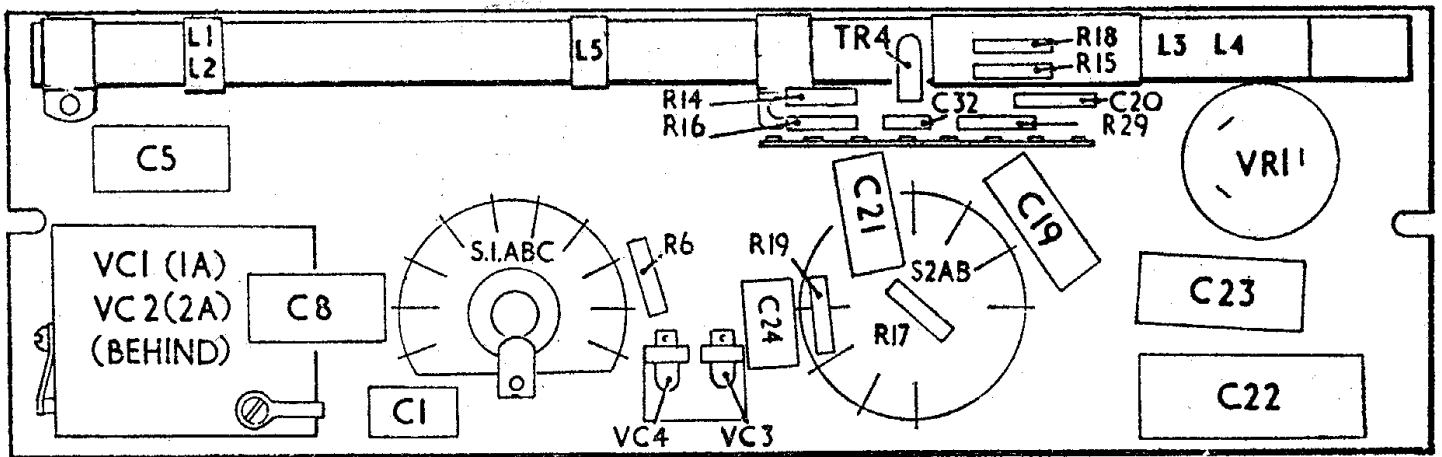


# DYNATRON

# Models TP30, TP31 and TP32

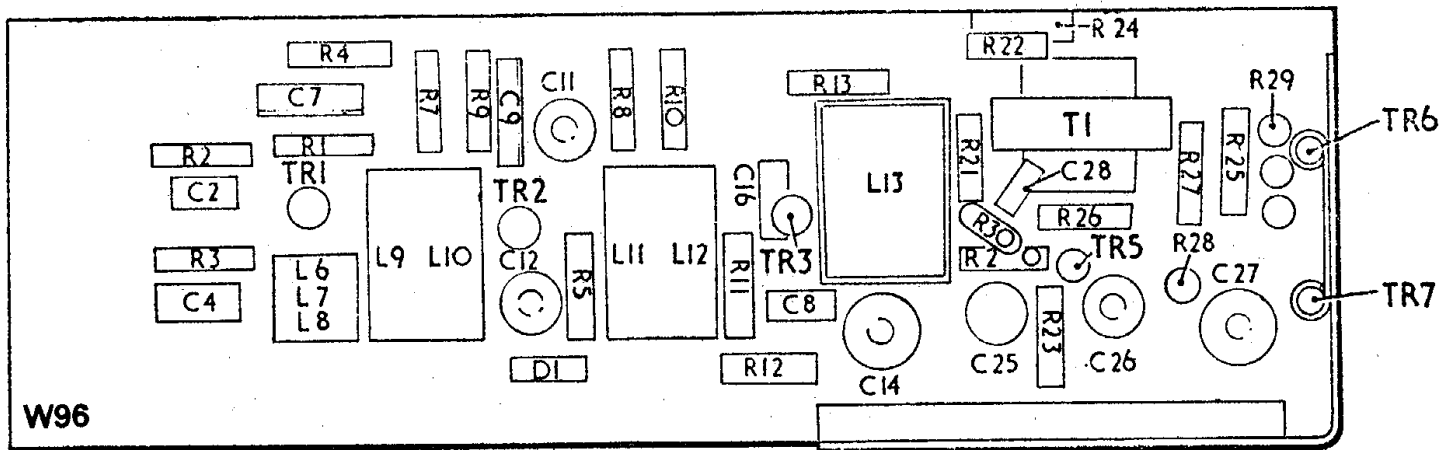
**General Description:** The "Jewel" model TP30 is a seven-transistor battery-operated portable radio receiver covering the long and medium wavebands. Sockets for car aerial and earphone are incorporated. The "Sapphire" models TP31 and TP32 incorporate the additional features of a short waveband with a telescopic aerial, and a tape-recording socket.

