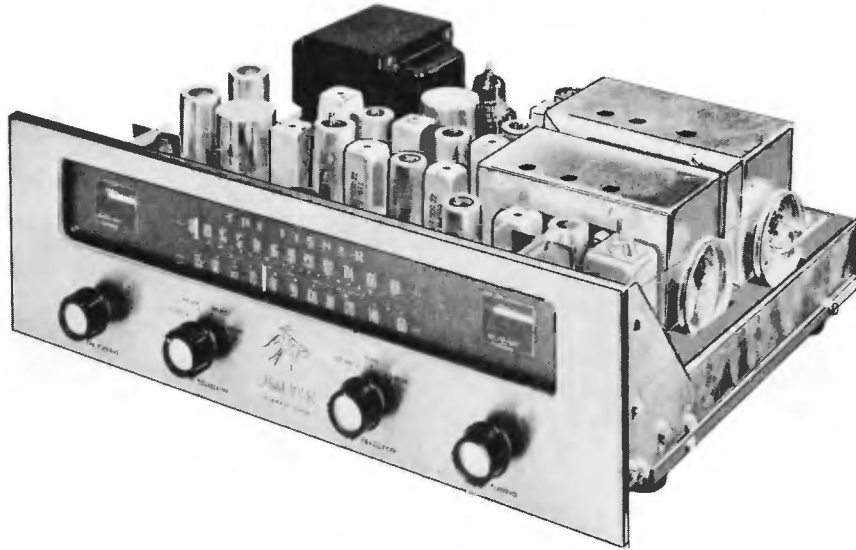




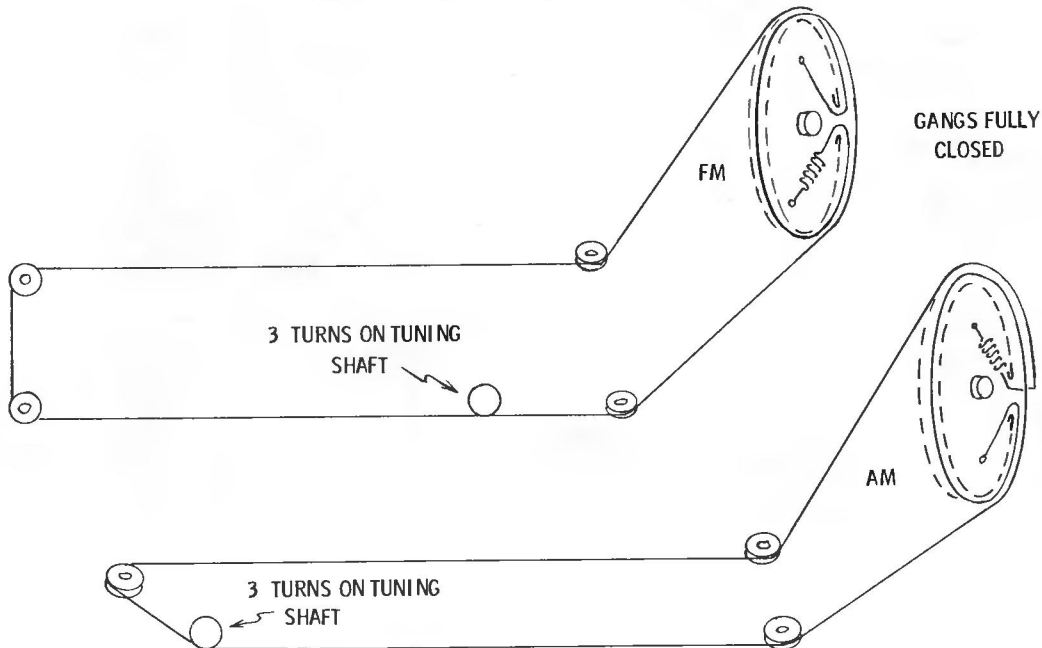
FISHER MODEL
101-R



TRADE NAME	Fisher Model 101-R		
MANUFACTURER	Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.		
TYPE SET	AC Operated 15 Tube FM-AM Tuner		
POWER SUPPLY	105-125 Volts AC, 50-60 Cycles	RATING	80 Watts, .74 Amp. @117 Volts AC
TUNING RANGE—BROADCAST	515-1680KC	FREQ. MOD.	88-106MC

