



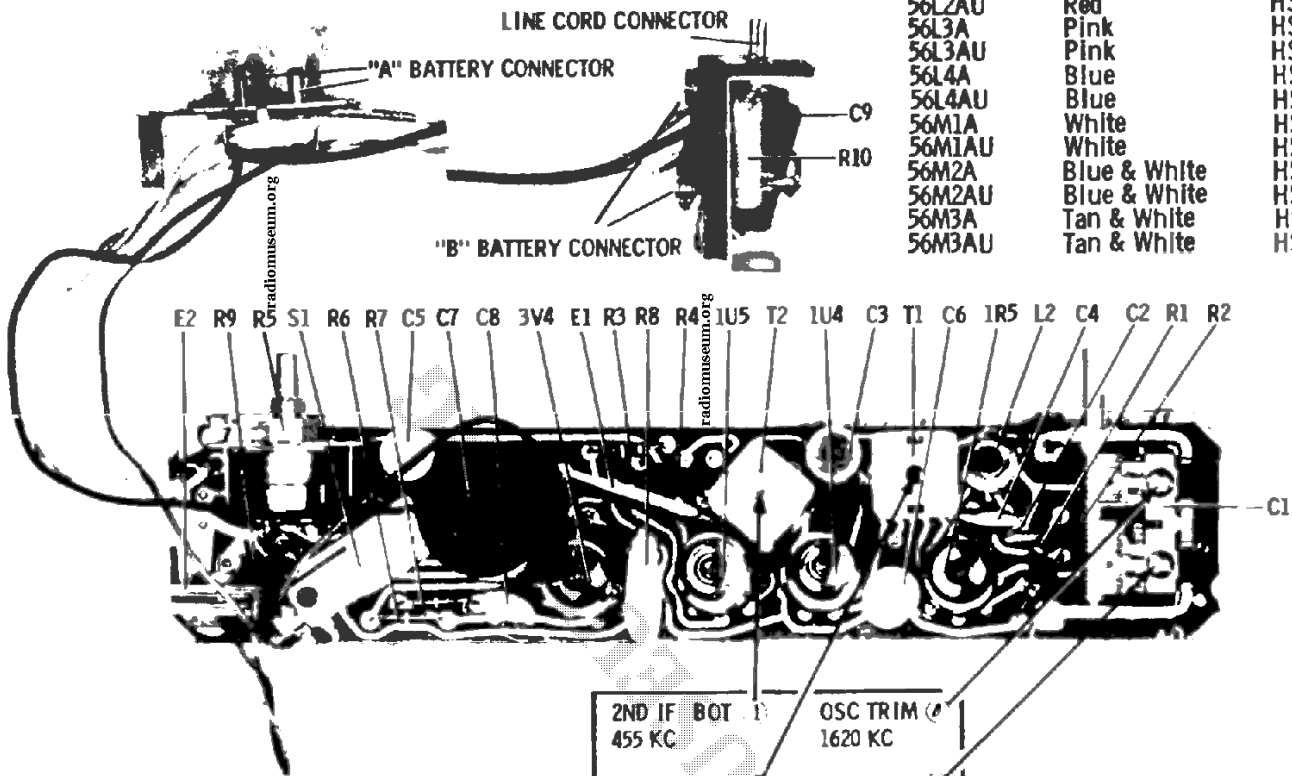
MODELS

- 56B1A
- 56B1AU
- 56L1A
- 56L1AU
- 56L2A
- 56L2AU
- 56L3A
- 56L3AU
- 56L4A
- 56L4AU
- 56M1A
- 56M1AU
- 56M2A
- 56M2AU
- 56M3A
- 56M3AU

