





Building Instructions:

1. Inventory all Parts

2. Install all Resistors.

____ R1,2: 51 (1/2 Watt) **Green-Brown-Black-Gold**

Note: R3,4 controls the output of the SWR bridge.

____ R3,4: 50K ohm pot

3. Install all capacitors.

____ C1,2,3,4: SMT or 100n brown labeled 104 or green 104

We highly recommend installing the SMT caps vs the thru hole types

The SMT caps provide better RF shunting to ground

4. Install the detector Diodes.

____ D1,2: 1N5711 - install flush against PCB per parts markings

Do not overheat when soldering.

5. Wind and install the RF coupling transformers.

____ T1 & T2: Wind 10/12 turns of 26 ga red or green wire on both FT50-43 ferrite toroids.

For 3.5 - 30 MHz, use 10 turns (more sensitive at low power)

For 1.8 - 30 MHz, use 12 turns (less sensitive at low power)

Cut the 20 inches of red magnet wire in half.

Wind the wires (10" each) on the toroids **clockwise**.

Trim the wires of T1 & T2 to a half inch.

Strip the insulation off the wires using a very hot solder pencil and solder.

Install the wound toroids on the PCB and trim leads from the PCB.



Cut the 2 inches of #20 green magnet wire in half.
Earlier versions of the SWR kit use surplus resistor leads.
Strip the insulation off of 0.25 inches (6.3 mm) on all 4 ends of the wires
Bend the wires in a "U" shape using a standard size pencil.
Install the leads thru T1 & T2 with the wire going thru the center of the toroid
Solder the leads on the bottom of the PCB.

6. Connections.

Connect the bridge to a 5W RF source(in) and a 50 ohm dummy load(out).
Connect two mechanical meters to J1 or one meter with a SPDT switch.
Suggest using 50 uA, up to 2 mA mechanical meters.
Note: Meters are NOT supplied in the kit.
Adjust both R3 & R4 to mid-range.
Apply 5 Watts and adjust R4 for a full scale reading.
Reverse the RF connections so that the dummy load is at the input.
Apply 5 Watts and adjust R3 for a full scale reading.
The SWR Meter is now ready to use (5 watts full scale).
Designed for a maximum of 100 Watts (intermittent).