

CABINET-REAR VIEW DISASSEMBLY INSTRUCTIONS

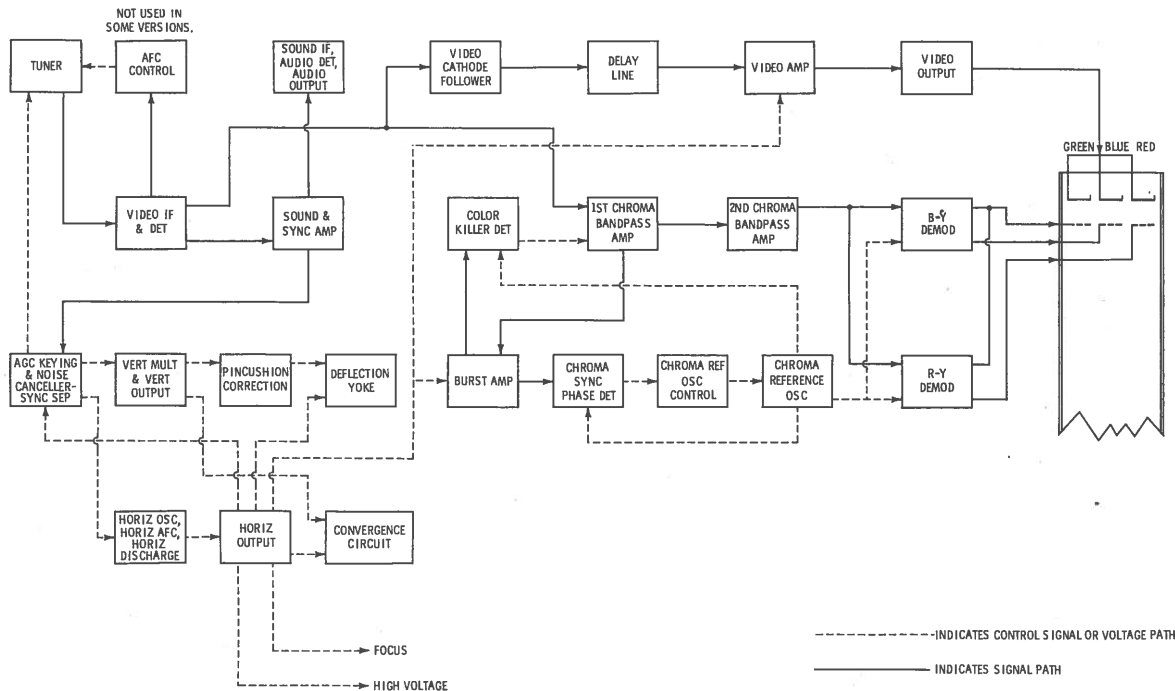
CHASSIS REMOVAL

1. Remove 2 spring clips and release 7 thumb catches holding cabinet back. Disconnect antenna leads and remove all knobs.
2. Disconnect high voltage anode lead, picture tube socket, yoke plug, convergence plug, remote plugs, tuner plugs, degaussing plugs, and speaker plugs.
3. Remove 5 screws holding chassis and lift chassis out. Loosen 4 screws holding tuners. Lift tuners up and out of the cabinet.
4. To remove convergence board, loosen 4 screws. Lift up and out.

Note: For access to convergence board from cabinet front, open control door and loosen screw at bottom of speaker grill. Speaker and grill can then be swung out.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" procedure. Lay set face down on a soft protective surface. Remove yoke, convergence magnet, and the 4 screws holding degaussing coil and shield.
2. Remove 8 screws holding picture tube circuit. Lift tube out.



BLOCK DIAGRAM

SET 981 FOLDER 2

ZENITH CHASSIS
20Y1C48, 20Y1C50

PHOTOFACT® Folder



For Supplier Address See PHOTOFACT Index



MODEL Y6523H6

ZENITH CHASSIS
20Y1C48, 20Y1C50

COLOR TV

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-77536,
Transmitter S-68936... SET 981, FOLDER 2-A
Remote Control Receiver S-74626,
S-75276, S-79636 SET 981, FOLDER 2-B
Remote Control Receiver S-78304... SET 981, FOLDER 2-C

Models:	CHASSIS 20Y1C48	Remote Control
S2959R1/W1;	S2990W3	S-78304
T2955W3/W5, T2956W1, T2969W1, T2971M1, T2972H1, T2973W1, T2979W1		
Y4202Y3, Y4204W3, Y4217W7/W8, Y4502W2/W3, Y4507W1, Y4514R3/W3, Y4516R3/W3		
Y4517M3, Y4518W1, Y4519W5, Y4520M5, Y4522W1/W4, Y4523H1/H4/R1, Y4525M1/M4		
Y4528H1, Y4531DE1, Y4533W1, Y4537M1, Y4539H1/R1/R4, Y4541W1, Y4543P, Y4545H1, Y4547M1		
Y8530W1, Y8548H1, Y8558H1, Y8563M1, Y8568DE1 (Combination Models)		
Y6507W1, Y6525M1, Y6547M1, Y6549H1		S-75276
Y8550H1, Y8565M1 (Combination Models)		S-75276
Y8560H1, Y8570DE1 (Combination Models)		S-74626
Models:	CHASSIS 20Y1C48 or 20Y1C50	Remote Control
GA50-34R/R2/W/W2, GA50-36W/W1, GA50-40W/W1, GA50-42H/H1, GA50-44M/M1		
S2951R6/R7/W6/W7, S2959R6/W6		
T2952L6, T2953W2/W6/W7, T2956W6, T2958P6/W6, T2968W6, T2969W6		
T2971M6, T2972H6, T2973W6, T2979W6, T2991DE6/P6		
Y4202Y6, Y4204W6, Y4207W6, Y4216W6, Y4502W6/W7/W8/W9, Y4507W6		
Y4514R6/R7/R8/R9/W6/W7/W8/W9, Y4515W6/W7/W8/W9, Y4516DE6/DE7/DE8/DE9/P6/P7/P8/P9		
Y4517M6/M7, Y4518W6, Y4519P6/W6, Y4520M6, Y4523H6/H8/R6/R8, Y4526M6/M8, Y4528H6/H8		
Y4532DE6/DE8/P6/P8, Y4533W6/W8, Y4537M6/M8, Y4539H6/H8/R6/R8, Y4541W6, Y4543DE6/P6		
Y4545H6, Y4547M6		
Y8530W6, Y8548H6, Y8558H6, Y8563M6, Y8568DE6 (Combination Models)		
GA50-37W, GA50-41W, GA50-43H, GA50-45M		S-77536
Y6207W6, Y6507W6, Y6519P6/W6, Y6520M6, Y6523H6/R6		S-77536
Y6541W6, Y6545H6, Y6547M6, Y6549H6		S-79636
Y8543DE6/P6		S-77536 or S-79636
Y8550H6, Y8560H6, Y8565M6, Y8570DE6 (Combination Models)		S-77536

SERVICING IN THE FIELD

SAFETY GLASS

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

FUSE OR FUSE DEVICE

A 1-amp. belfuse is used for low voltage power supply protection. (See photo "Cabinet - Rear View" for location.)

Three 2½" lengths of fuse wire are used for filament protection. (See F2, F3 and F4 in photo "Chassis - Bottom View" for location.)

VHF OSCILLATOR ADJUSTMENT

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

AGC

The AGC may be varied by means of an AGC control. (See photo "Cabinet - Rear View" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

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

WIDTH

Width taps increase and decrease width. (For location, see "Cabinet - Rear View".)

FOCUS

The focus may be varied by means of a Focus control. (See photo "Cabinet - Rear View" for location.)

BUZZ ADJUSTMENT

To eliminate intercarrier buzz, adjust the Buzz control for MINIMUM buzz and maximum sound. (See photo "Cabinet - Rear View" for location.)

REMEMBER TO ASK— "What else needs fixing?"

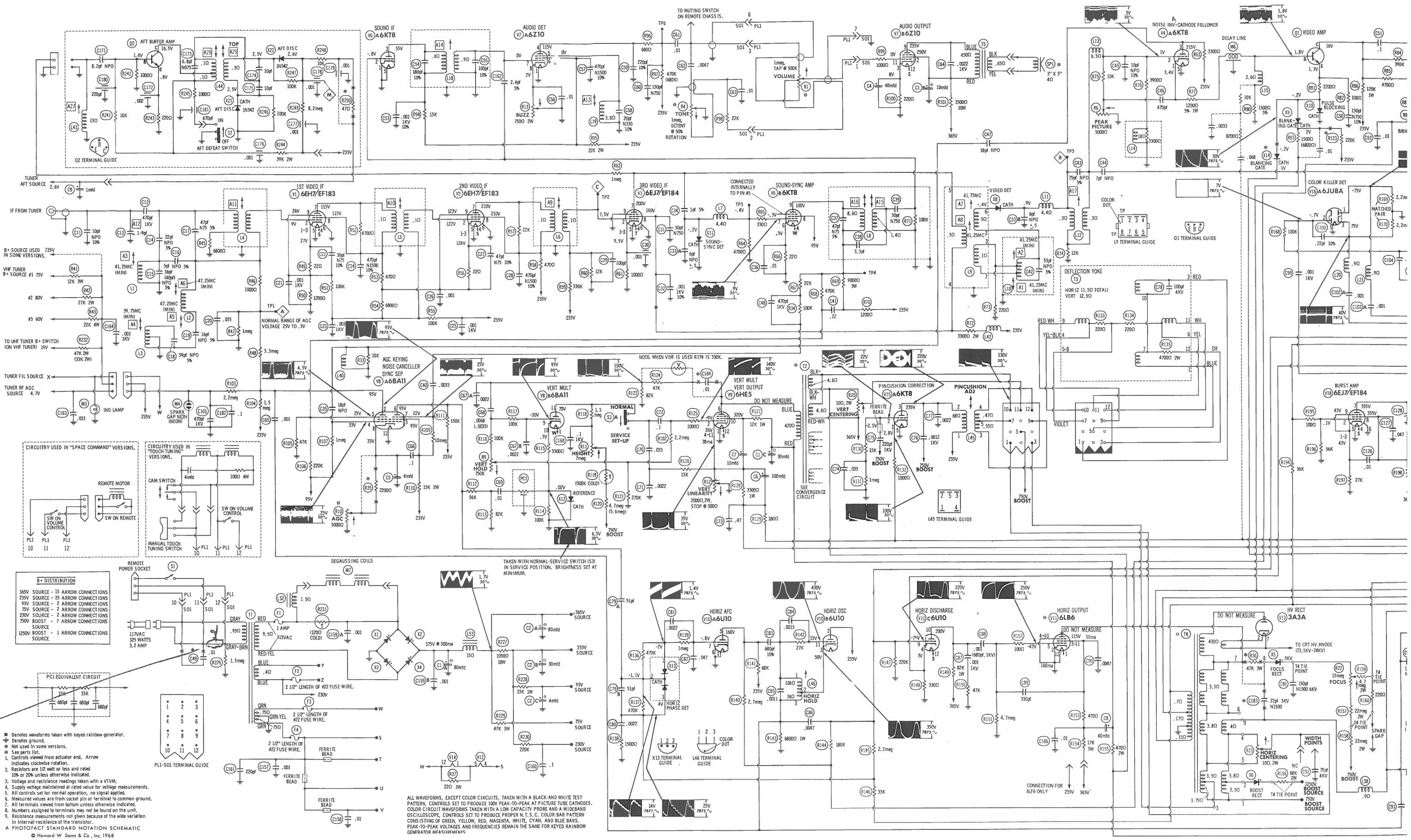
HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

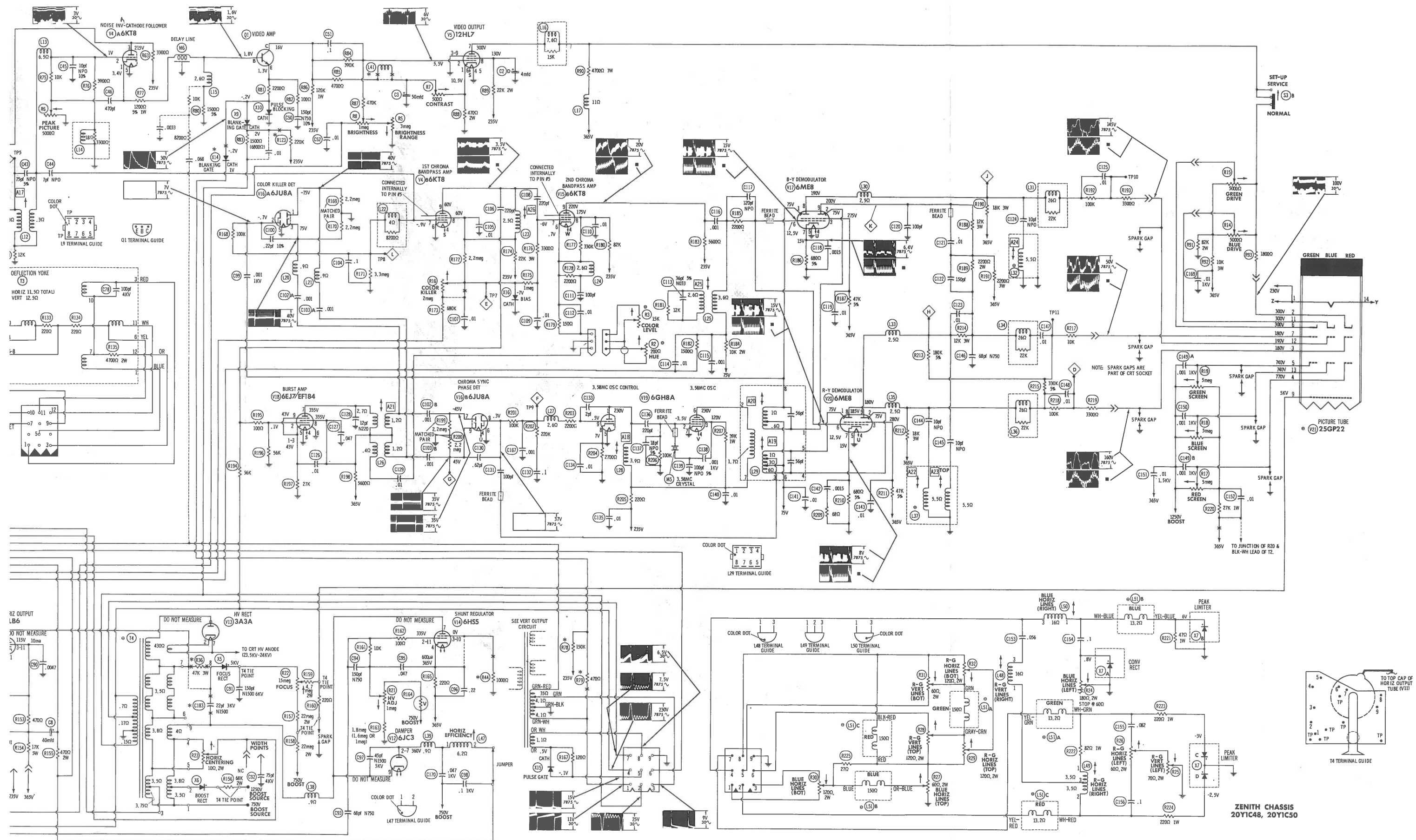


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DATE 9-68 SET 981 FOLDER 2



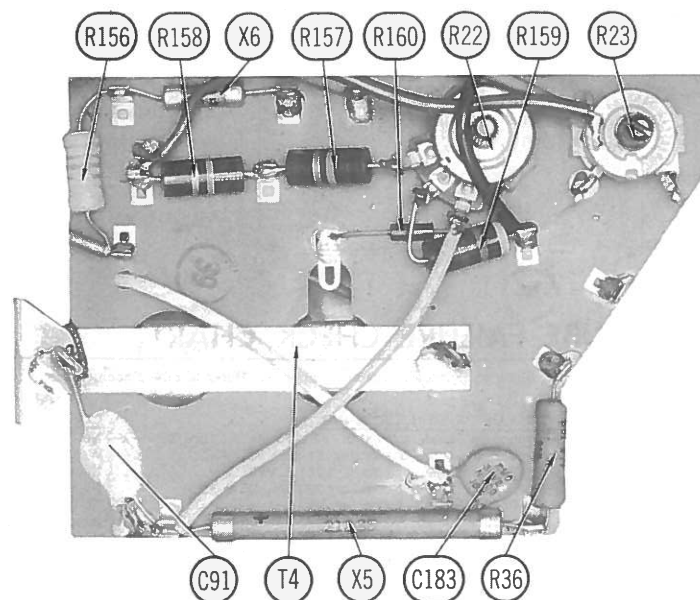


RESISTANCE MEASUREMENTS

ITEM	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	TOP CAP
V1	6EH7/EF183	1220Ω	950K	NC	FIL	FIL	0Ω	500Ω▲	500Ω▲	1200Ω				
V2	6EH7/EF183	65K	6800Ω▲	NC	FIL	FIL	0Ω	1500Ω†	1500Ω†	22Ω▲				
V3	6EJ7/EF184	1000Ω	12K	NC	FIL	FIL	0Ω	4300Ω†	4300Ω†	0Ω				
V4	6KT8	2780Ω	2400Ω	4300Ω†	FIL	FIL*	0Ω	3.3meg	23K†	23K†				
V5	12HL7	470Ω	260K	0Ω	FIL	FIL	FIL	3400Ω†	23K†	0Ω				
V6	6KT8	0Ω	100K	38K†	FIL	FIL	22Ω	1600Ω●	32K†	11K†				
V7	6Z10	FIL	3500Ω†	220Ω	470K†	3.8Ω	23K†	.9Ω	340Ω	4000Ω†	TP	200K	FIL	
V8	6BA11	FIL	1.2meg†	16K†	1meg†	50K	80K†	10meg†	4200Ω	850K	100K●	9.5meg†	FIL	
V9	6HE5	FIL	2.5meg	NC	NC	NC	1000Ω†	NC	TP	NC	13K†	900Ω	FIL	
V10	6U10	FIL	1000Ω†	7000Ω	330Ω	69K†	0Ω	2.3meg	TP	220K	82K†	34K	FIL	
V11	6LB6	FIL	0Ω	18K†	0Ω	4.7meg	TP	NC	NC	NC	NC	18K†	FIL	18.5Ω†
V12	6CJ3	NC	28Ω†	NC	FIL	FIL	NC	28Ω†	NC	60meg#●				
V13	3A3A	PINS 1 THRU 8 HAVE INFINITE RESISTANCE												460Ω†
V14	6HS5	FIL	2.3meg	1000Ω	240Ω†	NC	NC	0Ω†	NC	NC	NC	240Ω†	FIL	
V15	6KT8	1050Ω	1meg	1100Ω†	FIL	FIL	1800Ω	2.3meg●	70K†	5700Ω†				
V16	6JU8A	2.2meg	3.4meg	2.2meg	FIL	FIL	0Ω	2.2meg	102K††	2.2meg				
V17	6ME8	1.3Ω††	1.6Ω††	47K†	FIL	FIL	4000Ω	680Ω	18K†	15K†				
V18	6EJ7/EF184	27K	30K	27K	FIL	FIL	0Ω	5600Ω†	5600Ω†	27K				
V19	6GH8A	1250Ω†	100K	40K†	FIL	FIL	1250Ω†	0Ω	2700Ω	INFINITE				
V20	6ME8	1.5Ω	10K	47K†	FIL	FIL	4000Ω	680Ω	18K†	16K†				
V21	25GP22A	FIL	5500Ω†	120K†	1.5meg†	1.8meg†	4800Ω†	150K†	NC	50meg†	NC	4800Ω†	115K	
												PIN 13 1.7meg†	PIN 14 FIL	
V201	6HA5	3meg	0Ω	FIL	FIL	13K†	0Ω	0Ω						
V202	6GJ7	0Ω	680K	0Ω	FIL	FIL	29K†	24K†	24K†	10K				
ITEM	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	TOP CAP

