

## CABINET—REAR VIEW

## HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

The Horizontal Hold Coil, L15, is equipped with a stop which limits rotation to 270° with the knob on the shaft. To adjust, remove the knob and adjust by turning the shaft until the picture is synchronized to the point where it is virtually impossible to disrupt horizontal synchronization when switching from channel to channel. Install knob with

pointer centered between the stops.

Adjust Width Control, R9, until the picture is just wider than necessary to fill the screen.

## DISASSEMBLY INSTRUCTIONS

### CHASSIS REMOVAL

1. Remove cabinet back held by 6 screws.
2. Remove 3 push-on knobs from side, 2 from top and 1 from front.
3. Remove 2 screws from bottom of cabinet, 2 screws from vertical frame, and four screws at top under handle.
4. Remove chassis.

### PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" instructions for removing chassis.
2. Disconnect anode lead and picture tube socket. Remove yoke held by thumb screws.
3. Remove 6 screws from 4 mounting brackets and remove nut from screw holding mounting strap.
4. Remove picture tube.

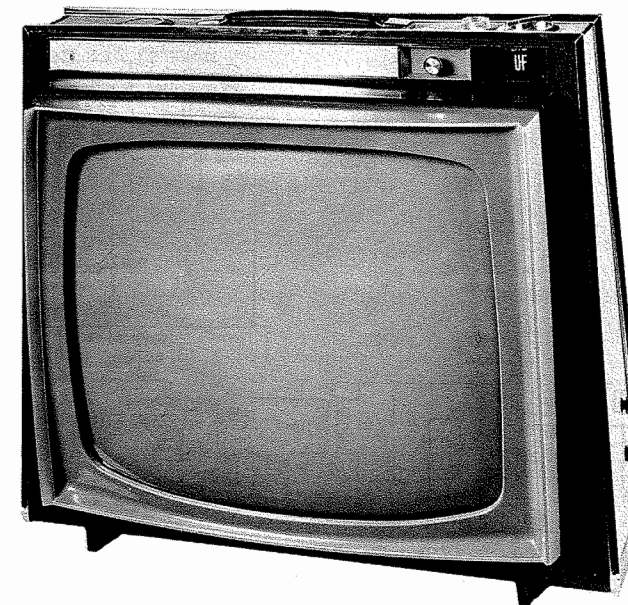
SET 711 FOLDER 4

ZENITH  
CHASSIS 14L20/U

PHOTOFACT® Folder



ZENITH  
CHASSIS 14L20/U



## CAUTION

ONE SIDE OF AC LINE CONNECTED TO CHASSIS

MODEL L2155Y3

TRADE NAME	ZENITH	Models	Chassis
		L1615B3, BU3, L3, LU3, L1620L3, LU3, Y3, YU3, L2150L3, LU3, Y3, YU3, L2155B3, BU3, J3, JU3, L3, LU3, Y3, YU3	.....14L20, U
SUPPLIER	For current address see Master Index		
TYPE SET	Television Receiver		
TUBES	VHF - Fourteen, UHF - Fifteen		
POWER SUPPLY	110-120 Volts AC, 60 Cycles		
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

The safety glass is an integral part of the picture tube.

### FUSE OR FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection and is combined with Volume On/Off Control. (See "Tube Placement Chart" for location.)

### VHF OSCILLATOR ADJUSTMENT

The fine tuning mechanically engages osc. slug for adjustment (one slug for each channel).

### AGC

The AGC may be varied by means of an AGC Control. (See "Tube Placement Chart" for location.)

### HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

The Horizontal Oscillator Slug is used for the horizontal hold. (See "Tube Placement Chart" for location.)

### WIDTH

The width may be varied by a Width Control. (See "Tube Placement Chart" for location.)

### FOCUS

The focus may be varied by connecting the lead from pin 6 of the picture tube to various voltage points. (For location, see "Chassis - Top View".)

### BUZZ ADJUSTMENT

To eliminate intercarrier buzz, adjust the Buzz Control for MINIMUM buzz and maximum sound. (See "Tube Placement Chart" for location.)

### CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

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 the particular type of replacement part listed. MA835

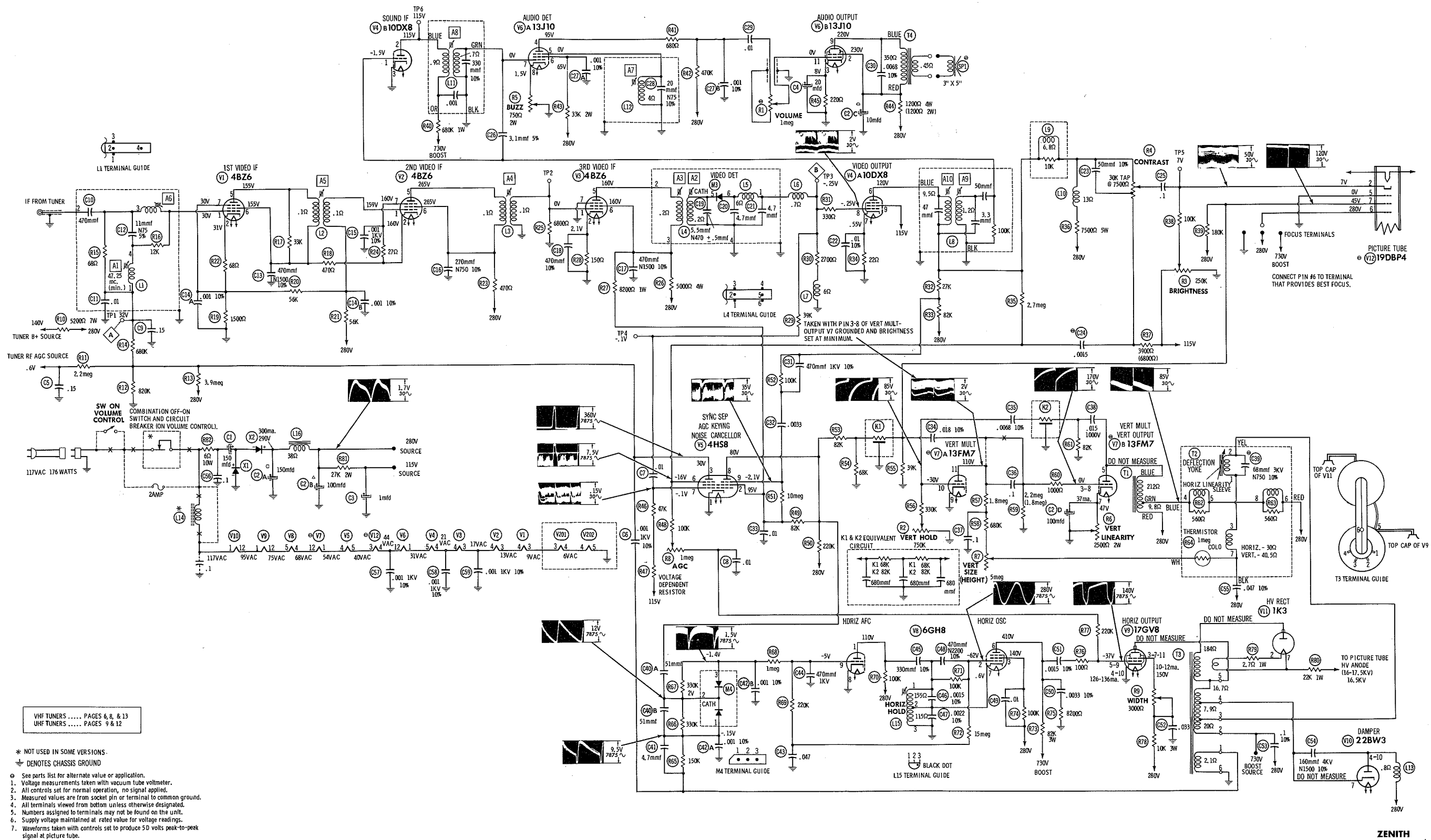
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DATE 8 -64

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CHASSIS 14L20/U

SET 711 FOLDER 4



VHF TUNERS ..... PAGES 6, 8, & 13  
UHF TUNERS ..... PAGES 9 & 12

\* NOT USED IN SOME VERSIONS.  
⊕ DENOTES CHASSIS GROUND

- See parts list for alternate value or application.
- Voltage measurements taken with vacuum tube voltmeter.
- All controls set for normal operation, no signal applied.
- Measured values are from socket pin or terminal to common ground.
- All terminals viewed from bottom unless otherwise designated.
- Numbers assigned to terminals may not be found on the unit.
- Supply voltage maintained at rated value for voltage readings.
- Waveforms taken with controls set to produce 50 volts peak-to-peak signal at picture tube.

