



TRP-1  
Country of origin:  
Australia

## DATA SUMMARY

**Organisation:** Australian Army, Forestry Commission and private companies.

**Design/Manufacture:** Pye Electronics, Pty, Ltd, Melbourne, Australia

**Year of Introduction:** Late 1940s.

**Purpose:** Portable HF radio telephone.

**Receiver:** Single conversion superheterodyne. Variable tuning and one fixed crystal controlled 'pack' channel.

**Frequency coverage:** 2.7-7MHz in a single range.

**IF:** 455kHz. Max 100mW AF output. AM only.

**Sensitivity:** 1 $\mu$ V for 6dB s/n.

**Transmitter:** Crystal controlled oscillator and RF power amplifier comprising four triode sections in parallel. Control grid AM modulation.

**Frequency coverage:** One crystal controlled frequency in the range 2.7-4.4MHz and two in the range 4.4-7MHz.

**RF output:** 1.5-2W

**Valves:** Receiver: 1T4 3x, 1R5, 1S5, 3V4.  
Transmitter 3S4 and 3A5 2x.

**Aerial:** Wire/rod aerial and ground lead/counterpoise.

**Power Supply:** 1 $\frac{1}{2}$ V LT; 150V HT and 10 $\frac{1}{2}$ V GB.

**Consumption (rec/trans):** LT 350/500mA; HT 14/50mA; GB: 6/100mA. The dry batteries powering the TRP-1 were carried separately, connected by a multi core cable located at the back of the set.

**Dimensions (cm):** Height: 14, length 25, width 22.

## Remarks

The TRP-1 was a battery powered radio telephone transceiver operating on short-wave. The set was a private venture intended as a replacement for the obsolete ATR-4 series, using modern components and crystal control of the transmitter and receiver. This resulted in a smaller and lighter set with reduced battery consumption, a wider frequency coverage, and better technical specifications. It was used by the Australian Army, and in addition sold to non military customers on the commercial market such as mining companies and the Forestry Commission. The TRP-1 had similar operational features as its predecessor ATR-4 which was also used for communication at observation roles, such as the war-time coast watchers and airfield guard. It was suitable for voice operation only and had a loudspeaker mounted inside the carrying case. Although the TRP-1 can hardly be described as a clandestine, agents or special forces radio, having no CW facilities and just a loudspeaker, it was considered interesting enough for including in this WfW Supplement.

