



GE Medical Systems

Technical Publications

Direction 2238944

Revision 1

Signa® 8 Channel Preamp Installation

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Operating Documentation

DAMAGE IN TRANSPORTATION

All packages should be closely examined at time of delivery. If damage is apparent, have notation "**damage in shipment**" written on **all** copies of the freight or express bill **before** delivery is accepted or "signed for" by a General Electric representative or a hospital receiving agent. Whether noted or concealed, damage **MUST** be reported to the carrier immediately upon discovery, or in any event, within 14 days after receipt, and the contents and containers held for inspection by the carrier. A transportation company will not pay a claim for damage if an inspection is not requested within this 14 day period.

Immediately complete "**Damage Loss Claim Form**" after damage is found. Form is available via MS Exchange Mail at Outlook/Public Folder/All Public Folders/Medical Systems/!Global Initiatives/Information Management/Forms/Common Forms/Damage Loss Claim Form. Send completed form to e-mail address listed on form.

For more information about the Transportation Claim Procedure, access the GE Medical Systems Intranet and enter the following URL address:

<ftp://3.87.40.2/globepro/qualsys/Docs/190016MF.PDF>

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GE Medical Systems

GE Medical Systems: Telex 3797371
P.O. Box 414, Milwaukee, Wisconsin 53201 U.S.A.
(Asia, Pacific, Latin America, North America)

GE Medical Systems — Europe: Telex 261794
Shortlands, Hammersmith, London W6 8BX U.K.

WARNING

- THIS SERVICE MANUAL IS AVAILABLE IN ENGLISH ONLY.
- IF A CUSTOMER'S SERVICE PROVIDER REQUIRES A LANGUAGE OTHER THAN ENGLISH, IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE TRANSLATION SERVICES.
- DO NOT ATTEMPT TO SERVICE THE EQUIPMENT UNLESS THIS SERVICE MANUAL HAS BEEN CONSULTED AND IS UNDERSTOOD.
- FAILURE TO HEED THIS WARNING MAY RESULT IN INJURY TO THE SERVICE PROVIDER, OPERATOR OR PATIENT FROM ELECTRIC SHOCK, MECHANICAL OR OTHER HAZARDS.

AVERTISSEMENT

- CE MANUEL DE MAINTENANCE N'EST DISPONIBLE QU'EN ANGLAIS.
- SI LE TECHNICIEN DU CLIENT A BESOIN DE CE MANUEL DANS UNE AUTRE LANGUE QUE L'ANGLAIS, C'EST AU CLIENT QU'IL INCOMBE DE LE FAIRE TRADUIRE.
- NE PAS TENTER D'INTERVENTION SUR LES ÉQUIPEMENTS TANT QUE LE MANUEL SERVICE N'A PAS ÉTÉ CONSULTÉ ET COMPRIS.
- LE NON-RESPECT DE CET AVERTISSEMENT PEUT ENTRAÎNER CHEZ LE TECHNICIEN, L'OPÉRATEUR OU LE PATIENT DES BLESSURES DUES À DES DANGERS ÉLECTRIQUES, MÉCANIQUES OU AUTRES.

WARNUNG

- DIESES KUNDENDIENST-HANDBUCH EXISTIERT NUR IN ENGLISCHER SPRACHE.
- FALLS EIN FREMDER KUNDENDIENST EINE ANDERE SPRACHE BENÖTIGT, IST ES AUFGABE DES KUNDEN FÜR EINE ENTSPRECHENDE ÜBERSETZUNG ZU SORGEN.
- VERSUCHEN SIE NICHT, DAS GERÄT ZU REPARIEREN, BEVOR DIESES KUNDENDIENST-HANDBUCH NICHT ZU RATE GEZOGEN UND VERSTANDEN WURDE.
- WIRD DIESE WARNUNG NICHT BEACHTET, SO KANN ES ZU VERLETZUNGEN DES KUNDENDIENSTTECHNIKERS, DES BEDIENERS ODER DES PATIENTEN DURCH ELEKTRISCHE SCHLÄGE, MECHANISCHE ODER SONSTIGE GEFAHREN KOMMEN.

