

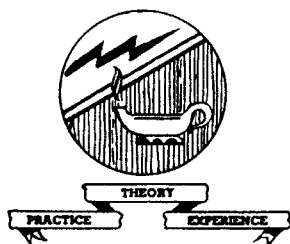
Most - Often - Needed

1940

RADIO
DIAGRAMS
and Servicing Information

Compiled by

M. N. BEITMAN



SUPREME PUBLICATIONS
CHICAGO

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

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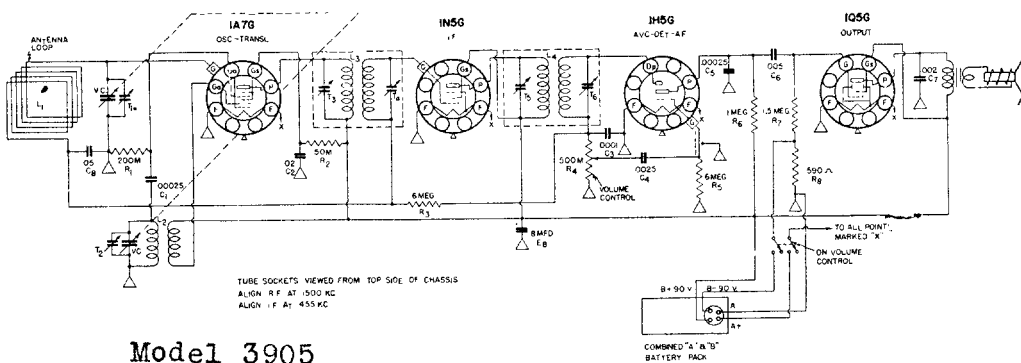
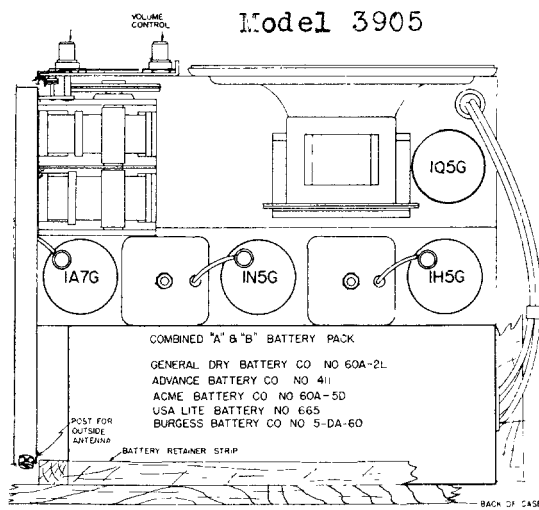
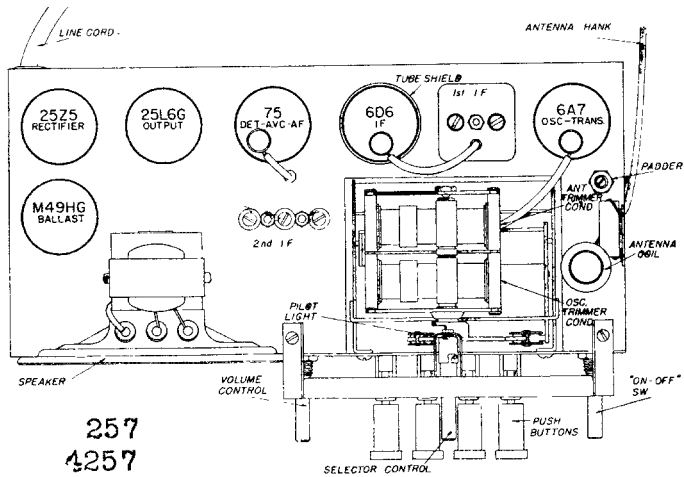
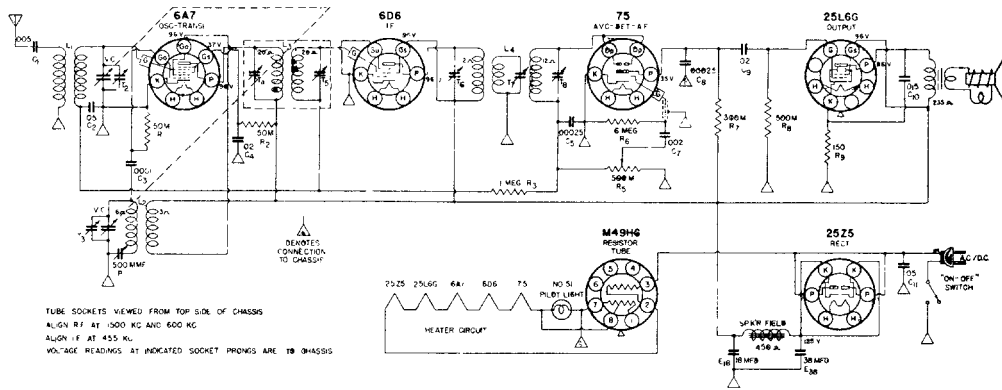
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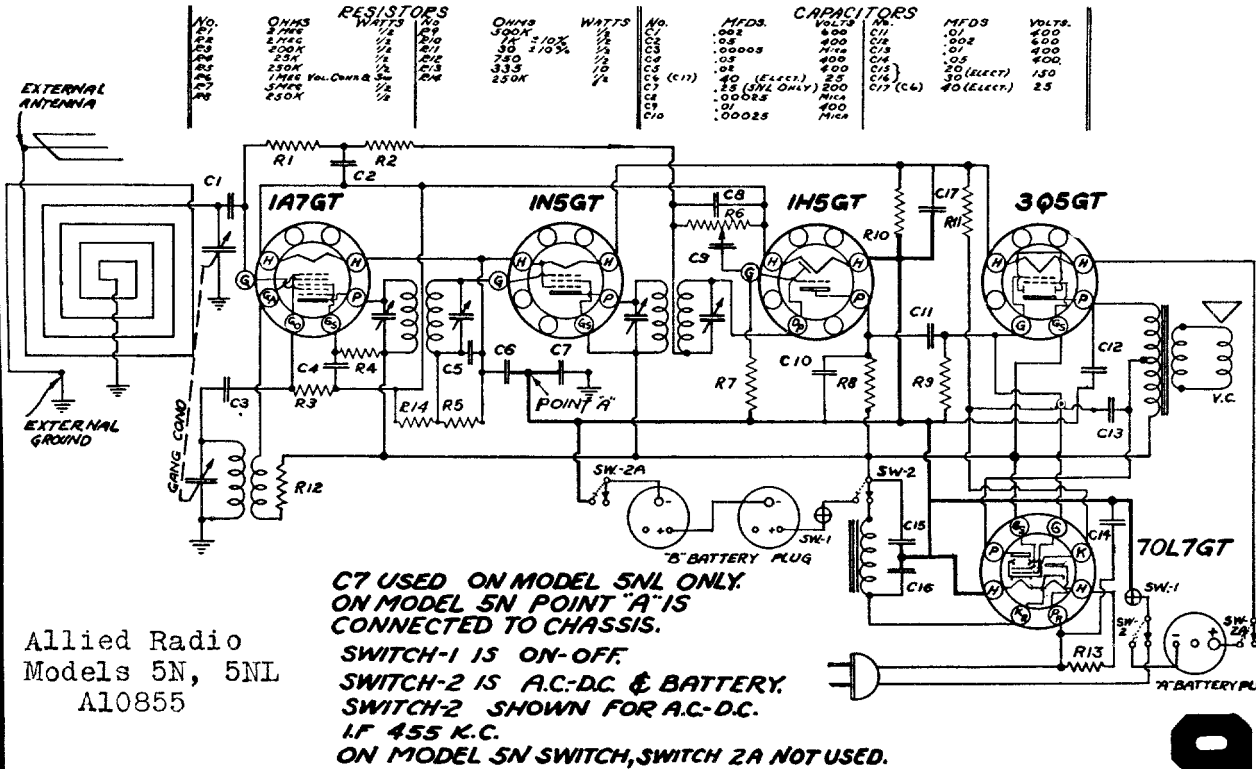
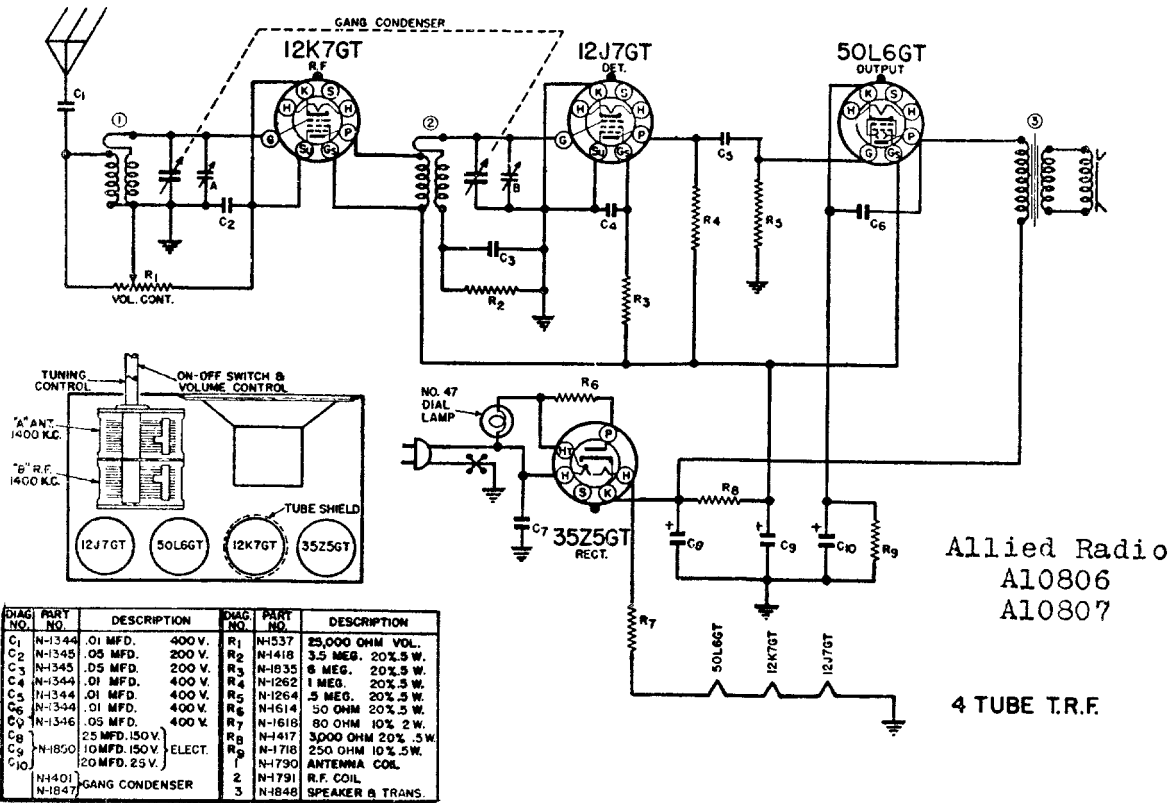
Air-King Products Co.

Models 257, 4257



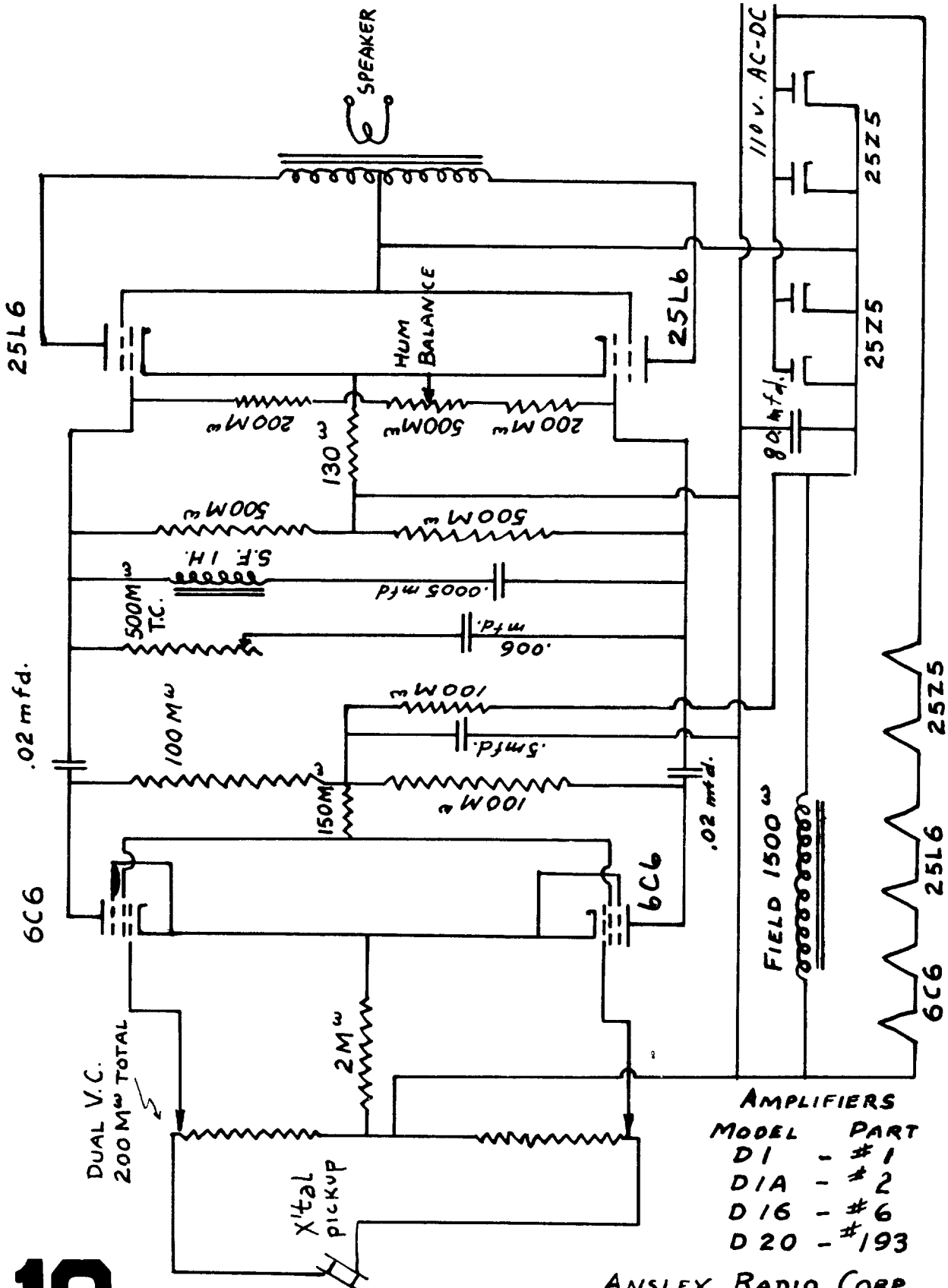
Model 3905

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



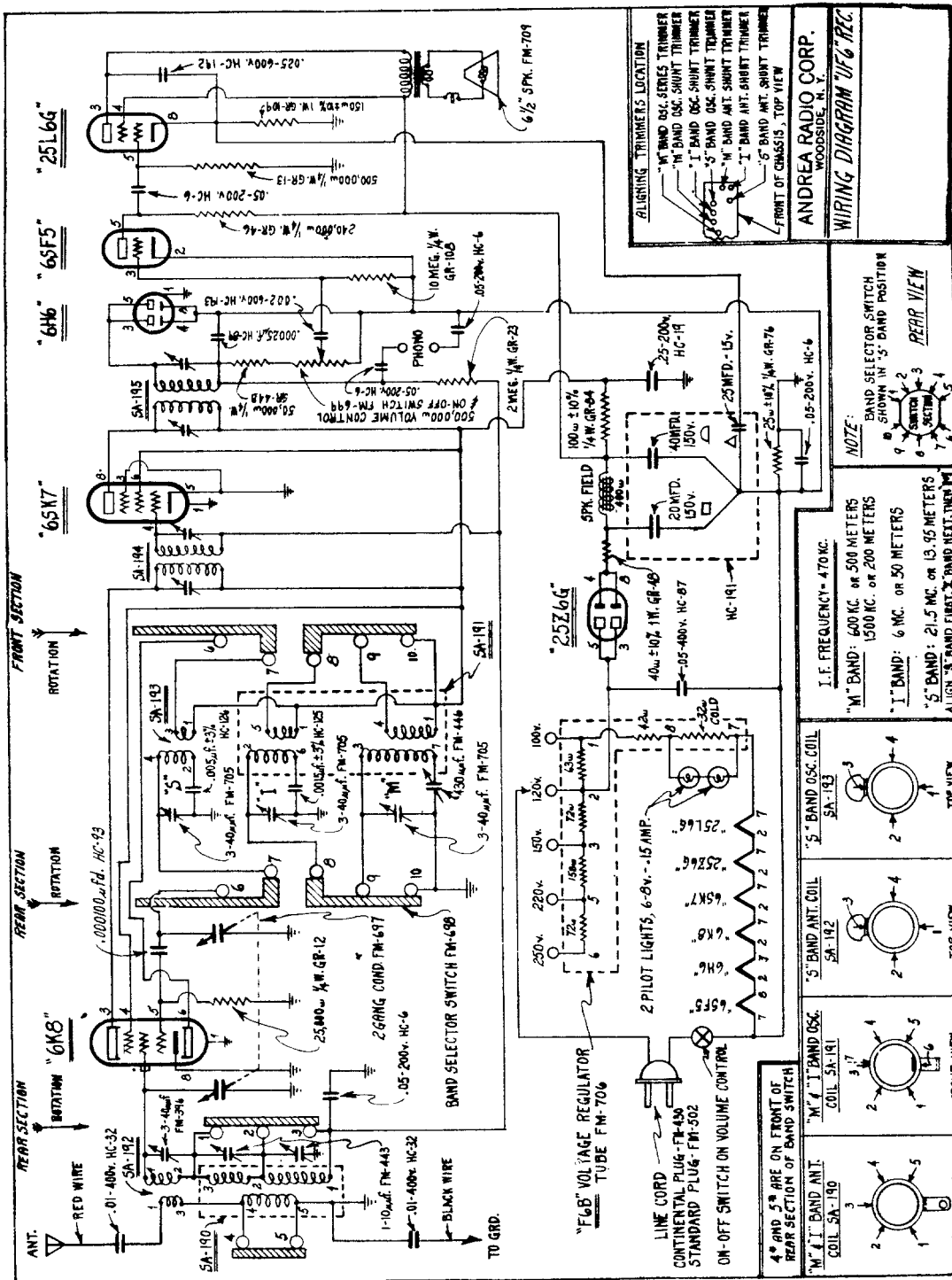
AMPLIFIERS

MODEL	PART
D1	- #1
D1A	- #2
D16	- #6
D20	- #193

ANSLEY RADIO CORP.

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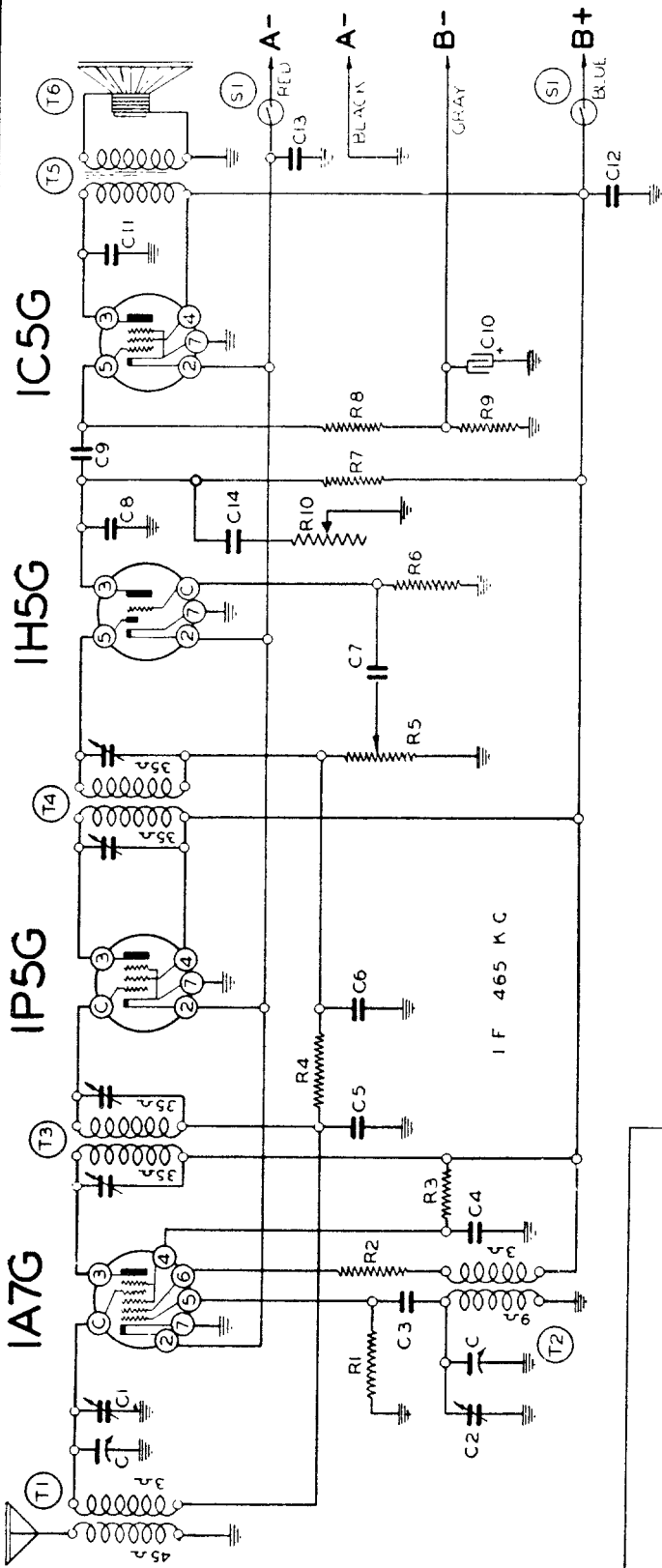
Andrea Radio



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Belmont Radio

Model 460



Circuit Ref.

Ref. No.	Part No.	Description
RESISTORS		
R1	130266	200M ohm— $\frac{1}{2}$ w.
R2	13018	4M ohm— $\frac{1}{2}$ w.
R3	1307	40M ohm— $\frac{1}{2}$ w.
R4	1304	3 megohm— $\frac{1}{2}$ w.
R5	101175	1 megohm volume control
R6	130257	5 megohm— $\frac{1}{2}$ w.
R7	1303	500M ohm— $\frac{1}{2}$ w.
R8	13019	1 megohm— $\frac{1}{2}$ w.
R9	130200	700 ohm— $\frac{1}{2}$ w.
R10	101119	Tone Control (1 Megohm)

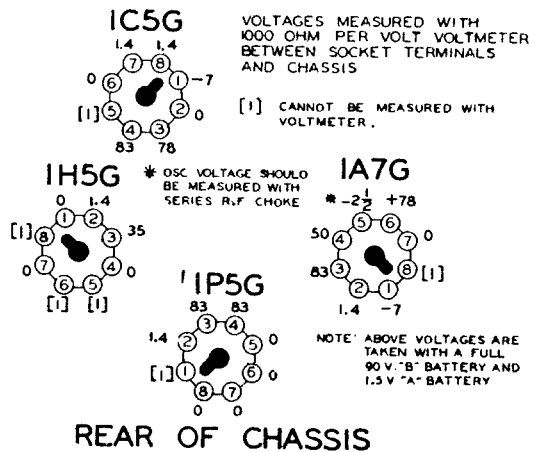
CONDENSERS

C	102110	2 gang variable condenser
C1		Antenna Trimmer on gang
C2		Oscillator trimmer on gang
C3	12912	.00025 mica
C4	1009	.05 x 200 v.
C5	1009	.05 x 200 v.
C6	1295	.0001 mica
C7	10012	.003 x 600 v.
C8	1295	.0001 mica
C9	10011	.01 x 400 v.
C10	11975	10 mfd. x 25 w. v.
C11	10012	.003 x 600 v.
C12	10064	.25 x 200 v.
C13	10020	.1 x 200 v.
C14	10025	.002 x 600 v.

PARTS

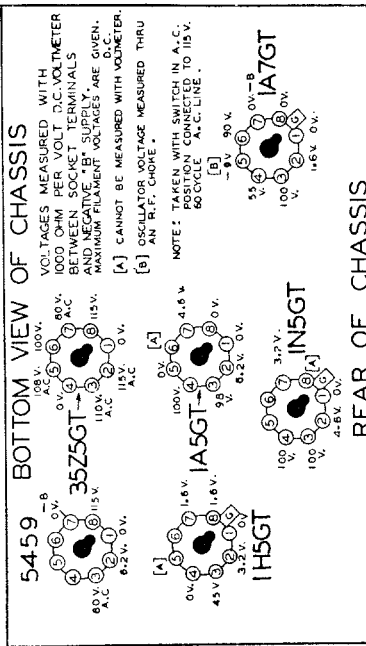
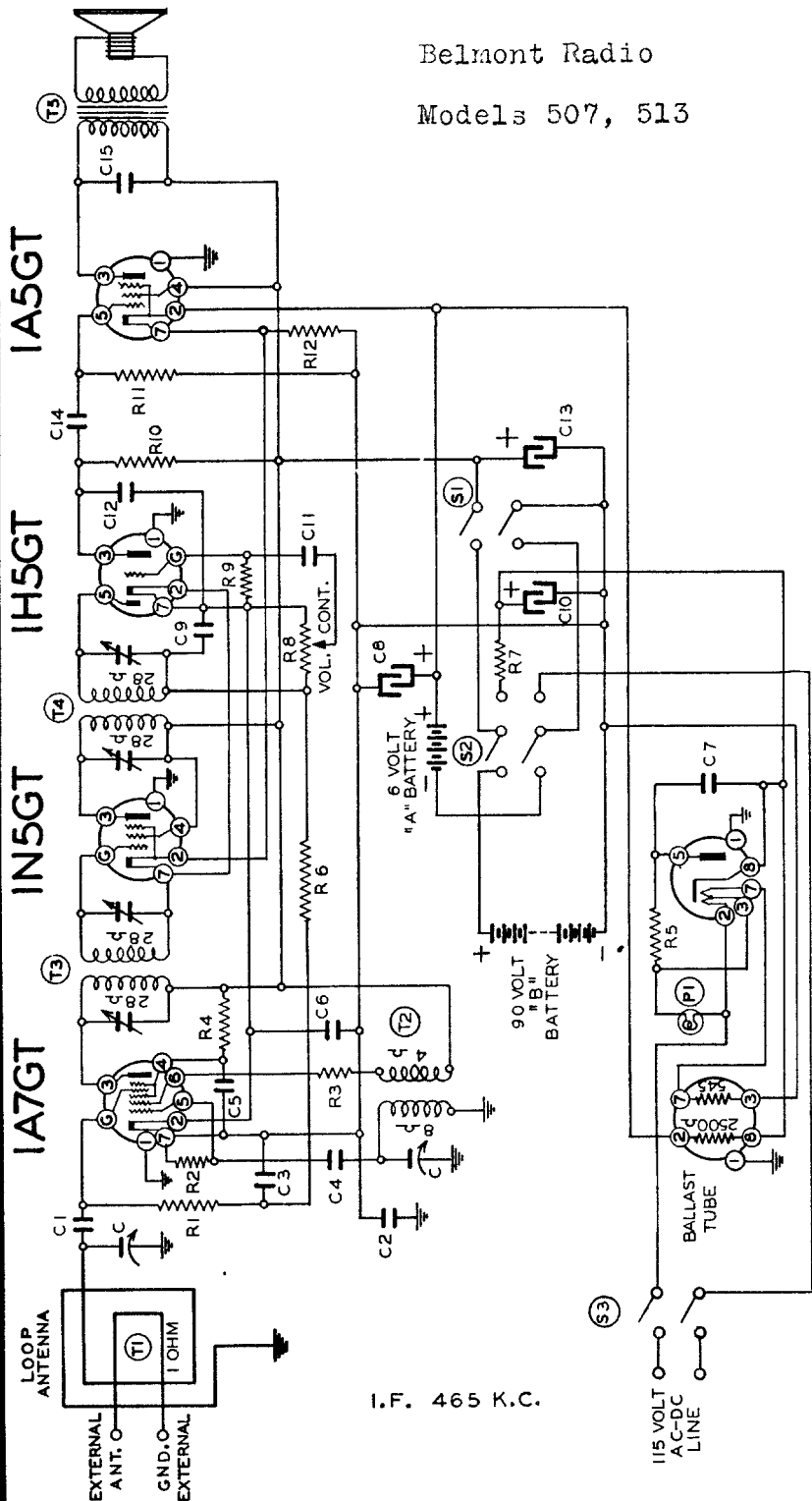
T1	111132	Antenna Coil
T2	110122	Oscillator Coil
T3	108151B	Input I. F. - 465 kc.
T4	108153	Output I. F. - 465 kc.
T5	10591	Output Transformer
T6	114166	5 in. P. M. Speaker
S1		Off-on switch on Volume control

BOTTOM VIEW OF CHASSIS



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Belmont Radio
Models 507, 513



Circuit Diagram Ref. Part No. No.

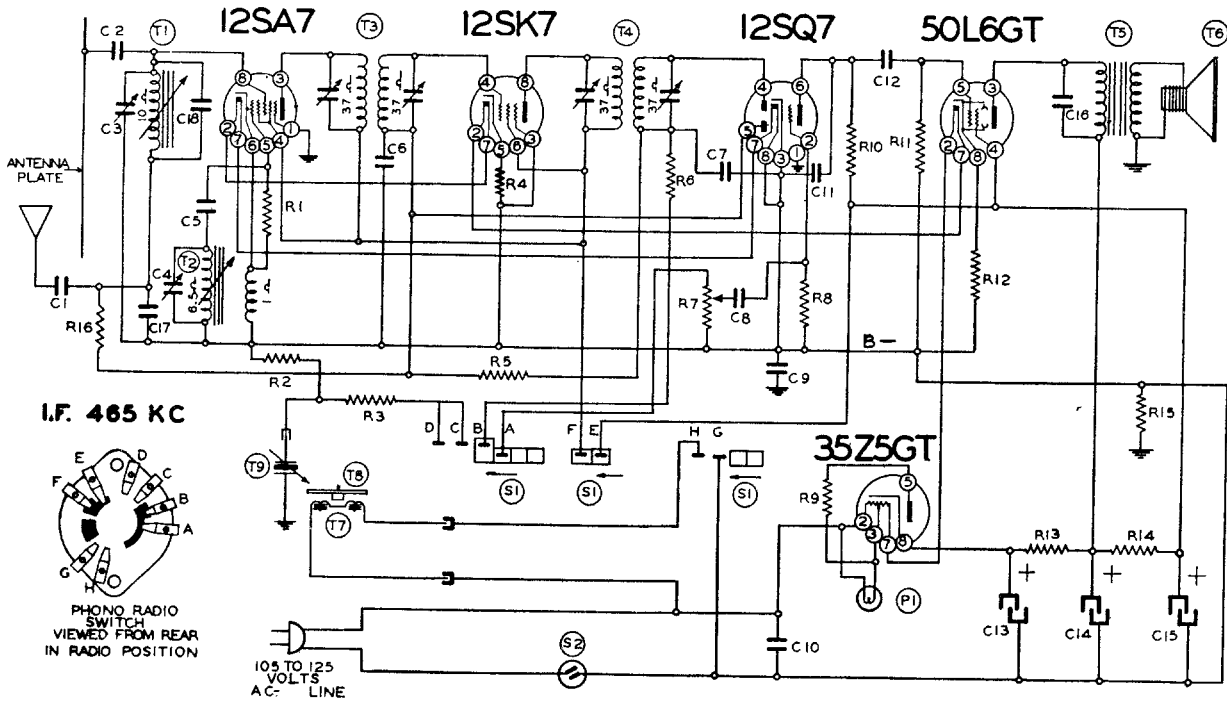
Part No.	Value
R1	13038 2 megohm— $\frac{1}{2}$ w.
R2	130266 200M ohm— $\frac{1}{2}$ w.
R3	13018 4M ohm— $\frac{1}{2}$ w.
R4	130208 40M ohm— $\frac{1}{2}$ w.
R5	130215 25 ohm— $\frac{1}{2}$ w.
R6	130170 3 megohm— $\frac{1}{2}$ w.
R7	130129 2500 ohm— $\frac{1}{2}$ w.
R8	101210 1 megohm volume control
R9	130257 5 megohm— $\frac{1}{2}$ w.
R10	1303 500M ohm— $\frac{1}{2}$ w.
R11	13038 2 megohm— $\frac{1}{2}$ w.
R12	13092 1M ohm— $\frac{1}{2}$ w.

Part No.	Value
C1	102125 2 gang variable condenser
C2	12912 .00025
C3	100110 .2 mfd. x 400 v.
C4	1009 .05 x 200 v.
C5	12912 .00025
C6	1009 .05 x 200 v.
C7	10020 .1 x 200 v.
C8	10011 .01 x 400 v.
C9	119104 Lytic 200 mid. x 6 w. v.
C10	1295 .0001 mfd.
C11	119104 Lytic 40 mfd. x 150 w. v.
C12	10025 .002 x 600 v.
C13	1292 .0005 mfd.
C14	119104 Lytic 20 mfd. x 150 w. v.
C15	10011 .01 x 400 v.
C15	10025 .002 x 600 v.

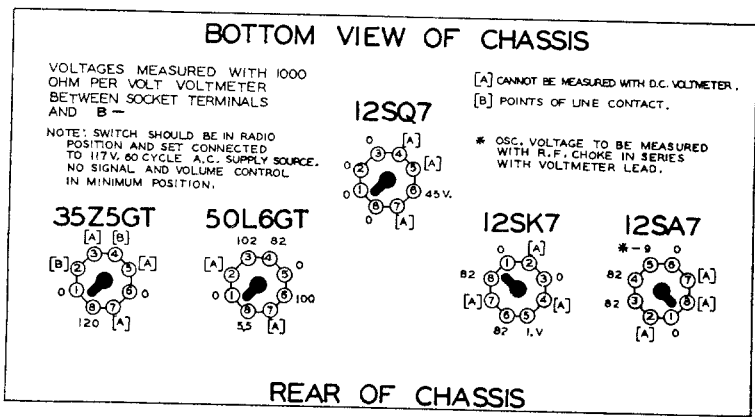
C8, C10 and C13 in same unit

Part No.	Description
T1	111171 Loop Antenna
T2	110144 Oscillator Coil
T3	108171 Input I. F. Coil—465 kc.
T4	108172 Output I. F. Coil—465 kc.
T5	114189 Speaker with output transf.
S1	101210 Switch on volume control
S2	125106 Power Switch
S3	125107 Cut-off switch in line cord
P1	107249 Pilot light T47

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Belmont Radio Model 533



Circuit Diagram Ref. No.	Part No.	Description
RESISTORS		
R1	130176	20M ohm— $\frac{1}{2}$ w.
R2	130118	600M ohm— $\frac{1}{2}$ w.
R3	130118	600M ohm— $\frac{1}{2}$ w.
R4	13056	100 ohm— $\frac{1}{2}$ w.
R5	130170	3 megohm— $\frac{1}{2}$ w.
R6	13012	50M ohm— $\frac{1}{2}$ w.
R7	10217	$\frac{1}{2}$ megohm—volume control
R8	130257	5 megohm— $\frac{1}{2}$ w.
R9	130215	25 ohm— $\frac{1}{2}$ w.
R10	1309	200M ohm— $\frac{1}{2}$ w.
R11	13037	750M ohm— $\frac{1}{2}$ w.
R12	130166	150 ohm— $\frac{1}{2}$ w.
R13	13097	200 ohm— $\frac{1}{2}$ w.
R14	130287	1200 ohm—1 watt
R15	1309	200M ohm— $\frac{1}{2}$ w.
R16	1309	200M— $\frac{1}{2}$ w.
CONDENSERS		
C1	1295	.0001 Mica Condenser
C2	129114	.0003 mfd. mica
C3	124136	Antenna Trimmer
C4	124136	Oscillator Trimmer
C5	1295	.0001 mica
C6	1009	.05 x 200 v
C7	1295	.0001 mica
C8	10025	.002 x 600 v.
C9	100119	.1 x 400 v.
C10	1001	.1 x 400 v.
C11	12912	.00025 mica
C12	10019	.006 x 600 v.
C13	11994	40 mfd. lytic—150 w. v.
C14	11994	20 mfd. lytic—150 w. v.
C15	11994	20 mfd. lytic—150 w. v.
C16	10011	.01 x 400 v.
C17	129162	.0008 Mica Condenser
C18	129163	.000025 Ceramic Condenser
C3 and C4 are same unit		
C13, C14 and C15 are in same unit		
PARTS		
T1	112767	Antenna Coil—Permeability assembly complete
T2	112767	Oscillator Coil
T3	108140F	Input I. F. Coil—465 kc.
T4	108145D	Output I. F. Coil—465 kc.
T5	105108	Output Transformer
T6	114193	5" P.M. Speaker
T7	104206	Phono Motor
T8	12228	Turntable
T9	114194	Phono pick up arm
S1	125113	Phono Switch
S2		Switch on volume control
P1	107249	Pilot light T47
T1 and T2 in same unit		

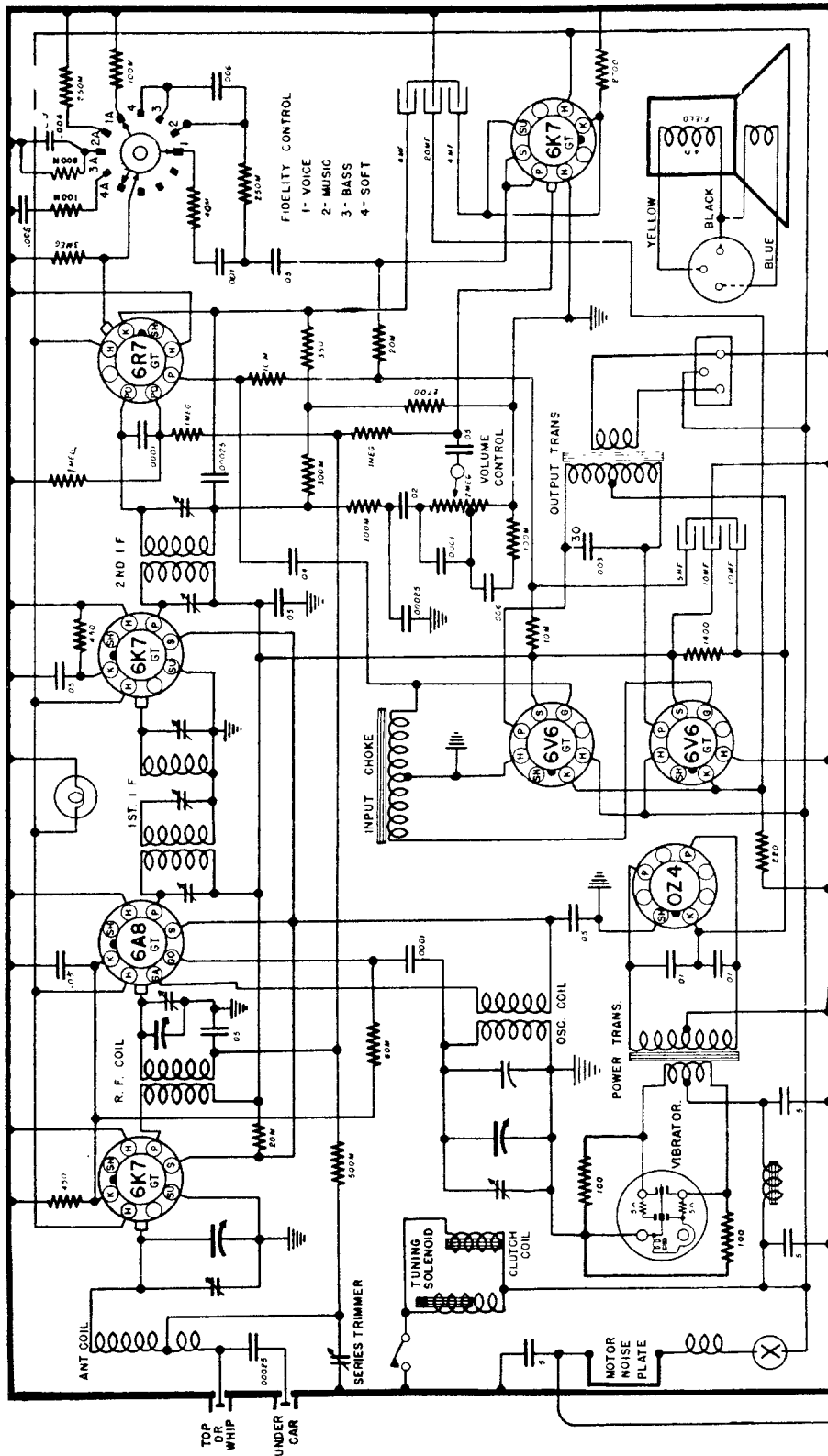
SERVICE NOTES:

Voltages taken from different points of circuit to chassis are measured with volume control at minimum, all tubes in their sockets and speaker connected, with a volt meter having a resistance of 1000 ohms per volt.

All voltages as indicated on the voltage chart are measured with 117 volt 60 cycle A.C. line.

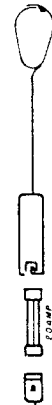
CAUTION:—No aligning adjustments should be attempted without first thoroughly checking over all other possible causes of trouble, such as poor installations, open or grounded antenna systems, low line voltage, defective tubes, condensers and resistors. In order to properly align this radio, the chassis should be removed from the cabinet.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

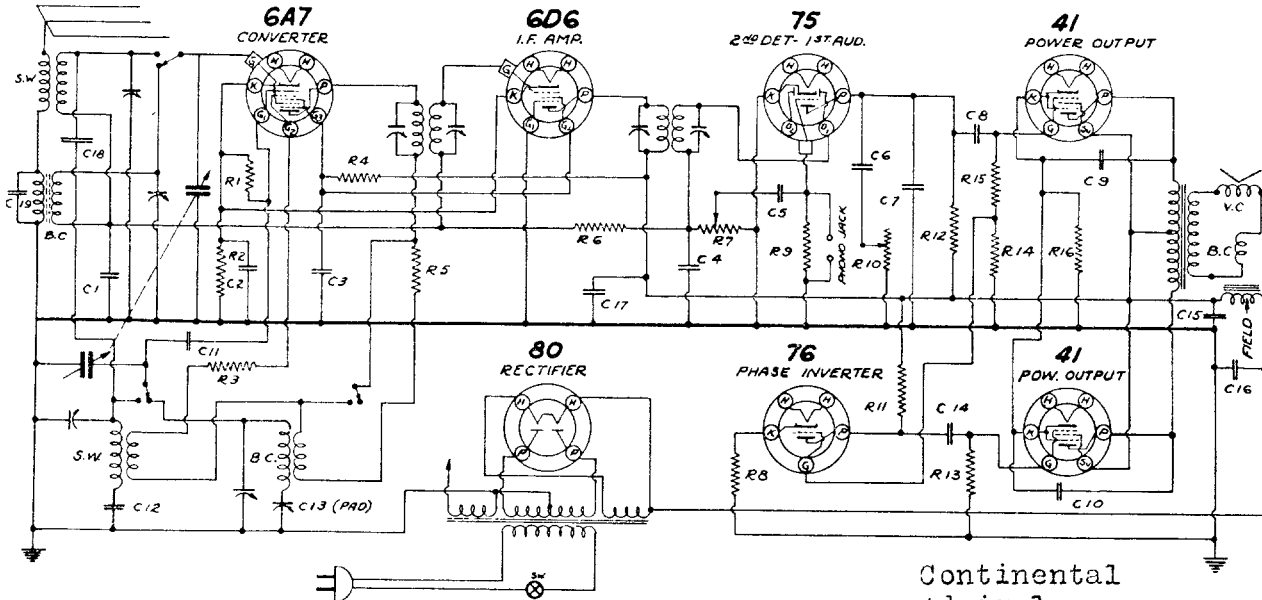


985536 CIRCUIT DIAGRAM

I.F. 262.5 KC.



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Continental
Admiral

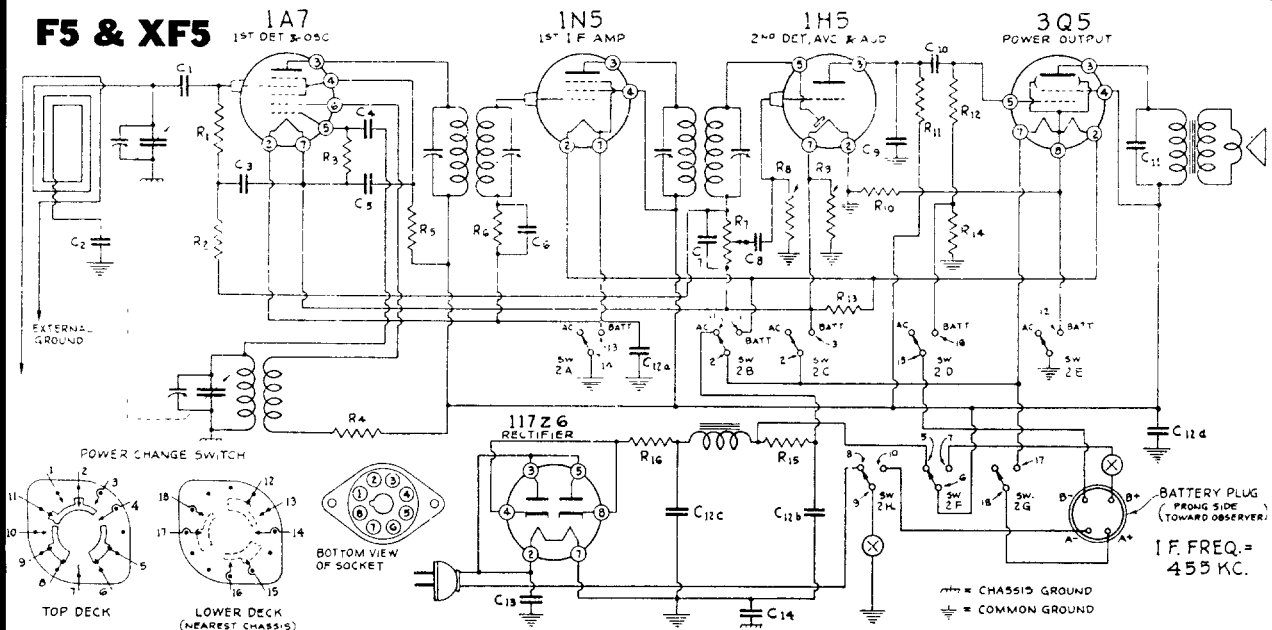
I.F. 455 K.C.

BAND SWITCHES SHOWN IN BROADCAST
POSITION.
BOTTOM VIEW OF TUBE SOCKETS SHOWN.
GANG CONDENSER CAPACITY 443MMFD.

SCHEMATIC DIAGRAM MODEL 7C

CAPACITORS				RESISTORS			
No.	MFD'S	VOLTS		No.	OHMS	WATTS	
C1	.05	200	C11	.0001	MICA	R1	50,000
C2	.25	200	C12	.004-5%	MICA	R2	200
C3	.05	400	C13	300-600MMFD	PADDER	R3	250
C4	.00025	MICA	C14	.01	400	R4	20,000
C5	.01	300	C15	10.0	350	R5	1,000
C6	.005	600	C16	10.0	350	R6	2MEG
C7	.00025	MICA	C17	.05	400	R7	800,000
C8	.01	400	C18	.05	GUMMICK	R8	3,000
C9	.005	600	C19	.0001	MICA	R9	5MEG
C10	.005	600				R10	500,000
							TONES CON.

F5 & XF5



No.	Ohms	Watts	No.	Ohms	Watts	No.	Capacity (Mfd.)	Volts	No.	Capacity (Mfd.)	Volts
R1	1,000,000	1/2	R9	110	1/2	C1	.00025	Mica	C10	.01	400
R2	1,000,000	1/2	R10	750-10%	1/2	C2	.1	200	C11	.002	400
R3	200,000	1/2	R11	250,000	1/2	C3	.01	200	C12a	40.	25
R4	500	1/2	R12	1,000,000	1/2	C4	.0065	Mica	C12b	40.	25
R5	30,000	1/2	R13	400	1/2	C5	.05	200	C12c	30.	150
R6	5,000,000	1/2	R14	450-10%	1/2	C6	.01	200	C12d	30.	150
R7	1,000,000	V.C.	R15	2,100	5	C7	.00025	Mica	C13	.05	400
R8	5,000,000	1/2	F16	30	1/2	C8	.01	400	C14	.25	200
						C9	.00025	Mica			

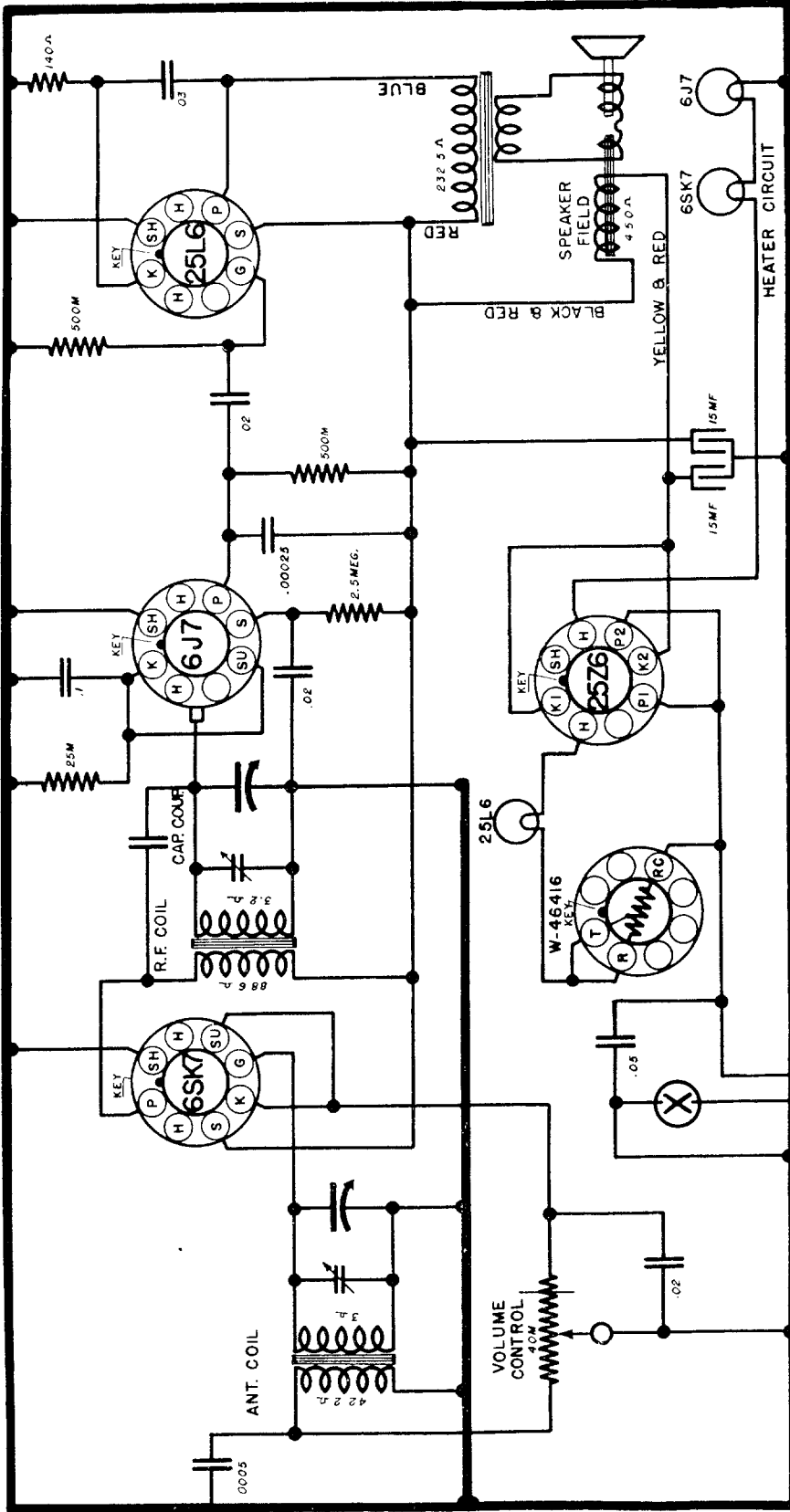
In Model F5 switch points 4, 15, 16, 17 and 18 are not used. Switch point 4 is also not used on Model XF5. Power change switch 2A thru 2H and the pictorial view shown in the "AC-DC" position.

In late models C2 is not used.

18

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Power Consumption @ 117.5 Volts Line—Approximately 43 Watts.
 D. C. Drop Across Speaker Field—29 Volts.
 Maximum Power Output Approximately 2.0 Watts.

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MODEL --- # 10

TUBES MAY BE METAL OR GT TYPE

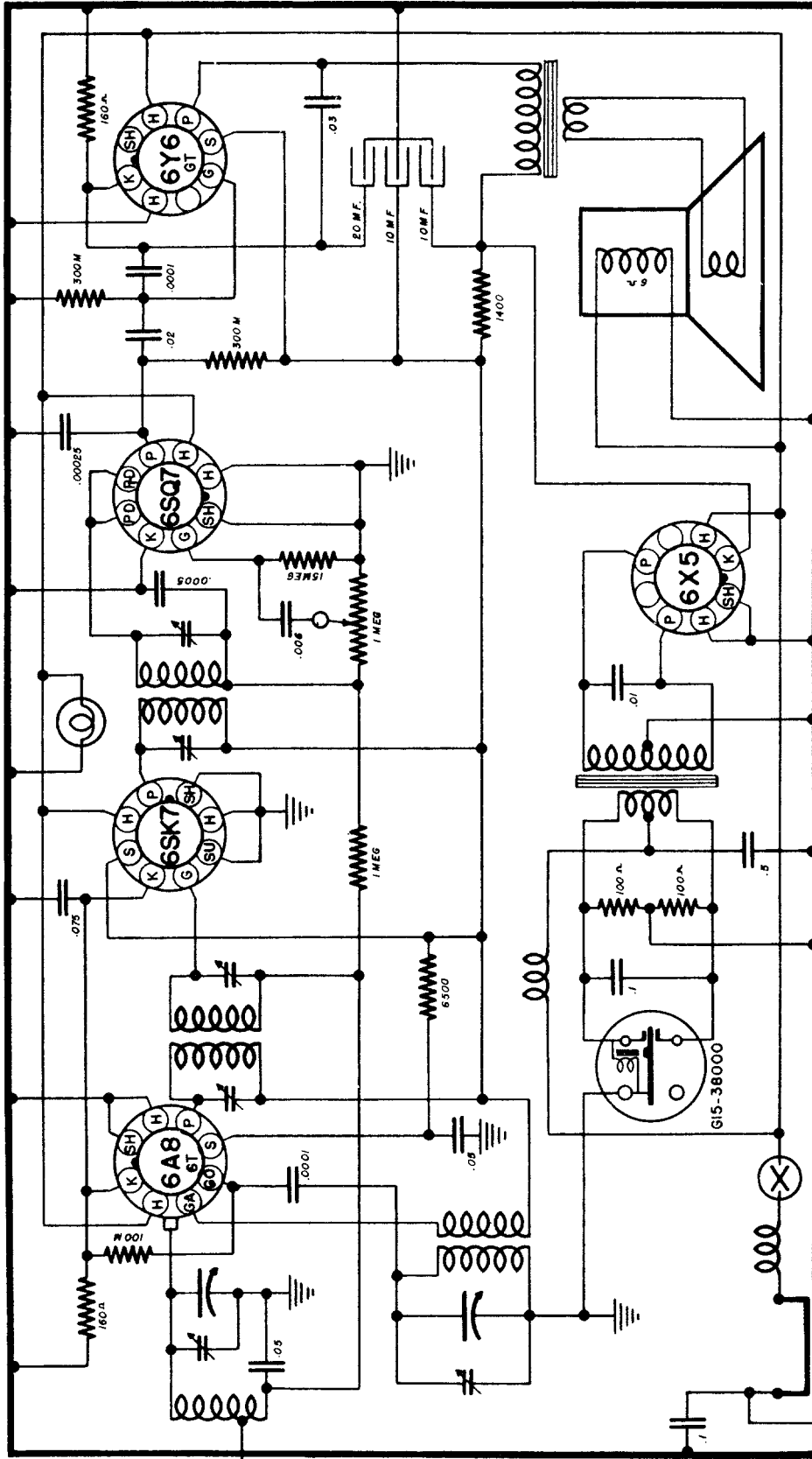
CROSLEY

SOCKET VOLTAGES TAKEN @ 117.5 VOLT LINE (A. C.)

Tube	Function	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6	No. 7	No. 8
6SK7	R. F. Amplifier	GND.	H	3.0	GRID	3.0	92	H	91
6J7	Detector	GND.	H	20	8	2.0	—	H	2.0
25L6	Output	GND.	H	82	91	GRID	N.C.	H	5.8
25Z6	Rectifier	GND.	H	A.C.	120	A.C.	—	H	120
W-46416	Ballast Resistor — 165 Ohms (Cold)	Between No. 3 and No. 7 Pins with No. 8 Pins Tied Together.							

ANTENNA ROLL

M. N. BEITMAN, SUPREME PUBLICATIONS



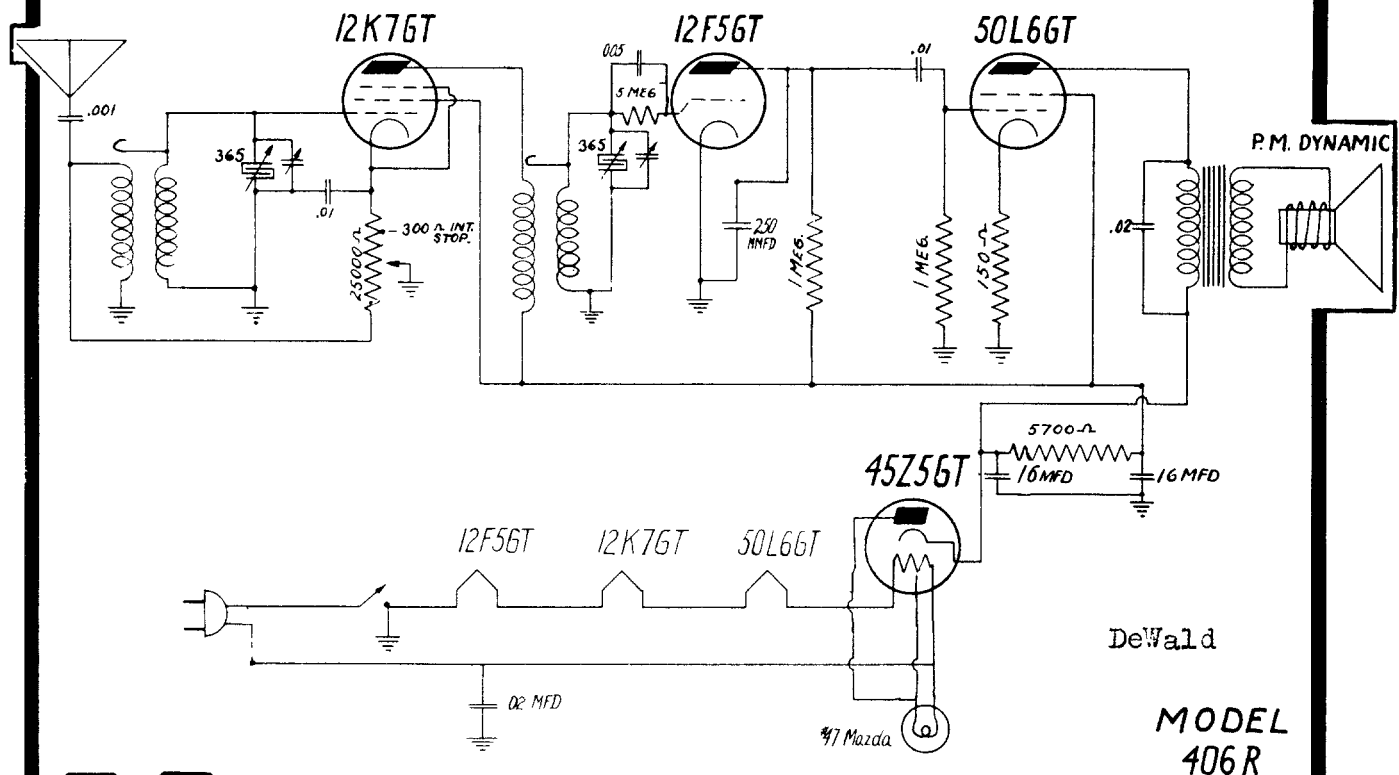
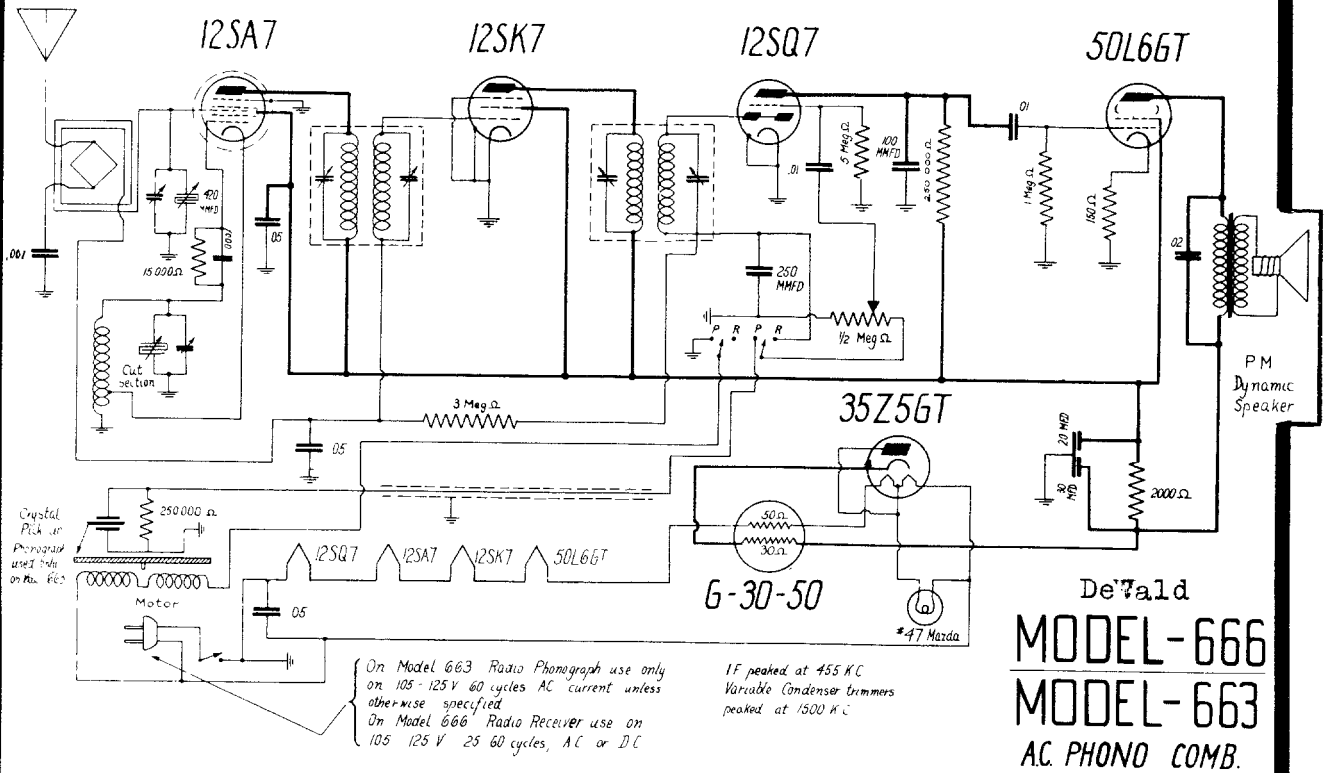
455 KC. I.F.

WIRING DIAGRAM—MODEL A-559

CROSLLEY

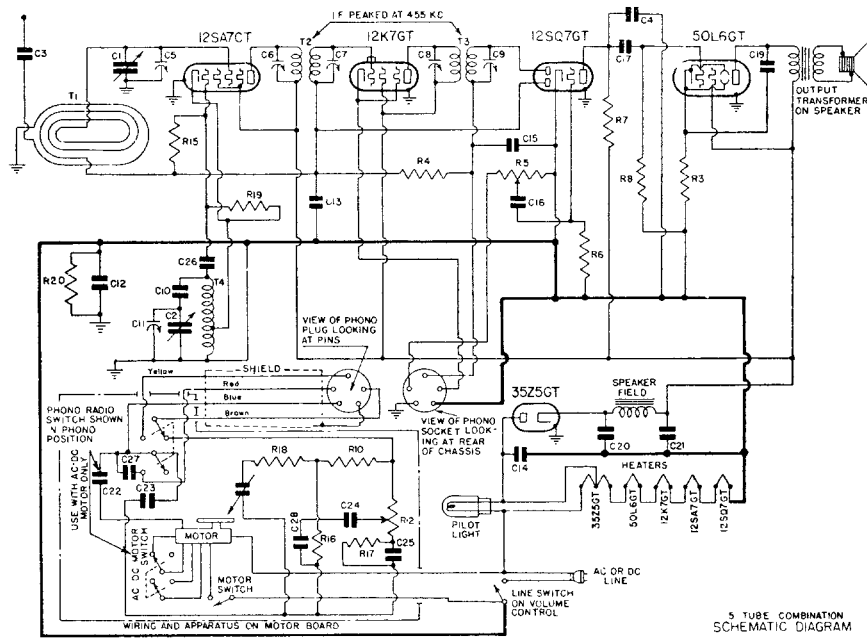
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



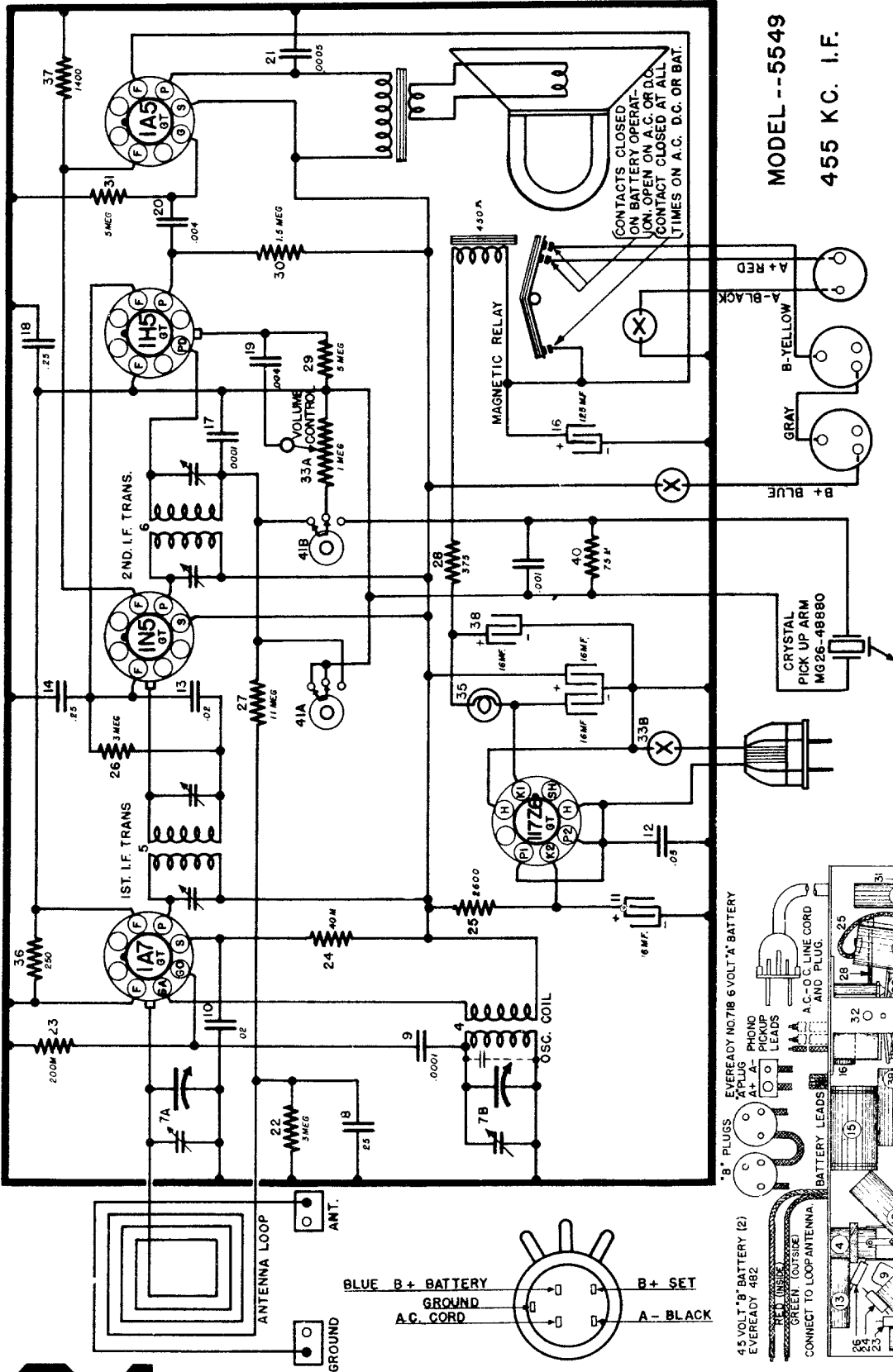
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Emerson Radio



CV-289, 290 AND CV1-290 WITH 12SA7GT

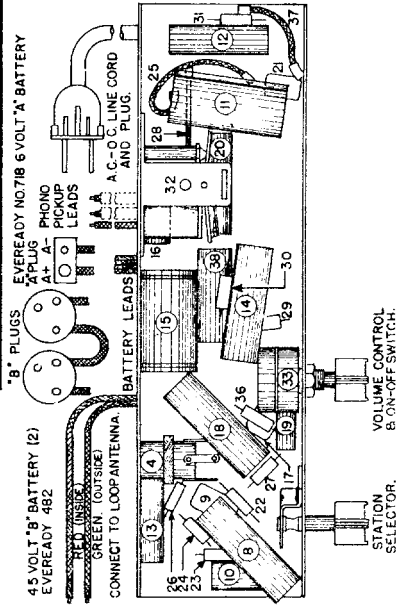
ITEM	PART NO.	DESCRIPTION
T1	6MW-171B	Loop antenna assembly (for CV-289, CV-291 and CV1-291) (see prod. ch. No. 4)
T1	6VW-188A	Loop antenna assembly (for CV-290 and CV1-290) (see production change No. 4)
T4	7BT-486A	Oscillator coil (see production change No. 2)
T2	7BT-488C	Double-tuned 455 kc first i-f transformer
T3	7BT-489A	Double-tuned 455 kc second i-f transformer
	or	
	7FT-513D	Double-tuned 455 kc second i-f transformer
R1	2CR-193	30,000 ohm 1/2 watt carbon resistor
R2	KR-53	50,000 ohm 1/4 watt carbon resistor
R3	3FR-293	140 ohm 1/2 watt wire-wound resistor
R4	NNR-220	3 megohm 1/4 watt carbon resistor
R5	6VR-364	Volume control .5 megohm with line switch
R6, R15	4XR-327	15 megohm 1/4 watt carbon resistor
R7, R8, R11, R18	} KR-56	500,000 ohm 1/4 watt carbon resistor
R9, R10		KR-57
R12	6VR-366	Tone control, 75,000 ohm, with motor line switch
R13	6RR-375	170 ohm 1 watt wire-wound resistor
R14	4XR-334	2,500 ohm 1 watt carbon resistor
R19	LR-60	20,000 ohm 1/4 watt carbon resistor
R16, R20	LR-61	200,000 ohm 1/4 watt carbon resistor
R17	KR-54	100,000 ohm 1/4 watt carbon resistor
C1, C2	6RC-436	Two-gang variable condenser
C3, C16	3HC-274	0.002 mf, 600 volt tubular condenser
C4, C15, C26	4XC-394A	0.00022 mf mica condenser
†C5, C11		Trimmers, part of variable condenser.
†C6, C7, C8, C9		Trimmers, part of i-f transformers.
C10, C13, C23	BC-12	0.05 mf, 200 volt tubular condenser
C12	3CC-302	0.15 mf, 200 volt tubular condenser
C14	LC-64	0.05 mf, 400 volt tubular condenser
C17	6JC-425	0.024 mf, 400 volt tubular condenser
C18	4XC-404	20 mf, 150 volt dry electrolytic condenser
C19	LC-65	0.02 mf, 400 volt tubular condenser
C20, C21	6JC-426B	Dual 20 mf, 150 volt dry electrolytic condenser
C22	3LC-297A	0.01 mf, 400 volt tubular condenser (used only with a.c.-d.c. motors)
C24	IC-47A	0.0005 mf mica condenser
C25	KC-59	0.006 mf, 400 volt tubular condenser (see production change No. 6)
C27	CCC-127	0.01 mf, 200 volt tubular condenser
C28	NC-70A	0.0002 mf mica condenser
	6JS-368U	4" dynamic speaker (not used on CV-291 or CV1-191)
	6JS-386	6 1/2" permanent magnet dynamic speaker



MODEL --5549
455 KC. I.F.

CROSLY

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45 VOLT "B" BATTERY (2)
EVEREADY 482
RED (INSIDE)
GREEN (OUTSIDE)
CONNECT TO LOOP ANTENNA

"B" PLUGS
EVEREADY NO. 718 6 VOLT "A" BATTERY
X PLUG - PHONO
A+ A- PICKUP LEADS
A.A. A.C.-C. LINE CORD AND PLUG.

CRYSTAL PICK UP ARM
MG26-48880

A+ RED
A-BLACK
B+ BLUE
B-YELLOW
GRAY

CONTACTS CLOSED ON BATTERY OPERATION, OPEN ON A.C. OR D.C. CONTACT CLOSED AT ALL TIMES ON A.C. D.C. OR BAT.

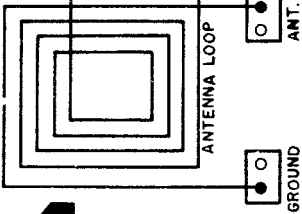
MAGNETIC RELAY

VOLUME CONTROL

2ND. I.F. TRANS.

1ST. I.F. TRANS.

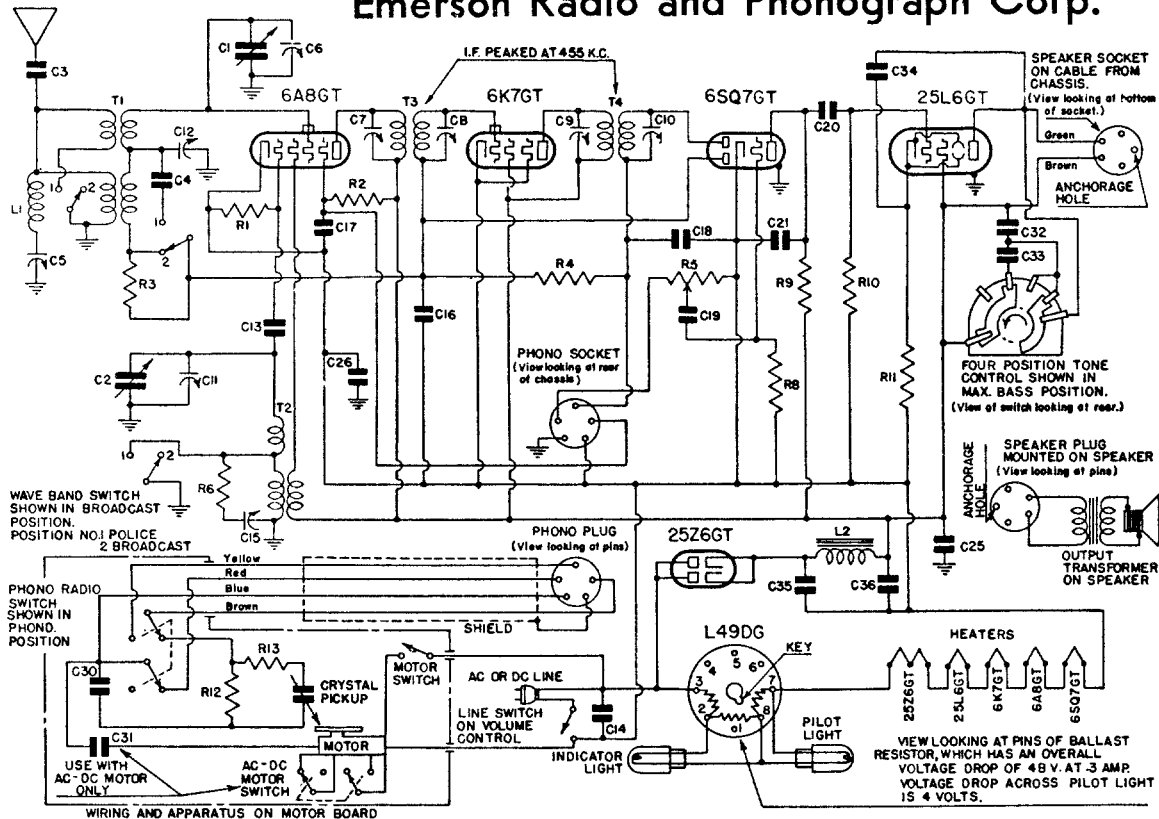
OSC. COIL



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

MODEL CG-293 (For A.C. Operation Only) MODEL CG1-293 (For A.C. or D.C. Operation) MODEL CG-294 (A.C. Automatic Record Changer) MODEL CG1-294 (A.C.-D.C. Automatic Record Changer)

Emerson Radio and Phonograph Corp.



T1, L1	6GT-468	Two-band antenna coil with 455 kc wave-trap.....
T2	6GT-469	Two-band oscillator coil.....
T3	4XT-434CU	455 kc first i-f transformer.....
T4	4XT-435H	455 kc second i-f transformer.....
R1, R2	KR-53	50,000 ohm 1/4 watt carbon resistor.....
R3, R6	PR-79	1,000 ohm 1/4 watt carbon resistor.....
R4	NNR-220	3 megohm 1/4 watt carbon resistor (see production change no. 2).....
R5	6SR-362	Volume control—250,000 ohms with line switch (see production change no. 2).....
R8	4XR-327	15 megohm 1/4 watt carbon resistor.....
R9, R10	KR-56	500,000 ohm 1/4 watt carbon resistor (see production change no. 1).....
R11	3FR-293	140 ohm 1/2 watt wire-wound resistor.....
R12	KR-55	250,000 ohm 1/4 watt carbon resistor.....
R13	KR-57	1 megohm 1/4 watt carbon resistor.....
C1, C2	L-49DG	Plug-in type ballast resistor. Interchangeable with L49D.....
C3	6GC-428	Two-gang variable condenser.....
C4	NNC-199	0.001 mf, 600 volt tubular condenser.....
C12, C15	6GC-429	0.00064 mf mica condenser.....
C13	6GC-430	Dual trimmer assembly.....
C14	IIC-133A	0.000025 mf mica condenser.....
C16, C17	LC-64	0.05 mf, 400 volt tubular condenser.....
C25, C30	BC-12	0.05 mf, 200 volt tubular condenser.....
C18, C21	5AC-384	0.0002 mf, 600 volt tubular or mica condenser.....
C19	3HC-274	0.002 mf, 600 volt tubular condenser.....
C20	LC-65	0.02 mf, 400 volt tubular condenser.....
C26	3CC-302	0.15 mf, 200 volt tubular condenser.....
C31	3LC-297A	0.01 mf, 400 volt molded condenser (for a.c.-d.c. motors only).....
C32, C33	ZZC-211	0.03 mf, 200 volt tubular condenser.....
C34	XXC-207	0.005 mf, 400 volt tubular condenser.....
C35, C36	6QC-437	Multiple 20 and 40 mf, 150 volt dry electrolytic condenser.....
		C35—20 mf C36—40 mf

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Emerson Radio

MODELS: DQ-333 and DQ-334 | MODELS: DQ1-333 and DQ1-334

- L1 Loop antenna
- T4 Oscillator coil
- T2 T3 I.F. transformers
- R1 20,000 ohm $\frac{1}{4}$ w.
- R3 140 ohm $\frac{1}{2}$ watt
- R4 3 megohm $\frac{1}{4}$ watt
- R5 .5 megohm V.C.
- R2 R6 15 megohm $\frac{1}{4}$ w.
- R7 R8 .5 megohm $\frac{1}{4}$ w.
- R9 200,000 ohm $\frac{1}{4}$ w.
- C10 0.1 mfd. 200 v.
- C14 0.05 mfd. 400 v.
- C4 C15 0.0002 mfd. mica
- C3 C16 0.002 mfd. 600 v.
- C20-21 Dual 20 mfd. 150
- C22 0.2 mfd. 200 v.
- C24 0.02 mfd. 400 v.
- C25 0.01 mfd. 400 v.

Location of Coils and Trimmer Adjustments

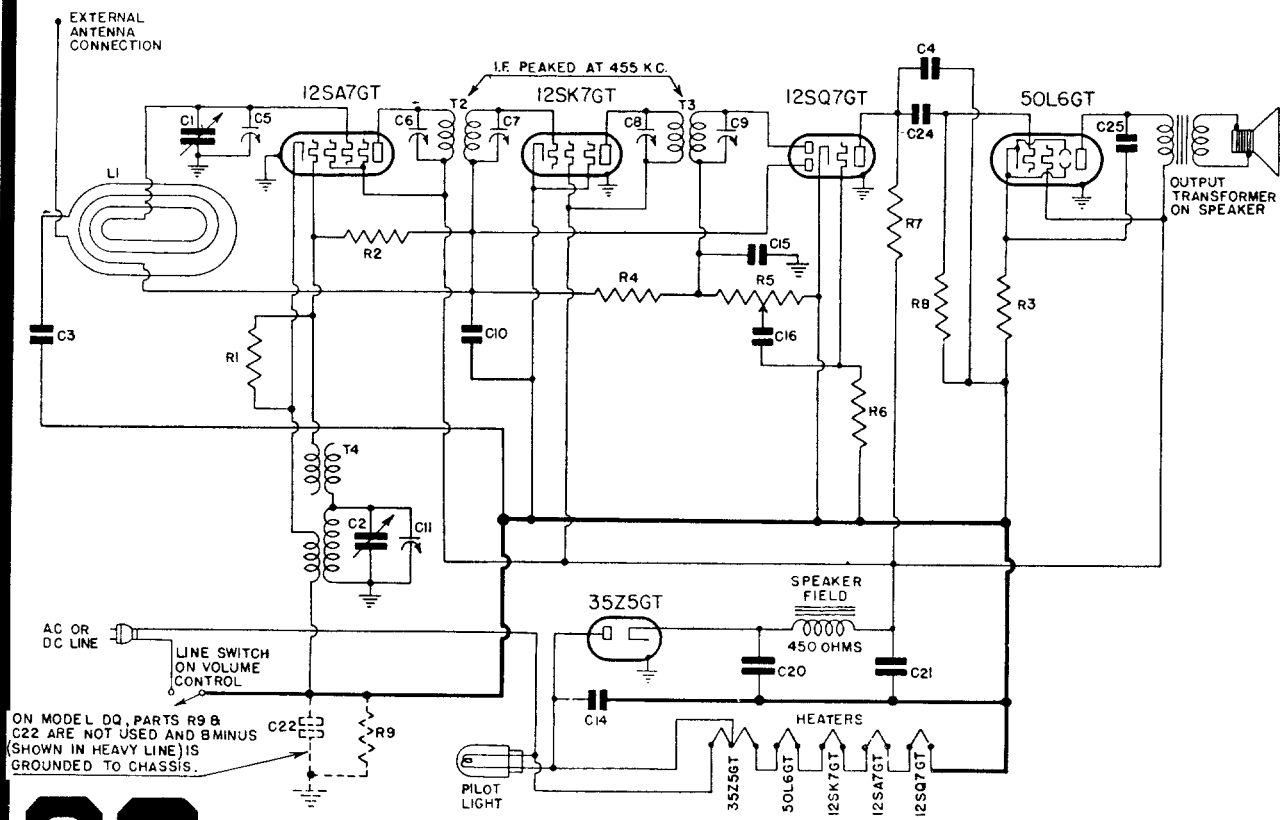
The first i-f transformer is mounted on top of the chassis deck to the right of the variable condenser. The trimmers are accessible through holes in the top of the can.

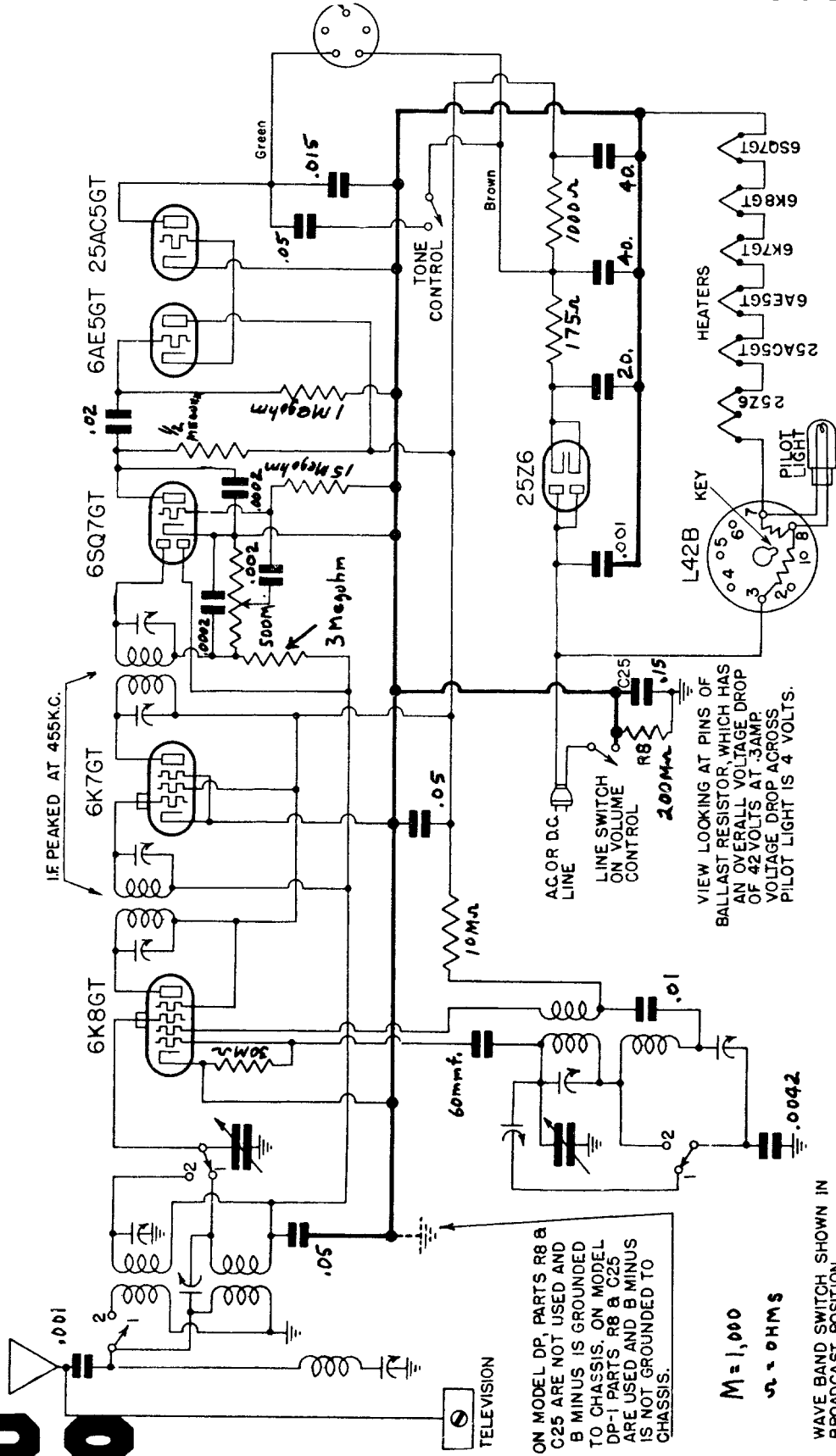
The second i-f transformer is mounted on top of the chassis between the variable condenser and the speaker. The trimmers are accessible through holes in the top of the can.

The trimmers for the antenna and oscillator coils are located on the variable condenser. The trimmer on the front section is for the oscillator coil.

The oscillator coil is located underneath the chassis. The loop antenna acts as the antenna coil.

An oscillator with frequencies of 455 and 1400 kc is required.





EMERSON RADIO AND PHONOGRAPH CORP.

Models DP-332, DP1-332

ON MODEL DP, PARTS R8 & C25 ARE NOT USED AND B MINUS IS GROUND TO CHASSIS. ON MODEL DP-1 PARTS R8 & C25 ARE USED AND B MINUS IS NOT GROUND TO CHASSIS.

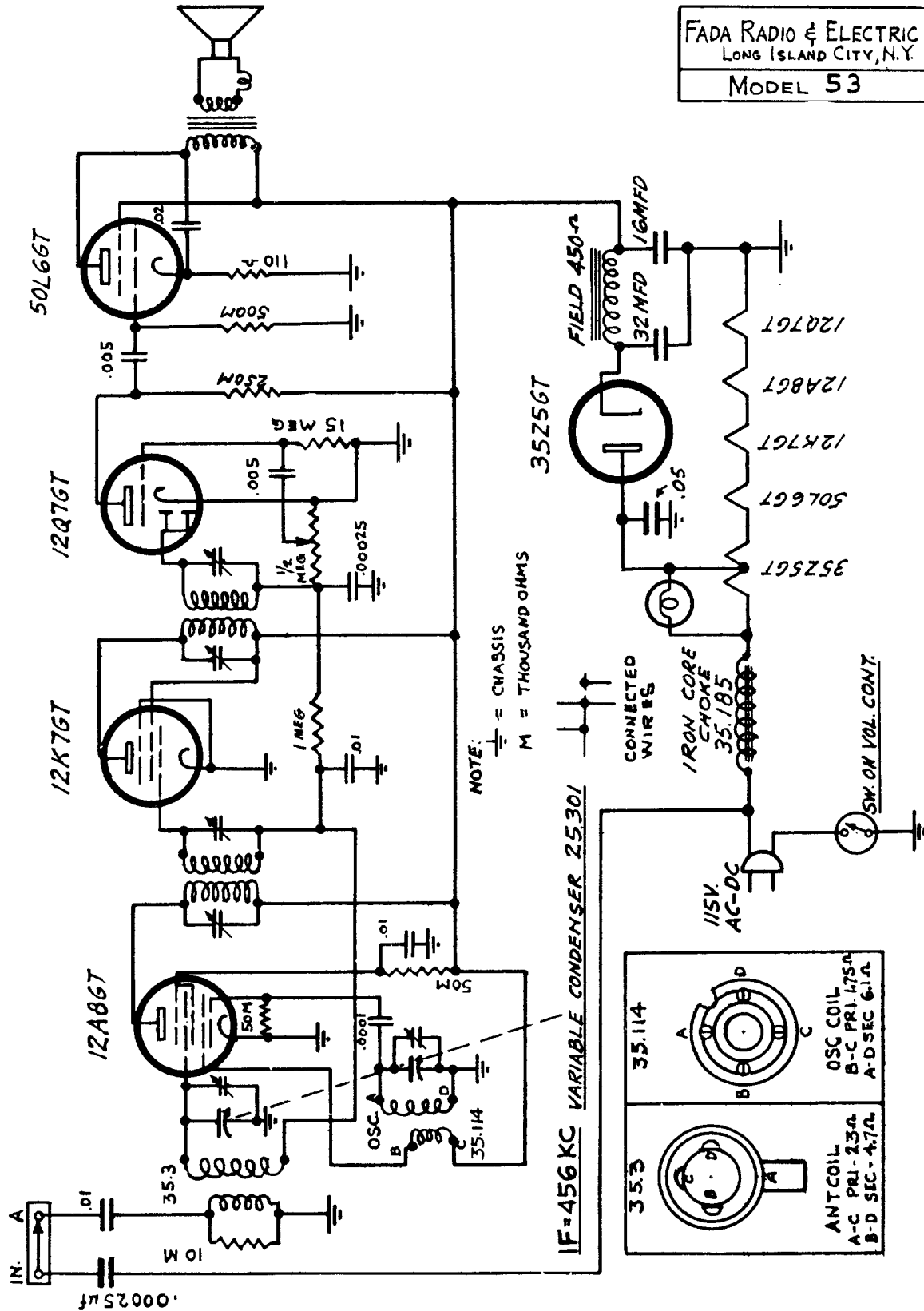
M = 1,000
ω = 0HMS

WAVE BAND SWITCH SHOWN IN BROADCAST POSITION
POSITION NO.1 BROADCAST
NO.2 SHORT WAVE

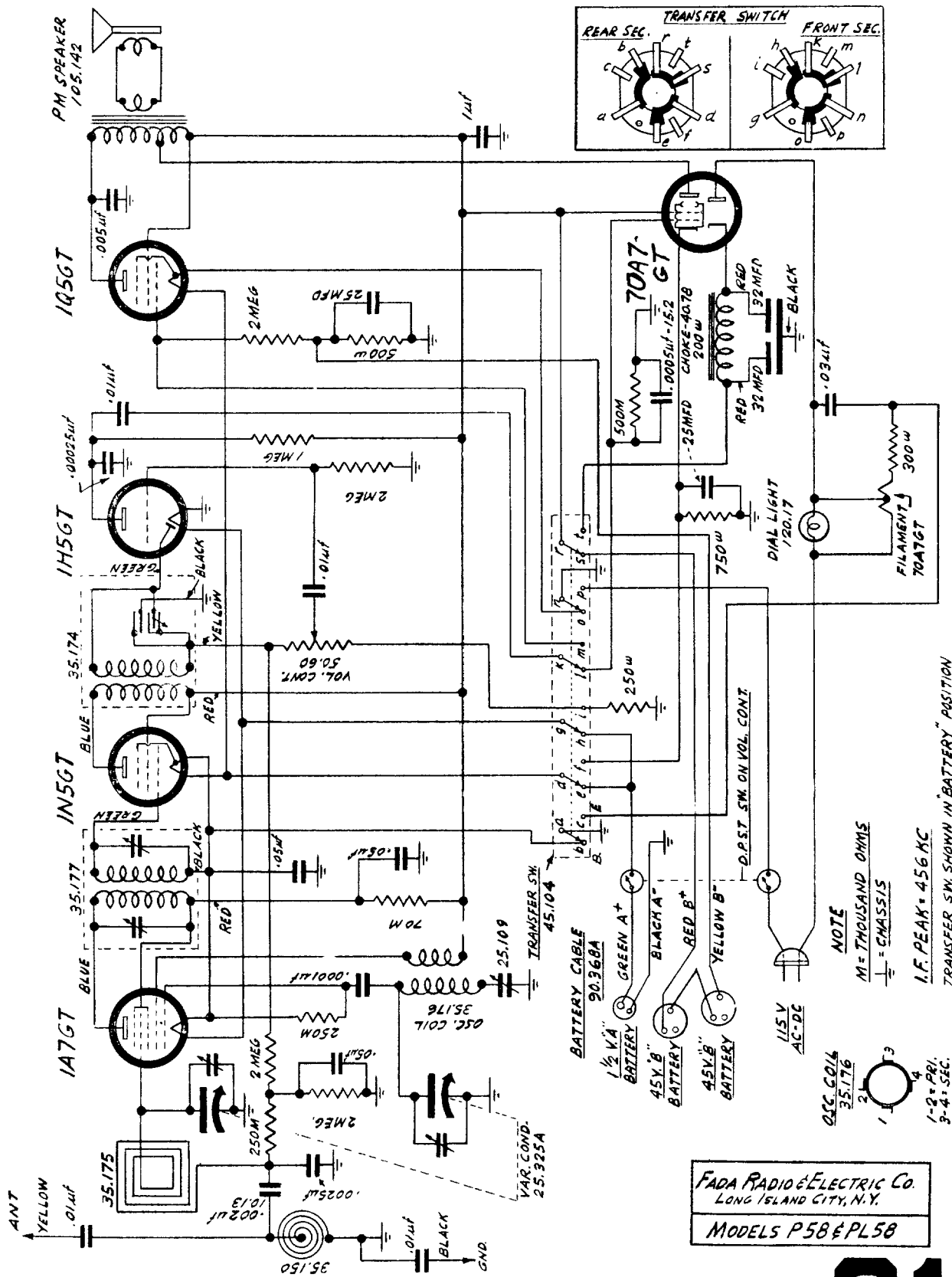
VIEW LOOKING AT PINS OF BALLAST RESISTOR, WHICH HAS AN OVERALL VOLTAGE DROP OF 42 VOLTS AT .3AMP. VOLTAGE DROP ACROSS PILOT LIGHT IS 4 VOLTS.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

FADA RADIO & ELECTRIC CO.
LONG ISLAND CITY, N.Y.
MODEL 53



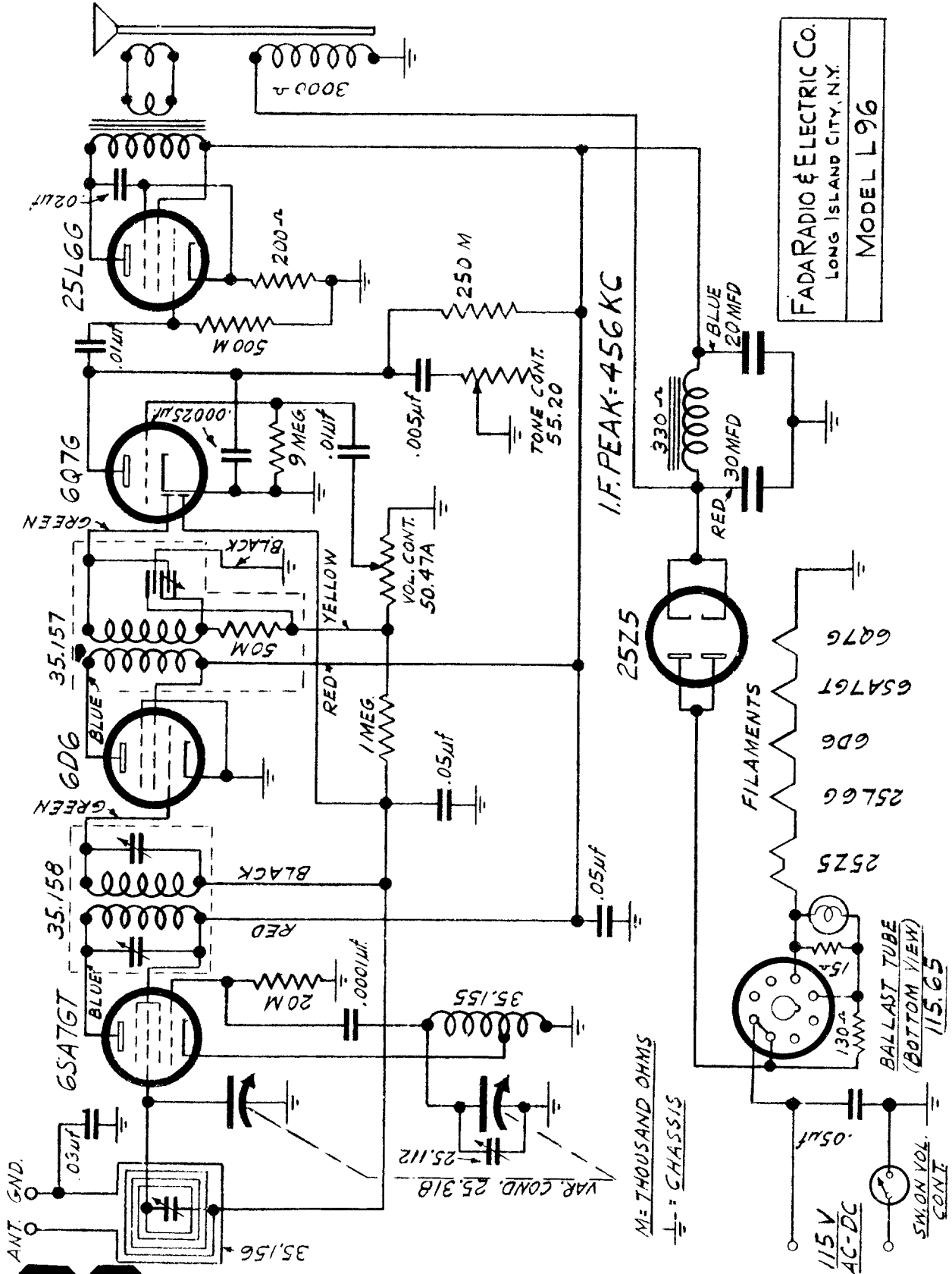
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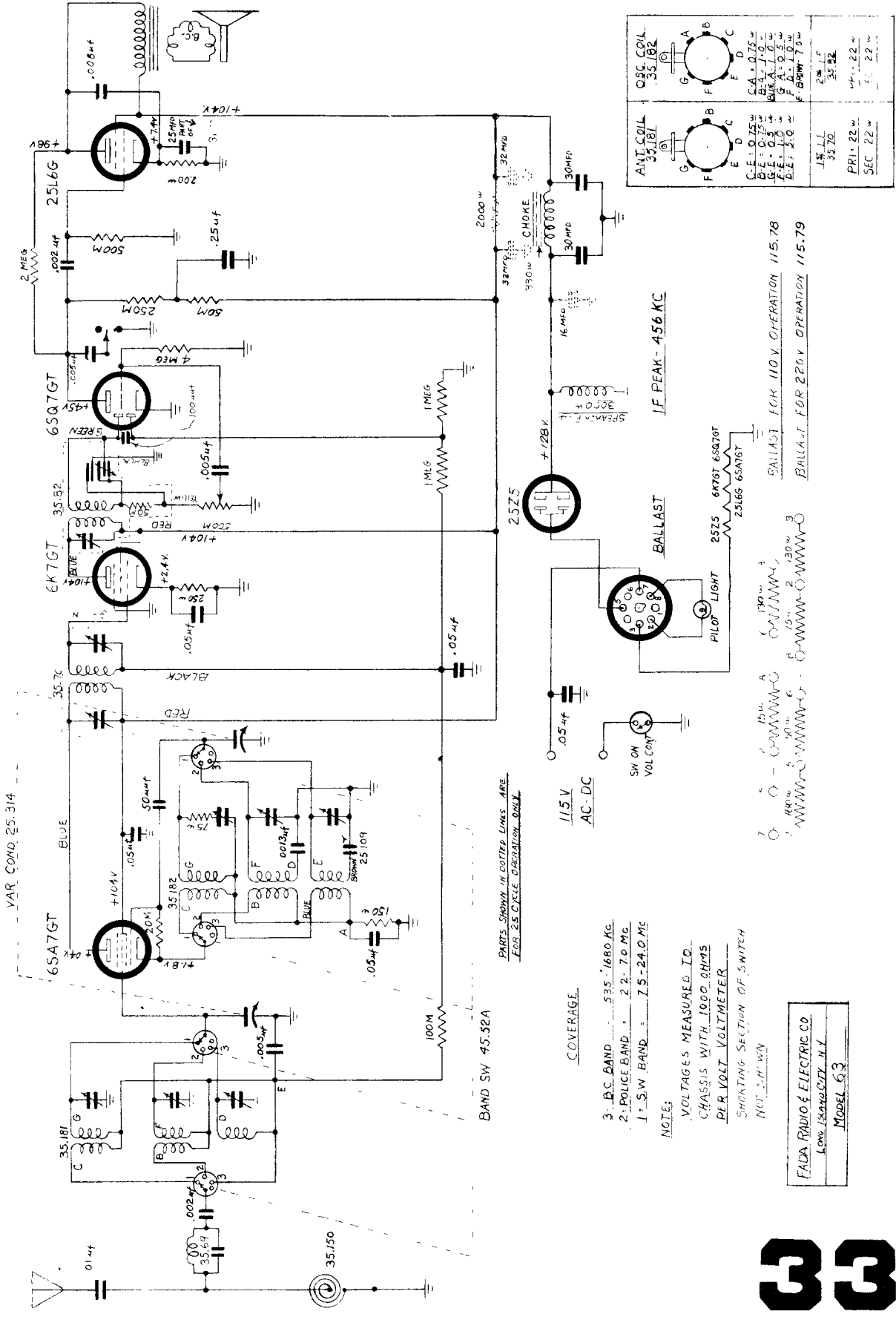
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FADA RADIO & ELECTRIC CO.
LONG ISLAND CITY, N.Y.
MODEL L96

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



ANT. COIL 35.181	Osc. Coil 35.182
G A B F C D E	G A B F C D E
C.E. - 0.15 μ D.E. - 0.05 μ F.E. - 1.0 μ D.E. - 2.0 μ	C.A. - 0.75 μ D.A. - 0.25 μ F.A. - 1.0 μ F. 20MVA - 70 μ
1M L L 35.72	2M L F 35.72
PRI - 22 μ SEC - 22 μ	

PARTS SHOWN IN DOTTED LINES ARE FOR 25 CABLE OPERATIONAL SWIT.

COVERAGE

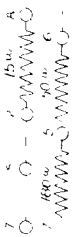
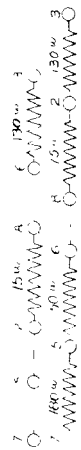
- 3. P.C. BAND 535 - 1680 KC.
- 2. POLICE BAND 2.2 - 7.0 MC.
- 1. S.W. BAND 7.5 - 24.0 MC.

NOTES

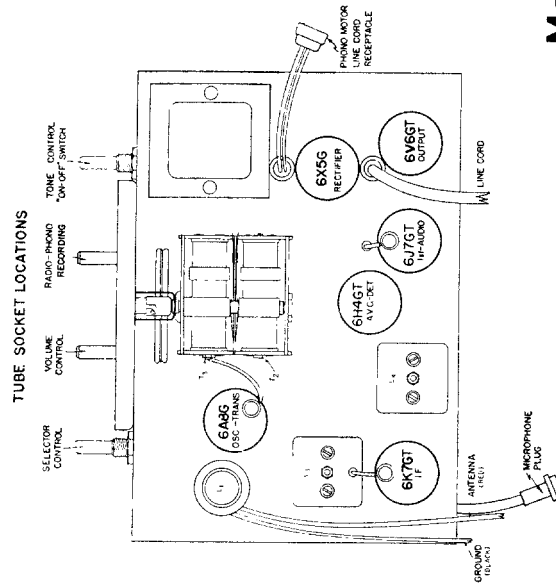
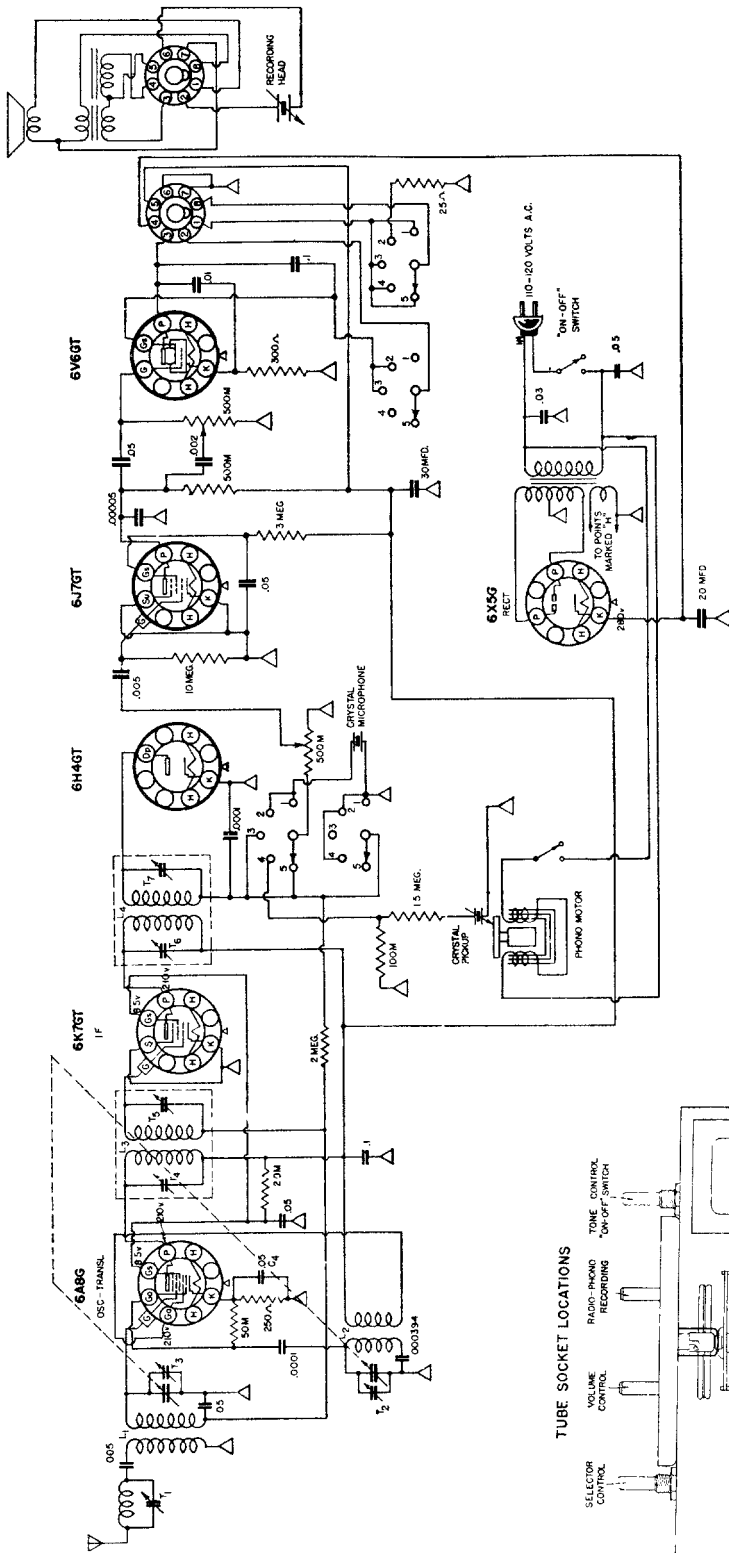
- VOLTAGES MEASURED I.D.
- CHASSIS WITH 1000 OHMS PER VOLT VOLTMETER
- SHORTING SECTION OF SWITCH NOT SHOWN

FADA RADIO & ELECTRIC CO.
Long Beach, CALIF., U.S.A.
MODEL 63

BALLAST FOR 110 V. OPERATION 115.78
BALLAST FOR 220 V. OPERATION 115.79



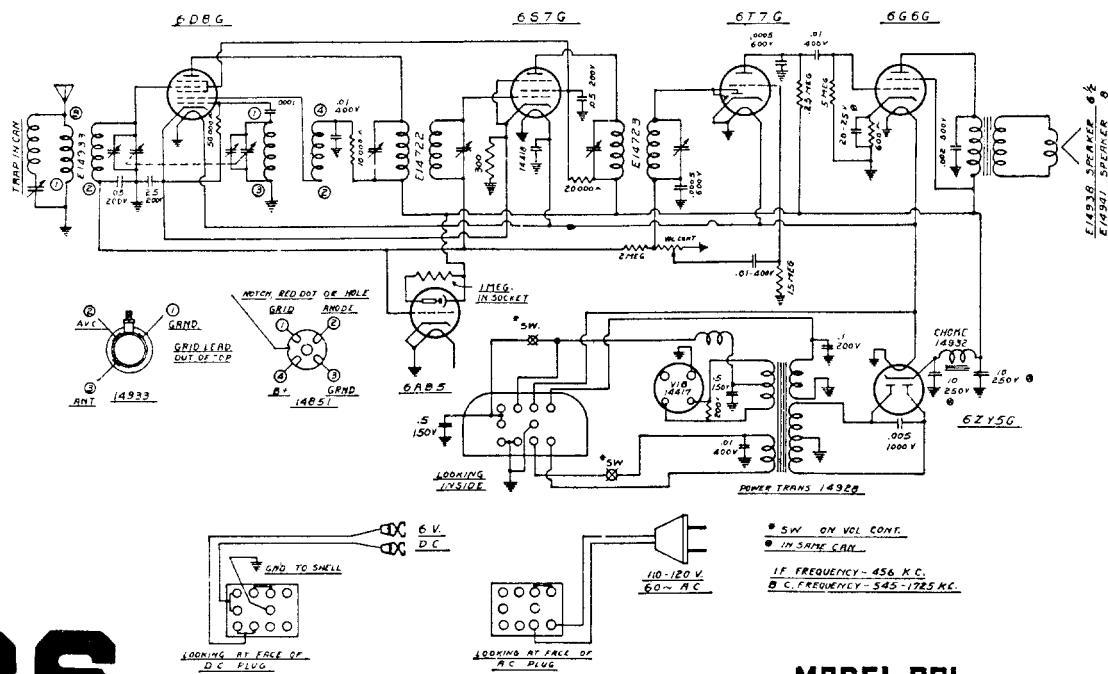
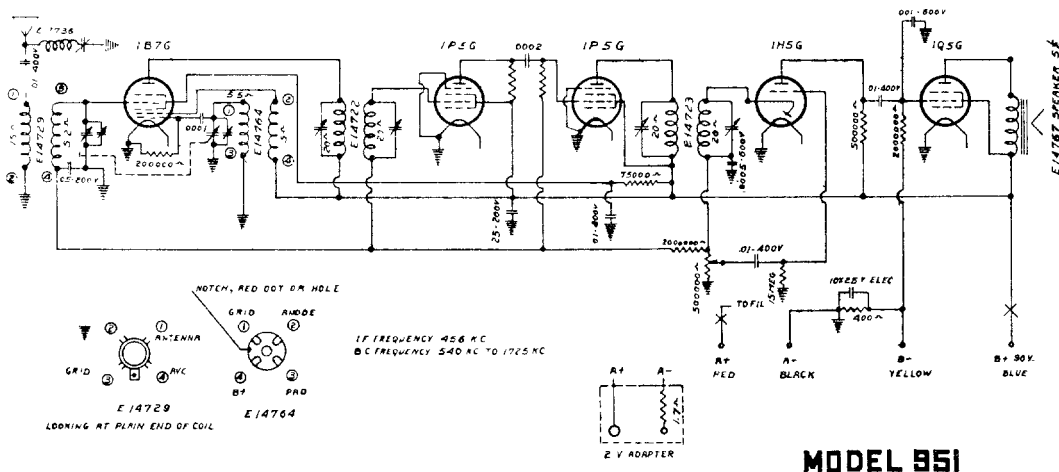
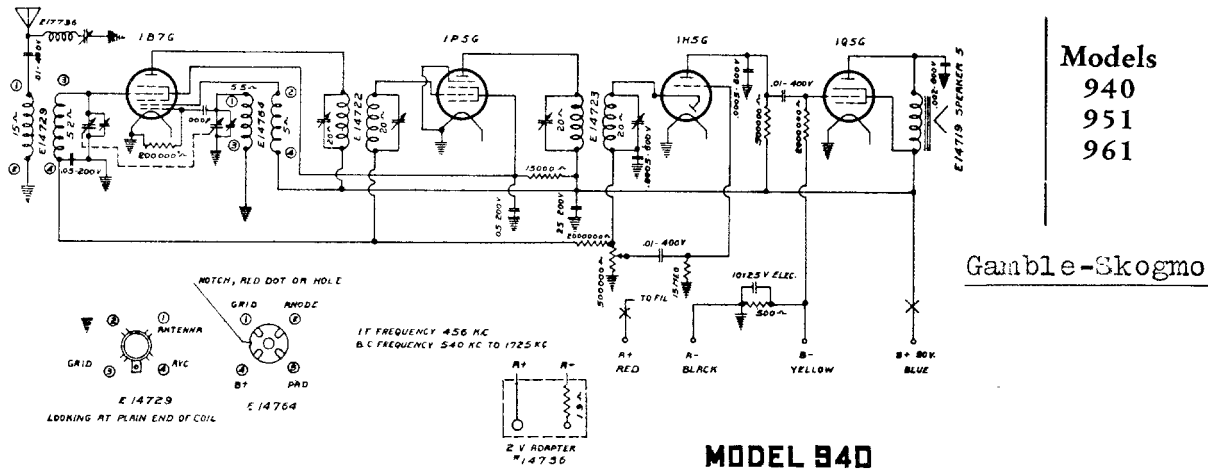
SW ON VOL CONT.



FEDERAL RECORDER CO., Inc.

