

### CABINET-REAR VIEW

### HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

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

#### HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

The Horizontal Hold is accomplished by the proper setting of the Horizontal Oscillator Coil Slug. (See "Tube Placement Chart" for location.)

#### WIDTH

The width may be varied by adjusting a metallic sleeve, located between the yoke and the picture tube neck, in or out of the yoke.

### DISASSEMBLY INSTRUCTIONS

#### CHASSIS REMOVAL

1. Remove knobs and the rear cover held by 9 screws.
2. Disconnect all tuner leads, speaker leads and remote control receiver plugs.
3. Remove 1 screw from the front of the cabinet and at the left of the perma-set tuning shaft. Also remove 2 screws holding the rear tuner bracket at the top and remove tuner.
4. Remove 3 remote control chassis bolts from bottom of cabinet and remove remote chassis.

5. Remove 2 screws holding the volume control, 2 screws holding the channel selector switch and 2 screws holding the on-off switch.

6. Remove 4 TV chassis bolts from bottom of cabinet and 4 screws along side of the picture tube retaining band.

7. Remove chassis, control panel, and picture tube assembly.

#### PICTURE TUBE REMOVAL

It is necessary to remove the chassis for picture tube removal. (See "Chassis Removal" above.)



SET 635  
FOLDER 3

ZENITH CHASSIS  
16K23/Q/QS/U



MODEL K3341H

TRADE NAME	ZENITH	Models	Chassis	Remote Chassis
K2705R, Y, K2707L, Y, K2735E, L, R, W, K2736E, M, R, W, K2737E, R, W, K2738E, R, W, K2739E, L, R, W, MK2748M, R, W, MK2786L, R, W, MK2787M, R, RK2748M, R, W, T2025WA, T2026HA, RA, T2027MA, T2050MA, RA, WA, T2052M, R, W, T2070EA, RA, WA, T2072HA, WA, T2073MA, T2075LA, WA, T2077H, R, T2079M, T2080E, R, W, T2086EA, RA, WA.. 16K23				
K2705RU, YU, K2707LU, YU, K2735EU, LU, RU, WU, K2736EU, MU, RU, WU, K2737EU, RU, WU, K2738EU, RU, WU, K2739EU, LU, RU, WU, MK2748MU, RU, WU, MK2786LU, RU, WU, MK2787MU, RU, RK2748MU, RU, WU, T2025WAU, T2026HAU, RAU, T2027MAU, T2050MAU, RAU, WAU, T2052MU, RU, WU, T2070EAU, RAU, WAU, T2072HAU, WAU, T2073MAU, T2075LAU, WAU, T2077HU, RU, T2079MU, T2080EU, RU, WU, T2086EAU, RAU, WAU ..	16K23U			
K3308R, Y, T3025WA, T3026HA, RA, T3027MA, T3074LA, WA .....	16K23Q ...	S-56853		
T3075LA, WA, T3077H, R, T3079M, T3080E, R, W .....	16K23Q ...	S-56854		
K3340E, R, W, K3341H, M, R, W, K3342H, M, R, W, K3345L, R, W, MK3386L, R, W, MK2786L, LU, R, RU, W, WU..4K21, Radio Chassis 9H20LZ1	16K23QS ...	S-56853		
Models: MK2784M, MU, R, RU, W, WU use Amp. Chassis 4K22, Radio Chassis 9H20LZ1 RK2784M, MU, R, RU, W, WU use Amp. Chassis 4K22, Radio Chassis 7F20L MK2787M, MU, R, RU use Amp. Chassis 8H30Z, Radio Chassis 9H20LZ1 MK3386L, R, W, MK2786L, LU, R, RU, W, WU..4K21, Radio Chassis 9H20LZ1				
MANUFACTURER	Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Illinois			
TYPE SET	Television Receiver with Remote Receiver and AM-FM Radio in some models			
TUBES	VHF - Sixteen, UHF - Seventeen			
POWER SUPPLY	110-120 Volts AC, 60 Cycle	RATING	195 Watts, 1.7 Amp. @ 117 Volts AC	
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)			

### SERVICING IN THE FIELD

#### SAFETY GLASS

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

#### FUSE OR FUSE DEVICE

LOCATION

M1 - B+, N 7/10 ..... See "Chassis - Top View"

M2 - 1 1/2" Fuse Wire Fil. See "Chassis-Bottom View" page 4

M3 - AC Input, 5 Amp. .... See "Chassis - Top View"

#### TUNER OSCILLATOR ADJUSTMENT

To touch up the VHF Oscillator, it is necessary to remove the tuner.

#### AGC

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

#### FOCUS

The focus may be varied by means of a Focus control. (See "Tube Placement Chart" for location.)

#### SYNC STABILITY

Sync stability may be varied by means of a Fringe Lock control. (For location, see "Tube Placement Chart".)

#### BUZZ ADJUSTMENT

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

#### CENTERING

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

#### PINCUSHION CORRECTION

Reduce the picture size so that the sides of the raster are visible. Position the 2 magnets so that all the sides are straight.

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



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1963 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana.

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**ZENITH CHASSIS  
16K23/Q/QS/U**

### IMPORTANT FILING NOTICE

Some models covered by this PHOTOFACt Folder employ chassis in addition to the TV chassis. PHOTOFACt Folders covering these additional chassis are packaged immediately behind this Folder and should be filed with this Folder in the yellow filing jacket provided. For specific coverage see index below.

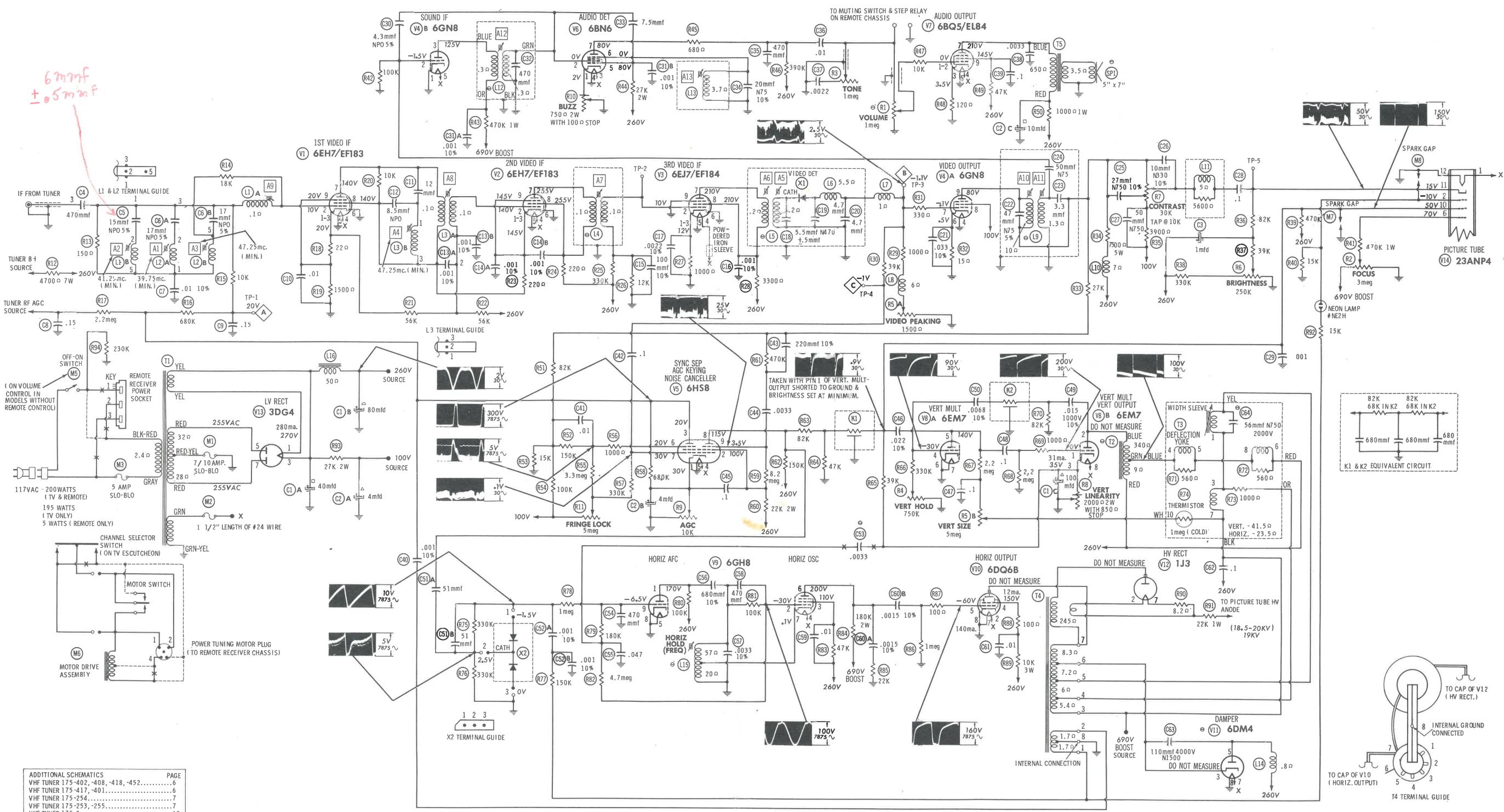
#### INDEX

- Remote Control Receiver S-56853 ..... SET 635, FOLDER 3-A
- Remote Control Receiver S-56854, S-56884 ..... SET 635, FOLDER 3-B
- AM-FM Chassis 7F20, 7F20L . SET 635, FOLDER 3-C
- AM-FM Chassis 9H20LZ1 . . . SET 635, FOLDER 3-D
- Amp. Chassis 4K21, 4K22 . . . SET 635, FOLDER 3-E
- Amp. Chassis 8H30, 8H30Z . SET 635, FOLDER 3-F

**ZENITH CHASSIS  
16K23/Q/QS/U**

**SET 635 FOLDER 3**

*Master file*



DENOTES CHASSIS GROUND

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

A PHOTOFAC STANDARD NOTATION SCHEMATIC  
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ZENITH CHASSIS  
16K23/Q/QS/U

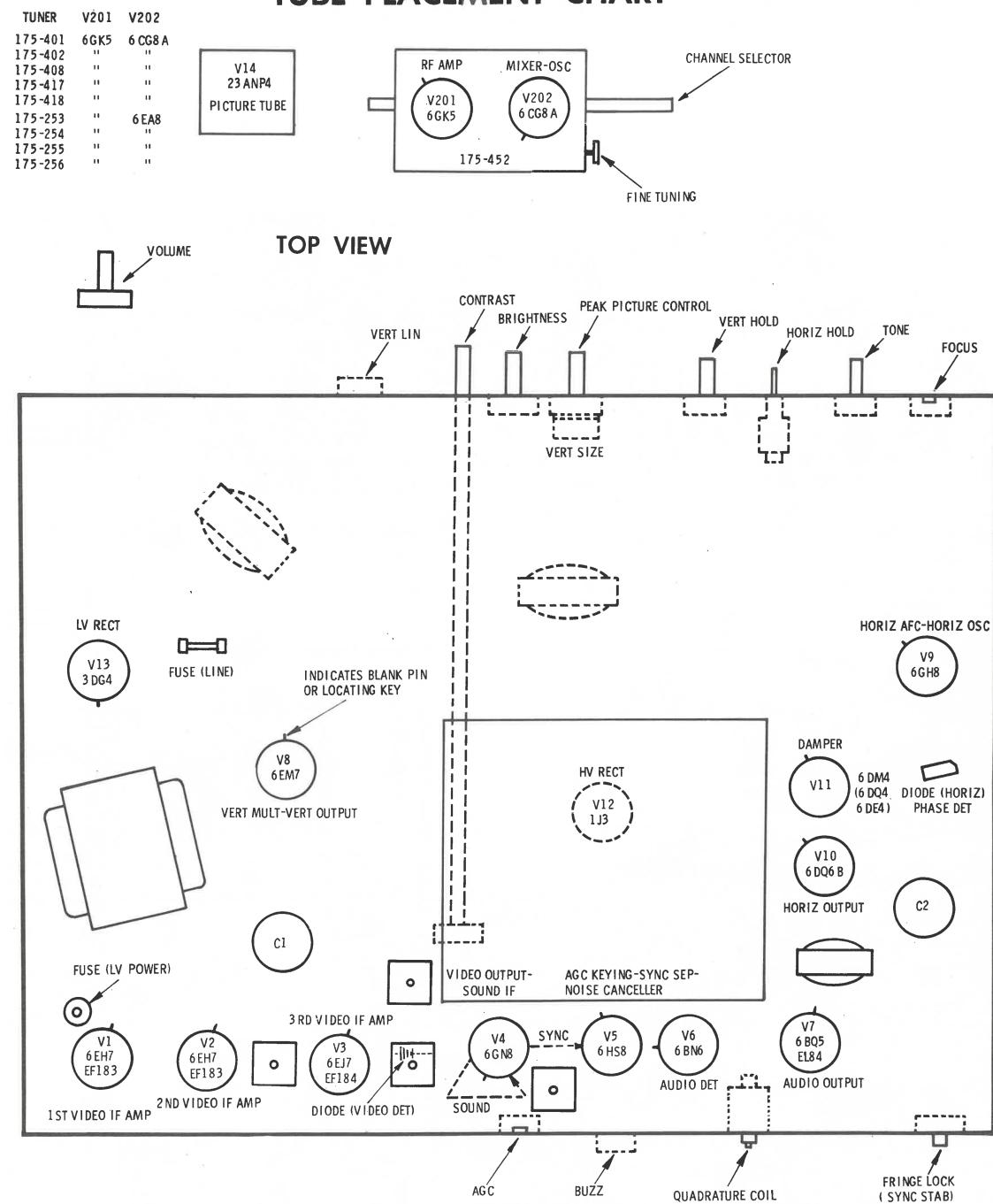
## RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	6EH7 EF183	NC	1.4meg	1500Ω	FIL	FIL	0Ω	♦ 220Ω	♦ 220Ω	1500Ω
V2	6EH7 EF183	INF	35K	INF	FIL	FIL	0Ω	†270Ω	†270Ω	0Ω
V3	6EJ7 EF184	1000Ω	12K	NC	FIL	FIL	0Ω	†2400Ω	†3400Ω	0Ω
V4	6GN8	0Ω	100K	†470K	FIL	FIL	15Ω	1600Ω	†16K	†6500Ω
V5	6HS8	4000Ω	†22K	600K	FIL	FIL	†160K	†1.1meg	†70K	†8.2meg
V6	6BN6	250Ω	.3Ω	FIL	FIL	†27K	3.5Ω	†390K		
V7	6BQ5 EL84	NC	500K	120Ω	FIL	FIL	NC	†1700Ω	NC	†47K
V8	6EM7	2.2meg	†400Ω	1000Ω	600K	†5.5meg	0Ω	FIL	FIL	
V9	6GH8	†100K	95K	†47K	FIL	FIL	†180K	20Ω	0Ω	1.3meg
V10	6DQ6B	TP	FIL	NC	†10K	1meg	NC	FIL	0Ω	TOP CAP †8.5Ω
V11	6DM4	NC	NC	3meg	NC	†50Ω	NC	FIL	FIL	
V12	1J3		PINS	1 THRU 8	HAVE	INFINITE	RESISTANCE			TOP CAP †253Ω
V13	3DG4	¶ 150K	NC	¶ 150K	TP	32Ω	NC	28Ω	TP	
V14	23ANP4	FIL	15K	Pin 6 800K	Pin 10 30K	Pin 11 120K	Pin 12 FIL			
* V201	6GK5	0Ω	3.2meg	FIL	FIL	†5900Ω	0Ω	0Ω		
* V202	6CG8A	4700Ω	†9400Ω	0Ω	FIL	FIL	†4700Ω	†4700Ω	0Ω	220K
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9

¶ THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
 ♦ MEASURED FROM PIN 1 OF V2.  
 NC NO CONNECTION  
 † MEASURED FROM PIN 3 OF V13.  
 TP TIE POINT  
 \* MEASURED FROM PIN 3 OF V11.

† MEASURED FROM PIN 3 OF V13.  
 \* VHF TUNER #175-452

## TUBE PLACEMENT CHART



TUBE PLACEMENT CHART ( BOTTOM VIEW )  
ON PAGE 14

## TUBE FAILURE CHECK CHART

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

**POWER SUPPLY FAILURE**  
No raster, no sound Transformer Fuse M1, Filament Fuse M2, Line Fuse M3, V13.

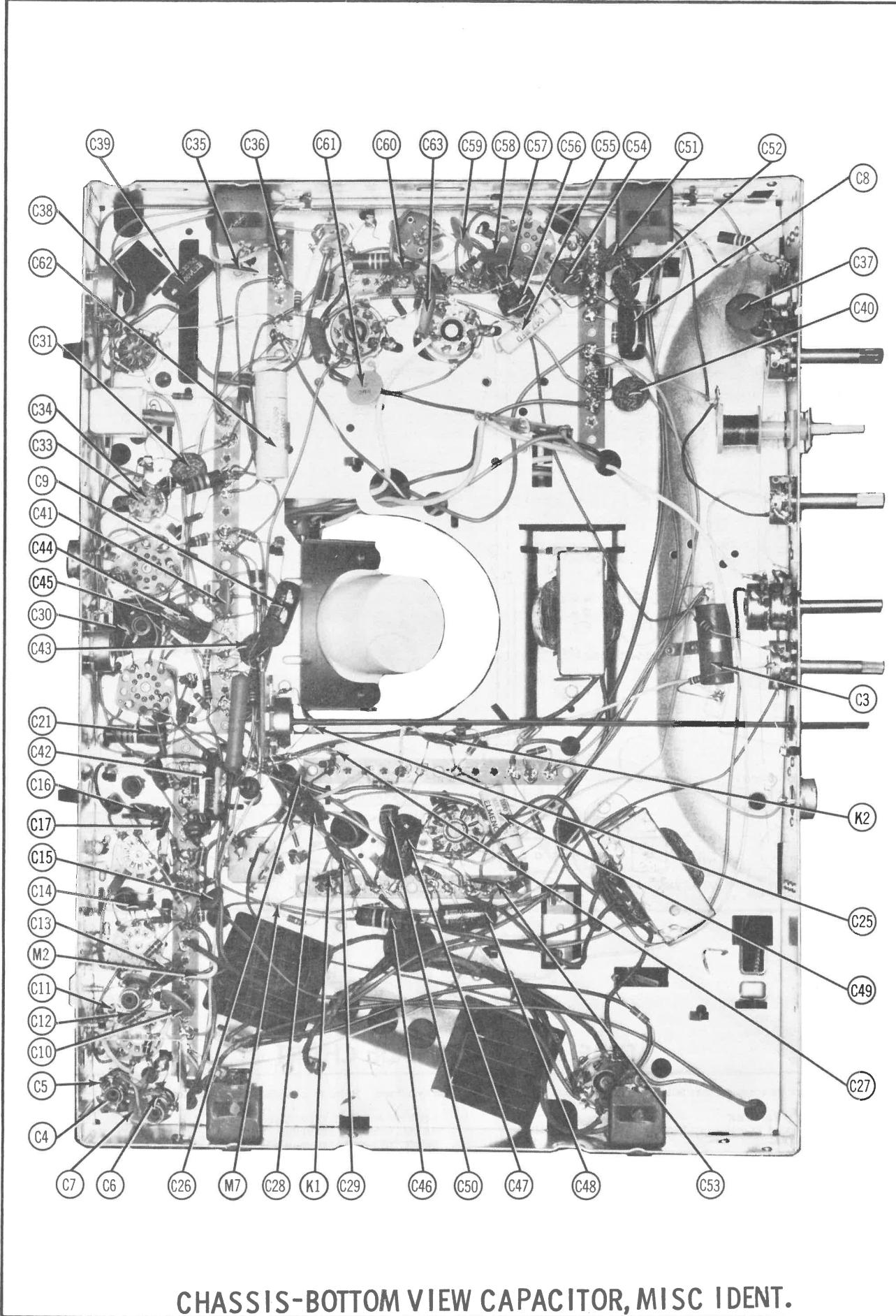
**SWEEP FAILURE**  
No raster, has sound V9, V10, V11, V12, V14  
No vertical deflection V8.

Poor vert. linearity or foldover V8,  
Poor horiz. linearity or foldover V9, V10, V11.  
Narrow picture V8, V10, V11, V13.  
Vert. off freq. V8.  
Horiz. off freq. AFC Diode X2, V9.