AVISO

- ESTE MANUAL DE SERVICIO SÓLO EXISTE EN INGLÉS.
- SI ALGÚN PROVEEDOR DE SERVICIOS AJENO A GEMS SOLICITA UN IDIOMA QUE NO SEA EL INGLÉS, ES RESPONSABILIDAD DEL CLIENTE OFRECER UN SERVICIO DE TRADUCCIÓN.
- NO SE DEBERÁ DAR SERVICIO TÉCNICO AL EQUIPO, SIN HABER CONSULTADO Y COMPRENDIDO ESTE MANUAL DE SERVICIO.
- LA NO OBSERVANCIA DEL PRESENTE AVISO PUEDE DAR LUGAR A QUE EL PROVEEDOR DE SERVICIOS, EL OPERADOR O EL PACIENTE SUFRAN LESIONES PROVOCADAS POR CAUSAS ELÉCTRICAS, MECÁNICAS O DE OTRA NATURALEZA.

ATENÇÃO

- ESTE MANUAL DE ASSISTÊNCIA TÉCNICA SÓ SE ENCONTRA DISPONÍVEL EM INGLÊS.
- SE QUALQUER OUTRO SERVIÇO DE ASSISTÊNCIA TÉCNICA, QUE NÃO A GEMS, SOLICITAR ESTES MANUAIS NOUTRO IDIOMA, É DA RESPONSABILIDADE DO CLIENTE FORNECER OS SERVIÇOS DE TRADUÇÃO.
- NÃO TENHA TENTADO REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA.
- O NÃO CUMPRIMENTO DESTA AVISO PODE POR EM PERIGO A SEGURANÇA DO TÉCNICO, OPERADOR OU PACIENTE DEVIDO A CHOQUES ELÉTRICOS, MECÂNICOS OU OUTROS.

AVVERTENZA

- IL PRESENTE MANUALE DI MANUTENZIONE È DISPONIBILE SOLTANTO IN INGLESE.
- SE UN ADDETTO ALLA MANUTENZIONE ESTERNO ALLA GEMS RICHIEDE IL MANUALE IN UNA LINGUA DIVERSA, IL CLIENTE È TENUTO A PROVVEDERE DIRETTAMENTE ALLA TRADUZIONE.
- SI PROCEDA ALLA MANUTENZIONE DELL'APPARECCHIATURA SOLO DOPO AVER CONSULTATO IL PRESENTE MANUALE ED AVERNE COMPRESO IL CONTENUTO.
- NON TENERE CONTO DELLA PRESENTE AVVERTENZA POTREBBE FAR COMPIERE OPERAZIONI DA CUI DERIVINO LESIONI ALL'ADDETTO ALLA MANUTENZIONE, ALL'UTILIZZATORE ED AL PAZIENTE PER FOLGORAZIONE ELETTRICA, PER URTI MECCANICI OD ALTRI RISCHI.

警告

- ・このサービスマニュアルには英語版しかありません。
- ・GEMS以外でサービスを担当される業者が英語以外の言語を要求される場合、翻訳作業はその業者の責任で行うものとさせていただきます。
- ・このサービスマニュアルを熟読し理解せずに、装置のサービスを行わないで下さい。
- ・この警告に従わない場合、サービスを担当される方、操作員あるいは患者さんが、感電や機械的又はその他の危険により負傷する可能性があります。

注意:

- 本维修手册仅存有英文本。
- 非 GEMS 公司的维修员要求非英文本的维修手册时，客户需自行负责翻译。
- 未详细阅读和完全了解本手册之前，不得进行维修。
- 忽略本注意事项会对维修员，操作员或病人造成触电，机械伤害或其他伤害。

REVISION HISTORY

REV	DATE	PRIMARY REASON FOR CHANGE
0	Mar 19, 1999	Initial Release of procedure.
1	Feb 19, 2001	Update book format. Changed procedure, switched position of channels 1 & 8 in Illustration 1-1.

LIST OF EFFECTIVE PAGES

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Description: This procedure is for installing preamp 1 and 8 and applies to both 1.0T and 1.5T Low Profile Carriage Cover (LPCC) and 1.0T and 1.5T High Profile Carriage Cover.

