



AL-1743 RS485 Databus Interface Installation Instructions

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Introduction

This is the GE *AL-1743 RS485 Databus Interface Installation Instructions*. The AL-1743 is an RS485 databus to optical fiber interface card.

Hardware kit

The AL-1743 interface card ships with the following hardware:

- Two 2-position terminal blocks
- Four jumpers
- Four clip-in standoffs
- Four mounting screws
- Two fiber optic connector caps



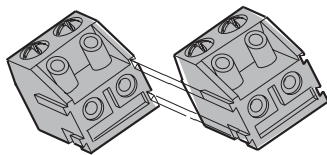
CAUTION: You must be free of static electricity before handling circuit boards. Wear a grounding strap or touch a bare metal surface to discharge static electricity.

Installation

To mount the interface, do the following:

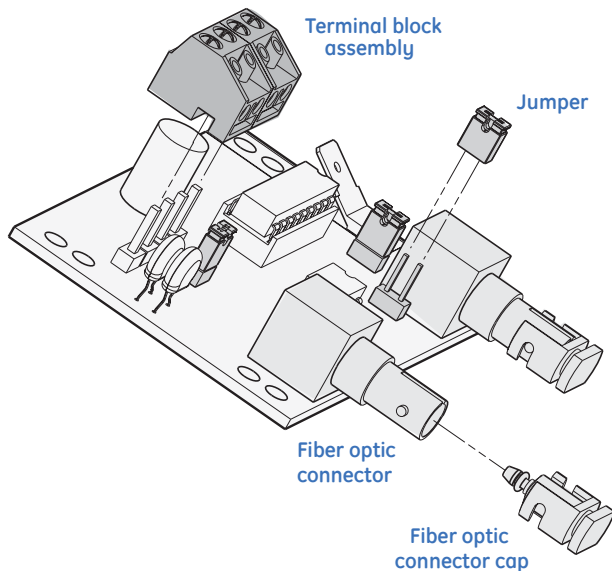
1. Slide the terminal blocks together (*Figure 1*).

Figure 1. Terminal block assembly



2. Slide the terminal blocks over the pins on the interface card (*Figure 2*).

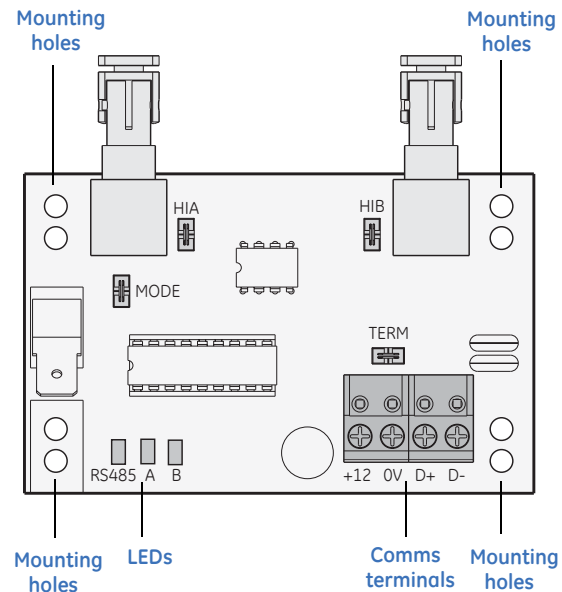
Figure 2. Mounting the terminal blocks



3. Disconnect power from the control panel.

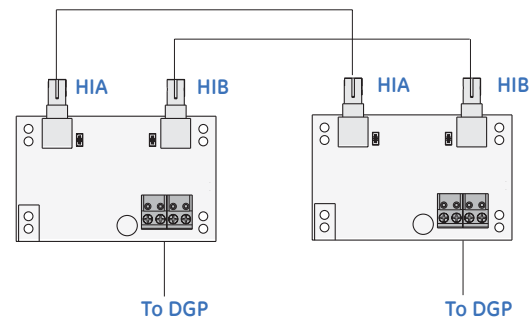
4. Mount the AL-1743 interface card in the panel enclosure and secure using the clip-in standoffs and mounting screws (*Figure 3*).

Figure 3. Mounting holes



5. Remove the caps from the fiber optic connectors (*Figure 2*) and plug the connectors into the fiber optic cable (*Figure 4*).

Figure 4. Connections



Wiring

AL-1743 interfaces cards can be up to 5,000 ft. (1.5 km) from the RAS, DGP, or control panel, depending of cable used. We recommend Belden 8723 (two-pair, twisted, shielded data cable). *Table 1* describes the AL-1743 wiring connections.

Table 1. Wiring connections

| Comms terminal | Wire color | Description |
|----------------|------------|--|
| +12 | Red | 12 VDC supply input. |
| 0V | Black | 60 mA maximum when transmitting at high power on both fibers simultaneously. |
| D+ | White | Positive data connection of the RS485 databus. |
| D- | Green | Negative data connection of the RS485 databus. |

LEDs

The LEDs on the interface card (*Figure 2* on page 1) indicate the following:

- RS485 LED.** Transmitting on RS485.
- A LED.** Transmitting on fiber optic channel A.
- B LED.** Transmitting on fiber optic channel B.

Jumpers

The jumpers on the interface card (*Figure 2* on page 1) do the following:

- HIA jumper.** Enables high power transmission on fiber channel A.
 - HIB jumper.** Enables high power transmission on fiber channel B.
 - MODE jumper.** Jumper on = Unidirectional HDX two fibers.
Jumper off = Bidirectional HDX single fiber.
 - TERM jumper.** Jumper on = TERM
Jumper off = Not TERM.
- Note:** Refer to your panel documentation for more information.

Specifications

| | |
|-------------------|--|
| Supply voltage | 9 to 14 VDC |
| Current | 60 mA |
| Operating voltage | 32 to 122°F (0 to 50°C) |
| Humidity | 95% noncondensing |
| Listings | UL Standard for Access Control System Units UL 365 Standard for Police Station Connected Burglar Alarm Units and Systems UL 609 Standard for Local Burglar Alarm Units and Systems UL 1610 Standard for Central Station Burglar Alarm Units UL 1635 Standard for Digital Alarm Commu- nicator System Units |

Technical support

Toll-free: 888.GESECURity (888.437.3287 in the US, including Alaska and Hawaii; Puerto Rico; Canada).
Outside the toll-free area: Contact your local dealer.

www.gesecurity.com