VOL. 7

AUTO RADIO MANUAL

service data on 56 models produced in 1956-57

AR 7

A Howard W. Sams PHOTOFACT PUBLICATION

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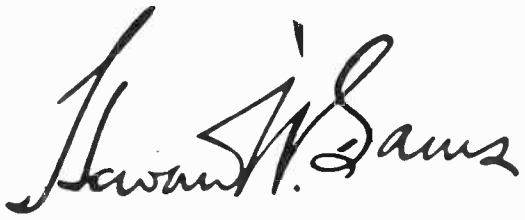

AUTO RADIO MANUAL

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A specialized volume of PHOTOFACT Folders

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A Howard W. Sams PHOTOFACT PUBLICATION

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PREFACE

This is the seventh volume in a continuing series containing the analysis and servicing requirements of radio receivers used in automobiles. The volume covers 1956 and 1957 models. Approximately ninety percent of these automobiles are equipped with radio — thus over nine million of the receivers covered herein are in daily use and will in time require service.

Another new series of books, AUTO RADIO REMOVAL MANUALS, a volume for each year of production beginning in 1955, are designed to save your time and simplify your work. We urge you to use them.

Precise, accurate, time-saving, and profitable servicing is the true objective of all Sams publications, including the popular PHOTOFACT coverage of Television — Record Changers — Recorders — Hi Fi and other electronic equipment.

Your constructive comments, criticisms and suggestions are solicited and will be welcomed.

Howard W. Sams

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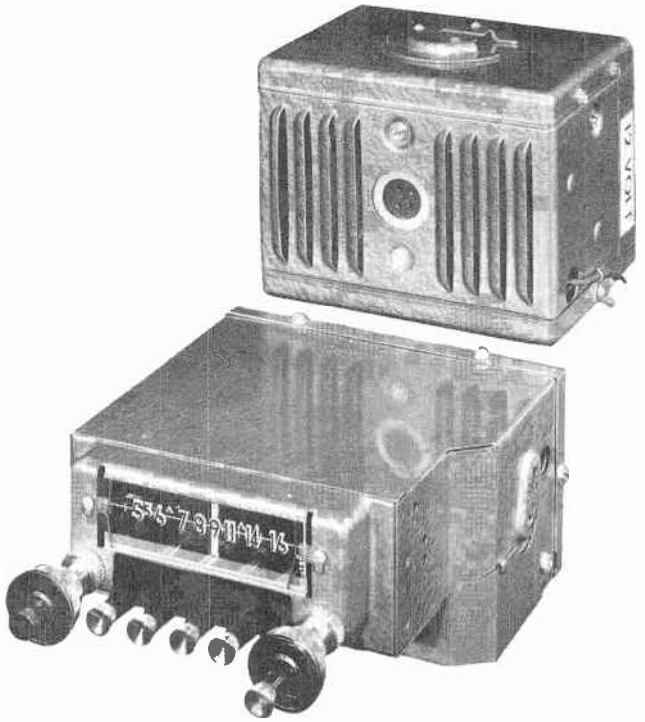


TRADE NAME	Allstate Models 5028 (Ch. 528.50280, 528.50281), 5033 (Ch. 528.50330, 528.50331)
SUPPLIER	Sears, Roebuck & Co., 925 S. Homan, Chicago, Ill.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver
TUBES (Six)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12CR6 Det.-AVC-AF Amp., 12AQ5 Output, 12X4 Rectifier (Equivalent 6 Volt Type Tubes Used in Model 5028)
POWER SUPPLY	12 Volt Storage Battery (Model 5033) RATING 3 Amp. @ 12.6 Volts DC (Model 5033) 6 Volt Storage Battery (Model 5028) 6 Amp. @ 6.3 Volts DC (Model 5028)
TUNING RANGE—BROADCAST	535 - 1605KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod)	High frequency end of dial	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	High side thru dummy to antenna receptacle. Low side to chassis.	1610KC	"	"	A5	"
3	"	"	1400KC	Tune to 1400KC signal	"	A6, A7	"

PUSHBUTTON ADJUSTMENT

1. Turn pushbutton approximately one full turn counter clockwise.
2. Tune manually to desired station.
3. Press pushbutton in firmly and turn clockwise to lock in position.
4. Repeat procedure on remaining pushbuttons.

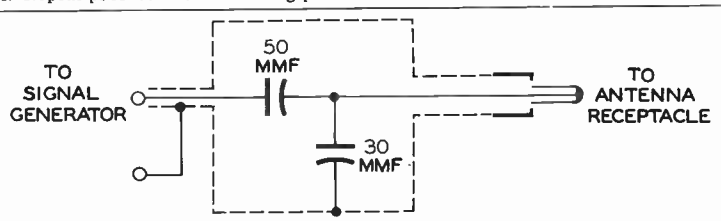
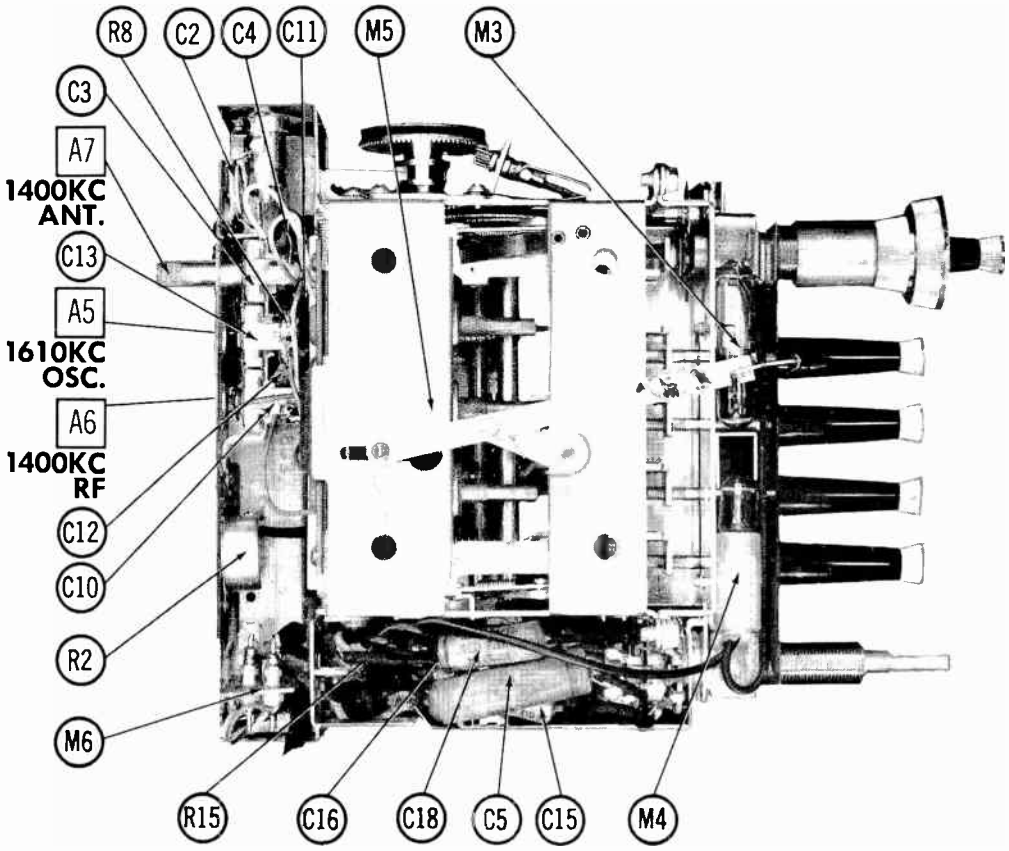
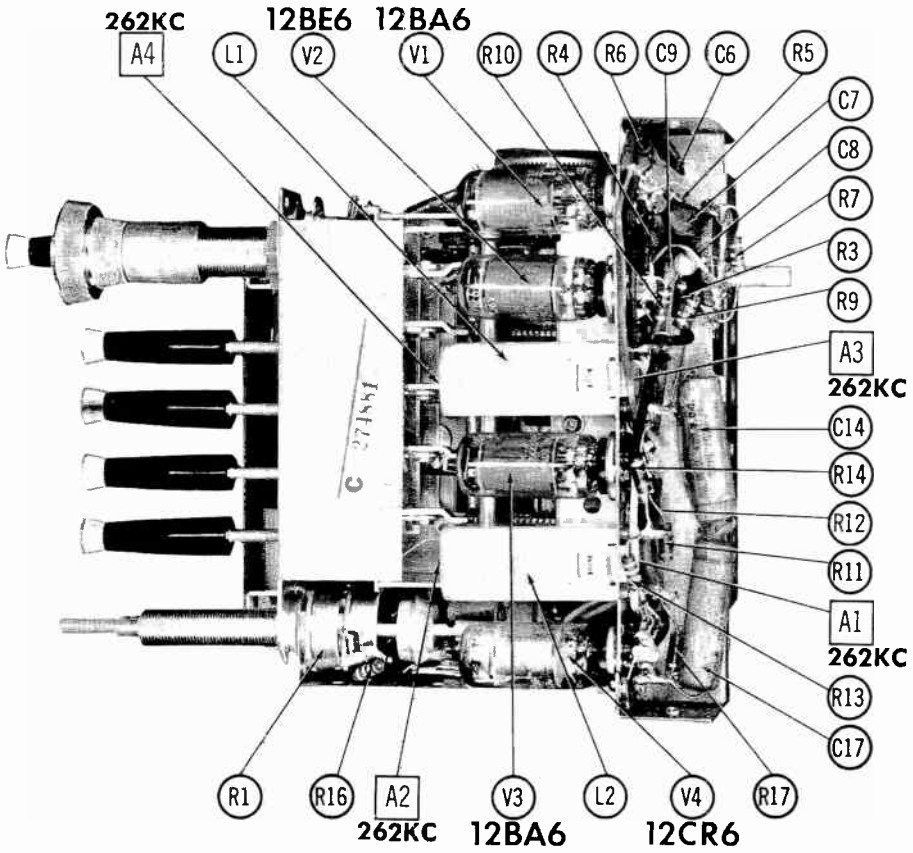


FIG. 1

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



TUNER CHASSIS-TOP VIEW



TUNER CHASSIS-BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	Note 1
V2	Converter	12BE6	Note 1
V3	IF Amplifier	12BA6	Note 1
V4	Det. -AVC-AF Amp.	12CR6	Note 1
V5	Output	12AQ5	Note 1
V6	Rectifier	12X4	Note 1

Note 1. Equivalent 6 volt type tubes used in chassis 528. 50280 & 528. 5028l

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ALLSTATE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲35	400	T18-8-3	AFH3-132	D0550	FP365.7	TMQ-85	Q-307	TVL-4714
B	■25	350							
C	20	25							

FIXED CAPACITORS

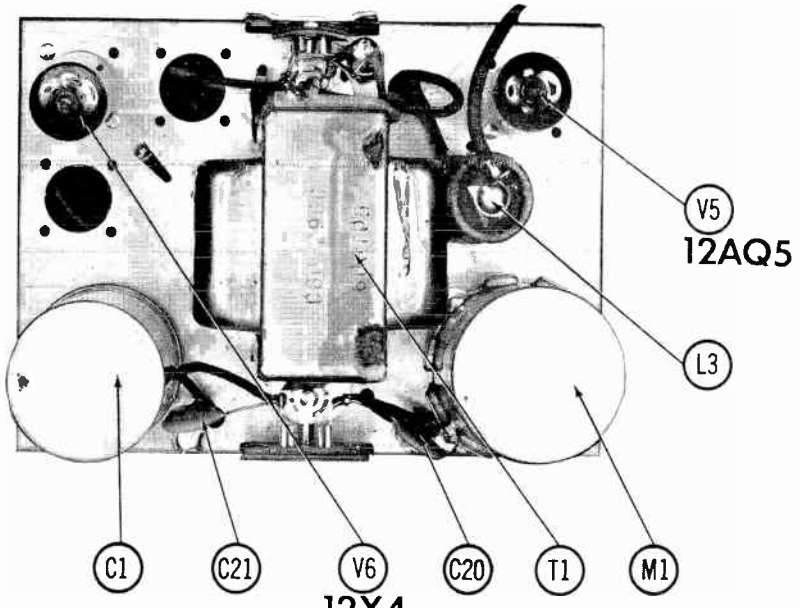
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	ALLSTATE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	90		T19-1-1							
C3	15-160		T19-175-0							
C4	150	500	T17-15119	1469-00015	D6-151	22R5T15	ED-150	MCB236	MS-315	10%
C5	. 05	400	T16-50343	BPD-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C6	10000		T15-10317	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C7	47		T15-47016	BPD-000047	DD-470	L10Q47	ED-47	UC-5447	5GA-Q47	
C8	220		T15-22111		D6-221	L10T22	ED-220			10%
C9	10		T15-10011		D6-100	L10Q1	ED-10		5TCC-Q1	10%
C10	18-140		T19-177-0							
C11	47		T15-47016	BPD-000047	DD-470	L10Q47	ED-47	UC-5447	5GA-Q47	
C12	390	500	T17-39119	1469-00039	D6-391	5R5T39	ED-390		MS-339	10%
C13	125-250		T19-178-0							
C14	. 05	400	T16-50343	BPD-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C15	. 01	400	T16-10343	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C16	. 01	400	T16-10343	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C17	. 05	400	T16-50343	BPD-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C18	. 002	400	T16-20243	BPD-002	D6-202	CUB6D2	GP-2000	GEM-622	6TM-D2	
C19	. 02	600	T16-20353	BPD-02	DF-203	CUB6S2	ED-02	GEM-612	6TM-S2	
C20	5000		T15-50217	BPD-005	DD-502	BYA10D5	ED-005	DC525	5HK-D5	
C21	5000		T15-50217	BPD-005	DD-502	BYA10D5	ED-005	DC525	5HK-D5	
C22	. 2	400	T16-20443							
C23	5000		T15-50217	BPD-005	DD-502	BYA10D5	ED-005	DC525	5HK-D5	
C24	. 5	100	T20-8-1	P288N-5		CUB2P5		GEM-205	2TM-P5	
C25	. 5	100	T20-8-1	P288N-5		CUB2P5		GEM-205	2TM-P5	①
C26	. 0056	1600	T16-56278							②
C27	. 5	100	T20-8-1	P288N-5		CUB2P5		GEM-205	2TM-P5	

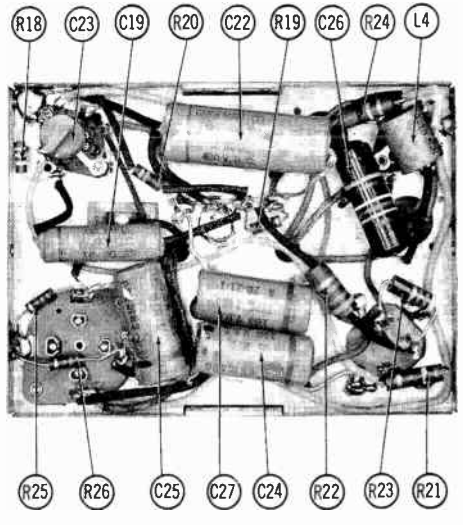
① Not used in chassis 528. 50280 & 528. 5028l.
② Chassis 528. 50280 & 528. 5028l use . 0068MFD in this application (Part #T20-18-1).

CONTROLS

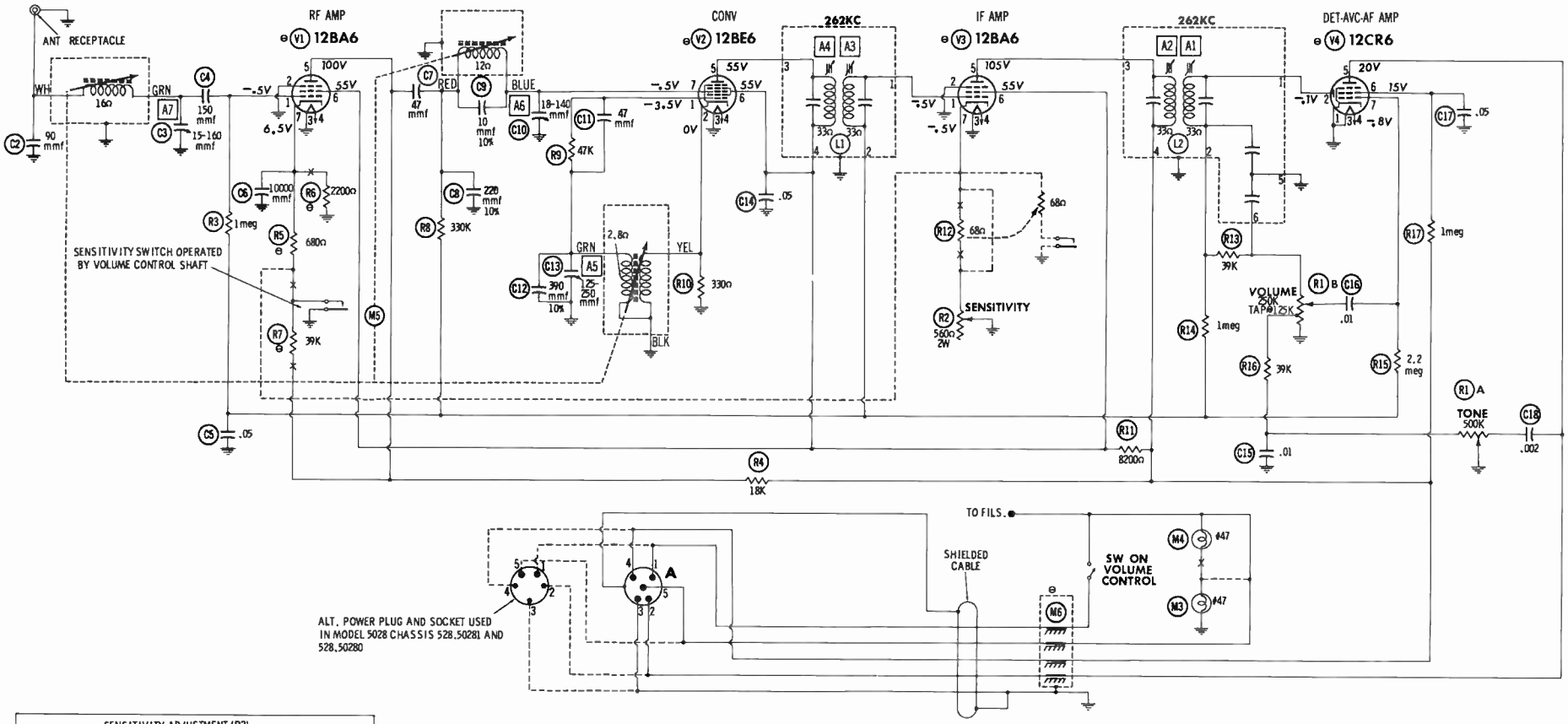
ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	ALLSTATE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	½	T24-249					Tone
B	250K	½						Volume, Tap ⓐ 125K
C	Switch							
R2	560Ω	2	T61-50		39-600		FL-600	Sensitivity (Wire Wound)



POWER CHASSIS TOP VIEW



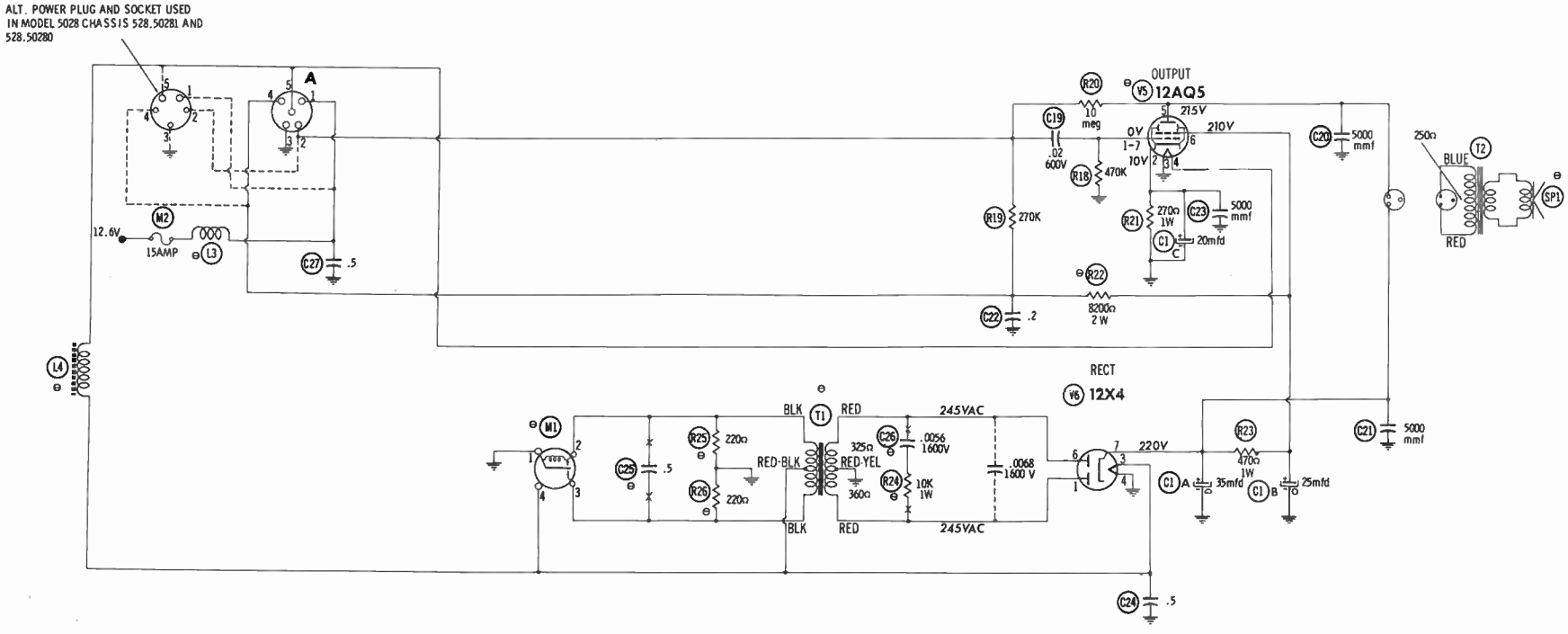
POWER CHASSIS BOTTOM VIEW



SENSITIVITY ADJUSTMENT (R2)

Connect a signal generator to the antenna input.
Connect an output meter across the speaker voice coil.
Push the "Sensitivity-Volume" control shaft in.
Turn volume control to maximum. Adjust the signal generator output for a reading of 1.8 volts on the output meter.
Pull the "Sensitivity-Volume" control shaft out and adjust the signal generator output until it is 10 times greater than the original signal.
Adjust the Sensitivity control for a reading of 1.8 volts on the meter.

Main Chassis



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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BA6	2.3Meg	0Ω	0Ω	1.4Ω	† 26K	† 16K	2200Ω
V2	12BE6	47K	.7Ω	0Ω	1.4Ω	† 16K	† 16K	1.6Meg
V3	12BA6	1.5Meg	0Ω	0Ω	1.4Ω	† 8200Ω	† 16K	● 75Ω
V4	12CR6	0Ω	280K	0Ω	1.4Ω	† 280K	† 1Meg	3.5Meg
V5	12AQ5	470K	270Ω	0Ω	1.4Ω	† 250Ω	† 470Ω	470K
V6	12X4	360Ω	TP	1.4Ω	0Ω	TP	325Ω	20K(Min)

† MEASURED FROM PIN 7 OF V6
● CONTROL SET FOR NORMAL OPERATION
TP TIE POINT

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	ALLSTATE PART No.	IRC PART No.	
R3	1Meg		S60-10501	BTS-1Meg	
R4	18K		S60-18301	BTS-18K	
R5	680Ω		S60-68101	BTS-680	Note 3
R6	2200Ω		S60-22201	BTS-2200	Note 4
R7	39K		S60-39301	BTS-39K	Note 4
R8	330K		S60-33401	BTS-330K	
R9	47K		S60-47301	BTS-47K	
R10	330Ω		S60-33101	BTS-330	
R11	8200Ω		S60-82201	BTS-8200	
R12	68Ω		S60-68001	BTS-68	
R13	39K		S60-39301	BTS-39K	
R14	1Meg		S60-10501	BTS-1Meg	
R15	2.2Meg		S60-22501	BTS-2.2Meg	
R16	39K		S60-39301	BTS-39K	
R17	1Meg		S60-10501	BTS-1Meg	
R18	470K		S60-47402	BTS-470K	
R19	270K		S60-27401	BTS-270K	
R20	10Meg		S60-10601	BTS-10Meg	
R21	270Ω	1	S60-27111	BTA-270	
R22	8200Ω	2	S60-82221	BTB-8200	Note 5
R23	470Ω	1	S60-47111	BTA-470	
R24	10K	1	S60-10311	BTA-10K	Note 1
R25	220Ω		S60-22101	BTS-220	Note 2
R26	220Ω		S60-22101	BTS-220	Note 2

Note 1. Not used in chassis 528.50280, 528.50281.
Note 2. Chassis 528.50280, 528.50281 use a 100Ω (Part #S60-10101).
Note 3. Chassis 528.50330, 528.50280 use a 560Ω (Part #S60-56101).
Note 4. Not used in chassis 528.50280, 528.50330.
Note 5. Chassis 528.50280, 528.50330 use 10K, 1W (Part #S60-10311).

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triod PART No.
T1	12.6VCT @ 1.6A	500VCT @ .050A			T80-296 ①	V3902 ③	P-2860	P-6494 ③	22R79	V-31 ③
	6.3VCT @ 2.75A	424VCT @ .040A			T80-258 ②	V3801	P-2970	P-6301	22R61	V-23Z

① Used in chassis 528.50330, 528.50331
② Used in chassis 528.50280, 528.50281
③ Use original shields.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T2	4800Ω	3-4Ω	T80-251	Z1002	A-3019	A-3823	26S49	S-5Z	

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	ALLSTATE PART No.	QUAM PART No.	
SP1	7"	PM	3-4Ω	T79-410 ①	7A21	① Replace with same type as original.
	6" X 9"	PM	3-4Ω	T79-409 ①	69A3	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		ALLSTATE PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Input IF	T10-47-2				
L2	Output IF	T10-48-2				
L3	"A" Lead Choke	T33-234 ①				9 Microhenries
L4	Hash Choke	T10-5-5 ②				12 Microhenries

① Chassis 528.50330 use Part #T33-229
② Chassis 528.50280 use Part #T33-239

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				ALLSTATE PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115v	T34-107 ①	6301	G1601/G859	6301	① Used in 12V versions
	Interrupter	6.3V	115v	T34-105 ②	5301	1601/859	5301	② Used in 6V versions

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ALLSTATE PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	7AG	15A	T43-27	T84-2754 (Includes "A" Lead)	303015. (7AG 15A)	155009	AGW 15	HRH

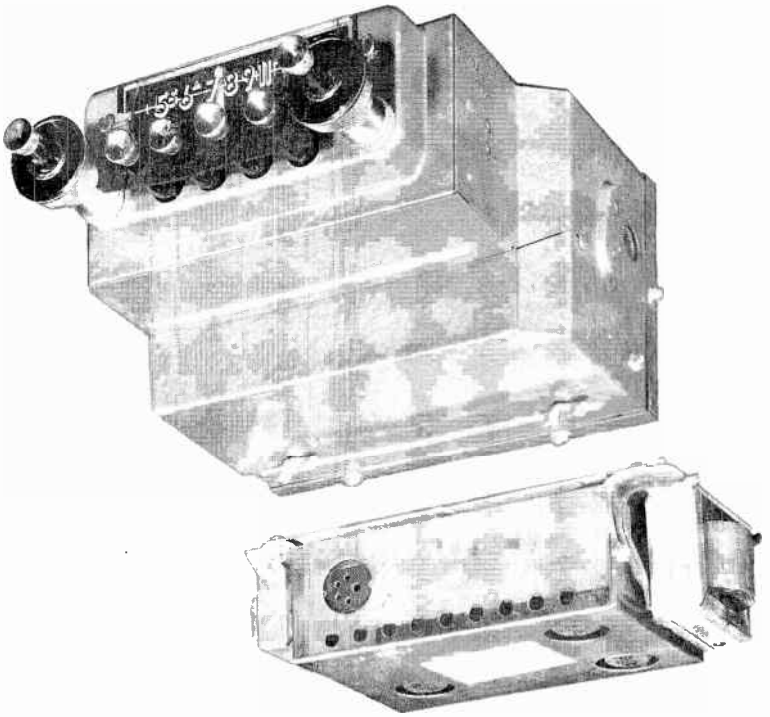
MISCELLANEOUS

ITEM No.	PART NAME	ALLSTATE PART No.	NOTES
M3	Dial Light	T89-7	#47
M4	Dial Light	T89-7	#47
M5	Tuner Ass'y.	T84-2215	
M6	Spark Plate	T84-2535	Includes Cable (Chassis 528.50330, 528.50331)
	Spark Plate	T84-2267	Includes Cable (Chassis 528.50280, 528.50281)

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	T52-656	Tuning (Manual)
Knob	T52-654	Tone
Knob	T52-690	On-Off-Volume, Local-Distant Switch
Dial	T67-613	Upright
Dial	T67-612	Inverted
Pointer	T58-119	



TRADE NAME	Allstate Models 6268 (Ch. 528.62680, 528.62681), 6269 (Ch. 528, 62690, 528.62691)
SUPPLIER	Sears Roebuck & Co., 925 S. Homan. Chicago, Ill.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver With Transistorized Output
TUBES (Four)	Types 12BL6 RF Amplifier, 12AD6 Converter, 12AF6 IF Amplifier, 12AE6 Det.-AVC-AF Amp.
POWER SUPPLY	12 Volt Storage Battery — RATING 1 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	535KC-1605KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12AD6 (V2) Low side to chassis	262KC (400%Mod.)	Extreme high freq. end of dial	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	Thru dummy to antenna receptacle	1610KC	"	"	A5	"
3	"	"	1400KC	Tune to 1400KC signal	"	A6, A7	"
4	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1 Release pushbutton by turning approximately 1 turn counter clockwise.
2 Tune manually to desired station.
3 Press pushbutton in firmly and carefully release.
4 Set pushbutton by turning (with fingers) clockwise.
5 Repeat above procedure on remaining pushbuttons.

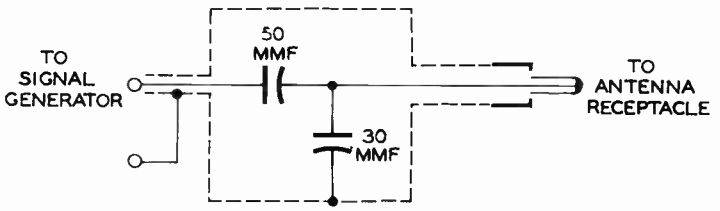


FIG. 1

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BL6	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	
V4	Det. -AVC-AF Amp.	12AE6	

TRANSISTORS

ITEM No.	USE	ALLSTATE PART NO.	NOTES
X1	Driver (2N176)	T83-1056	
X2	Output (2N176)	T83-1056	
X3	Output (2N176)	T83-1056	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ALLSTATE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	200	15	T16-37-5	PRS15V250	BR2501	TC1502	TD-250-15	MTH-1525	TVA-1161
C2	500	3	T18-47-5	PRS6V500	BR500-6	TC605	TD-500-6	MTH-0650	TVA-1103
C3	500	15	T18-36-5	PRS15V500	BR5001	TC1505	TD-500-15	MTH-1550	TVA-1162

FIXED CAPACITORS

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

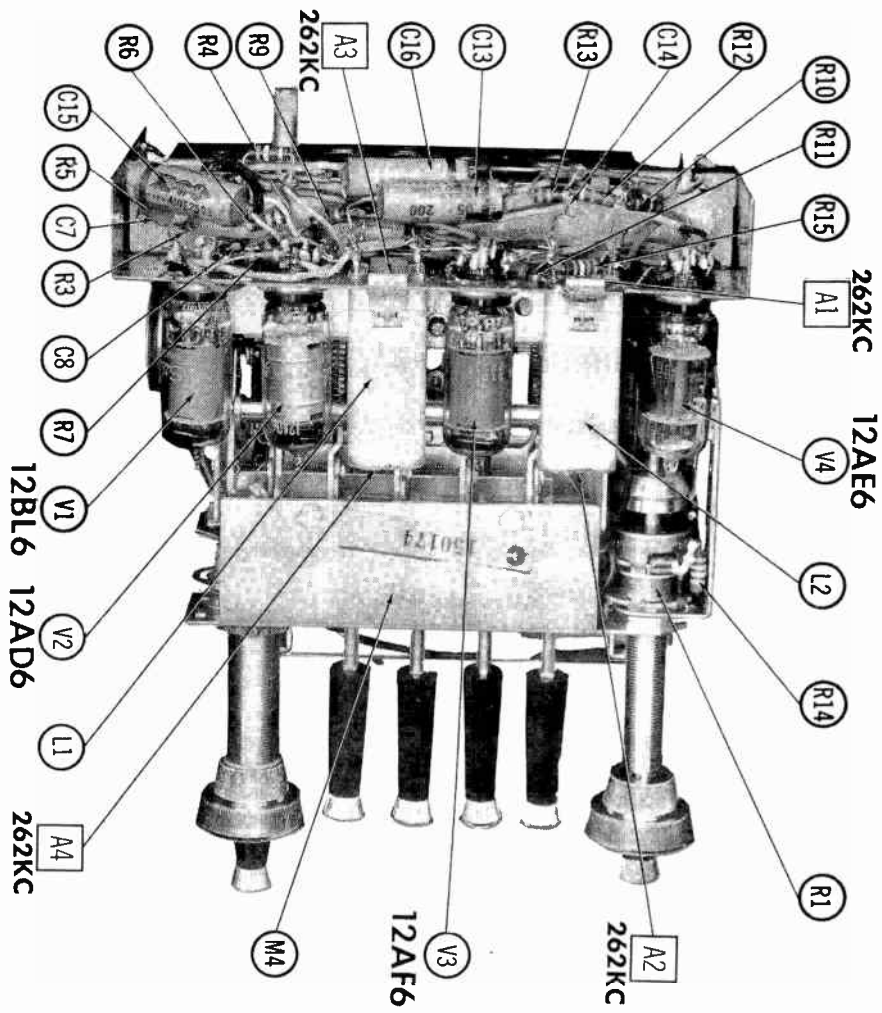
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	ALLSTATE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C4	90		T19-1-1							
C5	15-160		T19-175-0							
C6	150		T17-15119	1469-00015	DD-151	22R5T15	ED-150		MS-315	10%
C7	10000		T15-10317	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C8	6.8		T15-689131	NPO-SI 6.8	TCZ-6R8	C10V68C	TC0-6.8	ZT-5568	5TCCB-V68	NP0
C9	18-140		T19-177-0							
C10	390		T17-39119	1469-00039		5R5T39	ED-390		MS-339	10%
C11	125-250		T19-178-0							
C12	47		T15-47016	N750-SI 47	TCN-47	C10Q47U	TC7-47	NT-5447	5TCU-Q47	N750
C13	.05	200	T16-50323	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C14	27		T15-27016	SI 27	D6-270	L10Q27	ED-27	UC-5427		
C15	.05	200	T16-50323	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C16	.05	200	T16-50323	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C17	.01	200	T16-10323	BPD-01	DD-103	CUB2S1	GP-10000	GEM-211	2TM-S1	
C16	.01	200	T16-10323	BPD-01	DD-103	CUB2S1	GP-10000	GEM-211	2TM-S1	
C19	.01	200	T16-10323	BPD-01	DD-103	CUB2S1	GP-10000	GEM-211	2TM-S1	
C20	.05	200	T16-50323	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	Note 1
C21	.05	200	T16-50323	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C22	.25	100	T20-41-1	P288N-25		CUB2P25		GEM-4025	2TM-P25	
C23	.5	100	T20-21-1	P288N-5		CUB2P5		GEM-405	2TM-P5	

Note 1. Not used in some versions.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	ALLSTATE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	‡	T24-249					Tone
B	250K	‡						Volume, Tap @ 125K
C	Switch							

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	ALLSTATE PART No.	IRC PART No.	
C2	220K		T60-22401	BTS-220K	
C3	220K		T60-22401	BTS-220K	
C4	3900Ω		T60-39201	BTS-3900	
C5	10Ω		T60-10001	BTS-10	
C6	470Ω		T60-47101	BTS-470	
C7	1Meg		T60-10501	BTS-1Meg	
C8	47K		T60-47301	BTS-47K	
C9	680Ω		T60-68101	BTS-680	
C10	2.7Meg		T60-27501	BTS-2.7Meg	
C11	56Ω		T60-56001	BTS-56	
C12	4.7Meg		T60-47501	BTS-4.7Meg	
C13	3.3Meg		T60-33501	BTS-3.3Meg	
C14	39K		T60-39301	BTS-39K	
C15	39K		T60-39301	BTS-39K	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	ALLSTATE PART No.	IRC PART No.	
C16	2.2Meg		T60-22501	BTS-2.2Meg	
C17	10K		T60-10301	BTS-10K	
C18	10Ω		T60-10001	BTS-10	
C19	120Ω		T60-12101	BTS-120	
C20	150Ω		T60-15101	BTS-150	
C21	1000Ω		T60-10201	BTS-1000	
C22	1000Ω		T60-10201	BTS-1000	
C23	1000Ω		T60-10201	BTS-1000	
C24	1.2Ω 5%		T60-12901		Note 1
C25	1.2Ω 5%		T60-12901		Note 1
C26	1.2Ω 5%		T60-12901		Note 2
C27	1.2Ω 5%		T60-12901		Note 2
C28	10Ω		T60-10001	BTS-10Ω	Note 3
C29	10Ω		T60-10001	BTS-10Ω	Note 3

Note 1. R24 & R25 may be replaced by a .56Ω resistor (part #T60-56801).
Note 2. R26 & R27 may be replaced by a .56Ω resistor (part #T60-56801).
Note 3. R28 & R29 may be replaced by a 5.6Ω resistor (part #T60-56901).
Chassis 528.62681 & 528.62691 replace R28 & R29 with 82Ω (part #T60-82001) & 6Ω temp. compensation (part #61-116) connected in parallel.

TRANSFORMER (INPUT)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	20:	1	T80-431	G2002		A-4705	20All ①		① Drill one new mounting hole.

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stoncor PART No.	Thordarson PART No.	Triod PART No.	
T2	1.5:	1	T80-422						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stoncor PART No.	Thordarson PART No.	Triad PART No.	
T3	2L 25Ω	3-4Ω	T80-421						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	ALLSTATE PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	T79-508 ①		① Not used in some versions
	7"	PM	3-4Ω	T79-509 ①		

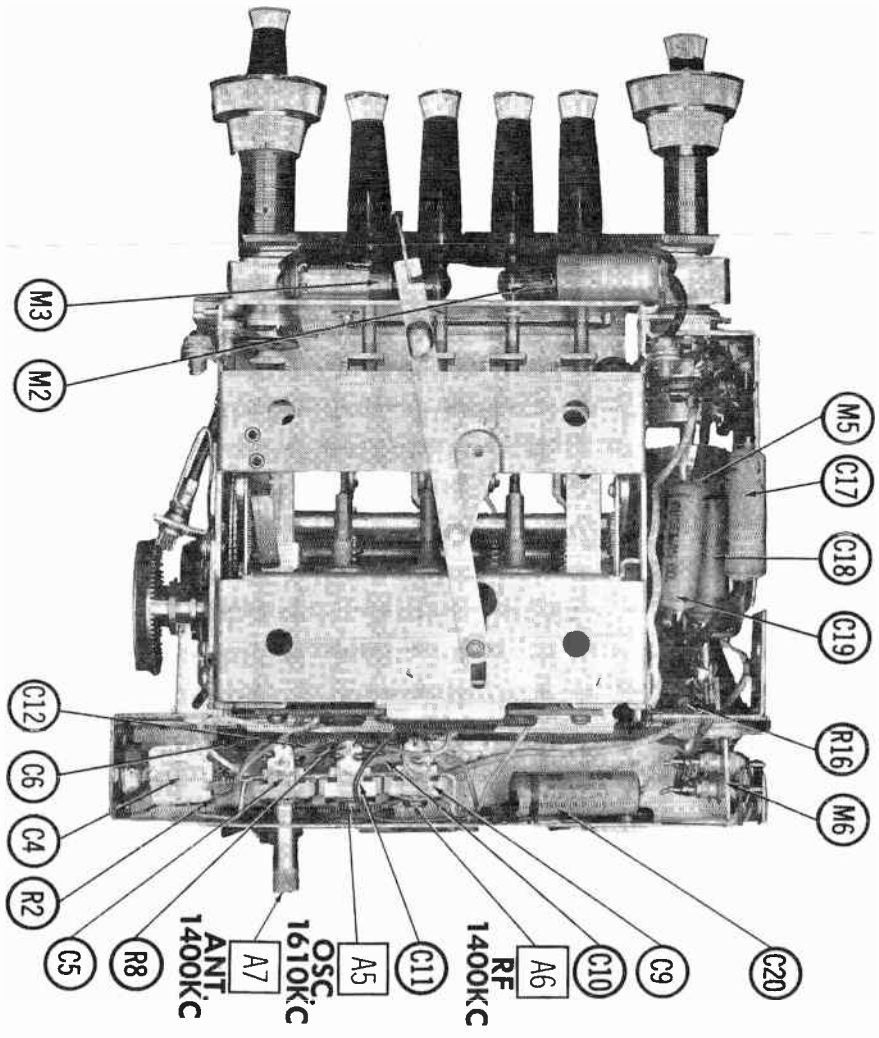
COILS (RF-IF)

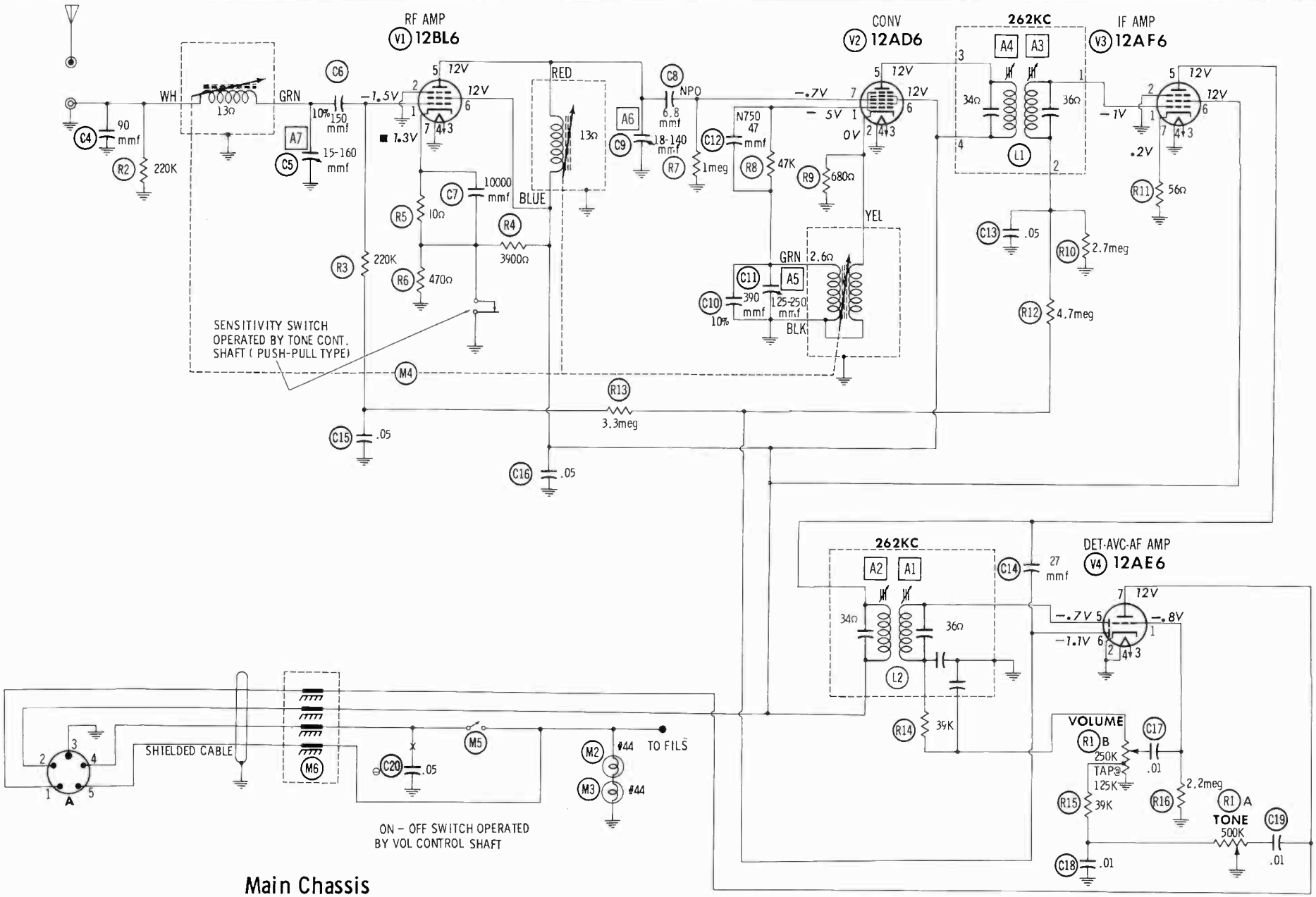
ITEM No.	USE	REPLACEMENT DATA				NOTES
		ALLSTATE PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Input IF	T10-47-2	16-6752	BC-350	12-H1	
L2	Output IF	T10-48-2	16-6754	BC-351	12-H6	
L3	"A" Lead Choke	T33-234				.9 Millihenry

FILTER CHOKE

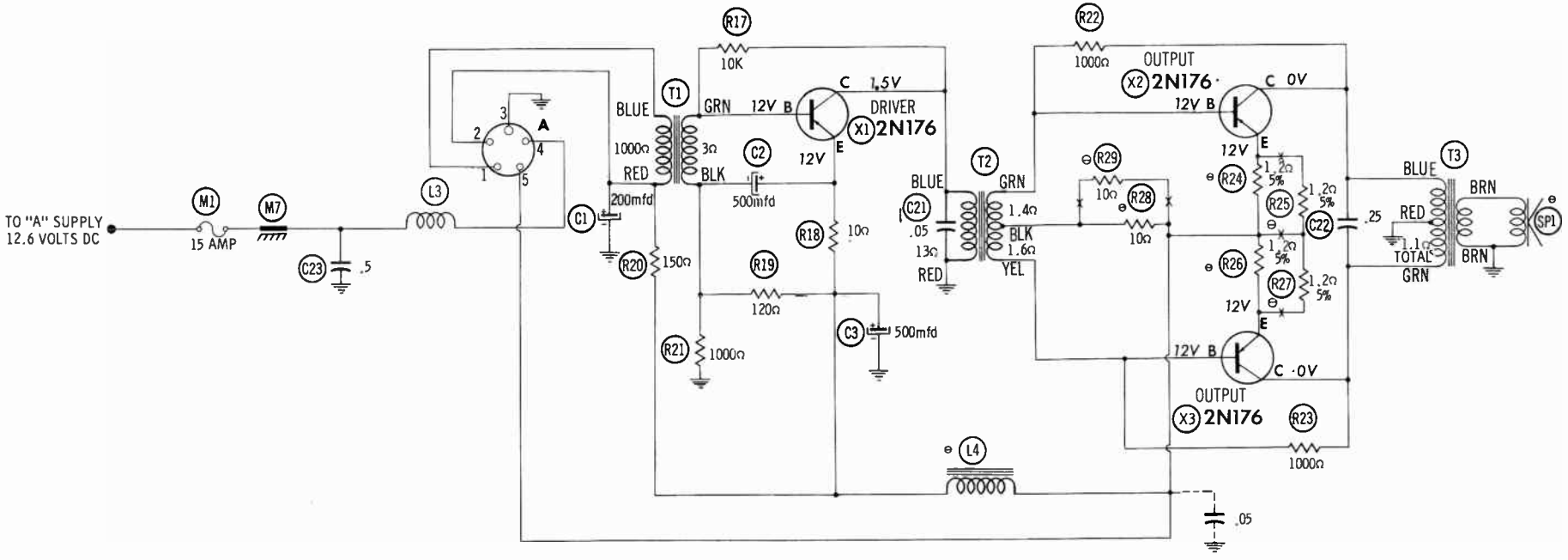
ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	ALLSTATE PART No.	Halldorson PART No.	Merit PART No.	Stoncor PART No.	Thordarson PART No.	Triad PART No.
L4	.135A	.6Ω	7 Millihenries	A80-419					

CHASSIS—BOTTOM VIEW





Main Chassis



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BL6	11Meg	0Ω	1.3Ω	0Ω	†160Ω	†150Ω	▪ 480
V2	12AD6	47K	.8Ω	1.3Ω	0Ω	†185Ω	†150Ω	1Meg
V3	12AF6	2.7Meg	0Ω	1.3Ω	0Ω	†185Ω	†150Ω	56Ω
V4	12AE6	2.2Meg	0Ω	1.3Ω	0Ω	290K	7.4Meg	†1150Ω
	Type	Base	Collector	Emitter				
X1	2N176	†120Ω	13Ω	†10Ω				
X2	2N176	†6.5Ω	.6Ω	†.7Ω				
X3	2N176	†6.5Ω	.5Ω	†.7Ω				

▪ MEASURED WITH SENSITIVITY SWITCH OPEN
† MEASURED FROM JUNCTION OF C23 AND L3
TRANSISTORS REMOVED FOR RESISTANCE READINGS.

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

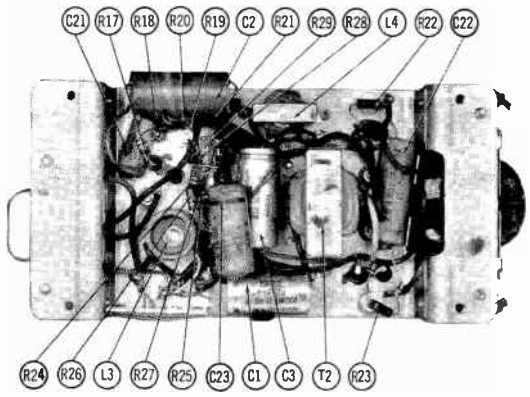
FUSE

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ALLSTATE PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	7AG	15 Amp.	T43-27	T84-2754	303015. (7AG-15A)	155009		HRH

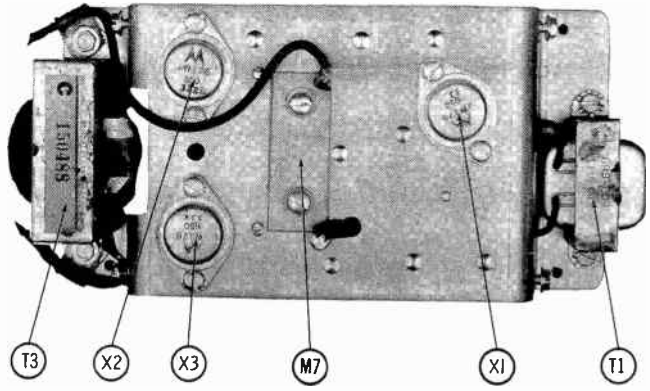
MISCELLANEOUS

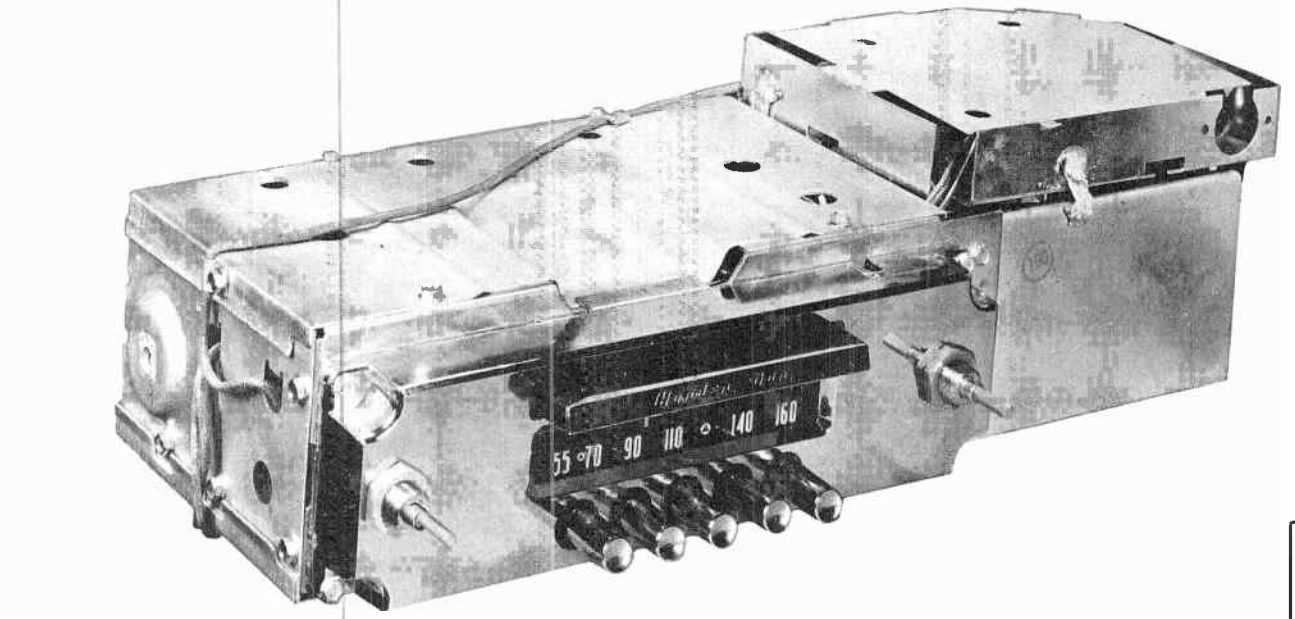
ITEM No.	PART NAME	ALLSTATE PART No.	NOTES
M2	Dial Light	T89-18	#44
M3	Dial Light	T89-18	#44
M4	Tuner	T84-2215	Complete Assy.
M5	Switch-		ON-OFF
M6	Spark Plate	T84-3139	Includes Power Cable
M7	Spark Plate	T11-1000	
	Knob	T52-656	Tuning (Manual)
	Knob	T52-654	Tone
	Knob	T52-690	On-Off-Volume & Local-Distant Switch
	Dial Scale	T87-613	Upright
	Dial Scale	T87-612	Inverted
	Dial Pointer	T58-119	
	Cover	T21-20-0	Rear
	Cover	T21-243	Tube

OUTPUT CHASSIS BOTTOM VIEW



OUTPUT CHASSIS TOP VIEW





TRADE NAME	Buick Model 981813 (For 1957 Buick Automobiles)
MANUFACTURER	Delco Radio Div., G.M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12BA6 RF Amp., 12BE6 Conv., 12BA6 IF Amp., 12BF6 Det.-AVC-AF Amp., 12AU7 Trigger, (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery — RATING 4 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	550KC-1600KC

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. Use an insulated alignment screwdriver for adjusting.
Tone control to "treble".
Sensitivity control to maximum (position 1).

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400∿ Mod.)	High frequency end stop	DC probe to point (A). Common to chassis.	A1, A2, A3	To tune to high frequency end stop, place a .012" feeler gauge (or bare #28 wire) in slot against high frequency end stop. Press selector bar and let treadle bar arm run against feeler gauge. Turn radio off and then on. Adjust A1, A2, A3 for maximum deflection.
2.	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
3.	82MMF	High side to antenna receptacle. Low side to chassis.	1615KC	High frequency end stop.	DC probe to point (A). Common to chassis.	A5, A6 A7	Adjust for maximum output.
4.	"	"	600KC	Tune to 600KC signal.	"	A9, A10	"
5.	"	"	1615KC	High frequency end stop.	"	A6, A7	"
6.	"	"	1100KC	Tune to 1100KC signal.	"		If necessary, adjust pointer (with pointer adjustment screw) to coincide with 1100KC on dial.
7.	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to left and out.
2. Tune manually to desired station. Press pushbutton in firmly.
3. Repeat procedure on remaining pushbuttons.

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amplifier	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Trigger	12AU7	
V6	Output	12V6GT	
V7	Output	12V6GT	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3676
B	▲20	400							
C	20	25							

FIXED CAPACITORS

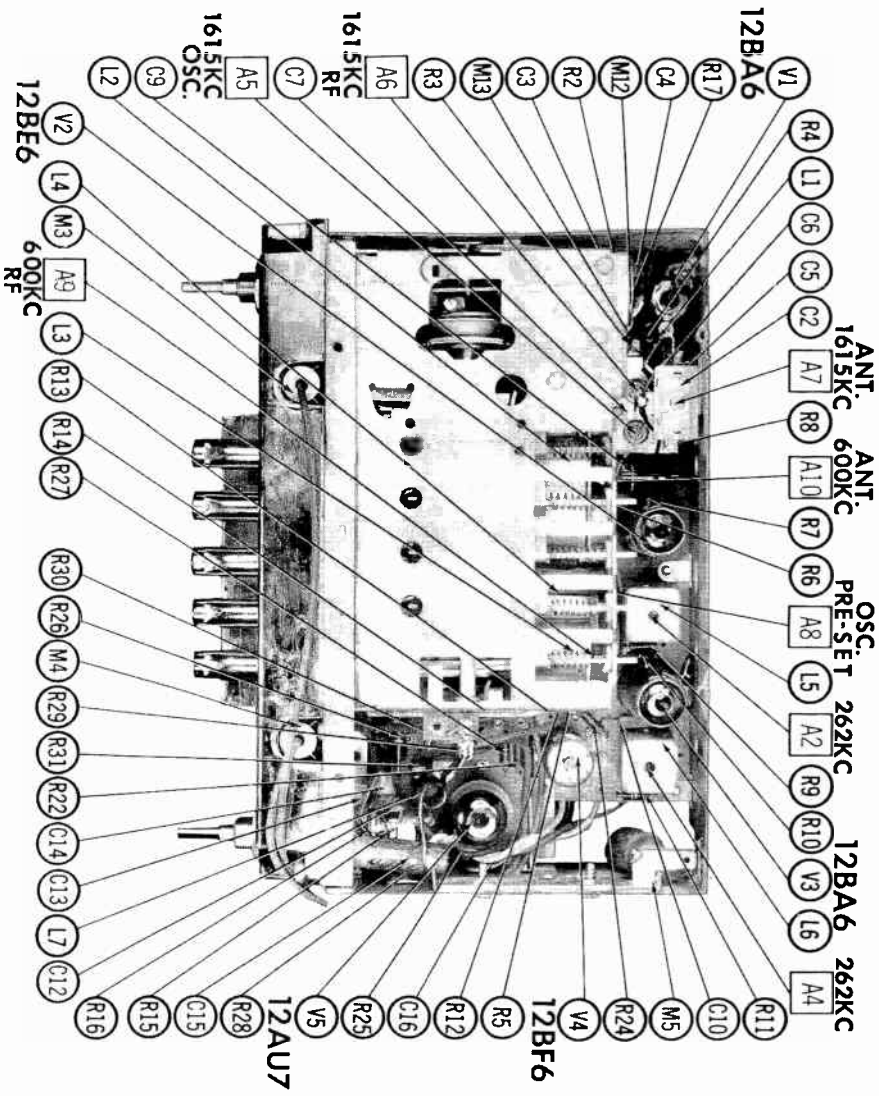
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2A			7269079							
B										
C3	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C4	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C5	68		6369	BPD-000068	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	
C6	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7A			7268828							
B										
C										
D										
C8	200		7268904	1469-0002	TCZ-200	22R5T2	TCO-200		MS-32	5%
C9	.1	400	6613	P486N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C10	100	500	1219496	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C11	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C12	100	500	G-101	1468-0001	DD-101	5W5T1	ED-100	UC-531	1FM-31	
C13	.002	600	6628	BPD-002	D6-202	CUB6D2	ED-002	GEM-622	6TM-D2	
C14	.004	600	6630	BPD-004	D6-402	CUB6D4	ED-004	GEM-624	6TM-D4	
C15	.015	600	7237719	BPD-015	DD16-153	CUB6S15	ED-015	GEM-6115	6TM-S15	
C16	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C17	120		G-121	1469-00012	TCZ-121	22R5T12	TCO-120		MS-312	10%
C18	.2	400	6614	P468N-22		CUB6P2		GEM-602	6TM-P2	
C19	100		6371							N1500
C20	.003	1000	6563	P1088N-003	DD16-302	CUB10D3		GEM-1023	10TM-D3	
C21	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C22	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C23	.1	200	6690	P268N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C24	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	250K		7268944				UE1381S	Tone
B	1Meg						Not Req.	Volume, Tap@ 300K
C	Switch						Not Req.	

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	330K		1229	BTS-330K	
R5	1.5Meg		1237	BTS-1.5Meg	
R6	100Ω		1113	BTS-100	
R7	22K		1215	BTS-22K	
R8	12K	2	1276	BTB-12K	
R9	10Ω		1101	BTS-10	
R10	150Ω		1115	BTS-150	
R11	100K		1223	BTS-100K	
R12	1Meg		1235	BTS-1Meg	
R13	1000Ω 5%		1220176	BTS-1000 5%	
R14	3300Ω 5%		1220173	BTS-3300 5%	
R15	820K		1234	BTS-820K	
R16	68K		1221	BTS-68K	
R17	100Ω		1113	BTS-100	
R18	1200Ω			BTS-1200	
R19	22K		1215	BTS-22K	
R20	150K		1225	BTS-150K	
R21	680K 5%		1220172	BTS-680K 5%	
R22	1Meg		1235	BTS-1Meg	
R23	330K 5%		1219490	BTS-330K 5%	
R24	1.5Meg 5%		1219492	BTS-1.5Meg 5%	
R25	5.6Meg		1244	BTS-5.6Meg	
R26	5600Ω 5%	1		BTA-5600 5%	Note 1
R27	820Ω 5%		7266231	BTS-820 5%	Note 2
R28	120K		1224	BTS-120K	
R29	47K	1	1259	BTA-47K	
R30	6800Ω	1	1172	BTA-6800	
R31	47K 5%	1	1220188	BTA-47K 5%	
R32	47K	1	1259	BTA-47K	
R33	360Ω 5%	1	7234563		
R34	1800Ω	3			Note 3
R35	15K	1	1253	BTA-15K	

Note 1. Some versions may use a 6800Ω 5% 1 Watt (Part #7266367)
Note 2. Some versions may use 910Ω 5% (Part #7266033) or 750Ω 5% (Part #7266320). Replace with original value.
Note 3. Mfgr. states to replace R34 with 2700Ω 2W (Part #1204) & 5600Ω 1W (Part #1171) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.
T1	12.6VCT @2.33A	500VCT @.070A			7269118			P-6495①		

① Use Orig. Channel Mtg. Frame

TRANSFORMER (AUDIO INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.	
T3	8300Ω CT	3-4Ω	7269116	Z1011 ①	A-2901②	A-3824 ①	22S56 ①	S-55X ①	① Use original channel mounting frame ② Drill new mounting holes.

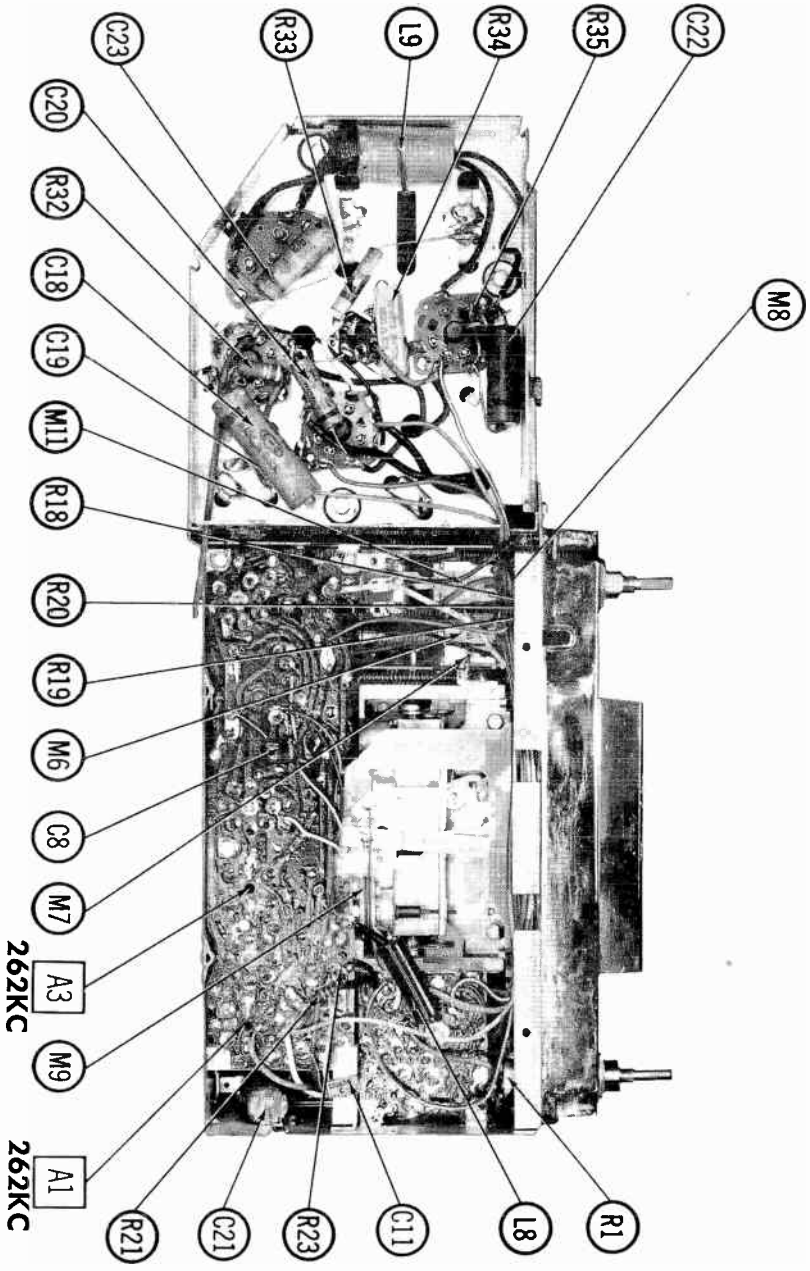
SPEAKER

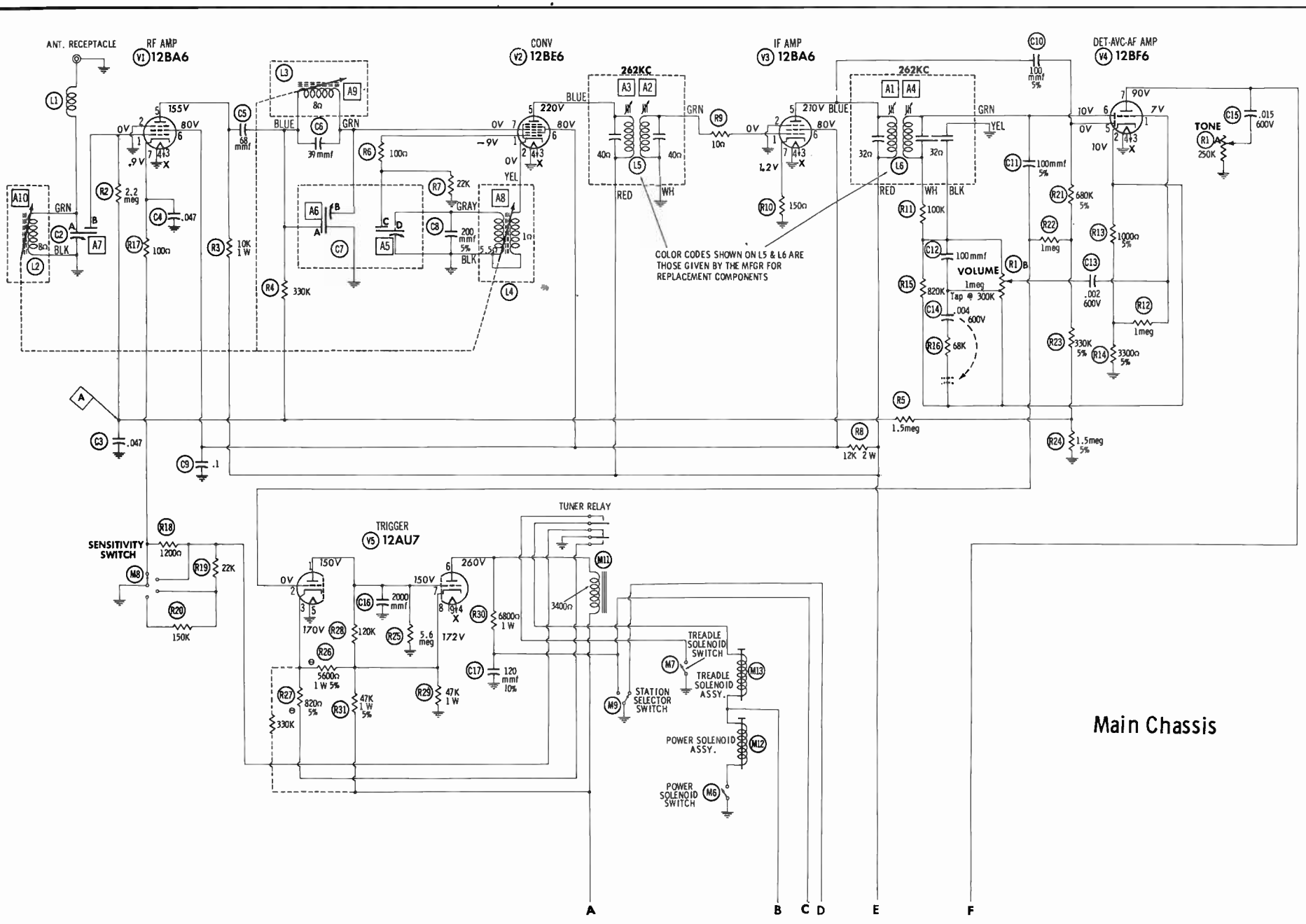
ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	7269084	69A2	

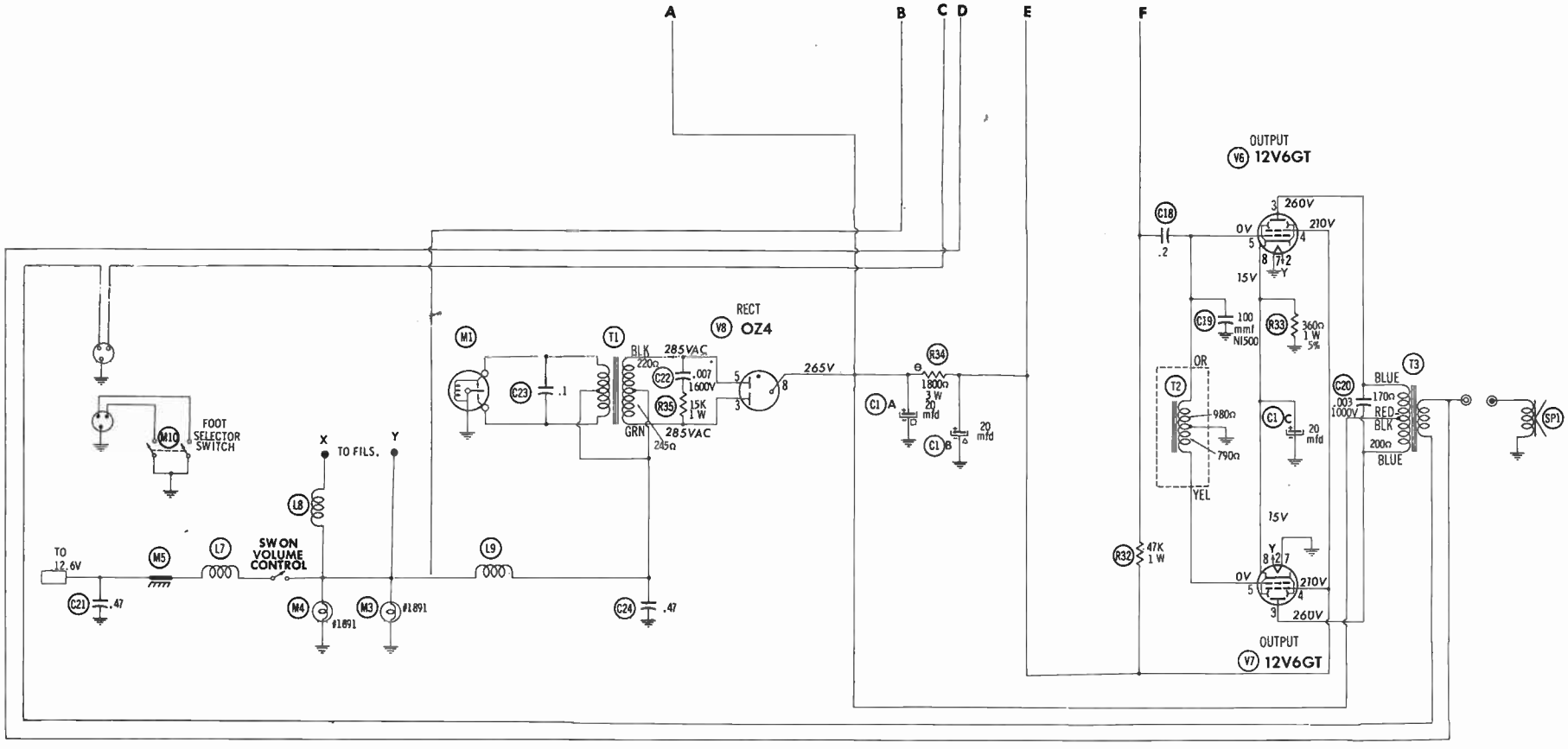
COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Antenna Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317	13-PH-1	
L6	Output IF	1220992				
L7	Fil. Choke	7241708				
L8	Fil. Choke	7269046	19-1001	BC-562	4604	1.5 Microhenries
L9	Vib. Hash Choke	1221077				42 Microhenries

CHASSIS BOTTOM VIEW







1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	1Ω	0Ω	†12K	†14K	100Ω		
V2	12BE6	22K	1Ω	1Ω	0Ω	†1800Ω	†14K	3.3Meg		
V3	12BA6	50Ω	0Ω	1Ω	0Ω	†1800Ω	†14K	150Ω		
V4	12BF6	1Meg	4300Ω	1Ω	0Ω	2.5Meg	500K	†49K		
V5	12AU7	†160K	2.8Meg	†50K	1Ω	0Ω	†3400Ω	160K	47K	.5Ω
V6	12V6GT	TP	1Ω	†170Ω	†1800Ω	980Ω	TP	0Ω	360Ω	
V7	12V6GT	NC	1Ω	†200Ω	†1800Ω	790Ω	TP	0Ω	360Ω	
V8	0Z4	0Ω	NC	245Ω	NC	220Ω	NC	TP	20K MIN	

† MEASURED FROM PIN 8 OF V8.
TP TIE POINT.
NC NO CONNECTION.

Power Supply and Audio Chassis

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

PARTS LIST AND DESCRIPTIONS (Continued)

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12. 6V	115~	8555	6330	G1602/G883	8330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7½A	455640		30307. 5 (7AG 7½A)		SFE 7½A	

MISCELLANEOUS

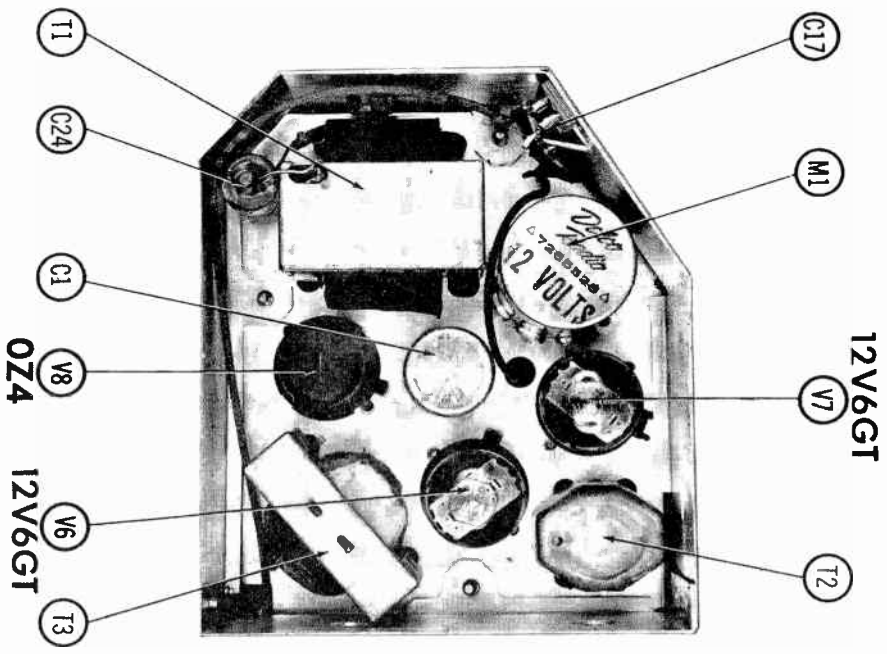
ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light	456985	#1891
M4	Dial Light	456985	#1891
M5	Spark Plate	1221054	
M6	Switch	7268030	Power Solenoid
M7	Switch	7268030	Treadle Solenoid
M8	Switch	7268938	Sensitivity
M9	Switch	7269292	Station Selector
M10	Switch	7269471	Foot
M11	Relay	7289582	Tuner
M12	Solenoid	7268040	Power
M13	Solenoid	7268050	Treadle

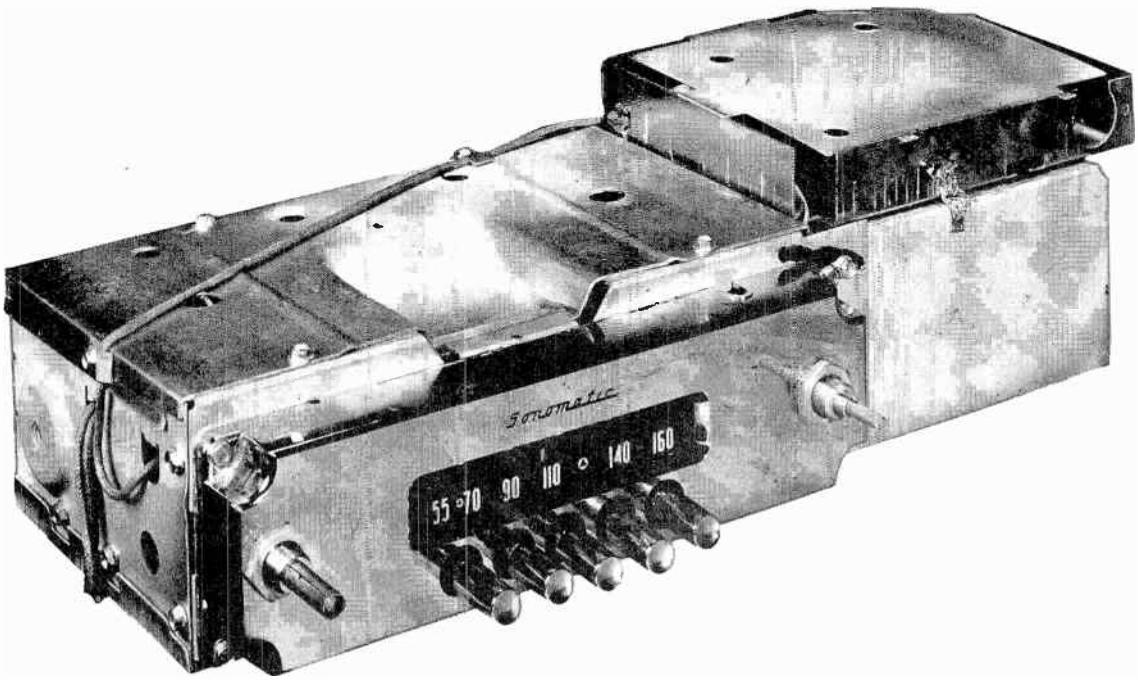
CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Printed Panel	7268821-D	1 Tube Section
Printed Panel	7268814-C	4 Tube Section
Knob	1174606	Control
Knob	1175236	Tone
Knob	1175237	Sensitivity
Dial	7268943	

OUTPUT CHASSIS—TOP VIEW





TRADE NAME	Buick Model 981814 (For 1957 Buick Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Seven)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det.-AVC-AF Amp., (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery
RATING	3.6 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	550KC-1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~Mod.)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
2	82MMF	High side to antenna receptacle. Low side to chassis.	1615KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output
3	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
4	"	"	1615KC	High frequency end stop	"	A6, A7	"
5	"	"	600KC	Tune to 600KC signal	"		If necessary, adjust dial pointer adjustment screw so that pointer coincides with 600KC on dial.
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to the left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat for remaining pushbuttons.

