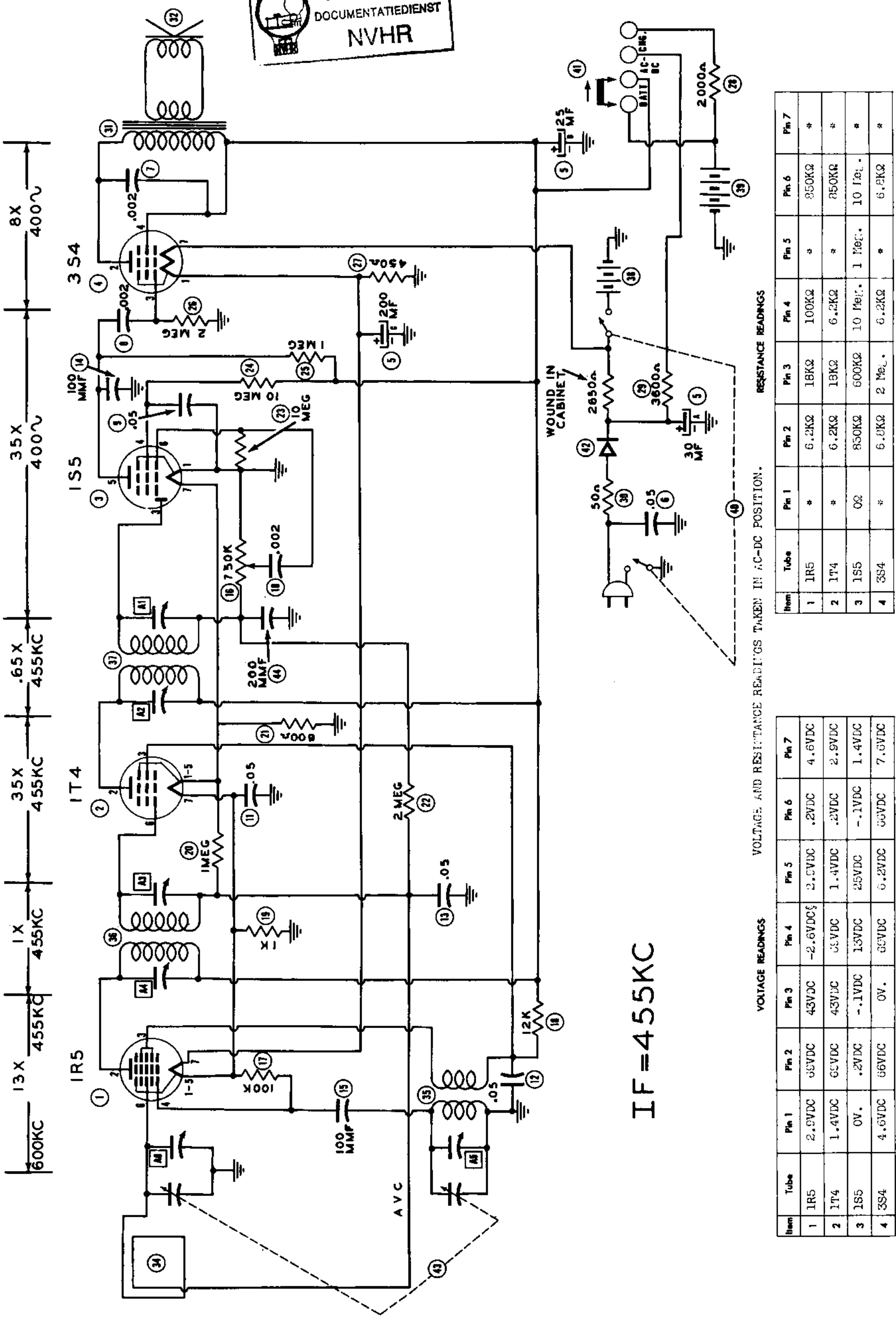


Met dank aan John Koster



IF = 455KC

VOLTAGE AND RESISTANCE READINGS TAKEN IN AC-DC POSITION.

