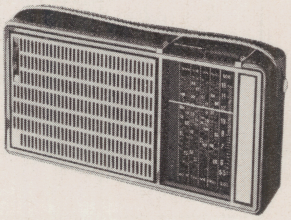
MANUFACTURERS AWA SUPERVISED SERVICE

A.W.A. RADIOLA SEVEN TRANSISTOR PORTABLE MODEL B55



ISSUED BY AMALGAMATED WIRELESS (AUSTRALASIA) LTD.

GENERAL DISCRIPTION

This portable is electrically very similar to Model B46Z to which you are referred for alignment information.

ELECTRICAL AND MECHANICAL SPECIFICATIONS

Frequency Range: ..... 520-1770 Kc/s.

Intermediate Frequency ..... 455 Kc/s.

Battery Complement ..... 9V Eveready type 2364

Battery Consumption:
- For Zero audio output 13mA
- For 50 mW audio output 45mA
- Full Output 140mA
- Earphone operation 7mA

Undistorted Power Output 350mW

Loudspeaker:

4" x 2½" 50277
V.C. Impedance: 80 ohms (centre tapped) at 400 c.p.s.

Dimensions:

Height ..... 4"; Width ..... 8"; Depth ..... 2¼"
Weight (with battery) ..... 2 lbs. 2 oz.

Transistor and Diode Complement:

A.W.V. 2N1639	Converter
A.W.V. 2N406	A.G.C. Amplifier
A.W.V. 2N1638	1st. I.F. Amplifier
A.W.V. 2N1638	2nd I.F. Amplifier
A.W.V. 2N408	Driver
A.W.V. 2N217S	Output
A.W.V. 2N217S	Output
A.W.V. IN87A	Detector and A.G.C. Diode

Chassis Removal:

Remove the cabinet back by unscrewing the two retaining screws.

Remove the battery.

Carefully lift the ferrite rod aerial from its supports.

Remove the four screws and the slotted spacer holding the chassis assembly to the cabinet.

Lift the chassis assembly free of the cabinet.

Remove the dial scale by removing the two retaining screws and the complete board will be available for service.

Re-assembly is the reverse of the above procedure. taking care of the following points.

After replacing the dial scale check the calibration and if necessary move the pointer to correct the error.

Drive Cord Replacement:

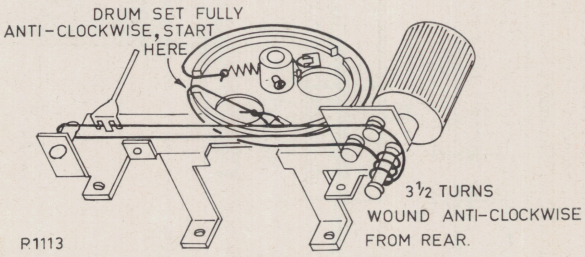
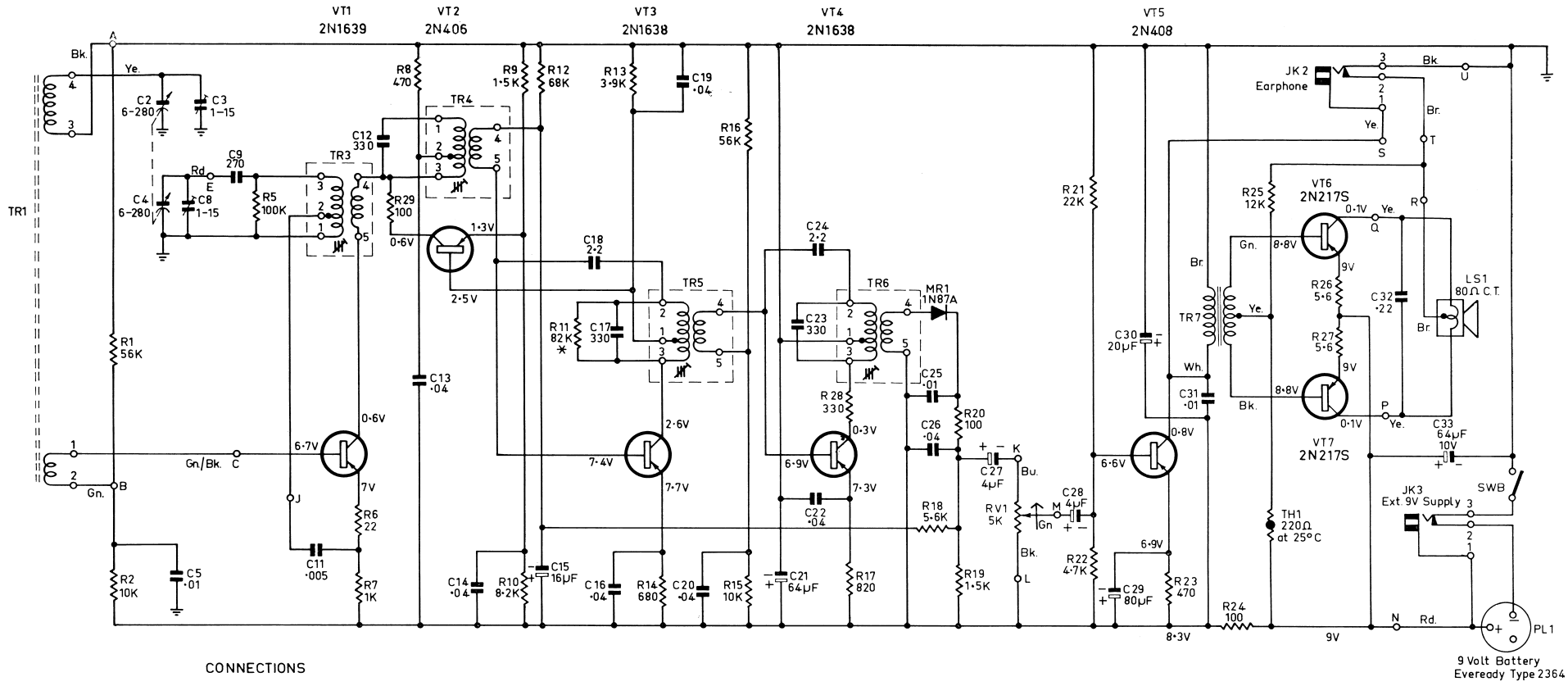
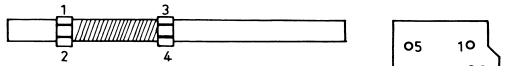


Fig. 2.

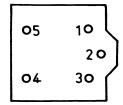
Fig. 2 shows the route of the cord and the method of attachment.



