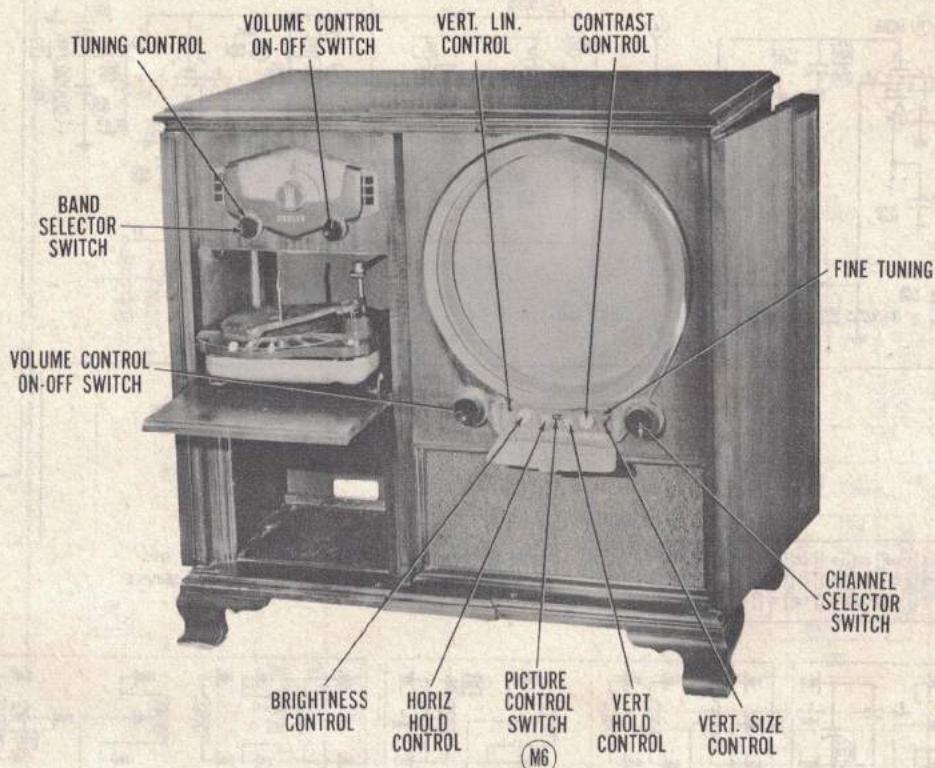


PHOTOFAC^{*} Folder



ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R, H2447R, H3267R, H3467R, H3475R, H3477R, H3478E



ZENITH MODEL H3477R

TRADE NAME	Zenith	MODEL	TV CHASSIS	RADIO CHASSIS
		H2437E, H2437R, H2438R, H2439R, H2449E.....	24H20	
		H2445R, H2447R	24H21	
		H3267R	24H20	8H20
		H3467R, H3475R	24H20	10H20
		H3477R, H3478E	24H21	10H20
MANUFACTURER	Zenith Radio Corp., 6001 Dickens Ave., Chicago, Illinois			
TYPE SET	TV-AM-FM-Phono Combination Receiver (Some Models "TV Only")			
TUBES	Twenty Four (TV Chassis) Ten (Radio Chassis 10H20) Eight (Radio Chassis 8H20)			
POWER SUPPLY	110-120 Volts AC-60 Cycle			
RATINGS	2.18 Amp. at 117 Volts AC (TV Operation), .93 Amp. at 117 Volts AC (Radio Operation)			
TUNING RANGES	(TV) Channels 2 thru 13, (FM) 88-108MC, (AM) 540-1620KC			

ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

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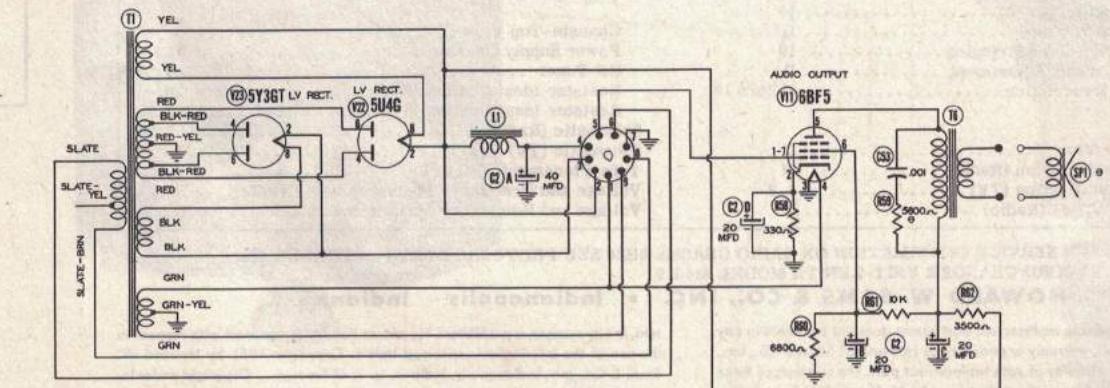
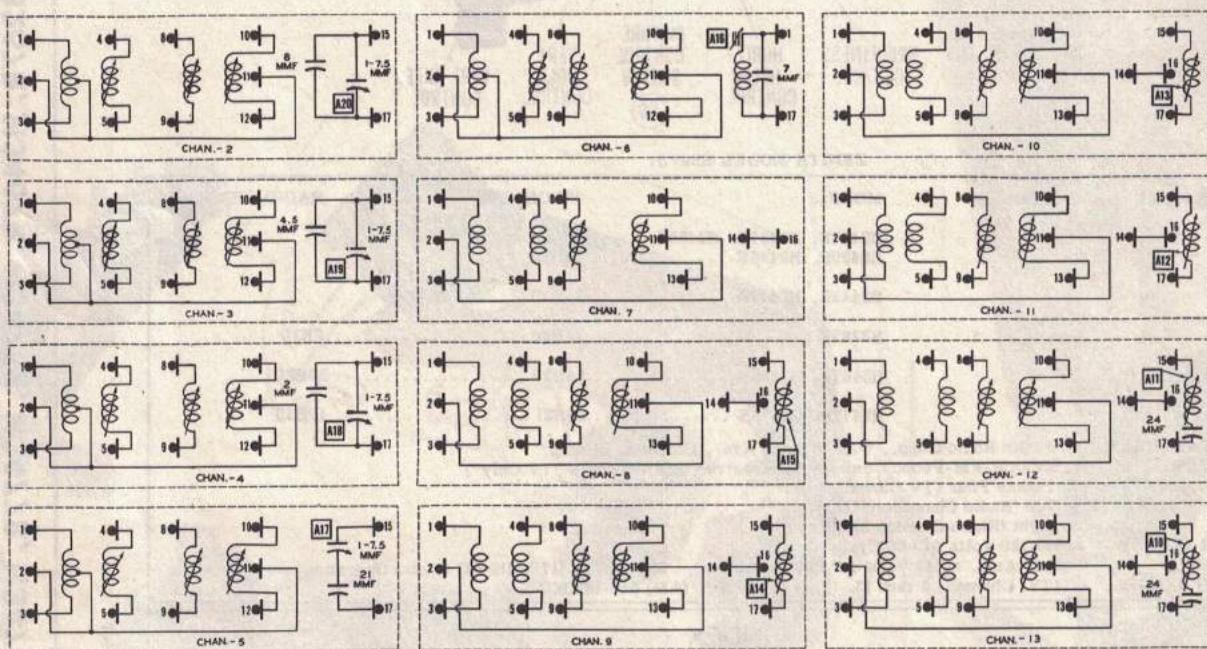
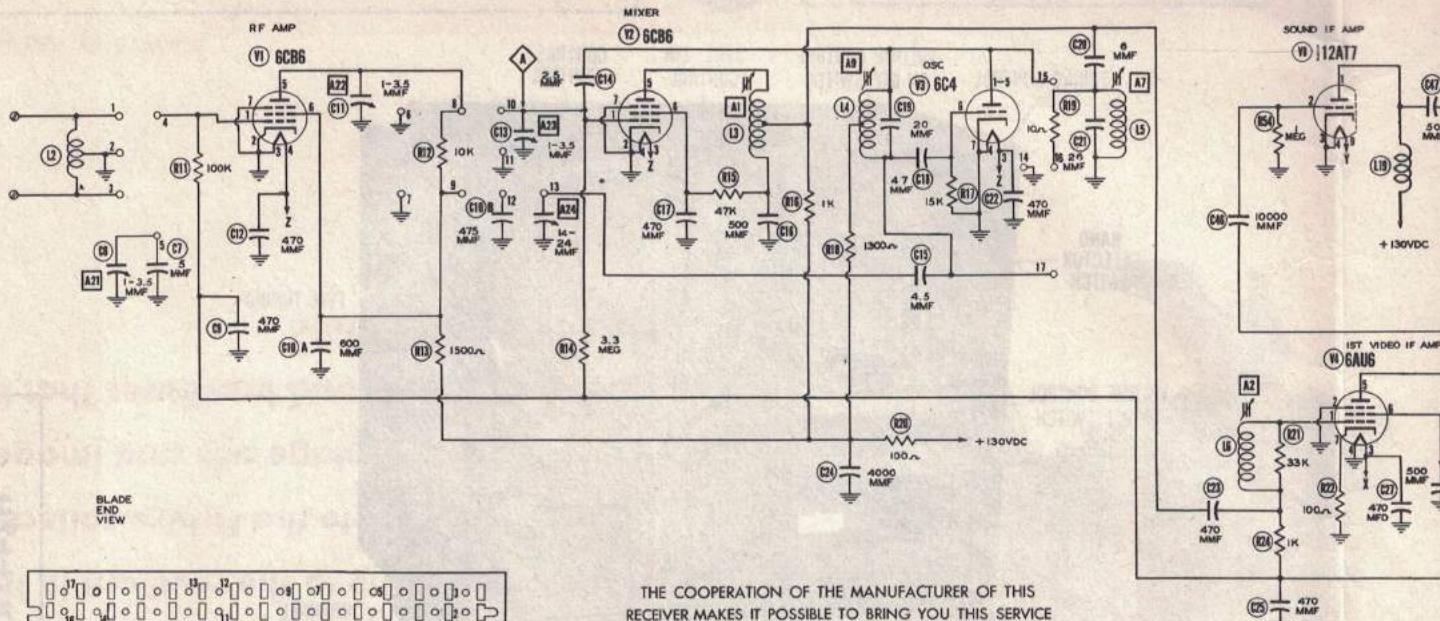
FOR SERVICE INFORMATION ON RADIO CHASSIS 8H20 SEE PHOTOFAC SET #114 FOLDER #12
RECORD CHANGER UNIT-ZENITH MODEL SI4029

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

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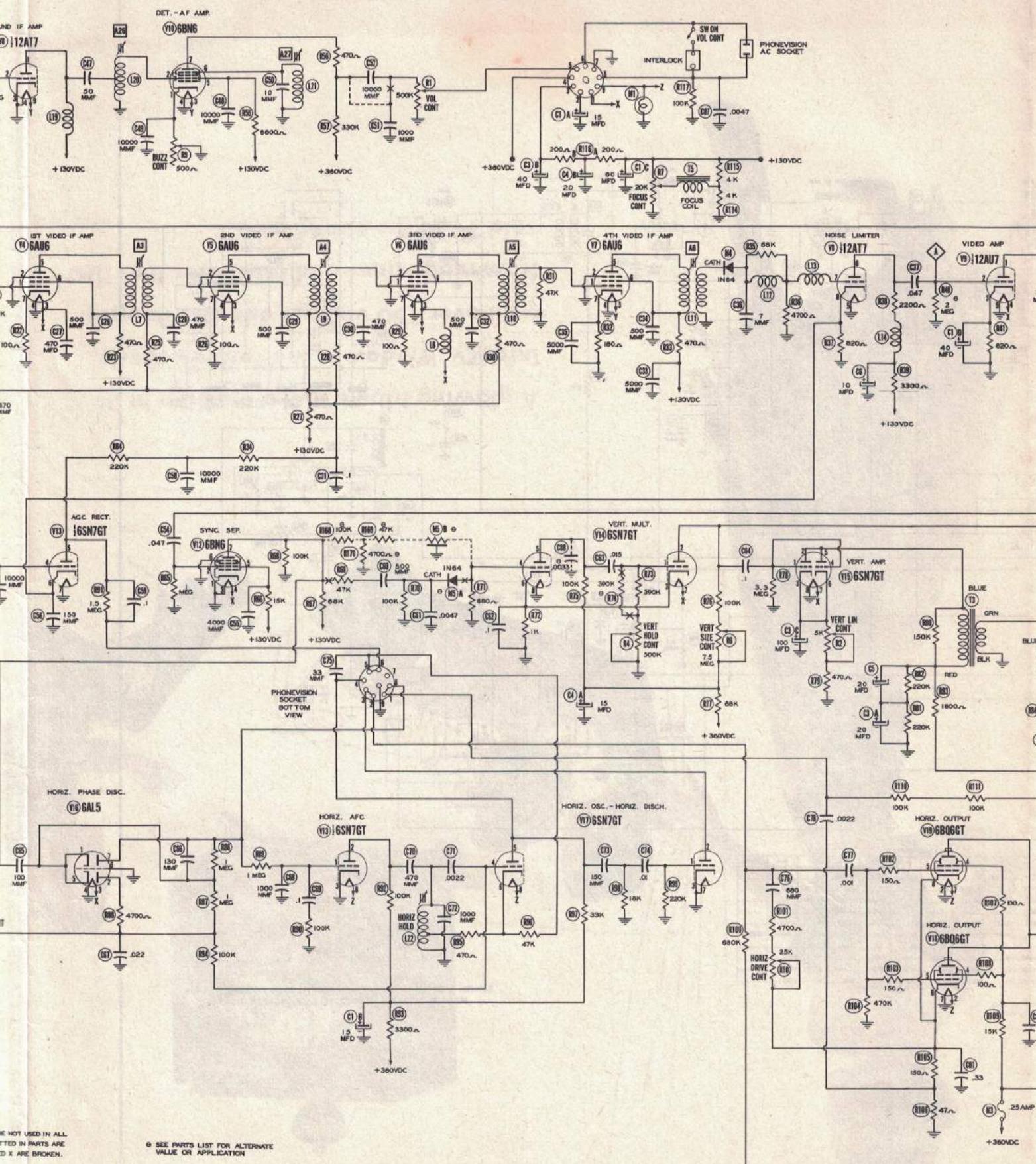
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A PHOTOFAC STANDARD NOTATION SCHEMATIC
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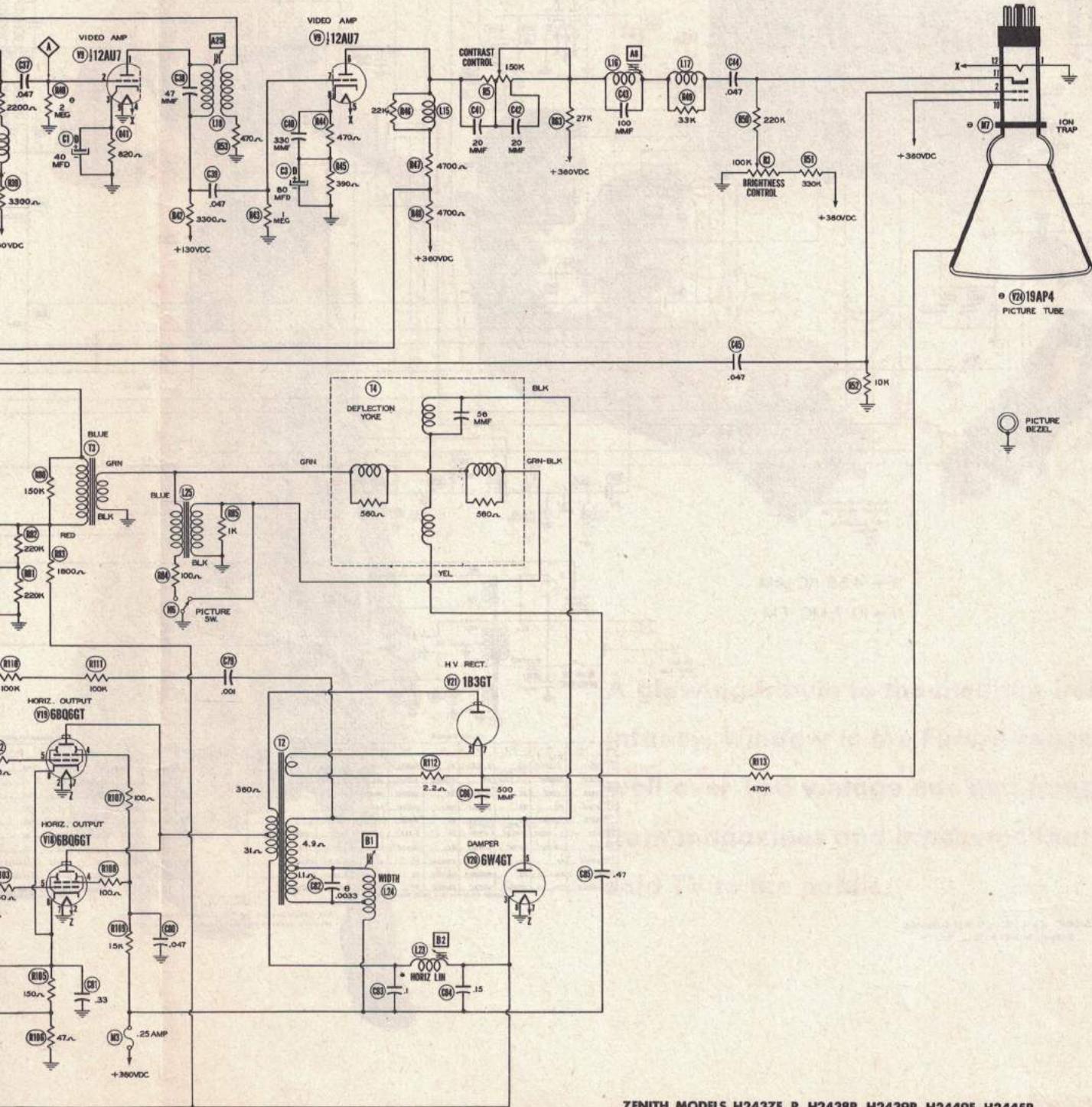
DOTTED IN PARTS ARE NOT USED IN ALL MODELS. WHEN DOTTED IN PARTS ARE USED POINTS MARKED X ARE BROKEN.



