GE Healthcare

CAM-14®/CAM-HD®
Acquisition Modules
Service Manual

2049751-001 Revision C

CAM-14/CAM-HD Acquisition Module
English

Publication Information

This manual refers only to version 2 of the CAM–14 Acquisition Module (Product Code RNC) and version 1 of the CAM-HD Acquisition Module (Product Code RNB). Due to continuing product innovation, specifications in this manual are subject to change without notice.

The document's part number and revision appear at the bottom of each page. The following table summarizes the document's revision history.

Revision History (PN 2049751–001)

Revision	Date	Comment
A	18 December 2009	Initial release
B	17 March 2010	Updated Functional Checkout Requirements and Parts List
C	17 March 2011	Added information about the CAM HD acquisition module.

To access other GE Healthcare manuals, go to the Common Documentation Library (CDL), located at http://www.gehealthcare.com/usen/service/biomed_tech_selfservice/services_user_doc/products/support.html and click ***Cardiology***.

Contents

4 Parts Lists and Drawings

1

Introduction

This chapter provides general information required for the proper use of the product and the manual. Familiarize yourself with this information before using the product.

Product Information

This section provides the indications for use, general description, and identification information for both the CAM-14 and CAM-HD acquisition modules. Except where differences between the two products are noted, the terms *acquisition module* and *device* refer to both products.

Indications for Use

The acquisition module is intended to acquire, digitize, and transmit analog ECG signals to a host unit. The circuitry is designed to protect the host unit against the effects of cardiac defibrillator discharge to ensure device recovery.

The acquisition module is intended to be used under the direct supervision of a licensed health care practitioner.

General Description

The acquisition module performs high resolution ECG data acquisition for use with host equipment (resting ECG analysis systems and exercise systems). The acquisition module has the following features:

- AC leadfail bias
- lead off detection
- patient isolation
- function key control of host equipment functions

The acquisition module provides patient electrical isolation for the host equipment. The minute ECG signals from the patient's skin are received by the electrodes and sent to the acquisition module via leadwires. The acquisition module then amplifies, digitizes, and performs processing on the signals.

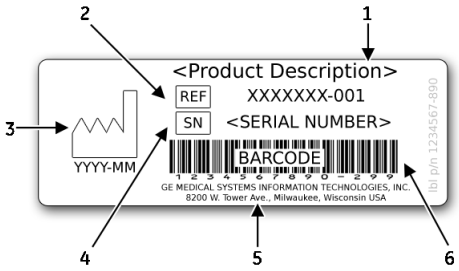
Equipment Identification

Every GE Healthcare device has a product label that identifies the product name, part number, manufacturing information, and unique serial number. This information is required when contacting GE Healthcare for support.

The product label is located on the back of the acquisition module, as shown in the following illustrations.

Product Label

The product label is laid out in the following format. Depending on the product, the label may vary slightly in format, but it contains the same information.



Product Label Format

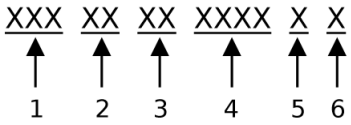
Item	Description
1	Product description
2	Product part number
3	Date of manufacture in YYYY-MM format
4	Unit serial number (See "Serial Number Format" on page 7 for more information.)

Product Label Format (cont'd.)

Item	Description
5	Manufacturer name and address
6	Product bar code

Serial Number Format

Each device has a serial number that uniquely identifies the device and provides important information about the device. The serial number format is shown in the following illustration:



Serial Number Format

Item	Name	Description
1	Product Code	Three-letter code that uniquely identifies the product line. Refer to "Product Codes" on page 7 for more information.
2	Year Manufactured	Two-digit code identifying the year the device was manufactured. Values range from 00 to 99 For example: 00 = 2000, 04 = 2004, 05 = 2005 (and so on).
3	Fiscal Week Manufactured	Two-digit code identifying the week the device was manufactured. Values range from 01 to 52. GE Healthcare's fiscal weeks correspond to the calendar week. For example, 01 = first week in January.
4	Product Sequence	Four-digit number identifying the order in which this device was manufactured. Values range from 000 to 9999.
5	Manufacturing Site	One-letter code identifying the site where the device was manufactured. For example, F = Milwaukee, N = Freiburg, P = Bangalore
6	Miscellaneous Characteristic	For example, P = unit is a prototype, R = unit was refurbished, U = unit was upgraded to meet the specifications of another product code.

