

# **DYNATRON      Models "Atlantis" TP34, TP35, TRV15**

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**General Description:** The "Atlantis" model TP<sub>34/35</sub> is a ten-transistor battery-operated portable radio receiver covering V.H.F., Short, Medium and Long wavebands. Sockets are provided for the connection of a car aerial, earphone, tape recorder/replay and gramophone. The model TRV<sub>15</sub> is a mains operated table receiver. Batteries (TP<sub>34</sub>, TP<sub>35</sub>): 2 × 9 volt type PP<sub>9</sub>, VT<sub>9</sub>, etc. Mains supply (TRV<sub>15</sub> only): 200–240 volts 50 c/s.

## **TRV<sub>15</sub> only**

The power supply for this model is the PU<sub>2</sub> mains unit for 200–250-volt A.C. 50 c/s. operation. A bridge-connected rectifier type LT<sub>120</sub> has its output regulated by a transistor TR<sub>1</sub>, type AC<sub>128</sub> whose base voltage is derived from a separate winding on the mains transformer and a half-wave rectifier. A 250-mA. fuse is fitted in the collector circuit of TR<sub>1</sub>.

# Alignment

## I.F. A.M.

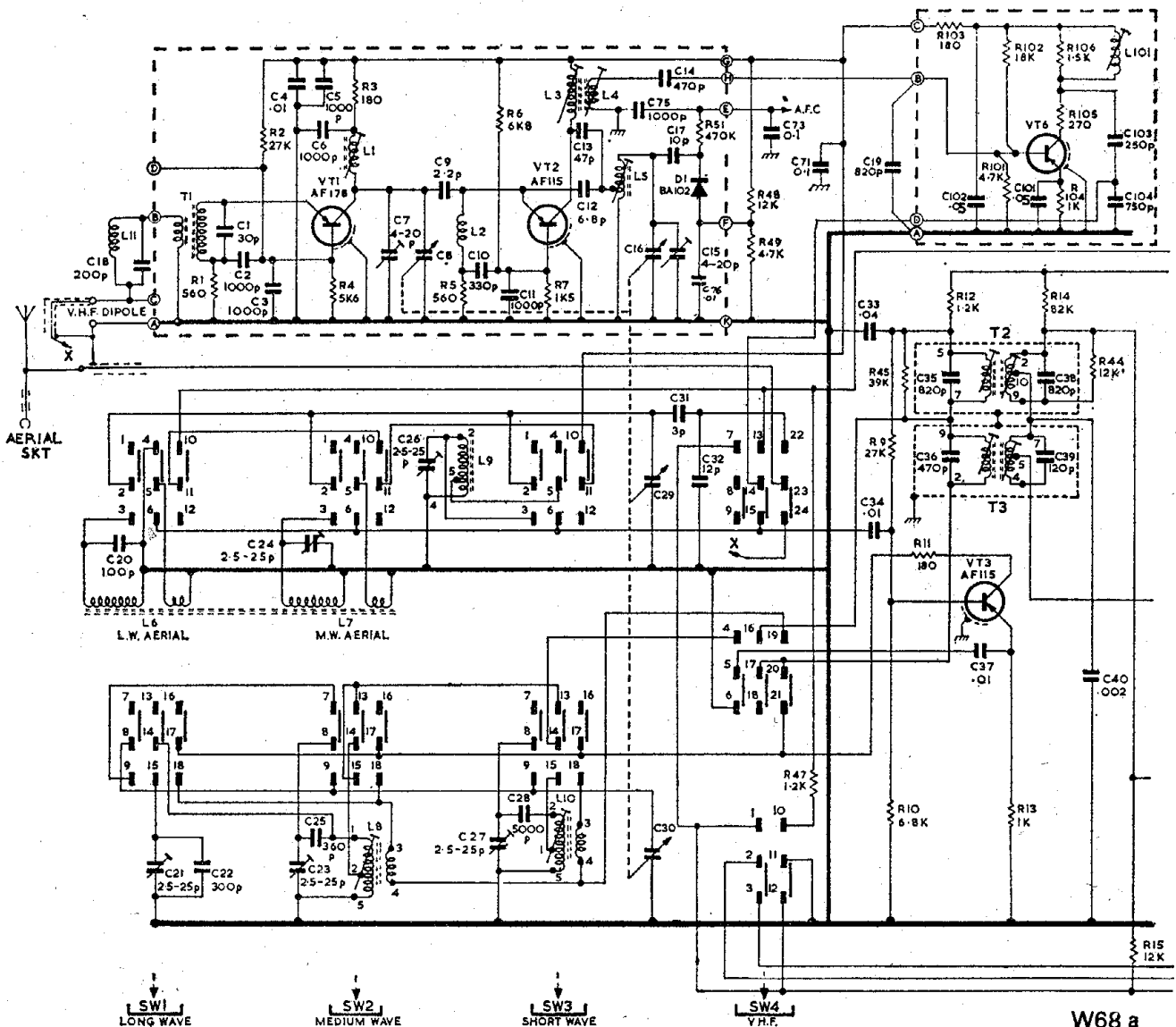
- (a) Switch to M.W. Inject a 470-kc/s., 30% modulated signal into base winding of M.W. aerial coil, set tuned to 550 kc/s.
- (b) Adjustment in order for maximum output T2, T4 and T6.