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
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CHASSIS 14L20/U

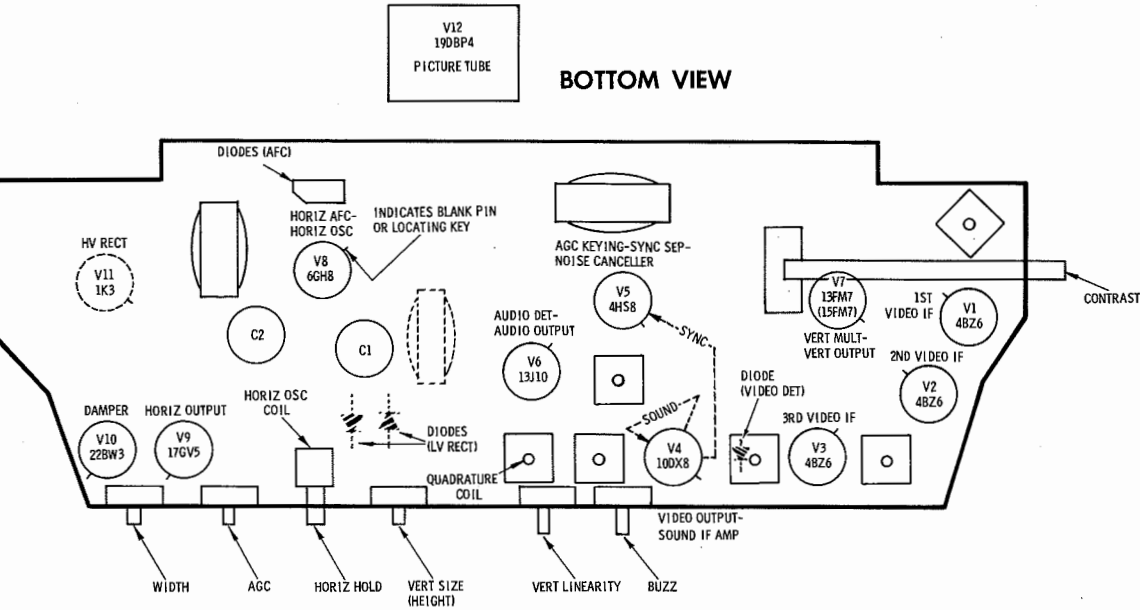
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FOLDER 4

RESISTANCE MEASUREMENTS

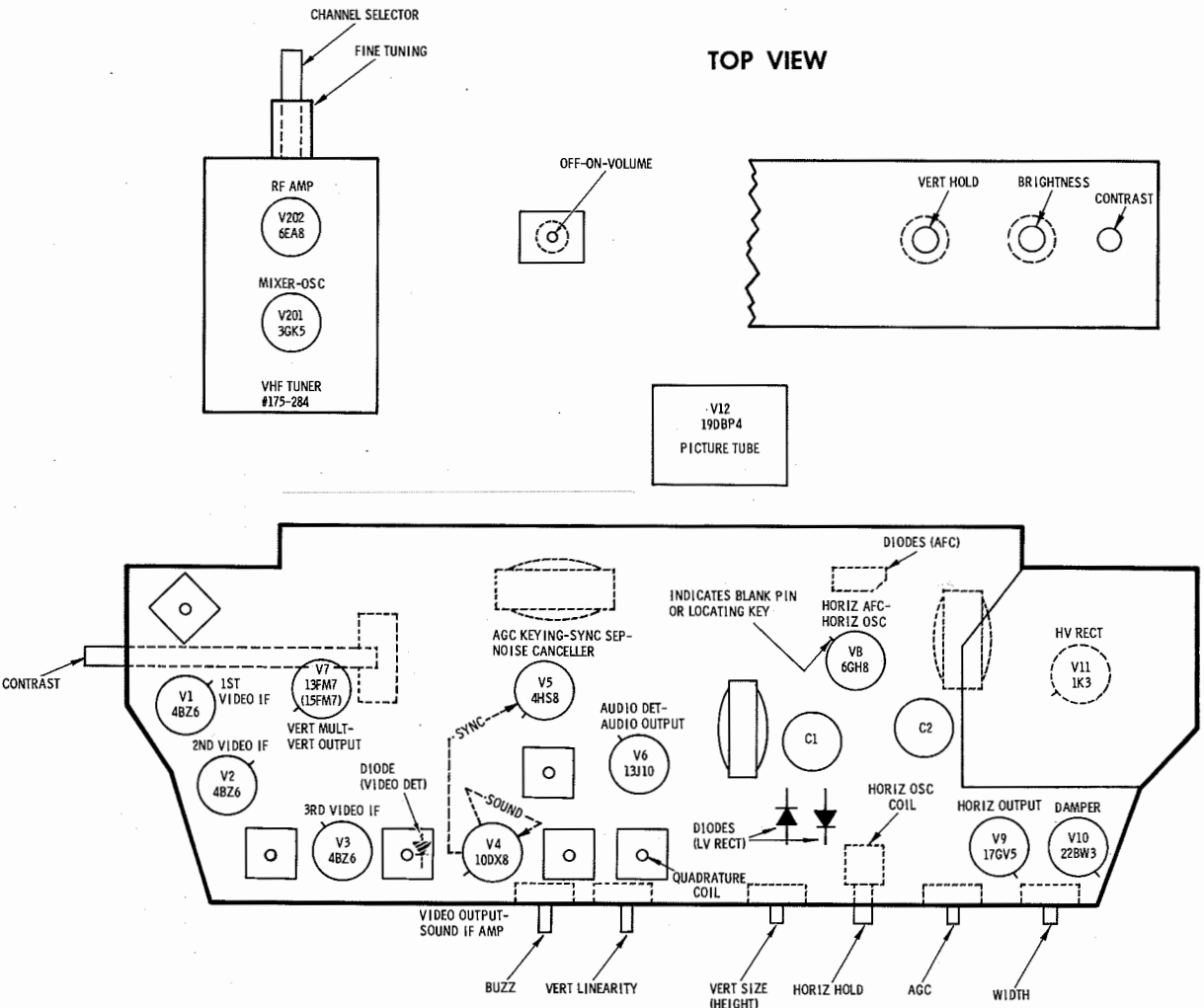
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
V1	4BZ6	1.5meg	1568Ω	4Ω	6Ω	▲ 470Ω	▲ 470Ω	1500Ω					
V2	4BZ6	#† 40K	1NF	6Ω	8Ω	† 508Ω	† 508Ω	1NF					
V3	4BZ6	.1Ω	150Ω	8Ω	10Ω	† 5000Ω	† 5000Ω	0Ω					
V4	100X8	100K	# 680K	0Ω	10Ω	14Ω	† 6600Ω	22Ω	3030Ω	† 27K			
V5	4HS8	0Ω	† 13K	# 730K	22Ω	20Ω	† 2.7meg	1NF	† 48K	† 10meg			
V6	13J10	14Ω	† 1238Ω	220Ω	† 470K	4Ω	† 33K	.7Ω	250Ω	† 1300Ω	TP	70K	18Ω
V7	13FM7	22Ω	NC	NC	NC	† 260Ω	NC	1350K	2.2meg	0Ω	610K	# 5.7meg	27Ω
V8	6GH8	† 100K	100K	† 100K	27Ω	30Ω	# 82K	115Ω	0Ω	1.8meg			
V9	17GV5	35Ω	NC	† 10.5K	NC	NC	NC	NC	NC	† 3meg	0Ω	NC	30Ω
V10	22BW3	44Ω	NC	NC	† 39Ω	NC	NC	INF	NC	NC	NC	NC	35Ω
V11	1K3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE											
V12	19DBP4	NC	105K	18Ω	20Ω	0Ω	38Ω	#† 40K	NC				
V201	3GK5	0Ω	3.1meg	4Ω	3Ω	† 8538Ω	0Ω	0Ω					
V202	6EA8	† 10.8K	220K	† 27K	3Ω	0Ω	† 5238Ω	0Ω	0Ω	10K			

# THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
▲ MEASURED FROM PIN 2 OF V2. † MEASURED FROM OUTPUT OF RECTIFIER X2. NC NO CONNECTION  
‡ MEASURED FROM PIN 7 OF V10. TP TIE POINT



TUBE PLACEMENT CHART

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.

