

## CABINET-REAR VIEW

### HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Before adjusting the Stabilizing Slug (B1), the Horizontal Drive and Width must be properly adjusted.

Set the Horizontal Hold Control to the pull-in point. Turn the Width Slug (B2) fully counterclockwise and turn Horizontal Drive Trimmer (B3) counterclockwise until a bright vertical line appears near the center of the raster, then turn clockwise until the line just disappears. If no line appears, leave B3 fully counterclockwise.

With the Brightness Control set to normal level, adjust the Width Slug B2 for an overscan of approximately 3/4 inch on each side of the screen at normal line voltage.

Connect a short jumper across the terminals of the Horizontal Stabilizer Coil (L19B) and short the grid (pin 2) of the 6CG7 (V10) to chassis with a small screwdriver.

Adjust the Horizontal Hold Control for an upright picture (may appear to float back and forth across the screen). Remove the jumper from across L19B and adjust B1 to again obtain a picture in an upright position. When B1 is properly adjusted, alternately shorting and removing short should not cause the picture to lose sync but instead cause a slight sideways shift of the picture. Remove the short from the grid of the Horizontal Oscillator.

## DISASSEMBLY INSTRUCTIONS

### CHASSIS AND PICTURE TUBE REMOVAL

1. Remove 7 push-on type knobs in front of cabinet.
2. Remove 6 screws holding rear cover and disconnect antenna leads.
3. Remove rear cover.
4. Remove speaker leads, mike lead, and knobs.
5. Remove 4 chassis bolts at bottom and 2 screws holding chassis at top.

6. Remove 3 screws holding Remote Receiver.

7. Remove Remote Receiver Chassis and TV Chassis (with Picture Tube).

### PICTURE TUBE REMOVAL

The picture tube may be removed out front of cabinet by following instructions (page 1) of Safety Glass Cleaning and Removal. Disconnect hi voltage lead, yoke plug, and picture tube socket. Loosen clamp around picture tube bell and remove picture tube.

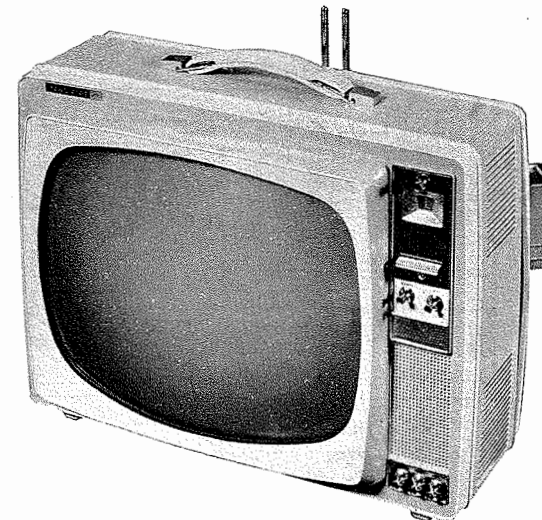
SET 513  
FOLDER

RCA VICTOR CHASSIS KCS130A,  
B, F, H, K, M, N, KRS24A, B, KRT1A, B

PHOTOFACT® Folder

with CIRCUITRACE®

B, F, H, K, M, N, KRS24A, B, KRT1A, B



MODEL 171AR067 (TV CH. KCS130M)

TRADE NAME	RCA Victor	MODELS	CHASSIS
		171A032X .....	KCS130N
		171A034, U .....	KCS130A, B
		171A040, U; 171A042, U; 171A043, U; 171A044, U; 171A047, U; 171A061, U; 171A062, U; 171A067, U; 171A068, U .....	KCS130F, H
		171AR044 (with Remote Control Receiver KRS24A and Remote Control Transmitter KRT1A) .....	KCS130K
		171AR062, 171AR067 (with Remote Control Receiver KRS24B and Remote Control Transmitter KRT1B) .....	KCS130M
MANUFACTURER	Radio Corporation of America, RCA Victor Tel. Div., Camden 8, New Jersey		
TUBES	TV: VHF - Sixteen, UHF - Seventeen Remote Control Receiver: Four		
POWER SUPPLY RATING	110-120 Volts AC, 60 Cycle		
	TV (VHF) & Remote Receiver: 210 Watts, 2.2 Amp. @ 117 Volts AC (While Tuning)		
	180 Watts, 1.7 Amp. @ 117 Volts AC (Not Tuning)		
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

## SERVICING IN THE FIELD

### SAFETY GLASS REMOVAL

Remove 3 screws at bottom of mask. Remove rear cover. Remove 2 screws at top (inside cabinet) holding mask and unplug speaker cable. Remove all knobs at front. Pull the bottom of the mask out and lift up to remove.

### FUSE

Two fuse wires are used for filament protection. (For location, see M3 and M4 in photo "Chassis Bottom View".)

### FUSE DEVICE

A fusible resistor is used for vertical and horizontal sweep protection. (For location, see "Tube Placement Chart".)

### TUNER OSCILLATOR ADJUSTMENTS

To touch up the VHF Oscillator, it is necessary to remove the chassis. (See "Disassembly Instructions, Page 24".)

### AGC

The AGC may be varied by means of an AGC Control. (For location, see "Tube Placement Chart".)

### FOCUS

In models using 17DKP4, Focus Anode (Pin 4) may be connected to various voltage sources for best focus. In models using 17DSP4, Pin 4 may be connected to ground or 150 volt source. (See "TV Schematic".)

### HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the Horizontal Hold is accomplished by the proper setting of the Horizontal Stabilizing Coil Slug (B1). (For location, see "Tube Placement Chart".)

### WIDTH

The width may be varied by a Width Coil. (For location, see "Tube Placement Chart".)

### HORIZONTAL DRIVE

The horizontal drive may be varied by a Horizontal Drive Trimmer. (For location, see "Tube Placement Chart".)

### CENTERING

Centering is accomplished by 2 magnetic rings, located behind the yoke, on the neck of the picture tube.

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



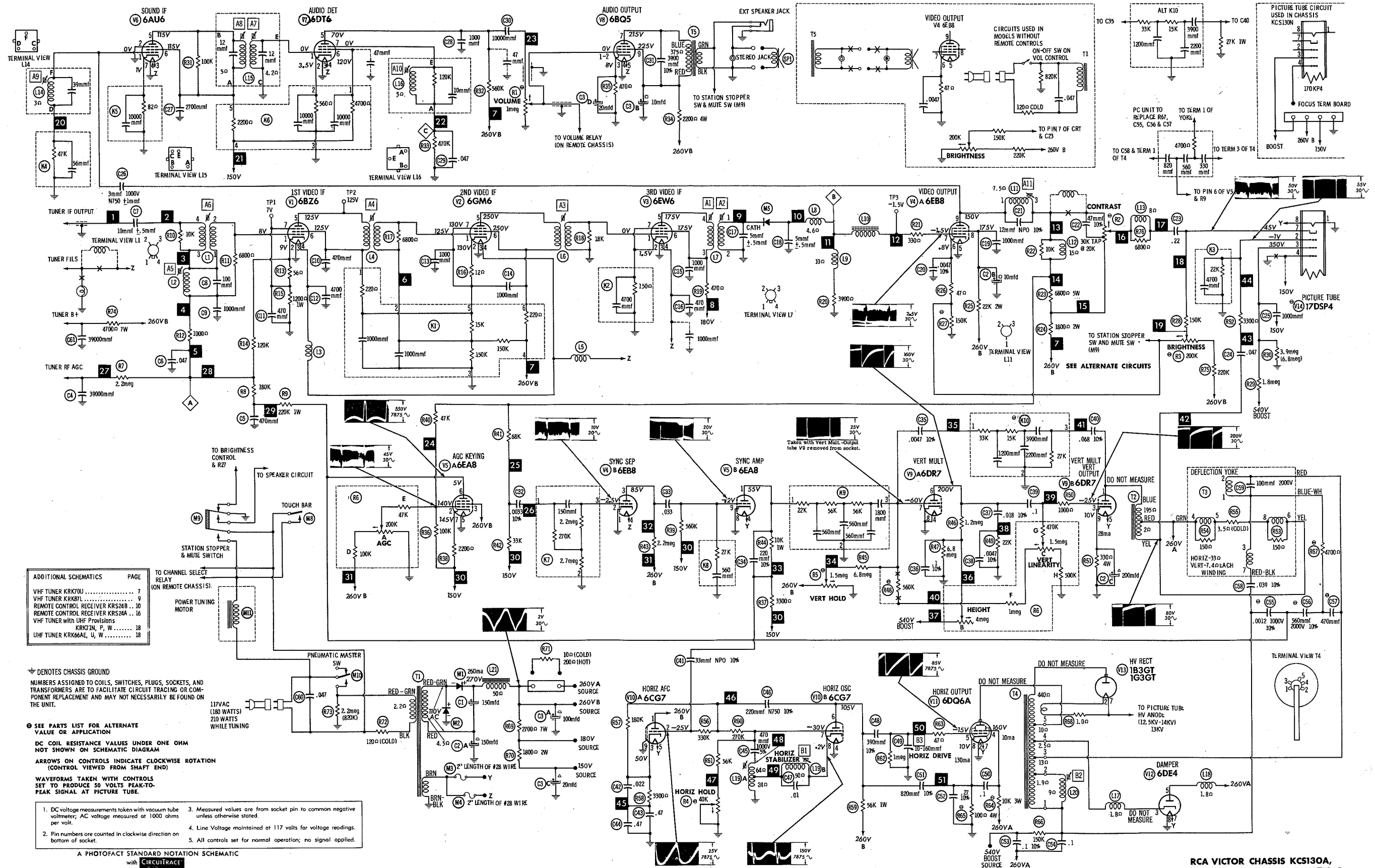
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of KA401

