3X25AA)

4) This Inverter may be packaged with the Inactive System Timing Circuit Kit (NTRX59AF). When the ISTC and Inverter are mounted in the same cabinet the Inverter is mounted in the lower position and the ISTC is mounted in the next higher complimentary position.

5) Provide (1) NTRX56CE to provide the 20 amp breaker module in the MSP for provisioning input power for the Lamarche Inverter. The Inverter is powered from the MSP via one 20 amp circuit breaker mounted in slot 12 CB05. Slot 12 is a fixed assignment.

When both PECs NTRX56CB and NTRX56CE are provided, provide (2) each of NTRX1670 (cable) and (2) each of P0737501 (label) for MSP Shelf Position 61 Slot 12R.

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AB A0367433	1 CB	20	MSP POS 12,CB05 ASSIGNMENT ID FIXED

RUL16 1) Provision (1) DTH/ROTL, NT7F18AD, to provide Remote Office Line Testing, if requested by customer. Customer has the option of providing this circuit. Mounts in an EMC cabinet.

2) Provision (1) NTRX59AC CMIS DTH/ROTL Kit to provide support for a DTH/ROTL if it was provisioned or if customer is providing. The kit provides mounting hardware, bulkhead con-

nector plate, unit to bulkhead cables and filter adapters. Mounts in an EMC cabinet.

3) Provision (1) Connector Plate DTH/ROTL, P0730992, per NTRX59AC Kit provisioned. In the chart below note that when the unit is mounted in shelf position 07, the P0730992 (Full Size Connector Mounting Plate) must be mounted in ZONES A and B, when mounted in shelf position 35, P0730992 must be mount in ZONES E and F. Also, note the unit's fusing specifications included.

NT7F18AD/NTRX59AC MOUNTING and FUSING INFO					
MTG POS	CONN PLATE	CONN PLT ZONE	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG DESIG RANGE
07	P0730992	A,B	1 CB	10	MSP POS 10,CB01,02 MSP POS 11,CB03,04
35		E,F			

4) Provide (1) NT7F19AC spares kit per NTRX59AC, when the Telco specifies maintenance spares for the DTH-ROTL.

RUL17 1) Provision (1) Audible/Visual Alarm Ext Unit, NT5X85AA, based on the following. Customer has the option of providing this circuit. Mounts in an EMC cabinet.

When the number of NT0X66-- (Audible Alarm Panels) provisioned exceeds (2), and/or

When the number of NT0X64-- (Exit Alarm Display Panels) provisioned exceeds (4).

2) Provide (1) NTRX59AD and (1) P0730991 per office to provide support for an Audible/Visual Alarm Ext Unit if it was provisioned or if customer is providing. The PEC NTRX59AD provides Mounting Hardware, Unit to Bulkhead Cables, and Filter Adapters and is mounted in an EMC cabinet.

3) When PEC NTRX59AD is provisioned, always provide (1) Pylon RG-2 Ring Generator, A0379066. Customer has the option of providing this circuit. Mounts in an EMC cabinet.

4) When PEC NTRX59AD is provisioned, always provide (1) CMIS Pylon RG-2 Ring Gen. Kit, NTRX59AE, to provide support for the Pylon RG- 2 Ring Generator on a one per office basis.

The NTRX59AE provides Mounting Brackets and Hardware and is mounted in an EMC cabinet.

5) When PEC NTRX59AD is provided, provision (1) Audible Alarm Cutoff Control Unit, NT5X86AA, on a one per office basis when Selective Audible Alarm Cutoff Control is required. Customer has the option of providing this circuit. Mounts in an EMC cabinet.

6) Provision (1) CMIS Audible Alarm Cutoff Kit, NTRX59AH, to provide support for an Audible Alarm Cutoff Control Unit if it was provisioned or if customer is providing. It supports up to six audible circuits. The NTRX59AH must be used in conjunction with externally mounted NT5X86AB. The NTRX59AH Kit provides Mounting Hardware, Bulkhead Connector Plate, Unit To Bulkhead Cables, and the Filter Adapters and is mounted in an EMC cabinet.

   If the NTRX59AH is not required leave its assigned mounting position blank and provide (8) Blank Cover Plates 9 Pin (P0715809) and (16) mounting screws (P0760923) to cover unused connector mounting positions on the P0730991 (Connector Mounting Plate).

7) Fusing and power requirements for the system is as follows:

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AD NT5X85AA	5	1-1/3	MSP POS 08,F01-08 MSP POS 09,F01-08
NTRX59AE A0379066			POWERED FROM NTRX59AD
NTRX59AH NT5X86AA	1	1-1/3	MSP POS 08,F01-08 MSP POS 09,F01-08

8) The NTRX59AD, NTRX59AE, and NTRX59AH are provided as a group. However, the NTRX59AH may not be provided initially as a standalone item.

9) Provision (1) Connector Mounting Plate, P0730991, per NTRX59AD Kit provisioned. It provides connector fields for NT5X85AA and NT5X86AA. However, these units shall be assigned and provisioned as a group (e.g. assign consec-

utively in cabinet shelf positions 04, 06, 08 or 18, 20, 22 etc.). See the chart below:

KIT/UNIT	MTG POS	CONN PLATE	CONN PLT ZONE
NTRX59AD NT5X85AA	04	P0730991	A,B
	18		C,D
	32		E,F
	46		G,H
NTRX59AH NT5X86AA	06		
	20		
	34		
	48		
NTRX59AE A0379066	08		
	22		
	36		
	50		

RUL18 1) Provision (1) Inactive System Timing Circuit, NT5X69AA, on a one per office basis to record the duration of system downtime, if requested by customer. Customer has the option of providing this circuit. Mounts in an EMC cabinet.

2) Provide (1) NTRX59AF, Inactive System Timing Circuit Kit (ISTC) to provide support for an Inactive System Timing Circuit if it was provisioned or if customer is providing. The NTRX59AF Kit provides Mounting Brackets and ISG Mounting Hardware. Mounts in an EMC cabinet.

3) The following equipment or connections to this equipment is also required:

An Inverter located in the same cabinet or a connection on an Inverter located in the same cabinet. Use closest specified mounting position (i.e. if Lamarche is in POS 05,

mount NT5X69AA in POS 14, etc). When the NTRX59AF is provisioned a 120 V ac Inverter socket and (1) NTRX34FO variable length cable is required. The cable length required is dependent of the shelf position of the two units. Refer to the chart below and provision the NTRX34FO cable and Cable length as indicated:

LAMARCHE SHELF POSITION	NT5X69AA SHELF POSITION	NTRX34FO REQUIRED LENGTH IN INCHES
5	14	36
19	28	36
33	42	36

Six (6) feet of R0109636 (24 AWG Solid Green Wire). This wire used to connect ISTC unit (NT5X69AA) TSA, PIN 15 to NTRX34LA. Customer engineer must specify PIN 1 on one of connectors C01-C20 as being assigned to ISTC. See ISRX34LA NOTE 208 for actual NTRX34LA terminal block pin to be specified. Customer engineer must ensure that switchboard cable containing "IAST" lead is assigned to the same C01-C20 connector that has been assigned to the internal connection. Refer to ISRX59AF, CAD 1.

(1) NTRX34LA or a connection on one (1) of the twenty (20) connectors on the NTRX34LA.

(1) 25-Pin Filter adapter is required on P0732132 which is provisioned per the NTRX34LA. Provide the following:

(1) 25-Pin Filter Adapter, A0316594

(4) Female Screwlock, A0317136

(4) Flat Washer, P0148330

4) The ISTC legal mounting location and Connector Mounting Plate requirements are as follows:

KIT/UNIT	MTG POS	CONN PLATE	CONN PLT ZONE
NTRX59AF NT5X69AA	14	Via Conn Plate Prov.	See NTRX34LA

	28 32	With NTRX34LA	

5) The ISTC fusing requirements are as follows:

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AF NT5X69AA	1	0.25	MSP POS 08,F01-08 MSP POS 09,F01-08

RUL19 1) Provide (1) Common Eqpt Shelf (115 V ac), NT3X25AA, to accommodate up to two standalone modems and associated data telephone sets or other standalone equipment requiring 115/120 V ac power. Customer has the option of providing this shelf themselves. Mounts in an EMC cabinet.

2) Provide (1) CMIS Common Eqpt Shelf Kit, NTRX59AG, to provide support for each Common Eqpt Shelf (115 V ac) if it was provisioned or if customer is providing. This kit provides ISG Mounting Hardware and Brackets for one NT3X25AA. Mounts in an EMC cabinet.

3) Provide (1) P0737132 plate per each two adjacent shelves. The EAE must specify connector designations to which standalone unit, mounted on NTRX59AG, cables are assigned. May be provided separately or in conjunction with NTRX34LA.

KIT/UNIT	MTG POS	CONN PLATE	CONN PLT ZONE
NTRX59AG NT3X25AA	06	P0737132	A,B
	13		
	20		C,D
	27		
	34		E,F
	41		
	48		G,H
	55		

4) When the NTRX59AG is provisioned and equipment is placed on the shelf which requires 120 V ac: One (1) 120 V ac Inverter Socket and one (1) NTRX34FO variable length cable is required. The cable length required is dependent of the shelf position of the two units. Refer to the chart below and provision the NTRX34FO Cable and cable length as indicated:

NOTE: An " X " in a square indicates an illegal configuration.

LAMARCHE SHELF POSITION	NT3X25AA (SHELF POSITION)							
	6	13	20	27	34	41	48	55
5	X	X	37	44	51	58	65	72
19	40	33	X	X	37	44	51	58
33	54	47	40	33	X	X	37	44

LENGTH IN INCHES

5) When two or more NTRX59AG are provisioned and equipment is placed on two or more of the shelves which requires 120 V ac: One (1) 120 V ac Inverter socket per NTRX59AG (housing equipment requiring AC) and one (1) NTRX34FO variable length cable is required. The cable length required is dependent of the shelf position of the two shelves. Re-

fer to the chart below and provision the NTRX34FO cable and cable length as indicated:

NOTE: An " X " in a square indicates an illegal configuration.

NT3X25AA SHELF POSITION	NT3X25AA LOCATION (TERMINATING SHELF)							
	6	13	20	27	34	41	48	55
6	X	30	37	44	51	58	65	72
13	30	X	30	37	44	51	58	65
20	37	30	X	30	37	44	51	58
27	44	37	30	X	30	37	44	51
34	51	44	37	30	X	30	37	44
41	58	51	44	37	30	X	30	37
48	65	58	51	44	37	30	X	30
55	72	65	58	51	44	37	30	X

LENGTH IN CHES

6) The Common Equipment Shelf is intended to mount standalone equipment such as modems, telephones, etc. As this is free standing and not secured to the NT3X25AA shelf, it is not in compliance with earthquake standards and customer waiver of same must be obtained when equipment is provisioned on this unit.

RUL20 1) Provide (1) MLT Applique Shelf, NT3J00BA, per each multiple of ten (10) MLT circuit packs required for loop testing. Customer has the option of providing this shelf themselves. Mounts in an EMC cabinet.

2) Provide (1) Connector Plate MLT Applique Shelf, P0730993, and (1) CMIS MLT Applique Shelf Kit, NTRX59AJ, to provide support for each MLT Applique Shelf if it was provisioned or if customer is providing. This kit provides ISG Mounting Hardware, Bulkhead Connector Plate, Unit to Bulkhead Cables, Filter Adapters, and Logic Return Ground Cable. Mounts in an EMC cabinet.

3) Provide (1) NTRX34DT for every (2) NTRX59AJ.

4) Provide NT3J00BB or NT3J00BE circuit packs in pos 03 to 21 (odd positions only) as per job engineering requirements. NOTE: Cooling unit may be required. See NTRX92AA rule for power dissipation limits.

5) The chart below depicts the relationship between the equipment mounting position and the Zone in which the Connector Mounting Plate must be mounted. Provide a half size blank connector plate in adjacent zone (if unused).

KIT/UNIT	MTG POS	CONN PLATE	CONN PLT ZONE
NTRX59AJ NT3J00BA	05	P0730993	A
	12		B
	19		C
	26		D
	33		E
	40		F
	47		G
	54		H

6) The NT3J00BA fusing requirements are as follows:

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AJ NT3J00BA	1	2	MSP POS 08,F01-08 MSP POS 09,F01-08

RUL21 1) Currently, there is no requirement for the 9-Pin or 37- Pin Filter Adapter and associated covers. However, this equipment is included here so as to maintain all items documented by MSRX56AA as provisionable.

2) There is no documented requirement for the 9-Pin Filter Adapter or Cover Plates. However, if they should be required, provide the following:

Provide (1) 9-Pin Filter Adapter set per cable connected to a Bulkhead Connector Plate having 9-Pin cutouts. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
9-Pin Filter Adapter	A0344127	(1)
Female Screwlock	A0317136	(4)
Flat Washer	P0148330	(4)

Provide (1) 9-Pin Cover Plate set for any unused Installer side connectors on a Bulkhead Connector Plate having 9-Pin cutouts. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
Cover Plate (9-Pin)	P0715809	(1)
Mounting Screws	P0760923	(2)

3) There is no documented requirement for the 37-Pin Filter Adapter or Cover Plates. However, if they should be required, provide the following:

Provide (1) 37-Pin Filter Adapter set per cable connected to a Bulkhead Connector Plate having 37-Pin cutouts. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
37-Pin Filter Adapter	A0316599	(1)
Female Screwlock	A0317136	(4)
Flat Washer	P0148330	(4)

Provide (1) 37-Pin Cover Plate set for any unused Installer side connectors on a Bulkhead Connector Plate having 37-Pin cutouts. This set consist of the following equipment and quantities:

EQUIPMENT	PEC	QTY REQ'D
Cover Plate (37-Pin)	P0715774	(1)
Mounting Screws	P0760923	(2)

RUL22 1) RESERVED

RUL23 1) Provision (1) CMIS CASE/DATATEL RM4200 (-48VDC) Modem Shelf, A0600770, to accommodate up to sixteen CASE DATATEL

4200 series modems. Customer has the option of providing this shelf themselves. Mounts in a non-EMC cabinet.

2) Provide (1) CMIS CASE/DATATEL RM4200 (-48VDC) Modem Shelf Kit, NTRX59AK, to provide support for each CMIS CASE/DATATEL RM4200 (- 48VDC) Modem Shelf if it was provisioned or if customer is providing. Kit provides isolation/mounting brackets, logic ground cable and associated hardware.

3) The CMIS CASE/DATATEL RM4200 (-48VDC) Modem Shelf may be mounted in any position in a Non-EMC cabinet. The unit occupies 7" of vertical space. Allow an additional 1" above and below the unit for cooling. Mounting position to be specified is that of the lowest screw holding the unit mounting bracket to the cabinet. Bottom edge of the unit is 1-1/2" below this mounting position.

4) The modem shelf fusing requirements are as follows:

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AK	1	5	MSP POS 08,F01-08
A0367419	1	5	MSP POS 09,F01-08 (one fuse must be in MOD 08, the other in MOD 09)

RUL24 1) Provide 42011 modem for full duplex synchronous binary serial data transmission/reception over 3002 type 4W private lines or half duplex over 2W private lines and 2W DDD switched network.

RUL25 1) Provide 42021 modem for asynchronous 4w full duplex operation on private leased lines at 0-1800 bps speed on conditioned lines.

RUL26 1) Provide 42081 modem for synchronous 4w full duplex operation in a-mode on private leased lines at 4800 bps.

RUL27 1) Provide 42121 modem for 2w dialup operation as follows; 1200 BPS operation on FDX PSTN line or 1200 BPS character asynchronous operation on FDX PSTN line or 0-300 BPS asynchronous operation on FDX PSTN line.

RUL28 1) Provide 42291 Data Auxiliary Set (829 DAS) Modem to terminate 4w private line data channels.

RUL29 1) Provide 42225 modem for full duplex operation for the transmission of serial data over 2w PSTN or 2w PLL for operation at 1200 or 2400 bps synchronous or 300/1200/2400 bps asynchronous operation.

RUL30 1) Provide 42323 modem for full duplex operation for the transmission and reception of serial data over 2w PSTN or 4w PLL. Provides operation at 1200/2400/4800/9600 bps synchronous or 300/1200/2400/4800/9600 bps asynchronous operation.

RUL31 1) Provide 42961 modem for full duplex operation for the transmission and reception of serial data over 4w PLL at 9600 bps synchronous operation.

RUL32 1) Provide (1) adapter plug per side (max two per RM4200 SHELF) for modems operated in dial up mode on Public Switched Telephone Network (PSTN). Specify adapter in connector pos P2 to determine transmit level of modems in slots 1-8 or in connector pos P4 for slots 9-16. Specify A0320894 (CASE DATATEL 905-6582-01) to provide telco adjustable transmit level between 0 and -12 dbm.

RUL33 1) Provide (1) adapter plug per side (max two per RM4200 SHELF) for modems operated in dial up mode on Public Switched Telephone Network (PSTN). Specify adapter in connector pos P2 to determine transmit level of modems in slots 1-8 or in connector pos P4 for slots 9-16. Specify A0369235 (CASE DATATEL 905-6582-02) to provide a permissive transmit level of -9 dbm maximum.

RUL34 1) Provide (1) adapter plug per side (max two per RM4200 SHELF) for modems operated in dial up mode on Public Switched Telephone Network (PSTN). Specify adapter in connector pos P2 to determine transmit level of modems in slots 1-8 or in connector pos P4 for slots 9-16. Specify A0369236 (CASE DATATEL 905-6582-03) to provide a Fixed Loss Loop (FLL) transmit level of -4 dbm maximum.

RUL35 1) Provide (1) CMIS DANTEL Digital Alarm Scanner (DMS-100 to SCC Interface, fully wired and equipped), A0601999, for each DMS office required to interface with Switch Control Centers (SCC) of Bell Operating Companies (USA). Customer has the option of providing this circuit. Mounts in a Non-EMC cabinet.

2) Provide (1) CMIS DANTEL Digital Alarm Scanner Kit, NTRX59AL, to provide support for each CMIS DANTEL Digital Alarm Scanner if it was provisioned or if customer is providing. Kit provides mounting brackets and associated hardware.

3) The CMIS DANTEL Digital Alarm Scanner may be mounted in any position in a Non-EMC cabinet. The unit occupies 6" of vertical space. Allow an additional 1" above and below the unit for cooling. Mounting position to be specified is that of the lowest screw holding the unit mounting bracket to the cabinet. Bottom edge of the unit is 1-1/2" below this mounting position.

4) The Scanner fusing requirements are as follows:

KIT/UNIT	NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG RANGE
NTRX59AL A0601999	1	3	MSP POS 08,F01-08 MSP POS 09,F01-08

RUL36 1) Provide one (1) NTZZ45PA for each RMM required in CMIS Model B up to a maximum of four (4) per CMIS cabinet. Mount the first NTZZ45PA in position 05 on the CMIS with each additional one mounting in 19, 33, then 47. The RMM requires 14 inches of vertical space on the CMIS cabinet. See insert EMB2-24-RMM-3 for more information on NTZZ45PA.

In a mono RCS-S office there may only be a maximum of (3) RMMs, (1) Internal RMM located in the CRSC and (2) External RMMs located in CEXT or CMIS. Therefore, the maximum number of RMM in a CMIS for an RSC-S mono office is (2).

In a dual RCS-S office there may be a maximum of (6) RMMs, (2) Internal RMMs located in the CRSCs and (4) External RMMs located in CEXTs or CMISs. Therefore, the maximum number of RMM in a CMIS for an RSC-S dual office is (4).

2) The RMM is unique in that it requires both Filtered and Non- Filtered TALK BATTERY and is currently the only CMIS equipment that requires Filtered TALK BATTERY. Provide the NTRX56CF (B-FEED) and/or NTRX56CG (A FEED) Talk Battery Mod Kits per their RUL to provide the required MSP POS 18 and/or 15 fuse positions. The Circiut Breakers are used to power the Power Converters in the RMM shelf; this power is not filtered. The Fuses are used to power the circuit

packs in the RMM shelf; this power is filtered. The RMM fusing requirements are as follows.

The RMM shelf can be powered by "B" or "A" Feed (L-). Use NTRX42AA in pos. 11 of the MSP for Input to PC-48V if "B" feed is required to Shelf. Circuit Breaker # 3 or 4. Use NTRX42AA in pos. 10 of the MSP for Input to PC-48V if "A" feed is required to Shelf. Circuit Breaker # 1 or 2.

See FUSING INFO Table below for connection variations.

Use NTRX43AA in pos. 15 of the MSP for Input to FLT-48V if "B" feed is required to Shelf. Connect to one of the eight Fuse positions available. Use NTRX43AA in pos. 18 of the MSP for Input to FLT-48V if "A" feed is required to Shelf. Connect to one of the eight Fuse postions available.

See FUSING INFO Table below for connection variations.

The first RMM provisioned in the CMIS should be powered from the B Feed (MSP POS 11 - CB03, MSP POS 15, F01-08) since the Internal RMM provided in the CRSC is powered by the A Feed. Fusing should alternate between A and B.

A second RMM provisioned in the CMIS should be powered from the A Feed (MSP POS 10 - CB01, MSP POS 18, F01-08).

A third RMM provisioned in the CMIS should be powered from the B Feed (MSP POS 11 - CB04, MSP POS 15, F01-08) since the Internal RMM provided in the CRSC is powered by the A Feed.

A fourth RMM provisioned in the CMIS should be powered from the A Feed (MSP POS 10 - CB02, MSP POS 18, F01-08).

FUSING INFO		
NUMBER OF FUSES	AMPS	FUSE/BREAKER DESIG DESIG RANGE
1 CB	10	MSP POS 10,CB01,02 (A Feed) MSP POS 11,CB03,04 (B Feed)
1	5	MSP POS 18,F01-08 (A Feed) MSP POS 15,F01-08 (B Feed)

DPP MOUNTING HARDWARE FOR CIOE MODEL B

PEC CODE:	NTZZ32QA
CPC CODE:	B0238853
RATING:	MD.
REPLACES:	Not Applicable
REPLACED BY:	NTZZ32QB
ABBREVIATION NAME:	Not Applicable
ENGINEERING DESCRIPTION:	The NTZZ32QA contains the hardware and cables required to mount the DPP assembly on the CIOE model B.
REFERENCE DOCUMENTATION:	SLZZ32QA 00 02 NTZZ32QA REL 02
MARKETS:	Applicable markets: US Europe Asia/Pacific CALA

ISSUE AUTHOR: NTI: Erica Keltner Dept. 3471 (PPK)

MAIN CONTACT: Richard Mathias Dept. 3471 (PPK)

NTZZ32QA EMC13-03-HWK-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 05 21	API 445 01	To introduce the mounting hardware for the DPP on the Model B CIOE.
93 11 16	ECM 683 01	EC 018-41434 Remove Breaker Des. labels.
95 09 25	ECM 613 30	EC 018-44426 MD's NTRX33MF & NTRX33MG and replaces them with NT8M99AR. Therefore, NTZZ32QB replaces NTZZ32QA since NT8M99AR adds enhanced alarm functionality.

The DPP mounting hardware for CIOE Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Personality Plate (DPP)	P0729518		1	47		AP
25 Pin Filter Adapter	A0316594		7	33		AP
Mounting Hardware	A0317136		28	33		AP
Mounting Hardware	P0148330		14	33		AP
DPP/Bulkhead Cable	NTRX33EC		1	33		AP
DPP/Bulkhead Cable	NTRX33ED		1	33		AP
DPP/Bulkhead Cable	NTRX33EE		2	33		AP
DPP/Bulkhead Cable	NTRX33EF		2	33		AP
Power & Control Cassy	NTRX33MF		1	33		AP
Power & Control Cassy	NTRX33MG		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:

1) The DPP will always mount in position 33 in the CIOE Model B.

RULES:

AP 1) When PEC NTZZ32QA is ordered, these items are provided.

2) One A0316594 25 Pin Filter Adapter, four A0317136 and two P0148330 (mounting hardware) are provided for each connector position on the DPP personality plate (P0729518) indicated in the table below:

Personality Plate Filter Adapter	Shelf	Personality Plate Connector Position
P0729518 A0316594	DPP	A J1, A J4, B J11-B J14, A J16

3) The cables provided herein shall be connected as indicated in the table below:

FROM					TO	
CABLES	QTY	SHELF	SHELF POS	CONN	BULKHEAD POSITION	CONN
NTRX33EC	1	DPP CH/A	33	J1	47	A J1
NTRX33ED	1			J4		A J4
NTRX33EE	2			J11		B J11
				J12		B J12
NTRX33EF	2			J13		B J13
				J14		B J14
NTRX33MF	1	DPP CH/A & Stratum 0 or DDU 0		J16		A J16
				J15	MSP (61)	J1/61-08
				SCR		
NTRX33MG	1	DPP CH/B & Stratum 1 or DDU 1		J15,J16		J1/61-09
				SCR		

RME POWER DISTRIBUTION MODULE

PEC CODE:	NTZZ12GA
CPC CODE:	B0232198
RATING:	MD
REPLACES:	Not applicable
REPLACED BY:	NTZZ15CC, NTZZ15CD
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	NTZZ12GA contains the required hardware to equip the Remote Miscellaneous Equipment Frame to perform the power distribution function in a remote office.
REFERENCE DOCUMENTATION:	MSZZ12GA 00 01 SLZZ12GA 00 02 NTZZ12GA REL 02
MARKETS:	Applicable markets: Canada CALA Asia/Pacific Europe

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

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

NTZZ12GA EMC13-05-PDM-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
93 05 10	ECM 618 09	EC006-16761 & EC018-40418 incorporated field upgrade kit (NT0X58DA) for ABS power in to RME frame (NT0X02AB, NTZZ12GA, NTZZ15CB).
94 08 17	ECM 602 16	ET 19459 Revised NT0X42AK fuse assignment from shelf 59 to 67.
95 03 16	ECM 690 06	ECD 6-21517: Per MS0X02AB 01 34, UL Power Dist. Panels are now to be used in all markets, including Canada. MD NTZZ12GA, replaced by NTZZ15CC and NTZZ15CD.

The RME Power Distribution Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Panel (5.5")	NT0X42AM		1	72		AP
Fuse Panel "A" Feed	NT0X42AB		1	67		AP
Fuse Panel "B" Feed	NT0X42AC		1	63		AP
Fuse Panel "A" Feed	NT0X42AB		1	59		AP
Fuse Panel "B" Feed	NT0X42AC		1	55		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					RUL1
Frame Supervisory Panel	NT0X40AB		1	50		AP
ABS Alarm Upgrade Kit	NT0X58DA					RUL2
Filter Panel	NT0X42AG		1	12		AP
10 Amp Fuse	A0286407		1	12		AP
1 1/3 amp fuse	A0205202		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		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 RME Power Distribution Module provides two A and B Fuse Panels to accomodate up to 30 distribution circuits on each feed.

RULES:

AP 1) When PEC NTZZ12GA is ordered, these items are provided.

RUL1 1) Provision fuses as required. Equip a dummy fuse in all un-equipped fuse locations.

RUL2 1) When extending an office where an RME frame configured as a PDC frame, the EAE shall reference the D640 to determine when to provide one NT0X58DA per PDC-RME installed. NT0X58DA consists of A0288175, R0106721, NT0X42AK, and P0743062.

Apply NT0X58DA as follows: Assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

2) For initials assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

REMOTE MISCELLANEOUS EQUIPMENT FRAME

PEC CODE: NTZZ15BA

CPC CODE: B0232196

RATING: MD

REPLACES: NTZZ15DB, NTZZ15AA

REPLACED BY: NTZZ18AB & NT0X02AB

ABBREVIATION NAME: RME

ENGINEERING DESCRIPTION: The RME is a general purpose miscellaneous equipment frame (MIS) that serves as the Power Distribution Center (PDC) for a RSC Office.

The RME accomodates a maximum of 60 Fuses (5, 10, 20, and 30 amp). To be designated an RME, a MIS frame must contain a Power Distribution Module. If it does not contain such a module then it should be designated as a MIS frame, even when used in a remote site.

REFERENCE DOCUMENTATION: SLZZ15BA 00 03
MS0X02AB 01 35
AD0X02AB 01 20

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

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

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

NTZZ15BA EMC13-05-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 11	ECM 602 04	Corrected the provisioning of the Grounding Kits used to ground the LaMarche Inverter in ISG and in non-ISG applications.
92 10 22	ECM 602 05	Corrects and differentiates the provisioning of the grounding kits used with the LaMarche Inverters for ISG and non-ISG, and Modem Frame and non-Modem Frame, RUL 4. BBLK NTZZ14HA is being MD'd, LaMarche PEC will be utilized (A31-500-48V-A6).
92 11 06	ECM 602 06	Corrects the mounting locations for the LaMarche Inverter. Before change, the inverter was only allowed to be mounted below the FSP, following the change, the LaMarche is now allowed to be mounted above the FSP as well as below the FSP.
92 12 07	ECM 618 07	ECD 018-39307 - change NT0X25AV to NT0X25AH framework
92 12 22	ECM 602 07	ET 15579 - Correct the mounting positions of the LaMarche Inverters in the RME frame when the RME contains PDC equipment.
93 03 23	ECM 602 09	Frame Ground Bar NT0X9548 is replaced by the NT0X9504.
93 07 27	ECM 602 10	ECD 018-39718 introduces the NT0X9594 Ground Bar Assembly replacing the NT0X9504. ET 34143 replaces C0054375 with RA877.
93 09 09	ECM 602 11	NTZZ14HA BBLK for the LaMarche Inverter is being MD'd and replaced by the detail A31-500-48V-A6 code. The Inverter NTZZ18BA is also MD'd and replaced by the a31-500-48V-A6. Added US to marketing.
93 11 10	ECM 602 12	The NTZZ15CB has been added to the list of provisionable entities on the NTZZ15BA. This BBLK will replace the NTZZ15DB. The NT0X25AH Earthquake Framework is also being renamed to

Engineering Manual Section Change History

DATE	DOCUMENT	REASON
		Universal Framework.
93 11 18	ECM 690 01	Introduces equipment that is required for EAS.
94 09 09	ECM 560 01	Introduce the ESTU and ITM into the frame to meet Gate 2 deliverable requirements for an ECM.
94 11 01	ECM 690 04	Added NTZZ15CC for all non-Canadian initials. NTZZ15CB for non-EAS extensions only per PLM and ET19869. Added remote miscellaneous equipment to match NT0X02AB. ETs 13659, 15889, 15909 - Added mounting restrictions for CES, Modem Shelves, Terminal Blocks, and Ground Material Assembly.
95 01 26	ECM 602 19	Added AMH RTU and DRTU for use with CALRS. Changed NTZZ15BC to NTZZ15CB in RUL2.
95 03 16	ECM 690 06	Replaced NTZZ15CB with NTZZ15CD with includes the ABS 20A Fuse and Cable. Added NTNX2656 removal reference to NT0X42XC for clarification - reference has always been in PC0X42XC. ET21259 ECD 6-21517: MD NTZZ12GA, use UL Power Panels NTZZ15CC/CD instead. Added Grounding Note 5. MD A0367433 Inverter and replaced by NTRX31DH. NTMX1665 Lamarche Iso Hdw MD and replaced by NT0X43XD. Revised Inverter Isolation requirements. Changed NT5X69AA provisioning to show that it is no longer to be isolated.
95 03 21	ECM 602 21	ET 21899 Corrected typo in equipment list - NT0X42XD s/b NT0X43XD. Clarified Inverter Rule.
95 08 04	ECM 690 07	un-MD NTZZ15CB and MD NTZZ15CC and NTZZ15CD since RME design documents supporting these configurations have not been released. Until design releases the changes, EAS on the RME is available only by using the NTZZ15CB and upgrading it with the

Engineering Manual Section Change History

DATE	DOCUMENT	REASON
		NT0X42XC Enhanced Alarm Kit.
95 08 22	ECM 690 08	MD NTZZ15CB, replaced by NTZZ15CE per ECD 18-45090. This change provides EAS power panels on all RME initials.
96 03 22	ECM 602 25	MD and retire NTZZ15BA per BBRAT; the information is in NTZZ18AB.
96 10 11	ECM 602 27	Indicate replacement document for this MDed document.

The Remote Miscellaneous Equipment Frame is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Miscellaneous Equipment Fr	NT0X02AB		1			AP
Universal Framework	NT0X25AH		1			AP
20A Filt RME Frame Supv Pnl	NT0X88AF		1	45		AP
FSP Cover	P0673914		1	45		AP
# RME Power Distrib. Module	NTZZ12GA			12		RUL2
# RME Power Dist. Mod non-EAS	NTZZ15CB			12		RUL2
# RME Power Distrib. Module	NTZZ15CC			12		RUL2
# RME Power Dist Mod non-EAS	NTZZ15CD			12		RUL2
RME Power Dist. Mod (EAS)	NTZZ15CE			12		RUL2
Enhanced Alarm System Kit	NT0X42XC			45R		RUL2
# Ground Material Assembly	NT0X9548					RUL3
# Ground Material Assembly	NT0X9504					RUL3
Ground Material Assembly	NT0X9594			20,40,67		RUL3
# Inverter	NTZZ18BA					RUL4
# LaMarche Inverter	NTZZ14HA					RUL4
# LaMarche Inverter	A0367433			04,13,22 31,52,60,70		RUL4
500VA AC Inverter	NTRX31DH			04,13,22 31,52,60,70		RUL4
Direct Powering Label	P0708015			04,13,22 31,52,60,70		RUL4
# LaMarche Frame Isolation Kit	NTMX1665			04,13,22 31,52,60,70		RUL4
IOE Inverter ISG Kit	NT0X43XD			04,13,22 31,52,60,70		RUL4
Inverter Frame Grd H/W Kit	NTMX1657			04,13,22 31,52,60,70		RUL4
Hole Bushing	P0567227					RUL4
AC Hardware Mounting Plate	NT0X07AU			04,13,22 31,52,60,70		RUL4
Metallic Test Access Unit	NTZZ18CA			05		RUL5
Common Equipment Shelf	NT3X25AA			22,31,52 52,60,70		RUL6
Circuit Pack Cage Mounting	NT0X8501					RUL7
CP Storage Shelf Assy	NT0X8503					RUL7
Line Card Storage Ch Assy	NT3X55AA					RUL8
Line Card Storage Ch Assy	NT3X55BA					RUL8
Aud & Visual Alm Ext Ckt	NTZZ18DA					RUL9
LTC Mainframe Brown	NT0J6_BA					RUL10
# LTC Mainframe Brown	NT0J04BB					RUL10

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
#	LTC Mainframe Ash	NT0J04BA					RUL10
	RTU-AMH 4-Trunk (for CALRS)	NTAN10AA					RUL24
	RTU-AMH 16-Trunk (for CALRS)	NTAN11AA					RUL24
	26" Mounting Adapters	NT0J04DD					RUL25
#	1A2 Key System	NTZZ14GA					RUL11
#	Dig Rmt Test Unit (DRTU) Ash	NT0J04EA					RUL12
	Dig Rmt Test Unit (DRTU) Brn	NT0J04EB					RUL12
	DRTU Mounting Brackets	P0596114					RUL12
	DRTU Mounting Bracket Screws	P0148634					RUL12
	DRTU-AMH (for CALRS)	NTAN60AA					RUL26
	26" Rack-mount Adapter	NTOJ14EA					RUL27
	Tellabs 292 Conf/Alert Systm	NTZZ18FA					RUL13
	Tellabs 292 Line Expnsn Shlf	NTZZ18GA					RUL13
	Isolation Hardware	NT0X0013					RUL14
	Inactive System Timing Cct	NT5X69AA					RUL15
	Terminal Block Assembly	NT3X25BA			64,69,74		RUL16
	ESTU Master Module (EMM)	NT0J42BA			00-43, 51-75		RUL17
	ISDN Test Module (ITM)	NT0J43AA			00-39 51-71		RUL17
	GDC DS-6 Modem Shelf	A0380973			35,52		RUL18
	DS-6 Mounting Bracket	A0384166					RUL18
	PHM Screws	P0148634					RUL18
	GDC Modems	Various				1-16	RUL18
	23" DC Redundant Modem Sh	A0344310			35,52		RUL19
	ESD Modem Faceplate Kit	NTNX1113					RUL19
	UDS Modems	Various				1-16	RUL19
	RM4200 Modem Shelf 115VAC	A0355254			35,52		RUL20
	RM4200 Modem Shelf -48V DC	A0600770			35,52		RUL20
	RM4200 Modems	Various				1-16	RUL20
	1-Chan 19" 32S RTA STB	NT7M00CC					RUL21
	1-Chan 26" 32S RTA BRN	NT7M00DC					RUL21
	1-Chan 26" 32S RR/RTA BRN	NT7M00DB					RUL21
	Prerecorded MSGS Cass Tape	21340431					RUL22
	WTA Panel	NT7X76AA					RUL23
	WTA Panel (Dedicated LTU/MTU)	NT7X76BA					RUL23

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X9548	MD	NT0X9504
NT0X9504	MD	NT0X9594
NTZZ18BA	MD	NTZZ14HA
NTZZ14HA	MD	A31-500-48V-A6
NT0J04BB	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04BA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04EA	MD	NT0J04EB
NTZZ14GA	MD	NTZX18AB NORSTAR
NTZZ12GA	MD	NTZZ15CC/NTZZ15CD
NTZZ15CB	MD	NTZZ15CD
A0367433	MD	NTRX31DH
NTMX1665	MD	NT0X43XD
NTZZ15CB	STD	NTZZ15CD
NTZZ15CC	MD	NTZZ15CB+NT0X42XC
NTZZ15CD	MD	NTZZ15CB
NTZZ15CB	MD	NTZZ15CE

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 front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel. For information on the frame doors, refer to Section EMA15-01-002.

2) One (1) RME Frame Supervisory Panel, NT0X88AF, is always provided per RME frame. Equip per Section EMA13-01-FSP-4.

3) Wiring between NT0X88AF FSP and units mounted on frame shall be connected using loose wiring methods. Where leads

are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

Wire colour to be as follows:

Red for bat or -48V ABS
Black for bat rtn
Green for alarm leads

Terminals to be specified as follows:

TB2 on NT0X87AA use C0054383
TB1 use RA877
TB2 use C0054383
TB3 use C0054383

4) In provisioning equipment on this frame Job Engineering must take into account the following:

* The physical height (or effective clearance requirements) and base offset of each unit. Note: Base offset is the distance between the bottom of the unit and its lowest mounting hole.

* The physical width of the unit and provide mounting adapters where necessary.

* The power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the power requirements of the equipment to be installed on the frame.

* Establish or identify the DMS-100F compatibility requirements with any non-DMS unit being provided, if necessary by detailed interface study in accordance with the OEM Procedure 1.04 or the latest issue.

5) When adding any miscellaneous equipment not covered in this document, the customer engineer shall check with BNR grounding design authority to ensure that the following grounding rules are met for existing equipment prior to release of issue 01 34 of MS0X02AB:

A) All AC powered Misc. eqpt must be isolated from the frame.

B) DC powered Misc. equipment shall be treated as follows:

1) If chassis is connected to battery return, isolate eqpt from this frame.

2) If chassis is connected to logic return, isolate eqpt from this frame.

3) If chassis is floating, mount eqpt directly on frame.

For equipment installed subsequent to release and cut-in of MS0X02AB 01 34 and AD0X02AB 01 19:

C) Inverters powering MAP positions, ISTC(NT5X69AA) andexternal protected AC outlets shall be non isolated and have their chasis ground connected to frame ground. The NT5X69AA unit shall also be non-isolated.

D) Any new equipment added to MS0X02AB shall be evaluated per IS0X00 00 16 (or later) note 304 and mounted accordingly.

E) No equipment requiring power from an isolated inverter shall be fed from a non isolated inverter and no equipment requiring power from a non isolated inverter shall be fed from an isolated inverter. If necessary two inverters shall be provided.

RULES:

AP 1) When PEC NTZZ15BA is ordered, these items are provided.

RUL1 1) Reserved for future use.

RUL2 1) Per MS0X02AB 01 34 the UL Power Panels are now to be used in all markets. The NTZZ12GA RME Power Distribution Module, previously used for the Canadian market has been MD and is no longer to be ordered.

2) Provision one (1) NTZZ15CE RME EAS Power Distribution Module for all initials requiring an RME. This provides the Enhanced Alarm System (EAS) functionality for all RME ini-

tials. While this new alarm scheme enhances the DMS-100 alarm system in remotes by powering the ABS alarms from the power board, this is not EAS in it's full functionality.

3) To upgrade an existing office to support EAS, provision (1) NT0X42XC per RME equipped with power distribution equipment without the NT0X40UB FSP. The PC0X42XC Kit should also be ordered to provide installation information.

4) When the Enhanced Alarm System Kit is provisioned, the 20A ABS Alarm fuse F14 at shelf position 67, the NTNX2656 Power Cable Assembly and the ABS Alarm label are no longer necessary and should be removed.

RUL3 1) Provide one (1) NT0X9594 per RME when the frame or any of its contents require grounding. Do not provide when the RME Power Distribution Module is provided (i.e., when the RME is used as a PDC).

RUL4 1) For all applications, provide one NTRX31DH 500VA AC Inverter per four (4) 120VAC Protected AC feeds required which do not exceed 500 Watts output (250 Watts max each pair of outlets - Circuit 1 and 2). This unit requires one (1) 30-Amp fuse (NT0X42AS) at the PDC. When the RME frame contains PDC equipment, the mounting locations for the 500VA AC Inverters are restricted to 04, 22, and 31. Location 04 may be used only if the Inverter is non-isolated since the isolated ground bar used in this application does not extend to the bottom of the frame.

The Inverter has a failure mode switch to allow selction between breaker trip failure or breaker trip/inverter failure detection.

2) 1" above and below the the unit must be reserved for cooling on initial jobs.

3) When frame is used as a RME the inverter may mount in positions 04, 13, 22, 31, 52, 60, and 70 with the following restrictions. If the RME is used as a PDC the inverter may not mount in positions 13, 52, 60, or 70 (only positions 04, 22, and 31 are valid). Location 04 may be used if the RME is used as a PDC only if the Inverter is non-isolated since the isolated ground bar used in this application does not extend to the bottom of the frame.

4) Modem frame Applications - For ISG applications, provide 1 (one) NT0X43XD Kit per 500VA AC Inverter for grounding the inverter to the vertical ground bar.

5) Non-Modem Frame Applications - Each Inverter supplying End Aisle protected AC outlets and/or MAPs shall be non-isolated (mounted directly to the frame) using (1) NTMX1657 Kit and (3) P0567227 Bushings.

6) One P0708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

7) When the inverter is powering external equipment (VDU's, Printers, etc) an AC Mounting Plate, NT0X07AU, may be mounted on the rear of the frame at the same position as the Inverter Unit.

8) All AC powered Misc. eqpt must be isolated from the frame.

9) Inverters powering MAP positions, ISTC(NT5X69AA) and external protected AC outlets shall be non isolated and have their chasis ground connected to frame ground. The NT5X69AA unit shall also be non- isolated.

10) No equipment requiring power from an isolated inverter shall be fed from a non isolated inverter and no equipment requiring power from a non isolated inverter shall be fed from an isolated inverter. If necessary two inverters shall be provided.

RUL5 1) Provide one (1) NTZZ18CA Metallic Test Access Unit for each ten LM/RLM or LCMs when up to sixteen 2-wire test circuits are provided.

2) A 1" space must be provided between adjacent switches to allow the mounting of the MTA Unit cover.

3) For other information on mounting see AD2X46AB.

RUL6 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accommodate stand alone units up to a maximum of six shelves per frame.

2) For Modem Pooling, provide up to five (5) NT3X25AA as required. One NT3X25AA can accommodate up to three (3) data units.

3) In the Canadian market the RME Frame shall no longer be equipped with data set (modem) shelves or common equipment shelves (NT3X25AA). These shelves must be mounted on the Data Modem Frame (NT0X43BA).

RUL7 1) Provide one or more Circuit Pack Storage Shelf Assy, NT0X8503, consisting of (1) Circuit Pack Cage Assy, NT0X33AA, 20 Inline Card Sliders, P0558097 and 20 Offset Card Sliders, P0558098, to house the spare card requirements of the Remote Office.

2) Provide up to a maximum of (5) NT0X8503 per RME frame.

3) Provide up to a maximum of (5) NT0X8501 per job requirement in place of the NT0X8503 Circuit Pack Cage Mounting when front doors are required and no space is required directly behind the cage.

RUL8 1) Provide one (1) Line Card Storage Chassis, NT3X55AA, to accommodate up to twenty (20) Line Cards, size 4" x 4" and up to four (4) cards, size 4" x 6".

2) Provide one (1) Line Card Storage Chassis, NT3X55BA, (used in conjunction with LCE vintage line cards) to accommodate up to thirty (30) single slot Line Cards, or ten (10) double slot and ten (10) single slot line cards. The chassis will also store two (2) line drawer Bus I/F cards.

3) Equip NT3X55AA/BA on shelf NT0X8503. Allow 6" per chassis maximum 4 per shelf.

RUL9 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL10 1) Provide one (1) NT0J6_BA LTU Mainframe along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

2) Refer to Engineering Manual Section for NT0J6_BA for more details.

3) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

RUL11 1) Provide one NTZZ14GA per office requiring an Analog 10-Line 1A2-Type Key System.

RUL12 1) The DRTU is available in two colours Ash and DMS Brown, where DMS brown is the preferred offering. Provide the DRTU to enable the NSSD model 3703-03 Local Test Cabinet (located in the host office) to test subscriber lines connected to a DMS Digital Remote Office or Pair Gain Device (eg. DMS1 Line).

2) Provide (2) P0596114 mounting brackets and (4) P0148634 mounting screws per each DRTU.

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA and NTZZ18GA Engineering Manual Sections for more details.

RUL14 1) Miscellaneous hardware such as MTDs, etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in the Remote Miscellaneous Equipment Frame.

3) The following equipment (which mounts on an RME frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a RME frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC	DESCRIPTION
NT5X58AA	1A2 Key Telephone System (MD'd equipment)

NT5X55AA - 1A2 Key Telephone System Module (MD'd)
NT5X09AA - Data Set (Modem) Shelf

RUL15 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime, should it occur.

2) The Inactive System Timing Circuit must be powered from an inverter mounted on the same MIS frame. The ISTC and the inverter must both be non-isolated.

RUL16 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect MIS frame mounted equipment (for example a bank of modems).

2) Each assembly connects the DF via a 50 pair cable.

3) Provide one (1) NT3X25BA when required, (i.e. Modem Pooling) to cross connect data sets to MDF.

4) The Terminal Block may not be mounted in position 77.

RUL17 1) The EMM, NT0J42BA, is designed to provide ISDN 2B1Q Subscriber loop line test maintenance service for up to 2000 lines per EMM. The ITM, NT0J43AA, is optional equipment to the EMM that provides additional test features. Together they are referred to as ESTU, Enhanced Services Test Unit. Refer to EMA13-01-TL1-1 for provisioning information for ESTU.

RUL18 1) Provide one (1) DS-6 Modem Shelf on the RME Frame to accomodate up to sixteen (16) modems.

2) For more information on A0380973, see section EMA13-01-GDC-1.

3) Provision modem cards per customer requirements to provide desired features. For provisionable modems see GDC Modems Engineering Manual Section, EMA13-01-GDC-1 (T_GDC_MOD).

RUL19 1) Provide one (1) A0344310 23" DC Modem Shelf (RM16M) to accommodate up to sixteen UDS modem cards.

2) A0344310 shelf requires a space of seven inches high.

3) The mounting adapters to convert the unit from 23" to 26" are always provided by UDS.

4) Provide one (1) ESD modem faceplate kit for each UDS modem shelf (A0344310) that houses UDS modems (A0336306 & A0360763).

5) Provision modem cards per customer requirements to provide desired features. For provisionable modems see UDS Modems Engineering Manual Section, EMA13-01-UDS-1 (62005220).

RUL20 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 (where the -48V DC version is preferred). Note that the 115VAC shelf requires (1) one 500VA AC Inverter which can power up to three (3) 115VAC RM4200 Shelves.

2) The RM4200 requires a space of seven inches of vertical rack space, plus one inch above and below the shelf for convection cooling. 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 these shelves, refer to the Engineering Manual Section EMA13-01-DSM-2, PEC code 905-5222-00N.

RUL21 1) The NT7M-Series Digital Announcer (DA) from the Cook Division of Northern Telecom Inc. may be provided as a desk top or rack mount unit. This unit may be used as an adjunct announcer to the DMS- 100F internal MTM mounted Digital Recorded Announcer Machine (DRAM) for remote offices.

2) The DMS100F approved configuration of the NT7M-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: 1.75 inches
Width: 17.5 inches
Depth: 12.0 Inches

3) The NT7M00-Series single channel CDA shall be powered from the MIS frame FSP via a 2amp fuse.

4) Refer to the Engineering Manual Section EMA13-01-CDA-1 for detailed engineering information on the NT7M00-Series of CDA configurations.

RUL22 1) Provide the Cook Division Pre-Recorded MSGs Cassette Tape (213404) per Telco specifications to provide industry

standard telephone announcements for either male or female voice message applications. This tape may be used with any recorded announcement system (analog or digital).

(2) Each announcement is approximately ten seconds in length. One side of the tape has all messages recorded in a male voice and the other side has the same messages recorded in a female voice. There are 54 messages per side.

RUL23 1) Provision the NT7X76AA WTA Panel for Wideband Test Access, NT7X76BA WTA Panel (Dedicated LTU/MTU) for dedicated LTU/MTU applications.

The Wideband Test Access (WTA) Panel will replace the use of the Main Distributing Frame (MDF) for metallic cross-connecting of test circuits (such as the Line Test Unit/Multiline Test Unit (LTU/MTU)), Metallic Test Access (MTA), and line equipment in DMS offices.

The WTA Panel is a cross-connect panel which will provide the metallic cross-connect capability for the testing of DMS wideband subscriber services such as ISDN and Datapath as well as existing voice frequency DMS-100 subscriber services. It is mandatory for the testing of Datapath service. The existing MDF cabling method cannot support the testing of these services mainly because of the transmission impairment caused by the excessive switching office cabling.

This method of cross-connecting office wiring for the test circuits, MTA, and test access cables will drastically reduce the amount of office cabling resulting from the existing MDF method.

2) There are two (2) versions of the WTA Panel:

NT7X76AA WTA Panel

NT7X76BA WTA Panel (Dedicated LTU/MTU)

NT7X76AA will allow the cross-connection of up to 30 NT3X09BA MTA circuits in a matrix of three (3) horizontal NT3X09BA rows by ten (10) vertical NT3X09BA columns. This is equivalent to the cross-connection of 24 horizontal test appearances to 80 vertical appearances. The NT3X09BA card has 8 horizontals and 8 verticals.

NT7X76AA will allow the cross-connection of up to 30 NT3X09AA MTA circuits in a matrix of three (3) horizontal

NT3X09AA rows by ten (10) vertical NT3X09AA columns. This is equivalent to the cross-connection of 24 horizontal test appearances to 40 vertical appearances. The NT3X09AA card has 8 horizontals and 4 verticals.

NT7X76BA is similar to NT7X76AA with one exception. The first horizontal test appearance of the 24 horizontal test appearances of the NT7X76BA panel is grouped into five (5) subgroups, each with two (2) horizontal 0's and 16 verticals (if NT3X09BA cards are used for cross-connection purposes) or 8 verticals (if NT3X09AA cards are used for cross-connection purposes). Each horizontal subgroup can have a dedicated LTU/MTU. Hence, up to five (5) dedicated LTU/MTUs can be connected to NT7X76BA. If NT3X09BA cards are used, each dedicated LTU/MTU will have access to 16 verticals or 8 Line Concentrating Modules (LCMs) within each horizontal subgroup 0.

3) The NT7X76AA WTA Panel will not be used for the dedicated LTU/MTU function.

   The NT7X76BA WTA Panel (Dedicated LTU/MTU) will be used for the dedicated LTU/MTU function.

   The NT7X76AA will also be used if the office requires more than one (1) (horizontal) row of WTA Panels or more than 24 horizontal test appearances.

4) The number of WTA Panels can be expanded horizontally (in rows) and/or vertically (in columns) in a matrix.

   For offices without dedicated LTU/MTUs, only NT7X76AA would be required for expansion both horizontally and vertically.

   For offices with dedicated LTU/MTUs, the first row of WTA Panels would be of the NT7X76BA type. If connection to more dedicated LTU/MTUs was required, NT7X76BA Panels would be used for the second row of WTA Panels. Otherwise, the NT7X76AA Panel should be used. Our current standard is to have dedicated LTU/MTUs on the first row of the matrix of WTA Panels (i.e. NT7X76BA) and not to have dedicated LTU/MTUs on the second and all subsequent rows of the matrix of WTA Panels (i.e. NT7X76AA).

5) The WTA Panel will replace the Intermediate Distribution Frame (IDF) for the testing of the universal SLC 96 subscriber loop carrier system which uses an AT&T test tool called Pair Gain Test Controller (PGTC).

The existing engineering rules for the use of the IDF should be applied to the use of the WTA Panel. For more information, see ECM-276 on subject 8X8 Metallic Test Access Circuit Pack, NT3X09BA.

6) The WTA panel will mount on the Miscellaneous Equipment (MIS) Frame NT0X02AB. With the panel mounted on an MIS frame within the DMS equipment frame lineups, all the cabling to the MDF will be eliminated and this will result in much shorter office wiring for the testing of subscriber services.

   For initial and extension offices requiring new MIS Frames, the WTA Panels should be mounted on standard shelf positions 65,51,32,18, and 04 first on the front and then on the back of the MIS Frame. Hence, up to a maximum of ten (10) WTA Panels can be equipped on one (1) MIS Frame.

   For ease of engineering cables, the WTA Panels will be assigned from the top position down on the MIS Frame.

   Although a Frame Supervisory Panel (FSP) is not required for the WTA Panel, an FSP can be mounted in shelf position 45 if other devices (which can mount on the MIS Frame) require an FSP. Hence, if the MIS Frame is not fully provisioned with WTA Panels, other valid hardware units can be mounted.

   For installation on existing MIS Frames in existing offices, the WTA Panels can be mounted on any available shelf position of the MIS Frame, preferably the top shelf positions.

7) To minimize the office wiring required for line testing, the Maintenance Trunk Modules (MTM) that are provisioned with NT3X09AA/BA cards and LTU/MTUs should be reduced to a minimum and placed in the adjacent TME/DCE Frames next to the MIS Frames containing WTA Panels.

   The Line Concentrating Equipment Frames (LCE) and ISDN Line Concentrating Equipment Frames (LCEI) should be clustered around the MIS Frames containing WTA Panels in order to minimize the cabling to these panels.

   Hence, the signal loss caused by office wiring should be reduced to the minimum that is possible. The signal loss should be less than one (1) db in most offices.

8) Discrimination Numbering

WTA Panels NT7X76AA/BA will be numbered from 000 on up (e.g. WTA 000, WTA 001, etc.).

RUL24 1) Provision NTAN1_AA RTU based on number of lines and testing requirements, for testing subscriber loop circuits via CALRS (please contact Prism Systems Engineering Department for final configuration). This unit requires a 5 amp fuse for CO Battery and a 2 amp fuse for Alarm Battery.

2) Refer to Engineering Manual Section for NTAN1_AA for more details.

3) The RTU requires 20 inches (50.8 cm) of vertical rack space, 4 inches (10.16 cm) of cooling space above and below the unit.

RUL25 1) Provide mounting adapters NT0J04DD to convert the LTC/RTU from 23" mounting to 26" mounting, when mounting unit in an NT0X02AB type frame.

RUL26 1) Provide one (1) NTAN60AA to test lines in a Remote or Pair-Gain device from CALRS.

The DRTU is used as a slave device with the Local Test Cabinet or Remote Test Unit (XFM or AMH). The DRTU is approved for the following Digital Remotes: (1) RSC (2) RLM (3) RLCM (for RSE/RME frame mounting).

RUL27 1) Provide mounting adapter when mountin NTAN60AA in an RME frame.

REMOTE MISCELLANEOUS EQPT FRAME W/PDC
UNIVERSAL FRAMEWORK

PEC CODE: NTZZ15AA

CPC CODE: B0232197

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZZ15BA

ABBREVIATION NAME: RME

ENGINEERING DESCRIPTION: This Building Block contains the RME frame. The RME is a general purpose equipment frame which is intended to serve as the Power Distribution Center (PDC) for the RSC Office. The RME accomodates a maximum of 60 Fuses (5, 10, 20, and 30 amp).

In addition, the frame has approximately 44-inches of non-continueous space (7" & 28") to accommodate miscellaneous DMS, common systems and other hardware required in the RSC Office. Grounding hardware provides full flexibility in the use of the frame.

REFERENCE DOCUMENTATION: MS0X02AB 01 30
SLZZ15AA 00 05

MARKETS: Applicable markets:

Canada
US

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

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

NTZZ15AA EMC13-05-001 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.
92 12 07	ECM 618 07	ECD 018-39307 - change NT0X25AV to NT0X25AH framework
93 05 24	ECM 353 02	A&M TCS 1800 Key System
93 09 09	ECM 602 11	NTZZ14HA BBLK for LaMarche Inverter is now MD'd and replaced by the detail code A31-500-48V-A6.
93 11 10	ECM 602 12	The NT0X25AH Earthquake Framework is being renamed to Universal Framework.
94 06 03	ECM 602 14	Changed reference in RUL43 from NT4X25BH to NT4X25DH per ECD 18-38830.
94 07 12	ECM 602 15	Added NT3X25BB MTA Workaround per ECD 18-42121/ET12919.
94 11 01	ECM 690 04	MD
95 02 15	ECM 690 05	Corrected Replaced by PEC, was ZZ15AB.

