



ALIGNMENT PROCEDURE

Manufacturer's Setting of Adjustments.

The receiver is tested by the manufacturer with precision instruments and all adjusting screws, except the aerial trimmer, 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.

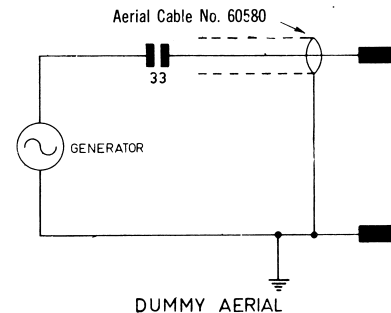
It is especially important that adjustments should not be altered unless the correct instruments, listed below, are used.

For all alignment operations connect the "low" side of the signal generator to the receiver chassis and keep the generator output as low as possible to avoid a.g.c. action. Also, keep the volume control in the maximum clockwise position.

When the generator is connected to the aerial terminal, use the dummy aerial as shown in the diagram.

Testing Instruments:

- Signal Generator — Modulated 400 c.p.s. or Modulated Oscillator.
- Dummy Aerial — See diagram.
- Output Meter — 15 ohms impedance.
- I.F. Alignment Tool No. 39462.



A.W.A. ALL TRANSISTOR MANUALLY TUNED CAR RADIO

MODEL MF7

Also VOLKSWAGEN MODELS MF8B And MF9A

MODEL DESIGNATIONS

Model No.	Manufactured For	Where Used	Operating Conditions
MF7	A.W.A.	Basic Pack	6V Neg. Earth
MF8B	Volkswagen (Aust.)	VA260 in VW1200	6V Neg. Earth
MF9A	Volkswagen (Aust.)	VA257 in VW1500	6V Neg. Earth

ELECTRICAL AND MECHANICAL SPECIFICATIONS

Frequency Range	525-1,620 Kc/s	Controls:
Intermediate Frequency	455 Kc/s	Tuning, Volume, Pressbutton Power, Pressbutton Tone (Set of 3).
Battery Voltage	6 Volts	Transistor and Diode Complement:
Battery Polarity	Negative Earth	AWV 2N1637/27 R.F. Amplifier.
Battery Consumption	1 Amp.	AWV 2N1637/27 Converter.
Loudspeakers:		AWV 2N1637/27 1st I.F. Amplifier.
MF7	Nil	AWV 2N408 Audio Amplifier.
MF8B 7" x 5"	52838	AWV 2N649 Driver.
MF9A 6" x 4"	52837	AWV 2N301 Output.
V.C. Impedance 15 ohms at 400 C.P.S.		AWV 1N87A A.G.C.
Undistorted Power Output	2 Watts	AWV 1N87A Detector.

A. GENERAL.

ALIGNMENT TABLE

ALIGN. ORDER	CONNECT GENERATOR TO:	TUNE GENERATOR TO:	TUNE RECEIVER TO:	ADJUST FOR MAX. PEAK OUTPUT:
1	Collector of VTI*	455 Kc/s	L.F. Limit	TR3 Secondary Core
2	Collector of VTI*	455 Kc/s	L.F. Limit	TR3 Primary Core
3	Collector of VTI*	455 Kc/s	L.F. Limit	TR2 Secondary Core
4	Collector of VTI*	455 Kc/s	L.F. Limit	TR2 Primary Core
Repeat the above adjustments until no further improvement is possible.				
5	Aerial Terminal Via Dummy Aerial	1,620 Kc/s (Accurate)	H.F. Limit	Osc. Trimmer (C11)
6	Aerial Terminal Via Dummy Aerial	1,500 Kc/s	1,500 Kc/s	R.F. Trimmer (C7)
7	Aerial Terminal Via Dummy Aerial	1,500 Kc/s	1,500 Kc/s	Aer. Trimmer (C1)
8	Aerial Terminal Via Dummy Aerial	600 Kc/s	600 Kc/s	Osc. Padder (L3)†

Repeat adjustments 5, 6, 7 and 8 until no further adjustment is possible.

* A 0.01μF capacitor should be connected in series with the high side of the generator.

