



**GAI-TRONICS® CORPORATION**  
A HUBBELL COMPANY

# Model XCP0100A 4-Channel Expansion Kit

## Field Installation Kit Instructions

### Confidentiality Notice

This manual is provided solely as an operational, installation, and maintenance guide and contains sensitive business and technical information that is confidential and proprietary to GAI-Tronics. GAI-Tronics retains all intellectual property and other rights in or to the information contained herein, and such information may only be used in connection with the operation of your GAI-Tronics product or system. This manual may not be disclosed in any form, in whole or in part, directly or indirectly, to any third party.

### General Information

The Model XCP0100A 4-Channel Expansion Kit expands the total number of channels in the ICP9000 CommandPLUS Series Console or the ICPN9000 Navigator Series MCU by four additional channels. This kit includes the following components:

Qty	Description
1	CP-CSD Slave PCBA
1	CP-CLP Slave Unit Suppression Circuit PCBA
1	CPSLAV2J EPROM (needed for backward compatibility only)
1	CP-LP-GND-JPR Surge Protection Ground Cable
10	#4-40 × ¼-inch Phillips screws
1	SLV-CBL-M Interconnecting Cable (for Master PCBA-to-CSD PCBA)
1	SLV-CBL-P Interconnecting Cable (for CSD-to-CLP PCBAs)
1	CP-CBL-I/O Console I/O Cable (10-foot)
1	Envelope containing "Motorola Brand Hardware": <ul style="list-style-type: none"> <li>• #4-40 standoffs (qty. 3)</li> <li>• #4-40 × 5/16-inch screws (qty. 3)</li> <li>• #10-32 × 1 ½-inch screw</li> <li>• #10 washers (qty. 2)</li> <li>• #10-32 nut</li> <li>• #10-32 standoff</li> <li>• #4-40 × 3/16-inch screws (qty. 3)</li> <li>• M3 × 6mm screws (qty. 6)</li> <li>• #4 washers (qty. 6)</li> </ul>

## Pre-Installation Notice

Before installing the CP-CSD Slave PCBA, the master firmware version of the ICP9000 Desktop or Navigator Series Console must be determined. To determine the master firmware version, momentarily depress the **RESET** button located on the rear panel of the unit. The master firmware version will appear in the console display window (for approximately 5 seconds) as **MAST**, followed by a version number and letter (example: **MAST4D**). If the version number/letter is “4x” or higher (“x” being an alphabetic letter), no changes are required to the CP-CSD board and installation can continue.

If the version number/letter is “3x” or lower, the slave firmware must be changed due to incompatibility with the master firmware and **CARD Suite** software (found on the **XAC4000A Programming Bundle CD**). Observing precautions for handling electrostatically sensitive devices, remove EPROM No. 50086-085 from socket U502. Install EPROM **CPSLAV2J** in its place. Installation can now continue.

**NOTE:** If you are interested in upgrading your console to the latest feature firmware, upgrade kits are available. Please contact our Customer Service department at 1-800-492-1212 for price and availability.

## Installation



Warning: Observe precautions for handling electrostatic sensitive devices.

**If installing this kit in the Motorola CommandPLUS, use the supplied hardware in the envelope labeled “Motorola Brand Hardware.” See the “Motorola CommandPLUS Hardware Installation” instructions on page 5 for this hardware only. For the remainder of the installation, follow the instructions provided for the ICP 9000 Series Desktop Console. Motorola is a registered trademark of Motorola Incorporated.**

### ICP9000 Series Desktop Console

1. Disconnect the power from the ICP9000 Series Desktop Console and remove all attached cables from the rear cover.
2. Remove the four screws securing the rear panel. Gently pull the rear cover from the housing and disconnect the ribbon cables (SLV-CBL-P) attached to the surge suppression PCBA. Lay the rear panel flat. See Figure 1.
3. Mount the new CLP PCBA next to the existing CLP board using the four threaded stand-offs with the #4-40 screws provided. See Figure 2.
4. Remove the earth ground terminal screw from the bottom right corner of the existing CLP PCBA. Attach the supplied surge protection cable to the earth ground screw, and the other end to the matching location on the new CLP PCBA.
5. Attach the SLV-CBL-P ribbon cable to its matching connectors between the CLP PCBA at J25 and the CSD PCBA at P25. Also reattach the original ribbon cable.

