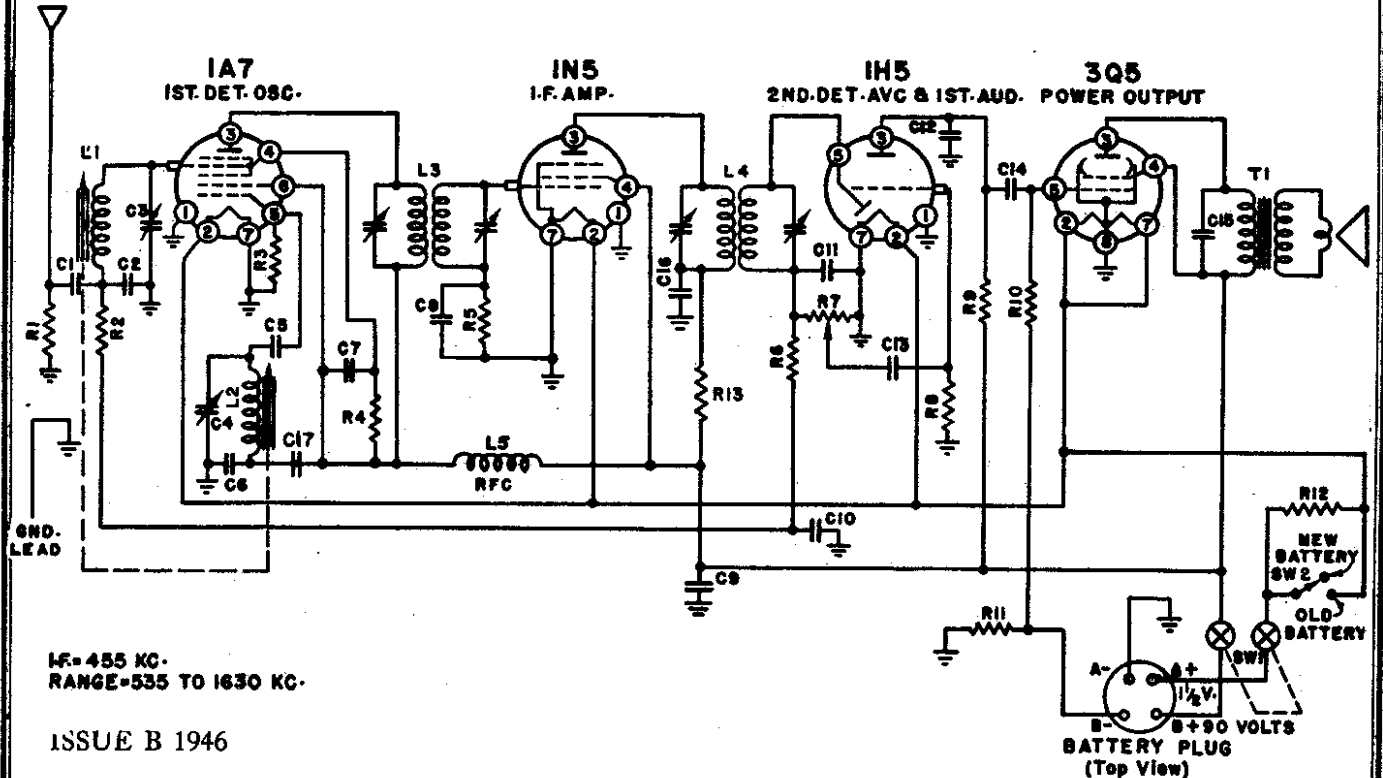


MODEL 4A1
Issue B

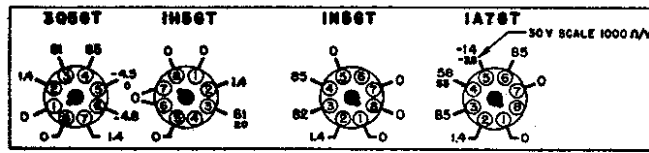
ADMIRAL CORPORATION



IF-455 KC.
RANGE-535 TO 1630 KC.

ISSUE B 1946

VOLTAGE CHART



BACK OF CHASSIS

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.

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.

