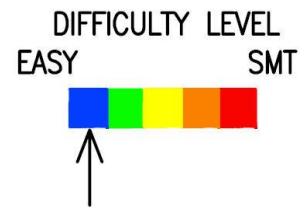




QRPGuys 12W Dummy Load/Power Meter



First, familiarize yourself with the parts and check for all the components. If a part is missing, please contact us and we will send one. You must use qrpguys.parts@gmail.com to request a part.

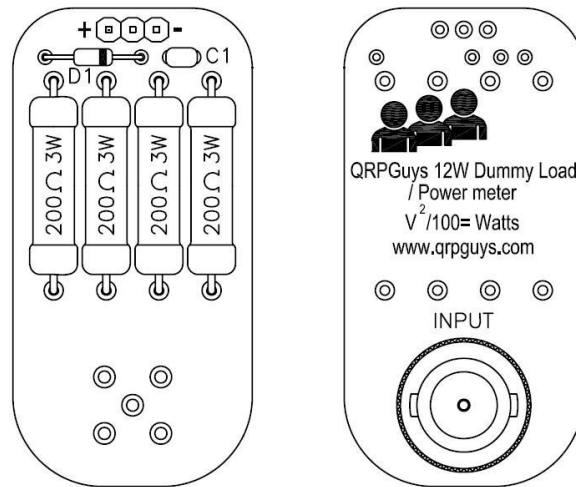
Parts List

- 1 – QRPGuys 12W Dummy Load/Power Meter PCB
- 1 – BNC Male PCB mount connector
- 4 – R1-4, 200 ohm, 3 Watt resistor (red, black, brown, gold), or printed value
- 1 – D1, 1N5711 diode, small glass, w/black band on one end
- 1 – C1, .01uF capacitor, (marked 103)
- 1 – 3 pin header strip

The tools you will need are a soldering iron with a small tip, needle nose pliers, and side cutters. Assembly time less than 1/2 hour.

Start with the smallest components first, using the picture below as a guide. These components go on the side opposite the logo.

- [] Install the 1N5711 diode. It is polarity sensitive and placed with the black band with the same orientation as shown in the figure below.
- [] Install the .01uF capacitor (marked 103) at C1.
- [] Install the 3 pin header strip.
- [] Install R1-4, 200 ohm resistor, marked (red, black, brown, gold), or a printed value.
- [] Install the PCB mounted BNC connector onto the back side marked "INPUT" The four corner pegs of the BNC are large and require more heat to get the solder to flow.



This completes the assembly.

The Dummy Load/Power Meter is rated for 12 watts. Accurate power output measurements can be made by connecting your high impedance digital voltmeter to the header and applying a little math to the DC voltage reading. The rated voltage of the detector diode is 70v, so measurements should be limited to 12 watts. You square the voltage reading then divide by 100 and the result is the power in Watts.

$$V^2 / 100 = W$$

A sample voltmeter reading of 18.5 volts would yield, $18.5 \times 18.5 / 100 = 3.42$ Watts

The center pin of the header is straight RF from the transmitter for use with an oscilloscope.

Schematic:

