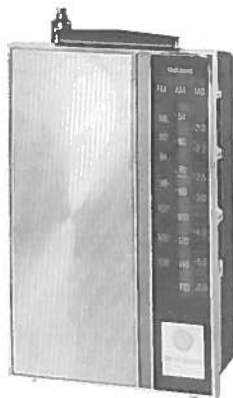




# PHOTOFACT<sup>®</sup> with

# CIRCUITRACE<sup>®</sup>

For Supplier Address See PHOTOFACT Index



WESTINGHOUSE MODELS RG13S68A,  
RG13S68B,  
RG13S68C  
(Ch.V-2593-1)

## ALIGNMENT INSTRUCTIONS

Check for specified source voltage. Set volume control at maximum.  
Fashion loop of several turns of wire and connect generator across loop.  
Use only enough generator output to obtain a suitable indication.  
Suggested Alignment Tools:  
A1,A2,A3,A6,A9 thru A14...GENERAL CEMENT #9087.....WALSCO #2528  
A4,A5,A7,A8,A15,A16.....GENERAL CEMENT #8868,9089...WALSCO #2541,2587

### SELECTOR IN AM

	GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC 400 cycle modulation	Tuning gang fully open.	Output Meter across voice coil.	A1,A2, A3	Adjust for maximum. Repeat until no further improvement can be made.
2.	1650KC	"	"	A4	Adjust for maximum.
3.	1400KC	Tune to signal	"	A5	"
4.	600KC	"	"	A6	Rock tuning gang and adjust for maximum. Repeat steps 2 thru 4 until no further improvement can be made.

### SELECTOR IN MB

5.	6.2MC	6.2MC	"	A7	Adjust for maximum.
6.	5.5MC	5.5MC	"	A8	Adjust for maximum.
7.	1.85MC	1.85MC	"	A9	Adjust for maximum. Repeat steps 5 thru 7.