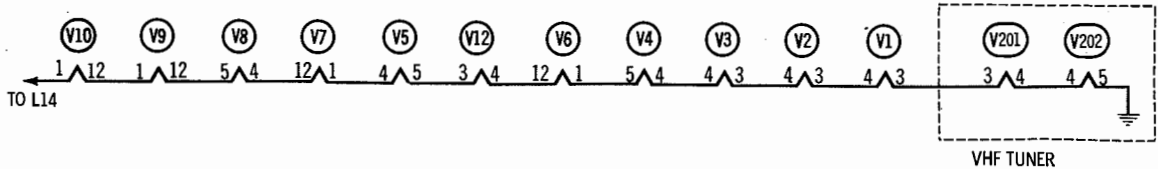
**POWER SUPPLY FAILURE**  
No raster, no sound Circuit Breaker (Part of Volume Control), Selenium Rectifiers X1, X2 (2 Amp. Fuse if in set)

**SWEEP FAILURE**  
No raster, has sound V8, V9, V10, V11, V12  
No vertical deflection V7  
Poor vert. linearity or foldover V7  
Poor horiz. linearity or foldover V8, V9, V10  
Narrow picture V8, V9, V10, X1, X2  
Vert. off freq. V7  
Horiz. off freq. AFC Diode M4, V8

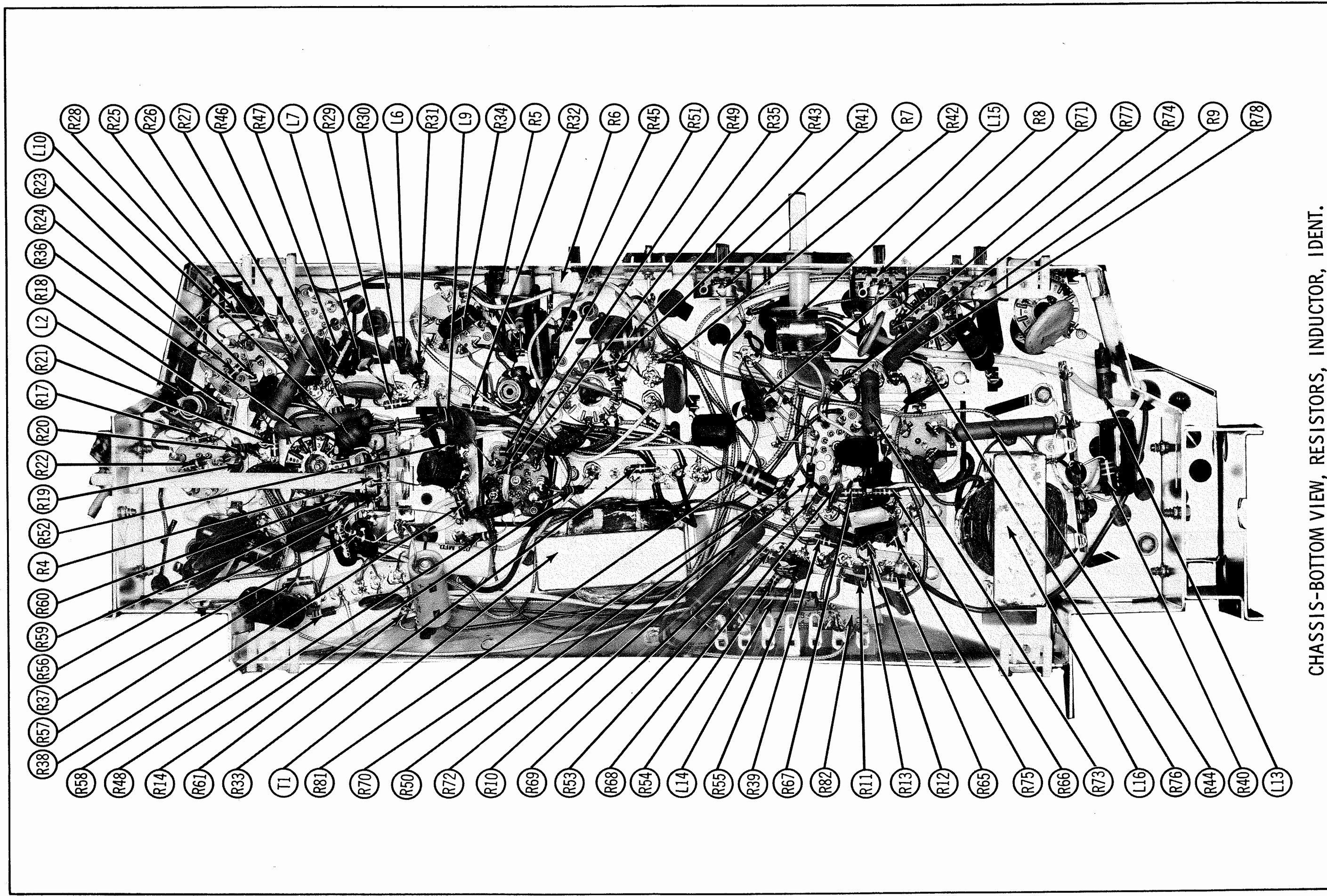
**LOSS OF PICTURE OR SOUND**  
No pic, no sound, has raster V1, V2, V3, M3 (Video Det. Diode), V4  
No pic, no sound, has snow V201, V202, V1  
No pic, no sound, has raster V4, V12  
Has pic, no sound V4, V6  
Overloaded picture V5

**SYNC FAILURE**  
No vert. sync V5  
No horiz. sync V5  
No vert. or horiz. sync V5

This receiver employs tubes used in a series filament network, an open filament in any tube will cause the set to be inoperative. (See circuit below.)

