



RCA VICTOR



MASTER X

Six-Tube, Two-Band, A-C, D-C, Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

1949 No. 1

GENERAL SERVICE DIVISION

RCA VICTOR COMPANY LTD.

Electrical and Mechanical Specifications

FREQUENCY RANGE

Broadcast 540-1600 kc
Short Wave 9.3-12.2 mc

INTERMEDIATE FREQUENCY 455 kc

TUBE COMPLEMENT

(1) RCA-12SK7 R-F Amplifier
(2) RCA-12SA7 1st Det.—Osc.
(3) RCA-12SK7 I-F Amplifier
(4) RCA-12SQ7 2nd Det., A.V.C., and A-F Amplifier
(5) RCA-35L6-GT/G Power Output
(6) RCA-35Z5-GT/G Rectifier

PILOT LAMPS Mazda No. 1490, 3.2 volts

POWER OUTPUT

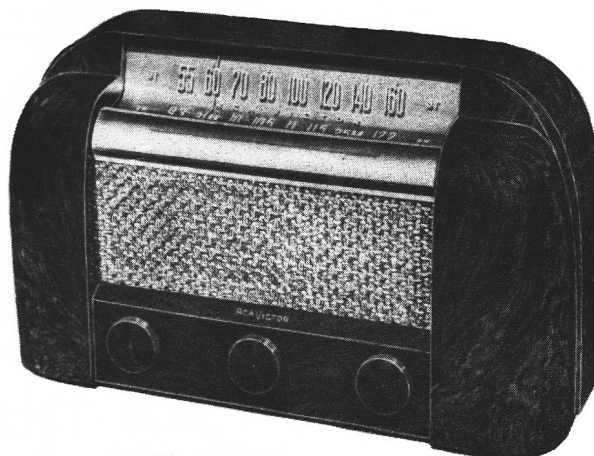
Undistorted 1.0 watts
Maximum 1.5 watts

LOUDSPEAKER

Size 4 x 6" elliptical P.M.
V.C. Impedance 3.4 ohms at 400 cycles

POWER SUPPLY RATING

105-125 volts, AC. 50 or 60 cycles, or DC 27.6 watts



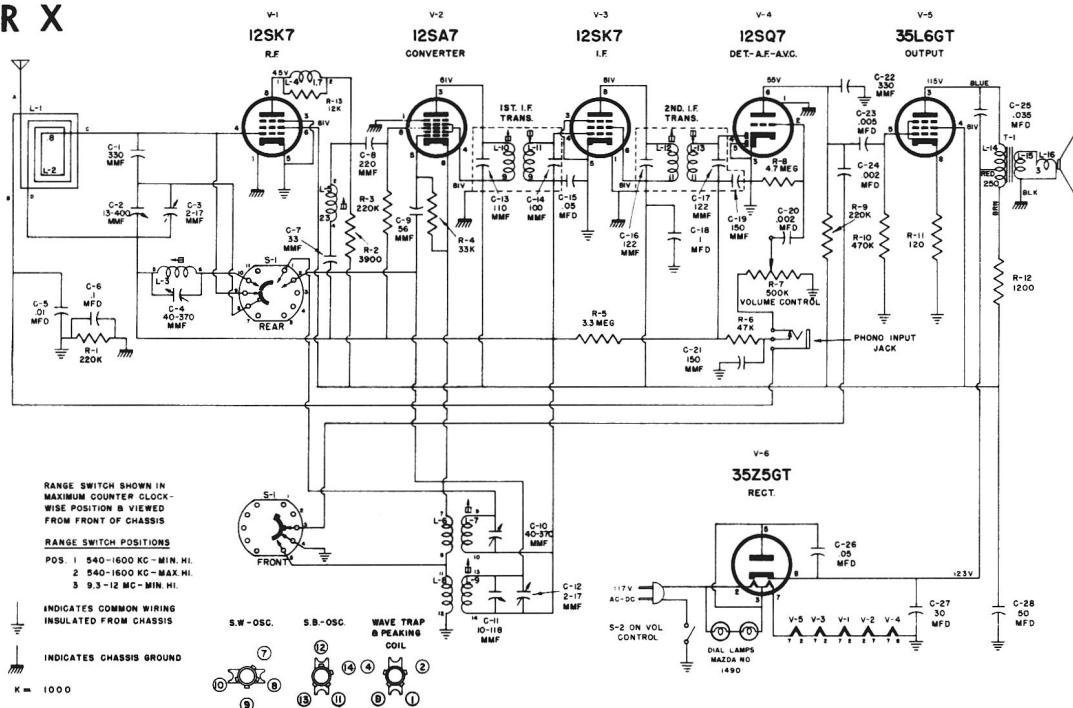
REPLACEMENT PARTS FOR MASTER X

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

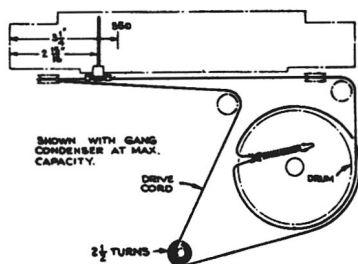
STOCK NO.	DESCRIPTION	LIST PRICE	STOCK NO.	DESCRIPTION	LIST PRICE
CHASSIS ASSEMBLY					
73294	Capacitor-Trimmer (C4, C10).....		31417	Resistor-3.3 Megohms-1/2 watt (R5)..	
39616	Capacitor-33 MMF. Mica (C7).....		30931	Resistor-4.7 Megohms-1/2 watt (R8)..	
71924	Capacitor-56 MMF. Ceramic (C9).....		S-4350	Shaft-Drive Shaft.....	
39636	Capacitor-220 MMF. Mica (C8).....		37605	Socket-Tube Socket.....	
S-4920	Capacitor-150 MMF. Ceramic (C21).....		S-3579	Socket-Phono Socket.....	
12952	Capacitor-330 MMF. Mica (C1).....		73285	Switch-Range switch & tone control(S1)	
71919	Capacitor-330 MMF. Ceramic (C22).....		S-4983	Transformer-1st I.F.(L10,L11,C13, C14).....	
S-3646	Capacitor-.005 Mfd. (C23).....		S-4984	Transformer-2nd I.F.(L12,L13,C16, C17,C19)...	
