

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			

INDEX

Alignment Instructions	6, 7	Photographs (continued)	
Dial Cord Stringing	10	Chassis-Top View (TV)	3
Disassembly Instructions	11	Power Supply Chassis	22
Fine Tuning Drive Cord Stringing	10	RF Tuner	10
Horiz. Sweep Circuit Adjustment	11	Resistor Identification (Radio)	20
Parts List and Description	15 thru 19	Resistor Identification (TV)	12, 21
Photographs		Schematic (Radio)	23, 24
Cabinet-Rear View	11	Schematic (TV)	2
Capacitor Identification (Radio)	14	Tube Placement Chart (TV)	5
Capacitor Identification (TV)	4, 9	Voltage and Resistance Measurements (Radio)	23, 24
Chassis-Top View (Radio)	13	Voltage and Resistance Measurements (TV)	8

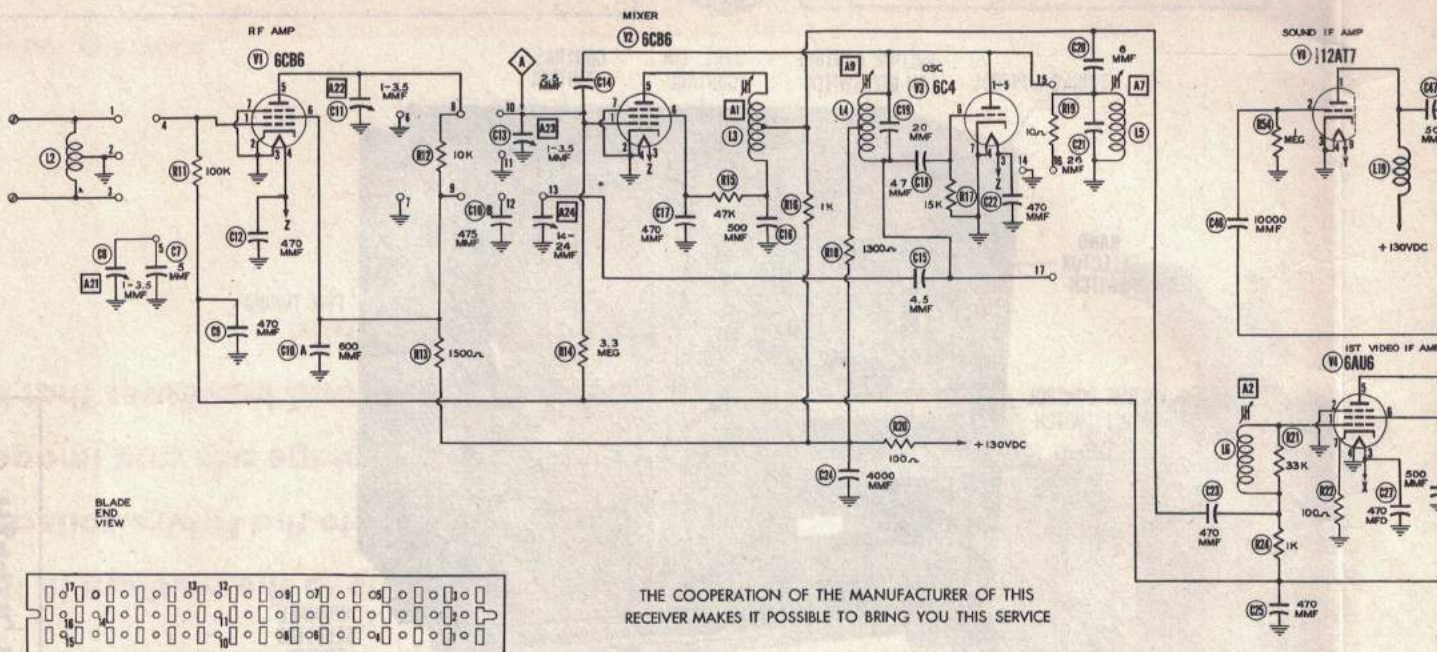
FOR SERVICE INFORMATION ON RADIO CHASSIS 8H20 SEE PHOTOFACT SET #114 FOLDER #12
RECORD CHANGER UNIT-ZENITH MODEL S14029

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

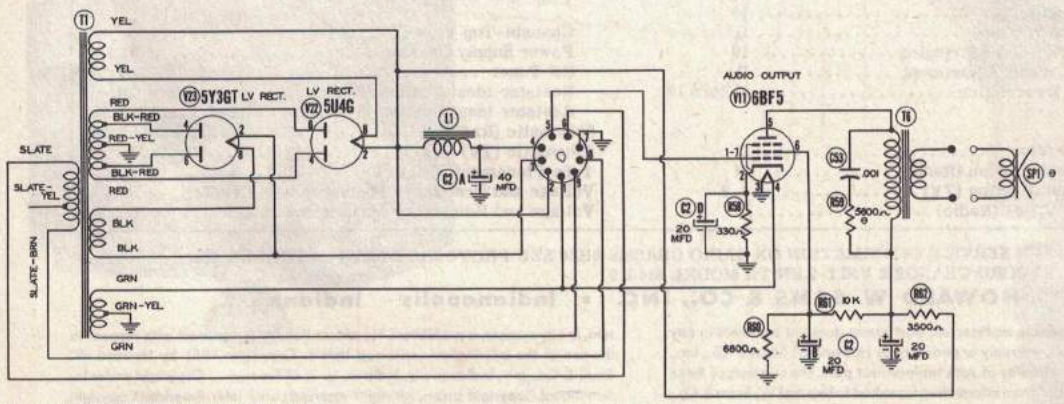
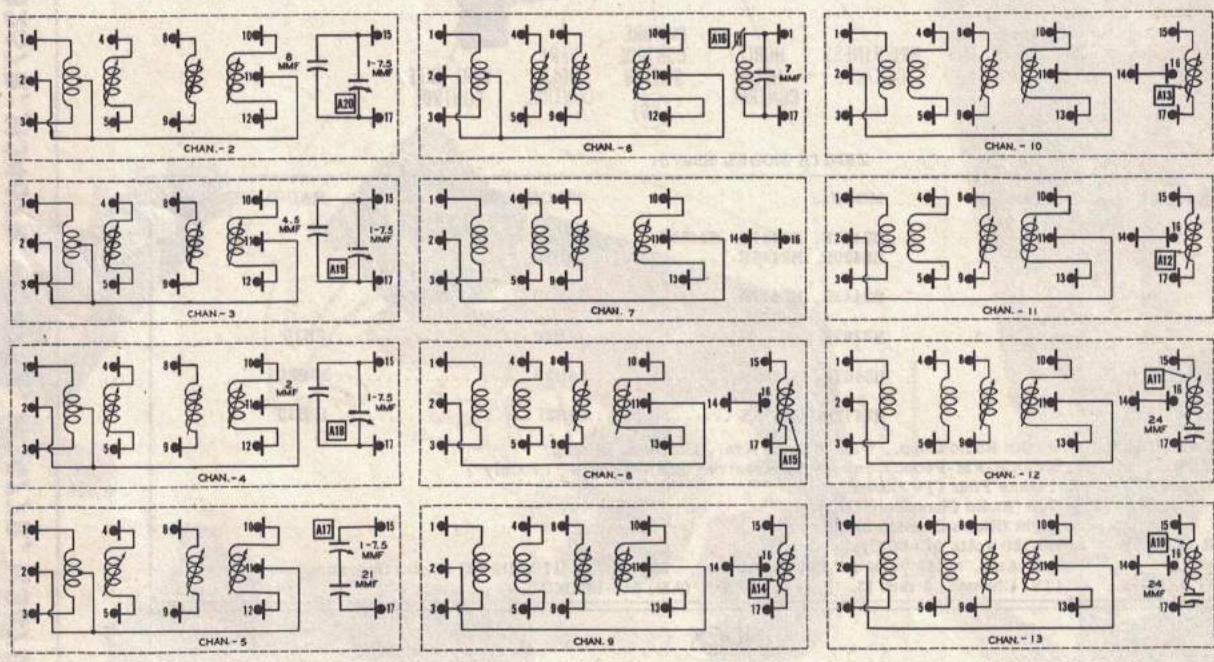
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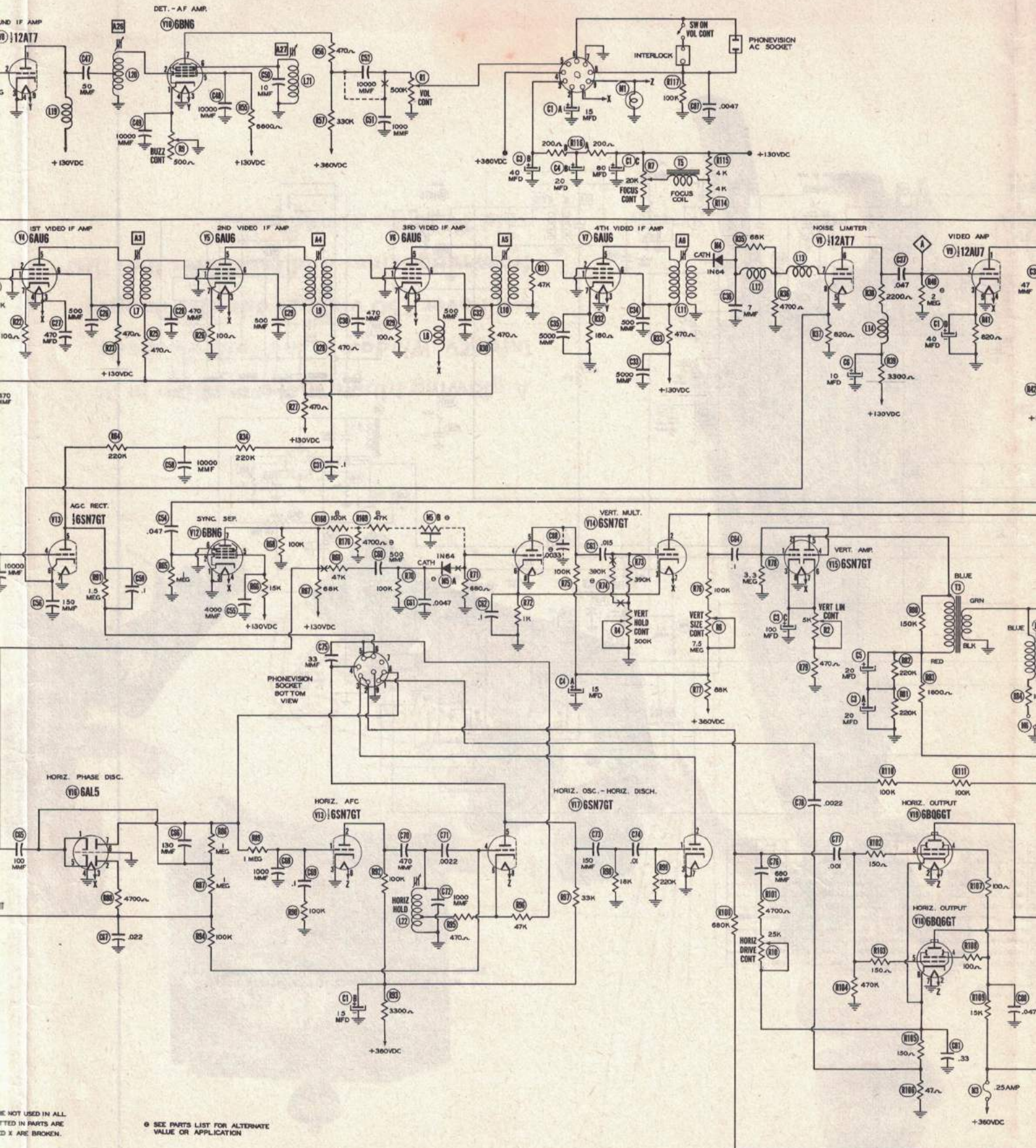


THE COOPERATION OF THE MANUFACTURER OF THIS RECEIVER MAKES IT POSSIBLE TO BRING YOU THIS SERVICE



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.