NOT USED IN ALL
PARTS ARE
X ARE BROKEN.

SEE PARTS LIST FOR ALTERNATE
VALUE OR APPLICATION

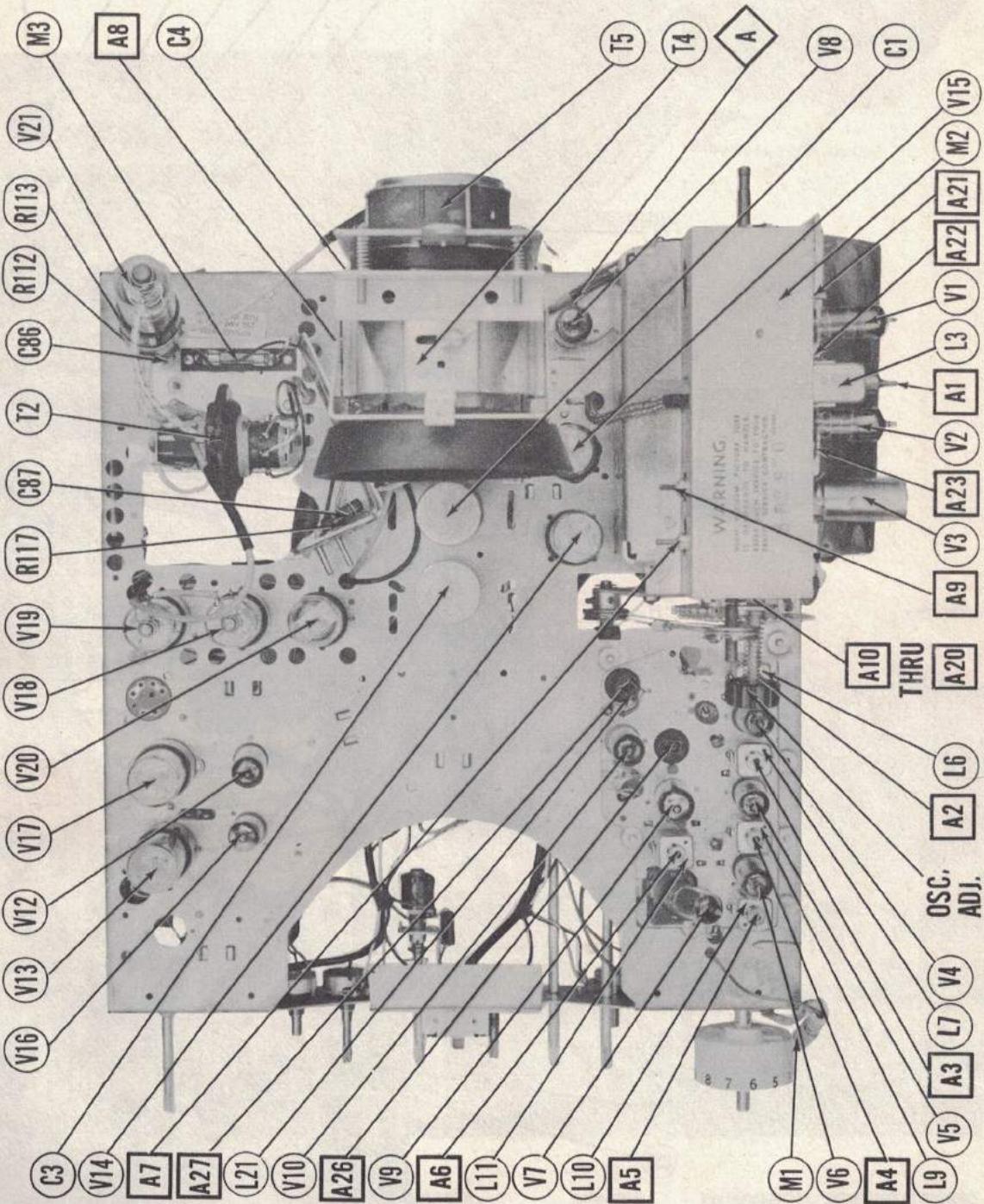
**ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E**

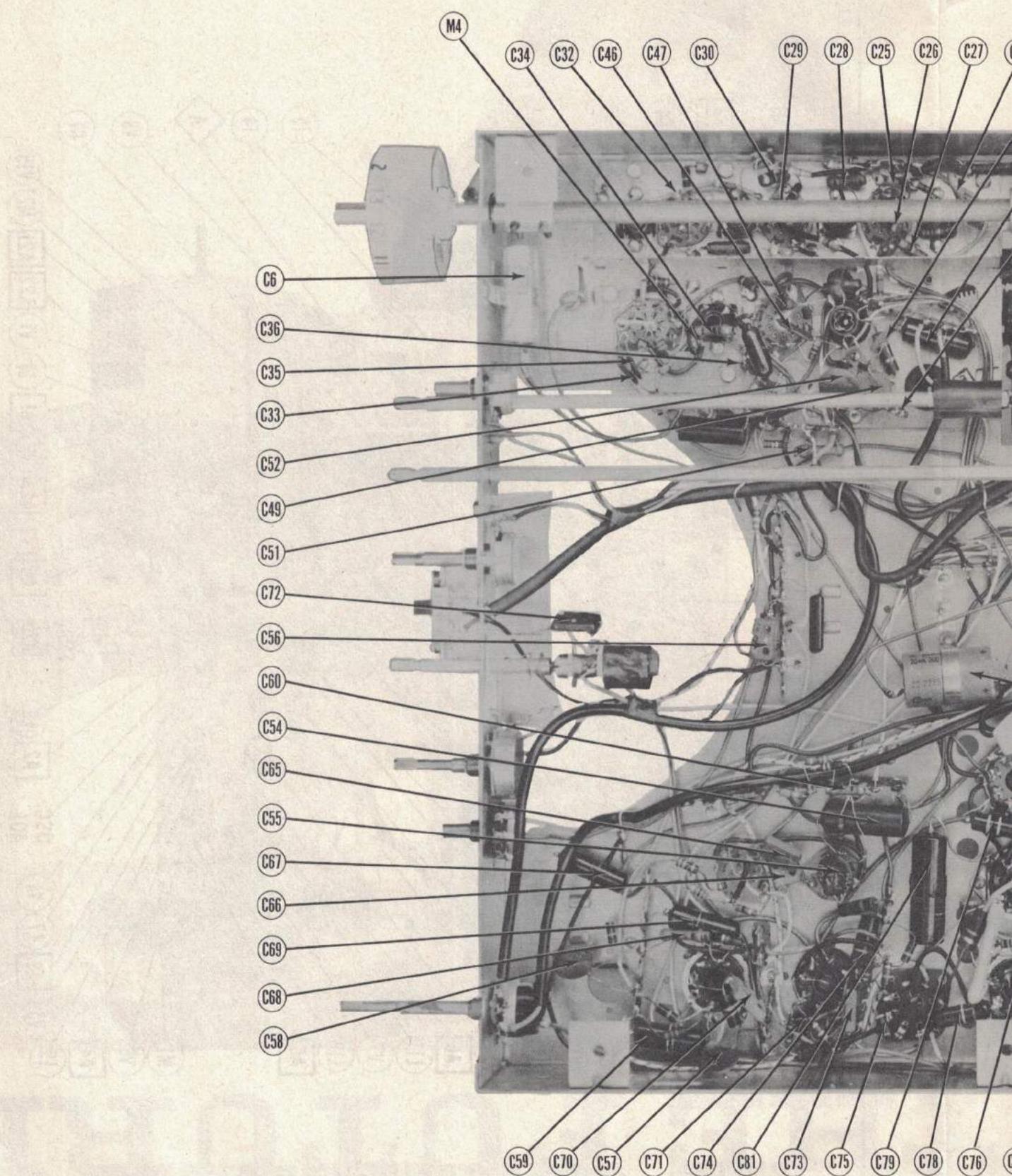


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**ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E**

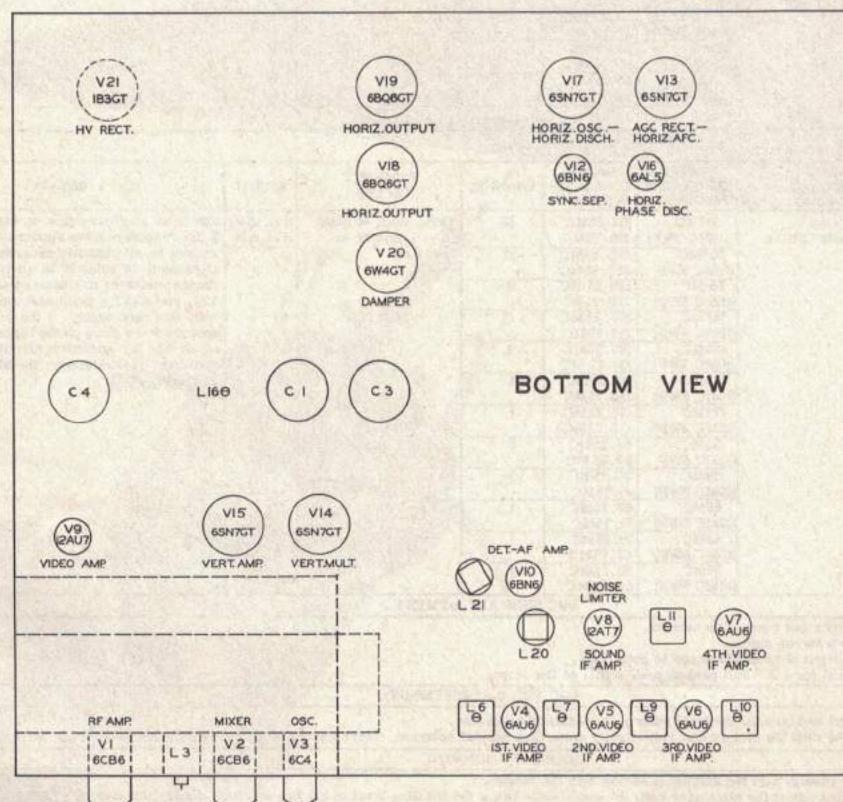
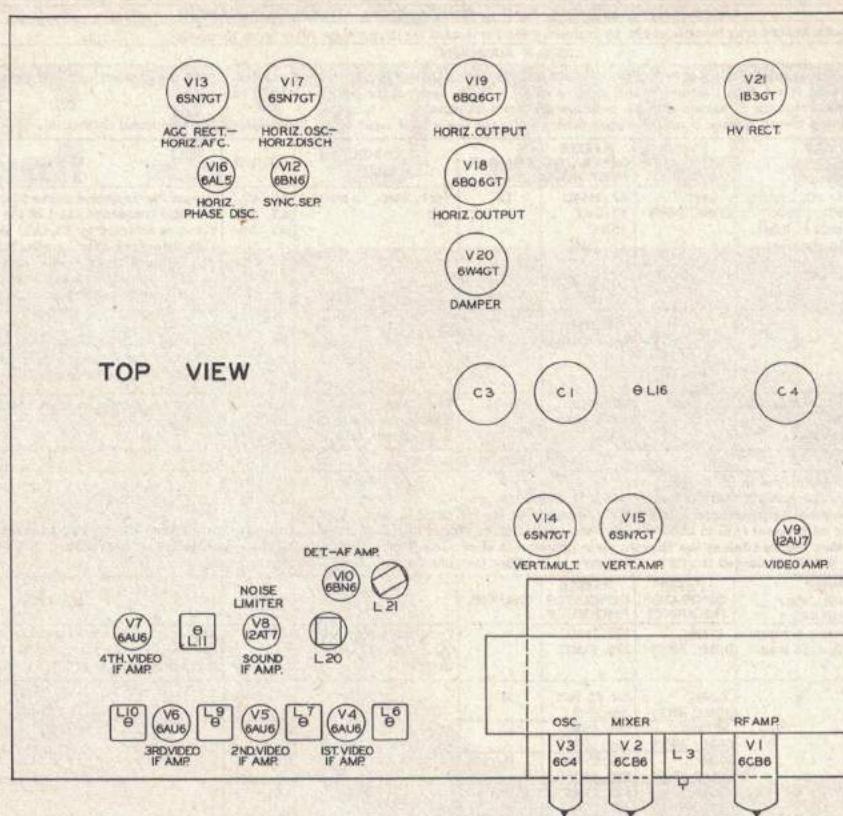
CHASSIS TOP VIEW





CHASSIS BOTTOM VIEW-CAPACITOR AN

ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
 H2447R, H3267R, H3467R, H3475R, H3477R, H3478E



TUBE PLACEMENT CHART

TV ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

The high voltage shock hazard may be eliminated by removing the horizontal oscillator tube (V17) from its socket.

VIDEO IF ALIGNMENT

Remove the local oscillator tube (V3) from its socket to eliminate the possibility of erroneous indications. Turn the channel selector switch to channel 12. Connect the negative lead of a 4.5 volt battery to the junction of R11 and C9, connect the positive lead to chassis. Connect a 10KΩ isolation resistor in series with the oscilloscope vertical input. Connect the synchronized sweep voltage from the signal generator to the horizontal input of the oscilloscope for horizontal deflection.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. .005MFD	High side to pin 1 (grid) of 6CB6 (V2). (Test point adjacent to tube). Low side to chassis.	44MC (10MC SWP)	42.75MC 43.5MC 45MC 45.75MC	12	Vert. amp. to point 	A1, A2, A3, A4, A5, A6	Adjust for response curve similar to fig. 1. The low frequency skirt of the response curve is effected by A1, A2, and A4. The high frequency skirt is effected by A3 and A5. The flatness of the center region is effected by A6. Attenuate sweep gen. to maintain 3 volt peak to peak response curve.
2. .005MFD	"	"	47.25MC (Max. Output)	2	"	A7	Turn the channel selector to channel 2 and adjust A7 for minimum marker indication at the 47.25MC point on response curve.
3. .005MFD	High side to pin 7 (grid) of 12AU7 (V9). Low side to chassis.	Not used	4.5MC (400VAM mod.)	Any	Vert. amp. thru detector probe to pin 11 of picture tube.	A8	Adjust for minimum 400% indicator on scope.

OSCILLATOR ALIGNMENT

Replace the local oscillator tube in its socket.

Leave the bias battery connected as outlined under video IF alignment.

Turn the fine tuning control until the open end of the drive pulley on the RF shelf is facing upward.

The overall oscillator adjustment (A9) is used to adjust the oscillator on channel 7, since the channel strip for channel 7 has no adjustment. A9 should not be adjusted for any other channel unless the channel strip adjustment shows insufficient range, and it has been definitely established that the channel strip is not at fault. If A12 is changed it will be necessary to readjust the channel strip for all channels.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4. Two 120Ω carbon resistors	Across antenna terminals with 120Ω in each lead.	177MC (10MC SWP)	175.25MC 179.75MC	7	Vert. amp. to point  Low side to chassis.	A9	Adjust to place video marker at 50% on response curve as shown in fig. 2. The sound marker should be at 5%.
5. Two 120Ω carbon resistors	"	213MC (10MC SWP) 207MC (10MC SWP) 201MC (10MC SWP) 195MC (10MC SWP) 189MC (10MC SWP) 183MC (10MC SWP) 85MC (10MC SWP) 79MC (10MC SWP) 69MC (10MC SWP) 63MC (10MC SWP) 57MC (10MC SWP)	211.25 MC 215.75MC 205.25MC 209.75 MC 199.25 MC 203.75 MC 193.25 MC 197.75 MC 187.25 MC 191.75 MC 181.25 MC 185.75MC 83.25 MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75 MC 61.25MC 65.75 MC 55.25MC 59.75MC	13 12 11 10 9 8 6 5 4 3 2	" A10 A11 A12 A13 A14 A15 A16 A17 A18 A19 A20		"

RF AND MIXER ALIGNMENT

Leave the bias battery connected.

DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
6. Two 120Ω carbon resistor	Across antenna terminals with 120Ω in each lead.	213MC (10MC SWP) 207MC (10MC SWP) 201MC (10MC SWP) 195MC (10MC SWP) 189MC (10MC SWP) 183MC (10MC SWP) 177MC (10MC SWP) 85MC (10MC SWP) 79MC (10MC SWP) 69MC (10MC SWP) 63MC (10MC SWP) 57MC (10MC SWP)	211.25 MC 215.75MC 205.25MC 209.75 MC 199.25 MC 203.75 MC 193.25 MC 197.75 MC 187.25 MC 191.75 MC 181.25 MC 185.75MC 83.25 MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75 MC 61.25MC 65.75 MC 55.25MC 59.75MC	13 12 11 10 9 8 7 6 5 4 3 2	Vert. amp. to point  Low side to chassis.	A21, A22, A23, A24	Check the response curve on each channel. If the response curve appears tilted a similar amount on all channels, recheck the video IF alignment. If video IF is all right, turn channel selector to channel 4 and adjust A21, A22, and A23 for maximum amplitude with sufficient band width. If the sensitivity appears to be down on the higher channels adjust A24 for maximum amplitude with sufficient bandwidth over the high band channels.

AGC SHOP ADJUSTMENT

Remove the bias battery and connect an antenna.

Tune the receiver to a strong signal.

Connect the vertical input of an oscilloscope to point .

Adjust the AGC control for a 2.5 volt peak to peak signal on the scope.

AGC FIELD ADJUSTMENT

Tune in a strong signal and turn the contrast control to maximum clockwise.

Adjust the AGC control until the picture has just slightly more than normal contrast, there should be no sync distortion or intercarrier buzz.

SOUND IF ALIGNMENT

Connect an attenuator (Zenith part No. SI7203) in series with the antenna.

Tune in a TV station and adjust the attenuator until the signal falls below the limiting level of the limiter-detector as indicated by a hiss similar to superregeneration.