**R.F. A.M.:** Inject signal via dummy aerial to telescopic aerial.

## M.W.

- (a) Set band limits to 525 kc/s. and 1620 kc/s. adjusting L8 and C23.
- (b) Tune to 650 kc/s. and set M.W. aerial coil to give maximum output.
- (c) Tune to 1500 kc/s. and set C24 to give maximum output.

**L.W.:** Set pointer at 1400 m. and inject 214 kc/s. signal. Set C21 and L.W. aerial coil to give maximum output.

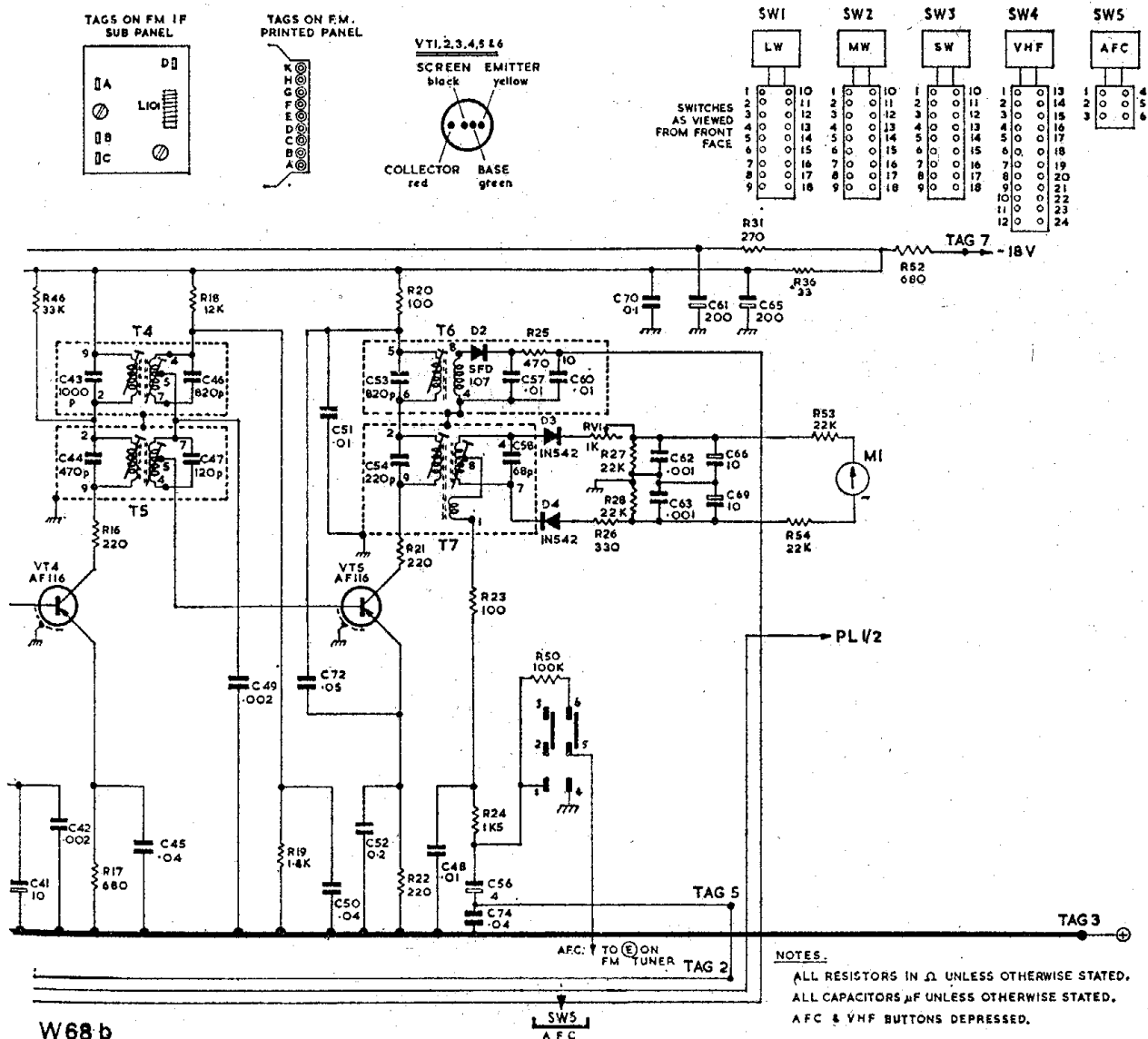


**S.W.**

- (a) Set band limits to 5.5 Mc/s. and 16.25 Mc/s. adjusting L10 and C21.
- (b) Tune set to 14.5 Mc/s. and adjust C26 for maximum output.
- (c) Repeat (a) and (b) until no further improvement can be made.

**I.F. V.H.F.:** Tune receiver to approximately 92 Mc/s., clear of interfering carriers, and inject a wobbled signal at 10.7 Mc/s. to Pin B on Tuner unit.

- (a) With C66 and C69 disconnected, connect display input to free end of C66. Adjust secondary of T7 for maximum, then T5, T3, L101, L3 and L4 to produce a symmetrical response centred on 10.7 Mc/s.
- (b) Re-connect C66 and C69 and connect display input to Pin 5 on circuit board. Adjust secondary of T7 for symmetrical "S" curve.