**Batteries:** 2 × 9 volts (PP7 or equivalent). Loudspeaker 25 ohms.



(W95) UPPER CHASSIS—MODEL TP30

W95



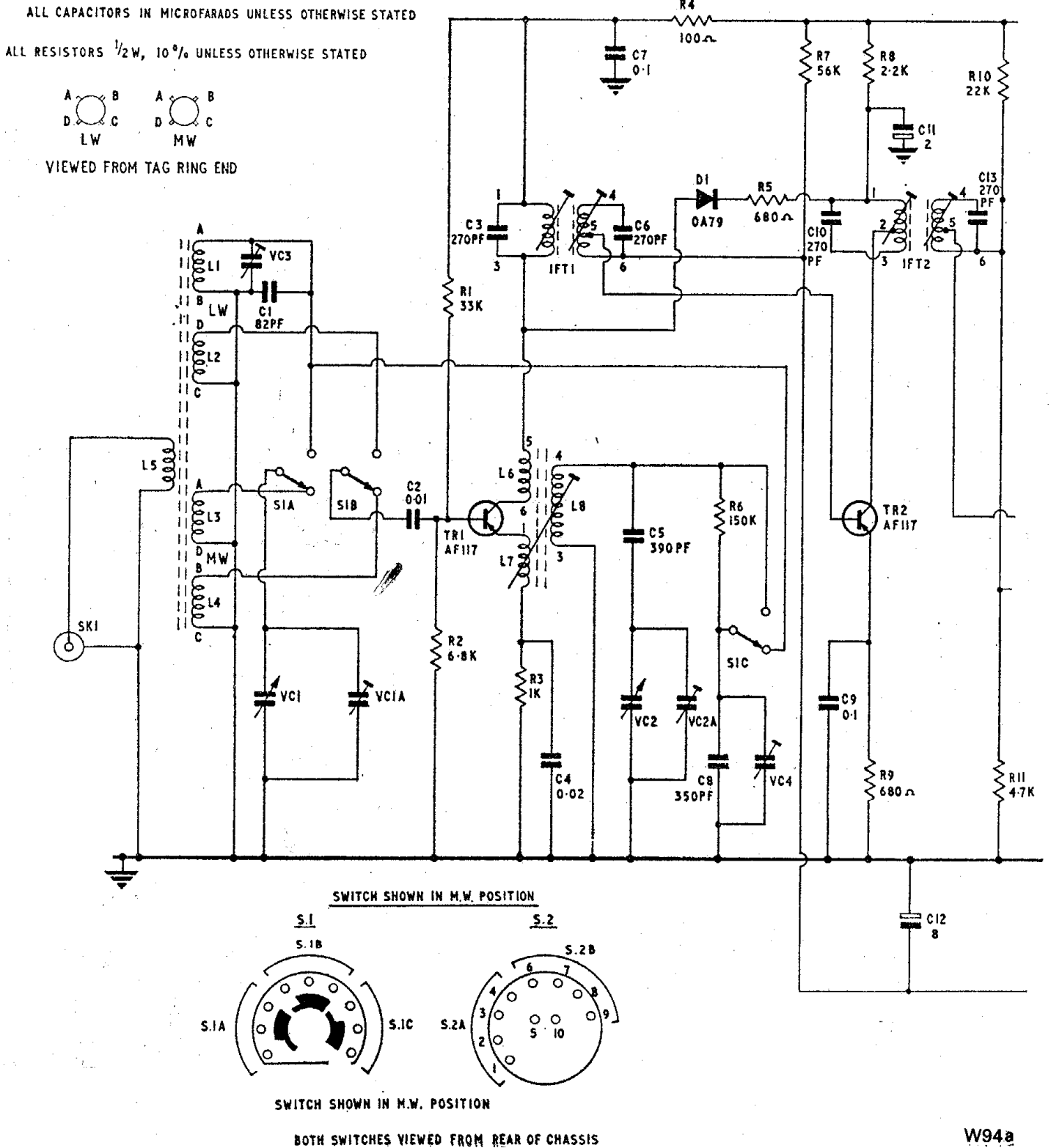
W96

(W96) LOWER CHASSIS—MODEL TP30

# Chassis Removal

**Model TP30:** Remove rear cover. Disconnect battery and speaker leads. Remove all control knobs to free dial scale and expose the two 4BA nuts holding top chassis. Remove nuts to free chassis. Remove wood-screw holding bottom printed panel chassis to floor of cabinet, and slide out panel to rear.

