



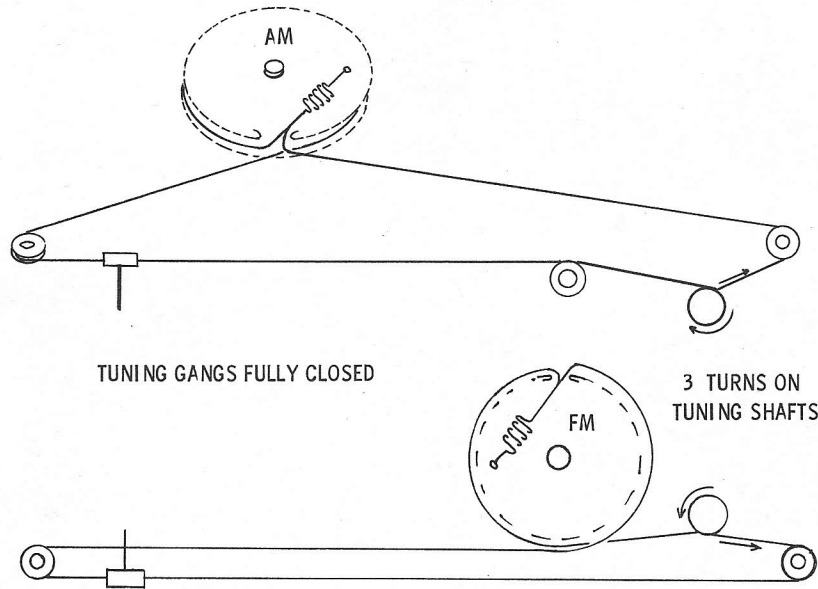
LAFAYETTE MODEL
LT-99



LAFAYETTE MODEL
LT-99

TRADE NAME	Lafayette Model LT-99		
MANUFACTURER	Lafayette Radio, 165-08 Liberty Ave., Jamaica 33, N. Y.		
TYPE SET	AC Operated 8 Tube FM-AM Tuner		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles	RATING	34 Watts, .365 Amp. @117 Volts AC
TUNING RANGE - BROADCAST	540 - 1650KC	FREQ. MOD.	88 - 108MC