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DATE 1-61

SET 513

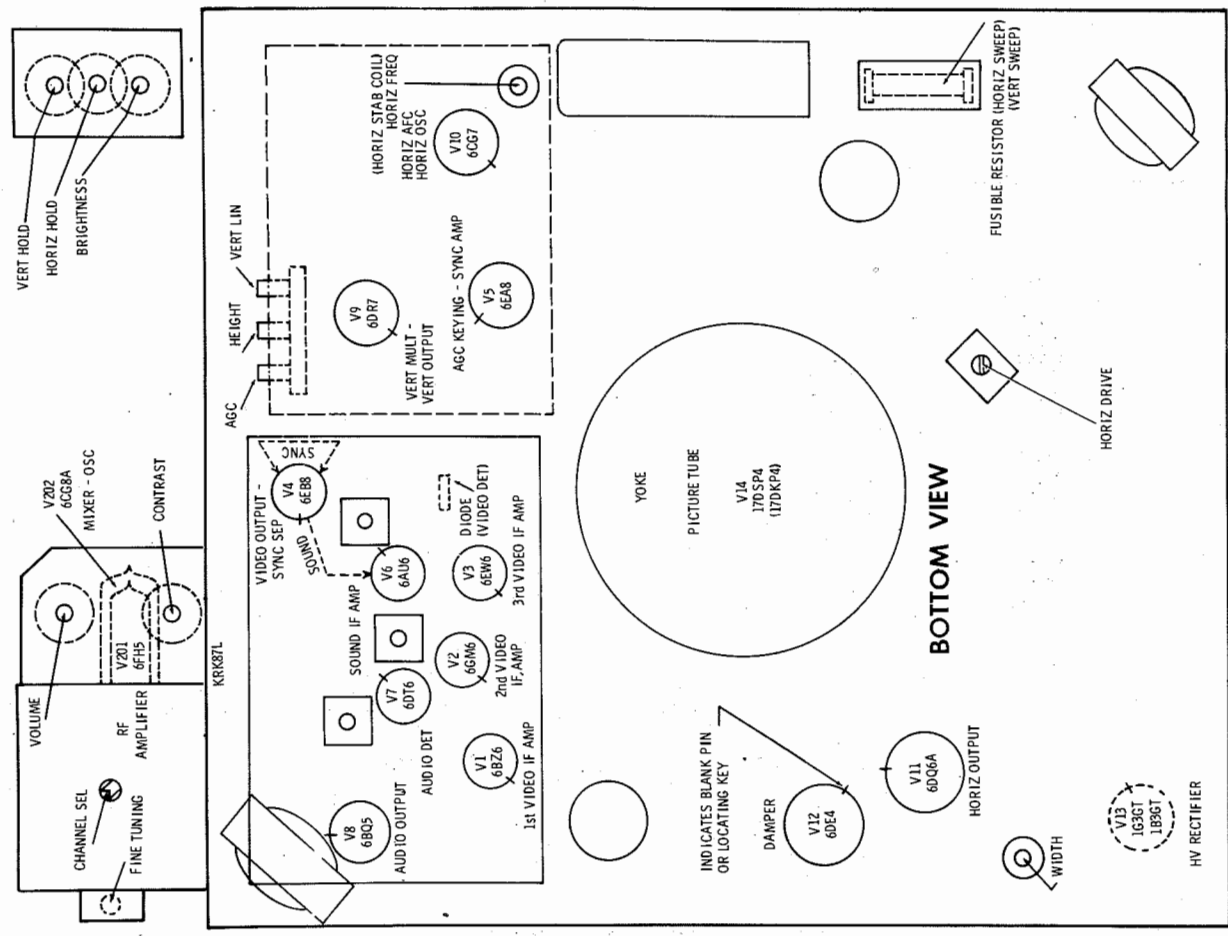
FOLDER 2



RCA VICTOR CHASSIS KC5130A,  
B, F, H, K, M, N, KRS24A, B, KR71A, B

FOLDER 2

## TUBE PLACEMENT CHART



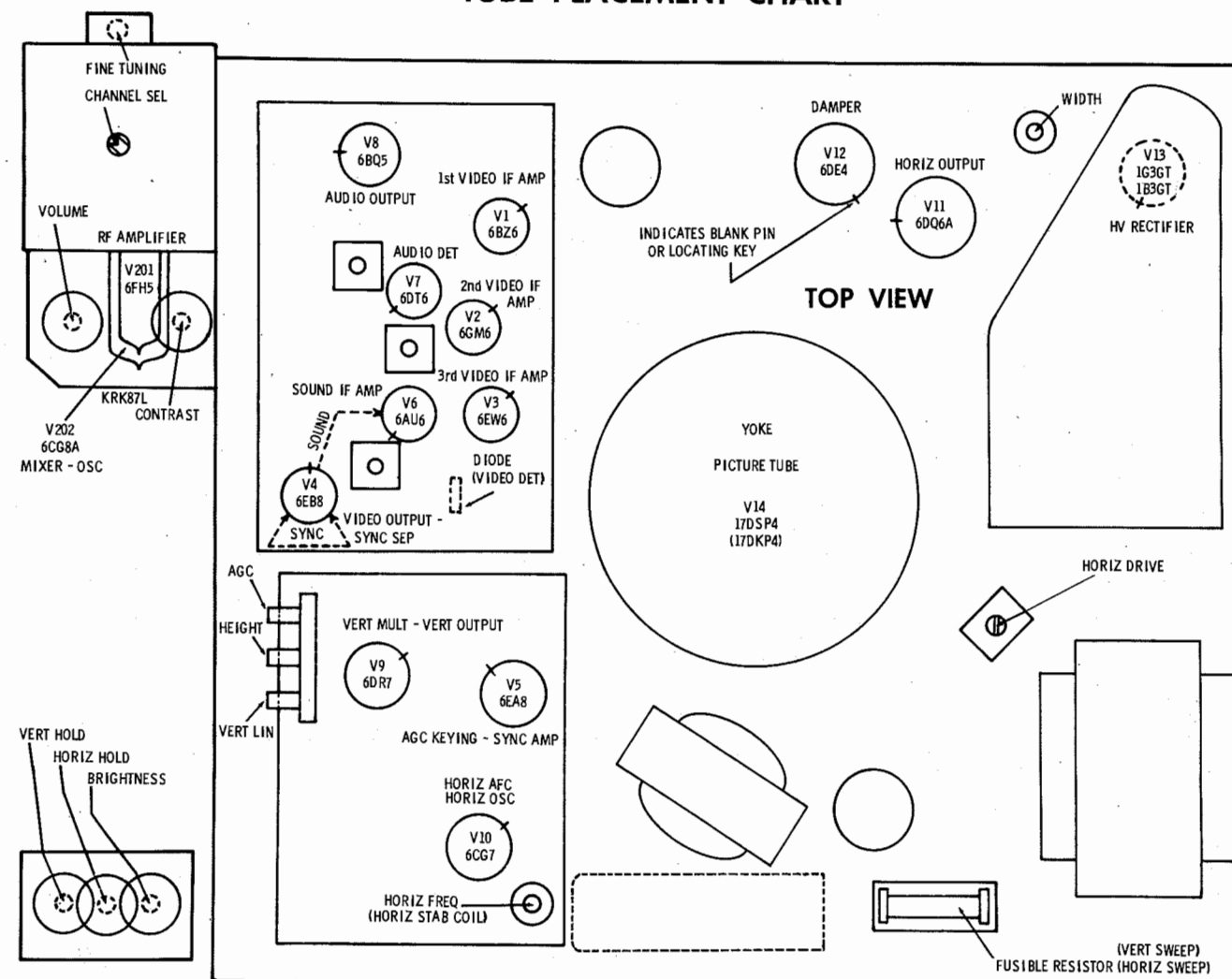
## RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6BZ6	120K	1250Ω	0Ω	.1Ω	†100K	†100K	1200Ω		
V2	6BM6	150K	165K	0Ω	.1Ω	†270Ω	†270Ω	165K		
V3	6EW6	0Ω	150Ω	0Ω	.1Ω	†3000Ω	†3000Ω	150Ω		
V4	6EB8	0Ω	4.9meg	†2.2meg	.1Ω	0Ω	200Ω	4200Ω	†22K	†8500Ω
V5	6EA8	†14K	●30K	†50Ω	.1Ω	0Ω	500K	†6700Ω	0Ω	†560K
V6	6AU6	47K	0Ω	.1Ω	0Ω	†6700Ω	†6700Ω	82Ω		
V7	6DT6	4.2Ω	560Ω	0Ω	.1Ω	†560K	†9000Ω	470K		
V8	6BQ5	NC	0Ω	470Ω	0Ω	.1Ω	NC	†2600Ω	NC	†2200Ω
V9	6DR7	†445Ω	NC	●2meg	0Ω	.1Ω	●†2.5meg	●2.5meg	0Ω	330Ω
V10	6CG7	†50Ω	●700K	●600K	0Ω	.1Ω	†56K	●100K	75Ω	0Ω
V11	6DQ6A	TP	0Ω	NC	†10K	1meg	TP	.1Ω	100Ω	TOP CAP †11Ω
V12	6DE4	NC	NC	¶	NC	†250Ω	TP	.1Ω	0Ω	
V13	1G3GT 1B3GT									TOP CAP †.450Ω
			PINS	1 THRU 8	HAVE	INFINITE	RESISTANCE			
V14	17D5P4	0Ω	22K	†1.9meg	0Ω	NC	●200K	.1Ω		
V15	6AU6	2.7meg	0Ω	0Ω	.1Ω	†150K	†470K	0Ω		
V16	12AX7	†100K	2.7meg	0Ω	.1Ω	.1Ω	†100K	2.7meg	0Ω	0Ω
V17	6BN8	370K	2.2meg	2.2meg	.1Ω	0Ω	370K	†41K	100K	0Ω
V18	6CM7	†5500Ω	NC	12K	.1Ω	0Ω	†2500Ω	3.2meg	3.2meg	12K
V201	6FH5	47Ω	2.3meg	0Ω	.1Ω	†5700Ω	0Ω	47Ω		
V202	6CG8A	4700Ω	†9500Ω	0Ω	0Ω	.1Ω	†5700Ω	†4700Ω	0Ω	220K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.

- THIS READING WILL VARY. CONTROL SET FOR NORMAL OPERATION.
- MEASURED FROM OUTPUT OF M1.
- MEASURED FROM PIN 3 OF V12.
- NC NO CONNECTION
- TP TIE POINT

## TUBE PLACEMENT CHART



## TUBE FAILURE CHECK CHART

The following chart lists tubes whose failures are most likely to produce indicated symptoms. Refer to tube placement chart for location and type of tube.

## POWER SUPPLY FAILURE

No raster, no sound Rectifiers (B+)

## SWEEP FAILURE

No raster, has sound V10, V11, V12, V13, V14  
No vertical deflection V9  
Poor vert. linearity or foldover V9  
Poor horiz. linearity or foldover V10, V11, V12  
Narrow picture V10, V11, V12, Rectifiers (B+)  
Vert. off freq. V9  
Horiz. off freq. V10

### LOSS OF PICTURE OR SOUND

LOSS OF PICTURE OR SOUND  
No pic, no sound, has raster V1, V2, V3, Diode (V1 deo Det.), V4  
No pic, no sound, has snow V201, V202, V1  
No pic, has sound, has raster V4, V14  
Has pic, no sound V6, V7, V8  
Overloaded picture V5

### SYNC FAILURE

SYNC FAILURE  
 No vert. sync V4, V5  
 No horiz. sync V4, V5  
 No vert. or horiz. sync V4, V5

ALIGNMENT INSTRUCTIONS

PRE-ALIGNMENT INSTRUCTIONS

The High Voltage Lead should be securely taped and kept away from the chassis.  
Disable the Horizontal Output Circuit by connecting a 150Ω 10W Resistor in series with the plate lead of the Horizontal Output Tube. Connect the negative lead of a 12.5 volt bias supply from pin 5 (grid) of the Horizontal Output Tube. Connect positive lead to chassis.  
Suggested Alignment Tools: A1 thru A5, A7, A8, A9, A11 .... GENERAL CEMENT #8606, 8606L, 8282, 9295  
WALSCO #2526, 2543, 2544, 2545  
A8 ..... GENERAL CEMENT #5004, 5008, 5009  
WALSCO #2520  
A10 ..... GENERAL CEMENT #8721, 8722  
WALSCO #2519

VIDEO IF ALIGNMENT

Connect clip lead from point A to chassis.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. 1500mmf Ceramic Capacitor	High side to Mixer grid wafer contact thru access hole (adjacent to Mixer Grid Wafer) located in left side of tuner shield. Low side to chassis.	44.5MC (Unmod)	Any non-interfering channel	DC probe to point A. Common to chassis. (Across Video Det. Load).	A1, A2	Adjust for maximum deflection. Adjust generator output for 3 volts on meter when finally peaked.
2. "	"	45.5MC	"	"	A3	"
3. "	"	43.0MC	"	"	A4	"
4. "	"	47.25MC	"	"	A5	Adjust for MINIMUM deflection.

OVERALL VIDEO IF RESPONSE CHECK

Connect the negative lead of a 4 volt bias supply to point A. Positive to chassis.  
Connect a 180Ω Resistor from pin 5 (plate) to pin 6 (screen) of the 1st Video IF Amp.  
Couple signal generator loosely to sweep output cable to provide markers.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
5. 1500mmf Ceramic Capacitor	High side to Mixer grid wafer contact thru access hole (adjacent to Mixer Grid Wafer) located in left side of tuner shield. Low side to chassis.	45.0MC (10MC Swp.)	42.5MC 45.75MC	4	Vert. Amp. thru demodulator probe to pin 5 (plate) of 1st Video IF Amp. Low side to chassis. Calibrate scope to 0.5 volts peak to peak.	A6 & Mixer Plate Coil	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown.
6. "	"	"	42.5MC 45.0MC 45.75MC	"	Vert. Amp. thru 10K to point B. Low side to chassis. (Across Video Det. Load). Calibrate scope for 5 volts peak to peak.	A1, A2, A3	Check for response similar to Fig. 2. If necessary, retouch A1, A3 and A4 for desired response.
7. Fig. 3	High side thru pad (Fig. 3) to Mixer Grid Wafer contact thru access hole (adjacent to Mixer Grid Wafer) located in left side of tuner shield. Low side to chassis.	Not used	45.75MC	"	USE VTVM DC probe to point B. Common to chassis.		Adjust generator output to provide exactly 1.5 volts on VTVM.
8. 1500mmf Ceramic Capacitor	Remove pad. High side to Mixer Grid Wafer contact thru access hole (adjacent to Mixer Grid Wafer) located in left side of tuner shield. Low side to chassis.	45.0MC (10MC Swp)	41.25MC	"	Leave VTVM connected. Connect scope as in step 6.	A1, A3	Retouch A1 and A4 for 1.0 to 1.5 volts on VTVM while maintaining response similar to Fig. 2.
9. Fig. 4	Across antenna terminals thru matching network (Fig. 4).	Each VHF Channel in turn	42.5MC 45.75MC 47.25MC	All VHF Channels	Vert. Amp. thru 10K to point B. Low side to chassis.	A1, A2	Check for response similar to Fig. 2. Retouch A1 and A3 SLIGHTLY to correct for tilt or other conditions that are approximately the same on all channels.