**Models TP31, TP32:** Remove rear cover. Disconnect the battery and

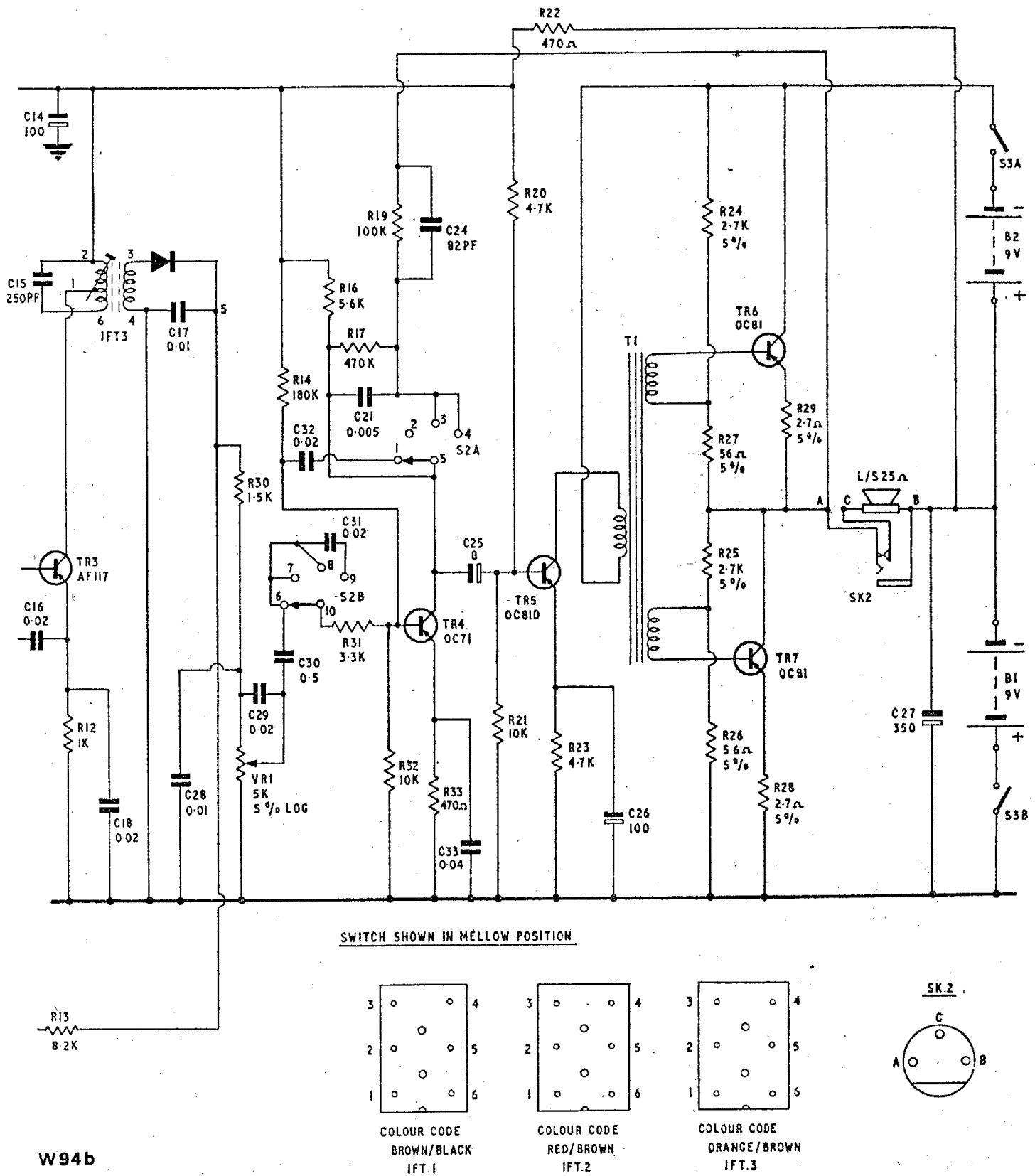


W94a

(W94a) CIRCUIT DIAGRAM—MODEL TP30 (PART)

speaker leads, also the leads to earphone, tape and car aerial sockets, and telescopic aerial. Remove all control knobs to free dial scale and expose the two 4BA nuts holding top chassis. Remove nuts to free chassis. Remove left-hand battery bracket, and woodscrew holding bottom printed panel chassis to floor of cabinet, and slide out panel to rear.