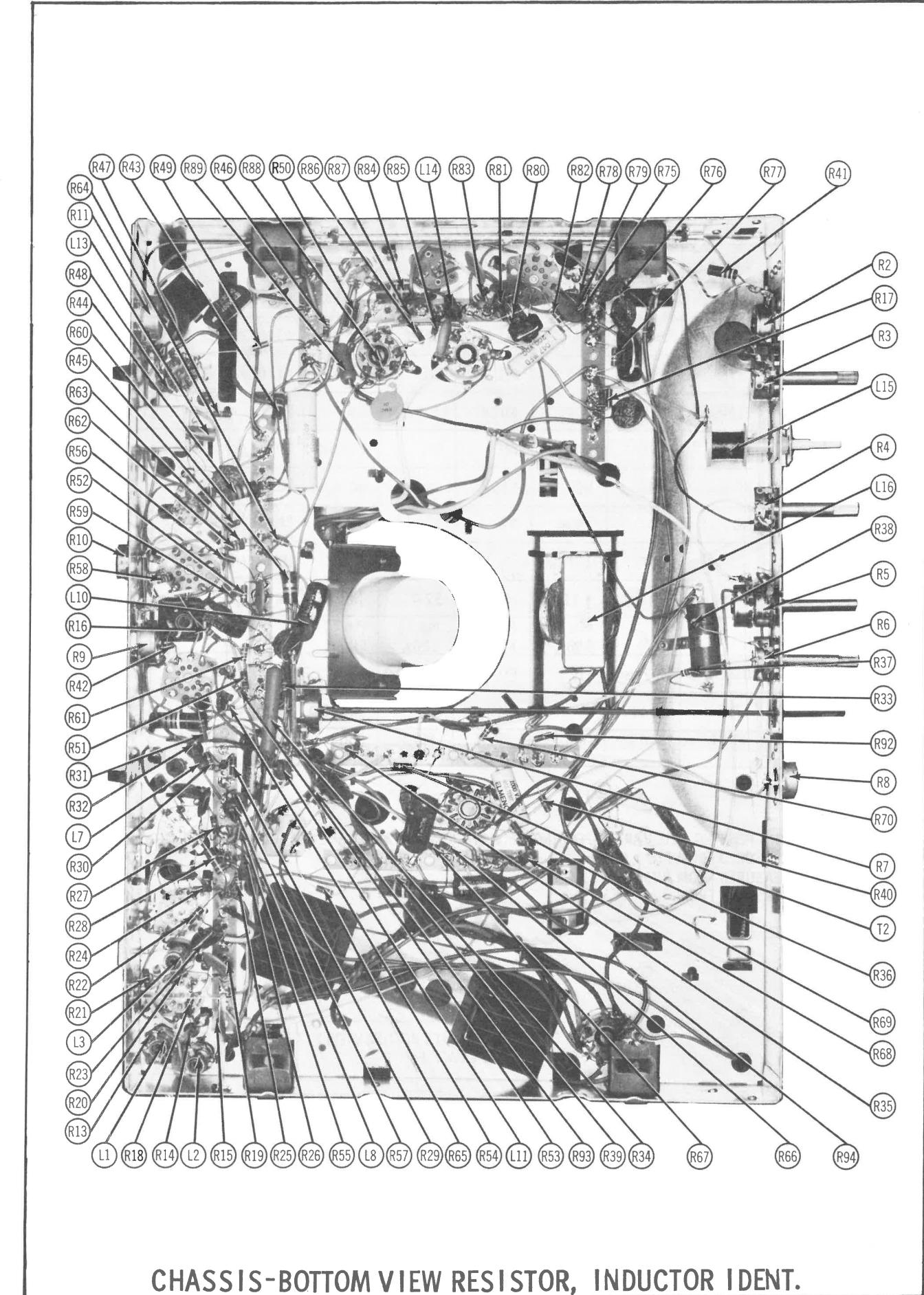
**LOSS OF PICTURE OR SOUND**  
No pic, no sound, has raster V1, V2, V3, Video Det. XI, V4.  
No pic, no sound, has snow V201, V202, V1.  
No pic, has sound, has raster V4, V14.

Has pic, no sound V4, V6, V7.  
Overloaded picture V5.

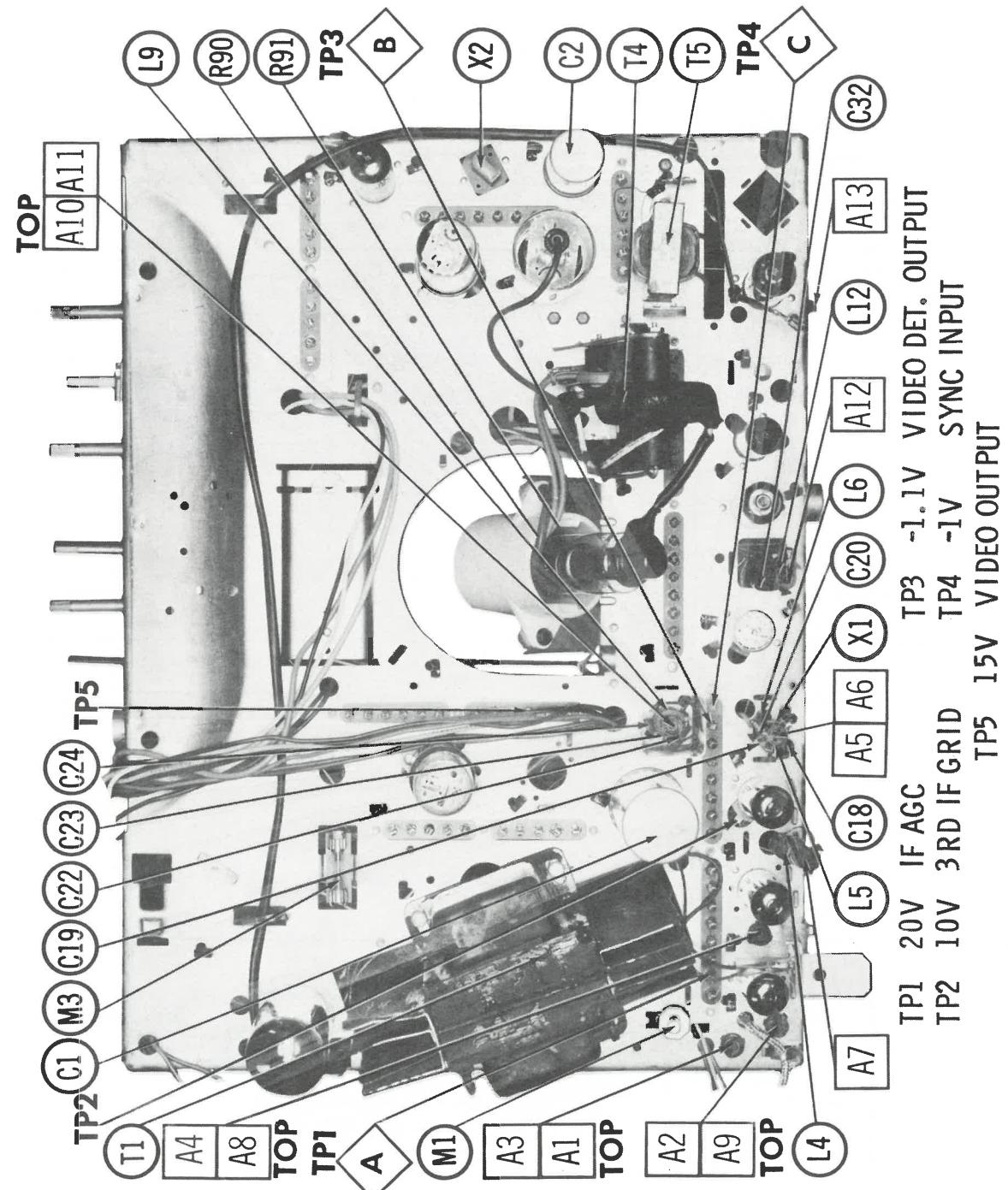
**SYNC FAILURE**  
No vert. sync V5.  
No horiz. sync V5.  
No vert. or horiz. sync V5.



CHASSIS-BOTTOM VIEW CAPACITOR, MISC IDENT.



CHASSIS-BOTTOM VIEW RESISTOR, INDUCTOR IDENT.



CHASSIS-TOP VIEW

## **ALIGNMENT INSTRUCTIONS**

**Suggested Alignment Tools:** A1 Thru A13      GENERAL CEMENT #9302, 8606L 8869      WALSCO # 251L, 2544, 2588  
  Mixer Plate      GENERAL CEMENT #9302, 9296, 9297      WALSCO #251L, 2546, 2647

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown.  
Connect a variable bias supply to the IF AGC line ( point  $\Delta$  ) and adjust to obtain a response curve which shows no indication of overload. Disable Oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.  
Turn the Peak Picture Control to fully counterclockwise. Connect short clip lead from point  $\odot$  , to ground.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1. Connect DC probe of a VTVM thru a 47K resistor to point <b>(B)</b> . Common to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.		39. 75MC 41. 25MC 47. 25MC	A1, A2, A3, A4	Adjust for MINIMUM.
2. Connect vertical input of a scope to point <b>(B)</b> . Low side to ground.	Connect high side to pin 2 (grid) of V3 . Low side to ground.	44MC (10MC Sweep)	39. 75MC 45. 75MC 47. 25MC	A5, A6	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3. Connect vertical input of a scope to point <b>(B)</b> . Low side to ground.	Connect high side to ungrounded tube shield over Mixer-Osc. Low side to ground.	44MC (10MC Sweep)	41. 25MC 42. 75MC 45. 0MC 45. 75MC	A7, A8, A9, Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A 5 and A6.

SOUND IF ALIGNMENT

Tune in a station and reduce the signal strength at the antenna terminals until a hiss is heard in the sound. Align for maximum undistorted sound with MINIMUM buzz by adjusting A10, A11, A12, A13 and Buzz Control. If the hiss disappears during alignment, further reduce the signal strength.

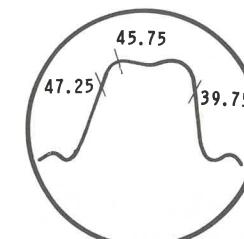


FIG. 1

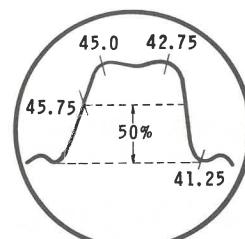
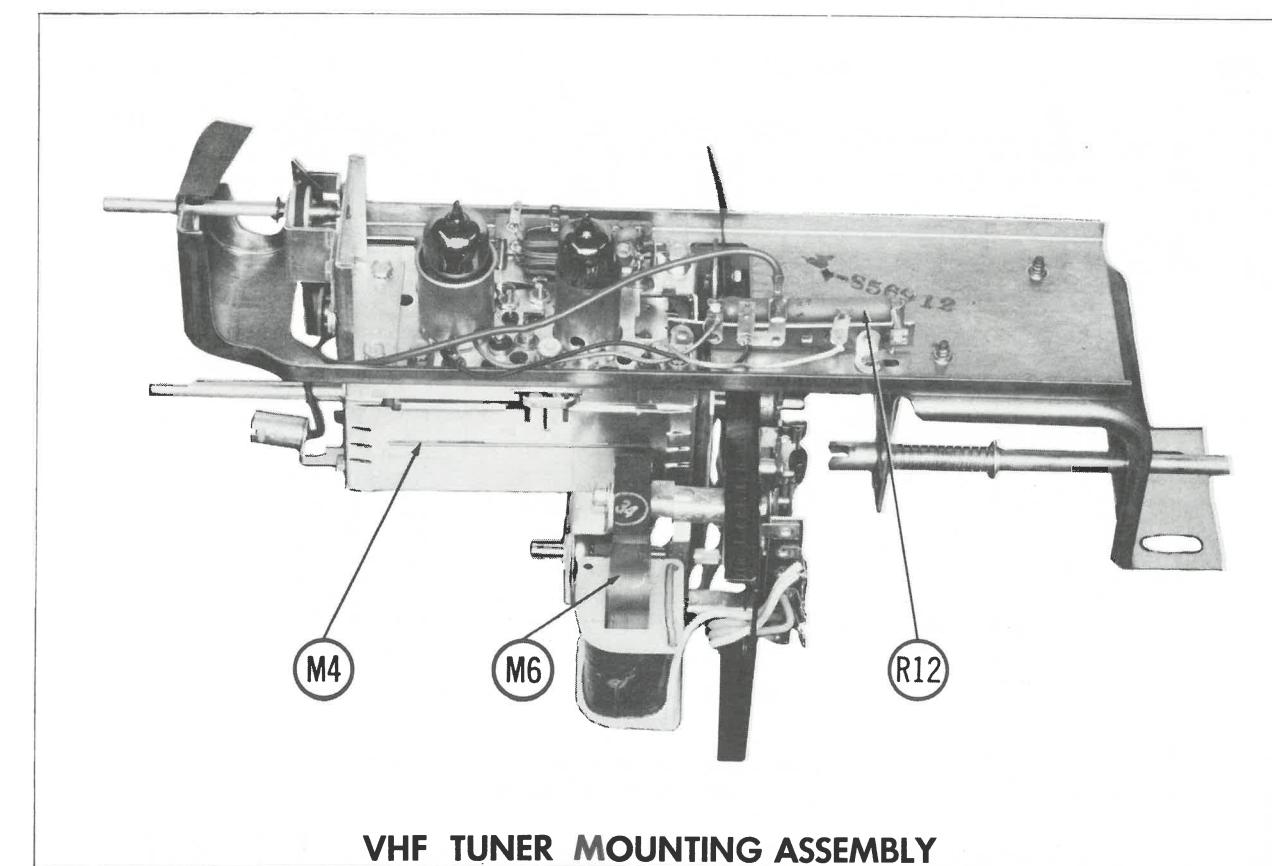
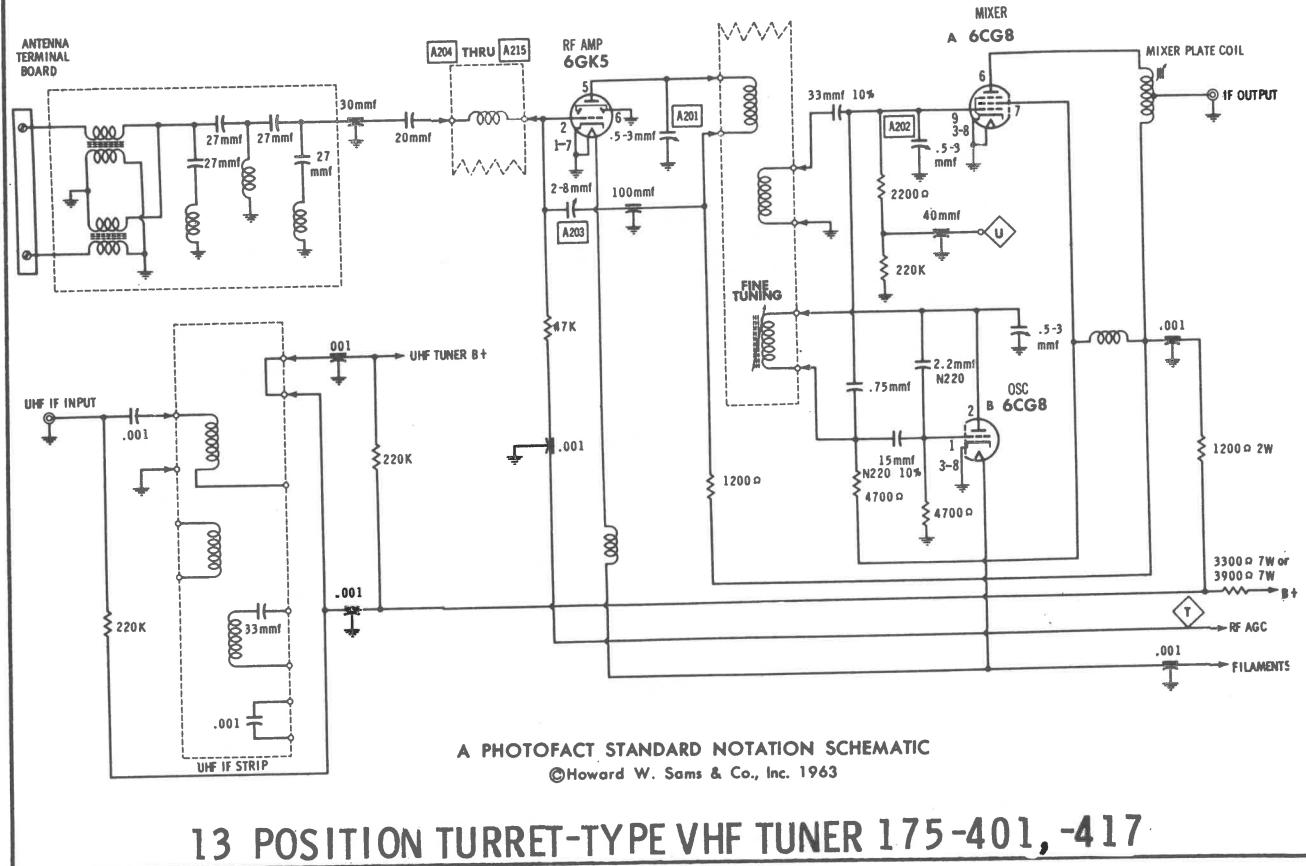
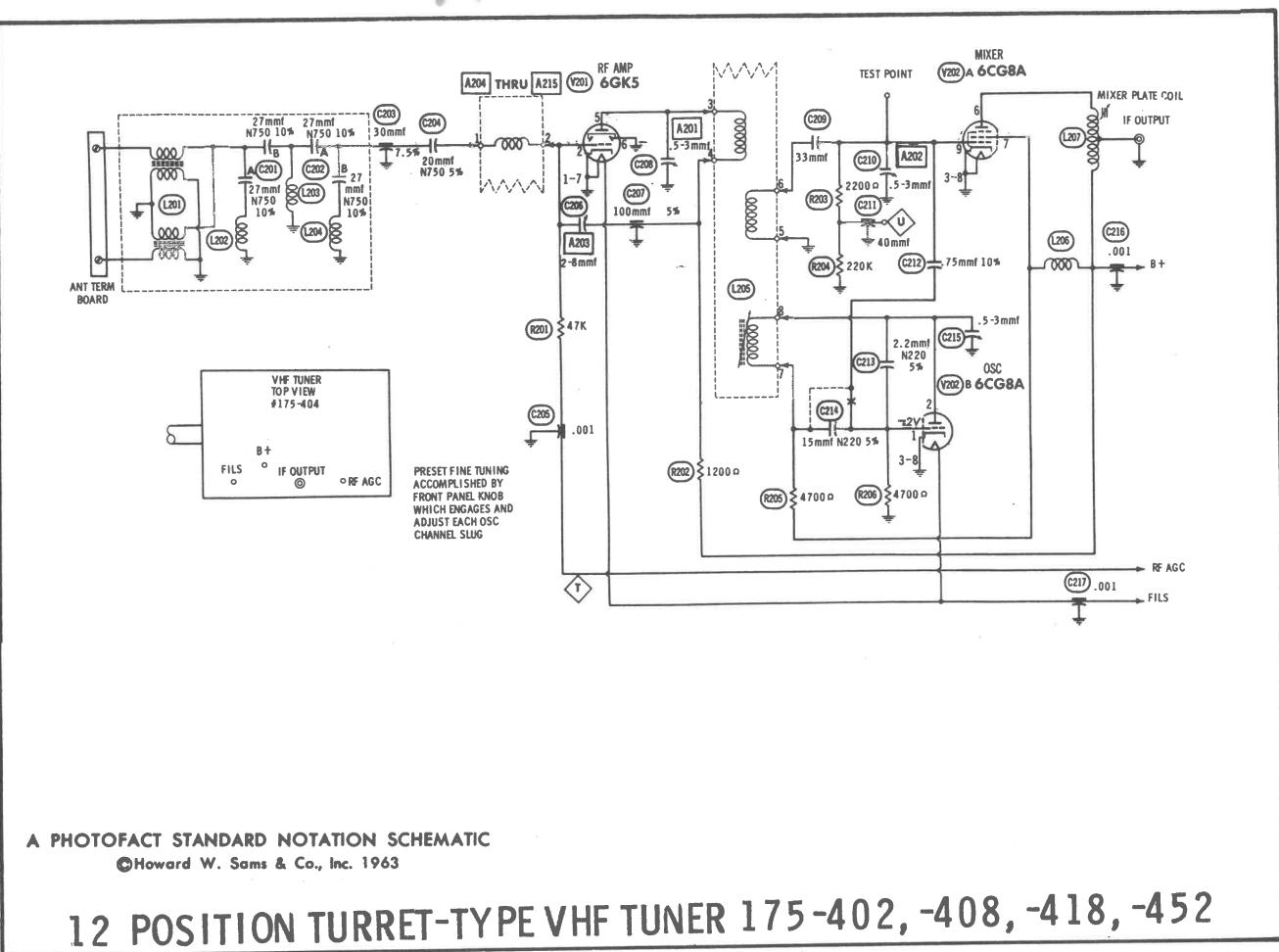


FIG. 2



# VHF TUNER MOUNTING ASSEMBLY

**SET 635 FOLDER 3**



## VHF TUNER ALIGNMENT INSTRUCTIONS

### PRE-ALIGNMENT INSTRUCTIONS

Maintain voltage at 117 volts AC using an isolation transformer. Allow a 20 minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: A201, A202, A203 ... GENERAL CEMENT #9050L, 9150, WALSCO #252L, 2524

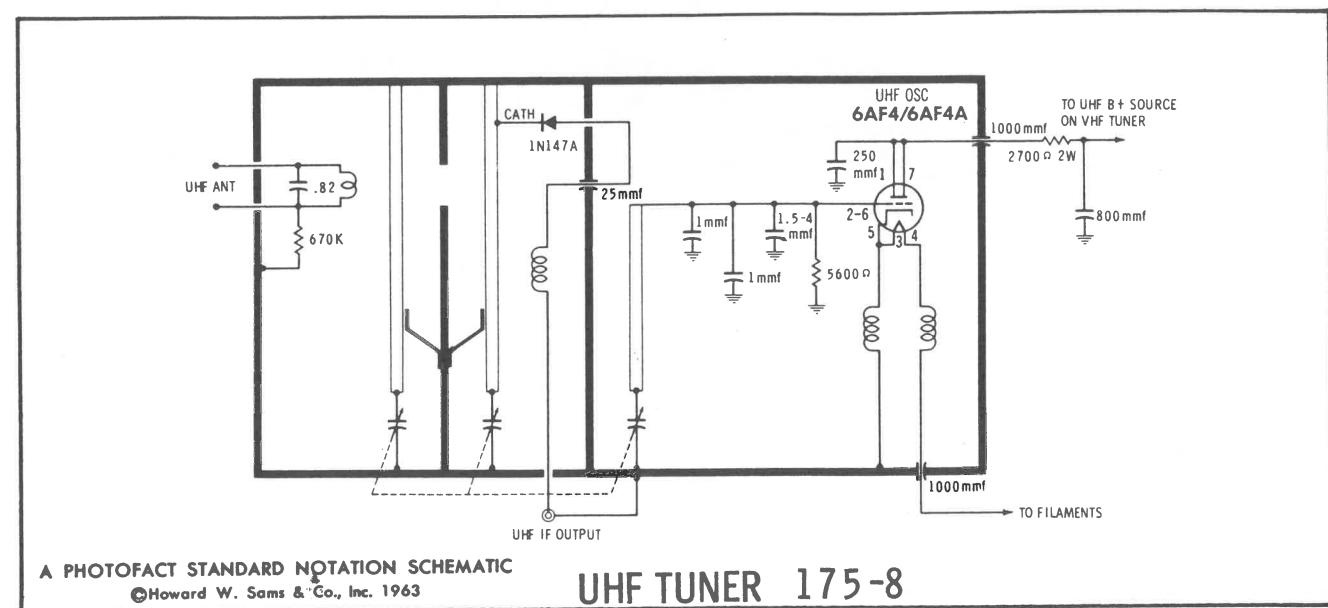
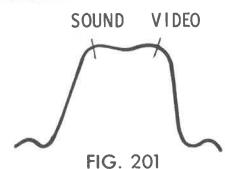
### VHF OSCILLATOR ADJUSTMENT TUNERS 175-253, -254, -255

Set Fine Tuning to center of its range. Adjust the overall oscillator screw for best picture and sound. If the Fine Tuning control will not bring desired results, compress or expand coils or bend tabs to compensate.