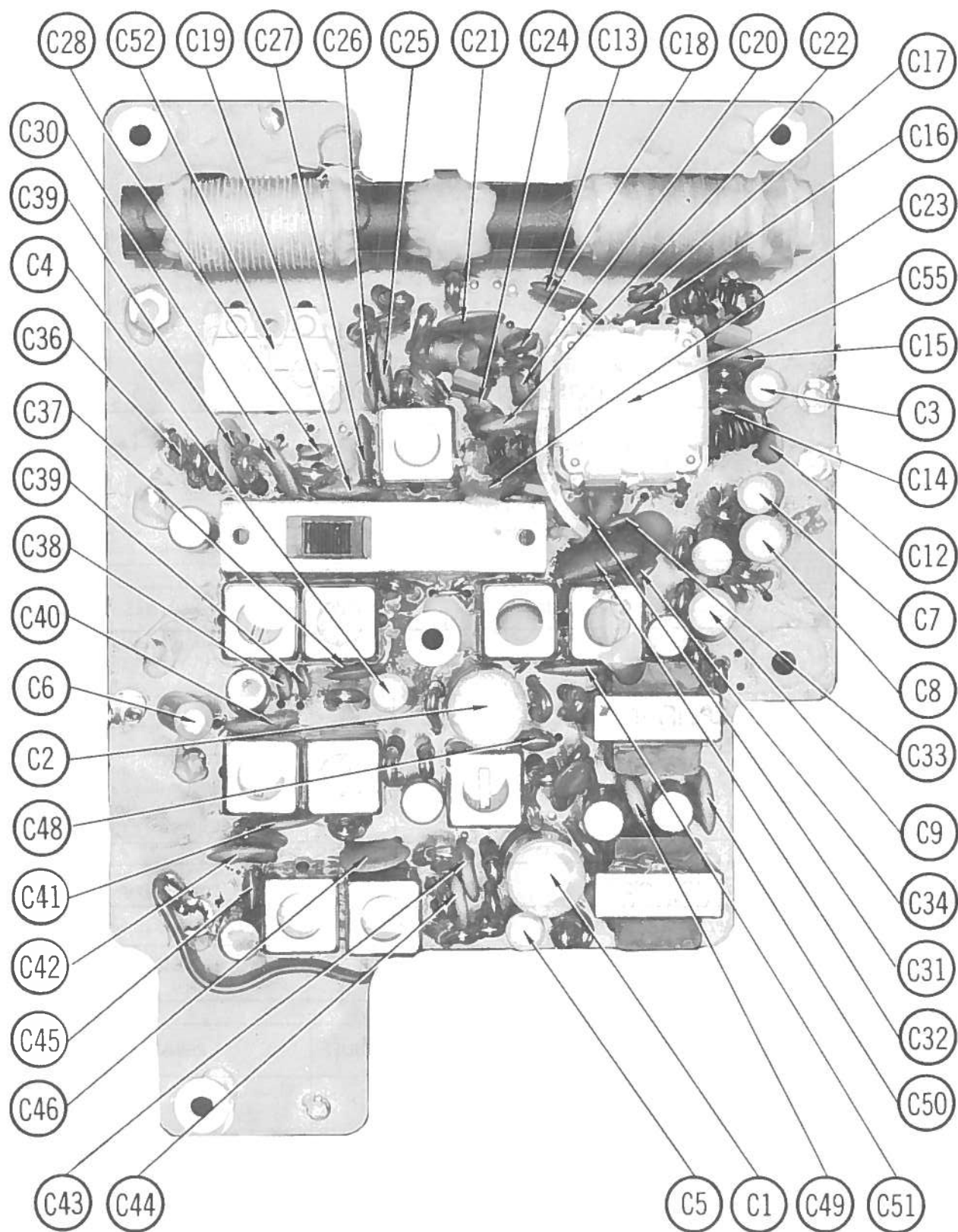
### SELECTOR IN FM

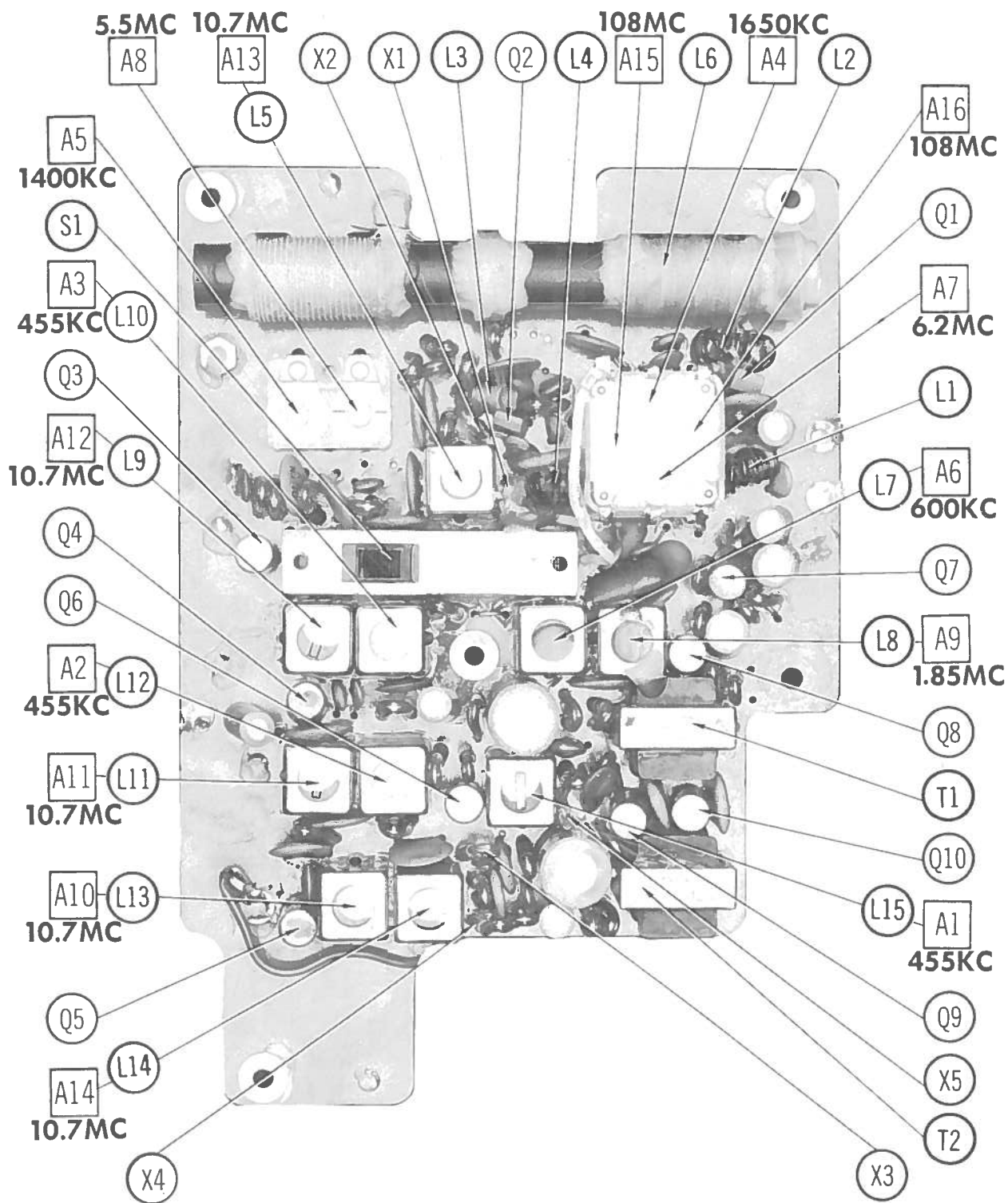
	GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
8.	10.7MC Unmodulated	Point of non-interference	DC probe of VTVM to point $\diamond A$ , common to ground.	A10,A11, A12,A13	Adjust for maximum
9.	"	"	DC probe of VTVM to point $\diamond B$ , common to ground.	A14	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.
10.	108MC	High freq. end.	DC probe of VTVM to point $\diamond A$ , common to ground.	A15, A16	Adjust for maximum