Adjust the sound take off coil slug (A25), sound IF coil slug (A26), and the quadrature coil (A27) for maximum audio with best quality. Adjust the buzz control (R9) for minimum intercarrier buzz.

If any of these adjustments cause the signal to rise above the limiting level of the detector (hiss disappears) attenuate the signal until the hiss returns. If the intercarrier buzz cannot be sufficiently reduced, recheck the AGC adjustment.

RADIO ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

To set pointer, turn tuning cap fully closed and set pointer parallel with base of dial.
It is recommended that alignment be performed in the order outlined.

AM ALIGNMENT

Loop should be maintained in same relative position to chassis as when receiver is in cabinet. Volume control should be at maximum position. Output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
7. .05MFD	High side to pin 7 (grid) of 12AT7 (V26). Low side to chassis.	495KC (400Kmod.)	AM (center)	Tuning gang fully open	Across voice coil	A28, A29, A30, A31, A32, A33	Adjust for maximum output.
8.	Loop	1600KC	"	1600KC	"	A34	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
9.	Loop	1400KC	"	Tune for max. output	"	A35, A36	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVMS

Connect a 2 megohm resistor in series with the DC probe of the VTVMS.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
10. .05MFD	High side to pin 1 (grid) of 6AU6 (V29). Low side to chassis.	10.7MC (Unmod.)	FM (Clock-wise)	Tuning gang fully open	DC probe thru 2 meg to point  Common to chassis.	A37	Adjust for maximum deflection.
11. .05MFD	"	"	"	"	DC probe thru 2 meg to point  Low side to chassis.	A38	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.
12. .05MFD	High side to pin 1 (grid) of 6BA6 (V28). Low side to chassis.	"	"	"	DC probe thru 2 meg to point  Low side to chassis.	A39, A40	Adjust for maximum deflection.
13. .05MFD	High side to pin 1 (grid) of 6BA6 (V27). Low side to chassis	"	"	"	"	A41, A42	"
14. .05MFD	High side to pin 7 (grid) of 12AT7 (V26). Low side to chassis.	"	"	"	"	A43, A44	"

FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120% sawtooth voltage in scope for horizontal deflection. Connect a 2 megohm isolation resistor in series with the vertical input lead of the oscilloscope.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
10. .05MFD	High side to pin 1 (grid) of 6BA6 (V28). Low side to chassis.	10.7MC (450KC SWF)	FM (Clock-wise)	Point of non-interference	Vert. amp. thru 2 meg to point  Low side to chassis.	A29, A40	Adjust for maximum amplitude and symmetry as per fig. 3.
11. .05MFD	High side to pin 1 (grid) of 6BA6 (V27). Low side to chassis.	"	"	"	"	A41, A42	"
12. .05MFD	High side to pin 7 (grid) of 12AT7 (V26). Low side to chassis.	"	"	"	"	A43, A44	"
13. .05MFD	"	"	"	"	Vert. amp. to point  Low side to chassis.	A38, A37	Adjust A38 so 10.7MC occurs at center of crossover lines as per fig. 4. Adjust A37 for maximum amplitude and straightness of crossover lines. Continue with step 15.

FM RF ALIGNMENT

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
15. Direct	High side to "FM" antenna post. (Remove line antenna). Lcw side to chassis.	98MC (Unmod.)	FM	98MC	DC probe thru 2 meg to point  Common to chassis.	A45, A46	Adjust for maximum deflection.

PHONO OSCILLATOR ADJUSTMENT

In the event that the receiver oscillates when switched to "Phono" adjust the phono oscillator adjustment (B3) until the oscillations cease. If the phono cartridge is changed it may be necessary to adjust B3, since the point of no oscillation may vary with different cartridges.

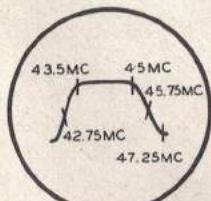


FIG. 1

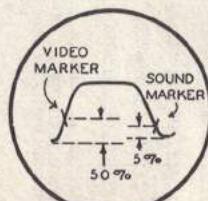


FIG. 2

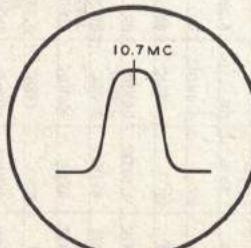


FIG. 3

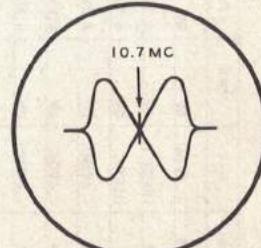


FIG. 4

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

VOLTAGE READINGS									
Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
V 1	6CB6	-1.4VDC	0V	6.3VAC	120VDC	0V			
V 2	6CR6	-2VDC	0V	6.3VAC	130VDC	0V			
V 3	6C4	115VDC	0V	6.3VAC	115VDC	0V			
V 4	6AU6	-4VDC	0V	6.3VAC	125VDC	.6VDC			
V 5	6AU6	-4VDC	0V	6.3VAC	120VDC	.8VDC			
V 6	6AU6	-4VDC	0V	6.3VAC	120VDC	.4VDC			
V 7	6AU6	0V	6.3VAC	0V	125VDC	1.6VDC			
V 8	12AT7	130VDC	-1VDC	0V	0V	125VDC	-3.2VDC	.6VDC	6.3VAC
V 9	12AU7	115VDC	0V	3.7VDC	6.3VAC	265VDC	0V	9VDC	0V
V 10	6BN6	1.2VDC	0V	6.3VAC	0V	70VDC	0V	165VDC	0V
V 11	6BF5	0V	.8VDC	0V	6.3VAC	230VDC	.95VDC	0V	
V 12	6BN6	0V	-1VDC	0V	6.3VAC	60VDC	0V	70VDC	
V 13	6SN7GT	-1VDC	10VDC	0V	-AVDC	0V	.6VDC	0V	6.3VAC
V 14	6SN7GT	-8VDC	20VDC	2VDC	65VDC	2VDC	6.3VAC	0V	
V 15	6SN7GT	.2VDC	480VDC	13VDC	-.2VDC	480VDC	13VDC	6.3VAC	0V
V 16	6A15	IVDC	-4VDC	6.3VAC	0V	IVDC	0V	-2VDC	
V 17	6SN7GT	-25VDC	45VDC	0V	-20VDC	245VDC	1.8VDC	0V	6.3VAC
V 18	6BQ6GT	0V	6.3VAC	-.8VDC	130VDC	30VDC	* 33VDC	TOP CAP	V 18
V 19	6BQ6GT	0V	0V	8.8VDC	130VDC	30VDC	* 33VDC	TOP CAP	V 19
V 20	6W4GT	49.5VDC	45VDC	520VDC	45VDC	360VDC	-.4VDC	6.3VAC	0V
V 21	IB3GT	* DO NOT MEASURE							
V 22	5V4G	0V	380VDC	0V	360VAC	0V	360VDC		
V 23	5Y3GT	0V	175VDC	0V	210VAC	0V	210VDC	PIN 12	
V 24	19A PA	0V	0V	360VDC	PIN 10	85VDC	6.3VAC	PIN 10	

FOCUS CONTROL COUNTER CLOCKWISE
1 TAKEN WITH VACUUM TUBE VOLTMETER

FOCUS CONTROL COUNTER CLOCKWISE
† MEASURED FROM PIN 2 OF V23
▲ MEASURED FROM PIN 2 OF V22
MEASURED FROM PIN 3 OF V20

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6CB6									
V 2	6CB6									
V 3	6C4									
V 4	6AU6									
V 5	6AU6									
V 6	6AU6									
V 7	6AU6									
V 8	12AT7									
V 9	12AU7									
V 10	6BN6									
V 11	6BF5									
V 12	6BN6									
V 13	6SN7GT									
V 14	6SN7GT									
V 15	6SN7GT									
V 16	6A15									
V 17	6SN7GT									
V 18	6BQ6GT									
V 19	6BQ6GT									
V 20	6W4GT									
V 21	IB3GT									
V 22	5V4G									
V 23	5Y3GT									
V 24	19A PA									

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6CB6	2Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 2	6CB6	5.3Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 3	6C4	11.5KΩ	Inf.	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 4	6AU6	2Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 5	6AU6	2Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 6	6AU6	2Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 7	6AU6	2Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	0Ω
V 8	12AT7	1400Ω	1Meg	0Ω						
V 9	12AU7	13.7KΩ	2Meg	0Ω	JΩ	JΩ	JΩ	JΩ	JΩ	JΩ
V 10	6BN6	100Ω	6Ω	.1Ω						
V 11	6BF5	0Ω	330Ω	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω
V 12	6BN6	0Ω	1Meg	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω
V 13	6SN7GT	3Meg	0Ω	.1Ω						
V 14	6SN7GT	1.95KΩ	1.05KΩ	0Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω	.1Ω
V 15	6SN7GT	3.3Meg	#2.2KΩ	470Ω	3.3Meg	#2.2KΩ	470Ω	3.3Meg	#2.2KΩ	470Ω
V 16	6A15	1Meg	30KΩ	.1Ω	0Ω	0Ω	0Ω	0Ω	0Ω	0Ω
V 17	6SN7GT	220KΩ	#680KΩ	0Ω	125KΩ	125KΩ	125KΩ	125KΩ	125KΩ	125KΩ
V 18	6BQ6GT	1MΩ	.1Ω	2.1Meg	.15KΩ	.15KΩ	.15KΩ	.15KΩ	.15KΩ	.15KΩ
V 19	6BQ6GT	Inf.	.0Ω	47Ω	.15KΩ	.15KΩ	.15KΩ	.15KΩ	.15KΩ	.15KΩ
V 20	6W4GT	#1.8KΩ	#680KΩ	120KΩ	.110Ω	.110Ω	.110Ω	.110Ω	.110Ω	.110Ω
V 21	IB3GT	Inf.								
V 22	5V4G	Inf.	20KΩ	Inf.	18Ω	18Ω	18Ω	18Ω	18Ω	18Ω
V 23	5Y3GT	Inf.	4.5KΩ	Inf.	10Ω	10Ω	10Ω	10Ω	10Ω	10Ω
V 24	19A PA	0Ω	10KΩ	300KΩ	PIN 10					

FOCUS CONTROL COUNTER CLOCKWISE
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.

1. DC Voltage measurements are at 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.

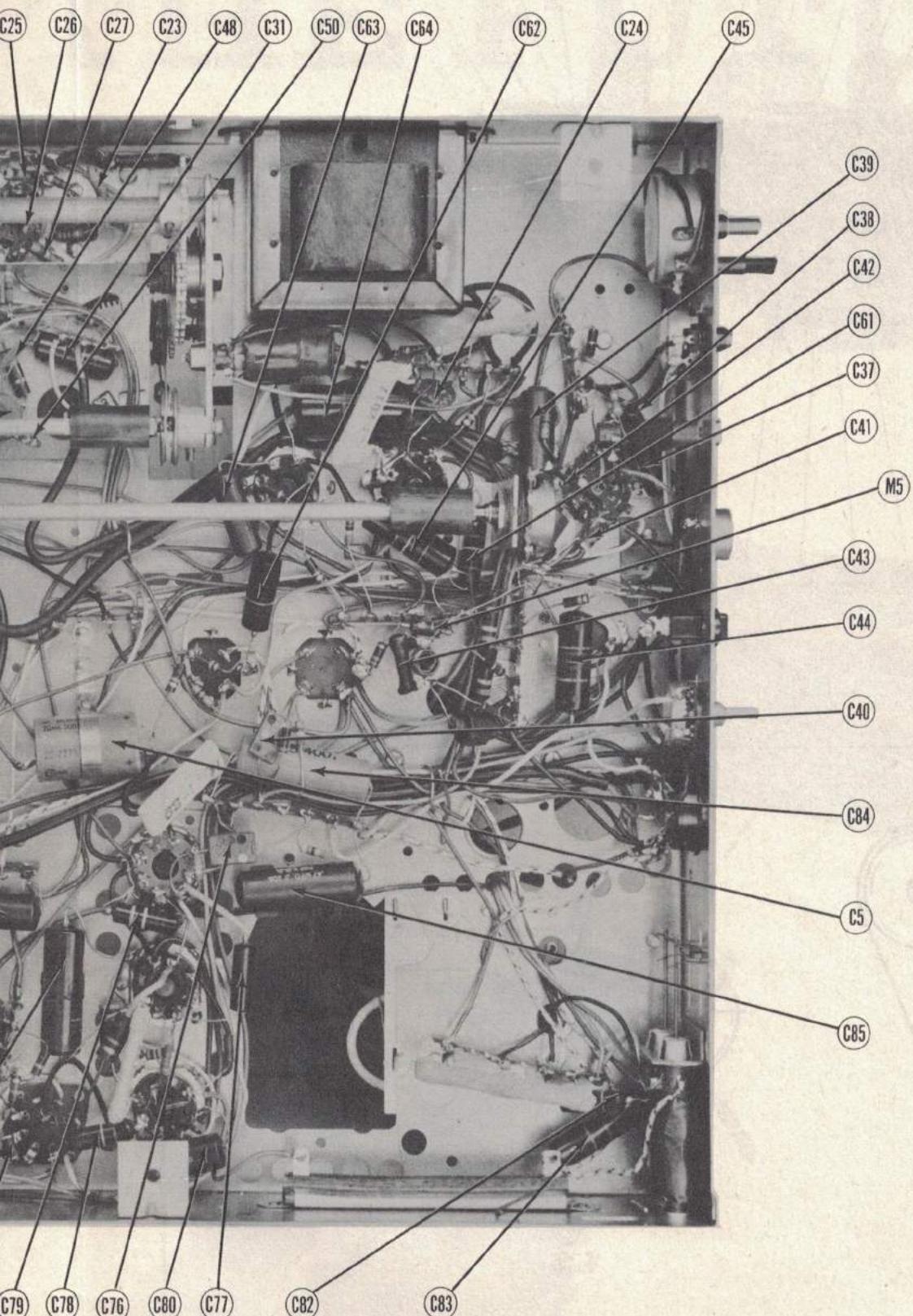
3. Measured values are from socket pins to common negative unless otherwise stated.

4. Line voltage maintained at 117 volts for voltage readings.

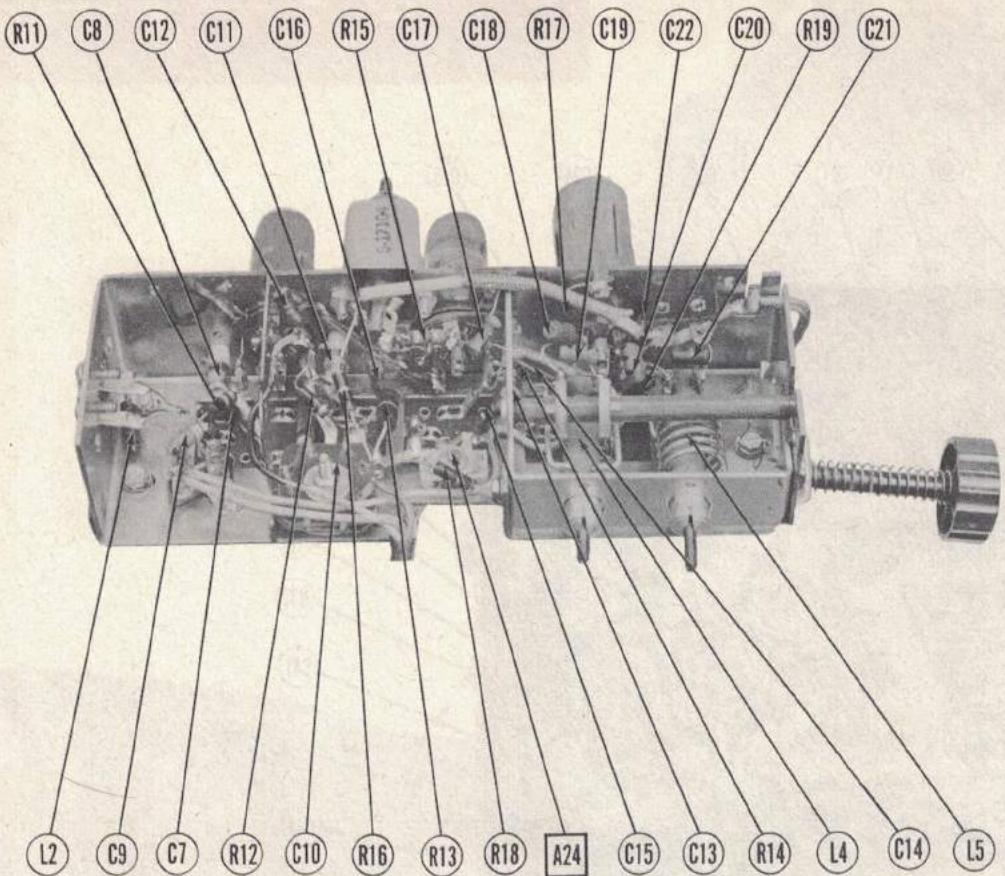
5. Front panels controls set at minimum.

