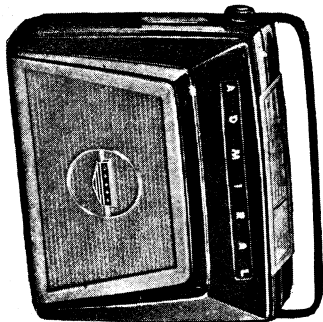


Admiral

SERVICE DOCUMENT

Model 4A2



Colour Range: Burgundy, Beige, Forest Green, Light Grey, Tan. All with gold trim.

SPECIFICATIONS

Circuit: Superheterodyne receiver with 4 miniature valves.

Frequency Range: 535 Kc/s to 1620 Kc/s covering broadcast band.

Intermediate Frequency: 455 Kc/s.

Power Supply: This receiver operates on one 90 Volt "B" Battery and one 7½ Volt "A" Battery. Alternatively, A will operate from normal 240 volt 50 cycle alternating current supply.

Power Consumption: Approximately 20 watts.

Antenna: Built in Ferroscop antenna.

Speakers: 4" P.M. Voice Coil impedance 6.5 ohms, Transformer primary 10,000 ohms.

BATTERY REPLACEMENT

Run-down batteries should be removed from the set. Corrosive material may leak from a run-down battery and parts of the chassis or the cabinet are likely to be damaged.

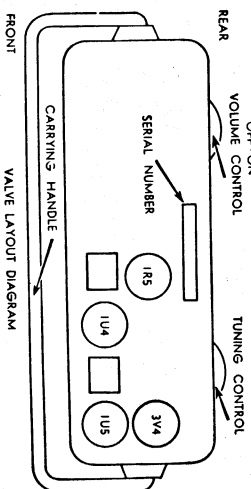
In normal use batteries for this set should furnish about 40 operating hours. Batteries listed below, or an equivalent substitute may be used in this set.

"A" Battery (7½ Volts) : Eveready 717 or equivalent.
"B" Battery (90 Volts) : Eveready 490-P or equivalent.

REPLACING VALVES

All valves may be inspected by opening the cabinet. The case is opened by applying a gentle pressure either side of the dial scale at the top and swinging the rear section back.

No attempt should be made to replace the valves with the chassis attached to the cabinet.



REMOVING THE CHASSIS

The chassis should be removed from the cabinet on all occasions of servicing other than for battery replacement or visual inspection.

The high gloss surface of the cabinet can be scratched very easily when in contact with a roughened service bench. It is important that all operations be conducted on a grit-free felt pad to avoid this.

To remove the chassis proceed as follows:—

1. Open the cabinet and lie it face down on the pad.

ALIGNMENT PROCEDURE

- Battery Power is preferable for alignment. Use FRESH batteries for this operation. If the set is to be aligned when power is supplied via the mains an isolating transformer is advised to limit external interference.
- The chassis cover must be removed to reach adjustment points A and C.
- Set volume control full on.

- Connect output meter to primary of speaker transformer.
- Use lowest setting of signal generator capable of producing indication on lowest scale of output meter.
- Use a non metallic alignment tool for I.F. transformer.
- Repeat adjustments to ensure good results.

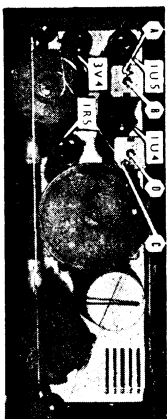
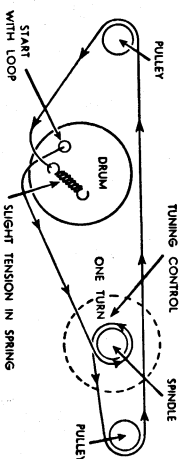
STEP	CONNECTION OF SIGNAL GEN.	SIGNAL GEN. FREQUENCY	RECEIVER GANG	ADJUSTMENT & REMARKS
1	Stator of antenna tuning capacitor	455 Kc/s	Gang fully open	A*, B, C*, D in this order for maximum output
2	Stator of antenna tuning capacitor	1700 Kc/s	Gang fully open	E Oscillator trimmer on gang for maximum output
3	Place signal lead of generator close to aerial rod	1400 Kc/s	Tune in generator signal	F Aerial trimmer on gang for maximum output

* Adjustments A and C are made from underside of chassis

Voltage Data:

Voltages are shown at relevant points on circuit diagram. All voltages are taken between valve socket terminals and B minus, which is chassis connection. Dial set at low frequency end (gang fully meshed) volume control at minimum.

TO REPLACE DIAL CORD

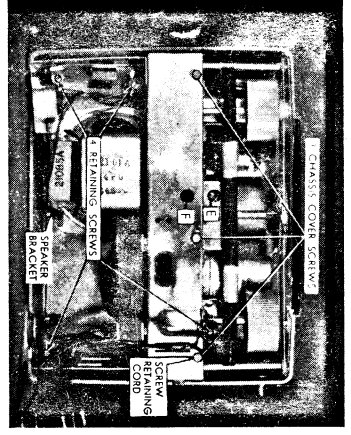


Location of Valves and Adjustment Positions

Adjustments A and C are made from underside of chassis.