CONNECTIONS

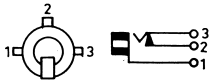


TR1



TR3 – TR6

VT1 – VT7

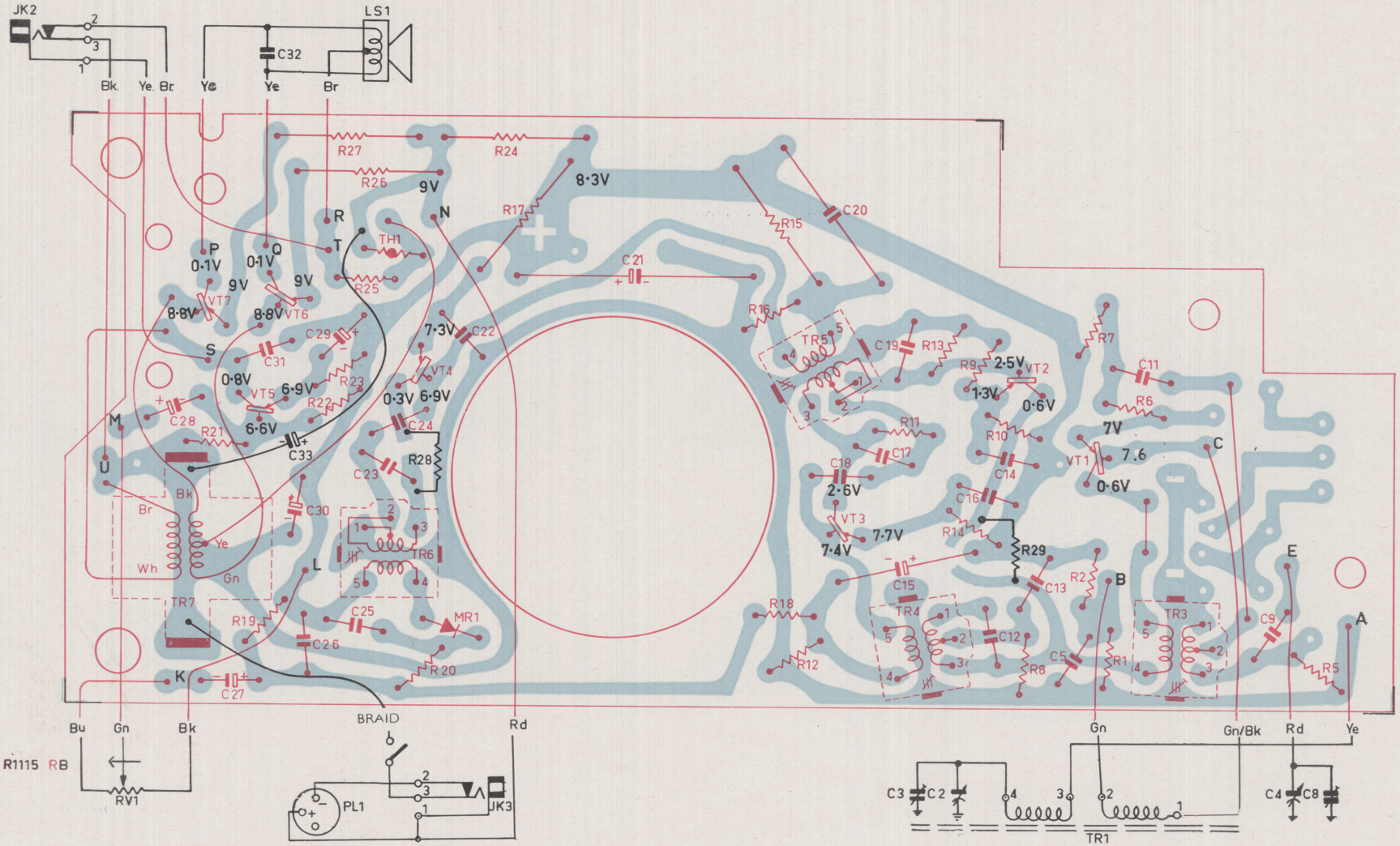


JK2 – JK3

NOTES:– ARROW ON POTENTIOMETER INDICATES DIRECTION OF CLOCKWISE ROTATION.

VOLTAGES MEASURED WITH NO SIGNAL INPUT AND VOLUME MAXIMUM.
VOLTAGES SHOWN ARE POSITIVE WITH RESPECT TO CHASSIS (BATTERY NEGATIVE TERMINAL.) AND ARE MEASURED WITH 20,000 OHM/VOLT METER.
* MAY VARY IN PRODUCTION.

R1127



Notes: The diagram represents the view from the wiring side of the printed board.
Blue indicates the printed wiring.
Red indicates components and leads mounted on the remote side of the board.
Black indicates those components and leads mounted on the wiring side or completely removed from the board.
All voltages shown are positive with respect to the board earth (negative terminal of the battery) and measured with no signal input and volume maximum clockwise using a 20,000 ohm/volt meter.