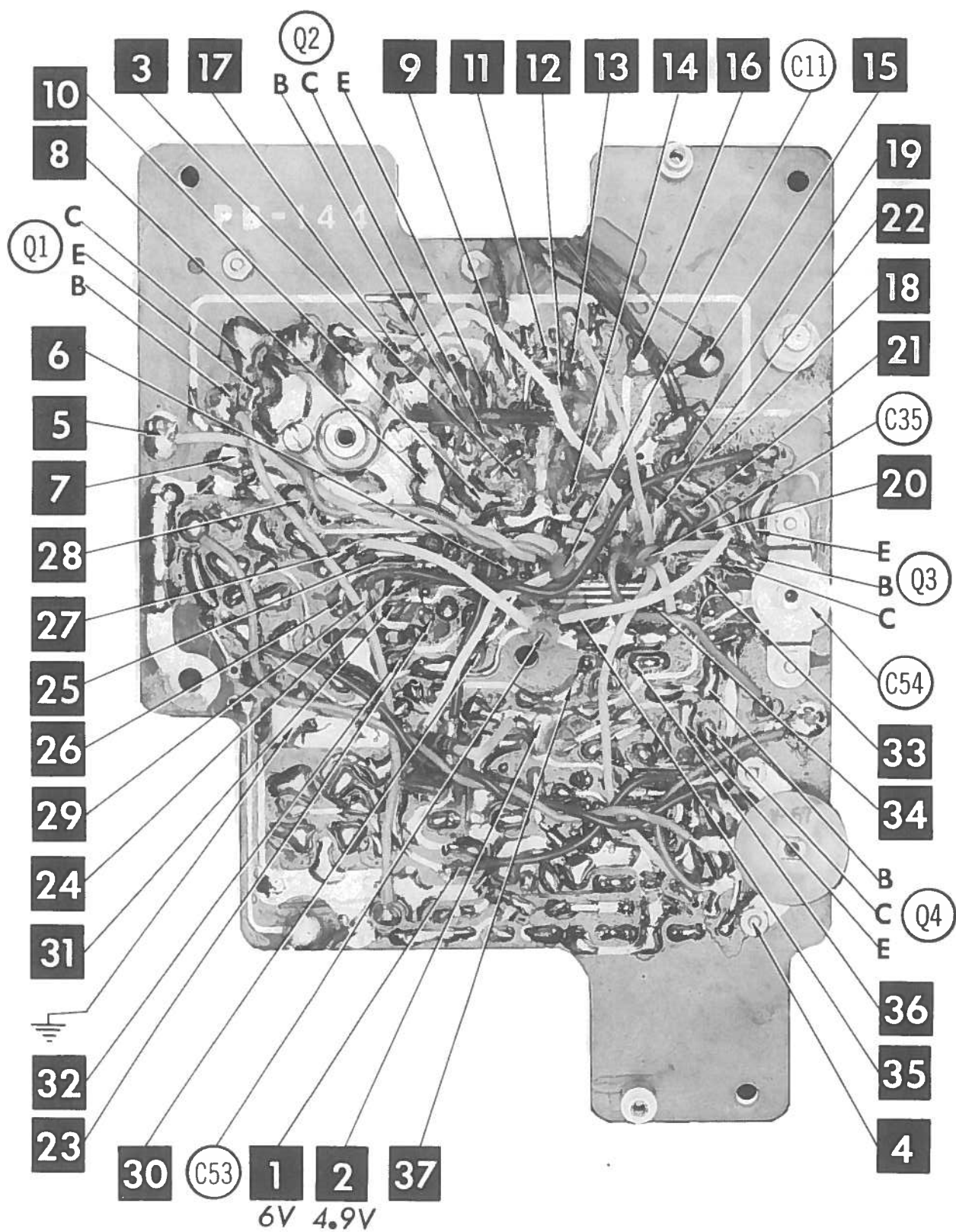
**HOWARD W. SAMS & CO., INC.** Indianapolis, Indiana 46206