SOUND IF ALIGNMENT

Connect the negative lead of a 10 volt bias supply to point A. Positive to chassis.  
Set Contrast fully clockwise.  
Set VTVM for negative voltage readings.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
10. .001mfd	High side to point B. Low side to chassis.	4.5MC (Unmod)	Any non-interfering channel	DC probe thru diode probe (Fig. 5) to pin 7 (grid 3) of Audio Detector. Common to chassis.	A7, A8, A9	Adjust for maximum negative voltage on meter. Attenuate generator for a reading between 1.0 and 1.5 volts on meter when finally peaked. Peak A7 and A8 with maximum core separation. Adjust A9 for maximum deflection.
11.	Remove VTVM and diode probe. Connect scope across Volume Control. Turn off signal generator and tune in the strongest TV station in the area and adjust Volume Control for normal volume. Preset coil slug (A10) flush with the top of coil form. While observing scope and listening to the sound, adjust A10 clockwise to a peak. Continue turning clockwise to a second louder peak and adjust for maximum on this second peak.					

CONTINUED PAGE 21

ALIGNMENT INSTRUCTIONS (cont)

4.5MC TRAP ALIGNMENT

Set Contrast fully clockwise.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
12. .01mfd	High side to point B. Low side to chassis.	4.5MC (400% Mod)	Any non-interfering channel	Vert. Amp. thru demodulator probe to cathode of picture tube. Low side to chassis.	All	Adjust for MINIMUM 400% indication on scope.

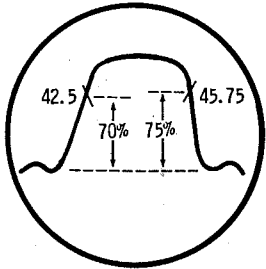


FIG. 1

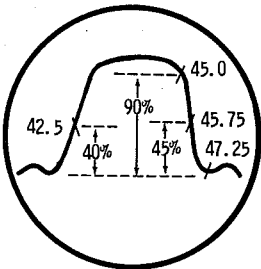


FIG. 2

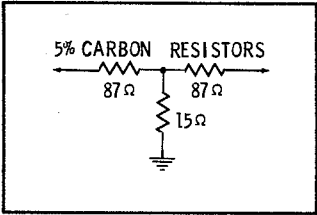


FIG. 3

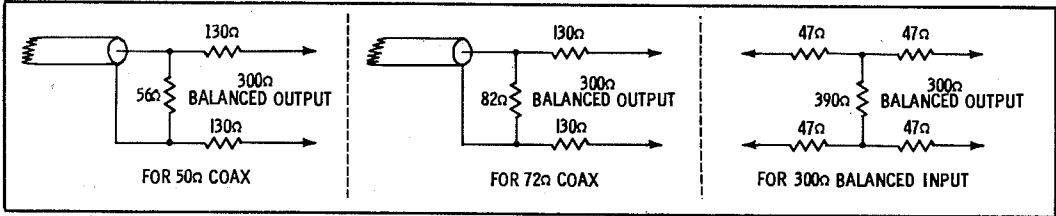


FIG. 4

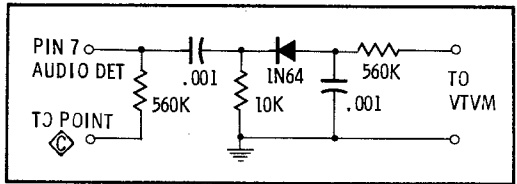
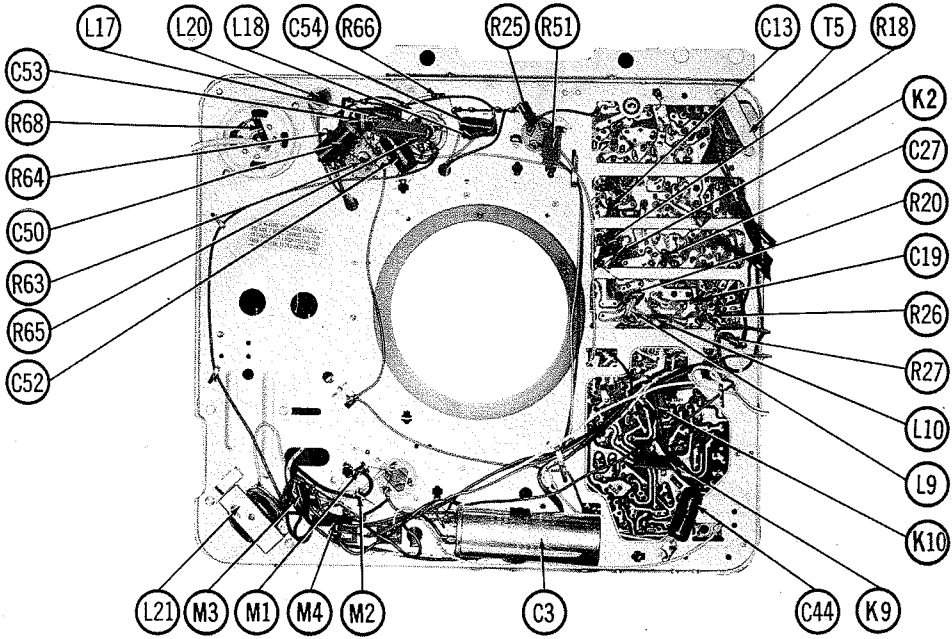


