

Technical Service Manual

Alaris® Auto-ID Module, Model 8600

Supports: Guardrails® Suite MX

August 2007



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CAUTION

To **avoid damaging the keypad**, do not use a sharp object (such as pen or pencil) to press the **SCAN/CANCEL** key.

CAUTION

Any attempt to service this product by anyone other than an authorized Cardinal Health Service Representative, while the product is under warranty, **may invalidate the warranty**.

1.1 INTRODUCTION

This manual describes how to service the Auto-ID Module (Model 8600). It is used in conjunction with the following Alaris® System documents and software:

- Alaris® System Directions for Use (DFU)
- Maintenance software and user manual

This manual is intended for personnel experienced in analysis, troubleshooting, and repair of analog/digital microprocessor-based electronic equipment.

Refer to the Alaris® System DFU for a product introduction, detailed setup and operation procedures, definitions (including precaution definitions), specifications, and other information related to the use of the Alaris® System.

If the Auto-ID Module requires service while under warranty, it must be serviced only by Cardinal Health authorized service personnel. Refer to the "Warranty" and "Service Information" sections in the Alaris® System DFU.

General Information

Table 1-1 Defined Terms

The following table identifies the defined terms used throughout this document for certain trademarked products and product features.

<u>Product / Feature</u>	<u>Defined Term</u>
Alaris® Auto-ID module	Auto-ID Module
Alaris® PCA module	PCA Module
Alaris® PC Unit	PC Unit
Alaris® Pump module	Pump Module
Alaris® Syringe module	Syringe Module
Guardrails® data set	Data Set

Table 1-2 Abbreviations, Acronyms, Symbols

Various abbreviations, acronyms and symbols are used throughout this manual. This table defines those that are not commonly known or easily recognized.

DFU	Directions for Use
IUI	inter-unit interface
NDC	National Drug Code

2 CHECKOUT & CONFIGURATION

Chapter 2 – Checkout and Configuration

CAUTION

Should an instrument be **dropped or severely jarred**, remove it from use immediately. It should be thoroughly tested and inspected by qualified service personnel to ensure proper function prior to reuse.

2.1 INTRODUCTION

This chapter describes Auto-ID Module initial setup and configuration.

2.2 NEW INSTRUMENT CHECKOUT

Prior to placing a new instrument in use, perform a check-in procedure using the applicable maintenance software.

Contact Cardinal Health authorized service personnel if the instrument has physical damage or fails to satisfactorily pass the check-in test.

2.3 CONFIGURATION OPTIONS AND SETUP

Configure the Auto-ID Module using the applicable maintenance software.

Refer to the Alaris® System DFU for system configurable settings. Refer to the PC Unit/Pump Module Service Manual for instructions on how to change System Configuration parameters.

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3 PREVENTIVE MAINTENANCE

Chapter 3 – Preventive Maintenance

WARNING

Failure to perform regular and preventive maintenance inspections may result in improper instrument operation.

3.1 INTRODUCTION

Perform regular and preventive maintenance inspections to ensure that the Auto-ID Module remains in good operating condition.

- Perform regular inspections before each use.
- Perform preventive maintenance inspections once a year.

Use the applicable maintenance software to check in, upgrade/repair, diagnose, calibrate and perform preventive maintenance.

These requirements and guidelines are intended to complement the intent of the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) requirements.

3.2 CLEANING

Refer to the Alaris® System DFU.

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Chapter 4 – Principles of Operation

4.1 INTRODUCTION

This chapter describes the principles of operation for the Auto-ID Module.

Refer to the PC Unit/Pump Module Technical Service Manual for Alaris® System principles of operation.

4.2 PRINCIPLES OF OPERATION

Circuit boards are not field repairable and must be returned to a Cardinal Health Service Center for repair.

4.2.1 LED (READY Indicator)

A green LED on the front panel lights to confirm that the camera assembly (embedded scanner) or handheld scanner is ready to scan.

4.2.2 Keypad

The keypad includes the **SCAN/CANCEL** key. Pressing once begins scanning, and pressing during scanning cancels the scan.

4.2.3 Camera Assembly

The Camera Assembly reads bar codes (including linear and two-dimensional bar code formats) using technology similar to digital cameras. Bar code readers use high-intensity LEDs to illuminate the bar code image, allowing the code to be scanned regardless of ambient light conditions.

The Camera Assembly scans the bar code, then sends signals to decoding circuitry on the Logic Board.

4.2.4 Handheld Scanner Connection

Cardinal Health offers a handheld scanner that can be connected to the front panel of the Auto-ID Module. The Auto-ID Module is designed for use only with handheld scanners supplied by Cardinal Health.

4.2.5 Speaker

The speaker provides audible confirmation of key presses and successful scans.

4.2.6 Logic Board

The Logic Board interfaces all of the Auto-ID Module components. Decoding circuitry on the Logic Board recognizes the bar code symbology, analyzes the content of the scanned code, and converts the data to a traditional data format.

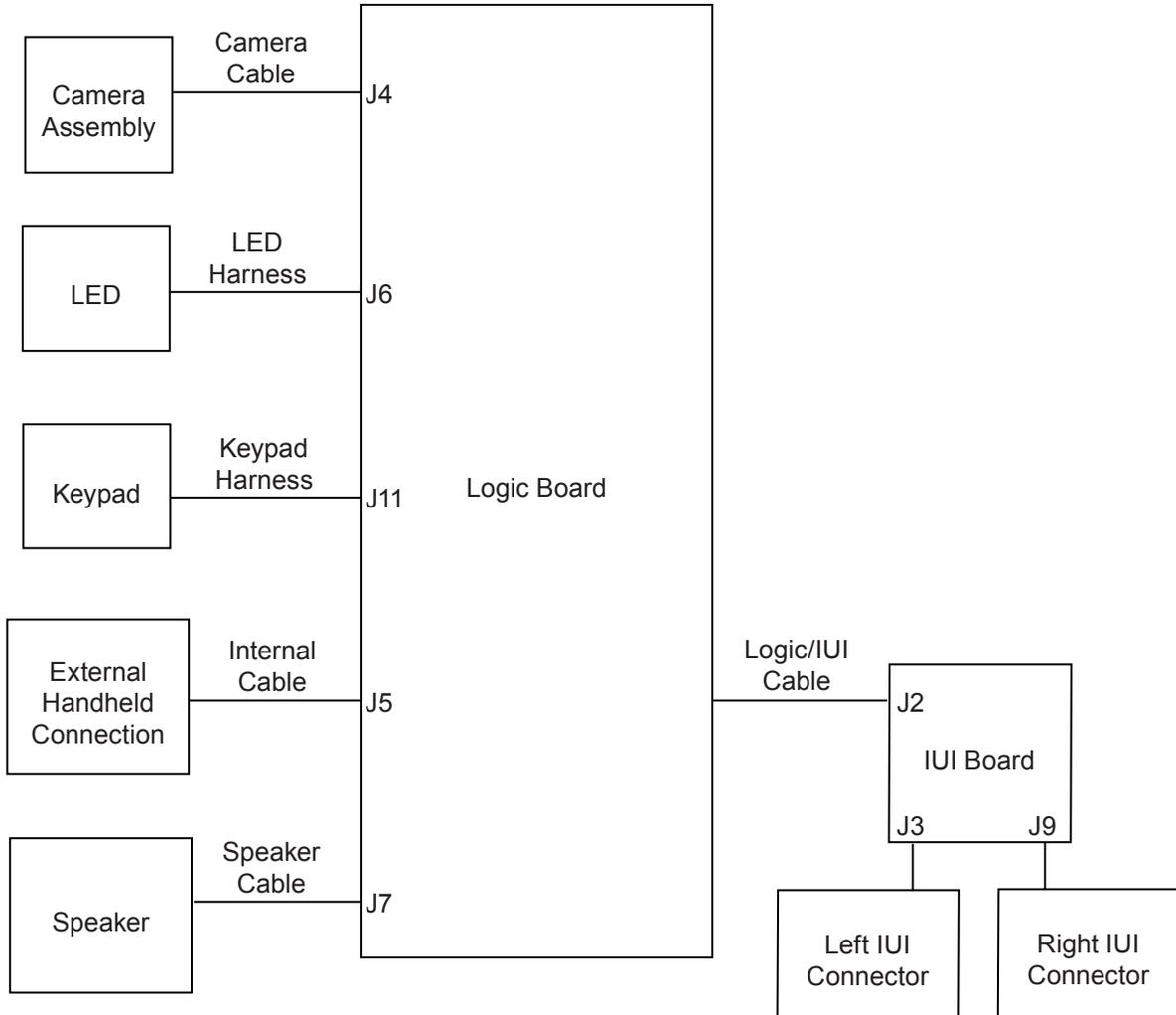
The Logic Board receives its power from the PC Unit via the IUI Board. The Logic Board converts power to internal supply voltages and monitors supply voltages during operation.

A watchdog timer circuit is designed to put the Auto-ID Module into a safe state if the Logic Board main processor fails.

4.2.7 IUI Board

The IUI Board contains IUI circuitry that allows it to communicate with the PC Unit.

Figure 4-1 Block Diagram



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Chapter 5 – Corrective Maintenance

WARNING

Disconnect the Auto-ID Module from the Alaris® System **prior to performing maintenance**. The instrument case should only be opened by qualified personnel using proper grounding techniques.

