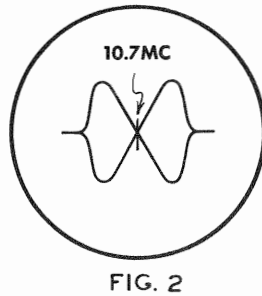
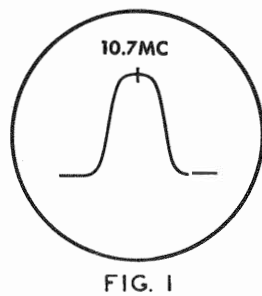


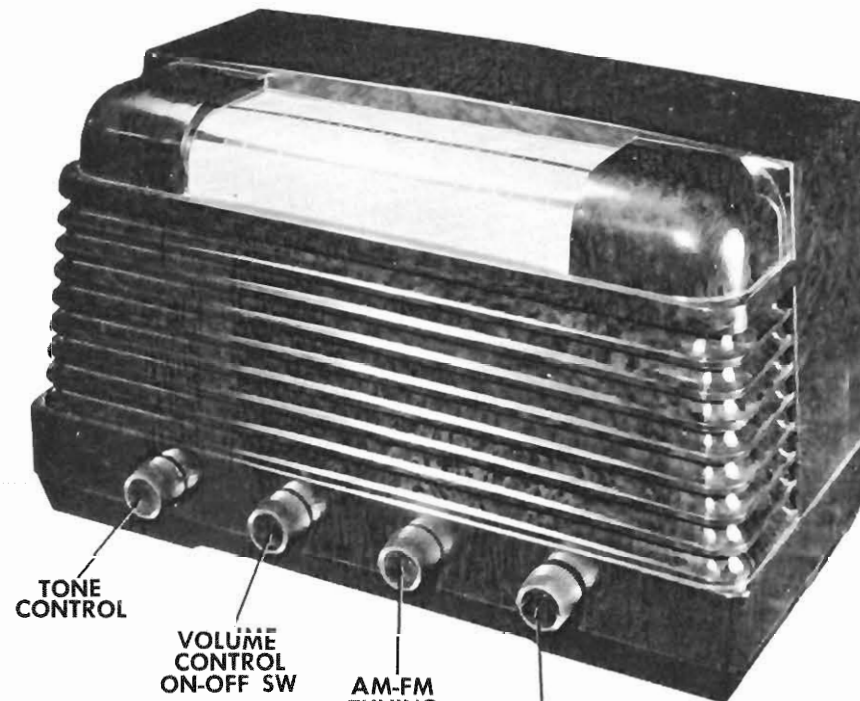
ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT							
To set pointer turn tuning gang fully closed and set pointer 2 1/2 inches to the right of the left hand edge of the dial background.							
AM ALIGNMENT							
Loop should be maintained in same relative position to chassis as when receiver is in cabinet. 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.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. 1MFD	High side to pin 7, (grid) of 6BE6, (V2). Low side to chassis.	455KC (400Vmod.)	AM (center)	Tuning gang fully open.	Across voice coil.	A1, A2 A3, A4	Adjust for maximum output.
2. "	"	1620KC	"	"	"	A5	"
3. "	Loop	1400KC	"	Tune for max. output.	"	A6	Fashion loops of several turns of wire and radiate signal into loop of receiver. adjust for maximum output.
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
4. 2500MMF	High side to pin 1, (grid) of 6BA6, (V3). Low side to chassis.	10.7MC (unmod.)	FM (C-)	Tuning gang fully open.	DC probe to point A. Common to chassis.	A7, A8 A9	Adjust for maximum deflection.
5. "	High side to pin 7, (grid) of 12AT7, (V1). Low side to chassis.	"	"	"	"	A10, A11	"
6. "	"	"	"	"	DC probe to point B. Common to chassis.	A12	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	SCOPE CONNECT	ADJUST	REMARKS
4. 2500MMF	High side to pin 1, (grid) of 6BA6, (V3). Low side to chassis.	10.7MC (450KC Swp)	FM (CW)	Point of non-interference.	Vert. Amp. to point A. Low side to chassis.	A7, A8 A9	Disconnect stabilizer capacitor C2. Adjust for maximum amplitude and symmetry as per fig. 1.
5. "	High side to pin 1, (grid) of 12AT7, (V1). Low side to chassis.	"	"	"	"	A10, A11	"
6. "	"	"	"	"	Vert. Amp. to point B. Low side to chassis.	A12	Reconnect Capacitor C2. Adjust A12 so 10.7MC occurs at center crossover lines as per 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
7. 300Ω carbon resistor	High side thru 300Ω to ungrounded FM ant. terminal. Low side to chassis.	108.5MC	FM	Tuning gang fully open.	DC probe to point A. Common to chassis.	A13	Adjust for maximum deflection.
8. "	"	104.5MC	"	Tune for max. deflection.	"	A14	"