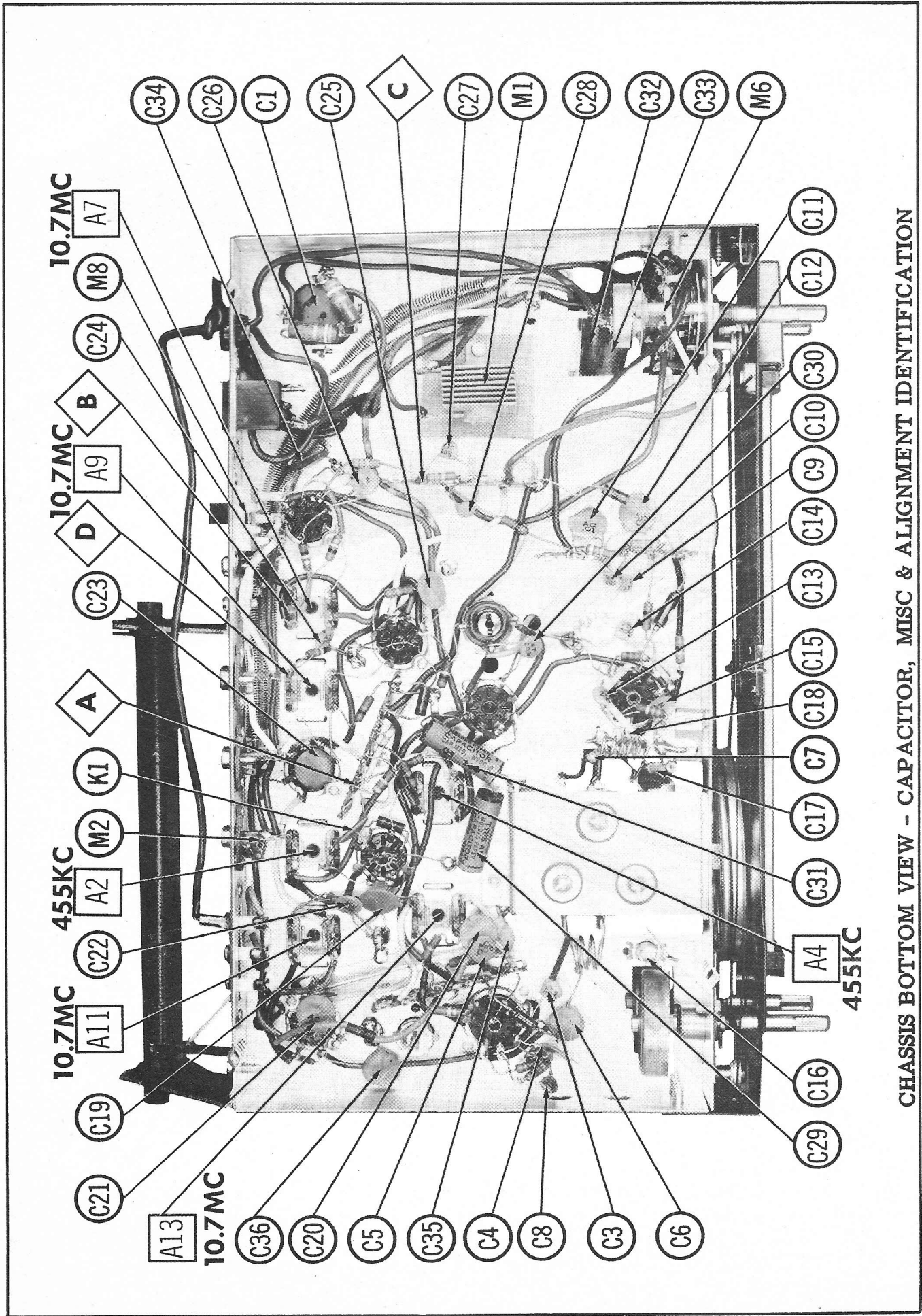
DIAL CORD STRINGING



