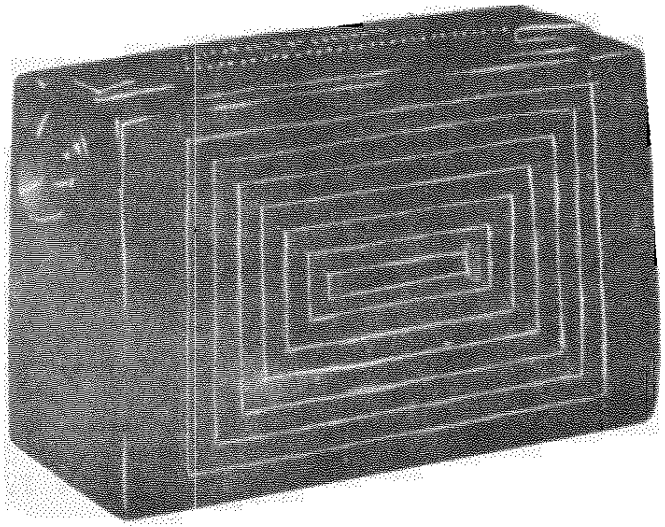


BATTERY INSTALLATION

BATTERY INSTALLATION: Before installing new batteries or replacing old ones, turn the volume control to the extreme left or "OFF" position.

Attach the connector with the snap-on fasteners to the "B" battery (90 Volt) and insert battery into the left hand side of the battery retaining area of the cabinet back so that the connector faces in the direction of the top of the receiver. Insert the prongs of the other battery connector into the socket of the "A" battery (4-1/2 Volt) and place battery in cabinet back so that the connector faces the outside wall of cabinet.

This receiver will accommodate any of the batteries listed below: (No preference is intended by the order of listing.)

MANUFACTURER	MANUFACTURER'S TYPE NUMBER "A" Battery	"B" Battery
National Carbon (Eveready)	746	490
General Dry Battery	3H3	132
Ray-O-Vac	P83A	4390
Burgess Battery	G3	N-60

BATTERY OPERATION

BATTERY OPERATION: To operate this receiver on battery, insert the power cord prongs into the power switch through the two slots provided in the bottom of chassis. These slots are at the right hand edge of chassis as viewed from rear.

TUBE REPLACEMENT

Do not replace tubes or batteries unless switch on the volume control is turned completely off. In case of tube failure be sure to turn the receiver off immediately.

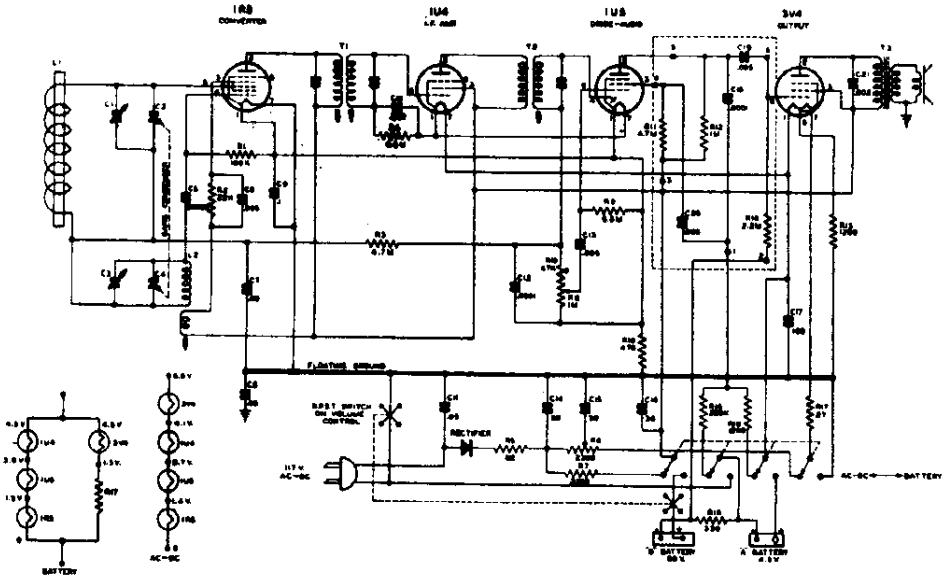
Four tubes (Plus selenium rectifier) are used. Type numbers and locations are shown in the tube diagram label located inside the cabinet. If tubes are removed from their sockets for test or replacement purposes, make certain that the receiver is turned off when replacing the tubes in their proper sockets. Failure to replace tubes in their proper sockets may result in damage to the tube, or to the receiver, or both.

SERVICE DATA

Lack of sensitivity and poor tone quality may be due to any one or a combination of causes such as weak or defective tubes or speaker, open or grounded bias resistor, bypass condenser, etc. Never attempt to realign set until all other possible sources of trouble have been first thoroughly investigated and definitely proved not to be the cause.