Model 101 — Radio, Phonograph and Recorder Combination

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



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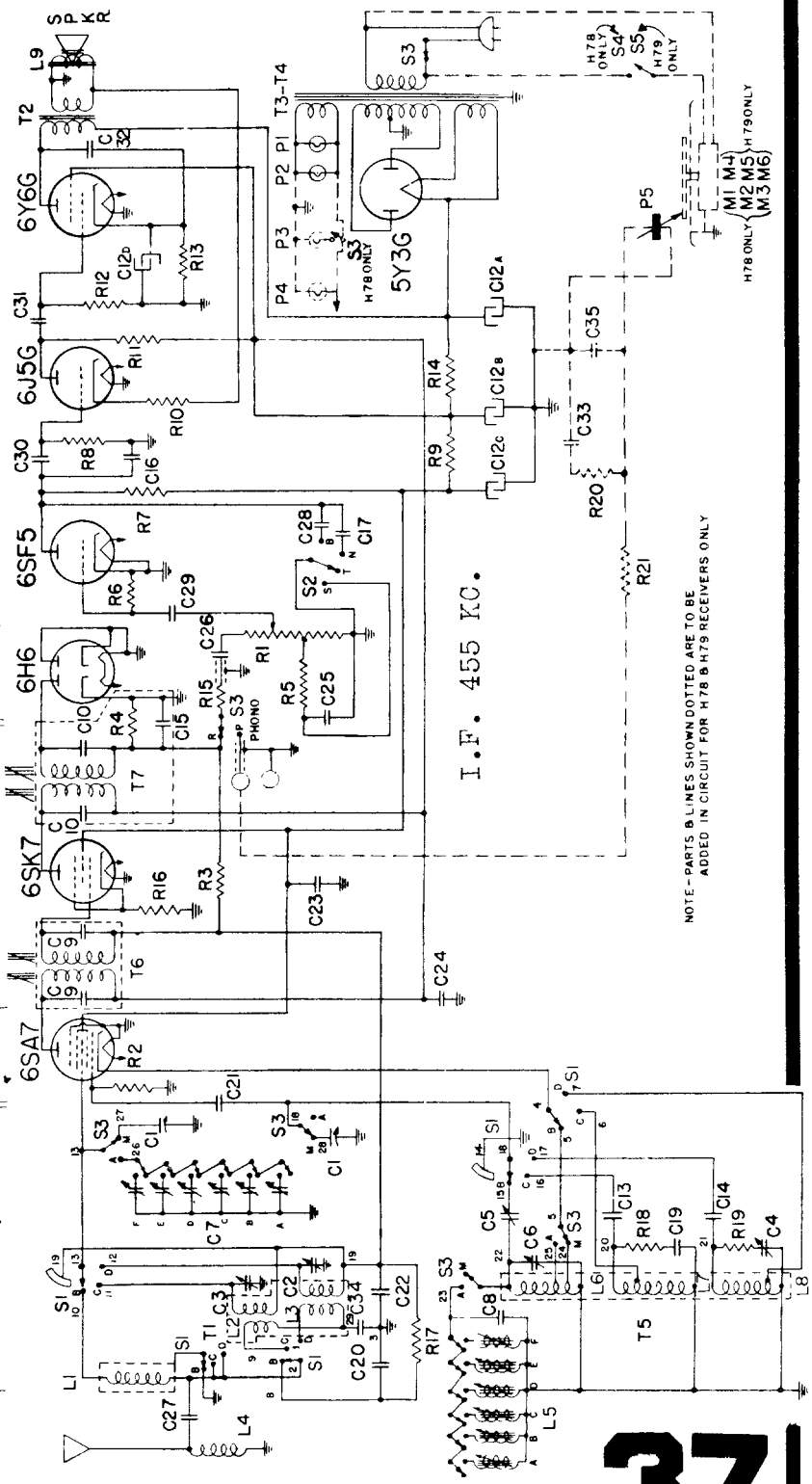
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GENERAL ELECTRIC

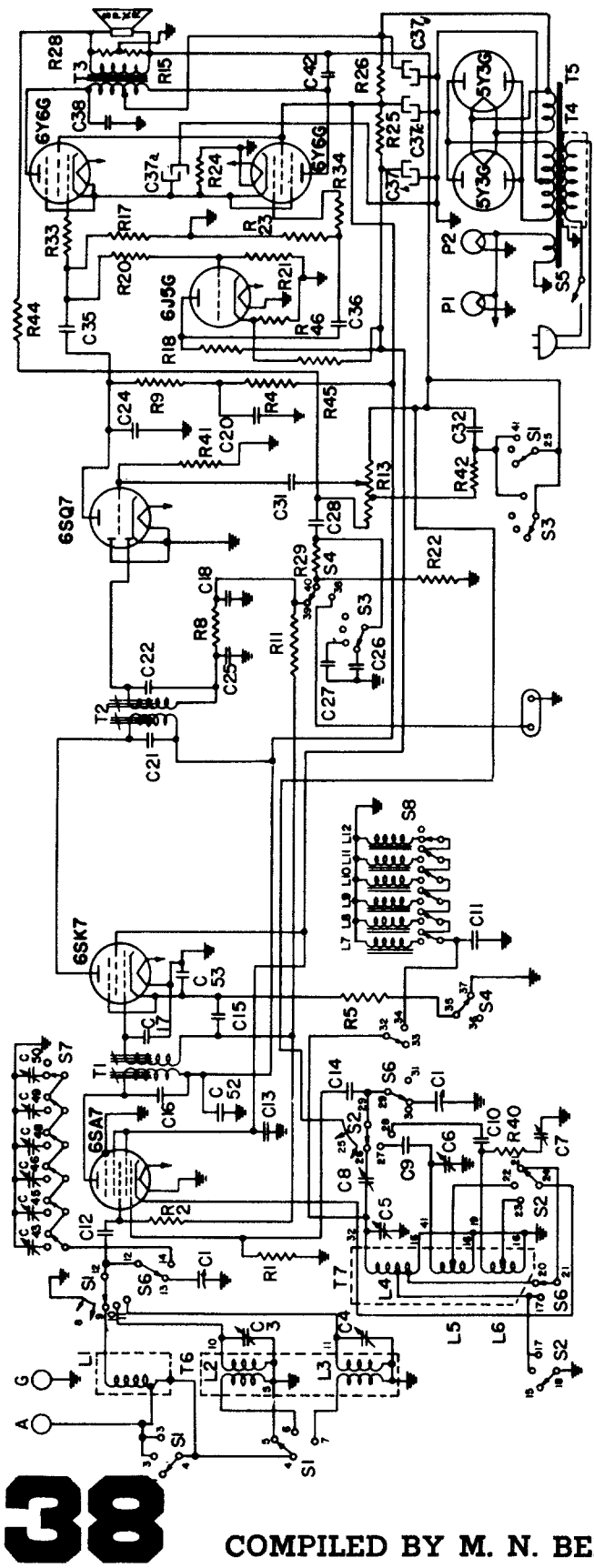
MODELS H-73, H-77, H-78 AND H-79

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
C-1	Tuning condenser	L-5E	50 mmf. mica capacitor	L-5E	Touch Tuning (Code—Red)	R-12	330,000 ohms carbon
C-2	band antenna trimmer	L-5F	.05 mfd. paper capacitor	L-5F	Touch Tuning (Code—None)	R-13	220 ohms 2 W. carbon
C-3	"C" band oscillator trimmer	M-1	.05 mfd. paper capacitor	M-1	Phono motor, 60 cycles	R-14	3,300 ohms 2 W. carbon
C-4	"D" band oscillator trimmer	M-2	.0072 mfd. paper capacitor	M-2	Phono motor, 50 cycles	R-15	47,000 ohms carbon
C-5	"B" band oscillator trimmer	M-3	.01 mfd. paper capacitor	M-3	Phono motor, 25 cycles	R-16	47,000 ohms carbon
C-6	"E" band oscillator trimmer	M-4	.002 mfd. paper capacitor	M-4	Phono motor, 50 cycles	R-17	130 ohms carbon
C-7A	100-490 mmf. trimmer	M-5	.005 mfd. paper capacitor	M-5	Phono motor, 25 cycles	R-18	68 ohms carbon
C-7B	100-490 mmf. trimmer	P-1	.01 mfd. paper capacitor	P-1	Phono motor, 50 cycles	R-19	100,000 ohms carbon
C-7C	100-490 mmf. trimmer	P-2	.01 mfd. paper capacitor	P-2	Phono motor, 25 cycles	R-20	100,000 ohms carbon resistor
C-7D	20-180 mmf. trimmer	P-3	.01 mfd. paper capacitor	P-3	Phono motor, 50 cycles	R-21	100,000 ohms carbon resistor
C-7E	20-180 mmf. trimmer	P-4	.01 mfd. paper capacitor	P-4	Phono motor, 25 cycles	S-1	Band switch
C-7F	7-65 mmf. trimmer	P-5	.01 mfd. paper capacitor	P-5	Phono motor, 50 cycles	S-2	Power switch
C-8	750 mmf. silvered mica capacitor	P-6	.01 mfd. paper capacitor	P-6	Phono motor, 60 cycles	S-3	Manual selector switch
C-9	Adjusted silvered mica capacitors	P-7	.01 mfd. paper capacitor	P-7	Phono motor, 25 cycles	S-4	Station selector switch
C-10	40 mfd. dry electrolytic	P-8	.01 mfd. paper capacitor	P-8	Phono motor, 50 cycles	S-5	"C" band antenna transformer
C-11	20 mfd. dry electrolytic	P-9	.01 mfd. paper capacitor	P-9	Phono motor, 25 cycles	T-1	"D" band antenna transformer
C-12a	20 mfd. dry electrolytic	P-10	.01 mfd. paper capacitor	P-10	Phono motor, 50 cycles	T-2	Output transformer
C-12b	20 mfd. dry electrolytic	P-11	.01 mfd. paper capacitor	P-11	Phono motor, 60 cycles	T-3	Power transformer, 60 cycles
C-12c	20 mfd. dry electrolytic	P-12	.01 mfd. paper capacitor	P-12	Phono motor, 25 cycles	T-4	Power transformer, 25 cycles
C-12d	20 mfd. dry electrolytic	P-13	.01 mfd. paper capacitor	P-13	Phono motor, 50 cycles	T-5	Oscillator transformer for all bands
C-13	5600 mmf. mica capacitor	P-14	.01 mfd. paper capacitor	P-14	Phono motor, 60 cycles	T-6	1st I.F. transformer
C-14	100 mmf. mica capacitor	P-15	.01 mfd. paper capacitor	P-15	Phono motor, 25 cycles	T-7	2nd I.F. transformer
C-15	100 mmf. mica capacitor	P-16	.01 mfd. paper capacitor	P-16	Phono motor, 50 cycles		
C-16	680 mmf. mica capacitor	P-17	.01 mfd. paper capacitor	P-17	Phono motor, 60 cycles		
C-17	920 mmf. mica capacitor	P-18	.01 mfd. paper capacitor	P-18	Phono motor, 25 cycles		
C-18	920 mmf. mica capacitor	P-19	.01 mfd. paper capacitor	P-19	Phono motor, 50 cycles		
C-19	920 mmf. mica capacitor	P-20	.01 mfd. paper capacitor	P-20	Phono motor, 60 cycles		
C-20	4700 mmf. mica capacitor	P-21	.01 mfd. paper capacitor	P-21	Phono motor, 25 cycles		



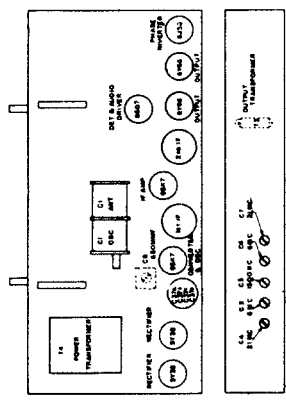
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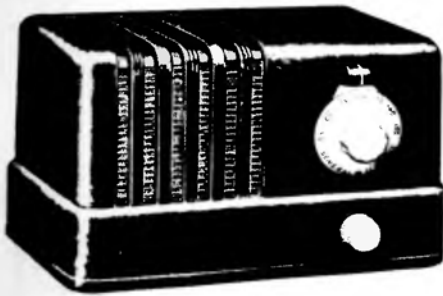


Trimmer Location
 General Electric
 I. F. 455 KC.
MODEL H-87

Symbol	Description	Symbol	Description	Symbol	Description
C-1	Tuning Capacitor	C-42	.01 mfd., Paper Capacitor	R-20	3.3 megohms, Carbon Resistor
C-3	"C" Band Antenna Trimmer	C-43	7-.65 mfd., Antenna Trimmer	R-21	270,000 ohms, Carbon Resistor
C-4	"D" Band Antenna Trimmer	C-44	20-180 mfd., Antenna Trimmer	R-22	220,000 ohms, Carbon Resistor
C-5	"B" Band Oscillator Trimmer	C-45	100-180 mfd., Antenna Trimmer	R-23	150,000 ohms, Carbon Resistor
C-6	"C" Band Oscillator Trimmer	C-46	100-490 mfd., Antenna Trimmer	R-24	100 ohms, 3/4-W. Wire Wound
C-7	"D" Band Oscillator Trimmer	C-47	100-490 mfd., Antenna Trimmer	R-25	2400 ohms, 2-W. Carbon Resistor
C-8	"B" Band Padder	C-48	100-490 mfd., Antenna Trimmer	R-26	2200 ohms, 2.6-W. Wire Wound
C-9	1600 mfd., Mica Capacitor = 5%	C-49	.25 mfd., Paper Capacitor	R-28	68 ohms, Carbon Resistor
C-10	4300 mfd., Mica Capacitor = 5%	C-50	.08 mfd., Paper Capacitor	R-29	47,000 ohms, Carbon Resistor
C-11	750 mfd., Silvered Mica Capacitor = 5%	C-51	Beam-a-Scope	R-33	1000 ohms, Carbon Resistor
C-12	150 mfd., Mica Capacitor	C-52	"C" Band Antenna Coil	R-34	33 ohms, Carbon Resistor
C-13	0.1 mfd., Paper Capacitor	C-53	"D" Band Antenna Coil	R-40	4.7 megohms, Carbon Resistor
C-14	47 mfd., Mica Capacitor	L-1	"B" Band Oscillator Coil	R-41	100,000 ohms, Carbon Resistor
C-15	47 mfd., Paper Capacitor	L-2	"D" Band Oscillator Coil	R-42	4.7 megohms, Carbon Resistor
C-16	47 mfd., Paper Capacitor	L-3	Tuning Coil (Code—None)	R-44	15,000 ohms, 1-W. Carbon Resistor
C-17	47 mfd., Paper Capacitor	L-4	Tuning Coil (Code—Red)	R-45	270 ohms, Carbon Resistor
C-18	47 mfd., Paper Capacitor	L-5	Tuning Coil (Code—Blue)	R-46	270 ohms, Carbon Resistor
C-19	47 mfd., Paper Capacitor	L-6, 9		P-1	Pilot Light, Mazda No. 44
C-20	100 mfd., Mica Capacitor	L-10, 11, 12		P-2	Antenna Band Switch
C-21	100 mfd., Mica Capacitor	R-1	22,000 ohms, Carbon Resistor	S-1	Oscillator Band Switch
C-22	100 mfd., Mica Capacitor	R-2	1.0 megohm, Carbon Resistor	S-2	Tone Switch
C-23	470 mfd., Paper Capacitor	R-3	47,000 ohms, Carbon Resistor	S-3	Power Switch
C-24	0.1 mfd., Paper Capacitor	R-4	330 ohms, Carbon Resistor	S-4	Phone Switch
C-25	0.008 mfd., Paper Capacitor	R-5	47,000 ohms, Carbon Resistor	S-5	Manual Switch
C-26	.05 mfd., Paper Capacitor	R-8	220,000 ohms, Carbon Resistor	S-6	Antenna Section, Touch Tuning
C-27	20 mfd., 250 V. Dry Electrolytic	R-9	2.2 megohms, Carbon Resistor	S-7	Switch Section, Touch Tuning
C-28	20 mfd., 250 V. Dry Electrolytic	R-11	15 ohms, Carbon Resistor	S-8	Oscillator Section, Touch Tuning
C-29	20 mfd., 250 V. Dry Electrolytic	R-13	330,000 ohms, Carbon Resistor		
C-30	40 mfd., 250 V. Dry Electrolytic	R-15	68,000 ohms, Carbon Resistor		
C-31	40 mfd., 250 V. Dry Electrolytic	R-17			
C-32	.02 mfd., Paper Capacitor	R-18			

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

General Electric **MODEL H-400**



GENERAL INFORMATION

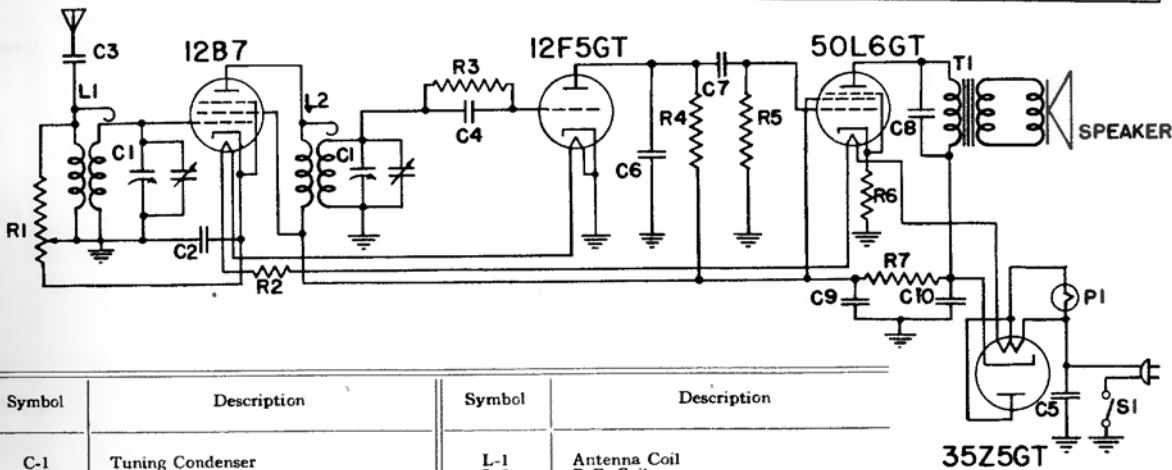
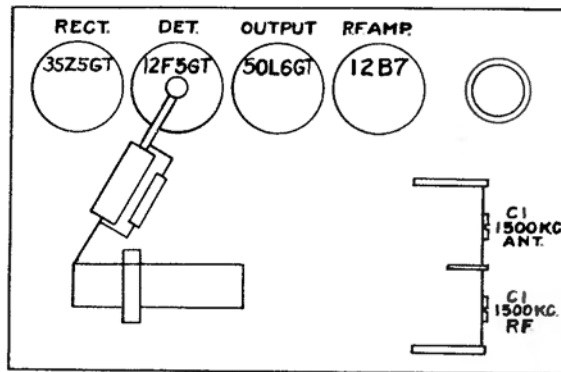
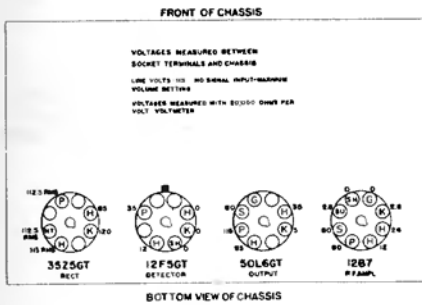
Model H-400 is a compact four-tube AC-DC tuned radio-frequency receiver that tunes the standard broadcast band of frequencies and one police band. One side of the power line is connected directly to the chassis ground; therefore, caution should be exercised in servicing.

When operating from a DC source of power it is necessary to insert the power plug with the proper polarity. If the receiver fails to function with the power plug inserted one way, reverse the plug. If any hum is noticed when the receiver is used on A-C, reverse the power plug as above.

ALIGNMENT

Connect the high side of the signal generator through a 100-mmf condenser to the terminal to which the antenna hank is soldered. The low side of the signal generator output should be connected to the receiver chassis through a .05 mfd. condenser. Connect a suitable output meter across the voice coil leads; then proceed as follows:

1. With gang condenser plates completely closed, the tuning index should be over the last calibration mark on the dial.
2. Set volume control to about $\frac{3}{4}$ of maximum.
3. Rotate gang to minimum capacity and tune trimmers on the gang condenser to 1750 KC signal. Re-tune gang to 1500 KC signal and peak trimmers by alternate adjustment.

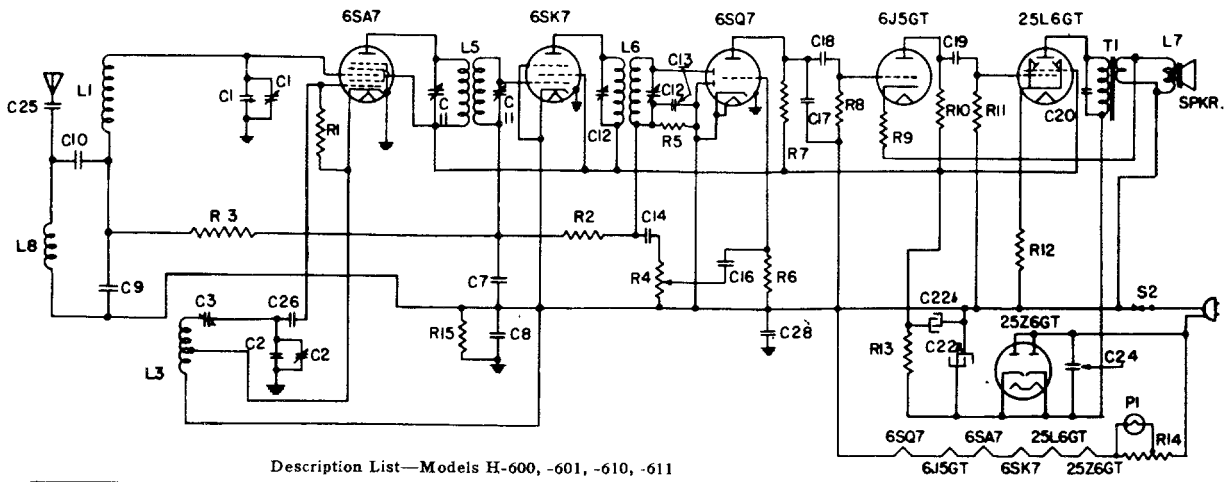


Symbol	Description	Symbol	Description
C-1	Tuning Condenser	L-1	Antenna Coil
C-2	.01 mfd., 600 V. Paper	L-2	R.F. Coil
C-3	.001 mfd., 600 V. Paper	P-1	Pilot Lamp, MAZDA No. 47
C-4	.005 mfd., 600 V. Paper	R-1	30,000 ohm, Volume Control (300 ohm stop)
C-5	.01 mfd., 600 V. Paper	R-2	75 ohm, 2-W. Carbon
C-6	330 mfd., Mica	R-3	4.7 megohm, $\frac{1}{2}$ -W. Carbon
C-7	.01 mfd., 600 V. Paper	R-4	1.0 megohm, $\frac{1}{2}$ -W. Carbon
C-8	.02 mfd., 600 V. Paper	R-5	1.0 megohm, $\frac{1}{2}$ -W. Carbon
C-9	20 mfd., 150 V. Dry Electrolytic	R-6	150 ohm, $\frac{1}{2}$ -W. Carbon $\pm 5\%$
C-10	40 mfd., 150 V. Dry Electrolytic	R-7	4700 ohm, $\frac{1}{2}$ -W. Carbon

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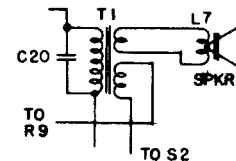
39

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



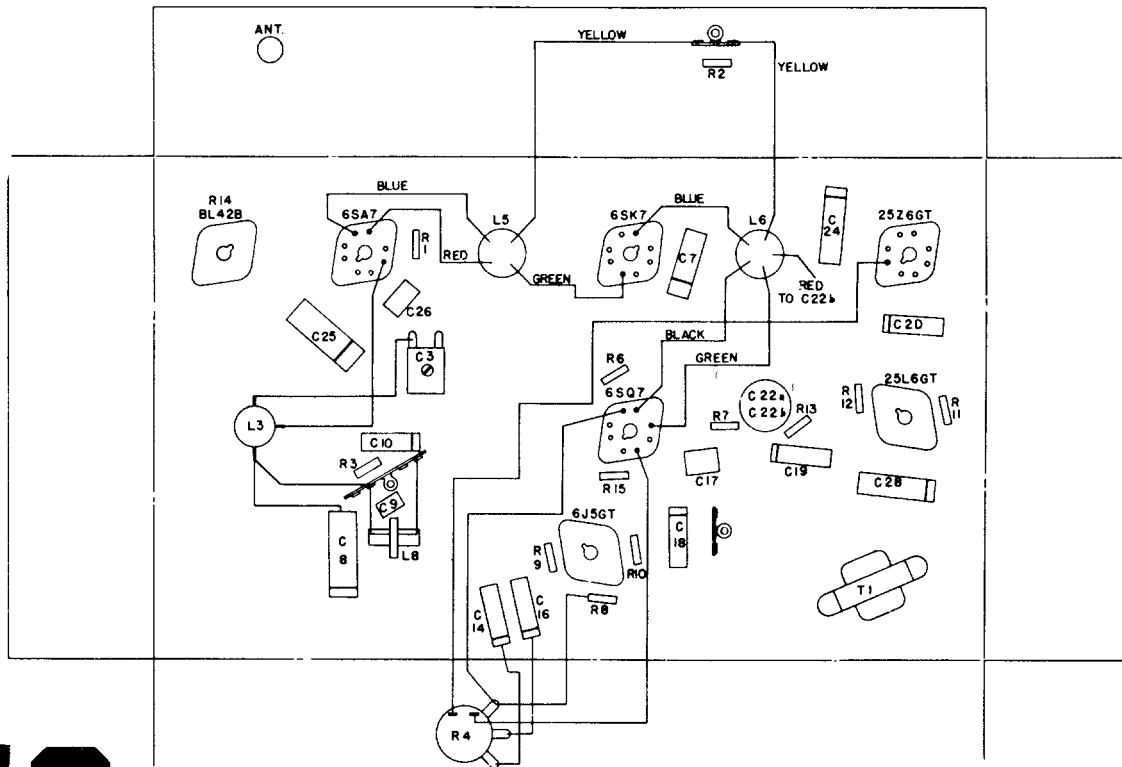
Description List—Models H-600, -601, -610, -611

Symbol	Description	Symbol	Description
C1	Antenna section of tuning condenser	R3	470,000 ohms carbon resistor
C2	Oscillator section of tuning condenser	R4	2 megohms volume control
C3	"B" band paddler	R5	470,000 ohms carbon resistor
C7	.05 mfd. paper capacitor	R6	15 megohms carbon resistor
C8	0.1 mfd. paper capacitor	R7	470,000 ohms carbon resistor
C9	3900 mmf. ±5% mica capacitor	R8	1.0 megohm carbon resistor
C10	.01 mfd. paper capacitor	R9	3300 ohms carbon resistor
C13	470 mmf. mica capacitor	R10	39,000 ohms carbon resistor
C14	.002 mfd. paper capacitor	R11	470,000 ohms carbon resistor
C16	.02 mfd. paper capacitor	R12	150 ohms carbon resistor
C17	470 mmf. mica capacitor	R13	1000 ohms carbon resistor
C18	.005 mfd. paper capacitor	R14	BL42B ballast resistor
C19	.005 mfd. paper capacitor	R15	470,000 ohms carbon resistor
C20	.01 mfd. paper capacitor	L1	Beam-a-Scope
C22a	50 mfd. 150 V. dry electrolytic	L3	Oscillator coil
C22b	30 mfd. 150 V. dry electrolytic	L5	1st I.F. transformer
C24	.05 mfd. paper capacitor	L6	2nd I.F. transformer
C25	.01 mfd. paper capacitor	L7	Speaker voice coil
C26	47 mmf. mica capacitor	L8	Antenna choke, 1½ MH
C28	0.1 mfd. paper capacitor	P1	Pilot lamp, MAZDA No. 44
R1	33,000 ohms carbon resistor	T1	Output transformer
R2	2.2 megohms carbon resistor		



ON H-601 & H-611 RECEIVERS
SUBSTITUTE THIS TRANS-
FORMER (T-1) FOR ONE SHOWN
ABOVE.

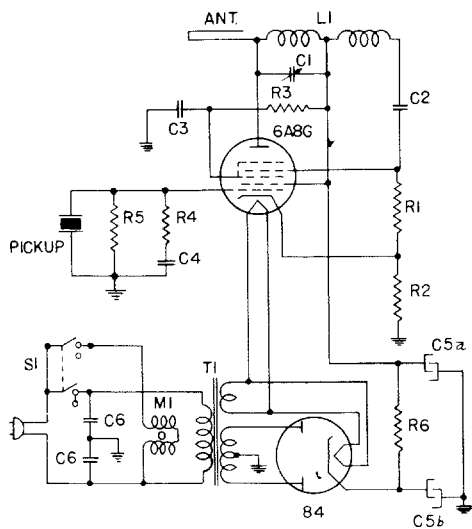
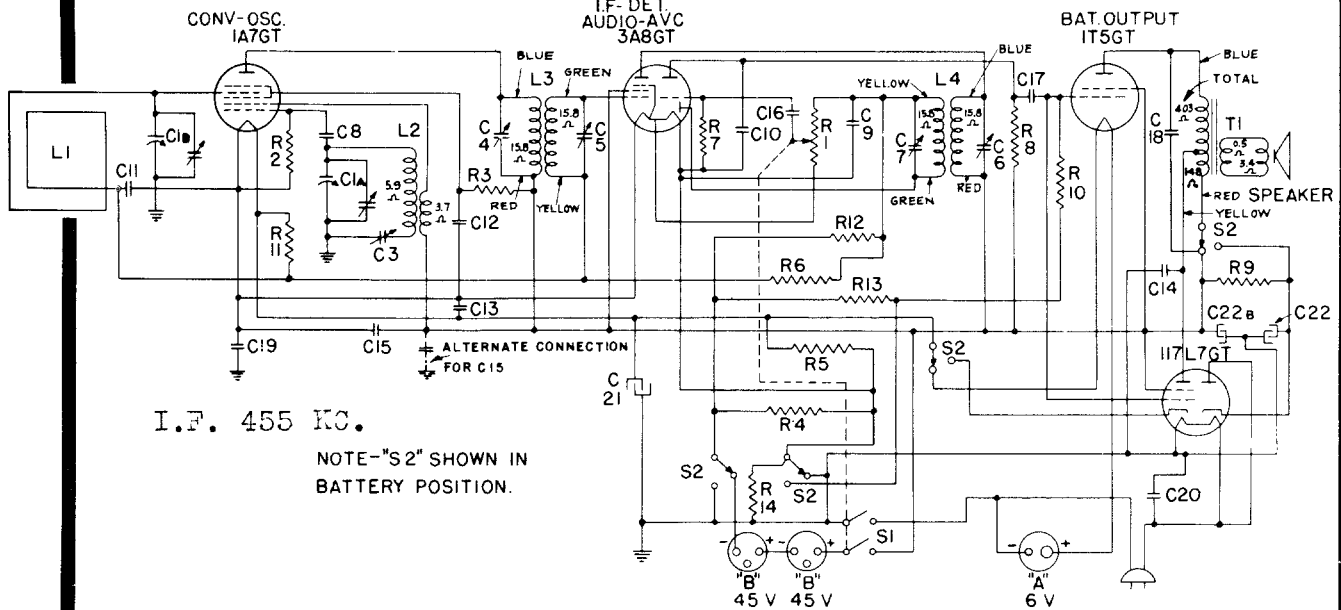
General Electric Models H-600, -601, -610, -611



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

General Electric Model HB-412

Symbol	Description	Symbol	Description	Symbol	Description
C-1A	Oscillator section tuning condenser	C-19	0.2 mfd. paper capacitor	R-6	2.2 megohms carbon resistor
C-1B	Antenna section tuning condenser	C-20	.01 mfd. line capacitor	R-7	15 megohms carbon resistor
C-3	Oscillator padding capacitor	C-21	100 mfd. 5 V. dry electrolytic	R-8	1.0 megohm carbon resistor
C-8	47 mmf. mica capacitor	C-22A	40 mfd. 150 V. dry electrolytic	R-9	1800 ohms carbon resistor
C-9	220 mmf. mica capacitor	C-22B	20 mfd. 150 V. dry electrolytic	R-10	470,000 ohms carbon resistor
C-10	220 mmf. mica capacitor	L-1	Beam-a-Scope	R-11	3.9 megohms carbon resistor
C-11	.05 mfd. paper capacitor	L-2	Oscillator coil	R-12	680,000 ohms carbon resistor
C-12	0.1 mfd. paper capacitor	L-3	1st I.F. transformer	R-13	1.5 megohms carbon resistor
C-13	0.1 mfd. paper capacitor	L-4	2nd I.F. transformer	R-14	27 ohms carbon resistor
C-14	220 mmf. mica capacitor	R-1	1.0 megohm volume control	S-1	Power switch (on volume control)
C-15	0.1 mfd. paper capacitor	R-2	220,000 ohms carbon resistor	S-2	AC-DC or Battery switch
C-16	.002 mfd. paper capacitor	R-3	47,000 ohms carbon resistor	T-1	Output transformer
C-17	.01 mfd. paper capacitor	R-4	150 ohms carbon resistor		
C-18	.004 mfd. paper capacitor	R-5	560 ohms carbon resistor		



General Electric Model HM-21

Symbol	Description
C-1	300-850 mmf. tuning trimmer
C-2	100 mmf. mica capacitor
C-3	0.1 mfd. paper capacitor
C-4	.005 mfd. paper capacitor
C-5a	10 mfd. dry electrolytic
C-5b	10 mfd. dry electrolytic
C-6	.01-.01 mfd. line capacitor
L-1	Oscillator coil
M-1	Motor
R-1	120,000 ohms carbon resistor
R-2	1,200 ohms carbon resistor
R-3	47,000 ohms carbon resistor
R-4	47,000 ohms carbon resistor
R-5	1.0 megohms carbon resistor
R-6	6,800 ohms carbon resistor
S-1	Power switch
T-1	Power transformer

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

General Electric

Models H-634, H-638, and H-640

Tuning Frequency Range

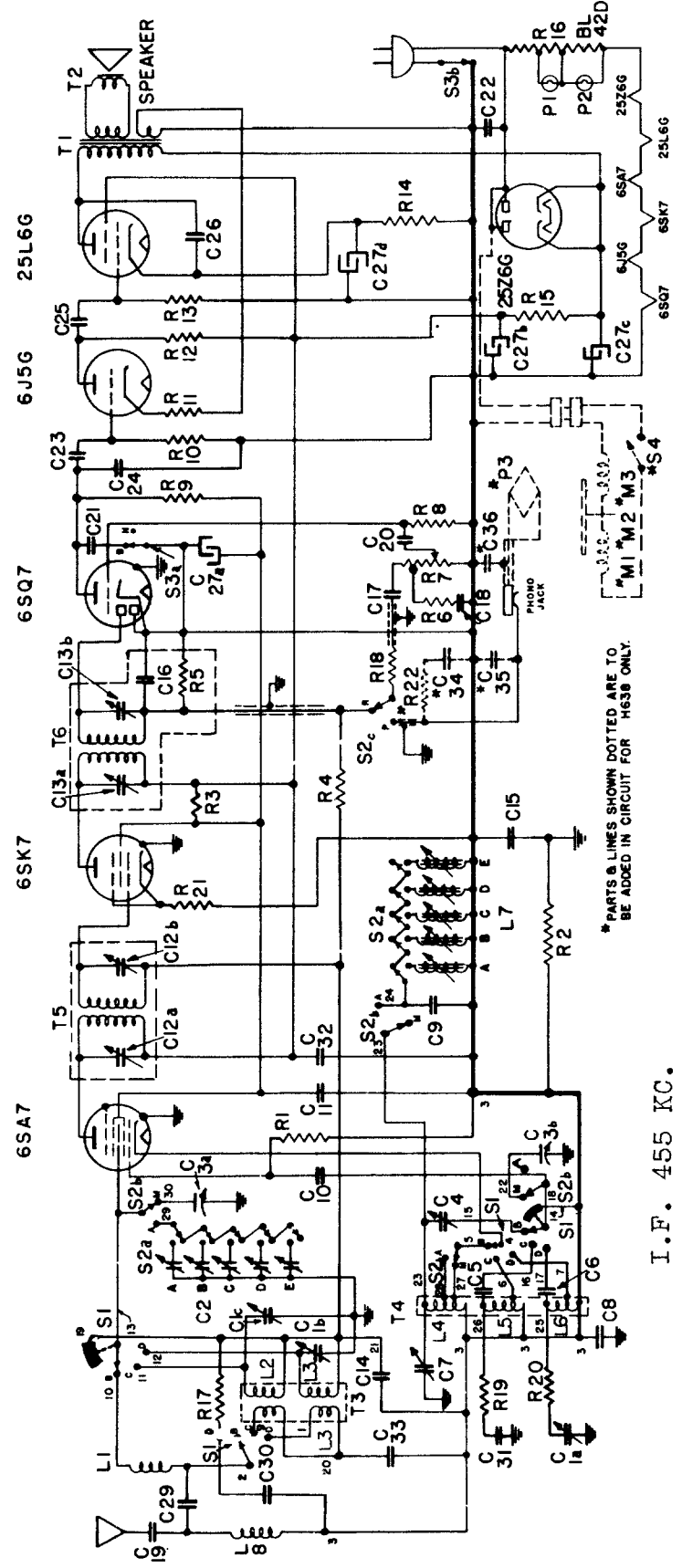
Band "B" 550-1600 K.C.
 Band "C" 2200-6500 K.C.
 Band "D" 6500-22000 K.C.

Intermediate Frequency 455 K.C.

SYMBOL	DESCRIPTION
M-1	60 cycle phono motor
M-2	50 cycle phono motor
M-3	25 cycle phono motor
R-1	27,000 ohms, carbon resistor
R-2	470,000 ohms, carbon resistor
R-3	2,200 ohms, carbon resistor
R-4	2.2 megohms, carbon resistor
R-5	470,000 ohms, carbon resistor
R-6	56,000 ohms, carbon resistor
R-7	2 megohm volume control
R-8	.5 megohms, carbon resistor
R-9	220,000 ohms, carbon resistor
R-10	300 megohm, carbon resistor
R-11	300,000 ohms, carbon resistor
R-12	290,000 ohms, carbon resistor
R-13	470,000 ohms, carbon resistor
R-14	150 ohms, carbon resistor
R-15	560 ohms, carbon resistor
R-16	Ballast tube BL42D
R-17	47,000 ohms, carbon resistor
R-18	47,000 ohms, carbon resistor
R-19	150 ohms, carbon resistor
R-20	68 ohms, carbon resistor
R-21	390 ohms, carbon resistor
R-22	100,000 ohms, carbon resistor
P-1, 2	Dial lamp, Mazda No. 44.

SYMBOL	DESCRIPTION
C-22	.05 mfd. 250 V. A. C. moulded capacitor
C-23	.005 mfd. paper capacitor
C-24	100 mmf. mica capacitor
C-25	.02 mfd. paper capacitor
C-26	.01 mfd. paper capacitor
C-27a	50 mfd. 150 V. dry electrolytic
C-27b	50 mfd. 150 V. dry electrolytic
C-27c	20 mfd. 25 V. dry electrolytic
C-29	0.1 mfd. paper capacitor
C-30	4700 mmf. mica capacitor ± 5%
C-31	22 mmf. mica capacitor
C-32	.05 mfd. paper capacitor
C-33	.01 mfd. paper capacitor
C-34	.002 mfd. paper capacitor
C-35	.01 mfd. paper capacitor
C-36	0.1 mfd. paper capacitor
L-1	Loop antenna
L-2	"C" band antenna coil
L-3	"B" band antenna coil
L-4	"B" band oscillator coil
L-5	"C" band oscillator coil
L-6	"D" band oscillator coil
L-7	Station coil trimmers
L-8	Antenna choke

SYMBOL	DESCRIPTION
C-1a	"D" band oscillator trimmer
C-1b	"D" band antenna trimmer
C-1c	"C" band antenna trimmer
C-2a	7-65 mmf. station trimmer
C-2b	20-180 mmf. station trimmer
C-2c	100-490 mmf. station trimmer
C-2d	100-490 mmf. station trimmer
C-2e	Tuning condenser
C-3	"B" band oscillator paddler
C-4	2000 mmf. mica capacitor ± 5%
C-5	5600 mmf. mica capacitor ± 5%
C-6	.01 mfd. paper capacitor
C-7	"B" band oscillator trimmer
C-8	.01 mfd. paper capacitor
C-9	750 mmf. silvered mica capacitor ± 5%
C-10	47 mmf. mica capacitor
C-11	.05 mfd. paper capacitor
C-12	.05 mfd. paper capacitor
C-13	.01 mfd. paper capacitor
C-14	100 mmf. mica capacitor
C-15	.0072 mfd. paper capacitor
C-16	.0072 mfd. paper capacitor
C-17	.0072 mfd. paper capacitor
C-18	.0072 mfd. paper capacitor
C-19	.01 mfd. paper capacitor
C-20	.01 mfd. paper capacitor
C-21	.0015 mfd. paper capacitor



I.F. 455 KC.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

General Electric Model HJ-612

I.F. Alignment

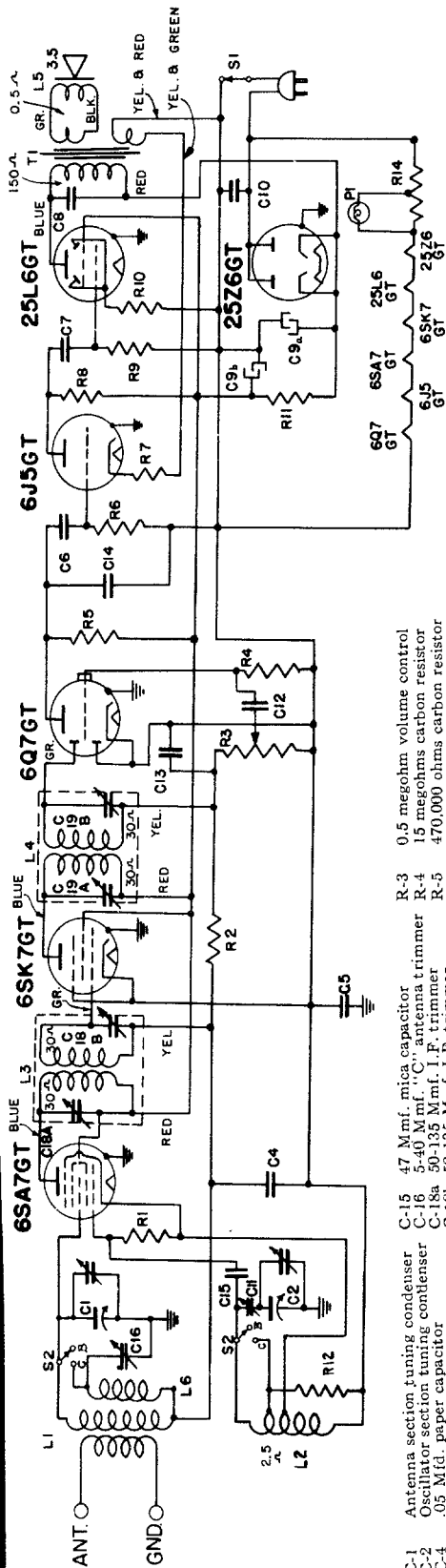
Connect an output meter across the voice coil. Rotate the volume control to maximum. Completely close the gang condenser plates and set the dial pointer to the first dial mark at the low end of the scale. Throw the band switch to "BC" (up).

Set test oscillator to 455 KC and apply signal to the control grid of the 6SA7 tube through a .05 mfd. capacitor. Do not remove the 6SA7 grid lead. Keep the test oscillator output as low as a readable meter reading will permit. Adjust all I.F. trimmers for maximum meter reading.

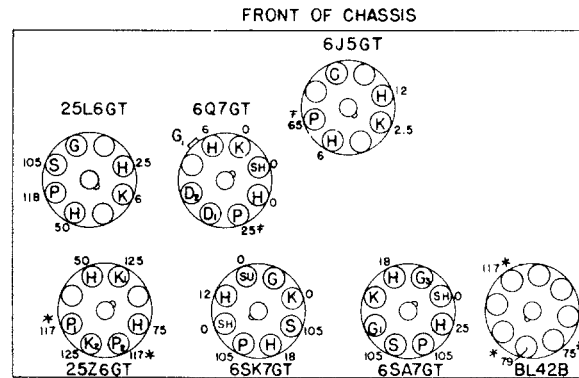
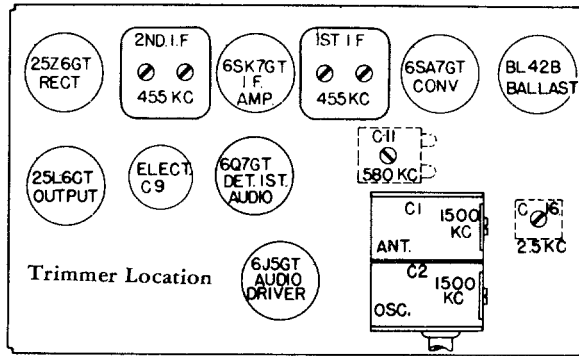
R.F. Alignment

Apply a 1500 KC signal either through a standard I.R.E. dummy to the antenna terminal or through an additional loop connected to the signal generator output which can be magnetically coupled to the receiver Beam-a-Scope. When using an I.R.E. dummy antenna for R.F. alignment do not connect a ground lead between the signal generator and the receiver. Align (C-2) at 1500 KC and peak (C-1) for maximum output. Change signal to 580 KC and tune receiver to signal. Peak (C-11) on the 580 KC signal by rocking the gang condenser. Retrim at 1500 KC.

Throw the band switch to "SW" band. Peak (C-16) on 2500 KC.



- C-1 Antenna section tuning condenser
- C-2 Oscillator section tuning condenser
- C-3 .05 Mfd. paper capacitor
- C-4 .2 Mfd. paper capacitor
- C-5 .005 Mfd. paper capacitor
- C-6 .005 Mfd. paper capacitor
- C-7 .01 Mfd. paper capacitor
- C-8 .50 Mfd., 150 V. dry electrolytic
- C-9a 300-675 Mmf. paddler
- C-10 .05 Mfd. paper capacitor
- C-11 .70 Mmf. mica capacitor
- C-12 220 Mmf. mica capacitor
- C-13
- C-14
- C-15 47 Mmf. mica capacitor
- C-16 5-40 Mmf. "C" antenna trimmer
- C-18a 50-135 Mmf. I.F. trimmer
- C-18b 50-135 Mmf. I.F. trimmer
- C-19a 50-135 Mmf. I.F. trimmer
- C-19b 50-135 Mmf. I.F. trimmer
- L-1 Beam-a-Scope
- L-2 Oscillator coil
- L-3 1st I.F. transformer
- L-4 2nd I.F. transformer
- L-5 "C" band antenna coil
- L-6 Dial lamp, MAZDA No. 44
- R-1 33,000 ohms carbon resistor
- R-2 2.2 megohms carbon resistor
- R-3 0.5 megohm volume control
- R-4 15 megohms carbon resistor
- R-5 470,000 ohms carbon resistor
- R-6 1.0 megohms carbon resistor
- R-7 3300 ohms carbon resistor
- R-8 39,000 ohms carbon resistor
- R-9 470,000 ohms carbon resistor
- R-10 1000 ohms, 1 W. carbon resistor
- R-11 4700 ohms carbon resistor
- R-12 4700 ohms carbon resistor
- R-14 Ballast resistor BL-42-B
- T-1 Output transformer



BOTTOM VIEW OF CHASSIS
 VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND MINUS B
 * MEASURED ON 250 VOLT SCALE OF 1000 OHMS PER VOLT METER
 * VOLTS AC
 LINE VOLTS - 117 AC GANG CLOSED MAX VOLUME

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

SUPER DEFIANT MODEL SX25

RESISTORS

NO.	OHMS	WATTAGE	NO.	OHMS	WATTAGE
R1	100,000	1/3	23	3,000	1/3
2	400	"	24	50,000	"
3	100,000	"	25	250,000	"
4	10,000	R. F. Gain	26	100,000	"
5	500	S Meter	27	250,000	"
6	100	1/3	28	2,000,000	"
7	3,000	"	29	1,000,000	"
8	100,000	"	30	500,000	A.F. Gain
9	400	"	31	250,000	1/3
10	500	"	32	250,000	"
11	3,000	"	33	250,000	"
12	100,000	"	34	250,000	"
13	400	"	35	200,000	"
14	50,000	"	36	250	1
15	30,000	1	37	20,000	1
16	15,000	1	38	15,000	1
17	4,000	1	39	15,000	1
18	100,000	1/3	40	150	1/3
19	500,000	"	41	50,000	"
20	800	"	42	20,000	1
21	3,000	"	43	8	1/3
22	1,000	"			

CONDENSERS

NO.	CAPACITY	VOLTAGE	TYPE	NO.	CAPACITY	VOLTAGE	TYPE
C1	Main Tuning Gang			29	100 mmfd		Mica
2	2 PL. Bd. Spr. Sec.			30	3 mmfd		Twisted Pair
3	5 " " " "			31	.02 mfd	400	Paper
4	.01 mfd	200	Paper	32	.02 mfd	400	Paper
5	.05 mfd	200		33	.05 mfd	200	Paper
6	.05 mfd	200	Paper	34	.002 mfd	1,600	Tubular Oil
7	.02 mfd	400	Paper	35	250 mfd		Mica
8	.05 mfd	200	Paper	36	.05 mfd	400	Paper
9	35 mmfd		Ceramicon	37	10 mfd	25	Electrolytic
10	.05 mfd	200	Paper	38	.05 mfd	400	Paper
11	.02 mfd	400	Paper	39	10 mfd	25	Electrolytic
12	.05 mfd	200	Paper	40	.002 mfd	1,600	Tubular Oil
13	5 mmfd		Ceramicon	41	.1 mfd	400	Paper
14	35 mmfd		Ceramicon	42	10 mfd	350	Electrolytic
15	.05 mfd	200		43	30 mfd	350	Electrolytic
16	.05 mfd	400	Paper	44	.01 mfd	600	Paper
17	.02 mfd	400	Paper	45	100 mmfd		Mica
18	4.5 mmfd		Compensating	46	500 mmfd		Mica
19	10 mfd	350	Electrolytic	47	.02 mfd	400	Paper
20	.05 mfd	200	Paper	48	105 mmfd		Ceramicon
21	25 mmfd		Phasing	49	.002 mfd.		Mica
22	1.5 to 18 mmfd "TXS"		Trimmer	50	105 mmfd		Ceramicon
23	1.5 to 18 mmfd		Trimmer	51	2300 mmfd		Dual Pad
24	.05 mfd	200	Paper	52	1400 mmfd		Single Pad
25	.02 mfd	400	Paper	53	450 mmfd		Dual Pad
26	.05 mfd	200	Paper	54	.1 mfd	200	Paper
27	.02 mfd	400	Paper	55	700 mmfd		Mica
28	50 mmfd		Mica				

SWITCHES

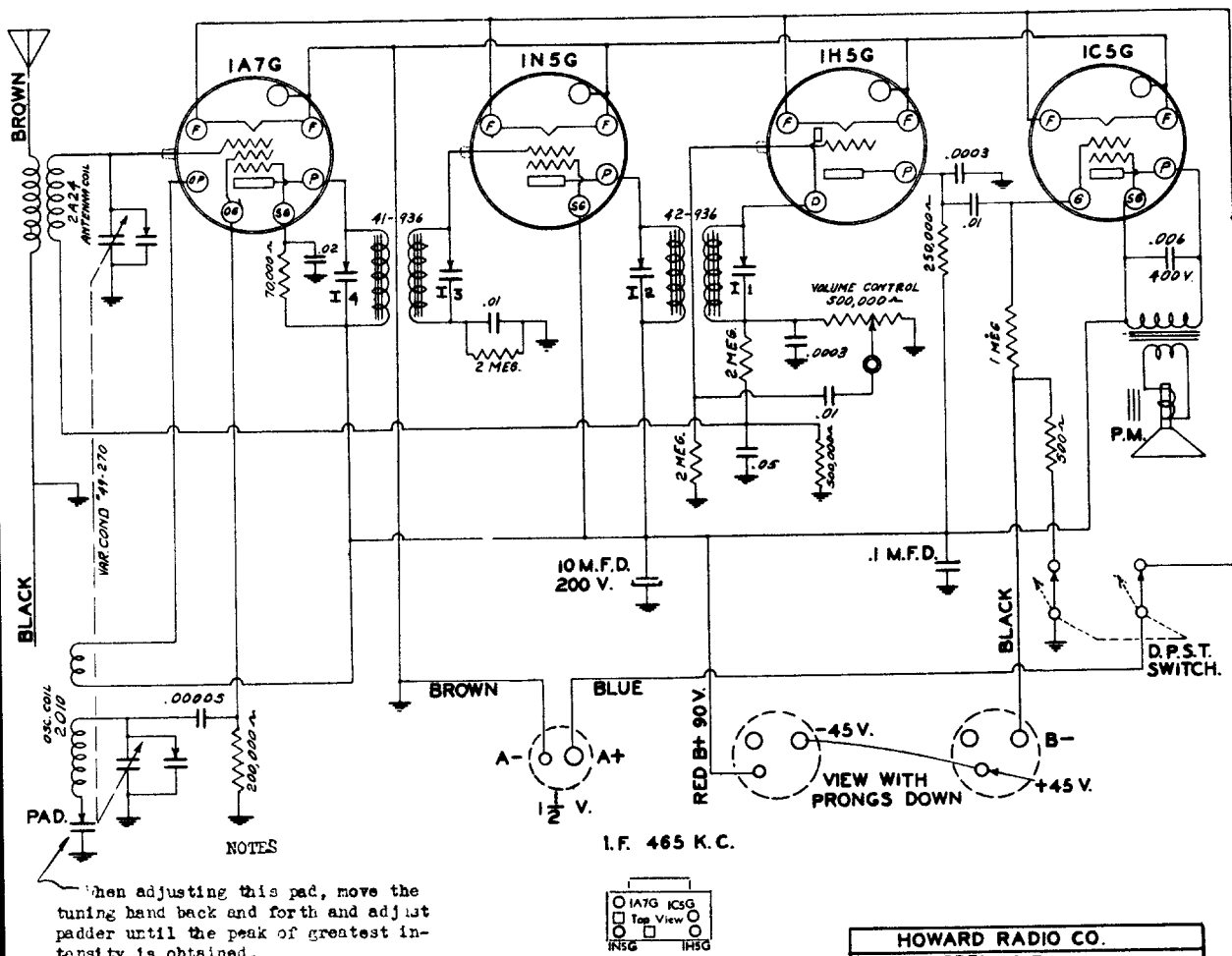
SW1 - AC ON-OFF on A.F. Gain Control
 SW2 - Stand-by SPST
 SW3 - B.F.G. ON-OFF SPST

SW4 - A.N.L. ON-OFF SPST
 SW5 - High-Low Tone SPST
 SW6 - "S" Meter on R.F. Gain Control.

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



SERVICE NOTES

It is necessary that the 1N5G tube be shielded. See that the shield is firmly in place around the bottom portion of the tube.

The intermediate frequency of this receiver is 465 KC.

The trimmers and padding condenser adjustments are accessible through bottom of cabinet.

Color code of battery leads:- Red B+90; Black B-; Brown A-; Blue A + 1 1/2 V.

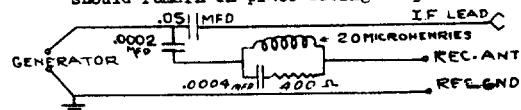
RECOMMEND BATTERY KITS

	EVEREADY	BURGESS	
1 1/2 V. "A" 1 Required	740	20-F	For greater economy use two "A" cells in PARALLEL. Connect plus to plus and minus to minus.
45 V. "B" 2 Required	749	D60	
Combination "A" and "B" Single Unit.	746	17GD60	Use Adapter

Each step of the alignment should be repeated in the original order for greater accuracy. Keep output from Signal Generator low. The I.F. trimmers are reached through the two holes on the top of each I.F. can.

See that the tuning hand is set exactly on the last line above 540 when the condenser is at maximum capacity.

The following dummy antenna circuit is recommended, since it is adaptable for any frequency range. The grid cap should remain in place during alignment.



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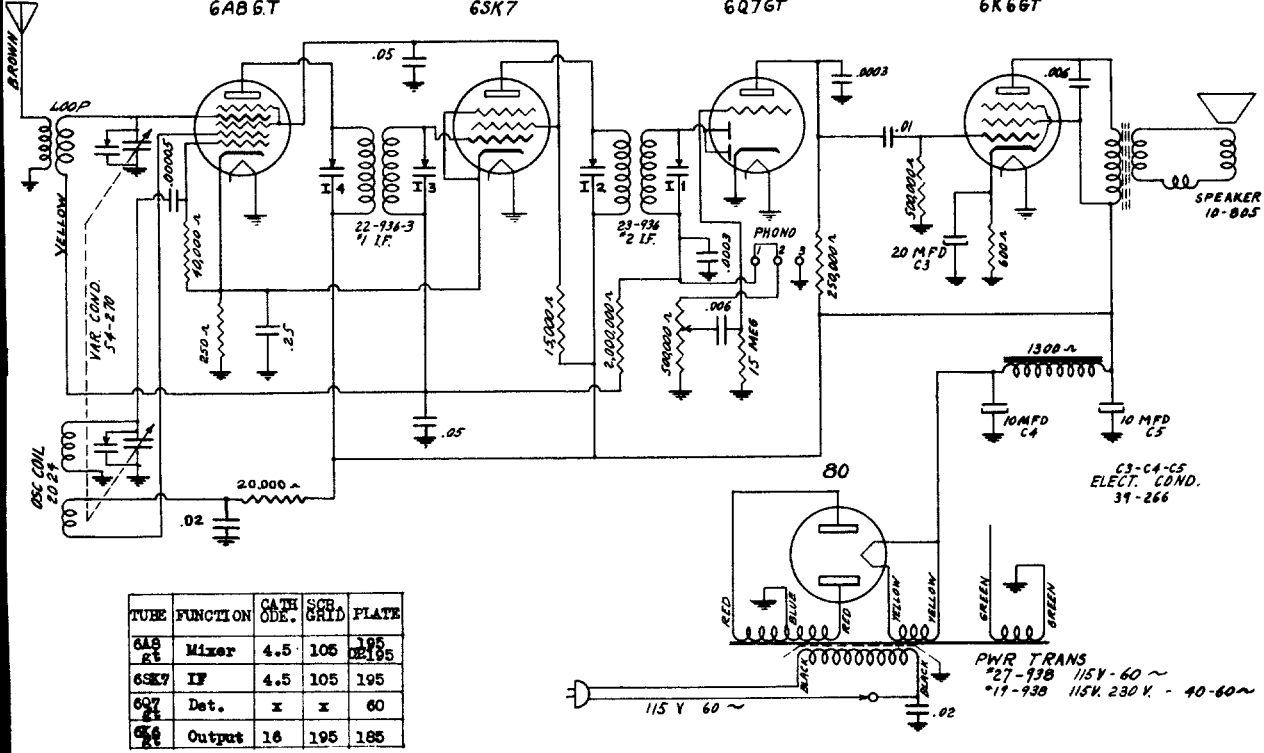
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

6AB6T

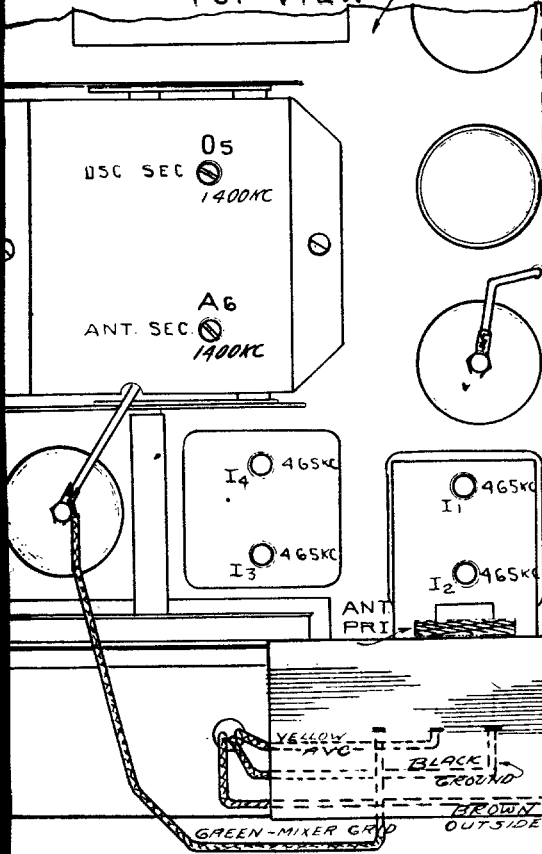
6SK7

6Q7GT

6K6GT



TOP VIEW

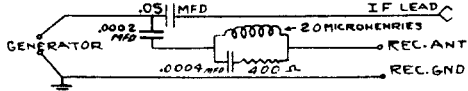


Howard Radio Model 300

ALIGNMENT PROCEDURE

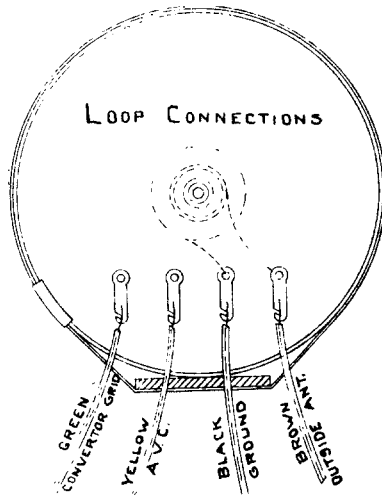
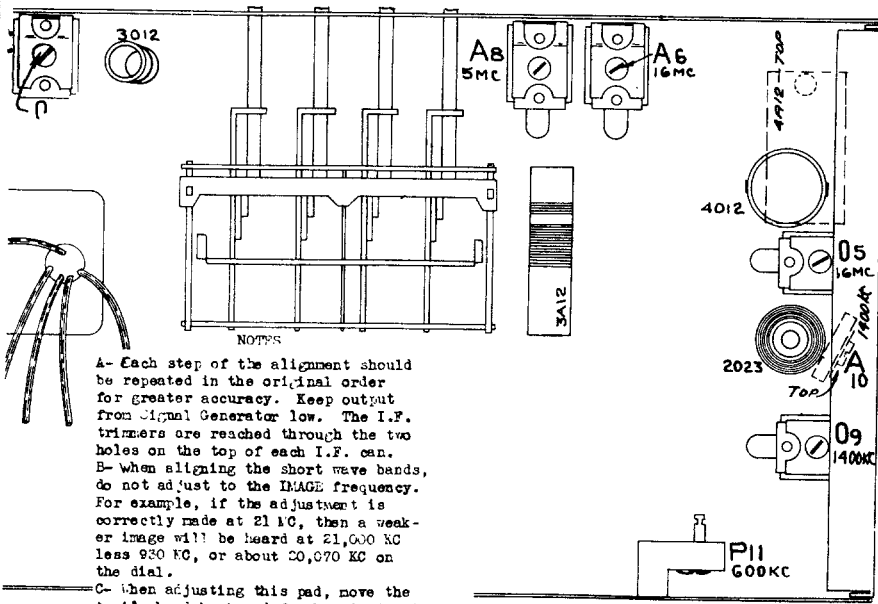
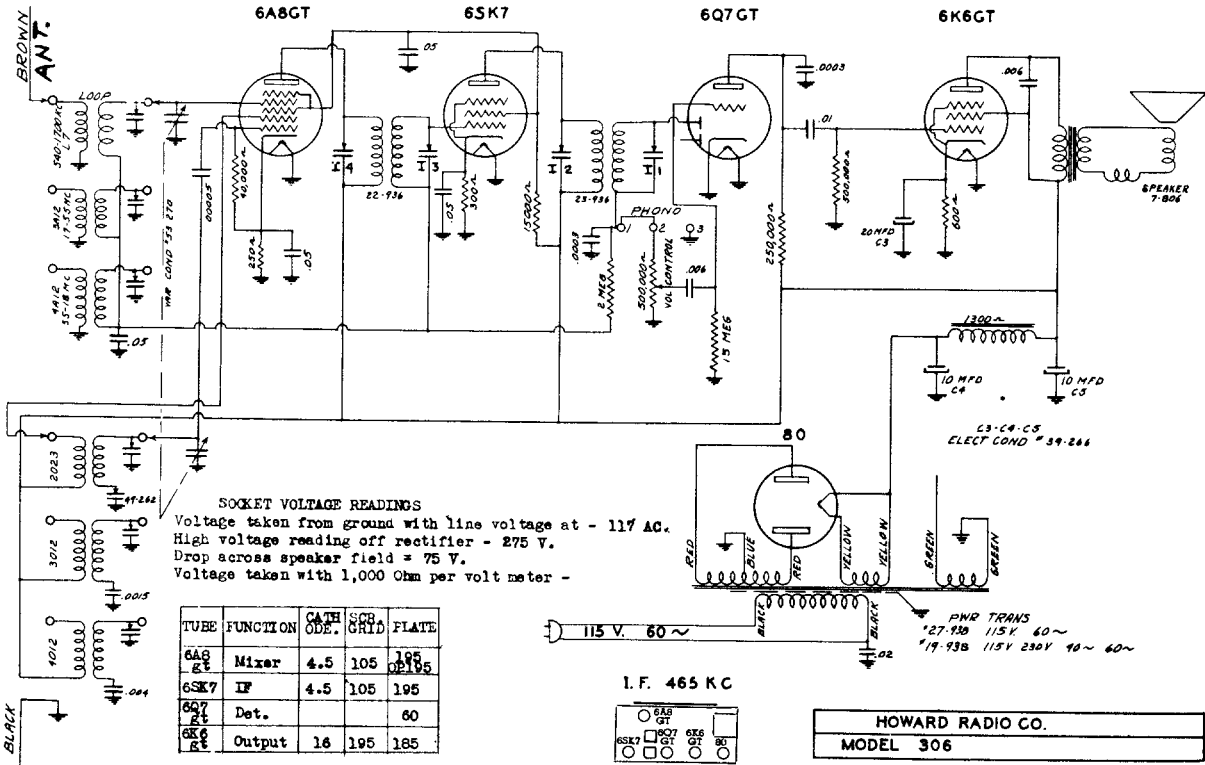
Wave-Band Switch Position	Position of Dial Pointer	Generator Frequency	Generator Connection	See Note	Trimmers Adjusted (In order shown)	Trimmer Function
x	Min. Cap.	465 KC	6AB Grid	A, E	I ₁ I ₂ I ₃ I ₄	IF
x	1400 KC	1400 KC	Brown lead	D	C ₅ C ₆	Osc. & Ant.
x	600 KC	600 KC	Brown lead		OUT PLATE	OSC. SECTION

- A- Each step of the alignment should be repeated in the original order for greater accuracy. Keep output from signal generator low. The I.F. trimmers are reached through the two holes on the top of each I.F. can.
- B- When aligning the short wave bands, do not adjust to the IMAGE frequency. For example, if the adjustment is correctly made at 21 MC, then a weaker image will be heard at 21,000 KC less 930 KC, or about 20,070 KC on the dial.
- C- When adjusting this pad, move the tuning hand back and forth and adjust pecker until the peak of greatest intensity is obtained.
- D- See that the tuning hand is set exactly on the last line above 540 when the condenser is at maximum capacity.
- E- The following dummy antenna circuit is recommended, since it is adaptable for any frequency range. The grid cap should remain in place during alignment.



SOCKET VOLTAGE READINGS
 Voltage taken from ground with line voltage at - 117 AC.
 High voltage reading off rectifier = 275 V.
 Drop across speaker field = 75 V.
 Voltage taken with 1,000 Ohm per volt meter -

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



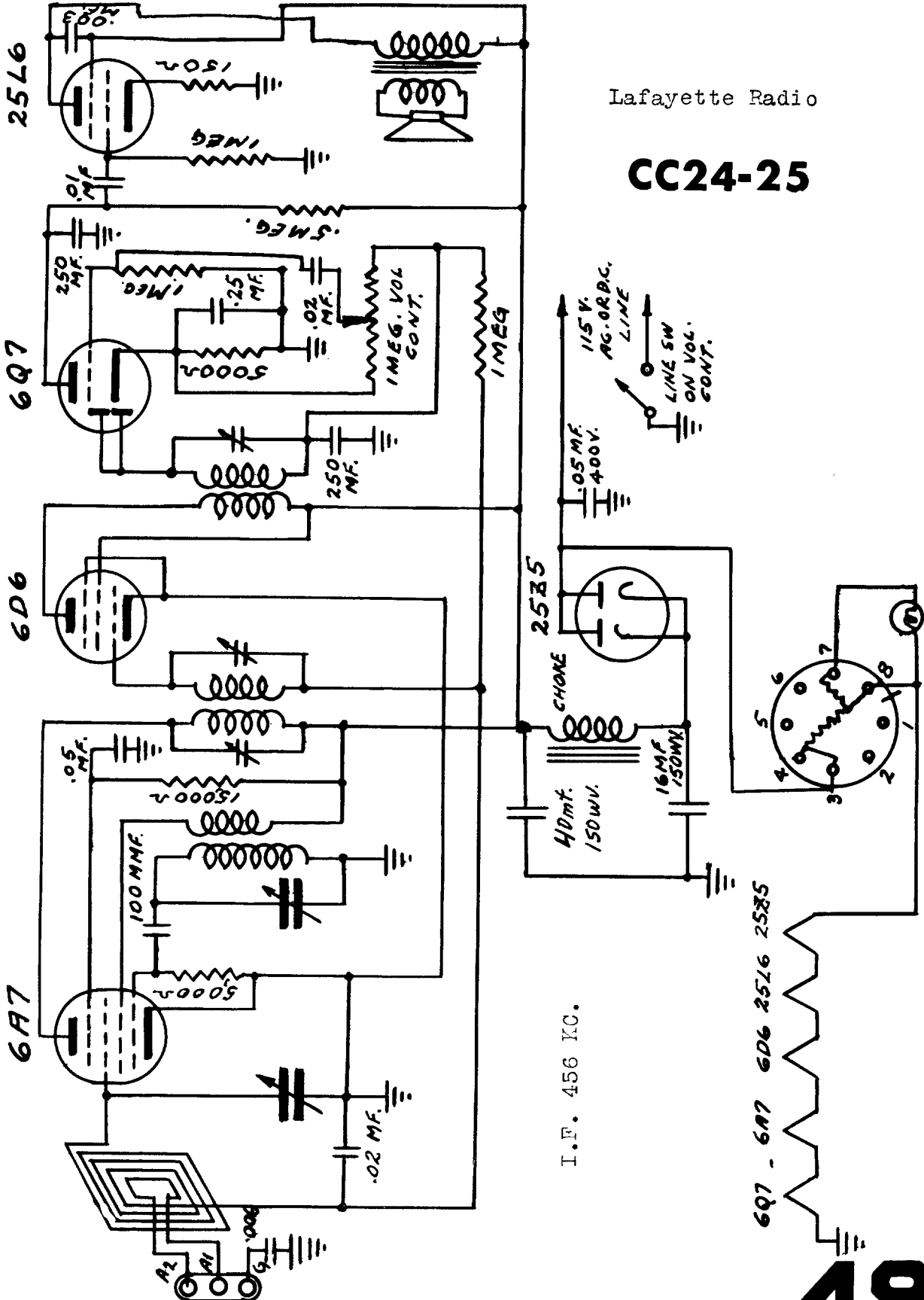
ALIGNMENT PROCEDURE

Wave-Band Switch Position	Position of Dial Pointer	Generator Frequency	Generator Connection	See Note	Trimmers Adjusted (In order shown)	Trimmer Function
BC	Min. Cap.	465 KC	6A8 Grid	A,E	I ₁ I ₂ I ₃ I ₄	IF
SW	16 MC	16 MC	Brown lead	B,D	O ₅ A ₆	Osc. Ant.
PB	5 MC	5 MC	Brown lead		O ₇ A ₈	Osc. Ant.
BC	1400 KC	1400 KC	Brown lead		O ₉ A ₁₀	Osc. Ant.
BC	600 KC	600 KC	Brown lead	C	P ₁₁	Osc. Pad.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

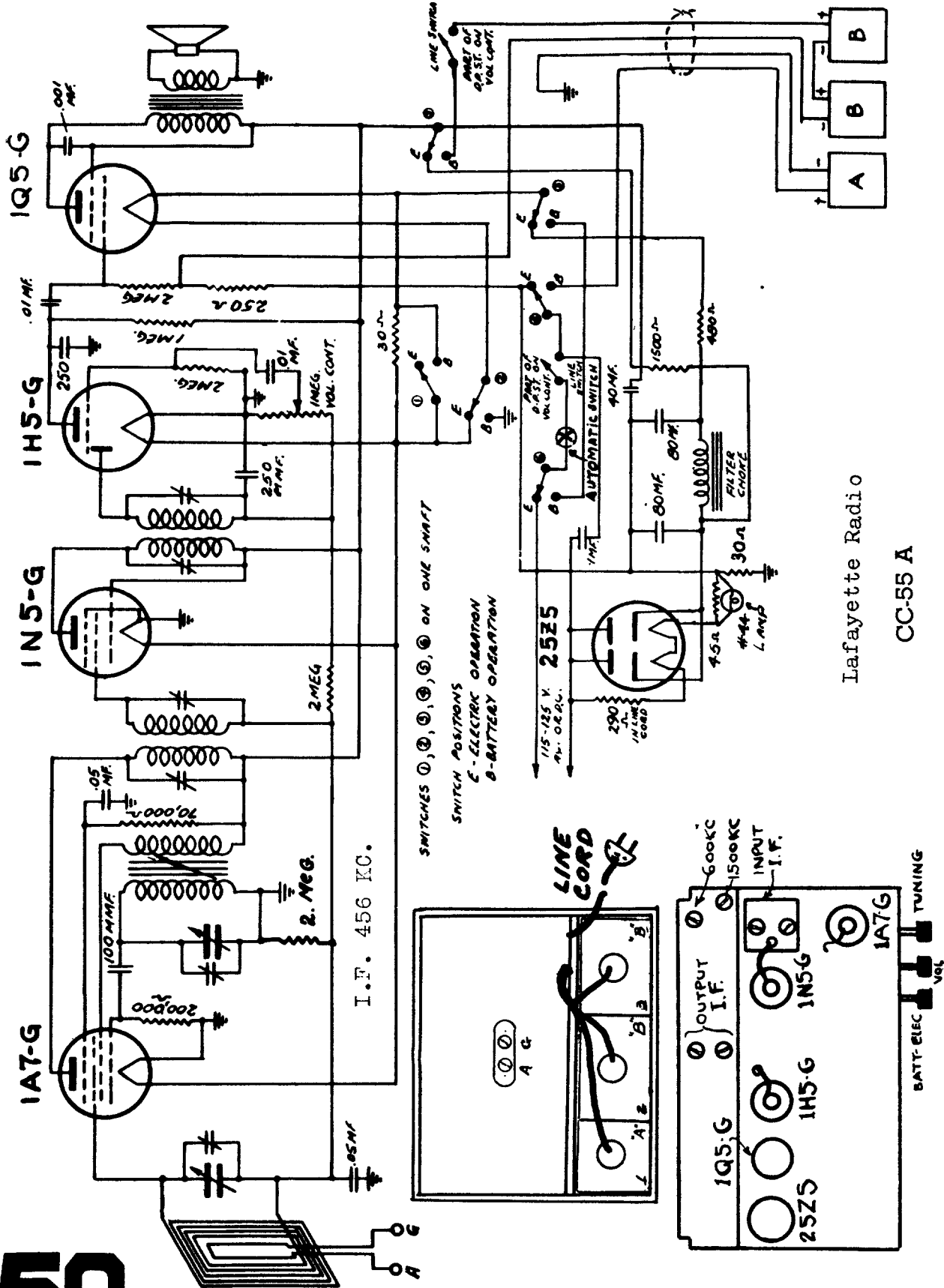
Lafayette Radio

CC24-25



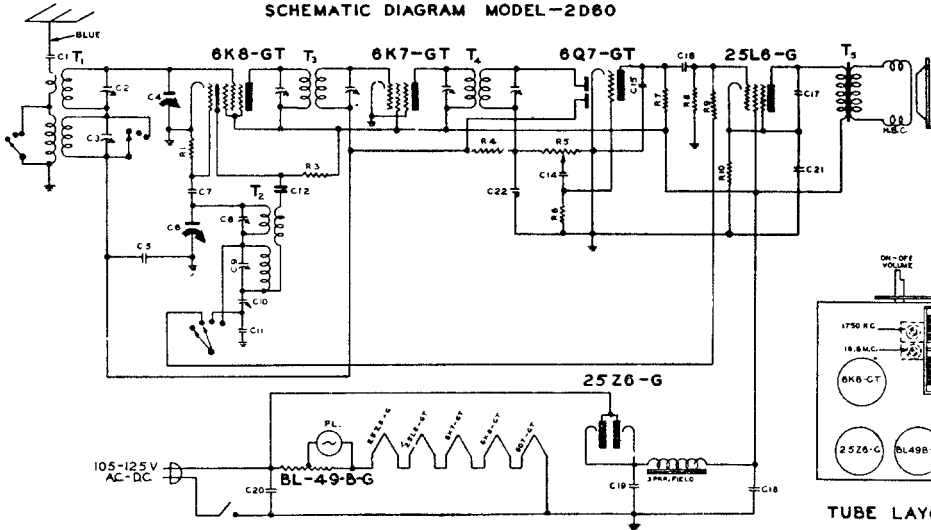
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

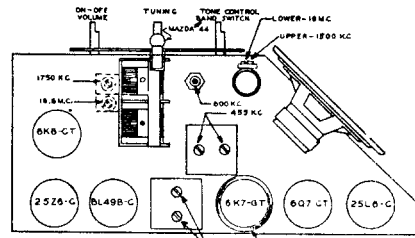


MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

SCHMATIC DIAGRAM MODEL-2D60



Majestic Radio

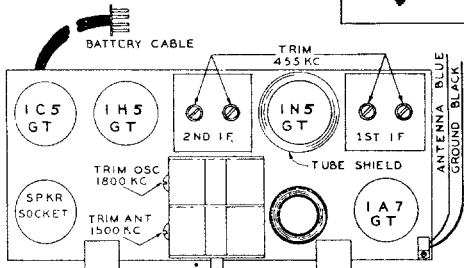
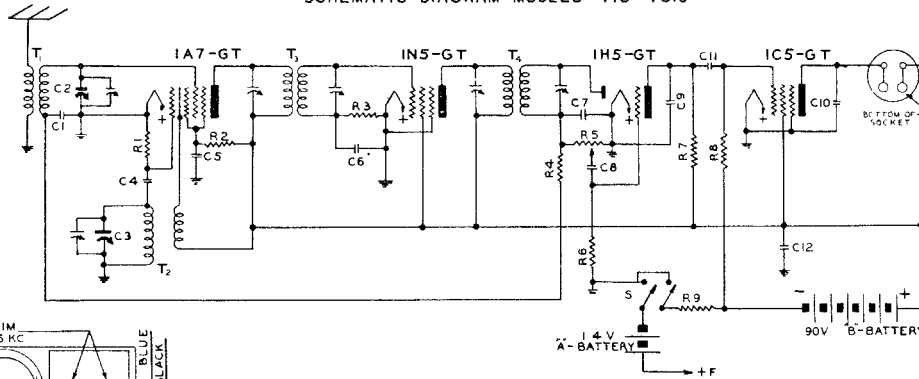


TUBE LAYOUT MODEL-2D60

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
C1,C12,C16,			T1	Y-ANA-10	Antenna Assembly
C17	C-15754	Tubular cond. .01 mfd. 400V	T2	Y-OSA-10	Oscillator Assembly
C4,C6	Y-CV-16A	Variable Condenser	T3	Y-IFA-10	1st I. F. Transformer
C5	C-15752	Tubular cond. .05 mfd. 200V	T4	Y-IFA-11	2nd I. F. Transformer
C7	CM-31	Mica cond. 100 mmfd. 30%	R1	R-15511	Carbon res. 50K ohm 1/4 W20%
C10	Y-CP-8	Padder Condenser	R3	R-15531	Carbon res. 10K ohm 1/4 W20%
C11	CM-2	Mica cond. 4330 mmfd. 5%	R4	R-15500	Carbon resistor 2meg 1/4 W20%
C14	C-31	Tubular cond. .004 mfd. 400V	R5	Y-VC-21	Volume Control and Switch
C15,C22	CM-30	Mica cond. 250 mmfd. 30%	R-50		Carbon resistor 5meg 1/4 W20%
C18,C19,C21	CE-46	Electrolytic Condenser	R-15504		Carbon res. 150K ohm 1/4 W20%
C20	C-15756	Tubular cond. .05 mfd. 400V	R9	R-15500	Carbon res. 20K ohm 1/4 W20%
P.L.	LB-44	Mazda Bulb #44	R10	R-80	Carbon res. 110 ohm 1/4 W20%

SCHMATIC DIAGRAM MODELS-4-10-4C10

Majestic Radio

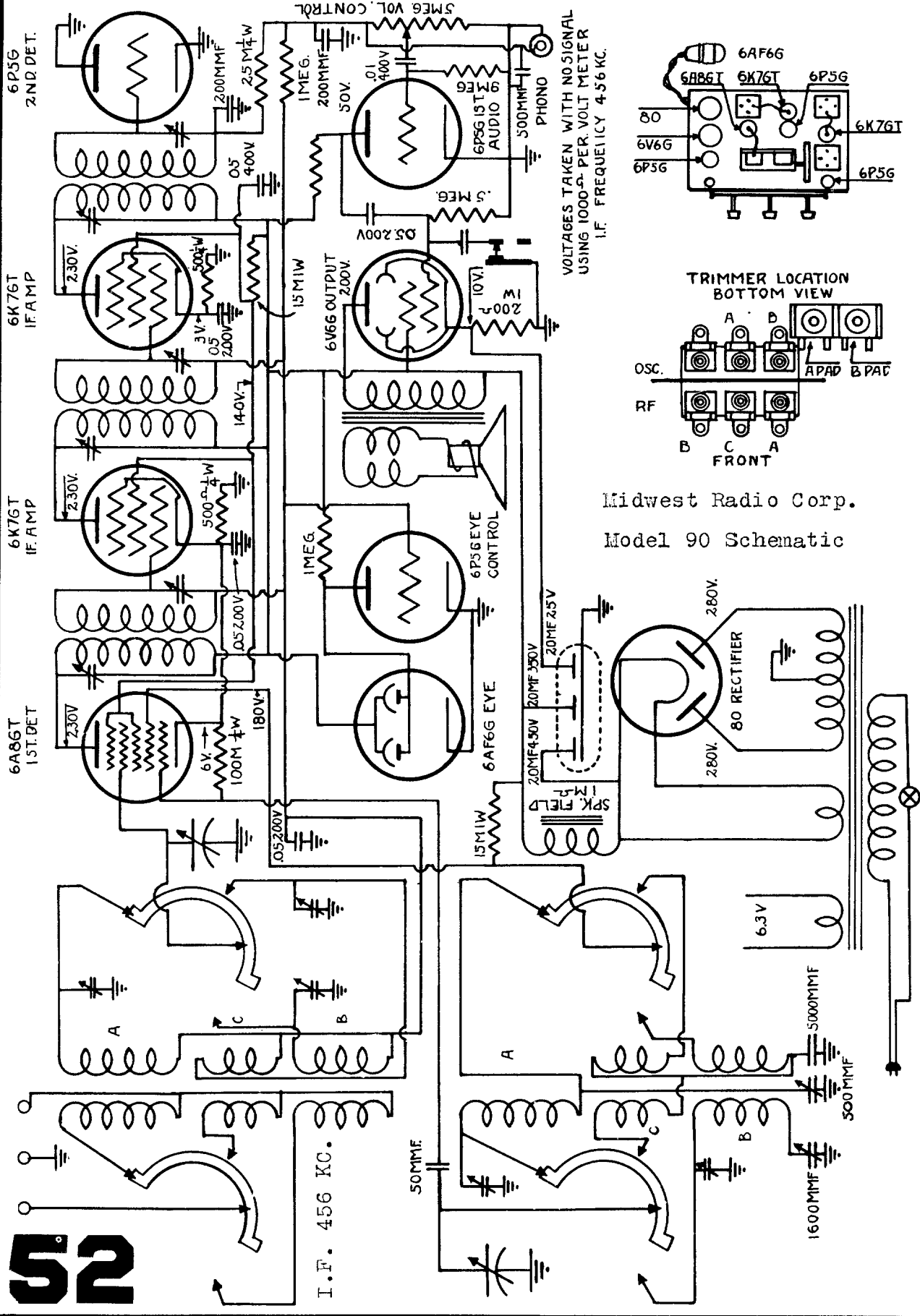


CHASSIS LAYOUT MODELS-4-10-4C10

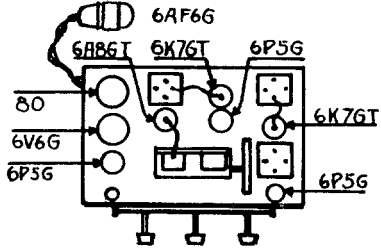
Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
C2,C3	Y-CV-26	Variable Condenser	R1	R-15523	Carbon res. 200Kohm 1/4 W20%
C1,C5	C-15752	Tubular cond. .05 mfd. 200V	R2	R-44	Carbon res. 70K ohm 1/4 W10%
C6,C8,C11	C-15763	Tubular cond. .01 mfd. 200V	R3,R4	R-15500	Carbon resistor 2meg 1/4 W20%
C10	C-15774	Tubular cond. .002 mfd. 400V	R6	R-15559	Carbon resistor 3meg 1/4 W20%
C12	CE-35	8 mfd. 150V Electrolytic cond.	R7	R-15520	Carbon res. 500Kohm 1/4 W20%
C4,C7,C9	CM-31	Mica cond. 100 mmfd. 30%	R8	R-15517	Carbon resistor 1meg 1/4 W20%
T1	Y-CS 62	Antenna Coil	R9	R-72	Carbon res. 600 ohm 1/4 W20%
T2	Y-OSA-11	Oscillator Assembly	R5	Y-VC-43	Volume Control
T3	Y-CI-29	1st I. F. Assembly			
T4	Y-CI-30	2nd I. F. Assembly			

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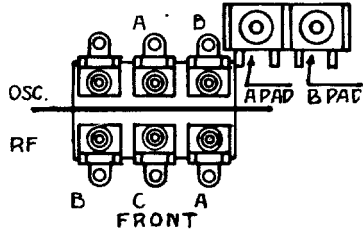
51



VOLTAGES TAKEN WITH NO SIGNAL
USING 1000-Ω. PER. VOLT METER
I.F. FREQUENCY 4.56 KC.



TRIMMER LOCATION
BOTTOM VIEW



Midwest Radio Corp.
Model 90 Schematic

I. F. 456 KC.

50MMF

1600MMF

500MMF

5000MMF

6.3V

280V

280V

280V

280V

280V

280V

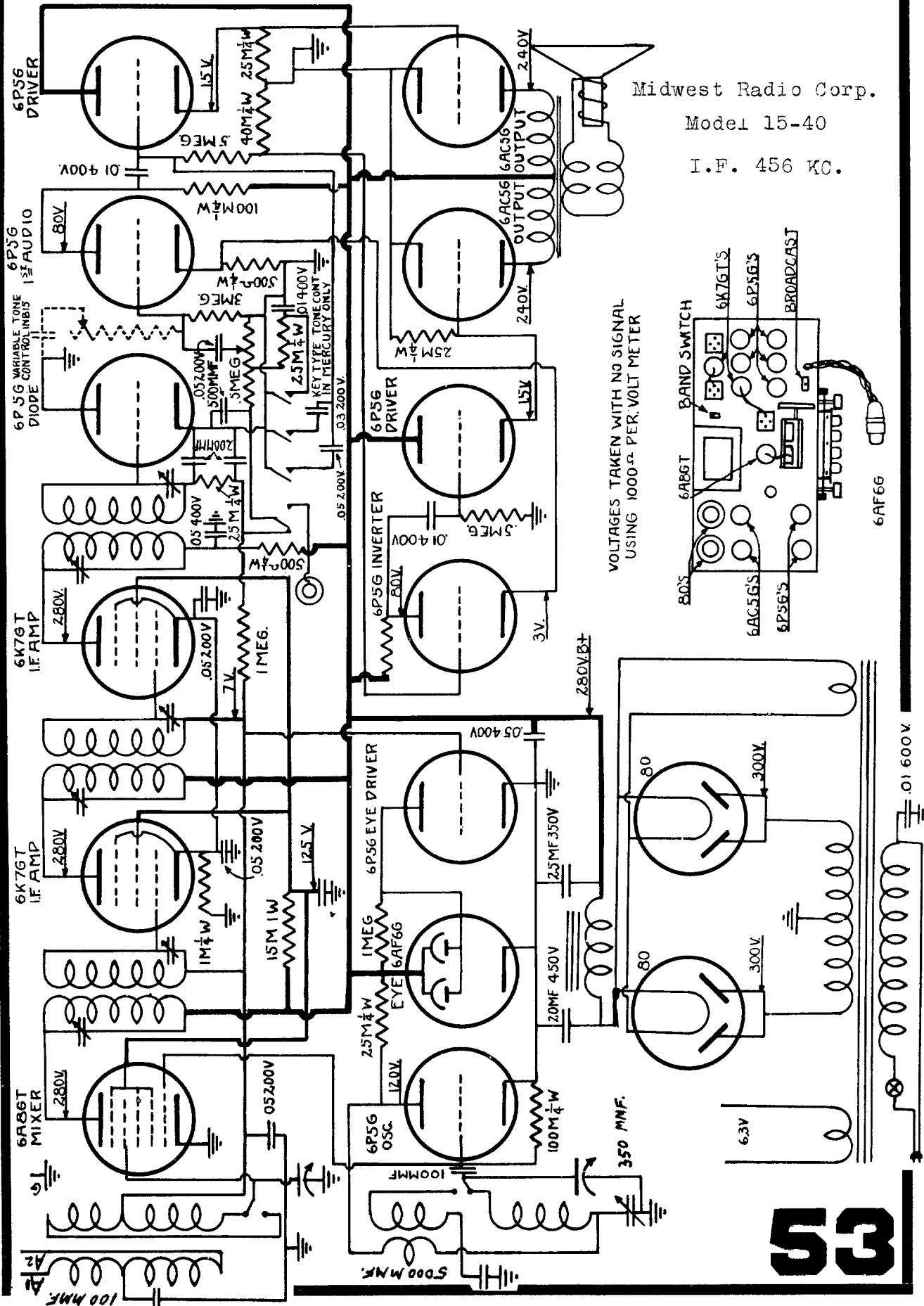
280V

280V

280V

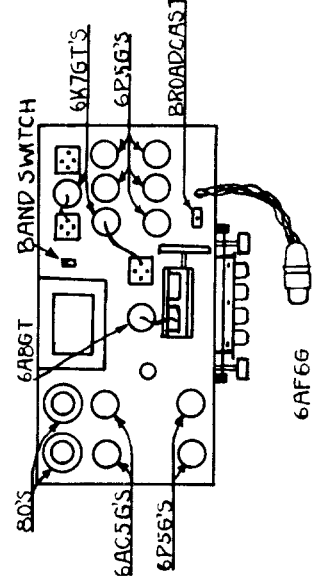
280V

280V



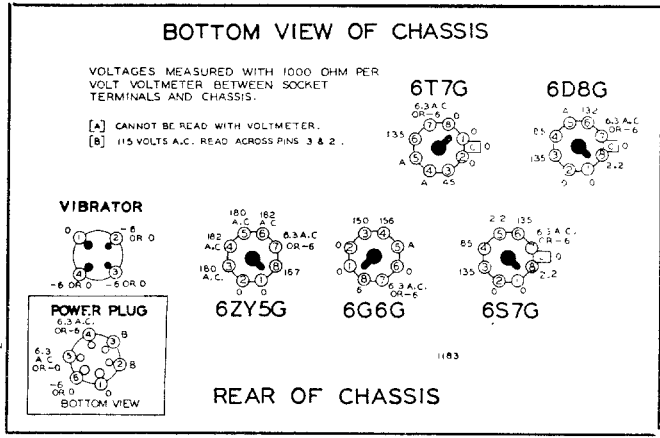
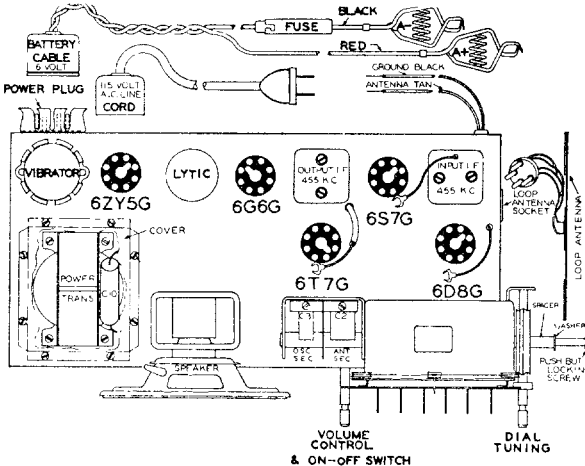
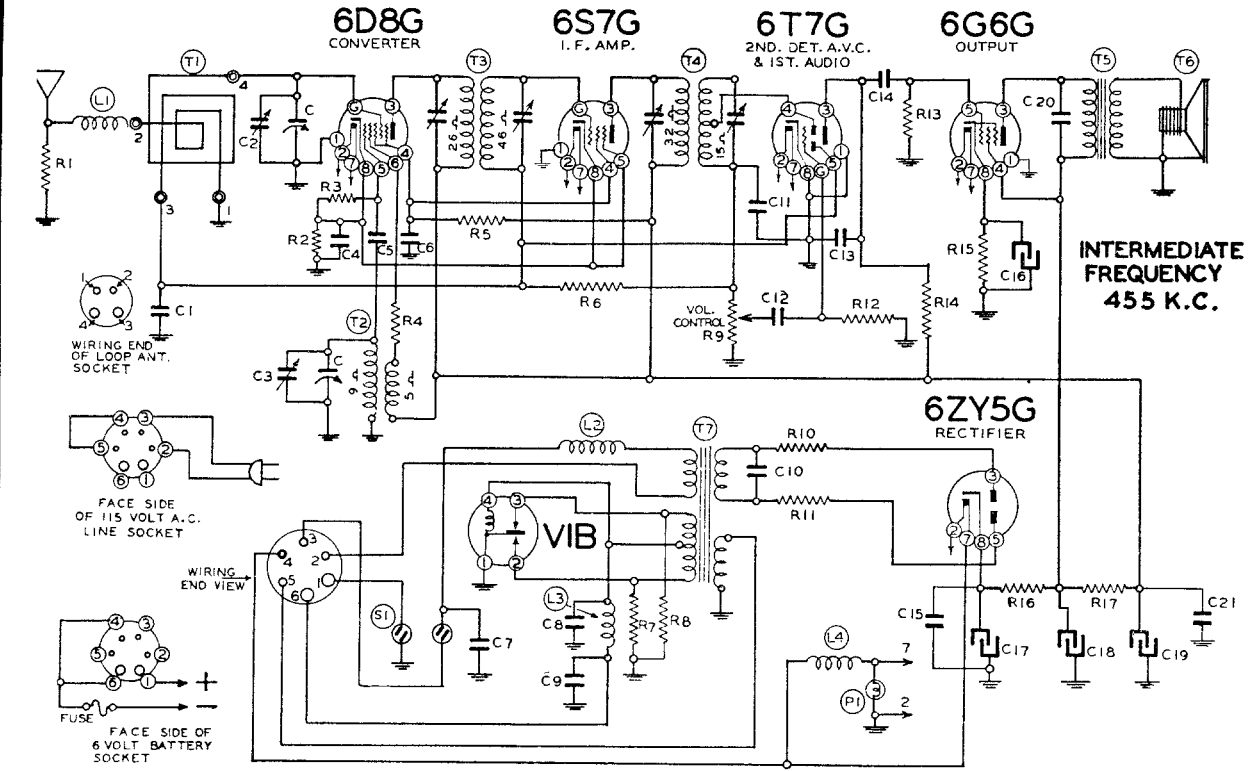
Midwest Radio Corp.
 Model 15-40
 I.F. 456 KC.

VOLTAGES TAKEN WITH NO SIGNAL
 USING 1000Ω PER. VOLT METER



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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



MONTGOMERY WARD

RESISTORS

R1	BE13022	5M ohm— $\frac{1}{2}$ watt
R2	BE130166	150 ohm— $\frac{1}{2}$ watt
R3	BE13012	50M ohm— $\frac{1}{2}$ watt
R4	BE13026	1000 ohm— $\frac{1}{2}$ watt
R5	BE130157	12M ohm— $\frac{1}{2}$ watt
R6	BE13194	3 megohm— $\frac{1}{2}$ watt
R7	BE130168	100 ohm— $\frac{1}{2}$ watt
R8	BE130168	100 ohm— $\frac{1}{2}$ watt
R9	BE101225	1 megohm volume control
R10	BE130333	60 ohm— $\frac{1}{2}$ watt
R11	BE130233	60 ohm— $\frac{1}{2}$ watt
R12	BE130223	10 megohm— $\frac{1}{2}$ watt
R13	BE13037	750M ohm— $\frac{1}{2}$ watt
R14	BE13011	250M ohm— $\frac{1}{2}$ watt
R15	BE13079	400 ohm— $\frac{1}{2}$ watt
R16	BE130222	350 ohm— $\frac{1}{2}$ watt
R17	BE130235	1500 ohm— $\frac{1}{2}$ watt

MODEL 04BR-570A

PARTS

T1	BE111187	Loop Antenna Assembly
T2	BE110155	Oscillator Coil
T3	BE108129C	Input I.F. Coil—455 kc.
T4	BE108130D	Output I.F. Coil—455 kc.
T5	BE105113	Output Transformer
T6	BE114205	5" P.M. Speaker
T7	BE104216	Power Transformer
L1	BE12312	R.F. Choke
L2	BE10566	R.F. "A" Choke
L3	BE10568	R.F. Choke
L4	BE10566	R.F. "A" Choke
P1	BE12626	On-Off Switch on Volume Control
		Plug-in Vibrator Unit

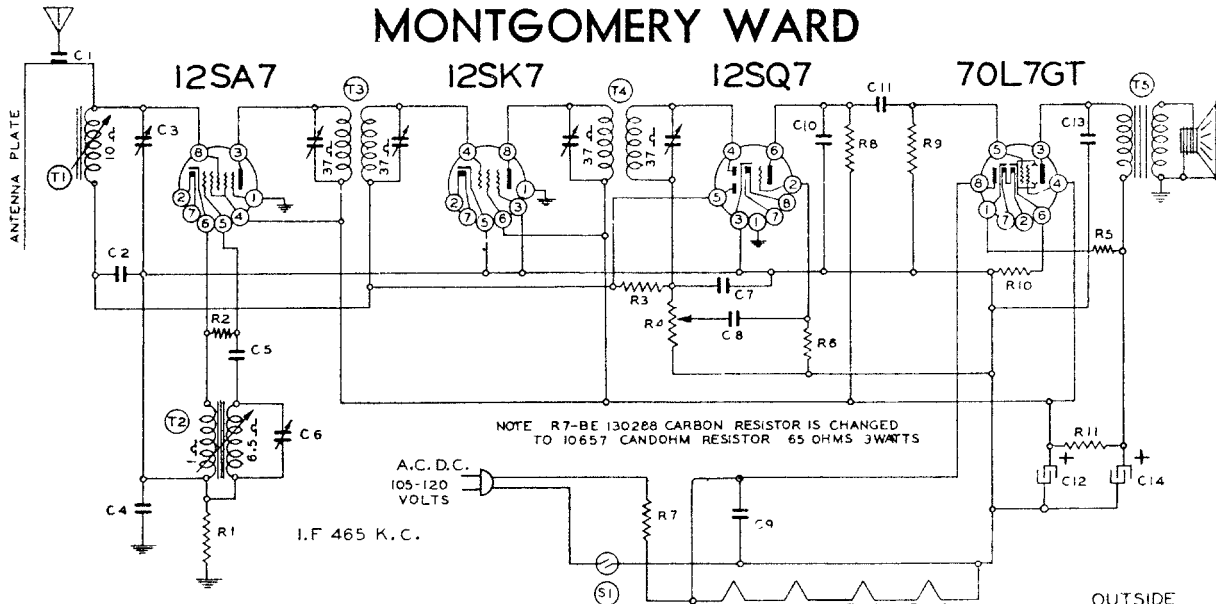
CONDENSERS

C	BE102134	2 gang variable condenser
C1	BE1009	.05 x 200 volts
C2		Antenna trimmer on gang
C3		Oscillator trimmer on gang
C4	BE10020	.1 x 200 v.
C5	BE1295	.0001 mica
C6	BE10020	.1 x 200 v.
C7	BE10013	.05 x 400 v.
C8	BE10031	.5 x 120 v.
C9	BE10031	.5 x 120 v.
C10	BE10073	.008 x 1200 v.
C11	BE12951	.000125 mica
C12	BE10012	.03 x 600 v.
C13	BE12960	.00015 mica
C14	BE10011	.01 x 400 v.
C15	BE10020	.1 x 200 v.
C16	BE119111	20 mid. lytic—25 w. v.
C17	BE119111	40 mid. lytic—200 w. v.
C18	BE119111	20 mid. lytic—200 w. v.
C19	BE119111	20 mid. lytic—200 w. v.
C20	BE10019	.006 x 600 v.
C21	BE10020	.1 x 200 v.

C16, C17, C18, C19 are in same unit

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

MONTGOMERY WARD

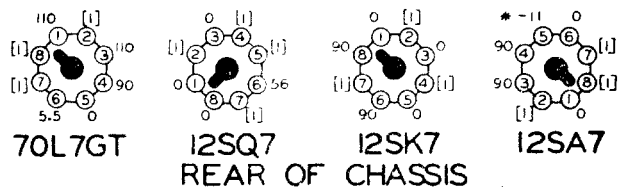


BOTTOM VIEW OF CHASSIS

VOLTAGES MEASURED WITH 1000 OHM PER VOLT VOLT METER BETWEEN SOCKET TERMINALS AND NEGATIVE "B" SUPPLY.

[1] CANNOT BE MEASURED WITH VOLT METER.

* OSCILLATOR VOLTAGE MEASURED WITH R.F. CHOKE IN SERIES WITH LEAD.



BOTTOM VIEW

RESISTORS

R1	BE130100	150M ohm— $\frac{1}{2}$ w.
R2	BE130176	20M ohm— $\frac{1}{2}$ w.
R3	BE1304	3 megohm— $\frac{1}{2}$ w.
R4	BE101188	Volume control (500M ohm)
R5	BE130293	30 ohm—1 watt
R6	BE130257	5 megohm— $\frac{1}{2}$ w.
R7	BE10657	65 ohm—3 watt
R8	BE13011	250M ohm— $\frac{1}{2}$ w.
R9	BE13011	250M ohm— $\frac{1}{2}$ w.
R10	BE130166	150 ohm— $\frac{1}{2}$ w.
R11	BE130279	1M ohm—1 watt

CONDENSERS

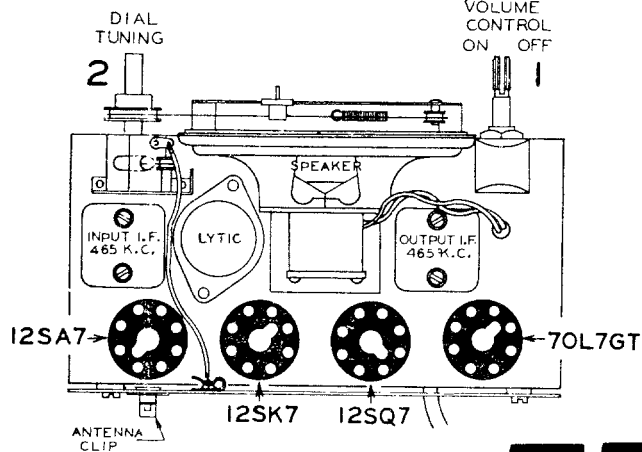
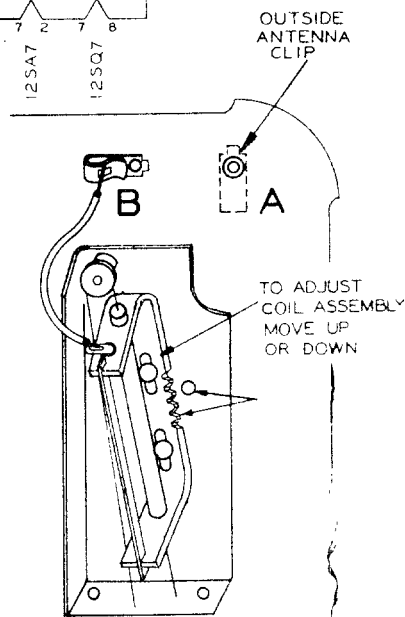
C1	BE131262	.00001 washer condenser (Ant. Clip on Back Plate)
C2	BE1009	.05 x 200 v.
C3	BE124100	Antenna Trimmer
C4	BE10091	.15 x 400 v.
C5	BE12939	.00005 mica
C6	BE124100	Osc. Trimmer
C7	BE12912	.00025 mica
C8	BE10025	.002 x 600 v.
C9	BE10013	.05 x 400 v.
C10	BE1292	.0005 mica
C11	BE10011	.01 x 400 v.
C12	BE11992	20 ufd. x 150 w. v. lytic
C13	BE10011	.01 x 400 v.
C14	BE11992	40 ufd. x 150 w. v. lytic C3 and C6 in one unit C12 and C14 in one unit

PARTS

T1	BE111136	Antenna Coil Complete
T2	BE110126	Oscillator Coil
T3	BE108157	Input I. F. Coil—465 kc.
T4	BE108157B	Output I. F. Coil—465 kc.
T5	BE114170	4 in. P. M. Speaker and Output transformer
S1		Off-on switch on volume control

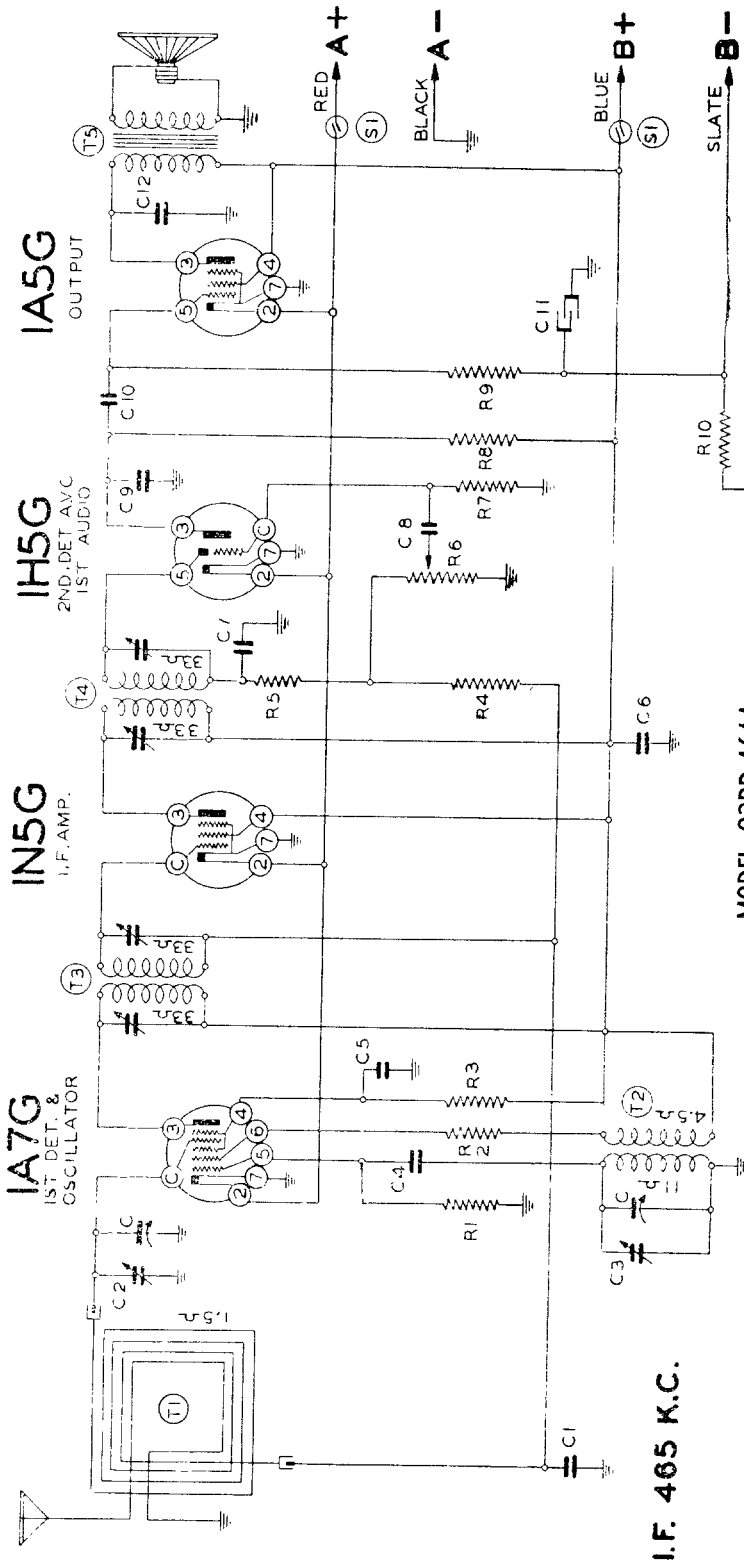
MODEL 93BR-420B

- " 93BR-421B
- " 93BR-423B
- " 93BR-424B
- " 93BR-431B



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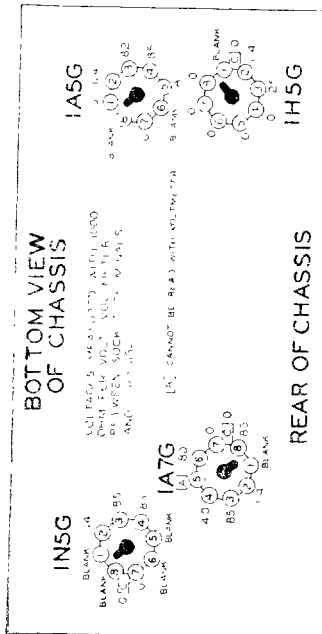
55



I.F. 465 K.C.

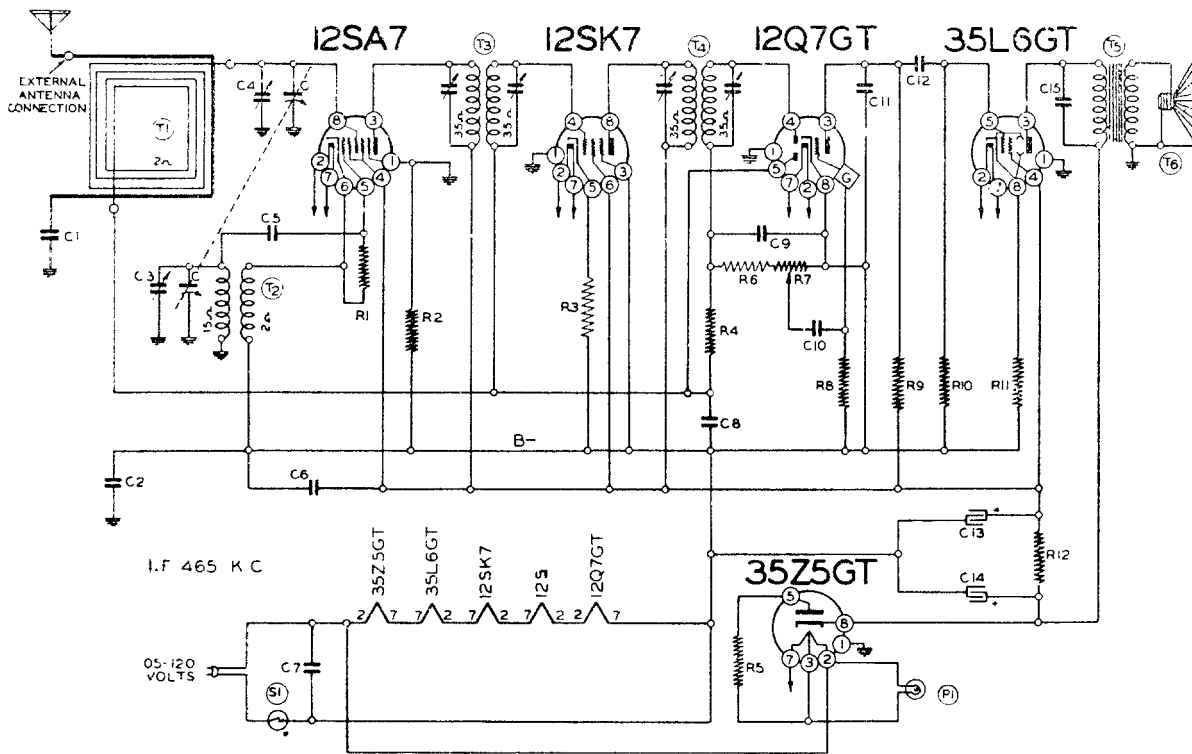
MODEL 93BR-461A

MONTGOMERY WARD



Schematic Ref. No.	Part No.	Description
R1	BE11309	200M ohm - 1/2 w. 20%
R2	BE13018	4M ohm - 1/2 w. 20%
R3	BE13038	40M ohm - 1/2 w. 20%
R4	BE13038	2 megohm - 1/2 w. 20%
R5	BE13021	100M ohm - 1/2 w. 20%
R6	BE10173	1 megohm volume control
R7	BE13027	5 megohm - 1/2 w. 25%
R8	BE13037	750M ohm - 1/2 w. 20%
R9	BE13038	2 megohm - 1/2 w. 20%
R10	BE13070	500 ohm - 1/2 w. 10%
C1	BE102105	? gang, variable condenser
C2	BE10022	.05 x 200 v. 25%
C3		
C4		
C5		
C6		
C7		
C8		
C9		
C10		
C11		
C12		
T1	BE11131	Loop Antenna Complete
T2	BE11021	B. C. Oscillator Coil
T3	BE108151	Input I. F. Coil
T4	BE108152	Output I. F. Coil
T5	BE114165	5" Speaker with output transformer
S1		D.P.S.T. On-off switch on volume control

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Schematic Part Ref. No. No.

RESISTORS

R1	BE130176	20M ohm— $\frac{1}{4}$ w.—10%
R2	BE1309	200M ohm— $\frac{1}{2}$ w.
R3	BE130203	40 ohm— $\frac{1}{2}$ w.—10%
R4	BE1304	3 megohm— $\frac{1}{2}$ w.
R5	BE130215	25 ohm— $\frac{1}{2}$ w.
R6	BE1301	25M ohm— $\frac{1}{2}$ w.
R7	BE101170	1 megohm—volume control
R8	BE130257	5 megohm— $\frac{1}{2}$ w.
R9	BE1303	500M ohm— $\frac{1}{2}$ w.
R10	BE1303	500M ohm— $\frac{1}{2}$ w.
R11	BE130166	150 ohm— $\frac{1}{2}$ w.
R12	BE130199	1500 ohm—1 watt

CONDENSERS

C	BE102107	2 gang variable condenser
C1	BE10011	.01 x 400 v.
C2	BE10091	.15 x 400 v.
C3		Osc. Trimmer on Gang
C4		Antenna Trimmer on Gang
C5	BE12921	.0002 mica

Schematic Part Ref. No. No.

DESCRIPTION

C6	BE1009	.05 x 200 v.
C7	BE1001	.1 x 400 v.
C8	BE1009	.05 x 200 v.
C9	BE1295	.0001 mica
C10	BE10025	.002 x 600 v.
C11	BE12912	.00025 mica
C12	BE100106	.004 x 600 v.
C13	BE11987	30 mfd. lytic
C14	BE11987	30 mfd. lytic
C15	BE10026	.02 x 400 v.

C13 and C14 in same unit

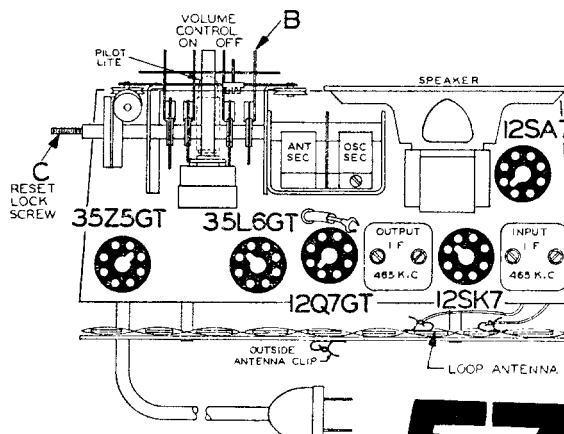
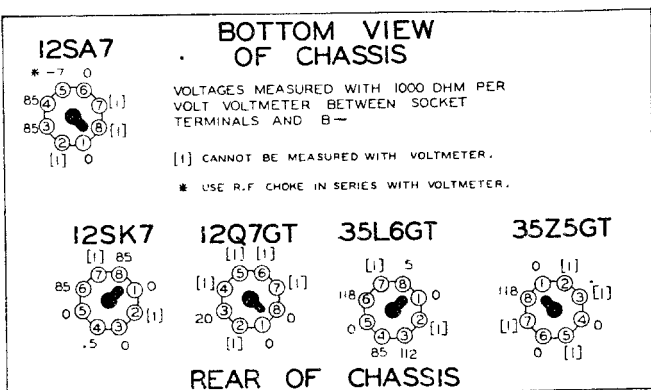
PARTS

T1	BE111128	Loop Antenna
T2	BE110116	Oscillator Coil
T3	BE108140E	Input I. F.
T4	BE108141B	Output I. F.
T5	BE10589	Output Transformer
T6	BE114160	5" P. M. Speaker
S1		Off-on switch on vol. control
P1	BE107249	6-8 v. pilot light T-47

Wards

MODEL 93BR508A

" 93BR509A



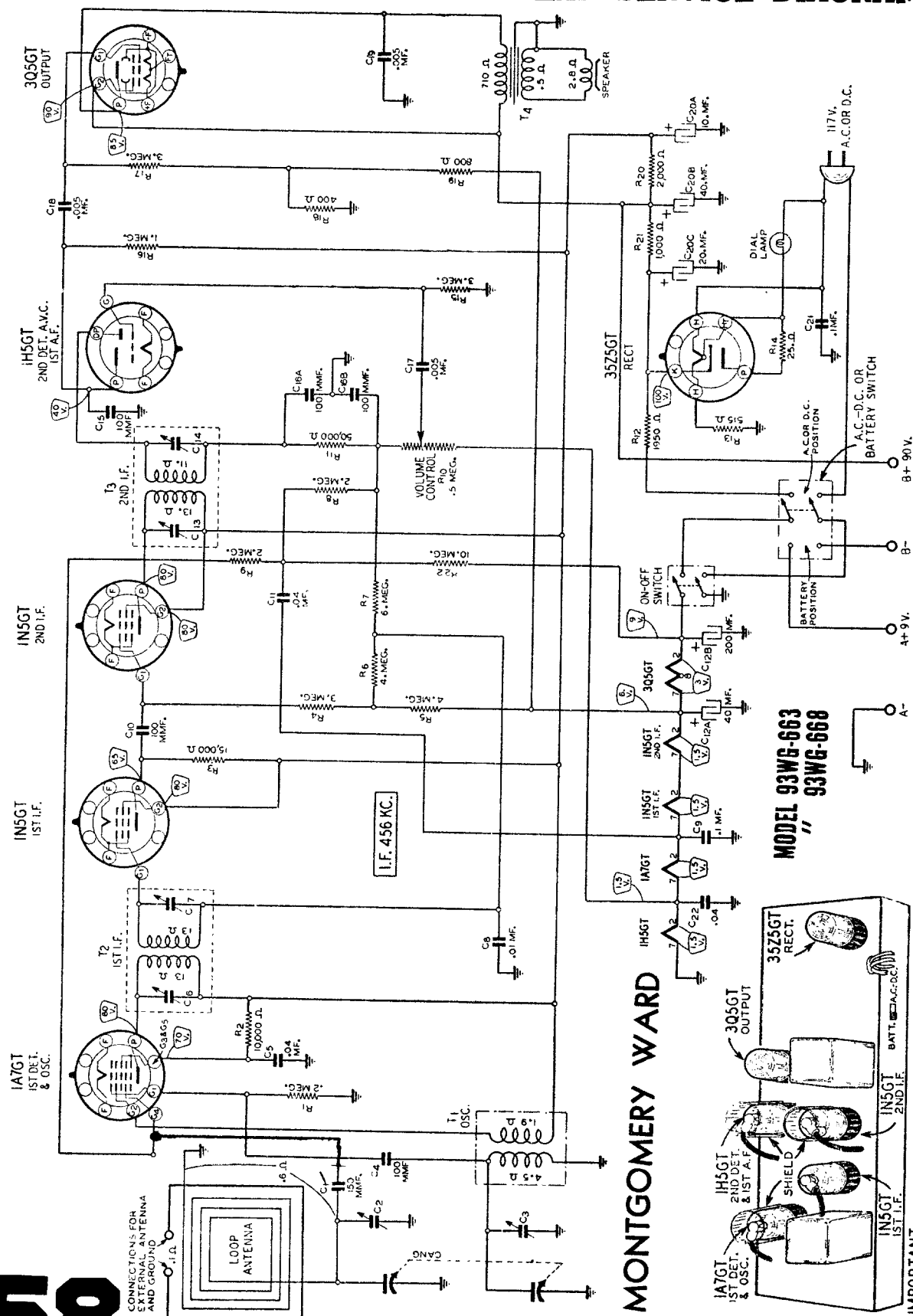
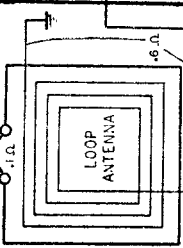
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

58

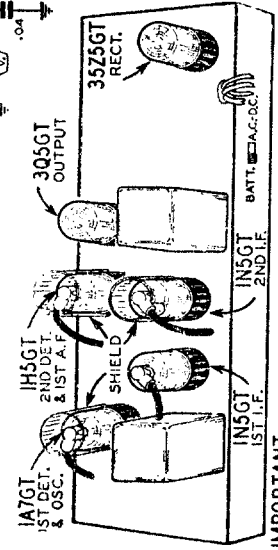
CONNECTIONS FOR EXTERNAL ANTENNA AND GROUND



I.F. 456 KC.

MONTGOMERY WARD

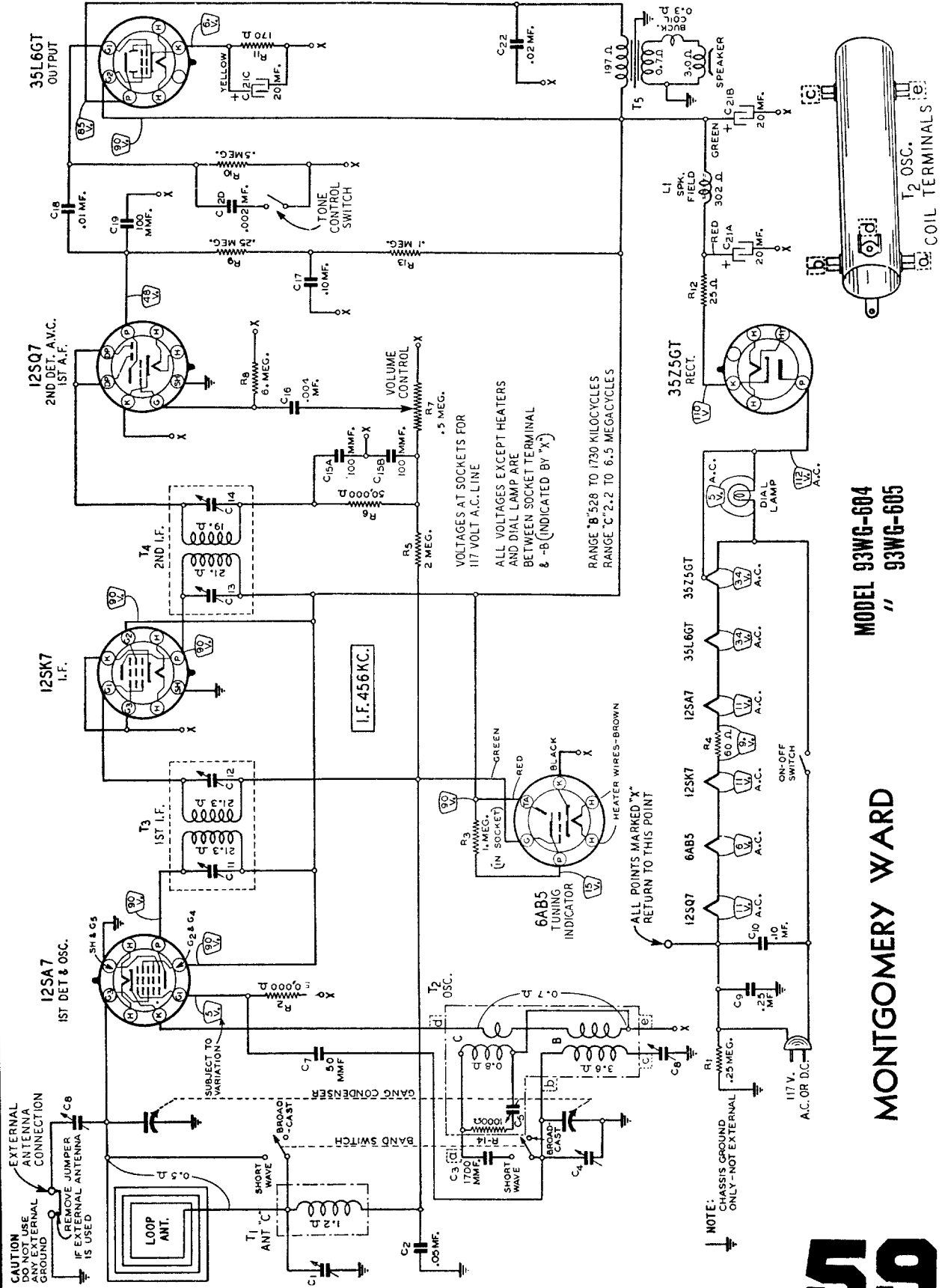
**MODEL 93WG-663
" 93WG-668**



IMPORTANT - METAL BASE TUBES MUST BE USED IN THOSE SOCKETS AT WHICH SHIELDS ARE SHOWN.

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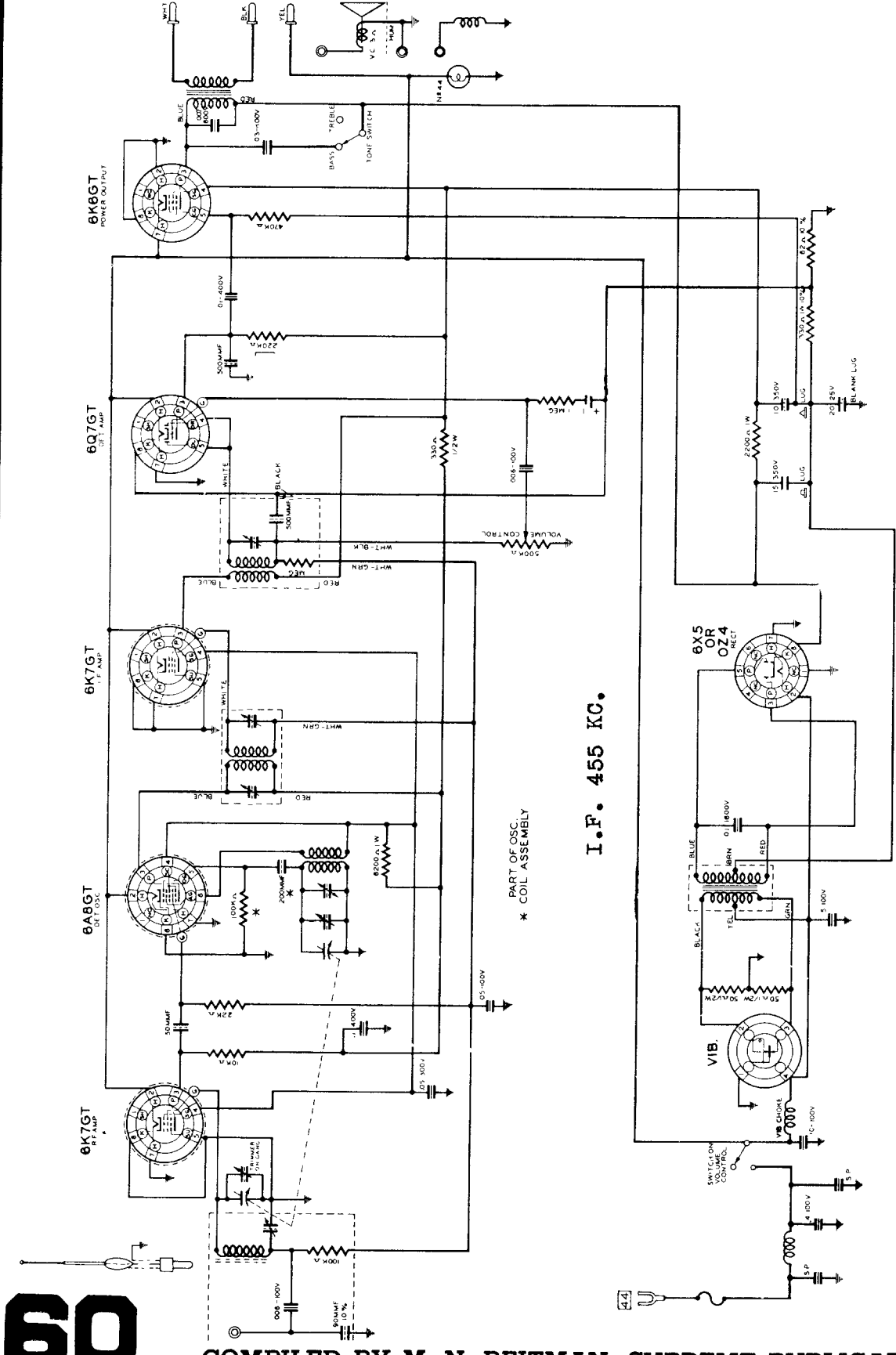
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MODEL 93WG-604
" 93WG-605

MONTGOMERY WARD

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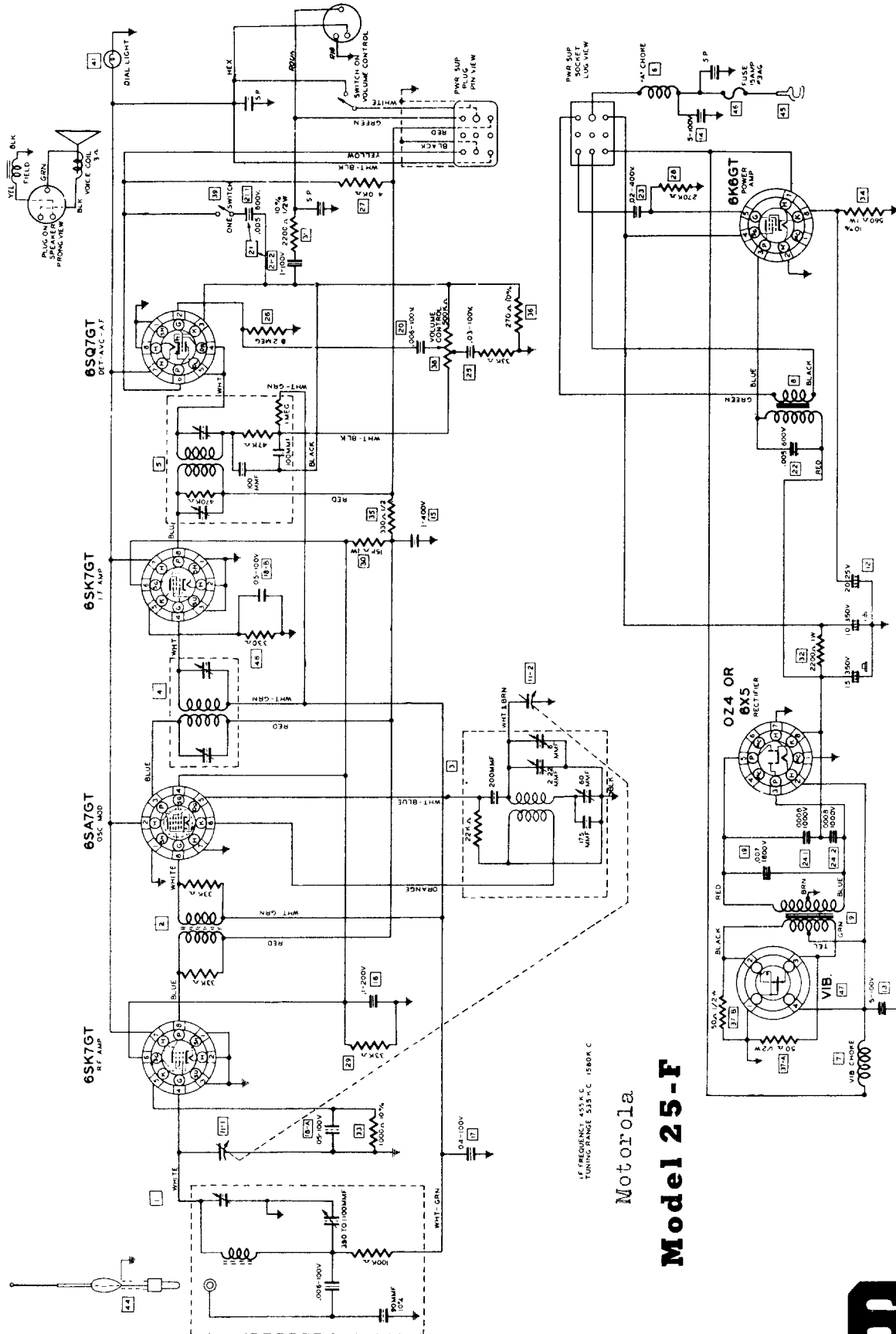


I.F. 455 KC.

