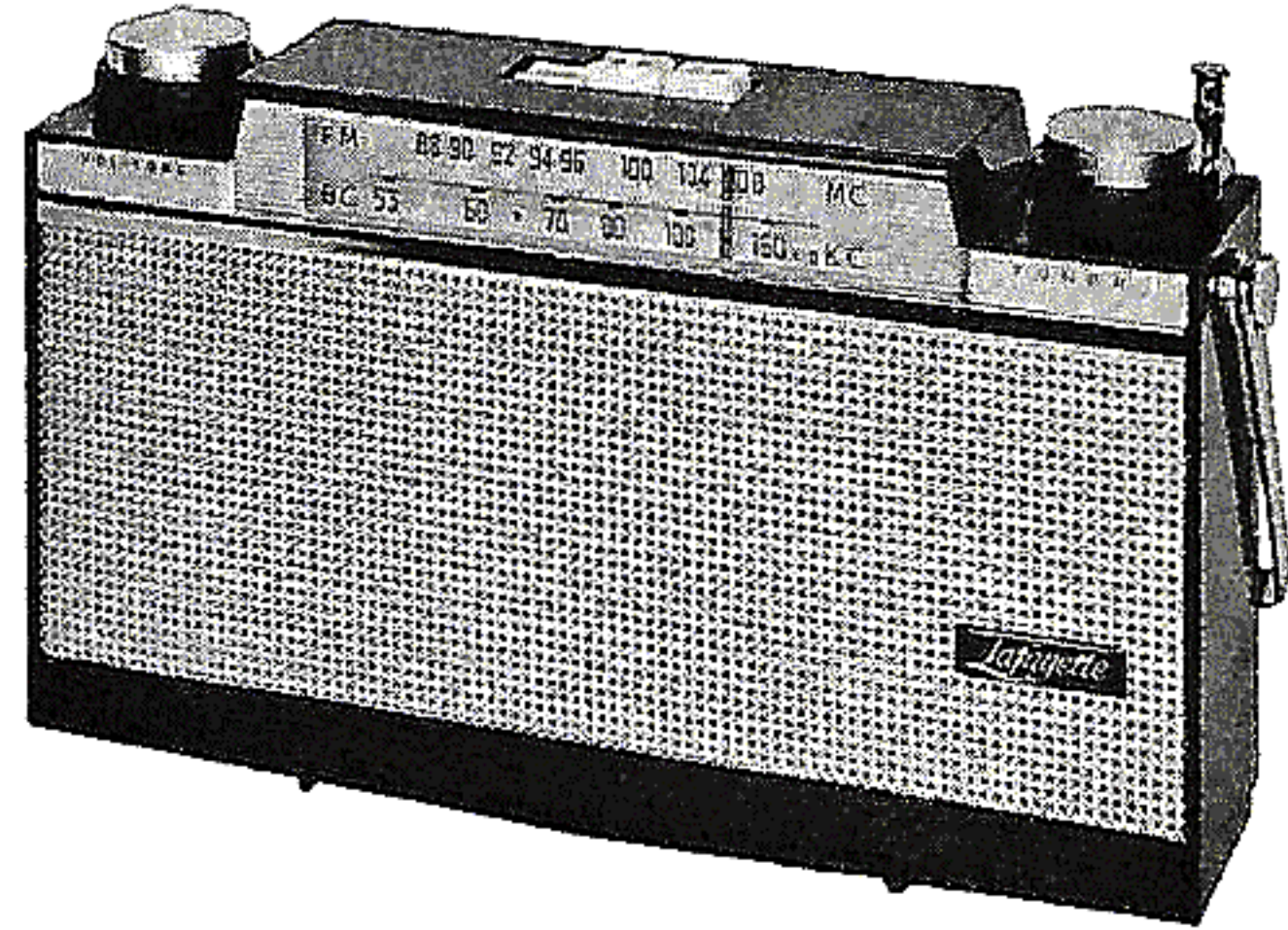




PHOTOFACT[®] with

CIRCUITRACE[®]

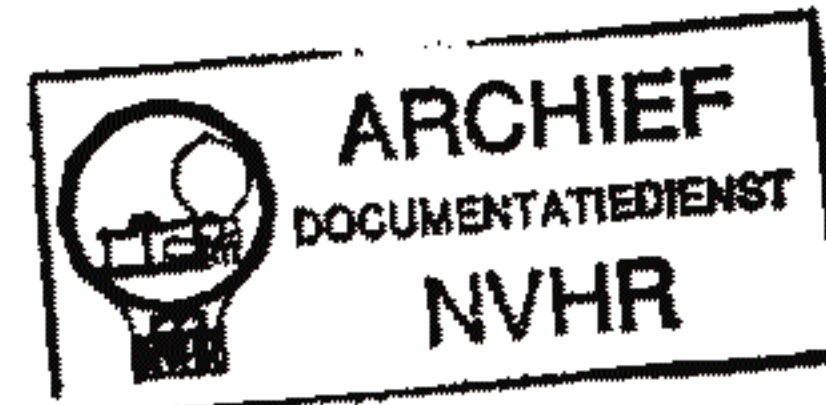
Met dank aan Jef Bos



TRADE NAME: Lafayette Model FS-245
 SUPPLIER: Lafayette Radio Electronics Corp.
 111 Jericho Turnpike, Syosset, L. I., N. Y.
 TYPE SET: 10 Transistor AM-FM Receiver
 POWER SUPPLY: 6 Volts DC
 RATING: (FM) 24MA @ 6VDC
 42MA @ 6VDC
 TUNING RANGE: BROADCAST 540 - 1620KC
 FREQ. MOD. 88 - 108MC

Ned. Ver. v. Historie v/

ALIGNMENT INSTRUCTIONS



Check for specified source voltage.
 Fashion loop of several turns of wire and connect generator across loop.
 Adjust output of generator to radiate only enough signal into receiver to obtain a suitable indication.
 Suggested Alignment Tools:
 A4, A6, A12, A13..... GENERAL CEMENT #8290, 8868, 9087... WALSCO #2525, 2528
 A1, A2, A3, A5, A7 thru A11. GENERAL CEMENT #5067