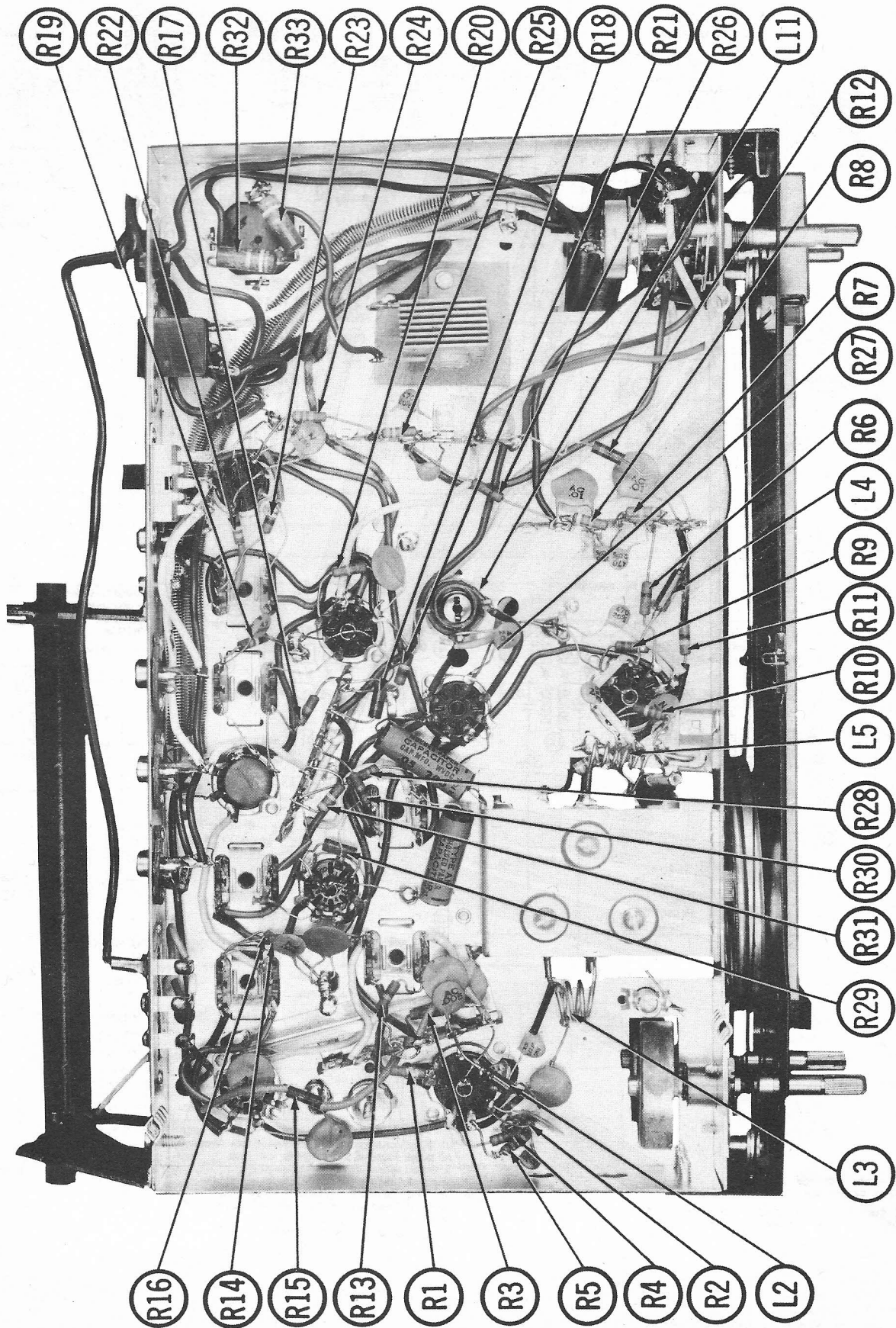
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