FISHER MODEL
101-R

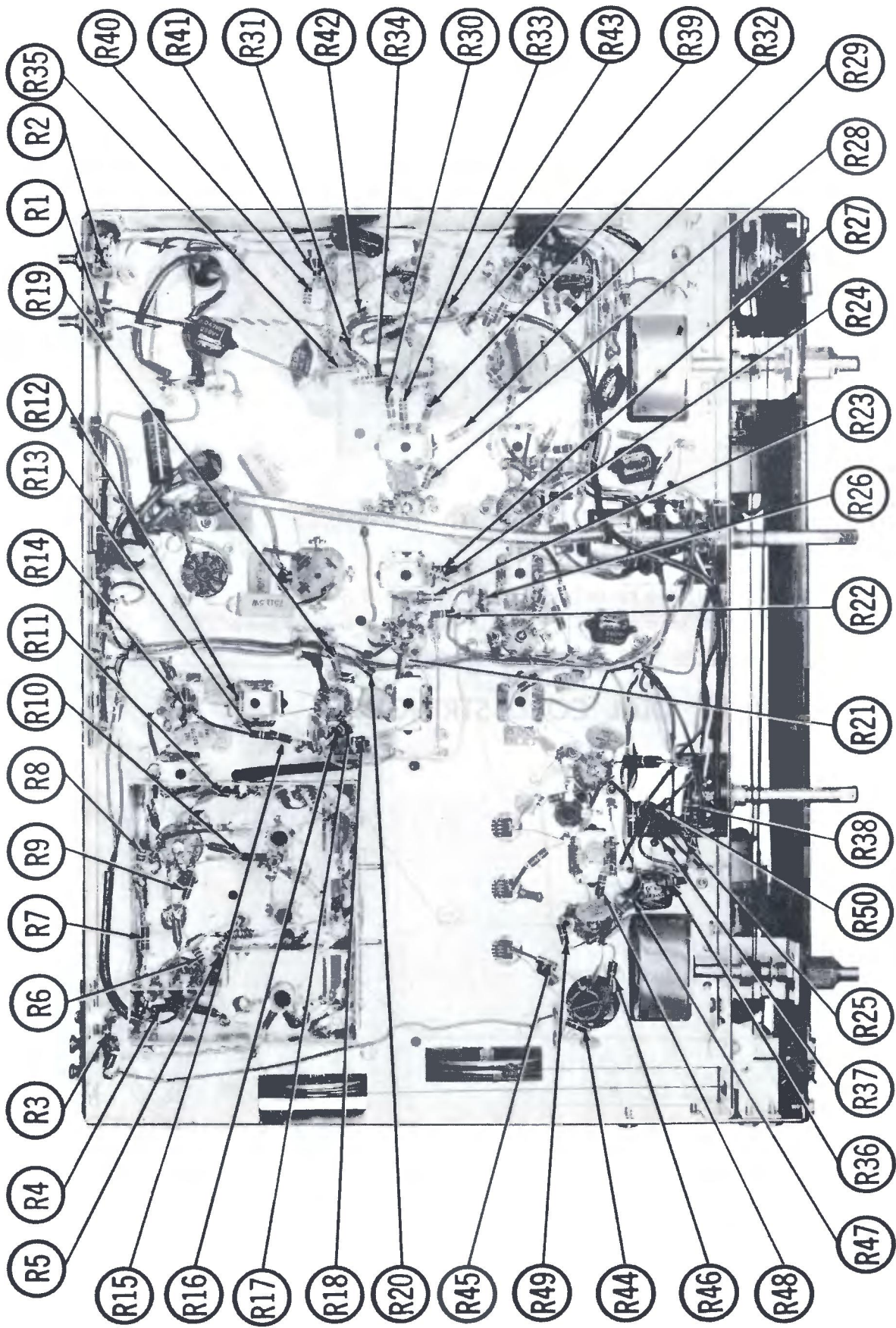
DIAL CORD STRINGING



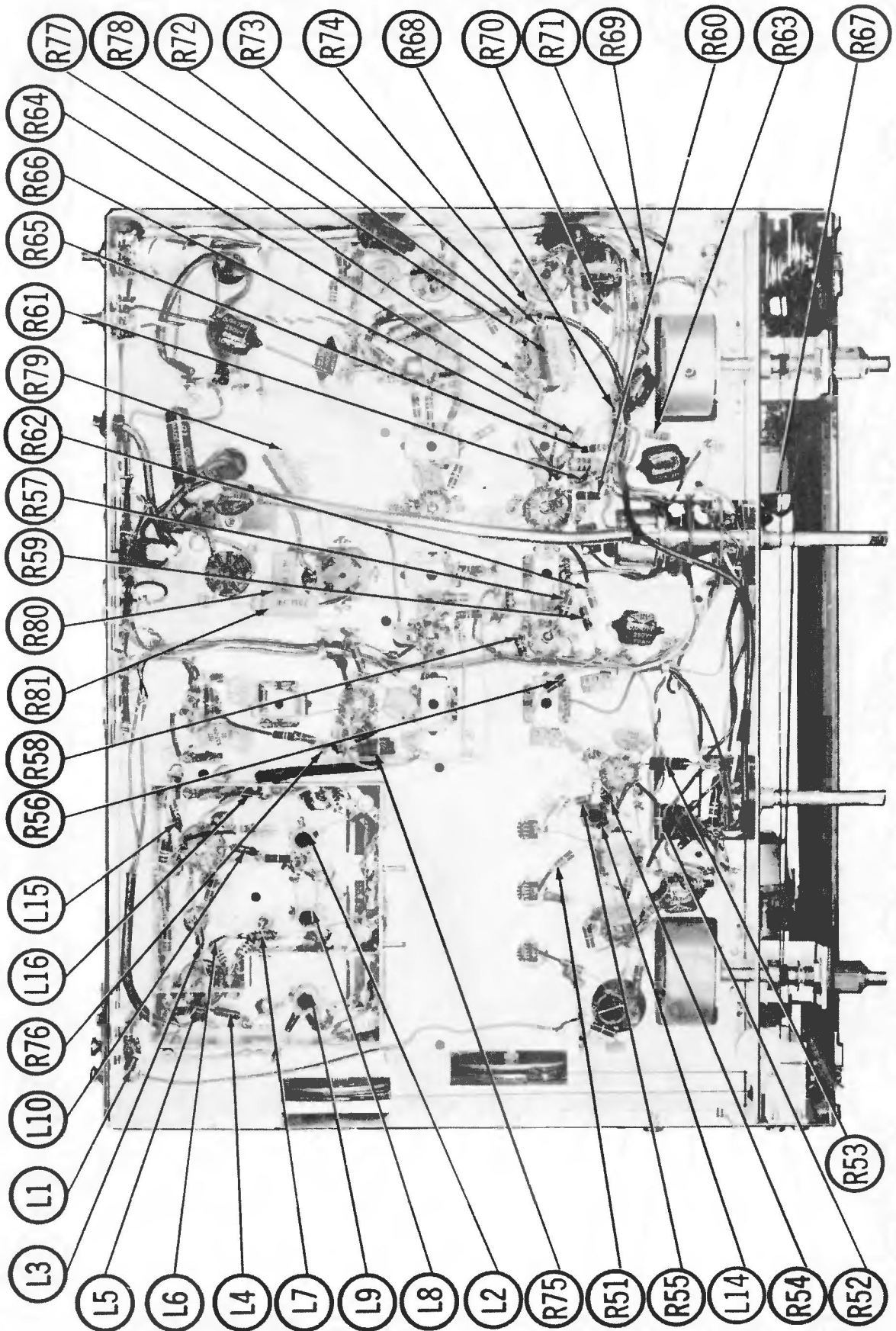
HOWARD W. SAMS & CO., INC. Indianapolis 6, Indiana

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of J10

the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. © 1959 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana. Printed in U.S. of America

