



RCA Victor

DUO

Six-Tube, Two-Band, AC/DC or Battery operated Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL



Electrical and Mechanical Specifications

Frequency Range ----- 540-1600 K.C. & 5.8-18.5 M.C.
Intermediate Frequency ----- 455 K.C.

TUBE COMPLEMENT

(1) 1A7G ----- 1st Det.—Osc.
(2) 1N5G ----- I. F. Amplifier
(3) 1H5G ----- 2nd Det., A-F, and AVC.
(4) 3Q5GT ----- Battery Output
(5) 50L6GT ----- AC Output
(6) 35Z5GT ----- Rectifier

POWER SUPPLY

110 to 125 volts, AC 25 or 60 cycles, or DC. ----- 30 watts

BATTERIES REQUIRED

"A" one 1.4 volt dry plug-in type
"B" two 45 volt dry plug-in type

CURRENT CONSUMPTION (BATTERY)

"A"—0.25 Amps; "B" 10 m.a.

POWER OUTPUT

	A.C. OPER.	BATTERY OPER.
Undistorted -----	.75 watt	150 Milliwatts
Maximum -----	2.0 watt	300 Milliwatts

LOUDSPEAKER

Type ----- 5 inch "P.M." Dynamic
Voice Coil Impedance ----- 5 ohms at 400 cycles

	Height	Width	Depth
CABINET DIMENSIONS (INCHES) -----	10 1/8"	12 3/8"	5 1/8"
Weight (net) -----	14 1/2 pounds		
Tuning drive ratio -----	8 to 1		

General Description

The RCA Victor Duo is a six tube, two band AC/DC and battery operated portable receiver. Features of design include a Broadcast band loop antenna built into the cabinet front cover, and a built in Short wave loop with provision for the attachment of an outside antenna when desired. Low drain 1.4 volt tubes are used

throughout for battery operation. Substitution of the 3Q5GT tube for a 50L6GT and the addition of a 35Z5GT rectifier tube is accomplished when the power switch is turned to the AC position. A safety connector plug and socket incorporated as part of the rear cover disconnects the AC power whenever the cover is removed.