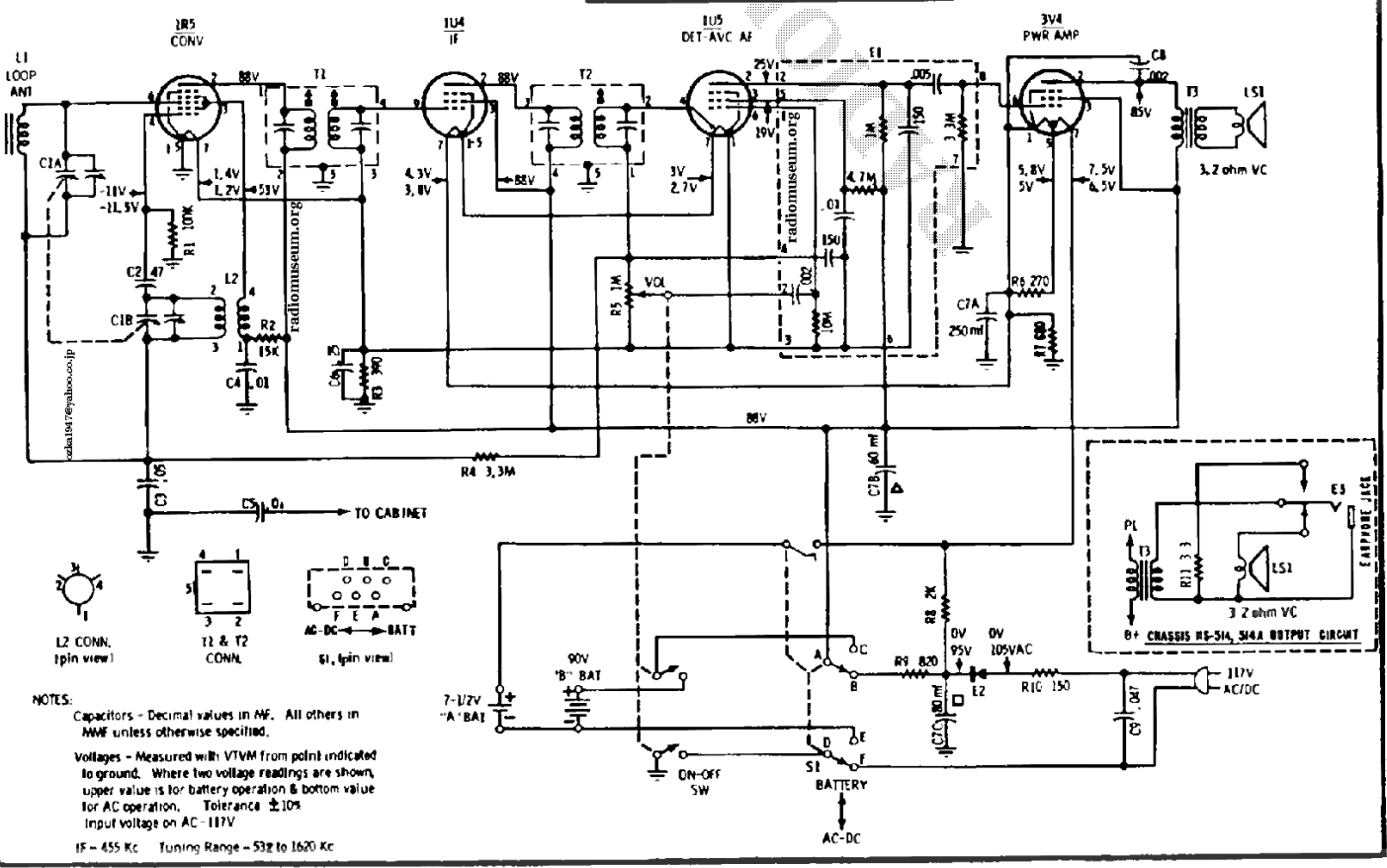
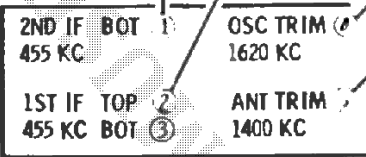
- Brown
- Brown
- Gray
- Gray
- Red
- Red
- Pink
- Pink
- Blue
- Blue
- White
- White
- Blue & White
- Blue & White
- Tan & White
- Tan & White

CHASSIS

- HS-512
- HS-512A
- HS-513
- HS-513A
- HS-513
- HS-513A
- HS-513
- HS-513A
- HS-513
- HS-513A
- HS-514
- HS-514
- HS-514A
- HS-514
- HS-514A
- HS-514
- HS-514A

