

**PARTS LIST AND DESCRIPTIONS
TUBES (GENERAL ELECTRIC, SYLVANIA)**

ITEM No.	USE	TYPE	NOTES	ITEM No.	USE	TYPE	NOTES
V1	FM-AM RF Amplifier	6BJ6		V5	2nd FM-AM IF Amplifier	12BA6	
V2	FM-AM Mixer-Osc.	12AT7		V6	Limiter	2AU6	
V3	FM AFC	6AB4		V7	Disc-AMDel-AVC-AF Amp.	19T8	
V4	1st FM-AM IF Amplifier	12BA6		V8	Output	35C5	

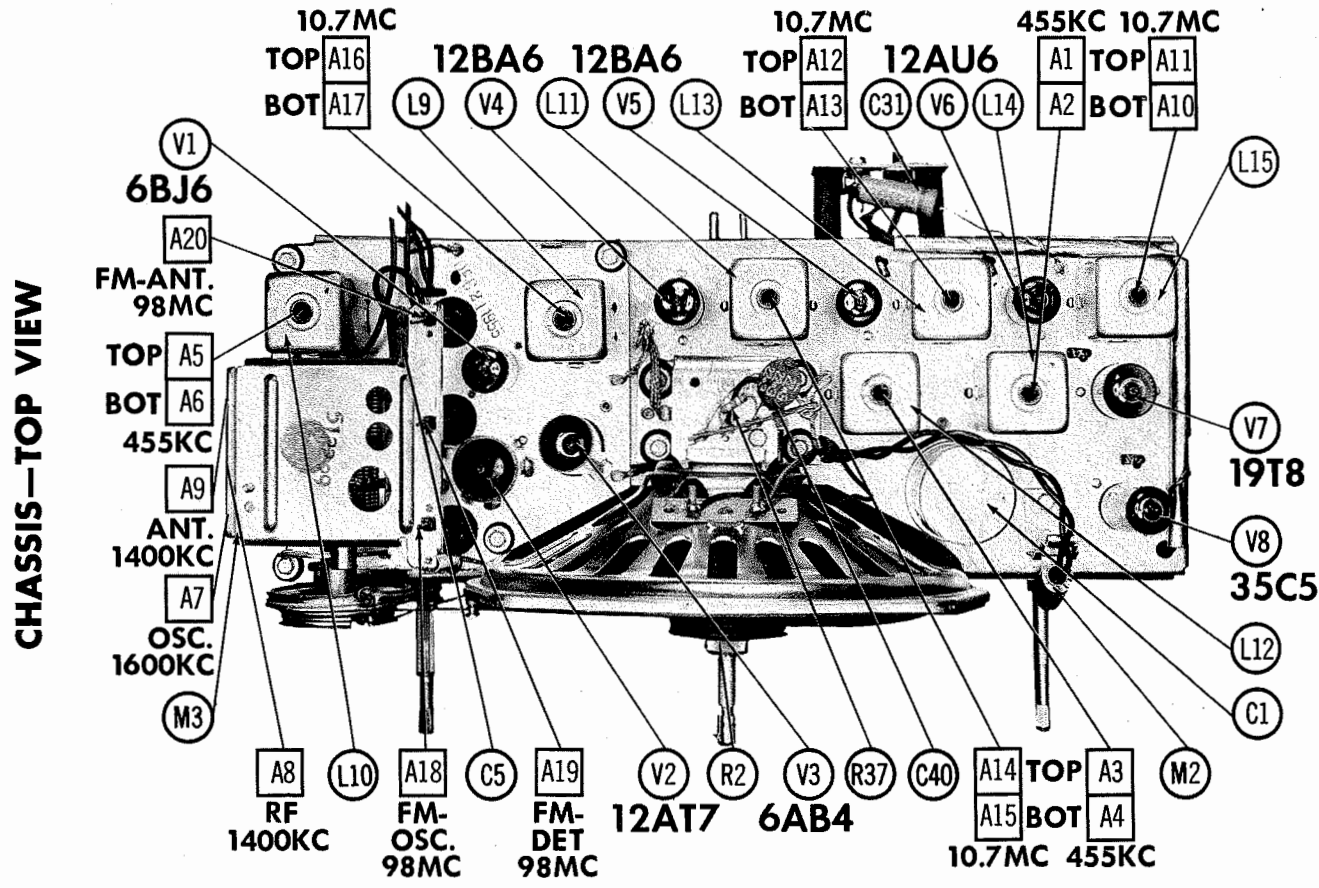
