



# PHOTOFACT<sup>®</sup> with

# CIRCUITRACE<sup>®</sup>

Met dank aan Jef Bos

TRADE NAME : Lafayette Model FS-244  
 SUPPLIER : Lafayette Radio Electronics Corp.  
 111 Jericho Turnpike, Syosset, L. I., N. Y.  
 TYPE SET : 9 Transistor BC-SW Receiver  
 POWER SUPPLY : 6 Volts DC  
 RATING : 10MA @ 6VDC (No Signal, Min. Volume)  
 40MA @ 6VDC (Signal, Normal Volume)  
 TUNING RANGE : BROADCAST 530-1620KC  
 SHORT WAVE 1.6 - 4.6MC



## ALIGNMENT INSTRUCTIONS

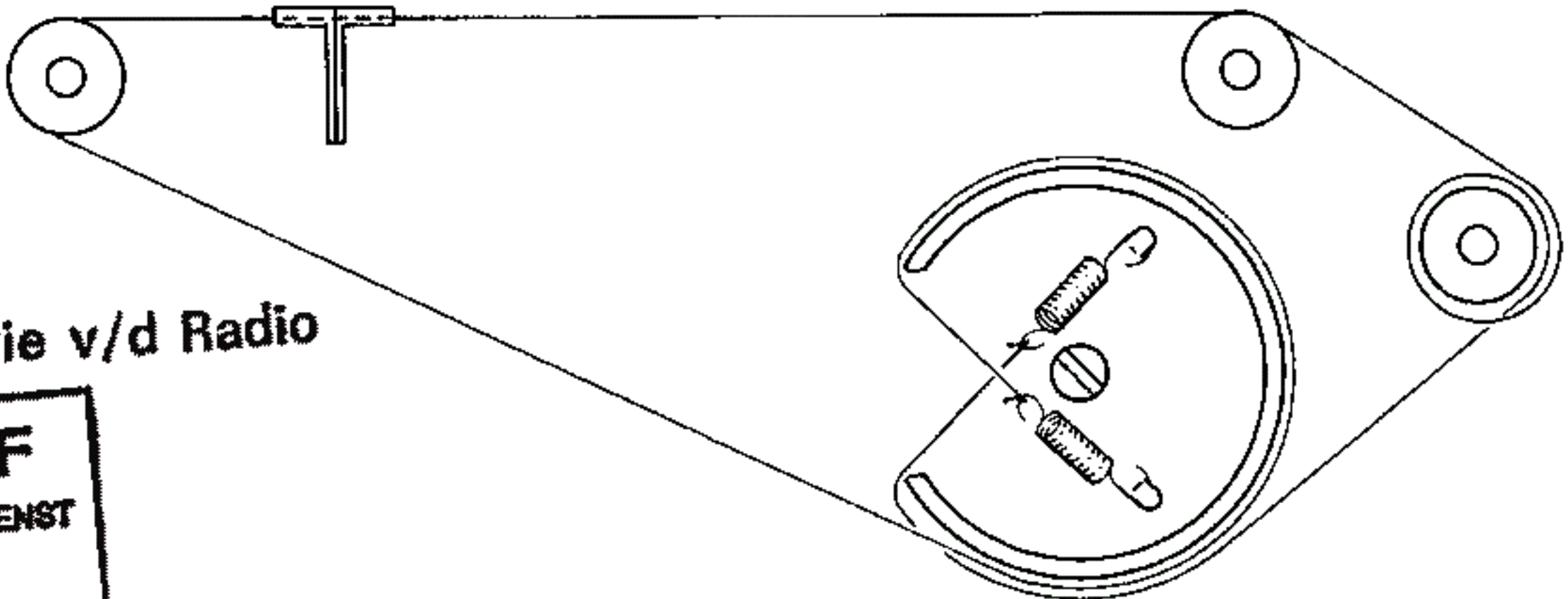
Check for specified source voltage.  
 Fashion loop of several turns of wire and connect generator across loop.  
 Adjust output of generator to radiate only enough signal into receiver to obtain a suitable indication.