Description	M1087CY (1.5T) Part Number	M1887CY (1.0T) Part Number	Qty
Preamp Assembly	46-328040G2	46-328040G6	2
Preamp Support Assembly	2212189	2212189	2
#1 INPUT Cable	2214665	2214665	1
#8 INPUT Cable	2214665-8	2214665-8	1
Installation Direction	2238944	2238944	1
Cable Ties	46-208758P3	46-208758P3	6
10-32 X 5/8" Rnd Hd Screw	46-220184P42	46-220184P42	4
Screw	46-208921P7	46-208921P7	4

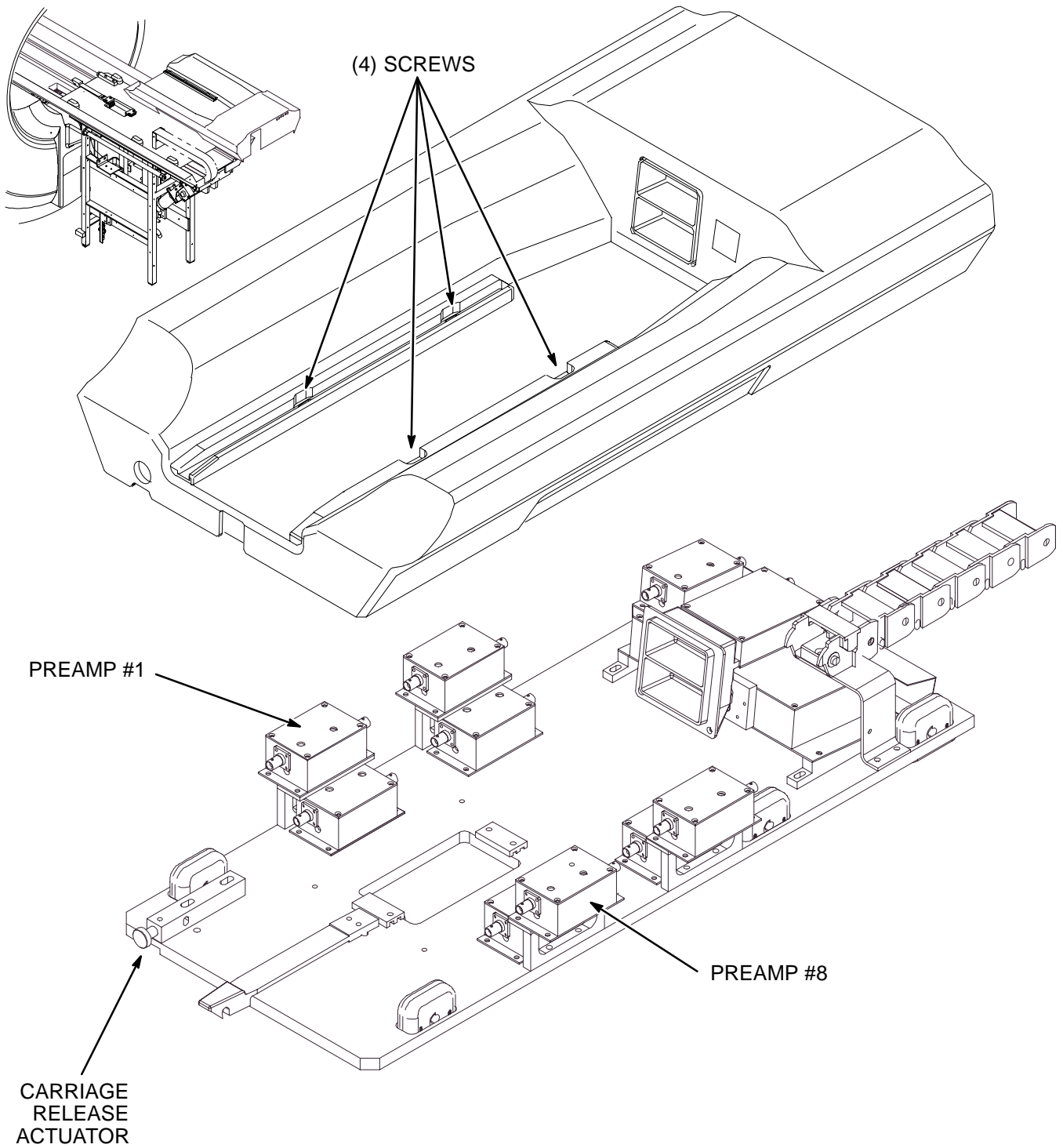
TABLE 1-1
SHIPPING LIST

1 – INSTALLATION OF MULTI-COIL PREAMP ASSEMBLIES FOR CHANNELS 1 AND 8 FOR LOW PROFILE CARRIAGE COVER



Possible equipment damage. Verify that power is removed from the RF subsystem before removing or disconnecting exam room RF components. The RF amplifier or TR driver could be damaged by operating into improperly terminated loads.