**Alignment: I.F.:** Inject 470 kc/s. across L4. Adjust L13, 12, 11, 10 and 9 for maximum output.

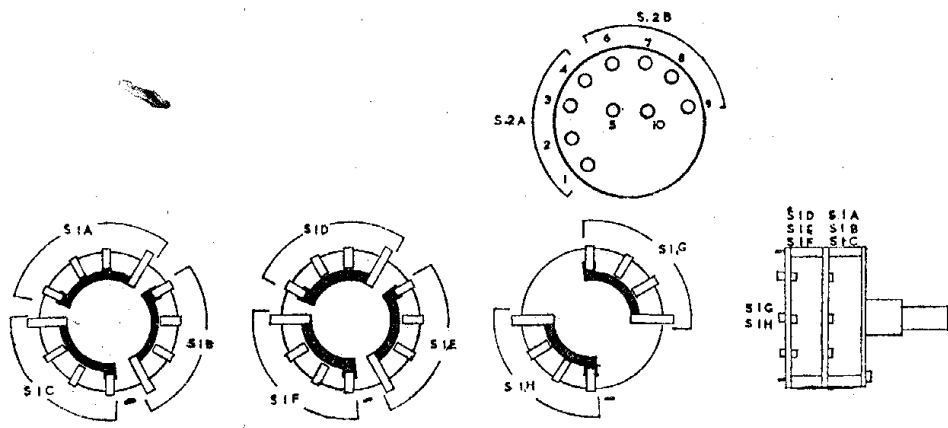
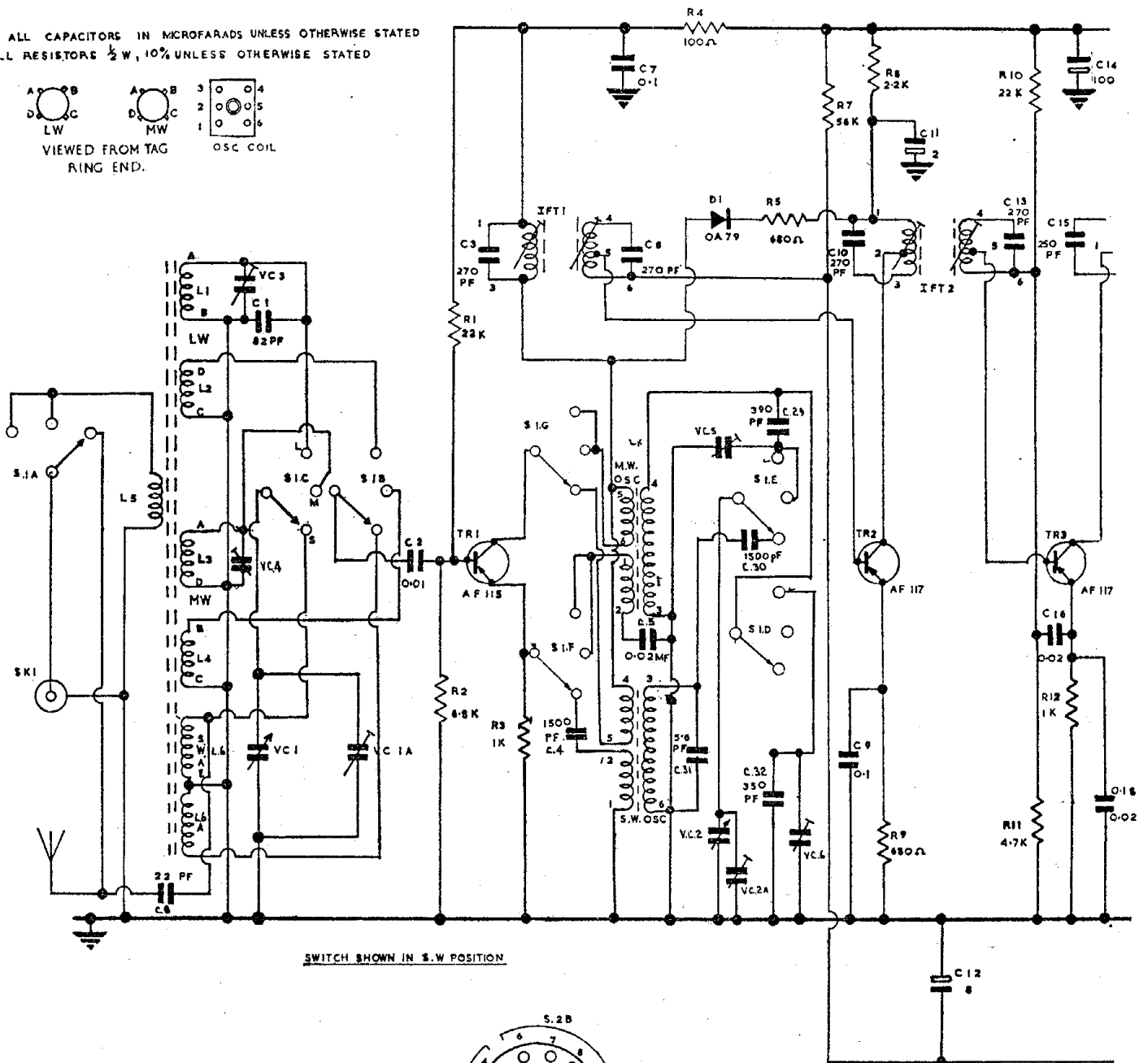
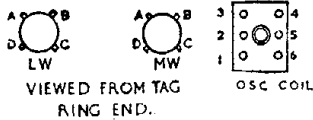


