

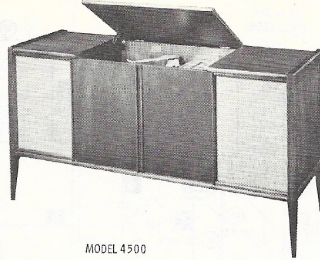
SET 632 FOLDER 10

PHOTOFACT® Folder

with CIRCUITRACE®

PILOT MODELS 4500,  
4500LM, 4505, 4505LM

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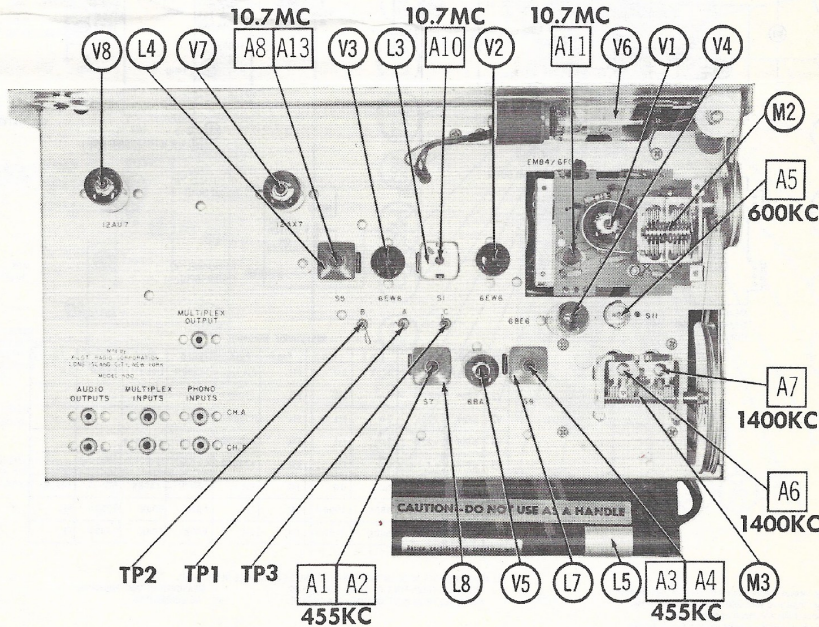
MODEL 4500

PILOT MODELS 4500,  
4500LM, 4505, 4505LM

TRADE NAME	Pilot Models 4500, 4500LM, 4505, 4505LM		
MANUFACTURER	Pilot Radio Corp., Subsidiary of Jerrold Electronics Corp., 37-06 36th Street, Long Island City 1, N. Y.		
TYPE SET	AC Operated 8 Tube AM-FM Tuner, 7 Tube Stereo Amplifier, 3 Tube FM Multiplex Adaptor and 4 Speed Automatic Record Changer		
POWER SUPPLY	110 - 120 Volts AC, 60 Cycles	RATING	180 Watts, 1.7 Amp. @117 Volts AC (Complete Unit) 125 Watts, 1.25 Amp. @117 Volts AC (Amp. Only) 24 Watts, .24 Amp. @117 Volts AC (MPX Only)
TUNING RANGE - BROADCAST	535 - 1610KC	FREQ. MOD.	88 - 108MC

MODEL 4500 USES RECORD CHANGER PART #108-50.  
MODEL 4505 USES RECORD CHANGER PART #108-52.

PILOT MODELS 4500,  
4500LM, 4505, 4505LM



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



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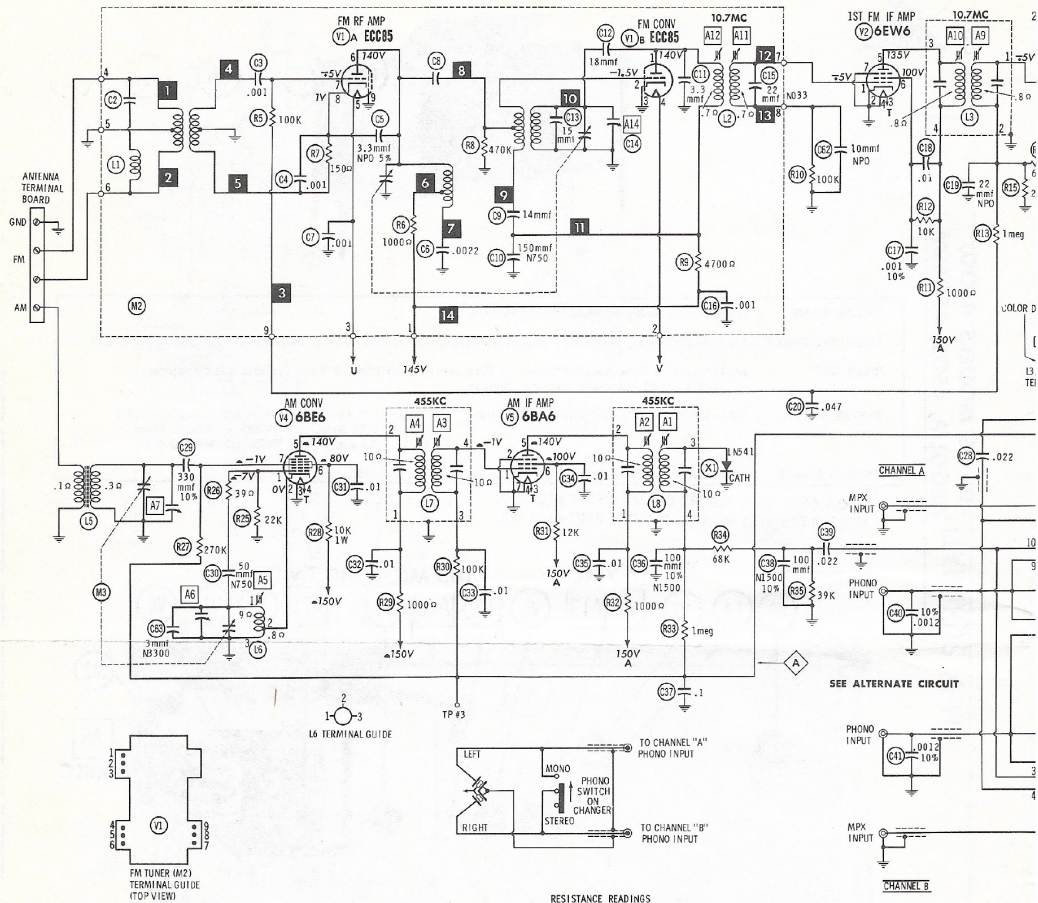
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DATE 5-63