70601	Capacitor-.002 Mfd. (C20,C24).....		S-4193	Volume Control (R7,S2).....	
70615	Capacitor-.05 Mfd. (C15,C26).....		SPEAKER ASSEMBLY		
S-3652	Capacitor-.035 Mfd. (C25).....		35849	Dust Cap (Pkg.3).....	
S-3648	Capacitor-.01 Mfd. (C5).....		S-3516	Cone-Cone & Voice Coil Assembly(L16)	
S-3655	Capacitor-.1 Mfd. (C6,C18)...		S-3580	Speaker-complete.....	
70408	Capacitor-Electrolytic 30-50 Mfd. (C27,C28).....		S-4916	Output Transformer(L14,L15).....	
73164	Condenser-Variable with drum(C2, C11,C3,C12)...		MISCELLANEOUS ASSEMBLIES		
S-4353	Coil-Antenna coil (L3).....		73299	Baffle-Grille & baffle assembly....	
S-4351	Coil-Osc.coil "A" band (L8,L9).....		S-4914	Cabinet-Brown.....	
S-4352	Coil-Osc.coil "C" band (L6,L7).....		S-4915	Cabinet-Ivory.....	
S-4354	Coil-Wave trap coil (L4,L5).....		S-4313	Cord-Dial cord.....	
73291	Indicator-Station selector pointer..		72578	Clamp-Dial clamps.....	
S-4370	Loop-Antenna loop (L1,L2).....		S-4367	Cord-Power cord.....	
30189	Resistor-120 ohms-1/2 watt (R11).....		73300	Foot.....	
6134	Resistor-1200 ohms-1 watt (R12).....		73378	Knob.....	
30694	Resistor-3900 ohms-1/2 watt (R2).....		71116	Lamp-Pilot lamp (Mazda #1490).....	
30436	Resistor-12000 ohms-1/2 watt (R13)...		73296	Scale-Dial scale.....	
30685	Resistor-33000 ohms-1/2 watt (R4)...		31418	Spring-Drive cord tension (Pkg.2)..	
14983	Resistor-47000 ohms-1/2 watt (R6)...		14270	Spring-Knob retaining (Pkg.2).....	
14583	Resistor-220,000 ohms-1/2 watt(R1, R3,R9).....		71125	Screen-Hand hold screen.....	
30648	Resistor-470,000 ohms-1/2 watt (R10)		71126	Speednut-to hold screen (Pkg.5)....	
			33726	Washer-"C" washer for drive shaft (Pkg.5)...	