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

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amplifier	12BF6	
V5	Output	12V6GT	
V6	Output	12V6GT	
V7	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■ 20	400	6322	AFH3-120	CO990	FP345, 8	TMT-106	T-550	TVL-3678
B	▲ 20	400							
C	20	25							

FIXED CAPACITORS

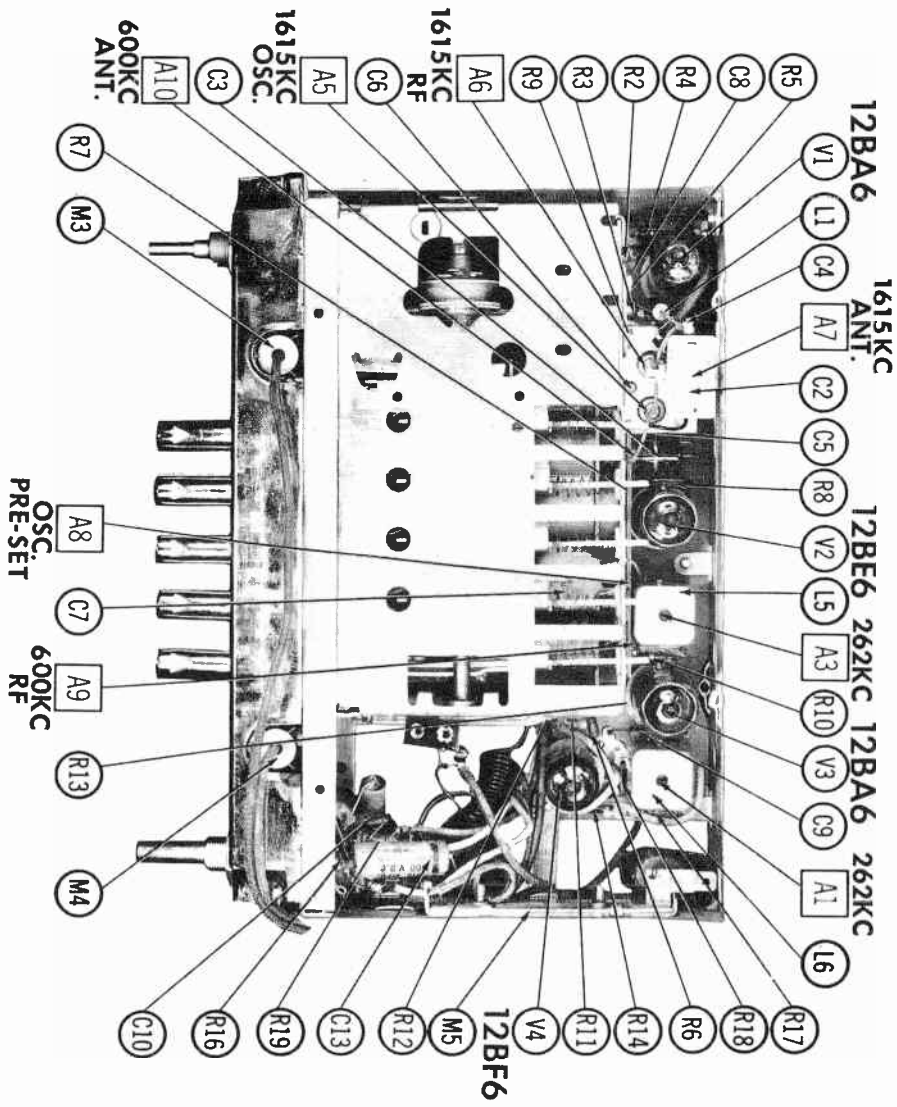
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7269079							
B										
C3	.047	200	6612	BPD-05,	DF-503	CUB4S47		GEM-2147	2TM-S47	
C4	15		6361	BPD-000015	DD-150	L10Q15	ED-15	UC-5415	5GA-Q15	
C5	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C6A										
B										
C			7268828							
D										
C7	200		7268904							N150
C8	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C9	220	500	G-220	1464-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C10	100		G-101	N750-S1100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	N750
C11	.002	600	6628	BPD-002	D6-202	CUB6D2	GP-2000	GEM-622	6TM-D2	
C12	.004	600	6630	BPD-004	D6-402	CUB6D4	GP-4000	GEM-624	6TM-D4	
C13	.015	600	7237719	BPD-015	DD16-153	CUB6S15	ED-015	GEM-6115	6TM-S15	
C14	.2	400	6614	P488N-22		CUB6P22		GEM-402	4TM-P2	
C15	100		6371	BPD-0001	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C16	.003	1000	6563	P1088N-003	DD16-302	CUB10D3		GEM-1023	10TM-D3	
C17	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C18	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C19	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C20	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	250K	½	7268944				UE138IS	Tone
B	1Meg						Not Req	Volume, Tap @ 300K
C	Switch						Not Req	

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1.	1174	BTA-10K	
R4	68Ω		1111	BTS-68	
R5	330K		1229	BTS-330K	
R6	1Meg		1235	BTS-1Meg	
R7	100Ω			BTS-100	Note 1
R8	22K		1215	BTS-22K	
R9	15K	2	1277	BTB-15K	
R10	270Ω		1118	BTS-270	
R11	1Meg		1235	BTS-1Meg	
R12	1000Ω		1125	BTS-1000	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R13	2200Ω		1129	BTS-2200	
R14	1Meg		1235	BTS-1Meg	
R15	47K	1	1259	BTA-47K	
R16	68K		1221	BTS-68K	
R17	47K		1219	BTS-47K	
R18	3.3Meg		1241	BTS-3.3Meg	
R19	470K		1231	BTS-470K	
R20	360Ω 5%	1	7234563		
R21	1800Ω	3			Note 2
R22	15K	1	1253	BTA-15K	

Note 1. Not used in some versions.
Note 2. Manufacturer states to replace with 2700Ω, 2W & 5600Ω, 1W in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @ 2.33A	500VCT @ .070A			7269118			P-6495 ①		

① Use original channel mounting frame.

TRANSFORMER (INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	8700Ω CT	3-4Ω	7266997	Z1011 ①	A-2901 ①	A-3870 ①	22S56 ①	S-55X ①	① Use original channel mounting.

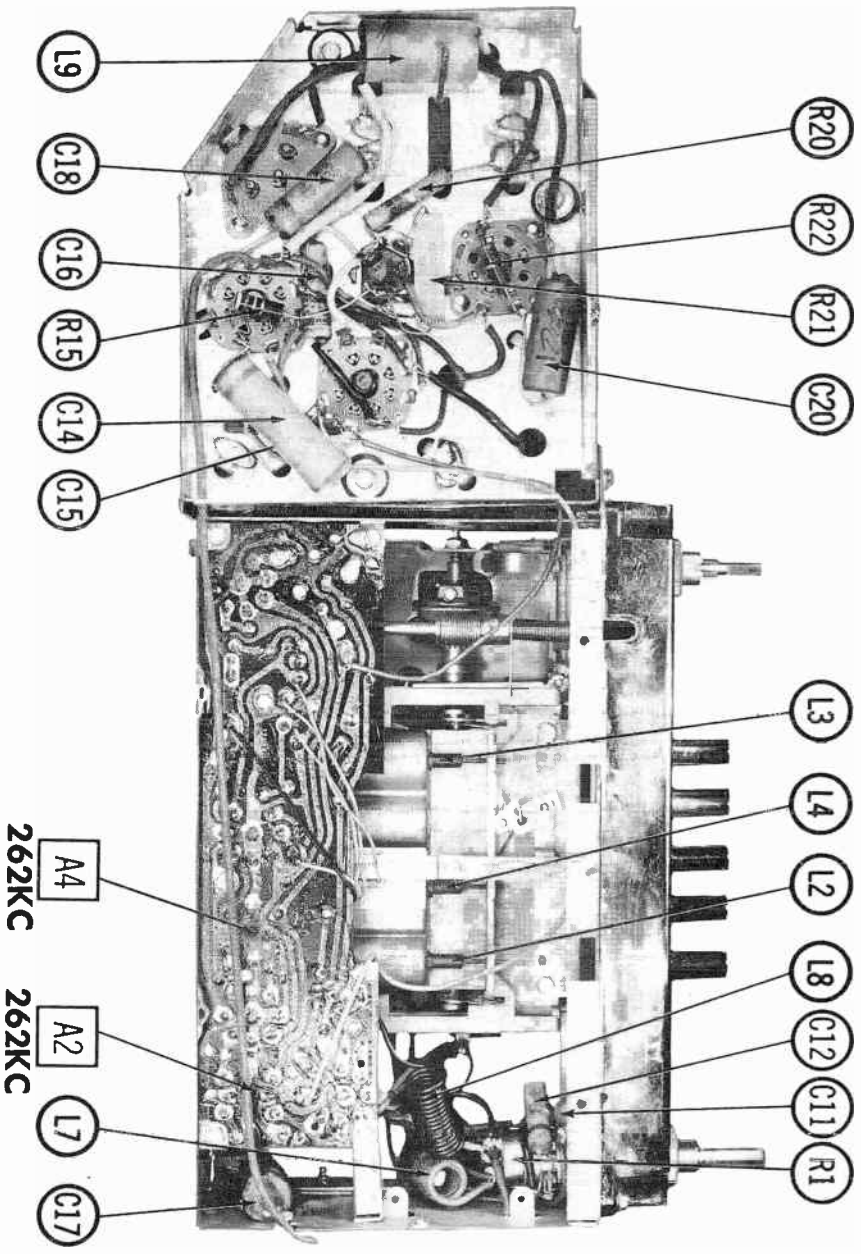
SPEAKER

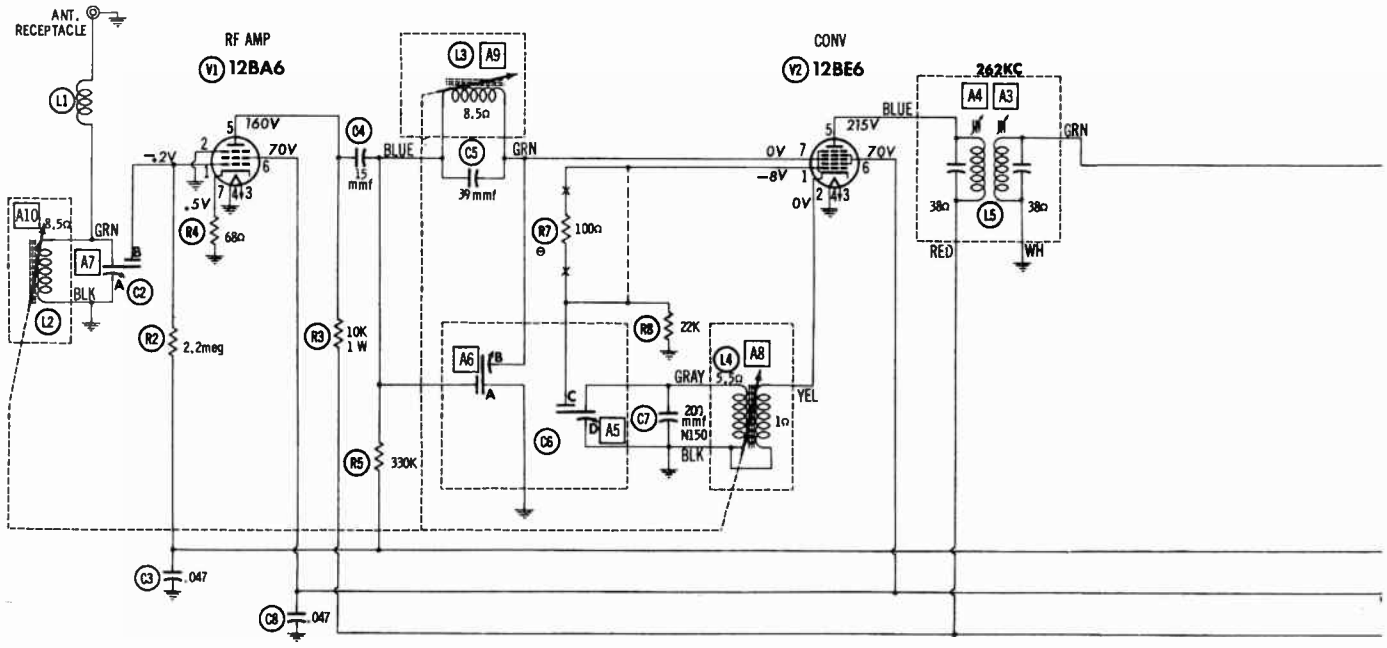
ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	7269084	69A2	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1005		4612	9 Microhenries
L2	Antenna Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317	13-PH1	
L6	Output IF	1220992		BC-320	13-PH6	
L7	Fil. Choke	1217646				1.4 Microhenry
L8	Fil. Choke	1217846				1.4 Microhenry
L9	Vib. Hash Choke	1221077				42 Microhenries

CHASSIS—BOTTOM VIEW





● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

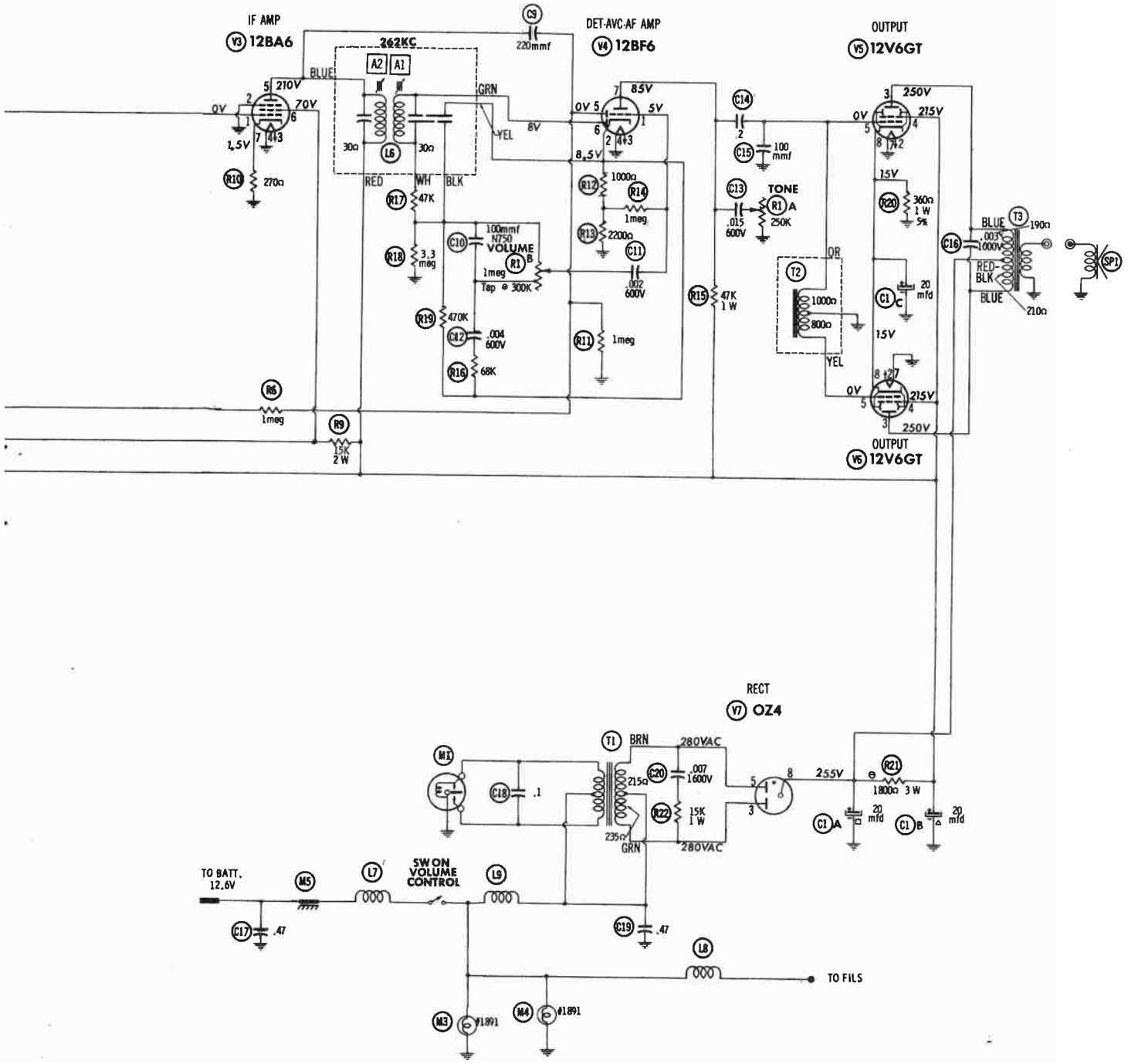
1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	4.2Meg	0Ω	1.1Ω	0Ω	†12K	†17K	68Ω		
V2	12BE6	22K	1Ω	1.1Ω	0Ω	†1800Ω	†17K	2.3Meg		
V3	12BA6	38Ω	0Ω	1.1Ω	0Ω	†1800Ω	†17K	270Ω		
V4	12BF6	1Meg	3200Ω	1.1Ω	0Ω	1Meg	350K	†49K		
V5	12V6GT	NC	1.1Ω	†190Ω	†1800Ω	1000Ω	NC	0Ω	360Ω	
V6	12V6GT	TP	1.1Ω	†210Ω	†1800Ω	800Ω	TP	0Ω	360Ω	
V7	0Z4	0Ω	NC	235Ω	NC	215Ω	NC	TP	20K(Min)	

† MEASURED FROM PIN 8 OF V7
NC NO CONNECTION
TP TIE POINT

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



PARTS LIST AND DESCRIPTIONS (Continued)

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12. 6V	115~	8555	8330	G1802/G883	8330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7 1/2A	455640		30307.5 (7AG 7 1/2A)		SFE 7 1/2A	

MISCELLANEOUS

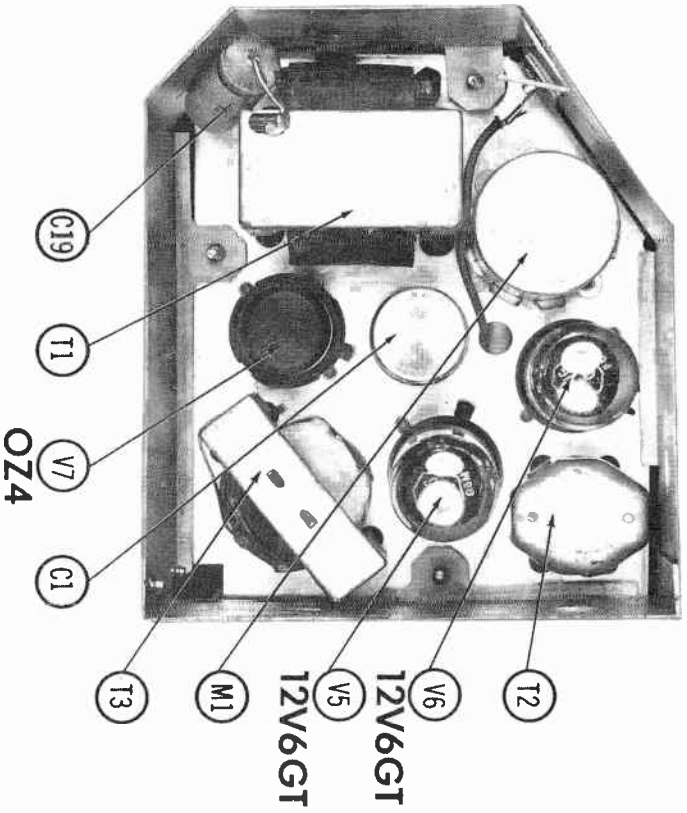
ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light	456985	#1891
M4	Dial Light	458985	#1891
M5	Spark Plate	1221054	

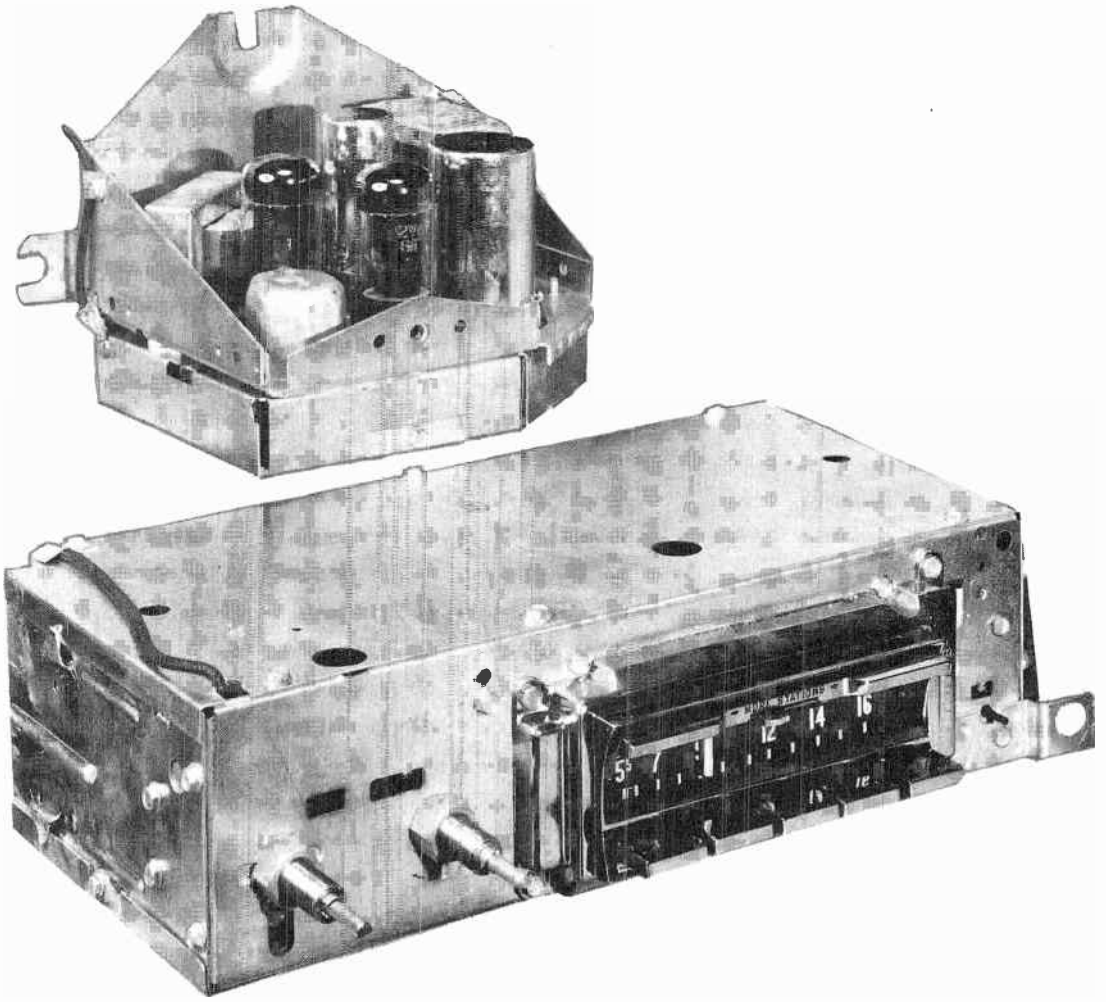
CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Printed Panel	7288814-C	
Knob	1174608	Tuning, Manual
Knob	1175238	Tone
Knob	1175235	Dummy
Pushbuttons	1221055	Set of 5 (Includes front bearing Plate & Slides)
Dial	7288943	
Pointer Ass'y.	1221057	

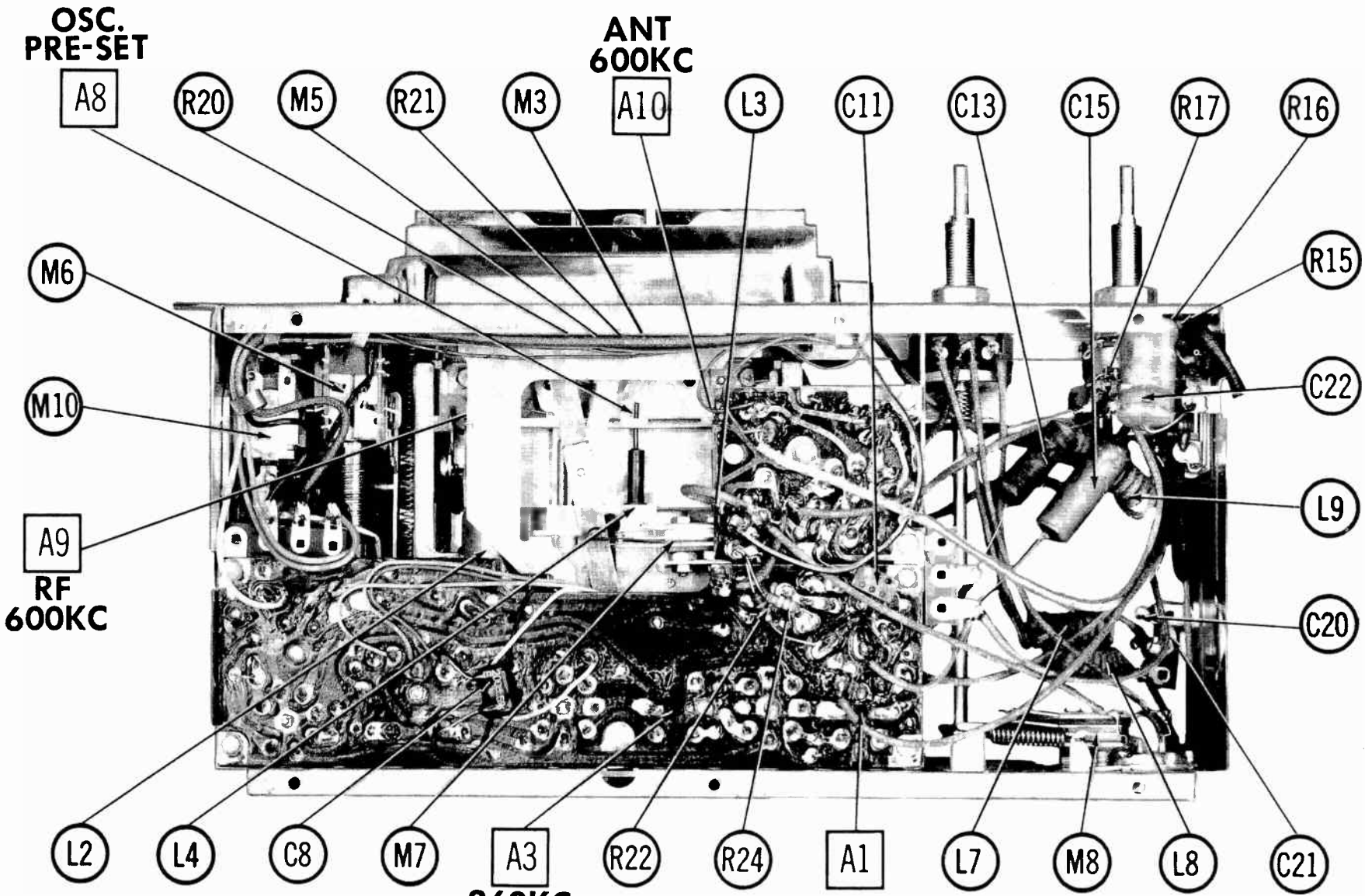
TOP VIEW-OUTPUT CHASSIS





TRADE NAME	Cadillac Models 7268005 (1957 Cadillac Automobiles), 7268035 (1957 Cadillac Ambulances).
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana.
TYPE SET	Battery Operated Custom Built AM Automobile Receiver.
TUBES (Eight)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det.-AF Amp., 12AU7 Trigger, (2) 12V6GT Output, 0Z4 Rectifier.
POWER SUPPLY	12 Volt Storage Battery — Rating 3.6 Amp. @ 12.6 Volts DC.
TUNING RANGE—BROADCAST	540 KC-1600KC

CADILLAC
MODELS 7268005, 7268035



CHASSIS BOTTOM VIEW

ALIGNMENT INSTRUCTIONS

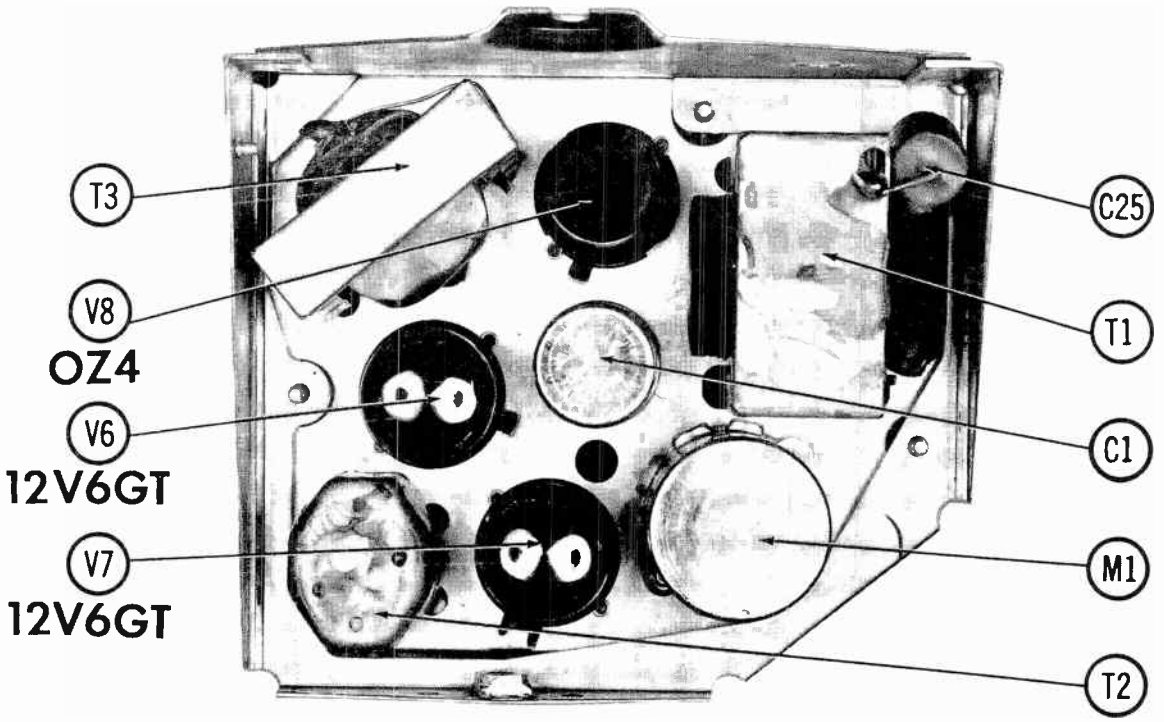
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

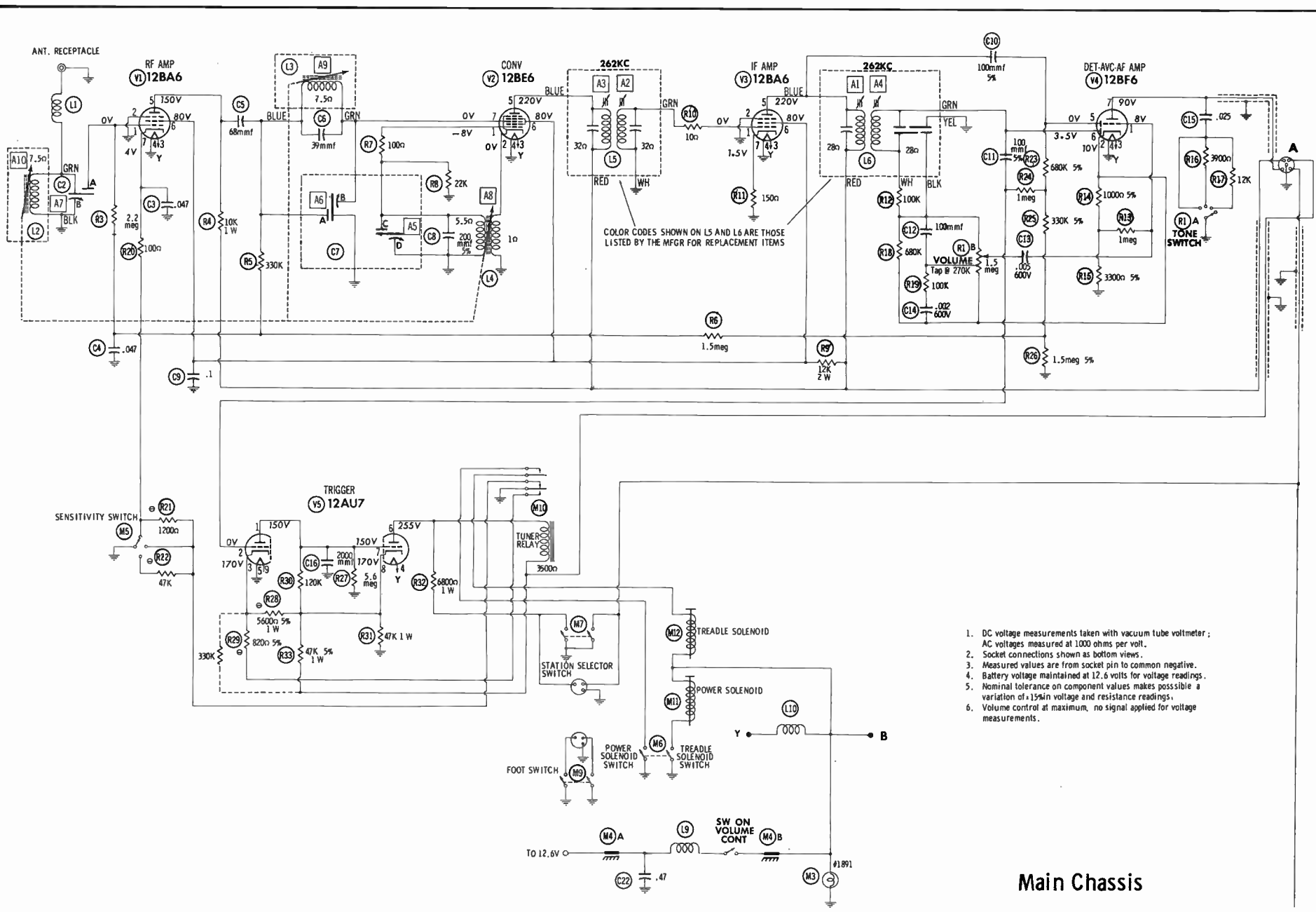
	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod.)	High frequency end stop	DC probe to point (A). Common to chassis	A1, A2, A3	To tune to high frequency end stop place a .012" feeler gauge (or bare #28 wire) in slot against high frequency end stop. Run planetary arm against feeler gauge by pressing station selector bar. Turn radio off and on. Adjust A1, A2, A3 for maximum deflection.
2	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
3	68MMF	High side to Antenna receptacle. Low side to chassis.	1615KC	High frequency end stop	DC probe to point (A). Common to chassis	A5, A6, A7	Adjust for maximum deflection.
4	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
5	"	"	1615KC	Tune to 1615KC signal	"	A6, A7	"
6	"	"	900KC	Tune to 900KC signal	"		If necessary, adjust pointer (adj. at end of core bar guide) to coincide with 900KC on dial.
7	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat procedure on remaining pushbuttons.



OUTPUT CHASSIS - TOP VIEW



Main Chassis

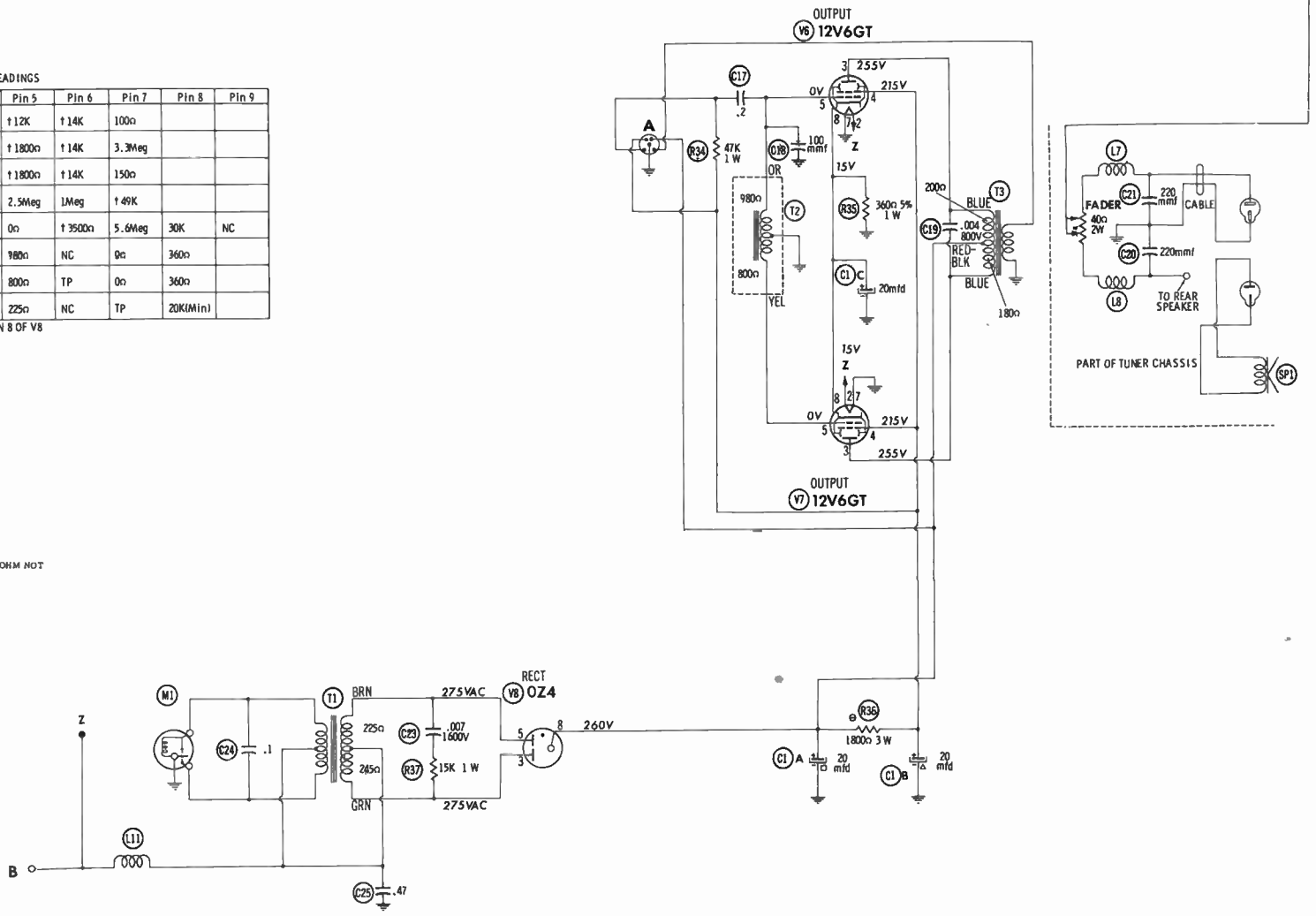
RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	1.4Ω	0Ω	†12K	†14K	100Ω		
V2	12BE6	22K	1Ω	1.4Ω	0Ω	†1800Ω	†14K	3.3Meg		
V3	12BA6	42Ω	0Ω	1.4Ω	0Ω	†1800Ω	†14K	150Ω		
V4	12BF6	1Meg	4300Ω	1.4Ω	0Ω	2.5Meg	1Meg	†49K		
V5	12AU7	†130K	2.8Meg	55K	1.4Ω	0Ω	†3500Ω	5.6Meg	30K	NC
V6	12V6GT	TP	4Ω	†200Ω	†1800Ω	980Ω	NC	9Ω	360Ω	
V7	12V6GT	NC	4Ω	†180Ω	†1800Ω	800Ω	TP	0Ω	360Ω	
V8	0Z4	0Ω	NC	245Ω	NC	225Ω	NC	TP	20K(Min)	

† MEASURED FROM PIN 8 OF V8
TP TIE POINT
NC NO CONNECTION

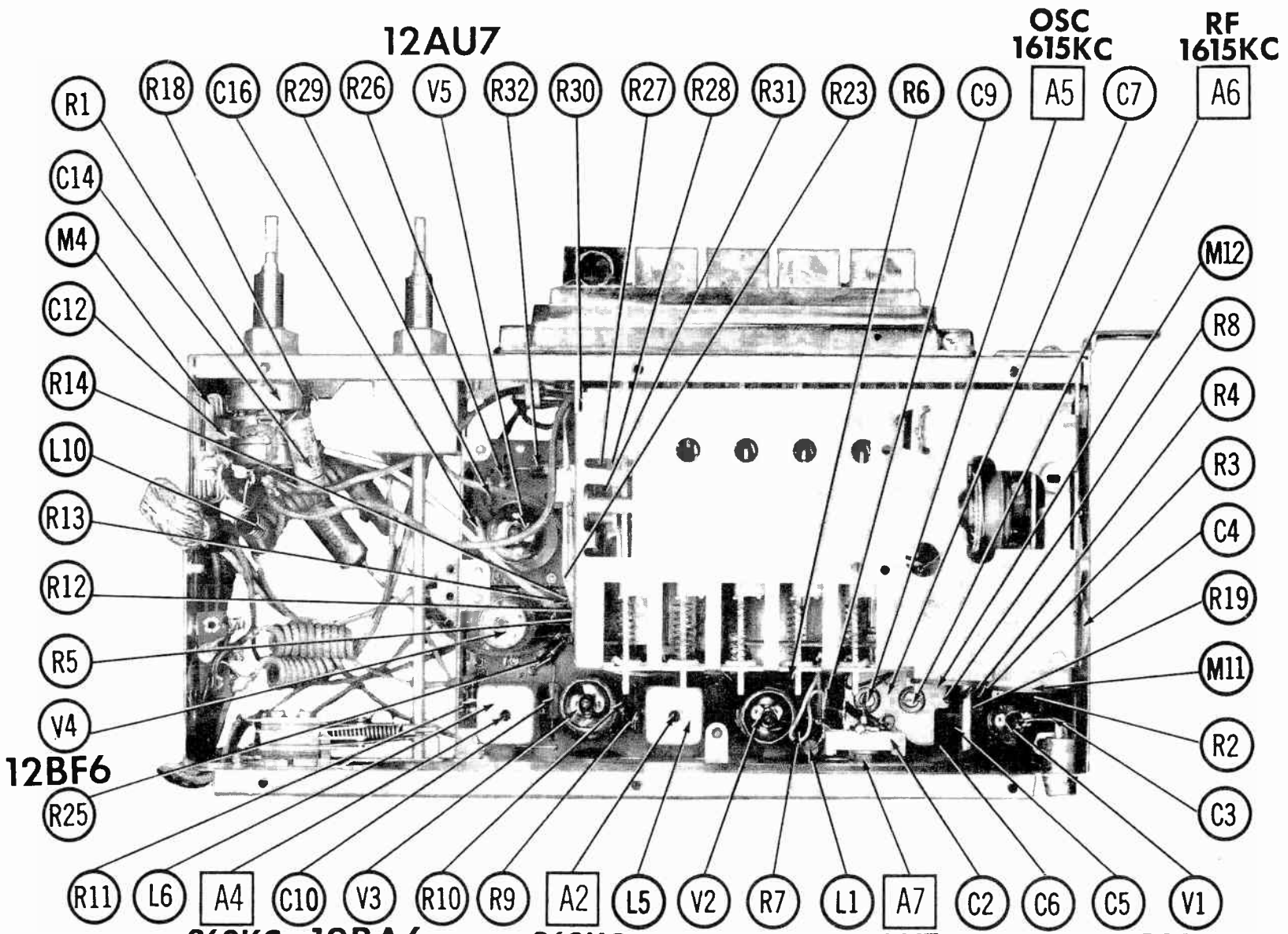
⊖SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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



A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis



CHASSIS TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF6	
V5	Trigger	12AU7	
V6	Output	12V6GT	
V7	Output	12V6GT	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■20	400	6322	AFH3-10	C0990	FP345. 8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

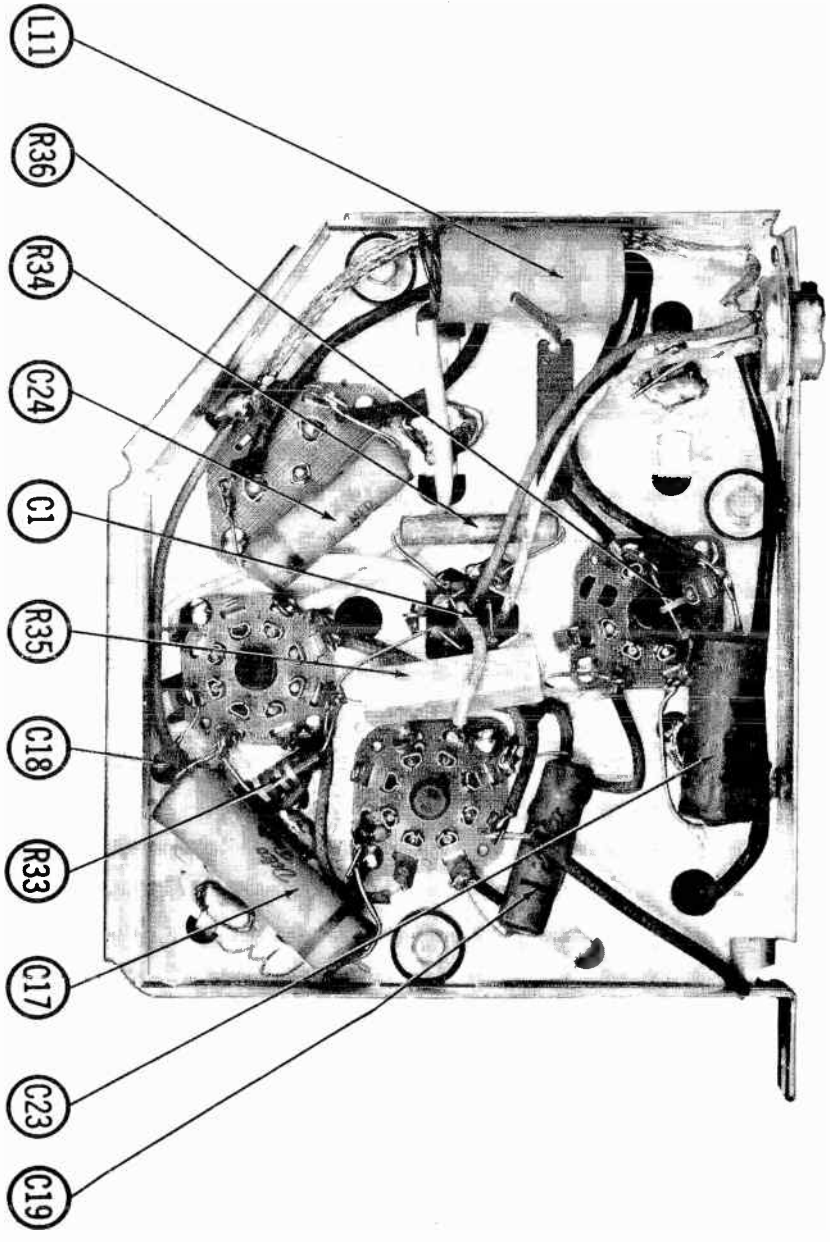
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2A			7269312							
B										
C3	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C4	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C5	68		6369	BPD-000068	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	
C6	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7A										
B										
C			7268828							
D										
C8	200		7268904	1469-0002	TCZ-200	22R5T2	TCO-200		5TCC-T2	5%
C9	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C10	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	5TCC-T1	5%
C11	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	5TCC-T1	5%
C12	100	500	C-101	1468-0001	DD-101	5W5T1	ED-100	UC-531	5GA-T1	
C13	.005	600	6631	BPD-005	D6-502	CUB6D5	GP-5000	GEM-625	6TM-D5	
C14	.002	600	6628	BPD-002	D6-202	CUB6D2	GP-2000	GEM-622	6TM-D2	
C15	.025	400	1211232	P488N-025		CUB4S22				
C16	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C17	.2	400	6614	P488N-22		CUB6P2		GEM-402	4TM-P2	
C18	100		6371	BPD-0001	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C19	.004	800	6564	P1088N-004	DD16-402	CUB10D4		GEM-1024	10TM-D4	
C20	220		6375	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C21	220		6375	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C22	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C23	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C24	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C25	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	Switch		7269443					Tone
B	1. 5Meg	½						Volume, Tap@ 270K
C	Switch							
R2	40Ω	2	7269436					Fader (Wire Wound)

OUTPUT CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R3	2.2Meg		1239	BTS-2.2Meg	
R4	10K	1	1174	BTA-10K	
R5	330K		1229	BTS-330K	
R6	1.5Meg		1237	BTS-1.5Meg	
R7	100Ω		1113	BTS-100	
R8	22K		1215	BTS-22K	
R9	12K	2	1276	BTB-12K	
R10	10Ω		1101	BTS-10	
R11	150Ω		1115	BTS-150	
R12	100K		1223	BTS-100K	
R13	1Meg		1235	BTS-1Meg	
R14	1000Ω 5%		1220176	BTS-1000 5%	
R15	3300Ω 5%		1220173	BTS-3300 5%	
R16	3900Ω		1132	BTS-3900	
R17	12K		1212	BTS-12K	
R18	680K		1233	BTS-680K	
R19	100K		1223	BTS-100K	
R20	100Ω		1113	BTS-100	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R21	1200Ω			BTS-1200	Note 1
R22	47K			BTS-47K	Note 1
R23	680K 5%		1220172	BTS-680K 5%	
R24	1Meg		1235	BTS-1Meg	
R25	330K 5%		1219490	BTS-330K 5%	
R26	1.5Meg 5%		1219492	BTS-1.5Meg 5%	
R27	5.6Meg		1244	BTS-5.6Meg	
R28	5600Ω 5%	1		BTA-5600 5%	Note 2
R29	620Ω 5%		7266231	BTS-820 5%	Note 3
R30	120K		1224	BTS-120K	
R31	47K	1	1259	BTA-47K	
R32	6800Ω	1	1172	BTA-6800	
R33	47K 5%	1	1220188	BTA-47K 5%	
R34	47K	1	1259	BTA-47K	
R35	360Ω 5%	1	7234563		
R36	1800Ω	3			Note 4
R37	15K	1	1253	BTA-15K	

Note 1. Not supplied separately. Included with M5 (Sensitivity Switch)
Note 2. Some versions may use 6800Ω 5% 1 Watt (Part #7266367)
Note 3. Some versions may use 750Ω 5% (Part #7266320) or 910Ω 5% (Part #7266033). Replace with original value.
Note 4. Mfgr. states to replace R36 with 2700Ω 2W (Part #1204) & 5600Ω 1W (Part #1171) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @ 2.33A	500VCT @ .070A			7269118			P-6495 ①		

① Use original channel mounting frame.

TRANSFORMER (INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	6700Ω CT	3-4Ω	7266997	Z1011 ①	A-2901①	A-3870 ①	22S56 ①	S-55X①	① Use original channel mounting.

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	7266645	69A3	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255736	19-1004	BC-565	4610	6.5 Microhenries
L2	Antenna Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317		
L6	Output IF	1220992				
L7	Speaker Choke	1217846				1.4 Microhenries
L8	Speaker Choke	1217846				1.4 Microhenries
L9	"A" Lead Choke	7241708				
L10	Fil. Choke	1217846				1.4 Microhenries
L11	Hash Choke	7269090				42 Microhenries

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115	6555	6330	G1602/G663	6330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		6USS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7½A	455640		30307.5 (7AG-7½A)		SFE 7½A	

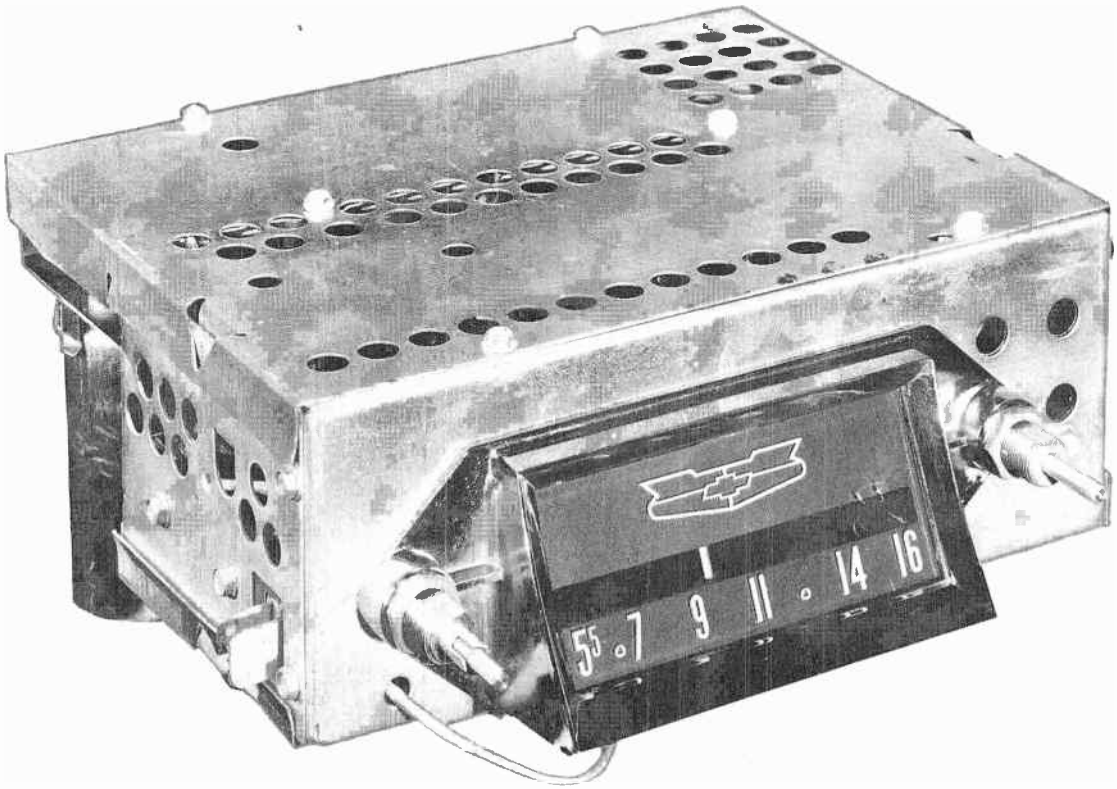
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light		#1691
M4	Spark Plate	1220306	
M5	Switch	7269432	Sensitivity
M6	Switch	7268030	Power Solenoid-Treadle Solenoid
M7	Switch	7269872	Station Selector
M8	Switch	1221075	Antenna
M9	Switch	7264602	Foot
M10	Relay	7269582	Tuner
M11	Solenoid	7268040	Power
M12	Solenoid	7268050	Treadle

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Printed Panel	7268621	1 Tube Section
Printed Panel	7268814-C	4 Tube Section
Knob	1466056	Tone, Speaker
Knob	1466639	On-Off-Volume, Manual Tuning
Dial Glass	7269446	



CHEVROLET
MODEL 987573

TRADE NAME	Chevrolet Model 987573 (For 1957 Chevrolet Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Six)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12AV6 Det.-AVC-AF Amp., 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery — RATING 2.6 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540-1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to Treble.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod.)	High frequency end of dial	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
	If necessary, adjust oscillator coil core so that core is 1 5/8" from mounting end of coil form.						
2	68MMF	High side to antenna receptacle. Low side to chassis.	1615KC	"	"	A5, A6 A7	Adjust for maximum output.
3	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
4	"	"	1615KC	High frequency end of dial	"	A6, A7	"
5	"	"	900KC	Tune to 900KC signal	"		If necessary, adjust dial pointer on dial cord to coincide with 1100KC.
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

CHEVROLET
MODEL 987573

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det.-AVC-AF Amp.	12AV6	
V5	Output	12V6GT	
V6	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲20	400	6309	AFH2-51	B0400	FP234	TMD-50	D-215	TVL-2755
B	■20	400							

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 CAP.	RATING VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2A	20-120		7269193							
B	140									
C3	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C4	10		6361	BPD-000015	DD-150	L10Q15	ED-15	UC-5415	5GA-Q15	
C5A										
B			7268828							
C										
D										
C6	39		6366	SI 39	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7	200		7268904							N150
C8	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C9	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C10	.01	400	6610	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C11	1000		6350	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C12	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C13	.006	800	6566	P1088N-006	DD16-602	CUB16D6		GEM-1626	MB-D6	
C14	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C15	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	
C16	.47	100	6692	P288N-47		CUB2P47		GEM-4047	2TM-P47	
C17	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	Note 1

Note 1. Not used in some versions.

CONTROLS

ITEM No.	RATING RESIST-ANCE	RATING WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	2Meg	½	1220962				UE1773S	Tone
B	330K							Volume
C	Switch							

RESISTORS

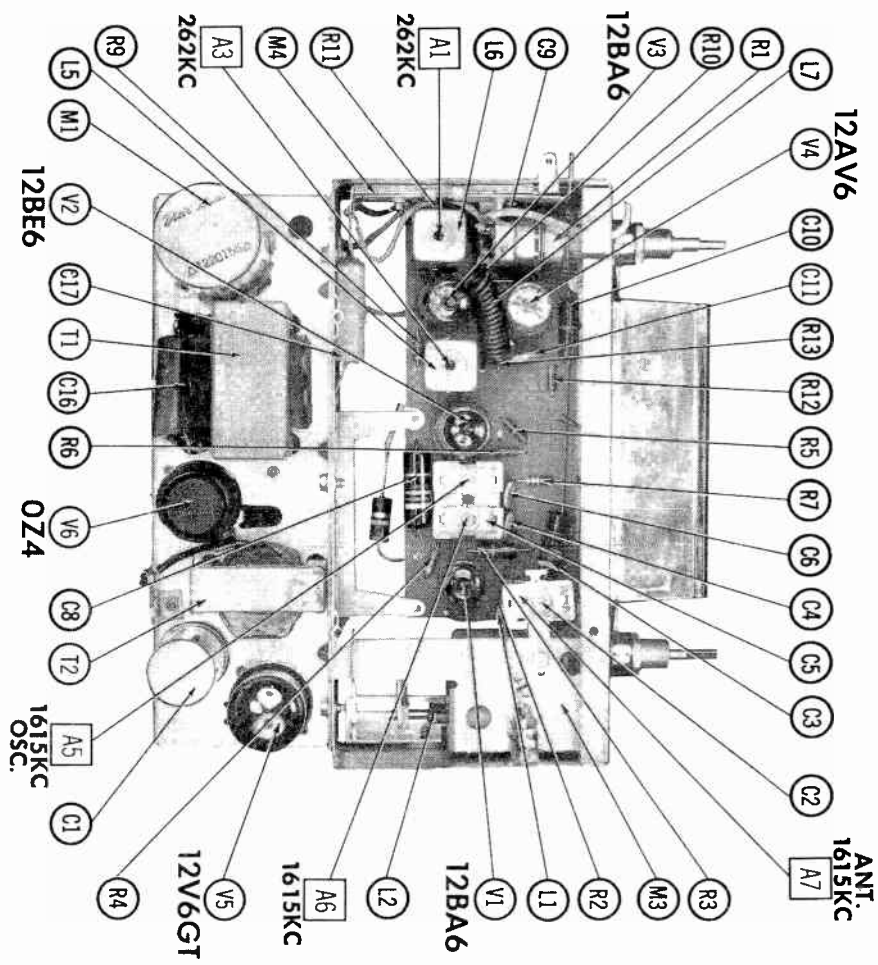
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING OHMS	RATING WATT	DELCO PART No.	IRC PART No.	NOTES
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	150Ω		1115	BTS-150	
R5	22K		1215	BTS-22K	
R6	100Ω			BTS-100	Note 1
R7	330K		1229	BTS-330K	
R8	15K	2	1277	BTB-15K	
R9	330Ω		1119	BTS-330	

ITEM No.	RATING OHMS	RATING WATT	DELCO PART No.	IRC PART No.	NOTES
R10	1Meg		1235	BTS-1Meg	
R11	47K		1219	BTS-47K	
R12	6.8Meg		1245	BTS-6.8Meg	
R13	220K		1227	BTS-220K	
R14	220K		1227	BTS-220K	
R15	330Ω	1	1156	BTA-330	
R16	15K	1	1253	BTA-15K	
R17	1800Ω	4			Note 2

Note 1. Not used in some versions
Note 2. Mfgr. states to replace R17 with 2700Ω 2W (Part #1204) & 5600Ω 1W (Part #1171) connected in parallel.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.
T1	12.6VCT @ 1.8A	530VCT @ .052A			7265604		P-2860 ①		22R79 ①	

① Fabricate mounting.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T2	4800Ω	3-4Ω	6062	Z1002 ①	A-3019 ①	A-3823 ①	26S49 ①	S-5Z ①	① Fabricate mounting

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	6112	69A2	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenry
L2	Antenna Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317		
L6	Output IF	1220992		BC-320		
L7	Fil. Choke	1217846				1.4 Microhenry
L8	"A" Supply Choke	7269090				42 Microhenries

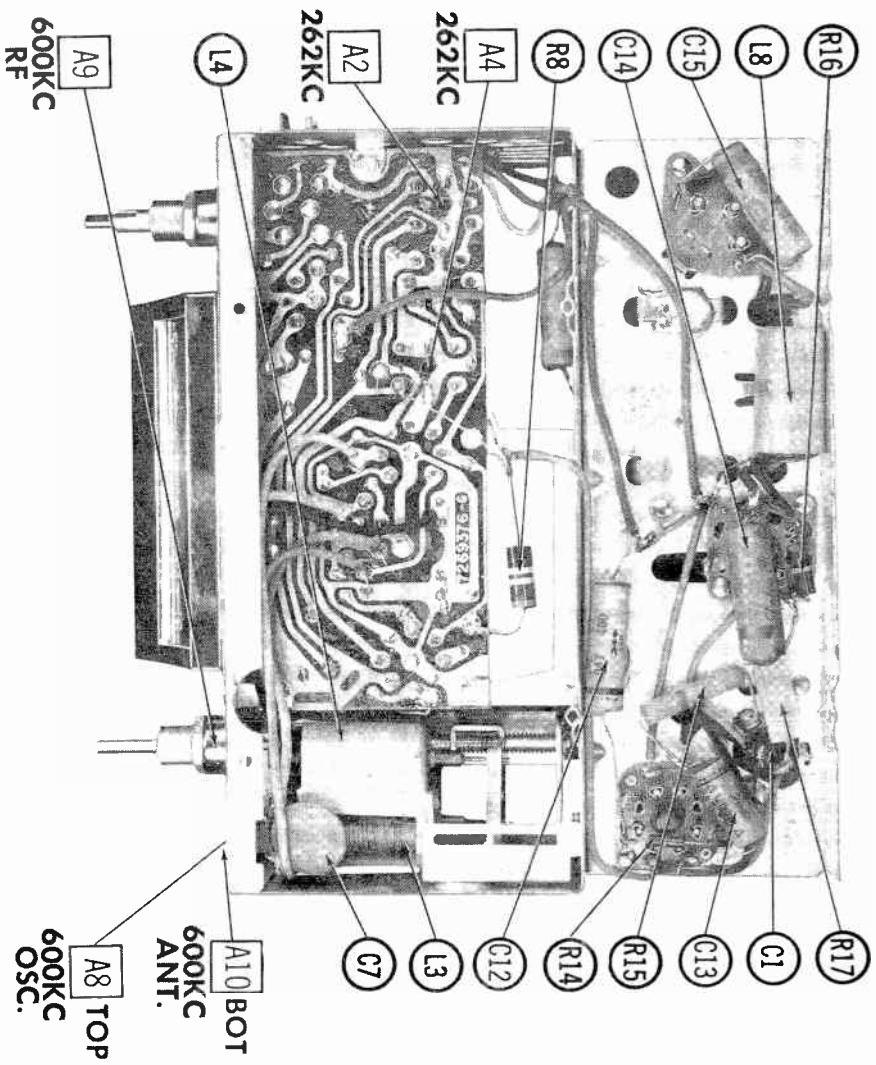
VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FRE-QUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115∿	8555	6330	G1602/G883	6330	

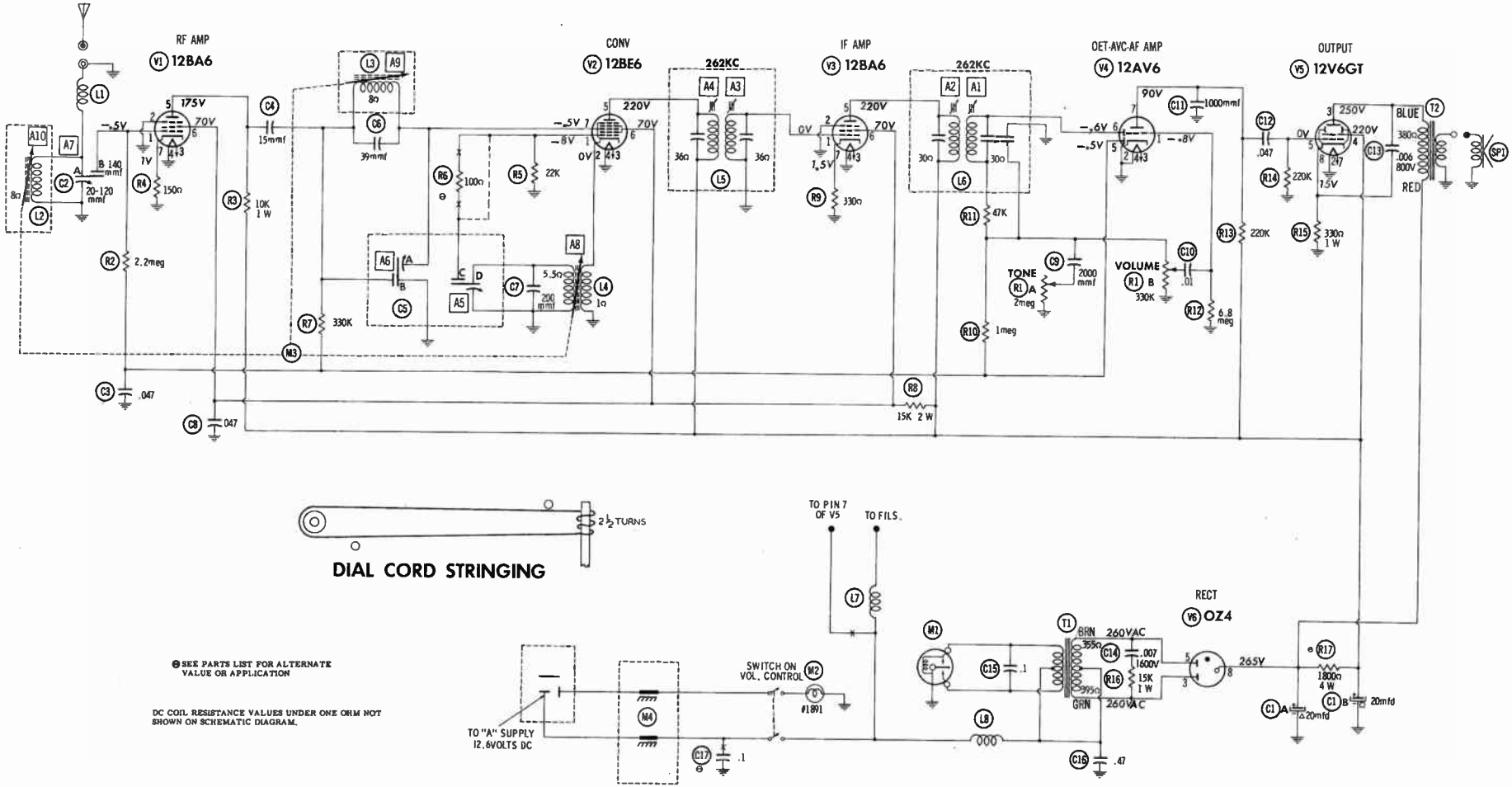
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M2	Dial Light		#1891
M3	Tuner		
M4	Spark Plate	1220885	Dual Unit
	Knob	7268744	Tone, Dummy
	Knob	1990863	Tuning
	Knob	1990864	On-Off-Volume
	Pointer Assy.	7269221	

CHASSIS—BOTTOM VIEW



CHEVROLET MODEL 987573



SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

RESISTANCE READINGS

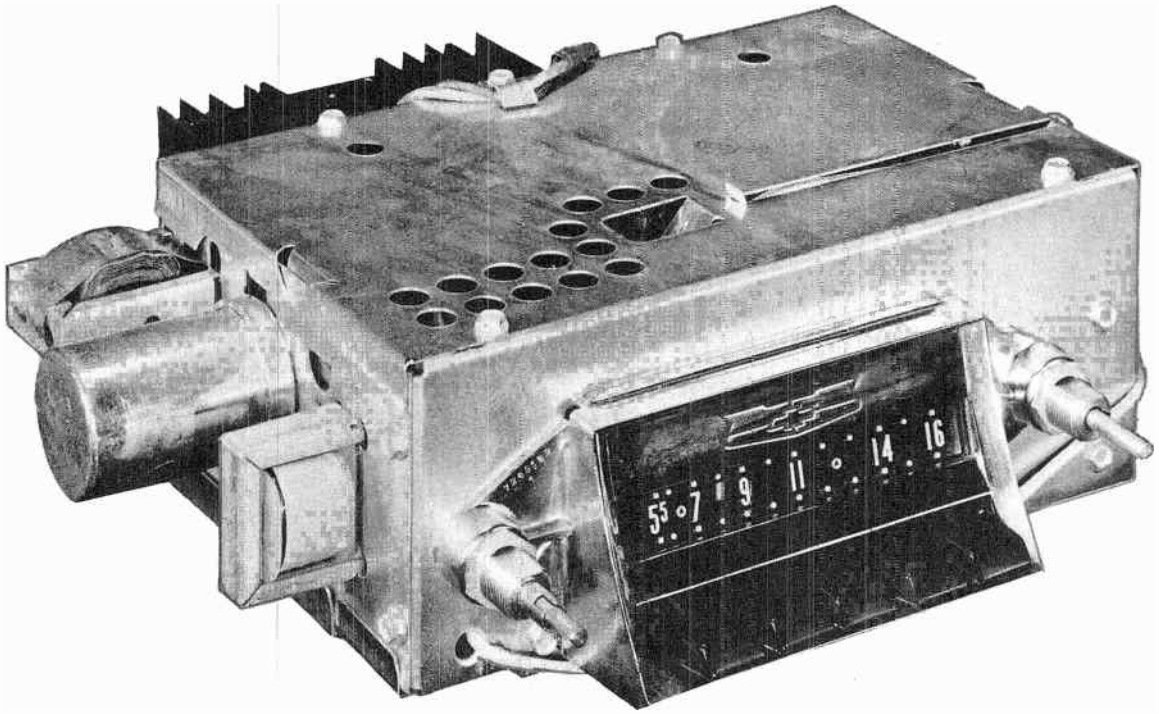
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V1	12BA6	3.5Meg	0Ω	2.2Ω	0Ω	† 12K	†17K	150Ω	
V2	12BE6	22K	1Ω	2.2Ω	0Ω	†1800Ω	† 17K	1.5Meg	
V3	12BA6	36Ω	0Ω	2.2Ω	0Ω	†1800Ω	† 17K	330Ω	
V4	12AV6	6.8Meg	0Ω	2.2Ω	0Ω	1.3Meg	380K	† 220K	
V5	12V6GT	NC	0Ω	†380Ω	†1800Ω	220K	TP	2.2Ω	330Ω
V6	0Z4	TP	NC	395Ω	NC	355Ω	NC	TP	20K(Min)

† MEASURED FROM PIN 8 OF V6
NC NO CONNECTION
TP TIE POINT

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC

CHEVROLET MODEL 987575



TRADE NAME	Chevrolet Model 987575 (For 1957 Chevrolet Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12AF6 RF Amplifier, 12AD6 Converter, 12AF6 IF Amplifier, 12F8 Det.-AVC-1st. AF Amp., 12K5 2nd. AF Amplifier
POWER SUPPLY	12 Volt Storage Battery — RATING 1.6 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540-1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to treble position.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12AD6 (V2) Low side to chassis	262KC (400% Mod.)	High Freq. end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output
	If necessary adjust oscillator core (A8) so that rear of core is 1 5/8" from mounting end of coil form.						
2	68MMF	High side to Ant. receptacle. Low side to chassis	1615 KC	"	"	A5, A6, A7, A8	Adjust in order given, A5, A6 & A7 for maximum output
3	"	"	640KC	Tune to 640KC signal	"	A9, A10	Adjust for maximum output
4	"	"	1615KC	High Freq. end stop	"	A6, A7	"
5	"	"	900KC	Tune to 900KC signal	"		If necessary, adjust dial pointer adjustment so that pointer coincides with 1100KC when looking directly at dial
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSH BUTTON ADJUSTMENT

1. Pull pushbutton to the left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat on remaining pushbutton.

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12AF6	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC- 1st. AF Amp.	12F8	
V5	2nd. AF Amplifier	12K5	

TRANSISTORS

ITEM No.	USE	TYPE	NOTES
X1	Output	2N278	Note 1

ITEM No.	USE	TYPE	NOTES

Note 1 Type 2N173 Used in some versions. Use Type 2N278 for Replacement Purposes.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲1000	16	7269 719						R2424 *
B	■500	16							
C	▲20	16							

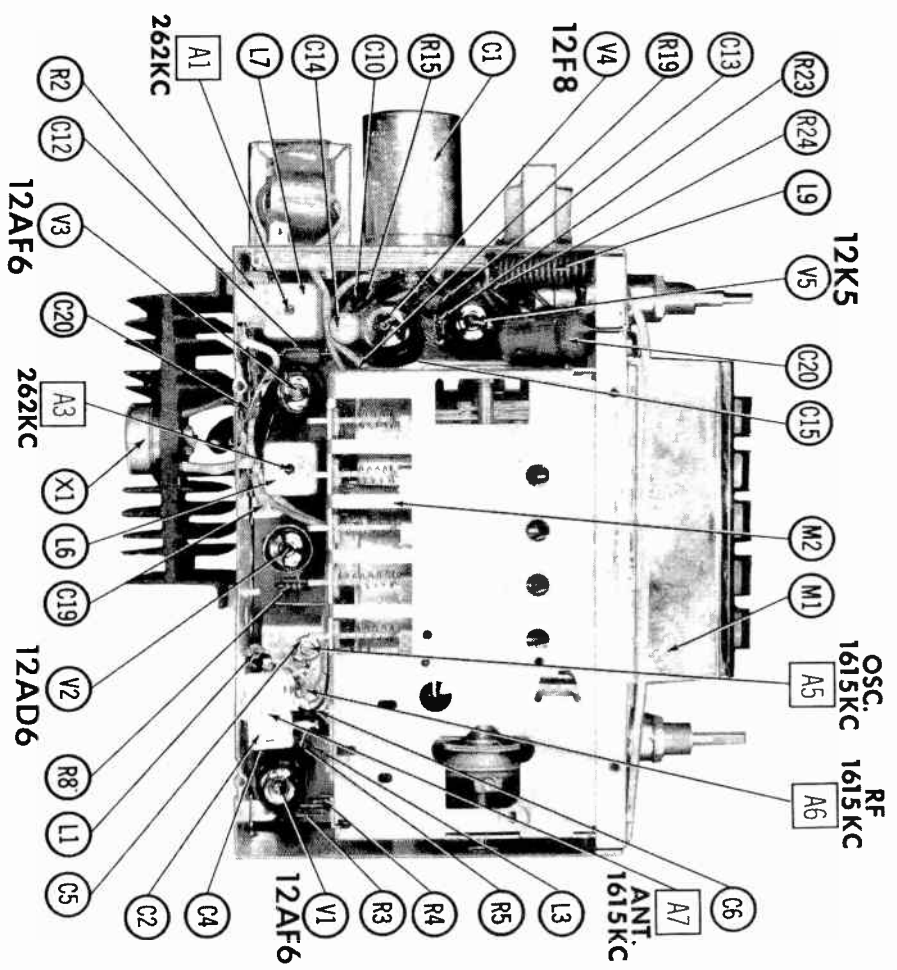
* Non catalog item

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	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A	30-100		7268558							
C2B	100									
C3	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C4	68		6369	N750-SI68	TCN-68	C10Q68C	TC7-68			N750
C5A			7268479							
C5B										
C5C										
C5D										
C6	39		6366	SI 39	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C8	200		7268904	1469-0002	TCZ-200	22R5T2	TCO-200	MCE237	MS-32	5%
C9	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C10	47		6367	BPD-000047	DD-470	L10Q47	ED-47	UC-5447	5GA-Q47	
C11	.0047	400	6631	BPD-0047	D6-472	CUB6D47	GP-4700	GEM-6247	6TM-D47	
C12	47	500	6367	BPD-000047	DD-470	6W5Q47	ED-47	UC-5447	5GA-Q47	
C13	.02	200	6611	BPD-02	DD-203	CUB4S2	ED-02	GEM-412	2TM-S2	
C14	.1	50	6690	P288N-1	DF-104	CUB2P1		GEM-412	2TM-P1	
C15	220		6375	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C16	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C17	.1	100	6690	P288N-1	DD-104	CUB2P1		GEM-401	2TM-P1	
C18	220		6375	SI 220	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C19	220		6375	SI 220	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C20	.47	50	6692	P288N-47	CUB2P47			GEM-4047	2TM-P47	

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	2Meg	½	1220963				UE1776S	Tone
B	1Meg	½						Volume, Tap@ 200K
C	Switch							
R2	100Ω	2	7289837		39-100		FL-150	Bias Adjust (wire wound)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R3	1Meg		1235	BTS-1Meg	
R4	1.5Meg		1237	BTS-1.5Meg	
R5	10K		1137	BTS-10K	
R6	15Meg		1249	BTS-15Meg	
R7	680K		1233	BTS-680K	
R8	33K		1217	BTS-33K	
R9	1Meg		1235	BTS-1Meg	
R10	2.2Meg		1239	BTS-2.2Meg	
R11	1Meg		1235	BTS-1Meg	
R12	560K		1232	BTS-560K	
R13	47K		1219	BTS-47K	
R14	1800Ω		1128	BTS-1800	
R15	8.8Meg		1245	BTS-8.8Meg	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R16	120K		1224	BTS-120K	
R17	2700Ω		1130	BTS-2700	
R18	270K			BTS-270K	Note 1
R19	18K		1214	BTS-18K	
R20	470K		1231	BTS-470K	
R21	39Ω		1108	BTS-39	
R22	15Ω		1103	BTS-15	
R23	390Ω		1120	BTS-390	
R24	120Ω	2	1188	BTB-120	
R25	10Ω		1101	BTS-10	
R26	.47Ω	1	7269709		
R27	150Ω	1		BTA-150	Note 2
R28	82Ω		1112	BTS-82	

Note 1. 220K used in some versions (Part #1227).
Note 2. 150Ω, 2W used in some versions (Part #1189).