SET 632 FOLDER 10

SET 632 FOLDER 10

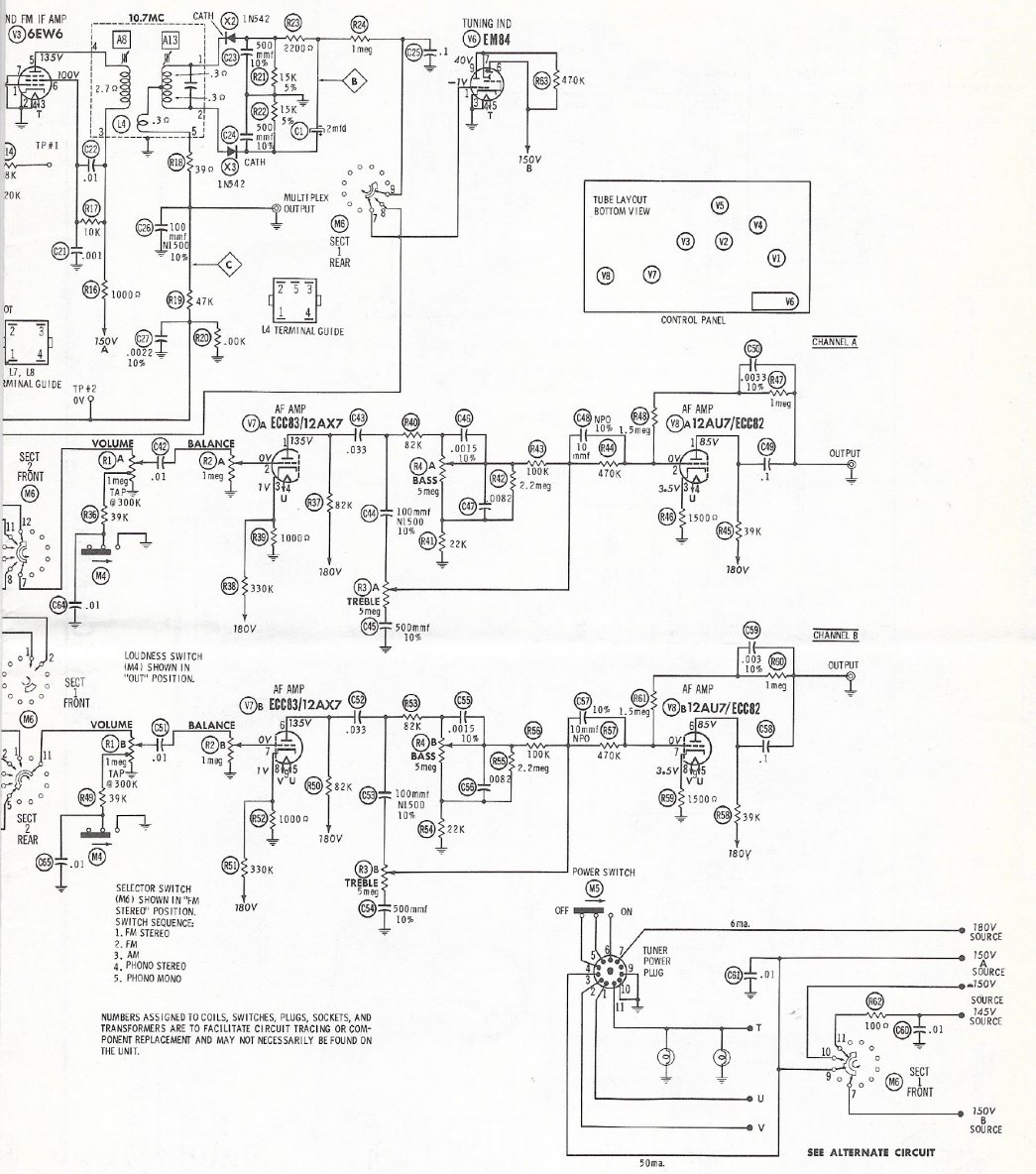


RESISTANCE READINGS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6ECC85	14800 Ω	470K	0 Ω	FIL	FIL	11100 Ω	1meg	150 Ω	0 Ω
V2	6EW6	100K	0 Ω	FIL	FIL	+1000 Ω	+11K	0 Ω		
V3	6EW6	220K	0 Ω	FIL	FIL	+1000 Ω	+11K	0 Ω		
V4	6BE6	+22K	1 Ω	FIL	FIL	+11000 Ω	+110K	+1.3meg		
V5	6BE6	+1.1meg	0 Ω	FIL	FIL	+11000 Ω	+112K	0 Ω		
V6	6BA6	1.1meg	NC	0 Ω	FIL	FIL	10 Ω	1470K	NC	1470K
V7	6ECC85	182K	900K	1000 Ω	FIL	FIL	182K	900K	1000 Ω	FIL
V8	6ECC85	+39K	500K	1500 Ω	FIL	FIL	+39K	500K	1500 Ω	FIL

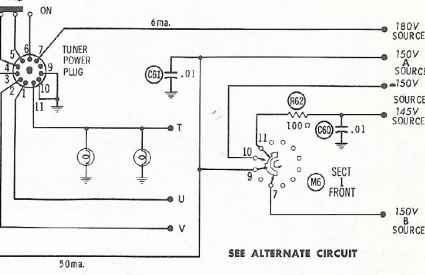
1. DC voltage measurements taken with vacuum tube voltmeter;
2. AC voltages measured with 1000 ohm per volt voltmeter.
3. Socket connections are shown as bottom views.
4. Measured values are from socket pin to common ground.
5. Line voltage maintained at 117 volts for voltage readings.
6. Nominal tolerance of component values makes possible a variation of ±15% in voltage and resistance readings.

A PHOTOFACIT STANDARD NOTATION SCHEMATIC with **CIRCUITRACE**  
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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.

SELECTOR SWITCH (M6) SHOWN IN "FM STEREO" POSITION.  
 SWITCH SEQUENCES:  
 1. FM STEREO  
 2. FM  
 3. AM  
 4. PHONO STEREO  
 5. PHONO MONO



PILOT MODELS 4500, 4500LM, 4505, 4505LM

Use or Suggest  
 AM AL  
 High si pin 7 (g verter, chassic  
 Fashion turns o signal  
 FM IF  
 High si tube sh side to  
 FM IF  
 Use Fr deflect  
 High s tube sh side to  
 FM R  
 Across termu each l

# TUNER ALIGNMENT INSTRUCTIONS

Use only enough generator output to provide a usable indication.  
Suggested Alignment Tools: GENERAL CEMENT #8282, 8606, 9302.... WALSCO #2543, 2544, 2588

### AM ALIGNMENT - SELECTOR IN AM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
High side thru .1mf to pin 7 (grid) of AM Converter; low side to chassis.	455KC (Unmod.)	(AM) Tuning gang fully open.	DC probe of VTVM to point $\text{\textcircled{A}}$ , common to chassis.	A1, A2, A3, A4	Adjust for maximum.
Fashion loop of several turns of wire and radiate signal into loop of receiver.	600KC	600KC	"	A5	"
"	1400KC	1400KC	"	A6, A7	"

### FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM - SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
High side to ungrounded tube shield over V1, low side to chassis.	10.7MC (Unmod.)	(FM) Point of non-interference.	DC probe of VTVM to point $\text{\textcircled{A}}$ , common to chassis.	A8, A9, A10, A11, A12	Adjust for maximum.
"	"	"	DC probe to point $\text{\textcircled{C}}$ , common to chassis.	A13	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 - SELECTOR IN FM POSITION

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

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
High side to ungrounded tube shield over V1, low side to chassis.	10.7MC (450KC Swp.)	(FM) Point of non-interference.	Vert. amp. of scope to point $\text{\textcircled{A}}$ , low side to chassis.	A8, A9, A10, A11, A12	Disconnect stabilizing capacitor C1. Adjust for maximum gain and symmetry of response similar to Fig. 1 with marker as shown. Reconnect C1.
"	"	"	Vert. amp. to point $\text{\textcircled{C}}$ , low side to chassis.	A13	Adjust to place marker at center of crossover lines similar to Fig. 2. SLIGHTLY retouch A9 for maximum amplitude and straightness of crossover lines.

### FM RF ALIGNMENT - SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
Across FM antenna terminals with 1500 in each lead.	108MC (Unmod.)	(FM) 108MC	DC probe of VTVM to point $\text{\textcircled{A}}$ , common to chassis.	A14	Adjust for maximum.