* PART OF OSC. COIL ASSEMBLY

Motorola Model No. 27-D-6

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



FREQUENCY 455 K.C.
TUNING RANGE 535 K.C. TO 1600 K.C.

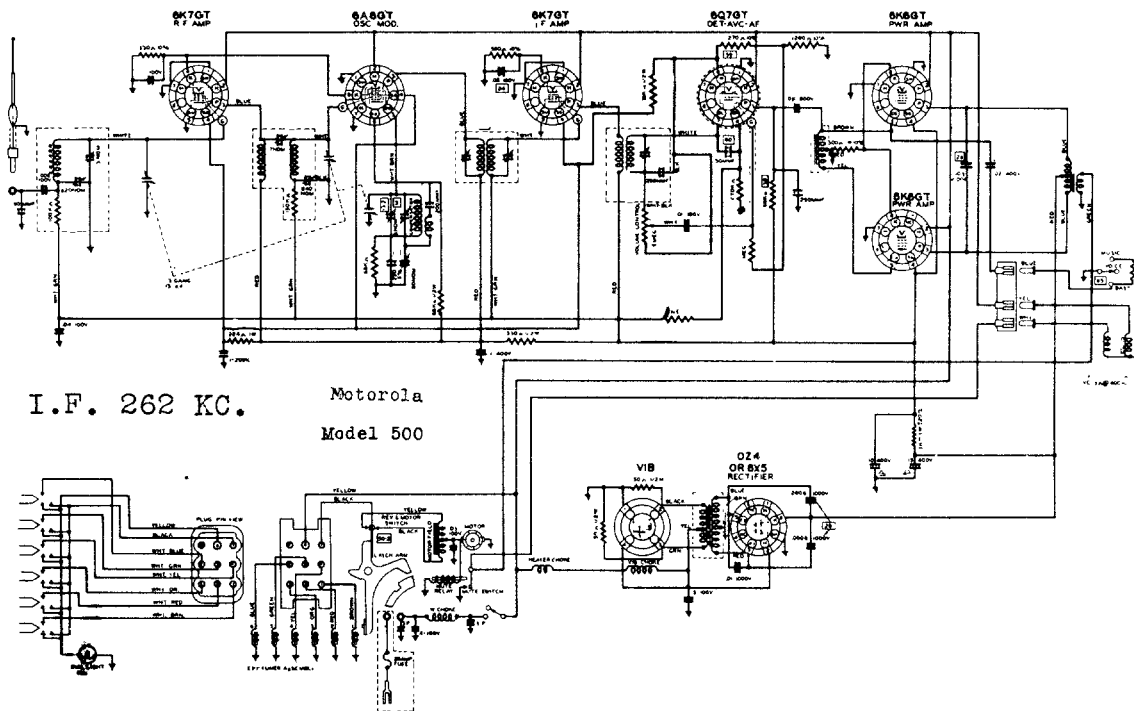
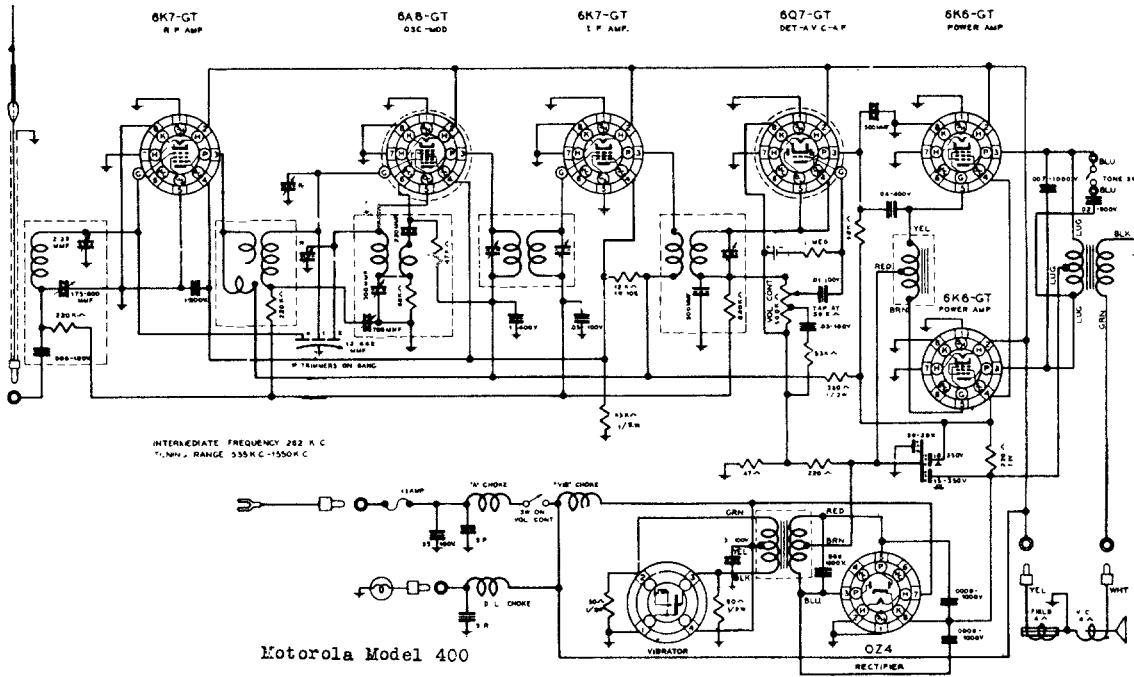
Motorola

Model 25-F

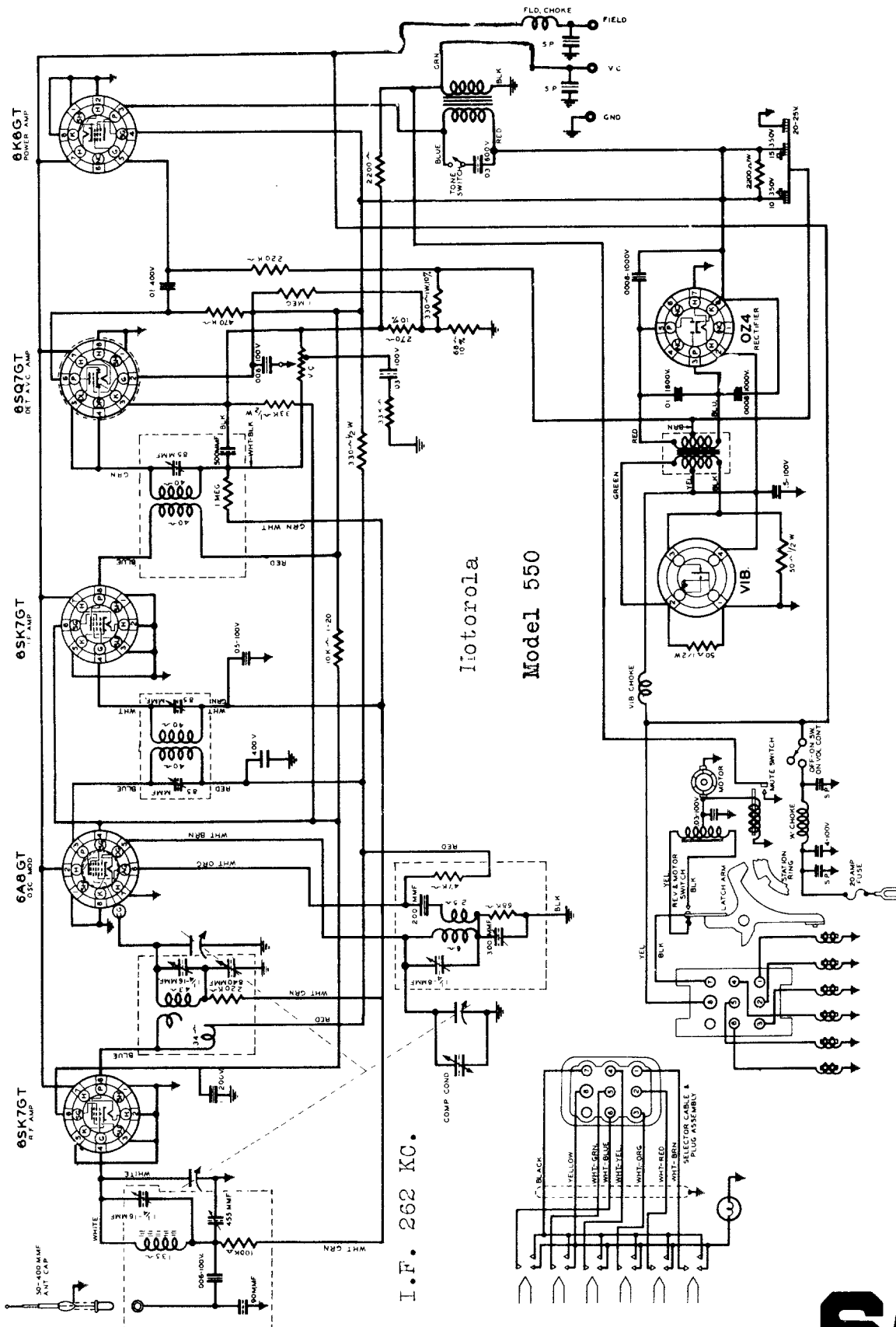
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

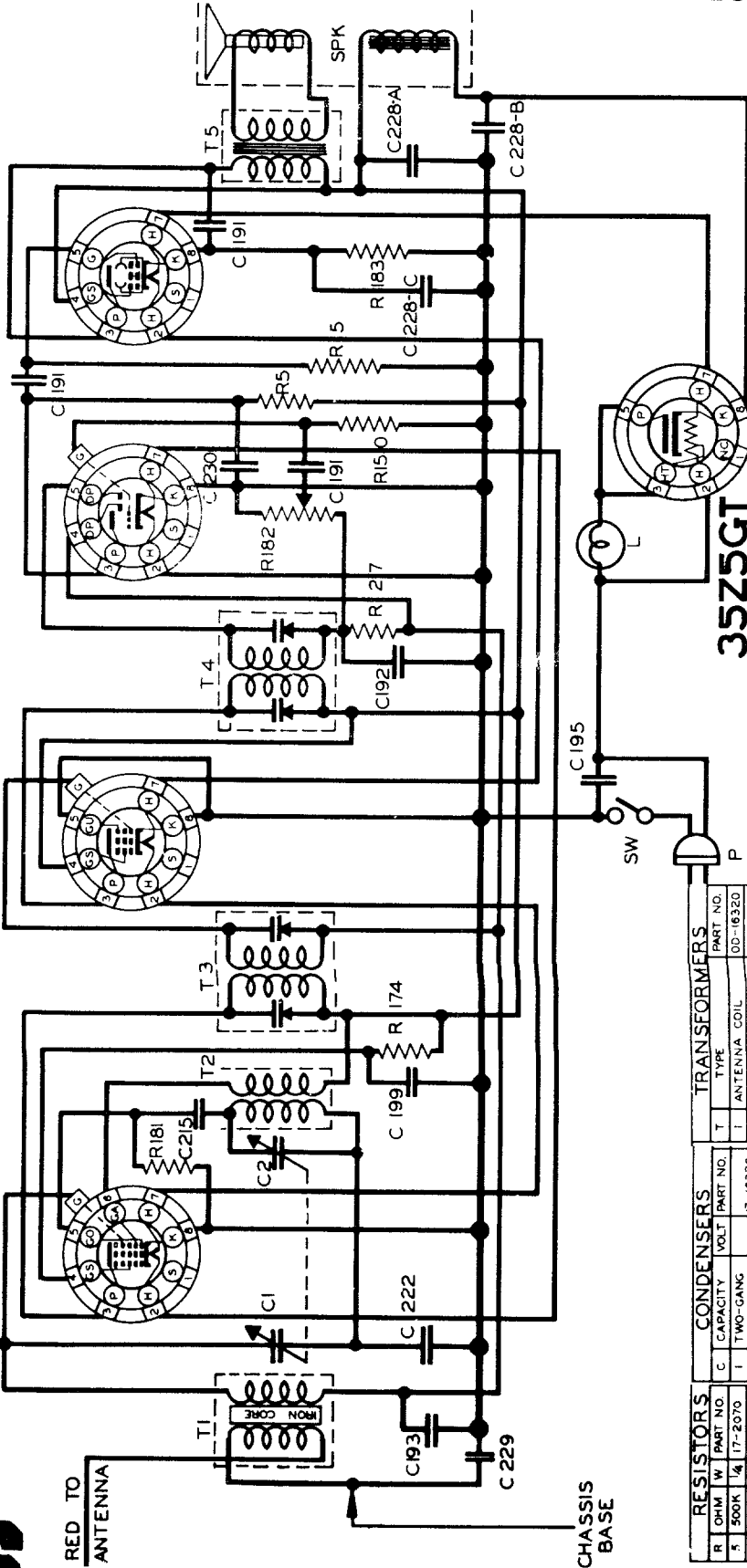


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ARVIN HOME RADIO CHASSIS RE 48
 12A8GT 12K7GT 12Q7GT 50L6GT

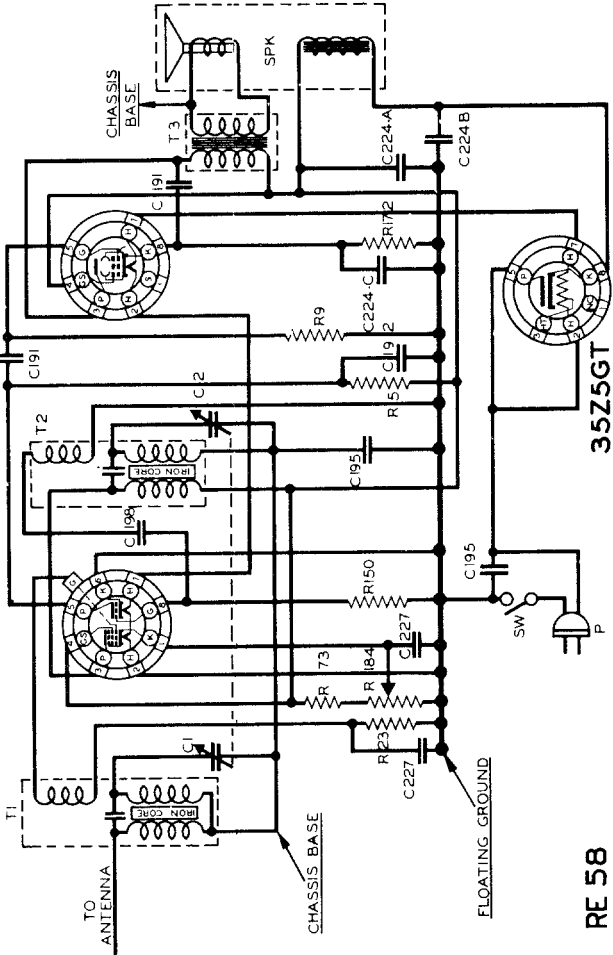


MISCELLANEOUS UNITS		
SYMBOL	DESCRIPTION	PART NO
L	DIAL LIGHT BULB - MAZDA NO 51	17-13904
P	LINE CORD & PLUG ASSEMBLY	17-16371
SPK	SPEAKER ASSEMBLY	17-16314A
SW	LINE SWITCH	17-14315

I.F. PEAK 455 K.C.
 BALANCE 1400 K.C. - CHECK AT 600K.C.
 NOBLITT-SPARKS INDUSTRIES, INC.,

RESISTORS			CONDENSERS			TRANSFORMERS		
R	OHM	W	C	CAPACITY	VOLT	T	TYPE	PART NO.
5	500K	1/4	1	TWO-GANG		1	ANTENNA COIL	DD-16320
27	2M	1/4	2	VARIABLE	17-16326	2	OSCILLATOR COIL	DD-16321
150	5M	1/4	191	.01	400	3	FIRST I.F. COIL	DD-16322
174	20K	1/4	192	.00025	600	4	SECOND I.F. COIL	DD-16323
181	100K	1/4	193	.05	200	5	OUTPUT TRANS.	DD-16324
182	1M	V.C.	195	.05	400			
183	150	1/4	199	.02	200			
			215	.0001	600			
			222	.2	400			
			228A	10 MFD.	150			
			228B	20 MFD.	150			
			228C	20 MFD.	2.5			
			229	.02	400			
			230	.0005	400			

HOME RADIO CHASSIS RE-55
25B8GT 50L6GT



RESISTORS			CONDENSERS			MISCELLANEOUS UNITS			
Q	OHM	W	PART NO	C	CAPACITY	VOLT	PART NO	SYMBOL	DESCRIPTION
5	500K	1/4	17-207D	1	170-GANG		7-1634	P	LINE CORE & PLUG ASSEMBLY
9	1M	1/4	17-208D	2	VARIABLE		17-1637	SPK	SPEAKER ASSEMBLY
23	250K	1/4	17-301L	19	.01	400	17-4272	SW	LINE SWITCH
73	30K	1/4	17-427B	192	00025	300	17-4273	T1	ANTENNA COIL
152	100	1/4	17-427C	193	.05	300	17-4274	T2	R.F. COIL
152	100	1/4	17-427D	194	.05	300	17-4275	T3	OUTPUT TRANSFORMER
154	10K	1/4	17-432D	2844	0. MFD.	150	7-1439		
				2845	20. MFD.	2.5			
				2846	20. MFD.	2.5			
				227	.05	200	17-1323		

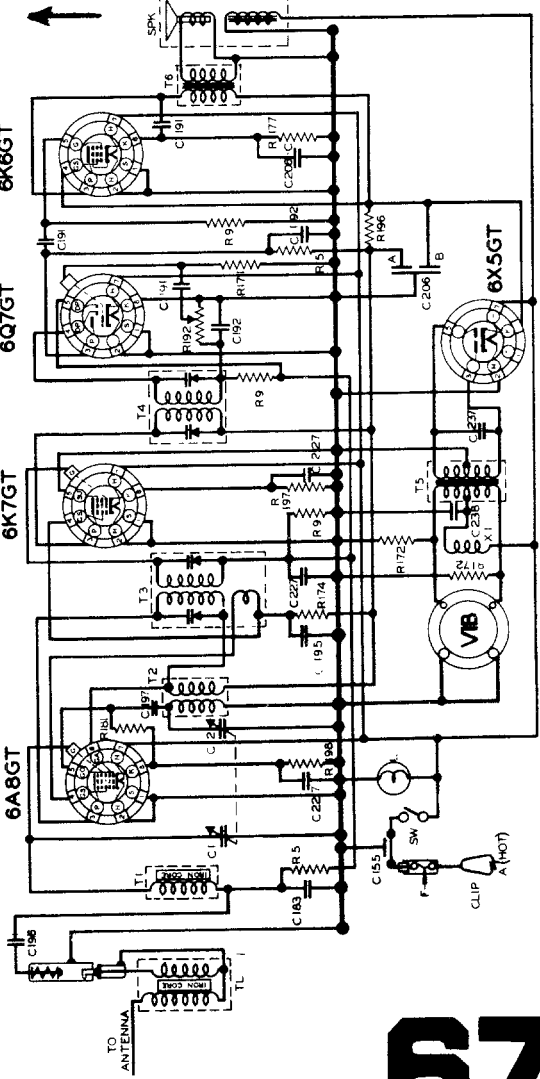
FREQUENCY RANGE
1700 K.C. TO 540 K.C.

CONDENSERS			CHOKES & TRANSFORMERS		
Q	OHM	W	PART NO	TYPE	PART NO
1	500K	1/4	17-207D	1	17-207D
2	1M	1/4	17-208D	2	17-208D
3	250K	1/4	17-301L	19	17-301L
4	30K	1/4	17-427B	192	17-427B
5	100	1/4	17-427C	193	17-427C
6	100	1/4	17-427D	194	17-427D
7	10K	1/4	17-432D	2844	17-432D
8	10K	1/4	17-432D	2845	17-432D
9	10K	1/4	17-432D	2846	17-432D

MISCELLANEOUS UNITS				
Q	OHM	W	PART NO	DESCRIPTION
1	500K	1/4	17-207D	17-207D
2	1M	1/4	17-208D	17-208D
3	250K	1/4	17-301L	17-301L
4	30K	1/4	17-427B	17-427B
5	100	1/4	17-427C	17-427C
6	100	1/4	17-427D	17-427D
7	10K	1/4	17-432D	17-432D
8	10K	1/4	17-432D	17-432D
9	10K	1/4	17-432D	17-432D

IF PEAK 455 K.C.
FREQUENCY RANGE 1575 TO 540 K.C.
NOBLITT-SPARKS INDUSTRIES, INC.

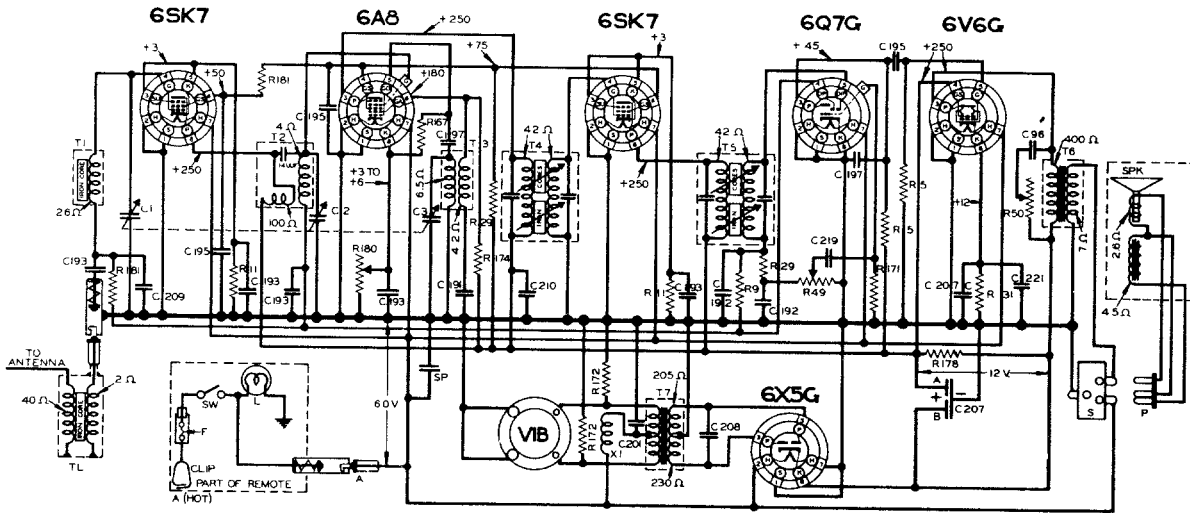
ARVIN CAR RADIO CHASSIS RE 58
6A8GT 6Q7GT 6K8GT 6X5GT



NOBLITT-SPARKS INDUSTRIES, INC.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

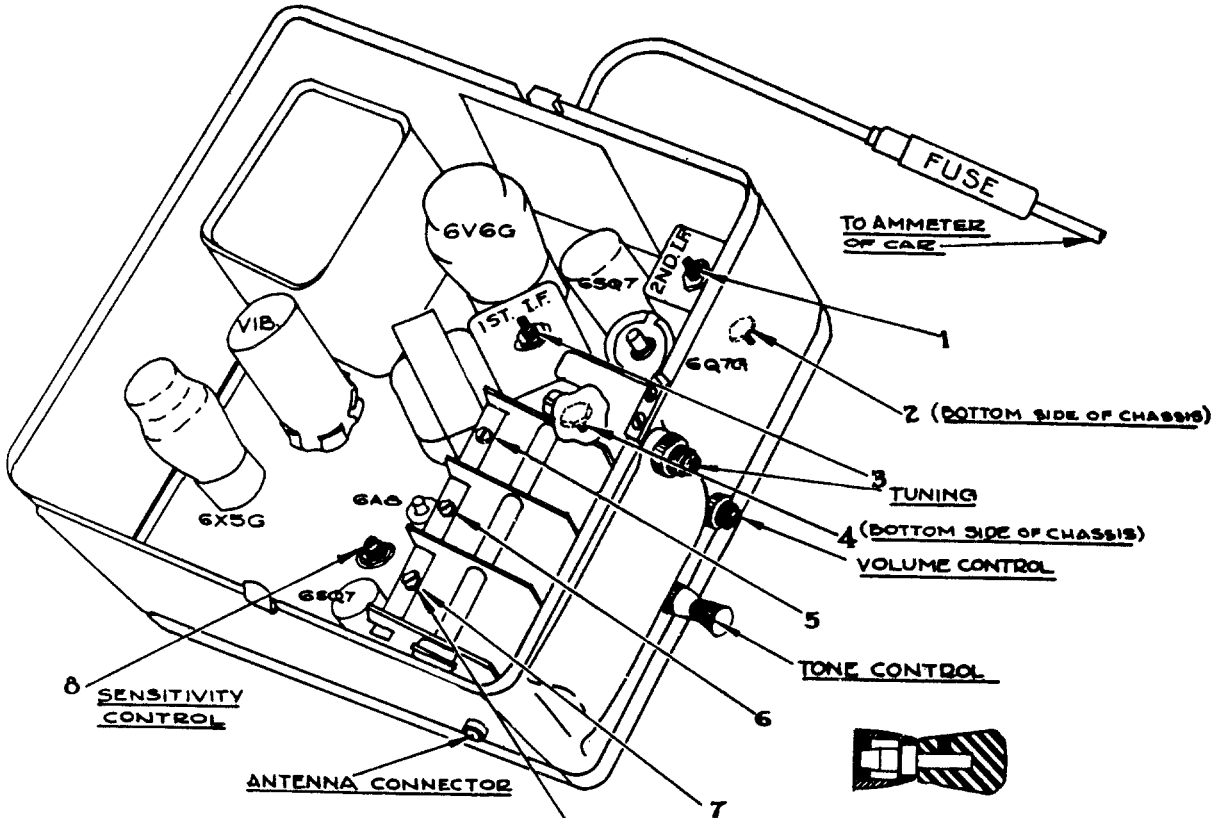
ARVIN CAR RADIO CHASSIS RE-60



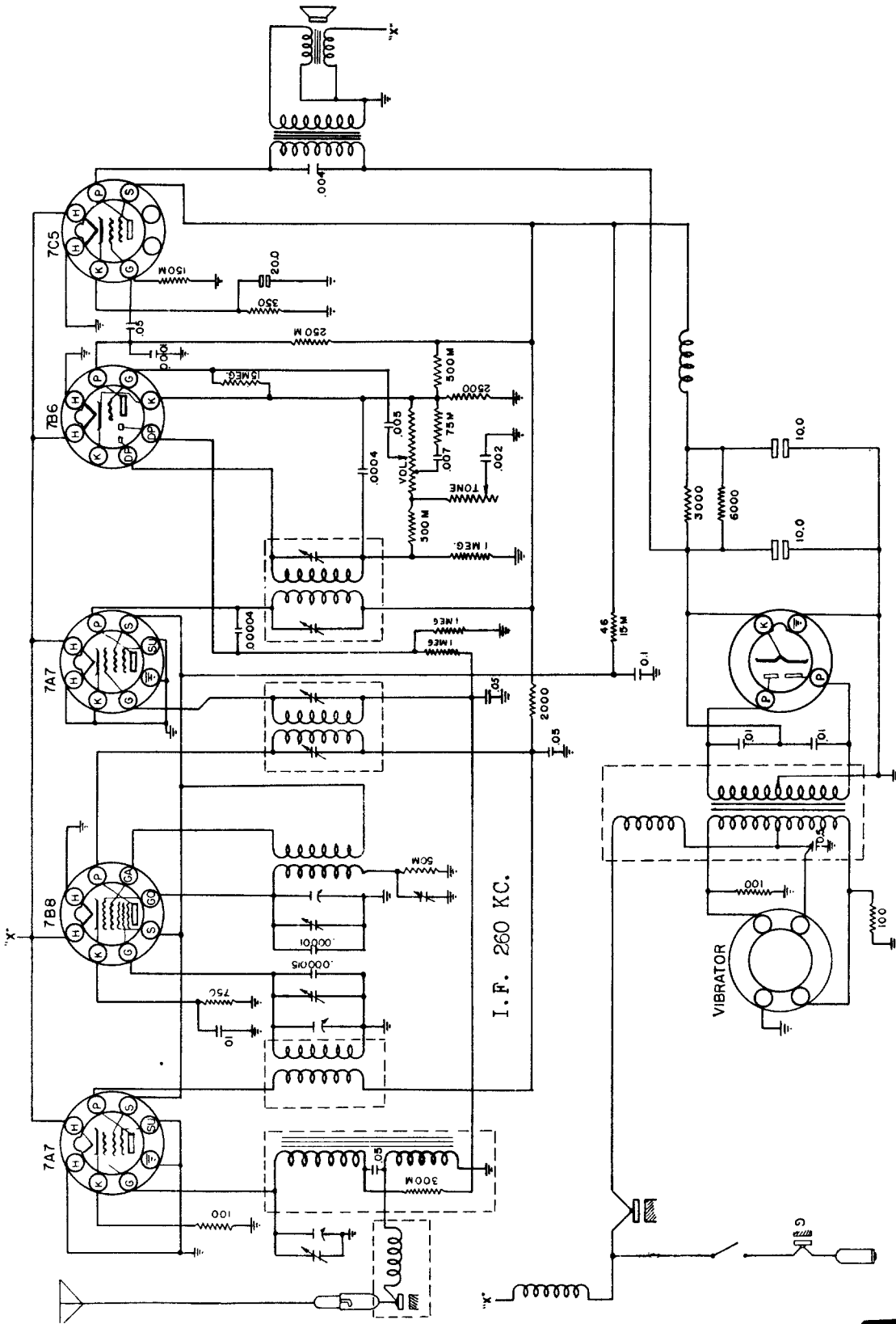
NOTE - ALL VOLTAGES GIVEN FOR 1st INPUT OF 6 VOLTS. ALLOW ± 10% ON ALL VOLTAGES & RESISTANCES OF WINDING

RESISTORS		CONDENSERS		CHOICES & TRANSFORMERS		MISCELLANEOUS UNITS	
SYMBOL	PART NO.	SYMBOL	PART NO.	SYMBOL	DESCRIPTION	SYMBOL	PART NO.
R181	17-1420	C193	17-1420	T1	TRANSFORMERS	F	FUSE - 10 AMP
R182	17-1420	C194	17-1420	L1	ANTENNA COIL	L	DIAL LIGHT BUBBLES (MAGN. IND. S)
R174	17-1420	C195	17-1420	L2	1 st I.F. COIL	F	SPARKER FLUX
R178	17-1420	C209	17-1420	L3	CONVERTOR COIL	S	SPARKER SOLENOID
R180	17-1420	C210	17-1420	L4	1 st I.F. COIL	AP	AMPLIFIER ASSEMBLY
R181	17-1420	C219	17-1420	L5	2 nd I.F. COIL	SP	POWER SWITCH
R182	17-1420	C221	17-1420	L6	OUTPUT TRANS.	TL	TRANSMISSION LINE
R174	17-1420	C222	17-1420	L7	POWER TRANS.	VIB	VIBRATOR
R178	17-1420	C207	17-1420	L8	CHOICES		
R180	17-1420	C208	17-1420	L9	SUPPRESSION CHOKE		
R181	17-1420	C209	17-1420	L10			
R182	17-1420	C210	17-1420	L11			
R174	17-1420	C219	17-1420	L12			
R178	17-1420	C221	17-1420	L13			
R180	17-1420	C222	17-1420	L14			
R181	17-1420	C207	17-1420	L15			
R182	17-1420	C208	17-1420	L16			
R174	17-1420	C209	17-1420	L17			
R178	17-1420	C210	17-1420	L18			
R180	17-1420	C219	17-1420	L19			
R181	17-1420	C221	17-1420	L20			
R182	17-1420	C222	17-1420	L21			
R174	17-1420	C207	17-1420	L22			
R178	17-1420	C208	17-1420	L23			
R180	17-1420	C209	17-1420	L24			
R181	17-1420	C210	17-1420	L25			
R182	17-1420	C219	17-1420	L26			
R174	17-1420	C221	17-1420	L27			
R178	17-1420	C222	17-1420	L28			
R180	17-1420	C207	17-1420	L29			
R181	17-1420	C208	17-1420	L30			
R182	17-1420	C209	17-1420	L31			
R174	17-1420	C210	17-1420	L32			
R178	17-1420	C219	17-1420	L33			
R180	17-1420	C221	17-1420	L34			
R181	17-1420	C222	17-1420	L35			
R182	17-1420	C207	17-1420	L36			
R174	17-1420	C208	17-1420	L37			
R178	17-1420	C209	17-1420	L38			
R180	17-1420	C210	17-1420	L39			
R181	17-1420	C219	17-1420	L40			
R182	17-1420	C221	17-1420	L41			
R174	17-1420	C222	17-1420	L42			
R178	17-1420	C207	17-1420	L43			
R180	17-1420	C208	17-1420	L44			
R181	17-1420	C209	17-1420	L45			
R182	17-1420	C210	17-1420	L46			
R174	17-1420	C219	17-1420	L47			
R178	17-1420	C221	17-1420	L48			
R180	17-1420	C222	17-1420	L49			
R181	17-1420	C207	17-1420	L50			
R182	17-1420	C208	17-1420	L51			
R174	17-1420	C209	17-1420	L52			
R178	17-1420	C210	17-1420	L53			
R180	17-1420	C219	17-1420	L54			
R181	17-1420	C221	17-1420	L55			
R182	17-1420	C222	17-1420	L56			
R174	17-1420	C207	17-1420	L57			
R178	17-1420	C208	17-1420	L58			
R180	17-1420	C209	17-1420	L59			
R181	17-1420	C210	17-1420	L60			
R182	17-1420	C219	17-1420	L61			
R174	17-1420	C221	17-1420	L62			
R178	17-1420	C222	17-1420	L63			
R180	17-1420	C207	17-1420	L64			
R181	17-1420	C208	17-1420	L65			
R182	17-1420	C209	17-1420	L66			
R174	17-1420	C210	17-1420	L67			
R178	17-1420	C219	17-1420	L68			
R180	17-1420	C221	17-1420	L69			
R181	17-1420	C222	17-1420	L70			
R182	17-1420	C207	17-1420	L71			
R174	17-1420	C208	17-1420	L72			
R178	17-1420	C209	17-1420	L73			
R180	17-1420	C210	17-1420	L74			
R181	17-1420	C219	17-1420	L75			
R182	17-1420	C221	17-1420	L76			
R174	17-1420	C222	17-1420	L77			
R178	17-1420	C207	17-1420	L78			
R180	17-1420	C208	17-1420	L79			
R181	17-1420	C209	17-1420	L80			
R182	17-1420	C210	17-1420	L81			
R174	17-1420	C219	17-1420	L82			
R178	17-1420	C221	17-1420	L83			
R180	17-1420	C222	17-1420	L84			
R181	17-1420	C207	17-1420	L85			
R182	17-1420	C208	17-1420	L86			
R174	17-1420	C209	17-1420	L87			
R178	17-1420	C210	17-1420	L88			
R180	17-1420	C219	17-1420	L89			
R181	17-1420	C221	17-1420	L90			
R182	17-1420	C222	17-1420	L91			
R174	17-1420	C207	17-1420	L92			
R178	17-1420	C208	17-1420	L93			
R180	17-1420	C209	17-1420	L94			
R181	17-1420	C210	17-1420	L95			
R182	17-1420	C219	17-1420	L96			
R174	17-1420	C221	17-1420	L97			
R178	17-1420	C222	17-1420	L98			
R180	17-1420	C207	17-1420	L99			
R181	17-1420	C208	17-1420	L100			

INTERMEDIATE FREQUENCY 170 K.C.
FREQUENCY RANGE 1570 TO 540 K.C.
NOBLITT-SPARKS INDUSTRIES, INC.,
COLUMBUS, INDIANA

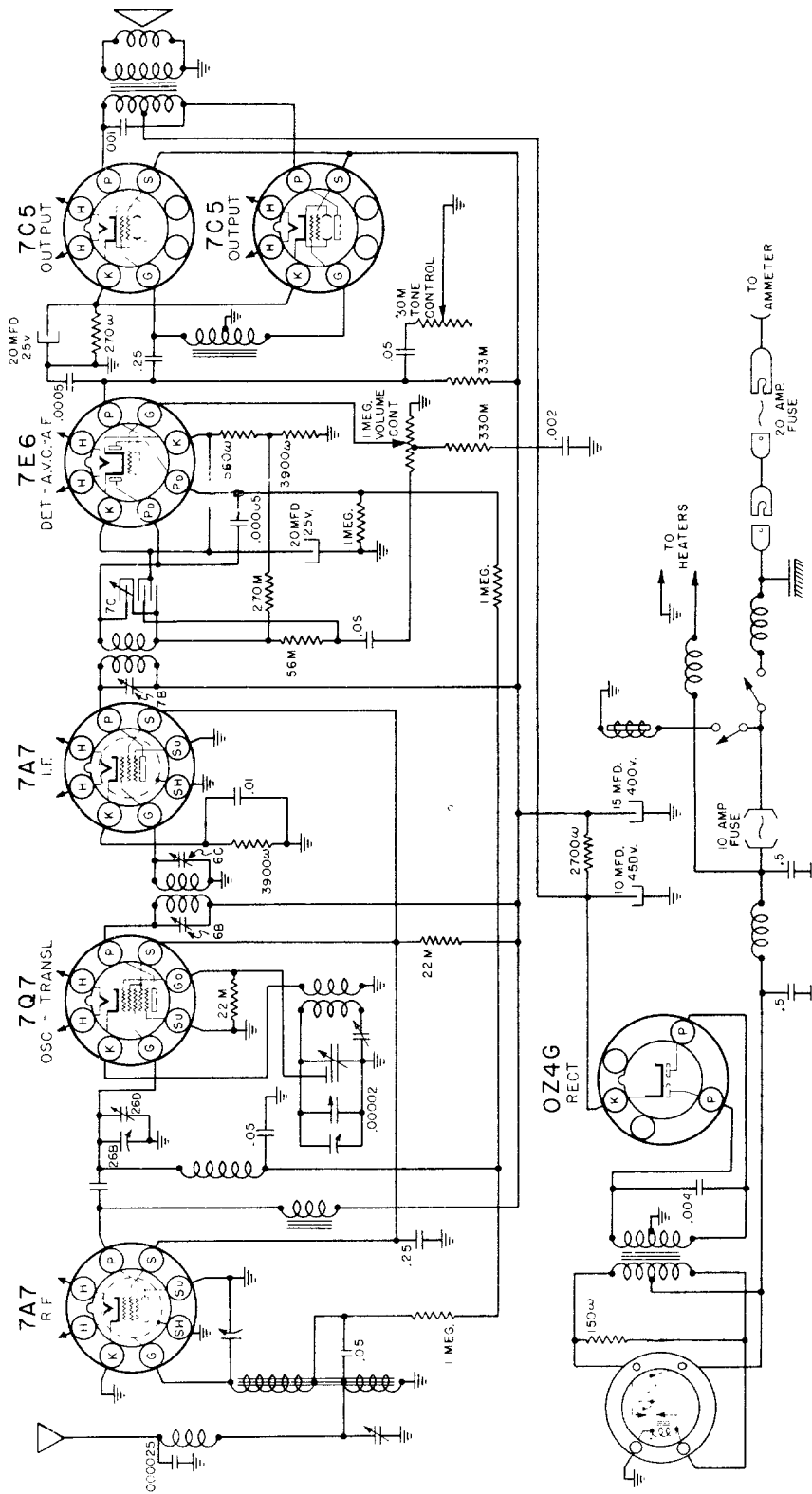


MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



OLDS MODEL 982161 - CIRCUIT DIAGRAM

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



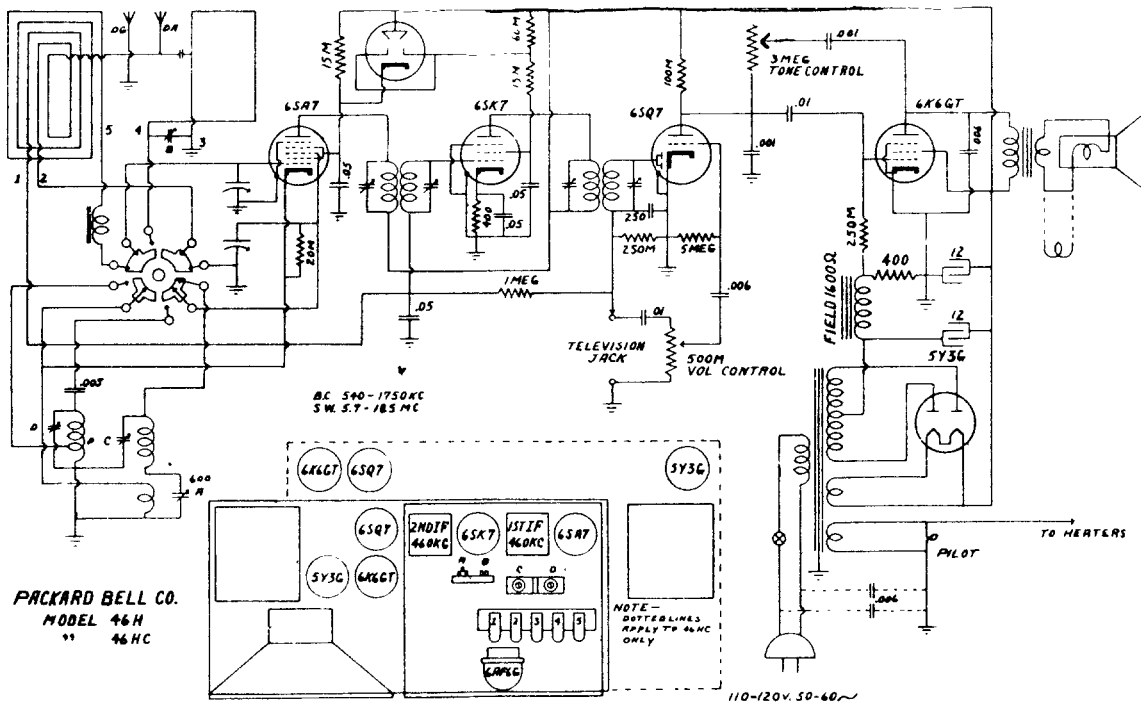
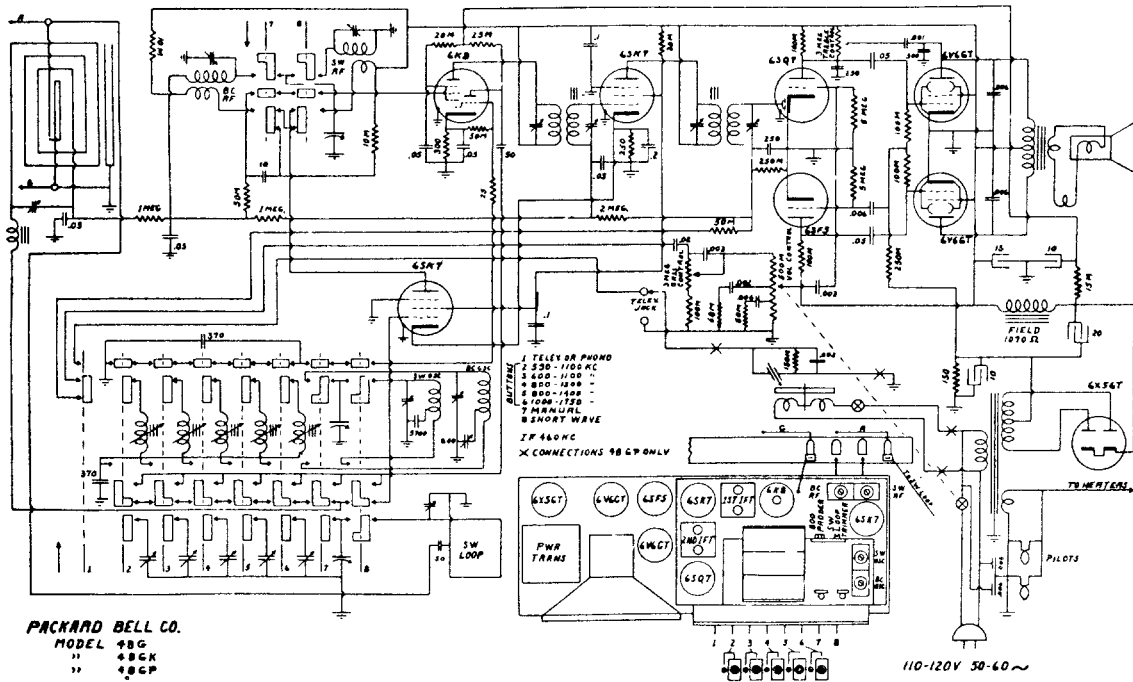
I. F. 260 KC.

OLDS MODEL 982160 - CIRCUIT DIAGRAM

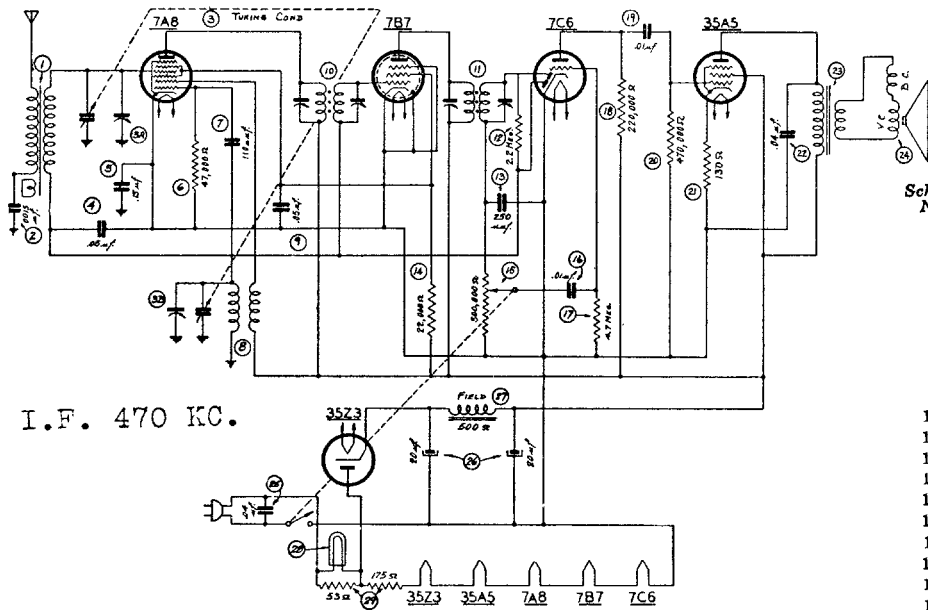
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

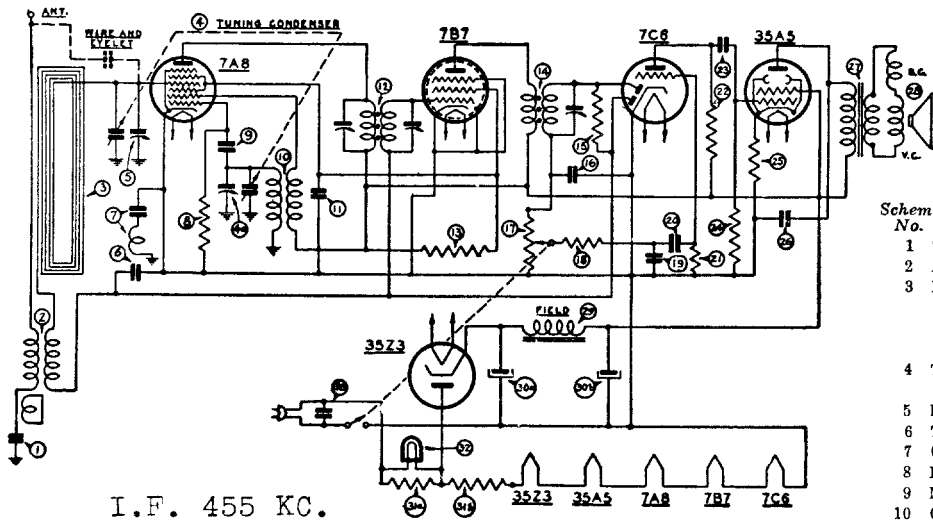


I.F. 470 KC.

PHILCO TRANSITONE HOME RADIO MODELS PT-25, PT-27 AND PT-39

Schem. No.	Description
1	Antenna Transformer
2	Tubular Condenser (.0015 mf., 200 V.)
3	Tuning Condenser
4	Tubular Condenser (.05 mf., 200 V.)
5	Tubular Condenser (.15 mf., 400 V.)
6	Resistor (47,000 ohms, 1/4 watt)
7	Mica Condenser (110 mmf.)
8	Oscillator Transformer
9	Tubular Condenser (.05 mf., 200 V.)
10	1st I. F. Transformer
11	2nd I. F. Transformer
12	Resistor 2.2 meg., 1/4 watt)
13	Mica Condenser (250 mmf.)
14	Resistor (22,000 ohms, 1/2 watt)
15	Volume Control (500,000 ohms)
16	Tubular Condenser (.01 mf., 200 V.)
17	Resistor (4.7 meg., 1/4 watt)
18	Resistor (220,000 ohms, 1/4 watt)
19	Tubular Condenser (.01 mf., 400 V.)
20	Resistor (470,000 ohms, 1/4 watt)
21	Resistor (130 ohms, 1/2 watt)
22	Tubular Condenser (.04 mf., 400 V.)
23	Output Transformer ..Part of Speaker
24	Speaker
25	Tubular Condenser (.04 mf., 400 V.)
26	Electrolytic Condenser (20-20 mf., 150 V.)
27	Field Coll
28	Pilot Lamp
29	Line Resistor

PHILCO TRANSITONE HOME RADIOS — MODELS PT-26, PT-28 AND PT-36



I.F. 455 KC.

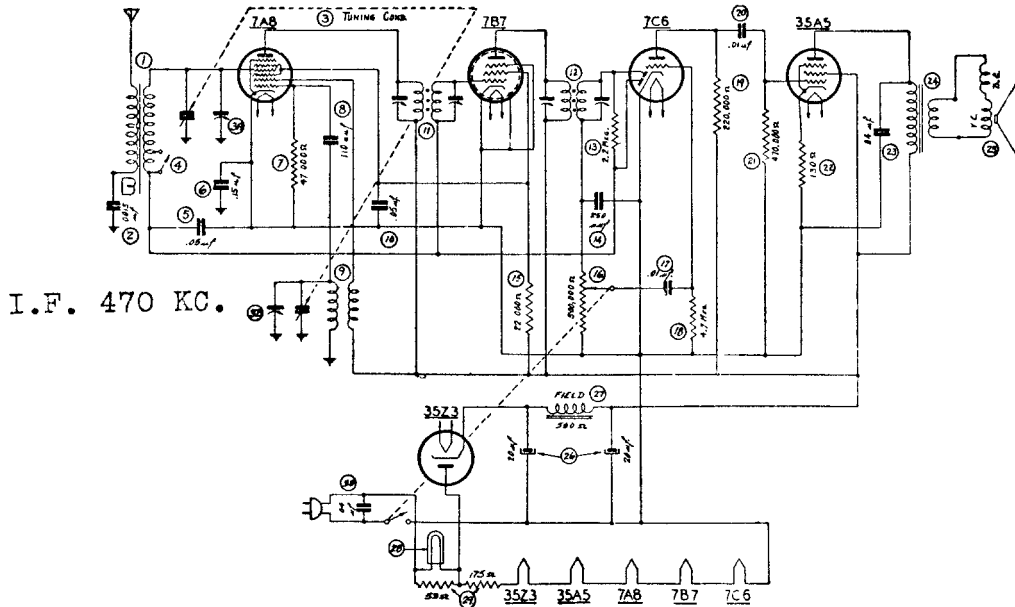
24	Resistor (470,000 ohms, 1/4 watt)
25	Resistor (130 ohms, 1/2 watt)
26	Tubular Condenser (.04 mf., 400V)
27	Output Transformer—Part of Speaker
28	Speaker
29	Field Coil—Part of Speaker No.
30	Electrolytic Condenser (20-20 mf., 150V)
31	Line Resistor
32	Pilot Lamp
33	Tubular Condenser (.04 mf., 400V)

Schem. No.	Description
1	Tubular Condenser (.0015 mf., 200V) ..
2	Antenna Transformer
3	Loop Antenna — Part of cabinet and loop PT-26
4	Tuning Condenser — PT-26 & PT-28 .. PT-36
5	Padding Condenser
6	Tubular Condenser (.1 mf., 200V)
7	Condenser & Choke Assy.
8	Resistor (22,000 ohms, 1/4 watt)
9	Mica Condenser (110 mmf.)
10	Oscillator Transformer
11	Tubular Condenser (.05 mf., 200V)
12	1st I. F. Transformer
13	Resistor (22,000 ohms, 1/2 watt)
14	2nd I. F. Transformer
15	Resistor (2.2 meg., 1/4 watt)
16	Mica Condenser (250 mmf.)
17	Volume Control (500,000 ohms)
18	Resistor (47,000 ohms, 1/4 watt)
19	Mica Condenser (250 mmf.)
20	Tubular Condenser (.01 mf., 200V)
21	Resistor (4.7 meg., 1/4 watt)
22	Resistor (220,000 ohms, 1/4 watt)
23	Tubular Condenser (.01 mf., 400V)

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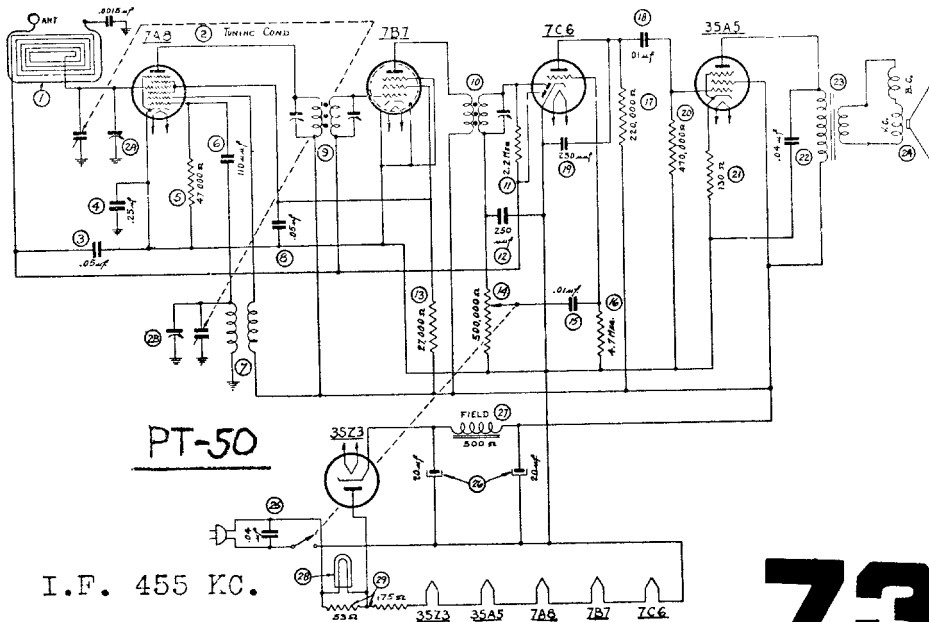


PHILCO TRANSITONE HOME RADIO MODELS PT-29 AND PT-31

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Transformer	32-3164	18	Resistor (4.7 meg., 1/4 watt)	33-547154
2	Tubular Condenser (.0015 mf., 200 v.)	30-45558	19	Resistor (220,000 ohms, 1/4 watt)	33-422154
3	Tuning Condenser	31-2427	20	Tubular Condenser (.01 mf., 400 v.)	30-45728
4	Switch	42-1406	21	Resistor (47,000 ohms, 1/4 watt)	33-447154
5	Tubular Condenser (.05 mf., 200 v.)	30-45198	22	Resistor (130 ohms, 1/2 watt)	33-113338
6	Tubular Condenser (.15 mf., 400 v.)	30-45058	23	Tubular Condenser (.04 mf., 400 v.)	30-41198
7	Resistor (47,000 ohms, 1/4 watt)	33-347154	24	Output Transformer	
8	Mica Condenser (110 mmf.)	30-1130		Part of Speaker No.	36-1469
9	Oscillator Transformer	32-3152	25	Speaker	36-1469
10	Tubular Condenser (.05 mf., 200 v.)	30-45198	26	Electrolytic Condenser	36-1469
11	1st I. F. Transformer	32-3149		(20-20 mf., 150 v.)	30-2382
12	2nd I. F. Transformer	32-3150	27	Field Coil	Part of Speaker,
13	Resistor (2.2 meg., 1/4 watt)	33-522154		Part Number	36-1469
14	Mica Condenser (250 mmf.)	61-0033	28	Pilot Lamp	34-2068
15	Resistor (22,000 ohms, 1/2 watt)	33-322334	29	Line Resistor	33-3367
16	Volume Control (500,000 ohms)	33-5306	30	Tubular Condenser (.04 mf., 400 v.)	30-41198
17	Tubular Condenser (.01 mf., 200 v.)	30-44798			

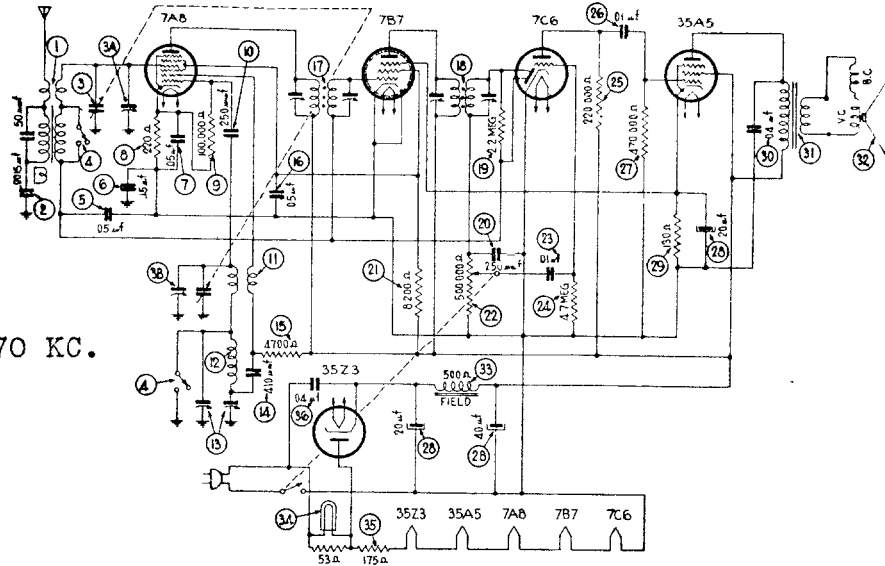
PHILCO TRANSITONE HOME RADIOS — MODELS PT-33, PT-41 AND PT-61

- 1 Loop Antenna Assembly
- 2 Tuning Condenser
- 3 Tubular Condenser (.05 mf., 200 V.)
- 4 Tubular Condenser (.25 mf., 400 V.)
- 5 Resistor (47,000 ohms, 1/4 watt)
- 6 Mica Condenser (110 mmf.)
- 7 Oscillator Transformer
- 8 Tubular Condenser (.05 mf., 200 V.)
- 9 1st I. F. Transformer
- 10 2nd I. F. Transformer
- 11 Resistor (2.2 megs., 1/4 watt)
- 12 Mica Condenser (250 mmf.)
- 13 Resistor (27,000 ohms, 1/2 watt)
- 14 Volume Control (500,000 ohms)
- 15 Tubular Condenser (.01 mf., 200 V.)
- 16 Resistor (4.7 megs., 1/4 watt)
- 17 Resistor (220,000 ohms, 1/4 watt)
- 18 Tubular Condenser (.01 mf., 400 V.)
- 19 Mica Condenser (250 mmf.)
- 20 Resistor (470,000 ohms, 1/4 watt)
- 21 Resistor (130 ohms, 1/2 watt)
- 22 Tubular Condenser (.04 mf., 400 V.)
- 23 Output Transformer ..Part of Speaker
- 24 Speaker
- 25 Tubular Condenser (.04 mf., 400 V.)
- 26 Electrolytic Condenser (20-20 mf., 150 V.)
- 27 Field Coil ..Part of Speaker
- 28 Pilot Lamp
- 29 Line Resistor



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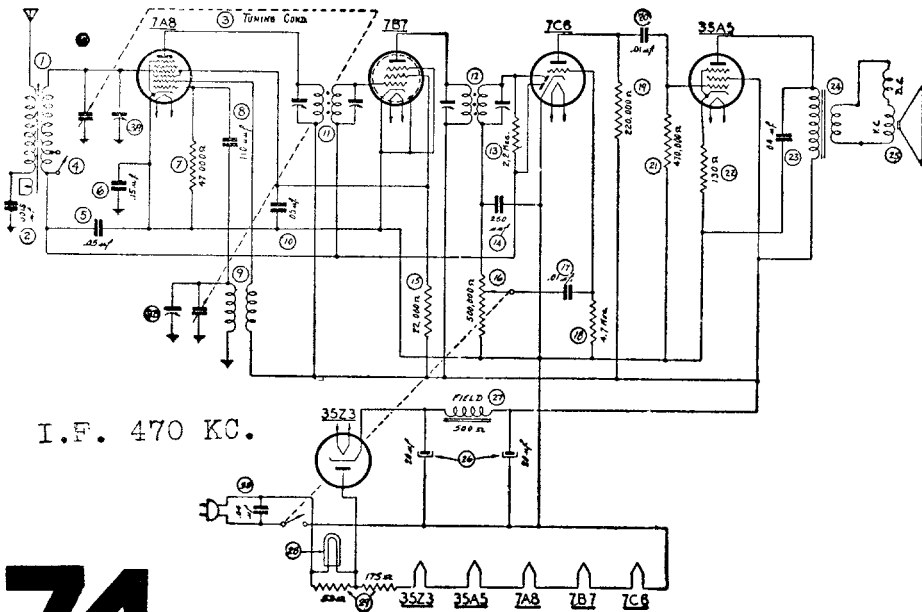


I.F. 470 KC.

PHILCO TRANSITONE MODELS PT-37 AND PT-53

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Transformer	32-3233	19	Resistor (2.2 megohms, 1/4 watt)	33-522154
2	Tubular Condenser (.0015 mf., 200 v.)	30-4555S	20	Mica Condenser (250 mmf.)	61-0083
3	Tuning Condenser	31-2431	21	Resistor (8,200 ohms, 1/4 watt)	33-282334
4	Wave Switch	42-1497	22	Volume Control	33-5306
5	Tubular Condenser (.05 mf., 200 v.)	30-4519S	23	Tubular Condenser (.01 mf., 400 v.)	30-4572S
6	Tubular Condenser (.15 mf., 400 v.)	30-4600S	24	Resistor (4.7 megohm, 1/4 watt)	33-547154
7	Tubular Condenser (.05 mf., 200 v.)	30-4519S	25	Resistor (220,000 ohms, 1/4 watt)	33-522154
8	Resistor (220 ohms, 1/2 watt)	33-122336	26	Tubular Condenser (.01 mf., 200 v.)	30-4581S
9	Resistor (100,000 ohms, 1/4 watt)	33-410154	27	Resistor (470,000 ohms, 1/4 watt)	33-447154
10	Mica Condenser (250 mmf.)	61-0083	28	Electrolytic Condenser	30-2402
11	Short Wave Oscillator Trans.	32-3234	29	Resistor (130 ohms, 1/2 watt)	33-113336
12	BC Oscillator Transformer	32-3217	30	Tubular Condenser (.04 mf., 400 v.)	30-4119S
13	Dual Padding Condenser	31-6331	31	Output Trans.—Part of Speaker No.	36-1469
14	Mica Condenser (410 mmf.)	30-1089	32	Speaker	36-1469
15	Resistor (4700 ohms, 1/4 watt)	33-247134	33	Field Coil—Part of Speaker No.	36-1469
16	Tubular Condenser (.05 mf., 200 v.)	30-4519S	34	Pilot Lamp	34-2068
17	1st I. F. Transformer	32-3327	35	Line Resistor	33-3367
18	2nd I. F. Transformer	32-3150	36	Tubular Condenser (.04 mf., 400 v.)	30-4119S

PHILCO TRANSITONE HOME RADIO MODEL PT-35



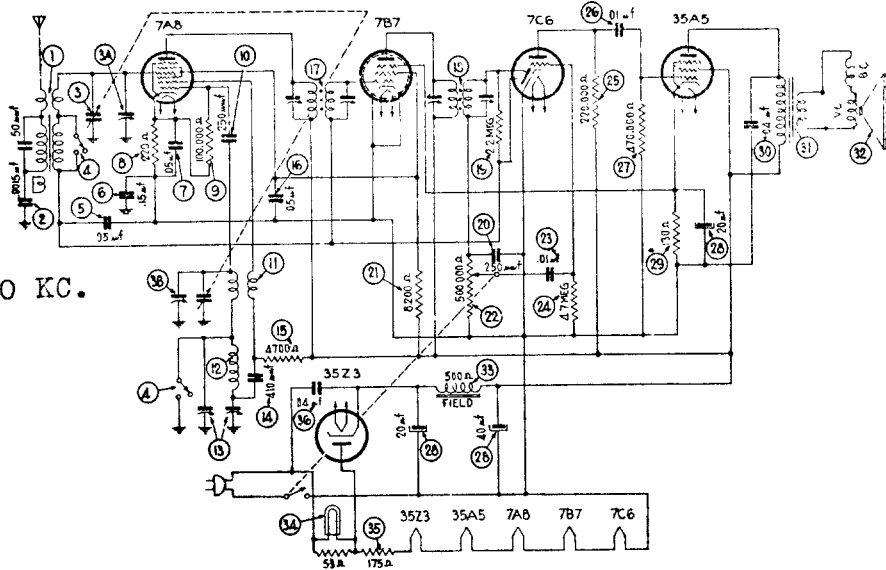
I.F. 470 KC.

Schem. No.	Description
1	Antenna Transformer
2	Tubular Condenser (.0015 mf., 200 v.)
3	Tuning Condenser
4	Switch
5	Tubular Condenser (.05 mf., 200 v.)
6	Tubular Condenser (.15 mf., 400 v.)
7	Resistor (47,000 ohms, 1/4 watt)
8	Mica Condenser (110 mmf.)
9	Oscillator Transformer
10	Tubular Condenser (.05 mf., 200 v.)
11	1st I. F. Transformer
12	2nd I. F. Transformer
13	Resistor (2.2 meg., 1/4 watt)
14	Mica Condenser (250 mmf.)
15	Resistor (22,000 ohms, 1/2 watt)
16	Volume Control (500,000 ohms)
17	Tubular Condenser (.01 mf., 200 v.)
18	Resistor (4.7 meg., 1/4 watt)
19	Resistor (220,000 ohms, 1/4 watt)
20	Tubular Condenser (.01 mf., 400 v.)
21	Resistor (470,000 ohms, 1/4 watt)
22	Resistor (130 ohms, 1/2 watt)
23	Tubular Condenser (.04 mf., 400 v.)
24	Output Transformer
25	Speaker
26	Electrolytic Condenser (20-20 mf., 150 v.)
27	Field Coil—Part of Speaker No.
28	Pilot Lamp
29	Line Resistor
30	Tubular Condenser (.04 mf., 400 v.)

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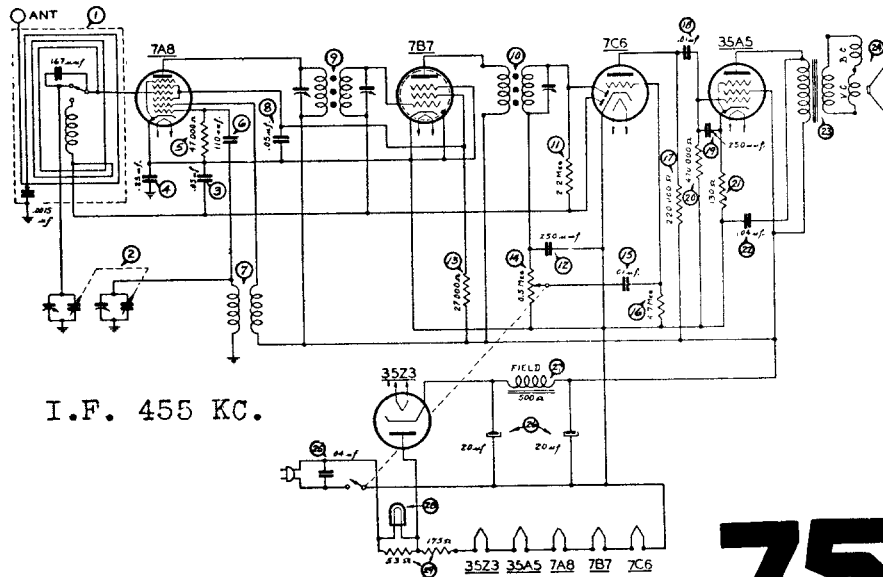
I.F. 470 KC.

PHILCO TRANSITONE MODEL PT-38

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Transformer	32-3233	19	Resistor (2.2 megohms, 1/4 watt)	33-522154
2	Tubular Condenser (.0015 mf., 200 v.)	30-4555	20	Mica Condenser (250 mmf.)	61-0033
3	Tuning Condenser	31-2431	21	Resistor (8,200 ohms, 1/4 watt)	33-282334
4	Wave Switch	42-1497	22	Volume Control	33-5306
5	Tubular Condenser (.04 mf., 200 v.)	30-4519	23	Tubular Condenser (.01 mf., 400 v.)	30-4572
6	Tubular Condenser (.15 mf., 400 v.)	30-4600	24	Resistor (4.7 megohms, 1/4 watt)	33-547154
7	Tubular Condenser (.05 mf., 200 v.)	30-4519	25	Resistor (220,000 ohms, 1/4 watt)	33-522154
8	Resistor (220 ohms, 1/2 watt)	33-122336	26	Tubular Condenser (.01 mf., 400 v.)	30-4572
9	Resistor (100,000 ohms, 1/4 watt)	33-410154	27	Resistor (470,000 ohms, 1/4 watt)	33-447154
10	Mica Condenser (250 mmf.)	61-0033	28	Electrolytic Condenser	30-2402
11	Short Wave Oscillator Trans.	32-3234	29	Resistor (130 ohms, 1/2 watt)	33-113536
12	BC Oscillator Transformer	32-3217	30	Tubular Condenser (.04 mf., 400 v.)	30-4119
13	Dual Padding Condenser	31-6331	31	Output Trans.—Part of Speaker No.	36-1469
14	Mica Condenser (410 mmf.)	30-1089	32	Speaker	36-1469
15	Resistor (4700 ohms, 1/4 watt)	33-247134	33	Field Coil—Part of Speaker No.	36-1469
16	Tubular Condenser (.05 mf., 200 v.)	30-4519	34	Pilot Lamp	34-2068
17	1st I. F. Transformer	32-3327	35	Line Resistor	33-3367
18	2nd I. F. Transformer	32-3150	36	Tubular Condenser (.04 mf., 400 v.)	30-4119

PHILCO TRANSITONE HOME RADIO MODELS PT-43 AND PT-55

Schem. No.	Description
1	Loop Antenna Assembly
2	Tuning Condenser
3	Tubular Condenser (.05 mf., 200 v.)
4	Tubular Condenser (.25 mf., 400 v.)
5	Resistor (47,000 ohms, 1/4 watt)
6	Mica Condenser (110 mmf.)
7	Oscillator Transformer
8	Tubular Condenser (.05 mf., 200 v.)
9	1st I. F. Transformer
10	2nd I. F. Transformer
11	Resistor (2.2 megs., 1/4 watt)
13	Resistor (27,000 ohms, 1/4 watt)
14	Volume Control (500,000 ohms)
15	Tubular Condenser (.01 mf., 200 v.)
16	Resistor (4.7 megs., 1/4 watt)
17	Resistor (220,000 ohms, 1/4 watt)
18	Tubular Condenser (.01 mf., 400 v.)
19	Mica Condenser (250 mmf.)
20	Resistor (470,000 ohms, 1/4 watt)
21	Resistor (130 ohms, 1/2 watt)
22	Tubular Condenser (.04 mf., 400 v.)
23	Output Transformer
24	Speaker
25	Tubular Condenser (.04 mf., 400 v.)
26	Electrolytic Condenser (20-20 mf., 150 v.)
27	Field Coil, Part of Speaker
28	Pilot Lamp
29	Line Resistor

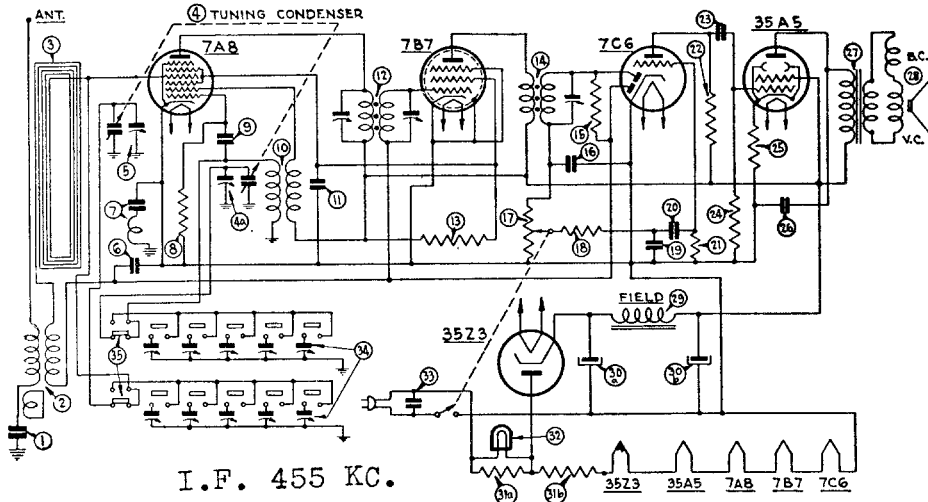


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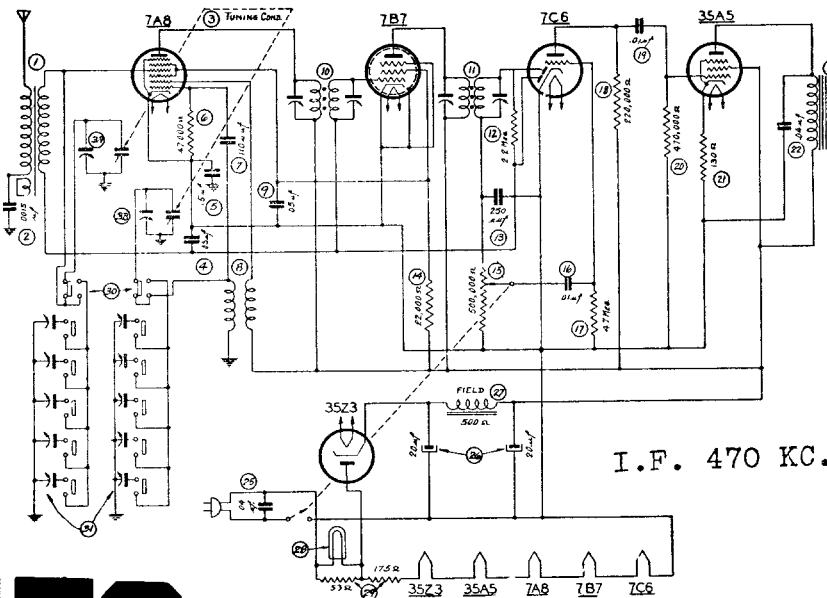
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



PHILCO TRANSITONE HOME RADIOS — MODELS PT-46 AND PT-48

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Tubular Condenser (.0015 mf., 200 v.)	30-4555	18	Resistor (47,000 ohms, ¼ watt)	33-347154
2	Antenna Transformer	32-3394	19	Mica Condenser (250 mmf.)	61-0033
3	Loop Antenna — Part of Cabinet and Loop Assy. PT-46	76-1015	20	Tubular Condenser (.01 mf., 200 v.)	30-4479
	PT-48	76-1016	21	Resistor (4.7 meg., ¼ watt)	33-547154
4	Tuning Condenser (PT-46 and PT-48)	31-2445	22	Resistor (220,000 ohms, ¼ watt)	33-422154
5	Padding Condenser	31-6344	23	Tubular Condenser (.01 mf., 400 v.)	30-4572
6	Tubular Condenser (.1 mf., 200 v.)	30-4499	24	Resistor (470,000 ohms, ¼ watt)	33-447154
7	Condenser & Choke Assy.	76-1019	25	Resistor (130 ohms, ¼ watt)	33-113336
8	Resistor (22,000 ohms, ¼ watt)	33-322154	26	Tubular Condenser (.04 mf., 400 v.)	30-4119
9	Mica Condenser (110 mmf.)	30-1130	27	Output Transformer Part of Speaker No.	36-1469
10	Oscillator Transformer	32-3152	28	Speaker	36-1469
11	Tubular Condenser (.05 mf., 200 v.)	30-4519	29	Field Coil	Part of Speaker No. 36-1469
12	1st I. F. Transformer	32-3390	30	Electrolytic Condenser (20-20 mf., 150 v.)	30-2382
13	Resistor (22,000 ohms, ¼ watt)	33-322334	31	Line Resistor	33-3367
14	2nd I. F. Transformer	32-3301	32	Pilot Lamp	34-2068
15	Resistor (2.2 meg., ¼ watt)	33-522154	33	Tubular Condenser (.04 mf., 400 v.)	30-4119
16	Mica Condenser (250 mmf.)	61-0033	34	Padding Condenser Strip	31-6324
17	Volume Control (500,000 ohms)	33-5306	35	Push Button Switch	42-1485

PHILCO TRANSITONE HOME RADIO MODELS PT-45 AND PT-47

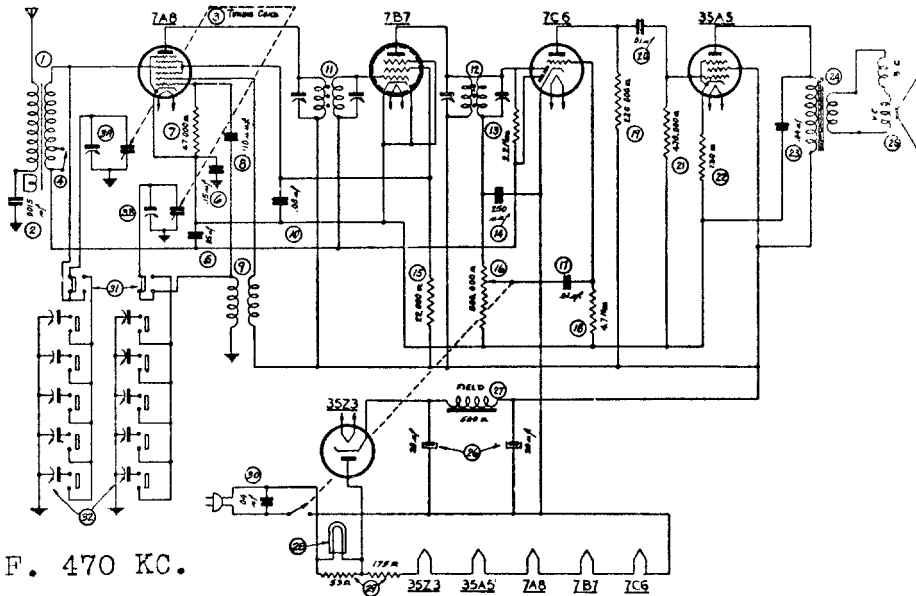


Schem. No.	Description
1	Antenna Transformer
2	Tubular Condenser (.0015 mf., 200 v.)
3	Tuning Condenser
4	Tubular Condenser (.05 mf., 200 v.)
5	Tubular Condenser (.15 mf., 400 v.)
6	Resistor (47,000 ohms, ¼ watt)
7	Mica Condenser (110 mf.)
8	Oscillator Transformer
9	Tubular Condenser (.05 mf., 200 v.)
10	1st I. F. Transformer
11	2nd I. F. Transformer
12	Resistor (2.2 meg., ¼ watt)
13	Mica Condenser (250 mmf.)
14	Resistor (22,000 ohms, ¼ watt)
15	Volume Control (500,000 ohms)
16	Tubular Condenser (.01 mf., 200 v.)
17	Resistor (4.7 meg., ¼ watt)
18	Resistor (220,000 ohms, ¼ watt)
19	Tubular Condenser (.01 mf., 400 v.)
20	Resistor (470,000 ohms, ¼ watt)
21	Resistor (130 ohms, ¼ watt)
22	Tubular Condenser (.04 mf., 400 v.)
23	Output Transformer
24	Part of Speaker No.
25	Speaker
26	Tubular Condenser (.04 mf., 400 v.)
27	Electrolytic Condenser (20-20 mf., 150 v.)
28	Field Coil Part of Speaker No.
29	Pilot Lamp
30	Line Resistor
31	Push Button Switch
32	Padding Condenser Strip

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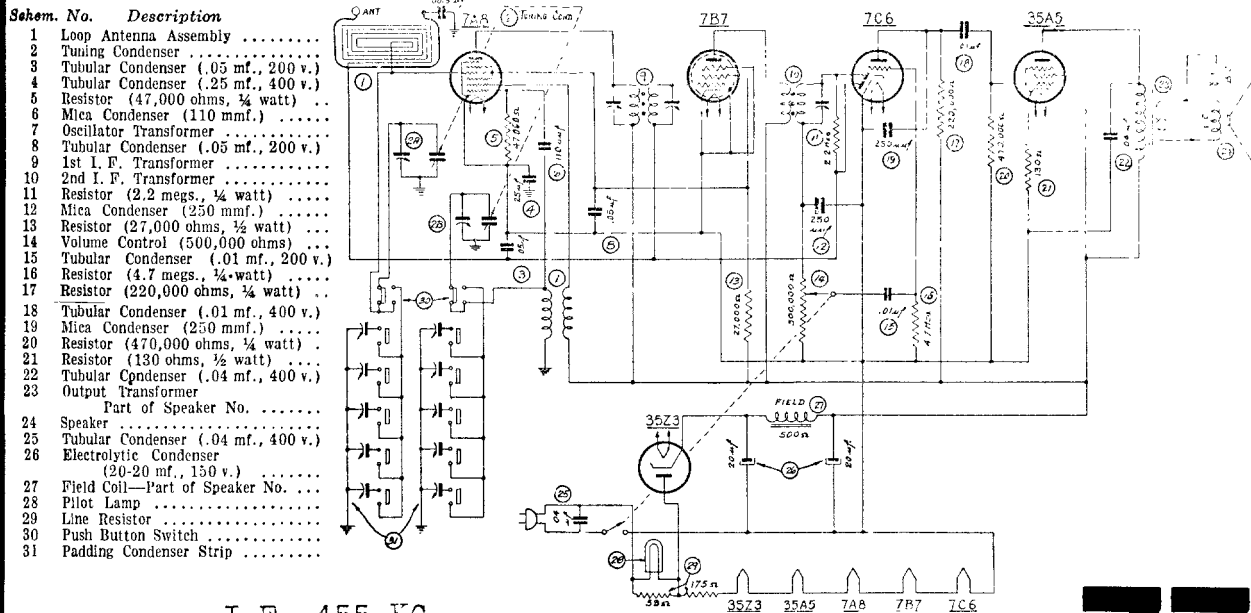


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TRANSITONE HOME RADIO MODELS PT-49 AND PT-51

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Transformer	32-3168	18	Resistor (4.7 meg., 1/4 watt)	33-347154
2	Tubular Condenser (.0015 mf., 200 v.)	30-45558	19	Resistor (220,000 ohms, 1/4 watt)	33-422154
3	Tuning Condenser	31-2428	20	Tubular Condenser (.01 mf., 400 v.)	30-45728
4	Switch	42-1406	21	Resistor (470,000 ohms, 1/4 watt)	33-447154
5	Tubular Condenser (.05 mf., 200 v.)	30-45198	22	Resistor (130 ohms, 1/2 watt)	33-113336
6	Tubular Condenser (.15 mf., 400 v.)	30-45058	23	Tubular Condenser (.04 mf., 400 v.)	30-41198
7	Resistor (47,000 ohms, 1/4 watt)	33-347154	24	Output Transformer	
8	Mica Condenser (110 mmf.)	30-1130		Part of Speaker No.	36-1469
9	Oscillator Transformer	32-3167	25	Speaker	36-1469
10	Tubular Condenser (.05 mf., 200 v.)	30-45198	26	Electrolytic Condenser (20-20 mf., 150 v.)	30-2382
11	1st I. F. Transformer	32-3149	27	Field Coil Part of Speaker No.	36-1469
12	2nd I. F. Transformer	32-3150	28	Pilot Lamp	34-2068
13	Resistor (2.2 meg., 1/4 watt)	33-522154	29	Line Resistor	33-3367
14	Mica Condenser (250 mmf.)	61-0033	30	Tubular Condenser (.04 mf., 400 v.)	30-41198
15	Resistor (22,000 ohms, 1/2 watt)	33-322334	31	Push Button Switch	42-1485
16	Volume Control (500,000 ohms)	33-5306	32	Padding Condenser Strip	31-6293
17	Tubular Condenser (.01 mf., 200 v.)	30-44798			

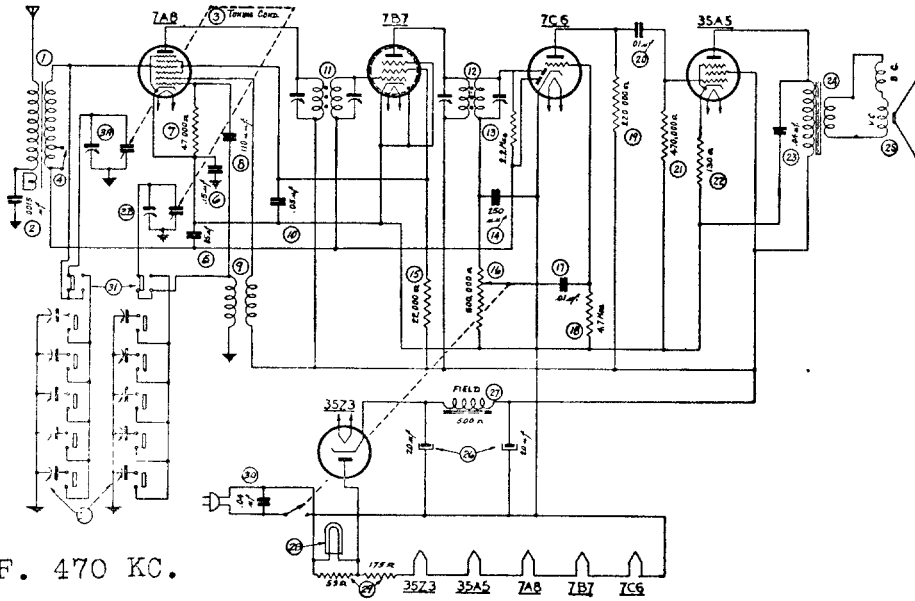
PHILCO TRANSITONE HOME RADIOS — MODELS PT-57 AND PT-65



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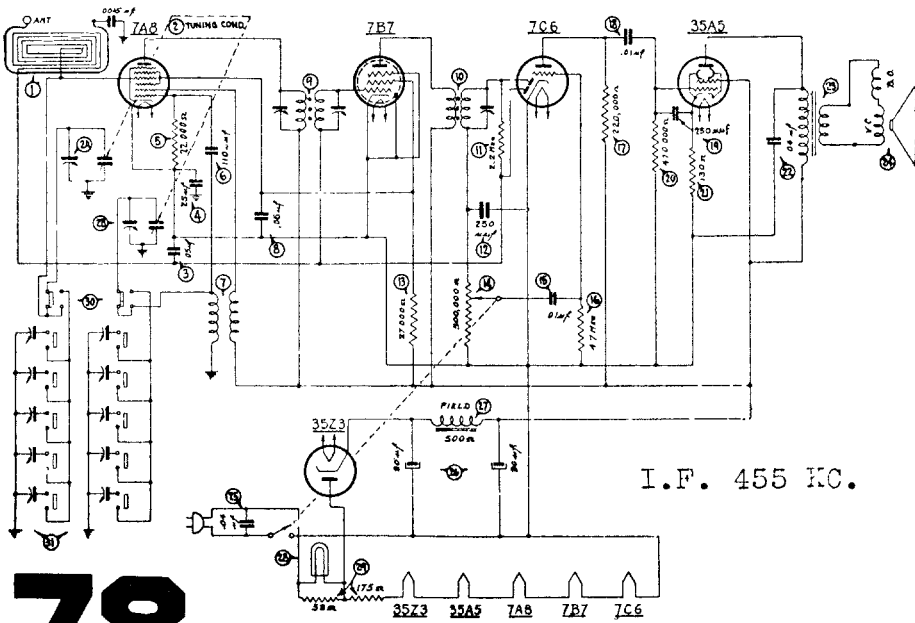


I.F. 470 KC.

PHILCO TRANSITONE HOME RADIO MODEL PT-59

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Antenna Transformer	32-3164	18	Resistor (4.7 meg., 1/4 watt)	33-547154
2	Tubular Condenser (.0015 mf., 200 v.)	30-45538	19	Resistor (220,000 ohms, 1/4 watt)	33-422154
3	Tuning Condenser	31-2135	20	Tubular Condenser (.01 mf., 400 v.)	30-45728
4	Switch	42-1406	21	Resistor (470,000 ohms, 1/4 watt)	33-447154
5	Tubular Condenser (.05 mf., 200 v.)	30-45198	22	Resistor (130 ohms, 1/2 watt)	33-113336
6	Tubular Condenser (.15 mf., 400 v.)	30-45058	23	Tubular Condenser (.4 mf., 400 v.)	30-41198
7	Resistor (47,000 ohms, 1/4 watt)	33-347154	24	Output Transformer	
8	Mica Condenser (110 mmf.)	30-1130		Part of Speaker No.	36-1469
9	Oscillator Transformer	32-3152	25	Speaker	36-1469
10	Tubular Condenser (.05 mf., 200 v.)	30-45198	26	Electrolytic Condenser (20-20 mf., 150 v.)	30-2382
11	1st I. F. Transformer	32-3149	27	Field Coil	
12	2nd I. F. Transformer	32-3150		Part of Speaker, Part No.	36-1469
13	Resistor (2.2 meg., 1/4 watt)	33-522154	28	Pilot Lamp	34-2068
14	Mica Condenser (250 mmf.)	61-0033	29	Line Resistor	33-3367
15	Resistor (22,000 ohms, 1/2 watt)	33-322334	30	Tubular Condenser (.04 mf., 400 v.)	30-41198
16	Volume Control (500,000 ohms)	33-5306			
17	Tubular Condenser (.01 mf., 200 v.)	30-44798			

PHILCO TRANSITONE HOME RADIOS — MODEL PT-66



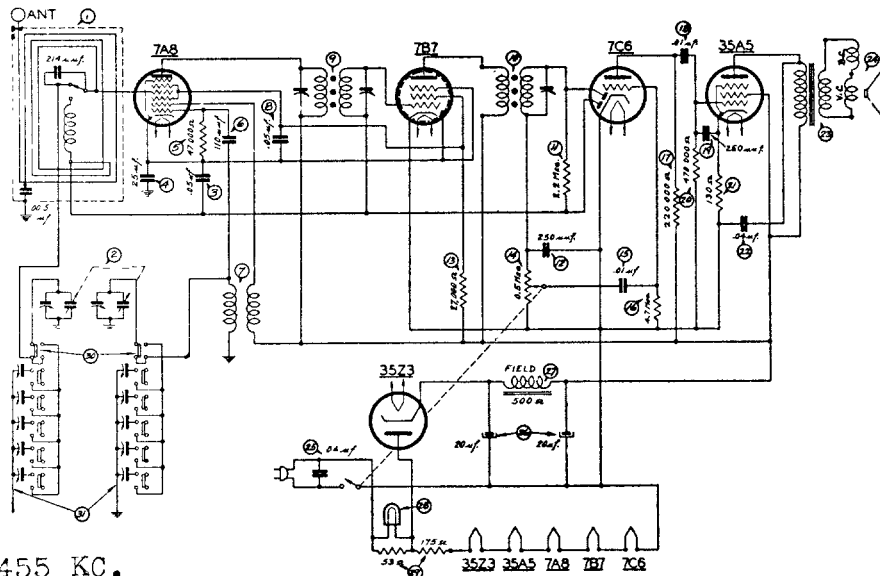
I.F. 455 KC.

Schem. No.	Description
1	Loop Antenna Assembly
2	Tuning Condenser
3	Tubular Condenser (.05 mf., 200 v.)
4	Tubular Condenser (.25 mf., 400 v.)
5	Resistor (22,000 ohms, 1/4 watt)
6	Mica Condenser (110 mmf.)
7	Oscillator Transformer
8	Tubular Condenser (.05 mf., 200 v.)
9	1st I. F. Transformer
10	2nd I. F. Transformer
11	Resistor (2.2 megs., 1/4 watt)
12	Mica Condenser (250 mmf.)
13	Resistor (27,000 ohms, 1/2 watt)
14	Volume Control (500,000 ohms)
15	Tubular Condenser (.01 mf., 200 v.)
16	Resistor (4.7 megs., 1/4 watt)
17	Resistor (220,000 ohms, 1/4 watt)
18	Tubular Condenser (.01 mf., 400 v.)
19	Mica Condenser (250 mmf.)
20	Resistor (470,000 ohms, 1/4 watt)
21	Resistor (130 ohms, 1/2 watt)
22	Tubular Condenser (.04 mf., 400 v.)
23	Output Transformer
	Part of Speaker No.
24	Speaker
25	Tubular Condenser (.04 mf., 400 v.)
26	Electrolytic Condenser (20-20 mf., 150 v.)
27	Field Coil—Part of Speaker No.
28	Pilot Lamp
29	Line Resistor
30	Push Button Switch
31	Padding Condenser Strip

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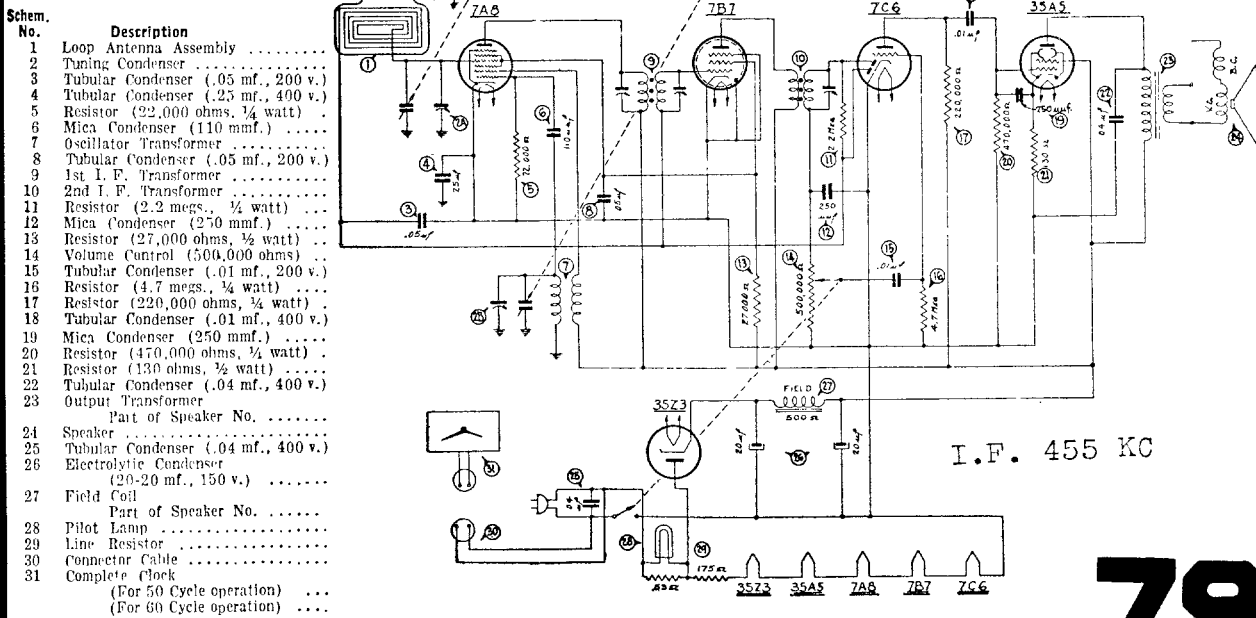


I.F. 455 KC.

PHILCO TRANSITONE HOME RADIO MODEL PT-67

Schem. No.	Description	Philco Part No.	Schem. No.	Description	Philco Part No.
1	Loop Antenna Assembly	38-9937	18	Tubular Condenser (.01 mf., 400 v.)	30-45728
2	Tuning Condenser	31-2437	19	Mica Condenser (250 mmf.)	61-0033
3	Tubular Condenser (.05 mf., 200 v.)	30-45198	20	Resistor (470,000 ohms, 1/4 watt)	33-447154
4	Tubular Condenser (.25 mf., 400 v.)	30-46048	21	Resistor (130 ohms, 1/2 watt)	33-113336
5	Resistor (47,000 ohms, 1/4 watt)	33-347154	22	Tubular Condenser (.04 mf., 400 v.)	30-41198
6	Mica Condenser (110 mmf.)	30-1130	23	Output Transformer	
7	Oscillator Transformer	32-3152		Part of Speaker No. 36-1469	
8	Tubular Condenser (.05 mf., 200 v.)	30-45198	24	Speaker	36-1469
9	1st I. F. Transformer	32-3177	25	Tubular Condenser (.04 mf., 400 v.)	30-41198
10	2nd I. F. Transformer	32-3178	26	Electrolytic Condenser (20-20 mf., 150 v.)	30-2382
11	Resistor (2.2 megs., 1/4 watt)	33-322154	27	Field Coil	Part of Speaker No. 36-1469
12	Mica Condenser (250 mmf.)	61-0033	28	Pilot Lamp	34-2068
13	Resistor (27,000 ohms, 1/2 watt)	33-327334	29	Line Resistor	33-3367
14	Volume Control (500,000 ohms)	30-44798	30	Push Button Switch	42-1485
15	Tubular Condenser (.01 mf., 200 v.)	33-547154	31	Padding Condenser Strip	31-6324
16	Resistor (4.7 megs., 1/4 watt)	33-422154			
17	Resistor (220,000 ohms, 1/4 watt)	33-422154			

PHILCO TRANSITONE HOME RADIO — MODEL PT-69

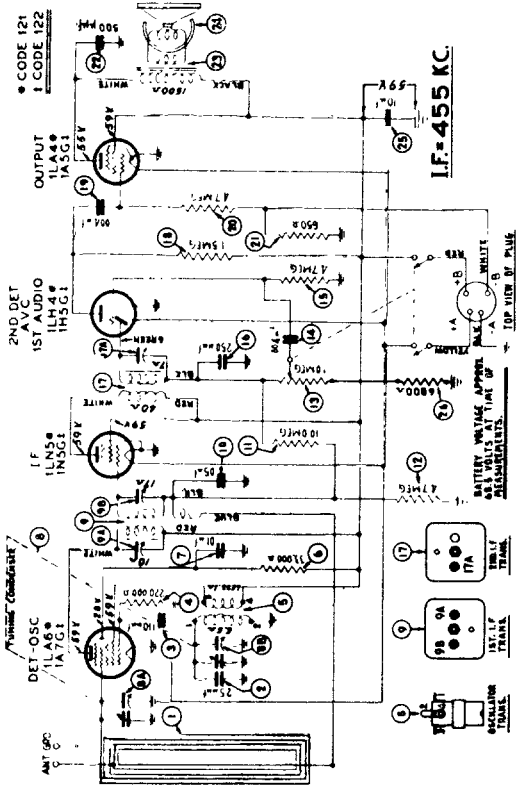


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Schem. No.	Description
1	Loop Antenna Assembly
2	Tuning Condenser
3	Tubular Condenser (.05 mf., 200 v.)
4	Tubular Condenser (.25 mf., 400 v.)
5	Resistor (22,000 ohms, 1/4 watt)
6	Mica Condenser (110 mmf.)
7	Oscillator Transformer
8	Tubular Condenser (.05 mf., 200 v.)
9	1st I. F. Transformer
10	2nd I. F. Transformer
11	Resistor (2.2 megs., 1/4 watt)
12	Mica Condenser (250 mmf.)
13	Resistor (27,000 ohms, 1/2 watt)
14	Volume Control (500,000 ohms)
15	Tubular Condenser (.01 mf., 200 v.)
16	Resistor (4.7 megs., 1/4 watt)
17	Resistor (220,000 ohms, 1/4 watt)
18	Tubular Condenser (.01 mf., 400 v.)
19	Mica Condenser (250 mmf.)
20	Resistor (470,000 ohms, 1/4 watt)
21	Resistor (130 ohms, 1/2 watt)
22	Tubular Condenser (.04 mf., 400 v.)
23	Output Transformer
	Part of Speaker No.
24	Speaker
25	Tubular Condenser (.04 mf., 400 v.)
26	Electrolytic Condenser (20-20 mf., 150 v.)
27	Field Coil
	Part of Speaker No.
28	Pilot Lamp
29	Line Resistor
30	Connector Cable
31	Complete Chock
	(For 50 Cycle operation) ...
	(For 60 Cycle operation)

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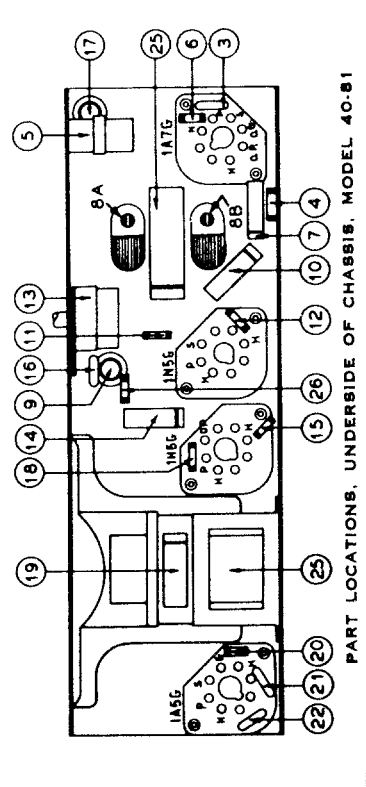


PHILCO

Models 40-81, Codes 121, 122

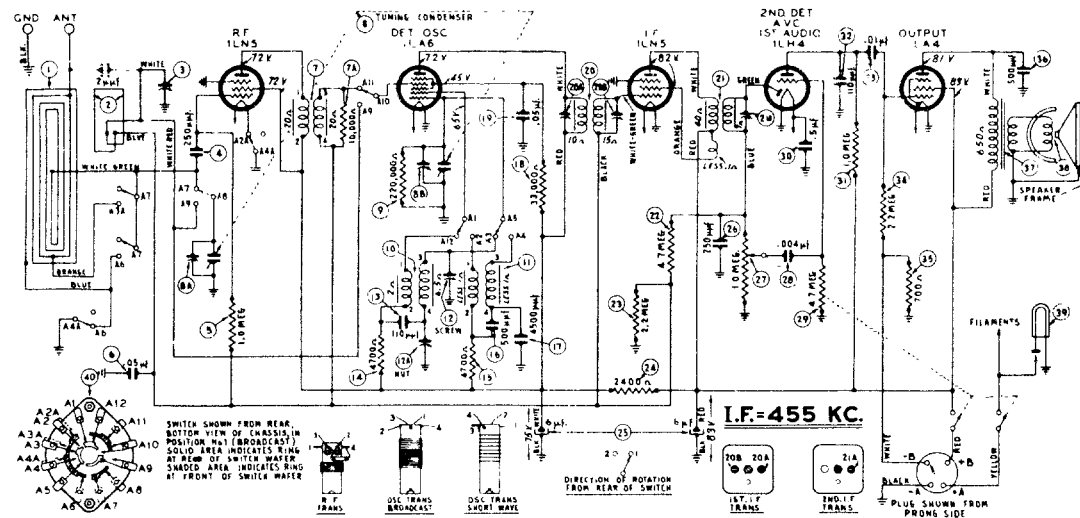
SCHE. No. DESCRIPTION PART No.

1	Loop Assembly (Part of Cabinet)	10413A
2	Mica Condenser (.15 mmfd.)	61-0036
3	Mica Condenser (.110 mmfd.)	30-1031
4	Resistor (220,000 ohms, 1/2 watt)	33-422339
5	Oscillator Transformer (Broadcast)	32-3277
6	Resistor (33,000 ohms, 1/2 watt)	33-333339
7	Tubular Condenser (.01 mfd.)	30-4372
8	Tuning Condenser Assembly	31-2432
9	1st I. F. Transformer Assembly	32-3285
10	Tubular Condenser (.05 mfd.)	30-4519
11	Resistor (10.0 meg., 1/2 watt)	33-810339
12	Resistor (4.7 meg., 1/2 watt)	33-547339
13	Volume Control and On-Off Switch	33-5331
14	Tubular Condenser (.004 mfd.)	30-4578
15	Resistor (4.7 meg., 1/2 watt)	33-547339
16	Mica Condenser (250 mmfd.)	61-0033
17	2nd I. F. Transformer Assembly	32-3286
18	Resistor (1.5 meg., 1/2 watt)	33-318339
19	Tubular Condenser (.004 mfd.)	30-4578
20	Resistor (4.7 meg., 1/2 watt)	33-547339
21	Resistor (650 ohms, 1/2 watt)	33-165328
22	Mica Condenser (500 mmfd.)	30-1114
23	Output Transformer	32-8082
24	Cone and Voice Coil Assembly (Speaker Part No. 30-1482-3)	30-4121
25	Electrolytic Condenser (10 mfd., 150 V.)	30-2388
26	Resistor (6600 ohms, 1/2 watt)	33-266339



PART LOCATIONS, UNDERSIDE OF CHASSIS, MODEL 40-81

Model 40-88, Code 121



PHILCO

Model 40-88, Code 121

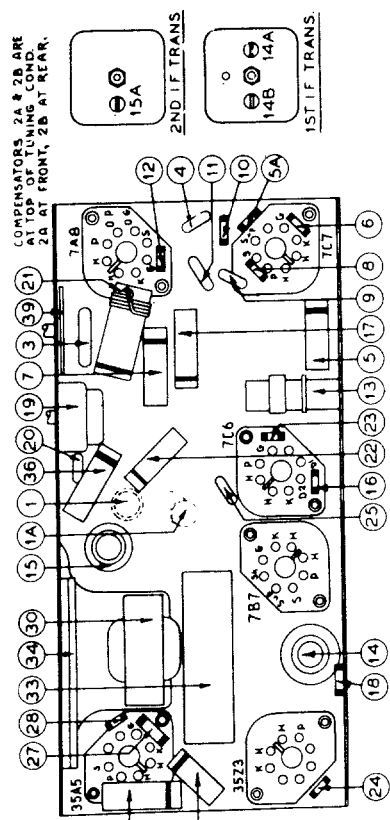
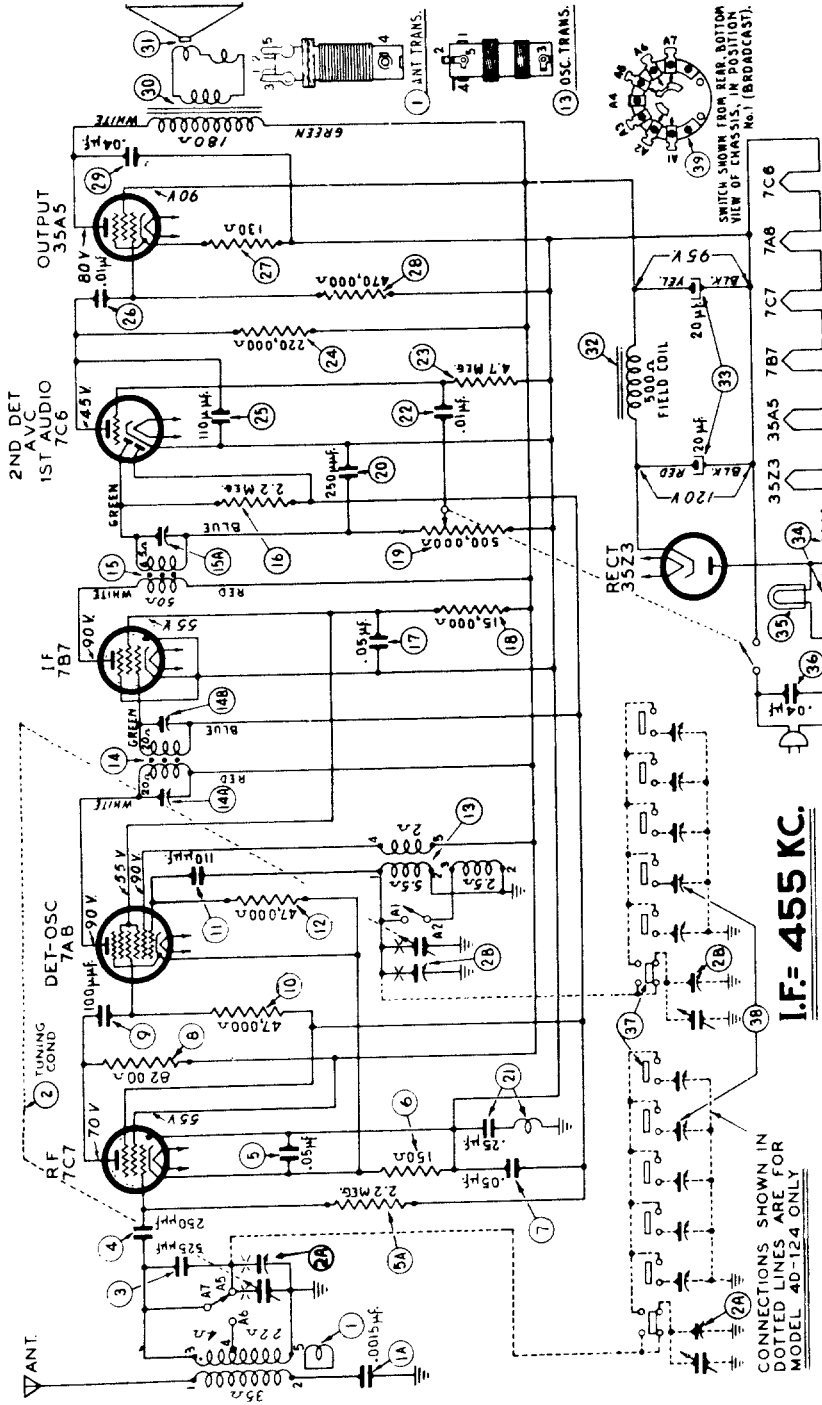
SCHE. No. DESCRIPTION PART No.

1	Loop Assembly (Broadcast)	38-9917
2	Loop Assembly (Short Wave)	38-9868
3	Compensator	31-6288
4	Mica Condenser (250 mmfd.)	61-0033
5	Resistor (1.0 meg., 1/2 watt)	33-510339
6	Tubular Condenser (.05 mfd.)	30-4819
7	R. F. Transformer Assembly	32-3218
7A	Resistor (10,000 ohms, 1/2 watt)	33-310339
8	Tuning Condenser Assembly	31-2378
9	Resistor (220,000 ohms, 1/2 watt)	33-422339
10	Oscillator Transformer (Broadcast)	32-3249
11	Oscillator Transformer (Short Wave)	32-3220
12	Compensator	31-6100
13	Mica Condenser (110 mmfd.)	30-1130
14	Resistor (4700 ohms, 1/2 watt)	33-247339
15	Resistor (4700 ohms, 1/2 watt)	33-247339
16	Mica Condenser (500 mmfd.)	30-1114
17	Mica Condenser (4500 mmfd.)	30-1109
18	Resistor (33,000 ohms, 1/2 watt)	33-333339
19	Tubular Condenser (.05 mfd.)	30-4519
20	1st I. F. Transformer Assembly	32-3222
21	2nd I. F. Transformer Assembly	32-3223
22	Resistor (4.7 meg., 1/2 watt)	33-547339
23	Resistor (2.2 meg., 1/2 watt)	33-522339
24	Resistor (2400 ohms, 1/2 watt)	33-224339
25	Electrolytic Condenser (6.6 mf., 150 V.)	30-2388
26	Mica Condenser (250 mmfd.)	61-0033
27	Volume Control and On-Off Switch	33-5310
28	Tubular Condenser (.004 mfd.)	30-4578
29	Resistor (4.7 meg., 1/2 watt)	33-547339
30	Tubular Condenser (.15 mfd.)	30-4551
31	Resistor (1.0 meg., 1/2 watt)	33-510339
32	Mica Condenser (110 mmfd.)	30-1130
33	Tubular Condenser (.01 mfd.)	30-4872
34	Resistor (2.2 meg., 1/2 watt)	33-522339
35	Resistor (700 ohms, 1/2 watt)	33-170339
36	Mica Condenser (500 mmfd.)	30-1114
37	Output Transformer	32-8090
38	Cone and Voice Coil Assembly	32-8090
39	Wave Lamp	30-4121
40	Wave Switch	34-2240

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



I.F. 455 KC.

CONNECTIONS SHOWN IN DOTTED LINES ARE FOR MODEL 40-124 ONLY

- 29 Tubular Condenser (.04 mfd.)..... 30-4119
- 30 Speaker Part No. 36-1469-1)..... 32-6047
- 31 Cone and Voice Coil Assembly (Speaker Part No. 36-1469-1)..... 36-4115
- 32 Filament Resistor (20-20 mfd.)..... 30-2403
- 33 Electrolytic Condenser (20-20 mfd.)..... 30-4119
- 34 Filament Resistor (20-20 mfd.)..... 30-4119
- 35 Pilot Lamp..... 42-1512
- 36 Pushbutton Switch (Model 40-124)..... 31-6312
- 37 Padlock Strip (Model 40-124)..... 42-1505

Models 40-115 and 40-124

SCHE. No.	DESCRIPTION	PART No.
1	Antenna Transformer (Model 40-115).....	32-3303
	Antenna Transformer (Model 40-124).....	32-3321
1A	Tubular Condenser (.0015 mfd.).....	30-4555
2	Tuning Condenser (Model 40-115).....	31-2425
	Tuning Condenser (Model 40-124).....	31-2426
3	Mica Condenser (.525 mmfd.).....	31-0033
4	Mica Condenser (.250 mmfd.).....	30-1142
5	Tubular Condenser (.05 mfd.).....	33-522339
5A	Resistor (2.2 meg., 1/2 watt).....	33-115336
6	Resistor (150 ohms, 1/2 watt).....	30-4519
7	Tubular Condenser (.05 mfd.).....	33-262339
8	Resistor (8200 ohms, 1/2 watt).....	30-1128
9	Mica Condenser (100 mmfd.).....	33-347339
10	Resistor (47,000 ohms, 1/2 watt).....	30-1130
11	Mica Condenser (110 mmfd.).....	33-347339
12	Resistor (47,000 ohms, 1/2 watt).....	32-3255
13	Oscillator Trans. (Model 40-115).....	

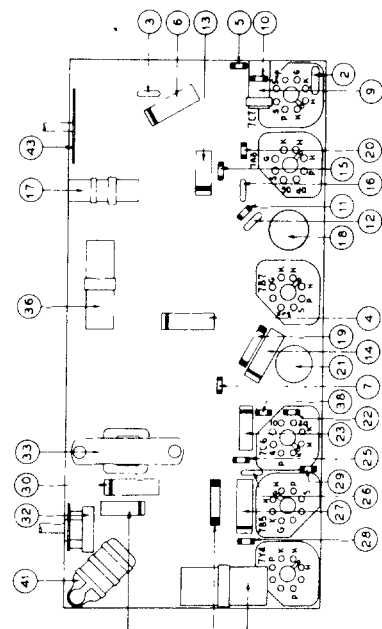
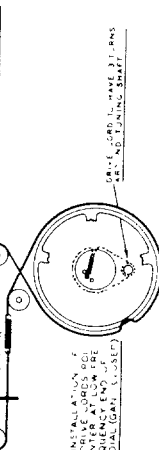
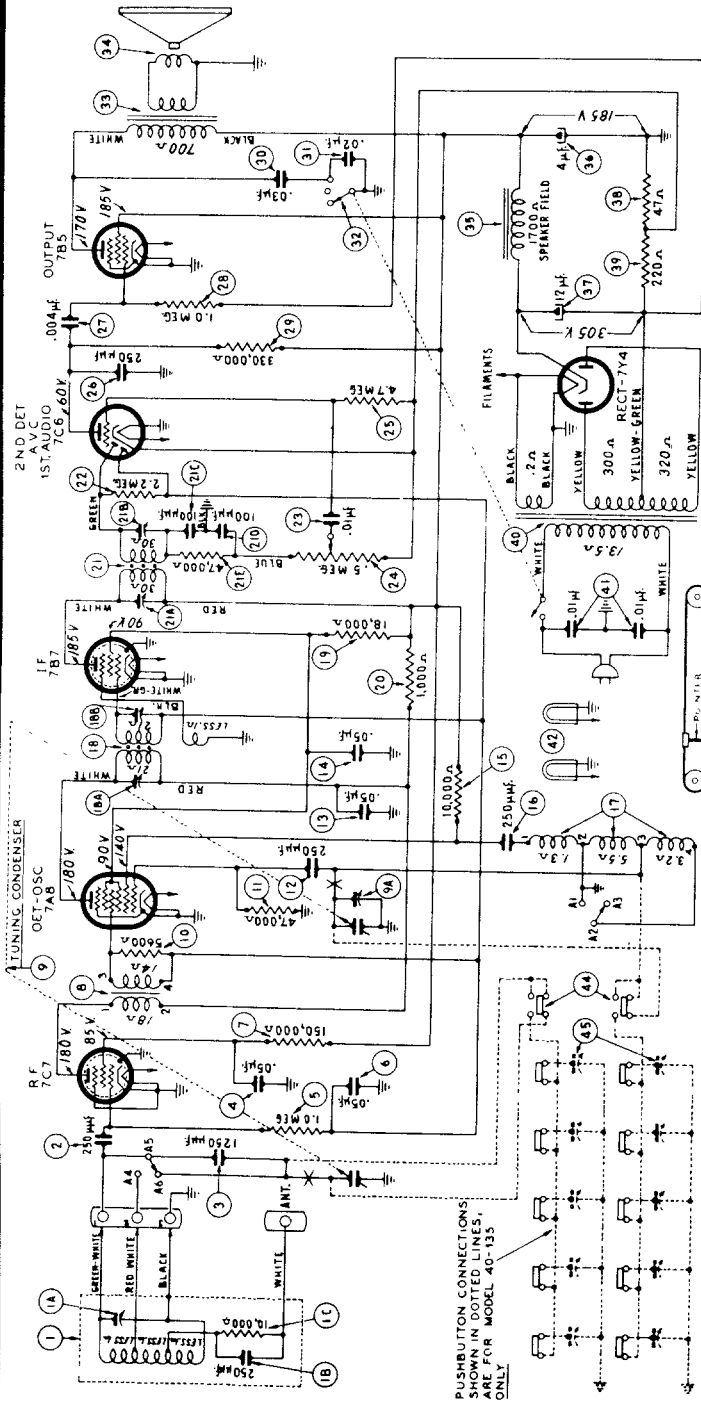
SCHE. No.	DESCRIPTION	PART No.
14	1st I. F. Transformer Assembly.....	32-3237
15	2nd I. F. Transformer Assembly.....	32-3238
16	Resistor (2.2 meg., 1/2 watt).....	33-522339
17	Tubular Condenser (.05 mfd.).....	30-4519
18	Resistor (15,000 ohms, 1/2 watt).....	33-315339
19	Volume Control and On-Off Switch.....	33-5306
20	Mica Condenser (.250 mmfd.).....	30-1074
21	Choke and Condenser Assembly (.25 mfd.).....	38-9956
22	Tubular Condenser (.01 mfd.).....	30-4479
23	Resistor (4.7 meg., 1/2 watt).....	33-547339
24	Resistor (220,000 ohms, 1/2 watt).....	33-422339
25	Mica Condenser (110 mmfd.).....	30-1130
28	Tubular Condenser (.01 mfd.).....	30-4572
27	Resistor (130 ohms, 1/2 watt).....	33-113336
28	Resistor (470,000 ohms, 1/2 watt).....	33-447339

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Models 40-130 and 40-135



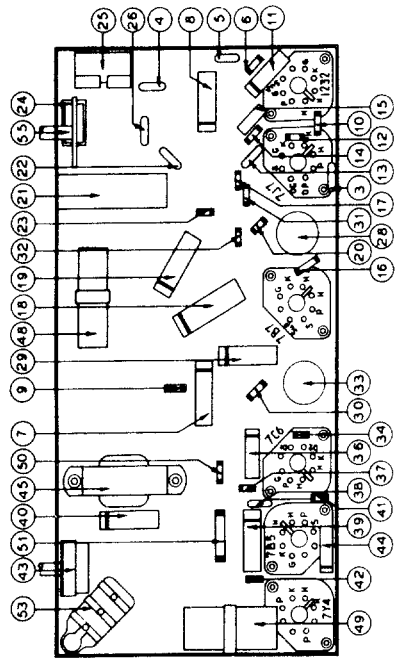
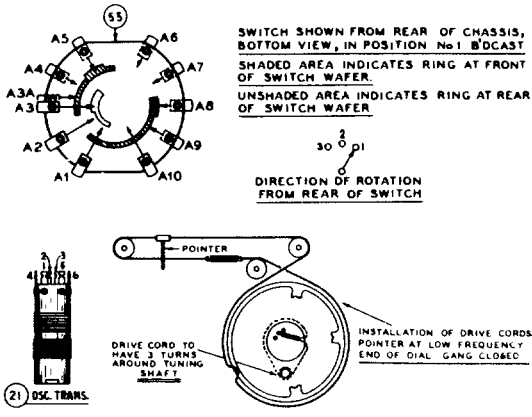
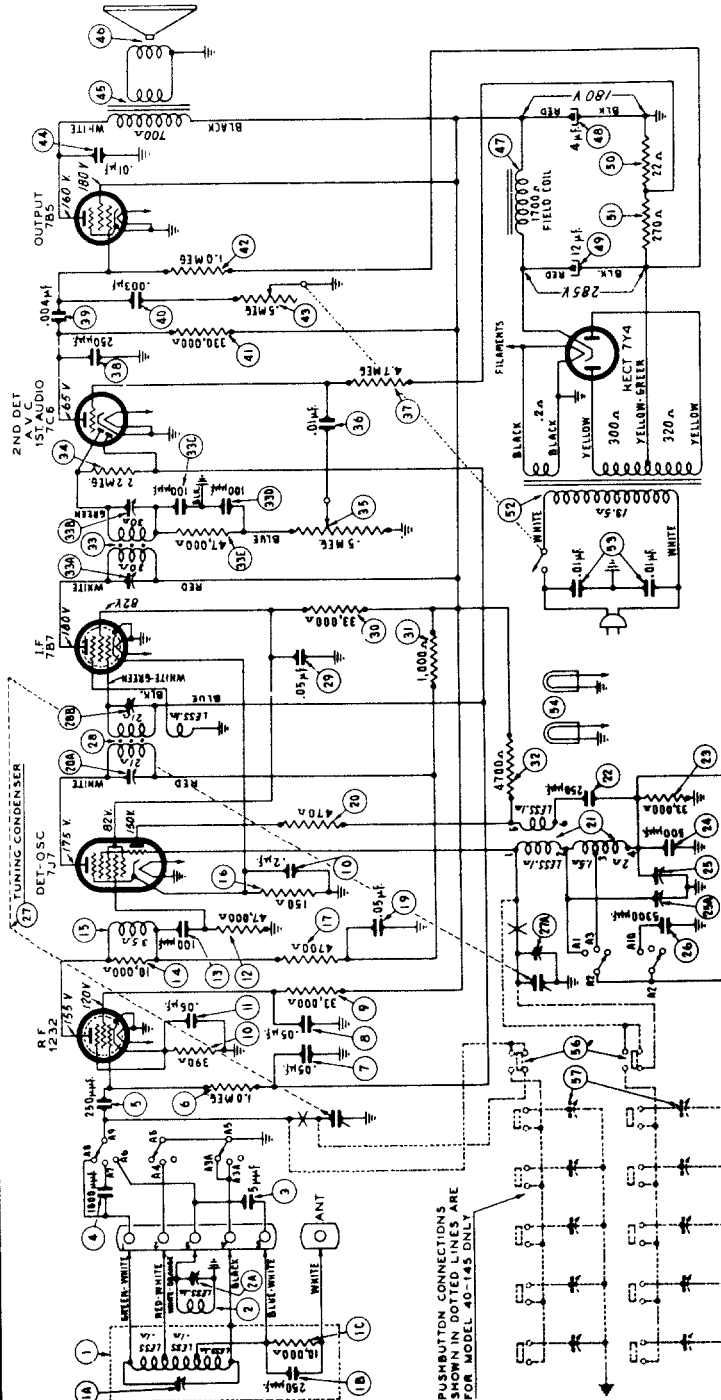
SCHE No.	DESCRIPTION	PART No.
1	Loop Assembly	38-9891
1A	Compensator	31-6318
1B	Mica Cond. (250 mmfd.)	61-0033
1C	Resistor (250 ohms, 1/2 watt)	33-310339
2	Resistor (10,000 ohms, 1/2 watt)	61-0033
3	Mica Cond. (250 mmfd.)	61-0033
4	Tubular Cond. (.05 mfd.)	30-4518
5	Resistor (2.0 meg., 1/2 watt)	33-510339
6	Tubular Cond. (.05 mfd.)	30-4518
7	Resistor (150,000 ohms, 1/2 watt)	33-415339
8	R. F. Transformer	32-3281
9	Tuning Condenser	31-2374
10	Resistor (5600 ohms, 1/2 watt)	33-256339
11	Resistor (47,000 ohms, 1/2 watt)	33-347339
12	Mica Cond. (250 mmfd.)	61-0033
13	Tubular Cond. (.05 mfd.)	30-4518
14	Tubular Cond. (.05 mfd.)	30-4518
15	Resistor (10,000 ohms, 1/2 watt)	33-310339
16	Mica Cond. (250 mmfd.)	61-0033
17	Oscillator Transformer	32-3212
18	1st I. F. Trans. Assy.	32-3210
19	Resistor (18,000 ohms, 1 watt)	33-318439
20	Resistor (1,000 ohms, 1/2 watt)	33-210339
21	2nd I. F. Trans. Assy.	32-3281

22	Resistor (2.2 meg., 1/2 watt)	33-522339
23	Tubular Cond. (.01 mfd.)	30-4572
24	Volume Control (.5 meg.)	33-5332
25	Resistor (4.7 meg., 1/2 watt)	33-547339
26	Mica Cond. (250 mmfd.)	61-0033
27	Tubular Cond. (.004 mfd.)	30-4578
28	Resistor (2.0 meg., 1/2 watt)	33-510339
29	Resistor (330,000 ohms, 1/2 watt)	33-435339
30	Tubular Cond. (.03 mfd.)	30-4449
31	Tubular Cond. (.02 mfd.)	30-4481
32	Tone Control and On-Off Switch	42-1520
33	Output Transformer	32-8083
34	Cone and Voice Coil Assy. (Spkr. Part No. 36-1478-3)	36-4085
35	Field Co. (Replace Spkr. Part No. 36-1478)	30-2401
36	Electrolytic Cond. (4 mfd., 400 V.)	30-2401
37	Resistor (47 ohms, 1/2 watt)	33-047331
38	Resistor (220 ohms, 1 watt)	33-122431
39	Power Trans. (115 V., 50-60 cycles)	32-8084
40	Bakelite Cond. (.01-.01 mfd.)	39-03-00
41	Pilot Lamp	34-2064
42	Wave Switch	42-1484
43	Pushbutton Switch (Model 40-135 only)	42-1528
44	Padder Strip (Model 40-135 only)	31-6315

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

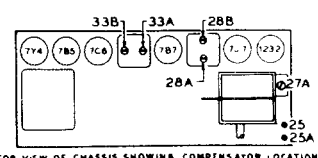
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Models 40-140 and 40-145



1	Loop Assembly (Broadcast)	38-9892	28	1st I. F. Trans. Assy.	32-3210
1A	Compensator	31-6318	29	Tubular Cond. (.05 mfd.)	30-4518
1B	Mica Cond. (250 mmfd.)	61-0033	30	Resistor (33,000 ohms, 1/2 watt)	33-33339
1C	Resistor (10,000 ohms, 1/2 watt)	33-310339	31	Resistor (1,000 ohms, 1/2 watt)	33-210339
2	Loop Assembly (Short Wave)	38-9893	32	Resistor (4700 ohms, 1/2 watt)	33-247339
2A	Compensator	31-6320	33	2nd I. F. Trans. Assy.	33-522339
3	Mica Cond. (5 mmfd.)	30-1097	34	Resistor (2.2 meg., 1/2 watt)	33-5319
4	Mica Cond. (1000 mmfd.)	30-1063	35	Volume Control (.01 mfd.)	30-4572
5	Mica Cond. (250 mmfd.)	61-0033	36	Tubular Cond. (.250 mmfd.)	33-547339
6	Resistor (1.0 meg., 1/2 watt)	33-510339	37	Resistor (4.7 meg., 1/2 watt)	61-0033
7	Tubular Cond. (.05 mfd.)	30-4518	38	Mica Cond. (.004 mfd.)	30-4578
8	Tubular Cond. (.05 mfd.)	30-4518	39	Tubular Cond. (250 mmfd.)	30-4580
9	Resistor (33,000 ohms, 1/2 watt)	33-333339	40	Tubular Cond. (.003 mfd.)	33-433339
10	Resistor (390 ohms, 1/2 watt)	33-139331	41	Resistor (330,000 ohms, 1/2 watt)	33-510339
11	Tubular Cond. (.05 mfd.)	30-4518	42	Resistor (1.0 meg., 1/2 watt)	33-5333
12	Resistor (47,000 ohms, 1/2 watt)	33-347339	43	Tone Control (.5 meg.) & On-Off Switch	30-4572
13	Mica Cond. (100 mmfd.)	30-1128	44	Tubular Cond. (.01 mfd.)	
14	Resistor (10,000 ohms, 1/2 watt)	33-310339	47	Field Coil (Replace Spkr. Part No. 36-1478)	
15	R. F. Transformer	32-3194	48	Electrolytic Cond. (4 mfd., 400 V.)	30-2401
16	Resistor (150 ohms, 1/2 watt)	33-115331	49	Electrolytic Cond. (12 mfd., 400 V.)	30-2409
17	Resistor (4700 ohms, 1/2 watt)	33-247339	50	Resistor (22 ohms, 1/2 watt)	33-022331
18	Tubular Cond. (.2 mfd.)	30-4536	51	Resistor (270 ohms, 1 watt)	33-127431
19	Tubular Cond. (.05 mfd.)	30-4518	52	Power Trans. (115 V., 50-60 cycles)	32-8064
20	Resistor (470 ohms, 1/2 watt)	33-147339	53	Line Condenser (.01-.01 mfd.)	3903-000
21	Oscillator Transformer	32-3195	54	Pilot Lamps	34-2064
22	Mica Cond. (250 mmfd.)	61-0033	55	Wave Switch	42-1495
23	Resistor (33,000 ohms, 1/2 watt)	33-33339	56	Push Button Switch (Model 40-145 only)	42-1528
24	Silver Mica Cond. (800 mmfd.)	30-1138	57	Padder Strip (Model 40-145 only)	31-6316
25	Compensator (2 section)	31-6317			
26	Mica Cond. (5300 mmfd.)	30-1134			

I.F.=455 KC.



