Confidentiality Notice

This manual is provided solely as an operation, 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

This kit contains a printed circuit board assembly (PCBA) to be used in the following GAI-Tronics Emergency phones:

- 293-001
- 293AL-001
- 294AL-001
- 297-001
- 298-001

Electrostatic Discharge (ESD) Protection:

Your telephone may have an earth ground terminal provision. If so, ensure that it is connected to ground in accordance with all local safety regulations and the National Electrical Code (NEC). Grounding has to be ensured for safe and stable communications. Do not use long and coiled ground wires. Trim ground wires to the required length. Use a star configuration whenever possible.

Installation

Models 293-001, 293AL-001, and 294AL-001

Removing the Old PCBA

⚠️ Warning: Observe precautions for handling electrostatic sensitive devices.

1. Use the Model 233-001 Tamper-Resistant Screwdriver to remove the four front panel screws, and remove the panel from the enclosure after disconnecting the telephone line.

2. Disconnect the microphone, speaker, LED indicator, keypad (Model 294AL-001 only), and switch cable(s) from the PCBA. Record the location of each connection for later reconnection.
3. Disconnect the red and green wires from the telephone line connection on the PCBA. Save the modular cord.

4. Unscrew the four corner screws from the PCBA. Save the screws.

**Installing the New PCBA**

1. Align the holes in the four corners of the new PCBA with the standoffs in the telephone, maintaining proper orientation. See Figure 1.

![PCBA Connections](image)

Figure 1. PCBA Connections for Model 293-001, 293AL-001, and 294AL-001

2. Use the screws (from step 4 in the previous section) to secure the PCBA.

3. Reconnect the red (ring) and green (tip) telephone wires to the PCBA.

4. Reconnect the microphone, speaker, LED indicator, keypad (Model 294AL-001 only) and switch cable(s) to the board.

5. Use the Model 233-001 Tamper-Resistant Screwdriver to install the four front panel screws.
Models 297-001 and 298-001

Removing the Old PCBA

1. Use the Model 233-001 Tamper-Resistant Screwdriver to remove the six front panel screws, and remove the panel from its back box after disconnecting the telephone line.

2. Disconnect the microphone, speaker, switches, LED indicator, and keypad cables (Model 298-001 only) from the PCBA. Record the location of each connection for later reconnection.

3. Disconnect the red and green wires from the telephone line connection on the PCBA. Save the modular cord.

4. Unscrew the four screws securing the PCBA. Save the screws.

Installing the New PCBA

1. Align the holes in the four corners of the new PCBA with the standoffs in the telephone, maintaining proper orientation. See Figure 2.

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Figure 2. Model 297-001 and 298-001 Printed Circuit Board Detail
2. Use the screws (from step 4 in the previous section) to secure the PCBA.

3. Reconnect the red (ring) and green (tip) telephone wires to the PCBA.

4. Reconnect the microphone, speaker, switches, LED indicator, and keypad cable (Model 298-001 only) to the board.

5. Use the Model 233-001 Tamper-Resistant Screwdriver to install the six front panel screws.
**Warranty**

**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**

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.