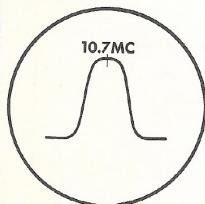


FIG. 1

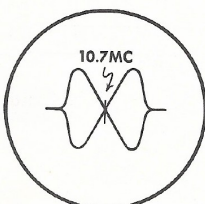
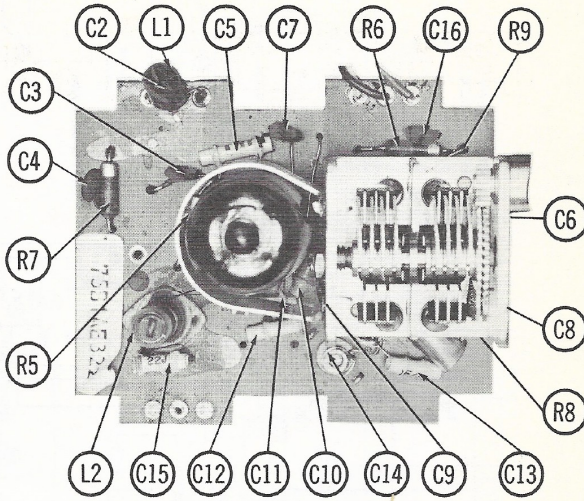
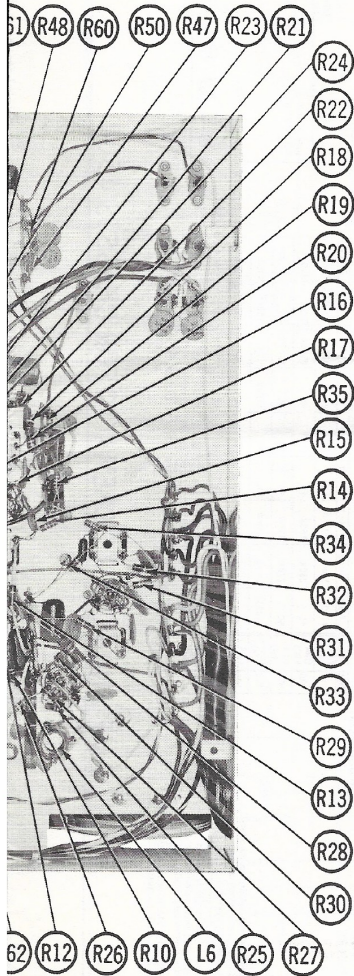
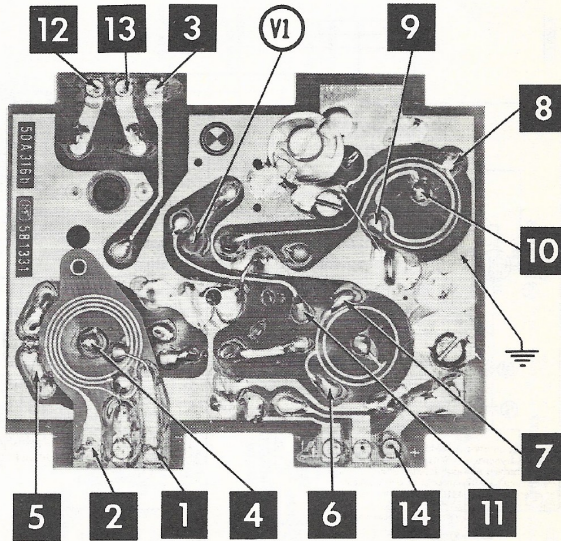


FIG. 2



FM RF SUBCHASSIS TOP VIEW



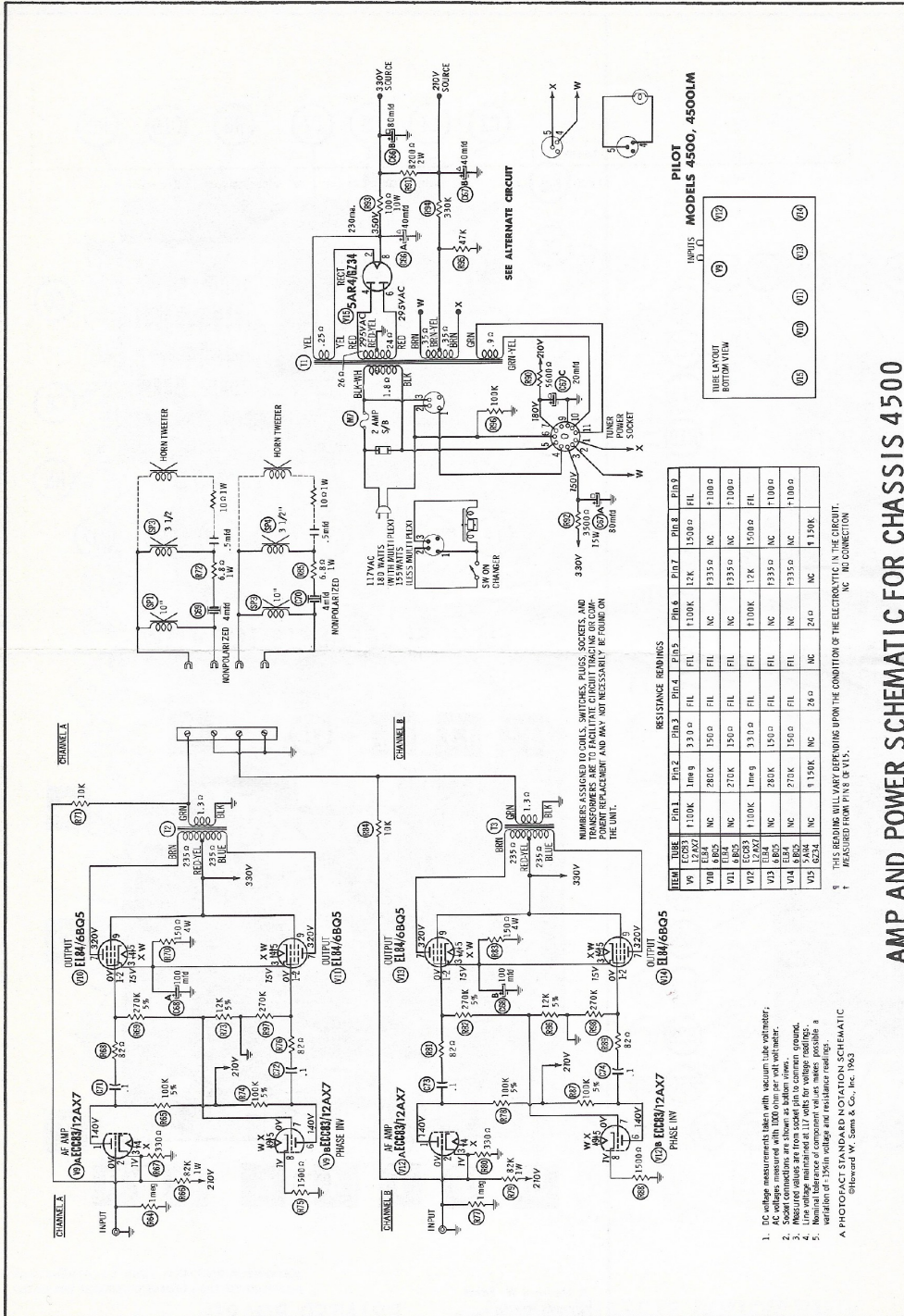
A Howard W. Sams  
CIRCUITRACE® Photo

ARROWS INDICATING TUBE LOCATIONS ARE  
POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

PRINTED BOARD

PILOT MODELS 4500,  
4500LM, 4505, 4505LM

FOLDER 10





AMP AND POWER SCHEMATIC FOR CHASSIS 4500

- DC voltage measurements taken with vacuum tube voltmeter.
- Resistor values are shown as ball-in values.
- Socket connections are shown as ball-in views.
- Measure values are from socket pin to common ground.
- Nominal tolerance of component values, makes possible a variation of ±15% in voltage are resistance readings.