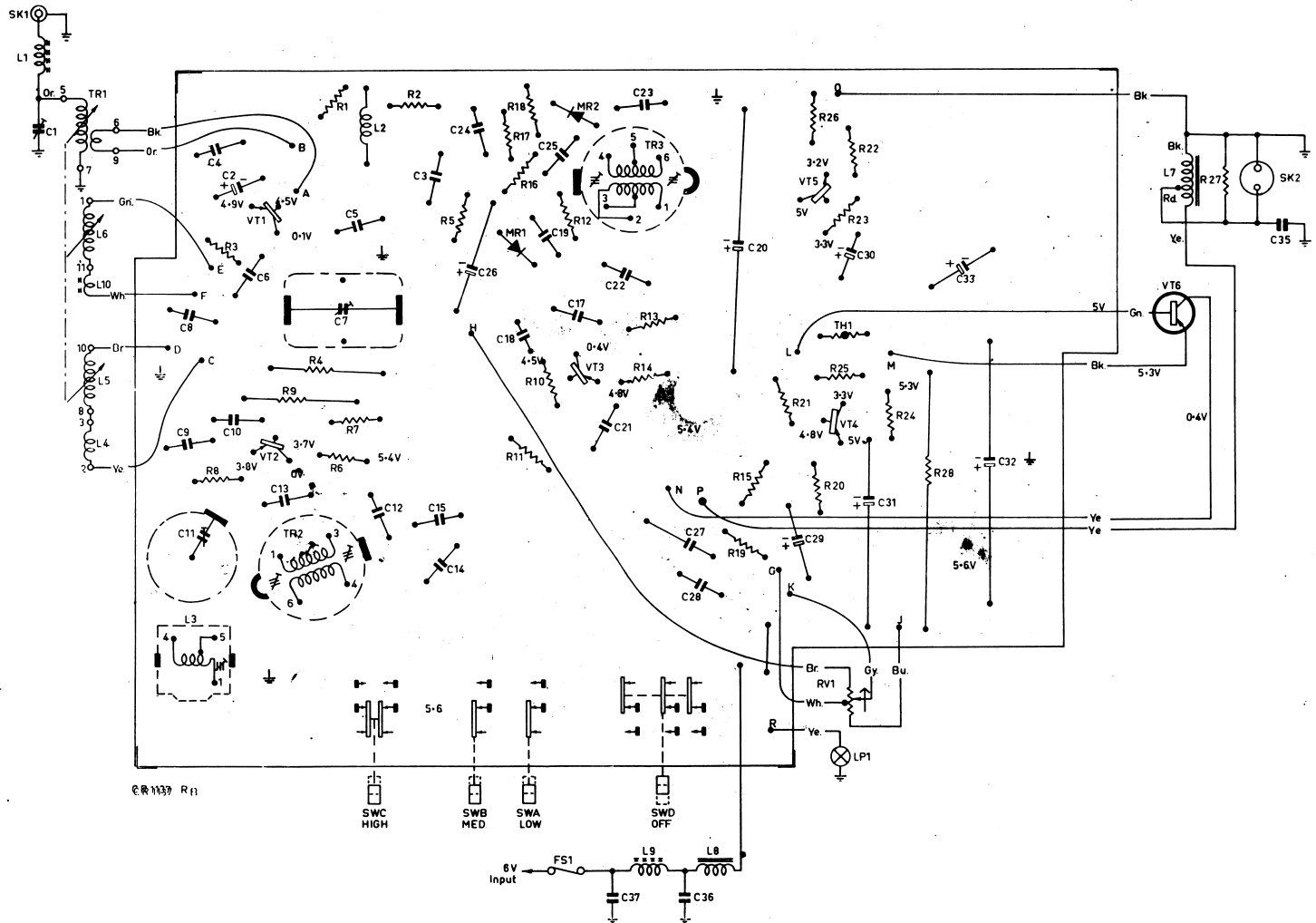
† Rock the tuning control back and forth through the signal.

