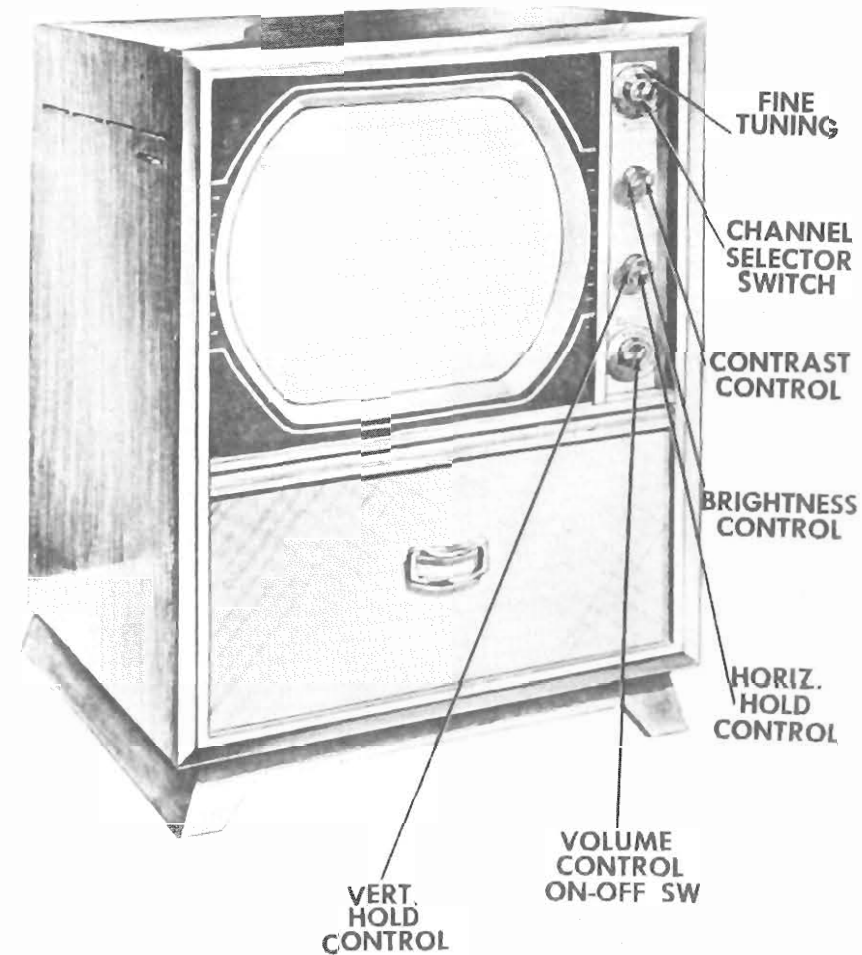


CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION



Hyde Park Model 8193CM	
TRADE NAME	Hyde Park Models MST12, MST14, 14TR, 16TR, 17CD (1st. Prod.) 17CRR (1st. Prod.) 17ROG (1st. Prod.) 20CD (1st. Prod.) 20TR, 112X, 203D (1st. Prod.) 312, 819, 3163CR, 8163CR, 8193CM
SUPPLIER	Macys Dept. Store, New York, N. Y.
TYPE SET	Television Receiver
TUBES	Twenty-One
POWER SUPPLY	110-120 Volts AC-60 Cycle
TUNING RANGE	CHANNELS 2 thru 13
	RATING 1.85 Amp. @117 VAC
INDEX	
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Horizontal Sweep Circuit Adjustments.....	11
Parts List and Description.....	12, 13, 14
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RF Tuner.....	10
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Schematic (Main).....	2
Schematic (3 Tube Tuner).....	7
Tube Placement Charts.....	5
Voltage and Resistance Measurements.....	8

HOWARD W. SAMS & CO., INC. • Indianapolis 1, Indiana

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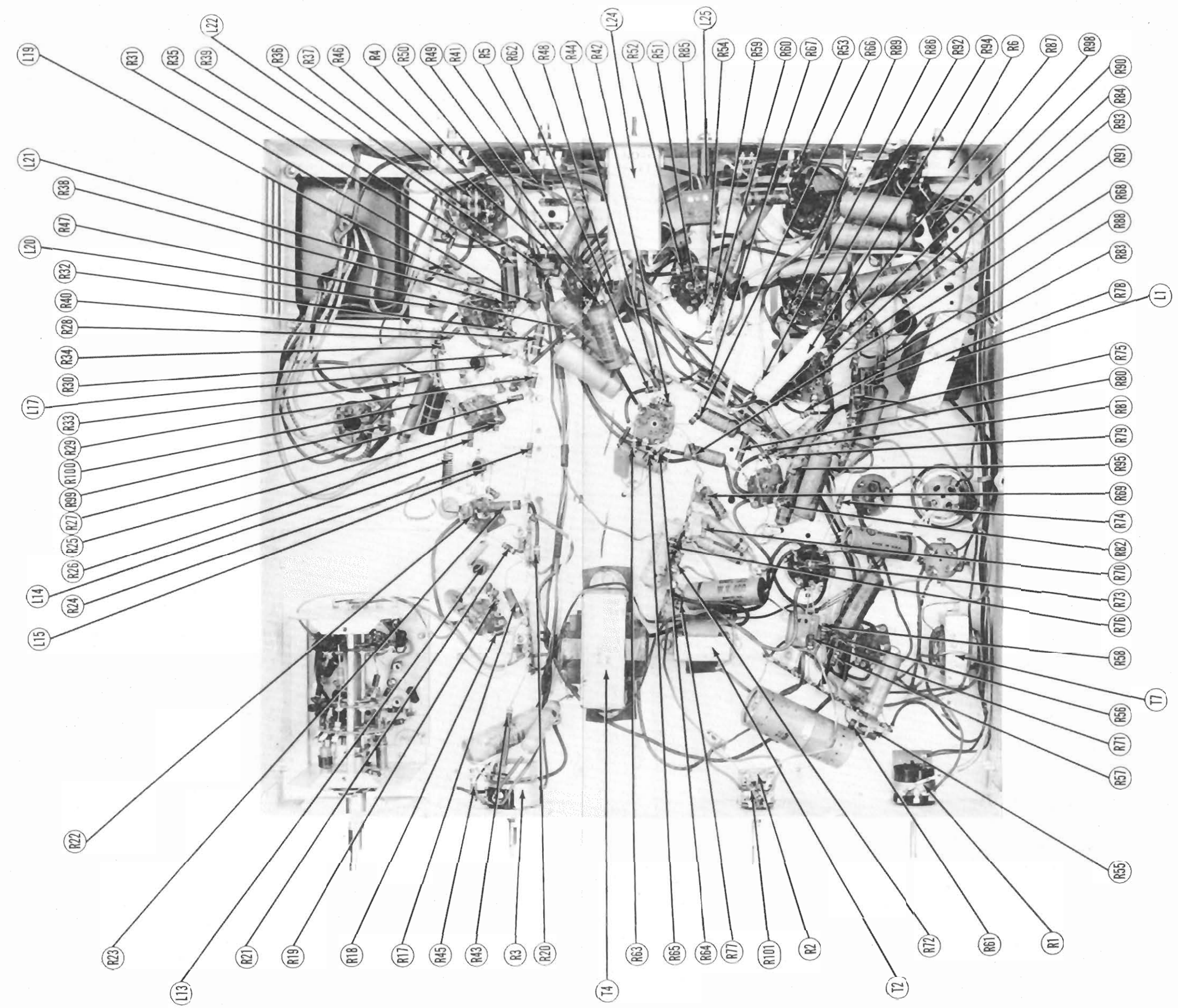
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DATE 5-52

