



GE Medical Systems

**Technical
Publications**

Direction 2241394

Revision 6

**Signa[®] OpenSpeed
Field Replaceable Units (FRU)**

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GE Medical Systems

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**COVER
BOTTOM
CROP LINE**

**5/16" RADIUS
CORNER TRIM
TYPICAL**



**COVER
LEFT
CROP LINE**

**COVER
FOLD
LINE** | **(2) CENTER STAPLES
FOR BINDING**

**COVER
RIGHT
CROP LINE**



**5/16" RADIUS
CORNER TRIM
TYPICAL**

**COVER
BOTTOM
CROP LINE**

REVISION HISTORY

REV	DATE	REASON FOR CHANGE
0	OCT 20, '00	Initial Production Release
1	MAR 23, '01	Updated to match current product changes and omissions. Added sections for <i>Magnet Enclosure, Covers & Touch-up Paints</i> and <i>Main Disconnect Panel, Fuses</i> .
2	NOV 22, '01	Updated to current product. Added Sections for <i>OW Scim And Keyboards</i> and <i>Octane II Host Computer</i> .
3	DEC 23, '02	Updates to Sections; <i>Octane I & II Host Computers</i> .
4	MAR 18, '03	Updates to current product include <i>Octane II and Body Flex Coils</i> . Added FRUs to <i>Power Cab</i> and MCR FRUs to <i>Service Tools</i> .
5	JUL 31, '03	Added over 100 FRU's. Main sections affected were <i>Magnet Enclosure, Patient Support Table, Power Cabinet, and Phantoms/Coils</i> .
6	MAY 23, '07	Updated RF Coil FRU part numbers (CQA 13110135), page 7. Revised table caster wheel part number, page 11, and Universal CERD Exciter part number, page 26.

SEND COMMENTS ABOUT THIS MANUAL TO:

GE MEDICAL SYSTEMS
MANAGER, SERVICE ENGINEERING
W-808
3200 N. GRANDVIEW BLVD.
WAUKESHA, WISCONSIN 53188
USA

This manual belongs to:

INTRODUCTION TO FIELD REPLACEABLE UNIT (FRU)

This direction is a guide to the FRU's.

Parts designated as a FRU are critical to maintain the safety and/or functionality of the system. FRU's are available on a Priority 1 basis from Service Parts Operation.

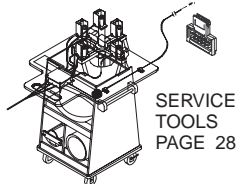
As a reference aid, the FRU's are listed under an upper-level part number where they are used. In most cases the upper-level part number is not a FRU. In some cases the parts listed under an upper-level assembly may have been nested in intermediate sub-assemblies which are not shown.

Where possible, FRU's which are part of Option Catalogs are shown under the area where they would be installed, rather than being listed in the "Coils & Options" section, Pages 29 & 30.

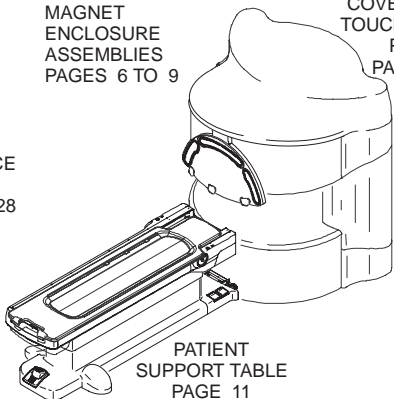
TITLE	PAGE
INTRODUCTION TO FIELD REPLACEABLE UNIT(FRU) . . .	1
MAGNET ENCLOSURE (COVERS & TOUCH-UP PAINTS) . .	5
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MAGNET ENCLOSURE ASSEMBLIES PAGES 6 TO 9