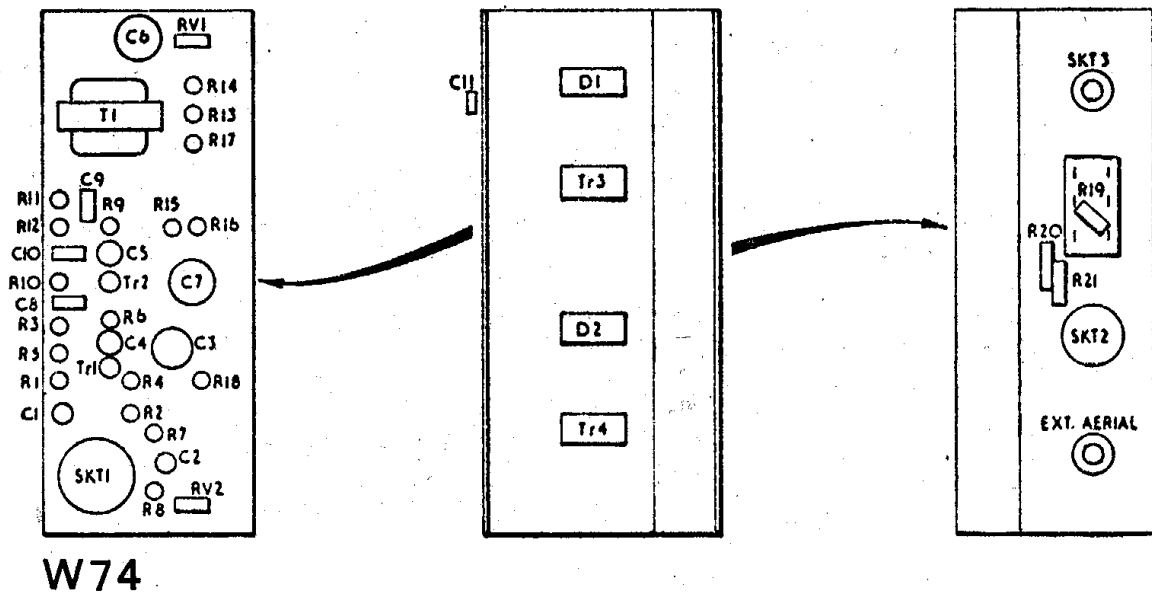


## R.F. V.H.F.

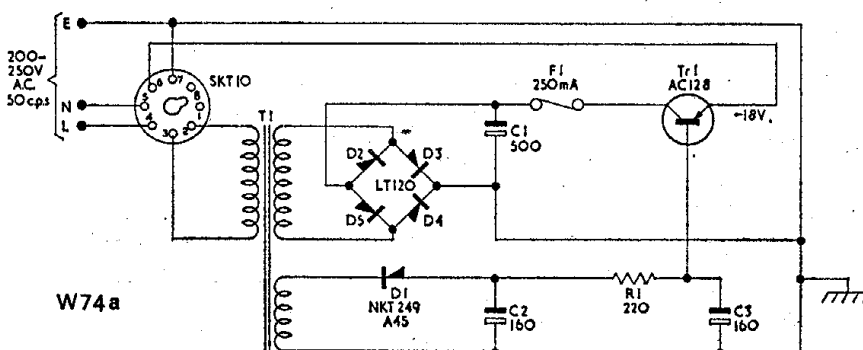
- Inject a 92-Mc/s. signal and set pointer to 92 Mc/s. Tune to obtain signal, and adjust  $L_1$  for maximum output.
- Inject 102-Mc/s. signal and set pointer to 102 Mc/s. Tune  $C_{15}$  to obtain signal, and adjust  $C_7$  for maximum output.
- Repeat (a) and (b) until no further improvement can be made.
- Inject a signal at 92 Mc/s., 30 per cent. modulated to Pin B on Tuner unit, and set RV, to give minimum output.
- Inject a signal at 10.7 Mc/s., unmodulated to Pin B and set  $T_7$  secondary to give a zero reading, measured on a 2.5-volt meter, between  $R_{24}$  and chassis.
- Repeat (d) and (e) until no further improvement can be made.
- Inject a signal at 10.7 Mc/s. with 22.5-kc/s. deviation to pin C and adjust  $L_{11}$  to give minimum output.

## To Check A.F.C. Action

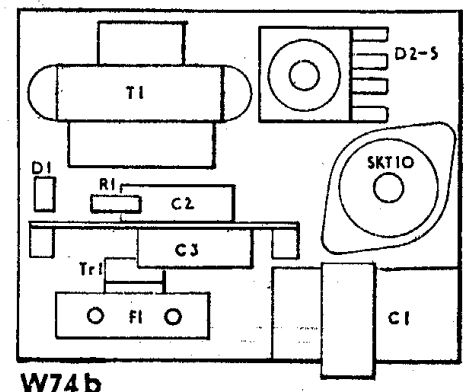
- With A.F.C. button "out" tune to 92 Mc/s. With an R.F. input of  $30 \mu V$ . detune until output falls 10 dB. Press A.F.C. button and output should increase to within 1 dB of original level.
- Repeat (a) detuning on the opposite direction.