ELECTROLYTIC CAPACITORS

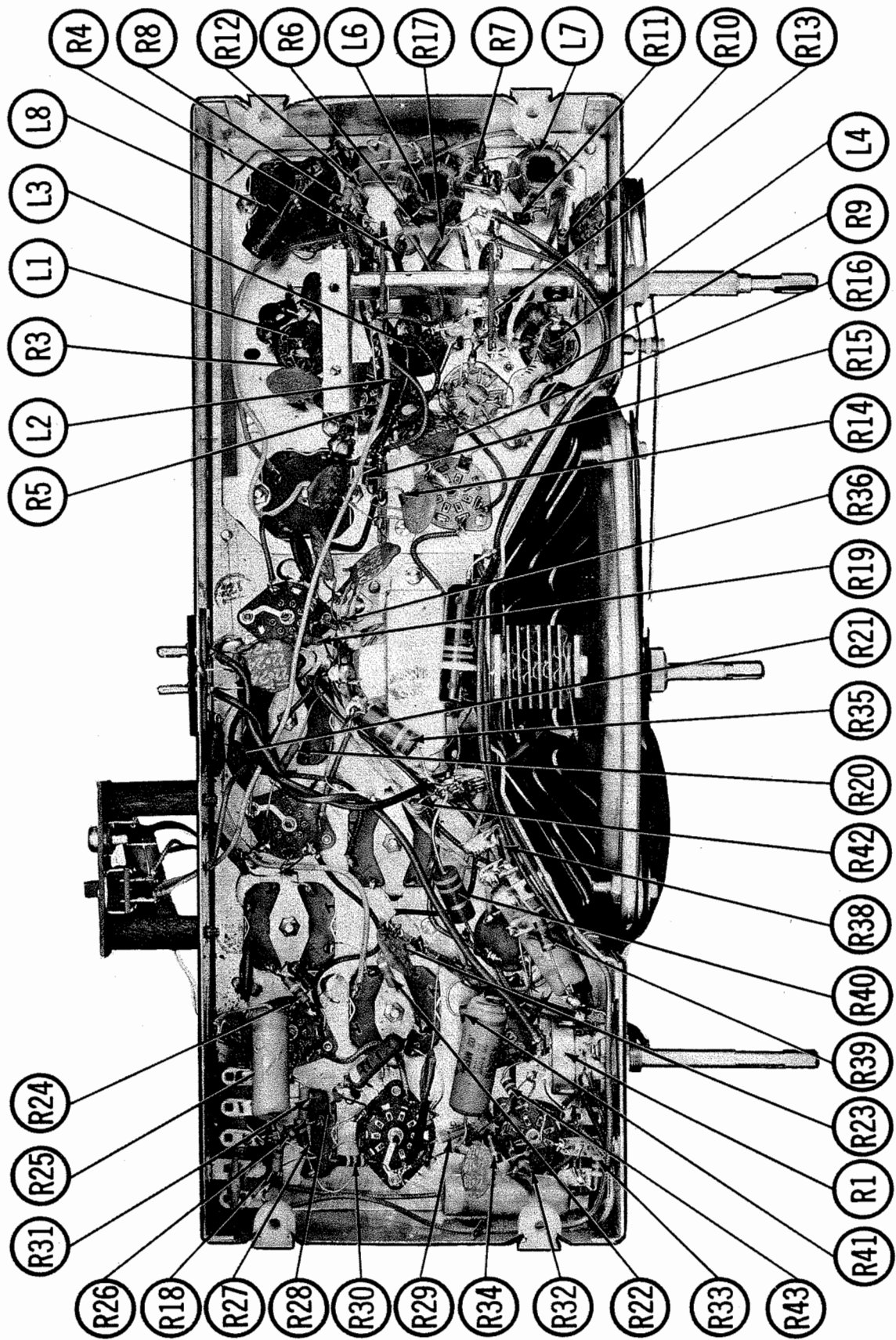
ITEM No.	RATING CAP.	VOLTS	REPLACEMENT DATA						
			ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBINER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1A	80	150	22-1081	A.FH4-37-10	D032	FP411-32	TMQ36	Q-120	TVL-4670
C	40	150							
D	40	25							

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 CAP.	VOLTS	REPLACEMENT DATA						NOTES
			ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBINER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	
C2	1000		22-1076	SH000	DD-102	TP52	GP2L-102	UC-521	5HK-D1
C3	25		22-2090	BPD-0001	DD-101	TP52	801-101	UC-521	5GA-T1
C4	100		22-5	BPD-05	DD-103	K082	801-101	UC-521	5GA-T1
C5	.047	200	22-2782	BPD-05	DD-103	K082	801-101	UC-521	2TM-547
C6	.047	200	22-2782	BPD-05	DD-103	K082	801-101	UC-521	2TM-547
C7	1000		22-1076	SH000	DD-102	TP52	801-101	UC-521	5HK-D1
C8	100		22-1076	R06-SE22	DD-101	K042	801-101	UC-521	5HK-D1
C9	22		22-1508	BPD-001	DD-103	TP39	801-101	UC-522	5GA-T1
C10	.047	200	22-1182	BPD-05	DD-103	K082	801-101	UC-522	5GA-T1
C11	.66		22-1186	BPD-05	DD-103	K082	801-101	UC-522	5GA-T1
C12	50		22-2850	SH000	DD-103	TP52	801-101	UC-522	5GA-T1
C13	1000		22-1876	BPD-01	DD-103	K082	801-101	UC-522	5GA-T1
C14	1000		22-1876	BPD-01	DD-103	K082	801-101	UC-522	5GA-T1
C15	10000		22-3	BPD-001	DD-103	K082	801-101	UC-522	5GA-T1
C16	10000		22-3	BPD-001	DD-103	K082	801-101	UC-522	5GA-T1
C17	100		22-3	BPD-01	DD-103	K082	801-101	UC-522	5GA-T1
C18	1000		22-3	BPD-01	DD-103	K082	801-101	UC-522	5GA-T1
C19	220		22-2321	SH000	DD-103	TP39	801-101	UC-522	5GA-T1
C20	10000		22-3	BPD-001	DD-103	K082	801-101	UC-522	5GA-T1
C21	2200		22-18	BPD-0022	DD-222	K073	801-0022	UC-522	5HK-D22
C22	2200		22-18	BPD-0022	DD-222	K073	801-0022	UC-522	5HK-D22
C23	10000		22-3	BPD-01	DD-103	K082	801-101	UC-522	5HK-D22
C24	25		22-1887	S25	DD-103	TP25	801-101	UC-545	5GA-T2
C25	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D22
C26	1000		22-17	BPD-001	DD-102	K089	801-001	UC-521	5HK-D1
C27	100		22-5	BPD-001	DD-101	G042	801-101	UC-531	5GA-T1
C28	200		22-1668	SH000	DD-101	TP38	801-101	UC-531	5GA-T1
C29	10000		22-3	BPD-01	DD-103	K082	801-101	UC-531	5GA-T1
C30	10000		22-3	BPD-01	DD-103	K082	801-101	UC-531	5GA-T1
C31	.047	400	22-2782	BPD-05	DD-203	CUB2547	811-02	PT417	2TM-547
C32	.02	400	22-1663	BPD-02	DD-103	K082	801-101	UC-521	5HK-D1
C33	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C34	.1	400	22-2780	P488N-1	DD-103	CUB41	811-01	PT401	4TM-P1
C35	2200		22-18	BPD-0022	DD-222	K073	801-0022	UC-522	5HK-D22
C36	.047	200	22-2782	BPD-05	DD-203	CUB2547	811-02	PT417	2TM-547
C37	.022	600	22-2806	BPD-02	DD-203	CUB6522	811-02	PT6122	5TM-522
C38	2200		22-18	BPD-0022	DD-222	K073	801-0022	UC-522	5HK-D22
C39	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C40	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C41	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C42	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C43	10000		22-3	BPD-01	DD-103	K082	801-101	UC-521	5HK-D1
C44	.047	600	22-2569	BPD-05	DD-103	CUB6547	811-01	PT6147	6TM-547
C45A	4700		22-24	BPD-2X0047	DD2-502	DK079	811-0047	DC-525	5HK-2D47
C45B	4700		22-24	BPD-2X0047	DD2-502	DK079	811-0047	DC-525	5HK-2D47
C46	10000		22-3	BPD-01	DD-103	K082	801-01	DC-51	5HK-S1





CHASSIS BOTTOM VIEW-RESISTOR IDENTIFICATION

ZENITH
MODEL Y832E (Ch. 8Y02)

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.
Loop should be maintained in same relative position to chassis as when receiver is in cabinet.
To set pointer, turn tuning capacitor fully closed and set pointer parallel with base of dial.

