



*GE Medical Systems*

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# **Technical Publications**

**Direction 2284360  
Revision 1**

# **Signa<sup>®</sup> Release LX BodyPak Software Feature 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 a "Damage Loss Claim Form", available via MS Exchange Mail, after the damage is found.

MS Exchange Path:

Outlook/Public Folder/All Public Folders/Medical Systems/!Global Initiatives/Information Management/Forms/Common Forms/DAMAGE LOSS CLAIM FORM.

Send the completed form to the email address listed in the form.

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

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

Rev. 11/15/2000

## Direction 2128126 - Language Policy For Service Documentation, Rev 0

### 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ください。
- ・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

<u>REV</u>	<u>DATE</u>	<u>PRIMARY REASON FOR CHANGE</u>
A.....	Sep 19, 2000	Initial version for Release.
B.....	Dec 14, 2000	Change procedure t follow patch precess
0 .....	Jan 11, 2001	Rev 0 Release
1 .....	Aug 23, 2001	Corrected unmount comand per SPR MRIge68531

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## 1- INSTALLATION INSTRUCTIONS

1. From a C Shell login as root by typing: **su root <Enter>**.
2. password: **operator**
3. Insert the BodyPak CD into the CD-ROM Drive.
4. Type **mediad <Enter>**
5. Type **swmgr <Enter>**
6. Wait for Software Manager to come up.
7. Type **/CDROM/dist** in the **[Software location Edit Window]**.
8. Push the **[Lookup]** button to the right of the **[Software location Edit Window]**.
9. Push the **[Customize Installation]** button at the top of the screen.
10. All available patches & software should be visible at this time in the selection window. All patches that apply to your system and are not loaded will be selected (check marked). BodyApps will not load without Patch 70 and 71.
11. The **[Start]** button will activate (The letters in "Start" will change colors or shades). If the **[Start]** button activates, push it and the patch load will begin. A progress bar will open and count up from 0 to 100%. The load takes less than 2 minutes. When the progress bar goes away, a confirmation window will be displayed. Select **[Exit]** to quit the software manager.
12. After the patch is selected, if there is a problem, the **[Conflicts]** button will activate, (The letters in "Conflicts" will change colors or shades). If this happens, this indicates that your system does not need this patch or that there are certain patches on the system that are not compatible with the new patches. Push the **[Conflicts]** button to view the conflicts. For BodyPak, Patch70 and Patch71 it is required that you uninstall the following
  - 53: "83 M5 patches"
  - 59: "Cardiac view copy patch"
  - 62: "efgre3d SmartPrep UCERD receiver selection patch"
  - 69: "efgre3d contrast issue"
13. After the conflicts are resolved, choose **[Close]** to proceed to the installation.
14. After the installation select **Exit, Installation Completed** checkbox. Then select **[OK]**.

15. Type the following in the C Shell to eject the CDROM

**umount /CDROM <Enter>** (unmounts the CD from the system)

**Eject <Enter>** (opens the CD Drawer)

16. The following files are loaded on your system

CERD: cerd.P3.i40 (/usr/g/bin)

PSD: efgre3d psd files

TOOLS: rft tool psd files

BODYPAK Sequences:

- fseopt
- fseopt.psd.o
- ssfse\_etl
- ssfse\_etl.psd.o
- fgre-dual
- fgre-dual.psd.o

## 2 - SECURITY KEY INSTALLATION

1. To obtain the license for BodyPak, you need the Host ID to generate the license key.

- to get the Host ID open a C Shell and type **sysinfo -v**

2. You will receive a license number that is unique to the site.

3. Open a C shell.

4. Type **cd /usr/g/caldir <Enter>**

5. Create a new file called "secure.bodypak" in this directory. (This can be done with the command **touch secure.bodypak <Enter>**)

6. Open the file using an editor (vi or jot) and enter the license number in the first line.

7. Save and exit from the file

The three type-in PSDs frfseopt, ssfse\_etl, and fgre-dual are now ready to use.

### NOTE:

The new Pulse Sequences will not be saved as part of the Save/Restore Process. After a Load From Cold you will have to re-install the CD as indicated in the procedures above. The license number that is in the /usr/g/caldir directory will be saved during the save info process. But it is still highly recommended that you write the license number down.