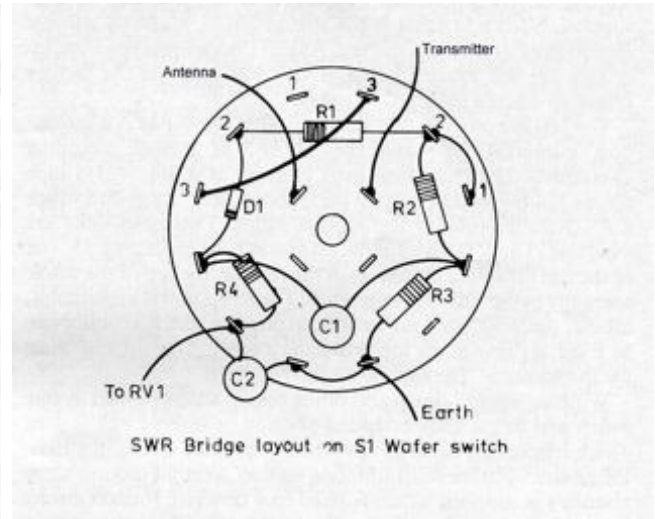
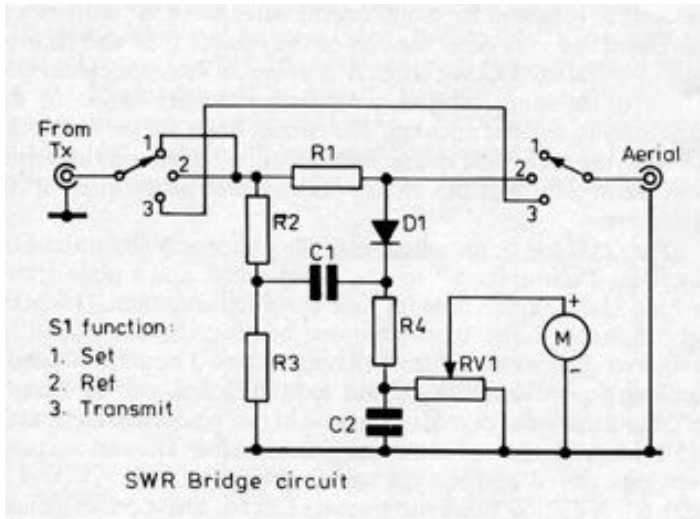


QRP 'HF' SWR METER



R1,R2,R3 = 51 ohm 2 watt non inductive.
R4 = 1K ohm 2 watt.
RV1 = 10K ohm linear control or pre-set control.
D1 = OA91 type diode.
C1 = 0.001 uF ceramic disc.
C2 = 0.01 uF ceramic disc.
S1 = 4-pole 3-way switch
Meter = 1Ma or less.
2 S0239 antenna sockets.
Suitable metal box or case.

CONSTRUCTION.

This swr meter has appeared in many Radio magazines including Short Wave Magazine ,Practical Wireless, Radcom etc. It is an easy project to build with no coils to wind, Resulting in a SWR meter that is not frequency critical. Most if not all of the components are easy to obtain. Only 1 watt or so of forward power is required to check your antenna's swr. The meter **MUST** be switched out of circuit after swr checks before transmitting as power in excess of 2 watts will damage the components and meter. R1,R2,R3 must be 2 watt **non wire wound** R4 can be a half watt resistor of any type RV1 is a carbon pre-set or standard control which can be either preset or brought through the box front panel as a calibration control. C1 & C2 are disc ceramic type capacitors with a reasonable maximum working voltage (250v) or more, I used 1kv types simply because I have some in my junk box.

CALIBRATION.

Connect your transmitter output to the meter switch to position 1 (set) and feed between one & two watts or so into it then adjust the meter to read full scale with RV1.Next switch to position 2 (ref) and connect various value resistors between 50 and 400 ohms(non inductive carbon or carbon film)types **one at a time** across the antenna - socket and note the meter readings for each, This simulates connecting antenna's of differing impedances with the 50 ohm ('resistor/antenna')giving the lowest reading (1:1 swr)and 400 ohm ('resistor/antenna') the highest - (8:1 swr) **DON'T EXCEED 2 WATTS INPUT** as this may damage the components. **Remember to switch to position 3 (transmit) before transmitting.**

THIS METER IS NOT SUITABLE FOR VHF OR HIGHER FREQUENCIES.