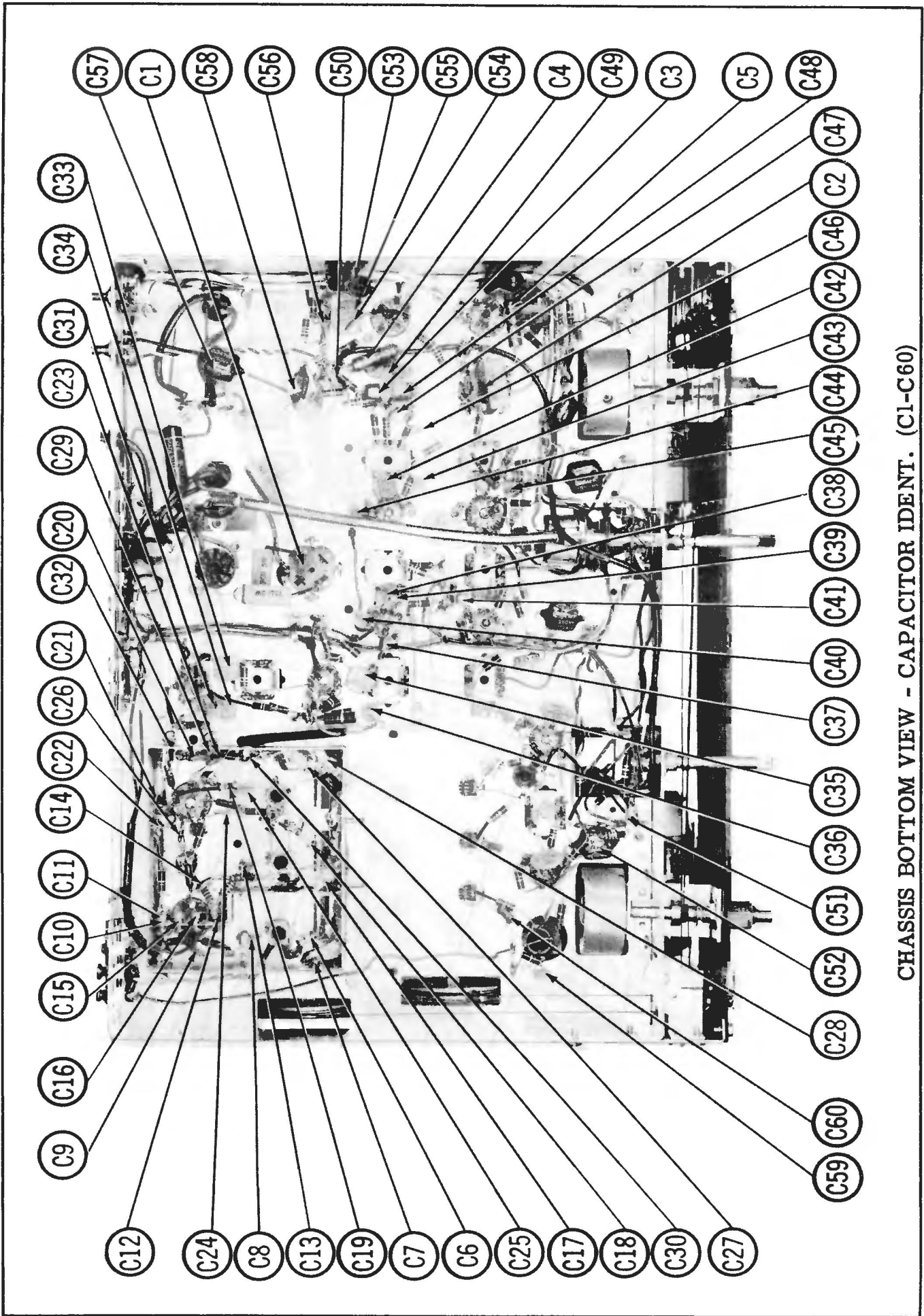


CHASSIS BOTTOM VIEW - RESISTOR IDENT. (R1-R50)

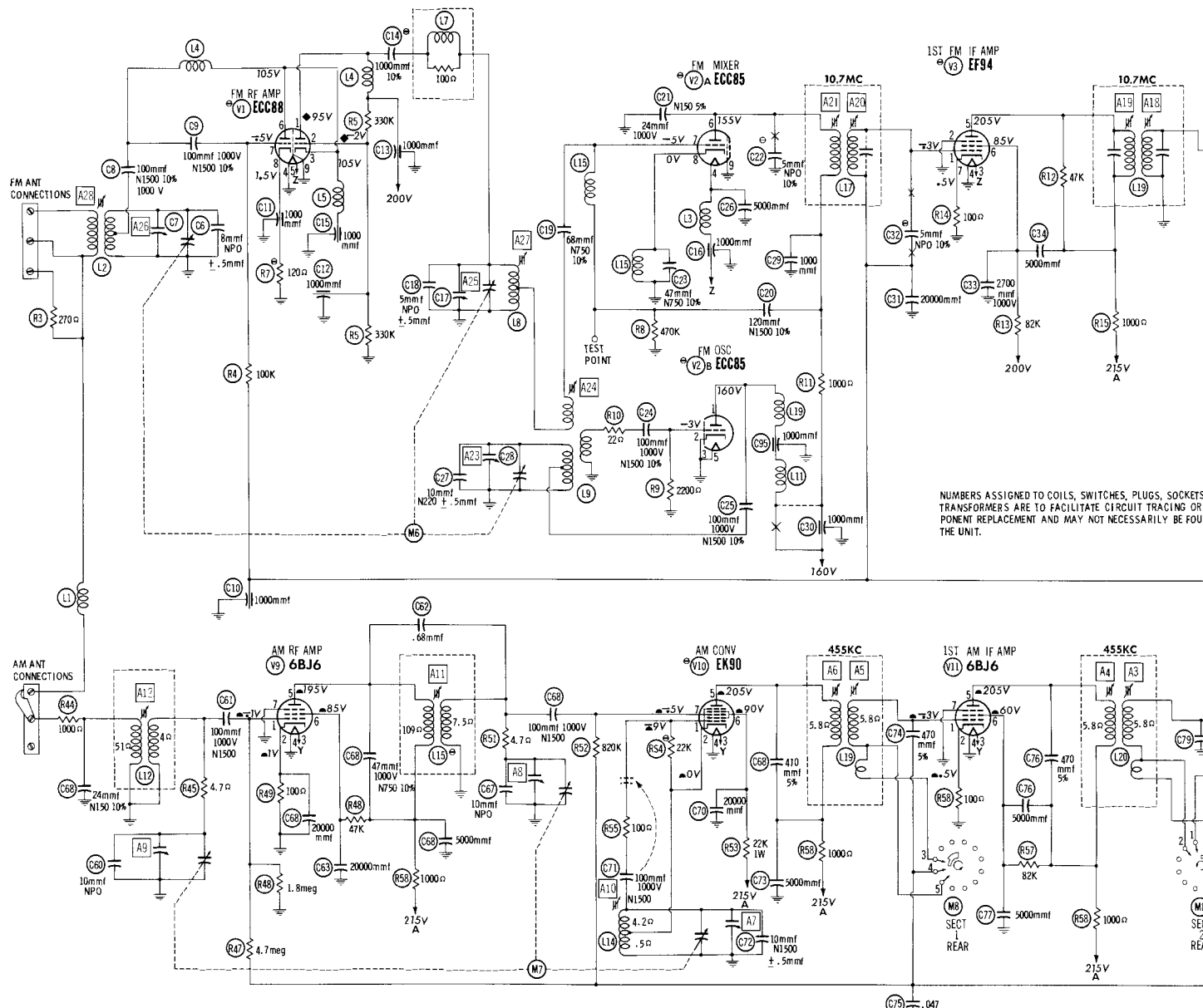


CHASSIS BOTTOM VIEW - INDUCTOR & RESISTOR IDENT. (R51-R81)

FISHER
MODEL L101-R



CHASSIS BOTTOM VIEW - CAPACITOR IDENT. (C1-C60)