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
1	1R5	2.9VDC	66VDC	43VDC	-2.6VDC	2.6VDC	.2VDC	4.6VDC
2	1T4	1.4VDC	66VDC	43VDC	66VDC	1.4VDC	.2VDC	2.9VDC
3	1S5	OV.	.2VDC	13VDC	13VDC	25VDC	-.1VDC	1.4VDC
4	3S4	4.6VDC	66VDC	OV.	66VDC	6.2VDC	66VDC	7.6VDC

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
1	1R5	*	6.2KΩ	18KΩ	100KΩ	*	350KΩ	*
2	1T4	*	6.2KΩ	19KΩ	6.2KΩ	*	850KΩ	*
3	1S5	0Ω	850KΩ	600KΩ	10 Meg.	1 Meg.	10 Ohm.	*
4	3S4	*	6.8KΩ	2 Meg.	6.2KΩ	*	6.8KΩ	*

\*TAKEN WITH VACUUM TUBE VOLTMETER.

THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

\*DO NOT USE OHMMETER TO MEASURE FILAMENT RESISTANCE.

RESISTANCE READINGS IN THE B+ CIRCUITS MAY VARY WIDELY ACCORDING TO THE CONDITION OF THE FILTER CAPACITORS

A PHOTOFACT STANDARD NOTATION SCHEMATIC.  
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The stage gain measured values listed above are approximate values for an average operative stage, rather than an absolute value. It should be borne in mind that it is possible to introduce so many variables into the measurement operation, such as type of equipment used for measuring, handling and placement of probes, the accuracy of alignment, etc., that an absolute reading is impractical. AVC is made inoperative by shorting high side of volume control to chassis.

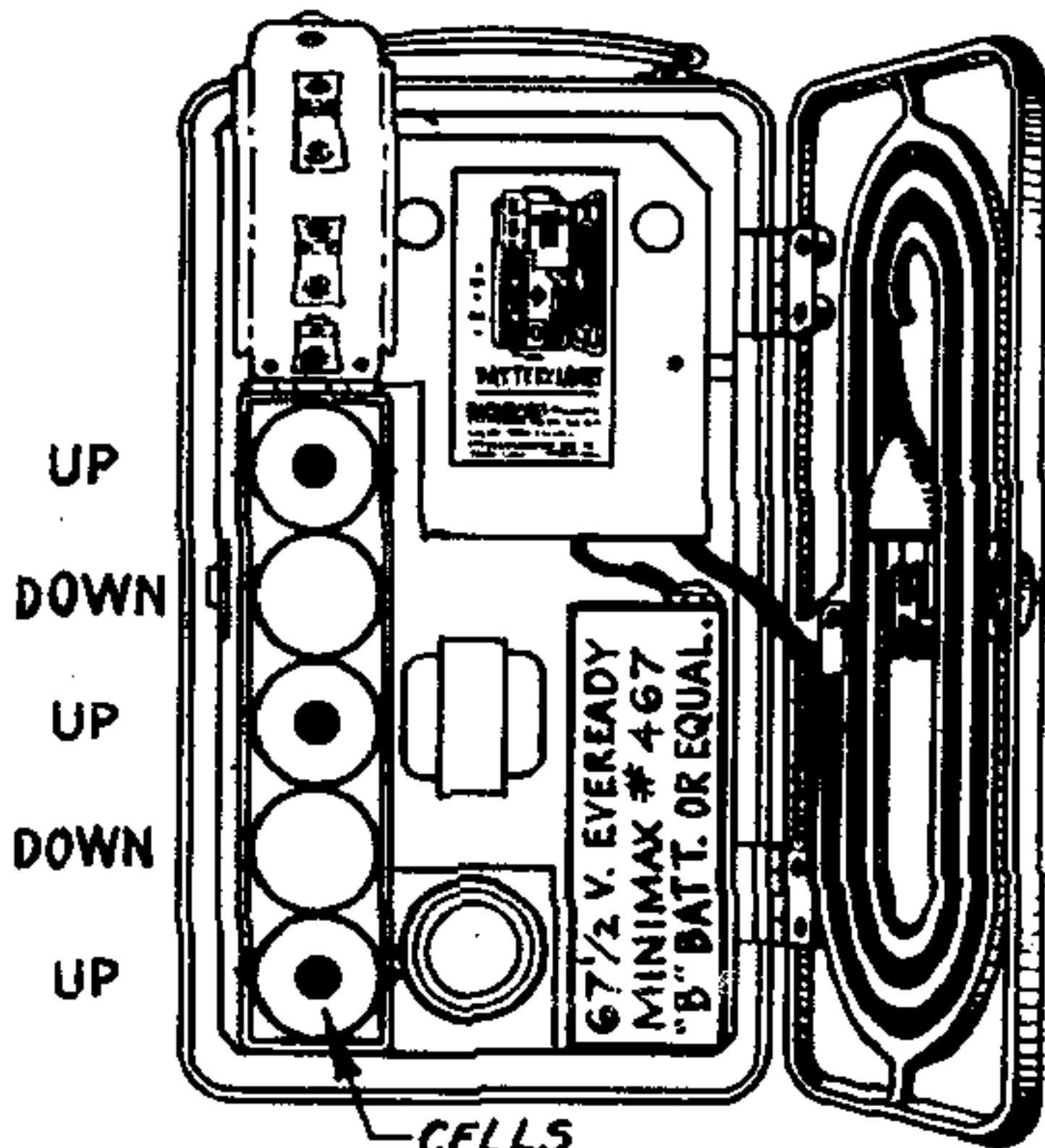
1. DC Voltage measurements are at 20,000 ohms per volts; AC Voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ± 15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

