"HIS MASTER'S VOICE" Car Radio

SERVICE INFORMATION

MODEL: 52TC "LITTLE NIPPER" (Manually Tuned) Tailored and One-Unit Models

The following notes should be carefully read before carrying out any adjustments to the receiver.

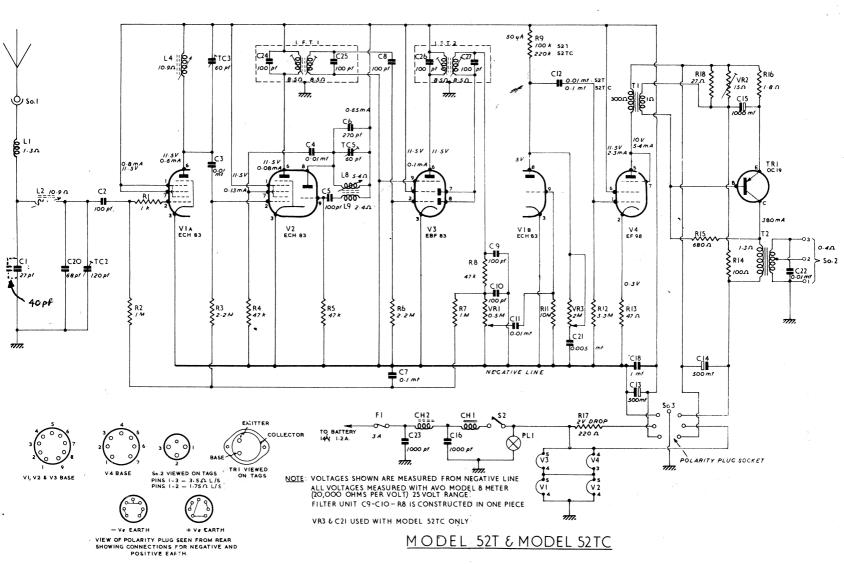
- 1. If the voltage polarisation is accidentally reversed the transistor will be damaged.
- 2. Because of the difficulties associated with making operational tests, a suspect valve or transistor should be checked by substitution.
- 3. Power supply should always be an accumulator except where a well regulated and ripple-free supply is available. The average mains unit is not suitable.

TRANSISTOR REPLACEMENT:

- 1. Check that transistor is free from metal burrs, which could damage mica insulator earthing collector and result in blowing the fuse.
- 2. A coating of silicone grease should be applied to both sides of mica insulator, to ensure maximum heat transfer.
- 3. Place mica insulator in position and ensure transistor fixing bolts are firmly tightened on heat sink, in order to effect maximum heat transfer.
- 4. Place VR2 slider in minimum current position. (Slider moved to extreme position, towards H.F. chassis).
- 5. Re-solder base and emitter leads (employing heat shunt) and adjust transistor current as described below.

TRANSISTOR CURRENT ADJUSTMENT:

With input volts at 14, transistor current should measure 380 m.a. Measurement is taken between yellow lead and its connection on transistor with AVO model 8 (or similar) on 1 amp range of meter. Any required adjustment is made on VR2. Slider should be sealed (on the paxolin side) on the appropriate setting, using a suitable adhesive.



I.F. ALIGNMENT:

- 1. Apply 470 Kc/s modulated 30% at 400 c/s between Pin 2 of V2 and chassis. (Through an 0.1 mfd capacitor).
- 2. Volume control to maximum. Tone Control fully clockwise. Set tuning carriage so that cores are fully withdrawn from coils.
- 3. With suitable signal input adjust I.F.T.2. Sec., I.F.T.2. Pri., I.F.T.1. Sec., I.F.T.1. Pri., in that order for maximum output. Repeat sequence for maximum output.

R.F. ALIGNMENT:

The requisite dummy aerial comprises a 22 pfd capacitor in series and a 33 pfd shunt capacitor.

M.W. ALIGNMENT:

- 1. Set tuning carriage to fully withdrawn position, ensuring that cores are screwed anti-clockwise back into grommets.
- 2. Set ferrite auxiliary rods (on L2 and L4) to mid position.
- 3. Connect signal generator to aerial input. (Through dummy aerial).

OPERATION	CARRIAGE POSITION	GENERATOR SETTING	ADJUST FOR MAXIMUM OUTPUT
1	Tuning carriage fully out. Ignore Pointer position.	Kc/s 1610	(a) TC5 (Oscillator trimmer) (b) TC3 (R.F. trimmer) (c) TC2 (Aerial trimmer)
2	Tune Pointer to set mark at 550 Kc/s.	550	L8/L9 Oscillator slug.
3	Repeat operations 1 and 2.		
4	Tune to 1100 Kc/s. Set Pointer to 1100 Kc/s mark on Dial Scale.	1100	L2 (Aerial) and L4 (R.F.) Slugs.

OPERATION	CARRIAGE POSITION	GENERATOR	ADJUST FOR MAXIMUM OUTPUT
		SETTING	
		Kc/s	
5	Tune to 550 Kc/s	. 550	Auxiliary Rods in L2 and L4 if gain low.
6	Check that Pointer alignment reasonably agrees with Station call signs on Dial Scale.		
7	Seal Auxiliary Rods in L2 and L4 with wax after operation 6 is completed.		
8	Check that sensitivity at 550 Kc/s, 1100 Kc/s and 1500 Kc/s is better than 4 microvolts at 200 MW output.		

E.M.I. (AUSTRALIA) LIMITED.

SYDNEY - MELBOURNE - ADELAIDE - PERTH - NEWCASTLE.

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