SET 168

FOLDER 9

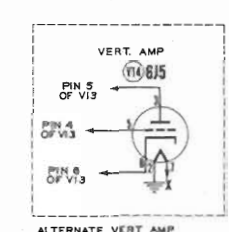
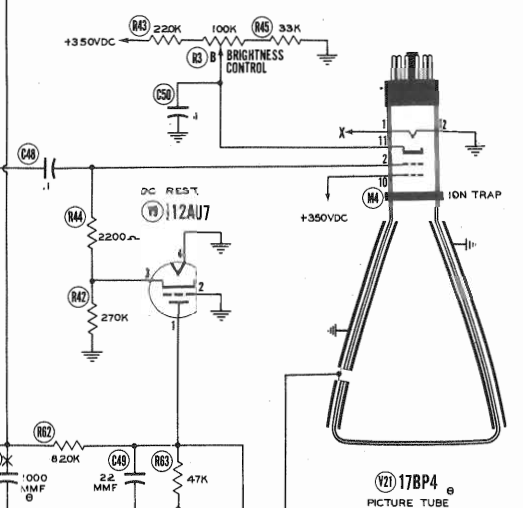
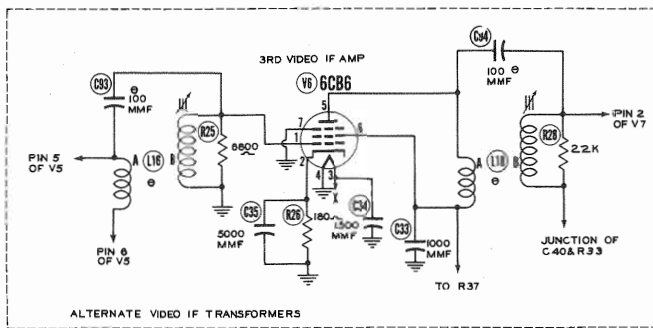
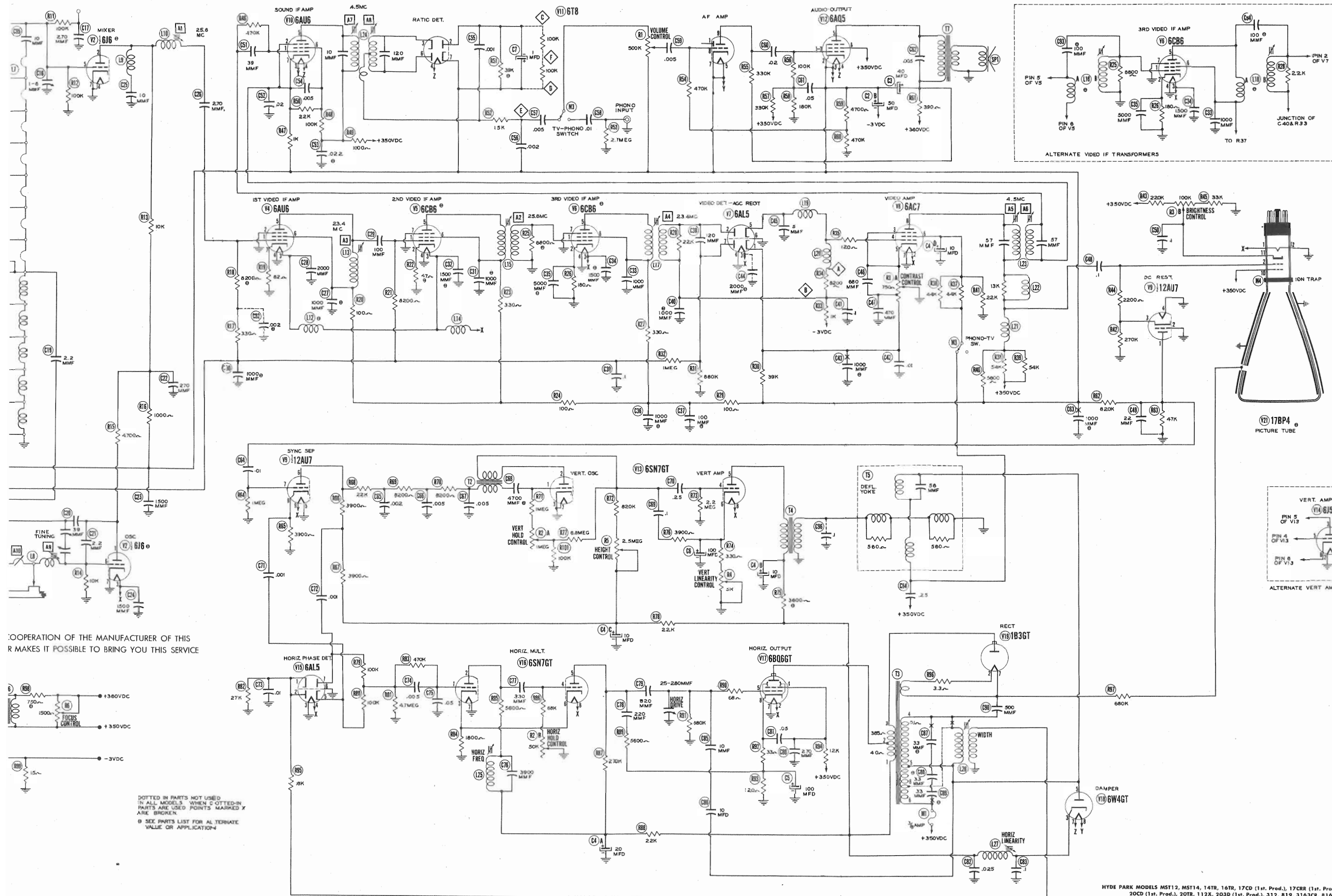
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CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

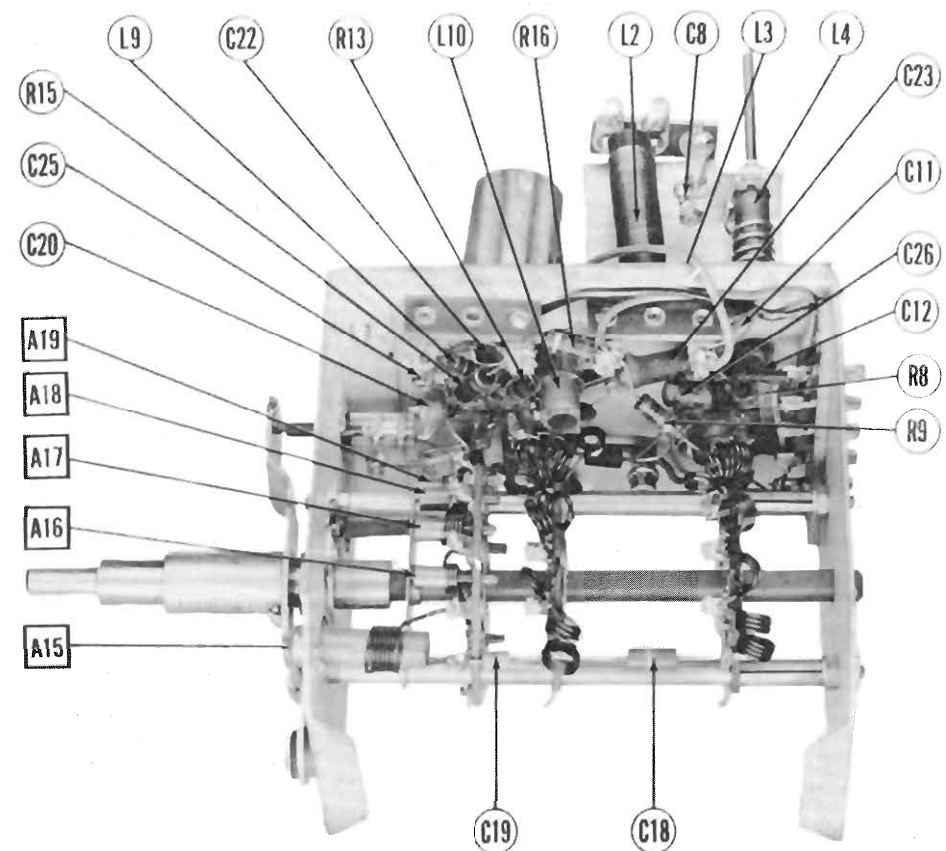
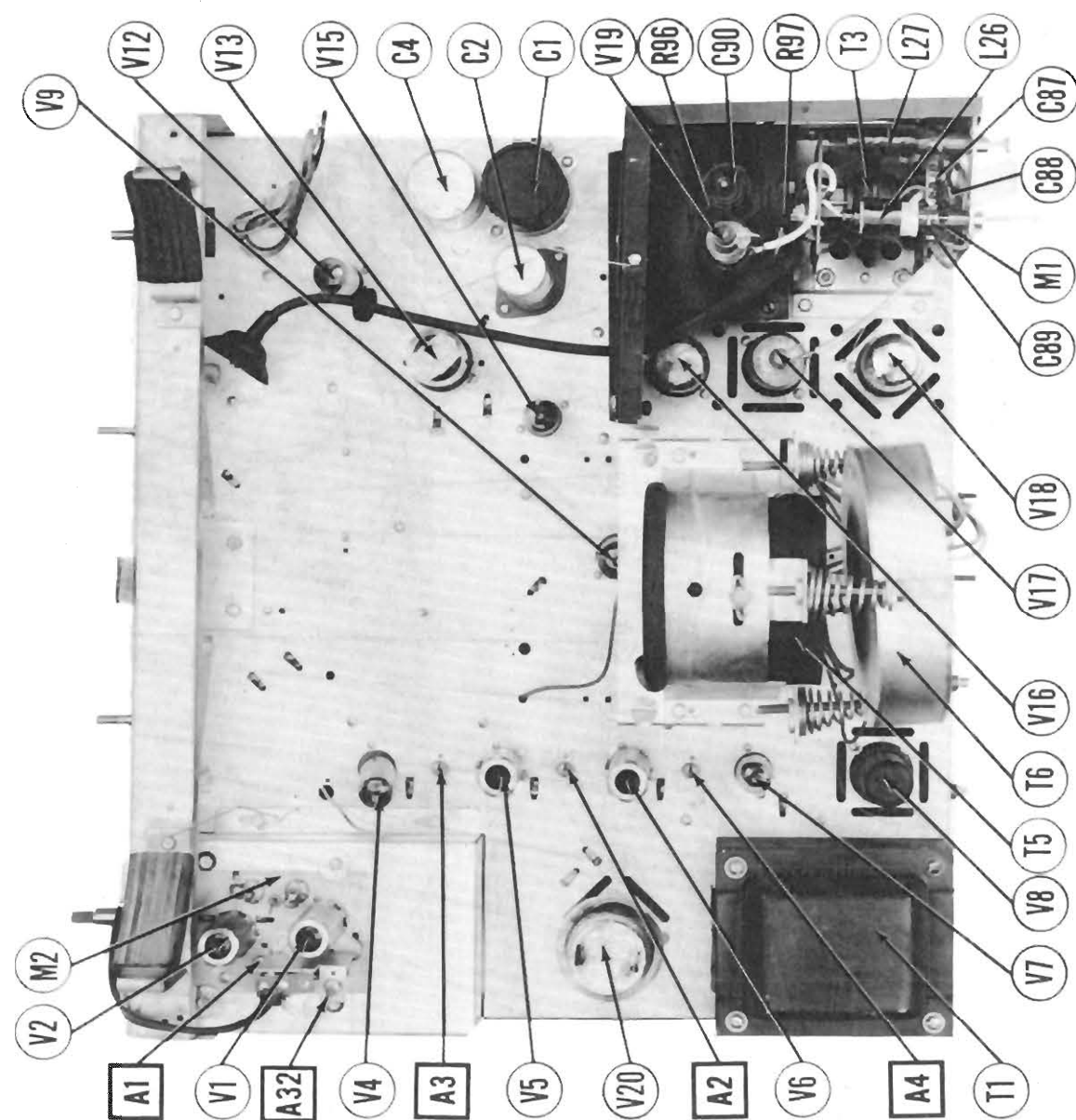
TRADE NAME
SUPPLIER
TYPE SET
TUBES
POWER SUPPLY
TUNING RANGE - CI
Alignment Instructions
FM Trap Adjustment
Horizontal Sweep Circ
Parts List and Descri
Photographs
Capacitor and Alig
Chassis-Top View.

