

7.5V DC-to-DC Power Supply Installation Instructions

PN 97475

The 7.5 volt DC-to-DC power supply, PN 97475, uses a DC power source of 9–36VDC to provide +7.5VDC power to the 420 Plus CPU board. This is a 25 Watt power supply, suitable to power the indicator and (16) 350 ohm load cells. Use with Analog Output option is acceptable.

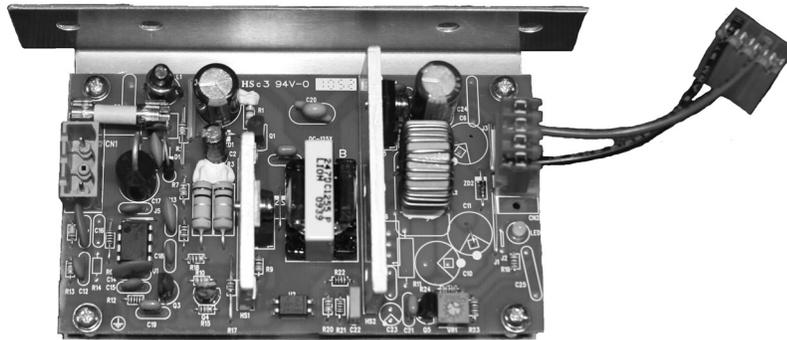
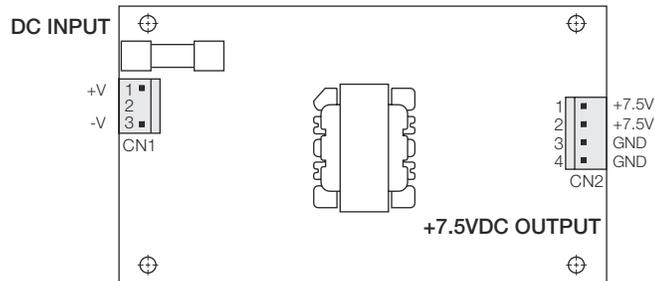


Figure 1. 7.5V DC-to-DC Power Supply Board

Use the following procedure to replace and install the DC to DC power supply in the 420 Plus indicator.

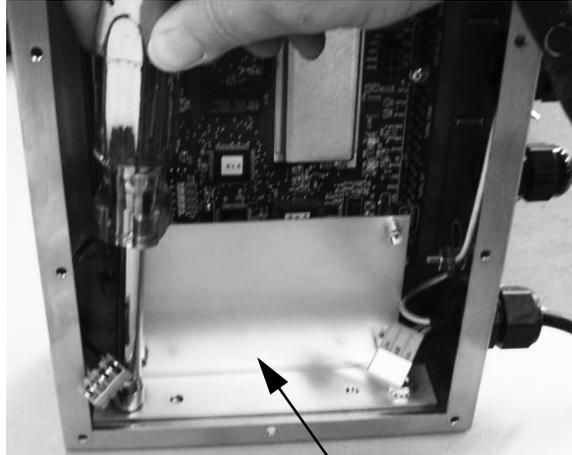
Installation Notes

- AC-powered indicators retrofit with a DC power supply must also replace the indicator serial tag. Consult factory for more information.
- The power supply bracket is the same for the DC power supply and the AC power supply.
- DC power wiring to the indicator should be 18 AWG to 14 AWG for all conductors.
- For mobile applications, earth ground should be terminated to the vehicle chassis.



Warning Disconnect power before removing indicator backplate

1. Place indicator face down on an antistatic work mat and remove screws that hold the backplate to the enclosure body.



Location of power supply inside 420 Plus enclosure.

Figure 2. Location of Power Supply

2. Strip back the outer jacket on both ends of the power cord by 3".
3. Strip the wire insulation on DC power supply 1/4" on all ends (shown below).

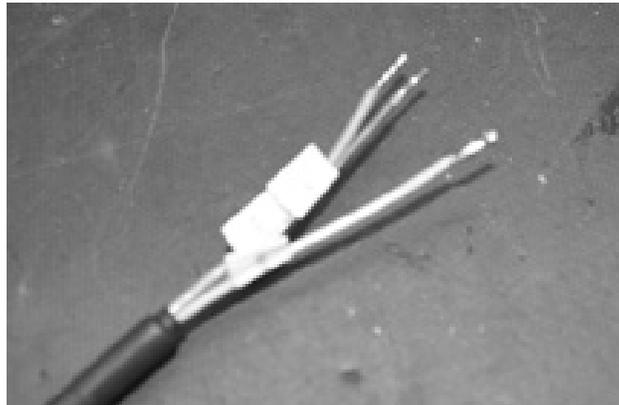


Figure 3. Tinned Wire Ends

4. Tin the end of the wires to prevent fraying as shown in Figure 3.

5. Install cable and cord grip by running it through the enclosure as shown below.

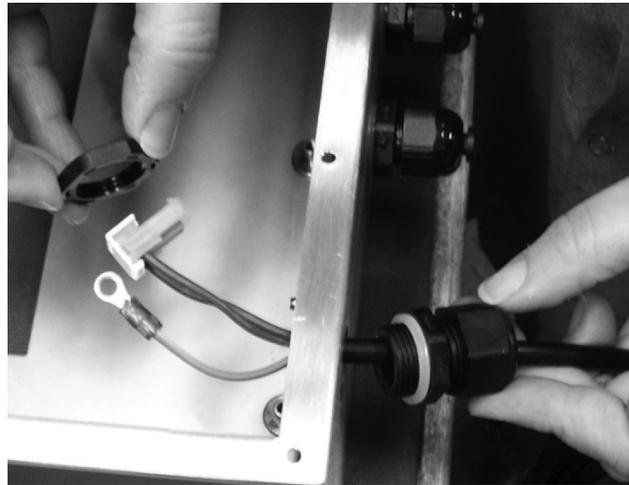


Figure 4. Install Power Cord into Enclosure

6. Connect the ground wire that comes from the cable to the ground lug on the indicator. Attach the positive and negative wires coming from the cable to the power supply board. Proper wire connections are shown in Table 1.