W94b

(W94b) CIRCUIT DIAGRAM—MODEL TP30 (CONTINUED)

# (W98a) CIRCUIT DIAGRAM—MODELS TP31 AND TP32 (PART)

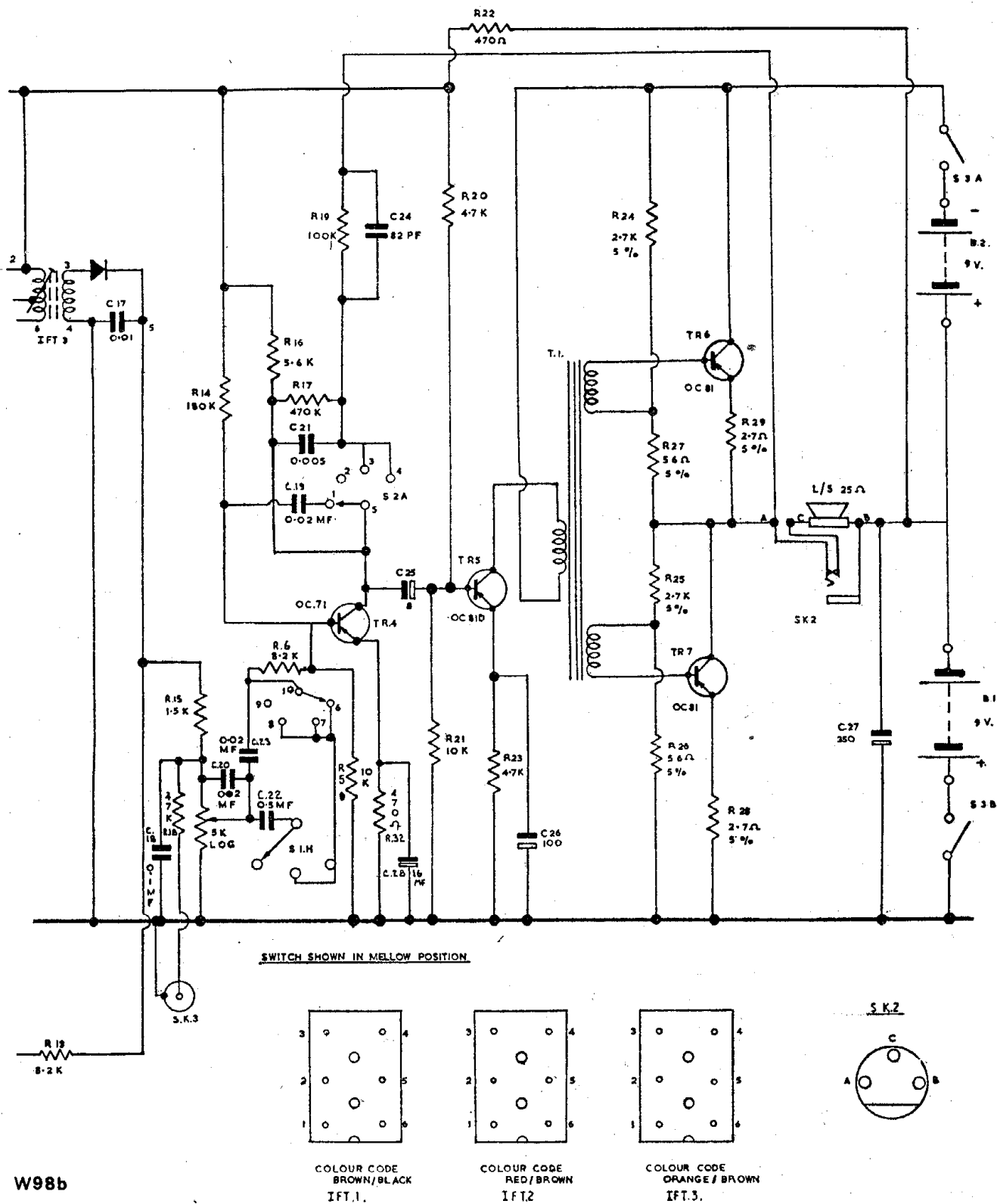
ALL CAPACITORS IN MICROFARADS UNLESS OTHERWISE STATED  
 ALL RESISTORS  $\frac{1}{2}$  W, 10% UNLESS OTHERWISE STATED