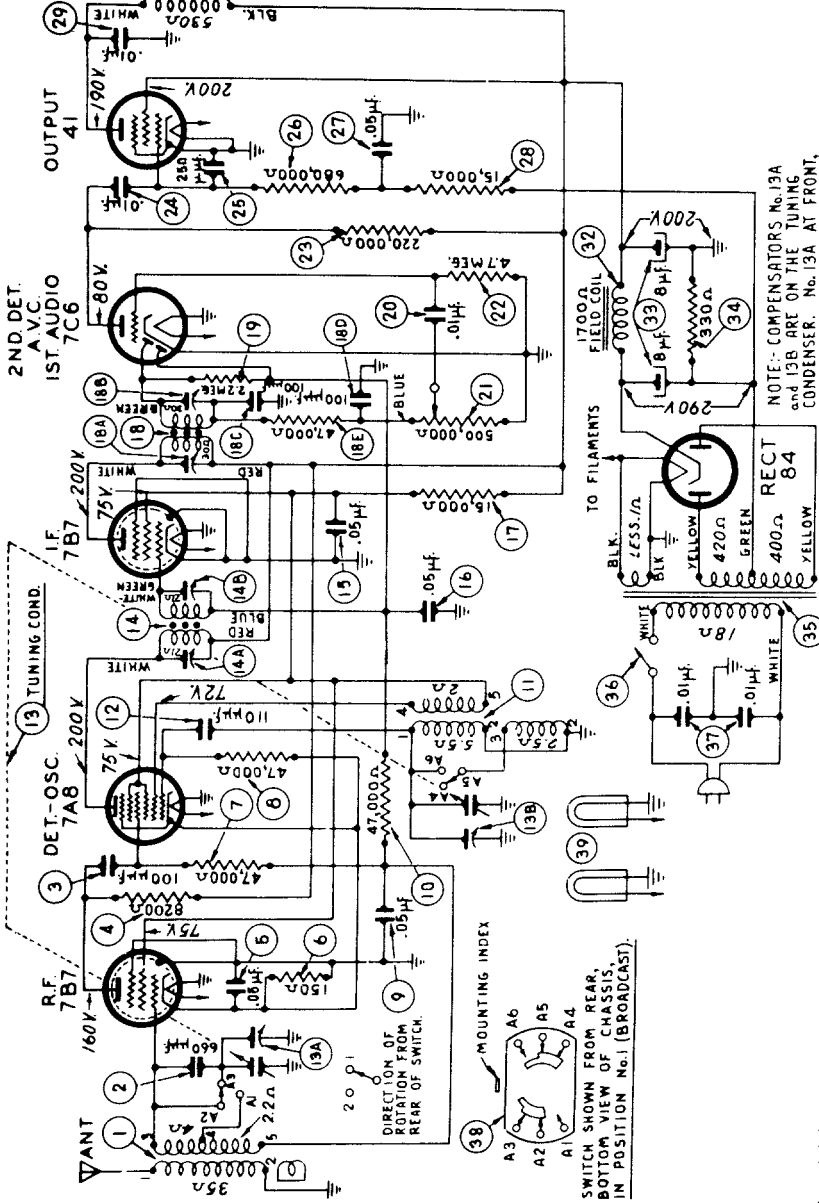
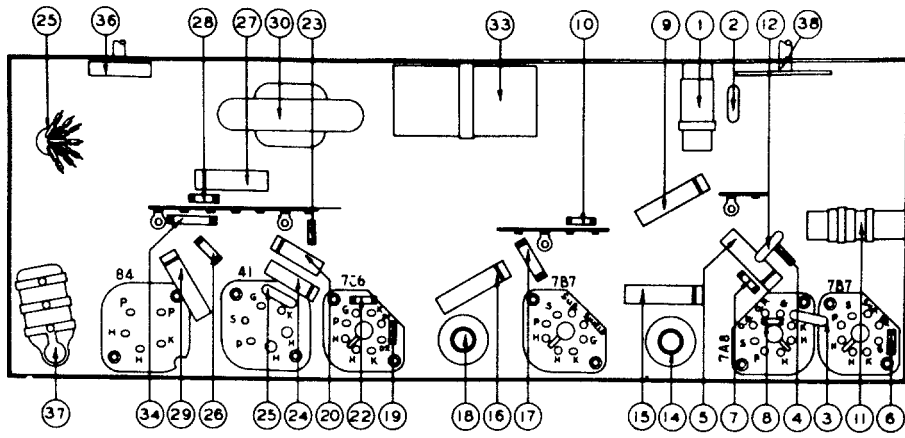
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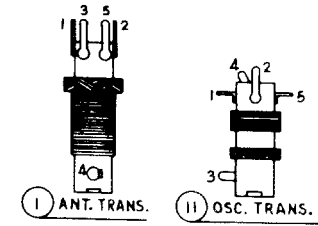
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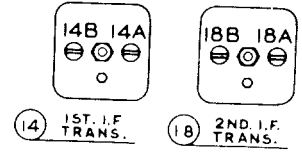
Model 40-158



NOTE: COMPENSATORS No. 13A and 13B ARE ON THE TUNING CONDENSER. No. 13A AT FRONT, No. 13B AT REAR.



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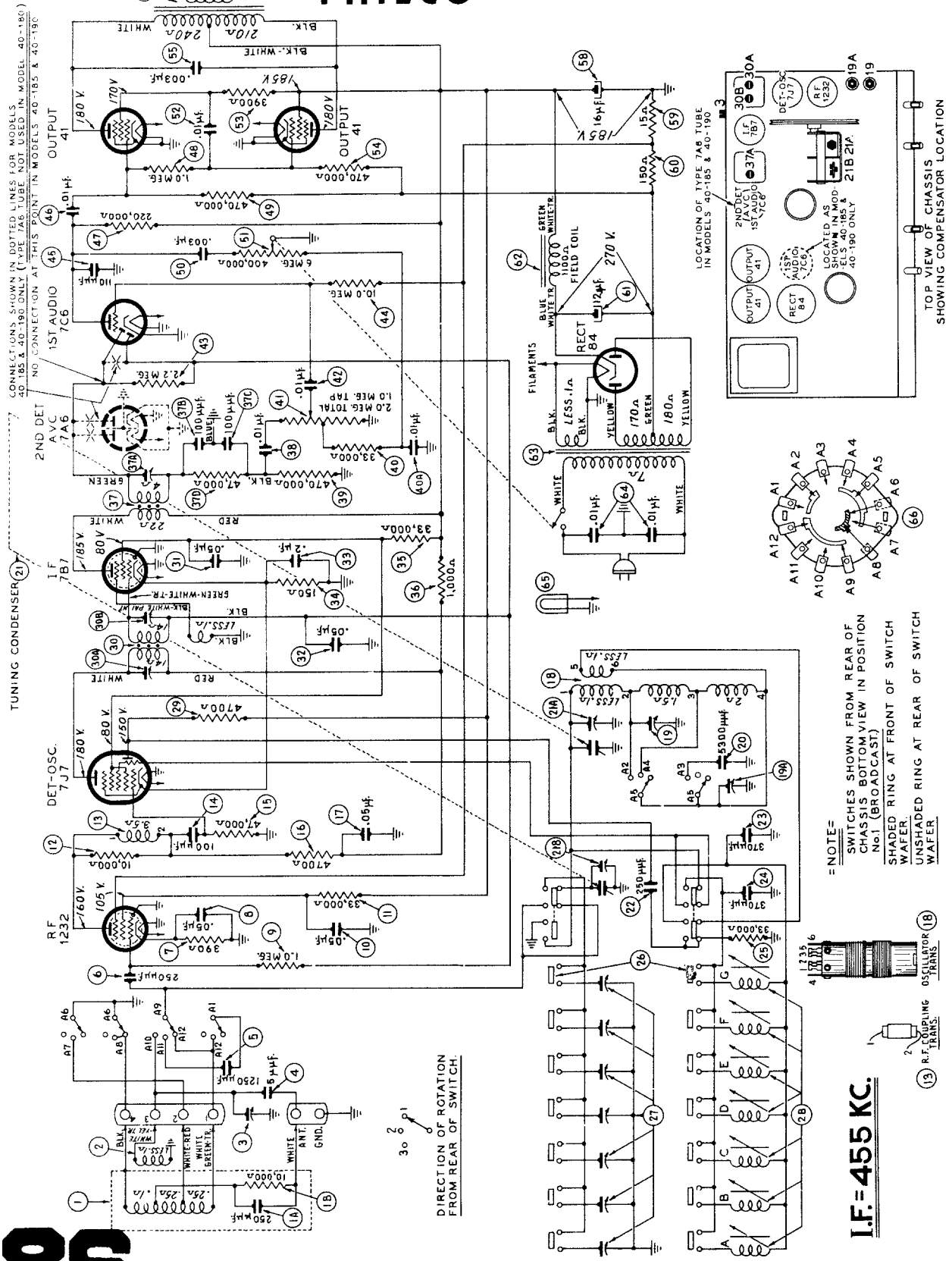
SCHE. No.	DESCRIPTION	PART No.
1	Antenna Transformer	32-3303
2	Mica Condenser (660 mmfd.)	30-1136
3	Mica Condenser (100 mmfd.)	30-1128
4	Resistor (8200 ohms, 1/2 watt)	33-282339
5	Tubular Condenser (.05 mfd.)	30-4519
6	Resistor (150 ohms, 1/2 watt)	33-115339
7	Resistor (47,000 ohms, 1/2 watt)	33-347339
8	Resistor (47,000 ohms, 1/2 watt)	33-347339
9	Tubular Condenser (.05 mfd.)	30-4519
10	Resistor (47,000 ohms, 1/2 watt)	33-347339
11	Oscillator Transformer	32-3255
12	Mica Condenser (110 mmfd.)	30-1130
13	Tuning Condenser Assembly	31-2418
14	1st I. F. Transformer Assy.	32-3361
15	Tubular Condenser (.05 mfd.)	30-4519
16	Tubular Condenser (.05 mfd.)	30-4519
17	Resistor (15,000 ohms, 1 watt)	33-315439
18	2nd I. F. Transformer Assembly	32-3211
19	Resistor (2.2 meg., 1/2 watt)	33-522339
20	Tubular Condenser (.01 mfd.)	30-4572
21	Volume Control (500,000 ohms)	33-5319
22	Resistor (4.7 meg., 1/2 watt)	33-547339
23	Resist. (220,000 ohms, 1/2 watt)	33-422339
24	Tubular Condenser (.01 mfd.)	30-4572
25	Mica Condenser (250 mmfd.)	61-0033
26	Resist. (680,000 ohms, 1/2 watt)	33-468339
27	Tubular Condenser (.05 mfd.)	30-4519
28	Resist. (15,000 ohms, 1/2 watt)	33-315339
29	Tubular Condenser (.01 mfd.)	30-4501
30	Output Transformer	32-8056
31	Cone and Voice Coil Assembly (Speaker Part No. 36-1480-3)	36-4086
32	Field Coil (Replace Speaker Part No. 36-1480)	36-4086
33	Elec. Cond. (8-8 mfd., 450 V.)	30-2447
34	Resistor (330 ohms, 1 watt)	33-133439
35	Power Transformer (115-130 V., 50-60 cycles)	32-8055
	(115-130 V., 25 cycle)	32-8076
36	A. C. Switch	42-1545
37	Bakelite Cond. (.01-.01 mfd.)	3903-DG
38	Wave Switch	42-1494
39	Pilot Lamps	34-2064

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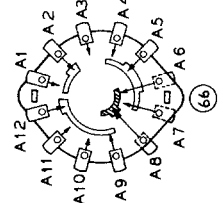
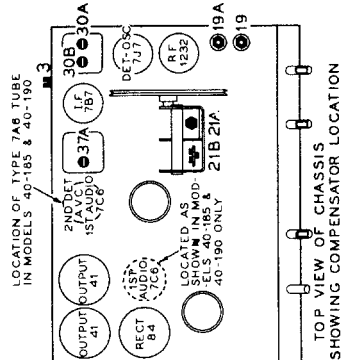
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MOST POPULAR SERVICE DIAGRAMS

PHILCO Models 40-180, 40-185, 40-190



CONNECTIONS SHOWN IN DOTTED LINES FOR MODELS 40-185 & 40-190 ONLY (TYPE 7A5 TUBE NOT USED IN MODEL 40-180)
 NO CONNECTION AT THIS POINT IN MODELS 40-185 & 40-190



= NOTE =
 SWITCHES SHOWN FROM REAR OF CHASSIS BOTTOM VIEW IN POSITION No. 1 (BROADCAST)
 SHADED RING AT FRONT OF SWITCH WATER WAFER
 UNSHADED RING AT REAR OF SWITCH WAFER

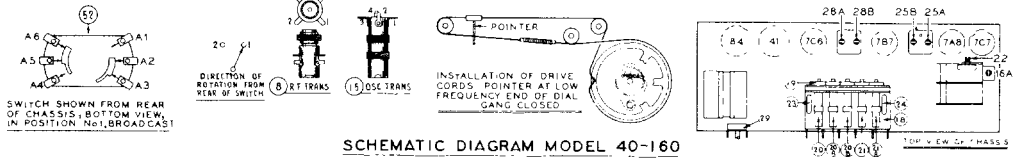
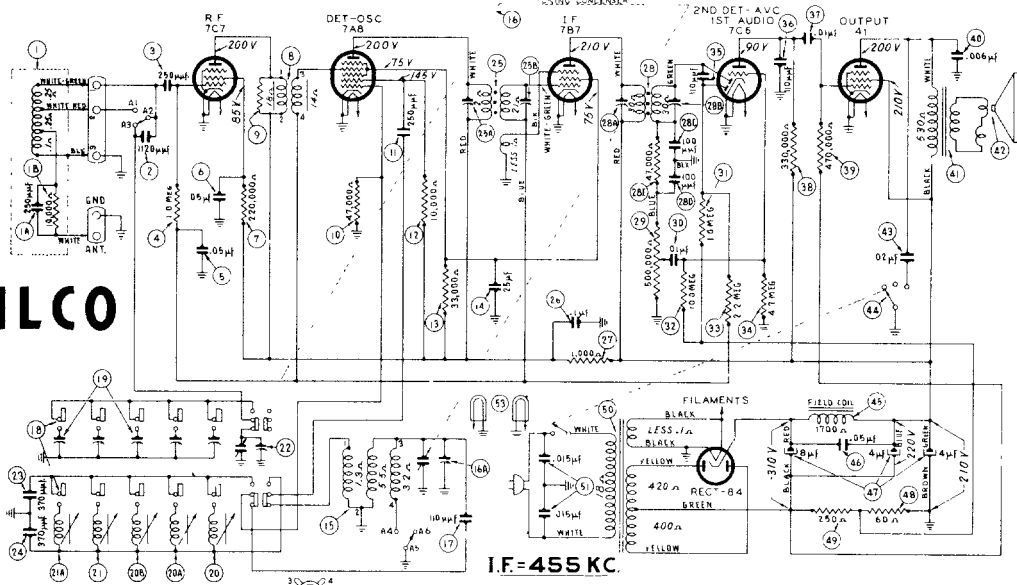
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Model 40-160

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SCH. DIAGRAM MODEL 40-160

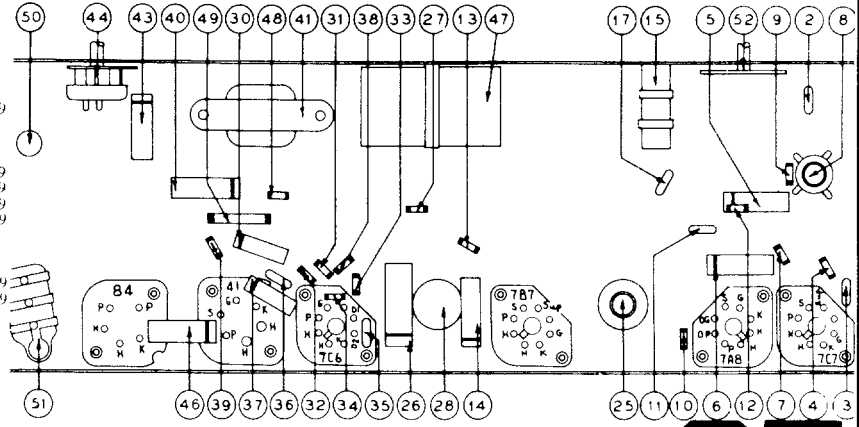
Sch. No.	Description	Part No.
1	Loop Assy.	38-9897
1A	Mica Cond. (.250 mfd.)	61-0033
2	Mica Cond. (.1120 mfd.)	30-1140
3	Mica Cond. (.250 mfd.)	61-0033
4	Resistor (1.50 meg., 1/2 watt)	33-510339
5	Tubular Cond. (.05 mfd.)	30-4519
6	Tubular Cond. (.05 mfd.)	30-4123
7	Resistor (.220,000 ohms, 1/2 watt)	33-422339
8	R. F. Trans.	32-3283
9	Resistor (.6800 ohms, 1/2 watt)	33-268339
10	Resistor (.470,000 ohms, 1/2 watt)	33-447339
11	Mica Cond. (.250 mfd.)	61-0033
12	Resistor (.10,000 ohms, 1/2 watt)	33-310339
13	Resistor (.33,000 ohms, 1/2 watt)	33-333339
14	Tubular Cond. (.25 mfd.)	30-4448
15	Oscillator Trans.	32-3212
16	Tuning Cond.	31-2374
17	Mica Cond. (.110 mfd.)	30-1130
18	Push Button Switch	42-1493
19	Padder Strip and Bracket Assy.	31-6325
20	Cold No. 1 540-1000 K.C.	32-3042
20A	Cold No. 2 650-1100 K.C.	
20B	Cold No. 3 740-1300 K.C.	
21	Cold No. 4 900-1500 K.C.	
21A	Cold No. 5 1100-1600 K.C.	
22	Compensator	31-6308
23	Silver Mica Cond. (.370 mfd.)	30-1110
24	Silver Mica Cond. (.370 mfd.)	30-1110
25	1st I.F. Trans.	32-3210
26	Tubular Cond. (.1 mfd.)	30-4455
27	Resistor (.1000 ohms, 1/2 watt)	33-210339
28	2nd I.F. Trans. Assy.	32-3211
29	Volume Control	33-5319
30	Tubular Cond. (.01 mfd.)	30-4572
31	Resistor (1.0 meg., 1/2 watt)	33-510339
32	Resistor (10.0 meg., 1/2 watt)	33-610339
33	Resistor (.22 meg., 1/2 watt)	33-522339
34	Resistor (.47 meg., 1/2 watt)	33-547339
35	Mica Cond. (.110 mfd.)	30-1130
36	Mica Cond. (.110 mfd.)	30-1130
37	Tubular Cond. (.01 mfd.)	30-4572
38	Resistor (.330,000 ohms, 1/2 watt)	33-433339
39	Resistor (.470,000 ohms, 1/2 watt)	33-447339
40	Tubular Cond. (.006 mfd.)	30-4504
41	Output Trans.	32-8056
42	Cone and Voice Coil Assy. (Spkr. Part No. 36-1480-31)	36-4086
43	Tubular Cond. (.02 mfd.)	30-4599
44	Tone Control and On-Off Switch	42-1520
45	Field Coil (Replace Spkr. Part No. 36-1480)	
46	Tubular Cond. (.05 mfd.)	30-4123

Sch. No.	Description	Part No.
47	Electrolytic Cond. (18-44 mfd.)	30-2400
48	Resistor (60 ohms, 1/2 watt)	33-060339
49	Resistor (250 ohms, 1/2 watt)	33-125339
50	Power Trans.	32-8055
51	Line Cond. (.015-.015 mfd.)	3903 DG
52	Wave Switch	42-1494
53	Pilot Lamps	34-2064

MISCELLANEOUS PARTS

Description	Part No.
Bezel	27-4842
Cabinet	10398A
Cable and Plug (Power Supply)	L-3199
Chp (Coil Mtg.)	28-5002
Dial	27-5506
Drive Cord Assy. (Pointer)	31-2382
Drive Cord Assy. (Tuning Cond.)	31-2400
Escutcheon (Push Button)	27-4843
Insulating Bushing (Insulate Drive Shaft)	27-9437
Knobs (Tuning, Tone, Volume, Wave Switch)	27-4332

Description	Part No.
Knobs (Push Buttons)	27-4824
Pilot Lamp Socket Assy.	38-9908
Pointer	50-1479
Reflector (Pilot Lamp)	27-9455
Rubber Hose (Tuning Cond Drive)	27-9432
Spring (Tuning, Drive Cond)	28-8751
Spring (Pointer, Drive Cond)	28-8953
Spring (Drive Shaft, Grounding)	28-8955
Screw (Bezel Mtg.)	W-1834
Speaker	36-1480
Socket (Type 84 Tube)	27-6035
Socket (Type 41 Tube)	27-6036
Socket (Loktal, Type 7A8 Tube)	27-6129
Socket (Loktal, Type 7C7, 7B7, 7C6 Tubes)	27-6131
Tab (Dial)	27-5528
Tab (Television)	27-9451
Tab Kit	40-6474
Tuning Shaft	56-6952
Tuning Drive Drum Assy.	38-9883
Washer ("C" Type, Tuning Shaft)	28-2043

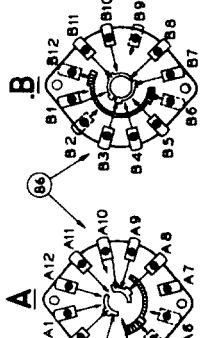
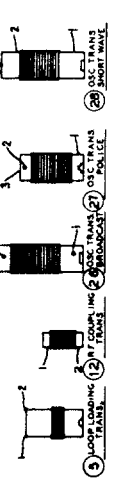


Part Locations, Underside of Chassis

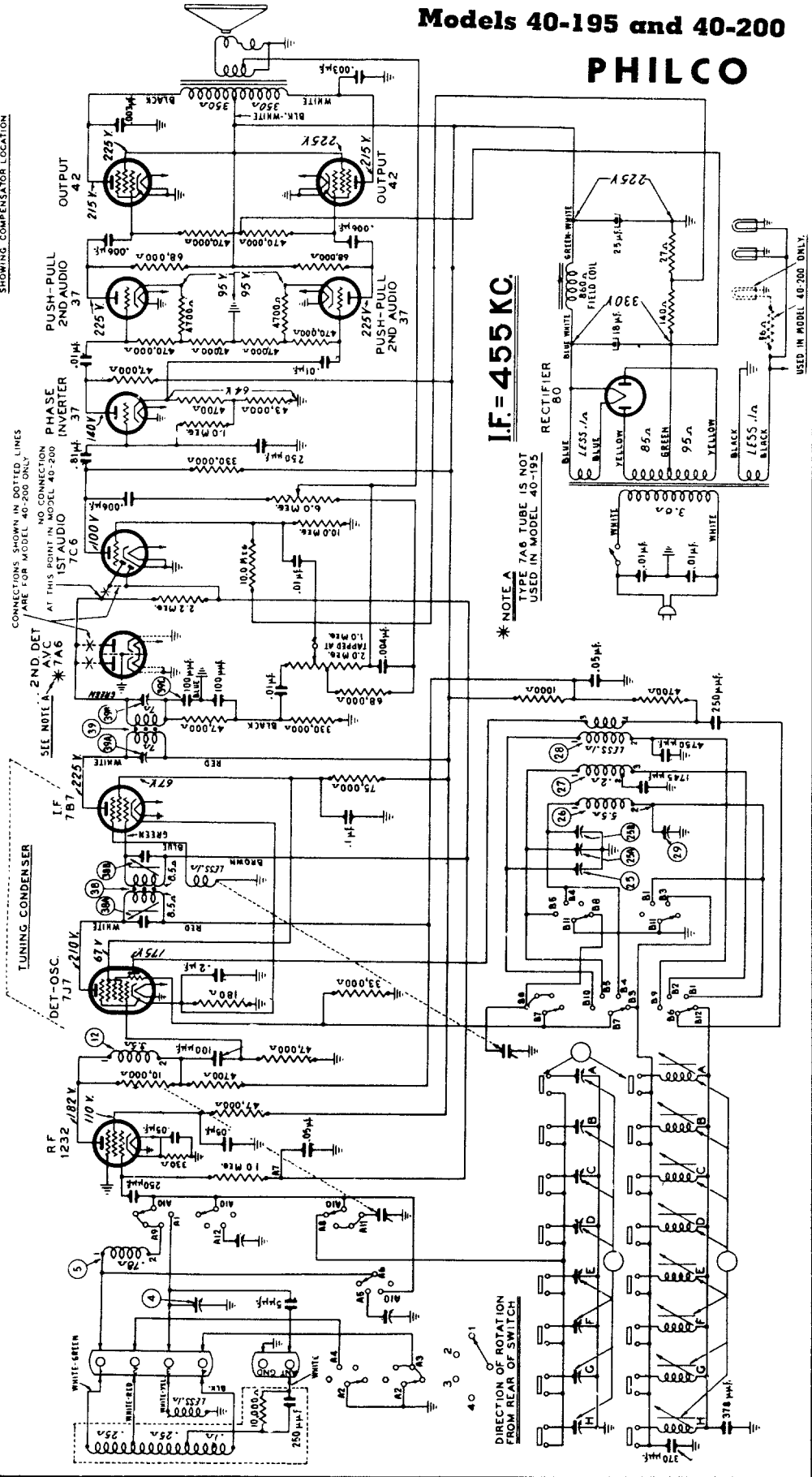
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SHADED RING IS AT FRONT OF SWITCH WAFER.
UNSHADED RING IS AT REAR OF SWITCH WAFER.
SWITCH SHOWN IN POSITION No. 1 (PUSHBUTTON). FROM REAR, BOTTOM VIEW OF CHASSIS
LETTERS INDICATE POSITION OF SWITCH WAFERS FROM SIDE OF CHASSIS
AT WHICH SWITCH IS MOUNTED.



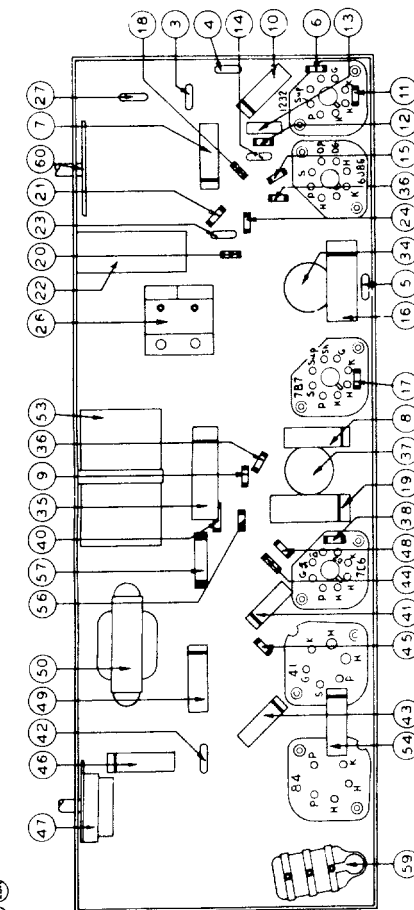
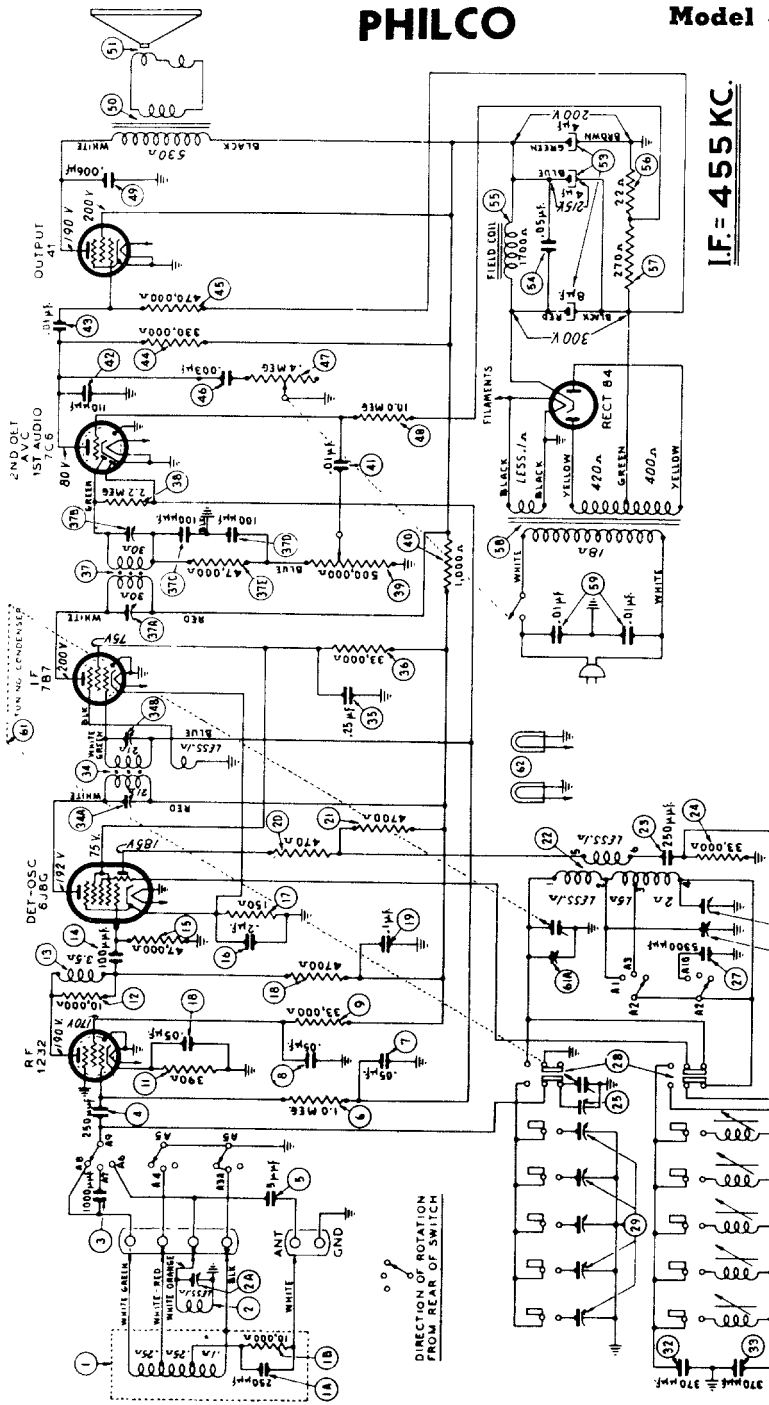
TOP VIEW OF CHASSIS
SHOWING COMPENSATOR LOCATION



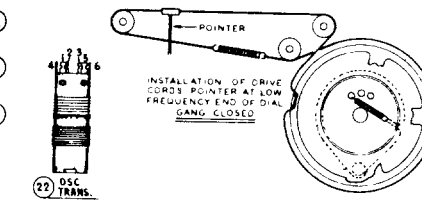
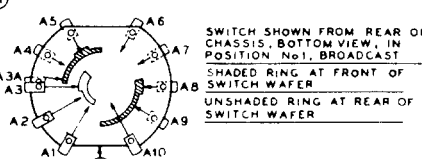
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PHILCO

Model 40-165



I.F. = 455 KC.



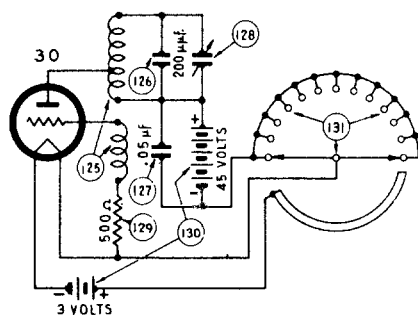
SCHE. No.	DESCRIPTION	Value
1	Loop Assy. (Broadcast)	
1A	Mica Cond. (250 mmfd.)	
1B	Resistor (10,000 ohms, 1/2 watt)	
2	Loop Assy. (Short Wave)	
2A	Compensator (Part of S. W. Loop)	
3	Mica Cond. (1000 mmfd.)	
4	Mica Cond. (250 mmfd.)	
5	Mica Cond. (5 mmfd.)	
6	Resistor (1.0 meg., 1/2 watt)	
7	Tubular Cond. (.05 mfd.)	
8	Tubular Cond. (.05 mfd.)	
9	Resistor (33,000 ohms, 1/2 watt)	
10	Tubular Cond. (.05 mfd.)	
11	Resistor (300 ohms, 1/2 watt)	
12	Resistor (10,000 ohms, 1/2 watt)	
13	R. F. Coupling Trans.	
14	Mica Cond. (100 mmfd.)	
15	Resistor (47,000 ohms, 1/2 watt)	
16	Tubular Cond. (.2 mfd.)	
17	Resistor (150 ohms, 1/2 watt)	
18	Resistor (4700 ohms, 1/2 watt)	
19	Tubular Cond. (.4 mfd.)	
20	Resistor (470 ohms, 1/2 watt)	
21	Resistor (4700 ohms, 1/2 watt)	
22	Osc. Trans.	
23	Mica Cond. (250 mmfd.)	
24	Resistor (33,000 ohms, 1/2 watt)	
25	Compensator (Single)	
26	Compensator (2 section)	
27	Mica Cond. (3300 mmfd.)	
28	Push Button Switch	
29	Padder Strip and Bracket Assy.	
30	Coil No. 1 (540-1000 K.C.)	
30A	Coil No. 2 (650-1100 K.C.)	
30B	Coil No. 3 (740-1300 K.C.)	
31	Coil No. 4 (.900-1500 K.C.)	
31A	Coil No. 5 (1100-1800 K.C.)	
32	Silver Mica Cond. (370 mmfd.)	
33	Silver Mica Cond. (370 mmfd.)	
34	1st I. F. Trans.	
35	Tubular Cond. (.25 mfd.)	
36	Resistor (33,000 ohms, 1/2 watt)	
38	Resistor (2.2 meg., 1/2 watt)	
39	Volume Control (500,000 ohms)	
40	Resistor (1000 ohms, 1/2 watt)	
41	Resistor (470 ohms, 1/2 watt)	
42	Tubular Cond. (.01 mfd.)	
43	Mica Cond. (110 mmfd.)	
44	Resistor (330,000 ohms, 1/2 watt)	
45	Resistor (470,000 ohms, 1/2 watt)	
46	Tubular Cond. (.003 mfd.)	
47	Tone Control and On-Off Switch (.4 meg.)	
48	Resistor (10.0 meg., 1/2 watt)	
49	Tubular Cond. (.006 mfd.)	
50	Output Trans.	
51	Cone and Voice Coil Assy. (Spkr. Part No. 26-1480-3)	
53	Electrolytic Cond. (4-4-8 mfd.)	
54	Tubular Cond. (.05 mfd.)	
55	Field Coil (Replace Spkr. Part No. 26-1480-3)	
56	Resistor (22 ohms, 1/2 watt)	
57	Resistor (270 ohms, 1 watt)	
58	Power Trans. (110 volt, 60 Hz)	
59	Line Cond. (.01-.01 mfd.)	

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RECEIVER CIRCUIT ADJUSTMENTS — Models 40-215, 40-217

Operation	SIGNAL GENERATOR		RECEIVER		SPECIAL INSTRUCTIONS	
	Output Connections to Receiver	Dial Setting	Dial Setting	Control Setting		Adjust Compensators
1	78 I. F. Grid	470 K. C.	580 K. C.	Vol. Max. Range Switch "Brdest"	41A, 41B	Turn Out 38B Full
2	6J8G Det. Osc. Grid	470 K. C.	580 K. C.	Vol. Max. Range Switch "Brdest"	38A, 38C, 38B	Note A
3	Use Loop on Generator	18.0 M. C.	18.0 M. C.	Vol. Max. Range Switch "Short Wave"	29B, 2A	Note C, Note D 2A on SW Loop
4	Use Loop on Generator	1500 K. C.	1500 K. C.	Vol. Max. Range Switch "Brdest"	29, 8A	Note A
5	Use Loop on Generator	580 K. C.	580 K. C.	Vol. Max. Range Switch "Brdest"	30	Rollgang
6	Use Loop on Generator	1500 K. C.	1500 K. C.	Vol. Max. Range Switch "Brdest"	29	
7	Use Loop on Generator	3.5 M. C.	3.5 M. C.	Vol. Max. Range Switch "Police"	29A, 8	Note B



SCHEMATIC DIAGRAM OF WIRELESS REMOTE CONTROL UNIT

FIG. 3. SCHEMATIC DIAGRAM, WIRELESS REMOTE CONTROL.

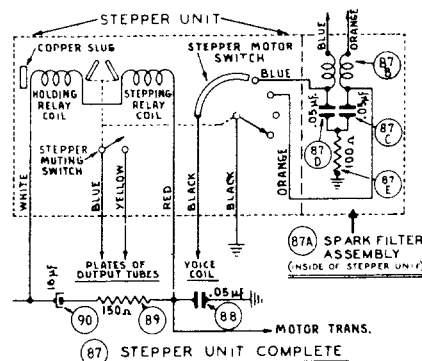
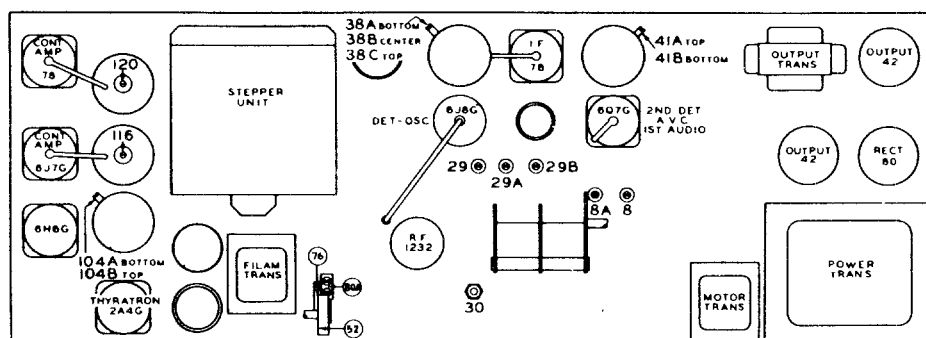


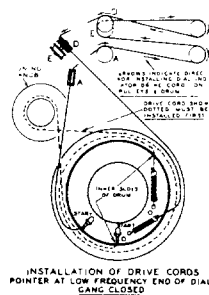
FIG. 4. WIRING OF STEPPER UNIT, WIRELESS REMOTE CONTROL.



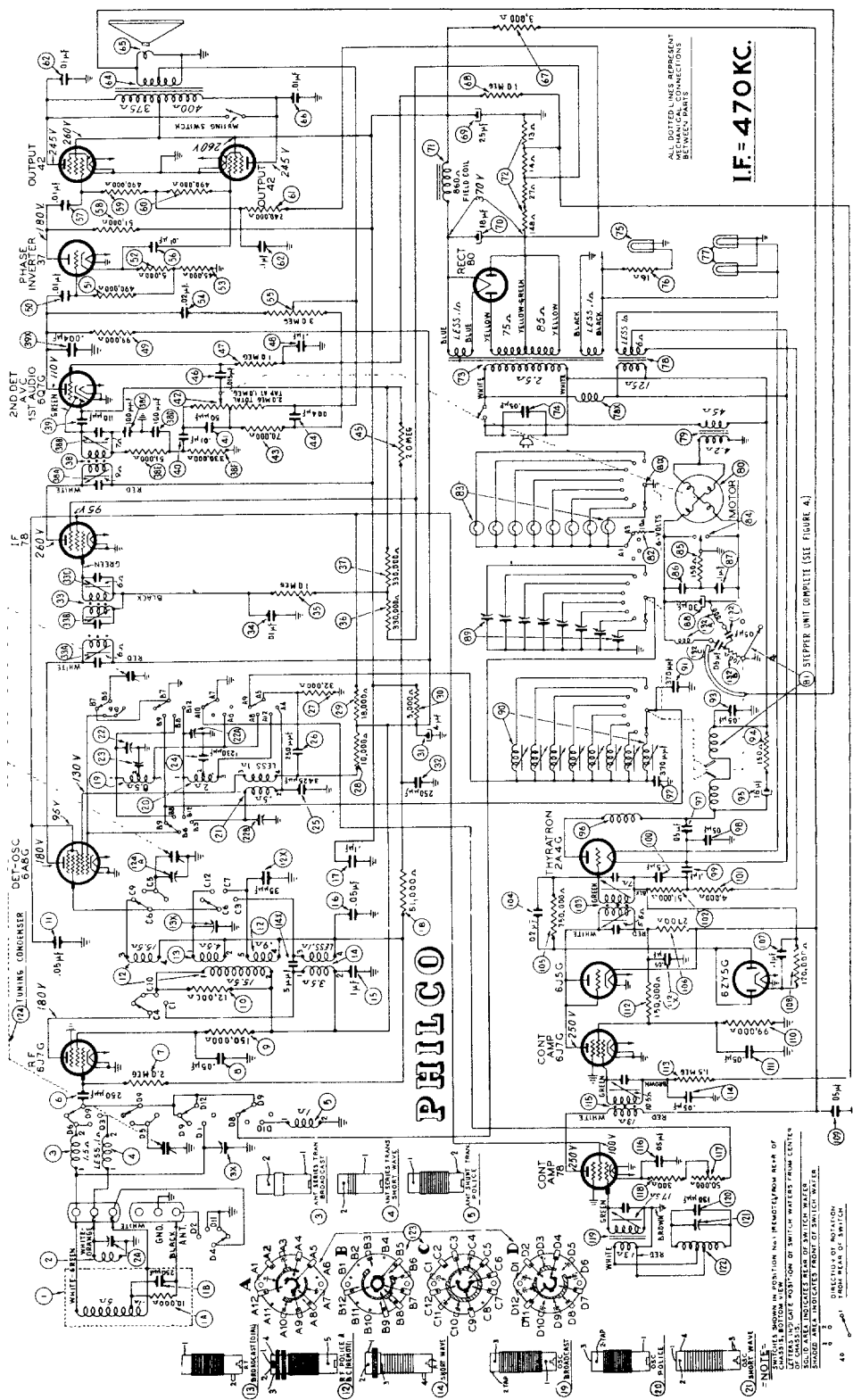
NOTE A — DIAL CALIBRATION: In order to adjust the receiver correctly the dial must be aligned to track properly with the tuning condenser. To adjust the dial, proceed as follows: With the tuning condenser closed (maximum capacity), set the dial pointer on the extreme left index line at the low frequency end of the broadcast scale. The arrangement of the drive cable and dial pointer is shown.

NOTE C — If two peaks (signals) are observed on the aligning meter when adjusting the oscillator padder No. 29B, tune the padder to the second peak from the maximum capacity position (screw all the way in).

NOTE D — If two peaks (signals) are observed on the aligning meter when adjusting the loop padder 2A, tune the padder to the first peak signal from the maximum capacity position (screw all the way in). When adjusting the padders to this first peak roll the tuning condenser (rock) slightly back and forth to obtain the maximum readings on the aligning meter.



INSTALLATION OF DRIVE CORDS
DIAL POINTER AT LOW FREQUENCY END OF DIAL
CONDENSER CLOSED

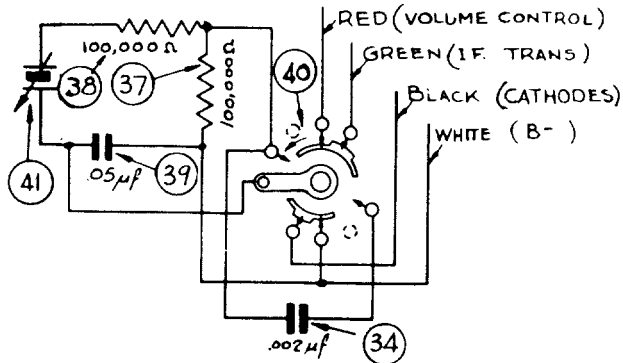
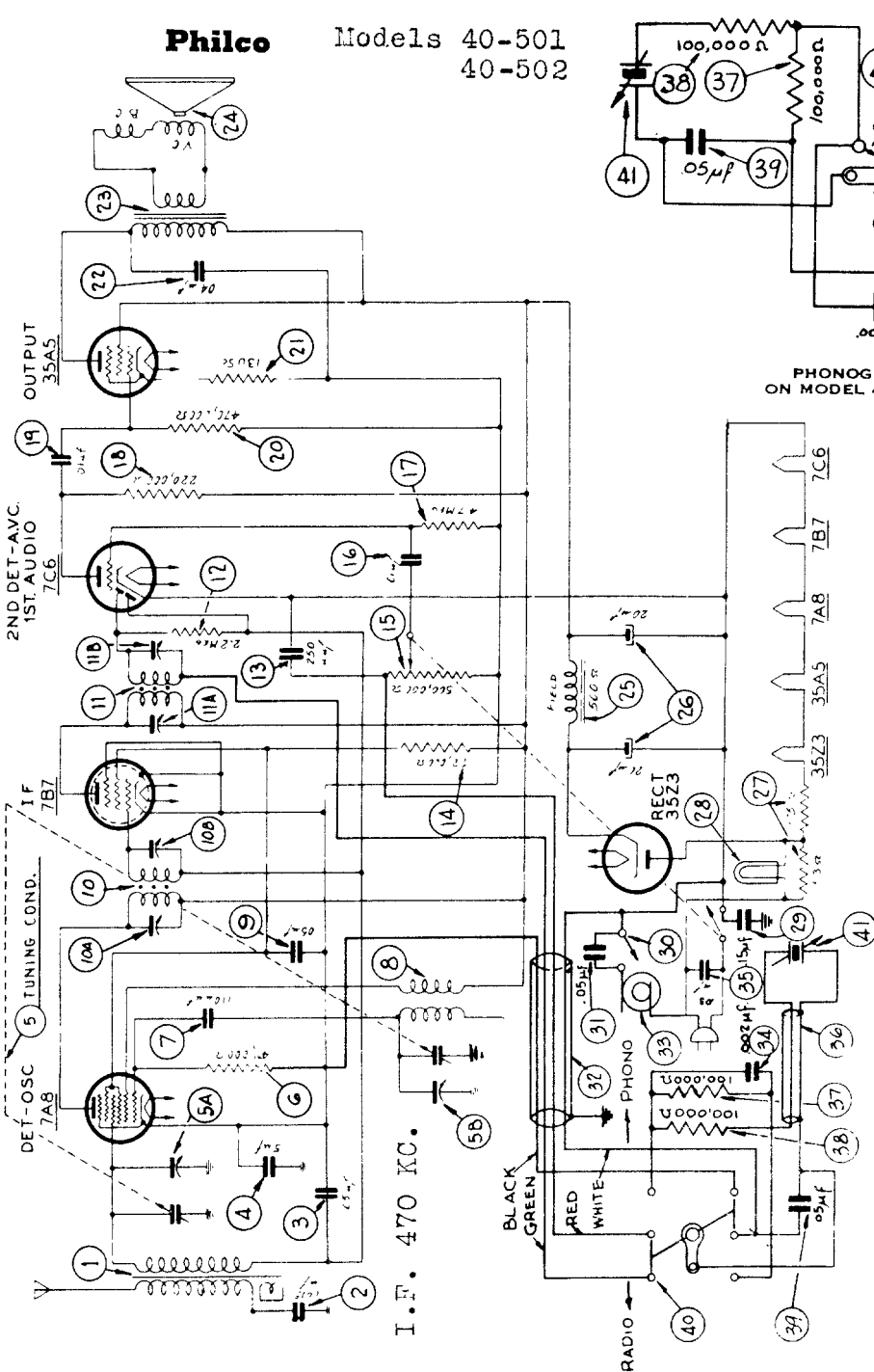


SCHEMATIC DIAGRAM MODEL 40-216

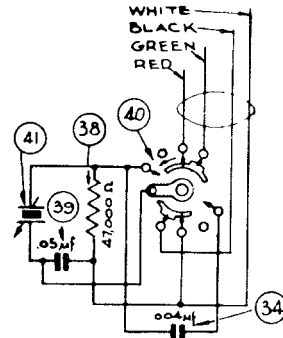
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Philco

Models 40-501
40-502



PHONOGRAPH WIRING AS USED ON MODEL 40-502, CODE 121



PHONOGRAPH WIRING AS USED ON MODEL 40-502, CODE 122

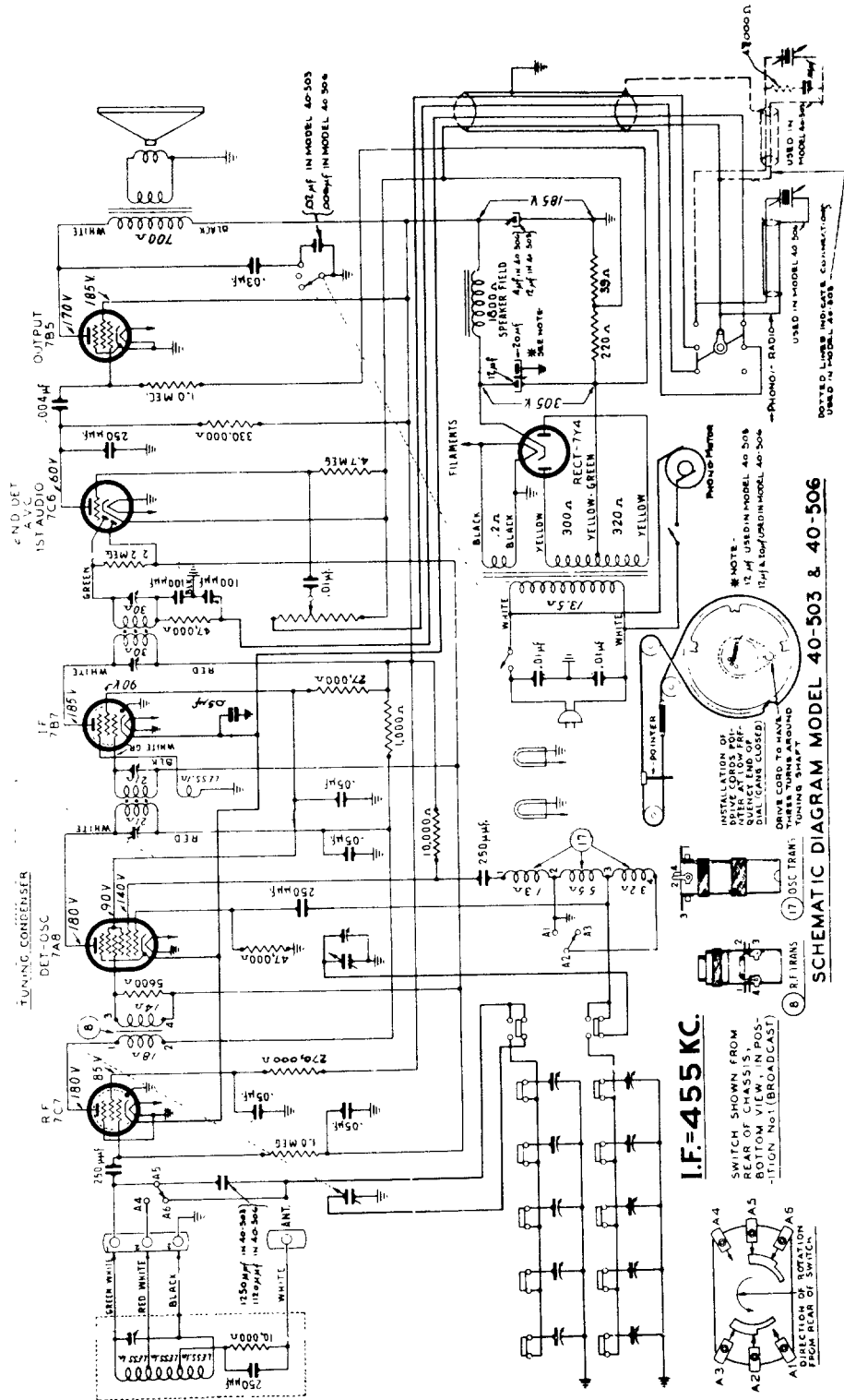
SCHE. No.	DESCRIPTION
31	Condenser, Tubular (.05 mfd.)
32	Radio-Phono Cable, Model 40-501
33	Motor (.115 volts, 60 cycle) 40-501, Code 121, 40-502, Code 121, 40-502, Code 122
34	Condenser (.002 mfd., 40-501, 40-502, Code 121)
35	Condenser (.004 mfd., 40-502, Code 122)
36	Pickup Cable

SCHE. No.	DESCRIPTION
37	Resistor (100,000 ohms, 40-501, Code 121, 40-502, Code 121)
38	Resistor (100,000 ohms, 40-501, 40-502, Code 121)
39	Resistor (47,000 ohms, 40-502, Code 122)
40	Condenser, Tubular (.05 mfd., 400 volts) Radio-Phono Switch (Model 40-501) (Model 40-502, Code 121-122)
41	Pickup Crystal Cartridge 40-501, 40-502, Code 121, 40-502, Code 122

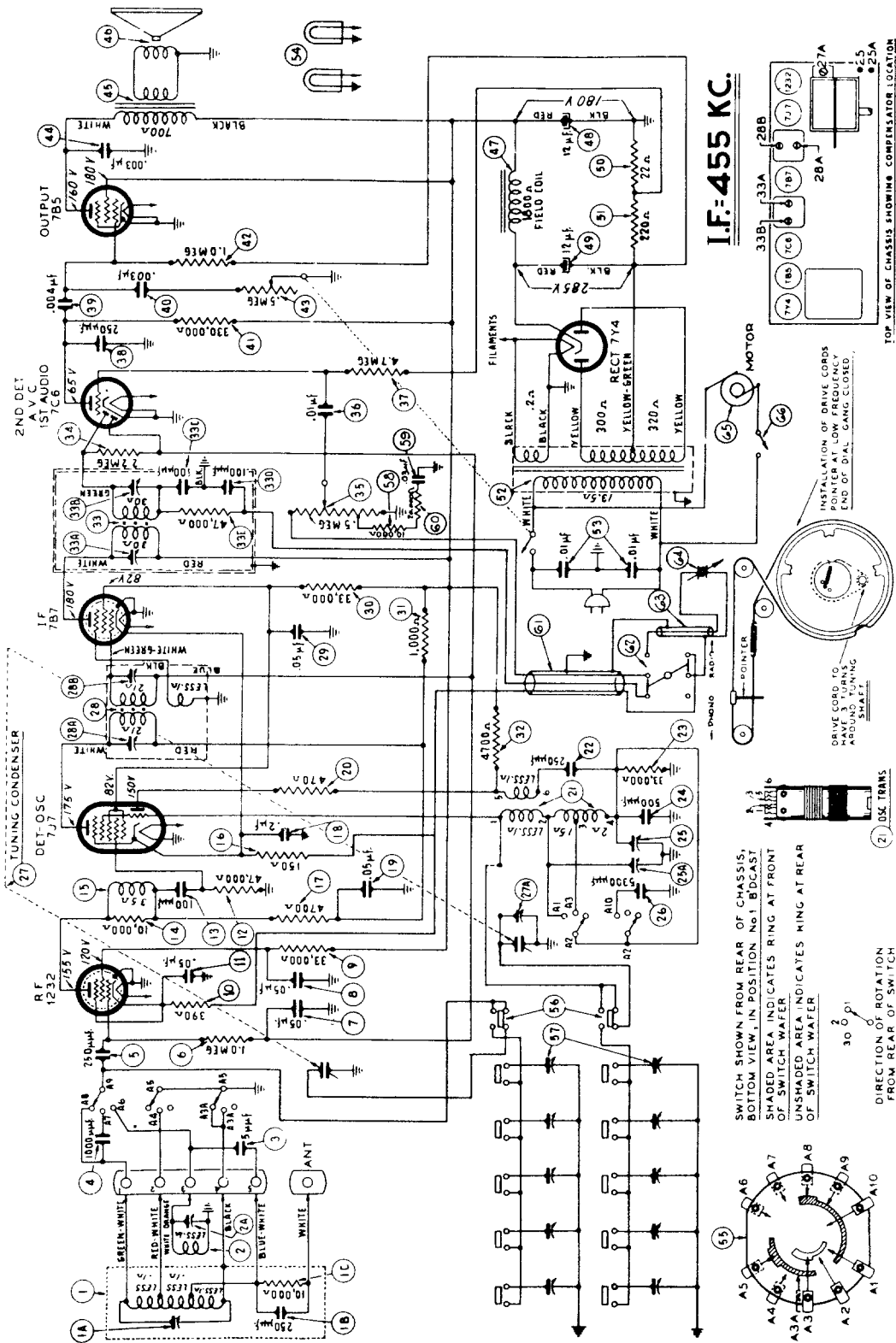
SCHE. No.	DESCRIPTION
1	Antenna Transformer
2	Condenser (.0015 mfd., 200 volts)
3	Condenser (.05 mfd., 400 volts)
4	Condenser (.15 mfd., 400 volts)
5	Tuning Condenser
5A	Antenna Compensator, Part of 5
6	Resistor (47,000 ohms, Model 40-502)
7	Condenser (.110 mfd.)
8	Oscillator Transformer
9	Condenser (.05 mfd., 200 volts)
10	1st I. F. Transformer
11	2nd I. F. Transformer
12	Resistor (2.2 megohms)
13	Condenser, Mica (250 mmfd.)
14	Resistor (22,000 ohms, Model 40-502, Code 122)
15	Volume Control
16	Condenser (.01 mfd., 200 volts)
17	Resistor (4.7 megohms, Model 40-502, Code 122)
18	Resistor (220,000 ohms, Model 40-502, Code 122)
19	Condenser, Tubular (.01 mfd., 400 volts)
20	Resistor (470,000 ohms, Model 40-502, Code 122)
21	Resistor (130 ohms)
22	Condenser (.02 mfd., 400 volts)
23	Output Transformer
24	Conc Assembly for Speaker 36-1469-1, For use with Speaker 36-1469-9
25	Field Coil-Replace Speaker 36-1469-1
26	Electrolytic Condenser (20-20 mfd.)
27	Resistor
28	Pilot Lamp
29	Condenser (.15 mfd.)
30	Motor Switch (40-501, 121, 40-502, 121-122)

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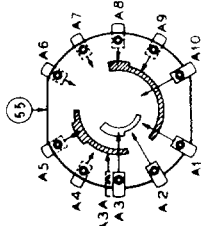
I.F.: 455 KC.

SCHEMATIC DIAGRAM MODEL 40-507

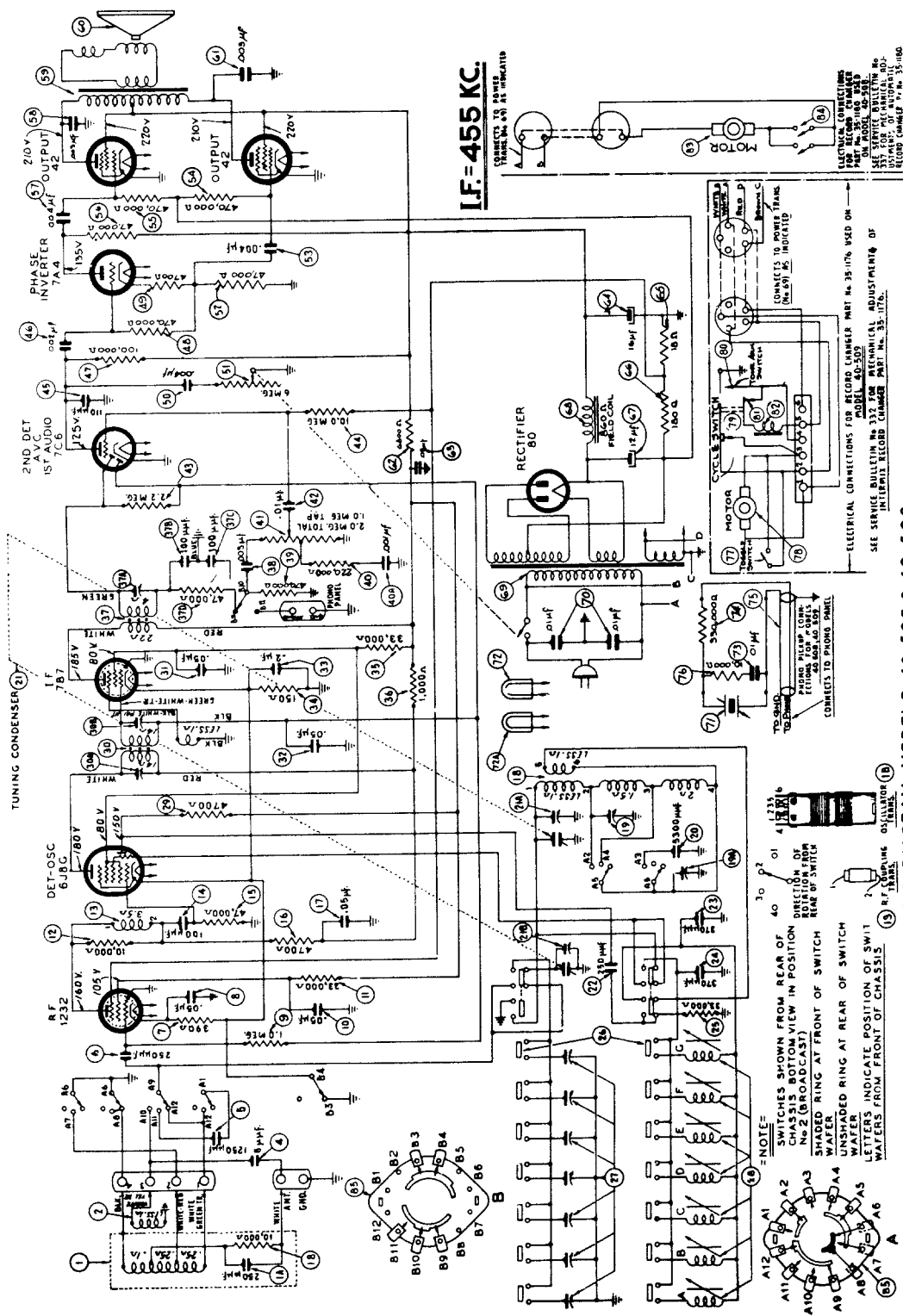
SWITCH SHOWN FROM REAR OF CHASSIS. BOTTOM VIEW, IN POSITION No. 1 BROADCAST. SHADED AREA INDICATES RING AT FRONT OF SWITCH WATER. UNSHADED AREA INDICATES RING AT REAR OF SWITCH WATER.

DIRECTION OF ROTATION FROM REAR OF SWITCH

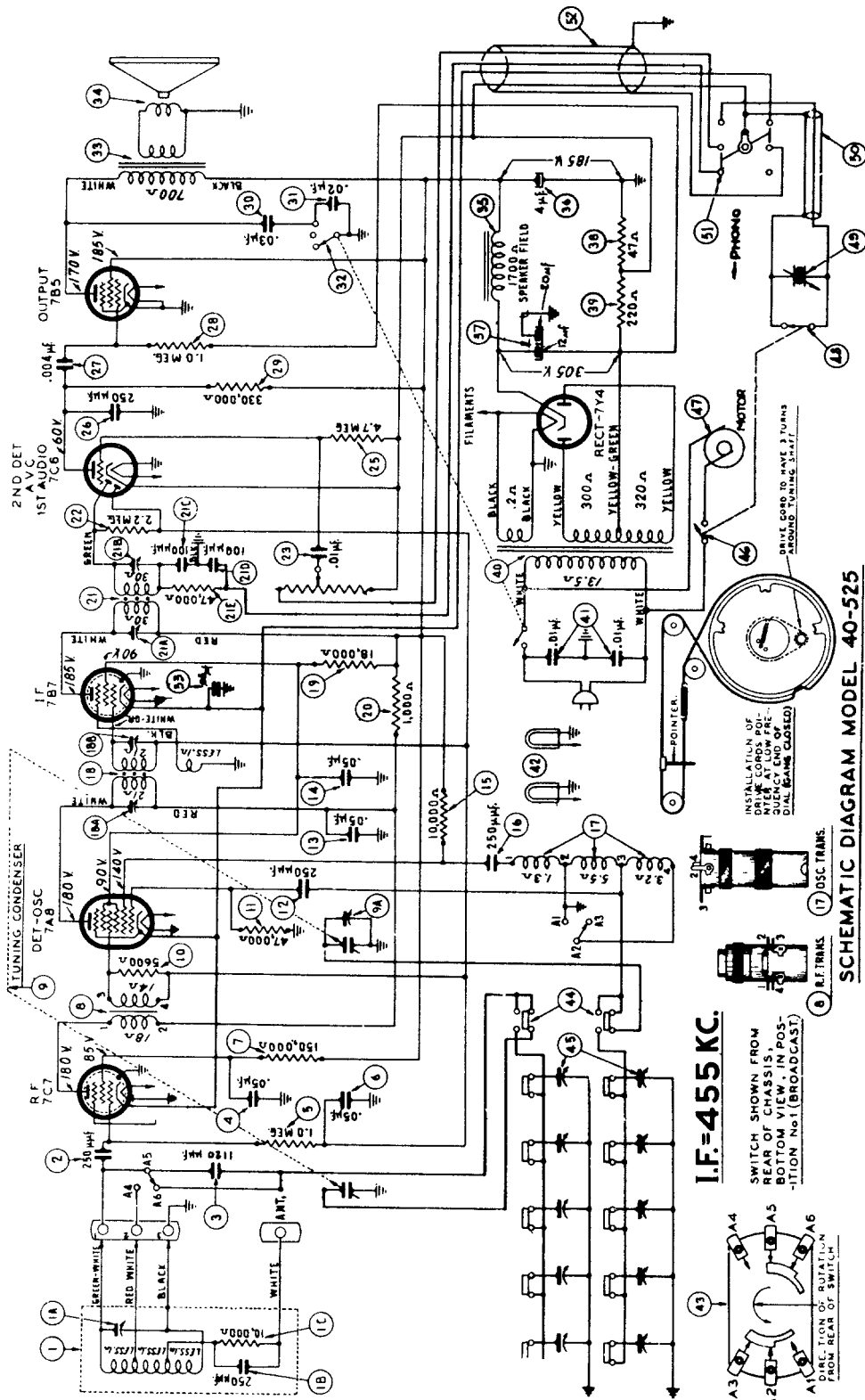
30 0 01



TOP VIEW OF CHASSIS SHOWING COMPENSATOR LOCATION



SCHEMATIC DIAGRAM MODELS 40-508 & 40-509



I.F. = 455 KC.

SWITCH SHOWN FROM REAR OF CHASSIS. IN POSITION SHOWN, POSITION IS 1 (BROADCAST).

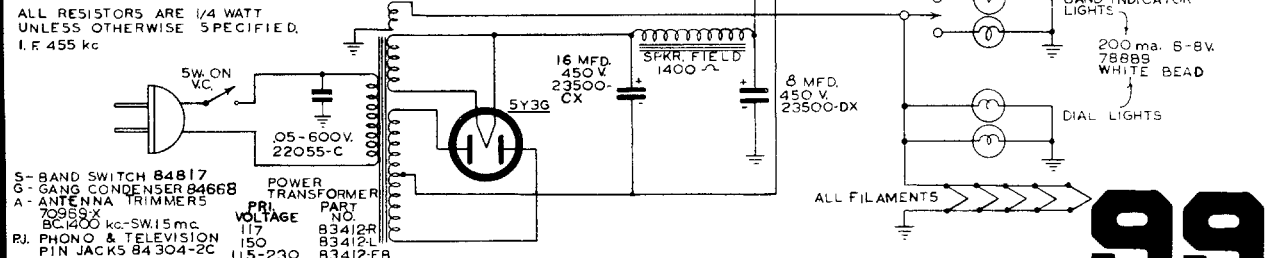
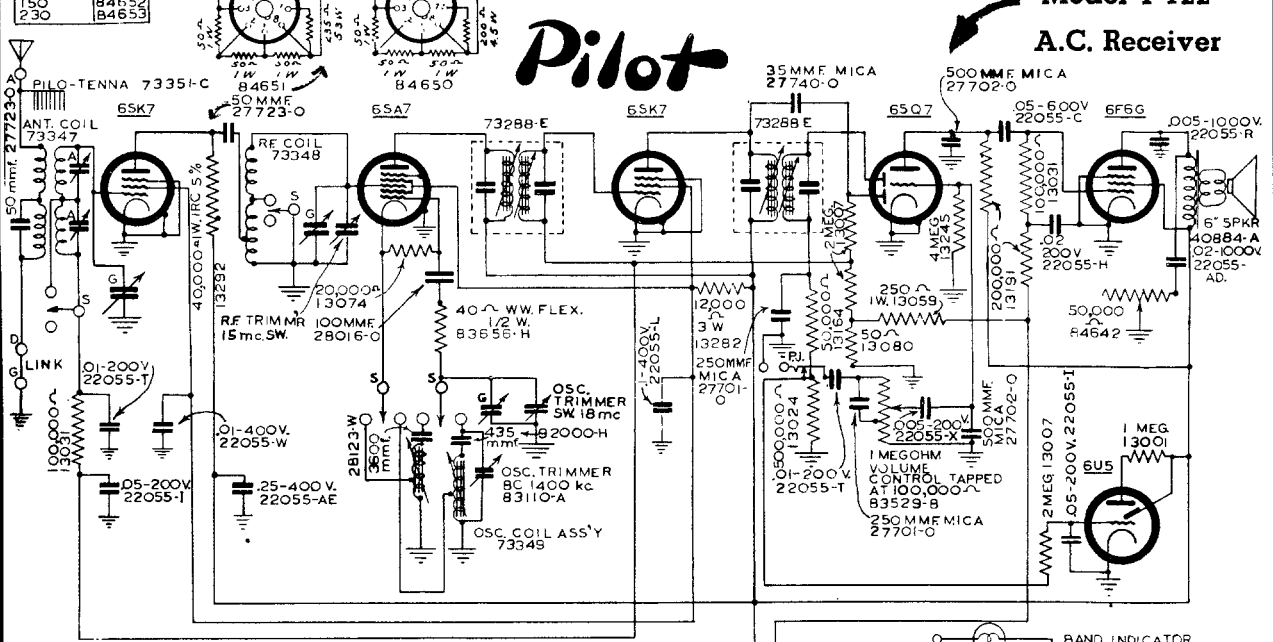
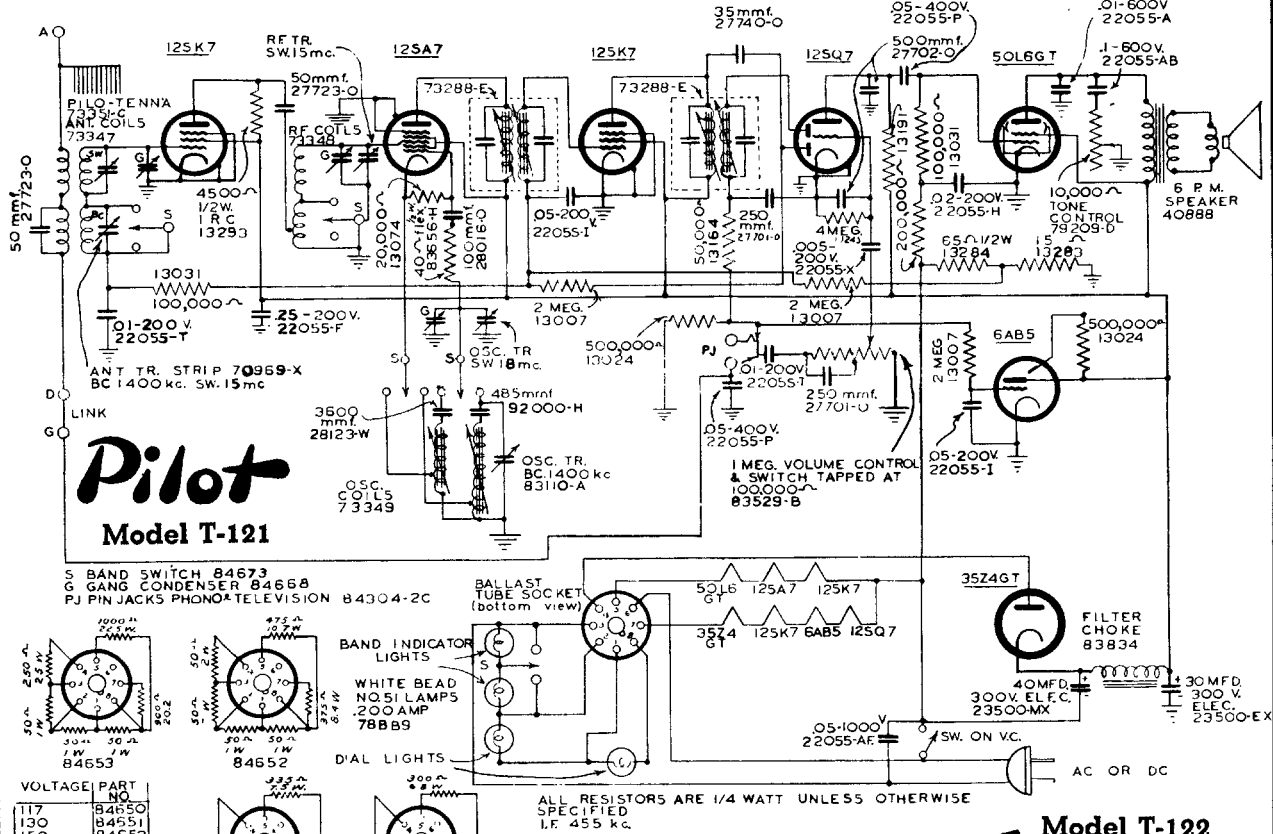
1. I.F. TRANS. 2. R.F. TRANS. 3. OSC. TRANS.

INSTALLATION OF DRIVE LORDS POLY-DIAL BANDS (DIAL BANDS CLOSED)

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59.

SCHEMATIC DIAGRAM MODEL 40-525

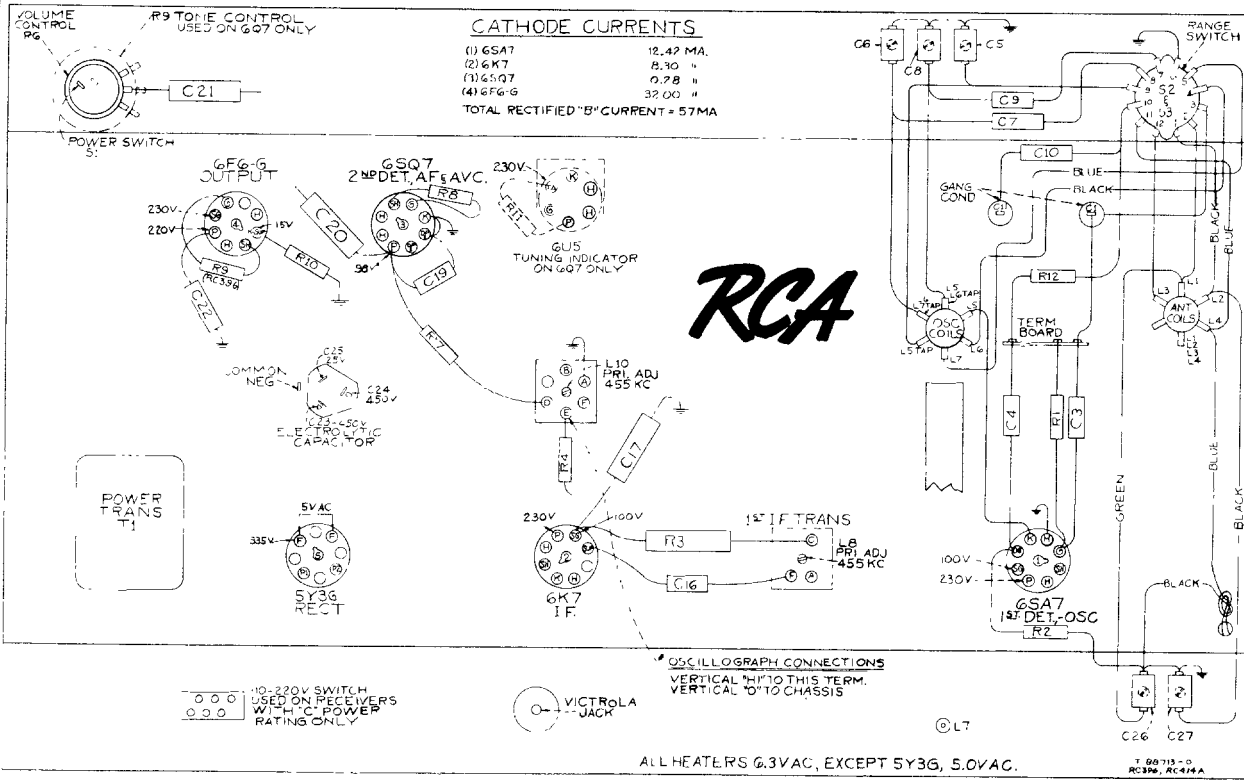
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MODELS 5Q5, 5Q55, 5Q56 and 6Q7

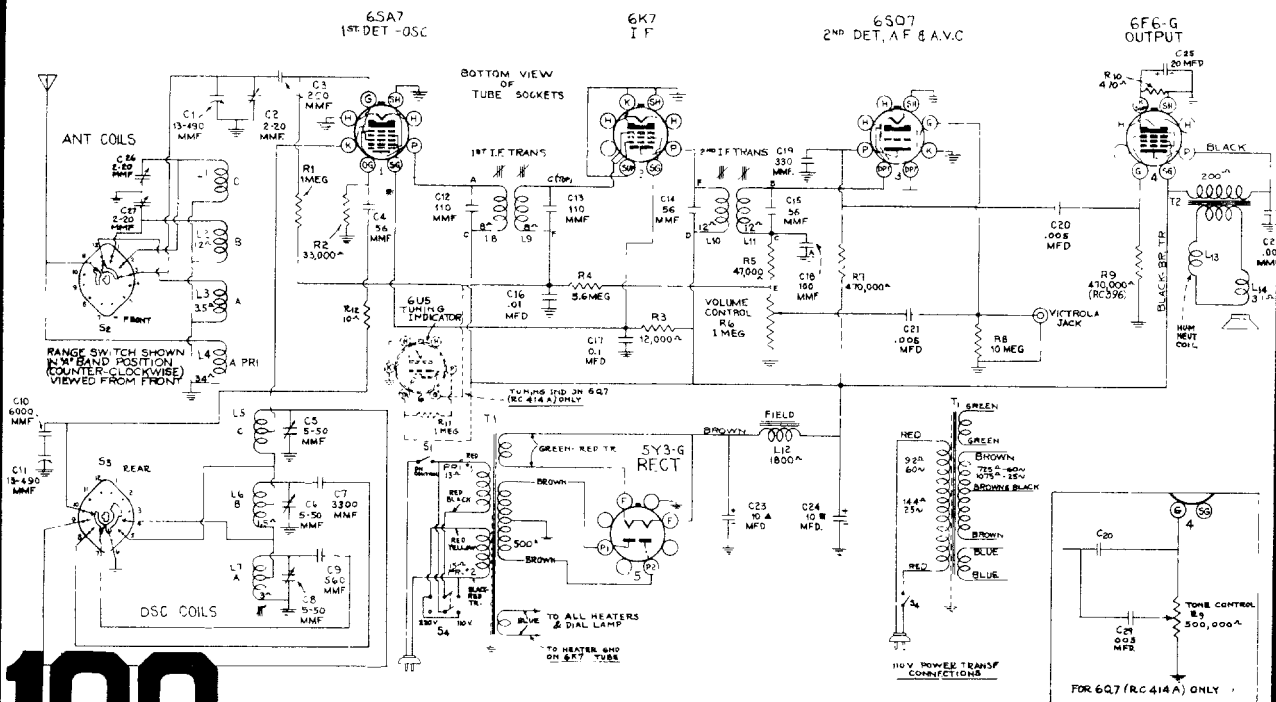


BOTTOM VIEW - REAR OF CHASSIS

R-F Wiring Diagram and Socket Voltages

Measurements made to chassis unless otherwise indicated, with set tuned to quiet point and volume control at minimum. Values should hold within $\pm 20\%$ with 117-volt a.c. supply.

NOTE: Values with star () are operating voltages in circuits with high series resistance. The actual measured voltages will be lower, depending on the voltmeter loading.



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RCA MODEL TRK-5 and MODEL TT-5

Antenna Installation:

In most cases, the antenna should not be installed permanently on the apartment or residence roof until the quality of the picture reception has been observed on a Television Receiver. A temporary transmission line can be run between receiver and the antenna allowing sufficient slack to permit moving the antenna. Then, with a telephone system connecting an observer at the receiver and an assistant on the roof to find an antenna location, the antenna can be positioned to give the most satisfactory results on the received signal. A shift of only a few feet in antenna position or direction may effect a tremendous difference in picture reception. Whenever possible, the antenna location should be chosen or erected so the antenna is not only broadside to the transmitter but removed as far as possible from highways, hospitals and doctors' offices, and similar sources of interference. Auto ignition and diathermy apparatus may cause noise interference which spoils the picture.

In mounting any antenna, care must be taken to keep the antenna rods or pickup wires proper at least 1/4 wave length (at least 6 feet) away from other antennas, metal roofs and gutters or metal objects.

Under certain extremely unusual conditions, it may be possible to rotate or position the antenna so it receives the cleanest picture over a reflected path. If such is the case, the antenna should be so positioned. However, such a position may give variable results as the nature of reflecting surfaces may vary with weather conditions, as a wet surface has been known to have different reflecting characteristics than a dry surface.

In short, a television receiving antenna and its installation must conform to much higher standards than an antenna for reception of International Short Wave and Standard Broadcast signals because:

- (1) Intervening obstacles have a pronounced shielding effect on the ultra-high frequency waves producing low intensity signals. Severe trouble with multi-path transmissions may be experienced, especially in congested city areas.
- (2) The picture signal is comprised of a very wide band or range of frequencies, all of which must be received with good efficiency.
- (3) It must be continually remembered that the discernment of the eye is much more critical than that of the ear.



No attempt should ever be made to measure the high (2,000 volts) voltage, because of the dangers and difficulties involved. If at any time it becomes necessary to service the high voltage circuit, the suspected parts should be replaced by parts known to be in good operating condition.

Always replace the red can over the 879 high voltage rectifier.

The most dangerous portion of the receiver is the plate (top cap) lead for the 879 high voltage rectifier. Always be very careful when working near or with this lead.

When working on the high voltage supply portion of this chassis, the following precautions should be observed:

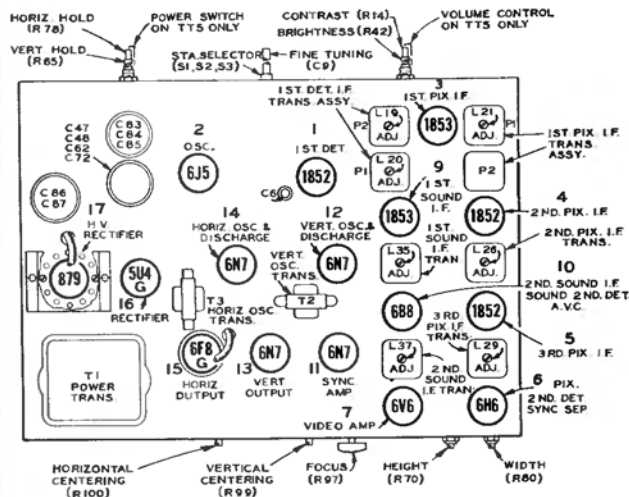
1. Remove power supply cord from the power supply socket.
2. Use only one hand at a time.
3. Connect a shorting lead between ground (firstly) and to the high voltage side.
4. Whenever working with the oil-filled high voltage filter capacitors, keep a constant short across the capacitor, as these capacitors do not completely lose their charge after being discharged a single or several subsequent times.
5. Only one person at a time should work on the unit to prevent any misunderstanding which may result in an accident.

When it is desired to measure any voltages on the Video portion of the chassis, the primary leads of the high voltage transformer should be disconnected and taped together.

When any changes are made on the Video portion of the chassis, the locations of leads and parts should be returned as closely as possible to their original positions.

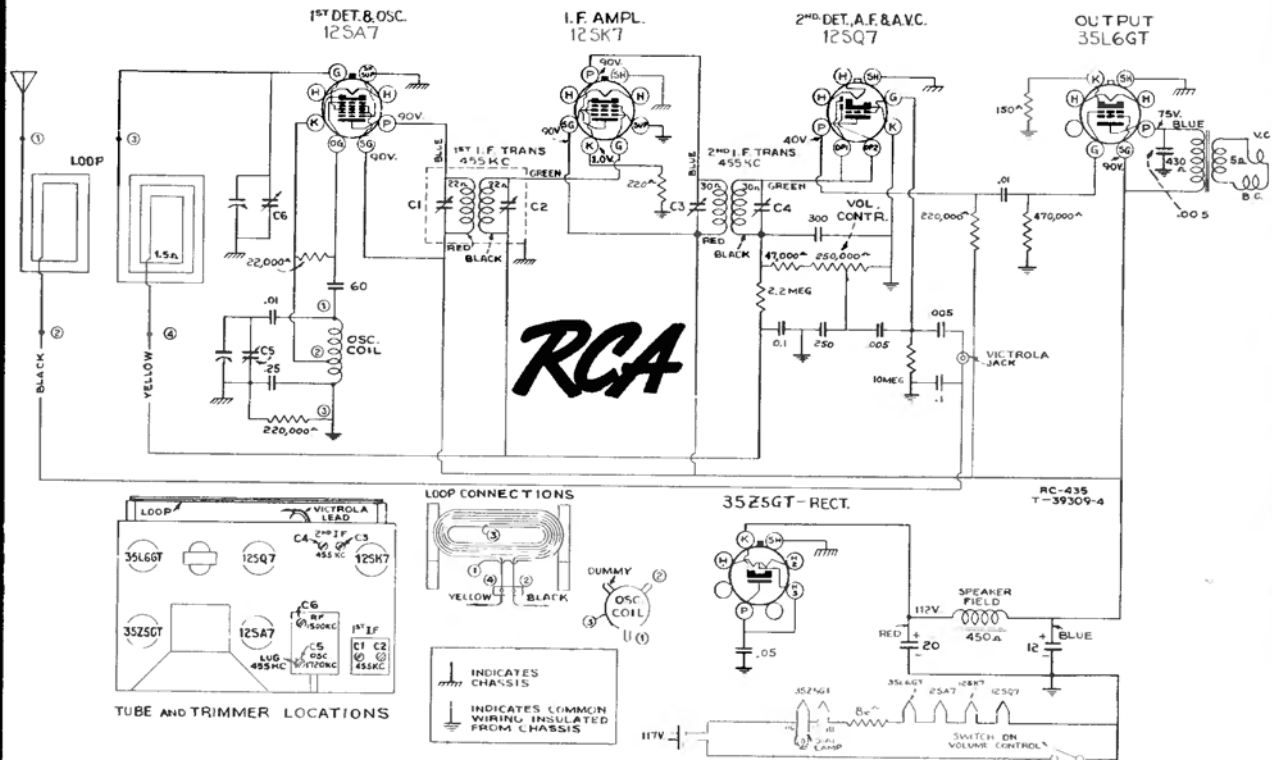
Service Hints:

1. In some cases the horizontal sweep oscillator circuit will radiate energy to nearby broadcast receiving antennas and lead-ins, causing interference with standard broadcast receivers.
2. If the picture "tears out" when the receiver is jarred it may be due to microphonic 1852, 1853, or 6J5 tubes.
3. The 6J5 oscillator tube should be removed without rocking it in its socket to loosen it, as the motion may cause the 80.5 mmf capacitor C16 to break off.
4. The coils or straps in the h.f. oscillator circuits should not be touched or moved or the alignment of the receiver will be disturbed.
5. The insulator on the high voltage filter capacitors may become dirty and break down to short out the high voltage.
6. The two Video coupling capacitors C44, 45, should be kept clear of chassis.
7. In some cases the metal Kinescope mounting shield may become magnetized by the earth's or some nearby magnetic field, and thus distort the picture on the screen towards the magnetized portion of the shield. The shield can be demagnetized by passing it slowly through a solenoid which is energized by an a-c current.



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Model 9TX-50 Series (Chassis No. RC-435)



Alignment Procedure

Output Meter Alignment.—Connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-Oscillator.—Connect the low side of the test-oscillator to the receiver chassis, through a .01 mfd. capacitor, and keep the output as low as possible.

Pre-Setting Dial.—With gang condenser in full mesh, the pointer should be adjusted so that top edge of pointer just touches rivet in dial plate.

Antenna.—The set is equipped with a built-in loop antenna. If an outdoor antenna is used, it may be connected to the "ANT" terminal on rear of cabinet. It should not be longer than 100 feet, including lead-in. If it is longer, connect a 100 to 200 mmf. capacitor in series with the lead-in.

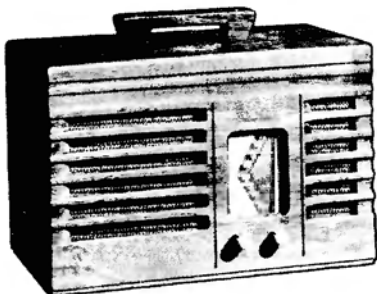
Power-Supply Polarity.—For operation on d-c, the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On a-c, reversal of the plug may reduce hum.

Victrola Attachment.—A jack is provided on the rear of cabinet for connecting a Victrola Attachment into the audio-amplifying circuit. The cable from the Victrola Attachment should be terminated in a Stock No. 31048 plug to fit the jack.

| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output— |
|-------|--|--------------------|-------------------------------------|---|
| 1 | Tuning condenser stator (osc.) in series with .01 mfd. | 455 kc | Quiet point at 1,600 kc end of dial | C1, C2, C3, C4 (1st and 2nd I-F transformers) |
| 2 | Antenna term. of ant. loop in series with 100 mmfd. | 1,720 kc | Full clockwise (out of mesh) | C5 (oscillator) |
| 3 | | 1,500 kc | Resonance on 1,500 kc signal | C6 (antenna) |

Precautionary Lead Dress

1. Dress 2nd I-F green lead close to chassis and under other parts.
2. Dress lead from gang condenser to grid of 12SA7 close to chassis and away from 12SQ7 socket.
3. Dress blue 1st I-F lead under volume control close to chassis.
4. Dress blue 2nd I-F lead close to chassis and behind 12SK7 socket.



POWER SUPPLY RATINGS

A-C Rating 105-125 volts, 50-60 cycles, 30 watts
 D-C Rating 105-125 volts, direct current, 30 watts

POWER OUTPUT (125 volt, 60 cycle supply)

Undistorted 1.5 watts
 Maximum 2.0 watts

LOUDSPEAKER

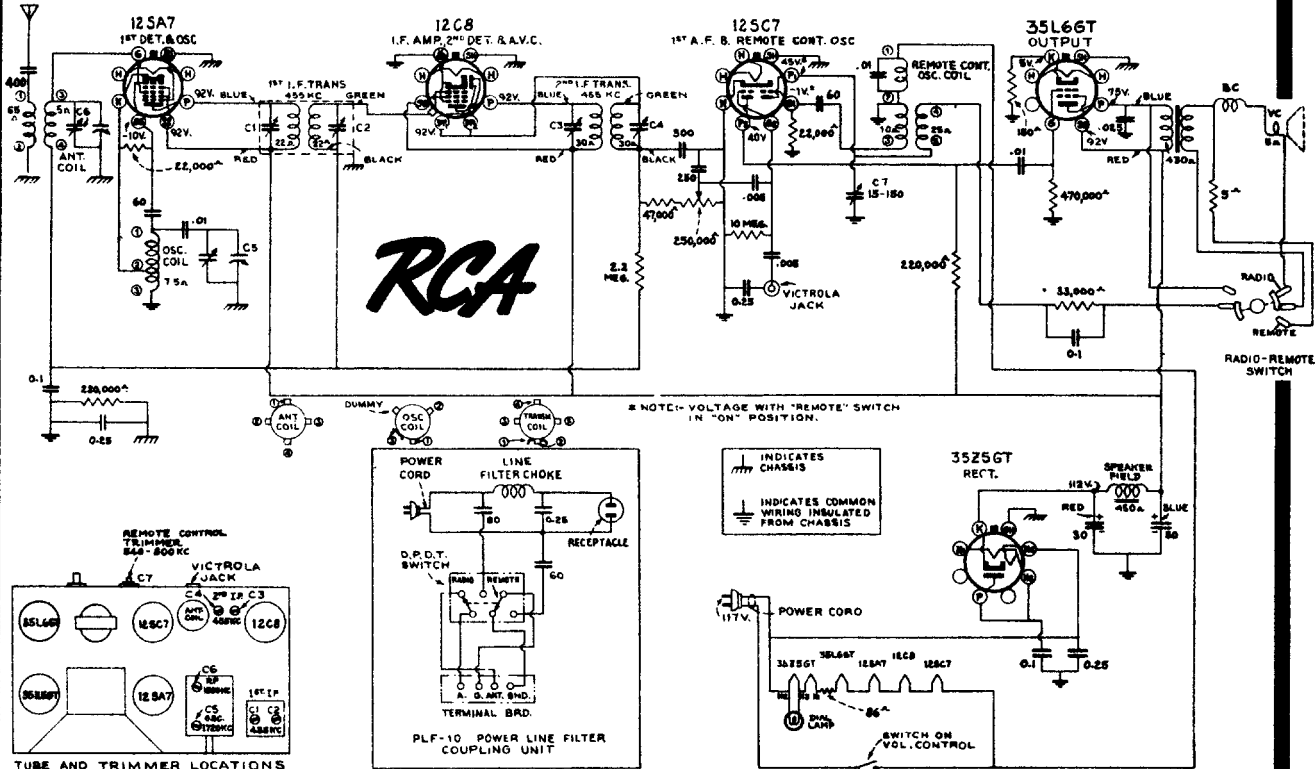
Type 4-inch Electrodynamic

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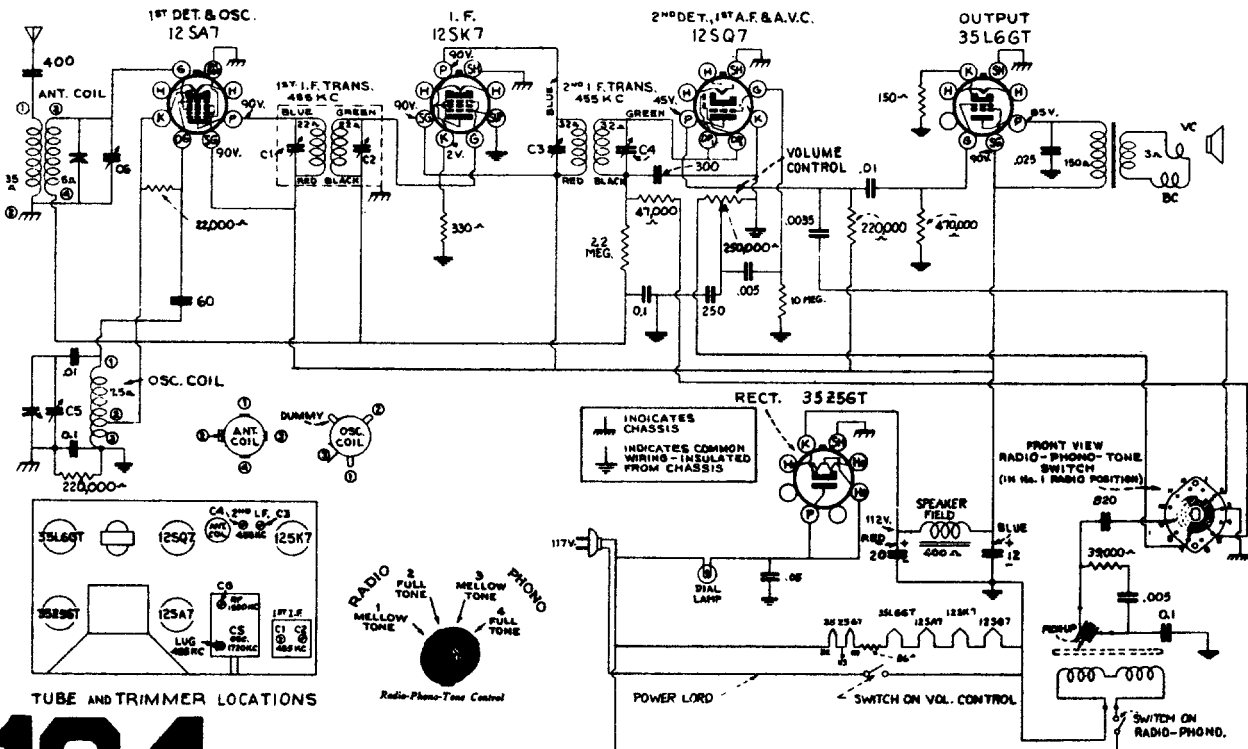
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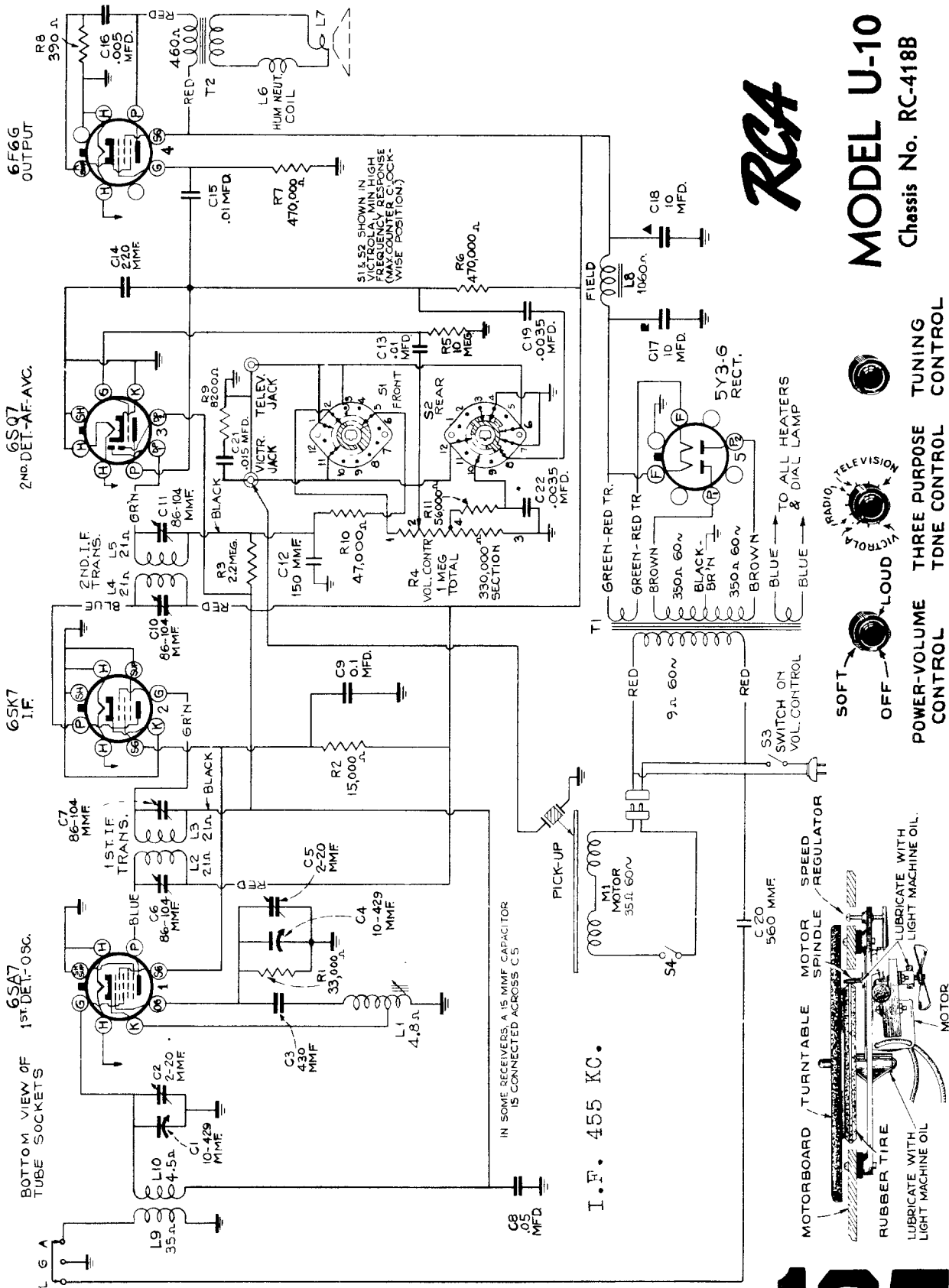
Model 5X5 Series (Chassis No. RC-406)



RCA Victor MODEL U-8 (Chassis No. RC-404A)

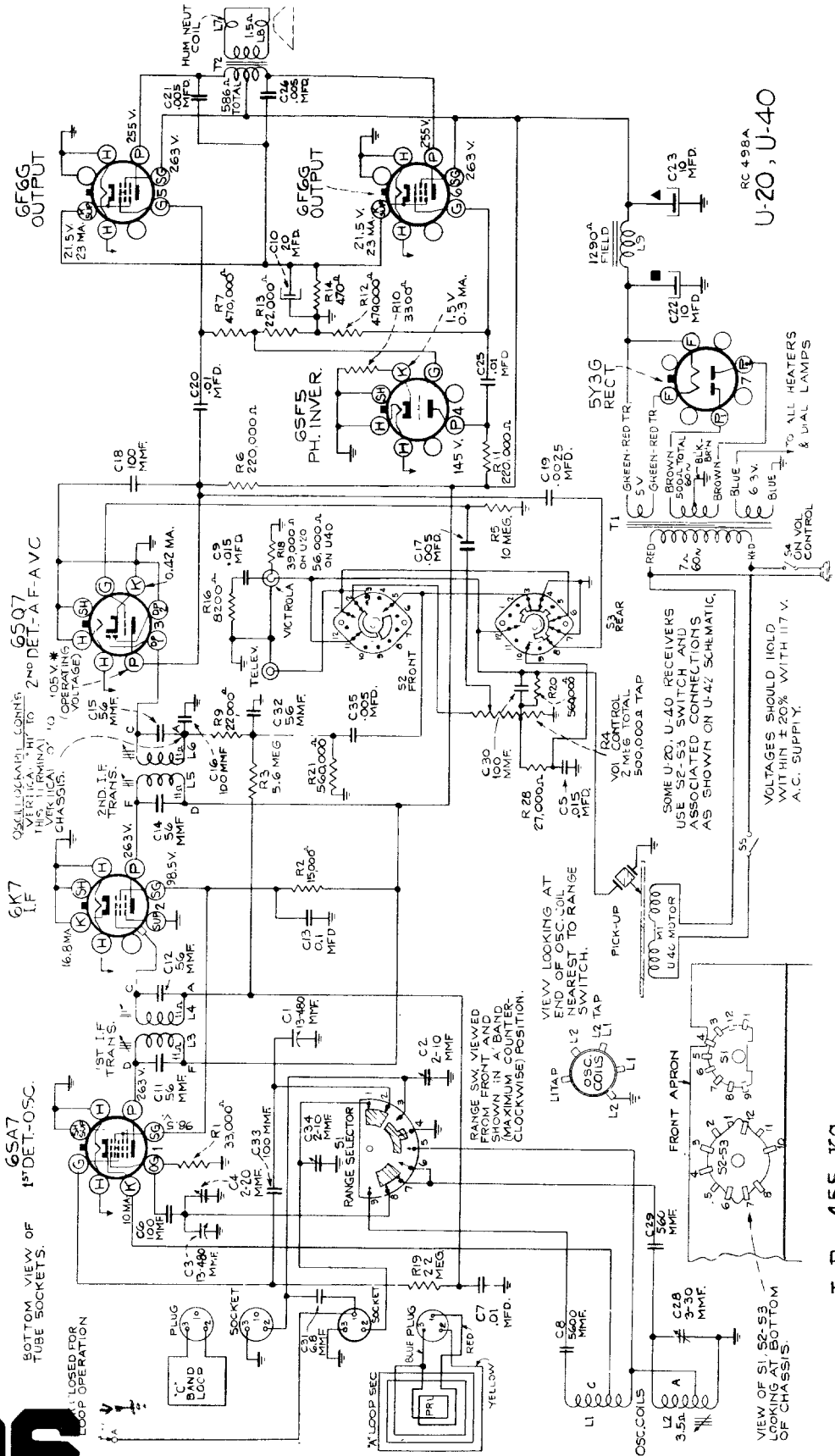


MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



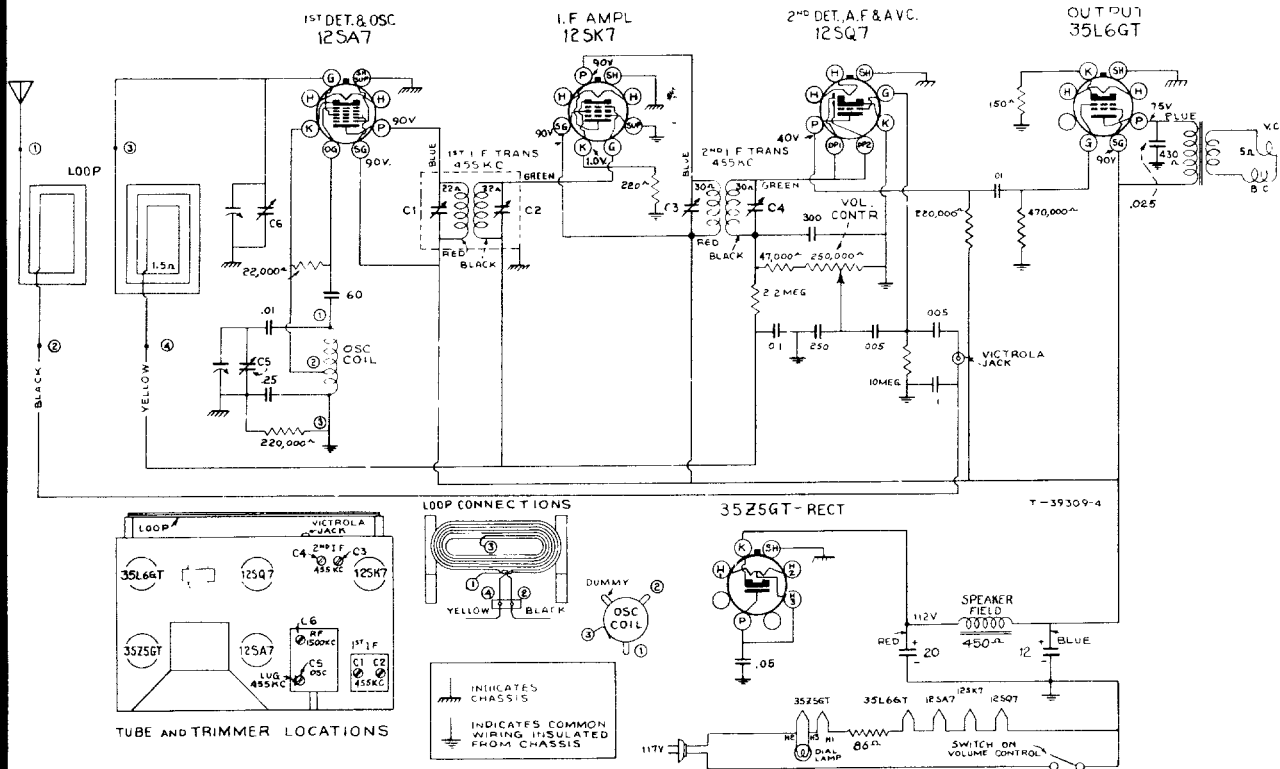
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Models 40X-30 and 40X-31 (Chassis No. RC405C & D)



Output Meter Alignment.—Connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-Oscillator.—Connect the low side of the test-oscillator to the receiver chassis, through a .01 mfd. capacitor, and keep the output as low as possible.

Pre-setting Dial.—With gang condenser in full mesh, the pointer should be horizontal.

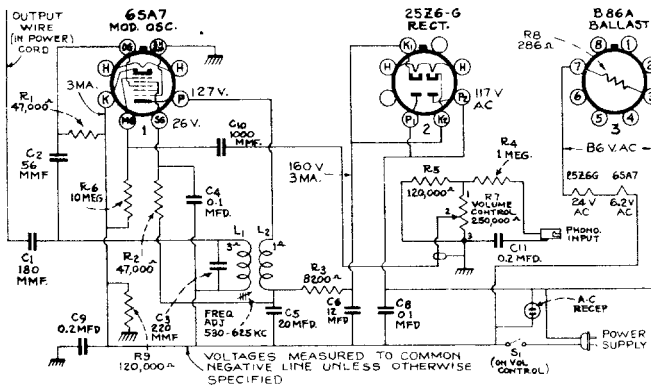
Antenna.—The set is equipped with a built-in loop antenna. If an outdoor antenna is used, it may be connected to the "ANT." terminal on rear of cabinet. It should not be longer than 100 feet, including lead-in. If it is longer, connect a 100 to 200 mmf. capacitor in series with the lead-in.

Power-Supply Polarity.—For operation on d-c, the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On a-c, reversal of the plug may reduce hum.

| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output— |
|-------|--|--------------------|-------------------------------------|---|
| 1 | Tuning condenser stator (osc.) in series with .01 mfd. | 455 kc | Quiet point at 1,600 kc end of dial | C1, C2, C3, C4 (1st and 2nd I-F transformers) |
| 2 | Antenna term. of ant. loop in series with 100 mmfd. | 1,680 kc | Full clockwise (out of mesh) | C5 (oscillator) |
| 3 | | 1,500 kc | Resonance on 1,500 kc signal | C6 (antenna) |

Precautionary Lead Dress

1. Dress 2nd I-F green lead close to chassis and under other parts.
2. Dress lead from gang condenser to grid of 12SA7 close to chassis and away from 12SQ7 socket.
3. Dress blue 1st I-F lead under volume control close to chassis.



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RCA

OSC-22

Wireless Oscillator

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RCA Victor MODELS BK-41 and BT-41

Cathode-ray Alignment is the preferable method. Connections for the oscillograph are as follows: Vertical "Hi" to E on the 2nd I-F transformer. Vertical "O" to chassis.

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

Test-Oscillator.—For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the output as low as possible to avoid a-v-c action.

For additional details, refer to booklet "RCA Victor Receiver Alignment."

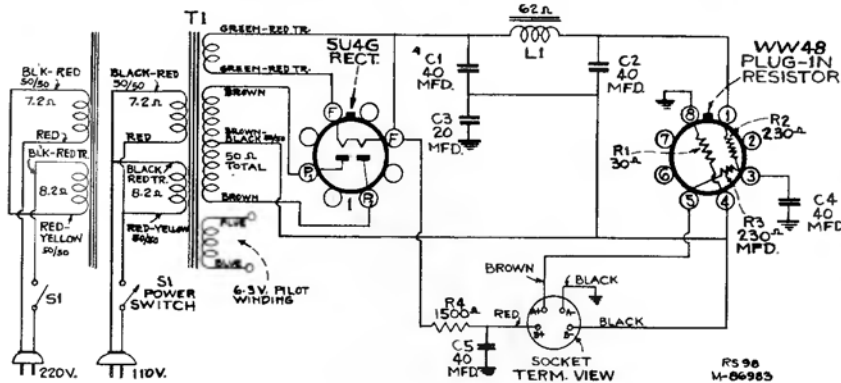
Pre-setting Dial.—With gang condenser in full mesh, the pointer should be horizontal.

| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output |
|-------|--|--------------------|--------------------------------|---|
| No. 1 | 1N5-G I-F grid cap, in series with 0.01 mfd. | 455 kc | Quiet point between 550-750 kc | L7 and L8 (2nd I-F transformer) |
| No. 2 | 1A7-G 1st-det. grid cap in series with 0.01 mfd. | 455 kc | | L5 and L8 (1st I-F transformer) |
| No. 3 | Antenna lead, in series with 200 mmfd. | 600 kc | 600 kc | L4 (oscillator)
L2 (antenna) |
| No. 4 | Antenna lead, in series with 200 mmfd. | 1,500 kc | 1,500 kc | C15† (oscillator)
C3 (antenna) |

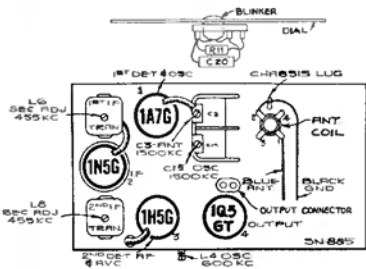
† Trimmer C16 on gang condenser should be unscrewed one complete turn from tight, before adjusting C15.



Model BK-41



Schematic Diagram—Model CV-40



Precautionary Lead Dress

1. Red lead from second i-f transformer to screen terminal of 1N5-G must be dressed close to and along edge of chassis.
2. Twisted green wire from antenna coil to gang must be 9 turns and kept clear of rotor.
3. Blue and green leads to volume control must be dressed close to chassis and between gang and front apron.
4. The opening in the shield of the 1N5-G should be turned away from the chassis and the i-f transformers.
5. Antenna and ground wires should be twisted together.

1A7-G
1ST DET. E. OSC. 1

1N5-G
I. F. 2

1H5-G
2ND DET. A. F. E. A. V. C. 3

1Q5-GT
OUTPUT 4

BOTTOM VIEW OF TUBE SOCKETS

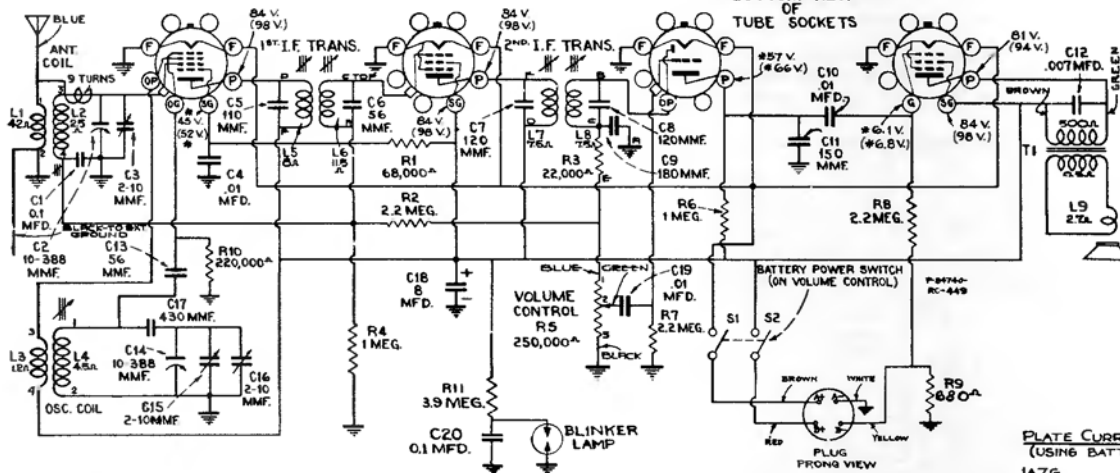
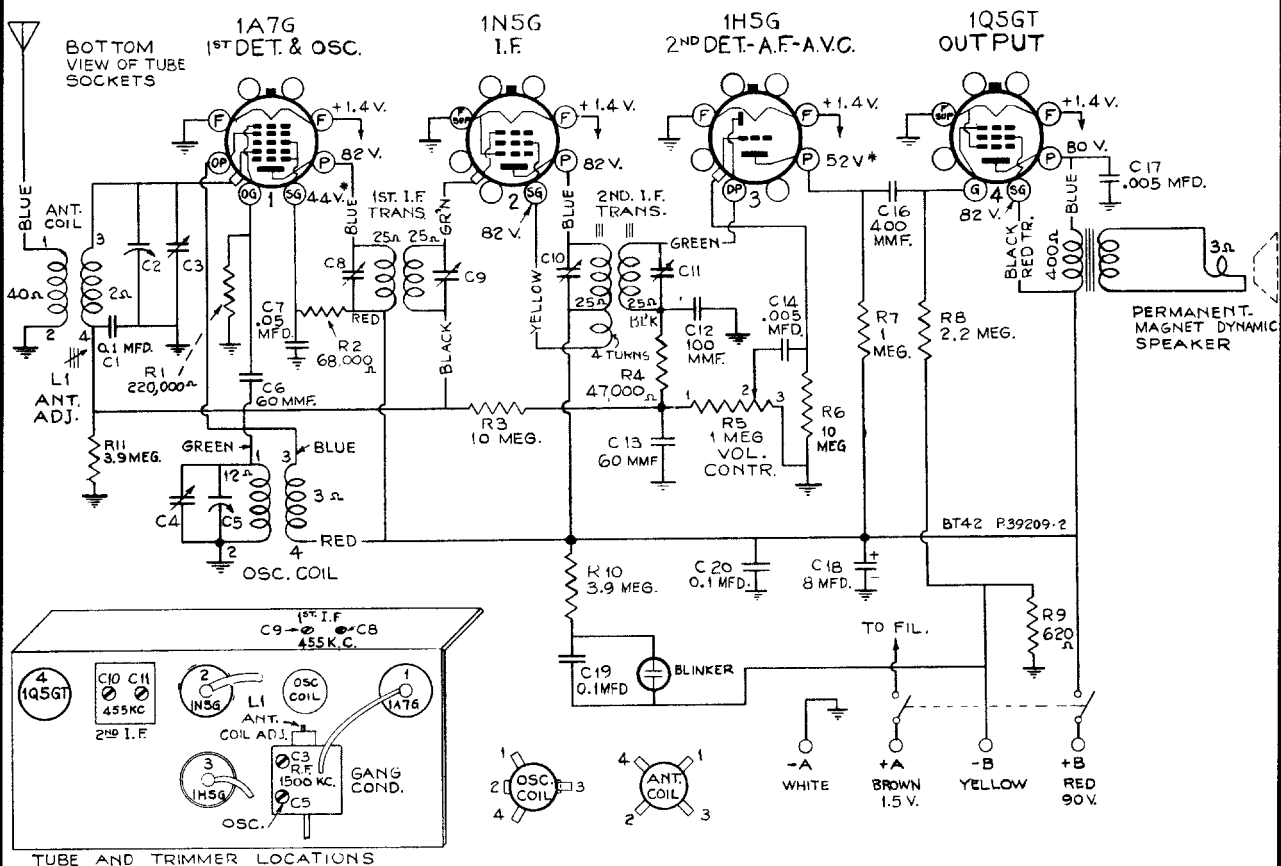


PLATE CURRENTS (USING BATTERIES)

| | |
|-------|-------------------|
| 1A7G | OSC. --- 0.65 MA. |
| OSC. | DET. --- 0.49 MA. |
| 1N5G | --- 1.2 MA. |
| 1H5G | --- 0.26 MA. |
| 1Q5GT | --- 6.0 MA. |

MODEL BT-42



Alignment Procedure

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

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

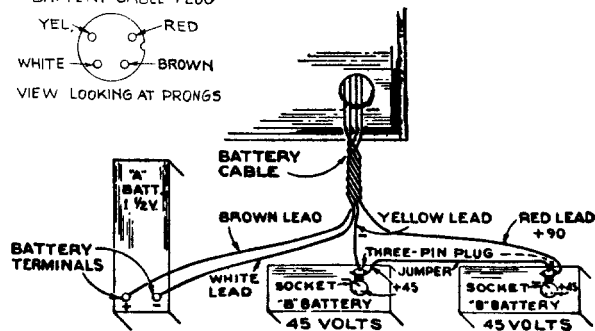
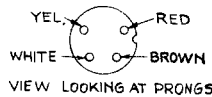
Pre-setting Dial.—With the gang condenser fully out of mesh, the indicator should point to the extreme right (high frequency) mark on the dial scale.