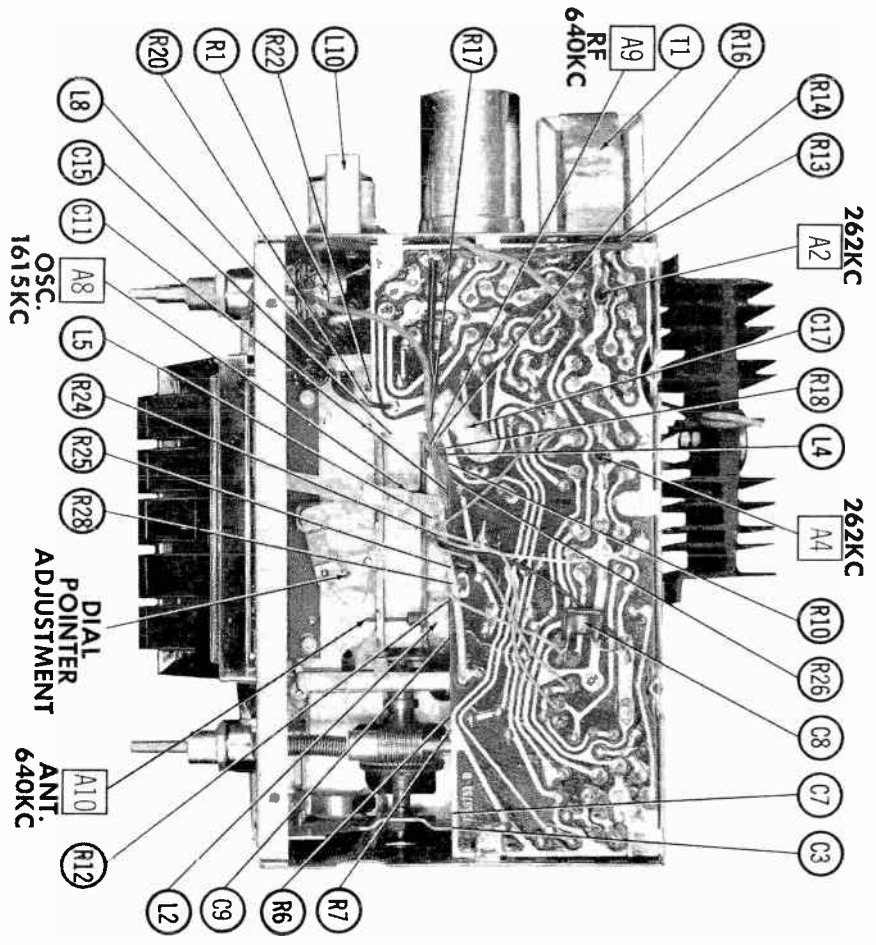
TRANSFORMER (AUDIO INPUT)

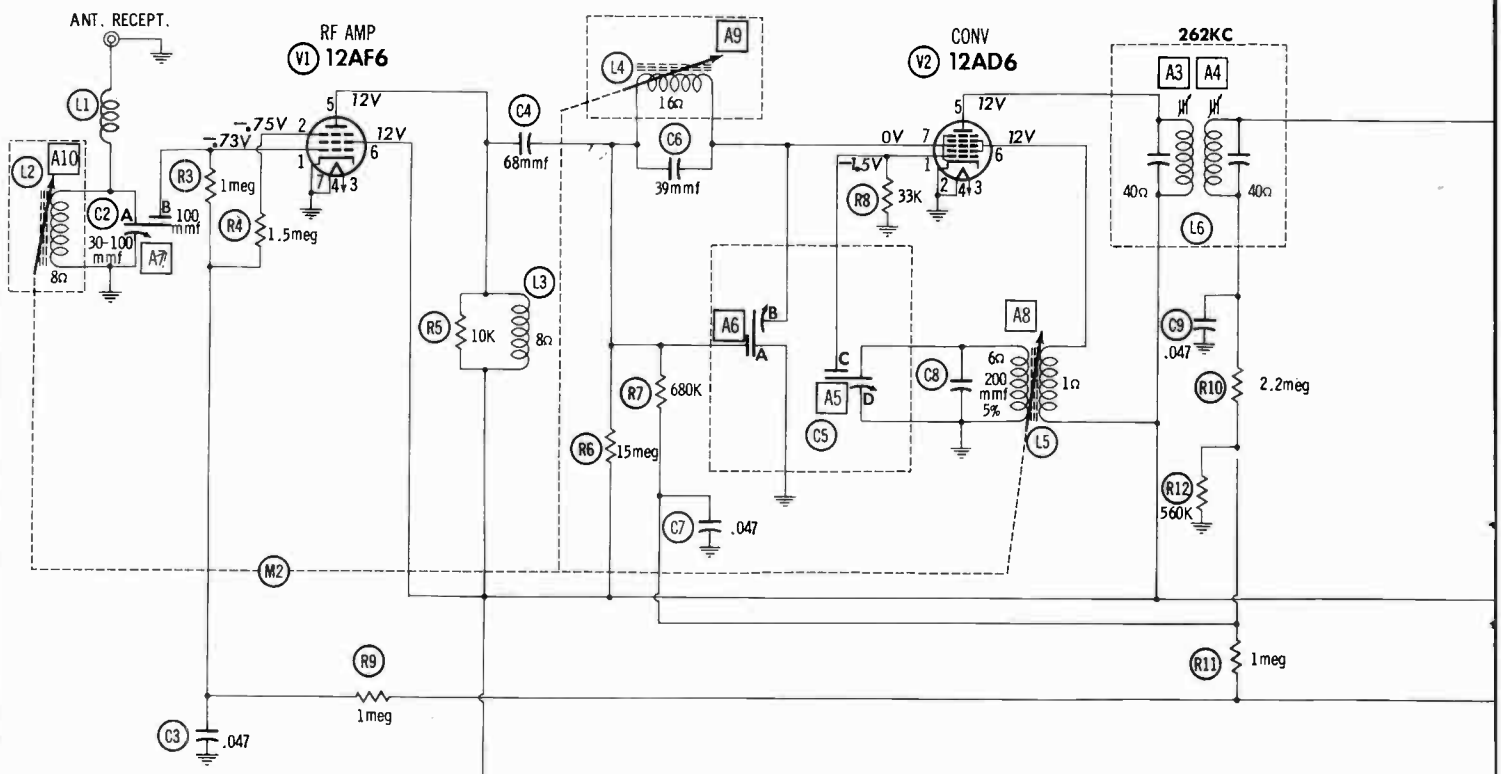
ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	50:	1	7269877						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	9Ω	3-4Ω	7269870						

CHASSIS—BOTTOM VIEW





1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

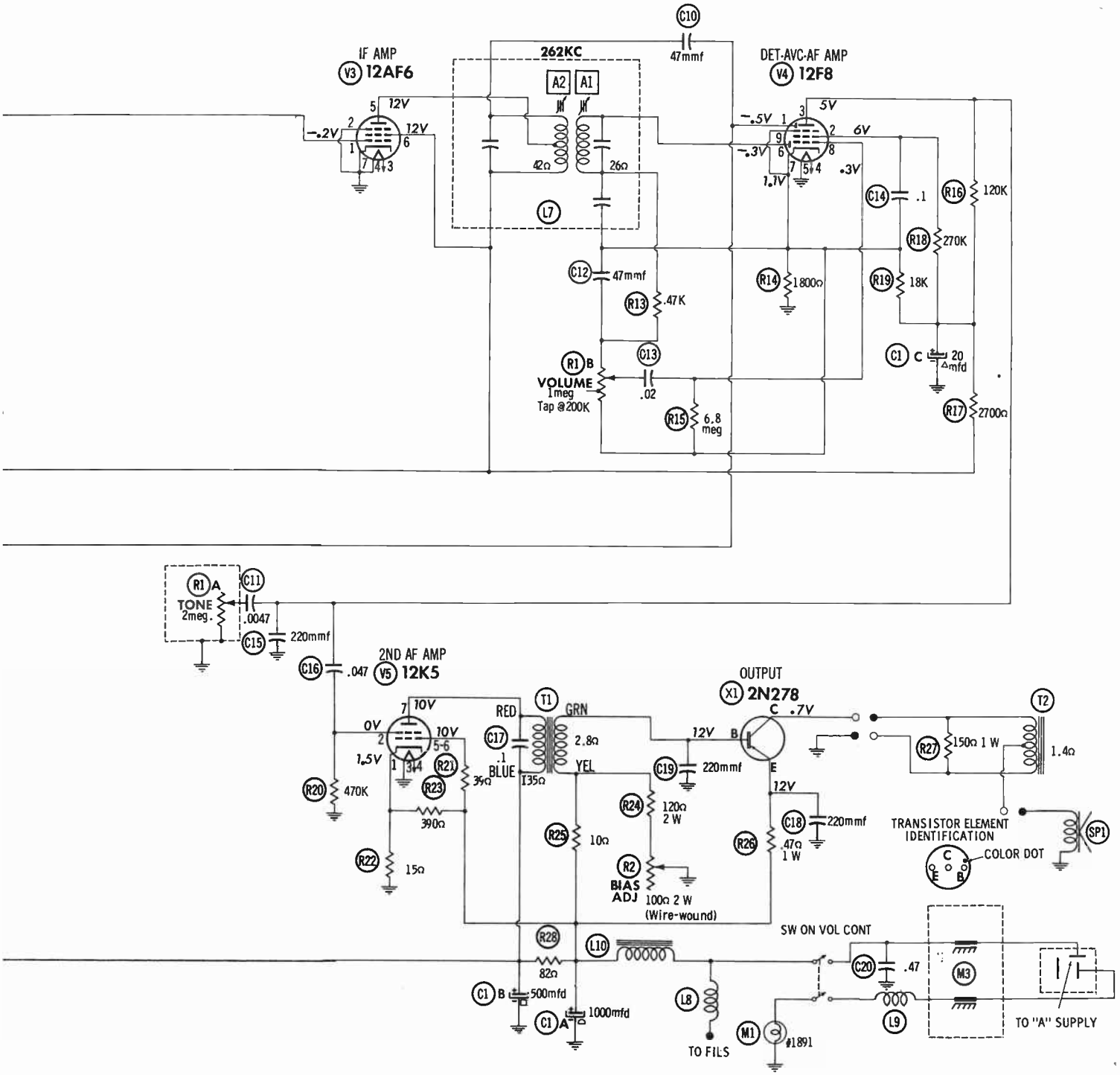
DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM.

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AF6	3.5Meg	4Meg	1.4Ω	0Ω	†90Ω	†85Ω	0Ω		
V2	12AD6	33K	0Ω	1.4Ω	0Ω	†120Ω	†85Ω	1.2Meg		
V3	12AF6	2.7Meg	0Ω	1.4Ω	0Ω	†100Ω	†85Ω	0Ω		
V4	12F8	1.5Meg	†272K	†122K	1.4Ω	0Ω	1Meg	1800Ω	6.8Meg	1800Ω
V5	12K5	15Ω	470K	0Ω	1.4Ω	†39Ω	†39Ω	†220Ω		
	TYPE	BASE	COLLECTOR	EMITTER						
X1	2N173	†13Ω	1.2Ω	†.5Ω						

† MEASURED FROM C1A.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



PARTS LIST AND DESCRIPTIONS (Continued)

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	1221045	69A2	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-585	4610	6.5 Microhenries
L2	Ant. Coil	1221050				
L3	RF Choke	7268195				
L4	RF Coil	1221050				
L5	Osc. Coil	1221052				
L6	Input IF	1221015			13-PH1	
L7	Output IF	1221021				
L8	Fil. Choke	1217846				1.3 Microhenries
L9	Hash Choke	1217846				1.3 Microhenries

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	DELCO PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.
L10	.600A	.24Ω	3 Millihenries	7269881					

MISCELLANEOUS

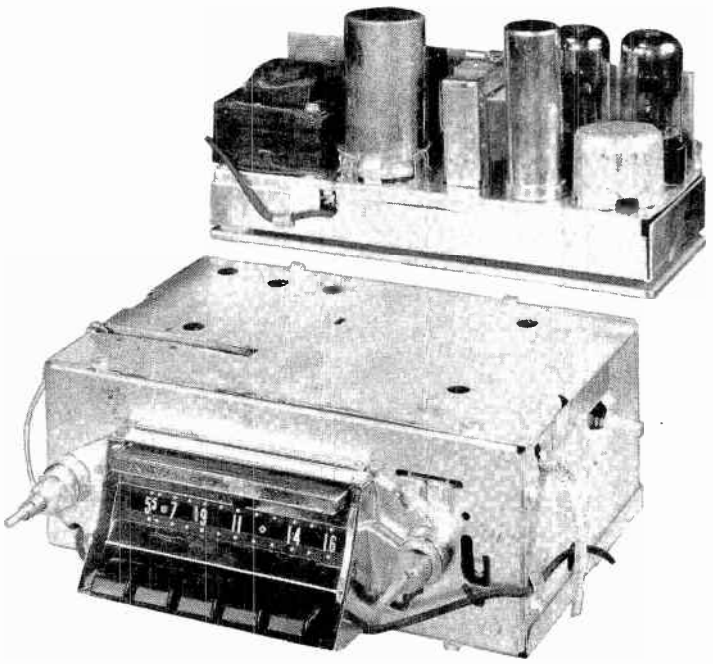
ITEM No.	PART NAME	DELCO PART No.	NOTES
M1	Dial Light	456985	#1891
M2	Tuner		
M3	Spark Plate	1220885	Dual Unit
	Printed Board	7269753-D	
	Knob	7268744	Tone, Dummy
	Knob	1990863	Tuning
	Knob	1990864	On-off-volume
	Pushbutton	1220984	5 used
	Pointer Assy.	1221033	

TRANSISTOR BIAS ADJUSTMENT (R2)

The transistor bias control (R2) should be adjusted when the transistor is replaced. The following procedure may be employed.

1. Insert a milliammeter in series with the transistor collector terminal.
2. Connect the receiver to a supply source of 12 volts DC.
3. With the receiver in operation, adjust R2 for a reading of 930 milliampers on the meter.

CHEVROLET MODEL 987577



TRADE NAME	Chevrolet Model 987577 (For 1957 Chevrolet Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det. -AVC-AF Amp., (2) 12V6GT Output, 12AU7 Trigger, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery — RATING 3.2 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1600KC

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. Use an insulated alignment screwdriver for adjusting. Sensitivity control to Position 1. Tone control to Treble.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2) Low side to chassis.	262KC (400%Mod.)	High frequency end stop	Across C12 (AVC Filter)	A1, A2, A3	To tune to high frequency end stop, place a .012" feeler gauge (or bare #28 wire) in slot against high frequency stop. Turn manual control until the planetary arm is against feeler gauge. Adjust for maximum deflection.
2	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	Check setting of oscillator coil core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
3	68MMF	High side to antenna receptacle. Low side to chassis.	1615KC	"	"	A5, A6 A7	Use feeler gauge as in Step 1. Adjust for maximum deflection.
4	"	"	600KC	Tune to 600KC signal	"	A9, A10	Adjust for maximum deflection.
5	"	"	1615KC	Tune to 1615KC signal	"	A6, A7	"
6	"	"	1100KC	Tune to 1100KC signal	"		If necessary, adjust dial pointer adjustment so that pointer coincides with 1100KC on dial.
7	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to the left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat on remaining pushbuttons.

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

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Output	12V6GT	
V6	Output	12V6GT	
V7	Trigger	12AU7	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▪20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

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

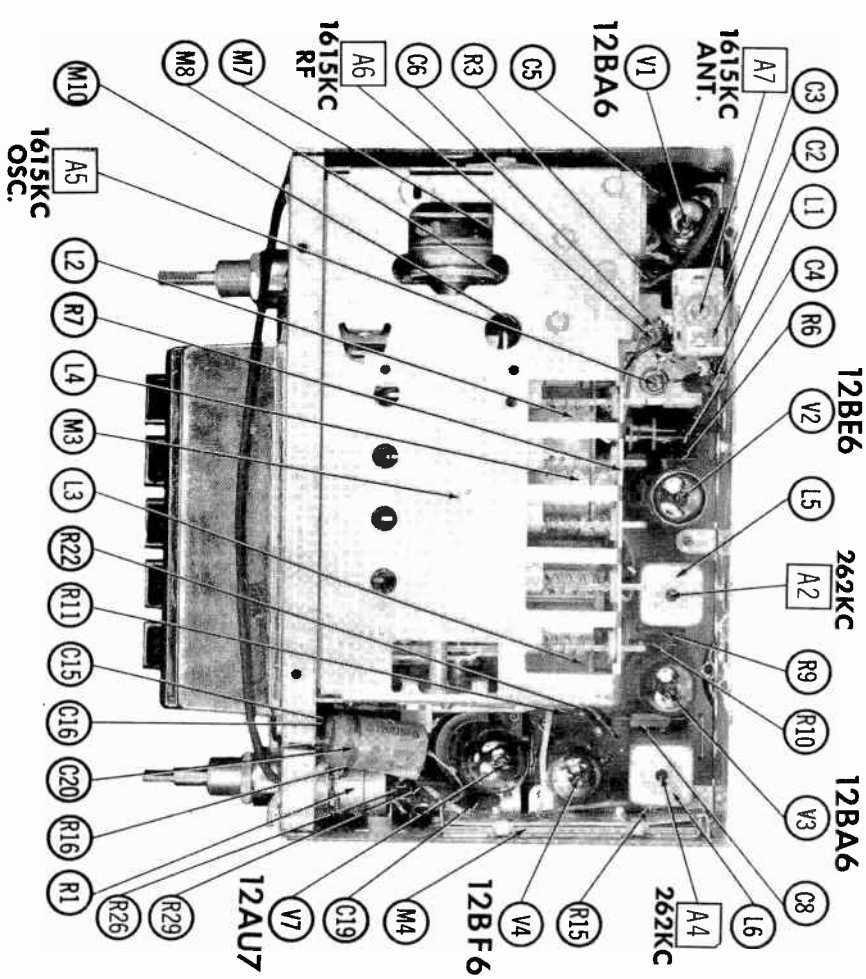
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A	30-100		7268558							
B	100								5TCC-Q68	N750
C3	68		6369	N750-SI 68	TCZ-68	C10Q68U	TC7-68		4TM-P1	
C4	.1	400	6613	P488N-1	DF-104	CUB4P1			2TM-S47	
C5	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147		
C6A										
B			7268828							
C										
D										
C7	200		7268904	1469-0002		22R5T2			MS-32	5%
C8	100		1219498	1469-0001	TCZ-101	22R5T1	TC0-100	ZT-531	MS-31	5%
C9	39		6366	SI 39	D6-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C10	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C11	100		1219498	1469-0001	TCZ-101	22R5T1	TC0-100	ZT-541	MS-31	5%
C12	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C13	.015	200	7237719	BPD-015	DD16-153	CUB6S15	ED-015	GEM-4115	4TM-S15	
C14	.001	600	6627	BPD-001	D6-102	CUB6D1	GP-1000	GEM-621	6TM-D1	
C15	68		6369	1468-000068	D6-680	22R5Q68	ED-68	UC-5468	1FM-468	
C16	2000		6342	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C17	470	1000	6379	BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	5GA-T47	
C18	.003	1000	6563	P1088N-003	DD16-302	CUB10D3		GEM-1023	10TM-D3	
C19	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C20	.47	50		P288N-47		CUB2P47		GEM-2047	2TM-P47	①
C21	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-211	2TM-P1	
C22	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C23	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	

① Not used in some versions

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	½	1220961				UE1476S	Tone Volume, Tap② 150K
B	750K	½						
C	Switch							

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	330K		1229	BTS-330K	
R5	1.5Meg		1237	BTS-1.5Meg	
R6	22K		1227	BTS-22K	
R7	100Ω		1113	BTS-100	
R8	12K	2	1278	BTB-12K	
R9	10Ω		1101	BTS-10	
R10	150Ω		1115	BTS-150	
R11	1Meg		1235	BTS-1Meg	
R12	47K	1	1259	BTA-47K	
R13	1000Ω 5%		1220178	BTS-1000 5%	
R14	3300Ω 5%		1220173	BTS-3300 5%	
R15	100K		1223	BTS-100K	
R16	100K		1223	BTS-100K	
R17	1Meg		1235	BTS-1Meg	Note 1
R18	360Ω 5%	1	7234563	BTA-360 5%	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R19	680K 5%		1220172	BTS-680K 5%	Note 2
R20	1Meg		1235	BTS-1Meg	
R21	180K		1228	BTS-180K	
R22	1.5Meg5%		1219492	BTS-1.5Meg5%	
R23	100Ω		1113	BTS-100	
R24	1000Ω		7289528	BTS-1000	
R25	47K			BTS-47K	
R26	5.6Meg		1244	BTS-5.6Meg	
R27	3900Ω	1	1189	BTA-3900	
R28	680Ω 5%		1219493	BTS-680 5%	
R29	120K		1212	BTS-120K	
R30	5600Ω	1	1171	BTA-5600	
R31	47K	1	1259	BTA-47K	
R32	33K 5%	1	7266230	BTA-33K 5%	
R33	15K	1	1253	BTA-15K	
R34	1800Ω				Note 3

Note 1. Some versions may use 560K.
Note 2. Some versions may use a 1Meg, 5% (Part #1235).
Note 3. Mfgr. states to replace R34 with 2700Ω, 2W & 5600Ω, 1W in parallel (Part #1204 & 1171).

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @ 2A	530VCT @ .066A			6067	V3902	P-2861	P-6489	22R52	V-31

TRANSFORMER (AUDIO INPUT)

ITEM No.	Resistance		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triod PART No.	
T2	1620Ω tapped		1220902						

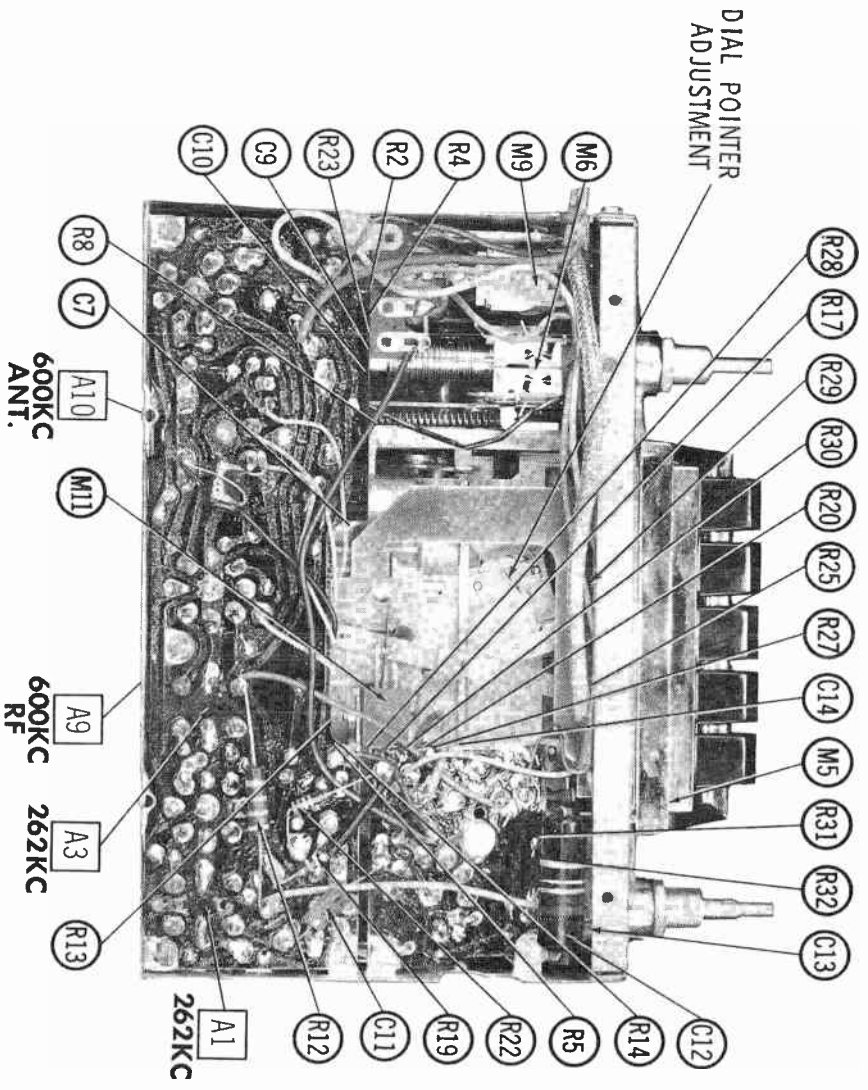
TRANSFORMER (AUDIO OUTPUT)

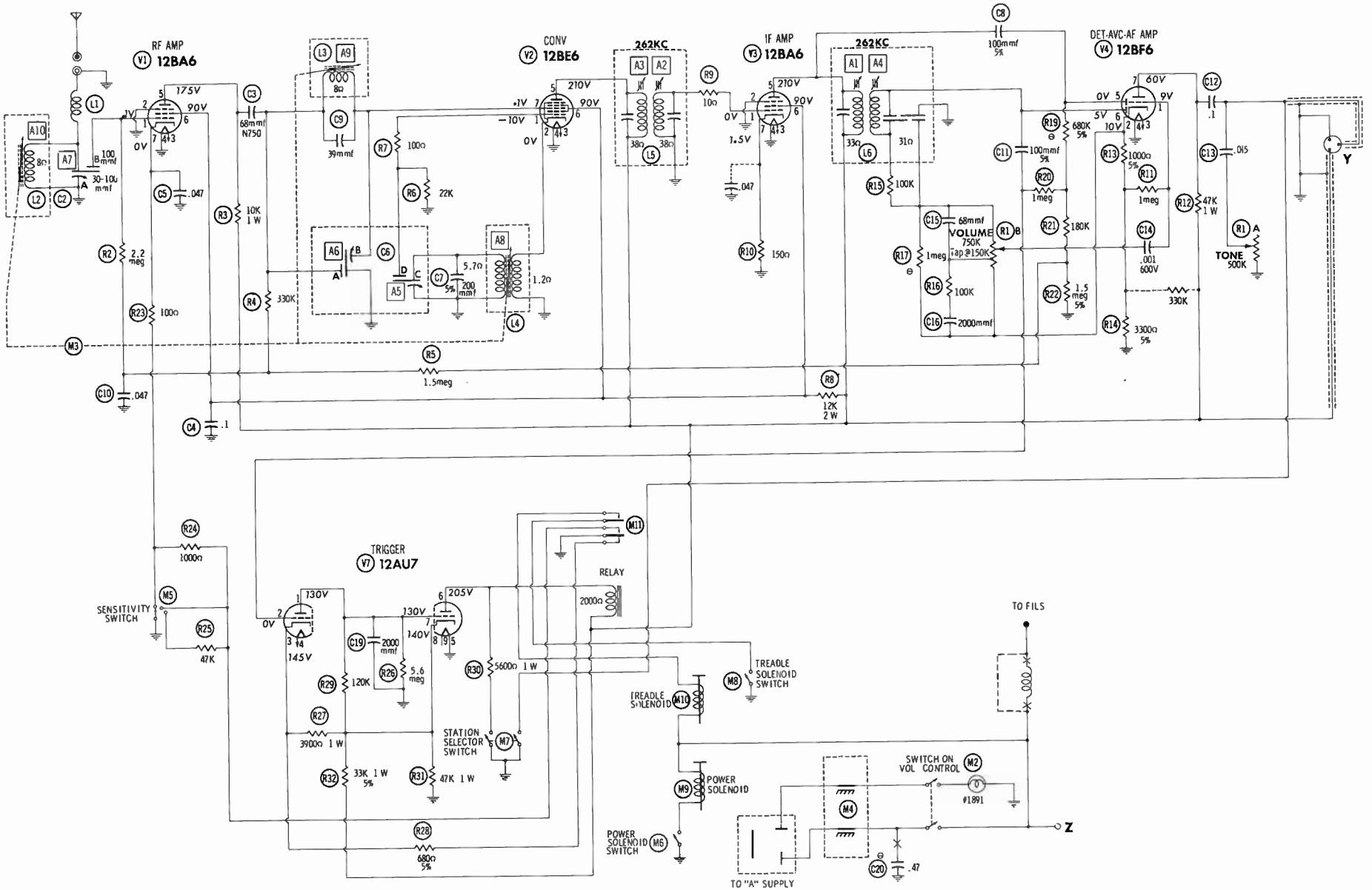
ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	9300Ω CT	3-4Ω	7269231	Z1011 ①	A-3027 ①	A-3824 ①	26859 ①	S-55X ①	① Fabricate mounting

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	6112	69A2	

CHASSIS—BOTTOM VIEW



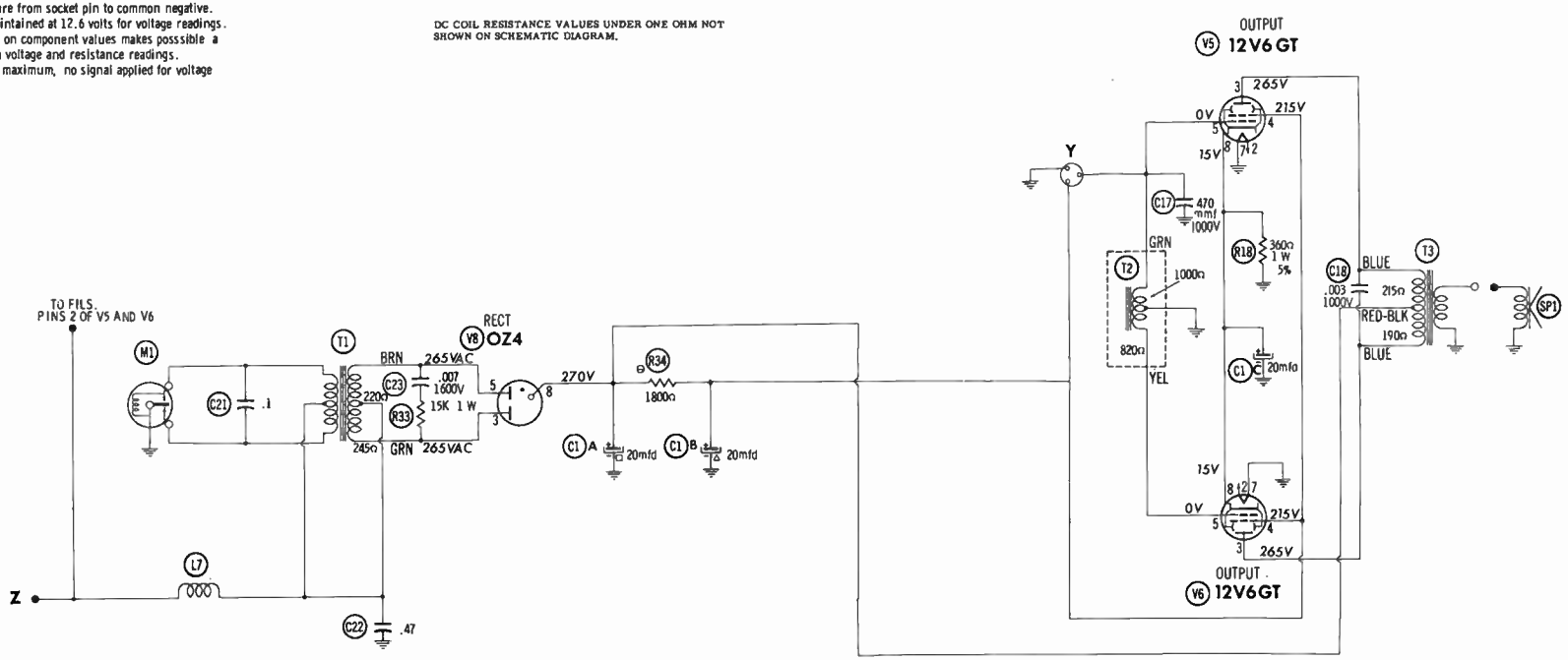


Main Chassis

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	1.6Ω	0Ω	†12K	†14K	100Ω		
V2	12BE6	22K	1.2Ω	1.6Ω	0Ω	†1800Ω	†14K	3.3Meg		
V3	12BA6	48Ω	0Ω	1.6Ω	0Ω	†1800Ω	†14K	150Ω		
V4	12BF6	1Meg	4300Ω	1.6Ω	0Ω	2.3Meg	800K	†49K		
V5	12V6GT	NC	1.6Ω	†215Ω	†1800Ω	1000Ω	NC	0Ω	360Ω	
V6	12V6GT	NC	1.6Ω	†190Ω	†1800Ω	820Ω	NC	0Ω	360Ω	
V7	12AU7	165K	2.5Meg	50K	1.6Ω	0Ω	†3800Ω	165K	47K	NC
V8	0Z4	NC		245Ω		220Ω		TP	20K(Min)	

† MEASURED FROM PIN 8 OF V8
NC NO CONNECTION
TP TIE POINT

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Ant. Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220880	16-6756	BC-317		
L6	Output IF	1220992				
L7	Hash Choke	1221077				42 Microhenries

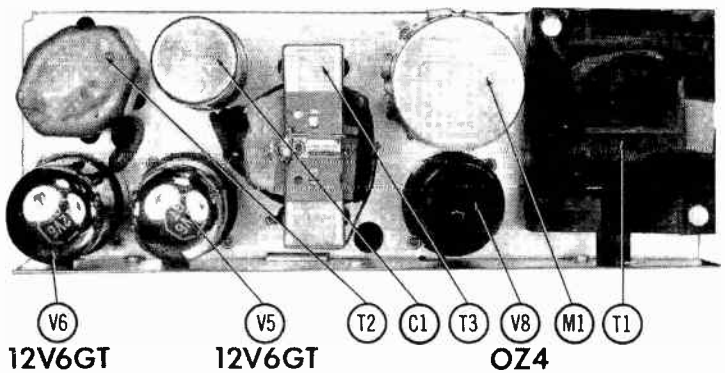
VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115Ω	8555	6330	G1602/G883	6330	

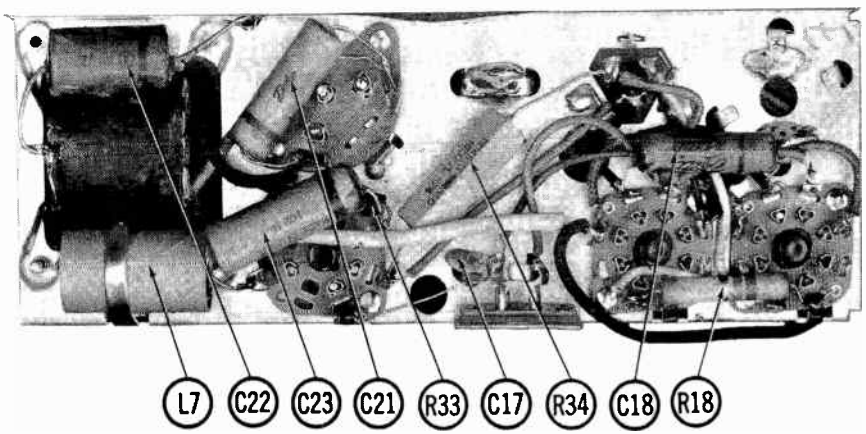
MISCELLANEOUS

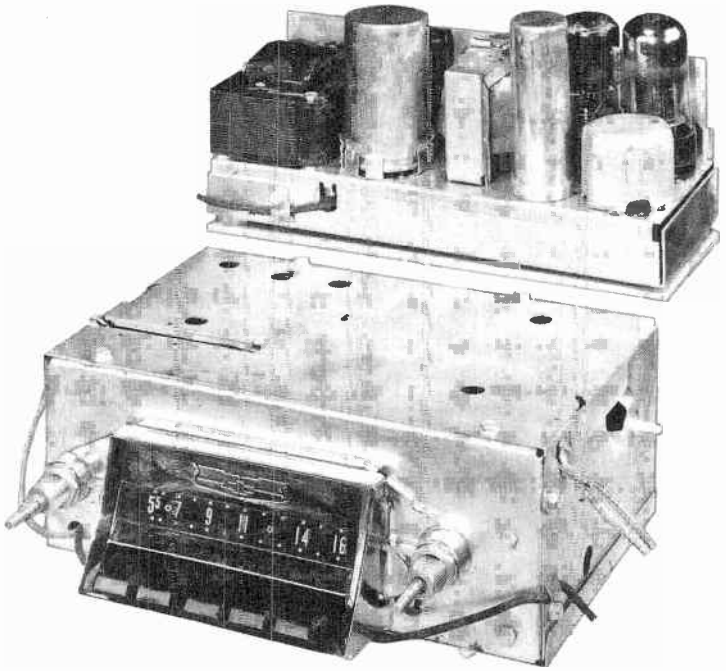
ITEM No.	PART NAME	DELCO PART No.	NOTES
M2	Dial Light		#1891
M3	Tuner		
M4	Spark Plate	1220885	
M5	Switch	7259526	Sensitivity
M6	Switch	7268030	Power Solenoid
M7	Switch	7269872	Station Selector
M8	Switch	7268030	Treadle Solenoid
M9	Solenoid	7268040	Power
M10	Solenoid	7268050	Treadle
M11	Relay	7269582	
	Knob	7268744	Tone, Dummy
	Knob	1990863	Tuning
	Knob	1990864	On-Off-Volume

POWER
CHASSIS—BOTTOM VIEW



CHASSIS—BOTTOM VIEW





TRADE NAME	Chevrolet Model 987693 (For 1957 Chevrolet Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Seven)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det. -AVC-AF Amplifier, (2) 12V6GT Output, OZ4 Rectifier
POWER SUPPLY	12 Volt Storage Battery
RATING	3 Amp. @ 12.6 Volts DC
TUNING RANGE--BROADCAST	540-1600KC

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. Use an insulated alignment screwdriver for adjusting.
Tone control to mid-range.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400% Mod)	High frequency end of dial	Across voice coil	A1, A2 A3, A4	Adjust for maximum output.
	If necessary, adjust oscillator core (A8) so that rear of core is 1 5/8" from mounting end of coil form.						
2	68MMF	High side to antenna receptacle. Low side to chassis.	1615KC	"	"	A5, A6 A7, A8	Adjust in order given for maximum output.
3	"	"	600KC	Tune to 600KC signal	"	A9, A10	Adjust for maximum output.
4	"	"	1615KC	High freq. end stop	"	A6, A7	"
5	"	"	900KC	Tune to 900KC signal	"		If necessary, adjust dial pointer adjustment so that pointer coincides with 1000KC when looking directly at dial.
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1 Pull pushbutton to the left and out.
2 Tune manually to desired station.
3 Press pushbutton in firmly.
4 Repeat on remaining pushbuttons.

CHEVROLET
MODEL 987693

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF8	
V5	Output	12V6GT	
V6	Output	12V6GT	
V7	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

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

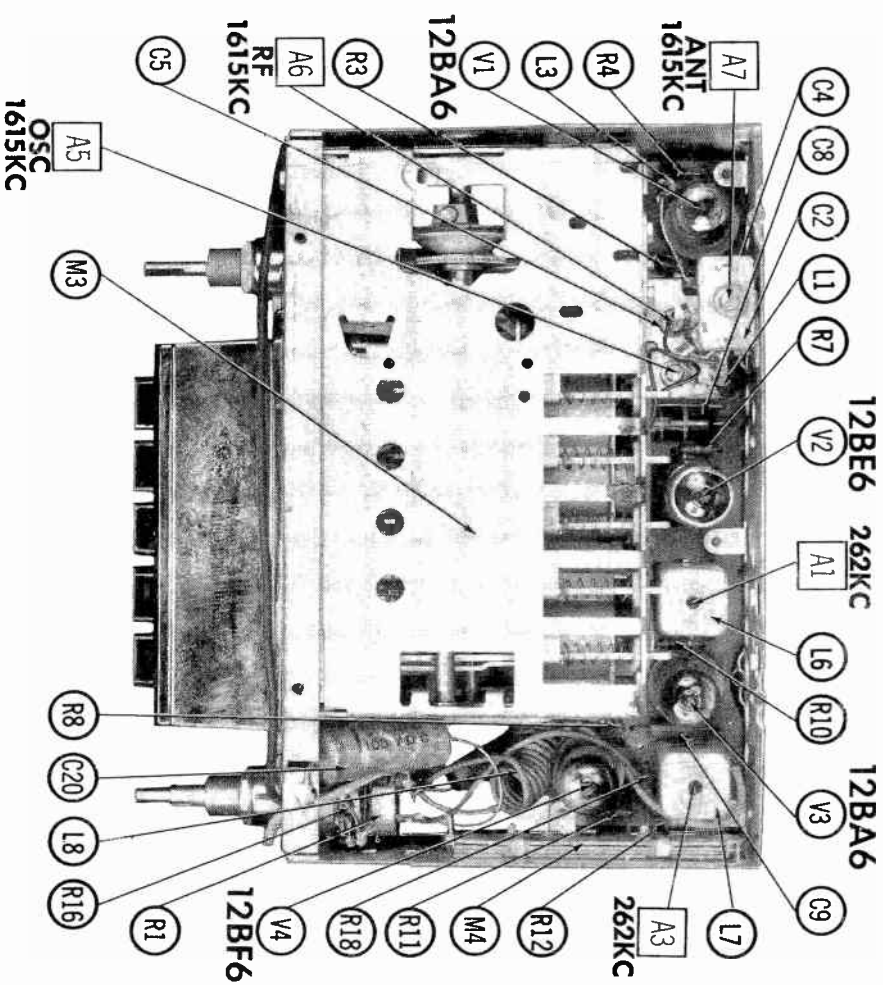
ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2A	30-100		7268558							
B	100									
C3	.047	200	8612	BPD-05	DF-503	CUB2S47		GEM-4147	2TM-S47	
C4	15		8361	BPD-000015	DD-150	L10Q15	ED-15	UC-5415	5GA-Q15	
C5A			7268828							
B										
C										
D										
C6	39		8366	SI 39	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7	200		7268904							N150 5%
C8	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C9	100	500	6371	SI 100	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C10	200●		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C11	68	500		SI 68	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	①
C12	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C13	.002	600		BPD-002	DD-202	CUB6D2	GP-2000	GEM-622	6TM-D2	②
C14	470	1000	6379	HVD-15-470	DD30-471	BYA10T47	HD15-470	DC30347	10GAB-T47	
C15	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C18	.003	1000	6563	P1088N-003	DD18-302	BYA10D3		GEM-1023	10TM-D3	
C17	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	
C18	.47	100	6692	P288N-47		CUB2P47		GEM-4047	2TM-P47	
C19	.007	1800	6567	P1688N-007	DD16-702	CUB16D7		GEM-1827	16TM-D7	
C20	.47	100	6692	P288N-47		CUB2P47		GEM-4047	2TM-P47	

① Some versions may use 120MMF in this application (Part #G-121)
② Some versions may use .001MFD in this application (Part #6627)

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	2Meg		1220963	F1-68			UE1776S	Tone
B	1Meg			R2-57				Volume, Tap② 200K
C	Switch			KB-7				
D	Bushing			AK-28				

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	68Ω		1111	BTS-68	
R5	330K		1229	BTS-330K	
R6	100Ω		1113	BTS-100	
R7	22K		1215	BTS-22K	
R8	1Meg		1235	BTS-1Meg	
R9	15K	2	1277	BTB-15K	
R10	220Ω		1117	BTS-220	
R11	1Meg		1235	BTS-1Meg	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R12	47K		1219	BTS-47K	
R13	1Meg		1235	BTS-1Meg	
R14	1000Ω		1125	BTS-1000	
R15	2200Ω		1129	BTS-2200	
R16	82K		1222	BTS-82K	
R17	470K		1231	BTS-470K	
R18	3.3Meg		1241	BTS-3.3Meg	
R19	47K	1	1259	BTA-47K	
R20	360Ω 5%	1	7234563	BTA-360 5%	
R21	1800Ω	2		BTB-1800	Note 1
R22	15K	1	1253	BTA-15K	

Note 1. Mfgr. states to replace R21 with 2700Ω 2W (part #1204) & 5600Ω 1W (part #1171) connected in parallel.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triod PART No.
T1	12.6VCT @ 1.9A	480VCT @ .060A			6067	V3902	P-2861	P-6489	22R52	V-31

TRANSFORMER (AUDIO INPUT)

ITEM No.	Resistance		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	1710Ω tapped		1220902						

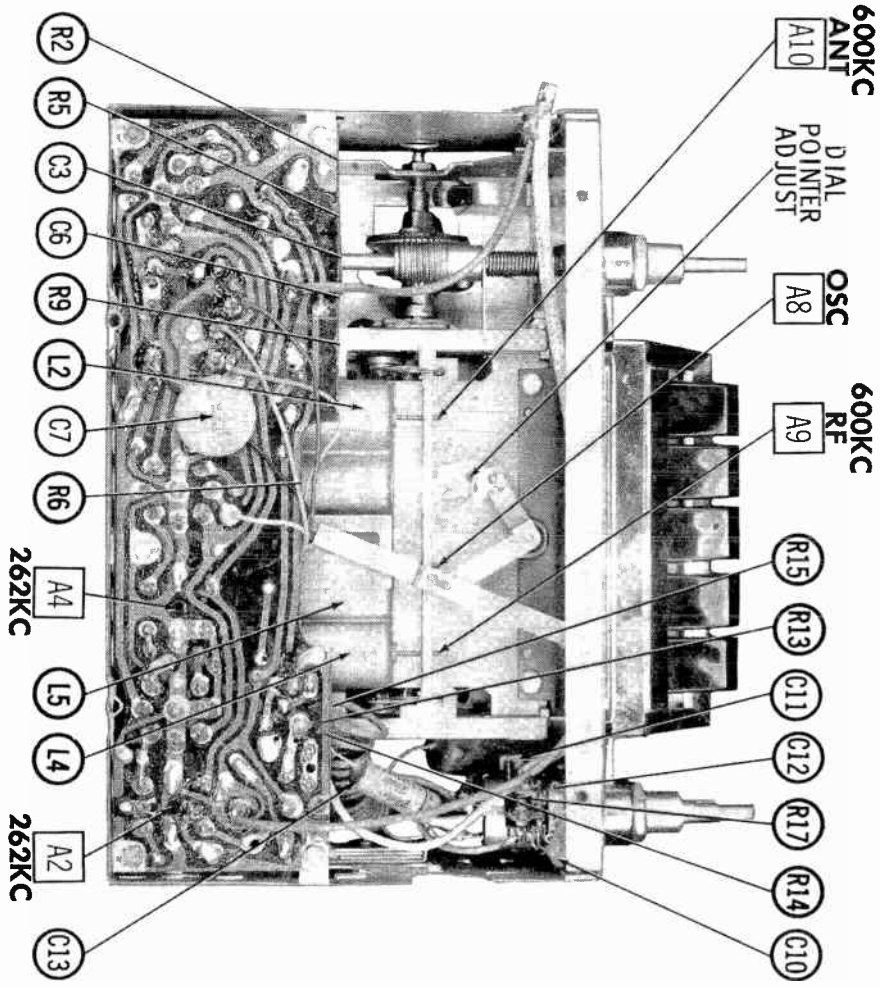
TRANSFORMER (AUDIO OUTPUT)

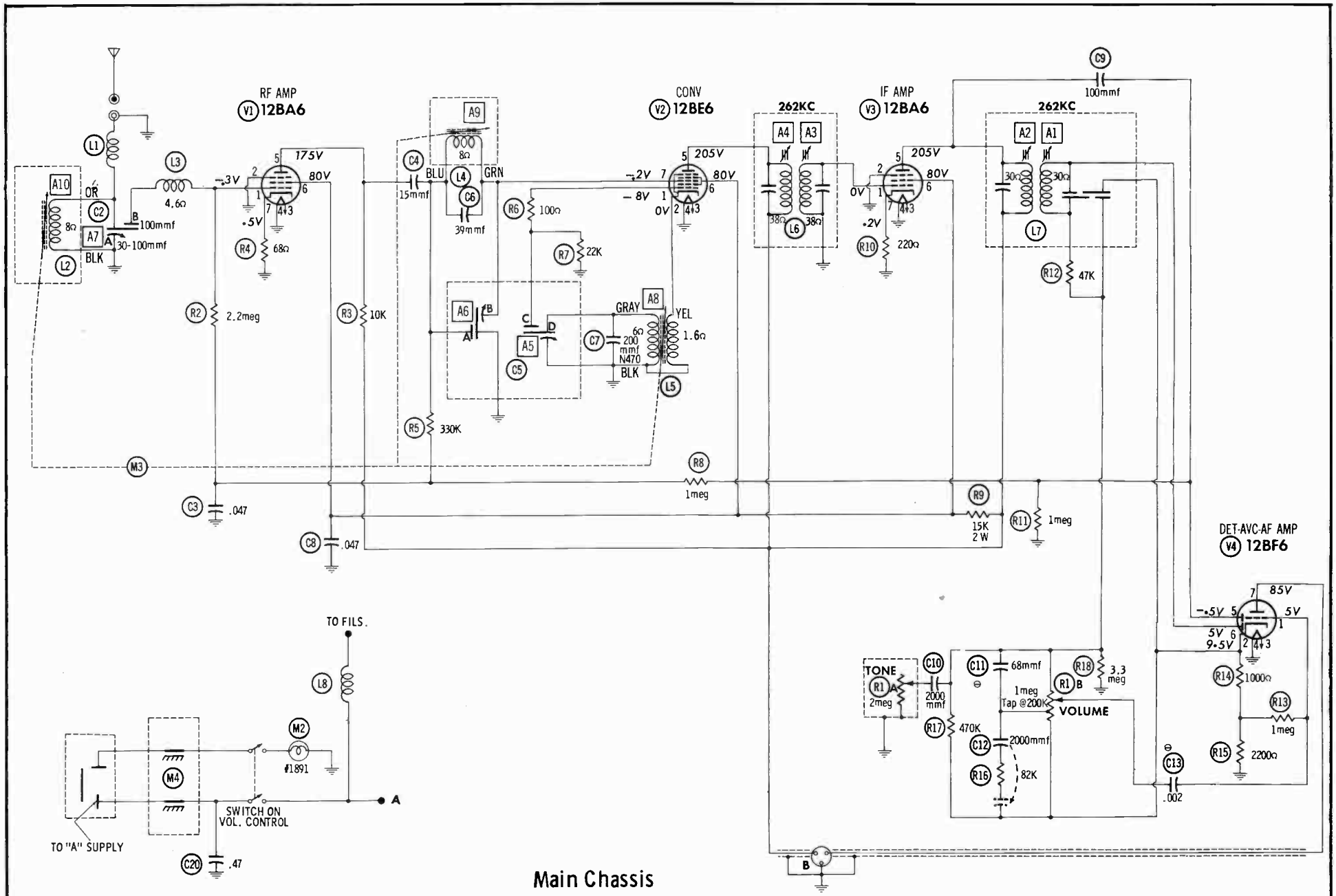
ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	9300Ω CT	3-4Ω	7269231	Z1011 ①	A-3027 ①	A-3824 ①	28S59 ①	S-55X ①	① Fabricate Mounting

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	1221045	69A2	

CHASSIS—BOTTOM VIEW



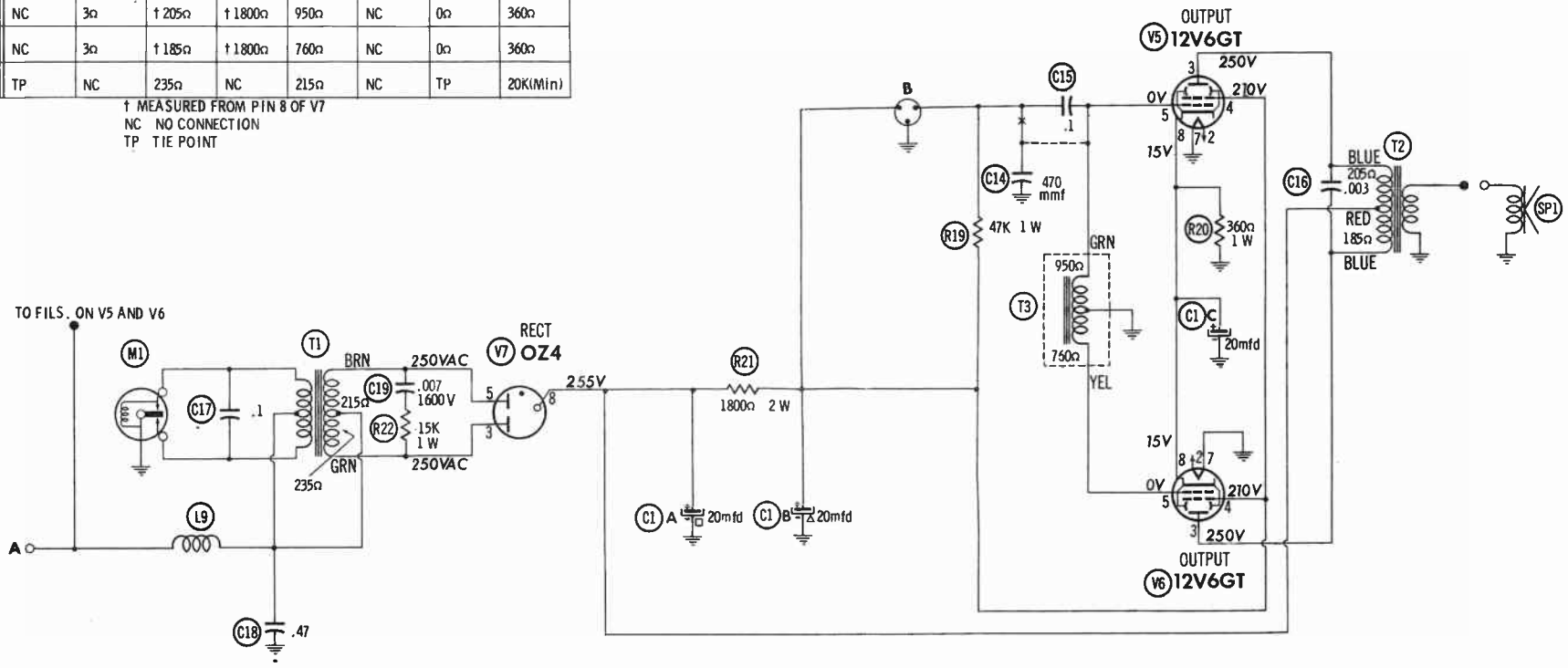


Main Chassis

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V1	12BA6	4.2Meg	0Ω	3Ω	0Ω	†12K	†17K	68Ω	
V2	12BE6	22K	1.6Ω	3Ω	0Ω	†1800Ω	†17K	2.3Meg	
V3	12BA6	38Ω	0Ω	3Ω	0Ω	†1800Ω	†17K	220Ω	
V4	12BF6	1Meg	3200Ω	3Ω	0Ω	1Meg	350K	†49K	
V5	12V6GT	NC	3Ω	†205Ω	†1800Ω	950Ω	NC	0Ω	360Ω
V6	12V6GT	NC	3Ω	†185Ω	†1800Ω	760Ω	NC	0Ω	360Ω
V7	0Z4	TP	NC	235Ω	NC	215Ω	NC	TP	20K(Min)

† MEASURED FROM PIN 8 OF V7
NC NO CONNECTION
TP TIE POINT



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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-585	4810	6.5 Microhenries
L2	Antenna Coil	1221050				
L3	RF Choke	7240251	19-8022		4828	28 Microhenries
L4	RF Coil	1221050				
L5	Osc. Coil	1221051				
L6	Input IF	1220990	18-8756	BC-317		
L7	Output IF	1220992				
L8	Fil. Choke	1217846				1.4 Microhenries
L9	Hash Choke	7289090				42 Microhenries

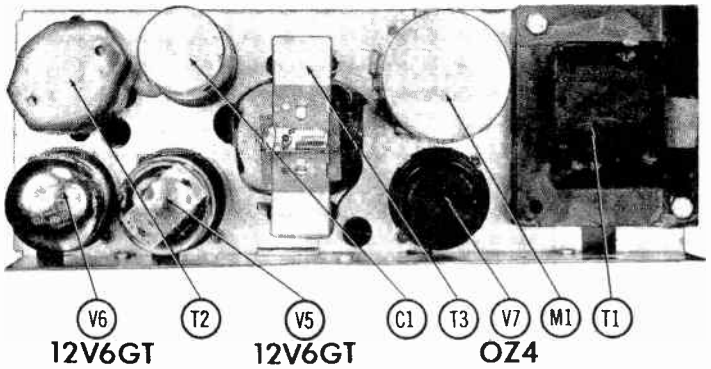
VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115	8555	6330	G1602/G883	8330	

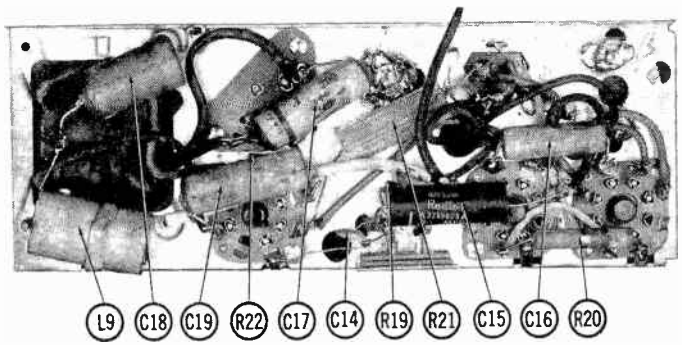
MISCELLANEOUS

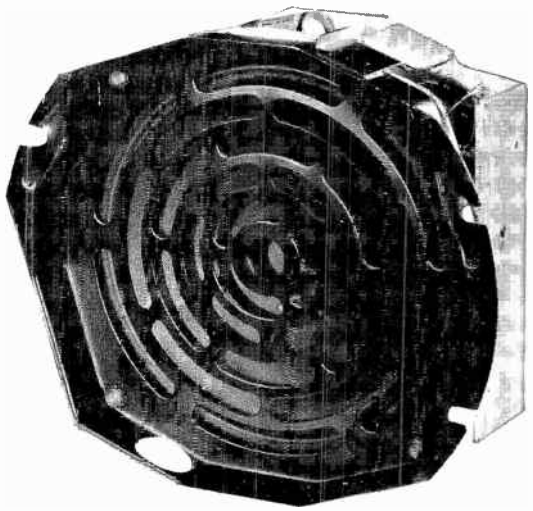
ITEM No.	PART NAME	DELCO PART No.	NOTES
M2	Dial Light	458985	#1891
M3	Tuner		
M4	Spark Plate	1220885	Dual Unit
	Dial Glass	7289200	
	Knob	7268744	Tone, Dummy
	Knob	1990863	Tuning
	Knob	1990864	On-Off-Volume
	Pointer Ase'y.	1221033	

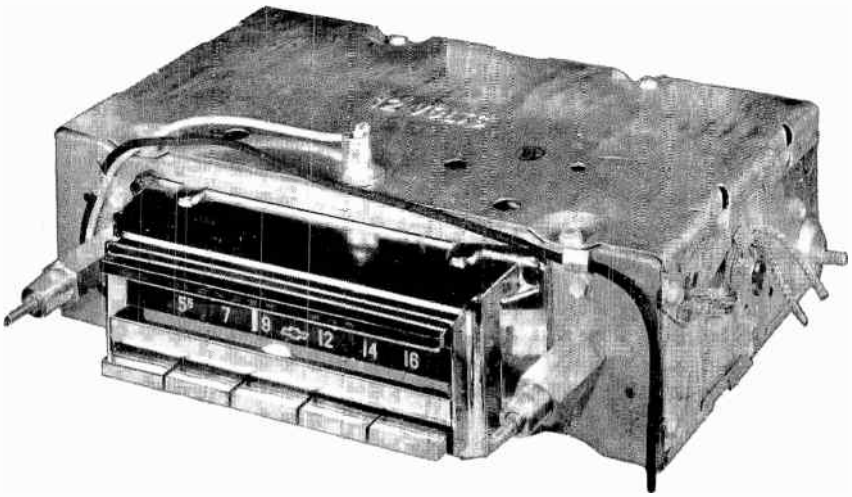
POWER CHASSIS TOP VIEW



POWER CHASSIS BOTTOM VIEW



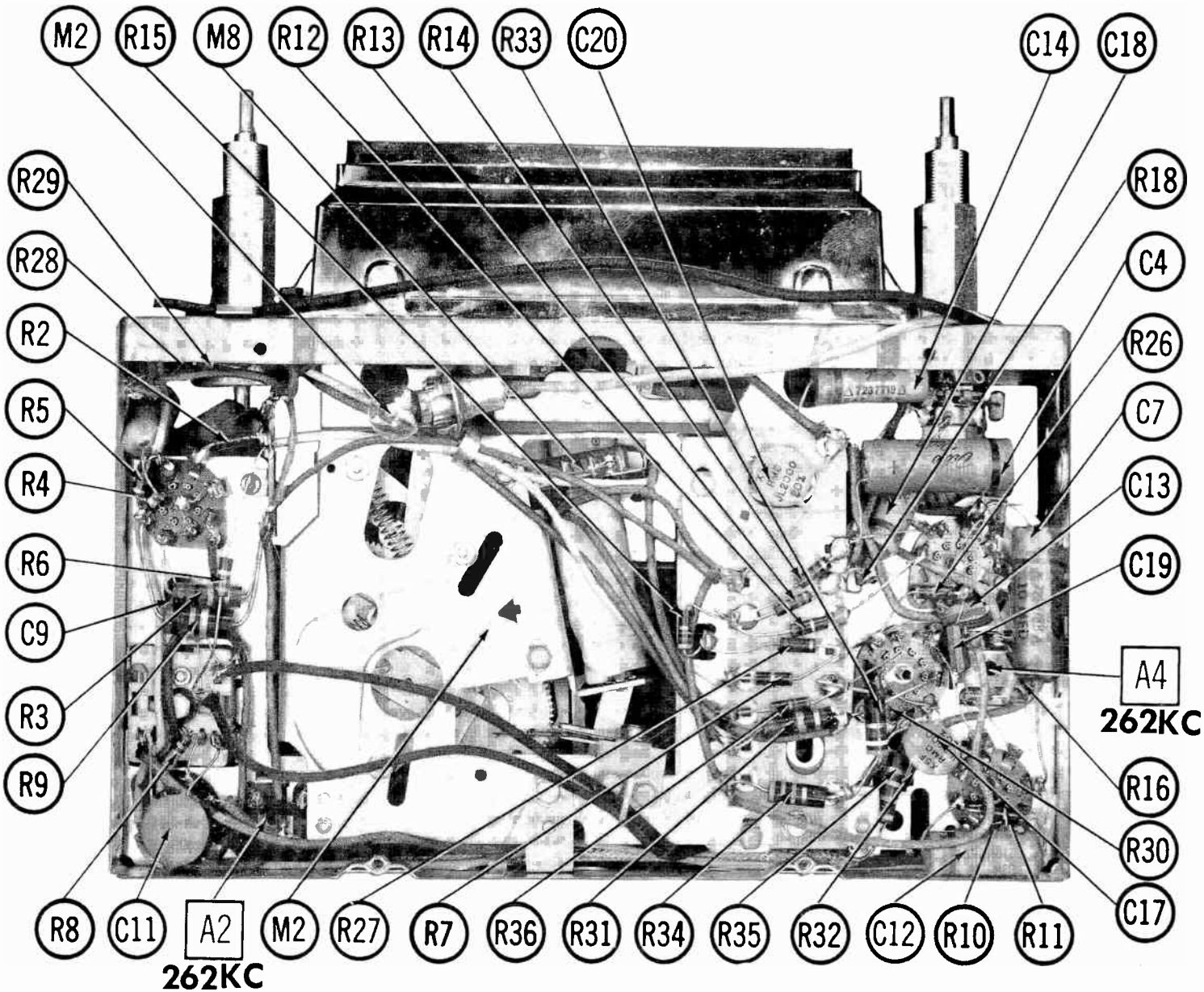




CHEVROLET
MODEL 3725156

TRADE NAME	Chevrolet Model 3725156 (For 1956 & 1957 Chevrolet Corvette Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output
TUBES (Six)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det.-AVC-AF Amp., 12AU7 Trigger, 12X4 Rectifier
POWER SUPPLY	12 Volt Storage Battery
TUNING RANGE--BROADCAST	540-1600KC RATING 3 Amp.@ 12.6 Volts DC

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



TUNER CHASSIS - BOTTOM VIEW

ALIGNMENT INSTRUCTIONS

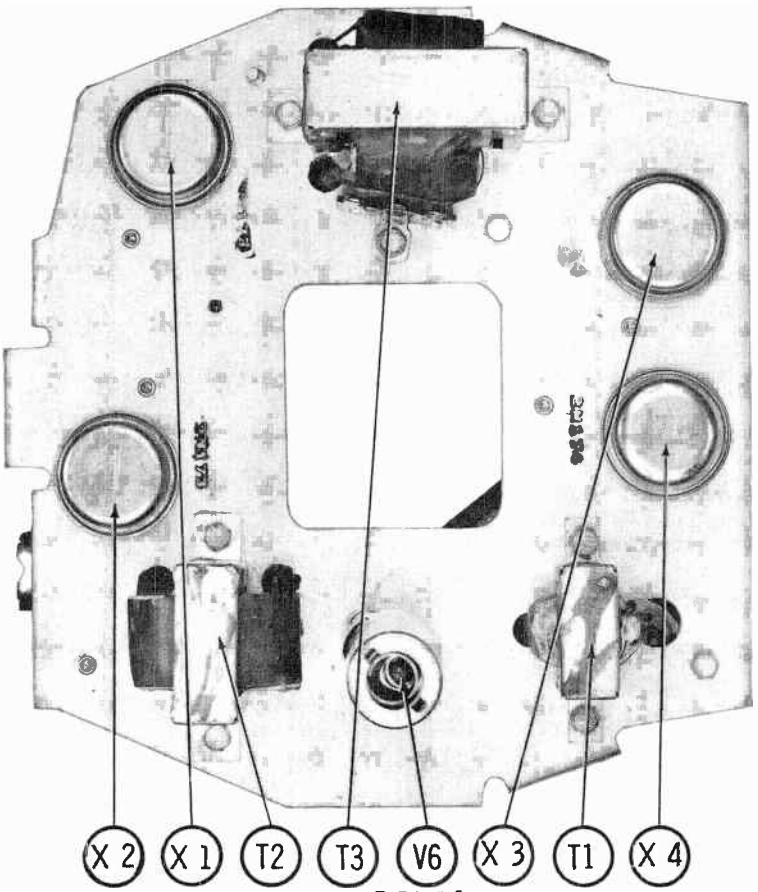
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.
Sensitivity control to position 1.
Tone control to breble.
Signal generator should not exceed 2 volts at VTVM.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400∿ Mod)	High freq. end stop	Across C6 (AVC Filter)	A1, A2, A3	To tune to high frequency end stop, place a .070" feeler gauge (or Bare #13 wire) in slot against high frequency stop. Turn manual control until the planetary arm is against feeler gauge. Adjust A1, A2 and A3 for maximum deflection.
2.	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	If necessary, adjust oscillator coil core (A8) so that it is 1 25/32" from mounting end of coil form.						
3.	68MMF	High side to antenna receptacle. Low side to chassis.	1615KC	"	"	A5, A6, A7	Use feeler gauge as in step 1. Adjust A5, A6 and A7 in order given for maximum deflection.
4.	"	"	600KC	Tune to 600KC signal	"	A9, A10	Adjust for maximum deflection.
5.	"	"	1615KC	Tune to 1615KC signal	"	A6, A7	"
6.	"	"	900KC	Tune to 900KC signal	"		If necessary, adjust pointer adjustment screw so pointer coincides with 900KC on dial.
7.	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, adjust A7 for maximum volume.						

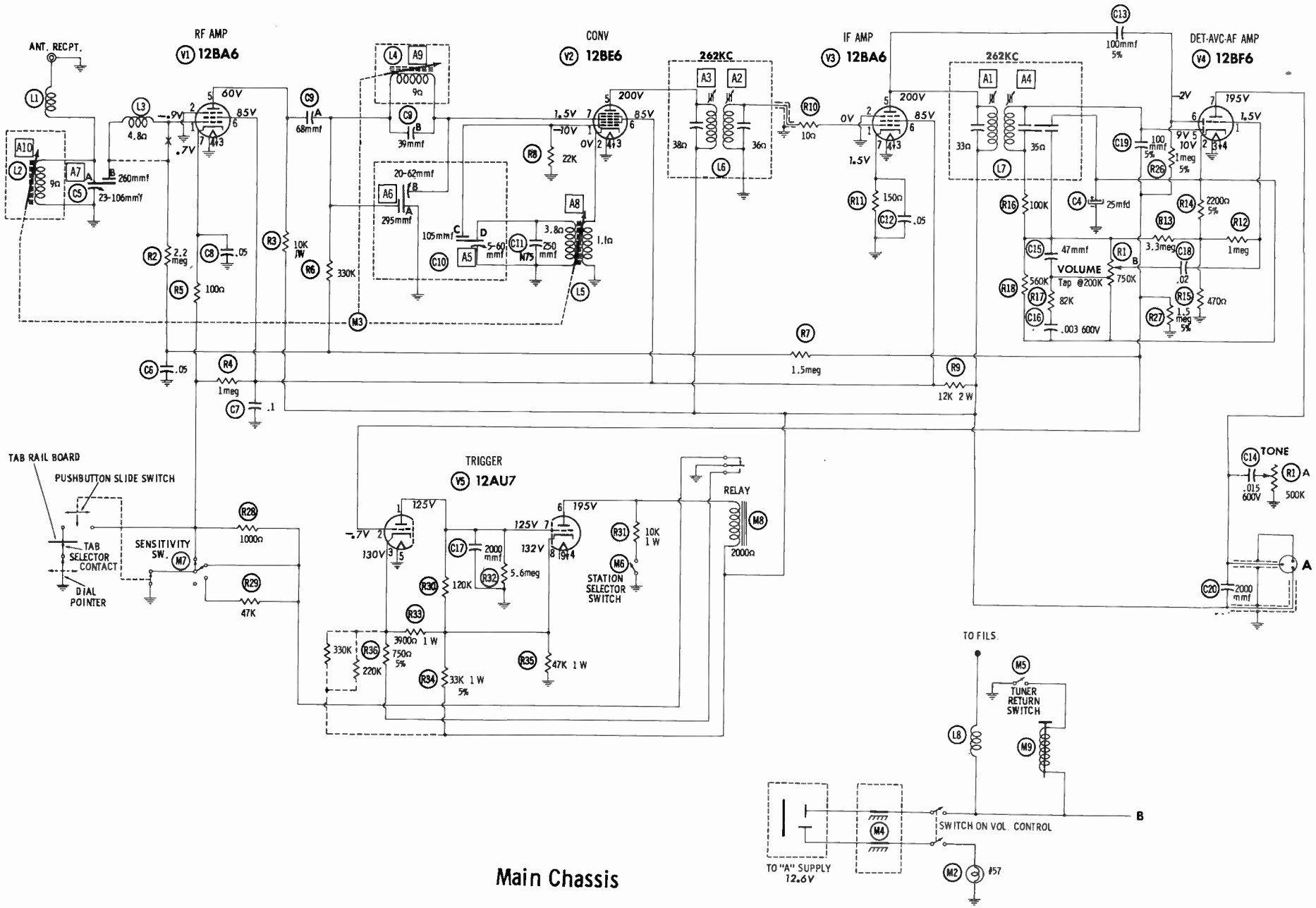
PUSHBUTTON ADJUSTMENT

1. Turn receiver on and allow 15 minute warm-up period.
2. Antenna should be fully extended.
3. Open the hinged tab cover below dial scale, exposing the five red pushbutton setting tabs.
4. Starting at left end of dial, tune in manually first desired station and move the first pushbutton setting tab until it lines up with dial pointer tip.
5. Repeat this procedure for remaining pushbuttons working from left to right.

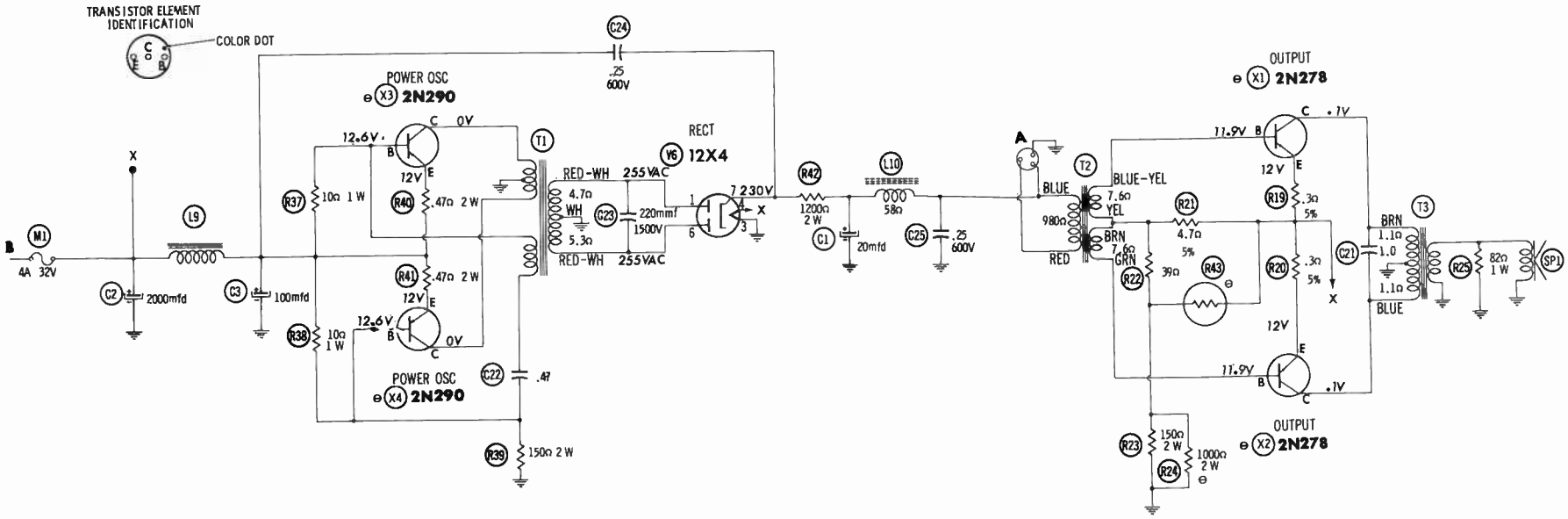


12X4

OUTPUT CHASSIS—TOP VIEW



Main Chassis



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	.9Ω	0Ω	†10K	†12K	100Ω		
V2	12BE6	22K	1.1Ω	.9Ω	0Ω	†1258Ω	†12K	3.3Meg		
V3	12BA6	46Ω	0Ω	.9Ω	0Ω	†1258Ω	†12K	150Ω		
V4	12BF6	1Meg	2600Ω	0Ω	.9Ω	390K	2.5Meg	†1300Ω		
V5	12AU7	†150K	1.5Meg	50K	.9Ω	0Ω	†3200Ω	150K	47K	NC
V6	12X4	4.7Ω	NC	0Ω	.9Ω	TP	5.3Ω	20K (Min)		
	Type	Base	Collector	Emitter						
X1	2N173	200Ω	1.1Ω	200Ω						
X2	2N173	200Ω	1.1Ω	200Ω						
X3	2N174	10Ω	.2Ω	1.1Ω						
X4	2N174	10Ω	.2Ω	1.1Ω						

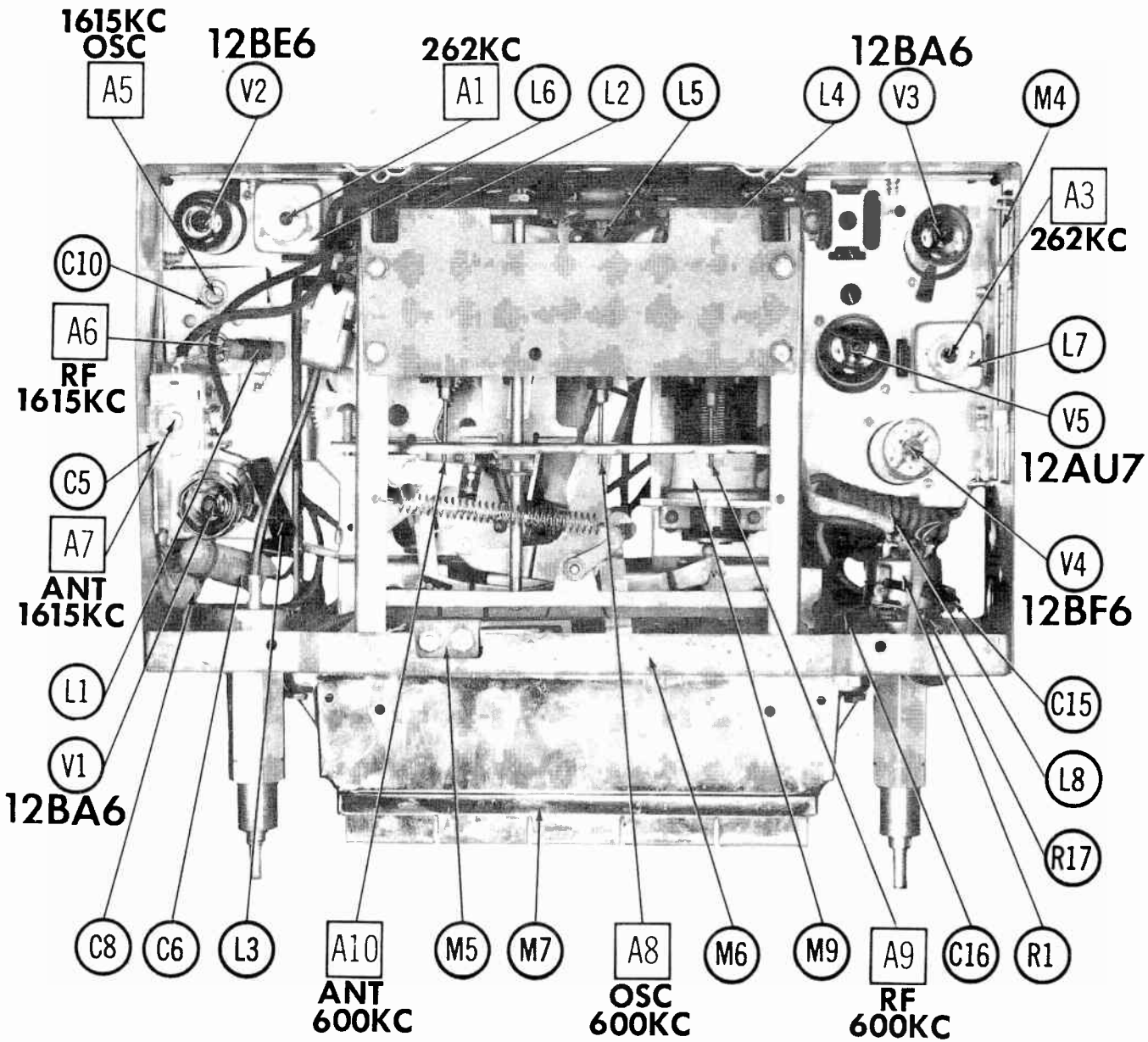
† MEASURED FROM PIN 7 OF V6.
NC NO CONNECTION.
TP TIE POINT

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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis.



TUNER CHASSIS - TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amplifier	12BF6	
V5	Trigger	12AU7	
V6	Rectifier	12X4	

TRANSISTORS

ITEM No.	USE	TYPE	NOTES
X1	Output	2N278	Note 1
X2	Output	2N278	Note 1
X3	Power Oscillator	2N290	Note 2
X4	Power Oscillator	2N290	Note 2

Note 1. X1 & X2 are a matched pair, type 2N173 used in some versions, use type 2N278 for replacement purposes.
Note 2. Type 2N174 used in some versions, use type 2N290 for replacement purposes.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	20	450	6329	PRS450V20	BR2045	TC75	TD-20-450	FM-4520	TVA-1709
C2	2000	15	7268269		BR20001	TC1501 TC1501		S-025	R2425 *
C3	100	25	6301	PRS25V100	BBR100-25	TC2501	TD-100-25	MTH-2510	TVA-1207
C4	25	25	6320	PRS25V25	BBR25-25	TC26	TD-25-25	FM-0225	TVA-1205

* Non-Catalog Item.

FIXED CAPACITORS

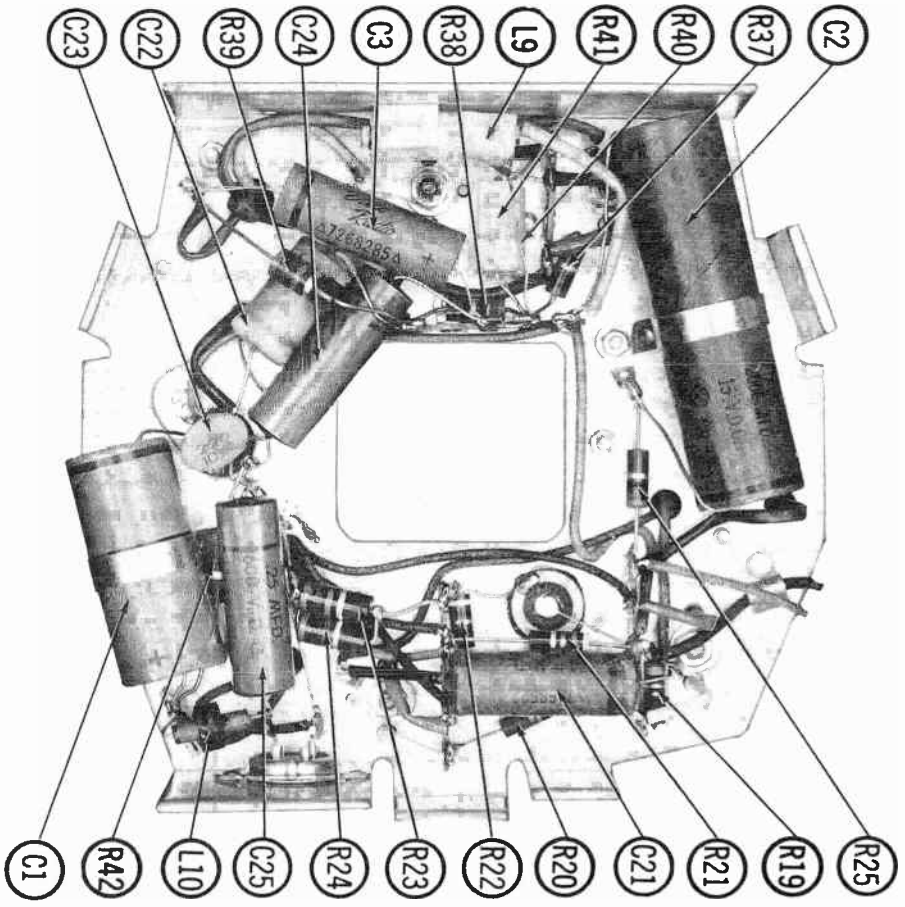
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5A	23-105		7265235							
B	260									
C6	.05	200	6512	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C7	.1	400	6513	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C8	.05	200	6512	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C9A	68			BPD-000068	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	
B	39			SI39	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C10A	295									
B	20-62									
C	105		7242454							
D	5-60									
C11	250		7266596							N75
C12	.05	200	6512	BPD-05	DF-503	CUD2S5		GEM-415	2TM-S5	
C13	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C14	.015	600	7237719	BPD-015	DDI6-153	CUB6S15	ED-015	GEM-6115	6TM-S15	
C15	47		6367	1468-000047	D6-470	5W5Q47	ED-47	UC-5447	1FM-447	
C16	.003	600	6529	BPD-0033	D6-302	CUB6D3	GP-3000	GEM-623	6TM-D3	
C17	2000		6528	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C18	.02	200	6511	BPD-02	DF-203	CUB2S2	ED-02	GEM-412	2TM-S2	
C19	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C20	2000		6352	BPD-002	DD-202	1W5D2	ED-002	DC522	1FM-22	
C21	1.0	100	6593	P288N-1.0		CUB2W1		GEM-21	2TM-M1	
C22	.47	100	6592	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C23	220	1500	7268270							N1500
C24	.25	600	6541	P688N-25		CUB6P25		GEM-6025	6TM-P25	
C25	.25	600	6541	P688N-25		CUB6P25		GEM-6025	6TM-P25	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K		7265302	F1-41		QJ-703A	UF55A	Tone
B	750K			R2-59			URI6T25	Volume, Tap @ 200K
C	Switch			KB-7			US-27	
D	Bushing			AK-27			EB-214	

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	1Meg		1235	BTS-1Meg	
R5	100Ω		1113	BTS-100	
R6	330K		1229	BTS-330K	
R7	1.5Meg		1237	BTS-1.5Meg	
R8	22K		1215	BTS-22K	
R9	12K	2	1276	BTB-12K	
R10	10Ω		1101	BTS-10	
R11	150Ω		1115	BTS-150	
R12	1Meg		1235	BTS-1Meg	
R13	3.3Meg		1241	BTS-3.3Meg	
R14	2200Ω 5%		1220171	BTS-2200 5%	
R15	470Ω		1121	BTS-470	
R16	100K		1223	BTS-100K	
R17	82K		1222	BTS-82K	
R18	560K		1232	BTS-560K	
R19	.3Ω 5%		7268273		
R20	.3Ω 5%		7268273		
R21	4.7Ω 5%		1097		
R22	39Ω		1108	BTS-39	
R23	150Ω	2	1189	BTB-150	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R24	1000Ω	2		BTB-1000	Note 1
R25	82Ω	1	1149	BTA-82	
R26	1Meg 5%		1220169	BTS-1Meg 5%	
R27	1.5Meg 5%		1219492	BTS-1.5Meg 5%	
R28	1000Ω		1125	BTS-1000	
R29	47K		1219	BTS-47K	
R30	120K		1224	BTS-120K	
R31	10K	1	1174	BTA-10K	
R32	5.6Meg		1244	BTS-5.6Meg	
R33	3900Ω	1	1169	BTA-3900	
R34	33K 5%	1	7266230	BTA-33K 5%	
R35	47K	1	1259	BTA-47K	
R36	750Ω 5%		7266320	BTS-750	
R37	10Ω	1	1138	BTA-10	
R38	10Ω	1	1138	BTA-10	
R39	150Ω	2	1191	BTB-150	
R40	.47Ω	2	7268271		
R41	.47Ω	2	7268271		
R42	1200Ω	2	1200	BTB-1200	
R43			1221036		Note 2

Note 1. Value of R24 may vary. (Refer to Transistor Bias Adjustment).
Note 2. Special temperature compensating type resistor.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @1.8A	500VCT @.032A			7268194					

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	8:	1	7268192				TR-23 ①		①Drill New Mtg. Holes

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	30Ω CT	3-4Ω	7268193				TR-59		

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	8"	PM	3-4Ω	7268177	8A21	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Antenna Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Antenna Coil	7257979				
L3	RF Choke	7240251	19-6022		4626	26 Microhenries
L4	RF Coil	7257979				
L5	Oscillator Coil	7263287				
L6	Input IF	1219508		BC-319	13-PH1	
L7	Output IF	1220204				
L8	Fil. Choke	1217846				1.4 Microhenry
L9	"A" Supply Choke	7265642				187 Microhenries
L10	Filter Choke	7268195				

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	SFE	4A 32V	147682	153-R	307004 (SFE 4A)	155004	SFE4	HRF

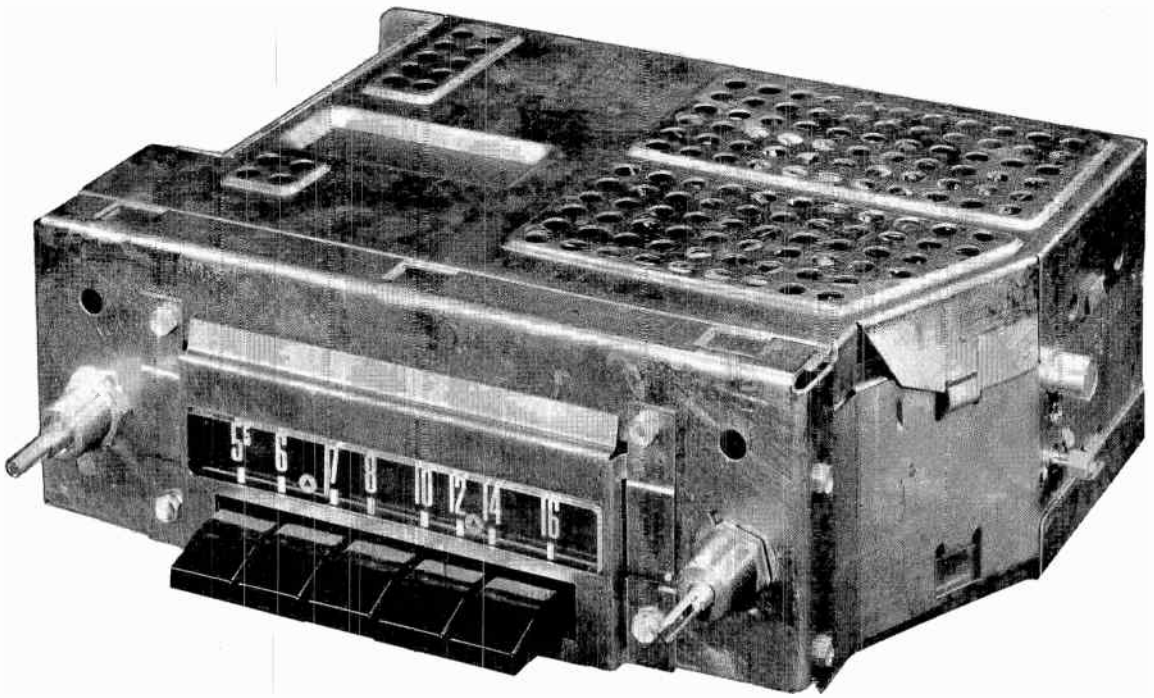
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M2	Dial Light		#57
M3	Tuner		
M4	Spark Plate	1220885	Dual Unit
M5	Switch	7263340	Tuner Return
M6	Switch	7265300	Station Selector
M7	Switch	7267298	Sensitivity
M8	Relay	1220326	
M9	Solenoid	1220685	Includes Plunger
	Contacts	1220193	Pushbutton Slide (Set Of 5)
	Contacts	1220191	Tab Selector (Set Of 5)
	Dial Glass	7265308	
	Pointer	7265297	
	Knob	7265769	Tone, Sensitivity
	Knob	1990841	On-Off-Volume, Tuning
	Pushbutton #1	1220330	
	Pushbutton #2	1220331	
	Pushbutton #3	1220332	
	Pushbutton #4	1220333	
	Pushbutton #5	1220334	

BIAS ADJUSTMENT

TRANSISTOR BIAS ADJUSTMENT

The bias adjustment should be checked if the 2N173 output transistors (X1, X2) are replaced. To do this, insert a milliameter in series with the center tap of the primary winding of the output transformer (T3). The milliameter should indicate 100MA. If necessary, replace R24 with one or more resistors of suitable value until the milliameter does indicate 100MA.