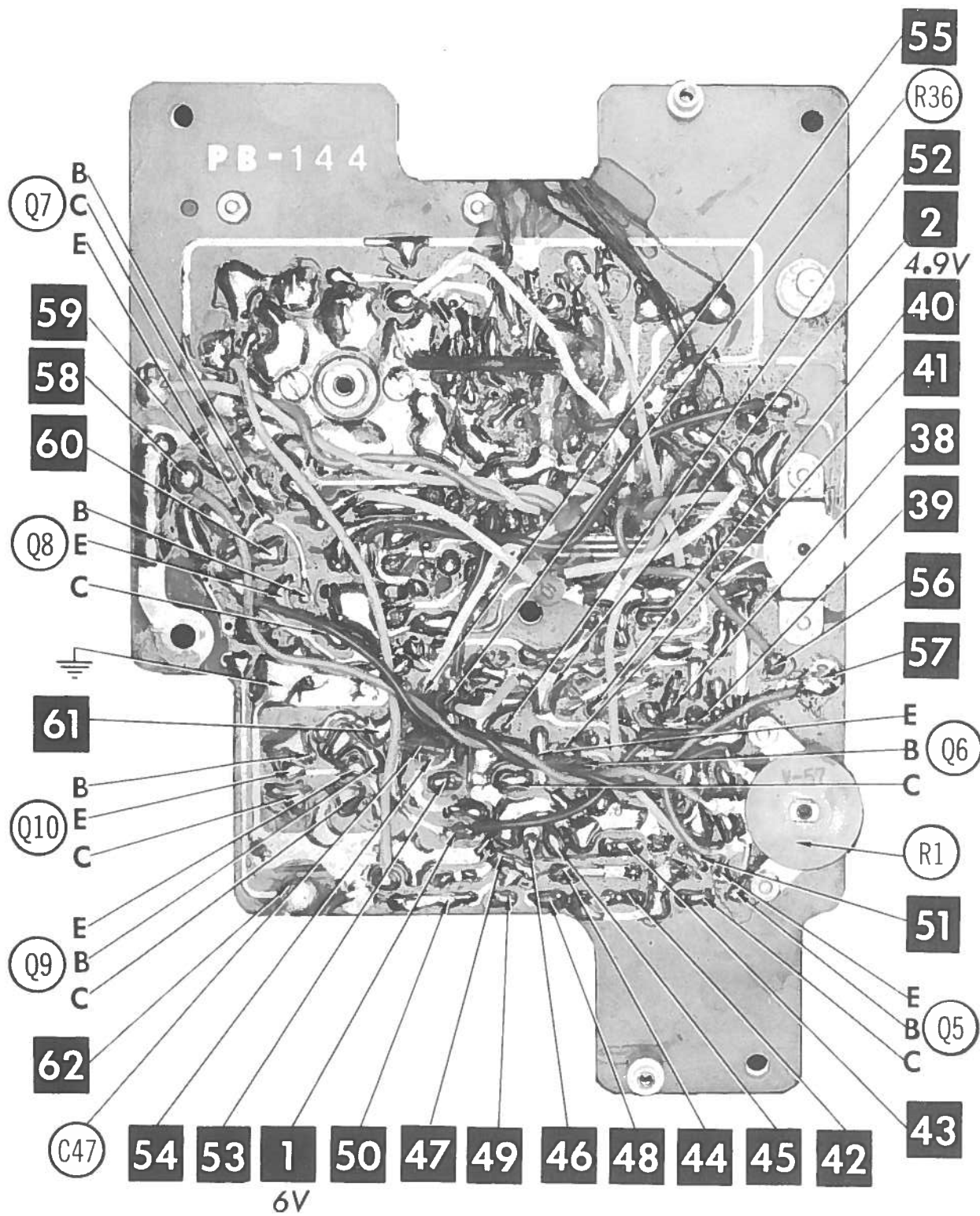
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WESTINGHOUSE CHASSIS V-2593-1