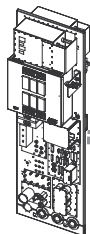
COVERS & TOUCH-UP PAINT PAGE 5



SERVICE TOOLS PAGE 28



PATIENT SUPPORT TABLE PAGE 11



PENETRATION PANEL PAGE 16

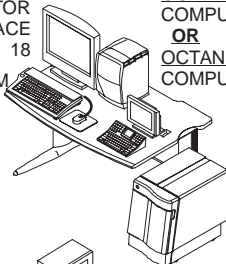
MAGNET ROOM

OPERATOR ROOM

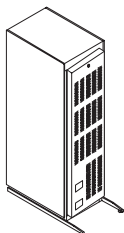
OPERATOR WORKSPACE PAGE 18

OCTANE 1 HOST COMPUTER PAGE 20
OR
OCTANE 2 HOST COMPUTER PAGE 21

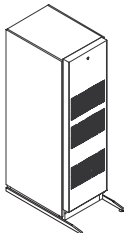
WORKSPACE SCIM AND KEYBOARDS PAGE 19



OPERATOR WORKSPACE CABINET PAGE 22



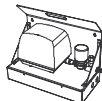
POWER CABINET PAGES 24 & 25



SYSTEM CONTROL CABINET PAGE 26



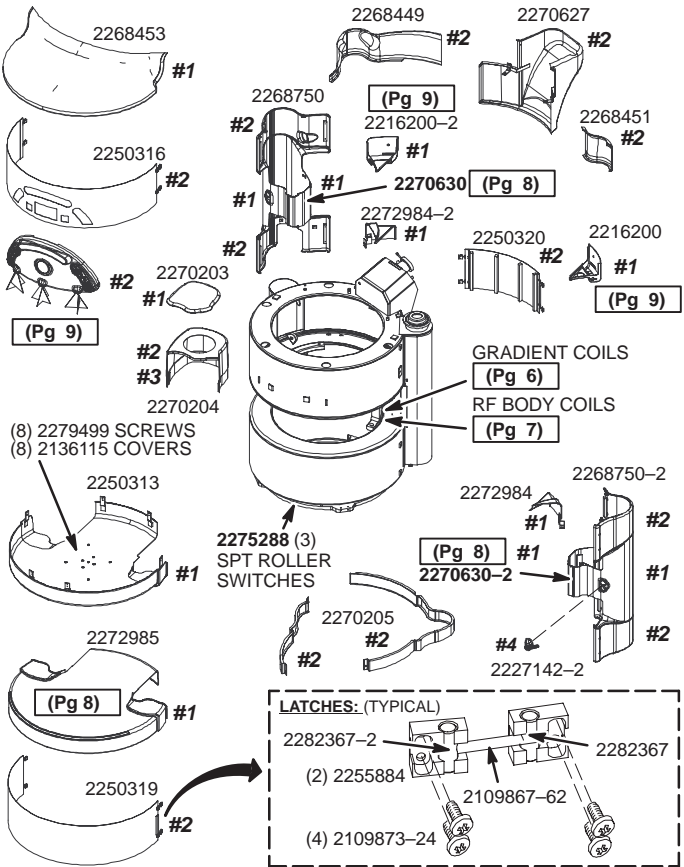
MAIN DISCONNECT PANEL(FUSES) PAGE 32



PATIENT AIR SUPPLY COMPRESSOR PAGE 8

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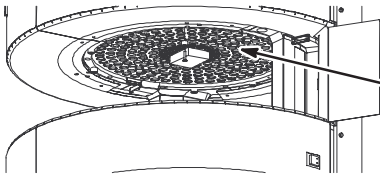
TOUCH-UP PAINTS:		
2183491-3	GEMS GRAY #1	0.6 OZ. Non-Aerosol
2183491	GEMS GRAY #2	0.6 OZ. Non-Aerosol
2183492	GEMS GRAY #2	4.5 OZ. Aerosol
2183491-2	GEMS GRAY #3	0.6 OZ. Non-Aerosol
2183492-2	GEMS GRAY #3	4.5 OZ. Aerosol
2180026	GEMS GRAY #4	0.6 OZ. Non-Aerosol



NOTE: COVER PART NUMBERS FOR REFERENCE AND ALL MAY NOT BE FRUS.

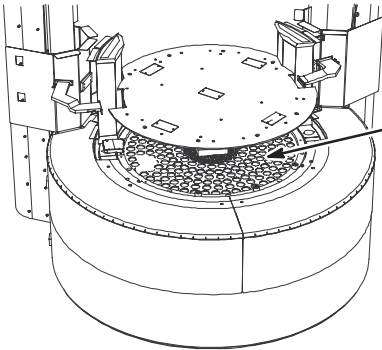
MAGNET ENCLOSURE (COVERS & TOUCH-UP PAINTS) 5

TOP GRADIENT COIL



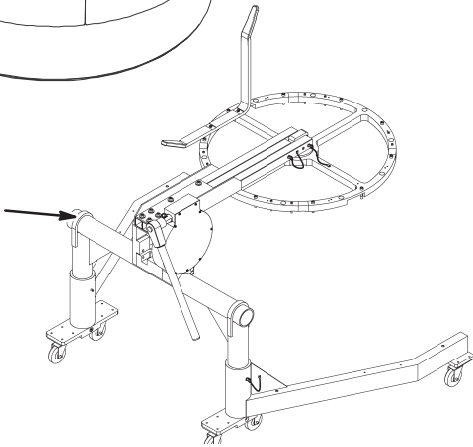
- 2251048-4**
 TOP GRADIENT FRU
 Includes:
 • TOP GRADIENT COIL
 • COIL CRATE
 • (10) 10mm BOLTS

BOTTOM GRADIENT COIL

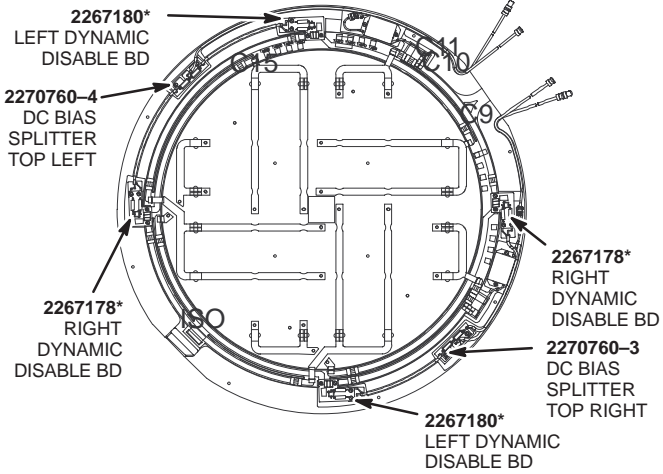


- 2251048-3**
 BOTTOM GRADIENT FRU
 Includes:
 • BOTTOM GRADIENT COIL
 • COIL CRATE
 • (10) 10mm BOLTS

2247491
 GRADIENT
 INSERTION
 TOOL



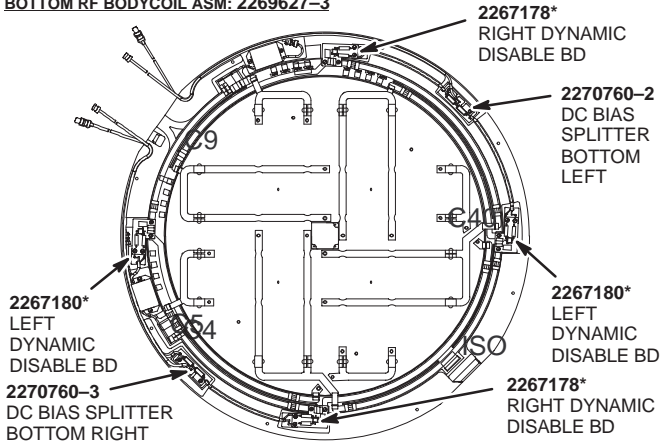
TOP RF BODYCOIL ASM: 2269627-4



*** NOTE:**

2267178 and 2267180 may be used on 2269627-4 (Top), and 2269627-3 (Bottom).

BOTTOM RF BODYCOIL ASM: 2269627-3



AIR DUCT COLLECTOR KIT: 2279600

VIEWED FROM FRONT OF MAGNET

2276269-2
EXHAUST RF TOP

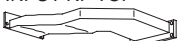


EXHAUST



2276269
EXHAUST RF BOTTOM

2276268-2
INPUT RF TOP



INPUT



2276268
INPUT RF BOTTOM

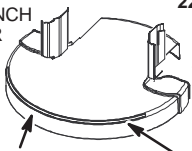


2276266
RF COOLING
ELBOW
ADAPTER

PINCH SENSORS & TEMP SENSORS:

2270630

LEFT PINCH
SENSOR



2270630-2

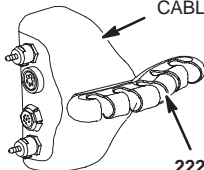
RIGHT
PINCH
SENSOR

(UNDERNEATH)
2299536
TEMP SENSOR
CABLE (RUN 749)
2299537
TEMP SENSOR (TO RUN 749)

2278971
FRONT PINCH
SENSOR ASM

**REMOTE PAC INTERFACE ASM:
2227142 or 2227142-2**

2221024
PAC HANGER
CABLE I/F



2221023
HANGER BAR

COMPRESSOR:

2248343-2
COMPRESSOR

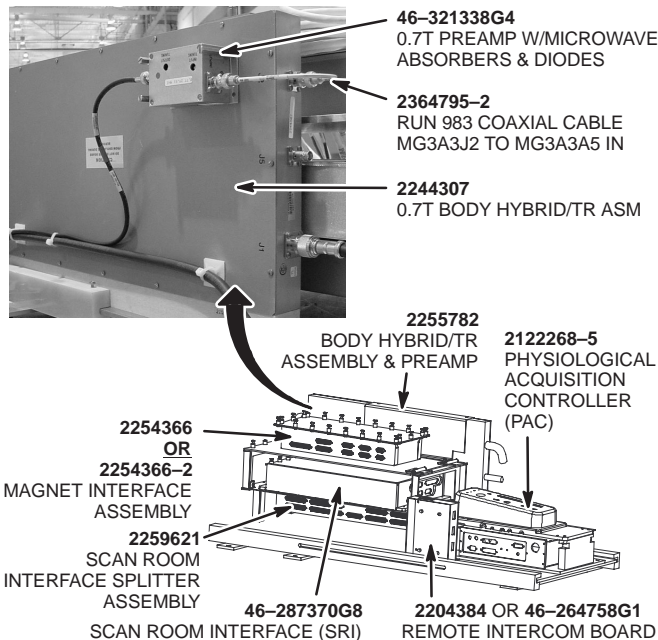
2248343-3
SOLID STATE
RELAY (INSIDE)

2248343
COMPRESSOR ASSEMBLY

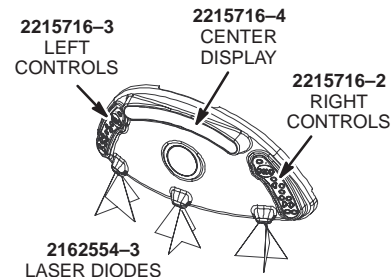
2248343-4
MUFFLER

2248343-5
RELIEF
VALVE

PAC/SRI:



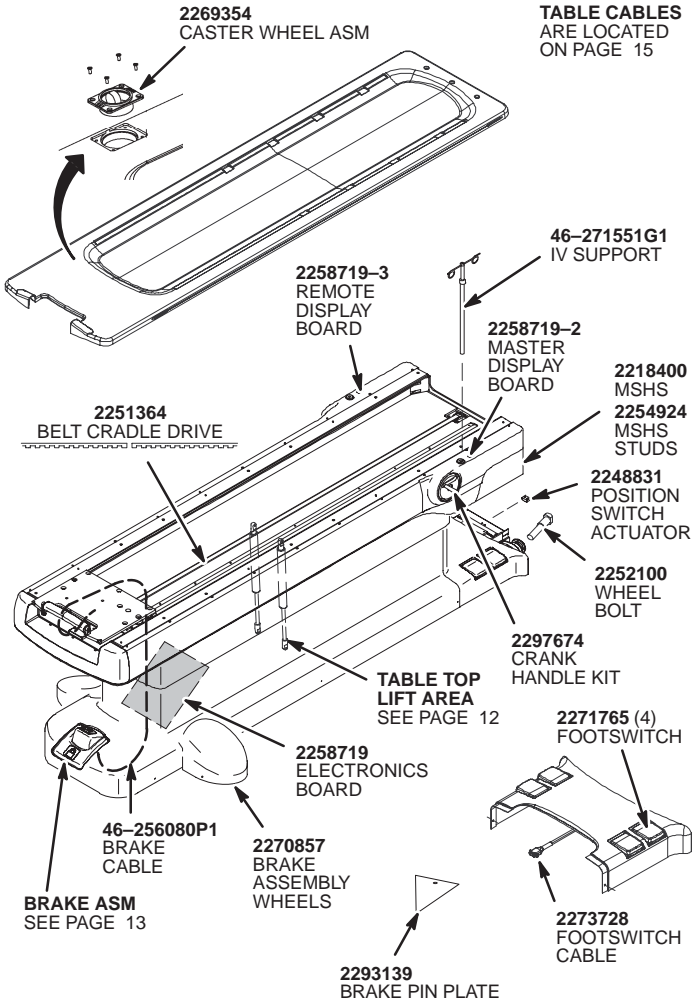
DISPLAY/CONTROLS:



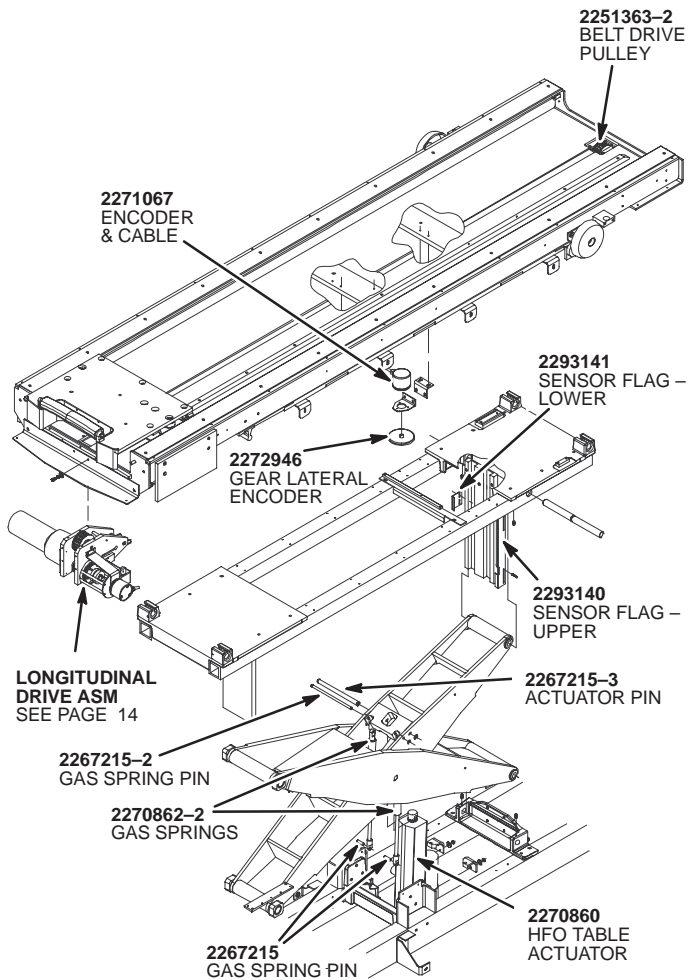
LAMPS:

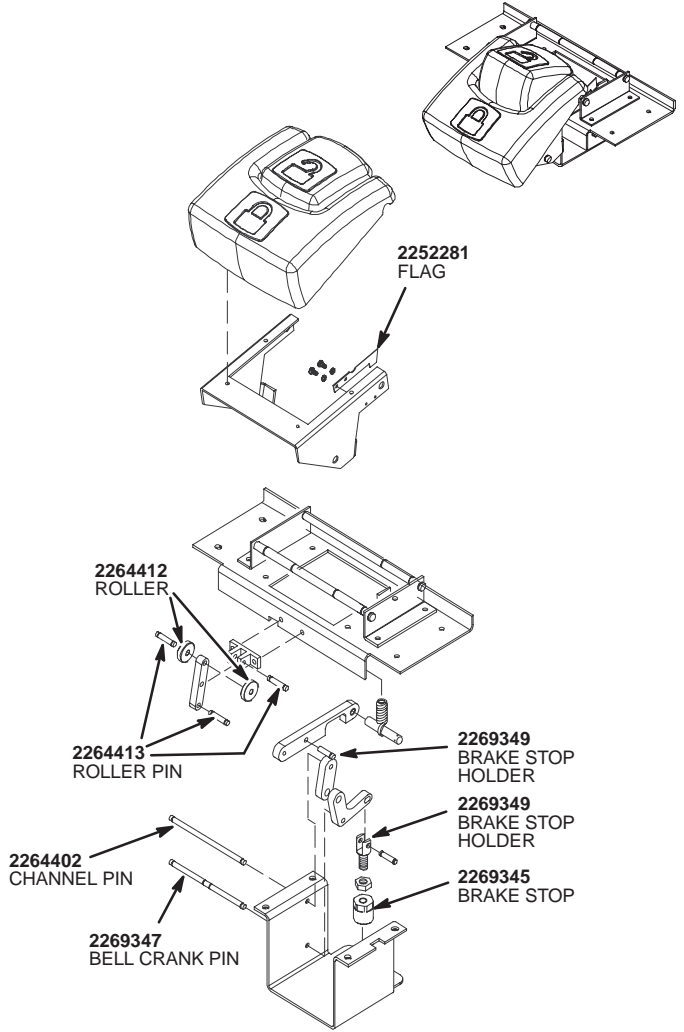


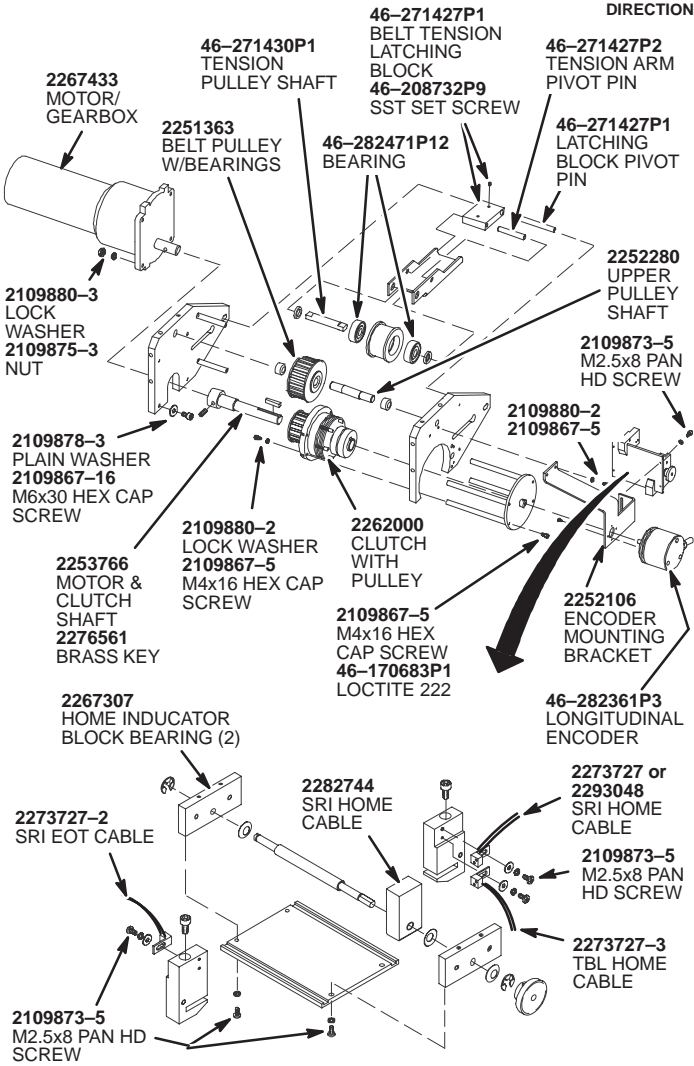
TABLE CABLES
ARE LOCATED
ON PAGE 15



PATIENT SUPPORT TABLE

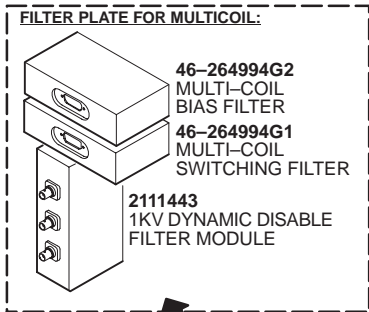






CABLES:

<u>46-317220P19</u>	RUN 875
<u>46-317220P20</u>	RUN 876
<u>46-317220P21</u>	RUN 877
<u>46-317220P22</u>	RUN 878
<u>2262695</u>	RUN 879
<u>2262694-2</u>	RUN 880
<u>2262696</u>	RUN 881
<u>2263200-30</u>	RUN 882
<u>2263200-32</u>	RUN 883
<u>2263200-33</u>	RUN 884
<u>2263200-31</u>	RUN 885
<u>2271496</u>	RUN 886
<u>46-320888G3</u>	RUN 891
<u>46-320888G4</u>	RUN 892
<u>2262694</u>	RUN 905
<u>2273042</u>	FOOTSWITCH
<u>2274468</u>	PHOTO TRANSMISSIVE SENSOR
<u>2274468-2</u>	PHOTO TRANSMISSIVE SENSOR
<u>2274468-3</u>	PHOTO TRANSMISSIVE SENSOR
<u>2274468-4</u>	PHOTO TRANSMISSIVE SENSOR
<u>2263200-28</u>	LAT DISPLAY MASTER – J2 TO MG3A5J3
<u>2263200-29</u>	LAT DISPLAY REMOTE – J1 TO LAT
<u>2275282</u>	TABLE VERTICAL MOTOR TO MG3A5J11