CAUTION.—When ready to install or replace batteries or tubes or to make any repairs or changes, be sure to turn off power switch.

Precautionary Lead Dress.—

1. All filament (brown) and B+ (red) leads must be dressed away from unshielded I.F. coil.
2. Green grid lead of 1A7G tube to be twisted around antenna (blue) lead for capacity coupling.
3. Red and brown battery cable leads to be dressed and held against front apron with tape.

BATTERY CABLE PLUG

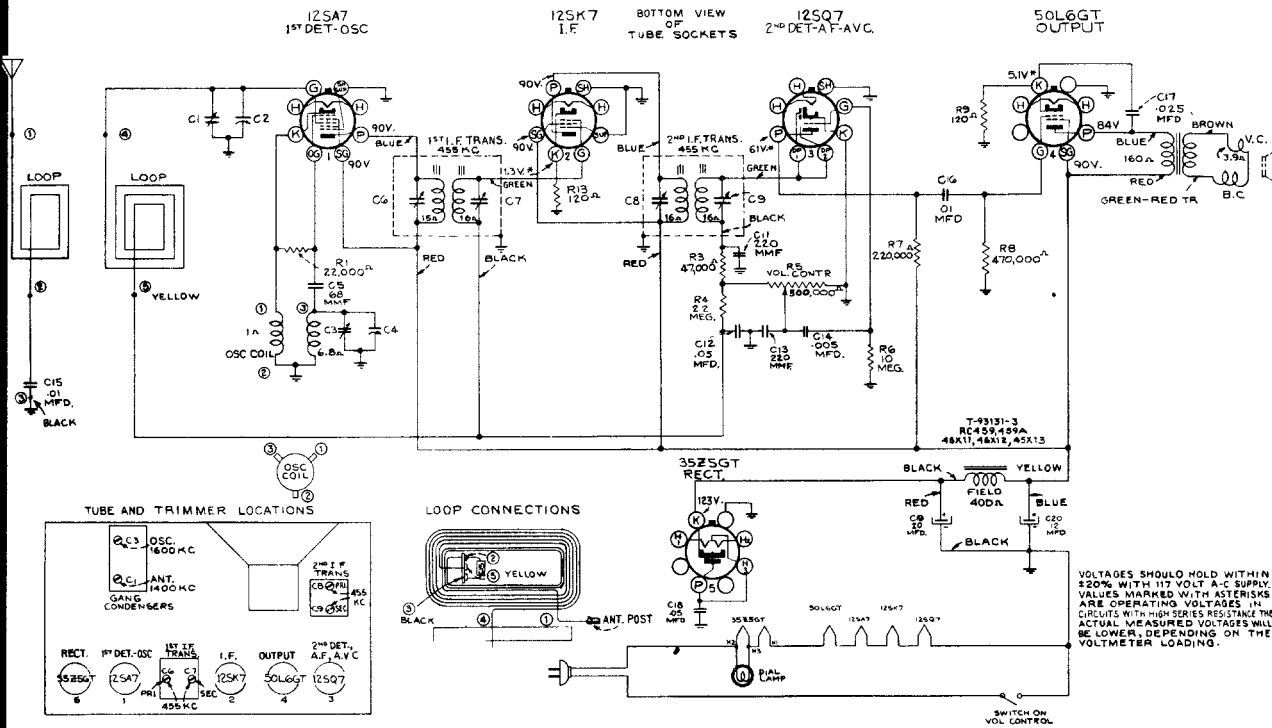


| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn Radio Dial to— | Adjust the following for max. peak output— |
|-------|---|--------------------|-----------------------------------|---|
| 1 | 1A7G 1st-Det. grid cap, in series with .01 mfd. | 455 kc | Quiet point at 550 kc End of Dial | C8, C9, C10, C11 (1st and 2nd I-F transformers) |
| 2 | Antenna lead (blue) in series with 100 mmfd. | 1,500 kc | 1,500 kc | C5 (oscillator) |
| 3 | | 800 kc | 800 kc | L1 (antenna)* |
| 4 | | 1,500 kc | 1,500 kc | C3 (antenna) |

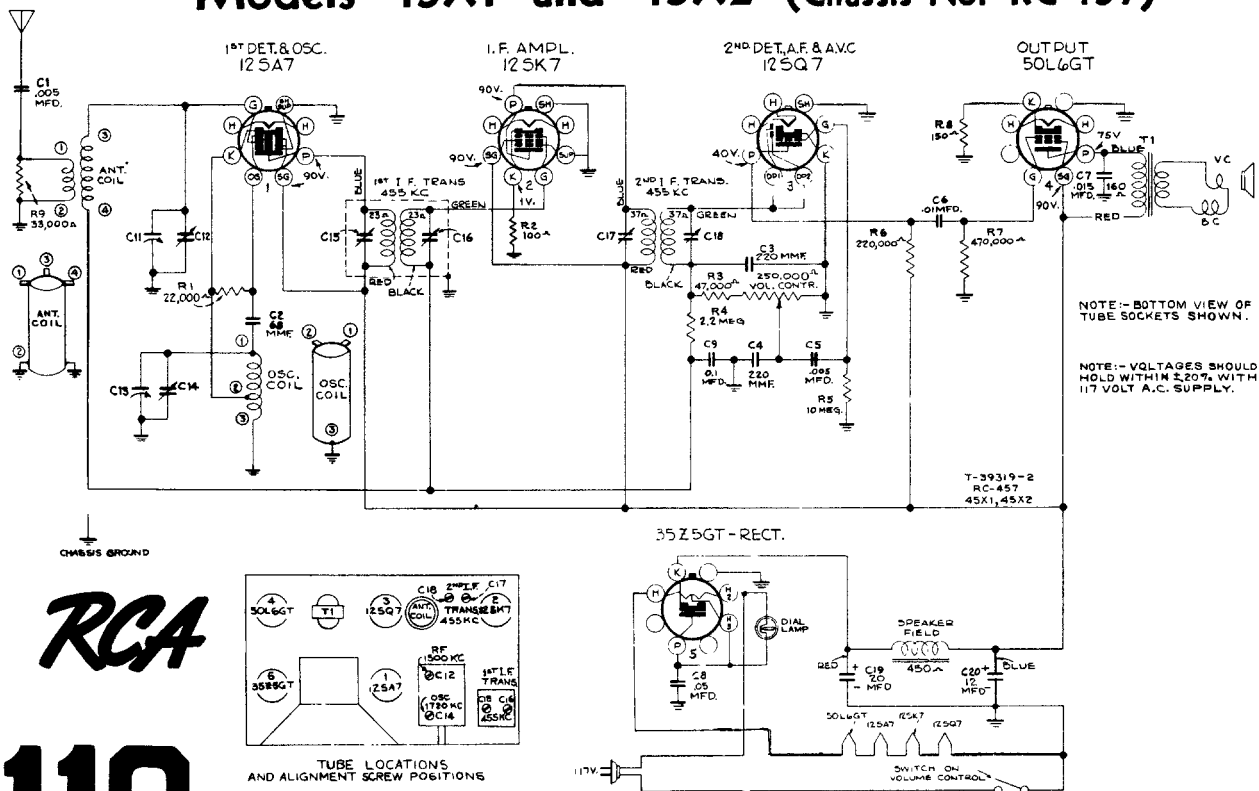
*When adjusting L1 (antenna), trimmer C3 should be in a minimum capacity position (unscrewed).

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Models 45X11, 45X12 Model 45X13



Models 45X1 and 45X2 (Chassis No. RC-457)



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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

MODEL O-50 PORTABLE VICTROLA

(phonograph only)

The Model O-50 Portable Electric Victrola consists of a crystal pickup, a two-stage audio amplifier, and eight-inch electrodynamic speaker, and a motor turntable mechanism with automatic mercury switch for starting and stopping—all housed in a portable carrying case of modern design and appearance.

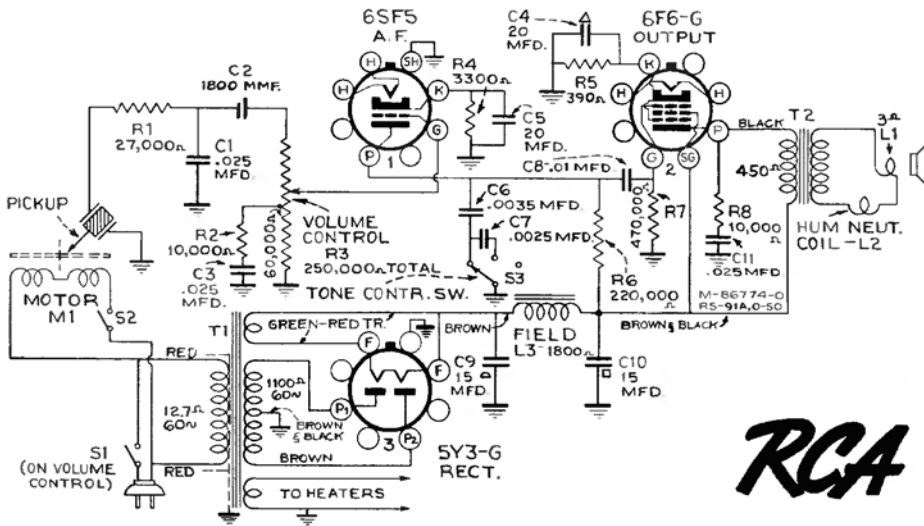
The phonograph motor is a self-starting, constant-speed induction type. It should be lubricated every six months by applying a few drops of light machine oil to the spindle bearing and oil hole.

The motor spindle is tapered, and a conical rubber piece fits snugly on the spindle. The hole in the turntable bushing

is tapered to fit the rubber. This provides an excellent self-centering floating mounting.

A metal washer is placed on the spindle under the rubber piece. The washer has ears on the under side which fit over a pin that projects through the spindle.

The motor switch is automatic for both starting and stopping, and when properly adjusted, will turn the motor on as the pickup is moved from the pickup rest toward the turntable. The switch should be adjusted so that it will snap into the "off" position when the pickup needle is $1\frac{3}{4}$ inches from the center line of the spindle. The motor may be shut off at any time by placing the pickup on the pickup rest.

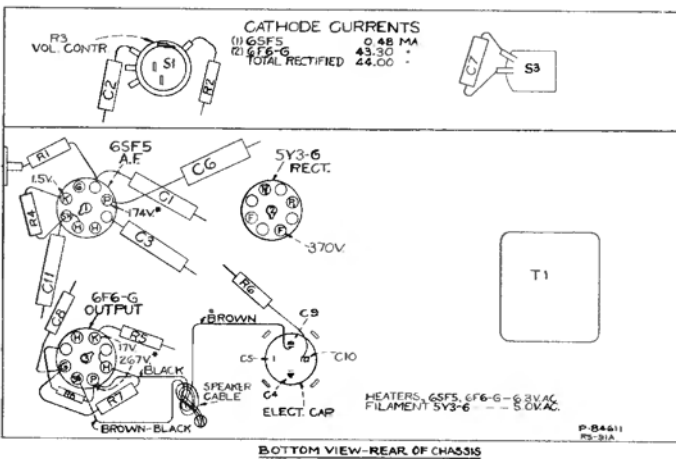


Schematic Circuit Diagram



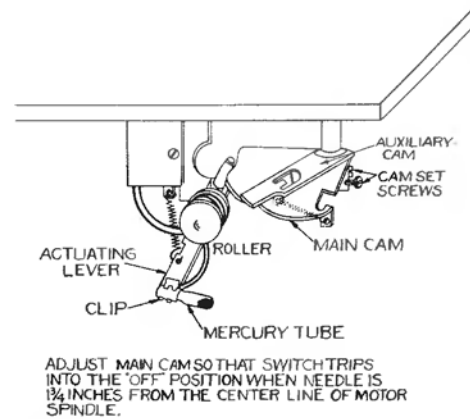
Model O-50

RCA



Parts Layout and Socket Voltages

Measurements made to chassis unless otherwise indicated, with set tuned to quiet point, volume control at minimum. Values should hold within approximately $\pm 20\%$ with 117-volt a-c supply.



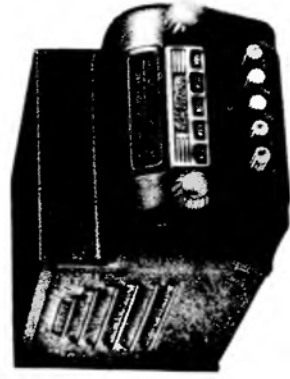
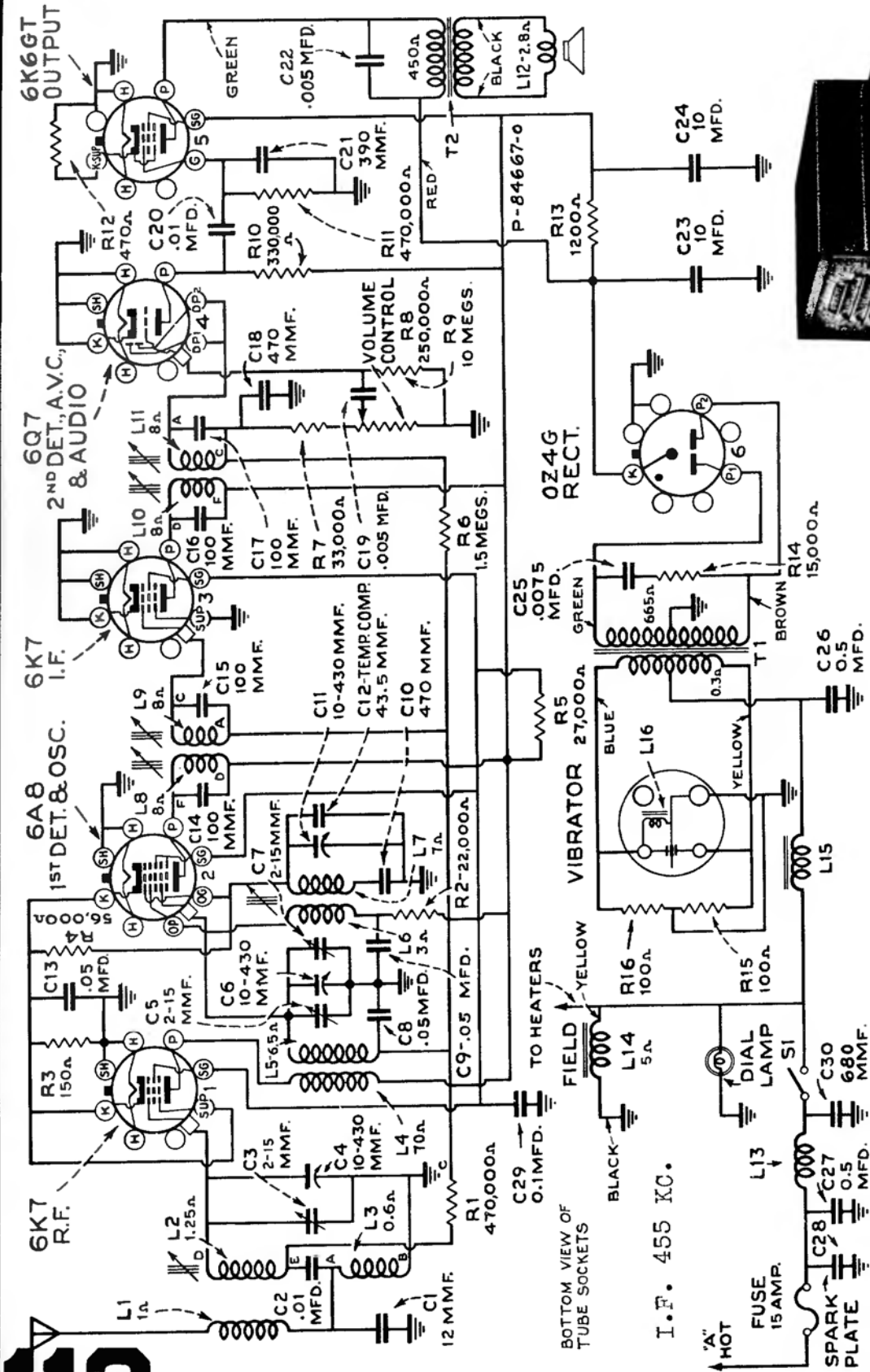
Switch Mechanism
(Shown with pickup in rest position)

NOTE: Values with star () are operating voltages in circuits with high series-resistance, and when measured will read lower depending on the voltmeter loading.

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



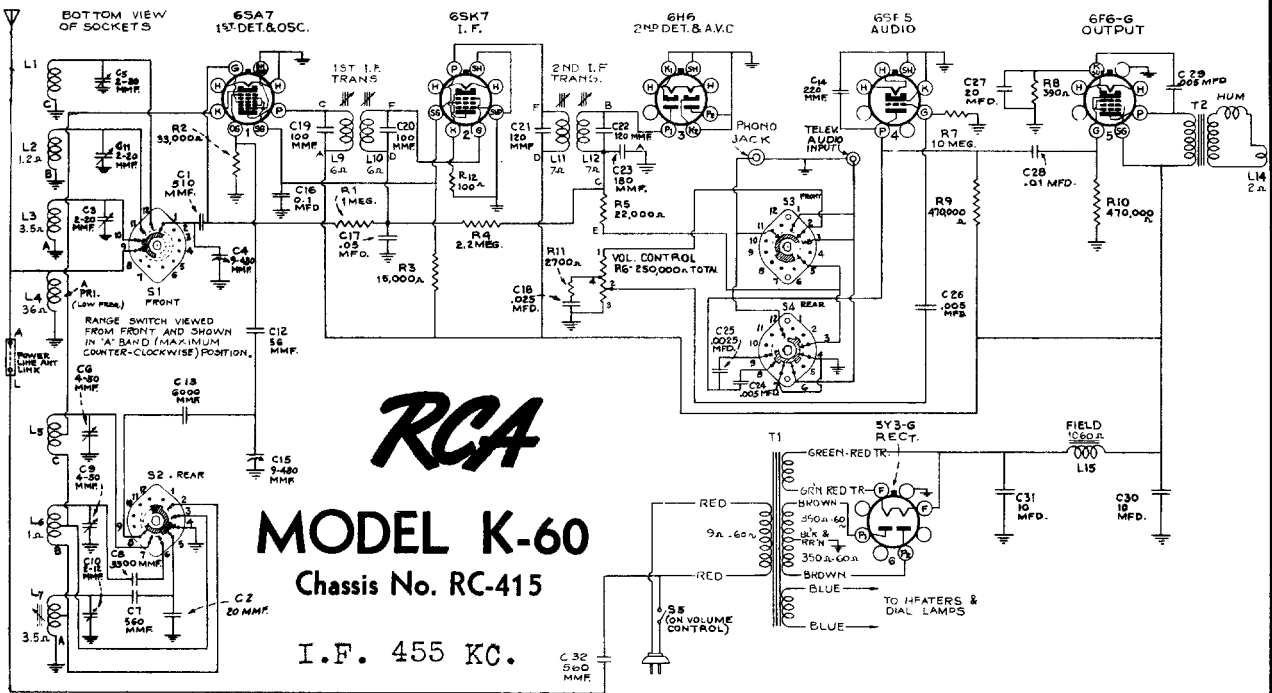
MODEL M60
Chassis No. RC 357K

RCA

112

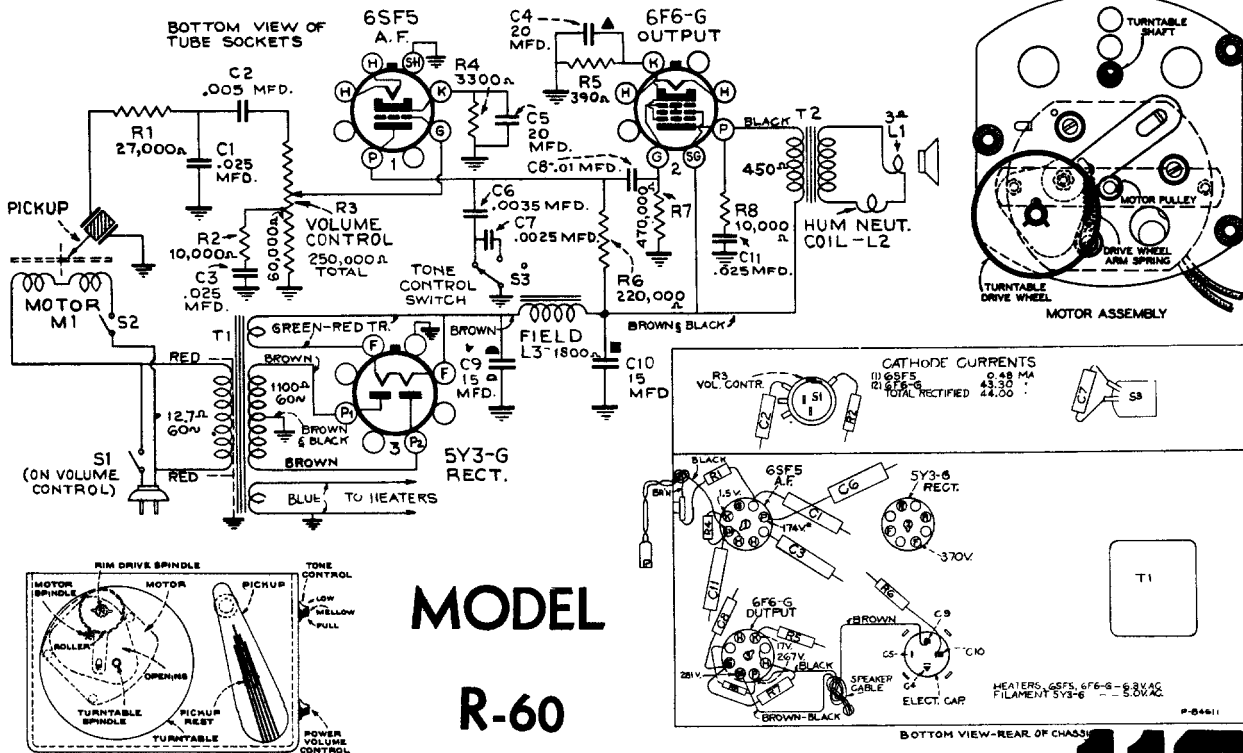
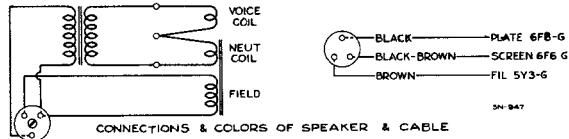
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Note: On some receivers the following circuit modifications are in effect:

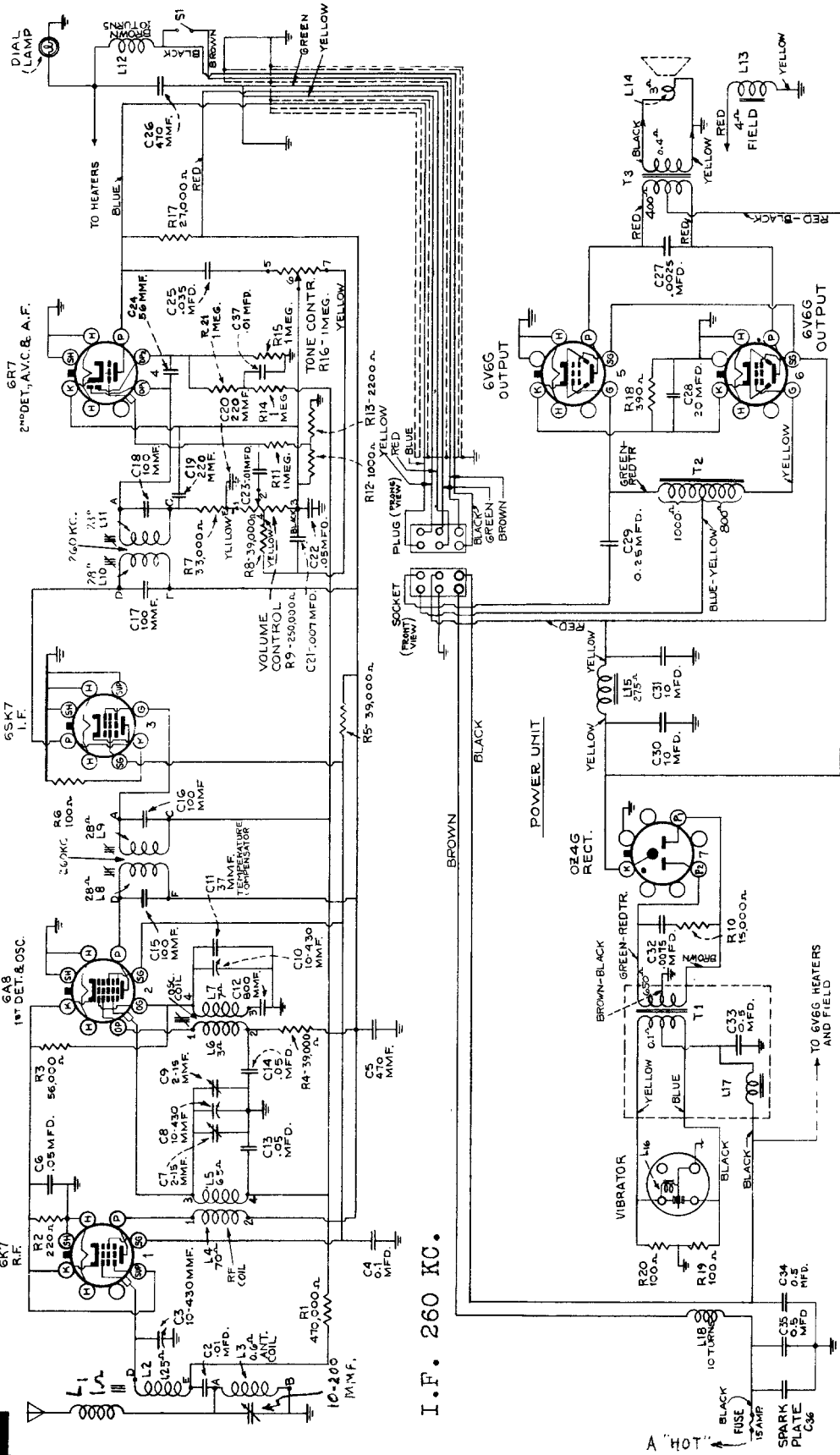
1. R11 is 4,700 ohms, and C18 is .05 mfd.
2. C1 is 470 mmfd.
3. There are three types of 2nd I-F transformers in use.
 - a. The first type (Stock No. 14308) has C23 and R5 mounted inside the case, and is connected exactly as shown above.
 - b. In the second type R5 is omitted and the lead from S4 connects to C instead of E. E is not used.
 - c. In the third type R5 is omitted and C23 is connected externally from C to ground. E is not used. The lead from the diode plate connects to A instead of B.



MODEL M-70

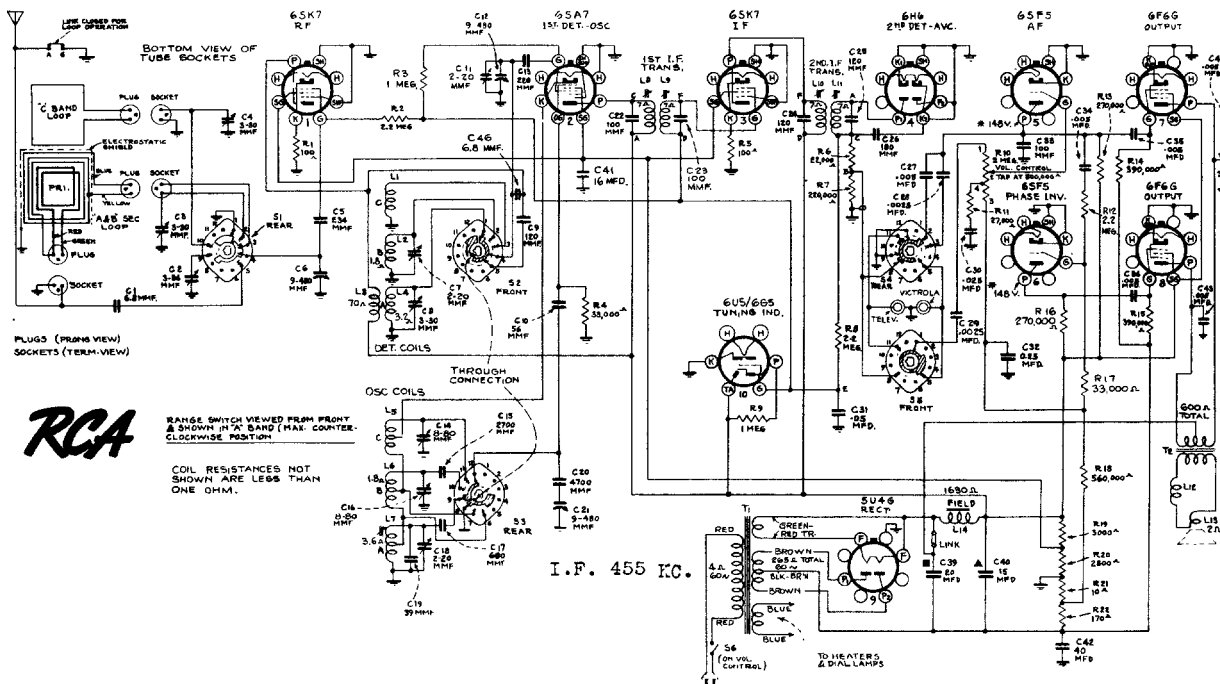
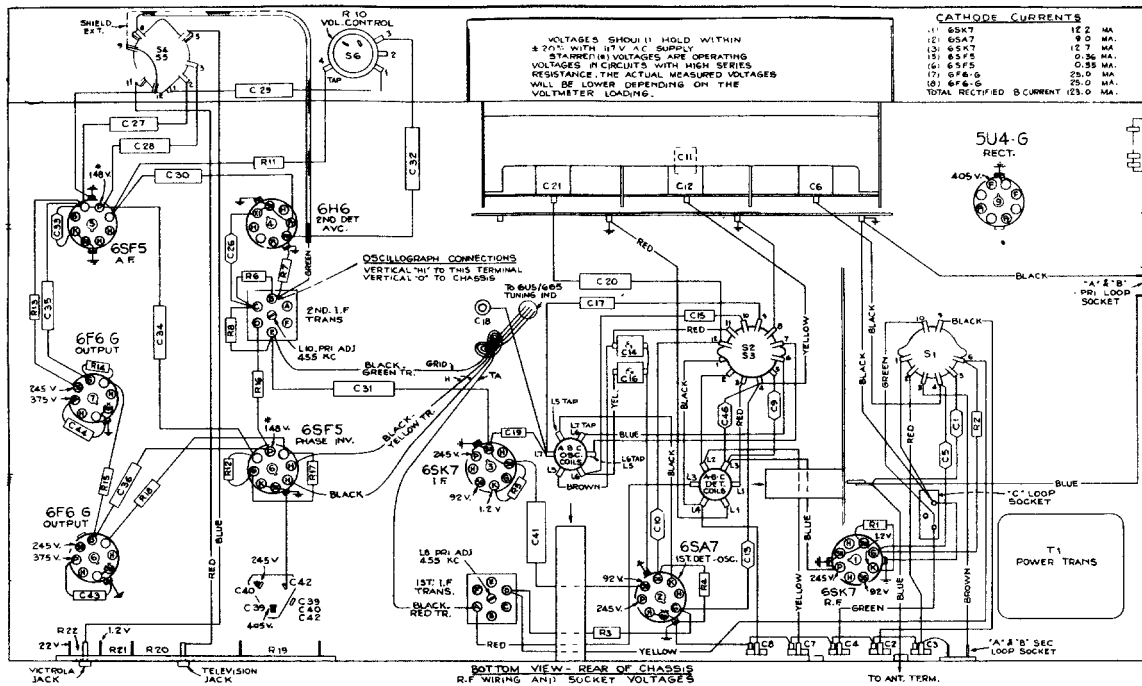
RCA

114

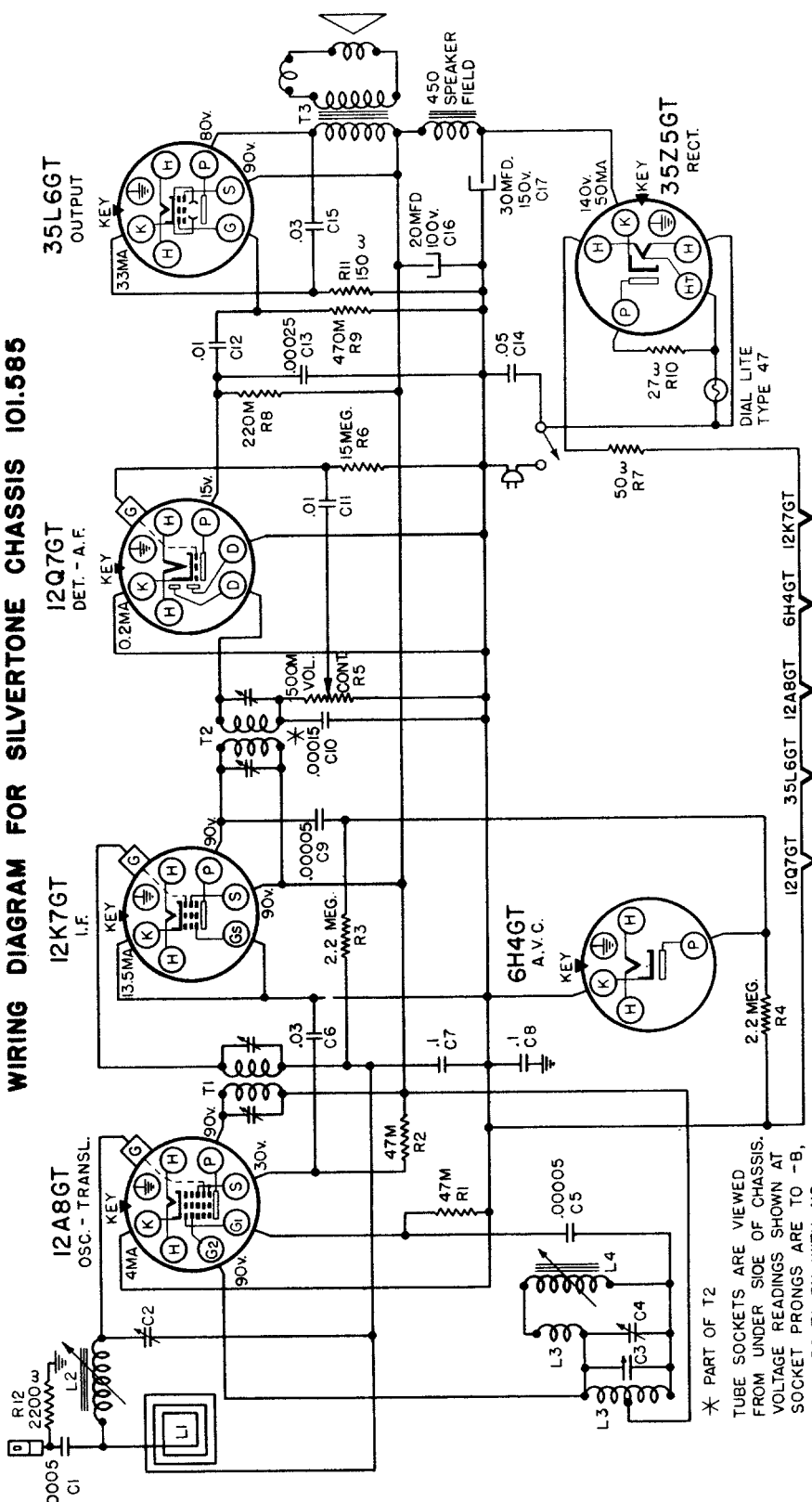


MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

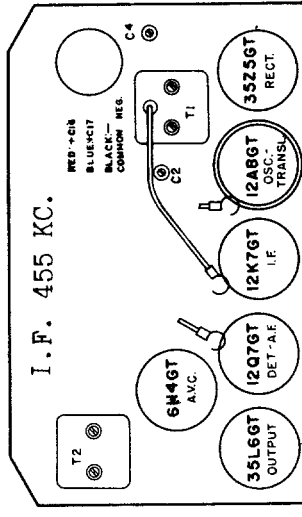
MODEL K-105



WIRING DIAGRAM FOR SILVERTONE CHASSIS IOI.585



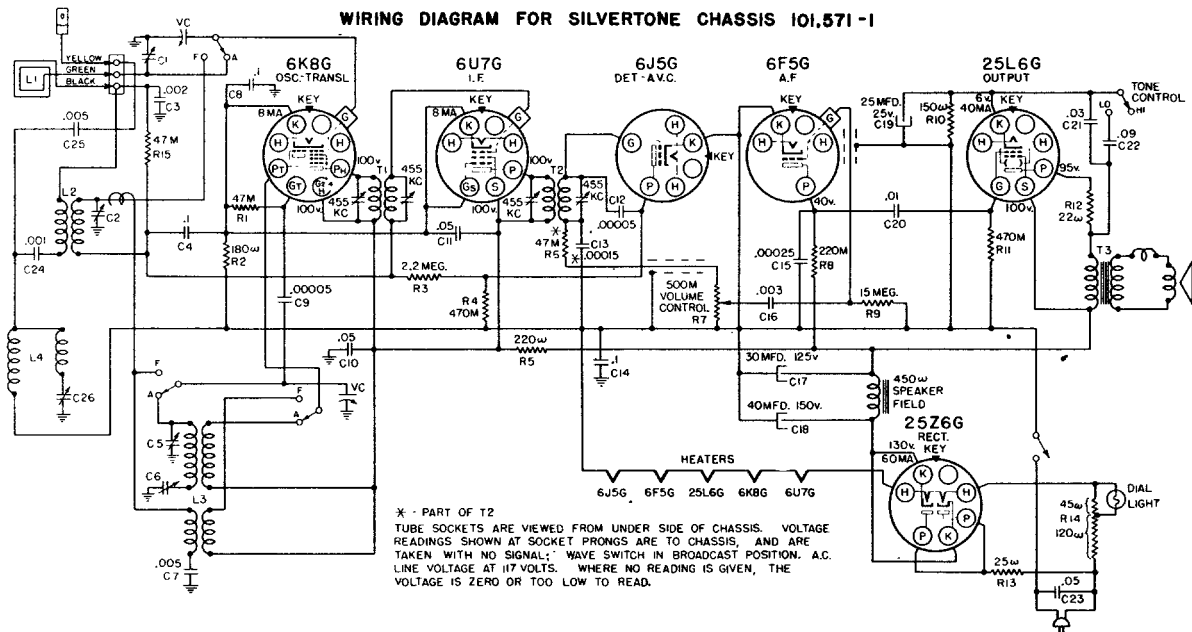
* PART OF T2
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO -B, AND ARE TAKEN WITH NO SIGNAL. LINE VOLTAGE AT 117 VOLTS. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.



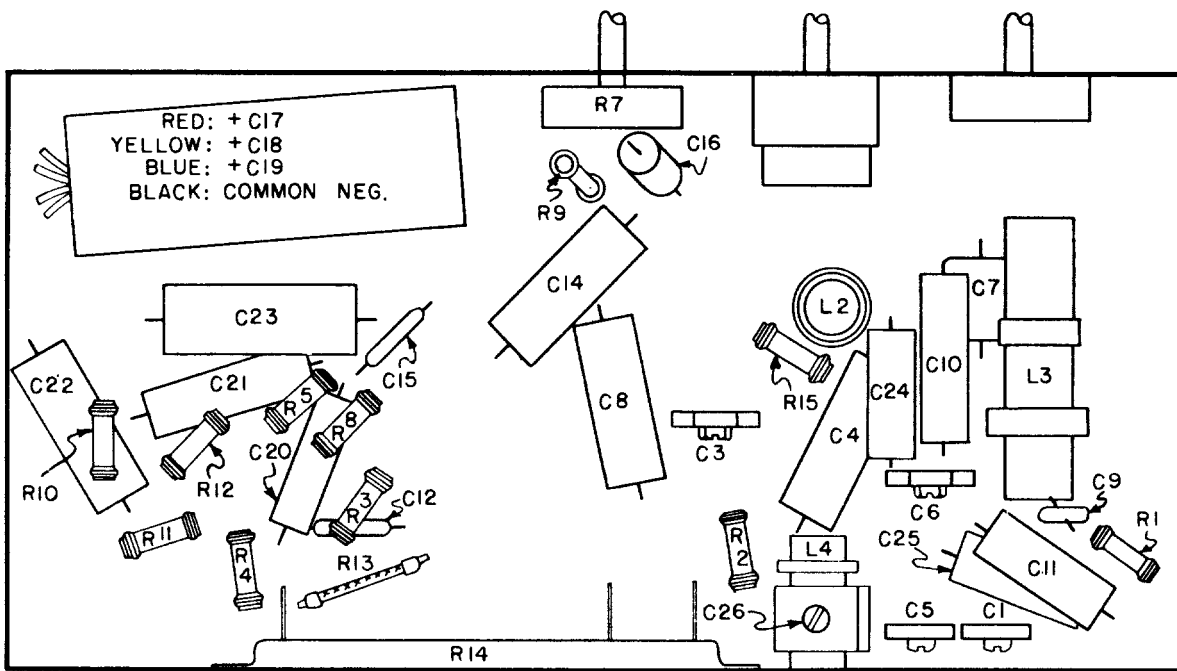
Sears Model 6320

LOCATIONS OF PARTS UNDER CHASSIS

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



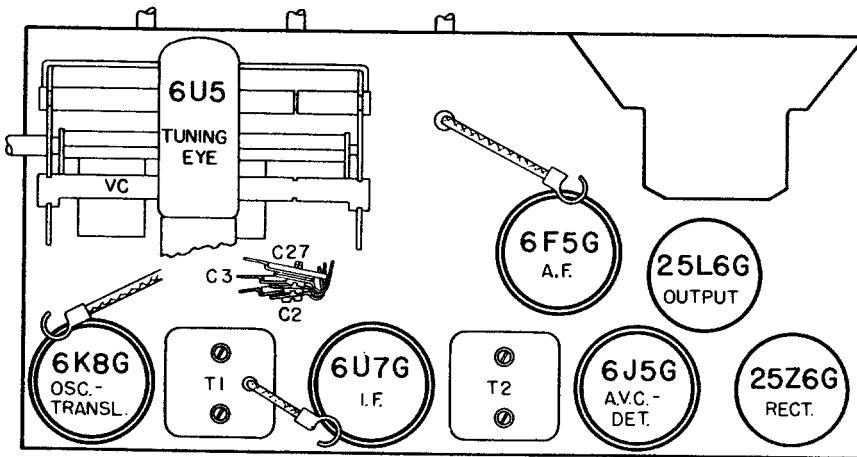
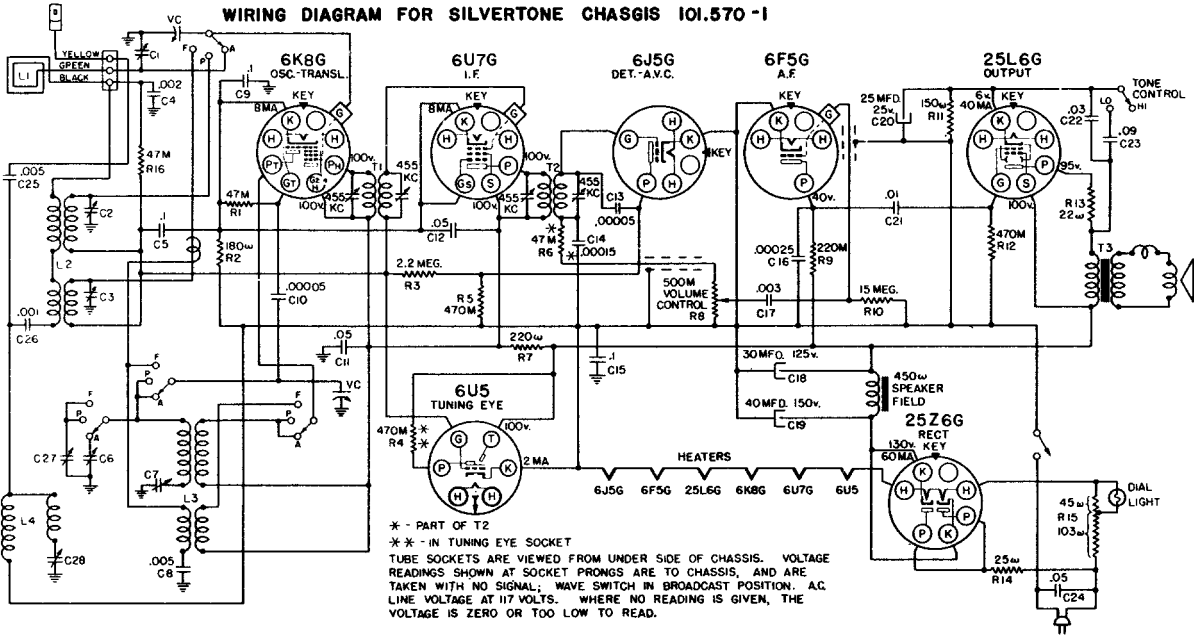
Sears Models 6321, 6322
6321, 6421



LOCATIONS OF PARTS UNDER CHASSIS.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

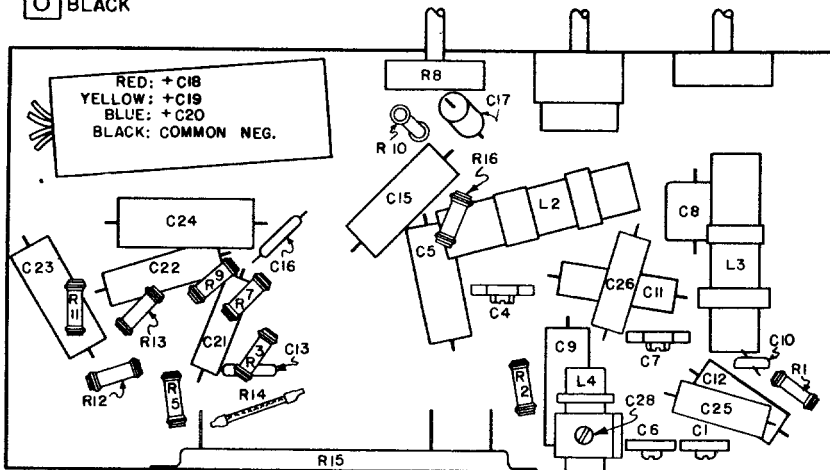
WIRING DIAGRAM FOR SILVERTONE CHASGIS 101.570 -1



- YELLOW
- GREEN
- BLACK

LOCATIONS OF PARTS ON TOP OF CHASSIS

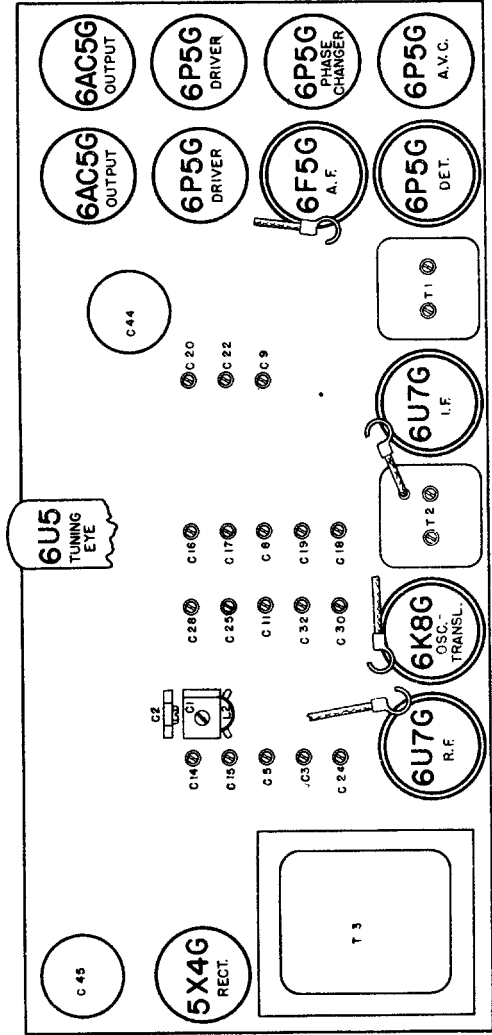
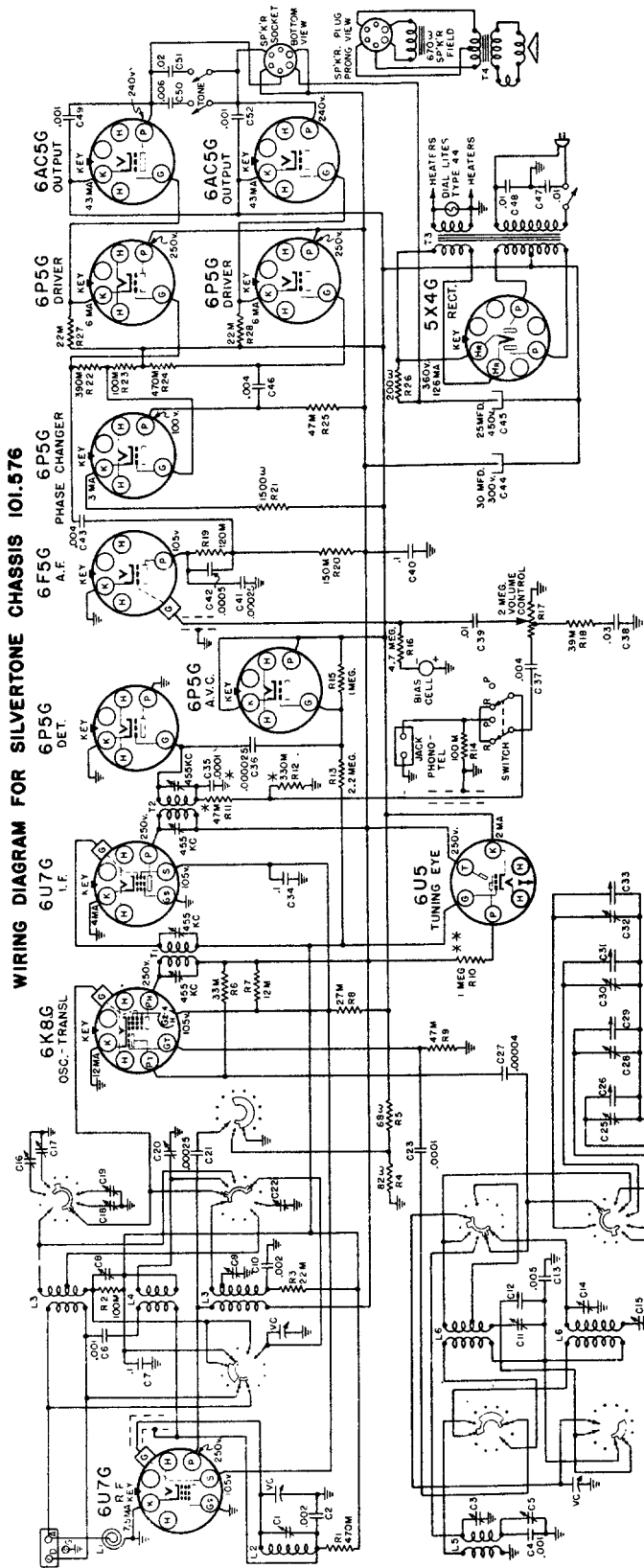
Sears Models 6324, 6424
6493



LOCATIONS OF PARTS UNDER CHASSIS.

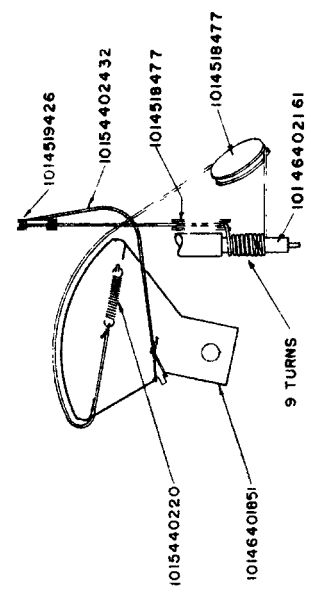
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WIRING DIAGRAM FOR SILVERTONE CHASSIS 101.576

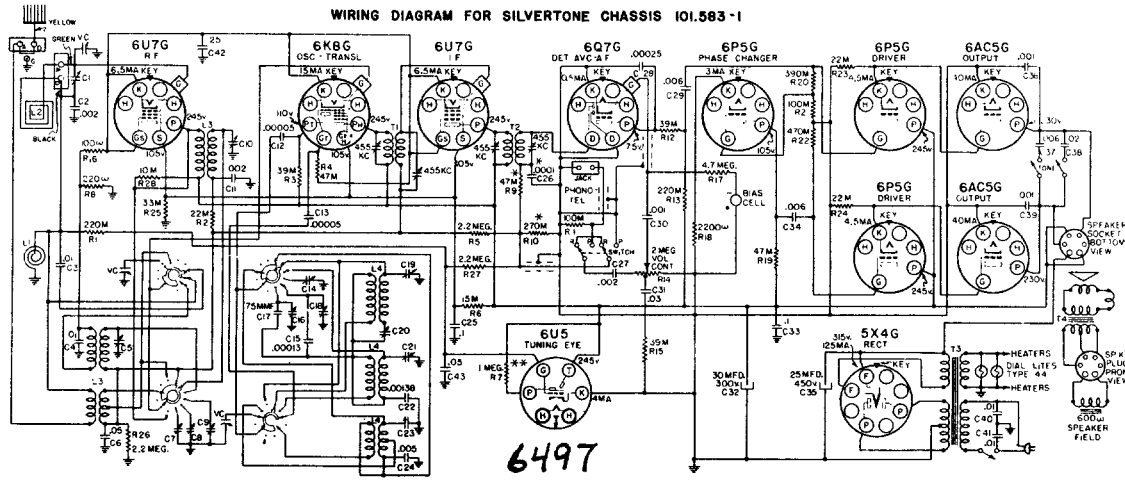


* - PART OF T2
 ** - IN TUNING EYE SOCKET
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO CHASSIS, AND ARE TAKEN WITH NO SIGNAL. WAVE SWITCH IN BROADCAST POSITION. LINE VOLTAGE AT 117 VOLTS. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.

Sears Models 6337, 6437

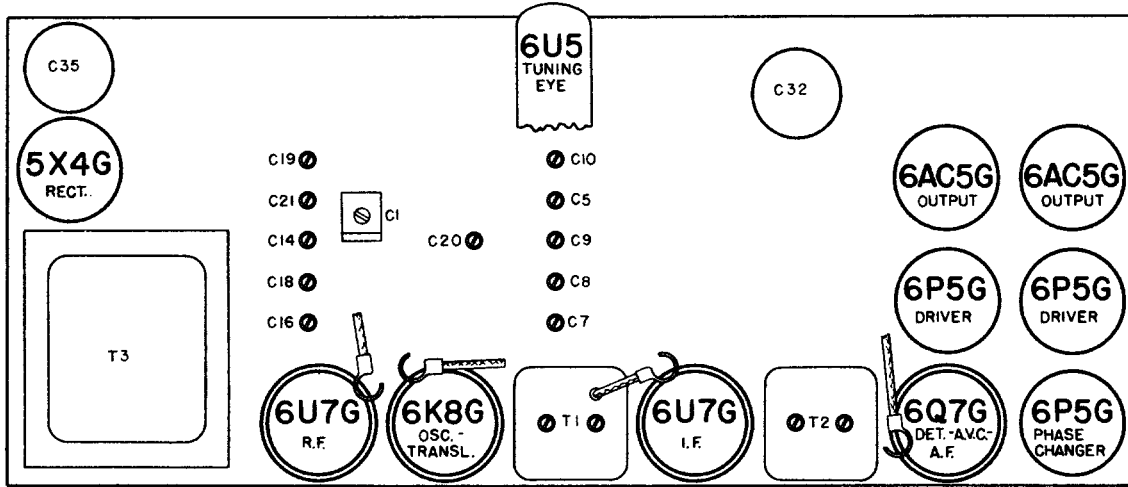


MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

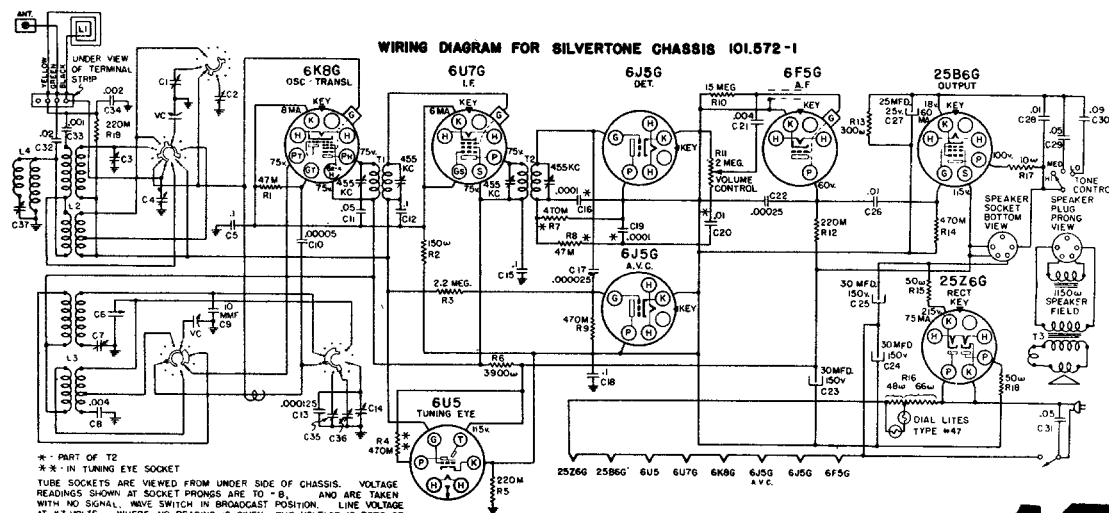


Sears Models 6438B, 6439A, 6440

* - PART OF T2
 ** - IN TUNING EYE SOCKET
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO CHASSIS, AND ARE TAKEN WITH NO SIGNAL; WAVE SWITCH IN BROADCAST POSITION. LINE VOLTAGE AT 117 VOLTS. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.



LOCATIONS OF PARTS ON TOP OF CHASSIS - 101.583-1



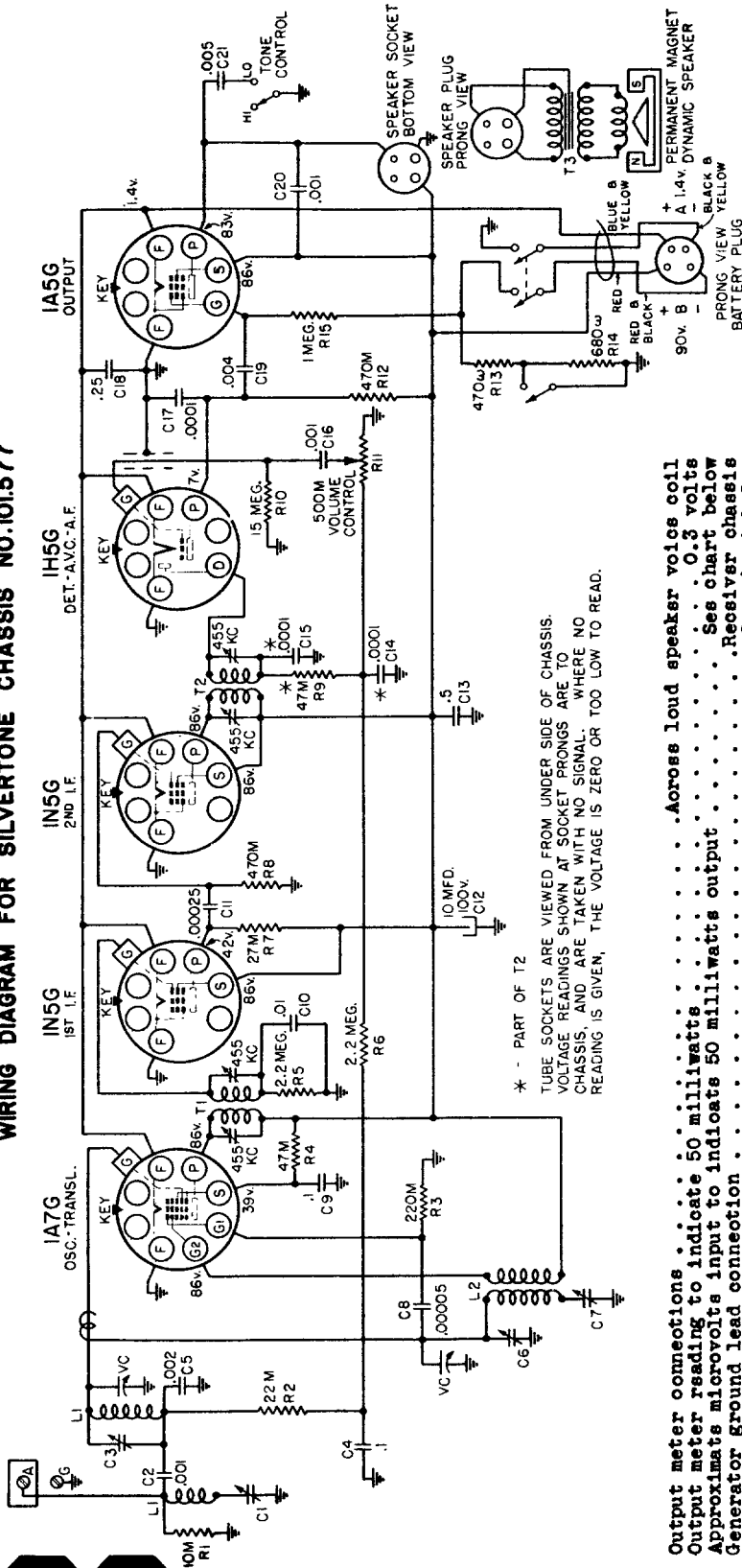
* - PART OF T2
 ** - IN TUNING EYE SOCKET
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO -B-, AND ARE TAKEN WITH NO SIGNAL; WAVE SWITCH IN BROADCAST POSITION. LINE VOLTAGE AT 117 VOLTS. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.

Sears Models 6325, 6425

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WIRING DIAGRAM FOR SILVERTONE CHASSIS NO. 101.577



* - PART OF T2
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO CHASSIS, AND ARE TAKEN WITH NO SIGNAL. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.

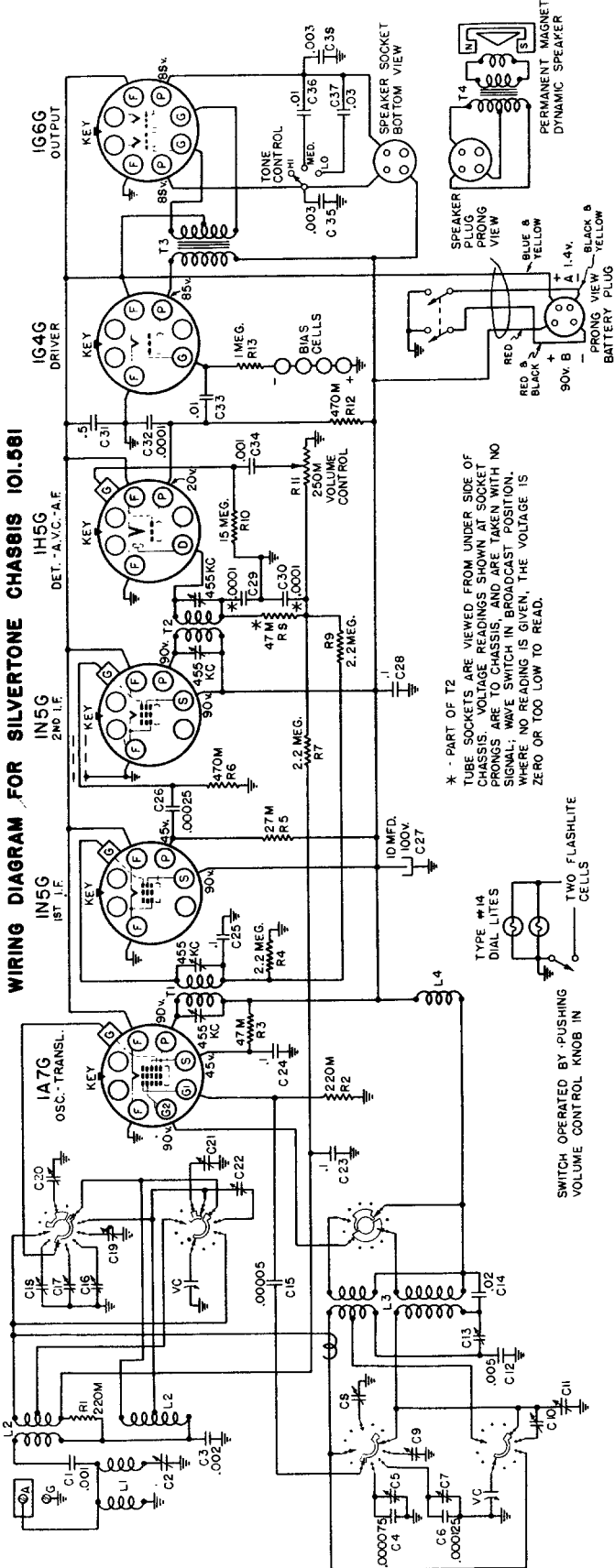
Output meter connections Across loud speaker voice coil
 Output meter reading to indicate 50 milliwatts 0.3 volts
 Approximate microvolts input to indicate 50 milliwatts output See chart below
 Generator ground lead connection Receiver chassis
 Dummy antenna lead to be in series with generator output See chart below
 Connection of generator output lead 30%, 400 cycles
 Generator modulation Fully on
 Position of Volume Control HI
 Position of Tone Control Horizontal (To fall on block
 Position of pointer with variable fully closed below 550 kc calibration mark)

| POSITION OF VARIABLE | GENERATOR FREQUENCY | DUMMY ANTENNA | GENERATOR CONNECTION | TRIMMER ADJUSTMENTS (IN ORDER SHOWN) | TRIMMER FUNCTION | APPROXIMATE MICROVOLTS |
|----------------------|---------------------|---------------|----------------------------------|--------------------------------------|------------------|------------------------|
| Closed | 455 kc | .1 mfd. | 1A7G Trans-lator Grid Ant. Term. | T2, T1 | IF | 65 |
| 600 kc | 455 kc | .0002 mfd. | Ant. Term. | C1* | IF Wave Trap | -- |
| Fully open | 1750 kc | .0002 mfd. | Ant. Term. | C6 | Oscillator | 45 |
| 1400 kc | 1400 kc | .0002 mfd. | Ant. Term. | C3 | Translator | 30 |
| 600 kc (rock) | 600 kc | .0002 mfd. | Ant. Term. | C7 | Padder | 35 |

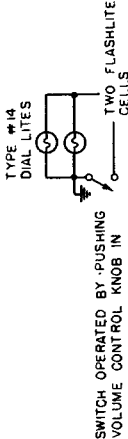
Sears Models 6353
 6354
 6355

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

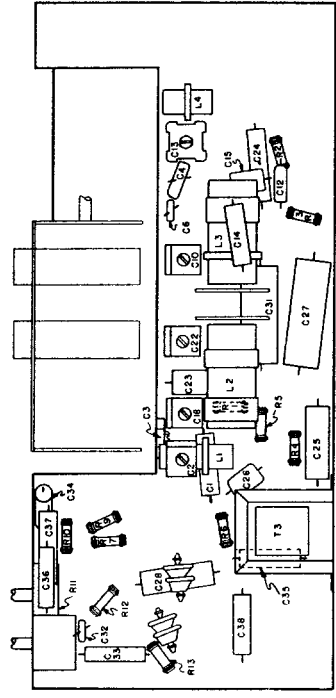
WIRING DIAGRAM FOR SILVERTONE CHASSIS 101.561



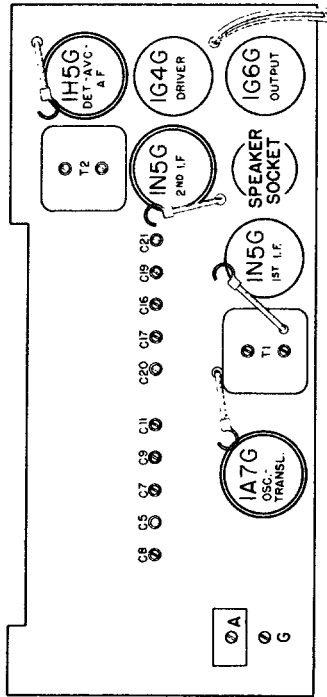
* - PART OF T2
TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS. VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO CHASSIS, AND ARE TAKEN WITH NO SIGNAL; WAVE SWITCH IN BROADCAST POSITION. WHERE NO READING IS GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.



Sears, Model 6362, 6363, 6364



LOCATIONS OF PARTS UNDER CHASSIS

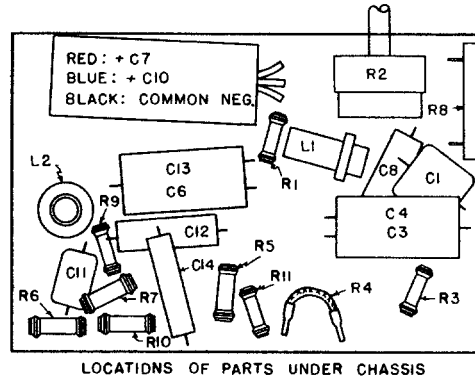
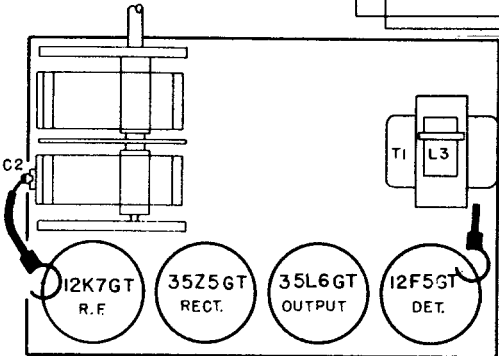
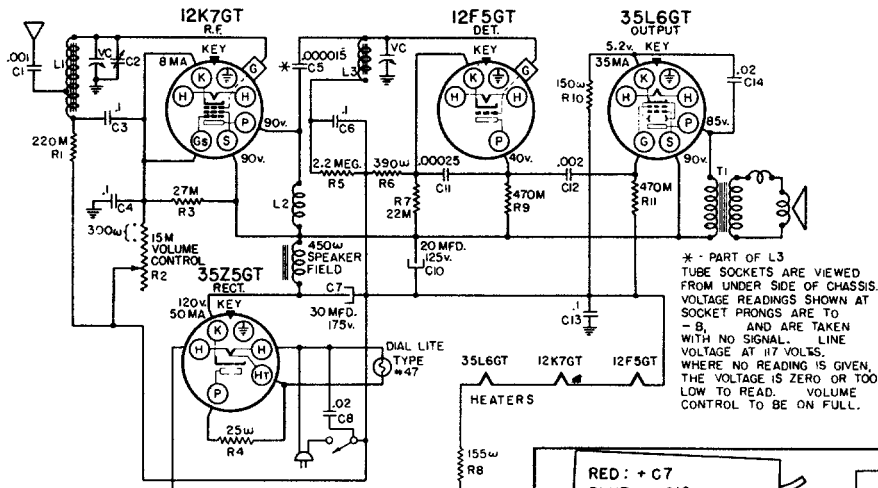


LOCATIONS OF PARTS ON TOP OF CHASSIS

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

WIRING DIAGRAM FOR SILVERTONE CHASSIS 101.565

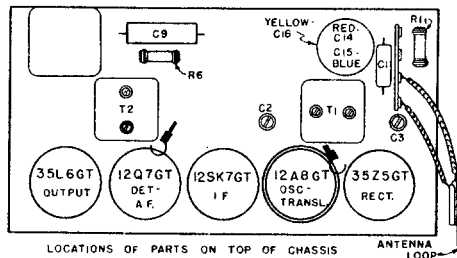
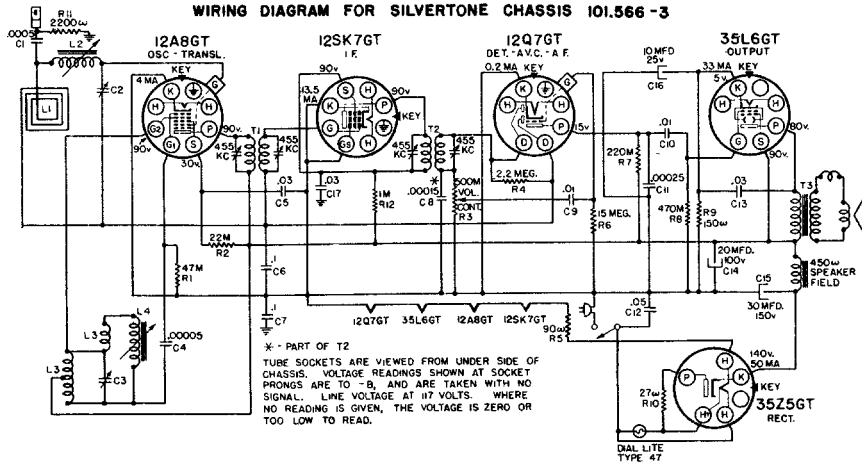
Sears,
Models
6400
6401
6402



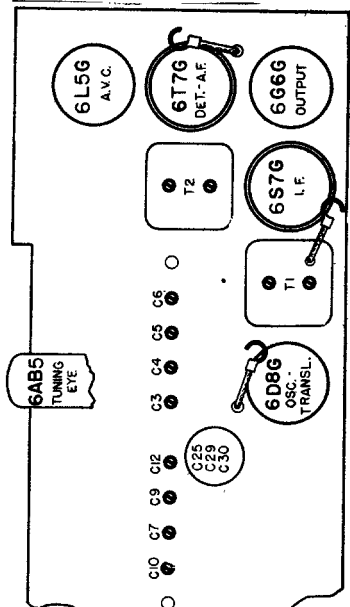
LOCATIONS OF PARTS UNDER CHASSIS

WIRING DIAGRAM FOR SILVERTONE CHASSIS 101.566 -3

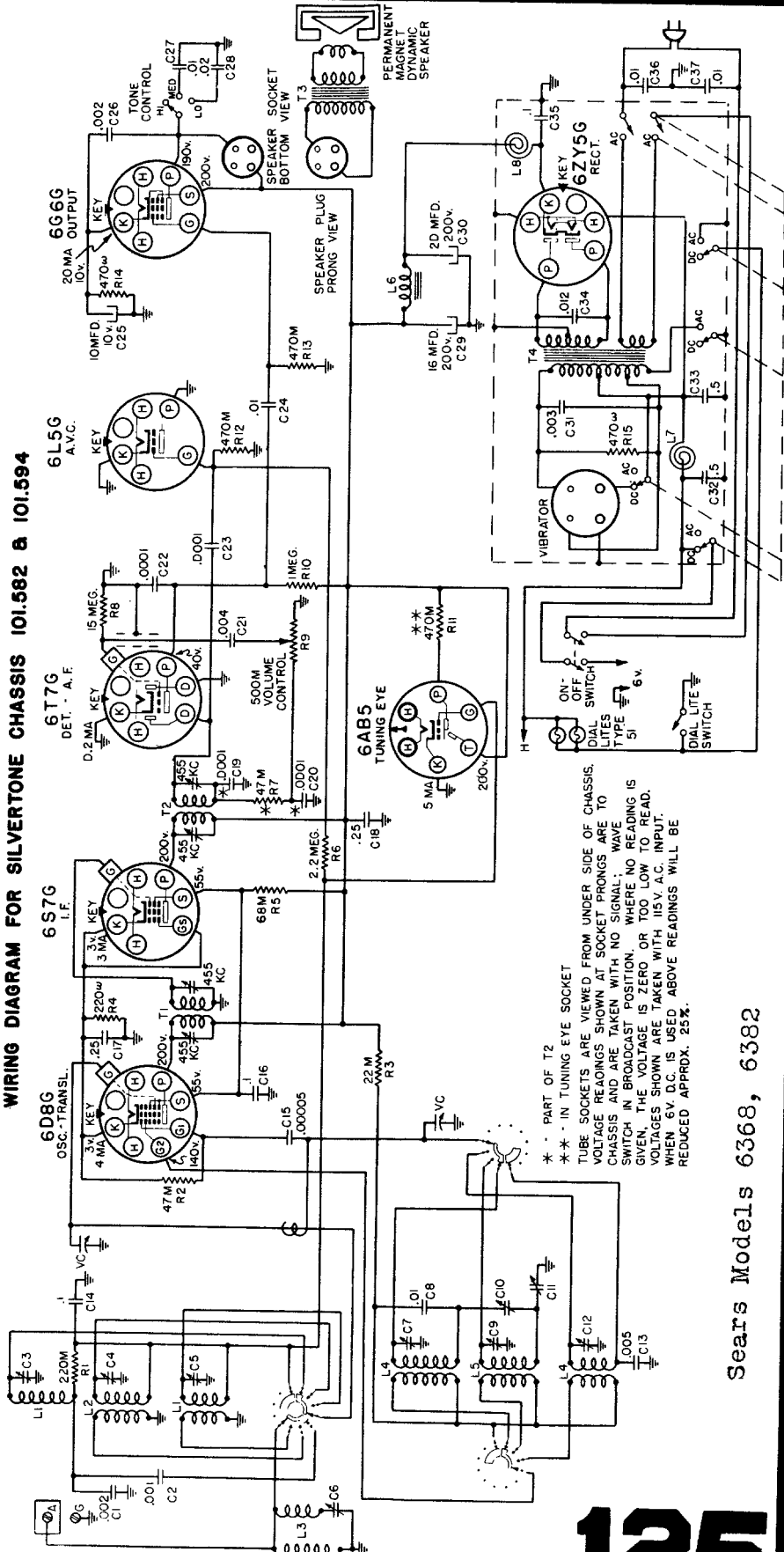
Sears Models 6403A, 6404A,
6405A, 6496A.



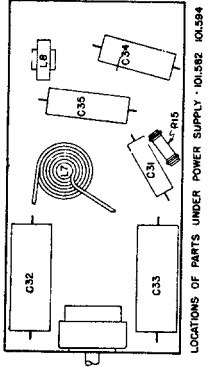
LOCATIONS OF PARTS ON TOP OF CHASSIS



WIRING DIAGRAM FOR SILVERTONE CHASSIS 101.582 & 101.594



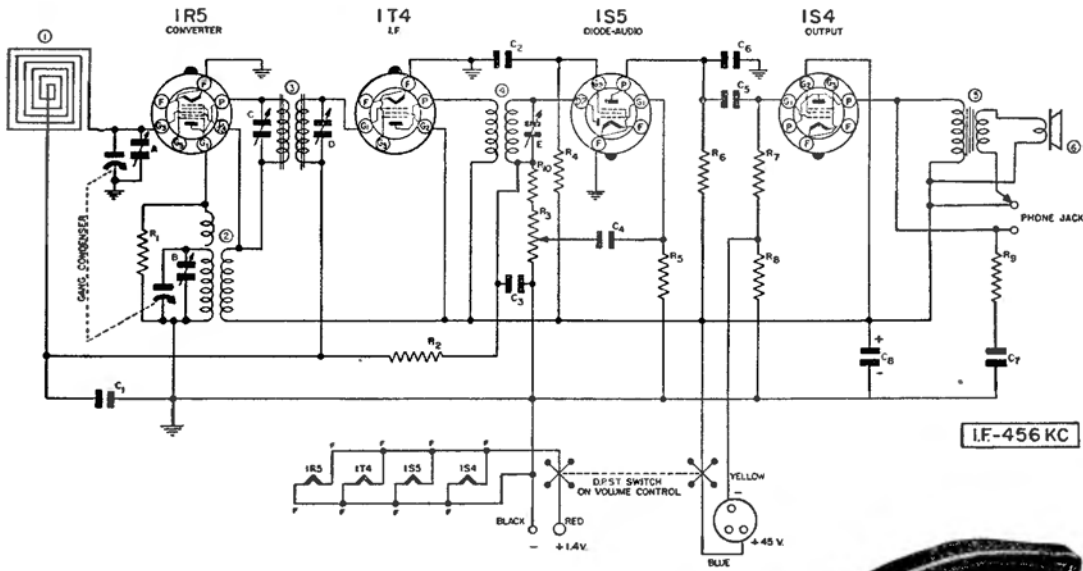
* * * PART OF T2
 TUBE SOCKETS ARE VIEWED FROM UNDER SIDE OF CHASSIS.
 VOLTAGE READINGS SHOWN AT SOCKET PRONGS ARE TO
 CHASSIS AND ARE TAKEN WITH NO SIGNAL; WAVE
 SWITCH IN BROADCAST POSITION. WHERE NO READING IS
 GIVEN, THE VOLTAGE IS ZERO OR TOO LOW TO READ.
 VOLTAGES SHOWN ARE TAKEN WITH 115V. A.C. INPUT.
 WHEN 6V D.C. IS USED ABOVE READINGS WILL BE
 REDUCED APPROX. 25%.



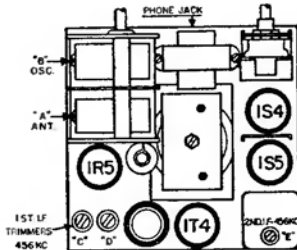
LOCATIONS OF PARTS UNDER POWER SUPPLY - 101.582 101.594

Sears Models 6368, 6382

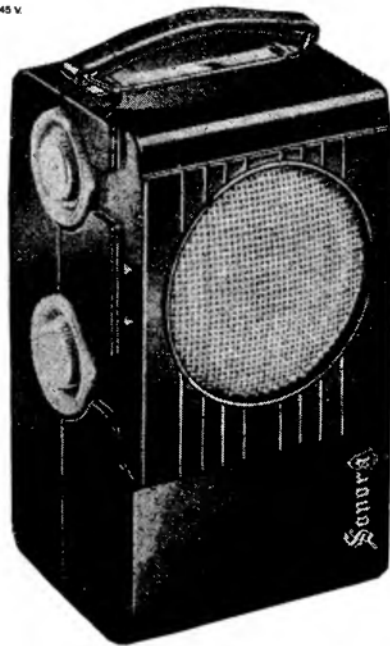
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|-------------------------|-----------|----------|-------------------------|
| R1 | N-3172 | 100,000 OHM .5W. 20% | C5 | N-3094 | .01 MFD. 400 V. |
| R2 | N-3173 | 2 MEGOHM 5W. 20% | C6 | N-074 | .0001 MFD. MICA |
| R3 | N-3092 | 1 MEGOHM VOLUME CONTROL | C7 | N-3094 | .01 MFD. 400 V. |
| R4 | N-3174 | 3 MEGOHM 5W. 20% | C8 | N-361 | 6 MFD. 50V ELECTROLYTIC |
| R5 | N-3093 | 6 MEGOHM 5W. 20% | 1 | N-3096 | ANTENNA LOOP COIL |
| R6 | N-3175 | 1 MEGOHM 5W. 20% | 2 | N-3097 | OSCILLATOR COIL |
| R7 | N-3173 | 2 MEGOHM 5W. 20% | 3 | N-3098 | 1ST I.F. TRANSFORMER |
| R8 | N-3178 | 500 OHM 5W. 5% | 4 | N-3099 | 2ND I.F. TRANSFORMER |
| R9 | N-3177 | 15,000 OHM 5W. 20% | 5 | N-3100 | OUTPUT TRANSFORMER |
| R10 | N-3184 | 50,000 OHM 5W. 20% | 6 | N-3101 | 4" P.M. SPEAKER |
| C1 | N-1345 | .05 MFD. 200 V. | | N-3102 | 2 GANG CONDENSER |
| C2 | N-3094 | .01 MFD. 400 V. | | | |
| C3 | | .0001 MFD. (IN SHIELD) | | | |
| C4 | N-3094 | .01 MFD. 400 V. | | | |



TUBE AND TRIMMER LOCATIONS



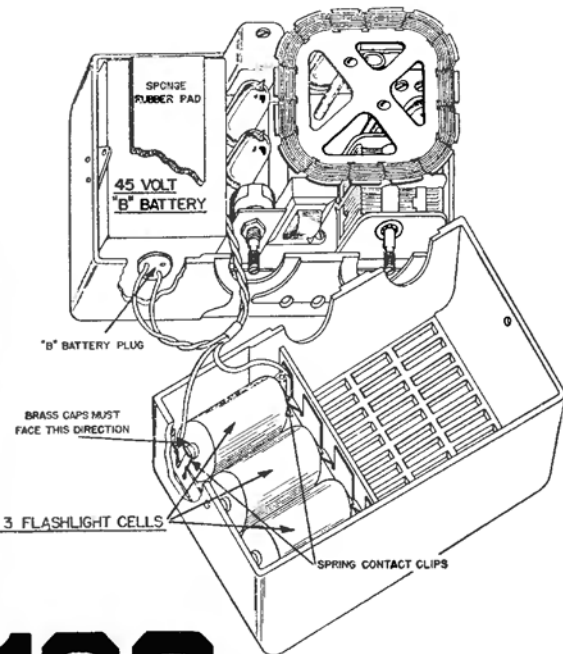
4 TUBE PORTABLE SUPERHETERODYNE SINGLE BAND

DRAWN G.S.C. APPROVED J.P. EDW. J.

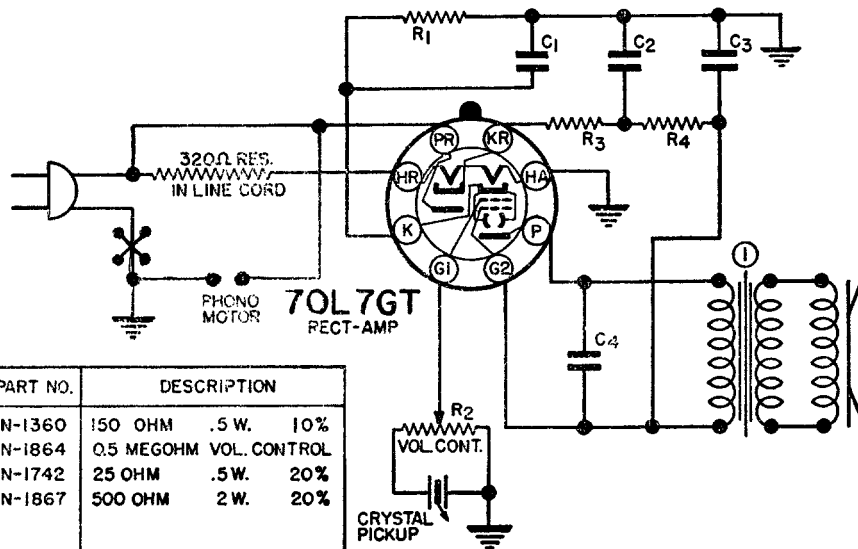
INSTALLATION OF NEW BATTERIES. To install new batteries remove the two large screws located on the ends of the case by inserting a small coin in the slot of the screws and turning. Open the case as shown in the accompanying illustration. The batteries can be readily removed and new ones used to replace them. The "A" cells must be inserted with the ends having the brass caps pointing in the direction shown in the diagram. Be sure the contact springs are clean before installing new "A" cells. If the contacts are dirty or corroded, scrape them off with a knife before installing new cells.

CAUTION. Never leave dead batteries in the receiver or store the receiver with the batteries in it for long periods as the batteries are apt to swell and damage the radio.

To insure maximum battery life from your receiver do not allow the batteries to become heated or damp and use the batteries while they are new. Batteries deteriorate with heat, moisture and age.



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

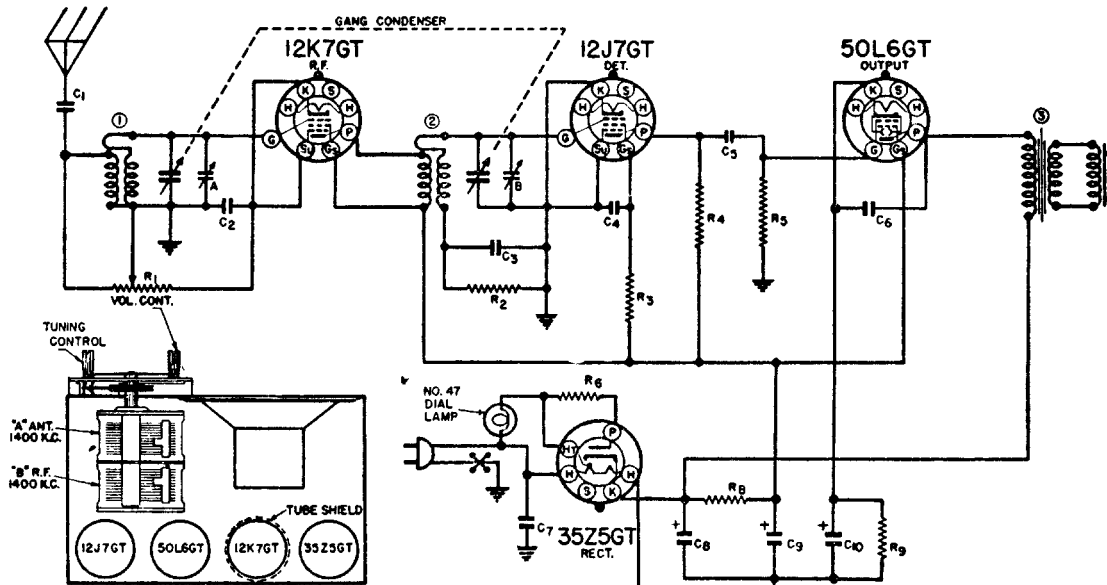


| DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|-----------------------------|
| R1 | N-1360 | 150 OHM .5 W. 10% |
| R2 | N-1864 | 0.5 MEGOHM VOL. CONTROL |
| R3 | N-1742 | 25 OHM .5 W. 20% |
| R4 | N-1867 | 500 OHM 2 W. 20% |
| C1 | N-1866 | 20 MFD. 25V. } ELECTRO. |
| C2 | | 30 MFD. 150V. } |
| C3 | | 30 MFD. 150V. } |
| C4 | N-1344 | .01 MFD. 400V. |
| I | N-1863 | 5 1/2" P.M. SPEAKER(TE-38) |
| | N-1865 | LINE RES. CORD |
| I | N-1910 | 5 1/2" P.M. SPKR.(TE-40&41) |

Sonora

ELECTRIC PHONOGRAPH

DRN. J.B. APPR. 5-9-39



| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|----------------------|-----------|----------|-------------------|
| C1 | N-1344 | .01 MFD. 400 V. | R1 | N-203 | 25,000 OHM VOL. |
| C2 | N-1345 | .05 MFD. 200 V. | R2 | N-1418 | 3.5 MEG. 20%.5 W. |
| C3 | N-1345 | .05 MFD. 200 V. | R3 | N-1835 | 6 MEG. 20%.5 W. |
| C4 | N-1344 | .01 MFD. 400 V. | R4 | N-1262 | 1 MEG. 20%.5 W. |
| C5 | N-1344 | .01 MFD. 400 V. | R5 | N-1264 | .5 MEG. 20%.5 W. |
| C6 | N-1344 | .01 MFD. 400 V. | R6 | N-4614 | 50 OHM 20%.5 W. |
| C7 | N-1346 | .05 MFD. 400 V. | R7 | N-1618 | 80 OHM 10% 2 W. |
| C8 | | 25 MFD. 150V. | R8 | N-1417 | 3000 OHM 20%.5 W. |
| C9 | N-1850 | 10 MFD. 150V. ELECT. | R9 | N-1767 | 250 OHM 10%.3 W. |
| C10 | | 20 MFD. 25 V. | I | N-1790 | ANTENNA COIL |
| | N-1855 | GANG CONDENSER | 2 | N-1791 | R.F. COIL |
| | | | 3 | N-2047 | SPEAKER & TRANS. |

Sonora

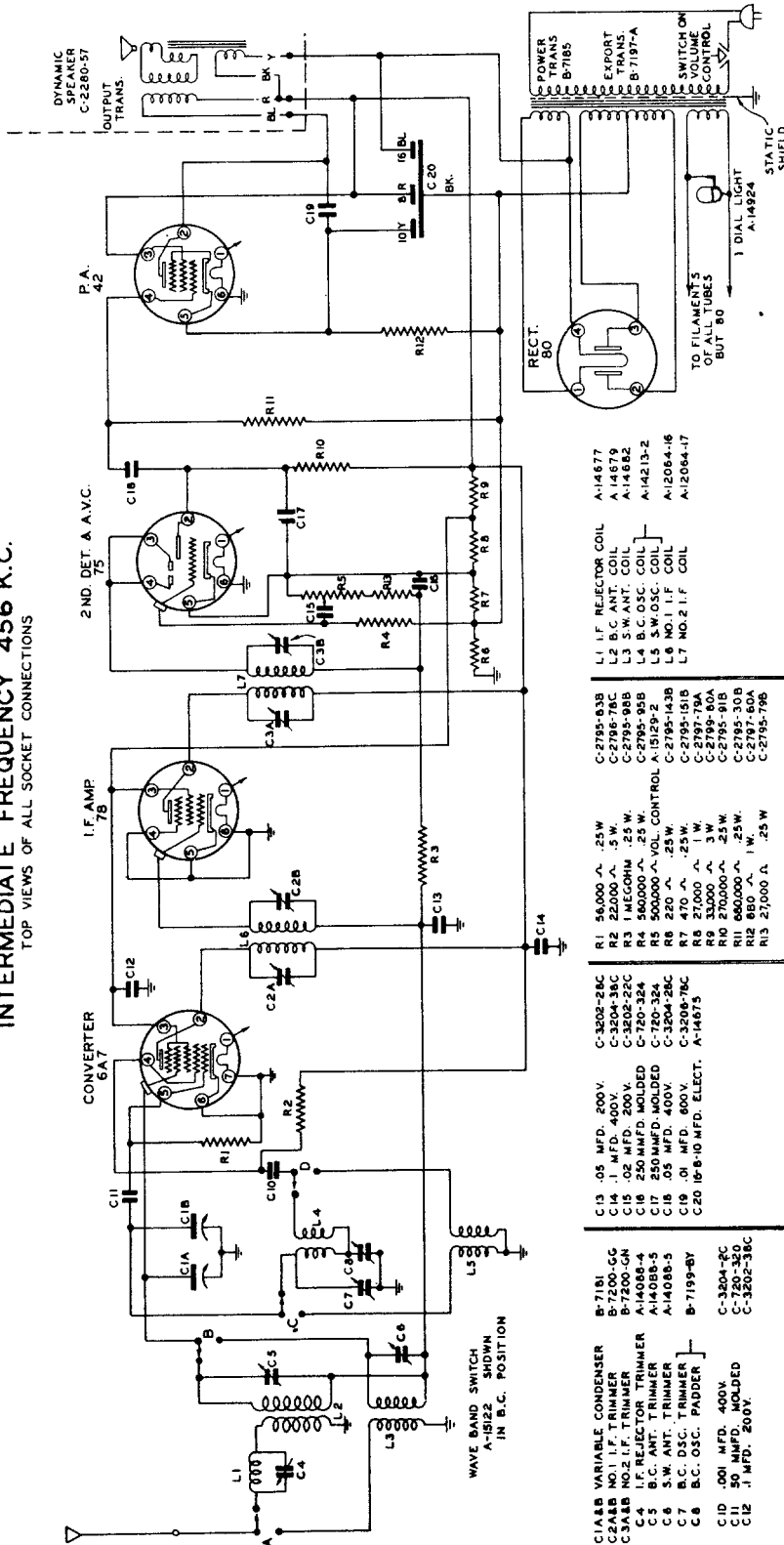
4 TUBE T.R.F.

CHKD. W.F. APPR. 5-9-39

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

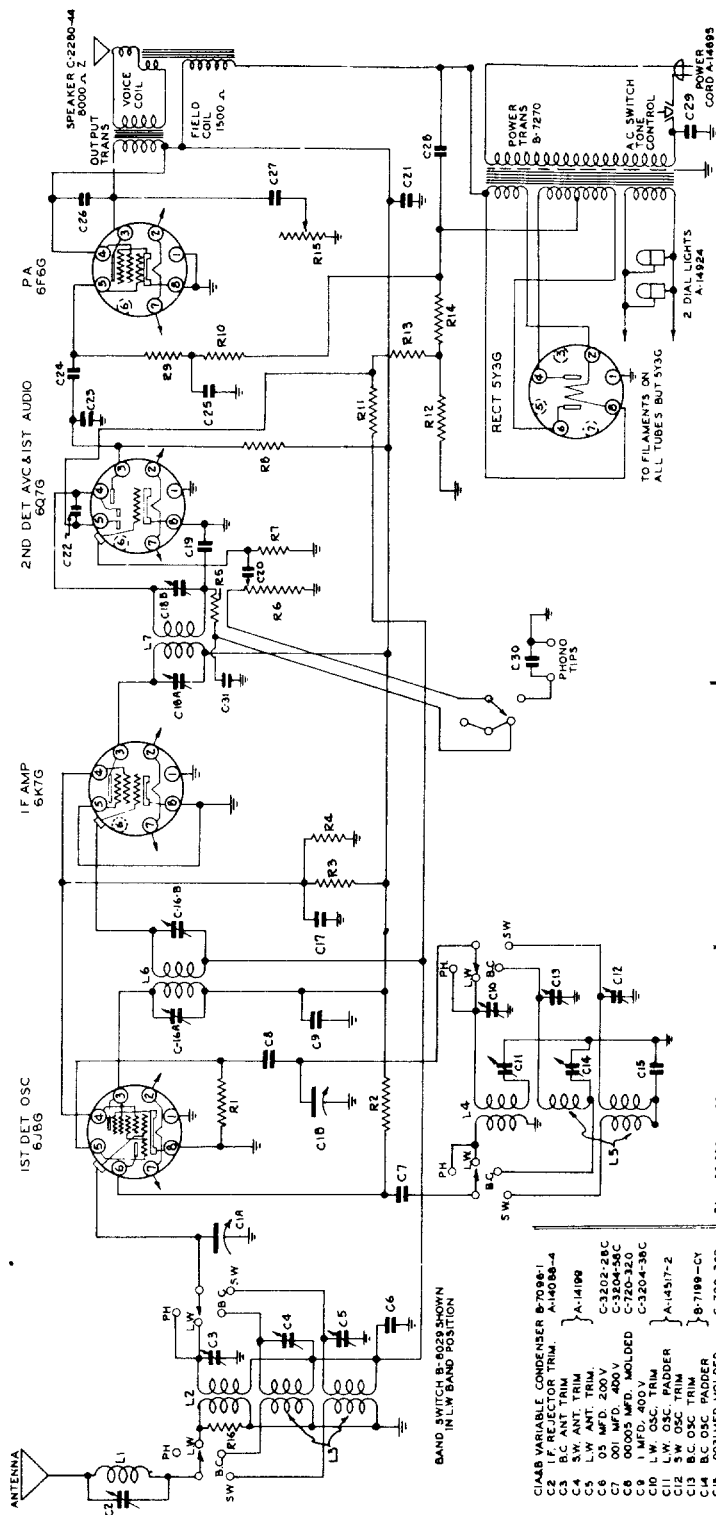
127

SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 530-X
INTERMEDIATE FREQUENCY 456 K.C.
 TOP VIEWS OF ALL SOCKET CONNECTIONS



- | | | |
|------------|------------------------|------------|
| C1A & B | VARIABLE CONDENSER | B-7181 |
| C2A & B | NO. 1 I.F. TRIMMER | B-7200-GG |
| C3A & B | NO. 2 I.F. TRIMMER | B-7200-GN |
| C4 | I.F. REJECTOR TRIMMER | A-14086-4 |
| C5 | B.C. ANT. TRIMMER | A-14088-5 |
| C6 | S.W. ANT. TRIMMER | A-14088-5 |
| C7 | B.C. OSC. TRIMMER | B-7199-BY |
| C8 | B.C. OSC. PADDER | |
| C10 | .001 MFD. 400V. | C-3204-2C |
| C11 | 50 MMFD. MOLDED | C-720-320 |
| C12 | .1 MFD. 200V. | C-3202-38C |
| C13 | .05 MFD. 200V. | C-3202-28C |
| C14 | .1 MFD. 400V. | C-3204-38C |
| C15 | .02 MFD. 200V. | C-3202-22C |
| C16 | 250 MMFD. MOLDED | C-720-324 |
| C17 | 250 MMFD. MOLDED | C-720-324 |
| C18 | .05 MFD. 400V. | C-3204-28C |
| C19 | .01 MFD. 600V. | C-3209-78C |
| C20 | 16-8-10 MFD. ELECT. | A-14675 |
| L1 | NO. 1 I.F. COIL | C-2795-83B |
| L2 | B.C. ANT. COIL | C-2796-78C |
| L3 | S.W. ANT. COIL | C-2795-98B |
| L4 | B.C. OSC. COIL | C-2795-98B |
| L5 | S.W. OSC. COIL | C-2795-98B |
| L6 | NO. 2 I.F. COIL | A-15129-2 |
| L7 | NO. 2 I.F. COIL | A-12064-16 |
| R1 | 50,000 Ω .25 W. | A-14677 |
| R2 | 22,000 Ω .5 W. | A-14679 |
| R3 | 1 MEG OHM .25 W. | A-14682 |
| R4 | 560,000 Ω .25 W. | A-14213-2 |
| R5 | 500,000 Ω VOL. CONTROL | A-12064-17 |
| R6 | 220 Ω .25 W. | |
| R7 | 470 Ω .25 W. | |
| R8 | 27,000 Ω .1 W. | |
| R9 | 27,000 Ω .25 W. | |
| R10 | 600,000 Ω .25 W. | |
| R11 | 850 Ω .1 W. | |
| R13 | 27,000 Ω .25 W. | |
| A-14577 | I.F. REJECTOR COIL | |
| A-14679 | B.C. ANT. COIL | |
| A-14682 | S.W. ANT. COIL | |
| A-14213-2 | B.C. OSC. COIL | |
| A-12064-16 | S.W. OSC. COIL | |
| A-12064-17 | NO. 2 I.F. COIL | |

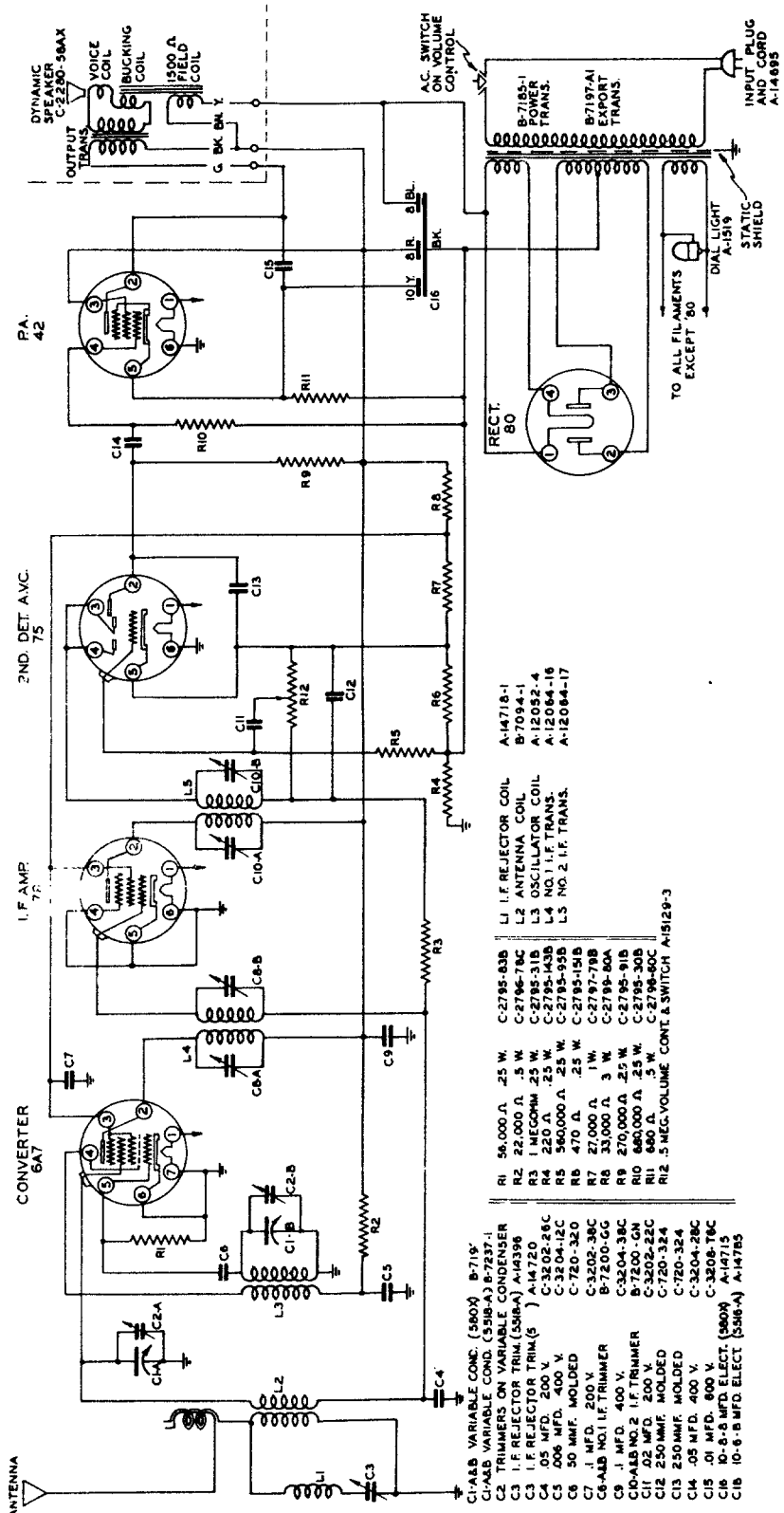
SCHEMATIC DIAGRAM SPARTON SUPERHETERODYNE MODEL 540LX INTERMEDIATE FREQUENCY 456 K.C. TOP VIEWS OF ALL SOCKET CONNECTIONS



| | | |
|-----|-----------------|------------|
| R1 | 58,000 Ω, 25 W | C-2795-83B |
| R2 | 22,000 Ω, 5 W | C-2795-79C |
| R3 | 24,000 Ω, 2 W | C-2795-79C |
| R4 | 27,000 Ω, 1 W | C-2795-79B |
| R5 | 27,000 Ω, 25 W | C-2795-79B |
| R6 | 270,000 Ω, 25 W | C-2795-91B |
| R7 | 5.6 MEG, 25 W | C-2795-91B |
| R8 | 270,000 Ω, 25 W | C-2795-91B |
| R9 | 270,000 Ω, 25 W | C-2795-91B |
| R10 | 270,000 Ω, 25 W | C-2795-91B |
| R11 | 270,000 Ω, 25 W | C-2795-91B |
| R12 | 270,000 Ω, 25 W | C-2795-91B |
| R13 | 270,000 Ω, 25 W | C-2795-91B |
| R14 | 220 Ω, 1 W | C-2795-91B |
| R15 | 150 Ω, 1 W | C-2795-91B |
| R16 | 15,000 Ω, 25 W | C-2795-91B |

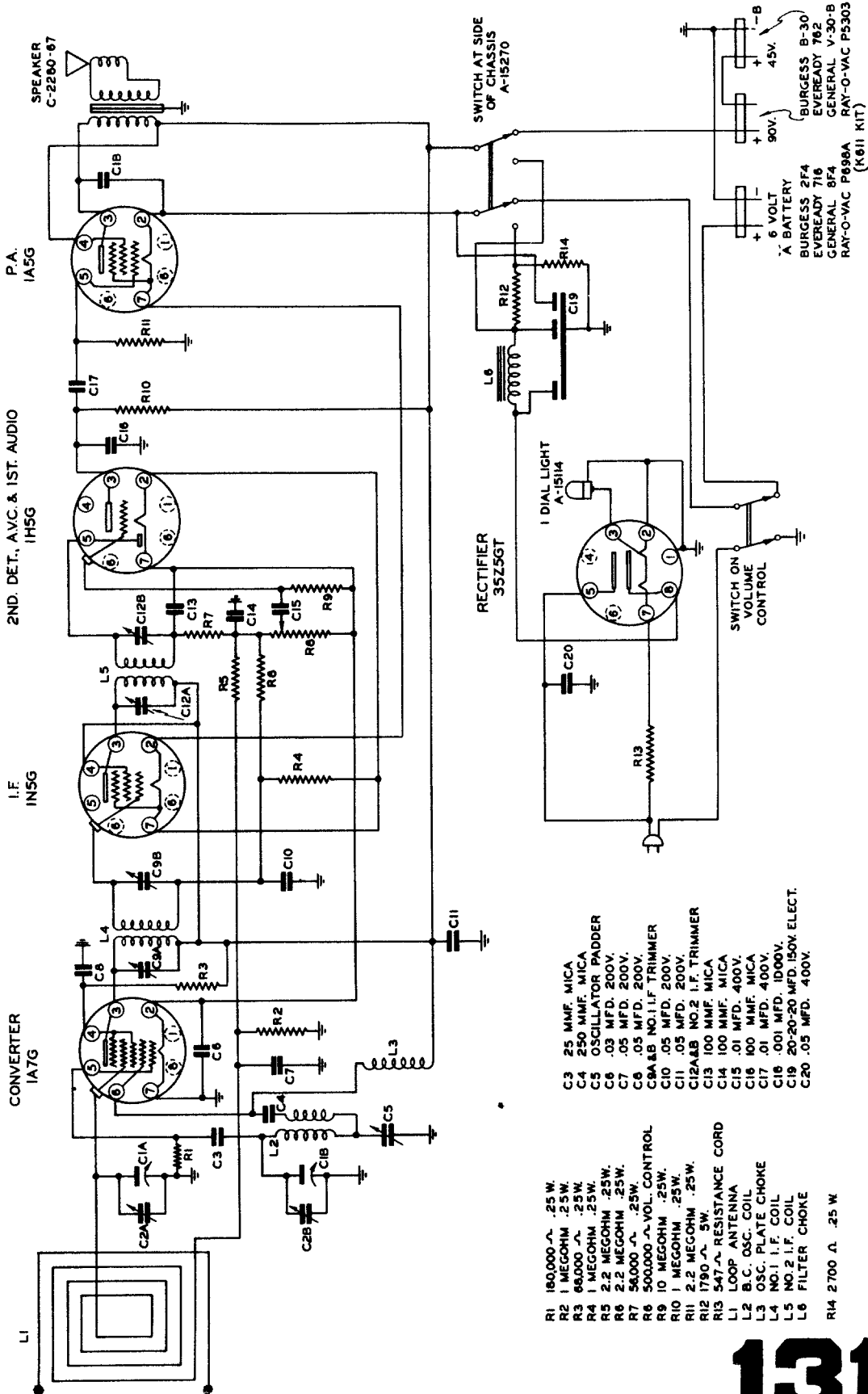
| | | |
|-----|------------------|-----------|
| C1A | 500 μF, 50 V | A-14072-A |
| C2 | 0.001 MFD, 500 V | A-14072-A |
| C3 | 0.001 MFD, 500 V | A-14072-A |
| C4 | 0.001 MFD, 500 V | A-14072-A |
| C5 | 0.001 MFD, 500 V | A-14072-A |
| C6 | 0.001 MFD, 500 V | A-14072-A |
| C7 | 0.001 MFD, 500 V | A-14072-A |
| C8 | 0.001 MFD, 500 V | A-14072-A |
| C9 | 0.001 MFD, 500 V | A-14072-A |
| C10 | 0.001 MFD, 500 V | A-14072-A |
| C11 | 0.001 MFD, 500 V | A-14072-A |
| C12 | 0.001 MFD, 500 V | A-14072-A |
| C13 | 0.001 MFD, 500 V | A-14072-A |
| C14 | 0.001 MFD, 500 V | A-14072-A |
| C15 | 0.001 MFD, 500 V | A-14072-A |
| C16 | 0.001 MFD, 500 V | A-14072-A |
| C17 | 0.001 MFD, 500 V | A-14072-A |
| C18 | 0.001 MFD, 500 V | A-14072-A |
| C19 | 0.001 MFD, 500 V | A-14072-A |
| C20 | 0.001 MFD, 500 V | A-14072-A |
| C21 | 0.001 MFD, 500 V | A-14072-A |
| C22 | 0.001 MFD, 500 V | A-14072-A |
| C23 | 0.001 MFD, 500 V | A-14072-A |
| C24 | 0.001 MFD, 500 V | A-14072-A |
| C25 | 0.001 MFD, 500 V | A-14072-A |
| C26 | 0.001 MFD, 500 V | A-14072-A |
| C27 | 0.001 MFD, 500 V | A-14072-A |
| C28 | 0.001 MFD, 500 V | A-14072-A |
| C29 | 0.001 MFD, 500 V | A-14072-A |
| C30 | 0.001 MFD, 500 V | A-14072-A |
| C31 | 0.001 MFD, 500 V | A-14072-A |

SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 580-X
INTERMEDIATE FREQUENCY 456 K.C.
TOP VIEW OF ALL SOCKET CONNECTIONS



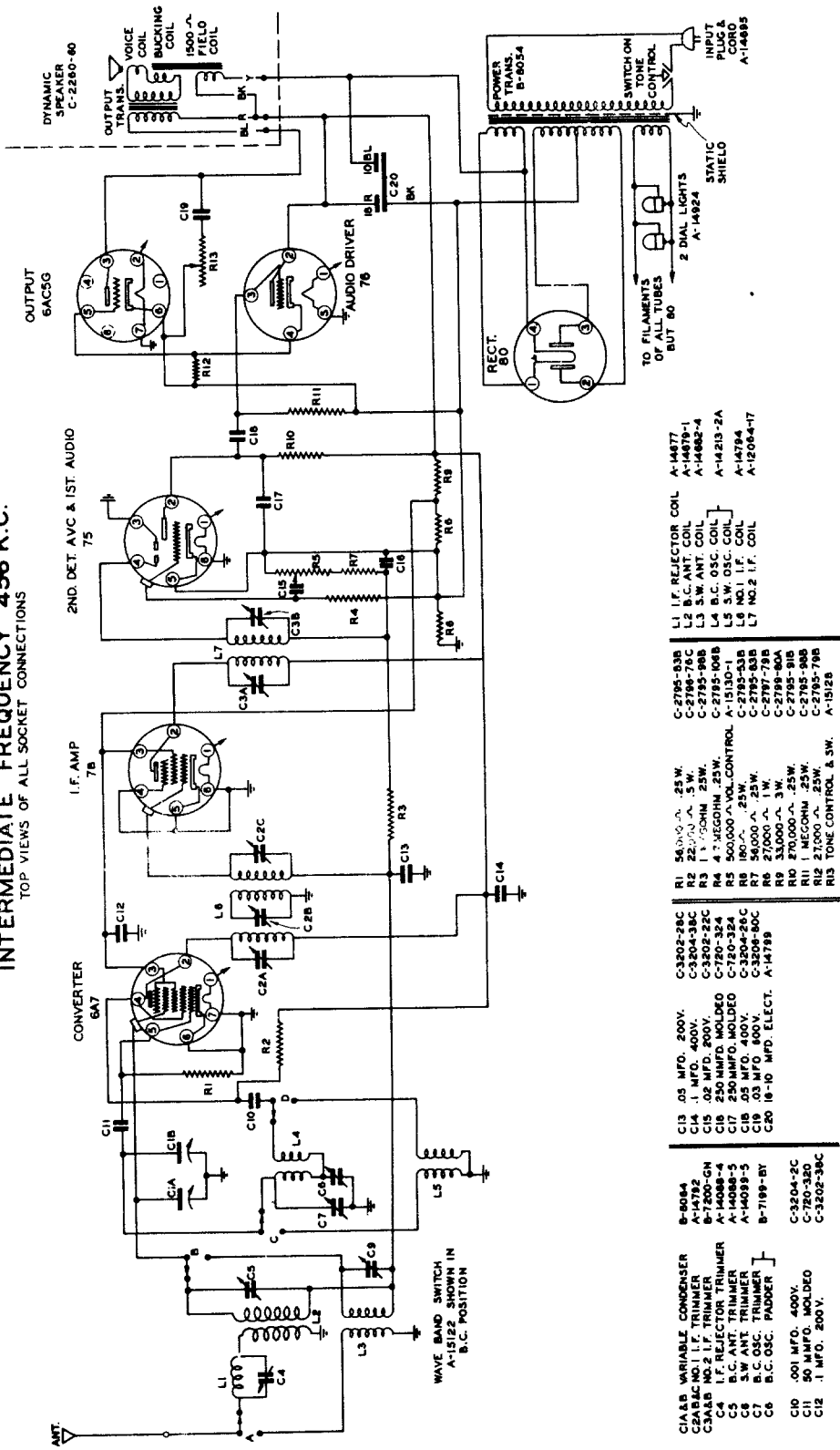
- C1-AAS VARIABLE COND. (500V) B-7218'
- C2-AB VARIABLE COND. (500V-A) B-7237'-1
- C3 TRIMMERS ON VARIABLE CONDENSER
- C3 I.F. REJECTOR TRIM (500V-A) A-14396
- C4 .05 MFD. 200 V. C-32 04-12C
- C5 .006 MFD. 400 V. C-32 04-12C
- C6 50 MMF. MOLDED C-720-320
- C7 .1 MFD. 200 V. C-32 02-38C
- C8-AB NO.1 I.F. TRIMMER B-7200-GG
- C9 .1 MFD. 400 V. C-32 04-38C
- C10-AB NO.2 I.F. TRIMMER B-7200-GN
- C11 .02 MFD. 200 V. C-32 02-22C
- C12 250 MMF. MOLDED C-720-324
- C13 250 MMF. MOLDED C-720-324
- C14 .05 MFD. 400 V. C-32 04-28C
- C15 .01 MFD. 600 V. C-32 08-76C
- C16 10-6-8 MFD. ELECT. (500V) A-14715
- C18 10-6-8 MFD. ELECT. (500V-A) A-14785
- R1 56,000 Ω .25 W. C-2795-63B
- R2 22,000 Ω .5 W. C-2795-78C
- R3 1 MEGOHM .25 W. C-2795-31B
- R4 220 Ω .25 W. C-2795-143B
- R5 560,000 Ω .25 W. C-2795-95B
- R6 470 Ω .25 W. C-2795-151B
- R7 27,000 Ω .1 W. C-2797-79B
- R8 33,000 Ω .3 W. C-2795-60A
- R9 270,000 Ω .25 W. C-2795-91B
- R10 660,000 Ω .25 W. C-2795-30B
- R11 680 Ω .5 W. C-2796-60C
- R12 .5 MEG-VOLUME CONT. & SWITCH A-15128'-3
- L1 I.F. REJECTOR COIL C-2795-63B
- L2 ANTENNA COIL C-2795-78C
- L3 OSCILLATOR COIL C-2795-31B
- L4 NO.1 I.F. TRANS. A-15082'-4
- L5 NO.2 I.F. TRANS. A-15084'-17

SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 590-1
INTERMEDIATE FREQUENCY 456 K.C.
 TOP VIEWS OF ALL SOCKET CONNECTIONS



- R1 180,000- Ω . .25 W.
- R2 1 MEGOHM .25 W.
- R3 86,000 Ω . .25 W.
- R4 1 MEGOHM .25 W.
- R5 2.2 MEGOHM .25 W.
- R6 2.2 MEGOHM .25 W.
- R7 56,000 Ω . .25 W.
- R8 500,000 Ω -VOL. CONTROL
- R9 10 MEGOHM .25 W.
- R10 1 MEGOHM .25 W.
- R11 2.2 MEGOHM .25 W.
- R12 1790 Ω . 5 W.
- R13 547 Ω -RESISTANCE CORD
- R14 2700 Ω . .25 W.
- C3 25 MMF. MICA
- C4 250 MMF. MICA
- C5 OSCILLATOR PADDER
- C6 .03 MFD. 200V.
- C7 .05 MFD. 200V.
- C8 .05 MFD. 200V.
- C9 & B NO.1 I.F. TRIMMER
- C10 .05 MFD. 200V.
- C11 .05 MFD. 200V.
- C12 A & B NO.2 I.F. TRIMMER
- C13 100 MMF. MICA
- C14 100 MMF. MICA
- C15 .01 MFD. 400V.
- C16 100 MMF. MICA
- C17 .01 MFD. 400V.
- C18 .001 MFD. 1000V.
- C19 20-20-20 MFD. 150V. ELECT.
- C20 .05 MFD. 400V.
- L1 LOOP ANTENNA
- L2 B.C. OSC. COIL
- L3 OSC. PLATE CHOKE
- L4 NO.1 I.F. COIL
- L5 NO.2 I.F. COIL
- L6 FILTER CHOKE