CAUTION

CMOS devices are sensitive to static electrical charges and may be damaged during repair if the repair activity is not performed in an electrostatic discharge (ESD) protected environment using approved ESD protective procedures, including personnel grounding.

CAUTION

To avoid the risk of an **electrical hazard or damage** to the instrument circuitry, do not spray fluids directly onto the instrument or allow fluids to enter the instrument.

5.1 INTRODUCTION

This chapter describes how to disassemble and reassemble the Auto-ID Module.

The circuit boards and surface mount devices are not field repairable. Return circuit boards to an authorized Cardinal Health Service Center for repair. Attempting circuit board repairs voids all warranties.

For replacement part information, see the "Illustrated Parts Breakdown" chapter. Following any level of maintenance, perform the applicable tests, as identified in the "Level of Testing Guidelines" table.

Due to product changes over time, components/assemblies illustrated in this chapter may differ from the instrument being serviced.

5.2 DISASSEMBLY/REASSEMBLY

The disassembly procedures in this chapter are presented in the most efficient sequence. To reassemble, perform the steps in reverse order.

Before adhering gaskets and labels to the instrument, clean the surface with a cotton swab or soft cloth lightly dampened with 70% Isopropyl Alcohol.

Corrective Maintenance

5.2 DISASSEMBLY/REASSEMBLY (Continued)

Table 5-1 Required Materials, Supplies and Tools

NOTE: Contact/source information is subject to change.

- Silicone Grease, Dow Corning Molykote 33, or equivalent (www.dowcorning.com)
- Small Diagonal Cutter
- Phillips Screwdrivers
- Nut Drivers
- Cotton Swabs
- Isopropyl Alcohol
- Torque Screwdriver with a minimum range of 3-15 in-lbs. Recommend torque screwdriver, Micro-Adjustable, TT #844SC5002 or TT #304TO034.

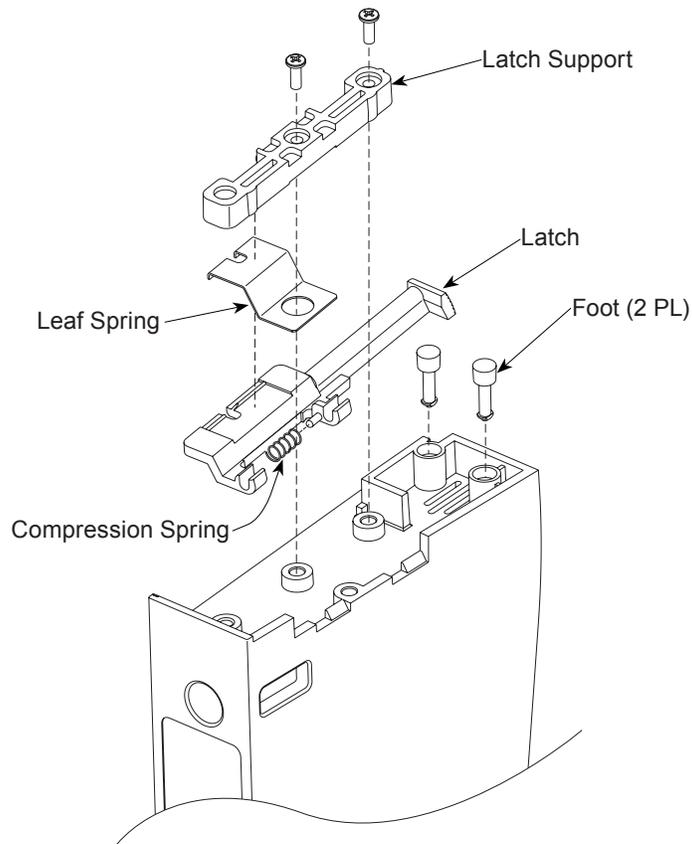
5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.1 Latch Assembly and Feet

1. Remove screws (2) attaching Latch Assembly to bottom of Rear Case.
2. Remove Latch Assembly components from bottom of Rear Case. Pay close attention to Compression Spring location to ensure proper installation during reassembly.
3. Pull Feet (2) from underside of module.

During Reassembly:

Apply thin layer of silicone grease to Feet before insertion. Feet press-fit into module.



5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.2 IUI Connectors and Case Separation

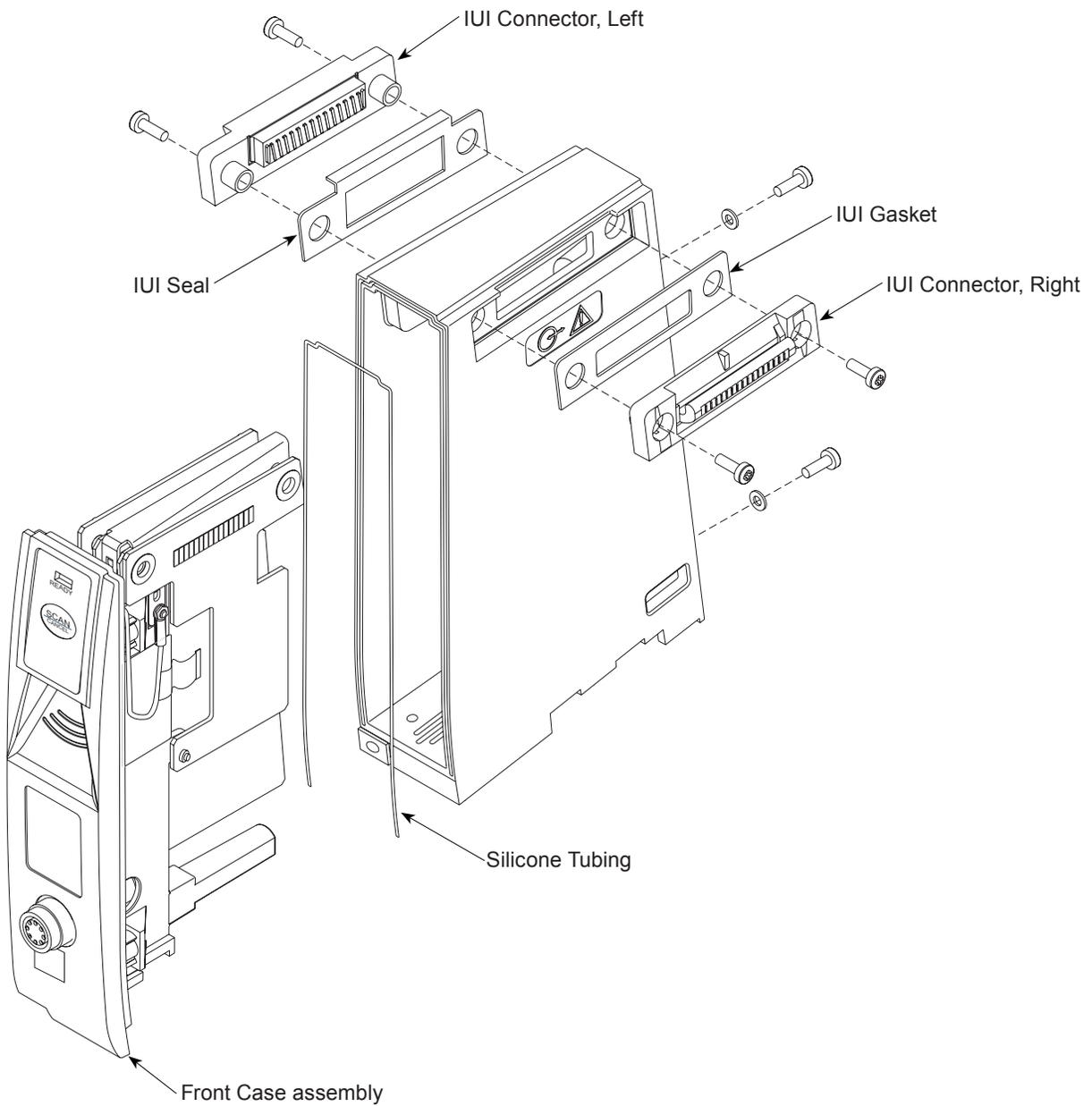
1. Remove screws (2) attaching each IUI (left and right) to module.
2. Remove IUI Connectors and Gaskets.
3. Remove screws (2) and associated washers attaching Rear Case to Front Case Assembly.
4. Pull Rear Case away from Front Case Assembly.
5. If replacing Rear Case, note model/reference number and serial number.

During Reassembly:

- Ensure ground clips are still installed on both IUI Connectors.
- To install Right IUI Connector Gasket, remove protective backing and adhere to IUI Connector.
- To install Left IUI Connector Seal, position seal on one end of connector and stretch to other end to conform to connector body. Gently press on seal to seat completely. Use lint-free swab to apply alcohol to top, sides, and bottom of seal for lubrication while installing to Rear Case. Do not apply alcohol to contacts or connector.
- Ensure Silicone Tubing in Rear Case is in place and not damaged.
- Use care not to pinch wires when reinstalling Rear Case.
- If replacing Rear Case:
 - a. Use permanent black ink to print instrument's model/reference number and serial number on Serial Number Replacement Label.
 - b. Apply Serial Number Replacement Label to instrument.
 - c. Adhere transparent label over Serial Number Replacement Label.