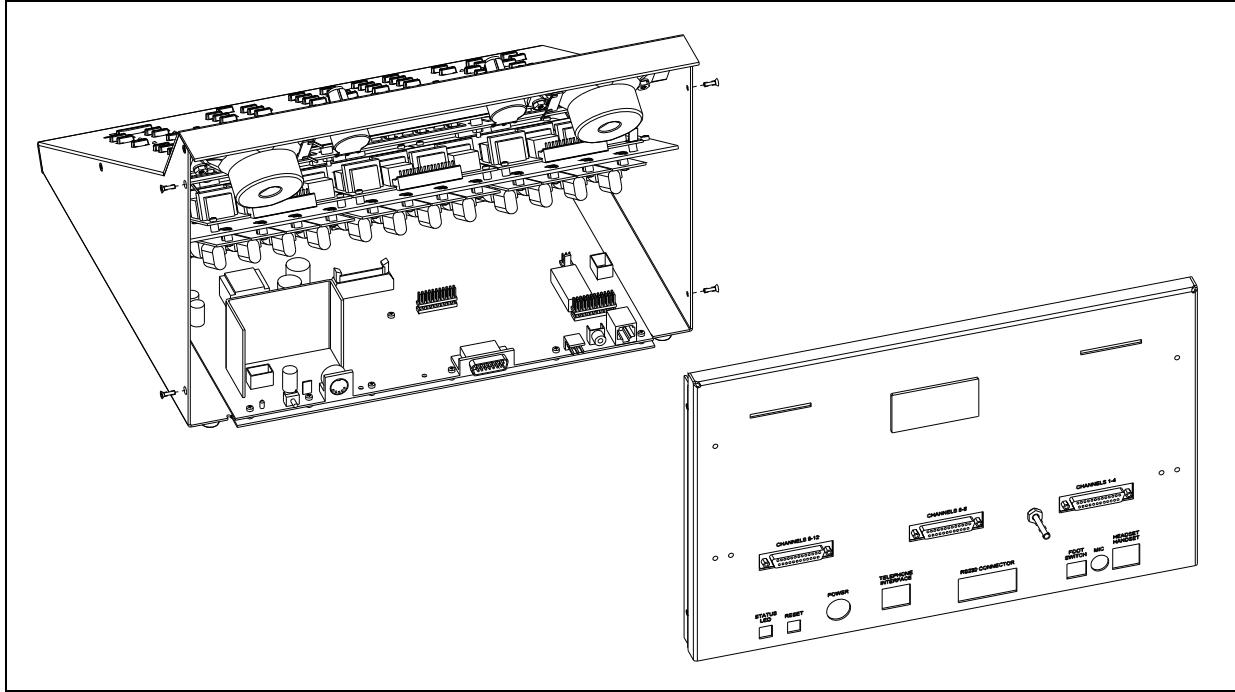


Figure 1.