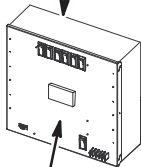


46-320232G1
GRADIENT
FILTER ASM

2222016
NMR THERMAL
CONTROL UNIT

OR

2327685
NMR THERMAL
CONTROL UNIT 2
(USED ON NEW
PRODUCTION)



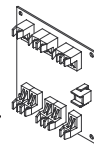
2382256
ZEROPOWER SRAM/BATTERY
(LOCATED INSIDE ON
TEMPERATURE CONTROL
CIRCUIT BD 2331339)

NOTE:

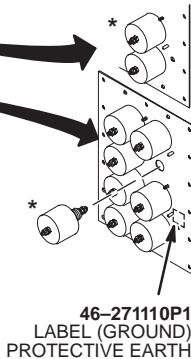
* 46-282750P1
250VAC/1000VDC EMI NOISE FILTER
(HARDWARE INCLUDED)

46-27110P1
LABEL (GROUND)
PROTECTIVE EARTH

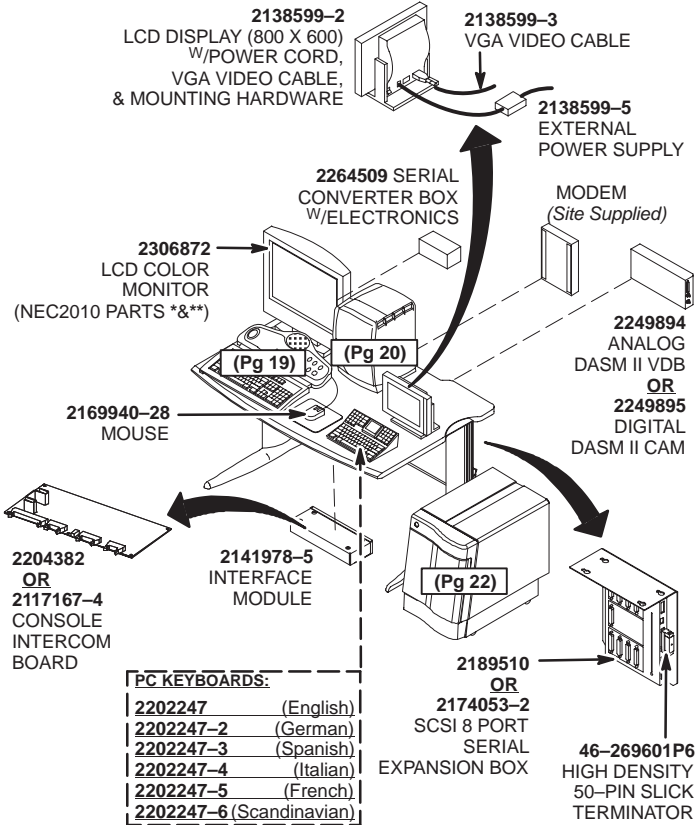
46-321220G1
FO REPEATER
BOARD



46-307169P1
1/4 NPT, PARKER
#207ACBH-4

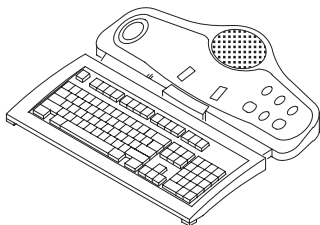


PENETRATION PANEL



NOTE: The following parts are Not Shown.

2271497	SHEM HOST ETHERNET CABLE
2174053-3	SPARE SERIAL EXPANDER POWER SUPPLY
2156158-32	S/W COLLECTOR HFO II M4
2256092-3	SIGNA HORIZON LX IRIX 6.5 OS
2274462	8.3 M5 PATCH CD-ROM
2160200-5	CPD MODULE
*2213962-4	POWER SUPPLY FOR NEC2010 MONITOR
**2150533-2	CABLE, NEC2010 MONITOR (821/798) OW1A15/OW1A2A3

LATEST VERSIONS:**KEYBOARDS ONLY:**

- 2275756 (English)
- *2275756-2 (French)
- *2275756-3 (German)
- *2275756-4 (Scandinavian)
- *2275756-5 (Italian)
- *2275756-6 (Portuguese)
- *2275756-7 (Spanish)

*** NOTE:**

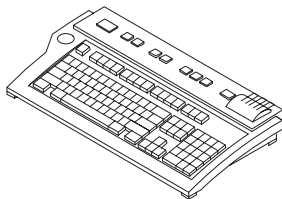
These types of Keyboard/SCIM Assemblies were not available at the time this book was released, see below for earlier types.

NOTE: The following parts are Not Shown.

2262158-9 CABLE, 50 PIN SCIM KEYBOARD

2289697-2 SCIM ^W/ENGLISH OVERLAY

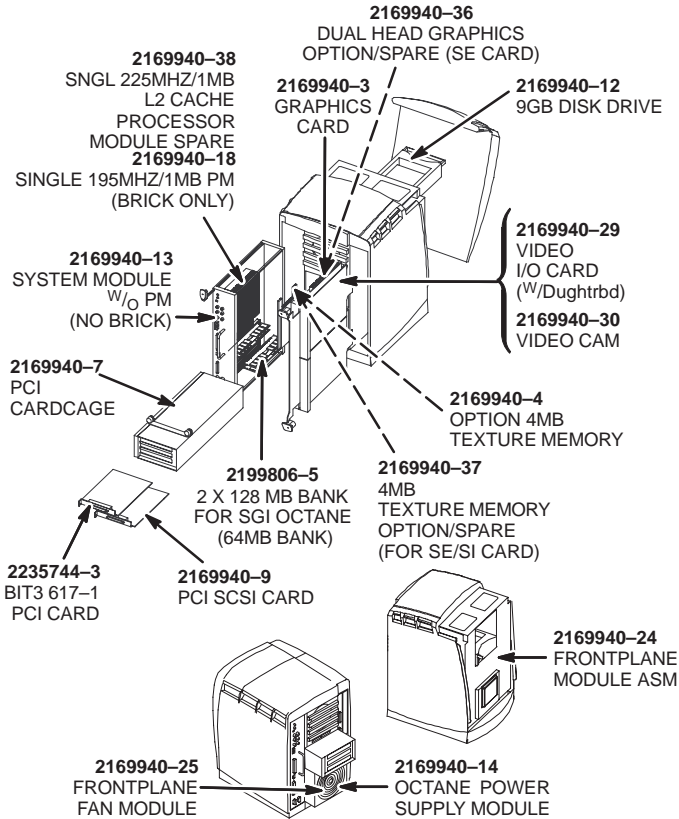
2289697-8 MR SCIM GLOBAL OVERLAY SET

EARLY VERSIONS:**KEYBOARDS ONLY:**

- 2114561-19 (English)
- 2114561-28 (French)
- 2114561-31 (German)
- 2114561-34 (Scandinavian)
- 2114561-43 (Italian)
- 2114561-44 (Portuguese)
- 2114561-45 (Spanish)

NOTE: The following part is Not Shown.