Series C see Riders Manual Vol. XV, Page 16-2  
 A.T.T.P.

**Alignment Procedure**

Connect "jumper" connections from contact pin leads on chassis to contact connections on inside of case. Connect output meter across speaker voice coil. Set volume control at maximum position. Keep output of signal generator at a low value to prevent AVC of receiver from affecting accurate alignment. Connect .1 MFD condenser in series with high side of signal generator. Make all adjustments for maximum output meter indication.

SIGNAL GENERATOR FREQUENCY	SIGNAL GENERATOR CONNECTION	POSITION OF VARIABLE	ORDER OF ADJUSTMENT
455 KC	GRID OF IR5	FULLY OPEN	A1, A2, A3, A4
1600 KC	GRID OF IR5	FULLY OPEN	A5
1400 KC	RADIATE SIGNAL INTO CASE LOOP WITH 2 TURN CONNECTION.	ROTATE UNTIL SIGNAL FROM GENERATOR IS PICKED UP.	A6



**BATTERY LAYOUT**

**IMPORTANT: 5 FLASHLIGHT CELLS SIZE "C" MUST BE INSERTED IN BATT. CASE AS SHOWN.**

**Battery Charging**

The following procedure should be followed when a battery charge is required. (Refer to figure 3 for switch detail.)

1. Plug power line cord into AC or DC 115 Volt power line.
2. Slide "Off-On" switch to "On" position.
3. Slide 3-position Operation Selector Switch to AC-DC position. If radio operates, power outlet is working satisfactorily.
4. Slide 3-position Operation Selector Switch to charge position.

The batteries are now on charge.

