

NPB-2X-485 Option INSTALLATION SHEET

This document covers the mounting and wiring of the NPB-2X-485 option card in a Vykon[®] JACE controller (JACE-200/600, SEC-J-x01, or J-202-XPR series).

Table 1 NPB-2X-485 option description.

Description	Notes / COM Port Assignments
Dual port, optically isolated RS-485 adapter, with two 3-position, removable screw-terminal connector plugs.	The J-202-XPR series controller accepts only one (1) option card, where ports for the NPB-2X-485 are COM7 and COM8. For other JACE models (JACE-200/600, SEC-J-x01) up to 2 RS-485 option cards may be installed, where: <ul style="list-style-type: none"> • If <i>single</i> RS-485 option in Option Slot 1, ports are COM3, COM4. • If <i>two</i> RS-485 options, ports are COM3, COM4 for Option Slot 1, and COM5, COM6 for Option Slot 2. • If <i>single</i> RS-485 option in Option Slot 2, ports are COM3, COM4, <i>unless</i> one of the following are in Option Slot 1: <ul style="list-style-type: none"> • NPB-232: ports are COM4, COM5. • NPB-GPRS: ports are COM5, COM6.
See Figure 2 on page 2 for location of Option Slots 1 and 2 on a JACE-200/600.	

Refer to the appropriate JACE[®] mounting and wiring document for further JACE installation details.

Included in this Package

Included in this package you should find the following items:

- NPB-2X-485 option card, connector end plate.
- two 3-position terminal plugs, for wiring to an RS-485 network
- This *NPB-2X-485 Option Installation Sheet*, Part Number 10621 Rev 2.

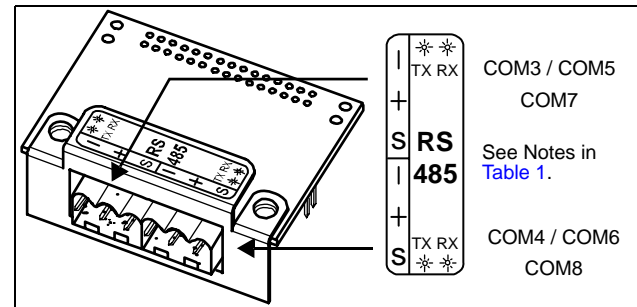
Material and Tools Required

The following tools and supplies may be required for installation:

- #2 phillips screwdriver: used to install the NPB-2X-485.
- Small flat-blade screwdriver: used for making wiring connections to the RS-485 networks.
- #1 phillips screwdriver: to remove and refasten J-202-XPR covers (if applicable).

Information and specifications published here are current as of the date of publication of this document. Tridium, Inc. reserves the right to change or modify specifications without prior notice. The latest product specifications can be found by contacting our corporate headquarters, Richmond, Virginia. Products or features contained herein may be covered by one or more U.S. or foreign patents. © 2009 Tridium, Inc.

Figure 1 NPB-2X-485 option.



Mounting



Warning Power to the JACE 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 NPB-2X-485 option card in either of the option card slots of the JACE, as needed. Note the J-202-XPR series has only one option card slot.



Note If installing in a Security JACE (SEC-J-x01), install in **Option Card Slot 2**.

See the notes in [Table 1](#) on software COM port assignments for installed NPB-2X-485 option cards.

Procedure 1 Mounting NPB-2X-485 option card on a JACE.

1. Remove power from the JACE—see the previous [Warning](#). Wait for all LEDs on the unit to be Off.
2. Remove the JACE cover or covers (J-202-XPR). For all but the J-202-XPR, press in the four tabs on both ends of the unit, and lift the cover off.



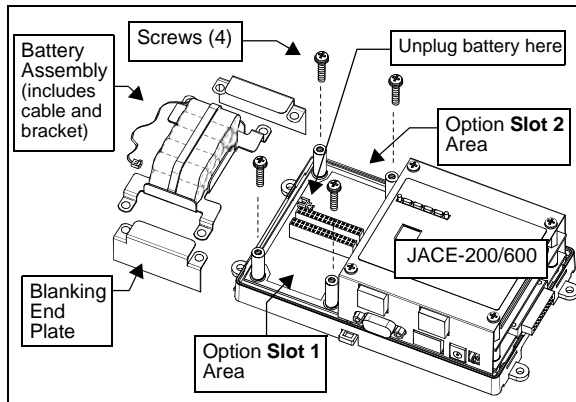
Note If accessory modules are plugged into the JACE, you may need to slide them away from the unit to get to the cover tabs.

Material and Tools Required

For the J-202-XPR, first remove the right cover, then the left cover, retaining the two screws that secure each cover.

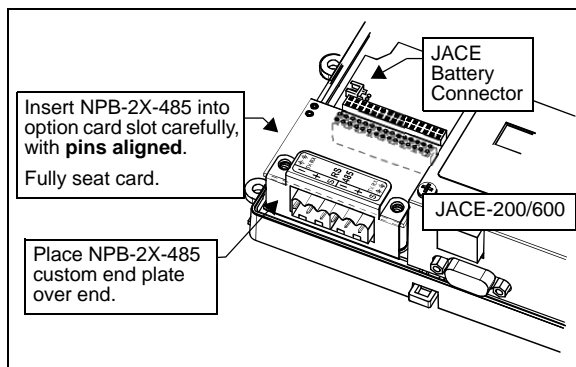
- For all but the J-202-XPR, remove the battery and bracket assembly by taking out the screws holding it in place, setting the screws aside for later. Unplug the battery from the connector on the JACE. See [Figure 2](#) for an exploded view.

Figure 2 Remove battery assembly.



- Remove the blanking end plate for the slot you are installing the option card into. (Retain the blanking end plate in case the option card must be removed at a later date.)
- Carefully insert the pins of the NPB-2X-485 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.
- Place the custom end plate that came with the NPB-2X-485 over its connector (see [Figure 3](#)).

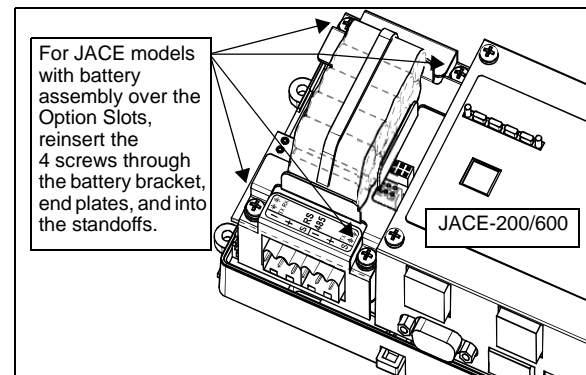
Figure 3 NPB-2X-485 inserted, end plate on top.



- Plug the battery cable into the battery connector on the JACE (see [Figure 3](#) for location on the JACE-200/600).

- For all but the J-202-XPR, set the battery and bracket assembly back over the option card slots, with mounting holes aligned with the standoffs. Screws enter holes in the battery bracket first.

Figure 4 Re-fasten screws.



- Place the screws through the end plate(s), and into the standoffs on the base board. Using a screwdriver, hand tighten screws.
- Replace the JACE cover or covers (J-202-XPR). If accessory modules were unplugged from the JACE, plug them back 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 NPB-2X-485 end plate label—see [Figure 1](#) on page 1.

LEDs

Four LEDs are visible on the top of the NPB-2X-485 option card (cover must be removed from JACE). The label on the NPB-2X-485 end plate notes these four LEDs as “TX” and “RX”—see [Figure 1](#) on page 1.

The two LEDs for each port are described as follows:

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