GAI-TRONICS® CORPORATION
A HUBBELL COMPANY

Access Panel to Fiber Interface Kits

Model 12577-011 through -018

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General Information

The Model 12577-011 through 12577-018 Access Panel-to-Fiber Interface Kits are used in pairs to connect Access Panel Models 12576-501, -502, -503, or -504, to ADVANCE cabinets using either single-mode or multi-mode fiber. The Access Panel-to-Fiber Interface kit is available for either indoor or outdoor mounting. The following kits are described in this manual:

Model	Description
12577-011	Indoor Access Panel to Multi-Mode Fiber Kit, ST Connector
12577-012	Indoor Access Panel to Multi-Mode Fiber Kit, SC Connector
12577-013	Indoor Access Panel to Single Mode Fiber Kit, ST Connector
12577-014	Indoor Access Panel to Single Mode Fiber Kit, SC Connector
12577-015	Outdoor Access Panel to Multi-Mode Fiber Kit, ST Connector
12577-016	Outdoor Access Panel to Multi-Mode Fiber Kit, SC Connector
12577-017	Outdoor Access Panel to Single Mode Fiber Kit, ST Connector
12577-018	Outdoor Access Panel to Single Mode Fiber Kit, SC Connector

Each of the indoor kits includes the following components:

Qty	Description
1	Access Panel Fiber PCBA
1	Indoor single card housing
1	120/240 V ac plug-in power supply

Each of the outdoor kits includes the following components:

Qty	Description
1	Access Panel Fiber PCBA
1	Outdoor dual card housing with 24 V dc power adapter and three mounting screws

The indoor single card housing is constructed of powder coated 16-gauge steel and can be mounted on a standard DIN rail or wall mounted.

The outdoor dual card housing is a plastic enclosure that can be mounted to a wall or pole. It has an internal power adapter that accepts an ac or dc voltage input with a 24 V dc output to the fiber optic link card. The outdoor card housing should be mounted to a wall or pole with the three screws provided.
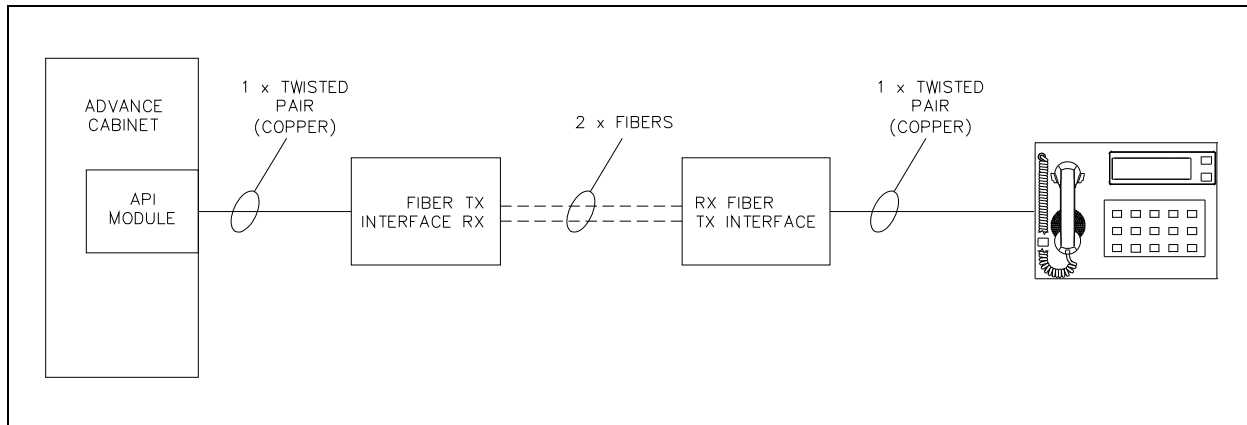

Figure 1. Typical Block Diagram

Installation

Indoor Housing

1. Mount the indoor single-card housing to a DIN rail or wall using the included brackets. For wall mounting, attach the included brackets to the housing using the included screws and then mount the housing to the wall using customer supplied hardware (see Figure 2).

2. Compress the plastic card guide latch on the right side of the PCBA to slide it partially out from the housing. Carefully slide the card further out of the housing to make the necessary connections to the PCBA. The PCBA should not need to be removed from the housing to make the connections (see Figure 4 for the data card connector and LED layout).