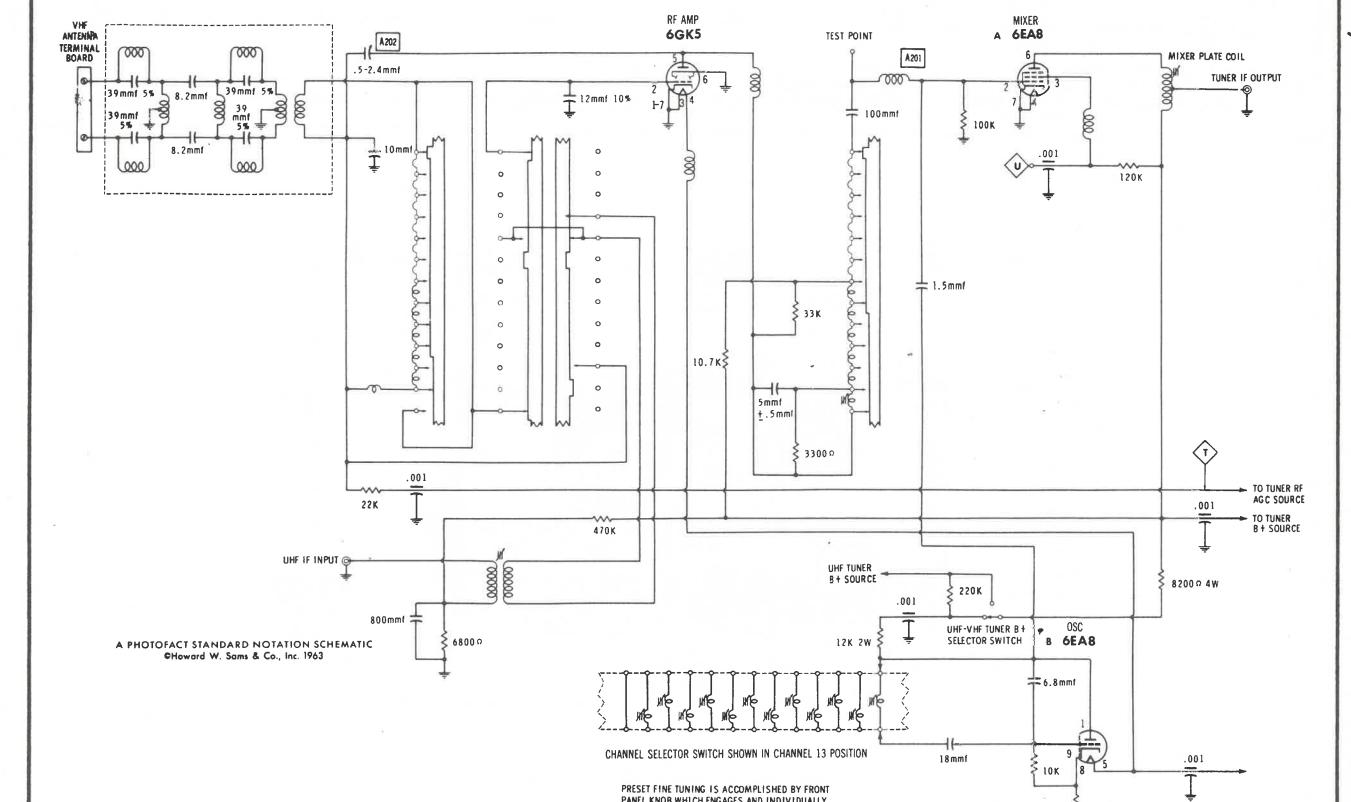
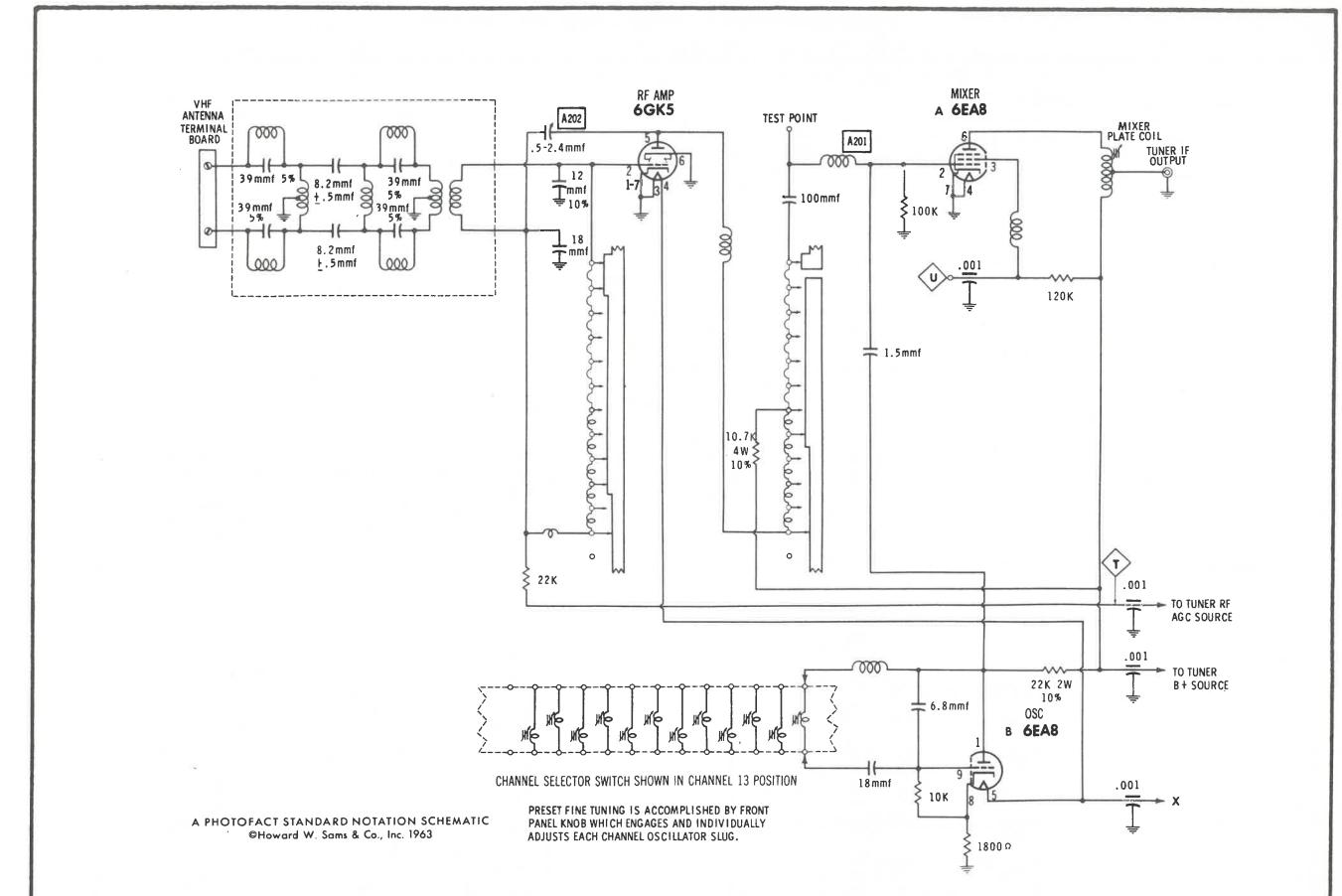
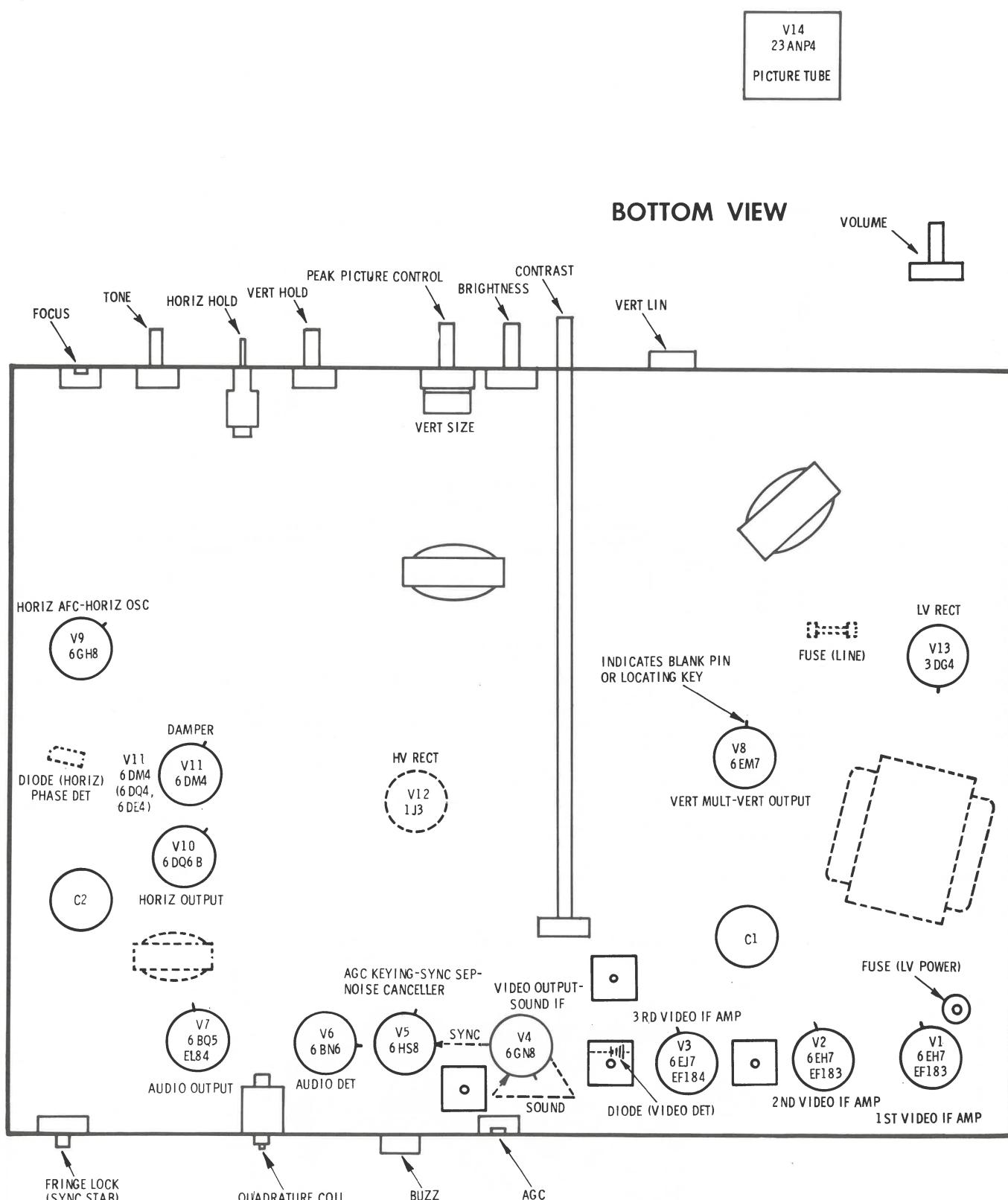
### VHF RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Use 10MC sweep unless otherwise noted. Connect variable bias to RF AGC line at point  $\oplus$ . Adjust bias to obtain response curve which shows no indication of overloading. Coils not containing adjustable cores are adjusted by expanding or compressing coil turns.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminal with 120Ω resistor in each lead	213MC	211. 25 MC 215. 75 MC	13	Vert. Amp. thru demodulator probe to point $\oplus$ . Low side to chassis.	A201, A202	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown. — All Tuners except 175-253, 254.
2. "	177MC	175. 25 MC 179. 75 MC	7	"	A203	Adjust for MINIMUM response on scope.
	207MC	205. 25 MC 209. 75 MC	12		A201, A202	Spread or compress coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown — Tuners 175-253, 254
	201MC	199. 25 MC 203. 75 MC	11			
	195MC	193. 25 MC 197. 75 MC	10			
	189MC	187. 25 MC 191. 75 MC	9			
	183MC	181. 25 MC 185. 75 MC	8			
	85MC	83. 25 MC 87. 75 MC	6			
	79MC	77. 25 MC 81. 75 MC	5			
	69MC	67. 25 MC 71. 75 MC	4			
	63MC	61. 25 MC 65. 75 MC	3			
	57MC	55. 25 MC 59. 75 MC	2			



## TUBE PLACEMENT CHART



**ZENITH CHASSIS  
16K23/Q/QS/U**

**FOLDER 3**

# ALIGNMENT INSTRUCTIONS

## VHF TUNER 175-402, -408, -401, -417, -418, -452

### PRE-ALIGNMENT INSTRUCTIONS

The High Voltage lead should be securely taped and kept away from the chassis.  
Allow a 20 minute warm-up period for the receiver and test equipment.  
Suggested Alignment Tools: A201, A202, A203 ... GENERAL CEMENT #5000, 5003, 5066, 8276, 8290, 9087, 9089  
WALSCO #2512, 2525, 2528

### VHF RF AND MIXER ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. The generator output lead should be terminated with its characteristic impedance, usually 50 ohms. Use only enough sweep generator output to provide a usable pattern on scope. Use 10MC sweep unless otherwise noted.							
	SWEET GENERATOR COUPLING	SWEET GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	Across antenna terminals with 120Ω in each lead.	195MC	193.25MC 197.75MC	10	Vert. Amp. thru 10K to point  . Low side to chassis.	A201, A202, A203	Adjust A201 and A202 for maximum amplitude and symmetry with markers as shown in Fig. 201. Increase bias for MINIMUM amplitude of response curve. Without changing the bias adjust A203 to obtain MINIMUM response on the scope.
2.	"	213MC 207MC 201MC 195MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC	211.25MC 215.75MC 205.25MC 209.75MC 199.25MC 203.75MC 193.25MC 197.75MC 187.25MC 191.75MC 181.25MC 185.75MC 175.25MC 179.75MC 83.25MC 87.75MC 77.25MC 81.75MC 67.25MC 71.75MC 61.25MC 65.75MC 55.25MC 59.75MC	213MC 207MC 201MC 195MC 189MC 183MC 177MC 85MC 79MC 69MC 63MC 57MC	13 12 11 10 9 8 7 6 5 4 3 2	A204 A205 A206 A207 A208 A209 A210 A211 A212 A213 A214 A215	Adjust for maximum amplitude of response similar to Fig. 201. Adjust by expanding or compressing coil turns.

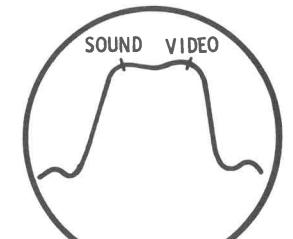
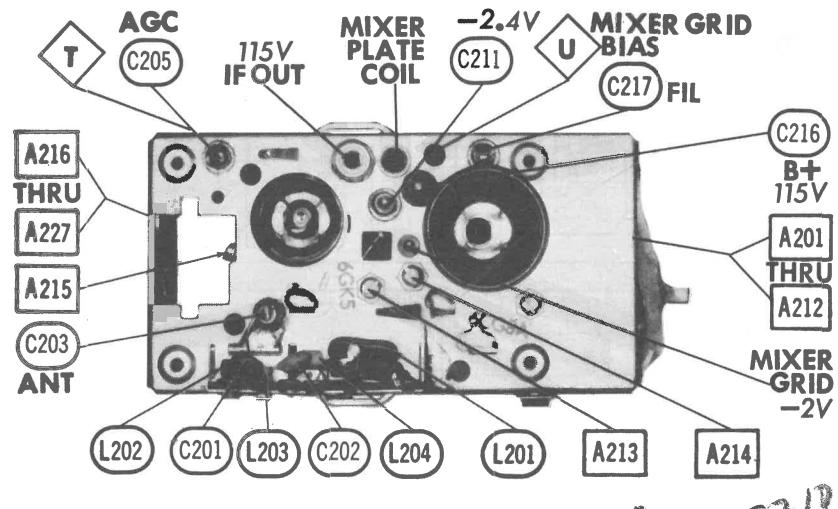


FIG. 201

### VHF OSCILLATOR ALIGNMENT

The Oscillator adjustment slugs are adjusted by turning the Fine Tuning. If one or more channels cannot be tuned in properly by Fine Tuning, adjust A216. Recheck all other channels and repeat until all the operating channels can be properly tuned in.