Suggested Alignment Tools:

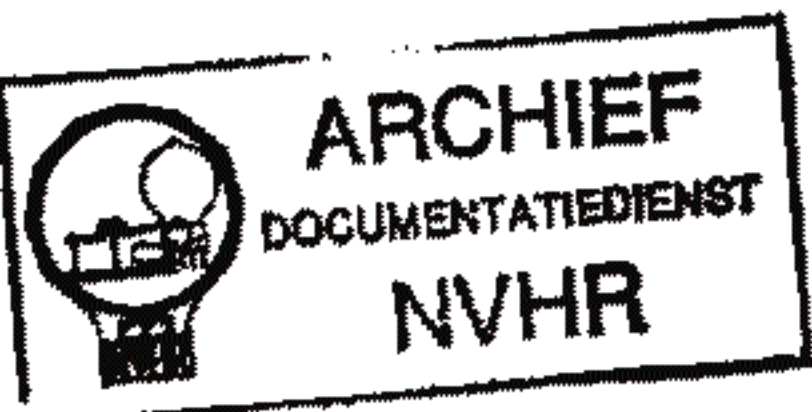
A1, A2, A3, A4, A6.....GENERAL CEMENT #8282.....WALSCO #2526  
 A5, A7, A8, A10.....GENERAL CEMENT #5000, 8290.....WALSCO #2528  
 A9.....GENERAL CEMENT #9440.....WALSCO #2501

	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1.	455KC (Unmod.)	Tuning gang fully open.	DC VTVM across volume control.	A1, A2, A3, A4	Adjust for maximum. Repeat as required.
2.	1620KC	"	"	A5	Adjust for maximum.
3.	600KC	Tune to signal.	"	A6	Rock tuning gang and adjust for maximum. Repeat steps 2 and 3.
4.	1400KC	"	"	A7	Adjust for maximum.
5.	4.6MC	"	"	A8	"
6.	1.6MC	"	"	A9	"
7.	4MC	"	"	A10	"

## DIAL CORD STRINGING



led. Ver. v. Historie v/d Radio



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

## WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid 22AWG)	Available
	8524 (Stranded 22AWG)	In
	8570 (Stranded 28AWG)	12 Colors

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	2SA82	BC Conv. -SW Mixer	DS-25	GE-1	2N370	PNP
X2	2SA81	SW Oscillator	DS-25	GE-1	2N371	PNP
X3	2SA12	1st IF Amplifier	DS-25	GE-1	2N410	PNP
X4	2SA12	2nd IF Amplifier	DS-25	GE-1	2N410	PNP
X5	2SB75	AF Amplifier	DS-26	GE-2	2N406	PNP
X6	2SB75	Driver	DS-26	GE-2	2N406	PNP
X7	2SB77	Output	DS-26	GE-2	2N408	PNP
X8	2SB77	Output	DS-26	GE-2	2N408	PNP
X9	HV15	Bias Regulator			1N2328	PNP

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	Lafayette PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	50	6		CRE317A	NLW50-6	MT1-15	MLV50-6	TT6X50	TE-1100
C2	50	6		CRE317A	NLW50-6	MT1-15	MLV50-6	TT6X50	TE-1100
C3	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C4	5	6		BCD8005	ECPB405	MT1-3	MLV5-6	PET1210	TE-1084
C5	30	6		BCD8025	ECPB412	MT1-13	MLV30-6	TT6X30	TE-1092
C6	5	6		BCD8005	ECPB405	MT1-3	MLV5-6	PET1210	TE-1084
C7	30	6		BCD8025	ECPB412	MT1-3	MLV30-6	TT6X30	TE-1092

## 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.
C8 C9A B C D	5 10%		NPO-DI 5	DTZ-4R7	C10V47C	CCTO-050	CNO-547	10TCC-V50
C10	10 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C11	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C12	300			CPR-300J				
C13	10			DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10
C14	.04		TTD-05	CK-503	H5		TA-150	TG-S50
C15	.001			DM-102				
C16	800			CPR-820J				
C17	.01		TTD-01	CK-103	H2		TA-110	TG-S10
C18	5		NPO-DI 5	DTZ-4R7	C10V47C	CCTO-050	CNO-547	10TCC-V50
C19	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C20	8		NPO-DI 8.2					10TCC-V82
C21	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C22	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C23	4		NPO-DI 4.7	DTZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V39
C24	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C25	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C26	.04		TTD-05	CK-503	H5		TA-150	TG-S50
C27	.04		TTD-05	CK-503	H5		TA-150	TG-S50
C28	.005		TTD-005	CK-502	H1		TA-250	TG-D50
C29	.04		TTD-05	CK-503	H5		TA-150	TG-S50
C30	.002			DM-202				
C31	.02		TTD-02	CK-203	H3		TA-120	TG-S20
C32	.04		TTD-05	CK-503	H5		TA-150	TG-S50
C33	10 10%		NPO-DI 10	DTZ-10	C10Q1C	CCTO-100	CNO-410	10TCC-Q10