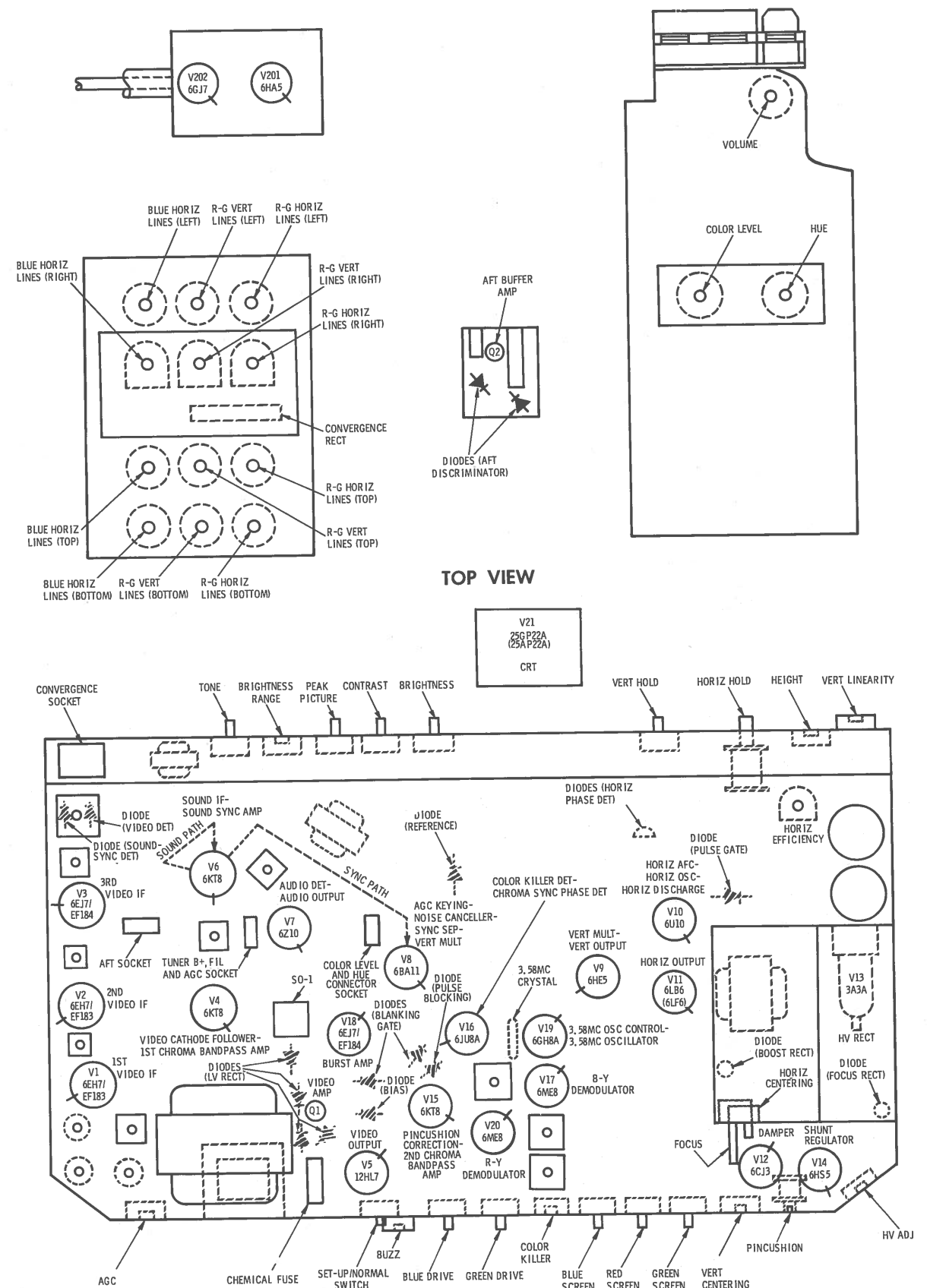
THIS READING WILL VARY DEPENDING UPON THE CONDITION OF THE ELECTROLYTIC IN THE CIRCUIT.
 * THIS PIN MUST BE THE GROUNDED FILAMENT CONNECTION.
 ● READING DEPENDS ON POLARITY OF METER CONNECTIONS.
 † MEASURED FROM CATHODES OF X2 AND X4.
 ▲ MEASURED FROM PIN 1 OF V2.
 ‡ MEASURED FROM PIN 9 OF V12.
 †† MEASURED FROM PIN 9 OF V19.
 ‡‡ MEASURED FROM PIN 2 OF V20.
 NC NO CONNECTION

TP TIE POINT



HIGH VOLTAGE CIRCUIT

TUBE PLACEMENT CHART



MISCELLANEOUS ADJUSTMENTS

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

The Horizontal Hold is equipped with a stop which limits rotation to 270° with the knob. 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.

For efficiency coil adjustment, remove the shorting jumper in efficiency coil circuit and connect a 0-300ma meter across the terminals. Adjust the efficiency coil for MINIMUM current reading approximately 180-220ma. Remove meter and connect jumper.

Connect a VTVM through a 30KV or higher probe to picture tube anode lead. Set Service switch to Set-up position. Set the high voltage adjust control for 24.5KV on VTVM.

AGC ADJUSTMENT

Tune in the strongest TV station available and slowly turn AGC control to the right until the picture distorts and a buzz is heard in the sound. Turn control back to the left until picture distortion and buzz in the sound have cleared up.

COLOR KILLER

Tune in a weak signal or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the Color Killer control to eliminate color in the snow. Check with a color signal to make sure the killer is not eliminating picture coloring.

PURITY ADJUSTMENTS

Perform step 1 of "Convergence Adjustments". If the picture tube appears to be magnetized, use a degaussing coil to demagnetize tube and mounting brackets. Connect the Blue and Green grids of the picture tube through individual 100K resistors to ground. Loosen the deflection yoke and move it backward until it is against the convergence yoke assembly.

Adjust the tabs on the Purity magnet, and rotate the assembly until a red spot appears at the center of the picture tube. Slide the deflection yoke forward to obtain a uniform red over entire picture tube face. A low power microscope is useful to observe the beam landings.

GREY SCALE ADJUSTMENTS

Tune in a black and white picture or a color picture with the Color control set to MINIMUM. Turn the Red, Blue, and Green Screen controls fully counterclockwise. Move the Service switch to the Set-up position. Advance the screen controls one at a time until each produces a barely visible line on the screen. If any control fails to produce a line, leave that control at maximum and turn the other two controls back to MINIMUM. Interchange the cathode lead of the least efficient gun with the cathode lead connected to the YR terminal and repeat the above procedure until each control produces a barely visible line. Return the Service switch to the Normal position. Adjust the Blue and Green Drive controls to eliminate coloring in the light and dark areas of the picture.

BRIGHTNESS RANGE ADJUSTMENTS

Tune to a TV station. Set the Brightness control to maximum and the Contrast control to the middle of its range. Adjust the Brightness Range control just below the point where the picture starts to bloom.

CONVERGENCE ADJUSTMENTS

Step	Control	Use to Converge (or Straighten)	Remarks
1.			Perform center dot convergence using convergence magnets. If more range is needed, reverse magnet holder in clip. See Fig. A.
2.	Vertical Dynamic Pincushion Adjust		Adjust for straight horizontal line at top and bottom of screen.
3.	R-G Vertical lines (Top)	Red and Green Vertical bars at top of screen.	Touch up both controls for best convergence from top to bottom along vertical center line (Fig. B).
4.	R-G Vertical lines (Bottom)	Red and Green Vertical bars at bottom of screen.	
5.	R-G Horizontal lines (Top)	Red and Green Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. B).
6.	R-G Horizontal lines (Bottom)	Red and Green Horizontal bars at bottom of screen.	
7.	Blue Horizontal lines (Top)	Blue Horizontal bars at top of screen.	Touch up both controls for best convergence of horizontal bars along vertical center line (Fig. C).
8.	Blue Horizontal lines (Bottom)	Blue Horizontal bars at bottom of screen.	
9.			Perform center dot static convergence (Fig. A).
10.	Blue Horizontal lines (Right Side)	Blue Horizontal bars at right side of screen.	Touch up both controls for best convergence along horizontal center line (Fig. D).
11.	Blue Horizontal lines (Left Side)	Blue Horizontal bars at left side of screen.	
12.	R-G Vertical lines (Right Side)	Red and Green Vertical bars at right side of screen.	Fig. E.
13.	R-G Horizontal lines (Right Side)	Red and Green Horizontal bars at right side of screen.	Use control to converge Blue bar with Red and Green bars on right side of screen (Fig. B).
14.	R-G Vertical lines (Left Side)	Red and Green Vertical bars at left side of screen.	
15.	R-G Horizontal lines (Left Side)	Red and Green Horizontal bars at left side of screen.	Use control to converge Blue bar with Red and Green bars on left side of screen (Fig. E).

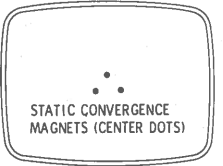


FIG. A

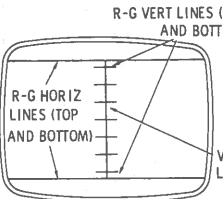


FIG. B (RED AND GREEN ONLY)

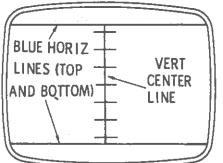


FIG. C (BLUE BARS)

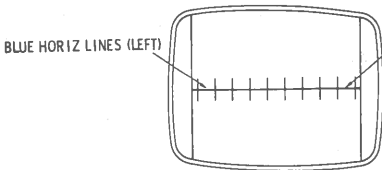


FIG. D (BLUE BARS)

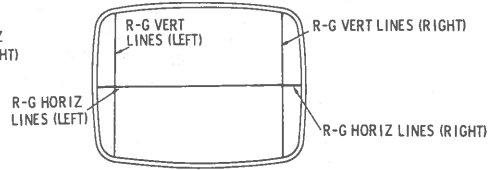


FIG. E

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.

SWEEP

No raster, has sound V10 thru V14, V21
No vert. deflection V8 & V9
Poor vert. lin. or foldover V8 & V9
Poor horiz. lin. or foldover V11 & V12
Narrow picture X1 thru X4, V10, V11 & V12
Vert. off freq. V8 & V9
Horiz. off freq. X13 & V10

RASTER

No blue, has R/G (yellow) raster V17 & V21
No red, has B/G (cyan) raster V20 & V21
No green, has R/B (magenta) raster V17 & V21

LOSS OF PICTURE OR SOUND

No pic, no sound, no raster F1 thru F4, X1 thru X4
No pic, no sound, has raster V1 thru V3, V202
No pic, no sound, has snow V201 & V202
No pic, has sound, has raster X8, V4, Q1 & V5
No pic, has sound, no raster V5, V21
Has pic, no sound V5 thru V7
Overloaded picture V8

SYNC

No vert. sync V6, V8
No horiz. sync V6, V8
No vert. or horiz. sync V6, V8

COLOR (B/W reception operating normally.)

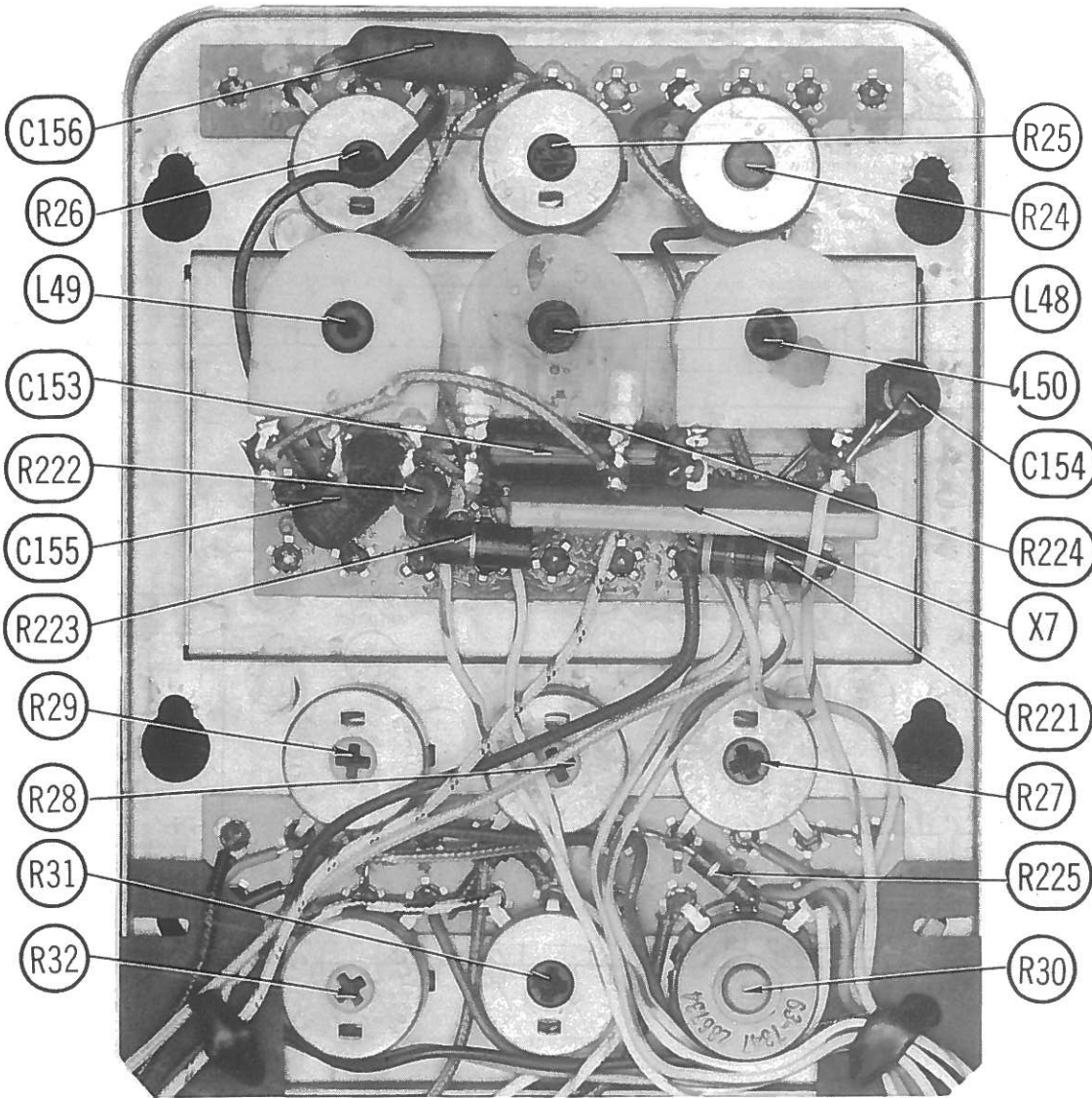
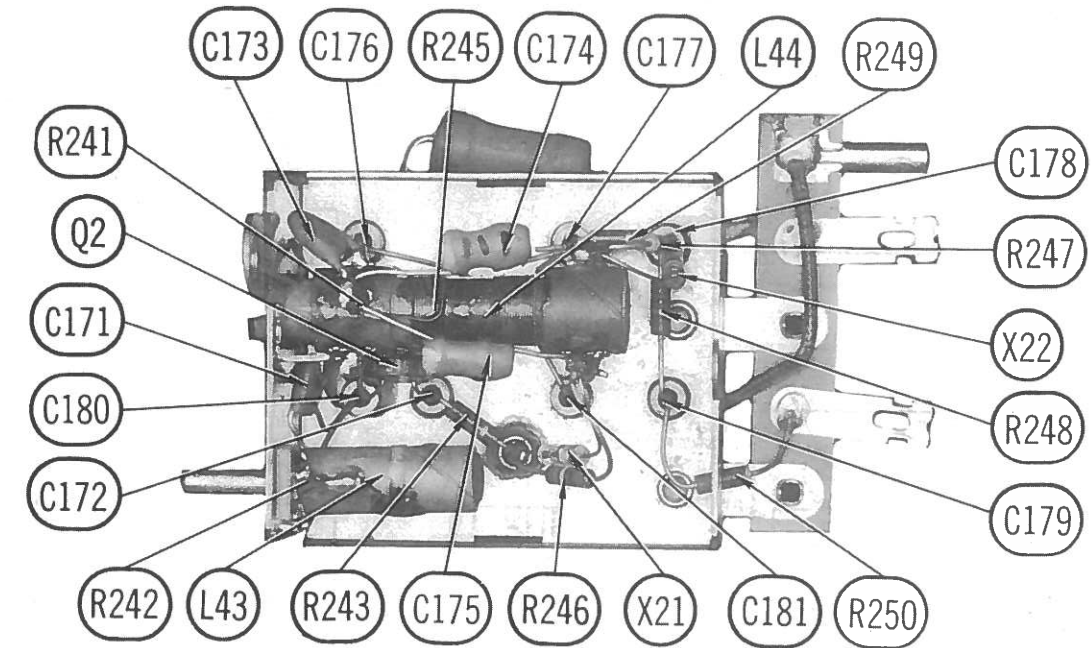
No color V4, V15, V16, V18
Weak color V4, V15, V16, V18
No color sync V4, V16, V18, V19
No blue V17
No red V20
Incorrect hue (tint) V4, V16, V18, V20