TRADE NAME	Ford Model 75BF (FEG-18805-B) (For 1957 Ford Automobiles)
MANUFACTURER	Bendix Radio, Div. of Bendix Aviation Corp., Baltimore 4, MD.
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12AF6 RF Amplifier, 12AD6 Converter, 12AF6 1st. IF Amplifier, 12CN5 (or) 12AF5 2nd. IF Amplifier, 12J8 Det.-AVC-AF Amp.
POWER SUPPLY	12Volt Storage Battery RATING 2 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to high.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	262.5KC (400~Mod.)	High frequency end stop	Across voice coil (DO NOT DISCONNECT SPEAKER)	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	Thru dummy to antenna receptacle.	1605KC	"	"	A5, A6, A7	"
	The following steps are not necessary unless tuner cores have been tampered with or replaced. BACK TUNING cores A8, A9, A10 OUT OF COILS BUT NOT OUT OF COIL FORMS.						
3	Fig. 1	Thru dummy to antenna receptacle.	1605KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output.
4	"	"	1000KC	Back carriage ½" from high frequency end stop	"	A8, A9, A10	Adjust for maximum output. Repeat steps 3 & 4 until no further increase is noted.

With radio installed in car and antenna fully extended, tune in a weak station near 1400KC, adjust A7 for maximum volume.

PUSHBUTTON ADJUSTMENT

1. Tune to desired station.
2. Pull pushbutton out.
3. Press pushbutton in firmly.
4. Repeat on remaining pushbuttons.

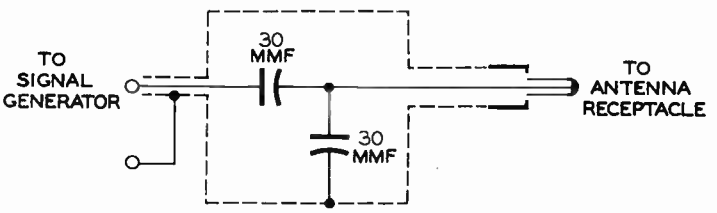
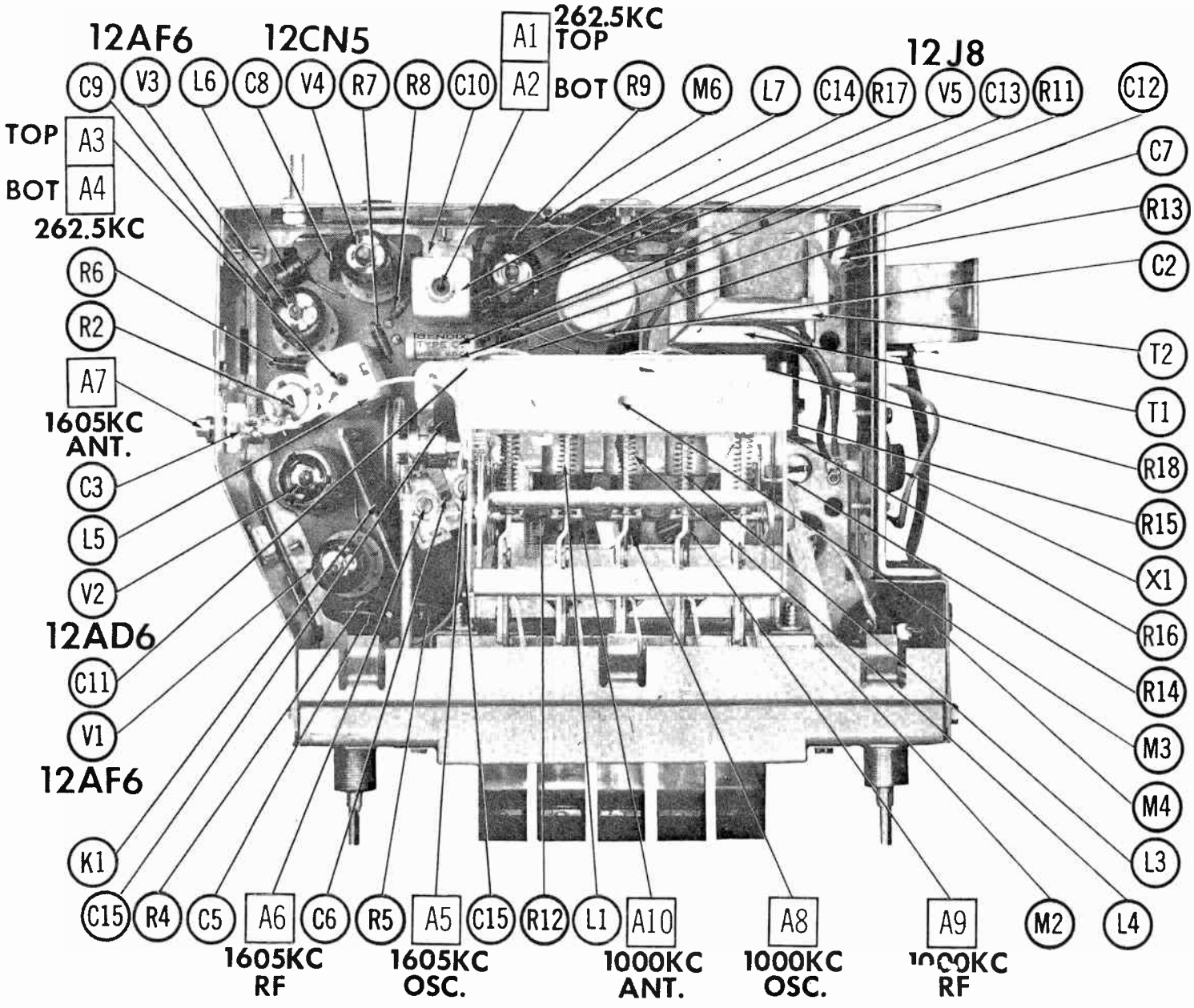


FIG. 1

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

G949



CHASSIS TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12AF6	
V2	Converter	12AD6	
V3	1st. IF Amplifier	12AF6	
V4	2nd. IF Amplifier	12CN5	
V5	Det. -AVC-AF Amp.	12T8	Note 1

Note 1. Some versions may use 12AF5 in this application.

TRANSISTORS

ITEM No.	USE	BENDIX Part No.	NOTES
X1	Output (2N155)	2090056-1	

ITEM No.	USE	TYPE	NOTES

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA BENDIX PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	500	3	2090031-2	PRS6V500	BR500-6	TC305	TD-500-6	MTH-0650	TVA-1103
C2A	■250	16	220353-2	AFH2-05-25					R2389 *
B	▲250	16							

* Non catalog item

FIXED CAPACITORS

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

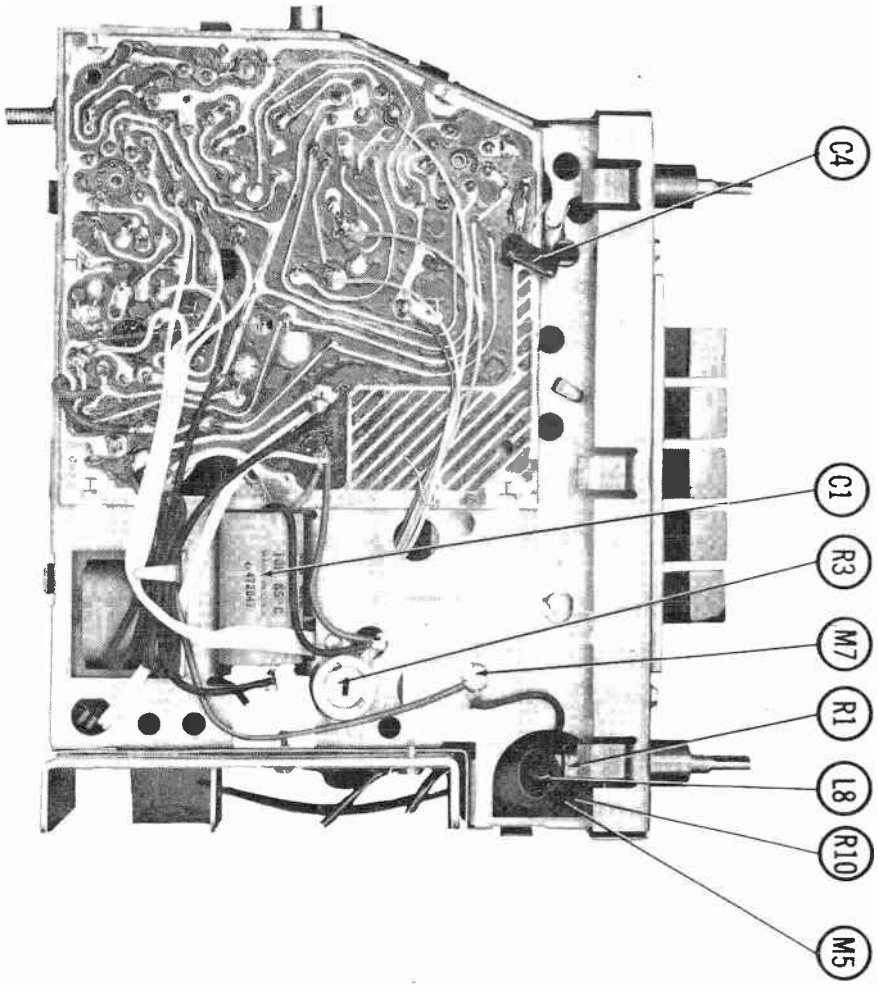
ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA BENDIX PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C3	4-75		219083-1							
C4	150		220350-501	NPO-SI 150	TCZ-150	C10T15C	TC0-150	ZT-5315	5TCC-T15	NP0
C5	68		2090058E-680N							N150
C6A	120-450		219092-2							
B	100									
C	370-445									
C7	.1	100	220352-3	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	
C8	2000			BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	Note 1
C9	82		220332-9		TCN-82	C10Q82U	TC7-82			N750
C10	100		220333-2	SI 100	D6-101	LT6T1	GP-100	UC-531	5GA-T1	
C11	.0082	100	220352-4	P288N-008		CUB16D8		GEM-6282	6TM-D8	
C12	.1	100	220352-3	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	
C13	.0082	100	220352-4	P288N-006		CUB16D8		GEM-6282	6TM-D8	
C14	5000			BPD-005	DD-502	BYA10D5	ED-005	DC525	5HK-D5	Note 2
C15	.1	100	220352-3	P288N-1	DF-104	CUB2P1		GEM-401	2TM-P1	

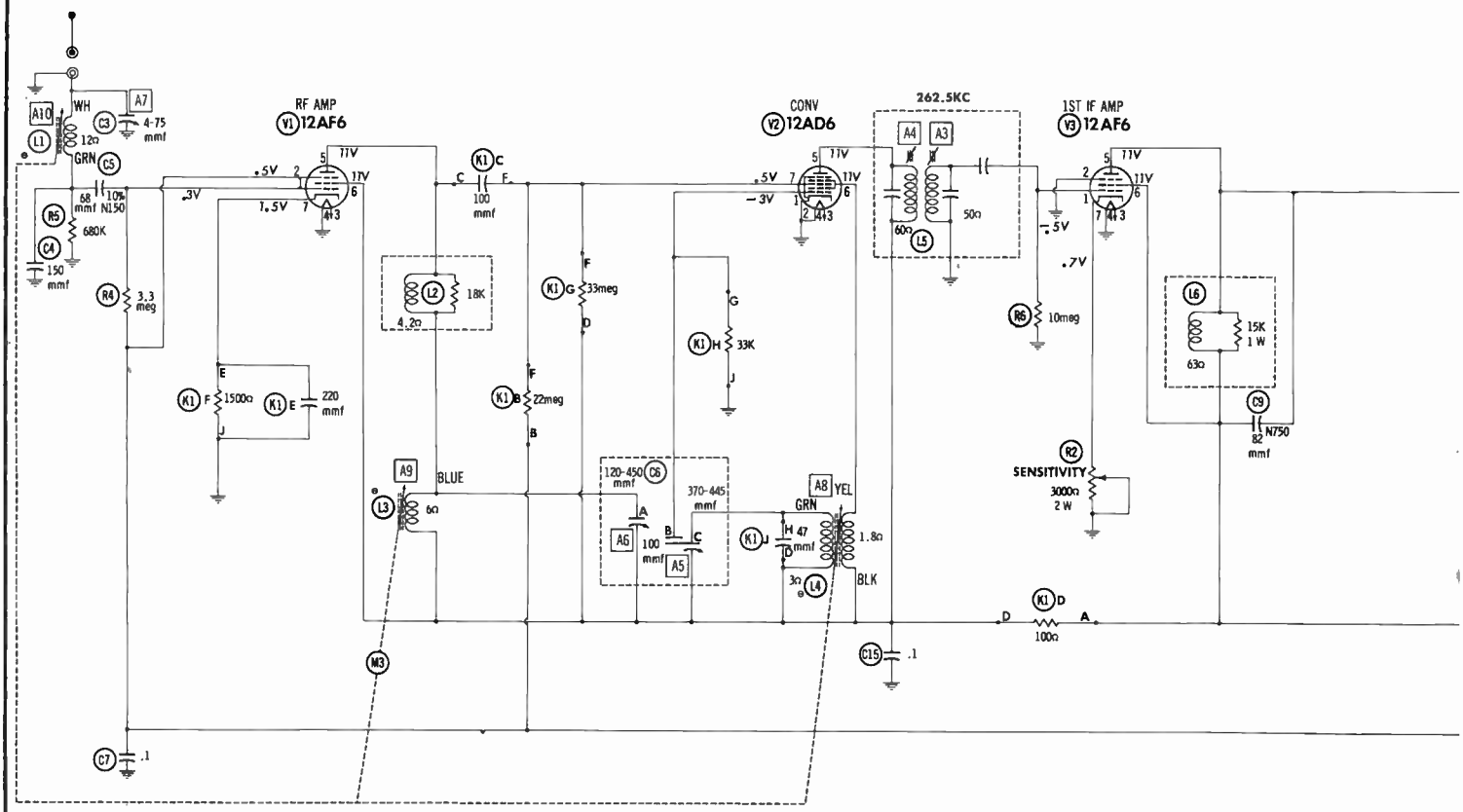
Note 1. Some versions use 1000MMF (Part #220332-8) in this application.
Note 2. Some versions use .002MF (Part #220332-10) in this application.

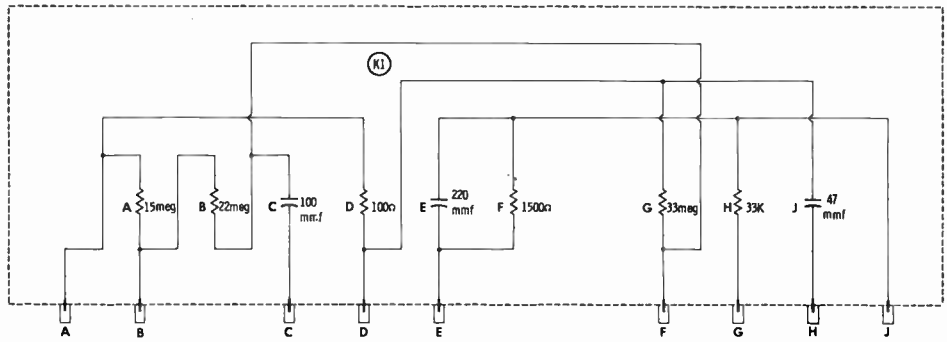
CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA BENDIX PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1Meg		2090035-1				UE1584S	Tone
B	1Meg							Volume, Tap@ 300K
C	Switch							
R2	3000Ω	2	219682-1					Sensitivity (Wire Wound)
R3	600Ω	2	219555-14					Emitter Bias, Stop@ 150Ω (Wire Wound)

CHASSIS—BOTTOM VIEW



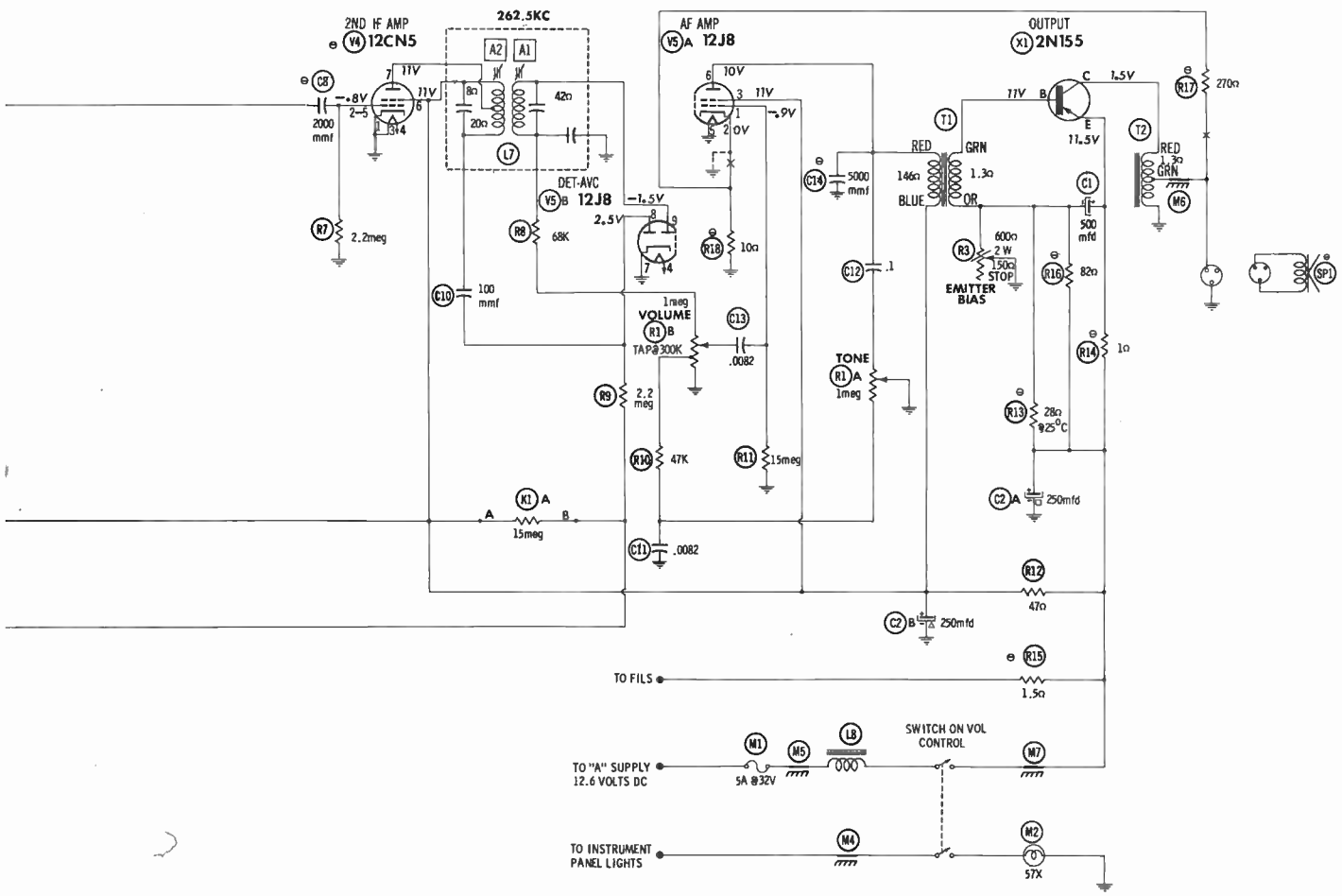




⊖SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AF6	14Meg	11Meg	1.6Ω	0Ω	†160Ω	†150Ω	1500Ω		
V2	12AD6	33K	0Ω	1.6Ω	0Ω	†200Ω	†150Ω	17Meg		
V3	12AF6	10Meg	0Ω	1.6Ω	0Ω	†100Ω	†50Ω	750Ω		
V4	12CN5	0Ω	2.2Meg	0Ω	1.6Ω	2.2Meg	†50Ω	†50Ω		
V5	12J8	15Meg	10Ω	†50Ω	1.6Ω	0Ω	†185Ω	0Ω	14Meg	1Meg
	Type	Base	Emitter	Collector						
X1	2N155	▲30Ω	▲†1Ω	▲2Ω						

† MEASURED FROM POSITIVE TERMINAL OF C2A
▲ RESISTANCE MEASURED WITH TRANSISTOR REMOVED FROM CIRCUIT

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	BENDIX PART No.	IRC PART No.	
R4	3.3Meg		220604B-335	BTS-3.3Meg	
R5	880K		220804B-884	BTS-880K	
R6	10Meg		220604B-108	BTS-10Meg	
R7	2.2Meg		220604B-225	BTS-2.2Meg	
R8	68K		220604B-683	BTS-68K	
R9	2.2Meg		220604B-225	BTS-2.2Meg	
R10	47K		220803B-473	BTS-47K	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	BENDIX PART No.	IRC PART No.	
R11	15Meg		220604B-156	BTS-15Meg	
R12	47Ω		220604B-470	BTS-47	
R13			220629-3		Note 1
R14	1Ω		2090050-5		Note 2
R15	1.5Ω		2090050-4		Note 2
R16	82Ω		220603B-820	BTS-82	
R17	270Ω			BTS-270	Note 3
R18	10Ω				Note 3

Note 1. Special temp. compensating unit, 28Ω@ 25°C.
Note 2. Length of wire.
Note 3. Not used in some versions.

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	BENDIX PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	15:	1	2090037-1					A-3X ①	① Drill new mounting hole.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	BENDIX PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	8Ω	3-4Ω	2090038-1 ①						① Autoformer Type

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	BENDIX PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	L22081-1 ①	89A2	① Alternate Part #282834-3

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		BENDIX PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil					Note 1
L2	RF Choke	215818-7	19-7047 ■		8110 ■	55 Microhenries, wound on 18K
L3	RF Coil		•			Note 1
L4	Osc. Coil					Note 1
L5	Input IF	291791-3				
L6	RF Choke	218154-3				3 Millihenries, wound on 15K

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (cont)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		BENDIX PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L7	Output IF	2090108-1				
L8	Fil. Choke	216188-11				130 Microhenries

Note 1. Part of complete tuner coil assembly, part #2090131-1 (RCC) or 2090131-2(OAK)
■ Parallel with 18K resistor

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	BENDIX PART No.	REPLACEMENT DATA
K1	Converter Circuit	100MMF, 220MMF, 47MMF, 15Meg, 22Meg, 100Ω, 1500Ω, 33Meg, 33K	2090100-1	Erie 712

FUSES

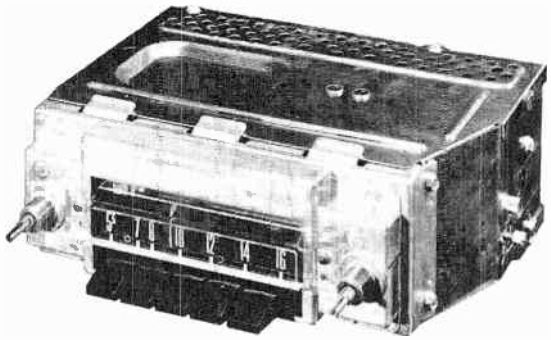
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			BENDIX PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	1AG	5A 32V.	AGA-5	221833-8	301005. (1AG5A)	155004	AGA5	HRF

MISCELLANEOUS

ITEM No.	PART NAME	BENDIX PART No.	NOTES
M2	Dial Light	57X	#57X
M3	Tuner	221470-1	Complete Assy.
M4	Spark Plate	220287-14	185MMF
M5	Spark Plate	220287-14	185MMF
M6	Spark Plate	220287-9	200MMF
M7	Spark Plate	220287-12	300MMF
	Printed Panel	2090125-1	
	Bezel	2090008-1	
	Knob	2090018-1	Tuning, Volume
	Knob	2090007-1	Tone (2 Used)
	Cover	891513-1	Top
	Cover	694308-1	Bottom

TRANSISTOR EMITTER BIAS ADJUSTMENT (R3)

With a voltmeter connected R14, turn on the receiver and adjust R3 for a reading of .42 volts DC. This indicates an emitter current of .42 amperes, the maximum safe value.



TRADE NAME	Ford Model 75MF (FEG-18806-H) For 1957 Ford Automobiles
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12BL6 RF Amplifier, 12AD6 Converter, 12AF6 IF Amplifier, 12AJ6 Det-AVC-AF Amp., 12K5 AF Amplifier
POWER SUPPLY	12 Volt Storage Battery RATING 1.7 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting.
Tone control to "High".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12AD6 (V1). Low side to chassis.	262.5KC (400~ Mod)	High frequency end stop.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	Fig. 1	High side thru dummy to antenna receptacle. Low side to chassis.	1610KC	"	"	A5, A6, A7	"
	Steps 3, 4 and 5 are not necessary except in case of tuner component replacement or if tuner has been tampered with. If necessary, back tuning cores out of coils 1 3/8" before proceeding with step 3.						
3.	Fig. 1	High side thru dummy to antenna receptacle. Low side to chassis.	1610KC	High frequency end stop.	Across voice coil.	A5, A6, A7	Adjust for maximum output.
4.	"	"	1020KC	Back carriage 25/32" from high frequency end stop.	"	A8, A9, A10	Adjust for maximum output. See Fig. 2.
5.	"	"	1610KC	High frequency end stop.	"	A5, A6, A7	Adjust for maximum output.
	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC and adjust A7 for maximum volume.						

POINTER ADJUSTMENT

With receiver tuned to 1000KC signal, adjust pointer adjusting cam so that pointer is centrally located over the 1000KC dial scale marking.

PUSHBUTTON ADJUSTMENT

1. Allow a 15 minute warm-up period.
2. Unlock pushbuttons by pulling straight out.
3. Tune carefully to desired station.
4. Press pushbutton in firmly.
5. Repeat on remaining pushbuttons.

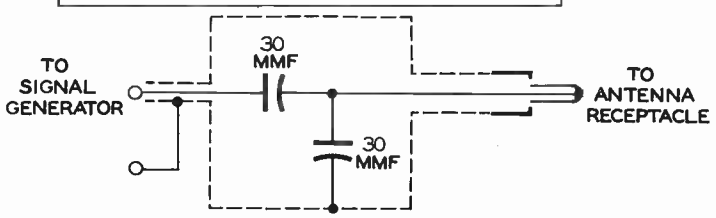


FIG. 1

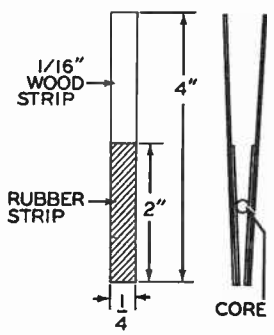


FIG. 2

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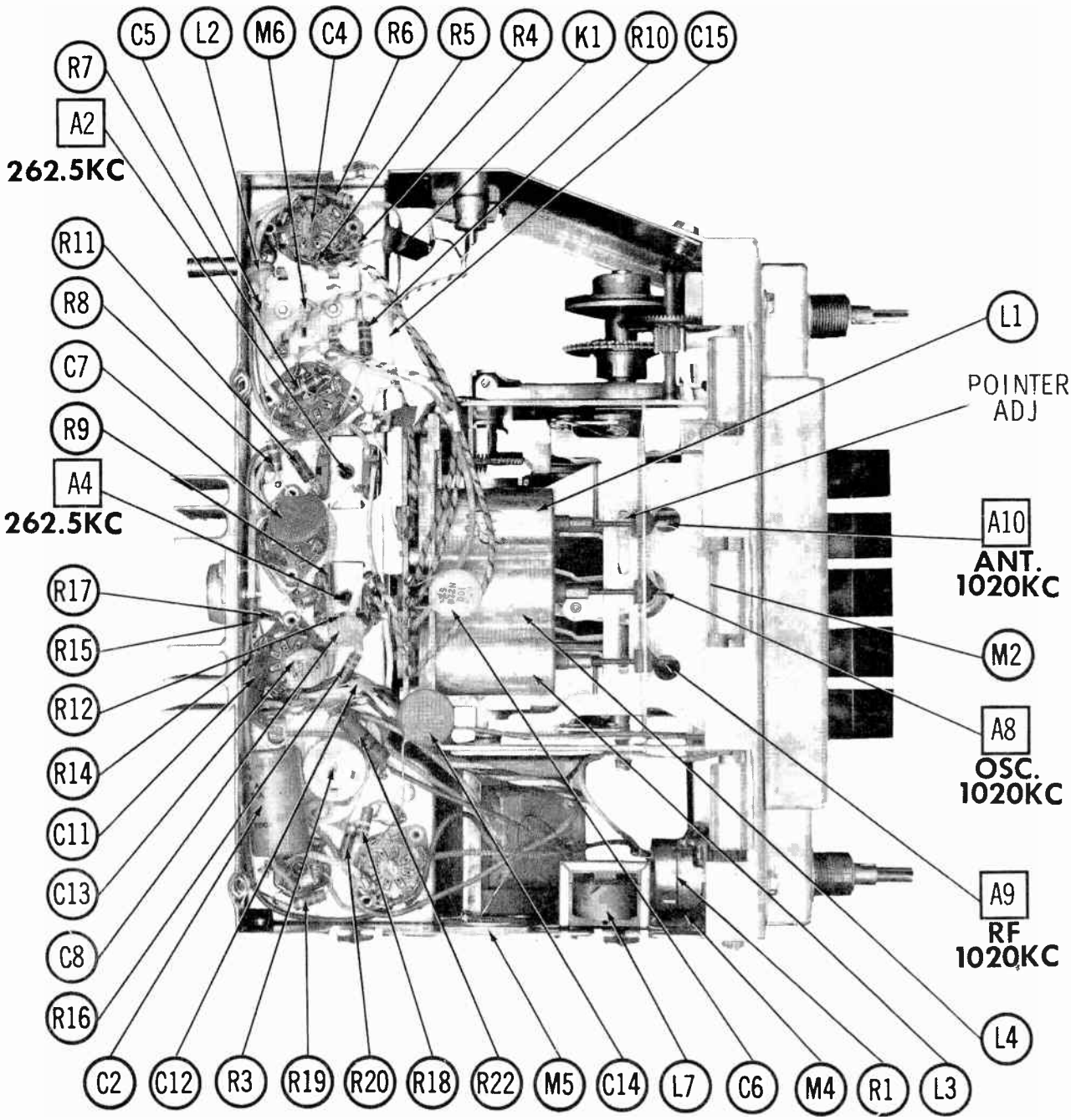


CHASSIS BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BL6	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	
V4	Det.-AVC-AF Amplifier	12AJ6	
V5	AF Amplifier	12K5	

TRANSISTORS

ITEM No.	USE	TYPE	NOTES
X1	Output	2N176	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■500	16	23B539261	AFH2-02-10	BR5001	WP200.5			R2299 *
B	▲100	16			BBR100-15				
C2	200	3	23B539617	SRE3V200	NL200-3	TC1502	TD-250-6	MTH-0625	TE-1064

* Non-Catalog Item.

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 CAP.	RATING VOLT	MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C3	20-180		20B534809							
C4	18		21R120578							
C5	18		21R120578							
C6	100		21R400537	N750-S1100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	
C7	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C8	27		21R410089	NPO-S125	TCZ-27	C10Q27C	TCO-27			
C9	68		21R400930							
C10	3300		21R120422	BPD-0033	D6-332	BYA6D33	ED-0033	UC-5233	5GA-D33	
C11	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C12	220		21R410115	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C13	100		21R124032							
C14	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C15	.02	200	8R121003	BPD-02	DD-203	CUB4S2	ED-02	GEM-412	4TM-S2	

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	4Meg	½	18K539059	F1-82	RTV-616C	♦ QJ-1032A		Tone
B	1Meg	½		R2-59				Volume, Tap ⓐ 300K
C	Switch			KB-7				
R2	3000Ω	1	18K534966		39-3000		FL-4K	Sensitivity (Wire Wound)
R3	150Ω	1	18A536645		39-150		FL-150	Bias (Wire Wound)

♦ Concentrikit Equivalent; K6-Kit, Base Elements And Shafts: B12-141, P13-116 (Panel)
B13-137X, R1-200 (Rear)
76-2 Switch

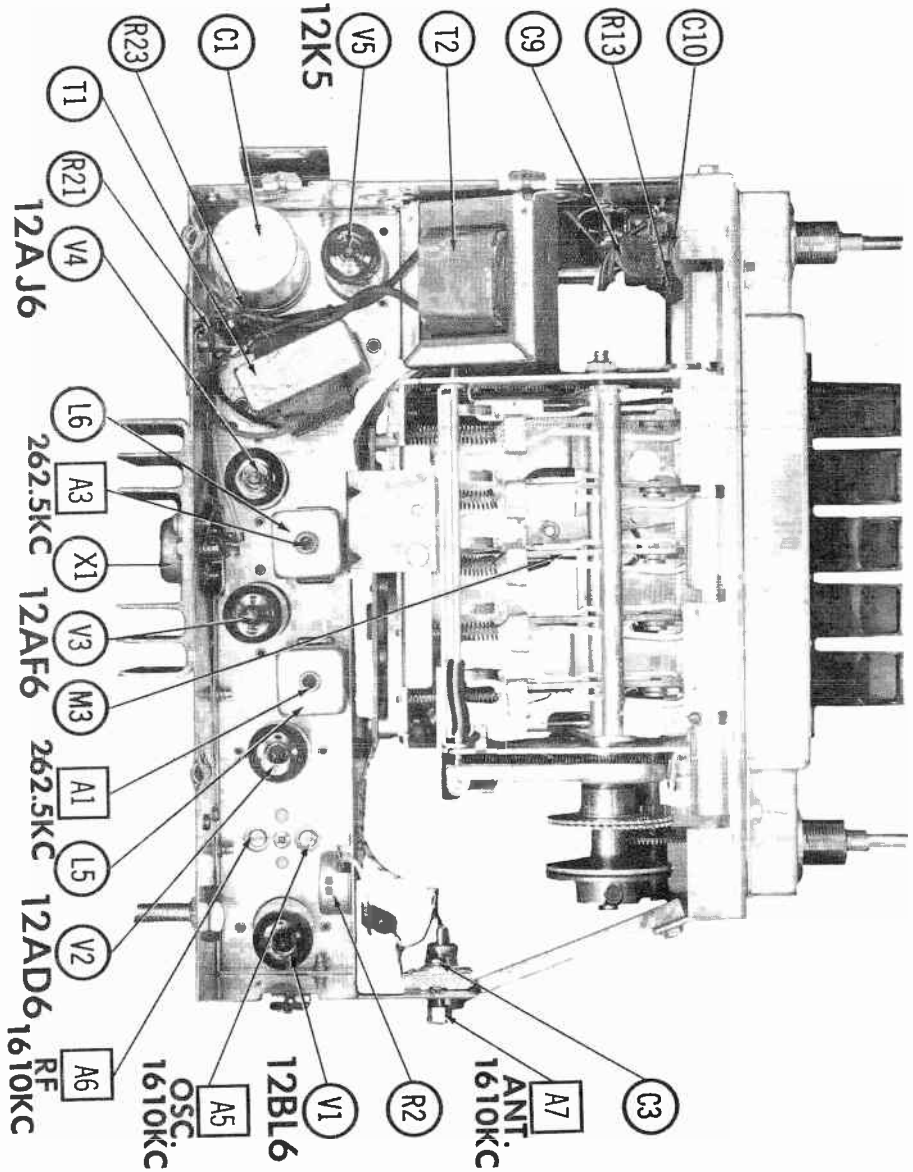
RESISTORS

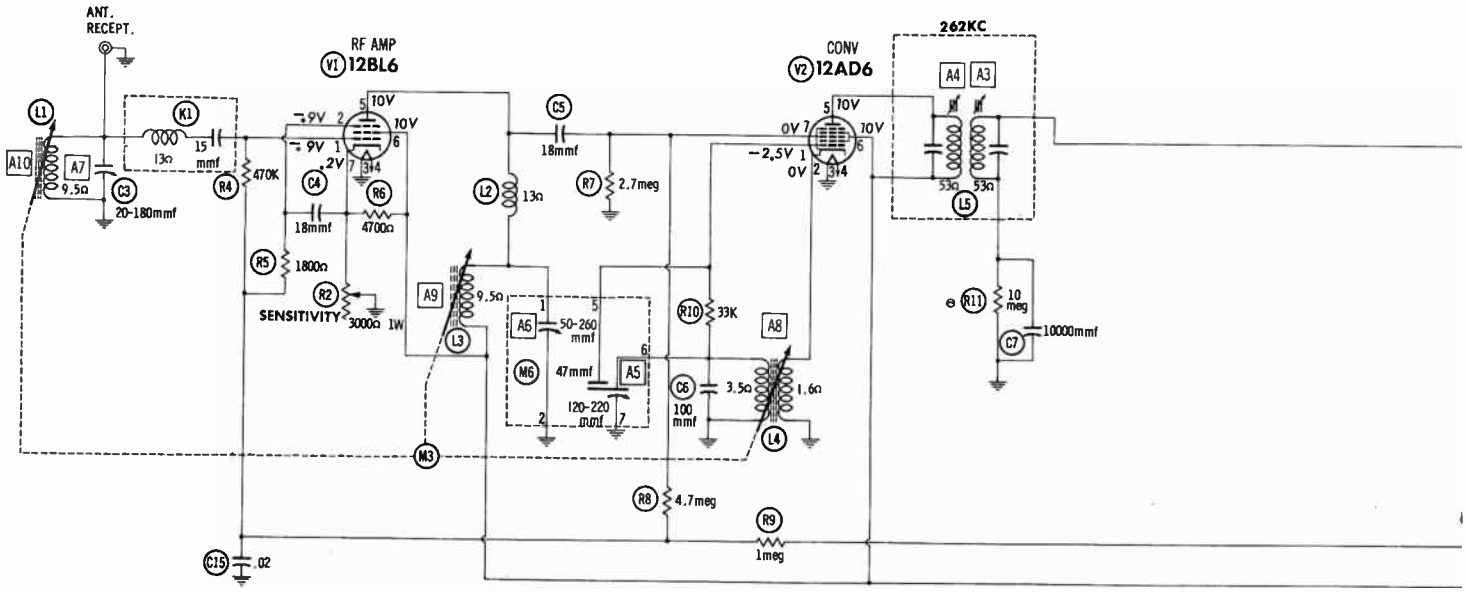
All wattages 1/2 watt, or less, unless otherwise listed.

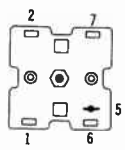
ITEM No.	RATING OHMS	RATING WATT	MOTOROLA PART No.	IRC PART No.	NOTES
R4	470K		6R6032	BTS-470K	
R5	1800Ω		6R2089	BTS-1800	
R6	4700Ω		6R6039	BTS-4700	
R7	2.7Meg		6R488136	BTS-2.7Meg	
R8	4.7Meg		6R6446	BTS-4.7Meg	
R9	1Meg		6R6004	BTS-1Meg	
R10	33K		6R6012	BTS-33K	
R11	10Meg		6R2109	BTS-10Meg	
R12	470K		6R6032	BTS-470K	Note #1.
R13	56K		6R6378	BTS-56K	
R14	2.7Meg		6R488136	BTS-2.7Meg	
R15	1000Ω		6R6301	BTS-1000	
R16	3.3Meg		6R2118	BTS-3.3Meg	
R17	68Ω		6R6007	BTS-68	
R18	3.3Meg		6R2118	BTS-3.3Meg	
R19	120Ω		6R5551	BTS-120	
R20	15Ω		6R2034	BTS-15	
R21	470Ω		6R6090	BTS-470	
R22	10Ω	1	6R6521	BTA-10	
R23	39Ω	1	6R3961	BTA-39	

Note #1. 47K May Be Used In Some Versions (Part No. 6R6056).

CHASSIS—TOP VIEW







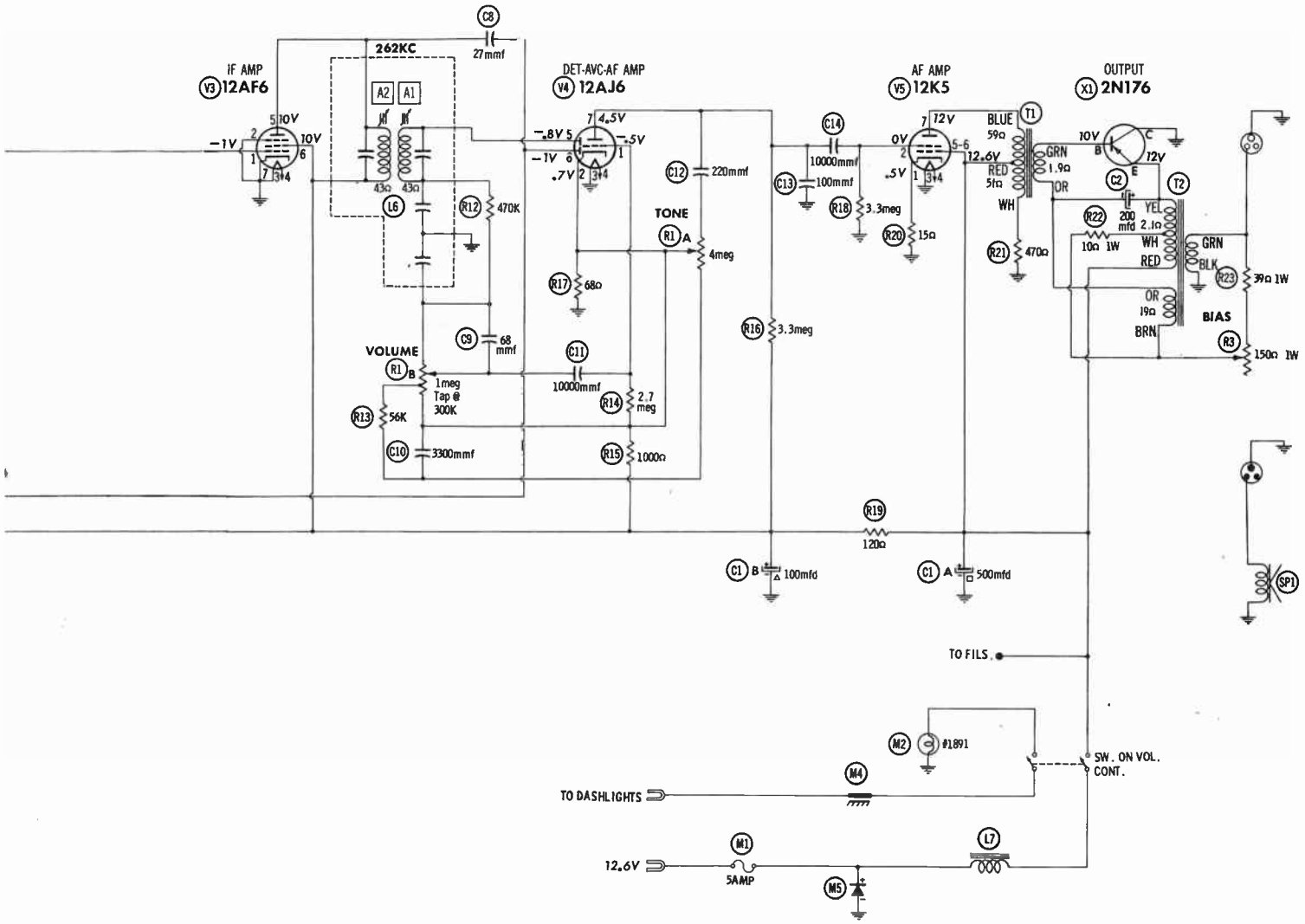
M6 TERM VIEW

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BL6	7.9Meg	7.4Meg	0Ω	1.8Ω	†130Ω	†120Ω	1500Ω
V2	12AD6	33K	1.6Ω	0Ω	1.8Ω	†175Ω	†120Ω	2.7Meg
V3	12AF6	10Meg	0Ω	0Ω	1.8Ω	†165Ω	†120Ω	0Ω
V4	12AJ6	2.7Meg	68Ω	0Ω	1.8Ω	1.2Meg	8.4Meg	†3.3Meg
V5	12K5	15Ω	3.3Meg	0Ω	.6Ω	†0Ω	†0Ω	†60Ω

† MEASURED FROM JUNCTION OF C1A AND ON-OFF SWITCH.
TRANSISTOR RESISTANCE READINGS NOT TAKEN BECAUSE OF THE WIDE VARIATIONS IN INTERNAL RESISTANCE.

A PHOTOFACT STANDARD NOTATION SCHEMATIC



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	9:5	1	25B539199						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T2	20Ω tapped	3-4Ω	25C539134						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	6" x 9"	PM	3-4Ω	50D538018	69A2	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil	24C536308				Part Of Tuner M3
L2	IF Trap	24K539616	19-3100	TV181	6112	101 Microhenries
L3	RF Coil	24C536308				Part Of Tuner M3
L4	Osc. Coil	24B536300				Part Of Tuner M3
L5	Input IF	24K537792	16-6752	BC-350	12-H1	
L6	Output IF	24K532153	16-6754	BC-354	12-H6	

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.
L7	1.7A	.5Ω	6.5 Milli-henry	25K539589					

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K1	Ant. Spark Choke	15MMF, Series Coil	24A538910	

PARTS LIST AND DESCRIPTIONS (Continued)

FUSES

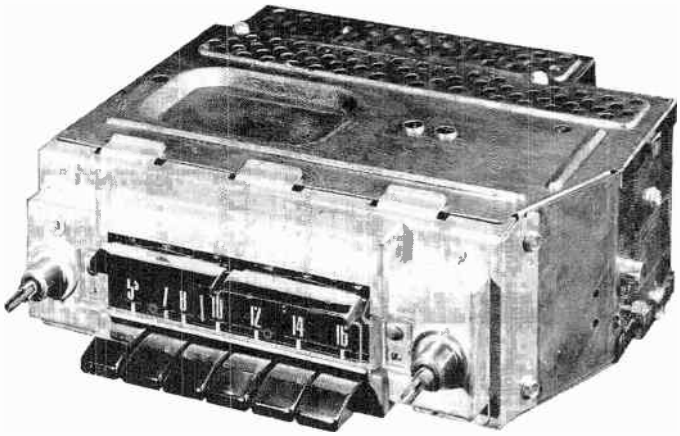
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	1AG	5A 32V	65R122345	9K539681	301005, (1AG5A)	155004	AGA5	HRF

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M2	Dial Light	65T533821	#1891
M3	Tuner	77F539040	(AT-203) Complete Assembly
M4	Spark Plate	64K530177	
M5	Spark Plate	48A539147	Selenium Type, Use Bushing Part #43A539259, Eyelet Part #5K124633, Washer Part #4A540423.
	Spark Plate	48K539953	(Alternate) Selenium Type, Use Bushing Part #43A539954, Part # 5K124848
M6	Trimmer	20B539612	Includes A5 (Osc.) 120-220MMF, A6 (RF) 50-260MMF, 47MMF
	Glass	34C539063	
	Pointer	1A538977	
	Pushbuttons	38B538979	5 Used
	Knob	36B539472	On-Off-Volume, Tuning
	Knob	36B539476	Tone
	Cover	15C539068	Bottom
	Cover	15C539071	Top

BIAS ADJUSTMENT

Transistor emitter current should be checked when the transistor is replaced. To do this, connect the positive lead of a VTVM to the tap (white lead) of T2 primary and the negative lead to the high side (yellow lead) of T2 primary. With a power source of 12 volts DC operating the receiver, adjust R3 for a reading of .82 volts on the VTVM.



TRADE NAME	Ford Model 78MF (FEG-18806-G) (For 1957 Ford Automobiles)
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12AD6 RF Amplifier, 12AD6 Converter, 12AF6 1st IF Amplifier, 12AF6 2nd IF Amplifier, 12AJ6 Det-AF Amp., 12K5 Driver, 12AE6 Trigger-AVC, 12K5 Relay Control
POWER SUPPLY	12 Volt Storage Battery — RATING 2.3 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to treble.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	262.5KC (400~ Mod)	High frequency end stop.	DC probe to point (A). Common to chassis.	A1, A2, A3	Adjust for maximum deflection.
2.	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
3.	Fig. 1	High side thru dummy to antenna receptacle. Low side to chassis.	1610KC	"	"	A5, A6, A7	Adjust for maximum deflection.
	The following steps are not necessary except in case of tuner component replacement or if tuner has been tampered with. If necessary, back tuning cores out of coils 1 3/8" before proceeding with step 4. Repeat step 3.						
4.	Fig. 1	High side thru dummy to antenna receptacle. Low side to chassis.	1020KC	Back carriage 49/64" from high frequency end stop.	DC probe to point (A). Common to chassis.	A8, A9, A10	Adjust for maximum deflection. Use core alignment tool similar to Fig. 2.
5.	"	"	1610KC	High frequency end stop.	"	A5, A6, A7	Adjust for maximum deflection.
	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC, adjust A7 for maximum volume.						

POINTER CALIBRATION

If necessary, turn pointer adjusting cam, until pointer is centrally located on the 1000KC dial scale marking.

PUSHBUTTON ADJUSTMENT

1. Allow 15 minute warm-up period.
2. Unlock pushbuttons by pulling straight out.
3. Tune manually to desired station.
4. Press pushbutton in firmly.
5. Repeat on remaining pushbuttons.

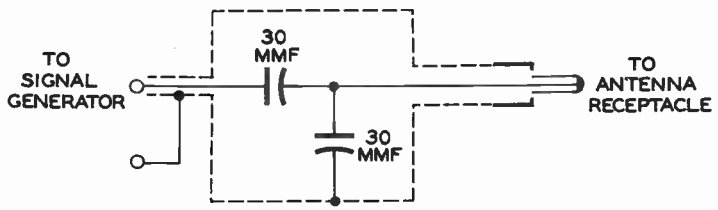


FIG. 1

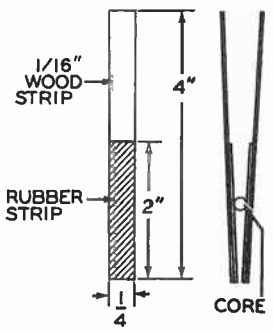


FIG. 2

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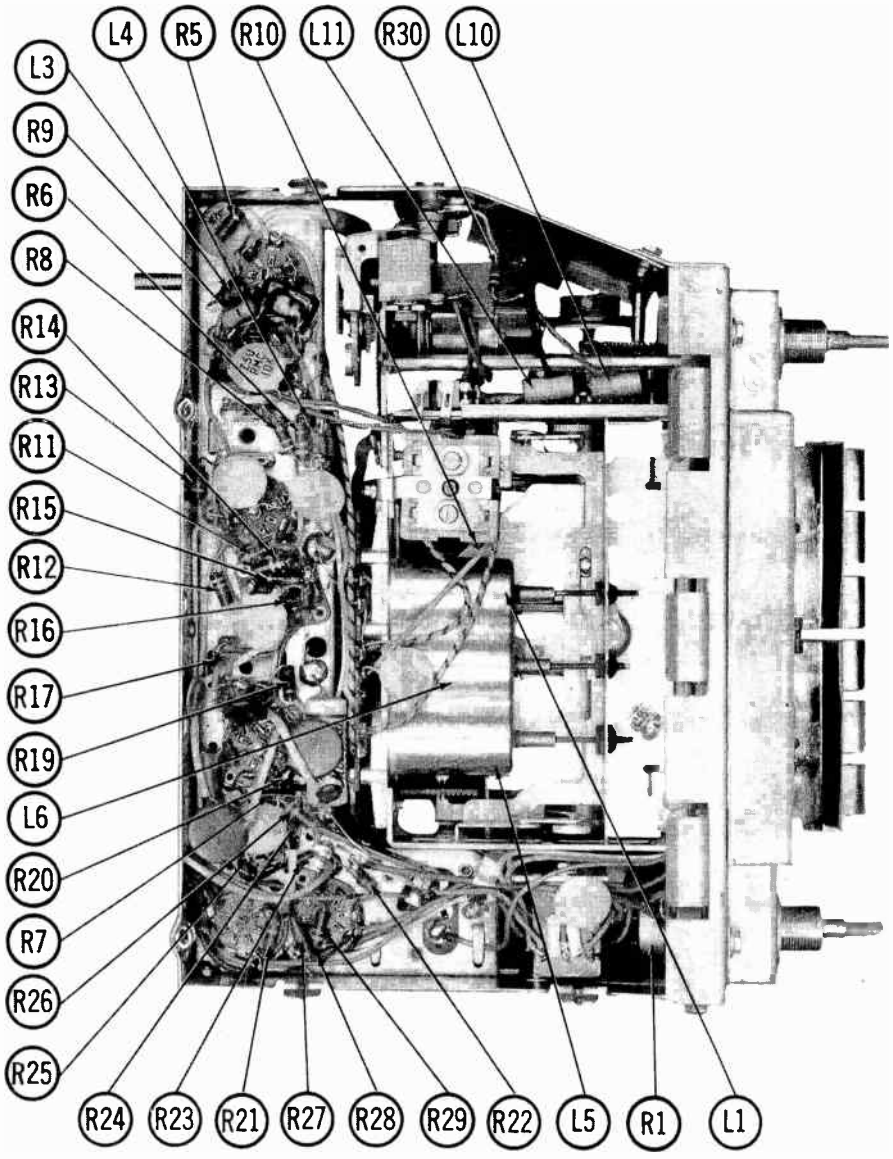
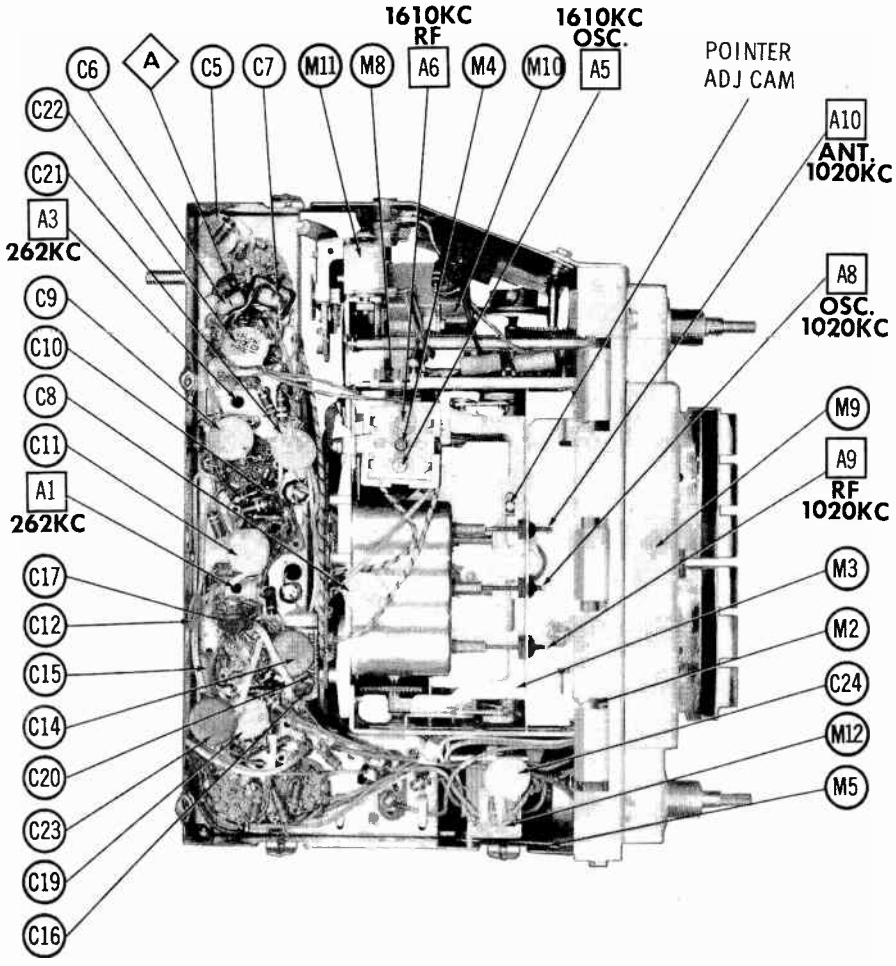
CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION



CHASSIS BOTTOM VIEW-CAPACITOR IDENTIFICATION



PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12AD6	
V2	Converter	12AD6	
V3	1st IF Amplifier	12AF6	
V4	2nd IF Amplifier	12AF6	
V5	Det-AF Amplifier	12AJ6	
V6	Driver	12K5	
V7	Trigger-AVC	12AE6	
V8	Relay Control	12K5	

TRANSISTORS

ITEM No.	USE	TYPE	NOTES
X1	Output	2N176	
X2	Output	2N176	

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.
C1A	500	16	23B537574						R2361*
B	100	16							
C2	500	3	23B539260	SRE3V500	BR500-6	TC605	TD-500-6	MTH-0650	TVA-1103
C3	500	3	23B539260	SRE3V500	BR500-6	TC605	TD-500-6	MTH-0650	TVA-1103

* Non catalog item.

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.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C4	20-180		20K539683							
C5	10000		21R121946	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C6	33		21R120568	BPD-000033	DD-330	L10Q33	ED-33	UC-5433	5GA-Q33	
C7	800		21K540465	BPD-0008	D6-800	L10T8	ED-800		5GA-T8	
C8	100		21R124032							
C9	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C10	220		21K121698	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C11	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C12	100		21R410036	N750-S1 100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	
C13	39		21R120569	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C14	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C15	100		21R120576	S1 100	D6-101	L10T1	ED-100	UC-531	5GA-T1	
C16	150		21R400932	BPD-00015	DD-151	L10T15	ED-150	UC-5315	5GA-T15	
C17	51			N750-S1 51	TCN-51	C10Q51U	TC7-51			Note 1
C18	.02	200	8R121003	BPD-02	DD-203	CUB2S2	ED-02	GEM-412	2TM-S2	
C19	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C20	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C21	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C22	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C23	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	Note 2
C24	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	

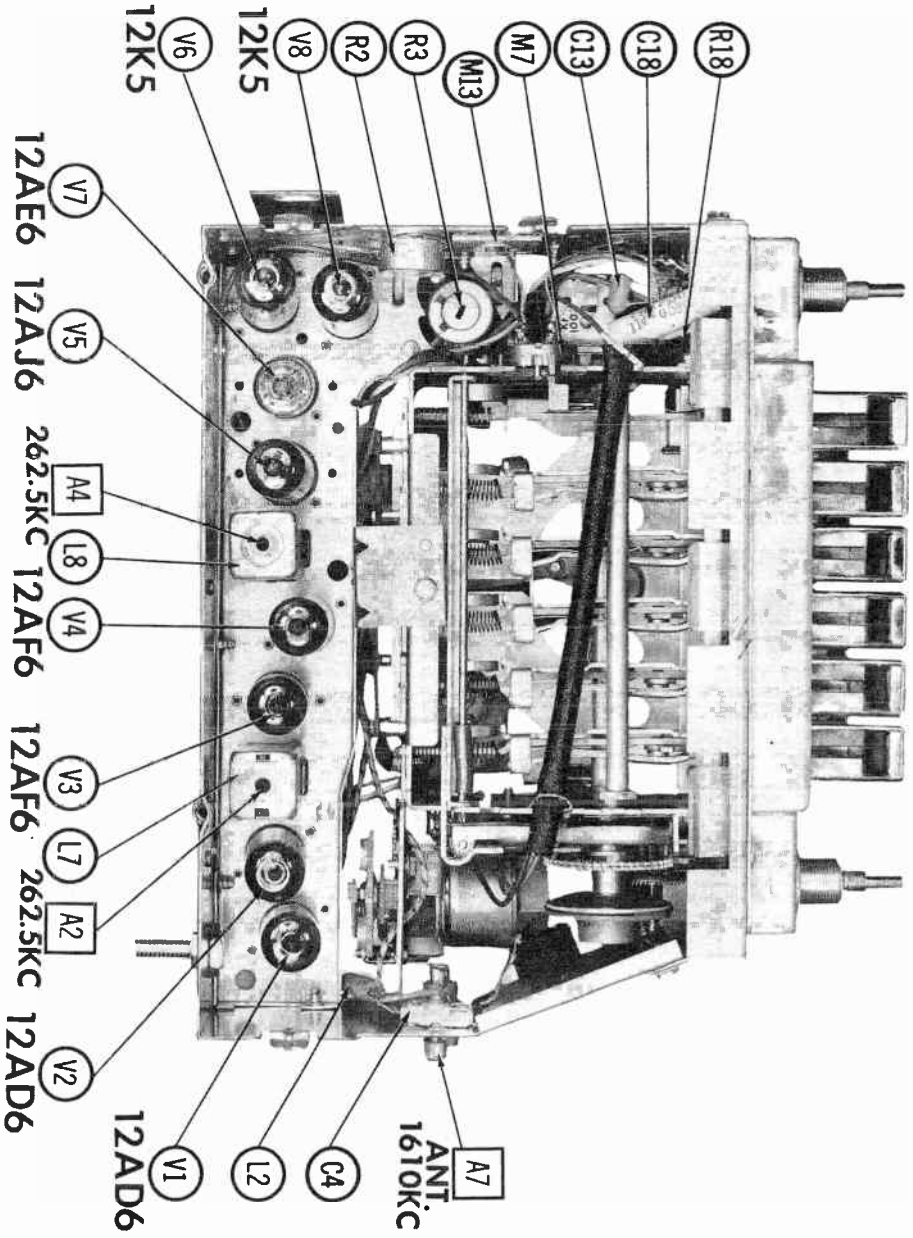
Note 1: Some versions use 47MMF in this application. (Part #21R115593)
Note 2: Some versions use 20000MMF in this application. (Part #21R120040)

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.	
R1A	4Meg	½	18B539379	F1-82	RTV-618C	♦QJ-1033A	UE-3255	Tone
B	1Meg	½		R2-59				Volume, Tap @ 300K
R2	2000Ω	1	18K520298		39-2000-100		FL-2K8	Sensitivity, Normal
R3	1000Ω	1	18K539664					Sensitivity, Town
R4	125Ω	1	18K591265		39-125		FL-150	Bias

♦ Concentrikit equivalent: Kit K-6, Base Elements & Shafts: B12-141 & P13-116 (Panel)
B13-137X & R1-200 (Rear)

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	
R5	10Meg		6R5622	BTS-10Meg	
R6	4.7Meg		6R6446	BTS-4.7Meg	
R7	1.5Meg		6R3966	BTS-1.5Meg	
R8	4.7Meg		6R6446	BTS-4.7Meg	
R9	12K		6R6394	BTS-12K	
R10	47K		6R6056	BTS-47K	
R11	18K		6R5591	BTS-18K	
R12	470Ω		6R3949	BTS-470	
R13	4700Ω		6R6080	BTS-4700	
R14	220K		6R6407	BTS-220K	
R15	1Meg		6R6046	BTS-1Meg	
R16	1000Ω		6R6229	BTS-1000	
R17	47K		6R6056	BTS-47K	
R18	27K		6R6434	BTS-27K	
R19	1Meg		6R6046	BTS-1Meg	Note 1

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	
R20	1Meg		6R6046	BTS-1Meg	
R21	3.3Meg		6R2118	BTS-3.3Meg	
R22	82Ω		6R2035	BTS-82	
R23	15Ω		6R2034	BTS-15	
R24	3.9Meg		6R490110	BTS-3.9Meg	
R25	4.7Meg		6R6446	BTS-4.7Meg	
R26	3.3Meg		6R2118	BTS-3.3Meg	
R27	10Meg		6R5622	BTS-10Meg	Note 2
R28	10Ω		6R5621	BTS-10	
R29	3300Ω		6R6036	BTS-3300	
R30	330Ω		6R6010	BTS-330	
R31	470Ω		6R6090	BTS-470	
R32			6A539409		Note 3
R33	18Ω	1	6R118228	BTA-18	
R34	68Ω	2	6R118239		

Note 1: 4.7Meg may be used in some versions. (Part #6R6446)
Note 2: 3.3Meg may be used in some versions (Part #6R6497)
Note 3: Special temperature compensation type, 35Ω@ 25°C.

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.1	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	13 : 1		25B539327						
	PRI.	SEC.2							
	13 : 1								

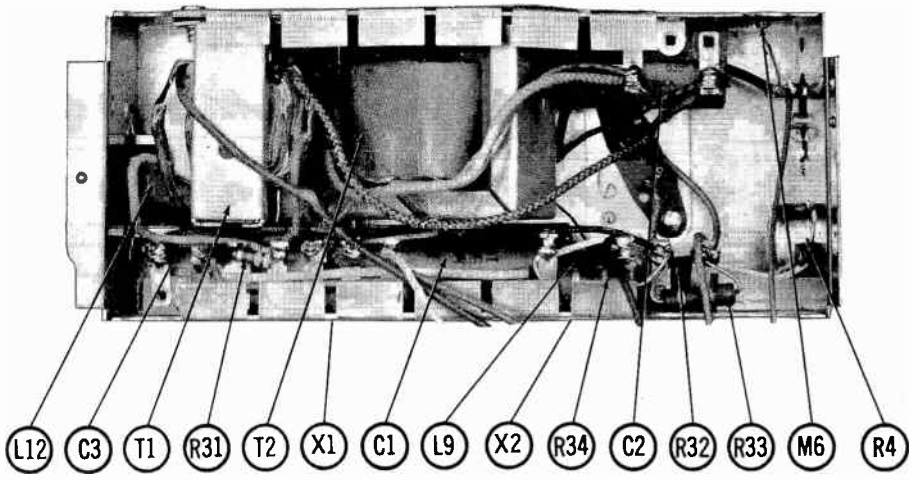
TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	33Ω CT	3-4Ω	25B539328						
	Turns Ratio								
	1 : .5 (Sec. 2)								
	1 : .5 (Sec. 3)								

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	6" X 9"	PM	3-4Ω	50D538018	69A2	

POWER CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil	24C536308				Part of tuner M3.
L2	Ant. Loading Coil	24A532148	19-6033			31 Microhenries
L3	IF Trap	24C539614	19-3180	TV-184	6180	173 Microhenries
L4	IF Trap	24K539615				30 Microhenries
L5	RF Coil	24C536308				Part of tuner M3.
L6	Osc. Coil	24B536300				Part of tuner M3.
L7	Input IF	24B536693	16-6752	BC-350	12-H1	
L8	Output IF	24B533073				
L9	Fil. Choke	24K539362				125 Microhenries
L10	Search Motor Hash Choke	24A535769				3 Microhenries. Part of tuner M3.
L11	Search Motor Hash Choke	24A535789				3 Microhenries. Part of tuner M3.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
L12	2. 3A	. 65Ω	5. 4 Millihenries	25K539590					

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	7AG	7. 5A 32V	65R122346	9K539682	30307. 5 (7AG-7. 5A)	155009	SFE 7 1/2	HRH

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M2	Dial Light	65T533621	12V, #1891
M3	Tuner	77K539508	Complete Ass'y.
M4	Trimmer Cap.	20B539612	3 Section Mica (50-260MMF, 120-220MMF, 47MMF)
M5	Spark Plate	64K530177	
M6	Spark Plate	64A530176	
M7	Switch	40A536283	On-Off
M8	Switch	40B535396	Motor Reversing
M9	Switch	1V539309	Search Selector, Includes Buttons and Sensitivity Switch.
M10	Motor	59C535466	Tuner Drive

PARTS LIST AND DESCRIPTIONS (Continued)

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M11	Solenoid	59A537563	
M12	Relay	1V540128	
M13	Spark Plate	48A539147	Selenium Type. (Use Mtg. Bushing #43A539289, Mtg. Eyelet #5K12463E; Washer #4A540423
(or) M13	Spark Plate	48K539953	Selenium Type. (Use Mtg. Bushing #43A539954, Mtg. Eyelet #5K12484B).
	Glass	34C539063	Dial
	Cover	15K539596	Bottom
	Cover	15C539071	Top
	Knob	36B539476	Tone and Dummy
	Knob	36B539472	Volume and Tuning
	Pushbutton	1K539243	On-Off
	Pushbutton	1B539242	5 Used

ADJUSTMENTS

SENSITIVITY ADJUSTMENTS

NORMAL (R2)

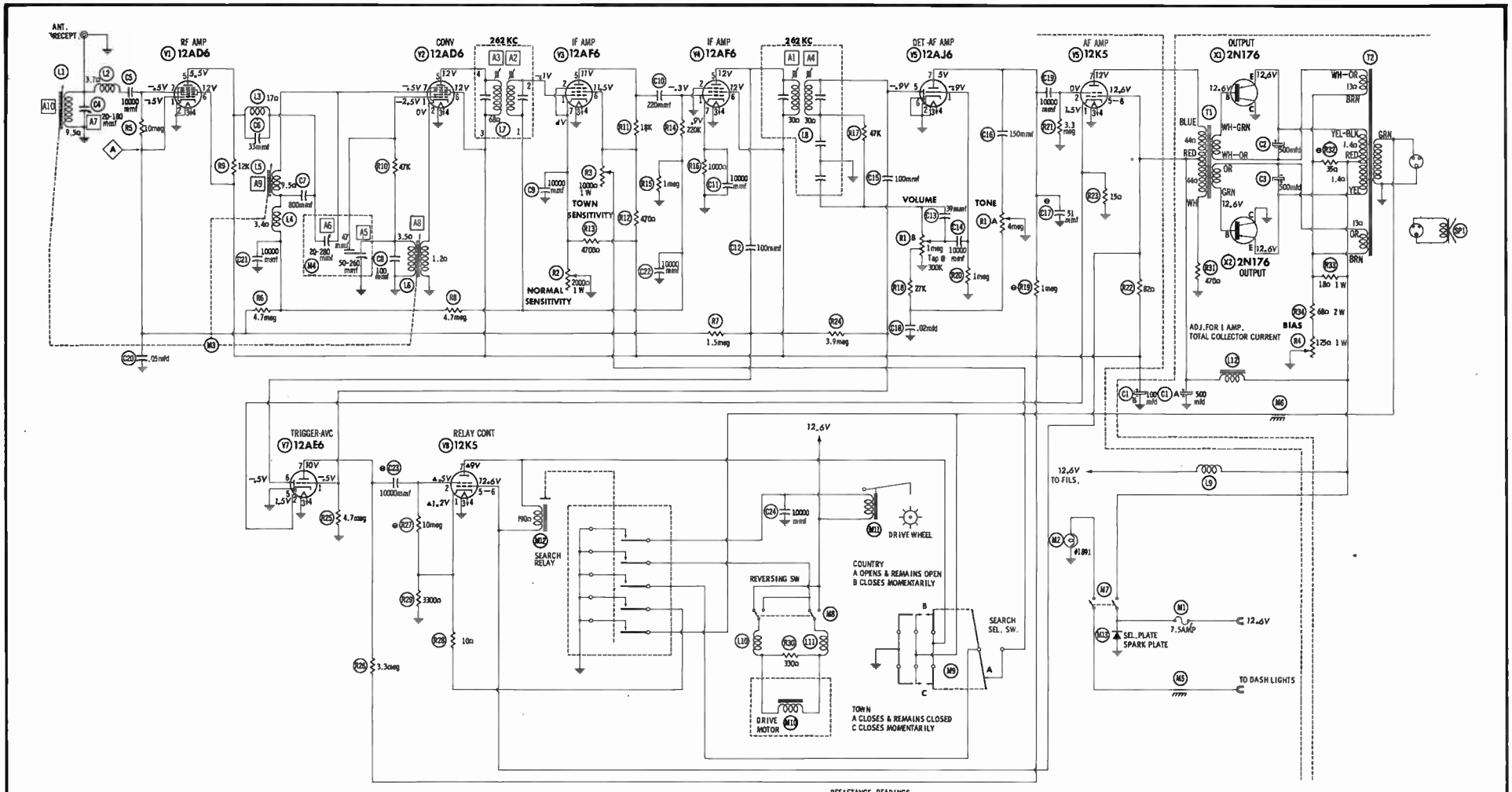
With output meter connected across voice coil and volume control at maximum, tune receiver for maximum noise output. Connect a signal generator adjusted to 1000KC at 5 microvolts to the antenna receptacle thru dummy antenna (refer alignment Fig. 1). Adjust R2 for a reading of 1. 79 volts on output meter.

TOWN (R3)

With output meter connected across voice coil and volume control at maximum, tune receiver for maximum noise output. Connect a signal generator adjusted to 1000KC at 100 microvolts to the antenna receptacle thru dummy antenna (refer alignment Fig. 1). Short case of R3 to chassis. Adjust R3 for a reading of 1. 79 volts on output meter.

BIAS ADJUSTMENT (R4)

Separate the transistor mounting heat sink from the housing. Connect the positive lead of a low resistance milliammeter (.5Ω max.) to the heat sink and the negative lead to the receiver chassis. With a power source of 12 volts DC connected to the receiver, adjust R4 for a reading of 670MA on the milliammeter.



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on components values makes possible a variation of ± 10% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

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

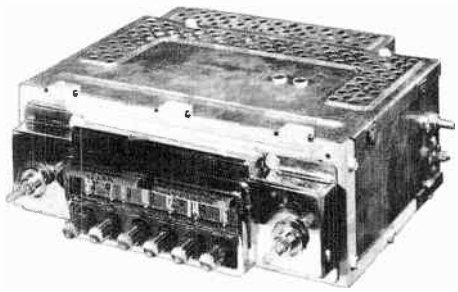
◎ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12AD6	5Meg	0Ω	0Ω	1.4Ω	↑12K	↑82Ω	15Meg
V2	12AD6	47K	1.2Ω	0Ω	1.4Ω	↑150Ω	↑82Ω	4.3Meg
V3	12AF6	1Meg	1400Ω	0Ω	1.4Ω	↑18K	↑550Ω	1400Ω
V4	12AF6	1.2Meg	0Ω	0Ω	1.4Ω	↑110Ω	↑82Ω	1000Ω
V5	12AJ6	1Meg	0Ω	0Ω	1.4Ω	800K	0Ω	↑1Meg
V6	12K5	15Ω	3.3Meg	0Ω	1.4Ω	↑.6Ω	↑.6Ω	↑46Ω
V7	12AE6	3.8Meg	15Ω	0Ω	1.4Ω	0Ω	4.6Meg	↑3.3Meg
V8	12K5	▲ 10Ω 3300Ω	10Meg	0Ω	1.4Ω	↑.6Ω	↑.6Ω	▲ 0Ω ↑150Ω
		BASE	EMITTER	COLLECTOR				
X1	2N176	4Ω	25Ω 7Ω	0Ω				
X2	2N176	4Ω	25Ω 7Ω	0Ω				

1 MEASURED FROM JUNCTION OF L12 AND R33
▲ MEASURED WITH SEARCH RELAY (M12) ACTIVATED

A PHOTOFACT STANDARD NOTATION SCHEMATIC



TRADE NAME	Ford Model 79MS (FEJ-18806-C) For 1957 Ford Thunderbird Automobiles
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output.
TUBES (Nine)	Types 12AD6 RF Amp., 12AD6 Conv., 12AF6 1st IF Amp., 12BL6 2nd IF Amp., 12CR6 Det-AF Amp., 12K5 Driver, 12BL5 Pulse Rect., 12AE6 Trigger-AVC, 12K5 Relay Cont.
POWER SUPPLY	12 Volt Storage Battery — RATING 3 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	262.5KC (400~ Mod)	High frequency end stop.	DC probe to point A. Common to chassis.	A1, A2, A3	Adjust for maximum deflection.
2.	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
3.	Fig. 1	Thru dummy to antenna receptacle.	1610KC	"	"	A5, A6, A7	Adjust for maximum deflection.
	Steps 4, 5 and 6 are not necessary except in case of tuner component replacement or if tuner has been tampered with. If necessary, back tuning cores out of coils 1 3/8" before proceeding with step 4.						
4.	Fig. 1	Thru dummy to antenna receptacle.	1610KC	High frequency end stop.	DC probe to point A. Common to chassis.	A5, A6, A7	Adjust for maximum deflection.
5.	"	"	1020KC	Back carriage 49/64" from high frequency end stop.	"	A8, A9, A10	Adjust for maximum deflection. See Fig. 2.
6.	"	"	1610KC	High frequency end stop.	"	A5, A6, A7	Adjust for maximum deflection.

With radio installed in car and antenna fully extended, tune in a weak station near 1400KC and adjust A7 for maximum volume.

POINTER ADJUSTMENT

Tune receiver to 1000KC signal. Turn pointer adjusting cam until pointer is centrally located on 1000KC dial marking.

PUSHBUTTON ADJUSTMENT

1. Allow 15 minute warm-up period.
2. Unlock pushbuttons by turning them 2 turns counter clockwise.
3. Tune manually to desired station.
4. Press pushbutton in firmly; release carefully and lock by tightening with fingers.
5. Repeat on remaining pushbuttons.