"The listing of any available re
case a recommendation, warro
as to the quality and suitability
parts have been compiled from
Inc., by the manufacturers of
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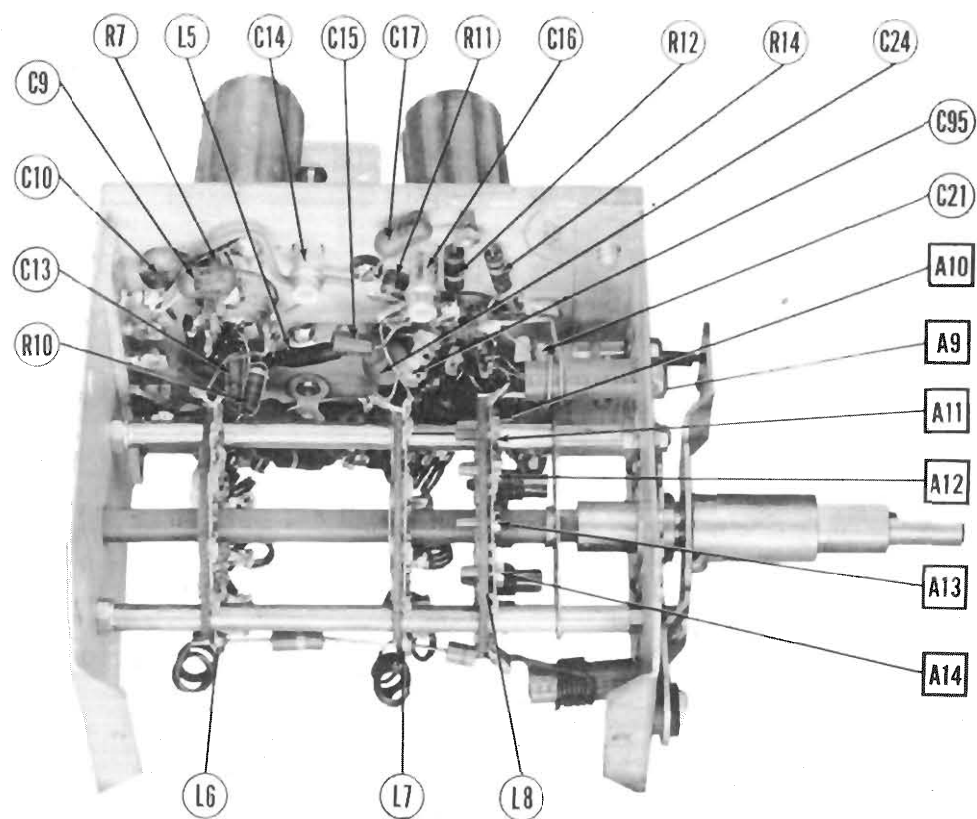


HYDE PARK MODELS MST12, MST14, 14TR, 16TR, 17CD (1st. Prod.), 17CRR (1st. Prod.), 17ROG (1st. Prod.), 20CD (1st. Prod.), 20TR, 112X, 203D (1st. Prod.), 312, 819, 3163CR, 8163CR, 8193CM

MAIN TOP VIEW CHASSIS



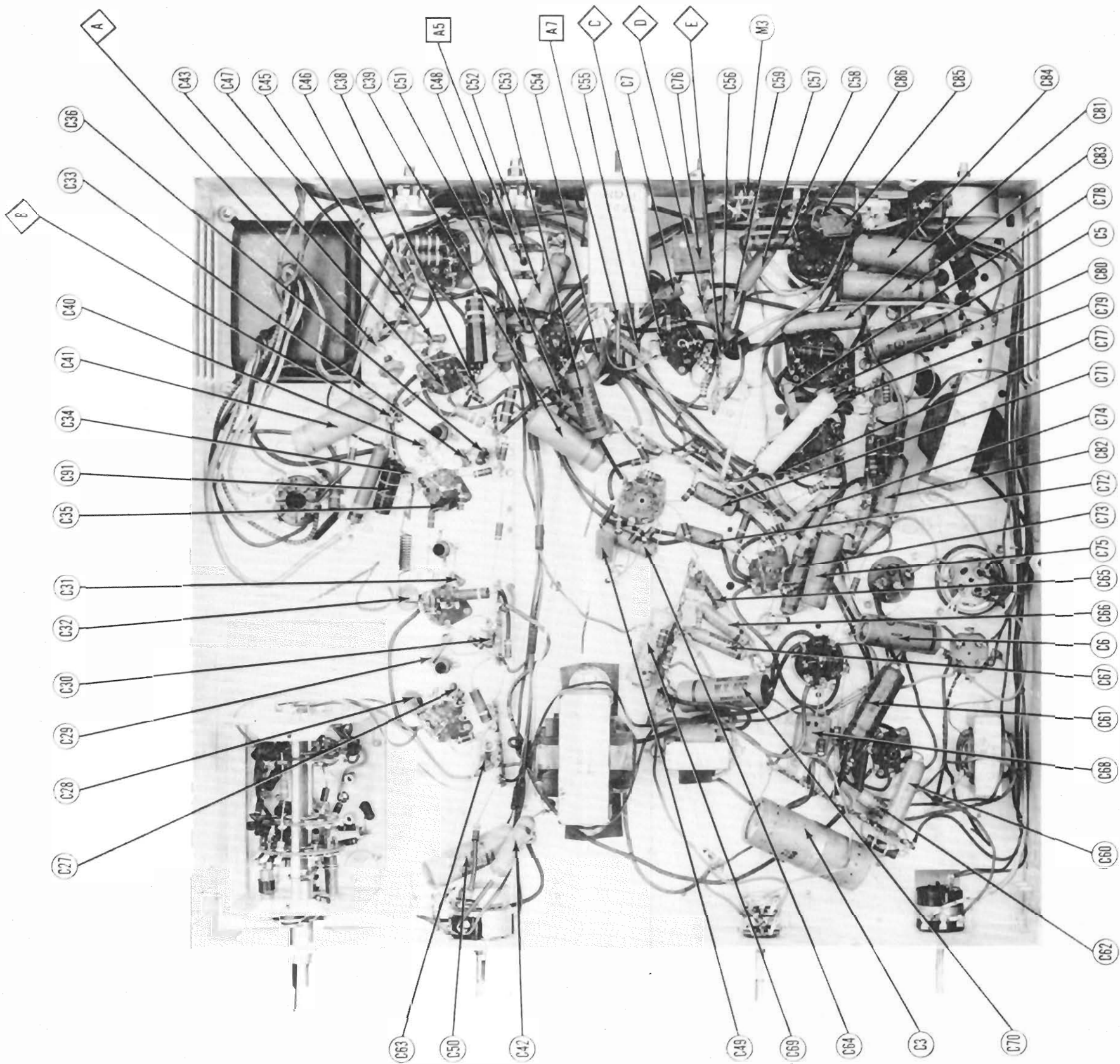
2 TUBE RF TUNER-RIGHT SIDE



2 TUBE RF TUNER-LEFT SIDE

HYDE PARK MODELS MST12, MST14, 14TR, 16TR, 17CD (1st. Prod.), 17CRR (1st. Prod.), 17ROG (1st. Prod.),
20CD (1st. Prod.), 20TR, 112X, 203D (1st. Prod.), 312, 819, 3163CR, 8163CR, 8193CM

CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION



VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS									
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	6J6	115VDC	115VDC	0V	6.3VAC	-1.1VDC	-1.1VDC	.4VDC	
V 2	6J6	90VDC	80VDC	6.3VAC	0V	-1.2VDC	8-7.5VDC	0V	
V 3	6J6	NOT USED IN ALL MODELS							
V 4	6AU6	-1.1VDC	0V	6.3VAC	0V	125VDC	125VDC	.5VDC	
V 5	6CB6	-1.1VDC	.5VDC	6.3VAC	0V	125VDC	125VDC	0V	
V 6	6CB6	0V	1.7VDC	6.2VAC	0V	125VDC	125VDC	0V	
V 7	6AL5	0V	-3VDC	6.3VAC	0V	-2.4VDC	0V	-7VDC	
V 8	6AC7	0V	6.3VAC	2.2VDC	-2.4VDC	163VDC	163VDC	0V	160VDC
V 9	12AU7	6.4VDC	0V	1.2VDC	0V	360VDC	360VDC	0V	20VDC
V 10	6AU6	4.6VDC	4.3VDC	0V	6.3VAC	200VDC	200VDC	4.3VDC	6.3VAC
V 11	6T8	4.3VDC	4.8VDC	4.3VDC	6.3VAC	4.0V	4.1VDC	4.0V	4.1VDC
V 12	6AQ5	4.6VDC	4.0V	4.0V	6.3VAC	200VDC	200VDC	4.6VDC	4.6VDC
V 13	6SN7GT	1.3VDC	1.3VDC	0V	1.3VDC	460VDC	460VDC	0V	6.3VAC
V 14	6J5	NOT USED IN ALL MODELS							
V 15	6AL5	0V	0V	0V	6.3VAC	4.8VDC	0V	-3.8VAC	
V 16	6SN7GT	8.8VDC	330VDC	13VDC	6.3VAC	160VDC	13VDC	0V	6.3VAC
V 17	6BQ6GT	0V	6.3VAC	13VDC	175VDC	-7.1VDC	17VDC	0V	Top Cap
V 18	6W4GT	0V	0V	50VDC	0V	350VDC	130VDC	4.6.3VAC	4.0V
V 19	1B3GT	* DO NOT MEASURE							
V 20	504GT	0V	410VDC	0V	380VAC	-3VDC	380VAC	0V	410VDC
V 21	17BP4	6.3VAC	1.2VDC	350VDC	140VDC	0V	0V	0V	

ALL MEASUREMENTS TAKEN WITH PICTURE TUBE REMOVED
* MEASURED FROM PIN 2 OF V12
* DO NOT MEASURE
§ TAKEN WITH VACUUM TUBE VOLTMETER

RESISTANCE READINGS									
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	6J6	11KΩ	11KΩ	0Ω	10	1.8Meg	47Ω		
V 2	6J6	4.5.7KΩ	4.1KΩ	10	0Ω	100KΩ	10KΩ	0Ω	
V 3	6J6	NOT USED IN ALL MODELS							
V 4	6AU6	1.7Meg	0Ω	10	0Ω	4.300Ω	82Ω		
V 5	6CB6	1.7Meg	47Ω	10	0Ω	4.500Ω	0Ω		
V 6	6CB6	.3Ω	180Ω	10	0Ω	4.400Ω	0Ω		
V 7	6AL5	0Ω	11KΩ	10	0Ω	59.2KΩ	0Ω	880KΩ	
V 8	6AC7	0Ω	10	750Ω	59.3KΩ	750Ω	11KΩ	0Ω	110KΩ
V 9	12AU7	47KΩ	0Ω	270KΩ	0Ω	0Ω	430KΩ	1Meg	3.9KΩ
V 10	6AU6	4.70KΩ	11KΩ	11KΩ	11KΩ	23KΩ	11KΩ	1Meg	430KΩ
V 11	6T8	Inf.	4.3KΩ	Inf.	4.1Ω	Inf.	4.0Ω	1Meg	430KΩ
V 12	6AQ5	280KΩ	4.0Ω	4.1Ω	4.1Ω	1.6KΩ	10Ω	280KΩ	
V 13	6SN7GT	1.1Meg	4.0Ω	4.1Ω	4.1Ω	4.3KΩ	330Ω	0Ω	
V 14	6J5	NOT USED IN ALL MODELS							
V 15	6AL5	11KΩ	11KΩ	0Ω	10	4.8Meg	0Ω		
V 16	6SN7GT	5.1Meg	428KΩ	1.8KΩ	68KΩ	290KΩ	1.8KΩ	0Ω	10
V 17	6BQ6GT	Inf.	10	0Ω	12KΩ	680KΩ	5.0KΩ	0Ω	Top Cap
V 18	6W4GT	Inf.	Inf.	500KΩ	Inf.	120Ω	22KΩ	4.1Ω	4.0Ω
V 19	1B3GT	PINS 1 THRU 8 HAVE INF. RESISTANCE							
V 20	504GT	Inf.	20KΩ	Inf.	165Ω	18Ω	165Ω	20KΩ	
V 21	17BP4	10	270KΩ	10Ω	100KΩ	0Ω	0Ω		

ALL MEASUREMENTS TAKEN WITH PICTURE TUBE REMOVED
† MEASURED FROM 350 VDC LINE
* MEASURED FROM PIN 3 OF V18
† MEASURED FROM PIN 3 OF V12
* MEASURED FROM PIN 8 OF V20
† MEASURED FROM -3 VDC LINE

1. DC Voltage measurements are of 20,000 ohms per volt. AC Voltage measured at 1,000 ohms.

2. Pin numbers are counted in a clockwise direction on bottom of socket.

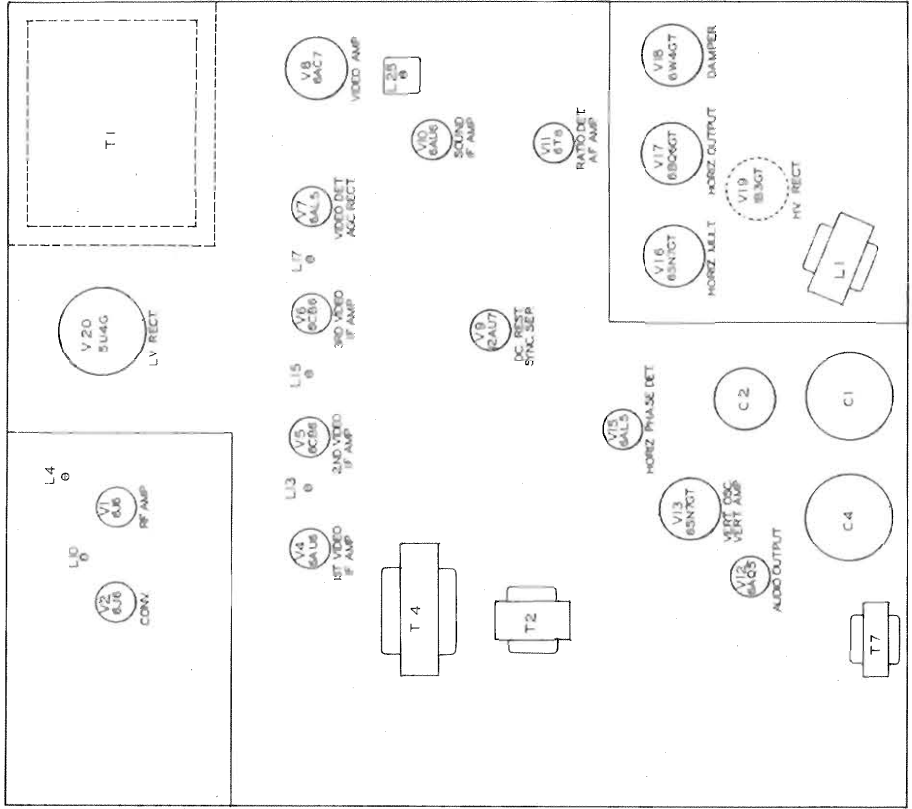
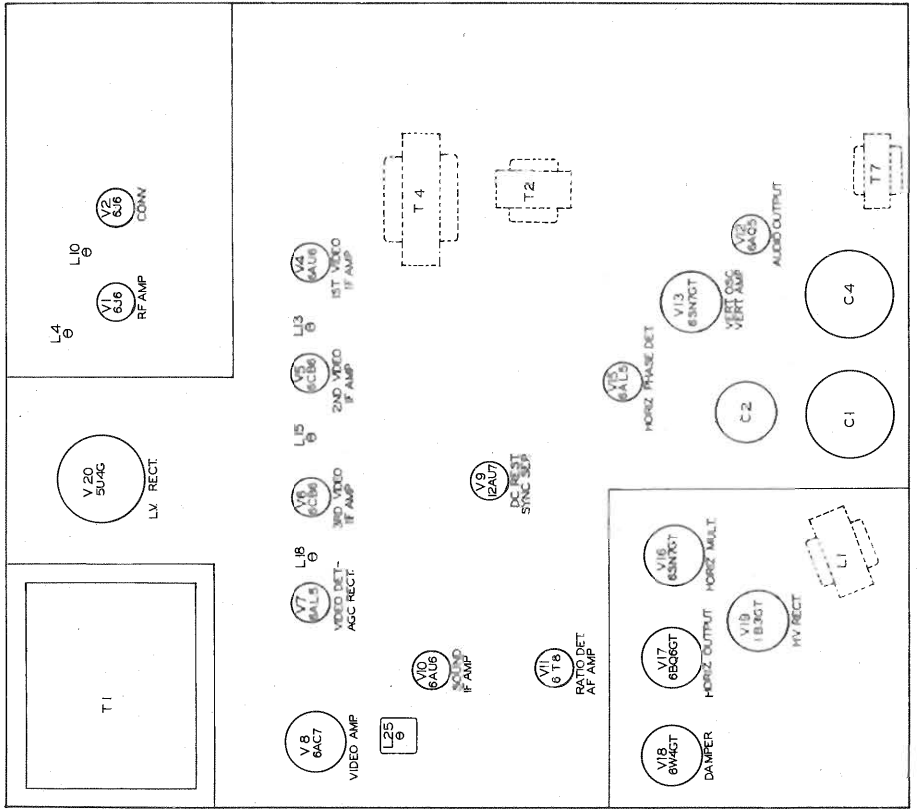
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.

5. Front panels controls set at minimum.

6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.