AM ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. .05MFD	High side to pin 2 (grid) of 12AT7 (V2). Low side to chassis.	455KC (400v Mod.)	BC	600KC	Across Voice Coil	A1, A2, A3, A4, A5, A6	Adjust for maximum output. If isolation transformer is not used, reduce dummy antenna to .001MFD to reduce hum modulation.
2.	Loop	1600KC	"	1600KC	"	A7	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3.	"	1400KC	"	Tune to 1400KC signal	"	A8, A9	"



FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM

Use 2Meg isolation resistor in series with DC probe.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
4. .05MFD	High side to pin 1 (grid) of 12AU6 (V6). Low side to chassis.	10.7MC (Unmod.)	FM	Point of non-interference	DC probe to point  . Common to chassis.	A10	Adjust for maximum deflection.
5. "	"	"	"	"	DC probe to point  . Common to chassis.	A11	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
6. "	High side to pin 1 (grid) of 12BA6 (V5). Low side to chassis.	"	"	"	DC probe to pin 1 (grid) of 12AU6 (V6). Common to chassis.	A12, A13	Adjust for maximum deflection.
7. "	High side to pin 1 (grid) of 12BA6 (V4). Low side to chassis.	"	"	"	"	A14, A15	"
8. "	High side to pin 7 (grid) of 12AT7 (V2). Low side to chassis.	"	"	"	"	A16, A17	Adjust for maximum deflection. Repeat steps 6, 7, and 8.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60v 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
4. .05MFD	High side to pin 1 (grid) of 12AU6 (V6). Low side to chassis.	10.7MC (450KC Swp)	FM	Point of non-interference	Vert. amp. to point  . Low side to chassis.	A10	Adjust for curve of maximum amplitude and symmetry similar to Fig. 1
5. "	"	"	"	"	Vert. amp. to point  . Low side to chassis.	A11	Adjust so that 10.7MC occurs at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A10 for maximum amplitude and straightness of crossover lines.
6. "	High side to pin 1 (grid) of 12BA6 (V5). Low side to chassis.	"	"	"	Vert. amp. to pin 1 (grid) of 12AU6 (V6). Low side to chassis.	A12, A13	Adjust for curve of maximum amplitude and symmetry similar to Fig. 1
7. "	High side to pin 1 (grid) of 12BA6 (V4). Low side to chassis.	"	"	"	"	A14, A15	"
8. "	High side to pin 7 (grid) of 12AT7 (V2). Low side to chassis.	"	"	"	"	A16, A17	"

FM RF ALIGNMENT

Use 2Meg isolation resistor in series with DC probe.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
9. 270Ω Carbon Resistor	High side thru 270Ω to FM antenna terminal. Low side to terminal "G".	98MC (Unmod.)	FM	98MC	DC probe to pin 1 (grid) of 12AU6 (V6). Common to chassis.	A18, A19, A20	Adjust in order given, for maximum deflection.