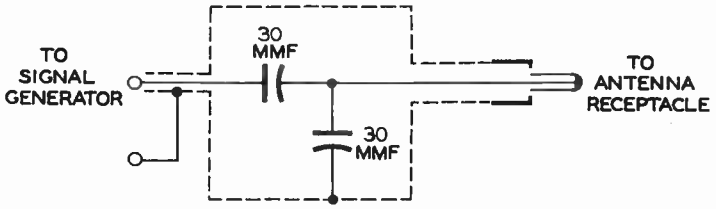


FIG. 1

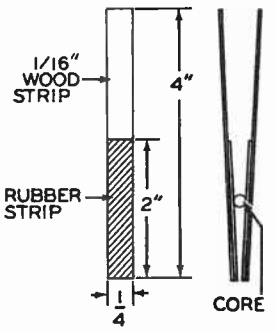


FIG. 2

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

G897

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12AD6	
V2	Converter	12AD6	
V3	1st IF Amplifier	12AF6	
V4	2nd IF Amplifier	12BL6	
V5	Det-AF Amplifier	12CR6	
V6	Driver	12K5	
V7	Pulse Rectifier	12AL5	
V8	Trigger-AVC	12AE6	
V9	Relay Control	12K5	

TRANSISTORS

ITEM No.	USE	TYPE	NOTES
X1	Output	2N176	
X2	Output	2N176	

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.
C1A	500	16	23B537574						
B	100	16							
C2	500	3	23B539260	SRE3V500	BR500-6	TC605	TD-500-6	MTH-0650	TVA-1103
C3	500	3	23B539260	SRE3V500	BR500-6	TC605	TD-500-6	MTH-0650	TVA-1103
C4	10	50	23A632945	SRE50V10	BBR-10-50	TC32	TD-10-50	FM-0510	TVA-1304

FIXED CAPACITORS

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

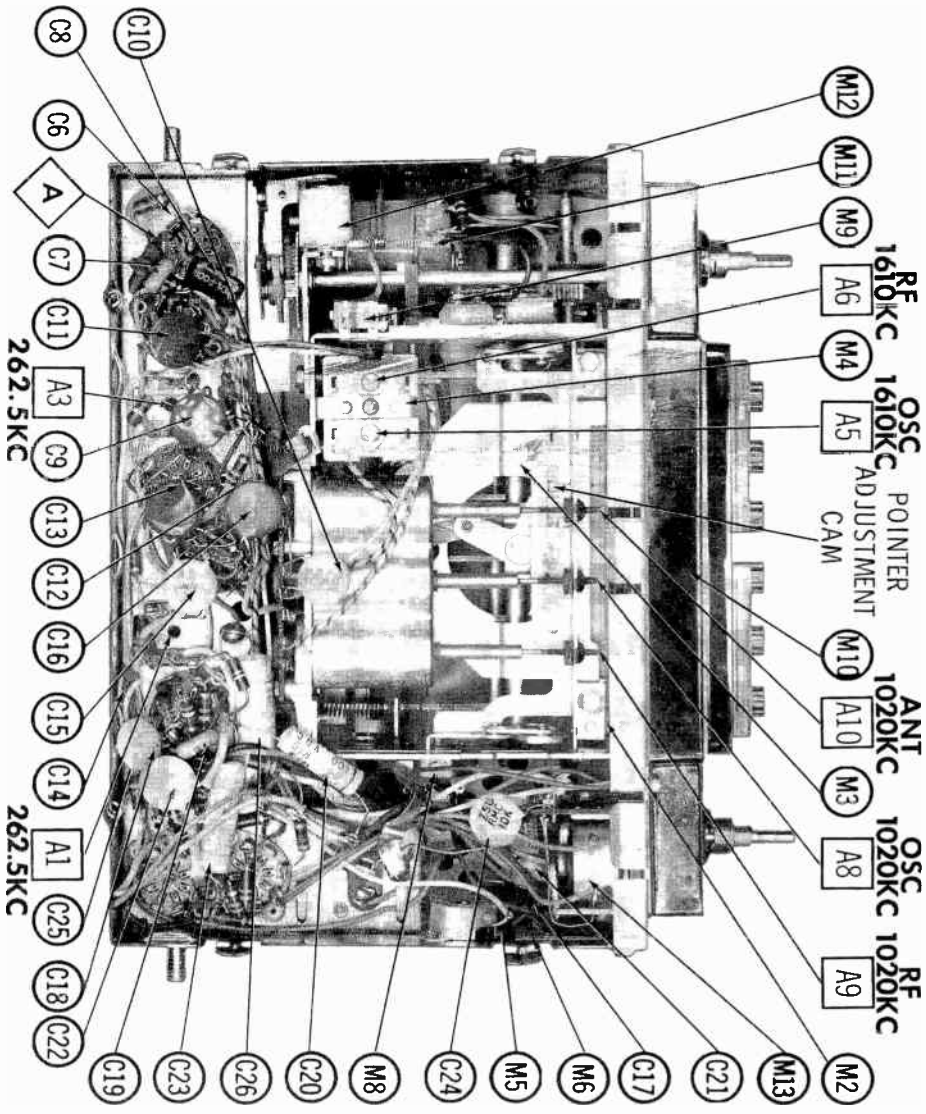
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	20-180		20B534809							
C6	10000		21R121946	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C7	33		21R120588	N750-S1 33	TCN-33	C10Q33U	TC7-33		5TCU-Q33	
C8	800		21K540465	BPD-0008	D6-801	L10T8	ED-800		5GA-T8	
C9	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C10	100		21R124032							
C11	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C12	220		21K121698	BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	
C13	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C14	100		21R410036	N750-S1 100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	
C15	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C16	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C17	39		21R120569	BPD-000039	D6-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C18	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C19	100		21R120576	N750-S1 100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	
C20	.001	600	8R122103	BPD-001	DD-102	CUB6D1	ED-001	GEM-621	6TM-D1	
C21	.02	200	8R121003	BPD-02	DD-203	CUB4S2	ED-02	GEM-412	4TM-S2	
C22	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C23	.02	200	21R120040	BPD-02	DD-203	CUB4S2	ED-02	GEM-412	4TM-S2	
C24	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C25	100		21R120576	N750-S1 100	TCN-100	C10T1U	TC7-100	NT-531	5TCU-T1	
C26	.05	200	8R121005	BPD-05	DD-503	CUB2S5		GEM-415	4TM-S5	
C27	5000	20000	21R120093			HVC20D5			20HK-D5	

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.	
R1A	4Meg	½	18K539481	F1-82	RTV-617C	*QJ-1034A	UE-3255	Tone
B	1Meg	½		R2-59	Not Req.	Not Req.	Not Req.	Volume, Tap @ 300K
R2	2000Ω	1	18K520298		39-2000		FL-2KS	Sensitivity, Town (Wire-wound)
R3	1000Ω	1	18K539684					Sensitivity, Normal (Wire-wound)
R4	125Ω	1	18K591265		39-125		FL-150	Transistor Bias (Wire-wound)
R5	500Ω	1	18K472182		39-500		FL-600	Bias (Wire-wound)

*Concentrikit Equivalent: Kit K-6; Base Elements and Shafts, B12-141, P14-112 (Panel) B13-137X, R1-126 (Rear)

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	
R6	10Meg		6R5622	BTS-10Meg	
R7	820K		6R6429	BTS-820K	
R8	1.5Meg		6R3966	BTS-1.5Meg	
R9	4.7Meg		6R2122	BTS-4.7Meg	
R10	12K		6R6394	BTS-12K	
R11	47K		6R6056	BTS-47K	
R12	18K		6R5591	BTS-18K	
R13	2200Ω		6R6069	BTS-2200	
R14	100K		6R6075	BTS-100K	
R15	220K		6R6407	BTS-220K	
R16	1Meg		6R6046	BTS-1Meg	
R17	1000Ω		6R6229	BTS-1000	
R18	47K		6R6056	BTS-47K	
R19	27K		6R6434	BTS-27K	
R20	4.7Meg		6R6446	BTS-4.7Meg	
R21	1Meg		6R6004	BTS-1Meg	
R22	1000Ω		6R6301	BTS-1000	
R23	390Ω		6R5554	BTS-390	
R24	470Ω		6R6090	BTS-470	
R25	120K		6R5631	BTS-120K	
R26	82Ω		6R2035	BTS-82	
R27	3.3Meg		6R2118	BTS-3.3Meg	
R28	15Ω		6R2034	BTS-15	
R29	100K		6R6075	BTS-100K	
R30	560Ω		6R6291	BTS-560	
R31	3.9Meg		6R490110	BTS-3.9Meg	
R32	4.7Meg		6R6446	BTS-4.7Meg	
R33	3.3Meg		6R2118	BTS-3.3Meg	
R34	3.3Meg		6R6497	BTS-3.3Meg	
R35	10Ω		6R5621	BTS-10	
R36	3300Ω		6R6036	BTS-3300	
R37	330Ω		6R6010	BTS-330	
R38	470Ω		6R6090	BTS-470	
R39			6A539409		Note 1
R40	18Ω	1	6R118228	BTA-18	
R41	68Ω	2	6R118239		

Note 1: Special temperature compensation type, 35Ω @ 25°C.

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	13 : 1 13 : 1		25B539327						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T2	33Ω CT	3-4Ω	25B539328						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	6" X 9"	PM	3-4Ω	50D538018	69A2	

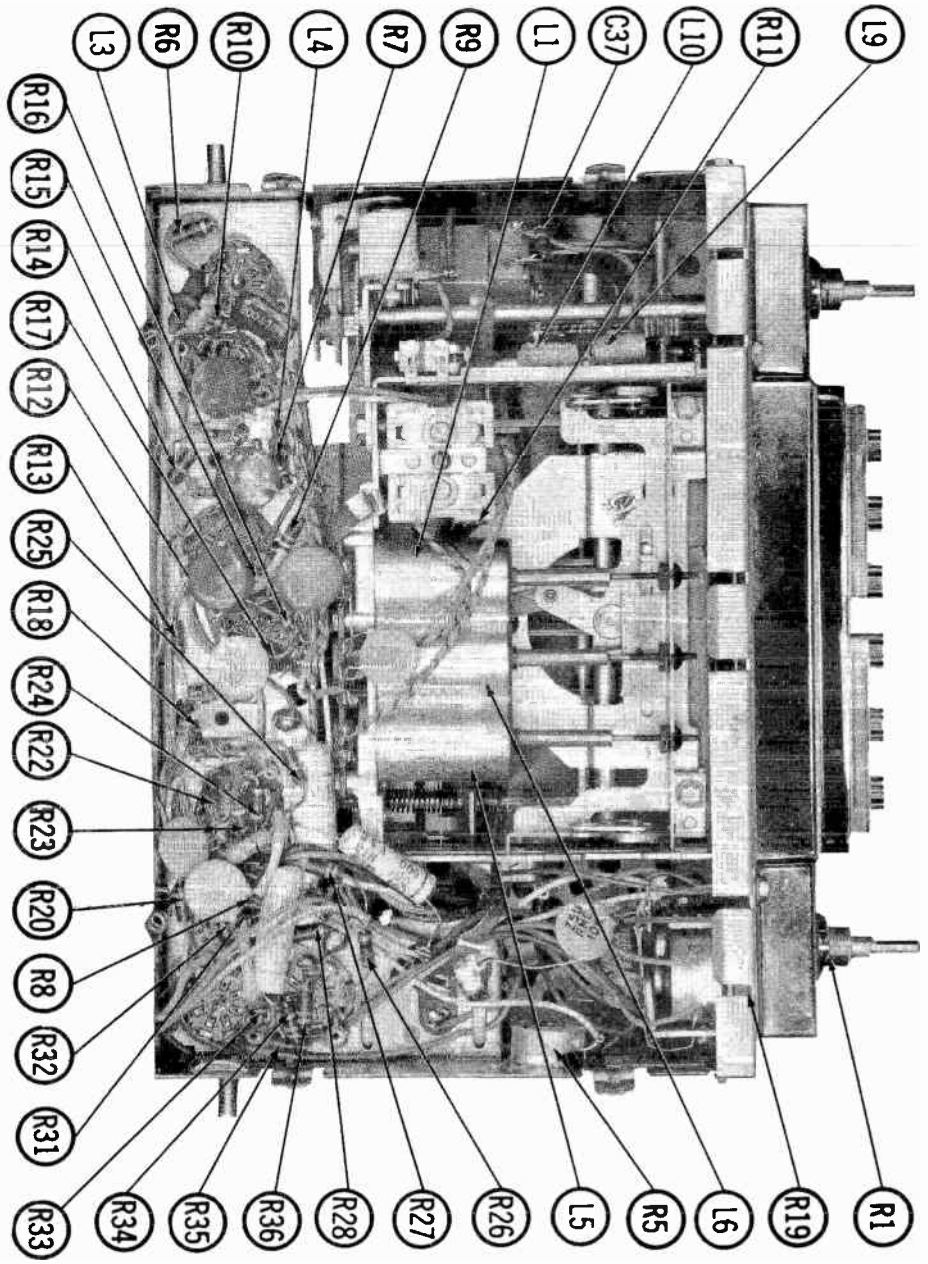
COILS (RF-IF)

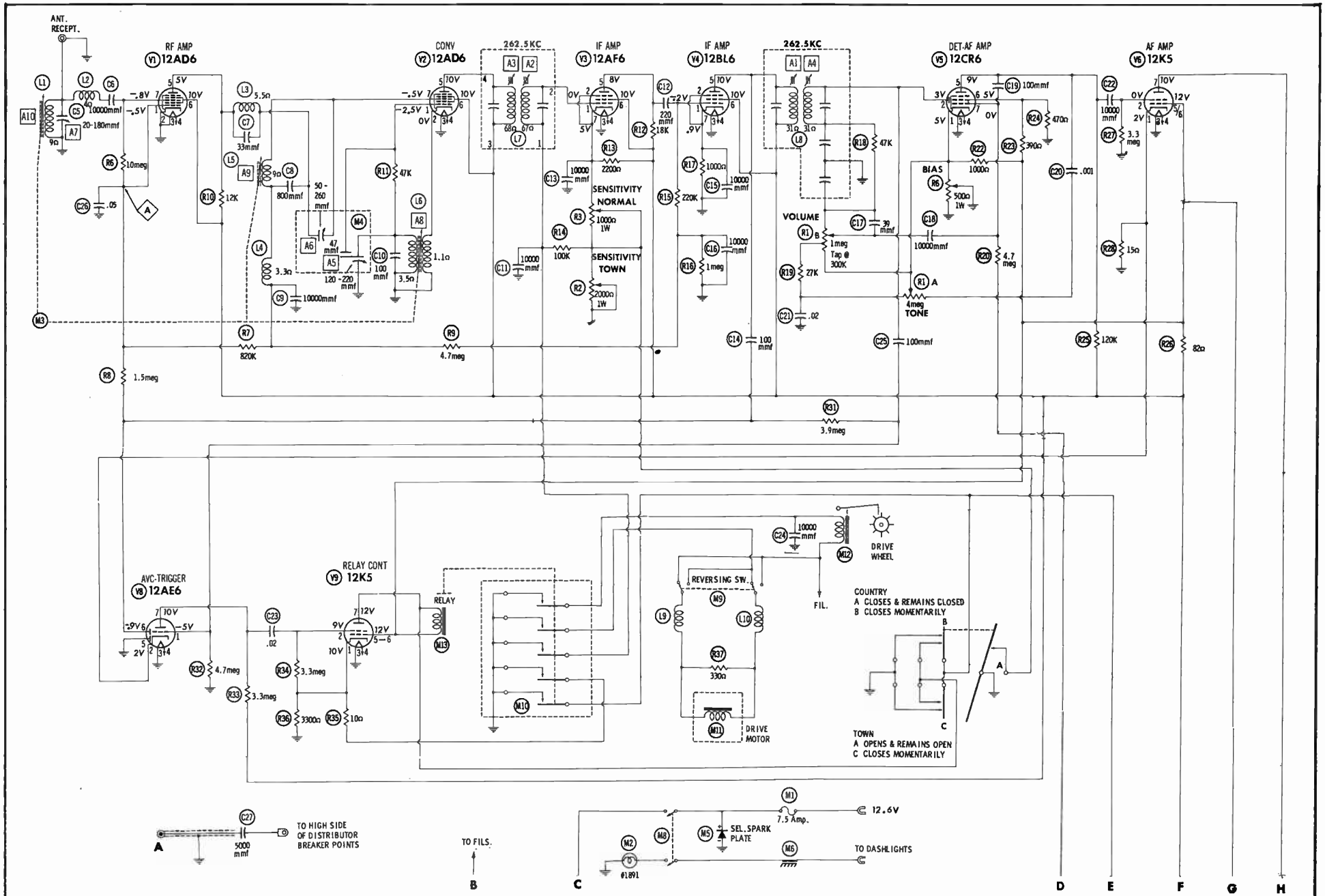
ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil	24C536308				
L2	Ant. Loading Coil	24A532148	19-6033			31 Microhenries
L3	IF Trap	24C539614	19-3180	TV-184	6180	180 Microhenries
L4	IF Trap	24K539615				30 Microhenries
L5	RF Coil	24C536308				
L6	Osc. Coil	24B536300				
L7	Input IF	24B536693	16-6752	BC-350	12-H1	
L8	Output IF	24B533073				
L9	Search Motor Hash Choke	24A535789				3 Microhenries
L10	Search Motor Hash Choke	24A535789				3 Microhenries
L11	Fil. Choke	24K539382				125 Microhenries

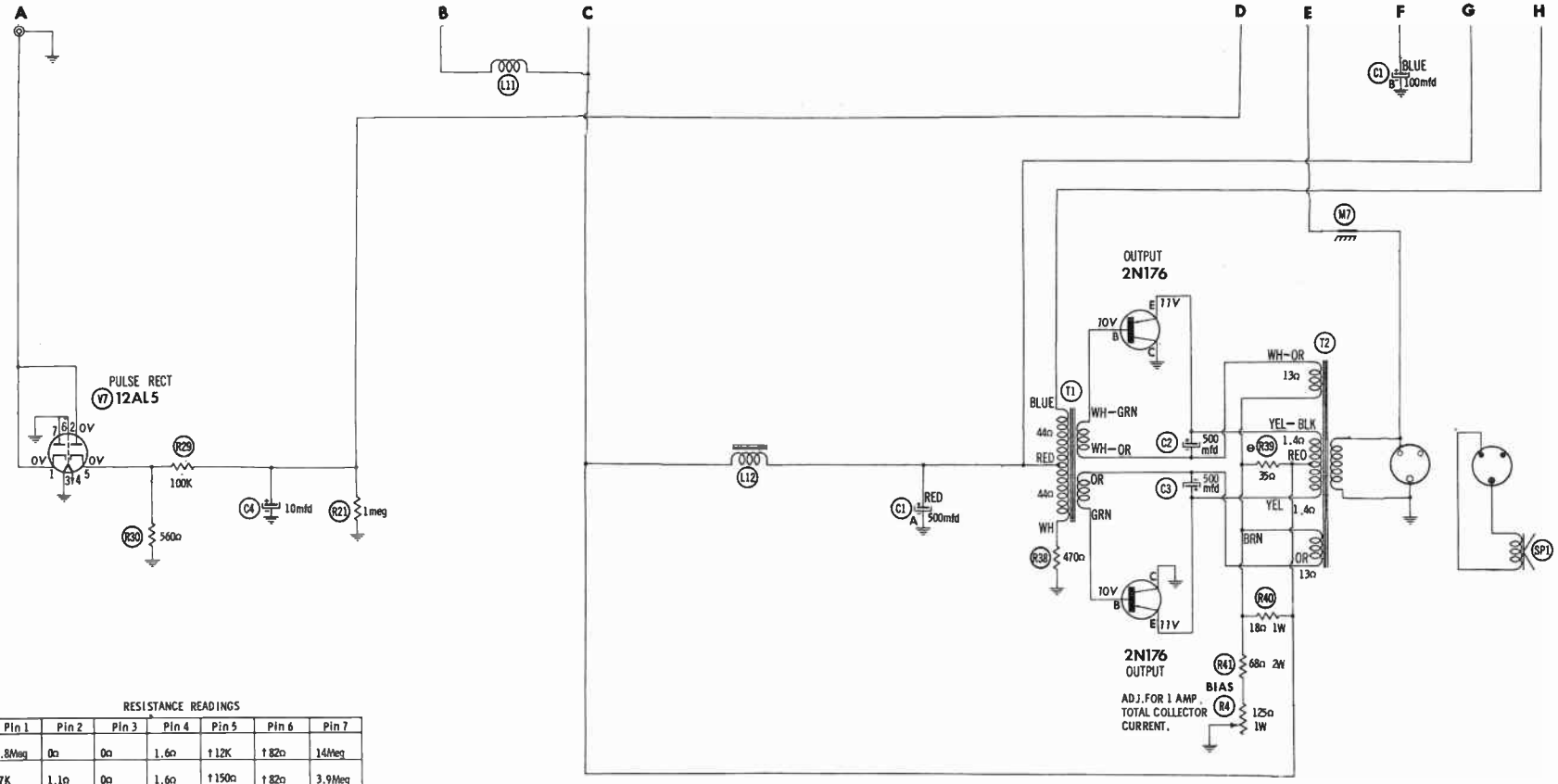
FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ~)	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.
L12	3A	.65Ω	5.4Millihenry	25K539590					

CHASSIS—BOTTOM VIEW







RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12AD6	3.8Meg	0Ω	0Ω	1.6Ω	†12K	†82Ω	14Meg
V2	12AD6	47K	1.1Ω	0Ω	1.6Ω	†150Ω	†82Ω	3.9Meg
V3	12AF6	100K	2000Ω	0Ω	1.6Ω	†18K	†82Ω	2000Ω
V4	12BL6	1.2Meg	1000Ω	0Ω	1.6Ω	†110Ω	†82Ω	1000Ω
V5	12CR6	470Ω	1Meg	0Ω	1.6Ω	†120K	†390Ω	4.8Meg
V6	12K5	15Ω	3.3Meg	0Ω	1.6Ω	†.7Ω	†.7Ω	†44Ω
V7	12AL5	INF	INF	0Ω	1.6Ω	560Ω	0Ω	0Ω
V8	12AE6	3.4meg	15Ω	0Ω	1.6Ω	0Ω	4.2Meg	†3.3Meg
V9	12K5	330Ω	3.3Meg	0Ω	1.6Ω	†.7Ω	†.7Ω	†200Ω

TRANSISTOR RESISTANCE NOT TAKEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE.
† MEASURED FROM JUNCTION OF L12 AND ON-OFF SWITCH.

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS (Continued)

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	7AG	7.5A 32V	65R122346	9K539880	30307.5 (7AG-7.5A)	155009	SFE 7½	HRH

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M2	Dial Light	65T533821	#1891
M3	Tuner	77K538929	(ST-202) Complete Ass'y.
M4	Trimmer Cap.	20B539612	Includes: A5 (Osc)120-220MMF, A6 (RF) 50-260MMF, 47MMF.
M5	Spark Plate	48A539147	Selenium. Alternate part #48K539953.
M6	Spark Plate	64K530177	
M7	Spark Plate	64A530176	
M8	Switch	40A536283	On-Off
M9	Switch	40B535396	Motor Reversing
M10	Switch	1V540692	Search Selector, Includes Buttons and Sensitivity Switch.
M11	Motor	59C535466	Tuner Drive
M12	Solenoid	59A537563	
M13	Relay	1V540128	Includes Mtg. Hardware.
	Pointer	1B536292	
	Glass	34C536273	Dial
	Knob	36A530011	Volume
	Knob	36B511457	Tone and Dummy
	Knob	36A538799	Tuning
	Pushbutton	38K536293	On-Off
	Pushbutton	1A536303	5 Used

ADJUSTMENTS

TOWN (R2)

Tune receiver for maximum noise output. Turn off receiver. Press and release Town Search Button. Short C11 to chassis. Connect a signal generator adjusted to 1000KC @ 100 microvolts to antenna receptacle thru dummy (refer align. Fig 1). Connect an output meter across speaker voice coil. Turn on receiver and generator and adjust R2 for 1.79 volts on output meter. (Volume control at maximum).

COUNTRY (R3)

Tune receiver for maximum noise output. Turn off receiver, press and release Country Search Button. Connect a signal generator adjusted to 1000KC @ 5 microvolts to antenna receptacle thru dummy (refer align Fig 1). Connect an output meter across speaker voice coil. Turn on receiver and generator and adjust R3 for 1.79 volts on output meter. (Volume control at maximum).

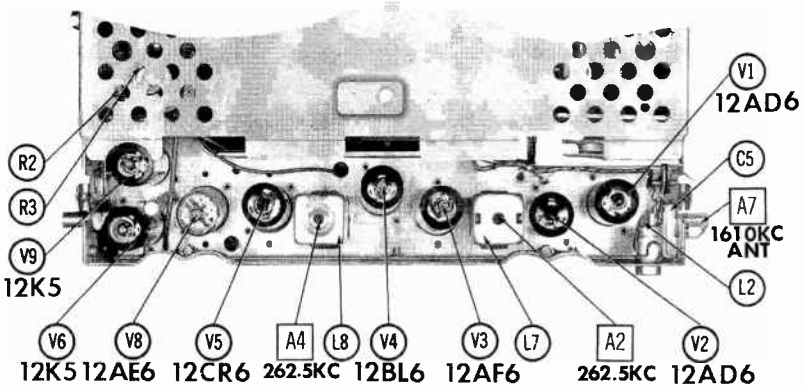
TRANSISTOR BIAS (R4)

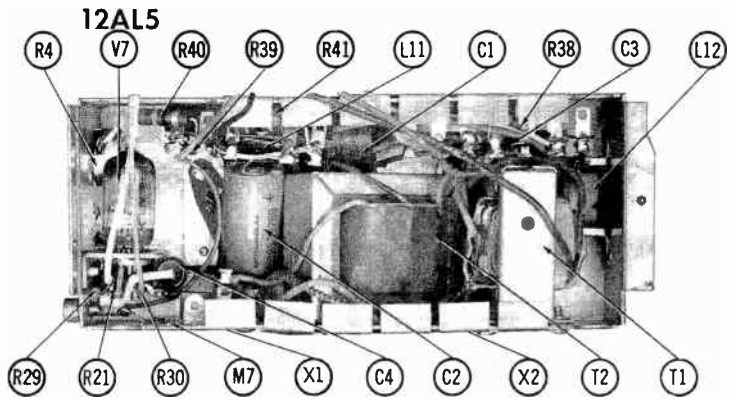
Separate the transistor mounting heat sink from the housing. Connect the positive lead of a low internal resistance milliammeter (.5Ω max) to the heat sink and the negative lead to the receiver chassis. Adjust R4 for 870 MA.

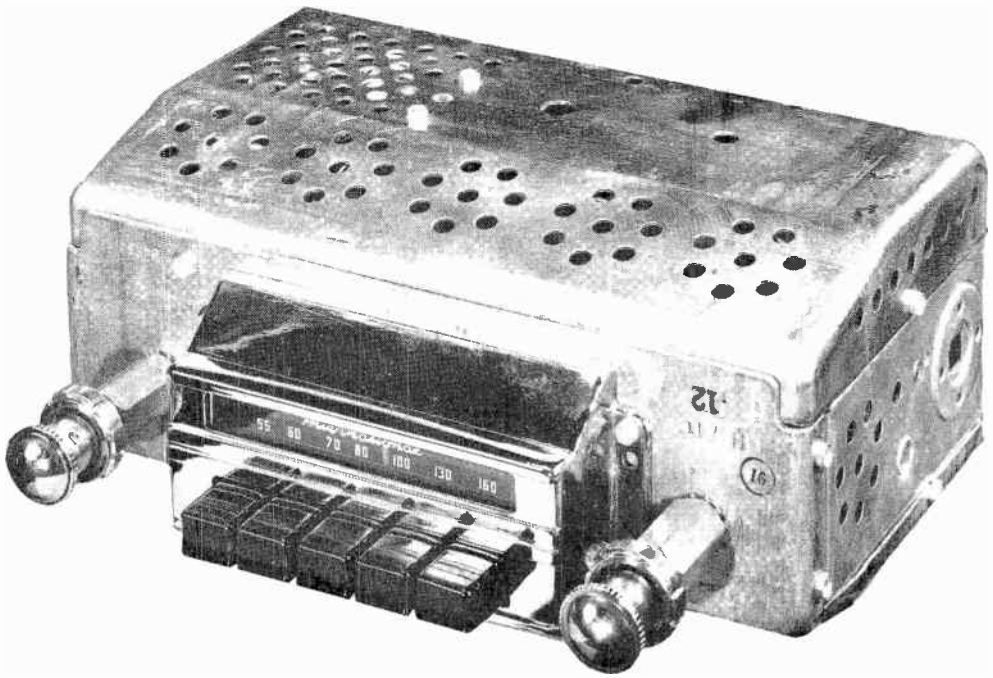
V5 CATHODE BIAS (R5)

Disconnect antenna and pulse rectifier (V7) input leads from receptacles. Use a VTVM and adjust R5 for a reading of 9 volts on the plate (pin 5) of the AF Amplifier (V5).

CHASSIS—TOP VIEW







TRADE NAME	International Models IL7TC, IL7TC-12 (For 1957 International R-Line Trucks)
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois
TYPE SET	Battery Operated Custom Built AM Truck Receiver
TUBES (Six)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12CR6 Det.-AVC-AF Amp., 12AQ5 Output, 12X4 Output (Model IL7TC uses 6BD6, 6BE6, 6BD6, 6CR6, 6AQ5, 6X4)
POWER SUPPLY	6 Volt Storage Battery (Model IL7TC) RATING 6 Amp. @ 6.3 Volts DC 12 Volt Storage Battery (Model IL7TC-12) 3 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	455KC (400~ Mod)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2.	Fig. 1	Thru dummy to Antenna Receptacle.	1610KC	"	"	A5, A6, A7	"
	The following steps are not necessary unless tuner cores have been tampered with or associated components have been replaced. Back tuner cores A8, A9, and A10 out of coils. Proceed with Step 3.						
3.	Fig. 1	Thru dummy to Antenna Receptacle.	1610KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output.
4.	"	"	1200KC	Adjust tuner carriage 9/32" from high freq. end stop.	"	A8, A9, A10	(Alignment tool Motorola Part No. 66A76278 may be used.) Adjust for maximum output.
5.	"	"	1610KC	High frequency end stop	"	A5, A6, A7	Adjust for maximum output. Repeat steps 4 & 5.
6.	With radio installed in car and antenna fully extended, tune in a weak station at 1400KC and adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat procedure on remaining pushbuttons.

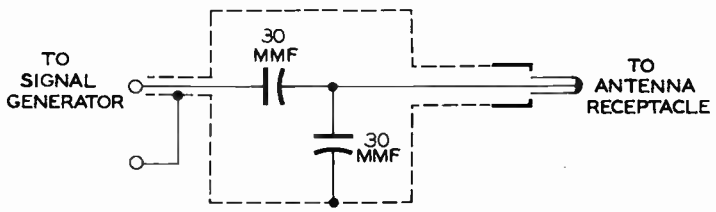
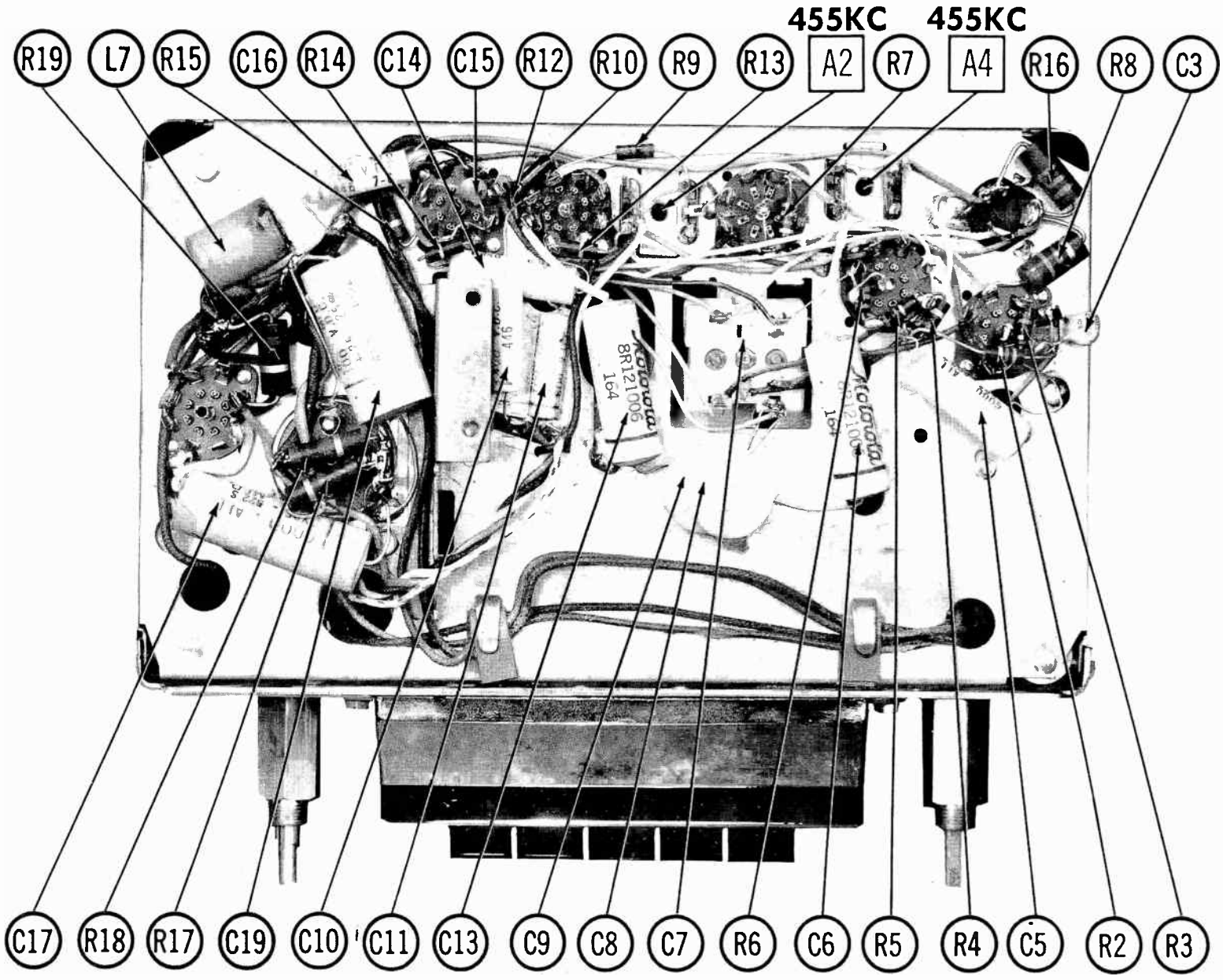


FIG. 1

H157



CHASSIS-BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	Note 1
V2	Converter	12BE6	Note 2
V3	IF Amplifier	12BA6	Note 1
V4	Det. -AVC - AF Amp.	12CR6	Note 3
V5	Output	12AQ5	Note 4
V6	Rectifier	12X4	Note 5

Note 1. Type 6BD6 used in Model 1L7TC
Note 2. Type 6BE6 used in Model 1L7TC
Note 3. Type 6CR6 used in Model IL7TC
Note 4. Type 6AQ5 used in Model IL7TC
Note 5. Type 6X4 used in Model IL7TC

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■15	350	23A485677	AFH3-104	C0770	FP328	TMT-89	T-455	TVL-3630
B	▲10	350							
C	20	25							

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 CAP.	RATING VOLT	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2	90	500	21A591682							
C3	22		21R120539							N150 10%
C4	50-280		20A501419							
C5	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-215	2TM-S5	
C6	.1	400	8R121006	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C7A	7.5-75		20B536839							
B	4.7									
C	47									
D	7.5-50									
C8	200									N150 5% ①
C9	200									N150 5% ①
C10	.01	400	8R121002	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C11	.002	600	8R121568	BPD-002	DD-202	CUB6D2	GP-2000	GEM-622	6TM-D2	
C12	.02	200	8R121003	BPD-02	DD-203	CUB2S2	ED-02	GEM-212	2TM-S2	
C13	.1	400	8R121006	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C14	.02	400	8R121566	BPD-02	DD-203	CUB4S2	ED-02	GEM-412	4TM-S2	
C15	470		21R115856	BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	5GA-T47	
C16	.004	600	8R121000	BPD-004	DD-402	CUB6D4	GP-4000	GEM-624	6TM-D4	
C17	.04	1000	8A121549	P1088N-04		CUB10S4		GEM-1014	10TM-S4	②
C18	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	
C19	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	

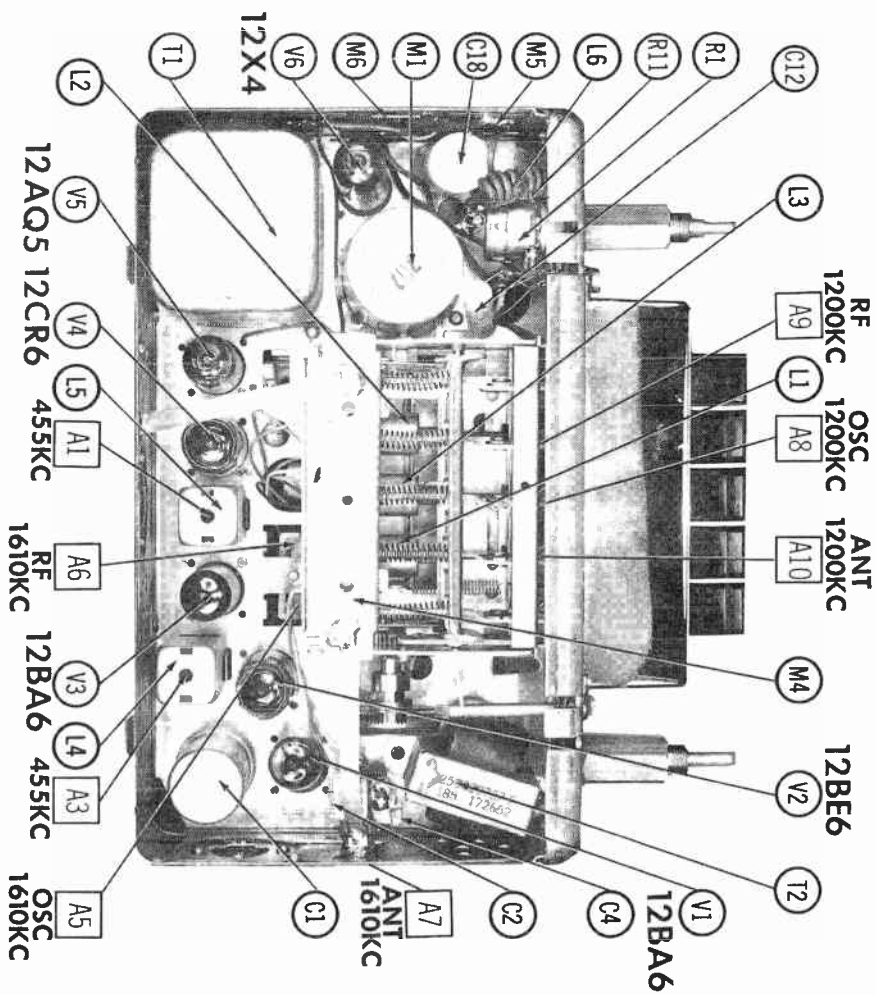
① When C8 is 400MMF (Part #21A71872) C9 is not used.
② Model IL7TC uses .02MFD @ 1000V Part #8R121004 in this application.

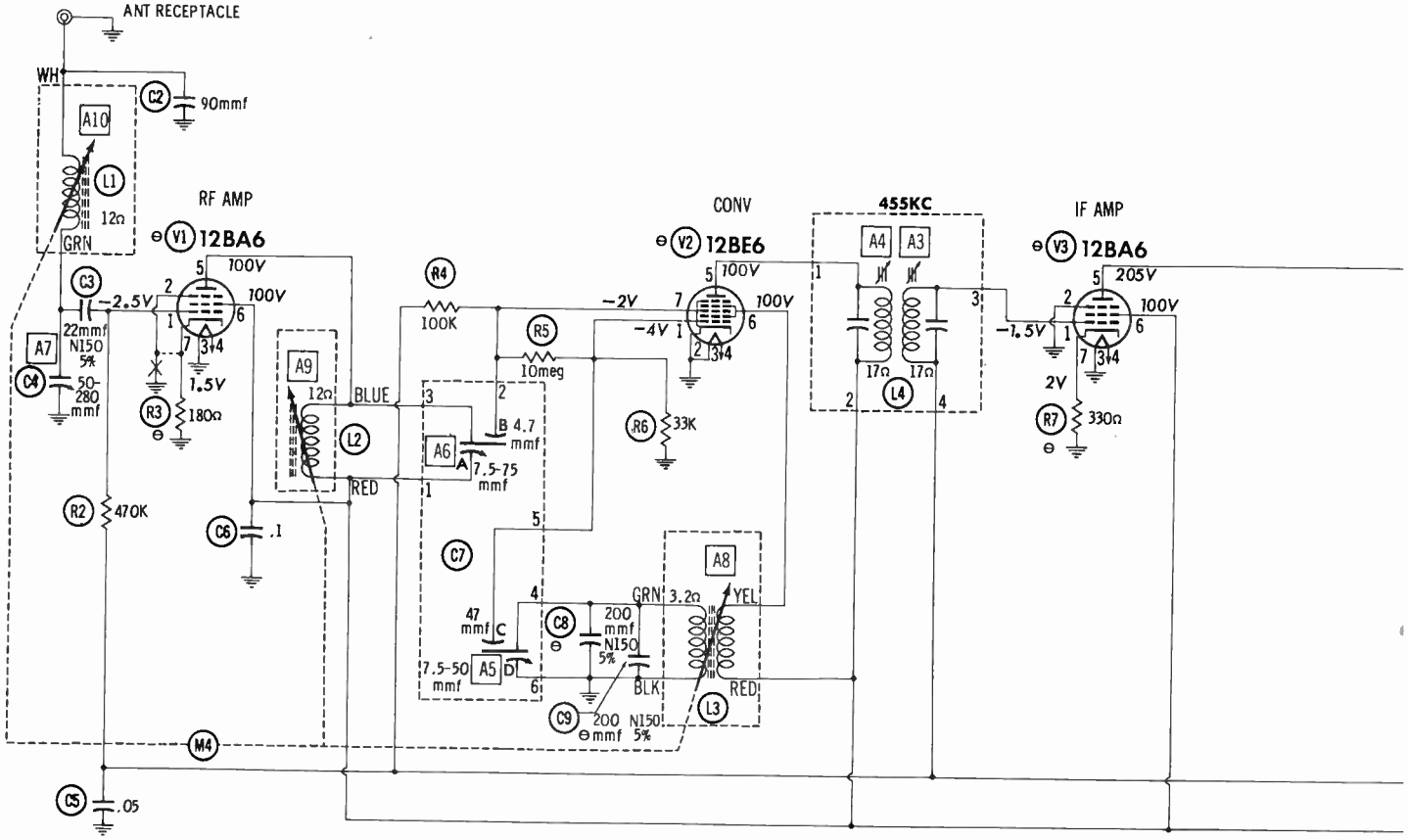
CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1Meg		18K535758	F1-51	RTV-588C	•QJ-1009A	UE1656S	Tone
B	250K			R2-38	Not Req.		Not Req.	Volume, Tap @ 125K
C	Switch			KB-4	Not Req.		Not Req.	

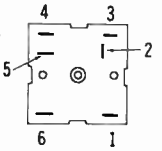
• Concentrikit Equivalent; K-6 Kit, Base Elements and Shafts: B11-137, P13-122 (Panel) B13-130X, R1-202 (Rear) 76-1 (Switch)

CHASSIS—TOP VIEW





RF & OSC CAP TERM. CONNECTIONS



RESISTANCE READINGS

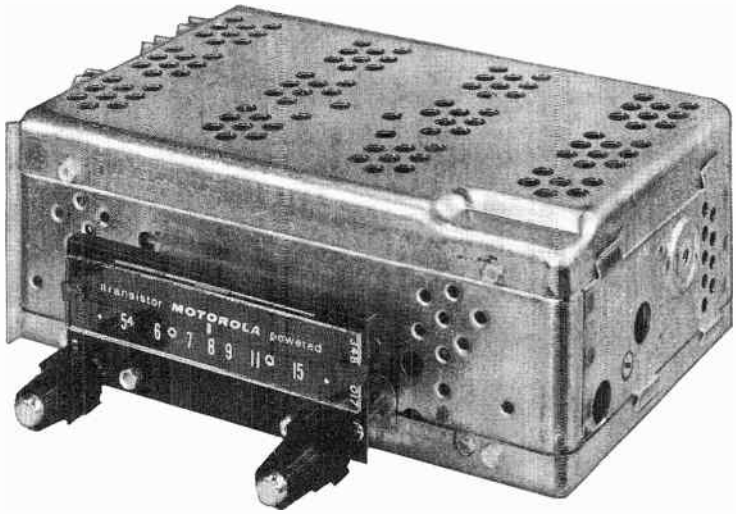
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BA6	1.5Meg	0Ω	0Ω	1.4Ω	† 9000Ω	† 9000Ω	180Ω
V2	12BE6	33K	0Ω	0Ω	1.4Ω	† 9000Ω	† 9000Ω	1.2Meg
V3	12BA6	1.1Meg	0Ω	0Ω	1.4Ω	† 2200Ω	† 9000Ω	330Ω
V4	12CR6	0Ω	180K	1.4Ω	0Ω	† 220K	† 1Meg	3.3Meg
V5	12AQ5	220K	270Ω	0Ω	1.4Ω	† 690Ω	† 2200Ω	220K
V6	12X4	260Ω	NC	0Ω	1.4Ω	NC	290Ω	20K(MIN)

† MEASURED FROM PIN 7 OF V6.
NC NO CONNECTION.

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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



TRADE NAME	Motorola Model 7MX
MANUFACTURER	Motorola Inc. 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12DE8 Overload Limiter-RF Amplifier, 12AD6 Converter, 12AF6 IF Amplifier, 12F8 Det. -AVC-AF Amp., 12K5 Driver
POWER SUPPLY	12 Volt Storage Battery — RATING 2 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540 - 1600KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	455KC (400%Mod.)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	Thru dummy to Antenna receptacle	1618KC	"	"	A5, A6, A7	"
	Note: Following steps not necessary unless tuner has been tampered with or replacement of associated components has been made. Remove dial scale mounting assembly and back tuner cores approximately 1" out of coils.						
3	Fig. 1	Thru dummy to Antenna receptacle	1610KC	High frequency end stop	Across voice coil	A5, A6 A7	Adjust for maximum output.
4	"	"	1200KC	Adjust carriage 9/32" from high freq. end stop.	"	A8, A9, A10	Adjust A8, A9 and A10 for maximum output. (Motorola alignment tool Part #66A76268 may be used.)
5	"	"	1610KC	High frequency end stop.	"	A5, A6,	Adjust for maximum output. Repeat step 4 & 5 until no further improvement is noted making step 5 the last adjustment.
	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC and adjust A7 for maximum volume.						

DIAL POINTER ADJUSTMENT

With tuner set at high frequency end stop, adjust dial pointer to coincide with calibration dot at extreme right on dial face.

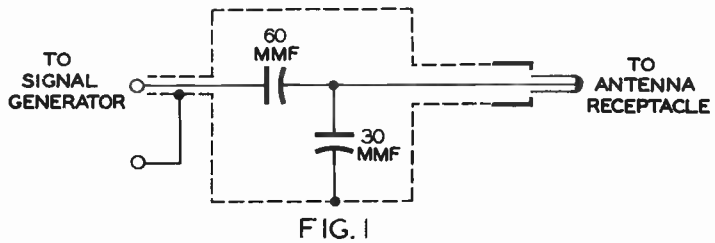


FIG. 1

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

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	Overload Limiter - RF Amp.	12DE8	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC-AF Amp.	12F8	
V5	Driver	12K5	

TRANSISTOR

ITEM No.	USE	TYPE	NOTES
X1	Output	2N178	Note 1

Note 1. Some versions use 2N176 (Part # 48C124246)

ELECTROLYTIC CAPACITOR

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲500	16	23B540699	AFH2-02-10	B0045	WP200.5			R2299 *
B	■100	16							

* Non catalog item

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 CAP.	RATING VOLT	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2	90		21K533453							
C3	20-180		20K540928							
C4	10		21K125518	BPD-00001	DD-100	L10Q1	ED-10	UC-541	5GA-Q1	
C5	.05	200	8B120842	BPD-05	DF-502	CUB2S5		CEM-415		
C6A	7.5-75		20B540657							
B	4.7									
C	370-450									
D	47									
C7	.05	200	5B120842	BPD-05		BC2S47J		ACE615	2SE-S47	
C8	10000		21R482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C9	.05	200	8R121005	BPD-05		BC2S47J		ACE615	2SE-S47	
C10	.1	100	8K124891	P288N-1		BC2P1J		ACE601	2SE-P10	
C11	.1	200	8R121573	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C12	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	500K		18B540768	F1-41			UE1474S	Tone
B	1Meg			R2-56				Volume, Tap@ 500K
C	Switch			KB-1				
R2	210Ω	1	18A540698					Emitter Bias (Wirewound)

RESISTORS

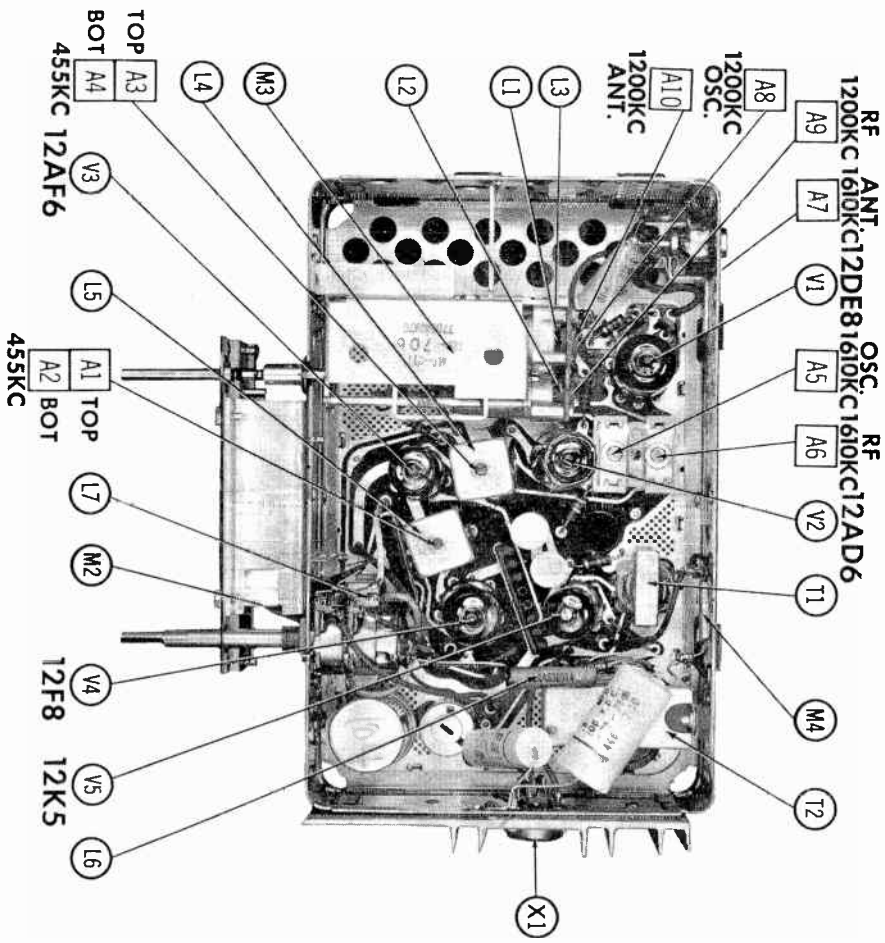
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA MOTOROLA PART No.	IRC PART No.	NOTES
R3	1.5Meg		6R3966	BTS-1.5Meg	
R4	1Meg		6R6046	BTS-1Meg	
R5	47K		6R6048	BTS-47K	
R6	36Meg		6K541294		
R7	470K		6R6032	BTS-470K	
R8	33K		6R6012	BTS-33K	

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA MOTOROLA PART No.	IRC PART No.	NOTES
R9	270Ω		6R6432	BTS-270	
R10	330K		6R6014	BTS-330K	
R11	56Ω		6R5614	BTS-56	
R12	18Ω		6R2031	BTS-18	
R13	5-6Ω 5%	1	6A488139		
R14			6K540634		Note 1.

Note 1. Special temperature comp. resistor, 10Ω@ 25°C

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T1	6.5 : 1		25B540523						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.1	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	31.5Ω	3-4Ω	25C540659						
	Turns Ratio								
	PRI.	SEC.2							
	1 : 1								

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	50C541101	69A2	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Antenna Coil	24C535458				Part of Tuner M3
L2	RF Coil	24C535458				Part of Tuner M3
L3	Osc. Coil	24C540969				Part of Tuner M3
L4	Input IF	24K541029	16-6780	BC-356	13-PC1	
L5	Output IF	24C541028			13-PC6	
L6	"A" Lead Choke	24A538914				10.3 Microhenries

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE @ CURRENT 1000 ~	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
L7	.600A	.7Ω	12Millihenries	25B540522					

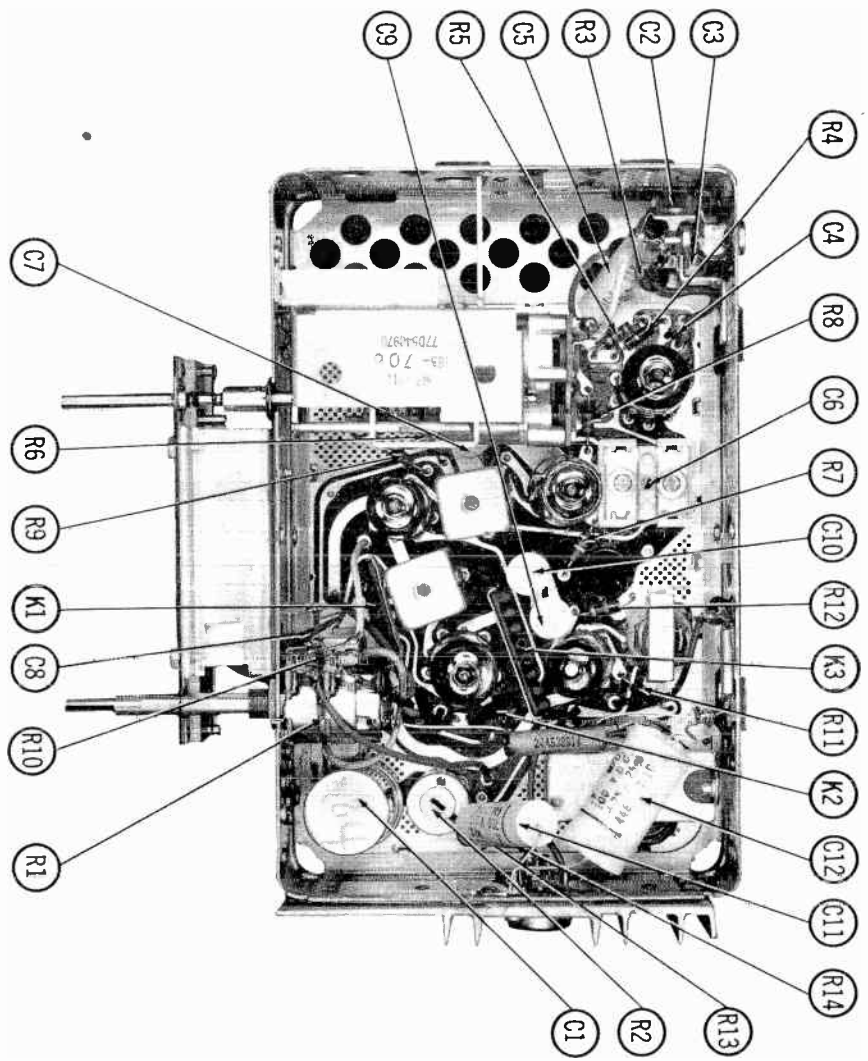
COMPONENT COMBINATIONS

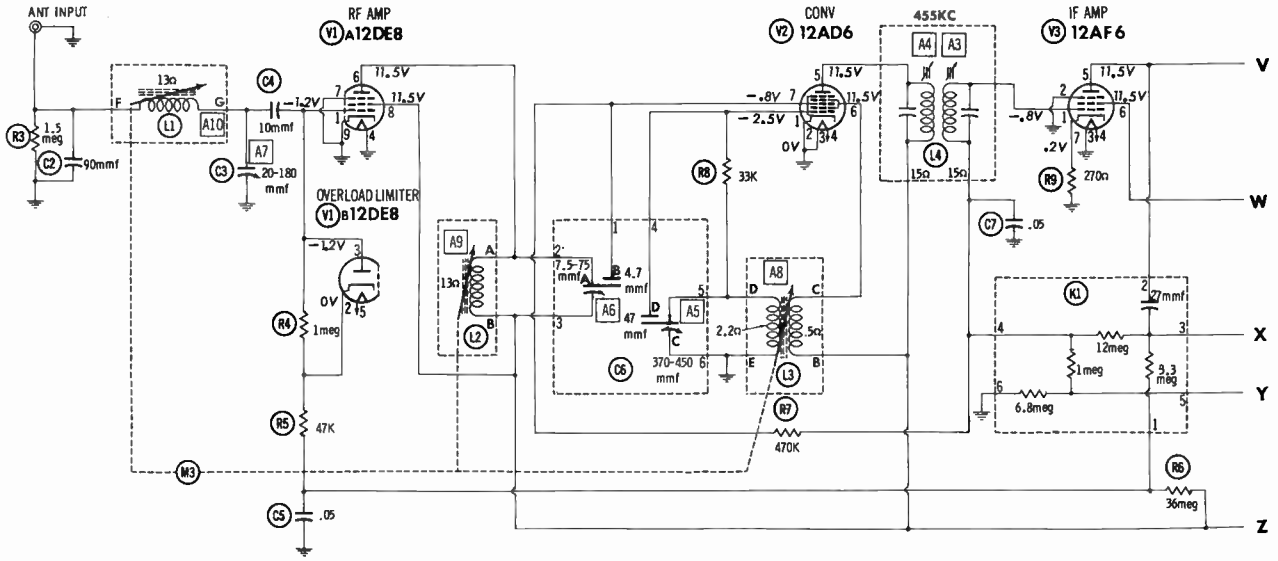
ITEM No.	USE	DESCRIPTION	MOTOROLA PART No.	REPLACEMENT DATA
K1	Detector-AVC Network	27 MMF, 6.8Meg, 1Meg, 12Meg, 3.3Meg	51B540765	Erie 706-03
K2	Audio Coupling Network	10000 MMF, 3.3Meg	51B540764	Erie 703
K3	Audio Coupling Network	10000 MMF, 4000 MMF, 10K, 820K, 2.2Meg, 220K, 82Ω	51B540766	Erie 708-03

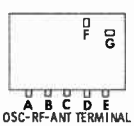
FUSE

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	SFE	9A	65R16248	1V541705	307009. (SFE-9A)	155009	SFE9	HRH

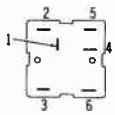
CHASSIS— TOP VIEW



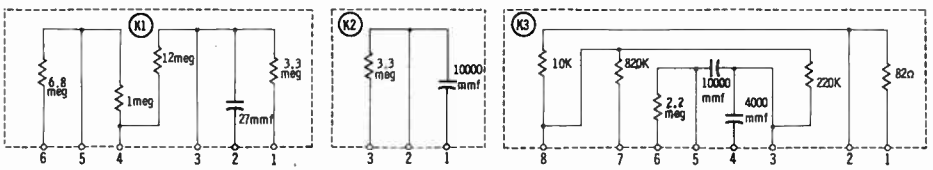




OSC-RF-ANT TERMINAL BOARD CONNECTIONS



TERMINAL CONNECTION C6 CAPACITORS

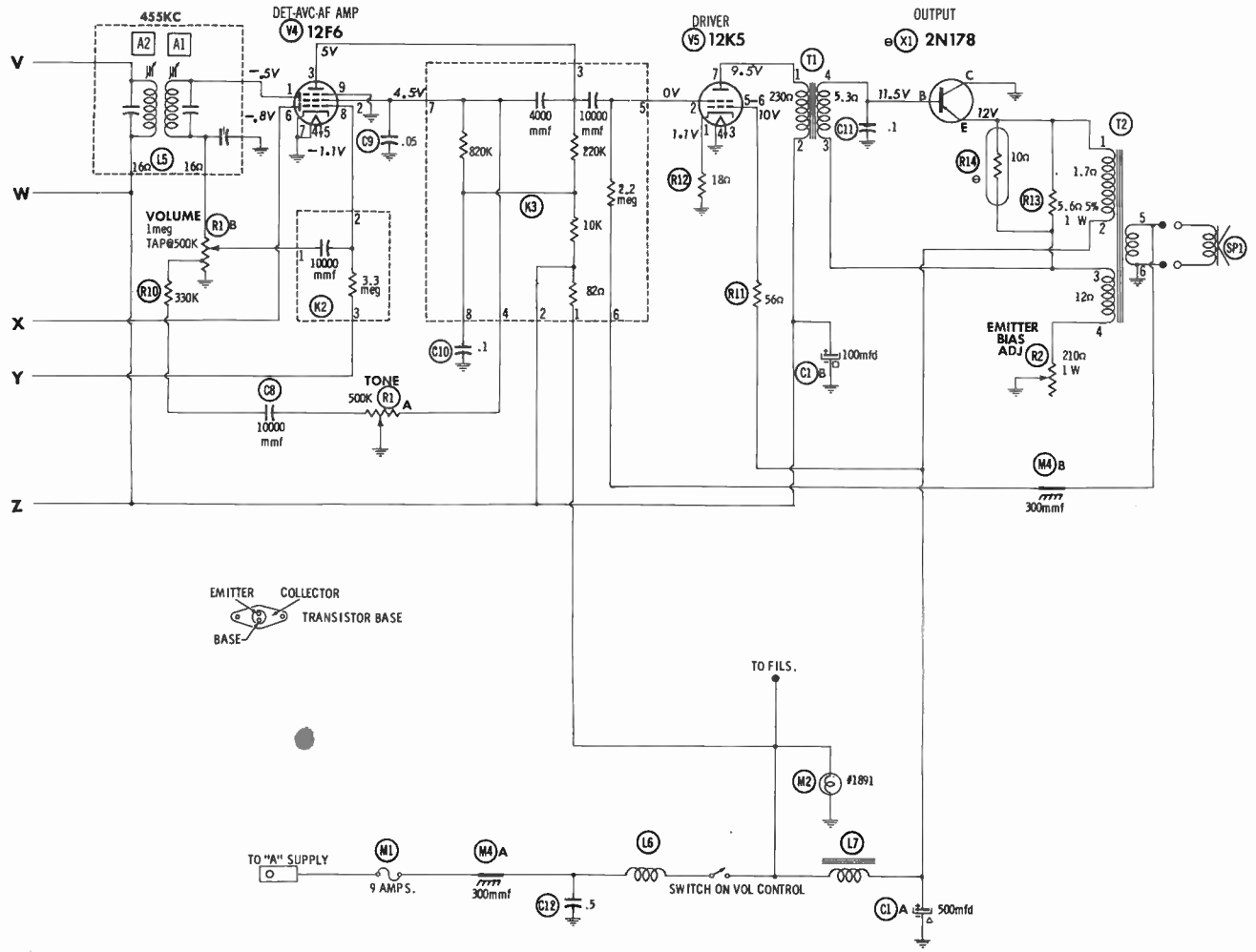


RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12DE8	20.8Meg	19.8Meg	20.8Meg	0Ω	.1Ω	† 95Ω	0Ω	† 80Ω	0Ω
V2	12AD6	33K	0Ω	0Ω	.1Ω	† 95Ω	† 82Ω	8.2Meg		
V3	12AF6	7.8Meg	0Ω	.1Ω	0Ω	† 95Ω	† 80Ω	270Ω		
V4	12F8	1Meg	† 830K	† 230K	0Ω	.1Ω	19.8Meg	0Ω	10Meg	0Ω
V5	12K5	18Ω	2.2Meg	.1Ω	0Ω	† 55Ω	† 55Ω	† 310Ω		

† MEASURED FROM JUNCTION OF ON-OFF SW. AND L7

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

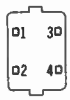


DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM.

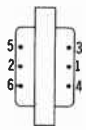
⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

MOUNTING TERMINALS FOR INPUT TRANSFROMER T1



MOUNTING TERMINALS FOR OUTPUT TRANSFORMER T2



PARTS LIST AND DESCRIPTIONS (Continued)

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M2	Pilot Light	65R533821	#1891
M3	Tuner	77D540970	(MT-211) Complete Ass'y. Includes Coils L1, L2, L3 & Mounting Plate (Part #1V540976)
M4	Spark Plate	21A522033	300 MMF
	Printed Panel	84B540767	(Include Letter Following Part Number)

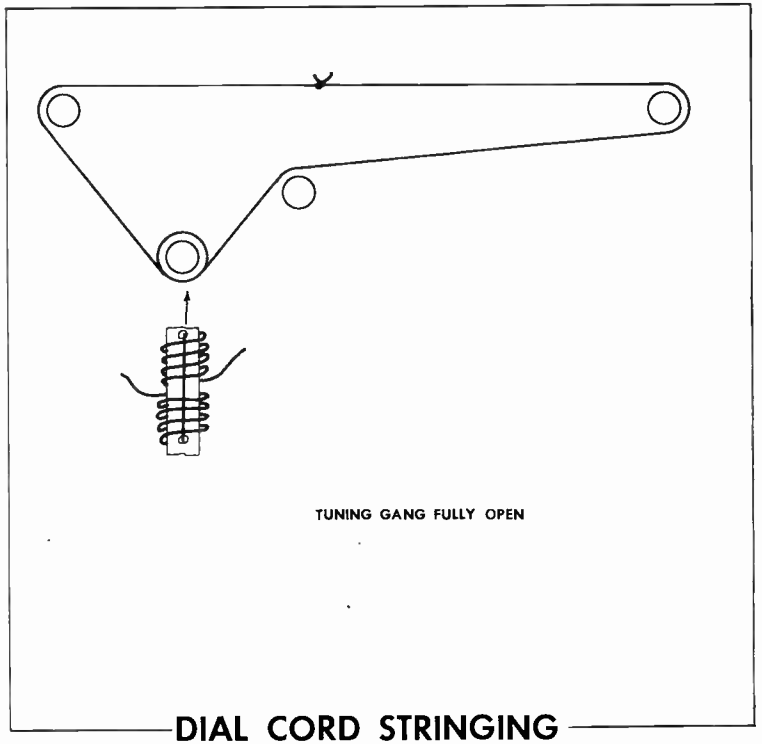
CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	36B540048	ON-OFF-Volume, Tuning
Knob	36B540050	Tone
Knob	36K540051	Dummy
Dial Scale	1V533843	
Cover	15D540769	Bottom (Tube Side)
Cover	15K540772	Top (Wiring Side)
Pointer	1K532594	Dial

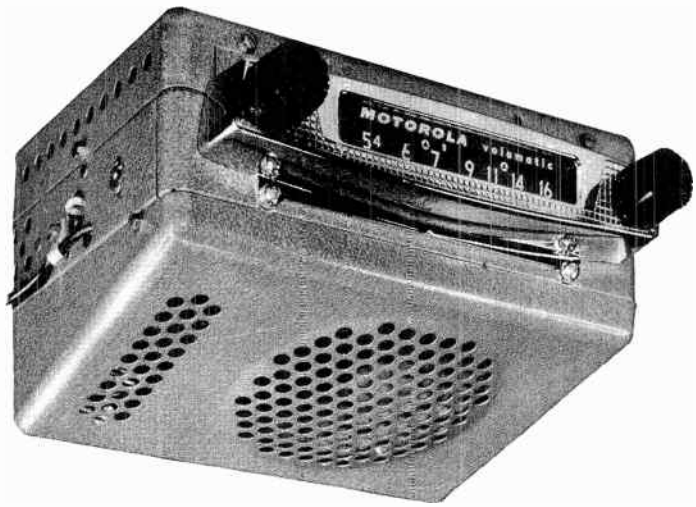
EMITTER CURRENT ADJUSTMENT

Connect a milliammeter in series with the emitter terminal of the transistor (X1). The internal resistance of the meter should not exceed .5Ω. Connect a power source of 14 volts DC to the receiver and allow a warm-up period of 15 minutes. Adjust R2 for a meter reading of 500MA.
(Alternate Method)
Remove the transistor (X1) from its socket. Connect an ammeter (0-3 Amp.) in series with the receiver "A" lead. The internal resistance of the meter should not exceed .02Ω. Connect a power source of 14 volts DC to the receiver and allow a warm-up period of 15 minutes. Accurately measure the current, turn the receiver off and reconnect the transistor. Be certain that the mounting screws are tightened securely. Turn on the receiver and adjust R2 for an increase of 500MA in current drain.



TUNING GANG FULLY OPEN

DIAL CORD STRINGING



TRADE NAME	Motorola Model 397
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Illinois
TYPE SET	Battery Operated Universal Type AM Automobile Receiver
TUBES (Six)	Types 6BD6 RF Amplifier, 6BE6 Converter, 6BD6 IF Amplifier, 6CR6 Det.-AVC-AF Amp., 6AQ5 Output, 6X4 Rectifier
POWER SUPPLY	6 Volt Storage Battery — RATING 5.4 Amp. @ 6.3 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 6BE6 (V2). Low side to chassis.	455KC (400~ Mod.)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	Thru dummy to Antenna receptacle	1610KC	"	"	A5, A6, A7	"
	Steps 3 & 4 are not necessary unless tuner has been tampered with or associated components have been replaced. Before proceeding, back tuning cores (A8, A9, A10) out of coils but not out of coil forms. Alignment tool similar to Fig. 2 may be used.						
3	Fig. 1	Thru dummy to Antenna receptacle	1610KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output.
4	"	"	1400KC	Adjust carriage 13/64" from high frequency end stop	"	A8, A9, A10	Adjust for maximum output. Repeat steps 3 & 4.
5	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC and adjust A7 for maximum volume.						

DIAL POINTER ADJUSTMENT

If necessary, set tuner to low end of dial, adjust dial pointer so that the left edge of carriage lines up with calibration mark on top of dial backplate.

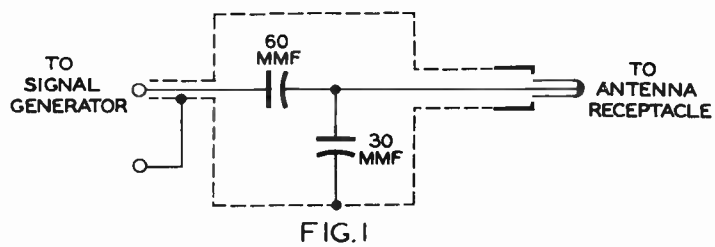


FIG. 1

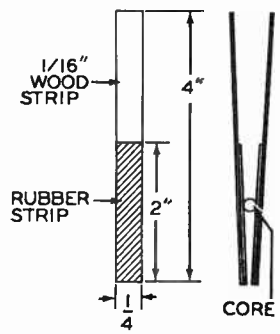


FIG. 2

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	6BD6	
V2	Converter	6BE6	
V3	IF Amplifier	6BD6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC-AF Amp.	6CR6	
V5	Output	6AQ5	
V6	Rectifier	6X4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■15	350	23A485677	AFH3-104	CO770	FP328	TMT-69	T-455	R2274 *
B	▲10	350							
C	20	25							

* Non catalog item

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 CAP.	RATING VOLT	MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2	90		21A591682							
C3	50-280		20K536723							
C4	150		21R410112	BPD-00015	DD-151	L10T15	ED-150	UC-5315	5GA-T15	
C5	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C6	20-180		20A461526							
C7	4.7		21R115955	NP0-SI 4.7	TCZ-4R7	CTAV47C	TCO-4.7	ZT-5547	5TCCB-V47	
C8	47		21R115593	N750-SI 47	TCN-47	C10Q47U	TC7-47	NT-5447	5TCU-Q47	N750
C9	395-470		20A485708							
C10	.05	400	8R121567	BPD-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C11	10000		21B482726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C12	.05	400	8R121567	BPD-05	DF-503	CUB4S5		GEM-415	4TM-S5	
C13	.01	400	8R121002	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C14	470		21R114554	BPD-00047	DD-471	BYA10T47	ED-470	UC-5347	5GA-T47	
C15	.004	600	8R121000	BPD-004	D6-402	CUB6D4	ED-004	GEM-624	6TM-D4	
C16A	300	}	21A522033	SI 300	DD-301	L10T3	ED-300	UC-533	5GA-T3	
B	300	}		SI 300	DD-301	L10T3	ED-300	UC-533	5GA-T3	
C17	.02	1000	8R121004	P1088N-02		CUB10S2		GEM-1012	10TM-D4	
C18	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	
C19	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	250K	½	16B531560	B-50	A47-250K-S	Q11-130	U46	Volume
B	Shaft			Not req.	RS-3	Not req.	Not req.	
C	Switch			KB-1	SWE-13	76-1	US-26	

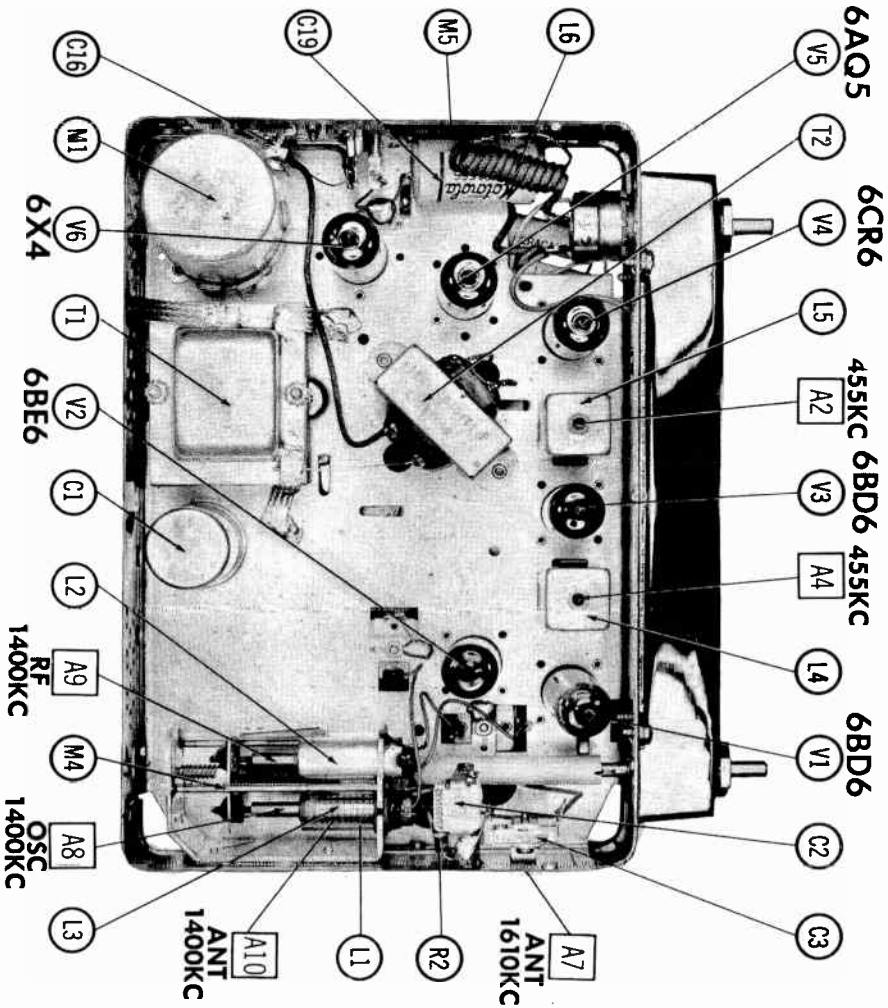
RESISTORS

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

ITEM No.	RATING OHMS	RATING WATT	MOTOROLA PART No.	IRC PART No.	NOTES
R2	100K		6R6075	BTS-100K	
R3	1Meg		6R6004	BTS-1Meg	
R4	270Ω		6R6432	BTS-270	
R5	100K		6R6075	BTS-100K	
R6	47K		6R6056	BTS-47K	
R7	390Ω		6R5554	BTS-390	
R8	3.3Meg		6R2118	BTS-3.3Meg	
R9	2.2Meg		6R3927	BTS-2.2Meg	

ITEM No.	RATING OHMS	RATING WATT	MOTOROLA PART No.	IRC PART No.	NOTES
R10	220K		6R6015	BTS-220K	
R11	1Meg		6R6004	BTS-1Meg	
R12	270K		6R6414	BTS-270K	
R13	270Ω		6R6432	BTS-270	
R14	2200Ω	2	6R476130	BTB-2200	
R15	10K	2	6R6299	BTB-10K	
R16	56Ω	1	6R2037	BTA-56	
R17	56Ω	1	6R2037	BTA-56	

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	8.3VCT @ 3.2A	440VCT @ .042A			25C501303				22R63	V-21B

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	5200Ω	3-4Ω	25B70171	Z1107	A-2930	A-3877	24S51	S-3X	

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	5 1/4"	PM	3-4Ω	50C534259	52A1	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Antenna Coil	24B537760				Note 1
	Antenna Coil	24B537770				Note 2
L2	RF Coil	24B502473				Note 1
	RF Coil	24K536586				Note 2
L3	Osc. Coil	24B502474				Note 1
	Osc. Coil	24K536595				Note 2
L4	Input IF	24K533461	18-6758	BC-352	12-C1	
L5	Output IF	24B533460	18-8770	BC-355	12-C6	
L6	"A" Lead Choke	24K580708				1.2 Microhenries
L7	Hash Choke	24A538914				10.3 Microhenries

Note 1. Part of tuner assembly (M4) Part #77D537759 or 77D537758
Note 2. Part of tuner assembly (M4) Part #77K537788

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				MOTOROLA PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	6.3V	115v	48B3333	5342	903M	5342	

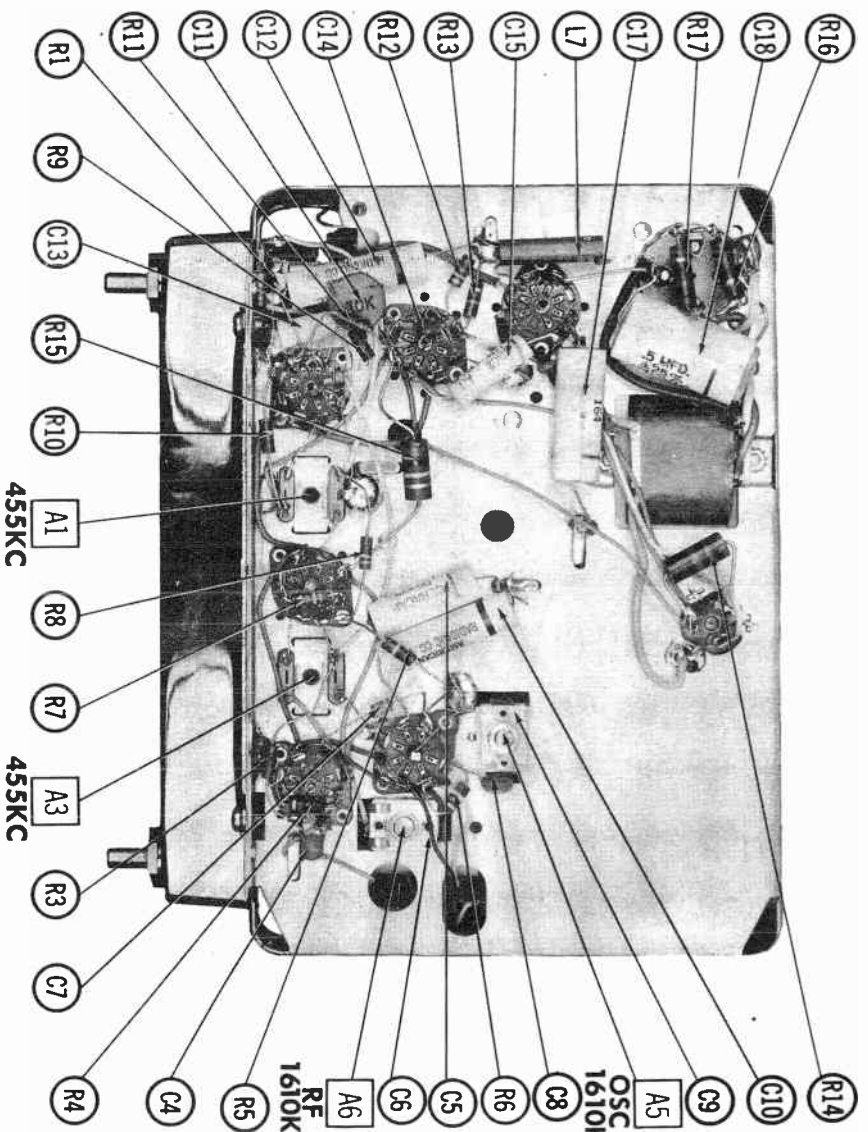
FUSES

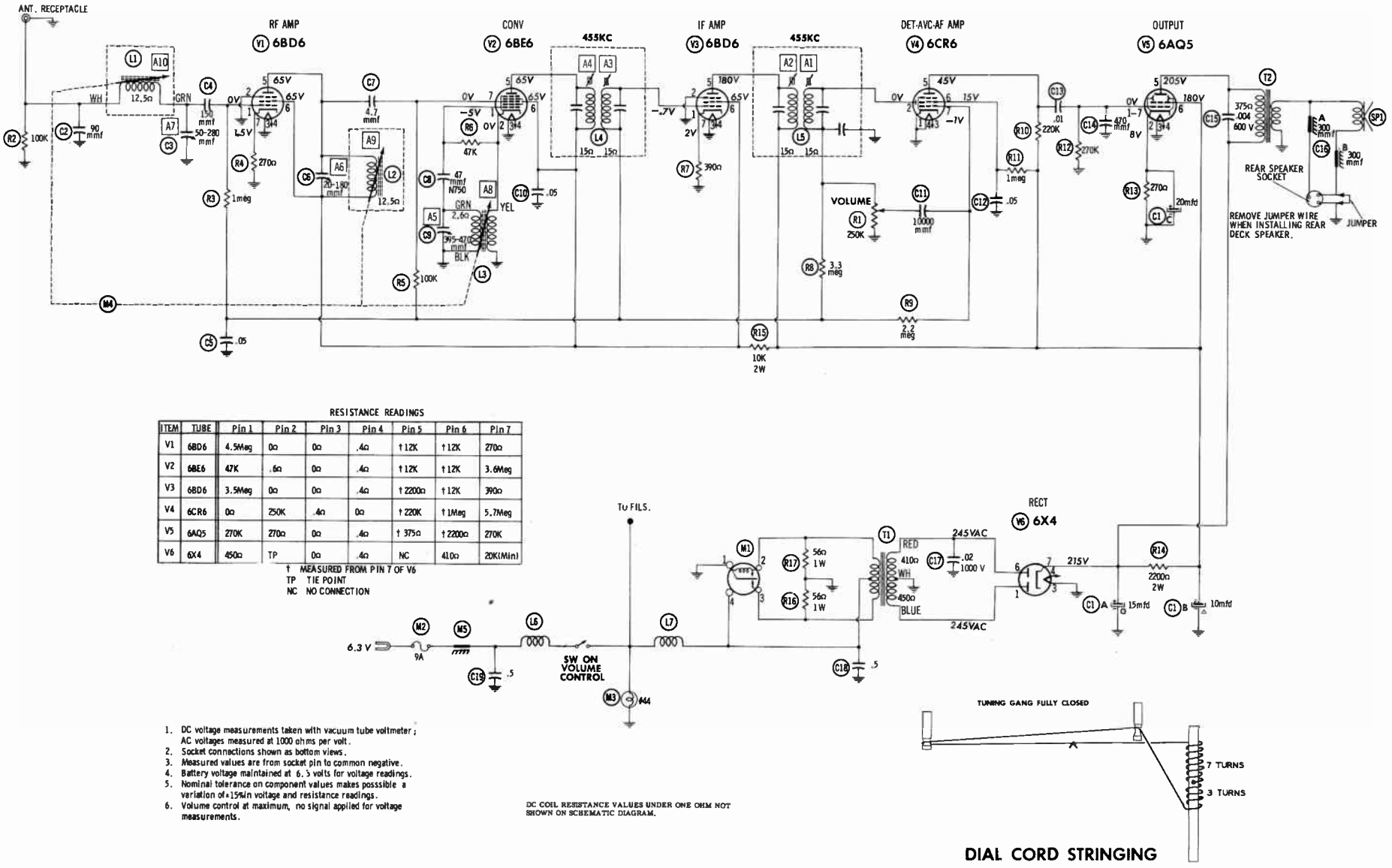
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	9A	85R18248	9K536617	307009. (SFE 9A)	155009	SFE9	HRH

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M3	Dial Light	65R10867	#44
M4	Tuner	77D537759	(MT-186)
	Tuner	77D537758	(MT-185)
	Tuner	77K537768	(MT-187)
M5	Spark Plate	64K532087	

CHASSIS—BOTTOM VIEW





RESISTANCE READINGS

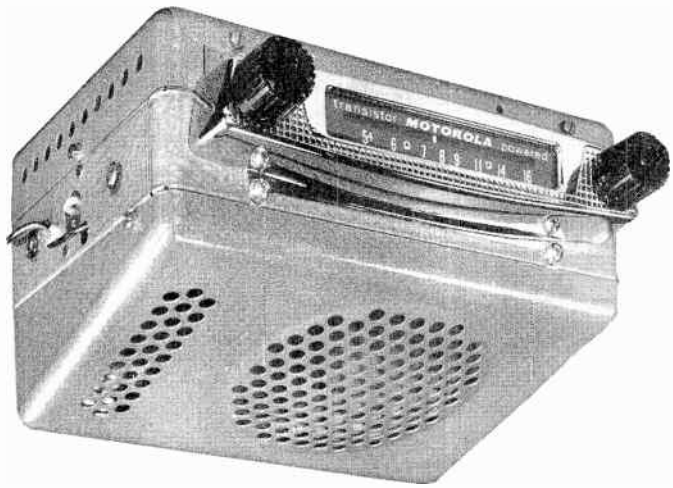
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	6BD6	4.5Meg	0Ω	0Ω	.4Ω	†12K	†12K	270Ω
V2	6BE6	47K	.6Ω	0Ω	.4Ω	†12K	†12K	3.6Meg
V3	6BD6	3.5Meg	0Ω	0Ω	.4Ω	†2200Ω	†12K	390Ω
V4	6CR6	0Ω	250K	.4Ω	0Ω	†220K	†1Meg	5.7Meg
V5	6AQ5	270K	270Ω	0Ω	.4Ω	†375Ω	†2200Ω	270K
V6	6X4	450Ω	TP	0Ω	.4Ω	NC	410Ω	20K(Min)

† MEASURED FROM PIN 7 OF V6
TP TIE POINT
NC NO CONNECTION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 6.3 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

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

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



TRADE NAME	Motorola Model 397X
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12DE8 Overload Limiter-RF Amp., 12AD6 Converter, 12AF6 IF Amplifier, 12F8 Det.-AVC-AF Amp., 12K5 Driver
POWER SUPPLY	12 Volt Storage Battery — RATING 1.8 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1600KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	455KC (400~Mod.)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2	Fig. 1	Thru dummy to Antenna receptacle	1610KC	"	"	A5, A6, A7	"
	If tuner or tuner cores have been replaced or tampered with proceed with step 3. Alignment tool similar to Fig. 2 may be used. Back tuner cores out of coils before proceeding.						
3	Fig. 1	Thru dummy to Antenna receptacle	1610KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output.
4	"	"	1400KC	Adjust carriage 13/64" from high freq. end stop.	"	A8, A9, A10	Adjust for maximum output. Repeat steps 3 & 4.
5	With radio installed in car and antenna fully extended, tune in a weak station near 1400KC and adjust A7 for maximum volume.						