3. Connect the fiber optic cable to the card. Connect the fiber optic cable to the transmit and receive terminals marked TX and RX. Fiber cable should always be loosely routed to avoid tight bends.

4. Connect the copper pair from the access panel or ADVANCE cabinet API (Access Panel Interface) module by connecting the conductors to the black TIP and yellow RING screw-down terminals.

5. Connect the provided power supply or an NRTL certified class 2 limited 24 to 48 V dc (70 mA minimum) power source to the 48 V dc terminals on the PCBA.

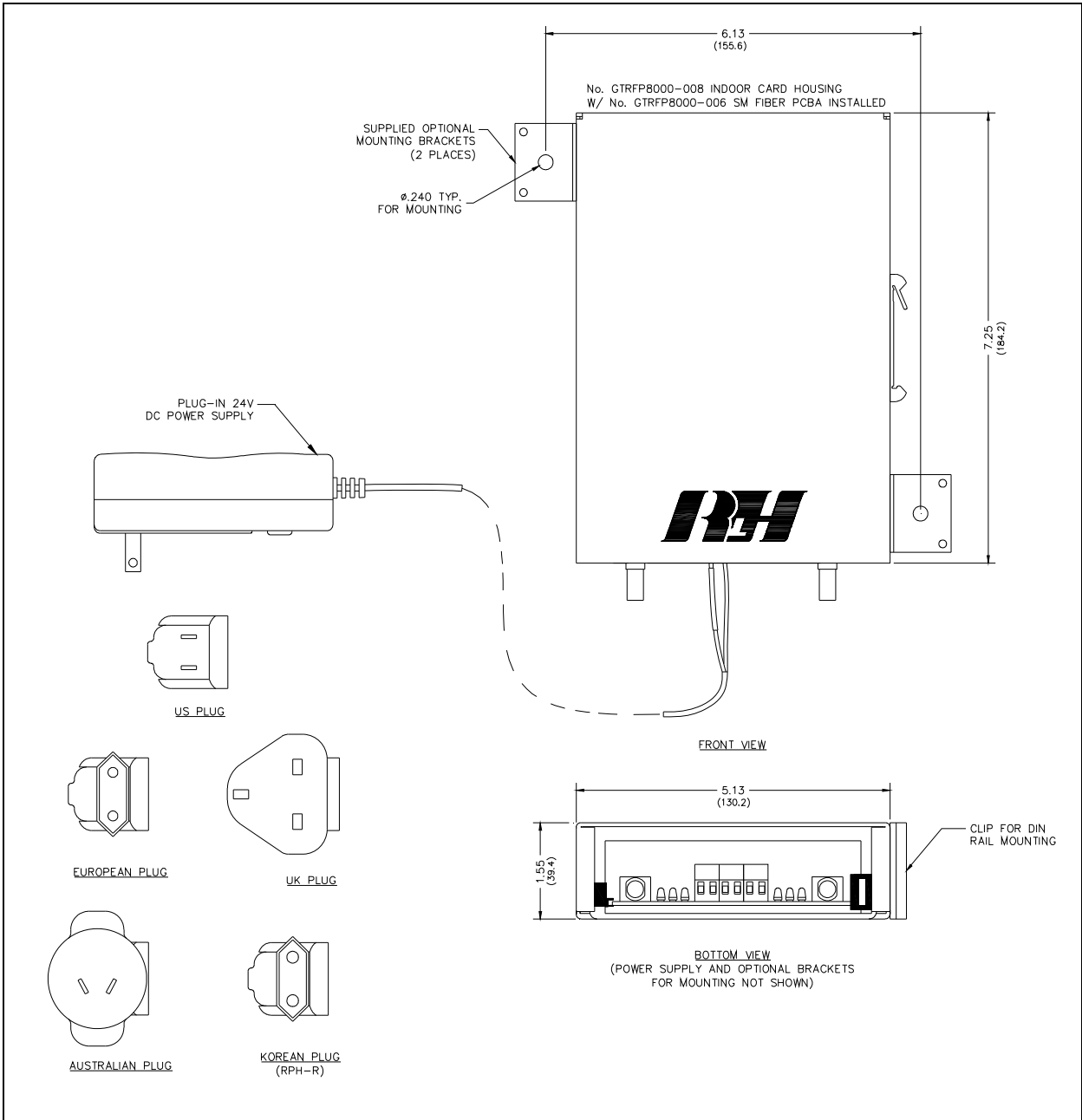6. Slide the card back into the housing and lock it into place.