# 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.
R1	Volume & Switch	5000Ω					

## 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	Loopstick						
L2	BC Oscillator						
L3	MW Oscillator						
L4	1st IF						
L5	2nd IF						
L6	3rd IF		BC-575	2087	RTC-9267		
L7	4th IF		BC-576	2088	RTC-9268		

## TRANSFORMER (DRIVER)

ITEM No.	TURNS RATIO		REPLACEMENT DATA					NOTES
	PRI.	SEC.	Lafayette PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	2.1	1						

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	Lafayette PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	162Ω	6-8Ω						

## SPEAKER

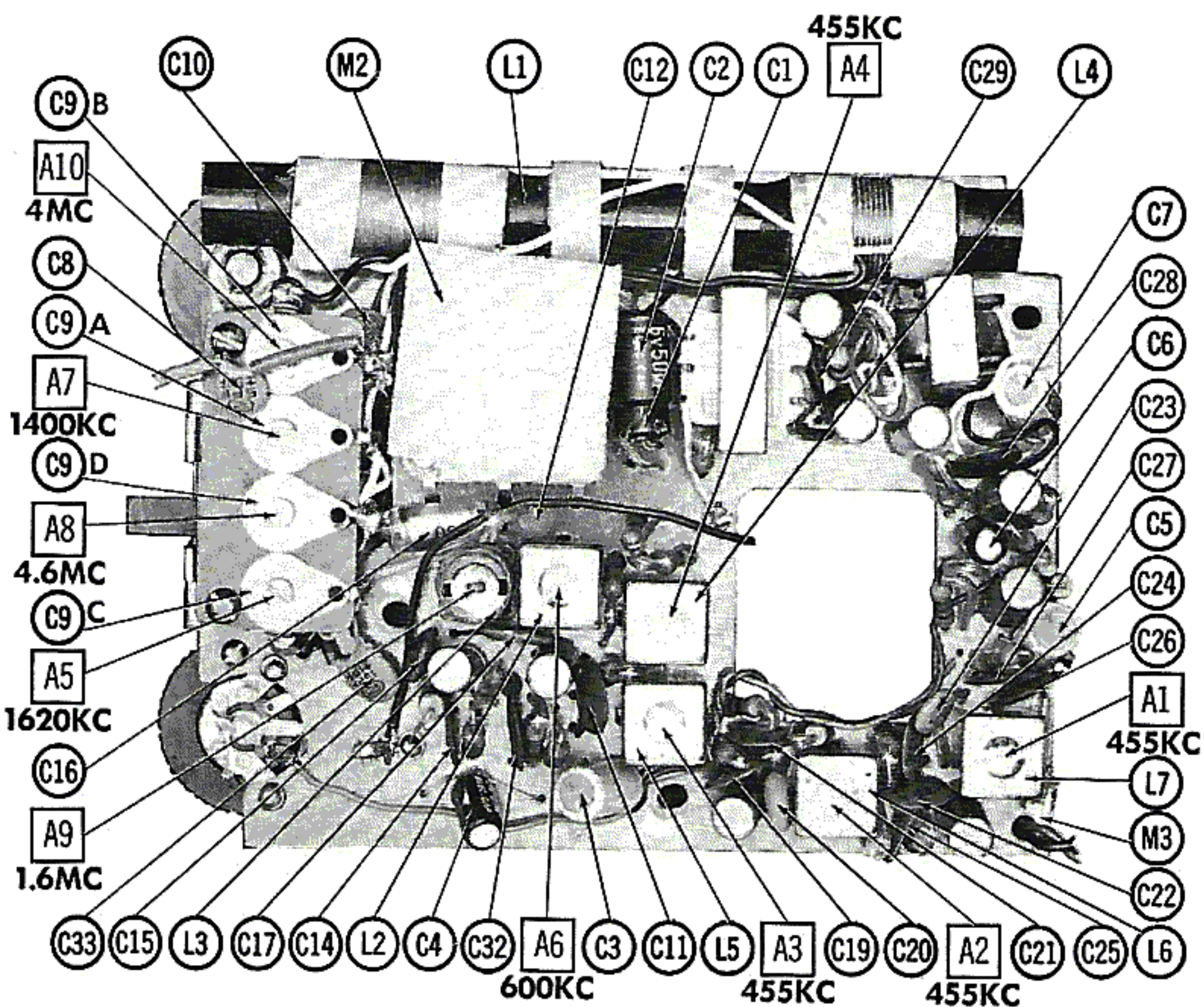
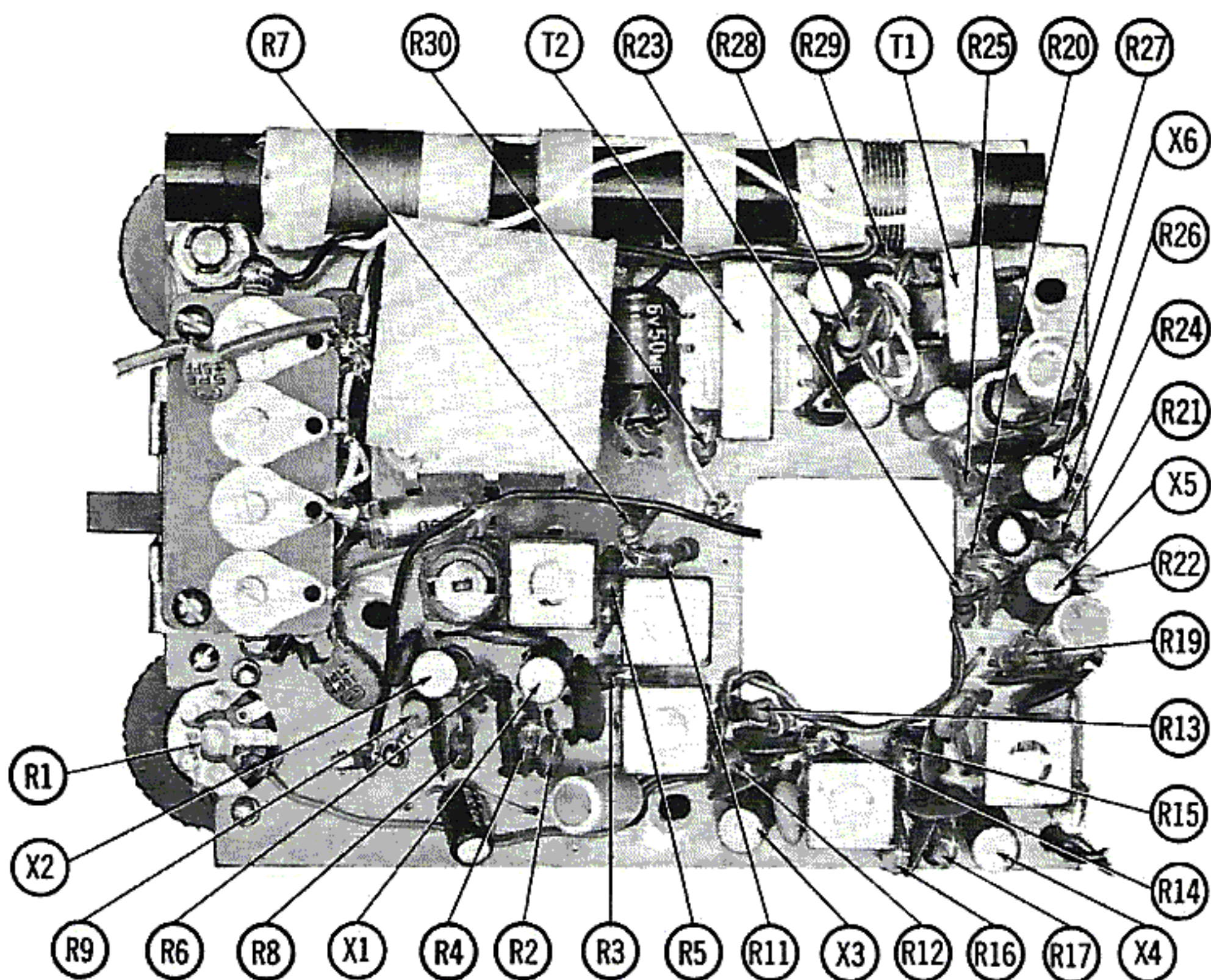
ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		Lafayette PART No.	QUAM PART No.	
SP1	2 1/4" PM 6-8Ω			