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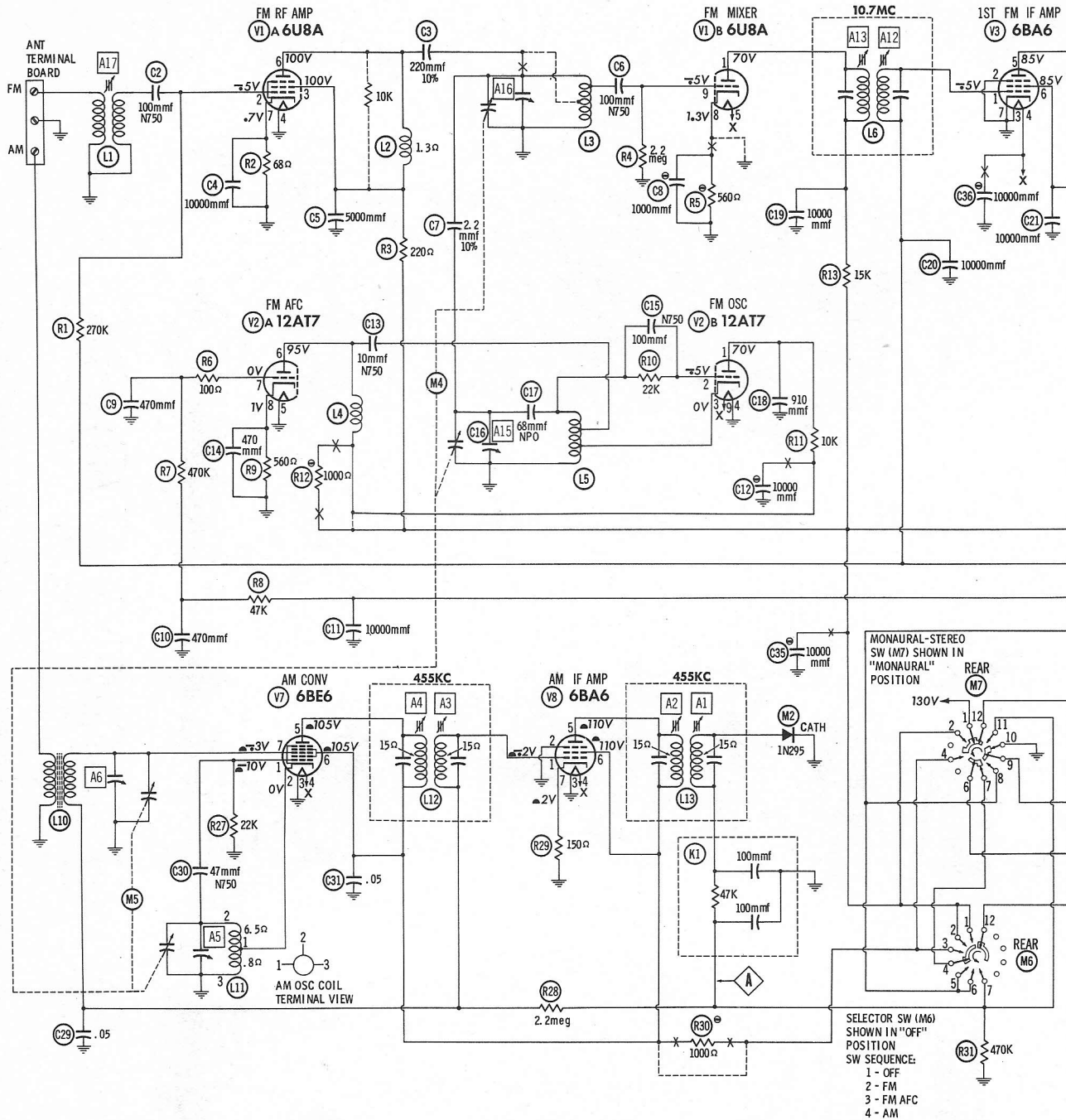


