



GAI-TRONICS
A HUBBELL COMPANY

10457-050 Redundant Backplane Card Rack Assembly

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General Information

The 10457-050 Redundant Backplane Card Rack Assembly is a component of the SmartSeries system that is used for public address, intercommunication, and emergency notification.

How to Use the Assembly

Application

The 10457-050 Redundant Backplane Card Rack contains an internal ac power supply. The card rack is split into two 10-slot sections. Each section is capable of housing one master control unit (MCU) and up to eight SmartSeries printed circuit board assemblies (PCBAs). The quantity of PCBAs varies depending on the system architecture.

The 10457-050 mounts into a standard EIA 19-inch rack and occupies 6U of rack space. The card rack's two power supplies require input voltage of 120 V ac/240 V ac (auto-switchable), 50/60 Hz.

There are no user controls on the card rack assembly.

Hardware Configuration

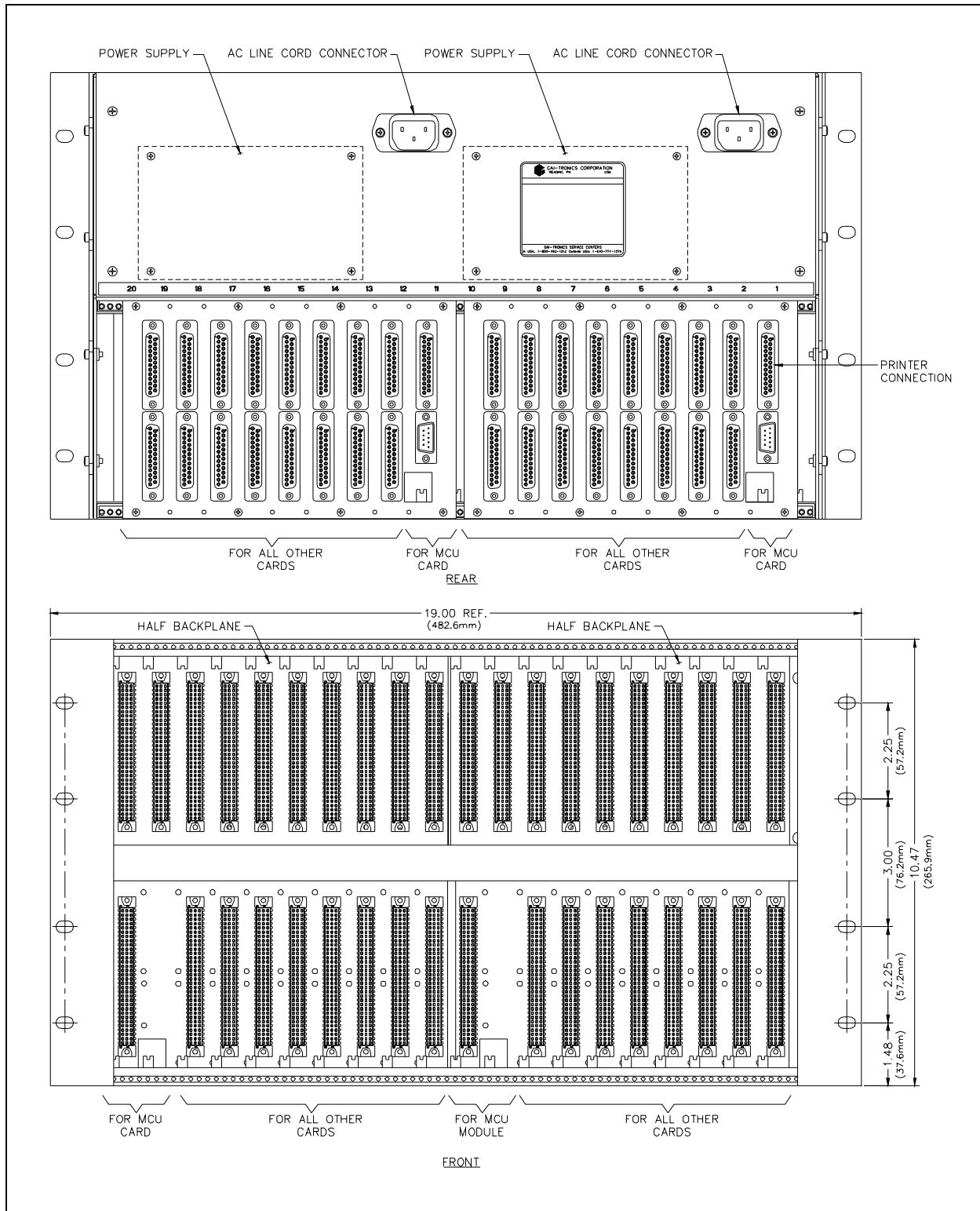


Figure 1. 10457-050 Redundant Backplane Card Rack Assembly

Installation

Direct questions about installation of this product to GAI-Tronics' Field Service Department at 800-492-1212 inside the USA or 610-777-1374 outside the USA.

Installation Guidelines

Please adhere to all warnings, safety, and operating instructions on the unit and in the installation manual.



- **Disconnect power before installing or removing the plug-in card modules.**
 - NOTE: Removal and replacement of the card rack modules while the card rack has power applied will result in electrical damage to the respective module.**
- **Do not force plug-in cards into the backplane connectors on PCBAs.**
- **Secure plug-in cards with screws.**
- **Avoid servicing the unit during electrical storms.**
- **Do not touch uninsulated wires.**
- **Do not remove power supply cover. There are no user-serviceable parts inside.**
- **Ensure that the installation is in accordance with local electrical codes.**

Mounting

NOTE: Mounting hardware is not included and must be purchased separately.

1. Remove the 10457-050 Card Rack from its protective packing.
2. Position the card rack in the 19-inch EIA enclosure and secure the card rack with the appropriate screws. When installed correctly, the power supply assembly is at the top rear of the enclosure.