CHART LAYOUT

HYDE PARK MODELS MST12, MST14, 14TR, 16TR, 17CD (1st. Prod.), 17CRR (1st. Prod.), 17ROG (1st. Prod.), 20CD (1st. Prod.), 20TR, 112X, 203D (1st. Prod.), 312, 819, 3163CR, 8163CR, 8193CM



ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT										
The high voltage shock hazard may be eliminated by removing the horizontal oscillator tube, (V16), from its socket.										
VIDEO IF ALIGNMENT										
If the set has a two tube tuner, remove the converter tube, (V2) from its socket and replace it with a 6J6 which has pin 1 removed.										
If the set has a three tube tuner, remove the oscillator tube, (V3), from its socket. This will disable the local oscillator and prevent the possibility of erroneous indications.										
During video IF alignment the common lead of the VTVM is connected to approximately 3 volts with respect to chassis, avoid grounding the VTVM case.										
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS				
1. Direct	High side to an ungrounded tube shield floating over dummy converter tube, or mixer tube, (see note above). Low side to chassis.	25.6MC	Any	DC probe to Point A, Common to Point B.	A1, A2	Adjust for maximum deflection.				
2. "	"	23.4MC	"	"	A3, A4	"				
OVERALL VIDEO IF RESPONSE CHECK										
Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.										
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS			
3. Direct	High side to an ungrounded tube shield floating over dummy converter tube, (or mixer tube). Low side to chassis.	24MC (10MC SWP)	21.6MC 22.6MC 25.6MC 26.1MC	Any	Vert. Amp. to Point A, Low side to chassis.		Check for response curve similar to fig. 1. If necessary retouch A1 thru A4 for proper response.			
SOUND IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM										
During sound IF alignment the common lead of the VTVM is connected to approximately 135 volts with respect to chassis, avoid grounding or touching the VTVM case.										
Connect two matched 100K (± 1%) resistors in series between Point C and Point D. The junction of these resistors is alignment Point F as shown on the schematic.										
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS				
4. .001MFD.	High side to pin 4 (Grid) of 6AC7, (V8). Low side to chassis.	4.5MC (unmod.)	Any	DC probe to Point A, Common to Point B.	A5, A6, A7	Adjust for maximum deflection.				
5. "	"	"	"	DC probe to Point A, Common to Point B.	A8	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.				
SOUND 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	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS			
4. .001MFD.	High side to pin 4 (Grid) of 6AC7, (V8). Low side to chassis.	4.5MC (450KC SWP)	4.5MC	Any	Vert. Amp. to Point A, Low side to chassis.	A5, A6, A7	Disconnect stabilizer capacitor C7. Adjust for maximum amplitude and symmetry as per fig. 2.			
5. "	"	"	"	"	Vert. Amp. to Point A, Low side to chassis.	A8	Reconnect capacitor C7. Adjust A8 so 4.5MC occurs at center of crossover lines as per fig. 3. SLIGHTLY retouch A7 for maximum amplitude and straightness of crossover lines.			
OSCILLATOR ALIGNMENT (TWO TUBE TUNER)										
Remove the dummy converter tube and replace the original 6J6 in its socket.										
Since all of the oscillator coils are in series it is essential that the highest channel to be adjusted is aligned first and progress towards the lowest channel.										
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.										
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS			
6. Two 120Ω carbon resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. Amp. to Point A, Low side to chassis.	A9	Adjust to place sound marker as shown in fig. 4. The video marker should be at 50%.			
		207MC (10MC SWP)	205.25MC 209.75MC	12		A10				
		201MC (10MC SWP)	199.25MC 203.75MC	11		A11				
		195MC (10MC SWP)	193.25MC 197.75MC	10		A12				
		189MC (10MC SWP)	187.25MC 191.75MC	9		A13				
		183MC (10MC SWP)	181.25MC 185.75MC	8		A14				
		85MC (10MC SWP)	83.25MC 87.75MC	6		A15				
		79MC (10MC SWP)	77.25MC 81.75MC	5		A16				
		69MC (10MC SWP)	67.25MC 71.75MC	4		A17				
		63MC (10MC SWP)	61.25MC 65.75MC	3		A18				
		57MC (10MC SWP)	55.25MC 59.75MC	2		A19				
		The RF portion of this tuner has been properly adjusted at the factory and is very stable. Alignment of this portion should not be required in the field.								

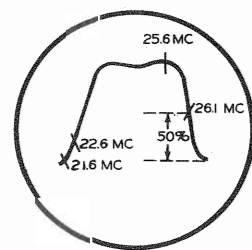


FIG. 1

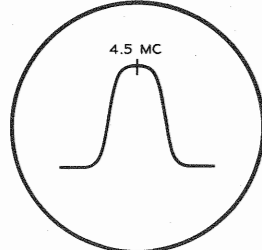


FIG. 2

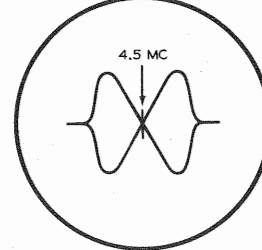


FIG. 3

ALIGNMENT INSTRUCTIONS (CONT.)

OSCILLATOR ALIGNMENT (THREE TUBE TUNER)							
Replace the oscillator tube in its socket.							
Since the channel two oscillator is in parallel with each of the other coils, it is essential that channel 2 be aligned first. The order of alignment for the remaining channels is not important.							
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.							
DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
7. Two 120Ω carbon resistors	Across antenna terminals with 120Ω in each lead.	57MC (10MC SWP)	55.25MC 59.75MC	2	Vert. Amp. to Point A, Low side to chassis.	A20	Adjust to place sound marker as shown in fig. 4. The video marker should be at 50%.
		63MC (10MC SWP)	61.25MC 65.75MC	3		A21	
		69MC (10MC SWP)	67.25MC 71.75MC	4		A22	
		79MC (10MC SWP)	77.25MC 81.75MC	5		A23	
		85MC (10MC SWP)	83.25MC 87.75MC	6		A24	
		177MC (10MC SWP)	175.25MC 179.75MC	7		A25	
		183MC (10MC SWP)	181.25MC 185.75MC	8		A26	
		189MC (10MC SWP)	187.25MC 191.75MC	9		A27	
		195MC (10MC SWP)	193.25MC 197.75MC	10		A28	
		201MC (10MC SWP)	199.25MC 203.75MC	11		A29	
		207MC (10MC SWP)	205.25MC 209.75MC	12		A30	
		213MC (10MC SWP)	211.25MC 215.75MC	13		A31	
		The RF portion of this receiver has been properly aligned at the factory and is very stable. Alignment of this portion should not be required in the field.					

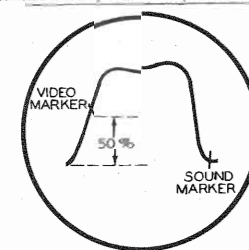
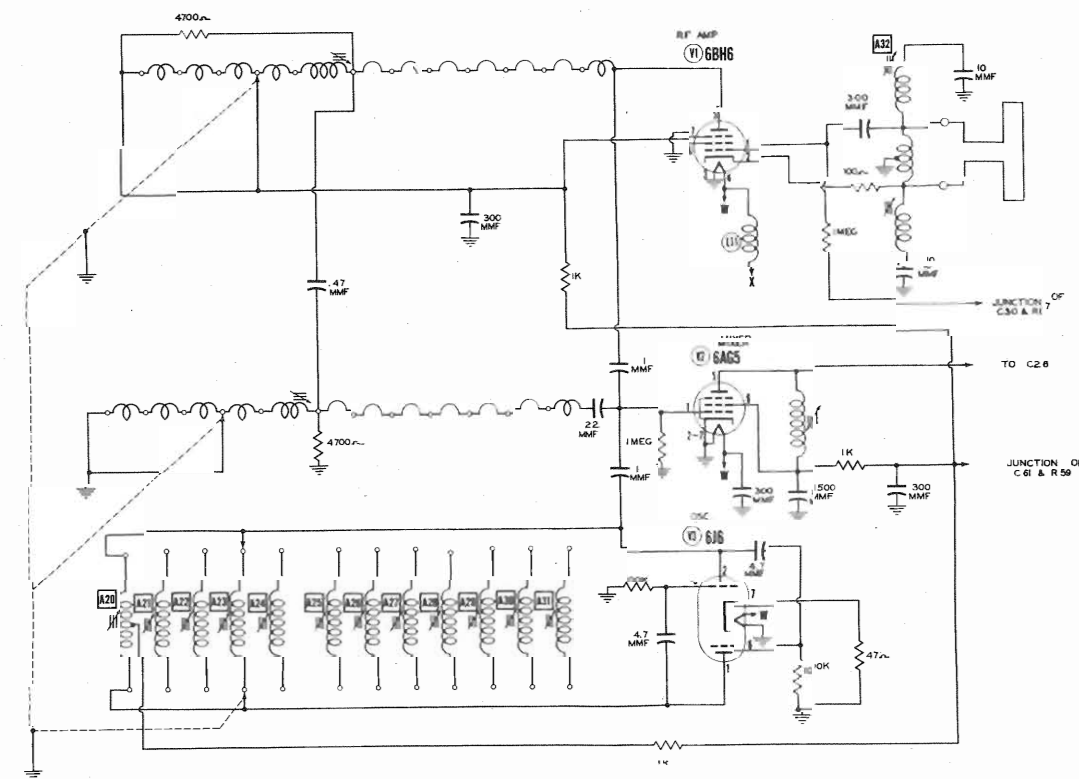


FIG. 4



CHANNEL SW. SHOWN IN CHANNEL 5 POSITION.