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

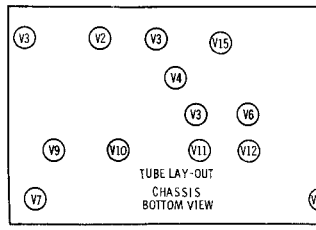
- DC voltage measurements taken with vacuum tube voltmeter, AC voltages measured at 1000 ohms per volt.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

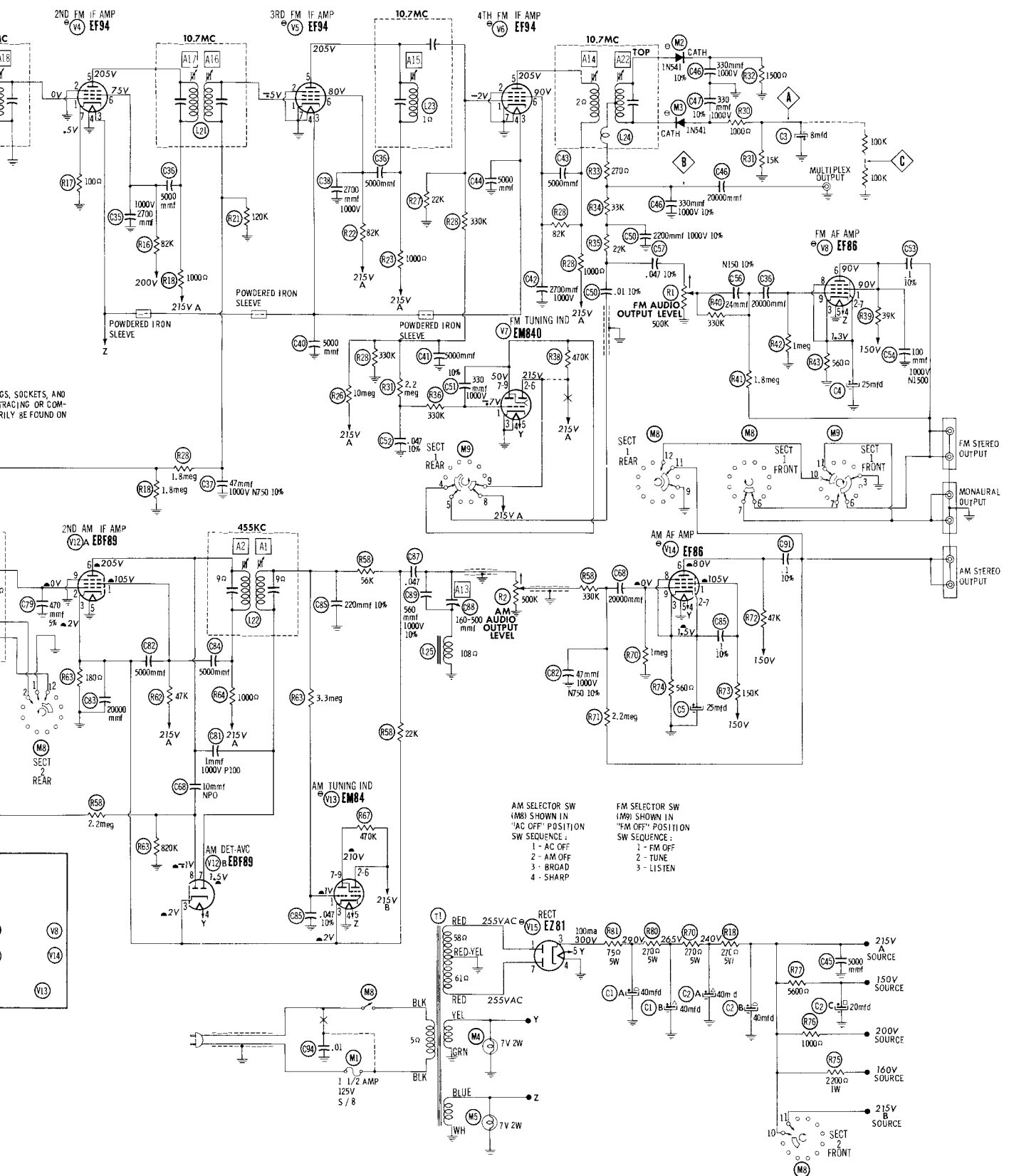
SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION
 DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM
 ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