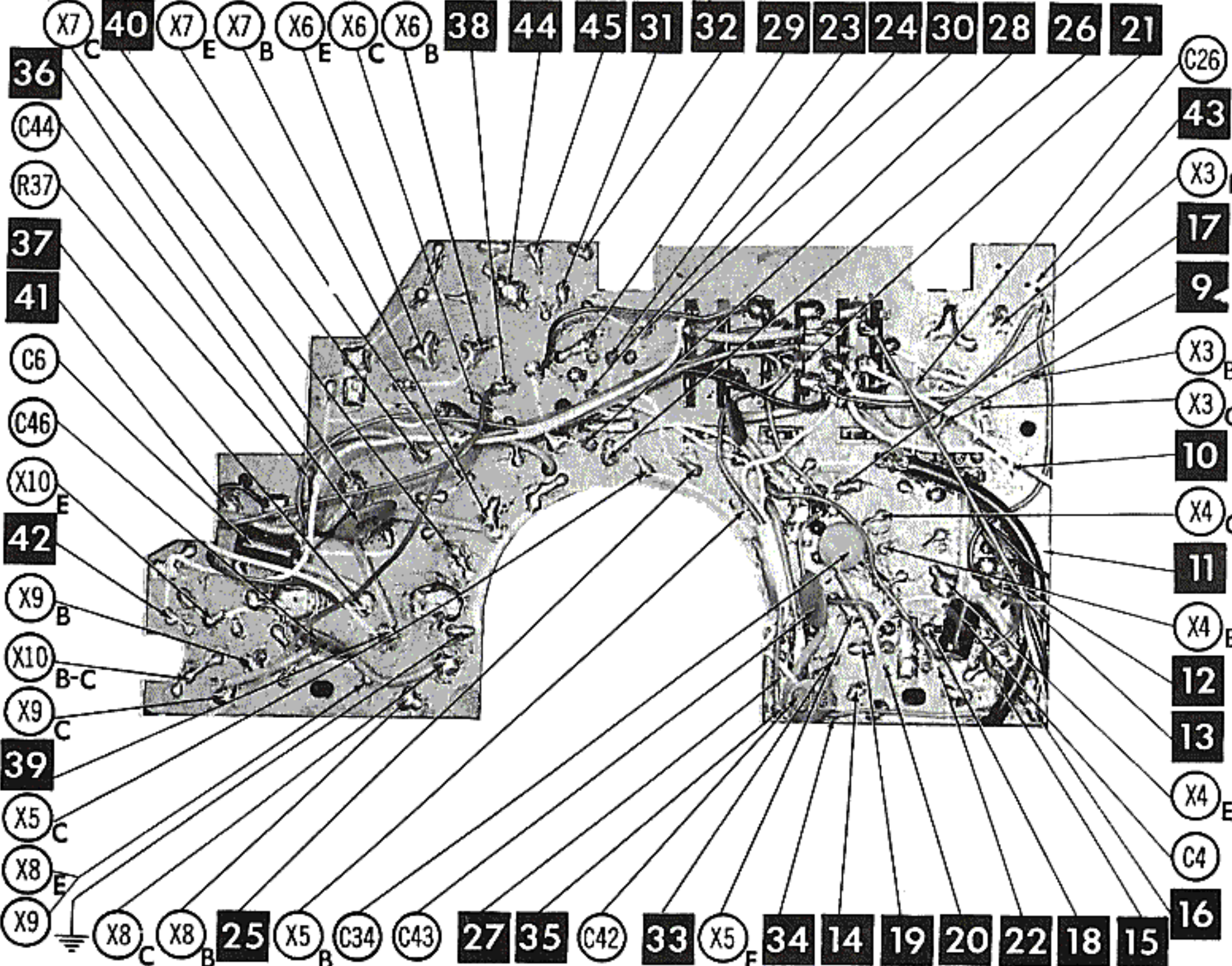
AM ALIGNMENT - SELECTOR IN AM POSITION

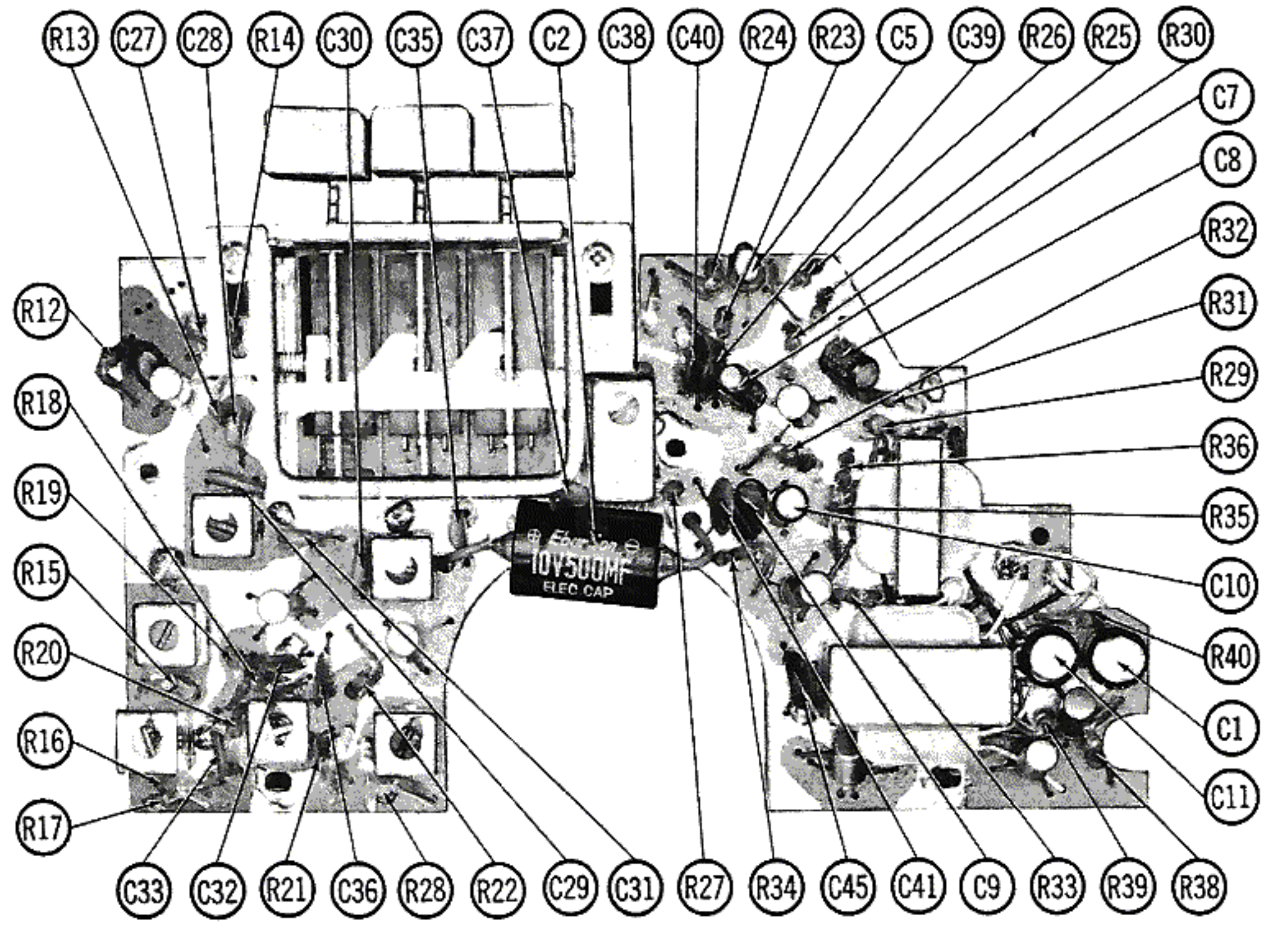
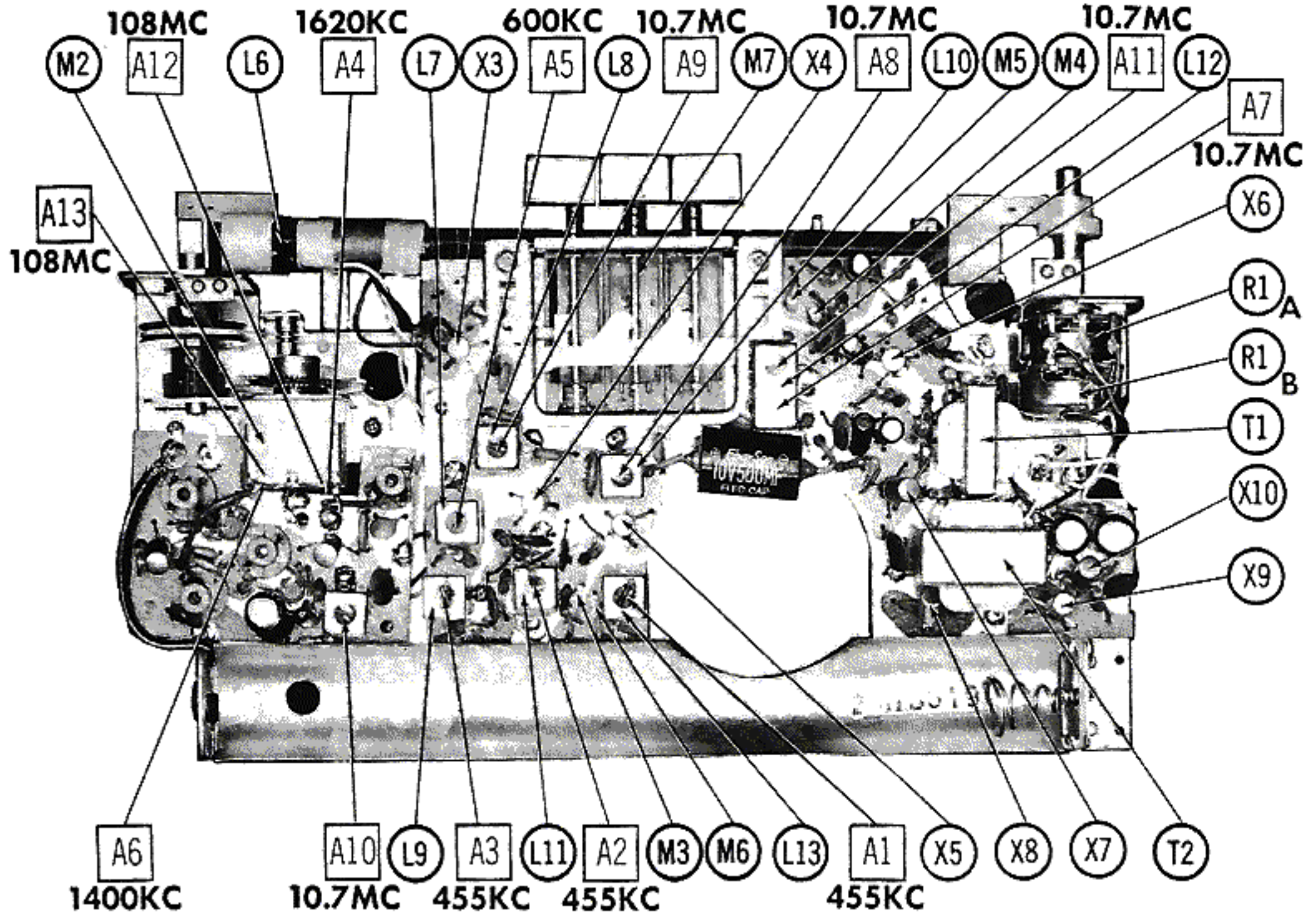
	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC (400v Mod.)	Tuning gang fully open.	Output Meter across voice coil.	A1, A2, A3	Adjust for maximum. Repeat as required.
2.	1620KC	"	"	A4	Adjust for maximum.
3.	600KC	Tune to Signal.	"	A5	Rock tuning gang and adjust for maximum. Repeat steps 2 and 3.
4.	1400KC	"	"	A6	Adjust for maximum.

