

CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Disconnect antenna leads and remove five screws holding cabinet back. Remove all knobs and lay set face down on a soft protective surface.

Note: Most components can be serviced without chassis removal. Slide printed circuit board out for servicing.

Disconnect picture tube socket, high voltage lead, and loosen deflection yoke. Remove seven screws holding tuner and power supply assembly. Lift printed circuit board slightly from cabinet. Disconnect speaker plug and ground wire from main board.

Lift tuner, power supply assembly, printed circuit board and deflection yoke from the cabinet front. Remove two screws holding control bracket and remove bracket from cabinet front.

PICTURE TUBE REMOVAL

Follow Chassis Removal procedure. Loosen bolt holding picture tube retaining wire and remove four screws holding picture tube brackets. Lift picture tube from the cabinet front. Do not lift picture tube by the neck.

SERVICING IN THE FIELD

CRT IMPLOSION PROTECTION AND CLEANING

Implosion protection is an integral part of the picture tube, cleaning accomplished without CRT removal.

FUSE DEVICES

A 1-amp fuse is used for AC line protection. (See Placement Chart.)

VHF TUNER

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

UHF TUNER

The UHF tuner employs a detent mechanism for channel selection. Fine tuning is adjusted by rotating the fine tuning knob.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horiz hold coil. (See photo, Cabinet-Rear View.)

WIDTH

The width may be varied by adjusting the sleeve located between the yoke and the picture-tube neck.

AGC

The AGC may be varied by an AGC Delay control. (See photo, Cabinet-Rear View.)

CENTERING

Centering is accomplished by proper adjustment of two magnetic rings located on the yoke rear cover. (See photo, Cabinet-Rear View.)

PHOTOFACT® Folder

with CIRCUITRACE®

For Supplier Address See PHOTOFACT Index

ZENITH
CHASSIS 12GB

SET 1603 FOLDER 2

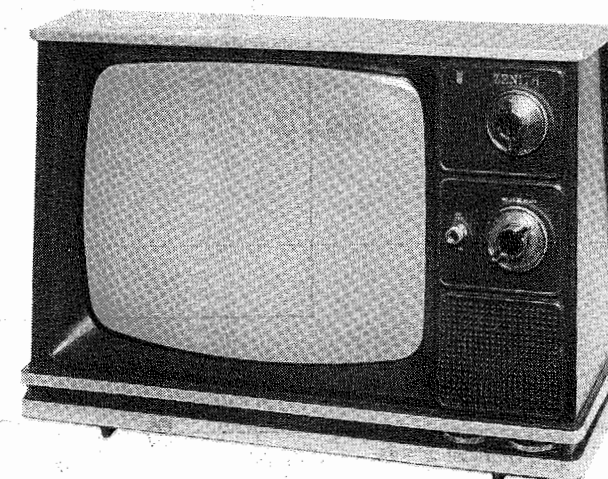
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MODEL

G1350F4/L4/Y4
G1350F8/L8/Y8
G1360W4
G1363B4
G1363B8
G1365Y4
G1370X4
G1370X8
H121F/F1/L/L1/Y/Y1
H121F2/F3/L2/L3/Y2/Y3
H122J/J1
H123W/W1
H126X/X1
H126X2/X3
HT128W/W1
HT128W2/W3

CHASSIS

12GB1X
12GB3X
12GB2X
12GB1X
12GB3X
12GB2X
12GB1X
12GB3X
12GB1X
12GB2X
12GB2X
12GB1X
12GB3X
12GB1X
12GB3X
12GB1X



MODEL G1350Y8

SAFETY PRECAUTIONS

See Pages 10,27.

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



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. 6PC1642

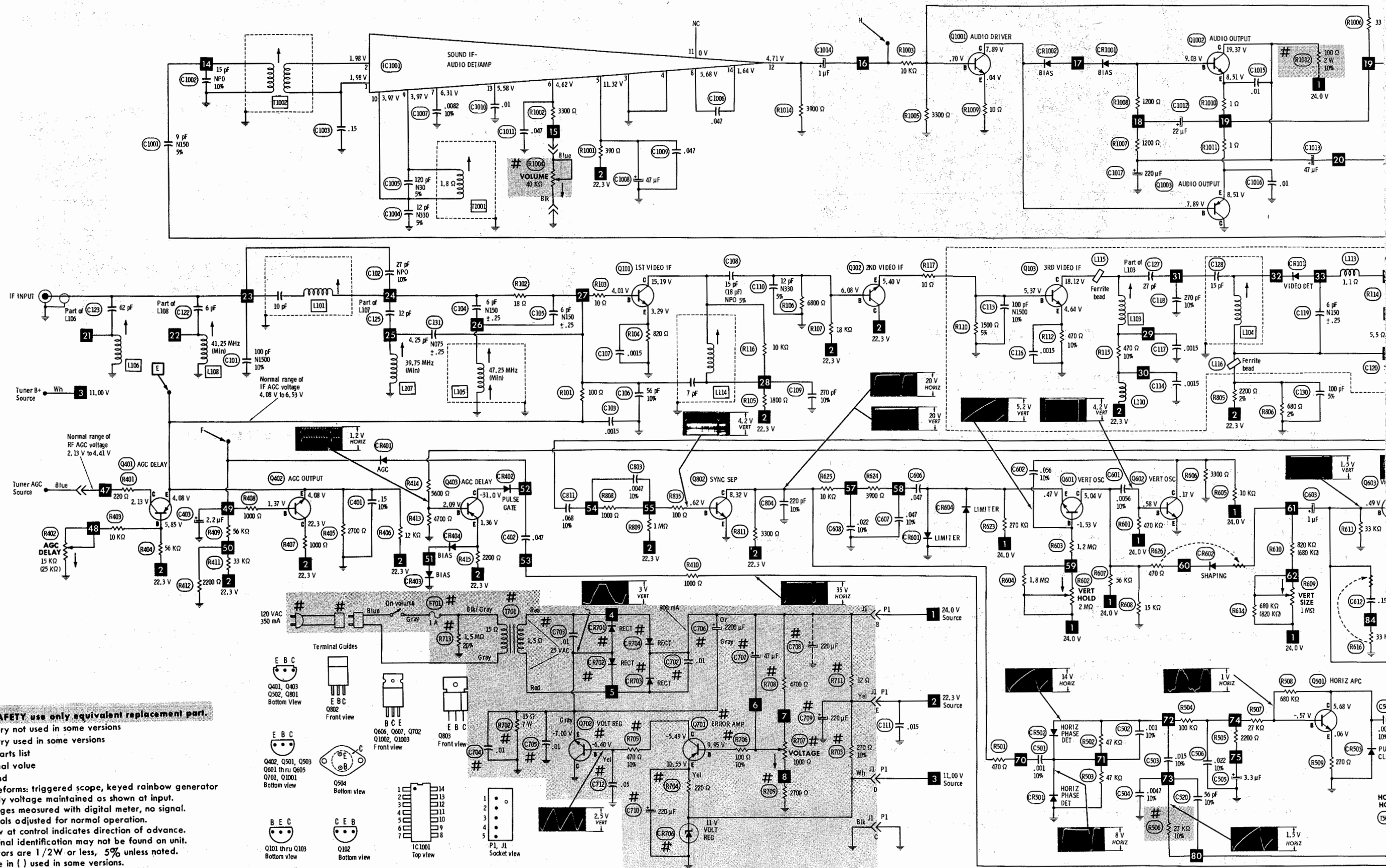
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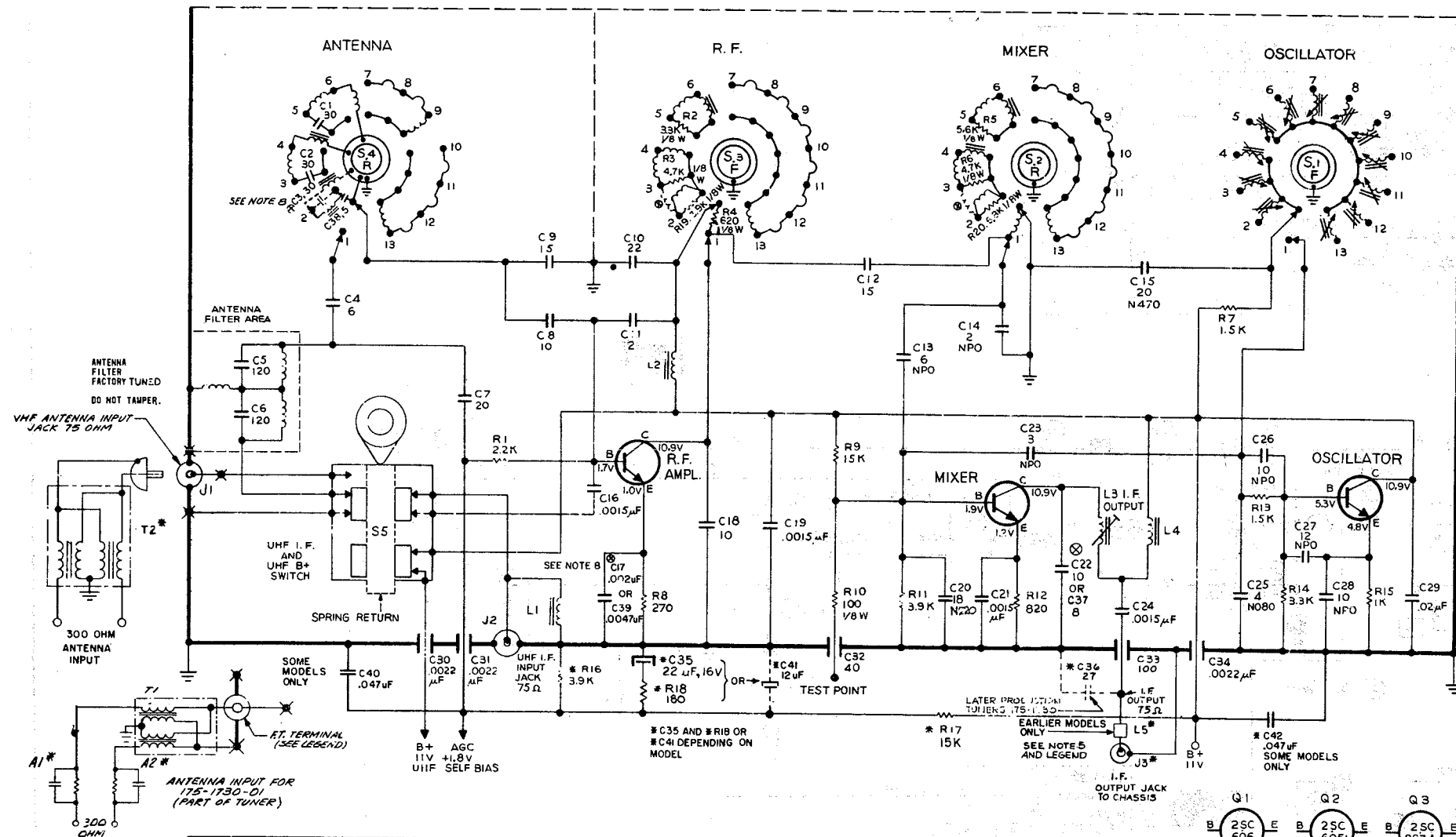
DATE 10-76