DIAL POINTER ADJUSTMENT

If necessary, set tuner to low frequency end of dial, adjust dial pointer so that the left edge of carriage lines up with calibration mark on top of dial backplate.

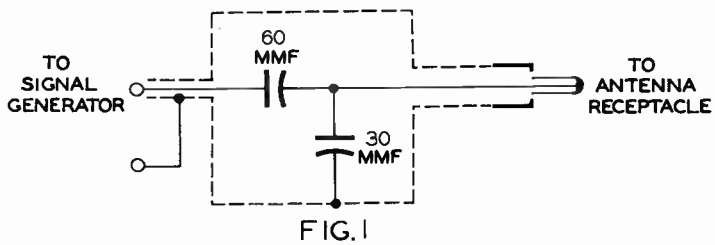


FIG. 1

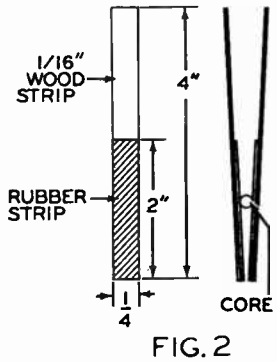


FIG. 2

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	Overload Limiter-RF Amp.	12DE8	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC-AF Amp.	12F8	
V5	Driver	12K5	

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA		NOTES
			CBS PART No.	SYLVANIA PART No.	
X1	2N178 ①	Output			① Some versions may use type 2N176 (Part #48C124246)

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.	
C1A	▲100	16	23B539261	AFH2-02-10	B0045	WP200.5	TMS-10	S-035	R2294 *	
B	■500	16					TD-100-25	MTH-2550		

* Non catalog item

FIXED CAPACITORS

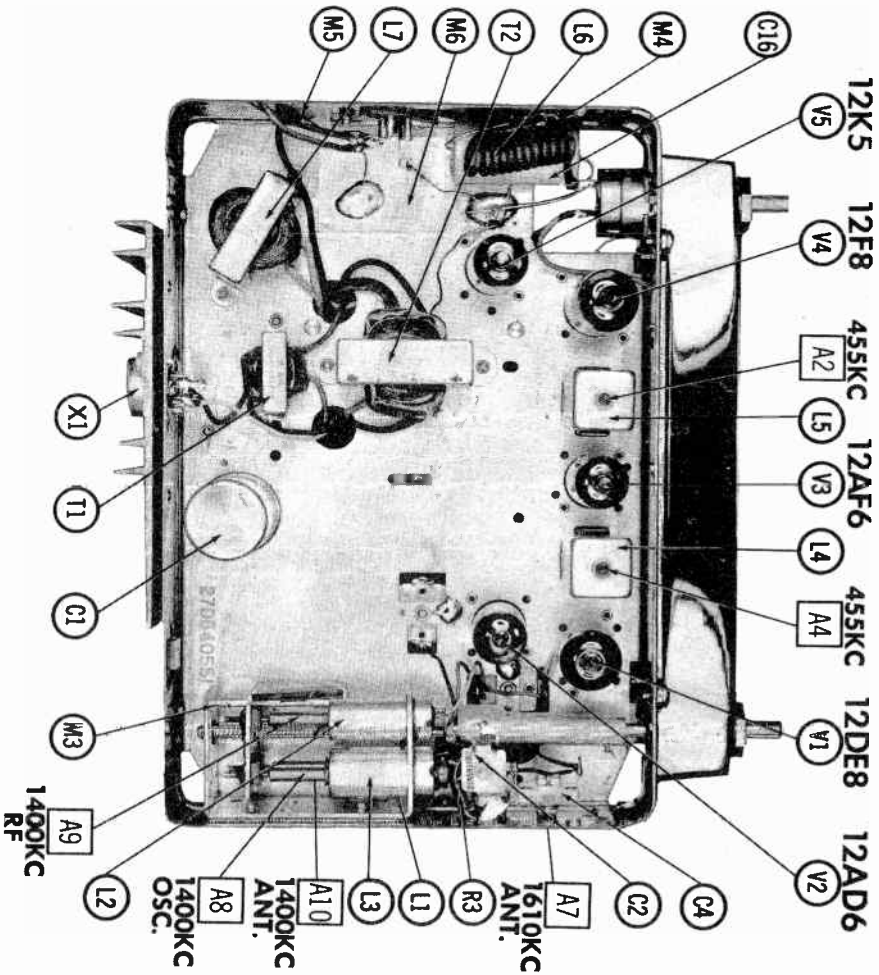
Capacity values given in the roting column are in mfd. for Paper Capacitors, and in mmfd. for Mico and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	90		21A591682							
C3	12		21R120549	SI 12	D6-120	LT6Q12	GP-12	UC-5412	5GA-Q12	
C4	50-240		20K538742							
C5	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C6	20-180		20A481526							
C7	47		21R115593	N750-SI 47	TCN-47	C10Q47U	TC7-47	NT-5447	5TCU-Q47	N750
C8	395-472		20A485708							
C9	4.7		21R115954	NPO-SI 4.7	TCZ-4R7	CTA6V47C	TCO-4.7	ZT-5547	5TCCB-V47	
C10	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C11	27		21R120567		TCN-27	CTA6Q27U	TC7-27			N750
C12	10000		21R462726	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C13	.05	200	8R121005	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C14	.1	200	6R121573	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C15	.01	200	8R121866	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C16	.5	100	8K121666	P288N-5		CUB2P5		GEM-205	2TM-P5	

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.	
R1A	1Meg	½	18K540524	B-69	A47-1Meg-S	Q11-137	U54	Volume
B	Shaft			Not req.	RS-3	Not req.	Not req.	
C	Switch			KB-1	SWE-13	76-1	U8-26	
R2	210Ω	1	18K540718		39-200			Bias Adjust (Wire Wound)

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	MOTOROLA PART No.	IRC PART No.	
R3	1.5Meg		6R3966	BTS-1.5Meg	
R4	1Meg		6R6046	BTS-1Meg	
R5	47K		6R6048	BTS-47K	
R6	470K		6R6032	BTS-470K	
R7	47K		6R6056	BTS-47K	
R8	150Ω		6R6373	BTS-150	
R9	12Meg		6R400334	BTS-12Meg	
R10	1Meg		6R6046	BTS-1Meg	
R11	0.8Meg		6R2097	BTS-6.6Meg	
R12	3.3Meg		6R2116	BTS-3.3Meg	
R13	36Meg		6K541294	BTS-36Meg	
R14	3.3Meg		6R2118	BTS-3.3Meg	
R15	220K		6R6407	BTS-220K	
R16	820K		6R6429	BTS-820K	
R17	10K		6R6320	BTS-10K	
R18	2.2Meg		6R6433	BTS-2.2Meg	
R19	62Ω		6R2035	BTS-62	
R20	56Ω		6R5614	BTS-56	
R21	18Ω		6R2031	BTS-18	
R22	5.6Ω	1	17K739323		
R23			6K540634		Note 1

Note 1. Special temp. comp. unit, 10Ω@ 25°C.

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	6.5:	1	25B540656	GH6 ①			TR-21 ①	TZ-15 ②	① Tape center tap on primary winding. ② Fabricate mounting.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.1	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	28.6Ω	3-4Ω	25C540725						
	Turns Ratio								
	PRI.	SEC.2							
	1:	1							

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	
SP1	5 1/4"	PM	3-4Ω	50C534259	52A1	

COILS (RF-IF)

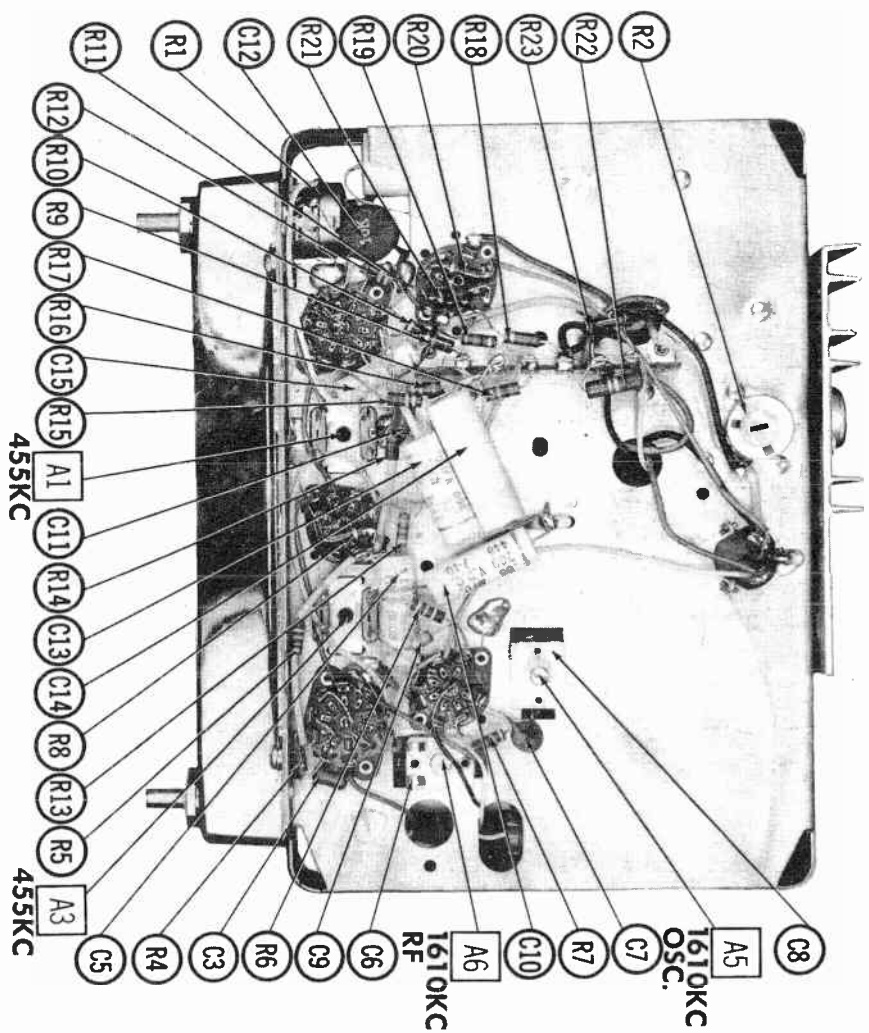
ITEM No.	USE	REPLACEMENT DATA				NOTES
		MOTOROLA PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Antenna Coil	24B537770				Part of M3 Note 1
L2	RF Coil	24K536566				Part of M3 Note 1
L3	Osc. Coil	24K536595				Part of M3 Note 1
L4	Input IF	24K533461	16-6756	BC-352	12-C1	
L5	Output IF	24B533460	16-6770	BC-355	12-C6	
L6	Fil. Choke	24K560706				

Note 1. Antenna Coil Part #24B53760, RF Coil Part #24B502473 & Oscillator Coil Part #24B502474 used in Tuner Part #77D537756 (MT-165) & 77D537759 (MT-166).

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
L7	.5A	.6Ω	6.6 Millihenries	25K540681					

CHASSIS—BOTTOM VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	SFE	9A	65R16248	9K540778	307009. (SFE 9A)	155009	SFE9	HRH

MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M2	Dial Light	65R533821	#1891
M3	Tuner	77K537768	(MT-187)
	Tuner	77D537758	(MT-185)
	Tuner	77D537759	(MT-186)
M4	Spark Plate	64K535152	
M5	Spark Plate	64K535152	
M6	Spark Plate	64K535152	

CABINETS & CABINET PARTS

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

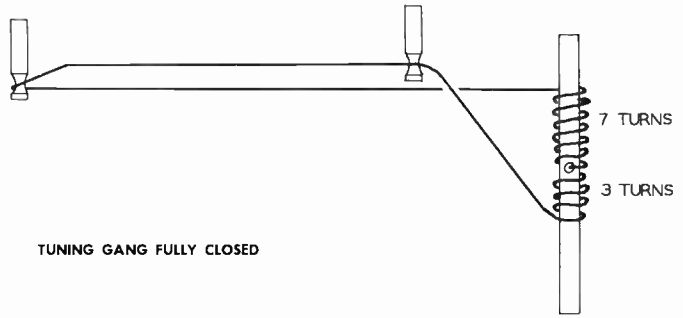
NAME	PART NO.	DESCRIPTION
Knob	36B536544	On-Off-Volume, Tuning
Cover	15K540546	Bottom
Cover	15K540547	Top
Dial	34B541094	
Pointer	1A501293	

EMITTER CURRENT ADJUSTMENT

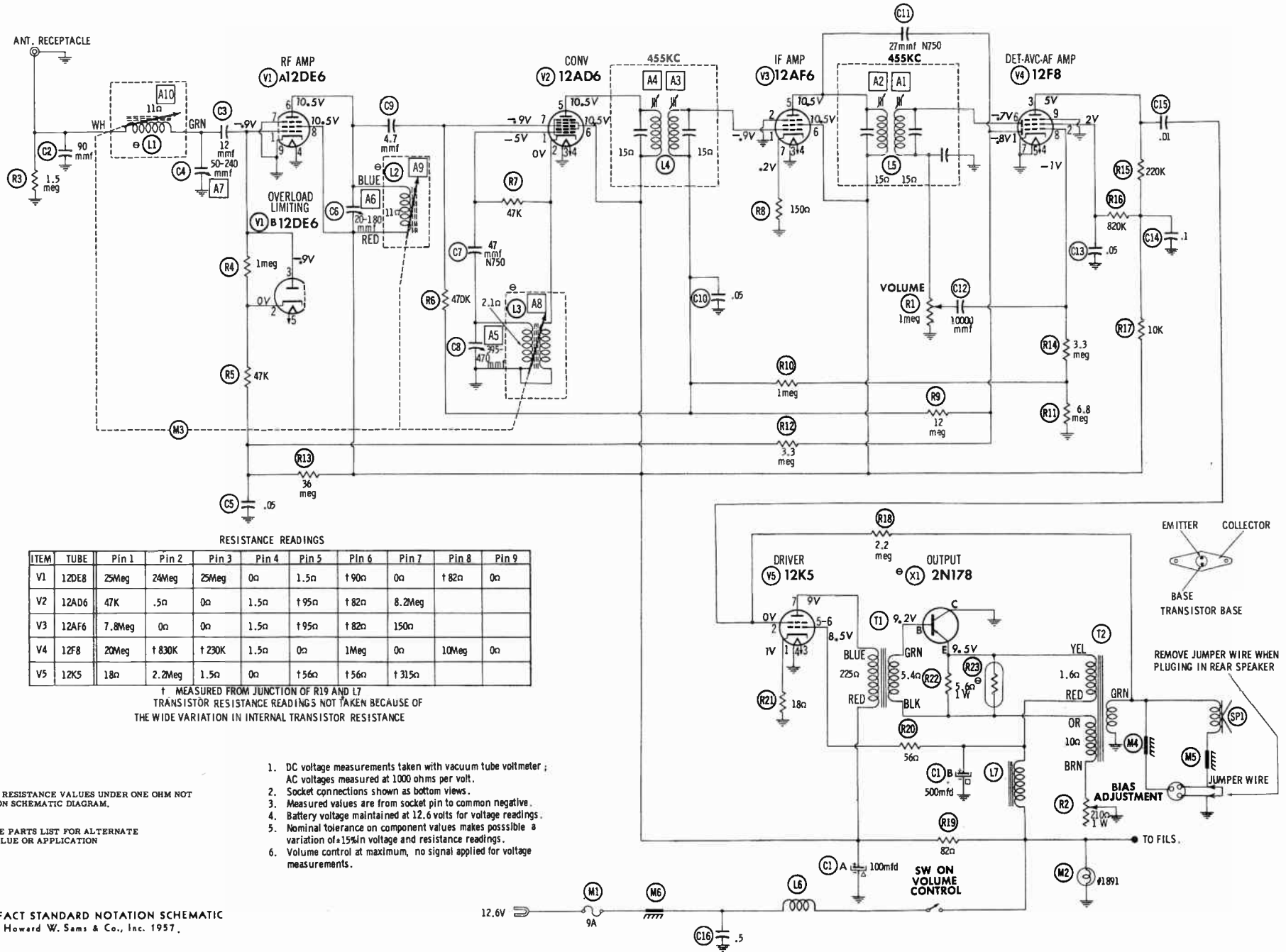
Connect a milliammeter in series with the emitter terminal of the transistor (X1). The internal resistance of the meter should not exceed .5Ω. Connect a power source of 14 Volts DC to the receiver and allow a warm-up period of 15 minutes. Adjust R2 for a meter reading of 500MA.

(Alternate Method)

Remove the transistor (X1) from its socket. Connect an ammeter (0-3 Amp.) in series with the receiver "A" lead. The internal resistance of the meter should not exceed .02Ω. Connect a power source of 14 volts DC to the receiver and allow a 15 minute warm-up period. Accurately measure the current, turn the receiver off and reconnect the transistor. Be certain that the mounting screws are tightened securely. Turn on the receiver and adjust R2 for an increase of 500MA in current drain.



DIAL CORD STRINGING



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12DE8	25Meg	24Meg	25Meg	0Ω	1.5Ω	†90Ω	0Ω	†82Ω	0Ω
V2	12AD6	47K	.5Ω	0Ω	1.5Ω	†95Ω	†82Ω	8.2Meg		
V3	12AF6	7.8Meg	0Ω	0Ω	1.5Ω	†95Ω	†82Ω	150Ω		
V4	12F8	20Meg	†830K	†230K	1.5Ω	0Ω	1Meg	0Ω	10Meg	0Ω
V5	12K5	18Ω	2.2Meg	1.5Ω	0Ω	†56Ω	†56Ω	†315Ω		

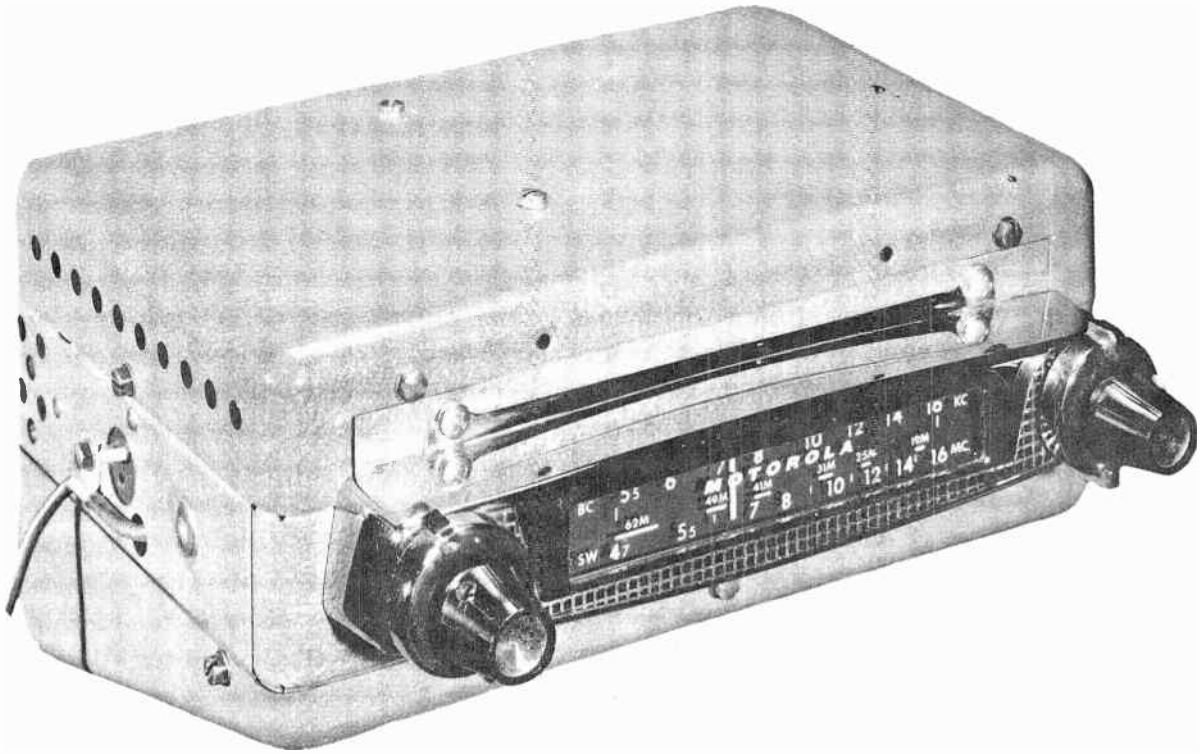
† MEASURED FROM JUNCTION OF R19 AND L7
TRANSISTOR RESISTANCE READINGS NOT TAKEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE

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

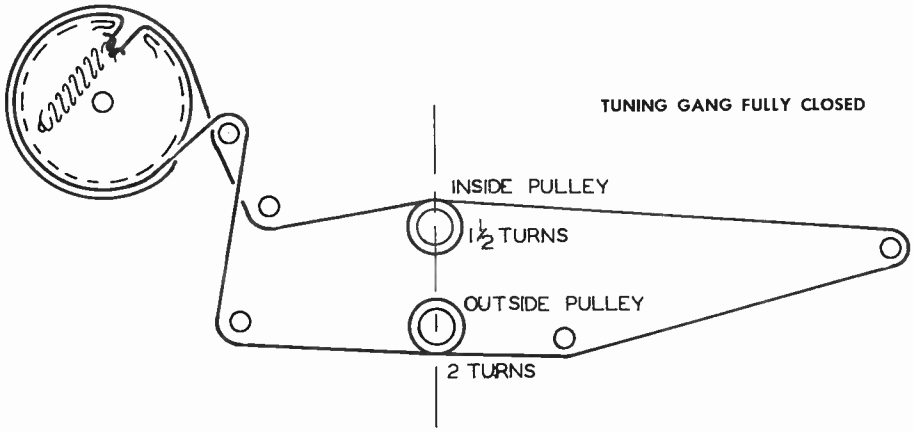
⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957.



TRADE NAME	Motorola Models 506 (6 volt), 506-12 (12 volt)
MANUFACTURER	Motorola Inc., 4545 W. Augusta Blvd., Chicago 51, Ill.
TYPE SET	Battery Operated Universal Type AM Superheterodyne Automobile Receiver
TUBES (Six)	Types 6BA6 RF Amplifier, 6BE6 Converter, 6BA6 IF Amplifier, 6CR6 Det-AVC-AF Amp., 6AQ5 Output, 6X4 Rectifier (12 Volt Tube Types Used In Model 506-12)
POWER SUPPLY	6 Volt Storage Battery (Model 506) RATING 4.6 Amp. @ 6.3 Volts DC (Model 506)
TUNING RANGE—BROADCAST	535KC - 1620KC SHORT WAVE 4.7MC - 16MC



DIAL CORD STRINGING

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

G557

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	6BA6	Note 1
V2	Converter	6BE6	Note 1
V3	IF Amplifier	6BA6	Note 1
V4	Det-AVC-AF Amp.	6CR6	Note 1
V5	Output	6AQ5	Note 2
V6	Rectifier	6X4	Note 1

Note 1: 12 Volt equivalent type used in model 506-12.
Note 2: 12AB5 used in model 506-12.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■30	350	23A537477	AFH3-28-30		FP330. 7			TVL.-3639. 8
B	▲20	350							
C	10	350							
C2	20	25	23A537476	PRS25V25	BR202	TC26	TD-25-25	FM-0225	TVA-1205

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 CAP.	RATING VOLT	REPLACEMENT DATA MOTOROLA PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C3	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C4	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C5	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C6	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C7	47		21R115593	N750-DI47	TCN-47	N033	N750K-470	NT-5447	5TCU-Q47	
C8	430		21K537475	1469-00043						
C9	2200		21K537698	1464-0022						
C10	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C11	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C12	10000		21R482726	BPD-01	DD-103	K082	811-01	DC511	5HK-S1	
C13	. 05	400	8R121567	BPD-05	DF-503	CUB4S5		PT415	4TM-S5	
C14	. 01	400	8R121002	BPD-01	D6-103	CUB4S1	GP3-333-103	PT411	4TM-S1	
C15	470		21R114554	BPD-00047	DD-471	K060	811-471	UC-5347	5GA-T47	
C16	. 005	400	8K122962	BPD-005	D6-502	PT625	GP2-333-502	PT625	6TM-D5	
C17A	300		21A522033							
B	300									
C18	. 02	1000	8R121004	P1088N-02		CUB16S2		PT1612	10TM-S2	Note 1
C19	. 5	100	8K122076	VHC36		ST2P5		RF480	68P20	
C20	. 5	100	8K122076	VHC36		ST2P5		RF480	68P20	Note 2
C21	. 5	100	8K122076	VHC36		ST2P5		RF480	68P20	

Note 1: Model 506-12 uses . 04MFD in this application.
Note 2: Not used in model 506.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA MOTOROLA PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	250K	½	18B537159	AB-50	A47-250K-S	Q11-130	U46	Volume
B	Shaft		Not Req.	AK-23	RS-3/16	NQ	DS-37	Attach to R1A
C	Switch		Not Req.	KB-4	SWE-13	76-1	US-26	Attach to R1A

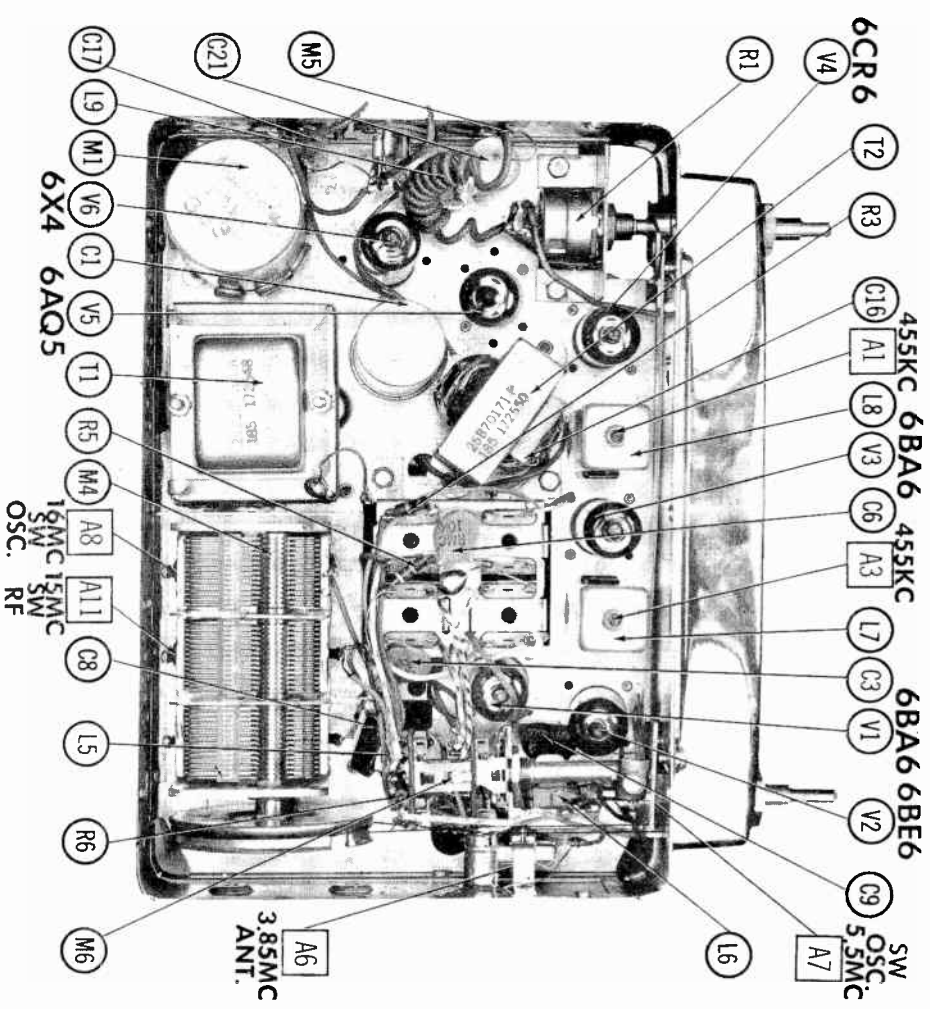
RESISTORS

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

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA MOTOROLA PART No.	REPLACEMENT DATA IRC PART No.	NOTES
R2	100K		6R6075	BTS-100K	
R3	10K		6R6054	BTS-10K	
R4	68Ω		6R2039	BTS-68	
R5	470K		6R6032	BTS-470K	
R6	27Ω		6R5683	BTS-27	
R7	22K		6R6028	BTS-22K	
R8	15K	2	6R5732	BTB-15K	
R9	3900Ω	2	6R476012	BTB-3900	
R10	220Ω		6R6270	BTS-220	
R11	220Ω		6R6270	BTS-220	
R12	3. 3Meg		6R2118	BTS-3. 3Meg	
R13	2. 2Meg		6R3927	BTS-2. 2Meg	
R14	220K		6R6015	BTS-220K	
R15	1Meg		6R6004	BTS-1Meg	
R16	270K		6R6414	BTS-270K	
R17	270Ω		6R6432	BTS-270	
R18	1000Ω	3	17K537732	PW4-1000	
R19	56Ω	1	6R2037	BTA-56	Note 1
R20	56Ω	1	6R2037	BTA-56	Note 2

Note 1: Model 506-12 uses 27Ω 1W in this application. (part #6R5683)
Note 2: Not used in model 506-12.

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	6.3VCT ②3.5A	440VCT ②.040A			25C537164 ① 25C537165 ②					

① Used in model 506.
② Used in model 506-12.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	MOTOROLA PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	5200Ω	3-4Ω	25B70171-P	Z1107	A-2930	A-3677	24S51	S-3X	

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	MOTOROLA PART No.	QUAM PART No.	RCA TYPE No.	
SP1	5" X 7"	PM	3-4Ω	50C522055			

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	BC Ant. Coil	32Ω	5.8Ω	24B537474				
L2	SW Ant. Coil	2Ω	.2Ω	24B537471				
L3	BC RF Coil	32Ω	5.8Ω	24B537473				Includes IF Trap - Trap Winding = 22Ω
L4	SW RF Coil	6Ω	.2Ω	24B537470				
L5	BC Osc. Coil	.5Ω	5.8Ω	24B537472				
L6	SW Osc. Coil	0Ω	.2Ω	24B537469				
L7	Input IF	16Ω	16Ω	24C632774	16-6756	BC-352	12-C1	
L8	Output IF	15Ω	15Ω	24K632775	16-6770	BC-355	12-C6	
L9	Fil. Choke	0Ω		24K580706				
L10	Vib. Hash Choke	0Ω		24A533673				

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				MOTOROLA PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	6.3V	115∿	46B3333	5342	903M	5342	Used in model 506.
M1	Interrupter	12.6V	115∿	46B522000	6301	G659	6301	Used in model 506-12.

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			MOTOROLA PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2*	SFE	9A	65R16248	9C536545	307009. (SFE-9)	156009.	SFE9	HRH
M2♦	SFE	5A	65R122345	9K536617				

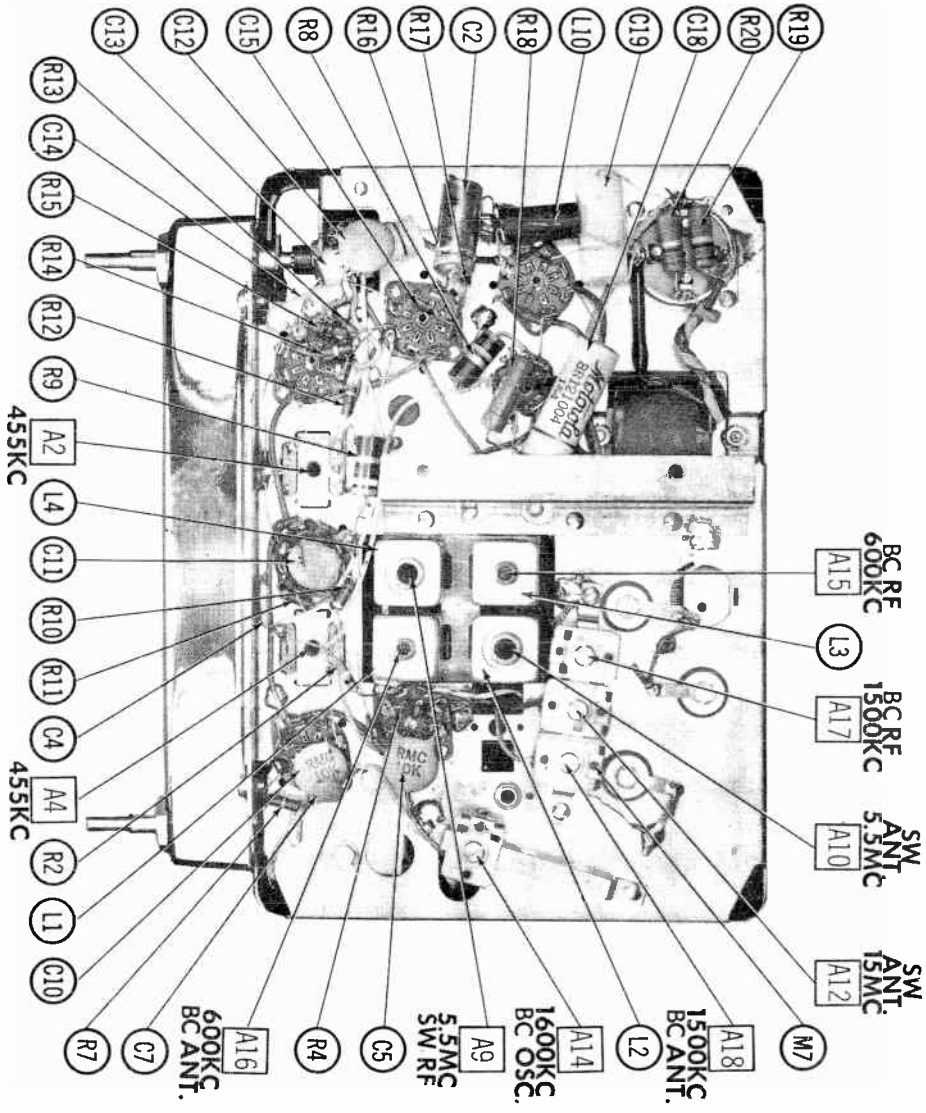
* Used in model 506.
♦ Used in model 506-12.

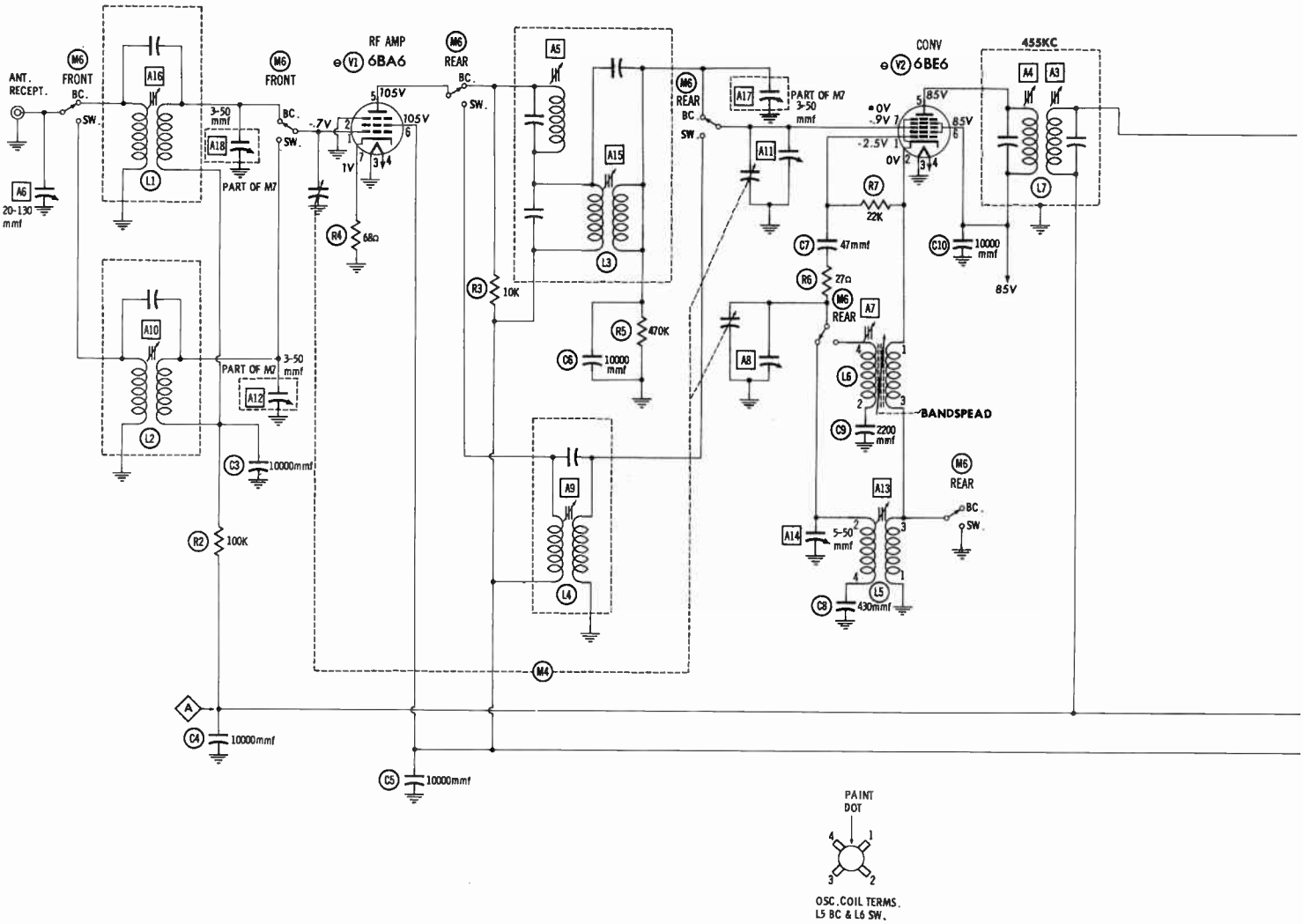
MISCELLANEOUS

ITEM No.	PART NAME	MOTOROLA PART No.	NOTES
M3	Dial Lamp		#44 (Model 506) - #1891 (Model 506-12)
M4	Tuning Cap.	19C537146	3 Gang (21-495MMF, 21-495MMF, 21-495MMF)
M5	Spark Plate	64K532087	
M6	Switch	40C537119	Band Selector, 2 Gang (Rotary, Wafer Type)
M7	Capacitor Ass'y.	*20B537161	RF Trimmer A16 (3-50MMF), RF Trimmer A12 (3-50MMF), Mixer Trimmer A17 (3-50MMF). Includes bracket.
A6	Ant. Trimmer	20B537163	20-130MMF (Includes Bracket)
A14	BC Osc. Trimmer	♦20K537162	5-50MMF (Includes Bracket)
	Knob	36K537731	Band Spread
	Knob Lever	36K473550	Band Switch or Tuning
	Knob	36B522006	On-Off-Volume
	Dial Escutcheon	13D521747	

* Alternate part #20B537166.
♦ Alternate part #20K537167.

CHASSIS—BOTTOM VIEW





PAINT DOT

OSC. COIL TERMS. L5 BC & L6 SW.

RESISTANCE READINGS

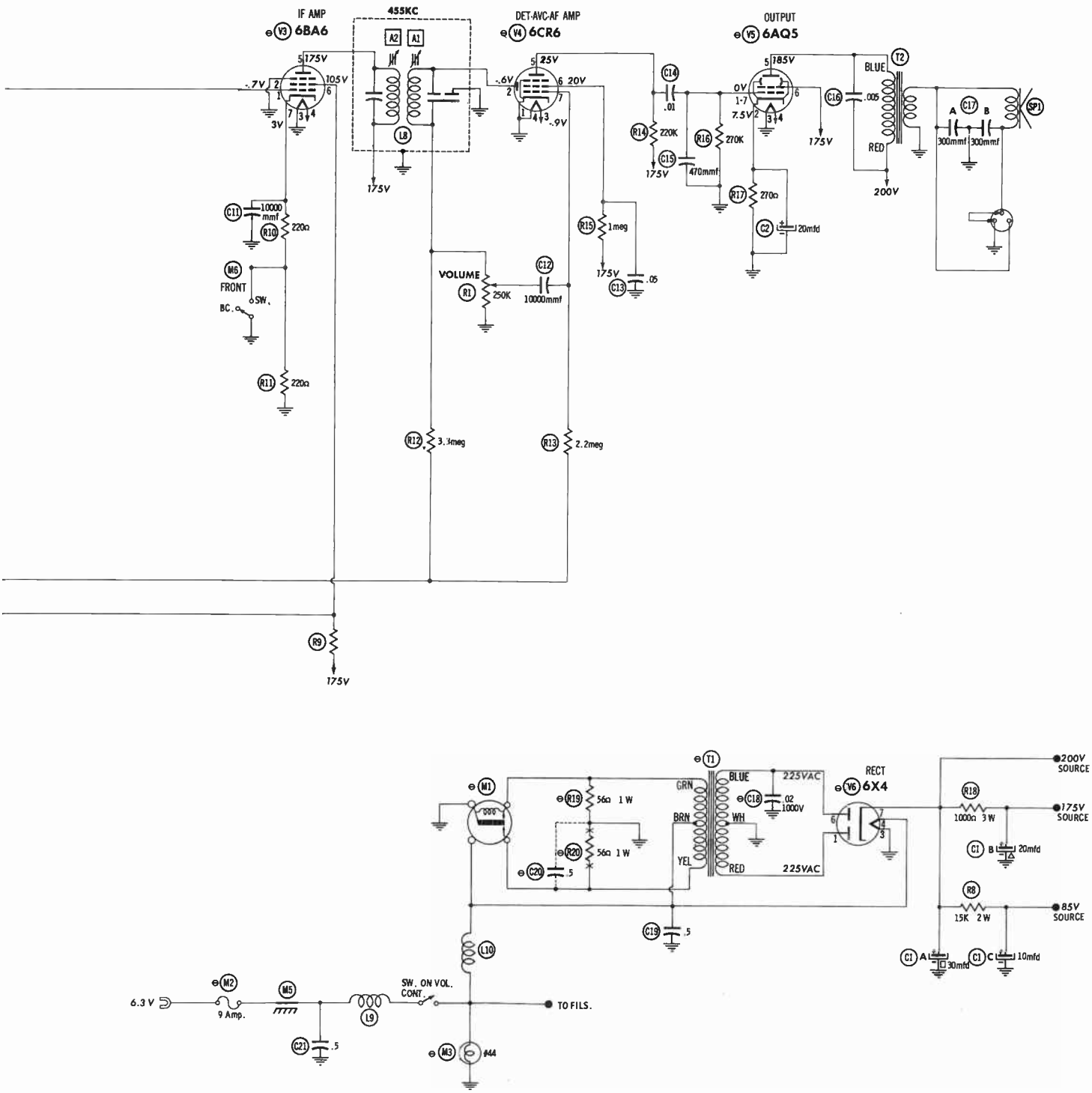
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	6BA6	3.5Meg	0Ω	0Ω	.4Ω	†5000Ω	†5000Ω	68Ω
V2	6BE6	22K	.5Ω ▪ .1Ω	0Ω	.4Ω	†15K	†15K	470K ▪ .2Ω
V3	6BA6	3.5Meg	0Ω	0Ω	.4Ω	†1000Ω	†5000Ω	440Ω ▪ 220Ω
V4	6CR6	0Ω	250K	.4Ω	0Ω	†220K	†1Meg	6Meg
V5	6AQ5	270K	270Ω	0Ω	.4Ω	†370Ω	†1000Ω	270K
V6	6X4	500Ω	TP	0Ω	.4Ω	NC	500Ω	60K

ALL MEASUREMENTS TAKEN IN "BC" POSITION UNLESS OTHERWISE DESIGNATED.
† MEASURED FROM PIN 7 OF V6.
▪ MEASURED IN "SW" POSITION.
NC NO CONNECTION
TP TIE POINT

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 6.3 volts for voltage readings.
5. Nominal tolerance on components values makes possible a variation of ± 15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC



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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	Fig. 1	Thru dummy to antenna receptacle.	455KC (400∿ Mod)	BC	Tuning gang fully closed.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	"	"	"	"	"	"	A5	Adjust for MINIMUM output. Replace cover.
3.	"	"	3.85MC	SW	"	VTVM DC probe to point (A). Common to chassis.	A6	Adjust for maximum deflection.
4.	"	"	5.5MC	"	5.5MC	Output meter across voice coil.	A7	Adjust bandspread control so that it is one (1) full turn (counter clockwise) from extreme clockwise position. Adjust A7 for maximum output. With tuning gang fully closed, check frequency of receiver. If above 4.7MC or lower than 4.6MC, adjust A7 so that receiver frequency is between 4.7MC and 4.6MC.
5.	"	"	16MC	"	16MC	"	A8	With A8 fully clockwise, slowly turn counter clockwise until second response is heard. Repeat steps 4 and 5.
6.	"	"	5.5MC	"	Tune to 5.5MC signal.	"	A9, A10	Adjust for maximum output.
7.	"	"	15MC	"	15MC	"	A11, A12	Adjust for maximum output while rocking tuning gang. Repeat steps 6 and 7.
8.	"	"	600KC	BC	600KC	"	A13	Adjust for maximum output. With tuning gang fully closed, check frequency of receiver. If above 540KC or below 530KC adjust A13 so that receiver is between 540KC and 530KC.
9.	"	"	1600KC	"	1600KC	"	A14	With A14 fully clockwise, slowly turn counter clockwise until response is heard. Repeat steps 8 and 9.
10.	"	"	600KC	"	Tune to 600KC signal.	"	A15, A16	Adjust for maximum output.
11.	"	"	1500KC	"	Tune to 1500KC signal.	"	A17, A18	"

With receiver installed in car and antenna fully extended, tune to weak station near 5.5MC (SW) or 600KC (BC). If there is no station at either frequency, receiver noise may be used.
Turn antenna trimmer (A6) counter clockwise (but not out of threads) until no increase in output is noticed. Turn antenna trimmer (A6) slowly clockwise until slight decrease in output is noticed. Leave trimmer (A6) set at this point as this is a broad adjustment.

DIAL POINTER CALIBRATION

If necessary, adjust pointer so that right edge of pointer lines up with left edge of vertical calibration mark at low side of dial.

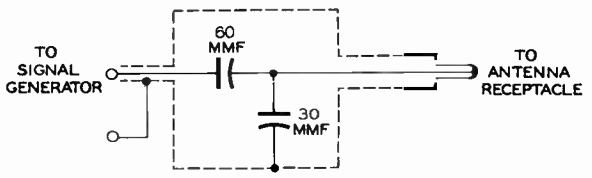
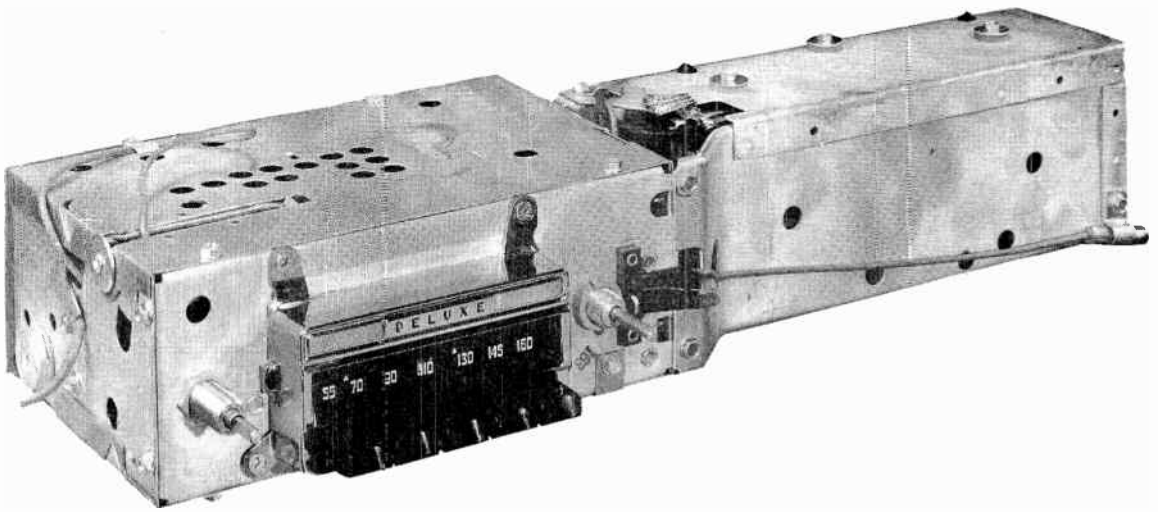


FIG. 1



TRADE NAME	Oldsmobile Model 989001 (For 1957 Oldsmobile Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Seven)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det.-AVC-AF Amp., (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery — RATING 3.4 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400∿ Mod.)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
2	68MMF	High side to Antenna Receptacle. Low side to chassis.	1615KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output in order given.
3	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
4	"	"	1615KC	High frequency end stop	"	A6, A7	"
5	"	"	1100KC	Tune to 1100KC signal	"		If necessary, adjust pointer (with pointer adjustment screw) to coincide with 1100KC on dial.
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, and adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to the left and out.
2. Tune manually to desired station, press button in firmly.
3. Repeat on remaining pushbuttons.

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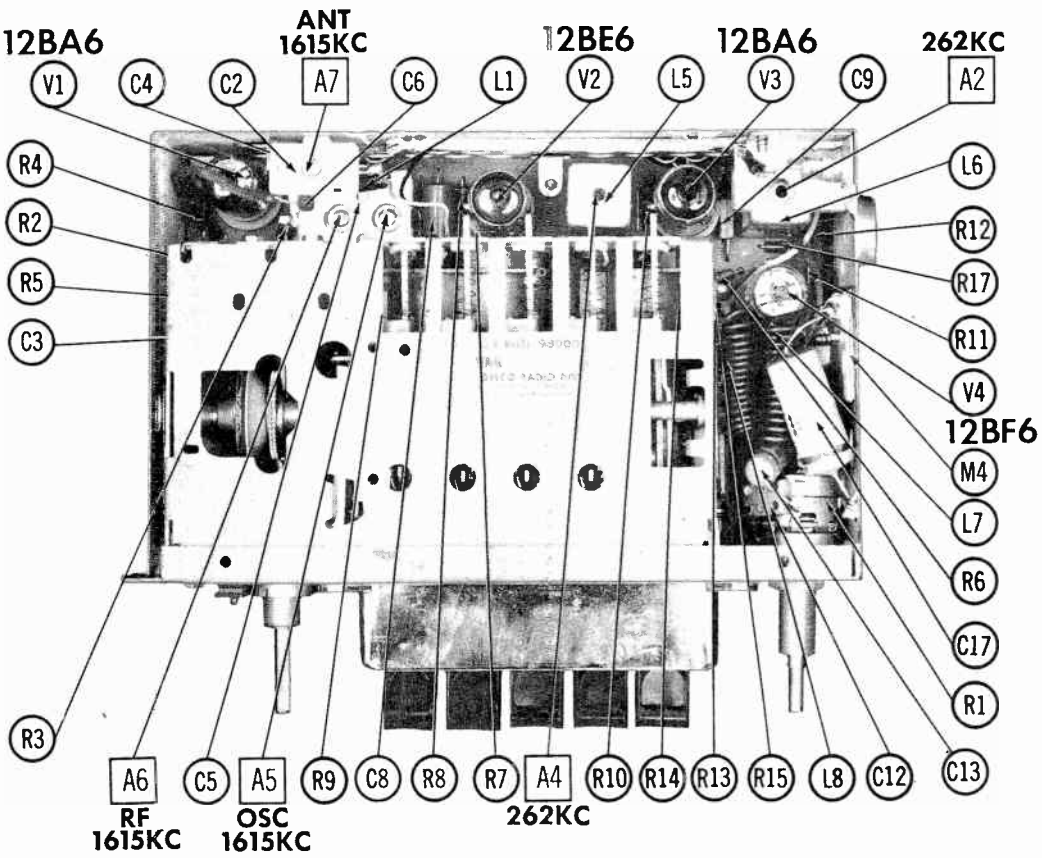
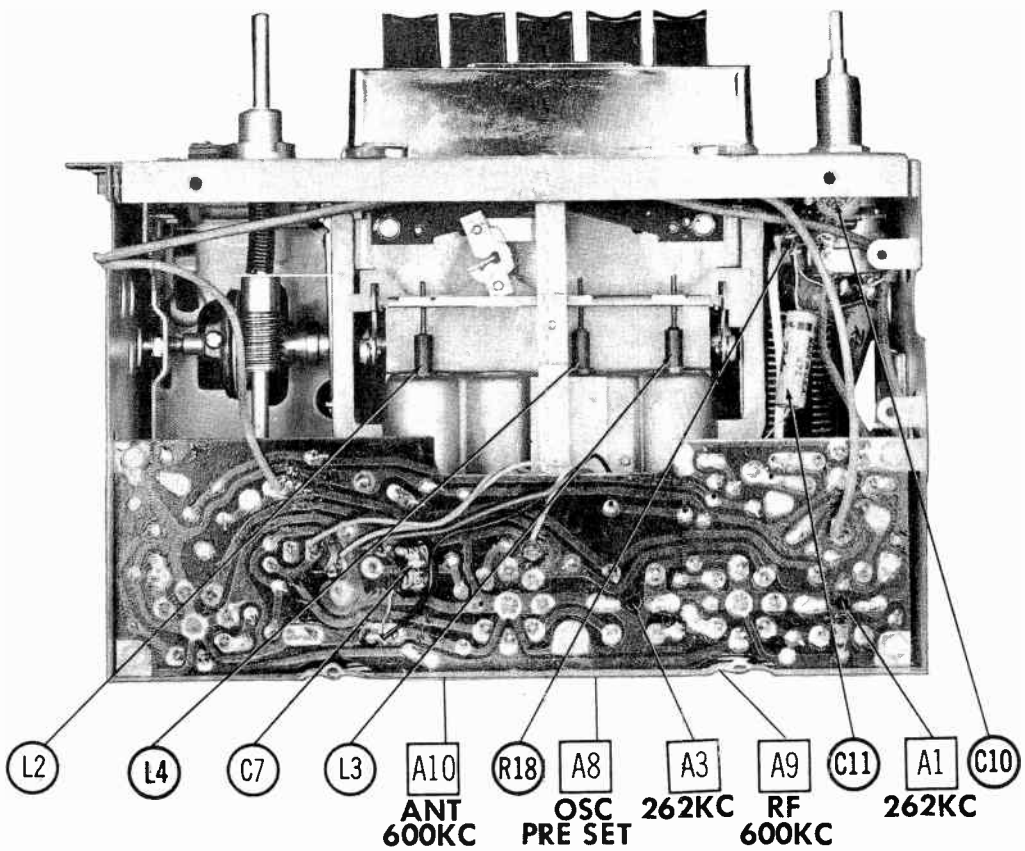


CHASSIS-TOP VIEW



CHASSIS BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amplifier	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Output	12V6GT	
V6	Output	12V6GT	
V7	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

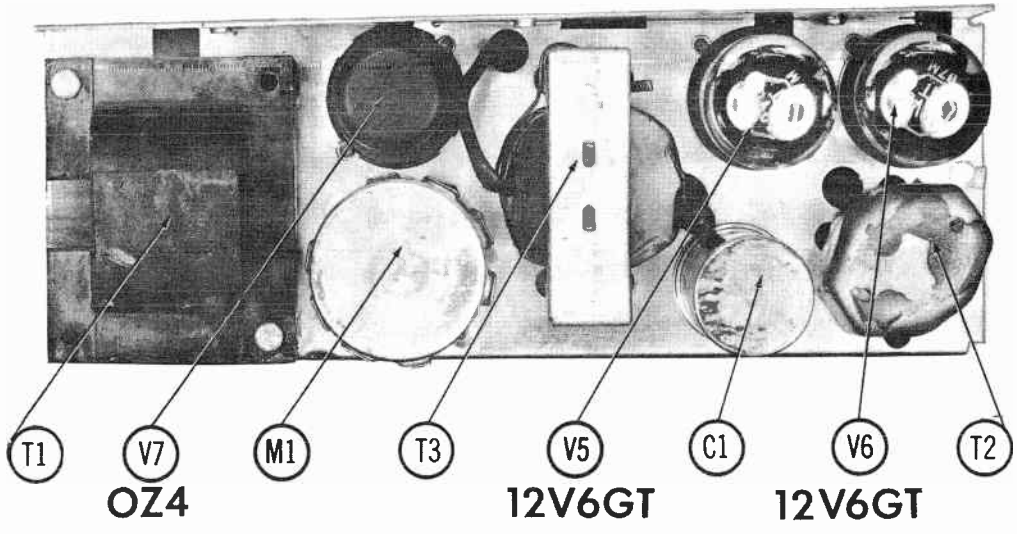
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7268811							
B										
C3	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-2147	2TM-S47	
C4	15		6361	BPD-000015	DD-150	L10Q15	ED-15	UC-5415	5GA-Q15	
C5A			7268828							
B										
C										
D										
C6	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7	200		7268904	1469-0002	TCZ-200	22R5T2	TCO-200		MS-32	5%
C8	.047	400	6612	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C9	220	500	6363	1468-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C10	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C11	.01	400	6610	BPD-01	DD-103	CUB4S1	ED-10000	GEM-411	4TM-S1	
C12	220	500	6375	1468-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C13	.005	600	6631	BPD-005	D6-502	CUB6D5	ED-005	GEM-625	6TM-D5	
C14	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C15	100		G-101	BPD-0001	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C16	.003	1000	6563	P1088N-003	DD30-302	CUB10D3		GEM-1023	10TM-D3	
C17	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C18	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C19	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C20	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	

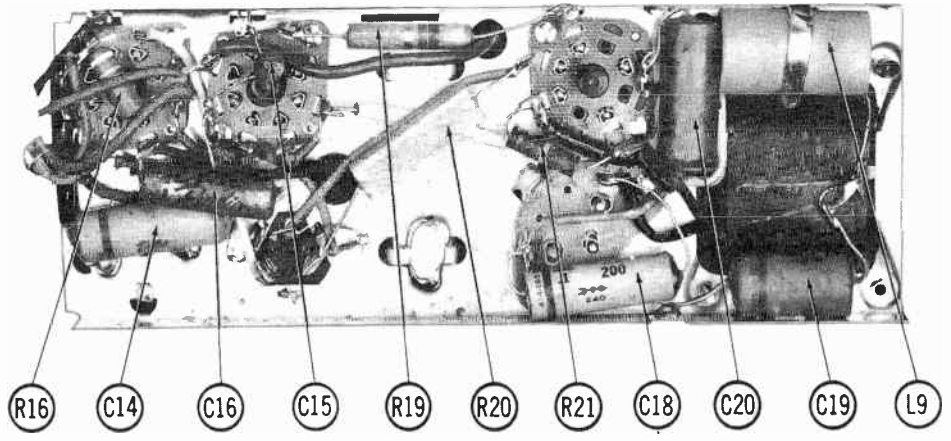
CONTROLS

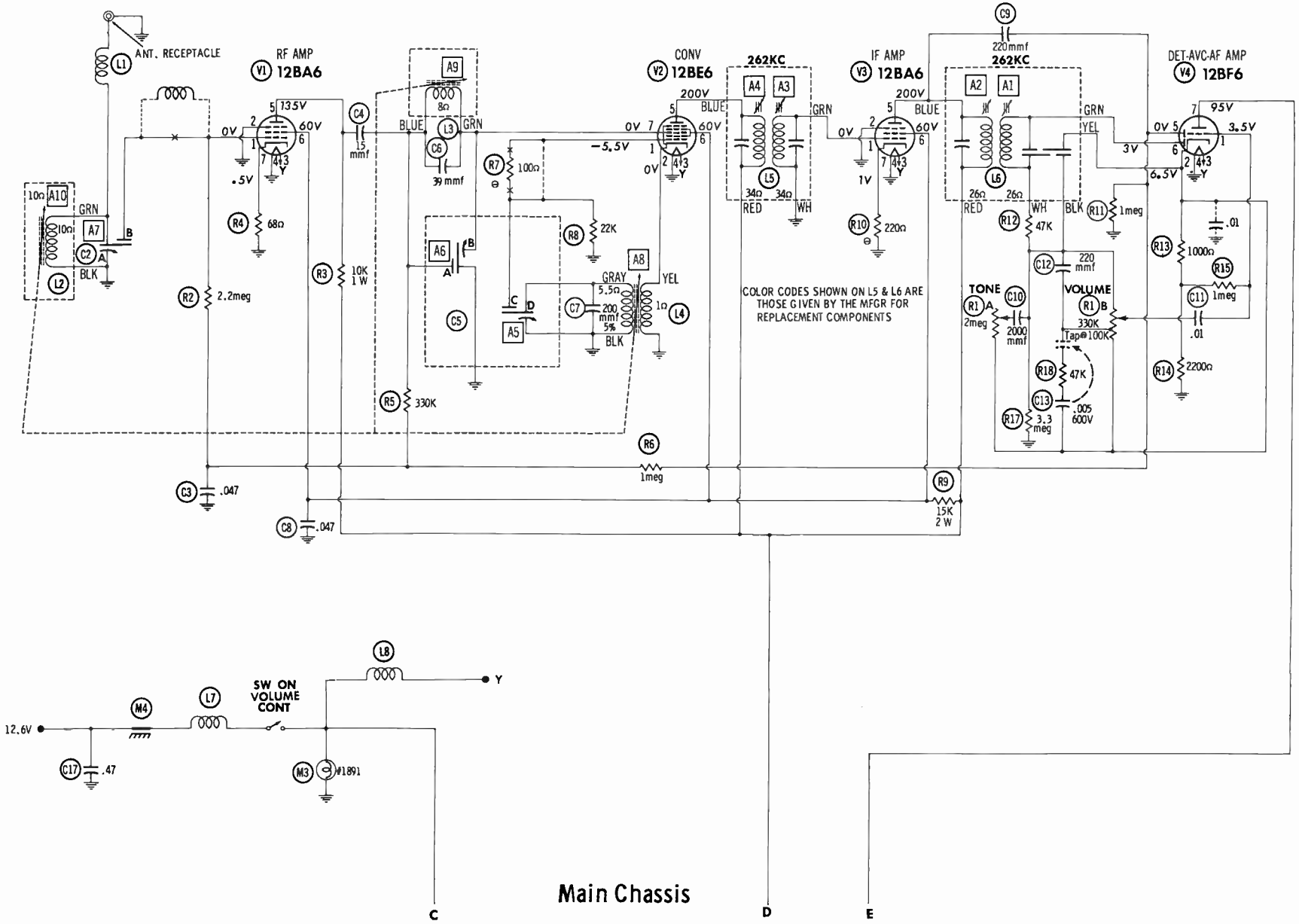
ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	2Meg		7269055				UE1774S	Tone
B	330K						Not Req.	Volume, Tap ⓐ 100K
C	Switch						Not Req.	

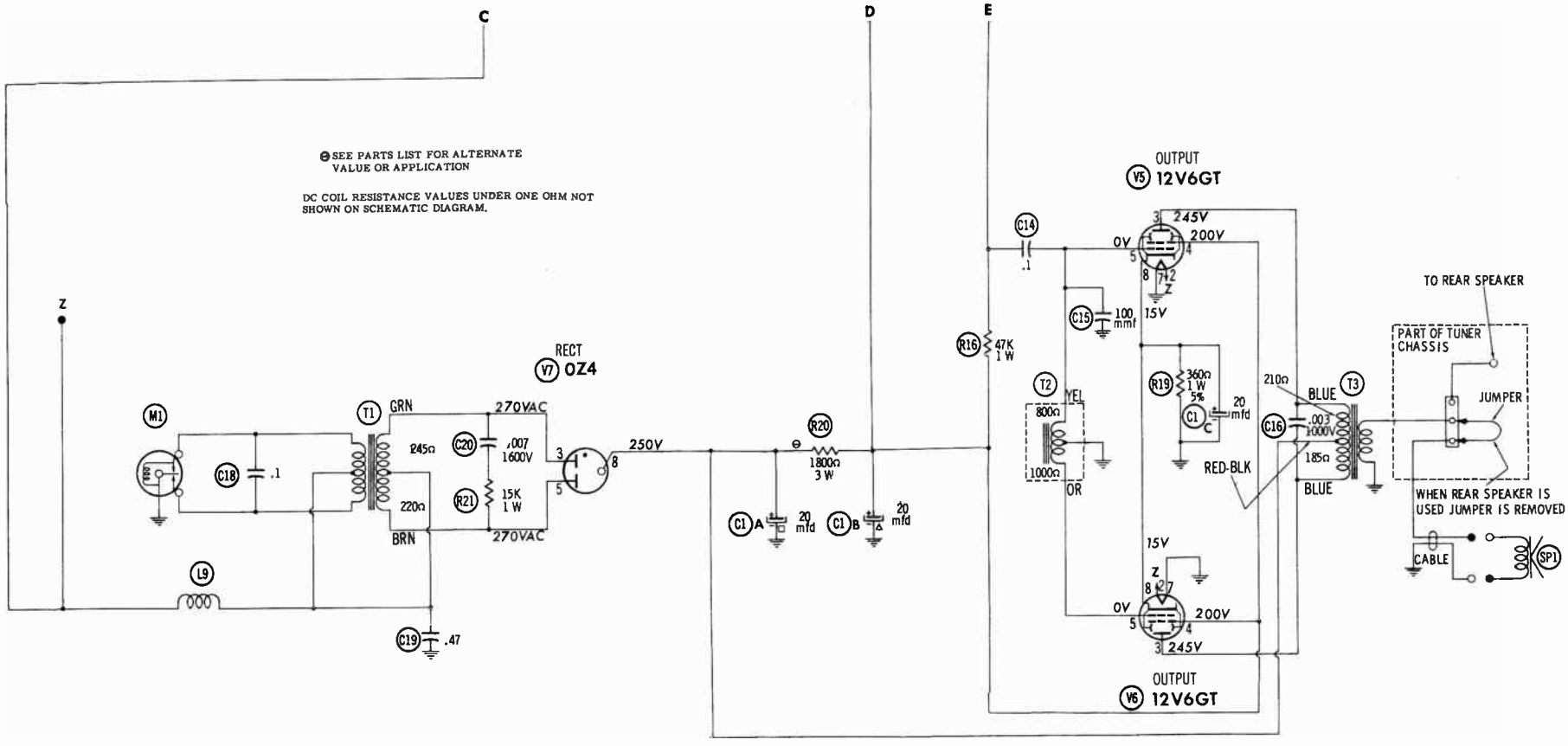
CHASSIS—TOP VIEW



CHASSIS—BOTTOM VIEW







1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V1	12BA6	4.2Meg	0Ω	1.7Ω	0Ω	†12K	†17K	68Ω	
V2	12BE6	22K	1Ω	1.7Ω	0Ω	†1800Ω	†17K	2.3Meg	
V3	12BA6	34Ω	0Ω	1.7Ω	0Ω	†1800Ω	†17K	220Ω	
V4	12BF6	1Meg	3200Ω	1.7Ω	0Ω	1Meg	3.3Meg	†49K	
V5	12V6GT	NC	1.7Ω	†210Ω	†1800Ω	800Ω	TP	0Ω	360Ω
V6	12V6GT	NC	1.7Ω	†185Ω	†1800Ω	1000Ω	TP	0Ω	360Ω
V7	0Z4	0Ω	NC	245Ω	NC	220Ω	NC	TP	20K(Min)

† MEASURED FROM PIN 8 OF V7
NC NO CONNECTION
TP TIE POINT

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	68Ω		1111	BTS-68	
R5	330K		1229	BTS-330K	
R6	1Meg		1235	BTS-1Meg	
R7	100Ω		1113	BTS-100	Note 1
R8	22K		1215	BTS-22K	
R9	15K	2	1277	BTB-15K	
R10	220Ω		1117	BTS-220	Note 2
R11	1Meg		1235	BTS-1Meg	

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R12	47K		1219	BTS-47K	
R13	1000Ω		1125	BTS-1000	
R14	2200Ω		1129	BTS-2200	
R15	1Meg		1235	BTS-1Meg	
R16	47K	1	1259	BTA-47K	
R17	3.3Meg		1241	BTS-3.3Meg	
R18	47K		1219	BTS-47K	
R19	360Ω 5%	1	7234563		
R20	1800Ω	3			Note 3
R21	15K	1	1253	BTA-15K	

Note 1. Not used in some versions.
Note 2. Some versions may use 390Ω (Part #1120).
Note 3. MFGR. states to replace R20 with 2700Ω 2W (Part #1204) & 5600Ω 1W (Part #1171) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @ 1.9A	540VCT @ .068A			6067	V-3902	P-2861	P-6489	22R52	V31

TRANSFORMER (AUDIO INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	8900Ω CT	3-4Ω	7268660	Z1011 ①	A-2901 ②	A-3850 ②	22S56 ①	S-53X ②	① Use original channel mounting frame ② Drill new mounting holes

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6"X9"	PM	3-4Ω	7269180	69A3	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Antenna Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317		
L6	Output IF	1220992		BC-320		
L7	"A" Lead Choke	1217846				1.4 Microhenries
L8	Fil. Choke	1217846				1.4 Microhenries
L9	Hash Choke	1221077				42 Microhenries

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115v	8555	6330	G1602/G883	6330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7½A	455640		30307.5 (7AG 7½A)		SFE 7½A	

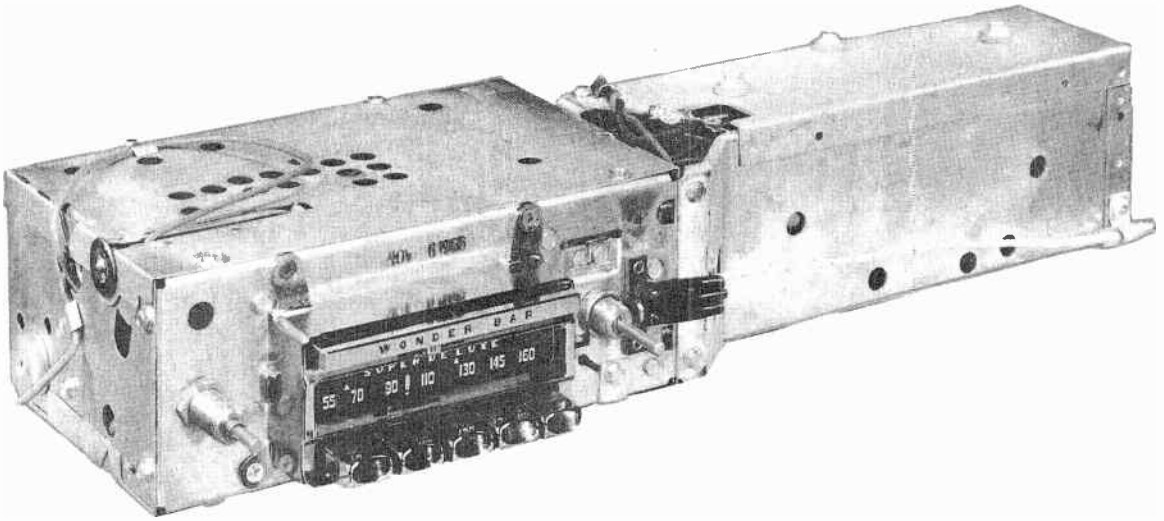
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light	456985	#1891
M4	Spark Plate	1220682	

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Printed Panel	7268814-C	
Knob	569556	Control
Knob	569554	Tone
Knob	569555	Dummy
Dial	7269283	



TRADE NAME	Oldsmobile Model 989002 (For 1957 Oldsmobile Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det.-AVC-AF Amp., 12AU7 Trigger, (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery — RATING 3.4 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone Control to "Treble"

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod)	High frequency end stop	DC probe to point (A). Common to chassis.	A1, A2, A3	To tune to high frequency end stop place a .012" feeler gauge (or bare #28 wire) in slot against high frequency end stop. Tune manually to allow treadle bar arm to run against feeler gauge. Adjust A1, A2, A3 for maximum deflection.
2	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
3	68MMF	High side to Antenna Receptacle. Low side to chassis.	1615KC	High frequency end stop	DC probe to point (A). Common to chassis.	A5, A6, A7	Adjust for maximum deflection.
4	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
5	"	"	1615KC	Tune to 1615KC signal	"	A6, A7	"
6	"	"	1100KC	Tune to 1100KC signal	"		If necessary, adjust pointer (with pointer adjustment screw) to coincide with 1100KC on dial.
7	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC and adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat procedure on remaining pushbuttons.

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

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Trigger	12AU7	
V6	Output	12V6GT	
V7	Output	12V6GT	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

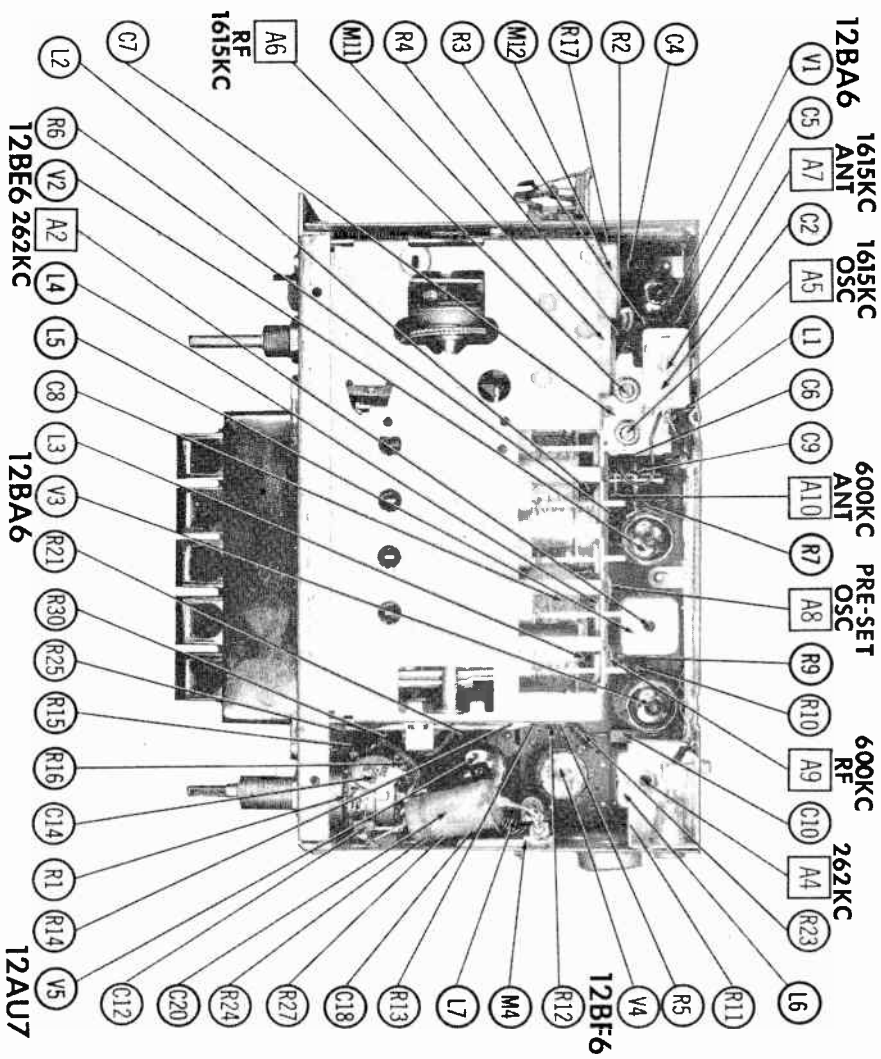
Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7268811							
B										
C3	.047	200	6612							10%
C4	.047	200	6612							10%
C5	68		6369	NP0-SI 68	TCZ-68	22R5Q68	TCO-68		5TCC-Q68	10%
C6	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7A			7268828							
B										
C										
D										
C8	200		7268904							N150 5%
C9	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C10	100		1219498	1469-0001	TCZ-100	22R5T1	TCO-100	MCE235	MS-31	5%
C11	100		1219498	1469-0001	TCZ-100	22R5T1	TCO-100	MCE235	MS-31	5%
C12	220		G-220	1468-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C13	.005	600	6631	BPD-005	D6-502	CUB6D5	GP-5000	GEM-625	6TM-D5	
C14	3900			BPD-004	DD-402	L10D39	ED-004	UC-5239	5HK-D4	
C15	220		6375	1469-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C16	.015	200	7237719	BPD-015	DD16-152	CUB4S15	ED-015	GEM-6115	6TM-S15	
C17	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C18	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C19	.003	1000	6563	P1088N-003	DD16-302	CUB10D3		GEM-1023	10TM-D3	
C20	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C21	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C22	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C23	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	1/2	7268847				UE1494S	Tone
B	1.5Meg							Volume, Tap ⓐ 300K
C	Switch							

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	330K		1229	BTS-330K	
R5	1.5Meg		1237	BTS-1.5Meg	
R6	100Ω		1113	BTS-100	
R7	22K		1215	BTS-22K	
R8	12K	2	1276	BTB-12K	
R9	10Ω		1101	BTS-10	
R10	150Ω		1115	BTS-150	
R11	100K		1223	BTS-100K	
R12	1Meg		1235	BTS-1Meg	
R13	1000Ω 5%		1220176	BTS-1000 5%	
R14	3300Ω 5%		1220173	BTS-3300 5%	
R15	680K 5%		1220172	BTS-680K 5%	
R16	100K		1223	BTS-100K	
R17	100Ω		1113	BTS-100	
R18	1200Ω			BTS-1200	Note 1
R19	47K			BTS-47K	Note 1

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R20	680K 5%		1220172	BTS-680K 5%	
R21	1Meg		1235	BTS-1Meg	
R22	330K 5%		1219490	BTS-330K 5%	
R23	1.5Meg 5%		1219492	BTS-1.5Meg 5%	
R24	5.6Meg		1244	BTS-5.6Meg	
R25	6800Ω 5%	1	7266367	BTA-6800 5%	
R26	820Ω 5%		7266231	BTS-820 5%	
R27	120K		1224	BTS-120K	
R28	47K	1	1259	BTA-47K	
R29	6800Ω	1	1172	BTA-6800	
R30	47K 5%	1	1220188	BTA-47K 5%	
R31	330K 5%		1219490	BTS-330K	Note 2
R32	47K	1	1259	BTA-47K	
R33	360Ω 5%	1	7234563		Note 3
R34	1800Ω	3			
R35	15K	1	1253	BTA-15K	

Note 1. Not serviced separately, Included with M5 Sensitivity Switch.
Note 2. Not used in some versions.
Note 3. Mfgr. states to replace with 2700Ω 2W (Part #1204) & 5600Ω 1W (Part #1171) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.
T1	12.6VCT ② 2.4A	540VCT .068A			6067	V3902	P-2861	P-6469	22R52	V-31

TRANSFORMER (AUDIO INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T3	8300Ω CT	4Ω	7269294	Z1011 ①	A-2901②	A-3850②	22S56 ①	S-53X ②	① Use original channel mounting frame. ② Drill new mounting holes.