FOCUS

Poor focus X5

AUTOMATIC FINE TUNING CHASSIS

CONVERGENCE CHASSIS



CABINETS & CABINET PARTS (When ordering specify model, chassis & color)

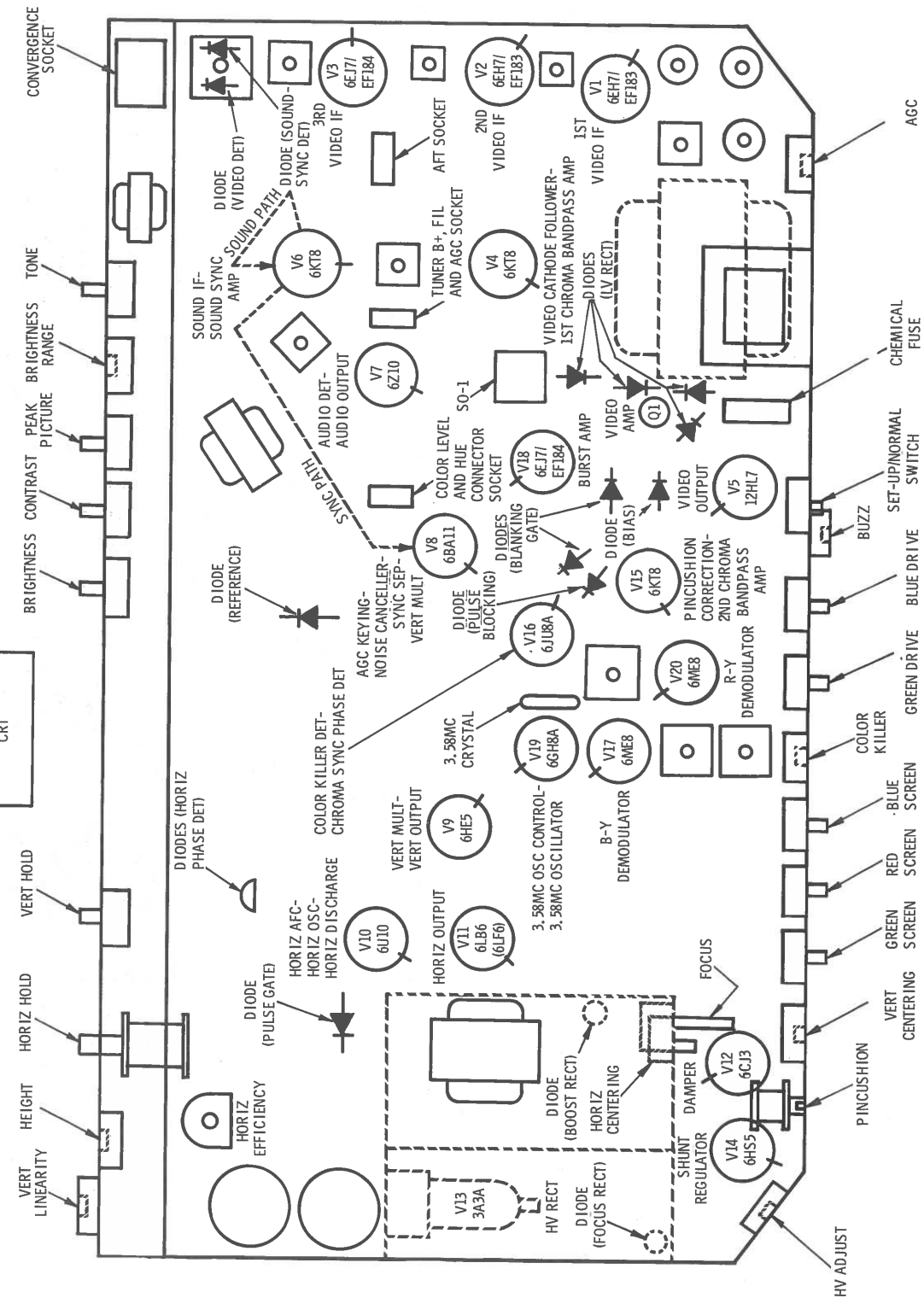
Model Keys	Volume	VHF Channel	UHF Dial	UHF Tuning	Fine Tuning	VHF/UHF Fine Tuning	Horizontal Hold	Vertical Hold	Brightness	Contrast	Tone	Peaking	Hue	Color	Focus	(Not a UHF Dial Scale knob)	AFC
A	1	9	23	33	37		45	48	48	48	48	51	54	61	62		
B	1	9	24	33	37		45	48	48	48	48	51	54	61	62		
C	2	10				44	45	48	48	48	48	51	55	2	62	64	70
D	3	11	25		38		45	48	48	48	48	51	56	58	62	65	70
E	3	12	25		38		45	48	48	48	48	51	56	58	62	65	70
F	2	10				44	45	48	48	48	48	51	55	2	62	66	71
G	2	17	29	28	40		45	48	48	48	48	51	55	2	62		
H	2	10				44	45	48	48	48	48	51	55	2	62	66	71
I	2	10				44	45	48	48	48	48	51	55	2	62	67	71
J	2	10				44	45	48	48	48	48	51	55	2	62	64	70
K	4	13	26	29	39		46	49	49	49	49	52	57	4	62		
L	2	10				10	45	48	48	48	48	51	55	2	62	64	70
M	2	10				6	45	48	48	48	48	51	55	2	62	67	71
N	2	10				6	45	48	48	48	48	51	55	2	62	66	71
O	3	16	25		38		45	48	48	48	48	51	58	58	62	65	70
P	4	14	26	29	39		46	49	49	49	49	52	55	4	62		
Q	2	17	28	29	40		45	48	48	48	48	51	55	2	62		
R	4	14	26	29	39		46	49	49	49	49	52	57	4	62		
S	5	14	26	29	39		46	49	49	49	49	52	57	4	62		
T	4	18	30	29	39		46	49	49	49	49	52	57	4	62		
U	1	15	23	33	37		45	48	48	48	48	51	54	61	62		
V	2	17	31	29	40		45	48	48	48	48	51	55	2	62		
W	1	19	27	34	41		45	48	48	48	48	51	54	61	62		70
X	2	10	27	34	41	44	45	48	48	48	48	51	55	2	62	67	71
Y	2	10				44	45	48	48	48	48	51	55	2	62	68	71
Z	2	10			38		45	48	48	48	48	51	55	2	62	64	71
AA	2	10				44	45	48	48	48	48	51	55	2	62	69	71
BB	2	10				44	45	48	48	48	48	51	55	2	62	64	71
CC	3	20	25		38		45	48	48	48	48	51	58	58	62	65	70
DD	7	20	25		38		45	48	48	48	48	51	56	58	62	65	71
EE	3	20	25		38		45	48	48	48	48	51	56	58	62	65	71
FF	3	16	25		38		47	50	50	50	50	53	58	58	63	65	70
GG	3	21	2	35	42		46	49	49	49	49	52	59	59	62		
HH	8	22	32	36	43		45	48	48	48	48	51	60	60	62		71
II	7	20	25		38		45	48	48	48	48	51	56	58	62	65	70
JJ	3	20	25		38		45	48	48	48	48	51	56	58	62	65	70
KK	2	10				44	45	48	48	48	48	51	55	58	62	66	71
LL	7	12	25		38		45	48	48	48	48	51	56	58	62	65	70
MM	2	10	25			44	45	48	48	48	48	51	55	2	62	66	71
NN	2	10	25			44	45	48	48	48	48	51	55	2	62	67	71
OO	3	20			38		45	48	48	48	48	51	56	58	62	65	70
PP	7	20			38		45	48	48	48	48	51	56	58	62	65	70

KEY	MODEL NO.	KEY	MODEL NO.	KEY	MODEL NO.
A	GA50-34R	V	Y4502W6	AA	Y4533W6
B	GA50-34R2	V	Y4502W7	I	Y4533W8
A	GA50-34W	Q	Y4502W8	H	Y4537M1
B	GA50-34W2	Q	Y4502W9	AA	Y4537M6
C	GA50-36W	W	Y4507W1	I	Y4537M8
C	GA50-35W1	X	Y4507W6	H	Y4539H1
D	GA50-37W	U	Y4514R3	H	Y4539R1
C	GA50-40W	U	Y4514W3	BB	Y4539R4
C	GA50-40W1	V	Y4514R6, W6	AA	Y4539H6
D	GA50-41W	V	Y4514R7, W7	I	Y4539H8
C	GA50-42H	Q	Y4514R8, W8	AA	Y4539R6
C	GA50-42H1	Q	Y4514R9, W9	I	Y4539R8
D	GA50-43H	V	Y4515W6	CC	Y4541W1
C	GA50-44M	V	Y4515W7	DD	Y4541W6
C	GA50-44M1	Q	Y4515W8	FF	Y4543P
E	GA50-45M	Q	Y4515W9	DD	Y4543DE6
A	S2951R6	V	Y4516DE6	DD	Y4543P6
A	S2951R7	V	Y4516DE7	CC	Y4545H1
A	S2951W6	Q	Y4516DE8	DD	Y4545H6
A	S2951W7	Q	Y4516DE9	CC	Y4547M1
F	S2959R1	V	Y4516P6	DD	Y4547M6
F	S2959W1	V	Y4516P7	DD	Y6207W6
M	S2959R6	Q	Y4516P8	HH	Y6507W1
N	S2959W6	Q	Y4516P9	GG	Y6507W6
O	S2990W3	U	Y4516R3	DD	Y6519P6
P	T2942L6	U	Y4517M3	DD	Y6519W6
Q	T2953W2	U	Y4517M6	DD	Y6520M6
G	T2953W6	Q	Y4517M7	DD	Y6523H6
G	T2953W7	Q		DD	Y6523R6
G	T2955W3	H	Y4518W1	EE	Y6525M1
G	T2955W5	I	Y4518W6	DD	Y6541W6
H	T2956W1	I	Y4519P6	DD	Y6543DE6
I	T2956W6	I	Y4519W6	DD	Y6543P6
I	T2958P6	H	Y4519W5	II	Y6545H6
I	T2958W6	H	Y4520M5	JJ	Y6547M1
I	T2968W6	I	Y4520M6	II	Y6547M6
I	T2969W1	H	Y4522W1	JJ	Y6549H1
I	T2969W6	Y	Y4522W4	II	Y6549H6
I	T2971M1	H	Y4523H1	KK	Y8530W1
I	T2971M6	Z	Y4523H4	I	Y8530W6
I	T2972H1	H	Y4523R1	H	Y8548H1
I	T2972H6	AA	Y4523H6	I	Y8548H6
I	T2973W1	I	Y4523H8	E	Y8550H1
I	T2973W6	AA	Y4523R6	LL	Y8550H6
I	T2979W1	I	Y4523R8	H	Y8558H1
I	T2979W6	H	Y4525M1	I	Y8558H6
I	T2991DE6	Y	Y4525M4	JJ	Y8560H1
I	T2991P6	AA	Y4526M6	II	Y8560H6
K	Y4202Y3	I	Y4526M8	MM	Y8563M1
R	Y4202Y6	H	Y4528H1	NN	Y8563M6
K	Y4204W3	Y	Y4528H6	OO	Y8565M1
S	Y4204W6	I	Y4528H8	PP	Y8565M6
T	Y4207W6	H	Y4531DE1	H	Y8568DE1
T	Y4216W6	AA	Y4532DE6	I	Y8568DE6
T	Y4216W7	I	Y4532DE8	JJ	Y8570DE1
T	Y4216W8	AA	Y4532P6	II	Y8570DE6
T	Y4502W2	I	Y4532P8		
U	Y4502W3	H	Y4533W1		

KEY NO.	PART NO.	KEY NO.	PART NO.	KEY NO.	PART NO.	KEY NO.	PART NO.
1	46-5552	18	46-6217	33	S-65155	53	46-4924
2	46-6016	19	46-5767	34	46-5768	54	46-5989
3	46-5416	20	S-53116,	35	46-5425	55	46-6018
4	46-5368		46-5972,	36	46-4930	56	46-6037
5	14-7848		46-5973	37	S-52904	57	46-5995
6	46-6563	21	S-53116,	38	S-58105	58	46-6036
7	46-6586		46-5404	39	S-69741	59	46-6097
8	S-56479	22	S-53116,	40	S-69715	60	S-69188
9	46-6212		46-4488,	41	46-6045	61	46-5988
10	46-6352		46-4489	42	S-66511	62	S-76936
11	S-53116	23	46-5585	43	S-56911	63	S-50935
12	S-53116,	24	46-6564	44	46-6353	64	S-77087
	46-5972	25	46-6035	45	46-6024	65	S-77351
13	46-5010	26	46-5830	46	46-6027	66	S-77088
14	46-6218	27	46-6046	47	46-5700	67	S-79163
15	46-5008	28	46-6332	48	46-6023	68	S-77979
16	S-53116,	29	46-5322	49	46-6026	69	S-79164
	46-5973	30	46-6019	50	46-4922	70	46-5326
17	46-6230	31	46-3698	51	46-6025	71	46-5325
		32	46-5616	52	46-6028		