SET 1603 FOLDER 2

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CHASSIS 12GB

SET 1603 FOLDER 2





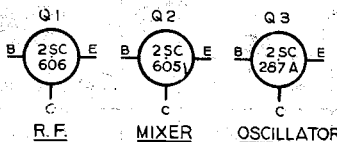
TUNER PART NUMBER SUFFIX LETTER	CHART FOR TRANSISTOR CODE			TUNER SUFFIX LETTER	REMARKS
	R.F. AMPL.	MIXER	OSC.		
A	Q1	Q2	Q3		

TEST POINT:

INTERMEDIATE FREQUENCY INPUT FOR ALIGNMENT OF THE TUNER TO THE TELEVISION CHASSIS.

NOTES:

- ALL CAPACITORS IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
- ALL RESISTORS ARE IN OHMS AND ARE .250 WATT \pm 5 PERCENT TOLERANCE, UNLESS OTHERWISE SPECIFIED.
- ALL SWITCH SECTIONS ARE VIEWED FROM FRONT OF TUNER AND ARE SHOWN IN CHANNEL 1 POSITION (UHF I.F.).
- VOLTAGES MEASURED WITH A VACUUM TUBE VOLT METER, WITH A 10K OHM ISOLATION RESISTOR ON PROBE, TUNER SET ON CHANNEL 13. NO ANTENNA SIGNAL INPUT.
- * DENOTES EXTERNAL TO TUNER.
- DENOTES CHASSIS.
- G.M.V. DENOTES GUARANTEED MINIMUM VALUE.
- ⊗ DENOTES EARLIER MODELS (175-1730 ONLY). *SEE LEGEND.



TUNERS

175-1730
175-1730-01

CAUTION

THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES IN THE SETS IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

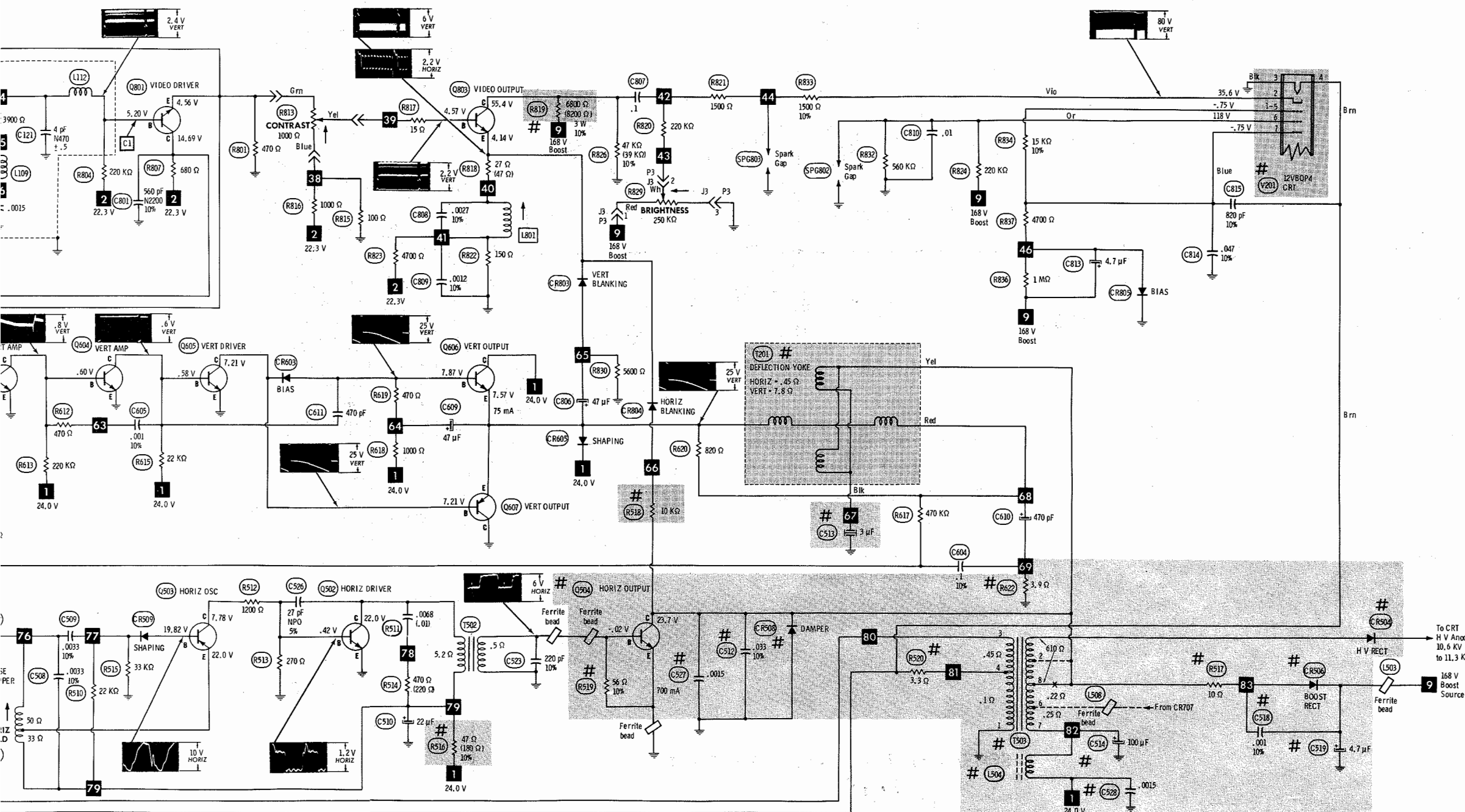
SCHEMATIC DIAGRAM VHF TUNERS 175-1730 175-1730-01