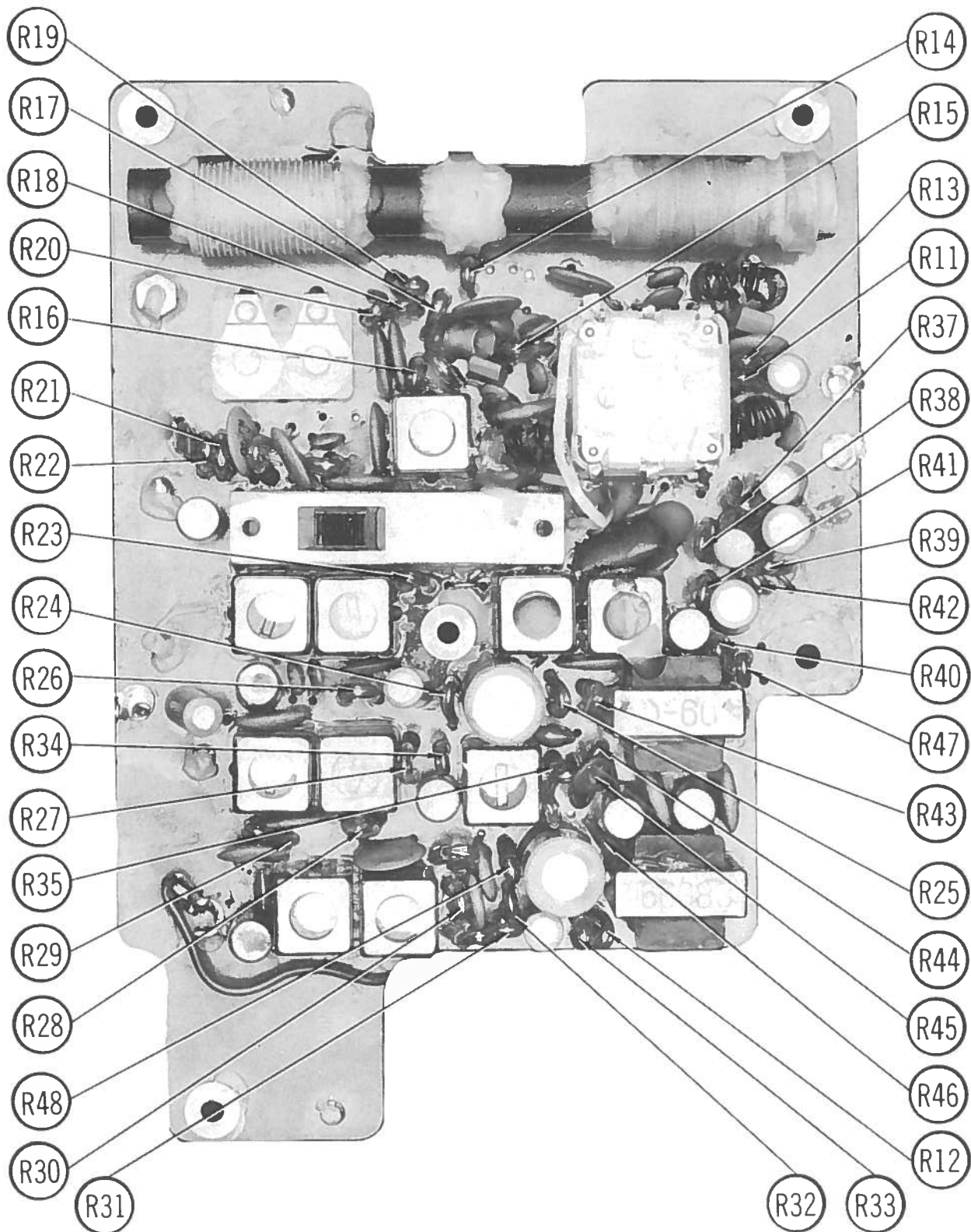












# PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

## TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA						
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MOTOROLA PART No.	RCA PART No.	SYLVANIA PART No.
Q1	2SC461	FM RF Amp	690V086H51	DS-81	GE-17	TR-22	HEP50	SK-3018	ECG 108
Q2	2SC535	FM Converter	690V086H52	DS-81	GE-17	TR-22	HEP50	SK-3018	ECG 108
Q3	2SA234	AM Converter - 1st FM IF Amp	690V057H25	DS-56	GE-9A	TR-17	HEP1	SK-3006	ECG 126
Q4	2SA350	1st AM - 2nd FM IF Amp	690V073H59	DS-56	GE-9A	TR-17	HEP1	SK-3006	ECG 126
Q5	2SA350	3rd FM IF	690V073H59	DS-56	GE-9A	TR-17	HEP1	SK-3006	ECG 126
Q6	2SA353	2nd AM IF	690V077H36	DS-25	GE-1	TR-11	HEP251	SK-3008	ECG 100
Q7	2SB75	AF Amp	690V061H98	DS-26	GE-2	TR-05	HEP254	SK-3004	ECG 102
Q8	2SB75	Driver	690V061H98	DS-26	GE-2	TR-05	HEP254	SK-3004	ECG 102
Q9	2SB77	Output	690V061H99	DS-26	GE-2	TR-05	HEP254	SK-3004	ECG 102
Q10	2SB77	Output	690V061H99	DS-26	GE-2	TR-05	HEP254	SK-3004	ECG 102

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	1N34A	1N34AS	1N34A	ECG 109			(1) Matched Pair
X2	1S85						
X3	1N60	1N60	1N60	ECG 110 (1)			
X4	1N60	1N60	1N60				
X5	1N34A	1N34AS	1N34A	ECG 109			