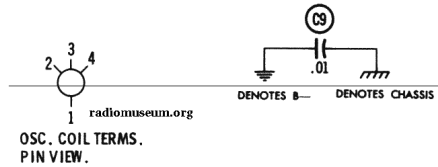
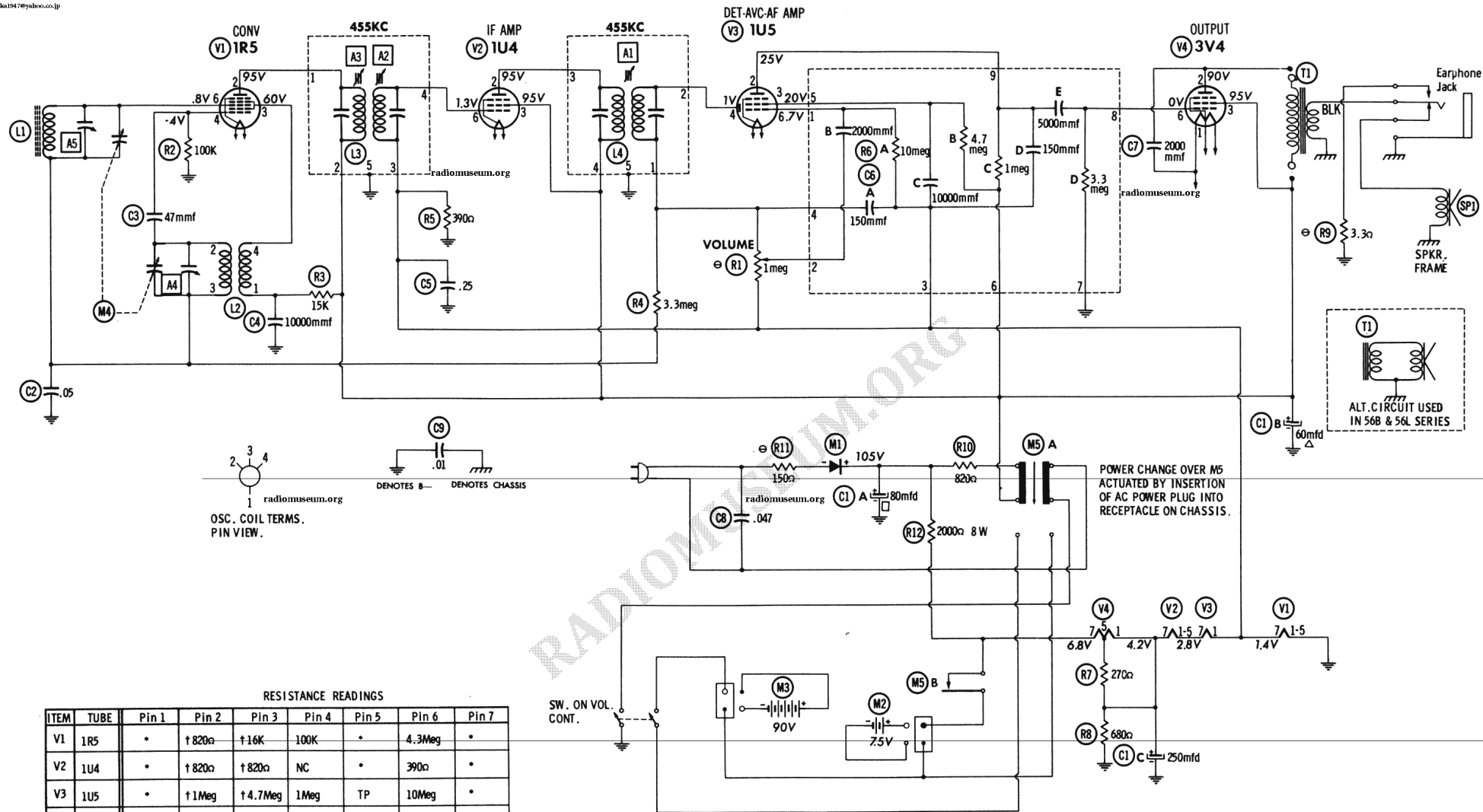