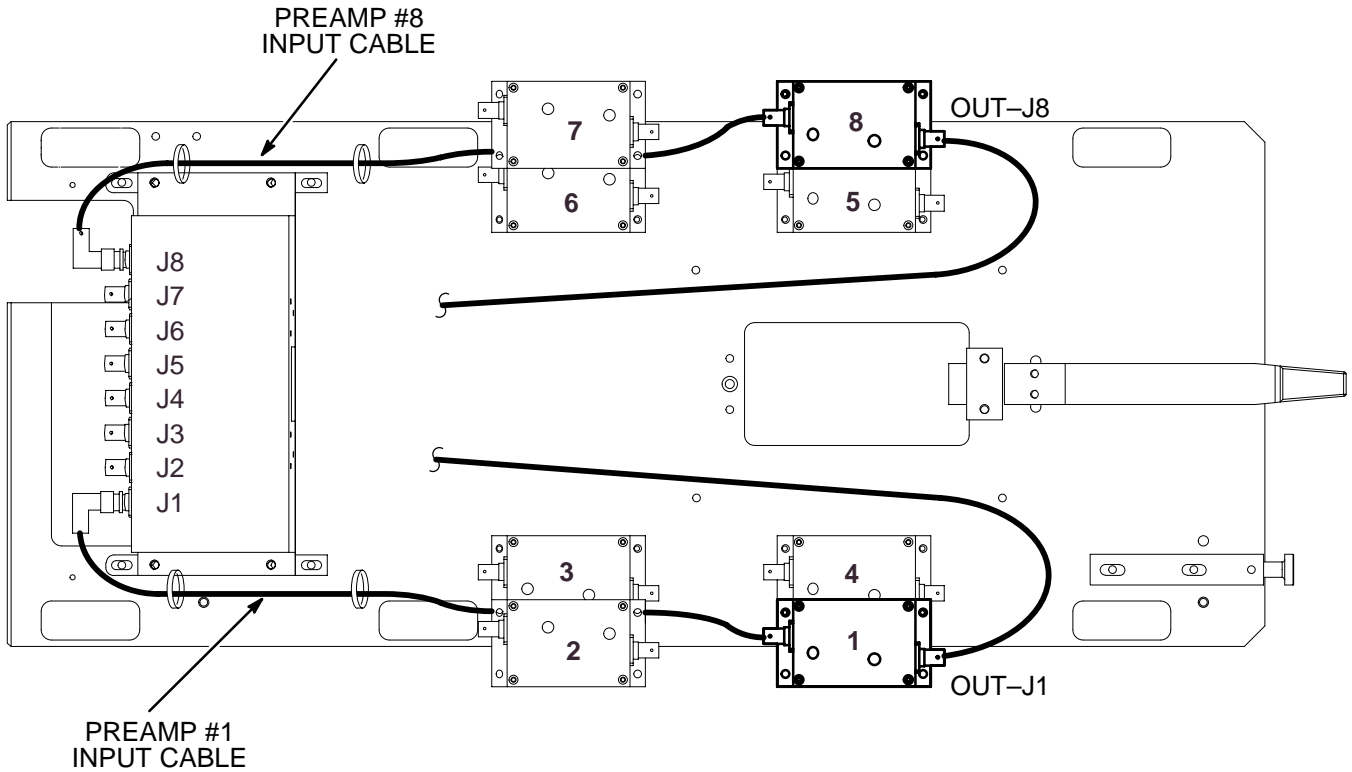
1. Remove the power to the RF subsystem by turning off the appropriate circuit breaker. Follow lockout/tagout procedures (refer Service Methods CD; Safety; Section 6-OSHA Lockout/Tagout Requirements).
2. Verify that power is off by checking the fans and LEDs on both the RF amplifier and the System Support Module (SSM).
3. Move the patient table all the way into the magnet to allow access to the head carriage assembly at the back of the magnet.
4. Disconnect the cradle from the carriage to allow the cover to slip over the carriage release actuator in the next step.
5. Remove the 4 carriage cover screws and remove the cover by sliding the cover forward over the release actuator, lift, move back, and lift. See Illustration 1 -1.
6. Remove output cables for channel 1 and 8 from the preamp protect assembly.
7. Install preamps 1 and 8 in the locations specified on Illustration 1-1. Use the preamp support assembly hardware provided in this kit. Preamps 1 and 8 will be mounted using the same method as preamps 2 and 7 (refer to Illustration 1-2).