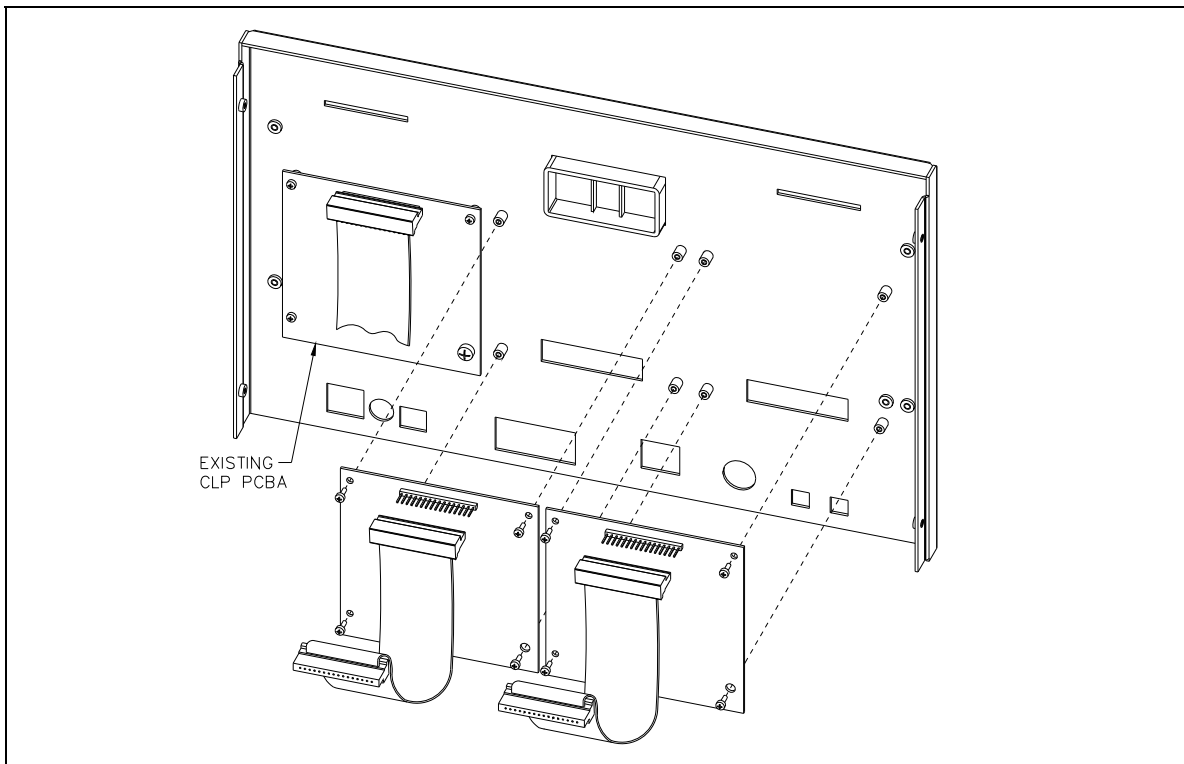


Figure 2. Inside of rear cover  
**NOTE:** Only one module is provided with each kit.

6. Replace the rear cover and screws ensuring that no cables are pinched between the housing and the rear cover.
7. Remove the seven screws securing the top panel and gently lift the cover to expose the attached speaker cable and master display cable. See Figure 3.