RESISTANCE READINGS

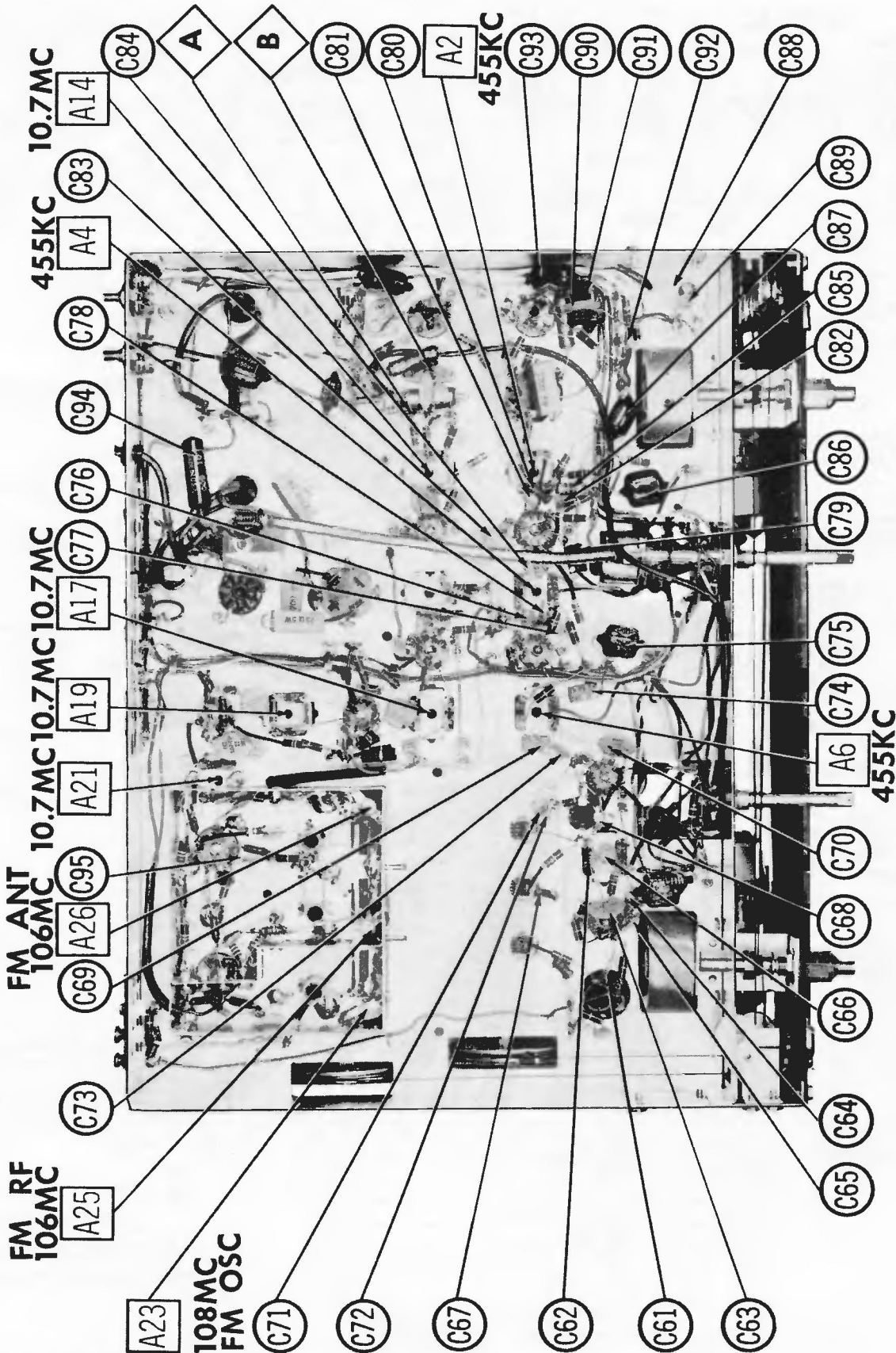
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	ECC88 6DJ8	11900 Ω	230K	1N Ω	0 Ω	.1 Ω	1N Ω	1.1meg	120 Ω	0 Ω
V2	ECC85	13100 Ω	2200 Ω	0 Ω	.1 Ω	0 Ω	*4100 Ω	470K	.1 Ω	0 Ω
V3	EF94 6AU6	1meg	0 Ω	.1 Ω	0 Ω	11900 Ω	*83K	100 Ω		
V4	EF94 6AU6	.7 Ω	0 Ω	.1 Ω	0 Ω	*1900 Ω	*83K	100 Ω		
V5	EF94 6AU6	120K	0 Ω	.1 Ω	0 Ω	*1900 Ω	*83K	0 Ω		
V6	EF94 6AU6	22K	0 Ω	.1 Ω	0 Ω	*1900 Ω	*83K	0 Ω		
V7	EN840	2.7meg	900 Ω	0 Ω	0 Ω	.1 Ω	1900 Ω	*470K	+900 Ω	*470K
V8	EF86 6267	*145K	560 Ω	560 Ω	.1 Ω	0 Ω	*145K	560 Ω	560 Ω	1meg
V9	68J6	*1.4meg	100 Ω	.1 Ω	0 Ω	*11900 Ω	*148K	0 Ω		
V10	EK90 6BE6	22K	.5 Ω	.1 Ω	0 Ω	*11900 Ω	*123K	*3meg		
V11	68J6	*2meg	100 Ω	.1 Ω	0 Ω	*11900 Ω	*184K	0 Ω		
V12	EBF89	*148K	.58 Ω	180 Ω	.1 Ω	0 Ω	*11900 Ω	*78K	*500 Ω	0 Ω
V13	EN84	*3.2meg	*900 Ω	180 Ω	0 Ω	.1 Ω	*1900 Ω	*470K	NC	*1470K
V14	EF86 6267	*155K	560 Ω	560 Ω	.1 Ω	0 Ω	*153K	560 Ω	560 Ω	1meg
V15	EZ81 6CA4	58 Ω	NC	4 Ω	0 Ω	.1 Ω	NC	61 Ω	NC	NC

ALL MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED.
 * MEASURED IN "AM" POSITION.
 † THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 ‡ MEASURED FROM PIN 3 OF V15.
 § MEASURED FROM PIN 3 OF V1.
 NC NO CONNECTION





FISHER MODEL 101-R



CHASSIS BOTTOM VIEW - ALIGN. & CAPACITOR IDENT. (C61-C95)

FISHER
MODEL 101-R

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. Suggested alignment tools: A1 thru A6, A15 thru A21..... GENERAL CEMENT #5097, 8727

- WALSCO #2515
 A7, A8, A9..... GENERAL CEMENT #5004, 5008, 5009
 WALSCO #2520
 A10 thru A13..... GENERAL CEMENT #8271, 8273, 8275, 8276, 8721, 8722, 9150, 9298, 5003
 WALSCO #2516, 2519
 A14, A22, A24, A28..... GENERAL CEMENT #8606, 8606L, 8282, 9295
 WALSCO #2526, 2543, 2544, 2545
 A23, A25, A26, A27..... GENERAL CEMENT #5000, 5003, 8276, 8290
 WALSCO #2512, 2525

AM ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .01mfd.	High side to pin 7 (grid) of 6BE6 (V10). Low side to chassis.	455KC (400 v Mod.)	AM (Sharp)	Point of non-interference	Across AM output jack	A1, A2, A3, A4, A5, A6	Adjust for maximum output.
2. 200mmf.	High side to AM antenna terminal. Low side to chassis.	1600KC	"	1600KC	"	A7, A8, A9	"
3. "	"	600KC	"	600KC	"	A10, A11, A12	"
4. "	High side to pin 2 (grid) of EBF89 (V12). Low side to chassis.	10KC	"	"	"	A13	Adjust for <u>MINIMUM</u> output.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR & VTVM

Connect two matched 100K ($\pm 1\%$) resistors in series from point \diamond to chassis. The junction of these two resistors is alignment point \diamond as shown on the schematic.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
5. .01mfd.	High side to pin 7 (grid) of 6AQ8 (V2). Low side to chassis.	10.7MC (Unmod.)	FM	Point of non-interference	DC probe to point \diamond . Common to chassis.	A14, A15, A16, A17, A18, A19, A20, A21	Adjust for maximum deflection.
6. "	"	"	"	"	DC probe to point \oplus . Common to point \diamond .	A22	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

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120v sawtooth voltage in scope for horizontal deflection.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
5. .01mfd.	High side to pin 7 (grid) of 6AQ8 (V2). Low side to chassis.	10.7MC (Unmod.)	FM	Point of non-interference	Vert. amp to point \diamond . Low side to chassis.	A14, A15, A16, A17, A18, A19, A20, A21	Disconnect stabilizing capacitor C3. Adjust for curve of maximum amplitude and symmetry similar to Fig. 1.
6. "	"	"	"	"	Vert. amp. to point \oplus . Low side to chassis.	A22	Reconnect stabilizing capacitor C3. Adjust so that 10.7MC occurs at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A14 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
7. Two 120 Ω Carbon Resistors	Across FM antenna terminals with 120 Ω in each lead.	108MC (45KC Swp.)	FM	108MC	DC probe to point \diamond . Common to chassis.	A23	Adjust for maximum deflection.
8. "	"	88MC	"	88MC	"	A24	"
9. "	"	106MC	"	106MC	"	A25, A26	"
10. "	"	90MC	"	90MC	"	A27, A28	"

