#### **SERVICE NOTES**

#### **MODEL 1101**

Model 1101 is a battery operated transistor portable of 300mw output. Its features include an earphone and external aerial socket.

#### DIMENSIONS AND WEIGHTS:

Dimensions

Unpacked:

9 in. wide x  $4\frac{3}{8}$  in. high x  $2\frac{1}{4}$  in. deep

Weight: 1 lb. 3 oz.

Packed:

 $9\frac{1}{2}$  in. wide x  $5\frac{3}{4}$  in. high x  $2\frac{3}{4}$  in. deep

Weight: 1 lb. 6 oz.

#### CHASSIS REMOVAL:

Undo the 2 handle securing screws and retain the 2 crinkled washers. Pull off the tuning dial knob. Remove the cabinet front by lifting the R.H. end clear of rear (L.H. end located in groove). The component side of printed board is now accessible.

The printed board is secured by lugs moulded in the cabinet top and bottom. To completely remove, gently lever out bottom of board from under bottom retaining lugs. The printed board may now be pulled out from under top retaining lugs and removed from cabinet.

#### **BATTERY REPLACEMENT:**

When the battery is to be replaced, slide out the battery compartment door on the rear of the radio, remove the old battery, and replace with an Eveready 2362 battery or equivalent, ensuring that the battery connectors are correctly and securely attached to the battery. Slide the battery compartment door into place.

### **CAUTION:**

If the radio is not used for a long period of time, or when the battery is obviously exhausted, it is advisable to remove the battery from the receiver.



# **THORN**

# SERVICE MANUAL MODEL 1101



#### SPECIFICATIONS:

Tuning Range:

520-1610KHz

I.F.:

455KHz

Power Source:

9v. Eveready 2362 or equivalent

Power Output.

300mw

Voice Coil Impedance:

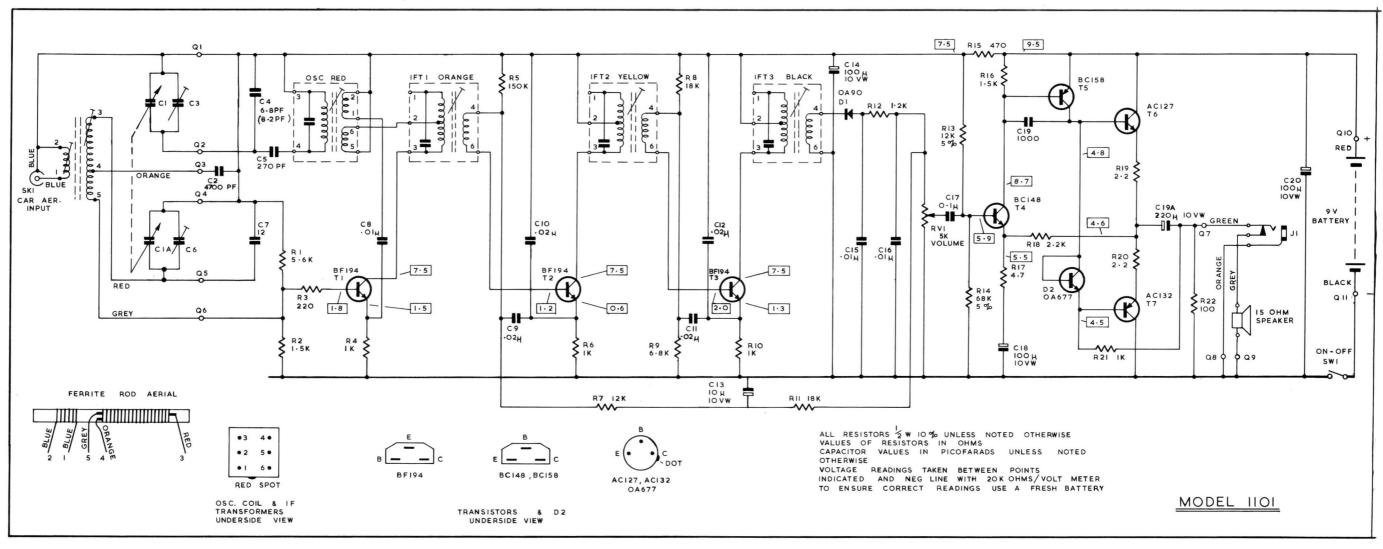
15 ohm

Sockets:

Car Aerial and Earphone Sockets

# THORN ELECTRICAL INDUSTRIES (AUST.) PTY. LTD.

123-131 Bamfield Road, West Heidelberg Victoria, 3081 Telephone: 459 1688



#### **ALIGNMENT:**

#### I.F.

Connect a signal generator to a coupling loop (approx, 10 turns on 6 inch diameter) placed in line with and about 2 feet from the ferrite rod antenna.

With tuning gang fully closed and volume at maximum, set the generator to 455KHz and adjust the I.F. transformer cores for maximum output. Repeat adjustments until no further improvement can be obtained. Reduce generator output as receiver output increases, use a signal level as low as practical.

#### R.F.

Set the tuning dial to 600KHz and adjust the oscillator coil for max. output. Set the tuning dial to 1400KHz and adjust the oscillator trimmer. Repeat the above adjustments until tracking is correct.

