CLAXHAWKIF485

RS-485 option card for HAWK

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This document covers the mounting and wiring of the RS-485 (2xRS485 interface) option card in a CentraLine *HAWK2xx/3xxE/6xx/6xxE* controller.

Table 1. RS-485 option description

Description	Notes
Dual port, optically isolated RS-485 adapter, with two 3-position, removable screw-terminal connector plugs.	Up to 2 RS-485 option cards may be installed. • If one RS-485 option in Option Slot 1, ports are COM3 and COM4. • If two RS-485 options, ports are COM3 and COM4 for Option Slot 1, and COM5 and COM6 for Slot 2. • If one RS-485 option in Option Slot 2, ports are COM3 and COM4 (unless Option Slot 1 has an RS-232 option card, in which case the ports are COM4 and COM5). See Fig. 2 for location of HAWK Option Slots.

For related HAWK mounting and wiring details, please see *HAWK2xx/3xxE/6xx/6xxE - Installation Instructions* (Literature No.: EN1Z-0944GE51)

Included in this Package

Included in this package you should find the following items:
• an RS-485 option card, along with connector end plate
• two 3-position terminal plugs, for wiring to an RS-485 network
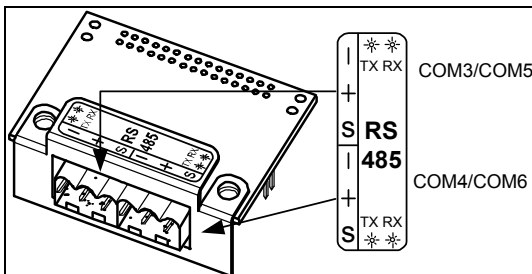• These CLAXHAWKIF485 Installation Instructions

Fig. 1. RS-485 option card

Mounting

Warning   Power to HAWK must be OFF when installing or removing option cards or damage will occur! Also, you must be very careful to plug any Option card into its connector properly (pins aligned).

Mount the RS-485 option card in either of the option card slots of the HAWK, as available. See the notes in Table 1 on software COM ports assignments if installing two RS-485 option cards.

Procedure   Mounting option cards on a HAWK.

Step 1   Remove power from the HAWK - see the previous WARNING.

Step 2   Remove the cover. To do this, press in the four tabs on both ends of the unit, and lift the cover off.
NOTE: If accessory modules are plugged into the HAWK, you may need to slide them away from the unit to get to the cover tabs.

Step 3   Remove the battery and bracket assembly by taking out the four screws holding it in place, setting the screws aside for later. Unplug the battery from the connector on the HAWK. See Fig. 1 for an exploded view.
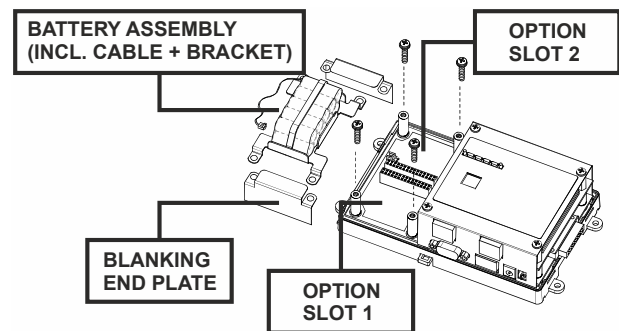

Fig. 2. Removing screws and battery assembly

Step 4   Remove the blanking end plate for the slot you are installing the option card into. (Retain the blanking plate in case the option card must be removed at a later date.)

Step 5   Carefully insert the pins of the option card into the socket of the appropriate option card slot. The mounting holes on the option board should line up with the standoffs on the base board. If they do not, the connector is not properly aligned. Press until the option card is completely seated.