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

ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

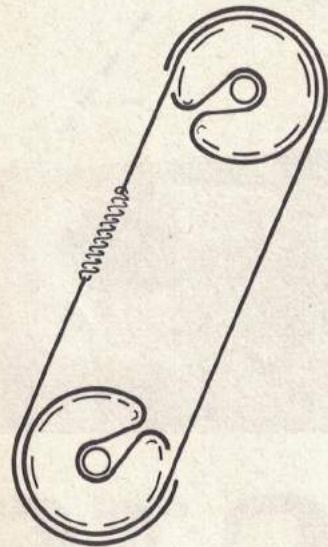


ITOR AND ALIGNMENT IDENTIFICATION

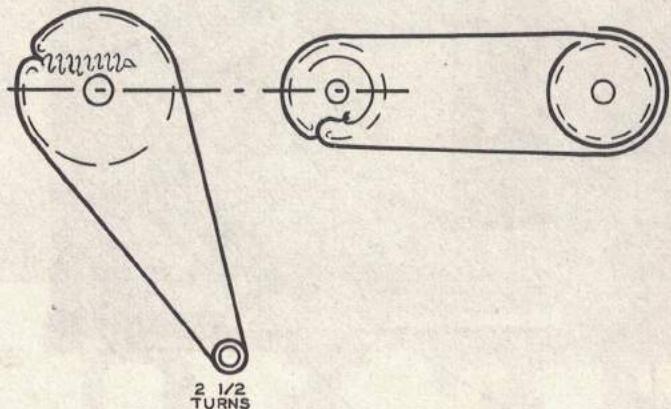


RF TUNER

TUNING SHAFT FULLY
COUNTERCLOCKWISE

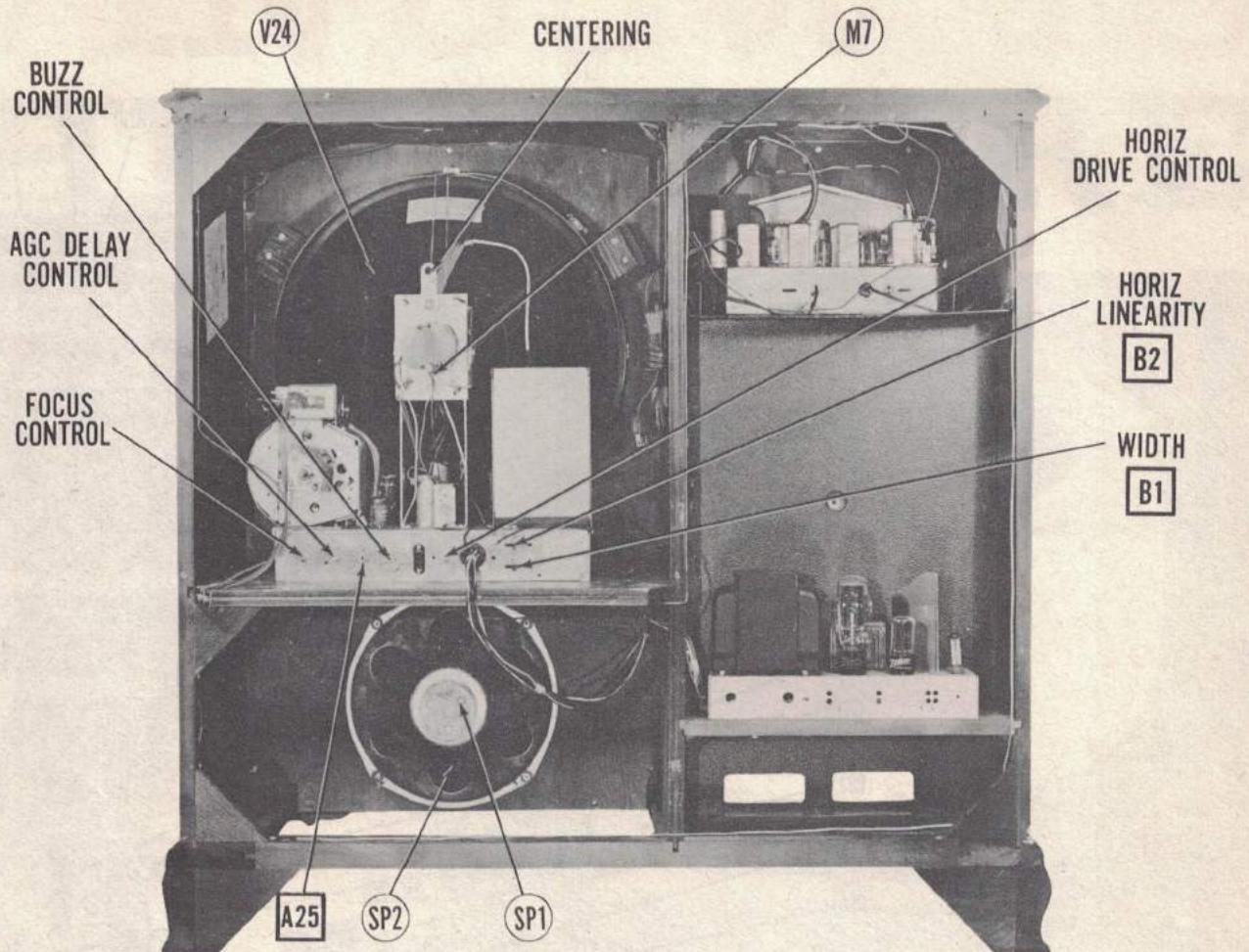


TUNING GANG FULLY CLOSED



FINE TUNING
DRIVE CORD STRINGING

DIAL CORD STRINGING



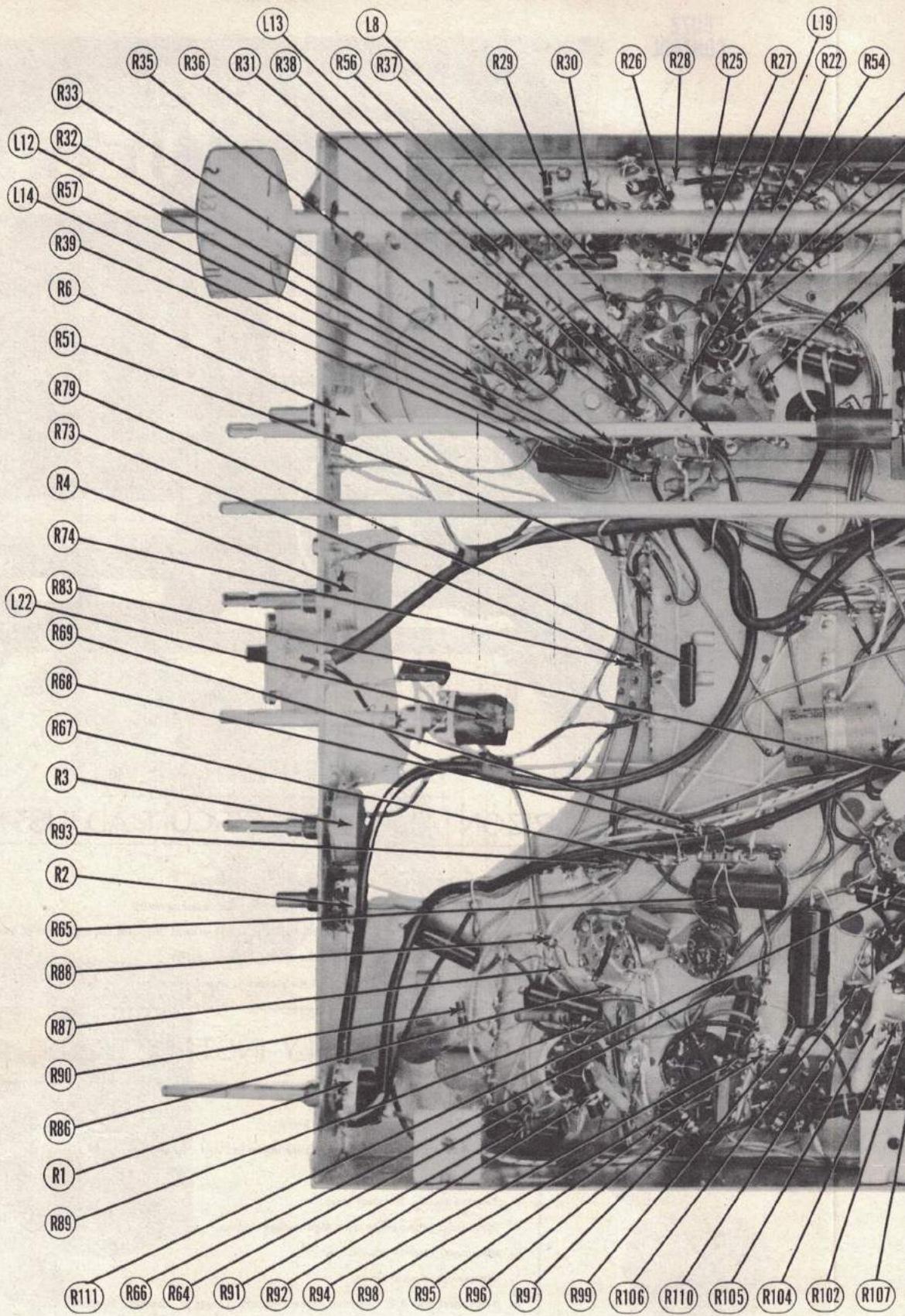
CABINET-REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably a test pattern.
 Adjust the horizontal hold control until the picture synchronizes horizontally.
 Turn the horizontal drive control clockwise as far as possible without crowding the right side of the picture.
 Adjust the width slug (B1) until the picture fills the mask horizontally.
 Adjust the horizontal linearity slug (B2) until the picture is symmetrical from left to right.

DISASSEMBLY INSTRUCTIONS

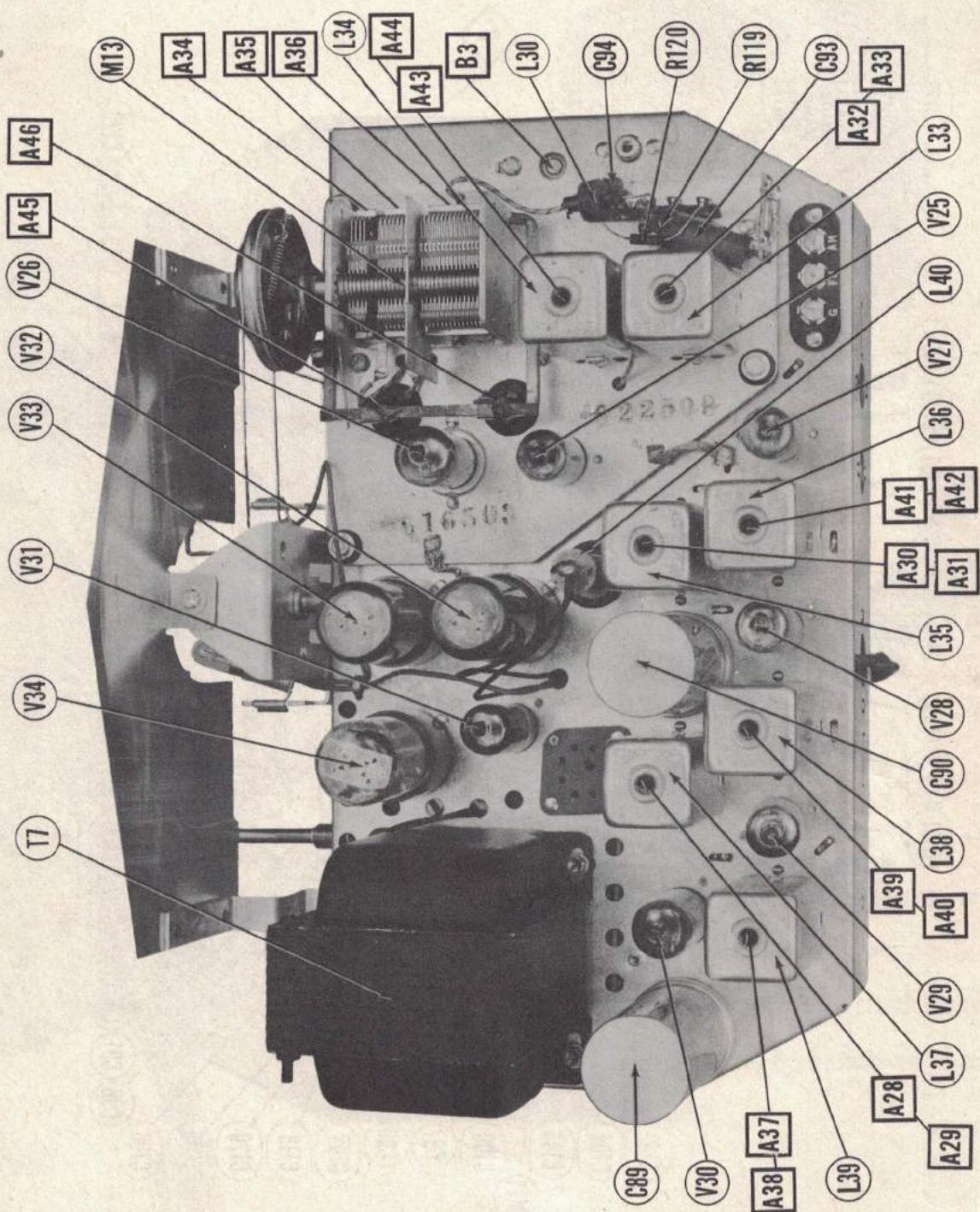
1. Remove two push-on type control knobs.
 2. Remove six wood screws holding rear cover in place. Remove rear cover.
 3. Disconnect built-in antenna.
 4. Remove antenna terminal strip.
 5. Disconnect power cable from high voltage section.
 6. Disconnect chassis ground lead.
 7. Disconnect speaker leads.
 8. Disconnect four 3/8" hex head screws holding chassis to cabinet. Remove chassis.
 9. Remove four 3/8" hex head screws holding speaker in cabinet. Remove speaker.
- NOTE: FOR PICTURE TUBE REMOVAL FOLLOW INSTRUCTIONS ABOVE.



