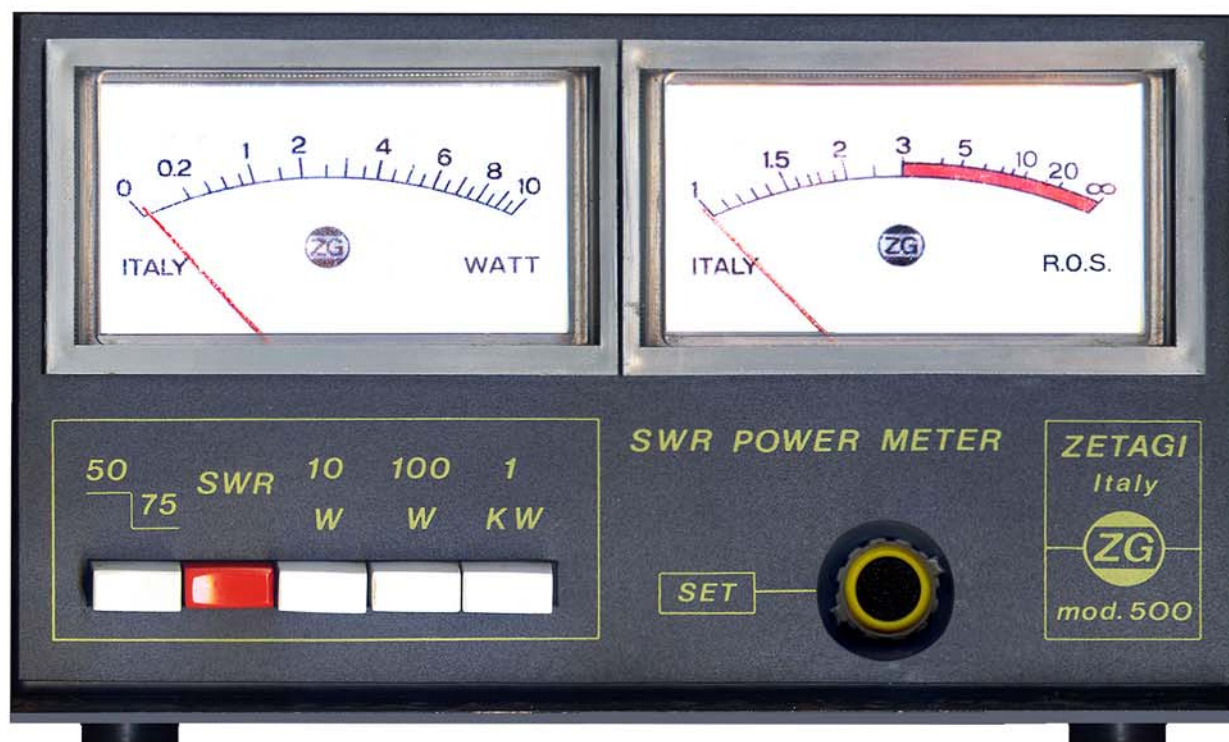


Zetagi mod500 SWR/Power meter



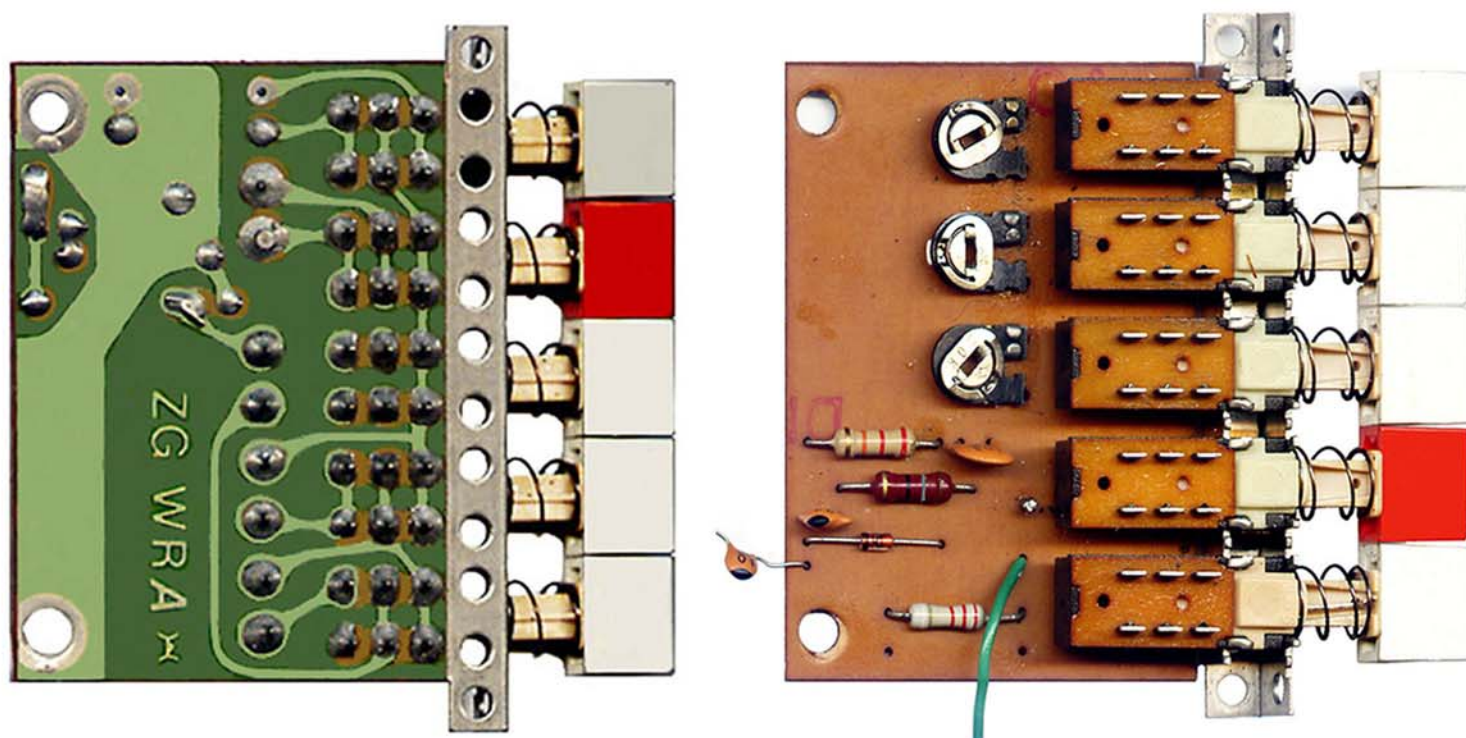
The Zetagi mod500 consists basically of two separate units, the power section and the swr section. The switch unit pcb contains the power measuring section, fed from the input SK239 socket. The three power ranges can be individually adjusted using the three variable resistors mounted immediately behind the appropriate push buttons. The variable resistors are just that, i.e. two terminal devices, not the normal three. If you need to replace one of the variables and only have a standard three terminal device, you will need to drill a 1mm hole for the slider pin and link it to the left hand end of the pot, under the board.

The swr section of the unit is a fairly standard three parallel line sensor with two diodes and two terminating resistors. The 'Set' control is a dual gang 47k potentiometer that adjusts both the Forward and Reflected readings. When the SWR push button is pressed, the power