

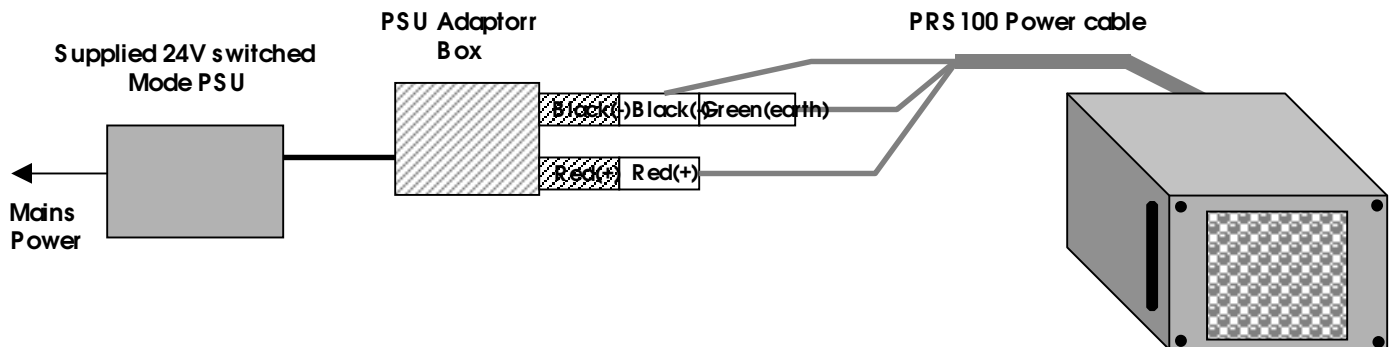
The PRS100 range of light sources offers an unparalleled degree of stability and modulation performance by using the new generation of ultrabright light-emitting diode technology. The following user guide aims to provide all the information required to get the optimum performance from your PRS100 light source.

Power Supply Useage

The PRS100 light source is designed to be used with a **DC power supply between 24 and 28 Volts and with a current supply rating of at least 1 Amp.** The power supply can be used either with the supplied switched mode power supply or with a stabilised benchtop Laboratory Power supply for extra performance.

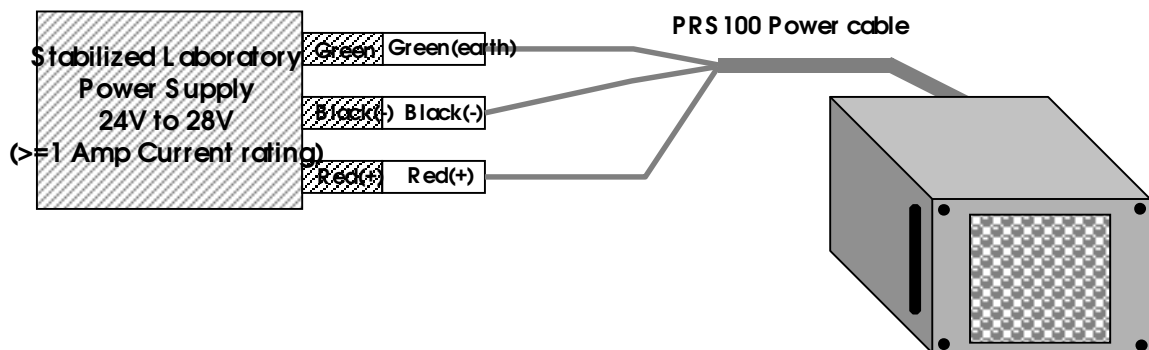
Using the PRS100 with the Supplied Switched Mode Power Supply

The PRS100 light source is supplied with a lightweight switched mode power supply which is suitable for most uses and which is particularly useful for applications where portability is important. To connect the switched mode power supply please use the supplied PSU adaptor box as shown below:



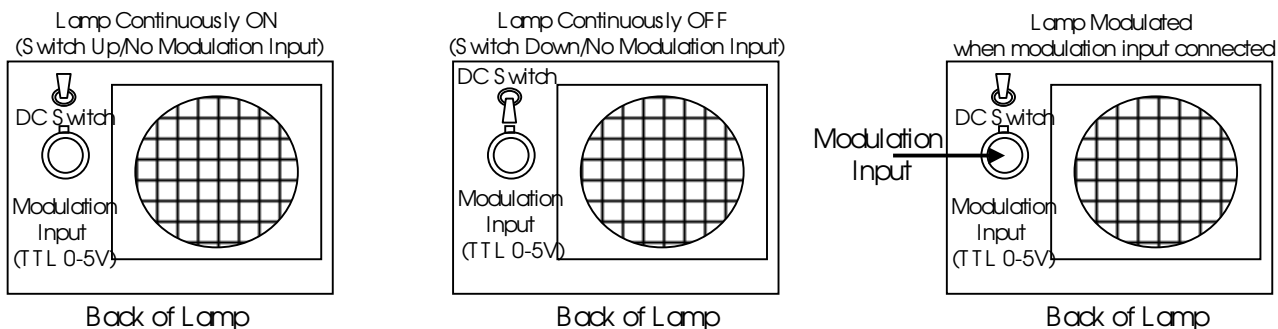
Using the PRS100 with a Benchtop Power Supply

If you wish to use another power supply to power your PRS100 you should set the voltage on the power supply to between 24 and 28 volts and ensure that the power supply is capable of supplying at least 1 Ampere of current. Selecting a stabilised power supply may offer improved long and short-term light output stability for critical measurements.



Lamp Modulation/DC Operation

The PRS100 light source can be modulated up to 2MHz by attaching a TTL (0-5Volts) signal to the BNC connector on the back of the lamp. If you wish to use the lamp as a DC (unmodulated) light source, remove the TTL connection and use the DC switch to switch the lamp ON or OFF. (The lamp is switched ON when the switch is pointing away from the BNC connector.)



Filter Installation

The PRS100 series modulated light sources are equipped with a filter holder assembly as shown below. For filters with thickness <2mm you should fit the filter between components C (the filter support) and D (the Filter Holder Front Plate). For filters of thickness >2mm you should omit component C (the Filter Support) and fit the filter between component B (the Filter Holder Back Plate) and component D (the Filter Holder Front Plate).

Note: Even when the lamp is used without a filter the filter holder assembly should be fitted to ensure the correct air flow and cooling within the lamp. Operating the lamp without the front assembly may lead to overheating of the diode array and subsequent damage to the lamp.

PRS 100 Series Filter Holder Assembly