6.13
(155.6)

No. GTRFP8000-008 INDOOR CARD HOUSING
W/ No. GTRFP8000-006 SM FIBER PCBA INSTALLED

SUPPLIED OPTIONAL
MOUNTING BRACKETS
(2 PLACES)

ø.240 TYP.
FOR MOUNTING

7.25
(184.2)

PLUG-IN 24V
DC POWER SUPPLY

US PLUG

EUROPEAN PLUG

UK PLUG

AUSTRALIAN PLUG

KOREAN PLUG
(RPH-R)

FRONT VIEW

5.13
(130.2)

1.55
(39.4)

CLIP FOR DIN
RAIL MOUNTING

BOTTOM VIEW
(POWER SUPPLY AND OPTIONAL BRACKETS
FOR MOUNTING NOT SHOWN)

Figure 2. Indoor Housing w/ Power Supply

Outdoor Housing

1. Mount the outdoor dual card housing with the three screws provided (see Figure 3).

2. Compress the plastic card guide latch on the right side of the PCBA to slide it out partially from the housing. Carefully slide the card further out of the housing to make the necessary connections to the PCBA. The PCBA should not need to be removed from the housing to make the connections (see Figure 4 for the data card connector and LED layout).

3. Connect fiber optic cable to card. Connect fiber optic cable to the transmit and receive terminals marked TX and RX. Fiber cable should always be loosely routed to avoid tight bends.

4. Connect the copper pair from the access panel or ADVANCE cabinet API module by connecting the conductors to the black TIP and yellow RING screw-down terminals.

5. Connect the provided power supply or an NRTL certified class 2 limited 24 to 48 V dc (70 mA minimum) power source to the 48 V dc terminals on the PCBA.

6. Slide the card back into the housing and lock into place.

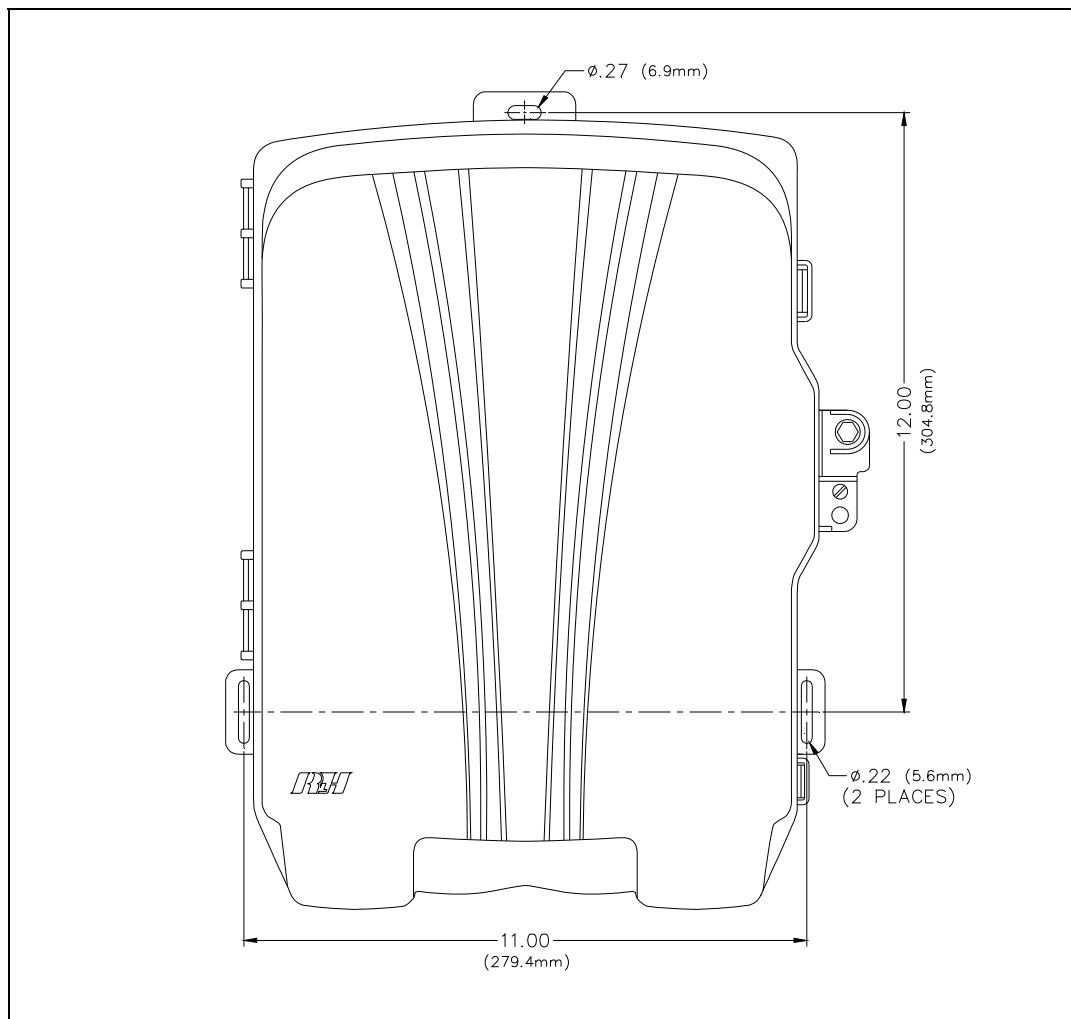7. Close the outdoor housing and secure with lock.

