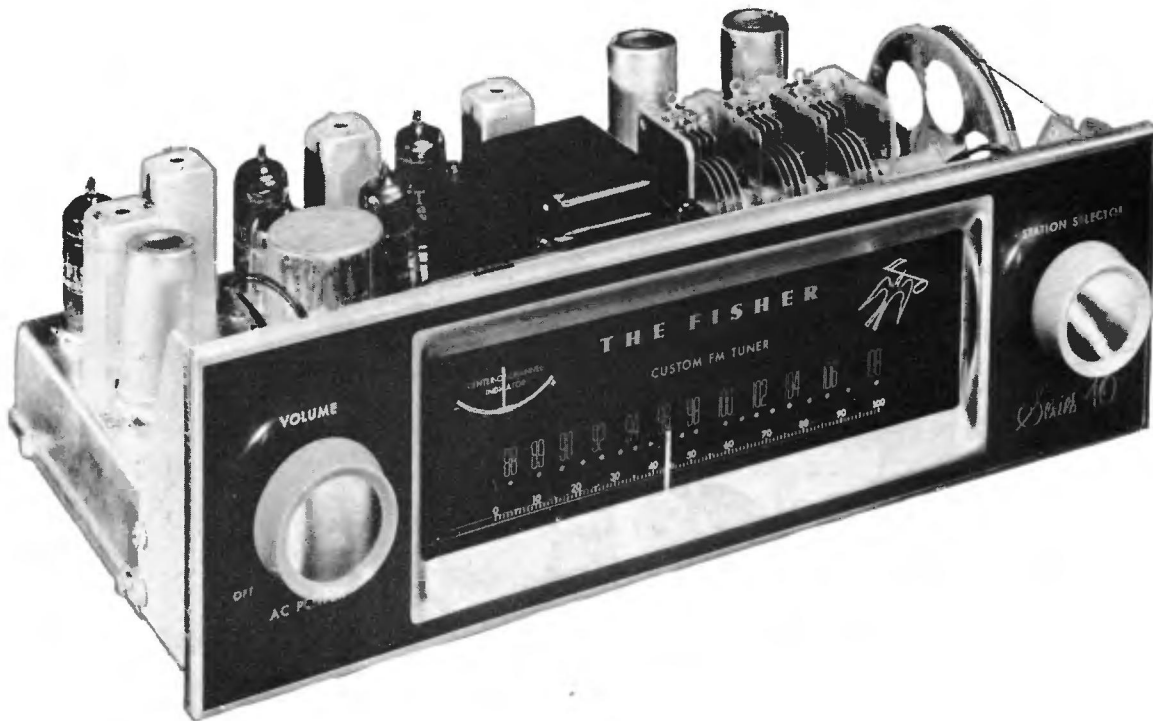




FISHER
MODEL FM-40



FISHER
MODEL FM-40

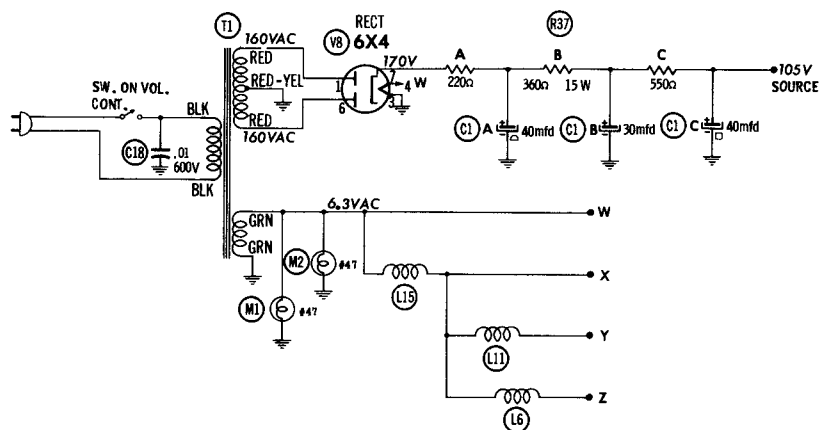
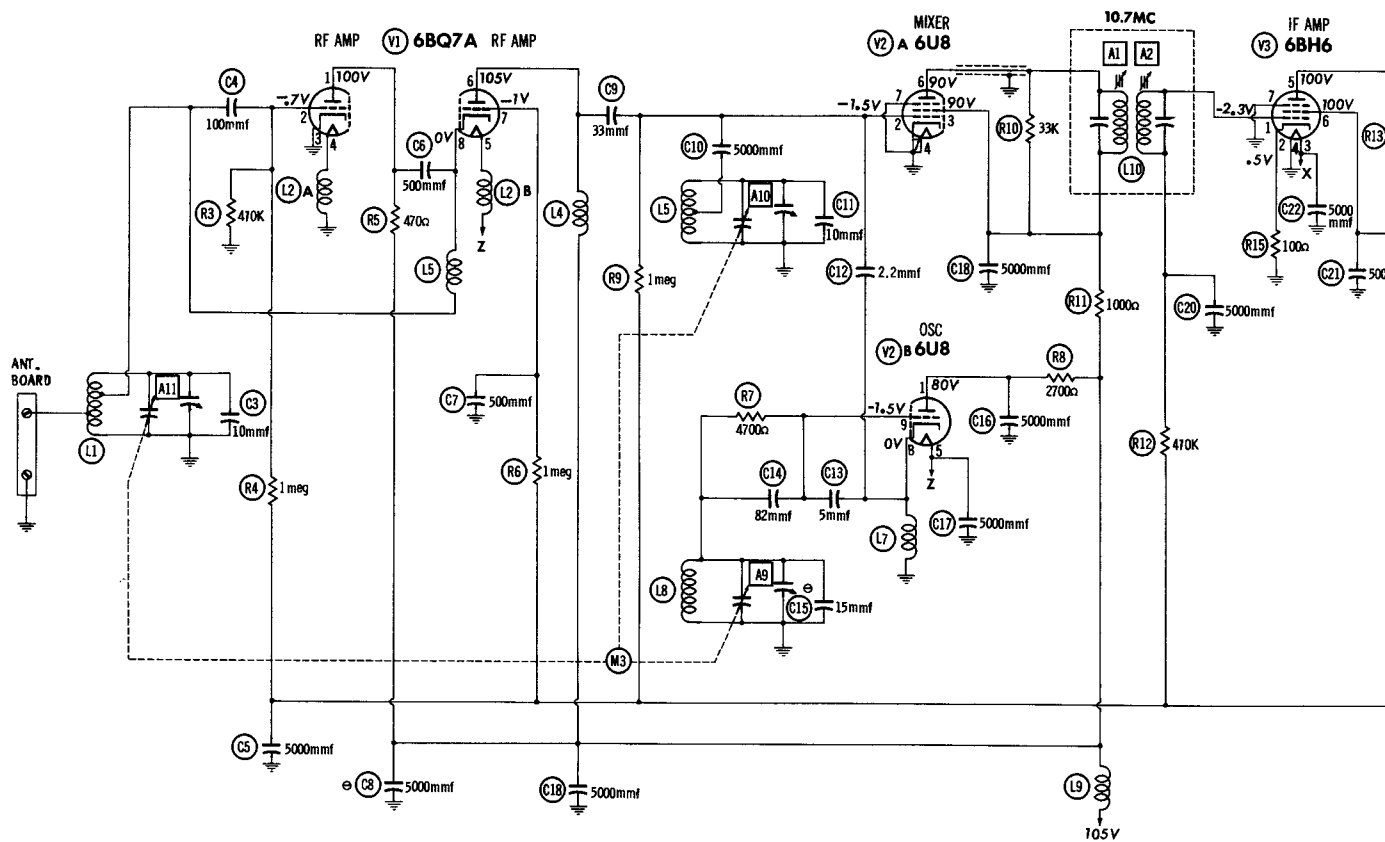
TRADE NAME	Fisher Model FM-40		
MANUFACTURER	Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.		
TYPE SET	AC Operated FM Tuner		
TUBES	Eight		
POWER SUPPLY	105-125 Volts AC - 50/60 Cycles	RATING	.37 Amp. @ 117 Volts AC
TUNING RANGE - FM	88MC - 108MC		