The Remote Miscellaneous Eqpt Frame W/PDC Universal Framework is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Miscellaneous Equip. Frame	NT0X02AB		1			AP
Universal Framework	NT0X25AH		1			AP
Ground Panel (5.5")	NT0X42AM		1	72		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 0	1	67		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 1	1	59		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 0	1	63		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 1	1	55		AP
U.L. Frame Supervisory Panel	NT0X40UA	FSP	1	50		AP
20A Filt MIS Frame Supv Pnl	NT0X88AF	FSP	1	45		AP
FSP Cover	P0673914		1	45		AP
U.L. Filter Panel	NT0X42UG		1	12		AP
Spare 10 Amp Fuse	A0315462		1	12		AP
Spare 1-1/3 Amp Fuse	QFF1A		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					RUL1
# LaMarche Inverter	NTZZ14HA					RUL3
Miscellaneous Equipment	VARIOUS					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) If front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) In the DMS main or host office these frames are designated, "MIS", in the DMS RLM office they are designated,"RSE", and in the DMS RLCM and RSC offices they are designated,"RME".

4) Wiring between the NT0X88 FSP and units mounted on the frame shall be connected using loose wiring methods. Leads are to be terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger per by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

Wire color to be as follows:

Red for bat or -48V ABS
Black for bat rtn
Green for alarm leads

Terminals to be specified as follows:
TB2 on NT0X88AF use C0054383
TB1 on NT0X88AF use C0054375
TB3 on NT0X88AF use C0054383

5) In provisioning equipment on this frame the provisioner must take into account the following:

   * The physical height (or effective clearance requirements) and base offset of each unit. Note: Base offset is the distance between the bottom of the unit and its lowest mounting hole.

   * The physical width of the unit and provide mounting adapters where necessary.

   * The power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the power requirements of the equipment to be installed on the frame.

   * Establish or identify the DMS-100F compatibility requirements with any non-DMS unit being provided, if necessary by detailed interface study in accordance with the OEM Procedure 1.04 or the latest issue.

6) For information on the frame doors, refer to Section EMA15-01-002,

7) If a LaMarche Inverter is being added as an extension to an existing MIS frame, the location of existing LaMarche Inverters and the type of grounding cables (1-hole or 2-hole lugs) will be required. In non-ISG applications where 1-hole lugs were used, the NTMX1650 and/or the NTMX1653 cables will be required; if this is an ISG application, the NTMX1651 cable will be required. This should be investigated on a site by site basis.

RULES:

AP 1) When PEC NTZZ15AA is ordered, these items are provided.

RUL1 1) Provision dummy fuse in all unequipped fuse locations.

2) Provision fuses as follows:

   * Eight (8) 20 Amp Fuses Per LCE Frame Provided.

   * Three (3) 20 Amp Fuses and Two (2) 5 Amp Fuse Per RCE Frame Provided.

   * Two (2) 20 Amp Fuse Per RME Frame Provisioned.

* One (1) 30 Amp Fuse Per LaMarche Inverter Provideed.

RUL2 1) RESERVED FOR FUTURE USE.

RUL3 1) Provide one A31-500-48V-A6 LaMarche Inverter per four(4) per Protected AC circuit required which does not exceed 120VAC per connection.

RUL4 1) Provide miscellaneous equipment per office requirements.

2) In provisioning equipment on this frame Job Engineering must:

(i) Take into account the physical height (or effective clearance requirements) and base offset of each unit. (Base offset is the distance between the bottom of the unit and its lowest mounting hole.)

(ii) Take into account the physical width of the unit and provide mounting adapters where necessary.

(iii) Take into account the power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

(iv) Establish the compatibility with DMS of any non-DMS unit being provided, if necessary by detailed interface study and ensure that such units are NTL standardized.

3) Listed below are the more common DMS equipment types which mount on MIS, RSE and RME frames and their associated provisioning rules:

	PEC	EQUIPMENT	EQUIP ON: MIS	RSE/ RME	RULE
#	NT0X87AA	Inverter Unit	*	*	RUL5
	A31-500-48V-A6	LaMarche 500W Inverter	*	*	RUL5
	P0708015	Direct Powering Label	*	*	RUL5
	NTMX1657	LaMarche Frame Grd Kit	*	*	RUL5
	NTMX1665	LaMarche Frame Isolation Kit	*	*	RUL5
	NT2X46AB	Metallic Test Access Unit	*	*	RUL6
	P0588094	Metallic Test Access Unit Cover	*	*	RUL7
	NT1X60AB	Data Set Module	*	*	RUL8
	NT5X08AC	Data Set Module Shelf	*	*	RUL9
	NT3X25AA	Common Equipment Shelf	*	*	RUL10
	NT3X25BA	Terminal Block Assembly			RUL11
	NT5X58AA	1A2 Key TEL SYS Stand-Alone UN	*		RUL12
	NT5X85AA	AUD & Visual ALM. EXT CKT	*		RUL13
	M1-1063-901	Pylon RG-2 Ringing Generator	*		RUL13
	P0596114	Mounting Brackets	*		RUL13
	P0148634	Mounting Screws	*		RUL13
	NT5X86AA	AUD Alarm Cutoff Control Unit	*		RUL14
	NT0X9594	Ground Material Assembly	*	*	RUL15
#	NT2X58AE	Remote Service Module		*	RUL17
	NT2X58CF	Remote Service Module		*	RUL17
	NT0X46CG	Intercon Cbls RSM 65 to FSP		65	RUL18
	NT0X46CD	Intercon Cbls RSM 51 to FSP		51	RUL18
	NT0X46CE	Intercon Cbls RSM 32 to FSP		32	RUL18
	NT0X46CF	Intercon Cbls RSM 18 to FSP		18	RUL18
	NT0X95CS	Intercon Cbls ROTL 28 to FSP		28	RUL23
	NT0X8501	Circuit Pack Cage Mounting		*	RUL19
	NT0X8503	Circuit Pack Storage Shelf Assy		*	RUL19
	NT3X55AA	Line Card Storage Chassis Assy		*	RUL20
	NT3X55BA	Line Card Storage Chassis Assy		*	RUL20
#	1056	ROTL Power Supply	*		RUL21
#	1066-ROTL/52A	ROTL	*		RUL21
	NT0X0013	Isolated Hardware Mounting Screws	*		RUL21
#	1050-4W-TST	Optional 105 Test LN/RESP	*		RUL22
#	NT5X95AA	Misc Applique Equipment Shelf	*		RUL24
	NT0X8502	Remote Service Equip Storage Shf		*	RUL25
	NT3X25BB	Line Card Storage Chassis Assy		*	RUL27
	291 System	Tell Labs Fire Report System	*		RUL28
	NT5X74AA	CAMA Units	*		RUL29
	NT5X75AA	Auxiliary CAMA Position (TSPS-TOPS)			RUL29
	NT5X72AB	Central Alarm Applique Circuit	*		RUL32
	NT5X92AB	Alarm Extension Panel		*	RUL33
	62005220	23" DC Redundant Modem Shf (RM16M)	*	*	RUL44
#	NT0J04BA	LTC Mainframe Ash	*	*	RUL49

#	NT0J04BB	LTC Mainframe Brown	*	*	RUL49
	NT0J62BA	LTC 4 Trunk 3 Wire Option	*	*	RUL49
	NT0J63BA	LTC 4 Trunk 4 Wire Option	*	*	RUL49
	NT0J64BA	LTC 16 Trunk 4 Wire Option	*	*	RUL49
	NT0J04DD	26" LTC Mounting Adapters	*	*	RUL49
#	TCS 1800A-1 L1	1A2 Line Card Shelf	*	*	RUL50
#	TCS 1800B-1 L1	BIX Shelf	*	*	RUL51
#	TCS 1603AB-P8	Intercommect Cable (1.2 m long) for 1A2 Line Card Shelf & BIX Shf	*	*	RUL52
#	TCS 1603A	MDF Cable for 1A2 Line Card Shelf	*	*	RUL53
#	TCS 1800M-1 L1	TCS 1800 1A2 Key Telephone System Customer Manual	*	*	RUL54
#	NT0J04EA	Digital Rmt Test Unit (DRTU) Ash		*	RUL55
	NT0J04EB	Digital Rmt Test Unit (DRTU) Brown		*	RUL55
	NT7M00CC	1-Chan 19" 32S RTA STB	*	*	RUL56, 64,65,66
	NT7M00DC	1-Chan 26" 32S RTA BRN	*	*	RUL56, 64,65,66
	NT7M00DB	1-Chan 26" 32S RR/RTA BRN	*	*	RUL56, 64,65,66
	NT7M25CV	4-Chan 19" 64S RTA STB	*	*	RUL56, 64,65,66
	NT7M25EB	4-Chan 26" 64S RTA BRN	*	*	RUL56, 64,66
	NT7M25DG	4-Chan 26" 64S RR/RTA BRN	*	*	RUL56, 64,66
	NT7M25DN	4-Chan 26" 128S RR/RTA BRN	*	*	RUL56, 64,66
	NT7M25EA	4-Chan 26" 128S RR/RTA BRN	*	*	RUL56, 64,66
	292BR-1	Tellabs 292 Conf/Alerting System	*	*	RUL57
	292DR	Tellabs 292 Line Expansion Shelf	*	*	RUL58
	905-5098-001	RM70 Modem Card Cage 120V AC	*	*	RUL60
	905-5118-001	RM80 Data Set Shelf -48V DC	*	*	RUL61
	905-5139-001	RM90 Modem Shelf 125V AC	*	*	RUL62
	905-5222-001	RM4200 Data Set Module 115	*	*	RUL67
	905-5222-003	RM4200 Data Set Module -48V DC	*	*	RUL67
	NT7M29CF	LEC w/1 4L RTA NT Brown	*	*	RUL64
	NT7M29CG	LEC w/2 4L RTA NT Brown	*	*	RUL64
	NT7M29CB	LEC w/1 4L RTA Silver Tone BLK	*	*	RUL64
	NT7M29CC	LEC w/2 4L RTA Silver Tone BLK	*	*	RUL64
	NT7M26CA	3CAE Kit W/O 4L RTA Silver Tone	*	*	RUL65
	NT7M26DA	3CAE Kit W/4L RTA Silver Tone	*	*	RUL65
	NT7M26GA	3CAE Kit W/O 4L-RTA NT Brown	*	*	RUL65
	NT7M26HA	3CAE Kit W/4L RTA NT Brown	*	*	RUL65
	21340431	Prerecorded MSGS Cassette Tape	*	*	RUL66
	NT7X76AA	WTA Panel	*	*	RUL72
	NT7X76BA	WTA Panel (Dedicated LTU/MTU)	*	*	RUL72

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X87AA	MD	A31-500-48V-A6
NTZZ14HA	MD	A31-500-48V-A6
NT0J04BA	MD	NT0J04BB
NT0J04BB	MD	NT0J63BA
NT0J04BB	MD	NT0J62BA
NT0J04BB	MD	NT0J64BA
NT0J04EA	MD	NT0J04EB
TCS 1800A-1 L1	A&M	NTZX18AB NORSTAR
TCS 1800B-1 L1	A&M	NTZX18AB NORSTAR
TCS 1603AB-P8	A&M	NTZX18AB NORSTAR
TCS 1603A	A&M	NTZX18AB NORSTAR
TCS 1800M-1 L1	A&M	NTZX18AB NORSTAR

RUL5 1) Provide the LaMarche unit for all US and Canadian Applications per RUL#5 Items 2 thru 6. RUL#5 Items 7.1 through 7.7 are available for historical purposes.

2) Provide the LaMarche Inverter Unit on new jobs in lieu of the NT0X87AA inverter. This unit will terminate up to four (4) AC-powered units not to exceed 120VAC output. This unit requires one (1) 30-Amp fuse (NT0X42AS) at the PDC.

3) When installing the LaMarche Inverter unit in a rack mounted configuration the following items must be considered:

* 4-inches (2 above and below the unit) must be reserved for cooling on initial jobs. However, when replacing an existing NT0X87AA inverter this spacing may be reduced to 1" above and below the unit to allow the LaMarche to fit in the space vacated by the NT0X87AA.

* One P0708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

* In ISG applications of the LaMarche Inverter, provide one (1) NTMX1665 (LaMarche Frame Isolation Kit) per inverter installed in a modem frame. In this configuration, the LaMArche Inverter is isolated from the framework ground and grounded from the ground stud of the

inverter to the Vertical Logic Bar. An application of this configuration would be the powering of AC powered modem shelves.

* In Non-ISG applications of the LaMarche Inverter for a Non-Modem frame, provide one (1) NTMX1657 (LaMarche Frame Ground H/W Kit) per inverter installed. The LaMarche Inverters mounted in an non-ISG application are grounded to the Frame Bonding Bar. This configuration allows for AC outlets to be located in the END Guard Panels.

4) Provide one (1) Inverter Unit for each NT1X60AA Data Set Shelf, Recorded Announcement Module and MAPS.

5) For Modem Pooling applications provide up to two (2) A31-500-48V-A6 LaMarche Inverter Units. Assume one (1) inverter can power up to twelve (12) data units.

6) When office is to be equipped with the Commercial AC Free option, provision one MIS frame in every odd lineup equipped with one LaMarche inverter to power receptacle mounted in end guards of each odd lineup if required. This rule also applies to Canadian applications.

7) For Modem Pooling applications provide up to three (3) NT0X87AA Inverter Units. Assume that one inverter can power up to five (5) data units.

   1. NT0X87AA is not intended to power equipment having high start up surge characteristics such as load AC motors. If required to power equipment exhibiting these characteristics (less than 40A for 1 second) then only outlet J1 is to be used for this purpose.

   2. Care must be taken to ensure that plug J2, J3 and J4 on Inverter (NT0X87AA) are assigned before assigning plug J1. Plug J1 gives an output of approximately 170V A.C. when J2, J3 and J4 are not used. Outlet J1 must not be used to power sensitive electronic equipment. This outlet is to be assigned to Cooling Unit (CU), NT0X30AD, and TTY’s only which require a greater power surge.

   3. Due to the high level of radiate electromagnetic interference attributed to Inverter Units (INV), NT0X87AA, RM and INV units must be equipped on separate frames which are themselves separated by at least one frame.

If mounted on the same frame, an INV and RM must be separated by a minimum of eighteen inches.

4. A two inch space must be left above inverter units to allow sufficient air cooling.

5. When the NT0X87AA Inverter is used in Modem Pooling applications up up to three (3) NT0X87AAs may be provided. One inverter can power up to five (5) stand alone data units.

6. For NT0X87AA Inverter Units the following hardware must be ordered:

   Qty 4 - P0284154 - Metallic Regular Washer
   4 - P0183220 - External Tooth Lock Washer
   4 - P097F813 - Mounting Screws

   This hardware replaces the Isolation Hardware NT0X0013 which is to be discarded.

7) When the inverter is powering external equipment (VDU's, Printers, etc) an AC Mounting Plate (NT0X07AU) may be mounted on the rear of the MIS frame at the same position as the Inverter Unit.

RUL6 1) Provide one (1) NT2X46AB for each ten LM/RLM or LCM's when up to sixteen 2-wire test circuits are provided.

2) A 1" space must be provided between adjacent switches to allow the mounting of a minibar switch cover (P0588094).

3) When an earthquake protected frame is provided, mount Metallic Test Access Unit (NT2X46AB) in position 05 rather than 04 (Job Eng.). For other information on mounting see AD 2X46AB.

RUL7 1) Provide one Metallic Test Access Unit Cover as required for each MTA ordered (NT2X46AB).

RUL8 1) Provide one Data Set Module (DSM), NT1X60AB, as required to accommodate up to sixteen (16) modem cards, equip per MS1X60AB. On new jobs, NT1X60AB is replaced by NT5X09AA.

2) Locate here only if unit cannot be accommodated on MTC or IOE frame (see MS0X43AB, Section EMR5-01-001, MS0X43AC, Section EMR5-01-002, and MS0X43AD, Section EMA5-01-000).

3) This unit is powered by 115V 60 Hz and requires a dedicated INV. The number of inverters required shall be calculated using the following data:

Maximum inverter output is 200 watts.

TYPE I/O EQUIPMENT	DEVICE	POWER CONSUMPTION
Standalone Data Sets	Dial Up NT3X26AA	GDC 103-A3 15 Watts Each
		Rixon 212A 10 Watts Each

RUL9 1) Provide one (1) NT5X08AC Data Set Module Shelf to accommodate up to sixteen 4800 modems (MTX). Equip per MS5X08AC. Locate Data Set Module Shelf with MTX modems within fifty feet of connecting IOC. NT5X08AC shelf requires a space of eleven inches high (14 inches if a cover is provided).

2) A cover may be provided for each NT5X08AC Data Set Module Shelf.

3) Each NT5X08AC Data Set Module Shelf is to be fed by two inverters. One inverter can feed up to two halves of two NT5X08AC.

4) For more information on NT5X08AC, see Section EMA5-01-DSM-1.

RUL10 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accommodate up to 2 stand alone modems and associated data telephone sets or other stand alone units up to a maximum of ten shelves per frame.

2) For Modem Pooling, provide up to five (5) NT3X25AA as required. One NT3X25AA can accommodate up to three (3) data units.

3) Provide a maximum of (10) NT3X25AA per frame.

RUL11 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect MIS frame mounted equipment (for example a bank of modems).

2) Each assembly connects the DF via a 50 pair cable.

3) Provide one (1) NT3X25BA when required, (i.e. Modem Pooling) to cross connect data sets to MDF.

RUL12 1) The 1A2 Key Telephone System Stand Alone Unit (KSS), NT5X58AA, can be provided in DMS-100 and in small DMS-200 and DMS-100/200 offices where the system requirement is not expected to exceed 7 lines and (or) 5 key telephone sets. For larger systems provide 1A2 Key Telephone Systems Module (KSM), NT5X55AA.

2) Maximum two (2) KSS per frame. Equip per MS5X58AA.

RUL13 1) Provide one (1) Alarm Audible and Visual Extension Circuit, NT5X85AA, per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) A Pylon RG-2 Ringing Generator, 20 Hz ringing generator, or equivalent must be provided with the Alarm Audible and Visual Extension Circuit when more than 2 Audible Alarm Panels are provided. Provide one (1) Pylon RG-2 Ringing Generator M1-1063-901, two (2) mounting brackets P0596114 and four (4) mounting screws P0148634.

3) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL14 1) Provide one (1) NT5X86AA in conjunction with an Audible Alarm Cutoff Key Panel, NT5X86AB, when selective audible alarm cutoff control is required. Up to six audible circuits are controlled (see also Section EMA6-01-000). Maximum one circuit per system.

2) NT5X86AB does not mount on Miscellaneous Equipment Frame NT0X02AB. The location is to be determined by the customer.

RUL15 1) Provide one (1) NT0X9594 per MIS, RSE or RME when the frame or any of its contents required grounding. Do not provide when the Power Panel Assembly is provided per RUL16.

2) One (1) NT0X9594 must be provided for each MIS frame that is dedicated for modem equipment. (U.S. applications only)

RUL16 1) RESERVED FOR FUTURE USE.

RUL17 1) For remote offices (Group of RLM’s) not employing the Emergency Stand Alone (ESA) feature, provide one or more Remote Service Module (RSM), NT2X58AF, as required to accommodate

the office maintenance, alarm and service circuits. Provide one RSM for each RLM frame provided when the Emergency Stand Alone feature is provided (check application date for ESA feature). Equip each per MS2X58CF.

2) When a Remote Service Module (NT2X58CF) is provided on the NT0X02AB frame, miscellaneous equipment including additional NT2X58CF shelves may be mounted in the remaining frame positions. Mount miscellaneous equipment toward lower portion of the bay to allow for future growth of service modules at the top. The B fusing is to be 3 amp maximum for each NT2X58CF shelf.

3) Maximum one RSM per RLM and four RSM per RSE.

4) Note, cabling distance between the RSM and Line Drawer (LD) position 19 of the connecting RLM must not exceed 15 feet (4.6 meters).

RUL18 1) Provide one (1) interconnecting cable group for each RSM provided; select according to position of shelf on the RSE frame.

RUL19 1) Provide one or more Circuit Pack Storage Shelf Assy, NT0X8503, consisting of 1 Circuit Pack Cage Assy, NT0X33AA, 20 Inline Card Sliders, P0558097 and 20 Offset Card Sliders, P0558098, to house the spare card requirements of the Remote Office.

2) Provide up to a maximum of five NT0X8503 per NT0X02AB.

3) Provide up to a maximum of five (5) NT0X8501 per job requirement in place of the NT0X8503 circuit pack cage mounting when front doors are required and no space is required directly behind the cage.

RUL20 1) Provide one (1) Line Card Storage Chassis, NT3X55AA, to accommodate up to twenty two (22) Line Cards, NT2X17 and NT2X18 (size 4" x 4") and up to four (4) I/O Bus Interface cards, NT2X16, (size 4" x 6").

2) Provide one (1) Line Card Storage Chassis, NT3X55BA, (used in conjunction with LCE vintage line cards) to accommodate up to thirty (30) single slot Line Cards, or ten(10) double slot and ten(10) single slot line cards. The chassis will also store two (2) line drawer Bus I/F cards.

3) Equip NT3X55AA/BA on shelf NT0X8503. Allow 6" per chassis maximum 4 per shelf.

RUL21 1) When the Remote Office Test Line (ROTL) feature is required, provide one (1) ROTL, the 105 Test Line Units, and one (1) ROTL Power Supply Unit per office.

2) Mount the ROTL and 105 Test Line Unit 1066-ROTL/52A on POS 06. Unit includes mounting adapters.

3) Mount the ROTL Power Supply Unit 1056 on POS 28.

4) Provide twelve (12) Isolated Hardware mounting screws, NT0X0013, to secure the ROTL hardware. (NT0X0013 replaces P097F813)

5) If required, provide one (1) ROTL Spares Kit APC 1066-SPK, (CPC A0300305).

RUL22 1) The optional 105 Test Line is a circuit pack that plugs into the ROTL unit. The first 105 Test Line CP is always provided with the ROTL unit.

2) Provide up to five (5) additional 105 Test Lines as per customer requirements.

3) Starting with slot position A10, the 105 Test Lines are assigned as follows:

Test Line #	1	2	3	4	5	6
Slot Position	A10	A9	A8	A7	A6	A5

NOTE: the 105 Test Line that is always provided with the ROTL unit is assigned in slot A10.

RUL23 1) Provide two (2) interconnect power cables, NT0X95CS, between each ROTL Power Supply Unit and the FSP.

RUL24 1) Provide one (1) NT5X95AA MAE Shelf for offices requiring NT5X97AA Alternate Use Trunk Applique Circuit Packs. Equip per MS5X95AA.

2) This shelf is to be used with NT0X88AD FSP.

3) This shelf requires two (2) 10 amp fuses -48V to PDC.

4) Each shelf may be provisionable with two (2) power converters. A maximum of four (4) power converters is allowable per frame due to FSP limitations.

5) In applications where either or no power converters per shelf are used, a maximum of five (5) shelves may be mounted per frame.

RUL25 1) Provide up to a maximum of five (5) NT0X8502 per job requirement. Only provide on Remote Service Equipment frame.

RUL26 1) Provide one (1) NT5X98AA Auxiliary Fuse Panel when TOPS position requires fusing. Up to thirty TOPS positions can be powered.

RUL27 1) Provide Terminal Block Assembly (NT3X25BB) when required for DMS-250 in place of the DF for cabling and cross connecting.

2) The NT3X25BB may also be provided on the DMS 100/200 to cable MTAs and LCEs to an IDF using the MIS frame. This is called an MTA workaround.

RUL28 1) The Tellabs 291 System as been Manufacturer discontinued.

2) Order FSP NT0X88AF as per RUL1 3).

RUL29 1) Provide as per customer requirements.

2) Order FSP NT0X88AF as per RUL1 3).

3) Used in conjunction with NT5X75AA, NT5X76AA and NT5X77AA per customer requirements. (See Section EMA14-01-000).

RUL30 1) Reserved for future use.

RUL31 1) Reserved for future use.

RUL32 1) Provide one (1) NT5X72AB when NT5X72AA Central Alarm Display Panel is provided in the Alarm Center (see Section EMA6-01-000).

2) NT5X72AB is a 2" high panel mounted on the MIS.

RUL33 1) Provide one (1) NT5X92AB Alarm Extension Panel if at least one (1) NT5X92AA Panel is provided, and/or more than one NT0X63AC panel is provided at a remote site, and/or at least one (1) NT0X64AA Panel is provided (see Section EMA6-01-000).

2) NT5X92AB is a 2" high panel mounted on the RSE.

RUL34 1) Provide one (1) DS-5 Modem Shelf, NT5X09AA when modem pooling (Canadian applications) is a requirement. The DS-5 modem shelf will be powered from the Frame Supervisory Panel, NT0X88AA, using the two (2) ten amp fuses.

2) For each DS-5 shelf provided, provide two (2) mounting adaptors 19" x 10-1/2", P0613367, ten (10) PH Taptite Screws, P097F812, and ten (10) PHM Screws, P0148634.

3) For more information on NT5X09AA, see section EMA5-01-DSM-2.

RUL35 1) RESERVED FOR FUTURE USE

RUL36 1) For Modem Pooling (U.S. applications), provide one (1) DS-1 AC powered modem card cage to house up to sixteen (16) GDC modems. Maximum two (2) per DU MIS frame.

2) Also provide two (2) mounting brackets for each DS-1.

RUL37 1) For Modem Pooling (U.S. applications), provide one (1) 101-4918-001 shelf to house up to three (3) Data Units. This shelf shall be field modified to include an AC power strip. Power will be derived from an inverter.

RUL38 1) For Modem Pooling (U.S. applications), provide one (1) prewired modular jack block to terminate twelve (12) Data Units, maximum three (3) per DU MIS frame. The blocks mount on top of the frame using one (1) 101-4926-001 bracket. Provide one (1) bracket per block.

RUL40 1) Provide one (1) FSP Cover, P0673914 to protect the FSP from foreign material. This cover requires no additional vertical frame space.

RUL41 1) The TOPS Tone & Scrambler scrambles the speech of a subscriber as 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.

2) The NT3J00AA card cage is seven (7) inches high and twenty six (26) inches wide. The NT3J00AB is packaged on a double wide circuit pack and should be located in odd slots 03 through 21. Spread all scrambler CPs evenly over all card cages. An NT3J0044 power supply is always provided in slot 01 of the card cage.

3) The NT3J00AA card cage should be fused at 1 1/3 amps with power terminations at the FSP on TB1-11 (-48V) and TB1-12 (GND) using 22AWG wire.

4) The NT3J00AA card cage is cabled to the distributing frame via three (3) NT0X26UE 50 pin connectorized cables.

RUL42 1) The NT3J00BA applique shelf is a multifunctional custom designed circuit pack holder used at present for loop test applications.

2) The NT3J00BA applique shelf is seven (7) inches high by twenty six (26) inches wide.

3) Refer to Engineering Manual Section EMA13-01-MLTS-1 for more details.

RUL43 1) Provide one (1) Data Unit Rackmount LS Shelf on the MIS Frame to accommodate up to sixteen (16) data units (U.S. applications only).

2) For more information on the Data Unit Rackmount LS shelf, NT4X25DH, see Section EMA5-02-DRS-2.

RUL44 1) Provide one (1) 62005220 23" DC Modem Shelf (RM16M) to accommodate up to sixteen UDS modem cards. (U.S. applications only)

2) 62005220 shelf requires a space of seven inches high.

3) The mounting adapters to convert the unit from 23" to 26" are always provided by UDS.

RUL45 1) Miscellaneous hardware such as ROTL Units, MTD’s, Inactive System Timing Circuit etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in Miscellaneous Frame (NT0X02AB).

3) The following equipment (which mounts on a Miscellaneous Frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a MIS frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC DESCRIPTION

NT5X69AA - Inactive System Timing Circuit
NT5X58AA - 1A2 Key Telephone System
NT5X55AA - 1A2 Key Telephone System Module
NT5X09AA - Data Set (Modem) Shelf
NT5X08AA - AC Modem Assy Modified Shelf
* NT0X87AA - Inverter Unit
NT3X25AA - Common Equipment Shelf

* For NT0X87AA Inverter Units (on non-dedicated MIS frames for modems) the following hardware must be ordered:

Qty 4 - P0284154 - Metallic Regular Washer
4 - P0183220 - External Tooth Lock Washer
4 - P097F813 - Mounting Screws

This hardware replaces the Isolation Hardware NT0X0013 which is to be discarded.

The inactive system timing circuit must be powered from an inverter mounted on the same MIS frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.

RUL46 1) For Isolated System Grounding (ISG), one (1) NT4X2591 Data Unit Grounding and Mounting Hardware Kit is provided per DC Modem Shelf. (U.S. applications only)

RUL47 1) The RM46A1 shelf and its associated cards have been Manufacture Discontinued, however, the following information is retained for historical purposes.

2) Provide one (1) 905-5060-01 RM46A1 Data Mounting Shelf to provide a mounting enclosure for Data Auxiliary Sets, which provides 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.

3) 905-5060-01 shelf requires a vertical space of seven inches high.

4) Provide one each mounting adapters 615-1022-01 and 615-1051- 01 to convert the unit from 19" to 23" and 23" to 26", respectively.

5) Provide one (1) A31-500-48V-A6 LaMarche Inverter per RULE 5 for every twelve 905-5060-01 RM46A1 shelves provided. Use connectors J2-J4 on the Inverter as per RUL5.

6) Refer to 905-5060-01 Engineering Manual Section for more detailed engineering information.

RUL48 1) The A0318217 Auxiliary Data Set has been Manufacture Discontinued, however, the following information is retained for historical purposes.

2) Provide one (1) A0318217 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.

3) Provide one (1) A0318217 per stand alone or rack mounted modem configured for four-wire Private Leased Line operation on non-loaded or loaded lines.

RUL49 1) Provide one (1) NT0J62BA/NT0J63BA/NT0J64BA LTC along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery. Refer to Engineering Manual Section EMA11-02-000 for more details on the NT0J6_BA LTC.

2) Refer to Engineering Manual Section EMR11-02-001 for more details on the NT0J04BA (Ash LTC).

3) Refer to Engineering Manual Section EMR11-02-000 for more details on the NT0J04BB (Brown LTC).

4) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

5) Provide mounting adapters NT0J04DD to convert the unit from 23" mounting to 26" mounting, when mounting unit in a NT0X02AB type frame.

RUL50 1) Provide one (1) FSP NT0X88AB/AD/AF as per RUL1 1).

2) Provide one (1) QFF1C 3 Amp fuse, A0205204 into the FSP per TCS 1800A-1 L1, 1A2 Line Card Shelf.

3) Provide one (1) TCS 1800A-1 L1, 1A2 Line Card Shelf, to accommodate a maximum of ten (10) TCS 1800AA-1 L1, 1A2 Line Cards.

For systems requiring more than ten (10) lines, order additional TCS 1800A-1 L1, 1A2 Line Card Shelves, as required.

4) Refer to the provisioning rules for the 1A2 Line Card Shelf, TCS 1800A-1 L1.

5) Mounting brackets are not required.

RUL51 1) Provide one (1) TCS 1800B-1 L1, BIX Shelf, to provide a cross connect facility at the MIS frame for multiple Logic 10/20 phones or Communication Modules.

2) This shelf can accommodate a maximum of three (3) TCS 1800BA- 1 L1, BIX Modules.

3) Mounting brackets are not required.

4) This shelf is not required when the main distribution frame (MDF) is used as the cross connect facility.

5) Refer to the provisioning rules for the BIX Shelf, TCS 1800B- 1 L1.

RUL52 1) Provide two (2) TCS 1603AB-P8 Interconnect Cable to connect one (1) 1A2 Line Card Shelf to its associated BIX Shelf.

2) Provide two (2) TCS 1603AB-P8 Interconnect Cable when multiplying one BIX Shelf to another BIX Shelf.

3) In each of the above cases, one TCS 1603AB-P8 Interconnect Cable is required for the first five (5) line card appearances and the second cable is required for the second five (5) line card appearances.

RUL53 1) Provide two (2) TCS 1603A MDF Cables (specify length in metres) for each 1A2 Line Card Shelf to cable it to the MDF when cross connections to multiple Logic 10/20 or Communication Module is required at the MDF.

2) One of these MDF Cables is required for the first five (5) line card appearances and the second cable is required for the second five (5) line card appearances from the 1A2 Line Card Shelf.

3) These cables are not required when the BIX Module is used as a local cross connection facility.

RUL54 1) When the TCS 1800 Key Telephone System is provided, provide one (1) TCS 1800M-1 L1 Customer Manual as required.

RUL55 1) The DRTU is available only in the preferred offering of DMS brown. Provide the DRTU to enable the NSSD model 3703-03 Local Test Cabinet (located in the host office) to test subscriber lines connected to a DMS Digital Remote Office or Pair Gain Device (eg. DMS1 Line).

2) The DRTU is approved for the following Digital Remotes: (1) RSC (2) RLM (3) RLCM (for RSE/RME frame mounting).

RUL56 1) The NT7M-Series Digital Announcer (DA) from the Cook Division of Northern Telecom Inc. may be provided as a desk top or rack mount unit This unit may be used as an adjunct announcer to the DMS-100F internal MTM mounted Digital Recorded Announcer Machine (DRAM) for remote offices.

2) The DMS100F approved configuration of the NT7M-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: 1.75 inches (for the NT7M00-Series CDA)
Height: 3.50 inches (for the NT7M25-Series CDA)
Width: 17.5 inches
Depth: 12.0 Inches

3) The NT7M00-Series single channel CDA shall be powered from the MIS frame FSP via a 2amp fuse.

4) The NT7M25-Series four channel CDA shall be powered from the MIS frame FSP via a 4amp fuse.

5) Refer to the Engineering Manual Section EMA13-01-CDA-1 for detailed engineering information on the NT7M00-Series of CDA configurations.

6) Refer to the Engineering Manual Section EMA13-01-CDA-2 for detailed engineering information on the NT7M25-Series of CDA configurations.

RUL57 1) Provide the Tellabs 292BR-1 as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs 292BR-1 provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs 292BR-1 has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide two (2) each P0701390 mounting brackets per 292BR-1 provided.

5) Order FSP NT0X88AF as per RUL1 Item 3).

RUL58 1) Provide one (1) 292DR per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the 292BR-1.

2) Provide two (2) each P0701390 mounting brackets per 292DR provided.

RUL59 1) The RM40A/B is Manufacture Discontinued, however, the following information is retained for historical purposes.

2) The Rixon Data Set Shelf (RM40A/B) is a 16 slot data set card mounting enclosure. the shelf is available in a -48V and a 117V AC version (where the -48V version is preferred).

3) The RM40A/B mounts a maximum of 16 single slot data set cards, 8 dual slot data set cards, or other combinations thereof totalling 16 cards slots used but not necessarily equipped with a modem.

4) The RM40A/B requires a space of seven inches high.

5) For more information on the RM40A/B -48V version, refer to section on 905-5121-004.

6) For more information on the RM40A/B 117V AC version, refer to section on 905-5121-001. Note this shelf requires protected AC via an inverter.

RUL60 1) The Rixon Data Set Shelf (RM70) is a 16 slot data set shelf used to mount eight (8) each of the following modems: R103J, R201C, Executive 212A, Intelligent R212A, or any combination of these modems totalling eight (8) dual slot modems per RM70 modem shelf.

2) Protected AC is required for this shelf.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM70 require seven (7) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5098-001 for more detailed engineering information.

RUL61 1) The Rixon RM80 is a rack mounted card cage equipped with 16 card slots and power supply. The shelf is used by NTI to house up to eight (8) CA208A/B modems.

2) Protected AC is required for this shelf.

3) All telephone and telephone line connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM80 requires fourteen (14) inches of vertical mounting space and adapters for 26" MIS frame mounting.

5) Refer to section on 905-5118-001 for more detailed engineering information.

RUL62 1) The Rixon RM90 is a rack mounted card cage equipped with 18 card slots and power supply. The shelf is used by NTI to house up to nine (9) R96 modems.

2) Protected AC is required for this shelf.

3) All telephone, telephone line, and test connections are made directly to the modem. Card cage power is provided by a 3-prong capture AC power cord.

4) The RM90 requires 10.5 inches of vertical mounting space and adaptersw for 26" MIS frame mounting.

5) Refer to section on 905-5139-001 for more detailed engineering information.

RUL63 1) Provide one (1) U.L. Power Panel Assembly when the RSE/RME is to function as the power distribution center for the RLM, RLCM or RSC office (U.S. Applications Only). The U.L. Power Panel Assembly consists of the following items of equipment which are fixed assigned to the frame positions indicated:

EQUIPMENT	PEC	POS
Ground Panel (5.5")	NT0X42AM	72
U.L. Fuse Panel "A" Feed	NT0X42UB	67,59
U.L. Fuse Panel "B" Feed	NT0X42UC	63,55
U.L. Frame Supervisory Panel	NT0X40UA	50
U.L. Filter Panel	NT0X42UG	12
Power Panel Misc Material Assy	NT0X0201	12
Filler Panel Assembly	NT0X42AD	55,59

2) With the basic configuration provide one (1) NT0X42UB and one (1) NT0X42UC in shelf positions 67 and 63 respectively to accommodate the first fifteen (15) distribution circuits on each feed.

3) Provide one (1) additional panel of each type as required in POS 55 and 59 to accommodate the next fifteen (15) circuits on each feed. If not, provide two (2) Filler Panel Assemblies, NT0X42AD, in these locations.

4) Provide one (1) spare 10 amp fuse, A0315462 and one (1) spare QFF1A 1-1/3 amp fuse, A0205202 per filter panel, NT0X42UG.

RUL64 1) The NT7M29-Series Line Expansion Chassis (LEC) may be provided in conjunction with the NT7M00 or NT7M25-Series Cook Digital Announcer (CDA) to expand the number of lines having simultaneous access to the CDA. The LECs may be daisy-chained together up to a maximum of 50 LECs.

2) Fifty LECs provides connection of up to 150 subscribers lines on a Single Channel CDA, or up to 200 subscriber lines on the Four channel CDA.

3) The physical dimensions of the LEC are as follows:

Height: 1.75 inches
Width: 17.5 inches
Depth: 12.0 Inches

RUL65 1) The NT7M26-Series 3-Channel Audio Expansion Kit (3CAE) may be provided in conjunction with the NT7M00-Series Cook Digital Announcer (CDA) to expand the number of audio outputs from one to four, making a Single Channel CDA into a Four Channel CDA.

2) The physical dimensions of the 3CAE are as follows:

Height: 1.75 inches
Width: 17.5 inches
Depth: 12.0 Inches

RUL66 (1) Provide the Cook Division Pre-Recorded MSGs Cassette Tape (213404) per Telco specifications to provide industry standard telephone announcements for either male or female voice message applications. This tape may be used with any recorded announcement system (analog or digital).

(2) Each announcement is approximately ten seconds in length. One side of the tape has all messages recorded in a male voice and the other side has the same messages recorded in a female voice. There are 54 messages per side.

RUL67 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 (where the -48V DC version is preferred).

2) The RM4200 requires a space of seven inches of vertical rack space, plus one inch above and below the shelf for convection cooling. 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 905-5222-003.

4) For more information on the RM4200 115VAC version, refer to section on 905-5222-001. Note this shelf requires protected AC as follows:

- If the NT0X87AA Inverter is used, then provide one NT0X87AA per 115VAC RM4200 DSM.

- If the LaMarche inverter is used, one LaMarche Inverter can power up to three (3) 115VAC RM4200 Shelves.

RUL68 1) On new jobs provide the NT7F18AA (DTH-ROTL) in lieu of the NT7F20AA for all ROTL applications in all DMS-100 Markets.

2) The NT7F18AA is fused from the PDC or MIS Frame FSP at 10 amps.

3) The NT7F18AA requires 14-inches plus 5-inches above and below the unit for cooling purposes for a total of 25-inches of vertical MIS frame space.

4) Refer to the NT7F18AA Engineering Manual Section for DTH-ROTL provisioning details.

RUL69 1) Provide one (1) NTNX5109 TOPS MPX mounting hardware per Miscellaneous Frame used in TOPS MPX applications. (This kit contains hardware for a fully equipped TOPS MPX Miscellaneous Frame). A TOPS MPX Miscellaneous frame cannot house other miscellaneous equipment than that dedicated for TOPS MPX. A TOPS MPX Miscellaneous Frame does not require an FSP. (Reference Figure 1)

RUL70 1) For the TOPS MPX system, one token ring contains from 1 to 20 operator positions (16 recommended). Each frame may contain a maximum of four (4) token rings. Refer to NTNX51BA for further TOPS MPX provisioning.

2) Provide three (3) MAUs per token ring required.

3) Provide two (2) P0709734 MAU adapter brackets per token ring. (Two brackets will accomdate the mounting of three (3) MAUs).

4) Provide one (1) NTNX5103 TOPS MPX BIX Block assembly per token ring.

RUL71 1) Provide one (1) P0702320 BIX Block adapter bracket per each two (2) TOPS MPX BIX Block assembly (NTNX5103). (One bracket accomdates two (2) BIX Block assemblies).

RUL72 1) Provision the NT7X76AA WTA Panel for Wideband Test Access, NT7X76BA WTA Panel (Dedicated LTU/MTU) for dedicated LTU/MTU applications. Provision the NT0X31AE Cable Trough on the MIS frame when WTA panels are present to accomodate the large quantity of cables.

The Wideband Test Access (WTA) Panel will replace the use of the Main Distributing Frame (MDF) for metallic cross-connecting of test circuits (such as the Line Test Unit/Multiline Test Unit (LTU/MTU)), Metallic Test Access (MTA), and line equipment in DMS offices.

The WTA Panel is a cross-connect panel which will provide the metallic cross-connect capability for the testing of DMS wideband subscriber services such as ISDN and Datapath as well as existing voice frequency DMS-100 subscriber services. It is mandatory for the testing of ISDN and is recommended for the testing of Datapath service. The existing MDF cabling method will not be able to support the testing of these services mainly because of the transmission impairment caused by the excessive switching office cabling.

This method of cross-connecting office wiring for the test circuits, MTA, and test access cables will drastically reduce the amount of office cabling resulting from the existing MDF method.

2) There are two (2) versions of the WTA Panel:

NT7X76AA WTA Panel

NT7X76BA WTA Panel (Dedicated LTU/MTU)

NT7X76AA will allow the cross-connection of up to 30 NT3X09BA MTA circuits in a matrix of three (3) horizontal NT3X09BA rows by ten (10) vertical NT3X09BA columns. This is equivalent to the cross-connection of 24 horizontal test appearances to 80 vertical appearances. The NT3X09BA card has 8 horizontals and 8 verticals.

NT7X76AA will allow the cross-connection of up to 30 NT3X09AA MTA circuits in a matrix of three (3) horizontal NT3X09AA rows by ten (10) vertical NT3X09AA columns. This is equivalent to the cross-connection of 24 horizontal test appearances to 40 vertical appearances. The NT3X09AA card has 8 horizontals and 4 verticals.

NT7X76BA is similar to NT7X76AA with one exception. The first horizontal test appearance of the 24 horizontal test appearances of the NT7X76BA panel is grouped into five (5) subgroups, each with two (2) horizontal 0's and 16 verticals (if NT3X09BA cards are used for cross-connection purposes) or 8 verticals (if NT3X09AA cards are used for cross-connection purposes). Each horizontal subgroup can have a dedicated LTU/MTU. Hence, up to five (5) dedicated LTU/MTUs can be connected to NT7X76BA. If NT3X09BA cards are used, each dedicated LTU/MTU will have access to 16 verticals or 8 Line Concentrating Modules (LCMs) within each horizontal subgroup 0. If NT3X09AA cards are used,

each dedicated LTU/MTU will have access to 8 verticals or 4 LCMs within each horizontal subgroup 0.

3) The NT7X76AA WTA Panel will not be used for the dedicated LTU/MTU function.

   The NT7X76BA WTA Panel (Dedicated LTU/MTU) will be used for the dedicated LTU/MTU function.

   The NT7X76AA will also be used if the office requires more than one (1) (horizontal) row of WTA Panels or more than 24 horizontal test appearances.

4) The number of WTA Panels can be expanded horizontally (in rows) and/or vertically (in columns) in a matrix.

   For offices without dedicated LTU/MTUs, only NT7X76AA would be required for expansion both horizontally and vertically.

   For offices with dedicated LTU/MTUs, the first row of WTA Panels would be of the NT7X76BA type. If connection to more dedicated LTU/MTUs was required, NT7X76BA Panels would be used for the second row of WTA Panels. Otherwise, the NT7X76AA Panel should be used. Our current standard is to have dedicated LTU/MTUs on the first row of the matrix of WTA Panels (i.e. NT7X76BA) and not to have dedicated LTU/MTUs on the second and all subsequent rows of the matrix of WTA Panels (i.e. NT7X76AA).

5) The WTA Panel will replace the Intermediate Distribution Frame (IDF) for the testing of the universal SLC 96 subscriber loop carrier system which uses an AT&T test tool called Pair Gain Test Controller (PGTC).

   The existing engineering rules for the use of the IDF should be applied to the use of the WTA Panel. For more information, see ECM-276 on subject 8X8 Metallic Test Access Circuit Pack, NT3X09BA.

6) The WTA panel will mount on the Miscellaneous Equipment (MIS) Frame NT0X02AB. With the panel mounted on an MIS frame within the DMS equipment frame lineups, all the cabling to the MDF will be eliminated and this will result in much shorter office wiring for the testing of subscriber services.

   For initial and extension offices requiring new MIS Frames, the WTA Panels should be mounted on standard shelf positions 65,51,32,18, and 04 first on the front and then on

the back of the MIS Frame. Hence, up to a maximum of ten (10) WTA Panels can be equipped on one (1) MIS Frame.

For ease of engineering cables, the WTA Panels will be assigned from the top position down on the MIS Frame.

Although a Frame Supervisory Panel (FSP) is not required for the WTA Panel, an FSP can be mounted in shelf position 45 if other devices (which can mount on the MIS Frame) require an FSP. Hence, if the MIS Frame is not fully provisioned with WTA Panels, other valid hardware units can be mounted.

For installation on existing MIS Frames in existing offices, the WTA Panels can be mounted on any available shelf position of the MIS Frame, preferably the top shelf positions.

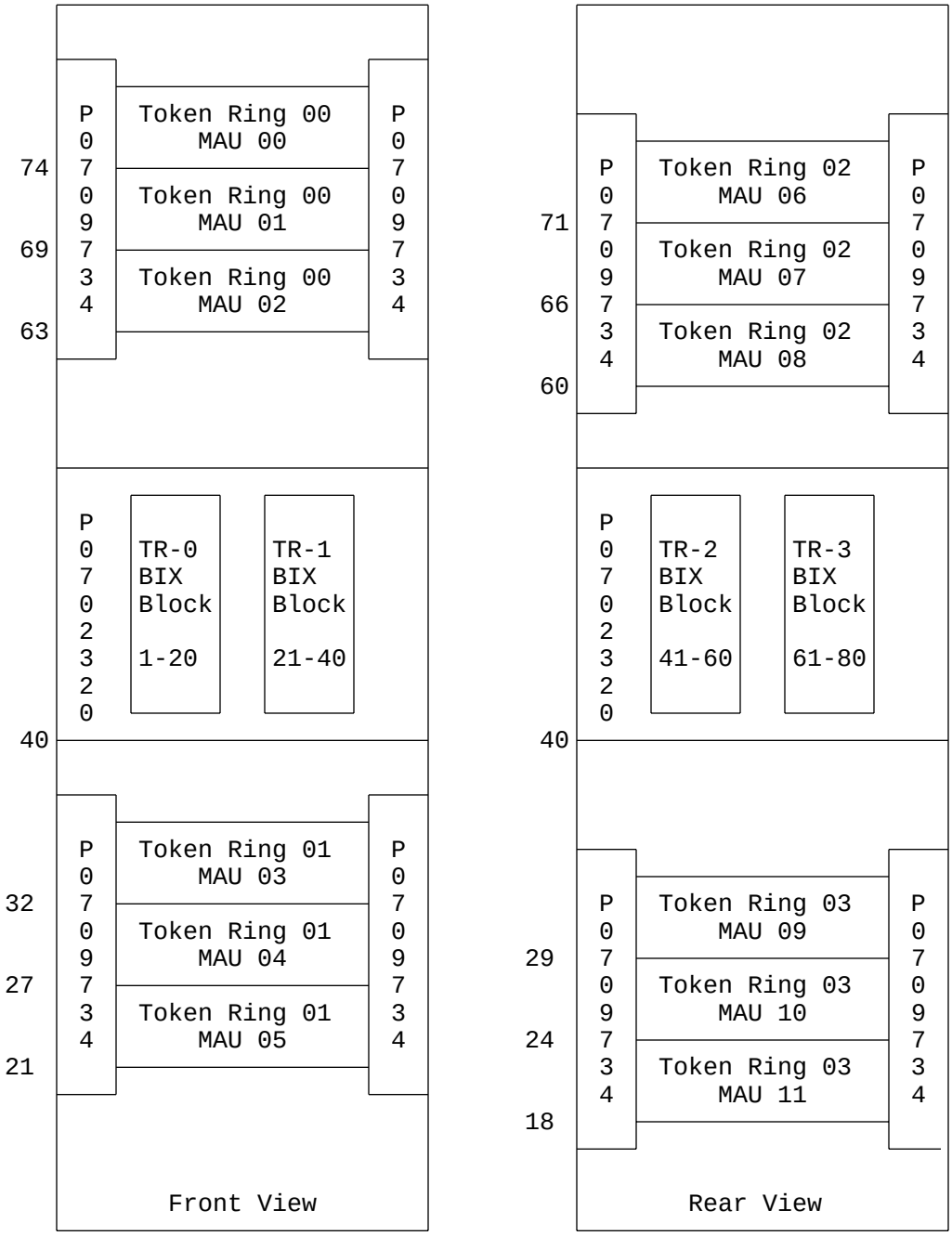
7) To minimize the office wiring required for line testing, the Maintenance Trunk Modules (MTM) that are provisioned with NT3X09AA/BA cards and LTU/MTUs should be reduced to a minimum and placed in the adjacent TME/DCE Frames next to the MIS Frames containing WTA Panels.

The Line Concentrating Equipment Frames (LCE) and ISDN Line Concentrating Equipment Frames (LCEI) should be clustered around the MIS Frames containing WTA Panels in order to minimize the cabling to these panels.

Hence, the signal loss caused by office wiring should be reduced to the minimum that is possible. The signal loss should be less than one (1) db in most offices.

8) Discrimination Numbering

WTA Panels NT7X76AA/BA will be numbered from 000 on up (e.g. WTA 000, WTA 001, etc.).



TOPS MPX Miscellaneous Frame Layout
Figure 1

REMOTE MISCELLANEOUS EQPT FRAME W/PDC NTZZ15CA
US APPLICATIONS - COMMON FRAMEWORK

RATING: MD. Replaced By NTZZ15DB

ABBREVIATION NAME: RME

ENGINEERING DESCRIPTION: This Building Block contains the RME frame. The RME is a general purpose equipment frame which is intended to serve as the Power Distribution Center (PDC) for the RSC Office. The RME accomodates a maximum of 60 Fuses (5, 10, 20, and 30 amp).

In addition, the frame has approximately 44-inches of non-continueous space (7" & 28") to accommodate miscellaneous DMS, common systems and other hardware required in the RSC Office. Grounding hardware provides full flexibility in the use of the frame.

REFERENCE DOCUMENTATION: SLZZ15CA 00 01
NTZZ15CA REL 01

The Remote Miscellaneous Eqpt Frame W/PDC US Applications - Common Framework is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Miscellaneous Equip. Frame	NT0X02AB		1			AP
Common Framework	NT0X25AA		1			AP
Ground Panel (5.5")	NT0X42AM		1	72		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 0	1	67		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 1	1	59		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 0	1	63		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 1	1	55		AP
U.L. Frame Supervisory Panel	NT0X40UA	FSP	1	50		AP
20A Filt MIS Frame Supv Pnl	NT0X88AF	FSP	1	45		AP
FSP Cover	P0673914		1	45		AP
U.L. Filter Panel	NT0X42UG		1	12		AP
Spare 10 Amp Fuse	A0315462		1	12		AP
Spare 1-1/3 Amp Fuse	QFF1A		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					RUL1
Common Equipment Shelf	NT3X25AA					RUL2
LaMarche Inverter	NTZZ14HA					RUL3

NOTES:

1) If front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) In the DMS main or host office these frames are designated, "MIS", in the DMS RLM office they are designated,"RSE", and in the DMS RLCM and RSC offices they are designated,"RME".

4) Wiring between the NT0X88 FSP and units mounted on the frame shall be connected using loose wiring methods. Leads are to be terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger per by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire color to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:
   TB2 on NT0X88AF use C0054383
   TB1 on NT0X88AF use C0054375
   TB3 on NT0X88AF use C0054383

5) In provisioning equipment on this frame the provisioner must take into account the following:

   * The physical height (or effective clearance requirements) and base offset of each unit. Note: Base offset is the distance between the bottom of the unit and its lowest mounting hole.

   * The physical width of the unit and provide mounting adapters where necessary.

   * The power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the power requirements of the equipment to be installed on the frame.

   * Establish or identify the DMS-100F compatibility requirements with any non-DMS unit being provided, if necessary by detailed interface study in accordance with the OEM Procedure 1.04 or the latest issue.

6) For information on the frame doors, refer to Section EMA15-01-002,

RULES:

AP 1) When PEC NTZZ15CA is ordered, these items are provided.

RUL1 1) Provision dummy fuse in all unequipped fuse locations.

2) Provision fuses as follows:

* Eight (8) 20 Amp Fuses Per LCE Frame Provided.

* Three (3) 20 Amp Fuses and Two (2) 5 Amp Fuse Per RCE Frame Provided.

* Two (2) 20 Amp Fuse Per RME Frame Provisioned.

* One (1) 30 Amp Fuse Per LaMarche Inverter Provideed.

RUL2 1) Provide one Building Block NT3X25AA per two modems required or to accomodate standalone units. Provide a maximum of 10 NT3X25AA per frame.

RUL3 1) Provide one Building Block NTZZ14HA per four(4) per Protected AC circuit required which does not exceed 120VAC per connection.

REMOTE MISCELLANEOUS EQUIPMENT FRAME NTZZ15DA
US APPLICATIONS - COMMON FRAMEWORK

RATING: MD. Replaced By NTZZ15DB

ABBREVIATION NAME: RME

ENGINEERING DESCRIPTION: The RME is a general purpose equipment frame which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS Remote office.

REFERENCE DOCUMENTATION: SLZZ15DA 00 01
NTZZ15DA REL 01

The Remote Miscellaneous Equipment Frame US Applications - Common Framework is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Miscellaneous Equipment Fr	NT0X02AB		1			AP
Common Framework	NT0X25AA		1			AP
Terminal Block Assembly	NT3X25BA			77		RUL1
20A Filt RME Frame Supv Pnl	NT0X88AF		1	45		AP
FSP Cover	P0673914		1	45		AP
RME Power Distrib. Module	NTZZ12GA			12		RUL2
Ground Material Assembly	NT0X9548					RUL3
Inverter	NTZZ18BA					RUL4
LaMarche Inverter	NTZZ14HA					RUL4
Metallic Test Access Unit	NTZZ18CA			05		RUL5
Common Equipment Shelf	NT3X25AA					RUL6
Circuit Pack Cage Mounting	NT0X8501					RUL7
CP Storage Shelf Assy	NT0X8503					RUL7
Line Card Storage Ch Assy	NT3X55AA					RUL8
Line Card Storage Ch Assy	NT3X55BA					RUL8
Alarm Extension Panel	NTZZ18DA					RUL9
% LTU Mainframe Brown	NT0J04BB					RUL10
% LTU Mainframe Ash	NT0J04BA					RUL10
% 26" LTC Mounting Adapters	NT0J04DD					RUL10
1A2 Key System	NTZZ14GA					RUL11
$ Dig Rmt Test Unit (DRTU) Ash	NT0J04EA					RUL12
Dig Rmt Test Unit (DRTU) Brn	NT0J04EB					RUL12
Tellabs 292 Conf/Alert Systm	NTZZ18FA					RUL13
Tellabs 292 Line Expnsn Shlf	NTZZ18GA					RUL13
Isolation Hardware	NT0X0013					RUL14
Inactive System Timing Cct	NT5X69AA					RUL15

FLAGS:

% MD. Replaced By NT0J62BA, NT0J63BA, or NT0J64BA. Refer to the Engineering Manual Section NT0J6_BA for detailed provisioning info.

$ MD. Replaced By NT0J04EB

NOTES:

1) If front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) One (1) RME Frame Supervisory Panel, NT0X88AF, is always provided per RME frame. Equip per Section EMA13-01-FSP-4.

3) Wiring between NT0X88AF FSP and units mounted on frame shall be connected using loose wiring methods. Where leads are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire colour to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:

   TB2 on NT0X87AA use C0054383
   TB1 use C0054375
   TB2 use C0054383
   TB3 use C0054383

4) In provisioning equipment on this frame Job Engineering must take into account the following:

   (i) The physical height (or effective clearance requirements) and base offset of each unit. (Base offset is the distance between the bottom of the unit and its lowest mounting hole.)

   (ii) The physical width of the unit and provide mounting adapters where necessary.