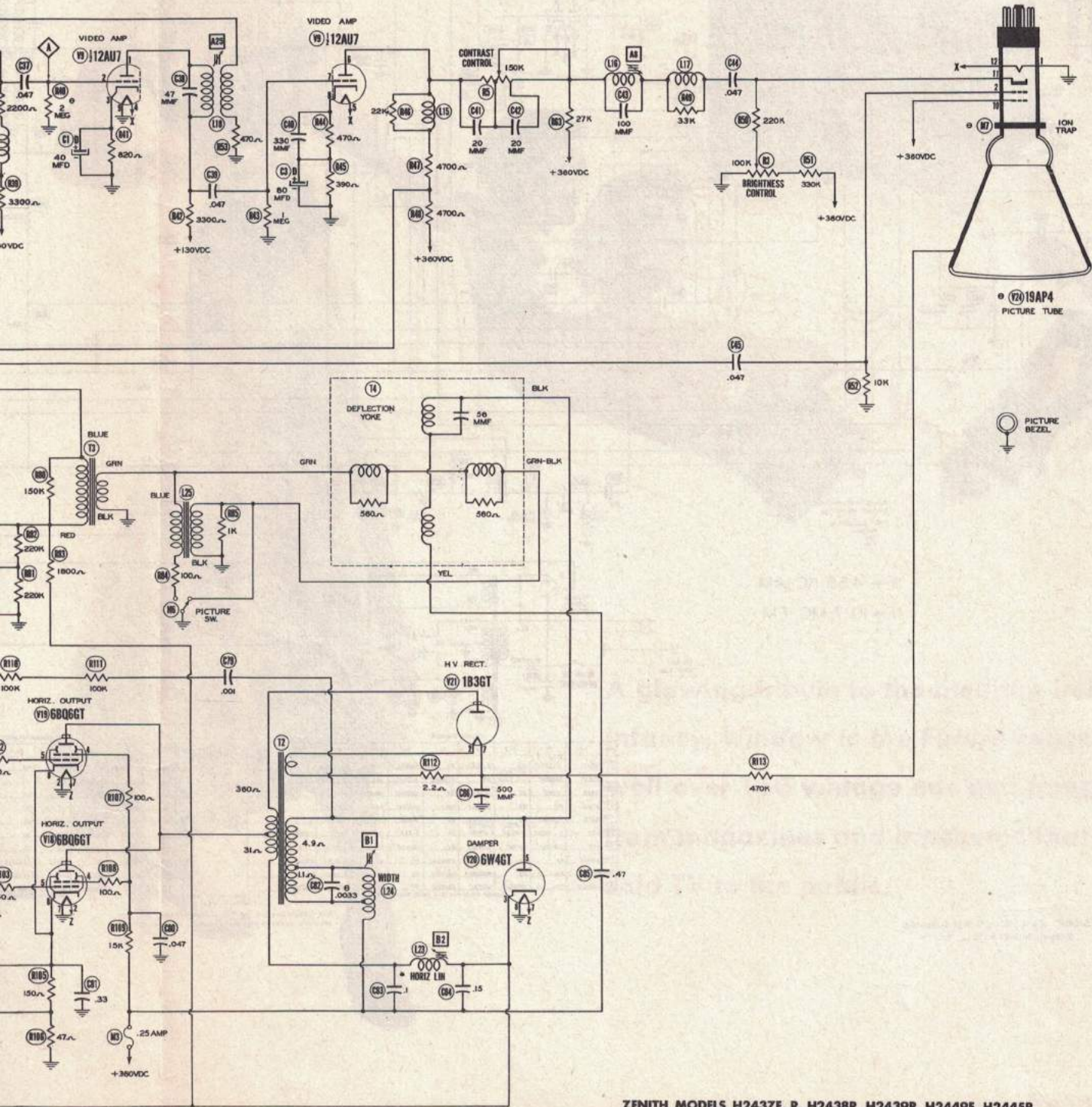


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© SEE PARTS LIST FOR ALTERNATE
 VALUE OR APPLICATION

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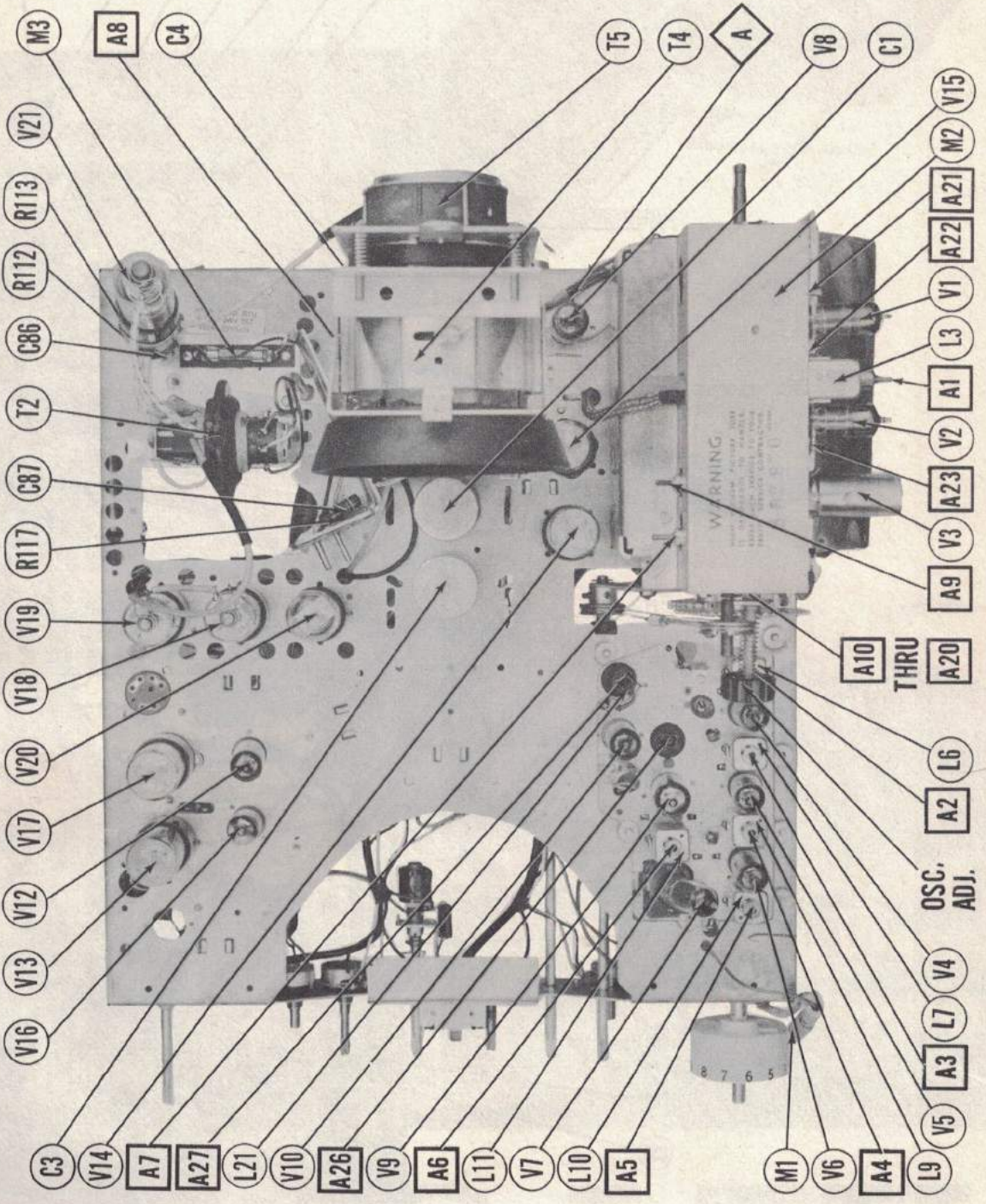
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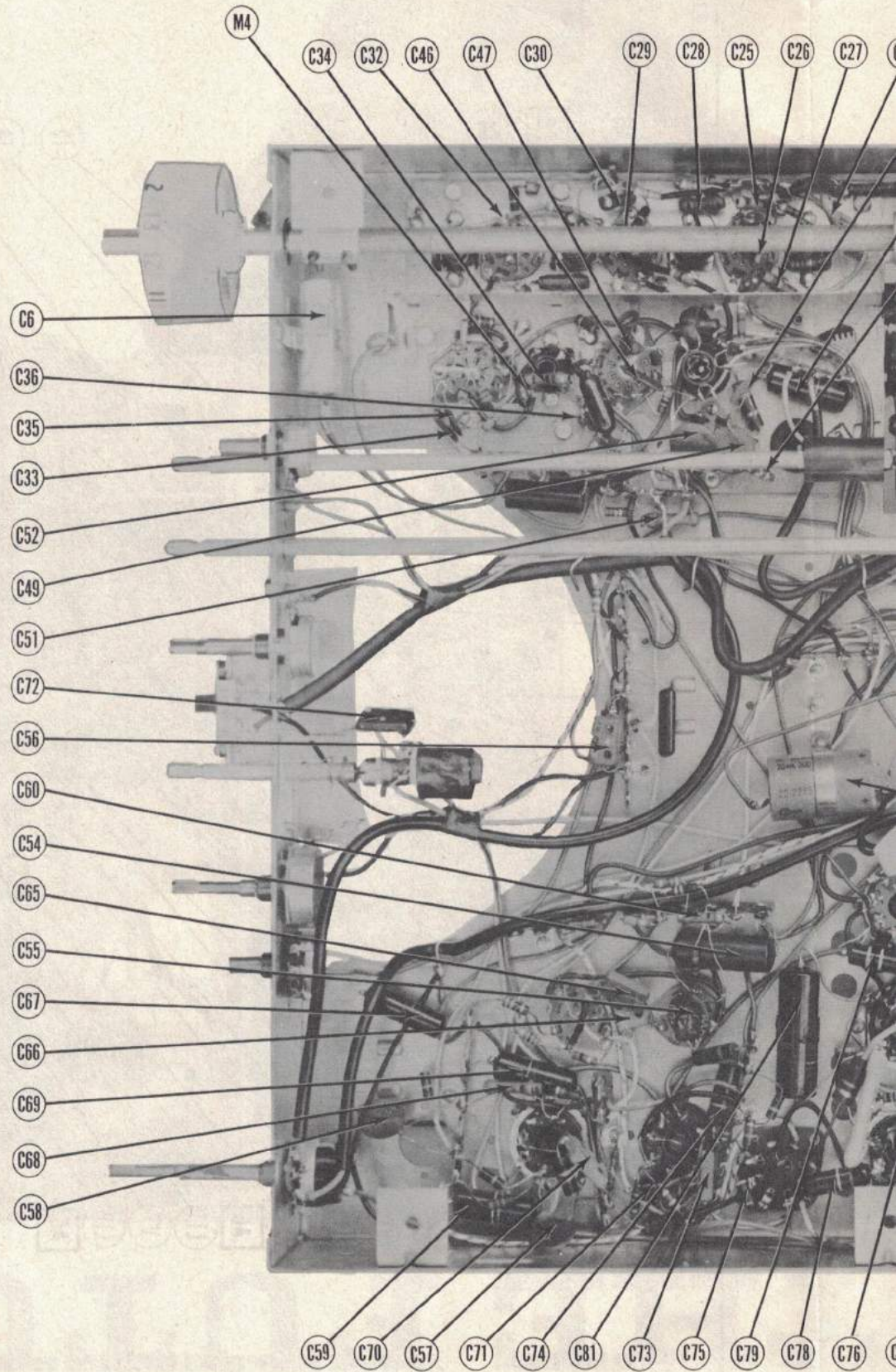