HOWARD W. SAMS & CO., INC. • Indianapolis 5, 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 the particular type of replacement part listed."

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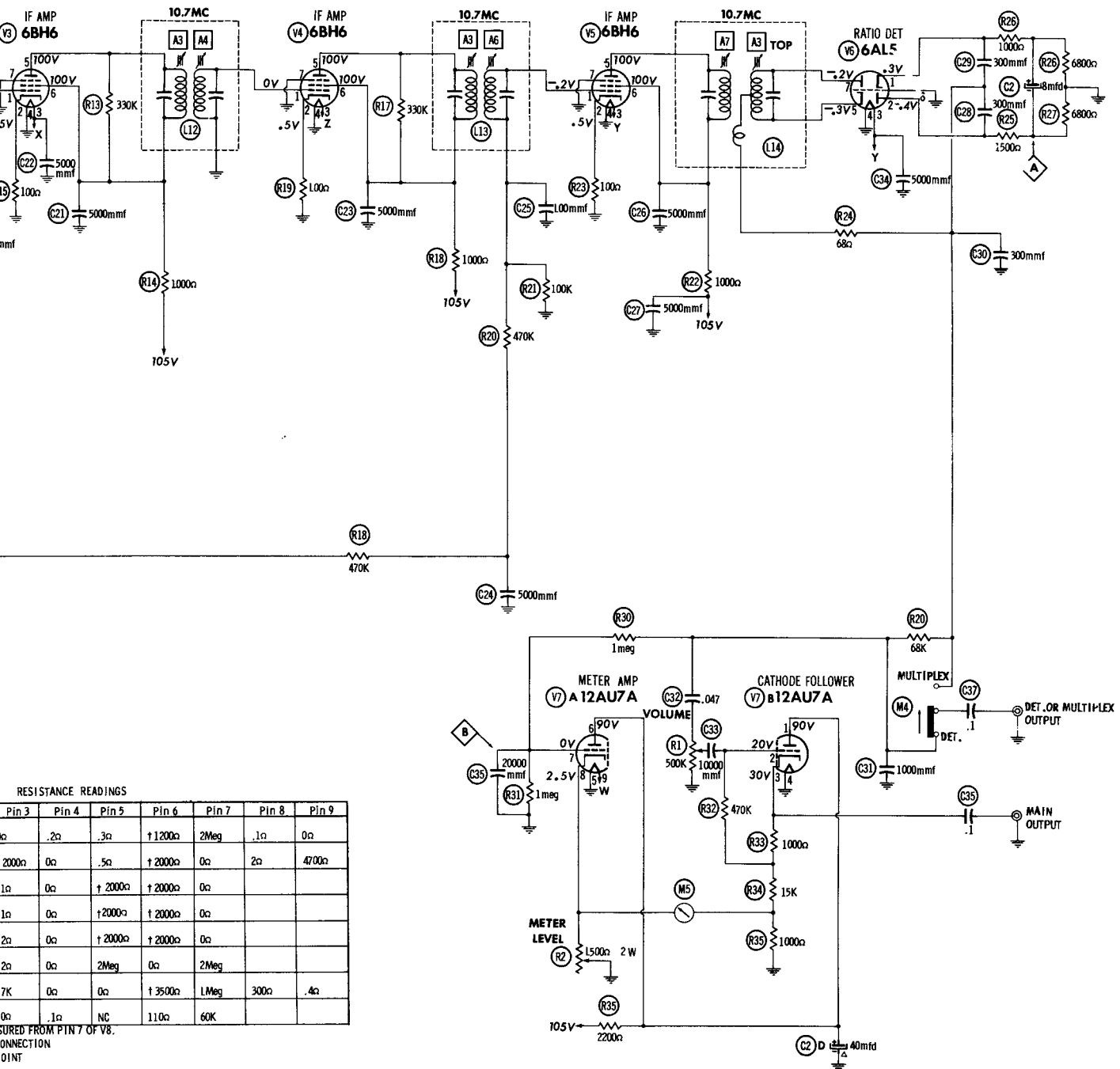
RESISTANCE READ				
ITEM	TUBE	Pin 1	Pin 2	Pin 3
V1	6BQ7A	1500Ω	400K	0Ω
V2	6U8	4000Ω	2Meg	2000Ω
V3	6BH6	1Meg	100Ω	.1Ω
V4	6BH6	.3Ω	100Ω	.1Ω
V5	6BH6	100K	100Ω	.2Ω
V6	6AL5	8000Ω	8000Ω	.2Ω
V7	12AU7A	3500Ω	500K	17K
V8	6X4	110Ω	NC	0Ω

