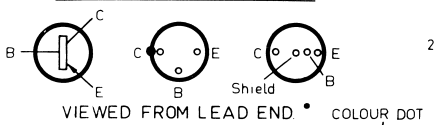
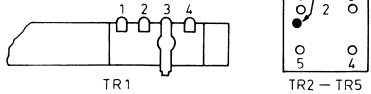


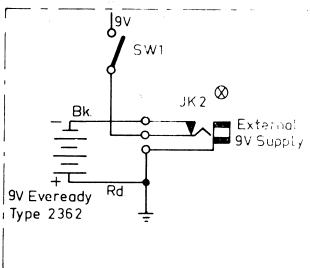
TRANSISTOR CONNECTIONS



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.)
 R23 MAY VARY, SELECTED IN PRODUCTION.
 ⊗ JK2 USED ON B24Z ONLY.



A.W.A. MODELS B19, B19Y, B19Z, B24, B24Z & B52

Remove the tuning knob locking screw and tuning knob.

Remove the three board mounting screws and plain washers.

The board assembly may now be lifted clear of the die cast front giving complete access for servicing.

Installation 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.

Make sure that the gang spindle is concentric with the dial scale and recheck calibration as with B19 series above.

ALIGNMENT PROCEDURE

Manufacturer's Setting of Adjustments:

The receiver is tested by the manufacturer with precision instruments and all adjusting screws are sealed. Re-alignment should be necessary only when components in tuned circuits are repaired or replaced or when it is found that the seals over the adjusting screws have been broken. It is especially important that the adjustments should not be altered unless in association with the correct testing instruments listed below.

Under no circumstances should the plates of the ganged tuning capacitor be bent as the unit is accurately aligned during manufacture and can only be re-adjusted by skilled operators using special equipment.

For all alignment operations, keep the generator output as low as possible to avoid a.g.c. action and set the volume control in the maximum clockwise position.

Testing Instruments:

Signal Generator—modulated 400 c.p.s. or Modulated Oscillator.

If the modulated oscillator is used, connect a 220K ohms non-inductive resistor across the output terminals.

Output Meter:

If an indication only is required, then Output Meter, Type, TF893A, switched to 150 ohms and connected across the Voice Coil should be adequate. If other types of meters are used with the correct loading, the speaker **Must Be Disconnected**, otherwise the maximum dissipation of the transistors will be exceeded at medium output levels.

ALIGNMENT TABLE

ORDER	CONNECT GENERATOR TO:	TUNE GENERATOR TO:	TUNE RECEIVER TO:	ADJUST FOR MAX. PEAK OUTPUT
1	Aerial Section of Gang	455 Kc/s	Gang fully closed	Cores in TR5, TR4 and TR3
Repeat adjustment until maximum output is obtained.				
2	Inductively Coupled to Rod Aerial*	600 Kc/s	600 Kc/s	Osc. Core Adj. (TR2) †
3	Inductively Coupled to Rod Aerial*	1,650 Kc/s	Gang fully open	Osc. Trimmer C4
4	Inductively Coupled to Rod Aerial*	1,500 Kc/s	1,500 Kc/s	Aer. Trimmer C3

Repeat Steps 2, 3 and 4.

* A coil comprising 3 turns of 16 gauge D.C.C. wire about 12 inches in diameter should be connected between the output terminals of the test instrument, placed concentric with the rod aerial and distant not less than 1 foot from it.

† Rock the tuning control back and forth through the signal.

Drive Cord Replacement:

Fig. 2 shows the route of the cord and the method of attachment.

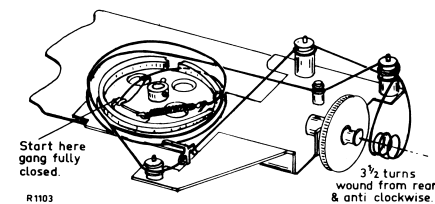


fig. 2

A.W.A. MODEL B45

ALIGNMENT PROCEDURE

Manufacturer's Setting of Adjustments:

The receiver is tested by the manufacturer with precision instruments and all adjusting screws are sealed. Re-alignment should be necessary only when components in tuned circuits are repaired or replaced or when it is found that the seals over the adjusting screws have been broken. It is especially important that the adjustments should not be altered unless the correct testing instruments, listed below, are used.

Under no circumstances should the plates of the ganged tuning capacitor be bent, as the unit is accurately aligned during manufacture and can only be re-adjusted by skilled operators using special equipment.

For all alignment operations, keep the generator output as low as possible to avoid a.g.c. action and set the volume control in the maximum clockwise position.

Testing Instruments:

Signal Generator—modulated 400 c.p.s., or Modulated Oscillator.

If the modulated oscillator is used, connect a 0.22 megohms non-inductive resistor across the output terminals.

Output measurements must be made with either the speaker connected or with two 28 ohms resistors connected in series across the output collectors when the speaker is removed. If an indication only is required, Output Meter type 2M8833, switched to 5000 ohms and connected across the collectors, should be adequate. For a true reading of power output, an a.c. meter, with neither probe earthed, connected similarly will measure 1.2 volts for 50 mW (the effective load being 28 ohms).

I.F. Alignment Tool Part No. 39462.

ALIGNMENT TABLE

ORDER	CONNECT "HIGH" SIDE OF GENERATOR TO:	TUNE GENERATOR TO:	TUNE RECEIVER TO:	ADJUST FOR MAX. PEAK OUTPUT
1	Aerial section of Gang	455 Kc/s	Gang fully closed	Cores in TR5†, TR4 and TR3
Repeat adjustment until maximum output is obtained.				
2	Inductively Coupled to Rod Aerial*	600 Kc/s	600 Kc/s	Osc. Core (TR2) †
3	Inductively Coupled to Rod Aerial*	1,620 Kc/s	Gang fully open	Osc. Trimmer (C5)
4	Inductively Coupled to Rod Aerial*	1,500 Kc/s	1,500 Kc/s	Aer. Trimmer (C4)
Repeat steps 2, 3 and 4				

† Peak TR5 with core toward the board.

* A coil comprising three turns of 16 gauge D.C.C. wire about 12 inches in diameter should be connected between the output terminals of the test instrument, placed concentric with the rod aerial and distant not less than one foot from it.

† Rock the tuning control back and forth through the signal.