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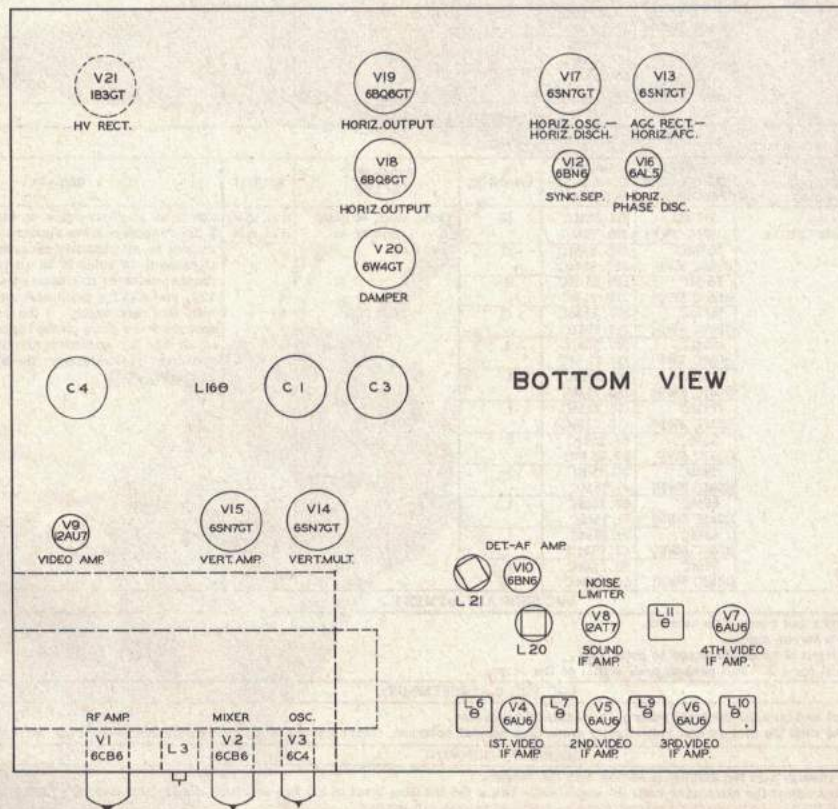
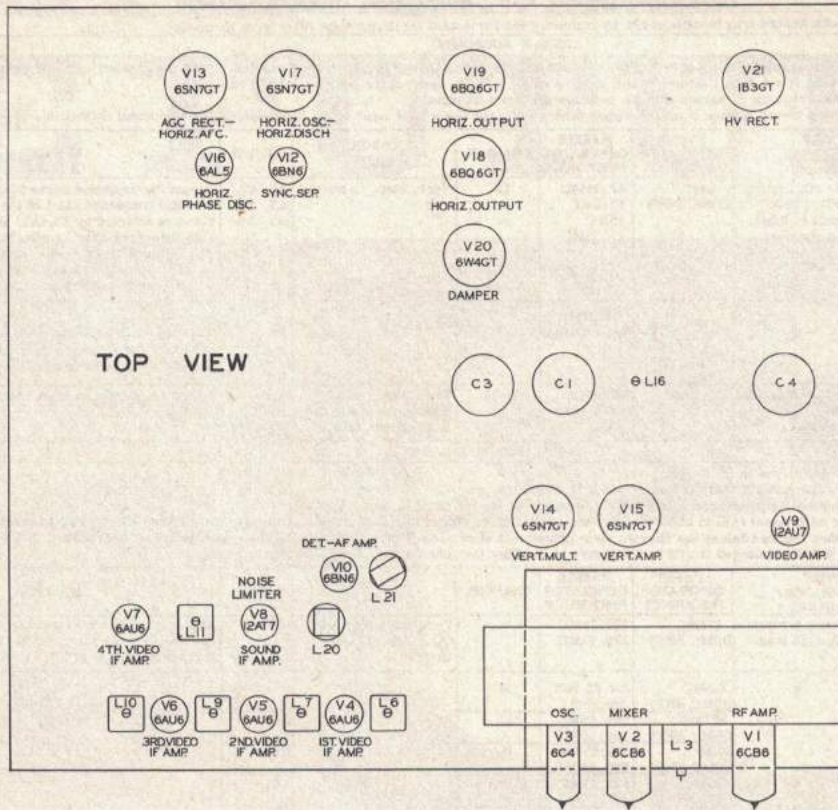
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VIEW POINT SISSVHCH





CHASSIS BOTTOM VIEW-CAPACITOR AND



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 10K Ω 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 \diamond .	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 A5. 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 (V7). Low side to chassis.	Not used	4.5MC (400%AM 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 120 Ω carbon resistors	Across antenna terminals with 120 Ω in each lead.	177MC (10MC SWP)	175.25MC 179.75MC	7	Vert. amp. to point \diamond . 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 120 Ω carbon resistors	"	213MC (10MC SWP)	211.25 MC 215.75MC	13	"	A10	"
		207MC (10MC SWP)	205.25MC 209.75 MC	12		A11	
		201MC (10MC SWP)	199.25 MC 203.75 MC	11		A12	
		195MC (10MC SWP)	193.25MC 197.75MC	10		A13	
		189MC (10MC SWP)	187.25 MC 191.75 MC	9		A14	
		183MC (10MC SWP)	181.25 MC 185.75MC	8		A15	
		85MC (10MC SWP)	83.25 MC 87.75MC	6		A16	
		79MC (10MC SWP)	77.25 MC 81.75MC	5		A17	
		69MC (10MC SWP)	67.25MC 71.75 MC	4		A18	
		63MC (10MC SWP)	61.25MC 65.75 MC	3		A19	
		57MC (10MC SWP)	55.25MC 59.75MC	2		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 120 Ω carbon resistor	Across antenna terminals with 120 Ω in each lead.	213MC (10MC SWP)	211.25MC 215.75MC	13	Vert. amp. to point \diamond . 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.
		207MC (10MC SWP)	205.25MC 209.75MC	12			
		201MC (10MC SWP)	199.25 MC 203.75MC	11			
		195MC (10MC SWP)	193.25 MC 197.75MC	10			
		189MC (10MC SWP)	187.25MC 191.75 MC	9			
		183MC (10MC SWP)	181.25MC 185.75MC	8			
		177MC (10MC SWP)	175.25MC 179.75MC	7			
		85MC (10MC SWP)	83.25MC 87.75 MC	6			
		79MC (10MC SWP)	77.25MC 81.75MC	5			
		69MC (10MC SWP)	67.25MC 71.75 MC	4			
		63MC (10MC SWP)	61.25MC 65.75 MC	3			
		57MC (10MC SWP)	55.25MC 59.75MC	2			

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 \diamond . 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. S17203) 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.	455KC (400%mod.)	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 VTVM

Connect a 2 megohm resistor in series with the DC probe of the VTVM.

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 \odot . Common to chassis.	A37	Adjust for maximum deflection.
11 .05MFD	"	"	"	"	DC probe thru 2 meg to point \odot . 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 \odot . 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 SWP)	FM (Clock-wise)	Point of non-interference	Vert. amp. thru 2 meg to point \odot . 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 \odot . 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). Low side to chassis.	98MC (Unmod.)	FM	98MC	DC probe thru 2 meg to point \odot . 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.

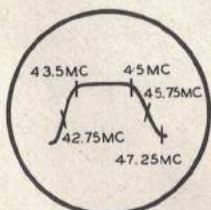


FIG. 1

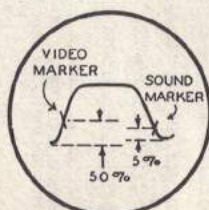


FIG. 2

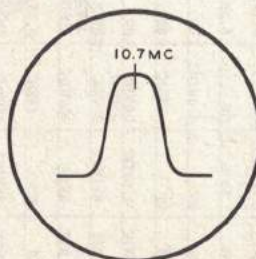


FIG. 3

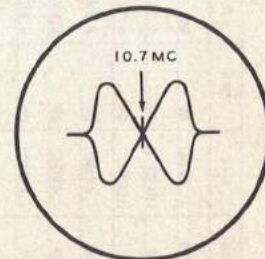


FIG. 4

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

VOLTAGE AND RESISTANCE MEASUREMENTS

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6CB6	-1.4VDC	0V	0V	6.3VAC	120VDC	120VDC	0V		
V 2	6CB6	-2VDC	0V	6.3VAC	0V	130VDC	105VDC	0V		
V 3	6C4	115VDC	0V	6.3VAC	0V	115VDC	5-3.4VDC	0V		
V 4	6AU6	-.4VDC	0V	6.3VAC	0V	125VDC	125VDC	.6VDC		
V 5	6AU6	-.4VDC	0V	6.3VAC	0V	120VDC	120VDC	.8VDC		
V 6	6AU6	-.4VDC	0V	6.3VAC	0V	120VDC	120VDC	1VDC		
V 7	6AU6	0V	0V	6.3VAC	0V	125VDC	125VDC	1.6VDC		
V 8	12AT7	130VDC	-1VDC	0V	0V	125VDC	125VDC	-3.2VDC	.6VDC	6.3VAC
V 9	12AU7	115VDC	0V	3.7VDC	6.3VAC	6.3VAC	265VDC	0V	8VDC	0V
V 10	6BN6	5VDC	0V	6.3VAC	0V	70VDC	0V	165VDC		
V 11	6BF5	1.2VDC	0V	6.3VAC	0V	6.3VAC	250VDC	95VDC	0V	
V 12	6BN6	0V	8.8VDC	0V	6.3VAC	60VDC	0V	70VDC		
V 13	6SN7GT	-1.7VDC	-11VDC	0V	6.3VAC	0V	.6VDC	0V	6.3VAC	
V 14	6SN7GT	110VDC	170VDC	2VDC	0V	65VDC	2VDC	6.3VAC	0V	
V 15	6SN7GT	-6VDC	20VDC	33VDC	0V	33VDC	13VDC	6.3VAC	0V	
V 16	6AL5	2VDC	480VDC	13VDC	-.2VDC	480VDC	13VDC	6.3VAC	0V	
V 17	6SN7GT	1VDC	-4VDC	6.3VAC	0V	1VDC	0V	-2VDC		
V 18	6SN7GT	-25VDC	45VDC	0V	-20VDC	245VDC	1.6VDC	0V	6.3VAC	TOP CAP
V 19	6BQ6GT	0V	6.3VAC	-8VDC	130VDC	30VDC	30VDC	0V	33VDC	TOP CAP
V 20	6W4GT	495VDC	45VDC	520VDC	45VDC	360VDC	130VDC	6.3VAC	35VDC	
V 21	1B3GT	* DO NOT MEASURE								
V 22	5Y4G	0V	380VDC	0V	360VAC	0V	360VAC	0V	380VDC	
V 23	5Y3GT	0V	175VDC	0V	210VAC	0V	210VAC	0V	175VDC	
V 24	10AP4A	0V	0V	360VDC	85VDC	0V	6.3VAC			