↑ MEASURED FROM PIN 7 OF
NC NO CONNECTION
TP TIE POINT

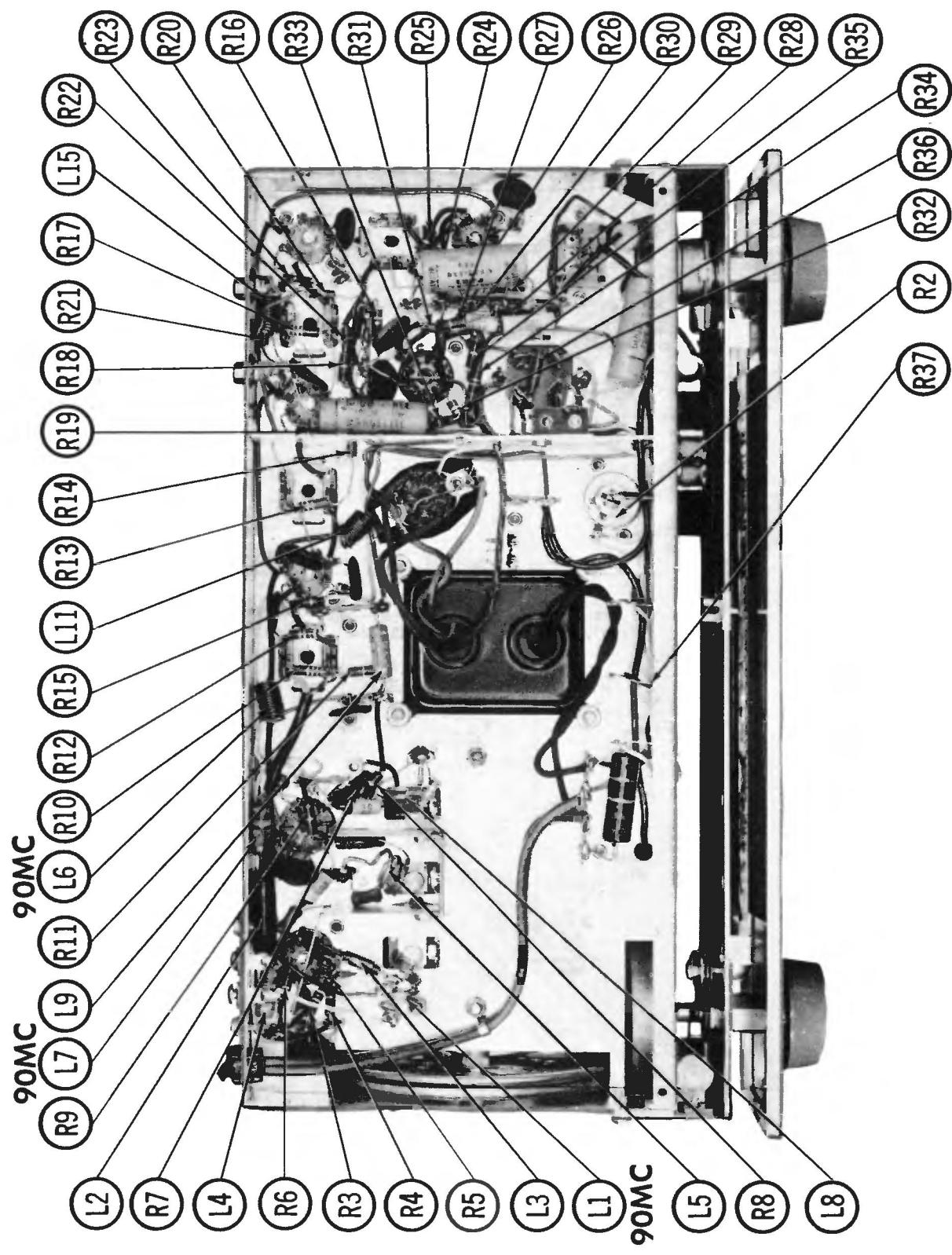
SEE PARTS LIST FOR ALTERNATE
VALUE OR APPLICATION

1. DC voltage measurements taken with
2. AC voltages measured at 1000 ohms
3. Socket connections are shown as bot
4. Measured values are from socket
5. Line voltage maintained at 117 v
6. Nominal tolerance on component va
7. Variation of $\pm 15\%$ in voltage and res
8. Volume control at maximum, no sig
9. measurements.

A PHOTOFACT STANDARD NOTATION SCHEMATIC
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measurements taken with vacuum tube voltmeter;
 measured at 1000 ohms per volt.
 connections are shown as bottom views.
 values are from socket pin to common negative,
 voltage maintained at 117 volts for voltage readings.
 tolerance on component values makes possible a
 ±10% in voltage and resistance readings.
 10.5V at maximum, no signal applied for voltage
 readings.



CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

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. Use an insulated alignment screwdriver for adjusting.

To set pointer, turn tuning capacitor fully closed and set pointer to last reference mark at low frequency end of dial.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	High side to ungrounded tube shield on 6UB (V2). Low side to chassis.	10.7MC (unmod)	FM	Point of non-interference.	DC probe to point Δ . Common to chassis.	A1, A2, A3, A4, A5, A6, A7	Adjust for maximum deflection.
2.	"	"	"	"	DC probe to point Δ . Common to chassis.	A6	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 AND 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
1.	High side to ungrounded tube shield on 6UB (V2). Low side to chassis.	10.7MC (450KC Swp)	FM	Point of non-interference.	Vert. amp. to point Δ . Low side to chassis.	A1, A2, A3, A4, A5, A6, A7	Disconnect stabilizing capacitor C2. Adjust for curve of maximum amplitude and symmetry similar to Fig. 1.
2.	"	"	"	"	Vert. amp. to point Δ . Low side to chassis.	A8	Reconnect stabilizing capacitor C2. Adjust so that 10.7MC occurs at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A7 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
3. 2700 carbon resistor	High side thru dummy to antenna terminal. Low side to chassis.	106MC	FM	106MC	DC probe to point Δ . Common to chassis.	A9	Adjust for maximum deflection.
4. "	"	90MC	"	90MC	"	L7	Adjust for maximum deflection by expanding or compressing coil turns.
5. "	"	"	"	"	"	A10, A11	Adjust for maximum deflection.
6. "	"	"	"	"	"	L6, L1	Adjust for maximum deflection by expanding or compressing coil turns.