5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.2 IUI Connectors and Case Separation
(Continued)



Corrective Maintenance

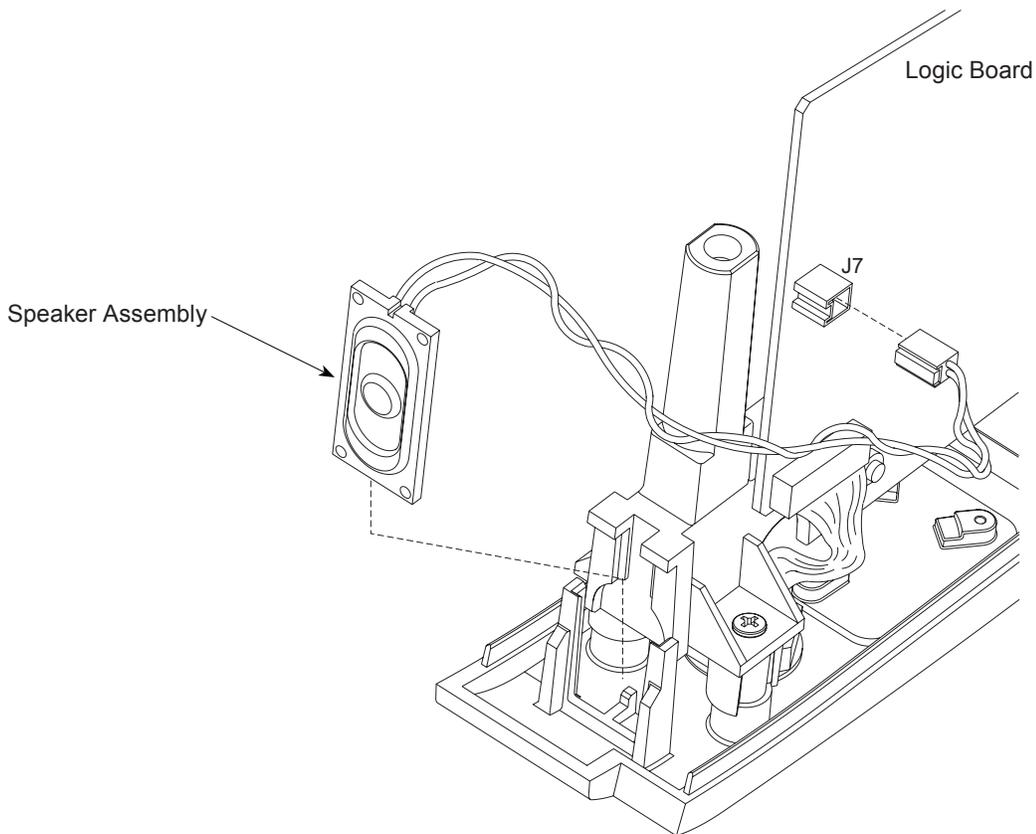
5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.3 Speaker Assembly

1. Disconnect Speaker Assembly cable from Logic Board J7.
2. Remove Speaker Assembly from Front Case.

During Reassembly:

Speaker Assembly snaps into place when installed into Front Case.



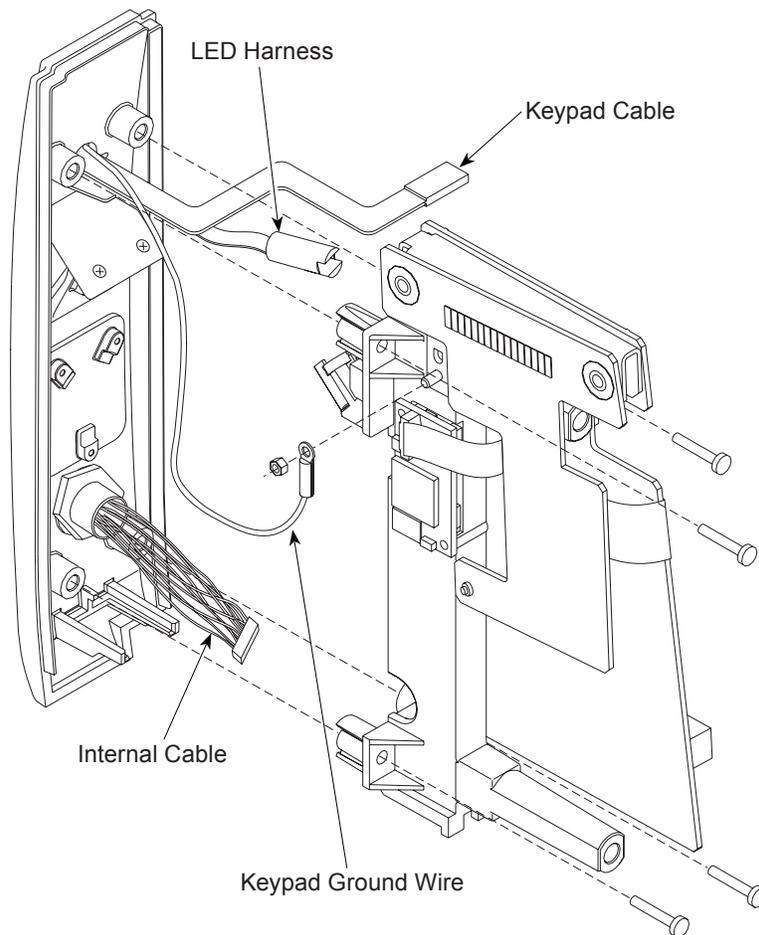
5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.4 Camera/Frame/Board Assembly

1. Remove nut attaching keypad ground wire to IUI Bracket.
2. Disconnect from Logic Board:
 - Internal Cable - J5
 - LED Harness - J6
 - Keypad Cable - J11
3. Remove screws (4) attaching Internal Frame/IUI Bracket to Front Case.

During Reassembly:

- When reattaching keypad ground wire, route wire to avoid pinching.
- When reconnecting cables to Logic Board, use an orange stick or similar tool to ensure cables are securely seated into connectors.



Corrective Maintenance

5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.5 IUI Bracket and Board Assemblies

IMPORTANT: If the Jumper Cable, Camera/ Frame Assembly or Logic Board needs to be replaced, identify the connector contact material before ordering a replacement. These parts are no longer being produced with lead contacts and cannot be mixed with the replacement gold contact parts. Lead versus gold contacts can be identified visually or by the "REF" number on the bar code / serial number label (on rear of instrument).

<u>Contacts</u>	<u>REF Number</u>
Lead	10016166 or lower
Gold	10372286 or higher

If these parts are identified as having lead contacts and any of them need to be replaced, return the instrument to the factory for repair.

1. Disconnect Logic/IUI Cable from Logic Board J2.
2. Use small diagonal cutter to lift and remove plastic Snap Rivet attaching IUI Board to Frame.

CAUTION

Do not cut rivet.

3. Disconnect Jumper Cable from Logic Board J4.
4. Use small diagonal cutter to lift and remove Snap Rivet attaching Logic Board to Frame.

CAUTION

Do not cut rivet.

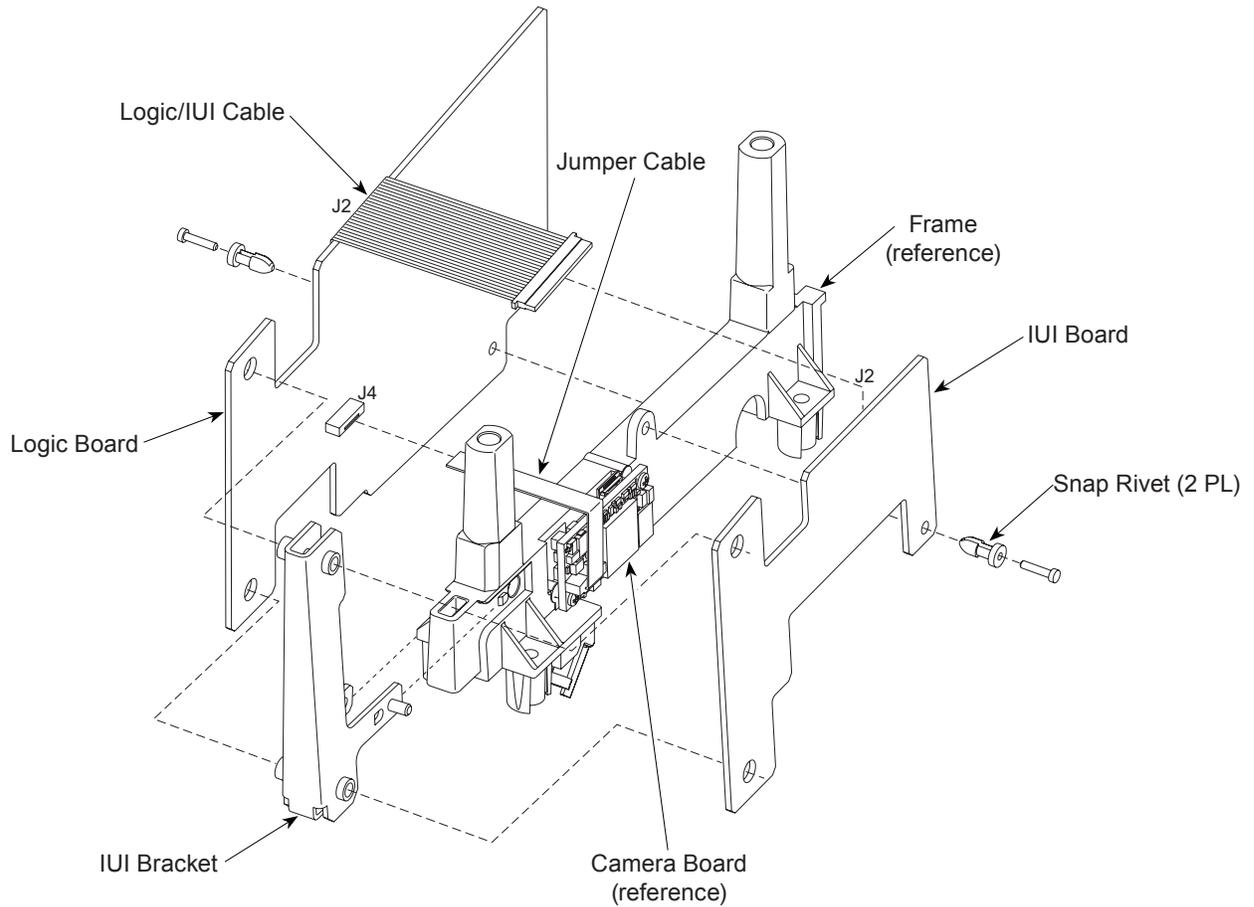
5. Detach IUI Bracket from Frame.