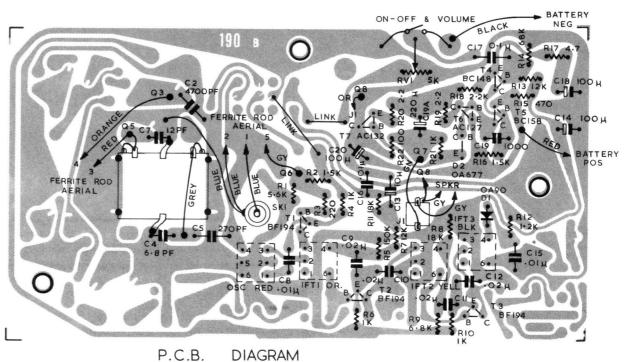
Adjust the aerial coil (by sliding along rod) for max. output at 600KHz.

Adjust the aerial trimmer for max. output at 1400KHz.

### **CIRCUIT NOTE**

Some modifications have been made to the 1101 circuitry, These changes are noted below.

C2 was .0015mF C4 was 8.2pF or 12pF R12 was 5.6K



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# **MECHANICAL PARTS LIST**

				P	Thorn art. No.
Cabinet Front	 	 	 		160156
Cabinet Back	 	 	 		160157
Badge	 	 	 		146071
Grille	 	 	 		463021
Handle	 	 	 		468028
Handle Screw	 	 	 		820021
Crinkle Washer	 	 	 		951943
	 	 	 		670134
	 	 	 		670135
	 	 	 		920074
R. H. Trim	 	 	 		920075
Top Trim	 	 	 		920076
	 	 	 		510161
	 	 	 		245042
	 	 	 		375023
Battery Connector Femal		 	 		300022
Battery Connector Male		 	 		300023
Earphone	 	 	 		409001
Loudspeaker	 	 	 		560130
Loudspeaker Retainer		 	 		749004
Push-on Fix Nuts	 	 	 		610857
Car Aerial Socket	 	 	 		845213
Jack Switched Socket		 	 		845011
Aerial Mounting Clip	 	 	 		245127
Gang Bracket	 	 	 		135283
Battery Label	 	 	 		520040
Printed Board	 	 	 		146535
Captive Nut	 	 	 		610870
Ferrite Rod	 	 	 		770010

## **ELECTRICAL PARTS LIST**

SEMICOND	DUCTOR KIT:	Thorn Part No.
T1, T2, T3.	Transistor, BF194 OR BF184	918050 (918032)
T4	Transistor, BC148 OR BC108	918048 (918026)
T5	Transistor, BC158 OR BC178	918056 (918033)
*T6, T7.	Transistor Pair, AC127/AC132	918059
D1	Diode, OA90	378003
*D2	Diode, OA677	378020

#### \* NOTE:

The triad (T6, T7, D2) is a matched set. To preserve optimum performance these components should be replaced as a set.

#### **TRANSFORMERS:**

Oscillator Coil. Red Dot.	917614
I.F. Transformer, Yellow.	917608
I.F. Transformer. Black.	917609
I.F. Transformer. Orange.	917615

#### **RESISTORS:**

D 1	5 (V above + 1007 assumption
R1	$5.6$ K ohm $\pm$ 10% composition
R2	$1.5$ K ohm $\pm$ 10% composition
R3	220 ohm $\pm$ 10% composition
R4, R6	1K ohm $\pm$ 10% composition
R5	150K ohm $\pm$ 10% composition
R7	$12K$ ohm $\pm$ 10% composition
R8, R11	10K ohm ± 10% composition
R9	$6.8$ K ohm $\pm$ 10% composition
R10	1K ohm $\pm$ 10% composition
R12	$1.2K$ ohm $\pm$ 10% composition
R13	12K ohm $\pm$ 5% composition
R14	$68K$ ohm $\pm$ 5% composition
R15	470 ohm $\pm$ 10% composition
R16	$1.5$ K ohm $\pm$ 10% composition
R17	4.7 ohm $\pm$ 10% composition
R18	$2.2K$ ohm $\pm$ 10% composition
R19, R20	2.2 ohm $\pm$ 0.5% composition
R21	1K ohm ± 10% composition
R22	100 ohm $\pm$ 10% composition
RV1	5K ohm Switch Pot 686500

#### **CAPACITORS:**

C1, C1A	Tuning	Gang	274011
*C3, C6	ŭ	Ü	*Part of Tuning Gang
C2			4700pF 100v poly
C4			6.8pF 500v cer.
C5			$270 pF \pm 5\% 50 v cer.$
C7			12pF 50v cer.
C8			0.01mF 50v cer.
C9, C10, C11, C12			0.022mF 50v cer.
C13			10mF 10v
C14			100mF 10v
C15, C16			0.01mF 50v cer.
C17			0.1mF 50v cer.
C18, C20			100mF 10v.
C19			1000pF 50v cer.
C19A			220mF 16v electro.

**NOTE:** Always quote the model number and the part number when ordering replacement parts.

The manufacturers reserve the right to vary specifications and/or materials as may be deemed necessary or desirable at any time.