

Cat. #5010-Q

QuadraSource™ Power Source



Specifications:

Max Voltage:	300 Volts
Voltage Steps:	10 - 300 V in increments of 1 V
Max Current:	0.5 amp
Type Output:	Variable Voltage
Lead Inputs:	4 Sets, Recessed, Color Coded
Fuse:	2.0 Amp, 250 V, 1.6 Amp
Input Power:	50-60 Hz, 100-264 Volts
Connection:	3-Wire Grounded Cord

Safety Features:

- **Load connect detection** - unit will display an error unless a connection is made.
- **Short circuit detection** - unit will display an error if the current is too high.
- **Loose connection detection** - unit will display an error if the current keeps changing.
- **Recessed terminals** - terminals are recessed to safely accommodate leads.
- **Protective casing** - minor liquid spills can be easily wiped up.

Current-Voltage Relationship

$$V=IR$$

V = Voltage, I = Current, R = Resistance

Ohm's Law states that the voltage (V) through a conductor is directly proportional to the current (I). The constant of proportionality is the resistance (R).

Therefore, our power supplies can be set either to a constant voltage or a constant current, however they cannot both be controlled at once. The resistance is determined by a number of factors including the device that the current is being applied to, and any buffer or gel in that device.

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TO USE AT A CONSTANT VOLTAGE:

1. Turn unit on using the switch on the rear of the unit next to the plug.
2. Use the up or down arrows $\blacktriangle$ to the right of the screen to select the desired voltage (default is set to 125 V).
3. Use the right arrow $\blacktriangleright$ below the up & down arrows to move to the "time" mode and use the up arrow to set the run time (refer to kit or experiment instructions for appropriate run time).
4. Once the parameters have been set, secure the leads to both the device or chamber and the appropriate red and black receptacles on the power supply.
5. Press run/pause button II to begin. For electrophoresis, continue to occasionally monitor the tracking dye in the samples to ensure they do not run off the end of the gel.
6. To pause the electrophoresis run, press the run/pause button. Make sure there is no current running before removing the lid. You may resume the run where you left off after securing the lid.
7. To stop the power, press the stop button $\blacksquare$.

TO USE AT A CONSTANT VOLTAGE/AMPERAGE:

1. Turn unit on using the switch on the rear of the unit next to the plug.
2. Press the right arrow $\blacktriangleright$ below the up & down arrows twice to move to the "set current" mode.
3. Use the up or down arrows $\blacktriangle$ to the right of the screen to select the desired amperage (default setting is 500 mA).
4. Use the right arrow below the up & down arrow to navigate to the "set time" mode, and use the up arrow to set the time (refer to kit or experiment instructions for appropriate run time).
5. Once the parameters have been set, secure the leads to both the device or chamber and the appropriate red and black receptacles on the power supply.
6. Press run/pause button II to begin. For electrophoresis, continue to occasionally monitor the tracking dye in the samples to ensure they do not run off the end of the gel.
7. To pause the electrophoresis run, press the run/pause button. Make sure there is no current running before removing the lid. You may resume the run where you left off after securing the lid.
8. To stop the power, press the stop button $\blacksquare$.



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