During Reassembly:

- **IMPORTANT:** Ensure Jumper Cable and cable's connectors on Logic Board and Camera Board all have same contact material. Do not mix gold contacts (new) with lead contacts (old).
- Frame and IUI Bracket snap together.
- When reconnecting cables, use an orange stick or similar tool to ensure cables are securely seated into connectors.
- When reconnecting Jumper Cable, ensure cable markings and black side of cable face away from Camera Assembly.

5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.5 IUI Bracket and Board Assemblies (Continued)



Corrective Maintenance

5.2 DISASSEMBLY/REASSEMBLY (Continued)

5.2.6 Internal Cable (Handheld Connector) and Lens

1. Use a socket wrench to remove Internal Cable nut from inside Front Case Assembly.
2. Remove washer and then pull Internal Cable from Front Case.
3. Remove screws (2) attaching Lens to Front Case and remove Lens.
4. Remove Gasket from Front Case opening.

During Reassembly:

1. When installing Gasket, ensure it is positioned within window frame.
2. When installing Lens:
 - a. Wear finger protection.
 - b. If it is a new Lens, remove protective film from Lens.
 - c. Prior to tightening screws, gently tap lens to ensure it is seated on Gasket.

CAUTION

Use care when tightening the screws (see Table 5-2) to **avoid cracking the Lens**.

- d. Ensure Lens is clean.

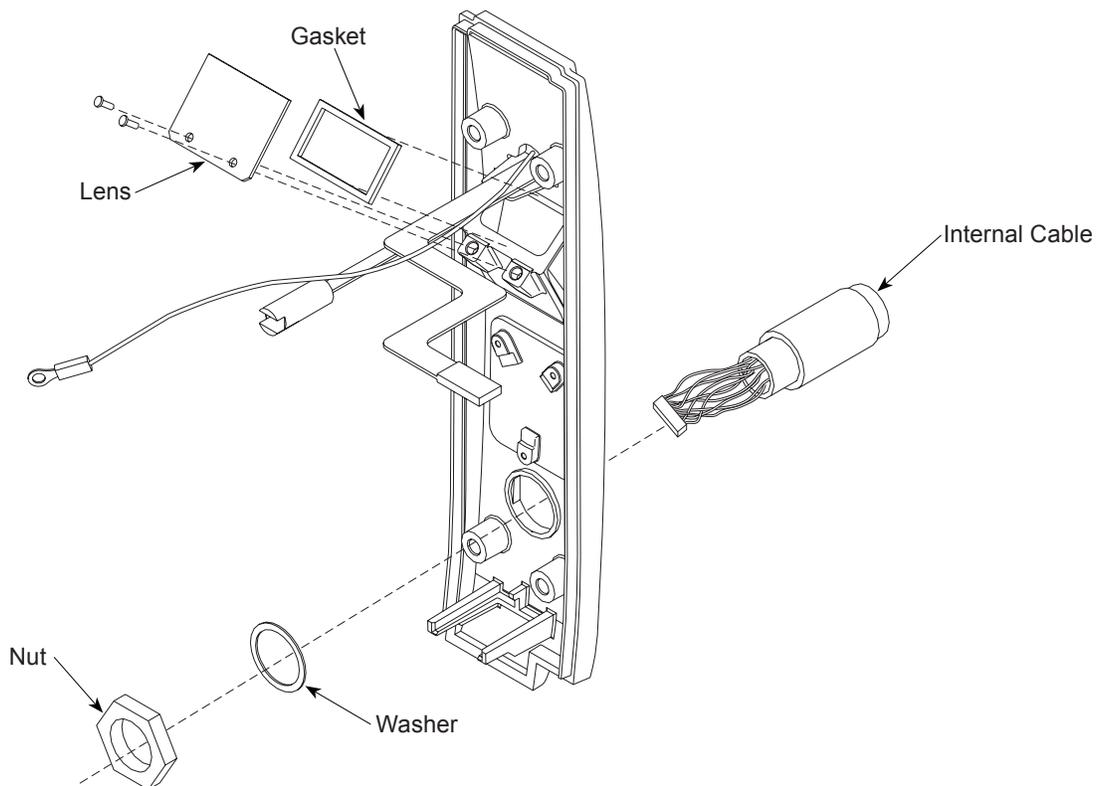


Table 5-2 Torque Values

Functional Application	Item Description	Torque Value
FINAL ASSEMBLY		
IUI Connectors	6-32 x $\frac{7}{16}$	12 in-lb
Latch Assembly	4-40 x $\frac{5}{16}$	6 in-lb
Rear Case	6-32 x $\frac{7}{16}$	12 in-lb
FRONT CASE ASSEMBLY		
Camera/Frame Assembly to Front Case	4-40 x 0.62	8 in-lb
Internal Cable	Nut	7 in-lb
Keypad Ground Wire	Nut, 4-40	6 in-lb
Lens	2-56 x $\frac{3}{16}$	3 in-lb

Corrective Maintenance

Table 5-3 Level of Testing Guidelines

Use the applicable maintenance software to perform testing.

Perform →

● = Required
 ✕ = Optional
 Blank = Not Applicable

Repair/Replacement of: ↓

	2-D Scanning Test	Alarm Test	Channel ID/UI Connectors Test	Display Test	Keypad Test	Linear Scanning Test	Scanner Functionality	Instrument Inspection
Camera/Frame Assembly	●	●	●	●	●	●	●	●
Front/Rear Case Assembly	●	●	●			●	●	●
Internal Cable	●	●	●	●	●	●	●	●
IUI Board	✕	●	●			✕	✕	●
IUI Bracket	✕	●	●			✕	✕	●
IUI Connector	✕	●	●			✕	✕	●
Latch Assembly or Feet								●
Lens/Gasket	●	●		●	●	●	●	●
Logic Board	●	●	●	●	●	●	●	●
Speaker Assembly	●	●				●	●	●

Miscellaneous: ↓

Instrument Dropped	●	●	●	●	●	●	●	●
New Instrument Check-in	●	●	●	●	●	●	●	●
No Fault Found								●
Software Flashed	●	●	●	●	●	●	●	●

CAUTION

Class 1 LED devices are safe under reasonably foreseeable conditions of operation, including the use of optical instruments for intrabeam viewing. To **avoid potential harm**, avoid looking into the beam.

6.1 INTRODUCTION

This chapter contains possible technical problems that can occur while using the Auto-ID Module. See this chapter before attempting to service the Auto-ID Module. Refer to the PC Unit/Pump Module Technical Service Manual for Alaris® System information.

Use the information in this chapter to help diagnose and correct technical problems. Use the applicable maintenance software to perform required tests.

6.2 GENERAL TROUBLESHOOTING

For the Alaris® System to function properly with the Auto-ID Module:

NOTE: The PC Unit will not recognize the Auto-ID Module if the software and Communications Interface Board (CIB) are not compatible.

- Auto-ID Module software must be 8.5.26.0 or later. Auto-ID Module, PC Unit and Wireless Main software must be compatible (see Table 6-1).
- Model 8000: CIB must be bar code compatible (see Figure 6-1).
- Default parsing rules (Auto-ID settings configured on PC Unit) must be set (using applicable maintenance software) to translate patient or clinician ID bar codes. Once settings are configured, IDs can be scanned to verify proper operation, even without a pumping module being attached.

Troubleshooting

6.2 GENERAL TROUBLESHOOTING (Continued)

- Data Set must have been wirelessly downloaded to PC Unit, and have proper aliases and/or NDCs set up for drugs. Once this is accomplished, scanner light comes on when a pumping module channel is accessed to set up a drug.

NOTE: To help determine whether or not a problem is related to the Data Set, it would be helpful to track (if possible) when a new Data Set is downloaded.

- A Pump Module, Syringe Module, or PCA Module must be attached as part of Alaris® System.
- PC Unit, pumping module, Auto-ID Module, and handheld scanner must be properly and securely connected.