Product Codes

The product code identifies specific system platforms. You need the product code before servicing or requesting support for your device.

You can identify the product using the serial number listed on the product label on the back of the device.

Regulatory and Safety Information

This section provides information about the safe use and regulatory compliance of this device. Familiarize yourself with this information and read and understand all instructions before attempting to service this device.

NOTE:

Disregarding the safety information provided is considered abnormal use of this device and could result in injury, loss of data, and void any existing product warranties.

Safety Conventions

A **Hazard** is a source of potential injury to a person, property, or the product.

This manual uses the terms DANGER, WARNING, and CAUTION to point out hazards and to designate a degree or level of seriousness. Familiarize yourself with the following definitions and their significance.

Definitions of Safety Conventions

Safety Convention	Definition
DANGER	Indicates an imminent hazard, which, if not avoided, will result in death or serious injury.
WARNING	Indicates a potential hazard or unsafe practice, which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a potential hazard or unsafe practice, which, if not avoided, could result in minor personal injury or product/property damage.

Responsibility of the Manufacturer

GE Healthcare is responsible for the effects of safety, reliability, and performance on GE-supplied hardware only if the following conditions are met:

- Assembly operations, extensions, readjustments, modifications, or repairs are carried out by persons authorized by GE Healthcare.
- The electrical installation of the relevant room complies with the requirements of the appropriate local, state, and other government regulations.
- The equipment is used in accordance with the instructions for use.

Service Information

This section provides information pertaining to the maintenance and servicing of the device. Familiarize yourself with this information before requesting service from GE Healthcare or its authorized representatives.

Service Requirements

Regular maintenance, irrespective of usage, is essential to ensure that the components of this system are always functional when required.

Failure on the part of the responsible individual, hospital, or institution using this equipment to implement a satisfactory maintenance schedule may cause undue equipment failure and possible safety hazards.

Refer equipment servicing to GE Healthcare service personnel or authorized service agents only. Any unauthorized attempt to repair equipment under warranty voids that warranty.

It is the user's responsibility to report the need for service to GE Healthcare or one of their authorized agents.

Additional Assistance

GE Healthcare maintains a trained staff of application and technical experts to answer questions and respond to issues and problems that may arise during the installation, maintenance, and use of this product.

Contact your local GE Healthcare representative to request additional assistance.

Manual Information

This section provides information for the correct use of this manual.

Keep this manual with the equipment at all times and periodically review it. You should request training assistance from GE Healthcare, if needed.

Manual Purpose

This manual supplies technical information for service representatives and technical personnel so they can maintain the equipment to the assembly level. Use it as a guide for maintenance and electrical repairs considered field repairable. Where necessary the manual identifies additional sources of relevant information and/or technical assistance.

See the operator manual of the host system for instructions necessary to operate the equipment safely in accordance with its function and intended use.

Intended Audience

This manual is intended for persons who use, maintain, or troubleshoot this equipment.

Document Conventions

This manual uses the following conventions.

Typographical Conventions

Convention	Description
Bold Text	Indicates keys on the keyboard, text to enter, or hardware items such as buttons or switches on the equipment.
Italicized-Bold Text	Indicates software terms that identify menu items, buttons or options in various windows.
CTRL+ESC	Indicates a keyboard operation. A plus (+) sign between the names of two keys indicates that while holding the first key, you should press and release the second key. For example, Press **CTRL+ESC** means to press and hold the **CTRL** key and then press and release the **ESC** key.
<space>	Indicates that you must press the spacebar. When instructions are given for typing a precise text string with one or more spaces, the point where you must press the spacebar is indicated as: **<space>**. This ensures that the correct number of spaces are inserted in the correct positions within the literal text string. The purpose of the < > brackets is to distinguish the command from the literal text within the string.
Enter	Indicates that you must press the **Enter** or **Return** key on the keyboard. Do not type ***Enter***.
>	The greater than symbol, or right angle bracket, is a concise method to indicate a sequence of menu selections. For example, the statement "From the main menu, select ***System*** > ***Setup*** > ***Options*** to open the ***Option Activation*** window" replaces the following: 1. From the main menu, select ***System*** to open the ***System*** menu. 2. From the ***System*** menu, select ***Setup*** to open the ***Setup*** menu. 3. From the ***Setup*** menu, select ***Options*** to open the ***Option Activation*** window.

Illustrations

All illustrations in the manual are provided as examples only. Depending on system configuration, screens that appear in the manual may differ from the screens as they appear on your system.

All patient names and data are fictitious. Any similarity to actual persons is coincidental.