FIG. 5

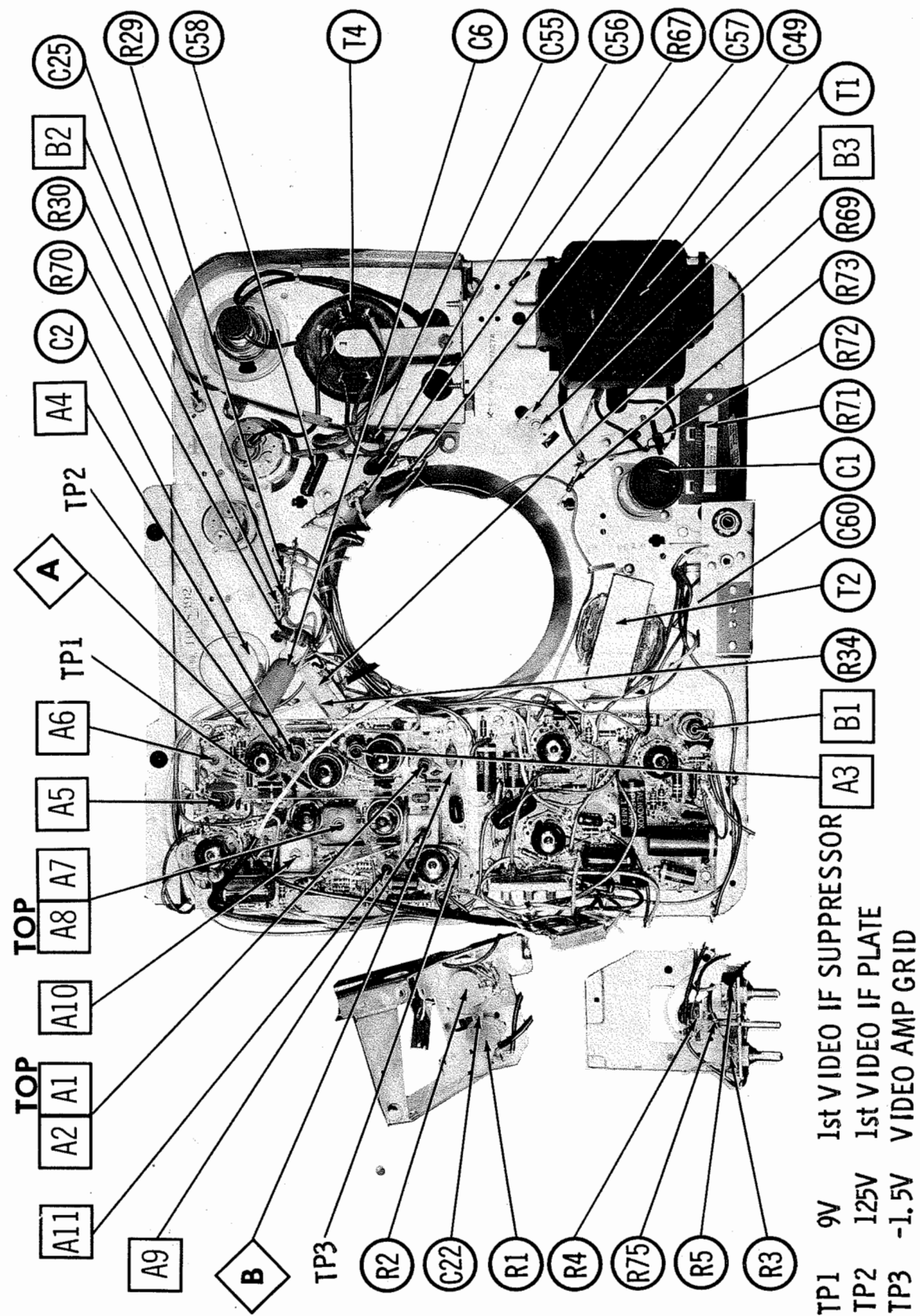


TV CHASSIS-BOTTOM VIEW

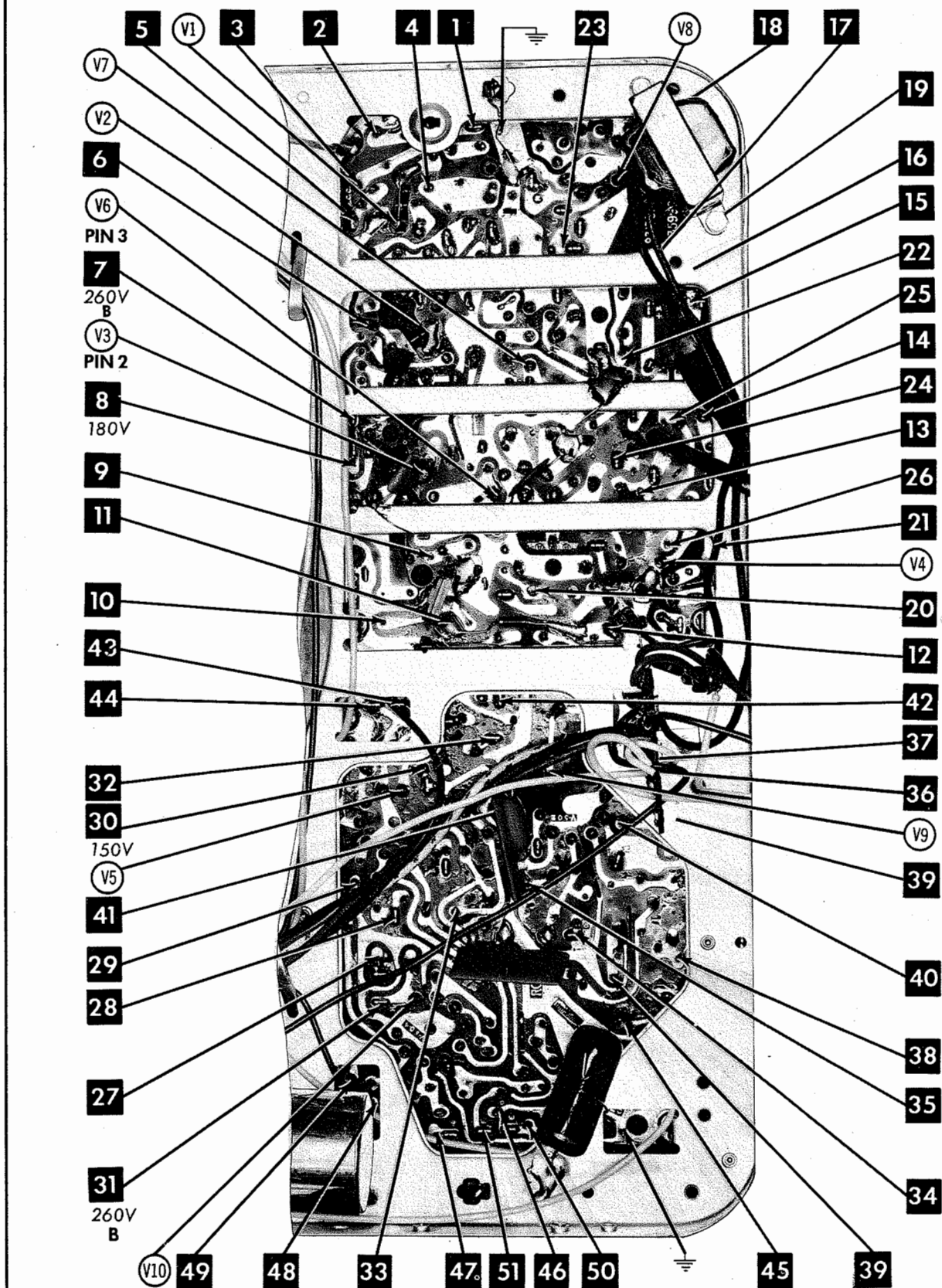
RCA VICTOR CHASSIS KCS130A, B, F, H, K, M, N, KRS24A, B, KRT1A, B

FOLDER 2





TV CHASSIS-TOP VIEW



A Howard W. Sams CIRCUITRACE Photo

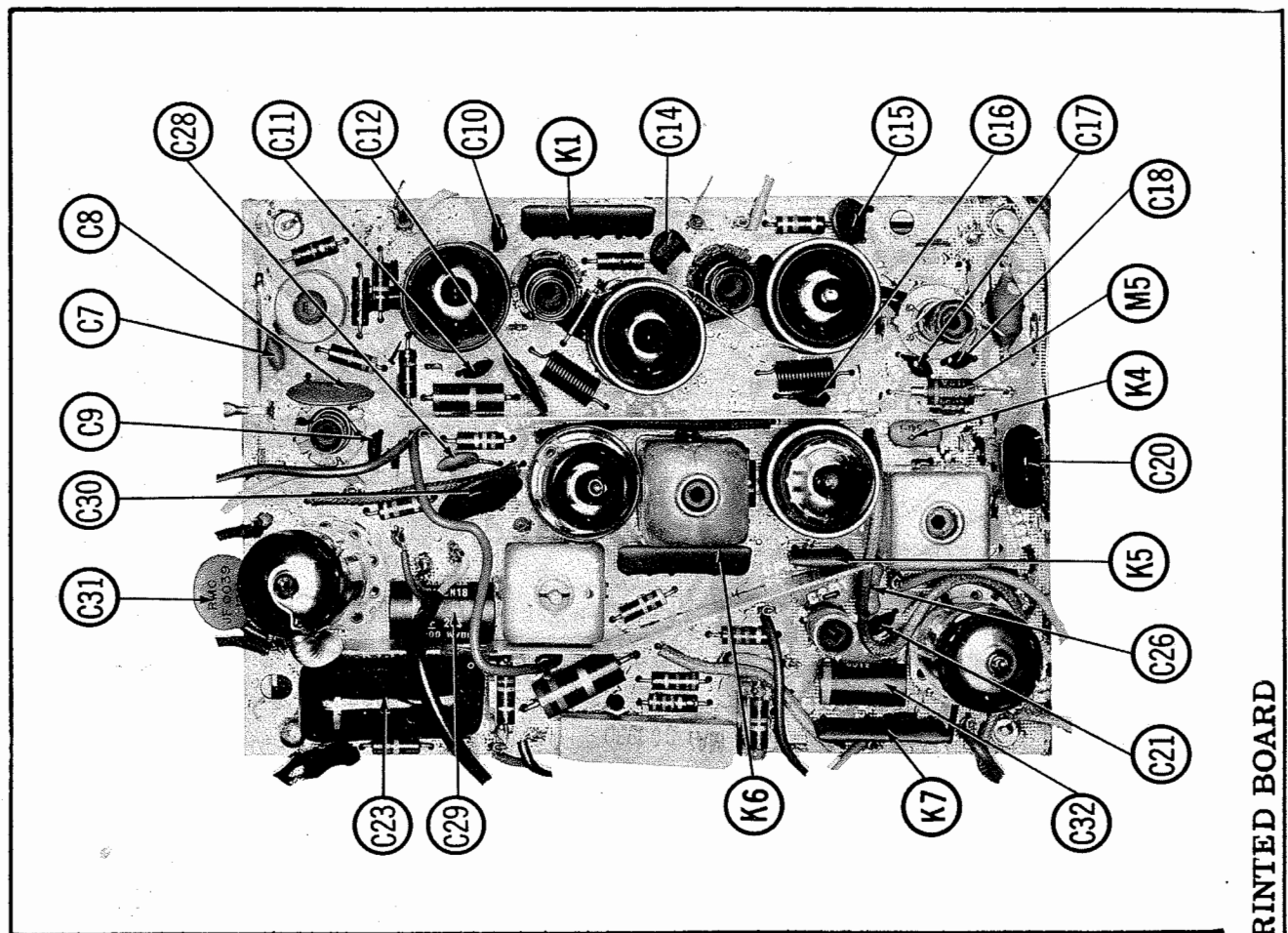
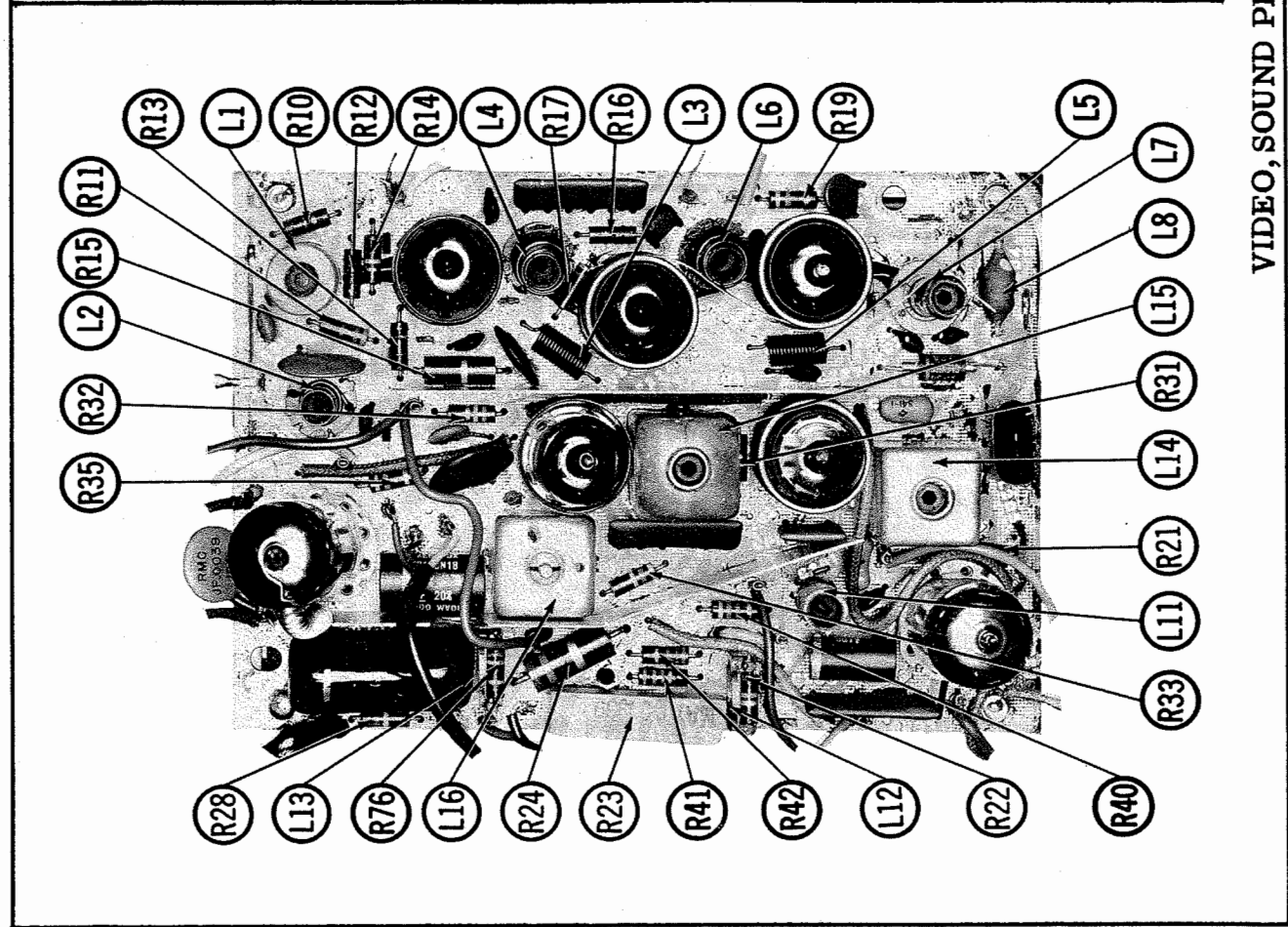
ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