3 TUBE TUNER SCHEMATIC

HYDE PARK MODELS M5T12, M5T14, 14TR, 16TR, 17CD (1st. Prod.), 17CRR (1st. Prod.), 17R0G (1st. Prod.), 20CD (1st. Prod.), 20TR, 112X, 203D (1st. Prod.), 312, 3119, 3163CR, 8163CR, 8193CM

PARTS LIST AND DESCRIPTIONS (Continued)

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	DC RESISTANCE		HYDE PARK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.					
T2 T3	170Ω 425Ω Tap 40Ω	970Ω 23Ω Tap 17.5Ω SEC. 2	T-104 T-111	A-8111 ①	A-3000 HV0-6	TB0-3 ①	Vert. Block Osc. Trans. Horiz. Output Trans.
T4 T5A B T6	670Ω 19Ω 64Ω 350Ω	0Ω 6Ω	T-112 DY-6	A-8112 ① DY-7	A-3038 ① MDF-70 MF-2	TS0-5 ①	Vert. Output Trans. Horiz. Deflection Coils. Vert. Deflection Coils. Focus Coil

① Drill one new mounting hole.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		HYDE PARK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI.	SEC.	PRI.	SEC.					
T7	5.6KΩ	3.2Ω	420Ω	.72Ω	T-102	A-3878	A-2930	R0-9 ①	① Drill one new mounting hole.

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA				INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 ω)	HYDE PARK PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L1	.200A	64 Ω	4H Ω	LC-3	C-2325 ①	C-2994 ①	TR4200①	① Drill one new mounting hole.

COILS (RF-IF)

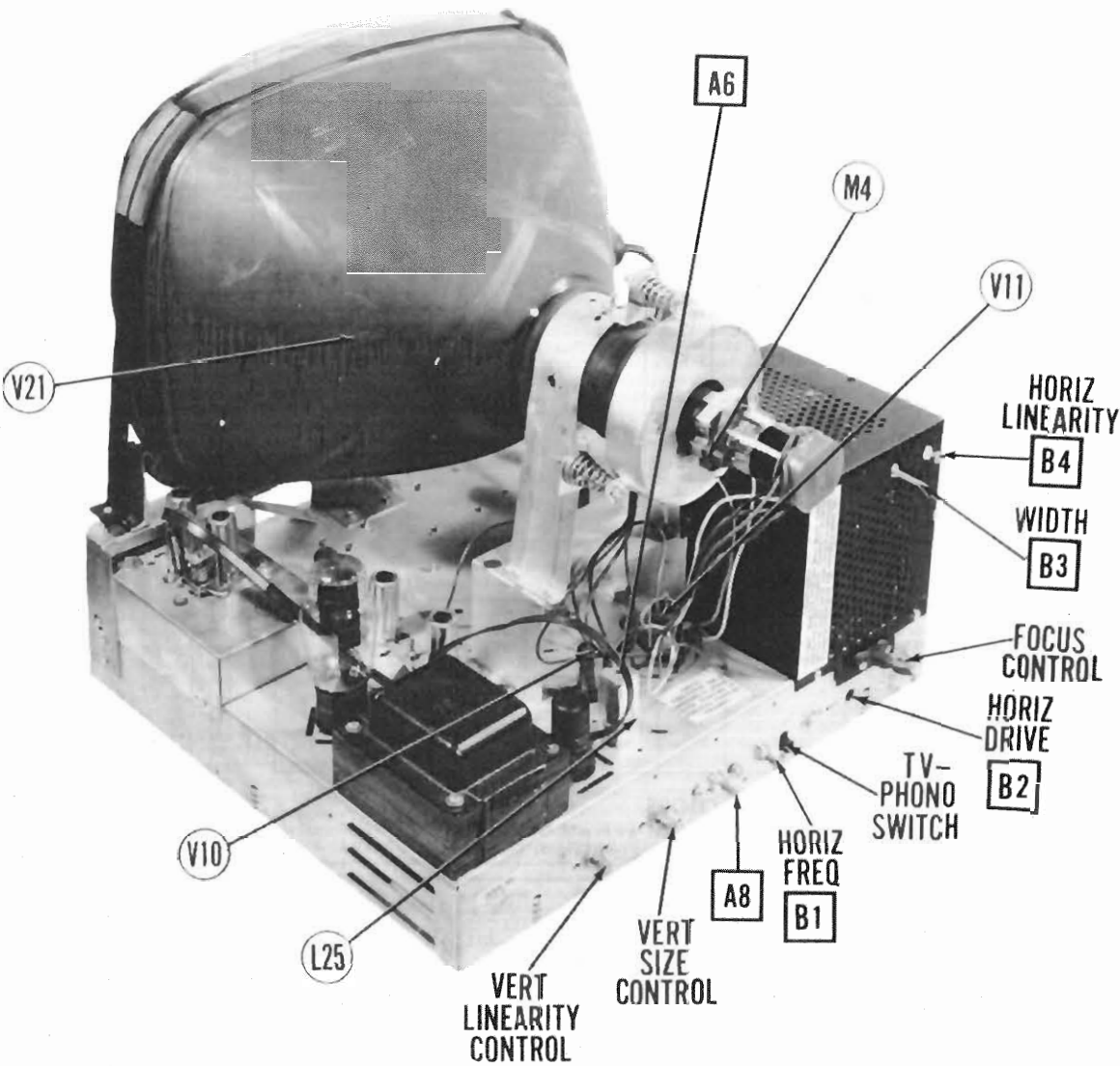
ITEM No.	USE	DC RES.		REPLACEMENT DATA			NOTES
		PRI.	SEC.	HYDE PARK PART No.	MERIT PART No.	IRC PART No.	
L2	Ant. Trans.	1.3Ω	1.3Ω			CLA	.82 Microhenry
L3	RF Choke	.59Ω					
L4	Ant. Coil	0Ω					
L5	Fl. Choke	0Ω					
L6	RF Coils	0Ω					
L7	Mixer Grid Coils	0Ω					
L8	Osc. Coils	0Ω					
L9	RF Choke	0Ω					
L10	1st Video IF	.6Ω					
L11	Fl. Choke	0Ω		LC-1			Not used in all models. Not used in all models.
L12	Fl. Choke	0Ω		LC-1			
L13	2nd Video IF	.2Ω		LV-6			
L14	Fl. Choke	0Ω		LC-1			
L15	3rd Video IF	.3Ω	.3Ω				
L16 (A)	RF Choke	.2Ω		LC-4			Some models use L16 (A) and (B) in lieu of L15.
(B)	3rd Video IF	.2Ω		LV-6			
L17	4th Video IF	.3Ω	.3Ω				
L18 (A)	RF Choke	.2Ω		LC-4			Some models use L18 (A) and (B) in lieu of L17.
(B)	4th Video IF	.2Ω		LV-6			
L19	Peaking	6Ω		LP-5			Green Dot
L20	Peaking	11Ω		LP-6			Red Dot
L21	Peaking	12Ω		LP-8			Blue Dot
L22	Peaking	7Ω		LP-7			Coil wound on 13KΩ resistor (yellow dot).
L23	1st Sound IF	2.5Ω	2.5Ω	LTO-3			Tap .6Ω
L24	Disc. Trans.	6Ω	.6Ω	LRD-1			
L25	Horiz. Freq.	50Ω		LHO-2			
L26	Width Coil	29Ω	30Ω	L-M7774-3			
L27	Horiz. Lin.	28Ω		L-M777-4			

FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA						
			HYDE PARK PART No.		LITTELFUSE PART No.		BUSS PART No.		
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER	
M1	3AG Pigtail	.375A			318-375		GJV-3/8		

MISCELLANEOUS

ITEM No.	PART NAME	HYDE PARK PART No.	NOTES
M2A B	RF Tuner	TT-6 TT-3	Used in some models
M3	Switch	IT-1	TV-Phono
M4 B2	Ion Trap Trimmer	CT-1	25-280 MFD (Horiz. Drive)



CHASSIS - TOP VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern, and turn the horizontal hold control to the mid position of its range. Adjust the horizontal frequency slug, (B1), to the center of the range over which the picture synchronizes horizontally. The picture should remain in synchronization over at least 1/4 rotation of the hold control. Adjust the horizontal drive trimmer, (B2), counter-clockwise as far as possible without crowding or vertical lines appearing in the picture. Adjust the width slug, (B3), until the picture is slightly wider than necessary to fill the mask. Adjust the horizontal linearity slug, (B4), until the picture is symmetrical from left to right. Slight readjustment of B2 may be necessary to obtain optimum results.

FM TRAP ADJUSTMENT

If interference from a FM station is encountered, A32 may be adjusted to eliminate, or minimize, the interference. A32 requires no adjustment if no interference is present.

HYDE PARK MODELS MS12, MS14, 141R, 161R, 17CD (1st. Prod.), 17CRR (1st. Prod.), 17ROG (1st. Prod.), 20CD (1st. Prod.), 201R, 112X, 203D (1st. Prod.), 312, 819, 3163CR, 8163CR, 8193CM

PARTS LIST AND DESCRIPTIONS

CAPACITORS (CONT.)