meter is re-routed to the Set control, reading the voltage from the Forward diode. The SWR Reflected meter is permanently connected to the Set control, reading the voltage from the Reflected diode. To read SWR, simply press the SWR push button, adjust the Set control for Full Scale reading on the Power/Fwd meter and the SWR/Ref meter will indicate swr.

The 50/75 push button simply adds a 2k2 resistor across the voltage adjustment resistors to reduce the readings when running into a 75 ohm load. Since most modern transceivers are designed to work into a 50 ohm load, this button is only useful if you have an old valve rig with plate and load adjustments and a 75 ohm feed to the aerial.

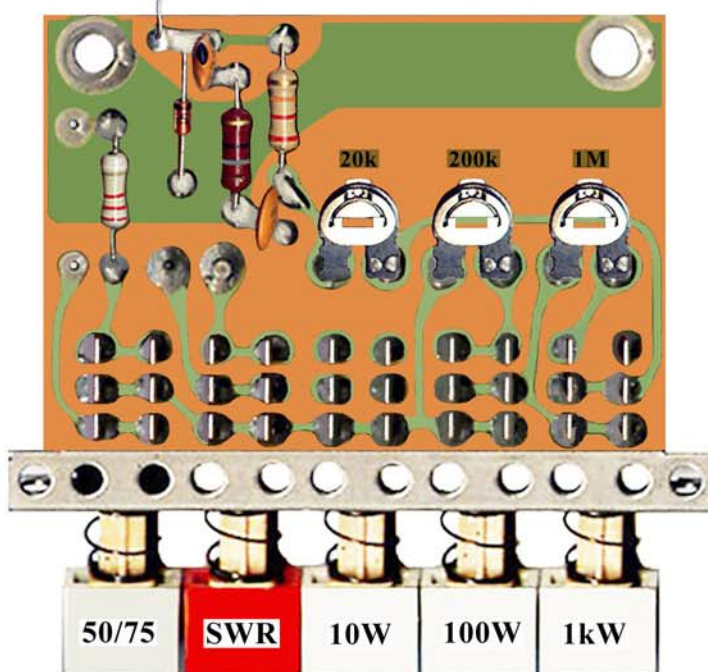
I intend to replace the parallel strip line with a Breune type detector circuit and also add a peak reading facility. There is a cut-out on the rear panel for a miniature slide switch that I may use to select peak hold. The peak reading circuit will require an external 12v supply.