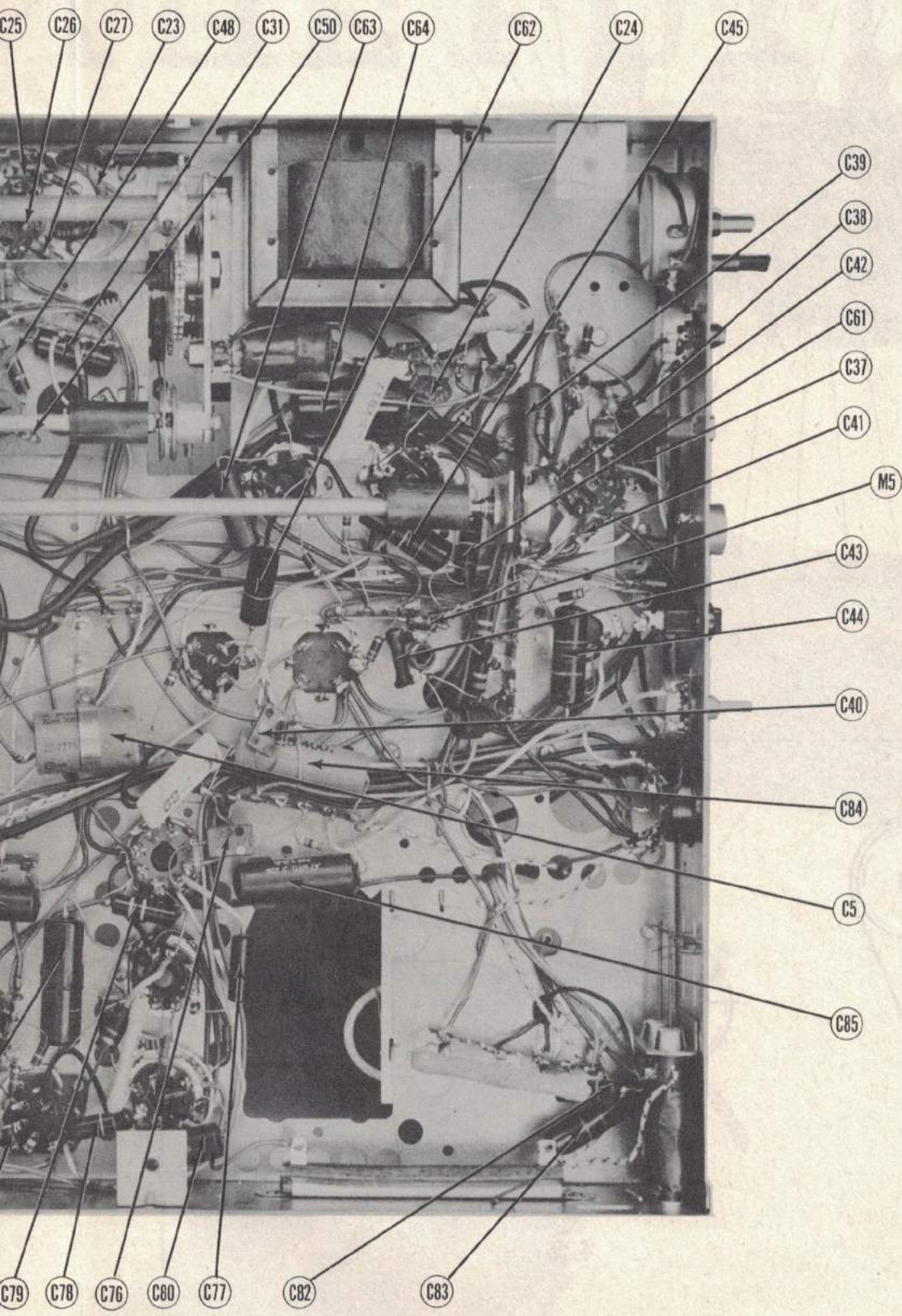
FOCUS CONTROL COUNTER CLOCKWISE
 † TAKEN WITH VACUUM TUBE VOLTMETER

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V 1	6CB6	2Meg	0Ω	0Ω	.1Ω	12KΩ	12KΩ	0Ω		
V 2	6CB6	5.3Meg	0Ω	.1Ω	0Ω	1.5KΩ	150KΩ	0Ω		
V 3	6C4	11.5KΩ	Inf.	.1Ω	0Ω	1.5KΩ	15KΩ	0Ω		
V 4	6AU6	2Meg	0Ω	.1Ω	0Ω	1870Ω	1870Ω	100Ω		
V 5	6AU6	2Meg	0Ω	.1Ω	0Ω	1870Ω	1870Ω	100Ω		
V 6	6AU6	2Meg	0Ω	.2Ω	0Ω	1.3KΩ	1.3KΩ	100Ω		
V 7	6AU6	.1Ω	0Ω	.1Ω	0Ω	1870Ω	1870Ω	180Ω		
V 8	12AT7	1400Ω	1Meg	0Ω	0Ω	0Ω	15.9KΩ	4.7KΩ	820Ω	.1Ω
V 9	12AU7	13.7KΩ	2Meg	820Ω	.1Ω	.1Ω	4.9.5KΩ	1Meg	860Ω	0Ω
V 10	6BN6	100Ω	6Ω	.1Ω	0Ω	17.2Ω	4.7Ω	▲220KΩ		
V 11	6BF5	0Ω	330Ω	0Ω	.1Ω	▲4.2KΩ	▲13KΩ	0Ω		
V 12	6BN6	0Ω	1Meg	0Ω	.1Ω	1.5KΩ	0Ω	140KΩ		
V 13	6SN7GT	3Meg	▲105KΩ	0Ω	25KΩ	0Ω	820Ω	0Ω	.1Ω	
V 14	6SN7GT	195KΩ	▲170KΩ	1KΩ	680Ω	▲170KΩ	1KΩ	.1Ω	0Ω	
V 15	6SN7GT	3.3Meg	▲2.2KΩ	470Ω	3.3Meg	#2.2KΩ	470Ω	.1Ω	0Ω	
V 16	6AL5	1Meg	30KΩ	.1Ω	0Ω	1Meg	0Ω	2Meg		
V 17	6SN7GT	220KΩ	▲680KΩ	0Ω	125KΩ	▲36KΩ	525Ω	0Ω	.1Ω	TOP CAP
V 18	6BQ6GT	Inf.	.1Ω	2.1Meg	▲15KΩ	470KΩ	470KΩ	0Ω	200Ω	TOP CAP
V 19	6BQ6GT	Inf.	0Ω	47Ω	▲15KΩ	470KΩ	▲15KΩ	.1Ω	200Ω	▲41Ω
V 20	6W4GT	1.8KΩ	▲680KΩ	120KΩ	850KΩ	▲110Ω	2.2Meg	.1Ω	0Ω	TOP CAP
V 21	1B3GT	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	Inf.	TOP CAP
V 22	5Y4G	Inf.	20KΩ	Inf.	18Ω	Inf.	18Ω	Inf.	20KΩ	
V 23	5Y3GT	Inf.	4.5KΩ	Inf.	10Ω	Inf.	10Ω	Inf.	4.5KΩ	
V 24	10AP4A	0Ω	10KΩ	▲100Ω	300KΩ	220KΩ	.1Ω			

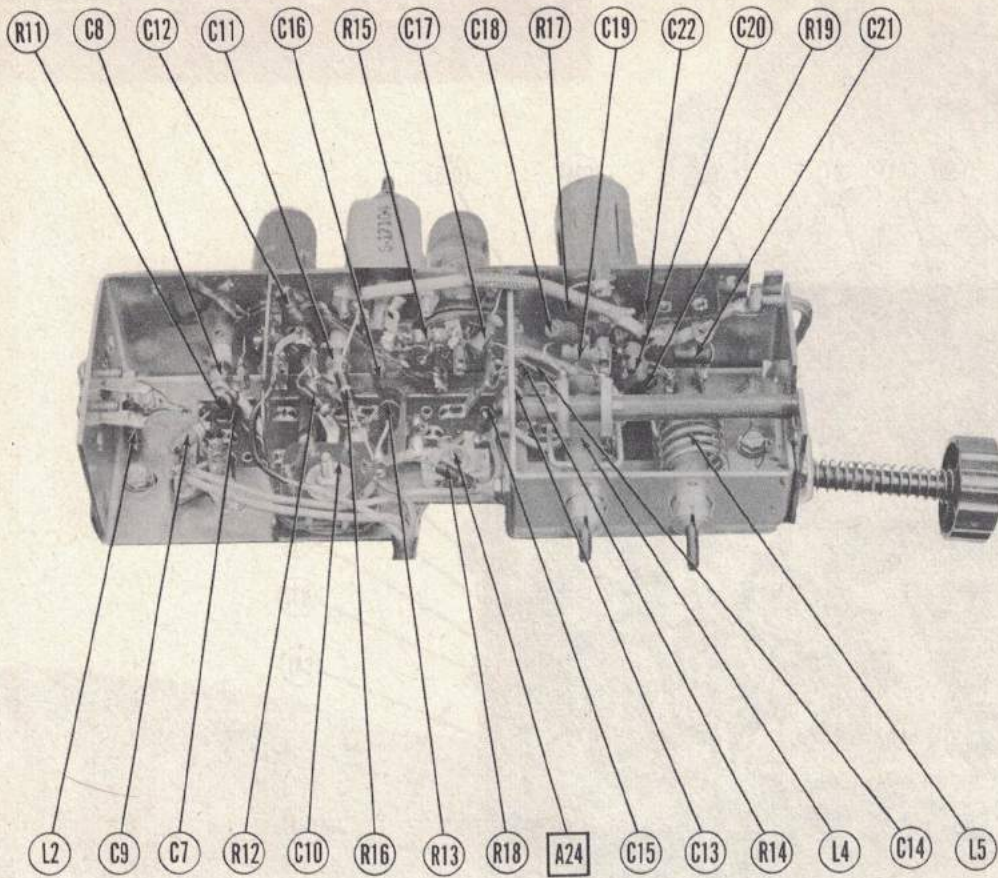
FOCUS CONTROL COUNTER CLOCKWISE
 † MEASURED FROM PIN 2 OF V23
 ▲ MEASURED FROM PIN 3 OF V22
 # MEASURED FROM PIN 3 OF V20

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 pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. Front panels controls set at minimum.
6. Where readings may vary according to the setting of the service controls, both minimum and maximum readings are given.



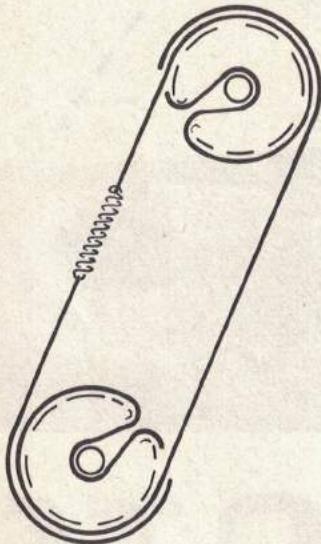
ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
 H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

MONITOR AND ALIGNMENT IDENTIFICATION



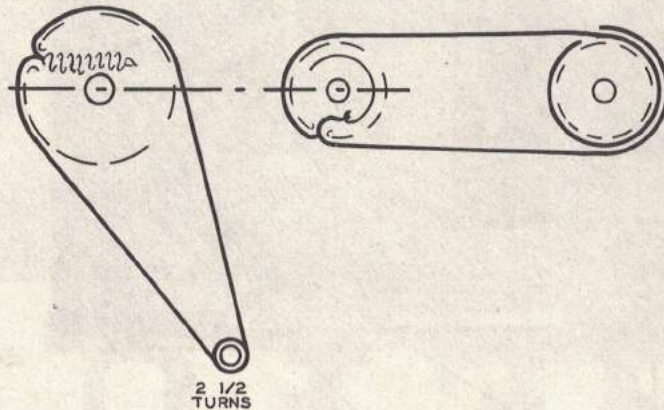
RF TUNER

TUNING SHAFT FULLY
COUNTERCLOCKWISE

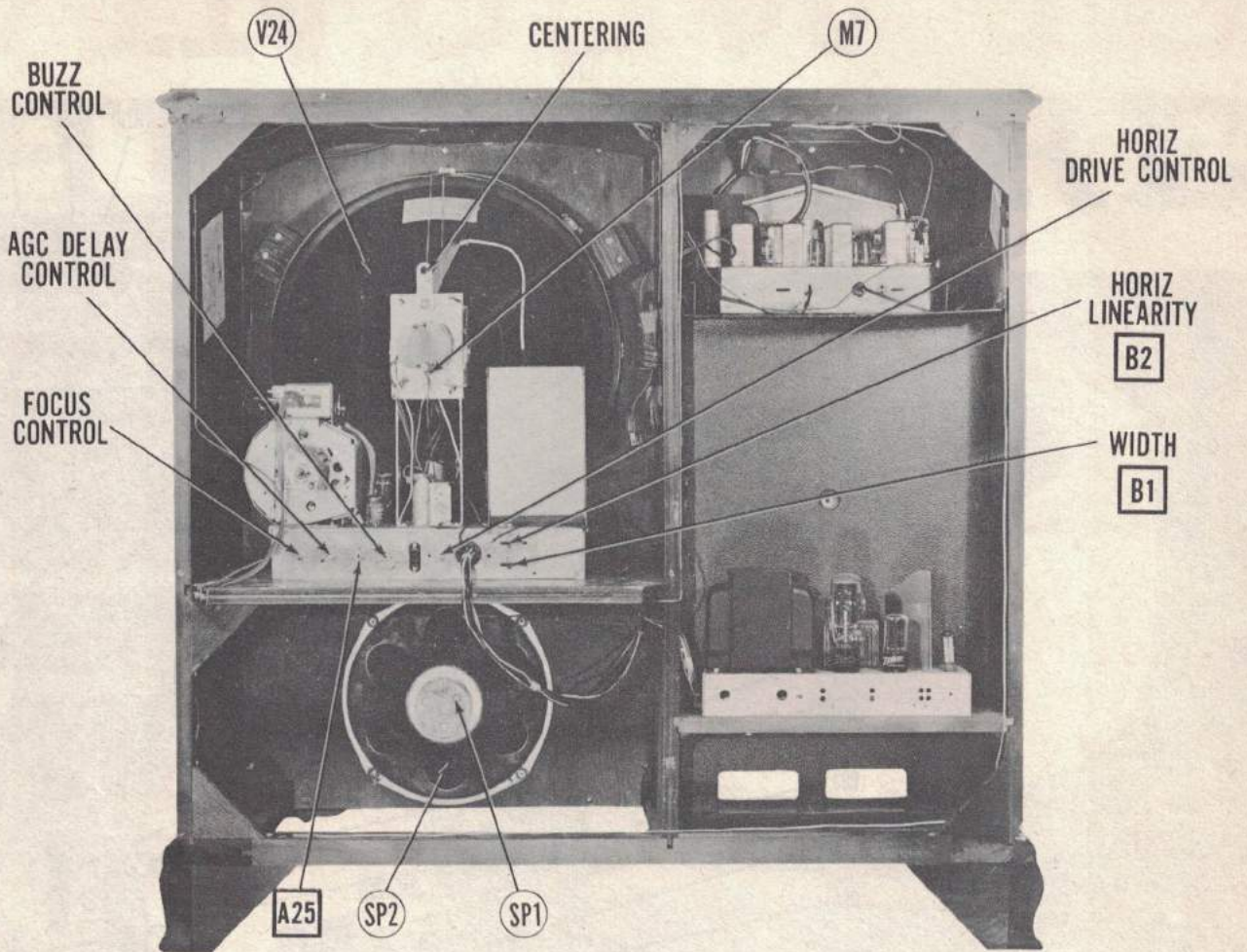


FINE TUNING
DRIVE CORD STRINGING

TUNING GANG FULLY CLOSED



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.