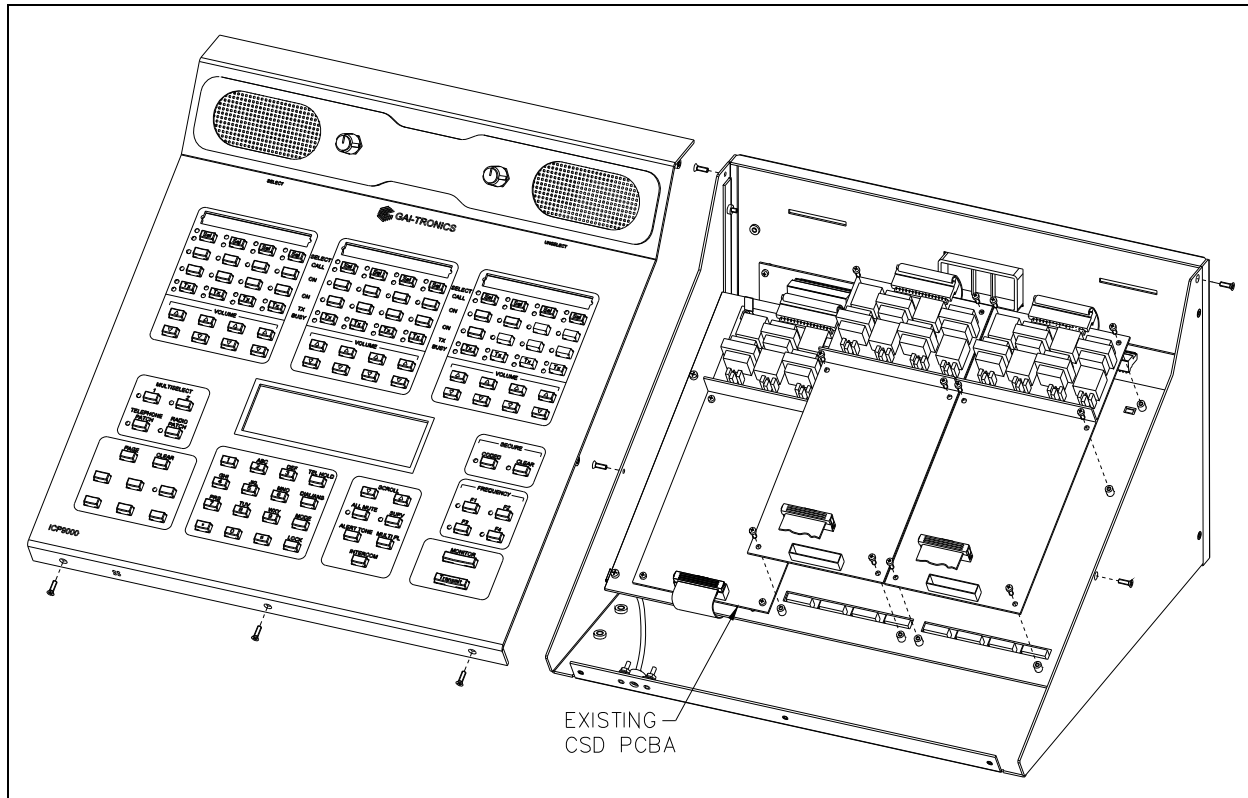


Figure 3.

8. Disconnect the speaker cable at the male-to-female connection point. Unplug the master display cable from the top cover.
9. Mount the new CSD PCBA next to the existing CSD board(s) using the supplied #4-40 screws. Refer to Figure 3.
10. Connect the supplied CSD-to-CPM ribbon cable to J1 and route it under the cable slot nearest the mounting position. Plug the other end of the cable into either P2 on the CPM board, if expanding a 4-channel console, or P3 on the CPM board if expanding an 8-channel console.
11. Reassemble the front cover using the reverse procedure. Verify the correct ribbon cable positioning before tightening the slave mid-panel mounting screws to avoid damage to the cable.
12. Refer to the CARD Suite Software (found on the XAC4000A Programming Bundle CD) for programming instructions specific to the new channels.

## Motorola CommandPLUS Hardware Installation

Use the hardware supplied in the envelope labeled “Motorola Brand Hardware.”

1. Using the #4-40 × 5/16-inch screws, mount the three #4-40 standoffs to the rear of the panel in the three holes located at the top and bottom of the panel next to the existing CLP board.
2. Insert the #10-32 × 1 ½-inch screw through the #10 washer, the surge protection cable’s ring lug, the bottom-right hole of the CLP board, the #10-32 standoff, and through the panel. Secure the assembly from the other side of the panel using the remaining #10 washer and the #10-32 nut.
3. Secure the CLP board to the rear-panel standoffs using the three #4-40 × 3/16-inch screws in the remaining three holes.
4. Remove the earth ground terminal screw from the bottom right corner of the existing CLP board and attach the other end of the surge protection cable to the earth ground screw.
5. Mount the new CSD board next to the existing CSD board(s) using the M3 × 6 mm screws and #4 washers.