ALIGNMENT ADJUSTMENTS AND PARTS LOCATION



NOTES:
 Capacitors - Decimal values in μF . All others in $\text{M}\mu\text{F}$ unless otherwise specified.
 Voltages - Measured with VTVM from point indicated to ground. Where two voltage readings are shown, upper value is for battery operation & bottom value for AC operation. Tolerance $\pm 10\%$.
 Input voltage on AC - 117V
 IF - 455 Kc. Tuning Range - 532 to 1620 Kc

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RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	1R5	•	† 820Ω	† 16K	100K	•	4.3Meg	•
V2	1U4	•	† 820Ω	† 820Ω	NC	•	390Ω	•
V3	1U5	•	† 1Meg	† 4.7Meg	1Meg	TP	10Meg	•
V4	3V4	•	† 1200Ω	† 820Ω	NC	•	3.3Meg	•

† MEASURED FROM OUTPUT OF M1.
 NC NO CONNECTION.
 TP TIE POINT.
 • DO NOT USE OHMMETER TO MEASURE FILAMENT RESISTANCE.

⊙ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

- DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Nominal tolerance on component values makes possible a variation of ± 1% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

radiomuseum.org **ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT**

Use battery power, if possible. If AC power is used, use an isolation transformer when available. If not, connect a .1MFD capacitor in series with low side of the 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.
 Loop should be maintained in same relative position to chassis as when receiver is in cabinet.
 To set pointer, turn tuning capacitor fully closed and set pointer to last reference mark at low frequency end of dial.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.1MFD	High side to pin 6 (grid) of 1R5 (V1). Low side to B-.	455KC (400 μ Mod)	Tuning gang fully open	Across voice coil	A1, A2, A3	Adjust for maximum output. If AC power is used without an isolation transformer, reduce dummy antenna to 200MMF to reduce hum modulation.
2.	"	"	1620KC	"	"	A4	"
3.		Loop	1400KC	Tune to 1400KC signal	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

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PARTS LIST AND DESCRIPTIONS TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
V1	Converter	1R5		V3	Det.-AVC-AF Amplifier	1U5	
V2	IF Amplifier	1U4		V4	Output	3V4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
CLA	80	150	23B633167	AFH3-64-65	radiomuseum.org				TVL-3431.3
B	60	150							
C	250	10							

FIXED CAPACITORS

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

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	.05	200	8B120842						
C3	47		21K633231	NP0-DI47	DD-470	Z033	831-470	ZT-5447	5TCC-Q47
C4	10000		21B533471	BPD-01	DD-103	K082	811-01	DC-511	5HK-S1
C5	.25	100	8K122249					PTS4022	28E-P22
C6A	150		†21B631414	†PA572					
B	2000								
C	10000								
D	150								
E	5000								
C7	2000		21K633268	BPD-002	DD-202	K072	801-002	DC-522	5HK-D2
C8	.047	400	8K490232						
C9	.01	400	8K122334	BPD-01	DD-103	K082	811-01	DC-511	5HK-S1

† Items C6A, C6B, C6C, C6D, C6E, R6A, R6B, R6C, R6D are combined in one unit.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.		MALLORY PART No.
R1	1Meg	1/2	18B633267					Volume & Switch (Note1)

Note 1. Chassis HS-513, A may use an alternate control, part #18K633172.

RESISTORS

All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING		REPLACEMENT DATA			ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	NOTES		OHMS	WATT	MOTOROLA PART No.	IRC PART No.	
R2	100K		6R6075	BTS-100K		R7	270Ω		6R6432	BTS-270	
R3	15K		6R6477	BTS-15K		R8	680Ω		6R6040	BTS-680	
R4	3.3Meg		6R2118	BTS-3.3Meg		R9	3.3Ω		17K485412	BW1/2-3.3	Note 1
R5	390Ω		6R5554	BTS-390		R10	820Ω		6R6269	BTS-820	
R6A	10Meg		†21B631414	BTS-10Meg		R11	150Ω		65A633275		Note 2
B	4.7Meg			BTS-4.7Meg		R12	2000Ω	8	17B633148		
C	1Meg			BTS-1Meg							
D	3.3Meg			BTS-3.3Meg							

† Items R6A, R6B, R6C, R6D, C6A, C6B, C6C, C6D, C6E are combined in one unit.

Note 1. Not used in Chassis HS-512, HS-512A, HS-513, HS-513A.