VHF TUNER 175-402 TOP VIEW

FOLDER 3

# PARTS LIST & DESCRIPTION

## VHF TUNER 175-402

### TUBES

AMPEREX		GENERAL ELECTRIC - RCA		RAYTHEON		SYLVANIA	
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	TYPE
V201	R.F. Amp.	6GK5	V202	Mixer - Osc.	6CG6A		

### FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CONNELL-DUNIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C20LA	27 N750 10%	N750-DI 25	TCN-27	TCN-27	TCN-27	CCTN-270	CNT-427	10TCU-Q27
B	27 N750 10%	N750-DI 25	TCN-27	TCN-27	TCN-27	CCTN-270	CNT-427	10TCU-Q27
C202A	27 N750 10%	N750-DI 25	TCN-27	TCN-27	TCN-27	CCTN-270	CNT-427	10TCU-Q27
B	27 N750 10%	N750-DI 25	TCN-27	TCN-27	TCN-27	CCTN-270	CNT-427	10TCU-Q27
C203	30 N750 7.5%	#22-3111						
C204	.001 N750 5%	EF-001	DTN-20 MFT-1000 829-7	CIOQ2U	CCF-102	CN7-420	CT280A	10TCU-Q20
C205	.001							
C206	2-8	#22-3572						
C207	100	#8-53741						
C208	5-3		NPO-SI 33	829-3	CV-1	CT565	CNO-433	10TCC-Q33
C209	33			TCZ-33				
C210	5-3			829-3	CV-1	CT565	CT565	
C211	40							
C212	.75	#22-3112						
C213	2.2 N220 5%							
C214	15 N220 5%	#22-3564						
C215	.5-3	#22-3563						
C216	.001	EF-001	829-3					
C217	.001	EF-001	MFT-1000					

\* Zenith Part Number

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

### RESISTORS

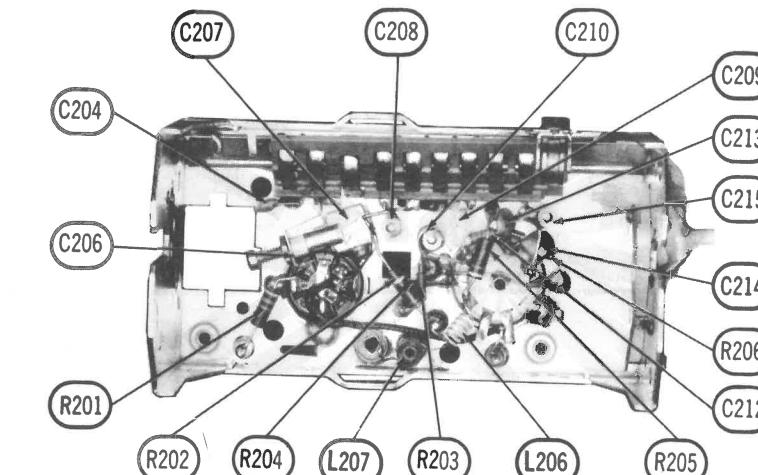
All wattages 1/2 watt, or less, unless otherwise listed.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN TV PART No.	REMARKS			IRC PART No.	WORKMAN TV PART No.	REMARKS
R201	47K				R204	220K			
R202	1200Ω				R205	4700Ω			
R203	2200Ω				R206	4700Ω			

### COILS (RF-IF)

ITEM No.	USE	ZENITH PART No.	NOTES
L201	Ant. Trans.	8-53545	Includes Filter Assembly
L202	RF Choke	20-928	
L203	RF Choke	20-928	
L204	RF Choke	20-880	
L205A	Ant., RF, Mixer, & Osc.	174-82	Channel 2
B	"	174-83	Channel 3
C	"	174-84	Channel 4
D	"	174-85	Channel 5
E	"	174-86	Channel 6

ITEM No.	USE	ZENITH PART No.	NOTES
L205F	Ant., RF, Mixer, & Osc.	174-97	Channel 7
G	"	174-98	Channel 8
H	"	174-89	Channel 9
J	"	174-90	Channel 10
K	"	174-91	Channel 11
L	"	174-92	Channel 12
M	"	174-93	Channel 13
L206	RF Choke	20-927	
L207	Mixer Plate	8-47370	



VHF TUNER 175-402 BOTTOM VIEW

## CABINETS &amp; CABINET PARTS (cont)

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

ITEM	PART No.
<b>Escutcheon Models:</b>	
RK2784M, MU, R, RU, W, WU, MK2784M, MU, R, RU, W, WU, MK2786L, LU, R, RU, W, WU, MK2787M, MU, R, RU, K2735E, EU, L, LU, R, RU, W, WU.	57-3870
Escutcheon, Models T3025WA, T3026HA, RA, T3027MA.	57-3896
Escutcheon, Models T3074LA, WA, T3075LA, WA, T3077H, R, T3079M, T3080E, R, W.	57-3895
Escutcheon, Models K3308R, Y.	57-3894
Escutcheon, Models T2025WA, WAU, T2026HA, HAU, T2026RA, RAU, T2027MA, MAU.	57-3865
Escutcheon, Models T2050MA, MAU, RA, RAU, WA, WAU, T2052M, MU, R, RU, W, WU, T2070EA, EAU, RA, RU, WA, WAU.	57-3574
Escutcheon, Models T2072HA, HAU, WA, WAU, T2073MA, MAU, T2075LA, LAU, WA, WAU, T2077H, HU, R, RU, T2079M, MU, T2080E, EU, T2080R, RU, W, WU.	57-3868
Escutcheon, Models K2705R, RU, Y, YU, RA, RAU, WA, WAU.	57-3920
Escutcheon, Models K2707L, LU, Y, YU, Escutcheon, Models K2736E, EU, M, MU, R, RU, W, WU, K2737E, EU, R, RU, W, WU.	57-3872
Knob-Channel Selector, Models K3340E, R, W, K3341H, M, R, W, K3342H, M, R, W, K345L, R, W, MK3386L, R, W, T3025WA, T3026HA, RA, T3027MA, T3074LA, WA, T3075LA, WA, T3077H, R, T3079M, T3080E, R, W, K3308R, Y.	57-3573
Knob-Channel Selector, Models K2738R, RU, W, WU, K2739E, EU, L, LU, R, RU, W, WU, MK2786L, LU, R, RU, W, WU, MK2787M, MU, R, RU, K2707L, LU, Y, YU, K2735W, WU, K2736E, EU, M, MU, R, RU, W, WU, K2737E, EU, R, RU, W, WU, K2738E, EU.	46-2977
Knob-Channel Selector, Models RK2784M, MU, R, RU, W, WU, MK2784M, MU, R, RU, W, WU, K2705R, RU, Y, YU.	46-2704
Knob-Channel Selector, Models T2025WA, WAU, T2026HA, HAU, RA, RAU, T2077H, HU, RU, WU, T2079M, MU, T2080E, EU, R, RU, W, WU, T2027MA, MAU, T2072HA, HAU, WA, WAU, T2073MA, MAU, T2075LA, LAU, WA, WAU.	46-2976
Knob-Channel Selector, Models T2050MA, MAU, RA, RAU, WA, WAU, T2052M, MU, R, RU, W, WU, T2070EA, EAU, RA, RAU, WA, WAU.	46-2510
Knob-Channel Selector, Models T2070EA, EAU, RA, RAU, WA, WAU.	46-2532
Knob-Channel Selector, Models K2735E, EU, L, LU, R, RU.	46-2927
Knob-Fine Tuning, Models K3340E, R, W, K3342H, M, R, W, MK3386L, R, W.	S-56888
Knob-Fine Tuning, Models K3341H, M, R, W, K3345L, R, W.	S-56911
Knob-Fine Tuning, Models K2735E, EU, L, LU, R, RU, W, WU, K2736E, EU, M, MU, R, RU, W, WU, K2737E, EU, R, RU, W, WU, K2738E, EU.	S-56267
Knob-Vert. Hold, All Models	46-3103
Knob-Vert. Hold, Brightness, Tone, All Models	S-55019
Knob-Volume, Models K3340E, R, W, K3341H, M, R, W, K3342H, M, R, W, K3345L, R, W, MK3386L, R, W.	S-56479
Knob-Volume, Models K2738E, EU, R, RU, W, WU, K2739M, MU, R, RU, W, WU, MK2786L, LU, R, RU, W, WU, MK2787M, MU, R, RU, K2736E, EU, M, MU, R, RU, W, WU, K2737E, EU, R, RU, W, WU, K2738E, EU, Y, YU, K2705R, RU, Y, YU, K2707L, LU, Y, YU, K2735E, EU, L, LU, R, RU, W, WU, K2737E, EU, R, RU, W, WU.	S-54961
Knob-Volume, Models T2070EA, EAU, RA, RAU, WA, WAU, T3025WA, T3026HA, RA, T3027MA, T3074LA, WA, T3075LA, WA, T3077H, R, T3079M, T3080E, R, W, K3308R, Y, T2025WA, WAU, T2026HA, HAU, RA, RAU, T2027MA, MAU, T2050MA, RA, WA, T2052M, R, W, T2070EA, RA, WA.	S-45716
Knob-Volume, Models T2050MA, RA, WA, T2052M, R, W, T2070EA, RA, WA.	S-46726
Knob-Contrast, All Models	S-55379
Knob-Fine Tuning, Models RK2784M, MU, R, RU, W, WU, MK2784M, MU, R, RU, W, WU.	S-52904
Knob-Fine Tuning, Models T3025WA, T3026HA, RA, T3075LA, WA, T3077H, R, T3079M, T3080E, R, W, K3308R, Y.	S-53118

## PARTS LIST AND DESCRIPTION

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

## TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V1	1st Video IF Amp.	6EH7/EF183	V7	Audio Output	6BQ5/EL84
V2	2nd Video IF Amp.	6EH7/EF183	V8	Vert. Mult. - Vert. Output	6EM7
V3	3rd Video IF Amp.	6EJ7/EF184	V9	Horiz. AFC - Horiz. Osc.	6GH8
V4	Video Output - Sound IF	6GN8	V10	Horiz. Output	6DQ6B
V5	AFC Keying - Sync Sep. - Noise Canceller	6HS8	V11	Damper	6DM4 (6DQ4, 6DE4) *
V6		6BN6	V12	HV Rectifier	LJ3
			V13	LV Rectifier	3DG4

\* Alternate

## PICTURE TUBE

ITEM No.	ZENITH PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	RAYTHEON PART No.	SYLVANIA PART No.	NOTES
V14	23ANP4	23ANP4/ATP4 /BKP4/BLP4 ①	23BKP4 ①		23ANP4 ②	① Aluminized ② Silver Screen "85"

## POWER RECTIFIERS &amp; SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS			NOTES
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1		103-23 ✓ 103-32 ✓				Video Detector Crystal Dual Selenium, Horiz. AFC

## ELECTROLYtic CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA							
		ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBLILER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.		
CIA	■ 40	400	22-3137 ✓	AFHS4-57-93	C0890	XC3-41	FP332.2	TMT3480	TVL-3683
B	■ 80	400							
C	▲ 100	50							
C2A	▲ 4	350	22-3874 ✓	AFH3-174-65		XC3-1		TVLS-3672.1*	
B	4	150							
C	■ 10	400							
C3	1	350	22-3495 ✓	PRSL700	BR1-450	TT350X2		TVA-1700	

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

## FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBLILER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	470		BPD-00047	DD-471	BYA10T47	CCD-471	B-347	10TS-T47
C5	15	NPO 5%					CNO-415	10TCC-Q15
C6A	17	NPO 5%	#22-3465					
B	17	NPO 5%						
C7	.01	10%						
C8	.15	200V	P288N-15	IDR5SI	CCD-103	GP110	MS-11	2TM-P15
C9	.15	200V	P288N-15	CUB2P15	2CP-4-154	GEM-2015	2TM-P15	
C10	.01		BPD-01	BYA10S1	CCD-103	B-110	5HK-S10	
C11	12		SI 12	LI0Q12	CCD-120	GP412	10TS-Q12	
C12	8.5 NPO	#22-2643						
C13A	.001	10%	DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
B	.001	10%	DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C14A	.001	10%	DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
B	.001	10%	DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C15	100	10%	DI-100	DD-101	LI0T1	CCD-101	GP310	10TS-T10
C16	.001	10%	DI-1000	DD-102	5R5D1	CCD-102	GP210	10TS-D10
C17	.0022	10%	DI-2200	CPR-2200J	IR5D22	CCD-222	GP222	10TS-D22
C18	5.5 N470 .5mmf	#22-3221						
C19	4.7	NPO-SI 4.7	TCZ-4R7	C10V47C	CCTO-4R7	CNO-547	10TCC-V	

## FIXED CAPACITORS (cont)

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C38 .0033	.0033		BPD-0033	DD-332	CDD-332	B-233	5HK-D33	
C39 .1 400V	.1 400V		P488N-1	DF-104	4DP-4-104	GEM-401	4TM-PI0	
C40 .001 10%	.001 10%		DI-1000	DD-102	5R5D1	CDD-102	10TS-D10	
C41 .01	.01		BPD-01	DD-103	BYA10SI	CDD-103	B-110	5HK-S10
C42 .1 400V	.1 400V		P488N-1	DF-104	CUB4P1	4DP-4-104	GEM-401	4TM-PI0
C43 220 10%	220 10%		DI-2220	DD-221	LJUT22	CDD-221	GP322	10TS-T22
C44 .0033	.0033		BPD-0033	DD-332	BYA10D33	CDD-332	B-233	5HK-D33
C45 .1 400V	.1 400V		P488N-1	DF-104	CUB4P1	4DP-4-104	GEM-401	4TM-PI0
C46 .022 400V 10%	.022 400V 10%		BEAS22	PM4822	CUB6P1	4DP-2-223	4PS-S22	6TM-PI0
C47 .1 600V	.1 600V		P688N-1	DF-104	CUB4P1	4DP-4-104	GEM-601	4TM-PI0
C48 .1 400V	.1 400V		P488N-1	DF-104		16DP-4-153	PVC-4268	6PS-D68
C49 .015 1000V 10%	.015 1000V 10%					6DP-1-682		
C50 .0068 200V 10%	.0068 200V 10%						PVC-4268	6PS-D68
C51 51	51	#22-25						
C52A .001 10%	.001 10%		DI-1000	DD-102	5R5D1	CDD-102	GP210	10TS-D10
C53 .0033	.0033		DI-1000	DD-102	BYA10D33	CDD-332	B-233	5HK-D33
C54 .470	.470		BPD-0033	DD-332	BYA10T47	CDD-471	B-347	10TS-T47
C55 .047 200V	.047 200V		BPD-0047	DD-471	CUB2847	4DP-4-473	GEM-2147	2TM-S47
C56 680 10%	680 10%		P288N-047	DD-503	PM65D3	CM-20B-68J	MS-368	
C57 .0033 10%	.0033 10%		1469-00068	CPR-680J	PM65D3	6DP-1-322	6PS-D33	
C58 470	470		BE6D33	CPR-3300J	BYA10T47	CDD-471	B-347	10TS-T47
C59 .01	.01		BPD-0047	DD-471	CD-103	B-110	5HK-S10	
C60A .0015 10%	.0015 10%		BPD-01	DI-1500	CPR-1500J	5R5D15	GP215	10TS-D15
C61 .01	.01		DI-1500	CPR-1500J	5R5D15	CDD-1520	GP215	10TS-D15
C62 .1 600V	.1 600V		BPD-01	DD-103	BYA10SI	CD-103	B-110	5HK-D10
C63 110 4000V N1500	110 4000V N1500		P688N-1	DF-104	CUB6P1	6DP-5-104	GEM-601	6TM-PI0
C64 56 2000V NT50	56 2000V NT50	#22-2694						

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

① Not used in some versions.

② Value may vary from 47 to 72mmf, 3000V 10% in this application.

# Zenith Part Number

## CONTROLS

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

ITEM No.	USE	RESISTANCE	REPLACEMENT DATA					
			ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.	
R1 Volume	lmeg	63-4907 ①	AB-70, AK-33, or (F2-lmeg, SFS2L2)	A47-lmeg-Z, RS-3/16	Bl3-137, SK9, or (BU1, CF26, SS4, DC1) *	U-53, DS-37, or (UA16A, SD3500)		
	Volume, Power On-Off Switch	lmeg	63-4861 ②	APL-897, AK-33	C47S-lmeg-S, RS-3/16	PPI6L, DS-37, or (RUP16L, SL-35)		
R2 Focus	3meg	63-4455	TT-84, or (F1-3meg, AK-38, SN010)	B47-3meg-S	Bl3-137, or (BU1, CF26, SS4, DC1) *	SU-59, or TA36L or UA36L		
R3 Tone	lmeg	63-4488	T-70, or (F2-lmeg, SU-204)	A47-lmeg-Z, KSS-3	QI3-137, or (BU1, CF26, SS1, DC1) *	U-53, or TA16A or UA16A, SL3500		
R4 Vertical Hold	750K	63-4486	B-66, or (F1-750K, SU204)	A47-750K-S, KSS-3	U-54, or UA16L, SL3500, or TA16L			
R5A B Video Peaking Vertical Size	1500Ω 5meg	63-4990	F1-1500, FSP111, R1-5meg	P-1500-S, P-5meg-S, FP-109	Bl3-130, or TM5	U-44, or (UA254A, SL3500)		
R6 Brightness	250K	63-4487	B-51, or (F2-250K, SU204, AK-38)	A47-250K-Z, KSS-3				
R7 Contrast	30K, 10K Tap	63-4489	TT-14, or (F1-10K, AK-38, SS006)	A47-10K-S	Bl3-116, TM4, or (BU1, CF8, SS6)*	FL-2K ③		
R8 Vertical Linearity	2000Ω 2W Stop 850Ω Stop	63-4784	WN-152 ③	39-1500 ③	Bl3-116, TM4, or (BU1, CF8, SS6)*	BL-20, or UA14L, SN1000, or TA14L		
R9 AGC	10K	63-4095	TT-14, or (F1-10K, AK-38, SS006)	WN-751 ④	39-800 ④	BL-650 ④		
R10 Buzz	750Ω, 2W 100Ω Stop 5meg	63-3284	F2-5meg, SS006, AK-38	B47-5meg-Z	Bl3-141, TM4, or (BU1, CF29, SS6)*	U-65, or (UA56A, SN1000)		
R11 Fringe Lock		63-4012						

① Used in Chassis 16K23QS only.

② Used in Chassis 16K23, U, 16K23Q.

■ "STA-LOC" Equivalent: FA152L, OFS1687, RU56L, IK625.

\* used in model T2040P

## RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA						
		IRC PART No.	WORKMAN PART No.	REMARKS	ITEM No.	RATING	IRC PART No.	WORKMAN PART No.
R12 4700Ω 7W PW10-4700	7W-SQ-4700				R89 10K 3W	PW5-10K	5W-SQ-10K	

## COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					
		ZENITH PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	Workman PART No.	NOTES
L1A 1st Video IF	S-51749	TV-132	6222 †	RTC-8552 †	T224 †	† Disregard Secondary. Drill mounting hole.	
B 41.25MC Trap	S-53053	TV-152	6225 ▲	RTC-8556 ▲	T218 ▲	▲ Drill new mounting hole.	
L2A 39.75MC Trap	S-51752	TV-153	6225 ▲	RTC-8556 ▲	T218 ▲		
L3A 2nd Video IF	S-51755	TV-130	6224	RTC-8555	TH233	①Part #S-51754 Coil only. ②Part #S-47968 Coil only.	
B 47.25MC Trap	S-47967 ②	20-2013	6177	RTC-8594	T304		
L4 3rd Video IF Ass'y	S-51755 ①	TV-181	6177	RTC-8520	T859	③Part #S-50341 Coil only.	
L5 4th Video IF Ass'y	S-47967 ②	20-2014	4610	RTC-8520	T910	④Wound on 5.6K Resistor. *Shunt with 5.6K Resistor.	
L7' RF Choke (6uh)	20-2004	TV-184	6180	RTC-8597		⑤Part #S-41899 Coil only.	
L8' Peaking (10uh)	20-2014						
L9A Sound Takeoff Ass'y	S-56503 ③	TV-185	6181	RTC-8598	T315		
B 4.5MC Trap	20-2012						
L10 Peaking (250uh)	20-2504 ④	TV-185	6153 *	RTC-8585 *	T307 *		
L11 Peaking (120uh)	S-56508 ⑤	TV-108	1466	RTC-8537	T244		
L12 Sound IF Assembly	S-47072	TV-121	1480	RTC-8809	T251		
L13 Quadrature	S-47072	BC-566	4612	RTC-8522	T960		

## PARTS LIST AND DESCRIPTION (CONTINUED)

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

### FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C4	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C5	.05 600V		BPD-05	DD-503	CUB6S5	6DP-3-503	GPI50	5HK-S5
C6	.05 600V		BPD-05	DD-503	CUB6S5	6DP-3-503	GPI50	5HK-S5
C7	.05 600V		BPD-05	DD-503	CUB6S5	6DP-3-503	GPI50	5HK-S5
C8	.05 600V		BPD-05	DD-503	CUB6S5	6DP-3-503	GPI50	5HK-S5
C9	.01		BPD-01	DD-103	BYA10SI	CCD-103	B-110	5HK-S10
C10	820 10%		1469-00082	CPR-82LJ	5R5T82	CM-20B-82LJ	MS-382	
C11	820 10%		1469-00082	CPR-82LJ	5R5T82	CM-20B-82LJ	MS-382	
C12	.0033		BPD-0033	DD-332	BYA10D33	CCD-332	B-233	5HK-D33
C13	.05 600V		BPD-05	DD-503	CUB6S5	6DP-3-503	GPI50	5HK-S5
C14	.001 10%		1469-001	CPR-1000J	IR5DI	CM-20B-102J	MCB235	MC-21

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		ZENITH PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	WORKMAN PART No.	
L1	Interstage(40.75KC)	S-54580					
L2	Detector (41.25KC)	S-54630					
L3	Detector (40.25KC)	S-54631					

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA				NOTES	
	PRI.	SEC. 1	SEC. 2	ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .033A	22VAC @ .025A	DC	95-1993					

### FUSES

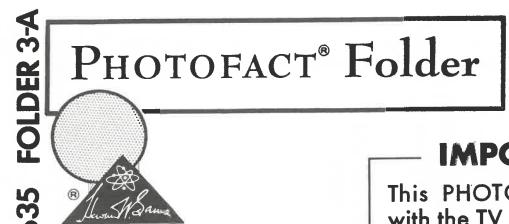
ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ZENITH PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG	15/100 S/B	136-52		313.150 (15/100 S/B)	357001	MDL 15/100	3823-1

### MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M2	Switch	85-645	
M3	Relay	195-10	
M4	Relay	195-10	
M5	Relay	S-56784	
M6	Microphone	S-54636	Auto-Manual Switch

### WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid 22AWG) 8524 (Stranded 22AWG) 8570 (Stranded 26AWG)	Available in 12 Colors
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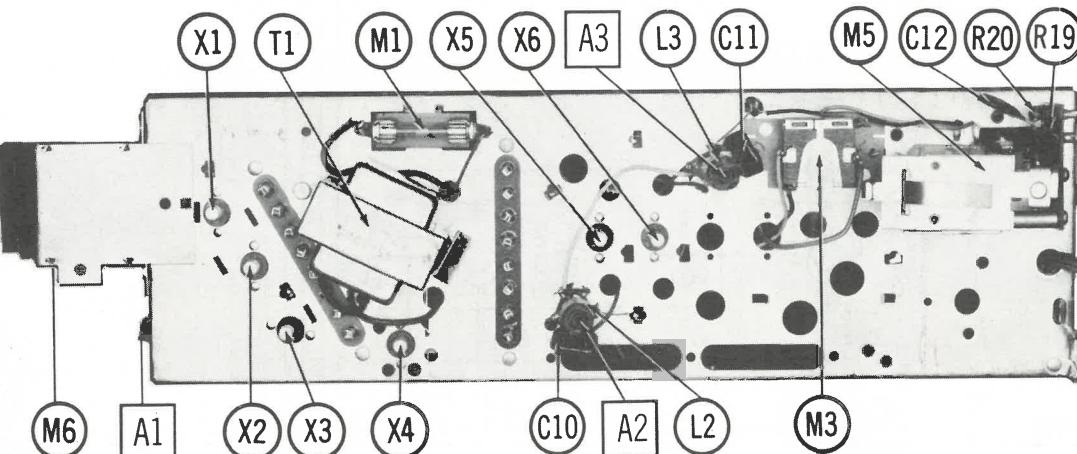


ZENITH REMOTE CONTROL RECEIVER S-56853

### IMPORTANT FILING NOTICE

This PHOTOFAX Folder covers equipment used with the TV chassis covered in PHOTOFAX SET 635 FOLDER 3. File this Folder with the TV Folder in the yellow filing jacket provided.