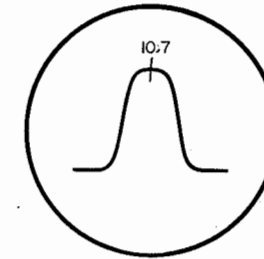


FIG. 1

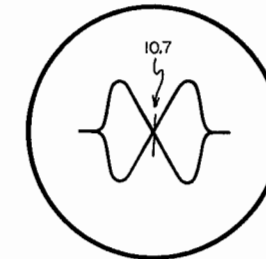
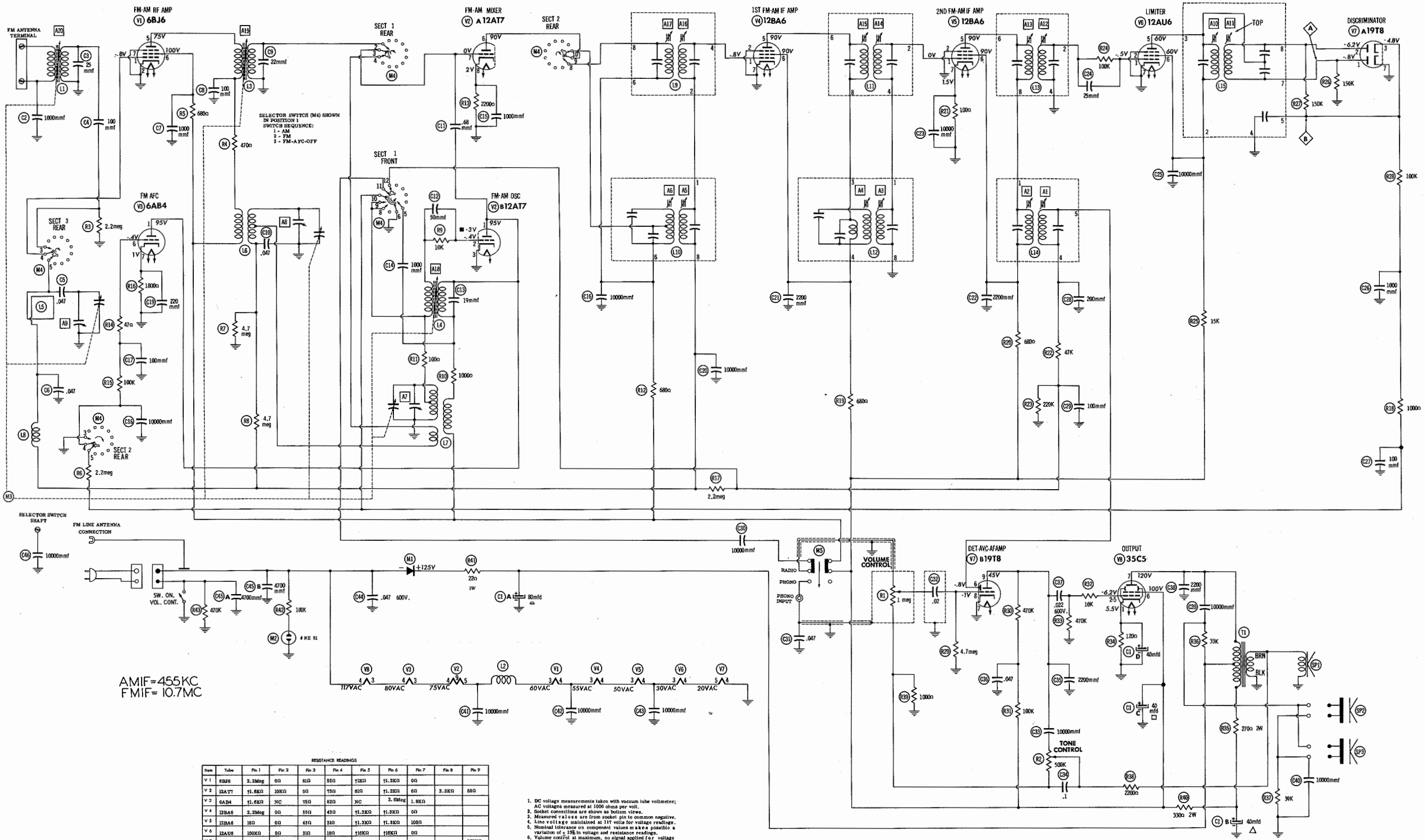


FIG. 2



AMIF=455 KC
FMIF=10.7MC

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6BJ6	2.2Meg	0Ω	81Ω	55Ω	12KΩ	11.2KΩ	0Ω		
V 2	12AT7	11.8KΩ	10KΩ	0Ω	75Ω	81Ω	11.2KΩ	0Ω	2.2KΩ	88Ω
V 3	6AB4	11.8KΩ	NC	15Ω	82Ω	NC	2.6MΩ	1.8KΩ		
V 4	12BA6	2.2Meg	0Ω	85Ω	43Ω	11.2KΩ	11.2KΩ	0Ω		
V 5	12BA6	18Ω	0Ω	43Ω	31Ω	11.2KΩ	11.2KΩ	100Ω		
V 6	12AU6	100KΩ	0Ω	31Ω	18Ω	11.8KΩ	11.8KΩ	0Ω		
V 7	19TB	180KΩ	0Ω	300KΩ	0Ω	18Ω	270KΩ	0Ω	4.7Meg	570KΩ
V 8	35C5	18Ω	480KΩ	18Ω	82Ω	480KΩ	185Ω	1240Ω		

- 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 model pins to common negative.
- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values is as close as possible to a variation of ± 1% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

ALL MEASUREMENTS TAKEN IN FM POSITION UNLESS OTHERWISE DESIGNATED.
 * MEASURED FROM CENTER OF M.
 ■ TAKEN IN AM POSITION.