A PHOTOFACT STANDARD NOTATION SCHEMATIC  
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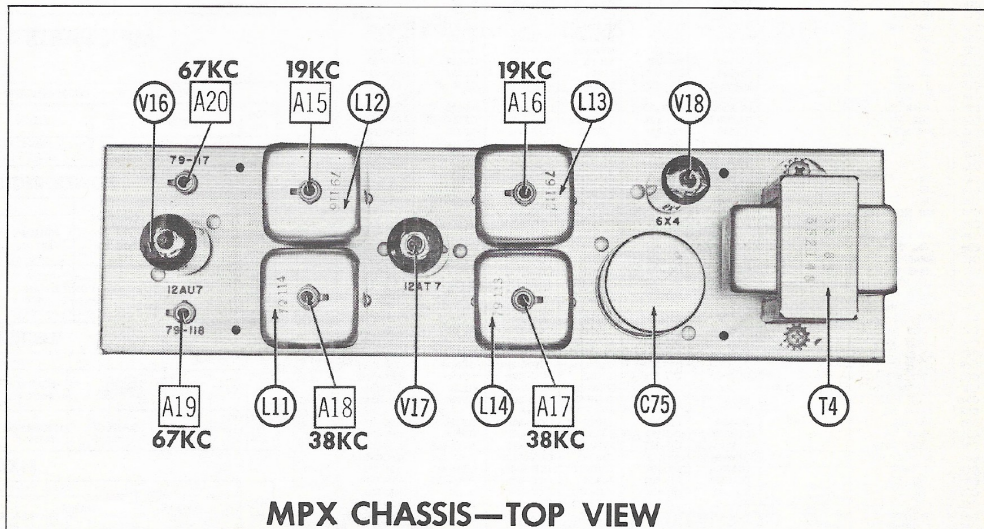
# MPX ALIGNMENT INSTRUCTIONS

MULTIPLEX ADAPTER ALIGNMENT USING FM STEREO GENERATOR & AUDIO OSCILLATOR

SIGNAL GENERATOR	CONNECT SCOPE	ADJUST	REMARKS
7. 19KC to MPX Input.	Vert. Amp. to Pin 7 of V17, low side to chassis.	A15	Adjust for maximum.
8. "	Vert. Amp. to point  , low side to chassis.	A16	Adjust for maximum. Set scope to lock in 2-cycle waveform.
9. 38KC to MPX Input.	Vert. Amp. to pin 2 of V17, low side to chassis.	A17	Adjust for maximum.
10. 38KC to MPX Input.	Vert. Amp. to point  , low side to chassis.	A18	"
11. 67KC to Input Jack.	"	A19, A20	Adjust for MINIMUM.

MULTIPLEX ADAPTER ALIGNMENT USING AIR SIGNAL. MAKE SURE FM SECTION OF RECEIVER IS PROPERLY ALIGNED BEFORE ATTEMPTING TO ALIGN ADAPTER.

SIGNAL GENERATOR	CONNECT SCOPE	ADJUST	REMARKS
7. Tune in strong FM stereo signal.	Vert. Amp. to pin 7 of V17.	A15	Adjust for maximum.
8. "	Vert. Amp. to point  , low side to chassis.	A16	Adjust for maximum. Set scope to lock in 2-cycle waveform.
9. "	Vert. Amp. to pin 2 of V17, low side to chassis.	A17	Adjust for maximum.
10. "	Vert. Amp. to point  ,	A18	"
11. "	None	A19	Adjust to eliminate whistle or interference.



**MPX CHASSIS—TOP VIEW**

PILOT MODELS 4500, 4500LM, 4505, 4505LM

FOLDER 10

# TUNER PARTS LIST AND DESCRIPTION

## WIRING DATA

General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors	8524 (Stranded) Available in 12 Colors
Power Cord	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 8 Ft.	17106 (Plastic) or 17126 (Rubber) - 9 Ft.
Power Cord (Interlock Type)	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)	8401 or 8421
Low-Loss Shielded Lead (Interconnecting)	Use BELDEN No. 8430 (Two Conductor-Unshielded)	8429 (Two Conductor-Shielded)
Phono Pick-up Arm Cable	Use BELDEN No. 8419 (Three Conductor-Shielded)	

## TUBES

ITEM No.	USE	GENERAL ELECTRIC	RCA	RAYTHEON	SYLVANIA
V1	FM RF Amp. - FM Conv.	ECC85	V5	AM IF Amp.	6BA6
V2	1st FM IF Amp.	6EW6	V6	Tuning Indicator	EM84
V3	2nd FM IF Amp.	6EW6	V7	AF Amp.	ECC85/12AX7
V4	AM Conv.	6BE6	V8	AF Amp.	12AU7/ECC82

## POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS			NOTES
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1		1N541				AM Detector
X2		1N542				Ratio Detector
X3		1N542				

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	PILOT PART No.	REPLACEMENT DATA					
			AEROVOX PART No.	CORNELL DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	2 50	24-82	PR81300	BBR2-50	QT-1	TC-302	TD-2-50	TV4-150L

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	ELEMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C2	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C3	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C4	3.3 5% NPO		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C5	.0022		C1-2800	DD-222	LQD22	CCD-222	G2P22	10T5-D22
C6	.0022		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C7	.001							
C8								
C9	14							
C10	150 N750		N750-C1 150	DD-150	LQ105	CCD-150	G2P45	10T5-Q15
C11	5 3							
C12	18							
C13	15							
C14								
C15	22 N033							
C16	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C17	.001 10%		DI-1000	DD-102	SR5D1	CCD-102	G2P10	10T5-D10
C18	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C19	22 NPO		NPO-DT 22	DTZ-22	C10Q22C	CCO-220	CNO-422	10TCC-Q22
C20	.047 100V		P288N-047	DD-503	CUE247	4CP-4-473	GEM-247	2TM-S47
C21	.001		BPD-001	DD-102	BYA10D1	CCD-102	B-210	5HK-D10
C22	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C23	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C24	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C25	.1 100V		P488N-1	DF-104	CUB4F1	4CP-4-104	GEM-411	4TM-P10
C26	100 N1500 10%							
C27	.0022 10%		DI-2200	DD-222	JR5D22	CCD-222	G2P22	10T5-D22
C28	.022 400V		P488N-022	DD-203	CUB4S22	4CP-2-223	GEM-412	4TM-S22
C29	330 10%		DI-330	DD-331	L10T53	CCD-331	GP333	10T5-T33
C30	50 N750		N750-D1 47	DTN-47	C10Q47	CCO-470	CNT-447	10TCC-Q47
C31	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C32	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C33	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C34	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C35	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C36	100 N1500 10%							
C37	.1 100V		P488N-1	DF-104	CUB4F1	4CP-4-104	GEM-411	4TM-P10
C38	100 N1500 10%							
C39	.022 200V		P488N-022	DD-203	CUB4S22	4CP-2-223	GEM-412	4TM-S22
C40	.0012 10%		DI-1000	DD-102	SR5D1	CCD-102	G2P10	10T5-D10
C41	.0012 10%		DI-1000	DD-102	SR5D1	CCD-102	G2P10	10T5-D10
C42	.01 100V		P288N-01	DD-103	BYA10S1	CCD-103	PVC-211	10T5-S10
C43	.033 400V		P488N-033	DD-303	BYB6S3	CCD-303	GP130	4FS-S33
C44	100 N1500 10%							
C45	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C46	.0015 10%		DI-1500	DD-152	L10D15	CCD-152	GP215	10T5-D15
C47	.0082 300V		P288N-008	DD-822	DPMS822	CCD-822	PVC-428	5BF-D82
C48	10 NPO 10%		NPO-D1 10	DTZ-10	C10Q10	CCO-100	CNO-410	10TCC-Q10
C49	.1 400V		P488N-1	DF-104	CUB4F1	4CP-4-104	GEM-411	4TM-P10
C50	.003 10%		DI-3000	DD-302	L10D3	CCD-302	PVC-423	10T5-D30
C51	.01 100V		P288N-01	DD-103	BYA10S1	CCD-103	GP110	10T5-S10
C52	.033 400V		P488N-033	DD-303	BYB6S3	CCD-303	GP130	4FS-S33
C53	N1500 10%							
C54	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C55	.0015 10%		DI-1500	DD-152	L10D15	CCD-152	GP215	10T5-D15
C56	.0082 300V		P288N-008	DD-822	DPMS822	CCD-822	PVC-428	5BF-D82
C57	10 NPO 10%		NPO-D1 10	DTZ-10	C10Q10	CCO-100	CNO-410	10TCC-Q10
C58	.1 400V		P488N-1	DF-104	CUB4F1	4CP-4-104	GEM-411	4TM-P10
C59	.003 10%		DI-3000	DD-302	L10D3	CCD-302	PVC-423	10T5-D30
C60	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C61	.01		BPD-001	DD-102	BYA10S1	CCD-103	B-110	5HK-S10
C62	10 NPO		NPO-D1 10	DTZ-10	C10Q10	CCO-100	CNO-410	10TCC-Q10
C63	3 N3300							
C64	.01 100V		P288N-01	DD-103	BYA10S1	CCD-103	GP110	10T5-S10
C65	.01 100V		P288N-01	DD-103	BYA10S1	CCD-103	GP110	10T5-S10