PHOTOFACT* Folder



AIRLINE MODELS
15WG-1545A, B, 15WG-1546A, B



AIRLINE MODELS
15WG-1545A, B, 15WG-1546A, B

AIRLINE MODELS
15WG-1545A, B, 15WG-1546A, B

AIRLINE MODEL 15WG-1545A

TRADE NAME Airline Models 15WG-1545A, B, 15WG-1546A, B

SUPPLIER Montgomery Ward & Co., 619 Chicago, Ill.

TYPE SET (EIGHT) Types 12AT7 FM RF Amp. -FM Mixer, 6BE6 FM Osc.-AM Conv., 6BA6 1st IF Amp. 6V6GT Audio Output, 6X5GT Rectifier

POWER SUPPLY 105-125 Volts AC RATING .39 Amp. @ 117 Volts AC

TUNING RANGE-BROADCAST 540-1600KC FREQ. MOD. 88-108MC

TUNING GANG FULLY CLOSED

3 1/2 TURNS

DIAL CORD DRIVE

HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

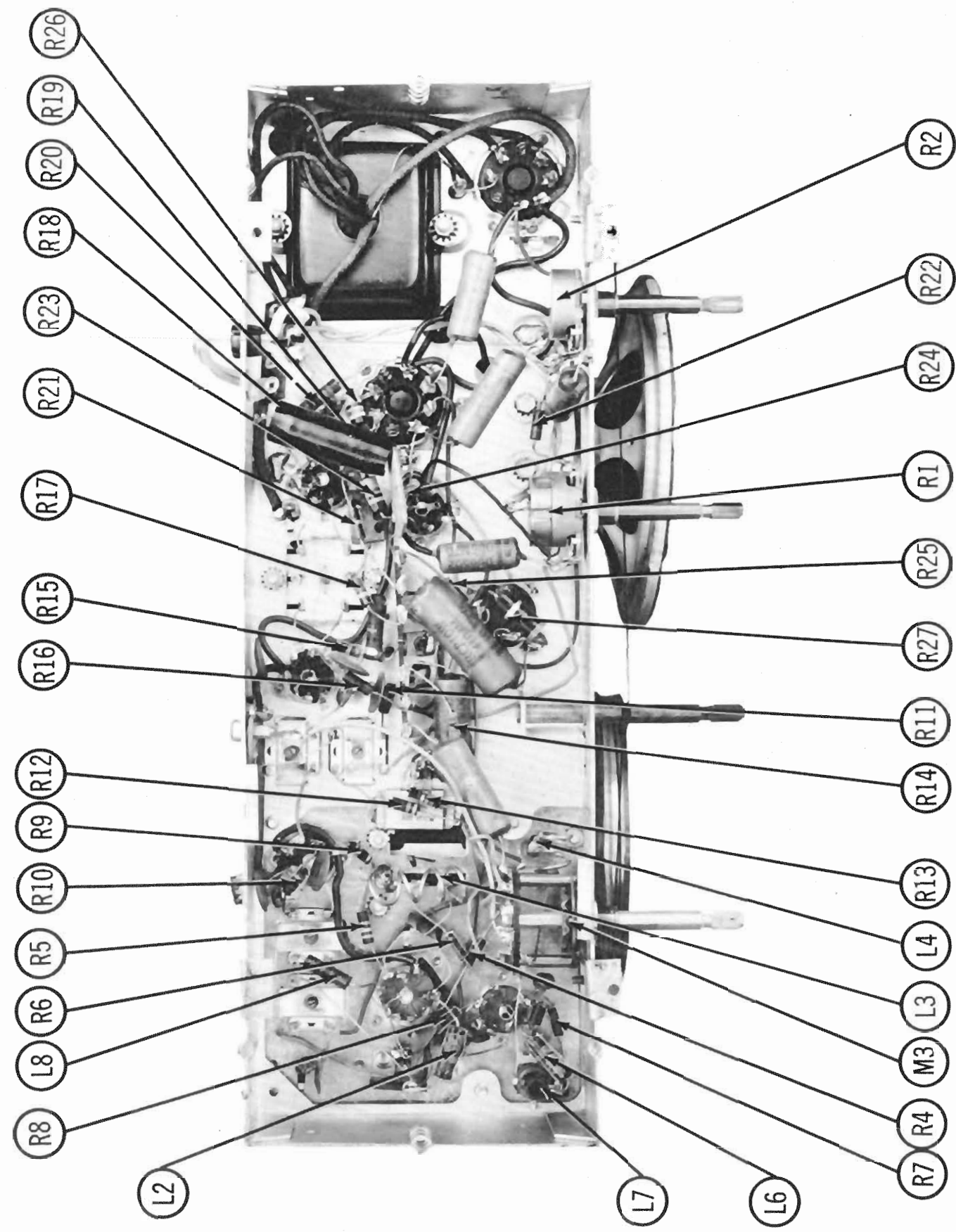
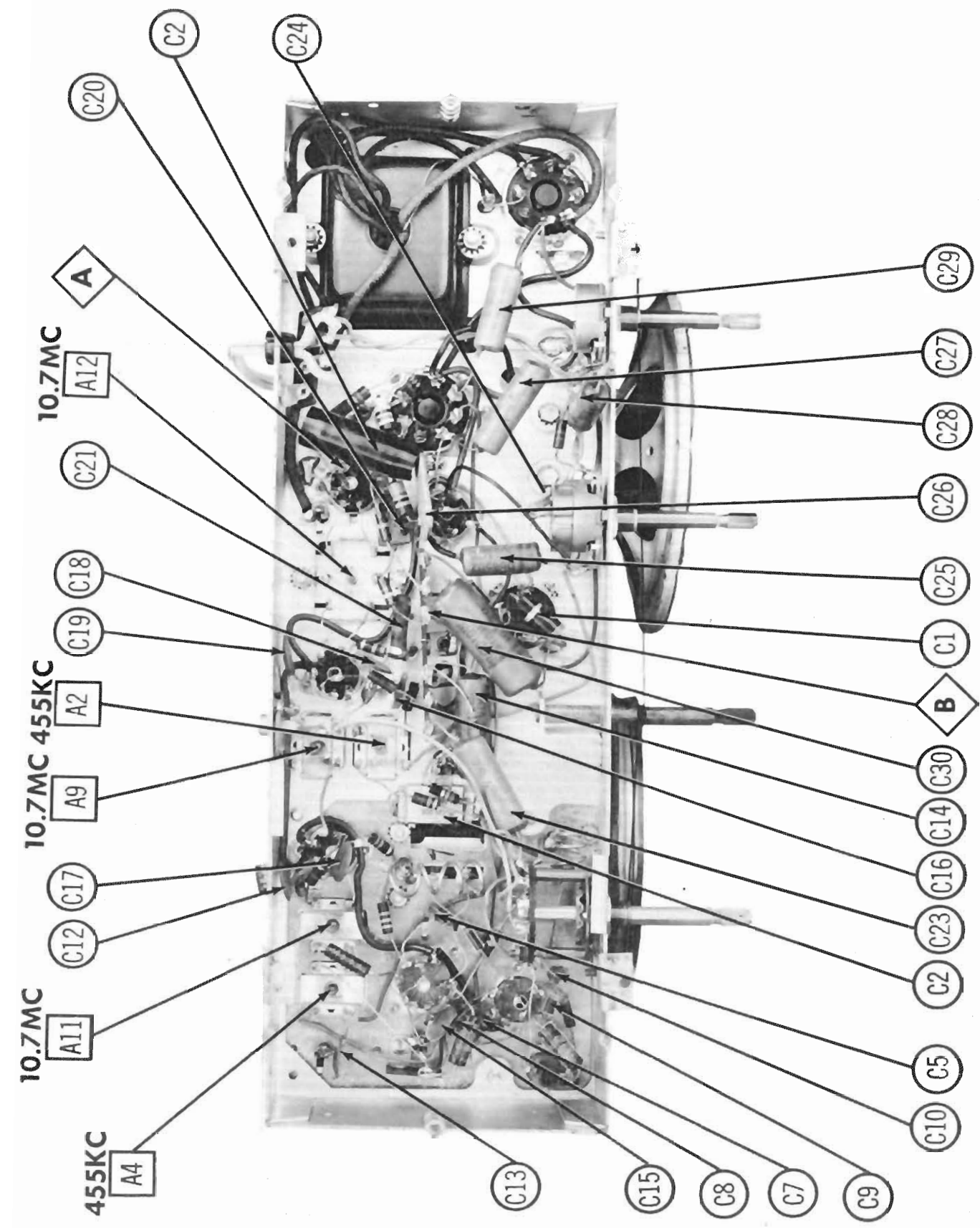
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DATE 1-52