**Battery Installation Instructions**

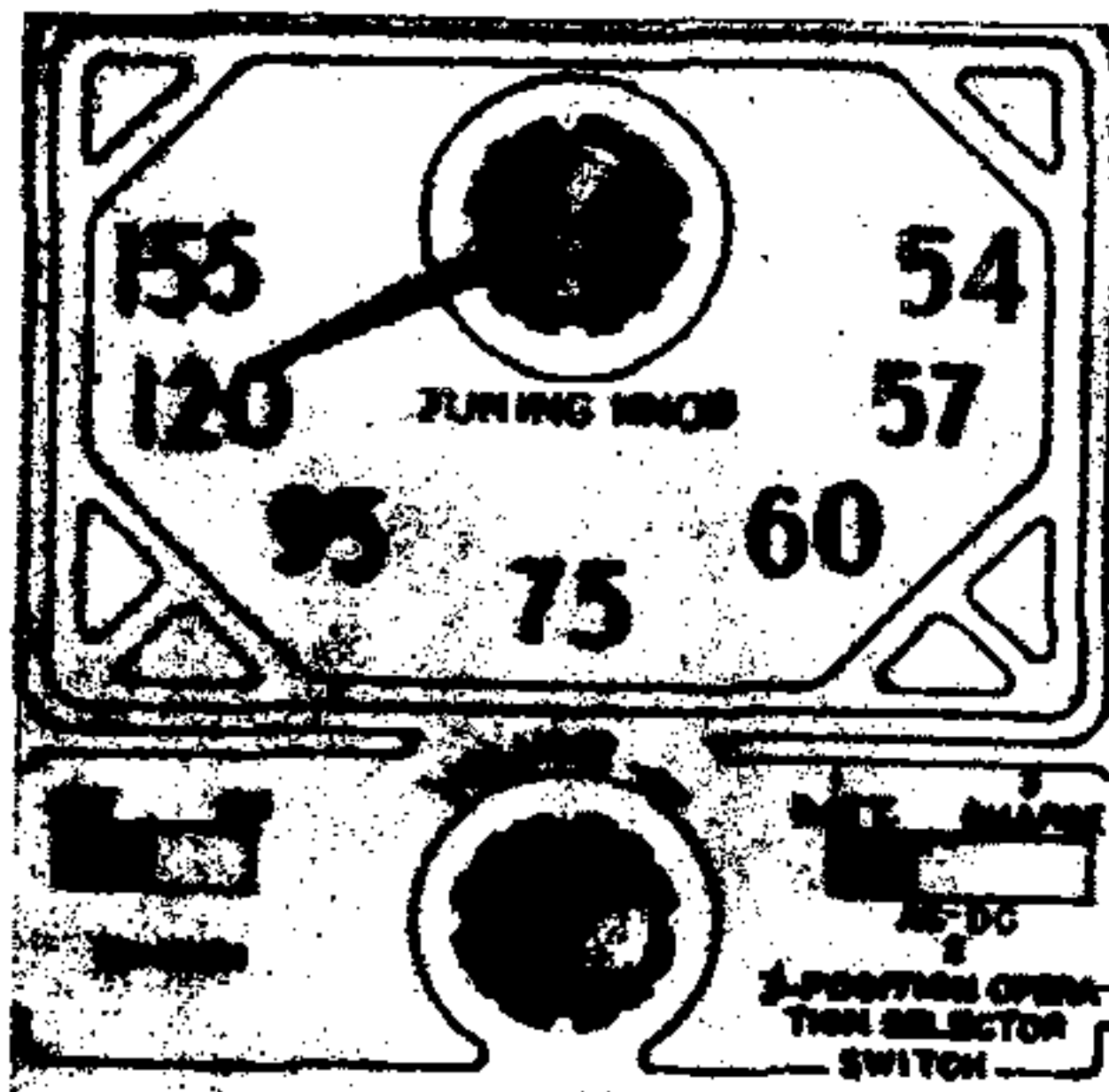
Place hand on back of radio with thumb in notch on left of back and swing back door open.

**Flashlight Cell Installation**

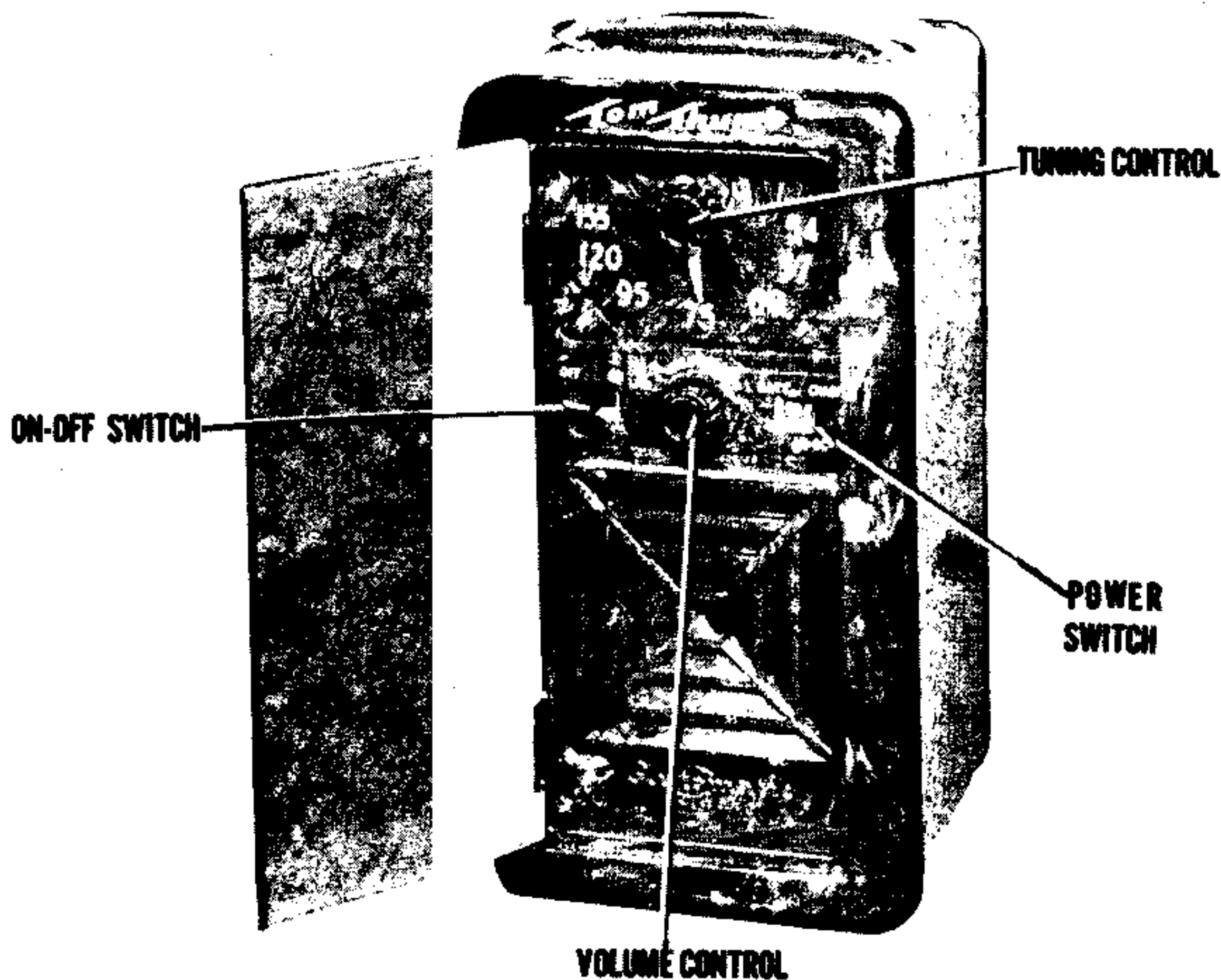
1. Turn latch, located on lower part of flashlight cell case, to the left until latch is disengaged from battery case.
2. Swing up top of battery case by lifting end containing latch.
3. Insert flashlight cells in order indicated in Figure 4.