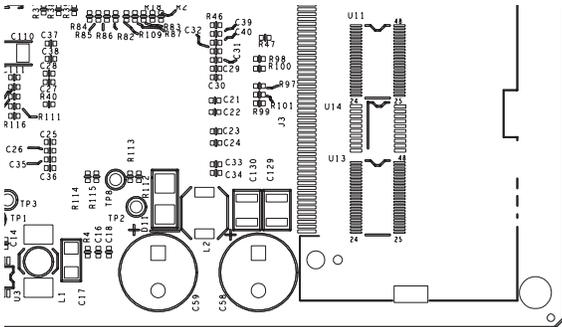
Table 6-1 Software Compatibility

The software versions identified in this table were current at the time this manual was written and may change over time. Check for Service Bulletins addressing software updates or contact Cardinal Health Technical Support if there are any questions.

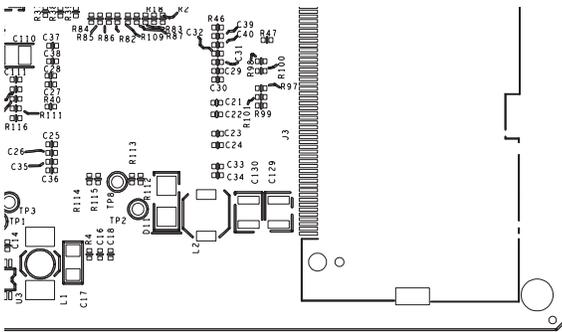
NOTE: If the ready indicator does not light for approximately 1 second when the module is first attached, the Auto-ID Module software is not compatible.

Software Version (or later)	Model 8000 8.5.25.0	Model 8015 8.15.16.0	Model 8000 9.0.23.0	Model 8015 9.0.23.0
Auto-ID Module 8.5.26.0	X	X	X	X
Wireless Main 8.14.10.0	X	Not Applicable		
9.0.20.0			X	Not Applicable

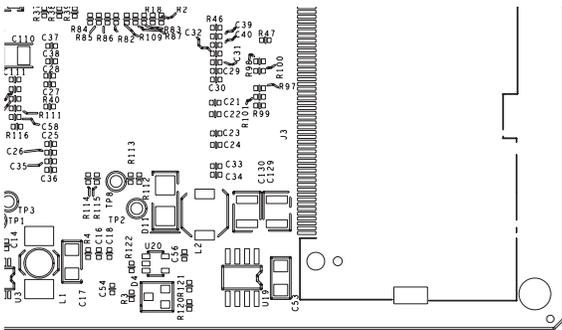
Figure 6-1 Communications Boards - Model 8000



Not bar code compatible.



Not bar code compatible.



Bar code compatible.

Troubleshooting

Table 6-2 Technical Troubleshooting Guide

Before making a final diagnosis, visually inspect the system for damage. Following repair, use the applicable maintenance software to perform the required tests. Before returning a product (PC Unit, Auto-ID Module, handheld scanner) to the factory, replace it with a known functioning product and applicable Data Set, to verify the source of the problem.

Problem	Remedy
Does not scan or recognize clinician or patient ID. ERROR: Patient ID is invalid ERROR: Clinician ID is invalid	Use applicable maintenance software to diagnose problem.
ERROR: Scanned label is invalid	<ol style="list-style-type: none">1. Ensure Profile feature is enabled.2. Ensure bar code is readable. Refer to Auto-ID Module Section of applicable Alaris® System DFU and Auto-ID Bar Code Specification to identify supported bar code symbologies and data formats.
ERROR: Patient ID mismatch	<ol style="list-style-type: none">1. Ensure bar code contains pertinent data.2. Ensure drug is available in profile.
ERROR: Scanned medication label is invalid	Ensure bar code is readable. Refer to Auto-ID Module Section of applicable Alaris® System DFU and Auto-ID Bar Code Specification to identify supported bar code symbologies and data formats.
Displays "Drug or Fluid not in current profile" after scanning drug and selecting channel to program.	Verify drug and its concentration are in currently selected profile.
READY indicator does not light, or lights but does not stay lit.	Ensure wireless card is functioning properly: <ol style="list-style-type: none">a. Access System Options and verify a wireless status of connected.b. Replace wireless card with a known functioning card.c. Replace wireless card.
Auto-ID Module not recognized by PC Unit.	If PC Unit is a Model 8000: <ol style="list-style-type: none">a. Ensure PC Unit has a CIB accessory.b. Ensure CIB supports Auto-ID Module (see Figure 6-1)c. Replace CIB.
Does not scan (no scanner light).	Use applicable maintenance software to diagnose problem.
Drug's bar code is not recognized (scanner light comes on but module does not beep).	Use applicable maintenance software to diagnose problem.
Does not operate as expected.	Use applicable maintenance software to diagnose problem.

Table 6-3 Error Codes

If the error is repeatable, perform the response steps in the order they are listed until the error is corrected. Refer to the PC Unit/Pump Module Service Manual for more detailed error code information. Following repair, use the applicable maintenance software to perform the required tests.

Error Code	Explanation	Response
600.7000	Message corrupted.	Replace Logic Board.
600.7010	Communications error.	<ol style="list-style-type: none"> 1. Replace Logic Board. 2. Replace Camera Assembly (embedded scanner). 3. Replace handheld scanner.
600.7020	Interrupt error.	Replace Logic Board.
600.7030	General error.	<ol style="list-style-type: none"> 1. Replace Logic Board. 2. Replace Camera Assembly (embedded scanner). 3. Replace handheld scanner.
600.7040	Command buffer error.	Replace Logic Board.
600.7050	Internal command error.	<ol style="list-style-type: none"> 1. Replace Logic Board. 2. Replace Camera Assembly (embedded scanner).
600.7060	External command error	<ol style="list-style-type: none"> 1. Replace Logic Board. 2. Replace handheld scanner).
600.7070	Internal scan not responding.	<ol style="list-style-type: none"> 1. Replace Camera Assembly (embedded scanner). 2. Replace Logic Board.
600.7080	External scan not responding.	<ol style="list-style-type: none"> 1. Detach Auto-ID Module from PC Unit. Disconnect handheld scanner and reattach Auto-ID Module. 2. Replace Internal Cable. 3. Replace Logic Board.
600.7090	POST general error.	Replace Logic Board.
600.7100	Keypad failure.	Replace Front Case Assembly.
600.7110	Software version compatibility failure.	<ol style="list-style-type: none"> 1. Reflash Auto-ID Module. 2. Replace Logic Board.
600.7120	Internal version compatibility failure.	Return to factory.
600.7130	External version compatibility failure.	Return to factory.

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7 ILLUSTRATED PARTS BREAKDOWN

Chapter 7 – Illustrated Parts Breakdown

7.1 INTRODUCTION

The illustrated parts breakdown is divided into major assemblies and individual parts.

7.2 ILLUSTRATIONS

The exploded views serve as visual aids for identifying the parts of each assembly. If a part/assembly is identified with an item number (appearing in a bubble), that number corresponds with the item number on the parts list. If a part/assembly is not identified with an item number, it is available only as part of a higher assembly or kit.

Due to product changes over time, components/assemblies illustrated in this chapter may differ from the instrument being serviced.

7.3 PARTS LIST

The parts list provides the following information for saleable parts and assemblies:

Item: This number corresponds with number in illustration.

Part Number: This is the Alaris® product number needed when placing an order.

When a part number is not provided, that part is either not sold by Cardinal Health, is provided as part of a kit or higher assembly, or can only be replaced/repaired by Cardinal Health authorized service personnel.

Description: Descriptive information that may be helpful when placing an order.

QTY: Total number of each item used.

7.4 ORDERING PARTS

Parts can be ordered by writing or calling Cardinal Health Customer Care (see "General Contact Information" at the beginning of this manual). When requesting a part, provide the following information:

- Product name and model number (for example, Auto-ID Module, Model 8600).
- Part number.
- Part description, as provided in parts list.
- For labels, specify required language.

Table 7-1 Parts List

NOTE: An "assembly" is a preassembled group of parts. A "kit" is a group of unassembled parts.