PAGE 6

## CONTR

All wattages 1/2 watt, or less, t

ITEM No.	USE	RESISTANCE	PILOT PART No.	CENTRALAB PART No.
R1A	Volume, A	1meg 300K Tap		F12-1meg, R12-1meg, TU304
B	Volume, B	1meg 300K Tap	36-78	
R2A	Balance, A	1meg	39-57	F2-1meg, R3-1meg, TU304
B	Balance, B	1meg		
R3A	Treble, A	5meg	37-44	F2-5meg, FFS012, R2-5meg, RF
B	Treble, B	5meg		F2-5meg, RF
R4A	Bass, A	5meg	37-44	F2-5meg, FFS012, R2-5meg, RF
B	Bass, B	5meg		

- ① Part #39-69 used in Model 4505 Series.
- ② Part #37-45 used in Model 4505 Series.
- ③ Use QCEI instead of TAB Mount Plate in TMS.
- \* "SNAPTROL"
- † "STA-LOC" Equivalent: FB66A, RU56A, OS812, IS1312
- ‡ "CONCENTRIK" Equivalent: K-6 Kit with base Elements and (Not available as a factory assembled unit).
- B13-141, P17-028 (Panel)
- B13-141, R1-108 (Rear)
- "SNAPTROL" Equivalent: BU5, CP29, SF4, CR24, SR4, DC1

## COILS (R)

ITEM No.	USE	REPLACEMENT		
		PILOT PART No.	MERIT PART No.	MILLES PART No.
L1	Ant Matching			
L2	1st FM IF			
L3	2nd FM IF	273-451	FM-254	1483
L4	Ratio Det	273-79	FM-255	1485
L5	Loopstick	270-56	BC-419	
L6	AM Osc.	12-86	BC-393A	70-Osc
L7	1st A MIF	273-429	BC-358	12-C1
L8	2nd A MIF	273-429	BC-352	12-C2

## PHONO CARTRIDGE

\*NEEDLE LISTINGS SHOWN ARE FOR RESPECT

ITEM No.	REPLACEMENT DATA					
	PILOT PART No.		ASTATIC PART No.		ELECTRO-VOIC PART No.	
M1	CARTIDGE	HEAD	CARTIDGE	HEAD	CARTIDGE	HEAD
			17D	M41sd	28D	260
			N679sd			321
						①

## MISCELLA

ITEM No.	PART NAME	PILOT PART No.	REMARKS
M2	FM Tuner	110-638	
M3	AM Tuning Gang	26-70	2 Gang
M4	Switch	101-20	Loudness
M5	Switch	101-29	Power On
M6	Switch	100-171	Selector

## MPX PARTS LIST AN

## TUBE

ITEM No.	USE	TYPE	REMARKS
V16	Cath. Foll. -198K Amp.	12AU7/ECC82	
V17	198K Amp. -388K Amp.	12A77/ECC81	

## POWER RECTIFIERS &

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS	
			MALLORY PART No.	RCA PART No.
X4				
X5				
X6				
X7				

## ELECTROLYTIC C

ITEM No.	RATING	PILOT PART No.	REPLACEMENT DATA	
			AEROVOX PART No.	CORNELL DUBILIER PART No.
C75A	40 300	24-192	AFH3-25-50	B0630
B	250 10%			B0630
C	40 250			B0630

## FIXED CAPA

ITEM No.	RATING	REMARKS	REPLACEMENT DATA	
			AEROVOX PART No.	CENTRALAB PART No.
C76	.0015 10%		BB6D15	DD-152
C77	150 10%		DI-150	DD-151

## MPX PARTS LIST AND DESCRIPTION (CONTINUED)

OLS

unless otherwise listed.

REPLACEMENT DATA			
CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
	QCB1 (3) MB3-437X, TMS, QCM or (BU2, SC25T, SS1, DC1) QCB1 (3) BI9-187, BIT-187, TMS, QCM or (BU2, CP28, CR44, SS7, SS1, DC1) P-5meg-Z, R-5meg, CP-013, FR-104 P-5meg-Z, R-5meg, CP-013, FR-104	F418T35, RU18T35, CS9500 F416A, RU16A, CS8500 † QJ1342R † QJ1342R	UE4312 UE4312

### FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C78	.0012 10%		DI-1000	DD-102	5RSD1	CCD-102	GP210	10T5-D10
C79	.0018 10%		DI-1000	DD-102	5RSD1	CCD-102	GP210	10T5-D10
C80	.047 100V		P288N-047	DD-503	CUB2847	4CP-4-473	GEM-2147	2TM-847
C81	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C82	500 10%		DI-500	DD-501	L10T5	CCD-501	GP350	10T5-T50
C83	220 10%		DI-220	DD-221	L10T22	CCD-221	GP322	10T5-T22
C84	.0015 10%		DI-1500	DD-152	L10D15	CCD-152	GP215	10T5-D15
C85	.1 200V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C86	220 10%		DI-220	DD-221	L10T22	CCD-221	GP322	10T5-T22
C87	.0015 10%		DI-1500	DD-152	L10D15	CCD-152	GP215	10T5-D15
C88	.1 200V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C89	.1 100V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C90	39 N750 10%			TCN-59	C10Q39U	CCTN-390	CN7-439	10TCU-Q39
C91	.01 10%		BE2SL	CPR-10000	PM481	CCD-103	PVC-211	10T5-S10

### RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		IRC PART No.	WORKMAN PART No.			IRC PART No.	WORKMAN PART No.
RI17	1000Ω 5W	PWS-1000	5W-SQ-1000	RI18	1000Ω 5W	PWS-1000	5W-SQ-1000