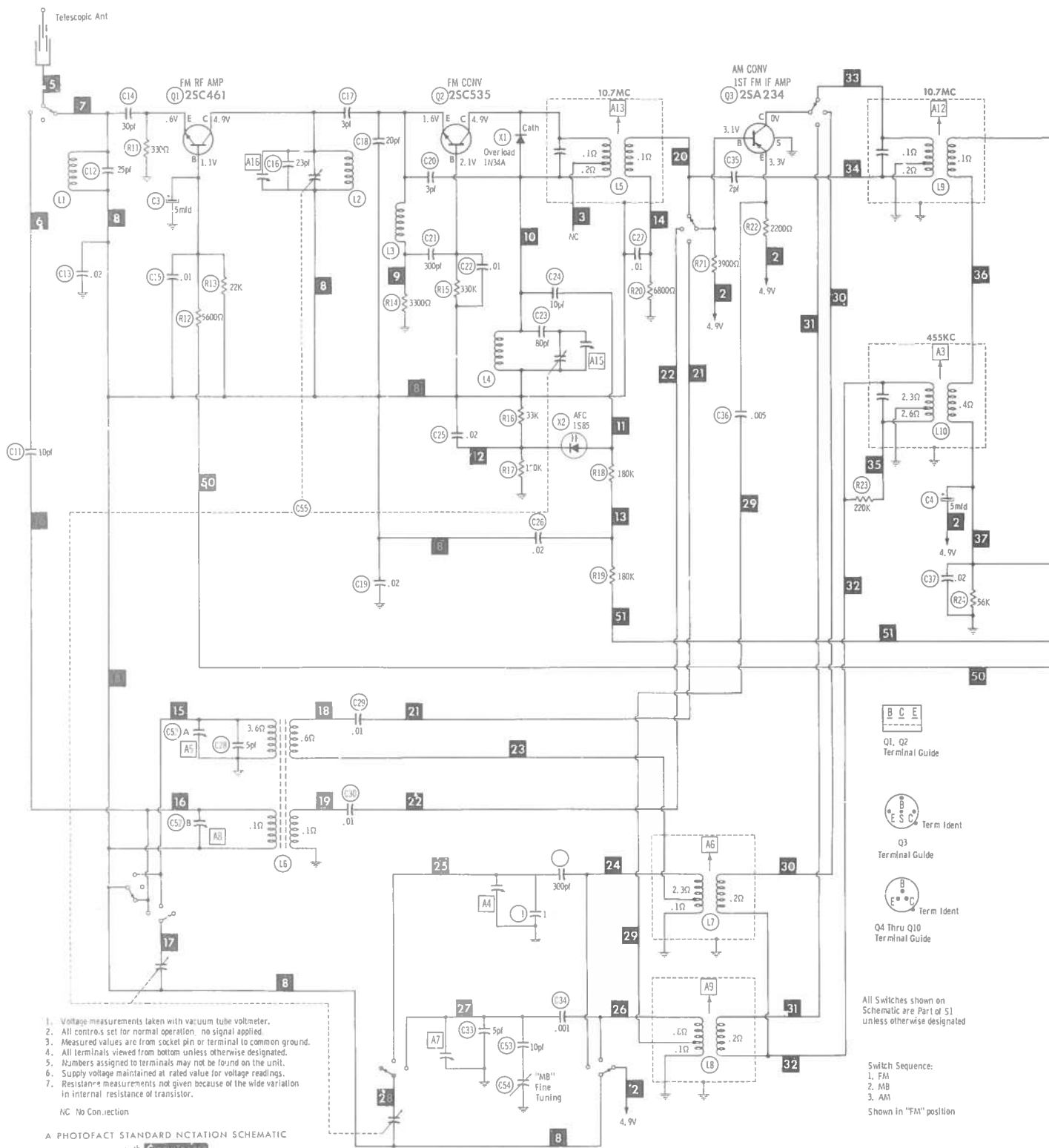
## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	200 6V	690V084H75	BCD6200		TYR13BB227K		TT6X200	TE-1104
C2	200 6V	690V084H75	BCD6200		TYR13BB227K		TT6X200	TE-1104
C3	5 6V	690V053H82	BCD6005	EP6-5	NLW5-15	MT1-3	MTV5CB50	TL-1084
C4	5 6V	690V053H82	BCD6005	EP6-5	NLW5-15	MT1-3	MTV5CB50	TL-1084
C5	5 6V	690V053H82	BCD6005	EP6-5	NLW5-15	MT1-3	MTV5CB50	TL-1084
C6	.5 6V	690V078H96			TYR13BF474K		TAS474K050POA	150D474X
C7	5 6V	690V053H82	BCD6005	EP6-5	NLW5-15	MT1-3	MTV5CB50	9035A2
C8	30 6V	690V051H50	BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TL-1084
C9	30 6V	690V051H50	BCD6025	EP6-25	NLW30-6	MT1-13	MTV30CB25	TE-1132.1