SET 158

FOLDER 2



CHASSIS—TOP VIEW

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	INSTALLATION NOTES
		AIRLINE PART No.	STANDARD REPLACEMENT		
V1	FM RF Amp - Mixer	12AT7	12AT7	9A	
V2	FM Osc.-AM Contr.	6BD6	6BE6	7CH	
V3	1st IF Amp.	6BA6	6BA6	7BK	
V4	2nd FM IF Amp.	6BA6	6BA6	7BK	
V5	Ratio Det.	6AL5	6AL5	6BT	
V6	Det. -AVC-AF Amp.	6AV6	6AV6	7BT	
V7	Audio Output	6V6GT	6V6GT	7AC	
V8	Rectifier	6X5GT	6X5GT	8S	

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

ITEM No.	BATT'G CAP.	VOLT	AIRLINE PART No	AEROVOX PART No.	REPLACEMENT DATA (CENTRALAB PART No.)	CORRECTION CORRECTION PART No.	ERIE PART No.	SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES
C1A	40	200	43X360	A4B3-100		UP4145C		TVL-4470	Filter
B	40	150							Power Output Cathode
C	20	25	45X361			BR415			Stabilizing cap.
C2	5	300	45X361	PR8150/4	D6-331		GP2K-331	TVL-1402	FM RF Coupling
C3	330	300	47X407	SI500-00035	D6-501	5W5T5	GP2K-501	1FM-335	FM RF Amp. Cathode
C4	100	300	47X408	SI100	D6-101	5W5T1	GP1K-101	50A-1T5	FM RF Coupling
C5	100	300	70X41	SI100	D6-101	5W5T1	GP1K-101	50A-T1	FM RF Coupling
C6	100	300	47X457		TCN-2,2		NP0K-2R2		FM Osc. Coupling
C7	2,2	2	47X457		TCN-140	1D5D5	NP0K-2R2		FM Osc. Coupling
C8	130	500	47X459		TCN-140	1D5D5	NP0K-2R2		FM Osc. Coupling
C9	130	500	47X459		TCN-140	1D5D5	NP0K-2R2		FM Osc. Coupling
C10	2,2	2	47X558	BPD-005	TCN-30		NP0K-2R2	58K-D5	FM Osc. Plate
C11	10	40	47X523		TCN-30		NP0K-2R2	58K-D5	FM Osc. Plate
C12	500K	500K	47X507	SI100P0	TCN-30		NP0K-2R2	58K-D5	FM Osc. Plate
C13	500K	500K	47X507	BPD-005	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C14	05	200	47X507	P288-05	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C15	500K	500K	47X507	P288-05	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C16	500K	500K	47X507	BPD-005	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C17	500K	500K	47X507	BPD-005	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C18	500K	500K	47X507	BPD-005	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C19	500K	500K	47X507	BPD-005	DF-502	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C20	220	500	47X468	1468-00025	D6-221	5W5T25	GP2K-221	1FM-325	De-emphasis
C21	2700	500	47X468	SI2700	D6-272	5W5T25	GP2K-221	1FM-325	De-emphasis
C22A	50	50	47X468	SI2700	D6-272	5W5T25	GP2K-221	1FM-325	De-emphasis
B	50	50	47X468	SI2700	D6-272	5W5T25	GP2K-221	1FM-325	De-emphasis
C23	05	200	B66503	P288-05	DF-503	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C24	68	500	47X471	1469-00007	DF-503	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C25	05	400	D66502	P288-05	DF-503	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C26	05	400	D66502	P288-05	DF-503	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C27	01	200	B66103	P288-01	DF-103	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C28	02	200	B66203	P288-02	DF-203	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C29	001	800	H6602	P1088-001	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C30	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C31	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C32	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C33	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C34	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C35	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C36	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C37	01	200	B66103	P288-01	DF-103	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C38	02	200	B66203	P288-02	DF-203	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C39	001	800	H6602	P1088-001	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate
C40	01	400	H6602	P1088-01	DF-104	1D5D5	NP0K-2R2	58K-D5	FM Osc. Plate