Item	Part Number	Description	QTY
9	TC10002944	Cable, Logic-IUI	1
10	TC10004248	Cable, Internal	1
11	TC10003016	Speaker Assembly	1
12	TC10004794 ①	Logic Board Assembly	1
13	TC10003274	IUI Board Assembly	1
17	320851	Screw, 4-40 x ⁵ / ₁₆ , PHH PNH	2
18	142794-000	Foot, Rubber (part of item 610)	2
25	806112	Rivet, Snap, 0.125 diameter, nylon	2
26	320145	Screw, 4-40 x 0.62, XREC PNH	4
27	320855	Screw, 6-32 X ⁷ / ₁₆ , PHH PNH	6
28	300510	Washer, Flat, 0.156 x 0.375 x 0.049	2
41	300045	Nut, Kep 4-40 (part of item 612)	1
42	②	Silicone Grease, Molykote Medium or equivalent	As Required
44	TC10004882 ①	Jumper Cable (part of item 612)	1
47	10015024	Washer, Spring	1
51	TC100003104	Gasket, Front Case (part of item 611)	1
52	TC100000442	Lens, Front Case (part of item 611)	1
53	301659	Screw, 2-56 x ³ / ₁₆ PHH PNH	2
57	TC10000431	Bracket, IUI (part of item 612)	1
600	125569	Label, Serial Number Replacement (part of item 610)	1
610	10160434	Rear Case Kit Consists of: Rear Case, Rubber Feet, Gasket, Nameplate Label, item 600. All items are attached except item 600.	1
611	10160435	Front Case Assembly Consists of: Front Case, Keypad, Label, and items 51, 52.	1
612	10160433 ①	Camera/Frame Assembly Consists of: Camera Assembly, Internal Frame, and items 41, 44, 57. All items are attached except item 41.	1
2003	147077-100	Right IUI Connector/Gasket Kit	1
2004	147078-100	Left IUI Connector/Seal Kit	1

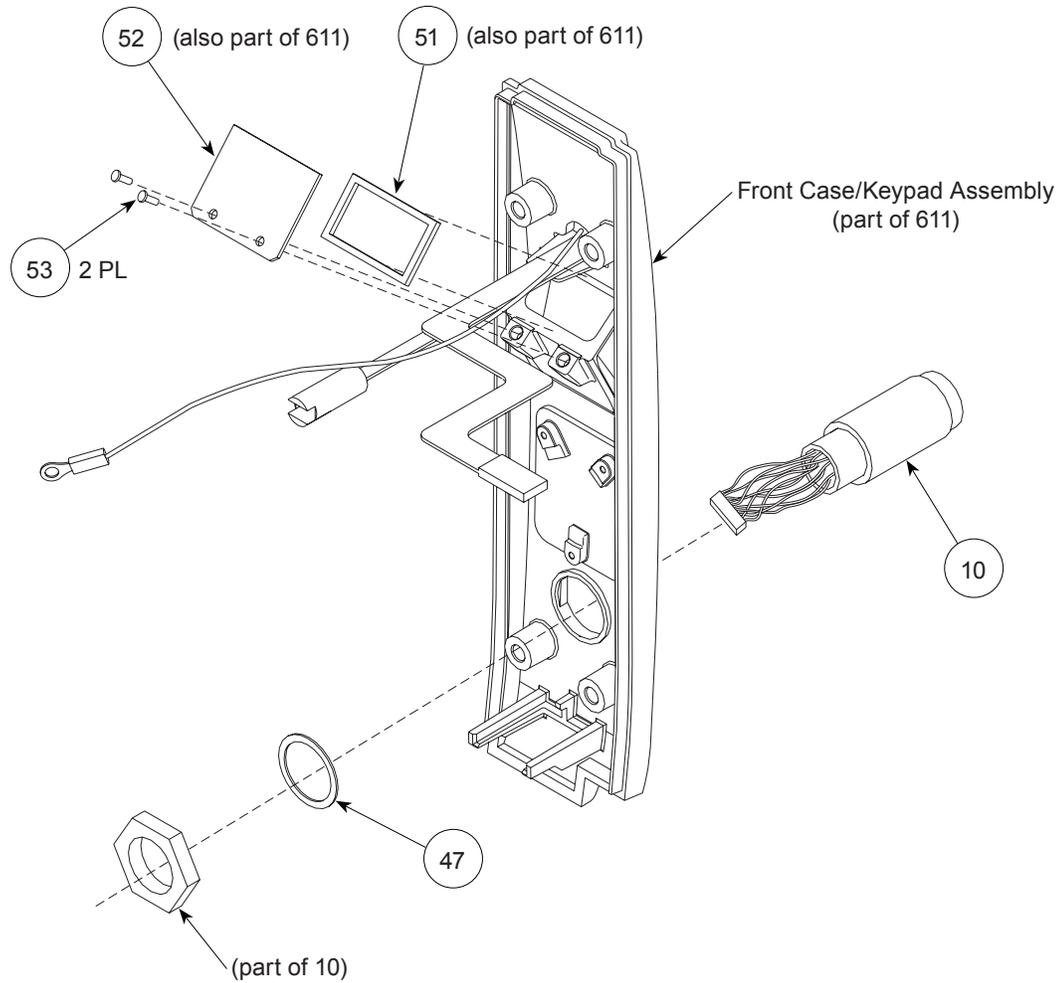
Illustrated Parts Breakdown

Table 7-1 Parts List (Continued)

Item	Part Number	Description	QTY
2006	147080-100	Latch Kit Consists of: Compression Spring, Latch, Leaf Spring, Support.	1
2009	147093-100	Silicone Tubing (10 Ft) This 10-foot length of tubing is enough for 7 Auto-ID Modules.	1
----		Maintenance Software:	
		v8 Maintenance Software:	
	10015716	Software (includes User Manual)	
	10012637	User Manual, Printed Copy	
		v9 Alaris® System Maintenance:	
	10552061	Software (includes User Manual)	
	10174396	User Manual, Printed Copy	
----	10014636	Quick Reference Guide	
----		Directions for Use	
		v8 Alaris® System with Model 8000	
	10014676	Printed Copy	
	10014677	Electronic (CD) Copy	
		v8 Alaris® System with Model 8015	
	10014674	Printed Copy	
	10014675	Electronic (CD) Copy	
		v9 Alaris® System with Model 8000	
	10110697	Printed Copy	
	10015905	Electronic (CD) Copy	
		v9 Alaris® System with Model 8015	
	10110698	Printed Copy	
	10015907	Electronic (CD) Copy	
----	10012234	Auto-ID Bar Code Specification	

- ① **IMPORTANT:** These parts have gold contacts. Before ordering, see "Corrective Maintenance" chapter for interchangeability information.
- ② Not sold by Cardinal Health.