Courtesy of the Manufacturer

ITEM	PART NUMBER	DESCRIPTION	RATING
CAPACITORS			
C1	22-7327	30pF DISC \pm 5%	50V
C2	22-7327	30pF DISC \pm 5%	50V
C3	22-7327	30pF DISC \pm 5%	50V
C4	22-7328	6 pF DISC \pm .5pF	50V
C5	22-7328	120 pF DISC \pm 5%	50V
C6	22-7328	20 pF DISC \pm 5%	50V
C7	22-7380	10pF DISC \pm 5%	50V
C8	22-7331	15 pF DISC \pm 5%	50V
C9	22-7332	22pF DISC \pm 5%	50V
C10	22-7333	2 pF DISC \pm .25pF	50V
C11	22-7334	15pF DISC \pm 5%	50V
C12	22-7335	6 pF DISC \pm .5pF NPO	50V
C13	22-7336	2 pF DISC \pm .25pF NPO	50V
C14	22-7337	20 pF DISC \pm 5% N 970	50V
C15	22-7338	.0015uF DISC GMY	50V
C16	22-7339	.002uF DISC-LEADLESS \pm 5%	50V
C17	22-7340	10pF DISC \pm 5%	50V
C18	22-7341	.0015uF DISC GMY	50V
C19	22-7342	18pF DISC \pm 5% N220	50V
C20	22-7343	.0015uF DISC GMY	50V
C21	22-7344	10pF DISC \pm 5%	50V
C22	22-7345	3pF DISC \pm .25pF NPO	50V
C23	22-7346	.0015uF DISC GMY	50V
C24	22-7347	4 pF DISC \pm .5pF NPO	50V
C25	22-7348	10pF DISC \pm 5% NPO	50V
C26	22-7349	10pF DISC \pm 5% NPO	50V
C27	22-7350	10pF DISC \pm 5% NPO	50V
C28	22-7351	.02uF DISC GMY	50V
C29	22-7352	.0022uF FEED THRU GMY	50V
C30	22-7353	.0022uF FEED THRU GMY	50V
C31	22-7354	40pF FEED THRU \pm 5%	50V
C32	22-7355	100pF FEED THRU \pm 5%	50V
C33	22-7356	.0022uF FEED THRU GMY	50V
C34	22-7357	22uF ELECTROLYTIC \pm 20%	16V
C35	22-5118	27pF DISC \pm 5% NPO	50V
C36	22-7358	8pF DISC \pm .5pF	50V
C37	22-7359	5pF CERAMIC DISC \pm .25pF	50V
C38	22-7360	.0004uF LEADLESS DISC GMY	50V
C39	22-7361	.007uF MYLAR \pm 20%	100V
C40	22-4475	12uF ELECTROLYTIC \pm 20-10%	15V
C41	22-4476	.047 MYLAR \pm 20%	100V
RESISTORS			
R1	63-10235-80	2.2K OHM \pm 5% FILM TYPE	1/4 W
R2	63-3406	3.3K OHM \pm 10% SOLID CARBON	1/8 W
R3	63-3413	4.7K OHM \pm 10% SOLID CARBON	1/8 W
R4	63-3376	620 OHM \pm 10% SOLID CARBON	1/8 W
R5	63-3417	5.6K OHM \pm 10% SOLID CARBON	1/8 W
R6	63-3413	4.7K OHM \pm 10% SOLID CARBON	1/8 W
R7	63-10235-76	1.5K OHM \pm 5% FILM TYPE	1/4 W
R8	63-10235-58	270 OHM \pm 5% FILM TYPE	1/4 W
R9	63-10235-00	15K OHM \pm 5% FILM TYPE	1/4 W
R10	63-3343	100 OHM \pm 10% SOLID CARBON	1/8 W
R11	63-10235-86	3.9K OHM \pm 5% FILM TYPE	1/4 W
R12	63-10235-70	820 OHM \pm 5% FILM TYPE	1/4 W
R13	63-10235-76	1.5K OHM \pm 5% FILM TYPE	1/4 W
R14	63-10235-84	3.3K OHM \pm 5% FILM TYPE	1/4 W
R15	63-10235-72	1K OHM \pm 5% FILM TYPE	1/4 W
R16	63-10235-86	3.9K OHM \pm 5% FILM TYPE	1/4 W
R17	63-10235	15K OHM \pm 5% FILM TYPE	1/4 W
R18	63-10235-54	180 OHM \pm 5% FILM TYPE	1/4 W
R19	63-3408	3.9K OHM 5% SOLID CARBON	1/8 W
R20	63-3420	6.8K OHM 10% SOLID CARBON	1/8 W
L1	20-3656	UHF I.F. SHUNT CHOKE	
L2	20-3657	R.F. CHOKE	
L3	20-3658	I.F. OUTPUT	
L4	20-3659	R.F. CHOKE	
L5	149-417	FERRITE CORE SLEEVE	
T1	S-82109	BALUN TRANSFORMER	
T2	S-97367	75 OHM TO 300 OHM BALUN ADAPTER	
TRANSISTORS (SEE CHART)			
Q1	121-998	NPN, PLASTIC DISC, R.F. AMPL. 28C606	
Q2	121-997	NPN, PLASTIC DISC, MIXER 25C605	
Q3	121-999	NPN, PLASTIC DISC, OSC. 25C267A	
PART OF SHAFT ASSEMBLY (SEE BELOW)			
S1	86-1424	OSCILLATOR SWITCH ASSEMBLY WIRING	
S2		MIXER SWITCH ASSEMBLY WIRING	
S3		R.F. AMP SWITCH ASSEMBLY WIRING	
S4		ANTENNA SWITCH ASSEMBLY WIRING	
S5		UHF I.F. INPUT AND B+ SWITCH SLEW	
SHAFT, DETENT AND SWITCHED ASSEMBLY			
A-1788			
INSULATED FEED THRU TERMINAL			
F.T.	86-441		
J1	44-53	I.F. JACK	
J2	44-53	I.F. JACK	
J3	78-2161	I.F. JACK WITH BRACKET	
N-C ISOLATION NETWORK R = 1.0-2.2MEG OHM			
A1	105-100-01		
A2	105-100-01	R-C ISOLATION NETWORK R = 1.0-2.2MEG OHM	

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FOLDER 2



RESISTANCE MEASUREMENTS

MEASUREMENTS BELOW TAKEN WITH METER HAVING .08V MAX BETWEEN PROBE TIPS														
ITEM	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8	PIN 9	PIN 10	PIN 11	PIN 12	PIN 13	PIN 14
V201	1M	220K	FIL	FIL	1M	180K	1M							
IC1001	INF	INF	0	0	900	11K	7000	8000	5200	5200	INF	2700	5000	68K
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
Q101	820	3300	2300		Q504	0	.3	500		Q701	900	2300	INF (2)	
Q102	1500	5000	480		Q601	270K	1.5M	14K		Q702	15	INF (2)	0	
Q103	470	1500	900		Q602	0	470K	2500		Q801	330	3500	1200	
Q401	2200	15K	3400		Q603	0	33K	220K		Q802	0	1M	3700	
Q402	2200	58K	1500		Q604	0	220K	22K		Q803	180	340	39K	
Q403	2700	2700	INF (2)		Q605	0	22K	INF (2)		Q1001	10	3300	INF (2)	
Q501	270	200K	500K		Q606	500K	INF (2)	500		Q1002	36K	3000	600	
Q502	0	270	550		Q607	500K	INF (2)	0		Q1003	36K	INF (2)	0	
Q503	560	INF (2)	1470											

(2) Reading depends upon polarity of meter connections.

MISCELLANEOUS ADJUSTMENTS

B+ ADJUSTMENT

Connect a voltmeter to the 24V DC source. With a line voltage of 120 VAC adjust B+ Control (R707) for 24 volts DC.

TROUBLESHOOTING CHECK CHART

The following chart lists component failures most likely to produce the indicated symptoms.