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESIST. ANCE	WATTS	AIRLINE PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	
RIA B	500KΩ	1/2	30X3261	Q13-1323	AK-60	BTSK-66-S	Volume Control- Tapped @ 100KΩ
RIA B	50KΩ	Not Req.	Shaf1	Not Req.	KSS-3	Not Req.	Attach to RIA per instructions
RIA C	Switch	1/2	Switch	76-1137	SWB	AN-600	Attach to RIA per instructions
RIA B	Shaf1	Not Req.	Shaf1	Not Req.	KSS-4	AN-7	Attach to RIA per instructions

PARTS LIST AND DESCRIPTIONS (Continued)

ITEM No.	RATING	REPLACEMENT DATA		IDENTIFICATION CODES
		AIRLINE PART No.	IRC PART No.	
R3	250K	B84221	BTS-220	FM RF Cathode
R4	100KΩ	B85104	BTS-1700K	AVC Network
R5	470KΩ	B85474	BTS-470K	FM Mixer Grid
R6	47KΩ	B85470	BTS-22K	Parasitic Suppressor
R7	22KΩ	B85223	BTS-22K	Osc. Grid
R8	5600Ω	B85562	BTS-5600	Osc. Anode
R9	68Ω	B84680	BTS-6800	1st IF Cathode
R10	500Ω	B84682	BTS-1000	1st IF Screen
R11	1000Ω	B85102	BTS-47K	1st IF Decoupling
R12	47KΩ	B85473	BTS-270K	Diode Filter
R13	270KΩ	B84274	BTS-270K	Diode Load
R14	1MΩ	B85105	BTS-270K	AVC Network
R15	68Ω	B84680	BTS-1000	2nd FM IF Cathode
R16	1000Ω	B85102	BTS-27K	2nd FM IF Decoupling
R17	27KΩ	B85273	BTS-6800	Demodulator
R18	500Ω	B84682	BTS-6800	Ratio Det. Diode Load
R19	6800Ω	B84682	BTS-6800	Ratio Det. Diode Load
R20	3.6K	43X233	BTS-6800	Ratio Det. Filament-Wire Wound
R21	10KΩ	B85104	BTS-100K	AVC Network
R22	10KΩ	B85153	BTS-15K	Tone Compensation
R23	10MΩ	B85106	BTS-10MΩ	AF Amp. Grid
R24	500KΩ	476X5	BTS-470K	AF Amp. Plate
R25	47KΩ	B85473	BTS-47K	Output Grid
R26	270Ω	B84271	BTS-270	AF Amp. Plate Decoupling
R27	820Ω	D84281	BTS-270	Output Cathode
R28	820Ω		Law.-2-820	AVC Network

◆ Items R24A, R24B, C26A, C26B and C26C are combined into one unit.

TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	AIRLINE PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T1	1171A C 0.39A	340VCT 0.076 ADC	16.3VAC 3.2A	533 322		P-2052	

TRANSFORMER (AUDIO OUTPUT)

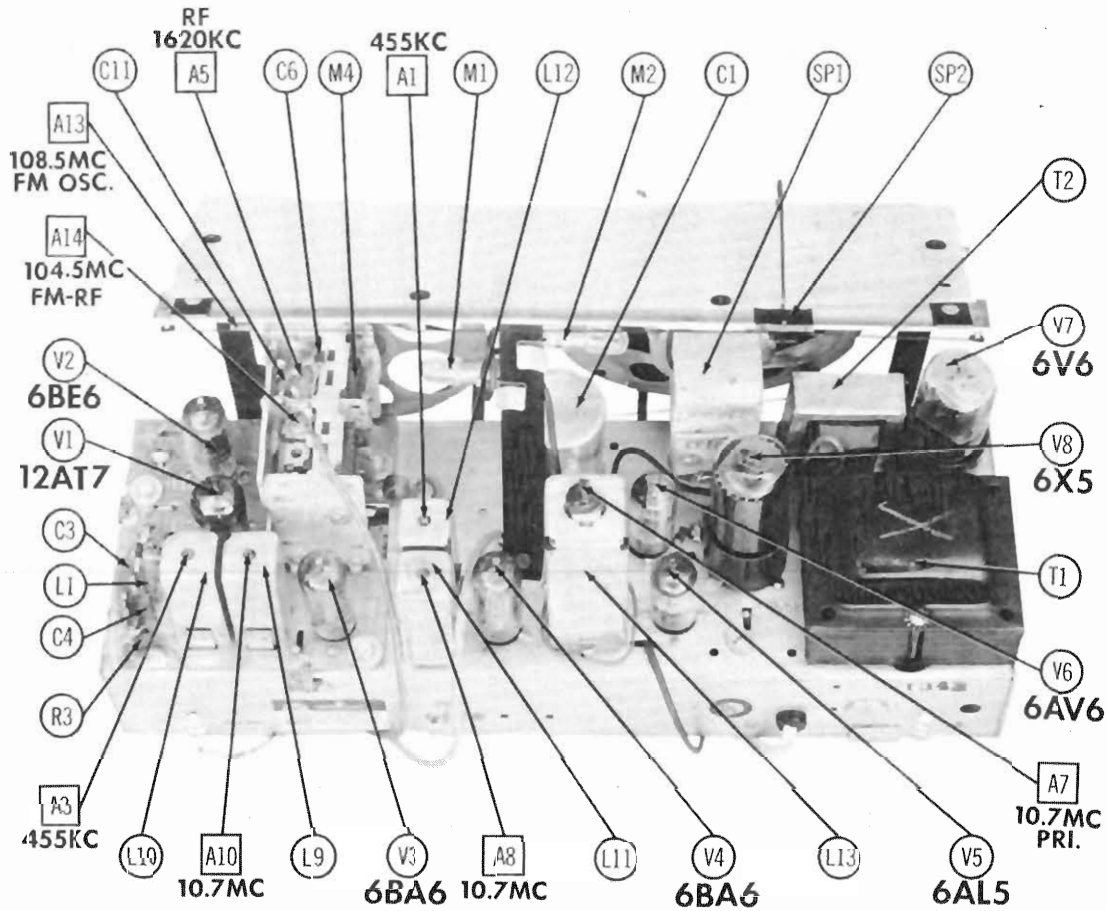
ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		AIRLINE PART No.	STANCOOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T2	5. KΩ	3.30	4300	.80	51X155	A-3877	A-2930	R0-301	

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SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			NOTES
	FIELD RES.	V. C. IMP.	AIRLIFT	AIRLIN'g PART No.	JENSEN PART No.	QUAM PART No.	
SP1	P. M.	3.30		12A507	ST-105 Mg. dr. P5-X	5A1	
SP2	CONE DIA.		V. C. DIA.				
	4 3/4 in.		9/16 in.				