SET 635 FOLDER 3-A  
ZENITH REMOTE CONTROL RECEIVER S-56853



TRADE NAME Zenith  
MANUFACTURER Zenith Radio Corp., 6001 Dickens Avenue, Chicago 39, Illinois  
TYPE SET Remote Control Chassis S-56853  
TRANSISTORS Six  
POWER SUPPLY 110-120 Volts AC, 60 Cycle

RATING 5 Watts, .025 Amp. @ 117 Volts AC

### ALIGNMENT INSTRUCTIONS

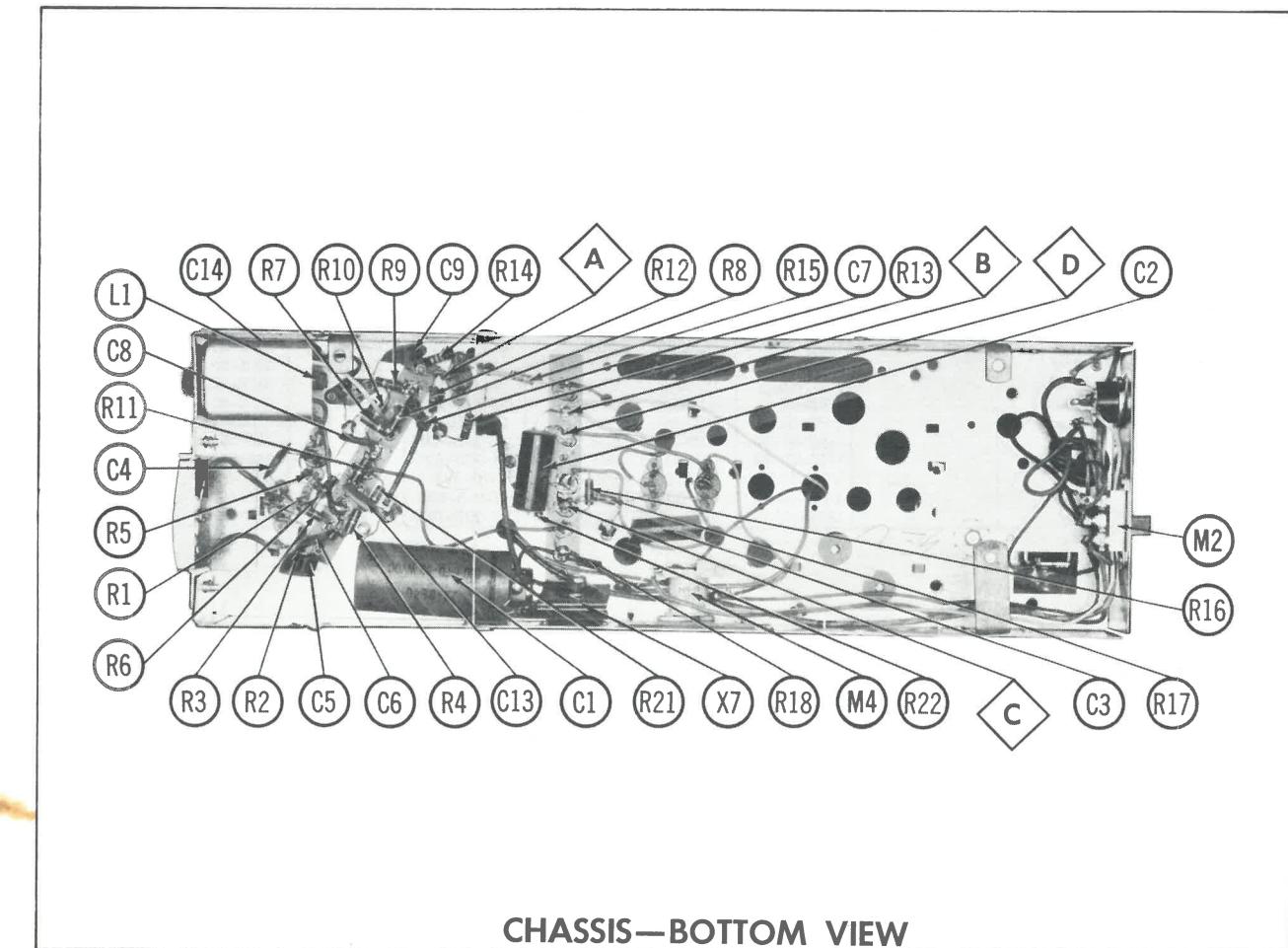
REMOTE CONTROL RECEIVER ALIGNMENT S-56853					
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
High side thru 100K to microphone input. Low side to ground.	40.75MC		AC probe to point A. Common to ground.	A1	Adjust for maximum deflection.
"	41.25KC		DC probe to point B. Common to point C.	A2	Adjust for MINIMUM deflection.
"	40.25KC		DC probe to point D. Common to point E.	A3	"

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



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CHASSIS—BOTTOM VIEW

## PARTS LIST AND DESCRIPTION

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

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	121-186	1st Amp.	DS25	GE1	2N218	
X2	121-187	2nd Amp.	DS25	GE1	2N218	
X3	121-187	3rd Amp.	DS25	GE1	2N218	
X4	121-189	Limiter	DS25	GE1	2N218	
X5	121-190	Volume Relay Control	DS28	GE2	2N218	
X6	121-190	Channel Relay Control	DS28	GE2	2N218	

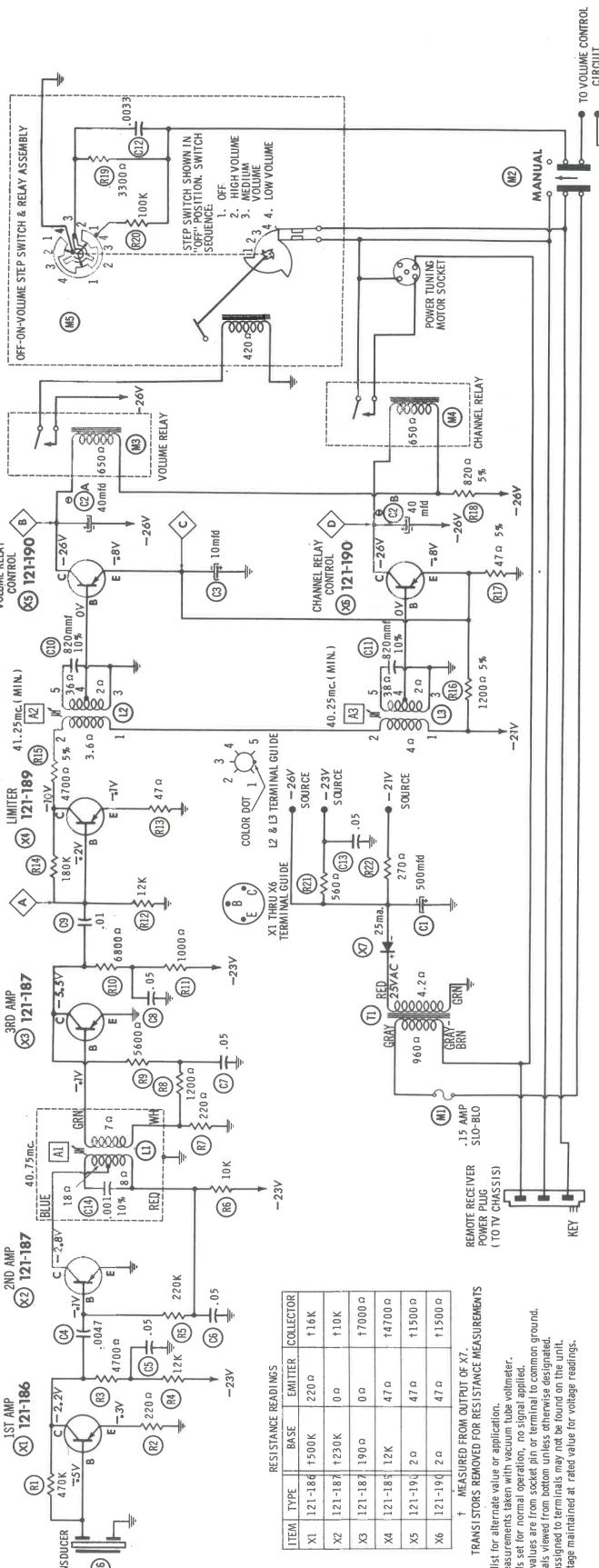
## POWER RECTIFIERS &amp; SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS			NOTES
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X7	24 MA	212-36	A100	LN1763	72Z	

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						NOTES
	CAP.	VOLT.	ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	
C1	500	50	22-3640	PRSI380	BR500-50	QT1-31	TC50050	TD-500-150	TVA-1315
C2A	40	30	22-3643	PT52195	NLW40-50	QT1-13	PETAI980	TD-40-150	TVA-1413
B	40	30		PTT97	NLW40-50	QT1-13	PETAI980	TD-40-150	TVA-1413
C3	10		22-3705	PTT6	NLW10-6	MT1-5	TT3X10	MLV10-3	TE-1053

① Some versions may use 40-25/30V (Part #22-3647) in this application.



A PHOTOFACT STANDARD NOTATION SCHEMATIC

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## PARTS LIST AND DESCRIPTION (CONTINUED)

Replacement parts shown may be superseded by the availability of newly introduced replacements.

Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

### FIXED CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBLILER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C6	.0047		BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47
C7	.05		BPD-05	DD-503	CUB655	6CP-4-503	GPI50	5HK-S5
C8	.05		BPD-05	DD-503	CUB655	6CP-4-503	GPI50	5HK-S5
C9	.05		BPD-05	DD-503	CUB655	6CP-4-503	GPI50	5HK-S5
C10	.05		BPD-05	DD-503	CUB655	6CP-4-503	GPI50	5HK-S5
C11	.05		BPD-05	DD-503	CUB655	6CP-4-503	GPI50	5HK-S5
C12	.01		BPD-01	DD-103	BYA10SL	CCD-103	B-110	5HK-S10
C13	820 5%	1468-00082	CPR-820J	5R5T82	CM-20B-82LJ		MS-382	
C14	820 5%	1468-00082	CPR-820J	5R5T82	CM-20B-82LJ		MS-382	
C15	820 5%	1468-00082	CPR-820J	5R5T82	CM-20B-82LJ		MS-382	
C16	820 5%	1468-00082	CPR-820J	5R5T82	CM-20B-82LJ		MS-382	
C17	.0047	BPD-0047	DD-472	BYA10D47	CCD-472	B-247	5HK-D47	
C18	.001	BPD-001	DD-102	BYA10DI	CCD-102	B-210	5HK-D10	

### RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R19	100Ω 4W	PW5-100	5W-SQ-100						

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA				NOTES
		ZENITH PART No.	Merit PART No.	Miller PART No.	Stancor PART No.	
L1	Interstage (39.5KC)	S-54580				
L2	Detector (41.25KC)	S-54578				
L3	Detector (40.25KC)	S-54577				
L4	Detector (38.75KC)	S-54576				
L5	Detector (37.75KC)	S-54575				

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	117VAC ① .033A DC	21VAC ② .024A		95-1993 95-1993-A ① 95-1994 ②				① Alternate. ② Used with Remote Chassis #S-56884.

### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ZENITH PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	MDL	15/100A S/B	136-52		313.150 (15/100 S/B)	357001	MDL 15/100	3823-1

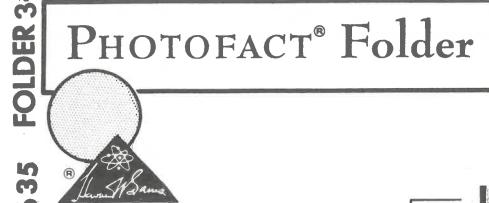
### MISCELLANEOUS

ITEM No.	PART NAME	ZENITH PART No.	NOTES
M2	Relay	195-11	Tune Higher
M3	Relay	195-11	Tune Lower
M4	Relay	S-56785	Sound Bi Stable Mute
M5	Relay	S-56253	Step Volume, Model S-56854
M6	Relay	S-56252	Step Volume, Model S-56884
M7	Relay	195-10	Pilot Mute Relay
M8	Relay	195-10	Pilot Volume On-Off
M9	Switch	85-645	Auto Manual Switch
	Microphone	S-54591	

### WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid 22AWG) 8524 (Stranded 22AWG) 8570 (Stranded 26AWG)	Available in 12 Colors
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SET 635 FOLDER 3-B



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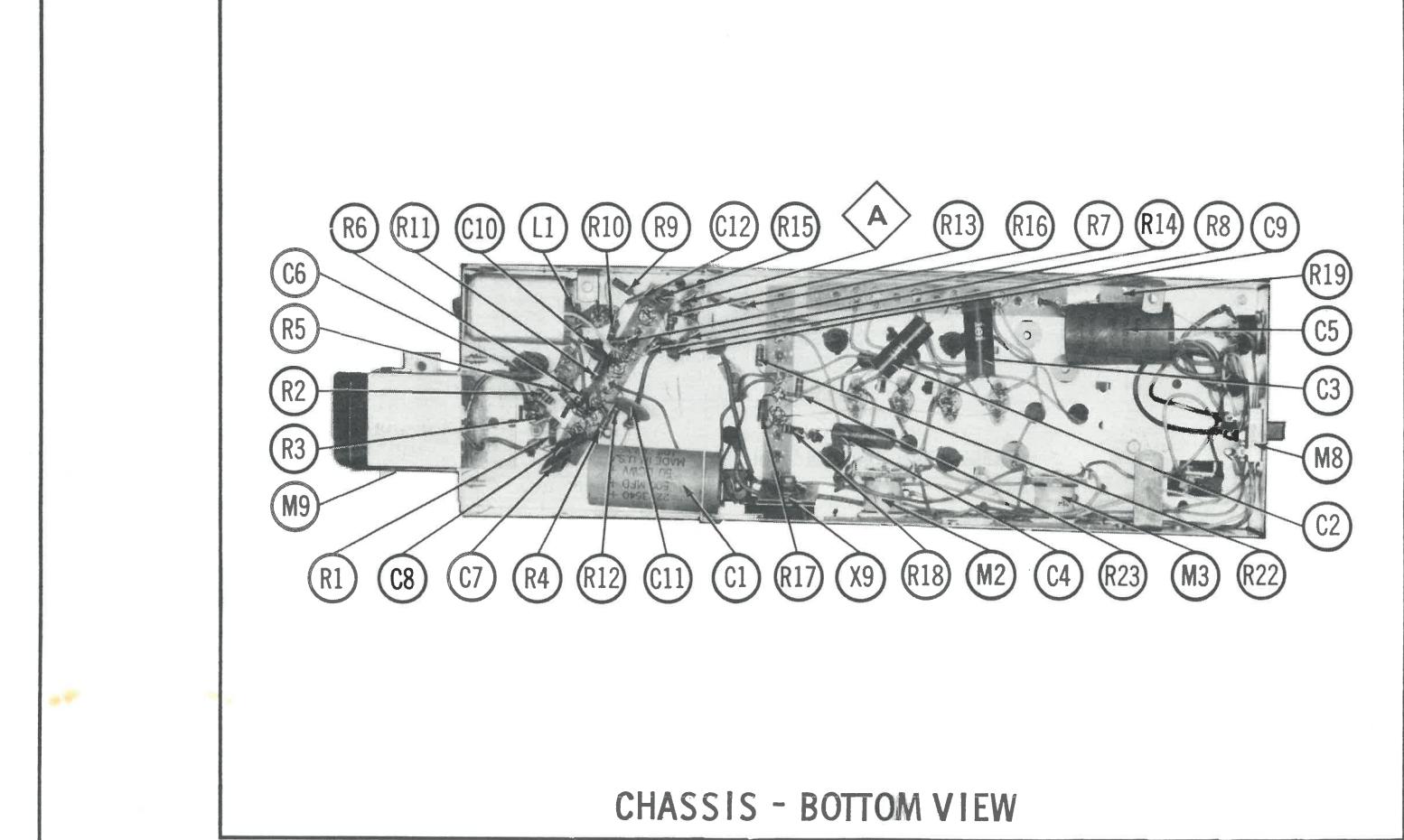
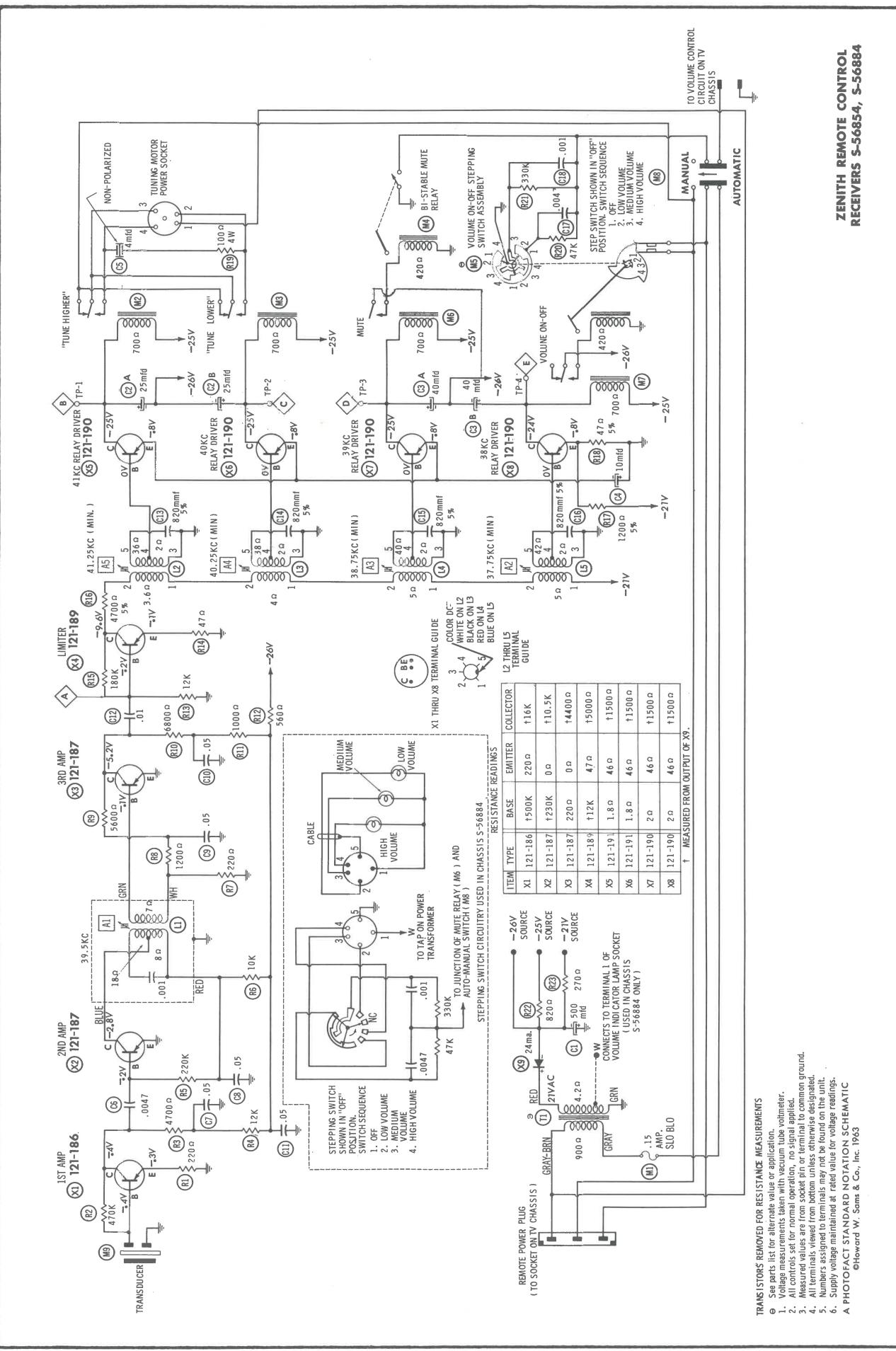
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CHASSIS - BOTTOM VIEW

## PARTS LIST AND DESCRIPTION

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

## TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA			NOTES
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	
X1	12L-186	1st Amp.	DS-25	GE1	2N218	PNP
X2	12L-187	2nd Amp.	DS-25	GE1	2N218	PNP
X3	12L-187	3rd Amp.	DS-25	GE1	2N218	PNP
X4	12L-189	Limiter	DS-25	GE1	2N218	PNP
X5	12L-190	Relay Driver 41KC	DS-26	GE2	2N218	PNP
X6	12L-190	Relay Driver 40KC	DS-26	GE2	2N218	PNP
X7	12L-190	Relay Driver 39KC	DS-26	GE2	2N218	PNP
X8	12L-190	Relay Driver 38KC	DS-26	GE2	2N218	PNP

## POWER RECTIFIERS &amp; SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS			NOTES
			MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X9	24MA	212-36	A100	1N1763	72Z	When replacing selenium rectifier with silicon type, add series resistance to obtain original output voltage.

