



GE Medical Systems

Technical Publications

**Direction 2306294
Revision 0**

Signa Release CNV4 Software Collector Install Guide (M3000KA)

Copyright © 2001 by General Electric Co.

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 TENDE REPARAR O EQUIPAMENTO SEM TER CONSULTADO E COMPREENDIDO ESTE MANUAL DE ASSISTÊNCIA TÉCNICA.
- O NÃO CUMPRIMENTO DESTES AVISOS 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のをご確認ください。
- ・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

REV	DATE	PRIMARY REASON FOR CHANGE
A.....	Aug. 1, 2001	Initial version for clinical sites.
0	Oct. 4, 2001	Initial version for product release.

PAGE	REV	PAGE	REV	PAGE	REV	PAGE	REV
Title Page	0						
Damage in Trans.....	-						
Direction 2128126 ..0*							
5 to 9	0						

* This revision/letter corresponds to the indicated document's revision control system.

TABLE OF CONTENTS

1- OVERVIEW	6
2- LOAD RELEASE CNV4 SOFTWARE ON SIGNA	7
3- LOAD SIGNA OPTION KEYS (MODS)	7
4- INSTALL NEW UCERD-II EXCITER MODULE	7
5- LOAD RTIP PATCH ON AW (NV SITES)	8

1- OVERVIEW

New MR Cardiac applications have been developed to run on Signa Release CNV4 software. Existing 1.5T CV/NV systems with older version software must first perform a complete Signa software load using the supplied Release CNV4 software, then install the new Option key(s).

Signa software must be at Release CNV4 to install the following new CNV4 options:

- Diffusion Tensor (M1090DT)
- Ultra Short TR for 3D Fast GRE (M3033JC)

For the following CNV3 options, load Release CNV4 software if it was shipped with the option:

- Fiesta 2D (M1090KJ) – **Note 1**
- Fiesta 3D (M1090KK) – **Note 1**
- Delayed Enhancement (M1090KR)

Note 1: For systems with a UCERD, these options require an additional catalog M3090KD, UCERD II Exciter Module (2221399-6).

Supplied Parts (M3000KA, CNV4 Software Collector)

- 2204244-24 - Release CNV4 MrpApps CD
- 2256092-4, Signa Horizon LX IRIX OS CD
- 2283323, Signa Horizon LX IRIX Boot CD
- 2250664, SGD Performance Option MOD
- 2210001, EchoSpeed Option Key MOD
- 2214164, blank MOD
- 2298197, Patch for 2271291-2 RTIP For AW CD
- 2305455-100, CNV3/CNV4 Operator Errata
- 46-302200P3, Rating Plate
- 2306294, Signa Release CNV4 Software & Option Install (this document)

2- LOAD RELEASE CNV4 SOFTWARE ON SIGNA

Note

For systems with Release 8.4, Release 8.4 ACGD, or Release CNV3 Software, you must first perform a complete Signa software load using the supplied Release CNV4 software; then you can install the new CNV4 options keys.

Perform the following procedure: **Host Software Install (Release CNV3 & CNV4)**. (This procedure will be available on the MR Service Engineering website and on CD-ROM beginning with the Rev 13 Signa LX MR Service Methods CD.)

3- LOAD SIGNA OPTION KEYS (MODS)

This procedure describes how to install software options on the Signa Lx system using the MOD drive. If the system does not already have the "SGD_EchoSpeed" or "sgdperf" keys installed, then install them and any new CNV4 Option keys as follows.

1. On the Service Desktop, select [**Guided Install**], [**GI: FE mode**], then [**Start...**].
2. A window will open; type **operator** <Enter> for the password.
3. After the Guided Install window opens, select the **Option Keys** tab. Check if the "SGD_EchoSpeed" and "sgdperf" keys are already installed. If they are, you do not need to use the new MODs. If there are no new option keys to install, go to Section 4. If new option keys need to be installed, go to the next step.
4. Insert the MOD disk in the SGI computer MOD drive.
5. In the "Install Option keys" area, select (✓) the **MOD** box, then select [**Install**].
6. When the installation process is complete, either load the next MOD, or when all option keys have been loaded [**Quit**] to exit the install option popup, then select **File** ->**Quit** to exit the Guided Install tool.
7. Reboot the computer.

4- INSTALL NEW UCERD-II EXCITER MODULE

Note

Systems with a UCERD that order the Fiesta 2D or Fiesta 3D options also require a new UCERD-II Exciter Module (M3090KD; GE part # 2221399-6). Original UCERD Exciter GE part #s are: 2221399, 2221399-2, or 2221399-3.