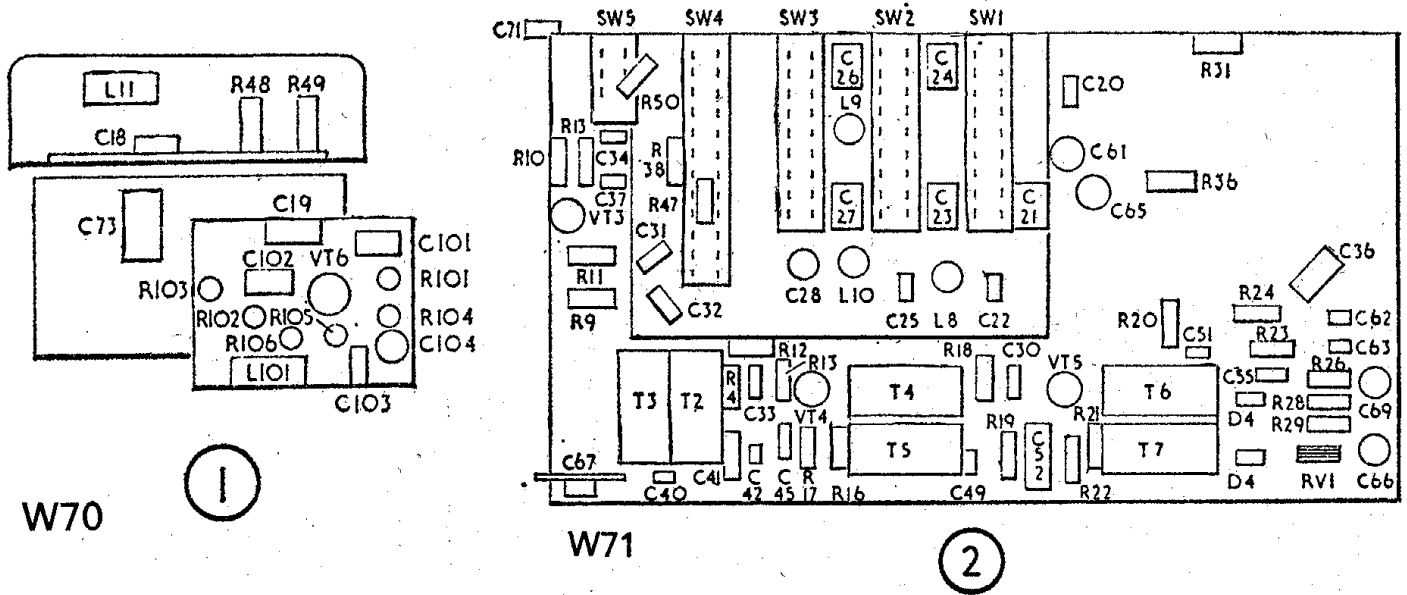