Figure 7-1 Front Case Assembly



Illustrated Parts Breakdown

Figure 7-2 IUI Bracket and Board Assemblies - Camera/Frame Assembly

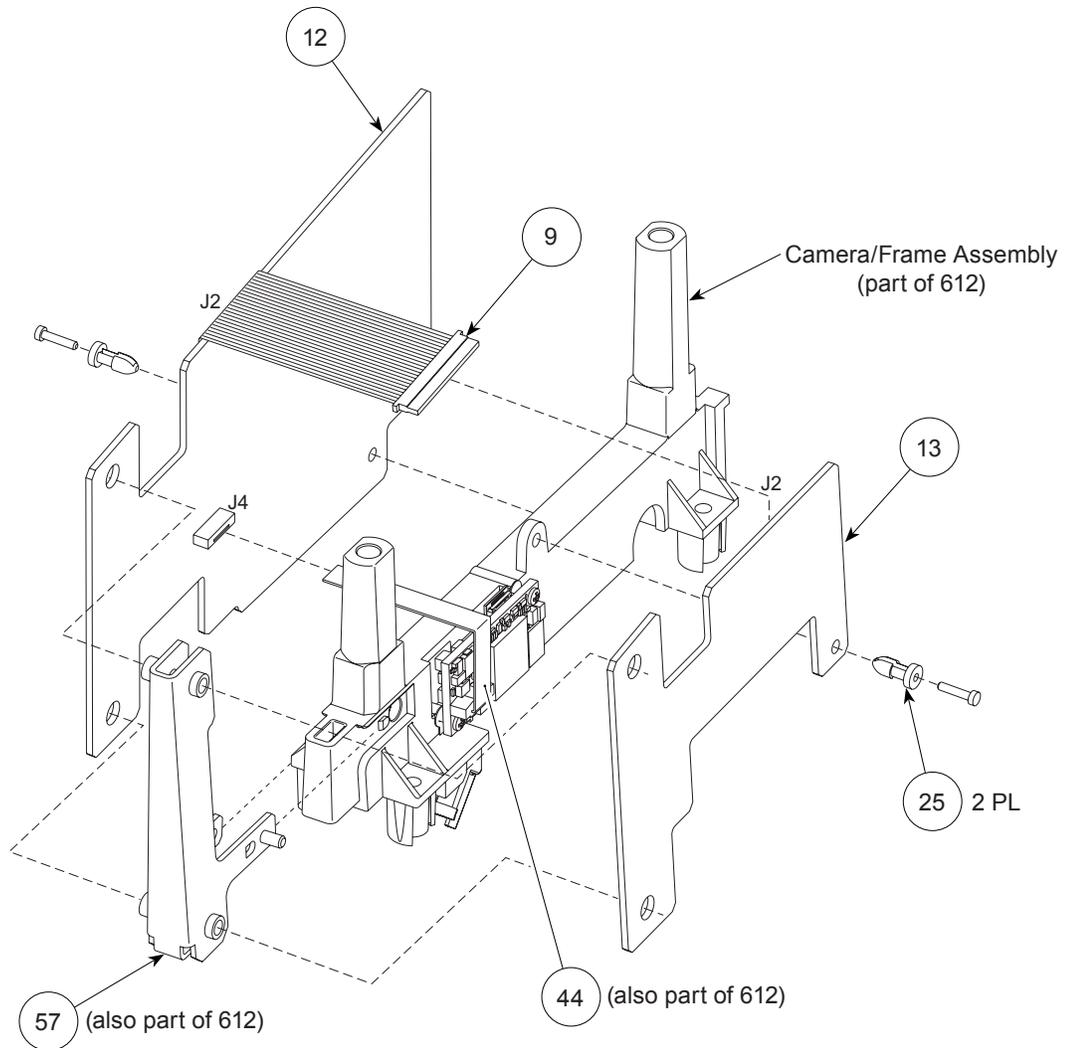
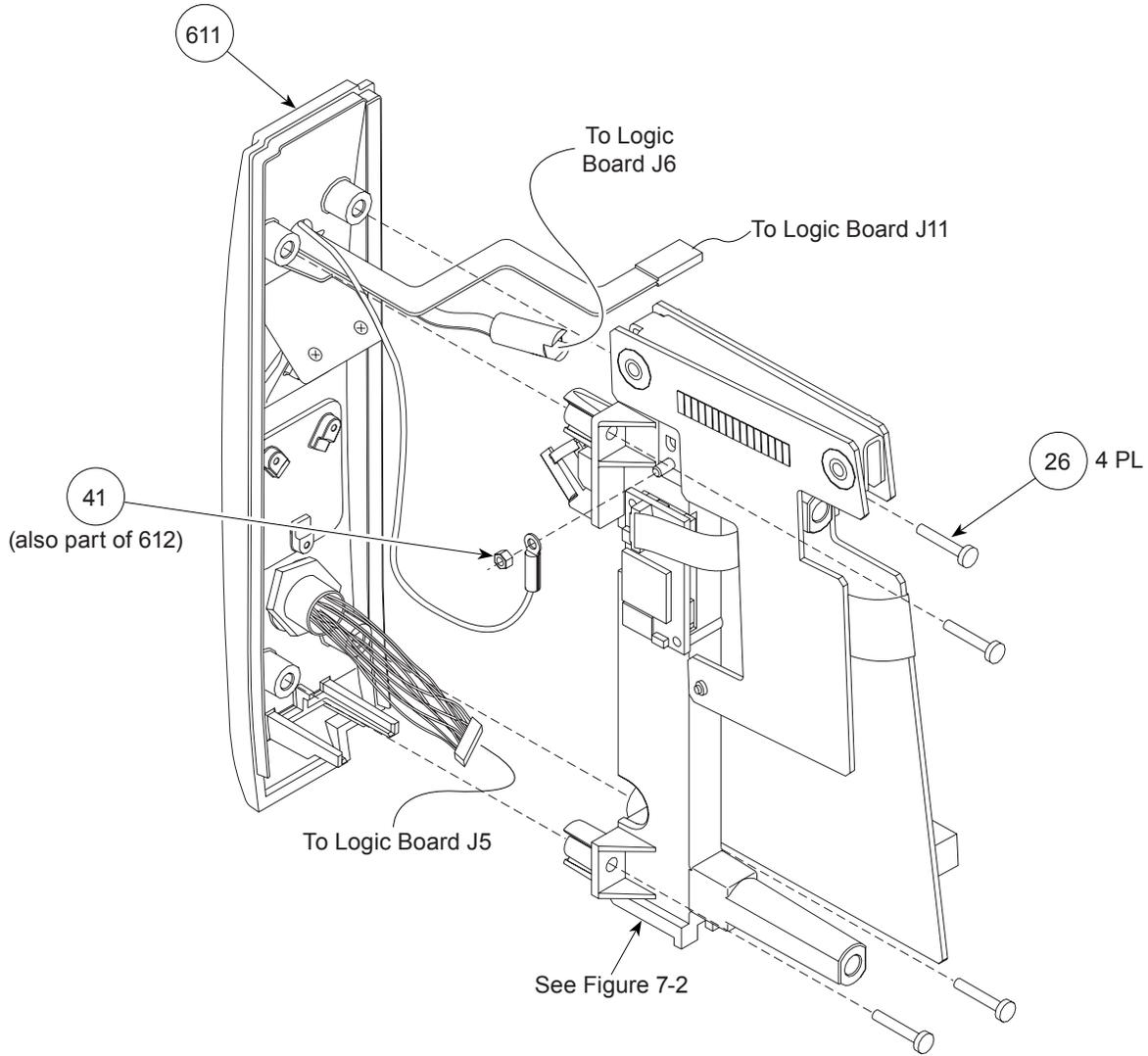


Figure 7-3 Board/Frame Assembly - Front Case Assembly



Illustrated Parts Breakdown

Figure 7-4 Speaker Assembly

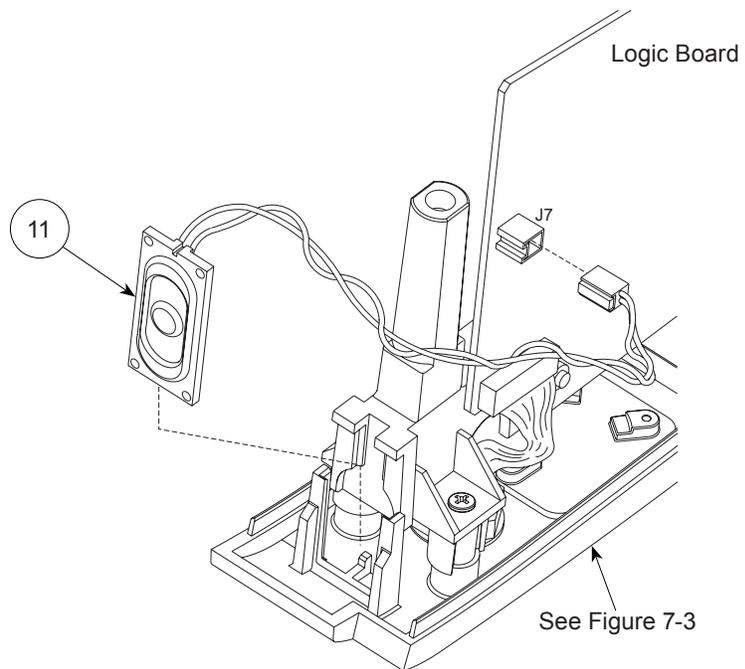
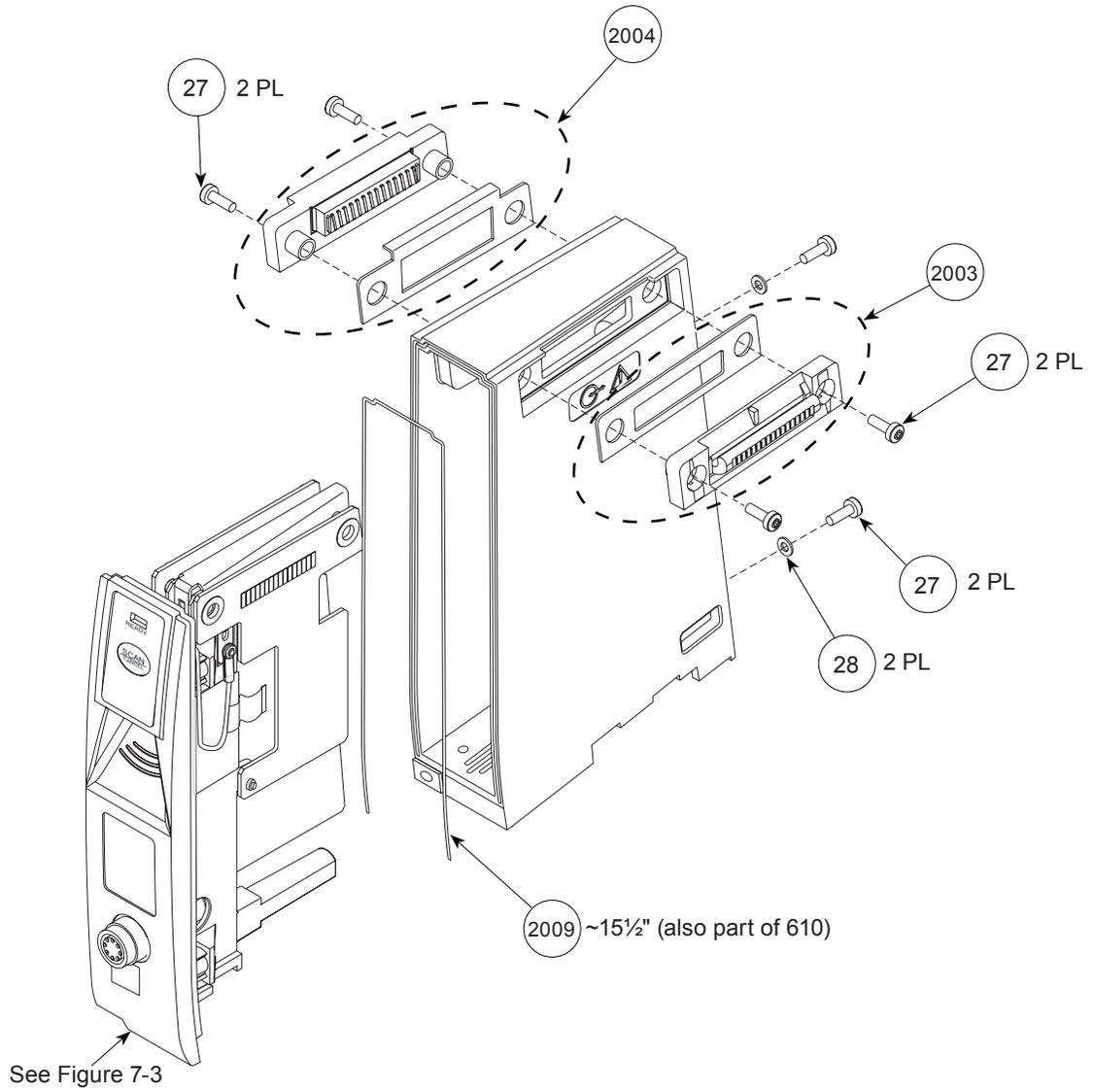


Figure 7-5 IUI Connectors and Case Assembly



Illustrated Parts Breakdown

Figure 7-6 Feet, Latch Assembly, Labels

 Nameplate Label, which has a regulatory mark, is not field replaceable as an individual item. It is available only as part of Rear Case Kit (item 610).