   (iii) The power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

   (iv) Establish or identify the DMS-100F compatibility requirements of any non-DMS unit being provided, if

necessary by detailed interface study in accordance with standard OEM Procedures.

5) For information on the frame doors, refer to Section EMA15-01-002.

RULES:

AP 1) When PEC NTZZ15DA is ordered, these items are provided.

RUL1 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect RME frame mounted equipment.

2) Each assembly connects the DF via a 50 pair cable.

RUL2 1) For Canadian applications only, provide one (1) NTZZ12GA RME Power Distribution Module when the RME is to function as the power distribution center for the RLCM or RSC office. U.S. applications are to provide NTZZ15AA Remote Miscellaneous Equipment Frame with PDC for this purpose.

RUL3 1) provide one (1) NT0X9548 per RME when the frame or any of its contents require grounding. Do not provide when the RME Power Distribution Module is provided per RUL2.

RUL4 1) For Canadian applications only, provide NTZZ18BA Inverter as required. NTZZ18BA is not intended to power equipment having high start up surge characteristics such as load AC motors. If required to power equipment exhibiting these characteristics (less than 40A for 1 second) then only outlet J1 is to be used for this purpose.

Care must be taken to ensure that plug J2, J3 and J4 on NTZZ18BA Inverter are assigned before assigning plug J1. Plug J1 gives an output of approximately 170V A.C. when J2, J3 and J4 are not used. Outlet J1 must not be used to power sensitive electronic equipment. This outlet is to be assigned to Cooling Unit (CU), NT0X30AD, and TTYs only which require a greater power surge.

A two inch space must be left above NTZZ18BA Inverter units to allow sufficient air cooling.

2) For U.S. applications only, provide one NTZZ14HA LaMarche Inverter per four (4) Protected AC circuits required which do not exceed 120VAC per connection.

RUL5 1) Provide one (1) NTZZ18CA Metallic Test Access Unit for each ten LM/RLM or LCMs when up to sixteen 2-wire test circuits are provided.

2) A 1" space must be provided between adjacent switches to allow the mounting of the MTA Unit cover.

3) For other information on mounting see AD2X46AB.

RUL6 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accommodate stand alone units up to a maximum of ten shelves per frame.

RUL7 1) Provide one or more Circuit Pack Storage Shelf Assy, NT0X8503, consisting of 1 Circuit Pack Cage Assy, NT0X33AA, 20 Inline Card Sliders, P0558097 and 20 Offset Card Sliders, P0558098, to house the spare card requirements of the Remote Office.

2) Provide up to a maximum of five NT0X8503 per NTZZ15DA.

3) Provide up to a maximum of five (5) NT0X8501 per job requirement in place of the NT0X8503 circuit pack cage mounting when front doors are required and no space is required directly behind the cage.

RUL8 1) Provide one (1) Line Card Storage Chassis, NT3X55AA, to accommodate up to twenty two (22) Line Cards, NT2X17 and NT2X18 (size 4" x 4") and up to four (4) I/O Bus Interface cards, NT2X16, (size 4" x 6").

2) Provide one (1) Line Card Storage Chassis, NT3X55BA, (used in conjunction with LCE vintage line cards) to accommodate up to thirty (30) single slot Line Cards, or ten(10) double slot and ten(10) single slot line cards. The chassis will also store two (2) line drawer Bus I/F cards.

3) Equip NT3X55AA/BA on shelf NT0X8503. Allow 6" per chassis maximum 4 per shelf.

RUL9 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL10 1) Provide one (1) NT0J04BA/NT0J04BB LTU Mainframe along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

2) Refer to Engineering Manual Section EMA11-02-001 for more details on the NT0J04BA (Ash LTC).

3) Refer to Engineering Manual Section EMA11-02-000 for more details on the NT0J04BB (Brown LTC).

4) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

5) Provide mounting adapters NT0J04DD to convert the unit from 23" mounting to 26" mounting, when mounting unit in an RME frame.

RUL11 1) Provide one NTZZ14GA per office requiring an Analog 10-Line 1A2-Type Key System.

RUL12 1) The DRTU is available in two colours Ash and DMS Brown, where DMS brown is the preferred offering. Provide the DRTU to enable the NSSD model 3703-03 Local Test Cabinet (located in the host office) to test subscriber lines connected to a DMS Digital Remote Office or Pair Gain Device (eg. DMS1 Line).

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA Engineering Manual Section for more details.

RUL14 1) Miscellaneous hardware such as MTDs, Inactive System Timing Circuit etc. must be electrically isolated from the frame-

work upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC) that is mounted in the Remote Miscellaneous Equipment Frame.

3) The following equipment (which mounts on an RME frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a RME frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC DESCRIPTION

NT5X69AA - Inactive System Timing Circuit
NT5X58AA - 1A2 Key Telephone System (MD'd equipment)
NT5X55AA - 1A2 Key Telephone System Module (MD'd equipment)

The inactive system timing circuit must be powered from an inverter mounted on the same RME frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.

RUL15 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime should it occur.

REMOTE MISCELLANEOUS EQUIPMENT FRAME
STANDARD US MARKET APPLICATIONS

PEC CODE:	NTZZ15DB
CPC CODE:	B0235809
RATING:	MD
REPLACES:	NTZZ15HB/NTZZ15LB
REPLACED BY:	NTZZ15BA
ABBREVIATION NAME:	RME
ENGINEERING DESCRIPTION:	The RME is a general purpose equipment frame which is intended to accommodate miscellaneous DMS, common systems and other hardware required in a DMS Remote office.
REFERENCE DOCUMENTATION:	MSZZ15DB 00 01 SLZZ15DB 00 01 NTZZ15DB REL 01
MARKETS:	Applicable markets: US

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

MAIN CONTACT: NTI: Charles Maynard Dept. 3471 (PPK)

NTZZ15DB EMC13-05-005 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 08 11	ECM 602 04	Corrected the provisioning of the Grounding Kits used in grounding the LaMarche Inverter in ISG and in non-ISG applications.
92 10 22	ECM 602 05	Corrects and differentiates the provisioning of the grounding kits used with the LaMarche Inverters for ISG and non-ISG, and Modem Frame and non-Modem Frame, RUL 4. BBLK NTZZ14HA is being MD'd, LaMarche PEC will be utilized (A31-500-48V-A6).
92 11 06	ECM 602 06	Corrects the mounting locations for the LaMarche Inverter. Before change, the inverter was only allowed to be mounted below the FSP, following the change, the LaMarche is now allowed to be mounted above the FSP as well as below the FSP.
92 12 22	ECM 602 07	Restricts the mounting locations of the LaMarche Inverter when the RME contains PDC equipment. RUL16 is also added to support the provisioning of the Common Framework types. The NT0X25AV Universal Framework is rated MD, the NT0X25AA or NT0X25AH Common framework is now used.
93 03 23	ECM 602 09	Frame Ground Bar NT0X9548 is being replaced by the NT0X9504.
93 07 27	ECM 602 10	ECD 018-39718 introduces the NT0X9594 Ground Bar Assembly replacing the NT0X9504. ET 34143 replaces C0054375 with RA877.
93 09 09	ECM 602 11	NTZZ14HA BBLK for the LaMarche Inver- has been MD'd and replaced with the detail code A31-500-48V-A6. The Inverter NTZZ18BA is also being MD'd and replaced with the LaMarche Inverter. The NT0X25AA Framework is being added to the stocklist of the NTZZ15DB.
93 11 10	ECM 602 12	This BBLK is being MD'd and replaced

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 02 23	ECM 602 13	by the NTZZ15BA. This BBLK is being RETIRED, already MD

The Remote Miscellaneous Equipment Frame Standard US Market Applications is comprised of the following:

	EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
	Miscellaneous Equipment Fr	NT0X02AB		1			AP
	Common Framework	NT0X25AA					AP
#	Common Framework Earthquake	NT0X25AH					RUL16
#	Common Framework	NT0X25AV		1			RUL16
	Terminal Block Assembly	NT3X25BA			77		RUL1
	20A Filt RME Frame Supv Pnl	NT0X88AF		1	45		AP
	FSP Cover	P0673914		1	45		AP
	RME Power Distrib. Module	NTZZ12GA			12		RUL2
	RME Power Distrib. Module	NTZZ15CB			12		RUL2
#	Ground Material Assembly	NT0X9548					RUL3
#	Ground Material Assembly	NT0X9504					RUL3
	Ground Material Assembly	NT0X9594					RUL3
#	Inverter	NTZZ18BA					RUL4
#	LaMarche Inverter	NTZZ14HA			04-41 51-72		RUL4
	LaMarche Inverter	A31-500-48V-A6			04-41 51-72		RUL4
	Direct Powering Label	P0708015			04-41 51-72		RUL4
	LaMarche Frame Grd H/W Kit	NTMX1657			04-41 51-72		RUL4
	LaMarche Frame Isolation Kit	NTMX1665			04-41 51-72		RUL4
	Metallic Test Access Unit	NTZZ18CA			05		RUL5
	Common Equipment Shelf	NT3X25AA					RUL6
	Circuit Pack Cage Mounting	NT0X8501					RUL7
	CP Storage Shelf Assy	NT0X8503					RUL7
	Line Card Storage Ch Assy	NT3X55AA					RUL8
	Line Card Storage Ch Assy	NT3X55BA					RUL8
	Alarm Extension Panel	NTZZ18DA					RUL9
	LTU Mainframe Brown	NT0J6_BA					RUL10
#	LTU Mainframe Brown	NT0J04BB					RUL10
#	LTU Mainframe Ash	NT0J04BA					RUL10
#	26" LTC Mounting Adapters	NT0J04DD					RUL10
	1A2 Key System	NTZZ14GA					RUL11
#	Dig Rmt Test Unit (DRTU) Ash	NT0J04EA					RUL12
	Dig Rmt Test Unit (DRTU) Brn	NT0J04EB					RUL12

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tellabs 292 Conf/Alert Systm	NTZZ18FA					RUL13
Tellabs 292 Line Expnsn Shlf	NTZZ18GA					RUL13
Isolation Hardware	NT0X0013					RUL14
Inactive System Timing Ckt	NT5X69AA					RUL15

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT0X9548	MD	NT0X9504
NT0X9504	MD	NT0X9594
NTZZ18BA	MD	NTZZ14HA
NT0X25AH	MD	NT0X25AA
NT0X25AV	MD	NT0X25AA
NTZZ14HA	MD	A31-500-48V-A6
NT0J04BB	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04BA	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04DD	MD	NT0J62BA/NT0J63BA/ NT0J64BA
NT0J04EA	MD	NT0J04EB

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 Table below encapsulate the space requirements of miscellaneous shelf assemblies which mount on the RME Frame

DESCRIPTION	PEC	SPACE REQUIRED

Common Equipment Shelf	NT3X25AA	07 in
Circuit Pack Cage Mounting	NT0X8501	06 in
CP Storage Shelf Assy	NT0X8503	06 in
Line Card Storage Ch Assy	NT3X55AA	NONE
Line Card Storage Ch Assy	NT3X55BA	NONE
Alarm Extension Panel	NTZZ18DA	04 in
LTU Mainframe Brown	NT0J04BB	24 in
1A2 Key System	NTZZ14GA	20 in
Dig Rmt Test Unit (DRTU) Brn	NT0J04EB	04 in
Tellabs 292 Conf/Alert Systm	NTZZ18FA	13 in
Tellabs 292 Line Expnsn Shlf	NTZZ18GA	06 in
Inactive System Timing Ckt	NT5X69AA	04 in
Metallic Test Access Unit	NTZZ18CA	05 in

1) If front doors are required on this frame, the miscellaneous equipment (eg. SP-1, No. 5 Crossbar) must be mounted 1" behind the front of the frame supervisory panel.

2) One (1) RME Frame Supervisory Panel, NT0X88AF, is always provided per RME frame. Equip per Section EMA13-01-FSP-4.

3) Wiring between NT0X88AF FSP and units mounted on frame shall be connected using loose wiring methods. Where leads are terminated at a terminal block that requires a ring terminal to make the connection use 22GA wire (or larger as required by current/voltage drop requirements). If three or more wires are to be terminated in a single terminal, 24GA wire may be used (depending upon current/voltage drop requirements).

   Wire colour to be as follows:

   Red for bat or -48V ABS
   Black for bat rtn
   Green for alarm leads

   Terminals to be specified as follows:

   TB2 on NT0X87AA use C0054383
   TB1 use RA877
   TB2 use C0054383
   TB3 use C0054383

4) In provisioning equipment on this frame Job Engineering must take into account the following:

   (i) The physical height (or effective clearance requirements) and base offset of each unit. (Base offset

is the distance between the bottom of the unit and its lowest mounting hole.)

(ii) The physical width of the unit and provide mounting adapters where necessary.

(iii) The power requirements (number of feeds and fuse ratings) of each unit and ensure that the FSP can satisfy the requirements of the fully equipped frame.

(iv) Establish or identify the DMS-100F compatibility requirements of any non-DMS unit being provided, if necessary by detailed interface study in accordance with standard OEM Procedures.

5) For information on the frame doors, refer to Section EMA15-01-002.

6) If a LaMarche Inverter is being added as an extension to an existing MIS frame, the location of existing LaMarche Inverters and the type of grounding cables (1-hole or 2-hole lugs) will be required. In non-ISG applications where 1-hole lugs were used, the NTMX1650 and/or the NTMX1653 cables will be required; if this is an ISG application, the NTMX1651 cable will be required. This should be investigated on a site by site basis.

RULES:

AP 1) When PEC NTZZ15DB is ordered, these items are provided.

RUL1 1) Provide Terminal Block Assemblies, NT3X25BA, as required to locally cross-connect RME frame mounted equipment.

2) Each assembly connects the DF via a 50 pair cable.

RUL2 1) Provide one (1) NTZZ12GA RME Power Distribution Module when the RME is to function as the power distribution center for the RLCM or RSC office in CANADIAN Applications

2) Provide one (1) NTZZ15CB RME Power Distribution Module when the RME is to function as the power distribution center for the RLCM or RSC office in US Applications.

RUL3 1) Provide one (1) NT0X9594 per RME when the frame or any of its contents require grounding. Do not provide when the RME Power Distribution Module is provided per RUL2.

RUL4 1) For all applications ,provide the A31-500-48V-A6 LaMarche Inverter as required.

This information is being retained for historical purposes. For Canadian applications only, provide NTZZ18BA Inverter as required. NTZZ18BA is not intended to power equipment having high start up surge characteristics such as load AC motors. If required to power equipment exhibiting these characteristics (less than 40A for 1 second) then only outlet J1 is to be used for this purpose.

Care must be taken to ensure that plug J2, J3, and J4 on NTZZ18BA Inverter are assigned before assigning plug J1. Plug J1 gives an output of approximately 170VAC when J2, J3 and J4 are not used. Outlet J1 must not be used to power sensitive electronic equipment. This outlet is to be assigned to Cooling Unit (CU), NT0X30AD, and TTYs only which require a greater power surge.

A two inch space must be left above NTZZ18BA Inverter Units to allow sufficient air cooling.

When the RME frame contains PDC equipment, the mounting locations for the LaMarche Inverters are restricted to 19 & 30.

2) Provide one A31-500-48V-A6 LaMarche Inverter per four (4) Protected AC circuits required which do not exceed 120VAC per connection.

3) Non-Modem Frame Applications - Provide 1 (one) NTMX1657 Kit per LaMarche Inverter for grounding the LaMarche Inverter to the horizontal ground bar for ISG and non-ISG applications.

4) Modem frame Applications - For ISG applications, provide 1 (one) NTMX1665 Kit per LaMarche Inverter for grounding the inverter to the vertical ground bar. For non-ISG applications, provide 1 (one) NTMX1657 Kit per LaMarche Inverter for grounding the inverter to the horizontal ground bar.

5) One P0708015 (Direct Powering Label) is required when the inverter is powered directly from the PDC.

RUL5 1) Provide one (1) NTZZ18CA Metallic Test Access Unit for each ten LM/RLM or LCMs when up to sixteen 2-wire test circuits are provided.

2) A 1" space must be provided between adjacent switches to allow the mounting of the MTA Unit cover.

3) For other information on mounting see AD2X46AB.

RUL6 1) Provide one (1) Common Equipment Shelf, NT3X25AA, to accommodate stand alone units up to a maximum of ten shelves per frame.

RUL7 1) Provide one or more Circuit Pack Storage Shelf Assy, NT0X8503, consisting of 1 Circuit Pack Cage Assy, NT0X33AA, 20 Inline Card Sliders, P0558097 and 20 Offset Card Sliders, P0558098, to house the spare card requirements of the Remote Office.

2) Provide up to a maximum of five NT0X8503 per NTZZ15DB.

3) Provide up to a maximum of five (5) NT0X8501 per job requirement in place of the NT0X8503 circuit pack cage mounting when front doors are required and no space is required directly behind the cage.

RUL8 1) Provide one (1) Line Card Storage Chassis, NT3X55AA, to accommodate up to twenty two (22) Line Cards, NT2X17 and NT2X18 (size 4" x 4") and up to four (4) I/O Bus Interface cards, NT2X16, (size 4" x 6").

2) Provide one (1) Line Card Storage Chassis, NT3X55BA, (used in conjunction with LCE vintage line cards) to accommodate up to thirty (30) single slot Line Cards, or ten(10) double slot and ten(10) single slot line cards. The chassis will also store two (2) line drawer Bus I/F cards.

3) Equip NT3X55AA/BA on shelf NT0X8503. Allow 6" per chassis maximum 4 per shelf.

RUL9 1) Provide one (1) NTZZ18DA Alarm Extension per office when the number of Alarm Audible Panels, NT0X66AA, exceeds two or (and) the number of Exit Alarm Display Panels, NT0X64AA, exceeds four (three for OAS Version I) (see also Office Alarm Visual and Audible Equipment, Section EMA6-01-000). Maximum one circuit per office.

2) When applied to offices equipped with OAS Version I, AXU shelf NT0X62AA, must be modified by NT0X62AB.

RUL10 1) Refer to the Engineering Manual Section for NT0J6_BA and provision either a NT0J62BA, NT0J63BA, or NT0J63BA as applicable. These units replace the NT0J04BA & BB LTC units in their entirety. Provision the LTC along with other equipment to provide a microprocessor controlled LTC for testing subscriber loop circuits. This unit requires an 8 amp fuse for CO Battery and a 1 1/3 amp fuse for Alarm Battery.

2) The LTC requires 19.75 inches of vertical rack space, 3.5 inches of cooling space is required above and below the unit.

RUL11 1) Provide one NTZZ14GA per office requiring an Analog 10-Line 1A2-Type Key System.

RUL12 1) The DRTU is available in two colours Ash and DMS Brown, where DMS brown is the preferred offering. Provide the DRTU to enable the NSSD model 3703-03 Local Test Cabinet (located in the host office) to test subscriber lines connected to a DMS Digital Remote Office or Pair Gain Device (eg. DMS1 Line).

RUL13 1) Provide the Tellabs NTZZ18FA as a base component in supplying Telco requirements for a conference/alerting system.

2) The Tellabs NTZZ18FA provides the facility to mount up to 10 conference lines and the required control cards.

3) The Tellabs NTZZ18FA has the following physical properties:

H 13" W 19" (Tellabs provides adapters for 23" Mtg)

4) Provide one (1) NTZZ18GA per 10-Lines Conference Lines required in excess of the initial 10-Lines provided with the NTZZ18FA.

5) Refer to NTZZ18FA Engineering Manual Section for more details.

RUL14 1) Miscellaneous hardware such as MTDs, Inactive System Timing Circuit etc. must be electrically isolated from the framework upon which they are mounted. Refer to Installation Manual 940 Section 01 for grounding criteria.

2) One (1) NT0X0013 Isolation Hardware is provisioned in place of each mounting screw for each piece of miscellaneous equipment with a non-NT_X__ Product Engineering Code (PEC)

that is mounted in the Remote Miscellaneous Equipment Frame.

3) The following equipment (which mounts on an RME frame) have isolation hardware always provided as part of their stocklist. Any piece of equipment with a NT_X__ PEC which mounts on a RME frame that is not on this list must have NT0X0013 Isolation Hardware provisioned to accommodate ISG.

PEC	DESCRIPTION
# NT5X69AA	Inactive System Timing Circuit
NT5X58AA	1A2 Key Telephone System (MD'd equipment)
NT5X55AA	1A2 Key Telephone System Module (MD'd equipment)

The inactive system timing circuit must be powered from an inverter mounted on the same RME frame. The inverter must be isolated from the frame and its chassis must be connected to the logic return bar.

RUL15 1) Provide one (1) NT5X69AA Inactive System Timing Circuit as required. This circuit records the duration of dead system downtime should it occur.

RUL16 1) Reserved for future use.

RME POWER DISTRIBUTION MODULE

PEC CODE:	NTZZ15CB
CPC CODE:	B0236170
RATING:	MD
REPLACES:	NTZZ15CC, NTZZ15CD
REPLACED BY:	NTZZ15CE
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	NTZZ15CB contains the required hardware to equip the Remote Miscellaneous Equipment Frame to perform the power distribution function in a remote office using UL listed fuse panels.
REFERENCE DOCUMENTATION:	MSZZ15CB 00 01 SLZZ15CB 00 01 NTZZ15CB REL 01 MS0X02AB 01 35 AD0X02AB 01 20
MARKETS:	Applicable markets: US CALA Asia/Pacific Europe

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

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

NTZZ15CB EMC13-05-006 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
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93 05 10	ECM 618 09	EC006-16761 & EC018-40418 incorporated field upgrade kit (NT0X58DA) for ABS power in to RME frame (NT0X02AB, NTZZ12GA, NTZZ15CB).
93 09 09	ECM 602 11	Market field changed to include CALA, Asia/Pacific, Europe, and US.
94 08 17	ECM 602 16	ET 19459 Revised NT0X42AK fuse assignment from shelf 59 to 67.
94 11 01	ECM 690 04	Removed Canada as applicable Market.
95 02 15	ECM 690 05	Corrected Section ID, was EMC.
95 03 16	ECM 690 06	MD. Replaced by NTZZ15CD.
95 08 04	ECM 690 07	un-MD NTZZ15CB and MD NTZZ15CC and NTZZ15CD since RME design documents supporting these configurations have not been released. Until design releases the changes, EAS on the RME is available only by using the NTZZ15CB and upgrading it with the NT0X42XC Enhanced Alarm Kit.
95 08 22	ECM 690 08	MD NTZZ15CB, replaced by NTZZ15CE per ECD 18-45090. This change provides EAS power panels on all RME initials.

The RME Power Distribution Module is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Panel (5.5")	NT0X42AM		1	72		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 0	1	67		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 1	1	59		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 0	1	63		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 1	1	55		AP
U.L. Frame Supervisory Panel	NT0X40UA	FSP	1	50		AP
ABS Alarm Upgrade Kit	NT0X58DA					RUL2
U.L. Filter Panel	NT0X42UG		1	12		AP
Spare 10 Amp Fuse	A0315462		1	12		AP
Spare 1-1/3 Amp Fuse	QFF1A		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					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:

1) The RME Power Distribution Module provides two A and B Fuse Panels to accomodate up to 30 distribution circuits on each feed.

RULES:

AP 1) When PEC NTZZ15CB is ordered, these items are provided.

RUL1 1) Provision fuses as required. Equip a dummy fuse in all unequipped fuse locations.

RUL2 1) When extending an office where an RME frame configured as a PDC frame, the EAE shall reference the D640 to determine when to provide one NT0X58DA per PDC-RME installed. NT0X58DA consists of A0288175, R0106721, NT0X42AK, and P0743062.

Apply NT0X58DA as follows: Assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

2) For initials assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

CABINETIZED REMOTE MISCELLANEOUS EQUIPMENT (CRME)

PEC CODE: NTZZ31QA

CPC CODE: B0240149

RATING: MD

REPLACES: Not Applicable

REPLACED BY: NTZZ31QB

ABBREVIATION NAME: CRME

ENGINEERING DESCRIPTION: The Cabinetized Remote Miscellaneous Equipment (CRME) is a general purpose equipment cabinet for use in Remote Switching Center - Sonet (RSC-S) line-ups. It combines PDC and MIS functions into one cabinet. The CRME is part of the Model B product and uses the NTRX25AA Enhanced Cabinet. The dimensions of the NTRX25AA are 28.5W X 28.7D X 72.0H inches. The approximate weight of the cabinet is 810 pounds.

The CRME can support multiple line-ups composed of up to 76 individual loads and houses a maximum of 2 power distribution panels, each of which distributes power to up to 38 individual fused loads. Additional optional equipment also has reserved breakers which may further limit the number of supported loads. The total DC distribution capability of a CRME is 400 Amperes, 200A on Feeder-A and 200A on Feeder-B. This PDC functionality occupies the top half of the cabinet.

The bottom half is reserved for MIS equipment. Only DC powered equipment is supported. Additional CMIS cabinets may be added as required.

REFERENCE DOCUMENTATION: SLRX31EA 00 03
ADRX31EA 00 03
MSRX31EA 00 03

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA

ISSUE AUTHOR: Barry Bond Dept. 3471 (PPK)

MAIN CONTACT: Barry Bond Dept. 3471 (PPK)

NTZZ31QA EMC13-05-007 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 12 20	API 499 04	Initial Release of CRME Building Block
94 02 07	ECM 691 01	Make miscellaneous corrections per Manufacturing request.
94 04 01	ECM 691 02	Corrections per EC 24-91374 and PA Mtg - added part 8 to RUL3 for A0322413 - added NTRX3164 Inverter Cable Assy - removed P0284154 and P0183220 from RUL4, parts in kit. - removed sections 3 and 4 from RUL8 which referenced P0737433 Contact Cover and MSP pos 20 term. block connections (P1B - P2D). - corrected P/N from NTRX0242 to 0245. - removed reference to A0381005 lug, added A0352431 and A0386307 lugs.
94 06 22	ECM 691 03	Corrections per ET 19059
94 10 19	ECM 602 18	Per ECD 024-93181: Removed NTRX3133 Top Cover Kit since cables always depart from the top. Changed p/n of lugs referenced in RUL4 Added Notes 7-9 per Design Review.
94 12 09	ECM 683 13	MD. Replaced by NTZZ31QB. Removing Shelf Power Cables NTRX3132 per manuf. request since they are shipped loose and can’t be assigned to the cabinet.

The Cabinetized Remote Miscellaneous Equipment (CRME) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CRME CABINET	NTRX31EA		1			AP
Cabinet Assembly	NTRX25AA		1			AP03
CRME MSP Kit	NTRX3145		1	62		AP
Modular Supervisory Panel	NTRX40AA	MSP	1	62		AP01
Alarm Module	NTRX41AA		1	62	5	AP01
Breaker Module (10A)	NTRX42AA		1	62	14	AP01
Thermal Breaker Module (1W-Fuse Module)	NTRX43AA		1	62	13	AP01
Power Alarm Module	NTRX41BA		1	62	7	AP01
Power Alarm Backpanel PCP	NTRX4105		1	62	7R	AP01
ABS Module	NTRX41EA		1	62	10R	AP01
ESD Label Kit	NTRX3541		1	62	TOP	AP
CB Shelf Assy (30A)	NTRX02CA		1	49		AP
Shelf Busbar Kit	NTRX0245		1	49		AP
Shelf Power Cable	NTRX3132		4	49		AP
EAS Alarm Card Kit	NTRX41DA			62	15,16	RUL1
EAS MSP Module	NTRX41CA			62	15,16	AP02
EAS Jumper Cable	NTRX4067			62		RUL1
Filler Plate	P0734476			62	15R,16R	RUL1
Fastener	P0559409			62	15,16	RUL1
EAS Alarm Harness	NTRX3151		1			RUL2
CB Shelf Assy (30A)	NTRX02CA		1	35		RUL3
Shelf Busbar Kit	NTRX0245		1	35		RUL3
Shelf Power Cable	NTRX3132		4	35		RUL3
CB Shelf Filler	P0737710		1	35		RUL3
Shelf End Busbar Insulators	P0739909		1	35		RUL3
RTN Busbar End Insulators	P0739710		1	35		RUL3
Lamarche Inverter Kit	NTRX31CJ		1	00		RUL4
Inverter Cable Assembly	NTRX3164		1			RUL4
Cover, Bottom- Kit	NTRX3134		1	BASE		RUL6
CRME MISC Fuse Card Kit	NTRX31EB			62	18,19, 20R	RUL8
Filler Plate	P0734476			62	18,19 18R,19R, 20R	RUL8
Fastener	P0559409			62	18,19	RUL8
ISG Cabinet Label	P0741854		1	49		RUL9
Bottom Feed Cable Bracket	NTRX3143		1	15,24		RUL10
Power Kit	NTRX3148		1	62	1	RUL11

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Filler Plate	P0734476		1	62	1R	RUL11
Fastener	P0559409		2	62	1	RUL11
GDC Modem Shelf DS-6/R-1 Redundant -48VDC	A0380973			18		RUL12
CMISC GDC Shelf Modem Kit	NTRX59AM		1	18		RUL12
Cable Tie Bracket	P0744667		2	13,27		RUL12
12-24 HHTS	P097F813		4			RUL12
GDC Modems	VARIOUS					RUL13
CMISC Cook DA Shelf Hardware	NTRX59AN		1	32		RUL15
Cable Tie Bracket	P0744667		1	30		RUL15
12-24 HHTS	P097F813		2			RUL15
Cook DA 5M Series Options	VARIOUS					RUL16
CMISC Alarm Ext. Kit	NTRX59AP		1	10		RUL18
Cable Tie Bracket	P0744667		1	10		RUL18
12-24 HHTS	P097F813		2			RUL18
Cabinet mechanicals	Note 2					
Cosmetic Endguards/EMI	Note 4					
Cabinet labels	Note 5					
Power and grounding	Note 6					

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) Multiple feed is the only option supported.

   The maximum capacity for the CRME is 200A per feed. The 'A' and 'B' feed to CRME unit must be protected with 65 VDC min., 250 amp maximum fuses (BUSMAN type TPL or TPN or equivalent), or equivalent circuit breakers at the supply source.

   An A & B circuit breaker is required on each panel of the cabinet to provide alarm sensing for the EAS option. Each distribution panel includes both A & B feeds.

2) Refer to NTRX25AA Engineering Manual Section for doors, anchors, cable troughs, frame fail lights and cabinet mechanical information.

3) The MSP fuse assignments for this product are:

MSP Fuse Card Position		MSP 18	MSP 19		
		Fuse A	Fuse B	Disk A	Disk B
NTRX59AN CDA	F01	1.33 A0205202	NONE	WHITE P097P235	NONE
NTRX59AM DS-6 Modem	F02	5.00 A0205205	5.00 A0205205	GREEN P097P238	GREEN P097P238
NTRX3148 LTC	F03	5.00 A0205205	NONE	GREEN P097P238	NONE
NTRX59AP ALARM	F04	1.33 A0205202	NONE	WHITE P097P235	NONE
TBD	F05				
TBD	F06				
TBD	F07				
TBD	F08				

4) Refer to NTRX73 Engineering Manual Section for provisioning cosmetic endguards and EMI sidepanels.

5) Refer to MS0X60AA for cabinet labels.

6) Refer to NTZX16CA Engineering Manual Section for System Power and Grounding information.

7) IMAP is the only topology to be used for the Maintenance and Administration Position (MAP).

8) DC-coupled links (for example, EIA-232) must not be used to connect the DC modems to any other external or internal devices.

9) The DC modems must only be terminated to an MDF via a 4-wire null modem cable.

RULES:

AP 1) When PEC NTZZ31QA is ordered, these items are provided.

AP01 1) Equipment always provided when PEC NTRX3145 is provided.

AP02 1) Equipment always provided when PEC NTRX41DA is provided.

AP03 1) Equipment always provided when PEC NTRX31EA is provided.

RUL1 1) Provision (1) NTRX41DA EAS Alarm Card kit per CB shelf to support an Enhanced Alarm System. (CRME has individual A & B power feeds for each shelf) The first card provisioned is assigned to slot 15; the second card is assigned to slot 16. The EAS Alarm Card kit shall be supplied for all U.S. applications and is provisionable, based on customer requirements, for all other markets.

2) Provision one NTRX4067 EAS cable assembly if an EAS kit is provisioned in slot 16.

3) Provision the following parts to fill each position not filled by EAS Alarm Cards:

QTY	CPC	DESCRIPTION
2	P0734476	Filler Plate
4	P0559409	Fastener

RUL2 1) Provision (1) NTRX3151 EAS Harness per cabinet if EAS is a desired option.

RUL3 1) Provision a second NTRX02CA CB Shelf Assy in shelf position 35 if required. If not required, provision (1) P0737710 shelf filler, (1) P0739909 Shelf End Busbar Insulators, and (1) P0739710 RTN Busbar End Insulator.

2) If a second NTRX02CA CB Shelf Assy is required, also provision (1) NTRX0245 Shelf Equalizer Kit to provide a busbar and hardware to connect CB panel and busbar.

3) If a second NTRX02CA CB Shelf Assy is required, also provision (4) NTRX3132 Shelf Power Cables per shelf to power a single shelf. The cables are only 15 feet long and limits the location of the cabinet with respect to the power source. They are to be shipped loose and not assigned to the cabinet.

   NOTE: These cable are flex cables with heat shrink covering the barrel of the lug. If this is not allowed in the product owners region, please provision material and fabricate cables on site.

4) This product is equipped only with the multiple feed power feed method. This option is defined as having an A & B Feed for each shelf being provided from the power source to the CRME. An A and B circuit breaker is required on each panel of the cabinet to provide alarm sensing of the EAS option.

5) Protection capabilities for the two provisionable breaker panel assembly are as follows:

NTRX02CA	RATING
CB00A-CB19A	30A, 65VDC
CB00B-CB19B	30A, 65VDC

The breakers are to be populated in ascending numerical order with the following exceptions:

SHELF POSITION 49

BREAKER	SHELF	REMARK	
CB FA	49	RESERVED FOR FILTER CAPACITORS A	
CB FB	49	RESERVED FOR FILTER CAPACITORS B	
CB01A	49*	RESERVED EAS ALARM A	OPT
CB01B	49*	RESERVED EAS ALARM B	OPT
CB02A	49*	RESERVED FOR ABS POWER OPTION	OPT
CB02B	49*	RESERVED FOR LAMARCHE INVERTER	OPT
CB03A	49*	RESERVED FOR POWERING MISC EQ.	OPT
CB03B	49*	RESERVED FOR POWERING MISC EQ.	OPT

CB04 A & B - CB19 A & B are available to assign to power products There are 16 A and 16 B breakers available.

SHELF POSITION 35

BREAKER	SHELF	REMARK	
CB FA	35	Reserved For Filter Capacitors A	
CB FB	35	Reserved For Filter Capacitors B	
CB01A	35*	RESERVED FOR ALARM A	OPT
CB01B	35*	RESERVED FOR ALARM B	OPT

CB02 A & B - CB19 A & B are available to assign to power products. There are 18 A and 18 B breakers available.

6) Provision sufficient A0386311 two hole power lugs for terminating 10-14 AWG power cables. There are 2 lugs required for each circuit breaker or feed that is required. A maximum of 80 lugs per shelf will be required.

7) Provision A0614961 two hole power lugs as required for terminating 8 AWG power cables for special applications.

8) Provision A0614959 two hole power lugs as required for terminating 6 AWG power cables for special applications.

9) Provision A0615493 two hole power lugs as required for terminating 1/0 AWG power cables for terminating to the RTN Busbar in non-domestic applications where there is an LRE in the office for logic return. Do not use LRE in U.S. market.

RUL4 1) Provision Lamarche Inverter Kit, NTRX31CJ, per customer requirements for End Aisle A/C. Kit includes Inverter, 120VAC cables and conduit assembly. Kit is only available for -48VDC to 120VAC applications.

2) Provision (1) Inverter Cable Assembly, NTRX3164, if Inverter Kit is provisioned.

RUL5 1) Reserved for future use.

RUL6 1) Provide (1) NTRX3134 Bottom Cover Kit for covering bottom opening if cabling is to be in cable trays on top of cabinet.

RUL7 1) Reserved for future use.

RUL8 1) Provision (1) NTRX31EB MISC Fuse Kit if any MISC shelf requiring power is to be provisioned. Kit provides (2) fuse cards with (8) fuses on each card, power cables, terminal block, label and related hardware. (no fuses provided)

2) Provision the following parts for the cabinet if no MISC kits requiring fuses are provided.

QTY	CPC	DESCRIPTION
5	P0734476	FILLER PLATE
10	P0559409	FASTENER

RUL9 1) Provision (1) ISG Label, P0741854, per cabinet as required to identify grounding method. Label is to be mounted on the right side of the top circuit breaker panel. Label is required for all ISG offices in North America. Label is not required for European offices.

RUL10 1) Provision Bottom Feed Cable Bracket NTRX3143 to provide bracket and fasteners to support dressing 4/0 power feed cables from the bottom up the left rear side of the cabinet.

RUL11 1) Provision (1) NTRX3148 Power Kit to provide terminal block and associated hardware to power such items as a Local Test Cabinet. Refer to CS 4122 for power, bonding, and isolation requirements when equipment is powered from the DMS. For specific details consult ISZX16CA for system information.

2) Provision the following parts to fill space if the power kit is not provided:

QTY	CPC	DESCRIPTION
1	P0734476	FILLER PLATE
2	P0559409	FASTENER

3) While (1) A0205205 5A fuse for the Power Kit is shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

4) While (1) P097P238 Green Designation Disks for fuse holders is shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

RUL12 1) Provision (1) A0380973 Data Set Module Shelf if requested by customer. It houses up to sixteen Data Set Modems and is a redundant powered 48 volt DC shelf. The different series of GDC modems may be mixed within the shelf in any manner desired.

2) Provision (1) NTRX59AM CMISC GDC Modem Kit to provide support for a modem shelf, if the Data Set Module Shelf above was provisioned or per customer requirement if customer is providing a GDC Modem Shelf. Kit provides modem shelf mounting hardware. (kit does not provide Modem shelf, fuses, or designation disks.)

3) If the CMISC GDC Modem Kit is provisioned, provision the following items for each Kit provisioned.

*

* (2) P0744667 Brackets for controlling modem cable dressing. See ADRX59AM for mounting details.

* (2) P097F813 per bracket for a total of (4) fasteners to secure brackets.

4) While (2) A0205205 5 AMP Fuses for each CMISC GDC Modem Kit are shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

5) While (2) P097P238 Green Designation Disks for fuse holders are shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

RUL13 1) Provision modem cards per customer requirements to provide desired features. For provisionable modems see GDC Modems Engineering Manual Section, EMA13-01-GDC-1 (T_GDC_MOD).

RUL14 1) Reserved for future use.

RUL15 1) Provision (1) NTRX59AN CMISC Cook DA Shelf hardware if a Cook Digital Announcer (CDA) is to be provided in this cabinet. This kit provides only mounting hardware for this product. The Announcer must be ordered separately.

2) While (1) A0205202 1.33 AMP Fuse for the MSP to power CDA is shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

3) While (1) P097P235 WHT Designation Disk for fuse holders is shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

4) Provision (1) P0744667 bracket and (2) P097F813 screws for cable management when the CDA is provided.

RUL16 1) Provision 5M Series Cook Digital Announcers per customer requirements to provide desired features. For provisionable CDAs see NT5M Series Engineering Manual Section EMA13-01-CDA-3 (NT5M0N__).

RUL17 1) Reserved for future use.

RUL18 1) Provision (1) NTRX59AP CMISC Alarm Extension Kit to mount in the CRME if at least one NT0X64AA is provided for a remote office.

2) While (2) A0205202 1.33 AMP fuses for the MSP to power CDA are shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

3) While (2) P097P235 WHT Designation Disks for fuse holders are shown on the MS, manufacturing has asked that the part not be provisioned. They will provide.

4) Provision (1) P0744667 bracket and (2) P097F813 screws for cable management when the Alarm Extension kit is provided.

5) Application of the Alarm Extension Kit is limited by the following factors:

The dry relay contacts are limited in accordance with Table 725- 31(B) of the National Electrical Code (NEC) for not inherently limited power sources (overcurrent protection required). The source of power for these contacts is limited to 60 VDC, 1 A. The dry relay contacts are not allowed to have outside plant connection. This is required in order to reduce hazards from lightning and power cross conditions onto the bay and connected power source(s) supplying the relay contacts.

RUL19 1) Reserved for future use.

RME POWER DISTRIBUTION MODULE W/EAS

PEC CODE: NTZZ15CC

CPC CODE: B0241860

RATING: MD

REPLACES: NTZZ15CB

REPLACED BY: NTZZ15CB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: This Building Block contains the required hardware to equip the Remote Miscellaneous Equipment Frame to perform the power distribution function in a remote office using UL listed fuse panels and an FSP that supports the Enhanced Alarm System (EAS).

REFERENCE DOCUMENTATION: SLZZ15CC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ15CC EMC13-05-008 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
94 11 01	ECM 690 04	Initial release. Changes from NTZZ15CB - Replaced NT0X40UA FSP with NT0X40UB per PLM and resolve ET19869.
95 02 15	ECM 690 05	Initial release, again. Previous attempt to release this Section failed due to PLS/CODA problems.
95 03 16	ECM 690 06	ECD 6-21517: Added Canada as valid market.
95 08 04	ECM 690 07	un-MD NTZZ15CB and MD NTZZ15CC and NTZZ15CD since RME design documents supporting these configurations have not been released. Until design releases the changes, EAS on the RME is available only by using the NTZZ15CB and upgrading it with the NT0X42XC Enhanced Alarm Kit.
97 03 05	ECM 602 29	Remove Un-MD from 'Rep By' pec, change author and contact name.

The RME POWER DISTRIBUTION MODULE W/EAS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Panel (5.5")	NT0X42AM		1	72		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 0	1	67		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 1	1	59		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 0	1	63		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 1	1	55		AP
U.L. Frame Supervisory Panel	NT0X40UB	FSP	1	50		AP
EAS Cable Assembly	NT0X4235		2			AP
EAS Cable Assembly	NT0X4236		2			AP
EAS Label Kit	P0743002		1			AP
U.L. Filter Panel	NT0X42UG		1	12		AP
Spare 10 Amp Fuse	A0315462		1	12		AP
Spare 1-1/3 Amp Fuse	QFF1A		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					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:

1) The RME Power Distribution Module provides two A and B Fuse Panels to accomodate up to 30 distribution circuits on each feed.

RULES:

AP 1) When PEC NTZZ15CC is ordered, these items are provided.

RUL1 1) Provision fuses as required. Equip a dummy fuse in all un-equipped fuse locations.

RME POWER DISTRIBUTION MODULE NON-EAS

PEC CODE: NTZZ15CD

CPC CODE: B0242666

RATING: MD

REPLACES: NTZZ15CB

REPLACED BY: NTZZ15CB

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: NTZZ15CD contains the required hardware to equip the Remote Miscellaneous Equipment Frame to perform the non-EAS power distribution function in a remote office using UL listed fuse panels.

REFERENCE DOCUMENTATION: SLZZ15CB 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Steve Martin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Steve Martin Dept. 3471 (PPK)

NTZZ15CD EMC13-05-009 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 03 16	ECM 690 06	Initial release. Same as NTZZ15CB but NT0X42AK and NTNX2656 were added.
95 03 21	ECM 602 21	Corrected location of NTNX2656 Cable and NT0X42AK Fuse. Was shelf 54, should be 67. PAS SLZZ15CD is correct.
95 08 04	ECM 690 07	un-MD NTZZ15CB and MD NTZZ15CC and NTZZ15CD since RME design documents supporting these configurations have not been released. Until design releases the changes, EAS on the RME is available only by using the NTZZ15CB and upgrading it with the NT0X42XC Enhanced Alarm Kit. The NTZZ15CD was MD due to fact that the AP items NTNX2656 and NT0X42AK are also in the NT0X0210 and therefore are double provisioned.
97 03 05	ECM 602 29	Remove Un-MD from 'Rep By' pec, change author and contact name.

The RME POWER DISTRIBUTION MODULE NON-EAS is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Ground Panel (5.5")	NT0X42AM		1	72		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 0	1	67		AP
U.L. Fuse Panel "A" Feed	NT0X42UB	FPA 1	1	59		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 0	1	63		AP
U.L. Fuse Panel "B" Feed	NT0X42UC	FPB 1	1	55		AP
U.L. Frame Supervisory Panel	NT0X40UA	FSP	1	50		AP
Power Cable Assembly	NTNX2656		1	67		AP
20A Distribution Fusing	NT0X42AK		1	67	F14	AP
ABS Alarm Upgrade Kit	NT0X58DA					RUL2
U.L. Filter Panel	NT0X42UG		1	12		AP
Spare 10 Amp Fuse	A0315462		1	12		AP
Spare 1-1/3 Amp Fuse	QFF1A		1	12		AP
Power Pnl Misc Material Assy	NT0X0201		1	12		AP
30 Amp Fuse	NT0X42AS					RUL1
20 Amp Fuse	NT0X42AK					RUL1
10 Amp Fuse	NT0X42AJ					RUL1
05 Amp Fuse	NT0X42AN					RUL1
Dummy Fuse	A0205210					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:

1) The RME Power Distribution Module provides two A and B Fuse Panels to accomodate up to 30 distribution circuits on each feed.

RULES:

AP 1) When PEC NTZZ15CD is ordered, these items are provided.

RUL1 1) Provision fuses as required. Equip a dummy fuse in all unequipped fuse locations.

RUL2 1) When extending an office where an RME frame configured as a PDC frame, the EAE shall reference the D640 to determine when to provide one NT0X58DA per PDC-RME installed. NT0X58DA consists of A0288175, R0106721, NT0X42AK, and P0743062.

Apply NT0X58DA as follows: Assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

2) For initials assign NT0X42AK to RME shelf position 67, fuse position 14, if available. Otherwise assign to any available A FEED 20 Amp fuse position in the PDC equipped RME. Designate this fuse as "ABS ALARM" using P0743062 label.

SUPERNODE SPARE STORAGE CABINET

PEC CODE:	NTZZ27CA
CPC CODE:	B0233165
RATING:	MD
REPLACES:	Not applicable
REPLACED BY:	NTZZ27FB (Cabinet B)
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	The Spare Storage Cabinet houses the spare Supernode circuit packs required for a DMS office. Each cabinet houses approximately 100 spare Supernode circuit packs.
REFERENCE DOCUMENTATION:	MSZZ27CA 00 01 SLZZ27CA 00 01 NTZZ27CA REL 01
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

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

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

NTZZ27CA EMC13-06-000 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 09 28	ECM 614 04	MD NTZZ27CA per EC 018-41001.

The SuperNode Spare Storage Cabinet is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
SuperNode Spare Storage Cab	NT9X01FA		1			AP
Supernode Spare Storage Shlf	NT0X25AY		1	39		AP-01
Supernode Spare Storage Shlf	NT0X25AY			26		RUL1
Supernode Spare Storage Shlf	NT0X25AY			13		RUL1
Supernode Spare Storage Shlf	NT0X25AY			00		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:

1) The Spare Storage Cabinet can hold up to four Spare Storage Shelves.

2) Each Spare Storage Shelf can hold 26 Supernode circuit packs, 26 Supernode paddleboards, and 4 Supernode Power circuit packs.

RULES:

AP 1) When PEC NTZZ27CA is ordered, these items are provided.

AP-01 1) These items are included with NT9X01FA and are shown for completeness.

RUL1 1) One Spare Storage Shelf is always provided. Provide up to three (3) additional NT0X25AY spare storage shelves as required.

DOORS AND MISCELLANEOUS HARDWARE(BROWN)

PEC CODE: NTZZ30KA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY:

ABBREVIATION NAME: NTZZ30KA

ENGINEERING DESCRIPTION: The NTZZ30KA Building BLock contains Doors, Power Access Panels, and Frame Fail Lamps required for a S/DMS Cabinet with brown exterior parts.

REFERENCE DOCUMENTATION: NTZZ30KA REL 02
SLZZ30KA 00 02

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Scott Maggiolo Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ30KA EMC13-07-SDMS-B CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 09 23	ECM 635 02	Release level corrected in refdoc
94 03 10	ECM 626 15	Retire Section.

The DOORS and MISCELLANEOUS HARDWARE(BROWN) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Fail Lamp (Brown)	NT0X24BT		1			AP
Rear Frame Fail Light	P0674502		1			AP
Door, Right Front, Brown	NT9X9537		2			AP
Door, Left Front, Brown	NT9X9541		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 NTZZ30KA is ordered, these items are provided.

DOORS AND MISCELLANEOUS HARDWARE(GRAY)

PEC CODE: NTZZ30JA

CPC CODE:

RATING: MD

REPLACES:

REPLACED BY:

ABBREVIATION NAME: NTZZ30JA

ENGINEERING DESCRIPTION: The NTZZ30JA Building Block contains Doors, Power Access Panels, and Frame Fail Lamps required for a S/DMS Cabinet with grey exterior parts.

REFERENCE DOCUMENTATION: NTZZ30JA REL 02
SLZZ30JA 00 02

MARKETS: Applicable markets:

US
Canada
Europe
Asia/Pacific
CALA
Carrier
Wireless

ISSUE AUTHOR: NTI: Scott Maggiolo Dept. 3471 (PPK)

MAIN CONTACT: NTI: Scott Maggiolo Dept. 3471 (PPK)

NTZZ30JA EMC13-07-SDMS-G CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
92 09 23	ECM 635 02	Release level corrected in refdoc
94 03 10	ECM 626 15	Retire Section.

The DOORS and Miscellaneous HARDWARE(GRAY) is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Frame Fail Lamp (Grey)	NT0X24CN		1			AP
Rear Frame Fail Light	P0699441		1			AP
Door, Right, Grey	NT9X9502		2			AP
Door, Left, Grey	NT9X9503		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 NTZZ30JA is ordered, these items are provided.

AUDIBLE ALARM CUTOFF CONTROL UNIT

PEC CODE: NTZZ18WA

CPC CODE: B0234797

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Audible Alarm Cutoff Control Unit is provisioned when selective audible alarm cutoff control is required. Up to six audible circuits can be controlled from this unit. This unit must be used in conjunction with the externally mounted NT5X86AB, Audible Cutoff Key Panel.

REFERENCE DOCUMENTATION: SLZZ18WA 00 01
NTZZ18WA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18WA EMC13-08-AAC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18WA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Audible/Visual Alm Ext Unit	NT5X86AA		1	XX		AP
Alarm Cutoff Cable Kit	NTRX34DK		1	XX		AP
9P Filter Adapter	A0344127		1	XX		AP
Female Srewlock	A0317136		4	XX		AP
Flat Washer	P0148330		4	XX		AP
1 1/3 Amp Fuse	A0205202		1	60		AP
Designation Disc	P097P235		1	60		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: XX can be any of the following positions: 06, 20, 34, 48 (Use position 06 or 20 when used in conjunction with NT5X85AA).

RULES:

AP 1) When PEC NTZZ18WA is ordered, these items are provided.

AUDIBLE/VISUAL ALARM EXTENSION UNIT

PEC CODE: NTZZ18VA

CPC CODE: B0234798

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Audible/Visual Alarm Extension Unit is provisioned 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 and mounting hardware are provided in this building block.

REFERENCE DOCUMENTATION: SLZZ18VA 00 02
NTZZ18VA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18VA EMC13-08-AEU CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18VA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Audible/Visual Alm Ext Unit	NT5X85AA		1	XX		AP
Office Alarm Wiring	NTRX34WB		1	XX		AP
Pylon RG-2 Ringing Generator	A0379066		1	XX+4		AP
Mounting Bracket	P0613363		2	XX+4		AP
Mounting Bracket	P0148634		4	XX+4		AP
Screw	P097F813		4	XX+4		AP
Cable Support Bracket	P0642031		1	XX		AP
Screw	P097F813		2	XX		AP
1 1/3 Amp Fuse	A0205202		5	60		AP
Designation Disc	P097P235		5	60		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: XX can be any of the following positions: 04, 18, 32, 46 (Use position 04 or 18 when used in conjunction with NT5X86AA).

RULES:

AP 1) When PEC NTZZ18VA is ordered, these items are provided.

COMMON EQUIPMENT SHELF ASSEMBLY

PEC CODE: NTZZ18YA

CPC CODE: B0234806

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: CES

ENGINEERING DESCRIPTION: The Common Equipment Shelf Assembly provides 115VAC multiple outlets to power up to two standalone modems and associated data telephone sets or other standalone equipment.

REFERENCE DOCUMENTATION: SLZZ18YA 00 01
NTZZ18YA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18YA EMC13-08-ASY-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18YA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Common Equipment Shelf Assy	NT3X25AA	CES	1	XX		AP
ISG Equipment for CES Assy	NTRX34DG		1	XX		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: XX can be any of the following positions: 06, 13, 20, 27, 34, 41, 48, 55.

RULES:

AP 1) When PEC NTZZ18YA is ordered, these items are provided.

RM4200 BULKHEAD ASSEMBLY - CONFIG B

PEC CODE: NTZZ23JA

CPC CODE: B0237909

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The RM4200 Bulkhead Assembly allows signal connections from either the 115VAC or the -48VDC RM4200 Data Set to terminate through the bulkhead. The NTZZ23JA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead for the CONFIG B which allows DDD type modems in slots 1 - 8 only and also DDD type modems in slots 9 - 16 only.

REFERENCE DOCUMENTATION: SLZZ23JA 00 01
NTZZ23JA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23JA EMC13-08-ASY-10 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 21	ECM 655 01	Introduction of RM4200 Bulkhead Assy for CONFIG B for CMIS.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The RM4200 BULKHEAD ASSEMBLY - CONFIG B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RM4200 Bulkhead/Cable Kit	NTRX34DM		1	XX		AP
Bulkhead Screw Kit-One Full	NTRX34DS		1	XX		AP
25P Filter Adapter	A0316594		8	XX		AP
Female Screwlock	A0317136		16	XX		AP
Flat Washer	P0148330		16	XX		AP
Cable Assembly	NTRX34EI		3	XX		AP
Cable Assembly	NTRX34EH		1	XX		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 either of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23JA is ordered, these items are provided.

RM4200 BULKHEAD ASSEMBLY - CONFIG C

PEC CODE: NTZZ23HA

CPC CODE: B0237908

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The RM4200 Bulkhead Assembly allows signal connections from either the 115VAC or the -48VDC RM4200 Data Set to terminate through the bulkhead. The NTZZ23HA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead for the CONFIG C which allows Private Line type modems in slots 1 - 8 only and also Private Line type modems in slots 9 - 16 only.

REFERENCE DOCUMENTATION: SLZZ23HA 00 01
NTZZ23HA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23HA EMC13-08-ASY-11 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 21	ECM 655 01	Introduction of RM4200 Bulkhead Assy for CONFIG C for CMIS.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The RM4200 BULKHEAD ASSEMBLY - CONFIG C is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RM4200 Bulkhead/Cable Kit	NTRX34DM		1	XX		AP
Bulkhead Screw Kit-One Full	NTRX34DS		1	XX		AP
25P Filter Adapter	A0316594		4	XX		AP
Female Screwlock	A0317136		8	XX		AP
Flat Washer	P0148330		8	XX		AP
Cable Assembly	NTRX34GE		1	XX		AP
Cable Assembly	NTRX34GD		1	XX		AP
Cover Plate (25 pin)	P0715775		4	XX		AP
Screw .112-40X.250	P0670923		8	XX		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 either of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23HA is ordered, these items are provided.

CMIS TERMINAL BLOCK ASSEMBLY

PEC CODE: NTZZ18ZA

CPC CODE: B0234807

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The CMIS Terminal Block Assembly and the associated Bulkhead Connector Mounting Plate provided in this building block should be provided for units which do not have dedicated connector plates.

REFERENCE DOCUMENTATION: SLZZ18ZA 00 02
NTZZ18ZA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18ZA EMC13-08-ASY-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18ZA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
CMIS Terminal Block Assy	NTRX34FI		1	XX		AP
Cable Support Bracket	P0642031		1	XX		AP
Screw	P097F813		2	XX		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: XX can be any of the following positions: 25, 39, 53.

RULES:

AP 1) When PEC NTZZ18ZA is ordered, these items are provided.

BULKHEAD PLATE ASSEMBLY

PEC CODE: NTZZ23BA

CPC CODE: B0235782

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: NA

ENGINEERING DESCRIPTION: The NTZZ23BA contains the Bulkhead Connector Mounting Plate and hardware required to allow signal connections from units which do not have dedicated connector plates to terminate through the bulkhead. This Building Block is used in conjunction with the NTZZ18ZA Terminal Block Assembly.

REFERENCE DOCUMENTATION: SLZZ23BA 00 01
NTZZ23BA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23BA EMC13-08-ASY-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ23BA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Bulkhead Conn Mounting Plate	P0730995		1	XX		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	XX		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:
XX can be any of the following Bulkhead positions: 18, 34, 49

RULES:

AP 1) When PEC NTZZ23BA is ordered, these items are provided.

RM4200 BULKHEAD ASSEMBLY

PEC CODE:	NTZZ23CA
CPC CODE:	B0235783
RATING:	MD. Replaced by the NTZZ23HA / NTZZ23JA / NTZZ23KA
REPLACES:	N/A
REPLACED BY:	N/A
ABBREVIATION NAME:	NA
ENGINEERING DESCRIPTION:	The RM4200 Bulkhead Assembly allows signal connections from either the 115VAC or the -48VDC RM4200 Data Set to terminate through the bulkhead. The NTZZ23CA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead.
REFERENCE DOCUMENTATION:	SLZZ23CA 00 01 NTZZ23CA REL 01
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23CA EMC13-08-ASY-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
93 01 21	ECM 655 01	NTZZ23CA is being replaced by the NTZZ23HA, NTZZ23JA, and the NTZZ23KA.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ23CA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RM4200 Bulkhead/Cable Kit	NTRX34DM		1	XX		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	XX		AP
25P Filter Adapter	A0316594		4	XX		AP
Female Screwlock	A0317136		16	XX		AP
Flat Washer	P0148330		16	XX		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:
XX can be any of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23CA is ordered, these items are provided.