ADMIRAL RADIO MODEL 4AZ

2. Remove the screw retaining the cord which is fastened to the cabinet cover.
3. Disconnect and remove the "A" and "B" batteries.
4. Remove the FOUR retaining screws indicated (X) on the following diagram. Loosen the screw securing the speaker bracket.



The complete chassis may now be lifted clear of the cabinet.

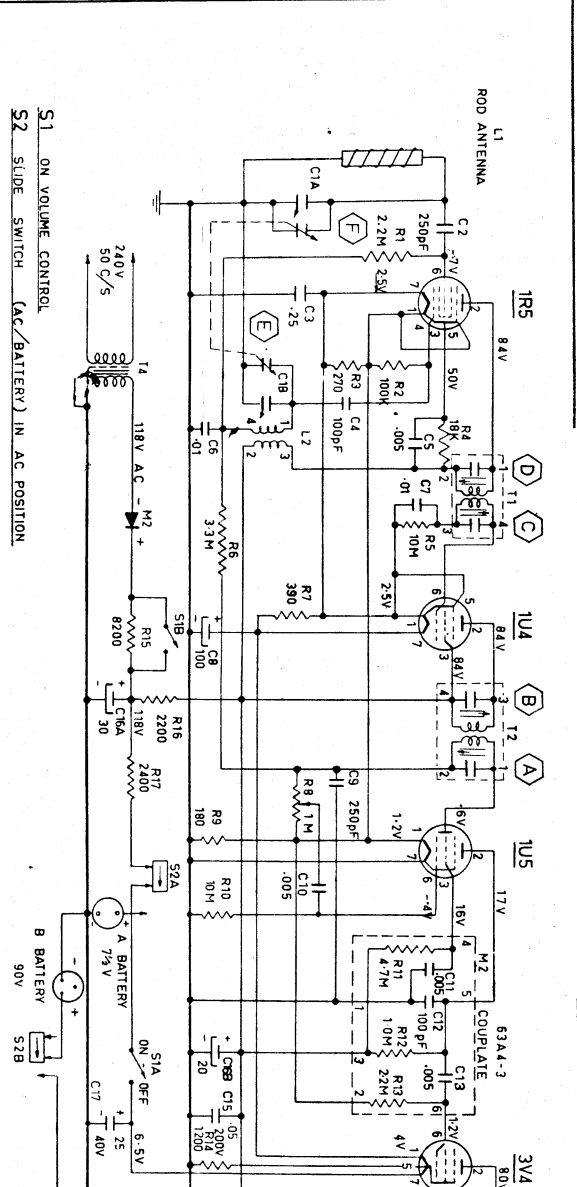
The chassis cover must be removed to align the receiver or check voltages. Remove the remaining two screws which hold the cover on the chassis. When replacing the chassis cover, ensure that the three tabs fit into slots along the edge of the chassis at either side of the speaker. Make sure the leads from the output transformer fitted to the speaker are not caught between the chassis and the cover.

Symbol	Description	Part No.
R1	2.2 megohms $\frac{1}{2}$ watt	A60A10-225-4
R2	100,000 ohms $\frac{1}{2}$ watt	A60A10-1044-4
R3	270 ohms $\frac{1}{2}$ watt	A60A10-271-4
R4	18,000 ohms $\frac{1}{2}$ watt	A60A12-183-4
R5	10 megohms $\frac{1}{2}$ watt	A60A10-106-4
R6	390 ohms $\frac{1}{2}$ watt	A60A10-391-4
R7	3.3 megohms $\frac{1}{2}$ watt	A60A10-335-4
R8	1 meg. Vol. Control with on-off switch	A75-03
R9	180 ohms $\frac{1}{2}$ watt	A60A10-181-4
R10	10 megohms $\frac{1}{2}$ watt	A60A10-106-4
R11	Part of Couplete	A63A4-3
R12	1200 ohms 1 watt	A60A12-122-4
R13	8200 ohms 1 watt	A60A12-822-4
R14	2200 ohms 1 watt	A60A12-222-4
R15	2400 ohms 1 watt	A61A15-242-4
R16	2400 ohms 1 watt	A61A15-242-4
R17	2400 ohms 1 watt	A61A15-242-4

Symbol	Description	Part No.
C8	Electrolytic 100 ufd 12V	A64A22-122-4
C9	.005 ufd 200V AEE	A63A4-3
C10	Part of Couplete	A65A10-77-4
C11	250 ufd 10% Simplex	A63A4-3
C12	Part of Couplete	A63A4-3
C13	.001 ufd 400V AEE	A63A23-101-4
C14	25 ufd 40V ETI	A67-05
C15	30 ufd 200V	A67-05
C16A	20 ufd 200V	A67-05
C16B	20 ufd 12V	A67-05
C16C	100 ufd 12V	A67-05