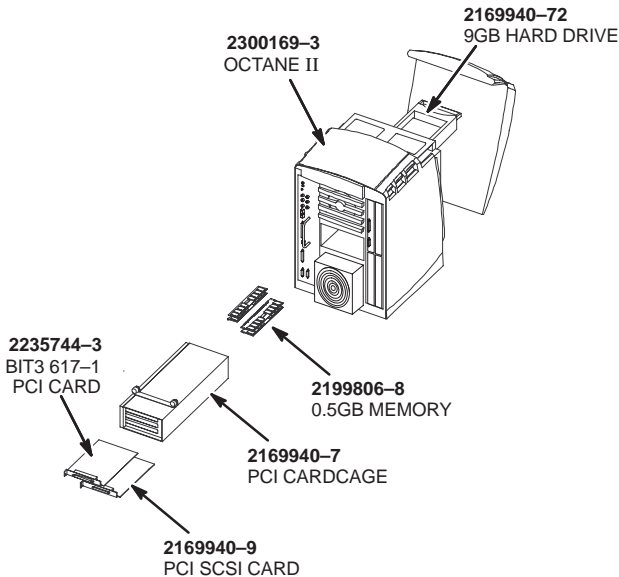
2114561-46 CABLE, LX SCSI LONG CABLE



NOTE: The following parts are Not Shown.

2169940-78	18GB DISK DRIVE
2169940-32	SPARE LIGHTBAR ASSEMBLY
2169940-33	SGI MICROPHONE
2295019	CABLE, VGA (LCD MONITOR) to 13W3-DB15 RGB
2256485	CABLE, 3BNC-F to HD15 RGB (CRT MONITOR)
2169940-6	OPTION SINGLE 128MB MEMORY MODULE
2306872	COLOR LCD (HOST) MONITOR
2235744-4	IMAGE TRANSFER-HOST BOARD

—WARNING—
DO NOT INTERCHANGE FRU
PARTS BETWEEN OCTANE I
AND OCTANE II COMPUTERS.



NOTE: The following parts are Not Shown.

2169940-78	18GB DISK DRIVE
2169940-32	SPARE LIGHTBAR ASSEMBLY
2169940-33	SGI MICROPHONE
2295019	CABLE, VGA (LCD MONITOR) to 13W3-DB15 RGB
2256485	CABLE, 3BNC-F to HD15 RGB (CRT MONITOR)
2169940-6	OPTION 128MB MEMORY MODULE
2306872	COLOR LCD (HOST) MONITOR
2235744-4	IMAGE TRANSFER-HOST BOARD

2284297 BOOT FLOPPY

OR

2192746-3 PC WORKSTATION LX3 BASE SYSTEM WITH 2192746-4 S/W

OR

2192746 PC WORKSTATION LX2 PC WORKSTATION WITH MOD

2189511
8 PORT 10 BASE T NETWORK HUB

46-269601P5
TERMINATOR "SLICK"
CIRCUIT ACTIVE TERMINATOR

2199817-12
MOD DRIVE

2365675
HOST CD-ROM

2199817-11
SCSI CABLE
(INSIDE)

2169940-15
XIO MODULE
BLANK PANEL
(SPARE)

2199817-5
SCSI EXP. CASE ONLY
WITH ALL
CABLES & POWER SUPPLY

NOTE: The following parts are Not Shown.

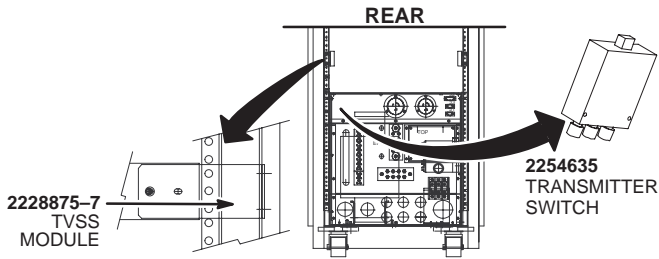
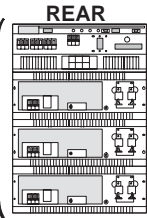
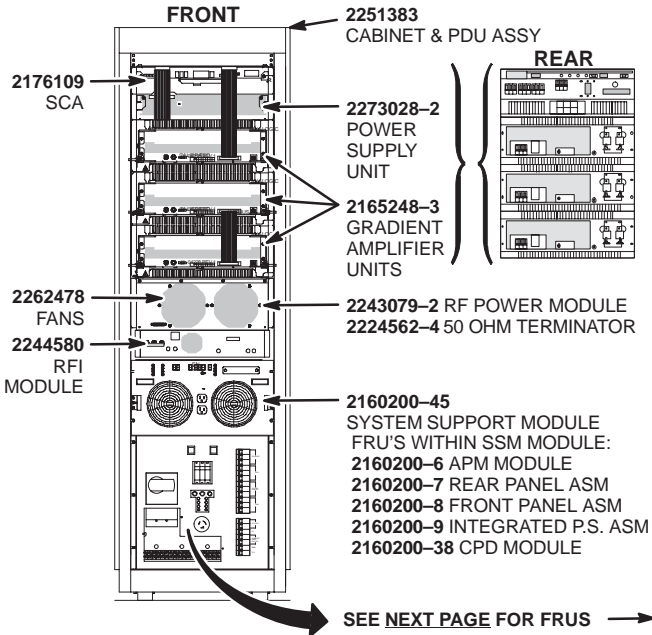
2169940-21 XIO CONNECTOR PROTECTIVE CAP