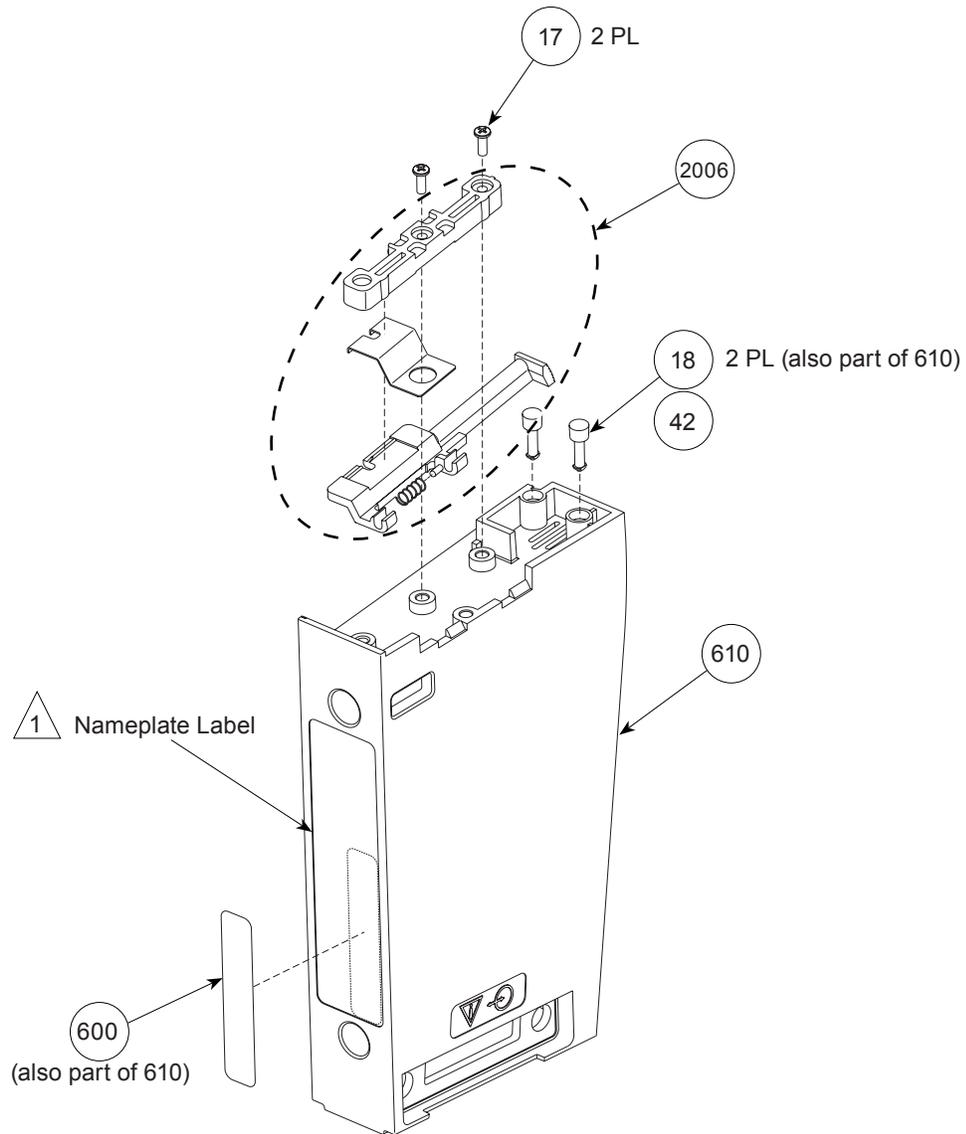
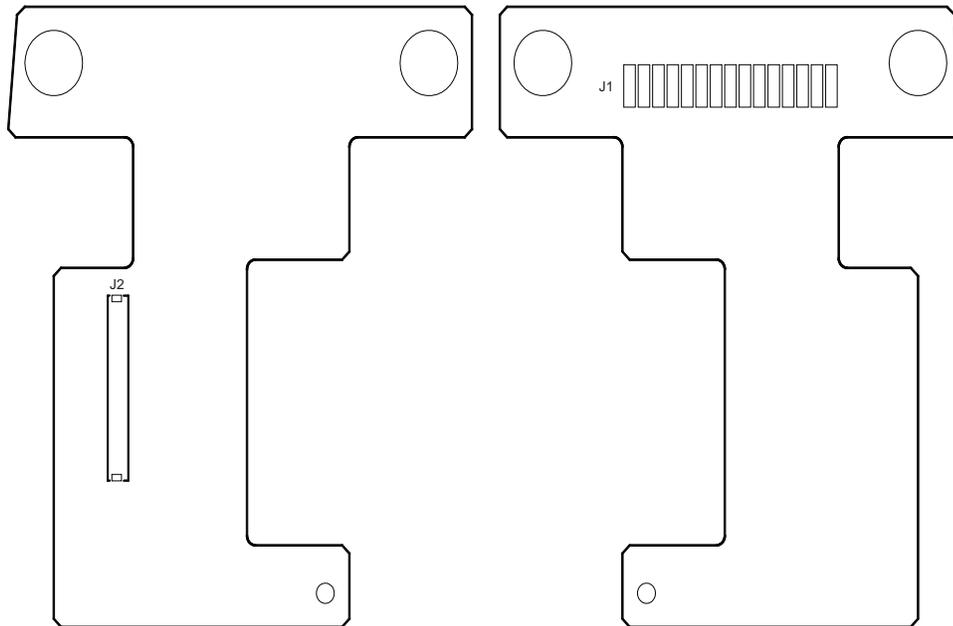


Figure 7-7 IUI Board

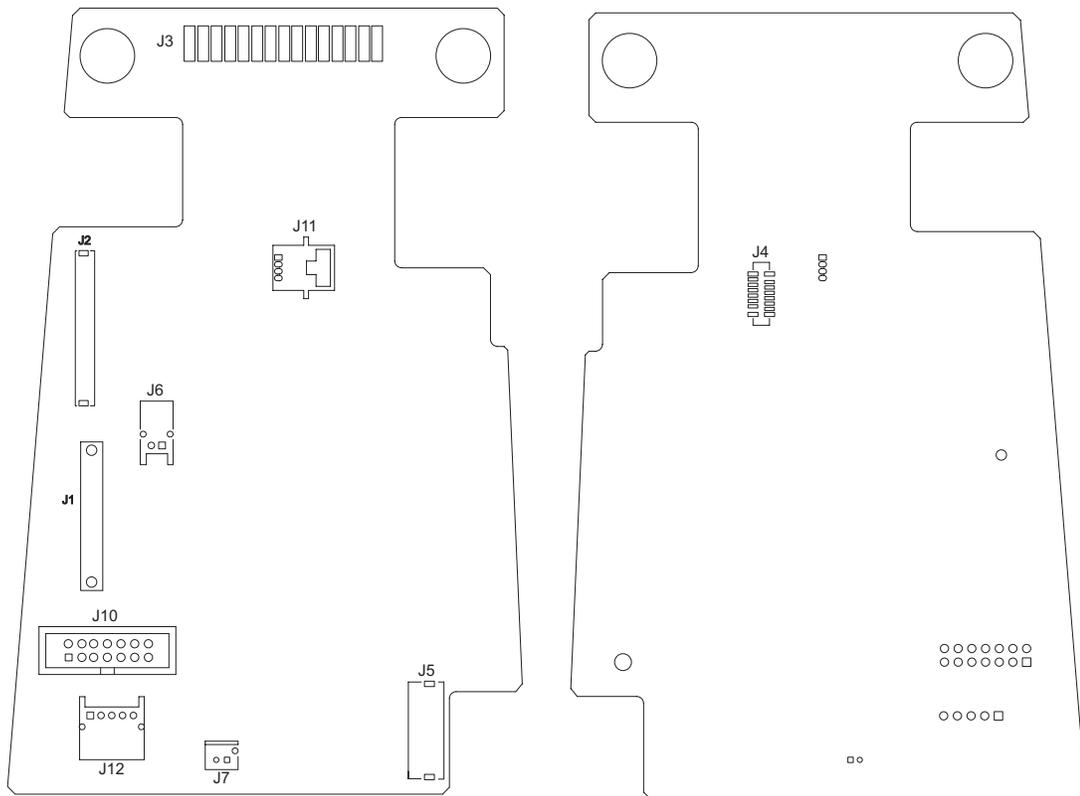
This illustration is for board identification purposes only and does not represent the board's component layout.



Illustrated Parts Breakdown

Figure 7-8 Logic Board

This illustration is for board identification purposes only and does not represent the board's component layout.





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