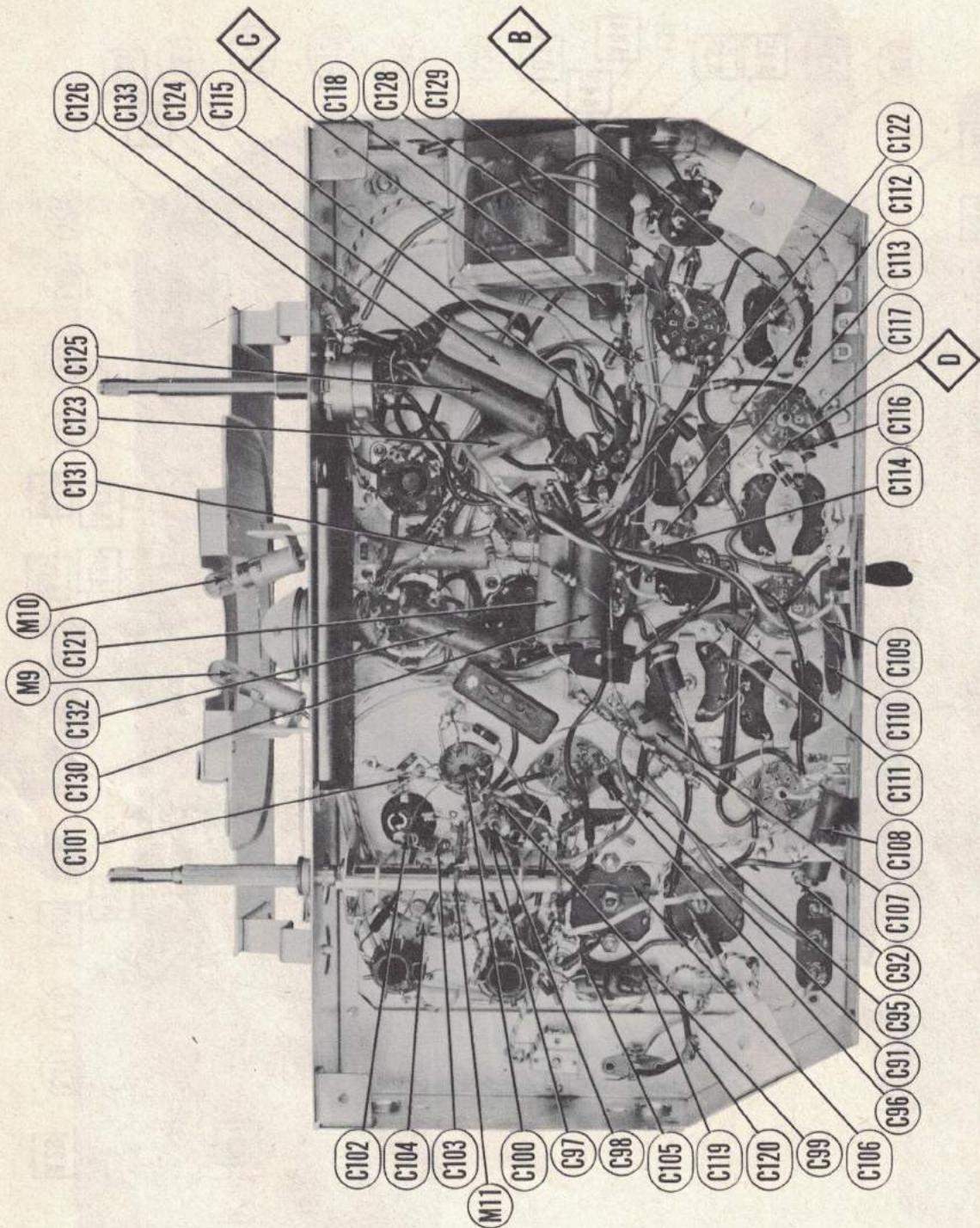
CHASSIS BOTTOM VIEW-RESISTOR AN

ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

RADIO CHASSIS - TOP VIEW



RADIO CHASSIS-BOTTOM VIEW-CAPACITOR IDENTIFICATION



TV PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		ZENITH PART No.	STANDARD REPLACEMENT		
V1	RF Amp.	6CB6	6CB6	7CM	
V2	Mixer	6CB6	6CB6	7CM	
V3	Oscillator	6C4	6C4	6BG	
V4	1st Video IF Amp.	6AU6	6AU6	7BK	
V5	2nd Video IF Amp.	6AU6	6AU6	7BK	
V6	3rd Video IF Amp.	6AU6	6AU6	7BK	
V7	4th Video IF Amp.	6AU6	6AU6	7BK	
V8	Noise Limiter-				
	Sound IF Trap	12AT7	12AT7	9A	
V9	Video Amp.	12AU7	12AU7	9A	
V10	Det. -AF Amp.	6BN6GT	6BN6GT	7DF	
V11	Audio Output	6BF5	6BF5	7BZ	
V12	Sync. Sep.	6BN6GT	6BN6GT	7DF	
V13	AGC Rect. -Hor. AFC	6SN7GT	6SN7GT	8BD	
V14	Vert. Mult.	6SN7GT	6SN7GT	8BD	
V15	Vert. Amp.	6SN7GTA	6SN7GTA	8BD	
V16	Hor. Phase Discr.	6AL5	6AL5	6BT	
V17	Hor. Osc. Hor. Disc.	6SN7GT	6SN7GT	8BD	
V18	Hor. Output	6BQ6GT	6BQ6GT	5BT	
V19	Hor. Output	6BQ6GT	6BQ6GT	5BT	
V20	Damper	6W4GT	6W4GT	4CG	
V21	HV Rectifier	1B3GT	1B3GT	3C	
V22	LV Rectifier	5U4G	5U4G	5T	
V23	LV Rectifier	5Y3G	5Y3G	5T	
V24A	Picture Tube	19AP4A	19AP4A	12D	
B	Picture Tube	16GP4	16GP4	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		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	
C1A	15	475	22-2122	AF33X16G8B		UPT417		TVL-4815
B	15	475						■ Filter
C	80	300						■ Decoupling
D	40	50						▲ Filter
C2 A	40	450	22-2224	AFH84J4E4A		UPT42245C		V. Amp. Cathode
B	20	450						▲ Filter
C	20	200						■ Filter
D	20	25						▲ Output Screen
C3A	20	475	22-2223	AF4X8G20B16		UPT422		Output Cathode
B	40	300						▲ Vert. Output Dec.
C	100	50						■ Filter
D	80	25						▲ Vert. Output Cathode
C4A	15	475	22-2232	AF3X4G		UPT15S50-		V. Amp. Cathode
B	20	300				230		■ Vert. MV Dec.
C5	20	300	22-2225	PRS350/24		BR2035A	TVA-1608	▲ Filter
C6	10	250	22-2154	PRS250/12		BR1025	TVA-1504	▲ Vert. Output Cathode
C7	5	22-2050	SI5NPO	TCZ-4.7		NPOK-5		Vert. Output Dec.
C8	1-3.5	22-2093		829-4				Noise Limiter Dec.
C9	470	22-2219	SI470	D6-471		GP2K-470	19C15	Fixed Padder
C10A	600	22-82						Variable Padder
B	475	22-69						AGC Filter
C11	1-3.5	22-2093		829-4				RF Amp. Dec.
C12	470	22-2219	SI470	D6-471		GP2K-470	19C15	RF Bypass
C13	1-3.5	22-2093		829-4				Variable Trimmer
C14	2.5	22-1891						RF Amp. Fil.
C15	4.5	22-2207						Variable Trimmer
C16	500	22-2216	SI500	D6-501		GP2K-500	19C32	Mixer Screen Dec.
C17	470	22-2219	SI470	D6-471		GP2K-470	19C15	Mixer Screen Dec.
C18	47	22-1876	SI47	D6-470		GP1K-47	19C25	Osc. Grid Cap
C19	20	22-2204				N080-331-20		Fixed Trimmer
C20	6	22-2051						RF Coupling
C21	26	22-2155						Fixed Trimmer
C22	470	22-2219	SI470	D6-471		N080-331-26		Osc. Fil. Bypass
C23	470	22-2219	SI470	D6-471	5W5T5	GP2K-470	19C15	IF Coupling
C24	4000	22-4	BPD-004	DD-502	ID5D4	81L-005	29C1	RF Bypass
C25	470	22-2143	SI470	D6-471	5W5T5	GP2K-470	19C15	AGC Filter
C26	500	22-2216	SI500	D6-501	5W5T5	GP2K-500	19C32	1st V. IF Dec.
C27	470	22-2143	SI470	D6-471	5W5T5	GP2K-470	19C15	1st V. IF Dec.
C28	470	22-2143	SI470	D6-471	5W5T5	GP2K-470	19C15	AGC Filter
C29	500	22-2216	SI500	D6-501	5W5T5	GP2K-500	19C32	2nd V. IF Dec.
C30	470	22-2143	SI470	D6-471	5W5T5	GP2K-470	19C15	AGC Filter
C31	.1	200	22-1777	P288-1	DF-104	PTE4P1	2TM-P1	AGC Filter
C32	500	22-2216	SI500	D6-501	5W5T5	GP2K-500	19C32	3rd V. IF Dec.
C33	5000	22-4	BPD-005	DD-502	ID5D5	81L-005	29C1	RF Bypass
C34	500	22-2216	SI500	D6-501	5W5T5	GP2K-500	19C32	4th V. IF Screen
C35	5000	22-4	BPD-005	DD-502	ID5D5	81L-005	29C1	4th V. IF Cathode
C36	7	22-1874	SI6.8NPO	TCZ-6.8	5W5Q1	NPOK-6.8	19C3	V. Diode Filter
C37	.047	600	P688-047	DF-503	PTE6S5		6TM-S47	Video Coupling
C38	.047	600	22-1876	SI47N080				Fixed Trimmer
C39	.047	600	22-1844	P688-047	DF-503	PTE6S5	6TM-S47	Video Coupling
C40	330	500	22-1645	I468-00035	D6-331	5W5T3	GP2K-330	V. Amp. Cath.
C41	20	22-2233	SI20	D6-200	5W5Q2	GPIK-20	MS-42	Peaking
C42	20	22-2233	SI20	D6-200	5W5Q2	GPIK-20	MS-42	Peaking
C43	100	22-2234				N030K-100		Fixed Trimmer
C44	.047	600	22-1844	P688-047	DF-503	PTE6S5	6TM-S47	Video Coupling
C45	.047	600	22-2078	P688-047	DF-503	PTE6S5	6TM-S47	Vert. Sweep Coupling
C46	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	S. IF Coupling
C47	50	22-1761	SI50	D6-500	5W5Q5	GPIK-50	19C28	S. IF Coupling
C48	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	Det.-AF Amp. Screen
C49	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	Det.-AF Amp. Screen
C50	10	22-2106				N150K-10		Fixed Trimmer
C51	1000	22-2218	SI1000	D6-102	IW5D1	GP2L-001	19C1	De-emphasis
C52	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	Audio Coupling
C53	.001	600	22-2127	P688-001	D6-102	PTE6D1	6TM-D1	Tone Comp.
C54	.047	600	22-1844	P688-047	DF-503	PTE6S5	6TM-S47	Sync. Coupling
C55	4000	22-4	BPD-004	DD-502	ID5D4	81L-005	29C1	Sync. Sep. Screen
C56	150	500	22-1137	I468-00015	D6-151	5W5T15	GPIK-150	Cathode Bypass
C57	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	AGC Amp. Grid
C58	10000	22-3	BPD-01	DD-103	PTE6S1	82L-01	36C1	AGC Filter
C59	.1	200	22-1810	P288-1	DF-104	PTE4P1	2TM-P1	Hor. Sweep Coupling

ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

TV PARTS LIST AND DESCRIPTION

RESISTORS (CONT.)

CAPACITORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES
	CAP.	VOLT	ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNEIL-DUBILLER PART No.	ERIE PART No.	SPRAGUE PART No.
C60	500	22-1138	SI500	D6-501	5W5T5	GP2K-500	19C32	Vert. Sync. Coupling
C61	.0047	400	22-1842	P688-0047	D6-472	PTE6D5	GP2M-0047	Voltage Divider
C62	.1	200	22-1777	P288-1	DF-104	PTE4P1	2TM-P1	Vert. MV Cathode
C63	.015	600	22-1843	P688-015		PTE8S15	6TM-S15	Vert. MV Feedback
C64	.1	600	22-1841	P688-1	DF-104	PTE6P1	6TM-P1	Vert. Sweep Coupling
C65	100	500	22-365	I468-0001	D6-101	5W5T1	GP1K-100	Hor. Sync. Coupling
C66	130	500	22-2162		TCZ-130	NPOM-130	IFM-31	AFC Filter
C67	.022	200	22-2071	P488-022	DF-203	PTE4S2	4TM-S22	AFC Filter
C68	1000	22-2112	SI1000	D6-102	1W5D1	GP2L-001	19C1	AFC Filter
C69	.1	200	22-1777	P288-1	DF-104	PTE4P1	2TM-P1	AFC Filter
C70	470	500	22-1138	I468-0005	D6-471	5W5T5	GP2K-470	IFM-35
C71	.0022	600	22-1845	P688-0022	D6-222	PTE6D2	GP2M-0022	6TM-D22
C72	1000	500	22-2163	1464-001	IR5D1		MS-21	Fixed Trimmer
C73	150	500	22-470	1468-00015	D6-151	5W5T15	GP2K-150	Differentiator Net
C74	.01	400	22-1846	P488-01	D6-103	PTE4S1	82L-01	4TM-S1
C75	33	200	22-2168	SI33	D6-330	5W5Q3	GP1K-33	19C24
C76	680	500	22-2034	SI680	D6-681	IW5T7	GP2K-680	1FM-37
C77	.001	1000	22-1851	P1088-001		PTE16D1	MB-D1	Hor. Sweep Coupling
C78	.0022	600	22-1814	P688-0022	D6-222	PTE6D2	GP2M-0022	6TM-D22
C79	.001	600	22-2128	P688-001	D6-102	PTE6D1	6TM-D1	Hor. Feedback
C80	.047	600	22-1844	P688-047	DF-503	PTE6S5	6TM-S47	Hor. Output Screen
C81	.33	200	22-2159	P288-33		GT2P25	2TM-P25	Hor. Output Cathode
C82	.0033	600	22-2248	P688-0033	D6-332	PTE6D3	GP2M-0033	6TM-D3
C83	.1	400	22-2061	P488-1		PTE4P1	4TM-P1	Fixed Trimmer *
C84	.15	400	22-2261	P488-15			4TM-P15	Damper Filter
C85	.47	200	22-2244	P288-47		GT2P5	2TM-P47	Damper Filter
C86	500	20000	22-1832	HV20C	TV3-502			Hor. Sweep Coupling
C87	.0047	600	22-1782	P688-0047	D6-472	PTE6D5	GP2M-0047	HV Filter
C88	.0033	600	22-2248	P688-0033	D6-332	PTE6D3	GP2M-0033	Line Filter
							6TM-D3	Vert. MV. Plate ↑

* Chassis 24H20 uses .0047 MFD in this application.

† Used only in chassis 24H20.

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	
R1A	500KΩ	½	63-2125	Q13-133	AG-60-Z	BSK-60-S	Volume control
B	Shaft		Not Req.	Not Req.	KSS-3	Not Req.	Attach to RIA per instructions
C	Switch		Not Req.		76-1	SW-A	Attach to RIA per instructions
R2A	5KΩ	½	63-1674	Q11-114	AG-19-3	AN-10	Vert. Linearity control
B	Shaft		Not Req.	RQ	FKS-1/4	AK-1	Attach to R2A per instructions
R3A	100KΩ		63-2126	Q11-128	AM-49-S	AN-40	Brightness control
B	Shaft		Not Req.	Not Req.	KSS-3	AK-4	Attach R3A per instructions
R4A	500KΩ	½	63-2140	Q11-133	AG-58-S	B-59	Vertical hold control
R5	150KΩ		63-2123		Not Req.	KSS-3	Attach to R4A per instructions
R6A	7.5Meg		63-2110	Q11-143	SBS-217	B-98 *	Contrast control - tapped @ 100KΩ and 125KΩ
B	Shaft		Not Req.	RQ			Vert. size control
R7	20KΩ		63-2099		RTV-127		Attach to R6A per instructions
R8A	25KΩ		63-2153	Q11-120	AG-40-S	B-26 *	Focus control - wire wound
B	Shaft		Not Req.	RQ	FKS-1/4	Not Req.	AGC control
R9	500Ω	1	63-2050				Attach to R8A per instructions
R10A	25KΩ		63-1875	Q11-120	AG-40-S	AN-26	Buzz control - wire wound min. resistance 100Ω
B	Shaft		Not Req.	RQ	FKS-1/4	AK-1	Horiz. drive control
							Attach to R10A per instructions

* Fashion slot to duplicate original

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA				IDENTIFICATION CODES ALL RESISTORS ± 10% UNLESS OTHERWISE STATED
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.			
R11	100KΩ		63-1869		RF Amp Grid		
R12	10KΩ		63-1827		RF Amp. Plate		
R13	1500Ω		63-1967	BTS-1500	RF Amp. Decoupl		
R14	3.3Meg 20%		63-1933		Mixer Grid		
R15	47KΩ		63-1855		Mixer Screen		
R16	1000Ω		63-1785	BTS-1000	Mixer Plate		
R17	15KΩ 20%		63-1785		Osc. Grid		
R18	1300Ω 5%		63-1702		Osc. Plate		
R19	10Ω 20%		63-1702	BTS-100	Trap Coil Shunt		
R20	100Ω 20%		63-1743		Decoupl		
R21	33KΩ		63-1849		1st Video IF Transformer Shunt		
R22	100Ω		63-1743		1st Video IF Amp. Cathode		
R23	47Ω 20%		63-1772	BTS-470	1st Video IF Amp. Decoupl		
R24	1000Ω		63-1785	BTS-1000	AGC Network		
R25	47Ω		63-1772	BTS-470	AGC Network		
R26	100Ω		63-1743	BTS-100	2nd Video IF Amp. Cathode		
R27	47Ω 20%		63-1772	BTS-470	Decoupl		
R28	47Ω 20%		63-1772	BTS-470	AGC Network		
R29	100Ω		63-1743	BTS-100	3rd Video IF Amp. Cathode		
R30	47Ω 20%		63-1772	BTS-470	3rd Video IF Amp. Decoupl		
R31	47KΩ		63-1855		4th Video IF Transformer Shunt		
R32	180Ω		63-1754	BTS-180	4th Video IF Amp. Cathode		
R33	47Ω 20%		63-1772	BTS-470	4th Video IF Amp. Decoupl		
R34	220KΩ 20%		63-1883	BTS-220K	AGC Network		
R35	68KΩ		63-1862	BTS-68K	Video Peaking Coil Shunt		
R36	4700Ω		63-1813	BTS-4700	Video Det. Diode Load		
R37	820Ω		63-1782	BTS-8200	Limiter Cathode		
R38	2200Ω		63-1799	BTS-2200	Limiter Plate		
R39	3300Ω		63-1806	BTS-3300	Limiter Plate Decoupl		
R40	2Meg 5%			BTS-2Meg-5%	Video Amp. Grid - See Note 1		
R41	82Ω		63-1782	BTS-820	Video Amp. Cathode		
R42	3300Ω		63-1806	BTS-3300	Video Amp. Plate		
R43	1Meg 20%		63-1911	BTS-1Meg	Video Output Grid		
R44	47Ω		63-1772	BTS-470	Video Output Cathode		
R45	390Ω		63-1768	BTS-390	Video Output Cathode		
R46	22KΩ		63-1841	BTS-22K	Video Peaking Coil Shunt		
R47	4700Ω		63-943	BTS-4700	Video Output Plate		
R48	4700Ω		63-943	BTS-4700	Video Output Plate		
R49	33KΩ		63-1848	BTS-33K	Video Peaking Coil Shunt		
R50	220KΩ		63-1883	BTS-220K	Voltage Divider		
R51	330KΩ		63-1890	BTS-330K	Picture Tube Grid		
R52	10KΩ 5%		63-1826	BTS-10K-5%	Isolation		
R53	470Ω		63-1772	BTS-470			

ITEM No.	RATING		REPLACEMENT DATA			
	ZENITH PART No.	IRC PART No.	RESCISTOR DATA		RESCISTOR DATA	
R54	1Meg	20%	6800Ω	1	63-1912	BTS-1Meg
R55	470Ω		3500Ω	7	63-1571	BTA-6800
R56	27KΩ		3300Ω	1	63-1772	Parasitic
R57	47KΩ		3300Ω	1	63-1890	AF Amp.
R58	3300Ω		3300Ω	2	63-1764	Sound Out
R59	5600Ω		5600Ω	3		Tone Control
R60	6800Ω		6800Ω	3	63-1997	Voltage Div.
R61	10KΩ		10KΩ	1	63-1827	Filter
R62	3500Ω		3500Ω	7	63-2136	1 3/4A-3500
R63	27KΩ		27KΩ	1	63-1845	BTS-27K
R64	22KΩ	20%	22KΩ	20%	63-1884	Voltage Div.
R65	1Meg		1Meg		63-1911	AGC Netw.
R66	15KΩ		15KΩ	1	63-1065	Sync Sep.
R67	68KΩ		68KΩ	1	63-1882	Sync Sep.
R68	100KΩ		100KΩ	1	63-1894	Voltage Div.
R69	47KΩ		47KΩ	1	63-1895	Isolation
R70	100KΩ		100KΩ	1	63-1869	Integrator
R71	68Ω		68Ω	1	63-1778	Vert. MV. Plate
R72	1000Ω		1000Ω	1	63-1785	Vert. MV. Cathode
R73	390KΩ		390KΩ	1	63-1894	Vert. MV. Screen
R74	390KΩ		390KΩ	1	63-1894	Vert. MV. Output
R75	100KΩ		100KΩ	1	63-1895	Vert. MV. Cathode
R76	100KΩ	20%	100KΩ	20%	63-1869	Vert. MV. Screen
R77	33KΩ		33KΩ	1	63-1957	Vert. MV. Output
R78	16KΩ		16KΩ	1	63-1838	Vert. MV. Cathode
R79	22KΩ	20%	22KΩ	20%	63-1884	Vert. MV. Screen
R80	150KΩ		150KΩ	1	63-1813	Vert. MV. Output
R81	220KΩ		220KΩ	1	63-1883	Voltage Div.
R82	220KΩ		220KΩ	1	63-1883	Vert. MV. Cathode
R83	1800Ω		1800Ω	1	63-1201	Vert. MV. Screen
R84	100Ω		100Ω	1	63-1743	Vert. MV. Output
R85	4700Ω		4700Ω	1	63-1785	Vert. MV. Cathode
R86	1Meg		1Meg	1	63-1911	Vert. MV. Screen
R87	470Ω		470Ω	1	63-1911	Vert. MV. Output
R88	4700Ω		4700Ω	1	63-1813	Vert. MV. Cathode
R89	1Meg		1Meg	1	63-1911	Vert. MV. Screen
R90	100KΩ	20%	100KΩ	20%	63-1869	Vert. MV. Output
R91	1.5Meg	20%	1.5Meg	20%	63-1919	Vert. MV. Cathode
R92	100KΩ		100KΩ	1	63-2137	Vert. MV. Screen
R93	3300Ω	20%	3300Ω	20%	63-1997	Decoupl
R94	100KΩ		100KΩ	1	63-1997	Vert. MV. Output
R95	47Ω		47Ω			