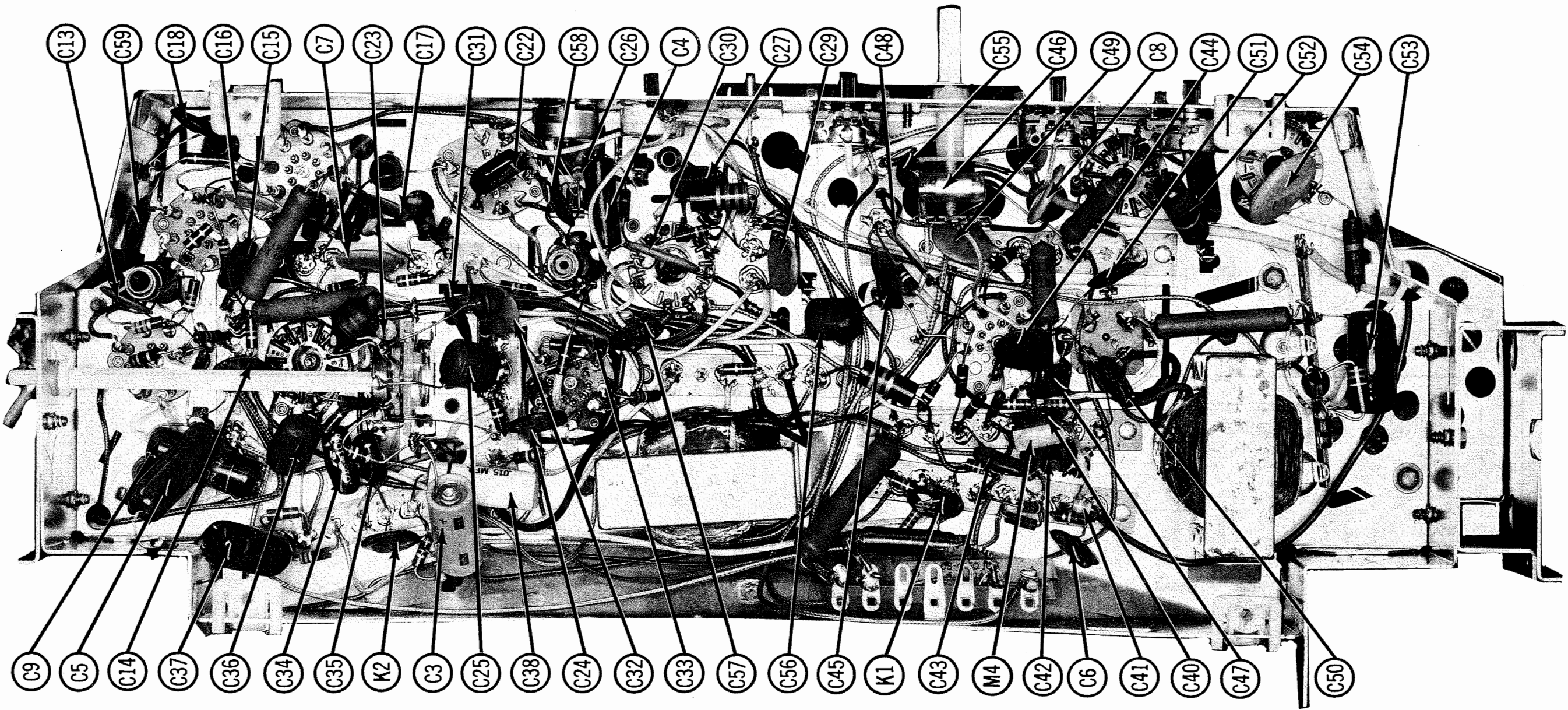






CHASSIS-BOTTOM VIEW, RESISTORS, INDUCTOR, IDENT.

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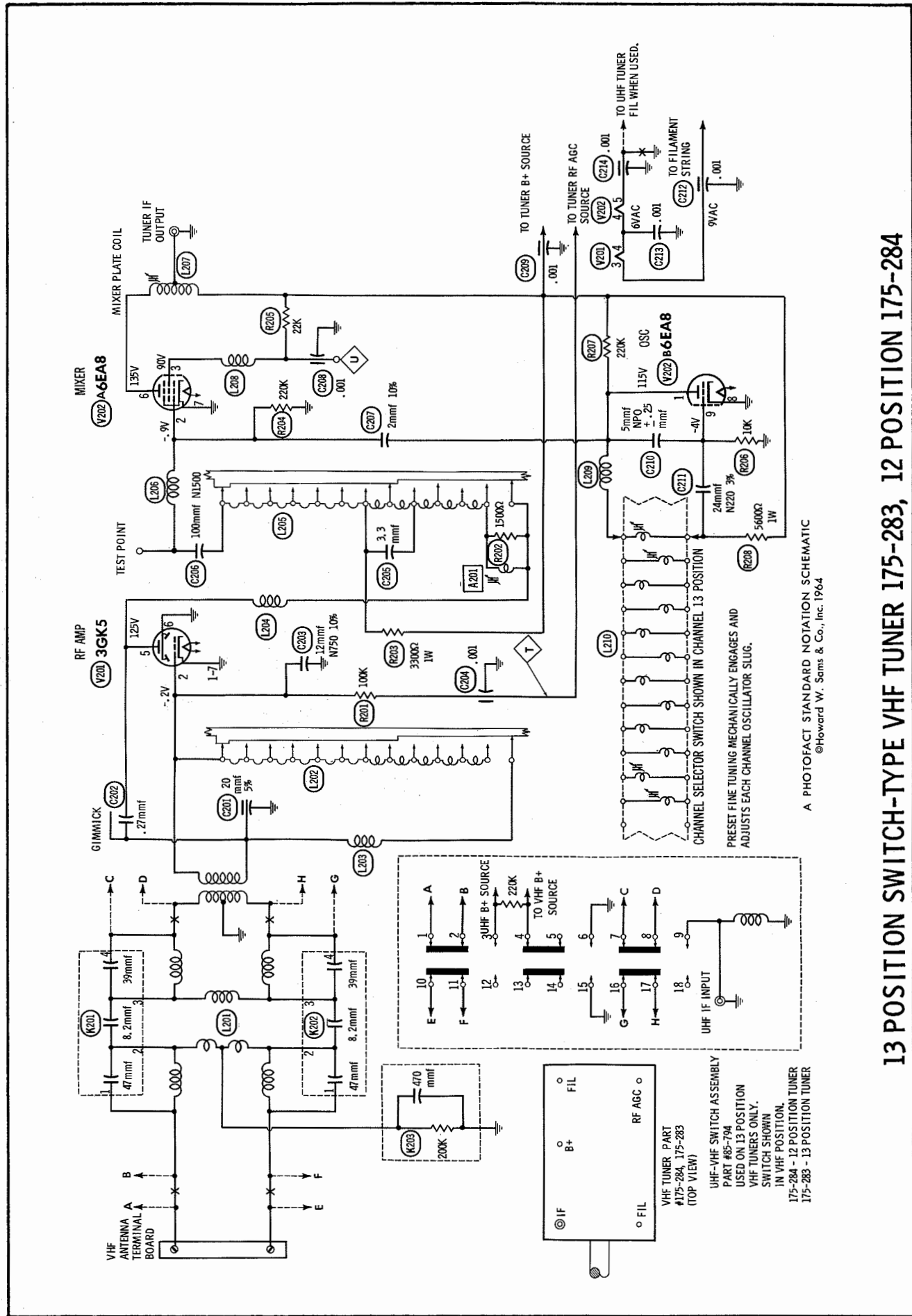


CHASSIS-BOTTOM VIEW, CAPACITORS, MISC, IDENT.

ZENITH  
CHASSIS 14L20/U

FOLDER 4





13 POSITION SWITCH-TYPE VHF TUNER 175-283, 12 POSITION 175-284

# VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201 ... GENERAL CEMENT 9296, 9297, 9300 ... WALSCO 2510, 2546, 2547  
A202 ... GENERAL CEMENT 8868, 9087, 9089 ... WALSCO 2528, 2541, 2587

OSCILLATOR ALIGNMENT TUNERS 175-282, 283, 284, 705

The oscillator on each channel in preset by means of the Fine Tuning Control. Adjust Fine Tuning for best picture and sound on each active channel.

## RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point ①. Adjust bias to obtain response curve which shows no indication of overloading.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. input to point ①, low side to ground.	A201	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. If necessary, compress or expand appropriate coils.
2. "	195MC	193.25MC 197.75MC	10	Across video det. load resistor.	A202	Increase bias to -15 volts and adjust for MINIMUM response (Tuners 175-705, 706).
2. "	195MC	193.25MC 197.75MC	10	"	Gimmick	Increase bias to -15 volts and adjust for MINIMUM response (Tuners 175-282/83/84)
3. "	207MC	205.25MC 209.75MC	12	Vert. input to point ①, low side to ground.		Decrease bias. Check response on all channels and make compromise adjustments of A201 and compress or expand appropriate coils if necessary.
	201MC	199.25MC 203.75MC	11			
	189MC	187.25MC 191.75MC	9			
	183MC	181.25MC 185.75MC	8			
	177MC	175.25MC 179.75MC	7			
	55MC	53.25MC 56.75MC	6			
	79MC	77.25MC 81.75MC	5			
	69MC	67.25MC 71.75MC	4			
	63MC	61.25MC 65.75MC	3			
	57MC	55.25MC 59.75MC	2			

