

This guide is only an installation checklist. Please go to www.ionpure.com and review the manual in detail! All work should be accomplished by a certified electrician.

- 1) Locate the DIP Switch on the top of the power controller, and select the Current Range, Terminal Resistor, and Control Mode (constant current or constant voltage). ON is down (towards rotary switch). See configuration table in DCR manual.
- 2) If using an IONPURE G2 Display Board, use the Rotary Switch (also located on the top of the power controller) to assign a unique identification number (0 – 9, A – F) to the DCR.
- 3) Mount the DCR using the four mounting slots on the backplate.
- 4) Connect 24 VDC (minimum 7 watts) to P1 Connector, Pins 1 (24V-) and 2 (24V+).
- 5) Connect the output of the isolation transformer to terminals A1 and B1. The power controller can accept any **single-phase input voltage** from 220 – 660 VAC, at 45 – 65 Hz. The maximum DC output voltage will be ~90% of the AC input voltage. **DO NOT GROUND THE SECONDARY OF THE ISOLATION TRANSFORMER.**
- 6) Connect the output of the DCR to the CEDI module's junction box: **DC+** to the anode (red), **DC-** to the cathode (black).
- 7) Connect the **GND** screw to the local ground inside the panel enclosure.
- 8) Connect a control signal to set the DC output current.
 - a. Use IONPURE G2 Display Board.
 - OR**
 - b. 0 – 5 VDC analog signal to P1 Connector, Pins 4 (Ic+) and 5 (Ic-).
- 9) Connect a jumper or a dry switch contact (ENABLE) signal to P1 Connector, Pins 8 and 9. **THE POWER CONTROLLER WILL NOT FUNCTION WITHOUT THIS.**

| P1-1 | P1-2 | P1-3 | P1-4 | P1-5 | P1-6 | P1-7 | P1-8 | P1-9 | P1-10 |
|------|------|------|------|------|------|------|--------|----------|-------|
| 24V- | 24V+ | - | Ic+ | Ic- | - | - | Common | Run/Stop | - |

- 10) Connect optional display.
 - a. IONPURE G2 Display Board via standard Ethernet cable (CAT 5 or greater).
 - AND/OR**
 - b. Remote ammeter to P2 Connector, Pins 1 (Im+) and 2 (Im-)
0 – 5 VDC output signal corresponding to 0 – 100% of current limit
 - c. Remote voltmeter to P2 Connector, Pins 3 (Vm+) and 4 (Vm-)
0 – 5 VDC output signal corresponding to 0 – 600 VDC.

| P2-1 | P2-2 | P2-3 | P2-4 | P2-5 | P2-6 | P2-7 | P2-8 |
|------|------|------|------|------|------|--------|------|
| Im+ | Im- | Vm+ | Vm- | - | N.O. | Common | N.C. |

- 11) **Optional:** Use output status relay at P2 Connector, Pins 7 (Common) and 6 (N.O.) or 8 (N.C.) to provide external status signal.