## ELECTROLYtic CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1	500	50	22-3640	PRSI390	BR500-50	QTL1-31	TD-500-50	TVA-1315	
C2A	25	30	22-3642	PTT95	ECPAN23	MTI1-12	MLV25-50	TVA-1306	
B	25	30		PTT95		MTI1-12	MLV25-50	TVA-1306	
C3A	40	30	22-3643	PTT97	ECPAN25	MTI1-14	TT50X50	TE-1307	
B	40	30		PTT97		MTI1-14	TT50X50	TE-1307	
C4	10	3	22-3705	PTT6	NLW10-6	MTI1-5	MLV10-3	TE-1053	
C5	4	200NF	22-2893	PRST750		NPQT-2	TT3X10	TVANS-1436*	

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



## PARTS LIST AND DESCRIPTION

Replacement parts shown may be superseded by the availability of newly introduced replacements.

Have your local distributor check Sums COUNTER FACTS for the most up-to-date replacement.

### TUBES

GENERAL ELECTRIC			RAYTHEON		
AMPEREX	ITEM No.	USE	TYPE	ITEM No.	USE
V1	FM RF Amplifier	6BJ8	V4	12BA6	2nd FM-AM IF Amp.
V2	FM Mixer-FM Osc.	12AT7	V5	12AU6	FM Limiter
V3	AM Mixer-AM Osc.	12BA6	V6	19T8	Disc. - AM Det.
V3	1st FM-AM IF Amp.	V7	V7	35W4	Rectifier

### ELECTROLYtic CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA		
			CORNELL-DUBLIN PART No.	CENTRALAB PART No.	AEROVOX PART No.
C3	15 N330 10%	\$22-3246	BPD-01	DD-108	BYA10SI
C3	15 N330 10%	\$22-3246	SI 1000	DD-102	BYA10DI
C4	.01		SI 1000	DD-102	CCD-102
C5	.001		TCZ-866	CCD-102	CCD-102
C6	.68 10%	\$22-2372	SI 1000	D6-102	BYA10DI
C7	.68 10%	\$22-2372	SI 1000	D6-102	C10V4C
C8	.001		TCZ-866	D6-102	BYA10SI
C9	.001		TCZ-866	D6-102	*
C10	4 NPO .5%	\$22-23231	BPD-01	DD-108	BYA10SI
C11	19 NI50 .5%	\$22-23231	BPD-01	DD-108	*
C12	.01		BPD-01	DD-108	CD-103
C13	.50 N330	\$22-2370	BPD-01	DD-108	GEM-201
C14	.1 200V	\$22-2370	PP288R-1	DF-102	2DP-3-104
C15	.047 200V	PP288R-1	PP288R-1	DF-102	2DP-3-473
C16	.001	047 200V	PP288R-1	DF-102	CCF-002
C17	.047 200V	PP288R-047	EF-401	MFT-1000	CCD-102
C18	.047 200V	PP288R-047	EF-401	DD-103	CCD-103
C19	.01		PP288R-047	DD-103	CCD-103
C20	.01		PP288R-047	DD-103	CCD-103
C21	.0047		BPD-0047	DD-103	CCD-103
C22	.01		BPD-0047	DD-103	CCD-103
C23	.0022		BPD-0022	DD-100	CCD-222
C24	.00		BPD-0022	DD-100	L10T1
C25	.01		BPD-001	DD-103	CCD-103
C26	.001		BPD-001	DD-103	CCD-103
C27	.680 10%		BPD-001	DD-103	CCD-103
C28	.0047 10%		BPD-001	DD-103	CCD-103
C29	.0047 10%		BPD-001	DD-103	CCD-103
C30	.01		BPD-001	DD-103	CCD-103

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

### RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS
R1	2.2meg			
R2	2200			
R3	2200			
R4	10000			
R5	10K			
R6	390K			
R7	100K			
R8	100K			

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

### RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS
R9	3.9meg			
R10	1.5meg			
R11	10000			
R12	2.2meg			
R13	47K			
R14	2200K			
R15	2.2meg			
R16	4.7meg			
R17	2200K			
R18	4.7meg			
R19	10000			
R20	2200K			
R21	2200K			
R22	2200K			
R23	2200K			
R24	2200K			
R25	2200K			
R26	2200K			
R27	2200K			
R28	2200K			
R29	2200K			
R30	2200K			

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

### COMPONENT COMBINATIONS

ITEM No.	USE	REPLACEMENT DATA		
		ZENITH PART No.	DESCRIPTION	ZENITH PART No.
K1	Limiter Grid	25mmf, 100K		105-42

### COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA		
		ZENITH PART No.	MERIT PART No.	STANCO PART No.
K2				

### TRANSFORMER (POWER)

ITEM No.	USE	REPLACEMENT DATA		
		ZENITH PART No.	MERIT PART No.	STANCO PART No.
K3				

### WIRING DATA

ITEM No.	PART NAME	REPLACEMENT DATA		
		ZENITH PART No.	SEC. 1	SEC. 2
K4	117V @ 230V AC	230V AC	95-1772	
K5	6.3V @ .5A	.5A		

### SIGNAL DIODES

ITEM No.	ORG. TYPE	REPLACEMENT DATA		
		ZENITH PART No.	GENERAL ELECTRIC PART No.	RAYTHEON PART No.
M1	WFN2740M	103-29		

### MISCELLANEOUS

ITEM No.	PART NAME	REPLACEMENT DATA		
		ZENITH		

# ALIGNN

## ALIGNMENT INSTRUCTION

Use only enough generator output to provide a u  
Suggested Alignment Tools:

- A1 thru A5, A7, A9 thru A15... GENERATOR WALSC
- A6, A8..... GENERATOR WALSC

## AM ALIGNMENT - SELECTOR IN AM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RAD DI. SETT
High side thru .05mfd to pin 2 (grid) of AM Mixer. Low side to chassis.	455KC (400% 30% AM)	Tuning fully op
Fashion loop of several turns of wire and radiate signal into loop of receiver.	1600KC	1600KC
"	600KC	600KC
"	1400KC	1400KC

## FM IF ALIGNMENT USING AM SIGNAL GENER

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RAD DI. SETT
High side thru .05mfd to pin 2 (grid) of FM Mixer. Low side to chassis.	10.7MC (Unmod.)	(FM Point o interfe
"	"	"
"	"	"

## FM IF ALIGNMENT USING FM SIGNAL GENER

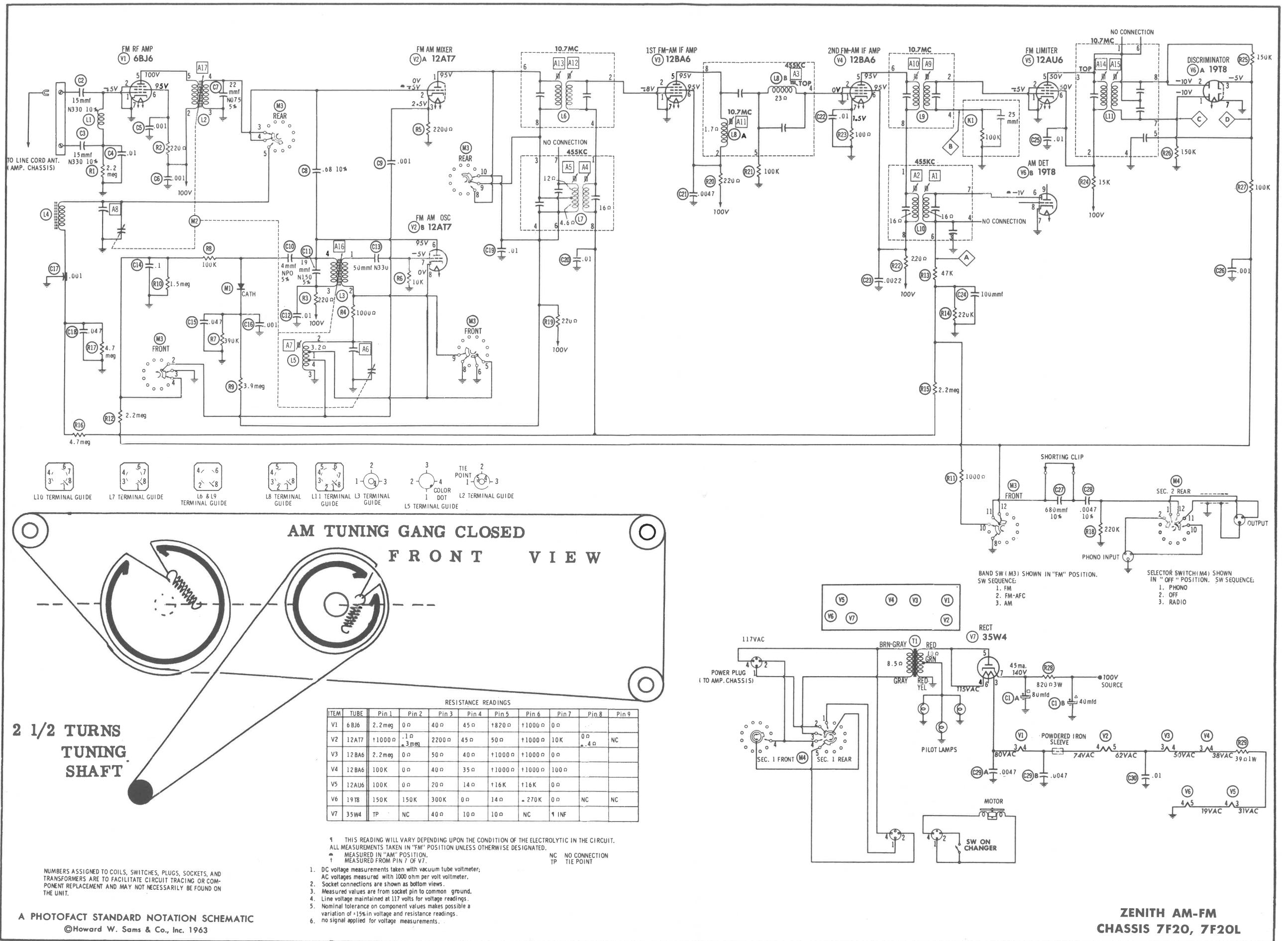
SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RAD DI. SETT
High side thru .05mfd to pin 2 (grid) of FM Mixer. Low side to chassis.	10.7MC (450KC Swp)	(FM Point o interfe
"	"	"
"	"	"

## FM RF ALIGNMENT - SELECTOR IN FM POSITION

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RAD DI. SETT
Across FM antenna terminals with 120Ω in each lead.	98MC (Unmod.)	(FM 98M

10.7MC

FIG. I



# ALIGNMENT INSTRUCTIONS

## ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

Use only enough generator output to provide a usable indication. Set volume control at maximum position.

Suggested Alignment Tools:

A1 thru A5, A7, A9 thru A15... GENERAL CEMENT #8282, 8606, 8606-L, 9295, 9440

WALSCO #2526, 2543, 2544, 2545

A6, A8..... GENERAL CEMENT #5004, 5008, 5009

WALSCO #2520

### AM ALIGNMENT — SELECTOR IN AM POSITION

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
1.	High side thru .05mfd to pin 2 (grid) of AM Mixer. Low side to chassis.	455KC (400% 30% AM)	(AM) Tuning gang fully open.	DC probe to point  A. Common to chassis.	A1, A2, A3, A4, A5	Adjust for maximum deflection.
2.	Fashion loop of several turns of wire and radiate signal into loop of receiver.	1600KC	1600KC	"	A6	"
3.	"	600KC	600KC	"	A7	"
4.	"	1400KC Signal.	1400KC Signal.	"	A8	Adjust for maximum deflection. Repeat Steps 2, 3 and 4.

### FM IF ALIGNMENT USING AM SIGNAL GENERATOR AND VTVM—SELECTOR IN FM POSITION

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
5.	High side thru .05mfd to pin 2 (grid) of FM Mixer. Low side to chassis.	10.7MC (Unmod.)	(FM) Point of non-interference.	DC probe to point  B. Common to chassis.	A9, A10, A11, A12, A13	Adjust for maximum deflection.
6.	"	"	"	DC probe thru 1meg to point  C. Common to chassis.	A14	"
7.	"	"	"	DC probe to point  D. Common to chassis.	A15	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

### FM IF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE—SELECTOR IN FM POSITION

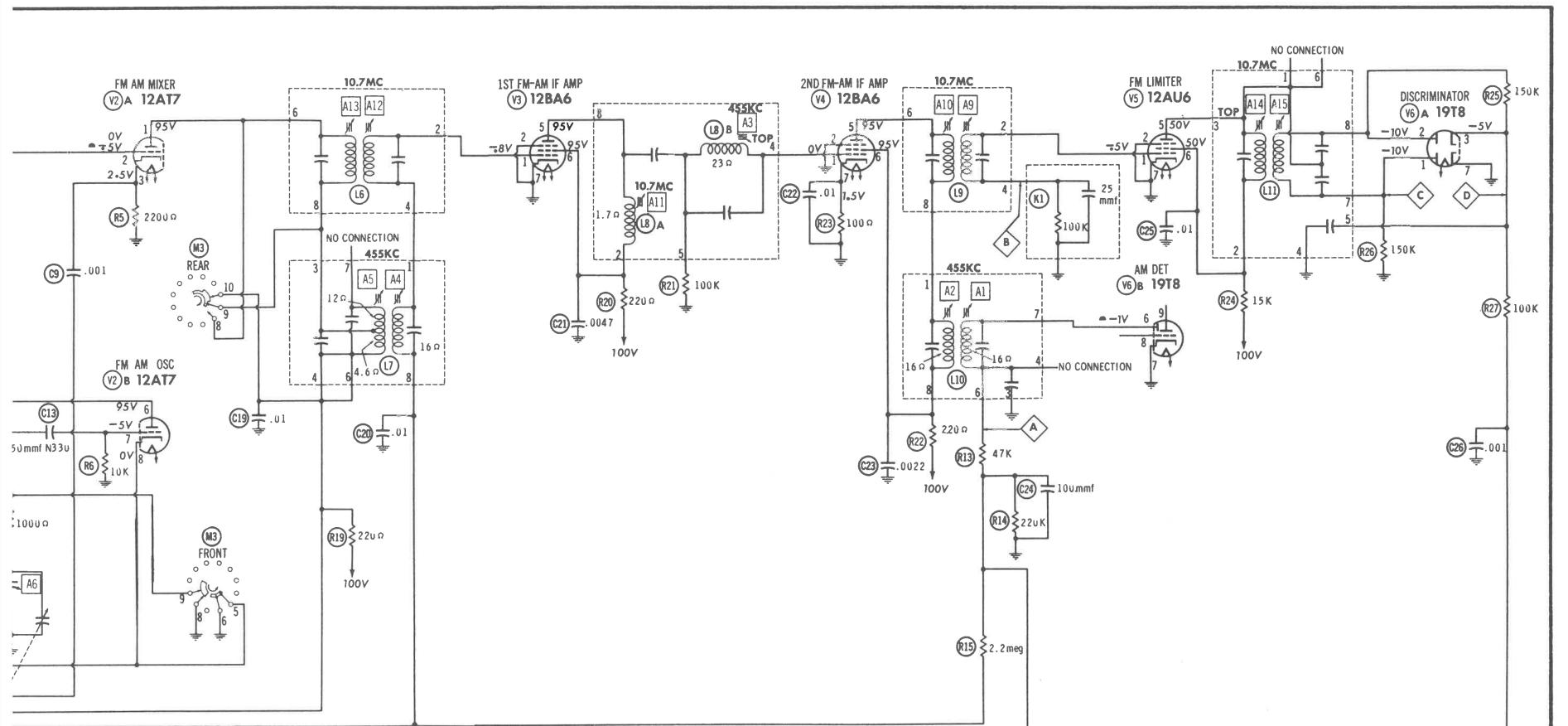
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT SCOPE	ADJUST	REMARKS
5.	High side thru .05mfd to pin 2 (grid) of FM Mixer. Low side to chassis.	10.7MC (450KC Swp)	(FM) Point of non-interference.	Vert. amp. to point  B. Low side to chassis.	A9, A10, A11, A12, A13	Adjust for maximum gain and symmetry of response similar to Fig. 1. markers as shown.
6.	"	"	"	Vert. amp. thru 47K to point  C. Low side to chassis.	A14	
7.	"	"	"	Vert. amp. to point  D. Low side to chassis.	A15	Adjust to place marker at the center of crossover lines similar to Fig. 2. SLIGHTLY retouch A14 for maximum amplitude and straightness of crossover lines.

### FM RF ALIGNMENT — SELECTOR IN FM POSITION

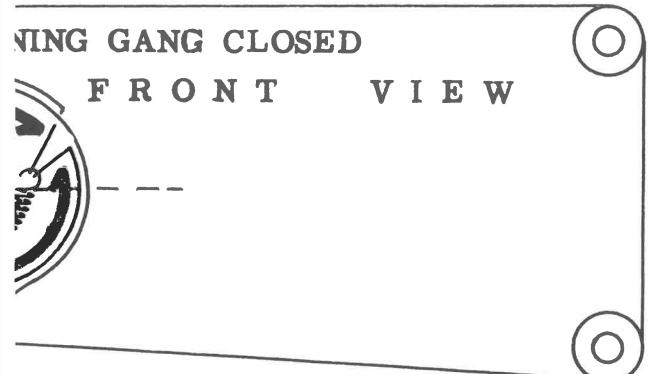
	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	CONNECT VTVM	ADJUST	REMARKS
8.	Across FM antenna terminals with 120Ω in each lead.	98MC (Unmod.)	(FM) 98MC	DC probe to point  B. Common to chassis.	A16, A17	Adjust for maximum deflection.

FIG. 1

FIG. 2



SWING GANG CLOSED  
FRONT VIEW



RESISTANCE READINGS									
UBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
B6	2.2meg	0Ω	40Ω	45Ω	1820Ω	1000Ω	0Ω		
2AT7	1100Ω	1Ω	2200Ω	45Ω	50Ω	1000Ω	10K	0Ω	4Ω
2BA6	2.2meg	0Ω	50Ω	40Ω	1000Ω	1000Ω	0Ω		
2BA6	100K	0Ω	40Ω	35Ω	1000Ω	1000Ω	100Ω		
2AU6	100K	0Ω	20Ω	14Ω	16K	16K	0Ω		
7T8	150K	150K	300K	0Ω	14Ω	270K	0Ω	NC	NC
SW4	TP	NC	40Ω	10Ω	NC	INF			

IS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.  
MEASUREMENTS TAKEN IN "FM" POSITION UNLESS OTHERWISE DESIGNATED.

ASURED IN "AM" POSITION.  
ASURED FROM PIN 7 OF V7.

measurements taken with vacuum tube voltmeter;  
measured with 1000 ohm per volt voltmeter.

connections are shown as bottom views.

values are from socket pin to common ground.

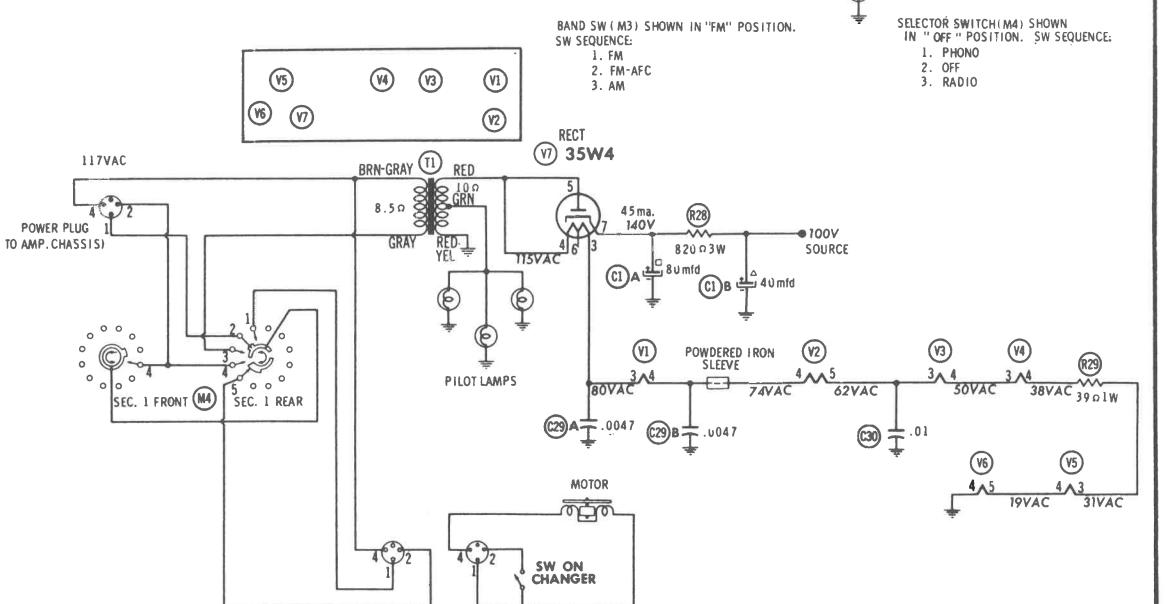
maintained at 117 volts for voltage readings.

error on component values makes possible a

±15% in voltage and resistance readings.

split for voltage measurements.