TV PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

SPRAGUE PART No.	IDENTIFICATION CODES AND INSTALLATION NOTES		REPLACEMENT DATA		IDENTIFICATION CODES	
	ITEM No.	RATING		ZENITH PART No.		
		RESISTANCE	WATTS			
C32	R54	1Meg	20%	63-1912	BTS-1Meg	Inter-Carrier Sound Amp. Grid
STM-D47	R55	6800Ω		63-1571	BTA-6800	Det. Screen
TM-P1	R56	470Ω		63-1772		Parasitic Supp
TM-S15	R57	330KΩ		63-1890	BTS-330K	AF Amp. Plate
FM-31	R58	330Ω		63-1764	BTS-330	Sound Output Cathode
TM-S22	R59	5600Ω	2		BTS-5600	Tone Compensation - See Note 2
ECI	R60	6800Ω	3	65-1997		Voltage Divider - Wire Wound
TM-P1	R61	10KΩ		63-1827	BTS-10K	Filter
FM-35	R62	3500Ω	7	63-2136	1 3/4A-3500	Filter
TM-D22	R63	27KΩ		63-1845	BTS-27K	Voltage Divider
ES-21	R64	220KΩ	20%	63-1884	BTS-220K	AGC Network
FM-315	R65	1Meg		63-1911	BTS-1Meg	Sync Sep. Grid
9C24	R66	15KΩ	1	63-1065	BTA-15K	Sync Sep. Screen
FM-37	R67	68KΩ		63-1862	BTS-68K	Sync Sep. Plate
EB-D1	R68	100KΩ		63-1869	BTS-100K	Voltage Divider
Hor. Sweep Coupling	R69	47KΩ		63-1855	BTS-47K	Isolation
TM-D22	R70	100KΩ		63-1869	BTS-100K	Integrator
TM-D1	R71	68Ω		63-1778	BTS-68	Vert. MV Grid
TM-D1	R72	1000Ω		63-1785	BTS-1000	Vert. MV Cathode
TM-S47	R73	390KΩ		63-1894	BTS-390K	Vert. MV Grid
TM-P25	R74	390KΩ		63-1894	BTS-390K	Vert. MV Grid - See Note 3
STM-D3	R75	100KΩ		63-1889	BTS-100K	Vert. MV Plate
TM-P1	R76	100KΩ	20%	63-1869	BTS-100K	Vert. MV Plate
TM-P15	R77	68KΩ	20%	63-1863	BTS-68K	Voltage Divider
TM-P47	R78	3.3Meg	20%	63-1933	BTS-3.3Meg	Vert. Amp. Grid
STM-D47	R79	470Ω		63-1772	BTS-470	Vert. Amp. Cathode
STM-D3	R80	150KΩ		63-1876	BTS-150K	Vert. Output Transformer Shunt
HV Filter	R81	220KΩ		63-1883	BTS-220K	Voltage Divider
Line Filter	R82	220KΩ		63-1883	BTS-220K	Voltage Divider
Vert. MV. Plate †	R83	1800Ω	3	63-1201		Vert. Amp. Plate - Wire Wound
LATION NOTES	R84	100Ω		63-1743	BTS-100	Picture Control Network
control	R85	1000Ω		63-1785	BTS-1000	Picture Control Coil Shunt
to RIA per instructions	R86	1Meg		63-1911	BTS-1Meg	Horiz. Phase Disc Diode Load
to RIA per instructions	R87	1Meg		63-1911	BTS-1Meg	Horiz. Phase Disc. Diode Load
linearity control	R88	4700Ω		63-1813	BTS-4700	Horiz. Phase Disc Diode Load
to R2A per instructions	R89	1Meg		63-1911	BTS-1Meg	Horiz. AFC Filter Network
ess control	R90	100KΩ	20%	63-1869	BTS-100K	Horiz. AFC Filter Network
R3A per instructions	R91	1.5Meg	20%	63-1919	BTS-1.5Meg	AGC Network
l hold control	R92	100KΩ	1	63-2137	BTA-100K	Horiz. AFC Plate
to R4A per instructions	R93	3300Ω	20%	63-1997	BTS-3300	Decoupl
l control - tapped @ 100KΩ and 125KΩ	R94	100KΩ		63-1889	BTS-100K	Horiz. Osc. Grid
size control	R95	470Ω		63-1772	BTS-470	Horiz. Osc. Cathode
to R6A per instructions	R96	47KΩ		63-1855	BTS-47K	Voltage Divider
control - wire wound	R97	33KΩ	1	63-957	BTA-33K	Horiz. Osc. Plate
control	R98	18KΩ		63-1838	BTS-18K	Horiz. Discharge Network
to R8A per instructions	R99	220KΩ	20%	63-1884	BTS-220K	Horiz. Discharge Grid
control - wire wound min. resistance 100Ω	R100	68Ω		63-1904	BTS-68K	Horiz. Discharge Plate
drive control	R101	4700Ω		63-1813	BTS-4700K	Horiz. Peaking
to R10A per instructions	R102	150Ω	20%	63-1751		Parasitic Supp
control	R103	150Ω	20%	63-1751		Parasitic Supp
to R10 per instructions	R104	470KΩ	20%	63-1898	BTS-470K	Parasitic Supp
control - wire wound	R105	150Ω	5	63-2134	1 3/4A-150	Horiz. Output Grid
control	R106	47Ω	20%	63-1983	BW-2-47	Horiz. Output Cathode - Wire Wound
control - wire wound min. resistance 100Ω	R107	100Ω	20%	63-1744		Horiz. Output Cathode
drive control	R108	100Ω	20%	63-1744		Parasitic Supp
to R10A per instructions	R109	15KΩ	10	63-2135	1 3/4A-15K	Horiz. Output Screen
control	R110	100KΩ	2	63-1982	BTB-100K	Horiz. Feedback
control	R111	100KΩ	2	63-1982	BTB-100K	Horiz. Feedback
control	R112	2.2Ω		63-2114		HV Rectifier Filament
control	R113	470KΩ		63-1898		HV Filter
control	R114	4000Ω	5	63-2017	1 3/4A-4000	Focus Coil Shunt - Wire Wound
control	R115	4000Ω	5	63-2017	1 3/4A-4000	Focus Coil Shunt - Wire Wound
control	R116A	200Ω	3	63-2103	1 3/4A-400	Filter
control	R117	100KΩ	20%	63-1869	BTS-100K	Filter
control	R118	100KΩ		63-1869	BTS-100K	Isolation
control	R119	47KΩ		63-1855	BTS-47K	Integrator - See Note 4
control	R120	4700Ω		63-1813	BTS-4700	Integrator - See Note 4
control	R121					Voltage Divider - See Note 4

† Set slider to read 200Ω from each end.

Note 1. Some models use 2.2meg resistor in this application.

Note 2. Some models use 4700Ω resistor in this application.

Note 3. Not used in all models.

Note 4. Not used in chassis 24H21.

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA	
	PRI.	SEC. 1	SEC. 2	SEC. 3		
T1	117VAC @ 2.18A	720VCT @ .210A	5VAC @ 2.84A tapped @ 440V .120ADC	5VAC @ 1.8A SEC. 4 12.6VAC @ 3.77A	95-1245	

TRANSFORMER (SWEEP CIRCUITS)

ITEM No.	RATING		REPLACEMENT DATA	NOTES
	DC RESISTANCE	PRI. SEC.		
	ZENITH PART No.	STANCOR PART No.		
T2	39Ω tapped ① 3Ω	0Ω 6Ω tapped @ 1.1Ω	S-17233	
T3	700Ω	11Ω	95-1740	A-8113 ①
T4A	18Ω		95-1246	DY-7
B	52Ω			H-3035 ①
T5	3300Ω			TSO-5 ①
				MD-70F

① Drill one new mtg. hole.

TRANSFOR

ITEM No.	RATING		ZENITH PART No.
	IMPEDANCE	DC RES.	
	PRI. PRI.	SEC. SEC.	
T6	8700Ω	4.5Ω	710Ω .1Ω

ITEM No.	RATINGS		ZENITH PART No.
	FIELD RES.	V. C. IMP.	
	PRI.	V. C. DIA.	
SP1A	PM	4.2Ω	49-694 ③
B	PM	4.2Ω	49-687 ④
C	PM	4.2Ω	49-649 ⑤
SP2A	11 1/2"	1"	ZC12161
B	11 1/2"	1"	ZC12161
C	9 1/2"	1"	ZC10161

ITEM No.	RATINGS		ZENITH PART No.
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	
		INDUCTANCE (0 CURRENT 1000μA)	
L1	.170A	100Ω	95-17173

ITEM No.	USE		DC RES.	ZENITH PART No.
	PRI.	SEC.		
L2	Ant. Coil		.4Ω	S-17173
L3	Conv. Plate		.2Ω	S-17104
L4	Osc. Coil		0Ω	S-16265
L5	Trap Coil		0Ω	S-16501
L6	1st Video IF		.1Ω	S-16274
L7	2nd Video IF		.1Ω	S-16275
L8	Fil. Choke		.1Ω	S-16984
L9	3rd Video IF		.1Ω	S-16604
L10	4th Video IF		.1Ω	S-16605
L11	5th Video IF		.1Ω	S-17472
L12	Peaking		9Ω	S-17504
L13	Peaking		1.6Ω	S-15128
L14	Peaking		5.3	S-17505
L15	Peaking		17Ω	S-17053
L16	4.5 MC Trap		1.6Ω	S-17116
L17	Peaking		7.8Ω	S-17052
L18	1st Sound IF		1.8Ω	S-16855
L19	RF Choke		7.8	S-16011
L20	2nd Sound IF		6Ω	S-16738
L21	Quadrature			
L22	Coil		4.7Ω	S-16013
L23	Horiz. Osc.		138Ω	S-17114
L24	Horiz. Lin.		10Ω	S-17176
L25	Width Coll		6.7Ω	S-17175
	Picture			
	Expander Coil		120Ω	S-17400

ITEM No.	PART NAME		ZENITH PART No.
	PRI.	SEC.	
M2	RF Tuner		S-17099
M3	Fuse		136-22
M4		103-1	
M5A	Crystal		103-1
B	Integrator Unit		87-1
M6	Switch		85-488
M7A	Ion Trap		S-17164
B	Ion Trap		S-17461
Channel Strip Assembly			S-16862
Channel Strip Assembly			S-16863
Channel Strip Assembly			S-16864
Channel Strip Assembly			S-16865
Channel Strip Assembly			S-16866
Channel Strip Assembly			S-16867
Channel Strip Assembly			S-16868
Channel Strip Assembly			S-16869
Safety Glass			192-137
Escutcheon			57-1679
Escutcheon			57-1678
Knob			46-889
Knob			46-888
Knob			46-895
Knob			46-887
Knob			46-893
Knob			46-885
Knob			46-883
Knob			46-890

ND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

IRC PART No.		IDENTIFICATION CODES
BTS-1Meg		Inter-Carrier Sound Amp. Grid
BTA-6800		Det. Screen
		Parasitic Supp
BTS-330K		AF Amp. Plate
BTS-330		Sound Output Cathode
BTS-5600		Tone Compensation - See Note 2
BTS-10K		Voltage Divider - Wire Wound
1 3/4A-3500		Filter
BTS-27K		Filter
BTS-220K		Voltage Divider
BTS-1Meg		AGC Network
BTA-15K		Sync Sep. Grid
BTS-68K		Sync Sep. Screen
BTS-100K		Sync Sep. Plate
BTS-47K		Voltage Divider
BTS-100K		Isolation
BTS-680		Integrator
BTS-1000		Vert. MV Grid
BTS-390K		Vert. MV Cathode
BTS-390K		Vert. MV Grid
BTS-100K		Vert. MV Grid - See Note 3
BTS-100K		Vert. MV Plate
BTS-68K		Vert. MV Plate
BTS-3.3Meg		Voltage Divider
BTS-470		Vert. Amp. Grid
BTS-150K		Vert. Amp. Cathode
BTS-220K		Vert. Output Transformer Shunt
BTS-220K		Voltage Divider
		Voltage Divider
BTS-100		Vert. Amp. Plate - Wire Wound
BTS-1000		Picture Control Network
		Picture Control Coil Shunt
BTS-1Meg		Horiz. Phase Disc Diode Load
BTS-1Meg		Horiz. Phase Disc. Diode Load
BTS-4700		Horiz. Phase Disc Diode Load
BTS-1Meg		Horiz. AFC Filter Network
BTS-100K		Horiz. AFC Filter Network
BTS-1.5Meg		AGC Network
BTA-100K		Horiz. AFC Plate
BTS-3300		Decoup
BTS-100K		Horiz. Osc. Grid
BTS-470		Horiz. Osc. Cathode
BTS-47K		Voltage Divider
BTA-33K		Horiz. Osc. Plate
BTS-18K		Horiz. Discharge Network
BTS-220K		Horiz. Discharge Grid
BTS-680K		Horiz. Discharge Plate
BTS-4700K		Horiz. Peaking
		Parasitic Supp
		Parasitic Supp
BTS-470K		Horiz. Output Grid
1 3/4A-150		Horiz. Output Cathode - Wire Wound
BW-2-47		Horiz. Output Cathode
		Parasitic Supp
		Parasitic Supp
1 3/4A-15K		Horiz. Output Screen
BTB-100K		Horiz. Feedback
BTB-100K		Horiz. Feedback
		HV Rectifier Filament
		HV Filter
1 3/4A-4000		Focus Coil Shunt - Wire Wound
1 3/4A-4000		Focus Coil Shunt - Wire Wound
3/4 AA-400		Filter
		Filter
		Isolation
BTS-100K		Integrator - See Note 4
BTS-100K		Integrator - See Note 4
BTS-47K		Voltage Divider - See Note 4
BTS-4700		

d. this application.

TRANSFORMER (POWER)

REPLACEMENT DATA			
ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
95-1245			

FORMER (SWEEP CIRCUITS)

REPLACEMENT DATA			NOTES
STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
A-8113 DY-7	H-3035 MD-70F	TSO-5	Horiz. output trans. Vert. output trans. Horiz. deflection coil Vert. deflection coil EM-PM focus coil

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING				REPLACEMENT DATA				INSTALLATION NOTES
	IMPEDANCE		DC RES.		ZENITH PART No.	STANCO PART No.	MERIT PART No.	CHICAGO PART No.	
	PRI. SEC.	SEC. PRI.	PRI. SEC.	SEC. PRI.					
T6	87000	4.5Ω	7100	.1Ω	95-1247	A-3879	A-3020	RO-16	

SPEAKER

ITEM No.	RATINGS		REPLACEMENT DATA			INSTALLATION NOTES
			ZENITH PART No.	JENSEN PART No.	QUAM PART No.	
SP1A	FIELD RES.	V. C. IMP.				
	PM	4.2Ω	49-694	③	ST-102 ② MOD. P12-S	12A4A
	PM	4.2Ω	49-687	④	ST-102 ② MOD. P12-S	12A4A
C	PM	4.2Ω	49-649	⑤	ST-119 ② MOD. P10-T	10A4A
CONE DIA.		V. C. DIA.				② Replace output trans. to match 6-BQ voice coil. ③ Used in combination receivers. ④ Used in models H2439R, H2449E ⑤ Used in models H2437E, R, H2438R, H2445R, H2447R.
SP2A	B	1 1/2"	1"	ZC12161		
B	1 1/2"	1"		ZC12161		
C	9 1/2"	1"		ZC10161		

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA			INSTALLATION NOTES
	TOTAL DIRECT CURRENT	D. C. RESISTANCE	INDUCTANCE (0 CURRENT 1000 v)	ZENITH PART No.	STANCOR PART No.	MERIT PART No.	
1-1	170A	1000		05-1218	C-2235	C-2096	

COLLIS (RE-IE)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	ZENITH PART No.	MEISSNER PART No.	
L2	Ant. Coil	.4Ω		S-17173		
L3	Conv. Plate Coil	.2Ω		S-17104		
L4	Osc. Coil	0Ω		S-16265		Tap at .1Ω
L5	Trap Coil	0Ω		S-1850L		
L6	1st Video IF	.1Ω		S-16274		
L7	2nd Video IF	.1Ω	.1Ω	S-16275		
L8	Fil. Choke	.1Ω		S-16984		
L9	3rd Video IF	.1Ω	.1Ω	S-16804		
L10	4th Video IF	.1Ω	.1Ω	S-16805		
L11	5th Video IF	.1Ω	.1Ω	S-17472		
L12	Peaking	9Ω		S-17504		
L13	Peaking	1.6Ω		S-15128		
L14	Peaking	5.3		S-17505		
L15	Peaking	17Ω		S-17053		
L16	4.5 MC Trap	1.6Ω		S-17116		
L17	Peaking	7.8Ω		S-17052		
L18	1st Sound IF	1.8Ω	.8Ω	S-18855		
L19	RF Choke	7.8		S-16011		
L20	2nd Sound IF	6Ω		S-16738		Tap at 2.2Ω
L21	Quadrature Coil	4.7Ω		S-16013		
L22	Horiz. Osc. Coil	138Ω		S-17114		Tap at 57Ω (Horiz. hold control)
L23	Horiz. Lin.	10Ω		S-17176		
L24	Width Coil	6.7Ω		S-17175		Tap at 5.7Ω
L25	Picture Exander Coil	120Ω	1Ω	S-17400		

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					ZENITH PART No.		
M1	Bayonet	6-8	.15	Brown	100-67		Type Number 47