CHASSIS—TOP VIEW



PARTS LIST AND DESCRIPTIONS (Continued)

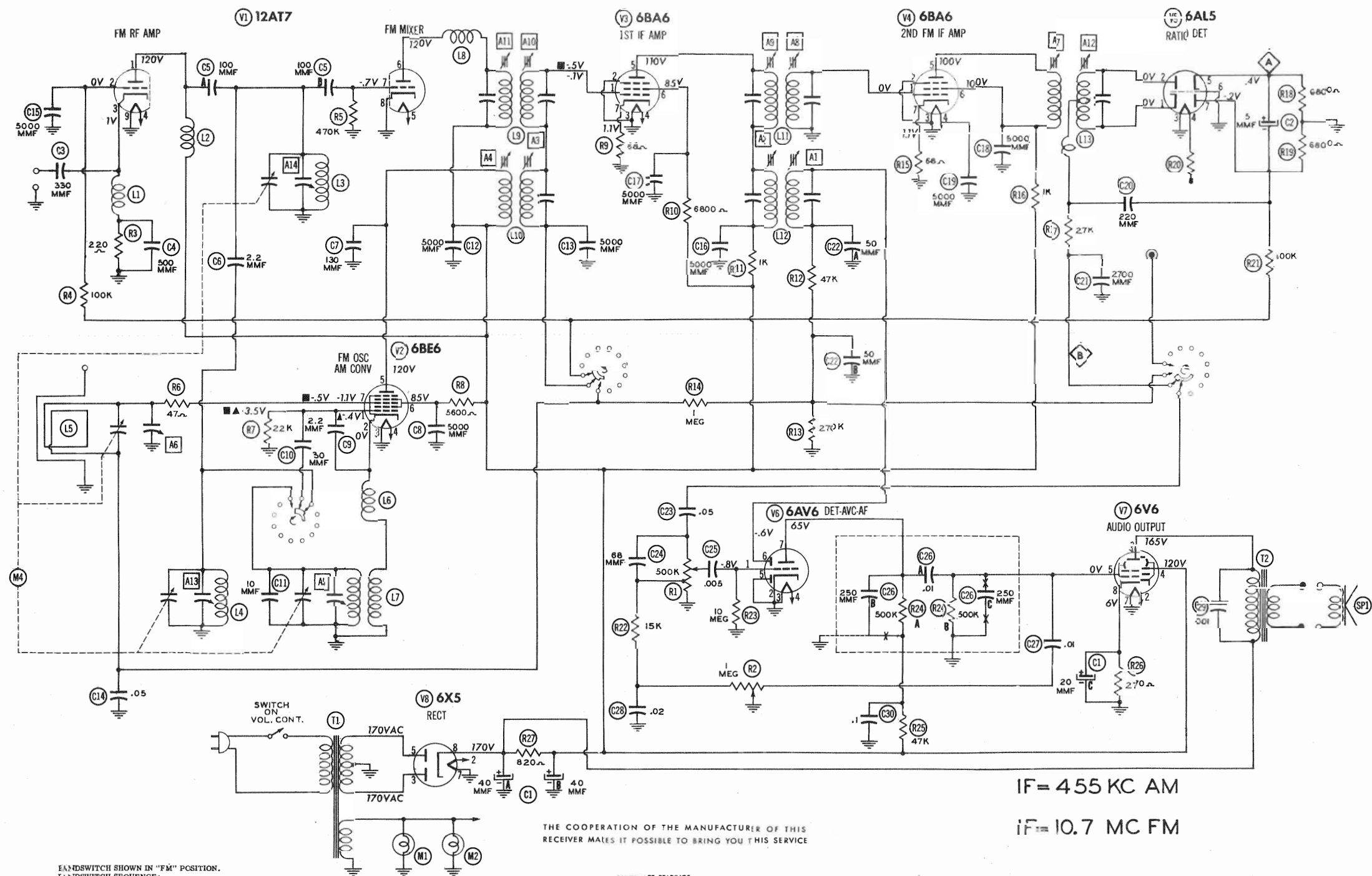
COILS (RF-IF)									
ITEM No.	USE	DC RES.		DEPLACEMENT DATA			NOTES		
		PRI.	SEC.	AIRLINE PART No.	MERIT PART No.	IRC PART No.			
L1	FM Ant. Coil	.22Ω		75A39		CLA	.47 Microhenries 3.3Microhenries		
L2	RF Choke	3Ω		35A8		CLA			
L3	FM RF Coil	0Ω		9A2066					
L4	FM Osc.	0Ω		9A2067					
L5	AM Loop Ant.	0Ω	.8Ω	9A2229					
L6	Cath. Choke	1.8Ω		35A5		CLA			
L7	AM Osc. Coil	.3Ω	5Ω	9A2065					
L8	Parasitic	0Ω		9A2103					
L9	Supp.	1Ω	1Ω	9A2062					
L10	1st AM IF	1Ω	12Ω	9A2062					
L11	2nd FM IF	1Ω	1Ω	9A2061					
L12	2nd AM IF	10.5Ω	11.5Ω	9A2063					
L13	Ratio Det.	1Ω	.2Ω	9A2161					
	Trans.						Tag at .3Ω		