CHASSIS BOTTOM VIEW - CAPACITOR, MISC & ALIGNMENT IDENTIFICATION



CHASSIS BOTTOM VIEW - RESISTOR & INDUCTOR IDENTIFICATION

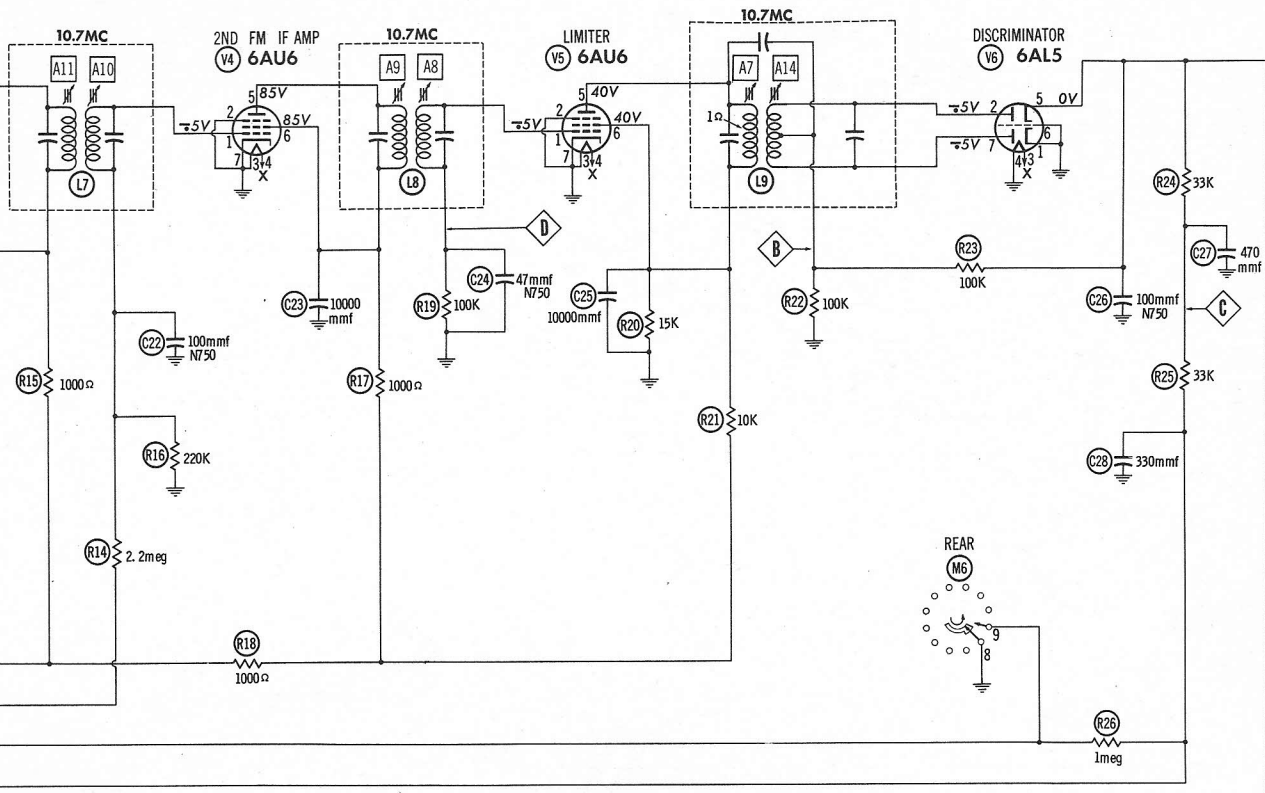
LAFAYETTE
MODEL LT-99



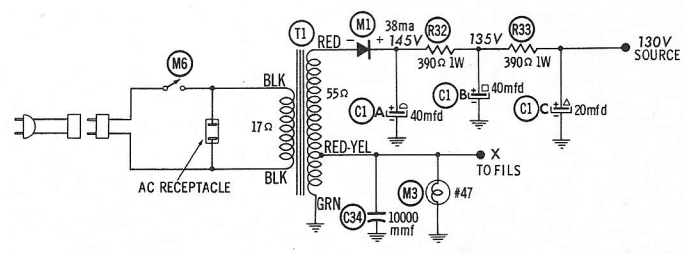
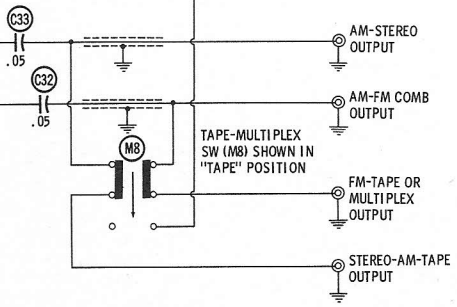
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

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

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltages measured at 1000 ohms per volt.
2. Socket connections are shown as bottom views.
3. Measured values are from socket pin to common negative.
4. Line voltage maintained at 117 volts for voltage readings.
5. Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
6. No signal applied for voltage measurements.



NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.



RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6U8A	†16K	2.7meg	†1000Ω	0Ω	.1Ω	†1000Ω	68Ω	560Ω	2.2meg
V2	12AT7	†12K	22K	0Ω	0Ω	0Ω	†1800Ω	•1.7meg	560Ω	.1Ω
V3	6BA6	2.4meg	0Ω	0Ω	.1Ω	†1800Ω	†1800Ω	0Ω		
V4	6AU6	220K	0Ω	0Ω	.1Ω	†2800Ω	†2800Ω	0Ω		
V5	6AU6	100K	0Ω	0Ω	.1Ω	†10K	†10K	0Ω		
V6	6AL5	0Ω	100K	.1Ω	0Ω	160K	0Ω	100K		
V7	6BE6	22K	.8Ω	0Ω	.1Ω	†.1800Ω	†.1800Ω	•2.7meg		
V8	6BA6	•2.7meg	0Ω	0Ω	.1Ω	†.1800Ω	†.1800Ω	150Ω		

† MEASURED FROM OUTPUT OF M1.
 ALL MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED.
 • MEASURED IN "AM" POSITION.
 • MEASURED IN "FM-AFC" POSITION.

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Stereo Switch at Monaural Position.

Suggested Alignment Tools..... Al thru A4, A7 thru A14..... GENERAL CEMENT #5097, 8727
 WALSCO #2515
 A5, A6, A16..... GENERAL CEMENT #5000, 5003, 5009, 8290
 WALSCO #2515, 2520, 2523, 2525, 2537
 A15..... GENERAL CEMENT #5003, 8721, 8722
 WALSCO #2512, 2519, 2525
 A17..... GENERAL CEMENT #5009, 8271, 8275, 8276, 8721, 8722
 WALSCO #2516, 2519

AM ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1. .01mfd.	High side to AM RF Stator lug on tuning gang. Low side to chassis.	455KC (400% Mod.)	AM	Point of non-interference	DC probe to point \diamond . Common to chassis.	A1, A2, A3, A4	Adjust for maximum deflection.
2.	Loop	1650KC	"	Tuning gang fully open	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	"	Tune to 1400KC signal	"	A6	"

