

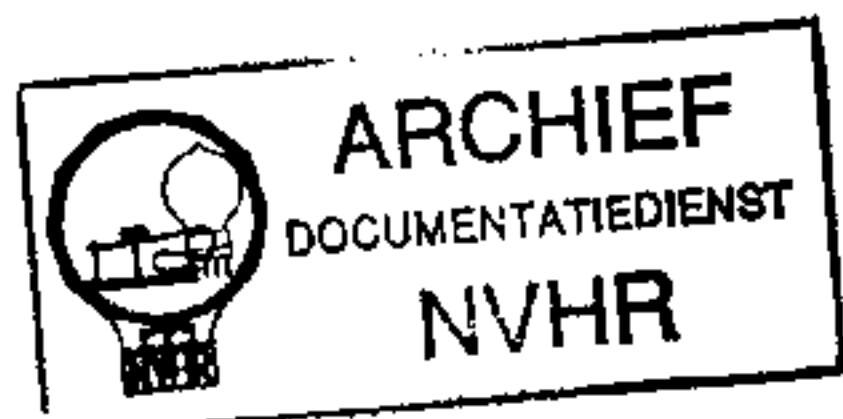
PHOTOFACT® Folder

with CIRCUITRACE®

CHANNEL MASTER  
MODELS 6503, 6504

Met dank aan Jef Bos

Ned. Ver. v. Historie v/d Radio



TRADE NAME	Channel Master Models 6503, 6504		
IMPORTER	Channel Master Corp., Ellenville, N. Y.		
TYPE SET	Battery Operated Transistorized Portable AM Receiver		
POWER SUPPLY	9 Volts DC	RATING	6MA@9 Volts DC (No Signal, Min. Volume)
TUNING RANGE-BROADCAST	530 - 1650KC		8MA@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.

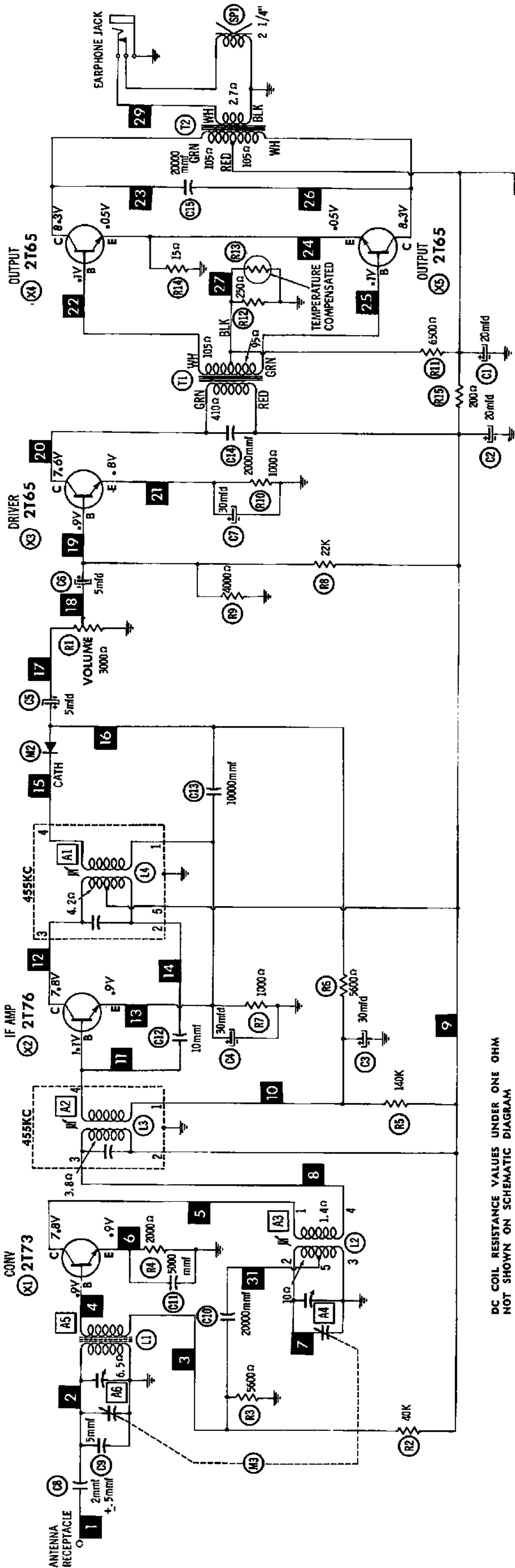
Suggested alignment tools: A4, A6..... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	High side thru .1mfd to antenna stator lug of tuning gang. Low side to chassis.	455KC (400% Mod.)	Tuning gang fully open.	Across voice coil.	A1, A2	Adjust for maximum output.
2.	Loop	530KC	Tuning gang fully closed.	"	A3	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1650KC	Tuning gang fully open.	"	A4	Adjust for maximum output. Repeat Steps 2 and 3.
4.	"	600KC	Tune to 600KC signal.	"	A5	Adjust for maximum output.
5.	"	1400KC	Tune to 1400KC signal.	"	A6	Adjust for maximum output. Repeat Steps 4 and 5.