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		HYDE PARK PART No.	STANDARD REPLACEMENT		
V1A	RF Amplifier	6J6	6J6	7BF	
B	RF Amplifier	6BH6	6BH6	7CM	
V2A	Converter	6J6	6J6	7BF	
B	Converter	6AG5	6AG5	7BD	
C	Mixer	6BC5	6BC5	7BD	
V3	Oscillator	6J6	6J6	7BF	
V4	1st Video IF Amp.	6AU6	6AU6	7BK	
V5A	2nd Video IF Amp.	6CB6	6CB6	6CK	
B	2nd Video IF Amp.	6AU6	6AU6	7BK	
V6A	3rd Video IF Amp.	6CB6	6CB6	6CK	
B	3rd Video IF Amp.	6AU6	6AU6	7BK	
V7	Video Detector - AGC Rectifier	6AL5	6AL5	6BT	
V8	Video Amplifier	6AC7	6AC7	8N	
V9	DC Restorer-Sync Separator	12AU7	12AU7	9A	
V10	Sound IF Amp.	6AU6	6AU6	7BK	
V11	Ratio Detector - AF Amplifier	6T8	6T8	9E	
V12	Audio Output	6AQ5	6AQ5	7BZ	
V13	Vert. Oscillator - Vertical Amp.	6SN7GT	6SN7GT	8BD	
V14	Vertical Amp.	6J5	6J5	6Q	
V15	Horiz. Phase Det.	6AL5	6AL5	6BT	
V16	Horiz. Mult.	6SN7GT	6SN7GT	8BD	
V17	Horiz. Output	6BQ8GT	6BQ8GT	6AM	
V18	Damper	6W4GT	6W4GT	4CG	
V19	RV Rectifier	1B3GT	1B3GT	3C	
V20	LV Rectifier	5U4G	5U4G	5T	

CATHODE-RAY TUBE

ITEM No.	HYDE PARK PART No.	REPLACEMENT DATA		RTMA BASE TYPE	NOTES
		SYLVANIA PART No.			
V21A	17BP4	17BP4A		12D	① Outer coating must be grounded.
B	16RP4	16RP4		12D	
C	16TP4	16TP4		12D	
D	16BP4	16BP4		12D	
E	16AP4	16AP4A		12D	

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.	RATING CAP. VOLT	REPLACEMENT DATA				IDENTIFICATION CODES AND INSTALLATION NOTES
		HYDE PARK PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	
C1A	40 450	CEM-5	AFH 3-31	UP44445		TVL-3787
B	40 450					
C	40 450					
C2A	500 5	CEM-7	AF180T10D	UPT5015		TVL-1415
B	50 150			BRH605		JVA-1702
C3	40 450	CET-4	PRS450/40	BR4045A		TVA-1712
C4A	20 450	CEM-6	AFH422J2D	UPT211145		TVL-4766
B	10 450					
C	10 450					
D	10 150					
C5	100 25	CET-5	PRS25/100	BRH251A		TVA-1207
C6	100 25	CET-5	PRS25/100	BRH251A		TVA-1207
C7	1 25	CET-6	E26E42	BRH145		TVA-1300
C8	10		SIHNP0	TCZ-10	NPOK-100	STCC-Q1
C9	470		SI470	DD-152	GP2K-471	SGA-T47
C10	1500		BPD-0015	DD-152	801-0015	SHK-D15
C11	1500		BPD-0015	DD-152	801-0015	SHK-D15
C12	1500		BPD-0015	DD-152	801-0015	SHK-D15
C13	270		SI270	DD-271	GP2K-271	SGA-T27
C14	5-5.3		829-3	TCZ-1	NPOK-010	
C15	1-6		829-7	TCZ-1		
C16	1-6		829-7	TCZ-1		
C17	270		SI270	DD-271	GP2K-271	SGA-T27
C18	.5		TCZ-.5		NPOK-OR5	
C19	2.2		TCZ-2.2		NPOK-2R2	
C20	39		SI39	TCZ-2.2	GP1K-390	
C21	2.2		TCZ-2.2		NPOK-2R2	
C22	270		SI270	DD-271	GP2K-271	SGA-T27
C23	1500		SI1500	DD-152	GP2L-152	SHK-D15
C24	1500		BPD-0015	DD-152	801-0015	SHK-D15
C25	10		SIHNP0	TCZ-10	NPOK-100	STCC-Q1
C26	270		SI270	DD-271	GP2K-271	SGA-T27
C27	1000		SI1000	DD-102	1W5D1	
C28	2000		BPD-002	DD-202	1W5D2	
C29	100	CC-31	1468-0001	DD-101	5W5T1	
C30	1000		SI1000	DD-102	1W5D1	
C31	1000		SI1000	DD-102	1W5D1	
C32	1500		BPD-0015	DD-152	1W5D15	
C33	1500		BPD-0015	DD-152	1W5D15	
C34	1500		BPD-0015	DD-152	1W5D15	
C35	1000		SI1000	DD-102	1W5D1	
C36	1000		SI1000	DD-102	1W5D1	
C37	100	CC-31	SI100	DD-101	5W5T5	
C38	120	CC-312	SI120	DD-121	5W5T15	
C39	.1	CP-6-01	P688-1	DF-104	PTE6P1	
C40	1000		SI1000	DD-102	1W5D1	
C41	.1	CP-6-01	P688-1	DF-104	PTE6P1	
C42	.01	CP-6-11	P688-01	DF-103	PTE6S1	
C43	1000		SI1000	DD-102	1W5D1	
C44	2000	CC-22	BPD-002	DD-202	1W5D2	

ITEM No.	RATING CAP. VOLT	REPLACEMENT DATA				IDENTIFICATION CODES AND INSTALLATION NOTES
		HYDE PARK PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	
C45	5	CC-55	SI5	5W5V5	GP1K-050	Video Diode Filter
C46	680	CC-368	SI680	2R5T7	GP2K-681	Video Amp. Cathode
C47	470	CC-347	SI470	SR5T5	GP2K-471	Video Amp. Cathode
C48	.1	CP-6-01	P688-1	DF-104	PTE6P1	Video Coupling
C49	22 500	CM-422	1468-00025	DF-104	SR5Q25	DC Rest. Plate
C50	.1	CP-6-01	P688-1	DF-104	PTE6P1	Picture Tube Cathode
C51	39 500	CC-439	1468-00004	DF-104	5W5Q4	Sound IF Coupling
C52	.022 1000	CPM-6-12	P688-02	DF-203	PTE6S2	Sound IF Cathode
C53	.022 1000	CPM-6-12	P688-02	DF-203	PTE6S2	Sound IF Cathode
C54	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Sound IF Screen
C55	.001 800	CP-6-21	P688-001	DE-101	PTE6D1	Diode Load Cap.
C56	.002 800	CP-6-22	P688-002	DE-202	PTE6D2	De-Emphasis
C57	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Audio Coupling
C58	.01 800	CP-6-11	P688-01	DE-103	PTE6S1	Audio Coupling
C59	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Audio Coupling
C60	.02 800	CPM-6-12	P688-02	DF-203	PTE6S2	Audio Coupling
C61	.05 800	CP-6-15	P688-05	DF-503	PTE6S5	Audio Output Grid
C62	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Audio Output Plate
C63	1000		SI1000	DE-102	1W5D1	RF Bypass
C64	.01 800	CP-6-11	P688-01	DE-103	PTE6S1	Sync. Coupling
C65	.002 800	CP-6-22	P688-002	DE-202	PTE6D2	Integrator Net.
C66	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Integrator Net.
C67	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	Integrator Net.
C68	4700 800		1464-005	DE-472	1DR5D5	IFM-24 Vert. Sync. Coupling
C69	.1 800	CP-6-01	P688-1	DF-104	PTE6P1	Vert. Discharge
C70	.25 400	CP-4-025	P488-25		SR5T3	47M-25 Vert. Sweep Coupling
C71	.001 800	CP-6-21	P688-001	DE-102	PTE6D1	Horiz. Sync. Coupling
C72	.001 800	CP-6-21	P688-001	DE-102	PTE6D1	Horiz. Sync. Coupling
C73	.01 800	CP-6-11	P688-01	DE-103	PTE6S1	Integrator Net.
C74	.005 800	CP-6-25	P688-005	DE-502	PTE6D5	AFC Filter
C75	.05 800	CP-6-15	P688-05	DF-503	PTE6S5	AFC Filter
C76	3900 500	CM-239	1464-004	DF-402	1DR5D4	Fixed Trimmer
C77	330 800	CM-333A	1469HV-00035			Horiz. MV Feedback
C78	220 1000	CM-332A	1469HV-00025			Horiz. Discharge
C79	820 500	CM-382	1464-0008			Horiz. Sweep Coupling
C80	270 500	CM-327	1469-0003			Horiz. Output Screen
C81	.05 800	CP-6-15	P688-05	DF-503	PTE6S5	Horiz. Output Screen
C82	.025 800	CO-6-125	P688-025		F1E16S25	Damper Filter
C83	.1 800	CP-6-01	P688-1	DF-104	PTE6P1	Damper Filter
C84	25 400	CP-4-025	P488-25		SR5T3	47M-25 Horiz. Sweep Coupling
C85	10 1500	CM-410A	1469HV-00001		CM-410A	Horiz. Feedback
C86	10 1500	CM-410A	1469HV-00001		CM-410A	Horiz. Feedback
C87	33 800					Fixed Trimmer
C88	33 800					Fixed Trimmer
C89	33 800					Fixed Trimmer
C90	500 20000	CRV-35-15	HV20C	TV3-502		HV Filter
C91	.022 800		P688-022		PTE6S2	Line Filter
C92	.002 800	CP-6-22	P688-002	DE-202	PTE6D2	AGC Filter
C93	100 500		1468-0001	DE-101	5W5T1	IF Coupling
C94	100 500		1468-0001	DE-101	5W5T1	IF Coupling
C95	.1 600	CP-6-01	P688-1	DF-104	PTE6P1	Osc. Coupling

* Not used in all models.