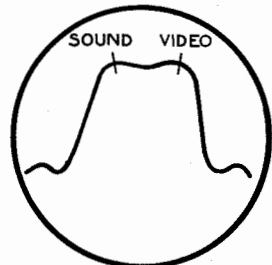
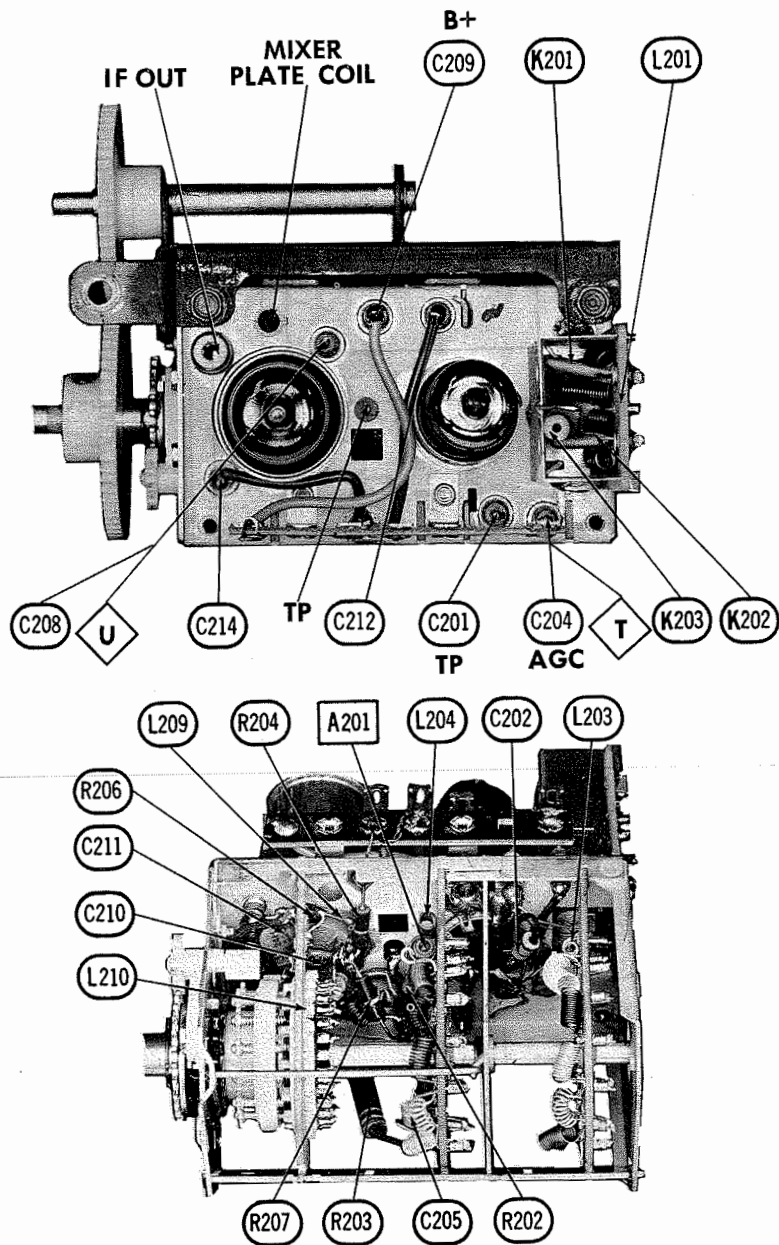
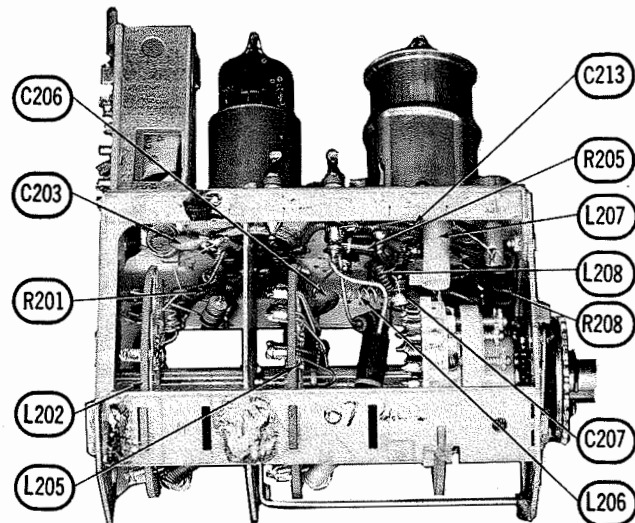


FIG. 201

ZENITH  
CHASSIS 14120/U

FOLDER 4



VHF TUNER 175-284

# ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: A1 thru A10 ..... GENERAL CEMENT 8806, 8869, 9302 ... WALSCO 2511, 2543, 2588  
Mixer Plate Coil .. GENERAL CEMENT 9296, 9300, 9302 ... WALSCO 2510, 2511, 2547

## VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown.  
Connect a variable bias supply to the IF AGC line (point A) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1. Connect DC probe of a VTVM thru a 47K resistor to point B. Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		47.25MC	A1	Adjust for MINIMUM.
2. Connect vertical input of a scope to point C. Low side to ground.	Connect high side to pin 1 (grid) of V3. Low side to ground.	44MC (10MC Sweep)	42.75MC 45.75MC	A2, A3	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3. Connect vertical input of a scope to point D. Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	42.75MC 44.25MC 45.75MC 47.25MC	A4, A5, A6, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A 2 and A 3.

## SOUND IF ALIGNMENT

Tune in a station and reduce the signal strength at the antenna terminals until a hiss is heard in the sound. Align for maximum undistorted sound with MINIMUM buzz by adjusting A7, A8, A9 and R5. If the hiss disappears during alignment, further reduce the signal strength.

## 4.5 MC TRAP ALIGNMENT

Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A10 for MINIMUM beat interference.

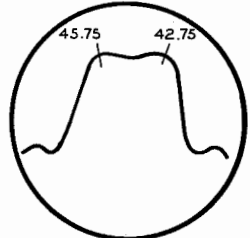


FIG. 1

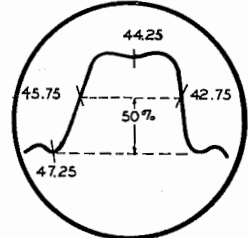
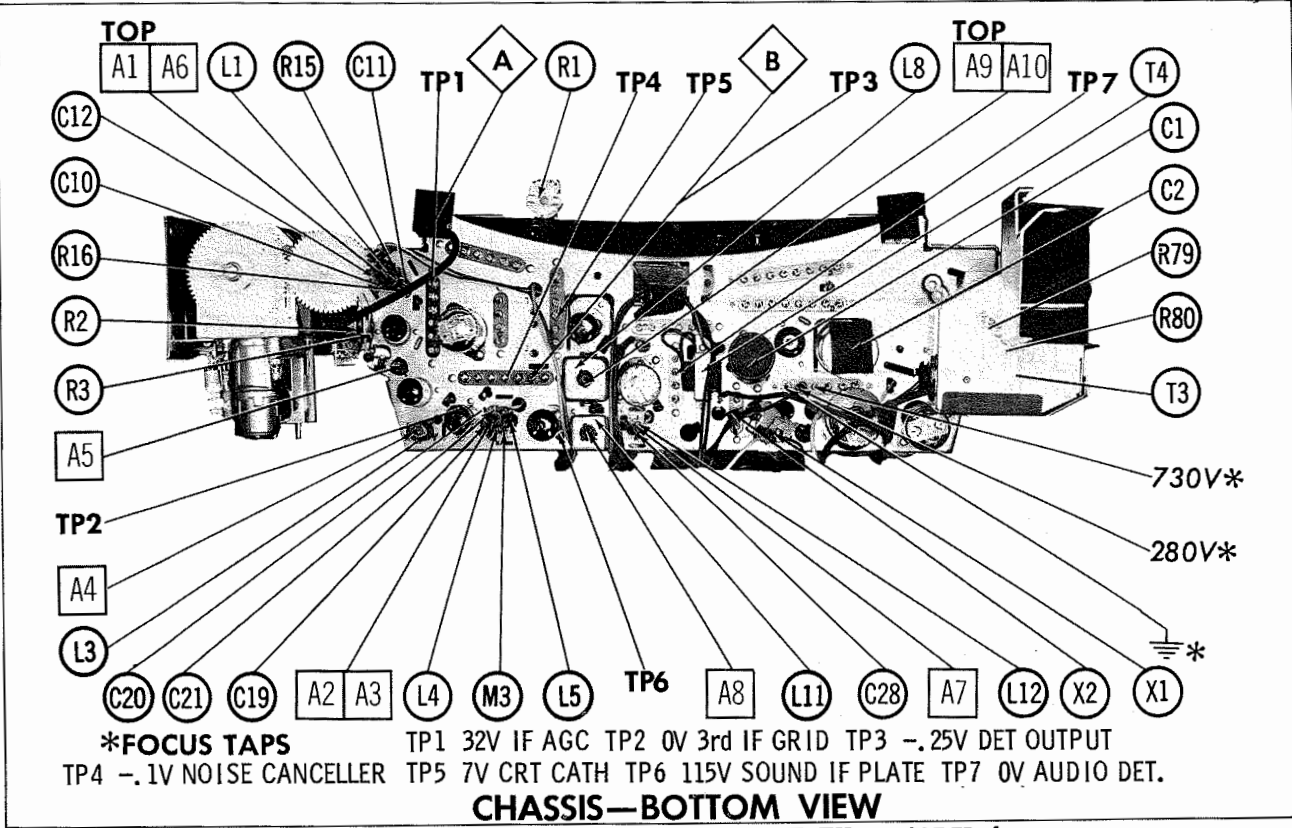


FIG. 2



\*FOCUS TAPS TP1 32V IF AGC TP2 0V 3rd IF GRID TP3 -.25V DET OUTPUT  
TP4 -.1V NOISE CANCELLER TP5 7V CRT CATH TP6 115V SOUND IF PLATE TP7 0V AUDIO DET.