Notes

Notes provide application tips or additional information that, while useful, are not essential to the correct operation of the product. They are called out from the body text through a flag word and indentation, as follows:

NOTE:
The tip or additional information appears indented below the **NOTE** flag word.

Related Documentation

You can find additional information in the following documents:

Part Number	Title
2046275-016	*MAC™ 5500/MAC™ 5500 HD Resting ECG Analysis System Operators Manual*
2046275-017	*MAC™ 5500/MAC™ 5500 HD Resting ECG Analysis System Field Service Manual*
2046275-018	*MAC™ 3500 Resting ECG Analysis System Operators Manual*
2046275-019	*MAC™ 3500 Resting ECG Analysis System Field Service Manual*

2

Maintenance

Other than daily cleaning and occasional maintenance checks as outlined in this chapter, the acquisition module requires no maintenance.

Only qualified service personnel should attempt to repair components and assemblies internal to the acquisition module. Contact GE Healthcare Customer Support for repair and replacement options.

WARNING:

PROPER MAINTENANCE — Failure on the part of all responsible individuals, hospitals, or institutions employing the use of this device, to implement the recommended maintenance schedule may result in equipment failure and possible health hazards. The manufacturer does not, in any manner, assume the responsibility for performing the recommended maintenance schedule unless an equipment maintenance agreement exists.

The sole responsibility rests with the individuals, hospitals, or institutions utilizing the device.

Maintenance and Repair

Item	Description
Maintenance Frequency	The end user should visually inspect and clean the device daily. Qualified technical personnel should perform routine maintenance checks and test procedures per the Functional Checkout Procedure annually.
Repair Guidelines	Equipment descriptions and service information to repair field replaceable parts are available in this service manual for use by qualified technical personnel.

Visual Inspection

Inspect the acquisition module each time you clean it or if you suspect a problem.

- Check the leadwires and leadwire adapters for wear and loose connections. Replace these parts at the first sign of wear.
- Check the pins that the leadwires plug into. They should not be bent or loose. Contact GE Healthcare Customer Support for any repairs needed.
- Check the acquisition module plastic case for any damage. Contact GE Healthcare Customer Support for any repairs needed.

Cleaning

The exterior and leadwires of the acquisition module should be cleaned daily.

Cleaning and Disinfecting Acquisition Modules

Proper cleaning and disinfecting prolongs the life of acquisition devices. Failure to use the proper cleaning solutions or to follow proper procedures can result in the following:

- Appearance of waveforms when not connected to a patient, resulting in false alarms instead of lead failure alarms
- Brittle and cracked device case
- Melting, dulling, or distortion of the case
- Total device failure, requiring replacement
- Unit malfunction
- Voided warranty

Use the following procedure to clean and disinfect the cables and leadwires.

1. Remove cables, leadwires, and batteries from the device before cleaning.

   Make sure to firmly close the battery door after removing the batteries.

2. To clean, wipe with a lightly moistened cloth.

   Use a mild soap and water solution to moisten the cloth.

   Do NOT use any of the following cleaning products, or products that contain the same active ingredients and solutions, which are known to cause the problems previously listed:

   - Sani-Cloth® Wipes
   - Ascepti® Wipes
   - HB Quat®
   - Clorox® Wipes (they do not contain bleach)
   - Over-the-counter detergents (such as Fantastic®, Tilex®, and so on)

3. To disinfect, wipe with a soft, lint-free cloth moistened with an appropriate disinfectant.

   Use the following solutions, as recommended in the APIC Guidelines for Selection and Use of Disinfectants (1996):

   - Sodium hypochlorite (5.2% household bleach) minimum 1:500 dilution (minimum 100 ppm free chlorine) and maximum 1:10 dilution.
   - Any sodium hypochlorite wipe product that meets the previous guidelines can be used.

4. Allow the cleaning solution/disinfectant to remain on the device for a minimum of one minute, or per hospital guidelines.
5. Wipe off the cleaning solution/disinfectant with a clean, moistened cloth.
6. Dry thoroughly with a dry, lint-free cloth and let air dry for a minimum of 30 minutes before use.

   DO NOT use excessive drying techniques, such as oven, forced heat, or sun drying.

   NOTE:
   Drying times may vary based on the environmental conditions.