If you did not receive a UCERD-II Exciter module, skip this section. If you did receive a UCERD-II Exciter module, replace the existing UCERD Exciter module with the new one. (On the Service Methods CD-ROM refer to "Systems Cabinet", "Replacements and Maintenance", "UCERD Exciter Replacement" procedure).

5- LOAD RTIP PATCH ON AW (NV SITES)

CV-Only Sites: This section does not apply.

NV or CV/NV Sites: Perform this entire section if you just upgraded Signa from Release 8.4 or Release CNV3 to Release CNV4 software in Section 2. (*Note: Release 8.4 ACGD sites received this patch with the 84 ACGD Patch FMI. NV Sites installed with CNV3 software may not have received this patch or a -3 version RTIP install CD-ROM that includes the fix.*)

Procedure

The 2271261-2 version “RTIP for AW3.1 & 4.0” software’s “RTIP Image Export” application will not work with Release CNV3 and later images due to new “fields” in the image headers. The RTIP patch provides a fix for the “RTIP Image Export” application. Install the RTIP software patch on the AW used with RTIP as follows (the patch will notify you if it has already been installed):

1. On the AW with RTIP installed, login as sdc (default password is adw3.1 (3.1 software) or adw4.0 (4.0 software)).
2. Insert the “RTIP Patch for AW 3.1 and 4.0” CD into the AW’s CD-ROM drive.
3. Once logged in as sdc:
For AW3.1 software:
 - a. Iconify the AW’s browser (click left mouse button on upper-right corner of the browser).
 - b. Open a command window (click the right mouse button anywhere in the background; on the Root Menu, select **Service Tools** then **Command Window**).

For AW4.0 software:

- a. Left-click on the **[Tools]** button.
 - b. Click the **[Command Window]** button.
4. In the command window, type the following:

```
{sdc@b3-aw}[1] cd /cdrom/cdrom0 <Return> (0=zero).
```

Note

If this command initially fails, try again, as volume management takes a few moments to recognize that a CD-ROM has been inserted.

```
{sdc@b3-aw}[2] ./install_rtip_patch <Return>
```

```
RTIP SOFTWARE PATCH INSTALLATION for the AW
```

```
Continue to install RTIP patch? ([y],n) <Return>
```

```
Renaming existing executable... <- Displayed if patch not present.
```

```
AW patch successfully installed! <- Displayed if patch not present.
```

Note

The patch script checks for the version “export” file on the AW before it installs anything. If the new/patch version “export” file is already present or you run the script a second time, you will see the following instead of the above outputs:

```
RTIP SOFTWARE PATCH INSTALLATION for the AW
Continue to install RTIP patch? ([y],n) <Return>
This software has already been patched.  <- Indicates patch present.
Exiting...
```

5. You can verify the patch installed by typing the following in the command window:

```
{sdc@b3-aw}[3] cd /export/home/sdc/RTIP/bin <Return> (No spaces.)
{sdc@b3-aw}[4] ls export <Return>
-r-xr-xr-x  1 sdc   informix  546424 <date> export*
```

If the size of the “export” file is 546424 bytes, then the patch has either already been installed, or the latest RTIP software release is installed.

6. In the command window, type the following to eject the CD-ROM and close the window:

```
{sdc@b3-aw}[5] cd <Return>
{sdc@b3-aw}[6] eject cdrom <Return>
{sdc@b3-aw}[5] close <Return>
```

Workstation RTIP Patch Uninstall Instructions

Since the RTIP patch provides a new “export” file, it should never need to be un-installed. However, the installation script does retain the original version file (renames it to “export.orig”). Although this should never be required, the un-install procedure is:

1. Login to the AW used with RTIP as sdc (default password is adw3.1 (3.1 software) or adw4.0 (4.0 software)).
2. Once logged in as sdc:
For AW3.1 software:
 - a. Iconify the AW’s browser (click left mouse button on upper-right corner of browser).
 - b. Open a command window (using the root menu, brought up by clicking the right mouse button anywhere in the background, and selecting the “**Command Window**” option from the “service tools” menu).**For AW4.0 software:**
 - a. Left-click on the **[Tools]** button.
 - b. Click the **[Command Window]** button.
3. In the command window, type the following:

```
{sdc@b3-aw}[1] cd /export/home/sdc/RTIP/bin <Return> (No spaces.)
{sdc@b3-aw}[2] mv export.orig export <Return>
{sdc@b3-aw}[2] mv: overwrite export and override protection 555
                (yes/no) y <Return>
```