CHASSIS—BOTTOM VIEW

SET 711 FOLDER 4

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CHASSIS 14L20/U

FOLDER 4

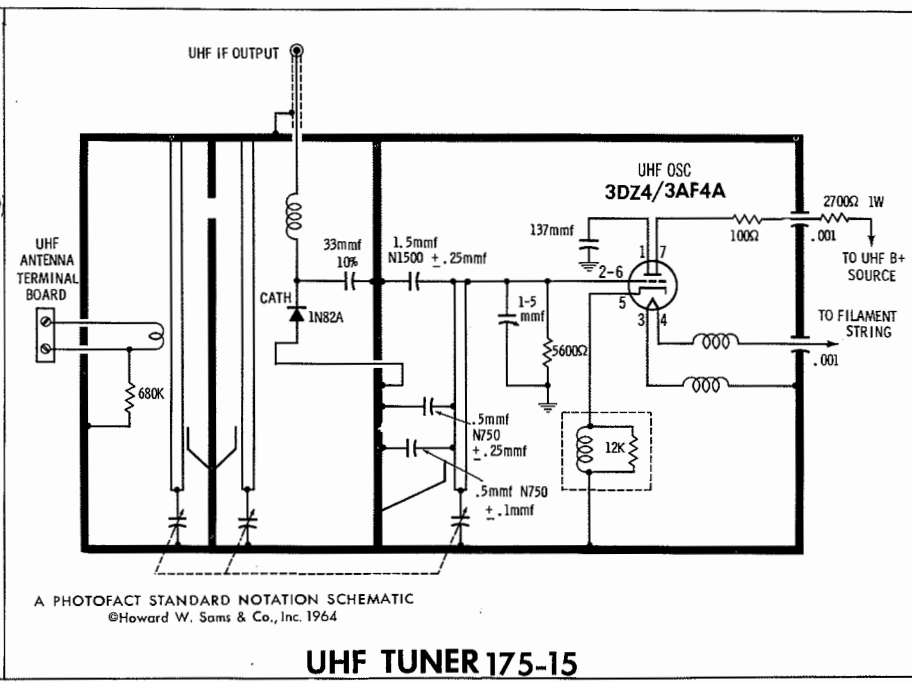
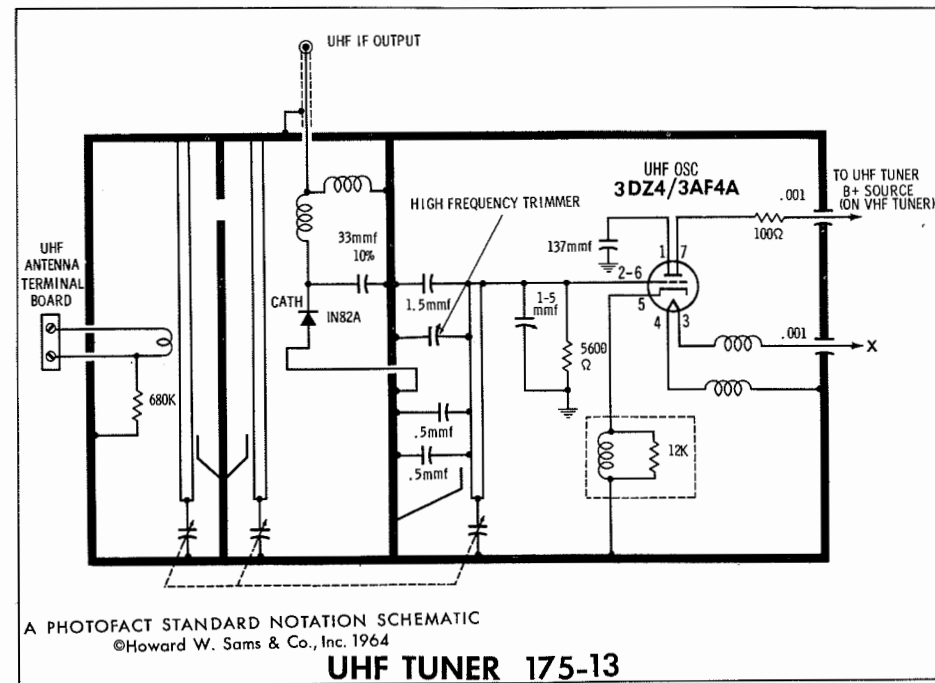
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13 POSITION SWITCH-TYPE VHF TUNER 175-705



CABINETS & CABINET PARTS  
(When Ordering Specify Model, Chassis & Color)

		MODELS	L1615B3	L1615L3	L1620L3	L1620V3	L2150L3	L2150V3	L2155B3	L2155L3	L2155V3	L1615BU3	L1615LU3	L1620LU3	L1620VU3	L2150LU3	L2150VU3	L2155BU3	L2155LU3	L2155VU3			MODELS	L1615B3	L1615L3	L1620L3	L1620V3	L2150L3	L2150V3	L2155B3	L2155L3	L2155V3	L1615BU3	L1615LU3	L1620LU3	L1620VU3	L2150LU3	L2150VU3	L2155BU3	L2155LU3	L2155VU3
ITEM	PART NO.																					ITEM	PART NO.																		
Mask	196-447	X										X										Knob-Vertical Hold	S-59612					X				X				X			X		
Mask	196-446		X										X									Knob-Vertical Hold	S-59758						X								X				
Mask	196-443			X	X									X	X							Knob-Vertical Hold	S-59740							X								X			
Mask	196-455					X	X	X	X	X	X					X	X	X	X	X	X	Knob-Brightness	S-58714	X									X								
Knob-VHF Channel Selector	S-62628	X										X										Knob-Brightness	S-58696		X	X							X	X							
Knob-VHF Channel Selector	S-62585		X										X									Knob-Brightness	S-58338				X							X							
Knob-VHF Channel Selector	S-58344			X	X									X	X							Knob-Brightness	S-59750				X				X				X				X		
Knob-VHF Channel Selector	S-59623					X	X	X	X	X	X					X	X	X	X	X	X	Knob-Brightness	S-59613					X				X				X			X		
Knob-VHF Fine Tuning	S-62627	X										X										Knob-Brightness	S-59759						X								X				
Knob-VHF Fine Tuning	S-62584		X										X									Knob-Brightness	S-59741							X								X			
Knob-VHF Fine Tuning	S-58333			X	X									X	X							Knob-Contrast	S-58715	X								X									
Knob-VHF Fine Tuning	S-62429					X	X	X	X	X	X					X	X	X	X	X	X	Knob-Contrast	S-58697		X	X						X	X								
Knob-UHF Tuning	S-62633											X										Knob-Contrast	S-58339				X							X							
Knob-UHF Tuning	S-62597												X									Knob-Contrast	S-59751				X				X				X			X			
Knob-UHF Tuning	S-62094													X	X							Knob-Contrast	S-59614					X				X			X			X			
Knob-UHF Tuning	S-59794															X	X	X	X	X	X	Knob-Contrast	S-59760						X							X					
Knob-UHF Dial	S-62632											X										Knob-Contrast	S-59742							X							X				
Knob-UHF Dial	S-62596												X									Cabinet	S-62622	X									X								
Knob-UHF Dial	S-62106													X	X							Cabinet	S-62591		X								X								
Knob-UHF Dial	S-61316															X	X	X	X	X	X	Cabinet	S-59644			X								X							
Knob-On/Off/Volume	S-62626	X																				Cabinet	S-59642				X							X							
Knob-On/Off/Volume	S-62630											X										Cabinet	14-5102				X							X				X			
Knob-On/Off/Volume	S-62583		X																			Cabinet	14-5100					X				X						X			
Knob-On/Off/Volume	S-62594												X									Cabinet	14-5103						X							X					
Knob-On/Off/Volume	S-58332			X	X																	Cabinet	14-5101							X							X				
Knob-On/Off/Volume	S-58445													X	X							Rear Cover	14-5583	X									X								
Knob-On/Off/Volume	S-59609					X	X	X	X	X	X					X	X	X	X	X	X	Rear Cover	14-5582			X	X							X	X						
Knob-Horizontal Hold	46-3289	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Rear Cover	14-5581				X							X							
Knob-Vertical Hold	S-58713											X										Rear Cover	14-5126					X			X							X			
Knob-Vertical Hold	S-58695		X	X									X	X								Rear Cover	14-5125						X						X				X		
Knob-Vertical Hold	S-58337				X										X							Rear Cover	14-5128							X						X			X		
Knob-Vertical Hold	S-59749					X				X						X						Rear Cover	14-5127							X							X				



PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements.  
Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17KV) or 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use BELDEN No. 8225
3000 Tuner Input Lead	Use BELDEN No. 8225
3000 Antenna Lead-in	Use BELDEN No. 8430 or 8275
Antenna Rotor Cable	Use BELDEN No. 8484 (Flat) or 8484 (Round) - 4 Conductor 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

TUBES

AMPEREX		GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE
V1	1st Video IF Amp.	4BZ6	V6	Audio Det. - Audio Output	13J10		
V2	2nd Video IF Amp.	4BZ6	V7	Vert. Mult. - Vert. Output	13FM7 (15FM7) *		
V3	3rd Video IF Amp.	4BZ6	V8	Horiz. AFC - Horiz. Osc.	6GH8		
V4	Video Output - Sound IF	10DX8	V9	Horiz. Output	17GV5		
V5	AGC Keying - Sync Sep. - Noise Canceller	4HS8	V10	Damper	22BW3		
			V11	HV Rectifier	1K3		

\* Alternate

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	ZENITH PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V12	19DBP4 18BCP4				

POWER RECTIFIERS

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS		
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.300A	212-27	1N540 or 1N2070 ①	1N1764 or 1N2862 or 1N3195	40H or F-4
X2	.300A	212-27	1N540 or 1N2070 ①	1N1764 or 1N2862 or 1N3195	40H or F-4

① A single dual unit for X1 and X2 may be used - VB800.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	GENERAL INSTRUMENT PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	150	200	22-3761	AFHS1-25-70 ① AA0287 ①	XC1-14 ①	TMS-1550 ①	TD-40-250	WP125.9A ①	TVLS1539 ①
C2A	150	350	22-3760	AFH4-111-55	DD731.2	TD-40-250	TMQ-4277	FP420.273	TVLS4633.8 *
B	100	350			BR100-350		TD-80-350	TC62	
C	10	350							
D	100	50							
C3	1	350	22-3496	PRS1700	BR1-450	QT1-1	TD-2-450	TC585	TVA-1700
C4	20	50	22-3455	PLT194	NLW20-50	MT1-12	BL1870	TT50X20	TE-1305

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

① Use insulating sleeve and mounting wafer.

FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.	
C5	.15	200V	P288N-15		PM2P15	2DP-3-154	PVC2015	2PS-P15	
C6	.001	1KV 10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
C7	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C8	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C9	.15	200V	P288N-15		PM2P15	2DP-3-154	PVC2015	2PS-P15	
C10	470		BPD-00047	DD-471	BYA10T47	CCD-471	B347	10TS-T47	
C11	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C12	11	N75 5%	#22-3856						
C13	470	N1500 10%	#22-3363						
C14A	.001	10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
B	.001	10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
C15	.001	1KV 10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
C16	270	N750 10%		TCN-270	C10T27U	CCTN-271	CN7327	10TCU-T27	
C17	470	N1500 10%	#22-3363						
C18	470	10%							
C19	5.5	N470 ±.5mmf	#22-3221	DI-470	DD-471	JB6T47	GP347	10TS-T47	
C20	4.7		#22-1516					10TCU-V56	
C21	4.7		#22-1516						
C22	.01	200V 10%	BE2S1	CPR-10000J	WMF2S1	4DP-1-103	PVC211	2TM-S10	
C23	50	10%							
C24	.0015		BPD-0015	DD-152	LA10D15-C4	CCD-152	B215	10TS-D15	
C25	.1	400V	P488N-1	DF-104	PM4P1	4DP-3-104	GEM401	4TM-P10	
C26	.01	10%							
C27A	.001	10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
B	.001	10%	DI-1000	DD-102	JB6D1	CCD-102	GP210	10TS-D10	
C28	20	N75 10%	#22-3139						
C29	.01		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C30	.0068	10%	DI-470	DD-471	BYA10S1	CCD-471	GP347	10TS-T47	
C31	470	1KV 10%	BPD-0033	DD-332	BYA10D33	CCD-332	B233	5HK-D33	
C32	.0033		BPD-01	DD-103	BYA10S1	CCD-103	B110	5HK-S10	
C33	.01		BE8S18		PM4S18			5BF-S18	
C34	.018	400V 10%	BE8D68	CPR-6800J	WMF2D68	6DP-1-682	DE2682E	6PS-D68	
C35	.0068	200V 10%	P488N-1	DF-104	PM4P1	4DP-3-104	GEM401	4TM-P10	
C36	.1	400V			PM6P1	6DP-4-104	GEM801	6TM-P10	
C37	.1	600V			PKM10S15	16DP-4-153	GEM1615	10TM-S15	
C38	.015	1000V 10%							
C39	88	3KV N750 10%							

SET 711 FOLDER 4

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCOPART No.	MALLORY PART No.	SPRAGUE PART No.
C40A51	B51	#22-1516	NPO-DI 50	TCZ-51	C10Q5C	CCTO-510	CN4050	10TCC-Q50
C41	4-7		NPO-DI 50	TCZ-51	C10Q5C	CCTO-510	CN4050	10TCC-Q50
C42A.001	10%		DI-1000	DD-102	JB6D1	CCTD-102	GP210	10TS-D10
B.001	10%		DI-1000	DD-102	JB6D1	CCTD-102	GP210	10TS-D10
C43	.047 200V	P288N-047	DD-503	PM2847	4DP-3-473	GM2147	2TM-S47	
C44	470 1KV	BPD-0047	DD-471	BYA10747	CCTD-471	B347	10TS-T47	
C45	330	ADM-15-331	CPR-330J	CD15F331K	DM-15-331K		MS-333	
C46	.0015		CPR-1500J	CD10F152J	DM-19-152K		MS-215	
C47	.0022		CPR-220J	CD19F222J	DM-19-222K		MS-222	
C48	470 N2200	#22-3938	ADM-19-222					
C49	.01		BPD-.01	DD-103	BYA1081	CCTD-103	B110	5HK-S10
C50	.0033		DI-3300	CF-332	JB6D33	CCTD-332	JF233	10TS-D33
C51	.0015		DI-1500	DD-152		CCTD-152	GP215	10TS-D15
C52	.033 400V		P488N-033	DD-303	PM4833	4DP-2-333	GM6133	4PS-S33
C53	.1 600V 10%		B6P1	PM8P1	6DP-4-104	GM601	6PS-P10	
C54	180 4KV N1500 10%	#22-2683	B6P647					
C55	.047 600V 10%		P488N-1	DD-102	PKM6S47	8DP-3-473	PVC6147	8TM-S47
C56	.1 400V			DD-102	PM4P1	4DP-3-104	GM401	4PS-P10
C57	.001 1KV 10%		DI-1000	DD-102		CCTD-102	GP210	10TS-D10
C58	.001 1KV 10%	DI-1000	DD-102		CCTD-102	GP210	10TS-D10	
C59	.001 1KV 10%	DI-1000	DD-102		CCTD-102	GP210	10TS-D10	