## ICPN9000 Navigator MCU

1. Disconnect the power from the ICPN9000 Navigator Series MCU and remove all attached cables from the rear cover.
2. Remove the eight screws securing the rear panel. Gently pull the rear cover from the housing and disconnect the ribbon cables (SLV-CBL-P) attached to the surge suppression PCBA. Lay the rear panel flat. See Figure 4.

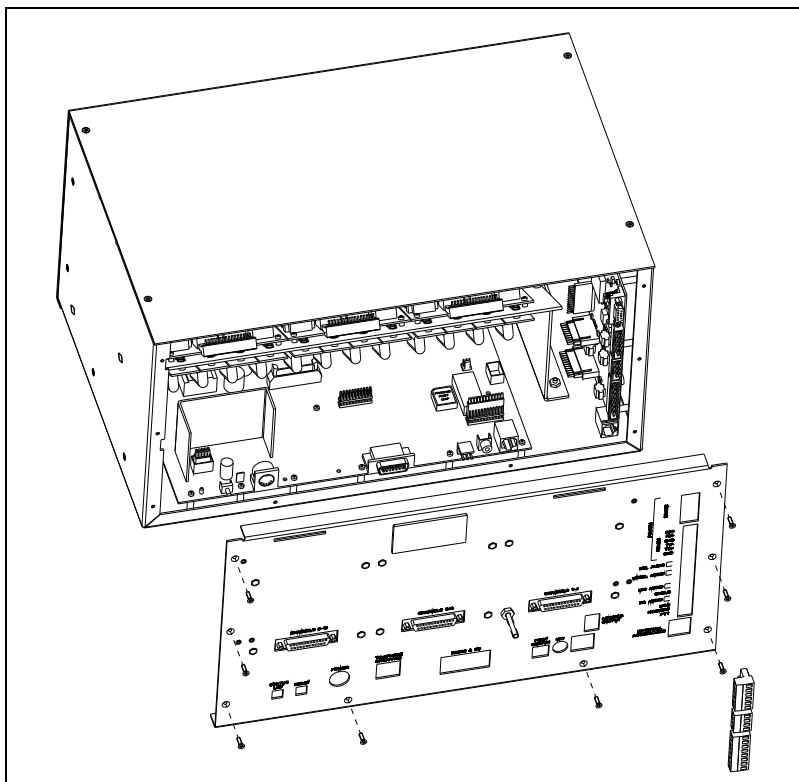


Figure 4.

3. Mount the new CLP PCBA next to the existing CLP board using the four threaded stand-offs with the #4-40 screws provided. See Figure 5.