B. CALIBRATION ALIGNMENT:

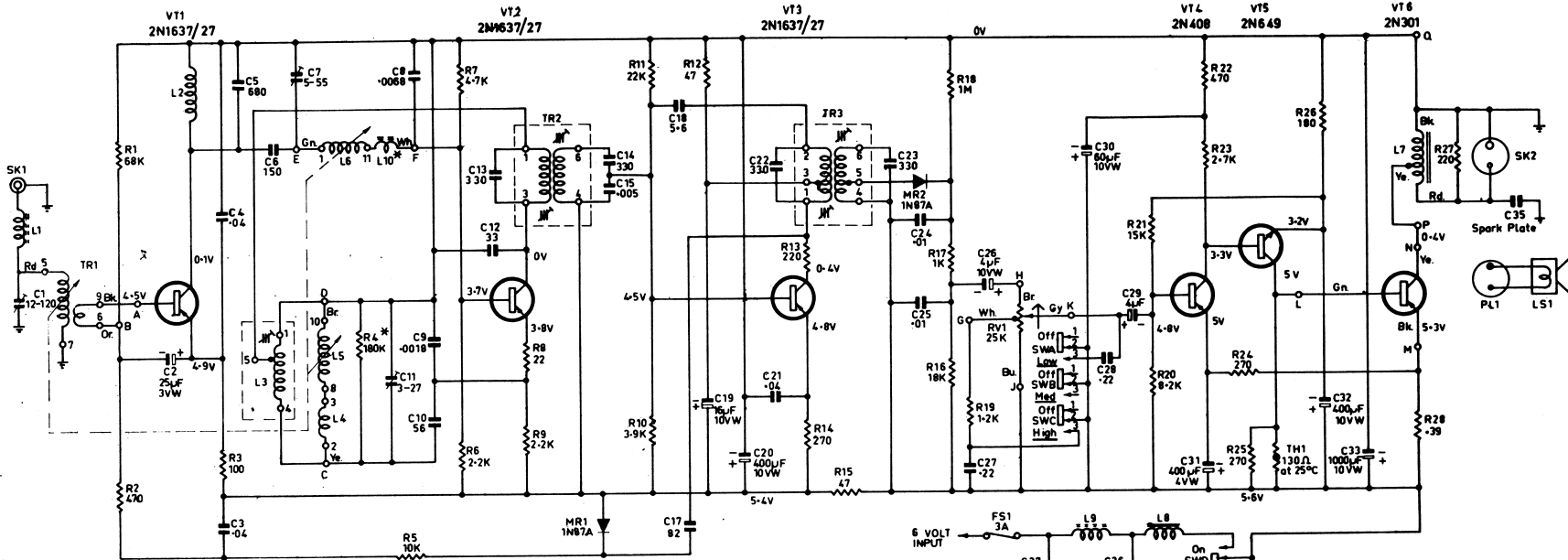
With the receiver connected to an aerial, the dial scale calibration may be checked and corrected if necessary. The pointer may be moved relative to the dial scale by sliding it along the dial cord.

C. TUNER ALIGNMENT: Adjustment of the tuner core should not be made unless a coil has been replaced or it is suspected that the alignment has been interfered with, in which case carefully follow the procedure below.

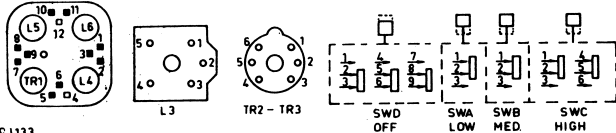
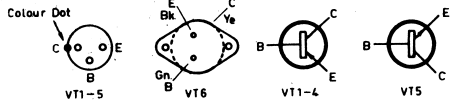
1. Adjust the tuner to the H.F. end stop and back all cores out of the coils as far as possible.
2. Tune the signal generator accurately to 1,620 Kc/s and adjust the oscillator, R.F. and aerial trimmers for maximum output.
3. Tune the signal generator accurately to 600 Kc/s and the core carriage to a point, 0.680" from the H.F. end stop. Adjust the oscillator, R.F. and aerial cores for maximum output.
4. Tune the signal generator to 1,620 and tuner to H.F. end stop and re-adjust the oscillator trimmer for maximum output.
5. Tune the signal generator and tuner to 1,500 Kc/s and adjust the R.F. and aerial trimmers for maximum output.
6. Repeat steps 3, 4 and 5 until no further improvement is obtained.
7. Check the L.F. end frequency with the carriage fully in. This should be 520 ±5 Kc/s. If necessary adjust the oscillator padder core to tune to 520 Kc/s and repeat steps 3, 4 and 5 above until no further improvement is obtained.
8. Seal the tuning core studs.



All voltages shown are positive with respect to the board earth, and are measured with no signal input and volume maximum clockwise using a 20,000 ohm/volt meter. Blue indicates the printed wiring.



BASE CONNECTIONS



NOTES— Arrow on potentiometer indicates direction of clockwise rotation.
 Voltages measured with 20,000 ohm/volt meter with no signal input.
 * May vary in production.