**"B" Battery Installation**

1. Snap socket connector on red battery lead over connection on battery marked "+" (plus).
2. Insert stud connector on black battery lead into battery connection marked "-" (minus).
3. Slide battery into cabinet in position indicated in Figure 4.



# AUTOMATIC MODEL ATTP (TOM THUMB) (BATTERY OPERATE)



### AUTOMATIC MODEL ATTP

<b>TRADE NAME</b>	Automatic Tom Thumb Personal Model ATTP
<b>MANUFACTURER</b>	Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston 15, Mass.
<b>TYPE SET</b>	Three Power Portable Superheterodyne with Loop Antenna
<b>TUBES (FOUR)</b>	Types, 1R5 Converter, 1T4 IF Amp., 1S5 Det.-AVC-AF, 3S4 Power Output
<b>POWER SUPPLY</b>	110-120 V AC-DC or 67½ V. "B" Supply & 7½ V "A" Supply
<b>RATING</b>	.170 Amp. @ 117V AC or 15MA @ 67½ V DC & 51MA @ 7½ V DC
<b>TUNING RANGE—BROADCAST</b>	530-1600KC

#### ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Connect jumpers from contact pin leads on chassis to contact connections on inside of case. Use battery power when available. If AC power is used, use an isolation transformer when available. If not, connect a .1 MFD capacitor in series with the low side of signal generator and B-. Volume control should be at maximum position, output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1 .1 MFD.	High side to rear stator of tuning cap. Low side to chassis.	455KC	Tuning cap. fully open.	Across voice coil	A1,A2, A3,A4.	Adjust for maximum output. If AC power is used without an isolation transformer reduce dummy ant. to 200 MMF to reduce hum modulation.
2 .1 MFD.	"	1600KC	"	"	A5	Adjust for maximum output.
3	Loop	1400KC	Tune for maximum output.	"	A6	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output. (This adjustment may not be found on some models.)