W98a

**R.F.:** Check that the pointer travels symmetrically within the scale aperture between the limits of the gang travel. Set up a standard loop aerial with its axis parallel to the receiver aerial and about 2 ft. away for M.W. and L.W. For S.W. feed signal through dummy aerial to aerial socket.

**Models TP31, TP32 only:** Switch to S.W. and feed in a signal at 6 Mc/s. Adjust S.W. oscillator coil and aerial coil turns for maximum output. Close aerial trimmer VC1A and feed in a signal at 15 Mc/s., adjust oscillator

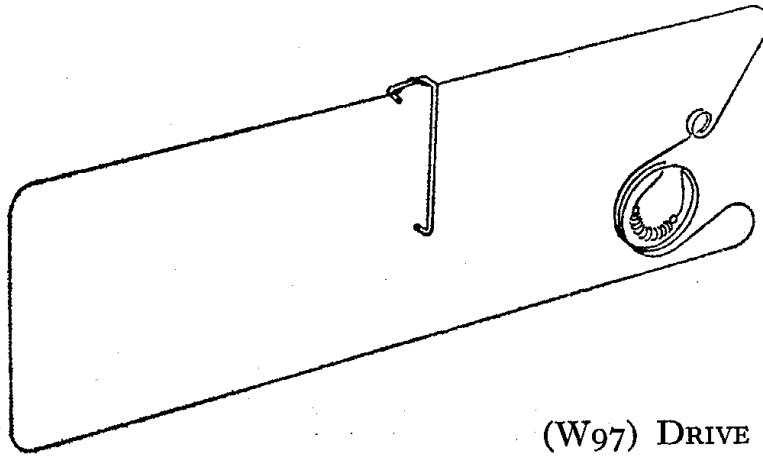


W98b

(W98b) CIRCUIT DIAGRAM—MODELS TP31 AND TP32 (CONTINUED)