FM IF ALIGNMENT USING AM SIGNAL GENERATOR & VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
4. .01mfd.	High side to FM RF Stator lug of tuning gang. Low side to chassis.	10.7MC (Unmod.)	FM	Point of non-interference	DC probe thru lmeq to point \diamond . Low side to chassis.	A7, A8, A9, A10, A11, A12, A13	Adjust for maximum deflection.
5.	"	"	"	"	DC probe thru lmeq to point \diamond . Low side to chassis.	A14	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR & OSCILLOSCOPE

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
4. .01mfd.	High side to FM RF Stator lug of tuning gang. Low side to chassis.	10.7MC (450KC Swp)	FM (No AFC)	Point of non-interference	Vert. amp thru lmeq to point \diamond . Low side to chassis.	A7, A8, A9, A10, A11, A12, A13	Adjust for curve of maximum amplitude and symmetry similar to Fig. 1.
5.	"	"	"	"	Vert. amp thru 27K to point \diamond . Low side to chassis.	A14	Adjust so that 10.7MC occurs at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A8 for maximum amplitude and straightness of crossover lines.

FM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
6. 270 Ω Carbon Resistor	Across FM antenna terminals with 270 Ω in high side.	108MC (Unmod.)	FM (No AFC)	108MC	DC probe to point \diamond . Low side to chassis.	A15	Adjust for maximum deflection.
7.	"	106MC	"	Tune to 106MC signal	"	A16	Adjust for maximum deflection while rocking tuning gang.
8.	"	90MC	"	Tune to 90MC signal	"	A17	Adjust for maximum deflection.