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA				
			ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Volume, Switch	1meg	63-5228			QCB②, B13-137, TM10, 76-1③ or (BU1, CF26, SS16, GC) * B11-138, TM10 or (BU11, CF64, SS16, DC1) * B11-130, TM10 or (BU11, CF15, SS16, DC1) * B20-121X, TM9, C3⑤ or (CF49T④, DC2) * 112-800	
	Volume, Switch	1meg	63-5037 ①				
R2	Vert. Hold	750K	63-5032				
R3	Brightness	250K	63-5033				
R4	Contrast	30K 7.5K Tap	63-4997	F53-30K, SN104④, AK-16⑤			
R5	Buzz	750Ω 2W	63-5028	V-800	U39-800		FL750 or (VW150)
R6	Vert. Linearity	2500Ω (2W)	63-5029	V-3000	U39-3000		FL3K or (VW25K)
R7	Vert. Size	5meg	63-5030	TT-87 or (F1-5meg, SN010)	B47-5meg-S		PTA56L or (RU56L, SL37, SN1000) or (UA56L, SN1000)
R8	AGC	1meg	63-4833	TT-69 or (F1-1meg, SN010)	B47-1meg-S	B11-137, TM4 or (BU11, CF17, SS6) *	PTA1254L or (RU16L, SL37, SN1000) or (UA16L, SN1000)
R9	Width	3000Ω	63-5031	TT-8 or (F1-2500, SN010)	B47-3000-S	B11-112, TM4 or (BU11, CF59, SS6) *	PTA352L or (RU252L, SL37, SN1000) or (UA33L, SN1000)

## 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
R10	5200N 7W			#53-4754	R64	Thermistor			
R28	5000N 4W			#3-5038	R65	1meg Cold			
R38	7500N 5W			#3-4723	R73	82K 3W			#63-5039
R44	1200N 4W			①	R78	10K 3W			#63-4097
R47	V. D. R. ↑			#63-5040	R82	6Ω 10W			#63-4450

① May be a 1200Ω 2 watt resistor in some versions. † Voltage Dependent Resistor # Zenith Part Number

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ZENITH PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	47. 25MC Trap - 1st Video IF	S-43624	TV-134	6222 ▲	RTC-8553 ▲	T225 ▲	▲ Disregard Secondary.
L2	2nd Video IF	S-57623	TV-130	6224	RTC-8555	T217	
L3	3rd Video IF	S-57624	TV-130	6224	RTC-8555	T217	
L4	4th Video IF - Detector Ass'y	S-57625	TV-247	6227 *		TC234 †	
L5	Peaking (90uh)	20-213	TV-181	6177	RTC-8594	T368	* Use original shield.
L6	RF Choke (5uh)	20-204	BC-565	4610	RTC-8520	T992	† Use TC237 to replace coil only.
L7	Peaking (170uh)	20-214	TV-184	72F184AP	RTC-8597	T397	
L8	Sound Takeoff - 4.5MC Takeoff	S-63638	TV-149	7115 - Z		TF247 *	■ Add 2 caps. and 1 res.
L9	Peaking (194uh)	20-2512 ①	TV-197 *	8154 †	RTC-8586 †	TA363	- Add 1 resistor.
L10	Peaking (663uh)	20-2017	TV-206	72F694AP	RTC-8583	T327	▲ Add 1 cap. and 1 res.
L11	Sound IF Interstage	S-58355	TV-149	7114 - Z *	RTC-9278	TC206	① Wound on 10K resistor.
L12	Quadrature	S-58377	TV-121	1480	RTC-8609	TG268	† Shunt with 10K resistor.
L13	RF Choke (10uh)	20-2005	BC-566	72F105AP	RTC-8522	T860	② Not used in some versions.
L14	FL Choke ②						

ITEM No.	USE	REPLACEMENT DATA							NOTES
		ZENITH PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Thordorson PART No.	Tried PART No.	Workman PART No.	
L15	Horiz. Osc. (Hold)	S-58876							

ITEM No.	RATINGS		REPLACEMENT DATA						NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L16	.3 ADC	38Ω	.9 Hy.	95-2039	C-4084	C-2347	26C78	C-28X	

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ZENITH PART No.	Merit	Stancor PART No.	Thordorson PART No.	Triod PART No.	
T1	Vert. Output	95-2038 (95-2038-A)	A-2853 ①	A-8148 ①	26S23	A-133X	
T2	Yoke (Horiz. 16MH) 114° (Vert. 41MH) Rear Cover and Centering Device	95-2040	MDF-136 ② ④	DY-46A ② ④	Y-55 ② ④	Y-83-1 ② ④	
T3	Horiz. Output	S-49800 S-58350	HVO-176 ⑤	HO-365 ⑤	FLY-217 ⑤	YC-111 D-205 ⑤	

**\*COMPONENT CONNECTION DATA**

ORIGINAL → REPLACEMENT ↓	HV TRANSFORMER						VERTICAL OUTPUT				YOKE								YOKE PLUG									
	Original Connections						Original Connections				Original Connections								1	2	3	4	5	6	7	8		
	1	2	3	4	5	6		Blue	Green	Red		1	2	3	4	5	6	7	8	Whl	TO YOKE TERMINAL							
MERIT	Connect same as original " "						Blue	White	Red		1	2	3	8	6	5	7	4	10									
STANCOR							Blue	Yellow	Red		7	3	2	4	5	6	1	8	†									
THORDARSON							Blue	Red	Green		Yel.	Blue	Red	Bk	Whl.													
TRIAD							Green	Whl.	Blk	Red			Blue	Red	Yellow		Yel.	Gn.	Red	Bk		*						

‡ Connect original Thermistor to center lug of Vertical Size Control and to Yoke Terminal #7 (Black lead); use T.P. (furnished).

ITEM No.	IMPEDANCE		REPLACEMENT DATA						NOTES
			ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.		
T4	5300Ω	3-4Ω	95-2144	A-3026 ①	A-3309 ①	22S24	S-6Z	① Drill new mounting hole(s).	

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		ZENITH PART No.	QUAM PART No.	
SP1	3" x 5" PM 3-42	49-996	35A05	Used in Models L2150L3, LU3, Y3, YU3, L2155B3, BU3, J3, JU3, L3, LU3, Y3, YU3.
		49-989		Used in Models L1615B3, BU3, L3, LU3, L1620L3, LU3, Y3, YU3.

ITEM No.	USE	DESCRIPTION	ZENITH PART NO.	REPLACEMENT DATA
K1	Vertical Integrator		87-8	
K2	Vertical Feedback		87-7	

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M1	VHF Tuner	175-284	Used in Models L2150L3, Y3, L2155B3, J3, L3, Y3.
	VHF Tuner	175-282	Used in Models L1615B3, L3, L1620L3, Y3.
	VHF Tuner	175-283	
	VHF Tuner	175-705	
	UHF Tuner	175-15	
	UHF Tuner	175-13	
M2	Antenna	S-59633	Used in Models L2150L3, LU3, Y3, YU3, L2155B3, BU3, J3, JU3, L3, LU3, Y3, YU3; JFD REPLACEMENT TA439 (2 used)
	Antenna	S-59249	Used in Models L1615B3, BU3, L3, LU3, L1620L3, LU3, Y3, YU3; JFD REPLACEMENT TA448 (2 used)
M3	Diode	103-23	Video Detector
M4	Diode	103-20	Horizontal AFC

## TUBES

• AMPEREX •		GENERAL ELECTRIC		• RCA •		SYLVANIA •	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
V201	RF Amp.	3GK5		V202	Mixer - Osc.	6EA8	

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	ELMENDO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201	20	5%	EF-001	TCN-12 MFT-1000		CCF-102	CN7412 CT280A	10TCU-Q12
C202	.27mmf							
C203	12 N750	10%						
C204	.001							
C205	3.3							
C206	100 N1500			TCL-100		*		
C207	2	10%	EF-001	MFT-1000		CCF-102	CT280A	
C208	.001		EF-001	MFT-1000		CCF-102	CT280A	
C209	.001							
C210	5 NPO ±.25mmf							10TCC-V50
C211	24 N220	3%						
C212	.001		EF-001	MFT-1000	BYA10D1	CCF-102	CT280A	
C213	.001		BDP-001	DD-102		CCD-102	B210	5HK-D10
C214	.001		EF-001	MFT-1000		CCF-102	CT280A	

## COILS (RF-IF)

ITEM No.	USE	ZENITH PART No.	NOTES
L201	Ant. Input Assy	S-59672	Channel 13 Channel 13
L202	Ant. Wafer	S-61873	
L203	Ant.		
L204	RF		
L205	RF Wafer	S-61872	

ITEM No.	USE	DESCRIPTION	ZENITH PART NO.	REPLACEMENT DATA
K201	Antenna Network	8.2mmf, 39mmf, 47mmf		
K202	Antenna Network	8.2mmf, 39mmf, 47mmf		
K203	Antenna Network	.3-1meg, 470mmf		Centralab RC-471 Sprague AC1-1

CABINET PARTS LIST ON PAGE 12