Power Technology Incorporated

Putting the "custom" back in "customer"

HeNe Laser Power Supply Instructions
D\C Input (Models SL231xx, SL23120, SL281xx, SL28120)

Since 1969, Power Technology, Inc. has manufactured HeNe Laser Power Supplies for the scientific and industrial markets. The information provided below will help you install and operate these products. If you have any questions, please call one of our Sales Engineers at 1-501-407-0712 or E-mail sales@powertechnology.com.

Mounting

Depending on the power supply, two or three 0.157" (4mm) diameter holes are provided for mounting purposes. Please mount the power supply to a flat surface using a number 6 (US) or M2 (metric) screw. Please use a flat washer under the head of the screw. This will spread the pressure and prevent cracking of the case. **Caution:**Do not over-tighten these screws. Cracked cases are not covered under warranty.

Mount the power supply to a surface that will conduct heat away from the power supply. Do not mount the power supply to a plastic or other insulating surface. Ensure that the operating environment does not exceed 60°C.

Wire Connections -

DC Power(Red and Black)–For models SL231xx and SL23120, the power supply will operate from 12VDC (±2VDC). For models SL281xx and SL28120, the power supply will operate from 24VDC (-2, +6VDC).

High Voltage (Thick Red and Black Wire)- Most power supplies are provided with an Alden Style connector (#8102-F). Power supplies with option "02" are shipped with high voltage connectors. This connector is intended for application up to 10,000 Feet. Some customers prefer to install the connector and ballast resistor themselves. In this case, care should be taken as the start voltage of some power supplies can exceed 18,000 Volts. Connections should be properly insulated to prevent arcing and coronal discharge.

CDRH Delay (Violet Wire- 46 option)- Power supplies with option "46", have a 1.5" violet wire loop. These power supplies will have a 3-5 second delay before the output is enabled. This delay can be disabled by cutting the violet loop. Although no harmful voltage is present when the wires are cut, they should be properly insulated to prevent accidents.

Adjustment -

Current Adjustment, internal (25 option) - The 25 option allows for the output current to be adjusted ±30% from nominal point. Adjustment may be limited by the design and operating capability of the power supply.

Current Adjustment, internal (22 option) - The 22 option allows a maximum adjustment range of ±30% from a nominal point. Adjustment may be limited by the design and operating capability of the power supply.

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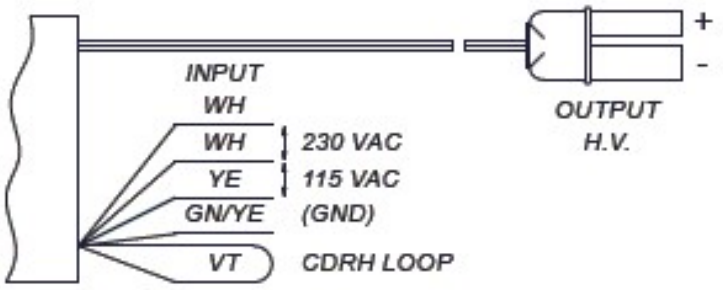
Control -

TTL Level Control (14 Option) –Connect the yellow wire to return to turn the power supply on.With proper interfacing, the power supply can be controlled by TTL circuitry.The 14 option control circuitry requires 10mA minimum to operate.

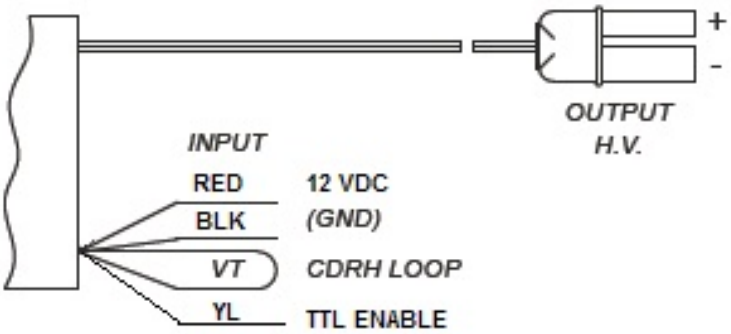
EMI Shielding

Electromagnetic Shielding (47 Option) - A thin copper shielding can be installed around the power supply. This prevents unwanted electrical interference in sensitive applications. The shield is connected to the internal ground by a black wire.

SL23120 \ SL28120 Reference Drawing (not all wires appear on all models):



SL231xx \ SL281xx Reference Drawing(not all wires appear on all models):



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