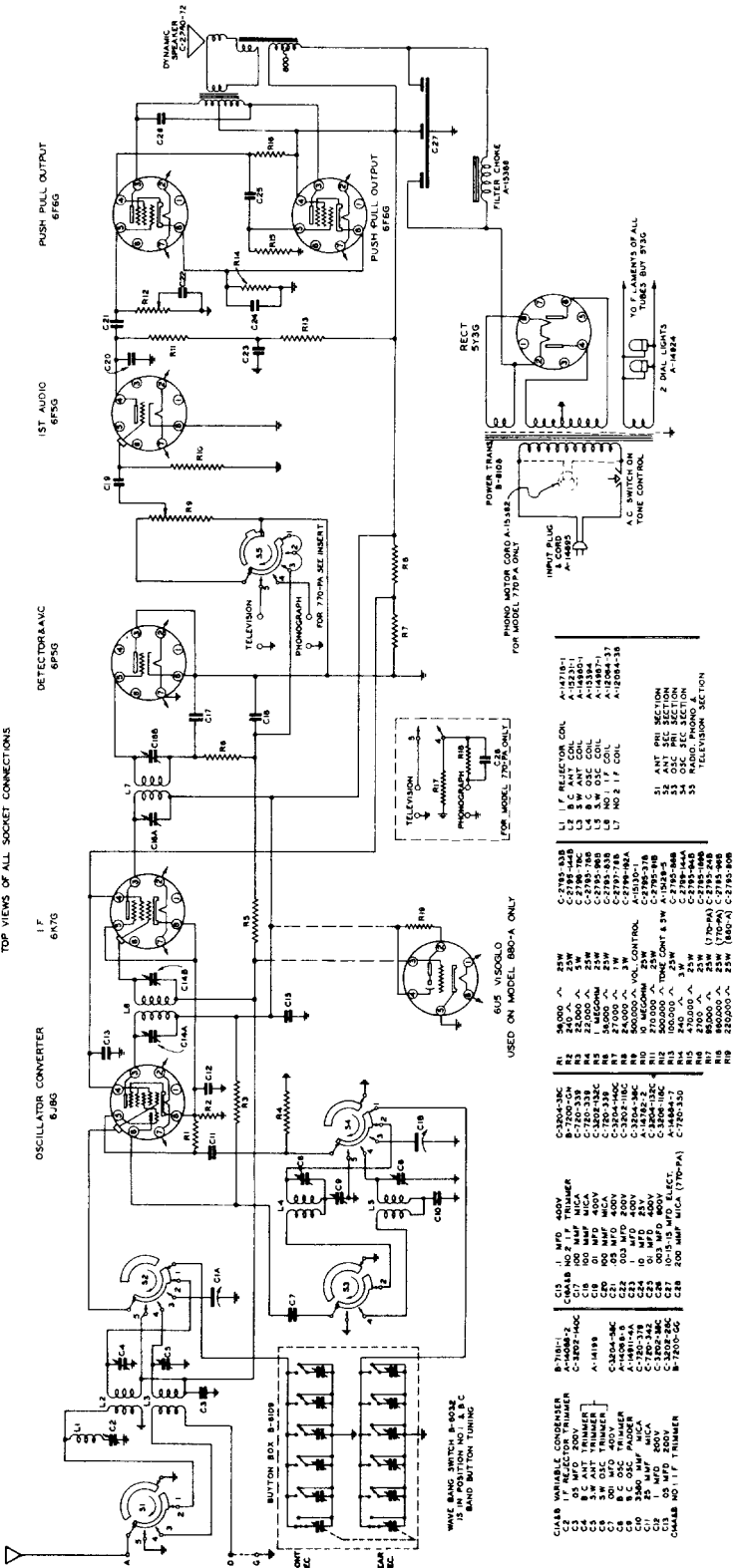
SCHEMATIC DIAGRAM
SPARTON SUPERHETERODYNE MODEL 660-M
INTERMEDIATE FREQUENCY 456 K.C.
 TOP VIEWS OF ALL SOCKET CONNECTIONS



- | | | | | | | |
|---------|------------------------|-----------|-------------|----|--------------------|------------|
| C1A & B | VARIABLE CONDENSER | B-9054 | C-2795-93B | L1 | I.F. REJECTOR COIL | A-14877 |
| C2A & B | TRIMMER | A-14878-1 | C-2796-75C | L2 | B.C. ANT. COIL | A-14879-1 |
| C3A & B | NO. 2 I.F. TRIMMER | B-1200-GH | C-2785-98B | L3 | S.W. ANT. COIL | A-14682-4 |
| C4 | I.F. REJECTOR TRIMMER | A-14088-4 | C-2785-104B | L4 | B.C. OSC. COIL | A-14213-2A |
| C5 | B.C. ANT. TRIMMER | A-14088-5 | C-2785-33B | L5 | S.W. OSC. COIL | A-14784 |
| C6 | S.W. ANT. TRIMMER | A-14089-5 | C-2787-73B | L6 | NO. 1 I.F. COIL | A-12064-17 |
| C7 | B.C. OSC. TRIMMER | B-7189-BY | C-2799-90A | L7 | NO. 2 I.F. COIL | |
| C8 | B.C. OSC. PADDER | | C-2799-91B | | | |
| C9 | .001 MFD. 400V. | | C-2795-91B | | | |
| C10 | .001 MFD. 400V. | | C-2785-98B | | | |
| C11 | 50 MFD. MOLDED | | C-2795-79B | | | |
| C12 | .1 MFD. 200V. | | A-1512B | | | |
| C13 | .05 MFD. 200V. | | | | | |
| C14 | .05 MFD. 400V. | | | | | |
| C15 | .02 MFD. 200V. | | | | | |
| C16 | 250 MFD. MOLDED | | | | | |
| C17 | 250 MFD. MOLDED | | | | | |
| C18 | .05 MFD. 400V. | | | | | |
| C19 | .05 MFD. 400V. | | | | | |
| C20 | 16-10 MFD. ELECT. | | | | | |
| R1 | 50,000 Ω, .25 W. | | | | | |
| R2 | 22,000 Ω, .5 W. | | | | | |
| R3 | 1 1/2 OHM, .25 W. | | | | | |
| R4 | 47 MEGOHM, .25 W. | | | | | |
| R5 | 500,000 Ω-VOL. CONTROL | | | | | |
| R6 | 180 Ω, .25 W. | | | | | |
| R7 | 25,000 Ω, .25 W. | | | | | |
| R8 | 33,000 Ω, .3 W. | | | | | |
| R9 | 270,000 Ω, .25 W. | | | | | |
| R10 | 27,000 Ω, .25 W. | | | | | |
| R11 | 1 MEGOHM, .25 W. | | | | | |
| R12 | 27,000 Ω, .25 W. | | | | | |
| R13 | 1 MEGOHM, .25 W. | | | | | |
| L1 | 50 MFD. 200V. | | | | | |
| L2 | .02 MFD. 200V. | | | | | |
| L3 | 250 MFD. MOLDED | | | | | |
| L4 | 250 MFD. MOLDED | | | | | |
| L5 | .05 MFD. 400V. | | | | | |
| L6 | .05 MFD. 400V. | | | | | |
| L7 | 16-10 MFD. ELECT. | | | | | |

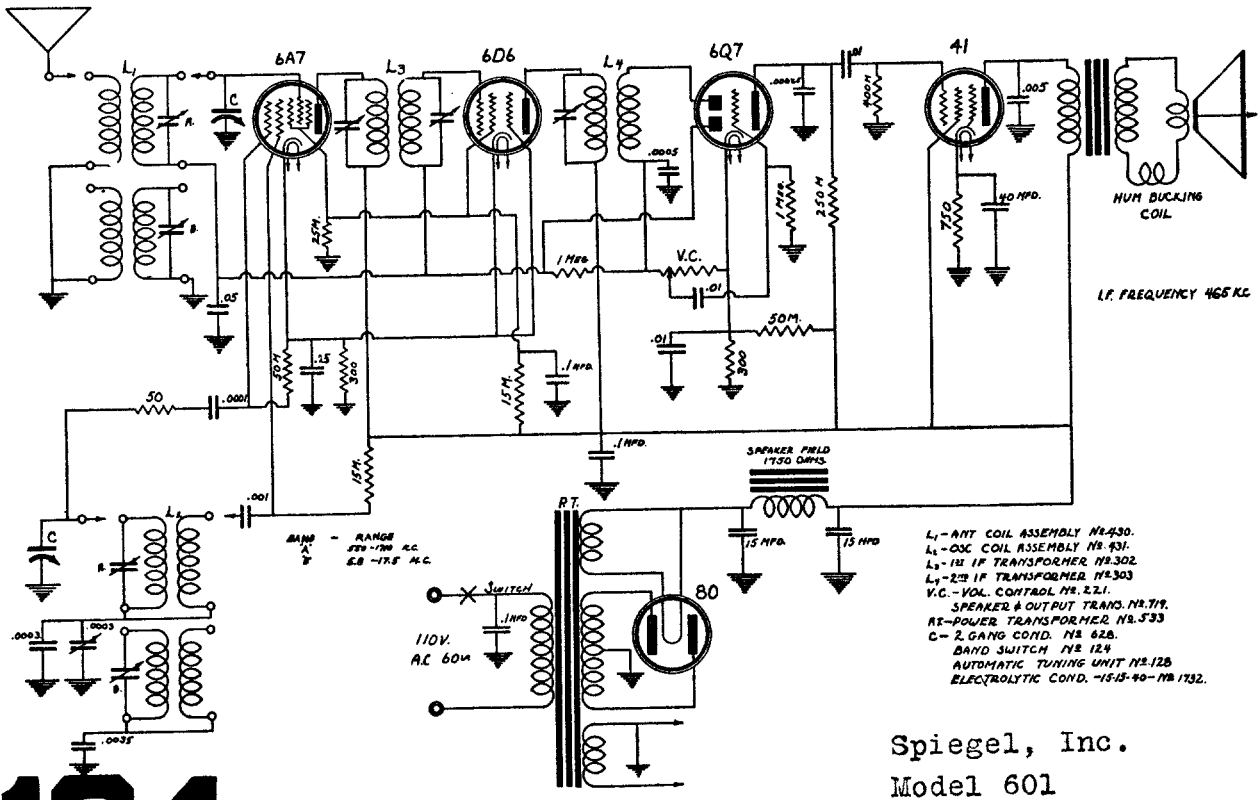
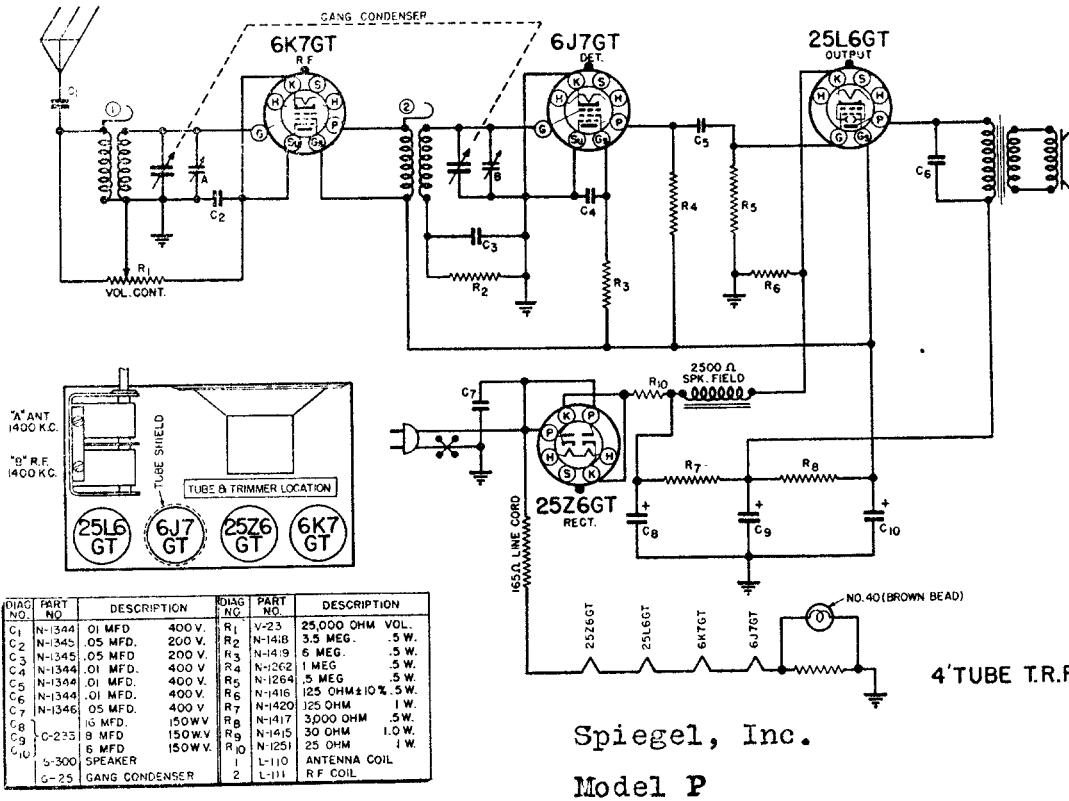
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

SCHEMATIC DIAGRAM SPARTON SUPERHETERODYNE MODEL 770-770-PA & B80-A INTERMEDIATE FREQUENCY 456 K.C. TOP VIEWS OF ALL SOCKET CONNECTIONS



- CLAS VARIABLE CONDENSER
C1 50 MFD 200V
C2 50 MFD 400V
C3 50 MFD 400V
C4 50 MFD 400V
C5 50 MFD 400V
C6 50 MFD 400V
C7 50 MFD 400V
C8 50 MFD 400V
C9 50 MFD 400V
C10 50 MFD 400V
C11 50 MFD 400V
C12 50 MFD 400V
C13 50 MFD 400V
C14 50 MFD 400V
C15 50 MFD 400V
C16 50 MFD 400V
C17 50 MFD 400V
C18 50 MFD 400V
C19 50 MFD 400V
C20 50 MFD 400V
C21 50 MFD 400V
C22 50 MFD 400V
C23 50 MFD 400V
C24 50 MFD 400V
C25 50 MFD 400V
C26 50 MFD 400V
C27 50 MFD 400V
- CLAS NO. 1 IF TRIMMER
C1 100 MFD 250V
C2 100 MFD 250V
C3 100 MFD 250V
C4 100 MFD 250V
C5 100 MFD 250V
C6 100 MFD 250V
C7 100 MFD 250V
C8 100 MFD 250V
C9 100 MFD 250V
C10 100 MFD 250V
C11 100 MFD 250V
C12 100 MFD 250V
C13 100 MFD 250V
C14 100 MFD 250V
C15 100 MFD 250V
C16 100 MFD 250V
C17 100 MFD 250V
C18 100 MFD 250V
C19 100 MFD 250V
C20 100 MFD 250V
C21 100 MFD 250V
C22 100 MFD 250V
C23 100 MFD 250V
C24 100 MFD 250V
C25 100 MFD 250V
C26 100 MFD 250V
C27 100 MFD 250V
- CLAS NO. 2 IF TRIMMER
C1 100 MFD 250V
C2 100 MFD 250V
C3 100 MFD 250V
C4 100 MFD 250V
C5 100 MFD 250V
C6 100 MFD 250V
C7 100 MFD 250V
C8 100 MFD 250V
C9 100 MFD 250V
C10 100 MFD 250V
C11 100 MFD 250V
C12 100 MFD 250V
C13 100 MFD 250V
C14 100 MFD 250V
C15 100 MFD 250V
C16 100 MFD 250V
C17 100 MFD 250V
C18 100 MFD 250V
C19 100 MFD 250V
C20 100 MFD 250V
C21 100 MFD 250V
C22 100 MFD 250V
C23 100 MFD 250V
C24 100 MFD 250V
C25 100 MFD 250V
C26 100 MFD 250V
C27 100 MFD 250V
- CLAS NO. 3 IF TRIMMER
C1 100 MFD 250V
C2 100 MFD 250V
C3 100 MFD 250V
C4 100 MFD 250V
C5 100 MFD 250V
C6 100 MFD 250V
C7 100 MFD 250V
C8 100 MFD 250V
C9 100 MFD 250V
C10 100 MFD 250V
C11 100 MFD 250V
C12 100 MFD 250V
C13 100 MFD 250V
C14 100 MFD 250V
C15 100 MFD 250V
C16 100 MFD 250V
C17 100 MFD 250V
C18 100 MFD 250V
C19 100 MFD 250V
C20 100 MFD 250V
C21 100 MFD 250V
C22 100 MFD 250V
C23 100 MFD 250V
C24 100 MFD 250V
C25 100 MFD 250V
C26 100 MFD 250V
C27 100 MFD 250V
- CLAS NO. 4 IF TRIMMER
C1 100 MFD 250V
C2 100 MFD 250V
C3 100 MFD 250V
C4 100 MFD 250V
C5 100 MFD 250V
C6 100 MFD 250V
C7 100 MFD 250V
C8 100 MFD 250V
C9 100 MFD 250V
C10 100 MFD 250V
C11 100 MFD 250V
C12 100 MFD 250V
C13 100 MFD 250V
C14 100 MFD 250V
C15 100 MFD 250V
C16 100 MFD 250V
C17 100 MFD 250V
C18 100 MFD 250V
C19 100 MFD 250V
C20 100 MFD 250V
C21 100 MFD 250V
C22 100 MFD 250V
C23 100 MFD 250V
C24 100 MFD 250V
C25 100 MFD 250V
C26 100 MFD 250V
C27 100 MFD 250V
- CLAS NO. 5 IF TRIMMER
C1 100 MFD 250V
C2 100 MFD 250V
C3 100 MFD 250V
C4 100 MFD 250V
C5 100 MFD 250V
C6 100 MFD 250V
C7 100 MFD 250V
C8 100 MFD 250V
C9 100 MFD 250V
C10 100 MFD 250V
C11 100 MFD 250V
C12 100 MFD 250V
C13 100 MFD 250V
C14 100 MFD 250V
C15 100 MFD 250V
C16 100 MFD 250V
C17 100 MFD 250V
C18 100 MFD 250V
C19 100 MFD 250V
C20 100 MFD 250V
C21 100 MFD 250V
C22 100 MFD 250V
C23 100 MFD 250V
C24 100 MFD 250V
C25 100 MFD 250V
C26 100 MFD 250V
C27 100 MFD 250V

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

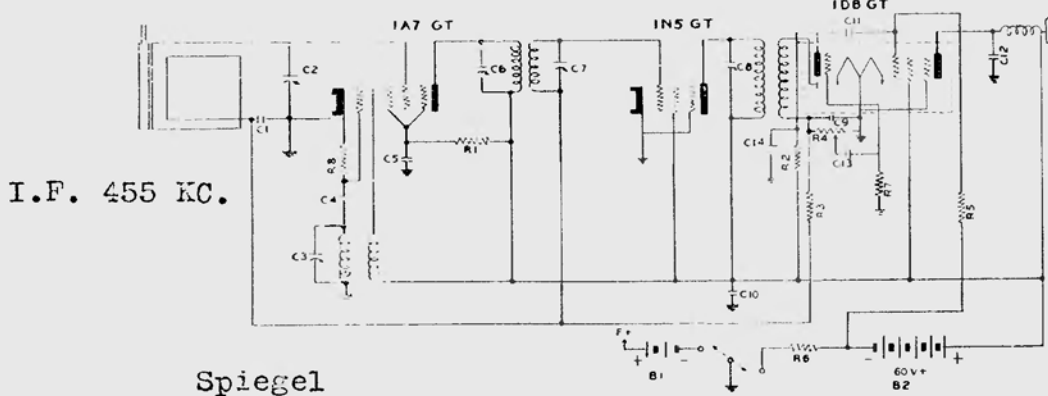


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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

SCHEMATIC DIAGRAM MODEL-130

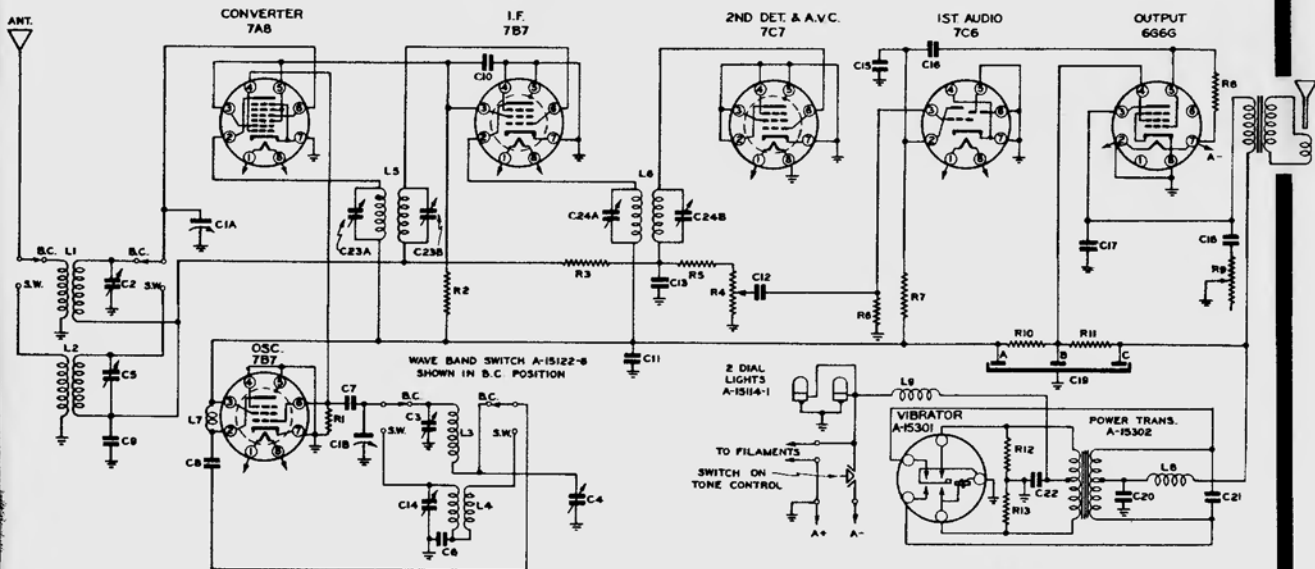


REPLACEMENT PARTS LIST

| Schematic Location | Part No. | Description | Schematic Location | Part No. | Description |
|--------------------|----------|------------------------------|--------------------|----------|----------------------|
| C1 | C-45 | Tubular cond. .05 mfd. 200V | R1 | R-105 | Carbon res. 5K ohm |
| C2, C3 | Y-CV-46 | Variable Condenser | R2, R7 | R-102 | Carbon res. 1 meg. |
| C4 | CM-31 | Mica cond. 100 mmfd. | R3, R5 | R-101 | Carbon res. 2 meg. |
| C5, C11 | C-48 | Tubular cond. .01 mfd. 400V | R8 | R-113 | Carbon res. 100K ohm |
| C6, C7 | CT-1 | Trimmer condenser | R6 | R-103 | Carbon res. 60 ohm |
| C8 | CT-32 | Trimmer condenser | | | |
| C9, C14 | CM-30 | Mica cond. 250 mmfd. | B1 | | |
| C10 | CE-58 | 4 mfd. 100V Electrolytic | B2 | | |
| C12, C13 | C-47 | Tubular cond. .004 mfd. 400V | | | |

Spiegel

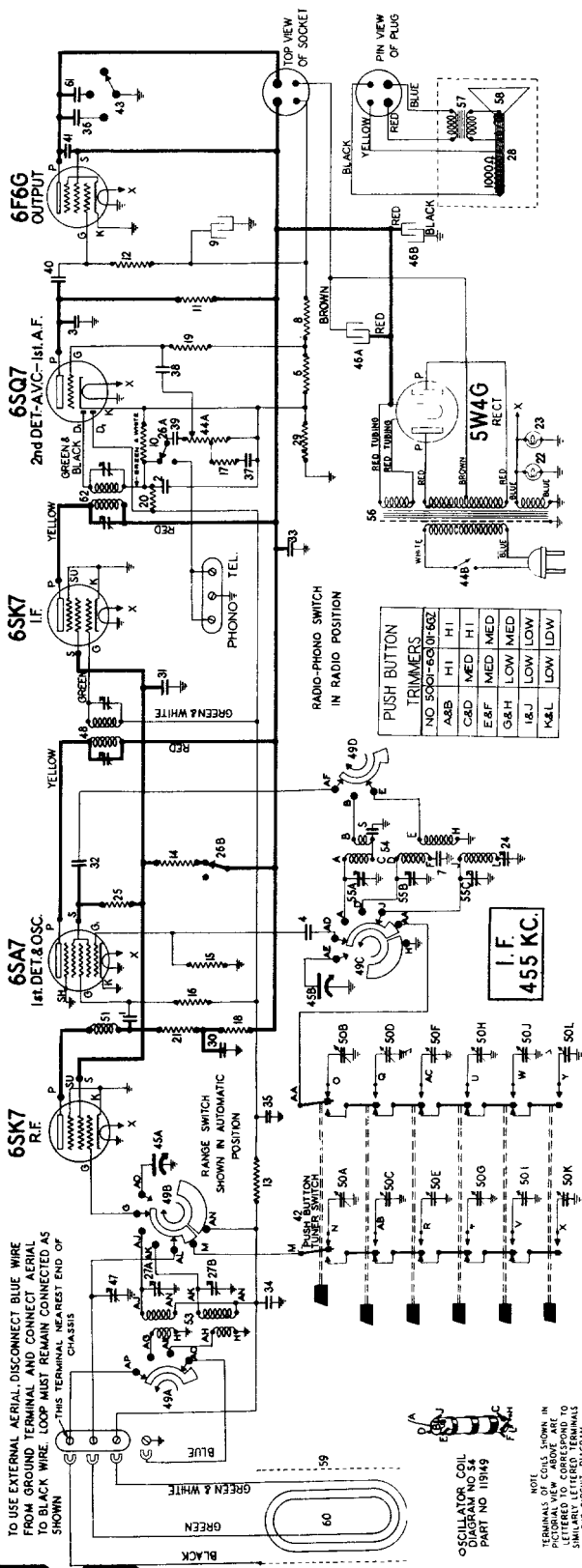
SCHEMATIC DIAGRAM
AIR CASTLE SUPERHETERODYNE MODEL 631-6
INTERMEDIATE FREQUENCY 456 K.C.
BOTTOM VIEWS OF ALL SOCKET CONNECTIONS



| | | | | | | |
|--------------------------|------------|-------------------------------|-------------|---------------------------|------------|-------------------------------|
| C1A&B VARIABLE CONDENSER | B-7229 | C13 250 MMF. MICA | C-720-324 | R1 56,000 Ω 25W | C-2795-83B | L1 B.C. ANT. COIL A-15349-1 |
| C2 B.C. ANT. TRIMMER | A-14088-8 | C14 5W OSC. TRIMMER | A-14088-8 | R2 18,000 Ω 5W | C-2798-77C | L2 5W ANT. COIL A-14662-3 |
| C3 B.C. OSC. TRIMMER | B-7199-EY | C15 250 MMF. MICA | C-720-324 | R3 1 MEGOHM 25W | C-2795-98B | L3 B.C. OSC. COIL A-15352-1 |
| C4 B.C. OSC. PADDER | A-14088-5 | C16 .05 MFD. 200V. | C-3202-28C | R4 500,000 Ω VOLUME CONT. | A-15130-3 | L4 5W OSC. COIL A-15233-5 |
| C5 5W ANT. TRIMMER | A-15451 | C17 .01 MFD. 400V. | C-3204-58C | R5 47,000 Ω | C-2795-23B | L5 NO. 1 I.F. COIL A-12084-39 |
| C6 2700 MMF. MICA | A-15451 | C18 .02 MFD. 400V. | C-3204-78C | R6 4.7 MEGOHM 25W | C-2795-35B | L6 NO. 2 I.F. COIL A-12084-17 |
| C7 50 MMF. MICA | C-720-315 | C19 20-20-20 MFD. 150V. ELECT | A-14684-8 | R7 220,000 Ω 25W | C-2795-27B | L7 B+ PLATE CHOKE A-14881-1 |
| C8 250 MMF. MICA | C-720-324 | C20 1000 MMF. MICA | C-720-297 | R8 1 MEGOHM 25W | C-2795-98B | L8 B+ HASH CHOKE A-14718-2 |
| C9 .05 MFD. 200V. | C-3202-84C | C21 .01 MFD. 600V | C-3208-132C | R9 TONE CONTROL & SWITCH | C-2798-10C | L9 A LEAD HASH CHOKE A-14844 |
| C10 .1 MFD. 200V. | C-3202-38C | C22 5 MFD. 120V | C-3203-48B | R10 330 Ω 5W | C-2798-46C | |
| C11 .1 MFD. 200V. | C-3202-38C | C23 NO. 1 I.F. TRIMMER | B-7200-GN | R11 88 Ω 5W | C-2798-6C | |
| C12 .02 MFD. 200V. | C-3202-22C | C24 NO. 2 I.F. TRIMMER | B-7200-GN | R12 88 Ω 5W | C-2796-6C | |
| | | | | R13 88 Ω 5W | | |

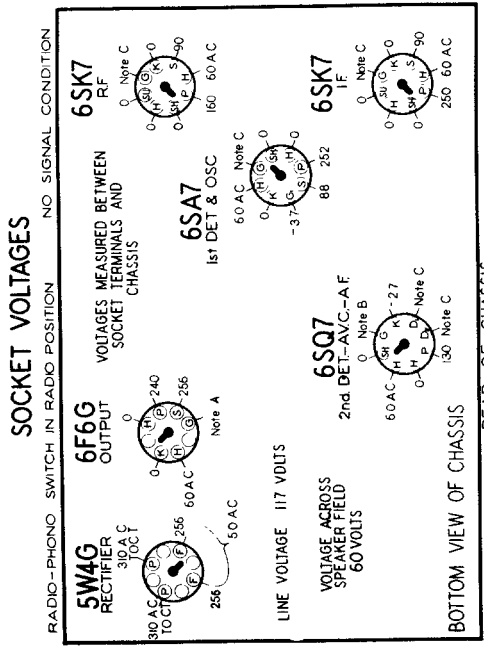
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- 45A-45B Condenser—gang
- 46A-46B Condenser—electrolytic 10-15 mfd. 450 volts
- 47 Condenser—trimmer
- 48 Transformer—1st I.F.
- 49A to 49C Range switch—push button trimmer (Low)
- 50A to 50L Condenser—push button trimmer (Med.)
- 50A to 50L Condenser—push button trimmer (Hi)
- 51 Coil—compensating
- 52 Transformer—2nd I.F.
- 53 Coil—antenna
- 54 Coil—oscillator
- 55A-55B-55C Condenser—trimmer 3 section.
- 56 Transformer—output for U-115086 speaker
- 57 U. Cone & Voice coil for U-115086 speaker
- 58 Shield for loop antenna
- 59 Cabinet back and loop antenna complete
- 01-6G1 & 01-6G1-Z Cabinet back and loop antenna complete
- 01-6G4.1 & 01-6G4.1-Z Cabinet back and loop antenna complete
- 01-6G4.2 & 01-6G4.2-Z Cabinet back and loop antenna complete
- 01-6G4.3 & 01-6G4.3-Z Cabinet back and loop antenna complete
- 01-6G4.4 & 01-6G4.4-Z Cabinet back and loop antenna complete
- 60 Condenser—.006 mfd. 600 volt
- 61

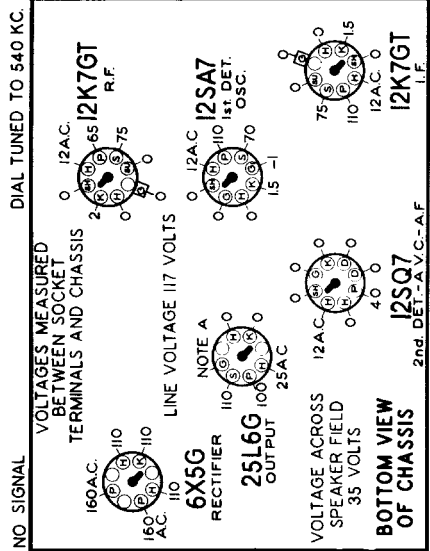
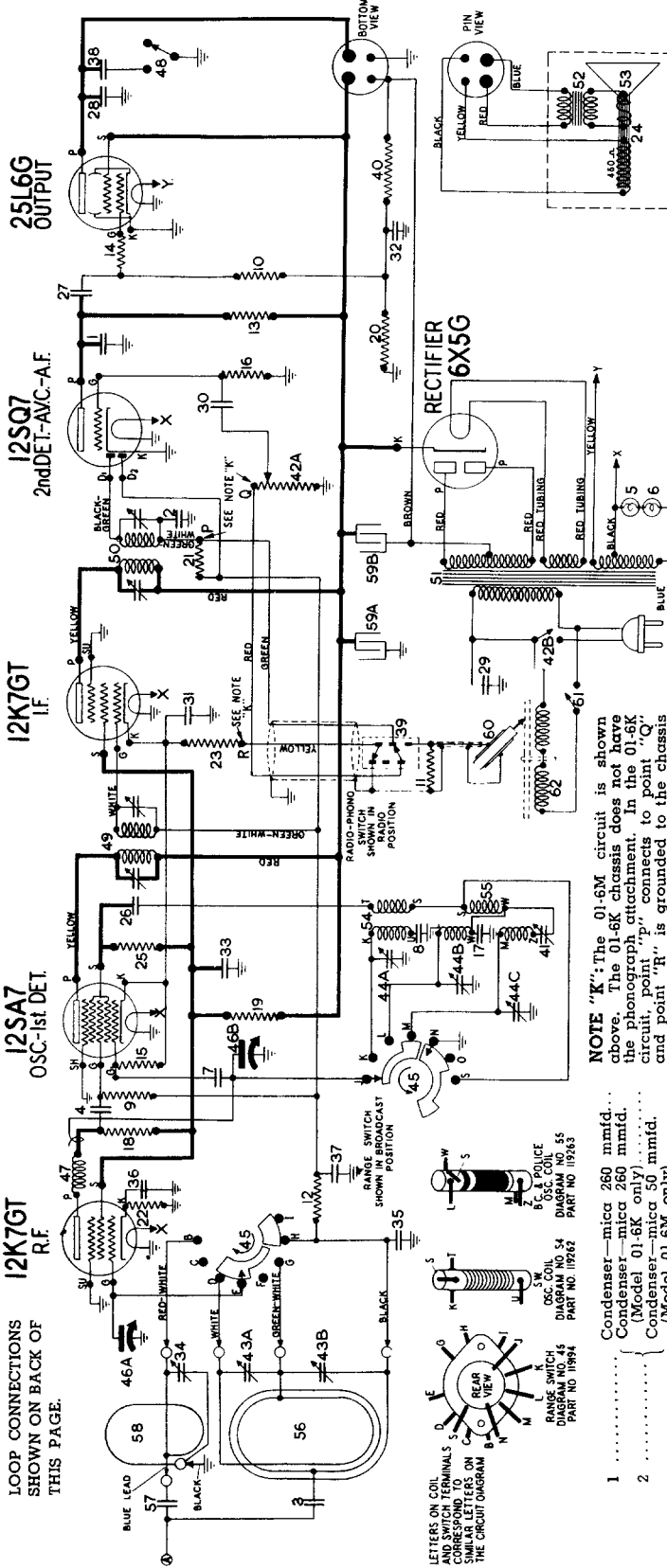
- 1-2-3 Condenser—mica 260 mmfd.
- 4 Condenser—mica 51 mmfd.
- 5 Condenser—mica 00351 mfd. 3% watt.
- 6 Resistor—wire wound 25 ohms 1/2 watt.
- 7 Condenser—mica 002 mfd.
- 8 Resistor—wire wound 220 ohms 1 watt.
- 9-11-12 Resistor—carbon 220,000 ohms 1/4 watt.
- 13 Resistor—carbon 470,000 ohms 1/4 watt.
- 14 Resistor—carbon 15,000 ohms 2 watts.
- 15-16 Resistor—carbon 100,000 ohms 1/4 watt.
- 17 Resistor—carbon 22,000 ohms 1/4 watt.
- 18 Resistor—carbon 2.2 meg. 1/4 watt.
- 19 Resistor—carbon 3.3 meg. 1/4 watt.
- 20 Resistor—carbon 2,200 ohms 1/4 watt.
- 21 Lamp—6.3 volt 25 amps.
- 22-23 Condenser—padder (530 to 630 mmfd.)
- 24 Resistor—insulated 470 ohms 1/4 watt.
- 25 Switch—D.P.D.T. (Radio-Phone)
- 26A-26B Condenser—.02 mfd. 600 volt.
- 27A-27B Condenser—.02 mfd. 600 volt.
- 28 U. Speaker—dynamic 6 in. (10%)
- 29 Resistor—wire wound 50 ohms 1/2 watt
- 30-31 Condenser—.1 mfd. 600 volt.
- 32 Condenser—.01 mfd. 600 volt.
- 33 Condenser—.2 mfd. 600 volt.
- 34-35 Condenser—.05 mfd. 600 volt.
- 36-37-38-39-40 Condenser—.02 mfd. 600 volt.
- 41 Switch—push button
- 42 Tone control switch
- 43 Volume control with switch—1 meg.
- 44A-44B



NOTE A: Bias on 6F6G output tube is —18 volts measured across resistors 29, 6 and 8.

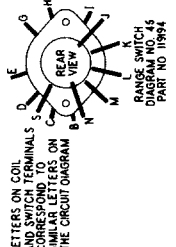
NOTE B: Bias on 6SQ7 grid is —1.5 volts measured across resistor 6.

STEWART-WARNER 01-6K and 01-6M CHASSIS



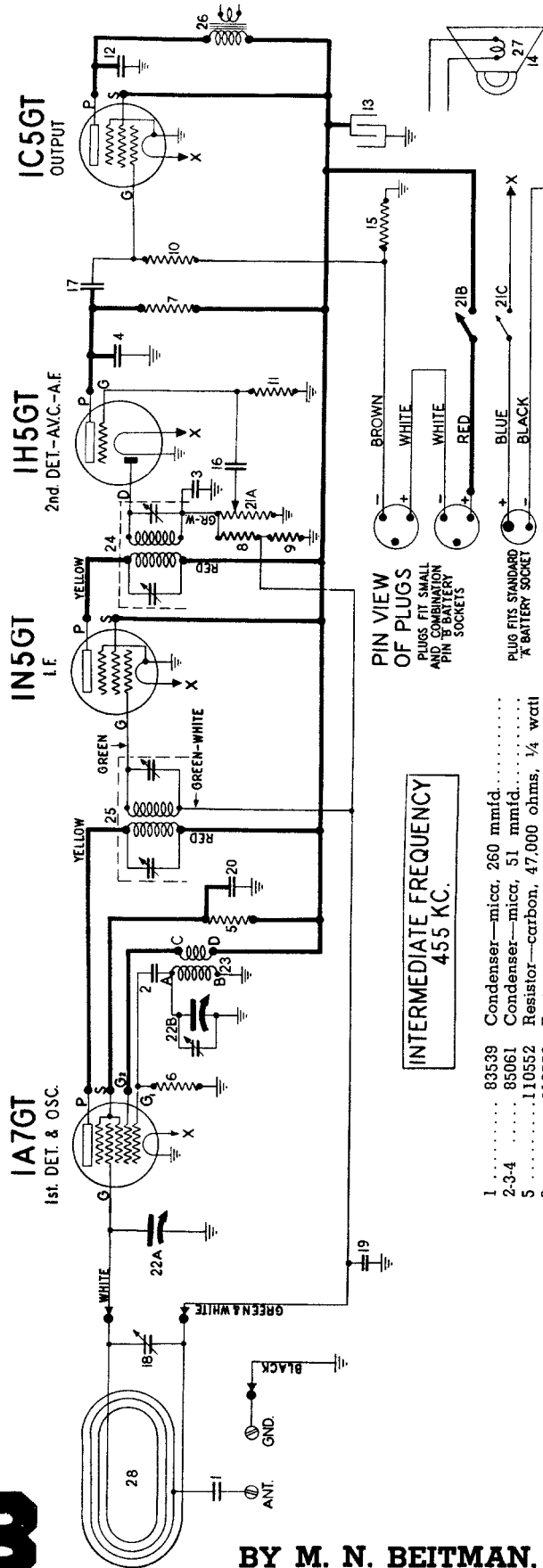
- 1 Condenser—mica 250 mmd.
- 2 Condenser—mica 250 mmd. (Model 01-6K only)
- 3 Condenser—mica 50 mmd. (Model 01-6M only)
- 3-4 Condenser—mica 110 mmd.
- 5-6 Lamp—6.8 volt Mazda No. 51.
- 7 Condenser—mica 50 mmd.
- 8 Condenser—mica 0042 mfd.
- 9 Resistor—carbon 47,000 ohms 1/4 watt
- 10 Resistor—carbon 220,000 ohms 1/4 watt
- 11 Resistor—carbon 220,000 ohms 1/4 watt (Model 01-6M only)
- 12-13 Resistor—carbon 470,000 ohms 1/4 watt
- 14 Resistor—carbon 100 ohms 1/4 watt
- 15 Resistor—carbon 100,000 ohms 1/4 watt
- 16 Resistor—carbon 3.3 meg 1/4 watt
- 17 Condenser—mica 1650 mmd (9%)
- 18-19 Resistor—carbon 3,300 ohms 1/4 watt
- 20 Resistor—carbon 220,000 ohms 1/4 watt
- 21 Resistor—carbon 1.5 meg 1/4 watt
- 22 Resistor—insulated 470 ohms 1/4 watt
- 23 Resistor—150 ohms 1/4 watt
- 24 Resistor—dynamic 6 1/2
- 25 Resistor—680 ohms 1/4 watt
- 26-27-28 Condenser .01 mfd 600 volt
- 29 Condenser .01 mfd 600 volt (shielded)
- 30 Condenser—.004 mfd 600 volt
- 31-32-33 Condenser—.2 mfd 600 volt
- 34 Condenser—trimmer
- 35-36-37 Condenser—.05 mfd 600 volt
- 38 Condenser—.04 mfd 600 volt
- 39 Switch "Radio-Phono" with escutcheon (Model 01-6M only)
- 40 Resistor—carbon 680,000 ohms 1/4 watt.
- 41 Condenser—padding
- 42A-42B Volume control—1 meg. (with switch).
- 43A-43B Trimmer condenser—2 section.
- 44A to 44C Condenser—trimmer 3 section.
- 45 Switch—range
- 46A-46B Coil—compensating
- 47 Switch—tone control
- 48 Transformer—1st I.F.
- 49 Transformer—2nd I.F.
- 50 Transformer—power
- 51 Transformer—output—for U-115088 speaker
- 52 Cone & Voice coil assembly for U-115088 speaker
- 53 Coil—short wave oscillator
- 54 Coil—B.C. & Pol. Oscillator
- 55 Loop antenna (BC & POL) with cabinet back (01-6K only)
- 56 Loop antenna (BC & POL) with cabinet back (01-6M only)
- 57 Short wave loop antenna assembly complete (01-6K only)
- 58 Short wave loop antenna assembly complete (01-6M only)
- 59A-59B Condenser—electrolytic 20-40 mfd. 200

NOTE "K": The 01-6M circuit is shown above. The 01-6K chassis does not have the phonograph attachment. In the 01-6K circuit, point "P" connects to point "Q", and point "R" is grounded to the chassis



STEWART-WARNER MODEL 02-4A CHASSIS

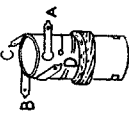
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INTERMEDIATE FREQUENCY
455 KC.

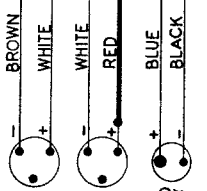
- 1 83539 Condenser—mica, 260 mmfd.
- 2-3-4 85061 Condenser—mica, 51 mmfd.
- 5 110552 Resistor—carbon, 47,000 ohms, 1/4 watt
- 6 110553 Resistor—carbon, 220,000 ohms, 1/4 watt
- 7 110554 Resistor—carbon, 1 megohm, 1/4 watt.
- 8-9-10 110570 Resistor—carbon, 2.2 meg., 1/4 watt.
- 11 110580 Resistor—carbon, 3.3 meg., 1/4 watt.
- 12 113035 Condenser—Ceramic Tube, .006 mfd., 600 volt.
- 13 113118 Condenser—Electrolytic—8 mfd., 150 volt.
- 14 U-115068 Speaker—P.M. Dynamic (4 in.)
- 15 116061 Resistor—800 ohm, 1/4 watt.
- 16-17 116640 Condenser—.01 mfd., 600 volt.
- 18 116781 Trimmer Condenser
- 19-20 116819 Condenser—.05 mfd., 600 volt.
- 21A-21B-21C 117706 Volume Control—1 meg., with switch.
- 22A-22B 117707 Condenser—Tuning
- 23 117741 Coil—Oscillator
- 24 117742 Transformer—2nd I.F.
- 25 117743 Transformer—1st I.F.
- 26 117782 Transformer—Output
- 27 U-118280 Cone & Voice Coil Assembly for U-115068 Speaker
- 28 117914 Loop Antenna

OSCILLATOR COIL
DIAGRAM NO. 23
PART NO. 117741

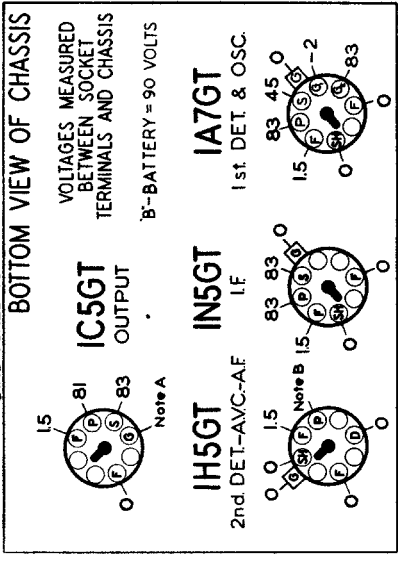


NOTE
TERMINALS OF COIL
SHOWN IN ILLUSTRATION
ARE LETTERED TO
CORRESPOND TO SIMI-
LARLY LETTERED TER-
MINALS ON THE CIRCUIT
DIAGRAM.

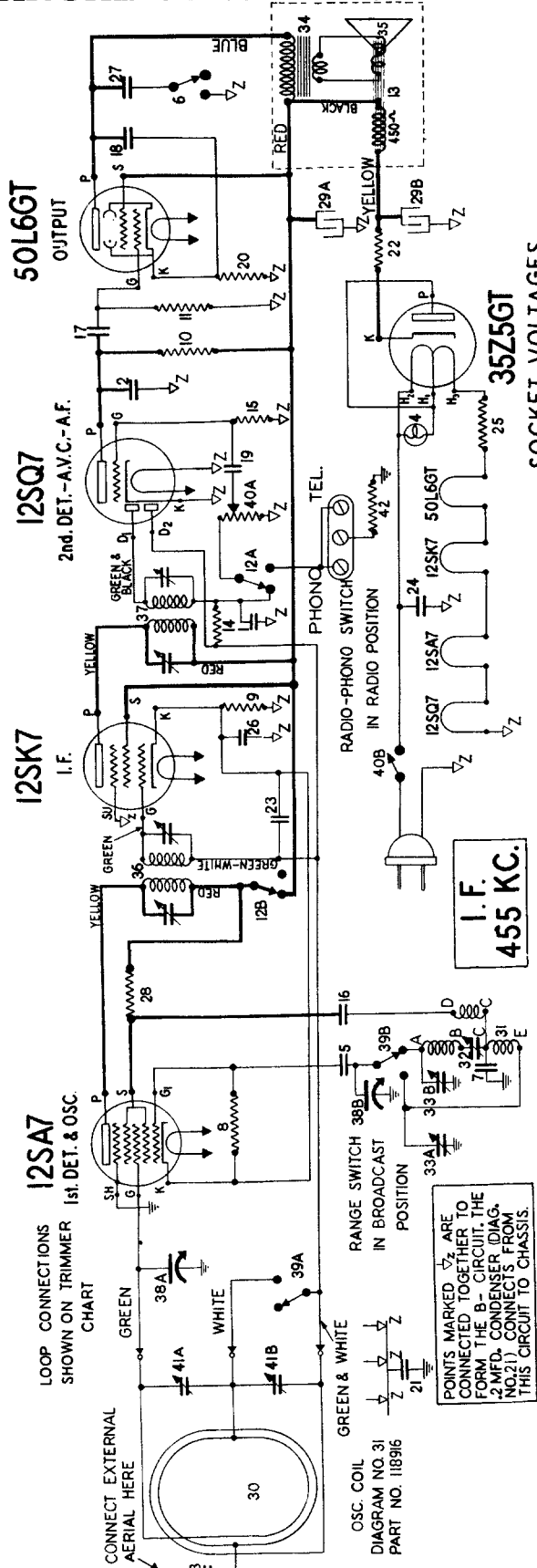
PIN VIEW
OF PLUGS
PLUGS FIT SMALL
AND COMBINATION
AND BATTERY
SOCKETS



SOCKET VOLTAGES
DIAL TUNED TO 540 KC.



STEWART-WARNER 03-5S CHASSIS



SOCKET VOLTAGES

VOLUME ON FULL WITH NO SIGNAL

DIAL TUNED TO 540 KC

VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND B-LUG LINE VOLTAGE 117 VOLTS

VOLTAGE ACROSS SPEAKER FIELD 28 VOLTS

12SK7 2nd DET.-A.V.C.-A.F. (Note A)

50L6GT OUTPUT

12SK7 I.F.

12SA7 1st DET. & OSC.

35Z5GT RECTIFIER

BOTTOM VIEW OF CHASSIS

Use a High Resistance Voltmeter of at Least 1000 Ohms per Volt.

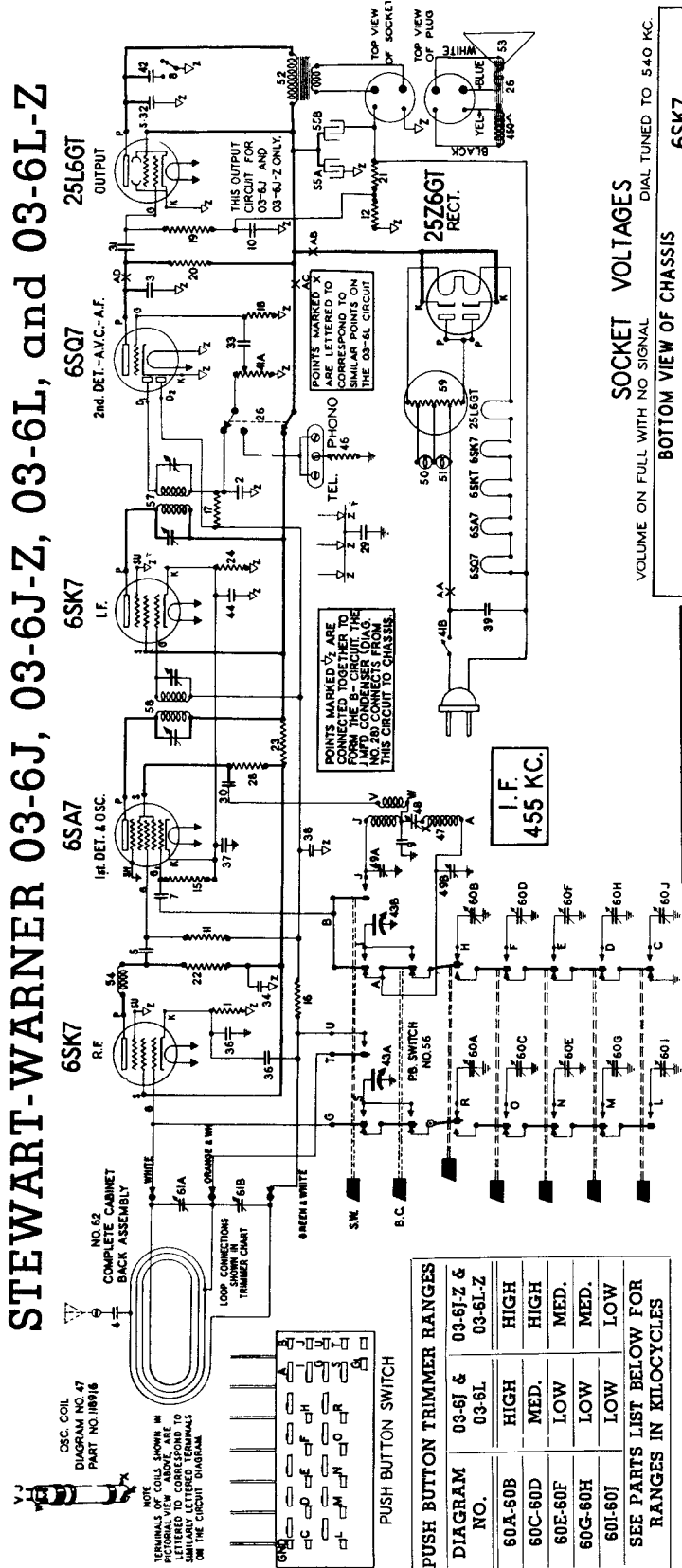
NOTE A: The reading on this plate will be small because of the high resistance of resistor No. 10

- 1-2 ... Condenser—mica 260 mmd.
- 3 ... Condenser—mica 110 mmd.
- 4 ... Lamp—dial 6 to 8 volt (Mazda 51)
- 5 ... Condenser—mica 26 mmd.
- 6 ... Switch—tone control
- 7 ... Condenser—mica .002 mmd.
- 8 ... Resistor—carbon 47,000 ohms 1/4 watt
- 9 ... Resistor—carbon 100 ohms 1/4 watt.
- 10 ... Resistor—carbon 680,000 ohms 1/4 watt.
- 11 ... Resistor—carbon 470,000 ohms 1/10 watt
- 12A-12B Switch—D.P.D.T. (Radio-Phono)
- 13 ... Speaker—dynamic (5")
- 14-15 ... Resistor—insulated 3.3 megohms 1/4 watt.
- 16-17,18 Condenser—.01 mfd. 600 volt.
- 19 ... Condenser—.004 mfd. 600 volt.
- 20 ... Resistor—140 ohms 1/2 watt wire wound
- 21 ... Condenser—.2 mfd. 600 volt.
- 22 ... Resistor—33 ohms 1 watt wire wound
- 23-24 ... Condenser—.05 mfd. 600 volt.
- 25 ... Resistor—20 ohms 1 watt
- 26 ... Condenser—.25 mtd. 600 volts
- 27 ... Condenser—.07 mtd. 600 volts
- 28 ... Resistor—insulated 680 ohms 1/4 watt
- 29A-29B Condenser—electrolytic—20-20 mtd. 150 volt.
- 30 ... Cabinet back and loop antenna complete (03-5S1)
- 31 ... Cabinet back and loop antenna complete (03-5S2)
- 32 ... Coil—oscillator
- 33 ... Condenser—padding
- 33A-33B Trimmer strip (2 sect.)
- 34 ... Transformer—output for R-115085 speaker
- 35 ... Cone & Voice coil for R-115085 speaker
- 36 ... Transformer—1st I.F.
- 37 ... Transformer—2nd I.F.
- 38A-38B Gang condenser & push button unit
- 39A-39B Range switch.
- 40A-40B Volume control—1 meg. (with switch)
- 41A-41B Condenser—trimmer for loop antenna
- 42 ... Resistor—220,000 ohms 1/4 watt (on underwriters approved sets only).

STEWART-WARNER 03-6J, 03-6J-Z, 03-6L, and 03-6L-Z

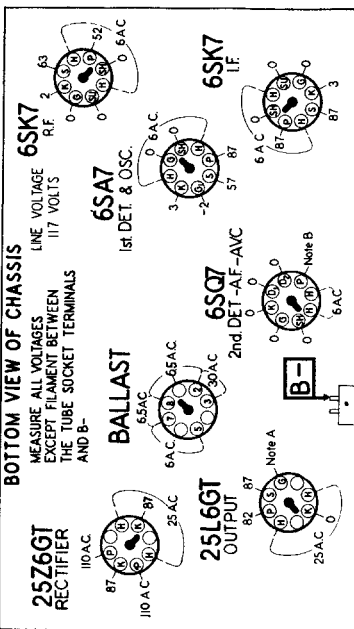
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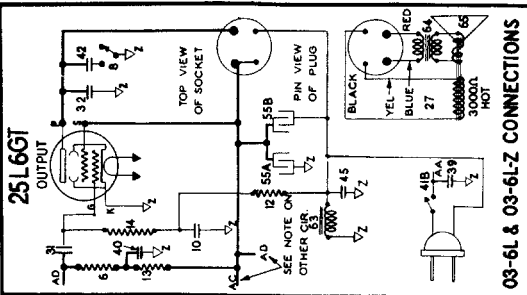
SOCKET VOLTAGES

VOLUME ON FULL WITH NO SIGNAL. DIAL TUNED TO 540 KC.



REAR OF CHASSIS

These readings taken using a voltmeter of 1000 ohms per volt.
NOTE A: The bias on the 25L6GT grid is: on 03-6J chassis—4 volts measured across resistor No. 12; on 03-6L chassis—5 volts measured across choke No. 63.
NOTE B: Due to the high resistance of resistors No. 20, 6, and 13, only a small voltage will be read at the plate of the 6SK7 when using a voltmeter having a resistance of 1000 ohms per volt.



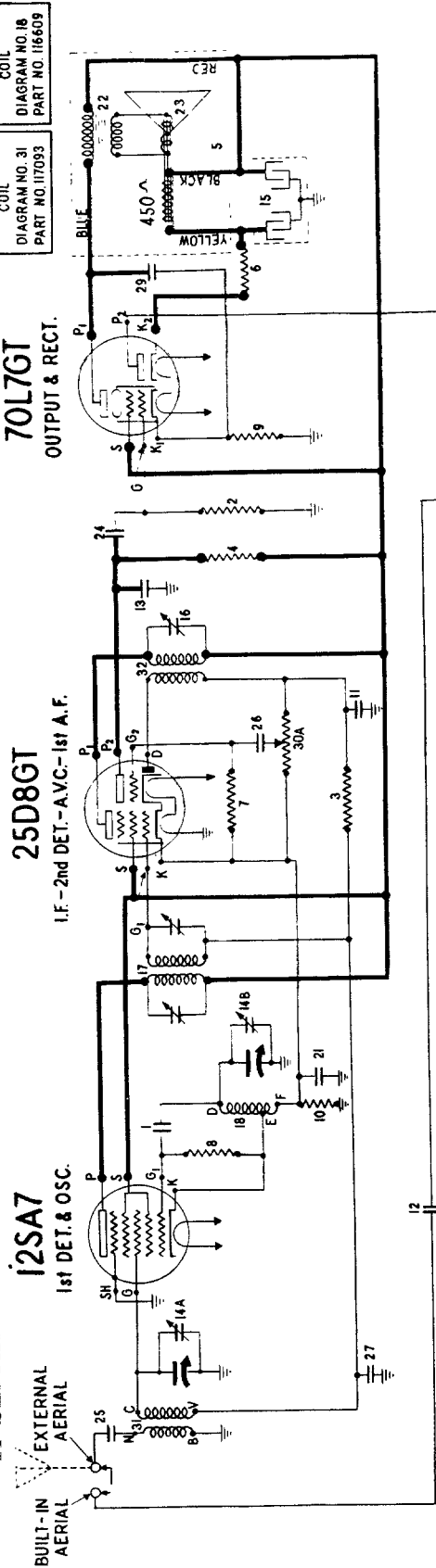
- 1 Resistor—carbon 400 ohms 1/4 watt.....
- 2-3 Condenser—mica 250 mmfd.....
- 4-5 Condenser—mica 110 mmfd.....
- 6 Resistor—carbon 470,000 ohms 1/4 watt.....
- 7 Condenser—mica 51 mmfd.....
- 8 Switch—tone.....
- 9 Condenser—mica .002 mfd.....
- 10 Condenser—10 mfd. 35 volt (03-6L & 03-6L-Z only).....
- 11 Condenser—1 mfd. 600 volt (03-6J & 03-6J-Z only).....
- 12 Resistor—carbon 47,000 ohms 1/4 watt.....
- 13 Resistor—carbon 220,000 ohms 1/4 watt.....
- 13-14 Resistor—carbon 220,000 ohms 1/4 watt (03-6L & 03-6L-Z only).....
- 15 Resistor—carbon 100,000 ohms 1/4 watt.....
- 16 Resistor—carbon 470,000 ohms 1/4 watt.....
- 17-18 Resistor—carbon 3.3 meg. 1/4 watt.....
- 19 Resistor—carbon 330,000 ohms 1/4 watt (03-6J & 03-6J-Z only).....
- 20-21 Resistor—carbon 680,000 ohms 1/4 watt (03-6J & 03-6J-Z only).....
- 22 Resistor—carbon 3,300 ohms 1/4 watt.....
- 23 Resistor—carbon 1,500 ohms 1/4 watt.....
- 24 Resistor—carbon 220 ohms 1/4 watt.....
- 25 Switch—D.P.D.T.....
- 26 Speaker—dynamic (5") (03-6J & 03-6J-Z only).....
- 27 Speaker—dynamic (8") (03-6L7 & 03-6L7-Z).....
- 28 Resistor—carbon 680 ohms 1/4 watt.....
- 29 Condenser—.1 mfd. 600 volt.....
- 30-31-32 Condenser—.01 mfd. 600 volt.....
- 33 Condenser—.004 mfd. 600 volt.....
- 34 Condenser—.2 mfd. 600 volt.....
- 35 to 39 Condenser—.05 mfd. 600 volt.....
- 40 Condenser—.05 mfd. 600 volt (03-6L & 03-6L-Z only).....
- 41A-41B Volume control—1 megohm (with switch).....
- 42 Condenser—.04 mfd. 600 volts.....
- 43A-43B Condenser—tuning (with drum).....
- 44 Condenser—.25 mfd. 600 volts.....
- 45 Condenser—.5 mfd. 150 volts (03-6L & 03-6L-Z only).....
- 46 Resistor—220,000 ohms 1/4 watt (on Underwriters' approved sets).....
- 47 Coil—oscillator.....
- 48 Condenser—padding.....
- 49A-49B Trimmer strip (2 section).....
- 50-51 Lamp—dial 6.3 volts .25 amps.....

| PUSH BUTTON TRIMMER RANGES | |
|----------------------------|-----------------|
| DIAGRAM NO. | 03-6J & 03-6L-Z |
| 60A-60B | HIGH |
| 60C-60D | MED. |
| 60E-60F | LOW |
| 60G-60H | LOW |
| 60I-60J | LOW |

SEE PARTS LIST BELOW FOR RANGES IN KILOCYCLES

STEWART-WARNER "AIR-PAL" RECEIVER MODEL A-6S (07-32 CHASSIS)

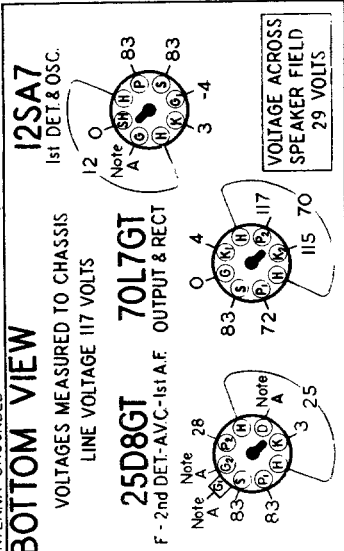
THIS MANUAL APPLIES ONLY TO THE RECEIVER MARKED A-6S.
A SEPARATE MANUAL HAS BEEN ISSUED FOR THE RECEIVER MARKED A-6.



I.F.
455 KC.

SOCKET VOLTAGES

VOLUME CONTROL SET AT MAXIMUM VOLUME POSITION
DIAL TUNED TO 540. KC.

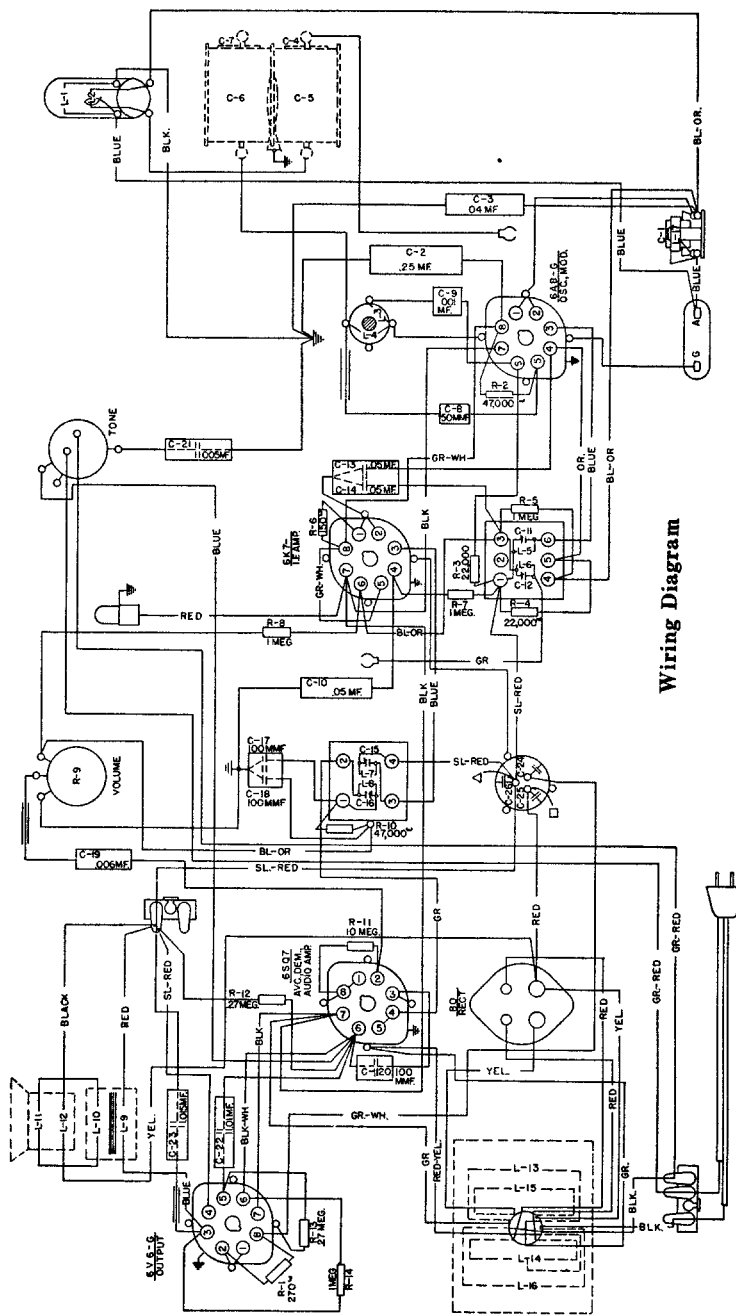
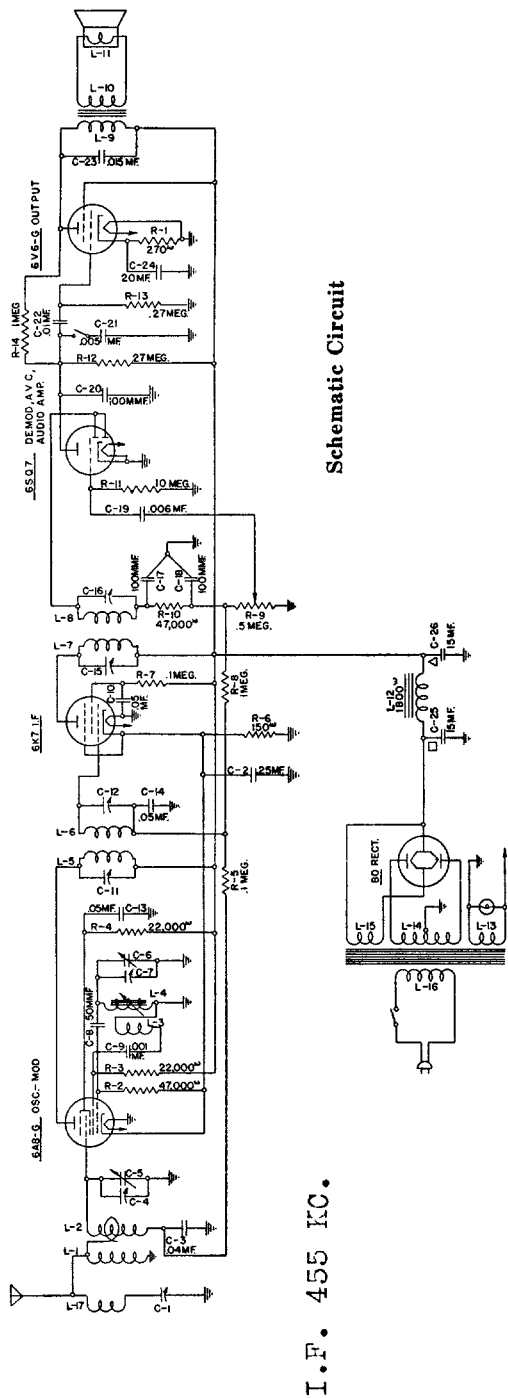


REAR OF CHASSIS

NOTE A: Due to the high resistance of resistors No. 3, No. 7, and No. 30A, only a very slight deflection will be obtained on a meter having a resistance of 1000 ohms per volt.

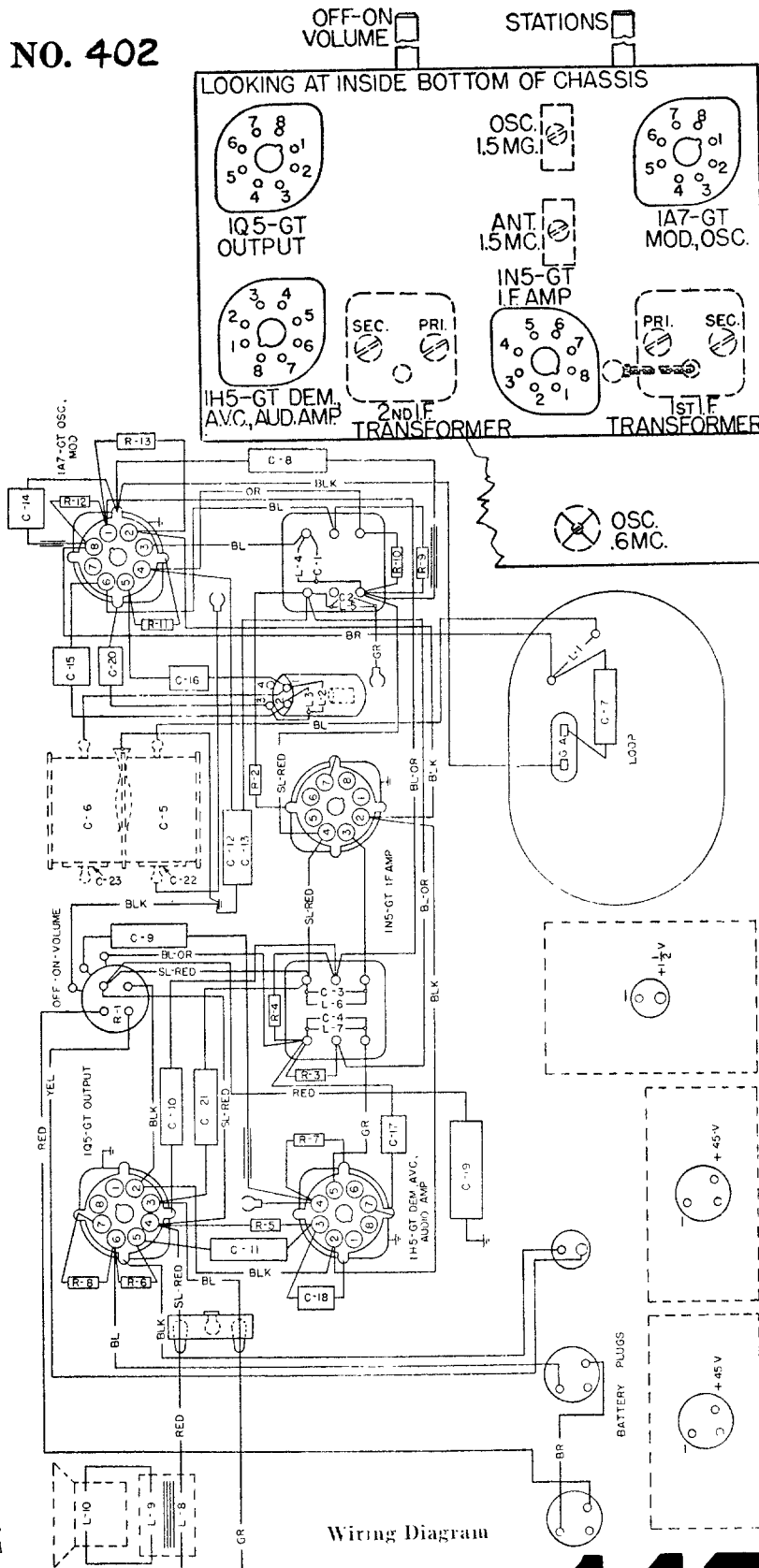
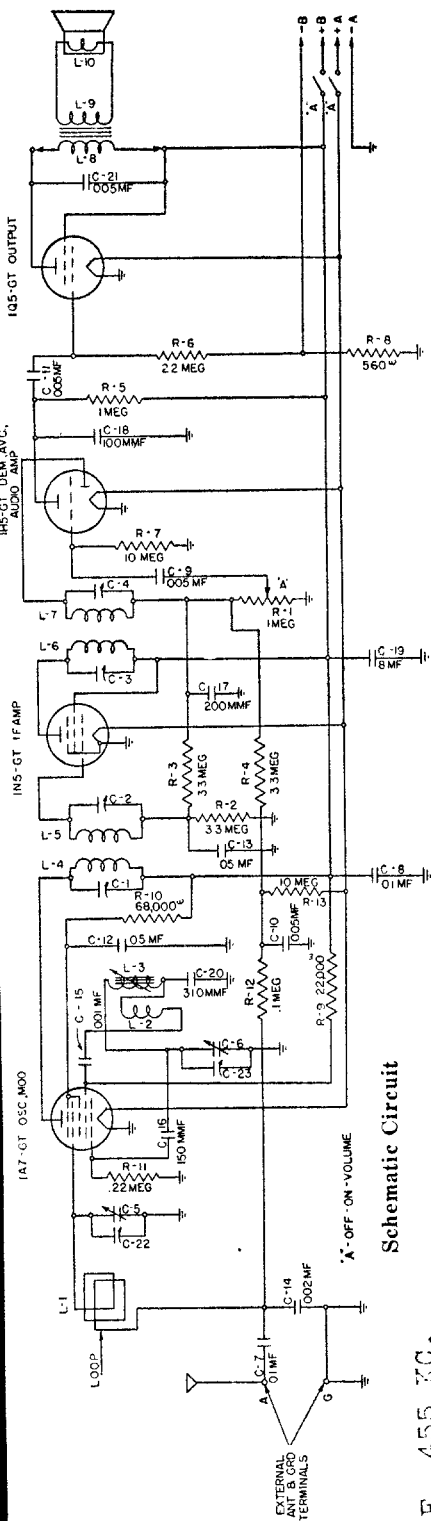
- | | | | |
|---------|---|----|--|
| 17 | Transformer—1st I.F. | 17 | Condenser—mica, 110 mmf. |
| 18 | Coil—oscillator | 18 | Resistor—insulated, 470,000 ohms, 1/4 watt |
| 19 | Coil—R. F. Choke | 19 | Resistor—insulated, 1 megohm, 1/4 watt |
| 20 | Resistor—65 ohms, 2 watts, Wire Wound | 20 | Resistor—insulated, 220,000 ohms, 1/4 watt |
| 21 | Condenser—.1 mfd., 600 volt | 21 | Speaker—dynamic 3" |
| 22 | Transformer — output for R-115053 speaker | 22 | Resistor—insulated, 10 megohm, 1/4 watt |
| 23 | Cone & Voice coil assembly for R-115053 speaker | 23 | Resistor—insulated, 22,000 ohm, 1/4 watt |
| 24 | Condenser—.01 mfd., 600 volt | 24 | Resistor—insulated, 100 ohm, 1/2 watt |
| 25-26 | Condenser—.004 mfd., 600 volt | 25 | Resistor—insulated, 100 ohm, 1/4 watt |
| 27 | Condenser—.05 mfd., 600 volt | 26 | Condenser—mica, 260 mmfd. |
| 28-29 | Condenser—.02 mfd., 600 volt | 27 | 14A-14B Condenser—2 gang tuning |
| 30A-30B | Volume control (500,000 ohms—with switch) | 28 | Condenser—electrolytic, Dual 20 mfd., 150 volt |
| 31 | Coil—antenna | 29 | Condenser—trimmer for 2nd I.F. |
| 32 | Transformer—2nd I.F. | | |

ENGINEERING DATA
STROMBERG-CARLSON NO. 400 RADIO RECEIVERS



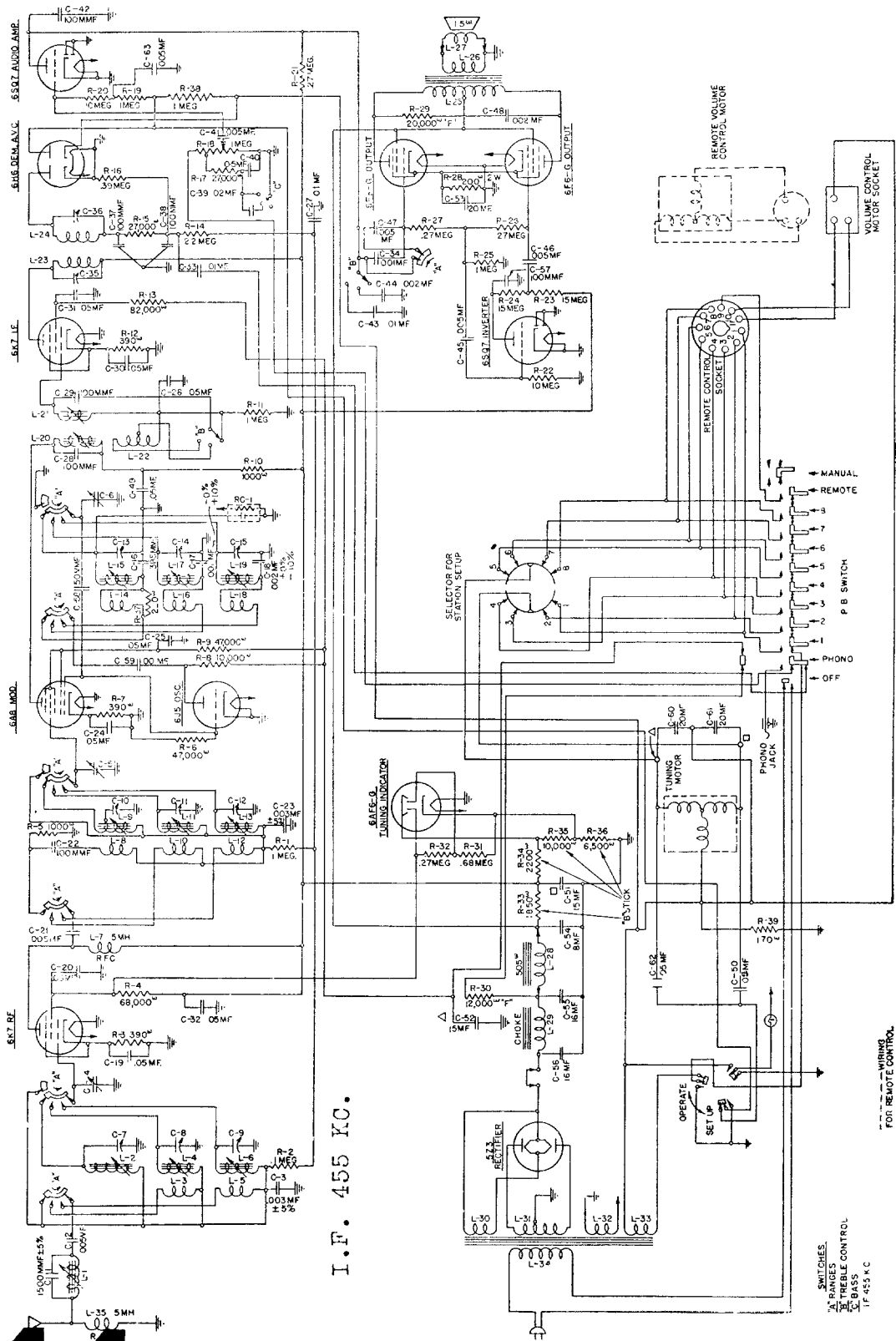
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

STROMBERG-CARLSON NO. 402



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

STROMBERG-CARLSON NO. 450 RADIO RECEIVERS

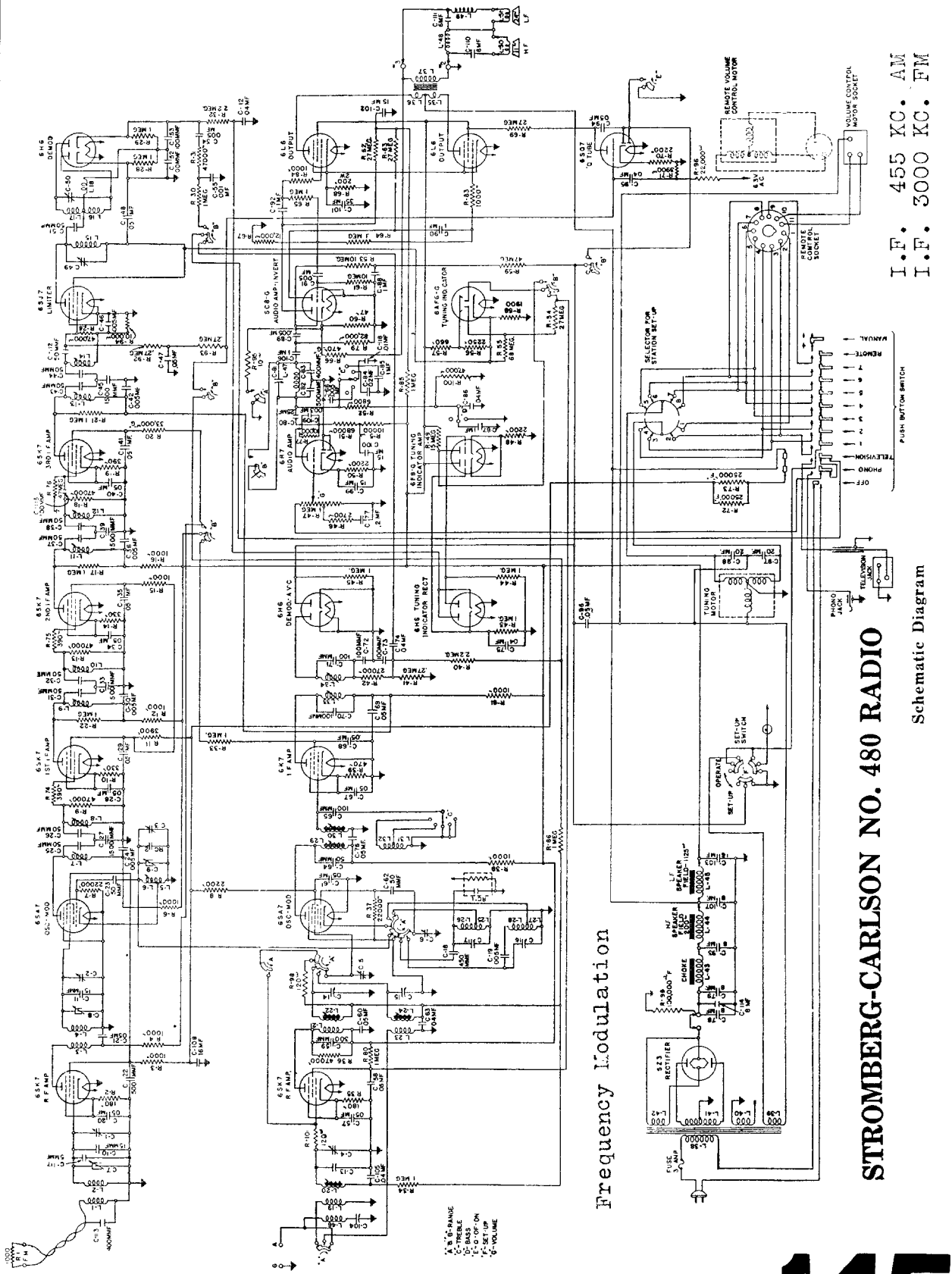


Schematic Circuit

I.F. 455 KC.

SWITCHES:
 ▲ RANGES CONTROL
 ▼ BASS
 IF-455 KC
 --- WIRING FOR REMOTE CONTROL.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



I.F. 455 KC. AM
I.F. 3000 KC. FM

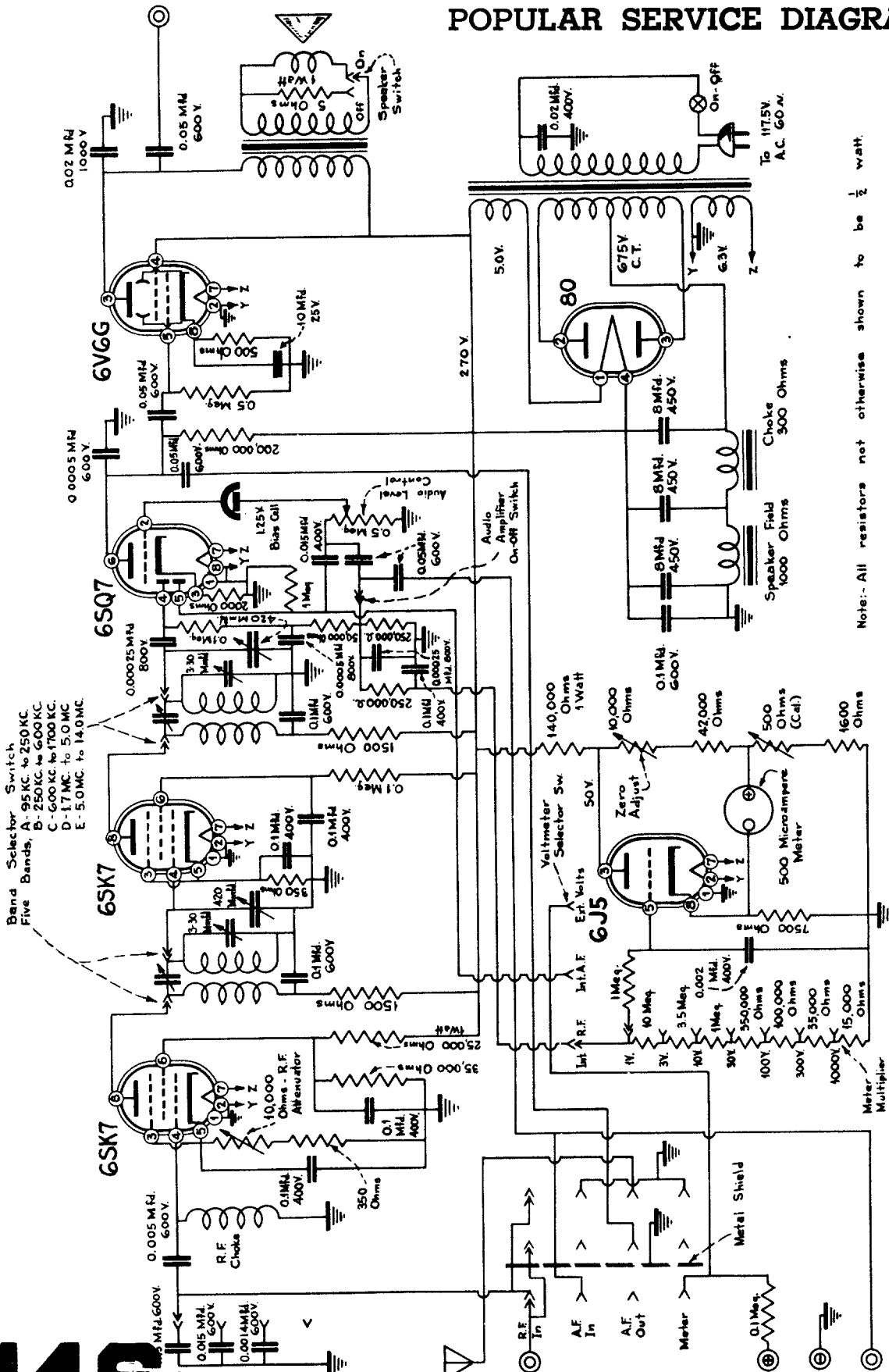
STROMBERG-CARLSON NO. 480 RADIO

Schematic Diagram

Frequency Modulation

- 1. R.F. AMP.
- 2. I.F. AMP.
- 3. DETECTOR
- 4. TUNING INDICATOR
- 5. AUDIO AMP.
- 6. OUTPUT

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS



Note: All resistors not otherwise shown to be $\frac{1}{2}$ watt.

SUPREME
 LIFE PROTECTING SCHEMATIC SERVICE
 GREENWOOD, MISS. U.S.A.

Schematic Wiring Diagram
 Model 562 - Audolyzer

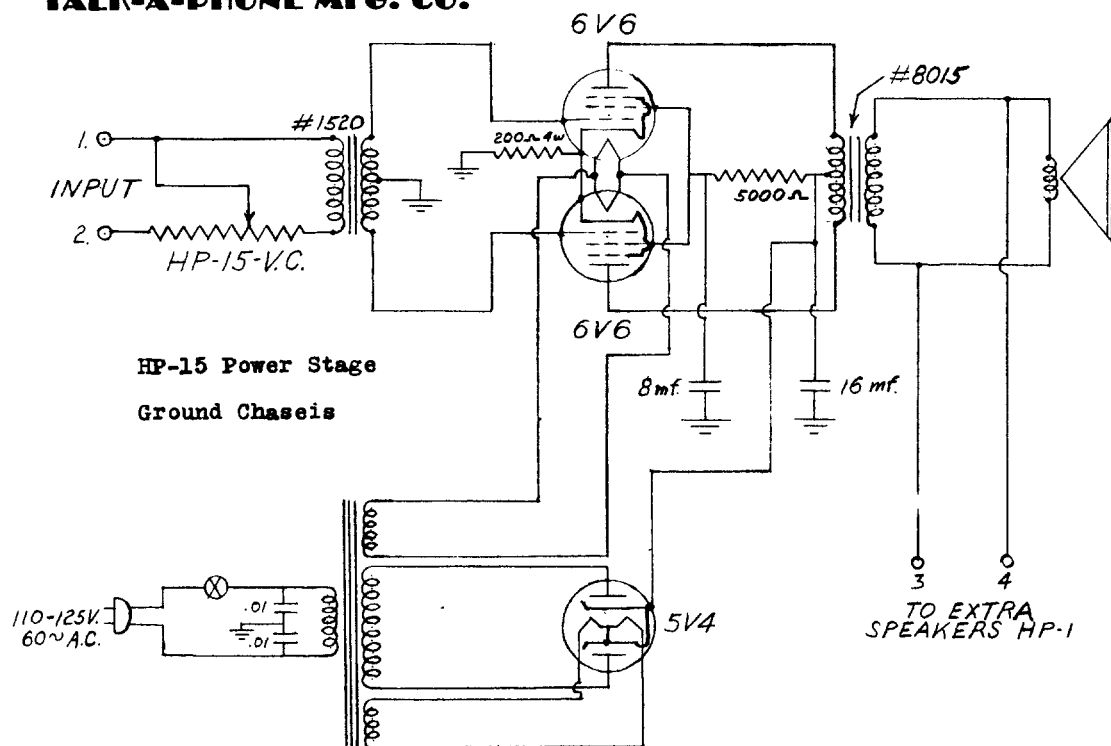
GREENWOOD
 CECIL
 CLEMENTS
 GREENWOOD
 MISS. U.S.A.

TRAFFIC
 DATE 7-24-39

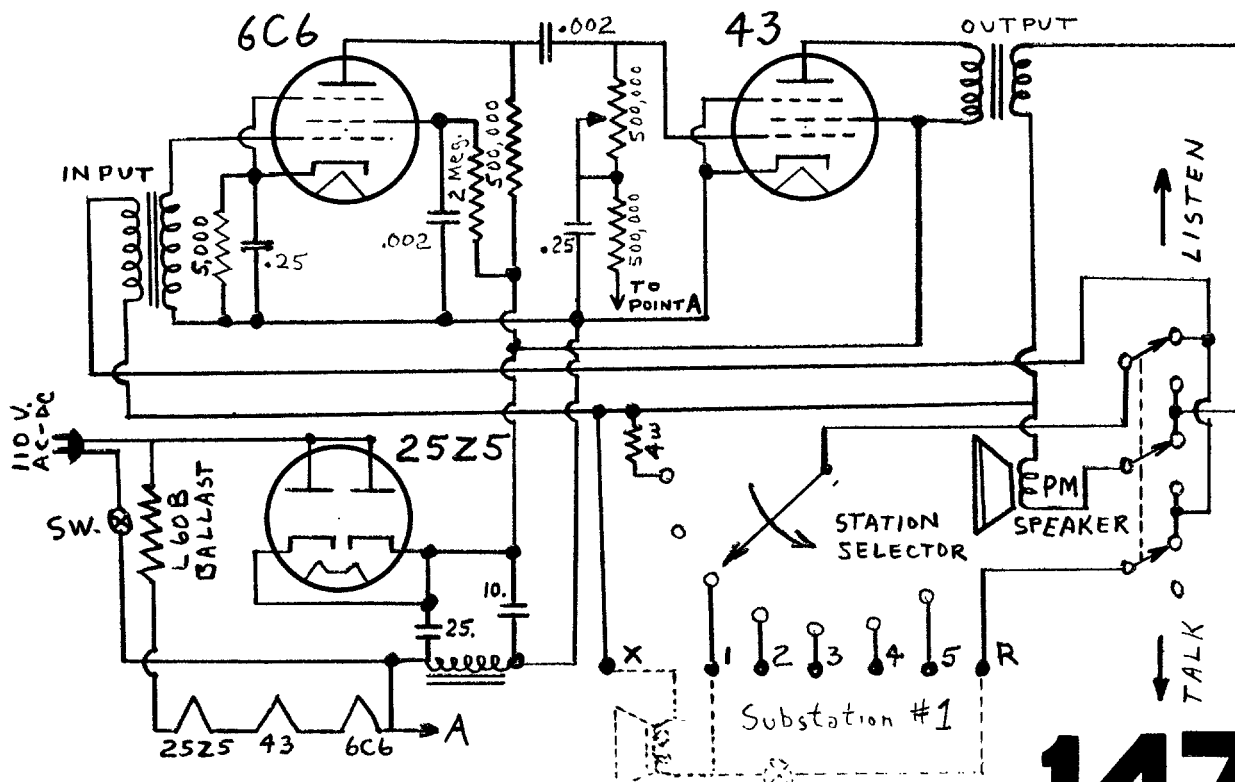
2127C

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

TALK-A-PHONE MFG. CO.



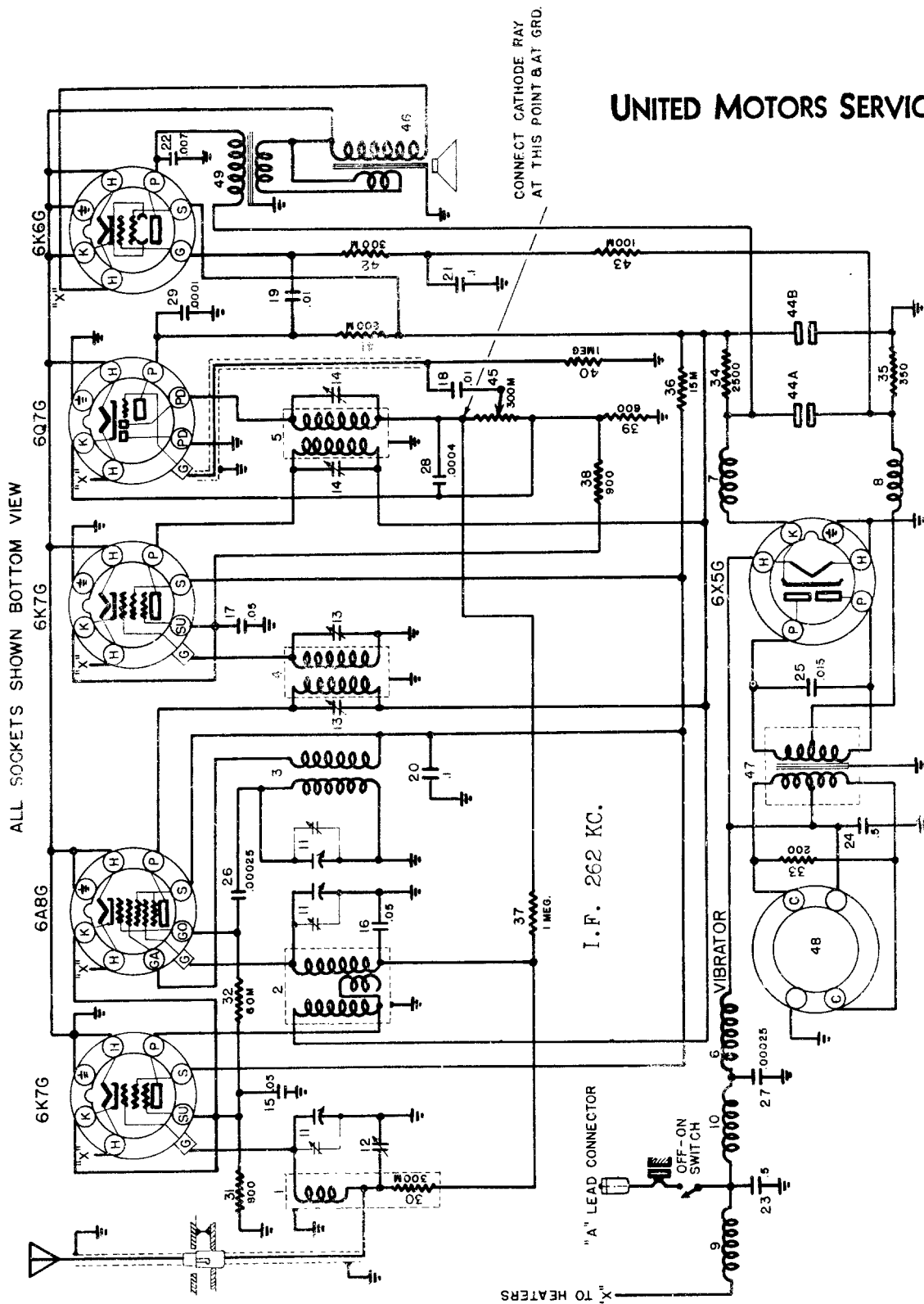
MASTER SYSTEM INTERCOMMUNICATOR



COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

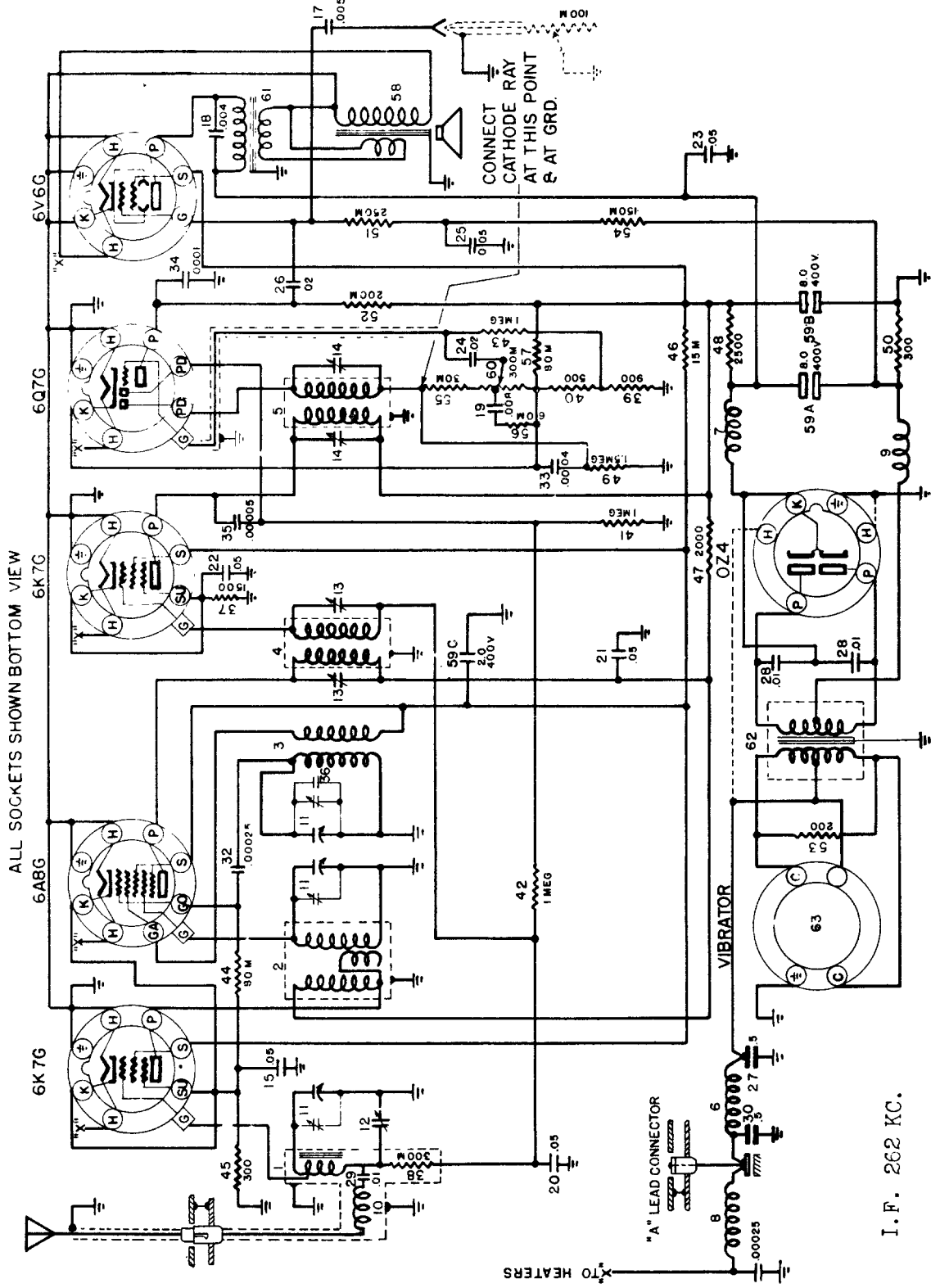
147

UNITED MOTORS SERVICE

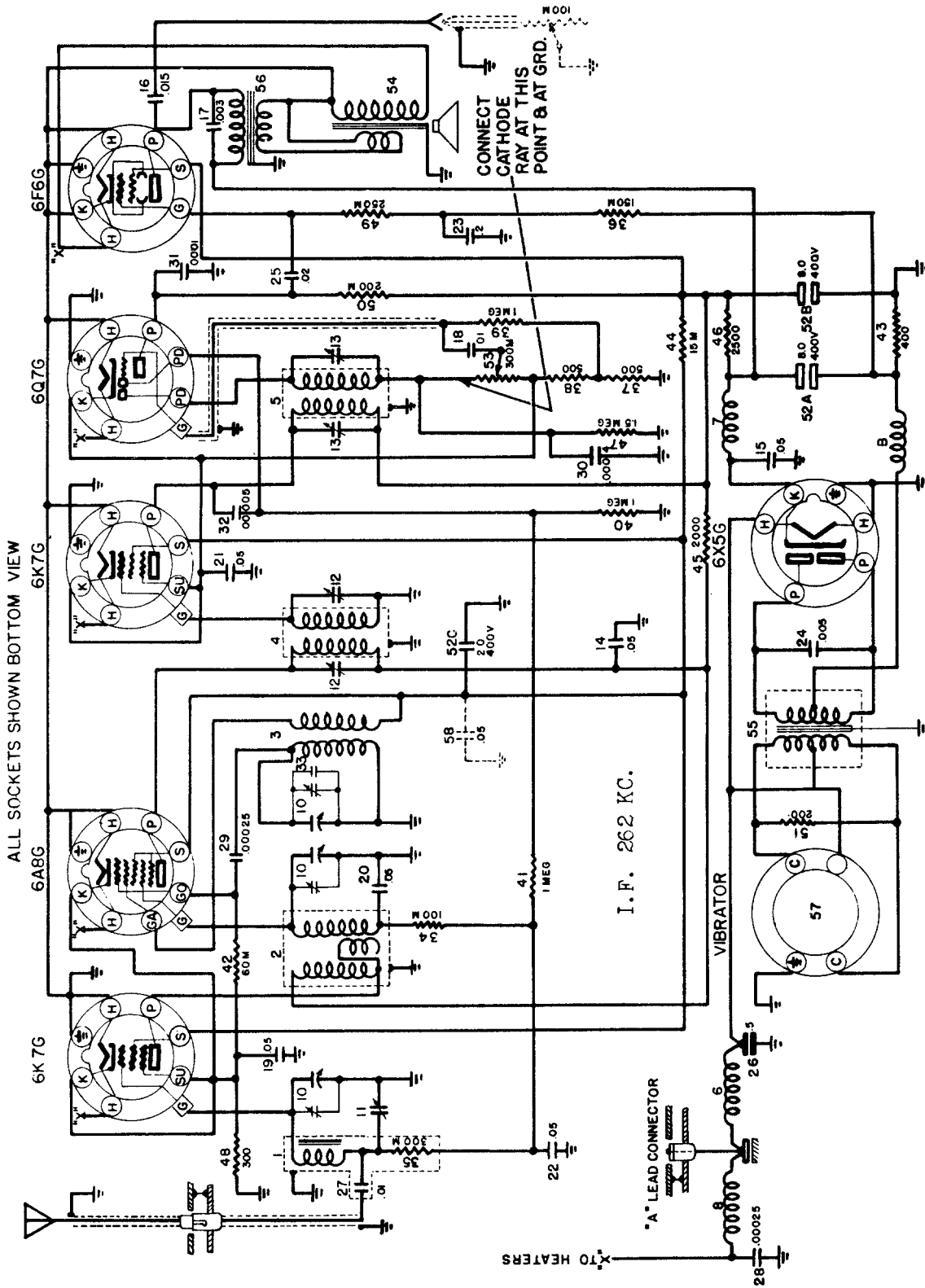


DELCO MODEL R-663 CIRCUIT DIAGRAM

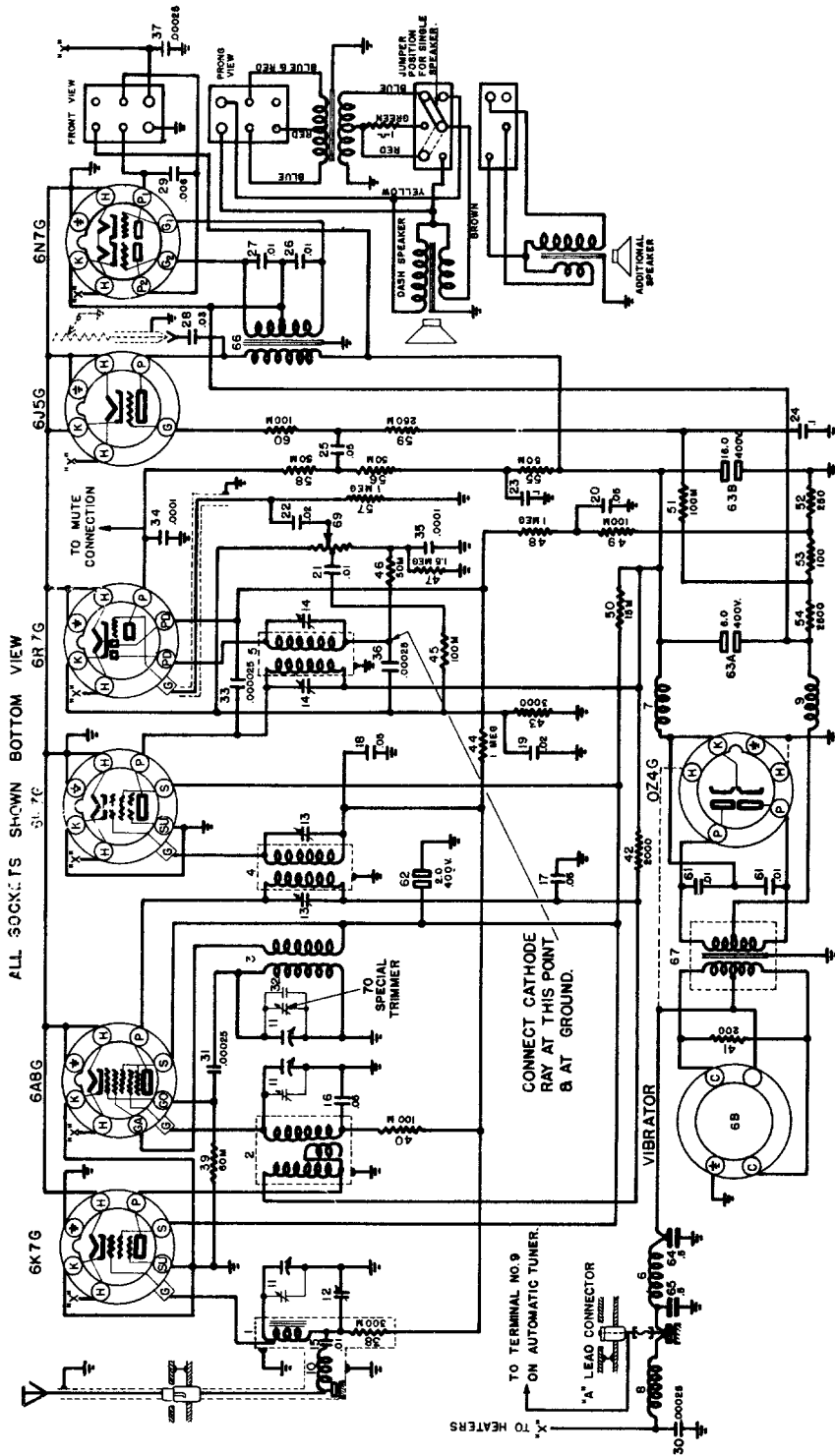
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



DELCO MODEL R-665 CIRCUIT DIAGRAM



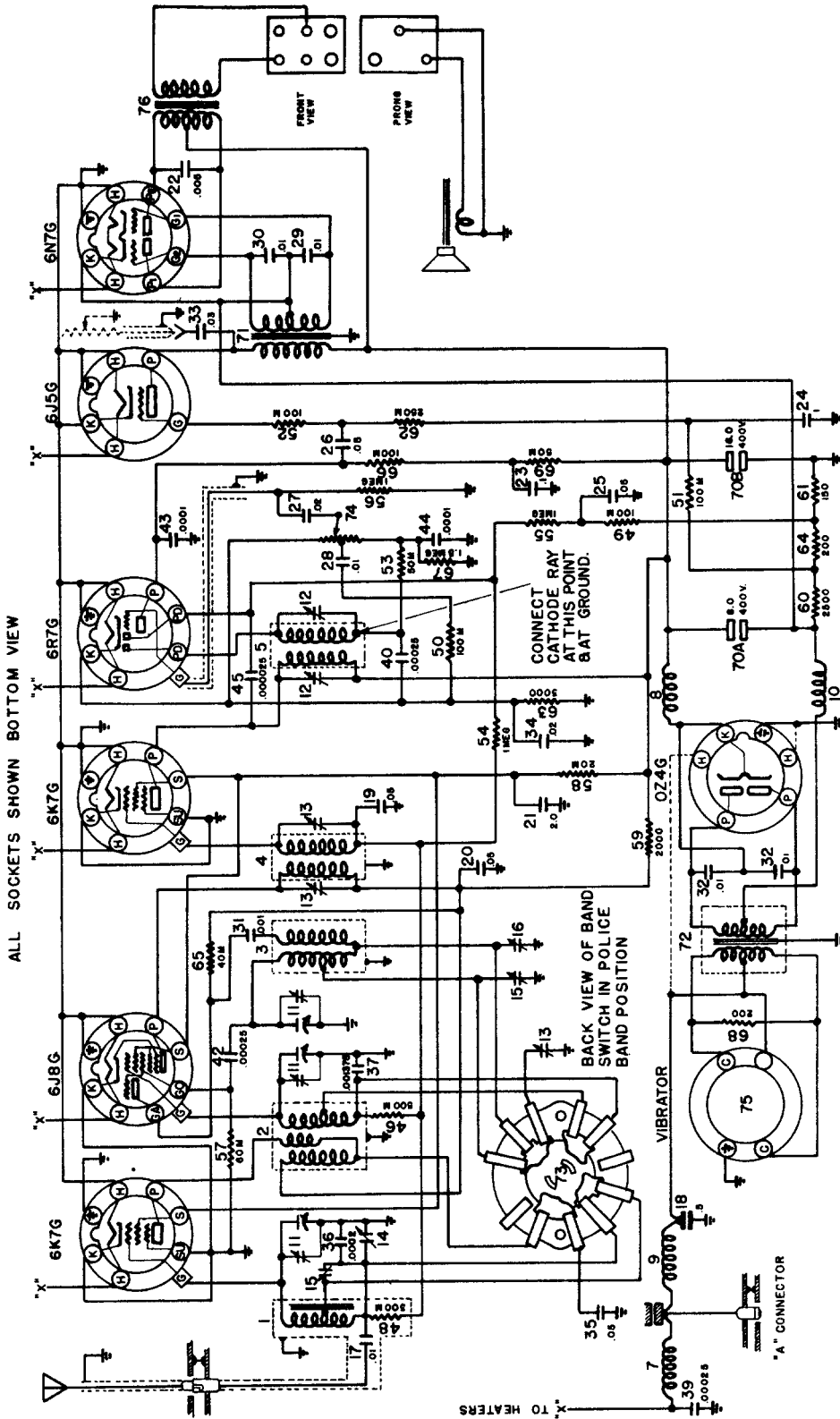
DELCO MODEL R-664 CIRCUIT DIAGRAM



DELCO MODEL R-668-9 CIRCUIT DIAGRAM

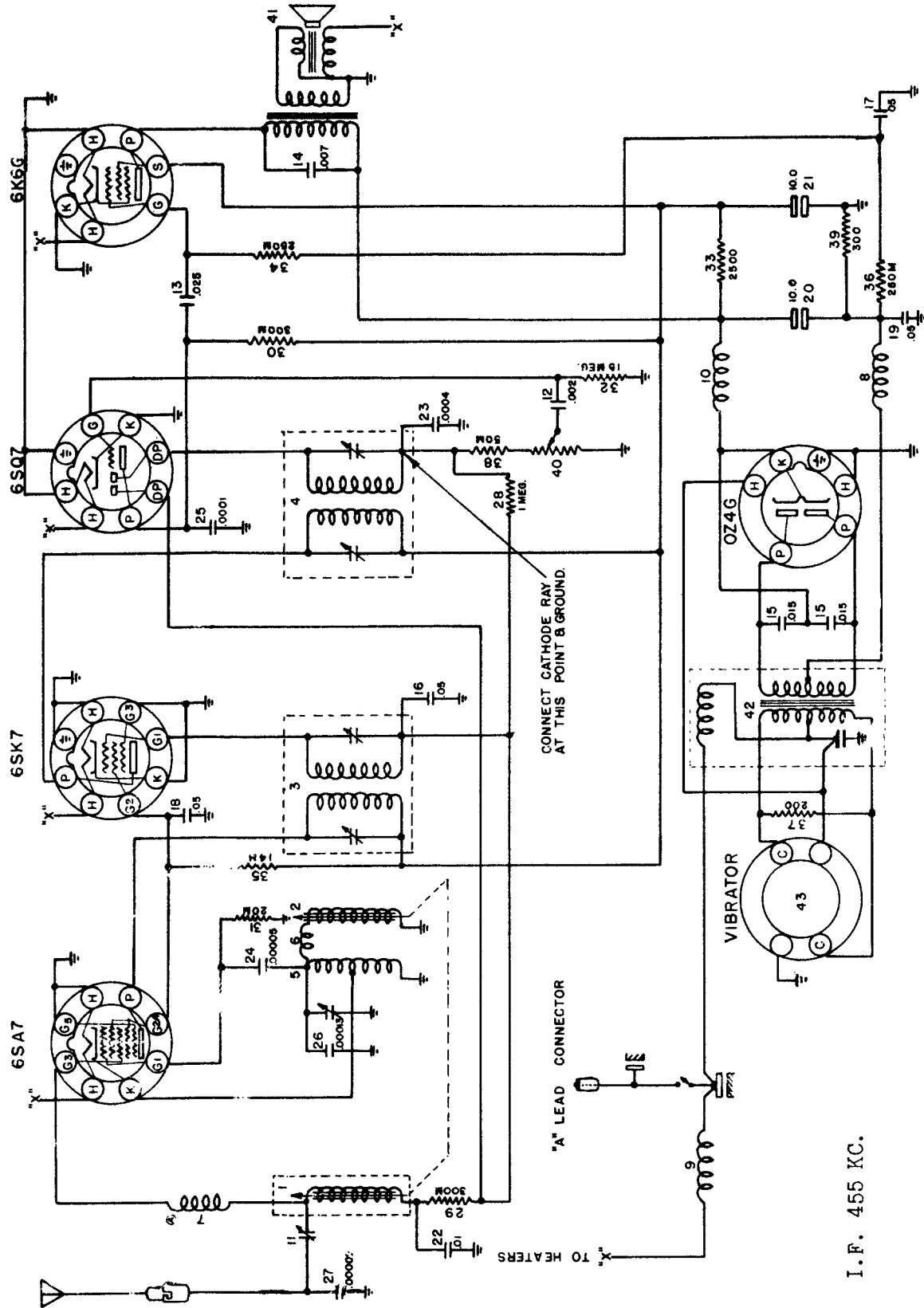
I. F. 262 KC.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



DELCO MODEL R-673 CIRCUIT DIAGRAM

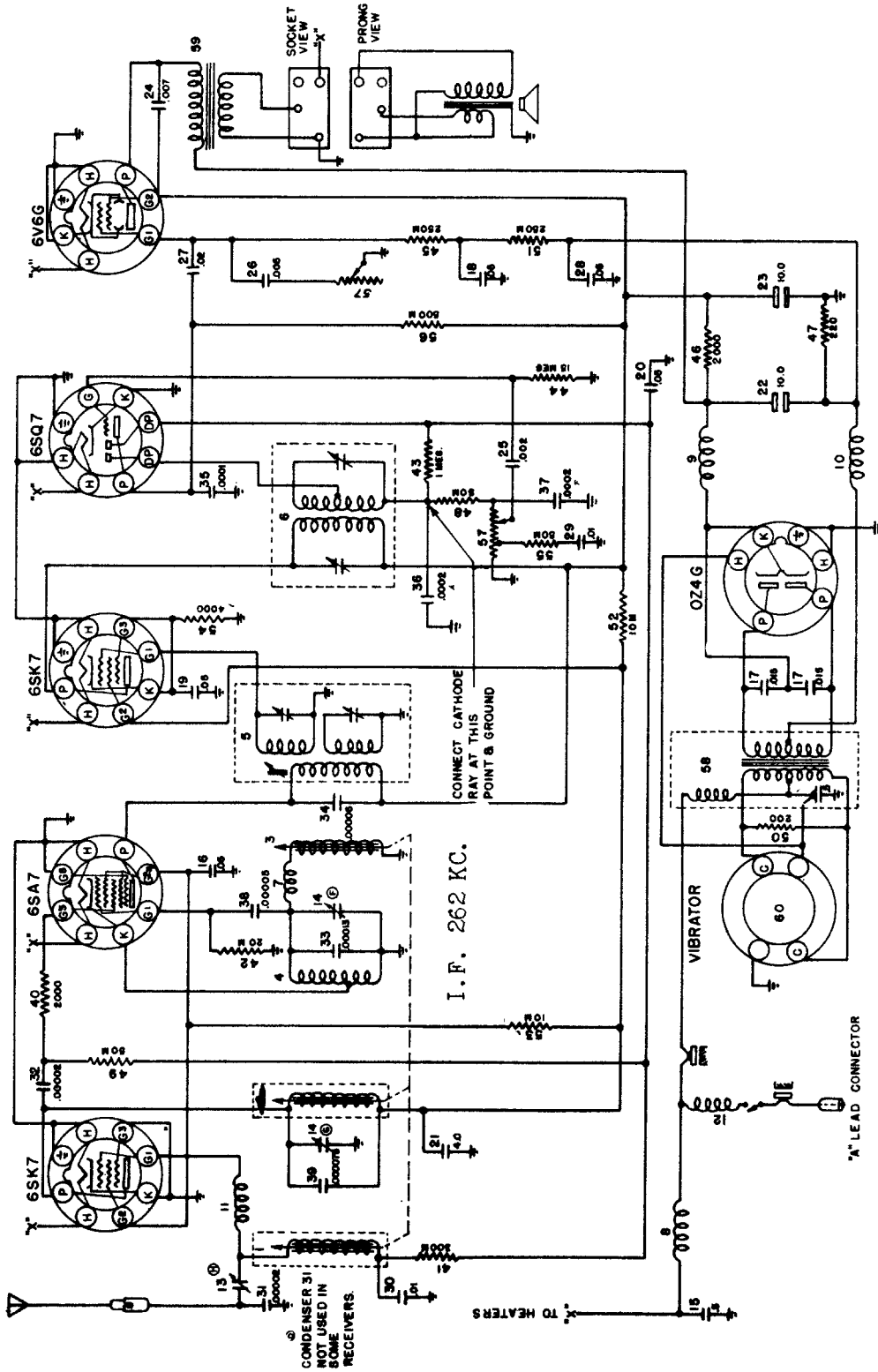
I. F. 262.5



DELCO MODEL R-675

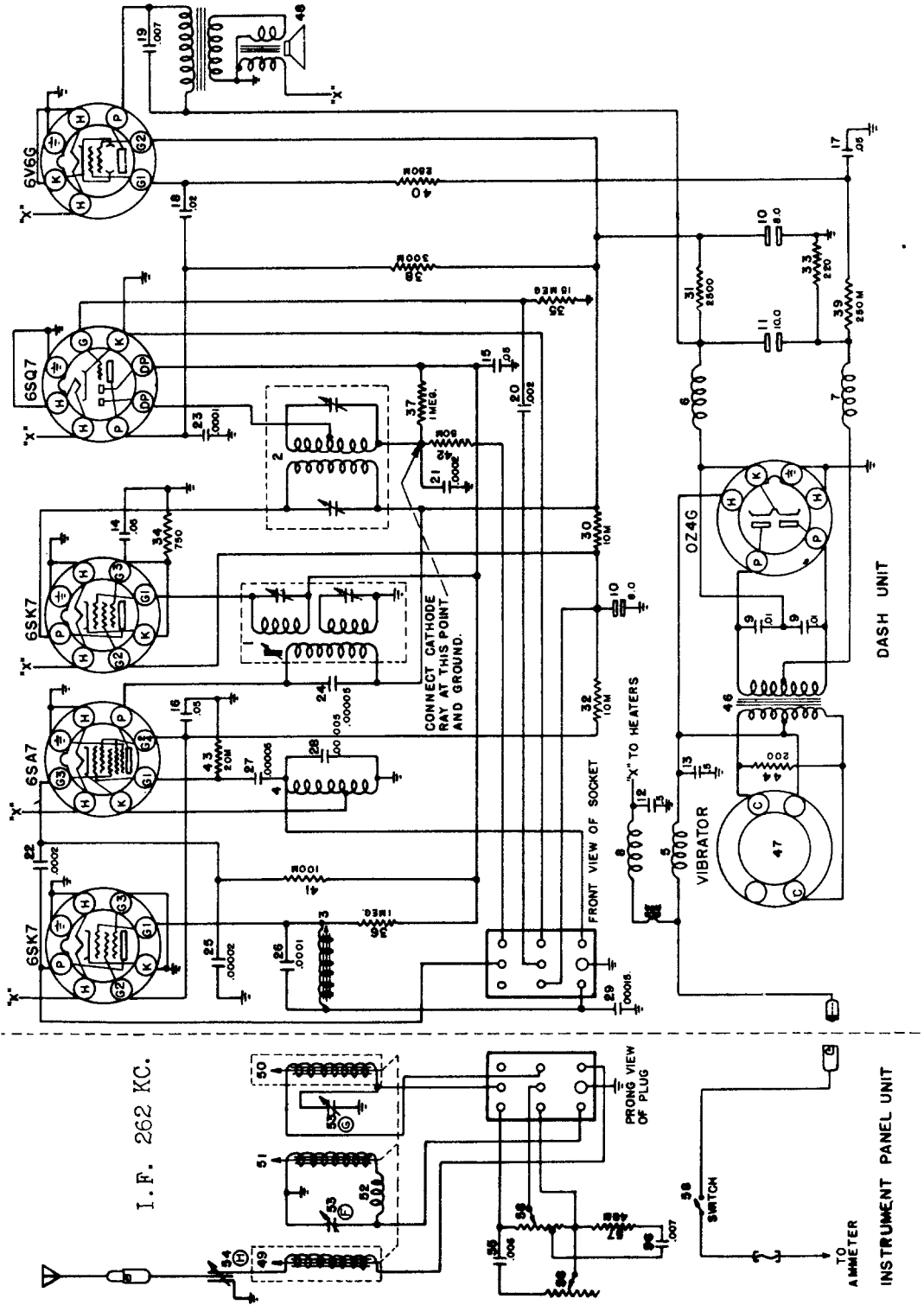
I.F. 455 KC.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

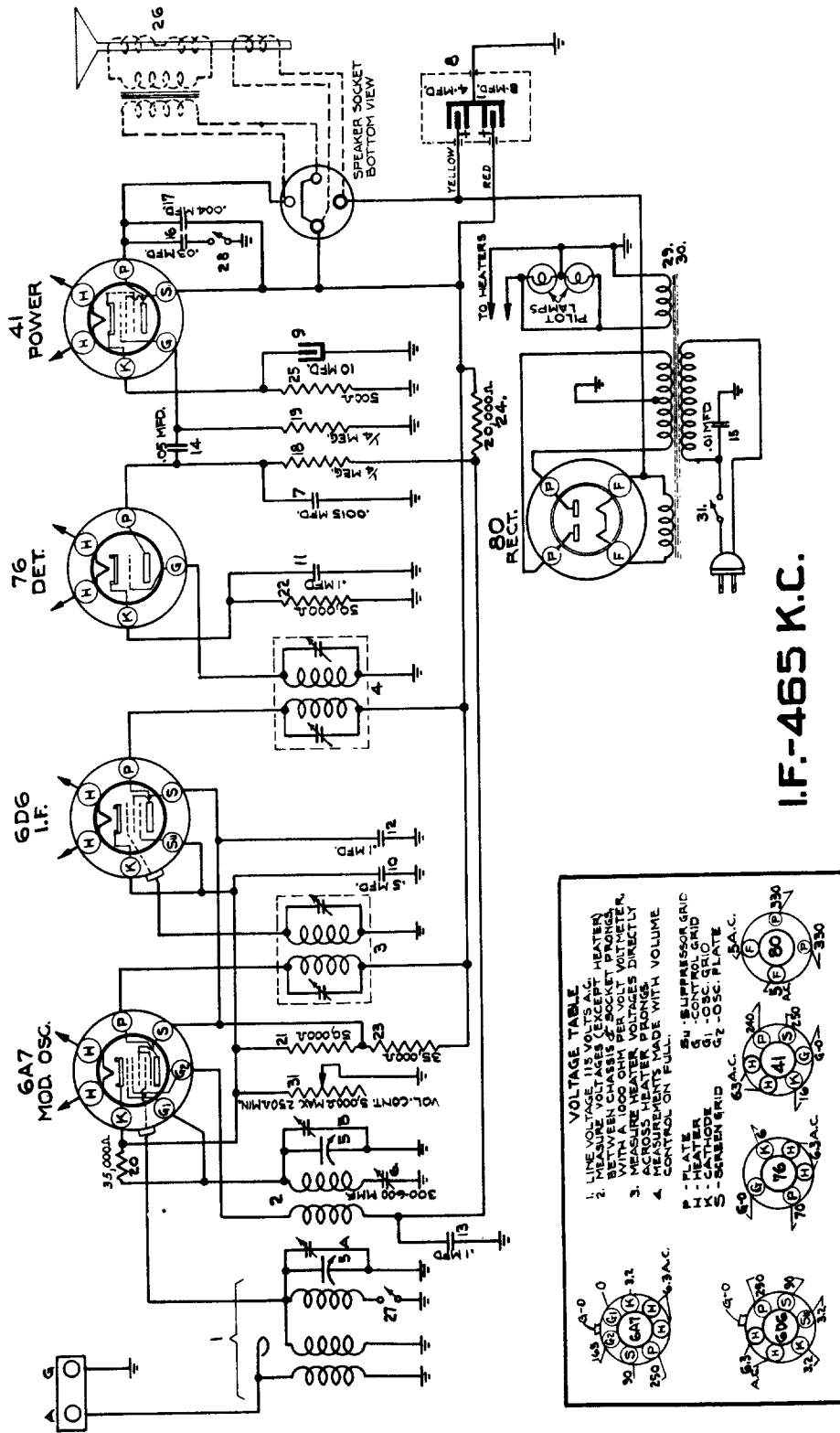


DELCO MODEL R-677 CIRCUIT DIAGRAM

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

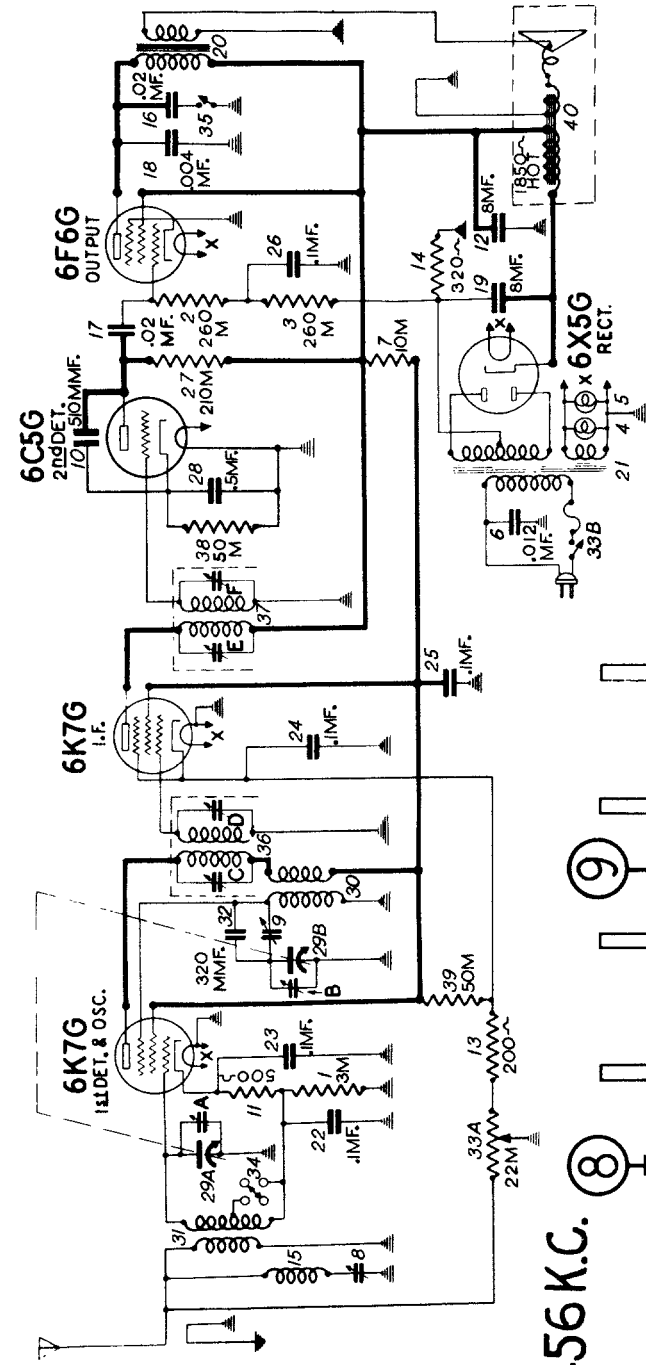


DELCO MODEL R-678 CIRCUIT DIAGRAM

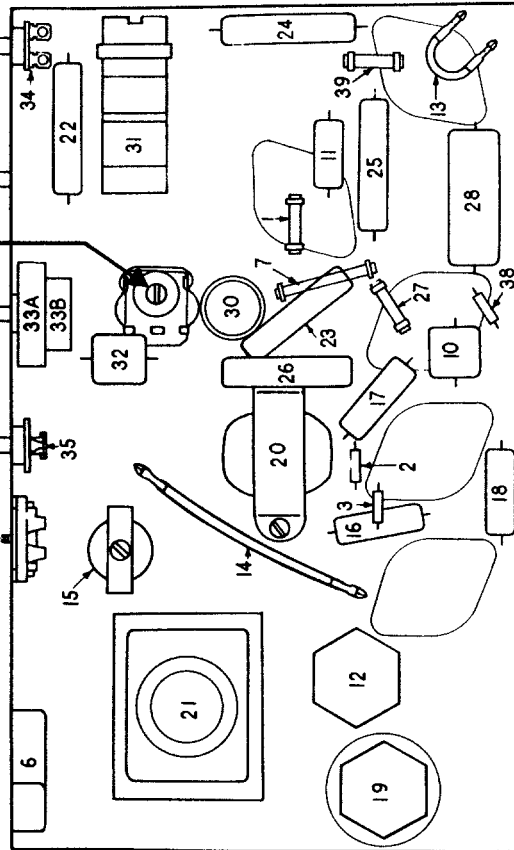


DELCO MODEL R-1115 CIRCUIT DIAGRAM
(Below Serial #100,000)

I.F.-465 K.C.