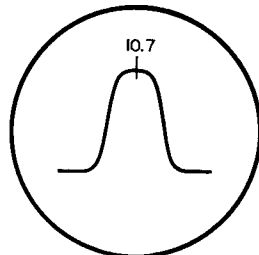


FIG. 1

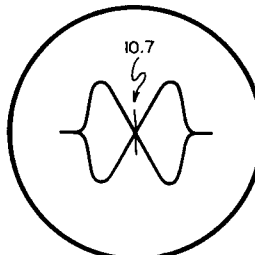
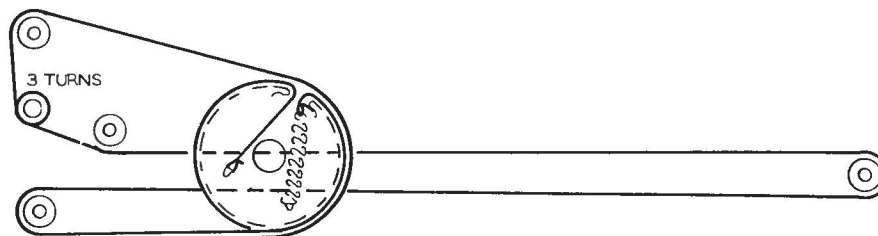
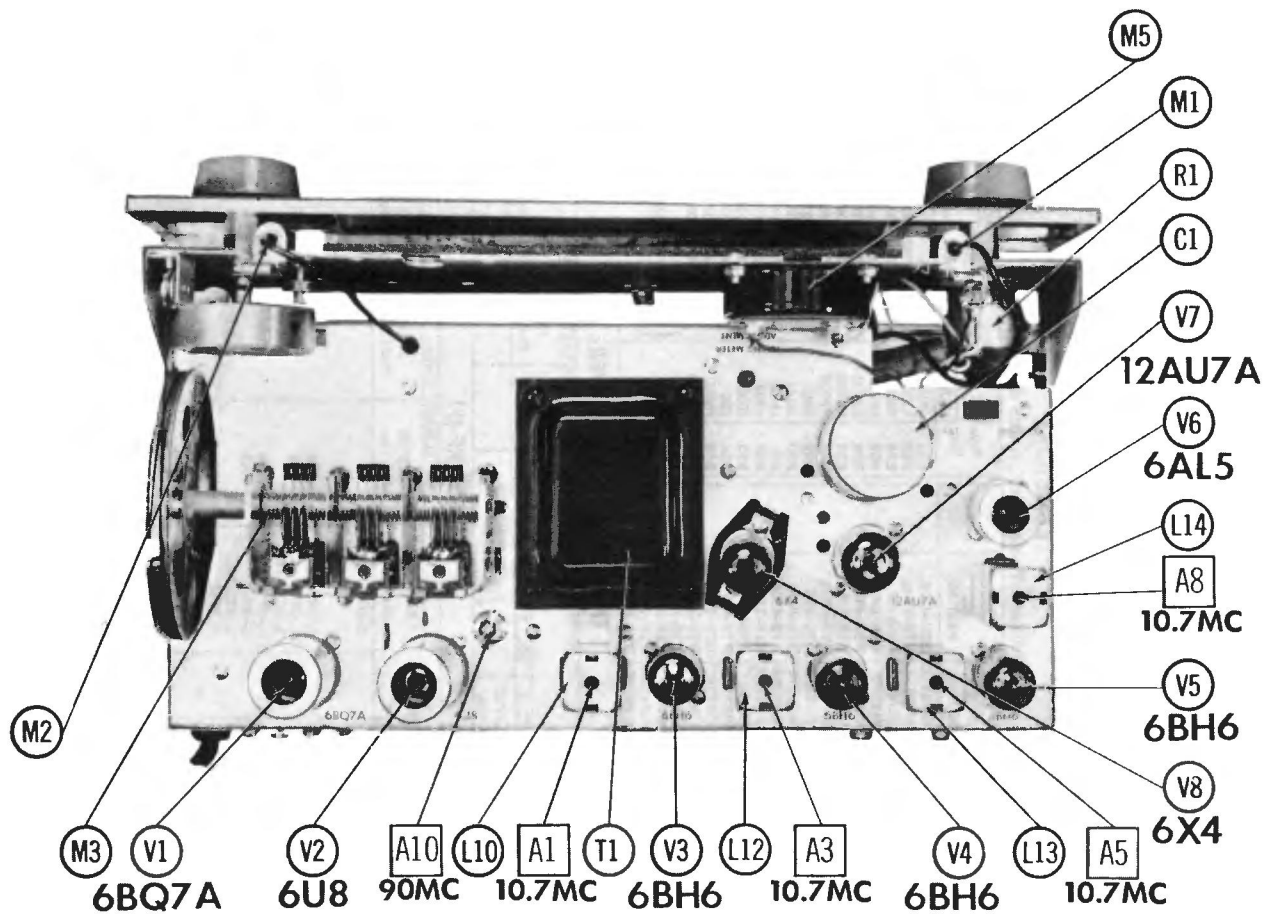