LOW PROFILE CARRIAGE COVER ASSEMBLY

ILLUSTRATION 1-1

- 8. Connect preamp #1 input cable from preamp protect J1 to preamp 1 INPUT. See Illustration 1–2.
- 9. Connect preamp #8 input cable from preamp protect J8 to preamp 8 INPUT. See Illustration 1–2.
- 10. Connect output cable OUT–J1 to preamp 1 OUTPUT.
- 11. Connect output cable OUT–J8 to preamp 8 OUTPUT.



CABLE ROUTING
ILLUSTRATION 1–2

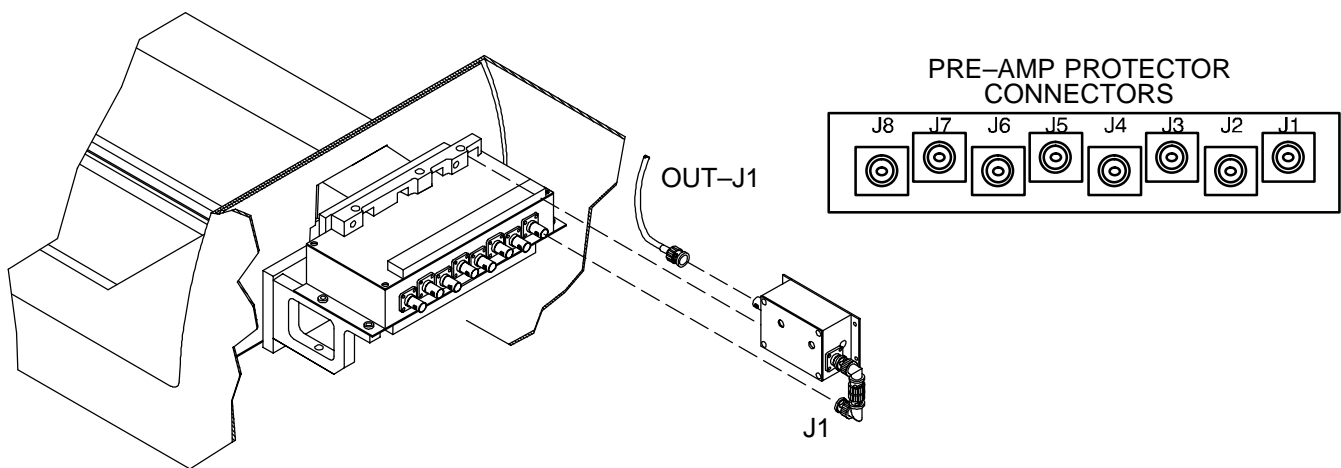
- 12. Reinstall the carriage cover and secure using the 4 carriage cover screws.
- 13. Remove lockout/tagout.
- 14. Turn on RF subsystem power.

2 – INSTALLATION OF MULTI-COIL PREAMPS ASSEMBLY 1 AND 8 IN HIGH PROFILE CARRIAGE COVER



Possible equipment damage. Verify that power is removed from the RF subsystem before removing or disconnecting exam room RF components. The RF amplifier or TR driver could be damaged by operating into improperly terminated loads.