NOTE: IT IS ABSOLUTELY NECESSARY THAT AN ACCURATELY CALIBRATED TEST OSCILLATOR WITH SOME TYPE OF OUTPUT MEASURING DEVICE BE USED WHEN ALIGNING THE RECEIVER AND THAT THE PROCEDURE BE CAREFULLY FOLLOWED, OTHERWISE THE RECEIVER WILL BE INSENSITIVE AND THE DIAL CALIBRATION WILL BE INCORRECT. THE TRIMMERS WILL BE REFERRED TO BY THEIR FUNCTION AS INDICATED ON THE PARTS DIAGRAM.

MODEL 4J701



ALIGNMENT PROCEDURE

GENERAL DATA. The alignment of this receiver requires the use of a test oscillator that will cover the frequencies of 455,600,1400 and 1620 KC and an output meter to be connected across the primary or secondary of the output transformer. If possible, all alignments should be made with the volume control on maximum and the test oscillator output as low as possible to prevent the AVC from operating and giving false readings.

ALIGNMENT PROCEDURE CHART

STEP NO.	POSITION OF GANG	SIGNAL GENERATOR FREQUENCY	GENERATOR CONNECTION	DUMMY ANTENNA	ADJUST* NEXT	TYPE OF ADJUSTMENT
1	Any point where no interfering signal is received	Exactly 455 KC	High side to grid of 1R5 tube. Low side to common negative	.05 MFD Condenser	Slug at top of 2nd. I.F. (T2) and then each of the slugs of the 1st. I.F.	For Maximum Output.
2	Exactly 1620 KC	Exactly 1620 KC.	DUMMY ANTENNA	2 Turns of hookup wire 6" in Diameter. (Place approximately a foot from end of, and in same axis as loop.)	Front Gang Trimmer	For Maximum Output.
3	Approx. 1400 KC.	Approx. 1400 KC			Rear Gang Trimmer	For Maximum Output.
4	Exactly 600 KC	Exactly 600 KC			Slug in Oscillator Coil. (L2)	For Maximum Output.
5					Repeat Steps 2 and 3.	

PARTS LIST

SCHEMATIC LOCATION	PART NUMBER		DESCRIPTION
C18)			(.0001 MFD.)
C19,C20)			(.005 MFD.)
R11)	M-8330	Coupiate	(4.7 Megohm)
R12)			(1.0 Megohm)
R14)			(2.2 Megohm)
C6	M-6875	Condenser, Ceramic	50 MMFD. 600 V.
C8,C13	M-4894	Condenser, Paper	.005 MFD. 600 V.
C7,C8	M-1345	Condenser, Paper	.05 MFD. 200 V.
C9	M-1351	Condenser, Paper	.1 MFD. 200 V.
C10,C21	M-6377	Condenser, Paper	.002 MFD. 600 V.
C11	M-1348	Condenser, Paper	.05 MFD. 400 V.
C12	M-6015	Condenser, Paper	100 MMFD. 500 V.
C14) C15) C16) C17)	M-6841	Condenser, Electrolytic	(50 MFD. 150 V.) (30 MFD. 150 V.) (30 MFD. 150 V.) (100 MFD. 25 V.)
	M-6681	Speaker, 4" P.M.	
L1	M-8328	Coil, Loop - Iron Rod Type	
T1	M-7981	Coil, 1st, I.F.	
T2	M-8326	Coil, 2nd, I.F.	
L2	M-8327	Coil, Oscillator	
T3	M-8329	Transformer, Output	
	M-8381	Rectifier, Selenium	
	M-5951	Switch, Power Changeover	

M-8381

PARTS LIST

SCHEMATIC LOCATION	PART NUMBER		DESCRIPTION
R1	M-1972	Resistor	100,000 Ohm 1/2W. 10%
R2	M-6012	Resistor	22,000 Ohm 1/2W. 10%
R3	M-4061	Resistor	4.7 Megohm 1/2W. 20%
R4,R9	M-4028	Resistor	6.8 Megohm 1/2W. 20%
R5	M-4023	Resistor	82 Ohm 2.0W. 10%
R6	M-8333	Resistor	2,300 Ohm 5.6W. 5% (Center Tapped)

PARTS LIST

SCHEMATIC LOCATION	PART NUMBER		DESCRIPTION
R7	M-4895	Resistor	2,200 Ohm 1/2W. 10%
R8	M-8332	Volume Control with Switch	1.0 Megohm
R10	M-4066	Resistor	470 Ohm 1/2W. 10%
R13,R16	M-6793	Resistor	1,200 Ohm 1/2W. 10%
R15	M-4026	Resistor	220,000 Ohm 1/2W. 20%
R17	M-6792	Resistor	27 Ohm 1/2W. 10%
R18	M-4420	Resistor	330 Ohm 1/2W. 10%