VIDEO, SOUND PRINTED BOARD & SWEEP, SYNC, AGC PRINTED BOARD

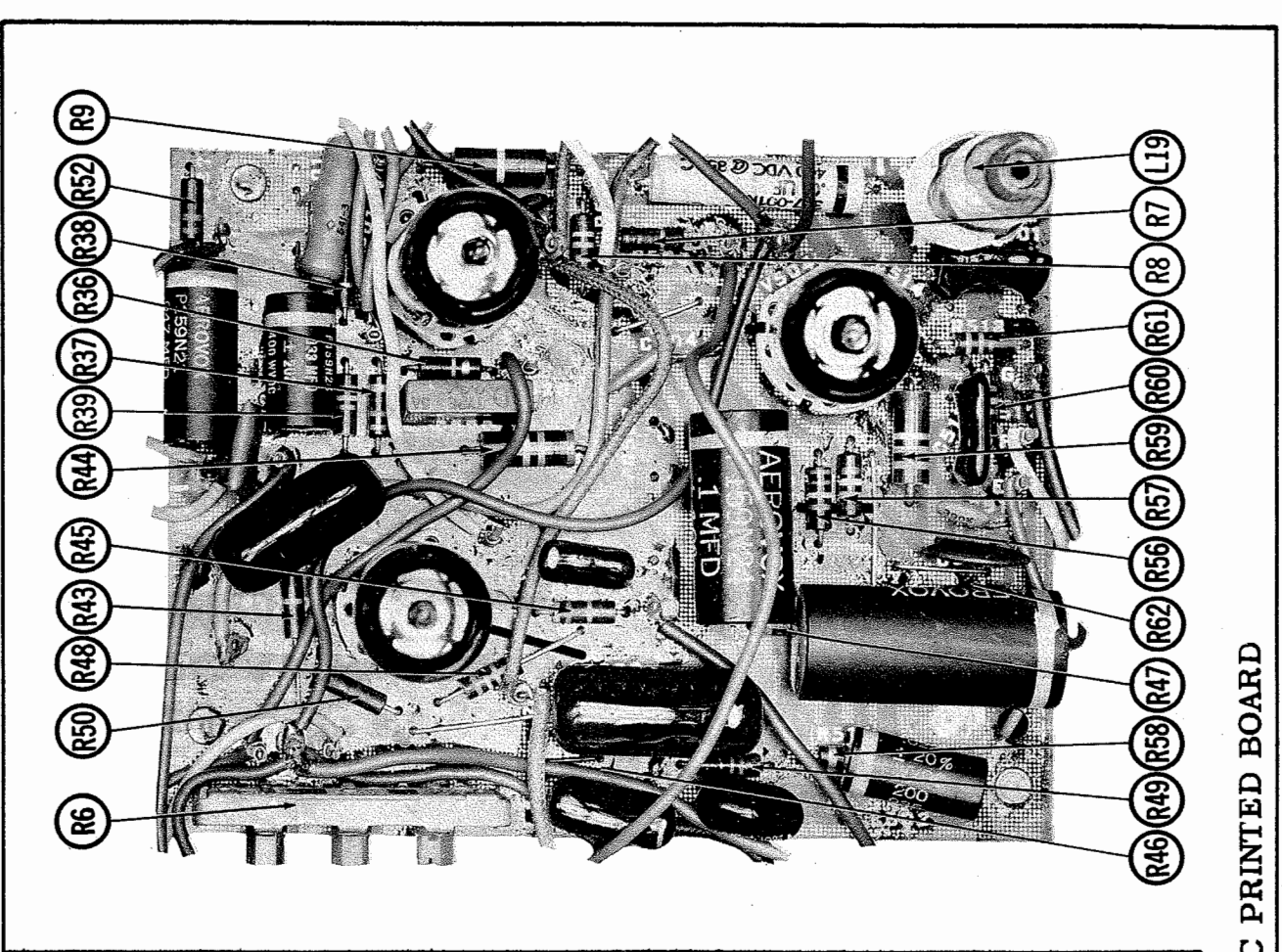
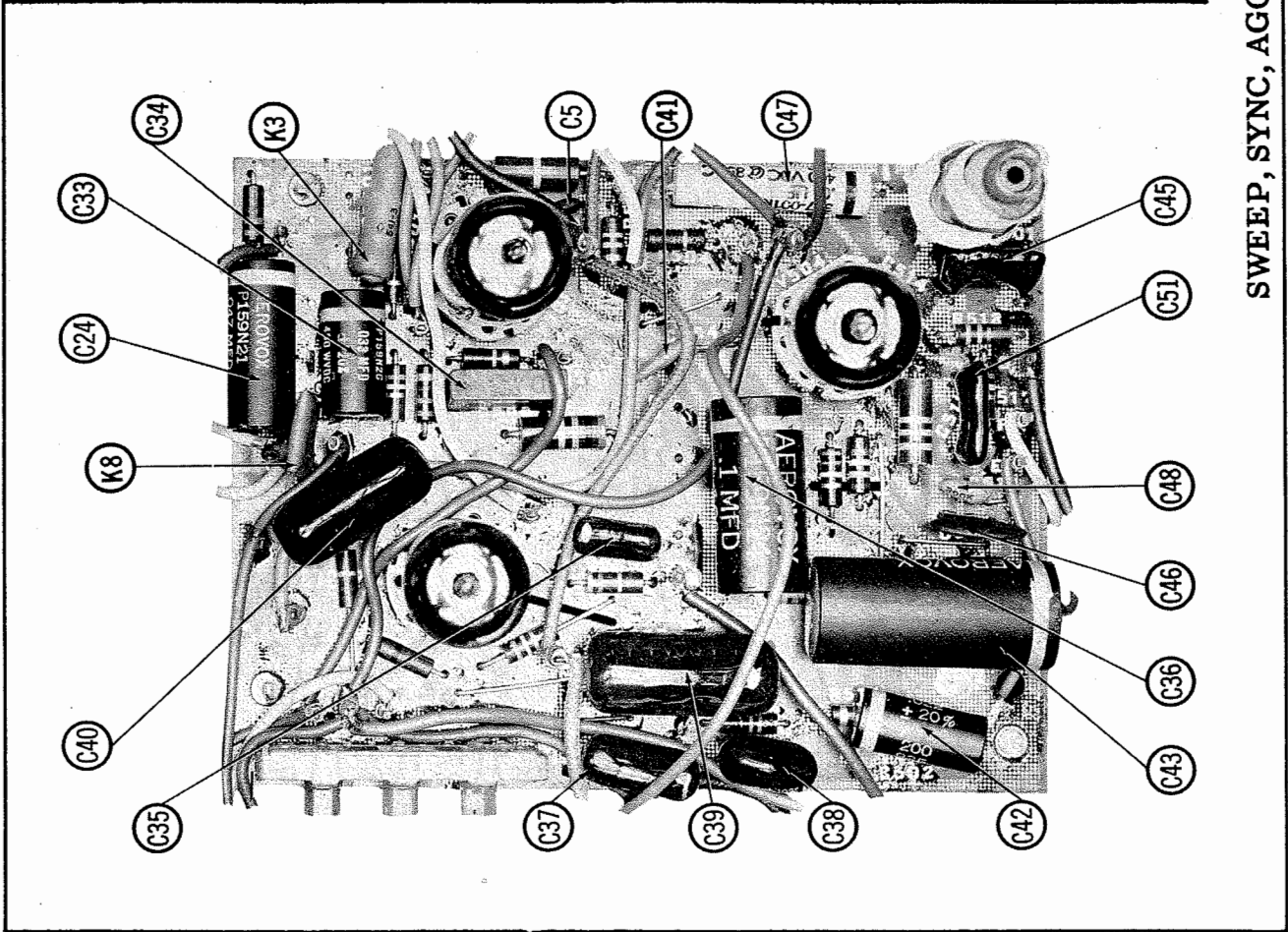
SET 513 FOLDER 2

RCA VICTOR CHASSIS KC5130A,  
 B, F, H, K, M, N, KR524A, B, KR11A, B

FOLDER 2

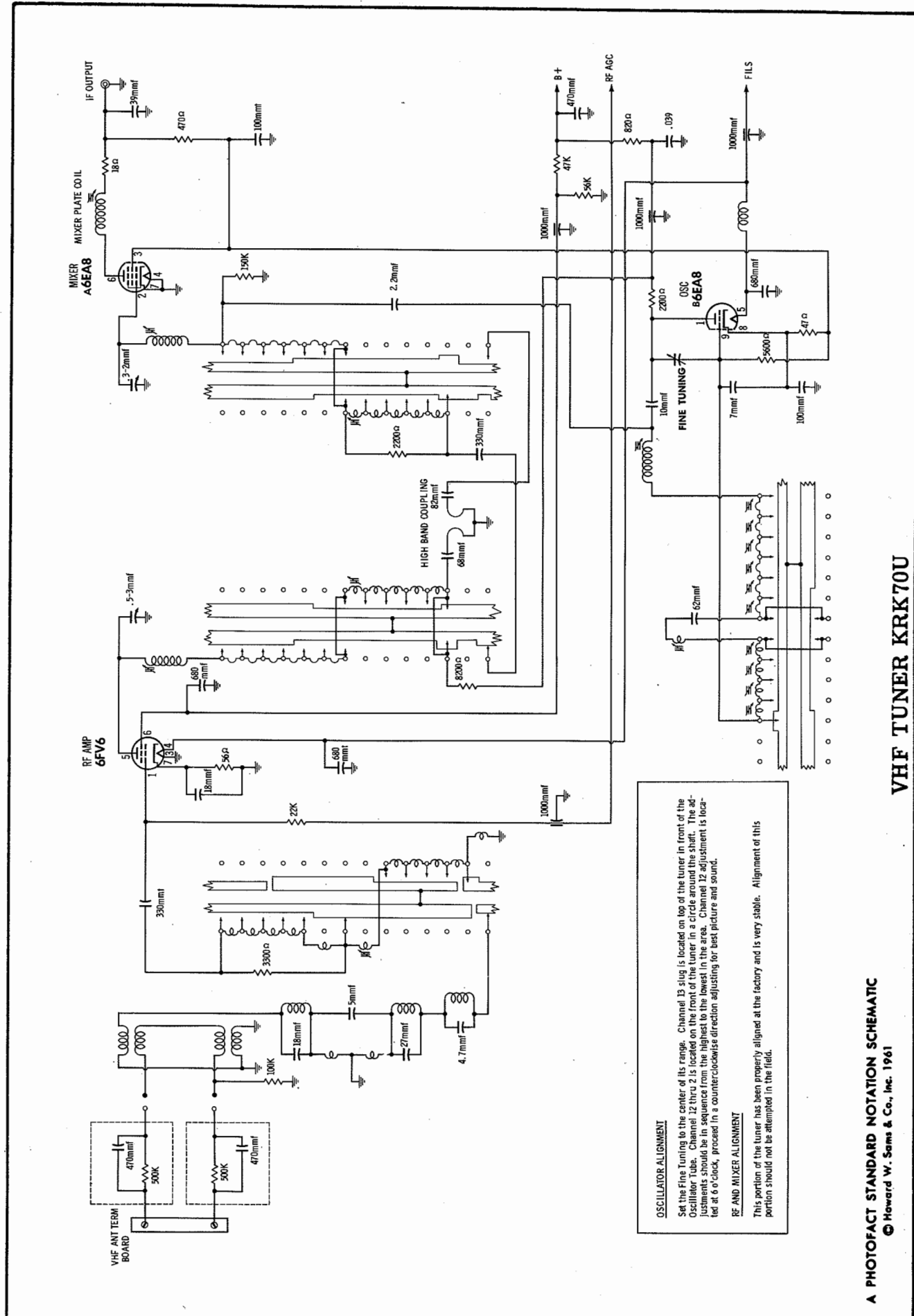
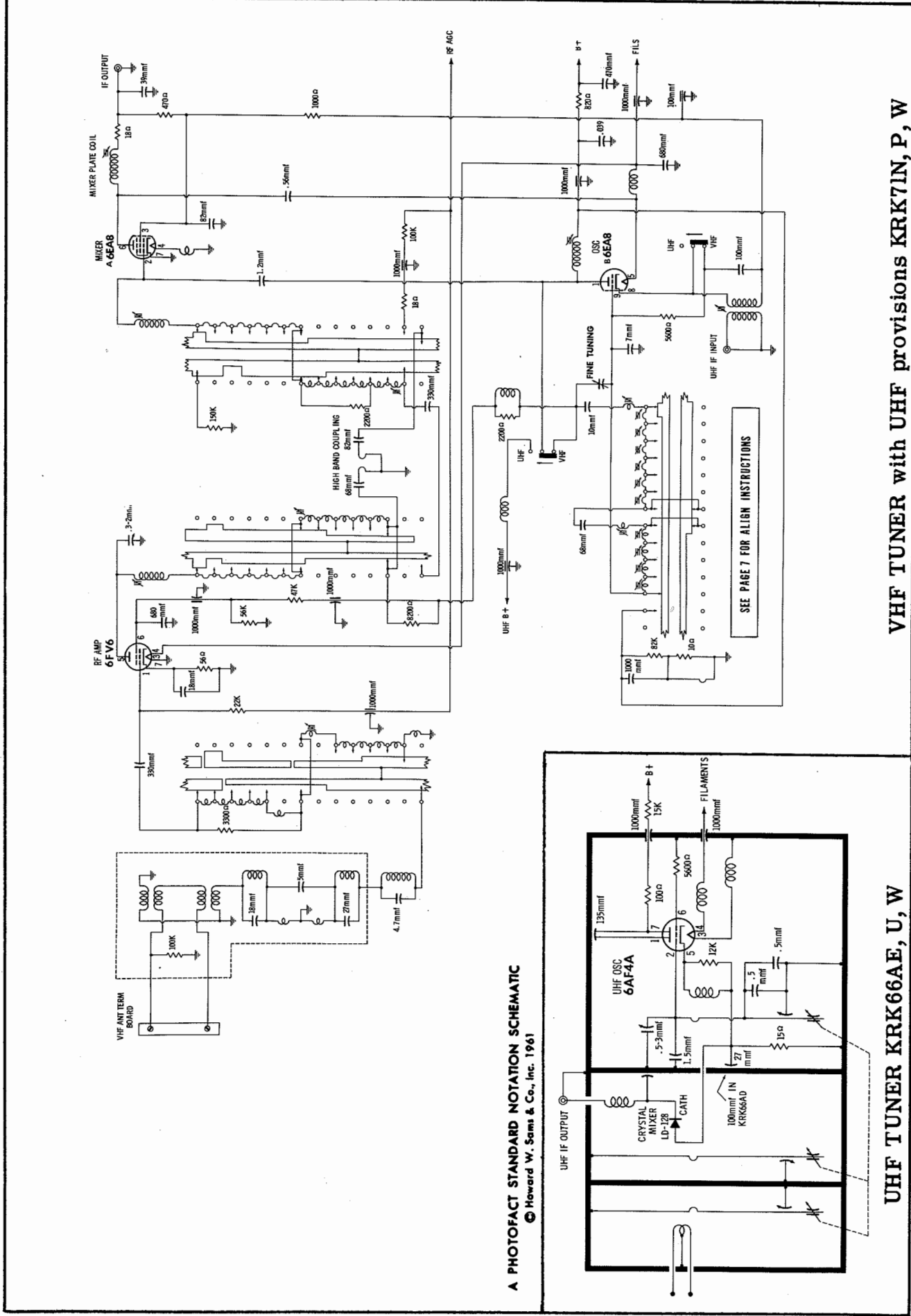