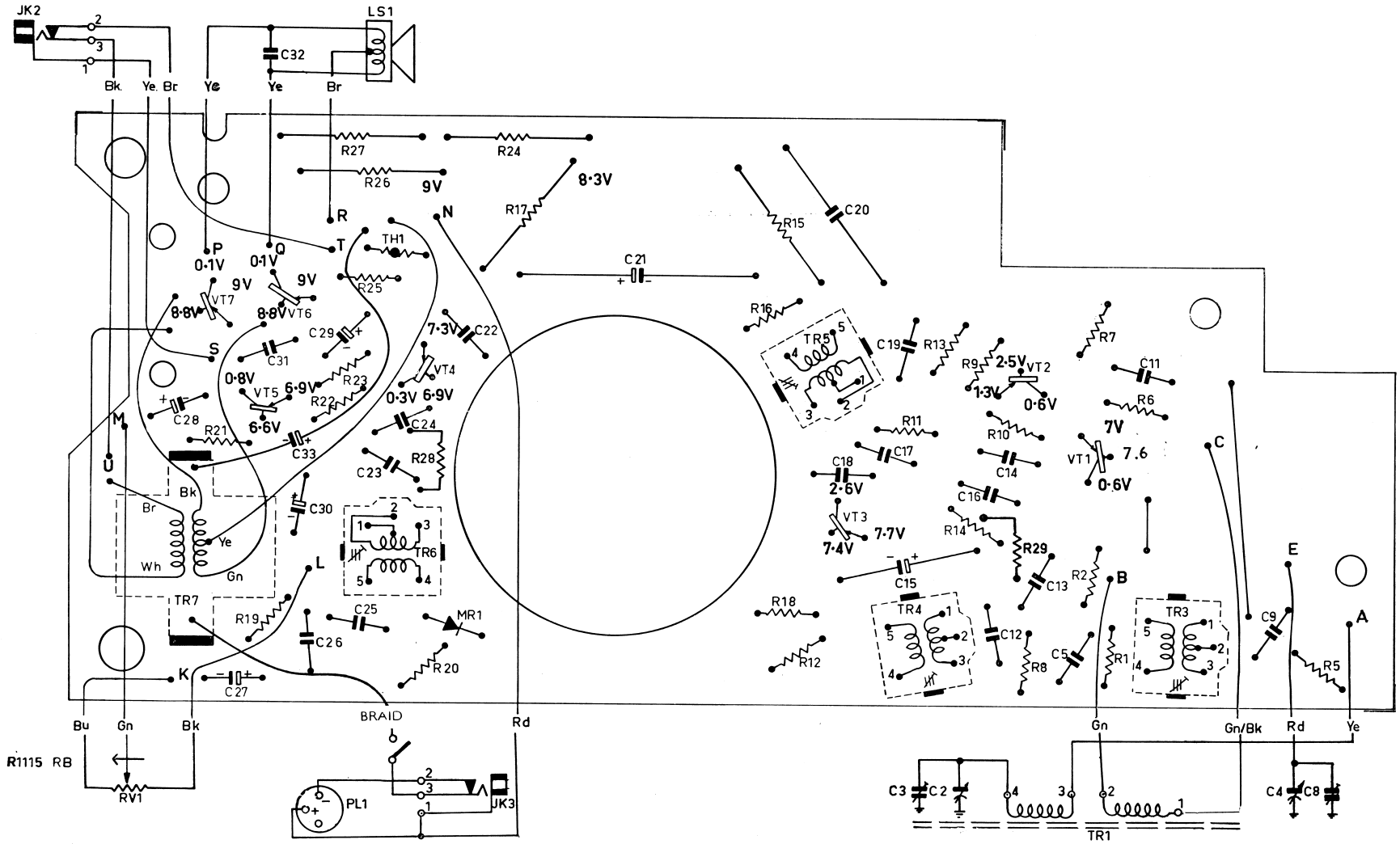
CIRCUIT CODE

CODE No.	Description	PART No.
	RESISTORS	
	All Resistors composition type unless otherwise stated.	
R1	56K ohms ±10% ½ watt	
R2	10K ohms ±10% ½ watt	
R3	Not used	
R4	Not used	
R5	100K ohms ±10% ½ watt	
R6	22 ohms ±10% ½ watt	
R7	1K ohms ±10% ½ watt	
R8	470 ohms ±10% ½ watt	
R9	1.5K ohms ±10% ½ watt	
R10	8.2K ohms ±10% ½ watt	
R11	82K ohms ±10% ½ watt	
R12	68K ohms ±10% ½ watt	
R13	3.9K ohms ±10% ½ watt	
R14	680 ohms ±10% ½ watt	
R15	10K ohms ±10% ½ watt	
R16	56K ohms ±10% ½ watt	
R17	820 ohms ±10% ½ watt	
R18	5.6K ohms ±10% ½ watt	
R19	1.5K ohms ±10% ½ watt	
R20	100 ohms ±10% ½ watt	
R21	22K ohms ±10% ½ watt	
R22	4.7K ohms ±10% ½ watt	
R23	470 ohms ±10% ½ watt	
R24	100 ohms ±10% ½ watt	
R25	12K ohms ±10% ½ watt	
R26	5.6 ohms ±10% ½ watt	
R27	5.6 ohms ±10% ½ watt	
R28	330 ohms ±10% ½ watt	
R29	100 ohms ±10% ½ watt	
RV1	5K ohms curve C carbon, Volume W/S	620041
	CAPACITORS	
C1	Not used	
C2	6—280pF tuning, Aerial	
C3	1—15pF trimmer, Aerial } Assy.	230112
C4	6—280pF tuning, Oscillator	
C5	0.01μF ±20% 200VW AEE W99	
C6	Not used	
C7	Not used	
C8	1—15pF trimmer, Oscillator	on gang
C9	270pF ±2½% 100VW polystyrene	223564
C10	Not used	
C11	0.005μF ±20% 200VW AEE W99	
C12	330pF ±5% N750 disc	
C13	0.04μF ±20% 200VW AEE W99	
C14	0.04μF ±20% 200VW AEE W99	
C15	16μF 10VW Electrolytic	228878
C16	0.04μF ±20% 200VW AEE W99	
C17	330pF ±5% N750 disc	
C18	2.2pF ±20% NPO disc	
C19	0.04μF ±20% 200VW AEE W99	
C20	0.04μF ±20% 200VW AEE W99	
C21	64μF 10VW Electrolytic	229629
C22	0.04μF ±20% 200VW AEE W99	
C23	330pF ±5% N750 disc	
C24	2.2pF ±20% NPO disc	
C25	0.01μF ±20% 200VW AEE W99	
