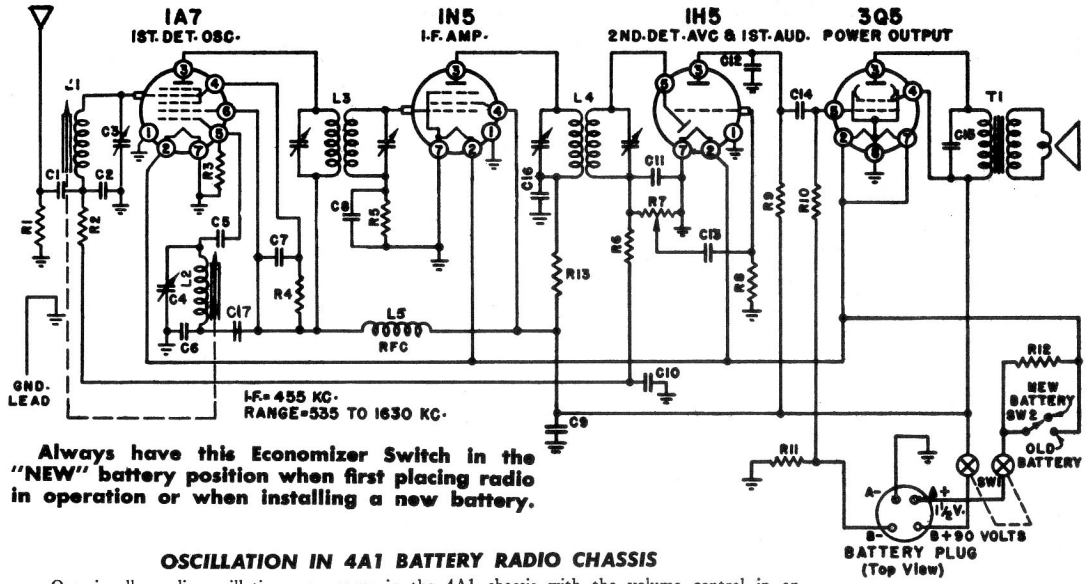
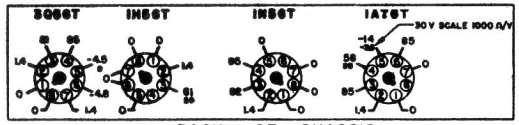


Always have this Economizer Switch in the "NEW" battery position when first placing radio in operation or when installing a new battery.

R1	15,000 ohm ½ w	C1	.01 mfd. 400 Volts
R2	470,000 ohm ¼ w	C2	.0008 mfd., Mica
R3	220,000 ohm ½ w	C3	Trimmer, Antenna
R4	33,000 ohm ½ w	C4	Trimmer, Oscillator
R5, R8	4,700,000 ohm ¼ w	C5	.0001 mfd., Mica
R6	2,200,000 ohm ¼ w	C6	.0008 mfd., Mica
R7	1 meg. Vol. Control	C7	.01 mfd., 400 Volts
R9, R10	1,000,000 ohm ¼ w	C8	.002 mfd., 600 Volts
R11	390 ohm ¼ w	C9	4. mfd., 150 Volts (Elect)
R12	.75 ohm ½ w (wire)	C10	.05 mfd., 200 Volts
R13	2200 ohm ¼ w	C11	.00025 mfd., Mica
		C12	.00025 mfd., Mica
L1	Antenna Coil	C13	.01 mfd., 400 Volts
L2	Oscillator Coil	C14	.01 mfd., 400 Volts
L3	1st I.F. Transformer	C15	.005 mfd., 600 Volts
L4	2nd I.F. Transformer	C16	.01 mfd., 400 Volts
L5	Choke Coil (RF)	C17	.01 mfd., 400 Volts (C17 omitted in early models)
T1	Output Transformer		

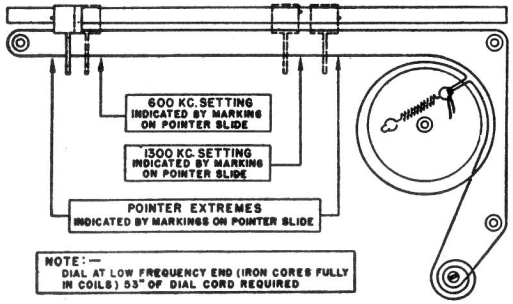
VOLTAGE CHART — BOTTOM VIEW



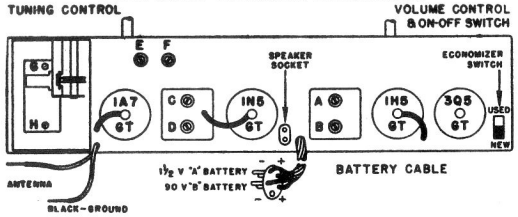
VOLTAGE DATA

All readings made between tube socket terminals and chassis. Voltages indicated have been obtained using a Vacuum Tube Voltmeter. A second voltage reading is shown made with a 1000 ohm-per-volt meter, when use of this instrument would result in appreciable lower readings. Measured with a fresh battery, volume control full on, dial at the high frequency end, no signal.

STRINGING DIAGRAM



TUBE AND TRIMMER LOCATION



1946-47 BATTERY MODEL 4A1

OSCILLATION IN 4A1 BATTERY RADIO CHASSIS

Occasionally audio oscillation may occur in the 4A1 chassis with the volume control in an intermediate position. Should you encounter this trouble, reverse the leads of the primary of the output transformer or ground the speaker frame to the chassis. The speaker leads and the grid lead of the 1H5 should be kept as far as possible from the 3Q5 output tube.

I.F. = 455 KC.

ALIGNMENT PROCEDURE

1. **IMPORTANT—Check to see that dial pointer reaches each end of dial scale when Station Selector Control is turned from one end to the other.**
2. **Volume control—Maximum for all adjustments.**
3. **Connect radio chassis to ground post of signal generator with a short heavy lead.**
4. **Connect output meter across voice coil of speaker.**
5. **Connect dummy Antenna value in series with generator output lead, when needed (see below).**
6. **Allow chassis and signal generator to "heat up" for several minutes.**
7. **Use lowest Output setting of Signal Generator capable of producing adequate Output Meter indication and then proceed in the following sequence.**

BAND	SIGNAL GENERATOR Frequency Setting	SIGNAL GENERATOR Dummy Antenna	Connection to Radio	Receiver Dial Setting	Trimmers Adjusted (In Order Shown)	Trimmer Function	Type of Adjustment
I.F.	455 KC.	.1 mfd.	Grid of 1A7 (Cap)	High Frequency end of dial	C-D—2nd I.F.	Output I.F.	Adjust to maximum output
I.F.	455 KC.	.1 mfd.	Grid of 1A7 (Cap)	High Frequency end of dial	A-B—1st I.F.	Input I.F.	Adjust to maximum output
Broad-cast	1630 KC.	.00020 mfd. Mica	Antenna Lead	High Frequency end of dial	E-(See note below) F-(See note below)	Oscillator Antena	Adjust to maximum output
Broad-cast	1300 KC.	.00020 mfd. Mica	Antenna Lead	1300 KC	G H	Oscillator Antenna	Adjust to maximum output

NOTE: Before adjusting trimmers "E" and "F," make sure that each iron core is 1¾" or more outside of its coil form. If necessary, turn adjustments "G" and "H" to accomplish this.

ADMIRAL DATA SHEET 3