DTH/ROTL BULKHEAD ASSY

PEC CODE: NTZZ23DA

CPC CODE: B0235784

RATING: MD

REPLACES: Not Applicable

REPLACED BY: Not Applicable

ABBREVIATION NAME: Not Applicable

ENGINEERING DESCRIPTION: The DTH/ROTL Bulkhead Assy allows signal connections from the Digital Test Head/Remote Office Test Line Unit to terminate through the bulkhead.The NTZZ23DA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead.

REFERENCE DOCUMENTATION: SLZZ23DA 00 01
NTZZ23DA REL 01
MSRX34AB 00 15

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

MAIN CONTACT: Erica Keltner Dept. 3471 (PPK)

NTZZ23DA EMC13-08-ASY-5 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
93 12 24	ECM 479 08	Change status from limited to standard
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The DTH/ROTL Bulkhead Assy is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTH/ROTL Bulkhead/Cable Kit	NTRX34DN		1	XX		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	XX		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NT6X45AE	MD	NT6X45AF

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 any of the following Bulkhead positions: 03, 34.

RULES:

AP 1) When PEC NTZZ23DA is ordered, these items are provided.

MLT BULKHEAD ASSEMBLY

PEC CODE: NTZZ23EA

CPC CODE: B0235785

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: NA

ENGINEERING DESCRIPTION: The MLT Bulkhead Assembly allows signal connections from the Multiple Loop Test Applique Shelf to terminate through the bulkhead. The NTZZ23EA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead.

REFERENCE DOCUMENTATION: SLZZ23EA 00 01
NTZZ23EA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23EA EMC13-08-ASY-6 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ23EA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MLT Bulkhead/Cable Kit	NTRX34DI		1	XX		AP
Bulkhead Screw Kit-Two Half	NTRX34DT		1	XX		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: XX can be any of the following Bulkhead positions: 03, 10, 18, 25, 34, 41, 49, 56.

RULES:

AP 1) When PEC NTZZ23EA is ordered, these items are provided.

ALARM EXT BULKHEAD ASSY

PEC CODE: NTZZ23FA

CPC CODE: B0235786

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: NA

ENGINEERING DESCRIPTION: The Alarm Ext Bulkhead Assy allows signal connections from the Audible/Visual Alarm Extension Unit and the Audible Alarm Cutoff Control Unit to terminate through the bulkhead. The NTZZ23FA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead.

REFERENCE DOCUMENTATION: SLZZ23FA 00 01
NTZZ23FA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23FA EMC13-08-ASY-7 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ23FA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Alarm Ext Bulkhead/Cable Kit	NTRX34DJ		1	XX		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	XX		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: XX can be any of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23FA is ordered, these items are provided.

DAS BULKHEAD ASSEMBLY

PEC CODE: NTZZ23GA

CPC CODE: B0235787

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: NA

ENGINEERING DESCRIPTION: The DAS Bulkhead Assembly allows signal connections from the Digital Alarm Scanner to terminate through the bulkhead. The NTZZ23GA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead.

REFERENCE DOCUMENTATION: SLZZ23GA 00 01
NTZZ23GA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23GA EMC13-08-ASY-8 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ23GA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DAS Bulkhead/Cable Kit	NTRX34DL		1	XX		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	XX		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: XX can be any of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23GA is ordered, these items are provided.

RM4200 BULKHEAD ASSEMBLY - CONFIG A

PEC CODE: NTZZ23KA

CPC CODE: B0237910

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The RM4200 Bulkhead Assembly allows signal connections from either the 115VAC or the -48VDC RM4200 Data Set to terminate through the bulkhead. The NTZZ23KA contains the bulkhead connection plate, cables, and hardware required to mount on the CMIS bulkhead for the CONFIG A which allows Telephone Interface type modems (DAS) in slots 1 - 8 only and Private Line type modems in slots 9 - 16 only.

REFERENCE DOCUMENTATION: SLZZ23KA 00 01
NTZZ23KA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ23KA EMC13-08-ASY-9 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 21	ECM 655 01	Introduction of RM4200 Bulkhead Assy for CONFIG A for CMIS.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The RM4200 BULKHEAD ASSEMBLY - CONFIG A is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
RM4200 Bulkhead/Cable Kit	NTRX34DM		1	XX		AP
Bulkhead Screw Kit-One Full	NTRX34DS		1	XX		AP
25P Filter Adapter	A0316594		4	XX		AP
Female Screwlock	A0317136		8	XX		AP
Flat Washer	P0148330		8	XX		AP
Cable Assembly	NTRX34GD		2	XX		AP
Cable Assembly	NTRX3432		1	XX		AP
Cover Plate (25 pin)	P0715775		4	XX		AP
Screw .112-40X.250	P0670923		8	XX		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 either of the following Bulkhead positions: 03, 18, 34, 49.

RULES:

AP 1) When PEC NTZZ23KA is ordered, these items are provided.

AT&T MODEM MOUNTING UNIT (40B1)

PEC CODE: NTZZ45AA

CPC CODE: B0237188

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The AT&T mounting unit building block provides the equipment necessary to apply the AT&T 40B1 and AT&T 46A2 mounting units to the CMIS cabinet.
The 40B1 and the 46A2 are a functional pair and are always provided together.
The customer is to supply all units with A0xxxxxx designations.

REFERENCE DOCUMENTATION: SLZZ45AA 00 01
NTZZ45AA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45AA EMC13-08-ATT-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	New Table showing Unit POA in relation to the Bulkhead Kit mounting position
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ45AA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AT&T Data Mounting Unit-40B1	A0xxxxxx		1	XX		NOTE
AT&T Data Mounting Unit-46A2	A0xxxxxx		2	XX+14,XX+21		NOTE
Hardware Kit	NTRX34LP		1	XX		AP
Cable Assembly (46A2)	NTRX34LQ		2	XX+14,XX+21		AP
Cable Assembly (40B1)	NTRX34LJ		4	XX		AP
Cable Assembly (40B1)	NTRX34LK		4	XX		AP
Cable Assembly (40B1)	NTRX34LM		4	XX		AP
Cable Assembly (46B1)	NTRX34LN		4	XX		AP
Cable Assembly	NTRX34MJ		2	XX		AP
FSP Cable	NTRX34LG		3	XX,XX+14,XX+21		AP
FSP Cable	NTRX34LH		3	XX,XX+14,XX+21		AP
25P Filter Adapter (1000-1600 pF)	A0316594		4	WW		AP
Female Screwlock	A0317136		16	WW		AP
Flat Washer	P0148330		16	WW		AP
Connector Mounting Plate	P0737132		2	WW		AP
CMIS Connector Plate - Bulkhead Screw Kit	NTRX34DS		2	WW		AP
Unit Mounting Bracket	P0739049		4	XX+16,XX+23		AP
Cable Support Bracket	P0642031		6	XX+16,XX+23		AP
Screw	P097F813		12	XX+16,XX+23		AP
2 Amp Fuse	A0205203		2	60		AP
Designation Disc	P097P236		2	60		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: XX is the following position for 40B1: 05. 46A2 has the following positions: 19 & 26. (e.g. XX+14 for the first 46A2 and XX+21 for second 46A2 unit). Therefore, the first 46A2 (above a 40B1) valid mounting position is 19 and the second 46A2 (above the first 46A2) valid mounting position is 26.

WW has the following Bulkhead Zone positions for the Bulkhead kit: 03 & 18.5

See table on the next page.

The following table shows the mounting positions of the AT&T Data Mounting Units on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

BB PEC	POA		BH PEC	BH POS (WW)	
NTZZ45AA	05	40B1	P0737132	03	(zone A)
					(zone B)
		46A2	P0737132	18.5	(zone C)
		46A2			(zone D)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

The customer is to supply all units with A0xxxxxx designations.

Only cabling to MDF is filtered (e.g. NTRX34LQ is used for two 46A2-J9 Unit Connect Points to C01, C02, C13, C14 Plate Connector designation). 40B1 EIA cabling using LJ, LK, LM and LN cables do not require filtering. EIA cables interconnect Unit Connect Points C01-4(LJ), C05-8(LK), C09-12(LM), C13-16(LN) to C01-C16 Plate Connector designation.

RULES:

AP 1) When PEC NTZZ45AA is ordered, these items are provided.

AT&T MODEM MOUNTING UNIT (40A3)

PEC CODE: NTZZ45BA

CPC CODE: B0237682

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The AT&T mounting unit building block provides the equipment necessary to apply the AT&T 40A3 mounting unit to the CMIS cabinet. The customer is to supply all units with A0xxxxxx designations.

REFERENCE DOCUMENTATION: SLZZ45BA 00 01
NTZZ45BA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

MAIN CONTACT: NTC: Barry Bond Dept. S646 (BRW)

NTZZ45BA EMC13-08-ATT-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	New Table showing Unit POA in relation to the Bulkhead Kit mounting position
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ45BA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
AT&T Data Mounting Unit-40A3	A0xxxxxx		1	XX		NOTE
Hardware Kit	NTRX34LP		1	XX		AP
Cable	NTRX34LR		1	XX		AP
Cable	NTRX34LR		1	XX		RUL1
Cable	NTRX34LM		4	XX		AP
Cable	NTRX34LN		4	XX		RUL2
FSP Cable	NTRX34LG		1	XX		AP
FSP Cable	NTRX34LH		1	XX		AP
25P Filter Adapter (1000-1600 pF)	A0316594		2	WW		RUL3
Female Screwlock	A0317136		8	WW		RUL3
Flat Washer	P0148330		8	WW		RUL3
Connector Mounting Plate	P0737132		1	WW		AP
CMIS Connector Plate-Bulkhead Screw Kit	NTRX34DS		1	WW		AP
Cover Plate	P0715775		1	WW		RUL4
Screw	P0670923		2	WW		RUL4
Hardware Kit	NTRX34LP		1	XX		RUL5
Cable Support Bracket	P0642031		1	XX+2		AP
Screw	P097F813		2	XX+2		AP
2 Amp Fuse	A0205203		2	60		AP
Designation Disc	P097P236		2	60		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: XX can be any of the following positions: 05, 19, 33 & 47.

WW has the following Bulkhead Zone positions for the Bulkhead kit: 03; 18.5; 34 & 49.5 respectively.

See table on the next page.

The following table shows the mounting positions of the AT&T Data Mounting Units on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

BB PEC	POA	BH PEC	BH POS (WW)
NTZZ45BA	05 40A3	P0737132	03 (zone A)
			(zone B)
NTZZ45BA	19 40A3	P0737132	18.5 (zone C)
			(zone D)
NTZZ45BA	33 40A3	P0737132	34.0 (zone E)
			(zone F)
NTZZ45BA	47 40A3	P0737132	49.5 (zone G)
			(zone H)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

The customer is to supply all units with A0xxxxxx designations.

RULES:

AP 1) When PEC NTZZ45BA is ordered, these items are provided.

RUL1 1) Provide second NTRX34LR cable for the second unit, as required.

RUL2 1) Provide four EIA NTRX34LN cables for the second unit utilizing Unit Connect Point, C05-8, interconnecting to Plate Connector designation, C13-20, which do not require filtering.

RUL3 1) Provide:

one (1) 25P Filter Adapter,
four (4) Female Screwlocks and
four (4) Flat Washers

for each cable connector provided as required.

Only cabling to MDF is filtered. The cable NTRX34LR uses Unit Connect Point, P1, interconnecting to C09,C10 for the first Unit and interconnecting to C21,C22 for the second unit. Thus with one unit provide two Filter Adapters and with second unit provide two more Filter Adapters.

EIA cables do not require filtering. The four EIA NTRX34LM cables for the first unit utilizing Unit Connect Point, C01-4 interconnect to Plate Connector designation C01-8 do not require filtering.

RUL4 1) Provide one P0715775 and two P0670923 for each unequipped connector position. Cable LR to P1, for the second 40A3 unit, if not provisioned should have cover plate for C21, C22.

Cable LN to C05-8, for the second 40A3 unit, if not provisioned should have cover plate for C13-C20.

RUL5 1) Provide one NTRX34LP Hardware Kit for the second 40A3 unit, if provided.

DIGITAL ALARM SCANNER HARDWARE

PEC CODE: NTZZ18XA

CPC CODE: B0234820

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The Digital Alarm Scanner Hardware building block is provisioned when the DMS office is required to interface with the Bell Operating Companies (BOC) Switching Control Centers (SCC). The telco is responsible for ordering the J1P056A-1, Digital Alarm Scanner Unit (DAS).

REFERENCE DOCUMENTATION: SLZZ18XA 00 02
NTZZ18XA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18XA EMC13-08-DAS CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18XA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
ISG Equipment for DAS Unit	NTRX34DF		1	XX		AP
DAS Unit Wiring	NTRX34WA		1	XX		AP
Cable Support Bracket	P0642031		1	XX+4		AP
Screw	P097F813		2	XX+4		AP
5 Amp Fuse	A0205205		1	60		AP
Designation Disc	P097P238		1	60		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: XX can be any of the following positions: 07, 21, 35, 49.

RULES:

AP 1) When PEC NTZZ18XA is ordered, these items are provided.

RM4200 DATA SET SHELF 115VAC

PEC CODE: NTZZ18MA

CPC CODE: B0234010

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: RM4200

ENGINEERING DESCRIPTION: The Case/Datatel RM4200 Modem Shelf 115VAC can accomodate up to 16 datatel 4200 series modems. The NTZZ18MA contains the 905-5222-001 Modem shelf and the hardware required to mount this unit on the CMIS.

REFERENCE DOCUMENTATION: SLZZ18MA 00 03
NTZZ18MA REL 03

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18MA EMC13-08-DSS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 22	ECM 633 03	ECD 018-37357 Introduces the RM4200 modems (4222, 4232, and 4296) into 115VAC version of the RM4200 shelf. Also with the introduction of the three (3) new Bulkhead Assemblies for the three (3) valid configurations, the "Phone Cable Assembly" Cables are no longer provisionable when the new Bulkhead assemblies are provided such as the NTZZ23HA / NTZZ23JA / NTZZ23KA. The cables are still provisionable on jobs where the NTZZ23CA Bulkhead was previously provided.
93 04 14	ECM 633 05	Correct errors in this EM section.
93 11 22	ECM 633 08	Add vendor part numbers
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18MA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DCM4200 Card Cage 115VAC (A0355254)	DCM42000		1	XX		AP
ISG Equip for RM4200 Shelf	NTRX34DC		1	XX		AP
Modem Shelf Wiring (115VAC)	NTRX34WE		1	XX		AP
DCM4201 (A0367996)	DCM42011		1	XX	1-16	RUL1
DCM4202 (A0355258)	DCM42021		1	XX	1-16	RUL2
DCM4208 (A0367994)	DCM42081		1	XX	1-16	RUL3
DCM4212 (A0355259)	DCM42121		1	XX	1-16	RUL4
DCM4229 (A0355255)	DCM42291		1	XX	1-16	RUL5
DCM4222 (A0351637)	DCM42221		1	XX	1-16	RUL11
DCM4232 (A0352086)	DCM42323		1	XX	1-16	RUL12
DCM4296 (A0351642)	DCM42961		1	XX	1-16	RUL13
DCP5256 (A0384722)	DCP42561		1	XX	1-16	RU15
RM4200 Phone Cable Assy	NTRX34EI		1	XX	1-16	RUL6
RM4200 Phone Cable Assy	NTRX34EH		1	XX	9-16	RUL6
RM4200 Phone Cable Assy	NTRX34GD		1	XX	1-16	RUL8
RM4200 Phone Cable Assy	NTRX34GE		1	XX	1-16	RUL9
RM4200 Modem PL Mult Cable	NTRX3432		1	XX	1-16	RUL10
Spare 115VAC Power Supply	A0360855		1	XX		RUL14
Cable Support Bracket	P0642031		1	XX		AP
Screw	P097F813		2	XX		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: XX can be any of the following positions: 09, 23, 37, 51 (When used with LaMarche and NT5X69AA, only 23 and 51 are valid positions).

RULES:

AP 1) When PEC NTZZ18MA is ordered, these items are provided.

2) For more information on the DCM4200 115VAC version, refer to Engineering Manual section on 905-5222-001.

3) Cabling and connector plates for the RM4200 modem shelf are arranged so that slots 1-8 or 9-16 can only be used for one of the following functions (No mixing of these three functions is allowed within a group of 8 slots):

DDD Modems
Telephone Interface
Private Line Modems

RUL1 1) Provide 4201-C Modem, for full duplex synchronous binary serial data transmision/reception over 3002 type 4W private lines or half duplex over 2W private lines and 2W DDD switched network. Mount in slots 1 to 16.

RUL2 1) Provide 4202-C Modem, for asynchronous 4W full duplex operation on private leased lines at 0-1800 BPS on conditioned lines. Mount in slots 1 to 16.

RUL3 1) Provide 4208-C Modem, for synchronous 4W full duplex operation in a mode on private leased lines at 4800 BPS. Mount in slots 1 to 16.

RUL4 1) Provide 4212-C Modem, for 2W dial-up (DDD) operation as follows:

1200 BPS Synchronous operation on FDX PSTN line
1200 BPS Character Asynchronous operation on FDX PSTN line
0-300 BPS Asynchronous operation on FDX PSTN line

Mount in slots 1 to 16.

RUL5 1) Provide 4229-C Data Set, to terminate 4W private line data channels. Mount in slots 1 to 16.

RUL6 1) Provide two (2) NTRX34EI, Phone Cable Assy, when slots 1 to 8 are assigned with DDD modems. Provide one (1) NTRX34EI when slots 9 to 16 are assigned with DDD modems.

2) Provide one (1) NTRX34EH, Phone Cable Assy, when slots 9 to 16 are assigned with DDD modems.

RUL7 1) Reserved for future use.

RUL8 1) Provide two (2) NTRX34GD, Phone Cable Assy, when slots 1 to 8 are assigned to telephone interface. Provide one (1) NTRX34GD when slots 9 to 16 are assigned to private line modems.

RUL9 1) Provide one (1) NTRX34GE, Phone Cable Assy, when slots 1 to 8 are assigned to private line modems. Provide one (1)

NTRX34GE when slots 9 to 16 are assigned to telephone interface.

RUL10 1) Provide one (1) NTRX3432, Modem PL Multiple Cable Assy, when when slots 1 to 8 are assigned with Aux Data Sets and slots 9 to 16 are private line modems or slots 1 to 8 are private line modems and slots 9 to 16 are assigned to Aux Data Sets. This cable assembly provides connectivity between connnections J11/J12 on the RM4200 modem shelf.

RUL11 1) Provide one (1) 4222 modem for full duplex operation in DDD or PL mode with speeds between 0 and 2400 baud. Mount in slots 1 to 16.

RUL12 1) Provide one (1) 4232 modem for full duplex operation in DDD or PL mode with speeds between 0 and 9600 baud. Mount in slots 1 to 16.

RUL13 1) Provide one (1) 4296 modem for full duplex operation in PL mode with speeds between 0 and 9600 baud. Mount in slots 1 to 16.

RUL14 1) Provide one (1) 905-7308-01 115VAC Power Supply per telco requirements.

RUL15 1) Provide the DCP4256 modem for 4W point-to-point and multi-point in a DDS (Digital Data Service) facility or 4W point-to-point when used as a LDM (Limited Distance Modem).

RM4200 DATA SET SHELF -48VDC

PEC CODE:	NTZZ18NA
CPC CODE:	B0234011
RATING:	MD
REPLACES:	N/A
REPLACED BY:	N/A
ABBREVIATION NAME:	RM4200
ENGINEERING DESCRIPTION:	The Case/Datatel RM4200 Modem Shelf -48VDC can accomodate up to 16 datatel 4200 series modems. The NTZZ18NA contains the 905-5222-003 Modem shelf and the hardware required to mount this unit on the CMIS.
REFERENCE DOCUMENTATION:	SLZZ18NA 00 04 NTZZ18NA REL 04
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18NA EMC13-08-DSS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 22	ECM 633 03	ECD 018-37357 Introduces the RM4200 modems (4222, 4232, and 4296) into -48VDC version of the RM4200 shelf. Also with the introduction of the three (3) new Bulkhead Assemblies for the three (3) valid configurations, the "Phone Cable Assembly" Cables are no longer provisionable when the new Bulkhead assemblies are provided such as the NTZZ23HA / NTZZ23JA / NTZZ23KA. The cables are still provisionable on jobs where the NTZZ23CA Bulkhead was previously provided.
93 04 14	ECM 633 05	Correct errors in the EM section
93 11 22	ECM 633 08	Add vendor pec codes
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18NA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DCM4200 Card Cage -48V (A0367419)	DCM42001		1			AP
ISG Equip for RM4200 Shelf	NTRX34DC		1	XX		AP
Modem Shelf Wiring (-48VDC)	NTRX34WD		1	XX		AP
DCM4201 (A0367996)	DCM42011		1	XX	1-16	RUL1
DCM4202 (A0355258)	DCM42021		1	XX	1-16	RUL2
DCM4208 (A0367994)	DCM42081		1	XX	1-16	RUL3
DCM4212 (A0355259)	DCM42121		1	XX	1-16	RUL4
DCM4229 (A0355255)	DCM42291		1	XX	1-16	RUL5
DCM4222 (A0351637)	DCM42221		1	XX	1-16	RUL11
DCM4232 (A0352086)	DCM42323		1	XX	1-16	RUL12
DCM4296 (A0351642)	DCM42961		1	XX	1-16	RUL13
DCP4256 (A0384722)	DCP42561		1	XX	1-16	RUL15
RM4200 Phone Cable Assy	NTRX34EI		1	XX	1-16	RUL6
RM4200 Phone Cable Assy	NTRX34EH		1	XX	9-16	RUL6
RM4200 Phone Cable Assy	NTRX34GD		1	XX	1-16	RUL8
RM4200 Phone Cable Assy	NTRX34GE		1	XX	1-16	RUL9
RM4200 Modem PL Mult Cable	NTRX3432		1	XX	1-16	RUL10
Spare -48VDC Power Supply	A0360856		1	XX		RUL14
Cable Support Bracket	P0642031		1	XX		AP
Screw	P097F813		2	XX		AP
5 Amp Fuse	A0205205		2	60		AP
Designation Disc	P097P238		2	60		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: XX can be any of the following positions: 09, 23, 37, 51.

RULES:

AP 1) When PEC NTZZ18NA is ordered, these items are provided.

2) For more information on the RM4200 -48VDC version, refer to the Engineering Manual Section for the PEC 905-5222-003.

3) Cabling and connector plates for the RM4200 modem shelf are arranged so that slots 1-8 or 9-16 can only be used for one of the following functions (No mixing of these three functions is allowed within a group of 8 slots):

DDD Modems
Telephone Interface
Private Line Modems

RUL1 1) Provide 4201 Modem, for full duplex synchronous binary serial data transmision/reception over 3002 type 4W private lines or half duplex over 2W private lines and 2W DDD switched network. Mount in slots 1 to 16.

RUL2 1) Provide 4202 Modem, for asynchronous 4W full duplex operation on private leased lines at 0-1800 BPS on conditioned lines. Mount in slots 1 to 16.

RUL3 1) Provide 4208 Modem, for synchronous 4W full duplex operation in a mode on private leased lines at 4800 BPS. Mount in slots 1 to 16.

RUL4 1) Provide 4212 Modem, for 2W dial-up (DDD) operation as follows:

1200 BPS Synchronous operation on FDX PSTN line
1200 BPS Character Asynchronous operation on FDX PSTN line
0-300 BPS Asynchronous operation on FDX PSTN line

Mount in slots 1 to 16.

RUL5 1) Provide 4229 Data Set, to terminate 4W private line data channels. Mount in slots 1 to 16.

RUL6 1) Provide two (2) NTRX34EI, Phone Cable Assy, when slots 1 to 8 are assigned with DDD modems. Provide one (1) NTRX34EI when slots 9 to 16 are assigned with DDD modems.

2) Provide one (1) NTRX34EH, Phone Cable Assy, when slots 9 to 16 are assigned with DDD modems.

RUL7 1) Reserved for future use.

RUL8 1) Provide two (2) NTRX34GD, Phone Cable Assy, when slots 1 to 8 are assigned to telephone interface. Provide one (1) NTRX34GD when slots 9 to 16 are assigned to private line modems.

RUL9 1) Provide one (1) NTRX34GE, Phone Cable Assy, when slots 1 to 8 are assigned to private line modems. Provide one (1)

NTRX34GE when slots 9 to 16 are assigned to telephone interface.

RUL10 1) Provide one (1) NTRX3432, Modem PL Multiple Cable Assy, when when slots 1 to 8 are assigned with Aux Data Sets and slots 9 to 16 are private line modems or slots 1 to 8 are private line modems and slots 9 to 16 are assigned to Aux Data Sets. This cable assembly provides connectivity between connections J11/J12 on the RM4200 modem shelf.

RUL11 1) Provide one (1) 4222 modem for full duplex operation in DDD or PL mode with speeds between 0 and 2400 baud. Mount in slots 1 to 16.

RUL12 1) Provide one (1) 4232 modem for full duplex operation in DDD or PL mode with speeds between 0 and 9600 baud. Mount in slots 1 to 16.

RUL13 1) Provide one (1) 4296 modem for full duplex operation in PL mode with speeds between 0 and 9600 baud. Mount in slots 1 to 16.

RUL14 1) Provide one (1) 905-7309-01 power supply per telco requirements.

RUL15 1) Provide the DCP4256 modem for 4W point-to-point and multipoint in a DDS (Digital Data Service) facility or 4W point-to-point when used as a LDM (Limited Distance Modem).

DTH-ROTL UNIT

PEC CODE: NTZZ18PA

CPC CODE: B0234012

RATING: MD.

REPLACES: Not Applicable.

REPLACED BY: NTZZ18PB

ABBREVIATION NAME: DTH-ROTL

ENGINEERING DESCRIPTION: The Digital Test Head-Remote Office Test Line Unit comes complete with all the circuit packs required to perform the ROTL function. The NTZZ18PA contains the NT7F18AB DTH-ROTL and the hardware required to mount this unit on the CMIS.

REFERENCE DOCUMENTATION: SLZZ18PA 00 03
NTZZ18PA REL 03

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Merdia Drummer Dept. 3471 (PPK)

MAIN CONTACT: NTI: Erica Keltner Dept. 3471 (PPK)

NTZZ18PA EMC13-08-DTH CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-------- 93 08 17	---------- ECM 479 07	Previous history not available NSD EC 92-1151 which MDs NT7F18AB and replaces it with NT7F18AD.

The NTZZ18PA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DTH/ROTL Unit	NT7F18AB		1	XX		AP
DTH/ROTL Wiring	NTRX34WF		1	XX		AP
Cable Support Bracket	P0642031		1	XX+1		AP
Screw	P097F813		2	XX+1		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
NTZZ18PA	MD	NTZZ18PB

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: XX can be any of the following positions: 07, 35.

RULES:

AP 1) When PEC NTZZ18PA is ordered, these items are provided.

RUL1 1) The NT7F18AB is fused from the CMIS Frame FSP circuit breaker 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.

DS-5 DATA SET SHELF -48VDC

PEC CODE: NTZZ45CA

CPC CODE: B0237828

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: DS-5

ENGINEERING DESCRIPTION: The GDC DS-5 Modem Shelf -48VDC can accomodate up to 16 GDC modems. The modem types are Private Line (PL) and Switched Network (SN). The modems may be intermixed. The NTZZ45CA contains the DS-5 (A0319455) modem shelf and the hardware required to mount this unit on the CMIS.

REFERENCE DOCUMENTATION: SLZZ45CA 00 01
NTZZ45CA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45CA EMC13-08-GDC-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 22	ECM 633 03	Introduction of GDC DS-5 modem shelf for CMIS.
93 02 19	ECM 633 04	Correct pec code errors
93 04 14	ECM 633 05	A&M this pec code.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The DS-5 Data Set Shelf -48VDC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
GDC DS-5 Modem Shelf -48VDC	A0319455		1	XX		AP
DS-5 Hardware Kit	NTRX34MC		1	XX		AP
DS-5 Mounting Adapter	A0380975		1	XX		AP
Local Cable Assembly	NTRX3463		1	XX		AP
Alarm Cable Assembly	NT5X0903		1	XX		AP
Bulkhead Connector	P0737132		1	WW		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	WW		AP
Cable Assembly	NTRX3462		1	WW		AP
25P Filter Adapter	A0316594		16	WW		AP
Female Screwlock	A0317136		32	WW		AP
Flat Washer	P0148330		32	WW		AP
DTE Cable Assembly	NTRX34LV		4	WW		AP
DTE Cable Assembly	NTRX34LW		4	WW		AP
DTE Cable Assembly	NTRX34LX		4	WW		AP
DTE Cable Assembly	NTRX34LY		4	WW		AP
Cover Plate (25 pin)	P0715775		8	WW		AP
Screw .112-40X .250	P0670923		16	WW		AP
DPS-7A Power Supply	A0329102		2	XX		AP-01
Power Cable Assembly	NTRX3447		1	XX		RUL1
Power Cable Assembly	NT0X8849		1	XX		RUL1
Power Cable Assembly	NT0X4307		1	XX		RUL1
Power Cable Assembly	NT0X4312		1	XX		RUL1
Power Cable Assembly	NT0X4314		1	XX		RUL1
Power Cable Assembly	NT0X4315		1	XX		RUL1
DC 108-3M 300 bps 2W/4W	A0378927			XX	1-16	RUL2
DC 202S/T 1200/1800 bps	A0328524			XX	1-16	RUL3
DC 4800 4800 bps 2W/4W	A0301068			XX	1-16	RUL4
DC 9600 SPA 9600 bps V.29	A0378923			XX	1-16	RUL5
DC 9600 RPA 9600 bps V.29	A0378921			XX	1-16	RUL5
DC 224+ 1200 bps 2W/4W	A0378939			XX	1-16	RUL6
DC 224+ X.25 1200 bps 2W/4W	A0378941			XX	1-16	RUL6
DC 596 9600 bps 2W/4W	A0378942			XX	1-16	RUL7
DC 596MNP5 9600 bps 2W/4W	A0378944			XX	1-16	RUL7
DC 596X.25 9600 bps 2W/4W	A0378946			XX	1-16	RUL7

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
DC 500C/56KD 56kbp 4W	A0379007			XX	1-16	RUL8
DC 500C/UXR 56kbp 4W mulpt	A0352789			XX	1-16	RUL8
DC 500C/DRU-A 56kbp dialback	A0378950			XX	1-16	RUL8
DC 19202A 19.2 Kbps 2 ch.	A0378920			XX	1-16	RUL9
Spare DPS-7A Power Supply	A0329102		1	XX		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) XX can be either of the following mounting positions: 5, 19, 33, 47.

   WW can be any of the following Bulkhead Zone positions for the Bulkhead kit: 03, 18.5, 34, 49.5.

   The following table shows the mounting positions of the GDC DS-5 Data Shelf CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

NTZZ45CA	Mounting Plate Zones
DS-5	Bulkhead Kit
XX	WW
5	03 (zone A)

19	18.5 (zone C)
33	34 (zone E)
47	49.5 (zone G)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

2) Provide the GDC DS-5 Modem Shelf (CPC A0319455) to transmit and receive binary serial data for remote terminals requiring rates above 300 Bits Per Second (BPS) up to 56 Kbps over private or dial-up line circuits.

3) A Maximum 16 Data Sets per shelf with maximum of two (2) Data Set shelves per CMIS frame when shelf is powered from FSP.

4) All card modems require (1) one card slot, unless otherwise noted.

5) Public Switch Telephone Network (PSTN), Private Line (PL), or Digital Data Service Network (DDS) modem applications may be intermixed on a single shelf.

6) Provide spare DPS-7A Power Supply per customer requirements.

7) It is recommended that rack mounted modems be utilized at every DMS because it provides a tidier installation.

8) One (1) Power Supply can power 16 slot positions, but two (2) are provided with each DS-5 shelf.

RULES:

AP 1) When PEC NTZZ45CA is ordered, these items are provided.

RUL1 1) Provide proper power cables based on the mounting position within the CMIS and based on the fusing position utilized for the GDC Shelf. Use the table below to determine proper cables.

GDC DS-5 POWER CABLES				
FSP	TB1-12	11	8	7
DS-5	TB1 -V A	-V A	┼V B	┼V B
POS 5	NTRX3447	NTRX3447	NTRX3447	NTRX3447
POS 19	NT0X4312	NT0X4312	NT0X4307	NT0X4307
POS 33	NT0X4314	NT0X4314	NT0X4315	NT0X4315
POS 47	NT0X8849	NT0X8849	NT0X8849	NT0X8849

RUL2 1) Provision the GDC 108 modem for dedicated 300bps connections for peripheral equipment, (printers, terminals, etc). Maximum 16 Data Sets per shelf.

2) The GDC 108 Modem Mechanical Specifications are as follows:

Digital Interface ... EIA RS-232

Analog Connection ... 6 pin modular jack

Card ..... One Card Slot in DS-5 Shelf

RUL3 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, automatic answer only operation, and page refresh, where the communication path exceeds 1200 feet.

2) The GDC 202S/T Mechanical Specifications are as follows:

Digital Interface .. EIA RS232 and CCITT V.23

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL4 1) Provision the 4800 modem for use with two or four wire voice grade circuits. The 4800 modem is compatable with BELL 208A protocol. It will operate over private line point-to-point or multipoint circuits. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 4800 Mechanical Specifications are as follows:

Digital Interface .. EIA RS232

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL5 1) Provision the 9600 SPA/RPA modem for use with four wire point-to-point or multipoint, private line synchronous modem. It complies with CCITT V.29 specifications for domestic and international applications, with fallback rates of 4800 and 7200 bps. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 9600 Mechanical Specifications are as follows:

Digital Interface .. EIA RS232 & V.29 compliant

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL6 1) Provision the 224+ modem for use with two-wire switched and private line applications. It provides full duplex, asynchronous (300- 2400 bps) and synchronous (1200 & 2400) data transmission. The 224+ is compatable with Bell 212A and 103/113 modems at 1200 and 300 bps respectively. It is compatible with CCITT V.22 bis at 2400 bps. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 224+ Mechanical Specifications are as follows:

Digital Interface .. EIA RS232

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL7 1) The 596 modem provides 9600, 4800, 2400, 1200 and 0 - 300 bps point synchronous and asynchronous, private line and

switched-network data communications (0 - 300 bps is asynchronous only). The 596X is a 596 with an X.25 feature enhancement module (FEM) installed to allow access to an X.25 network. The 596C is a 596 with a V.42 error correction/data compression FEM installed. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 596 Mechanical Specifications are as follows:

Digital Interface .. EIA RS232

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL8 1) The 500/UXR and 500C/56KD series Data Service Unit (DSU) is designed for use on private line, 4-wire cable or DDS (DATAPHONE 2 Digital Service). It operates asynchronous at 1.2, 1.8, 2.4, 4.8, 9.6 and 19.2 Kbps and synchronously at 2.4, 4.8, 9.6, 19.2, 38.4 and 56 Kbps. The 500C/56KD only operates at 56Kbps synchronous. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 500 Mechanical Specifications are as follows:

Digital Interface .. EIA RS232

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL9 1) The 19202A is a two-port, time division multiplexer (TDM). Either or both ports may operate synchronous or asynchronously. Port data rates of 2.4, 4.8, 7.2, 9.6, 12.0, 14.4, 16.8 or 19.2 kbps are supported, with the only restriction being that the combined port rates cannot exceed the selected aggregate rate. 2400 bps ports can be optioned to 1800 and 1200 bps applications. Trellis encoding with error correction is supported. A maximum of 16 modems per shelf can be configured on the DS-5 Shelf.

2) The GDC 19202A Mechanical Specifications are as follows:

Digital Interface .. EIA RS232

Telephone Line ..... Direct connect

Card ..... One Card Slot in DS-5 Shelf

RUL10 1) Provide one (1) 041P023-001 (A0329102) DPS-7A power supply for maintenance spares as per telco instructions.

DS-6 DATA SET SHELF -48VDC

PEC CODE: NTZZ45DA

CPC CODE: B0237827

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: DS-6

ENGINEERING DESCRIPTION: The GDC DS-6 Modem Shelf -48VDC can accomodate up to 16 GDC modems. The modem types are Private Line (PL) and Switched Network (SN). The modems may be intermixed. The NTZZ45DA contains the DS-6 (A0380973) modem shelf and the hardware required to mount this unit on the CMIS.

REFERENCE DOCUMENTATION: SLZZ45DA 00 02
NTZZ45DA REL 02

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45DA EMC13-08-GDC-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 01 22	ECM 633 03	Introduction of GDC DS-6 modem shelf for CMIS.
93 02 19	ECM 633 04	Move Bulkhead to show correct mounting
93 08 30	ECM 633 07	Correct pec code error
93 11 22	ECM 633 08	Add Vendor part numbers
93 12 23	ECM 655 04	ET18319 - Changed quantities on NTZZ45DA stocklist
94 01 10	ECM 655 05	ET18399 - Delete P0739577/P079559 as they are in SLRX34LU and were ordered.
94 02 01	ECM 633 09	ET46283 - Correct typoes in change history
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The DS-6 Data Set Shelf -48VDC is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
GDC DS-6 -48V shf (A0380973)	010M047-003		1	XX		AP
DS-6 Hardware Kit	NTRX34LU		1	XX		AP
DS-6 Mounting Adp (A0384166)	010J025-002		1	XX		AP
FSP Cabling	NTRX34LG		2	XX		AP
FSP Cabling	NTRX34LH		2	XX		AP
Alarm Cables	NTRX34LZ		2	XX		AP
Bulkhead Connector	P0737132		1	WW		AP
Bulkhead Screw Kit- One Full	NTRX34DS		1	WW		AP
VF Cable	NTRX34LS		1	WW		AP
VF Cable	NTRX34LT		1	WW		AP
25P Filter Adapter	A0316594		4	WW		AP
Female Screwlock	A0317136		16	WW		AP
Flat Washer	P0148330		16	WW		AP
DTE Cable Assembly	NTRX34LV		4	WW		AP
DTE Cable Assembly	NTRX34LW		4	WW		AP
DTE Cable Assembly	NTRX34LX		4	WW		AP
DTE Cable Assembly	NTRX34LY		4	WW		AP
Cover Plate (25 pin)	P0715775		20	WW		AP
Screw .112-40X .250	P0670923		40	WW		AP
DPS-9 Power Sply (A0380974)	041P033-001		2	XX		AP-01
MODEMS						RUL1
DPS-9 Spare Pwr Supply (A0380974)	041P033-001		1	XX		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) XX can be either of the following mounting positions: 5, 19, 33, 47.

   WW can be any of the following Bulkhead Zone positions for the Bulkhead kit: 03, 18.5, 34, 49.5.

   The following table shows the mounting positions of the GDC DS-6 Data Shelf CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

NTZZ45DA	Mounting Plate Zones
DS-6	Bulkhead Kit
XX	WW
5	03 (zone A)
19	18.5 (zone C)
33	34 (zone E)
47	49.5 (zone G)

   Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

2) Provide the GDC DS-6 Modem Shelf (CPC A0380973) to transmit and receive binary serial data for remote terminals requiring rates above 300 Bits Per Second (BPS) up to 56 Kbps over private or dial-up line circuits.

3) A Maximum 16 Data Sets per shelf with maximum of two (2) Data Set shelves per CMIS frame when shelf is powered from FSP.

4) All card modems require (1) one card slot, unless otherwise noted.

5) Public Switch Telephone Network (PSTN), Private Line (PL), or Digital Data Service Network (DDS) modem applications may be intermixed on a single shelf.

6) Provide spare DPS-9 Power Supply per customer requirements.

7) A normally closed (NC) alarm contact is provided as a power failure indicator. The supplies require DC battery (-48 +/-6V) with a maximum input current of 3.0 amps when shelf is fully loaded.

8) It is recommended that rack mounted modems be utilized at every DMS because it provides a tidier installation.

9) One (1) Power Supply can power up to 16 positions, but two (2) are provided with each DS-6 modem shelf.

RULES:

AP 1) When PEC NTZZ45DA is ordered, these items are provided.

RUL1 1) For provisionable modems refer to EM Section T_GDC_MOD (EMA13-01-GDC-1)

RUL2 1) Provide one DPS-9 power supply for maintenance spares as per telco instructions.

LAMARCHE INVERTER UNIT

PEC CODE: NTZZ18QC

CPC CODE: B0243006

RATING: MD

REPLACES: NTZZ18QA

REPLACED BY: N/A

ABBREVIATION NAME: INV

ENGINEERING DESCRIPTION: The Lamarche Inverter provides 115VAC to required units mounted in the same cabinet. The NTZZ18QC contains the NTRX31DH Inverter Unit (500W) and the hardware required to mount this unit on the CMIS Model A. The 500VA AC Inverter is similar to the Lamarche inverter but, in addition, has a failure mode switch to allow selction between breaker trip failure or breaker trip/inverter failure detection.

REFERENCE DOCUMENTATION: SLZZ18QC 00 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18QC EMC13-08-INV-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 04 17	ECM 655 08	Initial release.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The Lamarche Inverter Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Inverter Unit (500W)	NTRX31DH	INV	1	XX		AP
ISG Equip for 500VA AC Inv	NTRX34DA		1	XX		AP
500VA AC Inverter Wiring	NTRX34WG		1	XX		AP
500VA AC Power Cable	NTRX3444		2	XX		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: XX can be any of the following positions: 12, 40, 05, 19, 33 (Only positions 12 and 40 are valid when used with RM4200 115VAC and NT5X69AA).

RULES:

AP 1) When PEC NTZZ18QC is ordered, these items are provided.

RUL1 1) The 500VA AC Inverter Unit will terminate up to four (4) AC-powered units not to exceed 120VAC output. Alarms for this unit will be fused at the FSP as follows:

Alarm Wiring: Use 22 AWG
Inverter IF-1 3 to FSP TS1-15
Inverter IF-1 2 to FSP TS1-14

The inverter will be powered directly from the CPDC. Also connect the inverter’s Term G to Logic Ground Bar.

The inverter can only be used to power units mounted in the same CMIS as itself.

INACTIVE SYSTEM TIMING CIRCUIT

PEC CODE: NTZZ18LA

CPC CODE: B0234009

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: ISTC

ENGINEERING DESCRIPTION: The Inactive System Timing Circuit is intended to record the duration of system downtime. The NTZZ18LA contains the NT5X69AA (ISTC) and the hardware required to mount this unit on the CMIS.

REFERENCE DOCUMENTATION: SLZZ18LA 00 03
NTZZ18LA REL 03

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ18LA EMC13-08-ISTC CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ18LA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Inactive System Timing Ckt	NT5X69AA		1	XX		AP
ISG Equip for ISTC	NTRX34DB		1	XX		AP
ISTC Wiring	NTRX34WH		1	XX		AP
1/4 Amp Fuse	A0205207		1	60		AP
Designation Disc (Violet)	P097P240		1	60		AP
9P Filter Adapter	A0344127		1	XX		AP
Female Screwlock	A0317136		4	XX		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: XX can be any of the following positions: 18, 46 (when used with LaMarche and RM4200) or 14, 28, 41 (when used with LaMarche).

RULES:

AP 1) When PEC NTZZ18LA is ordered, these items are provided.

RUL1 1) The 9P Filter Adapter should be provisioned on the P0730995, Conn Mounting Plate. Specify connector designation (C07 to C10, C11 to C14, or C15 to C18).

LAMARCHE INVERTER UNIT

PEC CODE:	NTZZ18QA
CPC CODE:	B0234013
RATING:	MD
REPLACES:	N/A
REPLACED BY:	NTZZ18QC
ABBREVIATION NAME:	INV
ENGINEERING DESCRIPTION:	The LaMarche Inverter provides 115VAC to required units mounted in the same cabinet. The NTZZ18QA contains the A0367433 LaMarche Inverter and the hardware required to mount this unit on the CMIS.
REFERENCE DOCUMENTATION:	SLZZ18QA 00 02 NTZZ18QA REL 02
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

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

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

NTZZ18QA EMC13-08-LIV-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
-------- 95 04 17	---------- ECM 655 08	Previous history not available MD and replaced by NTZZ18QC due to A0367433 Lamarche Inverter being MD and replaced by NTRX31DH 500VA AC Inverter on ECD 6-21515.

The Lamarche Inverter Unit is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
LaMarche Inverter Unit	A0367433	INV	1	XX		AP
ISG Equip for LaMarche Inv	NTRX34DA		1	XX		AP
LaMarche Inverter Wiring	NTRX34WG		1	XX		AP
LaMarche Power Cable	NTRX3444		2	XX		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: XX can be any of the following positions: 12, 40, 05, 19, 33 (Only positions 12 and 40 are valid when used with RM4200 115VAC and NT5X69AA).

RULES:

AP 1) When PEC NTZZ18QA is ordered, these items are provided.

RUL1 1) The LaMarche Inverter Unit will terminate up to four (4) AC-powered units not to exceed 120VAC output. Alarms for this unit will be fused at the FSP as follows:

Alarm Wiring: Use 22 AWG
LaMarche IF-1 3 to FSP TS1-15
LaMarche IF-1 2 to FSP TS1-14

The LaMarche inverter will be powered directly from the CPDC. Also connect LaMarche Term G to Logic Ground Bar.

The LaMarche Inverter can only be used to power units mounted in t same CMIS as itself.

MULTIPLE LOOP TEST (MLT) APPLIQUE SHELF

PEC CODE:	NTZZ18UA
CPC CODE:	B0234805
RATING:	MD
REPLACES:	Not Applicable
REPLACED BY:	Not Applicable
ABBREVIATION NAME:	MLT
ENGINEERING DESCRIPTION:	The MLT Applique Shelf can mount up to nine MLT circuit packs required for loop testing. The NTZZ18UA contains the NT3J00BA MLT Applique Shelf and the hardware required to mount this unit on the CMIS.
REFERENCE DOCUMENTATION:	SLZZ18UA 00 02 NTZZ18UA REL 02
MARKETS:	Applicable markets: Canada US CALA Asia/Pacific Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

MAIN CONTACT: NTI: Lily Ahluwalia Dept. 3471 (PPK)

NTZZ18UA EMC13-08-MLT CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
93 12 22	ECM 357 02	Slot 05 of the NT3J00BA MLT Applique Shelf is removed as a valid slot due to the presence of a support bracket.
95 01 26	ECM 357 03	Change rules to indicate that signature cards are not required for Prism Systems DRTUs used with CALRS version 7 or higher.
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The Multiple Loop Test (MLT) Applique Shelf is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
MLT Applique Shelf	NT3J00BA	MLT	1	XX		AP
ISG Equip for MLT Shelf	NTRX34DE		1	XX		AP
MLT Applique Wiring	NTRX34WA		1	XX		AP
MLT Applique Circuit Pack	NT3J00BB		1	XX	3,7,9, 11,13,15, 17,19,21	RUL1
Signature Acc w/Off Hook Rt	NT3J00BE		1	XX	3,7,9, 11,13,15, 17,19,21	RUL2
Cable Support Bracket	P0642031		1	XX+2		AP
Screw	P097F813		2	XX+2		AP
2 Amp Fuse	A0205203		1	60		AP
Designation Disc	P097P236		1	60		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" in shelf position can be any valid shelf position on the MIS Frame.

RULES:

AP 1) When PEC NTZZ18UA is ordered, these items are provided.

RUL1 1) The NT3J00BB, MLT Applique Circuit Pack, contains two circuits One circuit is required for each interface test multiple (NT2X90AD) which utilizes Mechanical Loop Testing (MLT) on a subscriber carrier module (SMU,SMS,SMR).

RUL2 1) Provide one (1) NT3J00BE, Signature Acc w/Off Hook Routing, for up to two NT0J04AA/AB Digital Remote Test Units (DRTU).

Note: Signature cards are NOT required for Prism Systems DRTUs (NTAN60AA) used with CALRS version 7 or higher.

2) Refer to Engineering Manual section EMA13-01-MLTS-1 for more details.

NOKIA TF21462 MOUNTING UNIT

PEC CODE: NTZZ45GA

CPC CODE: B0237914

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: The NOKIA mounting unit 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. 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. 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.

REFERENCE DOCUMENTATION: SLZZ45GA 00 01
NTZZ45GA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45GA EMC13-08-NKA CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	New Table showing Unit POA in relation to the Bulkhead Kit mounting position
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ45GA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Nokia TF21462 Shelf	TF21462		1	XX		NOTE
CMIS Nokia TF21462 - Wiring	NTRX34WL		1	XX		AP
CMIS Nokia TF21462 - Isolation/Mounting Equipment	NTRX34DU		1	XX		AP
CMIS Nokia TF21462 - Bulkhead/Cable Kit	NTRX34DR		1	WW		AP
Connector Plate	P0733322		1	WW		AP-01
Connector Plate	P0733576		1	WW		AP-01
CMIS Connector Plate - Bulkhead Screw Kit	NTRX34DS		2	WW		AP
Nokia TV21611 - Power Interface Adapter (PIA)	TV21611		1	XX		NOTE
Nokia TC21101 - Multiplex Unit (MUX)	TC21101		1	XX		RUL1
Nokia TU2122.4 Data Interface Unit (DIU)	TU2122.4		1	XX		RUL2
Nokia TF21465 PIA - Cartridge-10T	TF21465		1	XX		NOTE
Nokia TF21180.1 - Equipment Cartridge-20T	TF21180.1		1	XX		RUL3
5 Amp Fuse	A0205205		1	60		AP
Designation Disc	P097P238		1	60		AP
5 Amp Fuse	A0205205		1	60		RUL4
Designation Disc	P097P238		1	60		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: XX can be any of the following positions: 20, 48.

WW has the following Bulkhead Zone positions for the Bulkhead kit: 03 & 18.5 (for the first unit) OR 34 & 49.5 (for the second unit).

See table on the next page.

The following table shows the mounting positions of the Nokia Mounting Unit on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

BB PEC	POA	BH PEC	BH POS (WW)
NTZZ45GA	20	P0733322	18.5 (zone C)
			(zone D)
NTZZ45GA	20	P0733576	03 (zone A)
			(zone B)
NTZZ45GA	48	P0733322	49.5 (zone G)
			(zone H)
NTZZ45GA	48	P0733576	34 (zone E)
			(zone F)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

The mounting positions given for this unit are the location of the lowest screw holding the unit to the cabinet.

The customer is to supply all units with Nokia designations such as TF21462, TV21611, TF21465, etc.

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 accomodate nine or less Data Interface Units. Thus when the Nokis 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.

P0733322, P0733576 connector plates, cables, filter adapters and hardware supplied as part of NTRX34DR Kit. The ISG grounding cable NTRX3454 is provided as part of NTRX34DU Kit.

Since each TF21462 requires two personality plates, only shelf zones C,D and G,H may be used as TF21462 mounting locations. Thus two TF21462 units will fill entire CMIS.

RULES:

AP 1) When PEC NTZZ45GA is ordered, these items are provided.

AP-01 1) When NTRX34DR is ordered, these items are always provided.

RUL1 1) Provide:

one TC21101 MUX for each group of three TU2122.4 DIU provided.

RUL2 1) Provide:

one TU2122.4 DIU for each group of five V.35 channels required.

For each Nokia TF21462, group of nine or less TU2122.4 DIU's are provided, as required.

RUL3 1) Provide:

one TF21180.1 for each TC21101 provided.

RUL4 1) Provide:

one Fuse A0205205 and one designation disc. P097P238 per another Nokia TF21462 mounting unit provided.

TELLABS 1014U MOUNTING UNIT

PEC CODE: NTZZ45HA

CPC CODE: B0237915

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: 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). 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. 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.

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.

REFERENCE DOCUMENTATION: SLZZ45HA 00 01
NTZZ45HA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45HA EMC13-08-TL-3 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	New Table showing Unit POA in relation to the Bulkhead Kit mounting position
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ45HA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tellabs 1014 Universal Shelf	1014U		1	XX		NOTE
Mounting Brackets	P0733317		2	XX		AP
Screws	P097F813		12	XX		AP
CMIS Tellabs 1014U Wiring	NTRX34WJ		1	XX		AP
Tellabs 1014U Bulkhead/-Cable Kit	NTRX34DP		1	WW		AP
Connector Plate	P0733320		1	WW		AP-01
CMIS Connector Plate - Bulkhead Screw Kit	NTRX34DS		1	WW		AP
Tellabs (6131 2W/4W) - Interface Unit	6131		1	XX		RUL1
Tellabs Ringing Generator	8103		1	XX		RUL2
Fuse (per 8103)	A0205202		1	60		RUL3
Designation Disc	P097P235		1	60		RUL3
Fuse (per 6131)	A0204206		1	60		RUL4
Designation Disc	P097P239		1	60		RUL4
Fuse (per 5X6131)	A0205208		1	60		RUL5
Designation Disc	P097P241		1	60		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: XX can be any of the following positions: 08, 22, 36, 50

WW has the following Bulkhead Zone positions for the Bulkhead kit: 03 OR 18.5 OR 34 OR 49.5

See table on the next page.

The following table shows the mounting positions of the Tellabs 1014U Mounting Unit on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

BB PEC	POA	BH PEC	BH POS (WW)
NTZZ45HA	08	P0733320	03 (zone A)
			(zone B)
NTZZ45HA	22	P0733320	18.5 (zone C)
			(zone D)
NTZZ45HA	36	P0733320	34 (zone E)
			(zone F)
NTZZ45HA	50	P0733320	49.5 (zone G)
			(zone H)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

The mounting positions given for this unit are the location of the lowest screw holding the unit to the cabinet. Mounting bracket is used with the unit so the position is that of the lowest screw holding the bracket to the cabinet.

The customer is to supply all units with Tellabs designations such as 1014U, 6131 and 8103.

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.

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.

RULES:

AP 1) When PEC NTZZ45HA is ordered, these items are provided.

AP-01 1) When NTRX34DP is ordered, this item is always provided.

RUL1 1) Provide:

one Tellabs 6131 2W/4W Interface Unit for each 101 test line (DMS-300 office).

RUL2 1) Provide:

one Tellabs 8103 Ringing Generator for every ten 101 test lines (DMS-300 office).

RUL3 1) Provide:

one Fuse (A0205202) and one Designation Disc. (P097P235) per 8103 Ringing Generator provided.

RUL4 1) Provide:

one Fuse (A0204206) and one Designation Disc. (P097P239) per 6131 2W/4W Interface Unit.

RUL5 1) Provide:

one Fuse (A0205208) and one Designation Disc. (P097P241) per each group of five 6131 (2W/4W Interface) Units provided.

TELLABS 254A MOUNTING UNIT

PEC CODE: NTZZ45JA

CPC CODE: B0237916

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME: N/A

ENGINEERING DESCRIPTION: 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 Covertors, Echo Canceller Modules and Compensation Modules. 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 Modules 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.

REFERENCE DOCUMENTATION: SLZZ45JA 00 01
NTZZ45JA REL 01

MARKETS: Applicable markets:

Canada
US
CALA
Asia/Pacific
Europe

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45JA EMC13-08-TL-4 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 04 23	ECM 655 02	New Table showing Unit POA in relation to the Bulkhead Kit mounting position
95 08 30	ECM 655 09	MD SECTION PER ECD 006-21515.

The NTZZ45JA is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Tellabs 254A Assembly	254A		1	XX		NOTE
Mounting Brackets	P0733318		2	XX		AP
Screws	P097F813		14	XX		AP
CMIS Tellabs 254A Wiring	NTRX34WK		1	XX		AP
Tellabs 254A Bulkhead/-Cable Kit	NTRX34DQ		1	WW		AP
Connector Plate	P0733321		1	WW		AP-01
CMIS Connector Plate-Bulkhead Screw Kit	NTRX34DS		1	WW		AP
CMIS Tellabs 254A-Cable Assembly	NTRX34HW		1	XX		RUL1
CMIS Tellabs 254A-Cable Assembly	NTRX34HY		1	XX		RUL2
CMIS Tellabs 254A-Cable Assembly	NTRX34HZ		1	XX		RUL3
CMIS Tellabs 254A-Cable Assembly	NTRX34JA		1	XX		RUL4
Tellabs 5330 Power Convertor	5330		2	XX		NOTE
Tellabs 254X/A-Echo Canceller Module	254X/A		1	XX		RUL5
Tellabs 2543/X front access-and high level Comp. Module	2543/X		1	XX		RUL6
2 Amp Fuse	A0205203		2	60		AP
Designation Disc	P097P236		2	60		AP
2 Amp Fuse	A0205203		2	60		RUL7
Designation Disc	P097P236		2	60		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: XX can be any of the following positions: 07, 21, 35, 49.

WW has the following Bulkhead Zone positions for the Bulkhead kit: 03 OR 18.5 OR 34 OR 49.5

See table on the next page.

The following table shows the mounting positions of the Tellabs 254A Mounting Unit on the CMIS in relation to the mounting positions of the Bulkhead kit on the bulkhead:

BB PEC	POA	BH PEC	BH POS (WW)	
NTZZ45JA	07	P0733321	03	(zone A)
				(zone B)
NTZZ45JA	21	P0733321	18.5	(zone C)
				(zone D)
NTZZ45JA	35	P0733321	34	(zone E)
				(zone F)
NTZZ45JA	49	P0733321	49.5	(zone G)
				(zone H)

Connector mounting plate zones are explained in NOTE #1 (e.g. ECM body).