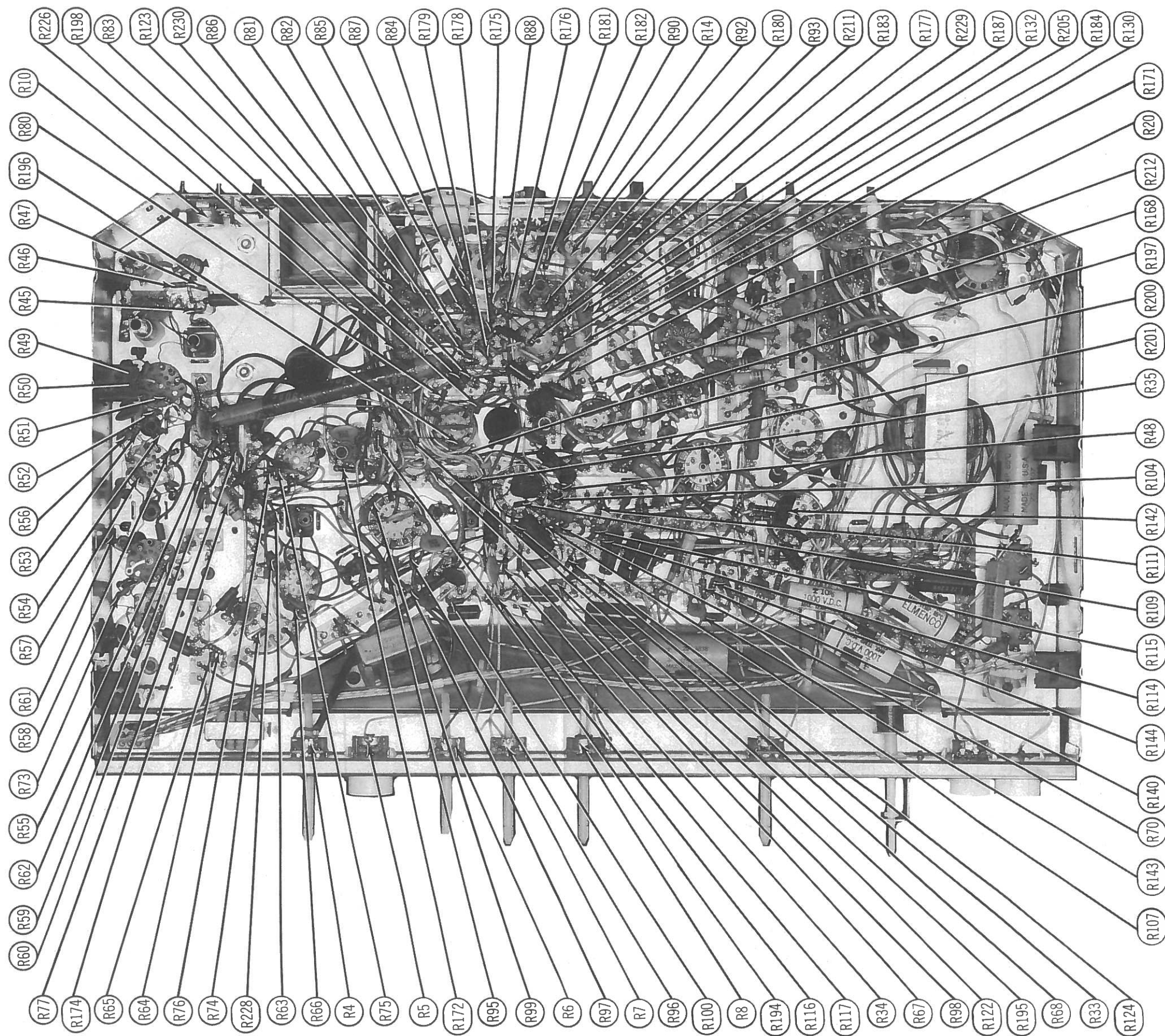
TUBE PLACEMENT CHART

BOTTOM VIEW

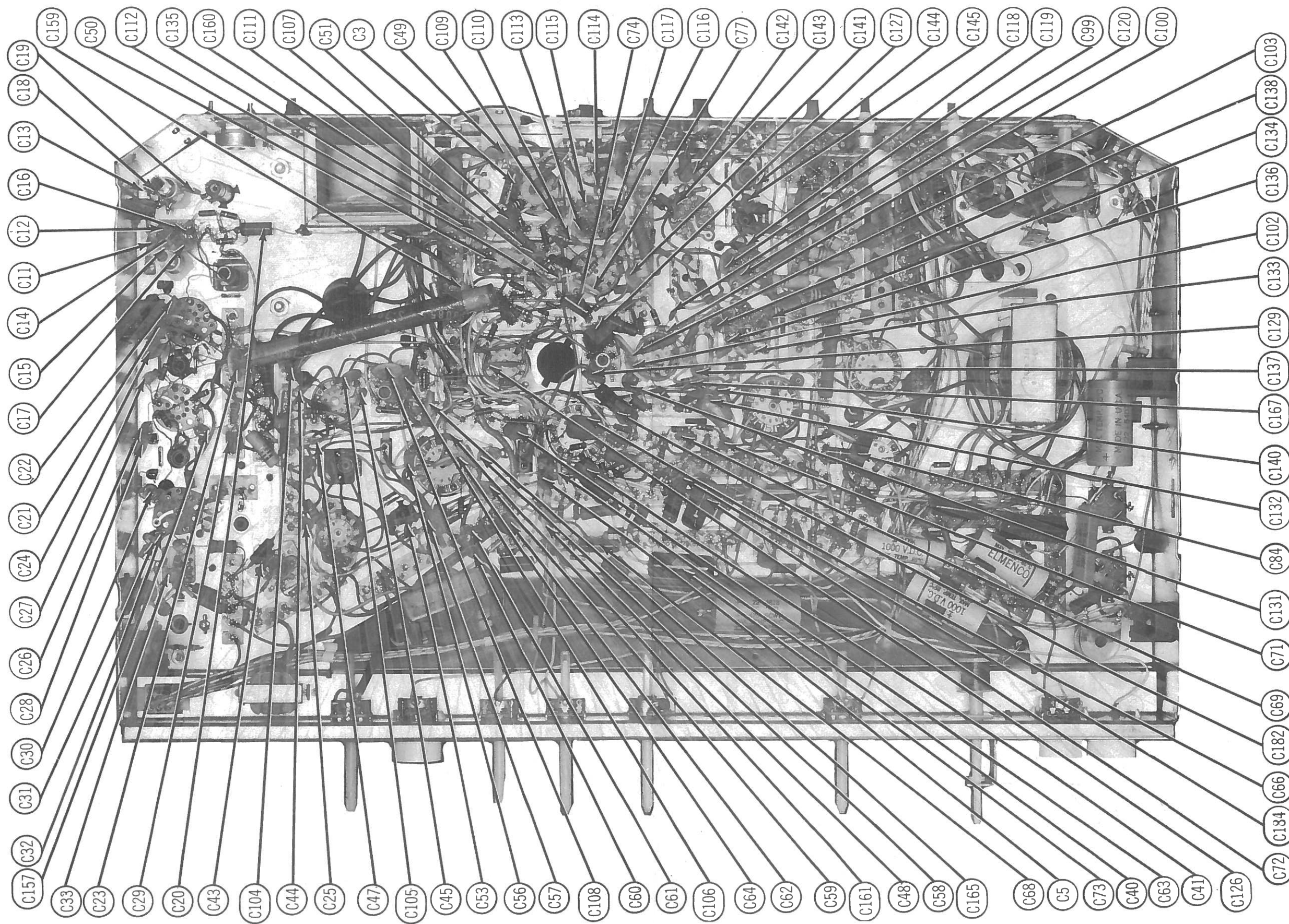


ZENITH CHASSIS
20Y1C48, 20Y1C50

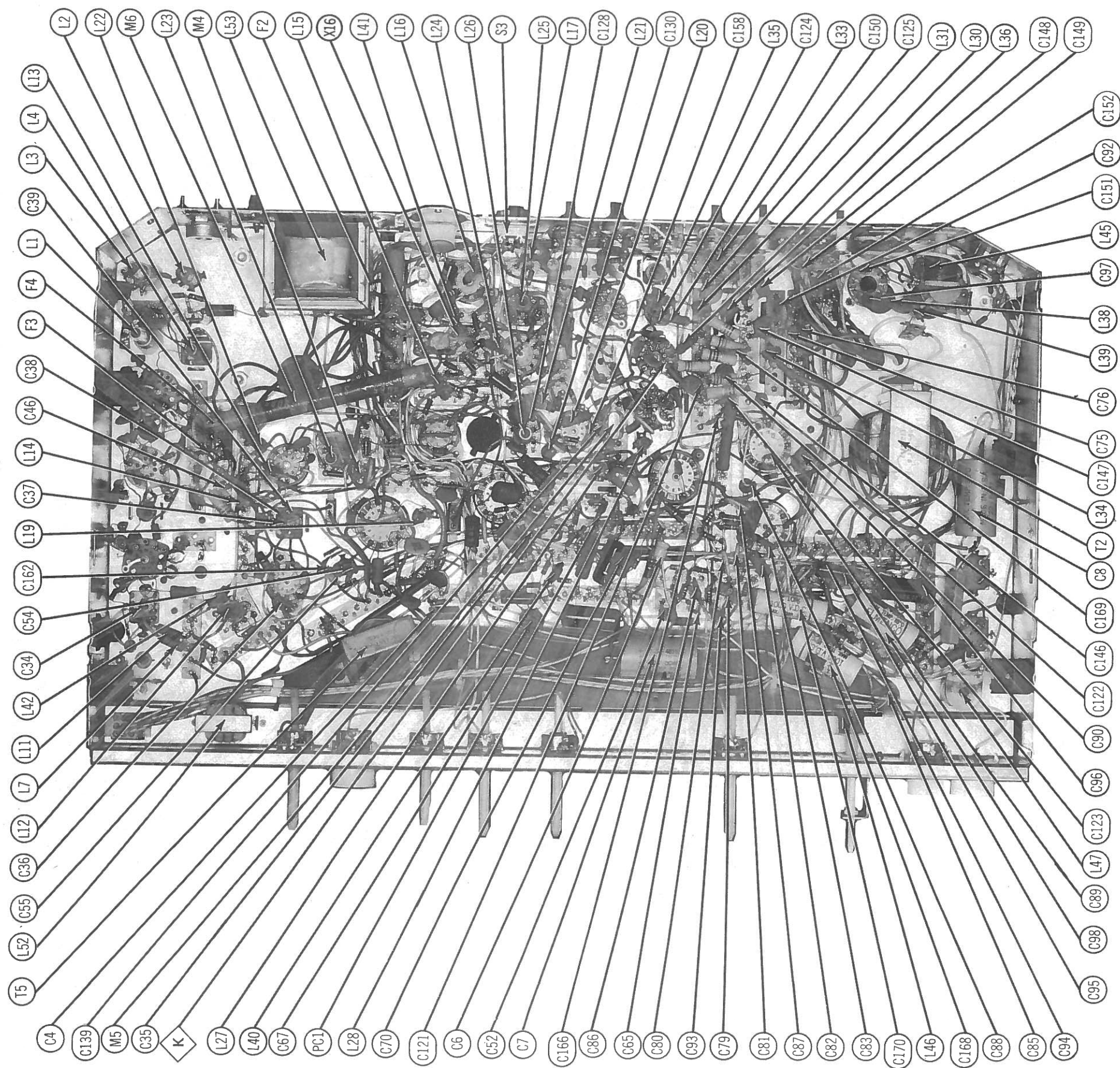
FOLDER 2



CHASSIS - BOTTOM VIEW

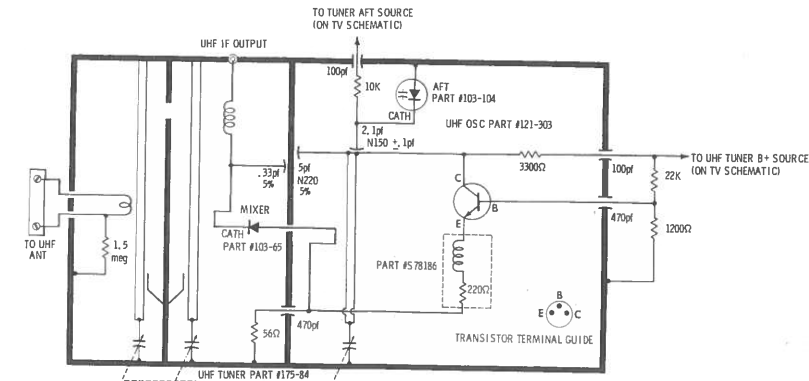


ZENITH CHASSIS
20Y1C48, 20Y1C50
CHASSIS - BOTTOM VIEW



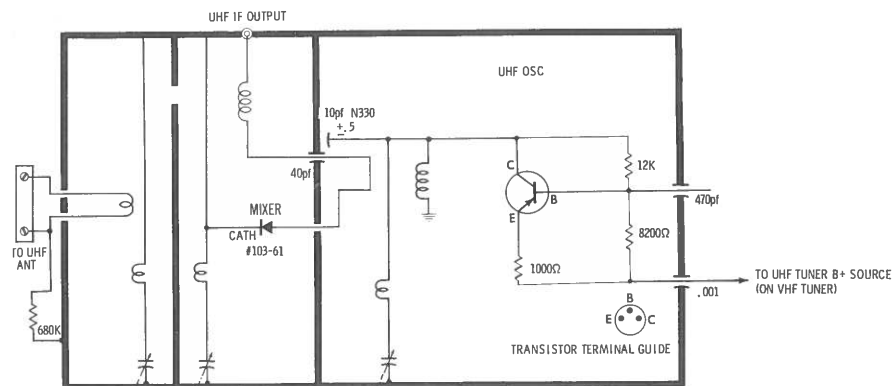
CHASSIS - BOTTOM VIEW

ZENITH CHASSIS
20Y1C48, 20Y1C50



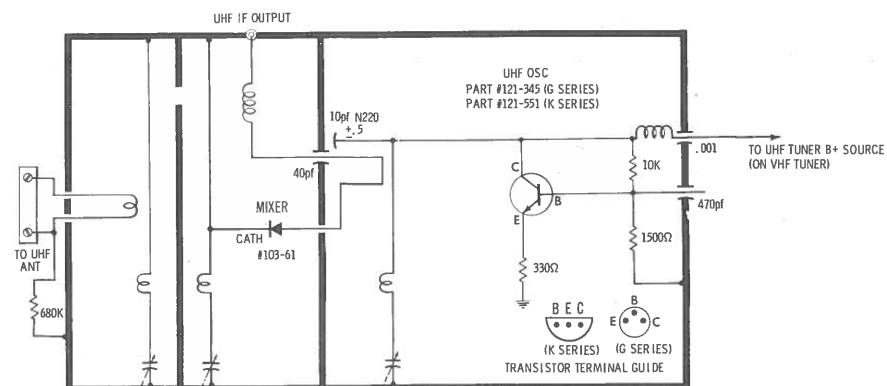
A PHOTOFACT STANDARD NOTATION SCHEMATIC
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UHF TUNER 175-84



A PHOTOFACT STANDARD NOTATION SCHEMATIC
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UHF TUNER 175-55B/J



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UHF TUNER 175-55G/K

ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A29 GENERAL CEMENT #8606, 8606L, 8669 ... WALSCO #2543, 2544, 2588
Mixer Plate Coil GENERAL CEMENT #9296, 9297, 9300 WALSCO #2510, 2546, 2547

VIDEO IF ALIGNMENT

Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection. Use only enough generator output to provide a usable indication. Note: Response may vary slightly from those shown. Connect a variable bias supply to the IF AGC line (point ④) and adjust to obtain a response curve which shows no indication of overload. Disable oscillator section of Mixer-Osc. Set the Channel Selector to any non-interfering channel.

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1.	Connect DC probe of a VTVM thru a 47K resistor to point ④. Common to ground.		41.25MC 39.75MC 47.25MC	A1, A2, A3 A4 A5, A6	Adjust for MINIMUM. It may be necessary to remove bias supply from Point ④ for trap alignment.
2.	Connect vertical input of a scope to point ⑤. Low side to ground.	44MC (10MC Sweep)	41.25MC 41.75MC 45.75MC	A7 A8	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3.	Connect vertical input of a scope to point ⑥. Low side to ground.	44MC (10MC Sweep)	39.75MC 41.25MC 41.75MC 45.00MC 45.75MC 47.25MC	A9, A10, A11 and 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 A7 and A8.

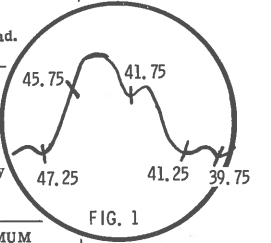


FIG. 1

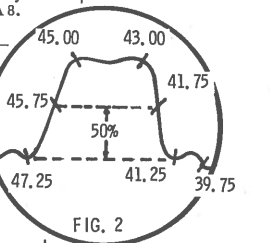


FIG. 2

SOUND IF AND 4.5MC TRAP

Tune in a strong TV station and adjust for normal operation. Reduce the signal strength at the antenna terminals until a hiss is heard in the sound. Adjust for maximum undistorted sound with MINIMUM buzz by adjusting A12, A13, A14, A15 and Buzz control. If the hiss disappears during alignment, further reduce the signal strength.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
4.	Not used	Not used	Any non-interfering channel	Vert. Input to Point ⑦, low side to chassis.	A16, A17	Connect a clip lead from Point ⑦ to chassis and adjust A16 and A17 for MINIMUM 900KC beat on scope.

COLOR SYNC AND DEMODULATION

Place Color switch in the On position. Connect a Color Bar generator (color bar pattern) across antenna terminals. Adjust for normal reception. Connect a clip lead from Point ⑧ to chassis. Connect a clip lead from Point ⑨ to chassis.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
5.	Not used	Not used	Generator	Not used	A18	Adjust for zero beat as viewed on picture tube screen, minimum number floating bars on screen, at bottom end of coil.
6.	NOTE: On some models position of A19 and A20 may be reversed. On models with flat top on coil, A19 is top slug - on models with dome shaped coil, A20 is top slug.			DC probe of VTVM to Point ⑩, common to chassis.	A19, A20, A21	Adjust A19 for maximum indication and A20 for MINIMUM. Slugs should be positioned on outside end of coils. Remove the clip leads from Points ⑧ and ⑨. Adjust A21 for center indication on VTVM.
7.				With low capacity probe, vert. input of scope to Point ⑪, low side to chassis.	A22	Adjust for MINIMUM 3.58MC response.
8.				Vert. input of scope to Point ⑫, low side to chassis.	A23 (Top)	Adjust for MINIMUM 3.58MC response. Some interaction may exist.
9.				Vert. input of scope to Point ⑬, low side to chassis.	A24	Adjust for MINIMUM 3.58MC response.

NOTE: Connect scope to Point ⑬. Check for proper waveform with Color Bar generator being used. See waveform on schematic obtained from a standard N.T.S.C. signal. Check the range of the Hue control. The bars should move 30° either side of proper signal. If necessary, retouch A21 for proper range of control.

CHROMA BANDPASS

Disable the oscillator of the Mixer-Osc. in tuner. Set the Color Level control to mid-position. Connect a -2 volt bias to Point ⑭. Connect a clip lead from Point ⑮ to chassis.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10.	Connect high side to Point ⑯, low side to chassis.	3.5MC	Any non-interfering channel	Vert. Input thru detector probe to Point ⑰, low side to ground.	A25	Adjust for MINIMUM 3.58MC response. Correct dip in response, occurs with slug nearest chassis.
11.	"	"	"	"	A26	Adjust for symmetry of response similar to Figure 3 with markers as shown.

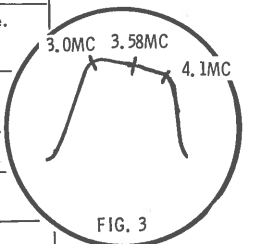


FIG. 3

AFT (AUTOMATIC FINE TUNING) ADJUSTMENTS

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
12.	Connect high side to mixer grid test point on VHF tuner. Low side to ground.	45MC	44MC (10MC Sweep)	Vert. Input to Point ⑱ on AFT chassis. Low side to ground.	A27	Disconnect AFT output lead to tuner. Adjust for maximum response.
13.	"	45.75MC	"	"	A28	Adjust to place marker on base line.
14.	"	46.5MC	"	"	A29	Adjust for maximum gain and symmetry of response.
15.	"	45.75MC	"	"	A28	Reconnect AFT output lead to VHF tuner. Readjust to place marker on base line.