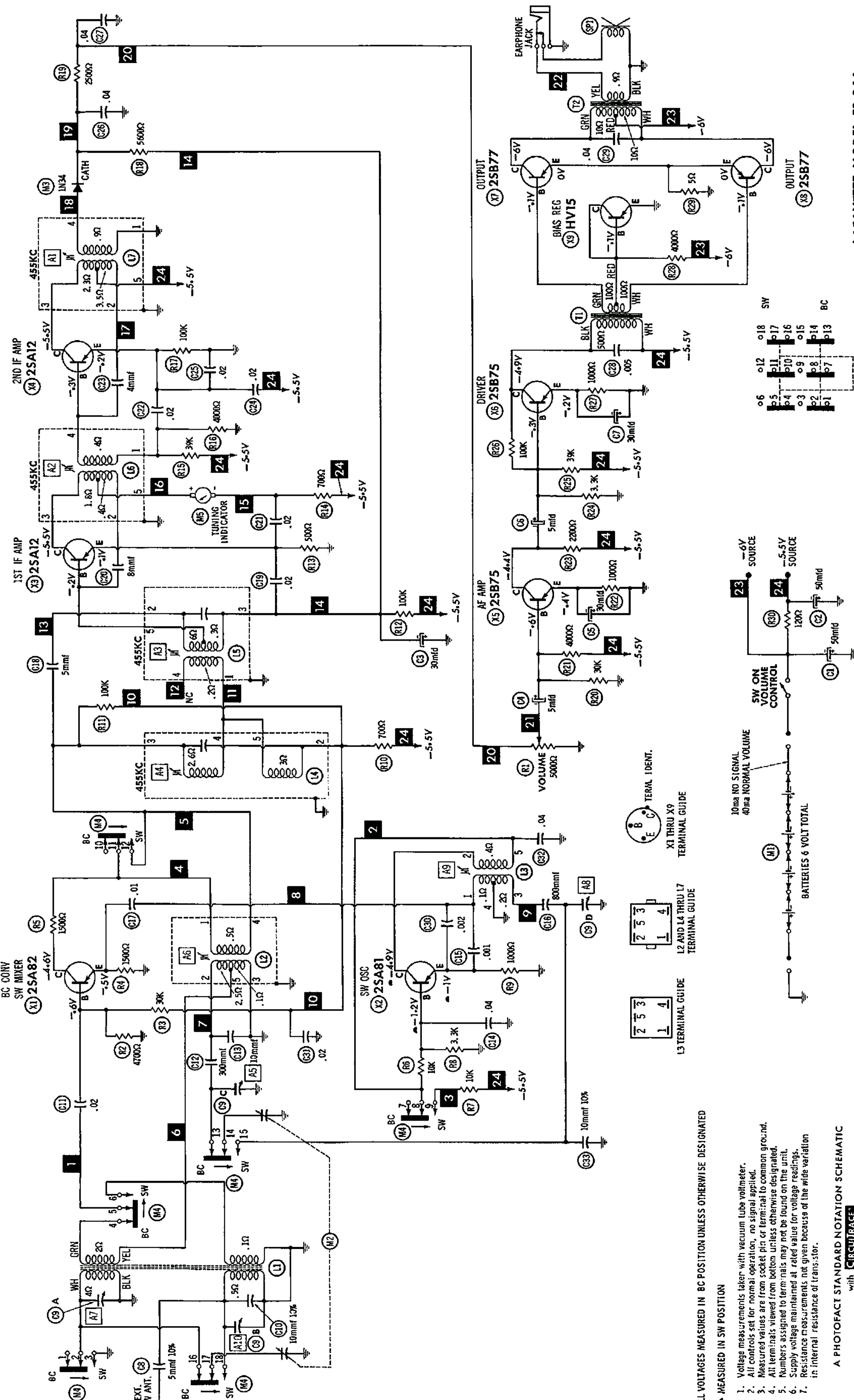
## BATTERIES

ITEM No.	VOLTAGE	Lafayette PART No.	REPLACEMENT DATA			NOTES
			BURGESS	EVEREADY	MALLORY	
M1	6V		830 (or AL-9, Hg-9)	1015 (or E91, E9)	M-15R (or E91, E9)	4 Required

## MISCELLANEOUS

ITEM No.	PART NAME	Lafayette PART No.	NOTES
M2	Tuning Cap.		
M3	Detector (1N34)		
M4	Band Switch		
M5	Tuning Indicator		





ALL VOLTAGES MEASURED IN BC POSITION UNLESS OTHERWISE DESIGNATED  
 • MEASURED IN SW POSITION

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 **CIRCUITRACE**  
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