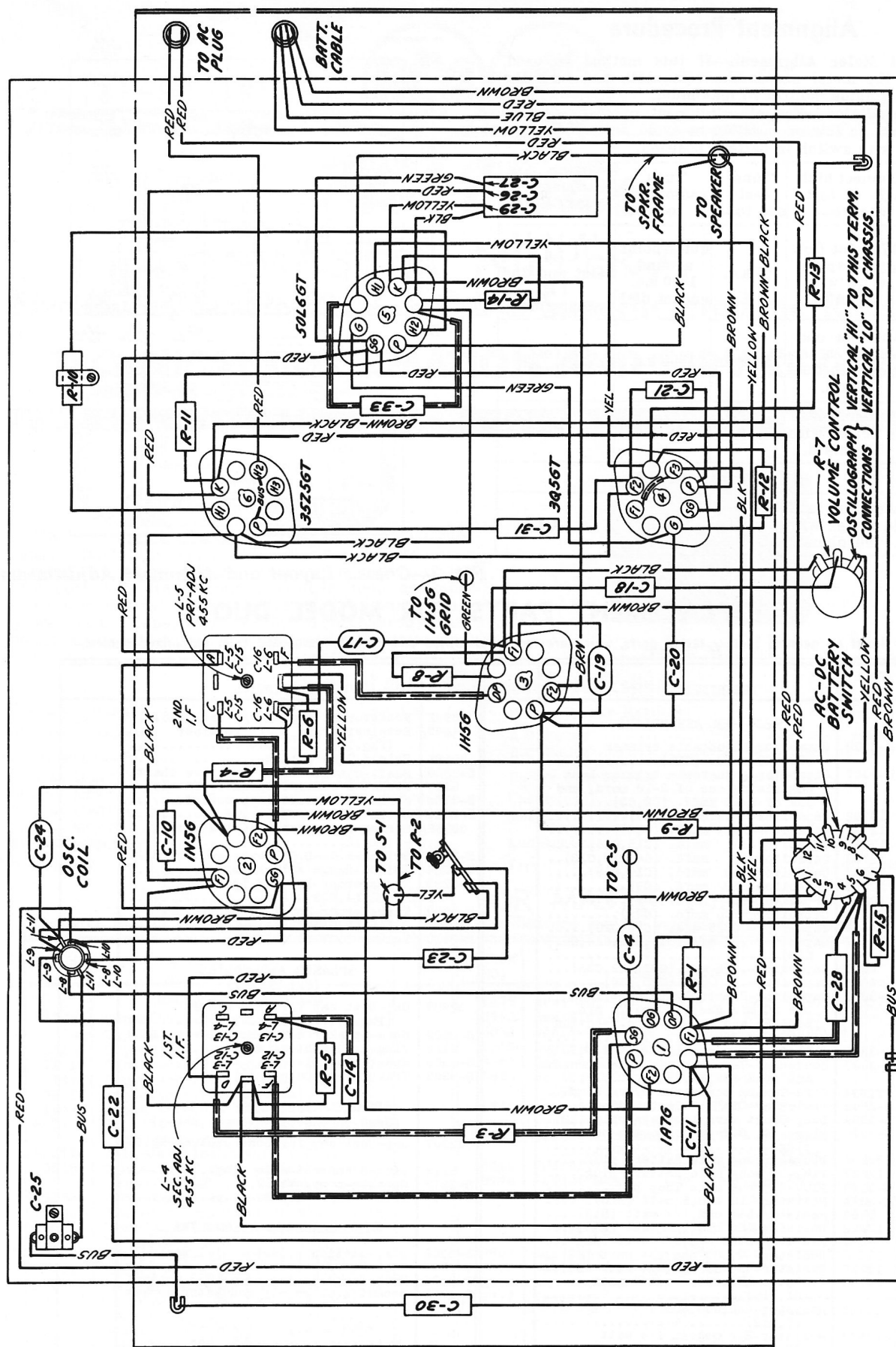


Fig. 2—Chassis Wiring Diagram

Alignment Procedure

Output Meter Alignment.—If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-oscillator.—For all alignment operations, keep the output as low as possible to avoid a-v-c action.

Align with switch in battery position.

Steps	Connect high side of test-osc. to—	Tune test osc. to—	Turn radio dial to—	Adjust for Max. Peak
1	1A7-G 1st Det. grid cap in series with .01 mfd.	455 k.c.	quiet point around 1500 k.c. end of dial	L3, L4, L5 L6 (1st and 2nd I.F. transformers)
2	Antenna connection in series with 200 mmfd.	1500 k.c.	1500 k.c.	C6 (osc.) C2 (ant.)
3	Antenna lead in series with 200 mmfd.	600 k.c.	600 k.c.	C25
4	Repeat Step 2			
5	Antenna lead in series with 300 ohms	15.2 m.c.	15.2 m.c.	C3