PICTURE or SOUND

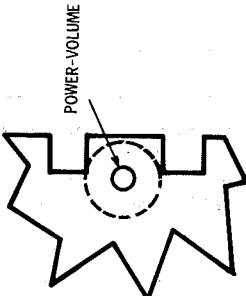
NO PIC, NO SOUND, NO RASTER: Fuse, LV Rect, Error Amp, Volt Reg
NO PIC, NO SOUND, HAS RASTER: Tuner, Video IFs, Video Det/Driver
NO PIC, NO SOUND, HAS SNOW: Tuner, AGC
NO PIC, HAS SOUND, NO RASTER: Video Output, CRT
NO PIC, HAS SOUND, HAS RASTER: Video Driver/Output
HAS PIC, NO SOUND: Sound IF, Audio Det/Amp/Driver, Outputs
OVERLOADED PICTURE: AGC, Video Det

SWEEP

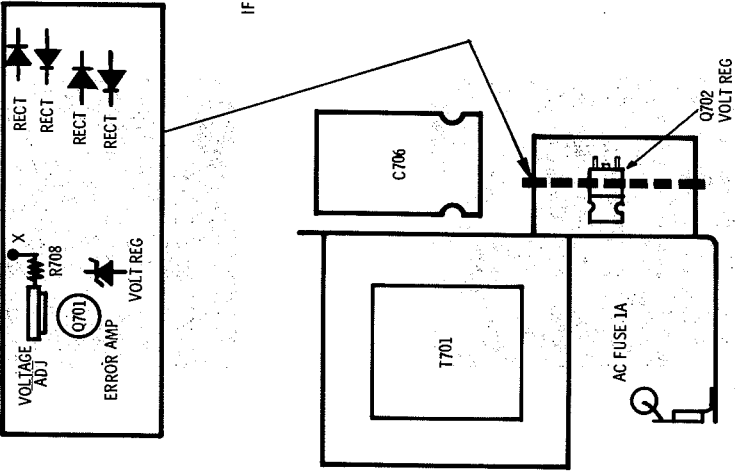
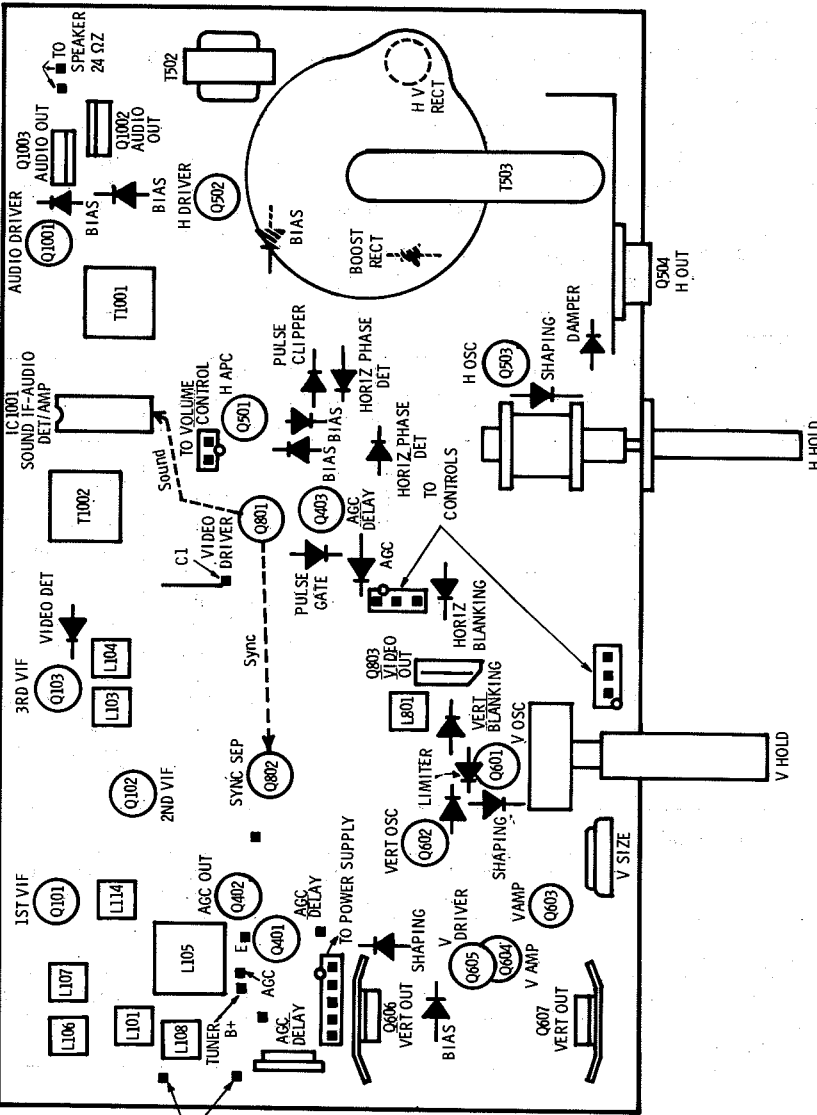
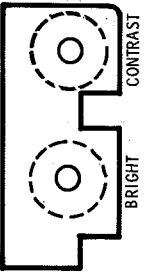
NO RASTER, HAS SOUND: Horiz APC/Osc/Driver/Output, Damper, HV Rect, CRT
NO VERT DEFLECTION: Vert Osc/Amp/Driver/Output
POOR VERT LIN OR FOLDOVER: Vert Amp/Driver/Output
POOR HORIZ LIN OR FOLDOVER: Horiz Driver/Output, Damper
NARROW PICTURE: Horiz Driver/Output, Damper
VERT OFF FREQ: Limiter, Vert Osc
HORIZ OFF FREQ: Horiz Phase Det/APC/Osc

SYNC

NO VERT SYNC: Limiter, Vert Osc
NO HORIZ SYNC: Horiz Phase Det/APC/Osc
NO VERT/HORIZ SYNC: Sync Sep



TOP VIEW



PLACEMENT CHART

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FOLDER 2

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment.
Suggested Alignment Tools: GC ELECTRONICS
L101,L103,L104,L106,L107,L108,L114.....9440
L105,L801,T1001,T1002,VHF IF Output Coil.....9296,9297,9300

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication.
Note: Response may vary slightly from that shown.
Connect a +5 volt bias to point E, low side to ground.

VIDEO IF ALIGNMENT

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To C1.	To TPA.	44MHz (10MHz Sweep)	39.75MHz 41.25MHz 47.27MHz	Adjust L107, for MINIMUM. Adjust L108, for MINIMUM. Adjust L105 top and bottom for MINIMUM. See Figure 1.
"	"	"	39.75MHz 41.25MHz 42.17MHz 44.00MHz 45.75MHz 47.25MHz	Adjust L101, L103, L104, L106, L114 and VHF IF Output Coil for maximum gain and symmetry of response. L101 and L114 affect 45.75MHz L103 and L104 affect 42.17 and 45.75MHz. L106 and VHF IF Output Coil affect overall response. See Figure 2.

4.5MHz TRAP ALIGNMENT

Tune in a strong TV signal and set the contrast at maximum. Adjust the fine tuning until a beat pattern is visible on the screen. Adjust L801 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust T1002 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce the signal while aligning for undistorted output by adjusting T1001.