Mounting positions given for this unit are the location of the lowest screw holding the unit to the cabinet. Mounting bracket is used with the unit so the position is that of the lowest screw holding the bracket to the cabinet.

The customer is to supply all units with Tellabs designations such as 254A, 5330, etc.

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.

Cables are hardwired to indicated 5-pin terminal strips at rear of 254A as per loose wiring document LWJRX34AB.

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.

RULES:

AP 1) When PEC NTZZ45JA is ordered, these items are provided.

AP-01 1) When NTRX34DQ is ordered, this item is always provided.

RUL1 1) Provide NTRX34HW as follows:

When 254A is not daisy chained, provide one NTRX34HW to connect J3 on unit to J3 on connector plate. When 254A is daisy chained to another 254A on another CMIS cabinet provide two NTRX34HW to connect J3, J4 on 254A to corresponding connectors on connector plate. When 254A is first unit in a daisy chain provide one NTRX34HW to connect J3 on 254A to J3 on connector plate.

RUL2 1) Provide NTRX34HY as follows:

When 254A is intermediate or last in daisy chain provide one NTRX34HY to connect from J3 of unit to J4 of preceding unit when unit being provisioned is in adjacent mounting position.

RUL3 1) Provide NTRX34HZ as follows:

When 254A is intermediate or last in daisy chain provide one NTRX34HZ to connect from J3 of unit to J4 of preceding unit when unit being provisioned is one mounting position removed from preceding unit.

RUL4 1) Provide NTRX34JA as follows:

When 254A is intermediate or last in daisy chain provide one NTRX34JA to connect from J3 of unit to J4 of preceding unit when unit being provisioned is two mounting positions removed from preceding unit.

RUL5 1) Provide:

one Tellabs 254X/A per PCM30 port on which echo cancelling is required.

For each Tellabs 254A mounting assembly, group of six or less 254X/A Echo Cancellers are provided, as required.

RUL6 1) Provide:

one Tellabs 2543/X for each 254X/A requiring front access or high level compensation.

RUL7 1) Provide:

two Fuses (A0205203) and two designation disc. (P097P236) per other Tellabs 254A provided.

CABLE AND HARDWARE KIT FOR TELTREND MODEM SHELF.

PEC CODE:	NTZZ45NA
CPC CODE:	B0238717
RATING:	MD
REPLACES:	N/A
REPLACED BY:	N/A
ABBREVIATION NAME:	N/A
ENGINEERING DESCRIPTION:	The TELTREND provides cables, brackets, and assorted hardware for the Teletrends modems shelf mounted on the CMIS cabinet.
REFERENCE DOCUMENTATION:	TELTREND 00 01 TELTREND REL 01
MARKETS:	Applicable markets: Canada US CALA

ISSUE AUTHOR: NTI: Bob Belvin Dept. 3471 (PPK)

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

NTZZ45NA EMC13-08-TT-01 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 07 14 95 08 30	ECM 655 03 ECM 655 09	Introduce NTZZ45NA Kit MD SECTION PER ECD 006-21515.

The Cable and Hardware kit for Teltrend modem shelf. is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Teltrend Cable Assy.	NTRX34ME		1	XX		AP
Teltrend Cable Assy.	NTRX34MF		1	XX		AP
Teltrend Cable Assy.	NTRX34MG		1	XX		AP
Alarm Wiring	NTRX34MH		1	XX		AP
Adapter Plates (Teltrend)	P0741274		2	XX		AP
Mounting Hardware	P097f813		4	XX		AP
Mounting Hardware	P0183220		1	XX		AP
Mounting Hardware	P0284154		1	XX		AP
Personality Plate	P0737132		1	WW		AP
Adapter	A0316594		6	WW		AP
Screw	A0317136		24	WW		AP
Washer	P0148330		24	WW		AP
Cover Plates 25 Pin	P0715775		12	WW		AP
Mounting Hardware	P0670923		24	WW		AP
Cable support Bracket	P0642031		1	XX		AP
Mounting Hardware	P097F813		2	XX		AP

EQUIPMENT FLAGGED '#':

PEC	RATING	REPLACED BY PEC
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:

1) XX can be either of the following mounting positions: 5, 19, 33, 47.

WW can be any of the following Bulkhead Zone positions for the Bulkhead kit: 03, 18.5, 34, 49.5.

The following table shows the mounting positions of the Teltrend Data Shelf CMIS in relation to the mounting positions of the Bulkhead fit on the bulkhead:

TELTREND	Mounting Plate Zones
Teltrend XX	Bulkhead Kit WW
5	03 (zone A)
19	18.5 (zone C)
33	34 (zone E)
47	49.5 (zone G)

RULES:

AP 1) When PEC NTZZ45NA is ordered, these items are provided.

CABINETIZED MISC SPARE STORAGE (BROWN) - MODEL B

PEC CODE:	NTZZ27EB
CPC CODE:	B0238388
RATING:	Cancelled
REPLACES:	Not applicable
REPLACED BY:	NTZZ27FA
ABBREVIATION NAME:	CMSS
ENGINEERING DESCRIPTION:	The Cabinetized Miscellaneous Spare Storage (CMSS) (Brown) provides for storage of spare circuit packs and is colored brown. 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:	SLRX49BA 00 01 MSRX49BA 00 01
MARKETS:	Applicable markets: US Canada Asia/Pacific CALA Europe

ISSUE AUTHOR: NTI: Gary Baum Dept. 3471 (PPK)

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

NTZZ27EB EMC13-09-MSS-1 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 11 16	ECM 683 01	Initial Issue
94 03 11	ECM 683 03	Cancel
94 10 06	ECM 683 10	Add Canada as market.

The Cabinetized Misc Spare Storage (Brown) - Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinetized Misc Spare Storage	NTRX49BA		1			AP
C28B Mechanical Assembly	NTRX25AA		1			AP-01
Door Kit (Center Latch) Brown	NTRX2569		1			AP
Spare Storage Shelf Assy	NTNX2201			12,26 40,54		RUL1
Spare Storage Shelf Assy Super-Node Circuit Packs	NTNX2203			14,28 42,56		RUL3
MSP Card Storage Chassis	NTRX4001			07,16,21 30,35,44 49,58,63		RUL4
Screw (Mounting Hardware)	P097F813					RUL4
Washer (Grounding Hardware)	P0284154					RUL4
Washer (Grounding Hardware)	P0183220					RUL4
Line Card Storage Chassis	NT3X55BA					RUL5
Tool Tray	P0700829			02,06		RUL6
Screw (Mounting Hardware)	P097F813					RUL6
Washer (Grounding Hardware)	P0284154					RUL6
Washer (Grounding Hardware)	P0183220					RUL6
Horizontal Cabling Bracket	P0739584					RUL7
Screw Mounting Hardware	P097F839					RUL7
C28 English Label Kit	NTRX3541		1			AP
"Dummy" Frame Fail Lamp Bezel-Brown	P0674502		2			AP
Diode/Red (Cover)	A0328413		2			AP
Screw (Mounting Hardware) (Brown Cabinet)	P097Y566		4			AP
CMSS Door Label Set (Lime Green)	P0741905		1			AP
C28 Cable Trough Assy (Brown)	NTRX55BB					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) Shelf provisioning should always begin with NTNX2201 shelves first, NTNX2203 shelves second, NTRX4001 chassis third and P0700829 Tool Tray last when mixing equipment

2) Always provision NTNX2201 first beginning in position 54 and providing additional NTNX2201 shelves downwards.

3) When no NTNX2201 shelves are provisioned, always provision NTNX2203 shelves beginning with position 56 and provision downwards.

4) Always provision NTRX4001 MSP beginning in the highest permissible but unoccupied position and add additional chassis downwards.

5) Provision Line Card Storage Chassis NT3X55BA in NTNX2201 from left to right, beginning from the left.

6) If Tool Tray P0700829 is provisioned, install in position 06 if Horizontal Cabling Bracket P0739584 is provided. If Horizontal Cabling Bracket P0739584 is not provided install Tool Tray in position 03.

7) Always provision the NTRX4001 MSP Card Storage Chassis beginning at the highest available, permissible position and add additional chassis downwards. If no Horizontal Cabling Bracket P0739584 is provisioned, the NTRX4001 MSP Card Storage Chassis may be provisioned in position 07 when the cabinet is fully loaded with (4) shelves.

RULES:

AP 1) When PEC NTZZ27EB is ordered, these items are provided.

2) This PEC has system level provisionable items covering requirements for the following:

* Seismic Zone provisioning

For details refer to EMS NTRX25AA C28 Cabinet Assembly.

AP-01 1) This PEC is always provided as part of NTRX49BA and is shown here for completeness.

RUL1 1) Provide one (1) NTNX2201, 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. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL3 1) Provide one (1) NTNX2203, 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) paddle boards on the rear side. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL4 1) Provide one (1) NTRX4001 MSP Card Storage Chassis to store a maximum of twenty (20) MSP Cards. A maximum of two (2) NTRX4001 MSP Card Storage Chassis can be provisioned in a NTRX49BA cabinet.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 for each NTRX4001 MSP Card Storage Chassis provided.

RUL5 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) NT3X55BA can be mounted in a NTNX2201 shelf assembly.

RUL6 1) Provision one (1) Tool Tray P0700829 as required.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 when a Tool Tray P0700829 is provided.

RUL7 1) Provide one (1) Horizontal Cabling Bracket P0739584 and two (2) P097F839 Screw Mounting Hardware when the Storage Cabinet is included in a lineup with 'Horizontal' cabling arrangement.

RUL8 1) Provide one (1) C28 Cable Trough Assy (Brown) NTRX55BB per C28 cabinet if overhead cable routing is required. Note, this cable trough is not compatible with Model A cabinets.

CABINETIZED MISC SPARE STORAGE (GREY) - MODEL B

PEC CODE:	NTZZ27DB
CPC CODE:	B0238389
RATING:	Cancelled
REPLACES:	Not applicable
REPLACED BY:	NTZZ27FA
ABBREVIATION NAME:	CMSS
ENGINEERING DESCRIPTION:	The Cabinetized Miscellaneous Spare Storage (CMSS) (Grey) provides for storage of spare circuit packs and is colored grey. 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:	SLRX49BA 00 01 MSRX49BA 00 01
MARKETS:	Applicable markets: US Asia/Pacific CALA Canada Europe

ISSUE AUTHOR: NTI: Gary Baum Dept. 3471 (PPK)

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

NTZZ27DB EMC13-09-MSS-2 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
93 11 16	ECM 683 01	Initial Issue
94 03 11	ECM 683 03	Cancel
94 10 06	ECM 683 10	Add Canada as market.

The Cabinetized Misc Spare Storage (Grey) - Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinetized Misc Spare Storage	NTRX49BA		1			AP
C28B Mechanical Assembly	NTRX25AA		1			AP-01
Door Kit (Center Latch) Grey	NTRX2568		1			AP
Spare Storage Shelf Assy	NTNX2201			12,26 40,54		RUL1
Spare Storage Shelf Assy Super-Node Circuit Packs	NTNX2203			14,28 42,56		RUL3
MSP Card Storage Chassis	NTRX4001			07,16,21 30,35,44 49,58,63		RUL4
Screw (Mounting Hardware)	P097F813					RUL4
Washer (Grounding Hardware)	P0284154					RUL4
Washer (Grounding Hardware)	P0183220					RUL4
Line Card Storage Chassis	NT3X55BA					RUL5
Tool Tray	P0700829			02,06		RUL6
Screw (Mounting Hardware)	P097F813					RUL6
Washer (Grounding Hardware)	P0284154					RUL6
Washer (Grounding Hardware)	P0183220					RUL6
Horizontal Cabling Bracket	P0739584					RUL7
Screw Mounting Hardware	P097F839					RUL7
C28 English Label Kit	NTRX3541		1			AP
"Dummy" Frame Fail Lamp Bezel-Grey	P0699441		2			AP
Diode/Red (Cover)	A0328413		2			AP
Screw (Mounting Hardware) (Grey Cabinet)	P097Y566		4			AP
CMSS Door Label Set (Fibreworld Blue)	P0726703		1			AP
C28 Cable Trough Assy (Grey)	NTRX55BA					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) Shelf provisioning should always begin with NTNX2201 shelves first, NTNX2203 shelves second, NTRX4001 chassis third and P0700829 Tool Tray last when mixing equipment

2) Always provision NTNX2201 first beginning in position 54 and providing additional NTNX2201 shelves downwards.

3) When no NTNX2201 shelves are provisioned, always provision NTNX2203 shelves beginning with position 56 and provision downwards.

4) Always provision NTRX4001 MSP beginning in the highest permissible but unoccupied position and add additional chassis downwards.

5) Provision Line Card Storage Chassis NT3X55BA in NTNX2201 from left to right, beginning from the left.

6) If Tool Tray P0700829 is provisioned, install in position 06 if Horizontal Cabling Bracket P0739584 is provided. If Horizontal Cabling Bracket P0739584 is not provided install Tool Tray in position 03.

7) Always provision the NTRX4001 MSP Card Storage Chassis beginning at the highest available, permissible position and add additional chassis downwards. If no Horizontal Cabling Bracket P0739584 is provisioned, the NTRX4001 MSP Card Storage Chassis may be provisioned in position 07 when the cabinet is fully loaded with (4) shelves.

RULES:

AP 1) When PEC NTZZ27DB is ordered, these items are provided.

2) This PEC has system level provisionable items covering requirements for the following:

* Seismic Zone provisioning

For details refer to EMA15-05-SYS-1 Cabinetization Model B System.

AP-01 1) This PEC is always provided as part of NTRX49BA and is shown here for completeness.

RUL1 1) Provide one (1) NTNX2201, 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. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL3 1) Provide one (1) NTNX2203, 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) paddle boards on the rear side. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL4 1) Provide one (1) NTRX4001 MSP Card Storage Chassis to store a maximum of twenty (20) MSP Cards. A maximum of two (2) NTRX4001 MSP Card Storage Chassis can be provisioned in a NTRX49BA cabinet.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 for each NTRX4001 MSP Card Storage Chassis provided.

RUL5 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) NT3X55BA can be mounted in a NTNX2201 shelf assembly.

RUL6 1) Provision one (1) Tool Tray P0700829 as required.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 when a Tool Tray P0700829 is provided.

RUL7 1) Provide one (1) Horizontal Cabling Bracket P0739584 and two (2) P097F839 Screw Mounting Hardware when the Storage Cabinet is included in a lineup with 'Horizontal' cabling arrangement.

RUL8 1) Provide one (1) C28 Cable Trough Assy (Grey) NTRX55BA per C28 cabinet, if overhead cable routing is required. Note, this cable trough is not compatible with Model A cabinets.

CMSS HARDWARE KIT - GREY

PEC CODE: NTZZ27DA

CPC CODE: N/A

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The CMSS Hardware Kit contains the EMI door kit and miscellaneous equipment required for a Grey Cabinetized Miscellaneous Spare Storage (CMSS).

REFERENCE DOCUMENTATION: SLZZ27DA 00 01
NTZZ27DA REL 01

MARKETS: Applicable markets:

US
Canada

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

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

NTZZ27DA EMC13-09-002 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 09 14	ECM 600 19	MD NTZZ27DA per EC 024-94287.

The CMSS Hardware Kit - Grey is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EMI Kit W/O Bulkhead (Grey)	NTRX2525		1			AP
Label- CMSS (Blue/Grey)	P0726703		1			AP
DUMMY Fail Lamp Bezel (Grey)	P0699441		2			AP
Diode/Red (Cover)	A0328413		2			AP
Screw (Mounting Hardware)	P097Y566		4			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 NTZZ27DA is ordered, these items are provided.

CMSS HARDWARE KIT - BROWN

PEC CODE: NTZZ27EA

CPC CODE: N/A

RATING: MD

REPLACES: N/A

REPLACED BY: N/A

ABBREVIATION NAME:

ENGINEERING DESCRIPTION: The CMSS Hardware Kit contains the EMI door kit and miscellaneous equipment required for a Brown Cabinetized Miscellaneous Spare Storage (CMSS).

REFERENCE DOCUMENTATION: SLZZ27EA 00 01
NTZZ27EA REL 01

MARKETS: Applicable markets:

US
Canada

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

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

NTZZ27EA EMC13-09-003 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
--------	----------	Previous history not available
95 09 14	ECM 600 19	MD NTZZ27EA per EC 024-94287.

The CMSS Hardware Kit - Brown is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
EMI Kit W/O Bulkhead (Brown)	NTRX2531		1			AP
Label- NT LOGO (Green/Brown)	P0695226		2			AP
Label- LOCK (Green/Brown)	P0695230		2			AP
DUMMY Fail Lamp Bezel (Brwn)	P0674502		2			AP
Diode/Red (Cover)	A0328413		2			AP
Screw (Mounting Hardware)	P097Y566		4			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 NTZZ27EA is ordered, these items are provided.

CABINETIZED MISC SPARE STORAGE - MODEL B

PEC CODE:	NTZZ27FA
CPC CODE:	B0240458
RATING:	MD
REPLACES:	NTZZ27DB and NTZZ27EB
REPLACED BY:	NTZZ27FB
ABBREVIATION NAME:	CMSS
ENGINEERING DESCRIPTION:	The Cabinetized Miscellaneous Spare Storage (CMSS) provides for storage of spare circuit packs and is colored either brown or grey. 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:	SLRX49BA 00 01 MSRX49BA 00 04
MARKETS:	Applicable markets: US Canada Asia/Pacific CALA Europe

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

MAIN CONTACT: NTI: Ron Hogan Dept. 3471 (PPK)

NTZZ27FA EMC13-09-004 CHANGE HISTORY

Engineering Manual Section Change History		
DATE	DOCUMENT	REASON
94 03 11	ECM 683 03	Initial Issue
94 08 04	ECM 683 07	ECM 024-92392
94 11 11	ECM 683 11	MD Replaced by NTZZ27FB
96 03 08	ECM 683 21	Properely retire BB in Coda and PAS.

The Cabinetized Misc Spare Storage - Model B is comprised of the following:

EQUIPMENT	PEC	ABBR	QTY	SHF POS	CP POS	RULE
Cabinetized Misc Spare Storage	NTRX49BA		1			AP
C28B Mechanical Assembly	NTRX25AA		1			AP-01
Spare Storage Shelf Assy	NTNX2201			07,21 35,49		RUL1
Spare Storage Shelf Assy Super-Node Circuit Packs	NTNX2203			08,22 37,51		RUL2
MSP Card Storage Chassis	NTRX4001			02,10,15 24,29,38 43,52,57		RUL3
Screw (Mounting Hardware)	P097F813					RUL3
Washer (Grounding Hardware)	P0284154					RUL3
Washer (Grounding Hardware)	P0183220					RUL3
Line Card Storage Chassis	NT3X55BA			07,21, 35,49		RUL4
Tool Tray	P0700829		1	63		AP
Screw (Mounting Hardware)	P097F813		4			AP
Washer (Grounding Hardware)	P0284154		1			AP
Washer (Grounding Hardware)	P0183220		1			AP
Horizontal Cabling Bracket	P0739584					RUL6
Screw Mounting Hardware	P097F839					RUL6
C28 English Label Kit	NTRX3541		1			AP
C28 Cabinet Mechanicals	NTRX25AA					NOTE1
Cabinet Power and Grounding	NTZX16CA					NOTE2
Door and eqp. labels	MS0X60AA					NOTE3

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 NTZZ27FA has system level provisionable items covering the following:

   * Seismic Zone provisioning

   * Grounding options provisioning

   * Cable routing options provisioning

   * Cabinet Fail Lamp provisioning

   * Cabinet door provisioning

   For details of the above refer to Engineering Manual Section NTRX25AA, C28 Cabinet Mechanical Assembly.

2) For power and grounding information refer to Engineering Manual Section for NTZX16CA Cabinetized Power and Grounding.

3) Refer to MS0X60AA for equipment labeling.

4) Shelf provisioning should always begin with P0700829 Tool Tray first, NTNX2201 shelves second, NTNX2203 shelves third, and the NTRX4001 chassis fourth, when mixing shelf types in the same storage cabinet.

5) Always provision NTNX2201 first beginning in position 49 and providing additional NTNX2201 shelves downwards.

6) When no NTNX2201 shelves are provisioned, always provision NTNX2203 shelves beginning with position 51 and provision downwards.

7) Always provision NTRX4001 MSP beginning in the highest permissible but unoccupied position and add additional chassis downwards.

8) Provision Line Card Storage Chassis NT3X55BA in NTNX2201 from left to right, beginning from the left. To install the NT3X55BA, remove circuit pack sliders from the NTNX2201 shelf that is to receive the Chassis and insert and secure the NT3X55BA to the top of the shelf using the provided hardware. Provision the NT3X55BA starting with the topmost NTNX2201 shelf position, from top to bottom filling each shelf completely before provisioning the next lower shelf.

9) Always provision the NTRX4001 MSP Card Storage Chassis beginning at the highest available, permissible position and add additional chassis downwards. If no Horizontal Cabling Bracket P0739584 is provisioned, the NTRX4001 MSP Card Storage Chassis may be provisioned in position 02 when the cabinet is fully loaded with (4) shelves.

RULES:

AP 1) When PEC NTZZ27FA is ordered, these items are provided.

AP-01 1) This PEC is always provided as part of NTRX49BA and is shown here for completeness.

RUL1 1) Provide one (1) NTNX2201, 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. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL2 1) Provide one (1) NTNX2203, 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) paddle boards on the rear side. A maximum of four (4) NTNX2201 may be provisioned in one NTRX49BA cabinet.

RUL3 1) Provide one (1) NTRX4001 MSP Card Storage Chassis to store a maximum of twenty (20) MSP Cards. A maximum of two (2)

NTRX4001 MSP Card Storage Chassis can be provisioned in a NTRX49BA cabinet.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 for each NTRX4001 MSP Card Storage Chassis provided.

RUL4 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) NT3X55BA can be mounted in a NTNX2201 shelf assembly.

RUL5 1) Provision one (1) Tool Tray P0700829 as required.

2) Provide four (4) Screw P097F813, one (1) Washer P0284154 and one (1) Washer P0183220 when a Tool Tray P0700829 is provided.

RUL6 1) Provide one (1) Horizontal Cabling Bracket P0739584 and two (2) P097F839 Screw Mounting Hardware when the Storage Cabinet is included in a lineup with 'Horizontal' power arrangement. RUL7 1) Provide one (1) NTRX3542 Label Kit for German language applications.

LISTING BY PRODUCT ENGINEERING CODE

PEC	EQUIPMENT NAME	SECTION #
A0XXXXXX	AT&T Data Mounting Unit-40B1	EMC13-08-ATT-1
		EMC13-08-ATT-2
A0204206	Fuse (per 6131)	EMC13-08-TL-3
A0205202	1 1/3 amp fuse	EMC16-01-PDC-4
		EMC2-09-CPE
		EMC2-09-CPE-1
		EMC13-05-PDM-1
		EMC13-08-TL-3
		EMC13-08-AEU
		EMC13-08-AAC
A0205203	2 Amp Fuse	EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-TL-4
		EMC13-08-MLT
A0205205	5 Amp Fuse	EMC13-08-NKA
		EMC13-08-DSS-2
		EMC13-08-DAS
A0205207	1/4 Amp Fuse	EMC13-08-ISTC
A0205208	Fuse (per 5X6131)	EMC13-08-TL-3
A0205209	Fuse 3/4 Amp Brown	EMC13-01-004
A0205210	DUMMY FUSE	EMC13-05-002
		EMC13-05-001
		EMC13-01-004
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
A0277744	Magnetic Tape Drive Assembly	EMC2-09-IOE
		EMC5-01-IOE-3
		EMC10-13-MCGM-1
A0279319	Screw Retainer	EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
A0285591	Line Drawer Cutoff Strap	EMC2-07-001
A0286407	10 Amp Fuse	EMC16-01-PDC-4
		EMC13-05-PDM-1
A0292488	PCB Shorting Lnk Mini Jumper	EMC4-06-008
A0292996	Lug	EMC2-20-IOC-1
		EMC2-20-IOC-2
A0301068	DC 4800 4800 bps 2W/4W	EMC13-08-GDC-1

A0315462	SPARE 10 AMP FUSE	EMC13-05-002
		EMC13-05-001
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
A0316594	25-Pin Filter Adapter	EMC13-01-004
		EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-GDC-1
		EMC13-08-GDC-2
		EMC13-08-TT-01
		EMC13-08-ASY-4
		EMC13-08-ASY-9
		EMC13-03-HWK-11
A0316598	37 Pin Filter Adapter	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
A0316599	37 Pin Filter Adapter	EMC2-20-ROS-2
		EMC2-20-IOC-1
		EMC13-01-004
		EMC5-03-IOC
		EMC2-20-IOC-2
A0317136	Mounting Hardware	EMC2-20-ROS-2
		EMC2-20-IOC-1
		EMC13-01-004
		EMC5-03-IOC
		EMC2-25-AXU
		EMC2-20-AXU
		EMC2-20-IOC-2
		EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-GDC-1
		EMC13-08-GDC-2
		EMC2-24-ASY-1
		EMC13-08-TT-01
		EMC13-08-ASY-4
		EMC13-08-ASY-9
		EMC13-08-ISTC
		EMC13-08-AAC
		EMC13-03-HWK-11
A0319455	GDC DS-5 Modem Shelf -48VDC	EMC13-08-GDC-1
A0320894	CASE/DATATEL Adapter Plug	EMC13-01-004
A0323985	YUASA BATTERIES	EMC2-13-000
		EMC2-13-001
A0324131	AND ASSOCIATED TB JUMPERS	EMC2-01-TS-1
		EMC2-01-TS-2
		EMC2-01-000
		EMC2-01-001

A0326502	Magnetic Tape Drive Assembly	EMC5-01-IOE-3
A0328413	Diode LED Red	EMC2-09-IOE
		EMC13-09-MSS-2
		EMC13-09-MSS-1
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC13-09-002
		EMC13-09-003
A0328524	DC 202S/T 1200/1800 bps	EMC13-08-GDC-1
A0329102	DPS-7A Power Supply	EMC13-08-GDC-1
A0336653	D Sub Filter Connector	EMC2-24-ASY-1
A0336796	9-Pin Filter Adapter	EMC2-25-AXU-1
		EMC2-25-AXU-2
A0344127	9-Pin Filter Adapter	EMC13-01-004
		EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
		EMC13-08-ISTC
		EMC13-08-AAC
A0344310	DC Redundant Modem Shelf	EMC13-01-001
		EMC13-01-002
A0351816	Maint Modem (GDC DC596 110V)	EMC8-02-005
A0352268	FIBER OPTIC CABLE	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
A0352431	Power Cable Lugs (8 AWG)	EMC2-20-004
		EMC16-03-001
A0352789	DC 500C/UXR 56kbp 4W mulpt	EMC13-08-GDC-1
A0360855	Spare 115VAC Power Supply	EMC13-08-DSS-1
A0360856	Spare -48VDC Power Supply	EMC13-08-DSS-2
A0367433	LaMarche 500W Inverter	EMC13-01-LIV-1
		EMC13-01-004
		EMC13-08-LIV-1

A0368391	Cover Plate	EMC2-20-001
		EMC2-20-005
		EMC2-20-000
A0368392	FSP TERM BLOCK COVER ASS.	EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC4-05-010
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-04-APC-5
A0368910	MAU	EMC8-02-001
A0368911	FC 1133 Token Ring Card	EMC8-02-000
		EMC8-02-MPX-11
A0368912	Color Monitor	EMC8-02-000
A0369235	CASE/DATATEL Adapter Plug	EMC13-01-004
A0369236	CASE/DATATEL Adapter Plug	EMC13-01-004
A0369273	FC 6401 RTIC Card	EMC8-02-000
		EMC8-02-005
A0377580	COOLING UNIT	EMC2-16-001
		EMC2-16-002
		EMC2-16-005
		EMC2-16-007
A0377837	FILTER	EMC2-16-001
		EMC2-16-002
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
A0378579	Key Telephone Filter Conn	EMC2-24-ASY-1
A0378920	DC 19202A 19.2 Kbps 2 ch.	EMC13-08-GDC-1
A0378921	DC 9600 RPA 9600 bps V.29	EMC13-08-GDC-1
A0378923	DC 9600 SPA 9600 bps V.29	EMC13-08-GDC-1
A0378927	DC 108-3M 300 bps 2W/4W	EMC13-08-GDC-1
A0378939	DC 224+ 1200 bps 2W/4W	EMC13-08-GDC-1
A0378941	DC 224+ X.25 1200 bps 2W/4W	EMC13-08-GDC-1
A0378942	DC 596 9600 bps 2W/4W	EMC13-08-GDC-1

A0378944	DC 596MNP5 9600 bps 2W/4W	EMC13-08-GDC-1
A0378946	DC 596X.25 9600 bps 2W/4W	EMC13-08-GDC-1
A0378950	DC 500C/DRU-A 56kbp dialback	EMC13-08-GDC-1
A0378953	PS2 Base (Type 3)	EMC8-02-000
A0378954	PS2 Base (Type 1 & 2)	EMC8-02-000
A0379007	DC 500C/56KD 56kbp 4W	EMC13-08-GDC-1
A0379066	Pylon RG-2 Ring Generator	EMC13-01-004
		EMC13-08-AEU
A0379072	TOPS MPX Keyboard French	EMC8-02-000
A0379092	Power Cable Lugs (10 AWG)	EMC2-20-004
		EMC16-03-001
A0379250	TOPS MPX Keyboard	EMC8-02-000
A0379341	Keycap Removal Tool	EMC8-02-005
A0379352	Belkin MAU Test Tool	EMC8-02-001
A0379486	CABLE ASSEMBLY	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
A0380973	GDC DS-6 Modem Shelf	EMC13-01-001
		EMC13-01-002
		EMC13-05-007
A0380975	DS-5 Mounting Adapter	EMC13-08-GDC-1
A0381005	Power Cable Lugs (6 AWG)	EMC2-20-004
		EMC16-03-001
A0382102	Cooling Unit (-60V)	EMC2-16-007
A0382103	-60V Blower Assembly	EMC2-16-007
A0382150	TOPS MPX Keyboard English	EMC8-02-000
A0383325	-48V Blower Assembly	EMC2-16-007
A0383326	-60V Elec. Module	EMC2-16-007
A0383333	Media Access Unit (MAU)	EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
A0384166	Mounting Adapter 19x10-1/2	EMC13-01-001
		EMC13-01-002
A0384296	Straight Blade Power Strip	EMC8-02-000
		EMC8-02-005
A0384297	Twist-Lock Power Strip	EMC8-02-000
		EMC8-02-005
A0385011	Modem Filler Faceplate	EMC19-02-001
A0385644	T.R. Data Cbl, Posn-Junc Box	EMC8-02-000
		EMC8-02-MPX-10
		EMC8-02-MPX-11
		EMC8-02-MPX-12
		EMC8-02-005
A0600741	Cable, 25P Male - 25P Female	EMC8-02-005
A0600770	CMIS CASE/DATATEL RM4200	EMC13-01-004
A0601464	Cable, 25P Male - 9P Female	EMC8-02-005

A0601999	CMIS DANTEL Digital Alarm	EMC13-01-004
A0602029	DSU (GDC DT500N 56K 110V)	EMC8-02-005
A0602526	69X8138 Token Ring CP	EMC8-02-MPX-10
		EMC8-02-MPX-12
		EMC8-02-005
A0609601	V.35 56KBPS Rackmount Modem	EMC19-02-X25
		EMC19-02-001
A0609602	DSU (UDS 56K 110/220V)	EMC8-02-005
A0615939	Token Ring Card (Europe)	EMC8-02-005
A0615940	RTIC Card (Europe)	EMC8-02-005
A0616226	DSU (GDC DT500N 56K 220V)	EMC8-02-005
A0617131	Power Strip 220V	EMC8-02-005
A0618649	Power Cord (use w/ A0617131)	EMC8-02-005
A31-500-48V-A6	LaMarche 500 Watt Inverter	EMC11-01-000
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
CPD12DR04	CROUSE-HINES ELEC PLUG	EMC2-13-000
		EMC2-13-001
		EMC2-13-002
		EMC2-13-003
CRP14FSKR750	Female Screw Lock	EMC19-02-IOC-1
		EMC19-02-MODEM
C1004A	HP700/22 AMBER VDU W/KEYBD	EMC11-01-VDU-1
C1007A	Amber VDU (HP 700/44)	EMC11-01-000
C1007G	Green VDU (HP 700/44)	EMC11-01-000
C1007W	White VDU (HP 700/44)	EMC11-01-000
DCM42000	DCM4200 Card Cage 115VAC	EMC13-08-DSS-1
DCM42001	DCM4200 Card Cage -48V	EMC13-08-DSS-2
DCM42011	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42021	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42081	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42121	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42221	DCM4222 (A0351637)	EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42225	CASE/DATATEL Modem	EMC13-01-004
DCM42291	CASE/DATATEL 829 Data Aux. Set	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCM42323	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1

		EMC13-08-DSS-2
DCM42961	CASE/DATATEL Modem	EMC13-01-004
		EMC13-08-DSS-1
		EMC13-08-DSS-2
DCP42561	DCP5256 (A0384722)	EMC13-08-DSS-1
		EMC13-08-DSS-2
ED1T53-02	Rear Panel E/Q & Universal	EMC2-07-000
		EMC2-07-001
FCP01F25NH50G	Connector 25-pin EMI Filter	EMC19-02-IOC-1
		EMC19-02-MODEM
FCP06G50NBS12	Connector 50-pin EMI Filter	EMC19-02-MODEM
IBAR4-12HP	Twist-Lock Power Strip	EMC8-02-000
ISOBAR4-12HP	Straight Blade Power Strip	EMC8-02-000
ITEM_103	TI-810 RO Printer	EMC8-02-PRT-1
ITEM_610	TI-810 Terminal Stand	EMC8-02-PRT-1
ITEM_611	TI-810 Stand Mtd Paper Tray	EMC8-02-PRT-1
ITEM_805	TI-810 Spare Ribbons	EMC8-02-PRT-1
LA424-CA	RD Printer (DEC LA-424)	EMC11-01-000
LA75S-AA	RD Printer (DEC LA-75S)	EMC11-01-000
LWJRX33DA	Wiring Instructions	EMC2-09-IOE
		EMC5-01-IOE-3
MPX_IWS_R2_MCA	TOPS MPX IWS Release 02 MCA Positi	EMC8-02-005
MS0X60AA	Door and eqp labels	EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC3-01-DSN-1
		EMC3-01-003
		EMC3-02-NET-7
NE-P4QDG	PORTABLE DATA CORD	EMC11-01-VDU-1
NPS50632-01L6	MDS Modem Shelf	EMC19-02-004
		EMC19-02-MODEM
NPS50632-02L1	Power Converter	EMC19-02-MODEM
NPS51074-11L2	Rackmount Dial-up Modem	EMC19-02-001
NPS51151-01L3	HUB 12-port	EMC19-02-HUB
NTAX7601	DSP Shelf	EMC9-15-MDSP-2
NTAX77AA	DSP Cooling Unit	EMC9-15-MDSP-2
NTAX78AA	Digital Cellular Time Switch	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTAX78AB	Enhanced Time Switch CP	EMC2-06-SMA-5
		EMC2-06-SMA-6
		EMC2-06-SMA-7
NTAX79AA	Backplane Terminator	EMC9-15-MDSP-2
NTAX80AA	DSP Control Processor	EMC9-15-MDSP-2
NTAX81AA	DSP Card	EMC9-15-MDSP-2
NTAX82AA	MDSP Cabinet	EMC9-15-MDSP-2
NTAX8213	DS30A Cable	EMC9-15-MDSP-2
NTBX01AA	ISDN PRE-PROCESSOR CP	EMC2-18-CPC-1
		EMC2-99-SPM-1

		EMC2-99-XPM-4
		EMC2-20-000
NTBX01AB	ENHANCED ISP	EMC2-99-SPM-1
		EMC2-18-001
		EMC2-99-XPM-4
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-06-LTC-4
		EMC2-06-LGC-4
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMU-4
		EMC2-09-SMU-9
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-18-002
		EMC2-25-RCC2-7
		EMC2-25-RCC2-8
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-20-000
NTBX01AC	Enhanced ISP CP	EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-20-000
NTBX01BA	Enh ISDN Pre-Proc. CP	EMC2-18-002
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-20-000
NTBX02AA	ISDN D-Channel Handler (DCH)	EMC2-25-RCC2-9

		EMC2-20-000
NTBX02BA	Enhanced ISDN DCH CP	EMC2-20-000
NTBX30AB	ISDN Line Conc Equip Frame	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
NTBX3010	Filler Grille Assy	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
NTBX31AB	LCMI Filler Face Plate Fill	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
		EMC2-08-LCE-1
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTBX31BA	LCME Common Circuit Packs	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-LCME-1
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTBX31BB	LCME Common Circuit Packs	EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-9
		EMC2-25-RCC2-11
		EMC2-08-000
NTBX31PA	LCME Packfill Upgrade Kit	EMC2-25-RCC2-3
		EMC2-25-RCC2-9
		EMC2-25-RCC2-11
		EMC2-08-000
NTBX3104	ISDN Line Conc Arr Shf Assy	EMC2-19-000
		EMC2-19-002
		EMC2-19-003

		EMC2-19-004
NTBX3118	ISDN LCA Shelf Assy	EMC2-08-LCE-1
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-08-000
NTBX32BA	ISDN Enhanced Line Drawer	EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTBX37AB	LCEI Frame Supervisory Pnl	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
NTBX63AA	D.C. Fan Unit	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
NTCX50AA	Echo Canceller Control CP	EMC2-20-001
NTCX50AB	Echo Cncl Cntrl Paddlecard	EMC2-20-000
NTDX15AA	+5V/-5V POWER CONV	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
NTDX15AB	+5V/-5V Power Conv	EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTDX16AA	Power Converter CP	EMC4-04-APC-5
NTEX01AA	Enhanced Multi-Pur.Cabinet	EMC2-16-009
NTEX0120	Composite Clock Cable Assy	EMC2-16-FLIU-1
NTEX20AA	INTRA FBUS A TERM CPTNA	EMC2-16-LIU-1

		EMC2-16-LIU-2
		EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-004
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-12-000
		EMC2-16-006
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC4-06-008
		EMC2-16-LIU-8
		EMC4-04-APC-5
NTEX20BA	INTRA FBUS B TERM CPNTA	EMC2-16-LIU-1
		EMC2-16-LIU-2
		EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-004
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-12-000
		EMC2-16-006
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC4-06-008
		EMC2-16-LIU-8
		EMC4-04-APC-5
NTEX22AA	IPF Proc and F/Bus I/F	EMC2-16-FIU-1
		EMC2-16-LIU-3
		EMC2-16-LIU-4
		EMC2-16-LIU-0
		EMC2-16-EIU-1
NTEX22BA	Enhanced IPF & F/Bus I/F	EMC2-16-LIU-5
		EMC2-12-LIU-1
		EMC2-12-LIU-2

		EMC2-12-LIU-3
		EMC2-16-EIU-2
		EMC2-16-LIU-50
		EMC2-16-LIU-6
		EMC2-16-LIU-70
		EMC2-16-LI-10
		EMC2-16-LI-11
NTEX22BB	Enhanced IPF & F/Bus I/F	EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-12-LIU-1
		EMC2-12-LIU-2
		EMC2-12-LIU-3
		EMC4-04-APC-5
NTEX26AA	Channel Access Bus I/F PB	EMC2-16-LI-10
		EMC2-16-LI-11
NTEX30AA	Frame Relay T1 Access	EMC2-16-FIU-1
NTEX31AA	Frame Relay Access Proc	EMC2-16-FIU-1
NTEX5001	OVERHEAD POWER BLOCK KIT	EMC2-16-000
		EMC2-16-003
		EMC2-16-004
		EMC3-05-000
		EMC3-05-001
		EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-04-000
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC2-12-000
		EMC2-16-006
		EMC2-16-009
NTEX5017	DUAL FSP CONNECTOR PNL. ASSY	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
NTEX5018	DUAL FSP BULKHEAD PNL. ASSY	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
NTEX5022	INTER-MS DS-30 CABLE ASSY	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-001
		EMC4-05-005

		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTEX5023	INTER-MS DS-30 CABLE ASSY	EMC4-05-000
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTEX5025	BULKHEAD CONN COVER PLATE	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC4-06-000
		EMC4-06-002
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-16-009
		EMC4-04-APC-5
NTEX5026	MS0-MS1 CABLE ASSEMBLY	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTEX5070	Bulkhead coverplate assy.	EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-06-004

		EMC4-06-005
		EMC4-05-010
		EMC4-05-003
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC4-06-006
		EMC4-06-010
NTFX33BA	Cabinetized Fiber Common CP	EMC2-20-001
NTFX51AA	Service Bay	EMC19-02-000
NTFX5105	48 Port (T1) Cable Kit	EMC19-02-MC-4
NTFX5106	24 Port (T1) Cable Kit	EMC19-02-MC-2
NTFX5107	Attendant Shf (V.35) Cab Kit	EMC19-02-AC-1
NTFX52AA	LAN Bay	EMC19-02-003
NTFX53AA	Operations Bay	EMC19-02-001
NTFX53AB	Air Plenum	EMC19-02-001
NTFX5302	Operations Shelf Cable Kit	EMC19-02-OP
NTFX54AA	Spares Bay	EMC19-02-004
NTFX5510	Modular Frame Supervisory Pn	EMC19-02-000
		EMC19-02-001
		EMC19-02-003
NTFX56AA	NAV Shelf Assembly	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
NTFX5605	Air Plenum Shelf	EMC19-02-000
NTFX57AA	MDS Auxiliary Shelf	EMC19-02-004
		EMC19-02-AUX
NTFX58AA	Cooling Module	EMC19-02-000
		EMC19-02-001
NTFX5805	Cooling Shelf Assembly	EMC19-02-000
		EMC19-02-001
NTFX5810	Air Filter Shelf	EMC19-02-000
		EMC19-02-001
NTFX5811	Cooling Cage Assembly	EMC19-02-004
NTFX60AA	Power Converter	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
NTFX61CA	5 1/4 inch Tape CP	EMC19-02-AUX
NTFX61DA	1.2 GB Disk Disk CP	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
NTFX62AA	Digital Trunk Link	EMC19-02-MC-2
		EMC19-02-MC-4
NTFX63AA	Digital Trunk Link TM	EMC19-02-MC-2
		EMC19-02-MC-4

NTFX64AA	Multichannel Telecom Link	EMC19-02-MC-2
		EMC19-02-MC-4
NTFX65AA	Time Slot Interchange	EMC19-02-MC-2
		EMC19-02-MC-4
NTFX66AA	Filler Faceplate (front)	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
		EMC19-02-000
		EMC19-02-001
NTFX67AA	Filler Faceplate (rear)	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
		EMC19-02-000
		EMC19-02-001
NTFX69AA	Air Filter Module	EMC19-02-000
		EMC19-02-001
NTFX75AA	Master Service Processor	EMC19-02-AC-1
		EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
NTFX75CA	System Processor 33MHZ 64MB	EMC19-02-MC-2
		EMC19-02-MC-4
NTFX78AA	Speech Recognition Proc	EMC19-02-MC-2
		EMC19-02-MC-4
NTFX79AA	Input Output Contr (RS232)	EMC19-02-OP
NTFX80AA	Input Output Contr (RS232)TM	EMC19-02-OP
NTFX81AA	Input Output Cont (X.25)	EMC19-02-IOC-1
NTFX82AA	Input Output Cont (X.25) TM	EMC19-02-AC-1
		EMC19-02-IOC-1
NTFX8519	TM Modem Cable	EMC19-02-IOC-1
NTFX8525	Modem Alarm Cable	EMC19-02-MODEM
NTFX8526	Modem Power Jumper Cable	EMC19-02-001
NTFX8536	V.35 Modem Cable	EMC19-02-X25
NTFX8539	SCSI Jumper Cable	EMC19-02-AUX
NTFX8542	HUB 10BaseT Cable	EMC19-02-HUB
NTFX8551	Auxiliary Power Jumper Cable	EMC19-02-AUX
NTFX91AA	Service Processor TM	EMC19-02-MC-2
		EMC19-02-MC-4
		EMC19-02-OP
NTGX13AA	600MB Disk Module Assy	EMC19-01-HRS-2
NTMX1657	LaMarche Frame Ground Kit	EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NTMX1658	LaMarche Jumper Ground Kit	EMC13-01-001
		EMC13-01-002
NTMX1665	LaMarche Frame Isolation Kit	EMC13-01-001
		EMC13-05-005

		EMC13-01-002
NTMX26BA	Frame Supervisory Panel	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NTMX26CD	Frame Supervisory Panel	EMC2-20-004
		EMC16-03-001
NTMX2643	-48V ABS Cable	EMC2-20-004
		EMC16-03-001
NTMX2644	ABS Rtn Cable	EMC2-20-004
		EMC16-03-001
NTMX40AA	Meridian Net/Cont Module	EMC10-08-MNET-1
		EMC10-08-MNET-2
NTMX40ZA	MNET to MCTMI conversion kit	EMC10-08-MNET-1
		EMC10-08-MNET-2
NTMX4723	V.35 Cable Ass’y	EMC10-17-000
NTMX4724	RS232 (EMPC) Cable Ass’y	EMC10-17-000
NTMX4725	RS232 (HDLC) Cable Ass’y	EMC10-17-000
NTMX4726	RS232 or Current Loop	EMC10-17-000
NTMX70AA	Wiring Paddleboard Kit	EMC2-06-SMS-4
		EMC2-06-SMSR-5
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-18-002
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-06-002
NTMX70AB	XPM PLUS Paddlecard Kit	EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC2-20-000
NTMX70AC	3P XPM Plus Paddlecard Kit	EMC2-20-001
NTMX7011	XPM+ Upgrade CP	EMC2-99-XPM-7
NTMX7012	XPM+ Upgrade CP	EMC2-99-XPM-7
NTMX71AA	XPM PLUS TERM PB	EMC2-99-SPM-1
		EMC2-15-006
		EMC2-15-005
		EMC2-24-RCC-7
		EMC2-15-008
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC2-06-LTC-5

		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-06-SMU-4
		EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-06-DTC-3
		EMC2-99-XPM-7
		EMC2-15-014
		EMC2-15-010
		EMC2-15-012
		EMC2-15-013
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-20-001
		EMC2-06-002
		EMC2-20-000
NTMX72AA	Power Converter	EMC2-25-RCC2-7
		EMC2-25-RCC2-8
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX73AA	PCM Signaling Processor	EMC2-25-RCC2-2
		EMC2-25-RCC2-7
		EMC2-25-RCC2-8
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX74AA	DS30A Interface CP	EMC2-25-RCC2-9

		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX74AB	DS30A Interface CP	EMC2-25-RCC2-7
		EMC2-25-RCC2-8
NTMX75AA	Enhanced Matrix CP	EMC2-25-RCC2-7
		EMC2-25-RCC2-8
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX76AA	Extended Distnace Msg	EMC2-06-000
		EMC2-06-004
		EMC2-06-005
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-09-CPE-1
		EMC2-25-RCC2-8
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX77AA	UNIFIED PROCESSOR	EMC2-99-SPM-1
		EMC2-15-006
		EMC2-15-005
		EMC2-24-RCC-7
		EMC2-15-008
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7

		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-06-SMU-4
		EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-06-DTC-3
		EMC2-99-XPM-7
		EMC2-15-014
		EMC2-15-010
		EMC2-15-012
		EMC2-15-013
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-25-RCC2-7
		EMC2-25-RCC2-8
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-24-RCC-13
		EMC2-20-001
		EMC2-06-002
		EMC2-20-000
NTMX79AA	DS60 Extender CP	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-6
NTMX81AA	Dual DS1 Packlet	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13

		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX82AA	Dual 2MB (PCM30) I/F Packlet	EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
		EMC2-24-RCC-15
NTMX83AA	Filler Face Plate	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8501	Remote Cluster Controller #2	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-16

		EMC2-24-RCC-10
NTMX8601	RCC2 Extension Shelf	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX87AA	Quad Frame Carrier	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX88AA	CEXT Cabinet	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTMX88WA	MTA Wiring Option	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTMX8815	CEXT RMM to Blkhd cassy	EMC2-24-ASY-1
NTMX8816	AUX Alarm Cable	EMC2-25-RCC2-9
NTMX8817	CEXT Connector Plate Assy	EMC2-24-RCC-12
		EMC2-24-RCC-18
NTMX8889	PCM30 Coax PCB Assembly	EMC2-24-RCC-15
NTMX89AA	CRSC Cabinet	EMC2-25-RCC2-3
		EMC2-25-RCC2-4
NTMX89BA	CRSC Offshore	EMC2-25-RCC2-9
NTMX89CA	CRSC Cabinet	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
NTMX89FA	Enhanced CRSC/LCM Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX89FB	Enhanced CRSC/LCME Kit	EMC2-25-RCC2-11
		EMC2-25-RCC2-13

		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
NTMX89FC	Enhanced CEXT Cabinet Assy.	EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX89KA	CRSC RCC2/RMM (Non-PCM) Kit	EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX89KB	CRSC RCC2/RMM (PCM) Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX89KC	CEXT Ext/RMM (non-PCM) I/O	EMC2-24-RCC-12
		EMC2-24-RCC-18
NTMX89KD	CEXT Ext/RMM (PCM) I/O Kit	EMC2-24-RCC-15
NTMX89KE	CEXT ISDN VF I/O Kit	EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX89KG	CRSC/ISDN VF I/O Kit	EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
NTMX89KH	CRSC/LCM VF I/O Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX89KJ	CRSC/LCM MSP Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX89KK	CRSC/ISDN MSP Kit	EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
NTMX89KL	CEXT MSP Kit	EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX89KM	Internal Power Kit (Horiz.)	EMC2-25-RCC2-10

		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX89LA	RMM Repowering Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
NTMX8901	Bulkhead Assembly	EMC2-25-RCC2-9
NTMX8903	Base Cabinet Kit	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8904	External Power Kit (Vert.)	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8909	Bulkhead 05 CPM Conn Plate	EMC2-25-RCC2-12

		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8938	S/RSC RMM to Blkhd cassy	EMC2-24-ASY-1
NTMX8943	CRSC Standalone Power Kit	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NTMX8945	CA Assembly (SEND)	EMC2-25-RCC2-9
NTMX8946	CA Assembly (RECV)	EMC2-25-RCC2-9
NTMX8955	ABS Cable	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTMX8967	Bulkhead 19 CPM Conn Plate	EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8968	Blkhd 19 Connector Plate	EMC2-24-RCC-12
		EMC2-24-RCC-18
NTMX8969	Blkhd 33 Connector Plate	EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8978	Blkhd 33 Connector Plate	EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
NTMX8979	Blkhd 33 Connector Plate	EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX8980	PCM30 Ext Blkhd 19 Plate	EMC2-25-RCC2-10
		EMC2-25-RCC2-11

		EMC2-24-RCC-13
NTMX8981	Blkhd 19 Connector Plate	EMC2-24-RCC-15
NTMX8982	Blkhd 47 Connector Plate	EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTMX8983	Blkhd 47 Connector Plate	EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTMX8989	PCM30 Coax PCB Assembly	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
NTMX8991	Bulkhead Assembly	EMC2-25-RCC2-9
NTMX8995	CA Assembly (SEND) CPMtoBHD	EMC2-25-RCC2-9
NTMX8996	CA Assembly (RECV) CPMtoBHD	EMC2-25-RCC2-9
NTNX1601	Power Cable Assembly	EMC2-25-AXU
		EMC2-20-AXU
NTNX1620	IOC/FSP Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTNX1621	IOC/FSP Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTNX1697	Stratum/FSP Cable	EMC2-20-ROS-2
NTNX22AA	Meridian Spare Storage Cab.	EMC10-14-MCSS-1
NTNX2201	Spare Storage Shelf Assy	EMC13-09-MSS-2
		EMC13-09-MSS-1
		EMC10-14-MCSS-1
NTNX2203	Spare Storage Shelf Assy	EMC13-09-MSS-2
		EMC13-09-MSS-1
NTNX24BA	Power Dist’n Panel	EMC10-12-MCAM-2
NTNX25AA	Meridian Cabinet Assy	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX25EA	Streamline Cabinet	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6

		EMC2-25-RCC2-9
		EMC19-02-000
		EMC19-02-001
		EMC19-02-003
NTNX2513	Rt. Front/Rear Door (Grey)	EMC19-03-005
		EMC10-08-MNET-1
		EMC10-13-MCGM-1
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX2515	Lt. Front/Rear Door (Grey)	EMC19-03-005
		EMC10-08-MNET-1
		EMC10-13-MCGM-1
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX2517	End Panel (right,grey)	EMC9-15-MDSP-2
		EMC10-12-MCAM-2
NTNX2518	End Panel (left,grey)	EMC9-15-MDSP-2
		EMC10-12-MCAM-2
NTNX2531	End Panel (right,brown)	EMC9-15-MDSP-2
NTNX2532	End Panel (left,brown)	EMC9-15-MDSP-2
NTNX2540	Anchor Kit (Earthquake Slab)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX2550	Lt. Front/Rear Door (Brown)	EMC19-03-005
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
NTNX2552	Rt. Front/Rear Door (Brown)	EMC19-03-005
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
NTNX2578	Anchor Kit (EQ cmptr Floor)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX2579	Anchor Kit (Non-EQ Slab)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2

		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX2580	Anchor Kit (Non-EQ cmp Flr)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC10-17-000
		EMC10-14-MCSS-1
NTNX26GA	Frame Supervisory Panel	EMC9-15-MDSP-2
NTNX26HA	Frame Supervisory Panel	EMC2-20-002
NTNX26LA	CLCE Supervisory Panel	EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003
NTNX26MA	Perif Fr Supervisory Panel	EMC2-25-000
		EMC2-20-005
		EMC10-13-MCGM-1
NTNX26NA	Frame Supervisory Panel	EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
		EMC2-20-000
NTNX2656	Power Cable Assembly	EMC13-05-009
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NTNX2692	-48V ABS Cable	EMC2-20-004
		EMC16-03-001
NTNX2693	ABS Rtn Cable	EMC2-20-004
		EMC16-03-001
NTNX27CA	Fan Cooling Unit	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-20-001
		EMC2-20-002
		EMC2-26-000
		EMC2-25-000
		EMC2-20-005
		EMC10-08-MNET-1
		EMC10-08-MNET-2

		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC2-20-000
NTNX27DA	Cooling Unit	EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003
NTNX29AB	STM DRAM Wiring Option	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NTNX29AC	STM CODEC Wiring Option	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NTNX32AA	MCEX Cabinet	EMC10-17-000
NTNX32PA	Mag Tape Drive Wiring Kit	EMC10-17-000
NTNX33CA	MCTM - ISDN Cabinet	EMC10-21-MCTM-2
NTNX33CP	37 Pin cover plate	EMC10-21-MCTM-2
NTNX33DS	DS30A Fiber Interface	EMC10-21-MCTM-2
NTNX33DT	DS30A Fiber Interface	EMC10-21-MCTM-2
NTNX33DU	DS30A Fiber Interface	EMC10-21-MCTM-2
NTNX33DV	DS1 Link Interface	EMC10-21-MCTM-2
NTNX33GD	LGC/DTC Fiber Common CP	EMC2-20-000
NTNX33GH	LGC/DTC Fiber Common CP	EMC2-20-000
NTNX33SD	DS-512 Fiber Interface	EMC10-21-MCTM-2
NTNX33WA	Contin. Tone Detect. Wiring	EMC2-20-001
NTNX3305	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3306	DS-30A Interfce 4-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3307	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3308	DS-30A Interfce 4-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3313	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3314	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3315	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3316	DS-30A Interfce 4-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3317	DS-30A Interfce 4-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3318	DS-30A Interfce 4-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3319	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3320	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000
NTNX3321	DS-30A Interfce 6-Port Cable	EMC2-20-001
		EMC2-20-000