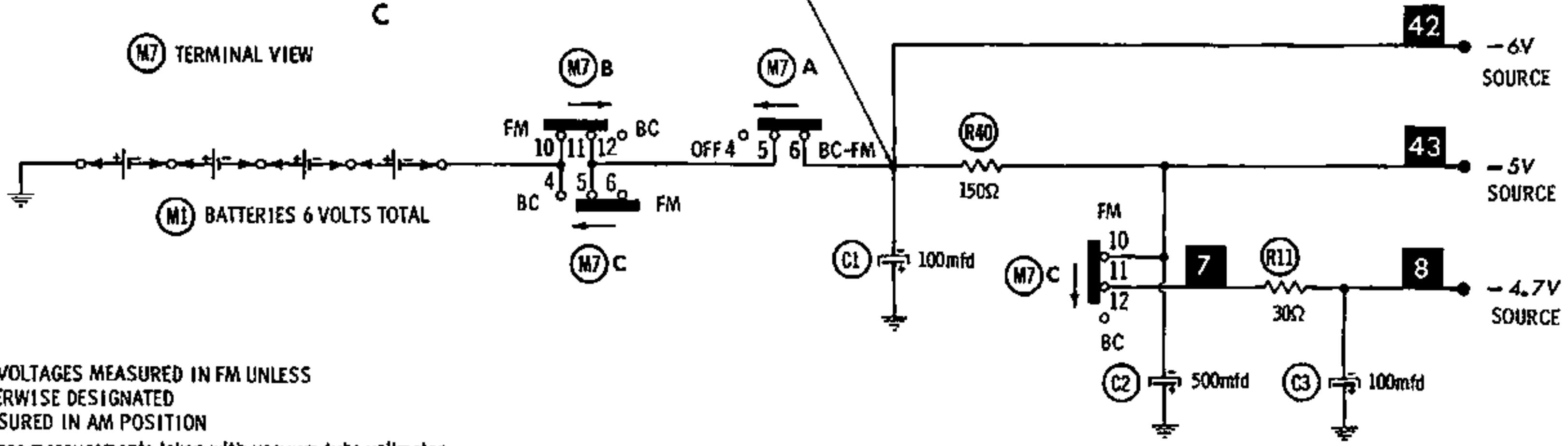
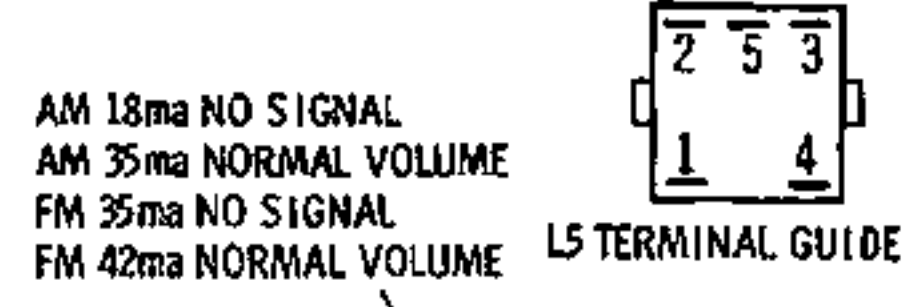
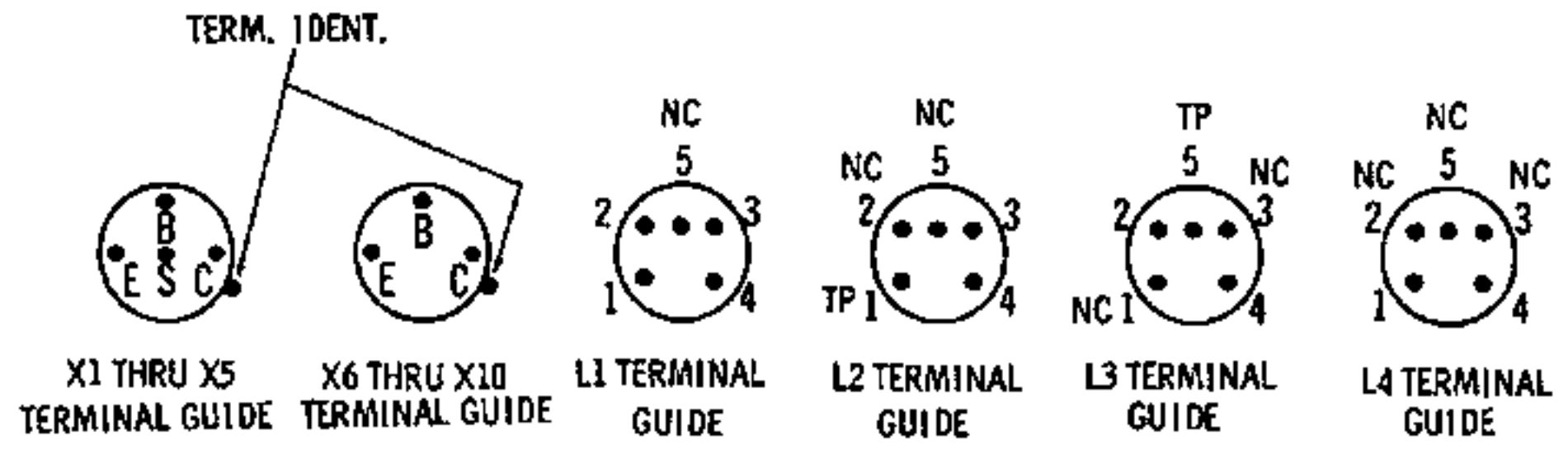