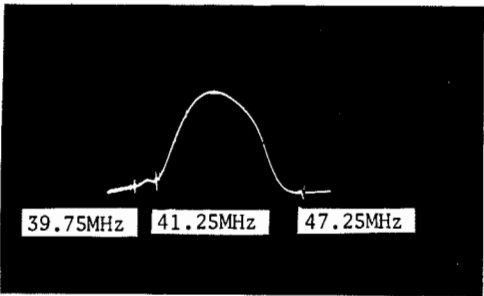


Figure 1

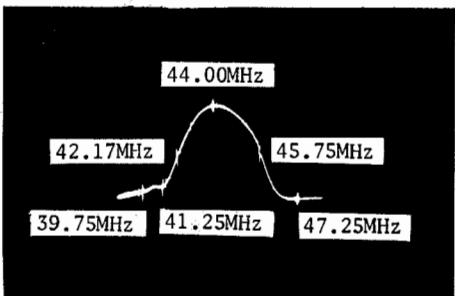
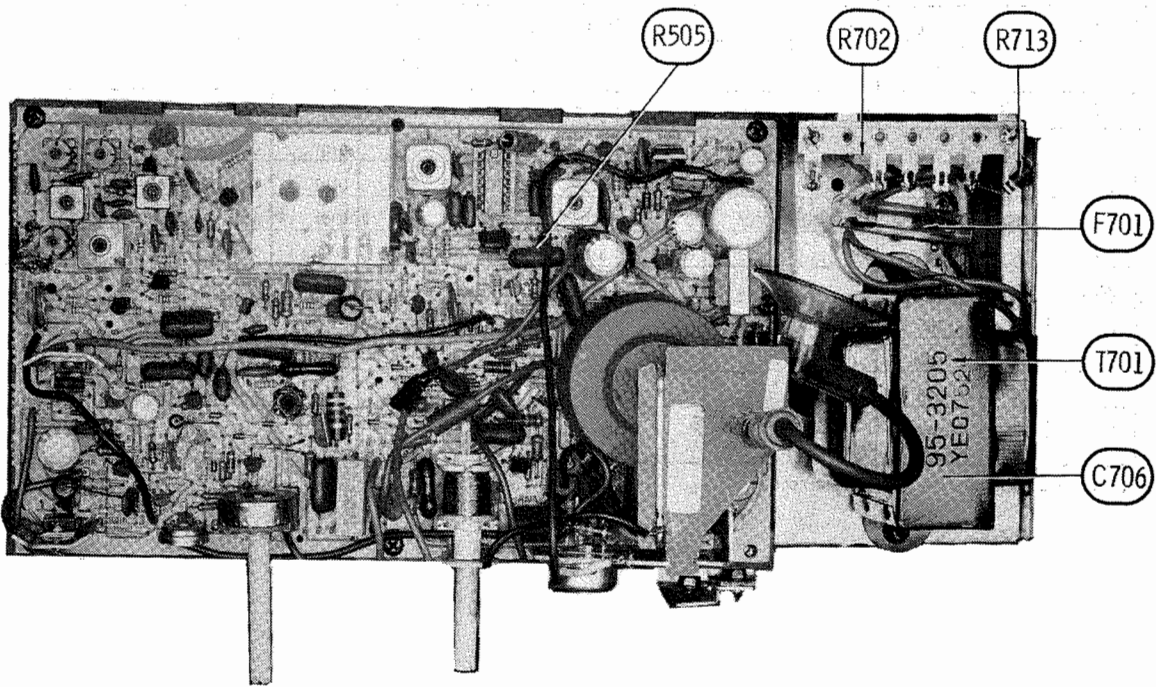
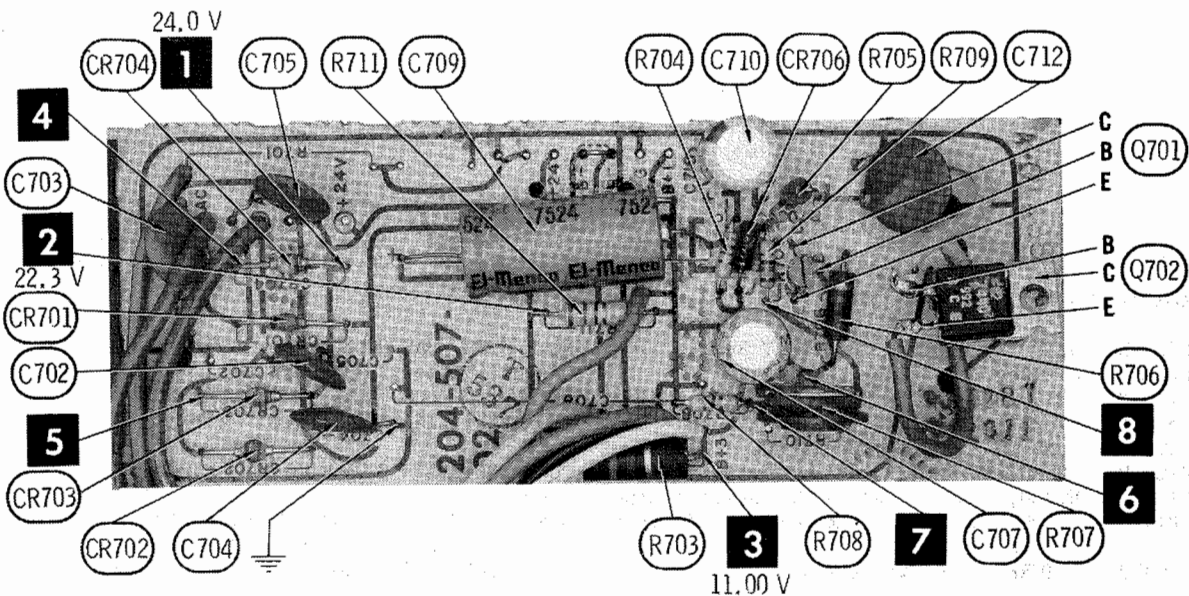


Figure 2



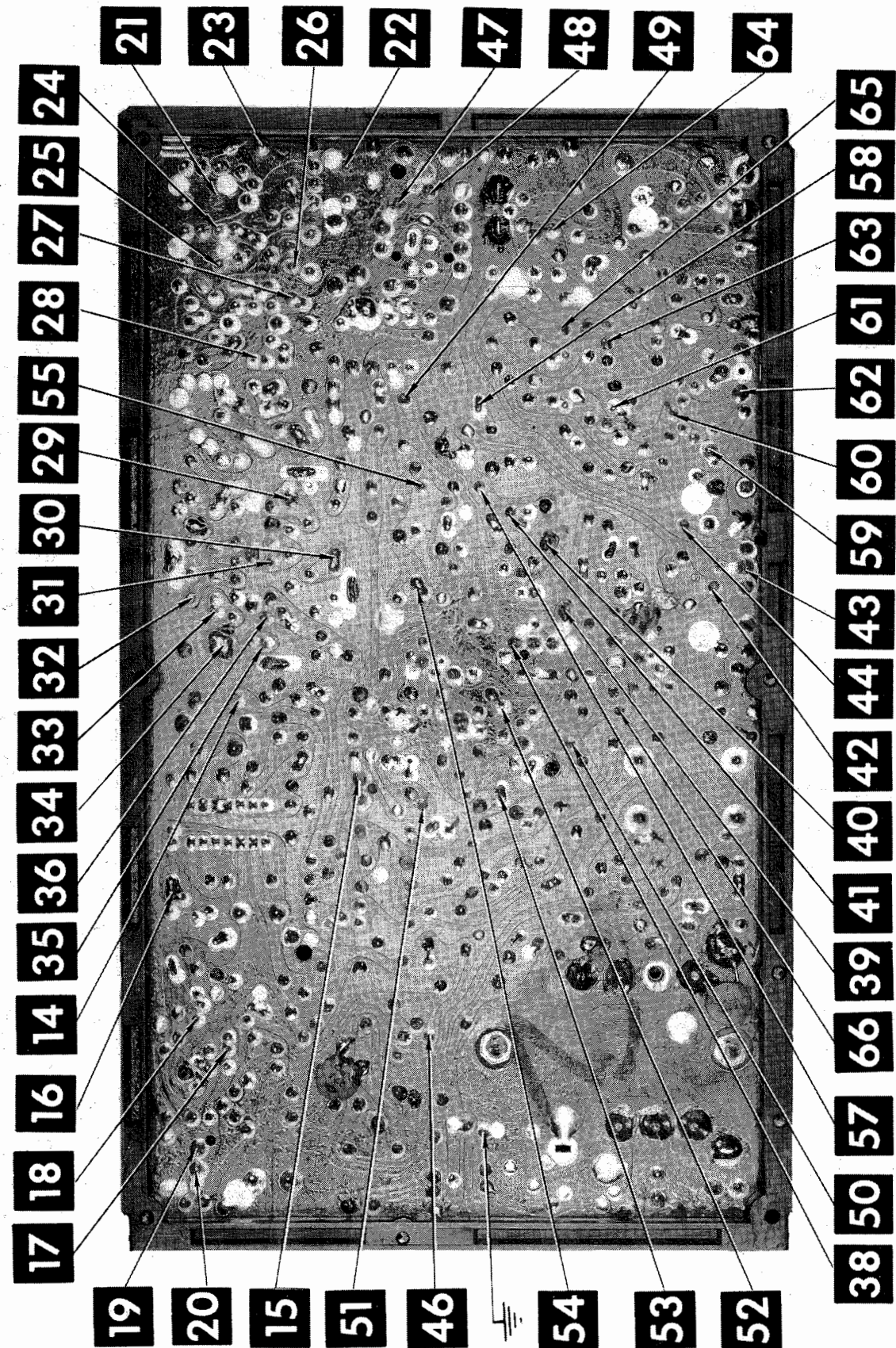
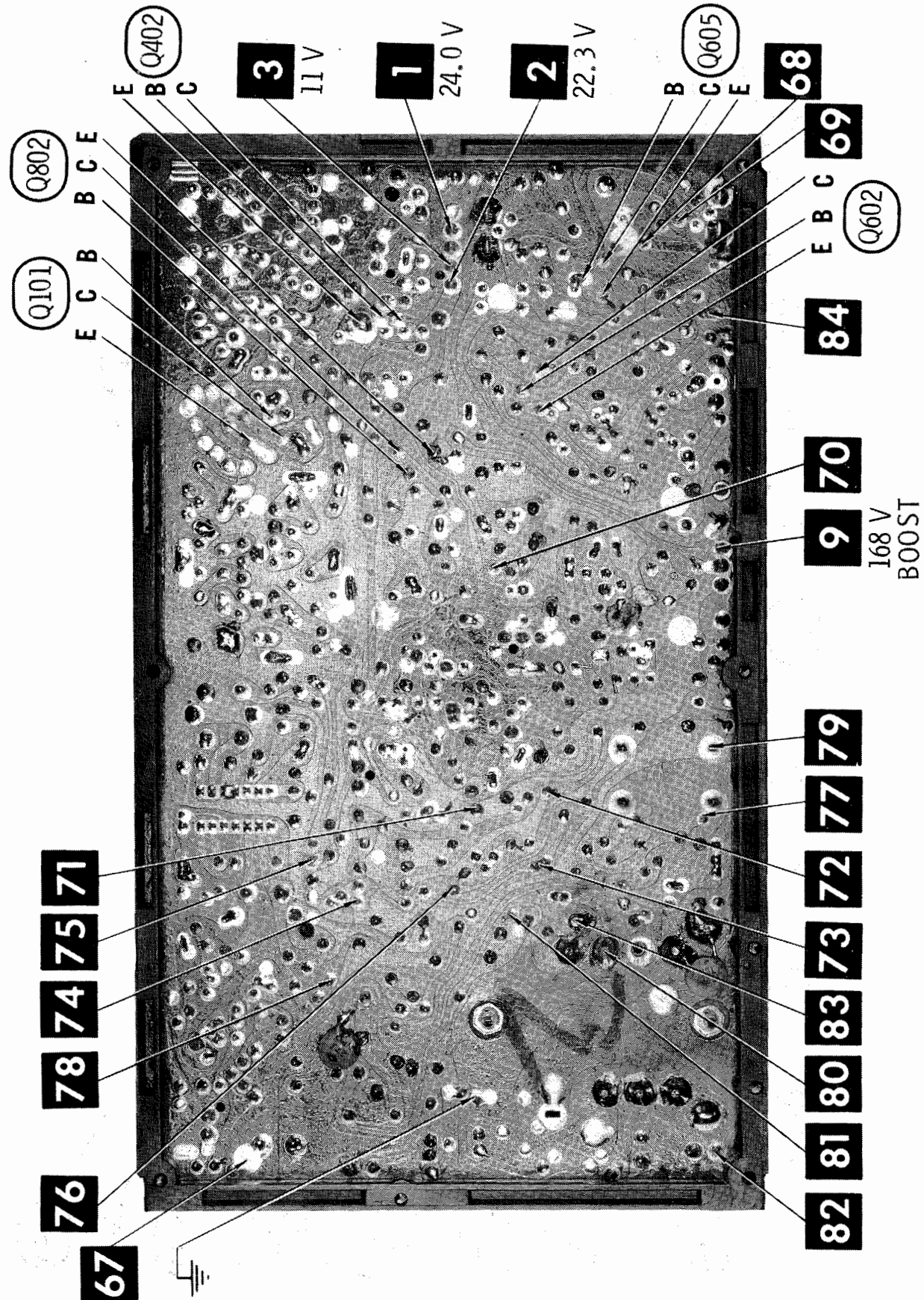
CHASSIS-TOP VIEW

