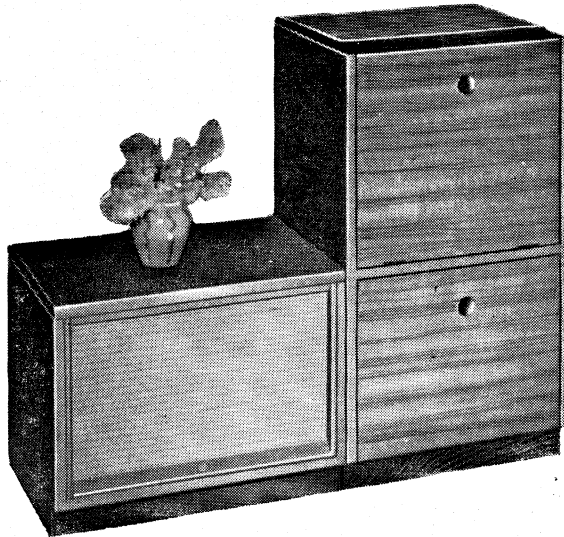




Models 570-GA (Z) and 572-GA (Z)

FIVE VALVE, TWO BAND, A.C. OPERATED SUPERHETERODYNE

ISSUED BY: AMALGAMATED WIRELESS (AUSTRALASIA) LTD.



572-GA.



570-GA.

ELECTRICAL SPECIFICATIONS

Frequency Ranges:

Medium Wave 540-1600 Kc/s.
(555-187.5 Metres)
Short Wave 6-18 Mc/s.
(50-16 Metres)

Intermediate Frequency 455 Kc/s.

Power Supply Rating 200-260 volts
50-60 C.P.S.

(Models are produced with other voltage and frequency ratings.)

Power Consumption:

Receiver 40 watts
Record Player 17 watts

Dial Lamps:

6.3 volts, 0.25 amp. M.E.S.

Valve Complement:

1. 6BE6 Converter.
2. 6BA6 I.F. Amplifier.
3. 6AV6 Detector, A.F. Amplifier, A.V.C.
4. 6BV7 Output.
5. 6X4 Rectifier.

Loudspeakers:

Model 570-GA.
5 inch permanent magnet No. 20931
and
12 inch permanent magnet No. 20929
Transformer No. 31772H
V.C. Impedance — 3 ohms at 400 C.P.S.

Model 572-GA.
5 inch permanent magnet No. 20931
and
12 inch permanent magnet No. 20930
Transformer No. 31772H
V.C. Impedance — 3 ohms at 400 C.P.S.

NOTE: On later models of 570-GA (Z) and 572-GA (Z) the 12 inch permanent magnet speakers are changed to No. 21009 and No. 21010 respectively. The transformer used is No. 20996A and the V.C. Impedance is 6 ohms in both cases.

Undistorted Power Output 2.5 Watts

Chassis Removal:

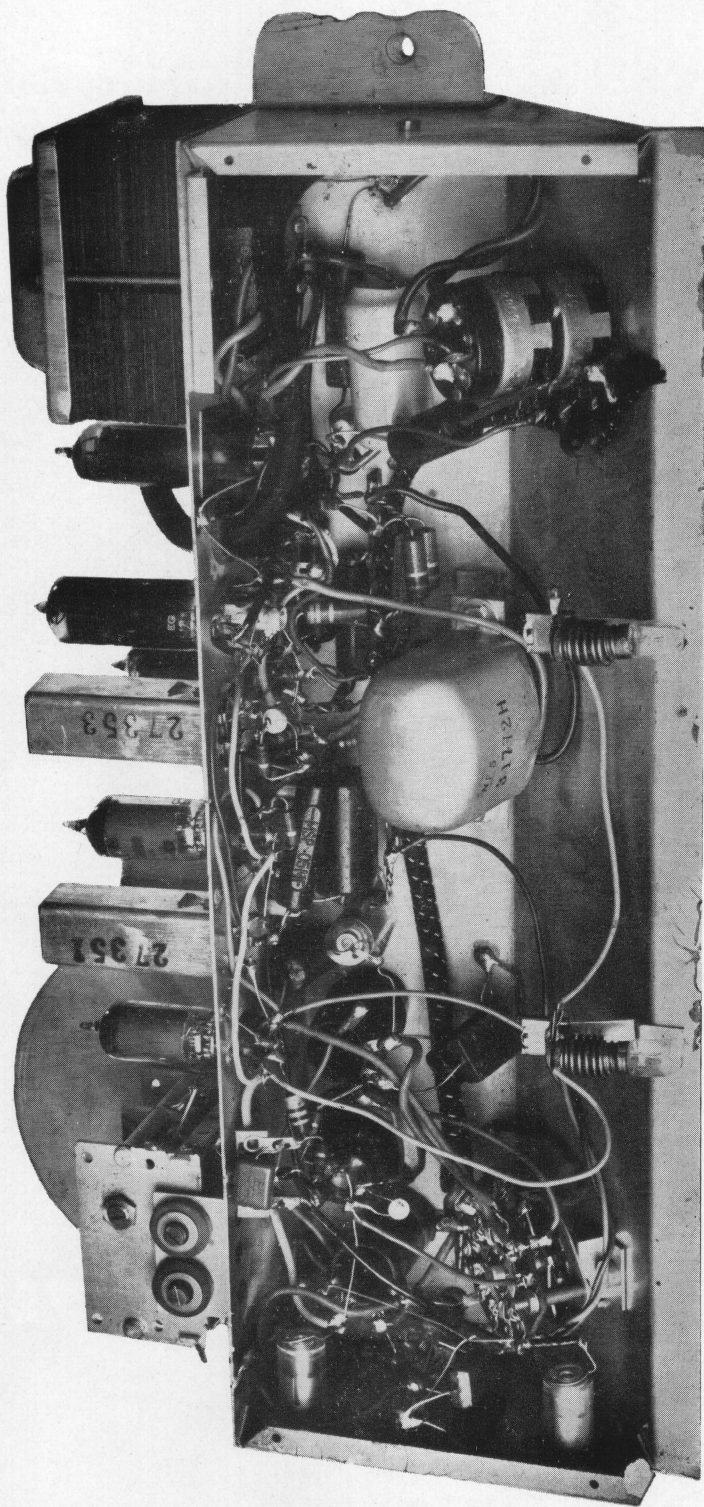
- (1) Remove the cabinet back.
- (2) Disconnect the Loudspeaker, Pick-up and Phono-motor cables.
- (3) Remove two bolts holding the chassis to the wood blocks supporting it.
- (4) The chassis is now free to lift out.