MISCELLANEOUS

MISCELLANEOUS			
ITEM No.	PART NAME	ZENITH PART No.	NOTES
M2	RF Tuner	S-17099	Less Turret
M3	Fuse	136-22	.25A 250V Type 3AG
M4	Crystal	103-1	Video Det. IN-64
M5A	Crystal	103-1	Integrator IN-64 Chassis 24H21
B	Integrator Unit	87-1	Chassis 24H20
	Switch	85-488	Picture Expander
M6	Ion Trap	S-17164	Chassis 24H21
M7A	Ion Trap	S-17451	Chassis 24H20
B	Channel Strip Assembly	S-16882	Channel 2
	Channel Strip Assembly	S-16863	Channel 3
	Channel Strip Assembly	S-16884	Channel 4
	Channel Strip Assembly	S-16885	Channel 5
	Channel Strip Assembly	S-16886	Channel 6
	Channel Strip Assembly	S-16887	Channel 7
	Channel Strip Assembly	S-16888	Channel 8
	Channel Strip Assembly	S-16889	Channel 9
	Channel Strip Assembly	S-16870	Channel 10
	Channel Strip Assembly	S-16871	Channel 11
	Channel Strip Assembly	S-16872	Channel 12
	Channel Strip Assembly	S-16873	Channel 13
	Safety Glass	192-137	Models H2437E, H2437R, H2438R, H2439R, H2449E
Escutcheon	57-1679	Channel Sel. Models H2437E, H2438R, H2437R, H2439R, H2449E	
	57-1678	Volume Control Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-889	Channel Sel. Models H2437E, H2449E	
Knob	46-888	Channel Sel. Models H2437R, H2438R, H2439R, H2449E	
Knob	46-895	Fine Tuning Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-887	Horiz. Hold Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-893	Brightness Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-885	Contrast Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-833	Volume Models H2437E, H2437R, H2438R, H2439R, H2449E	
Knob	46-890	Volume Models H2437R, H2438R, H2439R	

RADIO PARTS LIST AND DESCRIPTIONS

TUBES (SYLVANIA or Equivalent)

ITEM No.	USE	REPLACEMENT DATA		RMA BASE TYPE	NOTES
		ZENITH PART No.	STANDARD REPLACEMENT		
V25	RF Amp.	6BA6	6BA6	7BK	Radio chassis 10H20
V26	Converter	12AT7	12AT7	9A	
V27	1st IF Amp.	6BA6	6BA6	7BK	
V28	2nd IF Amp.	6BA6	6BA6	7BK	
V29	Limiter	6AU6	6AU6	7BK	
V30	Discr. AVC-AF-Amp	6T8	6T8	9E	
V31	Phase Inv.	6C4	6C4	6BG	
V32	Power Output	6V6GT	6V6GT	7AC	
V33	Power Output	6V6GT	6V6GT	7AC	
V34	Rectifier	5Y3GT	5Y3GT	5T	

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		REPLACEMENT DATA					IDENTIFICATION CODES AND INSTALLATION NOTES	
	CAP.	VOLT	ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	SPRAGUE PART No.	
C89A	40	450	22-1612	AFH88J		UPT4445		TVL-2764	▲ Filter
B	40	450							▲ Filter
C90A	40	450	22-2243	AFH82J2H		UP4245		TVL-2764	▲ Filter
B	20	350							▲ Filter
C91	15		22-2140	SI15	D6-150	5W5Q2	GPIK-15	19C22	FM Ant. Coupling
C92	15		22-2140	SI15	D6-150	5W5Q2	GPIK-15	19C22	FM Ant. Isolation
C93	.05	200	22-829	P288-05	DF-503	PTE485			RF Coupling
C94	10								Fixed Trimmer
C95	1000		22-1676	SI1000	D6-102	1W5D1	GP2L-001	19C1	RF Amp. Screen
C96	30		22-1705	SI130	D6-300	5W5Q3	GPIK-30	19C24	RF Amp. Cathode
C97	100		22-5	SI100	D6-101	5W5T1	GPIK-100	19C11	RF Amp. Plate Dec.
C98	22		22-1506	SI22N080			N080-331-22		Fixed Trimmer
C99	1000		22-1676	SI1000	D6-102	1W5D1	GP2L-001	19C1	RF Coupling
C100	1		22-1762		TCZ-1				Osc. Coupling
C101	50		22-1367	SI50	D6-500	5W5Q5	GPIK-50	19C28	Osc. Grid Cap
C102	22		22-1506	SI22N080			N080-331-22		Fixed Trimmer
C103	1000		22-1676	SI1000	D6-102	IW5D1	GP2L-001	19C1	Osc. Plate Dec.
C104	1000		22-1676	SI1000	D6-102	IW5D1	GP2L-001	19C1	RF Coupling
C105	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	Conv. Plate Dec.
C106	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	AVC Filter
C107	.002	600	22-492	P688-002	D6-202	PTE6D2	GP2M-002	6TM-D2	Audio Coupling
C108	.002	600	22-1220	P688-002	D6-202	PTE6D2	GP2M-002	6TM-D2	1st IF Decoupling
C109	.002	600	22-1220	P688-002	D6-202	PTE6D2	GP2M-002	6TM-D2	2nd IF Decoupling
C110	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	2nd IF Cathode
C111	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	2nd IF Fil.
C112	200		22-1668	SI1200	D6-301	5W5T2	GP2K-300	19C30	Diode RF Filter
C113	100		22-5	SI100	D6-101	5W5T1	GPIK-100	19C11	Diode RF Filter
C114	100		22-5	SI100	D6-101	5W5T1	GPIK-100	19C11	Diode RF Filter
C115	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	RF Bypass
C116	25		22-1887	SI125	D6-250	5W5Q25	GPIK-25	19C27	IF Coupling
C117	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	Limiter Decoupling
C118	.001	600	22-1203	P688-001	D6-102	PTE6D1	GP2L-001	6TM-D1	De-emphasis
C119	.05	200	22-829	P288-05	DF-503	PTE485		2TM-S5	Osc. Grid Cap
C120	50		22-1761	SI150	D6-500	5W5Q5	GPIK-50	19C28	Osc. Feedback
C121	.02	600	22-830	P688-02	DF-203	PTE682		6TM-S2	Audio Coupling
C122	1000	500	22-348	I468-001	D6-102	IW5D1	GP2L-001	1FM-21	Tone Comp.
C123	.001	600	22-1203	P688-001	D6-102	PTE6D1	GP2L-001	6TM-D1	Tone Comp.
C124	.05	200	22-178	P288-05	DF-503	PTE4S5		2TM-S5	Tone Comp.
C125	.2	200	22-1531	P488-22		GT4P2		2TM-P22	Tone Comp.
C126	.75	500	22-1256	I468-000075	D6-750	5W5Q7	GPIK-75	IFM-475	Tone Comp
C127	250			SI1250	D6-251	5W5T25	GP2K-250	IFM-325	Tone Comp.
C128	10000		22-3	BPD-01	DD-103	PTE681	821-01	36C1	Audio Coupling
C129	330	500	22-1645	I468-0003	D6-331	5W5T3	GP2K-330	19C14	AF Amp. Plate
C130	.05	600	22-171	P688-05	DF-503	PTE685		6TM-S5	Audio Coupling
C131	.02	600	22-830	P688-02	DF-203	PTE682		6TM-S2	Audio Coupling
C132	.002	1600	22-1802	P1688-002		PTE16D2		MB-D2	Tone Comp.
C133	.0047	600	22-1782	P688-0047	D6-472	PTE6D5	GP2M-0047	6TM-D47	Line Filter

CONTROLS

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.	CLAROSTAT PART No.	CENTRALAB PART No.	
R118A	1Meg B Shaft C Switch	1/2	63-2139 Not req. Not req.	Q13-137 Not req. 78-1	AG-63-Z KSS-3 SWB	AN-70 AK-4 K-155	Volume control Attach to R118A per instructions Attach to R118A per instructions

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES	
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.		
R119	1Meg		63-1912	BTS-1Meg	AVC Network	
R120	33Ω		63-1723		Parasitic Supp	
R121	68Ω		63-1737		RF Amp. Cathode	
R122	220Ω		63-1758	BTS-220	RF Amp. Screen	
R123	220Ω		63-1758	BTS-220	RF Amp. Plate Decou	
R124	10KΩ		63-1827		Osc. Grid	
R125	470Ω		63-1771		Parasitic Supp	
R126	470Ω		63-1772		Parasitic Supp	
R127	2.2Meg		63-1926		Converte Grid	
R128	2Meg	1		BTA-2Meg	AVC Network - See Note	
R129	220Ω		63-1758	BTS-220	Osc. Plate Decou	
R130	1000Ω		63-1766	BTS-1000	Converter Plate Decou	
R131	2Meg	1		BTA-2Meg	AVC Network - See Note	
R132	220K		63-1884	BTS-220K	Voltage Divider	
R133	22KΩ	2	63-2141	BTS-22K	Voltage Divider	
R134	1500Ω		63-1793	BTS-1500+	1st IF Amp. Decoup	
R135	47KΩ		63-1855	BTS-47K	Voltage Divider	
R136	10KΩ		63-1827	BTS-10K	Voltage Divider	
R137	4700Ω	2	63-966	BTS-4700	Filter	
R138	100Ω		63-1744	BTS-100	2nd IF Amp. Cathode	
R139	820Ω		63-2091	BW-1-820	2nd IF Amp. Decoup - Wire Wound	

RADIO PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.	
R140	100KΩ		63-1869	BTS-100K	Limiter Grid
R141	27KΩ		63-1845	BTS-27K	Limiter Decoup
R142	150KΩ		63-1876	BTS-150K	Disc Diode Load
R143	150KΩ		63-1876	BTS-150K	Disc Diode Load
R144	33KΩ		63-1848	BTS-33K	De-emphasis
R145	100KΩ		63-1869	BTS-100K	AVC Network
R146	22KΩ		63-1842	BTS-22K	AVC Diode Filter
R147	22KΩ		63-1842	BTS-22K	AVC Diode Filter
R148	220KΩ		63-1884	BTS-220K	AVC Network
R149	33Ω		63-1764	BTS-330	Tone Control Network
R150	33Ω		63-1722	BW-½-33	Tone Control Network
R151	33Ω		63-1722	BW-½-33	Tone Control Network
R152	1Meg		63-1912	BTS-1Meg	Tone Control Network
R153	4700Ω			BTS-4700	Tone Control Network
R154	68KΩ			BTS-68K	Tone Control Network
R155	68Ω			BTS-680	Tone Control Network
R156	4.7Meg		63-1940	BTS-4.7Meg	AF Amp. Grid
R157	220KΩ		63-1864	BTS-220K	AF Amp. Plate
R158	330KΩ		63-1890	BTS-330K	Inverter Grid
R159	220Ω		63-1799	BTS-2200	Inverter Cathode
R160	47KΩ		63-1855	BTS-47K	Inverter Plate
R161	470KΩ		63-1856	BTS-470K	Feedback
R162	330KΩ		63-1890	BTS-330K	Output Grid
R163	27Ω	2	63-1452	BTB-270	Output Cathode
R164	470KΩ		63-1897	BTS-470K	Output Grid
R165	6800Ω		63-1820	BTS-6800	Tone Compensation
R166A	3000Ω	10	63-2138	* 1 3/4AA-4000	Filter - Wire Wound
R167	B 1000Ω				Filter - Wire Wound
	130Ω	5	63-2142	1 3/4A-125	Filter - Wire Wound

* Set slider 1000Ω from output transformer

Note Some models use 2.2meg resistor in this application

TRANSFORMER (POWER)

ITEM No.	RATING				REPLACEMENT DATA			
	PRI.	SEC. 1	SEC. 2	SEC. 3	ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
T7	117VAC @ .93A	730VCT @ .125A	5VAC @ 1.94A	6.3VAC @ 3.25A	95-1253	PC-8410	P-3173	PV-120A

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	RATING		REPLACEMENT DATA				INSTALLATION NOTES	
	IMPEDANCE	DC RES.	ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.		
	PRI.	SEC.	PRI.	SEC.	PRI.	SEC.		
T8	9000Ω	4.5Ω	600Ω	.3Ω	95-1252	A-3870	A3027	RO-110 ① Drill one new mtg. hole.

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
		PRI.	SEC.	ZENITH PART No.	MEISSNER PART No.	
L26	FM Ant. Coil	0Ω		S-16408		
L27	FM RF Coil	0Ω		S-15743		
L28	FM Osc. Coil	0Ω		S-15691		
L29	Loop Ant.	.7Ω				One turn around rear of cabinet
L30	AM Ant. Loading Coil	3.2Ω				
L31	AM RF Coil	3.1Ω	12Ω	S-16344		
L32	AM Osc. Coil	1.6Ω	.8Ω	S-16345		
L33	1st AM IF	4.8Ω	16Ω	95-1248		
L34	1st FM IF	.5Ω	.5Ω	95-1201		
L35	2nd AM IF	4Ω	17Ω	95-1249		
L36	2nd FM IF	.4Ω	.4Ω	95-1150		
L37	3rd AM IF	17Ω	11Ω	95-1254		
L38	3rd FM IF	.4Ω	.4Ω	95-1150		
L39	Disc Trans.	.3Ω	.3Ω	95-1153		
L40	Tone Choke	2Ω		S-13800		
L41	Phono Osc. Coil	2Ω		S-12603		

PHONO CARTRIDGE and NEEDLE

ITEM No.	REPLACEMENT DATA				REMARKS	
	ZENITH PART No.	ASTATIC PART No.		SHURE PART No.		
		CARTRIDGE	NEEDLE			
M8	S-15780				Complete Unit (Cartridge and Needle)	

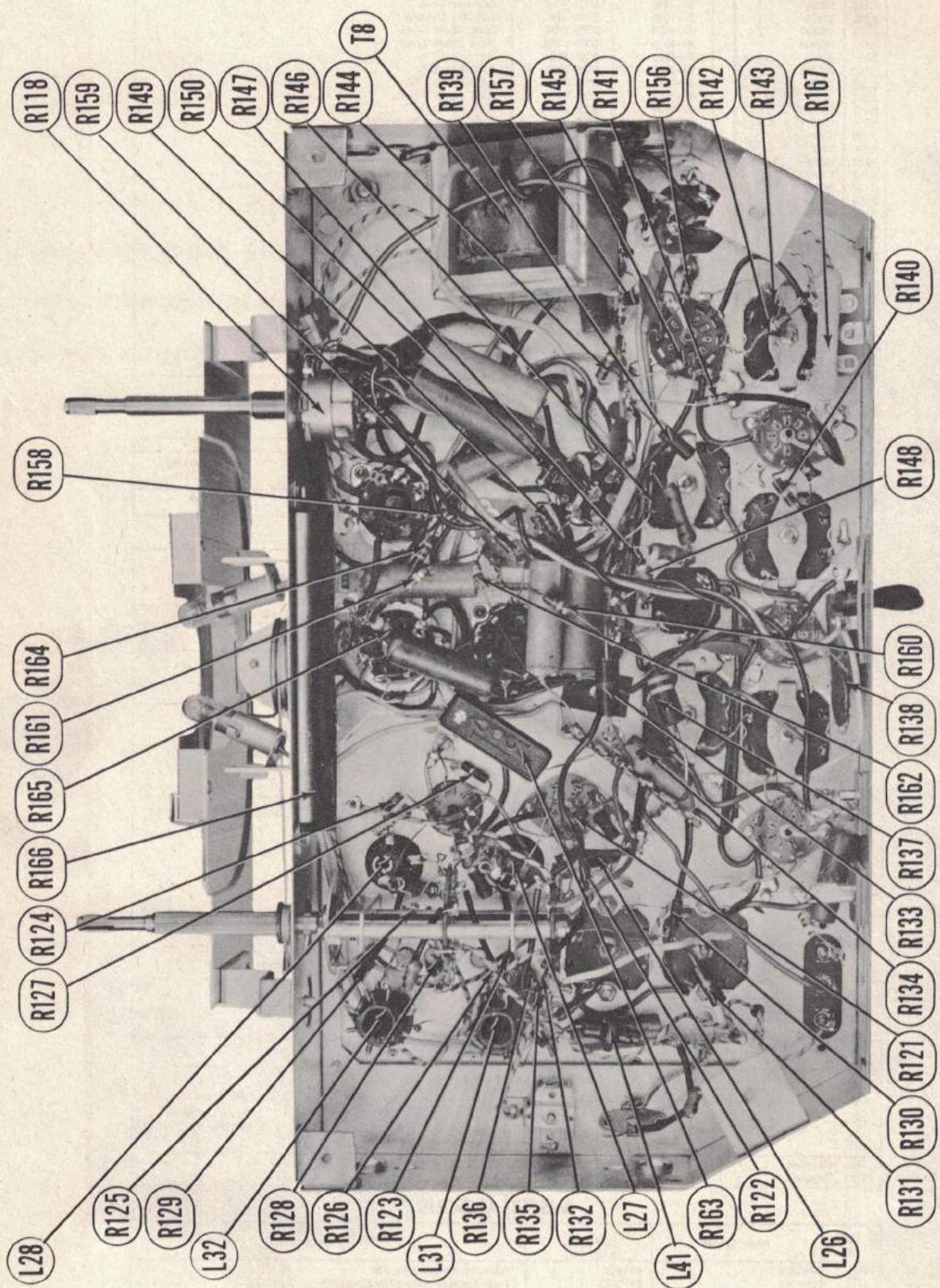
DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	BEAD COLOR	REPLACEMENT DATA		NOTES
					ZENITH PART No.		
M9	Bayonet	6-8	.15	Brown	100-67		Type #47
M10	Bayonet	6-8	.15	Brown	100-67		Type #47