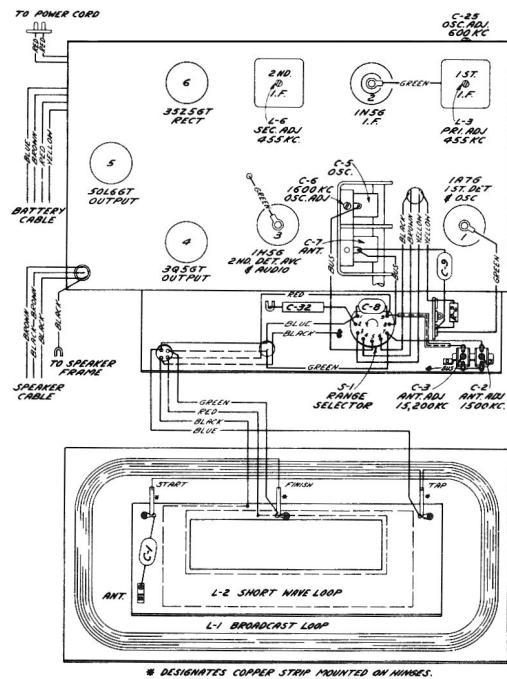


Fig. 3—Chassis Layout and Alignment Adjustments

REPLACEMENT PARTS FOR MODEL DUO

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

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
RECEIVER ASSEMBLIES			
S-3302	Capacitor-Adjustable trimmer 300-800 mmfd. (C25).....	30992	Resistor-10 megohm 1/4 watt (R8)...
S-3307	Capacitor-Adjustable trimmer bank comprising one of 2-10 mmfd. and one of 2-20 mmfd. (C2,C3).....	14887	Retainer-Drive shaft retainer (Pkg.10).....
14392	Capacitor- 4.7 mmfd. (C8).....	32595	Shield-Tube shield.....
12722	Capacitor-18. mmfd. (C24).....	S-2800	Shaft-Station selector drive shaft.
12948	Capacitor-33 mmfd. (C15,C16).....	5119	Socket-3 contact speaker (female)...
12723	Capacitor-56 mmfd. (C4,C12,C13)...	S-3180	Socket-4 contact loop socket.....
13003	Capacitor-180 mmfd. (C17,C19).....	S-2813	Socket-tube socket.....
12694	Capacitor-220 mmfd. (C9).....	30585	Spring-Drive cord tension spring (Pkg.2).....
12537	Capacitor-560 mmfd. (C1).....	S-3305	Switch-A.C.-D.C. power switch (S2).
31399	Capacitor-4700 mmfd. (C22).....	S-3304	Switch-Range switch (S1).....
34459	Capacitor-.0025 mfd. (C18,C20).....	S-3299	Transformer-1st I.F. Transformer (L3,L4,C12,C13).....
4937	Capacitor-.01 mfd. (C10,C11,C14,C21,C23).....	S-3300	Transformer-2nd I.F. Transformer (L5,L6,C15,C16).....
4870	Capacitor-.025 mfd. (C31,C32,C33)...	S-2816	Volume control (R7).....
4839	Capacitor-.1 mfd. (C28,C30).....	SPEAKER ASSEMBLIES	
S-3298	Capacitor-Electrolytic comprising one 30 mfd section, one 20 mfd. section, and one 150 mfd. section (C26,C27,C29).....	(CRL 525-2)	
S-3301	Coil-Oscillator coil (L8,L9,L10,L11)	32907	Cap-Dust cap for cone centre (Pkg.5).....
S-3303	Condenser-Variable tuning condenser and drum (C5,C6,C7).....	S-2802	Cone-Speaker cone and voice coil (L7)
*32634	Cord-Tuning condenser drive cord...	5118	Plug-3 contact male plug.....
S-2798	Indicator-Dial indicator disc.....	S-3308	Speaker complete.....
S-3369	Loop-Short wave loop assembly (L2).	S-3309	Transformer-Output (T1).....
S-3370	Plug-A.C. Safety connector male plug.....	SPEAKER ASSEMBLIES-CRL500-5	
32208	Plug-2 prong male battery plug.....	(Used on chassis stamped, Sub-1)	
12827	Plug-3 prong male battery plug.....	32907	Cap-Dust cap for cone centre (Pkg.5)
S-3179	Plug-4 prong male loop plug.....	5118	Plug-3 contact male plug.....
S-3371	Resistor-215 ohm, 5 watt (R10).....	S-3373	Speaker-complete.....
5164	Resistor-560 ohm, 1/4 watt (R13)...	S-3374	Transformer-Output.....
12262	Resistor-680 ohm, 1/4 watt (R14)...	MISCELLANEOUS ASSEMBLIES	
30694	Resistor-3900 ohm, 1/2 watt (R11)...	S-3306	Dial-Station selector dial scale...
12412	Resistor-47,000 ohm, 1/4 watt (R6)...	S-2807	Knob-Power switch.....
12286	Resistor-56,000 ohm, 1/4 watt (R3)...	S-2806	Knob-Range tuning or volume control
14560	Resistor-100,000 ohm, 1/4 watt (R1,R15).....	S-3372	Socket-A.C. Safety connector socket
12413	Resistor-680,000 ohm, 1/4 watt (R9,R12).....	* - Universal type approx. 50" long.	
12679	Resistor-2.2 megohm 1/4 watt (R2,R5).....		
11668	Resistor-5.6 megohm 1/4 watt (R4)...		