CIRCUIT CODE—RADIOLAS 570—GA, 572—GA

Code No.	Description	Part No.	Location	Code No.	Description	Part No.	Location
INDUCTORS							
L1	I.F. Filter (Including C1)	9382	D2	C8	440 $\mu\mu\text{F}$ padder $\pm 2\frac{1}{2}\%$		F2
L2, L3	Aerial Coil 6-18 Mc/s	30710	E6	C9	4-27 $\mu\mu\text{F}$ trimmer	33304	E2
L4, L5	Aerial Coil 540-1600 Kc/s	30768	E5	C10	9 $\mu\mu\text{F}$ silvered mica		F2
L6, L7	Oscillator Coil 6-18 Mc/s	28229	E3	C11	1,000 $\mu\mu\text{F}$ silvered mica		F10
L8	Oscillator Coil 540-1600 Kc/s	32406	F3	C12	12-445 $\mu\mu\text{F}$ tuning	18674	C5
L9, L10	1st I.F. Transformer	27351	B7	C13	12-445 $\mu\mu\text{F}$ tuning	18674	C4
L11, L12	2nd I.F. Transformer	27353	B10	C14	47 $\mu\mu\text{F}$ silvered mica		D4
RESISTORS							
R1	0.1 megohm		D5	C15	100 $\mu\mu\text{F}$ silvered mica (in 1st I.F.)		B7
R2	100 ohms		D5	C16	100 $\mu\mu\text{F}$ silvered mica (in 1st I.F.)		B7
R3	22,000 ohms		D5	C17	0.05 μF paper 200V working		D8
R4	0.47 megohm		D5	C18	0.05 μF paper 400V working		D7
R5	0.39 megohm		E10	C19	100 $\mu\mu\text{F}$ silvered mica (in 2nd I.F.)		B10
R6	11,000 ohms		E8	C20	100 $\mu\mu\text{F}$ silvered mica (in 2nd I.F.)		B10
R7	330 ohms		D9	C21	220 $\mu\mu\text{F}$ ceramic		D10
R8	2.2 megohms		D10	C22	0.01 μF paper 600V working		E11
R9	47,000 ohms		D10	C23	0.1 μF paper 400V working		E9
R10	0.5 megohm volume control	32809/1	H14	C24	100 $\mu\mu\text{F}$ silvered mica		E11
R11	30 ohms		F10	C25	0.025 μF paper 400V working		D11
R12	10 megohms		E10	C26	24 μF 350 P.V. electrolytic		C8
R13	47,000 ohms		E11	C27	0.005 μF paper 600V working		E14
R14	0.22 megohm		E12	C28	0.05 μF paper 400V working		F13
R15	3,400 ohms		F12	C29	24 μF 350 P.V. electrolytic		E14
R16	1,000 ohms		E10	C30	2 μF paper 200V working		On Loudspeaker
R17	4,700 ohms		D12	TRANSFORMERS.			
R18	0.1 megohm tone control (incl. S2)	32809/1	G14	T1	Loudspeaker transformer	31772H	F10
R19	100 ohms		F11	T2	Power transformer 50-60 C.P.S. 40 C.P.S.	25807F 25809F	B15
CAPACITORS							
C1	47 $\mu\mu\text{F}$ silvered mica		D2	S1	Phono/Radio Switch		G3
C2	2-20 $\mu\mu\text{F}$ air trimmer		E7	S2	Power Switch (on R18)		F14
C3	9 $\mu\mu\text{F}$ silvered mica	19659	F6	LOUDSPEAKERS			
C4	4,000 $\mu\mu\text{F}$ padder $\pm 2\frac{1}{2}\%$		F6	LS1	5 inch permanent magnet	20931	
C5	6.8 $\mu\mu\text{F}$ ceramic		E4	LS2	12 inch permanent magnet (570-GA)	20929	
C6	1-12 $\mu\mu\text{F}$ trimmer	16347	D2	LS2	12 inch permanent magnet (572-GA)	20930	
C7	2-20 $\mu\mu\text{F}$ air trimmer	19659	G2				

A B C D E F G H J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

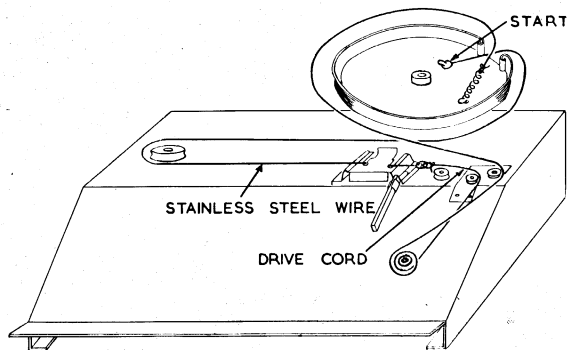


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

A B C D E F G H J

Drive Cord Replacement:

The accompanying diagram shows the route of the cord and the method of attachment.

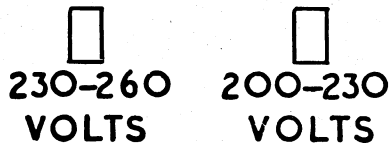


Connection to Power Supply:

The receiver should not be connected to any circuit supplying other than alternating current from 200-260 volts and at the frequency stated on the label within the cabinet.