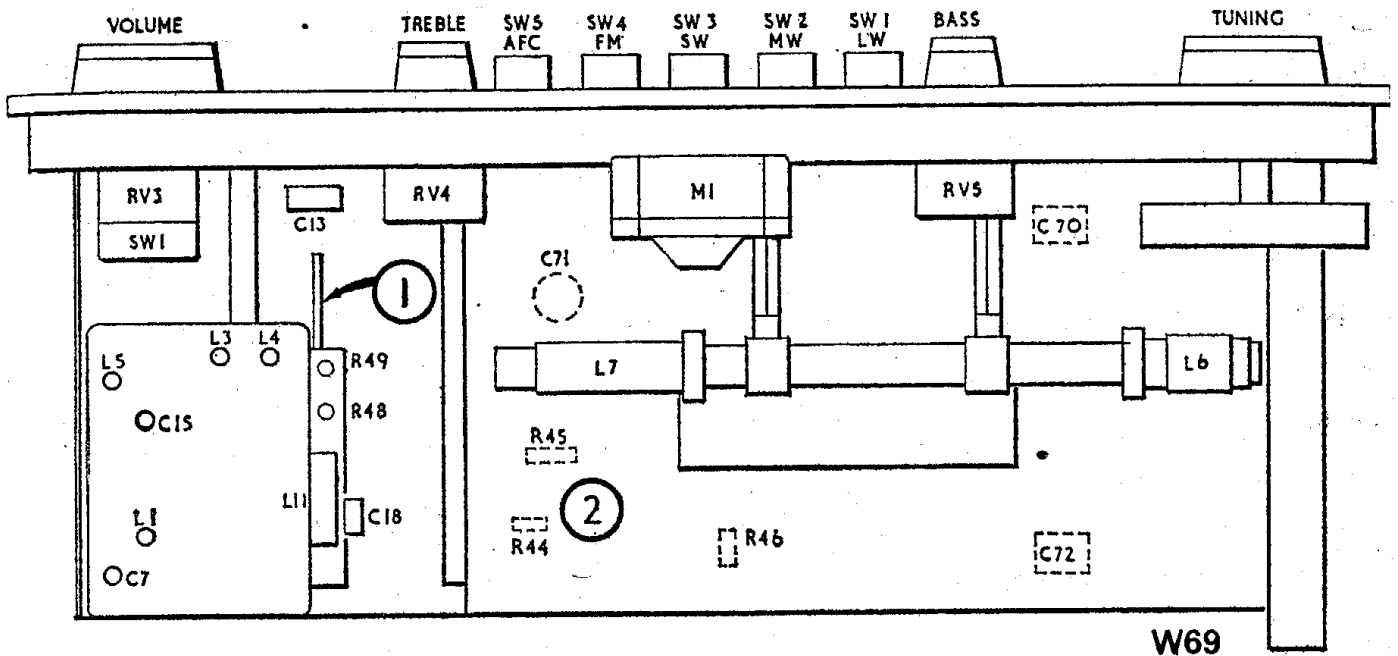
COMPONENT LAY-OUT—A.F. STAGES