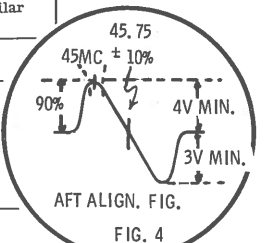
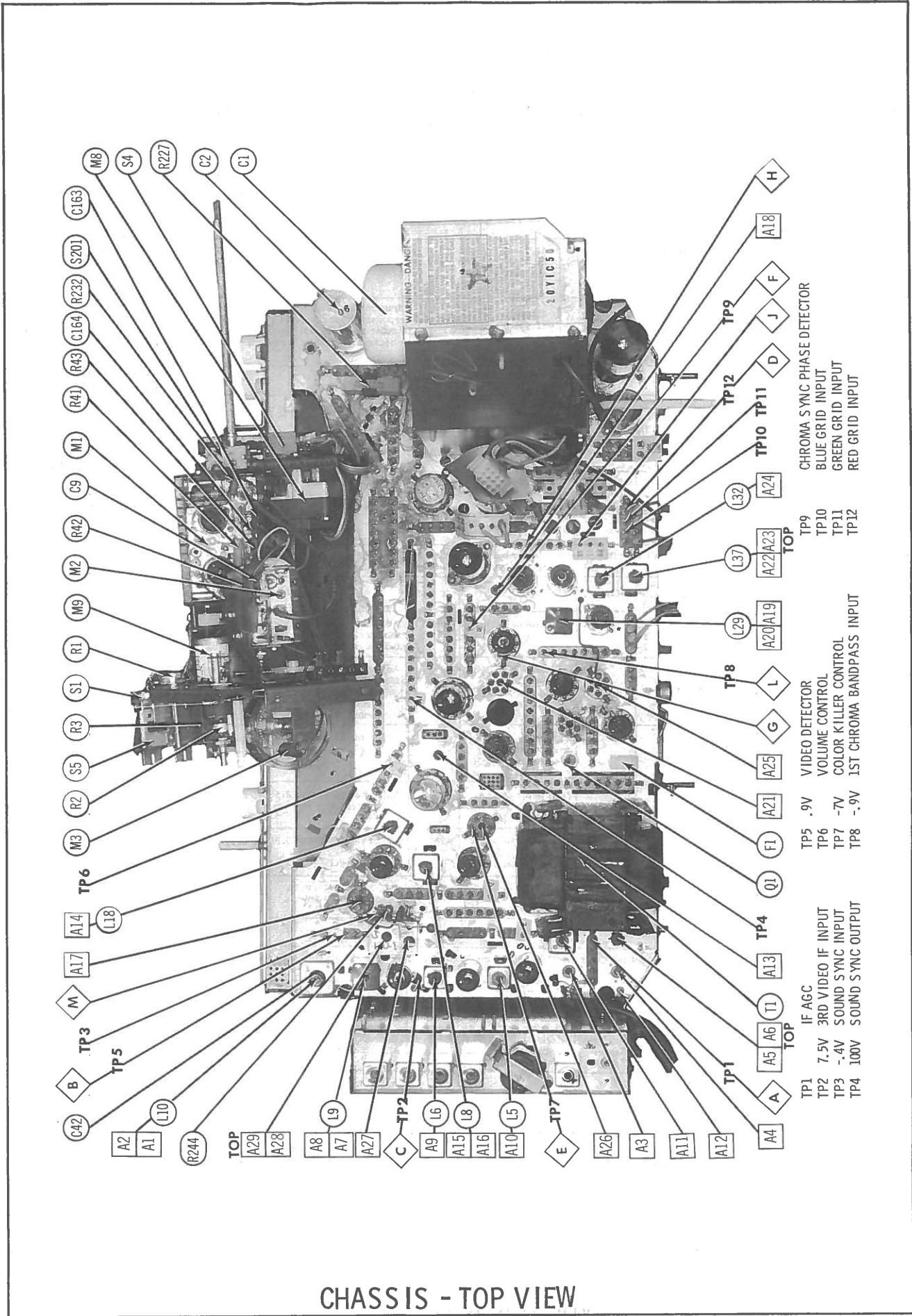


FIG. 4



VHF TUNER PARTS LIST

VHF TUNER 175-563, 564, 566, 590

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6HA5	V202	Mixer - Oscillator	6GJ7

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFG. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X201	103-104 †						

† Voltage Variable Capacitor

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.
C201A	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
B	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
C202A	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
B	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
C203	8			DD-080		CCD-100	GP580	10TS-V80
C204	10			DD-100		*	GP410	10TS-Q10
C205	18 N220 5%	#22-3820						* 10TCR-Q18
C206	.5-3.2	#22-4510						
C207	1.25-4.25	#22-5348						
C208	.001		EF-001	MFT-1000		CCF-102	CT280A	
C209	47 N470	#22-3822				*	*	10TCT-Q47
C210	.5-3.2	#22-4510						
C211	4	#22-4702						
C212	.001		EF-001	MFT-1000		CCF-102	CT280A	10TCC-V39
C213	.001		EF-001	MFT-1000		CCF-102	CT280A	
C214	.001		EF-001	MFT-1000		CCF-102	CT280A	
C215	56	#22-3488						
C216	1.5			DTZ-1R5			CNO515	10TCC-V15
C217	10			DD-100		CCD-100	GP410	
C218	.001		EF-001	MFT-1000		CCF-102	CT280A	

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

UHF TUNER PARTS LIST

UHF TUNER 175-54G/K

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA				
			MFG. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.
Q301		UHF Oscillator	121-551		GE-11	TR-24	SK-3019

POWER RECTIFIERS & SIGNAL DIODES

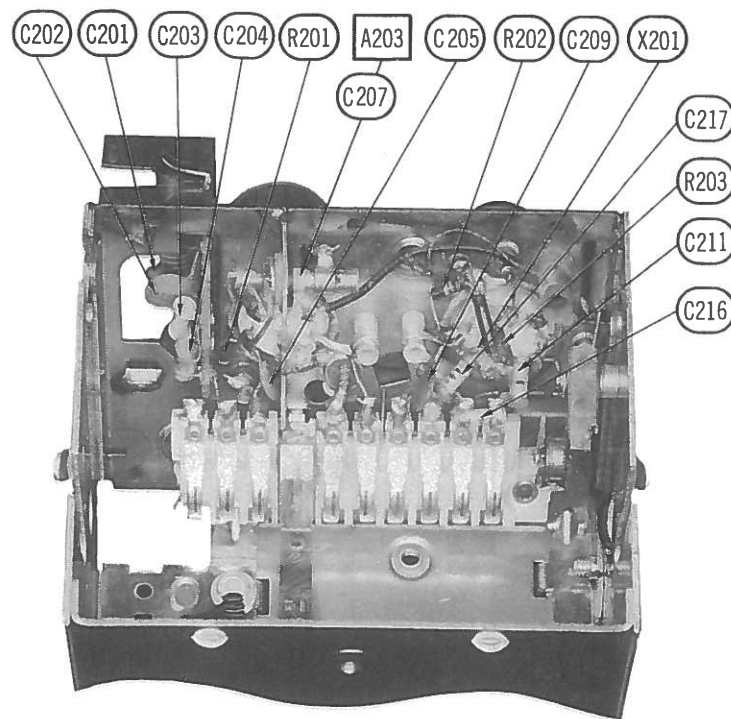
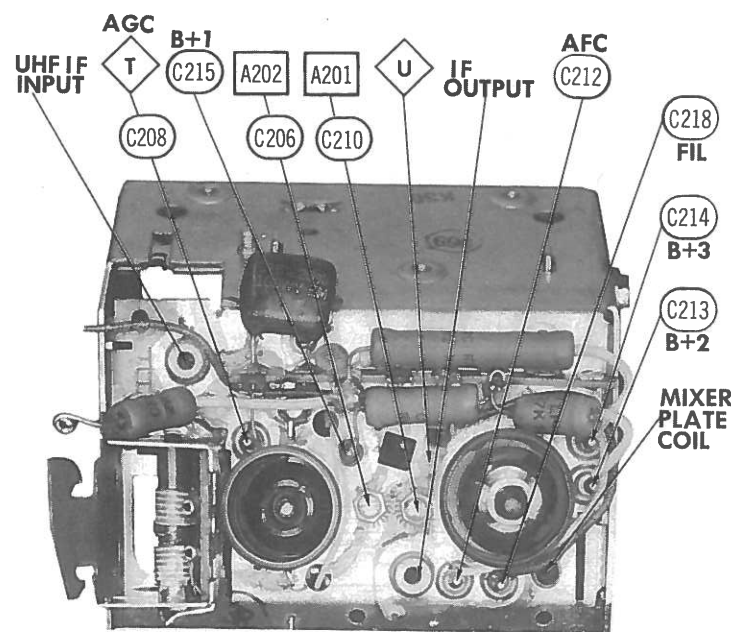
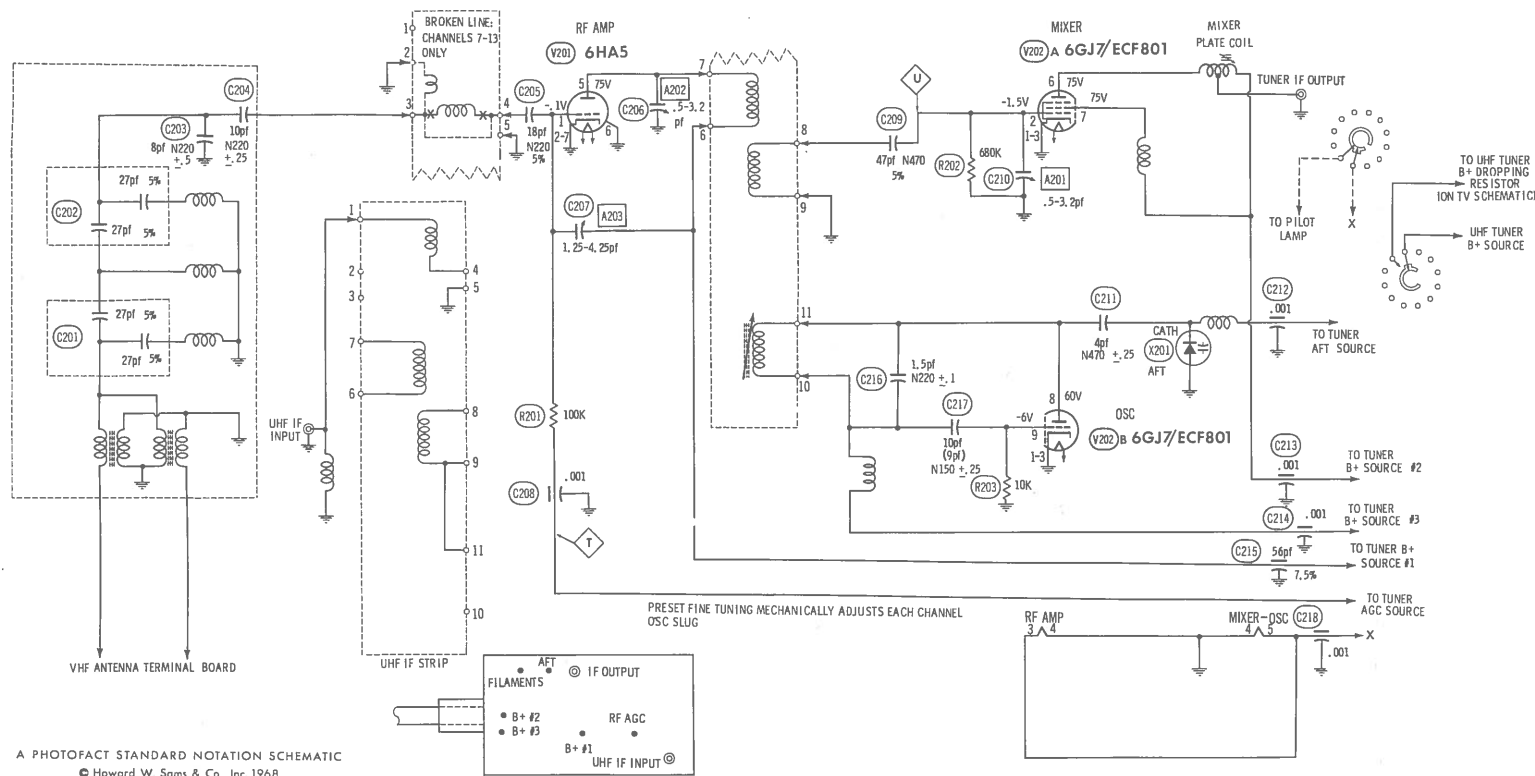
ITEM No.	MFG. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X301	103-61	1N82A	1N82AG	ECG 112			
X302	103-104 ①						

① Variable Capacitor Diode

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.
C301	40	#22-5080						
C302	7.2 N220 5%	#22-5366						
C303	.001		EF-001	MFT-1000		CCF-102	CT280A	
C304	470	#22-5082						
C305	3.5 N470 ±.25	#22-5367				*	*	10TCT-V33
C306	470	#22-5082						

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



VHF TUNER 175-563, 566, 564, 590

500 & 700 SERIES

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201, A202, A203... GENERAL CEMENT #8868, 8987, 9089... WALSCO #2531-X, 2541, 2587

OSCILLATOR ADJUSTMENTS

The oscillator for each channel is preset by means of the fine tuning control. Adjust fine tuning for best picture and sound on each channel.

RF AND MIXER ALIGNMENT

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

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
VHF TUNER 500 SERIES						
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point T, low side to ground	A201, A202	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A203	Increase bias to -20 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 2	Vert. Input to Point T, low side to ground.		Decrease bias. Check response on all channels and make compromise adjustments of A201 and A202 if necessary.

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
VHF TUNER 700 SERIES						
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point T, low side to ground		Expand or compress appropriate coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A201	Increase bias to -20 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 2	Vert. Input to Point T, low side to ground.		Decrease bias. Check all channels and make compromise adjustments by expanding or compressing appropriate coils.

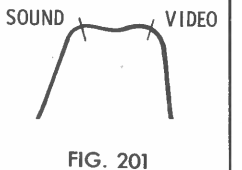
RF AND MIXER ALIGNMENT 600 SERIES

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

SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1. Across antenna terminals with 120Ω in each lead.	213MC	211.25MC 215.75MC	13	Vert. Input to Point T, low side to ground	A201 A202 A203	Adjust for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
2. "	195MC	193.25MC 197.75MC	10	Across Video Det. load resistor.	A204	Increase bias to -15 volts and adjust for MINIMUM amplitude of response.
3. "	See Chart	See Chart	12 thru 2	Vert. Input to Point T, low side to ground.		Decrease bias. Check response on all channels. Make compromise adjustment of A201, A202, A203 if necessary.

CHANNEL & FREQUENCY CHART

SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL
57MC	55.25MC 59.75MC	2	85MC	83.25MC 87.75MC	6	195MC	193.25MC 197.75MC	10
63MC	61.25MC 65.75MC	3	177MC	175.25MC 179.75MC	7	201MC	199.25MC 203.75MC	11
69MC	67.25MC 71.75MC	4	183MC	181.25MC 185.75MC	8	207MC	205.25MC 209.75MC	12
79MC	77.25MC 81.75MC	5	189MC	187.25MC 191.75MC	9	213MC	211.25MC 215.75MC	13



PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, 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.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	MFGR. PART No.			IRC PART No.	WORKMAN PART No.	MFGR. PART No.
R36	47K 3W	PW5-20	5W-SQ-22.5	63-7539	R164	V.D.R. †	PW5-2250	3G-22K	63-6485
R37	22K 5W		3G-12K	63-7262	R174	22K 3W		3G-12K	63-5026
R41	12K 3W		4G-22K		R188	12K 3W		3G-12K	63-7262
R43	22K 4W		3G-8.2K	63-5005	R190	18K 3W		3G-2.2K	63-5267
R69	9000Ω 3W		3G-4.7K	63-7455	R191	2200Ω 3W		3G-2.2K	63-7261
R90	4700Ω 7W	PW10-5000	3G-10K	63-4097	R212	18K 3W	20W-SQ-1K	3G-12K	63-5267
R92	10K 3W	PW10-3500	10W-SQ-3.5K	63-6995	R214	12K 3W		3G-12K	63-7262
R101	3500Ω 10W		F8501	63-6824	R227	1050Ω 18W		3G-12K	63-6967
R119	Thermistor (500K Cold)				R229	47K 3W		3G-12K	63-7312
R154	17K 5W				R231	Thermistor (120Ω Cold)		FR922	63-7346

† Voltage Dependent Resistor.

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	41.25MC Trap	S-76834		6225 ①	TM244 ①
L2	47.25MC Trap	S-58047			
L3	39.75MC Trap	S-78761		6225 ①	TM244
L4	1st Video IF	S-71357	17-4524 ②	6219 ②	T217 ②
L5	2nd Video IF	S-69572	17-4523 ②	6219 ②	T217 ②
L6	3rd Video IF	S-61823	17-4522 ②	6219 ②	T217 ②
L7	RF Choke (27uh)	20-2007	19-6033	72F275AP	T316
L8	Sound Takeoff	S-76907		7115-2	TF247
L9	4th Video IF	95-2540			
L10	41.25MC Trap	S-76919			
L11	RF Choke (27uh)	20-2007	19-6033	72F275AP	T316
L12	4.5MC Trap	S-77669			
L13	Peaking (170uh)	20-2014	19-3180	72F184AP	T368
L14	Peaking (696uh)	20-2526	19-3680	6148	T327
L15	Peaking (42uh)	20-2008	19-7047	72F395AP	TA323
L16	Peaking (170uh)	20-2530 ①	19-3180	72F184AP	T310
L17	Peaking (323uh)	20-2511 ①	19-2027	72F224AP	T345
L18	Peaking (402uh)	20-2001	19-4400	72F394AP	T322
L19	Sound IF	S-76920		6270	
L20	Quadrature	S-77358	20-1005	1480	TG268
L21	RF Choke (10uh)	20-2005	19-1005	72F105AP	T860
L22	RF Choke (10uh)	20-2005	19-1005	72F105AP	T860
L23	Peaking (85uh)	20-2528	19-2023	72F825AP	T301
L24	1st Chroma Bandpass	S-73043			
L25	Peaking (42uh)	20-2008	19-7047	72F395AP	TA323
L26	2nd Chroma Bandpass	S-72418			
L27	Burst Amp.	S-77202			
L28	Peaking (42uh)	20-2008	19-7047	72F395AP	TA323
L29	Chroma Ref. Osc. Control	S-76900			
L30	Phase Shift	95-2421			
L31	RF Choke (18uh)	20-2006	19-6022	72F185AP	T300
L32	Peaking (696uh)	20-2506	19-3660	6148	T327
L33	3.58MC Trap	S-76902			
L34	3.58MC Trap	S-72324	19-6022	72F185AP	T300
L35	RF Choke (18uh)	20-2006	19-6022	6148	T327
L36	Peaking (696uh)	20-2506	19-6022	72F185AP	T300
L37	Peaking (696uh)	20-2506	19-3660	6148	T327
L38	3.58MC Trap (Dual)	S-72325			
L39	3.58MC Trap (Dual)	S-76920			
L40	RF Choke (10uh)	20-2005	19-1005	72F105AP	T860
L41	RF Choke (10uh)	20-2005	19-1005	72F105AP	T860
L42	Peaking (250uh)	20-2012	19-3250	6181	T315
L43	Peaking (170uh)	20-2014	19-3180	72F184AP	T368
L44	RF Choke (27uh)	20-2007	19-6033	72F275AP	T316
L45	AFC Input	S-75819			
L46	AFC Discriminator	S-75249			

① Disregard Center Tap. ② Use original shield. ③ Includes 15K Resistor.
■ Shunt with 3300Ω Resistor. ▲ Shunt with 8200Ω Resistor.
▲ Shunt with 15K Resistor. ♦ Shunt with 22K Resistor.