Cautions

- Follow the cleaning instructions exactly.
- Wring excess disinfectant from wipe before using.
- Never immerse the device, cables, or leadwires in any liquid, as this may corrode metal contacts and affect signal quality.
- Do not allow fluid to pool around connection pins. If this happens, blot dry with a soft, lint-free cloth.
- Never use conductive solutions or solutions that contain chlorides, wax, or wax compounds to clean the device, cables, or leadwires.
- Never use solutions or products that contain any type of Ammonium Chloride such as, but not limited to:
  - Dimethyl Benzyl Ammonium Chloride
  - Quaternary Ammonium Chloride solutions
  - Abrasive cleaners or solvents of any kind
  - Acetone
  - Ketone
  - Betadine
  - Alcohol-based cleaning agents
  - Sodium salts
- Never autoclave or steam clean the device, cables, or leadwires.
- Do not use until thoroughly dry.

Storage

Use the following guidelines when storing acquisition modules:

- Always remove the batteries when the device is not in use, even for short periods of time.
- Store in a dry, well-ventilated area.
- Hang the device, using a holder if available.
- If leadwires are attached, they should hang straight.
- Do not coil leadwires or cables around the device.

Battery Compartment Cleaning

NOTE:
This procedure applies only for frequency hopping telemetry transceivers. It should not be used for other devices.

Under normal operation, the battery compartment should not require cleaning. If the battery compartment should require cleaning, use the following instructions.

CAUTION:
DEVICE MALFUNCTION — Cleaning the battery compartment in a manner other than that described in the following procedure may cause the unit to malfunction and void the warranty.

The battery compartment is not waterproof. Make certain fluids do not enter the electronics through the air holes in the battery compartment floor.

1. Remove the battery from the battery compartment.
2. Clean the device with a gauze pad or cloth lightly moistened with one of the following agents:
   - Water
   - Soap
3. Use a cloth lightly moistened with distilled water to rinse away the cleaning solution. Make certain that moisture does not enter the electronics area below the battery compartment floor.
4. Dry thoroughly with a lint-free cloth and allow the battery compartment to air dry completely prior to closing the compartment door.

Built-In Diagnostic Tests

The host equipment generally contains built-in diagnostic tests to verify the operation of the electrocardiograph.

These built-in diagnostic tests verify the operation of the acquisition module, as well. For example, there is a test that records raw ECG data on the thermal paper. This test checks for noise and gain in the acquisition module. Another test is a serial link test that determines if the microprocessor in the host equipment is communicating with the acquisition module.

For details on using these tests, see the field service manual for the host equipment.

Functional Checkout Procedures

The following table identifies the tools and procedures required to perform a functional checkout after replacing the specified FRU or performing the specified task. To use the table, locate the relevant FRU or task in the first column and note the required Tools, Visual Inspections, Operational Check, and Electrical Safety Check. Then, locate the referenced instructions in the corresponding sections that follow the table.

NOTE:

The field replaceable unit (FRU) checkout procedure for any listed FRU also applies to its internal PCBs and components.

In addition to the following procedures, you should also perform any checkout procedures required by the host system. Refer to the host system's field service manual for the host system's checkout procedures.

Functional Checkout Requirements

FRU Description	Tools	Visual Inspection	Operational Check	Electrical Safety Check
FRU Repairs				
CAM-14	1, 6	1 ,2, 3	1, 2, 3	not applicable
CAM-HD	1, 6	1 ,2, 3	1, 2, 3	not applicable
All internal FRU's/parts, Covers, and fastener replacements	1, 2, 3, 4, 5, 6	1 ,2, 3	1, 2, 3	1, 2
Non-FRU Repairs				
No parts replaced	1,5,6	1,2,3	1,2,3	not applicable
Annual electrical safety checkout	Per Host Device Requirement			

Tools

1. ECG Simulator
2. Standard hand tools including a #6 Torx driver
3. Current leakage tester
4. Hipot tester
5. Anti-static wrist strap
6. Applicable service and/or operator manual as needed for reference

Visual Inspection

Inspect the following for excess wear and/or any visual signs of damage.

1. Inspect for defective or broken patient cable/leadwires or out-of-date electrodes.
2. Review electrode placement, skin prep, and patient related requirements with the ECG Tech.
3. Inspect external surfaces.

Operational Checks

1. Complete power-up self-test.
2. Run a simulated recorded rhythm strip.
3. Run a simulated recorded ECG.

Electrical Safety Checks

1. Conduct current leakage and ground continuity tests.
   Perform electrical safety checks when indicated in the preceding table. All indicated electrical safety checks require a pass/fail indication for the steps performed. Record the measurement values in your debrief. Refer to "Leakage Tests" on page 19 for additional information.
2. Conduct the dielectric withstand test.
   Refer to "Dielectric Withstand Test" on page 21 for additional information.