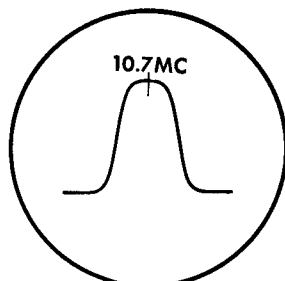


FIG. 1

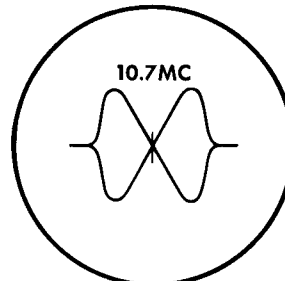
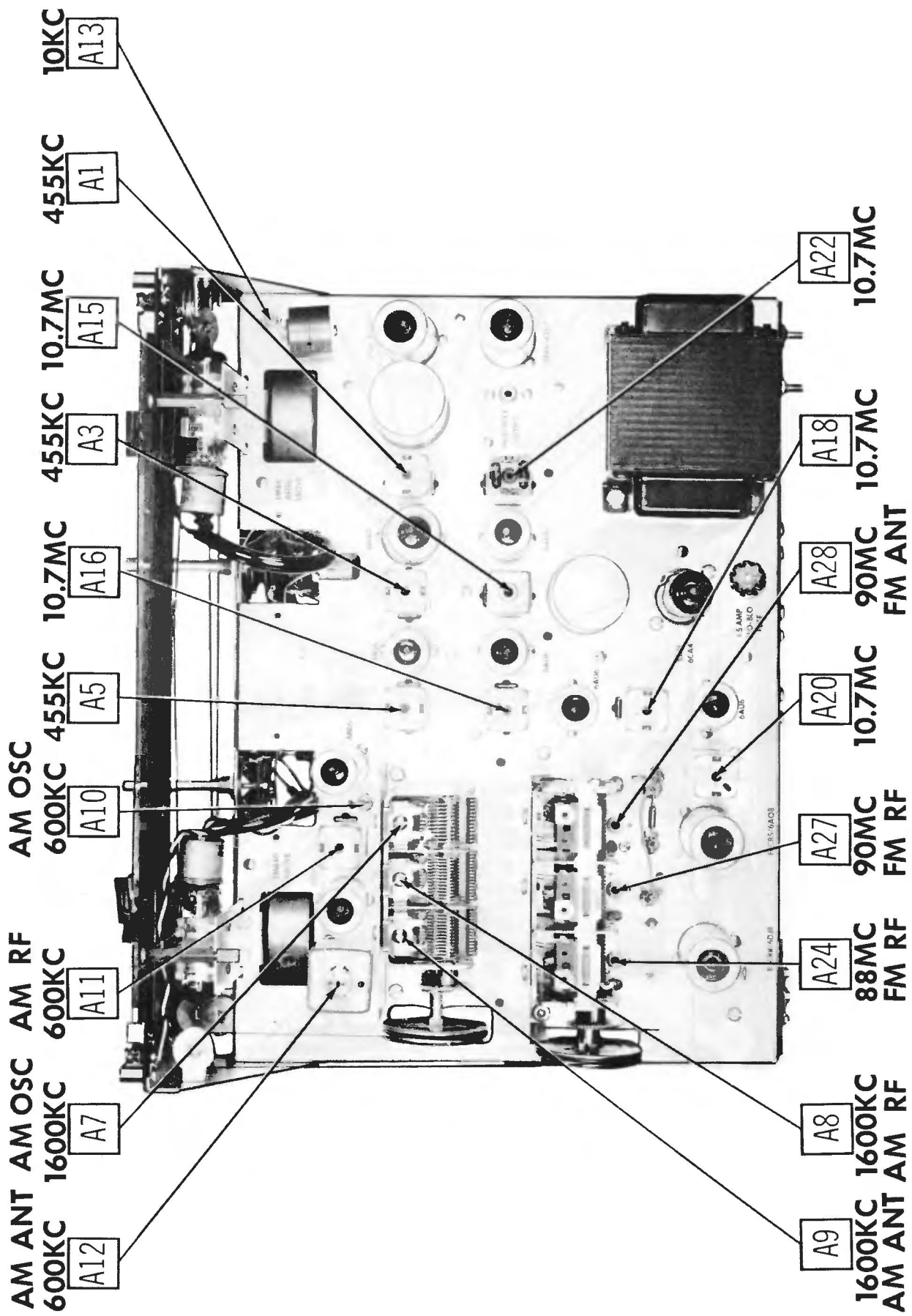
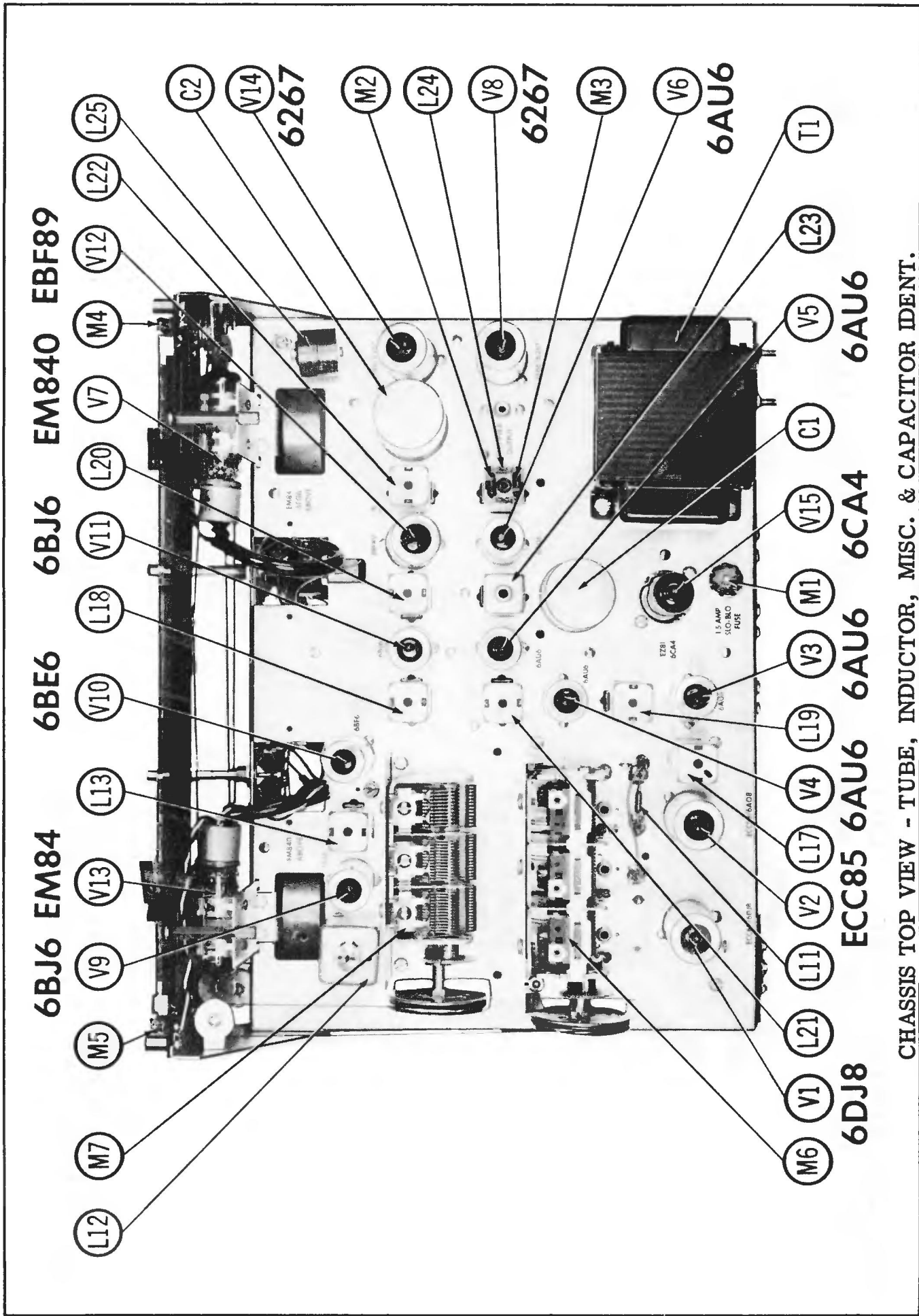