COILS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA						
		MFGR. PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	WORKMAN PART No.
L45	Pincushion Correction	S-76901						
L46	Horiz. Hold	S-56877		H-161	WC-8A	HS-24	WLC-5	T107
L47	Horiz. Efficiency	S-77975	MWC-6	6322	WC-8A		WLC-5	T107
L48	Right Side R/G Vert. Lines (2.25mh-5.9mh)	S-58038	MWC-6	H-184	WC-8A	WC-52	WLC-5	T107
L49	Right Side R/G Horiz. Lines (1.4mh-5.7mh)	S-58041		H-162		WC-51		
L50	Right Side Blue Horiz. Lines	S-73854	MWC-6	6322	WC-8A	WC-22	WLC-5	T107
L51	Convergence Yoke Assembly	S-76727						
A	Green Coil	S-76726						
B	Blue Coil	S-76725						
C	Red Coil	S-76724						
Alternates:								
A	Green Coil	S-74579						
B	Blue Coil	S-74580						
C	Red Coil	S-74581						

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L52	3.1A	1.5Ω	.035 H	95-2553 (95-2347)					

FILTER CHOKE

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L53	.5A DC	15Ω	.6 H	95-2552 (95-2402)					

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ 3.2A AC	315VAC @ .5A DC	95-2550 (95-2494)					
	SEC. 2	SEC. 3						
	6.3VAC @ 1.3A AC	12.6VAC, CT @ 5.5A AC @ 6.5A AC						

TRANSFORMERS (Sweep Circuits)

ITEM No.	USE	REPLACEMENT DATA					NOTES
		MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output Alternate	95-2551(-B)			26S60		
T3	Yoke (Horiz. 11.2mh) 90° (Vert. 20mh)	95-2501		DY-91AC	Y-108	YC-310-2	① Used in some models of Y4543P.
T4	Horiz. Output Alternate	S-79640					② Used in some versions. See Part No. stamped on unit.
	Alternate	S-76468					
	Alternate	S-78997					
	Alternate	S-79638					

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
	PRI.	SEC.	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T5	7100Ω	3.2Ω	95-2561 (95-2563)	A-2931 ①	A-8114 ①	26S48 ①	S-7X ①	① Fabricate mounting

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA			NOTES
		MFGR. PART No.	JENSEN PART No.	QUAM PART No.	
SPI	3" x 5" PM 3.2Ω	49-1131	P3X5X3	35A05	
	4" x 6" PM	49-1109			
	3" x 5" PM	49-1133			
	6" x 9" PM 6.5Ω	49-1060	P6X9U8	69A3Z8	
	6" x 9" PM 3.2Ω	49-1092			
	3½" PM 45Ω	49-1059	P6X9V3	69A1	
		49-1094	P35V45	3A15 TZ40	
		49-1121			
	Horn 6.4Ω	49-1042	T107		
		49-1082			
		49-1132			

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE		HOLDER		DEVICE		DEVICE
F1	Belfuse 1A (1000-1)	136-71		62-61				W-1200-1
F2	2½" length #24 fuse wire	91-2061						
F3	2½" length #24 fuse wire	91-2061						
F4	2½" length #24 fuse wire	91-2061						

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	VHF Tuner	175-590	
	VHF Tuner	175-546	
	VHF Tuner	175-553	
	VHF Tuner	175-563	
	VHF Tuner	175-566	
	VHF Tuner	175-567	
	VHF Tuner	175-576	
	VHF Tuner	175-644	
	VHF Tuner	175-649	
	VHF Tuner	175-764	
	VHF Tuner	175-1163	
	VHF Tuner	175-1164	
M2	UHF Tuner	175-54G/K	
	UHF Tuner	175-55B/G/J/K	
	UHF Tuner	175-84	
	UHF Tuner	175-85	
M3	Indicator Lamp	100-422	
M4	Neon Bulb	100-397	
M5	Crystal	103-89 or 103-71	CHICAGO MINIATURE Replacement NE-2H 3.58MC
M6	Delay Line	141-178	
M7	Degaussing Coil	63-7411	
M8	Motor	S-76297 or S-79294	Channel Selector
M9	Magnet	S-72221	Purity and Blue Lateral Assembly
	Magnet	S-71500 or S-67856	Purity Ring Assembly only
	Magnet		Blue Lateral Assembly only
S1	Switch	85-962	Remote On-Off
S2	Switch	85-994	AFT Defeat
S3	Switch		Normal Service
S4	Switch		Motor Reversing
S5	Switch		Touch Tuning

PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

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

WIRING DATA

High Voltage Lead	Use BELDEN No. 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885 (Single Conductor) 8738 (Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530 (Solid) Available in 12 Colors 8524 (Stranded) Available in 12 Colors
300Ω Tuner Input Lead	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
300Ω Antenna Lead-in	Use BELDEN No. 8484 (Flat) or 8484 (Round) - 4 Conductor
Antenna Rotor Cable	Use BELDEN No. 8485 (Round) - 5 Conductor 8488 (Round) - 8 Conductor

TUBES

• AMPEREX •			• GENERAL ELECTRIC •			• RCA •			• SYLVANIA •		
ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	6HA5	V11	Horiz. Output	6LB6 (6LF6) *	V16	Chroma Bandpass Amp.	6KT8	V17	Chroma Sync Phase Det.	6JU8A
V202	Mixer - Oscillator	6GJ7	V12	Damper	6CJ3	V18	B-Y Demodulator	6ME8	V19	Burst Amp.	6EJ7/EF184
V1	1st Video IF	6EH7/EF183	V13	HV Rectifier	3A3A	V19	3.58MC Oscillator Control	6GH8A			
V2	2nd Video IF	6EH7/EF183	V14	Shunt Regulator	6HS5	V20	3.58MC Oscillator	6ME8			
V3	3rd Video IF	6EJ7/EF184	V15	Pincushion Correction			R-Y Demodulator				
V4	Video Cathode Follower			2nd Chroma Bandpass Amp.							
V5	1st Chroma Bandpass Amp.	6KT8		Color Killer Detector							
V6	Video Output	12HL7		Chroma Sync Phase Det.							
V7	Sound IF - Sound/Sync Amp.	6KT8		B-Y Demodulator							
V8	Audio Det. - Audio Output	6Z10		Burst Amp.							
V9	AGC Keying - Vert. Mult. - Noise Canceller - Sync Sep.	6BA11		3.58MC Oscillator Control							
V10	Vert. Mult. - Vert. Output	6HE5		3.58MC Oscillator							
	Horiz. AFC - Horiz. Osc. - Horiz. Discharge	6U10		R-Y Demodulator							

* Alternate

PICTURE TUBE

ITEM No.	REPLACEMENT DATA	
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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.
C11	10	NPO 10%	NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10
C12	470	1KV				CCTN-471		10TCU-T470
C13	1-9							
C14	22	NPO 5%		DTZ-22			CNO422	10TCC-Q22
C15	36	NPO 5%		TCZ-36				
C16	5	NPO 5%	NPO-DI 5.0		CZ601CH5R0D			10TCC-V50
C17	47	N75 5%					*	
C18	59	NPO 5%		TCZ-56			CNO456	10TCC-Q56
C19	16	NPO 5%	NPO-DI 15	DTZ-15	CZ601CG150J	CCTO-560	CNO415	10TCC-Q15
C20	.033	100V			DMF1S33	CCTO-150	PVC1133	225P3391
C21	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C22	30	N75 10%						
C23	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C24	470	N1500 10%						
C25	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C26	.001							
C27	47	N75 10%						
C28	470	N1500 10%						
C29	100							
C30	.001		GPD X5 F101K	DD-101	JBZ601YPI01K	CCD-101	GP310	10TS-T10
C31	50	N750		TCN-50				
C32	.001	1KV 10%	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C33A	6	NPO						
C34	1	NPO 5%	NPO-DI 1.0	TCZ-1			CNO510	10TCC-Q50
C35	18	NPO		TCZ-18	CY601CG180J	CCTO-180	CNO418	10TCC-Q18
C36	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	GF110	10TS-S10
C37	47	N75 5%						
C38	3.3		NPO-DI 3.3	DTZ-3R3		CCTO-3R3	CNO533	10TCC-V33
C39	50	N750	N750-DI 10	DTN-10	CZ601UJ100J	CCTN-100	CNO410	10TCC-Q10
C40	.0033		GPD X5R332K	DD-332	JBV601YR332K	CCD-332	JF233	10TS-D33
C41	.22	400V	DBE6P22		DMF4P22	4DP-5-224	PVC4022	4PS-P22
C42	53	NPO 5%	NPO-DI 50	TCZ-56			CNO475	10TCC-Q56
C43	75	NPO 5%		DTZ-75			CNO568	10TCC-V68
C44	7	NPO	NPO-DI 6.8	DTZ-6R8	CZ601CH6R8D	CCTO-6R8	CNO410	10TCC-Q10
C45	10	NPO 10%	NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	GP347	10TS-T47
C46	470	NPO	GPD X5 F471K	DD-471	JBZ601YF471K	CCD-471	CNO418	10TCC-Q18
C47	18	NPO		TCZ-18	CY601CG180J	CCTO-180	GP347	10TS-T47
C48	470	1KV	GPD X5 F471K	DD-471	JBZ601YF471K	CCD-471	GP347	10TS-T47
C49	.01			CI-103	ACT142ZU103P		UAC110	125-S10
C50	150	N750 10%	N750-DI 150	DTN-150		CCTN-151	CN7315	10TCU-T15
C51	.1	600V	DBE6P1			6DP-4-104	PVC601	6PS-P10
C52	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C53	.001	1KV 10%	GPD X5 F102K	DD-103	JBS601YPI02K	CCD-102	GP210	10TS-D10
C54	180	500V 10%	ADM-15-181	CPR-180J	CD15F181J500	DM-15-181J	SK318	MS-318
C55	100	500V 10%	ADM-15-101	CPR-100J	CD15F101J500	DM-15-101J	SK310	MS-31
C56	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C57	470	N1500 10%						
C58	20	N330 10%						
C59	220	10%						
C60	150	N750		TCZ-20				
C61	.01		GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-221	GP322	10TS-T22
C62	.0047		N750-DI 150	DTN-150		CCTN-151	CN7315	10TCU-T15
C63	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C64	.0022	1KV	GPD X5R472K	DD-472G	JBV601YR472K	CCD-472	JF247	10TS-D47
C65	.001		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C66	.0022	1KV	GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C67A	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C68	.0022	400V	DBE4P1		DMF4P1	4DP-3-104	PVC401	4PS-P10
C69	.0022		GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C70	.0022	600V	GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C71	.01							
C72	.1	600V	DMF6P1		DMF6P1	6DP-4-104	PVC601	6PS-P10
C73	.47	200V	DMF2P47		DMF2P47	2DP-5-474	PVC2047	2PS-P47
C74	.033	200V	V1612S33		DMF2S33	4DP-2-333	PVC2133	4PS-S33
C75	220	1KV	GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-331	GP322	10TS-T22
C76	.0012	1KV	GPD X5 F122K	DD-122	JBX601Y P122K	CCD-122	GP212	10TS-D12
C77	.0022		GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C78	100	4KV	HVD-60100	DD60-101	HVX602X P101M	6CCD-101	6HV310	60GA-T10
C79A	51		GPD X5 F500K	DD-510	JBZ601Y F500K	CCTO-510	GP450	10TS-Q50
C80	.0022		GPD X5 F500K	DD-510	JBZ601Y F500K	CCTO-510	GP450	10TS-Q50
C81	.0022		GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C82	.047	100V	GPD X5 F222K	DD-222	JBX601Y P222K	CCD-222	GP222	10TS-D22
C83	.0015	400V	V1612S33		DMF1S47	1DP-2-473	PVC1147	225P47591
C84	.0011	400V	ADM-20-681	CPR-680J	CD19F681J500	DM-16-681J	SK368	MS-368
C85	.0047		DBE6D12		WMP4D15	6DP-1-152	PVC6215	6PS-D15
C86	.0047		GPD X5R472K	DD-472G	DMF4S47	6DP-1-122	PVC6212	6PS-D12
C87	.001	1KV	GPD X5 F102K	DD-102	JBX601YPI02K	CCD-102	JF247	10TS-D47
C88	.001		GPD X5 F102K	DD-102	JBX601YPI02K	CCD-102	GP210	10TS-D10
C89	330		GPD X5 F331K	DD-331	JBZ601Y P331K	CCD-331	GP333	10TS-T33
C90	.0047		GPD X5R472K	DD-472G	JBV601YR472K	CCD-472	JF247	10TS-D47
C91	150	N1500 6KV						
C92	75	4KV		DD60-750				
C93	68	N750	N750-DI 68	DTN-68	CS601UJ880K	CCTN-680	CN7468	10TCU-Q68
C94	150	N750	N750-DI 150	DTN-150		CCTN-151	CN7315	10TCU-T15
C95	.047	400V	DBE6S47	DD-503	DMF4S47	4DP-3-473	PVC4147	4PS-S47
C96	.22	600V	DBE6P22			6DP-5-224	PVC6022	
C97	45	N1500 5KV						
C98	.1	1KV	BE10P1					
C99	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C100	.22pf	10%						
C102A	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C103A	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C104	.1	200V	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C105	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	GP210	10TS-D10
C106	220		GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-221	GP322	10TS-T22
C107	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	GP210	10TS-D10
C108	.22		GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-221	GP322	10TS-T22
C109	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C110	.100		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C111	100		GPD X5 F101K	DD-101	JBZ601YPI01K	CCD-101	GP310	10TS-T10
C112	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C113	36	N033 5%						
C114	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C115	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C116	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10
C117	120	NPO	NPO-DI 120	DTZ-120		CCTO-121	CNO312	10TCC-T12
C118	.0015		GPD X5 F152K	DD-152	BYX601ZU103M	CCD-152	GP215	10TS-D15
C119	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10
C120	100		GPD X5 F101K	DD-101	JBZ601YPI01K	CCD-101	GP310	10TS-T10

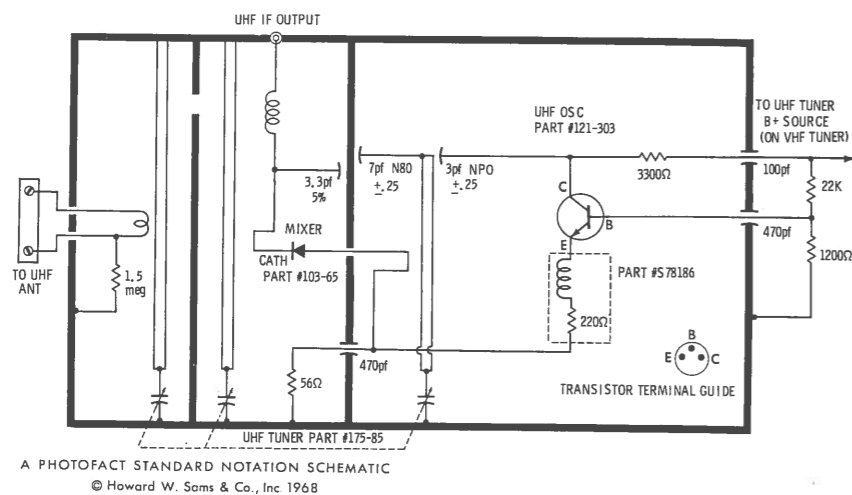
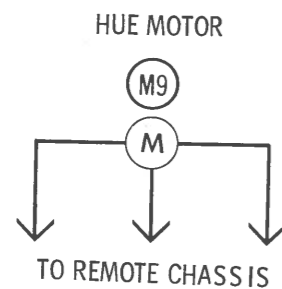
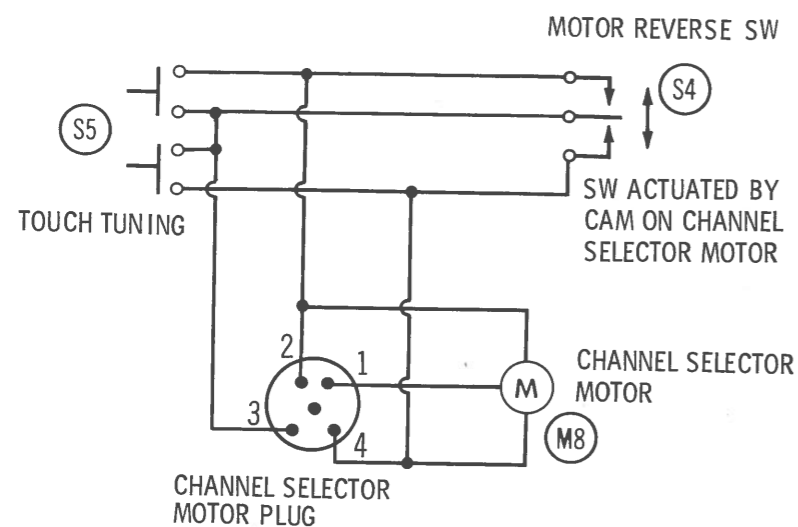
PARTS LIST AND DESCRIPTION (CONTINUED)

(When ordering parts, state Model, Part Number, and Description.)