Symbol	Description	Part No.
L1	Aerial Rod Assembly	A71-04
L2	Coil, Oscillator	A69-03
T1	Transformer, 1st I.F.	A72-02
T2	Transformer, 2nd I.F.	A72-02
M1	Speaker M.S.P. 4" No. 6	A78-05
S1	Switch ON-OFF-Part of RB. Couplete (includes R11, 12, 13, C10, 12, 13)	A63A4-3
T3	Power Transformer	A80B03
S2	Switch AC/Battery Ckt 78	A77-01

Symbol	Description	Part No.
C17	100 ufd 12V	A67-05
C18	100 ufd 12V	A67-05
C19	100 ufd 12V	A67-05
C20	100 ufd 12V	A67-05
C21	100 ufd 12V	A67-05
C22	100 ufd 12V	A67-05
C23	100 ufd 12V	A67-05
C24	100 ufd 12V	A67-05
C25	100 ufd 12V	A67-05
C26	100 ufd 12V	A67-05
C27	100 ufd 12V	A67-05
C28	100 ufd 12V	A67-05
C29	100 ufd 12V	A67-05
C30	100 ufd 12V	A67-05
C31	100 ufd 12V	A67-05
C32	100 ufd 12V	A67-05
C33	100 ufd 12V	A67-05
C34	100 ufd 12V	A67-05
C35	100 ufd 12V	A67-05
C36	100 ufd 12V	A67-05
C37	100 ufd 12V	A67-05
C38	100 ufd 12V	A67-05
C39	100 ufd 12V	A67-05
C40	100 ufd 12V	A67-05
C41	100 ufd 12V	A67-05
C42	100 ufd 12V	A67-05
C43	100 ufd 12V	A67-05
C44	100 ufd 12V	A67-05
C45	100 ufd 12V	A67-05
C46	100 ufd 12V	A67-05
C47	100 ufd 12V	A67-05
C48	100 ufd 12V	A67-05
C49	100 ufd 12V	A67-05
C50	100 ufd 12V	A67-05
C51	100 ufd 12V	A67-05
C52	100 ufd 12V	A67-05
C53	100 ufd 12V	A67-05
C54	100 ufd 12V	A67-05
C55	100 ufd 12V	A67-05
C56	100 ufd 12V	A67-05
C57	100 ufd 12V	A67-05
C58	100 ufd 12V	A67-05
C59	100 ufd 12V	A67-05
C60	100 ufd 12V	A67-05
C61	100 ufd 12V	A67-05
C62	100 ufd 12V	A67-05
C63	100 ufd 12V	A67-05
C64	100 ufd 12V	A67-05
C65	100 ufd 12V	A67-05
C66	100 ufd 12V	A67-05
C67	100 ufd 12V	A67-05
C68	100 ufd 12V	A67-05
C69	100 ufd 12V	A67-05
C70	100 ufd 12V	A67-05
C71	100 ufd 12V	A67-05
C72	100 ufd 12V	A67-05
C73	100 ufd 12V	A67-05
C74	100 ufd 12V	A67-05
C75	100 ufd 12V	A67-05
C76	100 ufd 12V	A67-05
C77	100 ufd 12V	A67-05
C78	100 ufd 12V	A67-05
C79	100 ufd 12V	A67-05
C80	100 ufd 12V	A67-05
C81	100 ufd 12V	A67-05
C82	100 ufd 12V	A67-05
C83	100 ufd 12V	A67-05
C84	100 ufd 12V	A67-05
C85	100 ufd 12V	A67-05
C86	100 ufd 12V	A67-05
C87	100 ufd 12V	A67-05
C88	100 ufd 12V	A67-05
C89	100 ufd 12V	A67-05
C90	100 ufd 12V	A67-05
C91	100 ufd 12V	A67-05
C92	100 ufd 12V	A67-05
C93	100 ufd 12V	A67-05
C94	100 ufd 12V	A67-05
C95	100 ufd 12V	A67-05
C96	100 ufd 12V	A67-05
C97	100 ufd 12V	A67-05
C98	100 ufd 12V	A67-05
C99	100 ufd 12V	A67-05
C100	100 ufd 12V	A67-05



Symbol	Description	Part No.
A28A01	Short, Tuning	A18-05
A18-05	I.F. Clips	A43-03
A43-03	Pointer Assembly	A19-07
A19-07	Spring-Dial Cord	A17B-03
A17B-03	Drum-Dial	A10-02
A10-02	Terminal Strip	A14B04-1
A14B04-1	Chassis Base	A50-01
A50-01	Dial Cord	A87-09
A87-09	Socket Valve Chnch 733-2-15	A89-07
A89-07	Plug-Lead Assembly 90 Volt Battery	A89-08
A89-08	Plug-Lead Assembly 7 1/2 Volt Battery	A93-01
A93-01	Rectifier, West. 18RA11-g-1	A89-09
A89-09	Plug-Lead Assembly—Power	

Symbol	Description	Part No.
A43B01	Beffle Board, Speaker	A43B01
A43B01	Button, Handle Ornament	20A18
20A18	Cabinet Front	A34-20-8
A34-20-8	Grey	A34-20-9
A34-20-9	Burgundy	A34-20-11
A34-20-11	Tan	A34-20-12
A34-20-12	Green	A34-20-13
A34-20-13	Green	