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with CIRCUITRACE[®]

COLUMBIA MODELS
600BX, 600G

Met dank aan Jef Bos

d. Ver. v. Historie v/d Radio

ARCHIEF
DOCUMENTATIEDIENST
NVHR



TRADE NAME	Columbia Models 600BX, 600G		
MANUFACTURER	Columbia Phonographs, Dept. of CBS Electronics, 405 Park Ave., New York, N. Y.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	10MA @ 9 Volts DC (No Signal, Min. Volume)
TUNING RANGE—BROADCAST	535 — 1650KC		15MA @ 9 Volts DC (Signal, Normal Volume)

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading.

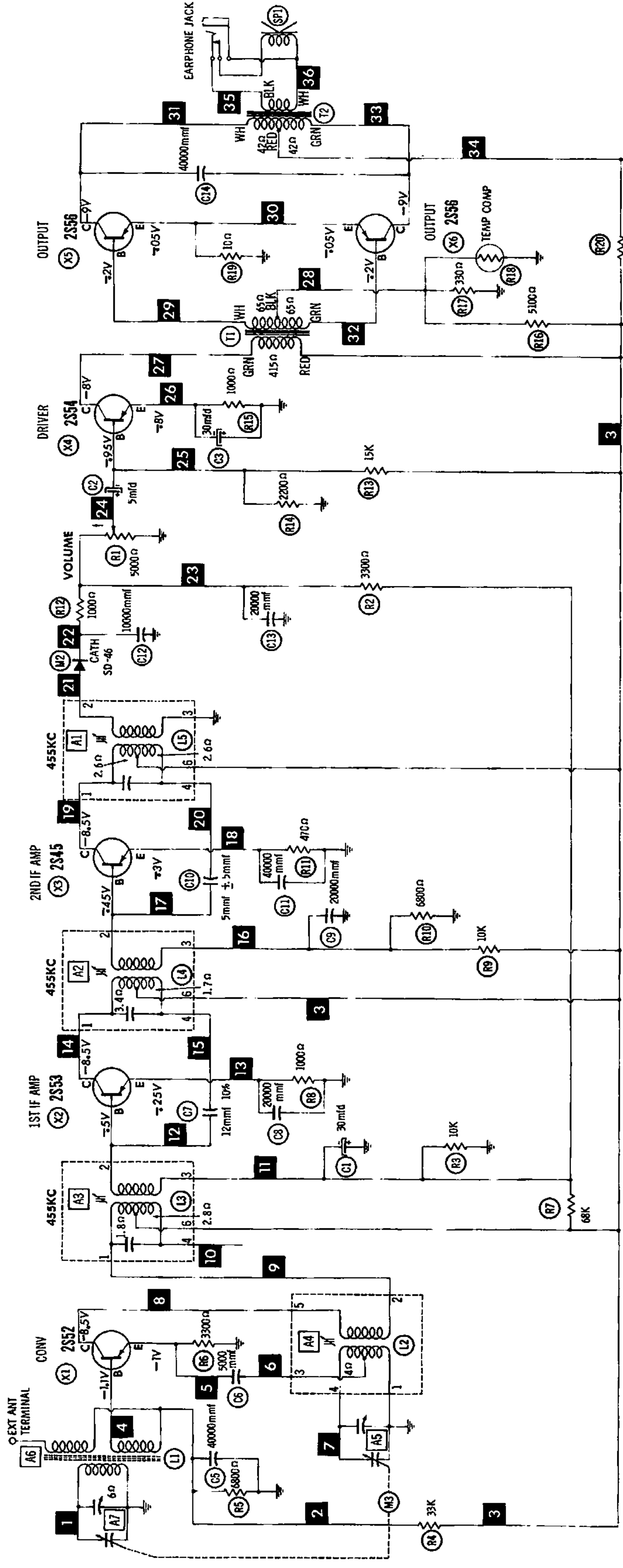
Suggested Alignment Tools: A1, A2, A3, A4... GENERAL CEMENT #8607, 9291, 9294
 WALSCO #2520, 2522, 2523, 2524, 2534, 2537
 A5, A7... GENERAL CEMENT #5000, 5003, 5066, 8271, 8272, 8276, 8277, 8290, 8609,
 8722, 9150, 9298
 WALSCO #2515, 2516, 2518, 2519, 2525, 2541

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	High side to antenna jack. Low side to B-.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2, A3	Adjust for maximum output.
2.	Loop	535KC	Tuning gang fully closed.	"	A4	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1650KC	Tuning gang fully open.	"	A5	Adjust for maximum output. Repeat Steps 2 and 3.
4.	"	600KC	600KC Signal.	"	A6	Adjust for maximum output.
5.	"	1400KC	1400KC Signal.	"	A7	Adjust for maximum output. Repeat Steps 4 and 5.

HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

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NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

A PHOTOFACT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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1. DC voltage measurements taken with vacuum tube voltmeter.
 2. Socket connections or transistor terminals are shown as bottom views.
 3. Measured values are from socket pin or terminal to common ground.
 4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
 5. Volume control at maximum, no signal applied for voltage measurements.

COLLECTOR
 EMITTER—BASE

TERMINAL VIEW TRANSISTOR
 1 2
 4 3

TERMINAL VIEW TRANSISTOR
 1 2
 3 4 5 6

RESISTANCE MEASUREMENTS NOT GIVEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.

**COLUMBIA MODELS
 600BX, 600G**

PARTS LIST AND DESCRIPTIONS

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2S52	Converter	2N412	2N486	2N412	PNP PNP PNP PNP PNP } Matched PNP } Pair
X2	2S53	1st IF Amp.	2N410	2N483	2N410	
X3	2S45	2nd IF Amp.	2N410	2N483	2N410	
X4	2S54	Driver	2N408	2N362	2N408	
X5	2S58	Output	2N408	2N632	2N408	
X6	2S56	Output	2N408	2N632	2N408	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	CAP.	VOLT.	COLUMBIA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	30	3			NLW25-3		ML25-3	
C2	5	3		XPP-3005	NLW5-6	TT6X5	ML5-6	
C3	30	3			NLW25-3		ML25-3	
C4	20	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	REMARKS	REPLACEMENT DATA					SPRAGUE PART No.
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	
C5	40000							TG-S50
C6	5000		C80V502AM	DDM-502	H-05D5	CCD-502	TA-250	10TS-Q12
C7	12 10%		DI-12	DD-150	L10Q12	CCD-120	GP412	TG-S20
C8	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C9	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C10	5 + .5mmf		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C11	40000							
C12	10000		C80V103AM	DDM-103	H-05S1	CCD-103	TA-110	TG-S10
C13	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20
C14	40000							

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	RESISTANCE	WATTS	COLUMBIA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.		MALLORY PART No.
R1	5000Ω	1/4	9H646	B16-214				Volume & Switch

RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	3300Ω		R9	10K		R16	5100Ω	#16H451
R3	10K		R10	6800Ω		R17	330Ω	
R4	33K		R11	470Ω		R18	Temp. Comp.	
R5	6800Ω		R12	1000Ω		R19	10Ω	
R6	3300Ω		R13	15K		R20	220Ω	
R7	68K		R14	2200Ω				
R8	1000Ω		R15	1000Ω				