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**PARTS LIST AND DESCRIPTIONS**  
TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA			INSTALLATION NOTES
		AUTOMATIC PART No.	STANDARD REPLACEMENT	RMA BASE TYPE	
1	Converter	1R5	1R5	7AT	
2	IF Amp.	1T4	1T4	6AR	
3	Det.-AVC-AF	1S5	1S5	6AU	
4	Power Output	3S4	3S4	7BA	

**CAPACITORS**

Capacity values given in the rating column are in mfd. for Electrolytic and Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

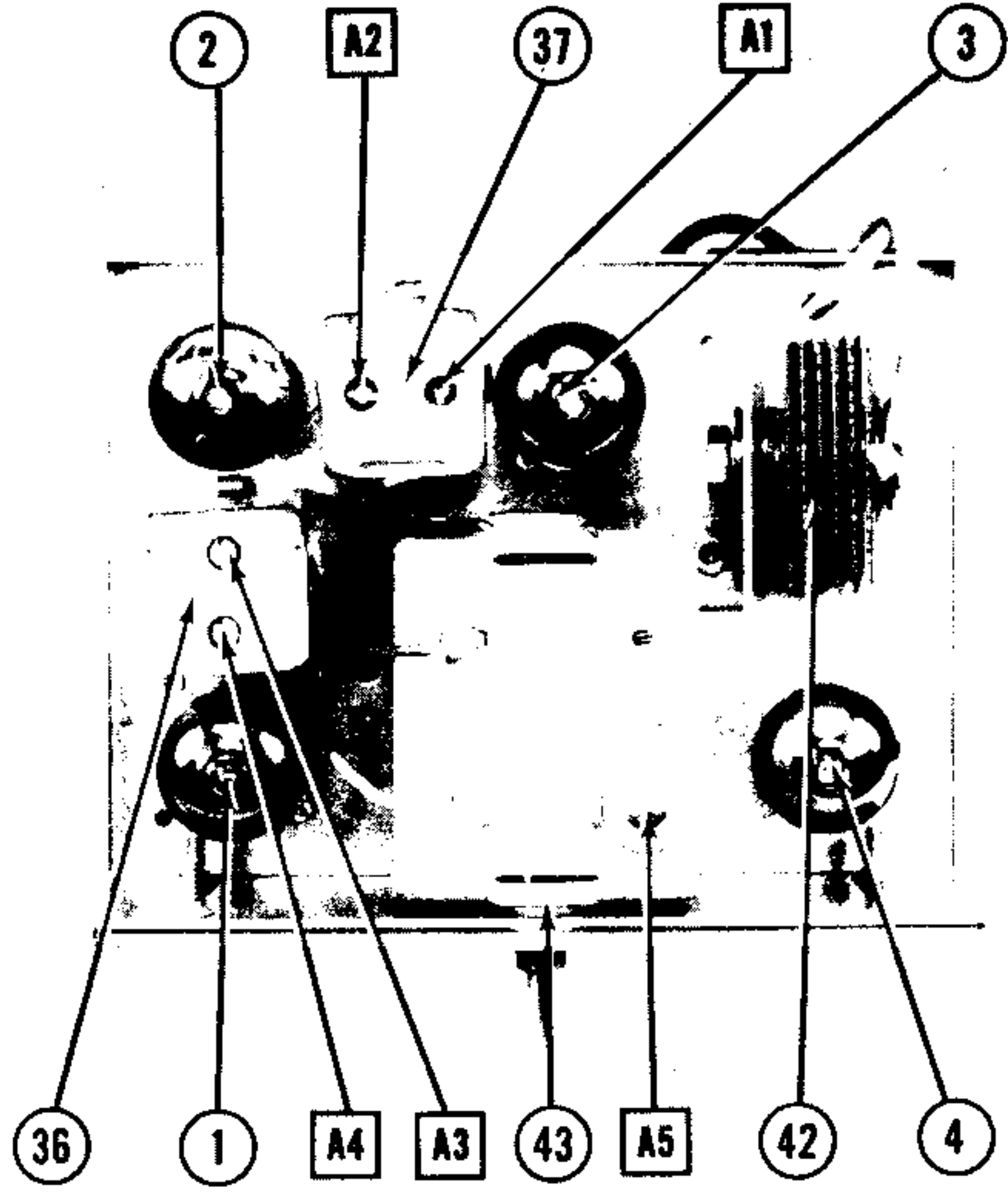
ITEM No.	RATING	REPLACEMENT DATA						IDENTIFICATION CODES AND INSTALLATION NOTES		
		CAP.	VOLT	AUTOMATIC PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SOLAR PART No.		SPRAGUE PART No.	AEROVOX PART No.
5A	30	150	CE-60							Filter
B	25	150								
C	200	10								
6	.05	600		DT6SS		TP415	S-6-05	TC-15	684-05	Filament Bypass
7	.002	600		DT6D2		TP405	S-6-002	TC-22	684-002	Line Filter
8	.002	600		DT6D2		TP405	S-6-002	TC-22	684-002	Output Plate Bypass
9	.05	400		DT4S5		TP426	S-4-05	TC-15	484-05	Audio Coupling
10	.002	600		DT6D2		TP405	S-6-002	TC-22	684-002	Audio Screen Bypass
11	.05	150		ZN1S5		MT135	TTF-15-05			Audio Coupling
12	.05	200		DT4S5		TP426	S-4-05	TC-15	484-05	Filament Bypass
13	.05	200		DT4S5		TP426	S-4-05	TC-15	484-05	Screen Bypass
14	100	500		5W5T1		MC235	MO-5-31	1FM-31	1468-0001	AVC Filter
15	100	500		5W5T1		MC235	MO-5-31	1FM-31	1468-0001	Audio Plate Bypass
44	200	500		5W5T2		MC237	MO-5-32	1FM-32	1468-0002	Osc. Grid Capacitor