Figure 3. Outdoor Housing Mounting Details

Setup

1. Ensure both fiber interfaces are installed and powered up. Ensure that the TX connector on the near interface is connected to the RX connector on the far interface and vise-versa.

2. Transmit levels are set using the GAIN SELECT jumper on the PCBA. The XMIT and LIMIT LEDs are used to indicate the optimum setting.

3. Move the GAIN SELECT jumper to the highest position that will keep the green XMIT LED on but will not turn on the orange LIMIT LED.

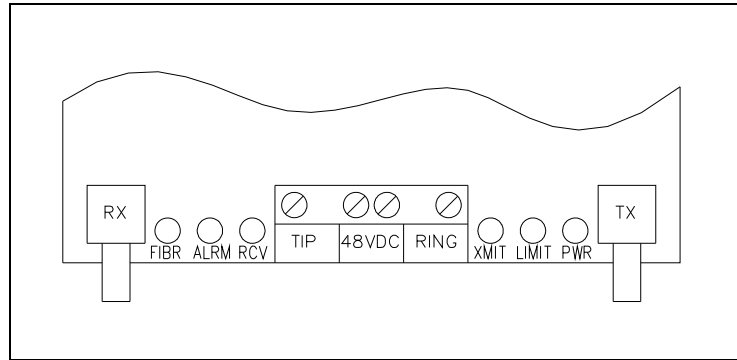4. Repeat for both fiber interfaces.

Figure 4. Data Card Connectors and LEDs

Table 1. Data Card LEDs

LED	Color	On*	Off
Fiber (FIBR)	Yellow	Fiber is connected between cards	No fiber continuity
Alarm (ALRM)	Red	Loss of signal	Normal operation
Receive (RCV)	Green	Signal received from fiber	Low level or no signal received from fiber
Transmit (XMIT)	Green	Signal received from copper	Low level or no signal received from copper
Limit (LIMIT)	Orange	Copper input signal overload	Normal operation
Power (PWR)	Blue	DC power connected	No dc power connected

* All LEDs will be on for approximately 5 seconds following power up.

Specifications

Fiber Cabling

Models 12577-011 and 12577-015 .... milti-mode 62.5 µm, 850 nm, ST connectors

Models 12577-012 and 12577-016 .... milti-mode 62.5 µm, 850 nm, SC connectors

Models 12577-013 and 12577-017 .... single-mode 9/125 µm, 1310 nm, ST connectors

Models 12577-014 and 12577-018 .... single-mode 9/125 µm, 1310 nm, SC connectors

Mechanical

Indoor Models

      Construction.. 16-guage steel

      Dimensions .... 1.55 H × 5.25 W × 7.25 D in (39 × 133 × 184 mm)

Outdoor Models

      Construction..modified OPE-9200 molded plastic

      Dimensions .... 16.7 H × 11.7 W × 4.7 D in (424 × 397 × 119 mm)

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.