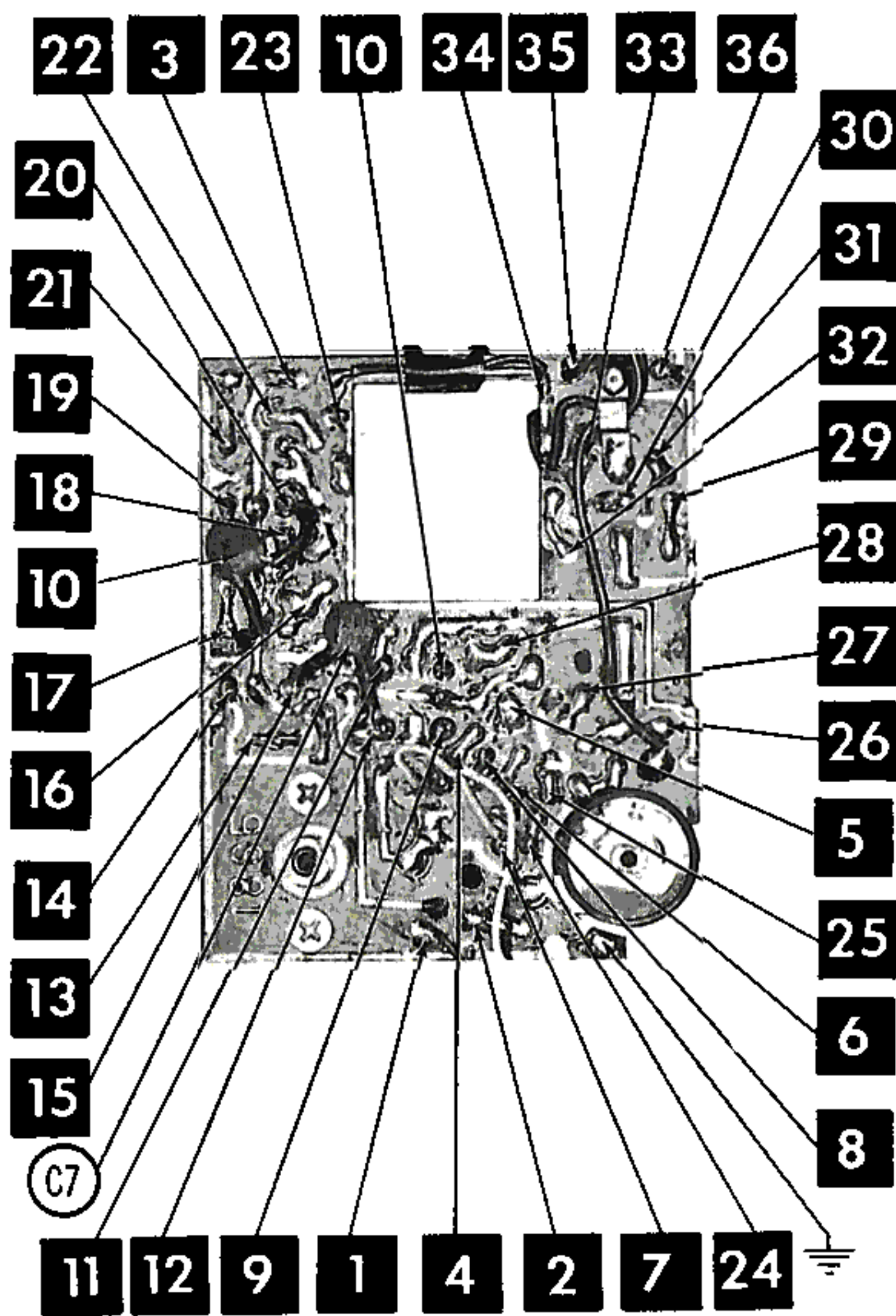
Columbia Part Number.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			NOTES
		COLUMBIA PART No.	Merit PART No.	Miller PART No.	
L1	Loopstick	20H366			
L2	Osc. Coil	20H364			
L3	1st IF Trans.	20H367			
L4	2nd IF Trans.	20H368			
L5	3rd IF Trans.	20H369			

PRINTED BOARD

A Howard W. Burt CIRCUITRY Photo



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			COLUMBIA PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
	PRI.	SEC.						
T1	1.3	1	20H370					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			COLUMBIA PART No.	Merit PART No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	
	PRI.	SEC.						
T2	1000Ω CT	8-10Ω	3H256					

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				COLUMBIA PART No.	QUAM PART No.	
	SIZE	FIELD	V. C. IMP.			
SP1	2 1/4"	PM	8-10Ω	1H161	22A06Z10	

BATTERIES

ITEM No.	VOLTAGE	COLUMBIA PART No.	REPLACEMENT DATA						NOTES
			BURGESS		EVEREADY		MALLORY		
			"A"	"B"	"A"	"B"	"A"	"B"	
M1	9V	BL-006P		2U6		2I6		M-1604	

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		COLUMBIA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2	SD-46	1N60	1N60	1N60	Detector (Plgtail)

MISCELLANEOUS

ITEM No.	PART NAME	COLUMBIA PART No.	NOTES
M3	Tuning Cap. Printed Board Earphone	14H114 1865 19H710	2 Gang

CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	8H526	Tuning
Knob	8H527	Volume
Cabinet	17H891	Green
Cabinet	17H892	Black

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors

CHASSIS—TOP VIEW