NTNX3322	DS-30A Interfce 4-Port Cable	EMC2-20-001 EMC2-20-000
NTNX3323	DS-30A Interfce 4-Port Cable	EMC2-20-001 EMC2-20-000
NTNX3324	DS-30A Interfce 4-Port Cable	EMC2-20-001 EMC2-20-000
NTNX3370	PCM-30 Twist Pair I/F Assy	EMC2-20-001 EMC2-20-000
NTNX3371	PCM-30 Twist Pair I/F Assy	EMC2-20-001 EMC2-20-000
NTNX3390	ECC Interconnect Cable Assy	EMC2-20-001
NTNX3401	Dual I/O Equipment Shelf	EMC10-13-MCGM-1 EMC10-17-000
NTNX36AD	Cable Assembly	EMC2-20-000
NTNX37AB	MCAM Cabinet	EMC10-12-MCAM-2
NTNX37ED	EDRAM Wiring Option Kit	EMC10-12-MCAM-2
NTNX37NH	MCAM Common CP (PTM sh. 47)	EMC10-12-MCAM-2
NTNX37WA	MTM Wiring Option Kit	EMC10-12-MCAM-2
NTNX4005	Temperature Sensor	EMC10-21-MCTM-2
NTNX47AG	MCGM MTM Hardware Kit	EMC10-13-MCGM-1
NTNX47AH	MCGM MTM Hardware Kit	EMC10-13-MCGM-1
NTNX47AJ	MCGM MTM Hardware Kit	EMC10-13-MCGM-1
NTNX47AK	MCGM DDU Hardware Kit	EMC10-13-MCGM-1
NTNX47AN	MCGM Modem Hardware Kit	EMC10-13-MCGM-1
NTNX47AS	MCGM ROS Hardware Kit	EMC10-13-MCGM-1
NTNX47BA	MCGM Cabinet	EMC10-13-MCGM-1
NTNX47BC	MCGM DIO Hardware Kit	EMC10-13-MCGM-1
NTNX47BD	MCGM STM Hardware Kit	EMC10-13-MCGM-1
NTNX47BE	MCGM STM Hardware Kit	EMC10-13-MCGM-1
NTNX47BF	MCGM STM Hardware Kit	EMC10-13-MCGM-1
NTNX47BG	MCGM STM Hardware Kit	EMC10-13-MCGM-1
NTNX47BH	MCGM MTM/DRA Hardware Kit	EMC10-13-MCGM-1
NTNX47BJ	MCGM MTM/DRA Hardware Kit	EMC10-13-MCGM-1
NTNX47BK	MCGM MTM/DRA Hardware Kit	EMC10-13-MCGM-1
NTNX47BL	DIO/Modem hardware Kit(1pr)	EMC10-13-MCGM-1
NTNX47BM	DIO/Modem hardware Kit(2pr)	EMC10-13-MCGM-1
NTNX4740	Network Port Cable (PL0)	EMC10-13-MCGM-1
NTNX4741	Network Port Cable (PL1)	EMC10-13-MCGM-1
NTNX4757	MTD Cable (READ)	EMC10-13-MCGM-1
NTNX4758	MTD Cable (WRITE)	EMC10-13-MCGM-1
NTNX4759	MTD Cable (CONTROL)	EMC10-13-MCGM-1
NTNX51BC	MPX AUDIO CARD	EMC8-02-DA-1 EMC8-02-MPX-1 EMC8-02-MPX-2 EMC8-02-MPX-3 EMC8-02-TA-1
NTNX51BD	MPX Audio Card	EMC8-02-MPX-7 EMC8-02-MPX-8 EMC8-02-MPX-9

		EMC8-02-000
		EMC8-02-MPX-5
		EMC8-02-MPX-6
		EMC8-02-MPX-4
		EMC8-02-MPX-10
		EMC8-02-MPX-11
		EMC8-02-MPX-12
		EMC8-02-005
NTNX51BE	MPX Audio Card (Global)	EMC8-02-005
NTNX51CB	TOPS MPX POSITION (TYPE 1)	EMC8-02-MPX-1
NTNX51CC	TOPS MPX POSITION (TYPE 2)	EMC8-02-MPX-2
NTNX51DB	TOPS MPX POSITION (TYPE 1)	EMC8-02-TA-1
		EMC8-02-MPX-5
NTNX51DC	TOPS MPX POSITION (TYPE 2)	EMC8-02-DA-1
		EMC8-02-MPX-6
NTNX51DD	TOPS MPX POSITION (TYPE 3)	EMC8-02-MPX-3
		EMC8-02-MPX-4
NTNX51EB	TOPS MPX Position (Type 1)	EMC8-02-MPX-7
NTNX51EC	TOPS MPX Position (Type 1)	EMC8-02-MPX-8
NTNX51ED	TOPS MPX Position (Type 1)	EMC8-02-MPX-9
NTNX51FB	TOPS MPX Position	EMC8-02-MPX-10
		EMC8-02-MPX-12
NTNX51GB	TOPS MPX Position	EMC8-02-MPX-11
NTNX51HB	TOPS MPX Keybd, Combined Eng	EMC8-02-005
NTNX51HC	Keycap Upgr Kit (HA to HB)	EMC8-02-005
NTNX51HD	TOPS MPX Keybd, Combined Fre	EMC8-02-005
NTNX51HE	Keycap Upgr Kit (HB to HD)	EMC8-02-005
NTNX51KA	4 Meg Memory Kit for 486	EMC8-02-UPG
NTNX51KD	80 MB Hard Drive Kit	EMC8-02-005
NTNX51KE	106 Meg Hard Drive Kit	EMC8-02-UPG
NTNX51KF	486 Planar Board Kit w/4 Meg	EMC8-02-UPG
NTNX51KG	4 Meg Memory Kit for 386	EMC8-02-005
NTNX51KH	106 or 212 MB Hd Dr for 386	EMC8-02-005
NTNX51LA	Color Monitor 8512	EMC8-02-MPX-11
NTNX51LC	Color Monitor 9518	EMC8-02-MPX-10
		EMC8-02-005
NTNX51LD	Color Monitor 9524	EMC8-02-MPX-12
		EMC8-02-005
NTNX5103	TOPS MPX BIX Box Assy	EMC8-02-001
NTNX5109	TOPS MPX Mounting Hardware	EMC8-02-001
NTNX5122	Cbl Mgmt Brkt for NTNX51FB	EMC8-02-MPX-10
		EMC8-02-MPX-12
		EMC8-02-005
NTNX5153	TOPS MPX PS2 Bracket	EMC8-02-MPX-7
		EMC8-02-MPX-8
		EMC8-02-MPX-9
		EMC8-02-MPX-5
		EMC8-02-MPX-6
		EMC8-02-MPX-4

		EMC8-02-MPX-11
NTNX5154	GDC 56K Data Set Unit	EMC8-02-000
		EMC8-02-005
NTNX5303	MODULAR HEADSET JACK ASSY	EMC8-01-MTP
NTNX5306	HEADSET JACK ASSEMBLY	EMC8-02-MPX-1
		EMC8-02-MPX-2
		EMC8-02-JA-1
NTNX54BA	ALUMINUM SHIELD CP	EMC8-01-TPC
NTNX55AA	Cable Trough (Brown)	EMC19-03-005
NTNX5511	Cable Trough (Grey)	EMC2-25-RCC2-1
		EMC2-25-RCC2-3
		EMC2-25-RCC2-5
		EMC2-20-004
		EMC2-25-RCC2-9
		EMC2-20-001
		EMC2-20-002
		EMC19-02-004
		EMC19-02-000
		EMC19-02-001
		EMC19-02-003
		EMC2-26-000
		EMC2-08-LCM
		EMC2-25-000
		EMC2-08-000
		EMC2-20-003
		EMC2-20-005
		EMC16-03-001
		EMC2-20-000
NTNX61AE	TPC PACK FILL	EMC8-01-TPC
NTNX63AB	4 MEGABYTE MEMORY CP	EMC8-01-TPC
NTNX64AA	SINGLE BOARD COMPUTER CP	EMC8-01-TPC
NTNX65AA	PARALLEL INPUT/OUTPUT CP	EMC8-01-TPC
NTNX67BA	TOPS EMI SHIELD/LOAD CP	EMC8-01-TPC
NTNX68AA	FLOPPY DISK AND CONTROL CP	EMC8-01-TPC
NTNX68BA	HARD DRIVE AND CONTROL CP	EMC8-01-TPC
NTOX50AA	Filler Face Plate	EMC10-13-MCGM-1
NTRX01AD	Junction Box	EMC2-20-004
		EMC16-03-001
NTRX01AJ	Panel Assembly (Alarm)	EMC2-20-004
		EMC16-03-001
NTRX01AK	Connector Plate Assy Return	EMC2-20-004
NTRX01AM	Connector Plate Assy Feed	EMC2-20-004
NTRX01AN	ENET Plane 0 Feed Blkhd Assy	EMC2-20-004
		EMC16-03-001
NTRX01AP	ENET Plane 1 Feed Blkhd Assy	EMC2-20-004
		EMC16-03-001
NTRX01AQ	ENET Plane 0 RTN Blkhd Assy	EMC2-20-004
		EMC16-03-001
NTRX01AR	ENET Plane 1 RTN Blkhd Assy	EMC2-20-004

		EMC16-03-001
NTRX02AA	Breaker Panel Assembly	EMC2-20-004
		EMC16-03-001
NTRX02AB	Breaker Panel Assembly	EMC2-20-004
		EMC16-03-001
NTRX02AC	Brk Pnl 2 to Jnct Box Kit	EMC2-20-004
		EMC16-03-001
NTRX02AD	Breaker Panel Assembly	EMC2-20-004
		EMC16-03-001
NTRX02AE	Brk Pnl 1 to Jnct Box Kit	EMC2-20-004
		EMC16-03-001
NTRX02CA	CB Shelf Assy (30A)	EMC16-02-010
		EMC13-05-007
NTRX02CD	CB Shelf Assy(S/DMS)	EMC16-02-010
NTRX02CF	SHELF FILLER KIT	EMC16-02-010
NTRX0232	Shelf Busbar Kit	EMC16-02-010
NTRX0243	Shelf Equalizer Kit Assy	EMC16-02-010
NTRX0245	Shelf Busbar Kit	EMC13-05-007
NTRX07	Endguard Insert Assemblies	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTRX07AA	Streamline End Guard Insert	EMC2-25-RCC2-9
NTRX07AB	STREAMLINE ENDGUARD INSERT	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTRX07AC	Streamline E/G Ins Assy CPDC	EMC2-25-RCC2-9
NTRX07AE	END PANEL ASSY KIT (BROWN)	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTRX0705	Inverter Conduit Kit	EMC16-03-001
NTRX1670	POWER AND RETURN CABLE ASSY	EMC2-16-CAB-1
		EMC13-01-004
NTRX25AA	Cabinet Assembly	EMC2-08-LCE-1
		EMC2-09-CPE
		EMC16-02-010
		EMC13-09-MSS-2
		EMC13-09-MSS-1
		EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004

		EMC13-05-007
		EMC3-01-DSN-1
		EMC3-01-003
		EMC3-02-NET-7
		EMC2-11-ZZ37HB
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-11-003
NTRX25AG	Ringing Generator Shelf Assy	EMC2-08-LCE-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX25AK	Ringing Generator Filler	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10

NTRX2512	Earthquake Anchor kit	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
NTRX2513	EMI Ready Door Kit	EMC2-20-004
		EMC2-20-001
		EMC2-20-002
		EMC2-26-000
		EMC2-25-000
		EMC2-20-005
		EMC16-03-001
		EMC2-20-000
NTRX2514	EMI Kit (EMI Doors)	EMC2-20-004
		EMC16-03-001
NTRX2515	EMI Kit (EMI Doors) (Grey)	EMC2-08-LCM
		EMC2-20-003
NTRX2516	EMI Door Kit (Grey)	EMC2-25-RCC2-1
		EMC2-25-RCC2-3
		EMC2-25-RCC2-5
		EMC2-25-RCC2-9
		EMC2-20-001
		EMC2-20-002
		EMC19-02-000
		EMC19-02-001
		EMC19-02-003
		EMC2-26-000
		EMC2-25-000
		EMC2-20-005
		EMC2-20-000
NTRX2518	Frame Ground Kit	EMC2-20-004
		EMC2-26-000
		EMC2-08-LCM
		EMC2-25-000
		EMC2-20-003
		EMC2-20-005
		EMC16-03-001
NTRX2519	Frame/Logic Ground H/W Kit	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NTRX2520	Frame/Logic Gnd Cluster Kit	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX2522	EMI Door Kit	EMC2-20-004
NTRX2523	LEVELING FEET	EMC2-16-001
		EMC2-16-002
		EMC2-16-005

		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-20-004
		EMC2-11-ZZ37HB
		EMC2-25-RCC2-9
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-20-001
		EMC2-20-002
		EMC19-02-004
		EMC19-02-000
		EMC19-02-001
		EMC19-02-003
		EMC2-26-000
		EMC2-08-LCM
		EMC2-25-000
		EMC2-08-000
		EMC2-20-003
		EMC2-20-005
		EMC16-03-001
		EMC2-20-000
NTRX2524	EMI Kit (EMI Doors)	EMC2-08-000
NTRX2525	EMI Kit Without Bulkhead	EMC19-02-004
		EMC13-09-002
NTRX2531	EMI Door Kit (Brown)	EMC2-25-RCC2-2
		EMC2-25-RCC2-4
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC13-09-003
NTRX2551	Bulkhead-RH	EMC2-08-LCE-1
NTRX2564	Earthquake anchor kit	EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX2568	Door Kit (Center Latch) grey	EMC2-09-LCE

		EMC2-08-LCE-1
		EMC2-09-IOE
		EMC2-09-CPE
		EMC16-02-010
		EMC3-01-002
		EMC3-02-NET-6
		EMC13-09-MSS-2
		EMC2-11-ZZ37HB
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-15
		EMC2-24-RCC-10
NTRX2569	Door Kit (Center Latch)	EMC13-09-MSS-1
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
NTRX2570	C28 Cabinet Mech. Sub-Assy.	EMC2-11-ZZ37HB
		EMC2-11-003
NTRX26CZ	Cable gender change adapter	EMC2-25-RCC2-3
		EMC2-25-RCC2-4
NTRX30AA	Cab. Line Conc. Equip. Frame	EMC2-08-LCM
		EMC2-20-003
NTRX30BA	CLMI Cabinet	EMC2-08-000
NTRX30CA	Cab. Line Conc. Equip. Frame	EMC2-09-LCE
NTRX30DA	Cabinetized LCE ISDN Model B	EMC2-08-LCE-1
NTRX30HA	Safety Cover Kit	EMC2-08-LCM
NTRX30PD	External Power Filter Kit	EMC2-08-LCE-1
NTRX30PE	MSP Kit	EMC2-08-LCE-1
NTRX30PF	External Power Filter Kit	EMC2-09-LCE
NTRX3081	MSP Kit	EMC2-09-LCE
NTRX31AA	Cabinetized PDC Frame	EMC2-20-004
NTRX31AC	Cable Kit (Exterior)	EMC2-20-004
		EMC16-03-001
NTRX31AD	LaMarche Inverter Kit	EMC2-20-004
		EMC16-03-001
NTRX31AF	UK Insulator Kit	EMC2-20-004
		EMC16-03-001
NTRX31AJ	Remote Powering Hardware Kit	EMC2-20-004
		EMC16-03-001
NTRX31CA	Cabinetized Pwr Dist. Center	EMC16-02-010
		EMC16-03-001
NTRX31CJ	LaMarche Inverter Kit	EMC16-02-010
		EMC13-05-007
NTRX31CQ	Sh. End Busbar Insulator Kit	EMC16-02-010
NTRX31CW	Cabinet Busbar Assembly	EMC16-02-010
NTRX31CX	Cabinet Busbar Assembly	EMC16-02-010
NTRX31DH	Inverter Unit (500W)	EMC13-08-INV-1
		EMC16-03-001

NTRX31DJ	Inverter Hardware Kit	EMC16-03-001
NTRX31EA	CRME CABINET	EMC13-05-007
NTRX31EB	CRME MISC Fuse Card Kit	EMC13-05-007
NTRX31LC	Hi-Dens Conn Plate Assy (L-)	EMC2-20-004
		EMC16-03-001
NTRX31LD	Hi-Dens Conn Plate Assy (L+)	EMC2-20-004
		EMC16-03-001
NTRX3104	LaMarche Return Cable (L+)	EMC2-20-004
		EMC16-03-001
NTRX3108	Cable Assembly (Aisle Alarm)	EMC2-20-004
		EMC16-03-001
NTRX3115	LaMarche Feed Cable (L-)	EMC2-20-004
		EMC16-03-001
NTRX3116	LaMarche Return Cable (L+)	EMC2-20-004
		EMC16-03-001
NTRX3117	LaMarche Feed Cable (L-)	EMC2-20-004
		EMC16-03-001
NTRX3131	EAS Alarm Harness	EMC16-02-010
NTRX3132	Shelf Power Cable	EMC16-02-010
		EMC13-05-007
NTRX3133	Cover, Top-Kit	EMC16-02-010
NTRX3134	Cover, Bottom-Kit	EMC16-02-010
		EMC13-05-007
NTRX3135	CPDC MSP KIT	EMC16-02-010
NTRX3143	Bottom Feed Cable Bracket	EMC13-05-007
NTRX3145	CRME MSP Kit	EMC13-05-007
NTRX3148	Power Kit	EMC13-05-007
NTRX3151	EAS Alarm Harness	EMC13-05-007
NTRX3164	Inverter Cable Assembly	EMC13-05-007
NTRX32AA	Cabinetized Trunk Module	EMC2-25-000
		EMC2-20-005
NTRX32DA	OAU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32DD	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32DG	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32DT	26 PTL E/W 4-8P 1-37P	EMC2-25-000
		EMC2-20-005
NTRX32DV	26 PTL E/W 4-8P 1-37P	EMC2-25-000
		EMC2-20-005
NTRX32DW	26 PTL E/W 8-8P 1-37P	EMC2-25-000
		EMC2-20-005
NTRX32DX	26 PTL E/W 8-8P 1-37P	EMC2-25-000
		EMC2-20-005
NTRX32DY	26 PTL E/W 4-8P 1-37P	EMC2-25-000
		EMC2-20-005
NTRX32DZ	26 PTL E/W 4-8P 1-37P	EMC2-25-000
		EMC2-20-005

NTRX32EB	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EC	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32ED	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EE	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EF	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EG	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EH	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EJ	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX32EK	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32EP	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32EQ	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32ER	AXU Bulkhead Cabling	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX32WA	EDRAM Card Wiring List	EMC2-25-000
		EMC2-20-005
NTRX3220	OAU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3223	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3224	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3225	AXU Bulkhead Cabling	EMC2-25-AXU

		EMC2-20-AXU
NTRX3226	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3227	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3228	AXU Bulkhead Cabling	EMC2-25-AXU
		EMC2-20-AXU
NTRX3230	FSP-CU Cable Assembly	EMC2-25-000
NTRX3241	26 PTL E/W 1-37P Moulded	EMC2-25-000
		EMC2-20-005
NTRX3242	AXU-OAU Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX3243	AXU-OAU Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX3244	AXU-OAU Cabling	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NTRX3253	Filter Adapter Mounting Kit	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX3257	Stud Cover Kit (MTM)	EMC2-25-AXU-1
		EMC2-25-AXU-2
NTRX33DA	Cabinetized I/O Equipment	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX33DY	CIOE Horizontal Cabling Kit	EMC5-01-IOE-3
NTRX33DZ	CIOE Ext. Power Filter Kit	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX33EC	DPP/Bulkhead Cable	EMC13-03-HWK-11
NTRX33ED	DPP/Bulkhead Cable	EMC13-03-HWK-11
NTRX33EE	DPP/Bulkhead Cable	EMC13-03-HWK-11
NTRX33EF	DPP/Bulkhead Cable	EMC13-03-HWK-11
NTRX33EG	IOC/Bulkhead Cable	EMC2-20-IOC-1
NTRX33EH	IOC/Bulkhead Cable	EMC2-09-IOE
		EMC2-20-IOC-1
		EMC5-01-IOE-3
NTRX33EJ	IOC/Bulkhead Cable	EMC2-20-IOC-1
NTRX33EK	IOC/Bulkhead Cable	EMC2-20-IOC-1
NTRX33FH	IOC/Bulkhead Cable	EMC5-01-IOE-3
NTRX33MB	Power & Control Cassy	EMC2-20-IOC-1
NTRX33MC	Power Cable Assembly	EMC2-09-IOE
		EMC5-01-TAP-2
		EMC5-01-IOE-3
		EMC5-01-TAP-3
NTRX33MD	Power & Control Cassy	EMC2-09-IOE
		EMC5-01-IOE-3

NTRX33ME	Power & Control Cassy	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX33MF	Power & Control Cassy	EMC2-09-IOE
		EMC5-01-IOE-3
		EMC13-03-HWK-11
NTRX33MG	Power & Control Cassy	EMC2-09-IOE
		EMC5-01-IOE-3
		EMC13-03-HWK-11
NTRX33WA	Wiring Option	EMC2-20-IOC-2
NTRX33WB	Wiring Option	EMC2-20-IOC-2
NTRX33WC	Even CIOE, IOC Power Feed	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX33WD	Odd CIOE, IOC Power Feed	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX3325	Stratum/Bulkhead Cable	EMC2-20-ROS-2
NTRX3326	Stratum/Bulkhead Cable	EMC2-20-ROS-2
NTRX3334	IOC/Bulkhead Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTRX3335	IOC/Bulkhead Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTRX3336	IOC/Bulkhead Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTRX3337	IOC/Bulkhead Cable	EMC5-03-IOC
		EMC2-20-IOC-2
NTRX3373	Modular Supervisory Panl Kit	EMC2-09-IOE
		EMC5-01-IOE-3
NTRX34DA	ISG Equip for LaMarche Inv	EMC13-08-LIV-1
		EMC13-08-INV-1
NTRX34DB	ISG Equip for ISTC	EMC13-08-ISTC
NTRX34DC	ISG Equip for RM4200 Shelf	EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX34DE	ISG Equip for MLT Shelf	EMC13-08-MLT
NTRX34DF	ISG Equipment for DAS Unit	EMC13-08-DAS
NTRX34DG	ISG Equipment for CES Assy	EMC13-08-ASY-1
NTRX34DI	MLT Bulkhead/Cable Kit	EMC13-08-ASY-6
NTRX34DJ	Alarm Ext Bulkhead/Cable Kit	EMC13-08-ASY-7
NTRX34DK	Alarm Cutoff Cable Kit	EMC13-08-AAC
NTRX34DL	DAS Bulkhead/Cable Kit	EMC13-08-ASY-8
NTRX34DM	RM4200 Bulkhead/Cable Kit	EMC13-08-ASY-4
		EMC13-08-ASY-9
NTRX34DN	DTH/ROTL Bulkhead/Cable Kit	EMC13-08-ASY-5
NTRX34DP	Tellabs 1014U Bulkhead/-	EMC13-08-TL-3
NTRX34DQ	Tellabs 254A Bulkhead/-	EMC13-08-TL-4
NTRX34DR	CMIS Nokia TF21462 -	EMC13-08-NKA
NTRX34DS	CMIS Conn Plate Bulkhead Screw	EMC13-01-004
		EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-GDC-1
		EMC13-08-GDC-2

		EMC13-08-NKA
		EMC13-08-TL-3
		EMC13-08-TL-4
		EMC13-08-ASY-3
		EMC13-08-ASY-4
		EMC13-08-ASY-5
		EMC13-08-ASY-7
		EMC13-08-ASY-8
		EMC13-08-ASY-9
NTRX34DT	CMIS Connector Plate Bulkhead	EMC13-01-004
		EMC13-08-ASY-6
NTRX34DU	CMIS Nokia TF21462 -	EMC13-08-NKA
NTRX34EH	RM4200 Phone Cable Assy	EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX34EI	RM4200 Phone Cable Assy	EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX34FI	CMIS Terminal Block Assy	EMC13-08-ASY-2
NTRX34FO	115 V ac Power Cable Assy	EMC13-01-004
NTRX34GD	Cable Assembly	EMC13-08-ASY-9
		EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX34GE	RM4200 Phone Cable Assy	EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX34HW	CMIS Tellabs 254A-	EMC13-08-TL-4
NTRX34HY	CMIS Tellabs 254A-	EMC13-08-TL-4
NTRX34HZ	CMIS Tellabs 254A-	EMC13-08-TL-4
NTRX34JA	CMIS Tellabs 254A-	EMC13-08-TL-4
NTRX34LA	480 Pin Terminal Block Assy	EMC13-01-004
NTRX34LG	FSP Cable	EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-GDC-2
NTRX34LH	FSP Cable	EMC13-08-ATT-1
		EMC13-08-ATT-2
		EMC13-08-GDC-2
NTRX34LJ	Cable Assembly (40B1)	EMC13-08-ATT-1
NTRX34LK	Cable Assembly (40B1)	EMC13-08-ATT-1
NTRX34LM	Cable Assembly (40B1)	EMC13-08-ATT-1
		EMC13-08-ATT-2
NTRX34LN	Cable Assembly (46B1)	EMC13-08-ATT-1
		EMC13-08-ATT-2
NTRX34LP	Hardware Kit	EMC13-08-ATT-1
		EMC13-08-ATT-2
NTRX34LQ	Cable Assembly (46A2)	EMC13-08-ATT-1
NTRX34LR	Cable	EMC13-08-ATT-2
NTRX34LS	VF Cable	EMC13-08-GDC-2
NTRX34LT	VF Cable	EMC13-08-GDC-2
NTRX34LU	DS-6 Hardware Kit	EMC13-08-GDC-2
NTRX34LV	DTE Cable Assembly	EMC13-08-GDC-1
		EMC13-08-GDC-2

NTRX34LW	DTE Cable Assembly	EMC13-08-GDC-1
		EMC13-08-GDC-2
NTRX34LX	DTE Cable Assembly	EMC13-08-GDC-1
		EMC13-08-GDC-2
NTRX34LY	DTE Cable Assembly	EMC13-08-GDC-1
		EMC13-08-GDC-2
NTRX34LZ	Alarm Cables	EMC13-08-GDC-2
NTRX34MC	DS-5 Hardware Kit	EMC13-08-GDC-1
NTRX34MD	Hardware Kit	EMC2-24-RMM-2
NTRX34ME	Teltrend Cable Assy.	EMC13-08-TT-01
NTRX34MF	Teltrend Cable Assy.	EMC13-08-TT-01
NTRX34MG	Teltrend Cable Assy.	EMC13-08-TT-01
NTRX34MH	Alarm Wiring	EMC13-08-TT-01
NTRX34MJ	Cable Assembly	EMC13-08-ATT-1
NTRX34WA	MLT Applique Wiring	EMC13-08-MLT
		EMC13-08-DAS
NTRX34WB	Office Alarm Wiring	EMC13-08-AEU
NTRX34WD	Modem Shelf Wiring (-48VDC)	EMC13-08-DSS-2
NTRX34WE	Modem Shelf Wiring (115VAC)	EMC13-08-DSS-1
NTRX34WF	DTH/ROTL Wiring	EMC13-08-DTH
NTRX34WG	LaMarche Inverter Wiring	EMC13-08-LIV-1
		EMC13-08-INV-1
NTRX34WH	ISTC Wiring	EMC13-08-ISTC
NTRX34WJ	CMIS Tellabs 1014U Wiring	EMC13-08-TL-3
NTRX34WK	CMIS Tellabs 254A Wiring	EMC13-08-TL-4
NTRX34WL	CMIS Nokia TF21462 - Wiring	EMC13-08-NKA
NTRX34WN	RMM Wiring	EMC2-24-RMM-2
NTRX3432	Cable Assembly	EMC13-08-ASY-9
		EMC13-08-DSS-1
		EMC13-08-DSS-2
NTRX3444	LaMarche Power Cable	EMC13-08-LIV-1
		EMC13-08-INV-1
NTRX3447	Power Cable Assembly	EMC13-08-GDC-1
NTRX3462	Cable Assembly	EMC13-08-GDC-1
NTRX3463	Local Cable Assembly	EMC13-08-GDC-1
NTRX35CA	Cabinet Dual Shelf Network	EMC3-01-DSN-1
NTRX35MF	Horizontal Power Kit	EMC3-01-DSN-1
NTRX35MG	External Filter Power Kit	EMC3-01-DSN-1
NTRX3536	CDSN Transmit Cable Assy	EMC3-01-DSN-1
NTRX3537	CDSN Receive Cable Assy	EMC3-01-DSN-1
NTRX3541	C28 English Label Kit	EMC2-09-LCE
		EMC2-08-LCE-1
		EMC2-09-IOE
		EMC2-09-CPE
		EMC16-02-010
		EMC13-09-MSS-2
		EMC13-09-MSS-1
		EMC2-09-CPE-1
		EMC5-01-IOE-3

		EMC13-01-004
		EMC13-05-007
		EMC3-01-DSN-1
		EMC2-11-ZZ37HB
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-11-003
NTRX3542	German Label Kit	EMC2-11-ZZ37HB
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
		EMC2-24-RCC-15
		EMC2-11-003
NTRX3546	CDSN Mod Supervisory Panel	EMC3-01-DSN-1
NTRX36AB	Cab. Common Periph. Equip.	EMC2-26-000
NTRX36BA	Cab. Common Periph. Equip.	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX36CA	XPM PLUS Upgrade Kit	EMC2-26-000
NTRX36DA	XPM PLUS ISDN Upgrade Kit	EMC2-26-000
NTRX36KA	External Power kit	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX36KB	Internal Horizontal Power	EMC2-09-CPE-1
NTRX36NI	Jumper Kit for Base	EMC2-06-003
		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTRX3622	Kit	EMC2-08-LCM
		EMC2-20-003
NTRX3623	Internal Horizontal Power kt	EMC2-26-000
NTRX3624	Internal Horizontal Pwr Kit	EMC2-08-000
NTRX3634	Power Filter Kit	EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003

NTRX3635	Power filter Kit	EMC2-26-000
NTRX3652	Cover Plate Kit	EMC2-09-CPE
		EMC2-09-CPE-1
		EMC2-26-000
NTRX3653	Copper Interface Kit	EMC2-26-000
NTRX3654	COVER PLATE KIT	EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1
		EMC2-09-CPE
		EMC2-09-CPE-1
		EMC2-26-000
NTRX3655	SMS-R Cable Kit	EMC2-26-000
NTRX3656	Modular Supervisory Panel	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX3660	Copper Interface Kit	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX3662	SMS-R Cable Kit	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX3663	Power Filter Kit CRSC	EMC2-25-RCC2-9
NTRX37CA	Speech Link Conn Cabinet	EMC3-01-002
		EMC3-01-003
NTRX38CA	Dgtl Net Conn Cabinet	EMC3-02-NET-6
		EMC3-02-NET-7
NTRX40AA	Modular Supervisory Panel	EMC2-08-LCE-1
		EMC2-09-CPE
		EMC16-02-010
		EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC13-05-007
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX4001	MSP Card Storage Chassis	EMC13-09-MSS-2

		EMC13-09-MSS-1
		EMC19-02-004
NTRX4002	Alarm Backpanel Module	EMC16-02-010
NTRX4025	MSP-CU Pwr Alarm Cable	EMC2-08-LCE-1
NTRX4052	MSP Cable Assembly	EMC2-08-LCE-1
NTRX4067	EAS Jumper Cable	EMC16-02-010
		EMC13-05-007
NTRX4087	EPFM Cable Assy	EMC2-08-LCE-1
NTRX41AA	Alarm Module	EMC2-08-LCE-1
		EMC2-09-CPE
		EMC16-02-010
		EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC13-05-007
		EMC3-01-DSN-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX41BA	Power Alarm Module	EMC16-02-010
		EMC13-05-007
NTRX41CA	EAS MSP Module	EMC13-05-007
NTRX41DA	EAS Alarm Card Kit	EMC16-02-010
		EMC13-05-007
NTRX41EA	ABS Alarm Kit	EMC16-02-010
		EMC13-05-007
NTRX4102	Alarm Backpanel Module	EMC16-02-010
NTRX4105	Power Alarm Backpanel Module	EMC16-02-010
		EMC13-05-007
NTRX42AA	Circuit Breaker Module 10A	EMC2-08-LCE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC13-05-007
		EMC3-01-DSN-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13

		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX42BA	MSP Breaker Card (15A)	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX42CA	Circuit Breaker Module 20A	EMC2-08-LCE-1
		EMC13-01-004
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX43AA	MSP Fuse Module	EMC2-08-LCE-1
		EMC2-09-CPE
		EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC13-05-007
		EMC3-01-DSN-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10

NTRX44AA	Talk Battery Filter Module	EMC2-08-LCE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX46AA	CIPE	EMC2-20-000
NTRX46AC	CIDC LGC/DTC Fiber Com CP	EMC2-20-000
NTRX46CE	Common Fiber Packfill	EMC2-20-000
NTRX46WA	PCM-30 2x8 PCB Wiring List	EMC2-06-ZZ37CJ
		EMC2-06-ZZ37CK
		EMC2-20-000
NTRX46WB	Wiring List XPM Plus	EMC2-20-000
NTRX4606	PCM-30 Coaxial I/F Assy	EMC2-20-001
NTRX4607	PCM-30 Coaxial I/F Assy	EMC2-20-001
NTRX4608	PCM-30 Coaxial I/F Assy	EMC2-20-001
NTRX4609	PCM-30 Coaxial I/F Assy	EMC2-20-001
NTRX4610	DS30 Interface Cable Assy	EMC2-20-IF-3
		EMC2-20-IF-1
		EMC2-20-001
		EMC2-20-000
NTRX4614	PCM-30 (Send) Cable Assy	EMC2-06-ZZ37CJ
		EMC2-06-ZZ37CK
		EMC2-20-001
		EMC2-20-000
NTRX4615	PCM-30 (Receive) Cable Assy	EMC2-06-ZZ37CJ
		EMC2-06-ZZ37CK
		EMC2-20-001
		EMC2-20-000
NTRX4616	PCM-30 Coaxial I/F Assy	EMC2-20-001
		EMC2-20-000
NTRX4617	PCM-30 Coaxial I/F Assy	EMC2-20-001
		EMC2-20-000
NTRX4618	PCM-30 Coaxial I/F Assy	EMC2-20-001
		EMC2-20-000
NTRX4619	PCM-30 Coaxial I/F Assy	EMC2-20-001
		EMC2-20-000
NTRX4665	DS30 Interface Cable Assy	EMC2-20-001

		EMC2-20-000
NTRX4666	DS30 Interface Cable Assy	EMC2-20-001
		EMC2-20-000
NTRX4667	DS30 Interface Cable Assy	EMC2-20-001
		EMC2-20-000
NTRX4668	DS30 Interface Cable Assy	EMC2-20-001
		EMC2-20-000
NTRX47AA	CIDC	EMC2-20-001
NTRX47AB	Cabinetized Fiber Common CP	EMC2-20-001
NTRX47AC	Cabinetized Fiber Common CP	EMC2-20-001
NTRX47WA	Wiring List Echo Canceller	EMC2-20-001
NTRX47WB	Wiring List PCM-30 2x8 PCB	EMC2-20-001
NTRX4701	DS0 Leads to B/H Cable Assy	EMC2-20-001
NTRX48AA	CMS7	EMC2-20-002
NTRX48AB	MSB7 Offshore Common CP	EMC2-20-002
NTRX48AC	Interntl CMS7 MSB7 Common CP	EMC2-20-002
NTRX48BA	CMS7	EMC2-11-ZZ37HB
		EMC2-11-003
NTRX48BD	CMS7 Ext. Pwr Filter Cbl Kit	EMC2-11-ZZ37HB
		EMC2-11-003
NTRX48BE	CMS7 Horizontal Pwr. Cbl Kit	EMC2-11-ZZ37HB
		EMC2-11-003
NTRX4810	Power & Ground Cover Kit	EMC2-20-002
NTRX4825	CIPE MSP Kit	EMC2-11-ZZ37HB
		EMC2-11-003
NTRX49BA	Cabinetized Misc Spare	EMC13-09-MSS-2
		EMC13-09-MSS-1
NTRX53AA	MSP C-Feed Card	EMC2-09-CPE
		EMC2-09-CPE-1
NTRX54BA	MSP Fan Mgm Unit Card	EMC2-09-LCE
		EMC2-08-LCE-1
		EMC2-09-IOE
		EMC2-09-CPE
		EMC16-02-010
		EMC2-09-CPE-1
		EMC5-01-TAP-2
		EMC5-01-IOE-3
		EMC5-01-TAP-3
		EMC13-01-004
		EMC3-01-DSN-1
		EMC2-11-ZZ37HB
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12

		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-11-003
NTRX55BA	C28 Cable Trough Assy (Grey)	EMC13-09-MSS-2
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-15
		EMC2-24-RCC-10
NTRX55BB	C28 Cable Trough Assy	EMC13-09-MSS-1
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
NTRX55BC	CPDC Cable Trough Assy, Grey	EMC16-02-010
NTRX5544	Cable Trough (Brown)	EMC2-25-RCC2-2
		EMC2-25-RCC2-4
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NTRX56AA	Opt. MISC Equipment Cabinet	EMC13-01-004
NTRX56CA	CMIS External Power Filter Kit	EMC13-01-004
NTRX56CB	CMIS Horizontal Cabling Kit	EMC13-01-004
NTRX56CD	CMIS Logic Return Busbar Kit	EMC13-01-004
NTRX56CE	Breaker Module Kit (20 Amp)	EMC13-01-004
NTRX56CF	Talk Battery Mod Kit (B) 20Amp	EMC13-01-004
NTRX56CG	Talk Battery Mod Kit (A) 20Amp	EMC13-01-004
NTRX5610	CMIS Mod. Supervisory Panel Kt	EMC13-01-004
NTRX59AB	CMIS Lamarche Inverter Kit	EMC13-01-004
NTRX59AC	CMIS DTH-ROTL KIT	EMC13-01-004
NTRX59AD	CMIS Audible/Visual Alarm	EMC13-01-004
NTRX59AE	CMIS Pylon RG-2 Ring Gen Kit	EMC13-01-004
NTRX59AF	CMIS Inactive System Timing	EMC13-01-004
NTRX59AG	CMIS Common Eqpt Shelf	EMC13-01-004
NTRX59AH	CMIS Audible Alarm Cutoff Kit	EMC13-01-004
NTRX59AJ	CMIS MLT Applique Shelf Kit	EMC13-01-004
NTRX59AK	CMIS CASE/DATATEL RM4200	EMC13-01-004
NTRX59AL	CMIS DANTEL Digital Alarm	EMC13-01-004
NTRX59AM	CMISC GDC Shelf Modem Kit	EMC13-05-007
NTRX59AN	CMISC Cook DA Shelf Hardware	EMC13-05-007
NTRX59AP	CMISC Alarm Ext. Kit	EMC13-05-007
NTRX73	End Guards & EMI Side Panels	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6

		EMC2-16-007
NTRX73AA	End Guard	EMC2-25-RCC2-9
NTRX73AB	End Guard Assembly	EMC2-25-RCC2-9
NTRX73AC	End Guard Assembly	EMC2-25-RCC2-9
NTRX73AF	CABINETIZED EMI ENDPANEL	EMC2-16-CAB-1
		EMC2-20-004
		EMC16-03-001
NTRX73AL	Streamline Exterior skin	EMC4-04-APC-1
		EMC4-04-APC-3
		EMC2-20-004
		EMC16-03-001
NTRX73AM	Streamline Exterior skin	EMC4-04-APC-1
		EMC4-04-APC-3
		EMC2-20-004
		EMC16-03-001
NTRX73AN	Streamline Exterior skin	EMC4-04-APC-2
		EMC4-04-APC-5
NTRX73AP	Streamline Exterior skin	EMC4-04-APC-2
		EMC4-04-APC-5
NTRX91AA	10" Cooling Unit	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTRX92AA	10" Cooling Unit Kit	EMC2-09-IOE
		EMC2-09-CPE
		EMC2-09-CPE-1
		EMC5-01-TAP-2
		EMC5-01-IOE-3
		EMC5-01-TAP-3
		EMC13-01-004
		EMC3-01-DSN-1
		EMC2-11-ZZ37HB
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11

		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-11-003
NTRX93AA	Cooling Unit	EMC2-09-LCE
		EMC2-08-LCE-1
NTZX16CA	Cabinet Power and Grounding	EMC2-09-CPE-1
		EMC5-01-IOE-3
		EMC13-01-004
		EMC3-01-DSN-1
		EMC3-01-003
		EMC3-02-NET-7
NTZX18AB	NorStar Key Service Module	EMC11-01-000
NTZZ01AA	SUPERNODE CABINET AND COMMON CP	EMC4-03-000
NTZZ01AM	SUPERNODE CABINET AND COMMON CP (G	EMC4-03-001
NTZZ01BA	SLM COMMON MODULE	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
		EMC4-02-SLM-1
NTZZ01CA	4 PORT NETWORK & IOC I/F	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-001
		EMC4-05-003
NTZZ01CB	4 Port Network & IOC I/F	EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
NTZZ01DA	4 PORT LIM/LPP INTERFACE	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-001
		EMC4-05-003
NTZZ01DB	4 Port LIM/LPP Interface	EMC4-05-005
		EMC4-05-007

		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
NTZZ01EA	I/F FILLER FACE PLATE	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01FA	SUPERNODE SERIES 10 CPU CP	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-03-CPU-1
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01GA	SUPERNODE SERIES 20 CPU CP	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
		EMC4-03-CPU-2
NTZZ01HA	SUPERNODE SERIES 30 CPU CP	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007

		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01JA	SUPERNODE SERIES 40 CPU CP	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
		EMC4-CPU-4
NTZZ01KA	6MB MEMORY	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01LA	24MB MEMORY	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01MA	FILLER FACE PLATE	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007

		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01NA	INITIAL ENET I/F	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01NM	Initial ENET I/F - 128 Port	EMC4-05-009
		EMC4-05-010
		EMC4-03-IF7
NTZZ01PA	INTERMEDIATE ENET I/F	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01QA	FINAL ENET I/F	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ01QM	Final ENET I/F - 128 Port	EMC4-05-009
		EMC4-05-010
NTZZ01RA	SuperNode in C42(S/DMS) Cabinet BC	EMC4-05-003
NTZZ01RB	SuperNode in C42(S/DMS) Cabinet -	EMC4-05-007
NTZZ01RC	SUPERNODE S/DMS W/ VAR. MEM. MS -	EMC4-05-008
NTZZ01RD	SUPERNODE S/DMS - BCS34 & ABOVE	EMC4-05-009

NTZZ01RE	SUPERNODE S/DMS - BCS34 & ABOVE	EMC4-05-010
NTZZ01RM	SUPERNODE S/DMS WITH VARIABLE MEMO	EMC4-05-005
NTZZ01SA	SUPERNODE BRISC CPU	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-03-CPU-5
		EMC4-05-003
NTZZ01TA	STREAMLINE SUPERNODE CABINET AND C	EMC4-05-000
NTZZ01UA	STREAMLINE 4 PORT NETWORK &	EMC4-05-000
		EMC4-05-002
		EMC4-05-003
NTZZ01UB	Streamline 4 Port Network &	EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
NTZZ01VA	STREAMLINE 4 PORT LIM/LPP	EMC4-05-000
		EMC4-05-002
		EMC4-05-003
NTZZ01VB	Streamline 4 Port LIM/LPP	EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
NTZZ01YB	60 Hours per Node Unshadowed SPN D	EMC19-01-HRS-2
NTZZ01ZA	LINK INTERFACE FOR FLIS	EMC4-03-000
		EMC4-03-001
		EMC4-03-002
		EMC4-05-000
		EMC4-05-001
		EMC4-05-002
		EMC4-05-005
		EMC4-05-007
		EMC4-05-008
		EMC4-05-009
		EMC4-05-010
		EMC4-05-003
NTZZ02AA	DS30 Network Interface CP	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004

		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02BA	Line Group Controller (LGC)	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02CA	Line Trunk Controller (LTC)	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02DA	DS-1 P-SIDE INTERFACE	EMC2-15-002
		EMC2-15-003
		EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
NTZZ02EA	CLASS MODEM RESOURCE PCB	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE
		EMC2-06-005

		EMC2-09-CPE-1
		EMC2-26-000
		EMC2-20-000
NTZZ02FA	UNIVERSAL TONE RECEIVER	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC10-21-MCTM-2
NTZZ02FB	30 Universal Tone Rcvr Ccts	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
NTZZ02FC	30 Global Tone Rcvr Ccts	EMC2-20-000
NTZZ02GA	DS30 Network Interface CP	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ02GB	DS30 Network Interface CP	EMC2-06-003
		EMC2-06-NIF-5

		EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-18-002
		EMC2-06-002
NTZZ02GC	DS30 Network Interface	EMC2-20-000
NTZZ02HA	DS512 Network Interface CP	EMC2-06-000
		EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-06-NIF-1
		EMC2-18-002
		EMC2-06-002
NTZZ02HB	DS512 Network Interface CP	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-18-002
		EMC2-06-NIF-3
		EMC2-06-002
		EMC2-26-000
		EMC10-21-MCTM-2
NTZZ02HM	DS512 Network Interface CP	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
NTZZ02HN	DS512 Network Interface	EMC2-20-000
NTZZ02JA	DS-30A LCM INTERFACE	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-06-003
		EMC2-06-000
		EMC2-06-LIF-2
		EMC2-18-000
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE

		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
NTZZ02KA	10 DS30A LCM Interfaces	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ02LA	LINE GROUP CONTROLLER (CABINETIZED	EMC2-26-LGC
NTZZ02MA	LINE TRUNK CONTROLLER (CABINETIZED	EMC2-26-LTC
NTZZ02NA	Filler Face Plate Kit	EMC2-26-000
NTZZ02PA	Line Trunk Cont. w/XPM+	EMC2-06-003
		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02PH	LINE TRUNK CONTROLLER, XPM PLUS, A	EMC2-06-LTC-5
		EMC2-09-CPE-1
NTZZ02PJ	LTC+ Common CP	EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02PM	Line Trunk Cont. w/EDC	EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
NTZZ02QA	Line Group Cont. w/XPM+	EMC2-06-003
		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ02QH	LINE GROUP CONTROLLER, XPM PLUS, A	EMC2-06-LGC-5
		EMC2-09-CPE-1
NTZZ02QJ	LGC+ Common CP	EMC2-09-CPE-1

		EMC2-06-002
		EMC2-26-000
NTZZ02QM	Line Group Cont. w/EDC	EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
NTZZ02RB	Msg Protocol Ckt,ADSI/SCWID	EMC2-06-002
		EMC2-26-000
NTZZ02RC	Msg Protocol Ckt,HDLC	EMC2-06-002
NTZZ02SA	Ring/Pad Ckt	EMC2-06-002
NTZZ02SB	Ring/Pad Ckt, Freq Sel Ring	EMC2-06-002
		EMC2-26-000
NTZZ02UA	Periph Recovery Loader CP	EMC2-18-002
		EMC2-06-002
		EMC2-26-000
NTZZ02UB	Peripheral Loader BB	EMC2-25-RCC2-10
		EMC2-24-RCC-19
		EMC2-24-RCC-20
NTZZ03BA	SUBSCRIBER MODULE FOR SLC-96	EMC2-06-SMS-1
		EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NTZZ03BB	SMS Common CP	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-SMS-5
		EMC2-06-002
		EMC2-26-000
NTZZ03BC	Subscriber Module for SLC-96, with	EMC2-06-SMS-3
NTZZ03BD	SMS+ COMMON CP (ON NT6X01AA)	EMC2-06-SMS-4
NTZZ03BE	SMS+ Common CP	EMC2-09-CPE-1
		EMC2-26-000
NTZZ03BF	SMS+ COMMON CP (ON NT6X01AA)	EMC2-06-SMS-6
		EMC2-06-002
NTZZ03BG	SMS Common CP	EMC2-06-002
		EMC2-26-000
NTZZ03BH	SMS+ Common CP	EMC2-06-002
NTZZ03BR	SUBSCRIBER MODULE SLC-96, XPM PLUS	EMC2-06-SMS-7
		EMC2-09-CPE-1
NTZZ03BS	SMS+ Common CP	EMC2-09-CPE-1
		EMC2-26-000
NTZZ03CA	SMR Common CP	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-06-SMR-1

		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ03DA	SMU Common CP	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-SMU-2
		EMC2-06-002
		EMC2-26-000
NTZZ03DB	SMU+ Common CP	EMC2-09-CPE-1
		EMC2-06-SMU-3
NTZZ03DC	SMU+ COMMON CP (ON NT6X01AA)	EMC2-06-SMU-99
		EMC2-06-002
NTZZ03DE	SMU+ Common CP	EMC2-26-000
NTZZ03DF	SMU+ COMMON CP (ON NT6X01AA)	EMC2-06-SMU-10
NTZZ03DH	SUBSCRIBER MODULE DMS-1U, XPM PLUS	EMC2-06-SMU-8
		EMC2-09-CPE-1
NTZZ03DJ	SUBSCRIBER MODULE DMS-1U, XPM PLUS	EMC2-06-SMU-12
		EMC2-09-CPE-1
NTZZ03DK	SMU+ Common CP	EMC2-09-CPE-1
		EMC2-26-000
NTZZ03DL	SMU+ Common CP	EMC2-06-002
NTZZ03EA	SMS-R Common CP	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-SMS-2
		EMC2-06-002
		EMC2-26-000
NTZZ03EB	Remote Subscriber Module for SLC-9	EMC2-06-SMSR-2
NTZZ03EC	SMS-R+ COMMON CP (ON NT6X01AA)	EMC2-06-SMSR-5
NTZZ03ED	SMS-R+ Common CP	EMC2-09-CPE-1
		EMC2-26-000
NTZZ03EE	SMS-R+ COMMON CP (ON NT6X01AA)	EMC2-06-SMSR-4
		EMC2-06-002
NTZZ03EF	SMS-R Common CP	EMC2-06-002
		EMC2-26-000
NTZZ03EG	SMS-R+ Common CP	EMC2-06-002
NTZZ03FA	2 SCM DS-1 Interfaces	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1

		EMC2-06-002
		EMC2-26-000
NTZZ03GA	DS-1 P-SIDE INTERFACE	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-06-003
		EMC2-06-000
		EMC2-14-005
		EMC2-14-006
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-14-007
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ03HA	SUBSCRIBER MODULE FOR SLC-96 (CABI	EMC2-26-SMS
NTZZ03JA	SUBSCRIBER MODULE RURAL COMMON CP	EMC2-26-SMR
NTZZ03KA	SUBSCRIBER MODULE URBAN COMMON CP	EMC2-26-SMU
NTZZ03LA	SUBSCRIBER MODULE-100S REMOTE (SMS	EMC2-26-SMR-1
NTZZ03MA	ISDN Contrl Modul For DMS-1U	EMC2-06-003
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-09-SMU-9
		EMC2-18-002
		EMC2-26-000
NTZZ03MB	ISDN Contrl Modul for DMS-1U	EMC2-18-002
		EMC2-26-000
NTZZ03PA	SMA Common CP	EMC2-06-003
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-SMA-1
NTZZ03QA	SMA Common CP (BCS36/MVI)	EMC2-09-CPE-1
		EMC2-06-SMA-2
NTZZ03RA	ISDN Contrl Modul For DMS-1U	EMC2-06-005
		EMC2-06-SMU-4
		EMC2-09-CPE-1
NTZZ03RB	SMUI+ Common CP	EMC2-26-000
NTZZ03RH	ISDN SUBSCRIBER MOD DMS-1U, XPM PL	EMC2-06-SMU-7
		EMC2-09-CPE-1
NTZZ03RJ	ISDN SUBSCRIBER MOD DMS-1U, XPM PL	EMC2-06-SMU-13

NTZZ03RK	SMUI+ Common CP	EMC2-09-CPE-1
		EMC2-26-000
NTZZ03SA	Subscriber Module AccessNode (SMA)	EMC2-06-SMA-3
NTZZ03SB	Subscriber Module-100 AccessNode	EMC2-06-SMA-4
NTZZ03SC	Subscriber Module Accessnode (SMA)	EMC2-06-SMA-5
NTZZ03SD	SMA PACKFILL, MULTIVENDOR INTERFAC	EMC2-06-SMA-6
		EMC2-26-000
NTZZ03SE	SMA PACKFILL, MULTIVENDOR INTERFAC	EMC2-06-SMA-7
NTZZ03SJ	SMA PACKFILL, MULTIVENDOR INTERFAC	EMC2-06-SMA-8
		EMC2-26-000
NTZZ03SK	SMA PACKFILL, MULTIVENDOR INTERFAC	EMC2-06-SMA-9
NTZZ03SP	SMA PACKFILL, ACCESSNODE INTERFACE	EMC2-06-SMA-10
		EMC2-26-000
NTZZ03SQ	SMA PACKFILL, ACCESSNODE INTERFACE	EMC2-06-SMA-11
NTZZ03SR	SMA Common CP Multivendor IF	EMC2-26-000
NTZZ03ST	SMA Common CP AccessNode IF	EMC2-26-000
NTZZ03SV	SMA Common CP Multivendor IF	EMC2-26-000
NTZZ04AA	DS0A Signaling Interface	EMC2-09-CPE
		EMC2-06-004
		EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ04BA	Dig Trunk Controller (DTC)	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-06-DTC-1
		EMC2-06-002
		EMC2-26-000
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ04BB	Dig Trunk Controller (DTC)	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
NTZZ04CA	Continuity Tone Detector	EMC2-06-003
		EMC2-06-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-09-CPE-1

		EMC2-06-002
		EMC2-26-000
NTZZ04DA	DIGITAL TRUNK CONTROLLER (CABINETI	EMC2-26-DTC
NTZZ04HA	Dig Trunk Cont. w/XPM+	EMC2-06-003
		EMC2-06-005
		EMC2-06-DTC-3
NTZZ04HB	DTC+ Common CP	EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NTZZ04KA	Dig. Trk Cont w/XPM+ w/DWS	EMC2-06-005
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
NTZZ05AA	Message Signaling 7 Frame	EMC2-11-000
NTZZ05BA	Signalling Terminal	EMC2-11-000
NTZZ05CA	Signaling Term. Group 7 Sh.	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
		EMC2-11-005
NTZZ05DA	STI with Terminator	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NTZZ05EA	Signalling Terminal	EMC2-11-000
		EMC2-11-004
NTZZ05FA	Signaling Terminal I/F	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NTZZ05GA	Filler Face Plate 0.875	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NTZZ05HA	Message Signalling 7 Frame (U.S.)	EMC2-11-001
NTZZ05JA	Earthquake MS7E Frame (US)	EMC2-11-002
NTZZ06AM	MTM Tone Gen (US)	EMC2-01-000
		EMC2-01-001
NTZZ06BA	Maint Trunk Module	EMC2-01-000
		EMC2-01-001
NTZZ06CA	DRA Maint Trunk Module	EMC2-01-000
		EMC2-01-001
NTZZ06NA	Maint Trunk Module	EMC2-01-000
		EMC2-01-001
NTZZ06PA	TME STRAPPING OPTION 1	EMC2-01-TS-1
		EMC2-01-000
NTZZ06QA	TME STRAPPING OPTION 2	EMC2-01-TS-2
		EMC2-01-000
NTZZ06RA	Trunk Module 8 Wire	EMC2-01-000
		EMC2-01-001
NTZZ06SA	DRA Maint Trunk Module	EMC2-01-000
		EMC2-01-001
NTZZ06YA	TRUNK MODULE EQUIPMENT FRAME	EMC2-01-000

NTZZ06ZA	Earthquake Trunk Module Equipment	EMC2-01-001
NTZZ07BA	Network Common CP	EMC3-04-000
		EMC3-04-001
		EMC10-08-MNET-1
		EMC10-08-MNET-2
NTZZ07CA	NT-40 Net Clock Interface	EMC3-04-000
		EMC3-04-001
NTZZ07DA	SuperNode Net Clock I/F	EMC3-04-000
		EMC3-04-001
		EMC10-08-MNET-1
		EMC10-08-MNET-2
NTZZ07EA	Double Shelf Network Equipment Fra	EMC3-04-000
NTZZ07MA	Network Port CP	EMC3-04-000
		EMC3-04-001
NTZZ07NA	DSN Common CP	EMC3-04-000
		EMC3-04-001
NTZZ07PA	Earthquake DSNE Frame (US)	EMC3-04-001
NTZZ07RA	Network Common CP (48V)	EMC3-01-DSN-1
NTZZ07SA	Network Common CP (48V Intl)	EMC3-01-DSN-1
NTZZ08BA	LCM	EMC2-07-000
		EMC2-07-LCM-2
		EMC2-07-001
		EMC2-07-005
		EMC2-07-006
		EMC2-09-LCE
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
NTZZ08BC	LCM	EMC2-08-LCM
NTZZ08CA	Line Concentrating Equipment (US)	EMC2-07-LCM-2
NTZZ08CB	Line Concentrating Equipment (US)	EMC2-07-001
NTZZ08CC	Line Concentrating Equipment	EMC2-07-005
NTZZ08CD	Line Concentrating Equipment	EMC2-07-006
NTZZ08DB	Cabinetized Line Concentrating Equ	EMC2-08-LCM
NTZZ08HA	Earthquake LCE	EMC2-07-000
NTZZ09BA	DUAL DISK DRIVE UNIT SHELF	EMC5-01-DDU-1
		EMC5-01-IOE-1
		EMC5-01-001
NTZZ09BB	DISK DRIVE UNIT SHELF	EMC5-01-IOE-1
		EMC5-01-IOE-2
NTZZ09CA	I/O CONTROLLER MODULE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
		EMC5-01-IOC-3
NTZZ09CB	I/O Controller Module	EMC5-01-IOE-2
		EMC5-01-IOC-4
NTZZ09GA	Multi-protocol Controller	EMC5-01-MPC-1
NTZZ09HA	9 Track Tape Ctrl CP Cook	EMC5-01-TAP-1
NTZZ09KA	Enhanced Multi-protocol Cont CP	EMC5-01-MPC-2
NTZZ09LA	DIST. PROCESSOR PERIPHERAL	EMC5-01-IOE-1