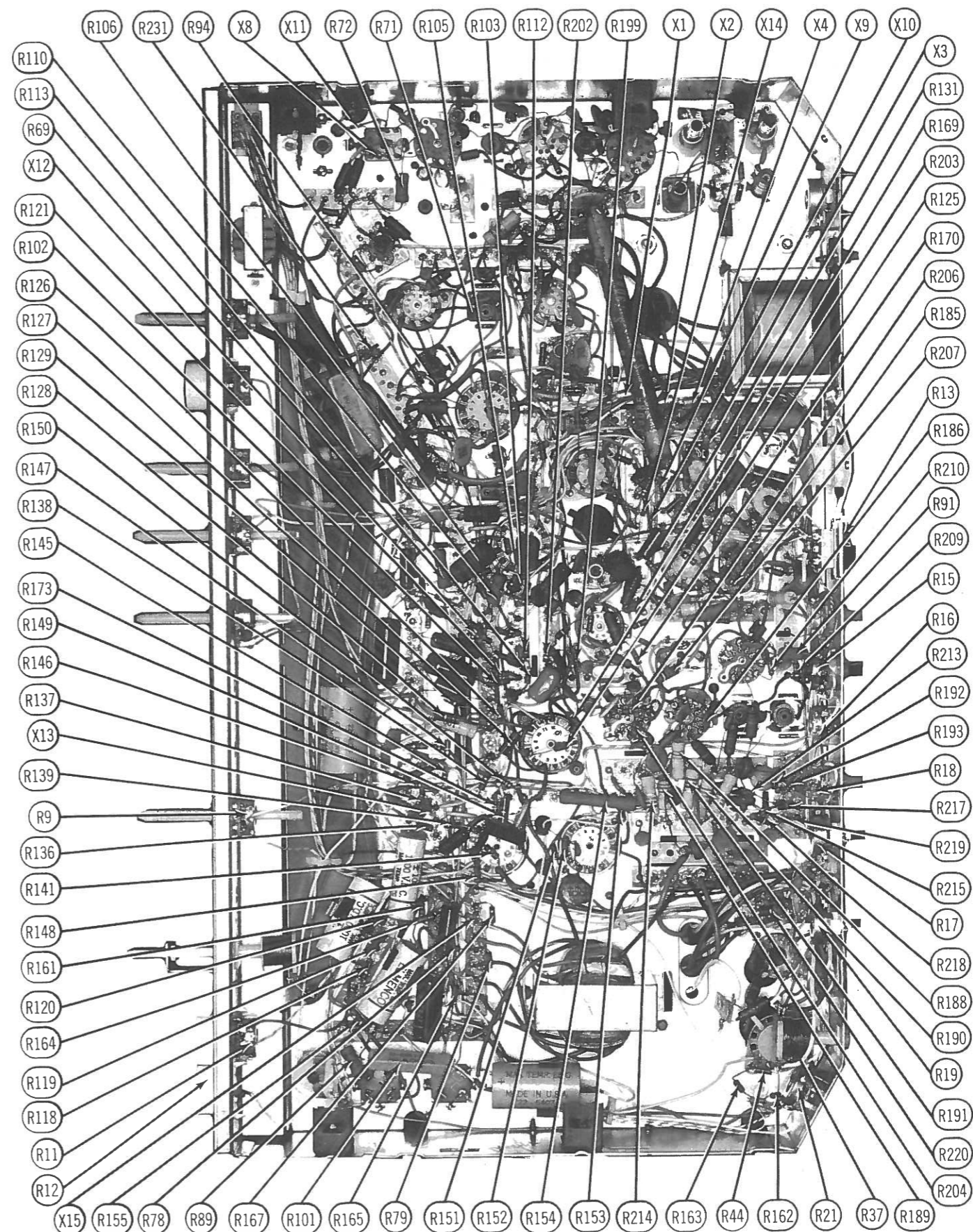
Replacement parts shown may be superseded by the availability of newly introduced replacements. Have your local distributor check Sams COUNTER FACTS for the most up-to-date replacement.

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.		
C121	.01	NPO	GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C122	150		GPD X5 F151K	DD-151		CCD-151	GP315	10TS-T15		
C123	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C124	10		NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10		
C125	.01	#22-4524	GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C126	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C127	.047		600V	DBE6S47		DMF6S47	6DP-3-473	PVC6147		
C128	12		N220 5%				*	10TCR-Q10		
C129	.01			GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10	
C130	.62pf		#22-3786							
C131	100			GPD X5 F101K	DD-101	JBZ601YPI01K	CCD-101	GP310	10TS-T10	
C132	.1			400V	DBE4P1		DMF4P1	4DP-3-104	PVC401	4PS-P10
C133	2					DTZ-2R2	CZ601CJ2R2	CCTO-2R2	CNO522	10TCC-V22
C134	.01			GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10	
C135	.01		GPD X5S103K	DD-103	BYX601ZU003M	CCD-103	JF110	10TS-S10		
C136	220		GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-221	GP322	10TS-T22		
C137	18			TCZ-18	CY801CG180J	CCTO-180	CNO418	10TCC-Q18		
C138	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C139	100	NPO 5%	NPO-DI 100	DTZ-100	CZ601CG100K	CCTO-101	CNO310	10TCC-T10		
C140	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C141	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C142	.0015		GPD X5 F152K	DD-152		CCD-152	GP215	10TS-D15		
C143	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C144	10	NPO	NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10		
C145	10	NPO	NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10		
C146	68	N750	N750-DI 68	DTN-68	CS601UJ680K	CCTN-680	CN7468	10TCU-Q68		
C147	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C148	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C149A	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
	B		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C150	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C151	.01	1.5KV			HV1162ZV103P		2HV110	30GA-S10		
C152	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C153	.056	200V	DBE6S56		PKM4S56	4DP-3-563	PVC6156	4PS-S56		
C154	.1	200V	DBE2P1		DMF2 P1	2DP-3-104	PVC201	2PS-P10		
C155	.082	200V	DBE6S82		PKM4S82	6DP-4-823		6PS-S82		
C156	.1	100V	DBE2 P1		DMF1 P1	1DP-2-104	225 P10191			
C157	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C158	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C159A	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
	B		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C160	.1	600V	DBE6 P1		DMF6 P1	6DP-4-104	PVC601	6PS-P10		
C161	220		GPD X5 F221K	DD-221	JBZ601Y P221K	CCD-221	GP322	10TS-T22		
C162	2.4	5%								
C163	.033	100V	V1612S33		DMF1S33	1DP-1-333	PVC1133	225 P33391		
C164	.001	1KV	GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C165	.470	1KV	GPD X5 F471K	DD-471	JBZ601Y P471K	CCD-471	GP347	10TS-T47		
C166	.01		GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C167	.001		GPD X5 F102K	DD-102	JBS601YPI02K	CCD-102	GP210	10TS-D10		
C168	.1	1KV	BE10P1							
C169	.01	1KV	GPD X5S103K	DD-103	BYX601ZU103M	CCD-103	JF110	10TS-S10		
C170	.047	1KV	GPD ZSV503P	DD-503			GP150			
C171	8.2	NPO	NPO-DI 8.2					10TCC-V82		
C172	.002									
C173	6.8	N075								
C174	10		NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10		
C175	10		NPO-DI 10	DTZ-10	CZ601CG100J	CCTO-100	CNO410	10TCC-Q10		
C176	.001									
C177	.001									
C178	.001									
C179	.001									
C180	220									
C181	.470									
C182	.1	100V	DBE2P1		DMF1 P1	1DP-2-104	PVC101	225 P10191		
C183	22	N1500 3KV				*	*			
C184	.01	600V								



UHF TUNER 175-85

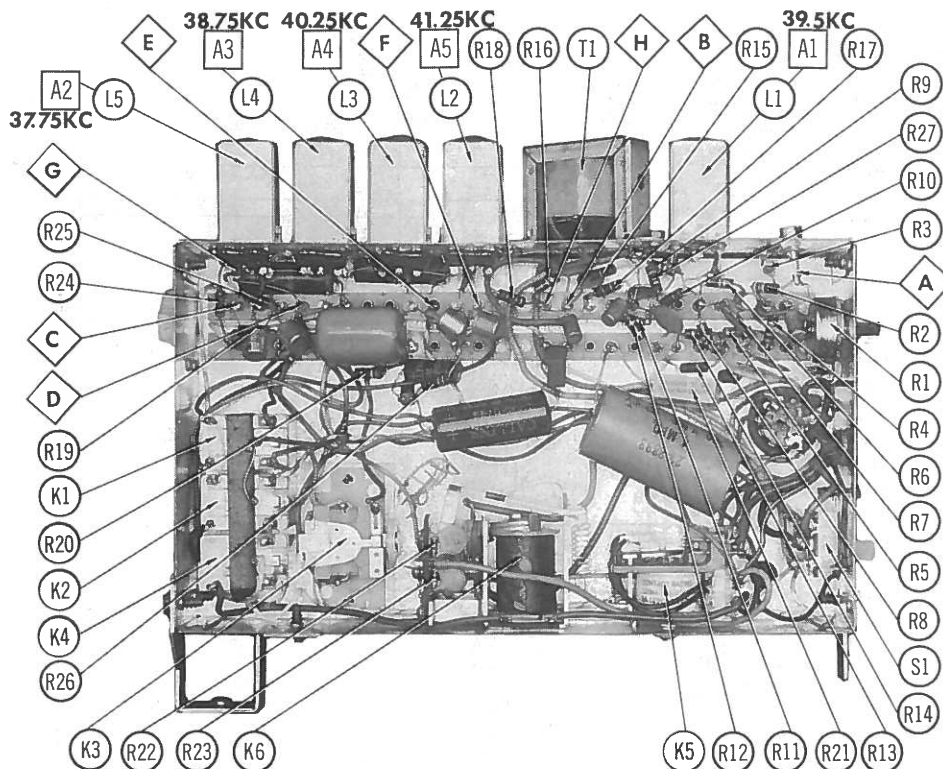


CHASSIS - BOTTOM VIEW

For Supplier Address See PHOTOFACT Index

IMPORTANT FILING NOTICE

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**REMOTE RECEIVER ALIGNMENT**

When adjusting A2 thru A5, correct setting is achieved with dip nearest top of coil.

	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1.	Connect high side thru a .002 capacitor to Point \diamond . Low side to ground.	39.5KC		RF probe to Point \diamond . Low side to ground.	A1	Connect jumper from Point \diamond to Point \diamond . Adjust for maximum. Remove jumper.
2.	"	37.75KC		DC probe to Point \diamond . Low side to ground.	A2	Adjust for MINIMUM.
3.	"	38.75KC		DC probe to Point \diamond . Low side to ground.	A3	Adjust for MINIMUM.
4.	"	40.25KC		DC probe to Point \diamond . Low side to ground.	A4	Adjust for MINIMUM.
5.	"	41.25KC		DC probe to Point \diamond . Low side to ground.	A5	Adjust for MINIMUM.

REMEMBER TO ASK— "What else needs fixing?"**HOWARD W. SAMS & CO., INC.** Indianapolis, Indiana 46206

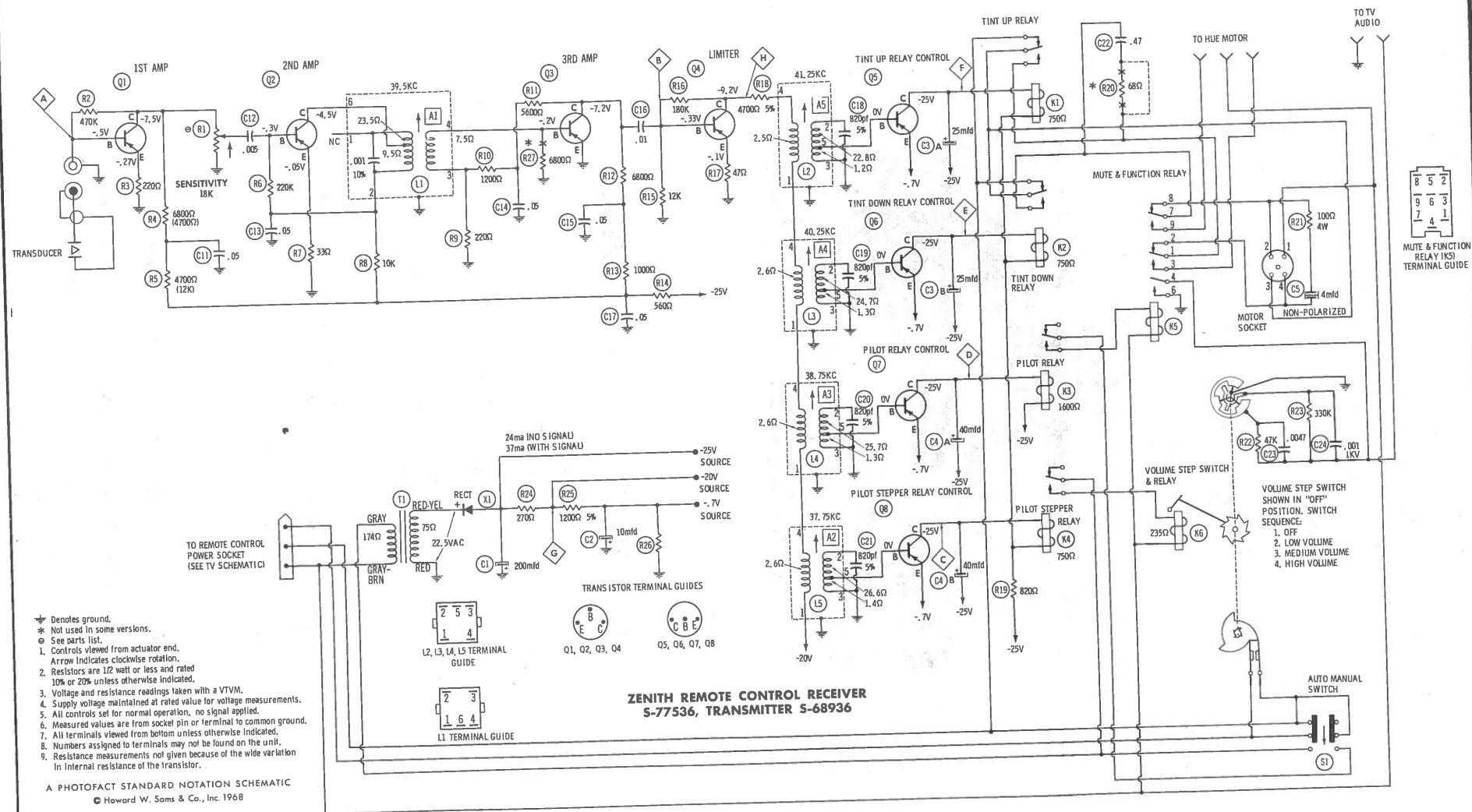
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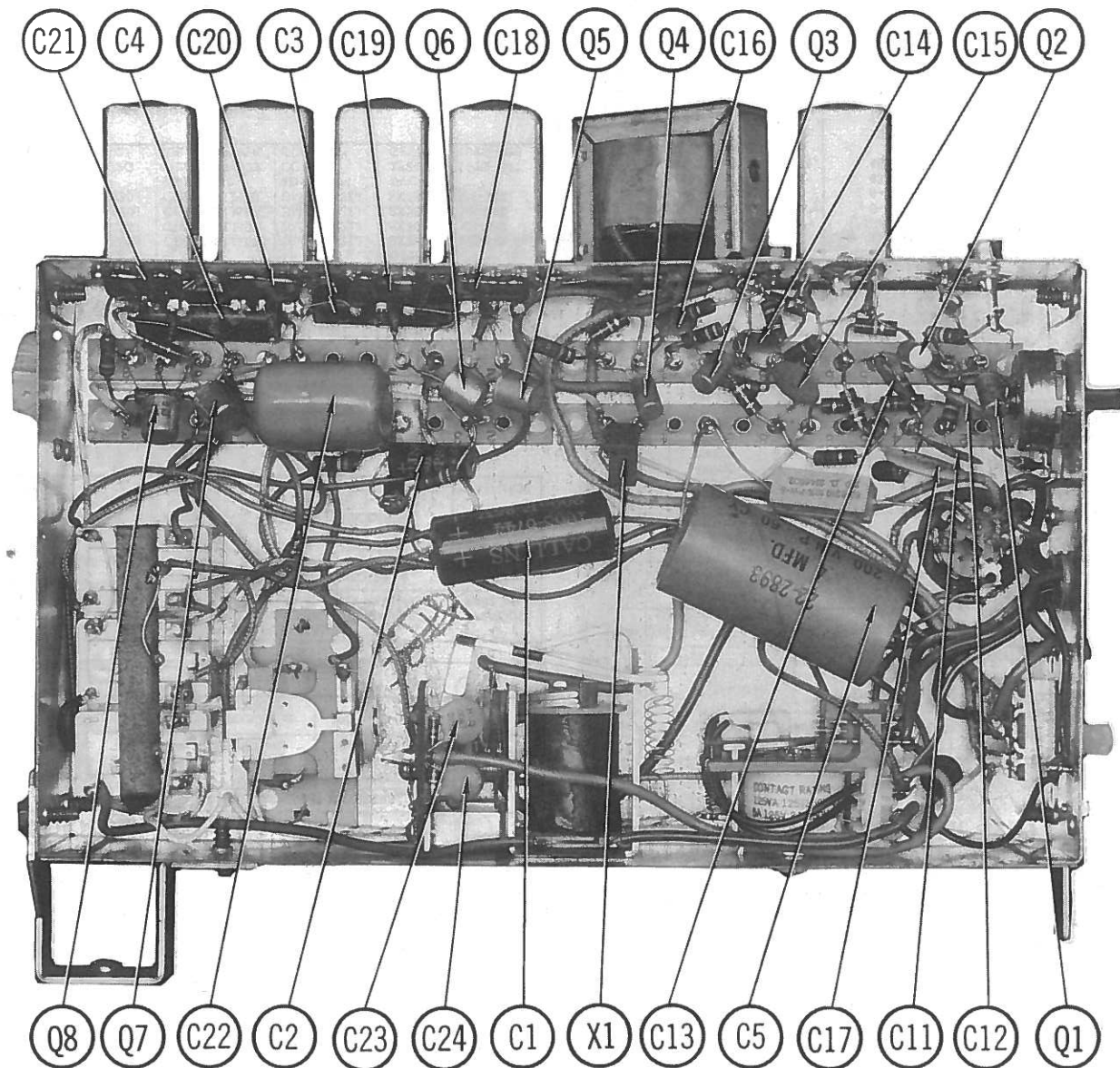
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DATE 9 -68

SET 981 FOLDER 2-A

ZENITH REMOTE CONTROL RECEIVER
S-77536, TRANSMITTER S-68936





PARTS LIST AND DESCRIPTION

(When ordering parts, state Model, Part Number, and Description.)