ZENITH AM-FM  
CHASSIS 7F20, 7F20L



PRE-ALIGNMENT INSTRUCTIONS

**ALIGNMENT INSTRUCTIONS**

Allow a 20 minute warm-up period for the receiver and test equipment.

Suggested Alignment Tools:  
A1 thru A6, A12 thru A19 ..... GENERAL CEMENT #82B2, 8806, 9302 WALSCO #2543, 2544, 2588  
A10, A11 ..... GENERAL CEMENT #82B0, 8868, 9087 WALSCO #2525, 2528, 2587  
A20, A21, A22, A23, A24, A25, A26 ... Require Special Zenith Tool.

**AM ALIGNMENT USING AM GENERATOR - SELECTOR IN AM POSITION**

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
1. High side thru lmd to grid (pin 7) of AM Conv. Low side to chassis.	455KC (Unmod.)	(AM) Tuning gang fully open	DC probe of VTVM to point $\diamond$ Common to chassis	A1,A2, A3,A4, A5,A6	Adjust for maximum.
2. Fashion loop of several turns of wire and radiate signal into loop of receiver.	1620KC	"	"	A7	"
3. "	600KC	"	"	A8,A9	"
4. "	1400KC	"	"	A10,A11	"

**FM IF ALIGNMENT USING AM GENERATOR AND VTVM - SELECTOR IN FM POSITION**

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. High side to ungrounded tube shield over V1. Low side to chassis.	10.7MC (Unmod.)	(FM) Point of non-interference	DC probe of VTVM to point $\diamond$ Common to chassis	A12,A13, A4,A15, A6,A17, A18	Disconnect stabilizing capacitor. Adjust for maximum deflection. Reconnect Capacitor.
6. "	"	"	DC probe to point $\diamond$ . Common to chassis.	A19	Adjust for zero reading. A positive and negative reading will be obtained on either side of the correct setting.

**FM RF ALIGNMENT USING FM SIGNAL GENERATOR AND OSCILLOSCOPE - SELECTOR IN FM POSITION**

Use frequency modulated signal with 60% modulation and 450KC sweep. Use 120v smooth voltage in scope for horizontal deflection.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
5. High side to ungrounded tube shield over V1. Low side to chassis.	10.7MC (450KC Swp.)	(FM) Point of non-interference	Vert. Input of Scope to point $\diamond$ Low side to chassis.	A12,A13, A14,A15, A16,A17, A18	Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown.
6. "	"	"	Vert. Input to point $\diamond$ . Low side to chassis.	A19	Adjust to place marker at the center of crossover lines similar to Fig. 2. SLIGHTLY retouch A12 for maximum amplitude and straightness of crossover lines.

**FM RF ALIGNMENT - SELECTOR IN FM POSITION**

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
7. Across FM antenna terminals with 120Q in each lead.	90MC (Unmod.)	(FM) 90MC	DC probe of VTVM to point $\diamond$ Common to chassis	A20,A21, A22	Adjust for maximum.



FIG. 1

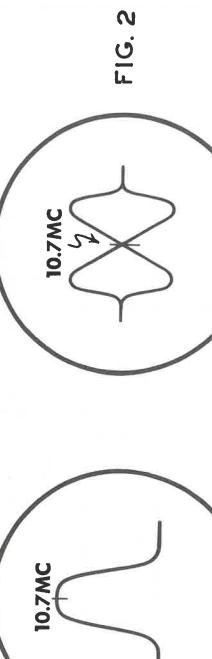


FIG. 2

**PHOTOFAC<sup>®</sup> Folder**

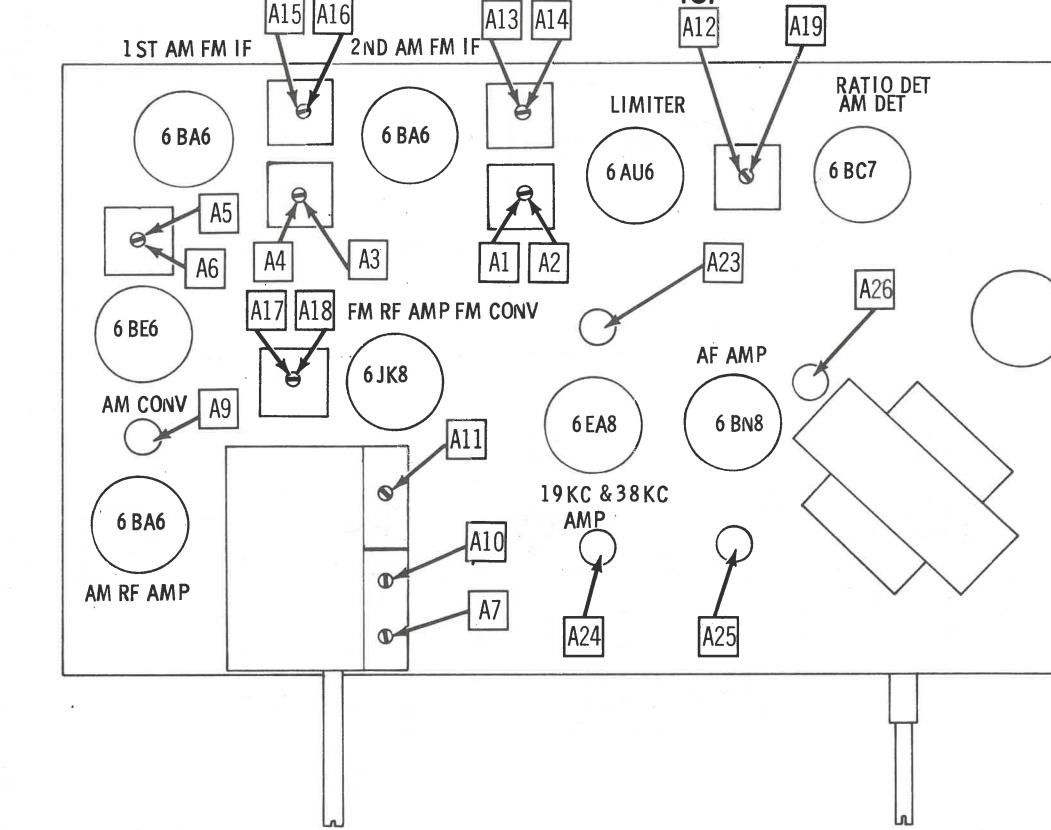


**SET 635 FOLDER 3-D**

**ZENITH AM-FM CHASSIS 9H2OLZ1**

**IMPORTANT FILING NOTICE**

This PHOTOFAC Folder covers equipment used with the TV chassis covered in PHOTOFAC SET 635 FOLDER 3. File this Folder with the TV Folder in the yellow filing jacket provided.



**ZENITH AM-FM CHASSIS 9H2OLZ1**

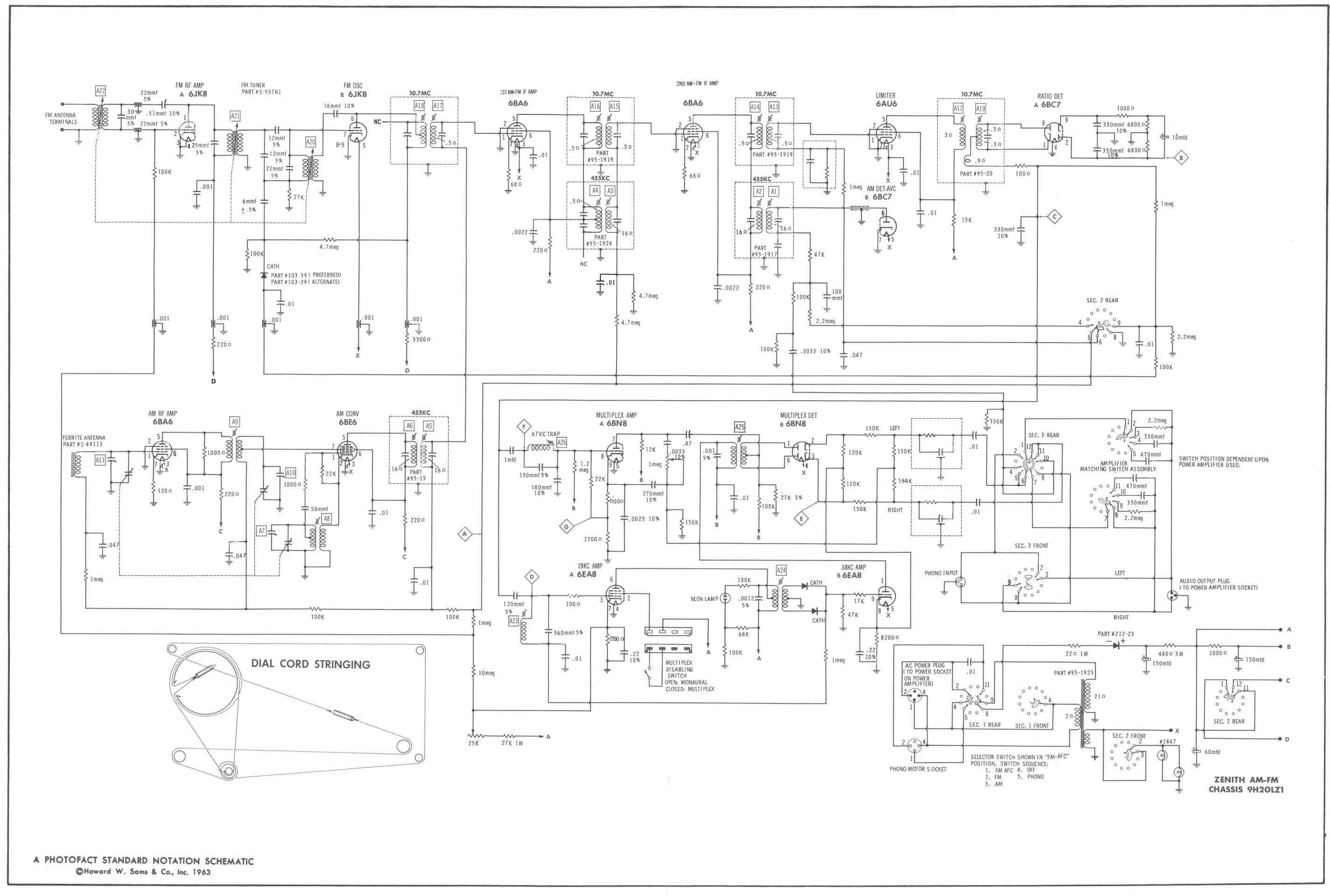
TRADE NAME  
MANUFACTURER  
TUBES  
POWER SUPPLY

Zenith  
Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Illinois  
Nine  
Obtained from Amplifier



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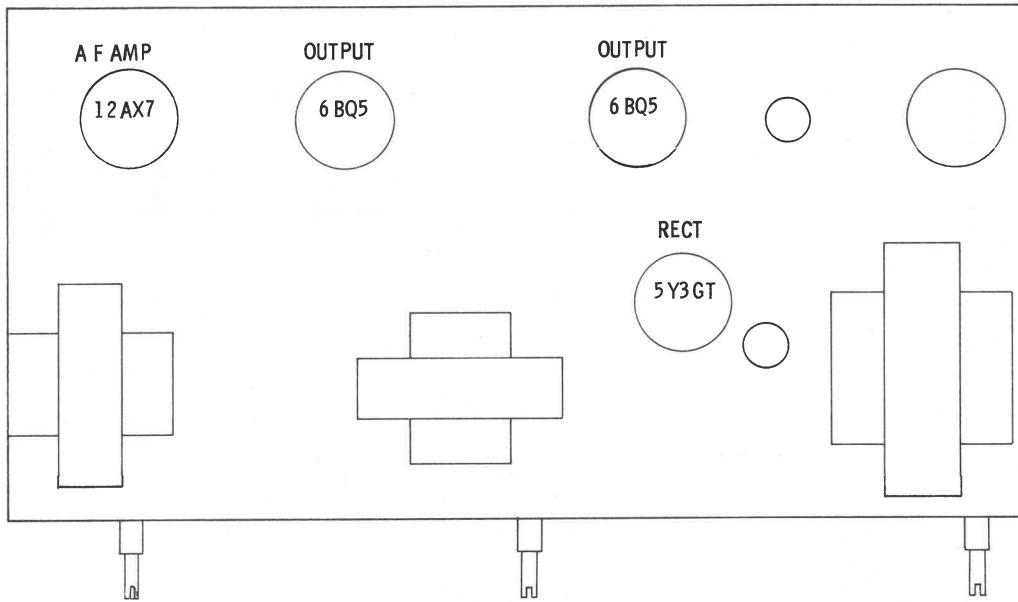
Printed in U.S. of America.



PHOTOFAC<sup>®</sup> FolderZENITH AMP. CHASSIS  
4K21, 4K22ZENITH AMP. CHASSIS  
4K21, 4K22

## IMPORTANT FILING NOTICE

This PHOTOFAC<sup>®</sup> Folder covers equipment used with the TV chassis covered in PHOTOFAC SET 635 FOLDER 3. File this Folder with the TV Folder in the yellow filing jacket provided.



TRADE NAME	Zenith
MANUFACTURER	Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Illinois
TUBES	Four
POWER SUPPLY	110-120 Volts AC, 60 Cycle

RATING 60 Watts

ZENITH AMP. CHASSIS  
4K21, 4K22

HOWARD W. SAMS &amp; CO., INC. Indianapolis 6, Indiana

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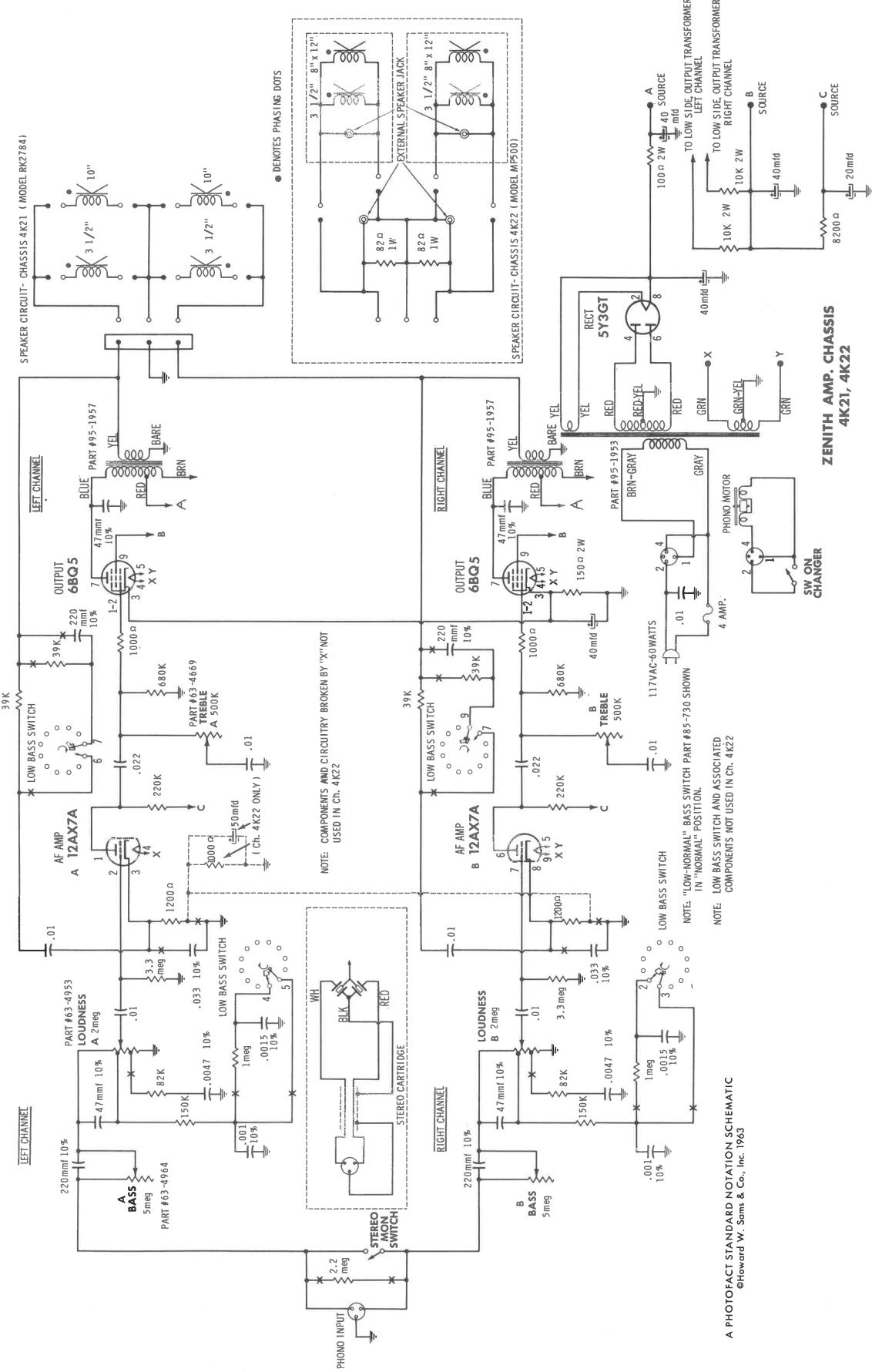
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SET 635 FOLDER 3-E

DATE 5-63

SET 635 FOLDER 3-E



## PARTS LIST AND DESCRIPTIONS (Continued)

### RESISTORS

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

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	REMARKS			IRC PART No.	WORKMAN PART No.	REMARKS
R4	4.7meg				R28	100K			
R5	39K				R29	82K			
R6	100K				R30	560Ω			
R7	100K				R31	2.7meg			
R8	82K				R32	470K			
R9	2.7meg				R33	2.2meg			
R10	470K				R34	56K			
R11	2.2meg				R35	68K			
R12	68K				R36	33K			
R13	56K				R37	1.5meg			
R14	33K				R38	2.2meg			
R15	2.2meg				R39	220K			
R16	220K				R40	2200Ω			
R17	2200Ω				R41	2.2meg			
R18	2.2meg				R42	22K			
R19	22K				R43	1200Ω 5%			
R20	1200Ω				R44	22K			
R21	22K				R45	120K			
R22	120K				R46	120K			
R23	120K				R47	130Ω 4W			
R24	22K				R48	22K			
R25	4.7meg				R49	2500Ω 4W			
R26	39K				R50	4700Ω 2W			
R27	100K								

# Zenith Part Number

### TRANSFORMER (POWER)

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	ZENITH PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	
T1	117VAC ① 1A	620VCT ② .22A	5VAC ③ 3.2A	95-1893				
	SEC. 3	SEC. 4	SEC. 5					

### TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE		REPLACEMENT DATA				NOTES	
	PRI.	SEC.	ZENITH PART No.	MERIT PART No.	Stancor PART No.	Thordarson PART No.		
T2	5000Ω CT	3-4Ω	95-1892	A-2935	A-3830	22547 ①	S-69Z	① Drill new mounting holes.
T3	5000Ω CT	3-4Ω	95-1892	A-2935	A-3830	22547 ①	S-69Z	

### FUSES

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			ZENITH PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
M1	3AG	4Amp. 250V	136-31		312004 (3AG 4A 250V)	342012	MTH4	HKP

### WIRING DATA

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in 12 Colors
Power Cord .....	Use BELDEN No. 17106 (Plastic) or 17126 (Rubber) - 6 Ft.
Power Cord (Interlock Type) .....	Use BELDEN No. 8874 (Rubber) or 8895 (Plastic)

## PHOTOFAC® Folder



SET 635 FOLDER 3-F

### IMPORTANT FILING NOTICE

This PHOTOFAC Folder covers equipment used with the TV chassis covered in PHOTOFAC SET 635 FOLDER 3. File this Folder with the TV Folder in the yellow filing jacket provided.

ZENITH AMP.  
CHASSIS 8H3O, 8H3OZ

CHASSIS—8H3O TOP VIEW

TRADE NAME	Zenith
MANUFACTURER	Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Illinois
TYPE SET	Stereo Amp.
TUBES	Eight
POWER SUPPLY	110 - 120 Volts AC, 60 Cycle
RATING	110 Watts, 1 Amp. @ 117 Volts AC

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

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein. ©1963 Howard W. Sams & Co., Inc., Indianapolis 6, Indiana.