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

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of JF718

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1960 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America



DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM

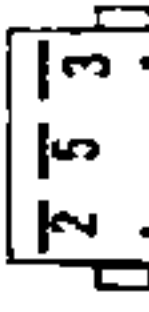
NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.

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

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**

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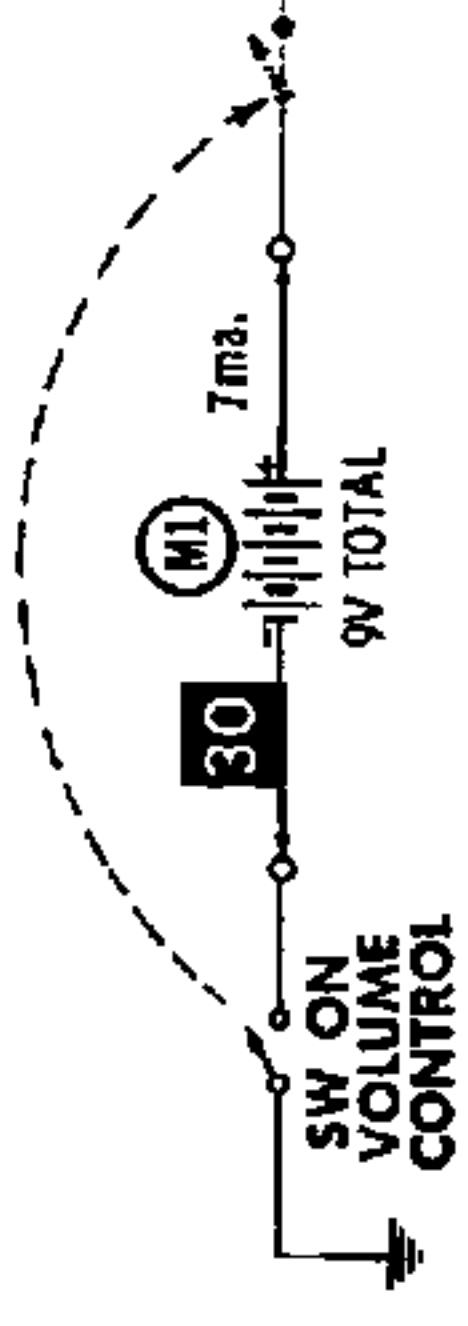
COLOR DOT  
COLLECTOR  
EMITTER  
BASE