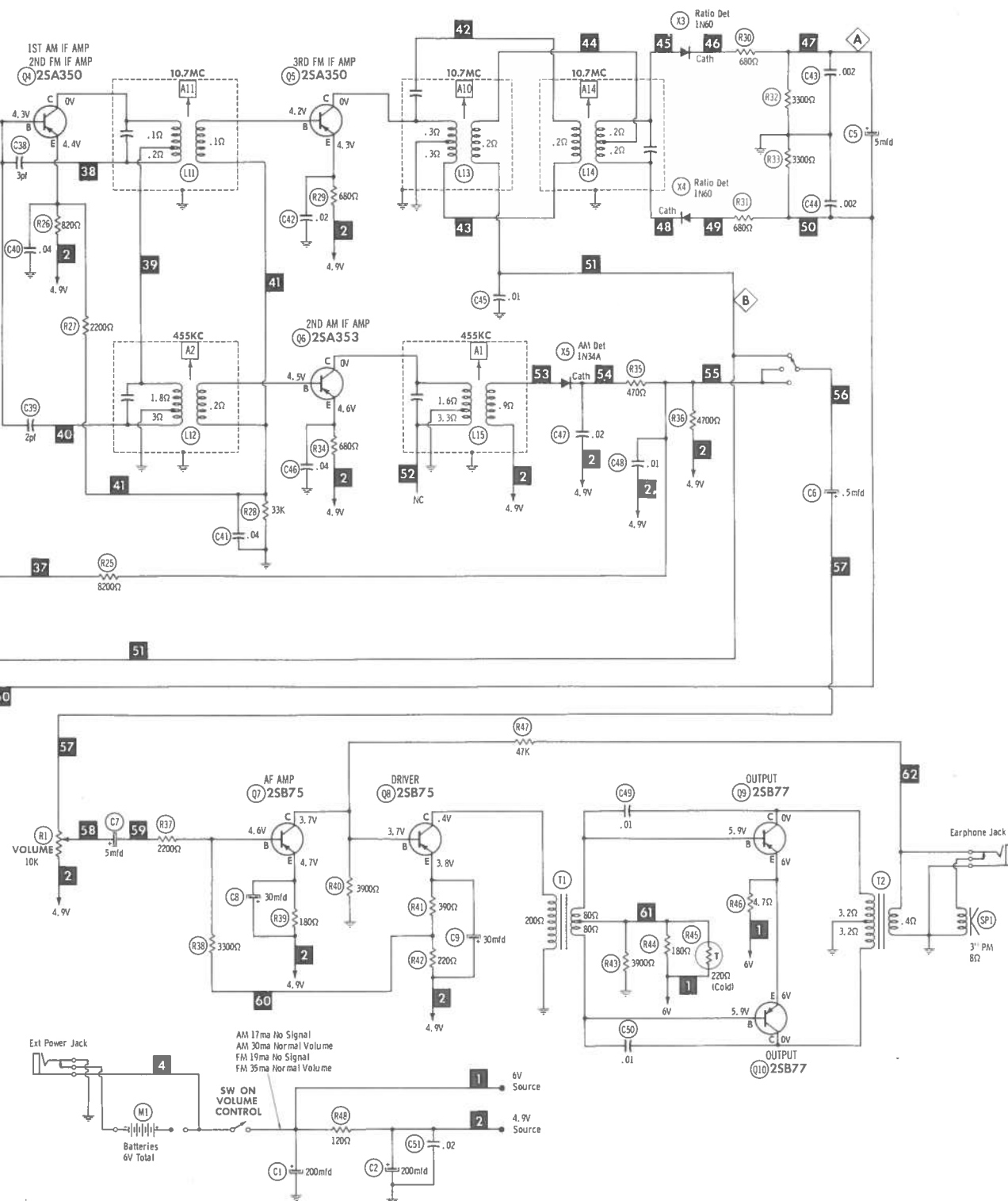
## CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOR PART No.	MALLORY PART No.	SPRAGUE PART No.
C11	10		NPO-DI 10	DTZ-10	CZ601CG100J	CCT0-100	CN0410	10TCC-Q10
C12	25		NPO-DI 25	DTZ-25			CN0425	10TCC-Q25
C13	.02		TTP-02	CK-203	H0R101ZV203P	CCD-203	TA120	TG-S20
C14	30			TCZ-30		CCT0-300		10TCC-Q30
C15	.01		TTP-01	CK-103	H0Y101ZV103P	CC0-103	TA110	TG-S10
C16	23		NPO-DI 25	DTZ-25			CN0425	10TCC-Q25
C17	3		NPO-DI 3.0					10TCC-V30
C18	20		NPO-DI 20	DTZ-20		CCT0-200	CN0420	10TCC-Q20
C19	.02		TTP-02	CK-203	H0R101ZV203P	CCD-203	TA120	TG-S20
C20	3		NPO-DI 3.0					10TCC-V30
C21	300		GPD X5F301K	DM-301	JBZ601YP331K	CC0-301	GP330	10TS-T30
C22	.01		TTP-01	CK-103	H0Y101ZV103P	CCD-103	TA110	TG-S10
C23	80			DTZ-82		CCT0-820	CN0482	10TCC-Q82
C24	10		NPO-DI 10	DTZ-10	CZ601CG100J	CCT0-100	CN0410	10TCC-Q10
C25	.02		TTP-02	CK-203	H0R101ZV203P	CCD-203	TA120	TG-S20
C26	.02		TTP-02	CK-203	H0R101ZV203P	CCD-203	TA120	TG-S20
C27	.01		TTP-01	CK-103	H0Y101ZV103P	CCD-103	TA110	TG-S10
C28	5		NPO-DI 5.0		CZ601CH5R0D			10TCC-V50
C29	.01		TTP-01	CK-103	H0Y101ZV103P	CCD-103	TA110	TG-S10
C30	.01		TTP-01	CK-103	H0Y101ZV103P	CCD-103	TA110	TG-S10
C31	13		NPO-DI 15	DTZ-15	CZ601CG150J	CCT0-150	CN0415	10TCC-Q15
C32	300		ADM-15-301	CPR-300J	CD15FD301K03	DM-15-301K	SX-330	MS-33
C33	5		NPO-DI 5.0		CZ601CH5R0D			10TCC-V50
C34	.001		GPD X5F102K	DM-102	JBZ601YP102K	CCD-102	SM210	2SS-D10
C35	2		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D		CN0522	10TCC-V22
C36	.005		TTP-005	CK-502	H0Y101ZV502P	CCD-502	TA250	TG-D50
C37	.02		TTP-02	CK-203	H0R101ZV203P	CCD-203	TA120	TG-S20
C38	3		NPO-DI 3.0					10TCC-V30
C39	2		NPO-DI 2.2	DTZ-2R2	CZ601CJ2R2D		CN0522	10TCC-V22
C40	.04			DD-403			GP140	