REPLACEMENT PARTS

CONDENSERS

Symbol	Description	Part No.
C1	.01 mfd., 400 Volts	64B1-25
C2	.0008 mfd., Mica	65B5-31
C3	Trimmer, Antenna	66A21-1
C4	Trimmer, Oscillator	
C5	.0001 mfd., Mica	65B7-17
C6	.0008 mfd., Mica	65B5-31
C7	.01 mfd., 400 Volts	64B1-25
C8	.002 mfd., 600 Volts	64B1-14
C9	4. mfd., 150 Volts (Elect)	67A4-2
C10	.05 mfd., 200 Volts	64B1-32
C11	.00025 mfd., Mica	65B7-22
C12	.00025 mfd., Mica	65B7-22
C13	.01 mfd., 400 Volts	64B1-25
C14	.01 mfd., 400 Volts	64B1-25
C15	.005 mfd., 600 Volts	64B1-12
C16	.01 mfd., 400 Volts	64B1-25
C17	.01 mfd., 400 Volts	64B1-25

(C17 omitted in early models)

RESISTORS

Symbol	Description	Part No.
R1	15,000 ohm 1/2 w	60B8-153
R2	470,000 ohm 1/4 w	60B2-474
R3	220,000 ohm 1/4 w	60B8-224
R4	33,000 ohm 1/2 w	60B8-333
R5, R8	4,700,000 ohm 1/4 w	60B2-475
R6	2,200,000 ohm 1/4 w	60B2-225
R7	1 meg. Vol. Control	75B1-1
R9, R10	1,000,000 ohm 1/4 w	60B2-105
R11	390 ohm 1/4 w	60B2-391
R12	.75 ohm 1/2 w (wire)	61A2-1
R13	2200 ohm 1/4 w	60B2-222

TRANSFORMERS and COILS

Symbol	Description	Part No.
L1	Antenna Coil	AC105-1
L2	Oscillator Coil	A1020
L3	1st I.F. Transformer	72B5
L4	2nd I.F. Transformer	72B6
L5	Choke Coil (RF)	AB103-1
T1	Output Transformer	*

*Specify all numbers appearing on Output Trans. as well as speaker when ordering.

MISCELLANEOUS

Description	Part No.
Background, Dial	X22B1-1
Cable, Battery (complete with plug)	A1026
Cap, Grid	90A1-2
Cord, Dial (5" on tuner and 53" on dial drive)	50A1-3
Drum and Hub, Tuning	A1035
Iron Slug, with wire (Osc.)	71B1-3
Iron Slug, with wire (Ant.)	71B1-4
Knob	33A1-2

MISCELLANEOUS

Description	Part No.
Plug, Battery 5 Prong	88A4-4
Pointer, Dial	25A3
Pulley, Fibre Dial	17A1-3
Scale, Glass Dial	21B6-1
Screw studs (for iron cores)	27A4
Shield, Tube	87A8
Shaft, Tuning	28A1-1
Socket, octal tube	87A5-1
Speaker and output Transformer	78B3
Spring, Dial Drum Cord Tension	19A1-5
Spring, Tuner slide cord tension	19A1-4
Spring, Tuner slide pressure	18A9
Spring, Tuner, front bearing takeup	19A5
Spring, Tuner, back bearing takeup	19A6
Spring, Hairpin (To hold Ant-Osc. coils)	19A3-1
Switch, SPST (Economizer) SW2	77B1-6
Washer, C	4A4-1
Washer, spring (shaft)	4A6-3-0
Washer, spring (coils)	4A6-12-0

ADMIRAL CORPORATION

MODEL 4A1
Issue B

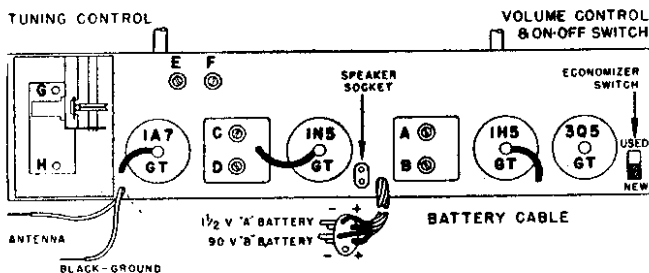
ALIGNMENT PROCEDURE

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		Connection to Radio	Receiver Dial Setting	Trimmers Adjusted (In Order Shown)	Trimmer Function	Type of Adjustment
	Frequency Setting	Dummy Antenna					
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 Antenna	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 1 1/8" or more outside of its coil form. If necessary, turn adjustments "G" and "H" to accomplish this.

TUBE AND TRIMMER LOCATION



CIRCUIT

Battery operated 4 Tube Superheterodyne with Single Tuning Range 535 KC. to 1630 KC. Covers standard broadcast band, using antenna and ground. Permeability tuning on Ant. and Osc. circuits. I.F. 455 KC.

POWER SUPPLY

Single unit "AB" battery pack. 90 volt "B" 1 1/2 volt "A." Plug in connection. Use Ensign AB48, Burgess 17G-D60, Eveready 748, General 60DL-11L, Ray-O-Vac AB-82, or Bond 0528 Battery or Equivalent.

ECONOMIZER SWITCH

The battery economizer switch is located on the top of the chassis, right side.

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

STRINGING DIAGRAM