The power supply connections are shown in the accompanying diagram.

RED DOT INDICATES COMMON CONNECTION FOR ALL VOLTAGES



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 cannot be re-adjusted unless by skilled operators using special equipment.

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.V.C. action. Also, keep the volume control in the maximum clockwise position.

Testing Instruments:

(1) A.W.A. Junior Signal Generator, type 2R7003, or

(2) A.W.A. Modulated Oscillator, series J6726.

If the modulated oscillator is used, connect a 0.25 megohm non-inductive resistor across the output terminals, and for short wave alignment, an additional 400 ohms non-inductive resistor in series with the "high" output lead of the instrument.

(3) A.W.A. Output Meter, type 2M8832.

NOTE: On the short wave band the oscillator is working on the low side of the signal frequency; therefore, the image will now be heard if the receiver is tuned to a higher frequency than the signal. For example, if the receiver is tuned to receive a 16 Mc/s signal, the image will be heard at 16.9 Mc/s instead of the usual 15.09 Mc/s.

ALIGNMENT TABLE

Order	Connect "High" side of Generator to:	Tune Generator to:	Tune Receiver Dial to:	Adjust for Maximum Peak Output:
1	Aerial Section of Gang (Drive End)	455 Kc/s.	540 Kc/s. (4QL)	L12 Core
2	Aerial Section of Gang (Drive End)	455 Kc/s.	540 Kc/s. (4QL)	L11 Core
3	Aerial Section of Gang (Drive End)	455 Kc/s.	540 Kc/s. (4QL)	L10 Core
4	Aerial Section of Gang (Drive End)	455 Kc/s.	540 Kc/s. (4QL)	L9 Core
Repeat the above adjustments until the maximum output is obtained.				
5	Aerial Lead	600 Kc/s.	600 Kc/s. (7ZL)	L.F. Osc. Core Adj. (L8)*
6	Aerial Lead	1500 Kc/s.	1500 Kc/s. (3AK)	H.F. Osc. Adj. (C9)
7	Aerial Lead	1500 Kc/s.	1500 Kc/s. (3AK)	H.F. Aer. Adj. (C6)
Repeat adjustments 5, 6 and 7.				
8	Aerial Lead	16 Mc/s.	16 Mc/s.	H.F. Osc Adj. (C7)†
9	Aerial Lead	16 Mc/s.	16 Mc/s.	H.F. Aer. Adj. (C2)

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

† Use maximum capacity peak if two can be obtained. Check to determine that the trimmer has been adjusted to correct peak by tuning the receiver to approximately 16.91 Mc/s. where a weaker signal should be obtained.

D.C. RESISTANCE OF WINDINGS

Winding	D.C. Resistance in Ohms
Aerial Coil (M.W.)	
Primary (L4)	13
Secondary (L5)	1.5
Aerial Coil (S.W.)	
Primary (L2)	2.5
Secondary (L3)	*
Oscillator Coil (M.W.) (L8)	3.5
Oscillator Coil (S.W.)	
Primary (L6)	*
Secondary (L7)	*
I.F. Filter (L1)	17.5†
I.F. Transformer Windings	17
Power Transformer (T2)	
Primary	50
Secondary	350
Loudspeaker Input Transformer (T1)	
Primary	350
Secondary	*

The above readings were taken on a standard chassis, but substitution of materials during manufacture may cause variations and it should not be assumed that a component is faulty if a slightly different reading is obtained.

* Less than 1 ohm.

† In some receivers this reading may be as high as 60 ohms.

SOCKET VOLTAGES

VALVES		Cathode to Chassis Volts:	Screen Grid to Chassis Volts:	Anode to Chassis Volts:	Anode Current mA:	Heater Volts:
6BE6	Converter		90	185	2	6.3
6BA6	I.F. Amp.	2	90	185	4.5	6.3
6AV6	Det., A.F. Amp., A.V.C.	—	—	130	1	6.3
6BV7	Output	—	185	245	24	6.3
6X4	Rectifier	250	—	235/235		6.3

Total H.T. Current = 45 mA. Back Bias across R6 = 4.5V.