Step 6 Place the custom end plate that came with the option card over the connector(s) of the option card. (see Fig. 3)
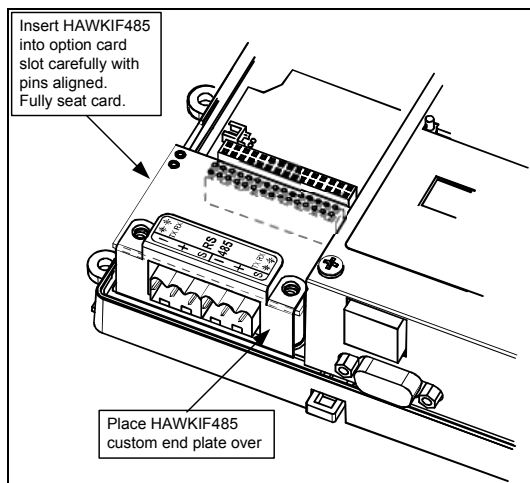
Fig. 3. RS-485 inserted, end plate on top

Step 7 Plug the battery connector plug into the battery connector on the HAWK. (see Fig. 3)

Step 8 Set the battery and bracket assembly back over the option card slots, with the mounting holes aligned with the standoffs.

Step 9 Place the four screws through the battery bracket, end plates, and into the standoffs on the HAWK base board. Hand tighten these screws.
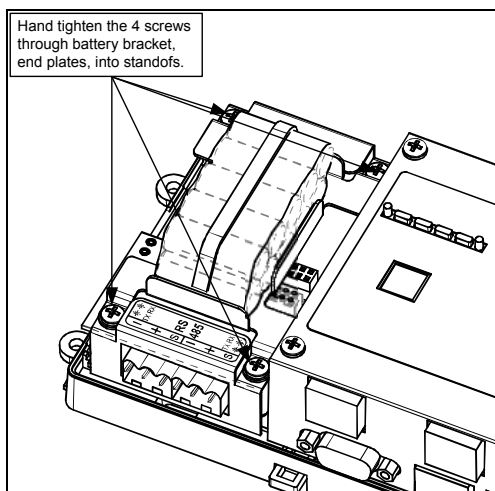
Fig. 4. Re-fastening screws through battery bracket

Step 10 Replace the cover. If accessory modules were unplugged, plug them back into the HAWK as before, and secure.

Wiring

Connect to an RS-485 multipoint network using one of the 3-position screw terminal connectors, using shielded 18-22 AWG wiring. Refer to the TIA/EIA 485 standard for more details.

Screw terminals are minus (–), plus (+), and shield (S), as indicated on the RS-485 end plate label—see Fig. 1.

Biasing

The RS-485 port on the controller's base board has a pair of two-pin jumpers that can be shorted with jumper blocks to provide biasing. As shipped from the factory, these pins are not shorted, thus the RS-485 part is unbiased.
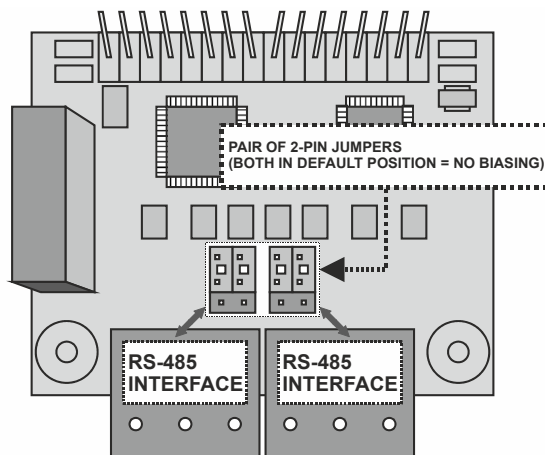
Fig. 5. Pair of 2-pin jumpers and corresponding RS-485 interfaces

For more information on adjusting the bias resistors of the option card, see *HAWK Series 2xx/3xxE/6xx/6xxE – Installation Instructions (EN1Z-0944GE51).*

LEDs

Four LEDs are visible on the top of the RS-485 option card (cover must be removed from HAWK). The label on the RS-485 end plate notes these four LEDs as "TX" and "RX" – see Fig. 1.

The two LEDs for each port are described as follows:

- TX (yellow) — Transmit, indicates that the HAWK is sending data to a device connected on the RS-485 trunk.
- RX (green) — Receive, indicates that the HAWK is receiving data from a device connected on the RS-485 trunk