L2 THRU L4  
TERMINAL GUIDE

TRANSISTOR TERM.  
GUIDE

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



**CHANNEL MASTER**  
**MODELS 6503, 6504**

# PARTS LIST AND DESCRIPTIONS

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA				NOTES
			CBS PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2T78	Converter IF Amp. Driver Output Output			2N1366 2N1367	2N212	NPN NPN NPN NPN } Matched NPN } Pair
X2	2T78						
X3	2T65		2N438	2N649		2N214	
X4	2T65		2N438	2N649		2N213	
X5	2T65		2N438	2N649		2N213	

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		Channel Master PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.	NOTES
	CAP.	VOLT.							
C1	20	9	A011		ECPA210			TE-1130	
C2	20	9	A011		ECPA210			TE-1130	
C3	30	6	A009		ECPA112			TE-1130	
C4	30	6	A009		ECPA112			TE-1130	
C5	5	6	A010	XPP-6005	NLW5-6	TT6X5	ML5-6	TE-1084	
C6	5	6	A010	XPP-6005	NLW5-6	TT6X5	ML5-6	TE-1084	
C7	30	6	A009		ECPA112			TE-1130	

## 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					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C8	2 + .5mmf		NPO-DI 2.2	DTZ-2R2	C10V2C	CCTO-2R2	CNO-522	10TCC-V22
C9	5		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C10	20000		C80V209AM	DDM-203	H-05S2		TA-120	TG-S20
C11	5000		BPD-006	DDM-602	H-05D6	CCD-502	TA-250	TG-D50
C12	10		NPO-DI 10	DTZ-10	C10QC	CCTO-100	CNO-410	10TCC-Q10
C13	10000		C80V103AM	DDM-103	H-05B1		TA-110	TG-S10
C14	2000		BPD-002	DM-202	BYA10D2	CCD-202	GP220	5HK-D20
C15	20000		C80V203AM	DDM-203	H-05S2		TA-120	TG-S20

## CONTROLS

ITEM No.	RATING		Channel Master PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
	RESISTANCE	WATTS						
R1	3000Ω	1/4	E-006	B18-212				Volume & Switch

## RESISTORS

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R2	40K		R7	1000Ω		R12	250Ω	#F138
R3	5600Ω		R8	22K		R13	Temp. Comp.	
R4	2000Ω		R9	4000Ω		R14	15Ω	
R5	140K		R10	1000Ω		R15	200Ω	
R6	5600Ω		R11	6500Ω				

