## 920i® Programmable HMI Indicator/Controller

# Two-Card Expansion Board Installation

This document contains procedures for installing two card expansion boards in the deep universal, wall and panel mount models of the *920i* indicator. Procedures for each enclosure type are described in this document.

See the *920i* manual (PN 67887) for general installation and configuration information, including option card slot numbering and port assignments.



For applications using both six- and two-card expansion boards, connect the six-card board to the two card board using cable ((PN 71799) for universal and panel mount units or cable (PN71780) for wall mount units.

Part No.	Description	Qty
31596	Standoff, Male-FEM 4-40NC	5
69808	Board Assy, Expansion 2	1
71453	Standoff, PC Board	3
181032	Cable Assy, DC Power (180047 Only)	1
71758	Cable Assy, DC Power (71743 Only)	1
71779	Cable Assy, Ribbon 2.0"	1
98807	Standoff, Male-Fem. 4-40	5

Table 1-1. Expansion Board Kit, PN 71743 and 180047 for Panel Mount or Deep Universal Enclosures

Part No.	Description	Qty
14822	Screw, Mach 4-40 NC x 1/4"	4
15631	Cable Tie, 3" Nylon	6
15650	Mount, Cable Tie 3/4"	2
46192	Clamp, Flat Ribbon Cable	2
69808	Board Assy, Expansion 2	1
71452	Standoff, Male-FEM 4-40NC	12
179487	Cable Assy, DC Power, 4 Pin Connector (179488 only)	1
71757	Cable Assy, DC Power, 6 Pin Connector (69782 only)	1
71780	Cable Assy, Ribbon 23.5"	1

Table 1-2. Expansion Board Kit, PN 69782 and 179488 for Wall Mount Enclosure



The slot/location jumper on the two-card expansion board must be set to the 3–4 position for all standard installations. The 9–10 position is used in special applications using both six- and two-card expansion boards.

For applications using both six- and two-card expansion boards, connect the six-card board to the two-card board using either cable PN 71799 (panel mount units) or PN 71780 (wall mount units).

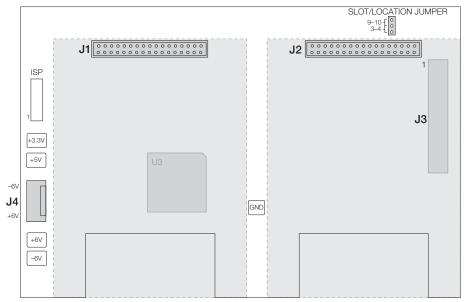


Figure 1. Two-Card Expansion Board



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### Panel Mount or Deep Universal Enclosures (71743 & 180047)

This procedure describes installation of a two card expansion board into the panel mount or deep universal enclosure.

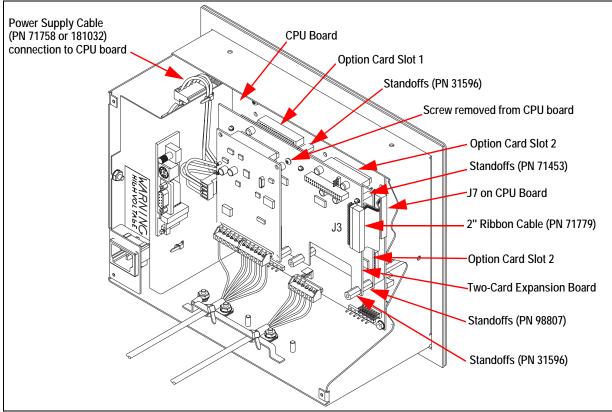


Figure 2. Two Card Expansion Board Installed in Panel Mount or Deep Universal Enclosure