Leakage Tests

The leakage tests are safety tests to ensure that the equipment poses no electrical health hazards. Use the following table to determine which tests apply to the unit under test and the maximum allowable leakage currents. For international leakage limits, refer to the internal standards agencies of that particular country.

If the unit under test fails the leakage tests, do not allow the customer to use the equipment. Call GE Healthcare Customer Support for assistance.

GE Healthcare recommends that you perform these tests with the following frequency:

- Before applying power for the first time
- Every year as part of routine maintenance
- Whenever internal assemblies are serviced

You need a leakage tester to perform the leakage tests.

NOTE:
The accuracy of the leakage tests depends on a properly-wired wall outlet. Do not proceed until you verify the integrity of the power source.

WARNING:
Total system leakage current must not exceed 100 microamperes.

Electrical Safety Checks

Step		Condition[1]	UUT — ON[2]	Result		Leakage Current Limits
Patient Leakage Current to Ground						
1.	Forward Polarity	NC	_____ µA	Pass/Fail		10 µA
2.	Neutral open, Forward Polarity	SFC	_____ µA	Pass/Fail		50 µA
3.	Ground open, Forward Polarity	SFC	_____ µA	Pass/Fail		50 µA
4.	Ground open, Reverse Polarity	SFC	_____ µA	Pass/Fail		50 µA
5.	Neutral open, Reverse Polarity	SFC	_____ µA	Pass/Fail		50 µA
6.	Reverse Polarity	NC	_____ µA	Pass/Fail		10 µA
Patient Leakage Current Mains on Applied Part[3]						
1.	Forward Polarity Neutral / Ground Closed	SFC	_____ µA	Pass/Fail		5000 µA
2.	Reverse Polarity Neutral / Ground Closed	SFC	_____ µA	Pass/Fail		5000 µA

1. NC= Normal Condition SFC= Single Fault Condition N/A= Not Applicable
2. UUT= Unit Under Test
3. All SIPs/SOPs grounded

Dielectric Withstand Test

The dielectric withstand test (or hipot test) is a test that verifies that the isolation of a product or component is sufficient.

If the unit under test fails the hipot test, do not allow the customer to use the equipment. Call GE Healthcare Customer Support for assistance.

GE Healthcare recommends that you perform this test whenever internal assemblies are serviced or replaced.

You need a hipot tester and shorting bar to perform this test.

WARNING:
BODILY INJURY — Power down the hipot tester before touching lead wires. With power applied, the hipot voltage will appear on all lead wire connectors

1. Connect the acquisition module to a host device using the interface cable.
2. Connect all of the leadwires together using a shorting bar.
3. Disconnect the host device from AC power and turn off the unit.
4. Attach the red lead of the hipot tester to the shorting bar.
5. Attach the black lead of the hipot tester to the host device's rear equipotential plug.

   Do not attach to the AC socket ground lug.
6. Set the hipot tester cutoff current to 2 µA and the output to 3000 volts RMS AC.
7. Apply the voltage for a minimum of two seconds.

   If the tester does not indicate a failure, the unit passed the test.
8. Power down the hipot tester and disconnect it from the test circuit.

3

Troubleshooting

This chapter addresses problems with ECG data acquisition and the quality of ECG data. The troubleshooting information in this chapter will help you narrow problems to one of the field replaceable assemblies.

NOTE:
A copy of a good 12-lead report generated from an ECG simulator is very useful when trying to determine if the data is correct on a report.

General Information

The following sections provide general information to help identify problems with the acquisition module.

ECG Data Noise

If the acquired ECG data displays unacceptable noise levels:

- Verify proper electrode placement.
- Verify proper electrode application.
  (Perspiration and dead skin must be removed from the electrode site.)
- Check for defective or out-of-date electrodes.
- Check for defective, broken, or disconnected leadwires.
- Check the patient's position.
  The patient should remain motionless during the acquisition of a resting ECG.

