

Selecting a Meanwell Power Supply for use with Large Scale Track Power

Meanwell is a manufacturer of industrial switching power supplies which are available from a number of sources on-line (Amazon, Mouser, Jameco, etc.). They provide a filtered and regulated DC output voltage, suitable for use with our large scale trains and the TrackSide R/C and Track Throttle. And the best part, they are low cost, usually \$20 to \$50. The user must provide their own connection to AC power and DC output via screw terminals on the power supply. This is easily done with a trip to the local home improvement store. AC input is selectable for 115/230VAC.

There are several different models available, and for our purposes, they will all work equally well. You just need to know how to interpret the model number, in order to get what you need.

The Meanwell model number is of the form Model-Watts-Volts. For example NES-350-24 is model NES, 350 watts, 24 volts.

Models LRS, SE, and SP seem to be the current models. Some are convection cooled, while others have built in fans. You may also find some older models; S, NES, and RS, also good.

Volts is the output voltage, which in most cases is adjustable $\pm 10\%$, if needed. The TrackSide R/C should be operated at 24V or less. Meanwell makes 15 volt and 24 volt versions. A 15 volt supply with the adjustment maxed out at 16.5 volts runs most steam engines at desirable speeds. 24 volts should run any large scale locomotive.

Watts is the power rating. This can vary from 150 watts to 350 watts. $\text{Watts} = \text{Volts} \times \text{Amps}$. So a 24 volt supply is capable of providing up to approximately (Watts divided by 24) Amps.

Meanwell current ratings at 24V ...

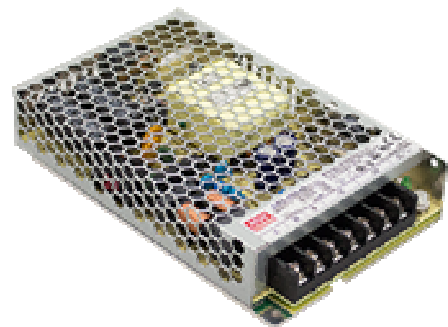
| | |
|-------|--------|
| 150 W | 6.5 A |
| 200 W | 8.8 A |
| 240 W | 10.0 A |
| 350W | 14.6 A |

Keep in mind that most locomotives only require 1 amp or less to run, and only a bit more to get started. A larger power supply won't make them run any better. It just provides more current when you have a short! But if you run lighted passenger trains, or multiple engine/multiple motor lash-ups, they will require more power.

Best value: LRS-150-24, 24 volts, 6.5 amps, can be found for as little as \$18 (trcelectronics.com).

For the most current information go to <http://www.meanwellusa.com>, and then select *products, enclosed*.

To purchase, just search "Meanwell power supply" and you should be able to find a number of sources.

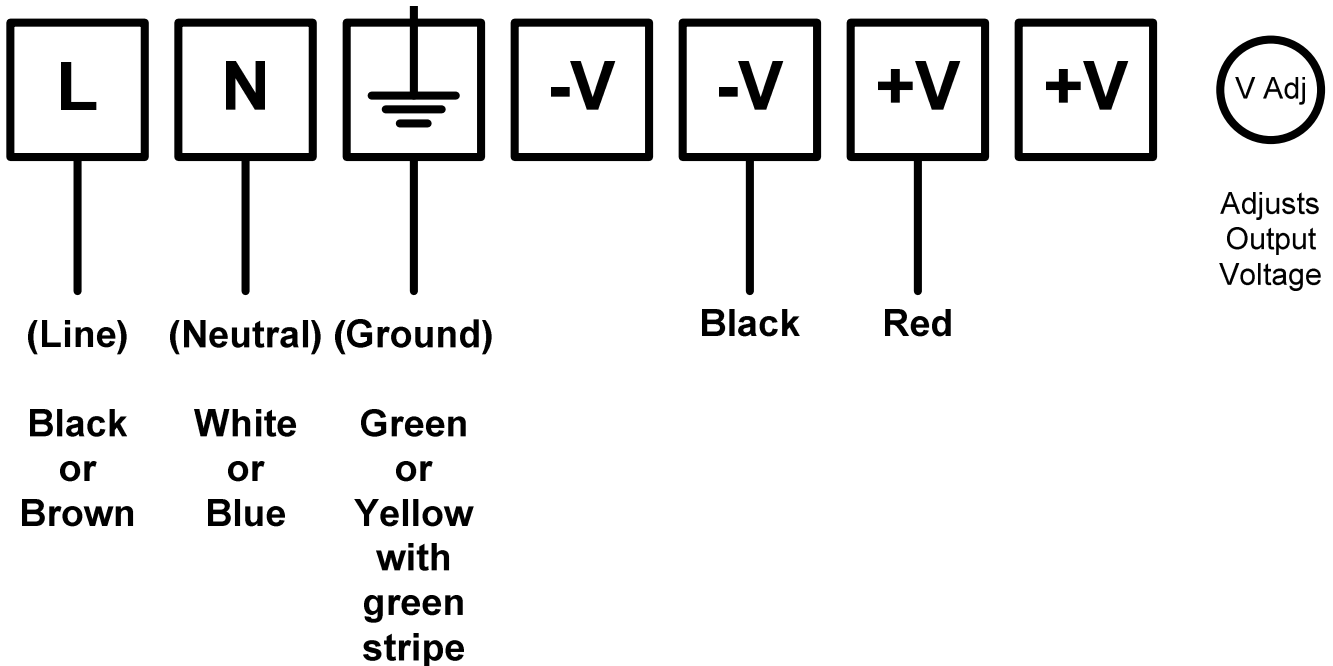


Wiring a Meanwell Power Supply

You will need to provide or purchase your own AC power cord and connect it to your Meanwell power supply. Any 3-wire power cord will work. Set the power input switch on the side of the power supply for 115 VAC U.S.

Output voltage should be 24 VDC maximum for use with the G-Scale Graphics Trackside R/C or Track Throttle. But no adjustment should be necessary as received.

Meanwell Power Supply



115 VAC
Input

VDC Output(s) to Track Throttle(s)

(Set switch on side of power supply for 115 VAC in U.S.)

Crimp some spade connectors on the wire ends for a nice neat connection. The AC input terminals on your power supply may be exposed, so you may want to insert a piece of styrene over them for added safety.