- 1. Disconnect power to the indicator.
- 2. Remove enclosure back plate.
- 3. Remove option cards installed on the CPU board by removing screws securing cards to the CPU board. Retain for reinstallation.
- 4. Remove the screw from the CPU board (shown in Figure 2) and set aside.
- 5. Install standoff (PN 31596) for support between the CPU board and option card.
- 6. Attach the 2" ribbon cable to connector J7 on the CPU board.
- 7. Remove existing power supply cable and replace with the new power supply cable.
- 8. Re-install option cards in CPU board slots 1 and 2.
- 9. Install four standoffs (PN 98807) in screw locations at bottom edge of the option cards.
- 10. Install one standoff (PN 98807) on the option card in slot 1, threading into the standoff installed in Step 5.
- 11. Install three standoffs (PN 71453) into the remaining holes along the top edges of the option cards installed in slots 1 and 2.
- 12. Mount the expansion board on the three standoffs (PN 71453).
- 13. Install four standoffs (PN 31596) along bottom edge of the expansion board.
- 14. Install the screw removed in Step 4 to secure the expansion board.
- 15. Attach the ribbon cable to connector J3 on the expansion board.
- 16. Attach the power cable to connector J4 on the expansion board.
- 17. Set the slot/location jumper to the 3-4 position (see Figure 1 on page 1).
- 18. Install option cards onto expansion board (see page 4).
- 19. Use cable ties to secure all loose cables inside the enclosure.
- 20. Reassemble the enclosure and reconnect power to the indicator.



### Wall Mount Enclosure (69782 and 179488)

This procedure describes installation of the two card expansion board into the wall mount enclosure.

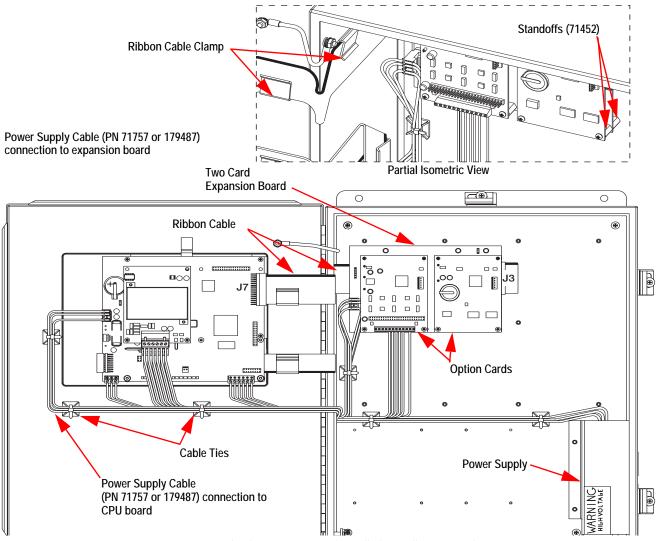


Figure 3. Two Card Expansion Board Installed in Wall Mount Enclosure

- 1. Disconnect power to the indicator.
- 2. Remove enclosure back plate.
- 3. Install eight standoffs (PN 71452) into the holes in the enclosure back plate.
- 4. Clip the six cable ties that secure the power supply cable assembly to the CPU board.
- 5. Remove the power supply cable and replace with the new power supply cable. Do not connect to expansion board at this time.
  - Option 179488 supplies a 4-pin connector (PN 179487)
  - Option 69782 supplies a 6-pin connector (PN 71757)
- 6. Remove adhesive covering from two ribbon cable clamps and install on door and side wall of enclosure.
- 7. Attach the ribbon cable to connector J7 on the CPU board.
- 8. Slide the ribbon cable into the cable clamps and extend the cable to full length.
- 9. Mount the expansion board on the standoffs. Ensure that ribbon cable is routed under the expansion board and extends to the right of the board.
- 10. Secure the expansion board to the backplate with four 1/4" screws (PN 14822).
- 11. Install four 1/2" standoffs (PN 71452) onto the expansion board to support option cards.
- 12. Attach the ribbon cable to connector J3 on the expansion board.
- 13. Attach the power cable to connector J4 on the expansion board.

- 14. Set the slot/location jumper to the 3–4 position (Figure 1 on page 1).
- 15. Install option cards onto the expansion board.
- 16. Use cable ties to secure all loose cables inside the enclosure.
- 17. Reassemble the enclosure and reconnect power to the indicator.

### **Option Card Installation**

Each option card is shipped with installation instructions specific to that card, basic installation is listed below.



Option cards are not hot-pluggable. Disconnect power to the 920i before installing option cards.

- 1. Align the large option card connector with connector J1 or J2 on the expansion board.
- 2. Press down to seat the option card in the expansion board connector.
- 3. Secure with the screws provided in the option card kit to secure to the threaded standoffs.
- 4. Make connections to the option card as required.
- 5. Use cable ties to secure loose cables inside the enclosure.
- 6. Reassemble the enclosure and reconnect power to the indicator.

The indicator automatically recognizes all installed option cards when the unit is powered on. No hardware-specific configuration is required to identify the newly-installed card to the system.



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