Typical Problems and Solutions

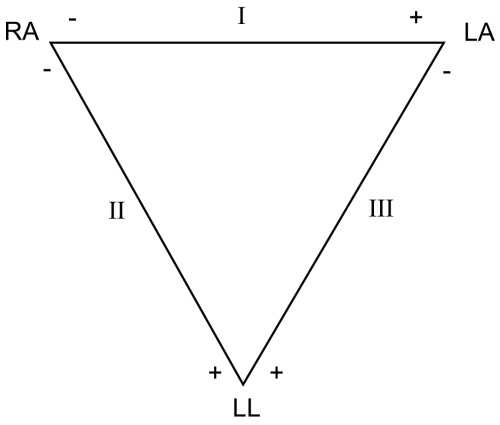
The following table identifies some typical acquisition module problems and solutions:

Troubleshooting

Symptom	Troubleshooting
The host device displays the message ***Acquisition Module Disconnected***	• Check the acquisition cable connection. • Check the host cable interface flex in the module.
The lead tracings appear inverted or at the wrong amplitude	Check the position of the leadwires on the acquisition module and the patient.
All leads have excessive noise	• Examine the RA and RL leadwires and replace them if necessary. • Check the lead preparation site. • Refer to Einthoven's Triangle to determine which lead or leads are causing the noise. • Move the acquisition module to an area where there is less electrical noise. • Try another acquisition module.
Control switch buttons on the acquisition module fail or are intermittent	• Check that the Switch Flex Cable is plugged into the PCB. • Replace the switch label. • If there is still a failure, replace the main PCB.

Einthoven's Triangle

The following illustration shows Einthoven's Triangle and the definitions of the standard 12 leads. Some find this information useful when troubleshooting noisy leads or lead groups.



I	LA - RA
II	LL - RA
III	LL - LA
aVR	$RA - \frac{LA + LL}{2}$
aVL	$LA - \frac{RA + LL}{2}$
aVF	$LL - \frac{RA + LA}{2}$
V1 ↓	$V1 - \frac{RA + LA + LL}{3}$ ↓
V6	$V6 - \frac{RA + LA + LL}{3}$

Servicing the Acquisition Module

Strict antistatic precautions should be followed when servicing the acquisition module.

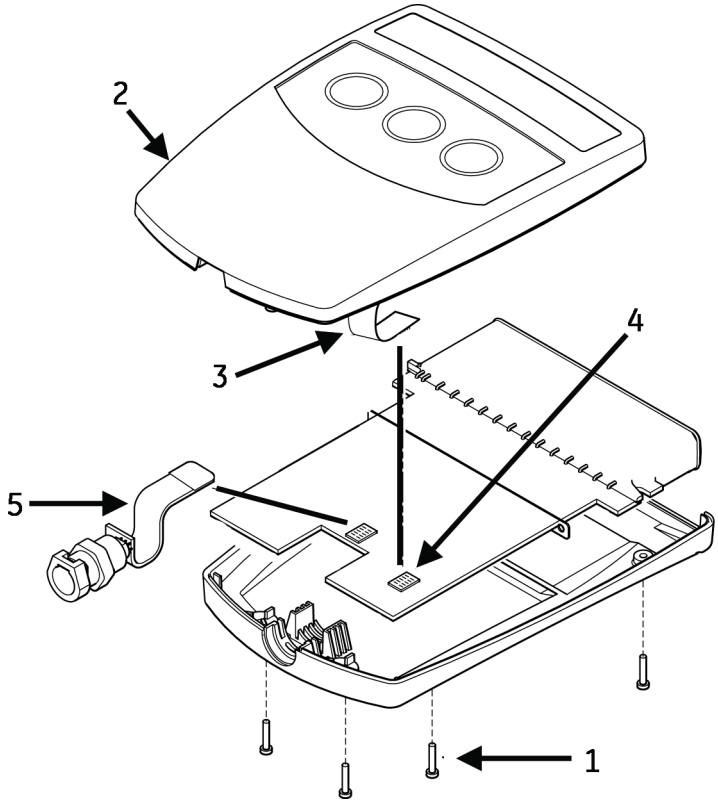
NOTE:

Use the proper ESD grounding techniques when handling components. Wear an antistatic wrist strap and use an ESD protected mat. Store ESD sensitive components in antistatic bags before placing them on any surface.

NOTE:

A current leakage test and a hipot test are required after reassembly.

Disassembling the Acquisition Module



1. Remove the four Torx screws (1) holding the top and bottom of the device together using a #6 Torx driver.
2. Lift the top cover (2) high enough to allow access to the switch flex cable (3) from the switch assembly.
3. To avoid damage to the flex cable (3), gently pry the cable off the switch at the main PCB connector (4) with a small screwdriver before removing the cover.