The two VME-style backplanes on the card rack mate with the upper connector of each card. The card's lower connector mates with the 64-pin connector on the lower backplane PCBAs in the card rack. Card rack slots are numbered to aid in identifying the respective connections on the rear of the card rack.

Power

The power supplies are mounted on the rear of the 10457-050 Redundant Backplane Card Rack Assembly. AC power is supplied to the card rack via the two ac line cord connectors.

NOTE: Two power cords (GAI-Tronics Part No. 61002-007) are included. They are packaged as part of the 10457-050 Card Rack Assembly.

Maintenance

Troubleshooting

Problem	Action
Power lights on the MCU PCBA do not illuminate.	<ol style="list-style-type: none"> 1. Verify connection of ac power cord. 2. Verify ac power is applied. 3. Verify the MCU is fully seated in the card rack. 4. Call for service of the applicable power supply.
Plug-in cards do not operate in one of the slots.	<ol style="list-style-type: none"> 1. Check slot with a known good plug-in card. 2. Call for service of the backplane PCBA.

Specifications

Electrical

Power supply..... Each supply is fused at 2 A, 250 V (not user-serviceable)

Input voltage..... 120 V ac/240 V ac

Total power consumed (card dependent)..... 336 VA, 212 W maximum

Input frequency range 50/60 Hz

Input surge current (cold start)Less than 40 A peak max.

Output current available: (max. not to exceed each power supply's total output power):

(current based on convection cooling)

5 V / +/-12 V power supplyoutput 1 = 10 A @ +5 V dc
 output 2 = 3 A @ +12 V dc
 output 4 = 3 A @ -12 V dc

Total output power of each supply (50° C ambient temp. continuous)

Convection..... 80 W max.

Conducted EMI Compliance to EN55022

AC input power connector (rear)..... IEC 320-style, 3-pin

Environmental

Temperature operating +32° F to +122° F (0° C to +50° C)

Temperature storage -40° C to +85° C

Relative humidity Non-condensing 5–85%

Mechanical

Unit dimensions 10.47 H × 19.00 W × 13.88 D inches (265.9 × 482.6 × 352.55 mm)

Unit weight 21 lbs. max.

Replacement Parts

Model No	Description
40414-024	5 V / +/-12 V Power Supply
61002-007	AC Power Cord

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.