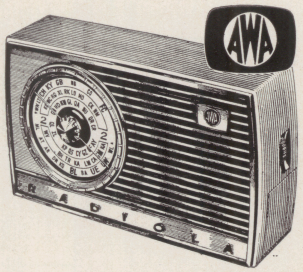
MANUFACTURERS AWA SUPERVISED SERVICE



RADIOLA
SEVEN TRANSISTOR
PORTABLE
MODEL B24

GENERAL DESCRIPTION

Model B24 is a seven transistor, battery operated superheterodyne portable receiver designed for the reception of the Medium Wave Band.

While the styling, cabinet, etc., are completely new, the circuit and the printed circuit board are identical with those used on Model B19.

For all electrical information except variations listed below, refer to Service Manual for Model B19.

ELECTRICAL AND MECHANICAL SPECIFICATIONS

ELECTRICAL VARIATIONS

The main changes occur in the transformer complement which is as follows:

TR1	Ferrite Rod	51639
TR2	Oscillator Coil	51638
TR3	Converter I.F.	51612
TR4	1st I.F.	51614
TR5	2nd I.F.	51670
TR6	Driver Transformer	51161
TR7	Speaker Transformer	38158C

N.B. Model B19 also uses transformers TR3, 4 and 5 as listed together with new oscillator coil TR2, 51610. These feature new and improved constructional methods and are direct replacements for the old transformers.

Another change affecting both models is the use of Philips diodes OA90 or OA80 for MR1.

In some chassis VT5, VT6 and VT7 may be 2N406 type transistors.

The final variation concerns the tuning gang which is electrically identical to that used on B19 but has a longer tuning spindle, its part no. is 21241.

MECHANICAL INFORMATION

Dimensions:

Height—3¾"; Width—6⅜"; Depth—2"; Weight (with battery)—1 lb. 8½ oz.

Chassis Removal:

Loosen off completely the cabinet back retaining screw (this is a captivated screw).

Carefully free the earplug end of the back and lift it approximately ½" clear of the die cast front. At this point it should be possible to spring the volume control end of the case free, pressing the volume control knob in slightly if necessary.

With the back freed from the die cast escutcheon unscrew the nut securing the earplug and remove the latter.

Remove the tuning control knob secured by its centre locking screw.

After removing the three Philips head screws and plain washers the board assembly may be lifted clear of the die cast front allowing complete servicing to both sides of the board.

Reassembly is the reversal of the above procedure taking note of the following points:

The insulating spacers must be in position on the three bosses used for mounting the printed board.

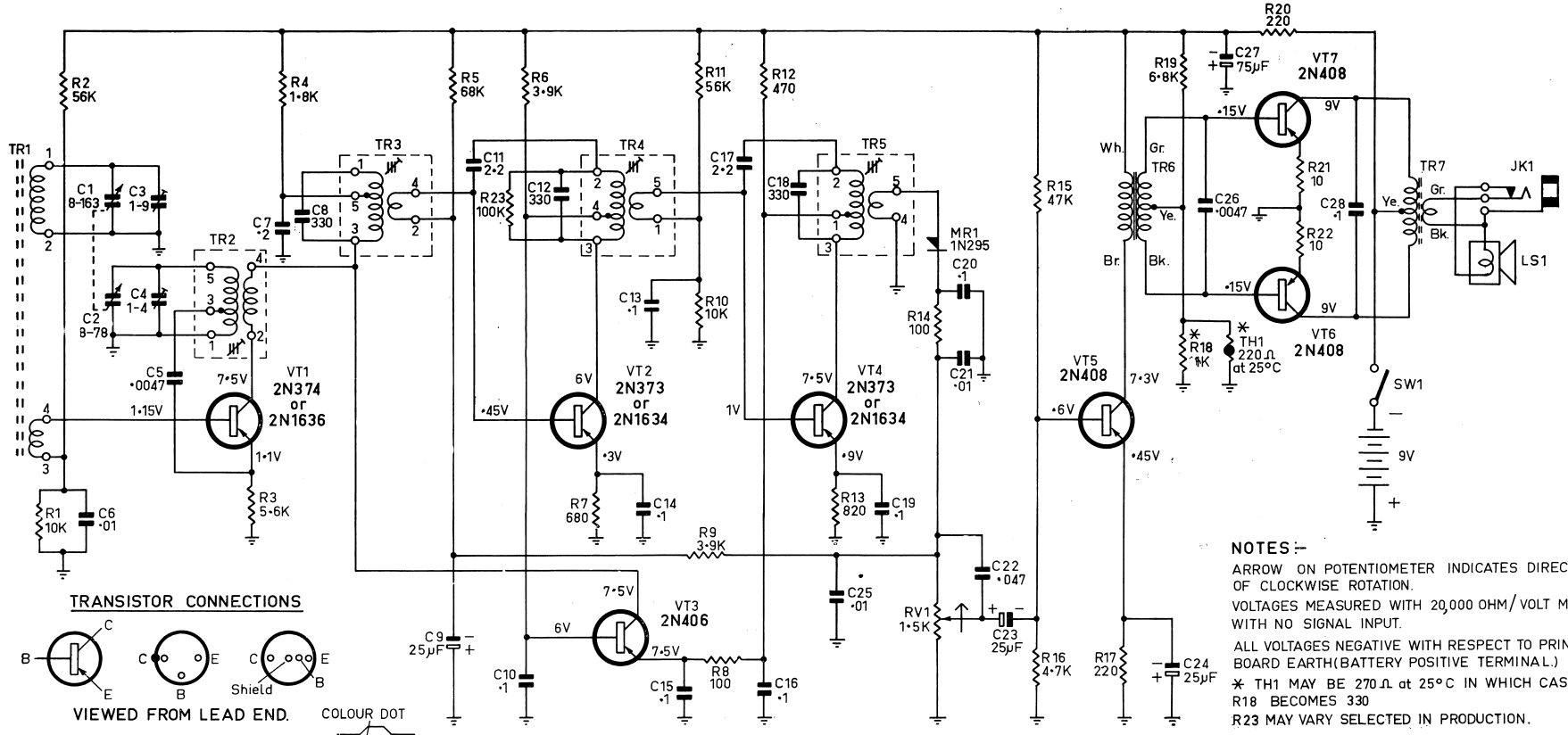
Check that the tuning knob is concentric with the dial scale before tightening the board mounting screws; clearance around these holes allows a slight amount of movement for correct positioning.