FIG. 2



CHASSIS TOP VIEW - ALIGNMENT IDENT.

FISHER
MODEL 101-R



CHASSIS TOP VIEW - TUBE, INDUCTOR, MISC. & CAPACITOR IDENT.

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE
V1	FM RF Amplifier	ECC88/8DJ8
V2	FM Mixer-FM Osc.	ECC85/8AQ8
V3	1st FM IF Amplifier	EF94/8AU6
V4	2nd FM IF Amplifier	EF94/8AU6
V5	3rd FM IF Amplifier	EF94/8AU6
V6	4th FM IF Amplifier	EM84/6FC6
V7	FM Tuning Indicator	EM84/6287
V8	FM AF Amplifier	EZ8/8CA4

ITEM No.	USE	TYPE
V9	AM RF Amplifier	6BJ6
V10	AM Converter	EK90/8BE6
V11	1st AM IF Amp.	6BJ6
V12	2nd AM IF Amp.-AM	
V13	Det. -AVC	EF989
V14	AM AF Amplifier	EM84/6FC6
V15	Rectifier	EF86/8287

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	CAP.	VOIT.	FISHER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C1A	40	350	C684-122	FP176	TVLS-2764.1*	
C1B	40	300	C684-119	TC78	TVLS-3580.5*	
C2A	40	300	C684-119	FP217.26		
C2B	40	300	C684-119	TC55		
C2C	20	250		TC41		
C3	8	50	C629-13B	BBR8-150	TVA-1405	
C4	25	6	C639-114	BBR25-6	TVA-1205	
C5	25	6	C639-114	BBR25-6	TVA-1205	

* 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 mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	CAP.	VOIT.	FISHER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C6	8	NPO ±.5mmf	CC20CJ080D5		5TCCB-V8S±.5mmf*	
C7	100	N1500 10%	C662-123			
C8	100	N1500 10%	C50070-4			
C9	100	N1500 10%	C50070-4			
C10	1000		C592-187			
C11	1000		EF-001			
C12	1000		EF-001			
C13	1000		C592-187			
C14	1000	10%	C592-187			
C15	1000		C50072-3			
C16	1000		C592-187			
C17	5	NPO ±.5mmf	C662-123			
C18	68	CC20CJ050D5				
C19	68	N750 10%	CC20UJ680K5			
C20	120	N1500 10%	C50070-9			
C21	24	N150 5%	C50070-8			
C22	5	NPO 10%	C50070-4			
C23	47	N750 10%	C50070-6			
C24	100	N1500 10%	C50070-6			
C25	100	N1500 10%	C50070-6			
C26	5000		C50089-1			
C27	10	N220±.5mmf	CC20RH100D5			
C28	1000		C662-123			
C29	1000		C50072-3			
C30	1000		C592-187			
C31	20000		C50089-4			
C32	5	NPO 10%	C50089-4			
C33	2700	1000	C50071-5			
C34	5000	1000	C50071-5			
C35	2000	1000	C50071-5			
C36	5000	1000	C50089-1			
C37	47	1000	C50070-4			
C38	2700	1000	C50071-5			
C39	5000		C50089-1			

CAPACITORS (cont)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	CAP.	VOIT.	FISHER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C40	5000		C50089-1			
C41	5000		C50089-1			
C42	2700	1000	C50071-5			
C43	5000		C50089-1			
C44	5000		C50089-1			
C45	5000		C50089-1			
C46	330	1000	C50072-1			
C47	330	1000	C50072-1			
C48	330	1000	C50072-1			
C49	20000		C50089-4			
C50	2200	1000	C50072-5			
C51	330	1000	C50072-1			
C52	947	250	C50074-27			
C53	1	250	C50074-28			
C54	100	1000	C50070-5			
C55	20000		C50089-4			
C56	24	250	C50070-8			
C57	.047	250	C50074-27			
C58	.01	250	C50074-25			
C59	24	N150 10%	C50074-25			
C60	10	NPO	CC20CH100G5			
C61	100	1000	C50070-5			
C62	.68		C50077-6N			
C63	20000		C50089-4			
C64	5000		C50089-4			
C65	20000		C50089-4			
C66	47	1000	C50070-4			
C67	100	NPO	CC20CH100G5			
C68	100	1000	C50070-5			
C69	470	5%	C3334			
C70	20000		C50089-4			
C71	100	1000	C50070-5			
C72	10	N1500±.5mmf	CC20VLC00D5			
C73	5000	5%	C50089-1			
C74	470	10%	C3334			
C75	470	250	C50074-27			
C76	500	5%	C3334			
C77	500		C50089-1			
C78	500		C3334			
C79	470	5%	C3334			
C80	10	NPO	CC20CH100G5			
C81	1	P100	C50070-1			
C82	5000		C50089-1			
C83	20000		C50089-4			
C84	5000		C50089-1			
C85	200	10%	CC20G210K5			
C86	.047	250	C50074-27			
C87	.047	250	C50074-27			
C88	160-500		C829-151-5			
C89	580	1000	C50089-4			
C90	20000		C50089-4			
C91	.1	250	C50074-28			
C92	47	1000	C50070-4			
C93	.1	250	C50074-28			
C94	.01	600	C592-187			
C95	1000		C592-187			

① Some versions may use 5000mmf in this application (Part #C50089-1).