**CONTROLS**

ITEM No.	RATING	REPLACEMENT DATA				INSTALLATION NOTES			
		RESISTANCE	WATTS	AUTOMATIC PART No.	MALLORY PART No.		IRC PART No.	CLAROSTAT PART No.	
16A	750KΩ	1		RV47	NR51	D13-137	M-63-Z		Volume Control
B	Shaft			Not Req.	Not Req.	A	Not Req.		Attach to 16A per instructions

**RESISTORS**

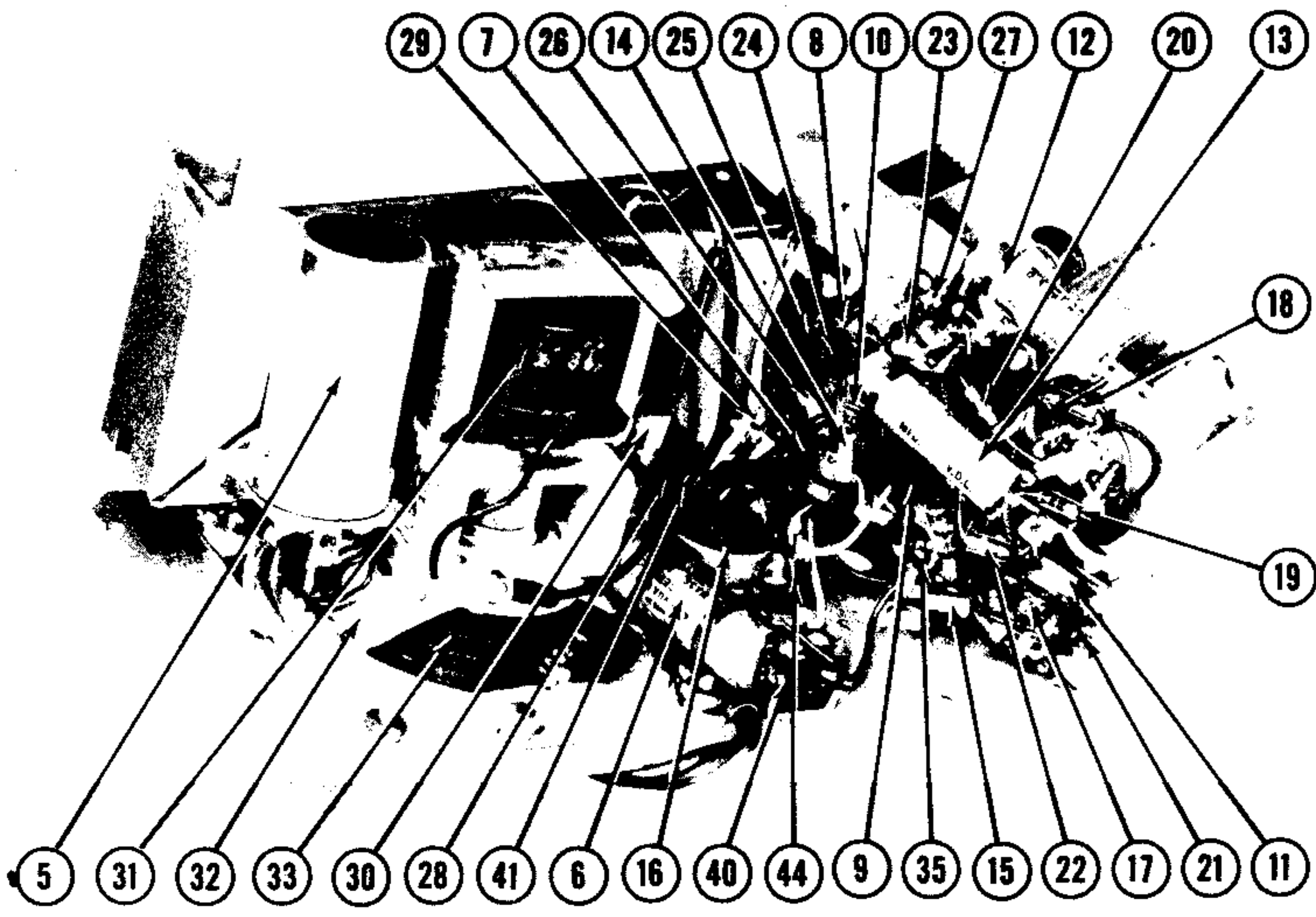
ITEM No.	RATING	REPLACEMENT DATA			IDENTIFICATION CODES				
		RESISTANCE	WATTS	AUTOMATIC PART No.		MALLORY PART No.	IRC PART No.		
17	100KΩ					BTS-100K			Br.-Blk.-Yl. Oscillator Grid
18	12KΩ					BTS-12K			Br.-Red-Or. Screen Dropping
19	1000Ω					BTS-1000			Br.-Blk.-Red Filament String
20	1 Meg.					BTS-1 Meg.			Br.-Blk. Grn. IF Grid
21	600Ω					BTS-600			Blue-Blk.-Br. Filament String
22	2 Meg.					BTS-2.2 Meg.			Red-Blk.-Grn. AVC Network
23	10 Meg.					BTS-10 Meg.			Br.-Blk.-Blue AF Grid
24	10 Meg.					BTS-10 Meg.			Br.-Blk.-Blue AF Screen Dropping
25	1 Meg.					BTS-1 Meg.			Br.-Blk.-Grn. AF Plate Load
26	2 Meg.					BTS-2.2 Meg.			Red-Blk.-Grn. Output Grid
27	450Ω					BTS-470			Yl.-Grn.-Br. Filament String
28	2000Ω					BTS-2200			Req.-Blk.-Red Series Battery Charge
29	3600Ω					BTS-3900			Or.-Blue-Red Filter
30	50Ω					AB-50			Rectifier Ballast