VIDEO, SOUND PRINTED BOARD



RCA VICTOR CHASSIS KCS130A,  
B, F, H, K, M, N, KRS24A, B, KRT1A, B  
SWEEP, SYNC, AGC PRINTED BOARD





TUNER PARTS LIST AND DESCRIPTIONS KRK87L  
TUBES

GENERAL ELECTRIC			RAYTHEON			SYLVANIA		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6FH5	V202	Mixer - Osc.	6CG8A			

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	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201	27 N750 10%	Pt. #107876	N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C202	27 N750 10%		N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C203	27 N750 10%		N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C204	27 N750 10%		N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C205	30 N750 10%		N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C206	28 N750 10%	Pt. #107886	N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C207	1000 1.8-7		EF-001	MFT-1000	829-7	CCF-102	CT280A	10TCU-Q27
C208	100 5-3.5							
C209	100 5-3.5							
C210	28 N750 10%		N750-DI 25	TCN-27	C10Q27U	CCTN-270	CN7-427	10TCU-Q27
C211	33 N750 10%	Pt. #107881	N750-DI 33	DTN-33	C10Q33U	CCTN-330	CN7-433	10TCU-Q33
C212	40 5-3.5							
C213	39 N750 5%							
C214	1000 6.8		BPD-001	DD-102	BYA10DI	CCD-102	B-210	10TCU-Q39
C215	18 N220 10%		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39
C216	1000 18	Pt. #107882	EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39
C217	1000 18		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39
C218	1000 18		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39
C219	1000 18		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39
C220	1000 18		EF-001	MFT-1000		CCF-102	CT280A	10TCU-Q39

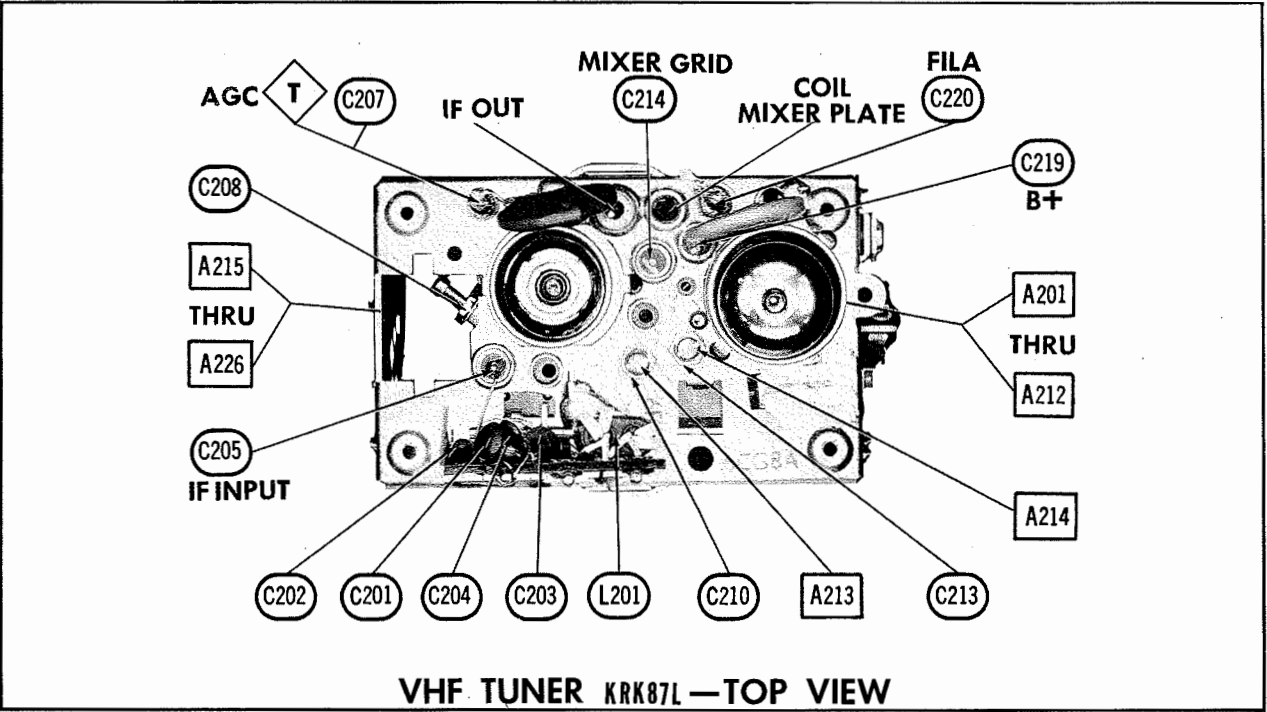
\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.

RESISTORS (IRC or EQUIVALENT)  
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R201	47K		R204	2700Ω		R207	220K	
R202	1000Ω		R205	1000Ω		R208	4700Ω	
R203	47Ω		R206	4700Ω				

COILS (RF-IF)

ITEM No.	USE	RCA Victor PART No.	NOTES	ITEM No.	USE	RCA Victor PART No.	NOTES
L201A	Ant. Coil	107896		L202F	Ant., RF, Mixer, & Osc. Coils	107903	Channel 7
B	Trap Coil			G	"	107904	Channel 8
C	Trap Coil			H	"	107905	Channel 9
D	Trap Coil			I	"	107906	Channel 10
L202A	Ant., RF, Mixer, & Osc. Coils	107898	Channel 2	J	"	107907	Channel 11
B	"	107899	Channel 3	K	"	107908	Channel 12
C	"	107900	Channel 4	L	"	107909	Channel 13
D	"	107901	Channel 5	L203	Fine Tuning	107888	Less Core
E	"	107902	Channel 6	L204	Mixer Plate Coil	107889	



VHF TUNER KRK87L —TOP VIEW

TUNER ALIGNMENT INSTRUCTIONS  
KRK87L

PRE-ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201 thru A212 .... GENERAL CEMENT #5009, 8195, 8274, 8275, 8728, 8729, 8987, 8988, 8989  
WALSCO #2515, 2531, 2532  
A213, A214 ..... GENERAL CEMENT #8697, 9291, 9294  
WALSCO #2520, 2522, 2523, 2524, 2534, 2537

VHF OSCILLATOR ALIGNMENT

Connect the negative lead of a 3 volt bias supply to point ①. Positive to chassis.  
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.  
Use only enough sweep generator output to provide a usable pattern on scope.  
Set the Fine Tuning to the Center of its range.  
Connect a 39 ohm composition resistor in series with a 1000mmf capacitor across the tuner output jack.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across VHF antenna terminals thru matching pad (See Fig. 201).	257MC	13	Vert. Amp. thru 10K to point ①. Low side to chassis.	A201	Adjust for zero beat.
"	251MC	12	"	A202	"
"	245MC	11	"	A203	"
"	239MC	10	"	A204	"
"	233MC	9	"	A205	"
"	227MC	8	"	A206	"
"	221MC	7	"	A207	"
"	129MC	6	"	A208	"
"	123MC	5	"	A209	"
"	113MC	4	"	A210	"
"	107MC	3	"	A211	"
"	101MC	2	"	A212	"

VHF RF AND MIXER ALIGNMENT

Connect Bias as under "VHF Oscillator Alignment".  
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.  
The generator output lead should be terminated with its characteristic impedance, usually 50 ohms.  
Use only enough sweep generator output to provide a usable pattern on scope.  
Leave tuner output jack terminated as under "VHF Oscillator Alignment".

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
2. Across VHF antenna terminals thru matching pad (Fig. 201).	195MC (10MC Swp.)	193.25MC 197.75MC	10	Vert. Amp. thru 10K to point ①. Low side to chassis.	A213, A214	Adjust for maximum gain and symmetry of response similar to Fig. 202 with markers as shown.
"	213MC	211.25MC 215.75MC	13	"	A215	If necessary, adjust to correct for improper tilt.
"	207MC	205.25MC 209.75MC	12	"	A216	Adjust by expanding or compressing coil turns.
"	201MC	199.25MC 203.75MC	11	"	A217	"
"	195MC	193.25MC 197.75MC	10	"	A218	"
"	189MC	187.25MC 191.75MC	9	"	A219	"
"	183MC	181.25MC 185.75MC	8	"	A220	"
"	177MC	175.25MC 179.75MC	7	"	A221	"
"	85MC	83.25MC 87.75MC	6	"	A222	"
"	79MC	77.25MC 81.75MC	5	"	A223	"
"	69MC	67.25MC 71.75MC	4	"	A224	"
"	63MC	61.25MC 65.75MC	3	"	A225	"
"	57MC	55.25MC 59.75MC	2	"	A226	"

If bandwidth is out of limits on most high VHF channels (7-13), adjust A227 by expanding or compressing coil turns.

