Relay Rack Option

PN 45408

Use the following procedure to install the IQ plus 510/710 relay rack option:

1. Ensure power to the indicator is disconnected, then place the indicator face-down on an antistatic work mat. Remove the screws that hold the backplate to the enclosure body. Loosen all in-use cord grips then lift the backplate away from the enclosure and set it aside.



Use a wrist strap to ground yourself and protect components from electrostatic discharge (ESD) when working inside the indicator enclosure.

- 2. Assemble relays onto the relay board (4-channel) or boards (8-channel).
- 3. Install standoffs onto the studs on the indicator backplate. Mount U-brackets on the standoffs, place protective shield on top of brackets, and secure with kep nuts (see Figure 3 on page 2).

- 4. For IQ plus 710 indicators using output relays, remove connector J8 from the CPU board and wire the relay board to the connector as shown in Figure 1.
 - For IQ plus 510 or 710 input relays, remove connectors J7 and J8 from the CPU board and wire as shown in Figure 2.
 - **NOTE:** For indicators using Rev. 1 CPU boards, digital input and output connections are made to the interface board. See the IQ plus 510/710 Interface Board addendum, PN 46204, for connector information.
- 5. Loosen cord grips and route cables for external equipment into the enclosure as shown in Figure 3 on page 2. Attach cables to relay board as shown in Figure 1 or Figure 2.

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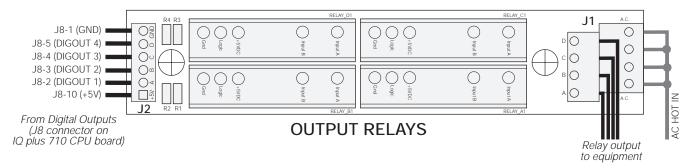


Figure 1. IQ plus 710 Output Relay Wiring

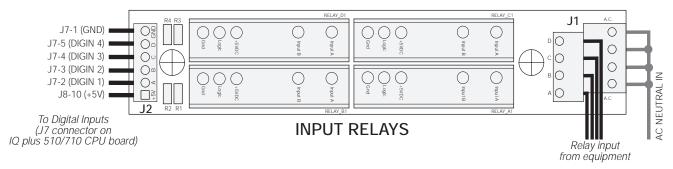


Figure 2. IQ plus 510/710 Input Relay Wiring



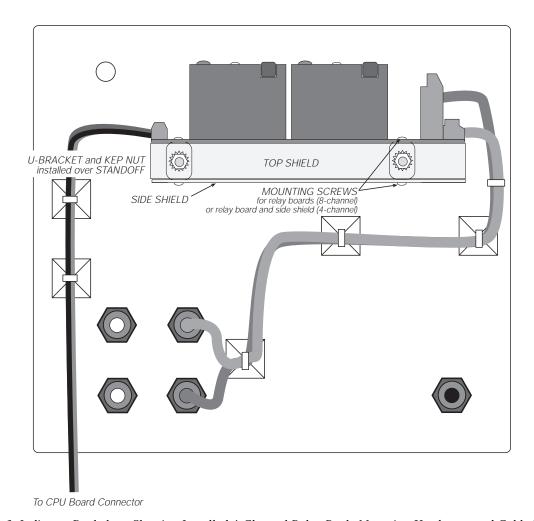


Figure 3. Indicator Backplate, Showing Installed 4-Channel Relay Rack, Mounting Hardware, and Cable Routing

- 6. For 4-channel (single-board) relay options, mount the relay board to the U-brackets as shown in Figure 3 and secure with two of the screws provided. Use the remaining two screws to attach the second protective shield to the opposite side of the U-bracket.
 - For 8-channel (two-board) options, mount the second relay board to the U-brackets in place of the second protective shield.
- 7. Reinstall wired connector (J8, or J7 and J8) to the indicator CPU board.
- 8. Use cable ties and mounts to secure cabling to the inside of the indicator enclosure as shown in Figure 3.
- 9. Position backplate over the enclosure and reinstall the backplate screws. Use the torque pattern shown in Figure 4 to prevent distorting the backplate gasket. Torque backplate screws to 10 in-lb (1.13 N-m).
- 10. Ensure no excess cable is left inside the enclosure and tighten cord grips. Make cable connections to external equipment as required.

11. See the indicator *Installation Manual* for information about configuring digital inputs and outputs.

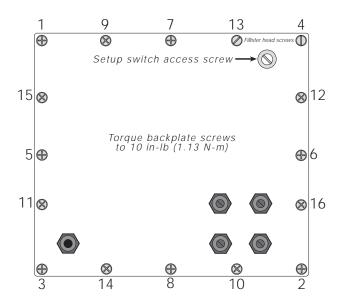


Figure 4. Torque Pattern for Backplate Screws