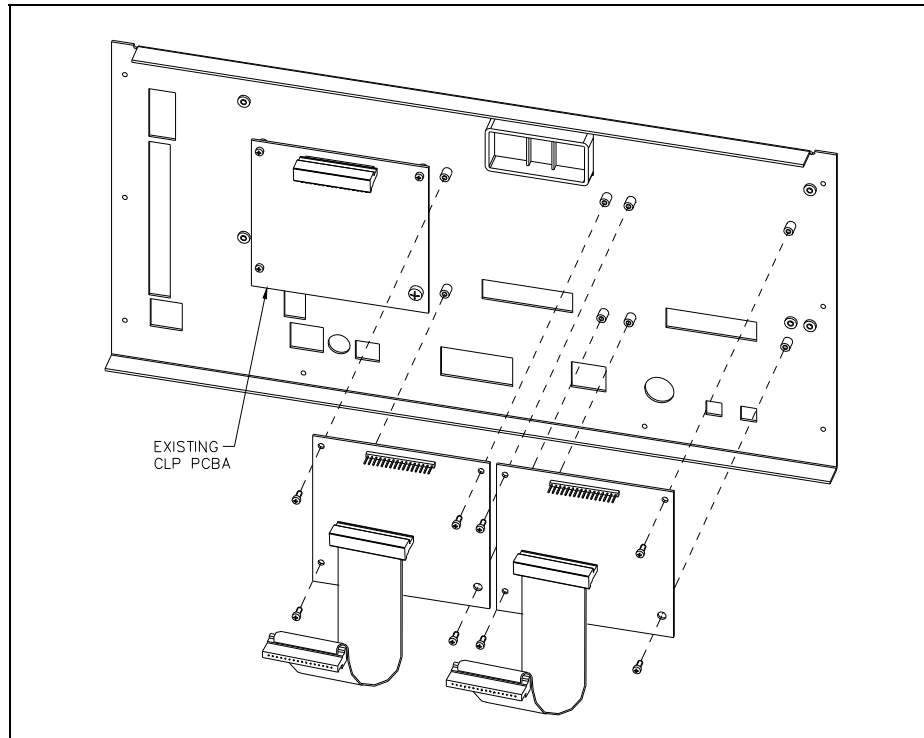


Figure 5. Inside of Rear Cover

**NOTE:** Only one module is provided with each kit.

4. Remove the earth ground terminal screw from the bottom right corner of the existing CLP PCBA. Attach the supplied surge protection cable to the earth ground screw, and the other end to the matching location on the new CLP PCBA.
5. Attach the SLV-CBL-P ribbon cable to its matching connectors between the CLP PCBA at J25 and the CSD PCBA at P25. Also reattach the original ribbon cable.
6. Replace the rear cover and screws ensuring that no cables are pinched between the main enclosure and the rear cover.

7. Remove the 10 screws securing the side cover panel and gently lift the cover off. See Figure 6.

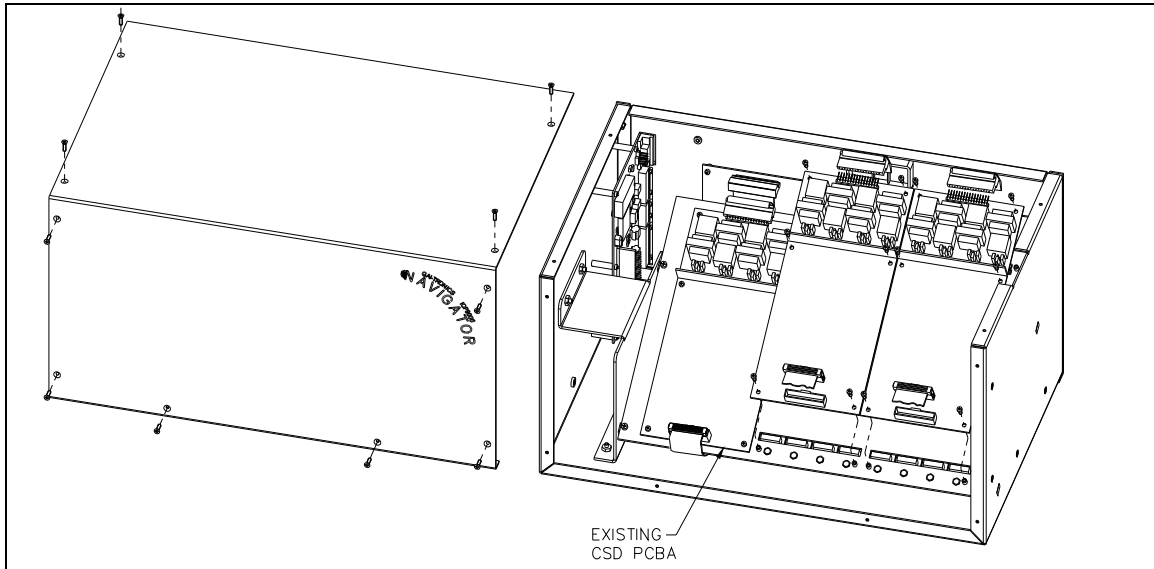


Figure 6.