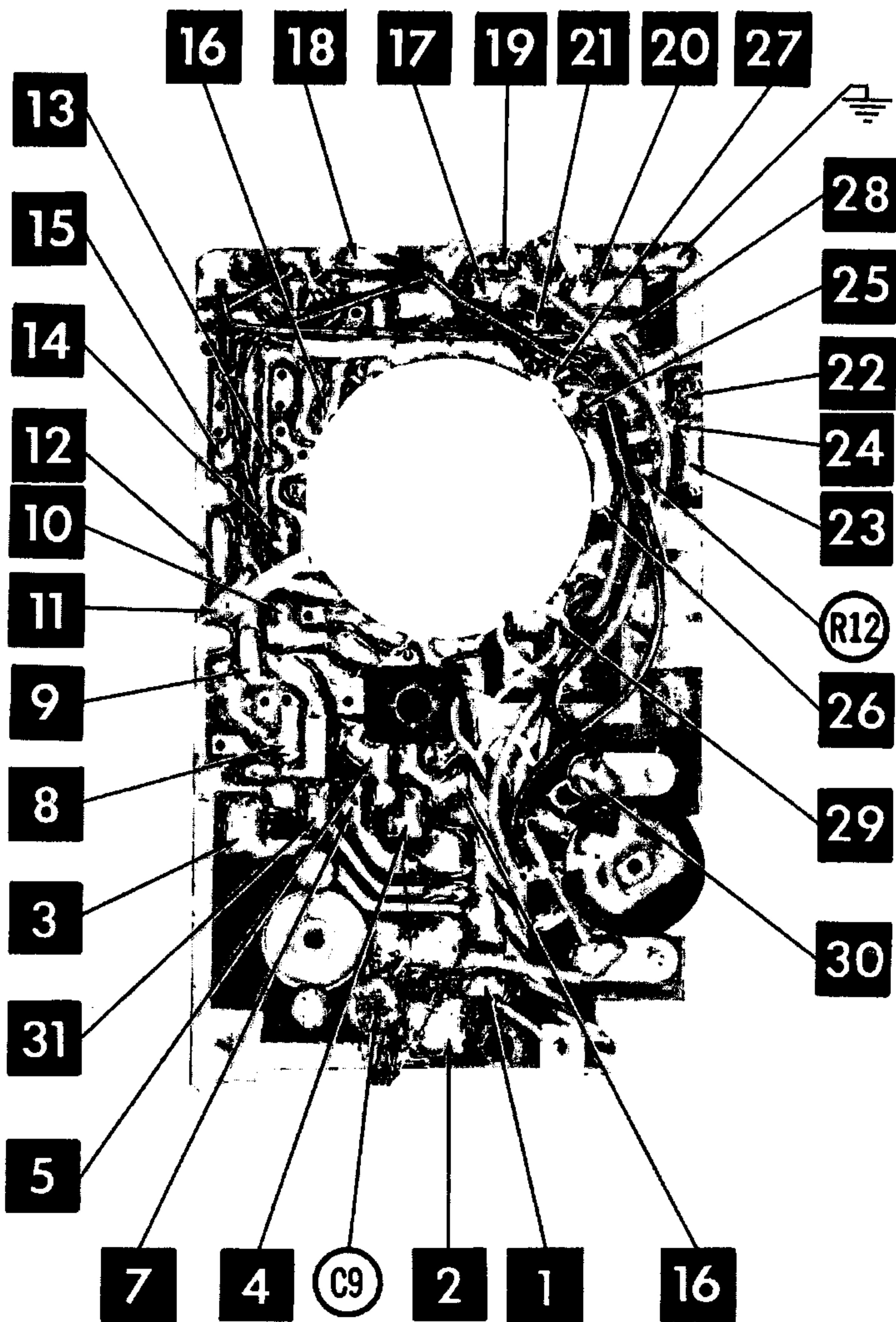
# Channel Master Part Number.

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		Channel Master PART No.	Gramer PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	Ram PART No.	
L1	Loopstick	E005						
L2	Osc. Coil	F135						
L3	1st IF Trans.	C001						
L4	2nd IF Trans.	C002						

# PRINTED BOARD

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# PARTS LIST AND DESCRIPTIONS (Continued)

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			Channel Master	Halldorson	Merit	Stancor	Thordarson	
	PRI.	SEC.	PART No.	PART No.	PART No.	PART No.	PART No.	
T1	.8	1	C003	TR-39			TR-39	

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
			Channel Master	Halldorson	Merit	Ram	Stancor	Thordarson	
	PRI.	SEC.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	
T2	570Ω	6-8Ω	C004	TR-50				TR-50	

## SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
				Channel Master	QUAM	
	SIZE	FIELD	V. C. IMP.	PART No.	PART No.	
SP1	2 1/4"	PM	6-8Ω	G091	22A06Z8	

## BATTERIES

ITEM No.	VOLTAGE	Channel Master PART No.	REPLACEMENT DATA				NOTES		
			BURGESS		EVEREADY			MALLORY	
			"A"	"B"	"A"	"B"		"A"	"B"
M1	9V			2U6		216		M-1604	

## CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		Channel Master PART No.	CBS PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M2		F137	1N60	1N60	1N60	Detector (Pigtail)

## MISCELLANEOUS

ITEM No.	PART NAME	Channel Master PART No.	NOTES
M3	Tuning Cap. Earphone	A001 E002	2 Gang

## CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	F002	Tuning
Knob	F003	Volume
Cabinet	G003	Black
Cabinet	G004	Red
Case	F061	Leather, With Strap (Model 6503)

## 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**