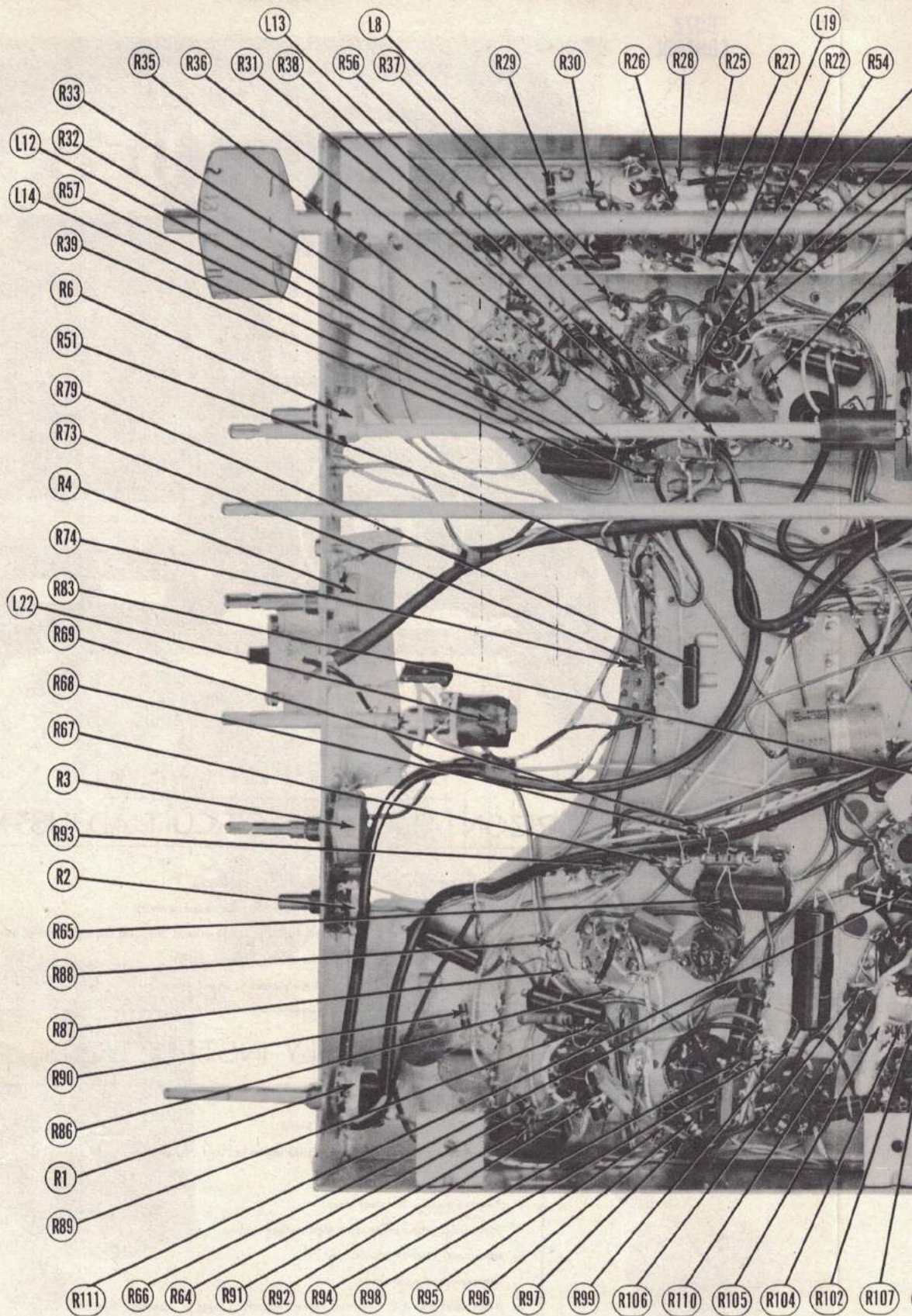
Adjust the horizontal linearity slug (B2) until the picture is symmetrical from left to right.

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.

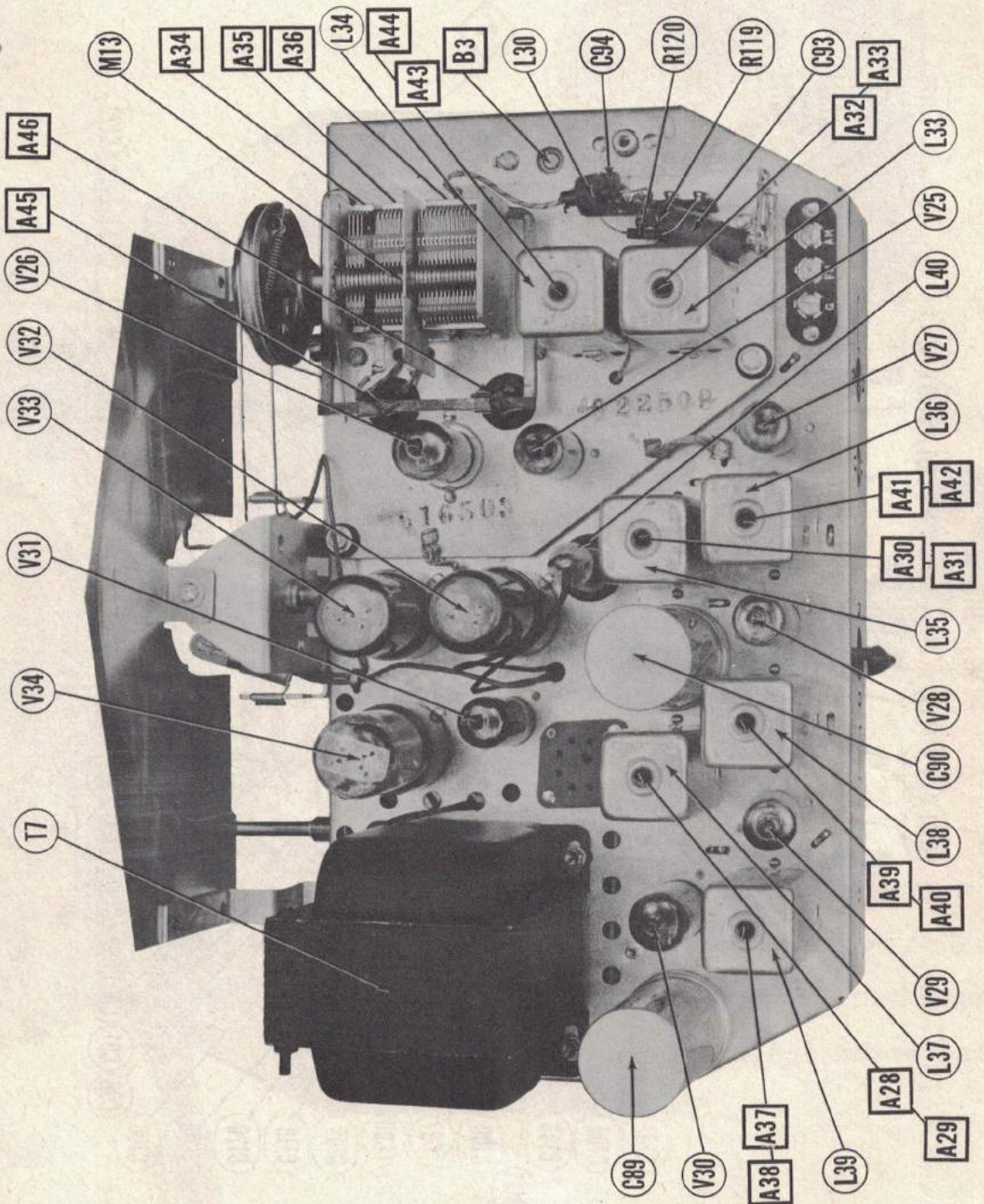
ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