# PARTS LIST AND DESCRIPTIONS (Continued)

# CHASSIS--BOTTOM VIEW



## TRANSFORMER (OUTPUT)

ITEM No.	RATING		REPLACEMENT DATA		INSTALLATION NOTES
	IMPEDANCE	DC RES.	AUTOMATIC PART No.	THORNTON PART No.	
31	3.2Ω	410Ω	A-3876*	T22S45*	*Bend mounting tabs down, file out slots and mount on original bracket.

## SPEAKER

ITEM No.	RATINGS	REPLACEMENT DATA		INSTALLATION NOTES
		AUTOMATIC PART No.	JENSEN PART No.	
32	VC IMP. 3.2Ω	FM-604		
33	CONE DIA. VC DIA. 3-3/8" 1 1/2"	NOT READILY REPLACEABLE--USE COMPLETE SPEAKER UNIT		

## R F COILS

ITEM No.	USE	DC RES.	REPLACEMENT DATA		INSTALLATION NOTES
			AUTOMATIC PART No.	MEISSNER PART No.	
34	Loop Ant.			14-1040	
35	Osc. Coil	12		16-6668	
36	Input IF	33Ω		16-6669	
37	Output IF	34Ω			Add 200MFD from high side volume control to ground.

## BATTERIES

ITEM No.	VOLTAGE	AUTOMATIC PART No.	EVEREADY		INSTALLATION NOTES
			"A"	"B"	
38	1.5 V "A"		(5) #1035	"A-B"	
39	67.5V "B"		#467		Five 1 1/2 Volt Batteries in Series

## MISCELLANEOUS

ITEM No.	PART NAME	AUTOMATIC PART No.	NOTES
40	Switch	SR76	On-Off
41	Rectifier	SR-100	Batt.-AC/DC-Charge Selenium
42	Tuning Cap.		(15-367 MUF, 24-141 MUF)