( CONTINUED ON PAGE 120 )







WESTINGHOUSE CHASSIS V-2593-1

# PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

## CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C41	.04		TTP-02	DD-403	HOR101ZV203P	CCD-203	GP140	TG-S20
C42	.02		GPD X5F202K	CK-203	JBX601YP202K	CCD-202	TA120	2SS-D20
C43	.002		GPD X5F202K	DM-202	JBX601YP202K	CCD-202	GP220	2SS-D20
C44	.002		TTP-01	DM-202	HOY101ZV103P	CCD-103	TA110	TG-S10
C45	.01			CK-103			GP140	
C46	.04			DD-403	HOR101ZV203P	CCD-203	TA120	TG-S20
C47	.02		TTP-02	CK-203	HOY101ZV103P	CCD-103	TA110	TG-S10
C48	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C49	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C50	.01		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C51	.02		TTP-02	CK-203	HOR101ZV203P	CCD-203	TA120	TG-S20
C52A								
B								
C53	10	#690V086H45 #690V086H44	NPO-01 10	DTZ-10	CZ601CG100J	CCT0-100	CN0410	10TCC-Q10
C54								
C55								

# Westinghouse Part Number.

## CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA			
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.
R1	Volume & Switch	10K	690V068H47			

## RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	MFGR. PART No.
R45	220 (Cold)			690V059H22

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	MFGR. PART No.

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	FM Antenna	690V086H31			
L2	FM RF	690V086H31			
L3	FM IF Trap	690V086H32			
L4	FM Oscillator	690V086H31			
L5	FM Input IF	690V086H36	16-9030	2071	
L6	Loopstick	690V086H33			
L7	AM Oscillator	690V086H35			
L8	MB Oscillator	690V086H34			
L9	FM Interstage IF	690V086H36	16-9031	2071	
L10	AM Input IF	690V086H39	16-9026	2066	
L11	FM Interstage IF	690V086H36	16-9032	2072	
L12	AM Interstage IF	690V086H40	16-9027	2067	
L13	Ratio Detector (Pri.)	690V086H37			
L14	Ratio Detector (Sec.)	690V086H38			
L15	AM Output IF	690V086H41	16-9028	2068	

## TRANSFORMER (Driver)

ITEM No.	TURNS RATIO			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	2	1CT		690V086H42				

## TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	92	8		690V086H43				

# PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

## SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		MFR. PART No.	JENSEN PART No.	QUAM PART No.	
SP1	3" PM 8 ohms	690V086H49		30A05RZ8	

## BATTERIES

ITEM No.	VOLTAGE	MFR. PART No.	REPLACEMENT DATA		NOTES
			EVEREADY	MALLORY	
M1	6V		1035 or E93	M14R or MN1400	4 Required

## MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
S1	Switch, Selector	690V086H48	

## CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

ITEM	PART No.	ITEM	PART No.
Cabinet, Front (Model RG13S68A)	690V086H00	Cabinet, Front (Model RG13S68C)	690V082H99
Cabinet, Back (Model RG13S68A)	690V086H01	(Serial No. 10,001 & up)	
Antenna, Telescopic (Model RG13S68A)	690V086H15	Antenna, Telescopic (Model RG13S68C)	690V082H81
Cabinet (Model RG13S68C) (Serial No. 10,000 & down)	690V082H82	Knob, Fine Tuning and Volume	690V086H13
Cabinet (Model RG13S68C) (Serial No. 10,001 & up)	690V082H98	Knob, Tuning	690V086H12
		Knob, Selector	690V086H14

## WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid 22AWG)	Available
	8524 (Stranded 22AWG)	in
	8570 (Stranded 26AWG)	12 Colors

## DIAL CORD—FRONT VIEW

