

# Dual-Channel A/D Card Installation Instructions

PN 68533

Use the following procedure to install dual-channel A/D cards in 920i indicators:

1. Disconnect indicator from power source.

**Warning** *Disconnect power before removing indicator backplate.*

2. Place indicator face-down on an antistatic work mat. Remove screws that hold the backplate to the enclosure body.

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

3. Carefully align the large option card connector with connector J5 or J6 on the CPU board. Press down to seat the option card in the CPU board connector.
4. Use the screws and lockwashers provided in the option kit to secure the other end of the option card to the threaded standoffs on the CPU board (see Figure 1).

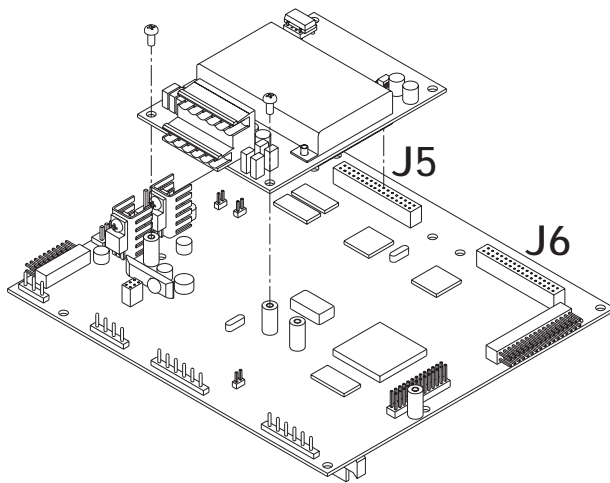


Figure 1. Installing Option Card Onto CPU Board

5. To attach cable from a load cell or junction box to the A/D card, route the cable through the cord grip and wrap the shield wire around the ground stud on the enclosure. Secure shield wire to the ground stud with the kep nut included in the parts kit.

See the 920i Installation Manual, PN 67887, for more information about grounding cables.

6. Next, remove connector J1 from the A/D card. The connector plugs into a header on the card (see Figure 2). Wire the load cell cable from the load cell or junction box to connector J1 as shown in Table 1.

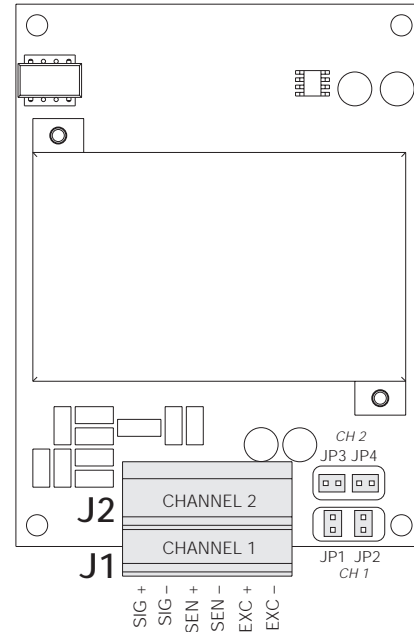


Figure 2. Dual-Channel A/D Card

7. Remove connector J2 from the A/D card and wire the second load cell cable from the load cell or junction box to connector J2 as shown in Table 1.

J1/J2 Connector Pin	Function
1	+SIG
2	-SIG
3	+SENSE
4	-SENSE
5	+EXC
6	-EXC

- For 6-wire load cell connections to connector J1, remove jumpers JP1 and JP2.
- For 6-wire load cell connections to connector J2, remove jumpers JP3 and JP4.

Table 1. A/D Card Pin Assignments

8. If using 6-wire load cell cable (with sense wires), remove jumpers JP1 and JP2 before reinstalling connector J1. For 4-wire connections, leave jumpers JP1 and JP2 on. Remove jumpers JP3 and JP4 for 6-wire connections to J2.
9. When connections are complete, reinstall load cell connectors on the A/D card and use cable ties to secure the load cell cables to the inside of the enclosure.
10. Position the backplate over the enclosure and reinstall the backplate screws. Use the torque pattern shown in Figure 3 to prevent distorting the backplate gasket. Torque screws to 15 in-lb (1.7 N-m).

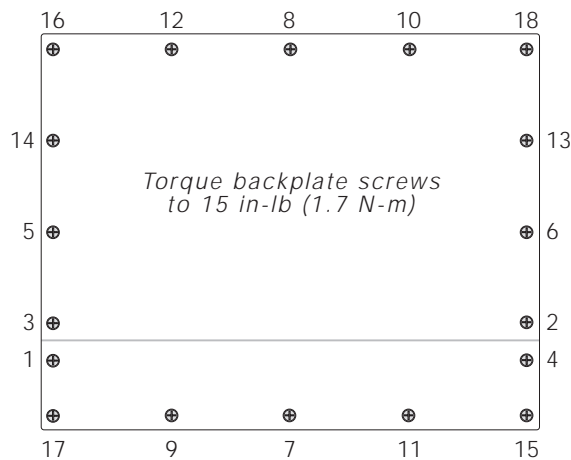


Figure 3. 920i Enclosure Backplate

11. Ensure no excess cable is left inside the enclosure and tighten cord grips.
12. Reconnect power to the indicator.
13. The 920i 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.  
Calibrate the A/D card using the procedures described in the 920i Installation Manual, PN 67887.

### Specifications

Excitation Voltage	10 $\pm$ 0.5 VDC, 16 x 350 $\Omega$ or 32 x 700 $\Omega$ load cells per A/D card
Sense Amplifier	Differential amplifier with 4- and 6-wire sensing
Analog Signal Input Range	-10 mV/V to +70 mV/V
Analog Signal Sensitivity	0.3 $\mu$ V/grad minimum @ 7.5 Hz 1.0 $\mu$ V/grad typical @ 120 Hz 4.0 $\mu$ V/grad typical @ 960 Hz
A/D Sample Rate	7.5-960 Hz, software selectable
Input Impedance	>35 M $\Omega$ typical
Internal Resolution	8 000 000 counts
Wt Display Resolution	9,999,999
Input Sensitivity	10 nV per internal count
System Linearity	$\pm$ 0.01% of full scale
Zero Stability	$\pm$ 150 nV/ $^{\circ}$ C, maximum
Span Stability	$\pm$ 3.5 ppm/ $^{\circ}$ C, maximum
Input Voltage Differential	$\pm$ 800 mV referenced to earth ground
Input Overload	Load cell signal lines $\pm$ 10 V continuous, ESD protected
RFI/EMI Protection	Signal, excitation, and sense lines protected