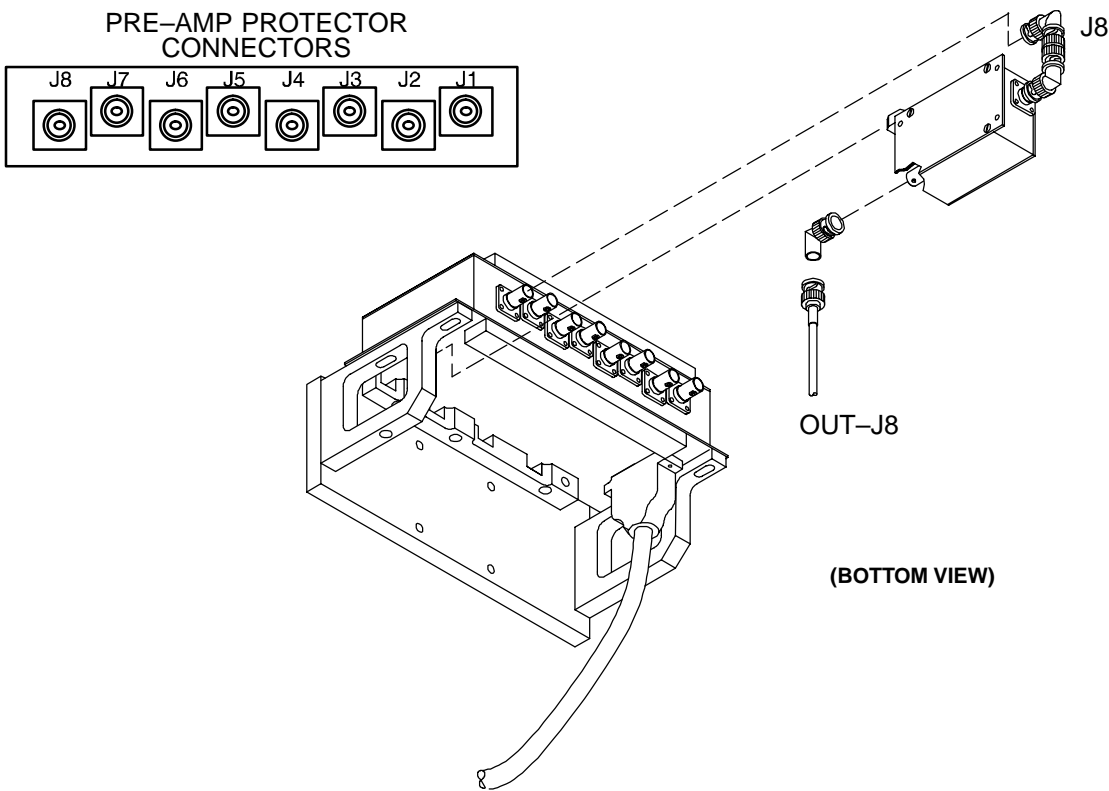
1. Remove the power to the RF subsystem by turning off the appropriate circuit breaker. Follow lockout/tagout procedures (refer Service Methods CD; Safety; Section 6–OSHA Lockout/Tagout Requirements).
2. Verify that power is off by checking the fans and LEDs on both the RF amplifier and the System Support Module (SSM).
3. Move the patient pable all the way into the magnet to allow access to the head carriage assembly at the back of the magnet.
4. Remove access panel from rear of carriage cover.
5. Disconnect cable OUT–J1 and BNC right angle adapter from preamp protect J1.
6. Connect OUT–J1 cable to new preamp OUTPUT.
7. Insert new preamp into notch on preamp protect locating block. See illustration 2–1.
8. Connect two BNC right angle connectors and straight adapters to new preamp INPUT.
9. Connect the other end of the BNC connector assembly to preamp protect J1. See Illustration 2–1.



PREAMP INSTALLATION (CHANNEL 1)

ILLUSTRATION 2–1

10. Disconnect cable OUT-J8 and BNC right angle adapter from preamp protect J8.
11. Connect OUT-J8 cable to new preamp OUTPUT.
12. Insert new preamp into notch on preamp protect locating block. See illustration 2-2.
13. Connect two BNC right angle connectors and a straight adapter to new preamp INPUT.
14. Connect the other end of the BNC connector assembly to preamp protect J8. See Illustration 2-2.



PREAMP INSTALLATION (CHANNEL 8)
ILLUSTRATION 2-2

15. Replace carriage cover access panel.
16. Remove lockout/tagout.
17. Turn on RF subsystem power.