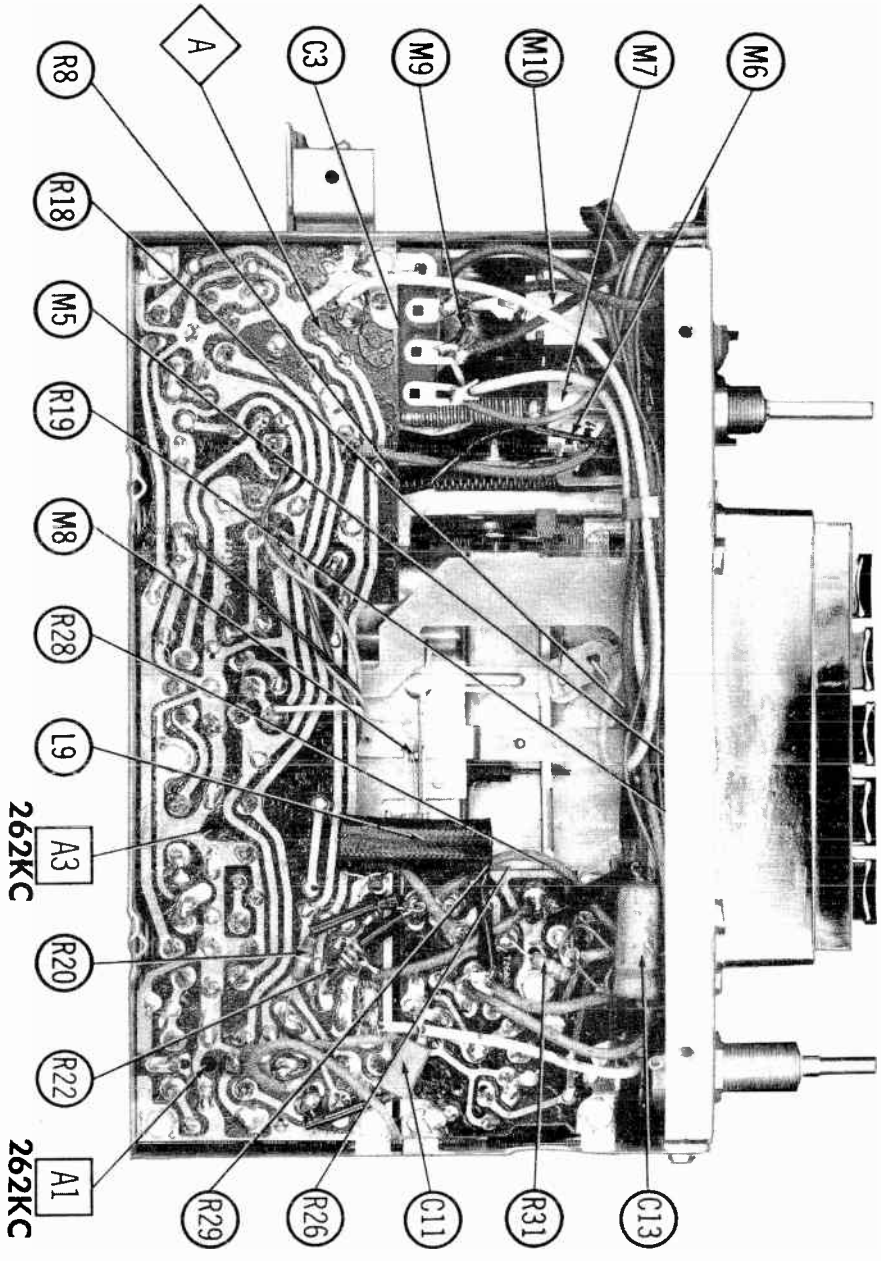
SPEAKER

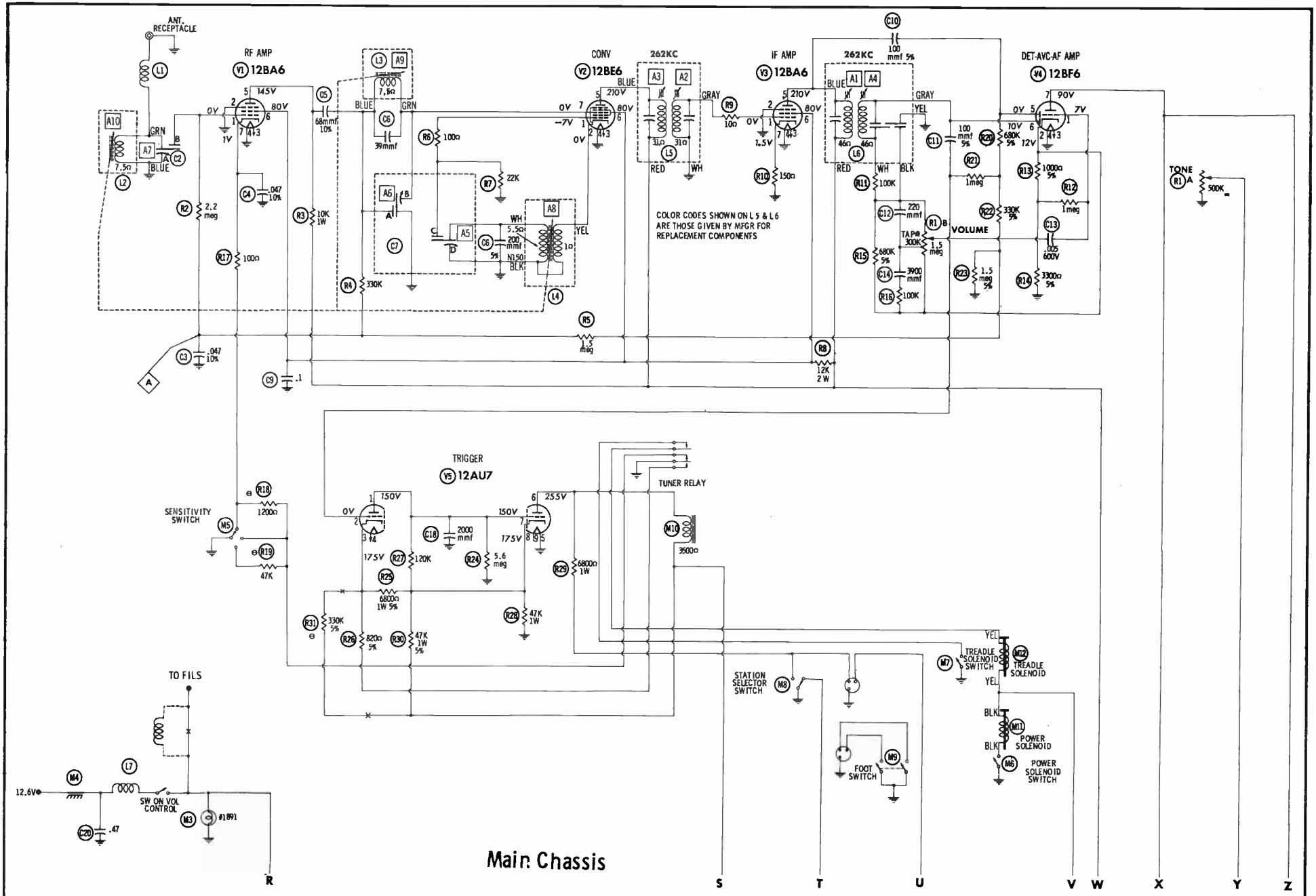
ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6" X 9"	PM	4Ω	7269180	69A3	

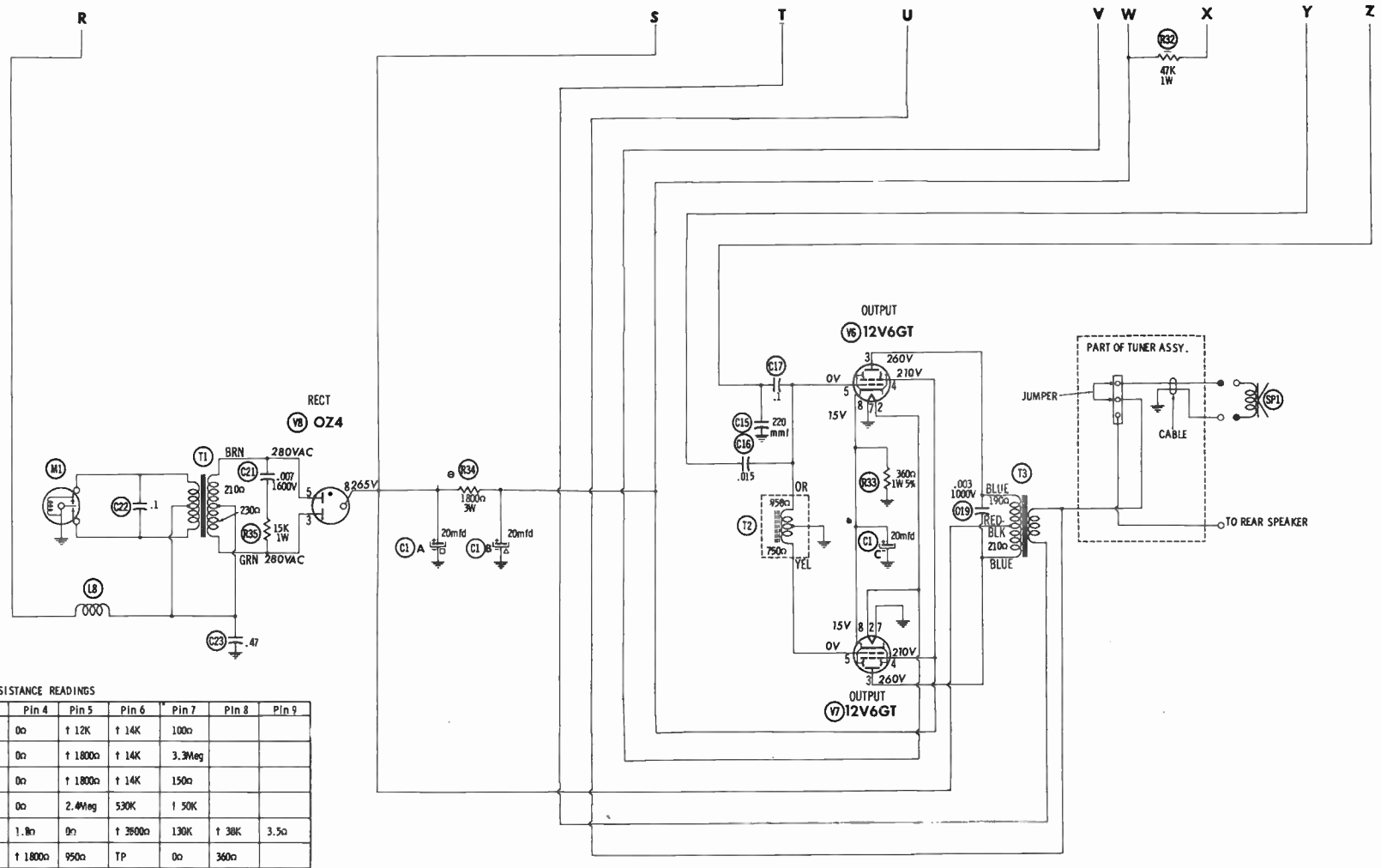
COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Ant. Coil	1221050				
L3	RF Coil	1221050				
L4	Osc. Coil	1221051				
L5	Input IF	1220990	16-6756	BC-317	13-PH1	
L6	Output IF	1220992		BC-320		
L7	Fil. Choke	7241708				
L8	Vib. Hash Choke	1221077				42 Microhenries
L9	Fil. Choke	7269046				

CHASSIS—BOTTOM VIEW







RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	1.8Ω	0Ω	† 12K	† 14K	100Ω		
V2	12BE6	22K	1Ω	1.8Ω	0Ω	† 1800Ω	† 14K	3.3Meg		
V3	12BA6	41Ω	0Ω	1.8Ω	0Ω	† 1800Ω	† 14K	150Ω		
V4	12BF6	1Meg	4300Ω	1.8Ω	0Ω	2.4Meg	530K	† 50K		
V5	12AU7	†130K	2Meg	† 45K	1.8Ω	0Ω	† 3500Ω	130K	† 38K	3.5Ω
V6	12V6GT	TP	1.8Ω	† 190Ω	† 1800Ω	950Ω	TP	0Ω	360Ω	
V7	12V6GT	TP	1.8Ω	† Z10Ω	† 1800Ω	750Ω	TP	0Ω	360Ω	
V8	0Z4	0Ω	NC	Z30Ω	NC	Z10Ω	NC	TP	20K(Min)	

† MEASURED FROM PIN 8 OF V8
TP TIE POINT
NC NO CONNECTION

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

Power Supply And Audio Unit

PARTS LIST AND DESCRIPTIONS (Continued)

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12. 6V	115∿	8555	6330	G1602/G883	6330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7½A	455640		30307. 5 (7AG-7½)		SFE 7½A	

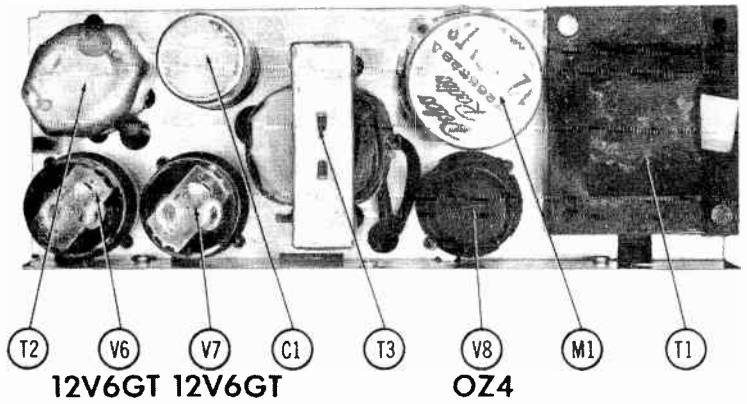
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light	456985	#1891
M4	Spark Plate	1220682	
M5	Switch	7268842	Sensitivity
M6	Switch	7268030	Power Solenoid
M7	Switch	7268030	Treadle Solenoid
M8	Switch	7269292	Station Selector
M9	Switch	7258903	Foot
M10	Relay	7269582	Tuner
M11	Solenoid	7268040	Power
M12	Solenoid	7268050	Treadle

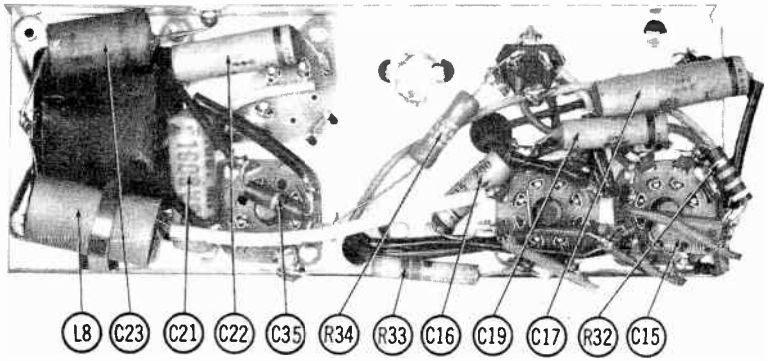
CABINETS & CABINET PARTS

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

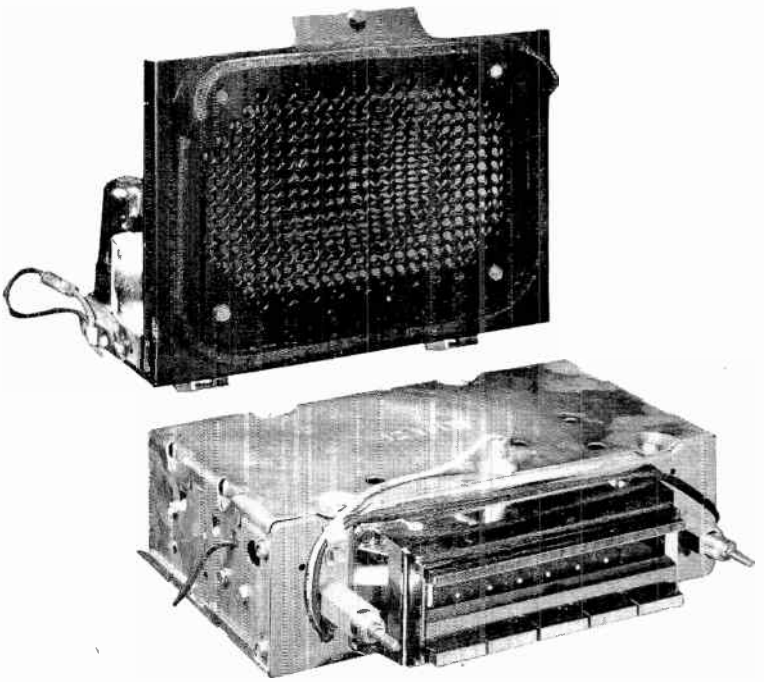
NAME	PART NO.	DESCRIPTION
Knob	569556	Control
Knob	569554	Tone
Knob	569555	Dummy
Dial	7268851	
Printed Panel	7268821	1 Tube Section
Printed Panel	7268814-C	4 Tube Section



POWER CHASSIS TOP VIEW



POWER CHASSIS BOTTOM VIEW



TRADE NAME	Packard Model 484649 (For 1957 Packard Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12BA6 RF Amp., 12BE6 Conv., 12BA6 IF Amp., 12BF6 Det.-AVC-AF Amp., 12AU7 Trigger, (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery RATING 3.4 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1600KC

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

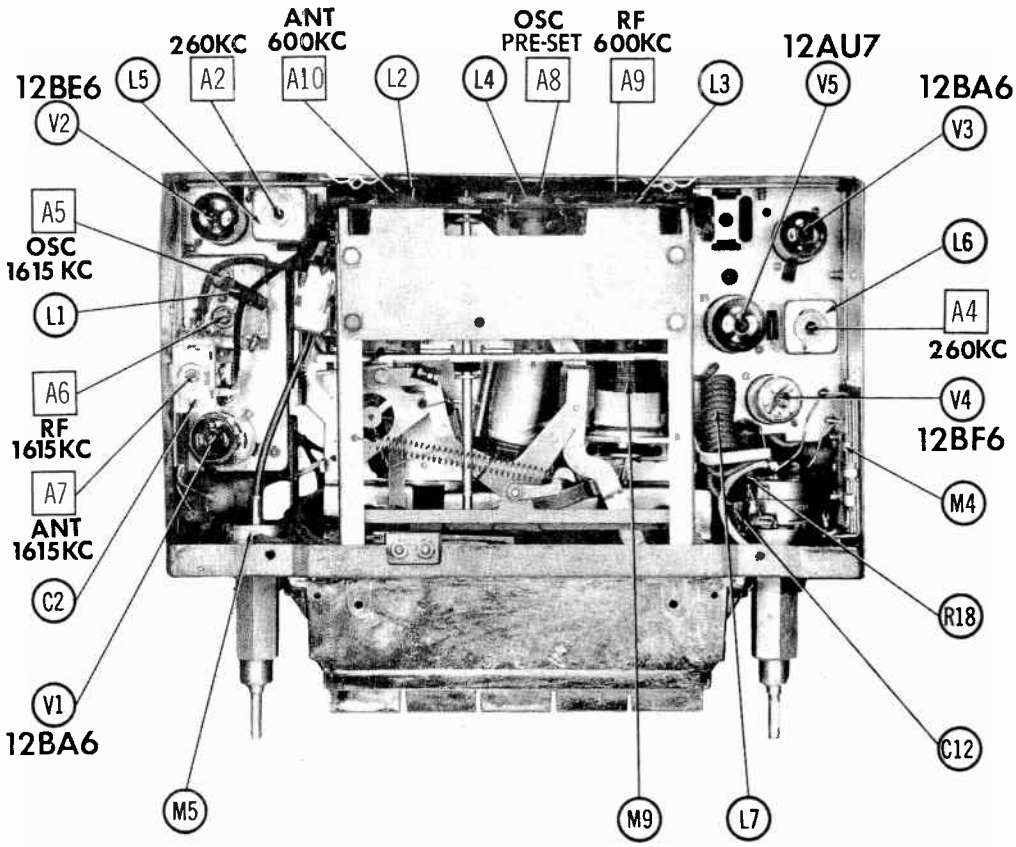
Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	260KC (400~ Mod.)	High frequency end stop	Across C3	A1, A2, A3	Adjust for maximum output.
2	"	"	"	"	"	A4	Adjust for MINIMUM output.
	Check setting of oscillator core (A8). Rear of core should be 1 25/32" from mounting end of coil form.						
3	68MFD	High side to Antenna receptacle. Low side to chassis.	1615KC	High frequency end stop	Across C3	A5, A6, A7	Adjust for maximum output.
4	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
5	"	"	1615KC	High frequency end stop	"	A6, A7	"
6	"	"	1000KC	Tune to 1000KC signal	"		If necessary, adjust pointer (with pointer adjustment screw) to coincide with 1000KC on dial.
7	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, and adjust A7 for maximum volume.						

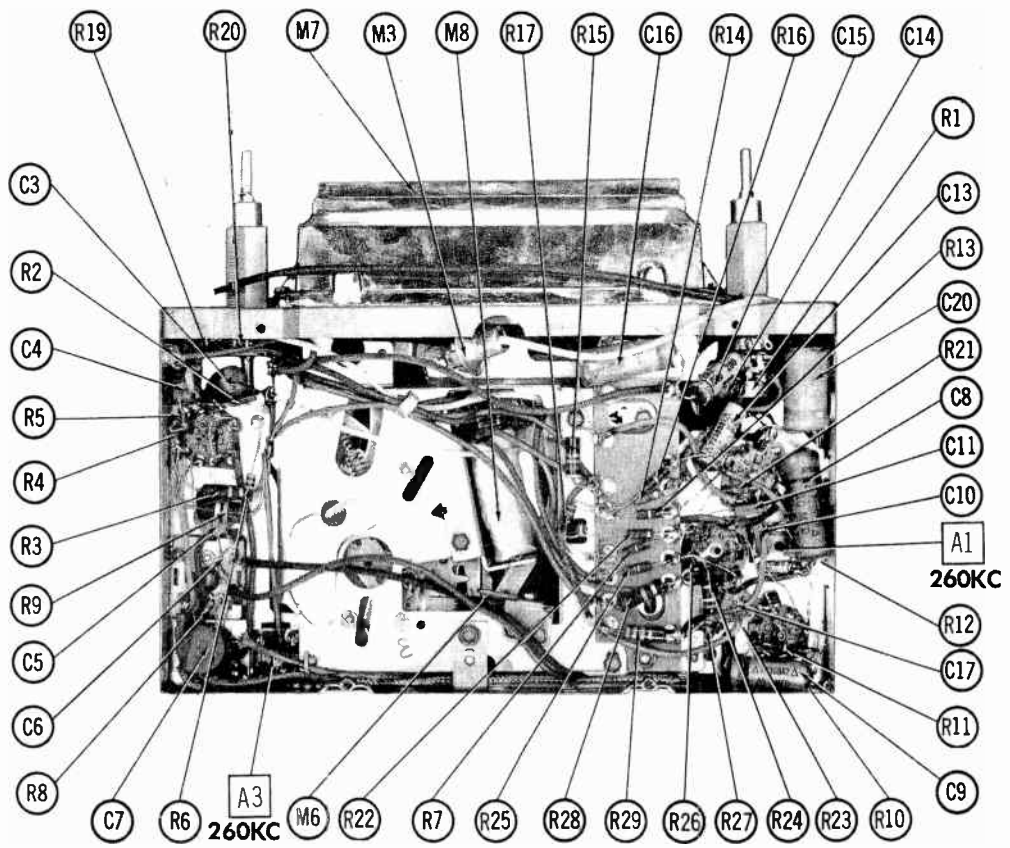
PUSHBUTTON ADJUSTMENT

1. Open hinged door below the dial so that selector tabs are exposed.
2. Tune manually to desired station near left end of dial.
3. Move selector tab on extreme left until tab coincides with pointer tip.
4. Repeat procedure for remaining tabs choosing station from left to right on dial.

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



CHASSIS-TOP VIEW



CHASSIS-BOTTOM VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Trigger	12AU7	
V6	Output	12V6GT	
V7	Output	12V6GT	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▪20	400	724-724	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3678
B	▲20	400							
C	20	25							

FIXED CAPACITORS

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

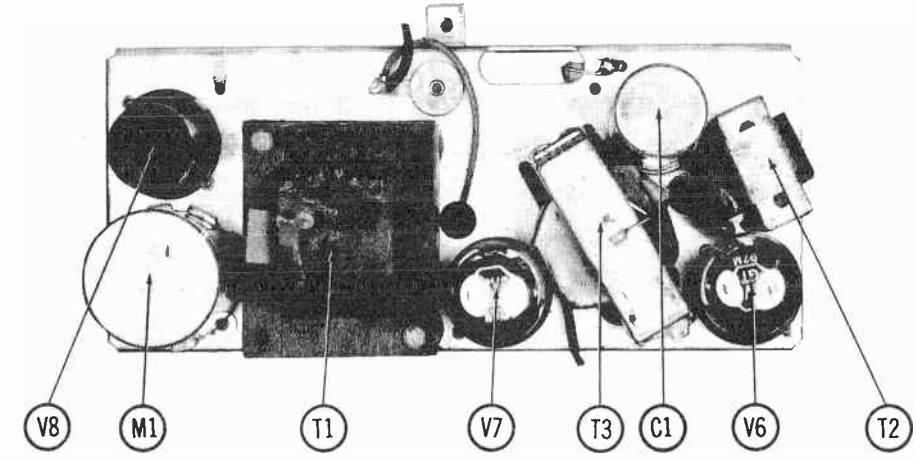
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7266240							
B										
C3	.05	200	6612	BPD-05	DF-503	CUB4S5		GEM-415	2TM-S5	
C4	.05	200	6612	BPD-05	DF-503	CUB4S5		GEM-415	2TM-S5	
C5A	68			BPD-000068	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	①
B	39			BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	①
C6A			7242454							
B										
C										
D										
C7	250		7266596							N75
C8	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C9	.05	200	6612	BPD-05	DF-503	CUB4S5		GEM-415	2TM-S5	
C10	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C11	100	500	1219498	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	MS-31	5%
C12	470			BPD-00047	DD-471	5W5T47	ED-470	UC-5347	5GA-T47	
C13	.01	400	6633	BPD-01	D6-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C14	.005	600		BPD-005	D6-502	CUB6D5	GP-5000	GEM-625	6TM-D5	
C15	.015	200	7237719	BPD-015	DD16-153	CUB6S15	ED-015	GEM-6115	4TM-S15	
C16	.1	400	6613	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C17	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C18	100		6371	BPD-0001	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C19	.003	1000	6563	P1088N-003	DD16-302	CUB10D3		GEM-1023	10TM-D3	
C20	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C21	.007	1600	6567	P1688N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C22	.1	200	6690	P288N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C23	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	

① In some versions C5 is two single units, C5A Part #6369 & C5B Part #6366.

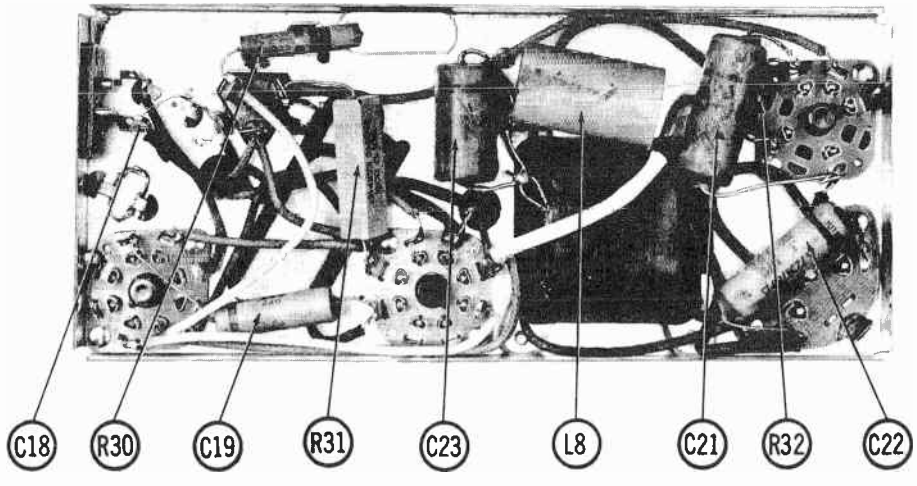
CONTROLS

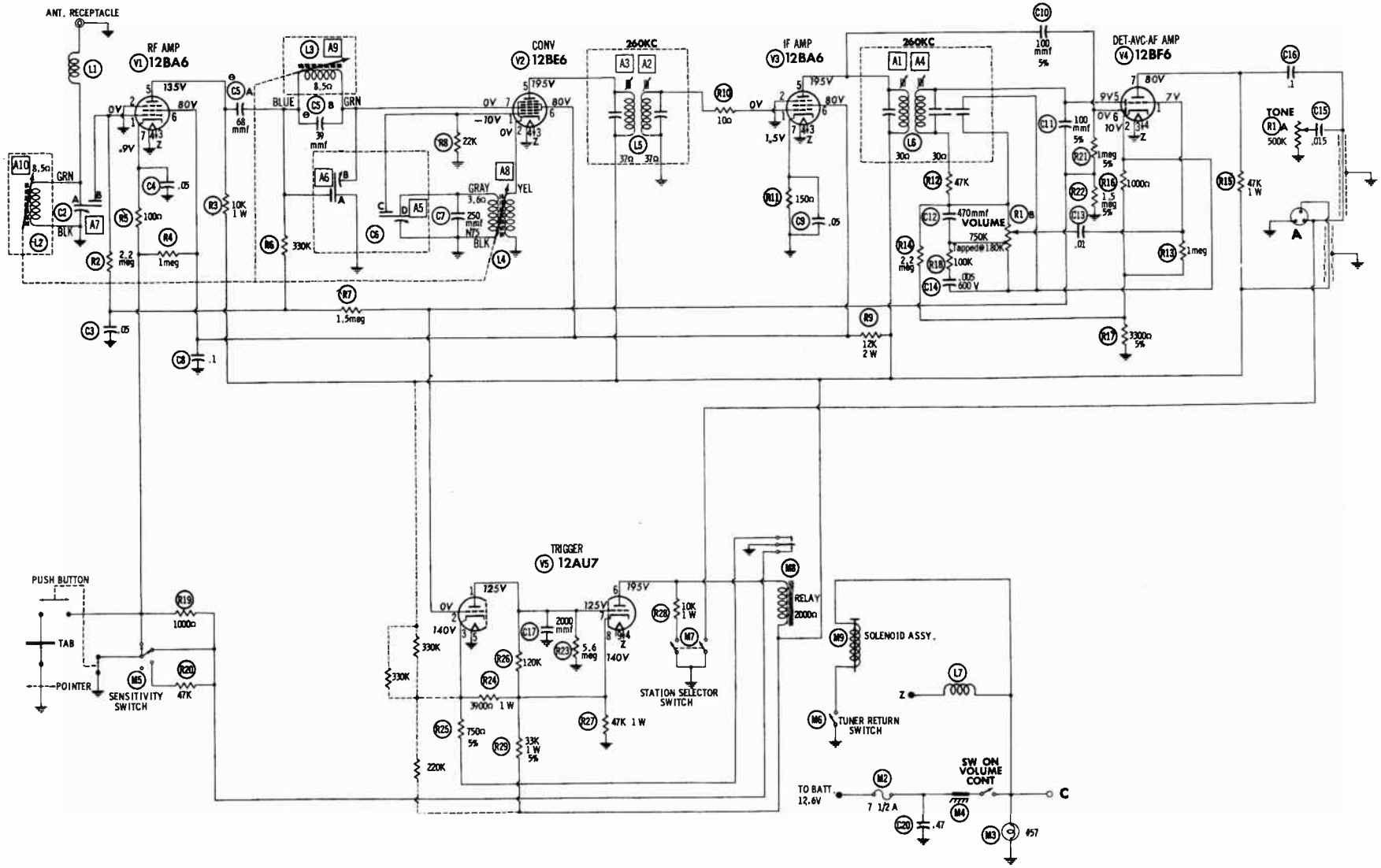
ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	½	7266091			QJ-826A	UE1479S	Tone Volume, Tap② 180K
B	750K	½						
C	Switch							

POWER CHASSIS—TOP VIEW



CHASSIS—BOTTOM VIEW



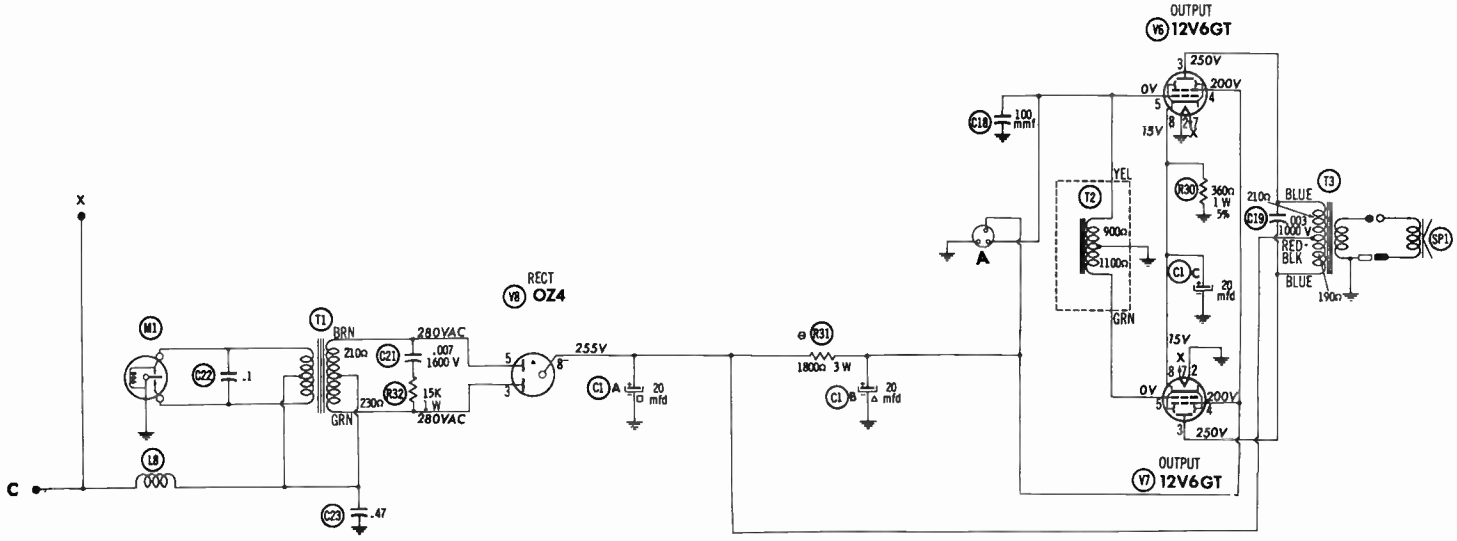


Main Chassis

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

● SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	1.2Ω	0Ω	↑12K	↑14K	100Ω		
V2	12BE6	22K	.9Ω	1.2Ω	0Ω	↑1800Ω	↑14K	3.3Meg		
V3	12BA6	47Ω	0Ω	1.2Ω	0Ω	↑1800Ω	↑14K	150Ω		
V4	12BF6	1Meg	4300Ω	0Ω	1.2Ω	60K	↑2.5Meg	↑50K		
V5	12AU7	↑140K	1.5Meg	750Ω	1.2Ω	0Ω	↑1800Ω	5.6Meg	47K	.6Ω
V6	12V6GT	NC	0Ω	↑210Ω	↑1800Ω	900Ω	TP	1.2Ω	360Ω	
V7	12V6GT	NC	0Ω	↑190Ω	↑1800Ω	1100Ω	TP	1.2Ω	360Ω	
V8	0Z4	0Ω	NC	230Ω	NC	210Ω	NC	TP	20K(Min)	

↑ MEASURED FROM PIN 8 OF V8
TP TIE POINT
NC NO CONNECTION

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA DELCO PART No.	REPLACEMENT DATA IRC PART No.	NOTES
R2	2.2Meg		1239	BTS-2.2Meg	
R3	10K	1	1174	BTA-10K	
R4	1Meg		1235	BTS-1Meg	
R5	100Ω		1113	BTS-100	
R6	330K		1229	BTS-330K	
R7	1.5Meg		1237	BTS-1.5Meg	
R8	22K		1215	BTS-22K	
R9	12K	2	1276	BTB-12K	
R10	10Ω		1101	BTS-10	
R11	150Ω		1115	BTS-150	
R12	47K		1219	BTS-47K	
R13	1Meg		1235	BTS-1Meg	
R14	2.2Meg		1239	BTS-2.2Meg	
R15	47K	1	1259	BTA-47K	
R16	1000Ω		1125	BTS-1000	
R17	3300Ω 5%		1220173	BTS-3300 5%	
R18	100K		1223	BTS-100K	
R19	1000Ω		1219	BTS-1000	
R20	47K			BTS-47K	
R21	1Meg 5%		1220169	BTS-1Meg 5%	
R22	1.5Meg 5%		1219492	BTS-1.5Meg 5%	
R23	5.6Meg		1244	BTS-5.6Meg	
R24	3900Ω	1	1169	BTA-3900	
R25	750Ω 5%		7266320	BTS-750 5%	
R26	120K		1224	BTS-120K	
R27	47K	1	1259	BTA-47K	
R28	10K	1	1174	BTA-10K	
R29	33K 5%	1	7266230	BTA-33K 5%	
R30	360Ω 5%	1	7234563		
R31	1800Ω	3			Note 1
R32	15K	1	1253	BTA-15K	

Note 1. Mfgr. states to replace R31 with 2700Ω 2W(Part #1204) & 5600Ω 1W(Part #1171) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING PRI.	RATING SEC. 1	RATING SEC. 2	RATING SEC. 3	REPLACEMENT DATA DELCO PART No.	Holldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12.6VCT @ 1.3A	550VCT @ .062A			6067	V3902	P-2861	P-6489	22R52	V-31

TRANSFORMER (AUDIO INPUT)

ITEM No.	IMPEDANCE PRI.	IMPEDANCE SEC.	REPLACEMENT DATA DELCO PART No.	Holldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triod PART No.	NOTES
T2			6061		A-3010				

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI.	IMPEDANCE SEC.	REPLACEMENT DATA DELCO PART No.	Halldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.	NOTES
T3	7100Ω CT	3-4Ω	6063	Z1002 ①	A-2901 ①	A-3823 ①	22S88 ①	S-53X ①	① Use original channel mounting frame.

SPEAKER

ITEM No.	TYPE SIZE	TYPE FIELD	TYPE V. C. IMP.	REPLACEMENT DATA DELCO PART No.	QUAM PART No.	NOTES
SP1	6"X9"	PM	3-4Ω	7266144	69A3	

PARTS LIST & DESCRIPTION (continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	NOTES
L1	Ant. Coupling Coil	7255738	19-1004	BC-565	4610	6.5 Microhenries
L2	Antenna Coil	7257979				
L3	RF Coil	7257979				
L4	Osc. Coil	7263287				
L5	Input IF	1219506	16-6752	BC-350	12-H1	
L6	Output IF	1220204				
L7	Fil. Choke	7241706				
L8	Vib. Hash Choke	1221077				42 Microhenries

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	NOTES
M1	Interrupter	12.6V	115 ∿	8555	6330	GI602/G883	6330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA DELCO PART No. FUSE	DELCO PART No. HOLDER	LITTELFUSE PART No. FUSE	LITTELFUSE PART No. HOLDER	BUSS PART No. FUSE	BUSS PART No. HOLDER
M2	SFE	7½A	455640	153-R	30307.5 (7AG 7½A)	155009	SFE 7½A	HRH

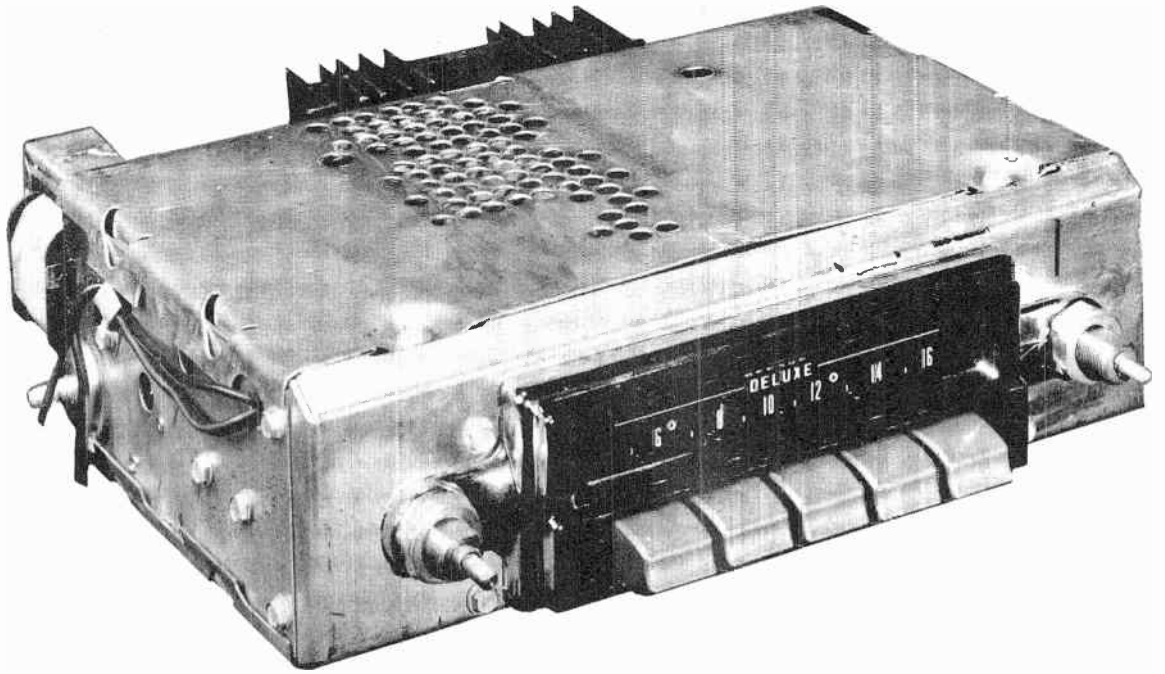
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light		#57
M4	Spark Plate	1220306	
M5	Switch	7266086	Sensitivity
M6	Switch	7263340	Tuner Return
M7	Switch	7265300	Station Selector
M8	Relay	1220326	
M9	Solenoid Ass'y.	1220685	

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	7270072	Control
Lever	7266329	Tone
Dial Glass	7263586	



TRADE NAME	Pontiac Model 988671 (For 1957 Pontiac Automobiles)
MANUFACTURER	Delco Radio Div., G.M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12AF6 RF Amplifier, 12AD6 Converter, 12AF6 IF Amplifier, 12F8 Det.-AVC-AF Amp., 12K5 Driver
POWER SUPPLY	12 Volt Storage Battery — RATING 2 Amp. @ 12.6 Volts DC
TUNING RANGE--BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod)	High frequency end stop	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
	Check setting of oscillator core (A8). Rear of core should be 1 5/8" from mounting end of coil form.						
2	47MMF	High side to Antenna Receptacle. Low side to chassis.	1615KC	High frequency end stop	Across voice coil	A5, A6, A7	Adjust for maximum output.
3	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
4	"	"	1615KC	High frequency end stop	"	A6, A7	"
5	"	"	1000KC	Tune to 1000KC signal	"		If necessary, adjust pointer adjustment screw so that pointer coincides with 1000KC on dial.
6	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, and adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Pull pushbutton to the left and out.
2. Tune manually to desired station.
3. Press pushbutton in firmly.
4. Repeat on remaining pushbuttons.

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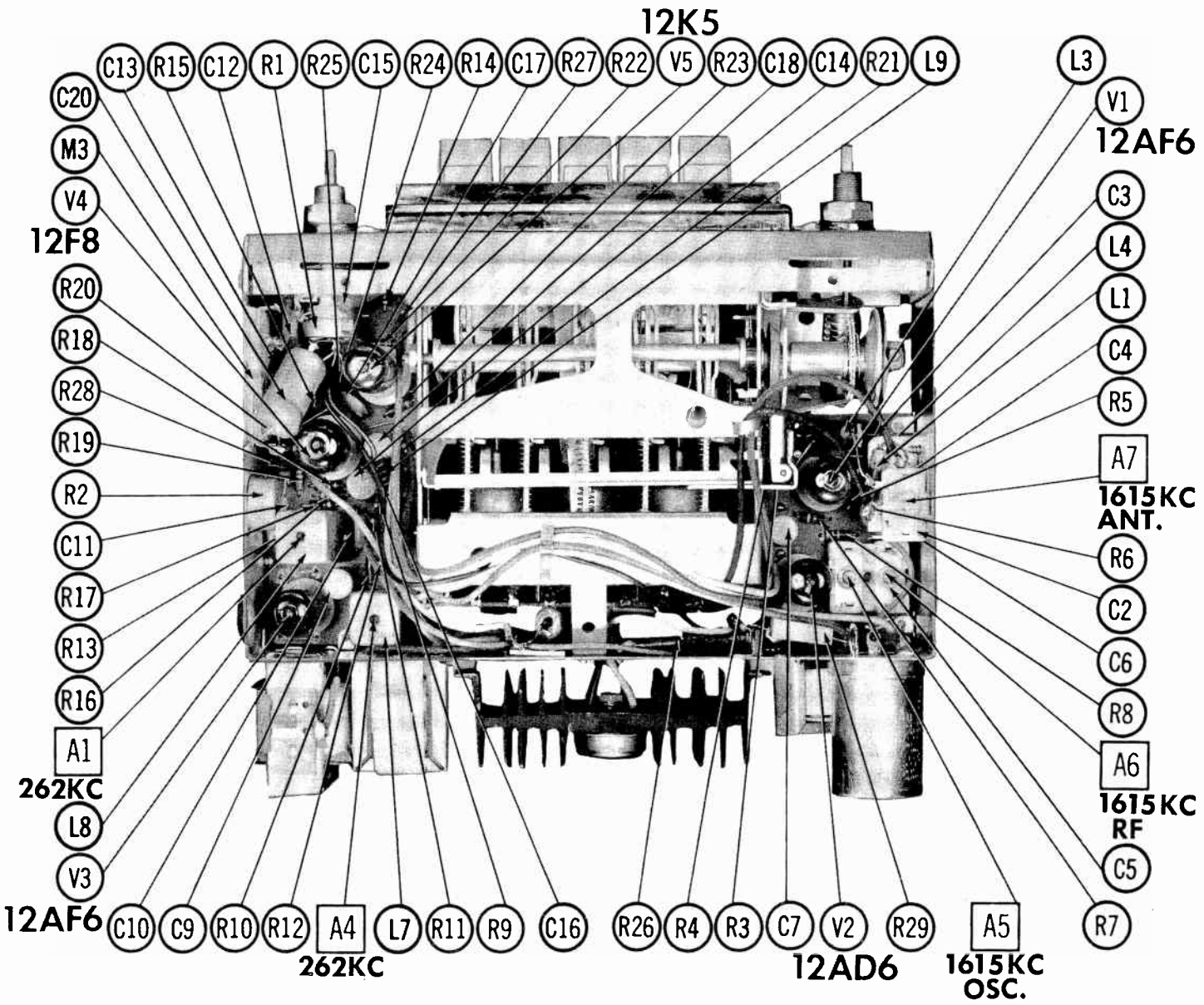
PONTIAC
MODEL 988671



CHASSIS-TOP VIEW

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12AF6	
V2	Converter	12AD6	
V3	IF Amplifier	12AF6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC-AF Amp.	12F8	
V5	Driver	12K5	

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			CBS PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N278	Output				

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	▲20	16	7269719						R2424 *
B	■500	16							
C	▲1000	16							

* Non Catalog Item

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	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No,	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7269635							
B										
C3	.047	200	6612	BPD-05	DF-503	CUB2S47		GEM-2147	2TM-S47	
C4	68		6369	BPD-000068	DD-680	L10Q68	ED-68	UC-5468	5GA-Q68	
C5A										
B										
C			7268828							
D										
C6	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C7	.047	50	6612	P288N-05		BC2S47J		ACE6147	2SE-S47	
C8	180		7257424							N150
C9	.047	50	6612	P288N-05	DF-503	BC2S47J		ACE6147	2SE-S47	
C10	47		6367	1468-000047	D6-470	5W5Q47	ED-47	UC-5447	1FM-447	
C11	47		6367	BPD-000047	DD-470	L10Q47	ED-47	UC-5447	5GA-Q47	
C12	220	500	6375	1468-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C13	.022	200	6611	BPD-02	DD-203	CUB6S22	ED-02	GEM-2122	2TM-S22	
C14	.1	50	7269714	P288N-1		BC2P1J		ACE601	2SE-P10	
C15	.0068	200	7269715	BPD-0068	D6-682	CUB6D68	ED-0068	GEM-6268	6TM-D68	
C16	220	500	6375	1468-00022	D6-221	5W5T22	ED-220	UC-5322	1FM-322	
C17	4700		6631	BPD-0047	DD-472	BYA10D47	ED-0047	UC-5247	5HK-D47	
C18	.047	50	6612	P288N-05	DF-503	BC2S47J		ACE6147	2SE-S47	
C19	.05	200	6612	BPD-05	DF-503	CUB2S5		GEM-4147	2TM-S5	
C20	.47	100	6692	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C21	220			BPD-00022	DD-221	L10T22	ED-220	UC-5322	5GA-T22	①

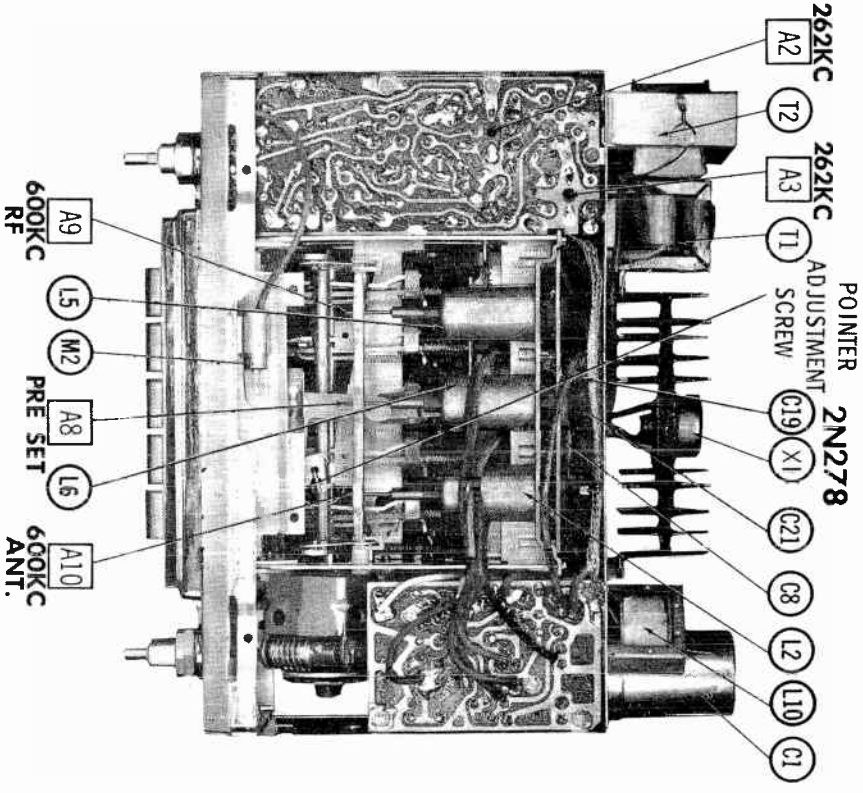
① Not used in some versions

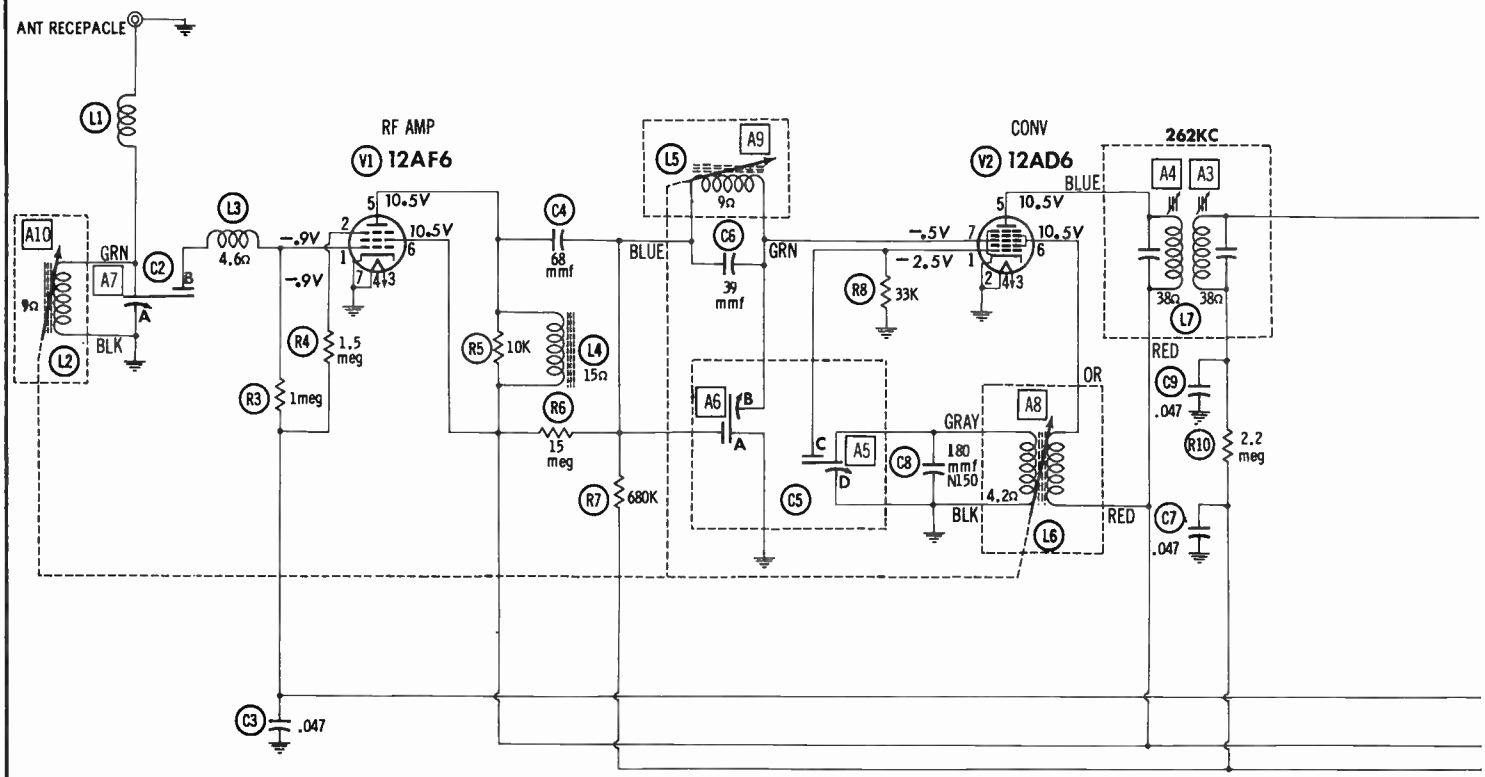
CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	2Meg	½	7270189 ①				UE1777S	Tone Volume, Tap② 200K
B	1Meg	½						
C	Switch							
R2	100Ω	2	7269637		39-100		FL-150	Transistor Bias Adjust (Wire Wound)

① Alternate Part #7269638

CHASSIS—BOTTOM VIEW





RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12AF6	3.5Meg	4Meg	1.5Ω	0Ω	† 95Ω	† 82Ω	0Ω		
V2	12AD6	33K	0Ω	1.5Ω	0Ω	† 120Ω	† 85Ω	1Meg		
V3	12AF6	2.7Meg	0Ω	1.5Ω	0Ω	† 110Ω	† 82Ω	0Ω		
V4	12F8	1.4Meg	† 270K	† 120K	1.5Ω	0Ω	1.5Meg	1800Ω	6.8Meg	1800Ω
V5	12K5	15Ω	470K	1.5Ω	0Ω	† 39Ω	† 39Ω	† 200Ω		

TRANSISTOR RESISTANCE NOT TAKEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE

† MEASURED FROM JUNCTION OF L9 AND L10

TRANSISTOR BIAS ADJUSTMENT (R2)

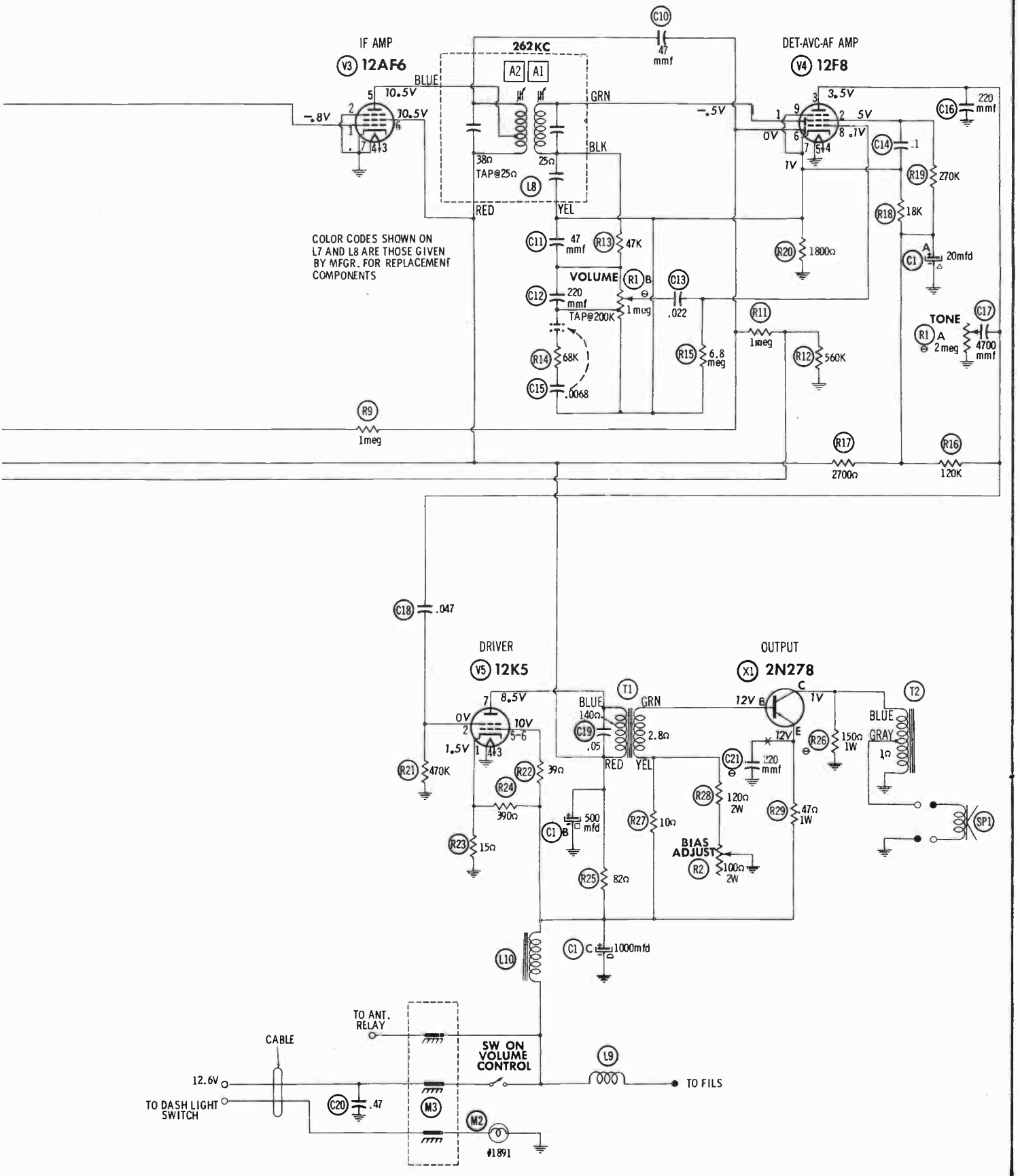
The transistor bias control R2 should be adjusted when the transistor (X1) is replaced.
Connect a milliammeter in series with the collector lead of the transistor and adjust the bias control R2 for a reading of 920MA on the meter.

Ⓔ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R3	1Meg		1235	BTS-1Meg	
R4	1.5Meg		1237	BTS-1.5Meg	
R5	10K		1137	BTS-10K	
R6	15Meg		1249	BTS-15Meg	
R7	680K		1233	BTS-680K	
R8	33K		1217	BTS-33K	
R9	1Meg		1235	BTS-1Meg	
R10	2.2Meg		1239	BTS-2.2Meg	
R11	1Meg		1235	BTS-1Meg	
R12	560K		1232	BTS-560K	
R13	47K		1219	BTS-47K	
R14	68K		1221	BTS-68K	
R15	6.8Meg		1245	BTS-6.8Meg	
R16	120K		1224	BTS-120K	
R17	2700Ω		1130	BTS-2700	
R18	18K		1214	BTS-18K	
R19	270K		1228	BTS-270K	
R20	1800Ω		1128	BTS-1800	
R21	470K		1231	BTS-470K	
R22	39Ω		1108	BTS-39	
R23	15Ω		1103	BTS-15	
R24	390Ω		1120	BTS-390	
R25	82Ω		1112	BTS-82	
R26	150Ω	1		BTA-150	Note 1
R27	10Ω		1101	BTS-10Ω	
R28	120Ω	2	1188	BTB-120	
R29	.47Ω	1	7269709		

Note 1. Some versions may use $\frac{1}{2}$W unit (Part #1115).

TRANSFORMER (AUDIO INPUT)

ITEM No.	Turns Ratio		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.	
T1	50:	1	7269877						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	9Ω	3-4Ω	7269650						

SPEAKER

ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6" X 9"	PM	3-4Ω	7268329	69A3	

PARTS LIST AND DESCRIPTIONS (Continued)

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Antenna Coupling Coil	7255738	19-1004	BC-565	4612	7 Microhenries
L2	Antenna Coil	7258914				
L3	RF Choke	7240251	19-6022		4626	28 Microhenries
L4	RF Choke	7269684				
L5	RF Coil	7258914				
L6	Osc. Coil	1221031				
L7	Input IF	1221015				
L8	Output IF	1221021				
L9	Fil. Choke	1217846				

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ∿)	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.
L10	1A	.26Ω	3 Millihenries	7269647					

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	SFE	7½A	455640		30307.5 (7AG 7½A)		SFE 7½A	

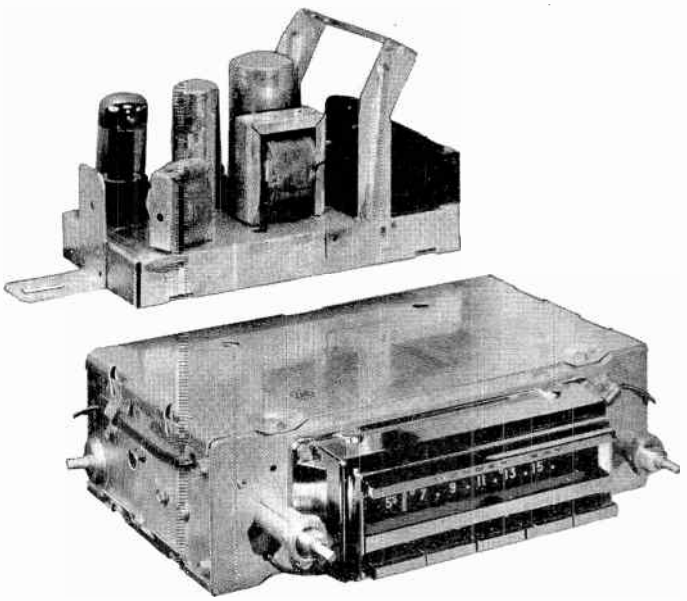
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M2	Dial Light	456985	#1891
M3	Spark Plate	1220682	

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	523150	Control (2 Used)
Knob	523507	Control (2 Used)
Knob	518914	Dummy
Knob	518915	Tone
Dial	7269540	



TRADE NAME	Pontiac Model 988672 (For 1957 Pontiac Automobiles)
MANUFACTURER	Delco Radio Div., G. M. Corp., Kokomo, Indiana
TYPE SET	Battery Operated Custom Built AM Automobile Receiver
TUBES (Eight)	Types 12BA6 RF Amplifier, 12BE6 Converter, 12BA6 IF Amplifier, 12BF6 Det. -AVC-AF Amp., 12AU7 Trigger, (2) 12V6GT Output, 0Z4 Rectifier
POWER SUPPLY	12 Volt Storage Battery
RATING	3.4 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1600KC

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. Use an insulated alignment screwdriver for adjusting. Tone control to "Treble".

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1	.1MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	262KC (400~ Mod)	High frequency end stop	Across C1	A1, A2, A3	To tune to high frequency end stop, place a .070" feeler gauge (or bare #13 wire) in slot against high frequency end stop. Run planetary arm against feeler gauge with manual control. Adjust A1, A2, A3 for maximum deflection.
2	"	"	"	"	"	A4	Adjust for MINIMUM deflection.
	Check setting of oscillator core (A8). Rear of core should be 1 25/32" from mounting end of coil form.						
3	68MMF	High side to Antenna Receptacle. Low side to chassis.	1615KC	High frequency end stop	Across C1	A5, A6, A7	Adjust for maximum deflection.
4	"	"	600KC	Tune to 600KC signal	"	A9, A10	"
5	"	"	1615KC	High frequency end stop	"	A6, A7	"
6	"	"	1100KC	Tune to 1100KC signal	"		If necessary, adjust pointer (with pointer adjustment screw) to coincide with 1100KC on dial.
7	With radio installed in car and antenna fully extended, tune in a weak station between 600KC and 1000KC, and adjust A7 for maximum volume.						

PUSHBUTTON ADJUSTMENT

1. Open hinged door below the dial so that selector tabs are exposed.
2. Tune manually to desired station near left side of dial.
3. Move selector tab on extreme left until tab coincides with pointer tip.
4. Repeat procedure for remaining tabs choosing stations from left to right on dial.

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PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BA6	
V2	Converter	12BE6	
V3	IF Amplifier	12BA6	
V4	Det. -AVC-AF Amp.	12BF6	

ITEM No.	USE	TYPE	NOTES
V5	Trigger	12AU7	
V6	Output	12V6GT	
V7	Output	12V6GT	
V8	Rectifier	0Z4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	DELCO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
CA	■20	400	6322	AFH3-120	C0990	FP345.8	TMT-106	T-550	TVL-3676
B	▲20	400							
C	20	25							

FIXED CAPACITORS

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

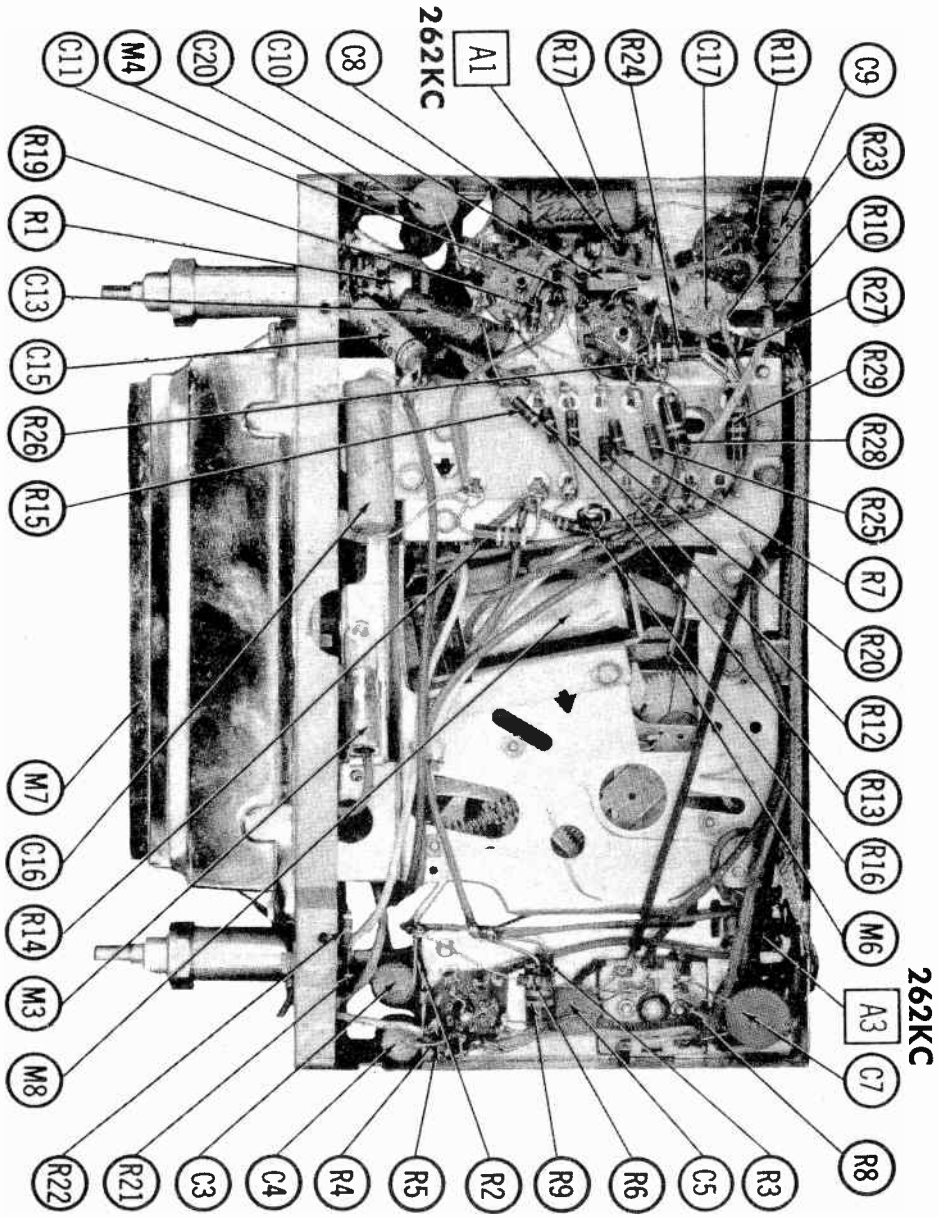
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	DELCO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2A			7266970							
B										
C3	.05	200	6612	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C4	.05	200	6612	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C5A	66		6369	BPD-000068	DD-680	L10Q68	ED-66	UC-5468	5GA-Q68	
B	39		6366	BPD-000039	DD-390	L10Q39	ED-39	UC-5439	5GA-Q39	
C6A										
B			7242454							
C										
D										
C7	250		7266596							N75
C8	.1	400	6613	P466N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C9	.05	200	6612	BPD-05	DF-503	CUB2S5		GEM-415	2TM-S5	
C10	100		1219496	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	5TCC-T1	5%
C11	100		1219496	1469-0001	TCZ-100	22R5T1	TCO-100	ZT-531	5TCC-T1	5%
C12	150		6373	N750-SI 150	TCN-150	C10T15U	TC7-150		5TCU-T15	N750
C13	.01	400	6610	BPD-01	DD-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C14	.003	600	6629	BPD-003	D6-302	CUB6D3	GP-3000	GEM-623	6TM-D3	
C15	.015	200	7237719	BPD-015	DD16-153	CUB6S15		GEM-4115	4TM-S15	
C16	.1	400	6613	P486N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C17	2000		6352	BPD-002	DD-202	BYA10D2	ED-002	DC522	5HK-D2	
C18	100		6371	BPD-0001	DD-101	L10T1	ED-100	UC-531	5GA-T1	
C19	.004	600	6564	P1068N-004	DD16-402	CUB10D4		GEM-1024	10TM-D4	
C20	.2	100	6614	P268N-22		CUB6P2		GEM-2022	2TM-P22	
C21	.007	1600	6567	P1666N-007	DD16-702	CUB16D7		GEM-1627	MB-D7	
C22	.1	200	6690	P266N-1	DF-104	CUB2P1		GEM-201	2TM-P1	
C23	.47	100	6692	P266N-47		CUB2P47		GEM-2047	2TM-P47	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	DELCO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	500K	½	7269149 ①				UE1472S	Tone Volume, Tap @ 150K
B	750K	½						
C	Switch							

① Alternate Part #7269142

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	DELCO PART No.	IRC PART No.	
R2	2. 2Meg		1239	BTS-2. 2Meg	
R3	10K	1	1174	BTA-10K	
R4	1Meg		1235	BTS-1Meg	
R5	100Ω		1113	BTS-100	
R6	330K		1229	BTS-330K	
R7	1. 5Meg			BTS-1. 5Meg	
R8	22K		1215	BTS-22K	
R9	12K	2	1276	BTB-12K	
R10	10Ω		1101	BTS-10	
R11	150Ω		1115	BTS-150	
R12	1Meg		1235	BTS-1Meg	
R13	2. 2Meg		1239	BTS-2. 2Meg	
R14	47K	1	1259	BTA-47K	
R15	1000Ω		1125	BTS-1000	
R16	3300Ω 5%		1220173	BTS-3300 5%	
R17	47K		1219	BTS-47K	
R18	82K		1222	BTS-82K	
R19	1Meg 5%		1220169	BTS-1Meg 5%	
R20	1. 5Meg 5%		1219492	BTS-1. 5Meg 5%	
R21	1000Ω		1125	BTS-1000	
R22	47K		1219	BTS-47K	
R23	5. 6Meg		1244	BTS-5. 6Meg	
R24	3900Ω	1	1169	BTA-3900	
R25	750Ω 5%		7266320	BTS-750 5%	
R26	120K		1224	BTS-120K	
R27	47K	1	1259	BTA-47K	
R28	10K	1	1174	BTA-10K	
R29	33K 5%	1	7266230	BTA-33K 5%	
R30	360Ω 5%	1	7234563		
R31	1800Ω	3			Note 1
R32	15K	1	1253	BTA-15K	

Note 1. Mfgr. states to replace R31 with 5600Ω 1W (Part #1171) & 2700Ω 2W (Part #1204) connected in parallel.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	12. 6VCT @ 1. 6A	540VCT @ .068A			6067	V3902	P-2861	P-6469	22R52	V-31

TRANSFORMER (INPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2			1220902						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	DELCO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T3	9800Ω CT	3-4Ω	8063	Z1404 ①	A-2936①	A-3852 ①	24S61 ①	S-15X ①	① Fabricate mounting.