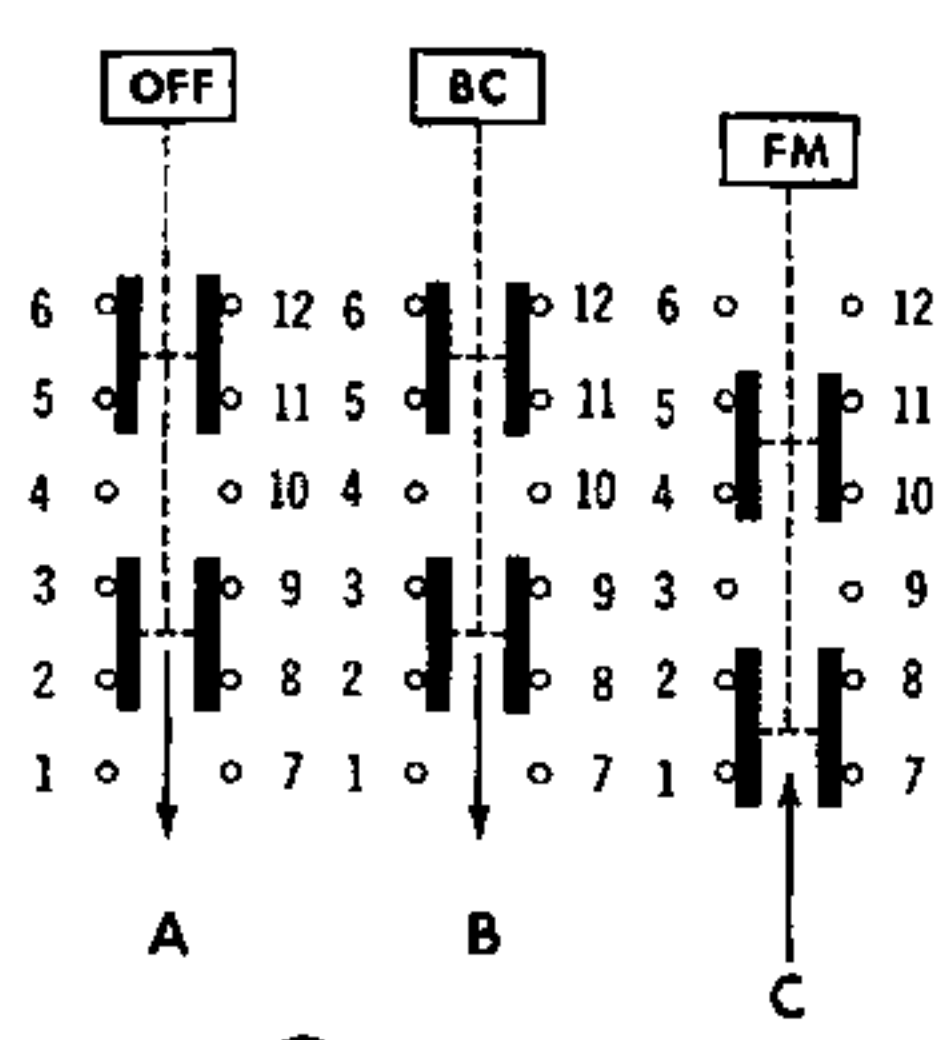
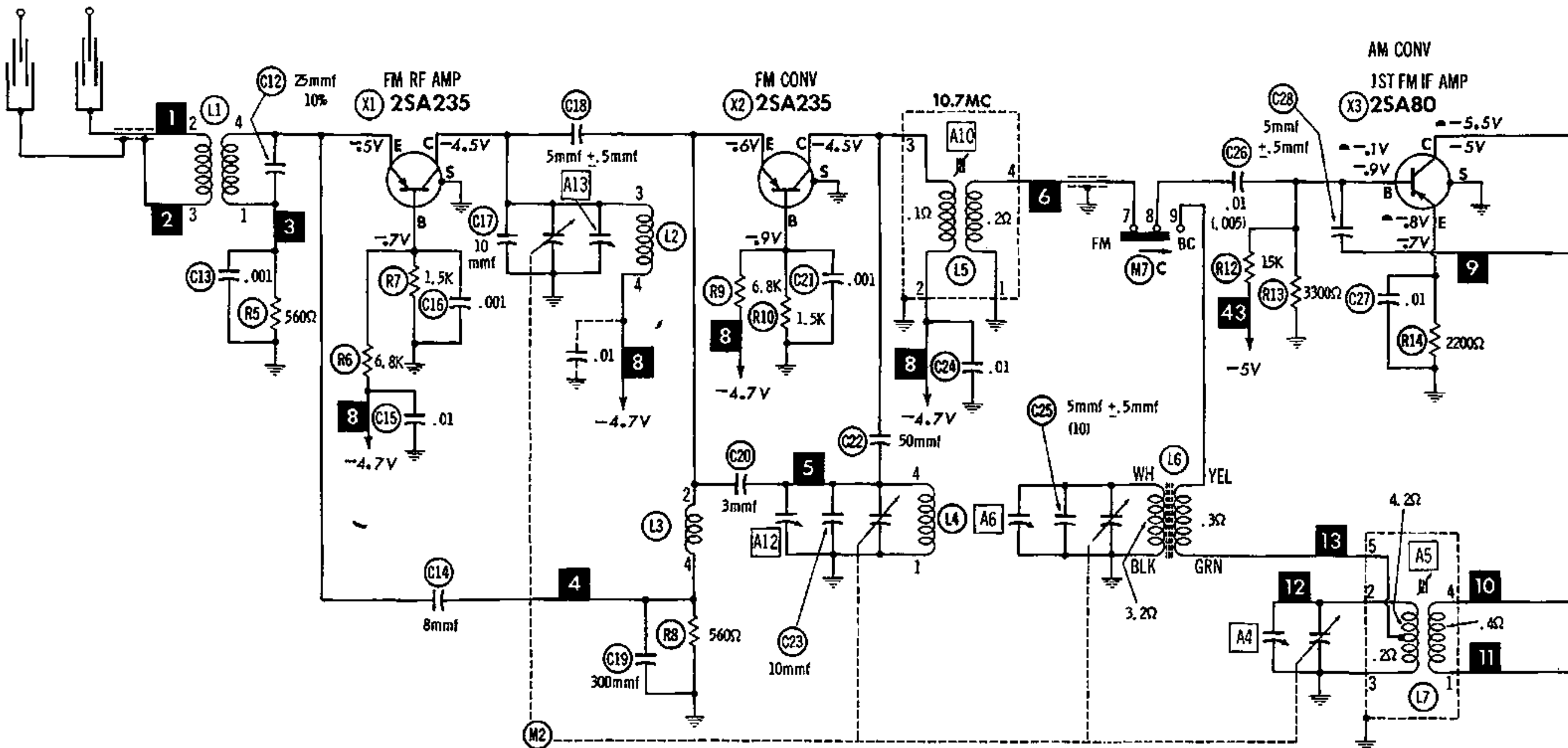
FM ALIGNMENT - SELECTOR IN FM POSITION