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PILOT PART No.	MERIT PART No.	STANCOR PART No.	THORNDARSON PART No.	TRIAD PART No.	
T4	117VAC @ .240A ADC	440VCT @ .026 ADC	8.3VCT @ .58A	55-85					

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		PILOT PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L9	67KC Trap	79-118		9002			
L10	Bandpass (38KC)	79-117		9004			
L11	Doubler (38KC)	79-114					
L12	19KC Amp.	79-116					
L13	19KC Amp.	79-112					
L14	38KC Amp.	79-113					

### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA						
			PILOT PART No.		LITELFUSE PART No.		BUSS PART No.		
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER	
M8	3AG	2 Amp S/B	111-46		318002	2 Amp. S/B		MDV 2	

Shafts:

F-IF)

STANCOR PART No.	WORKMAN PART No.	NOTES
RTC-8599	T833	
RTC-8600	T835	
RTC-8615	T832	
RTC-8647A	T812A	4 Drill New Mtg. Hole
RTC-8682	T807	
RTC-8683	T808	

### REPLACEMENT CARTRIDGES ONLY.

SONOTONE PART No.	NOTES
STASD	N9T-8D Replacement For Original Needles.

### NEOUS

NOTES

### D DESCRIPTION

RAYTHEON	SYLVANIA	USE	TYPE
		Rectifier	6X4

### SIGNAL DIODES

SARKES TARZIAN PART No.	NOTES
	Matrix Detector Matrix Detector Matrix Detector Matrix Detector

### CAPACITORS

GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
XC3-45	FP217, 87 TC-65	TMD2315 TD-60-350	TVL-3561-3

### FIXED CAPACITORS

CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
L10D15	CCD-152	GP215	10T5-D15
L10T15	CCD-151	GP315	10T5-T15

## AMP POWER PARTS LIST AND DESCRIPTION

### TUBES

AMPEREX	GENERAL ELECTRIC	RCA	RAYTHEON	SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V9	AF Amp.-Phase Inv.	ECC83/12AX7	V13	Output	E184/6BQ5
V10	Output	E184/6BQ5	V14	Output	E184/6BQ5
V11	Output	E184/6BQ5	V15	Rectifier	5AR4/GZ34
V12	AF Amp.-Phase Inv.	ECC83/12AX7			

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		PILOT PART No.	REPLACEMENT DATA					
	CAP.	VOLT.		AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C86A	40	400	24-124	AFH2-64	B0480	XC2-31	FP229.4	TMD2960	TVL-3778
C87A	80	350		24-165	AFH3-46	C0237	XC3-32	FP378	TM13763
C86B	100	25	24-170	PR81270	NLW100-25	QTL-23	T725X100	TD-100-25	TE-1211
C89	4	50NP		PR81270	NLW100-25	QTL-23	T725X100	TD-100-25	TE-1211
C70	4	50NP		PR87405	BBR4-150	NPQT-2	TCN504		TVANS-1302.5*

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

### FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C71	.1 400V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C72	.1 400V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C73	.1 400V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10
C74	.1 400V		P488N-1	DF-104	CUB4P1	4CP-4-104	GEM-411	4TM-P10

PILOT MODELS 4500, 4500LM, 4505, 4505LM

FOLDER 10

## AMP PARTS LIST AND DESCRIPTION (CONTINUED)

### RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R70	1500 4W		4G-150		R92	3500Ω 15W		15W-SQ-3500	
R83	1500 4W		4G-150		R93	1000 10W		10W-SQ-100	

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PILOT PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117 VAC 1.25A	590V CT 230 ADC	5VAC 1.9A	55-77 ○					① Part #55-87 used in Model 4505 Series
	6.3 VCT 4.3A	6.3 VAC 1.8A							

### TRANSFORMER (AUDIO OUTPUT)

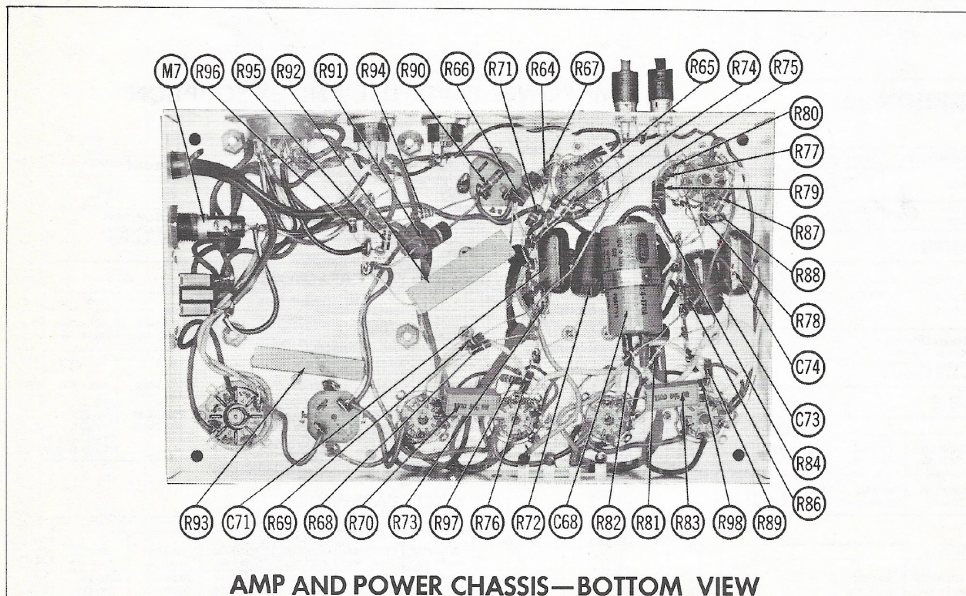
ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	PILOT PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	3150Ω CT	8-10Ω	56-87					
T3	3150Ω CT	8-10Ω	56-87					