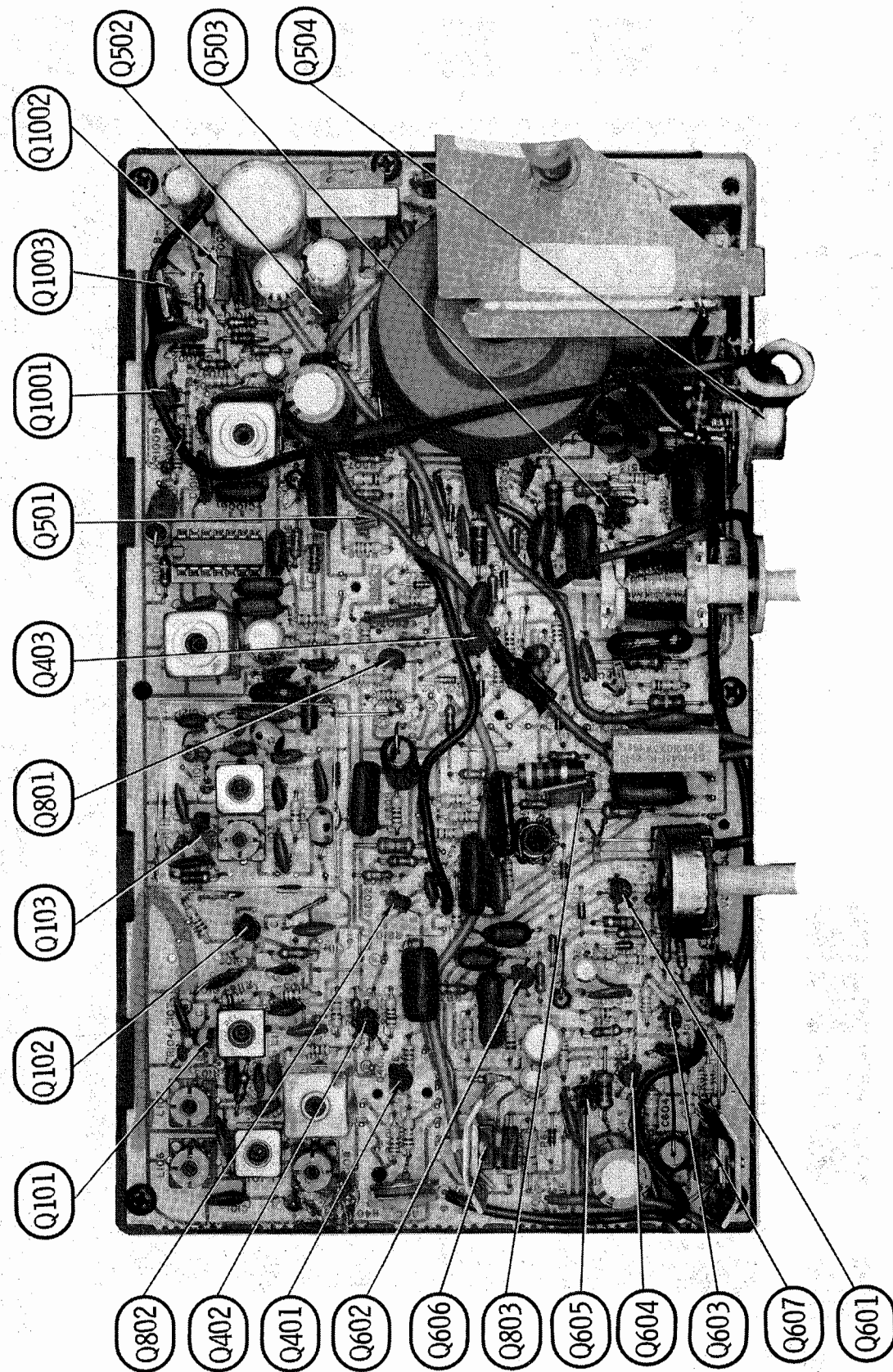
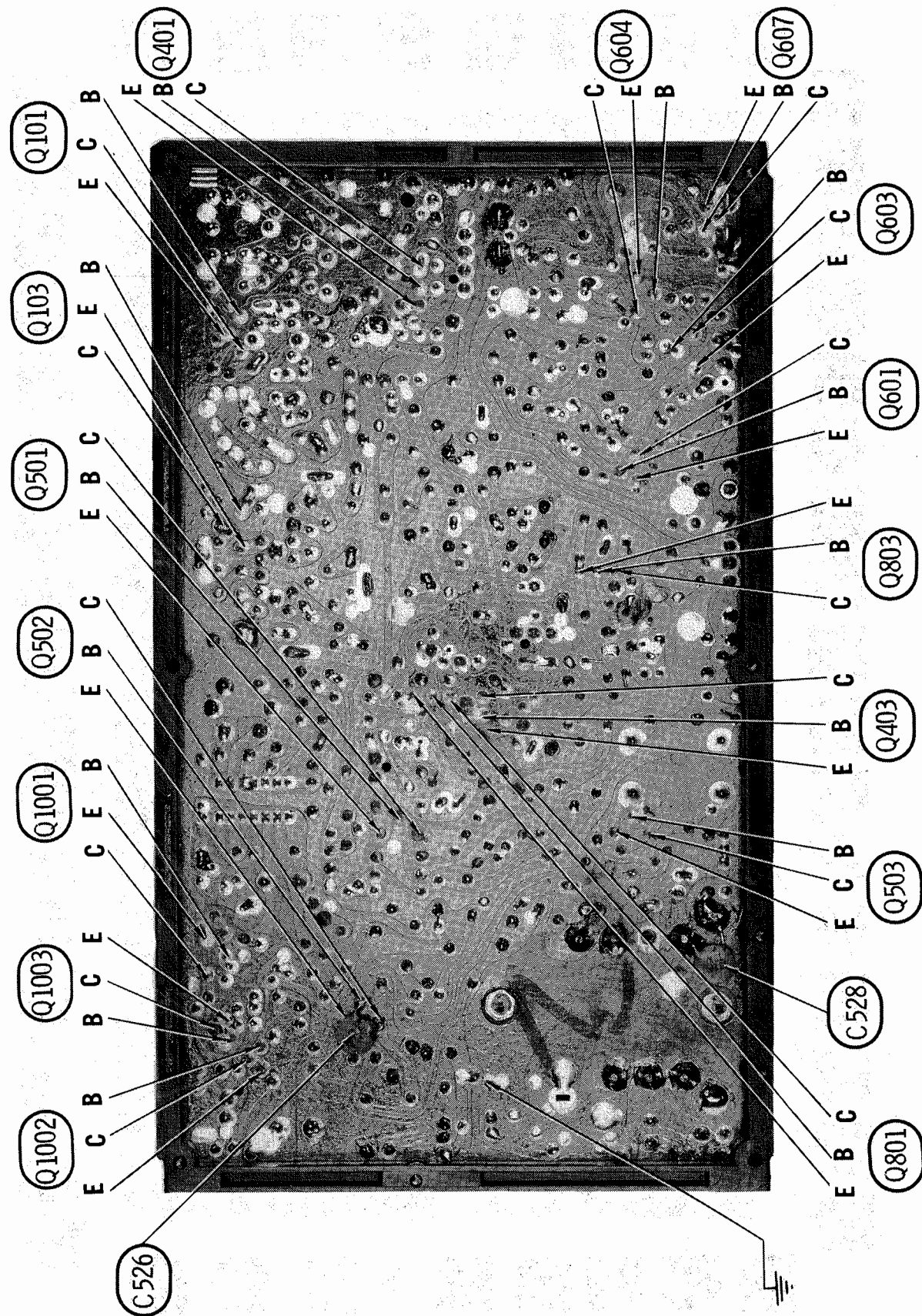