5.	10.7MC (Unmod.)	Point of non-interference.	DC probe of VTVM to point $\diamond A$; common to ground.	A7, A8, A9, A10	Adjust for maximum.
6.	"	"	DC probe of VTVM to point $\diamond B$; common to ground.	A11	Adjust for zero reading. A positive or negative reading will be obtained on either side of the correct setting.
7.	108MC	108MC	DC probe of VTVM to point $\diamond A$; common to ground.	A12, A13	Adjust for maximum.

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

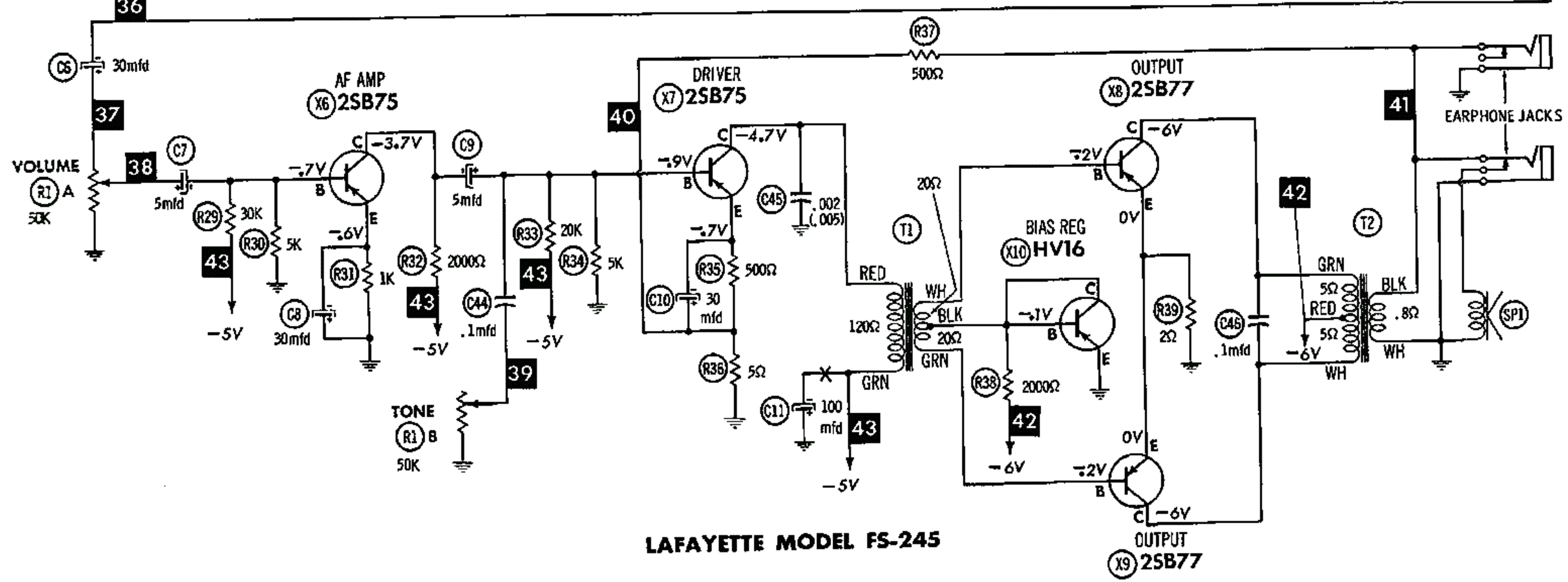
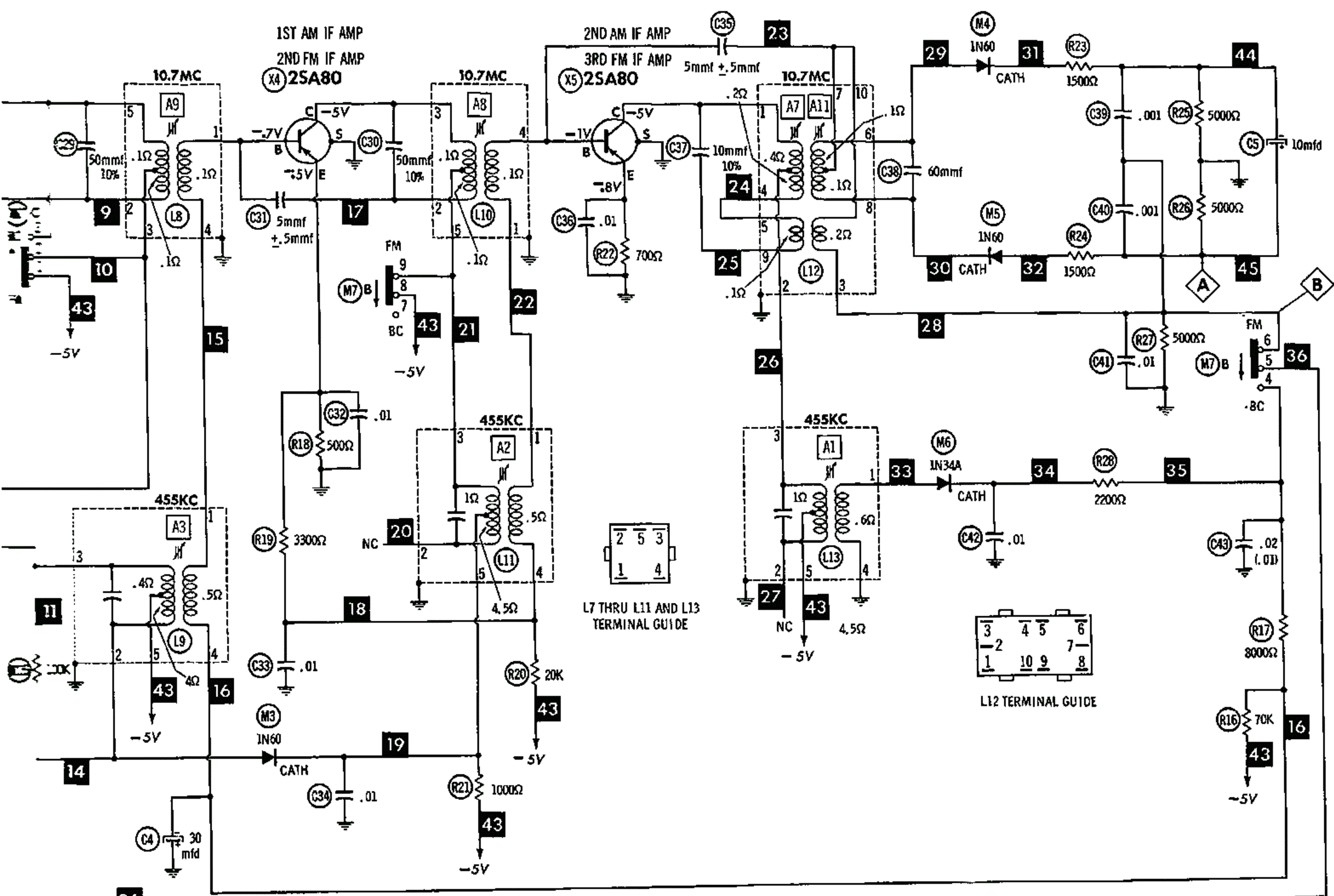