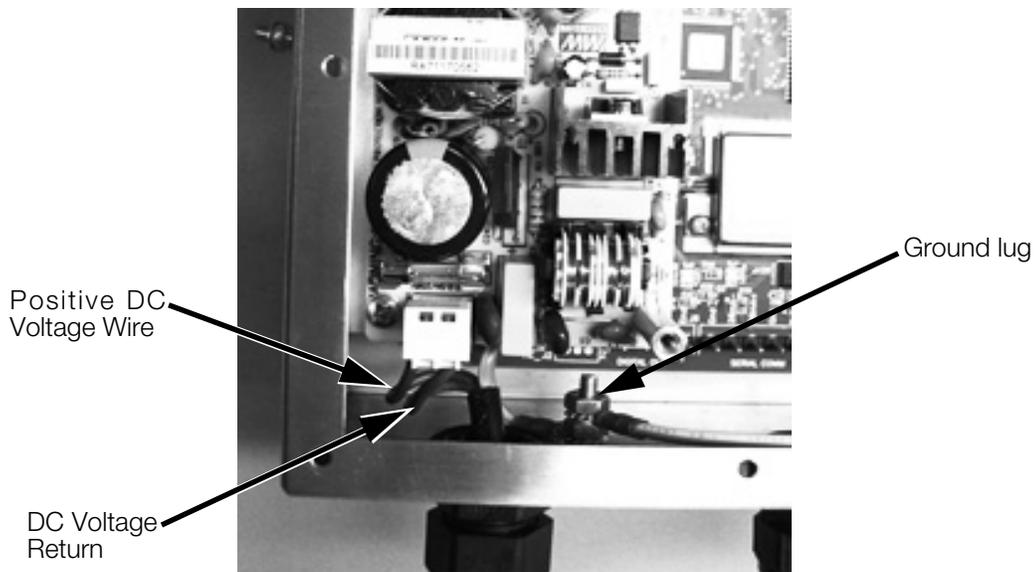


Figure 5. Install + and - Voltage Wire and Connect Ground Wire

Wire	Signal
Earth/Chassis Ground	Ground
Positive DC Voltage	+V
Negative DC Voltage	-V

Table 1. Wiring to Power Supply

7. Carefully align the power supply to existing location and use screws provided to secure the power supply to the enclosure.
8. Carefully plug in the +7.5 VDC output side of the power supply to the CPU board. It's location is noted in Figure 6.

Plug in location on the 420 Plus CPU board.

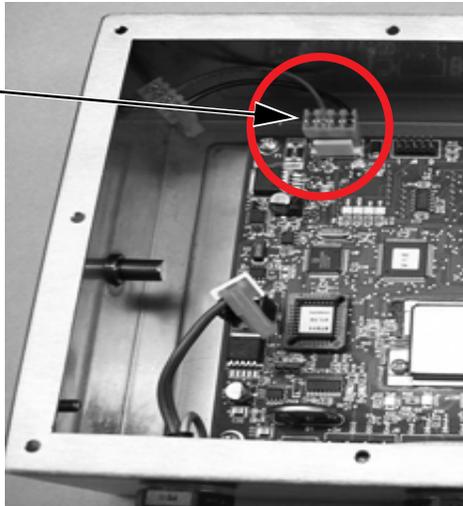


Figure 6. Plug into 420 Plus CPU Board

- Once installing the power supply is complete, position the backplate over the enclosure and reinstall the backplate screws. Use the torque pattern shown in Figure 7 to prevent distorting the backplate gasket. Torque screws to 15 in-lb (1.7 N-m).

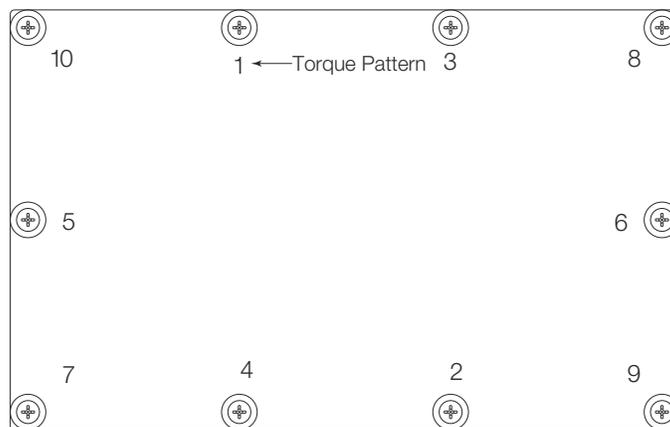


Figure 7. Backplate Torque

- Torqued screws may become less tight as the gasket is compressed during torque pattern, therefore a second torque is required using the same pattern and torque value.

Specifications

Input Voltage	9–36 VDC (CN1, pin1 & 3)
Output Voltage	+7.5V (CN2, pin1 & 2)
Output Current	Up to 3.0A
Rated Power	25W