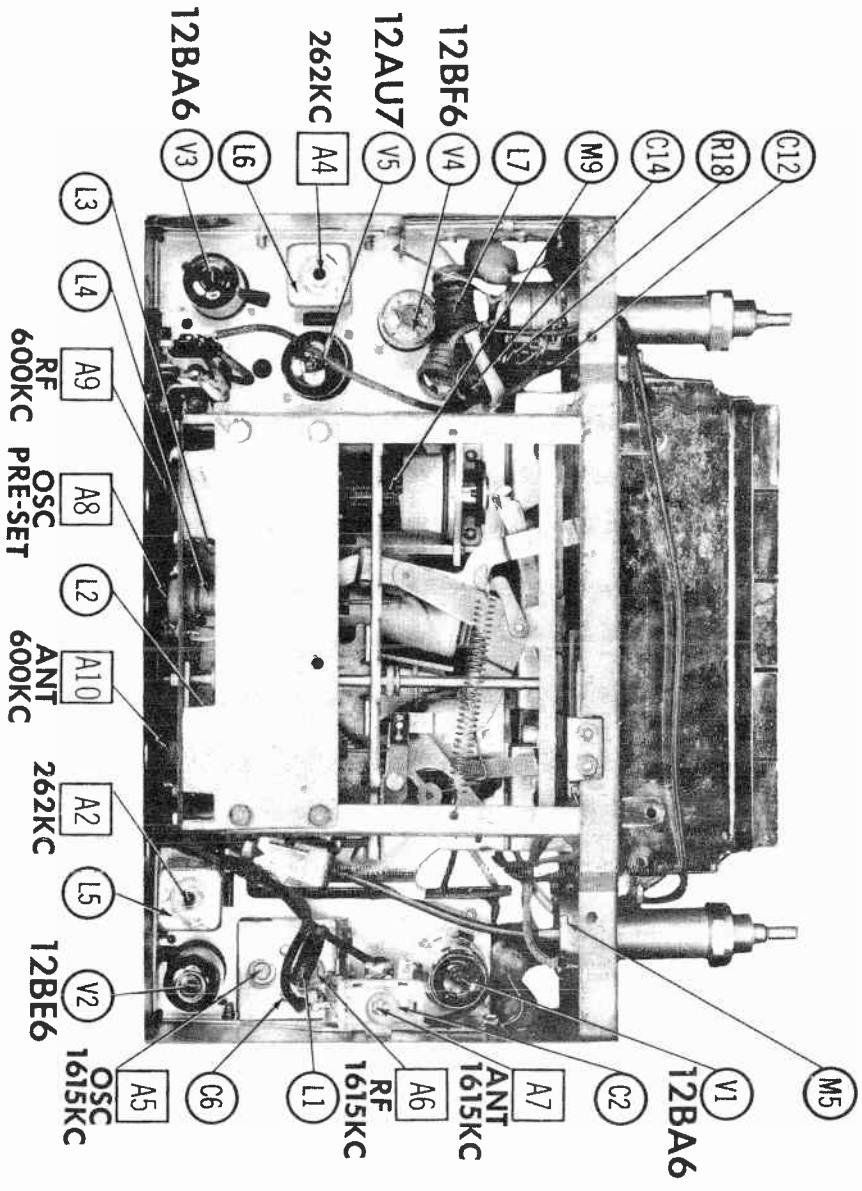
SPEAKER

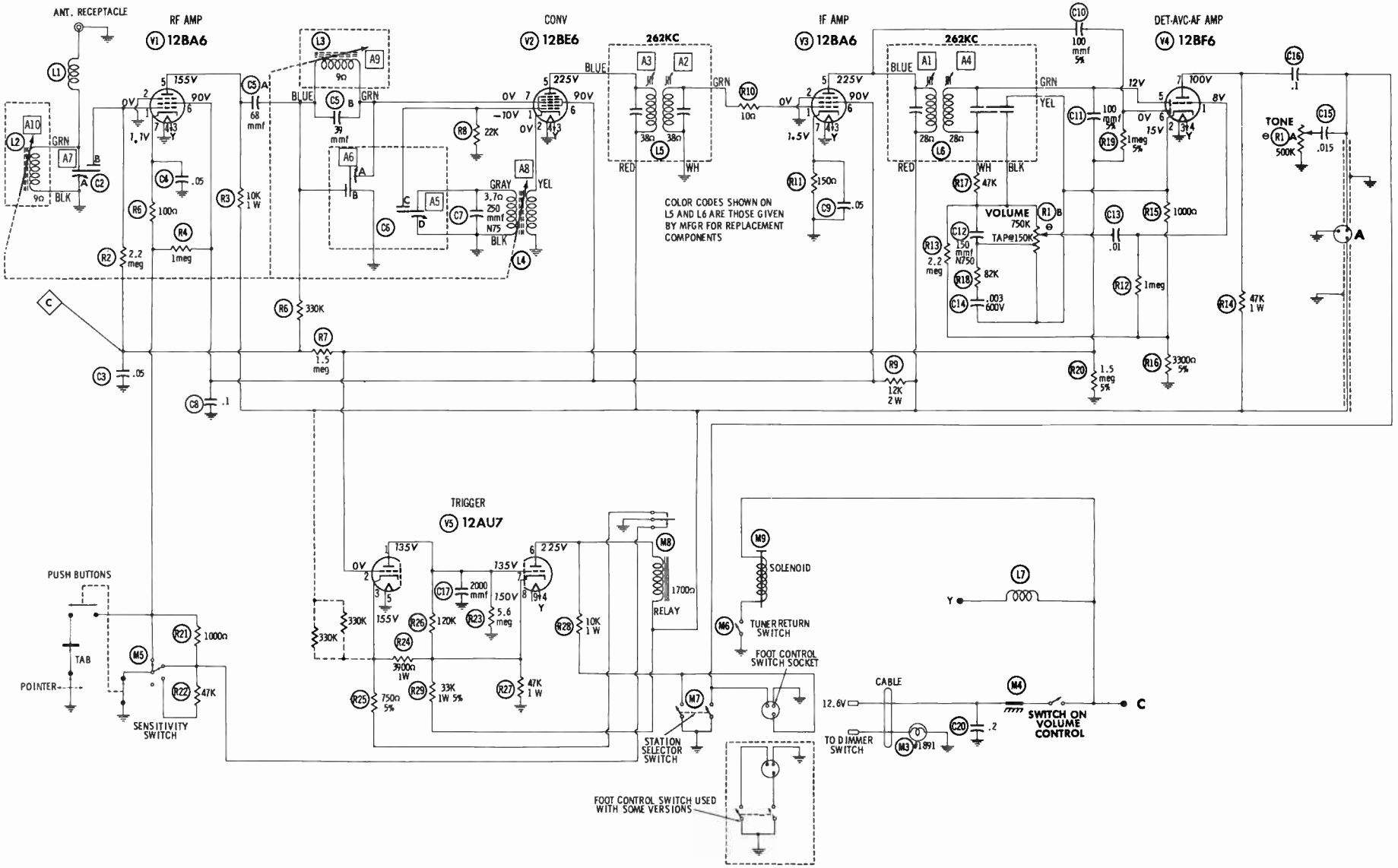
ITEM No.	TYPE			REPLACEMENT DATA		NOTES
	SIZE	FIELD	V. C. IMP.	DELCO PART No.	QUAM PART No.	
SP1	6" X 9"	PM	3-4Ω	7268329	69A3	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		DELCO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coupling Coil	7255736	19-1004	BC-565	4610	6. 5 Microhenries
L2	Ant. Coil	7257979				
L3	RF Coil	7257979				
L4	Osc. Coil	7263267				
L5	Input IF	1219506	16-6752	BC-350	12-H1	
L6	Output IF	1220204	16-6754	BC-354	12-H6	
L7	Fil. Choke	1217846				1. 4 Microhenries
L8	"A" Lead Choke	1221077				42 Microhenries

CHASSIS—BOTTOM VIEW



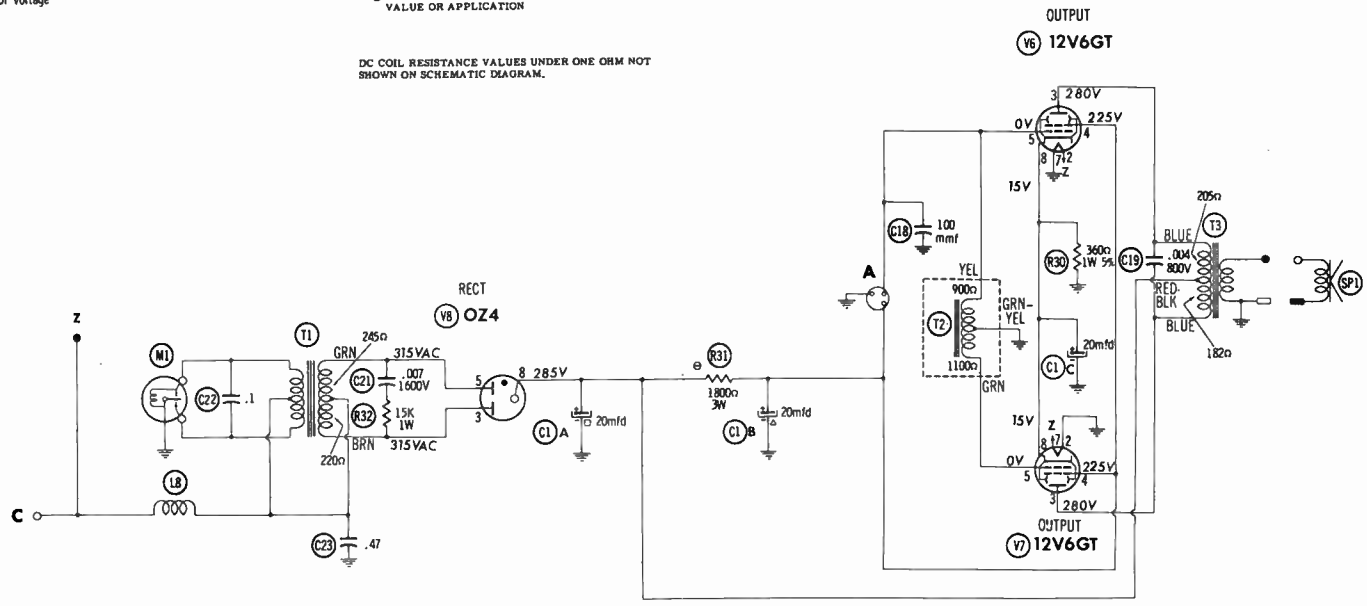


Main Chassis

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	12BA6	5.2Meg	0Ω	2.3Ω	0Ω	† 12K	† 14K	100Ω		
V2	12BE6	22K	.9Ω	2.3Ω	0Ω	† 1800Ω	† 14K	3.3Meg		
V3	12BA6	48Ω	0Ω	2.3Ω	0Ω	† 1800Ω	† 14K	150Ω		
V4	12BF6	1Meg	4300Ω	0Ω	2.3Ω	550K	2.5Meg	† 49K		
V5	12AU7	† 130K	1.5Meg	† 35K	2.3Ω	0Ω	† 3500Ω	† 130K	† 32K	1Ω
V6	12V6GT	NC	2.3Ω	† 205Ω	† 1800Ω	900Ω	NC	0Ω	360Ω	
V7	12V6GT	TP	0Ω	† 182Ω	† 1800Ω	1100Ω	TP	2.3Ω	360Ω	
V8	0Z4	0Ω	NC	220Ω	NC	245Ω	NC	TP	20K(Min)	

† MEASURED FROM PIN 8 OF V8
TP TIE POINT
NC NO CONNECTION

Power Supply and Audio Chassis

PARTS LIST AND DESCRIPTIONS (Continued)

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				DELCO PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12V	115∿	8555	6330	G1602/G883	6330	

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			DELCO PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	7½A	455640		30307.5 (7AG-7½)		SFE 7½	

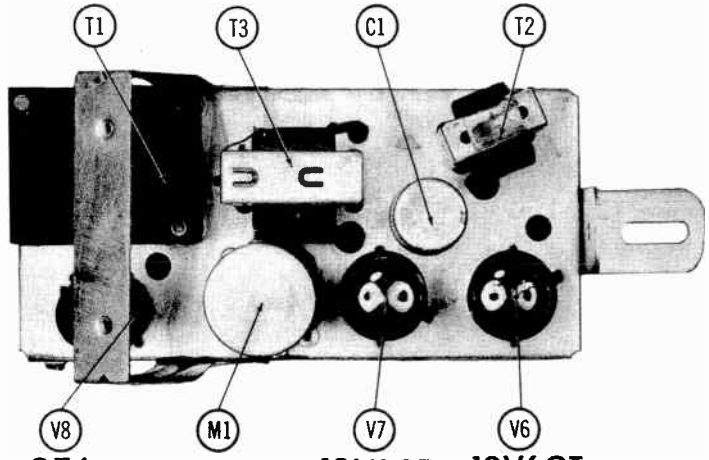
MISCELLANEOUS

ITEM No.	PART NAME	DELCO PART No.	NOTES
M3	Dial Light		#1891
M4	Spark Plate	1220682	
M5	Switch	7269146	Sensitivity
M6	Switch	7263340	Tuner Return
M7	Switch	7265300	Station Selector
M8	Relay	1220326	
M9	Solenoid	1220685	

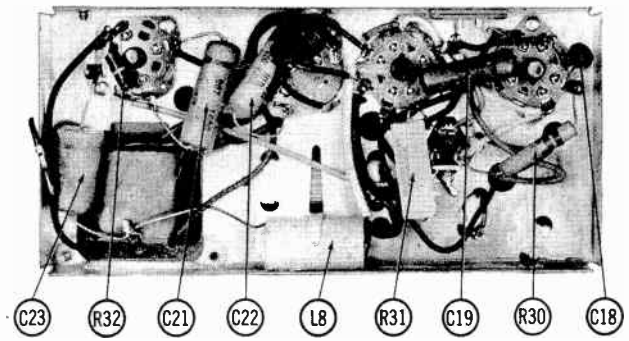
CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	523150	Control - 2 Used
Knob	523507	Control - 2 Used
Knob	5222248	Sensitivity
Knob	518915	Tone
Dial Glass	7263586	

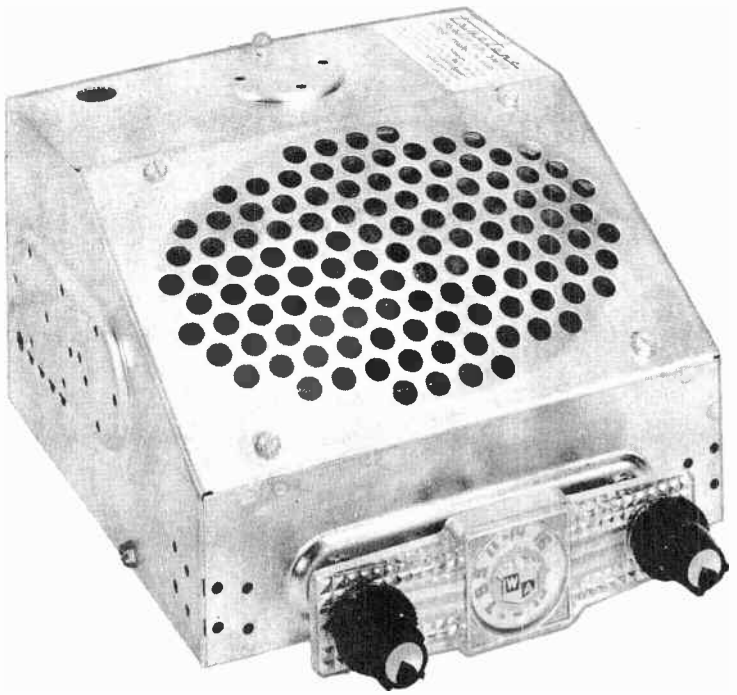


POWER CHASSIS - TOP VIEW



POWER CHASSIS - BOTTOM VIEW

TRUETONE MODELS D4623A, D4624A



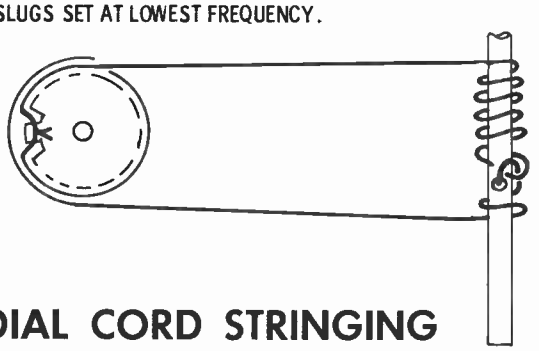
TRADE NAME	Truetone Models D4623A, D4624A
SUPPLIER	Western Auto Supply Co., 2107 Grand Ave., Kansas City, Mo.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver
TUBES (Six)	Types 12BD6 RF Amplifier, 12BE6 Converter, 12BD6 IF Amplifier, 12CR6 Det-AVC-AF Amp., 12AS5 Output, 12X4 Rectifier (6 Volt Equivalent Types Used In Model D4623A)
POWER SUPPLY	6 Volt Storage Battery (Model D4623A) RATING 7.1 Amp. @ 6.3 Volts DC
	12 Volt Storage Battery (Model D4624A) 3.55 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC - 1620KC

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. Use an insulated alignment screwdriver for adjusting.
Tuner cores are preset and sealed by manufacturer; therefore core adjustment is not necessary.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.10MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	455KC (400~ Mod)	Tuning control fully counter-clockwise. (Cores out.)	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	"	"	1620KC	"	"	A5	"
3.	50MMF	High side thru dummy to antenna receptacle. Low side to chassis.	1300KC	Tune to 1300KC signal.	"	A6, A7	"

TUNING SLUGS SET AT LOWEST FREQUENCY.



DIAL CORD STRINGING

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

G646

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

TRUETONE MODEL D4623A

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BD6	Note 1
V2	Converter	12BE6	Note 1
V3	IF Amplifier	12BD6	Note 1
V4	Det-AVC-AF Amp.	12CR6	Note 1
V5	Output	12AS5	Note 1
V6	Rectifier	12X4	Note 1

Note 1: Equivalent 6 Volt type tube used in model D4623A.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	TRUETONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■30	200	8C-21726	AFH3-86-50	CO630		FP318.3	T-320	TVL-3464
B	▲20	200							
C	40	25							

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 CAP.	RATING VOLT	TRUETONE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2	90		8F-21949							
C3	.0047	200	8D-21819	BPD-0047	D6-472	CUB6D47	GP2-333-472	PT6247	6TM-D47	
C4	10		8G-19502	N750-S1 10	TCN-10	TN09	N750A-100	NT-541	5TCU-Q1	
C5	.047	200	8D-21823	BPD-05	DF-503	CUB2S47		PT4147	2TM-S47	
C6	47		8G-12198	N750-S147	TCN-47	TN14	N750K-470	NT-5447	5TCU-Q47	
C7	220	500	8N1-233	1464-00022	TCZ-220	22R5T22			MS-322	
C8	.022	200	8D-21822	BPD-02	DF-203	CUB4S22	817-02	PT4122	2TM-S22	
C9	.01	200	8D-21820	BPD-01	D6-103	CUB4S1	GP3-333-103	PT411	4TM-S1	
C10	.047	200	8D-21823	BPD-05	DF-503	CUB2S47		PT4147	2TM-S47	
C11	.0022	200	8D-21818	BPD-0022	D6-222	CUB6D22	GP2-333-222	PT6222	6TM-D22	
C12	.01	400	8D-21898	DPD-01	D6-103	CUB4S1	GP3-333-103	PT411	4TM-S1	
C13	20000		8G-23344	BPD-02	DD-203	K085	817-02	PT412	5HK-S2	
C14	.01	1000	8D-21836	P1088N-01	DD16-103	CUB16S1		PT1611	10TM-S1	
C15	.5	100	8D-24956	VHC36		ST-2P5		RF480	68P20	Note 1
C16	.5	100	8D-19810	VHC36		ST-2P5		RF480	68P20	
C17	.5	100	8D-19810	VHC36		ST-2P5		RF480	68P20	
C18	1000		8G-22721							

Note 1: Not used in model D4623A.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	TRUETONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1Meg	½	10A-26697	Fi-51	RTV-592C	♦QJ-1030A	UF16L	Tone (Panel) - Note 1
B	500K	½		R2-45			UR55-T254	Volume (Rear) Tap② 150K
C	Switch			KB-4			US-26	

Note 1: Part no. 9B1-78 used in model D4623A.
♦ Concentrikit Equivalent, Kit K-6, Base Elements and Shafts, B11-137, P13-118 (Panel) B13-133X, R1-130 (Rear) 76-1 Switch

RESISTORS

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

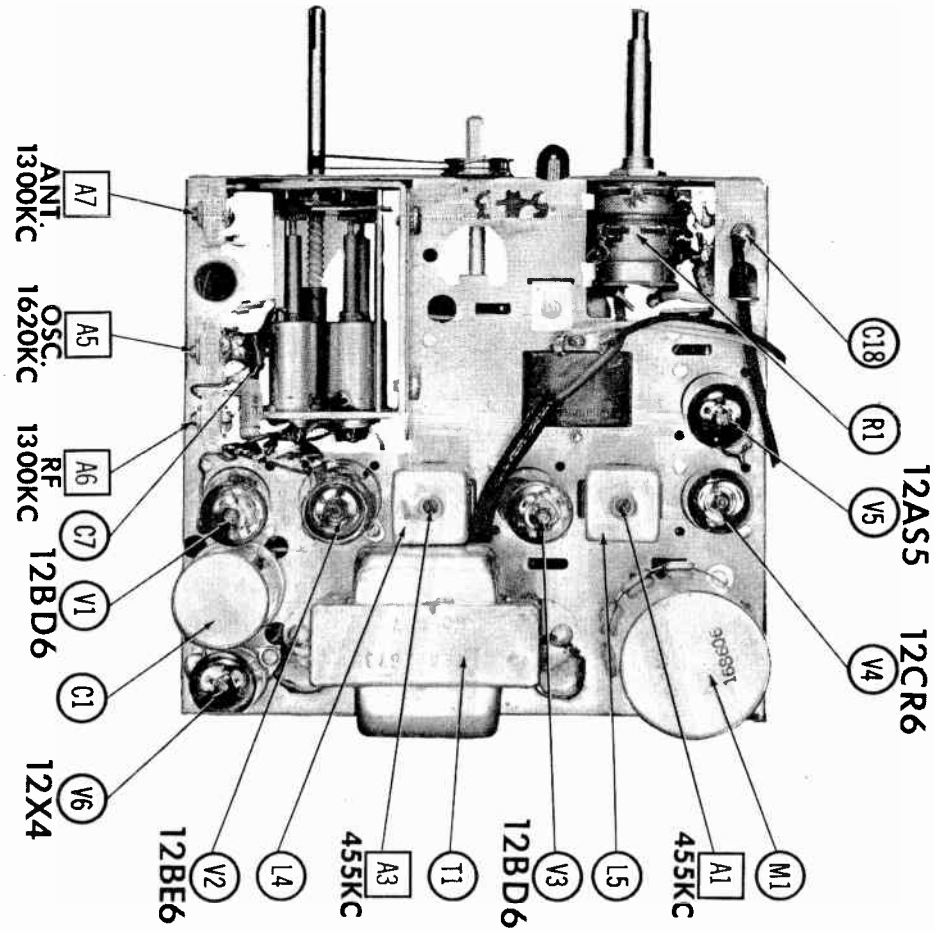
ITEM No.	RATING OHMS	RATING WATT	TRUETONE PART No.	IRC PART No.	NOTES
R2	1Meg		9B1-98	BTS-1Meg	
R3	220Ω		9B1-54	BTS-220	
R4	1Meg		9B1-98	BTS-1Meg	
R5	1Meg		9B1-98	BTS-1Meg	
R6	47K		9B1-82	BTS-47K	
R7	220Ω		9B1-54	BTS-220	
R8	22K		9B1-78	BTS-22K	
R9	2.2Meg		9B1-102	BTS-2.2Meg	
R10	1Meg		9B1-98	BTS-1Meg	
R11	220Ω		9B1-54	BTS-220	
R12	1200Ω	2	9B4-63	BTB-1200	
R13	4700Ω		9B1-70	BTS-4700	
R14	150Ω	1	9B2-52	BTA-150	Note 1
R15	150Ω	1	9B2-52	BTA-150	Note 1

Note 1: In model D4623A a 56Ω resistor is used in this application. (Part #9B1-47).

TRANSFORMER (VIBRATOR)

ITEM No.	RATING PRI.	RATING SEC. 1	RATING SEC. 2	RATING SEC. 3	TRUETONE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triad PART No.
T1	12.6V ② 2.08A	380VCT ② .072A			12A-26735					

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI.	IMPEDANCE SEC.	REPLACEMENT DATA: TRUETONE PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triad PART No.	NOTES
T2	4600Ω	3-4Ω	12C-21731						

SPEAKER

ITEM No.	TYPE SIZE	TYPE FIELD	TYPE V. C. IMP.	REPLACEMENT DATA: TRUETONE PART No.	QUAM PART No.	NOTES
SP1	4" X 6"	PM	3-4Ω	18A-26778	46A07	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA: TRUETONE PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	NOTES
L1	Ant. Coil					Note 1
L2	RF Coil					Note 1
L3	Osc. Coil					Note 1
L4	Input IF	13B-17731	16-6758	BC-352	12-C1	
L5	Output IF	13B-17731	16-6758	BC-353	12-C2	
L6	RF Choke	20I-22128	19-3500		6138	473 Microhenries
L7	Fil. Choke	16M-19921				Note 2
L8	Vib. Hash Choke	16M-19921				Note 2

Note 1: Complete assembly part #13F-21922-1.
Note 2: Part no. 16M-24001 used in model D4623A.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	TRUETONE PART No.	REPLACEMENT DATA	
K1	Diode RF Filter	100MMF, 100MMF, 47K	20I-15005	Aerovox	PA-97-1
				Centralab	PC-50
				Cornell-Dubilier	111TM1
				Erie	1403-01
				Sprague	D-1
K2	Audio Coupling Net.	10000MMF, 250MMF, 500K, 250K	17A-26694	Aerovox	PA-112-4
				Centralab	PC-81
				Cornell-Dubilier	113TM2
				Erie	1404-02
				Sprague	T-2

VIBRATOR

ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA: TRUETONE PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	NOTES
M1	Interrupter	12.6V	115~	21B-24952	6301	G859	6301	Model D4624A
	Interrupter	6V	115~	21B-23296	5301	859	5301	Model D4623A

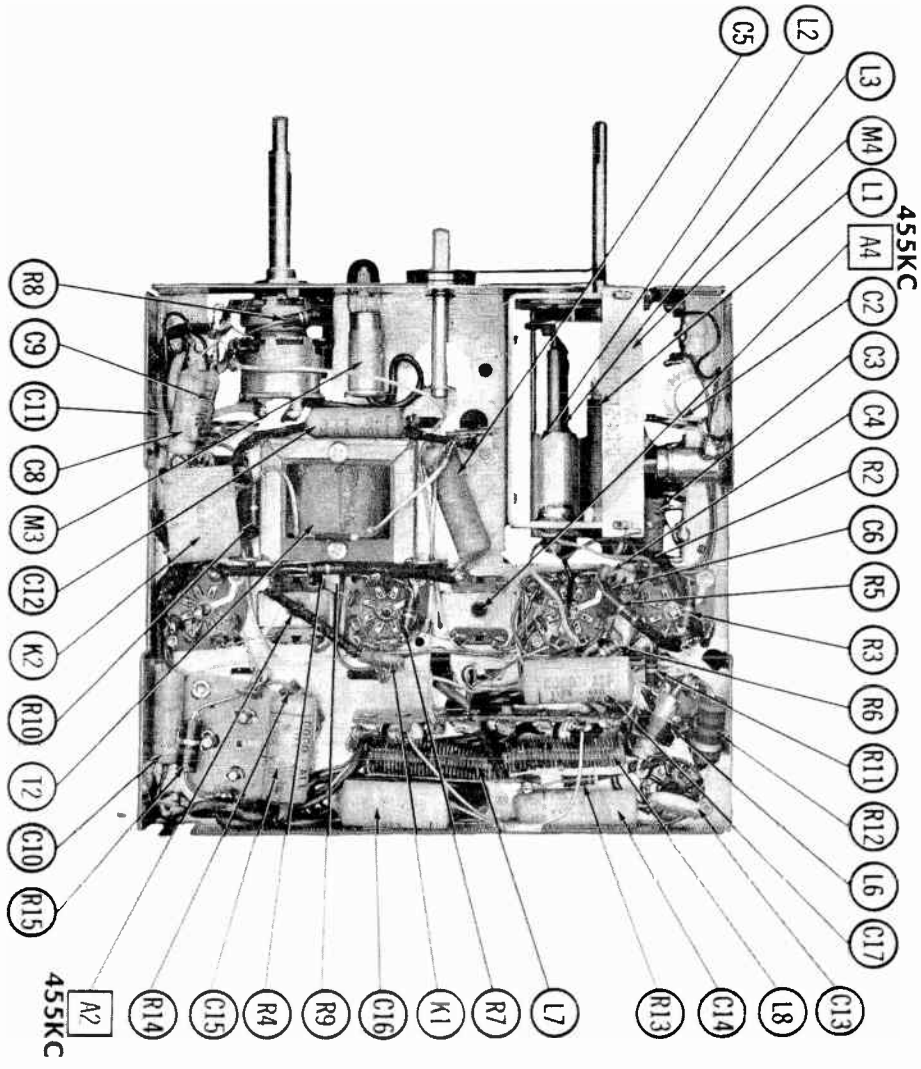
FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA: TRUETONE PART No. FUSE	TRUETONE PART No. HOLDER	LITTELFUSE PART No. FUSE	LITTELFUSE PART No. HOLDER	BUSS PART No. FUSE	BUSS PART No. HOLDER
M2	SFE	14A	46B-17993		307014. (SFE-14A)	155014	SFE 14	HRI

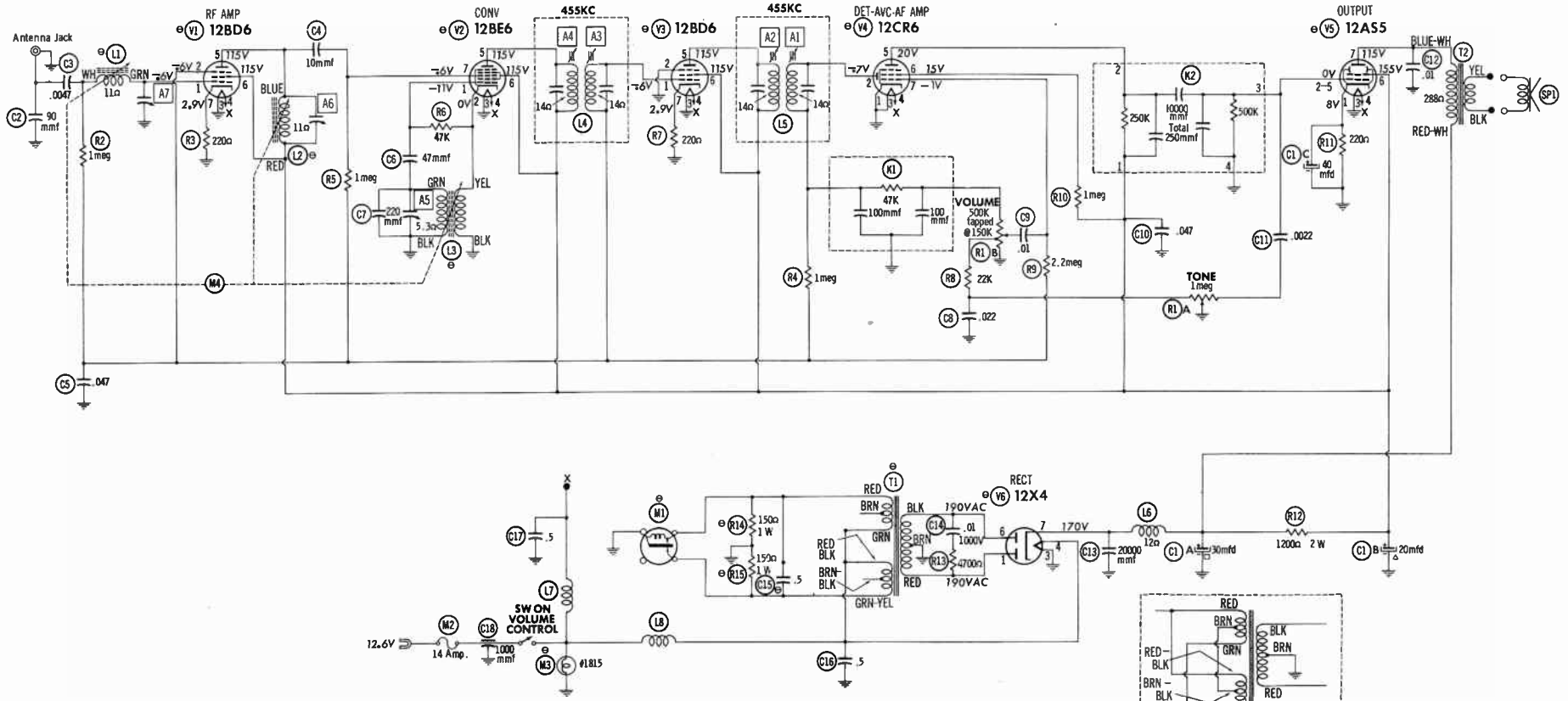
MISCELLANEOUS

ITEM No.	PART NAME	TRUETONE PART No.	NOTES
M3	Dial Light	48A-22534	#1815. Model D4624A.
	Dial Light	46A-11739	#44. Model D4623A.
M4	Tuner	13F-21922-1	Permeability (Complete). Includes L1, L2 & L3.
A5	Trimmer Cap.	8E-21728	Osc.
A6	Trimmer Cap.	8E-21728	RF
A7	Trimmer Cap.	8E-21728	Ant.
	Knob	200-26723	On-Off-Volume
	Knob	200-26724	Tuning
	Knob	5B-26700-A93	Tone
	Dial Scale	5M-21796-A116	

CHASSIS—BOTTOM VIEW



TRUETONE MODEL D4623A



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6volts for voltage readings.
5. Nominal tolerance on components values makes possible a variation of ± 15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BD6	2.5Meg	1.5Meg	0Ω	1Ω	†1200Ω	†1200Ω	220Ω
V2	12BE6	47K	.5Ω	0Ω	1Ω	†1200Ω	†1200Ω	2.5Meg
V3	12BD6	1.5Meg	0Ω	0Ω	1Ω	†1200Ω	†1200Ω	220Ω
V4	12CR6	0Ω	550K	0Ω	1Ω	†250K	†1Meg	3.7Meg
V5	12AS5	220Ω	500K	0Ω	1Ω	500K	†1200Ω	†300Ω
V6	12X4	200Ω	NC	0Ω	1Ω	NC	180Ω	50K

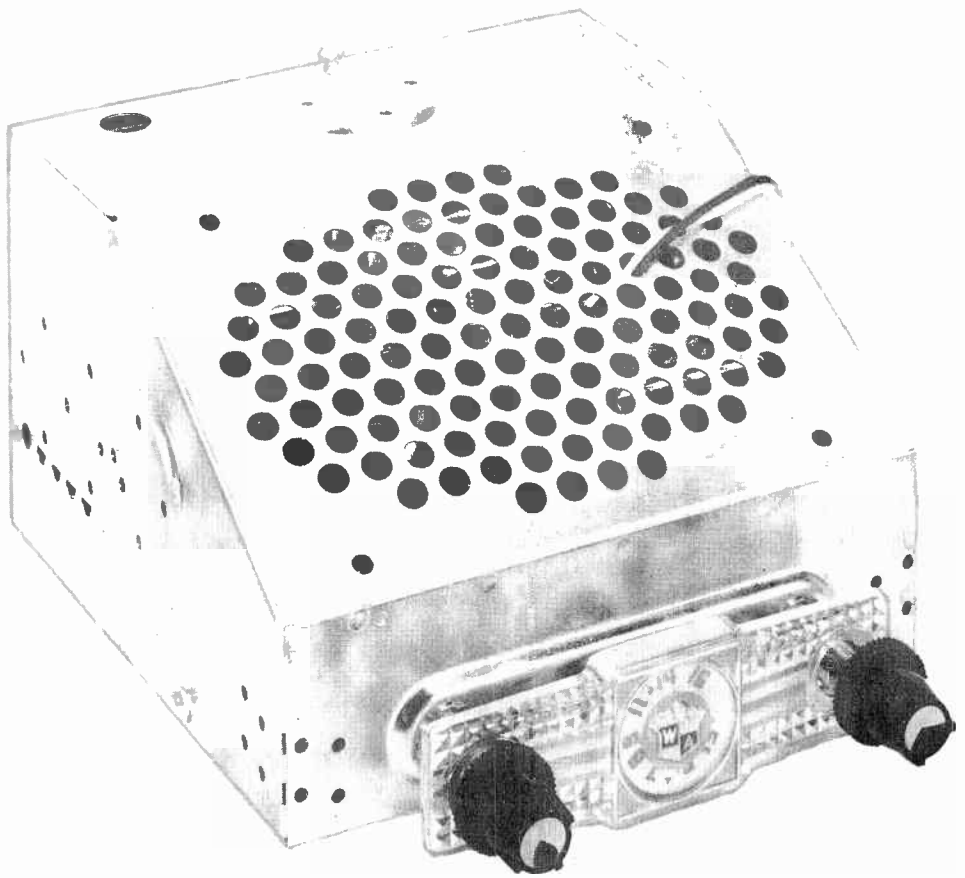
† MEASURED FROM PIN 7 OF V6.
NC NO CONNECTION

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

⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

T1 CONNECTIONS FOR 6 VOLT OPERATION (MODEL D4023A)

A PHOTOFACT STANDARD NOTATION SCHEMATIC



TRADE NAME	Truetone Models D4625A (6 Volt), D4626A (12 Volt)
SUPPLIER	Western Auto Supply Co., 2107 Grand Ave., Kansas City, Mo.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver
TUBES	Eight
POWER SUPPLY	12 Volt Storage Battery (Model D4626A) RATING 4.5Amp. @ 12.6Volts DC (Model D4626A) 6 Volt Storage Battery (Model D4625A) 9Amp. @ 6Volts DC (Model D4625A)
TUNING RANGE—BROADCAST	540KC - 1620KC

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. Use an insulated alignment screwdriver for adjusting.
Tuner cores are preset and sealed by manufacturer; therefore core adjustment is not necessary.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.01MFD	High side to pin 7 (grid) of 12BE6 (V2). Low side to chassis.	455KC (400~ Mod)	Tuning control fully counter-clockwise. (Cores out.)	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output.
2.	"	"	1620KC	"	"	A5	"
3.	50MMF	High side thru dummy to antenna receptacle. Low side to chassis.	1400KC	Tune to 1400KC signal.	"	A6, A7	"

TRUETONE MODELS
D4625A, D4626A

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

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BD6	Note 1
V2	Converter	12BE6	Note 1
V3	IF Amplifier	12BD6	Note 1
V4	Det-AVC-AF Amp.	12CR6	Note 1
V5	Phase Inverter	6C4	
V6	Output	12AS5	Note 1
V7	Output	12AS5	Note 1
V8	Rectifier	12X4	Note 1

Note 1: Equivalent 6Volt type tubes used in model D4625A.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA TRUETONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■30	200	8C-23993	AFH3-86-50	CO630	FP318.3		T-320	TVL-3464
B	▲20	200							
C	40	25							

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 CAP.	RATING VOLT	REPLACEMENT DATA TRUETONE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C2	90		8F-21949							
C3	.0047	200	8D-21819	BPD-0047	D6-472	CUB6D47	GP2-333-472	PT6247	6TM-D47	
C4	10		8G-19502	N750-SI 10	TCN-10	TN09	N750A-100	NT-541	5TCU-Q1	
C5	.047	200	8D-21823	BPD-05	DF-503	CUB2S47		PT4147	2TM-S47	
C6	47		8G-12198	N750-SI47	TCN-47	TN14	N750K-470	NT-5447	5TCU-Q47	
C7	220	500	8N1-233	NP0-SI220	TCZ-220	22R5T22	NP0-335-221		MS-322	
C8	.022	200	8D-21822	BPD-02	DF-203	CUB4S22	817-02	PT4122	2TM-S22	
C9	.01	200	8D-21820	BPD-01	D6-103	CUB4S1	GP3-333-103	PT411	4TM-S1	
C10	.047	200	8D-21823	BPD-05	DF-503	CUB2S47		PT4147	2TM-S47	
C11	.0022	200	8D-21818	BPD-0022	D6-222	CUB6D22	GP2-333-222	PT6222	6TM-D22	
C12	.022	200	8D-21822	BPD-02	DF-203	CUB4S22	817-02	PT4122	2TM-S22	
C13	.022	200	8D-21822	BPD-02	DF-203	CUB4S22	817-02	PT4122	2TM-S22	
C14	.0022	600	8D-23996	BPD-0022	D6-222	CUB6D22	GP2-333-222	PT6222	6TM-D22	
C15	.01	1000	8D-21836	P1088N-01	DD16-103	CUB16S1		PT1611	10TM-S1	
C16	.047	400	8D-21831	BPD-05	DF-503	CUB4S47		PT4147	4TM-S47	
C17	.5	100	8D-19810	VHC36		ST2P5		RF480	68P20	Note 1
C18	.5	100	8D-24956	VHC36		ST2P5		RF480	68P20	
C19	1000		8G-22721							
C20	.5	100	8D-19810	VHC36		ST2P5		RF480	68P20	

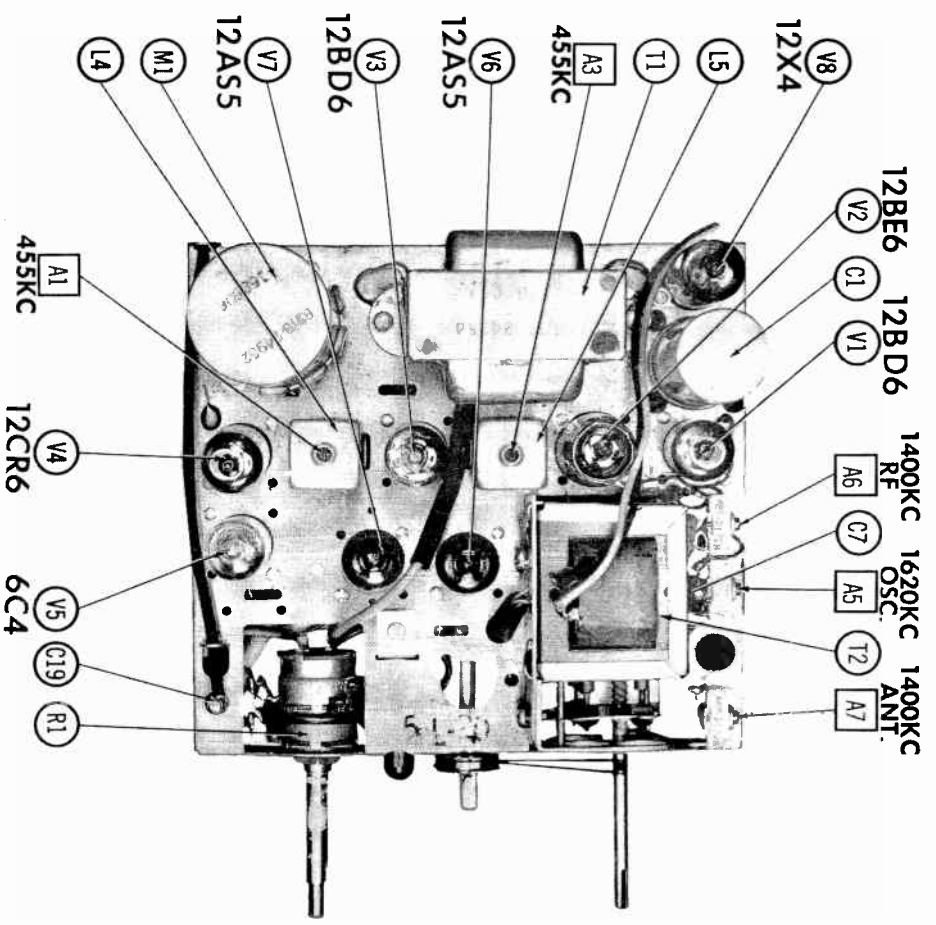
Note 1. Not used in model D4625A.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA TRUETONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1Meg		B10A-26697	F1-51	RTV-592C	*QJ-1030A	UF16L	Tone (Panel)
B	500K			R2-45			UR55-T254	Volume, Tap @ 150K (Rear)
C	Switch			KB-4			US-26	Attach to R1B

*Concentrikit Equivalent: Kit K-6, Base Elements & Shafts, B11-137 & P13-118 (Panel)
B13-133X & R1-130 (Rear)
76-1 (Switch)

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING		REPLACEMENT DATA		NOTES
	OHMS	WATT	TRUETONE PART No.	IRC PART No.	
R2	1Meg		9B1-96	BTS-1Meg	
R3	220Ω		9B1-54	BTS-220	
R4	1Meg		9B1-96	BTS-1Meg	
R5	1Meg		9B1-96	BTS-1Meg	
R6	47K		9B1-62	BTS-47K	
R7	220Ω		9B1-54	BTS-220	
R6	22K		9B1-21	BTS-22K	
R9	2.2Meg		9B1-102	BTS-2.2Meg	
R10	1Meg		9B1-96	BTS-1Meg	
R11	56K 5%		9B1-201	BTS-56K 5%	
R12	51K 5%		9B1-200	BTS-51K 5%	
R13	3300Ω 5%		9B1-171	BTS-3300 5%	
R14	470K		9B1-94	BTS-470K	
R15	470K		9B1-94	BTS-470K	
R16	200Ω 5%	1	9B2-142	BTA-200 5%	
R17	1200Ω	2	9B4-63	BTB-1200	
R16	4700Ω		9B1-70	BTS-4700	
R19	150Ω	1	9B2-52	BTA-150	Note 1
R20	150Ω	1	9B2-52	BTA-150	Note 1
R21	39Ω 5%	1	9B2-125	BTA-39 5%	Note 2

Note 1. Model D4625A uses 56Ω in this application. (Part #9B1-47)
Note 2. Not used in model D4625A.

TRANSFORMER (VIBRATOR)

ITEM No.	RATING				REPLACEMENT DATA					
	PRI.	SEC. 1	SEC. 2	SEC. 3	TRUETONE PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triod PART No.
T1	12.6VCT @2.08A	365VCT @.074A			12A-24954					

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
	PRI.	SEC.	TRUETONE PART No.	Holldorson PART No.	Merit PART No.	Stoncor PART No.	Thordorson PART No.	Triad PART No.	
T2	5500Ω CT	3-4Ω	12C-24015	Z1002 ①	A-2901 ①	A-3652 ①	24S61 ①	S-53X ①	① Bend ears down to fit.

SPEAKER

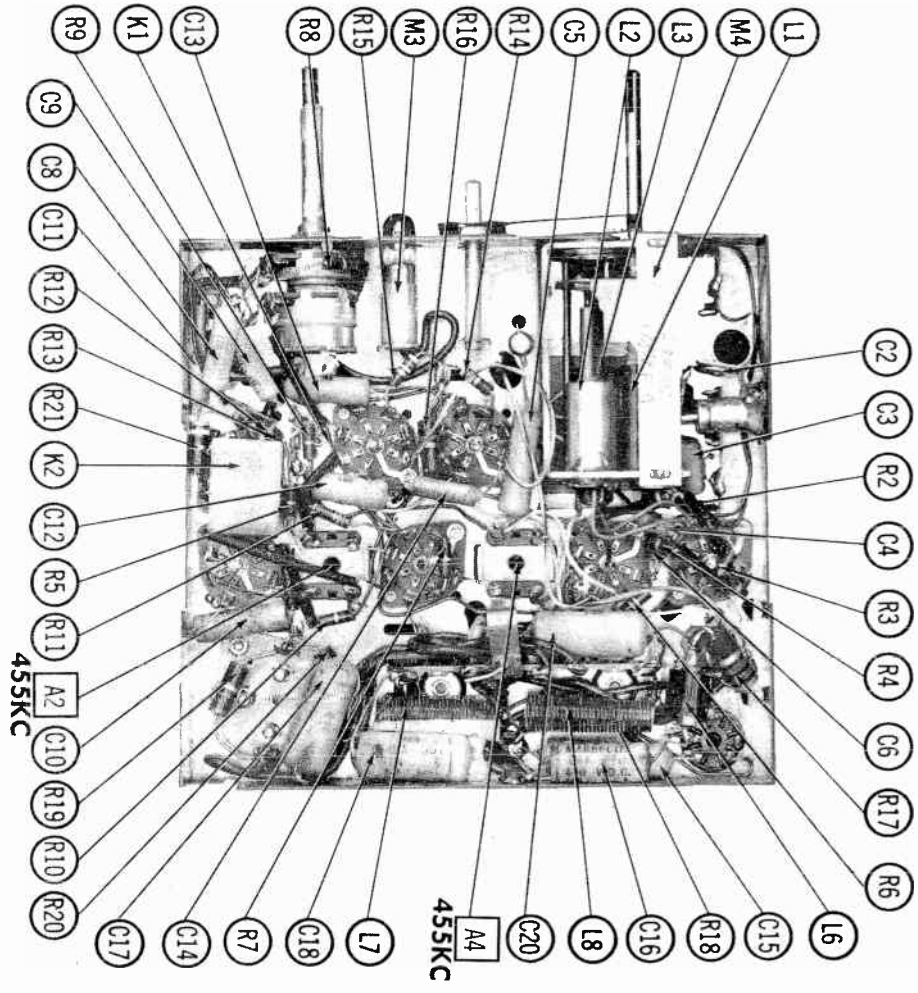
ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	SIZE	FIELD	V. C. IMP.	TRUETONE PART No.	QUAM PART No.	RCA TYPE No.	
SP1	6" X 9"	PM	3-4Ω	18A-24035	69A2	236S1	

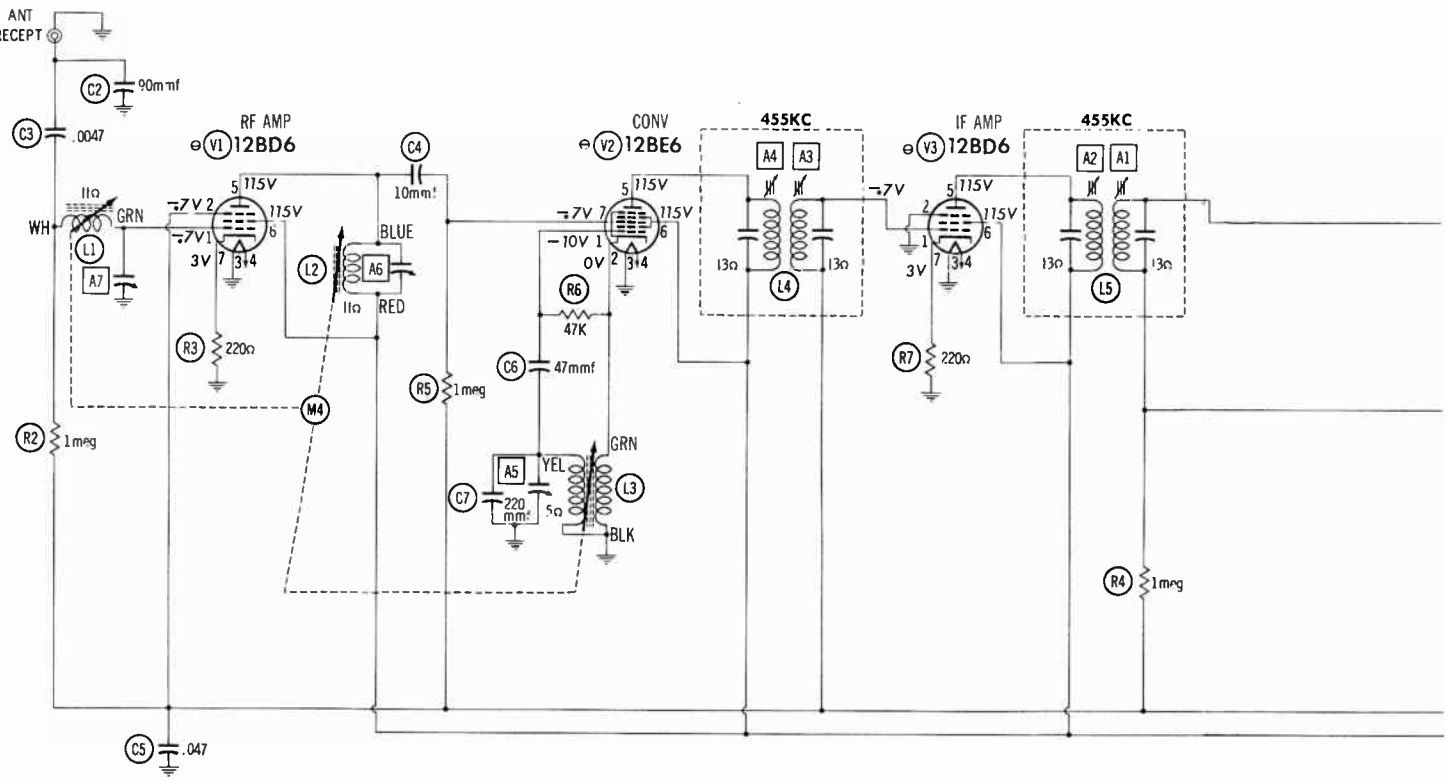
COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA				NOTES
		PRI.	SEC.	TRUETONE PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	
L1	Ant. Coil	1Ω						Note 1
L2	RF Coil	1Ω						Note 1
L3	Osc. Coil	.5Ω	5Ω					Note 1
L4	Input IF	13Ω	13Ω	13B-17731	16-6756	BC-352	12-C1	
L5	Output IF	13Ω	13Ω	13B-17731	16-6758	BC-353	12-C2	
L6	RF Choke	18Ω		16A-24018				
L7	Fil. Choke	.1Ω		16M-19921				
L8	Vib. Hash Choke	.1Ω		16M-19921				

Note 1. Complete assembly part #13F-21922-1.

CHASSIS—BOTTOM VIEW





RESISTANCE READINGS

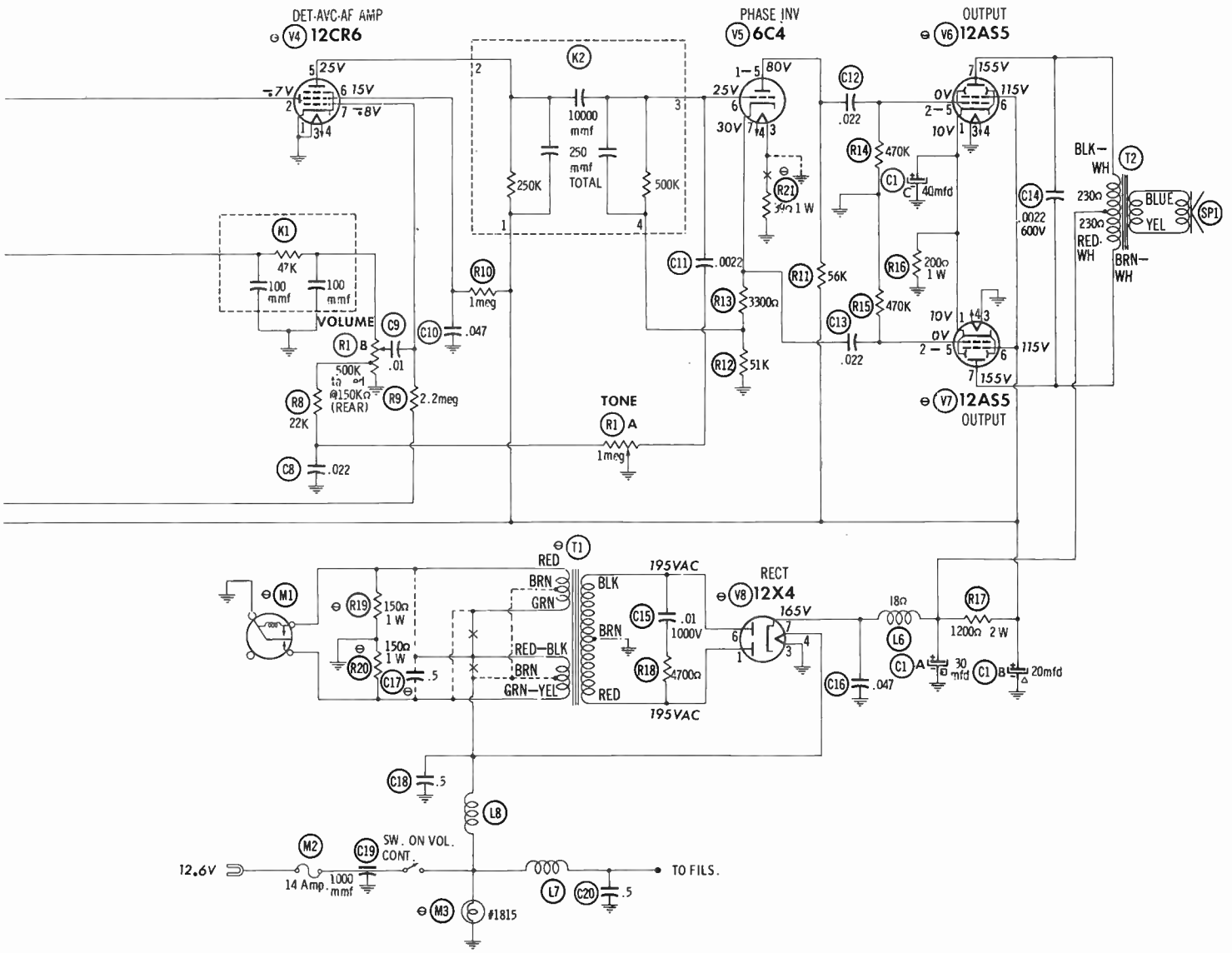
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BD6	2.5Meg	1.5Meg	0Ω	.9Ω	†1200Ω	†1200Ω	220Ω
V2	12BE6	47K	.5Ω	0Ω	.9Ω	†1200Ω	†1200Ω	2.5Meg
V3	12BD6	1.5Meg	0Ω	0Ω	.9Ω	†1200Ω	†1200Ω	220Ω
V4	12CR6	0Ω	550K	0Ω	.9Ω	†250K	†1Meg	3.7Meg
V5	6C4	†56K	NC	.9Ω	10Ω	†56K	550K	53K
V6	12AS5	200Ω	470K	0Ω	.9Ω	470K	†1200Ω	†250Ω
V7	12AS5	200Ω	470K	0Ω	.9Ω	470K	†1200Ω	†250Ω
V8	12X4	150Ω	NC	0Ω	.9Ω	NC	130Ω	100K

† MEASURED FROM PIN 7 OF V8.
NC NO CONNECTION

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

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFACT STANDARD NOTATION SCHEMATIC



1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on components values makes possible a variation of ± 15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS (Continued)

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	TRUETONE PART No.	REPLACEMENT DATA	
K1	Detector RF Filter	100MMF, 100MMF, 47K	201-15005	Aerovox	PA-97-1
				Centralab	PC-50
				Cornell-Dubilier	111TM1
				Erie	1403-01
				Sprague	D-1
K2	Audio Coupling Net.	10000MMF, 250K, 500K	17A-26694	Aerovox	PA-112-4
				Centralab	PC-81
				Cornell-Dubilier	113TM2
				Erie	1404-02
				Sprague	T-2

VIBRATOR

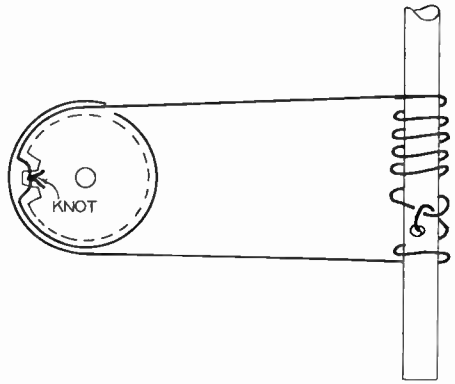
ITEM No.	TYPE	INPUT VOLTS	FREQUENCY	REPLACEMENT DATA				NOTES
				TRUETONE PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	RADIART PART No.	
M1	Interrupter	12.6V	115∿	21B-24952	6301	G859	6301	Model D4626A
	Interrupter	6V	115∿	21B-23296	5301	859	5301	Model D4625A

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			TRUETONE PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M2	SFE	14A	46B17993		307014. (SFE-14A)	155014	SFE14	HRI

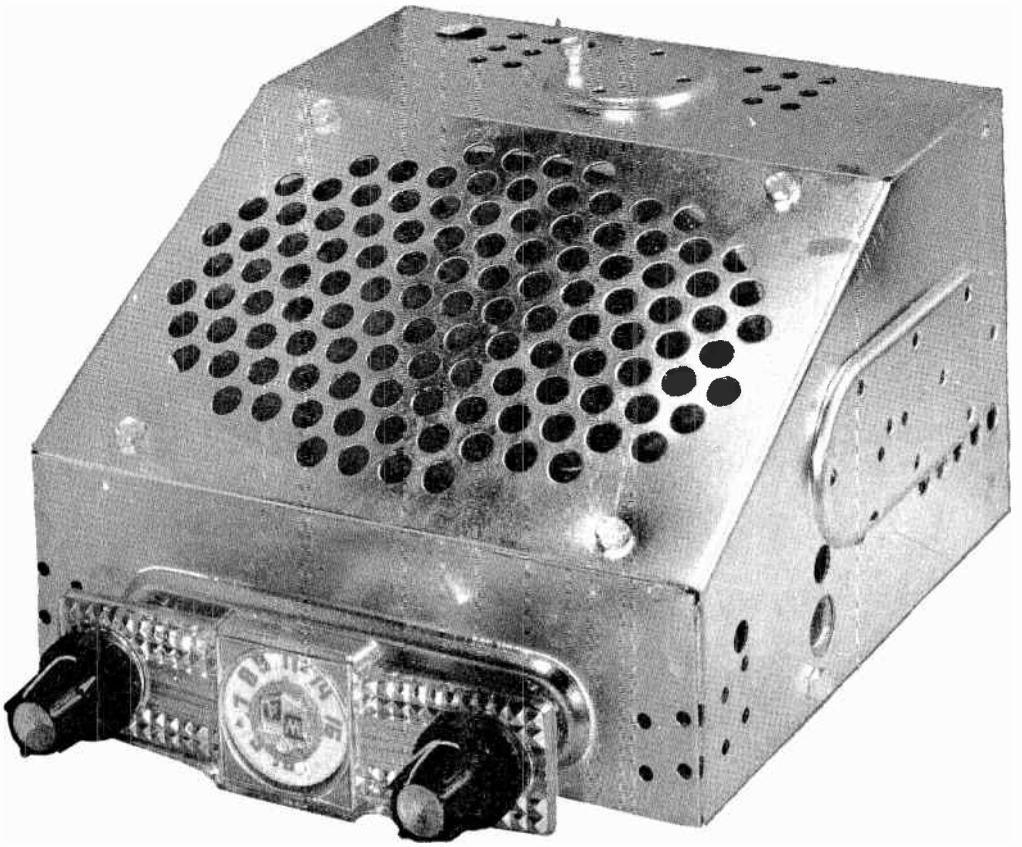
MISCELLANEOUS

ITEM No.	PART NAME	TRUETONE PART No.	NOTES
M3	Dial Light	46A-22534	#1815, Model D4626A
	Dial Light	46A-11739	#44, Model D4625A
M4	Tuner	13F-21922-1	Permeability (Complete) Includes L1, L2 and L3.
A5	Trimmer Cap.	8E-21728	Osc.
A6	Trimmer Cap.	8E-21728	RF
A7	Trimmer Cap.	8E-21728	Ant.
	Knob	200-26723	On-Off-Volume
	Knob	200-26724	Tuning
	Knob	5B-26700-A93	Tone
	Dial Scale	5M-21796-A118	



DIAL CORD STRINGING. TUNING SLUGS SET AT LOWEST FREQUENCY.

DIAL CORD STRINGING



TRADE NAME	Truetone Model D4826A
SUPPLIER	Western Auto Supply Co., 2107 Grand Ave., Kansas City, Mo.
TYPE SET	Battery Operated Universal Type AM Automobile Receiver With Transistorized Output
TUBES (Five)	Types 12BL6 RF Amplifier, 12AD6 Converter, 12BL6 IF Amplifier, 12AJ6 Det.-AVC-AF Amp., 12K5 Driver
POWER SUPPLY	12 Volt Storage Battery
RATING	1.6 Amp. @ 12.6 Volts DC
TUNING RANGE—BROADCAST	540KC-1605KC

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. Use an insulated alignment screwdriver for adjusting.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1.	.1MFD	High side to pin 7 (grid) of 12AD6 (V2). Low side to chassis.	455KC (400~ Mod)	High frequency end of dial	Across voice coil	A1, A2, A3, A4	Adjust for maximum output.
2.	"	"	1605KC	"	"	A5	"
3.	50MMF	Thru dummy to Antenna Receptacle. Low side to chassis.	1300KC	Tune to 1300KC signal	"	A6, A7	"

TRUETONE MODEL
D4826A

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	12BL6	
V2	Converter	12AD6	
V3	IF Amplifier	12BL6	

ITEM No.	USE	TYPE	NOTES
V4	Det. -AVC-AF Amp.	12AJ6	
V5	Driver	12K5	

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			CBS PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
X1	2N155	Output	2N155		2N155/2N176	Alternate Type: 2N176

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	TRUETONE PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	■500	15	245B002						
B	▲500	15							
C2	250	6	245A003	PRS6V250	BBR250-6	TC1502 TT6X50	TD-250-6	MTH-0625	TVA-1102

FIXED CAPACITORS

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

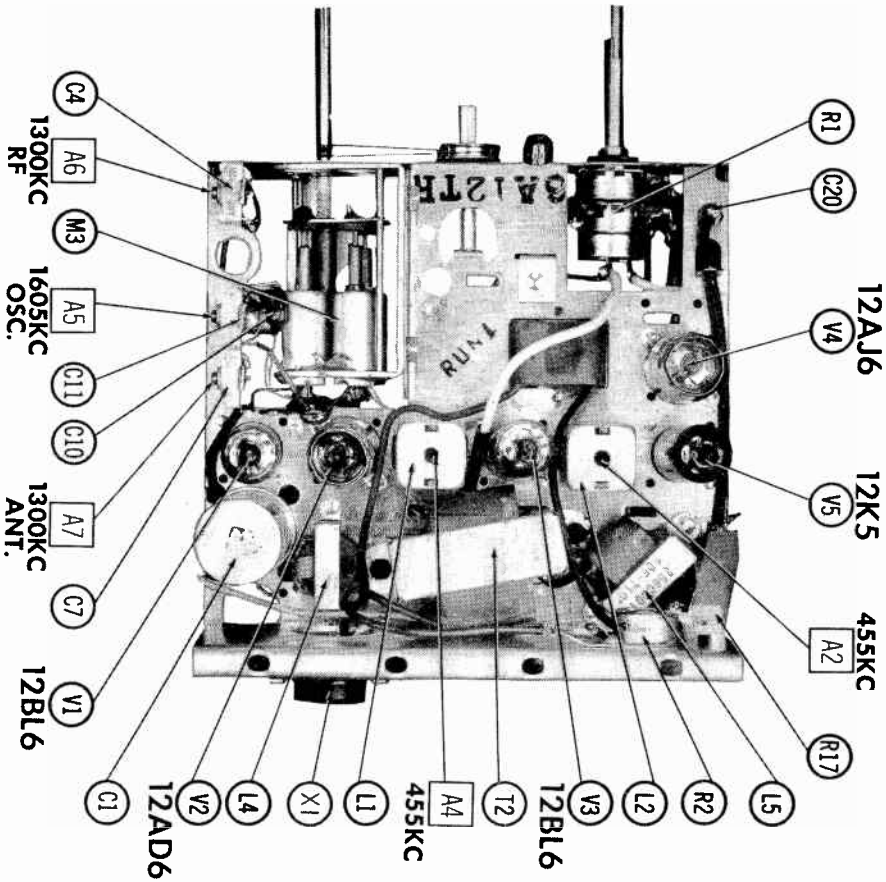
ITEM No.	RATING		REPLACEMENT DATA							NOTES
	CAP.	VOLT	TRUETONE PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C3	90		247A005							
C4	23-120		244A004							
C5	20		47X20UK200K	N750-SI 20	TCN-20	CTA6Q2U	TC7-20		5TCU-Q1	N750 10%
C6	. 047	200	46C618-473M2	P288N-047	DF-503	CUB2S47		GEM-4147	2TM-S47	
C7	23-120		244A004							
C8	10		47X20UK100K	N750-SI 10	TCN-10	CTA6Q1U	TC7-10	NT-541	5TCU-Q1	N750 10%
C9	47		47X25UK470K1D	N750-SI 47	TCN-47	CTA6Q47U	TC7-47	NT-5447	5TCU-Q47	N750 10%
C10	220	500	47X15E221K	1469-00022		22R5T22			MS-322	5%
C11	32-145		244A001							
C12	100		47X25UK101K	NP0-SI 100	D6-101	L10T1	ED-100	ZT-531	5TCC-T1	10%
C13	. 047	200	46C618-473M2	P288N-047	DF-503	CUB2S47		GEM-4147	2TM-S47	
C14	. 0022	200	46C618-222M2	P688N-0022	DD-222	CUB6D22	GP-2200	GEM-6222	6TM-D22	
C15	. 022	200	46C618-223M2	P288N-022	DD-203	CUB4S22		GEM-4122	2TM-S22	
C16	. 047	200	46C618-473M2	P288N-047	DF-503	CUB2S47		GEM-4147	2TM-S47	
C17	10000		47A224	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C18	220	500	47X15E221K	1469-00022		22R5T22			MS-322	5%
C19	. 5	100	246A001	P288N-5		CUB2P5		GEM-205	2TM-P5	
C20	1000		247B006	EF-001	MFT-1000				503C-D1	

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA					INSTALLATION NOTES
	RESISTANCE	WATTS	TRUETONE PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	
R1A	1Meg		225B005	F1-51	RTV-592C	♦QJ-1070A		Tone
B	500K			R2-47	Not Req.			Volume, Tap @ 50K
C	Switch			KB-1	Not Req.			
R2	15Ω	2	225B004					Bias Adjust (Wire Wound)

♦ Concentrikit Equivalent; K-6 Kit, Base Elements and Shafts: B11-137, P13-118 (Panel) B18-133X, R1-130 (Rear) 76-1 (Switch)

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS

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

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA TRUETONE PART No.	REPLACEMENT DATA IRC PART No.	NOTES
R3	470K		23X20X474K	BTS-470K	
R4	1500Ω		23X20X152K	BTS-1500	
R5	1Meg		23X20X105K	BTS-1Meg	
R6	6.8Meg		23X20X685K	BTS-6.8Meg	
R7	1Meg		23X20X105K	BTS-1Meg	
R8	47K		23X20X473K	BTS-47K	
R9	2.2Meg		23X20X225K	BTS-2.2Meg	
R10	15Meg		23X20X156K	BTS-15Meg	
R11	1Meg		23X20X105K	BTS-1Meg	
R12	2.2Meg		23X20X225K	BTS-2.2Meg	
R13	10Ω		23X20X100K		
R14	1Meg		23X20X105K	BTS-1Meg	
R15	1Meg		23X20X105K	BTS-1Meg	
R16	22K		23X20X223K	BTS-22K	
R17	160Ω	7	224B001		Note 1
R18	1Ω		24BX010E		

Note 1. Temperature compensating unit. Some versions may use 150Ω (Part #224A001).

TRANSFORMER (DRIVER)

ITEM No.	Turns Ratio PRI.	Turns Ratio SEC.	REPLACEMENT DATA TRUETONE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	NOTES
T1	8:	1	255C002						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI.	IMPEDANCE SEC.	REPLACEMENT DATA TRUETONE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.	NOTES
T2	31.5Ω	3-4Ω	255C003				TR-59 ①		① Tape center tap on primary.

SPEAKER

ITEM No.	TYPE SIZE	TYPE FIELD	TYPE V. C. IMP.	REPLACEMENT DATA TRUETONE PART No.	REPLACEMENT DATA QUAM PART No.	NOTES
SP1	4" X 6"	PM	3-4Ω	285B003	46A07	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA TRUETONE PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	NOTES
L1	Input IF	50C242	16-6758	BC-352	12-C1	
L2	Output IF	250C001				
L3	Fil. Choke	253A002				

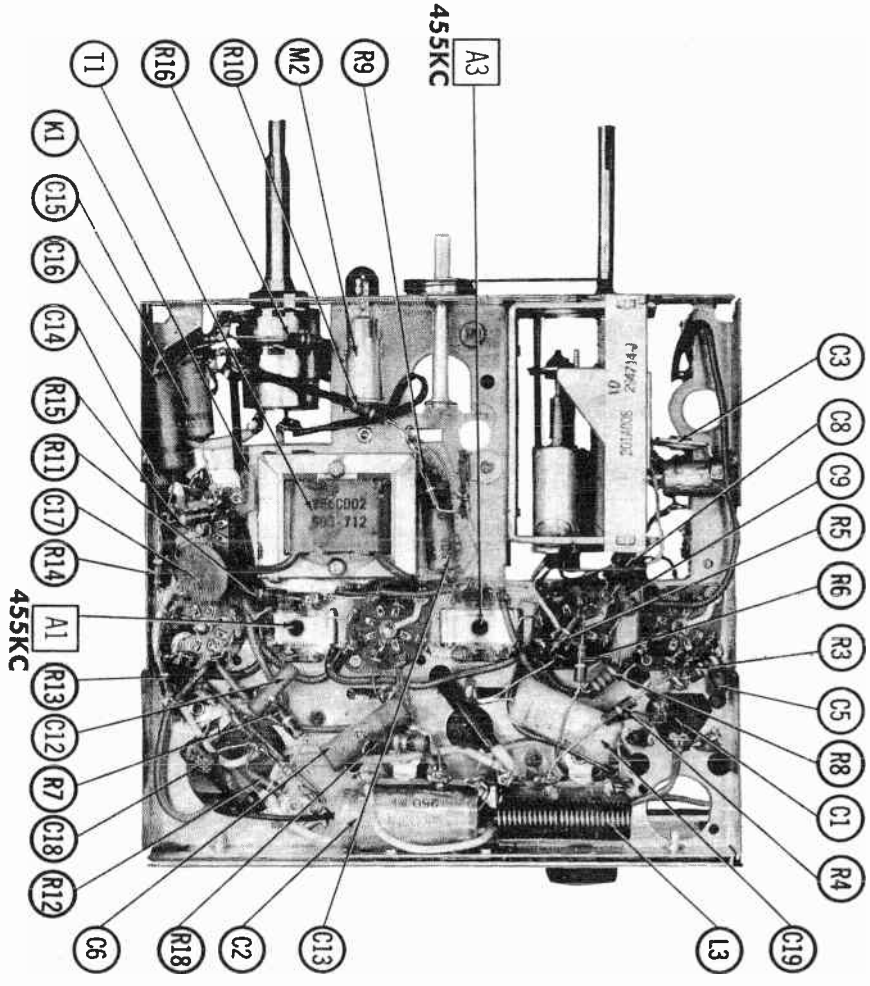
FILTER CHOKE

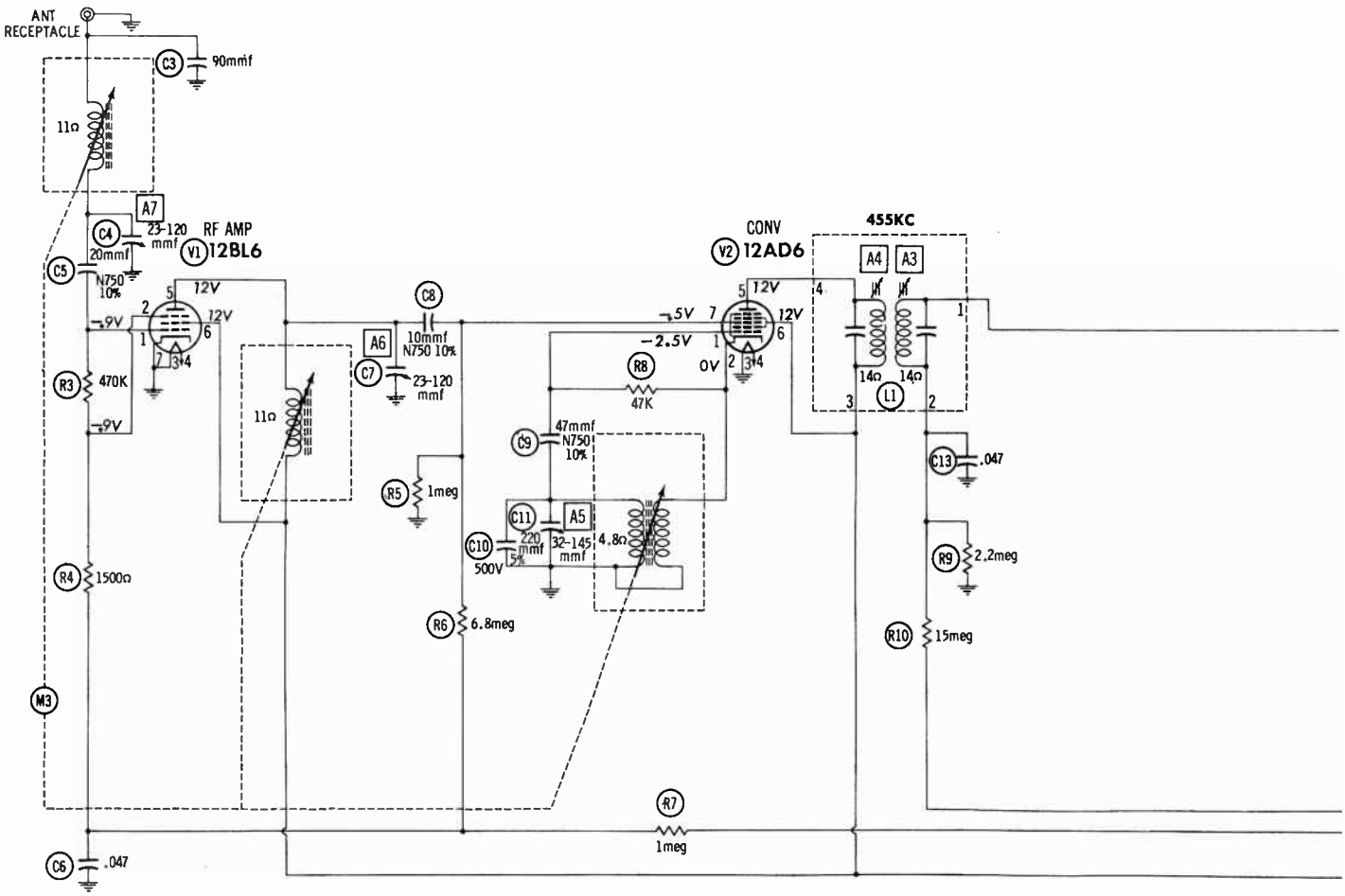
ITEM No.	RATINGS TOTAL DIRECT CURRENT	RATINGS D.C. RESISTANCE	RATINGS INDUCTANCE (0 CURRENT 1000 ~)	REPLACEMENT DATA TRUETONE PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordorson PART No.	Triod PART No.
L4	.022A	40Ω	1.1Hy	256B003					
L5	.500A	.7Ω	.010Hy	256C001					

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	TRUETONE PART No.	REPLACEMENT DATA
K1	Diode RF Filter	100MMF, 100MMF, 47K	49A016	Aerovox PA-97-1 Centralab PC-50 Cornell-Dubilier 111TM1 Erie 1403-01 Sprague D-1

CHASSIS—BOTTOM VIEW





RESISTANCE READINGS

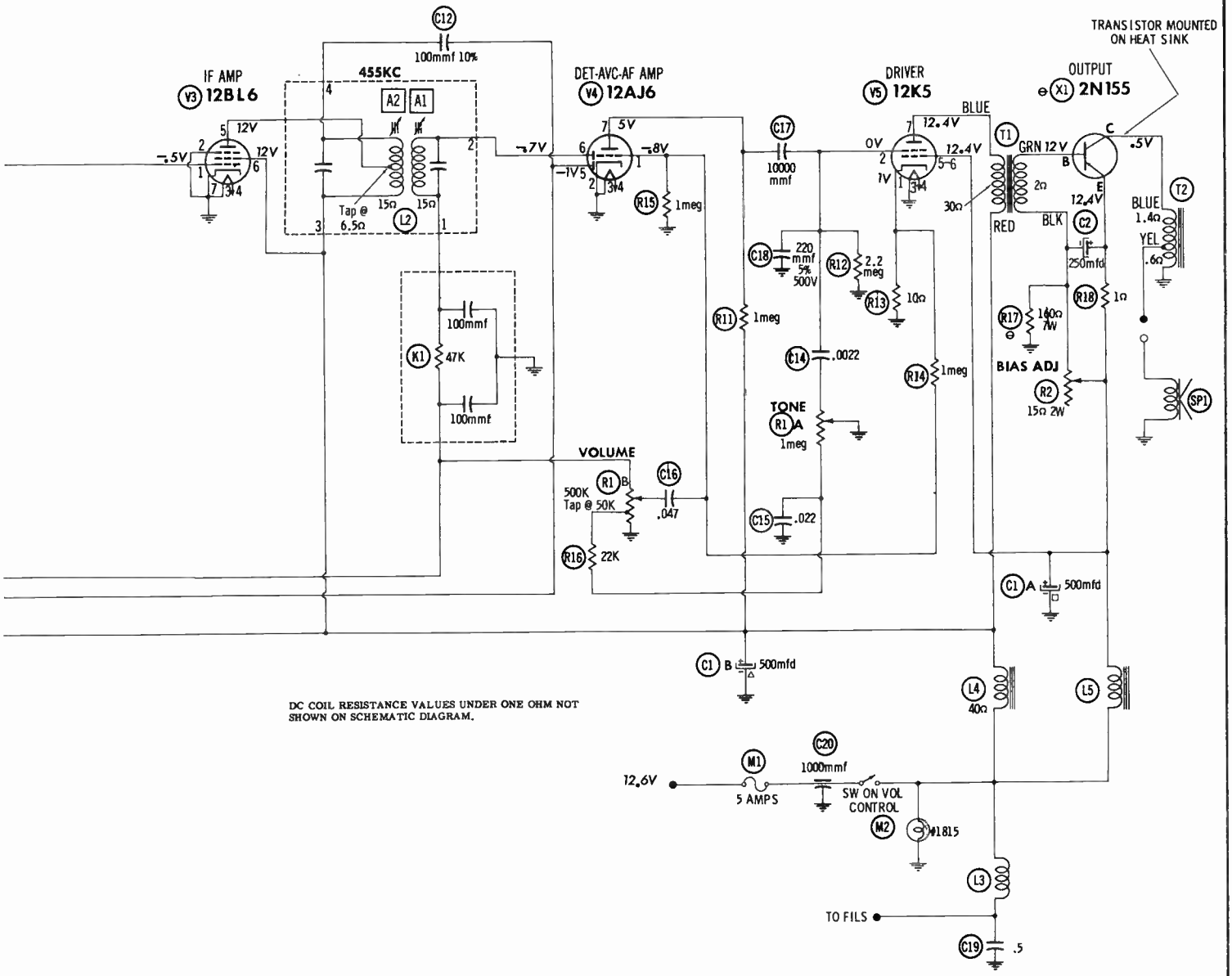
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7
V1	12BL6	8.2Meg	7.8Meg	0Ω	1.2Ω	† 51Ω	† 40Ω	0Ω
V2	12AD6	47K	.5Ω	0Ω	1.2Ω	† 54Ω	† 40Ω	1Meg
V3	12BL6	1.7Meg	0Ω	0Ω	1.2Ω	† 47Ω	† 40Ω	0Ω
V4	12BJ6	1Meg	0Ω	0Ω	1.2Ω	8.8Meg	500K	† 1Meg
V5	12K5	10Ω	2.2Meg	0Ω	1.2Ω	.4Ω	.4Ω	† 70Ω

TRANSISTOR RESISTANCE NOT TAKEN BECAUSE OF THE WIDE VARIATION IN INTERNAL TRANSISTOR RESISTANCE

† MEASURED FROM JUNCTION OF L4 & L5

Θ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

A PHOTOFACT STANDARD NOTATION SCHEMATIC
Howard W. Sams & Co., Inc. 1957



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

1. DC voltage measurements taken with vacuum tube voltmeter.
2. Socket connections shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Battery voltage maintained at 12.6 volts for voltage readings.
5. Nominal tolerance on component values makes posssible a variation of ±15% in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.

PARTS LIST AND DESCRIPTIONS (Continued)

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			TRUETONE PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG	5A32V	239A001		311005. (3AG 5A32V)	155020	AGC5	HDJ

MISCELLANEOUS

ITEM No.	PART NAME	TRUETONE PART No.	NOTES
M2	Dial Light	239A002	#1815
M3	Tuner	201A008	Complete Assembly

CABINETS & CABINET PARTS

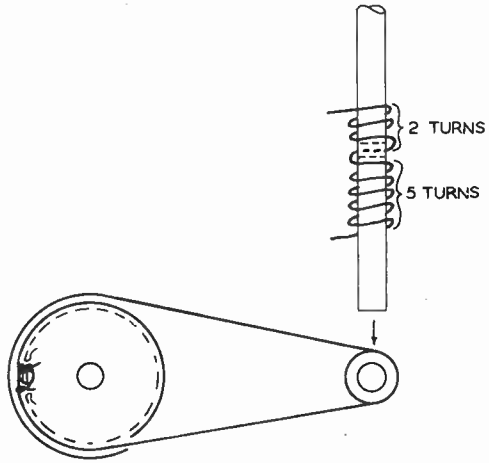
(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

NAME	PART NO.	DESCRIPTION
Knob	241A40008	On-Off-Volume
Knob	241A40009	Tuning
Knob	215B032	Tone
Escutcheon	207D038	
Dial Scale	283B001	

TRANSISTOR BIAS ADJUSTMENT (R2)

The transistor bias should be checked if the transistor is replaced or if associated circuits are repaired. The transistor should be at a temperature of approximately 70°F.

Connect a milliammeter in series with the collector lead of the transistor.
Connect a power source of 12.6 volts to the receiver. Allow the receiver to warm up.
Adjust the Transistor Bias Control (R2) for a reading of 400MA on the milliammeter.



DIAL CORD STRINGING

AUTO RADIO MANUAL

VOLUME 7

This manual contains complete PHOTOFACT service literature on 1956-57 auto radios produced under the following trade names:

ALLSTATE
BUICK
CADILLAC
CHEVROLET
FORD
INTERNATIONAL
LINCOLN
MERCURY
MOPAR
MOTOROLA
OLDSMOBILE
PACKARD
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HOWARD W. SAMS & CO., INC.
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