When replacing the tuning control knob, before tightening the centre locking screw, make sure that the gang is fully closed then rotate the tuning knob clockwise until the pointer lines up with the arrow heads and the dial scale and lock it in this position. With the receiver operating tune to some known station and check the pointer calibration. Make any slight adjustment that is necessary by loosening the locking screw and moving the pointer to take up any error.

Mechanical Replacement Parts

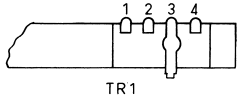
Board, Printed Circuit Replacement	61501A
Boss, Tuning Knob Mounting	39106
Bush, Insulating, Board Mounting	62556
Cabinet, Back	60230
Cabinet Front Assembly (incl. following 3 items):	62567
Badge, A.W.A.	62561
Cabinet Front	62562
Nameplate, Radiola	62554
Case, Carrying (Leather)	62570
Clamp, Speaker Mounting	62552
Circlip, Cabinet Back Retaining Screw	2524
Clip, Battery Terminal Negative (CF 746-17-2)	854011
Clip, Battery Terminal Positive (CF 733-18-2)	792984
Clip, Earphone Attachment	61558
Core, Tuning, I.F. Coils (Ducon K3283)	61773
Dial Scales:	
N.S.W.	37963A
Vic. and Tas.	37963B
Qld.	37963C
S.A. and W.A.	37963D
Door, Sliding Battery Compartment	62551
Earphone Assembly	39839
Grommet, Gang Mtg. (3 off)	389430
Jack Assembly, Earphone	417019
Knob, Tuning	62555
Knob, Volume	39801
Pouch, Earphone Carrying (Leather)	39836
Screw, Cabinet Back Retaining	62573
Screw, Gang Mtg. (2 off 6BA x $\frac{1}{4}$" Ch. Hd.)	716008
Screw, Gang Mtg. (1 off 6BA x $\frac{9}{32}$" Ch. Hd.)	716009
Screw, Printed Board Mtg. (No. 4 x $\frac{1}{2}$" S.T.)	760289
Screw, Tuning Knob Mtg.	62553
Screw, Volume Knob Mtg. (10BA x $\frac{3}{16}$" Rd. Hd.)	720806
Spacer, Gang Mtg. (3 off)	39110
Strap, Shoulder Carrying	39837
Tag, Gang Earthing	4183
Washer, Plain, Gang and Board Mtg. (6 off)	15722

When ordering parts always quote the above Part Numbers and in the case of coloured parts, such as knobs, cabinet, etc., the colour as well.

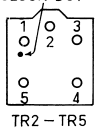


TRANSISTOR CONNECTIONS

VIEWED FROM LEAD END.



COLOUR DOT



BASE CONNECTIONS

NOTES:–

ARROW ON POTENTIOMETER INDICATES DIRECTION OF CLOCKWISE ROTATION.

VOLTAGES MEASURED WITH 20,000 OHM/VOLT METER WITH NO SIGNAL INPUT.

ALL VOLTAGES NEGATIVE WITH RESPECT TO PRINTED BOARD EARTH (BATTERY POSITIVE TERMINAL.)

* TH1 MAY BE 270Ω at 25°C IN WHICH CASE R18 BECOMES 330

R23 MAY VARY SELECTED IN PRODUCTION.

Circuit Variations:

C7 on some chassis may be a 20µf 10VW Electro 229307.
C27 on some chassis may have 2 75µf capacitors in parallel.
In latest receivers C27 will be a 320 µf 9VW Electrolytic