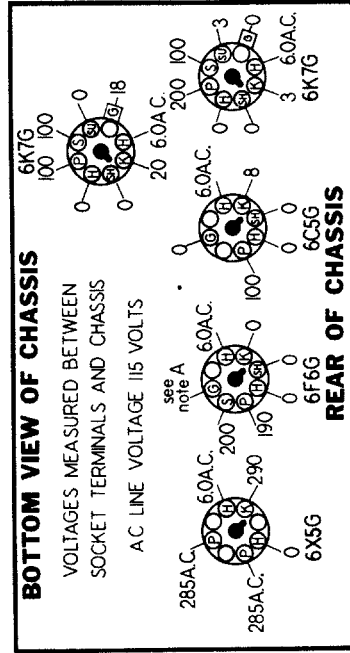


I.F.-456 K.C. ⑧

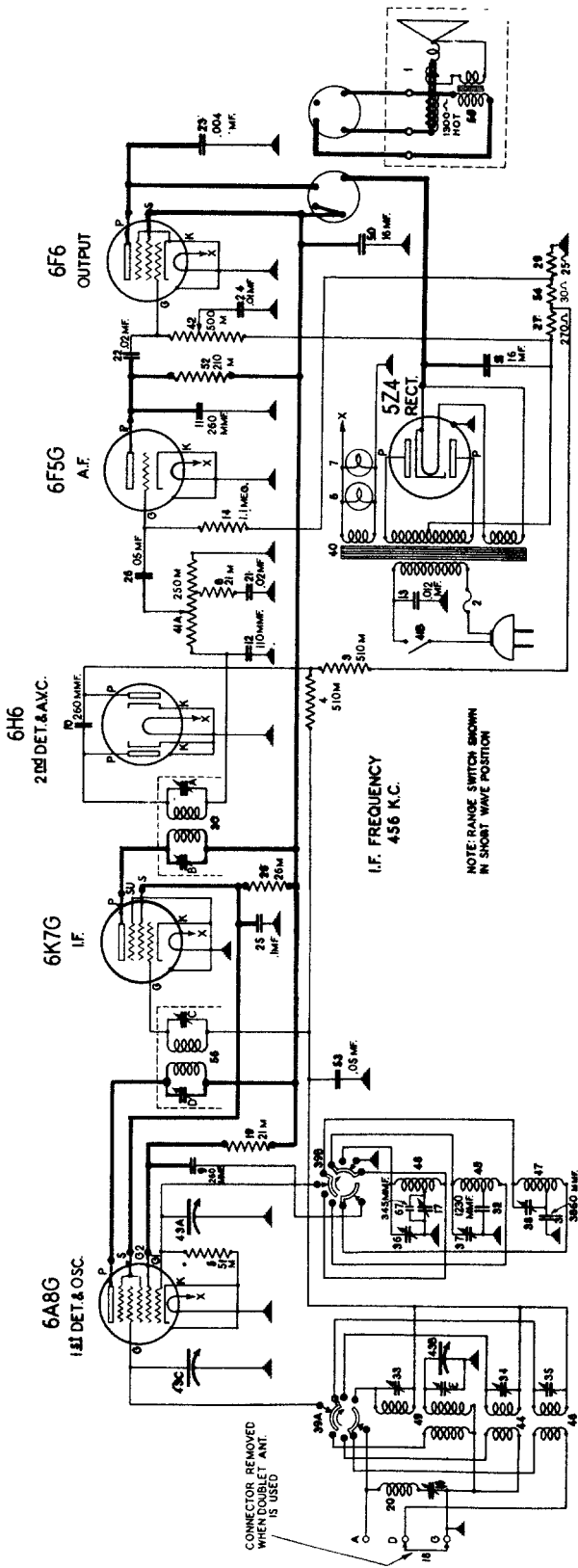


PARTS LAYOUT--Bottom View

DELCO MODEL R-1115 CIRCUIT DIAGRAM
(Above Serial #100,000)



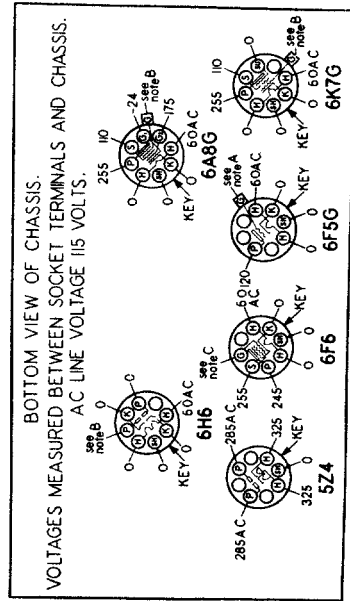
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



CONNECTOR REMOVED WHEN DOUBLET ANT. IS USED

I.F. FREQUENCY 456 K.C.

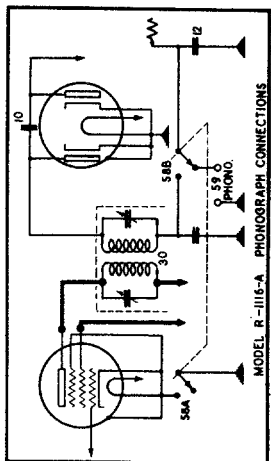
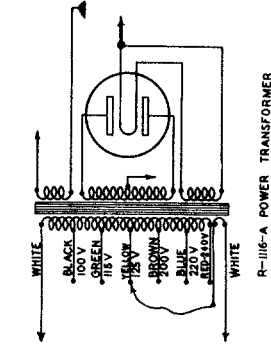
NOTE: RANGE SWITCH SHOWN IN SHORT WAVE POSITION



BOTTOM VIEW OF CHASSIS.

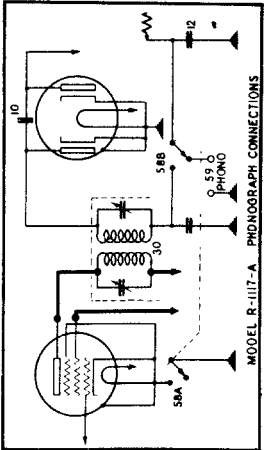
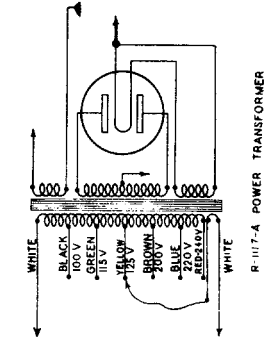
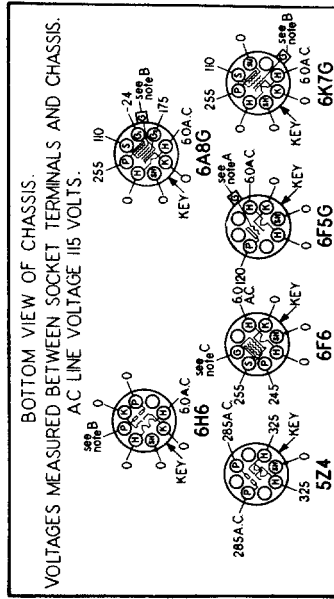
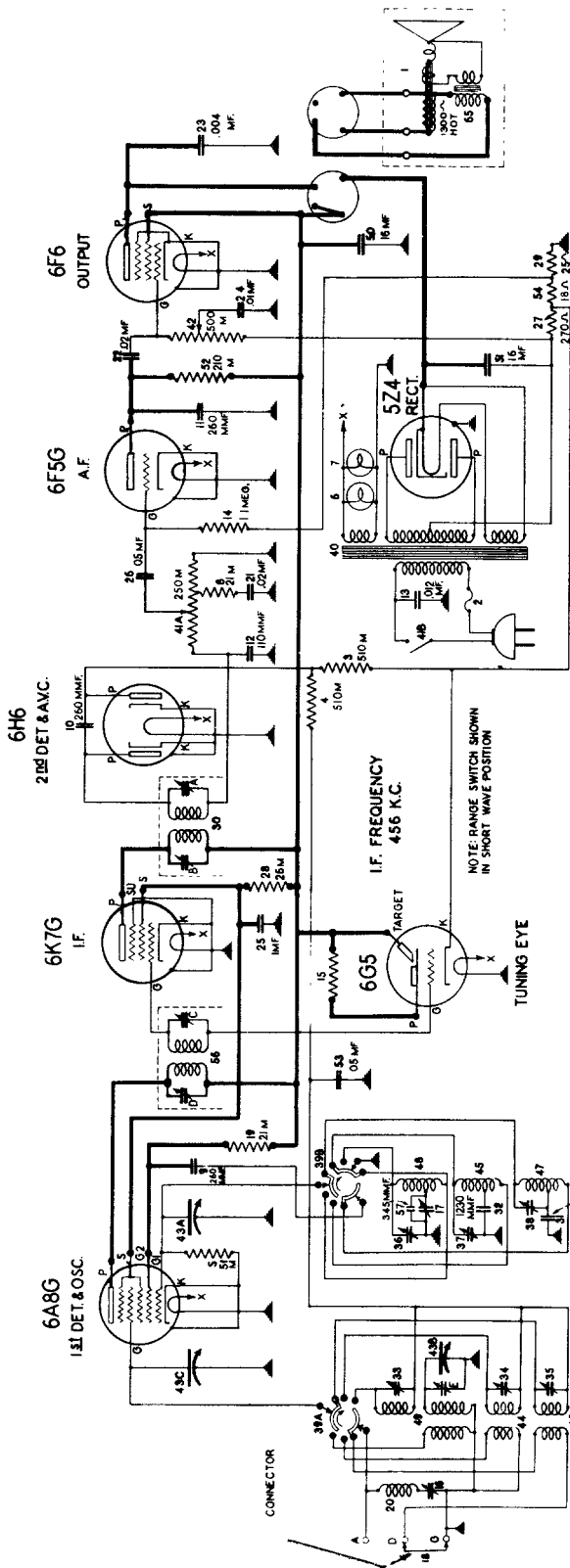
VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS.

AC LINE VOLTAGE 115 VOLTS.



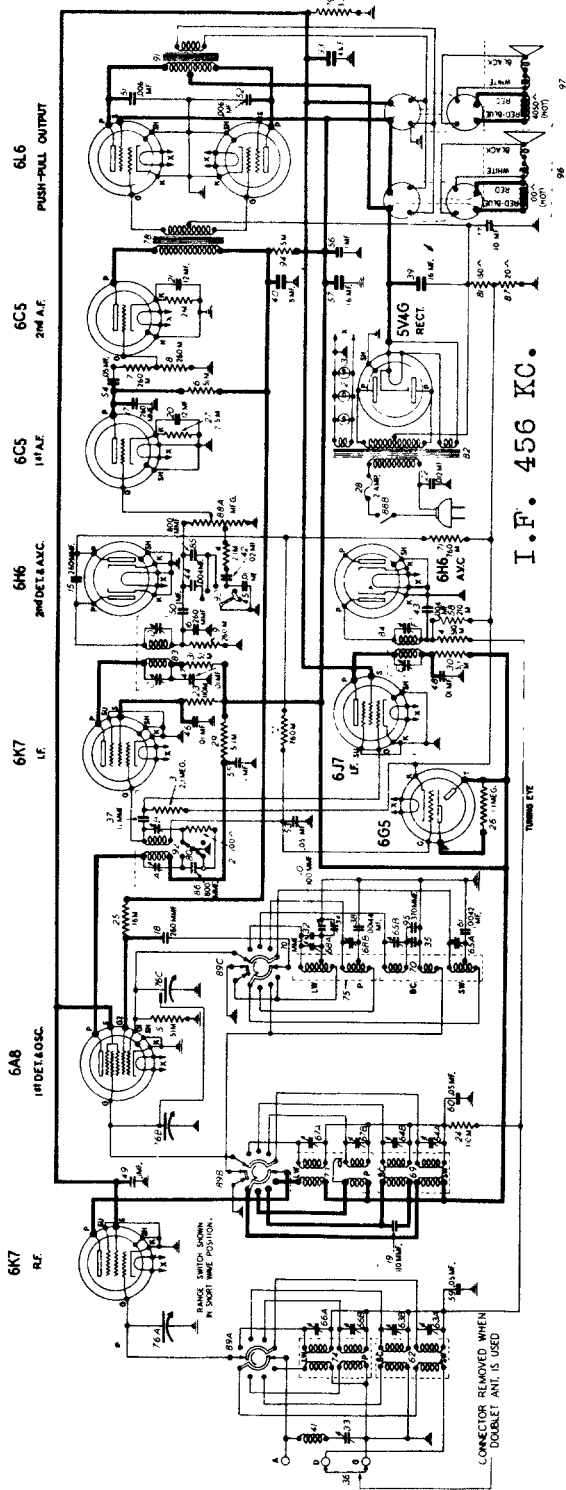
REAR OF CHASSIS

DELCO MODEL R-1116 CIRCUIT DIAGRAM

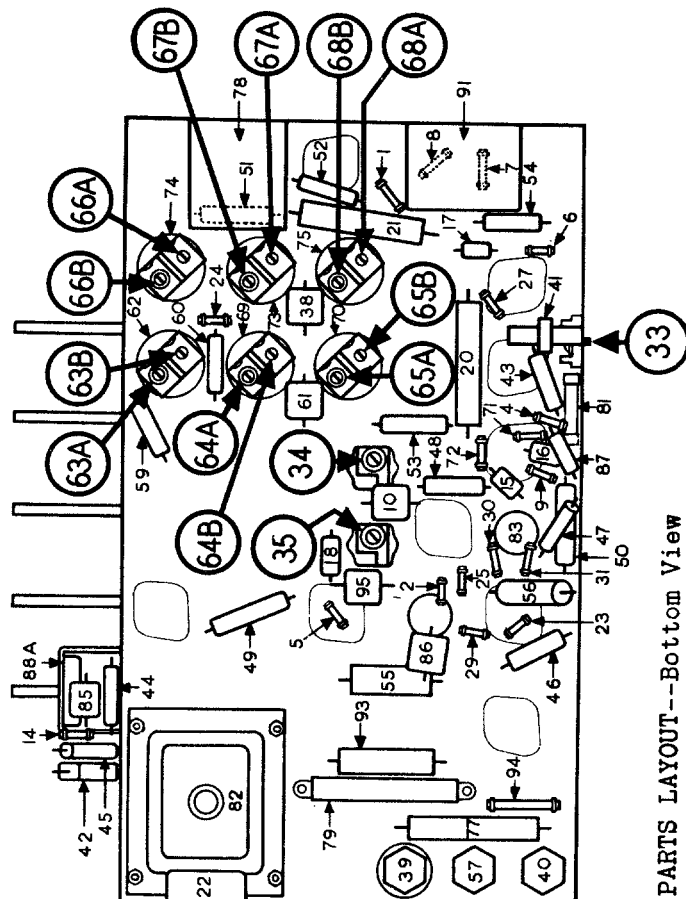


REAR OF CHASSIS

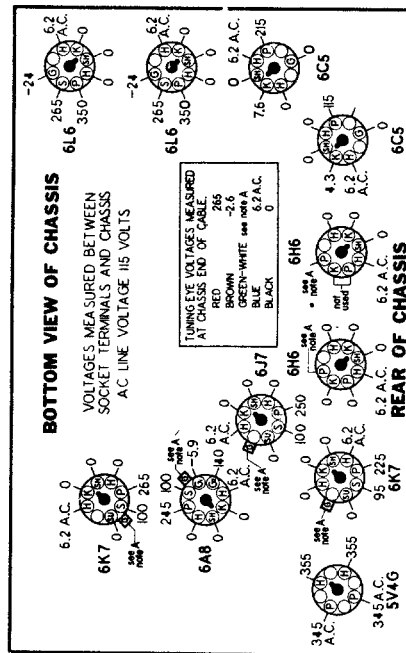
DELCO MODEL R-1117 CIRCUIT DIAGRAM



DELCO MODEL R-1119 CIRCUIT DIAGRAM

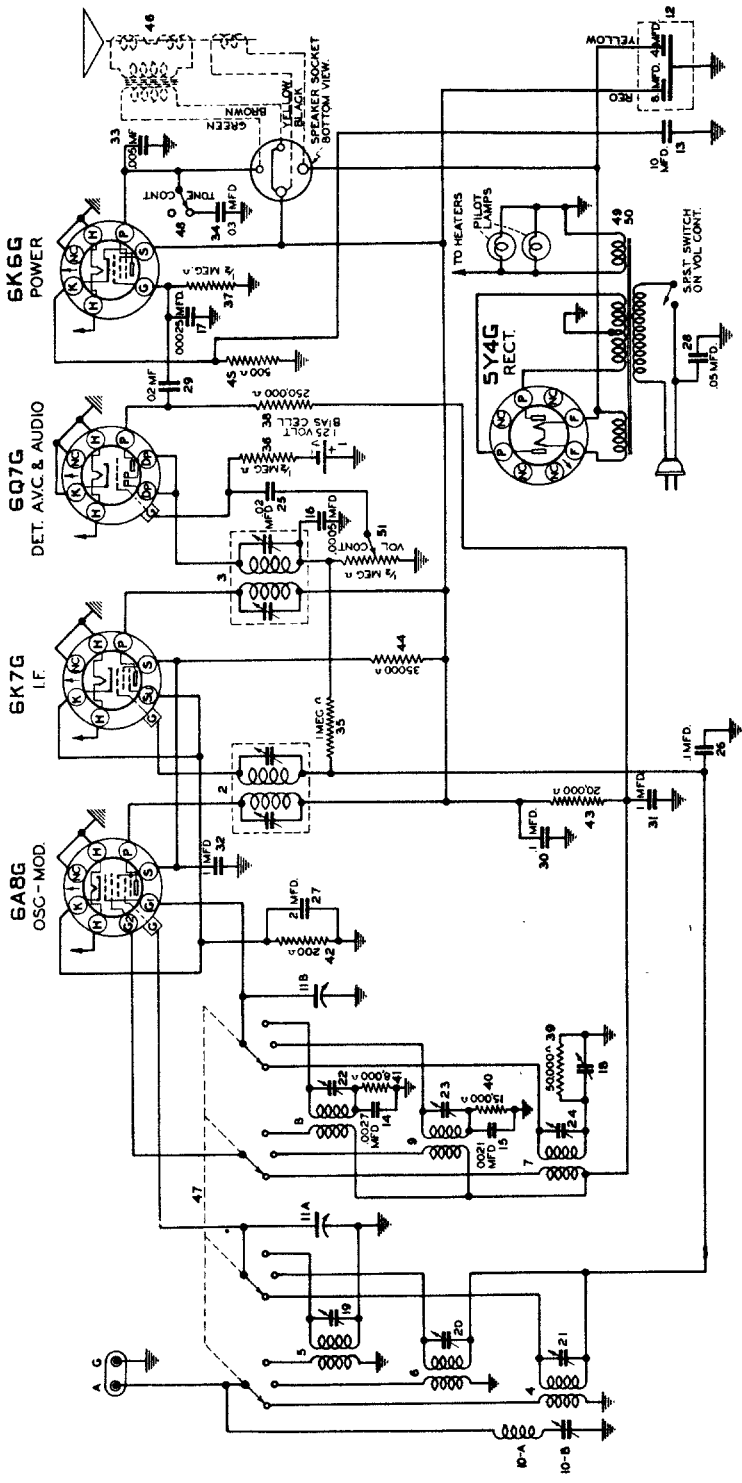


PARTS LAYOUT--Bottom View

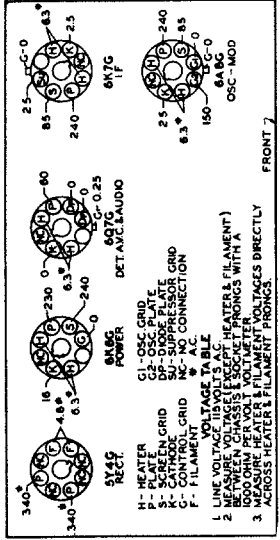


Note A: 2.6 volts measures across resistor #87.

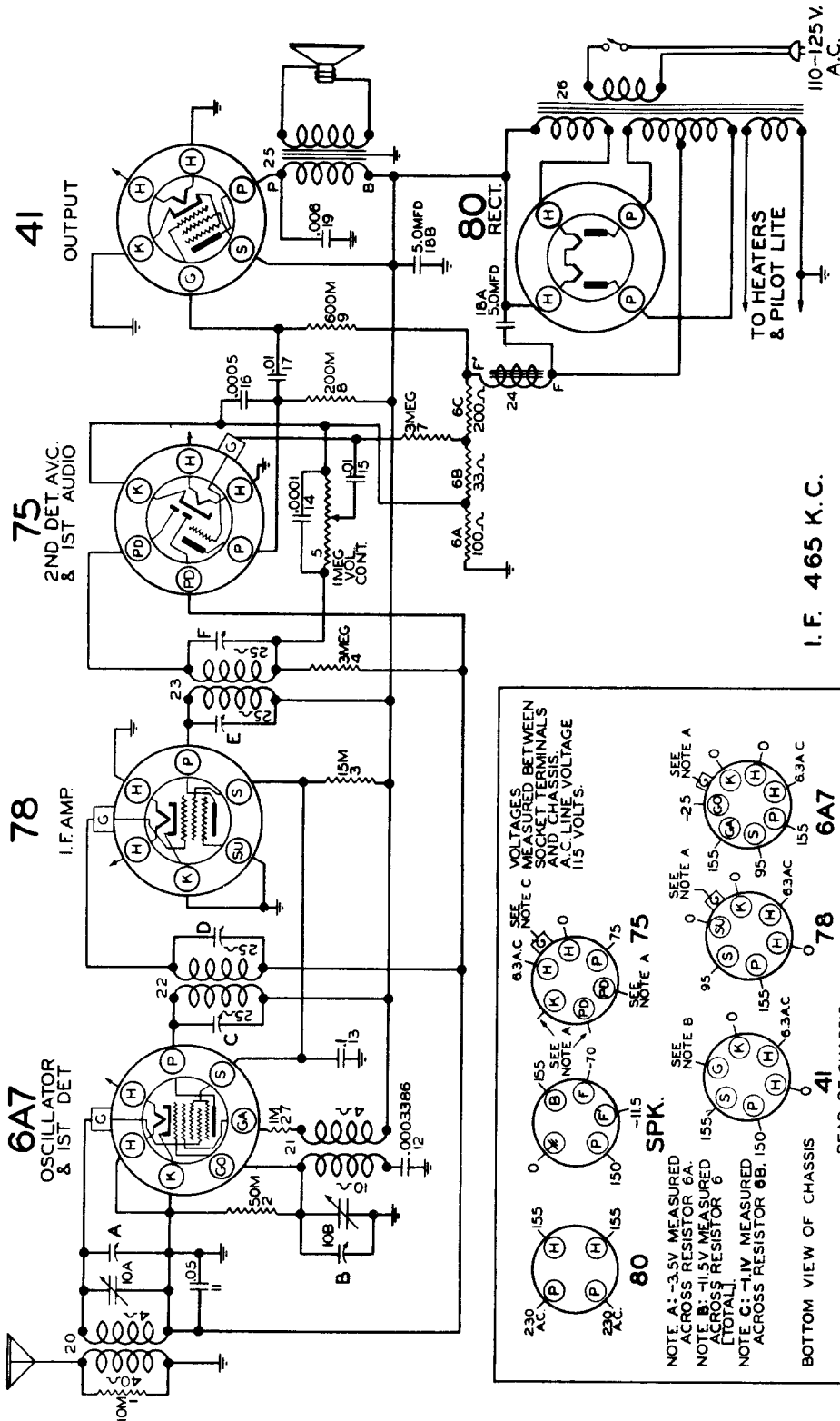
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



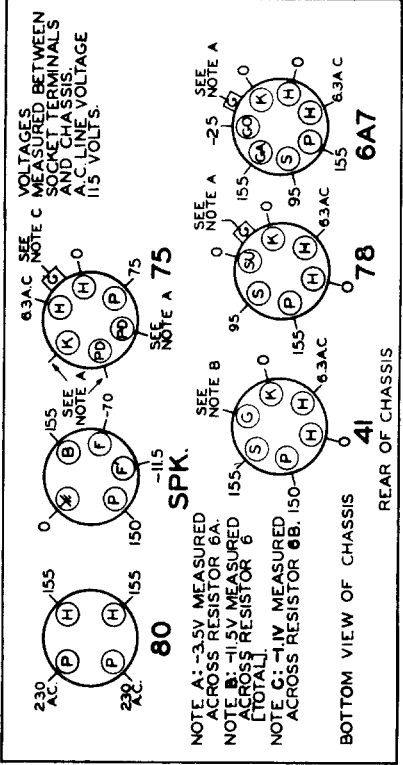
I.F. - 465 K.C.



DELCO MODEL R-1120 CIRCUIT DIAGRAM

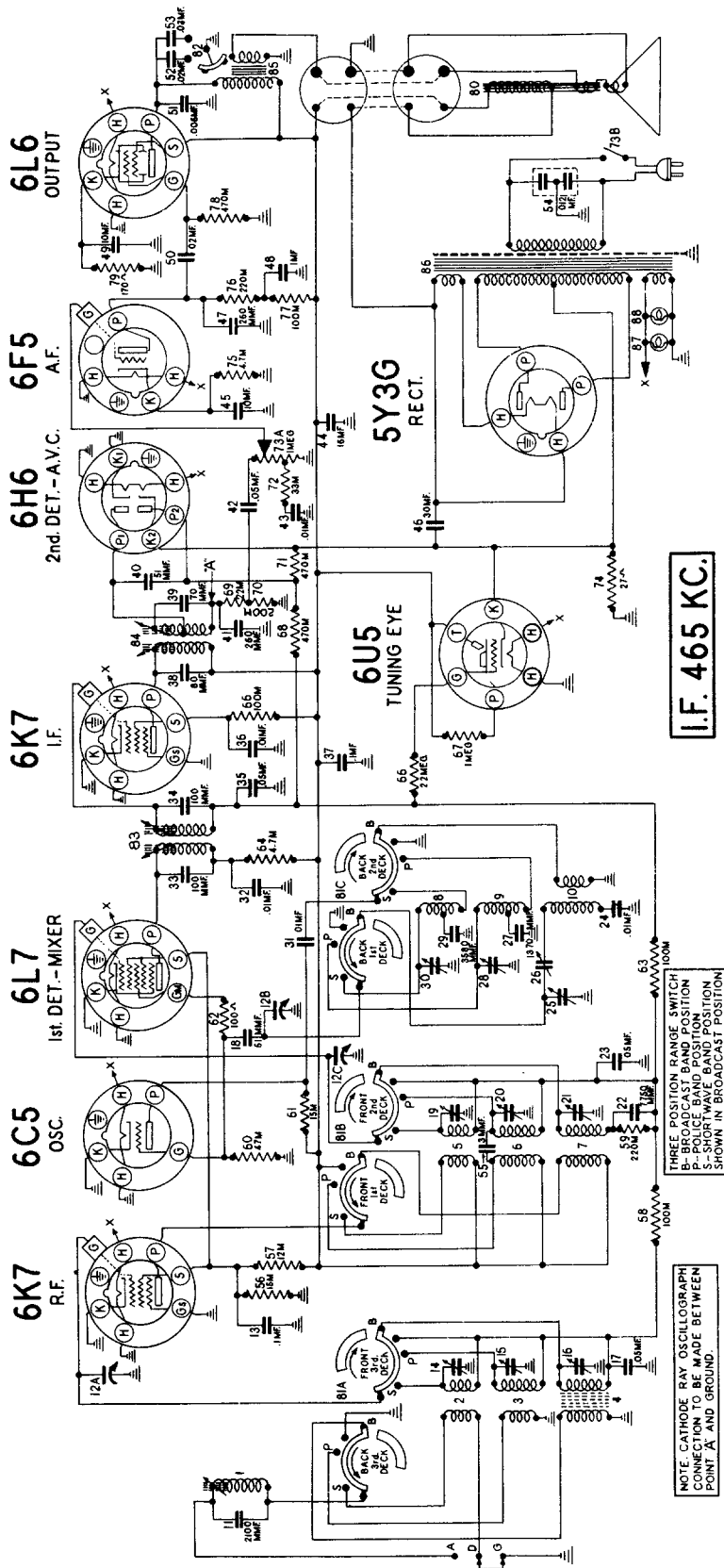


I. F. 465 K. C.



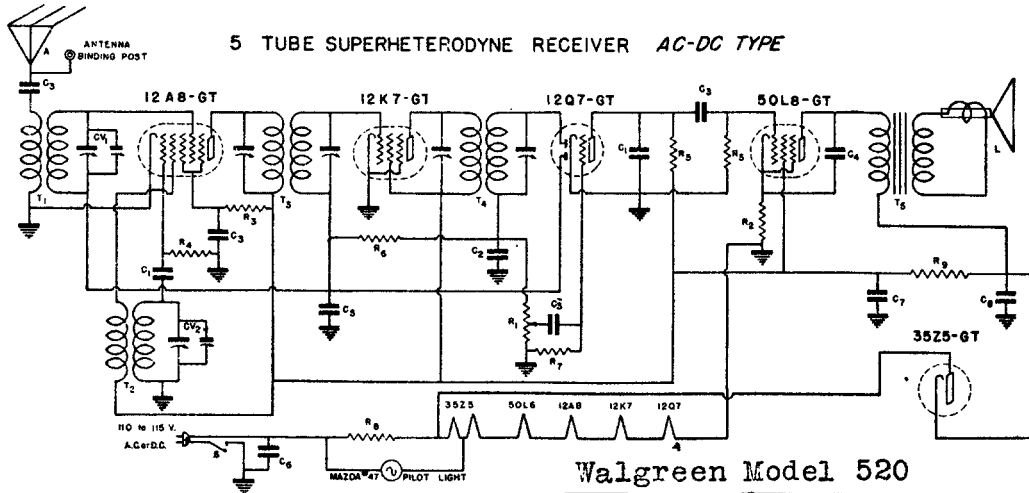
DELCO MODEL R-1125 CIRCUIT DIAGRAM

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

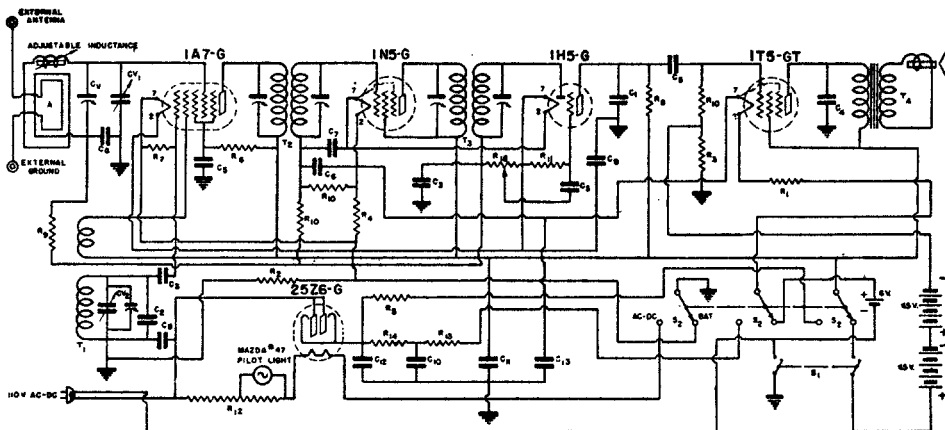
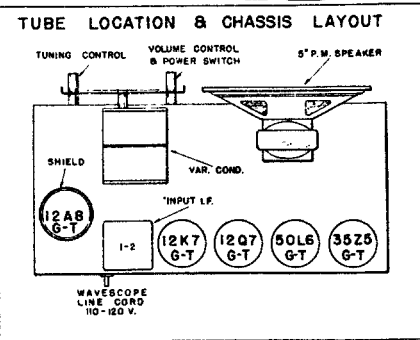


DELCO MODEL R-1131 CIRCUIT DIAGRAM

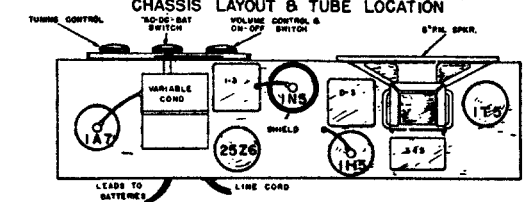
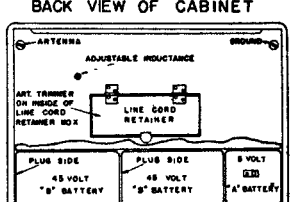
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



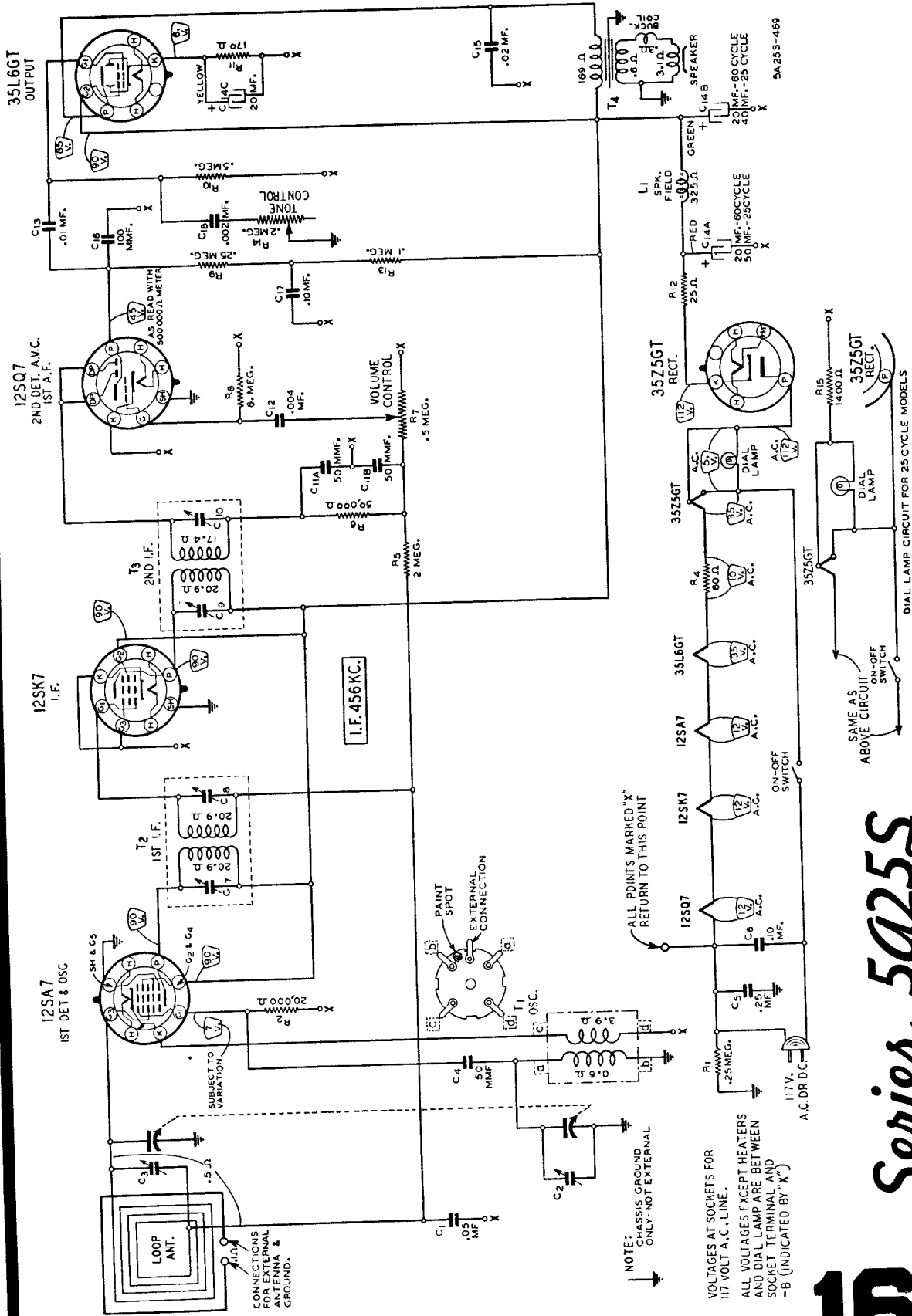
| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|--------------------------------------|-----------|----------|--------------------------------------|
| C1 | --- | .00025 MFD. 800 V. TUBULAR CONDENSER | R1 | 200P | 500,000 OHM VOLUME CONTROL |
| C2 | --- | .0005 MFD. 200V. TUBULAR CONDENSER | R2 | --- | 150 OHM 1/2 WATT CARBON RESISTOR-10% |
| C3 | --- | .01 MFD. 400 V. TUBULAR CONDENSER | R3 | --- | 50,000 OHM 1/2 WATT CARBON RESISTOR |
| C4 | --- | .02 MFD. 400 V. TUBULAR CONDENSER | R4 | --- | 50,000 OHM 1/2 WATT CARBON RESISTOR |
| C5 | --- | .05 MFD. 200 V. TUBULAR CONDENSER | R5 | --- | 500,000 OHM 1/2 WATT CARBON RESISTOR |
| C6 | --- | 1 MFD. 400 V. TUBULAR CONDENSER | R6 | --- | 2 MEGOHM 1/2 WATT CARBON RESISTOR |
| C7 | 1M 345 | 20 MFD. 150 WV. ELECTROLYTIC COND. | R7 | --- | 6 MEGOHM 1/2 WATT CARBON RESISTOR |
| C8 | 1M 346 | 40 MFD. 150 WV. ELECTROLYTIC COND. | R8 | --- | 10 OHM 1/2 WATT CARBON RESISTOR |
| CV1 | 2 | 2 GANG VARIABLE CONDENSER | T1 | A-5-A | ANTENNA COIL |
| R9 | --- | 2500 OHM 1/2 W. CARBON RESISTOR | T2 | O-5 | OSCILLATOR COIL |
| A | --- | WAVESCOPE AERIAL | T3 | I-2 | INPUT I.F. TRANSFORMER |
| L | 838 | P. M. SPEAKER | T4 | D-2 | OUTPUT I.F. TRANSFORMER |
| S | --- | LINE SWITCH ON VOLUME CONTROL | T5 | 1M 839 | SPEAKER TRANSFORMER |



| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|----------------------------------|-----------|----------|----------------------------------|-----------|----------|------------------------------------|
| C1 | --- | .001 MICA CONDENSER | CV | 510 | 2 TO 40 MMFD TRIMMER CONDENSER | R3 | --- | 5000 OHM 1/2 W CARBON RESISTOR |
| C2 | --- | .00025 MICA COND. C-10% | CV1 | 2 | 2 GANG VARIABLE CONDENSER | R4 | --- | 50,000 OHM 1/2 W CARBON RESISTOR |
| C3 | --- | .00025 MFD. 800 V. TUBULAR COND. | A | 2 | 2 SECTION LOOP ANTENNA | R5 | --- | 100,000 OHM 1/2 W CARBON RESISTOR |
| C4 | --- | .002 MFD. 400 V. TUBULAR COND. | T1 | O-5 | OSCILLATOR COIL | R6 | --- | 1 1/2 MEGOHM 1/2 W CARBON RESISTOR |
| C5 | --- | .01 MFD. 400 V. TUBULAR COND. | T2 | I-2 | INPUT I.F. TRANSFORMER | R7 | --- | 2 MEGOHM 1/2 W CARBON RESISTOR |
| C6 | --- | .05 MFD. 200 V. TUBULAR COND. | T3 | D-3 | OUTPUT I.F. TRANSFORMER | R8 | --- | 2 MEGOHM 1/2 W CARBON RESISTOR |
| C7 | --- | .1 MFD. 200 V. TUBULAR COND. | T4 | 839-R | P. M. SPEAKER | R9 | 121-B | RESISTANCE LINE COND. |
| C8 | --- | 1 MFD. 400 V. TUBULAR COND. | R1 | --- | 10 OHM 1/2 W CARBON RESISTOR-10% | R10 | 1H-180 | 400 OHM 1 WATT WIRE WOUND RESIST. |
| C9 | --- | .25 MFD. 25 V. TUBULAR COND. | R2 | --- | 30 OHM 1/2 W CARBON RESISTOR | R11 | 1H-182 | 2500 OHM 1/2 W WIRE WOUND RESIST. |
| C10 | 345 | 10 MFD. 35 V. ELECTROLYTIC COND. | R3 | --- | 100 OHM 1/2 W CARBON RESISTOR | R12 | 3038-B | VOLUME CONTROL |
| C11 | 346 | 20 - 100 V. - - - | R4 | --- | 100 OHM 1/2 W CARBON RESISTOR | | | |
| C12 | 347 | 40 - 100 V. - - - | S1 | --- | SWITCH ON VOLUME CONTROL | | | |
| C13 | 348 | 70 - 100 V. - - - | S2 | 19-43 | 3 POLE TWO POSITION SWITCH | | | |



MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



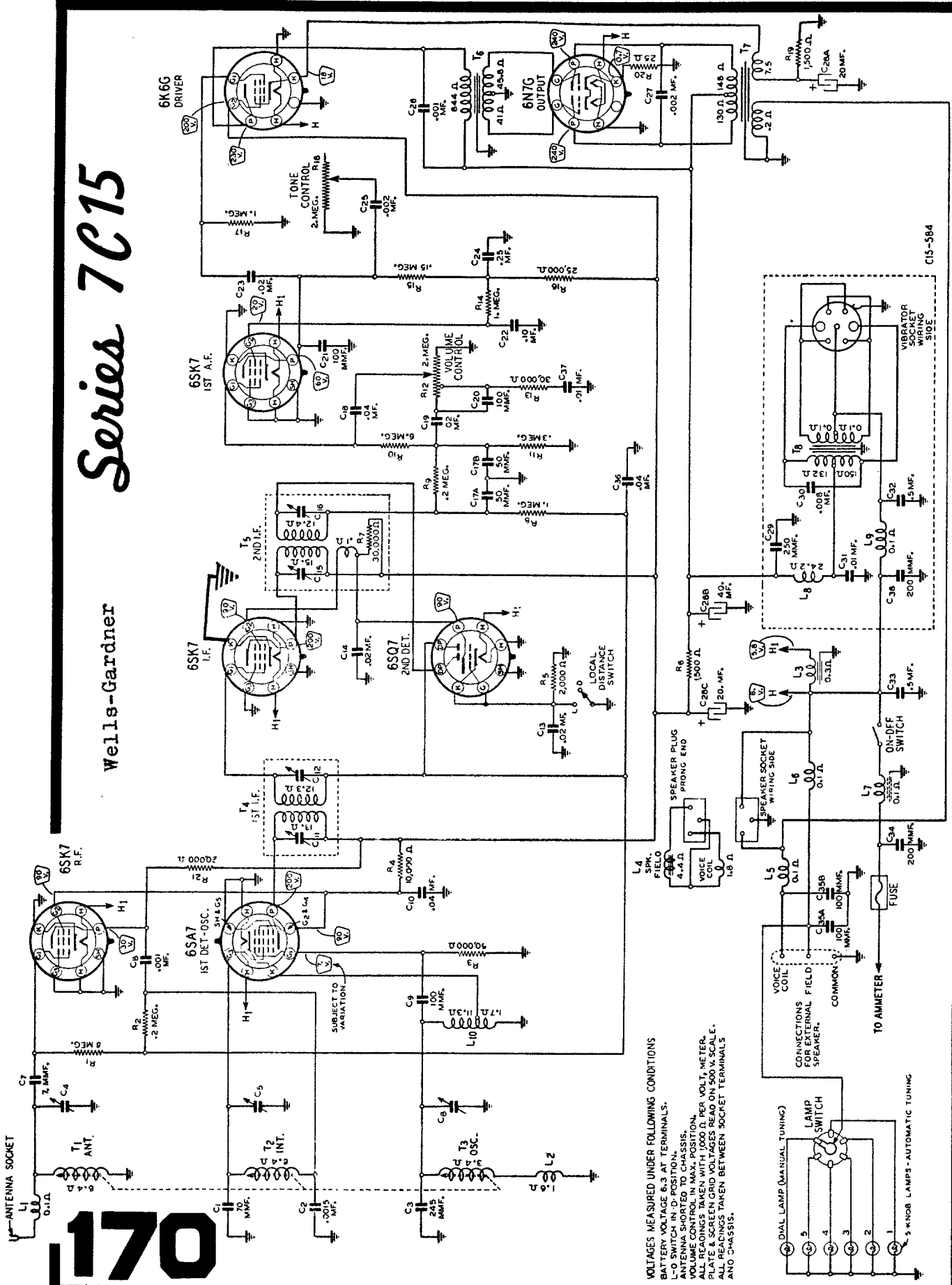
Series 5A25S

169

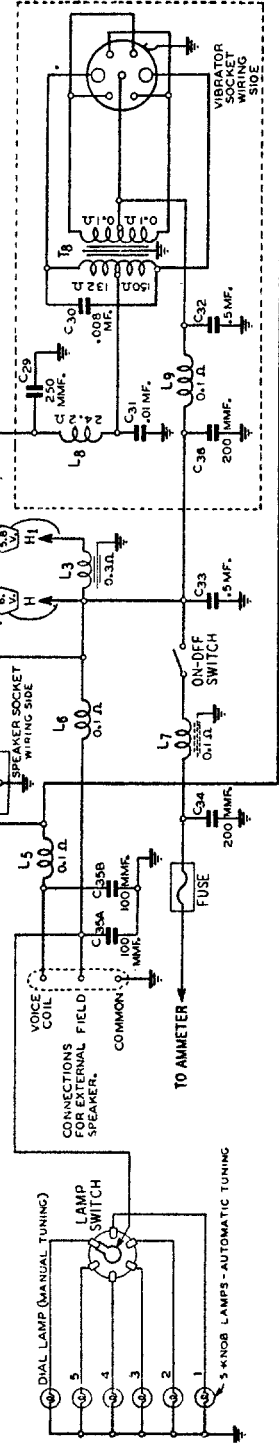
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

Series 7C15

Wells-Gardner



VOLTAGES MEASURED UNDER FOLLOWING CONDITIONS
 BATTERY VOLTAGE 6.3 AT TERMINALS.
 L-O SWITCH IN "D" POSITION.
 ANTENNA SHORTED TO CHASSIS.
 VOLUME CONTROL IN MAX. POSITION.
 ALL READINGS TAKEN WITH 1000 Ω PER VOLT, METER.
 ALL READINGS TAKEN BETWEEN SOCKET TERMINALS
 AND CHASSIS.

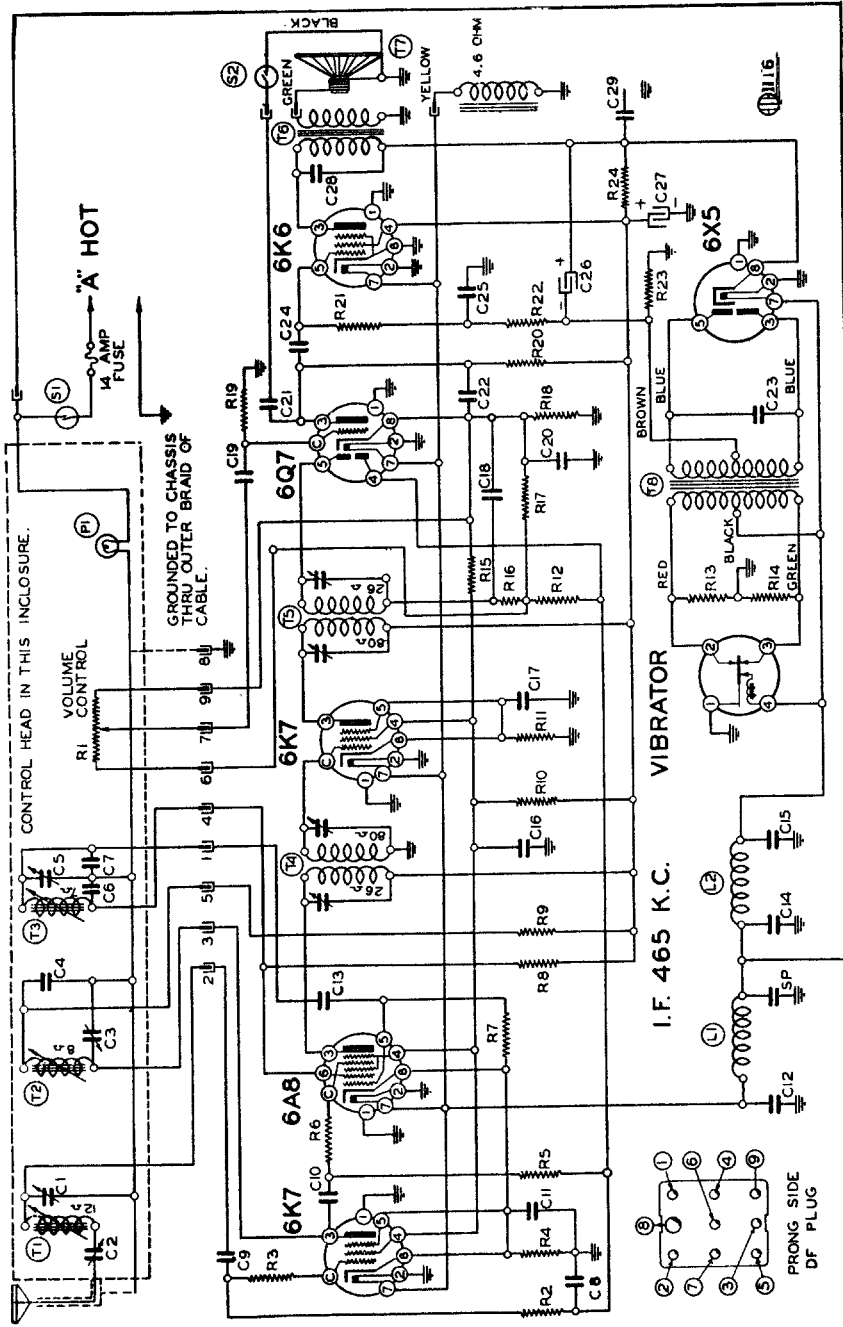


C15-584

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

TRUETONE MODEL D976



Circuit Diagram Reference No. Part No. Description

RESISTORS

| | | |
|-----|--------|----------------------------|
| R1 | 101161 | 1.2 megohm volume control |
| R2 | 13019 | 1 megohm— $\frac{1}{2}$ w. |
| R3 | 13054 | 500 ohm— $\frac{1}{2}$ w. |
| R4 | 13079 | 400 ohm— $\frac{1}{2}$ w. |
| R5 | 13019 | 1 megohm— $\frac{1}{2}$ w. |
| R6 | 13054 | 500 ohm— $\frac{1}{2}$ w. |
| R7 | 13012 | 50M ohm— $\frac{1}{2}$ w. |
| R8 | 13012 | 50M ohm— $\frac{1}{2}$ w. |
| R9 | 13021 | 20M ohm— $\frac{1}{2}$ w. |
| R10 | 13065 | 30M ohm—1 watt |
| R11 | 130235 | 1500 ohm— $\frac{1}{2}$ w. |
| R12 | 13019 | 1 megohm— $\frac{1}{2}$ w. |
| R13 | 13056 | 100 ohm— $\frac{1}{2}$ w. |
| R14 | 13056 | 100 ohm— $\frac{1}{2}$ w. |
| R15 | 130208 | 40M ohm— $\frac{1}{2}$ w. |
| R16 | 13020 | 100M ohm— $\frac{1}{2}$ w. |
| R17 | 130118 | 600M ohm— $\frac{1}{2}$ w. |
| R18 | 130101 | 600 ohm— $\frac{1}{2}$ w. |
| R19 | 13019 | 1 megohm— $\frac{1}{2}$ w. |
| R20 | 13011 | 250M ohm— $\frac{1}{2}$ w. |
| R21 | 1305 | 300M ohm— $\frac{1}{2}$ w. |
| R22 | 13011 | 250 ohm— $\frac{1}{2}$ w. |
| R23 | 130274 | 360 ohm—1 watt |
| R24 | 130273 | 900 ohm—1 watt |

CONDENSERS

| | | |
|-----|--------|--------------------------|
| C1 | 12483 | Antenna Shunt Trimmer |
| C2 | 12481 | Antenna Series Trimmer |
| C3 | 12480 | R. F. Shunt Trimmer |
| C4 | 100102 | .15 x 400 v. |
| C5 | 12480 | Oscillator Shunt Trimmer |
| C6 | 129137 | .0005 Mica |
| C7 | 129136 | .00017 Mica |
| C8 | 10022 | .05 x 200 v. |
| C9 | 12939 | .00005 Mica |
| C10 | 1292 | .0005 Mica |
| C11 | 10022 | .05 x 200 v. |
| C12 | 1296 | .002 Mica |
| C13 | 12912 | .00025 Mica |
| C14 | 10031 | .5 x 120 v. |
| C15 | 10031 | .5 x 120 v. |
| C16 | 11626 | .25 x 400 v. |
| C17 | 1009 | .05 x 200 v. |
| C18 | 1295 | .0001 Mica |
| C19 | 10011 | .01 x 400 v. |
| C20 | 10026 | .02 x 400 v. |
| C21 | 10037 | .003 x 600 v. |
| C22 | 1295 | .0001 Mica |
| C23 | 100100 | .008 x 1600 v. |
| C24 | 10011 | .01 x 400 v. |
| C25 | 11626 | .25 x 200 v. |
| C26 | 11981 | 16 mfd. |
| C27 | 11981B | 16 mfd. |
| C28 | 10089 | .008 x 800 v. |
| C29 | 10074 | .1 x 400 v. |

PARTS

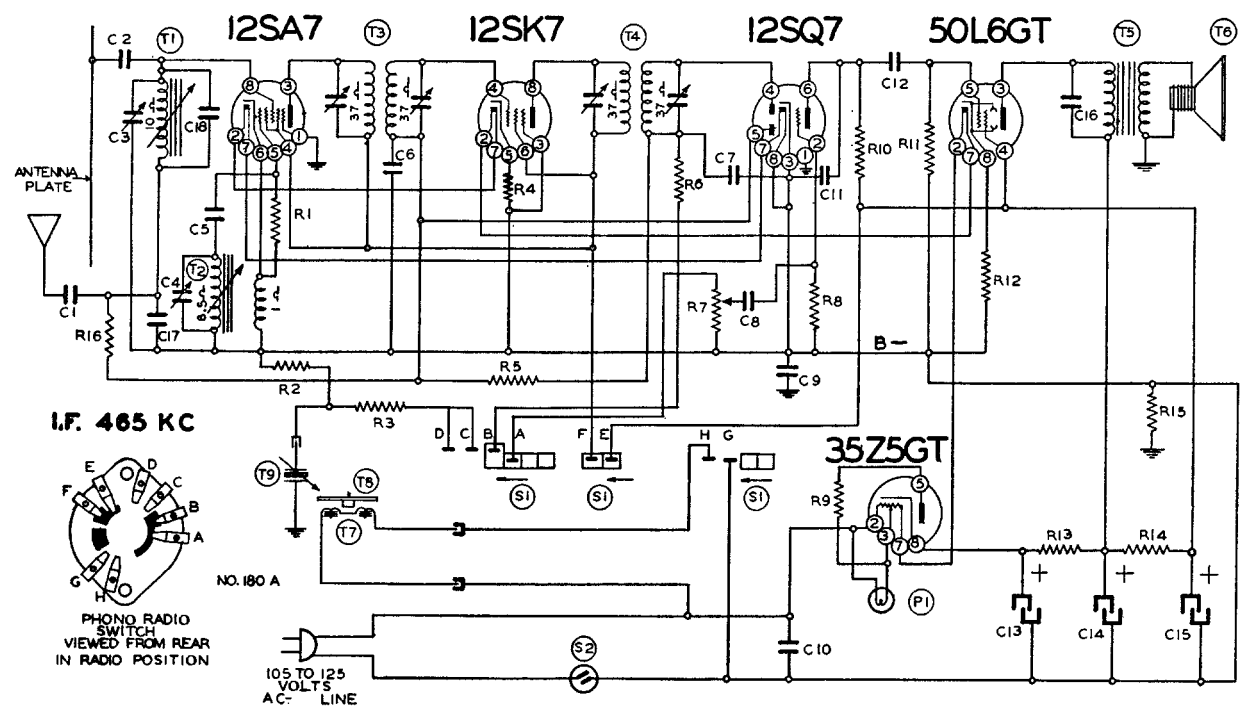
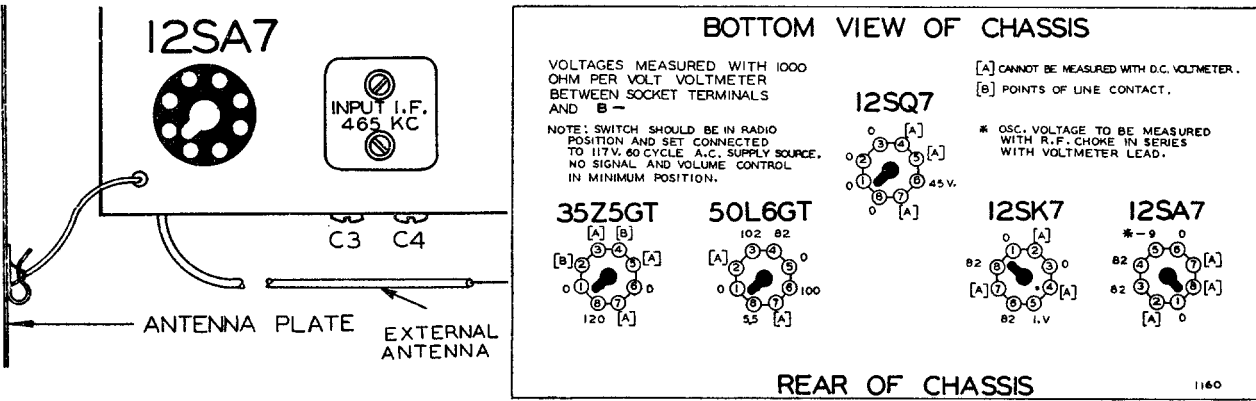
| | | |
|----|--------|--------------------------------|
| T1 | 111118 | P. B. Antenna Coil Assembly |
| T2 | 10949 | P. B. R. F. Coil Assembly |
| T3 | 110109 | P. B. Oscillator Coil Assembly |
| T4 | 108137 | Input I. F.—465 kc. |
| T5 | 108138 | Output I. F.—465 kc. |
| T6 | 10586 | Output Transformer |
| T7 | 114154 | 6" Dynamic Speaker |
| T8 | 104159 | Power Transformer |
| L1 | 10566 | "A" Choke |
| L2 | 10519 | "A" Choke |
| S1 | 101161 | Switch on Volume Control |
| S2 | 12574 | Tone Control Switch |
| P1 | 10797 | 6-8 v. Pilot Lite - T51 |
| | 12610 | Vibrator |

WHEEL STATIC:

Wheel or brake noise is probably the most peculiar type of interference and is due to accumulated static charges. This type of interference is only noticeable while the car is in motion and could very easily be confused with ignition interference. Check for this with car running at a good speed, turn the ignition switch off and the clutch disengaged, apply the brakes. If the noise stops, the source of the static is in the wheels. To overcome the wheel static condition, use graphite grease in the wheel bearings or insert grounding springs in the hub caps. In the case of external brakes, it may be necessary to ground the brake bands to the frame of the car.

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

TRUETONE MODEL D1070



Circuit Diagram Ref. No. Part No. Description

RESISTORS

| | | |
|-----|--------|-------------------------------------|
| R1 | 130176 | 20M ohm— $\frac{1}{2}$ w. |
| R2 | 130118 | 600M ohm— $\frac{1}{2}$ w. |
| R3 | 130118 | 600M ohm— $\frac{1}{2}$ w. |
| R4 | 13056 | 100 ohm— $\frac{1}{2}$ w. |
| R5 | 130170 | 3 megohm— $\frac{1}{2}$ w. |
| R6 | 13012 | 50M ohm— $\frac{1}{2}$ w. |
| R7 | 101217 | $\frac{1}{2}$ megohm—volume control |
| R8 | 130257 | 5 megohm— $\frac{1}{2}$ w. |
| R9 | 130215 | 25 ohm— $\frac{1}{2}$ w. |
| R10 | 1309 | 200M ohm— $\frac{1}{2}$ w. |
| R11 | 13037 | 750M ohm— $\frac{1}{2}$ w. |
| R12 | 130166 | 150 ohm— $\frac{1}{2}$ w. |
| R13 | 13097 | 200 ohm— $\frac{1}{2}$ w. |
| R14 | 130287 | 1200 ohm—1 watt |
| R15 | 1309 | 200M ohm— $\frac{1}{2}$ w. |
| R16 | 1309 | 200M— $\frac{1}{2}$ w. |

CONDENSERS

| | | |
|----|--------|----------------------|
| C1 | 1295 | .0001 Mica Condenser |
| C2 | 129114 | .0003 mfd. mica |
| C3 | 124136 | Antenna Trimmer |
| C4 | 124136 | Oscillator Trimmer |
| C5 | 1295 | .0001 mica |
| C6 | 1009 | .05 x 200 v. |
| C7 | 1295 | .0001 mica |

| | | |
|-----|--------|-----------------------------|
| C8 | 10025 | .002 x 600 v. |
| C9 | 100119 | .1 x 400 v. |
| C10 | 1001 | .1 x 400 v. |
| C11 | 12912 | .00025 mica |
| C12 | 10019 | .006 x 600 v. |
| C13 | 11994 | 40 mfd. lytic—150 w. v. |
| C14 | 11994 | 20 mfd. lytic—150 w. v. |
| C15 | 11994 | 20 mfd. lytic—150 w. v. |
| C16 | 10011 | .01 x 400 v. |
| C17 | 129162 | .0008 Mica Condenser |
| C18 | 129163 | .000025 Ceramicon Condenser |

C3 and C4 in same unit
C13, C14 and C15 are in same unit

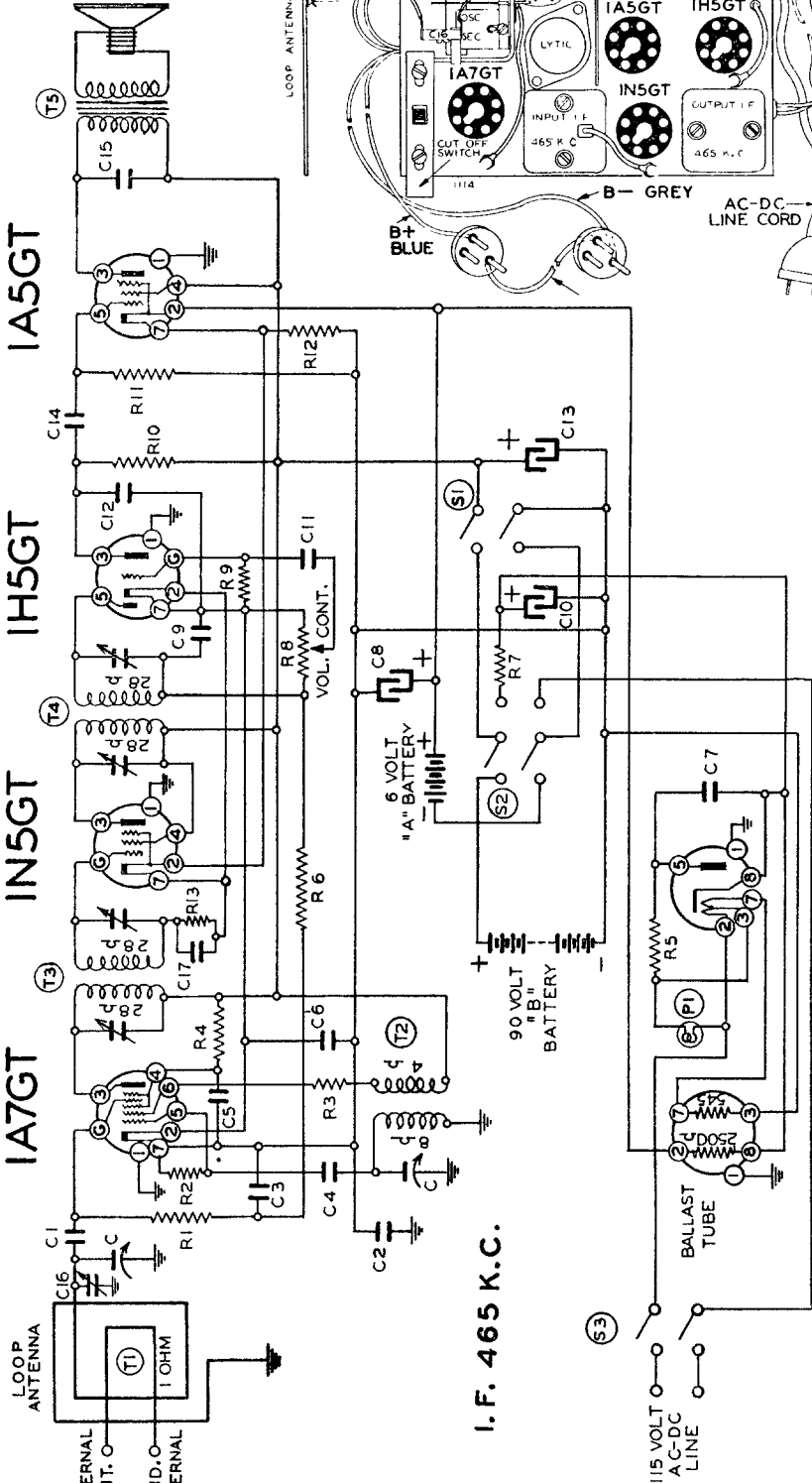
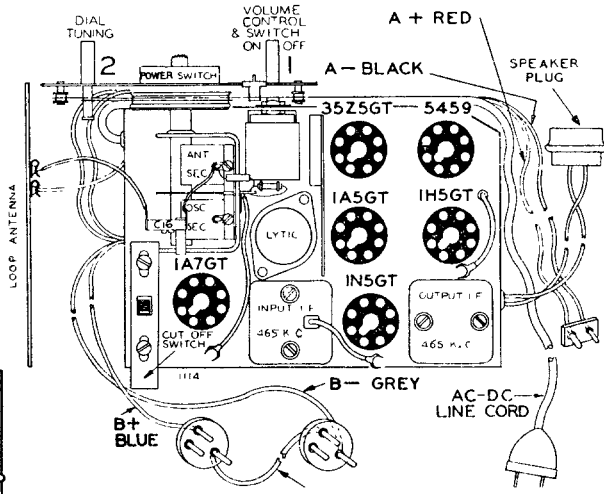
PARTS

| | | |
|----|---------|--|
| T1 | 112767 | Antenna Coil—Permeability tuning assembly complete |
| T2 | 112767 | Oscillator Coil |
| T3 | 108140F | Input I. F. Coil—465 kc. |
| T4 | 108145D | Output I. F. Coil—465 kc. |
| T5 | 105108 | Output Transformer |
| T6 | 114193 | 5" P.M. Speaker |
| T7 | 104206 | Phono Motor |
| T8 | 12228 | Turntable |
| T9 | 114194 | Phono pick up arm |
| S1 | 125113 | Phono Switch |
| S2 | | Switch on volume control |
| P1 | 107249 | Pilot light T47 |

T1 and T2 in same unit

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Western Auto
Truetone Model
D-1080



I. F. 465 K.C.

RESISTORS

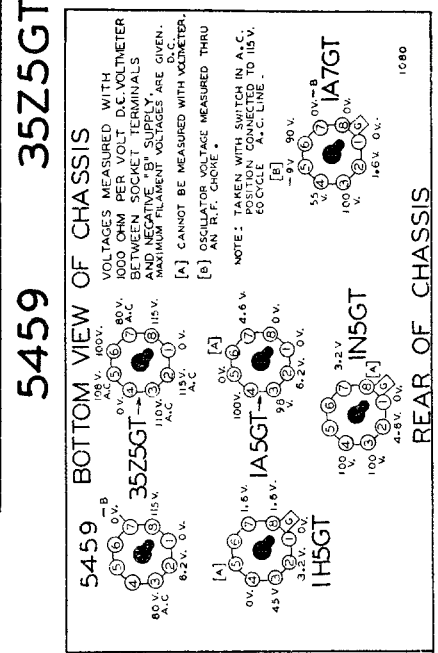
| | | |
|-----|--------|----------------------------|
| R1 | 13038 | 2 megohm— $\frac{1}{4}$ w. |
| R2 | 130266 | 200M ohm— $\frac{1}{4}$ w. |
| R3 | 13018 | 4M ohm— $\frac{1}{4}$ w. |
| R4 | 130208 | 40M ohm— $\frac{1}{4}$ w. |
| R5 | 130215 | 25 ohm— $\frac{1}{4}$ w. |
| R6 | 130170 | 3 megohm— $\frac{1}{4}$ w. |
| R7 | 130129 | 2500 ohm— $\frac{1}{4}$ w. |
| R8 | 101210 | 1 megohm volume control |
| R9 | 130257 | 5 megohm— $\frac{1}{4}$ w. |
| R10 | 1303 | 500M ohm— $\frac{1}{4}$ w. |
| R11 | 13038 | 2 megohm— $\frac{1}{4}$ w. |
| R12 | 13792 | 1M ohm— $\frac{1}{4}$ w. |
| R13 | 130100 | 150M Ohm— $\frac{1}{4}$ w. |

CONDENSERS

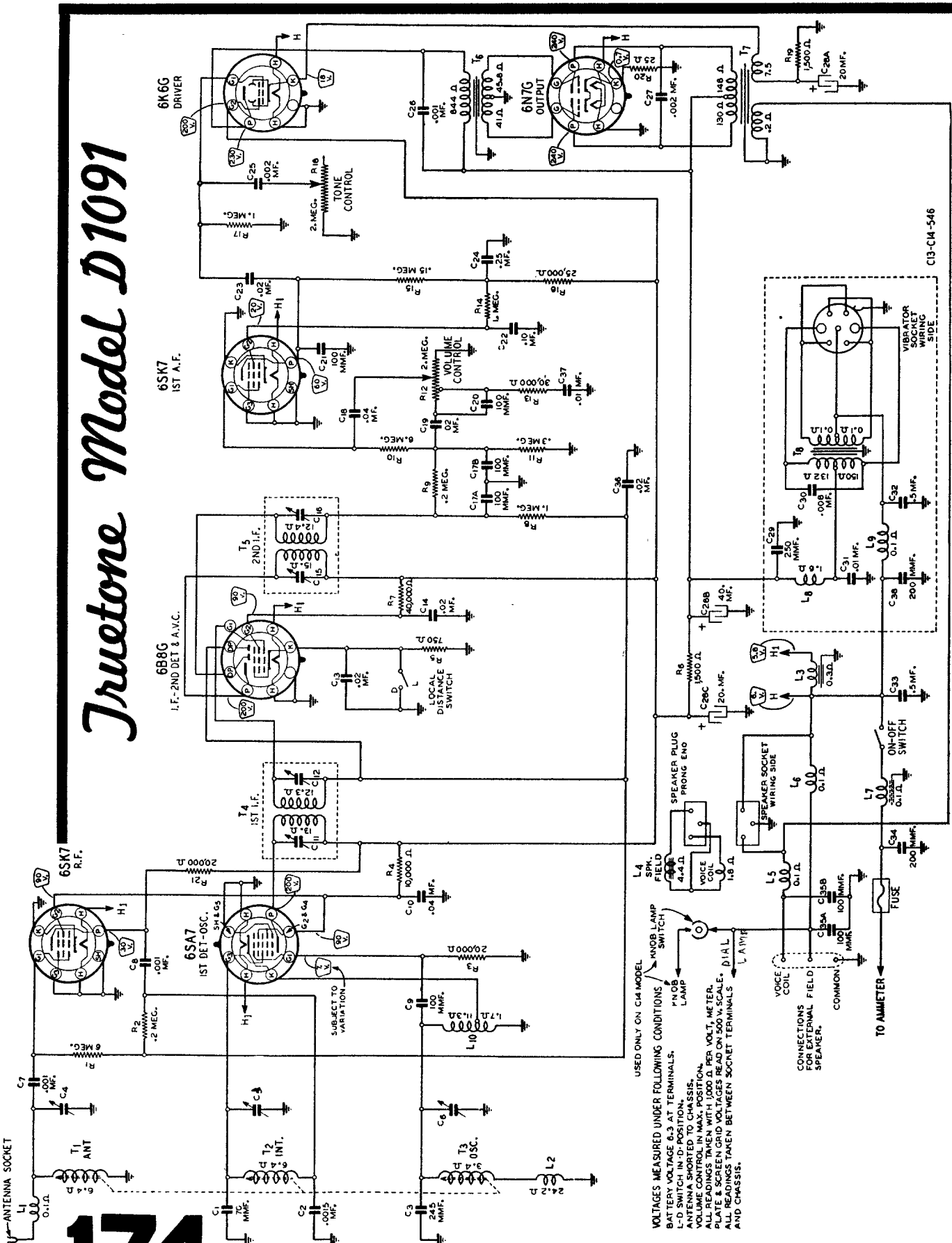
| | | |
|-----|--------|----------------------------|
| C | 102125 | 2 gang variable condenser |
| C1 | 12912 | .00025 |
| C2 | 100110 | .2 mfd. x 400 v. |
| C3 | 1009 | .05 x 200 v. |
| C4 | 12912 | .00025 |
| C5 | 1009 | .05 x 200 v. |
| C6 | 10020 | .1 x 200 v. |
| C7 | 10011 | .01 x 400 v. |
| C8 | 119104 | Lytic 200 mfd. x 6 w. v. |
| C9 | 1295 | .0001 mfd. |
| C10 | 119104 | Lytic 40 mfd. x 150 w. v. |
| C11 | 10025 | .002 x 600 v. |
| C12 | 1292 | .0005 mfd. |
| C13 | 119104 | Lytic 20 mfd. x 150 w. v. |
| C14 | 10011 | .01 x 400 v. |
| C15 | 10025 | .002 x 600 v. |
| C16 | 124116 | Adjustable antenna trimmer |
| C17 | 10026 | .02 x 400 v. |

PARTS

| | | |
|----|---------|-----------------------------|
| T1 | 111171 | Loop Antenna |
| T2 | 110144 | Oscillator Coil |
| T3 | 108171B | Input I. F. Coil—465 kc. |
| T4 | 108172 | Output I. F. Coil—465 kc. |
| T5 | 114189 | Speaker with output transf. |
| S1 | 101210 | Switch on volume control |
| S2 | 125106 | Power Switch |
| S3 | 125107 | Cut-off switch in line cord |
| P1 | 107249 | Pilot light T47 |



Jruetone Model D1091

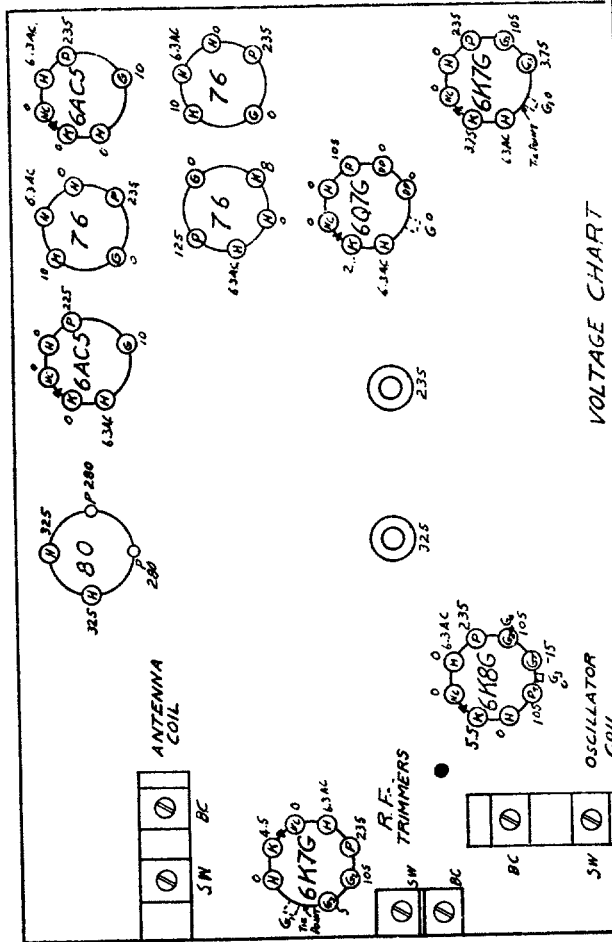
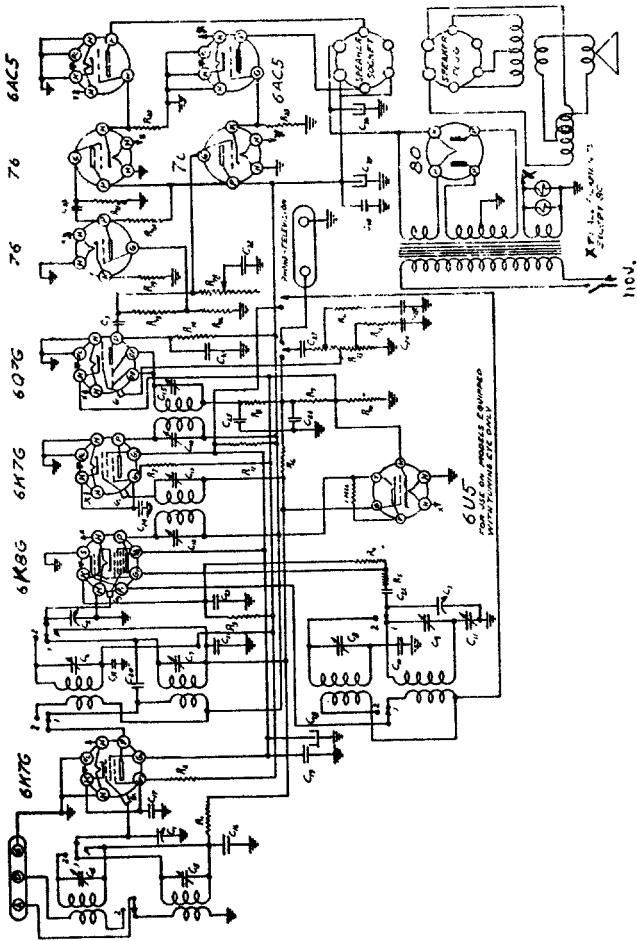


USED ONLY ON C41 MODEL
VOLAGES MEASURED UNDER FOLLOWING CONDITIONS
 BATTERY VOLTAGE 6.3 AT TERMINALS.
 L-D SWITCH IN 'D' POSITION.
 ANTENNA SHORTED TO CHASSIS.
 VOLUME CONTROL IN MAX. POSITION.
 SPEAKER FIELD COIL VOLTAGE MEASURED BETWEEN SPEAKER FIELD PLATE & SCREEN GRID VOLTAGES BEING ON 500 KC.
 ALL READINGS TAKEN BETWEEN SOCKET TERMINALS AND CHASSIS.

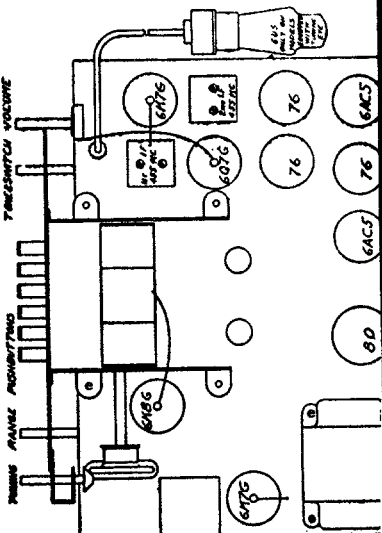
CONNECTIONS FOR EXTERNAL FIELD SPEAKERS:
 VOICE COIL
 COMMON
 SPEAKER SOCKET WIRING SIDE
 SPEAKER PRONG END

TRUETONE MODEL D924

SERIES A



- R4,20 Resistor—1/3 w., 50M + or - 10%
- R2,3 Resistor—1/3 w., 300r + or - 10%
- R19 Resistor—1/3 w., 5M + or - 10%
- R7 Resistor—1/3 w., 400r + or - 10%
- R1 Resistor—1/3 w., 10M + or - 10%
- R17 Resistor—3 w., 10 M + or - 10%
- R16 Resistor—1/3 w., 100M + or - 10%
- R11 Resistor—1/3 w., 70r + or - 10%
- R14 Resistor—1/3 w., 200M + or - 20%
- R11 Resistor—1/3 w., 300M + or - 20%
- R15 Resistor—1/3 w., 400M + or - 10%
- R12,22,23 Resistor—1/3 w., 25M + or - 10%
- R6 Resistor—1/3 w., 1 meg. + or - 20%
- R21 Resistor—1/3 w., 500M + or - 10%
- R5 Resistor—1/3 w., 100r + or - 20%
- R18 Control—Tone and Switch.....
- R13 Control—Volume
- C32 Condenser—Paper, .01-.660v
- C1,2,3 Condenser—Var. (Mech. Tuner).....
- C23,24 Condenser—Paper, 1-200v
- C30 Condenser—Mica .0001
- C19,34 Condenser—Paper, 1-400 v.
- C16,17,21 Condenser—Paper, .05-200 v.
- C4,5,6,7,8,9 Condenser—Trimmer
- C10 Condenser—Padder, 3300 mmf.
- C11 Condenser—Padder, 450 mmf., adjustable
- C18 Condenser—Elec., 20 mfd., 150v
- C29 Condenser—Paper, .03-200v
- C27,28 Condenser—Paper, .002-600v
- C36 Condenser—Elec. Wet, 16 mfd.
- C35 Condenser—Elec. Wet, regulator.....
- 1 Cord A. C.
- C22 Condenser—Mica, .00005

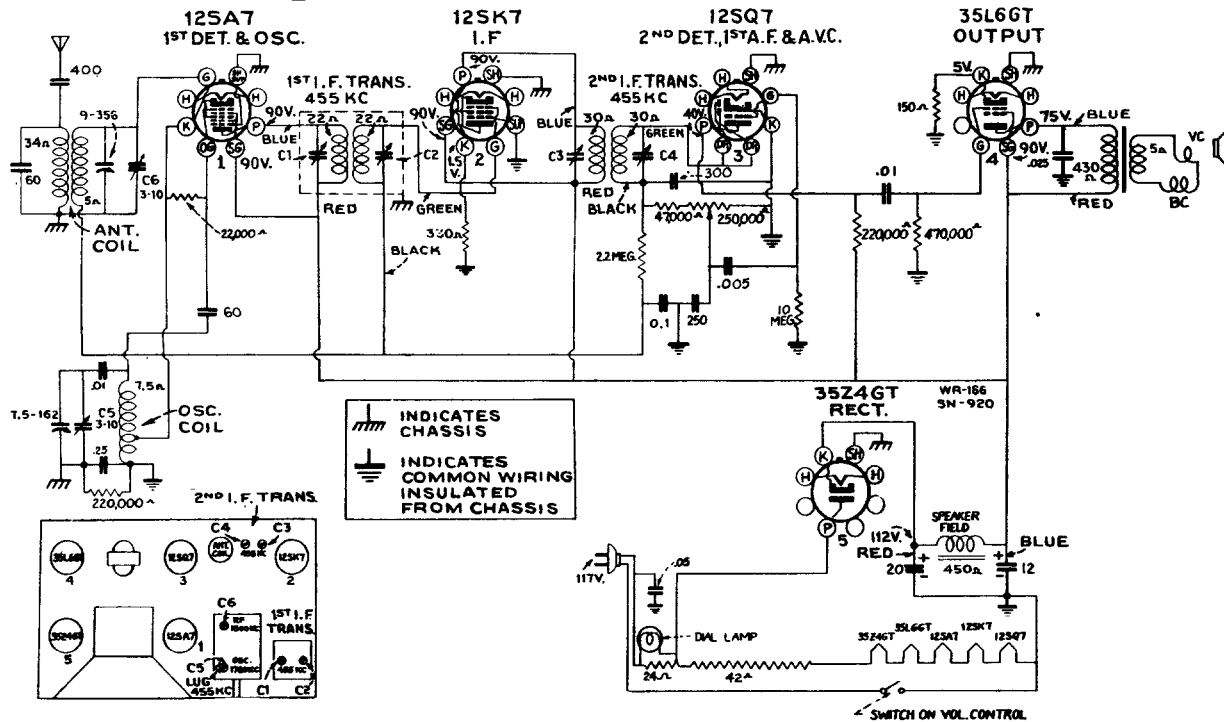


VOLTAGE CHART

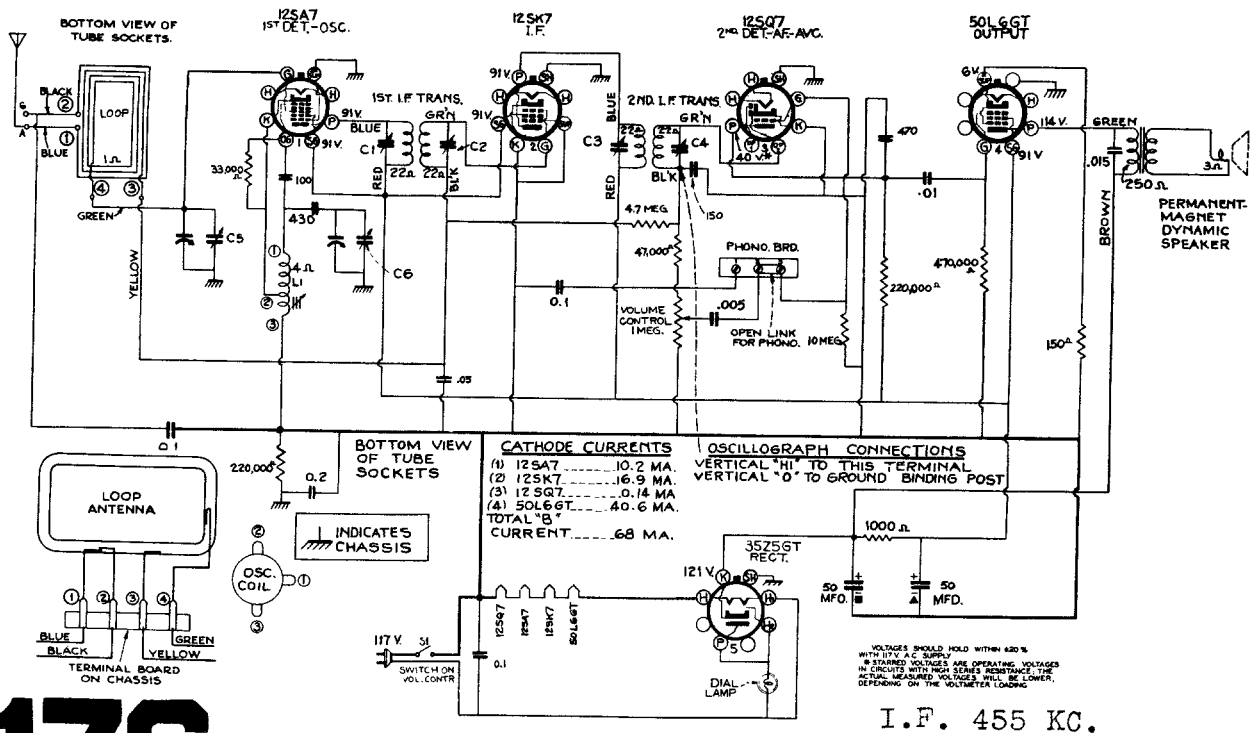
COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Westinghouse Model WR-166



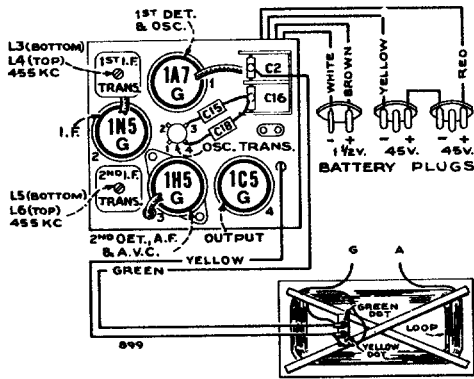
Model WR-170



176

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

Westinghouse Model WR-674



Tube Location

Note: Values with star (*) are operating voltages. Values not starred are actual measured voltages. Measurements are made to chassis unless otherwise indicated, with set tuned to quiet point.

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

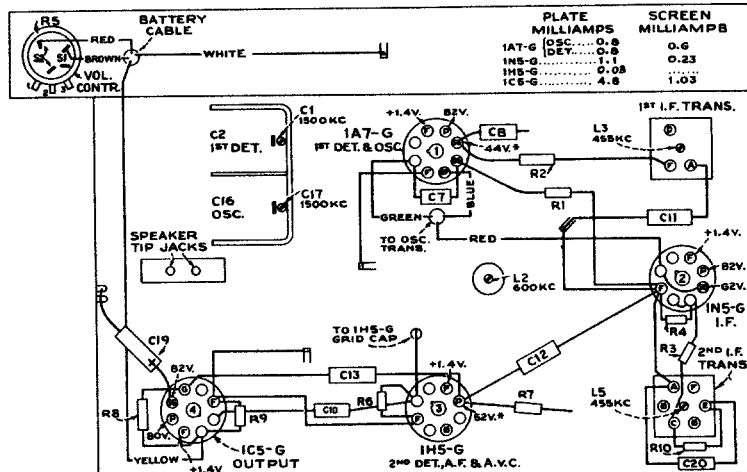
Test-oscillator.—For all alignment operations, keep the output as low as possible to avoid a-v-c action.

Pre-setting Dial.—With gang condenser in full mesh, the pointer should be horizontal.

Precautionary Lead Dress.—

1. Dress speaker leads down to chassis.
2. The green lead from the loop to the antenna section of the gang should be dressed between the output and detector tube shields and pulled toward the far corner of the loop by means of the rubber band.
3. The spiral shield on the 1st-A.F. grid lead should be brought as close as possible to the grid cap.
4. Leads to the high side and tap of the volume control should be dressed down to the chassis and away from the output tube plate lead.

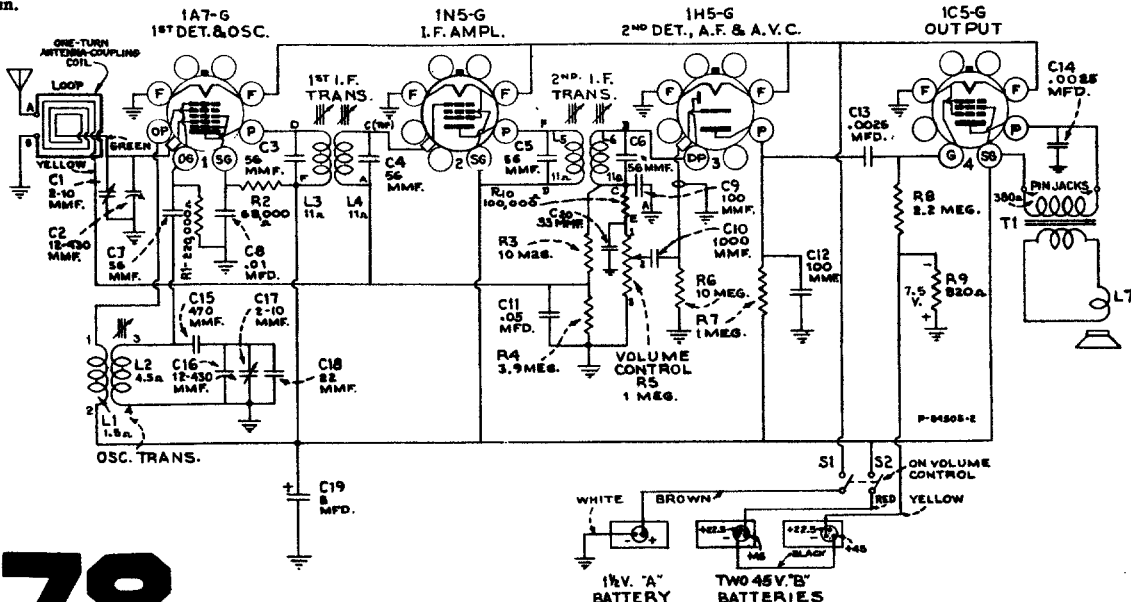
Antenna.—An antenna and ground may be connected to "A" and "G" at bottom of cabinet. If total length of antenna and lead-in is more than 150 feet, connect a 300 mfd capacitor in series with lead-in.



BOTTOM VIEW—REAR OF CHASSIS

| Steps | Connect the high side of test-oscillator to— | Tune test-osc. to— | Turn radio dial to— | Adjust the following for max. peak output— |
|-------|---|--------------------|--------------------------------|--|
| 1 | 1N5-G grid cap, in series with .001 mfd. | 455 kc | Quiet point between 550-750 kc | L5 and L6 (2nd I-F transformer) |
| 2 | 1A7-G grid cap, in series with .001 mfd. | 455 kc | | L3 and L4 (1st I-F transformer) |
| 3 | Assemble chassis and batteries in correct position in cabinet, and fasten rear cover (loop) in place while making the following adjustments, which are accessible through holes in the bottom of the cabinet. | | | |
| 4 | Antenna terminal, in series with 200 mfd. Connect low side of test-osc. to "G" term. | 1500 kc | 1500 kc* | C17 (osc.)
C1 (ant.) |
| 5 | | 600 kc | 600 kc* | L2 (osc.)
Rock in |
| 6 | Repeat steps 4 and 5. | | | |

* Use bottom of "1" in "1500" for 1500 kc calibration point, and use center of the last "0" in "600" for 600 kc calibration point.

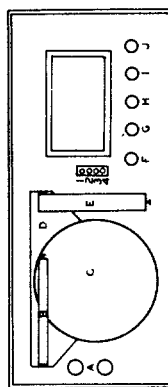
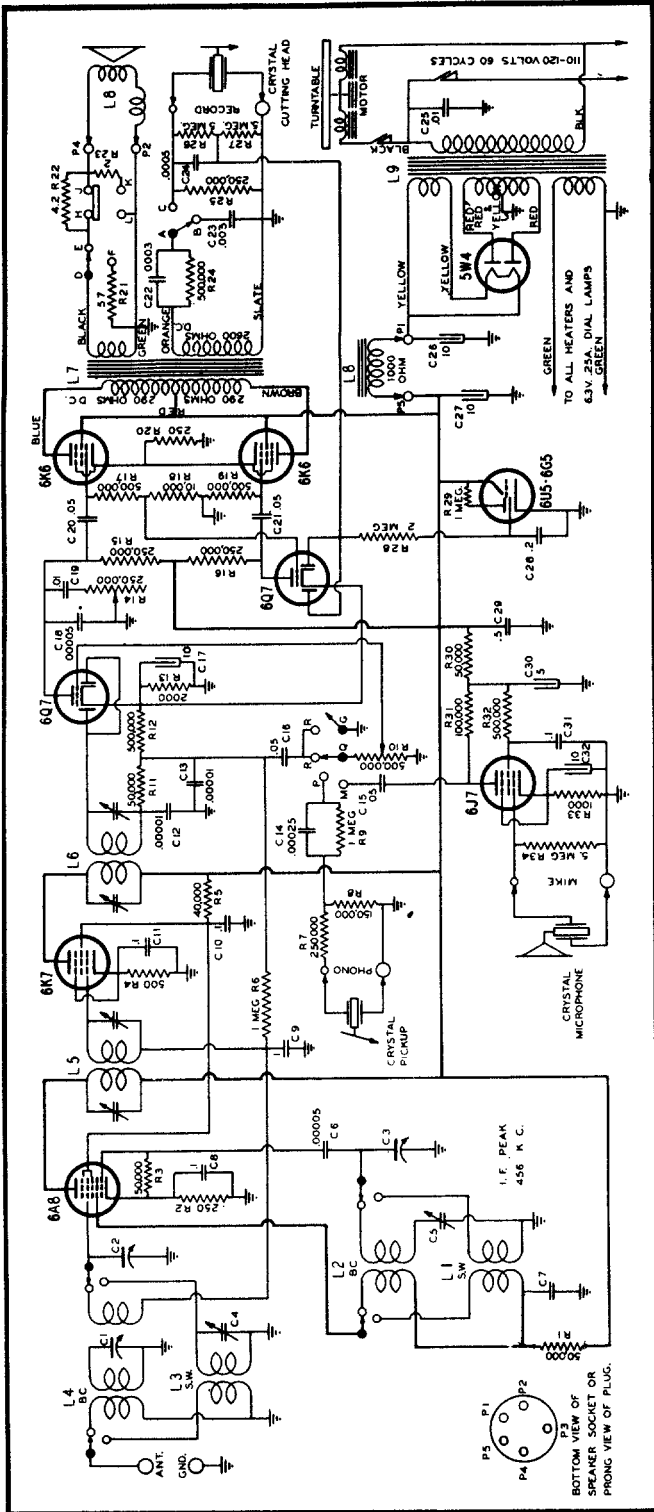


WILCOX-GAY CORPORATION

CHASSIS MODEL 9J9

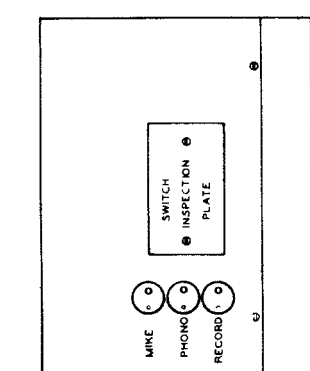
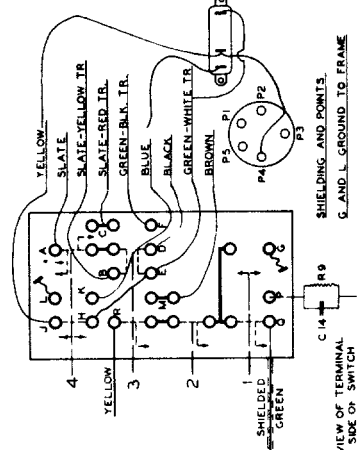
SCHEMATIC DIAGRAM

MODEL A-70



- A - NEEDLE CUPS
- B - PHONO ARM ASSEMBLY
- C - TUNING CONTROL
- D - MOTOR & ARM ASSEMBLY
- E - TUNING CONTROL
- F - MOTOR CONTROL
- G - MASTER SWITCH
- H - TUNING CONTROL
- I - BAND SWITCH
- J - TO USE AS PHONOGRAPH
- K - TO USE AS PUBLIC ADDRESS
- L - TO RECORD MICROPHONE
- M - TO RECORD RADIO

1. OPENS Q-R, CLOSES Q-P, R-G
 2. OPENS Q-R, CLOSES Q-M
 3. OPENS Q-R-D-E, A-B
CLOSES Q-M, D-F-A-C
 4. FIRST POS. OPENS A-B, CLOSES A-C
REMAINS CLOSED H-J
 4. SECOND POS. OPENS H-J, CLOSES K-L
REMAINS CLOSED A-C
- TO USE RADIO ONLY-ALL PLUNGERS UP
CIRCUITS CLOSED Q-R, D-E, A-B, H-J
CIRCUITS OPEN Q-P, D-F, A-C, K-L, Q-M, G-R

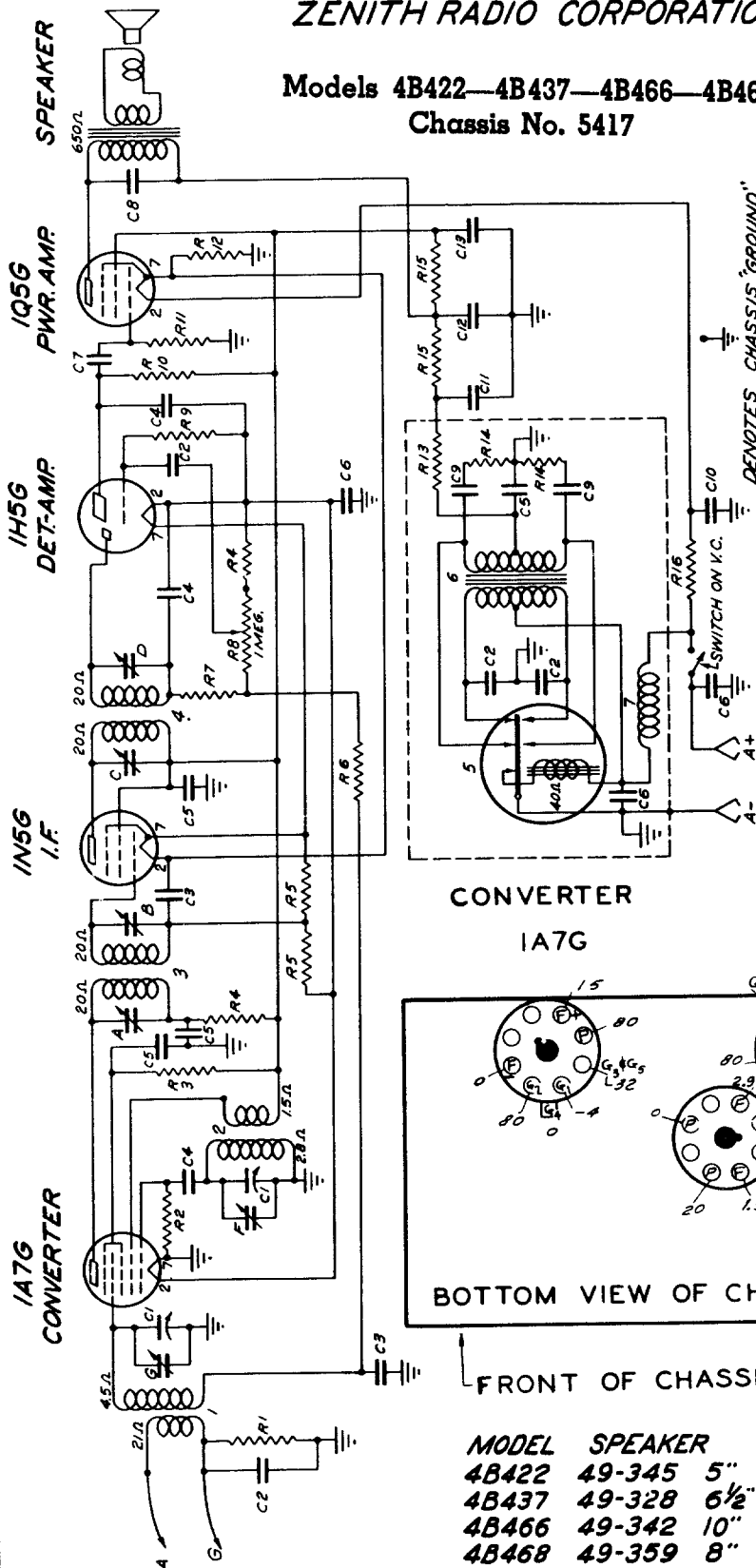


I.F. 456 K.C.

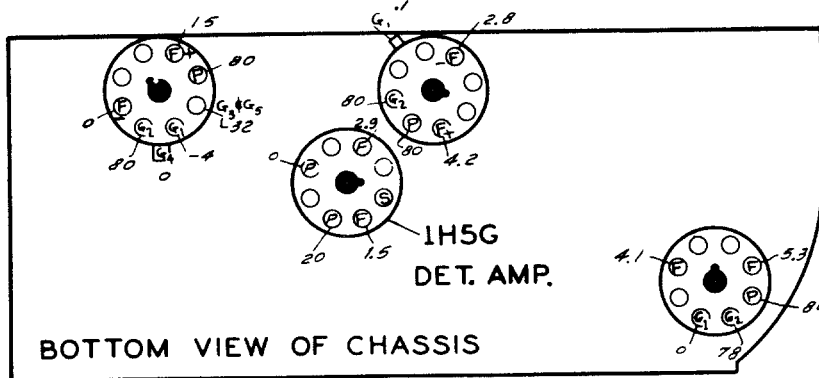
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

ZENITH RADIO CORPORATION

Models 4B422—4B437—4B466—4B468
Chassis No. 5417



I.F. FREQUENCY 455 KC.



BOTTOM VIEW OF CHASSIS

FRONT OF CHASSIS

| MODEL | SPEAKER |
|-------|---------------|
| 4B422 | 49-345 5" |
| 4B437 | 49-328 6 1/2" |
| 4B466 | 49-342 10" |
| 4B468 | 49-359 8" |

| DIA. NO. | PART NO. | DESCRIPTION | DIA. NO. | PART NO. | DESCRIPTION |
|----------|----------|------------------------|----------|----------|-------------------|
| 1 | 20-208 | ANTENNA COIL ASSEMBLY | R2 | 63-595 | 100M OHM |
| 2 | 5-6381 | OSCILLATOR COIL ASSEM. | R3 | 63-594 | 68M OHM |
| 3 | 95-589 | 1ST I.F. TRANS. | R4 | 63-593 | 1000 OHM |
| 4 | 95-590 | 2ND I.F. TRANS. | R5 | 63-296 | 220M OHM |
| 5 | 180-17 | VARIABLE CAP. | R6 | 63-589 | 39 MEG OHM |
| 6 | 95-635 | POWER TRANSFORMER | R7 | 63-595 | 47M OHM |
| 7 | 3-5043 | CHOKE ASSEMBLY | R8 | 63-703 | VOLUME CONTROL |
| 8 | | | R9 | 63-604 | 10 MEG OHM |
| 9 | | | R10 | 63-271 | 1 MEG OHM |
| 10 | | | R11 | 63-600 | E.E. MEG OHM |
| 11 | | | R12 | 63-700 | 30 OHM WIRE WOUND |
| 12 | | | R13 | 63-377 | 100 OHM |
| 13 | | | R14 | 63-697 | 100 OHM |
| 14 | | | R15 | 63-605 | 1000 OHM |
| 15 | | | R16 | 63-706 | 7 OHM |
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I.F.

1H5G
DET. AMP.

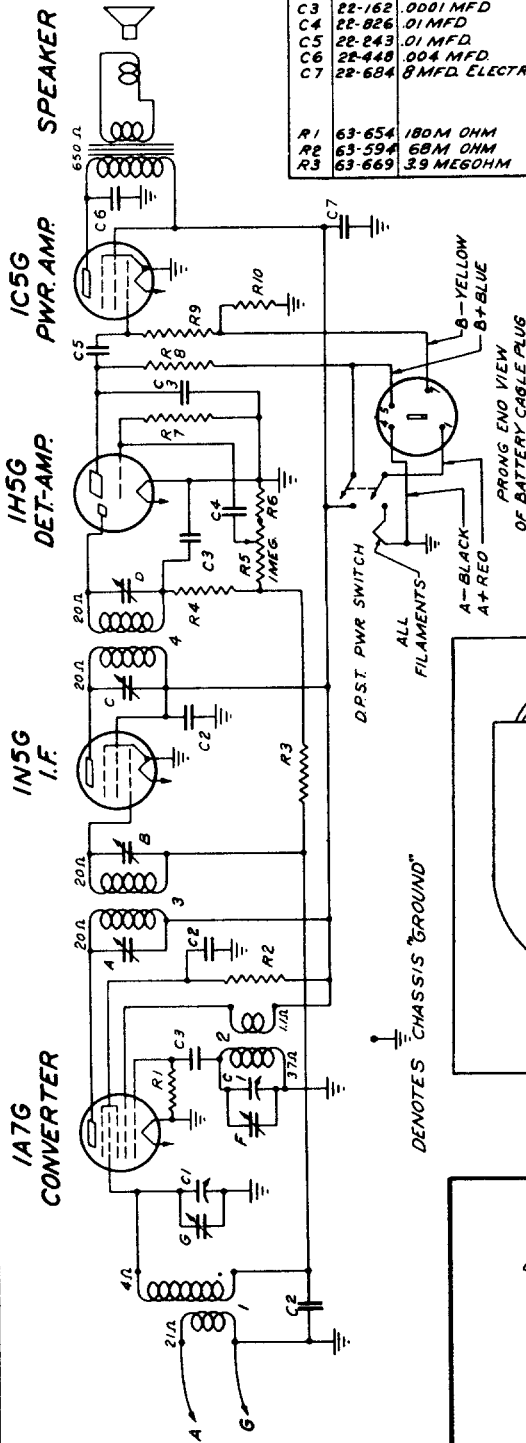
1Q5G

All voltages measured with a 1000 ohm per volt meter from chassis to socket contacts.

Voltage readings are all positive D.C. unless otherwise indicated.

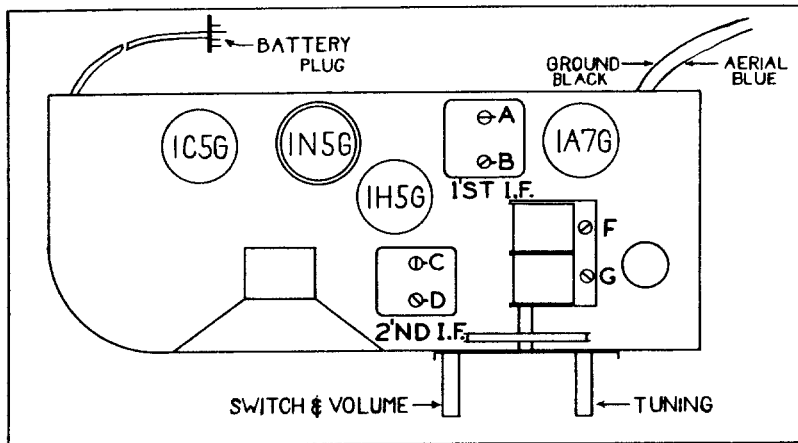
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|---------------------|-----------|----------|------------------------|-----------|----------|------------------------|
| C1 | 22-695 | TWO GANG VARIABLE | R4 | 63-593 | 47M OHM | 4 | 95-590 | 2ND I.F. TRANS. ASSEM. |
| C2 | 22-829 | .05 MFD. | R5 | 63-1072 | VOLUME CONTROL | | | |
| C3 | 22-162 | .0001 MFD | R6 | 63-587 | 4700 OHM | | | |
| C4 | 22-826 | .01 MFD | R7 | 63-604 | 10 MEGOHM | | | |
| C5 | 22-243 | .01 MFD | R8 | 63-271 | 1 MEGOHM | | | |
| C6 | 22-448 | .004 MFD | R9 | 63-600 | 2.2 MEGOHM | | | |
| C7 | 22-684 | 8 MFD. ELECTROLYTIC | R10 | 63-238 | 1000 OHM | | | |
| R1 | 63-654 | 180M OHM | 1 | 20-208 | ANTENNA COIL | | | |
| R2 | 63-594 | 68M OHM | 2 | S-7815 | OSCILLATOR COIL ASSEM. | | | |
| R3 | 63-669 | 39 MEGOHM | 3 | 95-589 | 1ST I.F. TRANS. ASSEM. | | | |

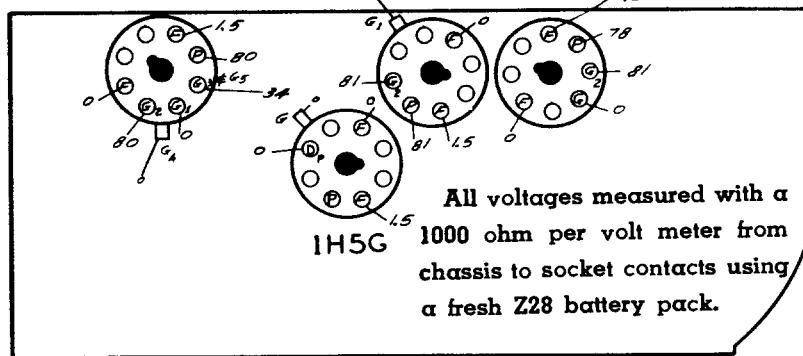


1 1/2 V. BATTERY PORTABLE
 I.F. FREQUENCY 455 KC.
 4 TUBE SUPERHETERODYNE
 CHASSIS N^o 5420
 ZENITH RADIO CORPORATION

Models 4K422—4K435—4K465—4K466
 Chassis No. 5420



CONVERTER I.F. PWR.-AMP.
 1A7G 1N5G 1C5G



| MODEL | SPEAKER |
|-------|---------------|
| 4K422 | 49-286 5" |
| 4K435 | 49-328 6 1/2" |
| 4K465 | 49-359 8" |
| 4K466 | 49-342 10" |

FRONT OF CHASSIS

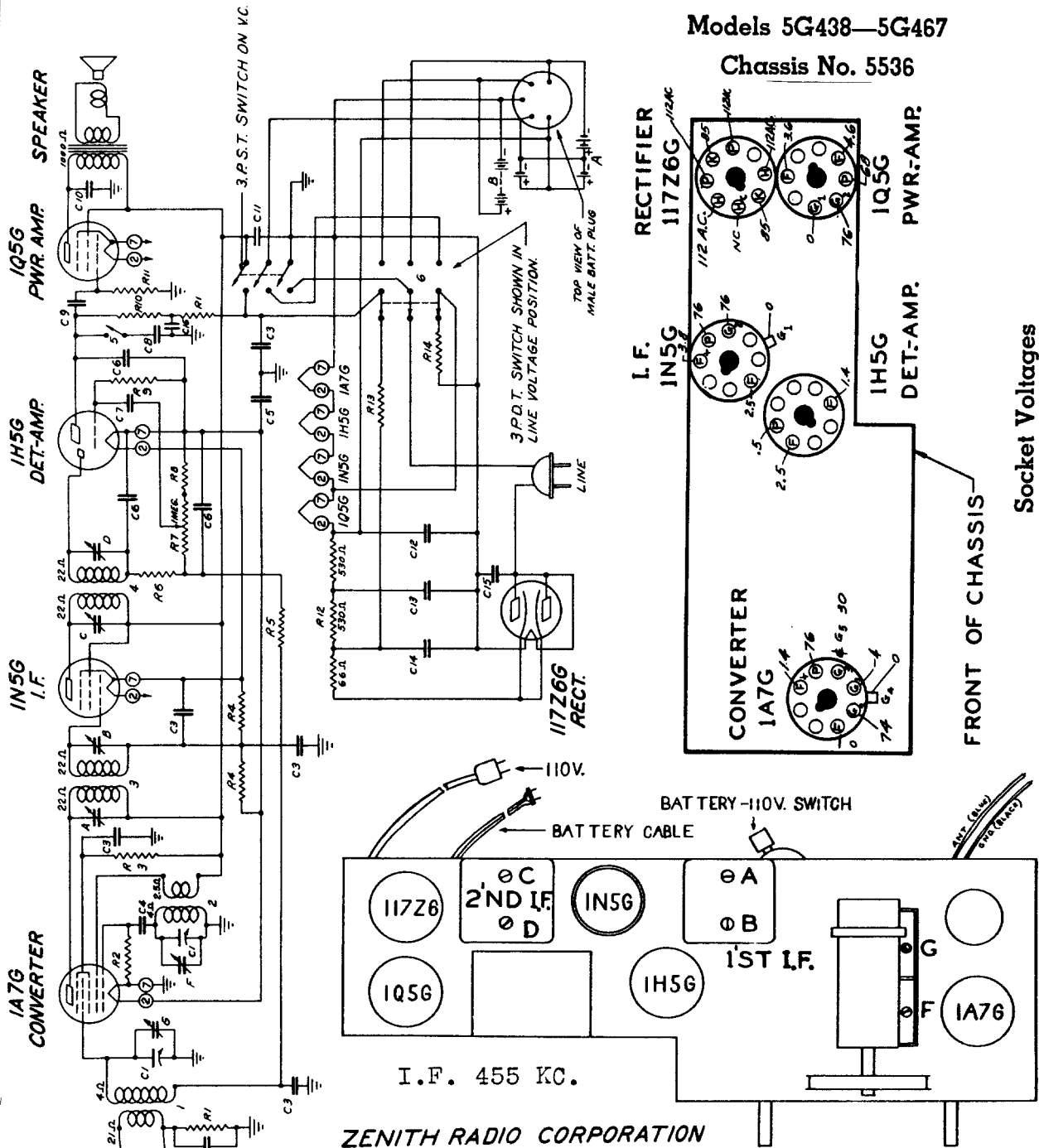
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Models 5G438—5G467

Chassis No. 5536



I.F. 455 KC.