### SPEAKER

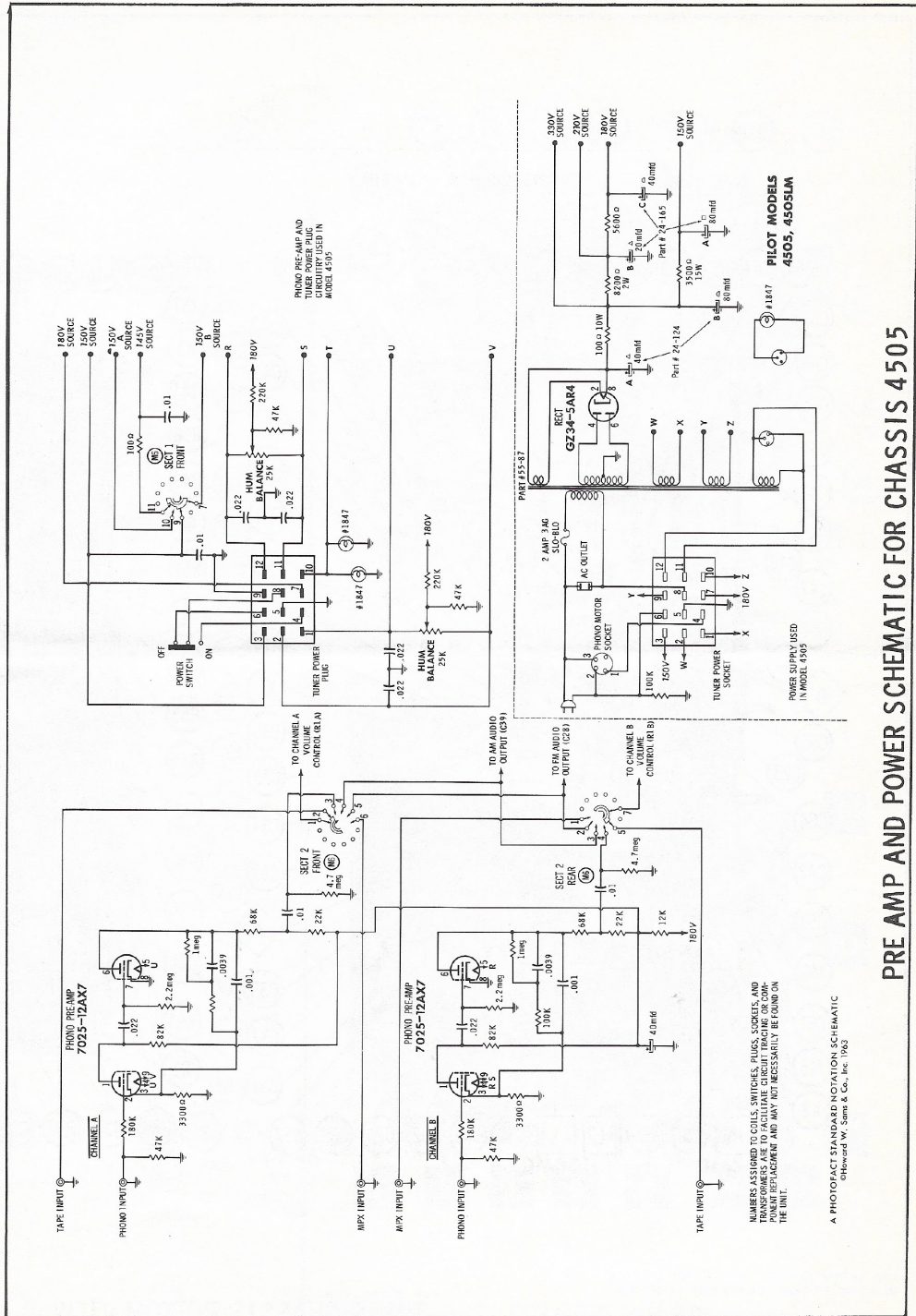
ITEM No.	TYPE		REPLACEMENT DATA		NOTES
	PILOT PART No.	QUAM PART No.			
SP1	10"	PM 8-10 Ω		10A4AZ8	
SP2	3½"	PM 6-8 Ω		3A15T	
SP3	10"	PM 8-10 Ω		10A4Z8	
SP4	3½"	PM 6-8 Ω		3A15T	

### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			PILOT PART No.		LITELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M7	MDL	2Amp S/B			313002	342001	MDL 2	HCM



**AMP AND POWER CHASSIS—BOTTOM VIEW**

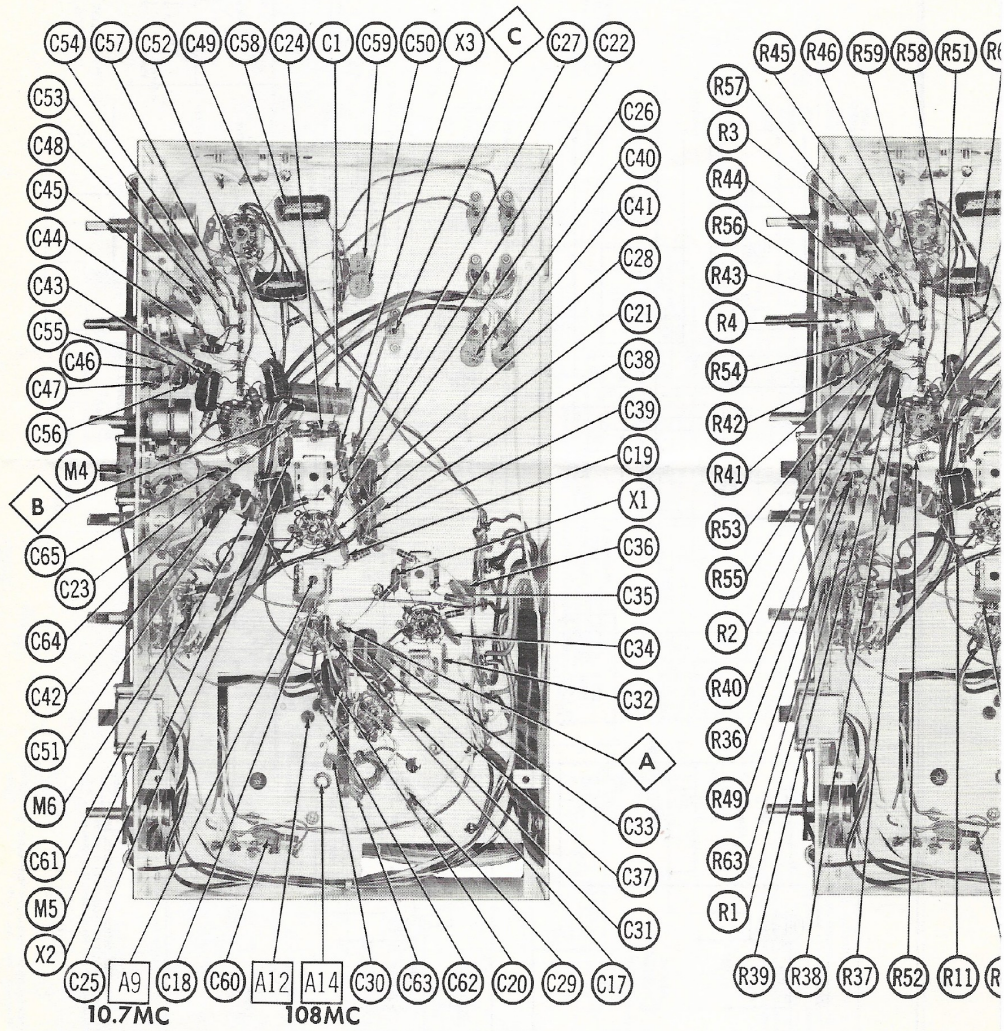


A PHOTOFACT STANDARD NOTATION SCHEMATIC  
 ©Howard W. Sams & Co., Inc. 1963

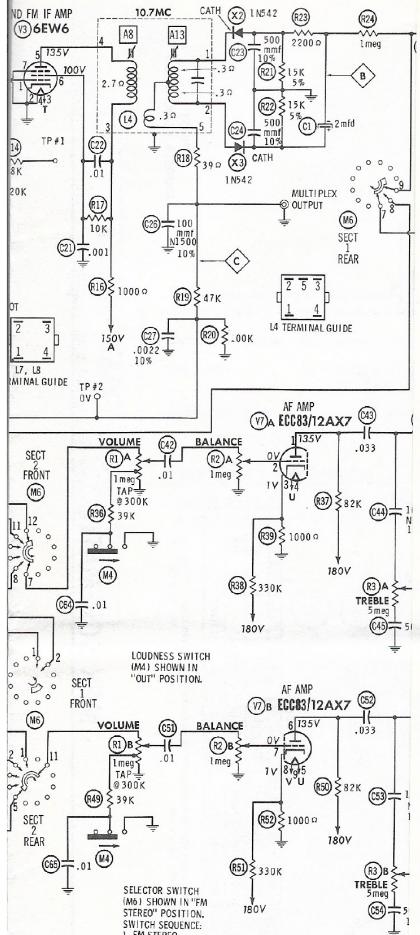
**PRE AMP AND POWER SCHEMATIC FOR CHASSIS 4505**