- ALL VOLTAGES MEASURED IN FM UNLESS OTHERWISE DESIGNATED
- 1. Voltage measurements taken with vacuum tube voltmeter.
 - 2. All controls set for normal operation, no signal applied.
 - 3. Measured values are from socket pin or terminal to common ground.
 - 4. All terminals viewed from bottom unless otherwise designated.
 - 5. Numbers assigned to terminals may not be found on the unit.
 - 6. Supply voltage maintained at rated value for voltage readings.
 - 7. Resistance measurements not given because of the wide variation in internal resistance of transistor.

A PHOTOFAC STANDARD NOTATION SCHEMATIC
with **CIRCUITACE**



TRANSISTORS

PARTS LIST A

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA235	FM RF Amplifier	DS-41	GE-1		PNP
X2	2SA235	FM Converter	DS-41	GE-1		PNP
X3	2SA80	1st FM IF Amp. -AM Conv.	DS-34	GE-1		PNP
X4	2SA80	2nd FM IF Amp. - 1st AM IF Amp.	DS-34	GE-1		PNP
X5	2SA80	3rd FM IF Amp. - 2nd AM IF Amp.	DS-34	GE-1		PNP
X6	2SB75	AF Amplifier	DS-26	GE-2	2N406	PNP
X7	2SB75	Driver	DS-26	GE-2	2N406	PNP
X8	2SB77	Output	DS-26	GE-2	2N408	PNP
X9	2SB77	Output	DS-26	GE-2	2N408	PNP
X10	HV16	Bias Regulator			1N2326	PNP

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		Lafayette PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
	CAP.	VOLT.							
C1	100	6		BCD8100	ECPB117	MT1-18	MLV100-6	PET1400	VL-1100
C2	500	10		BCD12500	BR500-12		BL2232		
C3	100	6		BCD8100	ECPB117	MT1-18	MLV100-6	PET1400	VL-1100
C4	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C5	10	6		BCD8010	ECPB408	MT1-5	MLV10-6	PET1340	VL-1087
C6	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C7	5	6		BCD6005	ECPB405	MT1-3	MLV5-6	PET1210	VL-1084
C8	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C9	5	6		BCD8005	ECPB405	MT1-3	MLV5-6	PET1210	VL-1084
C10	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C11	100	6	Note 1	BCD8100	ECPB117	MT1-18	MLV100-6	PET1400	VL-1100

Note 1. Not used in some versions.