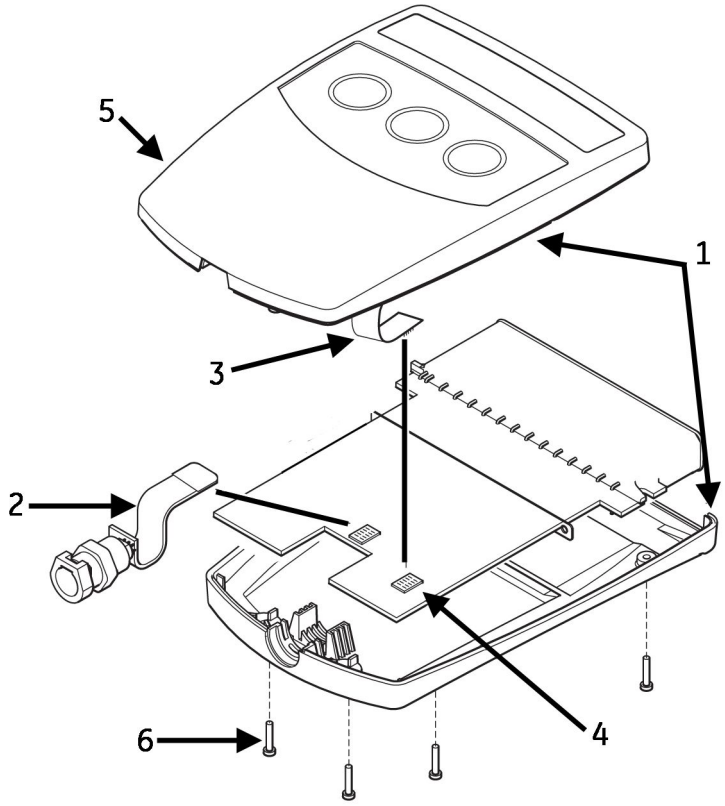
   NOTE:
   Damage to the switch flex cable connector will result in failure of one or more of the switch functions.

   - DO NOT attempt to disconnect the switch flex cable by pulling on it.
   - DO NOT let the main PCB hang by the cable.

4. When the main PCB has been separated from the switch flex cable, disconnect the host cable interface flex (5) from the main PCB by gently prying the connectors apart.

Reassembling the Acquisition Module

Strict antistatic precautions should be followed during disassembly/assembly of the acquisition module.



1. Apply silicone sealant to the edge (1) of the top and bottom covers.
2. Place the main PCB in the bottom cover.
3. Connect the host cable interface flex (2) at the main PCB by gently pressing the connector in place.
4. Connect the switch flex cable (3) to the host cable interface flex at the main PCB (4) by gently pressing the connector in place.
5. While holding the top (5) and bottom covers together, replace the four Torx screws (6) using a #6 Torx driver. DO NOT over tighten.
6. Perform a Functional Checkout procedure.