Note 2. Special fuse resistor. Item must be ordered from Mfr.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MOTOROLA PART No.	Hallderson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
T1	11K	3-4Ω	25K635433		A-2927	A-3329	26849	S-11X

PARTS LIST AND DESCRIPTIONS (Continued)

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	RCA TYPE No.	
SP1	4"	PM	3-4Ω	50C635431	4A07	223S1	

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Loop Stick	.6Ω		1V635440 *				
L2	Osc. Coil	1.4Ω	10.2Ω	24B635261				
L3	Input IF	23Ω	23Ω	24K633165				
L4	Output IF	28Ω	40Ω	24K633166				

* Alternate part #1V635673 used in 56L Series, Models 56M1A, 56M1AU, 56M2A and 56M2AU.

SELENIUM RECTIFIER

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	CURRENT		MOTOROLA PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	MALLORY PART No.	RADIO RECEPTOR PART No.	
M1	.063A		48K631295	1386	RS065	6S65	5M4	658

BATTERIES

ITEM No.	VOLTAGE	MOTOROLA PART No.	REPLACEMENT DATA					INSTALLATION NOTES
			EVEREADY		BURGESS			
			"A"	"B"	"A-B"	"A"	"B"	"A-B"
M2	7.5V "A"		717			C5		
M3	90V "B"			479			P60	

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M4	Tuning Cap.	19B635259	Chassis HS-514, A. 2 Gang (16-315MMF, 11-105MMF)
	Tuning Cap.	19K633279	Chassis HS-512, A. 2 Gang (16-315MMF, 11-105MMF)
	Tuning Cap.	19K635260	Chassis HS-513, A. 2 Gang (16-315MMF, 11-105MMF)
M5A	Switch	1V630598	Power Changeover (DPDT-Slide type)
	Switch		Power Changeover (SPST-Micro Type)
			Actuated mechanically by operation of M5A
	Cabinet	1V635461	Models 56B1A, 56B1AU
	Cabinet	1V635458	Models 56L1A, 56L1AU
	Cabinet	1V635457	Models 56L2A, 56L2AU
	Cabinet	1V635456	Models 56L3A, 56L3AU
	Cabinet	1V635455	Models 56L4A, 56L4AU
	Cabinet	1V635481	Models 56M1A, 56M1AU
	Cabinet	1V635482	Models 56M2A, 56M2AU
	Cabinet	1V635483	Models 56M3A, 56M3AU
	Handle Assy.	1V635440	Includes L1. Models 56B1A, 56B1AU, 56M3A, 56M3AU
	Handle Assy.	1V635673	Includes L1. Models 56L1A, 56L1AU, 56L2A, 56L2AU, 56L3A, 56L3AU, 56L4A, 56L4AU, 56M1A, 56M1AU, 56M2A, 56M2AU
	Knob	36C635162	Tuning, 56B series models
	Knob	36B635187	Tuning, 56L series models
	Knob	36C635195	Tuning, 56M series models
	Knob	36K635163	On-off-volume, 56B series models
	Knob	36B635186	On-off-volume, 56L series models
	Knob	36B635194	On-off-volume, 56M series models
	Knob	36B635196	Pointer, 56M series models