MA030

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DATE 5-63

SET 635 FOLDER 3-F

# PHOTOFAC<sup>®</sup> Folder



**IMPORTANT FILE**  
This PHOTOFAC Folder  
with the TV chassis covered  
FOLDER 3. File this Folder  
in the yellow filing jacket pro-

## PARTS LIST AND DESCRIPTIONS

### TUBES

AMPEREX		GENERAL ELECTRIC		RCA		RAYTHEON		SYLVANIA	
ITEM No.	USE	ITEM No.	USE	ITEM No.	USE	ITEM No.	TYPE	ITEM No.	TYPE
V1	Left Channel AF Amp.	6CG7	V4	Left Chan. Audio Output	6V6GT	V5	Left Chan. Audio Output	6V6GT	6V6GT
V2	Right Channel AF Amp.	12AX7A	V6	Right Chan. Audio Output	6V6GT	V7	Right Chan. Audio Output	6V6GT	5U4GB
V3	Left Channel AF Amp.	12AU7A	V8	Rectifier					

### ELECTROLYTIC CAPACITORS

ITEM No.	RATING		REPLACEMENT DATA						
	CAP.	VOLT.	ZENITH PART No.	AEROVOX PART No.	CORNELL-DUBLIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	PYRAMID PART No.	SPRAGUE PART No.
C1A	.40	450	22-3536	AFH4-79-40	XCA-82		TMQ-4565	TVL-4739.6	
B	.80	450							
C	.40	450							
D	.40	25							
C2	10	25	22-3076	PRSI250	BBR10-25	QT1-5	TC22	TD-10-25	TVA-1204

### FIXED CAPACITORS

ITEM No.	RATING		REMARKS	REPLACEMENT DATA						
	AEROVOX PART No.	CENTRALAB PART No.		CORNELL-DUBLIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.			
C3	.390	N750 10%		N750-DI 390	TCN-390	BYA1051	CCD-103	B-110	10TCU-T39	
C4	.01			DD-103	BYA10D47M	CCD-472	CCD-681	B-247	5HK-S10	
C5	.0047			DD-472	D6-681	PM6D47	6DP-1-472	GP368	5HK-D47	
C6	.680	10%		DI-680	BE6D47	L10T1	CCD-101	GEM-16247	10TS-T68	
C7	.0047	200V 10%		DI-100	D6-101	PM451	4DP-1-103	6TM-D47	6TM-D47	
C8	.100	10%		BE2S1	DD-102	PM6DL	CCD-102	GP310	10TS-T10	
C9	.01	200V 10%		DI-1000	DD-472	BYA10D47M	CCD-472	B-247	5HK-D47	
C10	.001	10%		DI-2200	DI-1000	PM6D22	CCD-222	GP222	10TS-D22	
C11	.0047			BEPD-0047	DD-103	PM6D22	CCD-103	B-110	5HK-S10	
C12	.0022	10%		DI-100	D6-101	BYA1051	CCD-101	GP310	10TS-T10	
C13	.01	10%		BE2S1	DF-104	CUB6P1	6DP-4-104	GEM-801	6TM-P10	
C14	.1	600V		DF-104	PM2P1	2DP-3-104	2DP-3-104	GP210	2TM-P10	
C15	.1	200V		BE2P1	DD-104	PM2P1	2DP-3-104	B-110	10TCU-T39	
C16	.390	N750 10%		N750-DI 390	TCN-390	BYA1051	CCD-103	B-247	5HK-S10	
C17	.01			DD-103	BYA10D47M	CCD-472	CCD-681	GP368	5HK-D47	
C18	.0047			DD-472	D6-681	PM6D47	6DP-1-472	GEM-16247	10TS-T68	
C19	.680	10%		DI-680	BE6D47	L10T1	CCD-101	6TM-D47	6TM-D47	
C20	.0047	200V 10%		DI-100	D6-101	PM451	4DP-1-103	GP310	10TS-T10	
C21	.0047	200V 10%		BE2S1	DF-104	PM6D22	CCD-222	B-247	5HK-D47	
C22	.100	10%		DI-1000	DD-102	BYA1051	CCD-103	GP222	10TS-D22	
C23	.01	200V 10%		BEPD-0047	DD-472	PM6D22	CCD-222	B-110	5HK-S10	
C24	.001	10%		DI-2200	DI-1000	PM6D22	CCD-222	GP222	10TS-T10	
C25	.0047			BE2P1	DF-104	PM2P1	2DP-3-104	GEM-801	6TM-P10	
C26	.0022	10%		DD-104	PM6S1	2DP-3-104	2DP-3-104	GP210	2TM-P10	
C27	.01	200V 10%		BE2P1	DD-103	PM6S1	2DP-2-103	GEM-611	6TM-S10	
C28	.100	10%								
C29	.1	600V								
C30	.1	200V								
C31	.01	600V								

### CONTROLS

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

ITEM No.	REPLACEMENT DATA		RESISTANCE	USE			
	ZENITH PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.		
R1A	Loudness, Left Channel	2meg, 500K & 1meg Taps	63-4447				† UE4337
B	Loudness, Right Channel	2meg, 500K & 1meg Taps					
R2A	Bass, Left Channel	5meg	63-4829	B-70, SR-70, or F2-1meg, R2-1meg, TU304	AD47-1meg-Z, FS-3		† UE2501-S
B	Bass, Right Channel, Stereo-Monaural Sw.	5meg	63-4830		FA18A, RU18A, CS3500		
R3A	Treble	1meg					
B	Treble	1meg					

† Squeeze the control end of the outer shaft until the tines touch each other; force inner shaft through compressed end of outer shaft, and proceed in normal manner.

"STA-LOC" Equivalent: FA28DT16, OS1187, RU28DT16, IS1812.

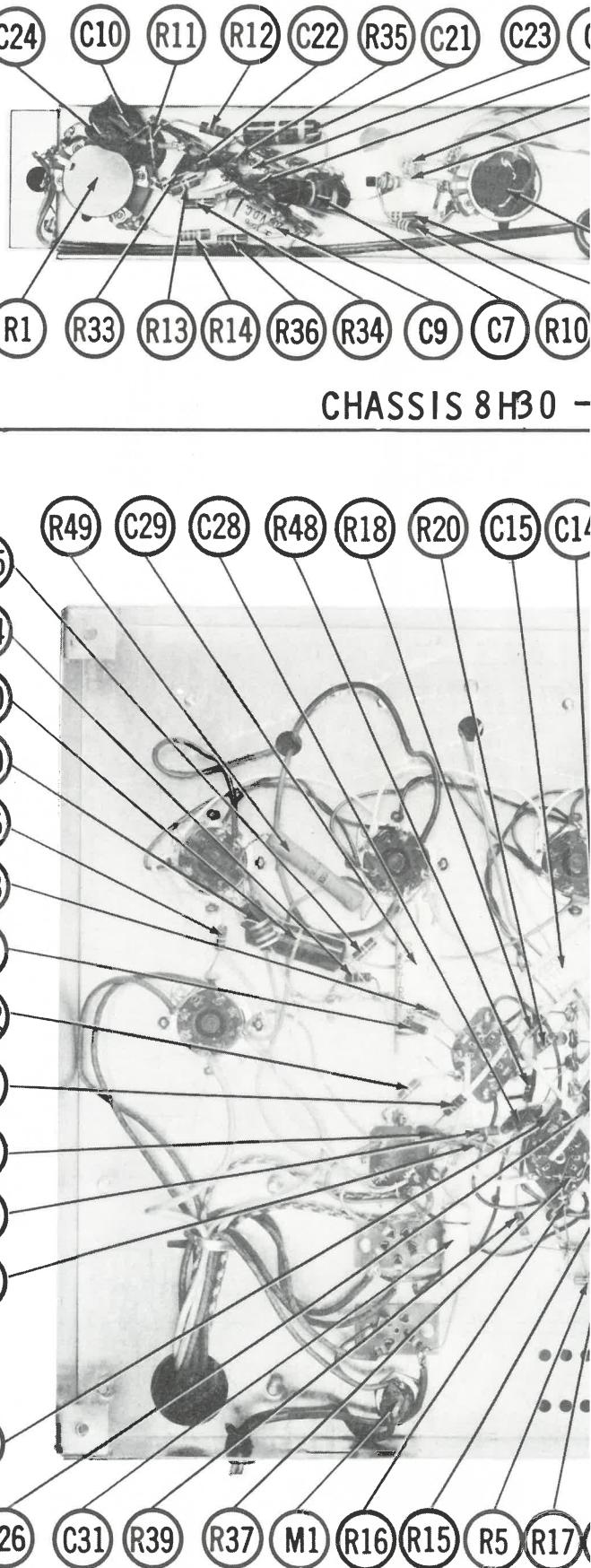
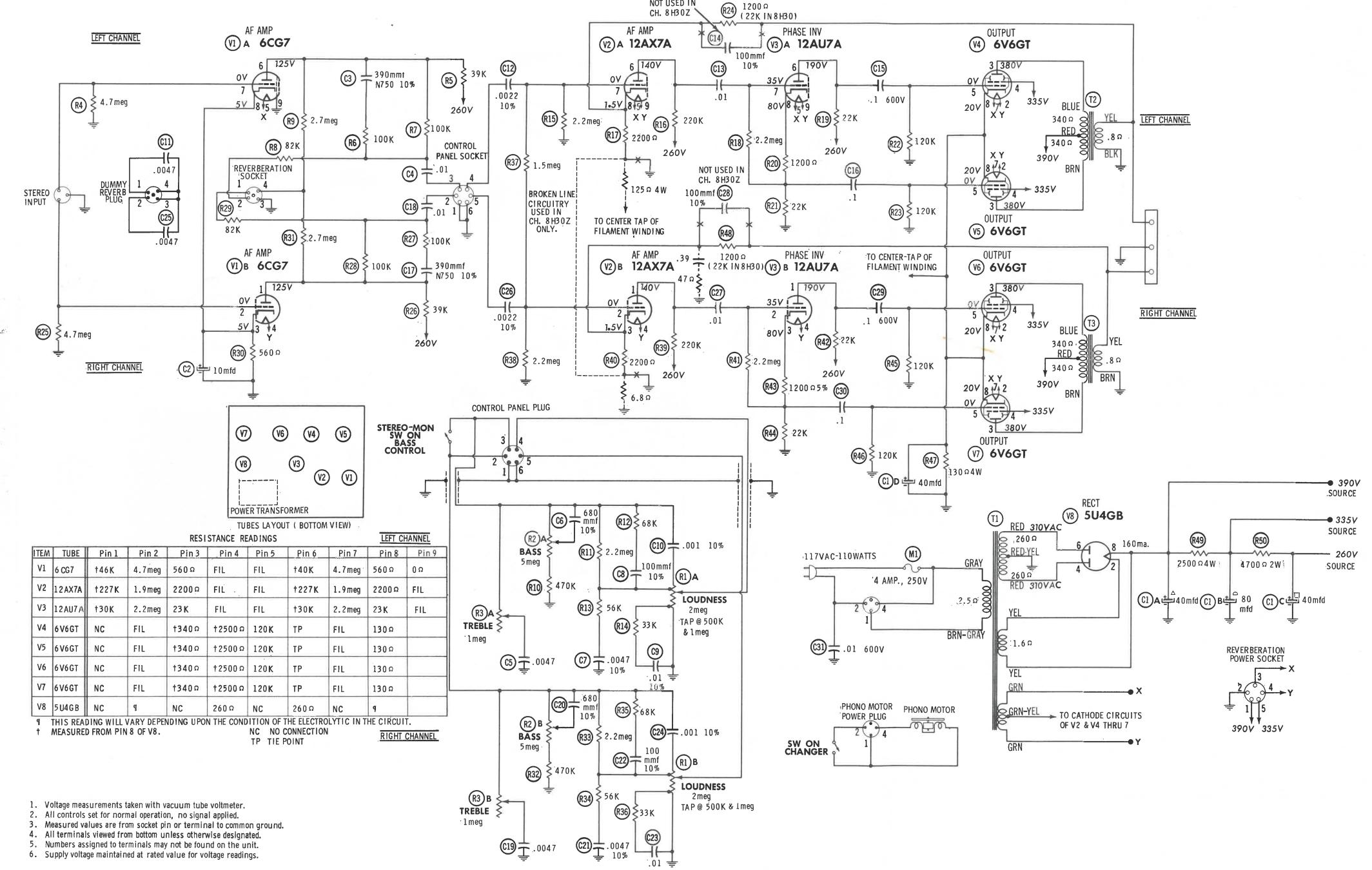
\* Cut shaft to 1 3/4" from mounting surface.

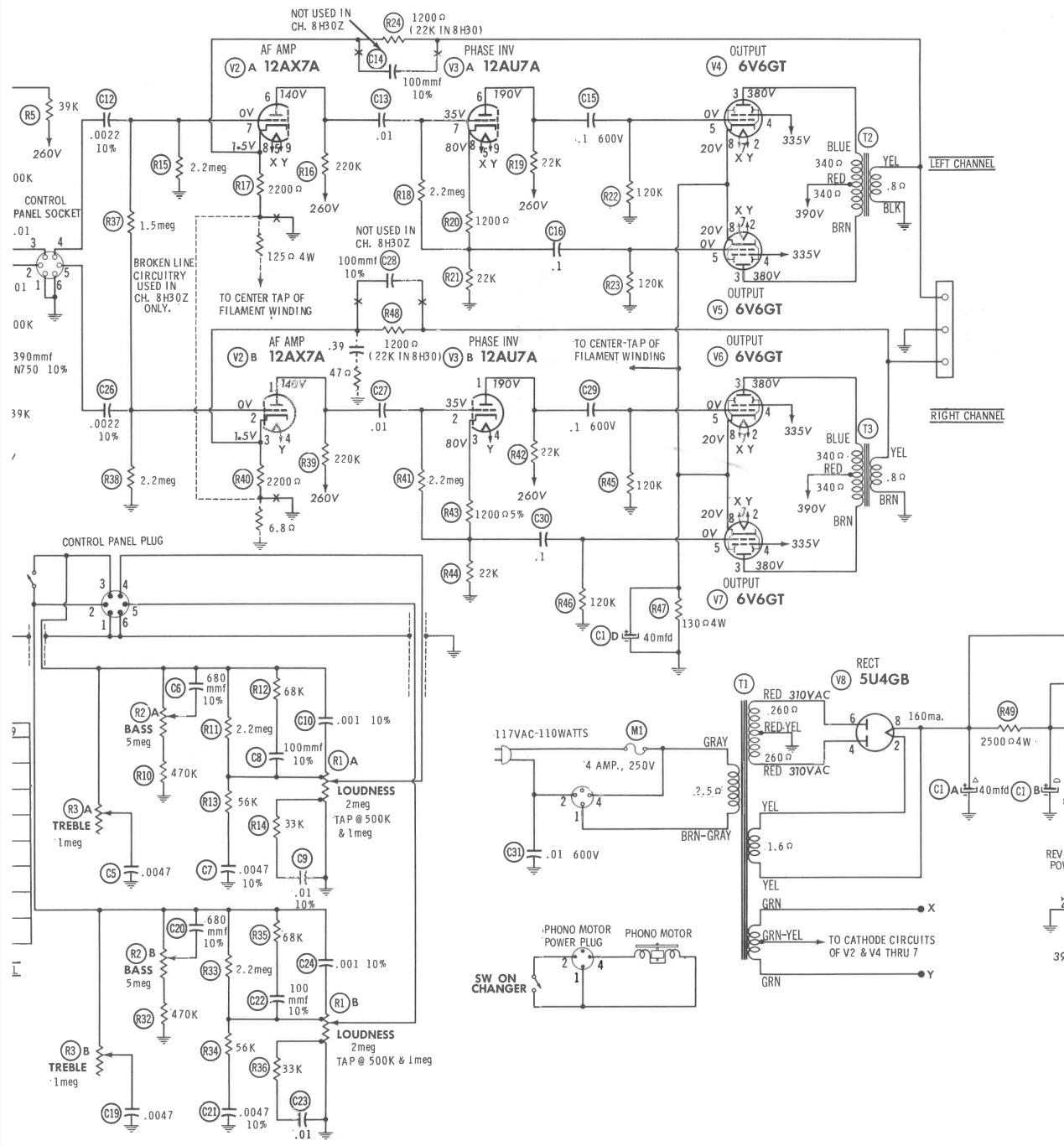
## PARTS LIST AND DESCRIPTIONS (Continued)

### RESISTORS

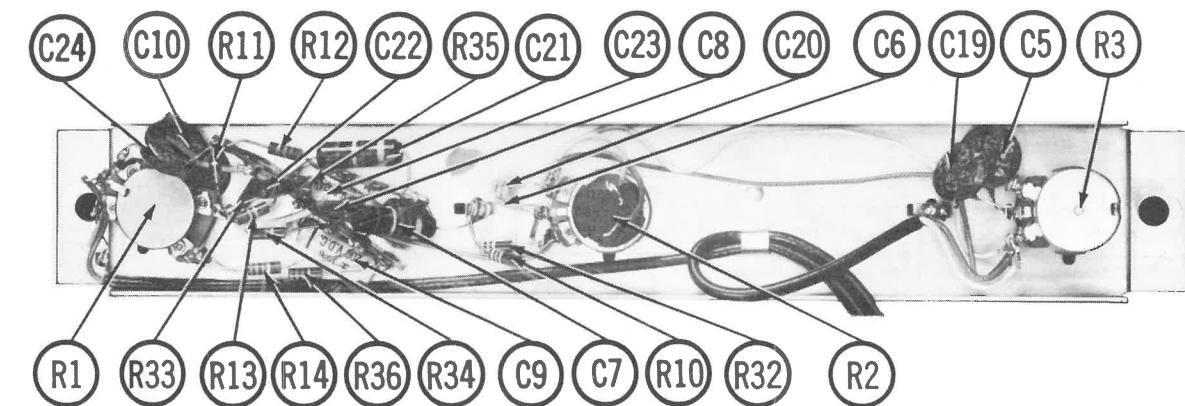
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ITEM No.	RATING	REPLACEMENT DATA			REMARKS	ITEM No.	RATING	REPLACEMENT DATA		
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R5	39K					R29	82K			
R6	100K					R30	560Ω			
R7	100K					R31	2.7meg			
R8	82K					R32	470K			
R9	2.7meg					R33	2.2meg			
R10	470K					R41	56K			
R11	2.2meg					R35	68K			
R12	68K					R36	33K			
R13</										

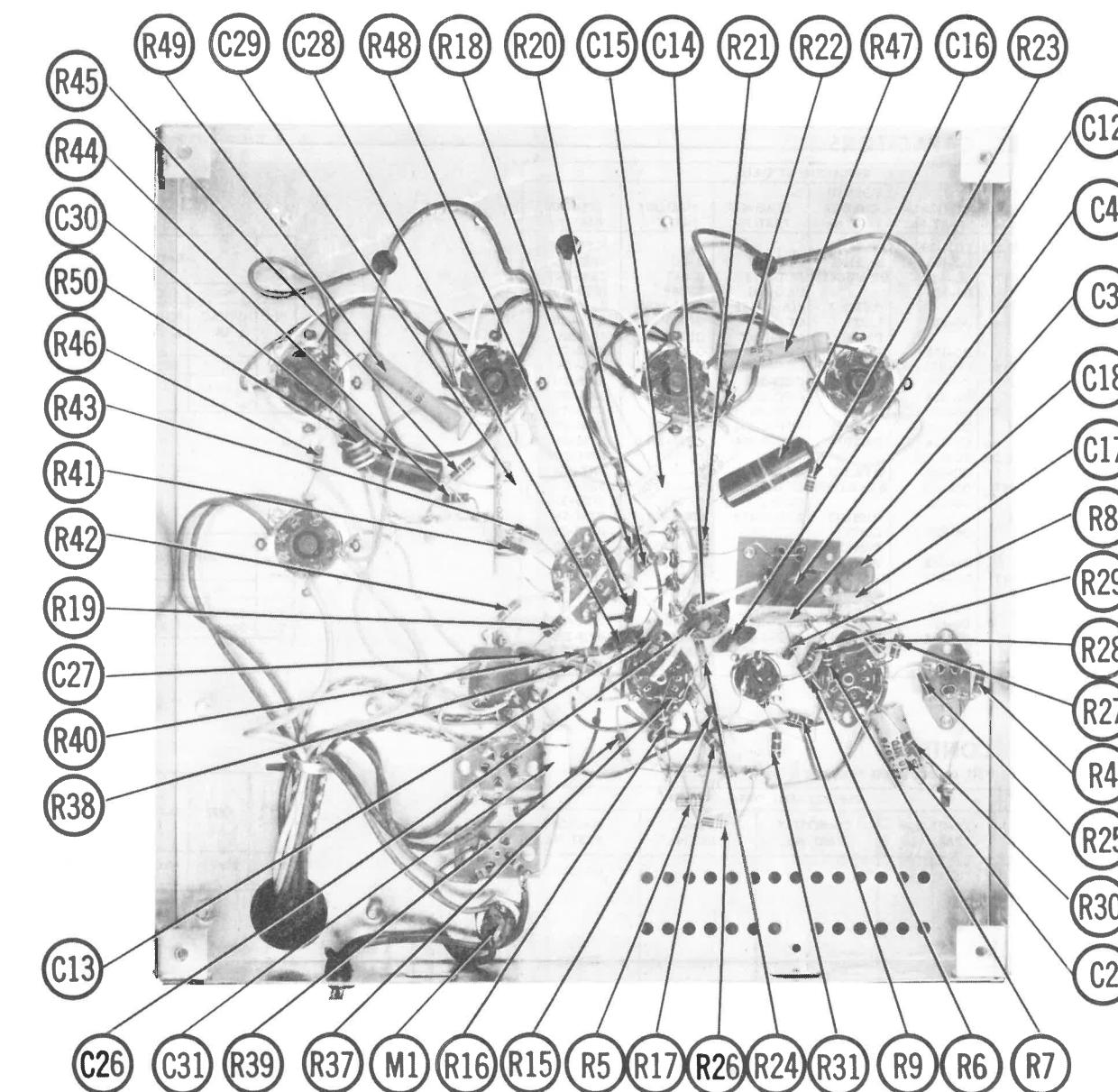




ZENITH AMP.  
CHASSIS 8H30, 8H30Z



CHASSIS 8H30 - CONTROL PANEL



CHASSIS 8H30 - BOTTOM VIEW