② Not used in some versions.

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

CONTROLS

ITEM No.	RATING			REPLACEMENT DATA			INSTALLATION NOTES
	RESIST. ANCE	WATTS		FISHER PART No.	MALLORY PART No.	SPRAGUE PART No.	
R1	500K			JP-504			FM Audio Output Level
R2	500K			JP-504			AM Audio Output Level

FISHER MODEL 101-R

FOLDER 8

PARTS LIST & DESCRIPTION (continued)

RESISTORS

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

ITEM No.	RATING		FISHER PART No.	NOTES	ITEM No.	RATING		FISHER PART No.	NOTES
	OHMS	WATT				OHMS	WATT		
R3	2702		RC20BF271K		R43	5002	RC20BF501K		
R4	100K		RC20BF104K		R44	10003	RC20BF102K		
R5	330K		RC20BF334K		R45	4.72	RC20BF472K		
R6	330K		RC20BF334K		R46	1.8meg	RC20BF185K		
R7	1203		RC20BF121K		R47	4.7meg	RC20BF475K		
R8	470K		RC20BF474K		R48	47K	RC20BF475K		
R9	22002		RC20BF222K		R49	1002	RC20BF101K		
R10	223		RC20BF223K		R50	10003	RC20BF102K		
R11	10003		RC20BF103K		R51	4.72	RC20BF472K		
R12	47K		RC20BF473K		R52	620K	RC20BF624K		
R13	62K		RC20BF623K		R53	22K	RC20BF223K		
R14	1002		RC20BF102K		R54	22K	RC20BF223K		
R15	10002		RC20BF102K		R55	1002	RC20BF101K		
R16	82K		RC20BF823K		R56	10002	RC20BF102K		
R17	1002		RC20BF101K		R57	62K	RC20BF623K		
R18	10002		RC20BF102K		R58	1002	RC20BF101K		
R19	1.8meg		RC20BF185K		R59	10002	RC20BF102K		
R20	1.8meg		RC20BF185K		R60	2.2meg	RC20BF225K		
R21	120K		RC20BF124K		R61	620K	RC20BF624K		
R22	62K		RC20BF623K		R62	47K	RC20BF473K		
R23	10002		RC20BF102K		R63	1802	RC20BF181K		
R24	330K		RC20BF334K		R64	10002	RC20BF102K		
R25	330K		RC20BF334K		R65	3.9meg	RC20BF395K		
R26	10meg		RC20BF108K		R66	56K	RC20BF563K		
R27	22K		RC20BF223K		R67	470K	RC20BF474K		
R28	62K		RC20BF623K		R68	22K	RC20BF223K		
R29	10002		RC20BF102K		R69	330K	RC20BF334K		
R30	10002		RC20BF102K		R70	1meg	RC20BF105K		
R31	15K		RC20BF152K		R71	2.2meg	RC20BF223K		
R32	15002		RC20BF152K		R72	47K	RC20BF473K		
R33	2702		RC20BF271K		R73	150K	RC20BF154K		
R34	33K		RC20BF333K		R74	5602	RC20BF561K		
R35	22K		RC20BF223K		R75	22002	RC20BF222K		
R36	330K		RC20BF334K		R76	10002	RC20BF102K		
R37	2.2meg		RC20BF225K		R77	56002	RC20BF562K		
R38	470K		RC20BF474K		R78	2702	R684-141		
R39	39K		RC20BF393K		R79	2702	R684-141		
R40	330K		RC20BF334K		R80	2702	R684-141		
R41	1.8meg		RC20BF185K		R81	752	R684-140		
R42	1meg		RC20BF105K						

① Some versions may use 12002 in this application (Part #RC20BF122K).

② Some versions may use 33K in this application (Part #RC20BF333K).

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				FISHER PART No.	NOTES
		Gramer PART No.	Meissner PART No.	Miller PART No.	Ram PART No.		
L1	FM Ant. Coil						
L2	FM Ant. Trans.						
L3	FIL Choke						
L4	RF Choke						
L5	Cathode Choke						
L6	RF Choke						
L7	RF Choke						
L8	FM RF Coil						
L9	FM Osc. Coil						
L10	RF Choke						
L11	RF Choke						
L12	AM Ant. Trans.						
L13	AM RF Coil						
L14	AM Osc. Coil						
L15	RF Choke						
L16	Cathode Choke						
L17	1st FM IF Trans.						
L18	1st AM IF Trans.						
L19	2nd FM IF Trans.						
L20	2nd AM IF Trans.						

COILS (cont)

ITEM No.	USE	REPLACEMENT DATA				FISHER PART No.	NOTES
		Gramer PART No.	Meissner PART No.	Miller PART No.	Ram PART No.		
L21	3rd FM IF Trans.						
L22	3rd AM IF Trans.						
L23	FM Limiter						
L24	Ratio Detector						
L25	10KC Filter						

① Alternate Part #L670-151

TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA				FISHER PART No.	NOTES
		SEC. 1	SEC. 2	SEC. 3	SEC. 4		
T1	510 VCT						
	1.74A						
	6.3V @ 2.5A						
	2.6A						

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA		BUSS PART No.	NOTES
			FISHER PART No.	HOLDER		
M1	3AG	1 1/2A 125V S/B	F684-143	342012	MDL 1 1/2	HKP-CC

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		FISHER PART No.	CBS PART No.	SYLVANIA PART No.	FUSE HOLDER	
M2	IN541*	IN636	IN636	IN295	FM Detector (Pigtail)	Matched
M3	IN541*	IN638	IN638	IN295	FM Detector (Pigtail)	Matched

* Some versions may use IN542 in this application (Part #V-IN542).

MISCELLANEOUS

ITEM No.	PART NAME	FISHER PART No.	NOTES
M4	Lamp	150082	7V, 2W
M5	Lamp	150082	7V, 2W
M6	Tuning Cap.	C662-113	FM, 3 Gang
M7	Tuning Cap.	C664-127	AM, 3 Gang (Ant. 10-505mmf, RF 10-503mmf, Osc. 7-136mmf)
M8	Switch	S684-123	AM Selector (4 Position, Rotary Wafer Type) Includes Power On-Off (SPST, Snap Type)
M9	Switch	S684-120	FM Selector (3 Position, Rotary Wafer Type)

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 (7 1/2 Ft. Length)