† Some models use .02MFD 600V in this application. (Mfgs. part No. CP-6-12)

‡ Some models use .005MFD 600V in this application. (Mfgs. part No. CP-6-25)

§ Some models use 2000MMF in this application. (Mfgs. part No. CC-22)

CONTROLS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA				INSTALLATION NOTES
		HYDE PARK PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	
R1A	500KΩ	P-7	Q13-133	AG-80-3	B-60-8	Volume Control
B	Shaft	Not req.	Not req.	FS-3	Not req.	Attach to R1A per instructions
C	Switch	Not req.	76-1	SWB	Not req.	Attach to R1A per instructions
R2A	1MΩ	PD-5	Concentrikit B11-137 6	RTV-146	SBB-584	Vert. Hold Control - Front
B	50KΩ		B11-123 6			Horiz. Hold Control - Rear
C	Shaft end		E-187 6			Attach per instructions in Concentrikit
R3A	750Ω	PD-4	Q11-114	AM-19-8	AN-10	Contrast Control - Wire Wound - Front
B	100KΩ		Q11-114	AM-19-8	AN-10	Brightness Control - Rear
R4A	5000Ω	P-2	Q11-114	AM-19-8	AN-10	Vert. Linearity Control
B	Shaft	Not req.	Not req.	FKS-1/4	AK-1	Attach to R4A per instructions
R5A	2.5MΩ	P-5	Q11-239	AM-84-8	AN-83	Height Control
B	Shaft	Not req.	Not req.	FKS-1/4	AK-1	Attach to R5A per instructions
R6	1500Ω	P-6	RTV-6		SVP-994	Focus Control - Wire Wound

§ Additional parts to be used with Concentrikit.

RESISTORS

ITEM No.	RATING RESISTANCE WATTS	REPLACEMENT DATA		IDENTIFICATION CODES
		HYDE PARK PART No.	IRC PART No.	
R7	47Ω	20%		Parasitic Suppressor
R8	150KΩ	20%		RF Amp. Grid
R9	1000Ω		BTS-1000	RF Amp. Decoupling
R10	4700Ω	20%	BTS-4700	RF Coil Shunt
R11	100KΩ	20%	BTS-100K	Series Test Point
R12	100KΩ	20%		Mixer Grid
R13	10KΩ			Mixer Plate
R14	10KΩ			Osc. Grid
R15	4700Ω	20%	BTS-4700	Osc. Plate
R16	1000Ω		BTS-1000	Decoupling
R17	330Ω	20%	BTS-330	AGC Network
R18	8200Ω		BTS-8200	1st. Video IF Amp. Grid - See Note 2
R19	82Ω		BTS-82	1st. Video IF Amp. Cathode
R20	100Ω		BTS-100	1st. Video IF Amp. Decoupling
R21	8200Ω		BTS-8200	2nd. Video IF Amp. Grid
R22	47Ω	20%	RC-470-2	2nd. Video IF Amp. Cathode - See Note 3
R23	330Ω	20%	BTS-330	2nd. Video IF Amp. Decoupling
R24	100Ω		BTS-100	Decoupling
R25	6800Ω		RC-682-2	3rd. Video IF Transformer Shunt - See Note 7
R26	180Ω	20%	BTS-180	3rd. Video IF Amp. Cathode
R27	330Ω		BTS-330	3rd. Video IF Amp. Decoupling
R28	22KΩ	20%	RC-223-2	4th. Video IF Transformer Shunt
R29	100Ω		RC-101-2	Decoupling
R30	39KΩ		BTA-39K	Voltage Divider

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	HYDE PARK PART No.	IRC PART No.	
R31	680KΩ		RC-684-2	BTS-680K	AGC Load
R32	1Meg		RC-105-2	BTS-1Meg	AGC Network
R33	1000Ω		RC-102-2	BTS-1000	Bias Network
R34	8200Ω		RC-822-2	BTS-8200	Video Det. Diode Load
R35	120Ω		RC-121-2		Parasitic Suppressor
R36	44KΩ	2	RC-443-8		Video Amp. Screen
R37	44KΩ	2	RC-443-8		Video Amp. Screen
R38	54KΩ	2	RC-543-8		Video Amp. Plate
R39	54KΩ	2	RC-543-8		Video Amp. Plate
R40	5600Ω	1	RC-562-5	BTA-5600	Decoupling
R41	22KΩ	20%	RC-223-5	BTA-22K	Voltage Divider
R42	270KΩ		RC-274-2	BTS-270K	DC Restorer Load
R43	220KΩ		RC-224-2	BTS-220K	Voltage Divider
R44	2200Ω		RC-222-2	BTS-2200	Picture Tube Grid
R45	33KΩ		RC-333-2	BTS-33K	Picture Tube Cathode
R46	470KΩ		RC-474-2	BTS-470K	Sound IF Amp. Grid
R47	1000Ω		RC-102-2	BTS-1000	Sound IF Amp. Cathode
R48	100KΩ	20%	RC-104-2	BTS-100K	Sound IF Amp. Screen
R49	1000Ω		RC-102-2	BTS-1000	Sound IF Amp. Decoupling
R50	22KΩ		RC-223-2	BTS-22K	Voltage Divider
R51	39KΩ		RC-393-2	BTS-39K	Ratio Det. Diode Load - See Note 4
R52	15KΩ		RC-153-2	BTS-15K	De-emphasis
R53	2.1Meg		RC-275-5	BTA-2.1Meg	Phono Input Shunt
R54	470KΩ		RC-474-2	BTS-470K	AF Amp. Grid
R55	330KΩ		RC-334-2	BTS-330K	AF Amp. Plate
R56	100KΩ		RC-104-2	BTS-100K	Output Grid
R57	330KΩ	5%	RC-334-3	BTS-330K-5%	Bias Network
R58	180KΩ	5%	RC-184-3	BTS-180K-5%	Bias Network
R59	4700Ω		RC-472-2	BTS-4700	Voltage Divider
R60	470KΩ		RC-474-2	BTS-470K	Voltage Divider
R61	390Ω		RC-391-5	ETA-390	Decoupling
R62	8200Ω		RC-824-2	BTS-8200	Sync. Sep. Plate
R63	47KΩ		RC-473-2	BTS-47K	Voltage Divider
R64	1Meg		RC-105-2	BTS-1Meg	Sync. Amp. - Phase Inv. Grid
R65	3900Ω	20%	RC-392-2	BTS-3900	Sync. Amp. - Phase Inv. Cathode
R66	3900Ω		RC-392-2	BTS-3900	Sync. Amp. - Phase Inv. Plate
R67	3900Ω	20%	RC-392-2	BTS-3900	Sync. Amp. - Phase Inv. Plate
R68	22KΩ		RC-223-2	BTS-22K	Integrator
R69	8200Ω		RC-822-2	BTS-8200	Integrator
R70	8200Ω		RC-822-2	BTS-8200	Integrator
R71	1Meg		RC-105-2	BTS-1Meg	Vert. Osc. Grid
R72	820KΩ		RC-824-2	BTS-820K	Vert. Osc. Plate
R73	2.2Meg		RC-225-2	BTS-2.2Meg	Vert. Amp. Grid
R74	330Ω		RC-331-2	BTS-330	Vert. Amp. Cathode
R75	3600Ω	2			Vert. Amp. Decoupling - See Note 6
R76	3900Ω		RC-392-2	BTS-3900	Vert. Peaking
R77	6.8Meg		RC-685-2	ETS-6.8Meg	Vert. Feedback
R78	22KΩ	1	RC-223-5	ETA-22K	Decoupling
R79	100KΩ		RC-104-2	BTS-100K	Horiz. Phase Det. Diode Load
R80	100KΩ		RC-104-2	BTS-100K	Horiz. Phase Det. Diode Load
R81	4.7Meg		RC-475-2	ETS-4.7Meg	Horiz. Phase Det. Diode Load
R82	27KΩ		RC-273-2	BTS-27K	Horiz. Phase Det. Diode Load
R83	470KΩ		RC-474-2	ETS-470K	Horiz. AFC Filter
R84	1800Ω		RC-182-2	ETS-1800	Horiz. MV Cathode
R85	5600Ω		RC-562-2	ETS-5600	Horiz. MV Plate
R86	68KΩ		RC-683-2	ETS-68K	Horiz. MV Grid
R87	270KΩ		RC-274-2	ETS-270K	Horiz. MV Plate
R88	22KΩ	1	RC-223-5	ETA-22K	Horiz. MV Decoupling
R89	5600Ω		RC-562-2	ETS-5600	Horiz. Peaking
R90	68Ω		RC-680-2		Parasitic Suppressor
R91	680KΩ		RC-684-2	BTS-680K	Horiz. Output Grid
R92	33Ω	1		BW-1-33	Horiz. Output Cathode
R93	120Ω	2	RC-121-8	BW-2-102	Horiz. Output Cathode
R94	12KΩ	5	RW-123-11	1/3/4A-12K	Horiz. Output Screen
R95	18KΩ	2	RC-183-8	BTB-18K	Horiz. Feedback
R96	3.3Ω		RC-336-2		HV Rectifier Filament
R97	680KΩ	2	RC-684-8		HV Filter
R98	750Ω	2	RC-751-8		Focus Coil Shunt - See Notes 5 and 6
R99	15Ω	1	RC-150-5	BW-1-15	Bias Network
R100	100Ω	2	RC-104-8	BTS-100K	Isolation
R101	100KΩ		RC-104-2	BTS-100K	Voltage Divider
R102	1200Ω	2	RC-122-8	BTS-1200	Focus Coil Shunt - See Note 1