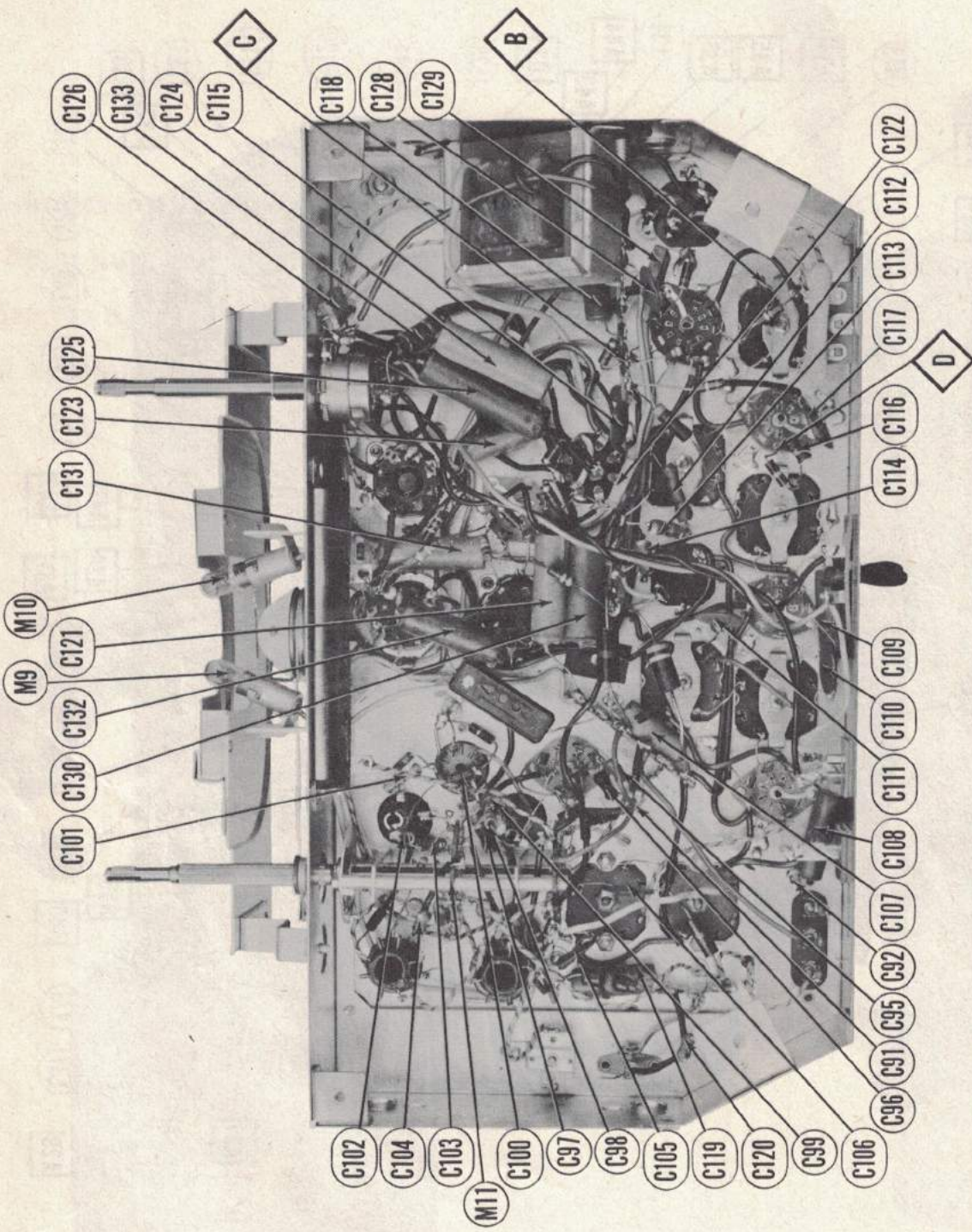


CHASSIS BOTTOM VIEW-RESISTOR AN

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

MAIN POL-SISSAHD OIADR





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. Discr.	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.	CENTRAL LAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.		SPRAGUE PART No.
C1A	15	475	22-2122	AF33X16G8B		UPT417		TVL-4815	■ Filter
B	15	475							■ Decoupling
C	80	300							▲ Filter
D	40	50							V. Amp. Cathode
C2A	40	450	22-2224	AFH84J4E4A		UPT42245C		TVL-4732	▲ Filter
B	20	450							■ Filter
C	20	200							▲ Output Screen
D	20	25							Output Cathode
C3A	20	475	22-2223	AF4X8G20B16		UPT422			▲ Vert. Output Dec.
B	40	300							■ Filter
C	100	50							▲ Vert. Output Cathode
D	80	25							V. Amp. Cathode
C4A	15	475	22-2232	AF3X4G		UPT15850-230			■ Vert. MV Dec.
B	20	300							▲ Filter
C5	20	300	22-2225	PR8350/24		BR2035A		TVA-1608	Vert. Output Dec.
C6	10	250	22-2154	PR8250/12		BR1025		TVA-1504	Noise Limiter Dec.
C7	5		22-2050	SI5NPO	TCZ-4.7		NPOK-5		Fixed Padder
C8	1-3.5		22-2093		829-4				Variable Padder
C9	470		22-2219	SI470	D6-471		GP2K-470	19C15	AGC Filter
C10A	600		22-82						RF Amp. Dec.
B	475		22-69						RF Bypass
C11	1-3.5		22-2093		829-4				Variable Trimmer
C12	470		22-2219	SI470	D6-471		GP2K-470	19C15	RF Amp. Fil.
C13	1-3.5		22-2093		829-4				Variable Trimmer
C14	2.5		22-1891						Osc. Coupling
C15	4.5		22-2207						Osc. Coupling
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		GPIK-47	19C25	Osc. Grid Cap
C19	20		22-2204				N080-331-20		Fixed Trimmer
C20	6		22-2051						RF Coupling
C21	26		22-2155				N080-331-26		Fixed Trimmer
C22	470		22-2219	SI470	D6-471	5W5T5	GP2K-470	19C15	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	811-005	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	811-005	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	811-005	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	22-1844	P688-047	DF-503	PTE6S5		6TM-S47	Video Coupling
C38	47		22-1876	SI47N080			N080-338-47		Fixed Trimmer
C39	.047	600	22-1844	P688-047	DF-503	PTE6S5		6TM-S47	Video Coupling
C40	330	500	22-1645	1468-00035	D6-331	5W5T3	GP2K-330	19C14	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	821-01	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	821-01	36C1	Det.-AF Amp. Screen
C49	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	Det.-AF Amp. Screen
C50	10		22-2106				N150K-10		Fixed Trimmer
C51	1000		22-2218	SI1000	D6-102	1W5D1	GP2L-001	19C1	De-emphasis
C52	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	Audio Coupling
C53	.001	600	22-2127	P688-001	D6-102	PTE6D1	GP2L-001	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	811-005	29C1	Sync. Sep. Screen
C56	150	500	22-1137	1468-00015	D6-151	5W5T15	GPIK-150	1FM-315	Cathode Bypass
C57	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	AGC Amp. Grid
C58	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	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

ND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

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

in this application.
in 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 ① DY-7	H-3035 ① MD-70F	TSO-5 ①	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.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
T6	8700Ω	4.5Ω	710Ω	.1Ω	95-1247	A-3879	A-3020	RO-16	

SPEAKER

ITEM No.	RATINGS			REPLACEMENT DATA			INSTALLATION NOTES
	FIELD RES.	V. C. IMP.		ZENITH PART No.	JENSEN PART No.	QUAM PART No.	
SP1A	PM	4.2Ω		49-694 ③	ST-102 ② MOD. P12-S	12A4A	② Replace output trans. to match 6-8Ω voice coil. ③ Used in combination receivers. ④ Used in models H2439R, H2449E ⑤ Used in models H2437E, R, H2438R, H2445R, H2447R.
B	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	
SP2A	CONE DIA.		V. C. DIA.	ZC12161			
B	11 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)	ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
L1	.170A	100Ω		95-1218	C-2325	C-2996		

COILS (RF-IF)

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		Tap at .1Ω
L4	Osc. Coil	0Ω		S-16265		
L5	Trap Coil	0Ω		S-16501		
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-16855		
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 Expander 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

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
M6	Switch	85-488	Picture Expander
M7A	Ion Trap	S-17164	Chassis 24H21
B	Ion Trap	S-17461	Chassis 24H20
	Channel Strip Assembly	S-16862	Channel 2
	Channel Strip Assembly	S-16863	Channel 3
	Channel Strip Assembly	S-16864	Channel 4
	Channel Strip Assembly	S-16865	Channel 5
	Channel Strip Assembly	S-16866	Channel 6
	Channel Strip Assembly	S-16867	Channel 7
	Channel Strip Assembly	S-16868	Channel 8
	Channel Strip Assembly	S-16869	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
	Escutcheon	57-1678	Volume Control Models H2437E, H2437R, H2438R, H2439R, H2449E
	Knob	46-889	Channel Sel. Models H2437E, H2449E
	Knob	46-888	Channel Sel. Models 2437R, H2438R, H2439R
	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, H2449E
	Knob	46-890	Volume Models H2437R, H2438R, H2439R

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

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	12A7	12A7	9A		
V27	1st IF Amp.	6BA6	6BA6	7BK		
V28	2nd IF Amp.	6BA6	6BA6	7BK		
V29	Limitter	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	22-1812	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	PTE4S5		2TM-55	RF Coupling
C94	10			SI10	D6-100	5W5Q1	GPIK-10	19C19	Fixed Trimmer
C95	1000		22-1676	SI1000	D6-102	1W5D1	GP2L-001	19C1	RF Amp. Screen
C96	30		22-1705	SI30	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		22-1387	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	1W5D1	GP2L-001	19C1	Osc. Plate Dec.
C104	1000		22-1676	SI1000	D6-102	1W5D1	GP2L-001	19C1	RF Coupling
C105	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	Conv. Plate Dec.
C106	10000		22-3	BPD-01	DD-103	PTE6S1	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	PTE6S1	821-01	36C1	2nd IF Cathode
C111	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	2nd IF Fil.
C112	200		22-1668	SI200	D6-201	5W5T2	GP2K-200	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	PTE6S1	821-01	36C1	RF Bypass
C116	25		22-1887	SI25	D6-250	5W5Q25	GPIK-25	19C27	IF Coupling
C117	10000		22-3	BPD-01	DD-103	PTE6S1	821-01	36C1	Limitter 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	PTE4S5		2TM-55	Osc. Grid Cap
C120	50		22-1761	SI50	D6-500	5W5Q5	GPIK-50	19C28	Osc. Feedback
C121	.02	600	22-830	P688-02	DF-203	PTE6S2		6TM-S2	Audio Coupling
C122	1000	500	22-348	I468-001	D6-102	1W5D1	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-55	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	1FM-475	Tone Comp.
C127	250			SI250	D6-251	5W5T25	GP2K-250	1FM-325	Tone Comp.
C128	10000		22-3	BPD-01	DD-103	PTE6S1	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	PTE6S5		6TM-S5	Audio Coupling
C131	.02	600	22-830	P688-02	DF-203	PTE6S2		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	1/2	63-2139	Q13-137	AG-63-Z	AN-70	Volume control
B	Shaft		Not req.	Not req.	KSS-3	AK-4	Attach to R118A per instructions
C	Switch		Not req.	76-1	SWB	K-155	Attach to R118A per instructions

RESISTORS

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
	RESISTANCE	WATTS	ZENITH PART No.	IRC PART No.	
R119	1Meg		63-1812	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 Decoupl
R124	10KΩ		63-1827		Osc. Grid
R125	470Ω		63-1771		Parasitic Supp
R126	470Ω		63-1772		Parasitic Supp
R127	2.2Meg		63-1926		Convert Grid
R128	2Meg			BTA-2Meg	AVC Network - See Note
R129	220Ω		63-1758	BTS-220	Osc. Plate Decoupl
R130	1000Ω		63-1786	BTS-1000	Converter Plate Decoupl
R131	2Meg			BTA-2Meg	AVC Network - See Note
R132	220K		63-1884	BTS-220K	Voltage Divider
R133	22KΩ		63-2141	BTB-22K	Voltage Divider
R134	1500Ω		63-1793	BTS-1500	1st IF Amp. Decoupl
R135	47KΩ		63-1855	BTS-47K	Voltage Divider
R136	10KΩ		63-1827	BTS-10K	Voltage Divider
R137	4700Ω		63-966	BTB-4700	Filter
R138	100Ω		63-1744	BTS-100	2nd IF Amp. Cathode
R139	820Ω		63-2091	BW-1/2-820	2nd IF Amp. Decoupl - Wire Wound

RADIO PARTS LIST AND DESCRIPTIONS (Continued)

RESISTORS (CONT.)

ITEM No.	RATING		REPLACEMENT DATA		IDENTIFICATION CODES
			ZENITH PART No.	IRC PART No.	
	RESISTANCE	WATTS			
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	330Ω		63-1764	BTS-330	Tone Control Network
R150	33Ω		63-1722	BW- $\frac{1}{2}$ -33	Tone Control Network
R151	33Ω		63-1722	BW- $\frac{1}{2}$ -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	680Ω			BTS-680	Tone Control Network
R156	4.7Meg		63-1940	BTS-4.7Meg	AF Amp. Grid
R157	220KΩ		63-1884	BTS-220K	AF Amp. Plate
R158	330KΩ		63-1890	BTS-330K	Inverter Grid
R159	2200Ω		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	270Ω	2	63-1452	BTS-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
B	1000Ω				Filter - Wire Wound
R167	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			
					ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.
	PRI.	SEC. 1	SEC. 2	SEC. 3				
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
					ZENITH PART No.	STANCOR PART No.	MERIT PART No.	CHICAGO PART No.	
	IMPEDANCE	DC RES.							
T8	9000Ω	4.5Ω	600Ω	.3Ω	95-1252	A-3870	A3027	RO-110 ①	① Drill one new mtg. hole.