TRANSISTORS

ITEM No.	TYPE No.	FUNCTION	REPLACEMENT DATA					
			MFGR. PART No.	DELCO PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	RCA PART No.	SYLVANIA PART No.
Q1		1st Amp.	121-494	DS-26	GE-2	TR-14	SK-3004	ECG 102
Q2		2nd Amp.	121-491	DS-26	GE-2	TR-14	SK-3004	ECG 102
Q3		3rd Amp.	121-492	DS-26	GE-2	TR-14	SK-3004	ECG 102
Q4		Limiter	121-493	DS-26	GE-2	TR-14	SK-3004	ECG 102
Q5	Tint Up	Relay Control	121-490	DS-26		TR-05		ECG 102
Q6	Tint Down	Relay Control	121-490	DS-26		TR-05		ECG 102
Q7		Pilot Relay Control	121-490	DS-26		TR-05		ECG 102
Q8	Pilot -	Stepper Relay Control	121-490	DS-26		TR-05		ECG 102

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MFGR. PART OR TYPE No.	REPLACEMENT RECTIFIERS & DIODES			REPLACEMENT RECTIFIERS		NOTES
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	SYLVANIA PART No.	RCA PART No.	SARKES TARZIAN PART No.	
X1	212-79	GE-504A	8D4 or 5A4-D	ECG 116 or ECG 117	SK-3031 or SK-3017A	40C or F-4	

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA						
		ZENITH PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	GENERAL ELECTRIC PART No.	MALLORY PART No.	SPRAGUE PART No.
C1	200 35V	22-3721	PRS1530		BR200-150	QT1-27	TC496A	TL-1312
C2	10 3V	22-3705	CRE207A		NLW10-3	MT1-5	TT3X10	TL-1053
C3A	25 30V	22-3642	PRS2175	EA6-10	BBRD3315	QTZ-9	TCD47	TVA-2434
C4A	25 30V							
C4A	40 30V	22-3643	PRS2195		BBRD4415	QT2-9	TCD48	TVA-2445
C5	4,200VNP	22-2893	NP-PRS7750		BRNP5-400	NPQT-2	TCN2550	TVAN-1436

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.
C11	.05 25V		TTP-05	CK-503	HOV101ZV503Z	CCD-503	TA150	TGL-S50
C12	.005 25V		TTP-005	CK-502	HOY101ZV502P	CCD-502	TA250	TG-D50
C13	.05 25V		TTP-05	CK-503	HOV101ZV503Z	CCD-503	TA150	TGL-S50
C14	.05 25V		TTP-05	CK-503	HOV101ZV503Z	CCD-503	TA150	TGL-S50
C15	.05 25V		TTP-05	CK-503	HOV101ZV503Z	CCD-503	TA150	TGL-S50
C16	.01 25V		TTP-01	CK-103	HOY101ZV103P	CCD-103	TA110	TG-S10
C17	.05 100V		GPD Z5V503P	DD-503			GPI50	
C18	820 100V 5%		ADM-20-821	CPR-820J	CD19F821J500	DM-19-821J	SX382	MS-382
C19	820 100V 5%		ADM-20-821	CPR-820J	CD19F821J500	DM-19-821J	SX382	MS-382
C20	820 100V 5%		ADM-20-821	CPR-820J	CD19F821J500	DM-19-821J	SX382	MS-382
C21	820 100V 5%		ADM-20-821	CPR-820J	CD19F821J500	DM-19-821J	SX382	MS-382
C22	.47 400V		V1614P47		DPMS4P47	4DP-6-474	PVC4047	
C23	.0047		GPD X5R472K	DD-472G	JBT601Y472K	CCD-472	JF247	10TS-D47
C24	.001 1KV		GPD X5F102K	DD-102	JB5801YF102K	CCD-102	GP210	10TS-D10

CONTROLS (All wattages 1/2 watt, or less, unless listed)

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA				
			MFGR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1	Sensitivity	18K	63-7534	F2-25K, SNK010	NP-25K-Z, NML-A-300, TT-2	B13-120, TM4	RU24A, SL37, SN1000 or (UA24A, SN1000) or (U24)

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	MFGR. PART No.			IRC PART No.	WORKMAN PART No.	MFGR. PART No.
R21	100Ω 5W (100Ω 4W)	PW5-100 PW5-100	5W-SQ-100 5W-SQ-100						
				63-3210					

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	WORKMAN PART No.
L1	39.50KC Input	95-2411			
L2	41.25KC	95-2044			
L3	40.25KC	95-2045			
L4	38.75KC	95-2046			
L5	37.75KC	95-2047			

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	MFGR. PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117VAC @ .065A AC	22.5VAC A .039A DC	95-2459 (95-2216)					

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
K1	Relay	195-45	Tint Up
K2	Relay	195-45	Tint Down
K3	Relay	195-44	Pilot
K4	Relay	195-39	Pilot Stepper
K5	Relay	195-43	Mute Function
K6	Relay	195-35	Volume Step
S1	Switch	85-932	Auto-Manual

TRANSMITTER PARTS LIST

PART NAME	PART No.	NOTES
Transmitter Case	43-797	
Transmitter Mechanism Ass'y	S-69441	
Top Housing and Overlay Ass'y	S-69446	
Rod Bracket & Spring Ass'y	S-79513	
Hammer Housing	43-798	
Pushbutton (4 used on 12-4184)	46-4384	
Pushbutton Mounting Bracket		
Assembly (4 required)	12-4184	
Rod "A" Plain	76-1002	
Rod "B" - 3 Ring	76-1003	
Rod "C" - 1 Ring	76-1004	
Rod "D" - 2 Ring	76-1005	
Hammer - 9/32 lg. Plain	97-1873	
Hammer - 9/32 lg. Plain	97-623	
Hammer - 5/16 lg. 3 Ring	97-624	
Hammer - 3/8 lg. 1 Ring	97-625	
Hammer - 13/32 lg. 2 Ring	97-626	
Grille	138-398	
Transmitter Overlay	57-5250	

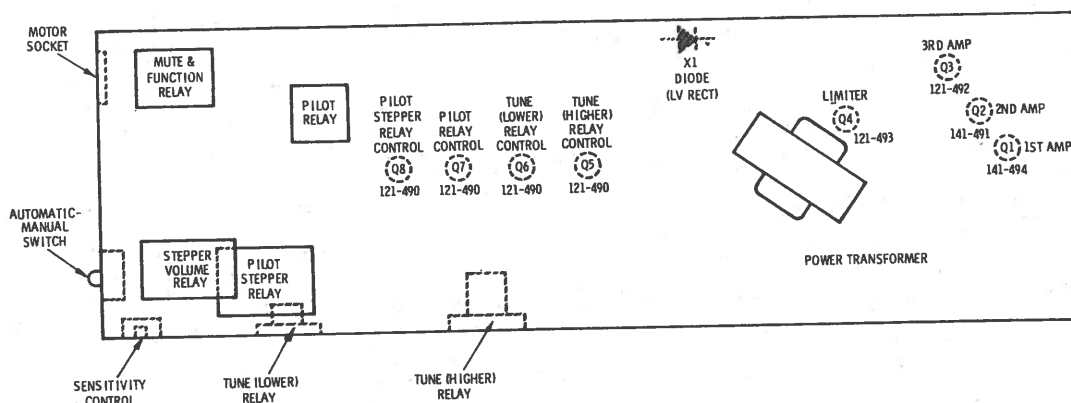
Part of S-69441

Part of S-69446

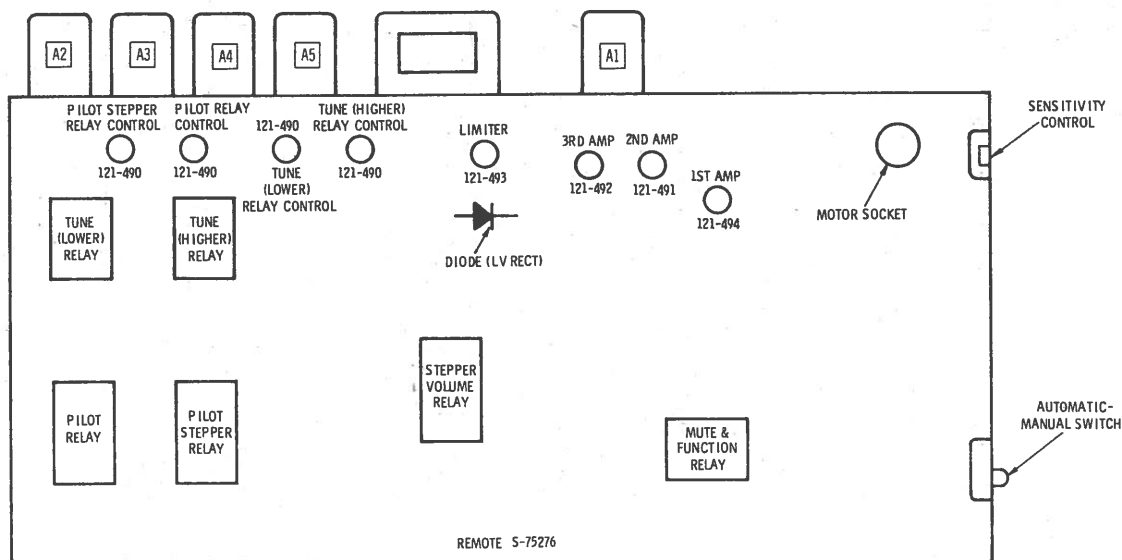
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TRADE NAME	Zenith
SUPPLIER	For current address, see Annual Index.
TYPE SET	Remote Control Receivers S-75276, S-79636, S-74626
POWER SUPPLY	110-120 Volts AC, 60 Cycles



REMEMBER TO ASK— "What else needs fixing?"

HOWARD W. SAMS & CO., INC. Indianapolis, Indiana 46206

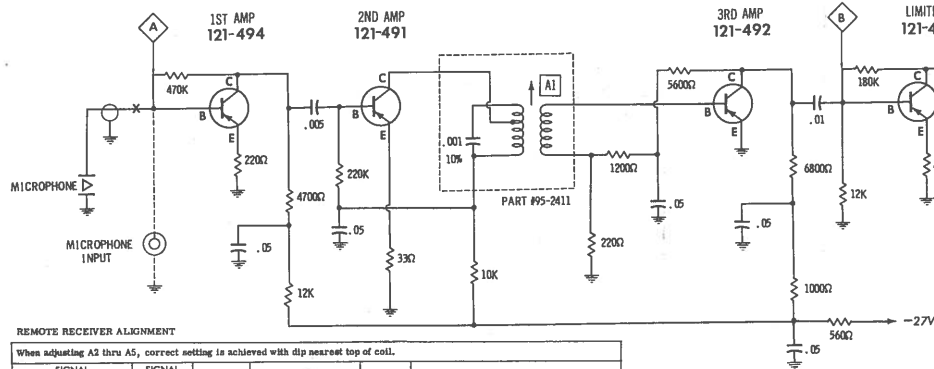
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SET 981 FOLDER 2-B

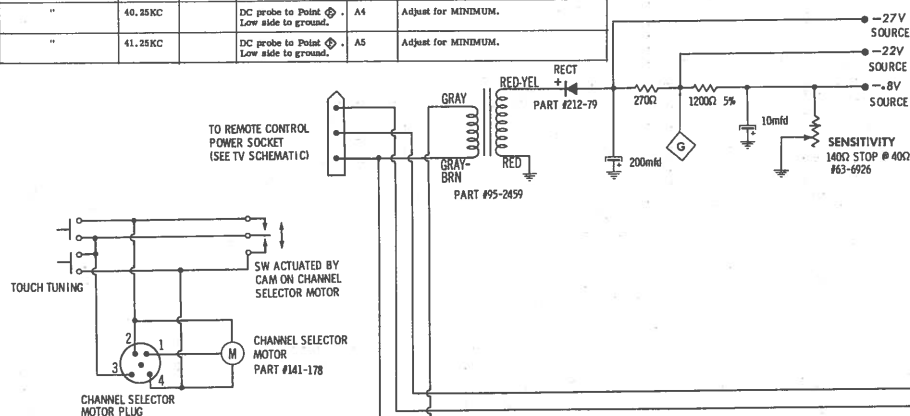




REMOTE RECEIVER ALIGNMENT

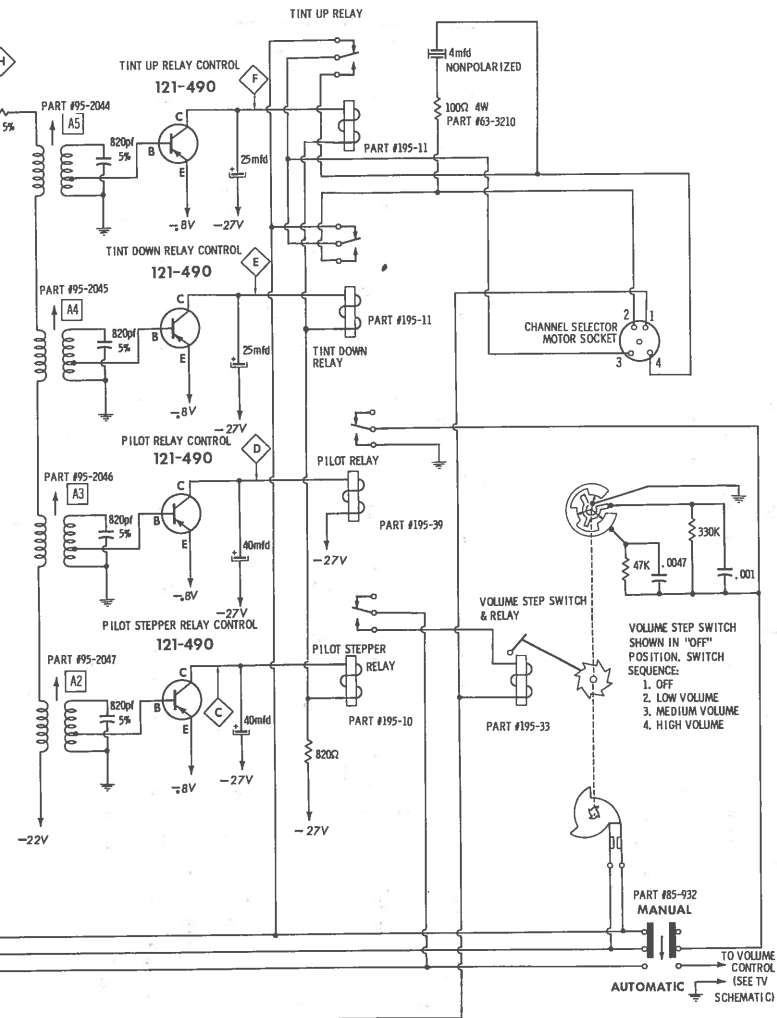
When adjusting A2 thru A5, correct setting is achieved with dip nearest top of coil.

SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
1. Connect high side thru a .005 capacitor to Point Φ . Low side to ground.	36.5KC		RF probe to Point Φ . Low side to ground.	A1	Connect jumper from Point Φ to Point Φ . Adjust for maximum. Remove jumper.
2. "	37.75KC		DC probe to Point Φ . Low side to ground.	A3	Adjust for MINIMUM.
3. "	38.75KC		DC probe to Point Φ . Low side to ground.	A3	Adjust for MINIMUM.
4. "	40.55KC		DC probe to Point Φ . Low side to ground.	A4	Adjust for MINIMUM.
5. "	41.25KC		DC probe to Point Φ . Low side to ground.	A5	Adjust for MINIMUM.



A PHOTOFAC STANDARD NOTATION SCHEMATIC

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PHOTOFACT® Folder



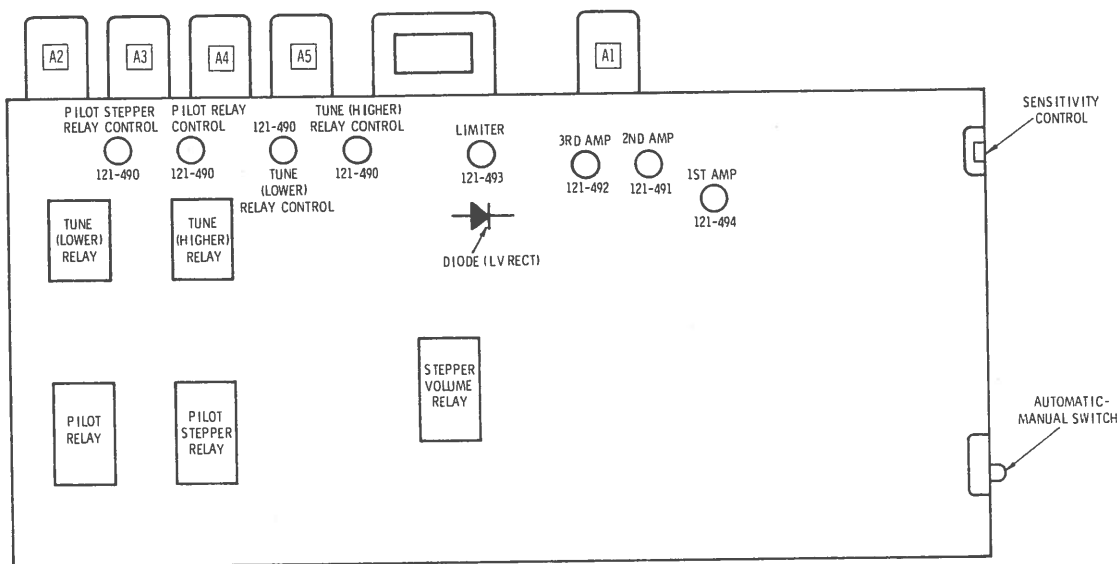
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ZENITH REMOTE CONTROL RECEIVER S-78304

ZENITH REMOTE CONTROL RECEIVER S-78304



ZENITH REMOTE CONTROL RECEIVER S-78304

TRADE NAME	Zenith
SUPPLIER	For current address, see Annual Index.
TYPE SET	Remote Control Receiver S-78304
POWER SUPPLY	110-120 Volts AC, 60 Cycles

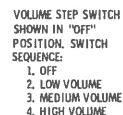
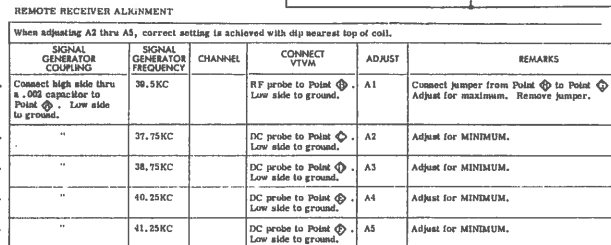
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PART #85-645
(PART #85-932)
AUTO MANUAL
SWITCH