# NPB-232 Option
## INSTALLATION SHEET

This document covers the mounting and wiring of the NPB-232 option card a Vykon® JACE controller (JACE-200/600, SEC-J-*x*01, or J-202-XPR series).

**Table 1    NPB-232 option description.**

| Description | Notes / COM Port Assignments |
|---|---|
| Single port RS-232 adapter, with DB-9M connector. Uses its own on-board UART. Supports baud rates up to 115200. | The J-202-XPR series controller accepts only one (1) option card, where the NPB-232 port is COM7. |
| **Note:** The JACE requires NiagaraAX build level 3.1.24 or higher to use the NPB-232 option. | For other JACE models (JACE-200/600, SEC-J-*x*01) up to two RS-232 option cards may be installed, where:<br>• If a *single* RS-232 option in Option Slot 1, the port is COM3.<br>• If *two* RS-232 options, ports are COM3 for Option Slot 1, COM4 for Option Slot 2.<br>• If *single* RS-232 option in Option Slot 2, the port is COM3, *unless* Option Slot 1 has an NPB-2X-485 or NPB-GPRS, in these cases, the NPB-232 port is COM5.<br>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

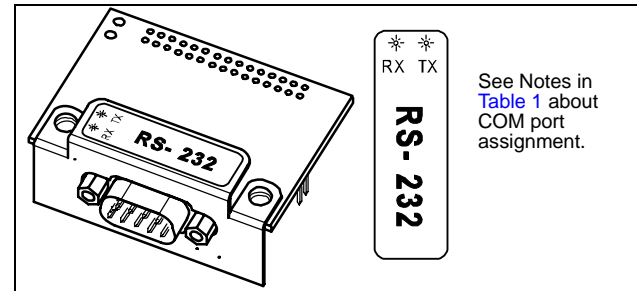Included in this package you should find the following items:

• NPB-232 option card, connector end plate.
• This *NPB-232 Option Installation Sheet*, Part Number 10762 Rev. 2.

## Material and Tools Required

The following tools and supplies may be required for installation:

• #2 phillips screwdriver: used to install the NPB-232 option card.
• #1 phillips screwdriver: to remove and refasten J-202-XPR covers (if applicable).

**Figure 1    NPB-232 option.**



See Notes in Table 1 about COM port assignment.

## Mounting

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**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-232 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.

**Procedure 1    Mounting NPB-232 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.
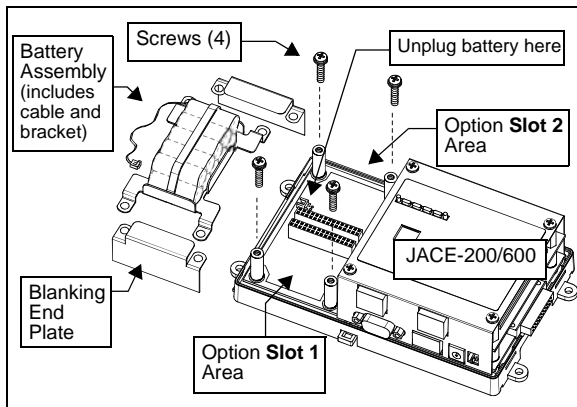
   📝
   **Note**  If accessory modules are plugged into the JACE, you may need to slide them away from the unit to get to the cover tabs.

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

3. 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.
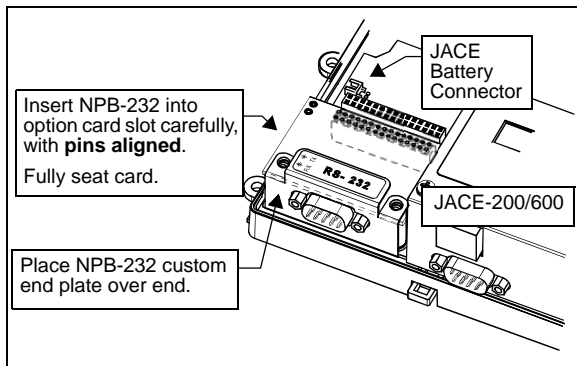
Material and Tools Required

**Figure 2    Remove battery assembly.**



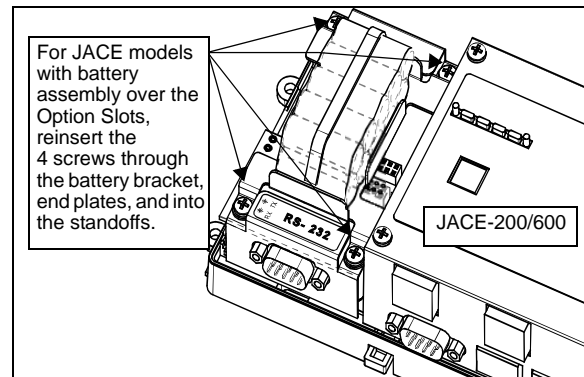**4.** Remove the blanking end plate for the slot you are installing the option card into.
(Retain the blanking end plate in case the option card must be removed at a later date.)

**5.** Carefully insert the pins of the NPB-232 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.

**6.** Place the custom end plate that came with the NPB-232 over its connector (see Figure 3).

**Figure 3    NPB-232 inserted, end plate on top.**



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

**8.** 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, see Figure 4.

**9.** Place the screws through the end plate(s), and into the standoffs on the base board. Using a screwdriver, hand tighten screws.

**Figure 4    Re-fasten screws through battery bracket.**



**10.** Replace the JACE cover or covers (J-202-XPR). If accessory modules were unplugged from the JACE, plug them back as before, and secure.

# Port Pinouts

The NPB-232 option has standard DB-9M pinouts, identical to the RS-232 port on the JACE-200/600 or SEC-J-*x*01 base. Table 2 provides a visual reference.

**Table 2    NPB-232 port pinouts.**

| Pinout Reference | Signal | DB-9 Plug Pin |
|---|---|---|
| DB-9 Plug (male) | DCD | 1 |
| | RXD | 2 |
| | TXD | 3 |
| | DTR | 4 |
| | GND | 5 |
| | DSR | 6 |
| | RTS | 7 |
| | CTS | 8 |
| | not used | 9 |

Standard DB-9 serial cables may be used, for example, a "null modem" cable to communicate to another DTE device.

# LEDs

Two LEDs are visible on the top of the NPB-232 option card (cover must be removed from JACE). They are also noted on the label—see Figure 1. The two LEDs are described as follows:

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