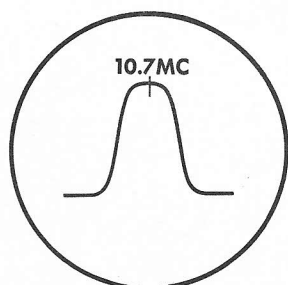


FIG. 1

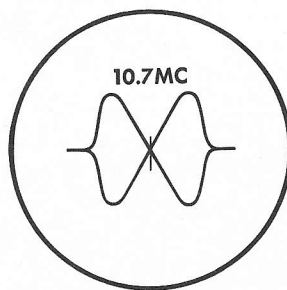


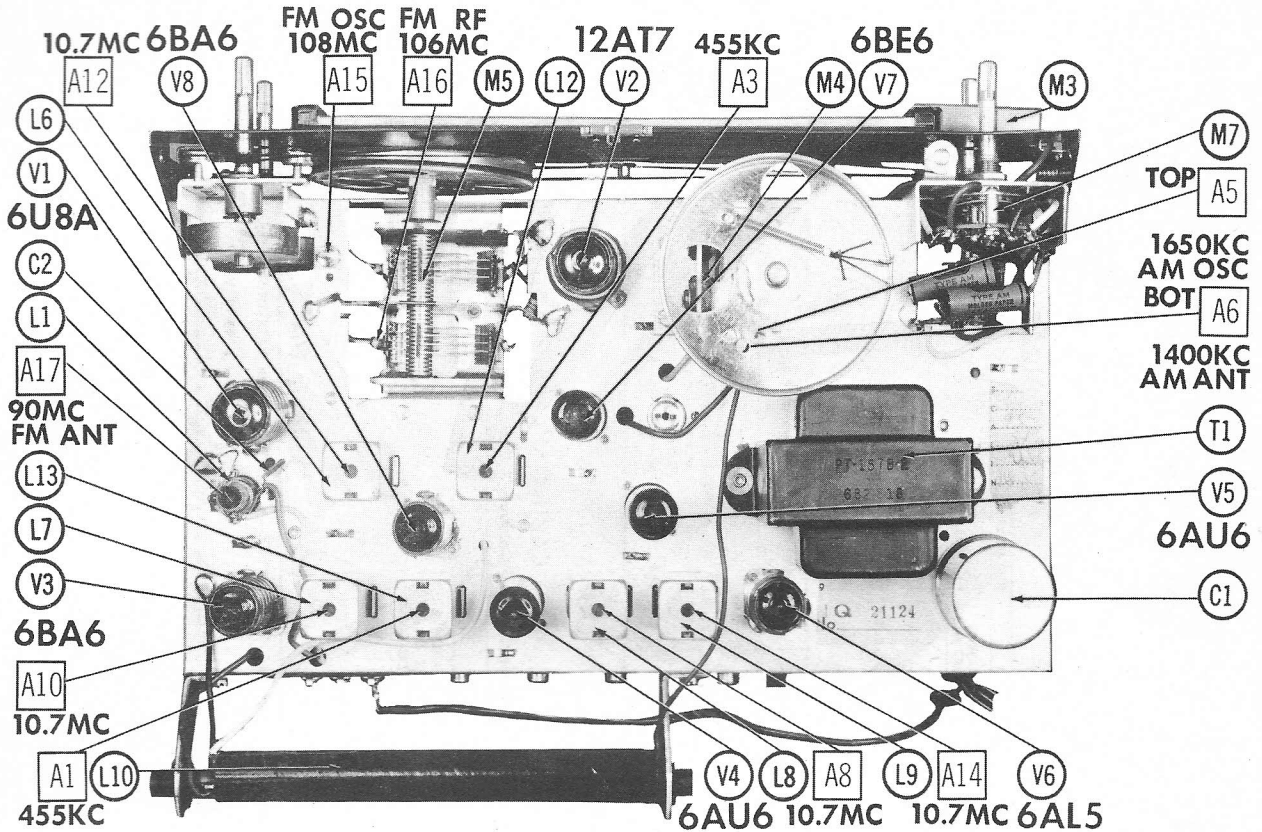
FIG. 2

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	FM RF Amp. - FM Mixer	6U8A	
V2	FM Osc. - FM AFC	12AT7	
V3	1st FM IF Amplifier	6BA6	
V4	2nd FM IF Amplifier	6AU6	

CHASSIS—TOP VIEW



ELECTROLYTIC CAPACITORS

ITEM No.	RATING		Lafayette PART No.	REPLACEMENT DATA		NOTES
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	
C1A	.40	200	E-212-4	C0150	FP318.74	
C1B	.40	200		BR3025	TMT-19	TYLS-3482.1*
C1C	.20	200			TD-30-250	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

FIXED CAPACITORS

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

ITEM No.	RATING		Lafayette PART No.	REPLACEMENT DATA		NOTES
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	
C2	100	N750	N750-DI 100	C10T10	CN7-310	
C3	220		NPO-SI 220	MD-221	JL-322	57CU-T1
C4	5000		BPD-01	DD-103	B-110	5GA-T225 10%*
C5	5000		BPD-005	DD-502	B-950	5GA-SI
C6	100	N750	N750-DI 100	DTN-100	CN7-310	5GA-D5
C7	2.2		NPO-SI 2.2	TCZ-2R2	CNO-522	57CCB-T22
C8	1000		BPD-001	DD-102	B-210	5GA-D1
C9	470		BPD-0047	DD-471	B-847	5GA-T47
C10	470		BPD-0047	DD-471	B-847	5GA-T47
C11	10000		BPD-01	DD-103	B-110	5GA-SI
C12	10000		BPD-01	DD-103	B-110	5GA-SI
C13	10	N750	N750-DI 10	DTN-10	CN7-410	57CU-Q1
C14	470	N750	BPD-00047	DD-471	B-347	5GA-T47
C15	100	N750	N750-DI 100	DTN-100	CN7-310	57CU-T1
C16	68	NPO	NPO-SI 68	TCZ-68	CNO-468	57CC-Q68
C17	68		BPD-01	DD-103	B-110	5GA-T9105*
C18	910		BPD-01	DD-103	B-110	5GA-SI
C19	10000		BPD-01	DD-103	B-110	5GA-SI
C20	10000		BPD-01	DD-103	B-110	5GA-SI
C21	10000		N750-DI 100	DTN-100	CN7-310	57CU-T1
C22	100	N750	BPD-01	DD-103	CN7-310	57CU-T1
C23	10000		BPD-01	DD-103	B-110	5GA-SI
C24	47	N750	N750-DI 47	DTN-47	CN7-447	57CU-Q47
C25	10000		BPD-01	DD-103	B-110	5GA-SI
C26	100	N750	N750-DI 100	DTN-100	CN7-310	57CU-T1
C27	470		BPD-00047	DD-471	B-347	5GA-T47
C28	330		P288N-05	DF-331	B-333	5GA-T33
C29	.05	200	P288N-05	DF-503	GEM-415	2TM-S5
C30	.05	200	N750-DI 47	C10Q47U	CN7-447	57CU-Q47
C31	.05	200	P288N-05	DF-503	GEM-415	2TM-S5
C32	.05	200	P288N-05	DF-503	GEM-415	2TM-S5
C33	.05	200	P288N-05	DF-503	GEM-415	2TM-S5
C34	10000		BPD-01	DD-103	B-110	5GA-SI
C35	10000		BPD-01	DD-103	B-110	5GA-SI
C36	10000		BPD-01	DD-103	B-110	5GA-SI