FIG. 2

CHASSIS—TOP VIEW



TUNING GANG FULLY CLOSED

DIAL CORD STRINGING

PARTS LIST AND DESCRIPTIONS TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	6BQ7A	
V2	Mixer-Oscillator	6U8	
V3	1st IF Amplifier	6BE6	
V4	2nd IF Amplifier	6BE6	
V5	3rd IF Amplifier	6BE6	

ITEM No.	USE	TYPE	NOTES
V6	Ratio Detector	6AL5	
V7	Meter Amplifier-Cathode Follower	12AU7A	
V8	Rectifier	6X4	

PARTS LIST AND DESCRIPTIONS (Continued) CONTROLS

ITEM No.	RATING	RESISTANCE	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLOY PART No.	INSTALLATION NOTES
R1A	500K	1500Ω	R-50000-17	Not Req.			U48	Volume
R2	Switch	1500Ω	R-520-149		39-1500		U5-28	Attach to R1A
R2	1500Ω						FL-1.5K	Tuning Meter Level (Wire wound)

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	FISHER PART No.	AEROVOX PART No.	CORNEILL-DUBILIER PART No.	MALLOY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	40	250	NPD-0001	TC32	TD-10-50	FM-0510	TVA-1304	
C1B	30	200	DI-0001					
C1C	40	200	DI-0001					
C1D	40	200	DI-0001					
C2	50	50	PR50V70					

* Non catalog item.

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	FISHER PART No.	AEROVOX PART No.	CORNEILL-DUBILIER PART No.	MALLOY PART No.	SPRAGUE PART No.	NOTES
C3	10	CC20CH0005	NPD-0001	TC32	TD-10-50	FM-0510	
C4	100	C-577-121	DI-0001				
C5	5000	CK82GP502V8	BPD-005				
C6	500	C-1315	SI800				
C7	500	C-3338	SI800				
C8	5000	CC21GP300M5	SI83				
C9	33	C-3338	BPD-005				
C10	5000	CC20CH0005	NPD-0001				
C11	10	CC20CH0005	NPD-0001				
C12	2.2	C-3038	NPD-0001				
C13	5	CC207J050F5					
C14	82	CC21GP820K5					
C15	15	C-3338					
C16	5000	CK82GP502V8	BPD-005				
C17	5000	CK82GP502V8	BPD-005				
C18	5000	CK82GP502V8	BPD-005				
C19	5000	CK82GP502V8	BPD-005				
C20	5000	CK82GP502V8	BPD-005				
C21	5000	CK82GP502V8	BPD-005				
C22	5000	CK82GP502V8	BPD-005				
C23	5000	CK82GP502V8	BPD-005				
C24	5000	CK82GP502V8	BPD-005				
C25	100	C-577-121	SI100				
C26	5000	CK82GP502V8	BPD-005				
C27	5000	CK82GP502V8	BPD-005				
C28	300	CC21GP300K5	1469-0003				
C29	300	CC21GP300K5	1469-0003				
C30	300	CC21GP300K5	1469-0003				
C31	1000	C-577-121	SI100				
C32	.047	C68P47M2	BPD-005				
C33	10000	CK82GP103V8	BPD-005				
C34	5000	CK82GP502V8	BPD-005				
C35	20000	C-556-22	BPD-002				
C36	.1	C68P10M2	BPD-005				
C37	.1	C68P10M2	BPD-005				
C38	.01	C-2747					

Note 1: Not used in some versions.