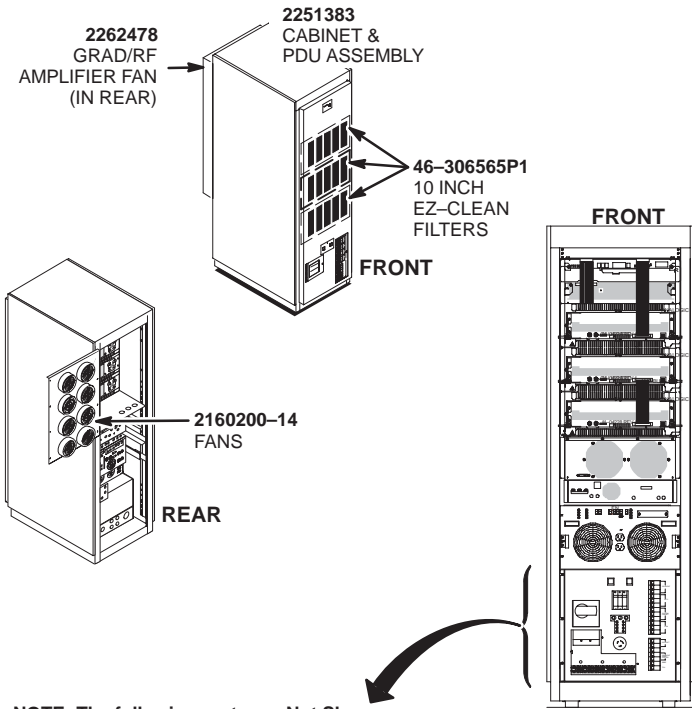
2169940-32 LIGHTBAR MODULE ASM

2169940-33 SGI MICROPHONE

2199817-7 ALT. SCSI EXPANSION BOX HOST CD-ROM

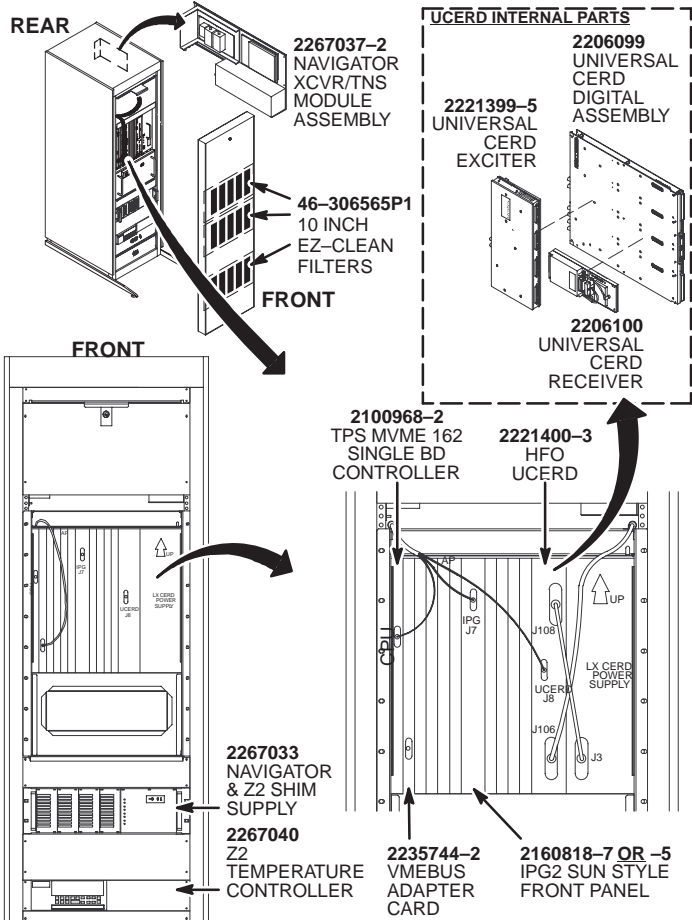
OPERATOR WORKSPACE CABINET





NOTE: The following parts are Not Shown.

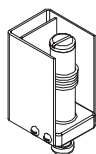
2228875-2	CONTROL PC BOARD
2228875-3	EMERGENCY RESET/POWER SWITCH
2228875-6	INPUT CIRCUIT BREAKER MODULE
2228875-7	TVSS MODULE
2228875-8	GREEN NEON INDICATOR
2228875-9	CIRCUIT BREAKER 16A 1 POLE
2228875-10	CIRCUIT BREAKER 20A 1 POLE
2228875-11	CIRCUIT BREAKER 20A 2 POLE
2228875-12	CIRCUIT BREAKER 30A 3 POLE
2228875-13	CIRCUIT BREAKER 60A 3 POLE
2228875-14	CIRCUIT BREAKER 30A 1 POLE
2228875-15	SWITCH, SPDT, 20A



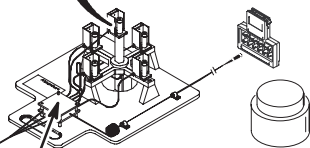
NOTE: The following parts are Not Shown.

2115088-2	TYME II ASSEMBLY (IN REAR)
2138600-16	UCERD POWER SUPPLY
2138944	REAR INTERFACE PANEL
2304692	MR2 CERD J109 TO INTERFACE PANEL

ECMT PARTS



2271647
0.7T ECMT SAMPLE
ASSEMBLY
OR
2352798
0.7T ECMT SAMPLE
HOLDER ASSEMBLY

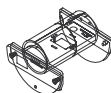


2222706 **2238315**
MULTIPLEXER SPARE ECMT
BOARD SOLUTION

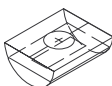
PHANTOM CART KIT



2274476
LV SHIM
INNER SPERE
2274477
LV SHIM
UPPER HALF
2274479
LV SHIM
LOWER HALF



2274999
DQA
ASSEMBLY



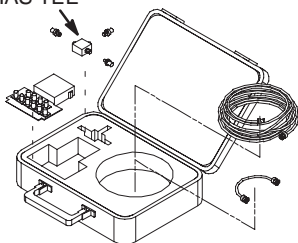
2170481
EPI FOAM
POSITIONER



2141454
QUICK SHIM
POSITIONER

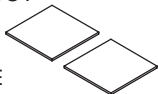
2360581
0.7T M-C RECEIVE TOOL KIT

2360522
BIAS TEE

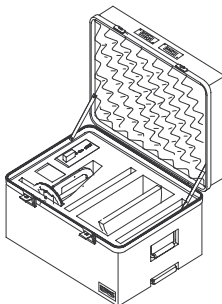


2366015
M-C RECEIVE CHAIN
TROUBLESHOOT
TOOL

2364386
M-C RECEIVE
CHAIN HFO2 PATCH



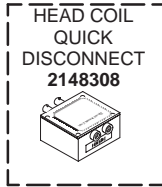
2281754, 2281754-2
SHIM CAMERA KIT



NOTE: Where possible, FRU's which are part of Option Catalogs are shown under the area where they would be installed, rather than being listed in this section.