		EMC5-01-001
		EMC5-01-IOE-2
NTZZ09MA	STRATUM II RMT OSC. SHELF	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
		EMC5-01-ROS-1
NTZZ09NA	Stratum 2.5 Shelf	EMC5-01-ROS-2
NTZZ09PA	Hot Spare Stratum II Osc&I/F	EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC5-01-ROS-4
NTZZ09QA	Hot Spare Str 2.5 Osc & I/F	EMC5-01-ROS-2
		EMC5-01-ROS-3
NTZZ09RA	380 MByte DPP w/56K	EMC2-09-IOE
		EMC5-01-IOE-3
NTZZ09SA	760 MByte DPP w/56K	EMC2-09-IOE
		EMC5-01-IOE-3
NTZZ09TA	INPUT/OUTPUT EQUIPMENT FRAME	EMC5-01-001
NTZZ09TB	IOE Frame	EMC5-01-IOE-2
NTZZ09UA	228 MB DISK DRIVE	EMC5-01-DDU-1
NTZZ09VA	Input/Output Controller Module (NT	EMC5-01-IOC-1
NTZZ09VB	Input/Output Controller Module (NT	EMC5-01-IOC-2
NTZZ09WA	EARTHQUAKE IOE FRAME	EMC5-01-IOE-1
NTZZ09XA	DPP Shelf	EMC5-01-IOE-2
NTZZ09YA	DPP Shelf Compression	EMC5-01-IOE-2
NTZZ10AA	ENHANCED NETWORK SIMPLEX CABINET	EMC3-05-000
NTZZ10AG	NETWORK SIMPLEX CABINET GRAY	EMC3-05-001
NTZZ10BA	NETWORK SHELF ASSY PKG	EMC3-05-000
		EMC3-05-001
		EMC3-05-NET-1
NTZZ10CA	BLANK SHELF ASSEMBLY PACKAGE	EMC3-05-FFP-1
		EMC3-05-000
		EMC3-05-001
NTZZ10DA	48 DS-30 BULKHEAD ASSEMBLY	EMC3-05-000
		EMC3-05-001
NTZZ10EA	112 DS-30 BULKHEAD ASSEMBLY	EMC3-05-000
		EMC3-05-001
NTZZ10FA	FIBER BULKHEAD ASSEMBLY	EMC3-05-000
		EMC3-05-001
NTZZ10GA	DS-30 INTERFACE ASSEMBLY	EMC3-05-000
		EMC3-05-001
NTZZ10HA	QUAD DS-512 FIBER I/F PB	EMC3-05-000
		EMC3-05-001
NTZZ10JA	16K X 16K CHAN TERM XPT CP	EMC3-05-000
		EMC3-05-001
NTZZ10KA	16K X 16K CHAN XPT CP	EMC3-05-000
		EMC3-05-001
NTZZ10MA	3 DS-512/16 DS-30 I/F PB	EMC3-05-001
NTZZ10QA	ENET Plane 0 Shelf Labels	EMC3-05-NET-1
NTZZ10RA	ENET Plane 1 Shelf Labels	EMC3-05-NET-1

NTZZ11AA	24 LINK INTERFACE MODULE CABINET B	EMC2-12-000
NTZZ11AG	Link Interface Module Cabinet (24	EMC2-16-006
NTZZ11BA	CCS7 DS0A LIU	EMC2-12-000
		EMC2-16-006
		EMC2-12-LIU-1
NTZZ11CA	CCS7 E-DS0A LIU	EMC2-12-000
		EMC2-16-006
		EMC2-12-LIU-2
NTZZ11DA	CCS7 V.35 LIU	EMC2-12-000
		EMC2-16-006
		EMC2-12-LIU-3
NTZZ11EA	STP Filler Face Plate	EMC2-12-000
		EMC2-16-006
NTZZ12AA	REMOTE CONTROLLER EQUIPMENT FRAME	EMC2-15-000
NTZZ12AB	Remote Controller Equipment (RCE)	EMC2-15-007
NTZZ12AC	Remote Controller Equipment (RCE)	EMC2-15-005
NTZZ12BA	STANDARD REMOTE MAINTENANCE MODULE	EMC2-15-RMM-2
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-15-007
		EMC2-15-005
NTZZ12BB	Remote Maint. Module STD	EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NTZZ12CA	CUSTOM REMOTE MAINTENANCE MODULE	EMC2-15-RMC-1
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-15-007
		EMC2-15-005
NTZZ12CB	CUSTOM REMOTE MAINTENANCE MODULE	EMC2-15-RMC-2
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NTZZ12CC	Remote Maint. Module Cust.	EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NTZZ12DA	2 DS-1 C-SIDE INTERFACES	EMC2-14-001
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-14-004

		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-IRM-2
NTZZ12EA	DS-1 C-SIDE INTERFACE	EMC2-15-002
		EMC2-15-003
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NTZZ12FA	REMOTE MAINTENANCE MODULE - STANDA	EMC2-15-RMM-1
NTZZ12GA	RME POWER DISTRIB. MODULE	EMC13-05-003
		EMC13-05-005
		EMC13-05-PDM-1
NTZZ12HA	REMOTE CONTROLLER EQUIPMENT FRAME	EMC2-15-001
NTZZ12HB	REMOTE CONTROLLER EQUIPMENT FRAME	EMC2-15-002
NTZZ12HC	Remote Controller Equipment Frame	EMC2-15-006
NTZZ12JA	STD1 Remote Maint. Module	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTZZ12KA	EXT Filler Kit (Right)	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTZZ12LA	EARTHQUAKE REMOTE CONTROLLER EQUIP	EMC2-15-004
NTZZ12LB	EARTHQUAKE REMOTE CONTROLLER EQUIP	EMC2-15-003
NTZZ12PA	ISDN RCC SHELF 65 RMM BUILDING BLO	EMC2-15-RMM-3
NTZZ12QA	Cabinetized RSC Building Block	EMC2-25-RCC2-3
NTZZ12QB	Cabinetized RSC Building Block	EMC2-25-RCC2-4
NTZZ12RA	LCME Module Without Line Drawers	EMC2-24-LCME-1
NTZZ12SA	CEXT Building Block	EMC2-25-RCC2-5
NTZZ12SB	CEXT Building Block	EMC2-25-RCC2-6
NTZZ12UA	CMR Building Block	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10

NTZZ12VA	UTR Building Block	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTZZ12VB	Universal Tone Rec’vr (UTR)	EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
NTZZ12WA	EXT Filler Kit (Left)	EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-24-RCC-12
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTZZ12XA	RCC2 Common CP Fill	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-7
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTZZ12XB	RCC2 Packfill w/o EISP	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTZZ12YA	RMT CLSTER CNTRL COMMN CP	EMC2-24-RCC-4
		EMC2-15-006
NTZZ12YB	Rmt Clster Cntrl Commn CP	EMC2-15-006
		EMC2-24-RCC-5
NTZZ12YD	RCC Common CP Fill (MP/SP)	EMC2-15-009

NTZZ12YE	RCC Common CP Fill (MP/SP)	EMC2-15-015
NTZZ12YF	RCC Common CP Fill w/92BC (MP/SP)	EMC2-15-011
NTZZ12YY	RCC MP/SP Processor Kit	EMC2-15-005
NTZZ12ZA	RCC2 EDC Packfill	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-8
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NTZZ12ZZ	RCC+ Processor Kit	EMC2-15-005
NTZZ13CA	A AND B FUSE PANEL	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-02-004
		EMC16-02-012
		EMC16-02-013
		EMC16-02-015
		EMC16-02-017
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13RC
NTZZ13FA	Fuse Panel "A/B" Feed	EMC16-01-PDC-4
NTZZ13GA	FILLER PANEL ASSEMBLY A/B	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-02-004
		EMC16-02-012
		EMC16-02-013
		EMC16-02-015
		EMC16-02-017
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13RC
NTZZ13HA	PDC Top-Feed (U.L. Listed)	EMC16-01-PDC-3
NTZZ13JA	PDC Bottom-Feed (U.L. Listed)	EMC16-01-PDC-1
NTZZ13KA	PDC Top-Feed Fully-Equipped (U.L.	EMC16-01-PDC-2
NTZZ13LA	Power Distribution Center (CPDC)	EMC16-03-001
NTZZ13MA	SuperNode Blkhd Panel Assy	EMC16-03-001
NTZZ13RA	PDC Top-Feed (U.L. Listed)	EMC16-02-004
NTZZ13RB	PDC Top-Feed (U.L. Listed) e/w EAS	EMC16-02-012
NTZZ13RC	PDC Top-Feed (U.L. Listed)	EMC16-02-015

		EMC16-02-ZZ13RC
NTZZ13SA	EQ BTM. FEED PDC FRAME (U.L. LISTE	EMC16-02-006
NTZZ13TA	PDC Top-Feed Fully-Equipped (U.L.	EMC16-02-005
NTZZ13TB	PDC Top-Feed Fully-Equipped (U.L.	EMC16-02-011
NTZZ13TC	PDC Top-Feed Fully-Equipped (U.L.	EMC16-02-016
		EMC16-02-ZZ13TC
NTZZ13UA	PDC Bottom Feed	EMC16-01-PDC-4
NTZZ13VA	PDC BOTTOM-FEED (U.L. LISTED)	EMC16-02-007
NTZZ13VB	PDC BOTTOM-FEED (U.L. LISTED) e/w	EMC16-02-013
NTZZ13VC	PDC BOTTOM-FEED (U.L. LISTED)	EMC16-02-017
		EMC16-02-ZZ13VC
NTZZ13WA	PDC BOTTOM-FEED FULLY-EQUIPPED (U.	EMC16-02-008
NTZZ13WB	PDC BOTTOM-FEED FULLY-EQUIPPED (U.	EMC16-02-014
NTZZ13WC	PDC BOTTOM-FEED FULLY-EQUIPPED (U.	EMC16-02-018
		EMC16-02-ZZ13WC
NTZZ14AA	Maintenance Area Provisioning	EMC11-01-000
NTZZ14BA	MAP Furniture With Jacks	EMC11-01-000
NTZZ14CA	Amber VDU (VT-320)	EMC11-01-000
NTZZ14EA	KSR Printer (DEC LA-120)	EMC11-01-000
NTZZ14EB	RD Printer (DEC LA-75S)	EMC11-01-000
NTZZ14EC	RD Printer (DEC LA-424)	EMC11-01-000
NTZZ14GA	1A2 KEY SYSTEM	EMC13-05-003
		EMC11-01-000
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NTZZ14HA	LAMARCHE INVERTER	EMC13-05-002
		EMC13-05-003
		EMC11-01-000
		EMC13-01-LIV-1
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
		EMC13-05-001
NTZZ14JA	HEWLETT PACKARD SERIES HP700/22 VD	EMC11-01-VDU-1
		EMC11-01-000
NTZZ14KA	Color VDU (CT-220R)	EMC11-01-000
NTZZ14LA	MAP KSR PRINTER (GEC-2120)	EMC11-01-PRT-2
		EMC11-01-000
NTZZ14MA	KSR Printer (TI-820)	EMC11-01-000
NTZZ15AA	Remote Miscellaneous Eqpt Frame W/	EMC13-05-001
NTZZ15CA	REMOTE MISCELLANEOUS EQPT FRAME W/	EMC13-05-002
NTZZ15CB	RME Power Distrib. Module	EMC13-05-005
		EMC13-05-006
NTZZ15CC	RME POWER DISTRIBUTION MODULE W/EA	EMC13-05-008
NTZZ15CD	RME POWER DISTRIBUTION MODULE NON-	EMC13-05-009
NTZZ15DA	REMOTE MISCELLANEOUS EQUIPMENT FRA	EMC13-05-003
NTZZ15DB	Remote Miscellaneous Equipment Fra	EMC13-05-005
NTZZ15GA	TOPS MPX MIS Frame (Canada Only)	EMC8-02-001

NTZZ16AA	Remote Line Concentrating Module	EMC2-14-004
NTZZ16AC	Remote Line Concentrating Module	EMC2-14-007
NTZZ16AD	Remote Line Concentrating Module	EMC2-14-008
NTZZ16BA	FRAME SUPERVISORY PANEL	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NTZZ16CA	FRAME SUPERVISORY PANEL	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NTZZ16DA	RLCM ESA CP PACKAGE	EMC2-14-ESA-1
		EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-IRM-2
NTZZ16DB	RLCM ESA CP PACKAGE	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-2
		EMC2-14-011
NTZZ16EA	REMOTE LINE CONCENTRATING MODULE	EMC2-14-001
NTZZ16EB	REMOTE LINE CONCENTRATING MODULE (	EMC2-14-002

NTZZ16EC	Remote Line Concentrating Module (	EMC2-14-005
NTZZ16ED	Remote Line Concentrating Module (	EMC2-14-006
NTZZ16FA	Remote Maint Mod - Standard	EMC2-14-004
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-2
		EMC2-14-RMM-1
		EMC2-14-011
NTZZ16GA	REMOTE LINE CONCENTRATING MODULE (	EMC2-14-003
NTZZ16HA	Remote Maintenance Module	EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-011
NTZZ16JA	Host Interface Equipment	EMC2-14-005
		EMC2-14-HIE-1
NTZZ16LA	Remote Line Concentrating Module W	EMC2-14-IRM-2
NTZZ16LB	Remote Line Concentrating Module W	EMC2-14-IRM-3
NTZZ16LC	Remote Line Concentrating Module W	EMC2-14-IRM-4
NTZZ16MA	Remote Maint Mod - China	EMC2-14-IRM-1
NTZZ16NA	Remote Line Concentrating Module	EMC2-14-011
NTZZ17AA	ISDN Comm Periph Contr Equip Frame	EMC2-18-000
NTZZ17AM	Common Peripheral Controller Equip	EMC2-06-003
NTZZ17AN	Common Peripheral Controller Equip	EMC2-06-005
NTZZ17BA	D-Channel Handler	EMC2-06-003
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-005
		EMC2-18-001
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13

		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-26-000
NTZZ17BB	Enhanced D-Channel Handler	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-26-000
NTZZ17CA	ISDN Comm Perph Cntrl Modul	EMC2-06-003
		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-26-000
NTZZ17DA	ISDN Comm Perph Cntrl Modul	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
NTZZ17EA	ISDN Line Concentrating Equipment	EMC2-19-000
NTZZ17FA	ISDN Line Concentr Module	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
NTZZ17GA	ISDN COMMON PERIPHERAL CONTROL MOD	EMC2-18-CPC-1
		EMC2-18-000
		EMC2-18-001
NTZZ17GB	ISDN Comm Perph Cntrl Modul	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-26-000
NTZZ17GC	XPM Plus CPCI module	EMC2-06-003
		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-26-000
NTZZ17GH	ISDN COMMON PERIPH CNTRL, XPM PLUS	EMC2-18-CPC-4
		EMC2-09-CPE-1
NTZZ17GJ	CPCI+ Common CP	EMC2-09-CPE-1
		EMC2-26-000

NTZZ17HA	ISDN 2B1Q Line Conc Module	EMC2-19-000
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
		EMC2-08-LCE-1
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NTZZ17JA	ISDN Line Concentrating Equipment	EMC2-19-003
NTZZ17JB	ISDN Line Concentrating Equipment	EMC2-19-004
NTZZ17KA	ISDN CPCE Frame (US Non Earthquake	EMC2-18-001
NTZZ17KK	Universal Connector Bracket	EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-18-002
		EMC2-06-002
NTZZ17LA	ISDN Comm Periph Contr Equip Frame	EMC2-18-002
NTZZ17NA	Ringing Generator For POTS on ISDN	EMC2-19-001
NTZZ17PA	ISDN Line Concentrating Equipment	EMC2-19-002
NTZZ17QM	Line Trunk Controller XPM+	EMC2-18-002
NTZZ17QR	ISDN LINE TRUNK CONTROLLER, XPM PL	EMC2-06-LTC-4
NTZZ17RM	Line Group Controller XPM+	EMC2-18-002
NTZZ17RR	ISDN LINE GROUP CONTROLLER, XPM PL	EMC2-06-LGC-4
NTZZ17SM	Digital Trunk Cont. XPM+	EMC2-18-002
NTZZ17TM	XPM Plus CPCI Module for DWS	EMC2-06-005
		EMC2-09-CPE-1
		EMC2-18-002
NTZZ18BA	INVERTER	EMC13-05-003
		EMC13-01-INV-1
		EMC13-05-005
NTZZ18CA	METALLIC TEST ACCESS UNIT	EMC13-05-003
		EMC13-05-005
NTZZ18DA	ALARM EXTENSION PANEL	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NTZZ18EA	REMOTE OFFICE TEST LINE	EMC13-01-ROTL-1
		EMC13-01-001
		EMC13-01-002
NTZZ18FA	TELLABS 292 CONF/ALERT SYSTM	EMC13-05-003

		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NTZZ18GA	TELLABS 292 LINE EXPNSN SHLF	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NTZZ18HA	NSD DIGITAL TEST HEAD	EMC13-01-DTH-1
		EMC13-01-001
		EMC13-01-002
NTZZ18JA	Miscellaneous Equipment Frame	EMC13-01-001
NTZZ18LA	Inactive System Timing Circuit	EMC13-08-ISTC
NTZZ18MA	RM4200 Data Set Shelf 115VAC	EMC13-08-DSS-1
NTZZ18NA	RM4200 Data Set Shelf -48VDC	EMC13-08-DSS-2
NTZZ18PA	DTH-ROTL Unit	EMC13-08-DTH
NTZZ18QA	Lamarche Inverter Unit	EMC13-08-LIV-1
NTZZ18QC	Lamarche Inverter Unit	EMC13-08-INV-1
NTZZ18RA	16 TRUNK INTERFACE	EMC13-01-TIF-1
NTZZ18SA	DF MOUNTING ADAPTER BROWN	EMC13-01-DFMA-1
NTZZ18TA	DF MOUNTING ADAPTER ASH	EMC13-01-DFMA-2
NTZZ18UA	Multiple Loop Test (MLT) Applique	EMC13-08-MLT
NTZZ18VA	Audible/Visual Alarm Extension Uni	EMC13-08-AEU
NTZZ18WA	Audible Alarm Cutoff Control Unit	EMC13-08-AAC
NTZZ18XA	Digital Alarm Scanner Hardware	EMC13-08-DAS
NTZZ18YA	Common Equipment Shelf Assembly	EMC13-08-ASY-1
NTZZ18ZA	CMIS Terminal Block Assembly	EMC13-08-ASY-2
NTZZ19AA	OUTSIDE PLANT MODULE (256)	EMC2-13-000
NTZZ19AB	Outside Plant Module (256)	EMC2-13-002
NTZZ19CA	320 Line Upgrade W/4-Pin Stubless	EMC2-13-LCA-1
NTZZ19DA	320 Line Upgrade W/5-Pin Stubless	EMC2-13-LCA-2
NTZZ19EA	320 Line Upgrade W/5-Pin 50ft Stub	EMC2-13-LCA-3
NTZZ19FA	MOUNTING HARDWARE FOR NT FIBER SHE	EMC2-13-FMT
NTZZ19GA	MOUNTING HARDWARE FOR ATT FIBER SH	EMC2-13-MTG-1
NTZZ19MA	OPM MAINTENANCE TOOLS	EMC2-13-000
		EMC2-13-001
		EMC2-13-002
		EMC2-13-003
NTZZ19PA	OUTSIDE PLANT MODULE (640)	EMC2-13-001
NTZZ19PB	Outside Plant Module (640)	EMC2-13-003
NTZZ19QA	OPM ESA CP PACKAGE	EMC2-13-ESA
NTZZ19VA	OPM CABINET ASSY MAPLE BROWN	EMC2-13-AMB
		EMC2-13-000
		EMC2-13-001
NTZZ19WA	OPM CABINET ASSY GREY-GREEN	EMC2-13-AGG
		EMC2-13-000
		EMC2-13-001
NTZZ19XA	OPM CABINET ASSY IVORY	EMC2-13-AIV
		EMC2-13-000
		EMC2-13-001

NTZZ20BA	DIGITAL NETWORK CONNECTING FRAME	EMC3-05-002
NTZZ20DA	EQ FRAME DNI BUILDING BLOCK	EMC3-05-003
NTZZ21BA	SPEECH LINK CONNECTING FRAME BUILD	EMC3-05-004
NTZZ21DA	EQ Frame SLC Building Block	EMC3-05-005
NTZZ21EM	Network Speech Lnk Pan Kit	EMC3-01-002
		EMC3-01-003
NTZZ21FA	Periph. Speech Lnk Pan Kit	EMC3-01-002
		EMC3-01-003
NTZZ21FM	Dgtl Net Jntr Cntg Pnl Kit	EMC3-02-NET-6
		EMC3-02-NET-7
NTZZ22AA	Common Peripheral Controller	EMC2-06-000
NTZZ22BA	Common Peripheral Controller Equip	EMC2-06-004
NTZZ22CA	Cabinetized Common Peripheral Equi	EMC2-26-000
NTZZ22DA	Common Peripheral Controller Equip	EMC2-06-002
NTZZ23AA	Miscellaneous Equipment Frame - US	EMC13-01-002
NTZZ23BA	Bulkhead Plate Assembly	EMC13-08-ASY-3
NTZZ23CA	RM4200 Bulkhead Assembly	EMC13-08-ASY-4
NTZZ23DA	DTH/ROTL Bulkhead Assy	EMC13-08-ASY-5
NTZZ23EA	MLT Bulkhead Assembly	EMC13-08-ASY-6
NTZZ23FA	Alarm Ext Bulkhead Assy	EMC13-08-ASY-7
NTZZ23GA	DAS Bulkhead Assembly	EMC13-08-ASY-8
NTZZ23KA	RM4200 BULKHEAD ASSEMBLY - CONFIG	EMC13-08-ASY-9
NTZZ24BA	Data Unit RackMount Shelf	EMC13-01-001
		EMC13-01-002
NTZZ27DA	CMSS Hardware Kit - Grey	EMC13-09-002
NTZZ27DB	Cabinetized Misc Spare Storage (Gr	EMC13-09-MSS-2
NTZZ27EA	CMSS Hardware Kit - Brown	EMC13-09-003
NTZZ27EB	Cabinetized Misc Spare Storage (Br	EMC13-09-MSS-1
NTZZ29CA	MODULAR TOPS POSITION	EMC8-01-MTP
NTZZ29DA	Integrated TOPS Position Monitor	EMC8-01-ITPM
NTZZ29LA	4 OPERATOR TPC SHELF	EMC8-01-TPC
NTZZ29QA	TYPE 1 TOPS MPX POSITION	EMC8-02-MPX-1
		EMC8-02-000
NTZZ29RA	TYPE 2 TOPS MPX POSITION	EMC8-02-MPX-2
		EMC8-02-000
NTZZ29SA	TYPE 3 TOPS MPX POSITION	EMC8-02-MPX-3
		EMC8-02-000
NTZZ29SB	Type 3 TOPS MPX Pos	EMC8-02-000
		EMC8-02-MPX-4
NTZZ29WA	TI RO Printer	EMC8-02-PRT-1
NTZZ29XA	TOPS MPX TYPE 1 TA/DA POSITION W/O	EMC8-02-TA-1
		EMC8-02-000
NTZZ29XB	Type 1 TOPS MPX Pos w/o Mod	EMC8-02-000
		EMC8-02-MPX-5
NTZZ29YA	TOPS MPX TYPE 2 DA POSITION W/O MO	EMC8-02-DA-1
		EMC8-02-000
NTZZ29YB	Type 2 TOPS MPX Pos w/o Mod	EMC8-02-000
		EMC8-02-MPX-6
NTZZ29ZA	Headset Jk Assem 6.5 Foot	EMC8-02-000

		EMC8-02-JA-1
NTZZ30AA	LINK INTERFACE MODULE CABINET (36	EMC2-16-000
NTZZ30AB	LIM ENHANCED CABINET BUILDING BLOC	EMC2-16-001
NTZZ30AC	LINK INTERFACE MODULE CABINET (36	EMC2-16-003
NTZZ30BA	LIU7 DS0A	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-LIU-0
NTZZ30CA	LIU7 E-DS0A	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-LIU-4
		EMC2-16-007
		EMC2-16-009
NTZZ30DA	LIU7 V.35	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2

		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-LIU-3
		EMC2-16-007
		EMC2-16-009
NTZZ30EA	EIU	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-EIU-1
NTZZ30EB	EIU	EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-EIU-2
NTZZ30EC	EIU (BCS34 and Above)	EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48

		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
NTZZ30FA	FRIU	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-FIU-1
		EMC2-16-007
NTZZ30GA	FILLER FACE PLATES (2 SLOT)	EMC2-16-000
		EMC2-16-001
		EMC2-16-002
		EMC2-16-003
		EMC2-16-004
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-16-007
NTZZ30HA	Fiberized LIU Shelf Assembly	EMC2-16-FLIU-1
		EMC2-16-009
NTZZ30JA	MISCELLANEOUS H/W, GREY	EMC2-16-001
		EMC2-16-002
		EMC2-16-005
		EMC4-06-000
		EMC4-06-002
		EMC4-05-005
		EMC13-07-SDMS-G
NTZZ30KA	MISCELLANEOUS H/W, BROWN	EMC2-16-001
		EMC2-16-002

		EMC2-16-005
		EMC4-06-000
		EMC4-06-002
		EMC4-05-005
		EMC13-07-SDMS-B
NTZZ30LA	FRIU	EMC2-16-003
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
NTZZ30MA	NIU	EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC2-16-009
NTZZ30NA	XLIU	EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC2-16-009
NTZZ30PA	Fiberized LIS Cabinet	EMC2-16-009
NTZZ30QA	CABLE KIT (CABINETIZED)	EMC2-16-CAB-1
		EMC2-16-001

		EMC2-16-002
NTZZ30SC	LIM ENHANCED CABINET	EMC2-16-002
NTZZ30SD	LINK INTERFACE MODULE CABINET (36	EMC2-16-005
NTZZ30SE	Link Interface Module Cabinet (36	EMC2-16-007
NTZZ30TA	CCS7 8MEG LIU (DSOA)	EMC2-16-000
		EMC2-16-004
		EMC4-06-000
		EMC4-06-002
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-LIU-5
NTZZ30TB	CCS7 8MEG LIU (FAULT-SEC.)	EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
NTZZ30UA	CCS7 8MEG LIU (E-DSOA)	EMC2-16-000
		EMC2-16-004
		EMC2-16-005
		EMC4-06-000
		EMC4-06-002
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-16-LIU-50
		EMC2-16-009
NTZZ30VA	CCS7 8MEG LIU (E/HC-DSOA)	EMC2-16-000
		EMC2-16-004
		EMC2-16-005
		EMC4-06-000

		EMC4-06-002
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-16-LIU-6
NTZZ30WA	CCS7 8MEG LIU (V.35)	EMC2-16-000
		EMC2-16-004
		EMC2-16-005
		EMC4-06-000
		EMC4-06-002
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-16-LIU-70
		EMC2-16-009
NTZZ30XA	LINK INTERFACE MODULE CABINET (36	EMC2-16-004
NTZZ30YA	LOCAL MESSAGE SWITCH	EMC2-16-LMS
		EMC2-16-003
NTZZ30YB	LMS COMMON CP FILL	EMC2-16-005
		EMC2-16-007
		EMC2-16-LMS-1
NTZZ30ZA	LINK I/F SHELF.	EMC2-16-LIU-1
		EMC2-16-003
NTZZ30ZB	LINK I/F SHELF	EMC2-16-LIU-2
		EMC2-16-005

NTZZ30ZC	Link I/F Shelf	EMC2-16-007 EMC2-16-LIU-8
NTZZ31AA	Cabinetized Trunk Module Equipment	EMC2-25-000
NTZZ31BA	Office Alm X-Conn/Primary Alm Unit	EMC2-25-AXU EMC2-25-000
NTZZ31CA	Trunk Module 8 Wire	EMC2-25-000
NTZZ31DA	Maintenance Trunk Module	EMC2-25-000
NTZZ31EA	Maint Trunk Mod for DRA	EMC2-25-000
NTZZ31JA	Office Alm X-Conn/Primary Alm Unit	EMC2-25-AXU-1
NTZZ31QA	Cabinetized Remote Miscellaneous E	EMC13-05-007
NTZZ31SA	Office Alm X-Conn/Primary Alm Unit	EMC2-25-AXU-2
NTZZ32BM	Magnetic Tape Drive Assembly	EMC2-09-IOE EMC5-01-TAP-2 EMC5-01-IOE-3
NTZZ32DM	760 MByte DPP w/56K/Compr.	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32EA	I/O Controller Module Package	EMC5-03-IOC
NTZZ32EM	I/O Controller Module Pkg.	EMC2-09-IOE EMC2-20-IOC-1 EMC5-01-IOE-3
NTZZ32EN	I/O Controller Module Pkg.	EMC5-01-IOE-3
NTZZ32FM	Disk Drive Unit Shelf	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32GA	228 Disk Drive Package	EMC5-03-DDP-2
NTZZ32HM	Stratum II Rmt Osc. Shelf	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32JM	Stratum 2.5 Rmt Osc Shelf	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32LA	Mag Tape Drive Int. Market	EMC5-01-IOE-3 EMC5-01-TAP-3
NTZZ32NA	140 MByte DPP Assembly	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32NM	140 MByte DPP w/56K/Compr.	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32PA	380 MByte DPP w/56K/Compr.	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32PM	380 MByte DPP Assembly	EMC2-09-IOE EMC5-01-IOE-3
NTZZ32QA	DPP Mounting Hdwr CIOE B	EMC2-09-IOE EMC5-01-IOE-3 EMC13-03-HWK-11
NTZZ33AA	Cabinetized Line Module ISDN	EMC2-08-000
NTZZ33CA	Line Drawer Fillers	EMC2-08-000
NTZZ34AA	DMS SUPERNODE SE	EMC4-06-000
NTZZ34AB	DMS SuperNode SE	EMC4-06-002
NTZZ34AC	DMS SuperNode SE	EMC4-06-004
NTZZ34AE	DMS SuperNode SE	EMC4-06-006
NTZZ34BA	DMS SNSE ENI COMMON CP	EMC4-06-000 EMC4-06-002

		EMC4-06-004
		EMC4-06-006
		EMC4-06-007
NTZZ34CA	DMS SNSE MS LIS/ENI I/F	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTZZ34DA	DMS SNSE MS 32XDS30 I/F	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTZZ34EA	DMS SNSE LIS COMMON CP	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-006
		EMC4-06-008
NTZZ34FA	DMS SNSE 4K ENET	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTZZ34GA	DMS SNSE ENI F-BUS COMMON CP	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTZZ34JA	DMS SNSE MS 8XDS30 I/F	EMC4-06-000
		EMC4-06-002
		EMC4-06-004
		EMC4-06-005
		EMC4-06-006
		EMC4-06-010
NTZZ34KA	DMS SNSE ENI Common CP	EMC4-06-005
		EMC4-06-010
NTZZ34LA	DMS SNSE LIS Common CP	EMC4-06-005
		EMC4-06-010
NTZZ34MB	DMS SuperNode SE Combined Cabinet:	EMC4-06-005
NTZZ34MC	DMS SuperNode SE Combined Cabinet:	EMC4-06-010
NTZZ35AA	APPLICATION PROCESSOR CABINET	EMC4-04-000
NTZZ35BA	APC APPLICATION PROC (LEFT)	EMC4-04-000
NTZZ35CA	APC FILE PROCESSOR (LEFT)	EMC4-04-000
NTZZ35DA	APC APPLICATION PROC (RIGHT)	EMC4-04-000
NTZZ35EA	APC FILE PROCESSOR (RIGHT)	EMC4-04-000

NTZZ35FA	APC STORAGE DEVICE (LEFT)	EMC4-04-000
NTZZ35GA	APC STORAGE DEVICE (RIGHT)	EMC4-04-000
NTZZ35HA	APC STORAGE DEVICE (FULL SH)	EMC4-04-000
NTZZ35JA	FILE PROC PACK FILL RIGHT	EMC4-04-000
		EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-APC-5
NTZZ35KA	STOR DEV PACKFILL RIGHT W PB	EMC4-04-000
NTZZ35LA	STORAGE DEVICE PACK FILL RIGHT W/O	EMC4-04-SD-5
		EMC4-04-000
NTZZ35MA	APC (C/42) Gray Ext. -48V	EMC4-04-APC-1
NTZZ35NA	APC (C/42) Brown (-48V)	EMC4-04-APC-2
NTZZ35NB	APC (C/42) Brown (-48V)	EMC4-04-APC-5
NTZZ35PA	APC (C/42) Gray (-60V)	EMC4-04-APC-3
NTZZ35QA	APC AP LEFT(C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-APC-5
NTZZ35RA	APC FP LEFT(C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-APC-5
NTZZ35SA	APC AP RIGHT(C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-APC-5
NTZZ35TA	APC FP RIGHT(C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-APC-5
NTZZ35UA	APC SD LEFT(C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-SDL
NTZZ35VA	APC SD RIGHT	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-SDR
NTZZ35WA	APC SD (FULL SHELF-C/42)	EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC4-04-SDF
NTZZ35XA	APC SD LEFT(C/42)	EMC4-04-APC-5
NTZZ35YA	APC SD RIGHT	EMC4-04-APC-5
NTZZ35ZA	APC SD (FULL SHELF-C/42)	EMC4-04-APC-5
NTZZ36AA	Headset Jk Assem 10 Foot	EMC8-02-000
NTZZ36BA	French MPX Type 1 Pos	EMC8-02-MPX-7
		EMC8-02-000

NTZZ36CA	French MPX Type 2 Pos	EMC8-02-MPX-8 EMC8-02-000
NTZZ36DA	French MPX Type 3 Pos	EMC8-02-MPX-9 EMC8-02-000
NTZZ36EA	Headset Jack Assembly	EMC8-02-000 EMC8-02-005
NTZZ36FA	TOPS MPX POSITION BB WITH NTNX51GB	EMC8-02-MPX-11
NTZZ36GA	TOPS MPX Position with NTNX51FB	EMC8-02-MPX-10 EMC8-02-005
NTZZ36GB	TOPS MPX POSITION WITH NTNX51FB	EMC8-02-MPX-12 EMC8-02-005
NTZZ36GC	MPX Pos w/ NTNX51PB,NTNX51BD	EMC8-02-005
NTZZ36GD	MPX Pos w/ NTNX51PB,NTNX51BE	EMC8-02-005
NTZZ37AA	CIPE Fiber ISDN (CLGO/CDTO)	EMC2-20-000
NTZZ37BA	Int. XPM ISDN 48V Common CP	EMC2-20-000
NTZZ37BB	Int. XPM+ ISDN 48V Common CP	EMC2-20-000
NTZZ37BC	Int. XPM Non-ISDN 48V Cmn CP	EMC2-20-001
NTZZ37BD	Int. XPM+ Non-ISDN 48V Cm CP	EMC2-20-001
NTZZ37CA	International CIPE DS30 Network In	EMC2-20-IF-1 EMC2-20-000
NTZZ37CB	CIPE PCM-30 Enh I/F Kit Upp	EMC2-20-000
NTZZ37CC	CIPE PCM-30 Enh I/F Kit Low	EMC2-20-000
NTZZ37CH	DS512 Network Interface (English L	EMC2-20-ZZ37CH
NTZZ37CJ	CIPE PCM-30 Enhanced I/F H/W Kit,	EMC2-06-ZZ37CJ EMC2-20-000
NTZZ37CK	CIPE PCM-30 Enhanced I/F H/W Kit,	EMC2-06-ZZ37CK EMC2-20-000
NTZZ37CM	International CIOE IOC Package	EMC2-20-IOC-2
NTZZ37CN	DS30 Network I/F Upper Mod.	EMC2-20-001 EMC2-20-000
NTZZ37CP	DS30 Network I/F Lower Mod.	EMC2-20-001 EMC2-20-000
NTZZ37CQ	DS512 Network Interface	EMC2-20-001 EMC2-20-000
NTZZ37CS	CIPE PCM-30 Enh I/F Kit Upp	EMC2-20-000
NTZZ37CT	CIPE PCM-30 Enh I/F Kit Low	EMC2-20-000
NTZZ37DA	International DS512 Network Interf	EMC2-20-IF-2 EMC2-20-000
NTZZ37EA	International Cabinet LGE/DTE Non-	EMC2-20-001
NTZZ37FA	International CIDC DS30 Network In	EMC2-20-IF-3 EMC2-20-001
NTZZ37GA	International CIDC DS512 Network I	EMC2-20-IF-4 EMC2-20-001
NTZZ37GM	International CIOE Stratum II ROS	EMC2-20-ROS-2
NTZZ37HA	International CMS7 Model A Cabinet	EMC2-20-002
NTZZ37HB	International CMS7 (Gray, Model B,	EMC2-11-ZZ37HB
NTZZ37HC	International CMS7, Model B	EMC2-11-003
NTZZ37JA	Remote Cluster Controller Frame (C	EMC2-25-RCC2-9
NTZZ37KA	RCC2 Offshore EXT CP Fill	EMC2-24-RCC-6

NTZZ37LA	International CLCE	EMC2-20-003
NTZZ37MA	International CPDC	EMC2-20-004
NTZZ37QA	International CTME	EMC2-20-005
NTZZ37RA	International CTME AXU/OAU Package	EMC2-20-AXU
		EMC2-20-005
NTZZ37SA	Int. CTME IDRA Package	EMC2-20-005
NTZZ37TA	Int. CTME MTM Package	EMC2-20-005
NTZZ37VA	Int. CTME T8A Package	EMC2-20-005
NTZZ37WA	Int. CTME TM8 Package	EMC2-20-005
NTZZ38AM	MTXD - I/O Basic (Universal)	EMC10-13-MCGM-1
		EMC10-17-000
NTZZ38CM	MTXD - DDU Assembly	EMC9-03-DDU-1
		EMC10-17-000
NTZZ38DM	MTXD - MTD Assembly	EMC10-17-000
NTZZ38EM	MTXD - Filler Panel Assy Kit	EMC10-13-MCGM-1
		EMC10-17-000
NTZZ38FA	MCTM - ISDN (BROWN)	EMC10-21-MCTM-2
NTZZ38HA	MCEX (GREY)	EMC10-17-000
NTZZ38HM	MTXD - PTM	EMC10-12-MCAM-2
NTZZ38MA	MDSP - DSPM Shelf Kit	EMC9-15-MDSP-2
NTZZ38NA	MCGM (GREY)	EMC10-13-MCGM-1
NTZZ38NM	MDSP (BROWN)	EMC9-15-MDSP-2
NTZZ38RA	MTX - DSP Common CP	EMC9-15-MDSP-2
NTZZ38VA	MCAM (BROWN)	EMC10-12-MCAM-2
NTZZ38WA	MTX-ICP Common CP (< BCS32+)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ38XA	MTX-ICP Common CP (>=BCS32+)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ38YA	MTX-ICP Common CP (XPM PLUS)	EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NTZZ41CA	30 Universal Tone Rcvr Ccts	EMC2-20-001
		EMC2-20-000
NTZZ41KA	Remote Maint Mod - UK	EMC2-14-IRM-1
NTZZ41RA	International Remote Line Concentr	EMC2-14-IRM-1
NTZZ41SA	Remote Maint Mod - TURKEY	EMC2-14-IRM-1
NTZZ41TA	Remote Maint Mod - CEP	EMC2-14-IRM-1
NTZZ41UA	Int. RLCM ESA CP Pkg.(China)	EMC2-14-IRM-1
NTZZ41VA	Int. RLCM ESA CP Pkg.(CEP)	EMC2-14-IRM-1
NTZZ41WA	Int. RLCM ESA CP Pkg. (UK)	EMC2-14-IRM-1
NTZZ42AA	MDS Messg Cont 24 Port (V.35	EMC19-02-000
NTZZ42BA	MDS Messaging Controller Shelf	EMC19-02-MC-2
		EMC19-02-000
NTZZ42BB	MDS Messg Cont 24 Port (T1)	EMC19-02-000
NTZZ42BN	MDS Spares Cabinet Building Block	EMC19-02-004
NTZZ42CA	MDS Messg Cont 48 Port (V.35	EMC19-02-000
NTZZ42CM	MDS HUB Unit (48 Port) B Blk	EMC19-02-003

NTZZ42DA	MDS Messaging Controller Shelf	EMC19-02-MC-4
		EMC19-02-000
NTZZ42DB	MDS Messg Cont 48 Port (T1)	EMC19-02-000
NTZZ42EA	MDS Attendant Controller Shelf (V.	EMC19-02-AC-1
		EMC19-02-000
NTZZ42EB	MDS Attend Cont Shelf (V.35)	EMC19-02-000
NTZZ42GA	MDS Operations Controller Shelf	EMC19-02-OP
		EMC19-02-001
NTZZ42GB	MDS Operations Controller Sh	EMC19-02-001
NTZZ42HA	MDS Modem Shelf	EMC19-02-MODEM
		EMC19-02-001
NTZZ42JA	MDS Auxiliary Shelf	EMC19-02-AUX
		EMC19-02-001
NTZZ42KA	MDS IOC (V.35) Building Block	EMC19-02-IOC-1
		EMC19-02-000
NTZZ42KB	MDS IOC (V.35) Building Blk	EMC19-02-000
NTZZ42LA	MDS IOC (RS232) Bld Block	EMC19-02-001
NTZZ42MA	MDS Inverter Building Block	EMC19-02-003
NTZZ42NA	MDS X.25 Modem (V.35) Building Blo	EMC19-02-X25
		EMC19-02-001
NTZZ42PA	MDS HUB Unit (12 Port) Building Bl	EMC19-02-HUB
		EMC19-02-003
NTZZ42QA	MDS Service Bay Building Block	EMC19-02-000
NTZZ42RA	MDS Operations Bay Building Block	EMC19-02-001
NTZZ42SA	MDS LAN Bay Building Block	EMC19-02-003
NTZZ42WA	MDS Remote Dial-up X.11 Term	EMC19-02-001
NTZZ42XA	MDS Rem Dedicated X.11 Term	EMC19-02-001
NTZZ42YA	MDS Printer Building Block	EMC19-02-001
NTZZ43CA	Ringing Generator SL100/UK	EMC2-14-IRM-1
NTZZ43CF	Ringing Generator Australia	EMC2-14-IRM-1
NTZZ43DA	Ringing Generator CP China	EMC2-14-IRM-1
NTZZ43EA	Ringing generator (Turkey/CEP)	EMC2-14-IRG-3
		EMC2-14-IRM-1
NTZZ43EB	Ringing Generator Turkey/CEP	EMC2-14-IRM-1
NTZZ44AA	APU	EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
NTZZ44BA	VPU	EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1

		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
NTZZ44CB	36 Link LPP -48V BCS33 & BELOW	EMC2-17-LPP-1
NTZZ44CC	36 Link LPP -48V BCS33 and BELOW	EMC2-17-LPP-4
NTZZ44CM	36 Link LPP -48V Brwn, BCS33 & BEL	EMC2-16-LPP-1
NTZZ44CN	36 Link LPP -48V, BCS34 and ABOVE	EMC2-16-LPP-48
NTZZ44DA	LIU7 w Channel Bus I/F (CBI)	EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-LI-10
NTZZ44EA	LIU7 (Japan ISUP with CBI)	EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC2-16-LI-11
NTZZ44FM	36 Link LPP -48V Gray, BCS33 & BEL	EMC2-16-LPP-3
NTZZ44GB	36 Link LPP -60V Gray, BCS33 and B	EMC2-17-LPP-3
NTZZ44GM	36 Link LPP -60V Gray, BCS33 & BEL	EMC2-16-LPP-4
NTZZ44GN	36 Link LPP -60V, BCS34 and ABOVE	EMC2-16-LPP-60V
NTZZ44HA	Bulkhead and Cable Assembly	EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-16-007
		EMC2-16-BLK-2
NTZZ44JA	Bulkhead and Cable Assembly	EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-16-BLK-1
		EMC2-16-007
NTZZ44KM	36 Link LPP -48V, Non-Cabinetized,	EMC2-16-LPP-2
NTZZ44KN	36 Link LPP -48V, Non-Cabinetized,	EMC2-17-LPP-2
NTZZ45AA	AT&T Modem Mounting Unit (40B1)	EMC13-08-ATT-1
NTZZ45BA	AT&T Modem Mounting Unit (40A3)	EMC13-08-ATT-2

NTZZ45CA	DS-5 Data Set Shelf -48VDC	EMC13-08-GDC-1
NTZZ45DA	DS-6 Data Set Shelf -48VDC	EMC13-08-GDC-2
NTZZ45EA	Remote Maintenance Module	EMC2-24-RMM-2
NTZZ45FA	RMM in CMIS Bulkhead Kit	EMC2-24-ASY-1
NTZZ45GA	NOKIA TF21462 Mounting Unit	EMC13-08-NKA
NTZZ45HA	TELLABS 1014U MOUNTING UNIT	EMC13-08-TL-3
NTZZ45JA	TELLABS 254A MOUNTING UNIT	EMC13-08-TL-4
NTZZ45NA	Cable and Hardware kit for Teltren	EMC13-08-TT-01
NTZZ45PA	Remote Maint. Mod. in CMIS	EMC13-01-004
NTZZ46CA	Cabinetized RSC (LCM-ready)	EMC2-25-RCC2-1
NTZZ46DA	Cabinetized RSC (LCM-ready)	EMC2-25-RCC2-2
NTZZ46EA	Rmt Clster Cntrl (RCC+)CP	EMC2-15-006
		EMC2-24-RCC-7
NTZZ46EB	RCC Common CP Fill (XPM+)	EMC2-15-008
NTZZ46EC	RCC Common CP Fill (XPM+)	EMC2-15-014
NTZZ46ED	RCC Common CP Fill (XPM+ w/ADSI-SC	EMC2-15-010
NTZZ46EF	RCC Common CP Fill w/92BC (XPM+)	EMC2-15-012
NTZZ46EG	RCC Common CP Fill w/92BC (XPM+ w/	EMC2-15-013
NTZZ46FA	Alarm Cable Assembly BB	EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NTZZ46GA	BAMD Alarm/Power Cable Assy.	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
NTZZ47AA	Cabinetized Line Concentrating Equ	EMC2-09-LCE
NTZZ47BA	Cabinetized Line Module ISDN	EMC2-08-LCE-1
NTZZ47CA	Power Distribution Center (CPDC)	EMC16-02-010
NTZZ47EA	Cabinetized Input/Output	EMC2-09-IOE
NTZZ47EB	Cabinetized Input/Output	EMC5-01-IOE-3
NTZZ47FB	Cabinetized Dual Shelf Network	EMC3-01-DSN-1
NTZZ47GA	Cabinetized Common Peripheral Equi	EMC2-09-CPE
NTZZ47GB	Cabinetized Common Peripheral Equi	EMC2-09-CPE-1
NTZZ47HA	Speech Link Connecting Cabinet - M	EMC3-01-002
NTZZ47HB	Speech Link Connecting Cabinet - M	EMC3-01-003
NTZZ47JA	Digital Network Interconnect Cabin	EMC3-02-NET-6
NTZZ47JB	Digital Network Interconnect Cabin	EMC3-02-NET-7
NTZZ47PB	Model B Miscellaneous Equipment Ca	EMC13-01-004
NTZZ47QA	Remote Switching Center - SONET	EMC2-24-RCC-10
NTZZ47QB	Remote Switching Center - SONET	EMC2-24-RCC-19
NTZZ47QC	Remote Switching Center - SONET	EMC2-25-RCC2-12
NTZZ47QM	Remote Switching Center - SONET	EMC2-24-RCC-16
NTZZ47RA	Remote Switching Center - SONET	EMC2-24-RCC-11
NTZZ47RM	Remote Switching Center - SONET	EMC2-24-RCC-17
NTZZ47RN	Remote Switching Center - SONET	EMC2-24-RCC-20
NTZZ47RP	Remote Switching Center - SONET	EMC2-25-RCC2-13
NTZZ47SA	Remote Switching Center - SONET	EMC2-24-RCC-12
NTZZ47SM	Remote Switching Center - SONET	EMC2-24-RCC-18

NTZZ47TA	Remote Switching Center - SONET	EMC2-24-RCC-13
NTZZ47TB	Remote Switching Center - SONET	EMC2-25-RCC2-10
NTZZ47UB	Remote Switching Center - SONET	EMC2-25-RCC2-11
NTZZ47VA	Remote Switching Center - SONET	EMC2-24-RCC-15
NTZZ50EM	Cable Trough End Cvr (Brown)	EMC19-03-005
NTZZ50GA	Merid Cab Anchor & Isolat.	EMC19-03-005
NTZZ50LM	Meridian Storage Cabinet Building	EMC19-03-005
NTZZ60DA	MCSS (GREY)	EMC10-14-MCSS-1
NTZZ60GA	MNET (GREY)	EMC10-08-MNET-1
NTZZ60HA	MNET (BROWN)	EMC10-08-MNET-2
NTZZ97AA	CLASS MODEM RESOURCE PCB	EMC2-15-002
		EMC2-15-003
		EMC2-06-003
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC2-20-000
NTZZ97BA	SUPERNODE CABINET AND COMMON CP(US	EMC4-05-001
NTZZ97BG	SLM COMMON CP	EMC4-02-SLM-2
NTZZ97BH	SUPERNODE CABINET AND COMMON CP	EMC4-03-002
NTZZ97CA	STREAMLINE SUPERNODE CABINET AND C	EMC4-05-002
NTZZ99AA	PC KIT FOR CHANNEL BUS (CBUS) ACCE	EMC2-99-CBUS
NTZZ99AB	17GA to 17GB Change Kit	EMC2-18-000
		EMC2-18-001
NTZZ99AD	NIF SMS PRODUCT CHANGE KIT	EMC2-99-SMS-1
NTZZ99AH	XPM Plus ISDN Change Kit	EMC2-18-000
		EMC2-18-001
		EMC2-99-XPM-4
		EMC2-18-002
NTZZ99AK	FRIU UPGRADE KIT	EMC2-16-003
		EMC2-16-005
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC2-17-LPP-1
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC2-17-LPP-2
		EMC2-17-LPP-3
		EMC2-17-LPP-4

		EMC2-16-007
NTZZ99AL	XPM PLUS ISDN CHANGE KIT	EMC2-99-SPM-1
NTZZ99AM	Product Change Kit	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
NTZZ99AN	XPM to XPM+ Change Kit	EMC2-06-005
		EMC2-09-CPE-1
NTZZ99AP	486 Upgrade Kit for NTNX51CB/CC/CD	EMC8-02-UPG
		EMC8-02-005
NTZZ99AQ	XPM Plus DTC Change Kit	EMC2-18-001
		EMC2-99-XPM-6
		EMC2-18-002
NTZZ99AR	Se. 60 Upg. Kit from Se. 50	EMC4-05-010
NTZZ99AS	Series 60 Upgrade Kit	EMC4-05-010
		EMC4-03-KIT-1
NTZZ99AT	486 Upgr to "C" & "D" Series	EMC8-02-005
NTZZ99AU	XPM Plus DTC Change Kit for DWS	EMC2-99-XPM-7
NT0J04BA	LTU MAINFRAME ASH	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
NT0J04BB	LTU MAINFRAME BROWN	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
NT0J04BP	16-TRUNK SELECTOR OPTION	EMC13-01-TIF-1
NT0J04BW	16 TRK MUX CARD	EMC13-01-TIF-1
NT0J04DB	WALL MOUNTING KIT	EMC13-01-DFMA-2
NT0J04DC	WALL MOUNTING KIT	EMC13-01-DFMA-1
NT0J04DD	26" LTC MOUNTING ADAPTERS	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NT0J04EA	DIG RMT TEST UNIT (DRTU) ASH	EMC13-05-003
		EMC13-05-005
NT0J04EB	DIG RMT TEST UNIT (DRTU) BRN	EMC13-05-003
		EMC13-05-005
NT0J08AD	DIST. FRAME MOUNTING KIT	EMC13-01-DFMA-1
		EMC13-01-DFMA-2
NT0J41BA	DRTU CABLE KIT	EMC2-13-001
NT0J42AA	DRTU UNIT	EMC2-13-001
NT0J6_BA	LTU Mainframe Brown	EMC13-05-005
NT0J62BA	LTC 4 Trunk 3 Wire	EMC13-01-001
		EMC13-01-002
NT0J63BA	LTC 4 Trunk 4 Wire	EMC13-01-001
		EMC13-01-002
NT0J64BA	LTC 16 Trunk 4 Wire	EMC13-01-001
		EMC13-01-002
NT0M90SA	TOPS MP TERMINAL BASE UNIT	EMC8-01-MTP

		EMC8-01-ITPM
NT0M92FA	MONITOR	EMC8-01-MTP
		EMC8-01-ITPM
NT0R82AB	Voice Cbl, Posn-Junc Box	EMC8-02-000
		EMC8-02-MPX-10
		EMC8-02-MPX-11
		EMC8-02-MPX-12
		EMC8-02-005
NT0X0009	Logic Return Cable Assy	EMC2-06-003
		EMC2-18-000
		EMC2-15-006
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
NT0X0013	ISOLATION MOUNTING SCREW H/W	EMC13-01-ROTL-1
		EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NT0X02AB	MISCELLANEOUS EQUIP. FRAME	EMC13-05-002
		EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
		EMC8-02-001
		EMC13-05-001
NT0X0201	POWER PNL MISC MATERIAL ASSY	EMC13-05-002
		EMC13-05-001
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
NT0X07AU	AC Mounting Plate	EMC13-01-INV-1
NT0X10AA	SCAN CARD	EMC2-13-FMT
		EMC2-13-MTG-1
		EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMC-2
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11

		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
		EMC2-14-RMM-1
NT0X18CA	Dgtl Net Junctor Cntg Pnl	EMC3-05-002
		EMC3-05-003
NT0X18CB	Dgtl Net Intercon Frame	EMC3-05-002
		EMC3-05-003
NT0X18CC	Dgtl Net Junctor Cntg Pnl	EMC3-05-002
		EMC3-05-003
NT0X18DB	Dgtl Net Junctor Cntg Pnl	EMC3-05-002
		EMC3-05-003
NT0X18DC	Dgtl Net Junctor Cntg Pnl	EMC3-05-002
		EMC3-05-003
NT0X18DD	Dgtl Net Junctor Cntg Pnl	EMC3-05-002
		EMC3-05-003
NT0X19AC	OPM CABINET ASSY MAPLE BROWN	EMC2-13-AMB
		EMC2-13-002
		EMC2-13-003
NT0X19AD	OPM CABINET ASSY GREY-GREEN	EMC2-13-AGG
		EMC2-13-002
		EMC2-13-003
NT0X19AE	OPM CABINET ASSY IVORY	EMC2-13-AIV
		EMC2-13-002
		EMC2-13-003
NT0X1929	MOUNTING PLATE ASSEMBLY	EMC2-13-000
		EMC2-13-001
		EMC2-13-002
		EMC2-13-003
NT0X1934	MOUNTING TEMPLATE	EMC2-13-000
		EMC2-13-001
		EMC2-13-002
		EMC2-13-003
NT0X1935	MOUNTING HARDWARE KIT	EMC2-13-000
		EMC2-13-001
		EMC2-13-002
		EMC2-13-003
NT0X1978	FMT-150B HARDWARE MTG KIT	EMC2-13-FMT
NT0X1979	DDM-1000 HARDWARE MTG KIT	EMC2-13-MTG-1
NT0X1989	SINGLE FMT-6 KIT	EMC2-13-001
NT0X1990	DUAL FMT-6 KIT	EMC2-13-001
NT0X2005	RIGHT HAND COLUMN MAPLE BRN	EMC2-13-001
NT0X2056	BATTERY TRAY ASSEMBLY	EMC2-13-000

		EMC2-13-001
NT0X24BD	BLANK SHELF ASSY	EMC3-05-FFP-1
		EMC4-04-000
		EMC4-04-APC-1
		EMC4-04-APC-2
		EMC4-04-APC-3
		EMC2-16-009
		EMC4-04-APC-5
NT0X24BH	CABLE TROUGH ASSY (BROWN)	EMC2-16-001
		EMC2-16-002
		EMC4-06-000
		EMC4-06-002
		EMC4-05-005
NT0X24BT	FRAME FAIL LAMP (BROWN)	EMC2-16-000
		EMC2-16-003
		EMC3-05-000
		EMC4-03-000
		EMC4-03-002
		EMC4-05-001
		EMC13-07-SDMS-B
		EMC4-04-APC-2
		EMC2-16-LPP-1
		EMC2-16-LPP-2
		EMC4-05-007
		EMC4-05-008
		EMC2-17-LPP-1
		EMC4-05-009
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC4-05-010
		EMC4-05-003
		EMC2-12-000
		EMC2-17-LPP-2
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-16-009
		EMC4-04-APC-5
NT0X24CN	FRAME FAIL LAMP (GRAY)	EMC2-16-003
		EMC2-16-004
		EMC3-05-001
		EMC4-03-001
		EMC4-05-000

		EMC4-05-002
		EMC13-07-SDMS-G
		EMC4-04-APC-1
		EMC4-04-APC-3
		EMC2-09-IOE
		EMC2-16-LPP-3
		EMC2-16-LPP-4
		EMC4-05-007
		EMC4-05-008
		EMC2-17-LPP-1
		EMC4-05-009
		EMC4-06-004
		EMC4-06-005
		EMC2-16-LPP-60V
		EMC2-16-LPP-48
		EMC4-05-010
		EMC4-05-003
		EMC2-16-006
		EMC2-17-LPP-3
		EMC2-17-LPP-4
		EMC2-16-007
		EMC4-06-006
		EMC4-06-010
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-15
		EMC2-24-RCC-10
		EMC2-16-009
NT0X24CU	REAR KICK PLATE (GRAY)	EMC3-05-001
		EMC4-03-001
		EMC4-05-000
		EMC4-05-002
NT0X2430	KICK PLATE ASSEMBLY (BROWN)	EMC2-16-000
		EMC2-16-003
		EMC3-05-000
		EMC4-03-000
		EMC4-03-002
		EMC4-04-000
		EMC4-05-001
		EMC2-12-000
		EMC2-16-009
NT0X25AA	COMMON FRAMEWORK	EMC2-14-001
		EMC2-14-002
		EMC2-15-001
		EMC2-15-002
		EMC5-01-001
		EMC13-05-002
		EMC13-05-003