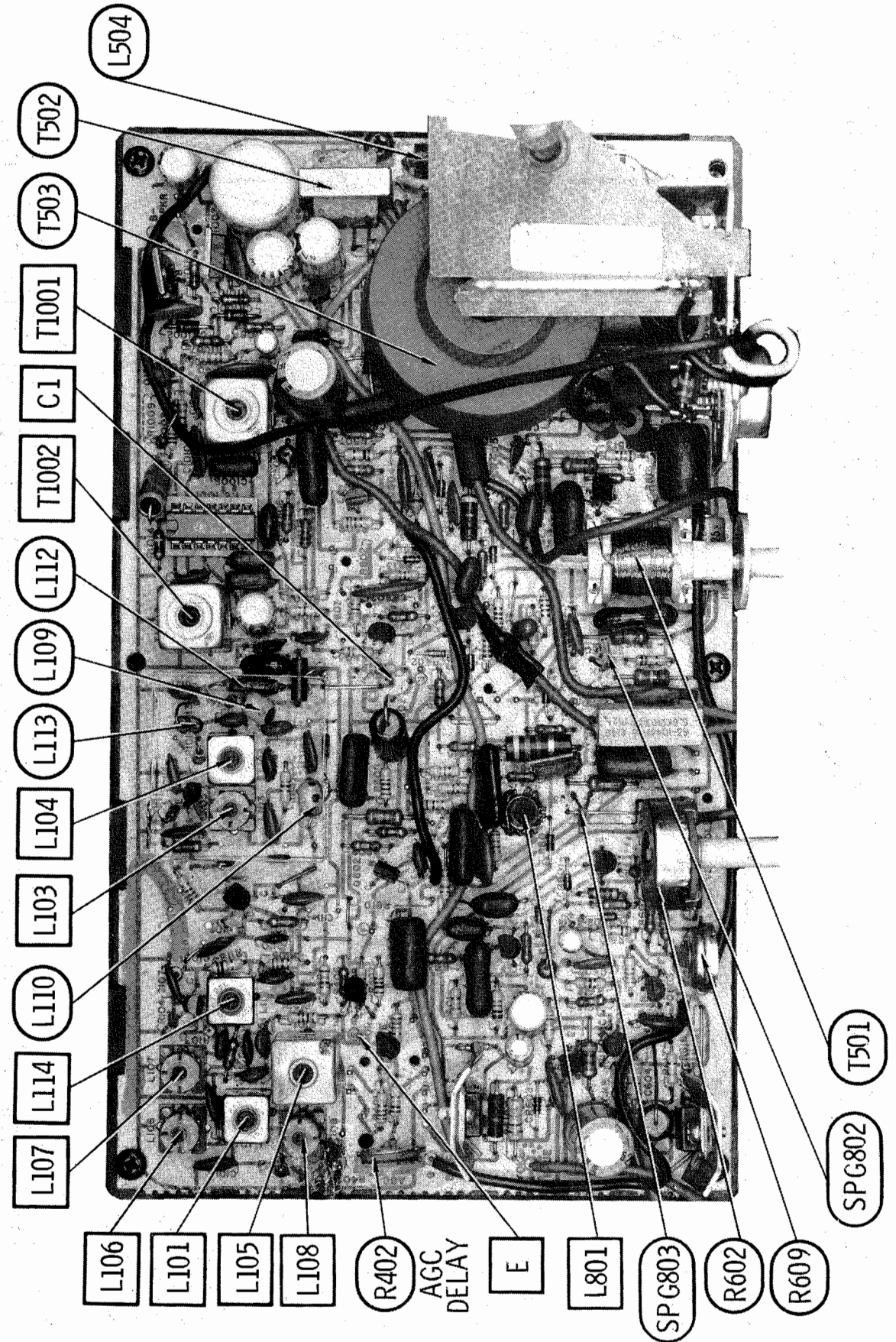
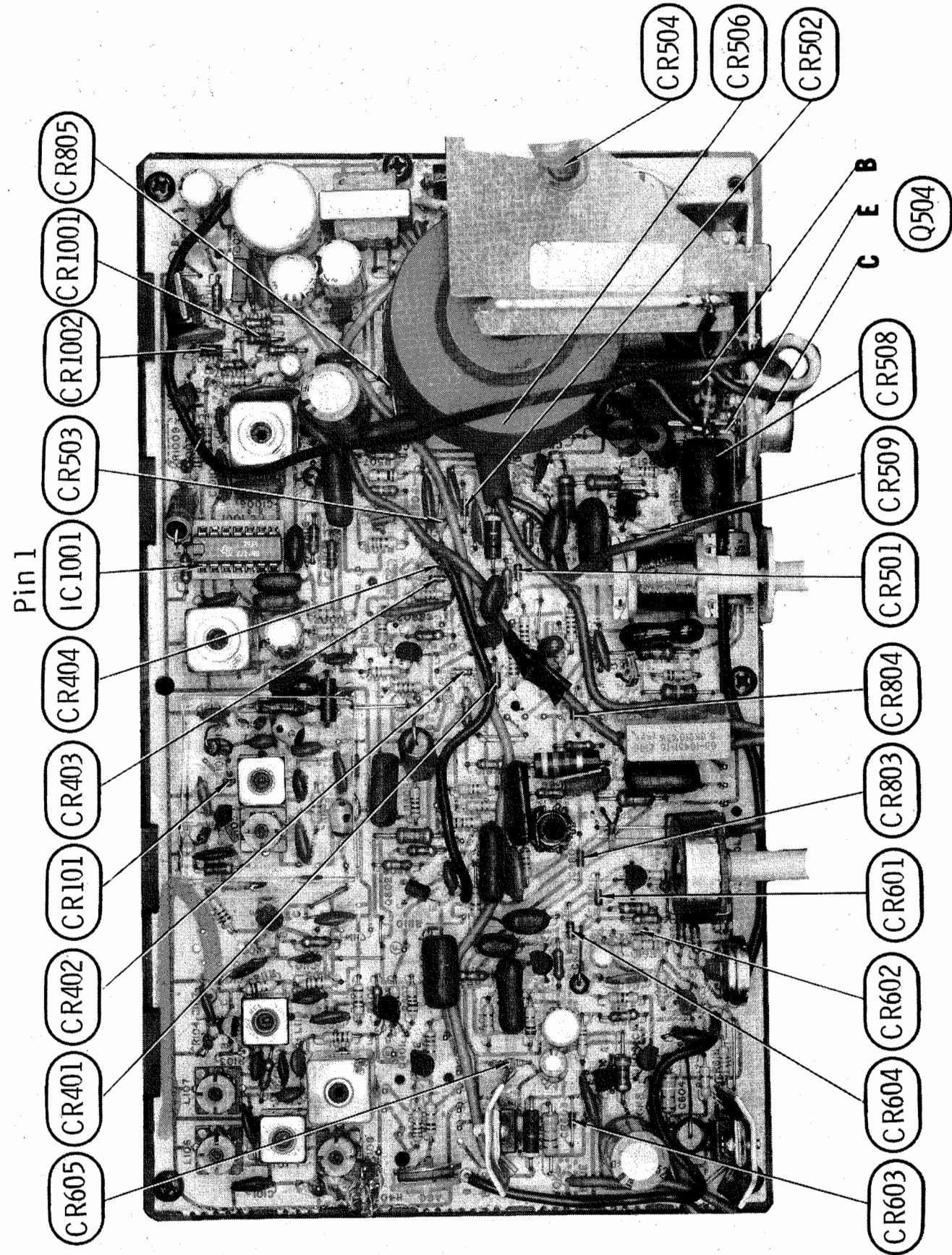
A Howard W. Sams CIRCUITRACE® Photo POWER SUPPLY BOARD