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C12	25 10%		NPO-DI 25	DTZ-25	C10Q25C	CCTO-270	CNO-425	10TCC-Q25
C13	.001		SI 1000	D6-102	BYA10D1	CCD-102	GP210	10TS-D10
C14	8		NPO-DI 8.2		C10V8C			10TCC-V82
C15	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C16	.001		SI 1000	D6-102	BYA10D1	CCD-102	GP210	10TS-D10
C17	10		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C18	5 +.5mmf		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C19	300		SI 300	D6-301	LA10D3	CCD-301	GP330	10TS-T30
C20	3		NPO-SI 3.3	DTZ-3R3	C10V3C	CCTO-3R3	CNO-533	10TCC-V33
C21	.001		SI 1000	D6-102	BYA10D1	CCD-301	GP210	10TS-D10
C22	50 10%		NPO-DI 50	DTZ-50	C10Q5C	CCTO-510	CNO-450	10TCC-Q50
C23	10 5%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C24	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C25	5 +.5mmf	(10) †	NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C26	.01	(.005) †	TTD-01	CK-103	H2		TA-110	TG-S10
C27	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C28	5 +.5mmf		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C29	50 10%		NPO-DI 50	DTZ-50	C10Q5C	CCTO-510	CNO-450	10TCC-Q50
C30	50 10%		NPO-DI 50	DTZ-50	C10Q5C	CCTO-510	CNO-450	10TCC-Q50
C31	5 +.5mmf		NPO-DI 5	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-V50
C32	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C33	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C34	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C35	5 +.5mmf		NPO-DI 5.0	DTZ-4R7	C10V5C	CCTO-050	CNO-547	10TCC-Q50
C36	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C37	10 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C38	60		DI-68	DTZ-62	C10Q62C	CCTI-680	CNO-468	10TCC-Q68
C39	.001			DM-102				
C40	.001			DM-102				
C41	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C42	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C43	.02	(.01) †	TTD-02	CK-203	H3		TA-120	TG-S20
C44	.1		TTD-1	CK-104	H6		TA-010	TG-P10
C45	.002	(.005) †		DM-202				
C46	.1		TTD-1	CK-104	H6		TA-010	TG-P10

† Alternate Value.

D DESCRIPTION

CONTROLS

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			Lafayette PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
RIA B	Volume Tone	50K 50K	243-N				

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		Lafayette PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	FM Ant.						
L2	FM RF						
L3	Choke						
L4	FM Osc.						
L5	1st FM IF						
L6	Loopstick						
L7	AM Osc.						
L8	1st FM IF						
L9	1st AM IF						
L10	2nd FM IF						
L11	2nd AM IF						
L12	Ratio Detector						
L13	3rd AM IF						

TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
			Lafayette PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T1	2	1						

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			Lafayette PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T2	200Ω CT	8-8Ω						

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		Lafayette PART No.	QUAM PART No.	
SP1	3" x 5" PM 6-8Ω			

BATTERIES

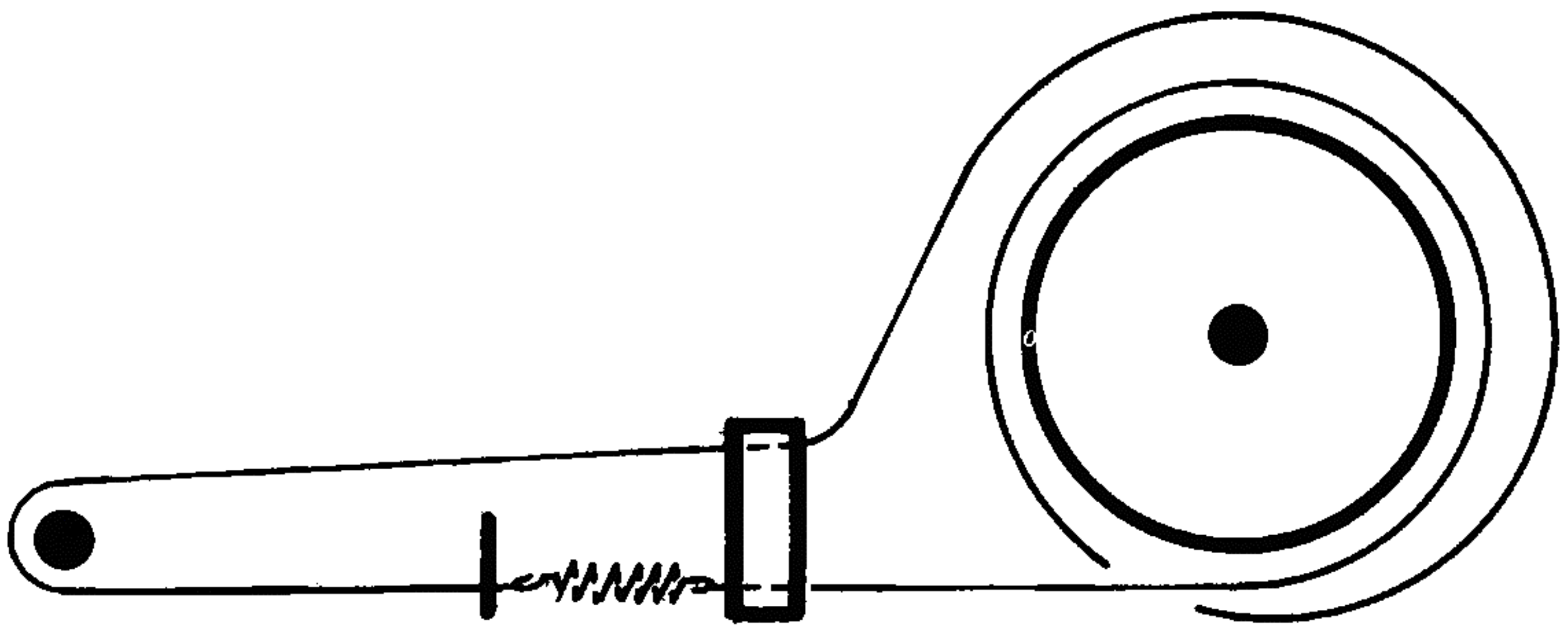
ITEM No.	VOLTAGE	Lafayette PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	6V		130 (or AL-1)	835 (or E93)	M-14R (or MN1400)	4 Required

MISCELLANEOUS

ITEM No.	PART NAME	Lafayette PART No.	NOTES
M2	Tuning Cap.		
M3	AVC (1N60)		
M4	Ratio Detector (1N60)		
M5	Ratio Detector (1N60)		
M6	AM Detector (1N34A)		

WIRING DATA

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

A Howard W. Sams CIRCUITRACE® Photo