Ⓛ Not used in some versions.
 * Not normally in distributor's stock. Available thru distributor on order to manufacturer.

LAFAYETTE MODEL
 LT-99

FOLDER 8

PARTS LIST AND DESCRIPTIONS (Continued)

SELENIUM RECTIFIER

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA			NOTES
		Lafayette PART No.	FEDERAL PART No.	INTERNATIONAL PART No.	
M1	.038A	R837-2	1235AH	T100 SD-94 ①	① Silicon Type ② Add 10Ω Resistor in series

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		Lafayette PART No.	CBS PART No.	SYLVANIA PART No.	
M2	1N295		1N60	1N295	AM Detector (Pigtail)

MISCELLANEOUS

ITEM No.	PART NAME	Lafayette PART No.	NOTES
M3	Lamp		
M4	Tuning Cap.	V222B-3	#47 FM, 2 Gang
M5	Tuning Cap.	V217-5	AM, 2 Gang (Ant. 11-241mmf, Osc. 8-108mmf)
M6	Switch	8089-3	Function Selector (4 Position Rotary, Water Type With Rotary, Snap Type, On-Off)
M7	Switch	ES-836-2	Stereo-Monaural (Rotary, Water Type)
M8	Switch		Tape-Multiplex (DPDT, Slide Type)

CABINETS & CABINET PARTS

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

NAME	PART NO.	DESCRIPTION
Knob	K-483-2	Tuning, 2 Used
Knob	K-482-1	Function Selector, Stereo-Monaural
Dial Scale	DG-604-3	

WIRING DATA

General-use Unshielded Hook-up Wire Use BELDEN No. 8530 (Solid) Available in Ten Colors
8524 (Stranded) Available in Ten Colors
Power Cord Use BELDEN No. 1765-B (6 Ft. Length)
1725-K (7½ Ft. Length)

RESISTORS

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

ITEM No.	RATING OHMS	WATT	Lafayette PART No.	NOTES
R1	270K			
R2	68K			
R3	220K			
R4	2.2meg			
R5	560K			Note 1
R6	100K			
R7	470K			
R8	47K			
R9	560K			
R10	22K			
R11	10K			
R12	1000K			
R13	15K			
R14	2.2meg			Note 1
R15	1000K			
R16	220K			
R17	1000K			

Note 1. Not used in some versions.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	Lafayette PART No.	REPLACEMENT DATA
K1	AM Diode RF Filter	100mmf, 100mmf, 47K		Aerovox Centralab Cornell-Dubilier IITMI Sprague DI

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		Lafayette PART No.	Meissner PART No.	Merit PART No.	Miller PART No.	
L1	FM Ant. Coil	1102-3		SW-631		
L2	RF Choke	1104-4				
L3	FM RF Coil	1100-3				
L4	RF Choke	1104-3		19-1002	4606	
L5	FM Osc. Coil	0-156-3				
L6	1st FM IF Trans.	1038B-5		FM-254	1463	4.7 Microhenries
L7	2nd FM IF Trans.	1038B-5		FM-254	1463	2.7 Microhenries
L8	3rd FM IF Trans.	1038B-5		FM-254	1463	
L9	Discriminator	1038B-2		FM-253	1464	
L10	Loopstick	L-155B-7				
L11	AM Osc. Coil	1101C-5		BC-393	12-C1	RF1
L12	1st AM IF Trans.	I-110		BC-352	12-C2	RF2
L13	2nd AM IF Trans.	I-110		BC-353		

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA			
		Lafayette PART No.	Holderson PART No.	Merit PART No.	Stancor PART No.
T1	117V @ 120V Tap @ .038A .365A				