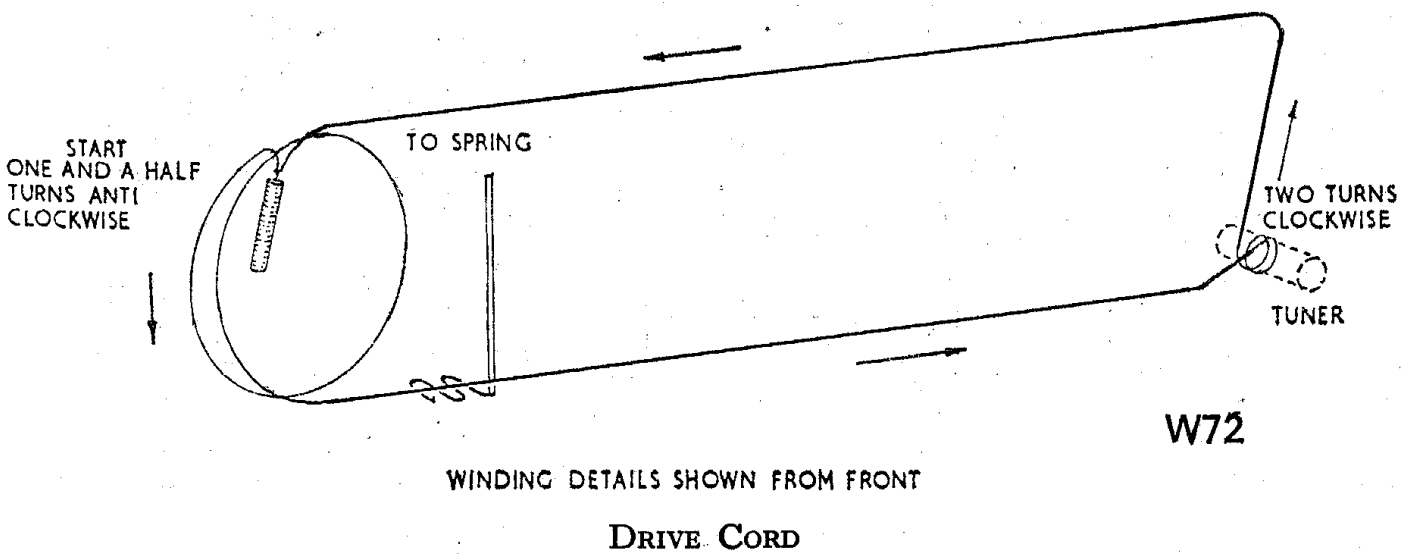
MODEL TRV15 MAINS POWER UNIT PU2



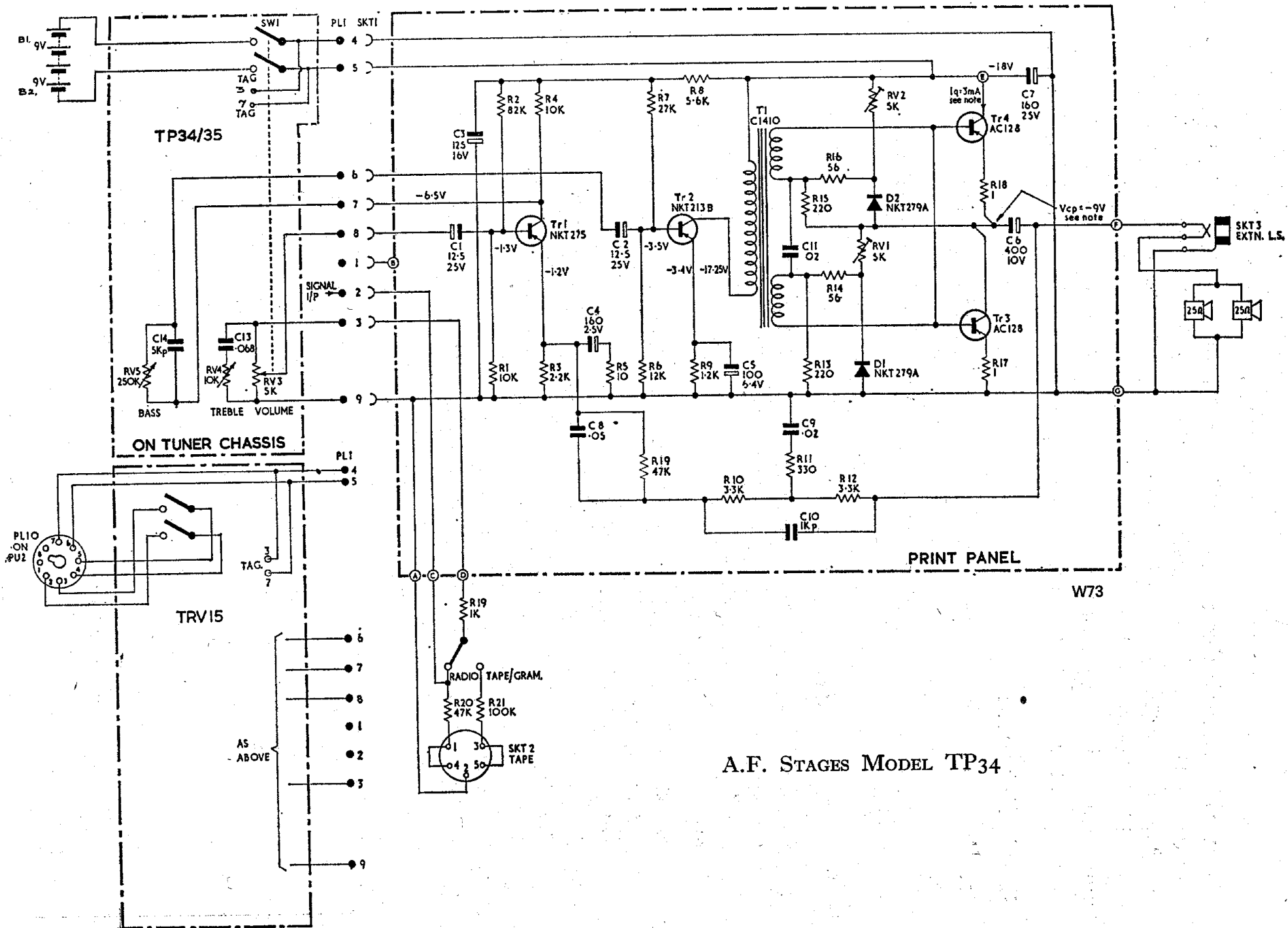
POWER SUPPLY LAY-OUT



TP34, TP35, TRV15 TUNER



WINDING DETAILS SHOWN FROM FRONT  
DRIVE CORD



A.F. STAGES MODEL TP34