4

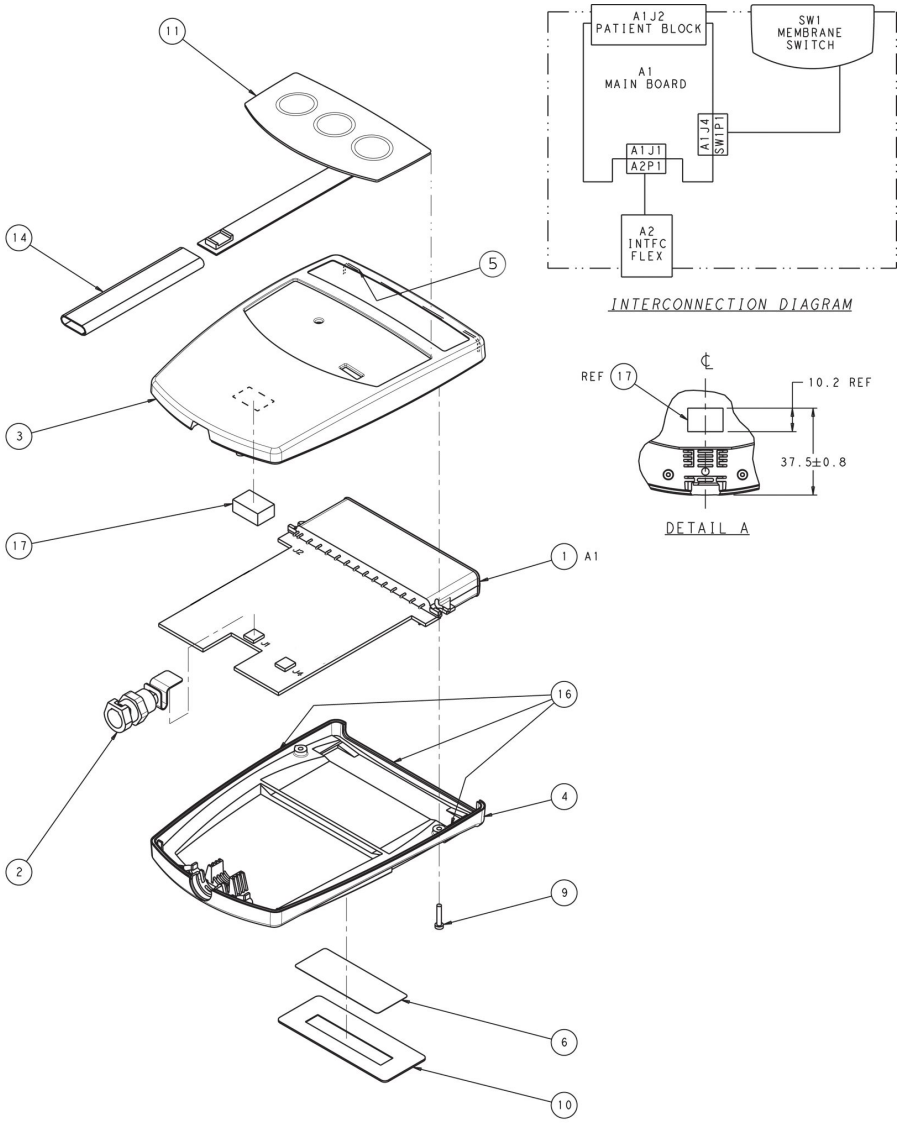
Parts Lists and Drawings

This chapter provides upper-level drawings for the standard configurations of the acquisition module and any kits that are available. It includes enough detail to provide part numbers for field-serviceable assemblies in the equipment.

NOTE:

Do NOT remove individual components from the main PCB: surface mounted components on the PCB are not field replaceable.

Upper Level Drawing



CAM-14 Acquisition Module (P/N 900995-002)

The parts listing for the 900995–002 acquisition module is backwards compatible with all components in 900995–001.

Main PCB 801280–001 is not forward compatible with the Main PCB 2028778–001 PCB.

CAM-14 Acquisition Module (P/N 900995–002)

Item	Description	Part Number	Qty
1	PCB CAM-14 MAIN BRD	2028778–001	1
2	PCB CAM-14 CABLE INTFC	801502-001	1
3	COVER CASE CAM-14	419454-002	1
4	ASSY WELD BTM BELT CLIP CAM-14	420148-001	1
5	LABEL SET PATIENT LEAD IDENT COLOR	2015622-001	1
6	LABEL BLANK SERIAL	404525–001	1
9	SCREW 1 X .375 TORX T-6 FHPH	417866-002	4
10	LABEL CAM-14 BOTTOM	419979-001	1
11	LABEL, SWITCH, CAM-14	419978-001	1
14	SLEEVE, SILICONE CTD FIBERGLASS .268ID	2001853-001	1
16	ADHESIVE, DOW CORNING 739 SILIC (OZ.)	4851-099	.01
17	PAD, FOAM .40 X .60 X .25THK	2001807-001	1

CAM-HD Acquisition Module (P/N 900995-003)

The parts listing for the 900995–003 Acquisition Module is NOT backwards compatible with components in 900995–001 or 900995–002.

CAM-HD Acquisition Module (P/N 900995-003)

Item	Description	Part Number	Qty
1	PCB CAM-HD MAIN BRD	2028778-002	1
2	PCB CAM-14 CABLE INTFC	801502-001	1
3	COVER CASE CAM-14	419454-002	1
4	ASSY WELD BTM BELT CLIP CAM	420148-001	1
5	LABEL SET PATIENT LEAD IDENT COLOR	2015622-001	1
6	LABEL BLANK SERIAL	404525–001	1
9	SCREW 1 X .375 TORX T-6 FHPH	417866-002	4
10	LABEL CAM-HD BOTTOM	419979-003	1
11	LABEL SWITCH CAMHD	419978-003	1
14	SLEEVE, SILICONE CTD FIBERGLASS .268ID	2001853-001	1
16	ADHESIVE, DOW CORNING 739 SILIC (OZ.)	4851-099	.01
17	PAD, FOAM .40 X .60 X .25THK	2001807-001	1

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