COILS (RF-IF)

ITEM No.	USE	DC RES.		REPLACEMENT DATA		NOTES
				ZENITH PART No.	MEISSNER PART No.	
		PRI.	SEC.			
L26	FM Ant. Coil	0Ω		S-16408		One turn around rear of cabinet
L27	FM RF Coil	0Ω		S-15743		
L28	FM Osc. Coil	0Ω		S-15691		
L29	Loop Ant.	.7Ω				
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	CARTRIDGE	
M8	S-15780				Complete Unit (Cartridge and Needle)

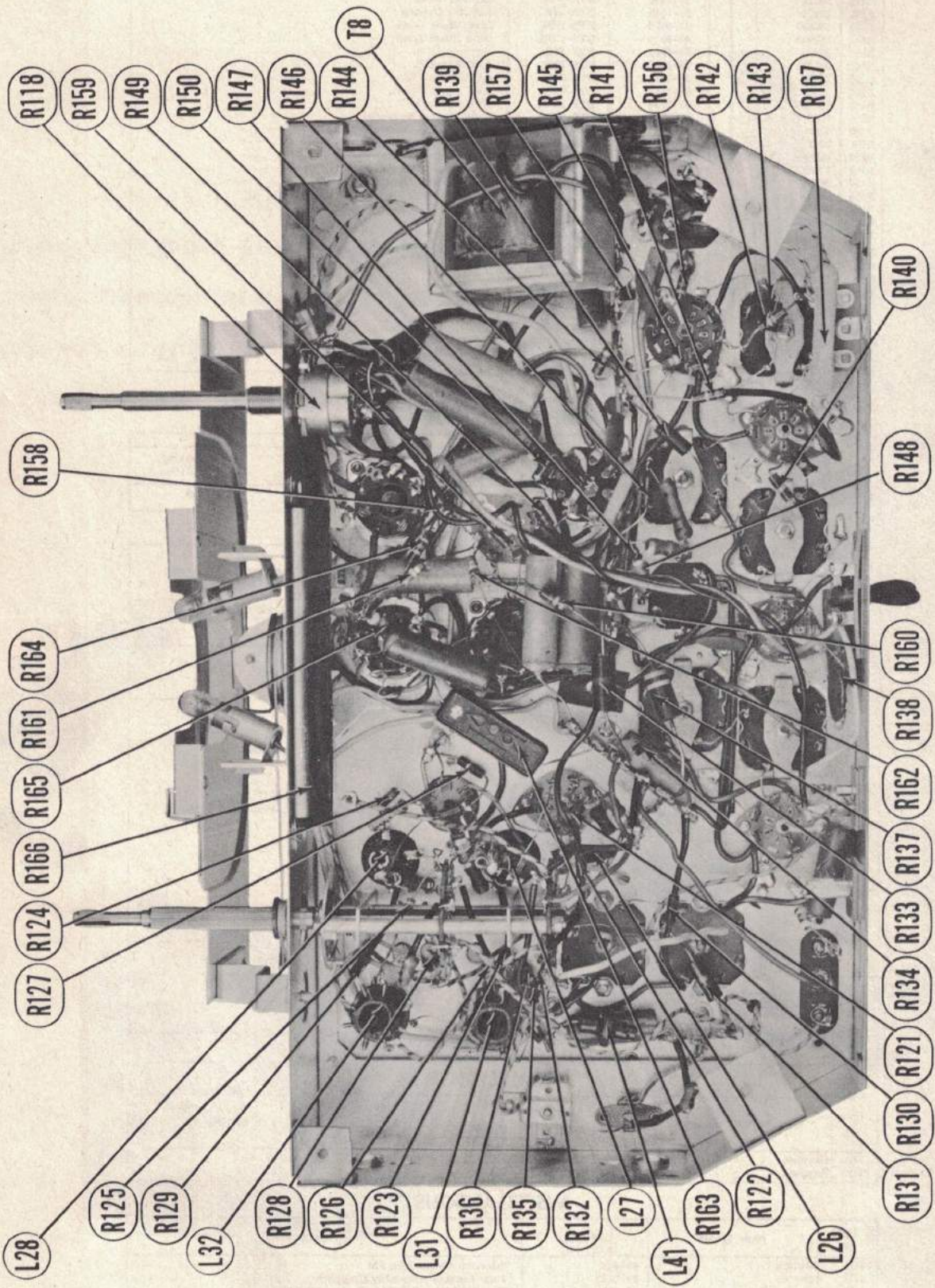
DIAL LIGHTS

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

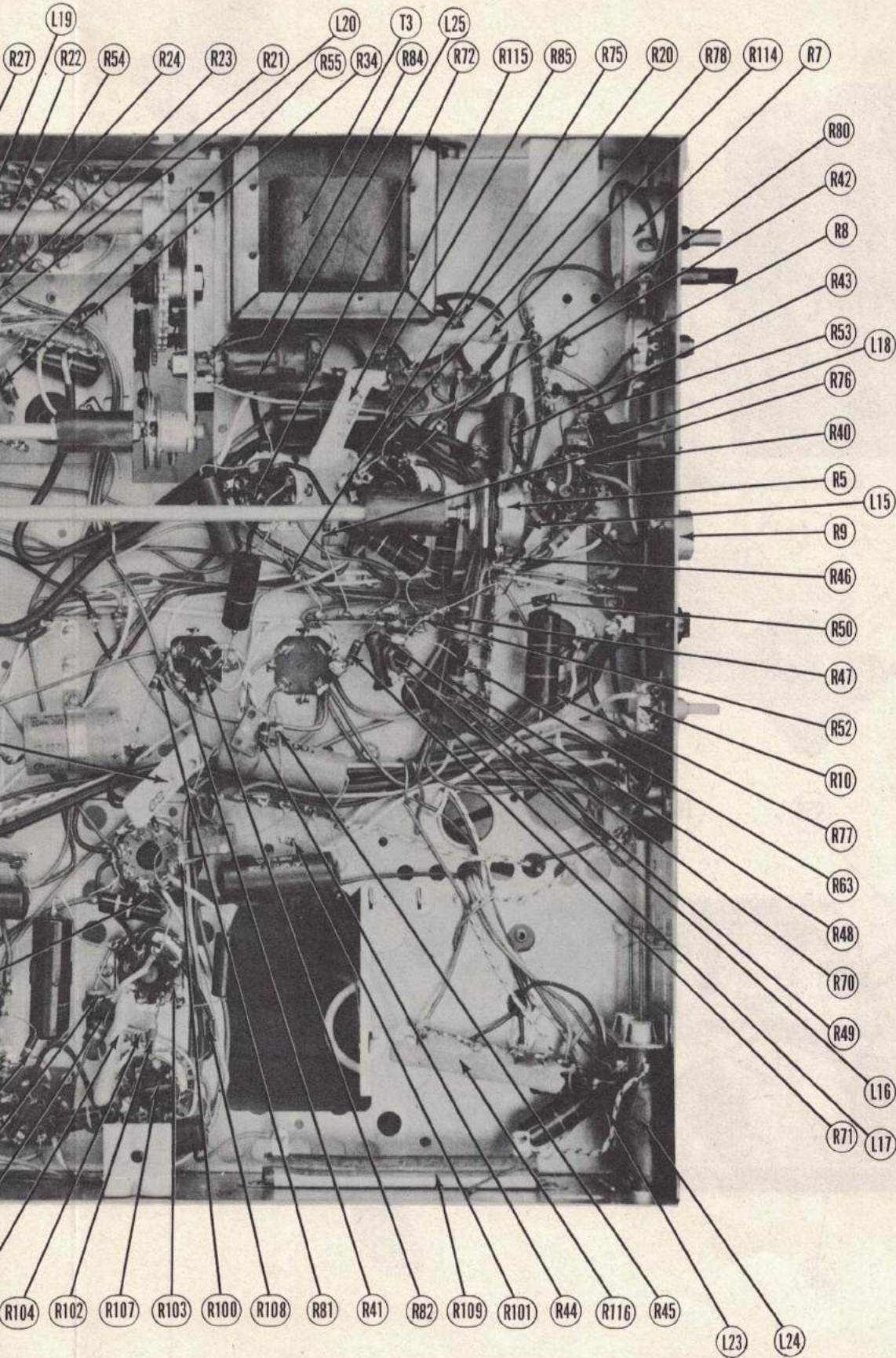
MISCELLANEOUS

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

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

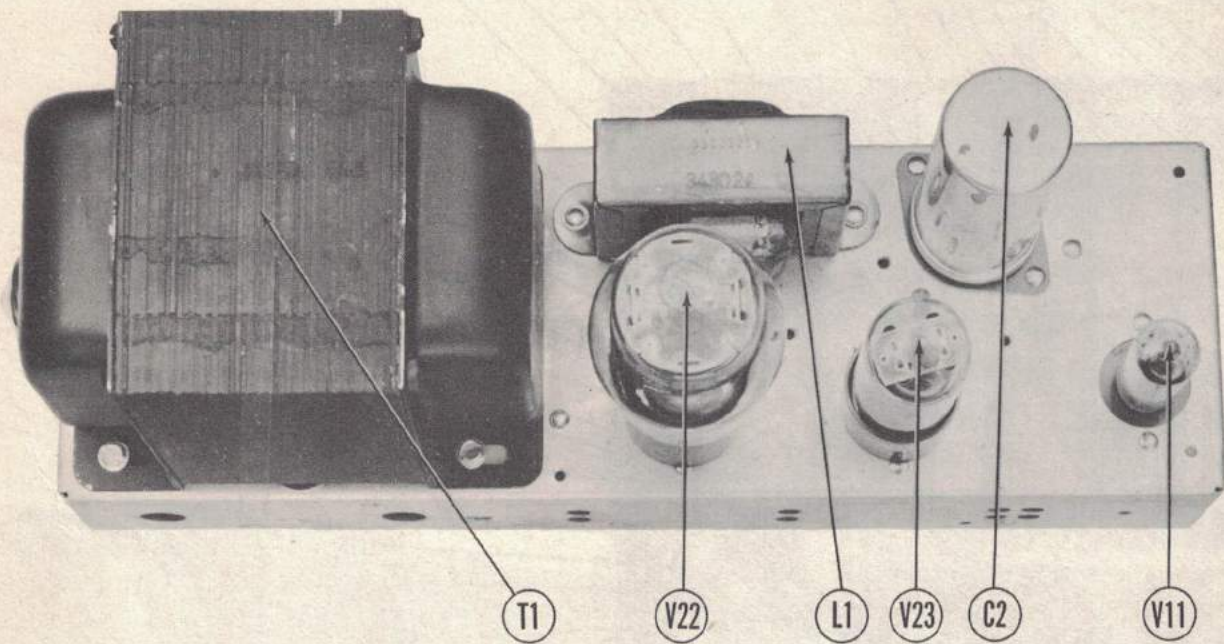


RADIO CHASSIS - BOTTOM VIEW - RESISTOR IDENTIFICATION

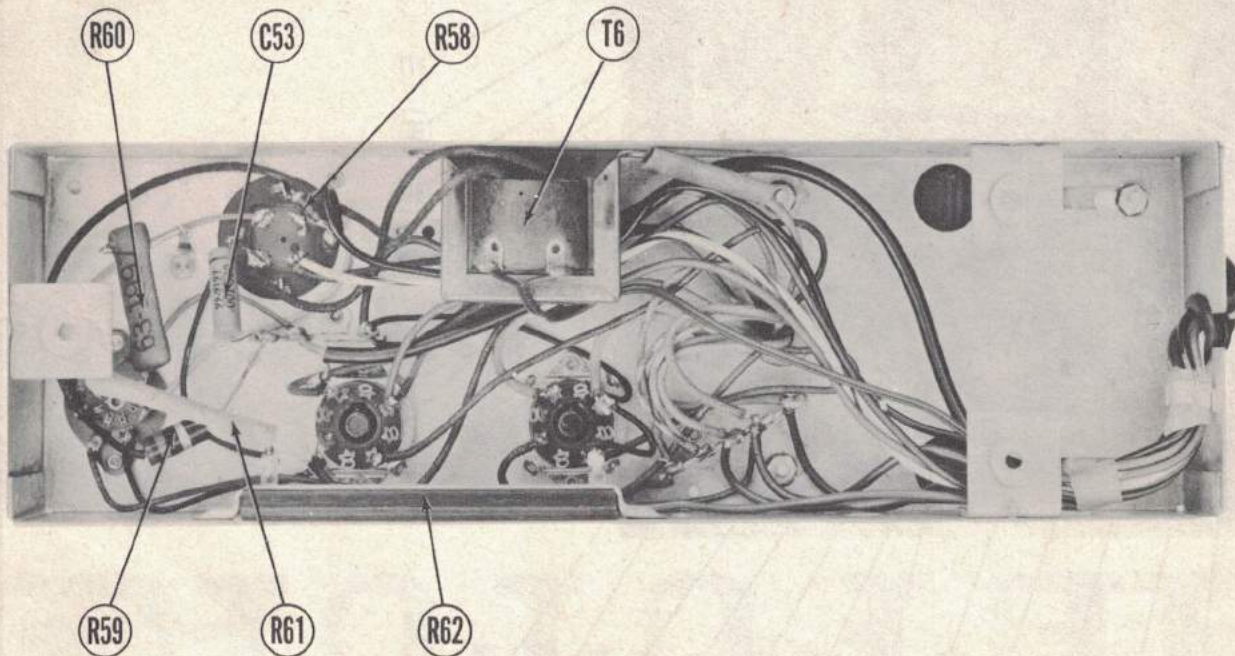


ZENITH MODELS H2437E, R, H2438R, H2439R, H2449E, H2445R,
H2447R, H3267R, H3467R, H3475R, H3477R, H3478E

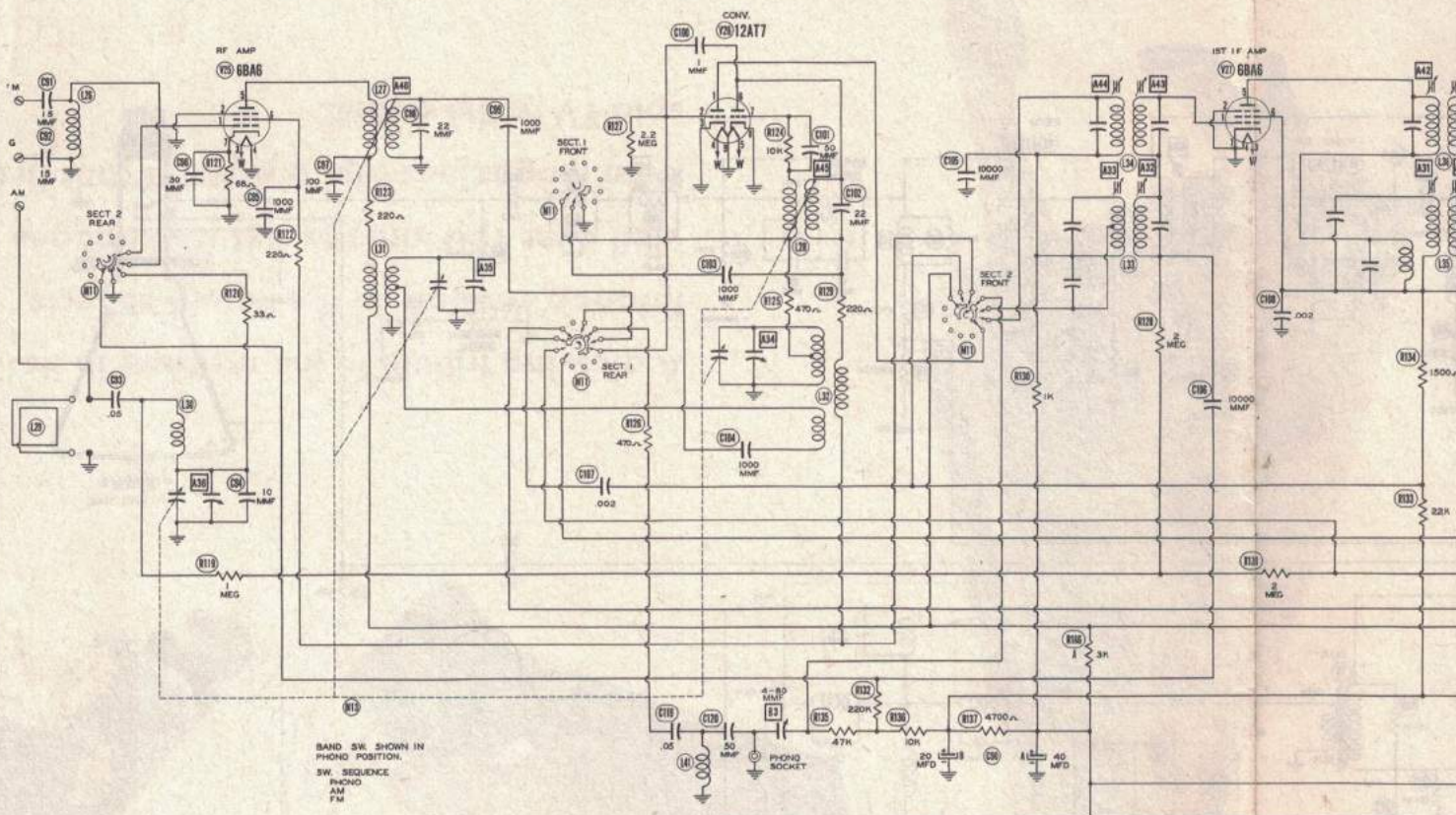
RECEIVER AND INDUCTOR IDENTIFICATION



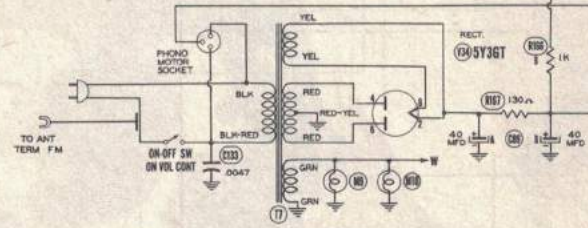
POWER SUPPLY CHASSIS-TOP VIEW



POWER SUPPLY CHASSIS-BOTTOM VIEW



IF = 455 KC AM
 IF = 10.7 MC FM



VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V21	6B6G	1.5VDC	0V	8.5VAC	0V	100VDC	100VDC	1.5VDC	0V	0V
V22	12AT7	150VDC	1.5-3.5VDC	0V	8.5VAC	8.5VAC	8.5VDC	1.5-3.5VDC	0V	0V
V23	6B6G	1.5VDC	0V	8.5VAC	0V	100VDC	100VDC	0V	0V	0V
V24	6B6G	0V	0V	8.5VAC	0V	100VDC	100VDC	1.5VDC	0V	0V
V25	645Y3GT	1.5VDC	1.5VDC	8.5VAC	0V	0VDC	1.5VDC	0V	0V	0V
V26	645Y3GT	8.5-10VDC	1.5VDC	8.5VAC	0V	8.5VAC	1.5VDC	0V	1.5VDC	1.5VDC