Note 2: Some versions may use 11M5F in this application. (Part #CC201K100K5).

Note 3: Some versions may use 1500MMF in this application. (Part #CC26GP152K5).

RESISTORS

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

ITEM No.	RATING	OHMS	WATT	FISHER PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLOY PART No.	INSTALLATION NOTES
R3	470K			RC20BF474K	BTS-470K				
R4	1Meg			RC20BF105K	BTS-1Meg				
R5	470K			RC20BF474K	BTS-470K				
R6	1Meg			RC20BF105K	BTS-1Meg				
R7	470K			RC20BF474K	BTS-470K				
R8	2700Ω			RC20BF272K	BTS-2700				
R9	1Meg			RC20BF105K	BTS-1Meg				
R10	33K			RC20BF33K	BTS-33K				
R11	1000Ω			RC20BF105K	BTS-1000				
R12	470K			RC20BF474K	BTS-470K				
R13	330K			RC20BF33K	BTS-330K				
R14	1000Ω			RC20BF105K	BTS-1000				
R15	1000Ω			RC20BF105K	BTS-1000				
R16	470K			RC20BF474K	BTS-470K				
R17	330K			RC20BF33K	BTS-330K				
R18	1000Ω			RC20BF105K	BTS-1000				
R19	470K			RC20BF474K	BTS-470K				
R20	100K			RC20BF10K	BTS-100K				
R21	100K			RC20BF10K	BTS-100K				

TRANSFORMER (POWER)

ITEM No.	RATING	FISHER PART No.	Halldorson PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117VAC	300VCT	8.3VAC			
	② .37A	② .082AD	② .2.95A			

COILS (RF-IF)

ITEM No.	USE	DC RES.	FISHER PART No.	MEISSNER PART No.	MILLER PART No.	NOTES
L1	FM Ant. Coil	0Ω	L-577-136			Tapped
L2A	Fill Choke	0Ω				
L3	RF Choke	0Ω	L-520-178		4806	2 Microhenries
L4	RF Choke	1.8Ω	L-3352		4806	2.2 Microhenries
L5	FM RF Coil	0Ω	L-577-127			Tapped
L6	Fill Choke	0Ω	L-520-156		4802	1.2 Microhenries
L7	Cathode Choke	1.8Ω	L-3352		4806	2.2 Microhenries
L8	Sec. Coil	0Ω	L-577-138			
L9	RF Choke	1.8Ω	L-3352		4806	2.2 Microhenries
L10	1st FM IF	0Ω	ZZ-2987		1463	
L11	Fill Choke	0Ω	L-520-156		4802	1.2 Microhenries
L12	2nd FM IF	1.6Ω	ZZ-509-130			
L13	3rd FM IF	1.6Ω	ZZ-509-130			
L14	Radio Det.	1.8Ω	ZZ-3968		1465	Tertiary winding - 40
L15	Fill Choke	0Ω	L-520-156		4802	1.2 Microhenries

MISCELLANEOUS

ITEM No.	PART NAME	FISHER PART No.	NOTES
M1	Pilot Light	L-50009-1	#47
M2	Pilot Light	L-50009-1	#47
M3	Tuning Cap.	C577-112	3 Gang
M4	Switch	S-577-114	Detector - Multiplex (SPDT-Slide Type)
M5	Meter	M-570-132-2	Tuning Indicator