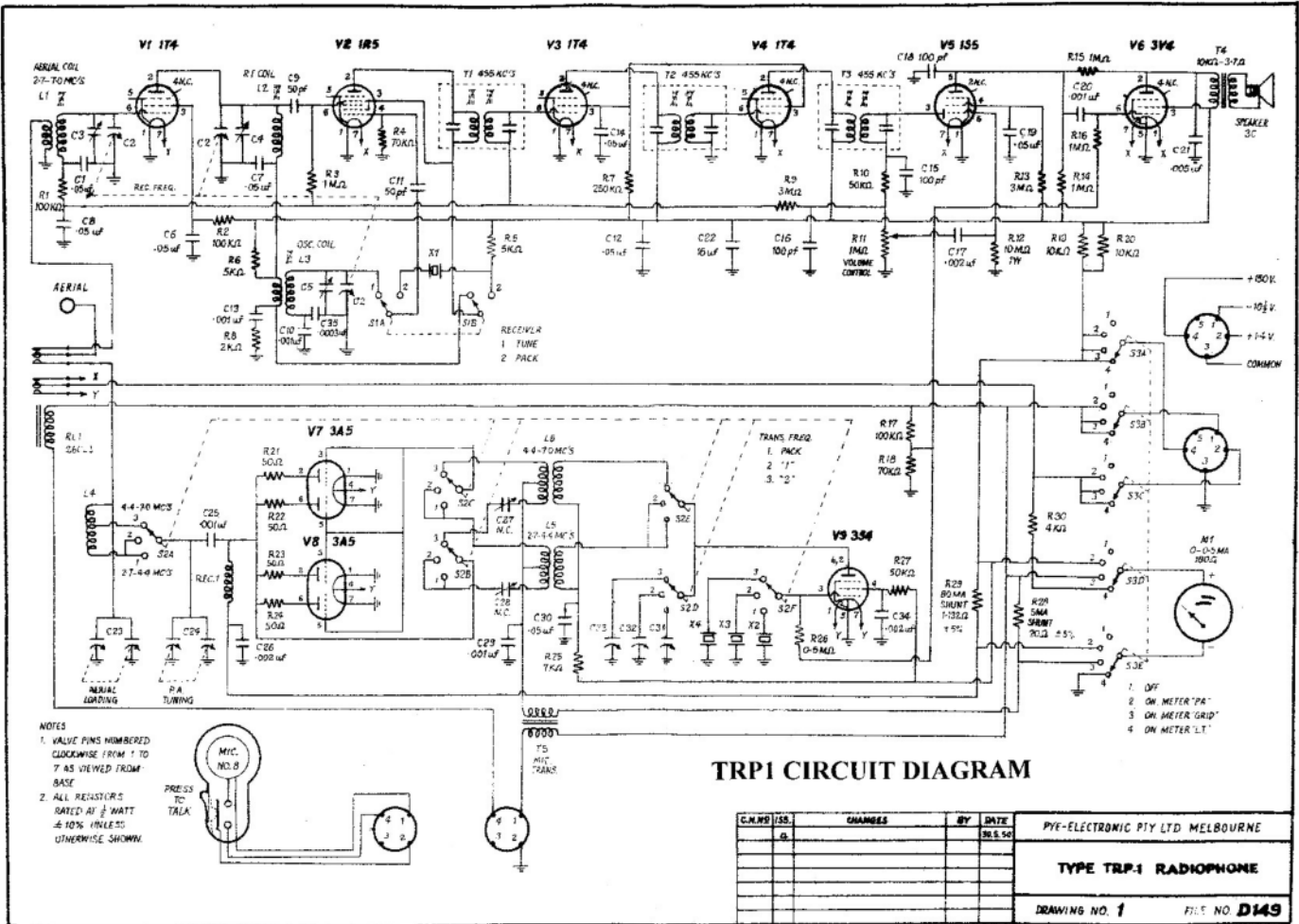


View of TRP-1 with its protective front panel cover closed.

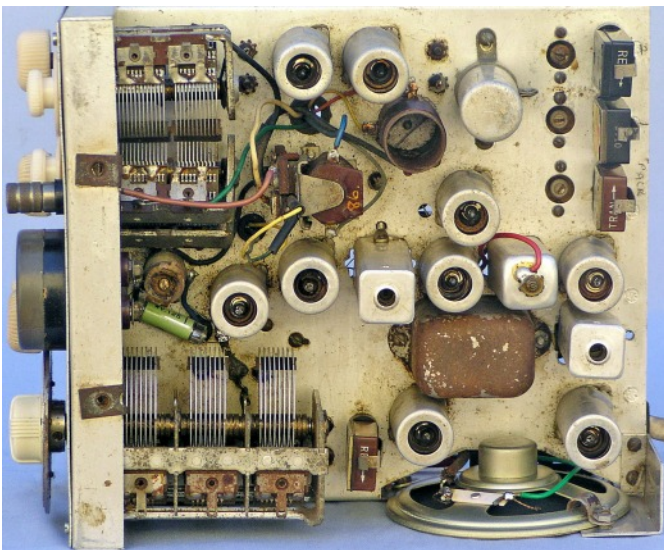
## References:

- Photographs, circuit diagram and information courtesy Ian O'Toole of the Kurrang Radio Museum in Australia where a TRP-1 that survived is on permanent display.  
See the museum website at: <https://vk2bv.org/archive/museum/>

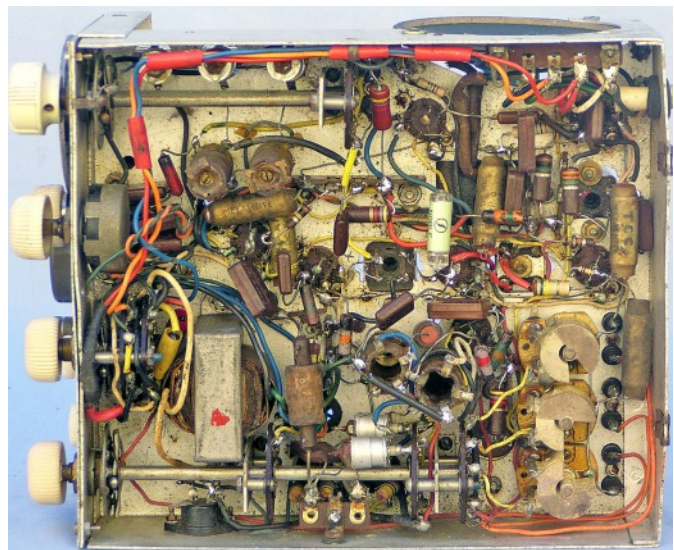




Circuit diagram of the TRP-1. Note the use of an Army Microphone No. 8, directly modulating the control grid of the RF amplifier.



Top view of the TRP-1 chassis. Note the three FT-243 type transmitter crystals located at the right hand top side, and the receiver crystal below near the loudspeaker.



TRP-1 chassis bottom view showing that the TRP-1 was built using standard components.