HEAD COIL (LARGE BASEPLATE)	M2087H
2274240-7	HEAD ARRAY COIL & BASEPLATE ASM ^{W/} INTRFC CABLE
2274240-2	HEAD ARRAY COIL SYSTEM INTERFACE CABLE
2274240-5	HEAD ARRAY PHANTOM
2274240-8	HEAD ARRAY PHANTOM POSITIONER

HEAD COIL (SMALL BASEPLATE)	M2087HA
2299522-2	HEAD ARRAY COIL & BASEPLATE ASM ^{W/} INTRFC CABLE
2274240-2	HEAD ARRAY COIL SYSTEM INTERFACE CABLE
2274240-5	HEAD ARRAY PHANTOM
2274240-8	HEAD ARRAY PHANTOM POSITIONER



BREAST COIL	M2087BR
2264745-7	BREAST COIL ^{W/} CABLE
2264745-2	BREAST COIL CABLE ONLY
2246360-9	PHANTOM POSITIONER FOR BREAST COIL
46-317586G1	SPHERE PHANTOM

CTL COIL (SPINE)	M2087HS
2264744-12	CTL ARRAY ^{W/} CABLE
2264744-2	CTL CABLE ASSEMBLY ^{W/} QD BOX
2264744-11	CTL ARRAY LATCH MECHANICS KIT
2264744-7	CTL ARRAY CT PHANTOM
2264744-8	CTL ARRAY TL PHANTOM

EXTREMITY / FOOT SET	M2087E
2264742-2	LARGE KNEE COIL ^{W/} CABLE ASSEMBLY
2264742-14	LARGE KNEE COIL CABLE ASSEMBLY
2264742-8	KNEE COIL PHANTOM (LARGE OR SMALL)
2264742-10	PHANTOM POSITIONER (LARGE & SMALL)
2264742-3	SMALL KNEE AND FOOT COIL ^{W/} CABLE
2264742-5	SMALL KNEE / FOOT COIL CABLE ASSEMBLY
2264742-13	LATCH PARTS (SET OF 2)
2264742-4	FOOT PHANTOM

COILS CONTINUED ON NEXT PAGE.

COILS CONTINUED FROM PREVIOUS PAGE.

SHOULDER COIL	M2087SH
<u>2264743-9</u>	<u>SHOULDER ARRAY COIL W/ CABLE</u>
<u>2264743-2</u>	<u>SHOULDER ARRAY COIL CABLE ASSEMBLY</u>
<u>2264743-5</u>	<u>SHOULDER ARRAY PHANTOM POSITIONER</u>
<u>46-265826G6</u>	<u>HEAD TLT PHANTOM</u>

WRIST COIL	M2087WR
<u>2279915-2</u>	<u>PHASED ARRAY WRIST COIL & BASEPLATE ASSEMBLY</u>
<u>2279915-11</u>	<u>PHASED ARRAY WRIST COIL BASEPLATE CABLE</u>
<u>2279915-6</u>	<u>PHASED ARRAY WRIST COIL PHANTOM</u>
<u>2279915-10</u>	<u>PHASED ARRAY WRIST COIL PHANTOM POSITIONER</u>

LARGE BODY FLEX COIL	M20032GC
<u>2273180-2</u>	<u>BODY FLEX L COIL W/ CABLE</u>
<u>2148175</u>	<u>BODY FLEX LOCK M1</u>
<u>2148176</u>	<u>BODY FLEX LOCK M2</u>
<u>2169786-2</u>	<u>BODY FLEX LOCK F1</u>
<u>2169787-2</u>	<u>BODY FLEX LOCK F2</u>

MEDIUM BODY FLEX COIL	M20022GC
<u>2273181-2</u>	<u>BODY FLEX M COIL W/ CABLE</u>
<u>2148175</u>	<u>BODY FLEX LOCK M1</u>
<u>2148176</u>	<u>BODY FLEX LOCK M2</u>
<u>2169786-2</u>	<u>BODY FLEX LOCK F1</u>
<u>2169787-2</u>	<u>BODY FLEX LOCK F2</u>

OPTIONS:

AP POWER PC W/128MB - DUAL	
<u>2222532</u>	<u>PPC COMPATIBLE MEDCAM BASEBOARD</u>
<u>2222532-3</u>	<u>DUAL PPC MODULE W/64MB (32MB/CE NODE)</u>
<u>2101767-4</u>	<u>MEDCAM VMX 128 MB MEMORY BOARD</u>
<u>2101767-5</u>	<u>MEDCAM VMX FOREPLANE 1-SLOT COVER</u>

NOTE: Refer to the Directions on CD-2250758-1 (Signa OpenSpeed Service Methods) for additional product information.

TABLE 1
50 HZ PARTS

PART NUMBER	LOCATION	MANUFACTURER	
		BUSS	G-S
2276547-2	FUSE F1	FNQ-R-1-1/4	ATQR1-1/4
2276547-3	FUSE F2	FNQ-R-3	ATQR3
2276547-5	FUSE F3	FNQ-R-30	ATDQR30
2276547-6	FUSE F4	FNQ-R-8	ATDR8
2276547-8	FUSE F5	FNQ-R-1	ATDR1
2276547-9	FUSE F6	-----	ATQR1/8
2276547-4	FUSE F7	LPJ-40SP	AJT40
2276547-10	FUSE F8	LPJ-70SP	AJT70
2276547-12	FUSE F9	LPJ-15SP	AJT15
2276547-11	FUSE F10	FNQ-R-10	ATDR10
2276547-11	FUSE F11	FNQ-R-10	ATDR10
2276547-13	FUSE F12	FNQ-R-15	ATDR15

TABLE 2
60 HZ PARTS

PART NUMBER	LOCATION	MANUFACTURER	
		BUSS	G-S
2276547-2	FUSE F1	FNQ-R-1-1/4	ATDR1-1/4
2276547-3	FUSE F2	FNQ-R-3	ATDR3
2276547-5	FUSE F3	FNQ-R-30	ATDR30
2276547-6	FUSE F4	FRS-R-8	ATDR8
2276547-8	FUSE F5	LP-CC-1	ATDR1
2276547-9	FUSE F6	SNQ-R-1/8	ATQR1/8
2276547-4	FUSE F7	LPJ-40SP	AJT40
2276547-15	FUSE F8	LPJ-90SP	AJT90
2276547-12	FUSE F9	LPJ-15SP	AJT15
2276547-11	FUSE F10**	FNQ-R-10	ATDR10
2276547-11	FUSE F11**	FNQ-R-10	ATDR10
2276547-13	FUSE F12**	FNQ-R-15	ATDR15

**NOTE: Early design of this panel may not have had these fuses.