Measured at 240 volts A.C. supply. No signal input. Volume Control maximum clockwise.

Voltmeter 1,000 ohms per volt; measurements taken on highest scale giving accurate readable deflection.

MECHANICAL REPLACEMENT PARTS

ITEM	Part No.	Code No.
Chassis Assembly:		
Bracket Assembly (Retaining Phono/Radio Switch)	33993	
Bracket Pulley Assembly	33994	
Bracket Tuning Spindle	33387	
Clamp (Retaining Power Cable)	1221	
Clip (Retaining I.F.'s)	27780	
Clip (Retaining Phono-motor socket)	21915	
"C" Clip (Retaining Pulley No. 7885)	2537	
"C" Clip (Retaining Pulley No. 17716)	4885	
Cover (Power Transformer)	20150	
Dial Scale	32230A	
Drive Cord Assembly	32812/1	
Drive Drum Assembly	34123	
Grommet (Power and Loudspeaker Cables)		389005
Knob, moulded (1) (Tone Control)	34137	
Knob, moulded (2) (Volume and Tuning Controls)	34138	
Knob, moulded (1) (Phono/Radio Switch)	34299	
Lamp Holder	4194	
Loudspeaker Cable Assembly	33564	
Masonite Cover	33991	
Nut (Retaining Volume Control)	5926	
Pilot Lamp Cable Assembly	33565	
Pin Jack Assembly (Test outlet)	27685	
Pointer Assembly	33979	
Power Cable Assembly	20743	
Pulley (Drive Cord Large)	7885	
Pulley (Drive Cord Small)	17716	
Pulley (Tuning Spindle)	33365	
Pulley Post (Large)	33978	
Pulley Post (Small)	20202	
Screw (Retaining Masonite Cover)		760369
Screw (Broadcast Coil Mounting)	31373	
Socket Valve 7 pin		794576
Socket Valve 9 pin		793037
Socket Assembly (Phono Motor)	28313	
Socket 2 pin (Pick-Up)		793038
Spacer (Tuning Gang)	33398	
Spacer (Dial Scale)	430	
Spring, drive cord	1741	
Terminal Panel Assembly, 2 way	32822	
Terminal Panel Assembly, 3 way (2)	32824	
Terminal Panel Assembly, 4 way	32834	
Terminal Panel Assembly, 7 way	32835	
Volume Control Cable Assembly	33567	
Miscellaneous:		
Cabinet (570-GA)	28121	
Cabinet (572-GA)	28122	
Cabinet Back Assembly (570-GA)	34256	
Fret Cloth (570-GA)		212049
Fret Cloth (572-GA)		212001
Handle (570-GA)	31909	
Handle Base (570-GA)	31908	
Heat Reflector (Cabinet)	34250	
Heat Reflectors Spacers	34251	
Indicator Assembly (572-GA)	34252	
Knob, door type 634 (572-GA)		423024
Lever Assembly (Receiver Compartment door) Bronze	33176	
Lever Assembly (Receiver Compartment door) Chrome	33174	
Lid Support Assembly (Right-hand) (Record storage door) Chrome	33971	
Lid Support Assembly (Left-hand) (Record storage door) Chrome	33972	
Lid Support Assembly (Right-hand) (Record storage door) Bronze	34139	
Lid Support Assembly (Left-hand) (Record storage door) Bronze	34140	
Medallion A.W.A.	27614	
Power Cable Assembly (Phono Motor)	32469	
P.U. Cable Assembly	32470	

When ordering, always quote the above part numbers or code numbers, and in the case of coloured parts such as cabinets, knobs, etc., the colour plus the part number.

V1
6BE6

V2
6BA6

V3
6AV6

V4
6BV7