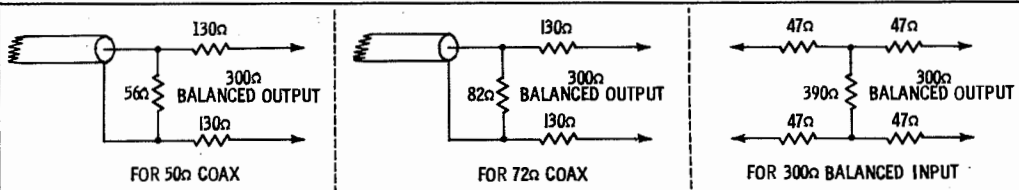
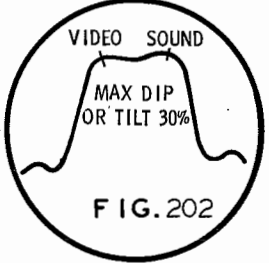
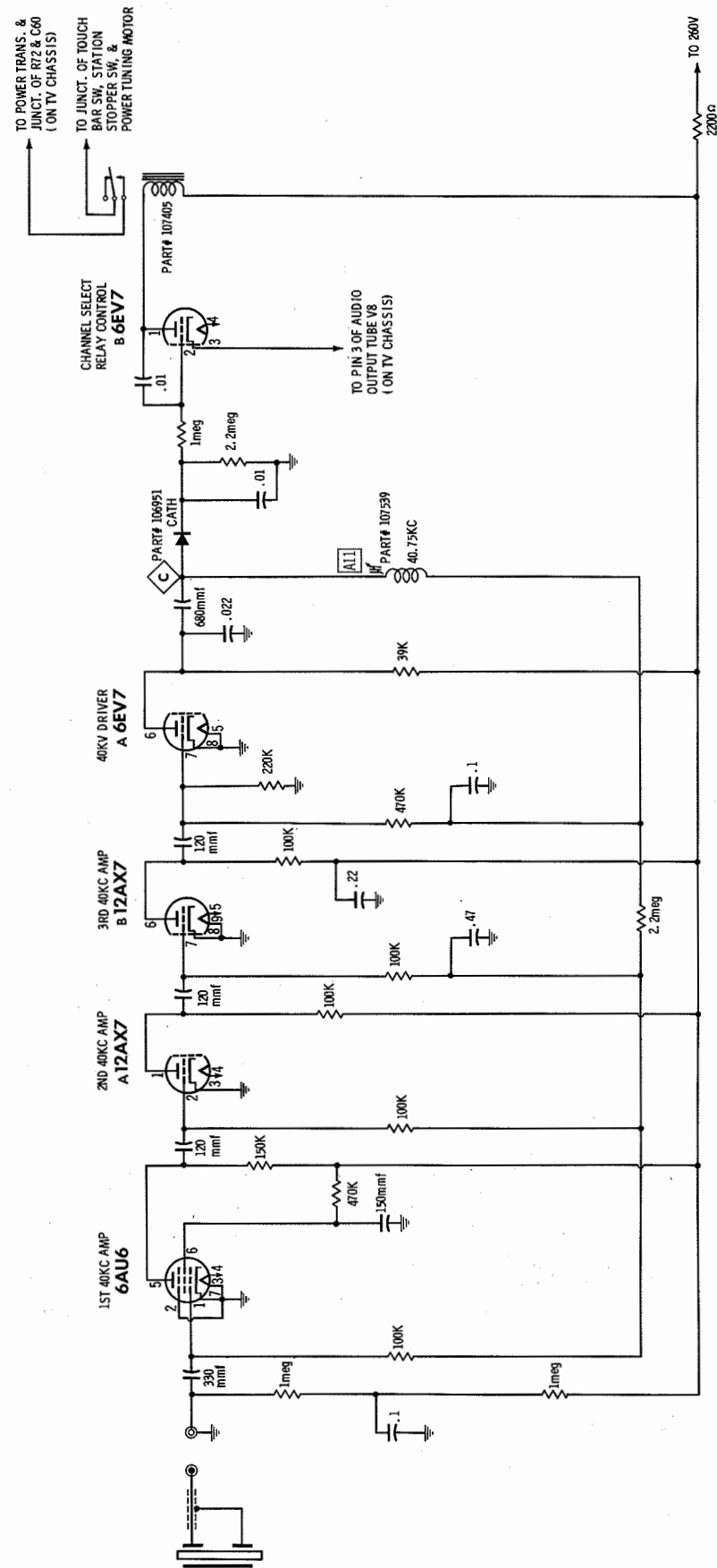


FIG. 201



FOLDER 2





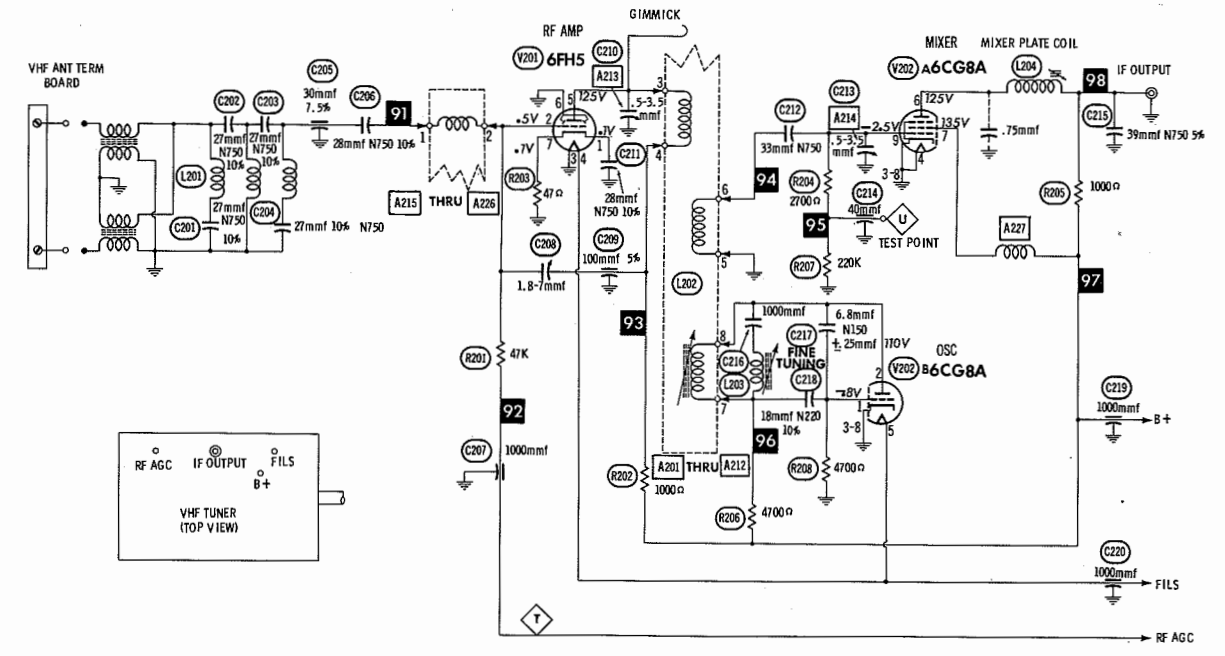
REMOTE CONTROL ALIGNMENT

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CORRECT VTA	ADJUST	REMARKS
High side thru .001mfd to pin 1 grid of 1st 40KC Amp. Low side to chassis.	20.375KC		Diode probe to point of $\phi$ . Common to chassis.	A11	Adjust for maximum deflection..

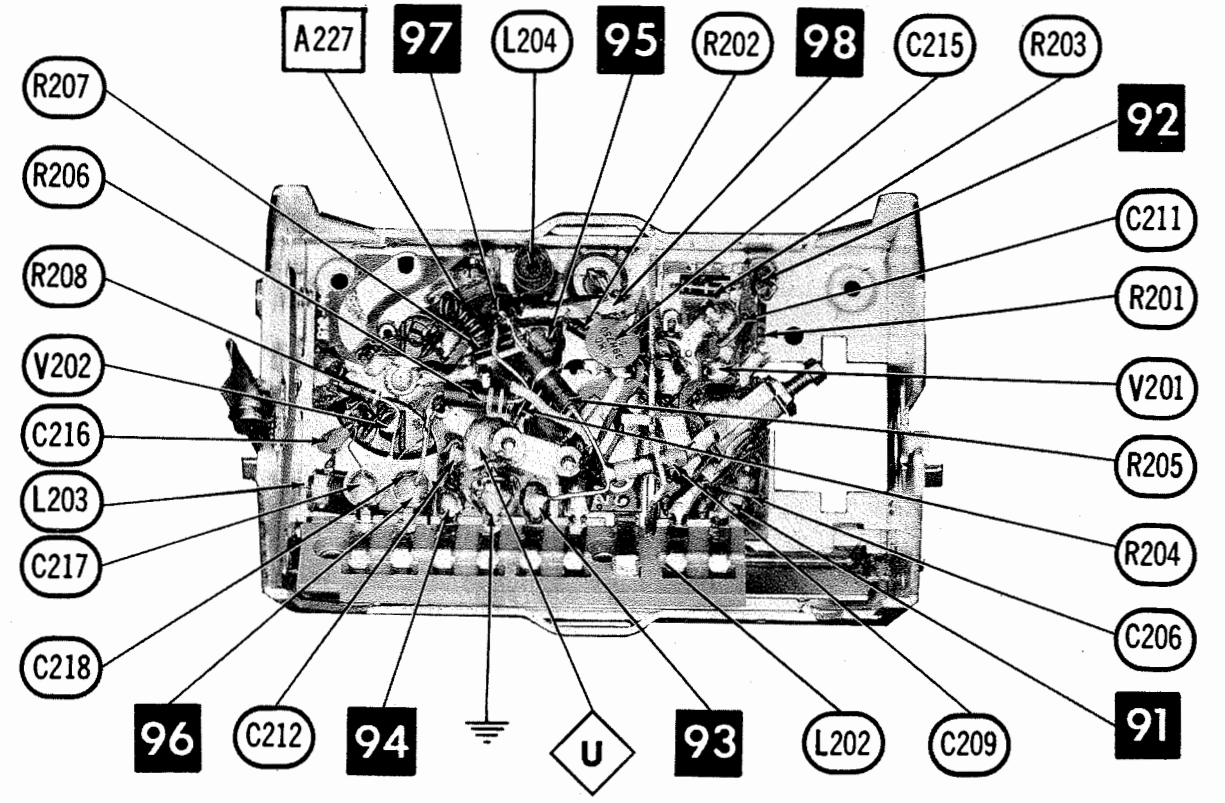
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REMOTE CONTROL RECEIVER KRS24A

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with CIRCUITRACE  
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VHF TUNER KRK87L



A Howard W. Sams CIRCUITRACE Photo

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

VHF TUNER KRK87L-BOTTOM VIEW

SET 513 FOLDER 2

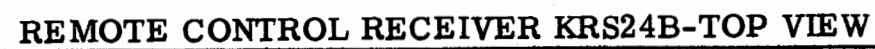
RCA VICTOR CHASSIS KCS130A,  
B, F, H, K, M, N, KRS24A, B, KRT1A, B

FOLDER 2



	INTERNAL GENERATOR COUPLING	CHANNEL	CONNECT VITA	ADJUST	REMARKS
1.	High side thru .001mil to pin 1 grid of 1st 40KC Amp. Low side to chassis.	20.375KC	Diode probe to point of $\diamond$ Common to chassis.	A11	Adjust for maximum deflection.
2.	"	21.625KC	Diode probe to point of $\diamond$ Common to chassis.	A12	Adjust for maximum deflection.

**A PHOTOFACT STANDARD NOTATION SCHEMATIC**  
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**RCA VICTOR CHASSIS KCS130A,  
B, F, H, K, M, N, KRS24A, B, KRT1A, B**

## FOLDER 2

## ELECTROLYTIC CAPACITORS

## FIXED CAPACITORS

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

Note 1. May not be used in some versions.

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

\* Alternate Value.

Note 1. May not be used in some versions.

### PLACEMENT DATA

## MISCELLANEOUS

## NOTES

## CABINETS & CABINET PARTS

**(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)**

	DESCRIPTION
Channel, Off, Remote Transmitter, KRTIB	Volume, Remote Transmitter, KRTIB
Channel, Off, Remote Transmitter, KRTIA	Volume, Remote Transmitter, KRTIB, KRTIA
Channel, Off, Remote Transmitter, KRTIB, KRTIA	Volume, Remote Transmitter, KRTIB, KRTIA

## TUBES

## PICTURE TUBE

\* Model 171A032X (Chassis KCSI30N).

## REPLACEMENT DATA

\* Not normally in distributor's stock. Available thru distributor on order to manufacturer.  
Note 1. Some versions may use 100mfd @ 350V, 10mfd @ 350V, 20mfd @ 350V, 20mfd @ 25V.

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

Note 1. May be part of Component Combination in some versions (Pt. #107544):

## FOLDER 2



## TV PARTS LIST AND DESCRIPTIONS (Continued)

## CONTROLS

ITEM No.	RATING	REPLACEMENT DATA					INSTALLATION NOTES
		RCA Victor PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1A	1meg	109179	AB-70	A47-1meg-Z	B13-137	U53	Volume Note 1
B	30K	109174	AK-8	RS-3/16	SK9	DS-37	Contrast Note 2
R2	20K Tap	109176	AB-46	A47-200K-S	B11-129	U43	Brightness Note 3
R3A	200K	109178	AK-33	RS-3/16	SK9	DS-37	Horiz. Hold Note 4
B	40K	109177	AB-742	A47-1.5meg-S	B11-138	U155	Vert. Hold Note 5
R4	1.5meg	107280	AK-33	RS-3/16	SK9	DS-37	AGC Height
R5A	200K						Ver. Linearity
B	4meg						AGC Voltage Divider
R6A	1.5meg						AGC Coupling
B	100K						Ver. Linearity Volt. Div.
E	47K						Linearity Coupling (Vert)
F	1meg						Linearity Limiter (Vert)
G	470K						
H	500K						

Note 1. Part #109175 used in Models 171A040, -2, -3, -4, -7 &amp; U, 171A061, -2, -7, -8 &amp; U without Remote Control.