C26	0.04μF ±20% 200VW AEE W99	
C27	4μF 10VW Electrolytic	228189
C28	4μF 10VW Electrolytic	228189
C29	80μF 2.5VW Electrolytic	229672
C30	20μF 12VW Electrolytic	229307
C31	0.01μF ±20% 200VW AEE W99	
C32	0.22μF +80% —20% 25VW Hi-K disc	
C33	64μF 10VW Electrolytic	229629
	TRANSFORMERS	
TR1	Ferrite Rod Assembly	53218
TR2	Not used	
TR3	Oscillator Transformer	53221
TR4	1st I.F. Transformer	51272
TR5	2nd I.F. Transformer	51268
TR6	3rd I.F. Transformer	51270
TR7	Driver Transformer	51161C
	TRANSISTORS & DIODES	
VT1	AWV 2N1639	
VT2	AWV 2N406	
VT3	AWV 2N1638	
VT4	AWV 2N1638	
VT5	AWV 2N408	
VT6	AWV 2N217S	
VT7	AWV 2N217S	
MR1	AWV 1N87A	
	MISCELLANEOUS	
LS1	4″ x 2½″ Speaker	50277
TH1	220 ohms at 25°C NTC thermistor	893709
JK1	Not used	
JK2	Earphone Jack	417019
JK3	Battery Saver Jack	417405
PL1	Battery Plug CF 691—6—4	
SWB	On/Off Switch (on RV1)	

MECHANICAL REPLACEMENT PARTS

ITEM	PART No.
Cabinet, Back Assembly	66611
Cabinet Body	66669
Case, Carrying	66668
Cover, Dial Scale	66617
Dial Scale	65039
Drum, Drive	66642
Earphone	307003
Earphone, Clip	61558
Fret, Moulded, Assembly	66607
Knob, Tuning	66633
Knob, Volume	66643
Nameplate "A.W.A."	66610
Nameplate, Tuning Control	66657
Panel, Jack	66463
Pointer, Dial Scale	66647
Screw, Retaining, Cabinet Back	714021
Spacer, Slotted, Board Mtg.	66619
Spring, Drive Cord (44189)	798159
Support, Ferrite Aerial, Chassis Mtg.	66471
Support, Ferrite Aerial, Board Mtg.	66470

NOTE: When ordering spares, always quote the above Part Numbers, and in the case of coloured parts such as knobs, etc., also quote colour.



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