8. Mount the new CSD PCBA next to the existing CSD board(s) using the supplied #4-40 screws. Refer to Figure 6.
9. Connect the supplied CSD-to-CPM ribbon cable to J1 and route it under the cable slot nearest the mounting position. Plug the other end of the cable into either P2 on the CPM board, if expanding a 4-channel console, or P3 on the CPM board if expanding an 8-channel console.
10. Reassemble the side cover panel using the reverse procedure. Verify the correct ribbon cable positioning before tightening the slave mid-panel mounting screws to avoid damage to the cable.
11. Refer to the CARD Suite Software (found on the XAC4000A Programming Bundle CD) for programming instructions specific to the new channels.

# Warranty

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Equipment. GAI-Tronics warrants for a period of one (1) year from the date of shipment, that any GAI-Tronics equipment supplied hereunder shall be free of defects in material and workmanship, shall comply with the then-current product specifications and product literature, and if applicable, shall be fit for the purpose specified in the agreed-upon quotation or proposal document. If (a) Seller's goods prove to be defective in workmanship and/or material under normal and proper usage, or unfit for the purpose specified and agreed upon, and (b) Buyer's claim is made within the warranty period set forth above, Buyer may return such goods to GAI-Tronics' nearest depot repair facility, freight prepaid, at which time they will be repaired or replaced, at Seller's option, without charge to Buyer. Repair or replacement shall be Buyer's sole and exclusive remedy. The warranty period on any repaired or replacement equipment shall be the greater of the ninety (90) day repair warranty or one (1) year from the date the original equipment was shipped. In no event shall GAI-Tronics warranty obligations with respect to equipment exceed 100% of the total cost of the equipment supplied hereunder. Buyer may also be entitled to the manufacturer's warranty on any third-party goods supplied by GAI-Tronics hereunder. The applicability of any such third-party warranty will be determined by GAI-Tronics.

Services. Any services GAI-Tronics provides hereunder, whether directly or through subcontractors, shall be performed in accordance with the standard of care with which such services are normally provided in the industry. If the services fail to meet the applicable industry standard, GAI-Tronics will re-perform such services at no cost to buyer to correct said deficiency to Company's satisfaction provided any and all issues are identified prior to the demobilization of the Contractor's personnel from the work site. Re-performance of services shall be Buyer's sole and exclusive remedy, and in no event shall GAI-Tronics warranty obligations with respect to services exceed 100% of the total cost of the services provided hereunder.

Warranty Periods. Every claim by Buyer alleging a defect in the goods and/or services provided hereunder shall be deemed waived unless such claim is made in writing within the applicable warranty periods as set forth above. Provided, however, that if the defect complained of is latent and not discoverable within the above warranty periods, every claim arising on account of such latent defect shall be deemed waived unless it is made in writing within a reasonable time after such latent defect is or should have been discovered by Buyer.

Limitations / Exclusions. The warranties herein shall not apply to, and GAI-Tronics shall not be responsible for, any damage to the goods or failure of the services supplied hereunder, to the extent caused by Buyer's neglect, failure to follow operational and maintenance procedures provided with the equipment, or the use of technicians not specifically authorized by GAI-Tronics to maintain or service the equipment. **THE WARRANTIES AND REMEDIES CONTAINED HEREIN ARE IN LIEU OF AND EXCLUDE ALL OTHER WARRANTIES AND REMEDIES, WHETHER EXPRESS OR IMPLIED BY OPERATION OF LAW OR OTHERWISE, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.**

## Return Policy

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If the equipment requires service, contact your Regional Service Center for a return authorization number (RA#). Equipment should be shipped prepaid to GAI-Tronics with a return authorization number and a purchase order number. If the equipment is under warranty, repairs or a replacement will be made in accordance with the warranty policy set forth above. Please include a written explanation of all defects to assist our technicians in their troubleshooting efforts.

Call 800-492-1212 (inside the USA) or 610-777-1374 (outside the USA) for help identifying the Regional Service Center closest to you.