		EMC2-06-003
		EMC2-07-LCM-2
		EMC2-07-001
		EMC3-05-002
		EMC3-05-004
		EMC3-04-000
		EMC2-14-005
		EMC2-14-006
		EMC2-11-001
		EMC16-01-PDC-3
		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC2-07-005
		EMC2-07-006
		EMC2-15-006
		EMC5-01-IOE-2
		EMC2-01-000
		EMC13-01-001
		EMC13-05-005
		EMC2-19-003
		EMC2-19-004
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
NT0X25AH	COMMON FRAMEWORK	EMC2-14-003
		EMC2-15-000
		EMC2-15-003
		EMC2-15-004
		EMC5-01-IOE-1
		EMC16-02-006
		EMC2-06-003
		EMC2-07-000
		EMC2-19-000
		EMC2-06-000
		EMC2-18-000
		EMC3-05-003
		EMC3-05-005
		EMC3-04-001
		EMC2-14-004
		EMC2-14-005
		EMC2-11-002
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC5-01-IOE-2
		EMC2-01-001
		EMC2-14-007
		EMC2-14-IRM-3

		EMC13-05-005
		EMC13-01-002
		EMC2-19-002
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC8-02-001
		EMC13-05-001
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC2-18-002
		EMC16-02-011
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-11-000
		EMC2-06-002
		EMC2-14-IRM-2
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
		EMC2-14-011
NT0X25AV	Common Framework	EMC2-19-000
		EMC2-18-000
		EMC2-15-006
		EMC13-05-005
		EMC8-02-001
NT0X25AX	CABLE TROUGH ASSY (GREY)	EMC2-16-001
		EMC2-16-002
		EMC4-06-000
		EMC4-06-002
		EMC4-05-005
NT0X2516	KICK PLATE ASSEMBLY (GRAY)	EMC2-16-003
		EMC2-16-004
		EMC3-05-001
		EMC4-03-001
		EMC4-04-000
		EMC4-05-000
		EMC4-05-002
		EMC2-16-006
		EMC2-16-009
NT0X26GR	Cable Assembly	EMC2-11-001

		EMC2-11-002
		EMC2-11-000
NT0X26GS	Cable Assembly	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT0X26GT	Cable Assembly	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT0X26GV	Cable Assembly	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT0X28AK	Frame Supervisory Panel	EMC3-04-000
		EMC3-04-001
NT0X28AL	FRAME SUPERVISORY PANEL	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X28AM	Frame Supervisory Panel	EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NT0X28AP	Frame Supervisory Panel	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT0X28AS	REMOTE CNTRL EQPT FR PANEL	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NT0X28EB	Frame Supervisory Panel	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
NT0X36AB	POWER CONTROL & ALARM CP	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X40AB	Frame Supervisory Panel	EMC16-01-PDC-4
		EMC13-05-PDM-1
NT0X40UA	U.L. FRAME SUPERVISORY PANEL	EMC13-05-002
		EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-005
		EMC16-02-008
		EMC13-05-001

		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC13-05-009
		EMC13-05-006
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X40UB	Frame Supervisory Panel	EMC16-02-012
		EMC16-02-013
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-011
		EMC13-05-008
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42AA	Power Distribution Centre Fr	EMC16-01-PDC-4
NT0X42AB	Fuse Panel "A" Feed	EMC16-01-PDC-4
		EMC13-05-PDM-1
NT0X42AC	Fuse Panel "B" Feed	EMC16-01-PDC-4
		EMC13-05-PDM-1
NT0X42AG	Filter Panel	EMC16-01-PDC-4
		EMC13-05-PDM-1
NT0X42AH	FILLER PANEL	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC16-02-ZZ13VC

		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42AJ	10 AMP FUSE	EMC13-05-002
		EMC13-05-001
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
NT0X42AK	20 AMP FUSE	EMC13-05-002
		EMC13-05-001
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42AM	GROUND PANEL (5.5")	EMC13-05-002
		EMC13-05-001
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
NT0X42AN	05 AMP FUSE	EMC13-05-002
		EMC16-02-012
		EMC16-02-013
		EMC16-02-014
		EMC13-05-001
		EMC16-02-011
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
NT0X42AS	30 AMP FUSE	EMC13-05-002
		EMC13-05-001
		EMC13-05-PDM-1
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
NT0X42AT	ISG/EMI LOGICAL RETURN	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-02-004
		EMC16-02-012
		EMC16-02-015
		EMC16-02-ZZ13RC
NT0X42AU	ISDN FUSE PANEL ASSY	EMC16-02-006
		EMC16-01-PDC-3

		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-02-004
		EMC16-02-012
		EMC16-02-013
		EMC16-02-015
		EMC16-02-017
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13RC
NT0X42UA	U.L. PDC FRAME	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42UB	U.L. FUSE PANEL "A" FEED	EMC13-05-002
		EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC13-05-001
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC13-05-008

		EMC13-05-009
		EMC13-05-006
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42UC	U.L. FUSE PANEL "B" FEED	EMC13-05-002
		EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC13-05-001
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42UE	Ground Panel - Top Feed	EMC16-01-PDC-3
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-015
		EMC16-02-016
		EMC16-02-011
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
NT0X42UF	GROUND PANEL - BTM FEED	EMC16-02-006
		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-017
		EMC16-02-018

		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13WC
NT0X42UG	U.L. FILTER PANEL	EMC13-05-002
		EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC13-05-001
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC13-05-008
		EMC13-05-009
		EMC13-05-006
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42XA	ISG Auxiliary Battery	EMC16-01-PDC-3
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42XB	Non-ISG Auxiliary Battery	EMC16-01-PDC-3
		EMC16-01-PDC-1

		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-011
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42XC	Enhanced Alarm Service	EMC16-01-PDC-3
		EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-005
		EMC16-02-008
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X42XE	PDC Battery Return Kit	EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X4204	CABLE ASSY.	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-015
		EMC16-02-016
		EMC16-02-011
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
NT0X4206	Cable Assembly	EMC16-01-PDC-4

		EMC16-01-PDC-1
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13WC
NT0X4208	CABLE ASSY.	EMC16-02-006
		EMC16-01-PDC-3
		EMC16-01-PDC-2
		EMC16-02-004
		EMC16-02-012
		EMC16-02-005
		EMC16-02-015
		EMC16-02-016
		EMC16-02-011
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
NT0X4235	EAS Cable Assembly	EMC16-02-012
		EMC16-02-013
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-011
		EMC13-05-008
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X4236	EAS Cable Assembly	EMC16-02-012
		EMC16-02-013
		EMC16-02-014
		EMC16-02-015
		EMC16-02-016
		EMC16-02-017
		EMC16-02-018
		EMC16-02-011
		EMC13-05-008
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13TC
		EMC16-02-ZZ13RC
		EMC16-02-ZZ13WC
NT0X43AD	IOE FRAME	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2

NT0X43WC	WIRING: STRATUM II/2.5	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X43WD	WIRING: STRATUM II/2.5	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X4301	POWER CABLE	EMC5-01-DDU-1
		EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X4302	POWER CABLE	EMC5-01-DDU-1
		EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X4307	Power Cable Assembly	EMC13-08-GDC-1
NT0X4312	Power Cable Assembly	EMC13-08-GDC-1
NT0X4314	Power Cable Assembly	EMC13-08-GDC-1
NT0X4315	Power Cable Assembly	EMC13-08-GDC-1
NT0X44AB	MAG TAPE DRIVE UNIT (COOK)	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
		EMC5-01-TAP-2
NT0X44AD	Magnetic Tape Drive Hardware	EMC2-09-IOE
		EMC5-01-IOE-3
		EMC10-13-MCGM-1
NT0X44BB	Mag Tape Drive Unit (Cook)	EMC5-01-TAP-3
NT0X46AB	Trunk Module Equip Frame	EMC2-01-000
		EMC2-01-001
NT0X50AA	FILLER FACE PLATE 0.875	EMC2-06-SMS-1
		EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-24-RCC-4
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1

EMC2-99-SPM-1
EMC8-01-TPC
EMC2-06-003
EMC2-06-000
EMC2-18-000
EMC2-14-004
EMC2-14-005
EMC2-14-006
EMC2-11-001
EMC2-11-002
EMC2-15-006
EMC2-15-007
EMC2-15-005
EMC5-01-IOC-1
EMC5-01-IOC-2
EMC2-14-007
EMC2-14-IRM-3
EMC2-09-CPE
EMC2-24-RCC-5
EMC2-24-RCC-7
EMC2-06-004
EMC2-06-005
EMC2-18-001
EMC2-20-IOC-1
EMC2-15-009
EMC2-15-008
EMC2-13-LCA-1
EMC2-13-LCA-2
EMC2-13-LCA-3
EMC2-99-XPM-6
EMC2-99-XPM-4
EMC2-06-SMS-3
EMC2-06-SMS-4
EMC2-06-SMSR-2
EMC2-06-SMSR-5
EMC5-01-IOC-3
EMC2-06-SMR-1
EMC5-01-IOC-4
EMC2-25-RCC2-1
EMC2-25-RCC2-2
EMC2-25-RCC2-3
EMC2-25-RCC2-4
EMC2-25-RCC2-5
EMC2-25-RCC2-6
EMC2-06-LTC-5
EMC2-06-LTC-4
EMC2-06-LGC-5
EMC2-06-LGC-4
EMC2-06-SMU-8

EMC2-06-SMU-12
EMC2-06-SMU-7
EMC2-06-SMU-13
EMC2-18-CPC-4
EMC2-06-SMS-7
EMC2-06-SMU-4
EMC2-09-CPE-1
EMC2-09-SMU-9
EMC3-01-DSN-1
EMC2-06-SMA-3
EMC2-06-SMA-4
EMC2-06-SMA-5
EMC2-06-SMA-1
EMC2-06-SMA-2
EMC2-06-SMU-3
EMC2-06-SMU-10
EMC2-06-SMSR-4
EMC5-03-IOC
EMC2-06-SMU-2
EMC2-06-DTC-3
EMC2-99-XPM-7
EMC2-15-014
EMC2-15-015
EMC2-15-010
EMC2-15-011
EMC2-15-012
EMC2-15-013
EMC2-06-SMS-2
EMC2-18-002
EMC2-14-008
EMC2-14-IRM-4
EMC2-14-IRM-1
EMC2-06-SMS-5
EMC2-06-SMS-6
EMC2-06-SMU-99
EMC2-11-ZZ37HB
EMC2-20-IOC-2
EMC2-25-RCC2-9
EMC2-25-RCC2-10
EMC2-25-RCC2-11
EMC2-25-RCC2-12
EMC2-25-RCC2-13
EMC2-06-SMA-6
EMC2-06-SMA-7
EMC2-06-SMA-8
EMC2-06-SMA-9
EMC2-06-SMA-10
EMC2-06-SMA-11
EMC2-11-000

		EMC2-11-005
		EMC2-06-DTC-1
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-20-001
		EMC2-20-002
		EMC2-06-002
		EMC2-26-000
		EMC2-14-IRM-2
		EMC2-24-RMM-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC2-14-011
		EMC2-20-000
		EMC2-11-003
NT0X50AC	FILLER FACE PLATE	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-15-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-25-AXU
		EMC2-20-AXU
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10

		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-IRM-2
		EMC2-24-RMM-2
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
		EMC2-14-011
NT0X50AE	Filler Face Plate	EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-11-ZZ37HB
		EMC2-20-002
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC2-14-011
		EMC2-11-003
NT0X50AF	Filler Face Plate 1.72	EMC5-01-IOC-1
		EMC5-01-IOC-2
		EMC2-20-IOC-1
		EMC5-01-IOC-4
		EMC5-03-IOC
		EMC2-20-IOC-2
NT0X50AG	FILLER FACE PLATE	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-HIE-1
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-14-008
		EMC2-14-IRM-4

		EMC2-14-IRM-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-IRM-2
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
		EMC2-14-011
NT0X50AH	Filler Face Plate	EMC2-14-IRM-1
NT0X50AJ	FILLER FACE PLATE	EMC2-13-FMT
		EMC2-13-MTG-1
		EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NT0X50AM	Filler Face Plate	EMC2-13-LCA-1
		EMC2-13-LCA-2
		EMC2-13-LCA-3
NT0X50BA	Filler Face Plate 0.875	EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC10-13-MCGM-1
		EMC10-17-000
NT0X50BE	Filler Face Plate 2.62	EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC5-01-ROS-2
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4

		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-13-MCGM-1
		EMC10-17-000
NT0X50BF	Filler Face Plate 1.72	EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC5-01-ROS-2
		EMC10-13-MCGM-1
		EMC10-17-000
NT0X56AA	Speech Link Conn Frame	EMC3-05-004
		EMC3-05-005
NT0X56AB	# Network Speech Link Panel	EMC3-05-004
		EMC3-05-005
NT0X56AC	% Peripheral Speech Link Pnl	EMC3-05-004
		EMC3-05-005
NT0X56BB	Network Speech Link Panel	EMC3-05-004
		EMC3-05-005
NT0X56BC	Peripheral Speech Link Panel	EMC3-05-004
		EMC3-05-005
NT0X58AD	Maintenance Tool Kit	EMC2-15-006
NT0X58BK	RSC-S Hardware kit	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
NT0X58CE	Misc HW Kit	EMC2-25-RCC2-9
NT0X58DA	ABS Alarm Upgrade Kit	EMC13-05-PDM-1
		EMC13-05-009
		EMC13-05-006
NT0X63AA	Alarm Control & Display Pnl	EMC11-01-000
NT0X63AB	Alarm Display Panel	EMC11-01-000
NT0X63AC	Remote Alarm Panel	EMC2-15-006
NT0X64AA	Exit Alarm Panel	EMC11-01-000
NT0X67AA	I/O Control Terminator	EMC5-01-IOC-1
		EMC5-01-IOC-2
		EMC2-20-IOC-1

		EMC5-01-IOC-3
		EMC5-01-IOC-4
		EMC5-03-IOC
		EMC2-20-IOC-2
NT0X70AA	Trunk Module Proc (UK)	EMC10-12-MCAM-2
NT0X70AC	Trunk Module Proc CP (32K)	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT0X70BA	INT'L Trunk Module Proc	EMC10-12-MCAM-2
NT0X82AB	Periph Fr Supervisory Panel	EMC2-01-000
		EMC2-01-001
NT0X82WA	FSP STRAPPING INFORMATION	EMC2-01-TS-1
		EMC2-01-000
		EMC2-01-001
NT0X82WB	FSP STRAPPING INFORMATION	EMC2-01-TS-2
		EMC2-01-000
		EMC2-01-001
NT0X8211	Cable Assembly	EMC2-01-000
		EMC2-01-001
NT0X84AA	Cage Filler Panel Assembly	EMC2-11-001
		EMC2-11-002
		EMC2-09-IOE
		EMC5-01-IOE-3
		EMC2-11-000
		EMC2-25-000
		EMC2-20-005
		EMC9-15-MDSP-2
		EMC10-17-000
NT0X8501	CIRCUIT PACK CAGE MOUNTING	EMC13-05-003
		EMC13-05-005
NT0X8503	CP STORAGE SHELF ASSY	EMC13-05-003
		EMC13-05-005
NT0X87AA	Inverter	EMC13-01-INV-1
NT0X88AF	20A FILT MIS FRAME SUPV PNL	EMC13-05-002
		EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
		EMC13-05-001
NT0X8849	Power Cable Assembly	EMC13-08-GDC-1
NT0X95BA	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BD	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BF	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BG	POWER CABLE	EMC5-01-IOE-1

		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BJ	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BK	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95BU	Cable Assembly	EMC16-01-PDC-4
		EMC16-01-PDC-1
		EMC16-02-013
		EMC16-02-008
		EMC16-02-014
		EMC16-02-017
		EMC16-02-018
		EMC16-02-007
		EMC16-02-ZZ13VC
		EMC16-02-ZZ13WC
NT0X95BW	AXU Ground Cable	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
NT0X95CE	POWER CABLE	EMC5-01-IOE-1
		EMC5-01-001
		EMC5-01-IOE-2
NT0X95CL	AND CABLE ASSEMBLIES	EMC2-01-TS-1
		EMC2-01-TS-2
		EMC2-01-000
		EMC2-01-001
NT0X95CN	POWER CABLE	EMC5-01-DDU-1
NT0X95CP	POWER CABLE	EMC5-01-DDU-1
NT0X95CS	CABLE ROTL PWR SUPPLY TO FSP	EMC13-01-ROTL-1
NT0X9504	Ground Material Assembly	EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NT0X9537	Cable Braid Assembly	EMC2-25-AXU
		EMC2-20-AXU
NT0X9548	GROUND MATERIAL ASSEMBLY	EMC13-05-003
		EMC13-05-005
		EMC8-02-001
NT0X9551	Stratum/Bulkhead Cable	EMC2-20-ROS-2
NT0X9594	Ground Material Assembly	EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NT0X9595	Vertical Ground Bar Assy	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19

		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT0X96DB	DPP Control Cables	EMC5-01-IOE-2
NT0X96DC	DPP Control Cables	EMC5-01-IOE-2
NT0X96DD	DPP Control Cables	EMC5-01-IOE-2
NT0X96HD	DPP Control Cables	EMC5-01-IOE-2
NT0X96HE	DPP Control Cables	EMC5-01-IOE-2
NT0X96HF	DPP Control Cables	EMC5-01-IOE-2
NT0X98AC	V.35 Interbay Cable	EMC19-02-IOC-1
NT0X98AG	Interbay Alarm Cable	EMC19-02-001
NT1M40AN	Meridian Applic. Stor. Cab.	EMC19-03-005
NT1M41AN	Double Shelf Assembly	EMC19-03-005
NT1M41BJ	Modem Shelf to Bulkhead Cabl	EMC19-02-MODEM
NT1X00AB	102 mw Test	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT1X00AE	102 Test mw -20 db Int’l	EMC10-12-MCAM-2
NT1X00AF	102 Test mw -20 db	EMC10-12-MCAM-2
NT1X54AA	Jack Ended Trunk CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT1X55DA	MSD DDU Control CP	EMC9-03-DDU-1
		EMC10-13-MCGM-1
NT1X55FA	IOC SCSI DDU CP	EMC10-17-000
NT1X61AD	I/O Controller Module	EMC5-01-IOC-1
		EMC2-20-IOC-1
		EMC5-01-IOC-3
		EMC5-03-IOC
		EMC2-20-IOC-2
NT1X61AE	I/O Controller Common CP	EMC5-01-IOC-1
		EMC5-01-IOC-2
		EMC5-01-IOC-3
		EMC5-01-IOC-4
		EMC5-03-IOC
		EMC2-20-IOC-2
NT1X61AG	I/O Controller Module	EMC5-01-IOC-2
		EMC5-01-IOC-4
NT1X6112	I/O Shelf Assembly	EMC5-01-IOC-1
		EMC2-20-IOC-1
		EMC5-01-IOC-3
		EMC5-03-IOC
		EMC2-20-IOC-2
NT1X6113	I/O Shelf Assembly	EMC5-01-IOC-2
		EMC5-01-IOC-4

NT1X62AB	I/O Message Controller CP	EMC5-01-IOC-1
		EMC5-01-IOC-2
NT1X62CA	I/O Message Controller CP	EMC5-03-IOC
NT1X62CB	I/O Message Controller CP	EMC2-20-IOC-1
		EMC5-01-IOC-3
		EMC5-01-IOC-4
		EMC2-20-IOC-2
NT1X67BC	I/O Terminal Control CP	EMC10-13-MCGM-1
		EMC10-17-000
NT1X67BD	I/O Terminal Control CP	EMC10-13-MCGM-1
		EMC10-17-000
NT1X68AC	9 Track Tape Ctrl CP Cook	EMC5-01-TAP-1
NT1X68BC	MTD Control CP	EMC10-13-MCGM-1
		EMC10-17-000
NT1X75BA	Dram Controler CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT1X75DA	A-Law Dram Controller CP	EMC10-13-MCGM-1
NT1X77AA	Dram Memory CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT1X78AA	POWER CONVERTER (+-5V,	EMC5-01-DDU-1
		EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC5-01-ROS-2
		EMC9-03-DDU-1
		EMC10-13-MCGM-1
NT1X80AA	EDRAM CP	EMC10-12-MCAM-2
NT1X89AA	Multi-protocol Controller CP	EMC5-01-MPC-1
NT1X89BA	Enhanc. Multi-Protocol Cont	EMC5-01-MPC-2
		EMC10-13-MCGM-1
		EMC10-17-000
NT1X89BB	Enhanced MPC CP	EMC10-17-000
NT1X90AA	TTT-Test Sig Gen	EMC10-12-MCAM-2
NT1X90BA	A-LAW Test Signal Gen CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X06AB	POWER CONVERTER COMM FEAT.	EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-24-RMM-2
NT2X09AA	MULTI O/P PWR CONVERTER	EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-24-RMM-2
		EMC10-13-MCGM-1
NT2X10AB	LINE TEST UNIT ANALOG CP	EMC2-15-RMM-2
NT2X10AC	LTU ANALOG	EMC2-14-001
NT2X10BA	MTU ANALOG	EMC2-14-002
		EMC2-14-003

		EMC2-15-RMM-1
		EMC2-15-006
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-RMM-1
NT2X11AD	LTU DIGITAL	EMC2-14-001
		EMC2-15-RMM-2
NT2X11BA	MTU DIGITAL	EMC2-14-002
		EMC2-14-003
		EMC2-15-RMM-1
		EMC2-15-006
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-RMM-1
NT2X45AB	Trunk Module I/F CP	EMC10-13-MCGM-1
NT2X45BA	Trunk Module Interface	EMC10-12-MCAM-2
NT2X47AD	TTU-trans Test Module	EMC10-12-MCAM-2
NT2X47BA	TTU-trans Test Module Int’l	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X48AB	4 CHAN DIGITONE RECEIVER	EMC2-13-ESA
		EMC2-14-ESA-1
NT2X48BA	4 Ch MF Rcvr CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X48BB	4 Ch DTMF Rcvr CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X48CC	4 Ch DTMF Rcvr	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X52AG	Trunk Module 8 Wire	EMC2-01-000
		EMC2-01-001
NT2X52AV	Trunk Module 8 Wire	EMC2-01-000
NT2X53AA	Trunk Module Control CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X56AB	Dig’l Filter CP	EMC10-12-MCAM-2

NT2X56BA	Dig'l Filter CP Int'l	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X57AA	SIGNAL DISTRIBUTION	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
		EMC2-14-RMM-1
NT2X58AY	IMTM Common CP	EMC2-20-AXU
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X58AZ	MTM Common CP	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
NT2X58BB	IMTM Common CP	EMC2-20-AXU
NT2X58BC	Primary IMTM Shelf	EMC2-25-AXU-2
		EMC2-20-AXU
NT2X58CA	Primary MTM Shelf	EMC2-25-AXU
		EMC2-25-AXU-1
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X58CB	Maint Trunk Module/DRAM	EMC10-13-MCGM-1
NT2X58CL	IMTM Common CP	EMC2-20-AXU
NT2X58DB	IMTM Common CP	EMC2-20-AXU
NT2X59AA	TM GROUP CODEC CP	EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-24-RMM-2
		EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT2X59BA	A-Law CODEC & Tones (Turkey)	EMC10-12-MCAM-2

NT2X59CA	A-Law TM CODEC E/W BT Tone	EMC10-12-MCAM-2
NT2X59DA	A-Law CODEC E/W CEP Tone	EMC10-12-MCAM-2
NT2X70AE	POWER CONV +/-5V & 12V CP	EMC2-06-SMS-1
		EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-24-RCC-4
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1
		EMC8-01-TPC
		EMC2-14-004
		EMC2-14-006
		EMC2-11-001
		EMC2-11-002
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC5-01-IOC-1
		EMC5-01-IOC-2
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-HIE-1
		EMC2-24-RCC-5
		EMC2-24-RCC-7
		EMC2-20-IOC-1
		EMC2-15-009
		EMC2-15-008
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC5-01-IOC-3
		EMC2-06-SMR-1
		EMC5-01-IOC-4
		EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4

		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-06-SMU-4
		EMC2-09-SMU-9
		EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC5-03-IOC
		EMC2-06-SMU-2
		EMC2-06-DTC-3
		EMC2-15-014
		EMC2-15-015
		EMC2-15-010
		EMC2-15-011
		EMC2-15-012
		EMC2-15-013
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-11-ZZ37HB
		EMC2-20-IOC-2
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-11-005
		EMC2-06-DTC-1
		EMC2-20-002
		EMC2-14-IRM-2
		EMC10-21-MCTM-2
		EMC10-13-MCGM-1
		EMC9-15-MDSP-2
		EMC10-12-MCAM-2
		EMC2-20-000
NT2X70AF	Pwr Converter + & -5V, 12V	EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1

		EMC2-25-AXU
		EMC2-25-AXU-1
		EMC2-25-AXU-2
		EMC2-20-AXU
		EMC2-11-ZZ37HB
		EMC2-11-000
		EMC2-06-DTC-1
		EMC2-20-001
		EMC2-20-002
		EMC2-14-011
		EMC2-20-000
		EMC2-11-003
NT2X70AY	NT2X70AF Upgrade Kit	EMC2-20-000
NT2X71AA	Trans'n Term Trunk	EMC10-12-MCAM-2
NT2X75AA	Loop Around Test Line	EMC10-12-MCAM-2
NT2X75BA	Loop Around TST LN A-LAW	EMC10-12-MCAM-2
NT2X77AA	COMP BAL NET	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-12-MCAM-2
NT2X90AC	INC/OG TEST TRUNK	EMC2-15-RMM-1
		EMC2-14-RMM-1
NT2X90AD	INC/OUT TEST TRUNK	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19

		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-12-MCAM-2
NT2X96AA	PCM Level Meter	EMC10-12-MCAM-2
NT2X96BA	A-LAW PCM Level Meter CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT3E19AA	SINGLE-MODE PIGTAIL	EMC2-13-001
NT3E44AA	MULTI-MODE PIGTAIL	EMC2-13-001
NT3J00AA	TOPS Tone and Scramble Cage	EMC13-01-001
		EMC13-01-002
NT3J00AB	TOPS Tone and Scramble CP	EMC13-01-001
		EMC13-01-002
NT3J00BA	MLT Applique Shelf	EMC13-01-001
		EMC13-01-002
		EMC13-01-004
		EMC13-08-MLT
NT3J00BB	MLT Applique Ckt Pack	EMC13-01-004
		EMC13-08-MLT
NT3J00BE	Signature Off Hook Routing CP	EMC13-01-004
		EMC13-08-MLT
NT3X04AA	Incoming Test Trunk	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT3X09AA	METALLIC TEST ACCESS	EMC2-14-001
		EMC2-14-RMM-1
NT3X09BA	METALLIC TEST ACCESS	EMC2-14-002
		EMC2-14-003
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-006
		EMC2-25-RCC2-10

		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC10-12-MCAM-2
NT3X16AB	Osc. (DMS-Core) & I/F CP	EMC2-20-ROS-2
		EMC5-01-ROS-1
		EMC5-01-ROS-4
NT3X16BB	Osc. (DMS-Core) & I/F CP	EMC5-01-ROS-2
		EMC5-01-ROS-3
NT3X25AA	COMMON EQUIPMENT SHELF	EMC13-05-002
		EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
		EMC13-01-004
		EMC13-08-ASY-1
NT3X25BA	TERMINAL BLOCK ASSEMBLY	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
NT3X55AA	LINE CARD STORAGE CH ASSY	EMC13-05-003
		EMC13-05-005
NT3X55BA	LINE CARD STORAGE CH ASSY	EMC13-05-003
		EMC13-05-005
		EMC13-09-MSS-2
		EMC13-09-MSS-1
NT3X67AA	6 Port Conf CP	EMC10-12-MCAM-2
NT3X67BA	6 Pt Conf CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT3X67BB	6 Party Conf Ckt A-Law	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT3X68BA	Conference Tone Gen. A-Law	EMC10-12-MCAM-2
NT3X68BB	MF Dual Tone	EMC10-12-MCAM-2
NT3X68BC	Call Waiting Tone Gen.	EMC10-12-MCAM-2
NT3X75BA	Network P-Side Msg Processor	EMC3-01-DSN-1
NT3X75BB	Network P-Side Msg Processor	EMC3-01-DSN-1
NT3X82AA	Dead Sys Alm w/Unique Aud	EMC10-13-MCGM-1
NT3X82AB	Dead Sys Alm w/Common Aud	EMC10-13-MCGM-1
		EMC10-12-MCAM-2

NT3X83AA	OAU Alm Transfer CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT3X89AA	Alarm X-Connect Unit	EMC2-01-000
		EMC2-01-001
		EMC2-25-AXU
		EMC2-20-AXU
NT3X89AB	Alarm X-Connect Unit	EMC2-01-000
		EMC2-25-AXU-1
		EMC2-25-AXU-2
NT3X90AA	Cooling Inverter Unit	EMC2-06-000
		EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-18-002
		EMC2-06-002
NT3X90AB	Cooling Inverter Unit	EMC2-06-000
		EMC2-18-000
		EMC2-06-004
		EMC2-18-001
		EMC2-18-002
		EMC2-06-002
NT3X90AC	COOLING INVERTER FAN UNIT	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC3-04-000
		EMC3-04-001
		EMC2-11-001
		EMC2-11-002
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
		EMC2-11-000
		EMC2-06-002
NT3X95AA	Strat II Rem Osc Shelf	EMC10-13-MCGM-1
NT3X95AB	Stratum II Rmt Osc. Shelf	EMC2-20-ROS-2
		EMC5-01-ROS-1
NT3X95BB	Stratum 2.5 Osc. Shelf	EMC5-01-ROS-2
		EMC10-13-MCGM-1
NT3X9507	Remote Osc. Shelf Assy	EMC2-20-ROS-2
		EMC5-01-ROS-1

		EMC5-01-ROS-2
NT4X00AF	DUAL DDU SHELF	EMC5-01-DDU-1
		EMC10-13-MCGM-1
		EMC10-17-000
NT4X00AG	5.25" DDU (228.7 MB)	EMC5-03-DDP-2
		EMC9-03-DDU-1
		EMC10-13-MCGM-1
NT4X0023	DUAL DDU ASSEMBLY	EMC5-01-DDU-1
NT4X0038	Mercury Disk Hardware Kit	EMC5-03-DDP-2
		EMC9-03-DDU-1
		EMC10-13-MCGM-1
NT4X0045	DDU Power Cable	EMC9-03-DDU-1
NT4X25BH	Data Unit RackMount Shelf	EMC13-01-001
		EMC13-01-002
NT4X25DH	Data Unit RackMount Shelf	EMC13-01-001
		EMC13-01-002
NT4X65AB	TM Controler CP	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT4X97AA	Multiline Test (Analog)	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NT4X98BB	Multiline Test Unit Cntrl.	EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-18
		EMC2-24-RCC-15
NT5A23AA	DTH POWER SUPPLY	EMC13-01-DTH-1
NT5X09BA	DS-5R Modem Shelf	EMC10-13-MCGM-1
NT5X0903	Alarm Cable Assembly	EMC13-08-GDC-1
NT5X29AB	Audio Tone Detector CP	EMC10-13-MCGM-1
NT5X29AC	Auto Service Observing CP	EMC10-13-MCGM-1
NT5X29BA	Audio Tone Det (UK A-Law)	EMC10-12-MCAM-2
NT5X30AA	101 Comm Test LIne	EMC10-13-MCGM-1
		EMC10-12-MCAM-2
NT5X69AA	INACTIVE SYSTEM TIMING CCT	EMC13-05-003
		EMC13-01-001
		EMC13-05-005
		EMC13-01-002
		EMC13-01-004
		EMC13-08-ISTC
NT5X72AB	Central Alarm Applique Cct	EMC13-01-001
		EMC13-01-002
NT5X85AA	Audible/Visual Alarm Ext Unit	EMC13-01-004
		EMC13-08-AEU
NT5X86AA	AUD Alarm Cutoff Cntrl Unit	EMC13-01-001

		EMC13-01-002
		EMC13-01-004
		EMC13-08-AAC
NT6X01AA	Common Peripheral Frame	EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NT6X01AB	ISDN CPC Equipment Frame	EMC2-18-000
		EMC2-18-001
		EMC2-18-002
NT6X01AD	Common Peripheral Frame	EMC2-06-003
		EMC2-06-005
NT6X01WC	Wiring Strap Option	EMC2-06-003
		EMC2-18-000
		EMC2-06-005
		EMC2-18-001
		EMC2-18-002
NT6X01WK	Wiring List Without XPM+	EMC2-20-001
NT6X01WL	Wiring List With XPM+	EMC2-20-001
NT6X01XE	XPM+ Upgrade Kit	EMC2-20-001
NT6X01XG	XPM Plus Echo Canceller Kit	EMC2-20-001
		EMC2-20-000
NT6X02AB	CPC Filler Face Plate	EMC2-06-003
		EMC2-06-000
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-004
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC3-01-DSN-1
		EMC2-18-002
		EMC2-20-001
		EMC2-06-002
		EMC10-21-MCTM-2
		EMC2-20-000
NT6X02BU	FIBER I/F H/W ASSEMBLY	EMC2-99-SMS-1
		EMC2-06-003
		EMC2-20-IF-2
		EMC2-20-IF-4
		EMC2-20-ZZ37CH
		EMC2-06-NIF-1
		EMC2-06-NIF-3
		EMC2-20-001
		EMC2-20-000
NT6X02CP	SMR COMMON CP	EMC2-26-SMR
		EMC2-06-SMR-1
NT6X02CT	SMR Common CP	EMC2-06-000
		EMC2-06-004
		EMC2-06-005

		EMC2-06-002
NT6X02DH	SMS COMMON CP	EMC2-06-SMS-1
		EMC2-26-SMS
		EMC2-06-SMS-5
NT6X02DR	SMS Common CP Kit	EMC2-06-SMS-3
		EMC2-06-SMS-4
NT6X02DS	SMS Common CP	EMC2-06-SMS-7
		EMC2-06-SMS-6
NT6X02EG	SMU COMMON CP	EMC2-26-SMU
		EMC2-06-SMU-2
NT6X02EL	SMUI Common CP	EMC2-06-SMU-4
		EMC2-09-SMU-9
NT6X02EM	SMU Common CP	EMC2-06-SMU-8
		EMC2-06-SMU-3
		EMC2-06-SMU-99
NT6X02EP	SMU Common CP	EMC2-06-SMU-12
		EMC2-06-SMU-10
		EMC2-06-002
		EMC2-26-000
NT6X02ES	SMUI Common CP	EMC2-06-SMU-7
		EMC2-06-SMU-13
NT6X02IC	DTC COMMON CP	EMC2-26-DTC
NT6X02IG	DTC Packfill	EMC2-06-DTC-3
		EMC2-06-DTC-1
NT6X02LC	LGC COMMON CP	EMC2-26-LGC
		EMC2-06-LGC-5
NT6X02MC	LTC COMMON CP	EMC2-26-LTC
		EMC2-06-LTC-5
NT6X02NA	COMMON PERIPHERAL CONTROLLER	EMC2-18-CPC-1
		EMC2-06-LTC-4
		EMC2-06-LGC-4
		EMC2-18-CPC-4
NT6X02PD	SMS-R COMMON CP	EMC2-26-SMR-1
		EMC2-06-SMS-2
NT6X02PG	SMS-R Common CP Kit	EMC2-06-SMSR-2
		EMC2-06-SMSR-5
NT6X02PH	SMS-R Common CP Kit	EMC2-06-SMSR-4
NT6X02TE	SMA Packfill	EMC2-06-SMA-1
		EMC2-06-SMA-2
NT6X02TF	SMA Packfill	EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
NT6X02UF	Universal Connector Bracket	EMC2-06-003

		EMC2-09-CPE
		EMC2-06-005
		EMC2-09-CPE-1
		EMC2-20-001
		EMC2-26-000
		EMC2-20-000
NT6X02WB	NT6X69AD Change Kit	EMC2-09-CPE-1
		EMC2-26-000
NT6X02WC	NT6X86AB Change Kit	EMC2-09-CPE-1
		EMC2-06-002
		EMC2-26-000
NT6X02WE	NT6X80BB Product Change Kit	EMC2-06-002
		EMC2-26-000
NT6X02WF	NT7X05AA Product Change Kit	EMC2-20-001
		EMC2-20-000
NT6X02WG	NT6X80BB/86BA Change Kit	EMC2-06-002
		EMC2-26-000
NT6X02XA	XPM PLUS PC KIT	EMC2-99-SPM-1
		EMC2-18-001
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-18-002
		EMC2-20-000
NT6X02XB	XPM Plus ISDN Upgrade Kit	EMC2-20-000
NT6X02XC	XPM to XPM+ Change Kit	EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NT6X02XF	XPM+ Packfill Kit	EMC2-06-SMS-4
		EMC2-06-SMSR-5
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-99-XPM-7
		EMC2-18-002
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-06-002
NT6X02XG	XPM PLUS Upgrade Kit	EMC2-18-002
		EMC2-06-002
		EMC2-26-000
		EMC2-20-000
NT6X02XH	3P XPM Plus Change Kit	EMC2-20-001
NT6X02YS	Product Change Kit	EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NT6X0201	Controller Array Shf Assy	EMC2-06-000
		EMC2-06-004
		EMC2-06-002
NT6X0205	SMS-R Product Change Kit	EMC2-09-CPE
		EMC2-06-SMSR-2

		EMC2-06-SMSR-5
		EMC2-09-CPE-1
		EMC2-06-SMSR-4
		EMC2-06-SMS-2
		EMC2-26-000
NT6X0211	CPCE Shelf Assembly	EMC2-20-001
NT6X0215	Com Periph Proc Shelf Assy	EMC10-08-MNET-1
		EMC10-08-MNET-2
NT6X0223	Controller Array Shf Assy	EMC2-06-003
		EMC2-18-000
		EMC2-09-CPE
		EMC2-06-005
		EMC2-18-001
		EMC2-09-CPE-1
		EMC2-18-002
		EMC2-26-000
		EMC10-21-MCTM-2
		EMC2-20-000
NT6X0250	Universal Ground Point	EMC2-06-003
		EMC2-06-005
NT6X0251	Fiber Cable Kit	EMC2-20-001
		EMC2-20-000
NT6X03AA	LCE Frame	EMC2-07-000
		EMC2-07-LCM-2
		EMC2-07-001
		EMC2-07-005
		EMC2-07-006
NT6X0325	Cable (DDU/Stratum to FSP)	EMC2-20-ROS-2
NT6X0357	Rear Panel E/Q	EMC2-07-LCM-2
NT6X0371	Line Con. Array Shelf Assy	EMC2-07-005
		EMC2-07-006
NT6X04AA	LCM COMMON CP	EMC2-14-001
NT6X04AB	LCM COMMON CP	EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-IRM-2
NT6X04AC	LCM Common CP	EMC2-07-001
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
NT6X04AD	LCM Common CP	EMC2-14-011
NT6X04AX	LCM Filler Kit	EMC2-07-000

		EMC2-07-001
		EMC2-07-005
		EMC2-07-006
		EMC2-09-LCE
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-08-LCM
		EMC2-20-003
NT6X04BB	International LCM Common CP	EMC2-14-IRM-1
		EMC2-25-RCC2-10
		EMC2-24-RCC-13
		EMC2-20-003
NT6X04FA	QFFI Fuse Assembly	EMC2-09-LCE
		EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT6X04MD	LCM Packfill	EMC2-24-RCC-19
NT6X0401	LINE CON. ARRAY SHELF ASSY	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-07-000
		EMC2-07-LCM-2
		EMC2-07-001
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NT6X0431	Enhanced Line Module Shelf	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-08-LCM
		EMC2-20-003
NT6X0442	Line Con. Array Shelf Assy	EMC2-09-LCE
		EMC2-25-RCC2-10
		EMC2-25-RCC2-12

		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT6X05AA	LINE DRAWER	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-07-001
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-13-LCA-1
		EMC2-13-LCA-2
		EMC2-13-LCA-3
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-25-RCC2-10
		EMC2-25-RCC2-12
		EMC2-24-RCC-19
		EMC2-24-RCC-13
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-IRM-2
		EMC2-20-003
		EMC2-14-011
NT6X05AX	LINE DRAWER FILLER	EMC2-14-002
		EMC2-14-003
		EMC2-14-005
		EMC2-14-IRM-3
		EMC2-08-LCE-1
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-25-RCC2-9
		EMC2-25-RCC2-11
		EMC2-25-RCC2-13
		EMC2-24-RCC-20
		EMC2-14-IRM-2
		EMC2-20-003
		EMC2-14-011
NT6X05BA	International Line Drawer	EMC2-14-IRM-1
		EMC2-20-003
NT6X08AA	ST7 Group Shelf Assembly	EMC2-11-005
NT6X0801	Signal Term Shelf Assy	EMC2-11-ZZ37HB
		EMC2-20-002
		EMC2-11-003

NT6X10AB	RMM CARD CAGE	EMC2-15-RMC-2
		EMC2-15-RMM-3
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
NT6X10AC	REMOTE CONTROLLER EQP FR	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NT6X10AH	RMM Card Cage	EMC2-15-006
NT6X1022	RCC to RCCI Change Kit	EMC2-15-006
NT6X1023	26AWG Ca Assy(RMM Pwr Mon)	EMC2-15-006
NT6X1025	PWR FEED ALARM CABLE ASSY	EMC2-15-RMC-2
		EMC2-15-RMM-3
NT6X11AB	HIE COMMON CP	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-HIE-1
		EMC2-14-IRM-2
NT6X11BB	HIE CP Turkey/CEP	EMC2-14-IRM-1
NT6X11BC	HIE CP Turkey/CEP	EMC2-14-IRM-1
NT6X11EB	HIE CP SL100/UK	EMC2-14-IRM-1
NT6X11KA	HIE CP China	EMC2-14-IRM-1
NT6X1101	HOST I/F EQUIP SHF ASSY	EMC2-14-001
		EMC2-14-004
		EMC2-14-IRM-2
NT6X1108	HOST I/F EQUIP SHF ASSY	EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-011
NT6X12AG	RMT CLSTER CNTRL COMMN CP	EMC2-15-002
		EMC2-15-003
		EMC2-24-RCC-4
		EMC2-15-007

		EMC2-24-RCC-5
NT6X12AK	Rmt Clster Cntrl Cmmn CP	EMC2-15-006
		EMC2-24-RCC-7
NT6X12AL	Rmt Clster Cntrl Commn CP	EMC2-15-005
		EMC2-15-009
		EMC2-15-008
		EMC2-15-014
		EMC2-15-015
		EMC2-15-010
NT6X12AN	Rmt Clster Cntrl Cmmn CP	EMC2-15-011
		EMC2-15-012
		EMC2-15-013
NT6X12CA	RMT CLSTER CNTRL COMMN CP	EMC2-15-000
		EMC2-15-001
		EMC2-15-004
NT6X12ZF	RCC to XPM+ Change Kit	EMC2-15-006
NT6X1201	REMOTE CNTRL ARRAY SH ASSY	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
NT6X13AB	RMM COMMON CP (DOMESTIC)	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-15-RMC-1
		EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-RMM-3
		EMC2-14-004
		EMC2-15-006
		EMC2-15-005
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11

		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-14-IRM-2
		EMC2-24-RMM-2
		EMC2-14-RMM-1
		EMC2-14-011
NT6X13EA	International RMM Common CP	EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
		EMC2-24-RCC-15
NT6X1301	RMT MAINT MOD SHF ASSY	EMC2-14-001
		EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-14-004
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-14-IRM-2
NT6X1306	RMT MAINT MOD SHF ASSY	EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-25-RCC2-9
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11

		EMC2-24-RCC-12
		EMC2-24-RCC-13
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-15
		EMC2-24-RCC-16
		EMC2-24-RCC-10
		EMC2-24-RMM-2
		EMC2-14-011
NT6X14AA	RLCM FRAME	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NT6X14WB	ESA Field Application Kit	EMC2-14-004
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-2
		EMC2-14-011
NT6X1402	BAFFLE ASSEMBLY	EMC2-14-001
		EMC2-14-002
		EMC2-14-003
		EMC2-19-000
		EMC2-14-004
		EMC2-14-005
		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-IRM-1
		EMC2-14-IRM-2
		EMC2-14-011
NT6X1435	MTU POWER CABLE ASSY	EMC2-15-RMM-1
		EMC2-15-006
NT6X1438	-48V SP BATTERY SUPPLY CABLE	EMC2-15-RMM-1
		EMC2-15-RMM-2
		EMC2-15-RMM-3

		EMC2-15-006
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NT6X25AG	Ringing Gen Shelf Assy	EMC2-09-LCE
NT6X27AB	PCM 30 Interface	EMC2-14-IRM-1
NT6X27AC	PCM-30 Interface CP	EMC2-20-001
		EMC2-20-000
NT6X27BB	PCM 30 Interface	EMC2-14-IRM-1
		EMC2-20-001
		EMC10-21-MCTM-2
		EMC2-20-000
NT6X28AA	PCM-30 Signaling I/F CP	EMC2-20-001
		EMC2-20-000
NT6X28AC	PCM-30 Signalling CP	EMC2-20-000
NT6X30AA	Ringing Generator CP	EMC2-07-000
		EMC2-07-LCM-2
		EMC2-07-001
		EMC2-19-000
		EMC2-19-001
		EMC2-07-005
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
		EMC2-08-LCM
		EMC2-08-000
NT6X30AB	Ringing Generator (UK)	EMC2-25-RCC2-9
		EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003
NT6X30AE	Ringing Generator CP-AUSTR	EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003
NT6X30CA	Ringing Generator CP	EMC2-07-006
		EMC2-19-002
		EMC2-19-003
		EMC2-19-004
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2

		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-08-LCM
		EMC2-08-000
NT6X30DA	Ringing Generator CP-CHINA	EMC2-08-LCM
		EMC2-08-000
		EMC2-20-003
NT6X30EA	Ringing Gen(Australia/CHN)	EMC2-08-LCE-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
		EMC2-24-RCC-15
NT6X30GA	Ringing Gen (UK)	EMC2-08-LCE-1
		EMC2-25-RCC2-10
		EMC2-25-RCC2-11
		EMC2-24-RCC-13
		EMC2-24-RCC-15
NT6X30HA	Ringing Generator	EMC2-09-LCE
		EMC2-08-LCE-1
		EMC2-25-RCC2-12
		EMC2-25-RCC2-13
		EMC2-24-RCC-19
		EMC2-24-RCC-20
		EMC2-24-RCC-11
		EMC2-24-RCC-12
		EMC2-24-RCC-17
		EMC2-24-RCC-18
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT6X3005	Ringing Gen Filler Plate	EMC2-19-000
		EMC2-19-004
		EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
NT6X31AA	Message Signaling 7 Equip.	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT6X32CC	MS7B Common CP	EMC2-11-001
		EMC2-11-002
		EMC2-11-000
NT6X3201	Sig. Term Array 7 Shf Assy	EMC2-11-001
		EMC2-11-002
		EMC2-11-ZZ37HB
		EMC2-11-000

		EMC2-20-002
		EMC2-11-003
NT6X35AA	LCE Frame Supervisory Panel	EMC2-07-000
		EMC2-07-LCM-2
		EMC2-07-001
		EMC2-07-005
		EMC2-07-006
NT6X36AA	FSP Alarm CP	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NT6X36AB	Alarm CP for FSP	EMC2-25-RCC2-1
		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
		EMC2-25-RCC2-5
		EMC2-25-RCC2-6
		EMC2-25-RCC2-9
NT6X40AC	DS30 NETWORK INTERFACE CP	EMC2-18-CPC-1
		EMC2-06-NIF-5
		EMC2-11-001
		EMC2-11-002
		EMC2-20-IF-3
		EMC2-20-IF-1
		EMC2-11-ZZ37HB
		EMC2-11-000
		EMC2-20-001
		EMC2-20-000
		EMC2-11-003
NT6X40AD	DS30 Network Interface CP	EMC2-20-000
NT6X40BA	DS30 NETWORK INTERFACE CP	EMC2-06-SMS-1
		EMC2-99-SMS-1
NT6X40CA	DS512 NETWORK INTERFACE CP	EMC2-99-SMS-1
		EMC2-06-NIF-1
NT6X40DA	DS512 PADDLE BOARD	EMC2-99-SMS-1
		EMC2-06-NIF-1
NT6X40FA	DS-512 XPM Interface CP	EMC2-20-IF-2
		EMC2-20-IF-4
		EMC2-20-ZZ37CH
		EMC2-06-NIF-3
		EMC2-20-001
		EMC2-20-000
NT6X40FB	DS-512 XPM Interface CP	EMC2-20-000
NT6X40GA	DS-512 XPM Paddle Board	EMC2-20-IF-2
		EMC2-20-IF-4
		EMC2-20-ZZ37CH

		EMC2-06-NIF-3
		EMC2-20-001
		EMC2-20-000
NT6X41AA	SPEECH BUS FORMATTER	EMC2-06-SMS-1
		EMC2-18-CPC-1
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1
		EMC2-11-001
		EMC2-11-002
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC2-06-SMR-1
		EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-06-SMU-4
		EMC2-09-SMU-9
		EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-06-SMU-2
		EMC2-06-DTC-3
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-06-SMS-6
		EMC2-06-SMU-99
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9

		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-11-000
		EMC2-06-DTC-1
NT6X41AB	Speech Bus Formatter	EMC2-11-ZZ37HB
		EMC2-20-001
		EMC2-20-000
		EMC2-11-003
NT6X42AA	CHANNEL SUPERVISION MGS CP	EMC2-06-SMS-1
		EMC2-18-CPC-1
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1
		EMC2-11-001
		EMC2-11-002
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC2-06-SMR-1
		EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-06-SMU-4
		EMC2-09-SMU-9
		EMC2-06-SMA-3
		EMC2-06-SMA-4
		EMC2-06-SMA-5
		EMC2-06-SMA-1
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-06-SMU-2
		EMC2-06-DTC-3
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-06-SMS-6

		EMC2-06-SMU-99
		EMC2-11-ZZ37HB
		EMC2-06-SMA-6
		EMC2-06-SMA-7
		EMC2-06-SMA-8
		EMC2-06-SMA-9
		EMC2-06-SMA-10
		EMC2-06-SMA-11
		EMC2-11-000
		EMC2-06-DTC-1
		EMC2-20-001
		EMC10-21-MCTM-2
		EMC2-20-000
		EMC2-11-003
NT6X42CA	CSM and N5 Splitter CP	EMC2-20-001
NT6X43AA	MESSAGE INTERFACE CP	EMC2-26-SMR
		EMC2-06-SMR-1
NT6X44AA	TIME SWITCH CP	EMC2-15-000
		EMC2-15-001
		EMC2-15-002
		EMC2-15-003
		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-24-RCC-4
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-24-RCC-5
		EMC2-24-RCC-7
		EMC2-15-009
		EMC2-15-008
		EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-18-CPC-4
		EMC2-06-SMA-3
		EMC2-06-SMA-1
		EMC2-06-DTC-3
		EMC2-15-014
		EMC2-15-015
		EMC2-15-010
		EMC2-15-011
		EMC2-15-012
		EMC2-15-013
		EMC2-06-SMA-10

		EMC2-06-SMA-11
		EMC2-06-DTC-1
		EMC10-08-MNET-1
		EMC10-08-MNET-2
		EMC10-21-MCTM-2
NT6X44AB	TIME SWITCH CP	EMC2-06-SMS-1
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMR-1
		EMC2-11-001
		EMC2-11-002
		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
		EMC2-06-SMR-1
		EMC2-06-SMS-7
		EMC2-06-SMSR-4
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-06-SMS-6
		EMC2-11-000
NT6X44CA	TIME SWITCH CP	EMC2-26-SMU
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-06-SMU-4
		EMC2-09-SMU-9
		EMC2-06-SMA-4
		EMC2-06-SMA-2
		EMC2-06-SMU-3
		EMC2-06-SMU-10
		EMC2-06-SMU-2
		EMC2-06-SMU-99
		EMC2-06-SMA-8
		EMC2-06-SMA-9
NT6X44EA	Time Switch	EMC2-11-ZZ37HB
		EMC2-20-001
		EMC10-21-MCTM-2
		EMC2-20-000
		EMC2-11-003
NT6X45AF	LGC/DTC PROCESSOR CP	EMC2-13-ESA
		EMC2-14-ESA-1
		EMC2-26-SMR
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NT6X45BA	XPM PROCESSOR CP	EMC2-06-SMS-1
		EMC2-15-000
		EMC2-15-001

		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMS
		EMC2-26-SMU
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		EMC2-11-ZZ37HB
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		EMC2-06-DTC-1
		EMC2-20-001
		EMC10-21-MCTM-2
		EMC2-20-000
		EMC2-11-003
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		EMC2-15-003
		EMC2-24-RCC-4
		EMC2-15-006
		EMC2-15-007
		EMC2-24-RCC-5
NT6X45BD	LGC/DTC Processor CP	EMC2-15-005
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		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-99-SPM-1
		EMC2-06-003
		EMC2-06-005
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-99-XPM-7
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		EMC2-15-002
		EMC2-15-003
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		EMC2-26-DTC
		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
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		EMC2-26-SMR-1
		EMC2-99-SPM-1
		EMC2-11-001
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		EMC2-15-007
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		EMC2-24-RCC-5
		EMC2-15-009
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-06-SMR-1
		EMC2-09-SMU-9
		EMC2-06-SMU-2
		EMC2-99-XPM-7
		EMC2-15-015
		EMC2-15-011
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-11-ZZ37HB
		EMC2-11-000
		EMC2-06-DTC-1
		EMC2-20-001
		EMC10-21-MCTM-2
		EMC2-20-000
		EMC2-11-003
NT6X47AB	MASTER PROCESSOR MEMORY CP	EMC2-13-ESA
		EMC2-14-ESA-1
		EMC2-15-000
		EMC2-15-001
		EMC2-15-004
		EMC2-18-CPC-1
		EMC2-99-SPM-1
		EMC2-11-001
		EMC2-11-002
		EMC2-99-XPM-6
		EMC2-99-XPM-4
		EMC2-99-XPM-7
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		EMC2-11-000
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NT6X47AC	MASTER PROC MEMORY PLUS CP	EMC2-06-SMS-1
		EMC2-15-002

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		EMC2-24-RCC-4
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		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMR
		EMC2-26-SMS
		EMC2-26-SMU
		EMC2-26-SMR-1
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		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-24-RCC-5
		EMC2-15-009
		EMC2-99-XPM-6
		EMC2-99-XPM-4
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		EMC2-11-000
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		EMC2-11-003
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		EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
		EMC2-14-008
		EMC2-14-IRM-4
		EMC2-14-011

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NT6X60AA	RINGING GENERATOR CP	EMC2-14-001
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		EMC2-14-003
		EMC2-14-IRG-3
		EMC2-14-004
		EMC2-14-HIE-1
		EMC2-14-IRM-2
NT6X60CA	Ringing Generator CP	EMC2-14-006
		EMC2-14-007
		EMC2-14-IRM-3
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		EMC2-14-IRM-4
		EMC2-14-011
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		EMC2-11-000
		EMC2-11-003
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		EMC2-20-002
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		EMC2-15-001
		EMC2-15-004
		EMC2-18-CPC-1
NT6X69AC	CPP MSG PROTOCOL & TONE CP	EMC2-06-SMS-1
		EMC2-15-002
		EMC2-15-003
		EMC2-24-RCC-4
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		EMC2-26-LGC
		EMC2-26-LTC
		EMC2-26-SMS
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		EMC2-26-SMR-1
		EMC2-11-001
		EMC2-11-002
		EMC2-15-006
		EMC2-15-007
		EMC2-15-005
		EMC2-24-RCC-5
		EMC2-24-RCC-7
		EMC2-15-009
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		EMC2-06-SMS-3
		EMC2-06-SMS-4
		EMC2-06-SMSR-2
		EMC2-06-SMSR-5
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		EMC2-25-RCC2-2
		EMC2-25-RCC2-3
		EMC2-25-RCC2-4
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		EMC2-09-SMU-9
		EMC2-06-SMA-1
		EMC2-06-SMA-2
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		EMC2-06-SMU-10
		EMC2-06-SMSR-4
		EMC2-06-SMU-2
		EMC2-06-DTC-3
		EMC2-15-014
		EMC2-15-015
		EMC2-15-011

		EMC2-15-012
		EMC2-06-SMS-2
		EMC2-06-SMS-5
		EMC2-06-SMS-6
		EMC2-06-SMU-99
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		EMC2-25-RCC2-13
		EMC2-11-000
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		EMC2-24-RCC-11
		EMC2-24-RCC-17
		EMC2-24-RCC-16
		EMC2-24-RCC-10
NT6X69AD	CPP Msg Protocol & Tone CP	EMC2-06-LTC-5
		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
		EMC2-06-SMU-7
		EMC2-06-SMU-13
		EMC2-18-CPC-4
		EMC2-06-SMS-7
		EMC2-09-CPE-1
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		EMC2-25-RCC2-12
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NT6X69LB	CPP Message Protocol CP	EMC2-11-ZZ37HB
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		EMC2-15-005
		EMC2-24-RCC-5
		EMC2-24-RCC-7
		EMC2-15-009
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		EMC2-15-014
		EMC2-15-015
		EMC2-15-010
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NT6X73AA	Link Control Card CP	EMC2-14-006
		EMC2-14-007
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		EMC2-14-008
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		EMC2-14-011
NT6X74AB	RMM CONTROL CARD CP	EMC2-15-RMC-1
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		EMC2-06-LTC-4
		EMC2-06-LGC-5
		EMC2-06-LGC-4
		EMC2-06-SMU-8
		EMC2-06-SMU-12
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