ZENITH RADIO CORPORATION

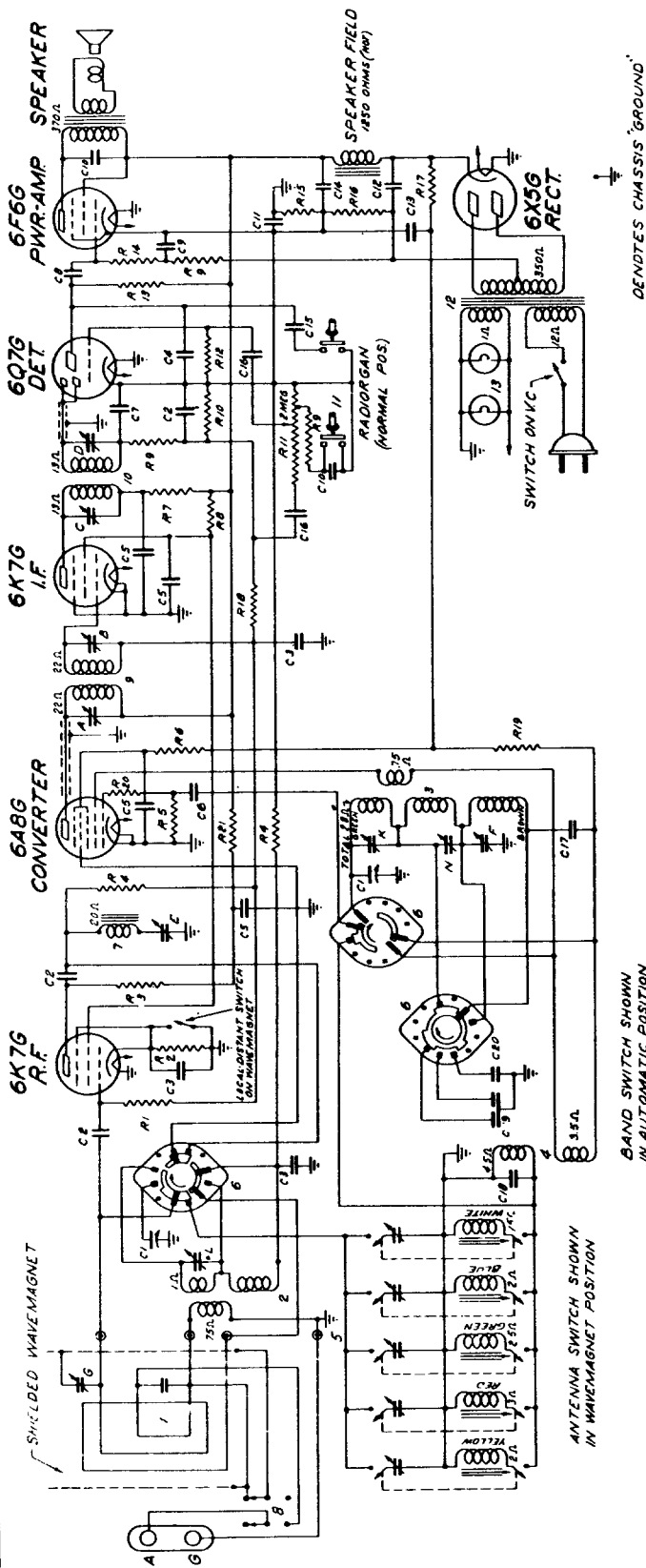
| DIAS. N° | PART N° | DESCRIPTION | DIAS. N° | PART N° | DESCRIPTION | DIAS. N° | PART N° | DESCRIPTION | |
|----------|---------|----------------------|----------|---------|-------------------|----------|---------|-------------|-----------------------------|
| C 1 | 22-940 | TWO GANG VARIABLE | R 1 | 63-597 | 470 M OHM | 1/4 W. | 1 | 20-208 | ANTENNA COIL |
| C 2 | 22-196 | .01 MFD. | R 2 | 63-652 | 120 M OHM | 1/4 W. | 2 | 3-639 | OSC. COIL ASSEMBLY |
| C 3 | 22-829 | .05 MFD. | R 3 | 63-713 | 47 M OHM | 1/4 W. | 3 | 95-593 | 1ST I.F. TRANS. |
| C 4 | 22-182 | .00025 MFD. | R 4 | 63-296 | 220 M OHM | 1/4 W. | 4 | 95-594 | 2ND I.F. TRANS. |
| C 5 | 22-350 | .25 MFD. | R 5 | 63-669 | 3.9 MEGOHM | 1/4 W. | 5 | 85-187 | TO NE CONTROL SWITCH |
| C 6 | 22-162 | .0001 MFD. | R 6 | 63-593 | 47 M OHM | 1/4 W. | 6 | 85-198 | POWER SWITCH |
| C 7 | 22-828 | .01 MFD. | R 7 | 63-1081 | VOLUME CONTROL | | | | |
| C 8 | 22-887 | TONE CONTROL COND. | R 8 | 63-583 | 1000 OHM | 1/4 W. | A | | 1ST I.F. TRANS. PRI. |
| C 9 | 22-243 | .01 MFD. | R 9 | 63-604 | 10 MEGOHM | 1/4 W. | B | | 1ST I.F. TRANS. SEC. |
| C 10 | 22-448 | .004 MFD. | R 10 | 63-271 | 1 MEGOHM | 1/4 W. | C | | 2ND I.F. TRANS. PRI. |
| C 11 | 22-928 | 40 MFD. ELECTROLYTIC | R 11 | 63-600 | 22 MEGOHM | 1/4 W. | D | | 2ND I.F. TRANS. SEC. |
| C 12 | 22-182 | .00025 MFD. | R 12 | 63-1041 | 3 SECTION CANDOHM | | F | | BROADCAST OSC. (ON GANG) |
| C 13 | 22-879 | .60 MFD. | R 13 | 63-605 | 1000 OHM | 1/4 W. | G | | ANTENNA BROADCAST (ON GANG) |
| C 14 | 22-879 | .60 MFD. | R 14 | 63-1012 | 90 OHM WIREWOUND | 1/4 W. | 6 | | |
| C 15 | 22-869 | .05 MFD. | | | | | | | |
| C 16 | 22-138 | .2 MFD. | | | | | | | |

MODEL SPEAKER
5G438 49-332 8"
5G467 49-333 10"

182

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



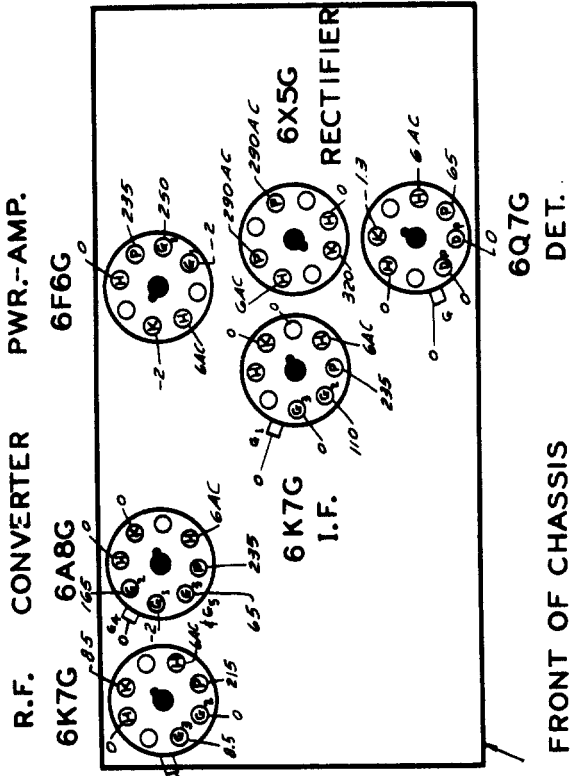
| WAVE
NO. | FREQ.
MC | DESCRIPTION | WAVE
NO. | FREQ.
MC | DESCRIPTION | WAVE
NO. | FREQ.
MC | DESCRIPTION |
|-------------|-------------|---------------------|-------------|-------------|------------------|-------------|-------------|--------------------------|
| C1 | 22-140 | 5 GANG VARIABLE | C80 | 22-000 | OSCILLATOR PADER | 1 | 57845 | WAVEMAGNET ASSEMBLY |
| C2 | 22-162 | 6000 MFD | 1 | 63-271 | 1 MEG OHM | 2 | 57846 | WAVEMAGNET ASSEMBLY |
| C3 | 22-229 | 0.01 MFD | 2 | 63-580 | 8200 OHM | 3 | 57847 | OSCILLATOR COIL ASSEMBLY |
| C4 | 22-276 | 0.005 MFD | 3 | 63-581 | 1000 OHM | 4 | 57848 | OSCILLATOR COIL ASSEMBLY |
| C5 | 22-276 | 0.005 MFD | 4 | 63-582 | 1000 OHM | 5 | 57849 | OSCILLATOR COIL ASSEMBLY |
| C6 | 22-289 | 500 MFD | 5 | 63-583 | 1000 OHM | 6 | 57850 | OSCILLATOR COIL ASSEMBLY |
| C7 | 22-182 | 2000 MFD | 6 | 63-584 | 1000 OHM | 7 | 57851 | OSCILLATOR COIL ASSEMBLY |
| C8 | 22-830 | 0.5 MFD | 7 | 63-585 | 1000 OHM | 8 | 57852 | OSCILLATOR COIL ASSEMBLY |
| C9 | 22-210 | 0.5 MFD | 8 | 63-586 | 1000 OHM | 9 | 57853 | OSCILLATOR COIL ASSEMBLY |
| C10 | 22-210 | 0.5 MFD | 9 | 63-587 | 1000 OHM | 10 | 57854 | OSCILLATOR COIL ASSEMBLY |
| C11 | 22-287 | 1 MFD | 10 | 63-588 | 1000 OHM | 11 | 57855 | OSCILLATOR COIL ASSEMBLY |
| C12 | 22-375 | 20 MFD ELECTROLYTIC | 11 | 63-589 | 1000 OHM | 12 | 57856 | OSCILLATOR COIL ASSEMBLY |
| C13 | 22-375 | 10 MFD ELECTROLYTIC | 12 | 63-590 | 1000 OHM | 13 | 57857 | OSCILLATOR COIL ASSEMBLY |
| C14 | 22-440 | 500 MFD | 13 | 63-591 | 1000 OHM | 14 | 57858 | OSCILLATOR COIL ASSEMBLY |
| C15 | 22-190 | 0.1 MFD | 14 | 63-592 | 1000 OHM | 15 | 57859 | OSCILLATOR COIL ASSEMBLY |
| C16 | 22-190 | 0.02 MFD | 15 | 63-593 | 1000 OHM | 16 | 57860 | OSCILLATOR COIL ASSEMBLY |
| C17 | 22-080 | COMPENSATING COND | 16 | 63-594 | 1000 OHM | 17 | 57861 | OSCILLATOR COIL ASSEMBLY |
| C18 | 22-080 | COMPENSATING COND | 17 | 63-595 | 1000 OHM | 18 | 57862 | OSCILLATOR COIL ASSEMBLY |
| C19 | 22-080 | COMPENSATING COND | 18 | 63-596 | 1000 OHM | 19 | 57863 | OSCILLATOR COIL ASSEMBLY |
| | | | 19 | 63-597 | 1000 OHM | 20 | 57864 | OSCILLATOR COIL ASSEMBLY |

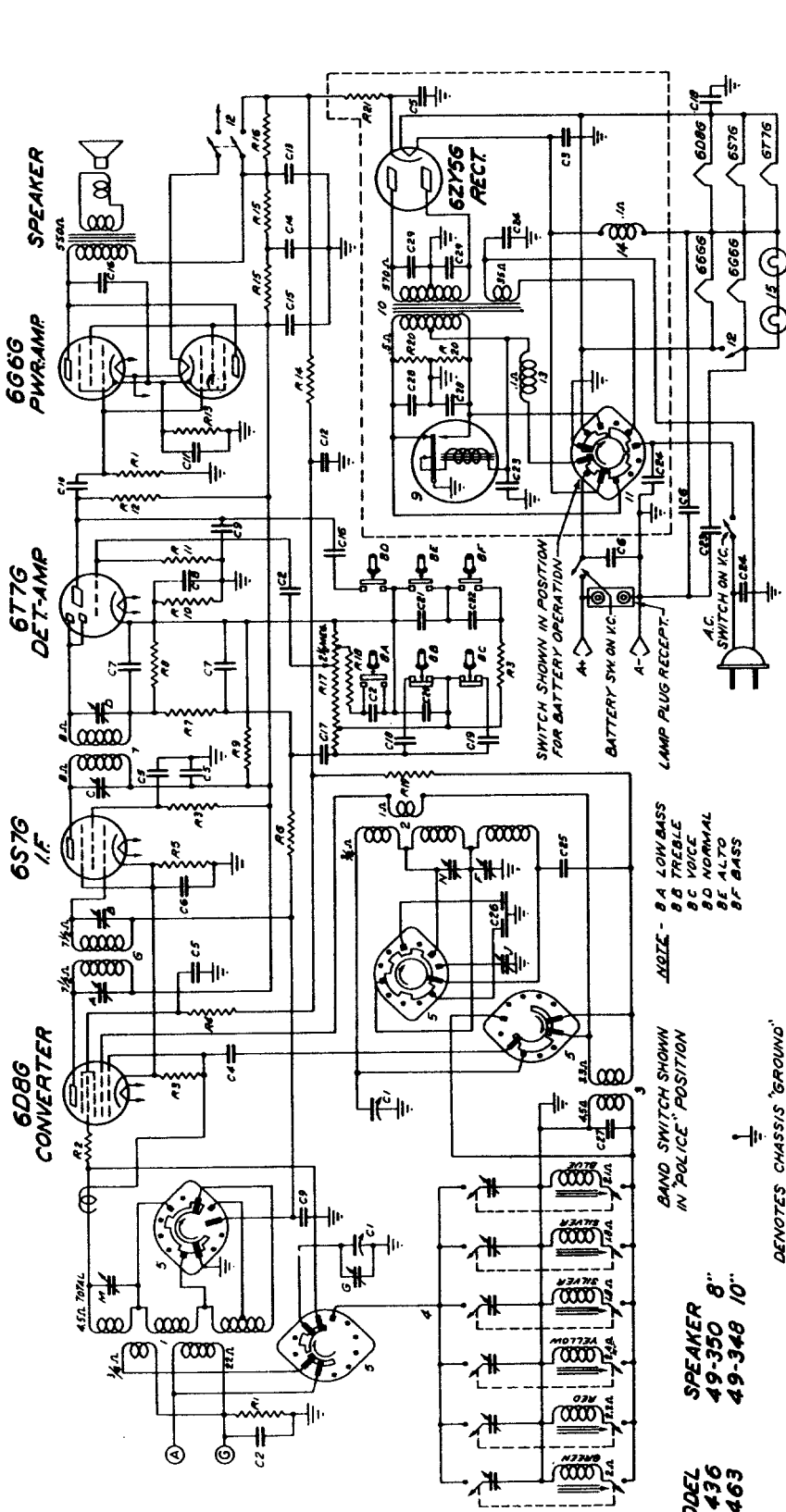
I.F. FREQUENCY 455 KC.
6 TUBE SUPERHETERODYNE
CHASSIS NO. 5678 3BAND
ZENITH RADIO CORPORATION

Models 6S439—6S469
Chassis No. 5678

NOTE

All voltages measured with a 1000 ohm per volt meter from chassis to socket contact indicated.





I.F. FREQUENCY 455 KC.
 6 TUBE SUPERHETERODYNE
 CHASSIS N°5679 6K-DC. 100K-AC. 3 BAND
 ZENITH RADIO CORPORATION

Models 6J436—6J463
 Chassis No. 5679

| QMS. NO. | PART NO. | DESCRIPTION | QMS. NO. | PART NO. | DESCRIPTION | QMS. NO. | PART NO. | DESCRIPTION | QMS. NO. | PART NO. | DESCRIPTION |
|----------|----------|--------------------|----------|----------|----------------|----------|----------|--------------------------------|----------|----------|---------------------|
| C1 | 85-944 | TWO RANGE VARIABLE | R15 | 63-605 | 1000 OHM | 1 | 5781 | ANTENNA COIL ASSEMBLY | M | 5878 | CHROME ASSEMBLY |
| C2 | 22-856 | 0.1 MFD. | R16 | 63-946 | 4750 OHM | 2 | 5787 | OSC. COMP. COIL ASSEMBLY | N | 5879 | PLUG LAMP 2.5V. 17A |
| C3 | 22-858 | 0.05 MFD. | R17 | 63-990 | VOLUME CONTROL | 3 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C4 | 22-858 | 0.05 MFD. | R18 | 63-990 | VOLUME CONTROL | 4 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C5 | 22-350 | 0.05 MFD. | R19 | 63-921 | 500 OHM | 5 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C6 | 22-350 | 0.05 MFD. | R20 | 63-921 | 500 OHM | 6 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C7 | 22-162 | 0.001 MFD. | R21 | 63-571 | 100 OHM | 7 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C8 | 22-827 | 0.001 MFD. | | | | 8 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C9 | 22-856 | 0.005 MFD. | | | | 9 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C10 | 22-162 | 0.001 MFD. | | | | 10 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C11 | 22-162 | 0.001 MFD. | | | | 11 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C12 | 22-162 | 0.001 MFD. | | | | 12 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C13 | 22-162 | 0.001 MFD. | | | | 13 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C14 | 22-162 | 0.001 MFD. | | | | 14 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C15 | 22-162 | 0.001 MFD. | | | | 15 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C16 | 22-448 | 0.04 MFD. | | | | 16 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C17 | 22-162 | 0.001 MFD. | | | | 17 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C18 | 22-470 | 0.0015 MFD. | | | | 18 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C19 | 22-470 | 0.0015 MFD. | | | | 19 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C20 | 22-470 | 0.0015 MFD. | | | | 20 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C21 | 22-470 | 0.0015 MFD. | | | | 21 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C22 | 22-386 | 0.08 MFD. | | | | 22 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |
| C23 | 22-133 | 0.5 MFD. | | | | 23 | 5789 | AUTOMATIC TUNING UNIT ASSEMBLY | | | |

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

ALIGNMENT PROCEDURE

| Operation | Connect Test Oscillator to | Dummy Antenna | Input Signal Frequency | Band | Set Dial At | Adjust Trimmers | Purpose |
|-----------|----------------------------|---------------|------------------------|-----------|-------------|-----------------|--------------------------------------|
| 1 | 6D8 R. F. Grid | 0.5 Mfd. | 455 Kc. | I. F. | 600 Kc. | A, B, C, D | I. F. Alignment |
| 2 | Rec. Ant. Post | 200 Mfd. | 1500 Kc. | Broadcast | 1500 Kc. | F | Set Oscillator to Scale |
| 3 | Rec. Ant. Post | 200 Mfd. | 1500 Kc. | Broadcast | 1500 Kc. | G | Alignment of Antenna |
| 4 | Rec. Ant. Post | 200 Mfd. | 600 Kc. | Broadcast | 600 Kc. | J | Rock Gang and Adjust for Max. Output |
| 5 | Rec. Ant. Post | 200 Mfd. | | Broadcast | | F, G | Repeat 2 and 3 |
| 6 | Rec. Ant. Post | 400 Ohms | 18000 Kc. | S. W. | 18000 Kc. | M | Rock gang & adj. for max. output |
| 7 | Rec. Ant. Post | 400 Ohms | 16000 Kc. | S. W. | 16000 Kc. | L | Rock Gang and Adjust for Max. Output |
| 8 | Rec. Ant. Post | 400 Ohms | 6000 Kc. | Police | 6000 Kc. | N | Rock Gang and Adjust for Max. Output |

Models 6J436—6J463

CHASSIS No. 5679

All voltages measured with a 1000 ohm per volt meter from chassis to socket contact indicated.

All voltages are positive D.C. unless marked otherwise.

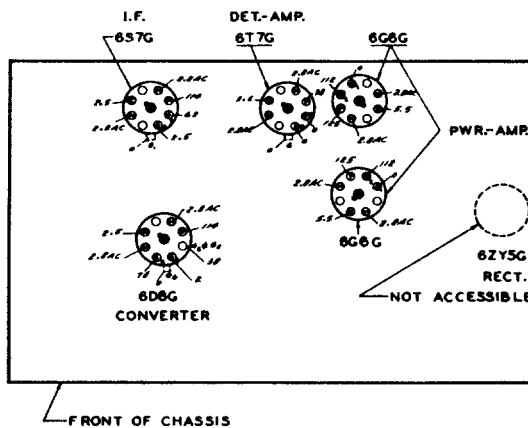
Battery conserver switch in **NORMAL** position.

Volume control full on.

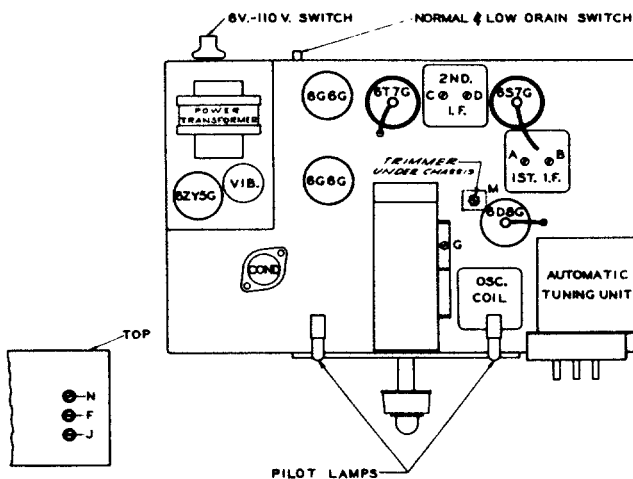
Line voltage 112 v. A.C.

LEGEND

- F—Filament
- H—Heater
- D—Diode
- G1—Control Grid
- G2—Screen Grid
- G3—Suppressor Grid
- P—Plate
- K—Cathode



Socket Voltages

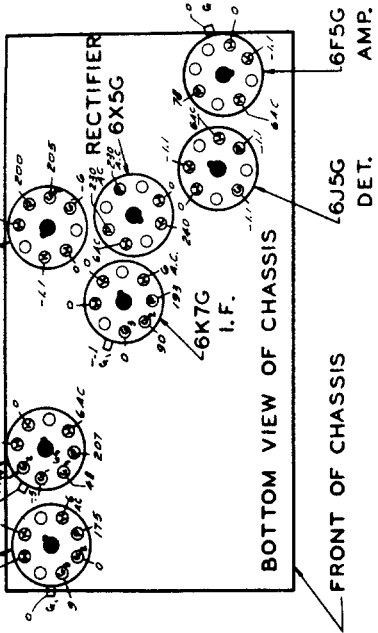


Location of Tubes and Trimmers

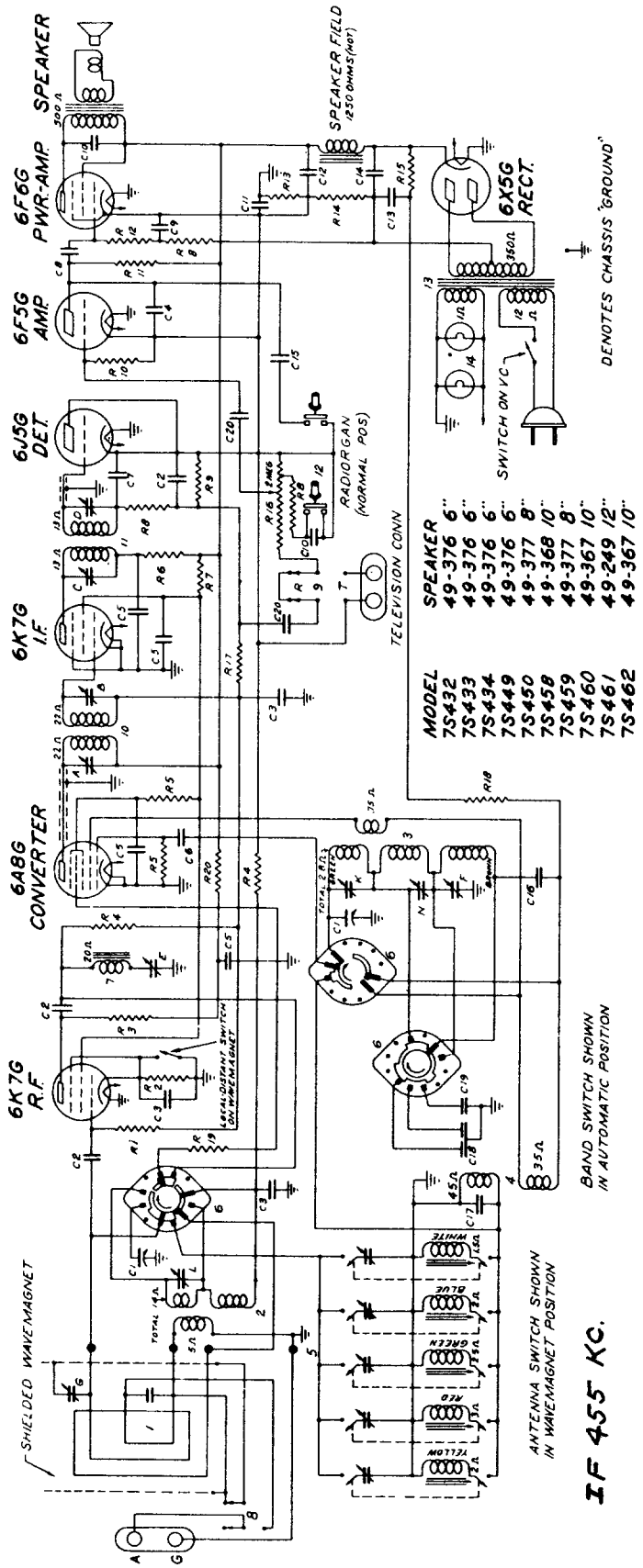
Models 7S432—7S433—7S434—7S449—7S450—7S458—7S459—7S460—7S461—7S462

Chassis No. 5724

ZENITH RADIO CORPORATION



| QW | PART NO. | DESCRIPTION | QW | PART NO. | DESCRIPTION |
|------|----------|----------------------|------|----------|----------------------------|
| C 1 | 22-843 | 2 GANG VARIABLE | R 15 | 83-1030 | VOLUME CONTROL |
| C 2 | 22-162 | 5000 MFD. | R 17 | 63-559 | 1/2 MEG OHM |
| C 3 | 22-828 | 50 MFD. | R 18 | 63-571 | 100 OHM |
| C 4 | 22-126 | 50 MFD. | R 20 | 83-705 | 2200 OHM |
| C 5 | 22-289 | 50 MFD. | S | 56938 | WAVE-MAGNET ASSEMBLY |
| C 6 | 22-182 | 500.25 MFD. | 1 | 56937 | OSCILLATOR COIL ASSEMBLY |
| C 7 | 22-810 | 50 MFD. | 2 | 56992 | OSC. COUPLER COIL ASSEMBLY |
| C 8 | 22-229 | 50 MFD. | 3 | 57044 | AUTOMATIC TUNING SWITCH |
| C 9 | 22-229 | 50 MFD. | 4 | 57500 | WAVE TRAP COIL ASSEMBLY |
| C 10 | 22-229 | 50 MFD. | 5 | 85-171 | WAVE-MAGNET SWITCH |
| C 11 | 22-229 | 50 MFD. | 6 | 85-171 | TELEVISION SWITCH |
| C 12 | 22-719 | 1/8 MFD ELECTROLYTIC | 7 | 85-596 | 250 F TRAINS |
| C 13 | 22-341 | 1/2 MFD ELECTROLYTIC | 8 | 85-596 | 250 F TRAINS |
| C 14 | 22-341 | 1/2 MFD ELECTROLYTIC | 9 | 85-596 | 250 F TRAINS |
| C 15 | 22-448 | 208 MFD. | 10 | 85-596 | 250 F TRAINS |
| C 16 | 22-158 | 208 MFD. | 11 | 85-596 | 250 F TRAINS |
| C 17 | 22-158 | 208 MFD. | 12 | 85-596 | 250 F TRAINS |
| C 18 | 22-853 | OSCILLATOR PADDER | 13 | 85-596 | 250 F TRAINS |
| C 19 | 22-856 | OSCILLATOR PADDER | | | |



| MODEL | SPEAKER |
|-------|------------|
| 7S432 | 49-376 6" |
| 7S433 | 49-376 6" |
| 7S434 | 49-376 6" |
| 7S449 | 49-376 6" |
| 7S450 | 49-377 8" |
| 7S458 | 49-368 10" |
| 7S459 | 49-377 8" |
| 7S460 | 49-367 10" |
| 7S461 | 49-249 12" |
| 7S462 | 49-367 10" |

BAND SWITCH SHOWN IN AUTOMATIC POSITION

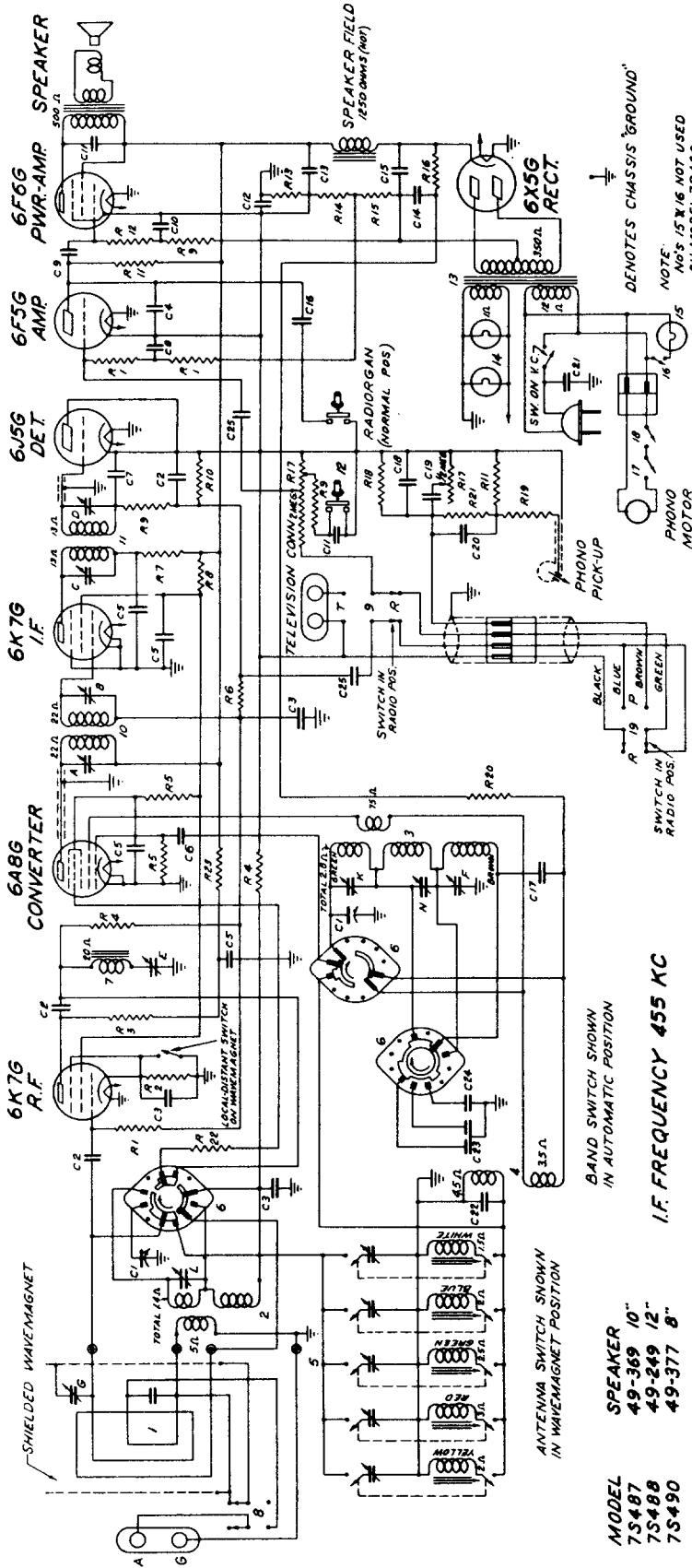
IF 455 KC.

ANTENNA SWITCH SHOWN IN WAVE-MAGNET POSITION

TELEVISION CONV.

DEMOTES CHASSIS GROUND

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



MODEL
7S487
7S488
7S490

SPEAKER
49-369 10"
49-249 12"
49-377 8"

I.F. FREQUENCY 455 KC

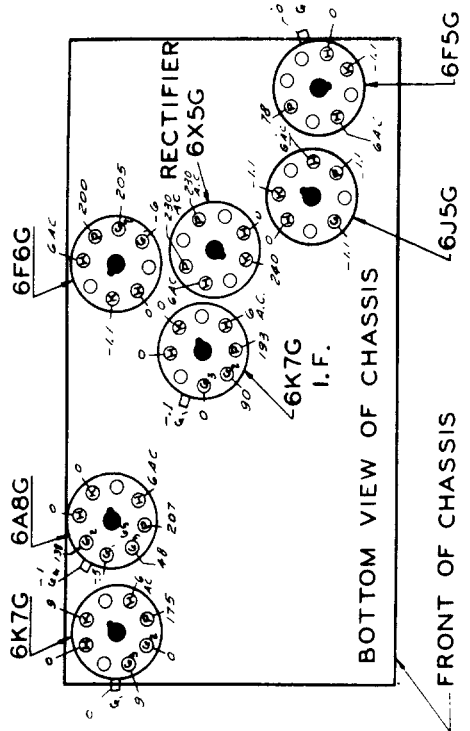
BAND SWITCH SHOWN
IN AUTOMATIC POSITION

ANTENNA SWITCH SHOWN
IN WAVE MAGNET POSITION

PHONO MOTOR
SW ON K.C. 7

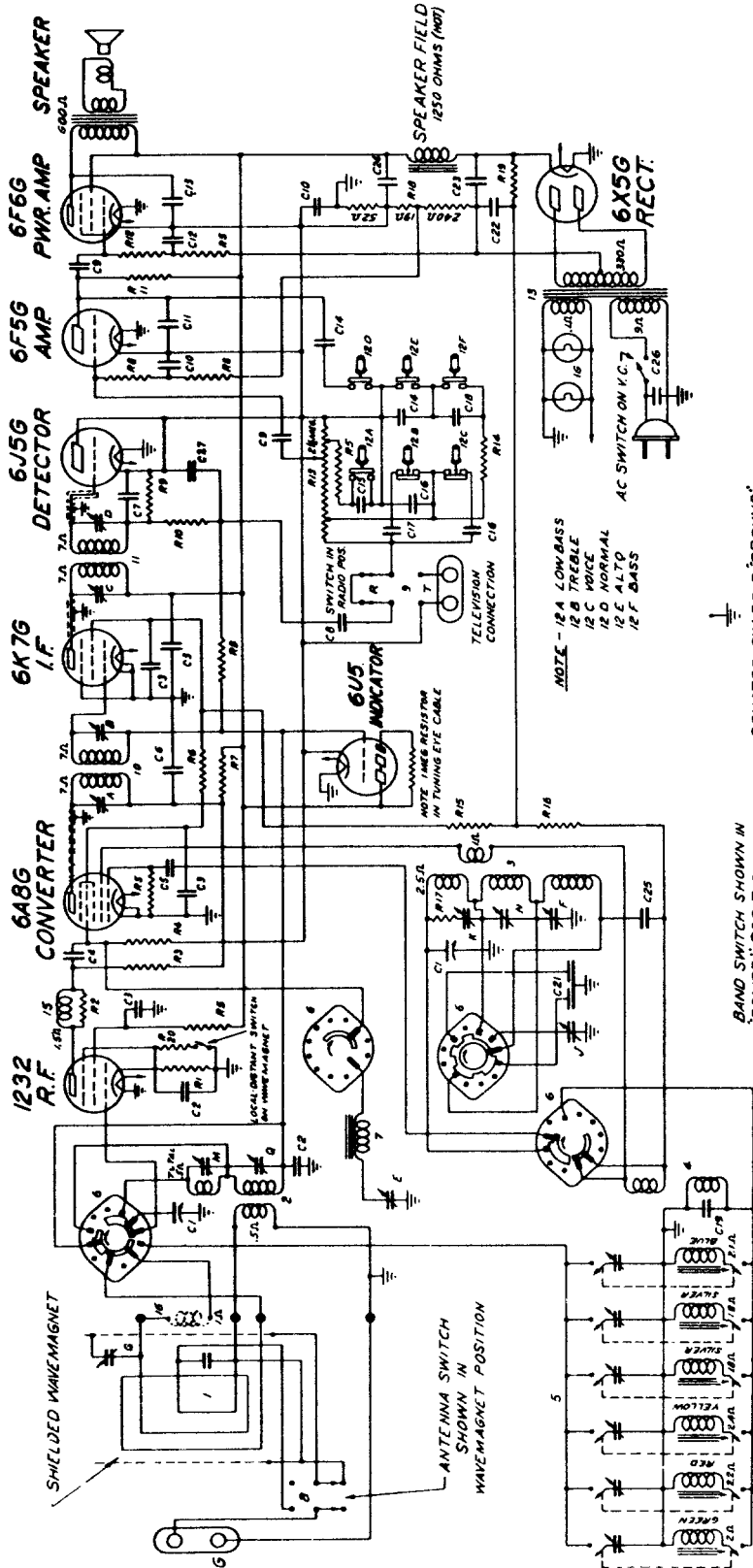
NOTE:
NOS. 15 & 16 NOT USED
ON MODEL 7S490

| QWV PART NO. | DESCRIPTION | QWV PART NO. | DESCRIPTION | QWV PART NO. | DESCRIPTION |
|--------------|--------------------------|--------------|--------------------|--------------|------------------------|
| C1 | 25-248 TWO GANS VARIABLE | R1 | 63-271 1 MEG OHM | 1 | 68-1035 VOLUME CONTROL |
| C2 | 22-767 0.001 MFD. | R2 | 63-500 6800 OHM | 2 | 68-1036 VOLUME CONTROL |
| C3 | 22-769 0.005 MFD. | R3 | 63-501 35M OHM | 3 | 68-1037 820 M OHM |
| C4 | 22-776 0.005 MFD. | R4 | 63-502 35M OHM | 4 | 68-1038 820 M OHM |
| C5 | 22-778 0.005 MFD. | R5 | 63-503 1.5 MEG OHM | 5 | 68-1039 820 M OHM |
| C6 | 22-782 0.0025 MFD. | R6 | 63-504 1.5 MEG OHM | 6 | 68-1040 820 M OHM |
| C7 | 22-782 0.0025 MFD. | R7 | 63-505 1.5 MEG OHM | 7 | 68-1041 820 M OHM |
| C8 | 22-782 0.0025 MFD. | R8 | 63-506 1.5 MEG OHM | 8 | 68-1042 820 M OHM |
| C9 | 22-782 0.0025 MFD. | R9 | 63-507 1.5 MEG OHM | 9 | 68-1043 820 M OHM |
| C10 | 22-782 0.0025 MFD. | R10 | 63-508 1.5 MEG OHM | 10 | 68-1044 820 M OHM |
| C11 | 22-782 0.0025 MFD. | R11 | 63-509 1.5 MEG OHM | 11 | 68-1045 820 M OHM |
| C12 | 22-782 0.0025 MFD. | R12 | 63-510 1.5 MEG OHM | 12 | 68-1046 820 M OHM |
| C13 | 22-782 0.0025 MFD. | R13 | 63-511 1.5 MEG OHM | 13 | 68-1047 820 M OHM |
| C14 | 22-782 0.0025 MFD. | R14 | 63-512 1.5 MEG OHM | 14 | 68-1048 820 M OHM |
| C15 | 22-782 0.0025 MFD. | R15 | 63-513 1.5 MEG OHM | 15 | 68-1049 820 M OHM |
| C16 | 22-782 0.0025 MFD. | R16 | 63-514 1.5 MEG OHM | 16 | 68-1050 820 M OHM |
| C17 | 22-782 0.0025 MFD. | R17 | 63-515 1.5 MEG OHM | 17 | 68-1051 820 M OHM |
| C18 | 22-782 0.0025 MFD. | R18 | 63-516 1.5 MEG OHM | 18 | 68-1052 820 M OHM |
| C19 | 22-782 0.0025 MFD. | R19 | 63-517 1.5 MEG OHM | 19 | 68-1053 820 M OHM |
| C20 | 22-782 0.0025 MFD. | R20 | 63-518 1.5 MEG OHM | 20 | 68-1054 820 M OHM |
| C21 | 22-782 0.0025 MFD. | R21 | 63-519 1.5 MEG OHM | 21 | 68-1055 820 M OHM |
| C22 | 22-782 0.0025 MFD. | R22 | 63-520 1.5 MEG OHM | 22 | 68-1056 820 M OHM |



ZENITH RADIO CORPORATION
Models 7S487—7S488—7S490
Chassis No. 5725

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



Models 8S443—8S451—8S463

Chassis No. 5808

I.F. FREQUENCY 455 KC
 8 TUBE SUPERHETERODYNE
 CHASSIS N° 5808 3BAND
 ZENITH RADIO CORPORATION

NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

BAND SWITCH SHOWN IN
 "POLICE" POSITION

NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

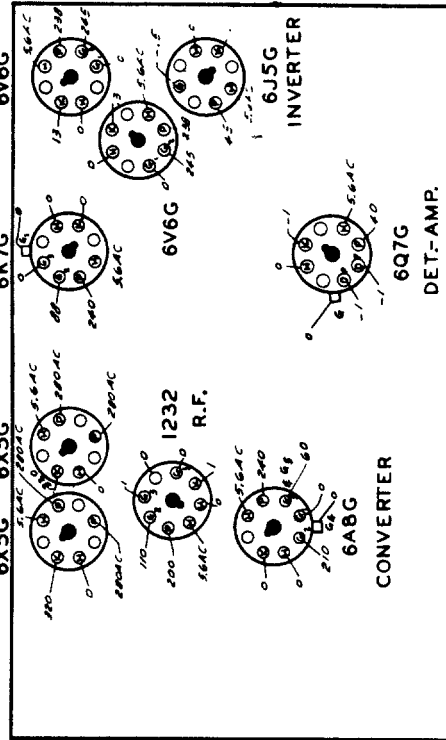
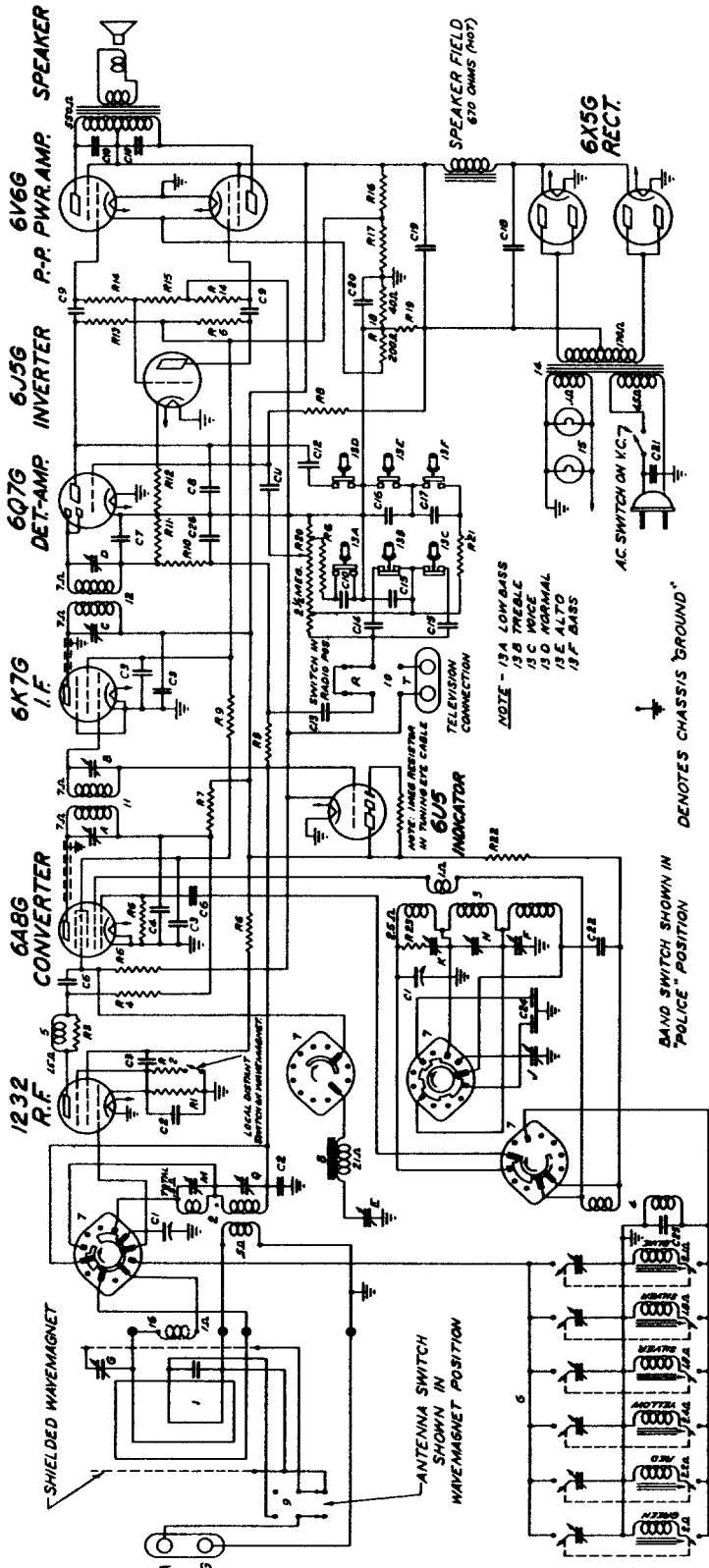
NOTE - 12 A LOW BASS
 12 B TREBLE
 12 C VOICE
 12 D NORMAL
 12 E ALTD
 12 F BASS

| COMP. NO. | PART NO. | DESCRIPTION | QTY. | DESCRIPTION | QTY. | DESCRIPTION | QTY. |
|-----------|----------|-------------------|------|--------------------|------|-------------|------|
| C1 | 22-927 | 2MΩ GANG VARIABLE | 1 | 6 MFD ELECTROLYTIC | 1 | 1/4 W | 1 |
| C2 | 22-859 | .05 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C3 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C4 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C5 | 22-127 | 25 M MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C6 | 22-925 | 1 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C7 | 22-182 | .00025 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C8 | 22-327 | .05 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C9 | 22-327 | .05 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C10 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C11 | 22-954 | .0005 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C12 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C13 | 22-627 | .002 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C14 | 22-229 | .005 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C15 | 22-229 | .005 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C16 | 22-470 | .00015 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C17 | 22-954 | .00015 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C18 | 22-452 | .002 MFD | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C19 | 22-986 | COMPENSATING COND | 1 | 1/4 W | 1 | 1/4 W | 1 |
| C21 | 22-938 | DUAL OSC PADDER | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D1 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D2 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D3 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D4 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D5 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D6 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D7 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D8 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D9 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D10 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D11 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D12 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D13 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D14 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D15 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D16 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D17 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D18 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D19 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D20 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D21 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D22 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D23 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D24 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D25 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D26 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D27 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D28 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D29 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D30 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D31 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D32 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D33 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D34 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D35 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D36 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D37 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D38 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D39 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D40 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D41 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D42 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D43 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D44 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D45 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D46 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D47 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D48 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D49 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D50 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D51 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D52 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D53 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D54 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D55 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D56 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D57 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D58 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D59 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D60 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D61 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D62 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D63 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D64 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D65 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D66 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D67 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D68 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D69 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D70 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D71 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D72 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D73 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D74 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D75 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D76 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D77 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D78 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D79 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D80 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D81 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D82 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D83 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D84 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D85 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D86 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D87 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D88 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D89 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D90 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D91 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D92 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D93 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D94 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D95 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D96 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D97 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D98 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D99 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |
| D100 | 22-927 | 2MΩ GANG VARIABLE | 1 | 1/4 W | 1 | 1/4 W | 1 |

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

Models 10S443—10S452—10S464—10S470—10S491—10S492

CHASSIS No. 1005

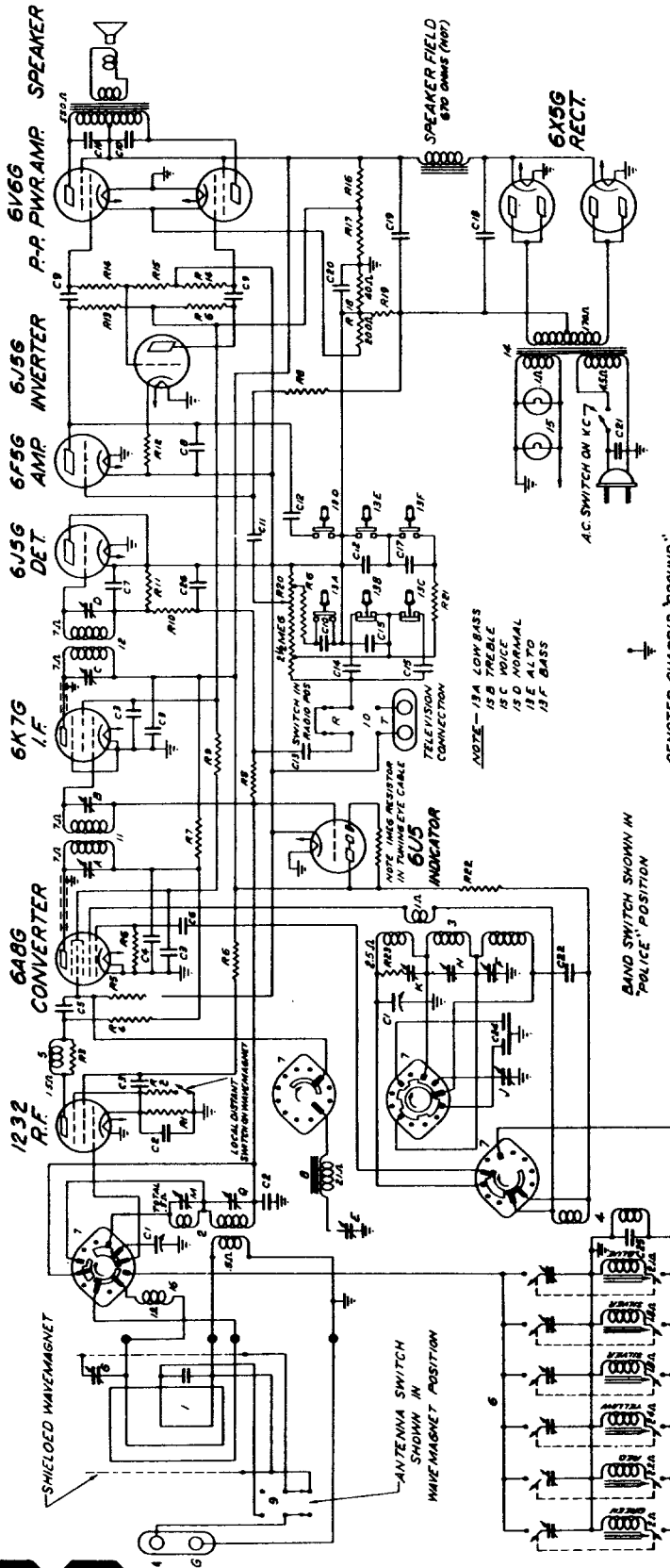


Socket Voltages
FRONT OF CHASSIS

| COMPONENT | PART NO. | DESCRIPTION | RESISTANCE | DESCRIPTION | RESISTANCE |
|-----------|----------|-----------------|------------|-------------|------------|
| C1 | 22-387 | 2W 50V VARIABLE | | | |
| C2 | 22-229 | 05 MFD | 600K | | |
| C3 | 22-229 | 05 MFD | 600K | | |
| C4 | 22-229 | 05 MFD | 600K | | |
| C5 | 22-229 | 05 MFD | 600K | | |
| C6 | 22-229 | 05 MFD | 600K | | |
| C7 | 22-229 | 05 MFD | 600K | | |
| C8 | 22-229 | 05 MFD | 600K | | |
| C9 | 22-229 | 05 MFD | 600K | | |
| C10 | 22-229 | 05 MFD | 600K | | |
| C11 | 22-229 | 05 MFD | 600K | | |
| C12 | 22-229 | 05 MFD | 600K | | |
| C13 | 22-229 | 05 MFD | 600K | | |
| C14 | 22-229 | 05 MFD | 600K | | |
| C15 | 22-229 | 05 MFD | 600K | | |
| C16 | 22-229 | 05 MFD | 600K | | |
| C17 | 22-229 | 05 MFD | 600K | | |
| C18 | 22-229 | 05 MFD | 600K | | |
| C19 | 22-229 | 05 MFD | 600K | | |
| C20 | 22-229 | 05 MFD | 600K | | |
| C21 | 22-229 | 05 MFD | 600K | | |
| C22 | 22-229 | 05 MFD | 600K | | |
| R1 | 63-509 | 10M OHM | 1/2 W | | |
| R2 | 63-509 | 10M OHM | 1/2 W | | |
| R3 | 63-509 | 10M OHM | 1/2 W | | |
| R4 | 63-509 | 10M OHM | 1/2 W | | |
| R5 | 63-509 | 10M OHM | 1/2 W | | |
| R6 | 63-509 | 10M OHM | 1/2 W | | |
| R7 | 63-509 | 10M OHM | 1/2 W | | |
| R8 | 63-509 | 10M OHM | 1/2 W | | |
| R9 | 63-509 | 10M OHM | 1/2 W | | |
| R10 | 63-509 | 10M OHM | 1/2 W | | |
| R11 | 63-509 | 10M OHM | 1/2 W | | |
| R12 | 63-509 | 10M OHM | 1/2 W | | |
| R13 | 63-509 | 10M OHM | 1/2 W | | |
| R14 | 63-509 | 10M OHM | 1/2 W | | |
| R15 | 63-509 | 10M OHM | 1/2 W | | |
| R16 | 63-509 | 10M OHM | 1/2 W | | |
| R17 | 63-509 | 10M OHM | 1/2 W | | |
| R18 | 63-509 | 10M OHM | 1/2 W | | |

I.F. FREQUENCY 455 KC.
10 TUBE SUPERHETERODYNE
CHASSIS N21005 AC 3 BAND
ZENITH RADIO CORPORATION

COMPILED BY M. N. BEITMAN, SUPREME PUBLICATIONS



MODEL 11S-474
SPEAKER 49-352 12"

Model 11S474
Chassis No. 1103

IF FREQUENCY 455 KC.
11 TUBE SUPERHETERODYNE
CHASSIS N9/109 AC 3 BAND
ZENITH RADIO CORPORATION

NOTE - 15A LOW BASS
12.5 PREBLE
12.5 VOICE COIL
13.8 AL70
13.8 BASS

NOTE: 1MKS RESISTOR
IN TELEVISION CABLE
CONNECTION

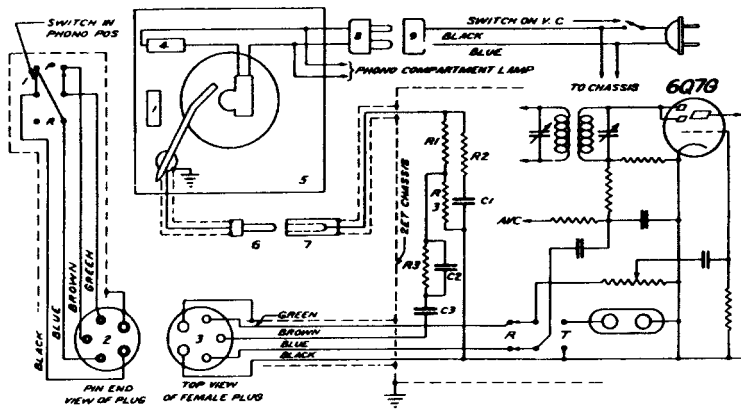
NOTE: 1MKS RESISTOR
IN TELEVISION CABLE
CONNECTION

NOTE: 1MKS RESISTOR
IN TELEVISION CABLE
CONNECTION

NOTE: 1MKS RESISTOR
IN TELEVISION CABLE
CONNECTION

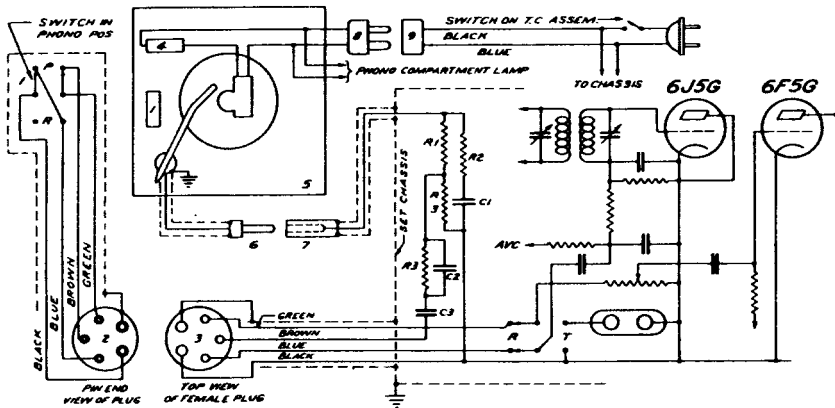
| AMP. NO. | DESCRIPTION | AMP. NO. | DESCRIPTION | AMP. NO. | DESCRIPTION | AMP. NO. | DESCRIPTION |
|----------|------------------------|----------|------------------------|----------|------------------------|----------|------------------------|
| 12 | 6V5G P.P. TRANSFORMER | 12 | 6V5G P.P. TRANSFORMER | 12 | 6V5G P.P. TRANSFORMER | 12 | 6V5G P.P. TRANSFORMER |
| 11 | 6J5G INVERTER | 11 | 6J5G INVERTER | 11 | 6J5G INVERTER | 11 | 6J5G INVERTER |
| 10 | 6F5G AMP. | 10 | 6F5G AMP. | 10 | 6F5G AMP. | 10 | 6F5G AMP. |
| 9 | 6K7G I.F. | 9 | 6K7G I.F. | 9 | 6K7G I.F. | 9 | 6K7G I.F. |
| 8 | 6J5G DET. | 8 | 6J5G DET. | 8 | 6J5G DET. | 8 | 6J5G DET. |
| 7 | 6A8G CONVERTER | 7 | 6A8G CONVERTER | 7 | 6A8G CONVERTER | 7 | 6A8G CONVERTER |
| 6 | 1232 R.F. | 6 | 1232 R.F. | 6 | 1232 R.F. | 6 | 1232 R.F. |
| 5 | 6U5 INDICATOR | 5 | 6U5 INDICATOR | 5 | 6U5 INDICATOR | 5 | 6U5 INDICATOR |
| 4 | 6X5G RECT. | 4 | 6X5G RECT. | 4 | 6X5G RECT. | 4 | 6X5G RECT. |
| 3 | 700-0-700V TRANSFORMER | 3 | 700-0-700V TRANSFORMER | 3 | 700-0-700V TRANSFORMER | 3 | 700-0-700V TRANSFORMER |
| 2 | ANTENNA SWITCH | 2 | ANTENNA SWITCH | 2 | ANTENNA SWITCH | 2 | ANTENNA SWITCH |
| 1 | SHIELDED WAVEMAGNET | 1 | SHIELDED WAVEMAGNET | 1 | SHIELDED WAVEMAGNET | 1 | SHIELDED WAVEMAGNET |

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



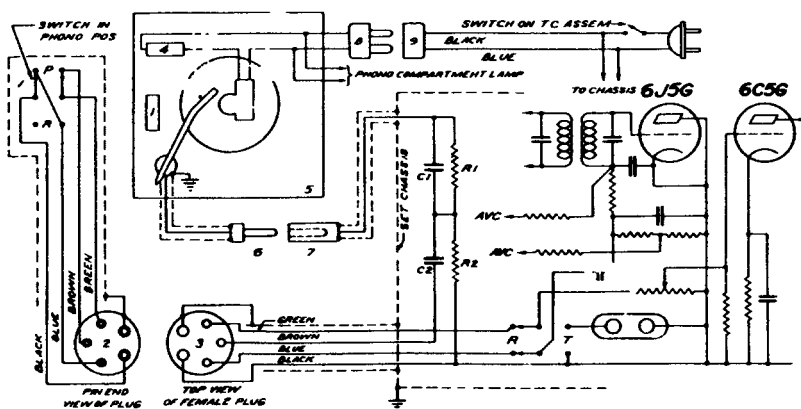
| DIAG. NO. | PART NO. | DESCRIPTION | QTY. |
|-----------|----------|---|------|
| C1 | 22-379 | .005 MFD. | 100K |
| C2 | 22-959 | .00035 MFD. | 500K |
| C3 | 22-887 | .001 MFD. | 500K |
| R1 | 63-719 | 470M OHM | 1/4W |
| R2 | 63-649 | 56M OHM | 1/4W |
| R3 | 63-271 | 1 MEG OHM | 1/4W |
| 1 | 57224 | PHONO SW. WIRE ASSEMBLY | |
| 2 | 58070 | PLUG W. WIRE ASSEMBLY | |
| 3 | 85-191 | A.C. SWITCH | |
| 4 | 89-36 | WEBSTER AUTOMATIC RECORD PLAYER | |
| 5 | 58069 | CINCH "M"-E1 PLUG | |
| 6 | 58069 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 7 | 58069 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 8 | 58069 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 9 | 58069 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |

PHONO CIRCUIT DATA
 MODEL SPEAKER
 10S-491 49-356 15"
 10S-492 49-352 12"
 CHASSIS N°1007



| DIAG. NO. | PART NO. | DESCRIPTION | QTY. |
|-----------|----------|---|------|
| C1 | 22-379 | .005 MFD. | 100K |
| C2 | 22-959 | .00035 MFD. | 500K |
| C3 | 22-887 | .001 MFD. | 500K |
| R1 | 63-719 | 470M OHM | 1/4W |
| R2 | 63-649 | 56M OHM | 1/4W |
| R3 | 63-271 | 1 MEG OHM | 1/4W |
| 1 | 57224 | PHONO SW. WIRE ASSEMBLY | |
| 2 | 58094 | PLUG W. WIRE ASSEMBLY | |
| 3 | 85-191 | A.C. SWITCH | |
| 4 | 89-36 | WEBSTER AUTOMATIC RECORD PLAYER | |
| 5 | 58093 | CINCH "M"-E1 PLUG | |
| 6 | 58093 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 7 | 58093 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 8 | 58093 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 9 | 58093 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |

PHONO CIRCUIT DATA
 MODEL SPEAKER
 12S-494 49-355 15"
 CHASSIS N°1208

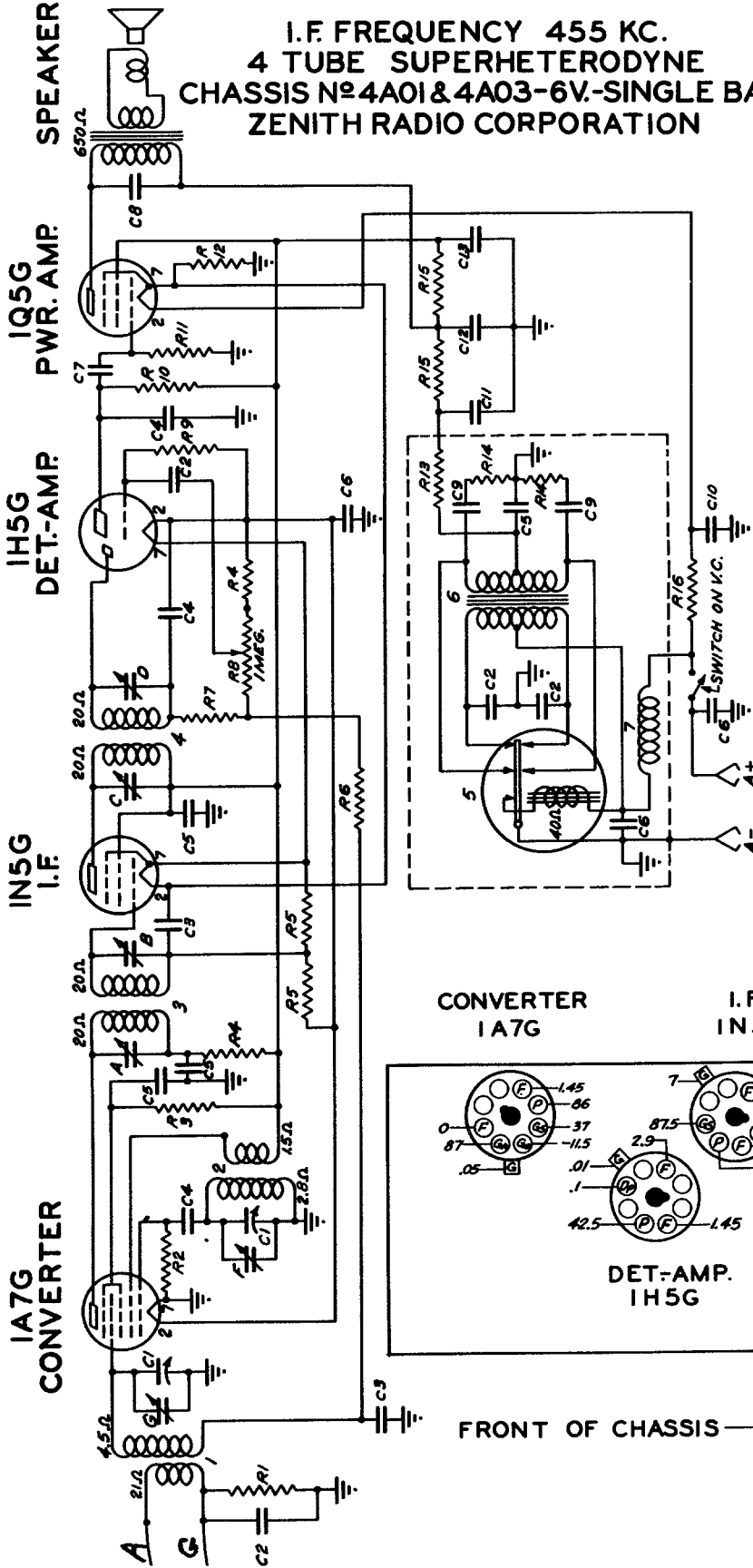


| DIAG. NO. | PART NO. | DESCRIPTION | QTY. |
|-----------|----------|---|------|
| C1 | 22-182 | .00025 MFD. | 500K |
| C2 | 22-887 | .001 MFD. | 500K |
| R1 | 63-597 | 470M OHM | 1/4W |
| R2 | 63-649 | 56M OHM | 1/4W |
| 1 | 57224 | PHONO SW. WIRE ASSEMBLY | |
| 2 | 58100 | PLUG W. WIRE ASSEMBLY | |
| 3 | 85-191 | A.C. SWITCH | |
| 4 | 89-36 | WEBSTER AUTOMATIC RECORD PLAYER | |
| 5 | 58107 | CINCH "M"-E1 PLUG | |
| 6 | 58107 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 7 | 58107 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 8 | 58107 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |
| 9 | 58107 | RECEPTACLE WIRE ASSEM. CINCH "M"-E1 PLUG WITH P-7002 CAP. & LINER | |

PHONO CIRCUIT DATA
 MODEL SPEAKER
 15S-495 49-375 15"
 CHASSIS N°1504

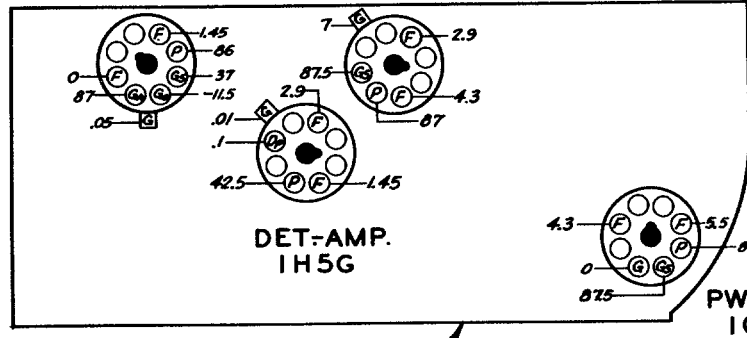
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

I.F. FREQUENCY 455 KC.
 4 TUBE SUPERHETERODYNE
 CHASSIS N^o 4A01 & 4A03-6V.-SINGLE BAND
 ZENITH RADIO CORPORATION



CONVERTER
IA7G

I.F.
IN5G



FRONT OF CHASSIS

| DIAG. N ^o | PART N ^o | DESCRIPTION | DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|----------------------|----------------------|---------------------|------------------|
| C1 | 22-695 | TWO GANG VARIABLE | R2 | 63-595 | 100M OHM |
| C2 | 22-826 | .01 MFD. | R3 | 63-594 | 68M OHM |
| C3 | 22-829 | .05 MFD. | R4 | 63-589 | 1000 OHM |
| C4 | 22-162 | .001 MFD. | R5 | 63-296 | 2200 OHM |
| C5 | 22-828 | .05 MFD. | R6 | 63-669 | 39 MEGOHM |
| C6 | 22-199 | .5 MFD. | R7 | 63-593 | 47M OHM |
| C7 | 22-243 | .01 MFD. | R8 | 63-1079 | VOLUME CONTROL |
| C8 | 22-445 | .04 MFD. | R9 | 63-976 | 15 MEGOHM |
| C9 | 22-966 | 100MFD. ELECTROLYTIC | R10 | 63-271 | 1 MEGOHM |
| C10 | 22-981 | 150MFD. ELECTROLYTIC | R11 | 63-600 | 22 MEGOHM |
| C11 | 22-742 | 10MFD. ELECTROLYTIC | R12 | 63-1060 | 90 OHM WIREWOUND |
| C12 | 22-742 | 10MFD. ELECTROLYTIC | R13 | 63-577 | 100 OHM |
| C13 | 22-742 | 10MFD. ELECTROLYTIC | R14 | 63-597 | 100 OHM |
| | | | R15 | 63-605 | 1000 OHM |
| | | | R16 | 63-1061 | 7 OHM |
| R1 | 63-597 | 470M OHM | | | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|--------------------------|
| 1 | 57681 | ANTENNA COIL ASSEMBLY |
| 2 | 36381 | OSCILLATOR COIL ASSEMBLY |
| 3 | 95-589 | 1ST. I.F. TRANS. |
| 4 | 95-590 | 2ND. I.F. TRANS. |
| 5 | 190-17 | VIBRATOR |
| 6 | 95-635 | POWER TRANSFORMER |
| 7 | 55043 | CHOKE ASSEMBLY |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

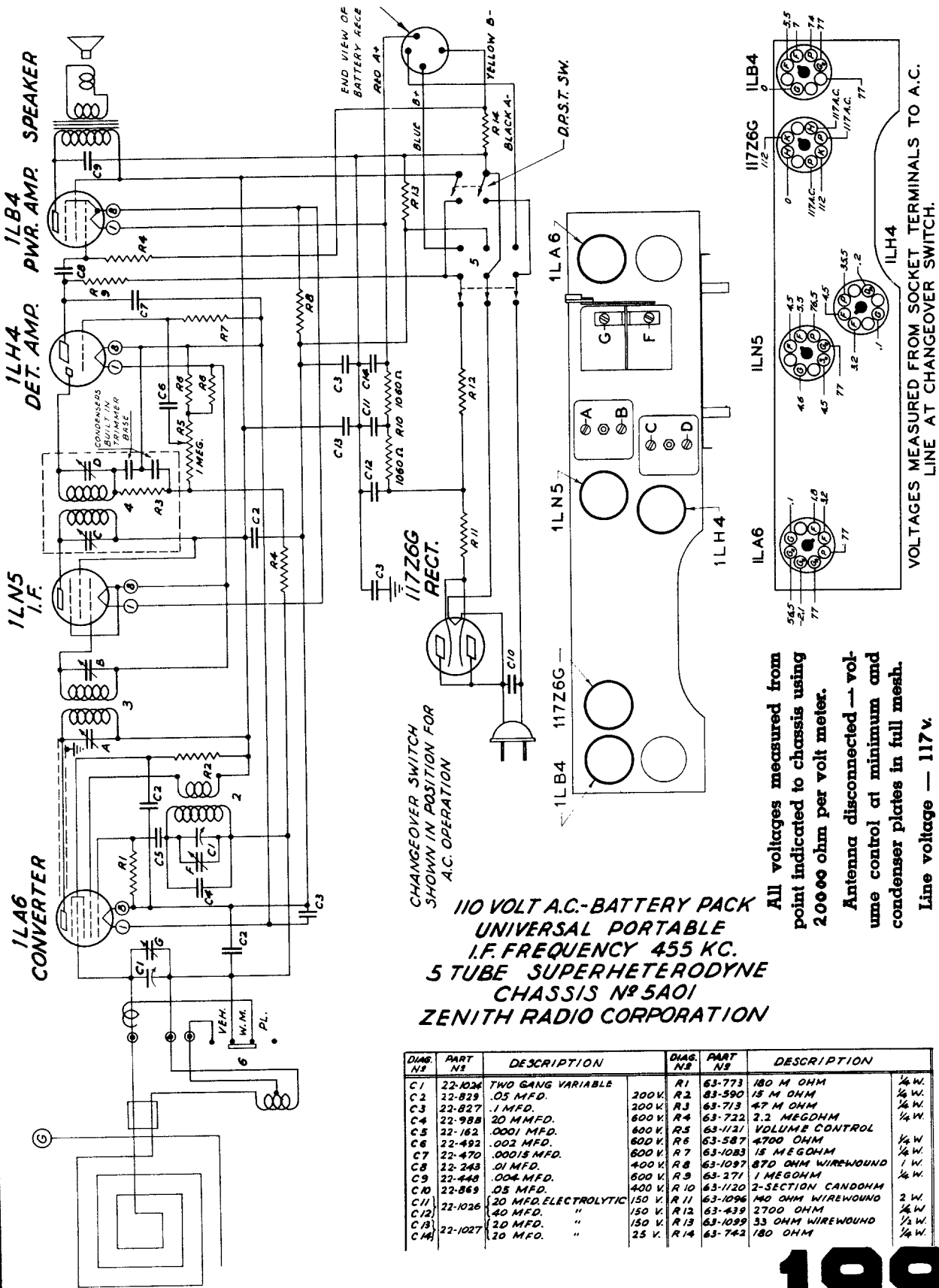
| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

| DIAG. N ^o | PART N ^o | DESCRIPTION |
|----------------------|---------------------|-------------|
| 1 | 1K | |
| 2 | 1K | |
| 3 | 1K | |
| 4 | 1K | |
| 5 | 1K | |
| 6 | 1K | |
| 7 | 1K | |

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION | |
|-----------|----------|----------------------|-----------|----------|-------------------|--------|
| C1 | 22-1026 | TWO GANG VARIABLE | R1 | 63-773 | 180 M OHM | 1/4 W. |
| C2 | 22-829 | .05 MFD. | R2 | 63-590 | 15 M OHM | 1/4 W. |
| C3 | 22-827 | 1 MFD. | R3 | 63-713 | 47 M OHM | 1/4 W. |
| C4 | 22-988 | 20 M MFD. | R4 | 63-722 | 2.2 MEGOHM | 1/4 W. |
| C5 | 22-162 | .0001 MFD. | R5 | 63-1121 | VOLUME CONTROL | |
| C6 | 22-492 | .002 MFD. | R6 | 63-587 | 4700 OHM | 1/2 W. |
| C7 | 22-470 | .00015 MFD. | R7 | 63-1083 | 15 MEGOHM | 1/4 W. |
| C8 | 22-243 | .01 MFD. | R8 | 63-1097 | 870 OHM WIREWOUND | 1 W. |
| C9 | 22-448 | .004 MFD. | R9 | 63-271 | 1 MEGOHM | 1/4 W. |
| C10 | 22-869 | .05 MFD. | R10 | 63-1120 | 2-SECTION CANDOHM | |
| C11 | 22-1026 | 20 MFD. ELECTROLYTIC | R11 | 63-1096 | 140 OHM WIREWOUND | 2 W. |
| C12 | 22-1026 | 40 MFD. " | R12 | 63-439 | 2700 OHM | 1/4 W. |
| C13 | 22-1027 | 20 MFD. " | R13 | 63-1099 | 33 OHM WIREWOUND | 1/2 W. |
| C14 | 22-1027 | 20 MFD. " | R14 | 63-742 | 180 OHM | 1/4 W. |

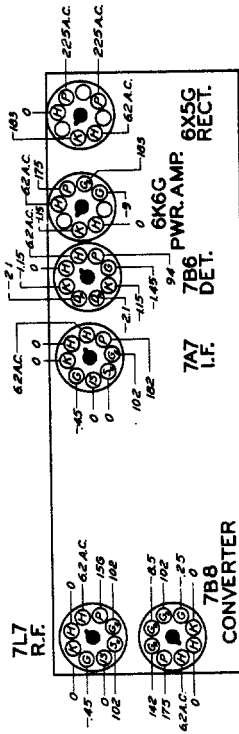
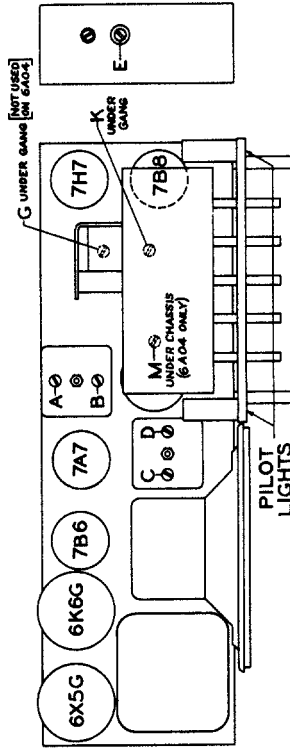
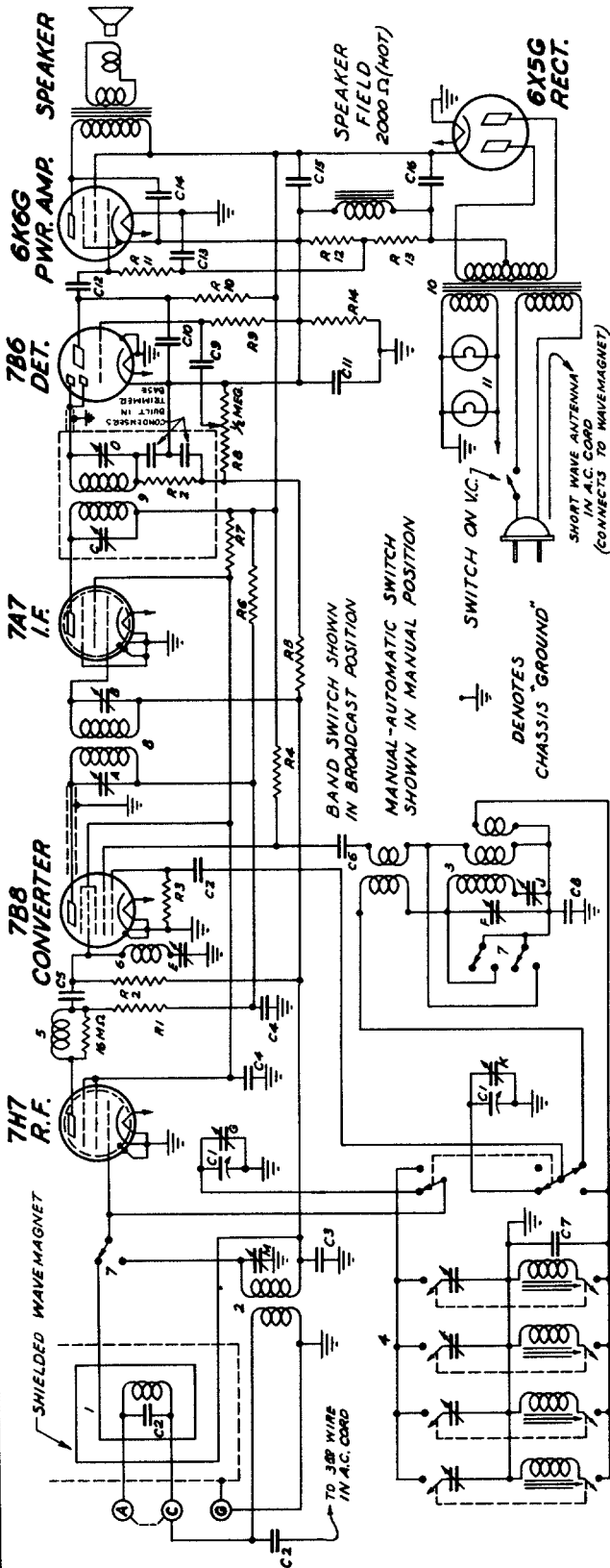
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

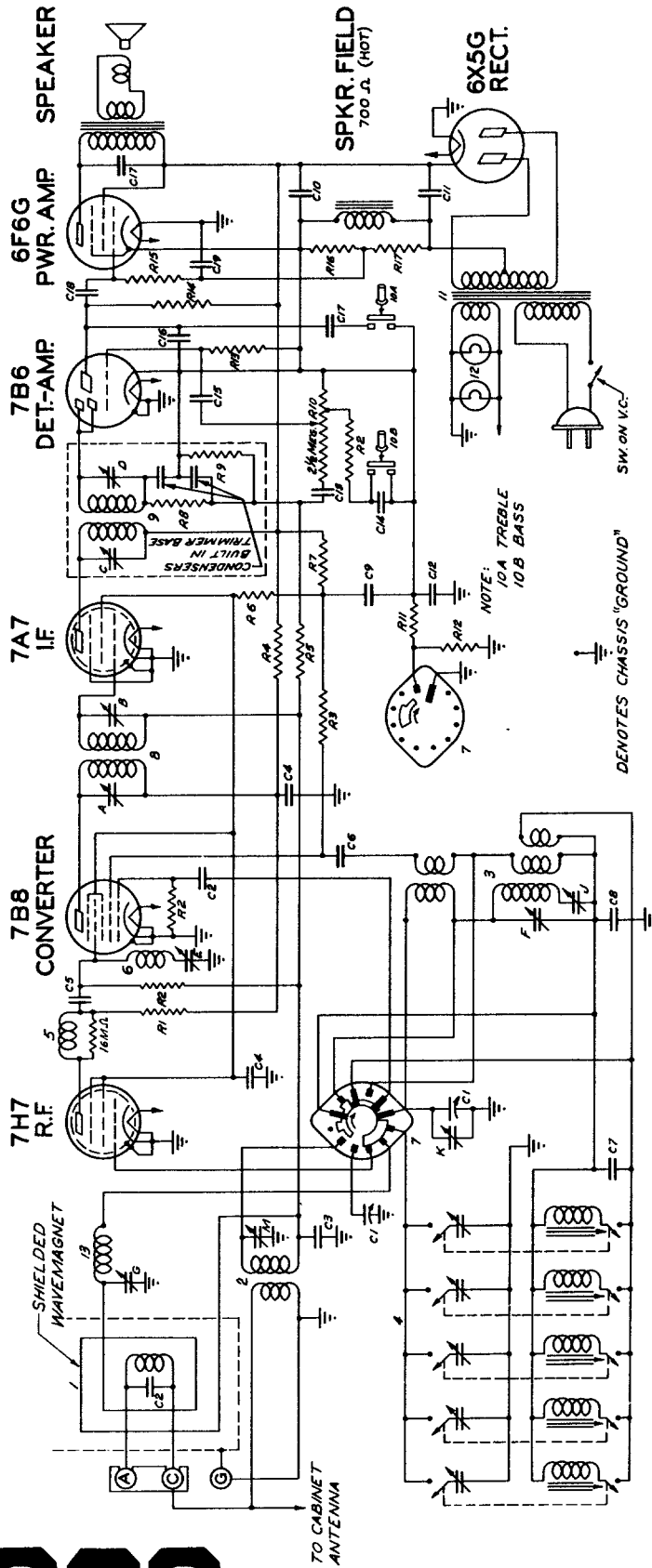
I.F. FREQUENCY 455 K.C.
6 TUBE SUPERHETERODYNE
CHASSIS N° 6A02-AC-TWO BAND
ZENITH RADIO CORPORATION

6A02
6A04



| DIAG. NO. | PART NO. | DESCRIPTION | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|--------------------|----------|-------------|------------------|----------|-------------|
| C1 | 22-0007 | TWO GANG VARIABLE | R13 | 63-639 | 470 M OHM | 1 | 5B376 |
| C2 | 22-289 | 50 M.M.F.D. | R14 | 63-1098 | 42 OHM WIREWOUND | 2 | 5B376 |
| C3 | 22-828 | .03 M.F.D. | | | 3 | 5B376 | |
| C4 | 22-828 | .03 M.F.D. | | | 4 | 5B376 | |
| C5 | 22-182 | .00028 M.F.D. | | | 5 | 5B376 | |
| C6 | 22-848 | COMPENSATING COND. | | | 6 | 5B376 | |
| C7 | 22-022 | .003 M.F.D. | | | 7 | 5B376 | |
| C8 | 22-492 | .002 M.F.D. | | | 8 | 5B376 | |
| C9 | 22-716 | .0005 M.F.D. | | | 9 | 5B376 | |
| C10 | 22-827 | .01 M.F.D. | | | 10 | 5B376 | |
| C11 | 22-830 | .01 M.F.D. | | | 11 | 5B376 | |
| C12 | 22-819 | .03 M.F.D. | | | 12 | 5B376 | |
| C13 | 22-819 | .03 M.F.D. | | | 13 | 5B376 | |
| C14 | 22-448 | .004 M.F.D. | | | 14 | 5B376 | |
| C15 | 22-829 | .01 M.F.D. | | | 15 | 5B376 | |
| C16 | 22-029 | .01 M.F.D. | | | 16 | 5B376 | |
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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

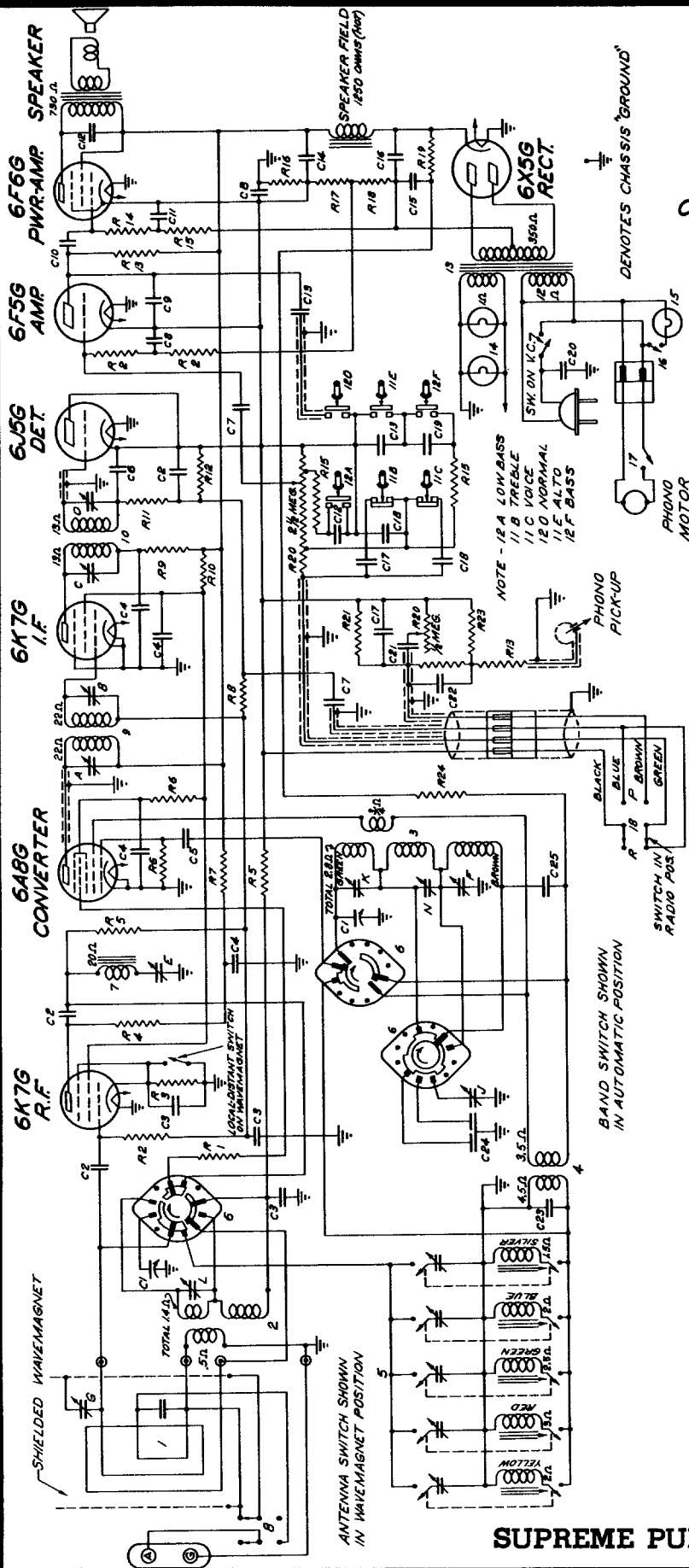


I.F. FREQUENCY 455 KC.
 6 TUBE SUPERHETERODYNE
 CHASSIS № 6A05 2 BAND AC.
 ZENITH RADIO CORPORATION

| DIAG. NO. | PART NO. | DESCRIPTION | VOLTS | PART NO. | DESCRIPTION | PART NO. | DESCRIPTION |
|-----------|----------|----------------------|--------|----------|------------------|----------|------------------------------|
| C1 | 22-1044 | TWO GANG VARIABLE | 200 V. | R15 | 63-597 470 M OHM | 13 | LOOP LOADING COIL |
| C2 | 22-289 | 50 MFD. | 200 V. | R16 | 63-594 20 M OHM | A | 1ST I.F. TRANS. PRI. SEC. |
| C3 | 22-829 | .05 MFD. | 400 V. | R17 | 63-656 270 M OHM | B | 1ST I.F. " PRI. |
| C4 | 22-628 | .05 MFD. | 600 V. | | | C | 2ND I.F. " PRI. |
| C5 | 22-162 | .0001 MFD. | 600 V. | 1 | S8507 | D | 2ND I.F. " SEC. |
| C6 | 22-162 | .00025 MFD. | 600 V. | 2 | S8508 | E | 22-1015 WAVE TRAP |
| C7 | 22-866 | COMPENSATING COND. | 600 V. | 3 | S8509 | F | 22-1042 BROADCAST OSCILLATOR |
| C8 | 22-1023 | .005 MFD. | 350 V. | 4 | S8457 | G | 22-1042 BROADCAST ANTENNA |
| C9 | 22-1034 | .5 MFD. ELECTROLYTIC | 450 V. | 5 | S8359 | H | 22-1023 BROADCAST BUDDER |
| C10 | 22-1036 | .15 MFD. | 400 V. | 6 | S8553 | K | SHORT WAVE OSC. (ON GANG) |
| C11 | 22-1036 | .15 MFD. | 400 V. | 7 | 85-233 | M | SHORT WAVE ANTENNA |
| C12 | 22-827 | .1 MFD. | 400 V. | 8 | 95-708 | | |
| C13 | 22-169 | .02 MFD. | 600 V. | 9 | 95-709 | | |
| C14 | 22-423 | .005 MFD. | 600 V. | 10 | 95-710 | | |
| C15 | 22-82 | .002 MFD. | 600 V. | 11 | 100-36 | | |
| C16 | 22-44 | .004 MFD. | 600 V. | 12 | | | |
| C17 | 22-44 | .004 MFD. | 600 V. | | | | |
| C18 | 22-810 | .02 MFD. | 600 V. | | | | |

SERVICE DIAGRAMS

I.F. FREQUENCY 455 KC.
7 TUBE SUPERHETERODYNE
CHASSIS N° 7A01 PHONO 3BAND
ZENITH RADIO CORPORATION



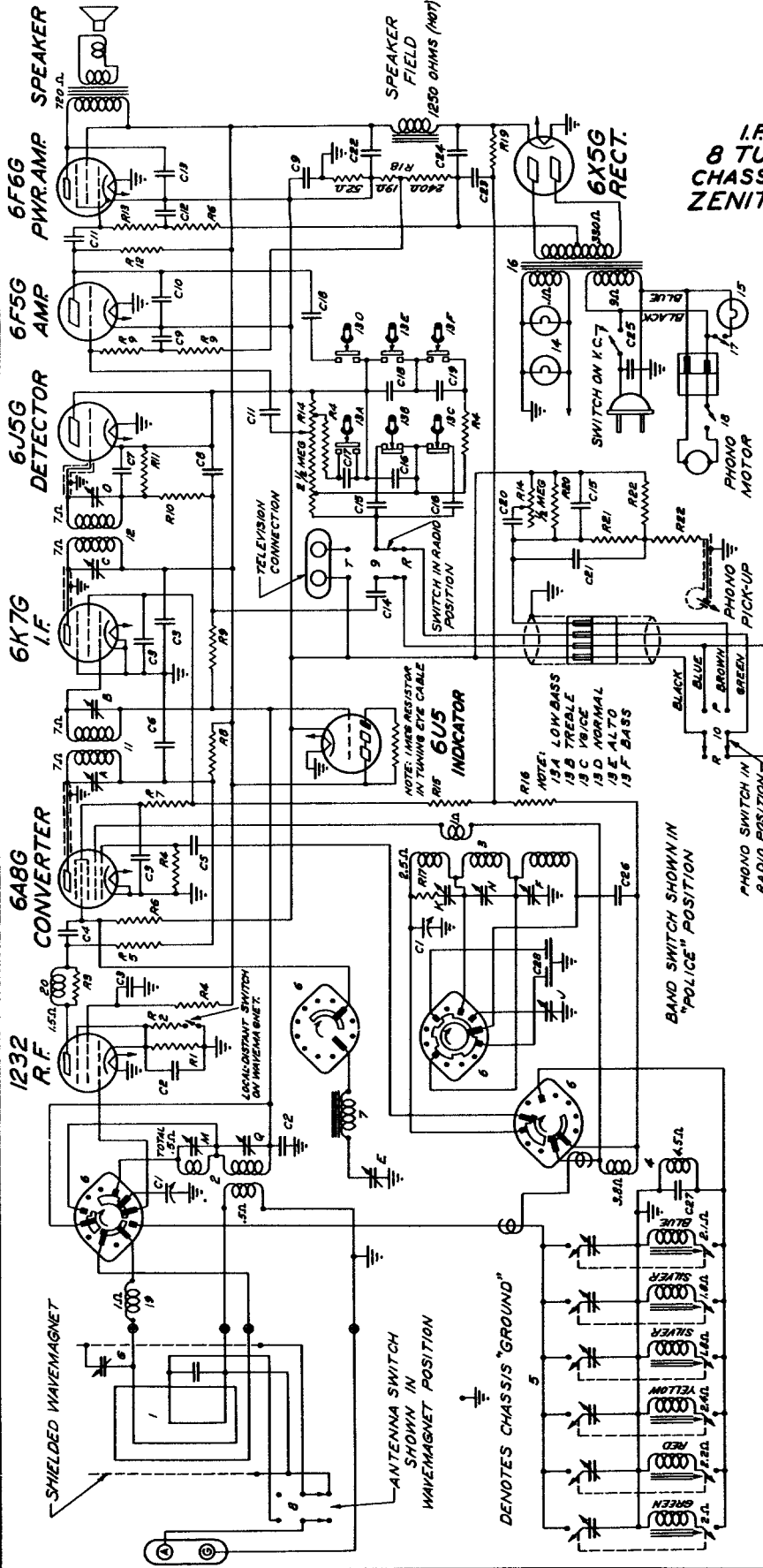
| TUBE NO. | PART NO. | DESCRIPTION | QMS NO. | PART NO. | DESCRIPTION | QMS NO. | PART NO. | DESCRIPTION | |
|----------|----------|----------------------|---------|----------|-------------|---------|----------|-------------|--------------|
| C1 | 65-182 | TRAP, BANDS VARIABLE | 600K | R1 | 1 MEG OHM | A | 18 | 65-182 | PHONO SWITCH |
| C2 | 65-182 | 600K | | R2 | 470K OHM | B | | | |
| C3 | 65-182 | 600K | | R3 | 220K OHM | C | | | |
| C4 | 22-820 | .05 MFD | | R4 | 10K OHM | D | | | |
| C5 | 22-820 | .05 MFD | | R5 | 10K OHM | E | | | |
| C6 | 22-182 | .00025 MFD | | R6 | 220K OHM | F | | | |
| C7 | 22-182 | .01 MFD | | R7 | 10K OHM | G | | | |
| C8 | 22-182 | .01 MFD | | R8 | 10K OHM | H | | | |
| C9 | 22-182 | .01 MFD | | R9 | 10K OHM | I | | | |
| C10 | 22-820 | .02 MFD | | R10 | 10K OHM | J | | | |
| C11 | 22-219 | .03 MFD | | R11 | 10K OHM | K | | | |
| C12 | 22-259 | .005 MFD | | R12 | 10K OHM | L | | | |
| C13 | 22-448 | .008 MFD | | R13 | 10K OHM | M | | | |
| C14 | 22-719 | .18 MFD ELECTROLYTIC | | R14 | 10K OHM | N | | | |
| C15 | 22-941 | .5 MFD | | R15 | 10K OHM | | | | |
| C16 | 22-954 | .0035 MFD | | R16 | 10K OHM | | | | |
| C17 | 22-470 | .0025 MFD | | R17 | 10K OHM | | | | |
| C18 | 22-470 | .0025 MFD | | R18 | 10K OHM | | | | |
| C19 | 22-470 | .0025 MFD | | R19 | 10K OHM | | | | |
| C20 | 22-525 | .003 MFD | | R20 | 10K OHM | | | | |
| C21 | 22-525 | .003 MFD | | | | | | | |
| C22 | 22-525 | .003 MFD | | | | | | | |
| C23 | 22-525 | .003 MFD | | | | | | | |
| C24 | 22-525 | .003 MFD | | | | | | | |

SUPREME PUBLICATIONS

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MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

I.F. FREQUENCY 455 KC.
 8 TUBE SUPERHETERODYNE
 CHASSIS N^o 8A01 3BAND PHONO
 ZENITH RADIO CORPORATION

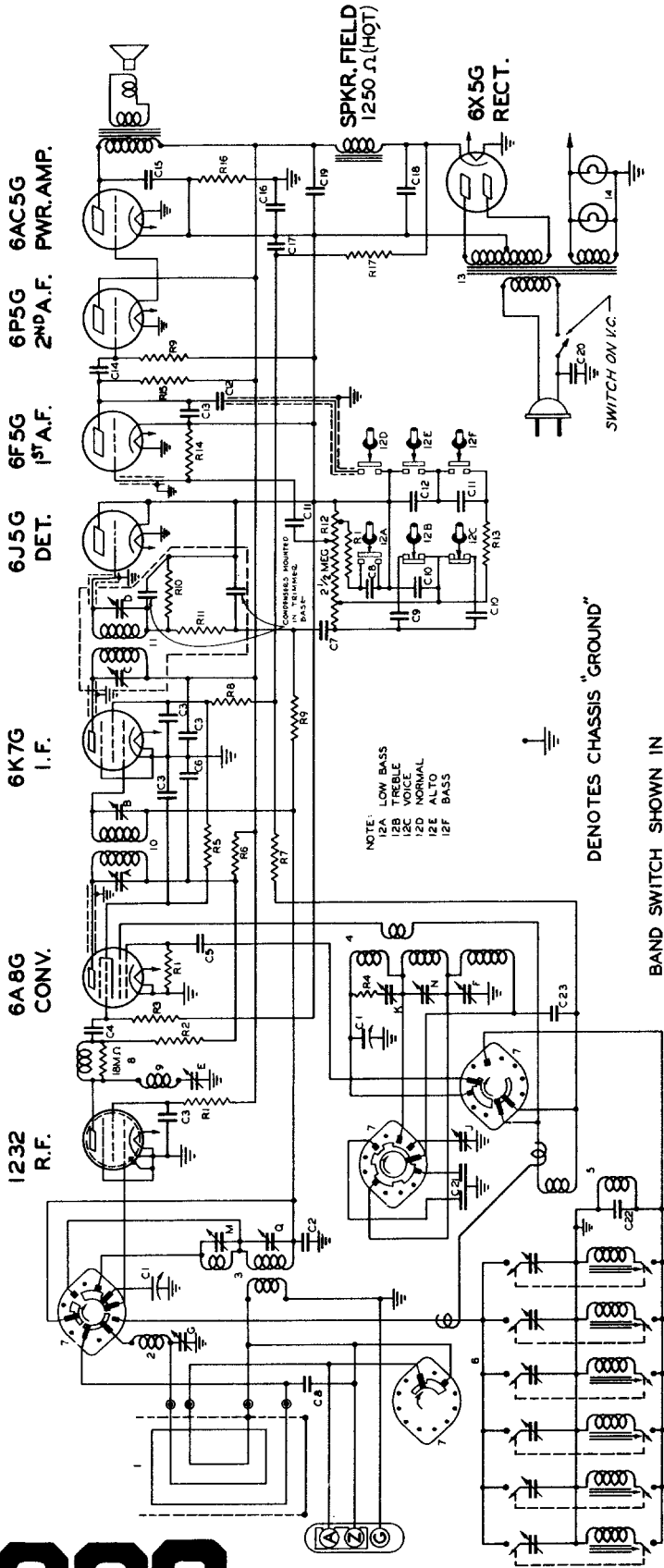


| PART NO. | DESCRIPTION | PART NO. | DESCRIPTION | PART NO. | DESCRIPTION | PART NO. | DESCRIPTION |
|----------|-------------------|----------|-----------------|----------|--------------------|----------|--------------------------|
| C1 | 2P-887 2M-50MFD | R1 | 65-589 10M OHM | 17 | 65-503 DOOR SWITCH | 1 | WAVE MAGNET ASSEMBLY |
| C2 | 2P-887 0.5 MFD | R2 | 65-574 53 OHM | 18 | 65-571 15M OHM | 2 | ANTENNA COIL ASSEMBLY |
| C3 | 2P-887 0.05 MFD | R3 | 65-577 15M OHM | 19 | 65-564 1/2 MEG OHM | 3 | OSCILLATOR COIL ASSEMBLY |
| C4 | 2P-776 0.0005 MFD | R4 | 65-575 47M OHM | 20 | 65-564 1/2 MEG OHM | 4 | OSC. COIL ASSEMBLY |
| C5 | 2P-776 25 MM MFD | R5 | 65-587 100M OHM | 21 | 65-564 1/2 MEG OHM | 5 | OSC. COIL ASSEMBLY |
| C6 | 2P-885 1.0MFD | R6 | 65-587 100M OHM | 22 | 65-564 1/2 MEG OHM | 6 | OSC. COIL ASSEMBLY |
| C7 | 2P-885 1.0MFD | R7 | 65-587 100M OHM | 23 | 65-564 1/2 MEG OHM | 7 | OSC. COIL ASSEMBLY |
| C8 | 2P-885 1.0MFD | R8 | 65-587 100M OHM | 24 | 65-564 1/2 MEG OHM | 8 | OSC. COIL ASSEMBLY |
| C9 | 2P-885 1.0MFD | R9 | 65-587 100M OHM | 25 | 65-564 1/2 MEG OHM | 9 | OSC. COIL ASSEMBLY |
| C10 | 2P-885 1.0MFD | R10 | 65-587 100M OHM | 26 | 65-564 1/2 MEG OHM | 10 | OSC. COIL ASSEMBLY |
| C11 | 2P-885 1.0MFD | R11 | 65-587 100M OHM | 27 | 65-564 1/2 MEG OHM | 11 | OSC. COIL ASSEMBLY |
| C12 | 2P-885 1.0MFD | R12 | 65-587 100M OHM | 28 | 65-564 1/2 MEG OHM | 12 | OSC. COIL ASSEMBLY |
| C13 | 2P-885 1.0MFD | R13 | 65-587 100M OHM | 29 | 65-564 1/2 MEG OHM | 13 | OSC. COIL ASSEMBLY |
| C14 | 2P-885 1.0MFD | R14 | 65-587 100M OHM | 30 | 65-564 1/2 MEG OHM | 14 | OSC. COIL ASSEMBLY |
| C15 | 2P-885 1.0MFD | R15 | 65-587 100M OHM | 31 | 65-564 1/2 MEG OHM | 15 | OSC. COIL ASSEMBLY |
| C16 | 2P-885 1.0MFD | R16 | 65-587 100M OHM | 32 | 65-564 1/2 MEG OHM | 16 | OSC. COIL ASSEMBLY |
| C17 | 2P-885 1.0MFD | R17 | 65-587 100M OHM | 33 | 65-564 1/2 MEG OHM | 17 | OSC. COIL ASSEMBLY |
| C18 | 2P-885 1.0MFD | R18 | 65-587 100M OHM | 34 | 65-564 1/2 MEG OHM | 18 | OSC. COIL ASSEMBLY |
| C19 | 2P-885 1.0MFD | R19 | 65-587 100M OHM | 35 | 65-564 1/2 MEG OHM | 19 | OSC. COIL ASSEMBLY |
| C20 | 2P-885 1.0MFD | R20 | 65-587 100M OHM | 36 | 65-564 1/2 MEG OHM | 20 | OSC. COIL ASSEMBLY |
| C21 | 2P-885 1.0MFD | | | 37 | 65-564 1/2 MEG OHM | 21 | OSC. COIL ASSEMBLY |
| C22 | 2P-885 1.0MFD | | | 38 | 65-564 1/2 MEG OHM | 22 | OSC. COIL ASSEMBLY |
| C23 | 2P-885 1.0MFD | | | 39 | 65-564 1/2 MEG OHM | 23 | OSC. COIL ASSEMBLY |
| C24 | 2P-885 1.0MFD | | | 40 | 65-564 1/2 MEG OHM | 24 | OSC. COIL ASSEMBLY |

MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS

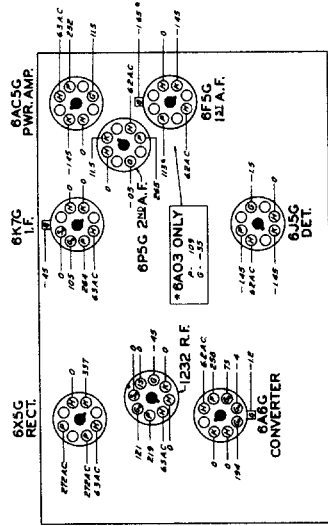
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All voltages measured with a 20 M.ohm per volt meter from chassis to socket contact indicated.

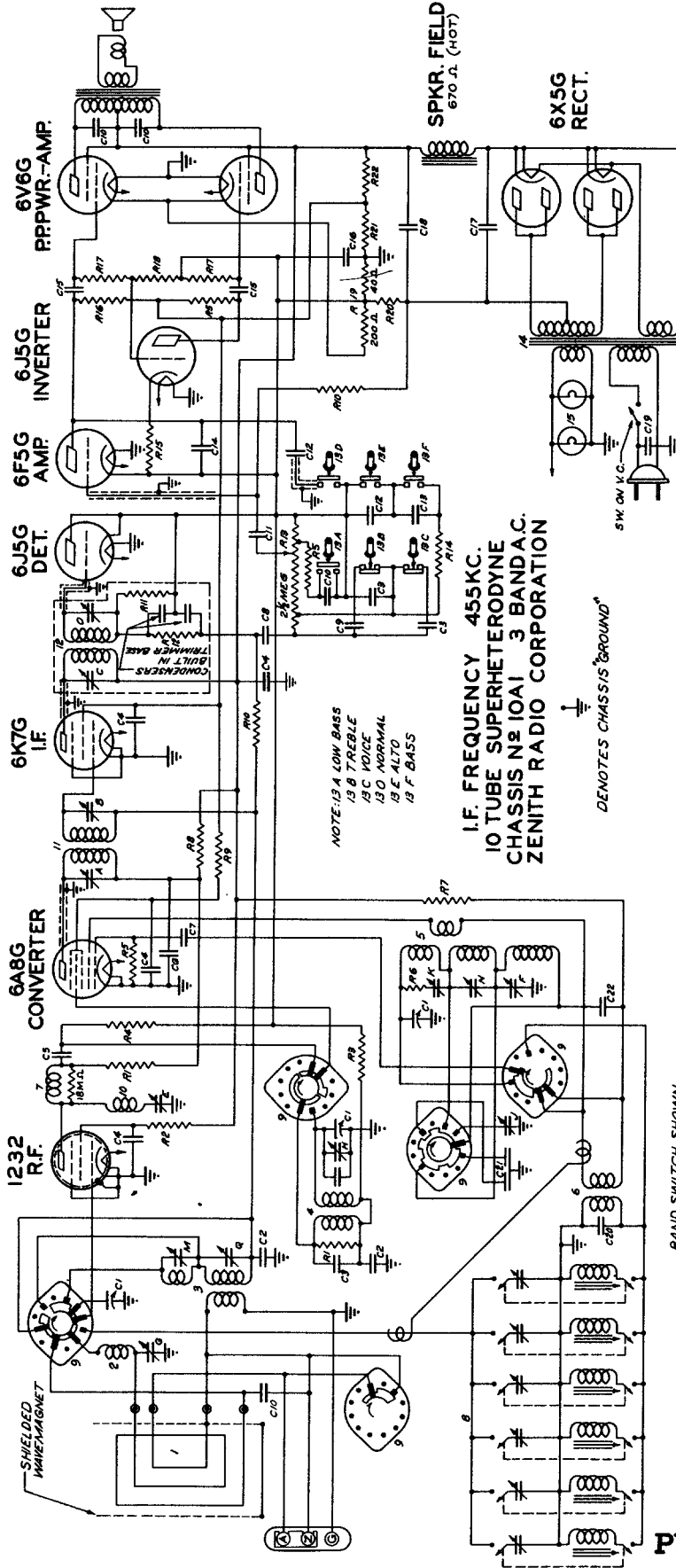
I.F. FREQUENCY 455 K C.
8 TUBE SUPERHETERODYNE
CHASSIS N2 8A02 A.C.3 BAND
ZENITH RADIO CORPORATION



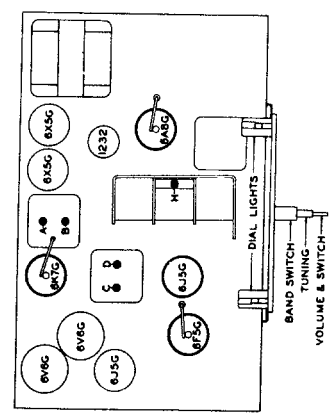
| DIAG. PART NO. | DESCRIPTION | VOLTS | DIAG. PART NO. | DESCRIPTION | RESISTANCE | DIAG. PART NO. | DESCRIPTION | RESISTANCE | DIAG. PART NO. | DESCRIPTION | RESISTANCE |
|----------------|-----------------|--------|----------------|-------------|------------|----------------|-----------------|------------|----------------|-----------------|------------|
| C 1 | 200 V. VARIABLE | 200 V. | R 1 | 470M OHM | 470M | I 1 | 15% TRANS. PRI. | 15% | 1 | 15% TRANS. PRI. | 15% |
| C 2 | 250 V. VARIABLE | 250 V. | R 2 | 470M OHM | 470M | I 2 | 15% TRANS. SEC. | 15% | 2 | 2ND I.F. I.F. | 2ND I.F. |
| C 3 | 500 V. VARIABLE | 500 V. | R 3 | 470M OHM | 470M | I 3 | 15% TRANS. SEC. | 15% | 3 | 2ND I.F. I.F. | 2ND I.F. |
| C 4 | 500 V. VARIABLE | 500 V. | R 4 | 470M OHM | 470M | I 4 | 15% TRANS. SEC. | 15% | 4 | 2ND I.F. I.F. | 2ND I.F. |
| C 5 | 500 V. VARIABLE | 500 V. | R 5 | 470M OHM | 470M | I 5 | 15% TRANS. SEC. | 15% | 5 | 2ND I.F. I.F. | 2ND I.F. |
| C 6 | 500 V. VARIABLE | 500 V. | R 6 | 470M OHM | 470M | I 6 | 15% TRANS. SEC. | 15% | 6 | 2ND I.F. I.F. | 2ND I.F. |
| C 7 | 500 V. VARIABLE | 500 V. | R 7 | 470M OHM | 470M | I 7 | 15% TRANS. SEC. | 15% | 7 | 2ND I.F. I.F. | 2ND I.F. |
| C 8 | 500 V. VARIABLE | 500 V. | R 8 | 470M OHM | 470M | I 8 | 15% TRANS. SEC. | 15% | 8 | 2ND I.F. I.F. | 2ND I.F. |
| C 9 | 500 V. VARIABLE | 500 V. | R 9 | 470M OHM | 470M | I 9 | 15% TRANS. SEC. | 15% | 9 | 2ND I.F. I.F. | 2ND I.F. |
| C 10 | 500 V. VARIABLE | 500 V. | R 10 | 470M OHM | 470M | I 10 | 15% TRANS. SEC. | 15% | 10 | 2ND I.F. I.F. | 2ND I.F. |
| C 11 | 500 V. VARIABLE | 500 V. | R 11 | 470M OHM | 470M | I 11 | 15% TRANS. SEC. | 15% | 11 | 2ND I.F. I.F. | 2ND I.F. |
| C 12 | 500 V. VARIABLE | 500 V. | R 12 | 470M OHM | 470M | I 12 | 15% TRANS. SEC. | 15% | 12 | 2ND I.F. I.F. | 2ND I.F. |
| C 13 | 500 V. VARIABLE | 500 V. | R 13 | 470M OHM | 470M | I 13 | 15% TRANS. SEC. | 15% | 13 | 2ND I.F. I.F. | 2ND I.F. |
| C 14 | 500 V. VARIABLE | 500 V. | R 14 | 470M OHM | 470M | I 14 | 15% TRANS. SEC. | 15% | 14 | 2ND I.F. I.F. | 2ND I.F. |
| C 15 | 500 V. VARIABLE | 500 V. | R 15 | 470M OHM | 470M | I 15 | 15% TRANS. SEC. | 15% | 15 | 2ND I.F. I.F. | 2ND I.F. |
| C 16 | 500 V. VARIABLE | 500 V. | R 16 | 470M OHM | 470M | I 16 | 15% TRANS. SEC. | 15% | 16 | 2ND I.F. I.F. | 2ND I.F. |
| C 17 | 500 V. VARIABLE | 500 V. | R 17 | 470M OHM | 470M | I 17 | 15% TRANS. SEC. | 15% | 17 | 2ND I.F. I.F. | 2ND I.F. |
| C 18 | 500 V. VARIABLE | 500 V. | R 18 | 470M OHM | 470M | I 18 | 15% TRANS. SEC. | 15% | 18 | 2ND I.F. I.F. | 2ND I.F. |
| C 19 | 500 V. VARIABLE | 500 V. | R 19 | 470M OHM | 470M | I 19 | 15% TRANS. SEC. | 15% | 19 | 2ND I.F. I.F. | 2ND I.F. |
| C 20 | 500 V. VARIABLE | 500 V. | R 20 | 470M OHM | 470M | I 20 | 15% TRANS. SEC. | 15% | 20 | 2ND I.F. I.F. | 2ND I.F. |
| C 21 | 500 V. VARIABLE | 500 V. | R 21 | 470M OHM | 470M | I 21 | 15% TRANS. SEC. | 15% | 21 | 2ND I.F. I.F. | 2ND I.F. |

NOTE: LOW BASS 12A, 12B, 12C, 12D, 12E, 12F. DENOTES CHASSIS "GROUND". BAND SWITCH SHOWN IN "POLICE" POSITION.

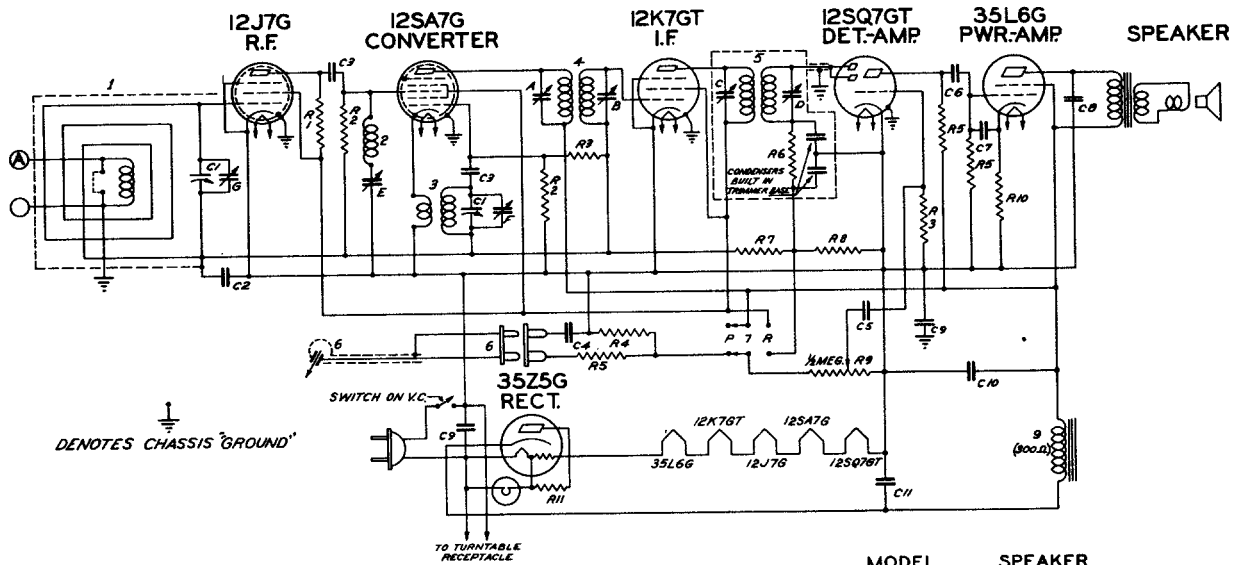
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



| DIAL NO. | PART NO. | DESCRIPTION | DIAL NO. | PART NO. | DESCRIPTION | DIAL NO. | PART NO. | DESCRIPTION |
|----------|----------|------------------------|----------|----------|-------------|----------|----------|-------------|
| C 1 | 22-1043 | THREE GANG VARIABLE | 1 | 68-581 | 4700 OHM | 1 | 22-1043 | 22 M OHM |
| C 2 | 22-829 | .05 MFD. | 2 | 68-582 | 1000 OHM | 2 | 68-582 | 22 M OHM |
| C 3 | 22-829 | .05 MFD. | 3 | 68-583 | 1000 OHM | 3 | 68-583 | 22 M OHM |
| C 4 | 22-829 | .05 MFD. | 4 | 68-584 | 1000 OHM | 4 | 68-584 | 22 M OHM |
| C 5 | 22-147 | .0005 MFD. | 5 | 68-585 | 1000 OHM | 5 | 68-585 | 22 M OHM |
| C 6 | 22-825 | .1 MFD. | 6 | 68-586 | 1000 OHM | 6 | 68-586 | 22 M OHM |
| C 7 | 22-827 | .25 MFD. | 7 | 68-587 | 1000 OHM | 7 | 68-587 | 22 M OHM |
| C 8 | 22-828 | .5 MFD. | 8 | 68-588 | 1000 OHM | 8 | 68-588 | 22 M OHM |
| C 9 | 22-824 | .001 MFD. | 9 | 68-589 | 1000 OHM | 9 | 68-589 | 22 M OHM |
| C 10 | 22-829 | .001 MFD. | 10 | 68-590 | 1000 OHM | 10 | 68-590 | 22 M OHM |
| C 11 | 22-829 | .01 MFD. | 11 | 68-591 | 1000 OHM | 11 | 68-591 | 22 M OHM |
| C 12 | 22-448 | .004 MFD. | 12 | 68-592 | 1000 OHM | 12 | 68-592 | 22 M OHM |
| C 13 | 22-448 | .004 MFD. | 13 | 68-593 | 1000 OHM | 13 | 68-593 | 22 M OHM |
| C 14 | 22-448 | .004 MFD. | 14 | 68-594 | 1000 OHM | 14 | 68-594 | 22 M OHM |
| C 15 | 22-171 | .05 MFD. | 15 | 68-595 | 1000 OHM | 15 | 68-595 | 22 M OHM |
| C 16 | 22-827 | .1 MFD. | 16 | 68-596 | 1000 OHM | 16 | 68-596 | 22 M OHM |
| C 17 | 22-934 | .25 MFD. ELECTROLYTIC | 17 | 68-597 | 1000 OHM | 17 | 68-597 | 22 M OHM |
| C 18 | 22-1041 | .5 MFD. ELECTROLYTIC | 18 | 68-598 | 1000 OHM | 18 | 68-598 | 22 M OHM |
| C 19 | 22-1041 | .5 MFD. ELECTROLYTIC | 19 | 68-599 | 1000 OHM | 19 | 68-599 | 22 M OHM |
| C 20 | 22-1041 | .5 MFD. ELECTROLYTIC | 20 | 68-600 | 1000 OHM | 20 | 68-600 | 22 M OHM |
| C 21 | 22-1039 | DUAL OSCILLATOR PADDER | 21 | 68-601 | 1000 OHM | 21 | 68-601 | 22 M OHM |
| C 22 | 22-339 | .002 MFD. | 22 | 68-602 | 1000 OHM | 22 | 68-602 | 22 M OHM |



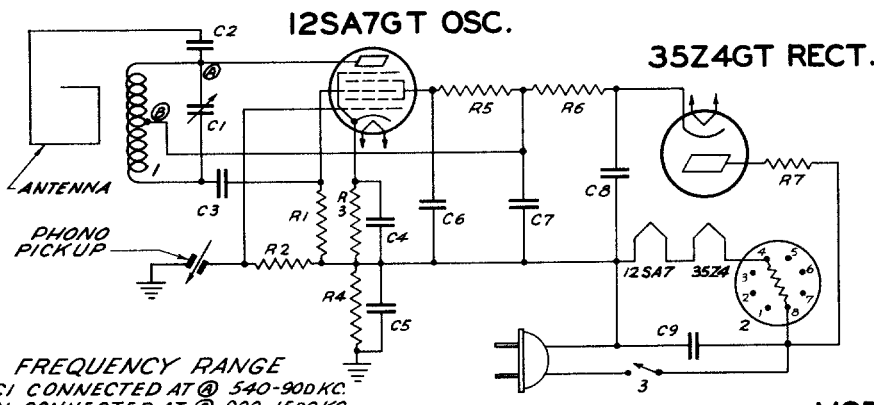
MANUAL OF 1940 MOST POPULAR SERVICE DIAGRAMS



MODEL 6R583
SPEAKER 49-403 4"

I.F. FREQUENCY 455 KC.
6 TUBE SUPERHETERODYNE
CHASSIS NO 6A08 - A.C. PHONO
ZENITH RADIO CORPORATION

| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|----------------------|-----------|----------|-------------------------|-----------|----------|--------------------------|
| C1 | 22-1000 | TWO-BAND VARIABLE | R3 | 63-1092 | 15 MEGOHM | 5 | 95-697 | 2ND I.F. TRANS. |
| C2 | 22-825 | .05 MFD. | R4 | 63-715 | 100 M OHM | 6 | ME-31 | PICKUP & PLUS |
| C3 | 22-162 | .0001 MFD. | R6 | 63-719 | 470 M OHM | 7 | 85-210 | PHONO-RADIO SWITCH |
| C4 | 22-327 | .02 MFD. | R7 | 63-728 | 47 M OHM | 8 | 100-87 | PILOT LIGHT 6.3V. .15 A. |
| C5 | 22-492 | .002 MFD. | R8 | 63-726 | 10 MEGOHM | 9 | 95-713 | FILTER CHOKE |
| C6 | 22-542 | .01 MFD. | R9 | 63-726 | 10 MEGOHM | | | |
| C7 | 22-554 | .0005 MFD. | R9 | 63-112 | VOLUME CONTROL | | | |
| C8 | 22-849 | .03 MFD. | R10 | 63-686 | 150 OHM WIREWOUND | | | |
| C9 | 22-1017 | .05 MFD. | R11 | 63-1023 | 22 OHM WIREWOUND | | | |
| C10 | 22-1016 | 50 MFD. ELECTROLYTIC | | | | | | |
| C11 | 22-1016 | 50 MFD. ELECTROLYTIC | | | | | | |
| R1 | 63-709 | 10M OHM | 1 | | WAVE MAGNET ASSEMBLY | A | | 1ST I.F. TRANS. PRI. |
| R2 | 63-711 | 22M OHM | 2 | 58326 | WAVE TRAP COIL ASSEMBLY | B | | 1ST I.F. TRANS. SEC. |
| | | | 3 | 58356 | OSC. COIL ASSEMBLY | C | | 2ND I.F. TRANS. PRI. |
| | | | 4 | 95-696 | 1ST I.F. TRANS. | D | | 2ND I.F. TRANS. SEC. |
| | | | | | | E | 22-1015 | WAVE TRAP |
| | | | | | | F | | BROADCAST OSC. (2N-GANG) |
| | | | | | | G | | BROADCAST ANT. (2N-GANG) |



FREQUENCY RANGE
C1 CONNECTED AT @ 540-900 KC.
C1 CONNECTED AT @ 900-1500 KC.

MODELS
S 8500
S 8501

| DIAG. NO. | PART NO. | DESCRIPTION | DIAG. NO. | PART NO. | DESCRIPTION |
|-----------|----------|----------------------|-----------|----------|------------------|
| C1 | 22-690 | TUNING CONDENSER | R3 | 63-701 | 470 OHM |
| C2 | 22-162 | .0001 MFD. | R4 | 63-296 | 220M OHM |
| C3 | 22-182 | .00025 MFD. | R5 | 63-964 | 4700 OHM |
| C4 | 22-825 | .05 MFD. | R6 | 63-803 | 2200 OHM |
| C5 | 22-827 | .1 MFD. | R7 | 63-375 | 47 OHM |
| C6 | 22-243 | .01 MFD. | | | |
| C7 | 22-876 | .8 MFD. ELECTROLYTIC | | | |
| C8 | 22-876 | .40 MFD. " | 1 | 58611 | OSC. COIL ASSEM. |
| C9 | 22-828 | .05 MFD. | 2 | 100-76 | BALLAST TUBE |
| R1 | 63-591 | 22 M OHM | 3 | 85-170 | A.C. SWITCH |
| R2 | 63-271 | 1 MEGOHM | | | |

PHONOGRAPH OSCILLATOR
ZENITH RADIO CORPORATION