V27	645Y3GT	1.5VDC	1.5VDC	8.5VAC	0V	8.5VDC	0V	8.5VDC	0V	0V
V28	645Y3GT	0V	0V	8.5VDC	8.5VDC	0V	0V	8.5VAC	1.5VDC	0V
V29	645Y3GT	0V	0V	8.5VDC	8.5VDC	0V	8.5VDC	8.5VAC	1.5VDC	0V
V30	645Y3GT	0V	0V	8.5VDC	8.5VDC	0V	8.5VDC	0V	1.5VDC	0V

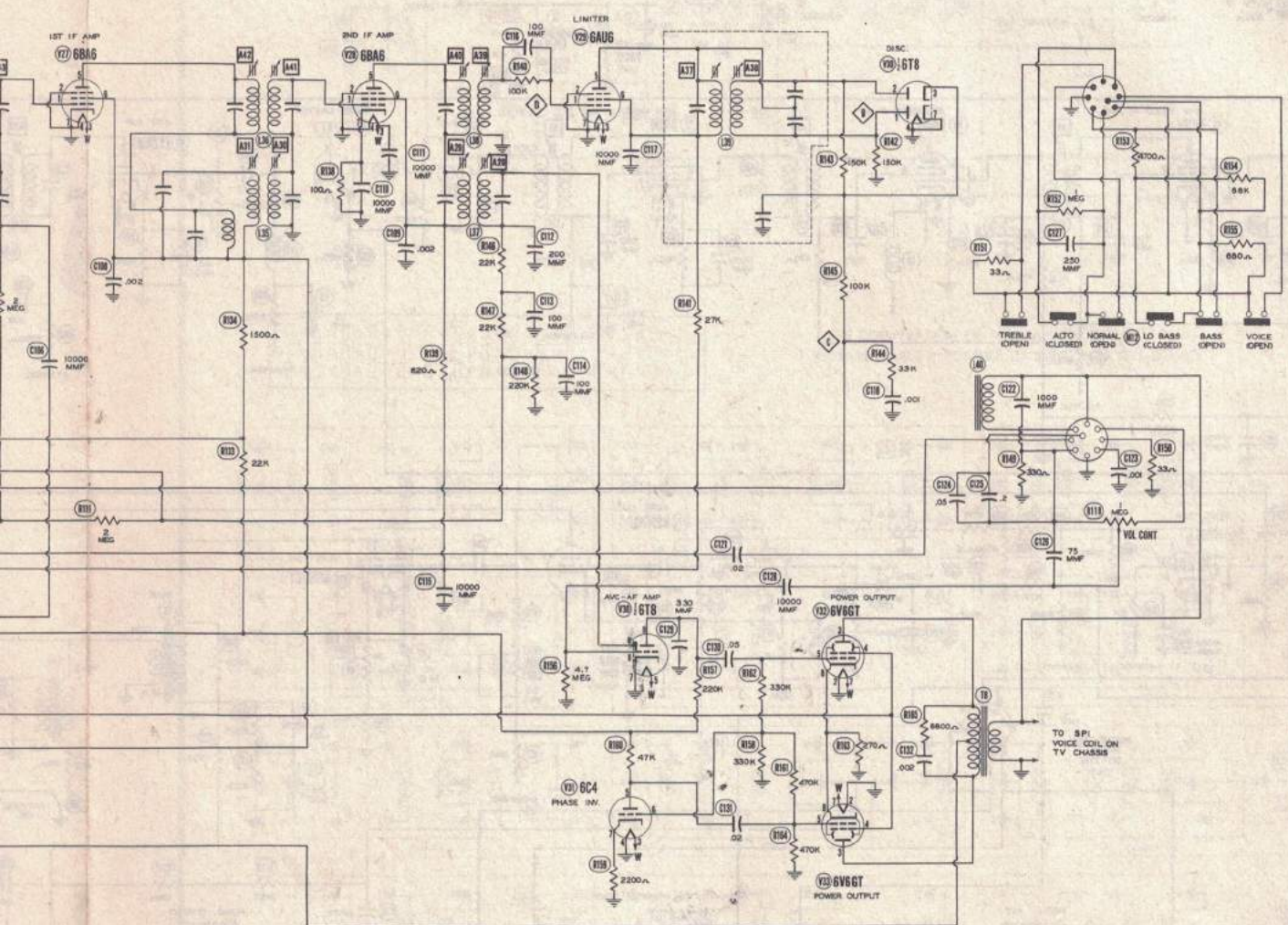
RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4
V21	6B6G	1.50	00	10	00
V22	12AT7	1.00	2.00	00	10
V23	6B6G	1.00	00	10	00
V24	6B6G	1.00	00	10	00
V25	645Y3GT	1.00	1.00	1000	1000
V26	645Y3GT	1.00	1.00	1000	10
V27	645Y3GT	1.00	1.00	1000	10
V28	645Y3GT	1.00	1.00	1000	1000
V29	645Y3GT	1.00	1.00	1000	1000
V30	645Y3GT	1.00	1.00	1000	1000

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RADIO SCHEMATIC



RESISTANCE READINGS

Pin	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
Y23	6B8G	1.5 MEG	.10	.10	.10	14.3KΩ	14.3KΩ	880	100K	
Y26	6A7	1.2KΩ	1.2MΩ	.10	.10	14.3KΩ	14.3KΩ	100K	50	50
Y27	6B8G	1.5 MEG	.10	.10	.10	14.3KΩ	14.3KΩ	100K		
Y28	6B8G	1.5 MEG	.10	.10	.10	14.3KΩ	14.3KΩ	100K		
Y29	6A7	1.2KΩ	.10	.10	.10	14.3KΩ	14.3KΩ	100K		
Y30	6Y1	1.5 MEG	1.5 MEG	.10	.10	14.3KΩ	14.3KΩ	100K	1.5 MEG	1.5 MEG
Y31	6C4	1.5 MEG	1.5 MEG	.10	.10	14.3KΩ	14.3KΩ	100K	1.5 MEG	1.5 MEG
Y32	6Y1GT8	.10	.10	1.5KΩ	1.5KΩ	100K	100K	100K	100K	100K
Y33	6Y1GT8	.10	.10	1.5KΩ	1.5KΩ	100K	100K	100K	100K	100K
Y34	6Y1GT8	.10	.10	1.5KΩ	1.5KΩ	100K	100K	100K	100K	100K

MEASURED FROM PIN 1 OF Y31

IN BY FM PORTION
IN BY AM PORTION
THE MANUFACTURER OF THIS
LE TO BRING YOU THIS SERVICE

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