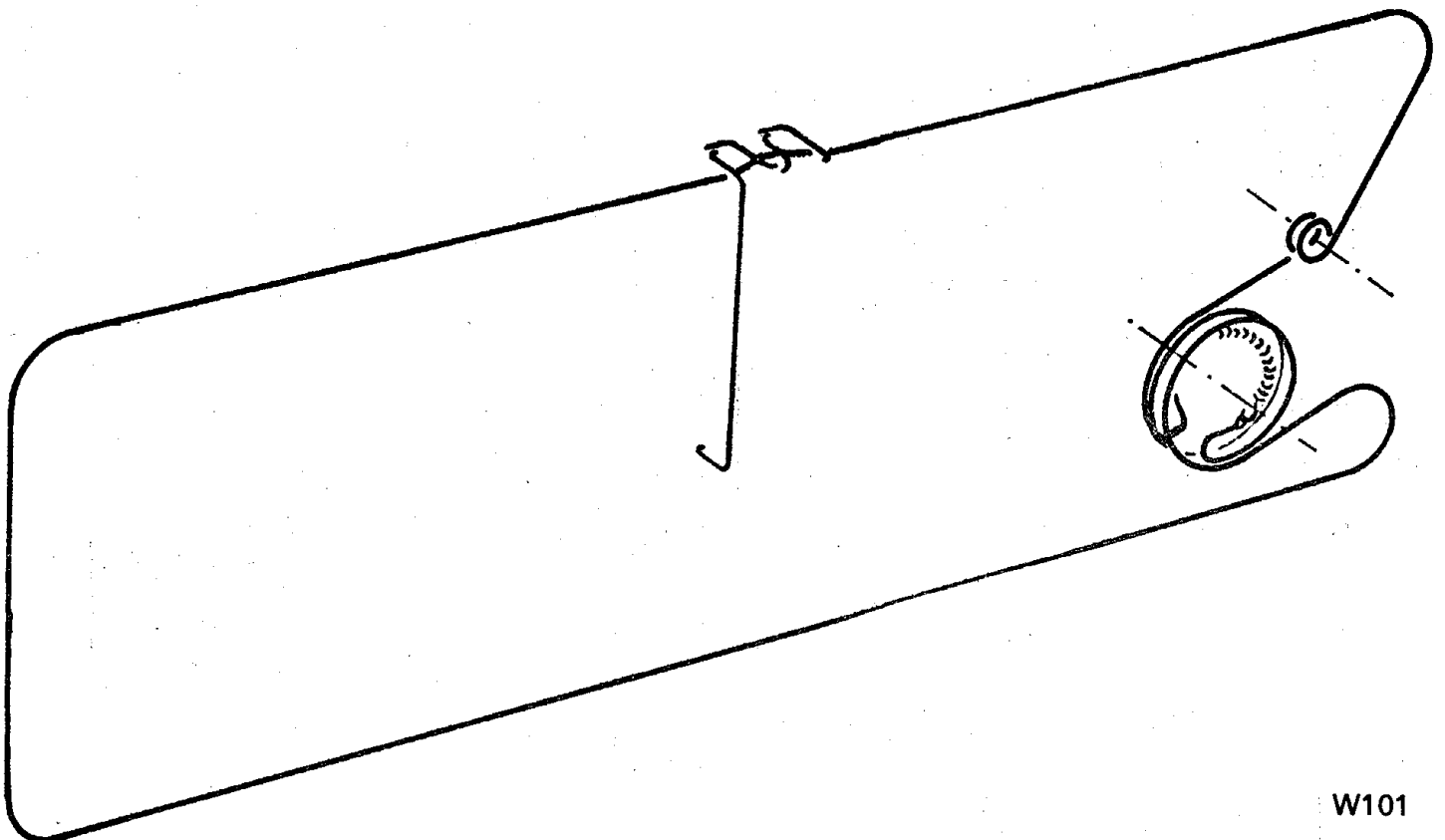
trimmer VC<sub>2A</sub> for second peak. Adjust aerial trimmer VC<sub>1A</sub> for maximum output, reducing capacity until oscillator goes off tune then increase capacity to a point where it comes back to tune.

**All Models:** 1. Switch to M.W. and tune receiver to I.F. end of scale. Feed in a signal at 540 kc/s. Adjust L8 core for maximum output. 2. Tune receiver to H.F. end of scale. Feed in a signal at 1640 kc/s. Adjust VC<sub>2A</sub> for maximum output model TP30, VC<sub>5</sub> for maximum output TP31, TP32.