MISCELLANEOUS

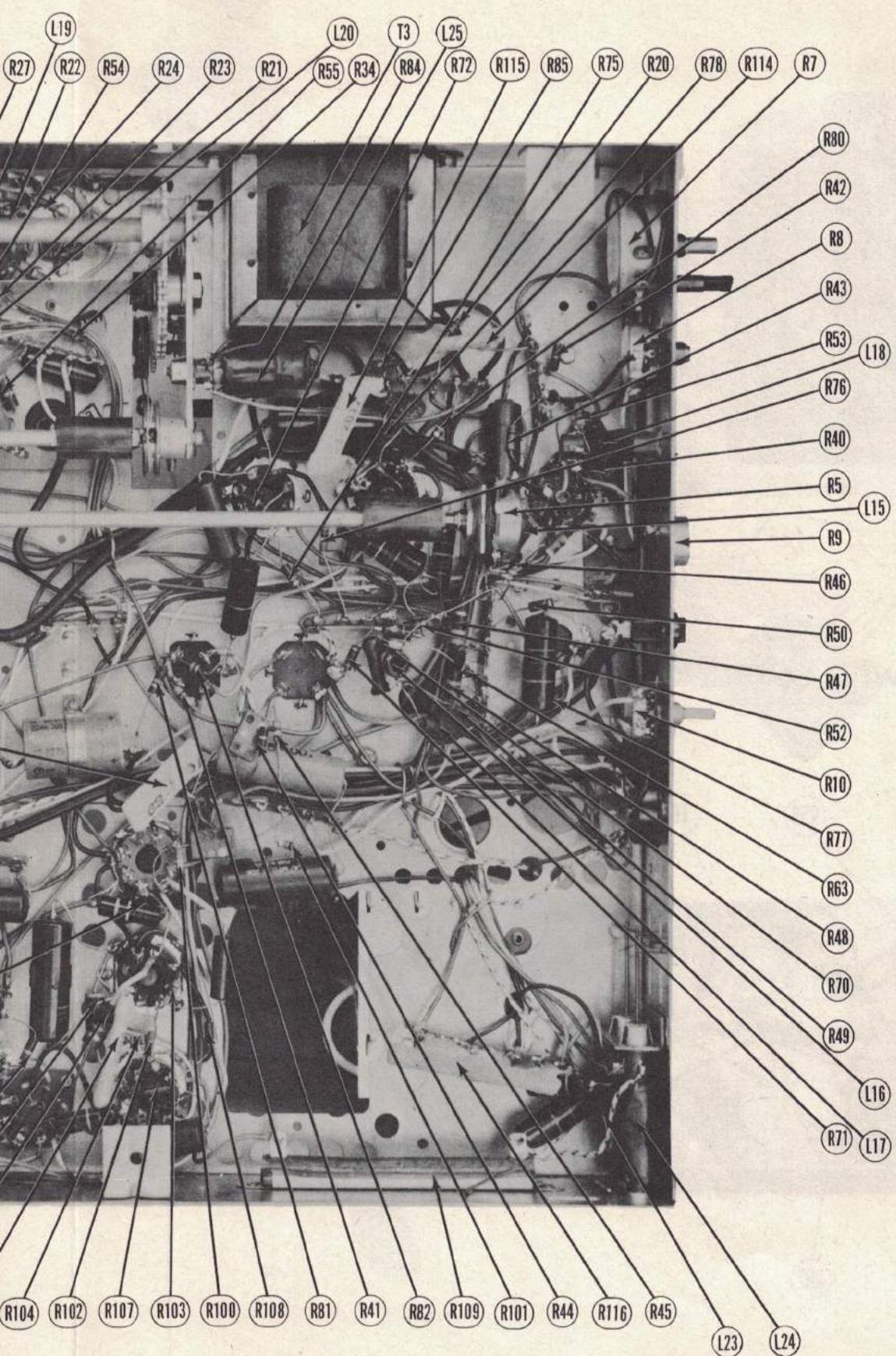
ITEM No.	PART NAME	ZENITH PART No.	NOTES
M11	Switch	85-490	
M12	Switch	S-17255	
M13	Tuning Cap	22-2104	Function Phono-AM-FM
	Tone Control Strip And Contact Assembly	S-14261	Tone Control Assembly Complete (21-488MMF, 40-222MMF, 12-164MMF) 2 Used (Included with M12)

**ZENITH MODELS H24437E, R, H24438R, H24439R, H24449E, H24445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E**

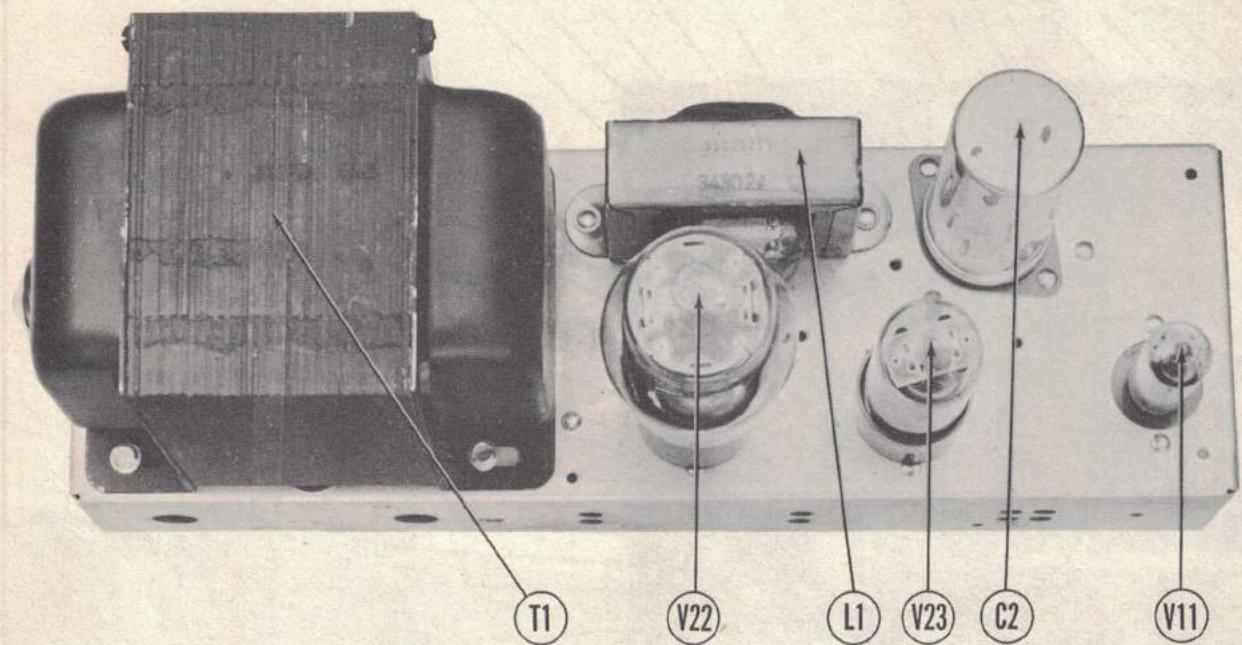


RADIO CHASSIS - BOTTOM VIEW - RESISTOR IDENTIFICATION

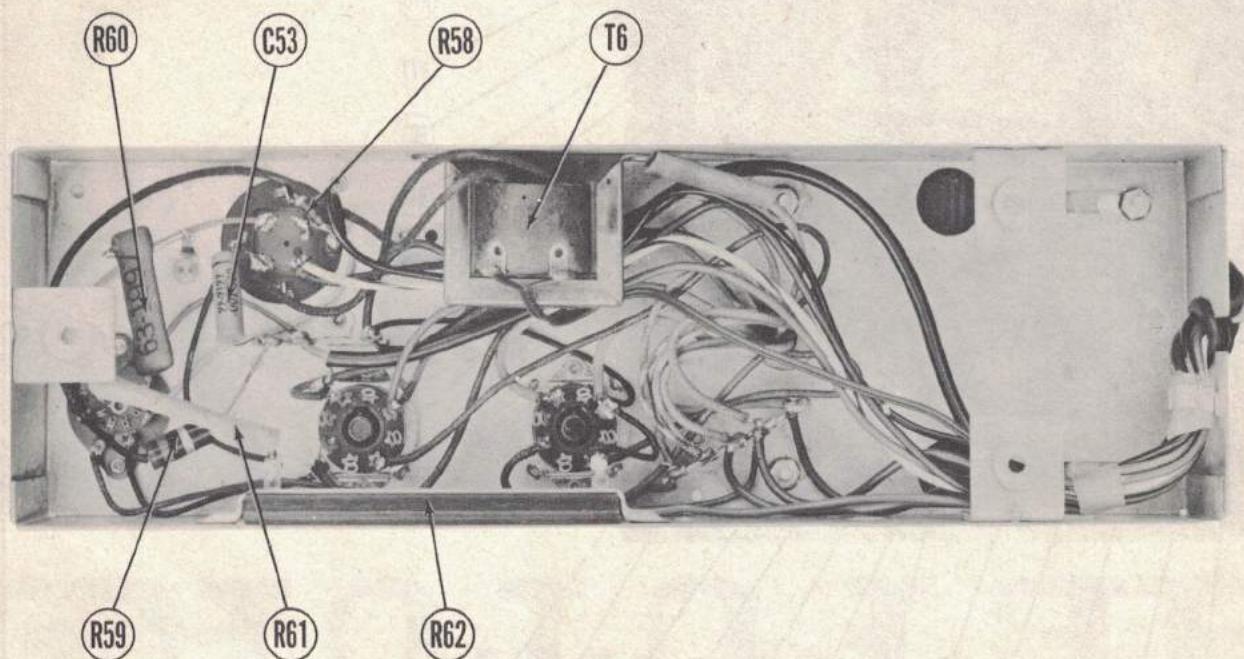
ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
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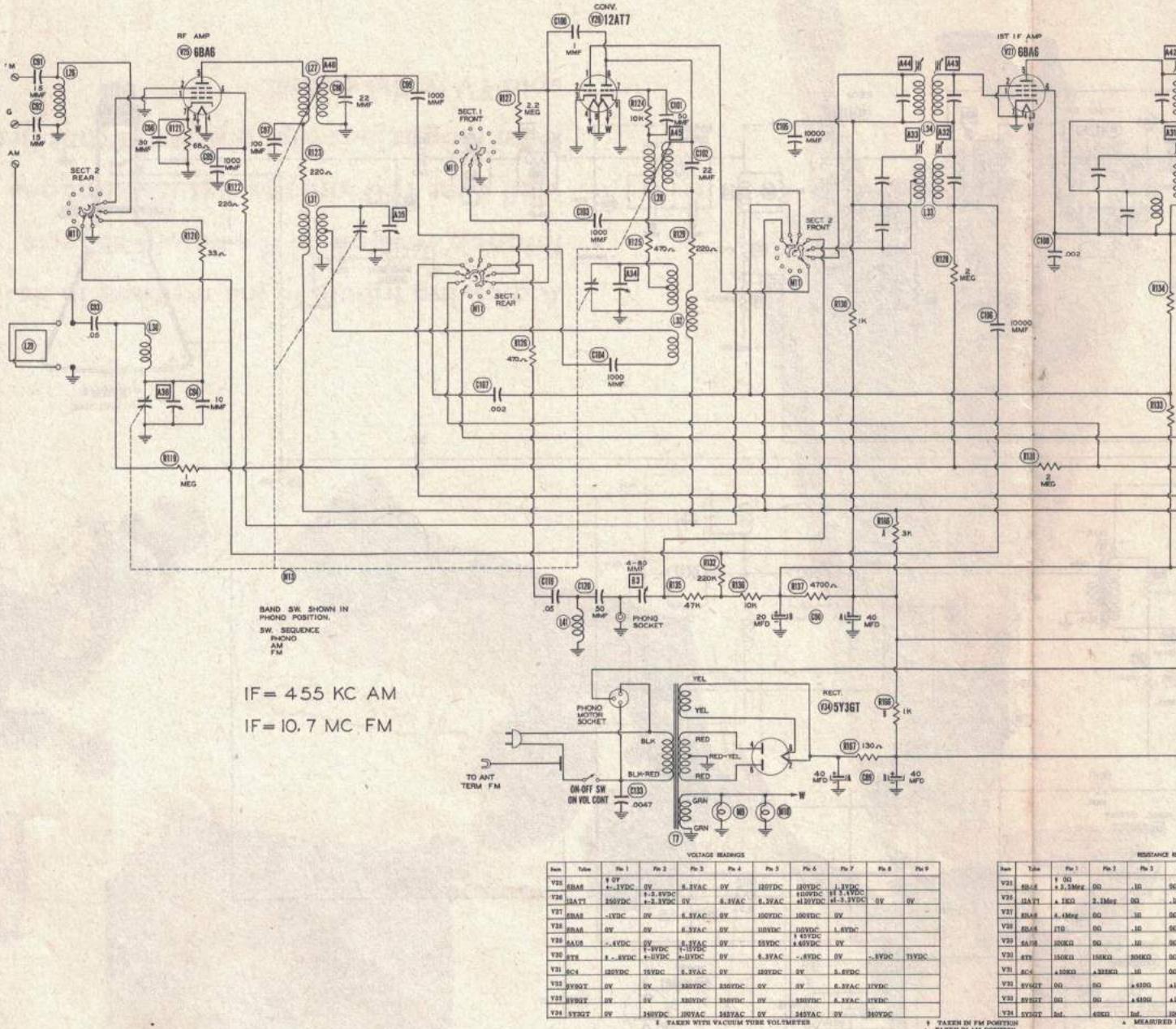
RESISTOR AND INDUCTOR IDENTIFICATION



POWER SUPPLY CHASSIS-TOP VIEW



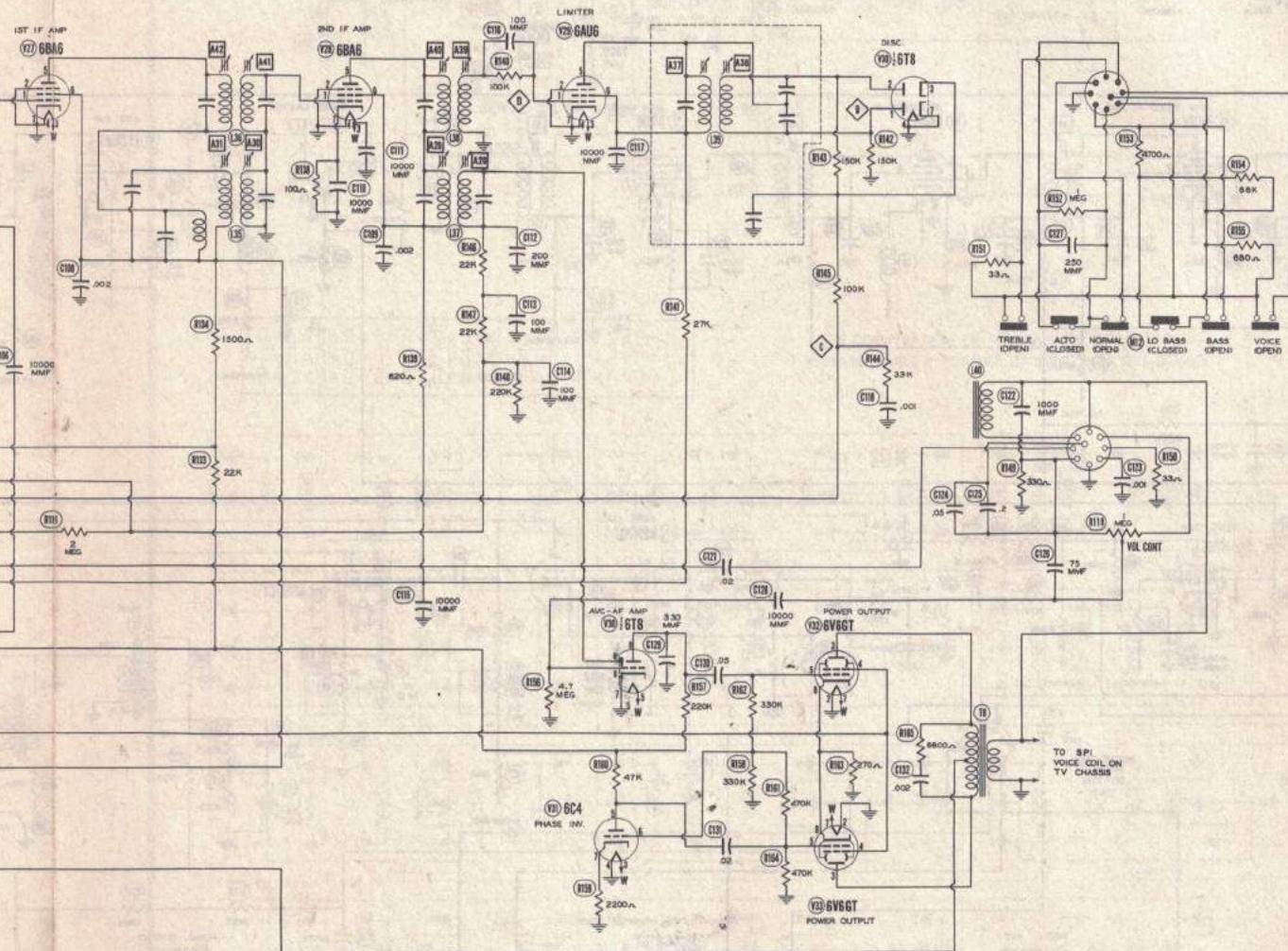
POWER SUPPLY CHASSIS-BOTTOM VIEW



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RADIO SCHEMATIC



Part	Title	RESISTANCE READINGS								
		Pn. 1	Pn. 2	Pn. 3	Pn. 4	Pn. 5	Pn. 6	Pn. 7	Pn. 8	Pn. 9
V10	SH101	+ 0.1MΩ	9Ω	1Ω	8Ω	+ 5.2KΩ	+ 4.3KΩ	8Ω		
V10	SH101	+ 0.1MΩ	9Ω	1Ω	1Ω	1Ω	+ 4.3KΩ	+ 0.1MΩ	9Ω	9Ω
V21	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 5.3KΩ	9Ω		
V21	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 5.3KΩ	10Ω		
V25	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	10Ω		
V25	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	10Ω		
V30	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V30	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V31	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V31	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V32	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V32	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V41	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V41	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V42	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		
V42	SH101	+ 0.1MΩ	9Ω	1Ω	9Ω	+ 5.2KΩ	+ 4.3KΩ	9Ω		

**ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E**