Zetagi mod500 power/swr meter switch unit PCB

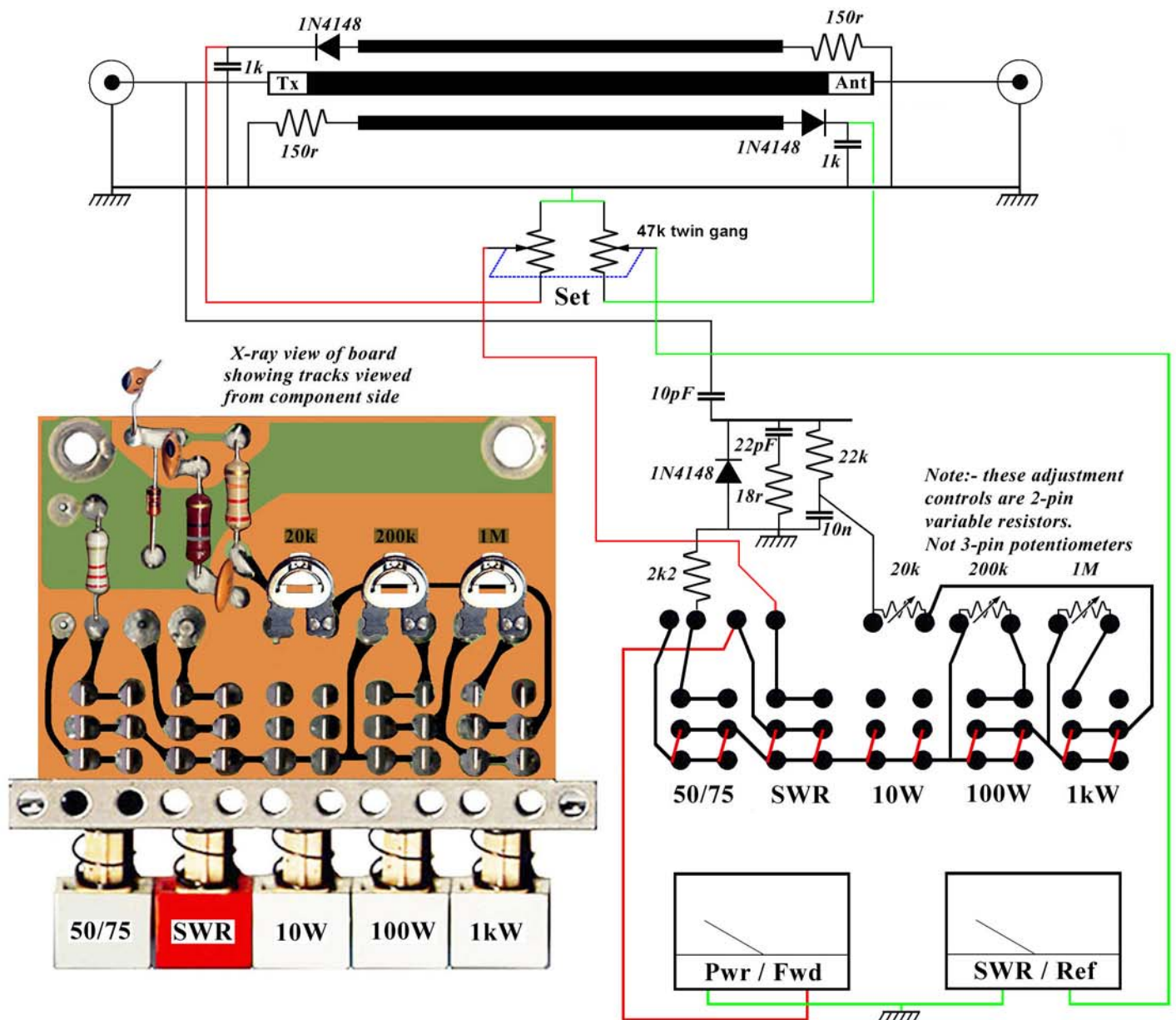


Tx
Skt

*X-ray view of board
showing tracks viewed
from component side*



Zetagi mod.500 power / swr meter schematic



Zetagi HP500 / mod500 power / SWR meter

(Drawing supplied by Zetagi)