**PILOT MODELS 4500, 4505L, 4505M, 4505SLM**

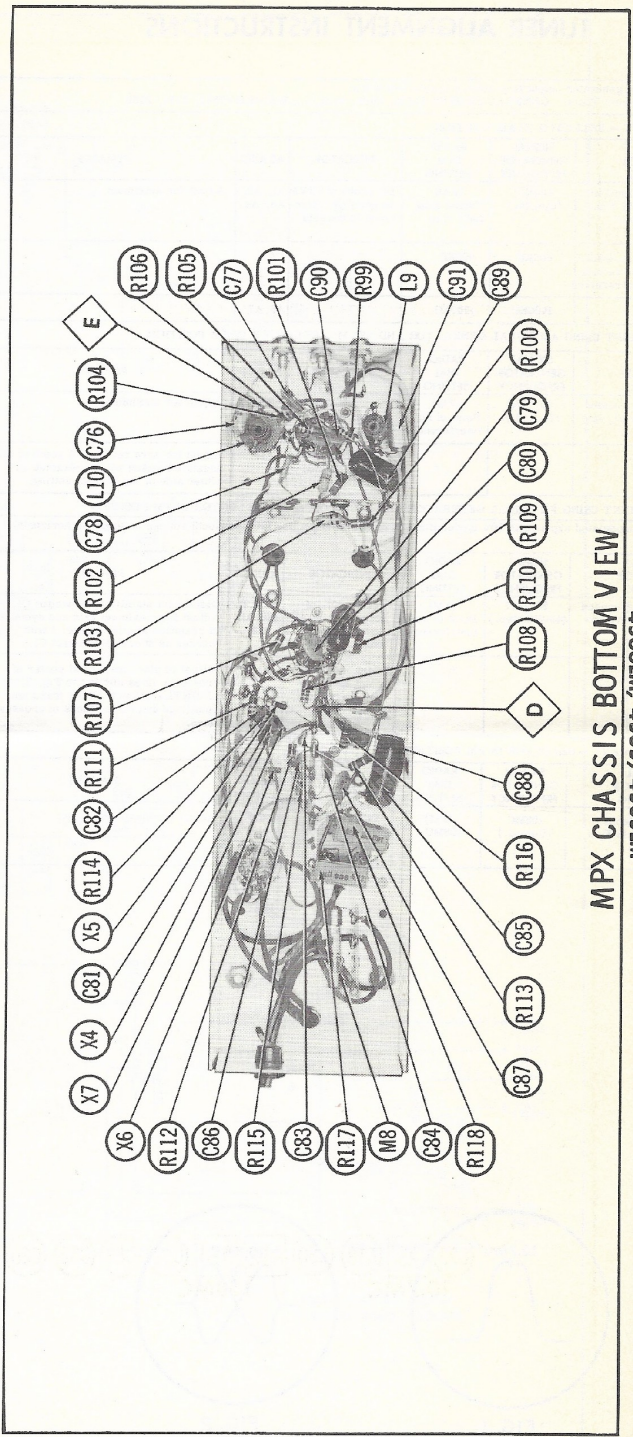
**FOLDER 10**



TUNER CHASSIS BOTTOM VIEW

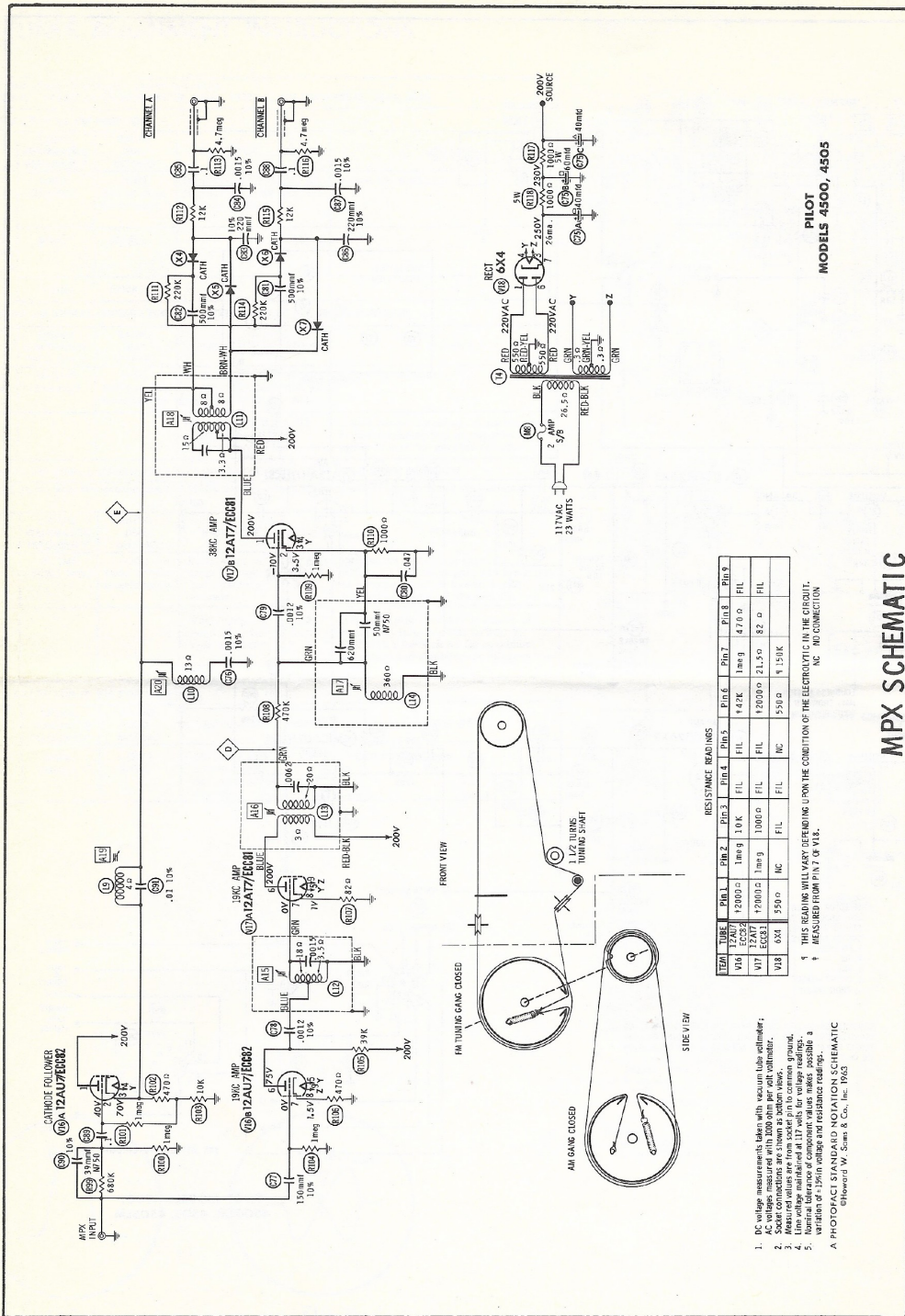


NUMBERS ASSIGNED TO COILS, SWITCHES, PLUGS, SOCKETS, AND TRANSFORMERS ARE TO FACILITATE CIRCUIT TRACING OR COMPONENT REPLACEMENT AND MAY NOT NECESSARILY BE FOUND ON THE UNIT.



PILOT MODELS 4500, 4501M, 4505, 4501LM  
MPX CHASSIS BOTTOM VIEW

FOLDER 10



PILOT  
 MODELS 4500, 4505

MPX SCHEMATIC