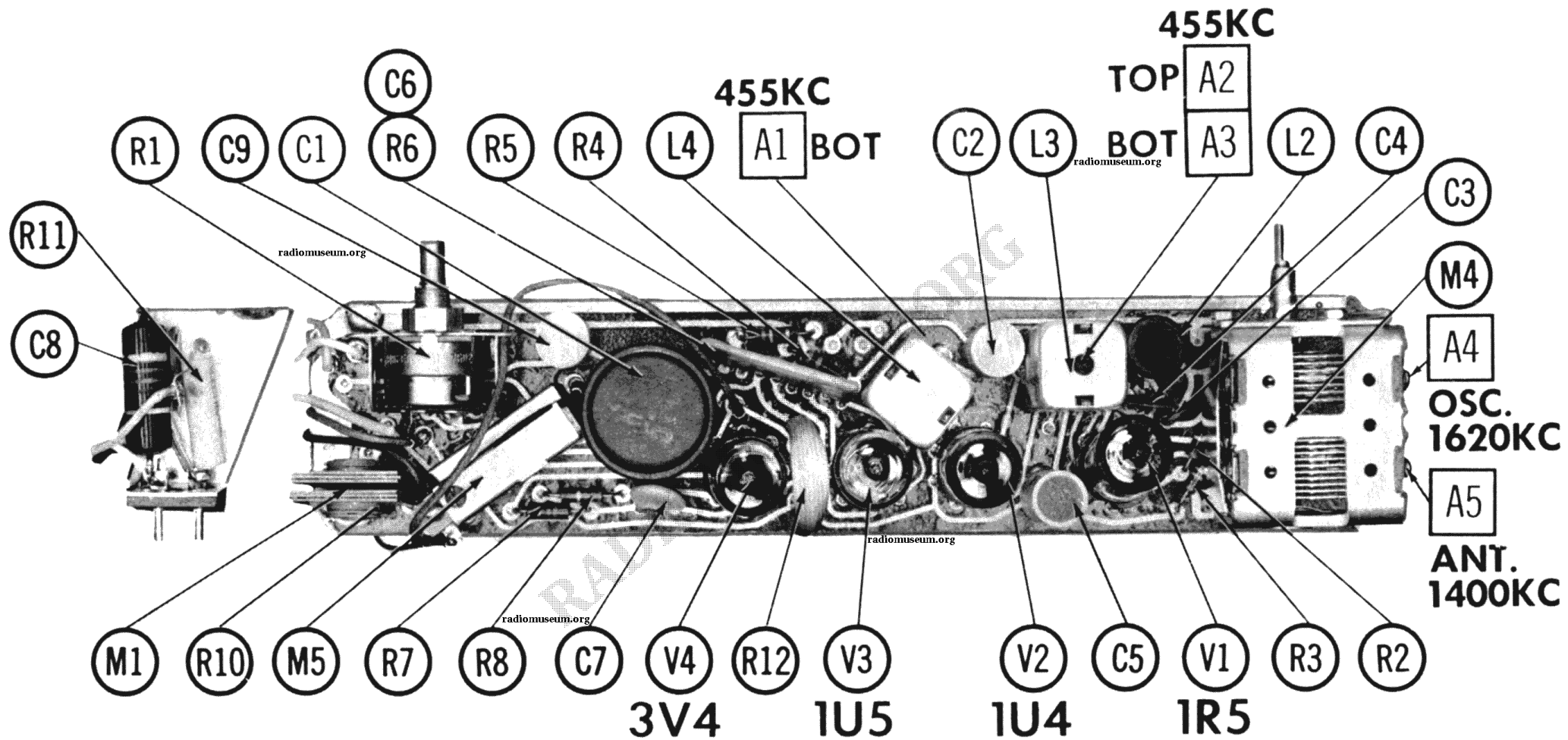
MOTOROLA MODEL 56B1A

SET 341

FOLDER 9

MOTOROLA MODEL 56B1A

ozka1947@yahoo.co.jp



CHASSIS-TOP VIEW



MOTOROLA MODELS 56B1A, U, 56L1A, U, 56L2A, U, 56L3A, U, 56L4A, U, 56M1A, U, 56M2A, U, 56M3A, U (Ch. HS-512, A, HS-513, A, HS-514, A)



TRADE NAME	Motorola Models 56B1A, U (Ch. HS-512, A), 56L1A, U, 56L2A, U, 56L3A, U, 56L4A, U (Ch. HS-513, A), 56M1A, U, 56M2A, U, 56M3A, U (Ch. HS-514, A)
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois
TYPE SET	Three Power Portable AM Receiver
TUBES (Four)	Types IR5 Converter, 1U4 IF Amplifier, 1U5 Det.-AVC-AF Amp., 3V4 Output
POWER SUPPLY	110-120 Volts AC-DC (or) 7.5 Volts "A" Supply & 90 Volts "B" Supply
RATING	.12 Amp. @ 117 Volts AC (or) 50MA @ 7.5 Volts DC & 13MA @ 90 Volts DC
TUNING RANGE-BROADCAST	532KC-1620KC

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2. "	"	1620KC	"	"	A4	"
3.	Loop	1400KC	Tune to 1400KC signal	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

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