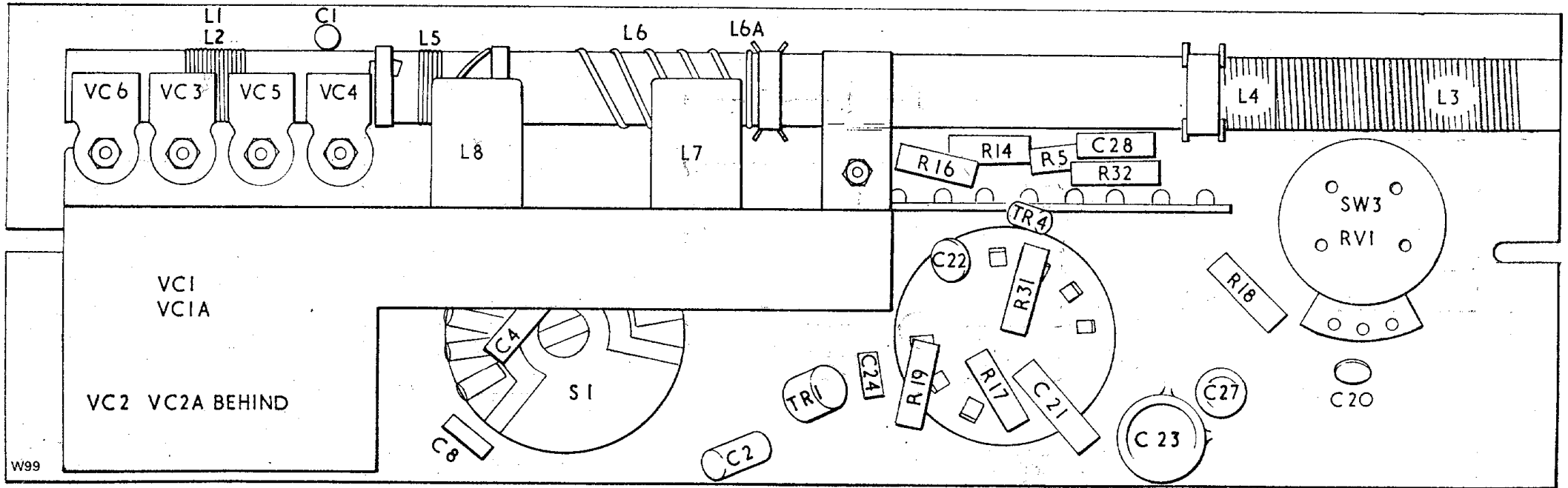


(W97) DRIVE CORD—MODEL TP30

3. Repeat 1 and 2 until no further improvement can be made. 4. Switch to L.W. and tune to Radio 2 programme. Feed in a signal at 200 kc/s. and adjust VC<sub>4</sub> for maximum output. 5. Switch to M.W., feed in a signal at 600 kc/s., tune in on receiver. Adjust L<sub>3</sub> for maximum, and peak with VC<sub>6</sub>. 6. Feed in a signal at 1300 kc/s., tune in on receiver. Adjust VC<sub>1A</sub> for maximum output. 7. Repeat 5 and 6 until no further improvement can be made. 8. Switch to L.W. Feed in a signal at 160 kc/s., tune in on receiver. Adjust L<sub>1</sub> on rod for maximum output. 9. Feed in a signal at 260 kc/s., tune in on receiver. Adjust VC<sub>3</sub> for maximum output. 10. Repeat 8 and 9 until no further improvement can be made. 11. Check the calibration on M.W. adjusting position of pointer on drive cord to minimise residual errors.



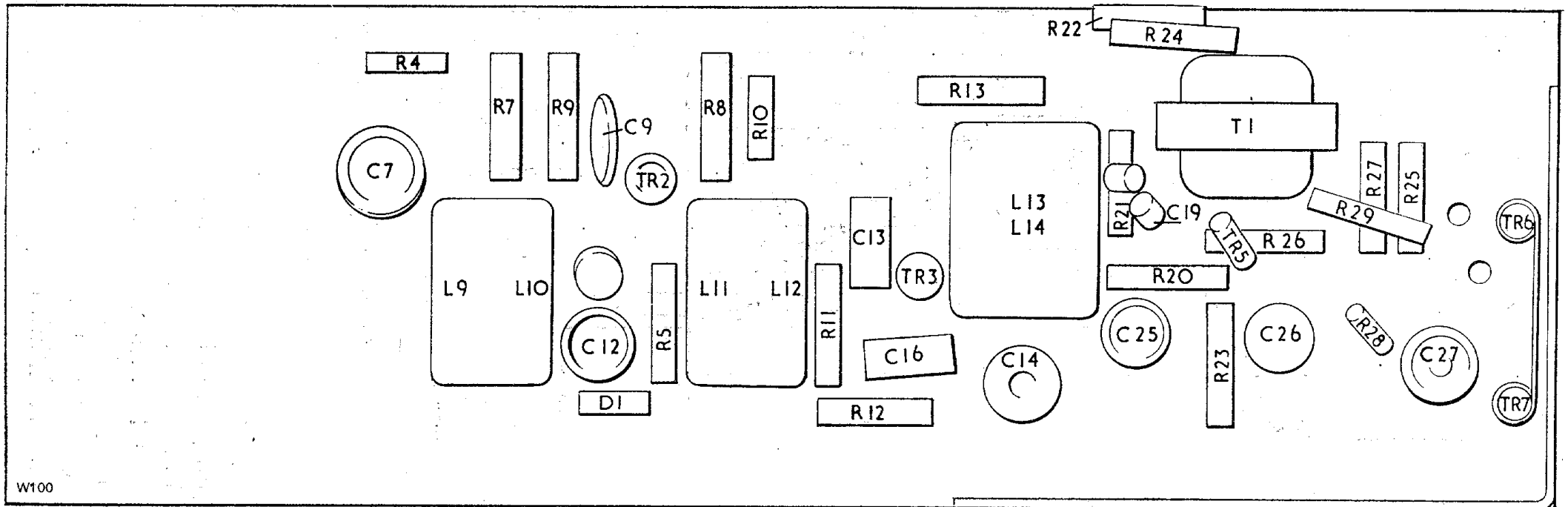
(W101) TUNING DRIVE CORD



W99

TOP: (W99) UPPER CHASSIS—MODELS TP3I AND TP32

BOTTOM: (W100) LOWER CHASSIS—MODELS TP3I AND TP32



W100