Note 2. Part #107212 used in Models 171A032X, 171A034 &amp; U.

Note 3. Part #107216 used in Models 171A032X, 171A034 &amp; U.

Note 4. Part #107215 used in Models 171A032X, 171A034 &amp; U.

Note 5. Part #107213 used in Models 171A032X, 171A034 &amp; U.

## RESISTORS (IRC or EQUIVALENT)

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

ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS	ITEM No.	RATING	REMARKS
R7	2.2meg		R33	470K		R56	3300Ω	
R8	180K		R34	2200Ω 4W	Pt. #103352 IRC #PW5-2200Ω	R57	56K 1W	
R9	220K 1W					R58	270K	
R10	10K					R59	56K	
R11	6800Ω					R60	1meg	
R12	1000Ω					R61	47Ω	
R13	56Ω					R62	10K 3W	Pt. #106253 IRC #PW5-10K (8200Ω) †
R14	120K					R63	100Ω 4W	Pt. #107229 IRC #PW5-100Ω
R15	1200Ω 1W					R64	150K	
R16	12Ω					R65	4700Ω	
R17	6800Ω					R66	1.0Ω	
R18	18K					R67	2700Ω 7W	Note 3 Pt. #104382 Pt. #102789A IRC #PW10-2700Ω
R19	470Ω					R68	1800Ω 2W	
R20	3900Ω					R69	10Ω (Cold)	Pt. #104295
R21	330Ω					R70	200Ω (Hot)	
R22	10K					R71	120Ω (Cold)	Pt. #107191 (820K) †
R23	6800Ω 5W	Pt. #107025 IRC #PW5-6800Ω				R72	2.2meg	Pt. #108074 IRC #PW10-4700Ω
R24	1800Ω 2W					R73	4700Ω 7W	
R25	22K 2W					R74	220K	
R26	47Ω					R75	6800Ω	
R27	150K	Note 1				R76		
R28	150K							
R29	1.5meg							
R30	3.9meg	(6.8meg) †						
R31	100K							
R32	560K							

† Alternate Value.

\* Some versions may use 47Ω in this application.

Later production models use 100Ω 7W (Pt. #104188).

† Value used in early production models.

Note 1. Used in Chassis KC5130M only.

Note 2. May not be used in some versions.

Note 3. May be part of Component Combination in some versions (Pt. #107544).

## COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	RCA Victor PART No.	REPLACEMENT DATA
K1	2nd Video IF Amp.	1000mmf, 1000mmf, 220Ω, 220Ω, 15K, 150K, 150K	107277	Centralab PC-387
K2	3rd Video IF Cathode	4700mmf, 150Ω	109220	
K3	Vert. Blanking	4700mmf, 22K	107283	
K4	Sound IF Grid	56mmf, 47K	104329	Centralab RC-421
K5	Sound IF Cathode	10000mmf, 82Ω	107278	Centralab PC-382
K6	Audio Detector Cathode	10000mmf, 10000mmf, 590Ω, 2200Ω, 4700Ω	107276	Centralab PC-380
K7	Sync Sep. Grid	150mmf, 270K, 2.2meg, 2.7meg	107200	Centralab PC-381
K8	Sync Sep. Plate	560mmf, 27K	107492	
K9	Vert. Integrator	560mmf, 560mmf, 560mmf, 1800mmf, 22K, 56K, 56K	109078	
K10	Vert. Feedback	1200mmf, 2200mmf, 3900mmf, 15K, 33K, 27K *	109077	

\* In some versions, 27K Resistor is a separate component.

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		RCA Victor PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	1st Video IF	107202				
L2	47.25MC Trap	107203				
L3	Fl. Choke (1uh)	73477				
L4	2nd Video IF	109071	BC-561	4602	RTC-8515	
L5	Fl. Choke (1uh)	73477	BC-561	4602	RTC-8515	
L6	3rd Video IF	109158				
L7	4th Video IF	109076				
L8	Peaking (36uh)	101819	TV-180	6176	RTC-8593	
L9	Peaking (250uh)	101287	TV-185	6181	RTC-8598	
L10	RF Choke (5.6uh)	106171	SW-631	4609	RTC-8519	
L11	4.5MC Trap	104903				
L12	Peaking (510uh)	105516	TV-204	6174	RTC-8592	
L13	Peaking (300uh)	104230	TV-199	6155	RTC-8587	
L14	1st Sound IF	104136				
L15	2nd Sound IF	107201				
L16	Quadrature	105795				
L17	RF Choke (8.2uh)	107385	BC-566	4611	RTC-8521	
L18	RF Choke (8.2uh)	107385	BC-566	4611	RTC-8521	

Includes 39mmf Capacitor  
Includes (two) 12mmf Capacitors  
Includes 10mmf Capacitor & 120K P.s.

## COILS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA					
		RCA Victor PART No.	Merit PART No.	Miller PART No.	Rogers PART No.	Stancor PART No.	Thordarson PART No.
L19A	Horiz. Osc.	107284					
B	Horiz. Stabilizing						
L20	Width Coil (1.6 to 12MH)	105522	MWC-6	6322	QRC109	WC-8	WC-22

① Do not use Tap.

## FILTER CHOKE

ITEM No.	RATINGS		REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000 Ω)	RCA Victor PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	
L21	.260A	50Ω	.9 H.	100286	C-2996	C-2343 ①	26C44 ①	① Drill new mounting hole.

## TRANSFORMER (POWER)

ITEM No.	RATING	REPLACEMENT DATA					NOTES
		PRI.	SEC. 1	SEC. 2	RCA Victor PART No.	Merit PART No.	
T1	117V @ 2.2A (Tuning) 1.7A (Not Tuning)	110V @ .85A AC	6.3V @ 10A		109069		R-123BA

## TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA						NOTES
		RCA Victor PART No.	Merit PART No.	Rogers PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T2	Vert. Output	109066				26SL4	A-140X	
T3	Yoke Horiz. (17MH) (110°) Vert. (14MH) Rear Cover and Centering Device	109070				Y-48 ① ②	Y-60-1	
T4	Horiz. Output	109068	HVO-116 * ③			HO-289 * ③	FLY-150 * ③	D-139 * ③

① Use original rear cover and centering device.

Connect same as original.

② Use original damping network if necessary.

③ Drill new mounting hole(s).

## \*HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

Use Original Width Coil Unless Replacement Type Is Listed

ORIGINAL TERMINAL CONNECTIONS	Merit Replacement Connections	Rogers Replacement Connections	Stancor Replacement Connections	Thordarson Replacement Connections	Triad Replacement Connections
5	5		5	5	5
4	4		4	4	4
3	3		3	3	3
2	2		2	2	2
1	1		1	1	1

## TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	RCA Victor PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	
T5	7900Ω	3-4Ω	109067	A-3020	A-3856	26S48	S-18Z	

## SPEAKER

ITEM No.	TYPE		REPLACEMENT DATA		NOTES
	SIZE	FIELD	RCA Victor PART No.	QUAM PART No.	
SP1	3" x 5"	PM	107282	35A05	

## POWER RECTIFIERS

ITEM No.	RATING		REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	RCA Victor PART No.	Merit PART No.	SARKES TARZIAN PART No.	SYLVANIA PART No.	
M1	.260A	106379 *	1N1763 *		40H *	SR500 *	* Silicon
M2	.260A	106379 *	1N1763 *		40H *	SR500 *	

## FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA			
			RCA Victor PART No.	LITTELFUSE PART No.	BUSS PART No.	
M3			FUSE	HOLDER	FUSE	HOLDER
M4			FUSE	HOLDER	FUSE	HOLDER

## SIGNAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA				NOTES
		RCA Victor PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.	SYLVANIA PART No.	
M5	Clevite	76675B		1N295	1N295	Video Detector (Pigtail)

## MISCELLANEOUS

ITEM No.	PART NAME	RCA Victor PART No.	NOTES
M6	Tuner	109157	VHF with UHF Provisions (KRK87L) Ch. KC5130K, M STANDARD COIL REPLACEMENT #GG-4220A
	Tuner	107976	VHF (KRK70M) Ch. KC5130A, N
	Tuner	109141	VHF with UHF Provisions (KRK71W) Ch. KC5130H
	Tuner	107980	VHF with UHF Provisions (KRK71N) Ch. KC5130B
	Tuner	109144	VHF (KRK70U) Ch. KC5130F
	Tuner	108688	UHF (Less Gears) (KRK66AE) Ch. KC5130H
	Tuner	106499	UHF (Less Gears) (KRK66U) Ch. KC5130B
M7	Antenna	109139	JFD REPLACEMENT #7A-369, 2 required
	Antenna	107260	JFD REPLACEMENT #7A-369, Model 171A032X (Only)
M8	Switch	109148	Touch Bar Tuning (Power Tuning)
M9	Switch	109151	Station Skipper & Mute (Power Tuning)
M10	Switch	109217	Pneumatic, Master Off-On (Power Tuning)
M11	Motor	109149	Power Tuning
	Printed Board	109072	Video & Sound IF, Sync Circuits (Less Tubes)
	Printed Board	109073	Deflection (Less Tubes)

## CABINETS &amp; CABINET PARTS

(When Ordering Cabinets &amp; Cabinet Parts, Specify Model, Chassis &amp; Color)

NAME	PART NO.	DESCRIPTION
Safety Glass	109140	Window, Models 171A043, 171A043U, 171A040, 171A040U, 171A042, 171A042U, 171A044, 171A044U, 171A047, 171A047U, 171A061, 171A061U, 171A062, 171A062U, 171A067, 171A067U, 171A068, 171A068U, 171A069, 171A069U, 171A070, 171A070U, 171A071, 171A071U, 171A072, 171A072U, 171A073, 171A073U, 171A074, 171A074U, 171A075, 171A075U, 171A076, 171A076U, 171A077, 171A077U, 171A078, 171A078U, 171A079, 171A079U, 171A080, 171A080U, 171A081, 171A081U, 171A082, 171A082U, 171A083, 171A083U, 171A084, 171A084U, 171A085, 171A085U, 171A086, 171A086U, 171A087, 171A087U, 171A088, 171A088U, 171A089, 171A089U, 171A090, 171A090U, 171A091, 171A091U, 171A092, 171A092U, 171A093, 171A093U, 171A094, 171A094U, 171A095, 171A095U, 171A096, 171A096U, 171A097, 171A097U, 171A098, 171A098U, 171A099, 171A099U, 171A100, 171A100U, 171A101, 171A101U, 171A102, 171A102U, 171A103, 171A103U, 171A104, 171A104U, 171A105, 171A105U, 171A106, 171A106U, 171A107, 171A107U, 171A108, 171A108U, 171A109, 171A109U, 171A110, 171A110U, 171A111, 171A111U, 171A112, 171A112U, 171A113, 171A113U, 171A114, 171A114U, 171A115, 171A115U, 171A116, 171A116U, 171A117, 171A117U, 171A118, 171A118U, 171A119, 171A119U, 171A120, 171A120U, 171A121, 171A121U, 171A122, 171A122U, 171A123, 171A123U, 171A124, 171A124U, 171A125, 171A125U, 171A126, 171A126U, 171A127, 171A127U, 171A128, 171A128U, 171A129, 171A129U, 171A130, 171A130U, 171A131, 171A131U, 171A132, 171A132U, 171A133, 171A133U, 171A134, 171A134U, 171A135, 171A135U, 171A136, 171A136U, 171A137, 171A137U, 171A138, 171A138U, 171A139, 171A139U, 171A140, 171A140U, 171A141, 171A141U, 171A142, 171A142U, 171A143, 171A143U, 171A144, 171A144U, 171A145, 171A145U, 171A146, 171A146U, 171A147, 171A147U, 171A148, 171A148U, 171A149, 171A149U, 171A150, 171A150U, 171A151, 171A151U, 171A152, 171A152U, 171A153, 171A153U, 171A154, 171A154U, 171A155, 171A155U, 171A156, 171A156U, 171A157, 171A157U, 171A1