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS	BEAD COLOR	REPLACEMENT DATA		NOTE:
					AIRLINE	PART No.	
M1	Bayonet	6-8	.15	Brown	7A103		Type No. 47 Type No. 47
M2	Bayonet	6-8	.15	Brown	7A103		
M3	Bayonet	6-8	.15	Brown	7A103		

MISCELLANEOUS

ITEM No.	PART NAME	AIRLINE PAIT No.	NOTES.
M3	Switch.	2A365	Function Selector
M4	2 Gang Var. Cap.	14A209	(17-507MMF, 14-187MMF)
A6	Trimmer	17A256	Ant. Adj. (2-24MMF)
A13	Trimmer	17A255	FM Osc. Adj. (1-8 MMF)
	Cabinet	55X318	Brown
	Cabinet	55X418	Ivory
	Dial Glass	58X754	
	Pointer	15X269	
	1Kacab	10A760	Ivory
	Knob	10A761	Brown



HANDSWITCH SHOWN IN "FM" POSITION.
HANDSWITCH SEQUENCE:
1. FM
2. AM
3. PHONO

THE COOPERATION OF THE MANUFACTURER OF THIS
RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	12AT7	4.7Meg	0Ω	50Ω	54Ω	12.4KΩ	12.4KΩ	0Ω		
V 2	6BE6	12.8KΩ	4.7Meg	0Ω	98Ω	54Ω	12.1KΩ	10KΩ	0Ω	60Ω
V 3	6BA6	4.8Meg	0Ω	48Ω	36Ω	12.4KΩ	12.8KΩ	0Ω		
V 4	6BA6	2.6Meg	0Ω	36Ω	24Ω	12.8KΩ	12.8KΩ	0Ω		
V 5	6AL5	Inf	Inf	24Ω	12Ω	0Ω	0Ω	20KΩ		
V 6	6AV6	4.7Meg	0Ω	0Ω	12Ω	515KΩ	0Ω	1220KΩ		
V 7	6V6	Inf	0Ω	58Ω	12.2KΩ	470KΩ	1Ω	118Ω	150Ω	

* TAKEN WITH VACUUM TUBE VOLTMETER
ALL MEASUREMENTS TAKEN IN FM POSITION UNLESS NOTED
MEASURED IN AM POSITION
† MEASURED FROM OUTPUT OF M2

1. DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 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 $\pm 10\%$ in voltage and resistance readings.
6. Volume control at maximum, no signal applied for voltage measurements.