All prices and parts are subject to change or withdrawal without notice.

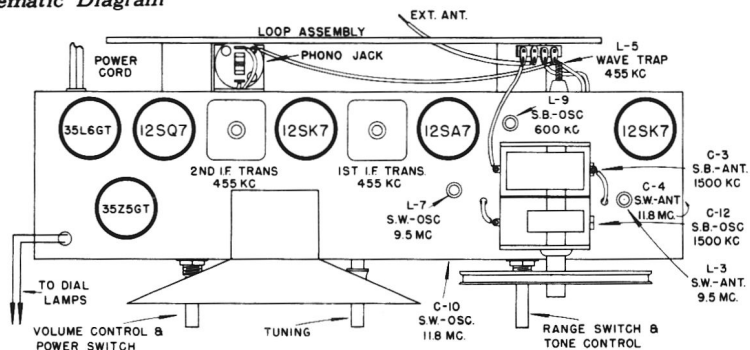
MASTER X



Schematic Diagram



Dial Cord Stringing



Chassis Layout and Alignment Adjustments

Critical Lead Dress

(Make Lead Dress Before Alignment)

1. Dress all filament and power leads down to chassis and as far as possible from all audio grid and plate wiring.
2. Dress power cord back and away from C-20 (1st audio coupling condenser).
3. Dress C-20 toward 12SQ7 socket and away from the switch.
4. Dress C-25 (output by-pass condenser) down to chassis.
5. Dress green lead from phono jack to volume control in air and away from output transformer.
6. Dress all leads and parts away from oscillator coils.
7. Dress C-8 (R.F. coupling condenser) back to chassis.
8. Dress pilot light leads (above chassis) toward dial support and away from the 35Z5 tube.

ALIGNMENT CHART

Order of Alignment		TEST OSCILLATOR				Range Selector	Receiver Dial Setting	Circuit to Adjust	Adjustment Symbols	Notes
		Connect "HI" Side To	Connect "LO" Side To	Dummy Antenna	Frequency Setting					
I. F.	1	12SA7 Conv. Grid	Common Gnd.	.1 Mfd.	455 Kc	Position No. 2	Hi. End	1st & 2nd I.F. Trans	L-10 & L-11 L-12 & L-13	Max. Output
Wave Trap	2	Ant Lead	Same	Same	Same	Same	Same	Wave Trap	↑L-5	Min. Output
S.B. Alignment	3	Same	Same	100 Mmf	1500 Kc	Same	1500 Kc	Ant & Osc.	C-3 C-12	Max. Output
	4	Same	Same	Same	600 Kc	Same	600 Kc	Osc. Coil	↑↑L-9	Max. Output
	5	Repeat Steps 3 & 4 until no further improvement is noted.								
S.W. Alignment	6	Ant Lead	Same	50 Mmf	11.8 Mc	Position No.3	11.8 Mc	Ant & Osc.	C-4 C-10	Max. Output
	7	Same	Same	50 Mmf	9.5 Mc	Same	9.5 Mc	Osc. Coil	L-7	Same
	8	Repeat Steps 6 & 7 until no further improvement is noted.								

↑ Core Position Closest to Rear Apron is Correct.

↑↑ Core Position Nearest Terminals is Correct.