ZENITH
CHASSIS 12GB

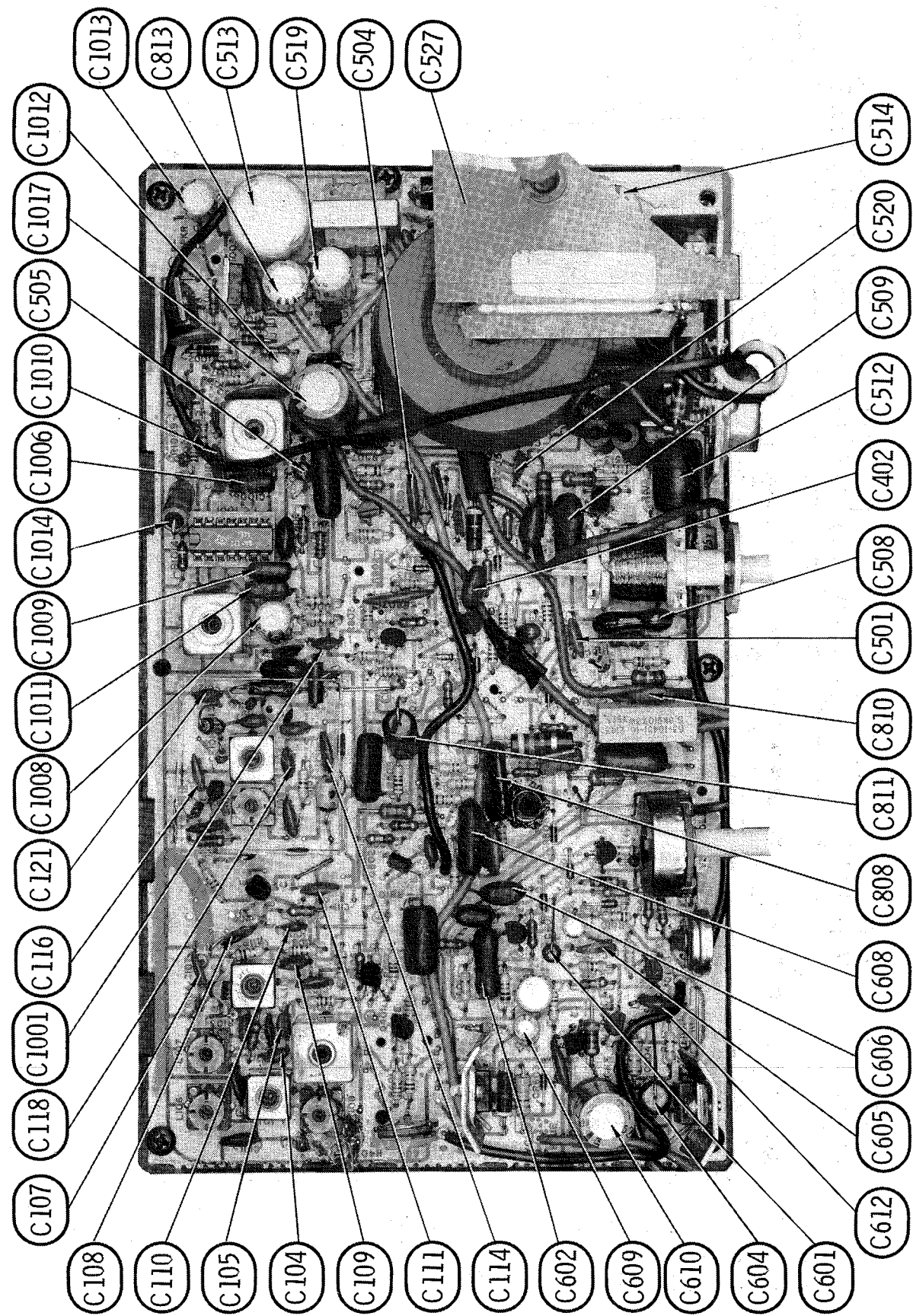
FOLDER 2



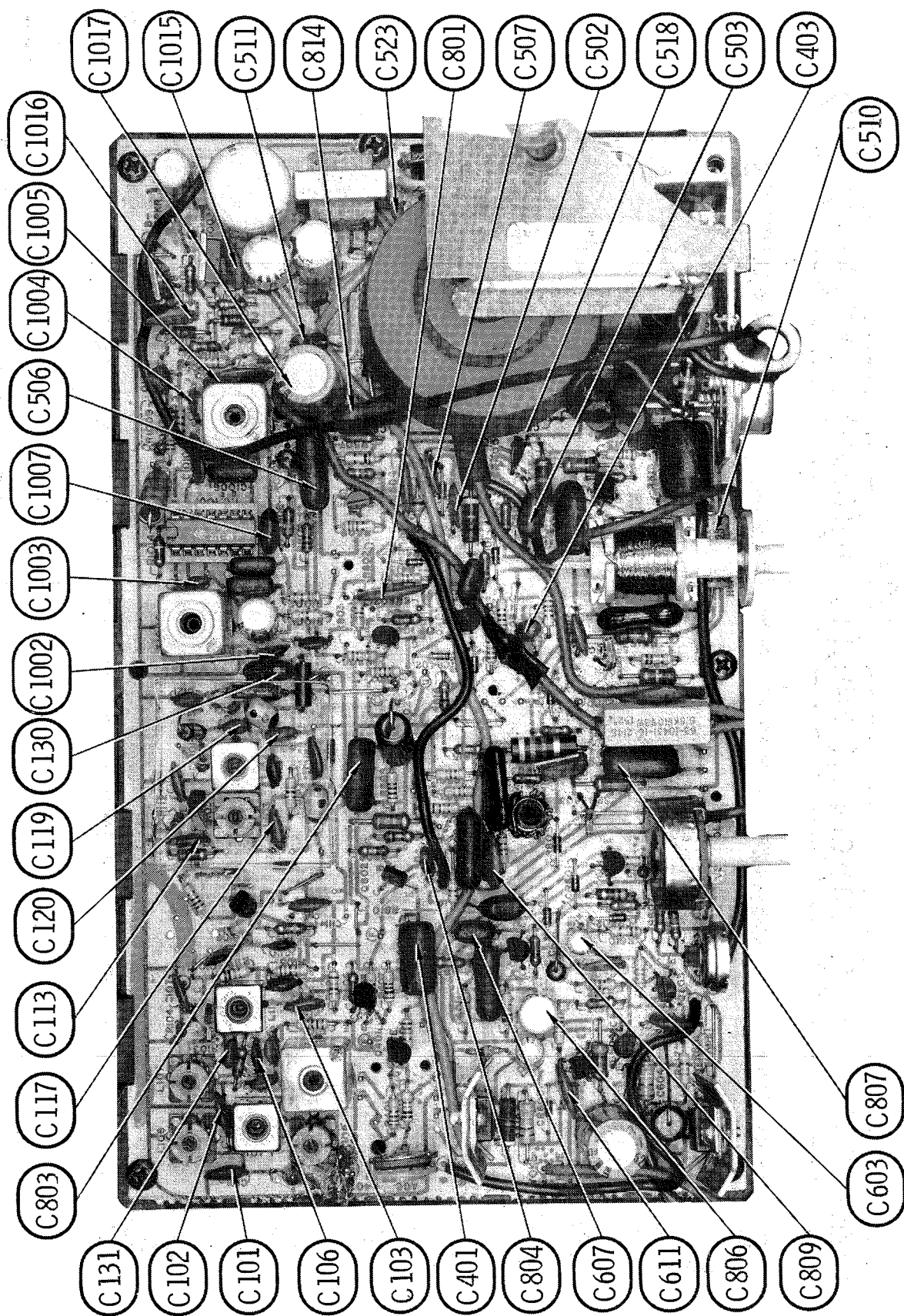




MAIN BOARD



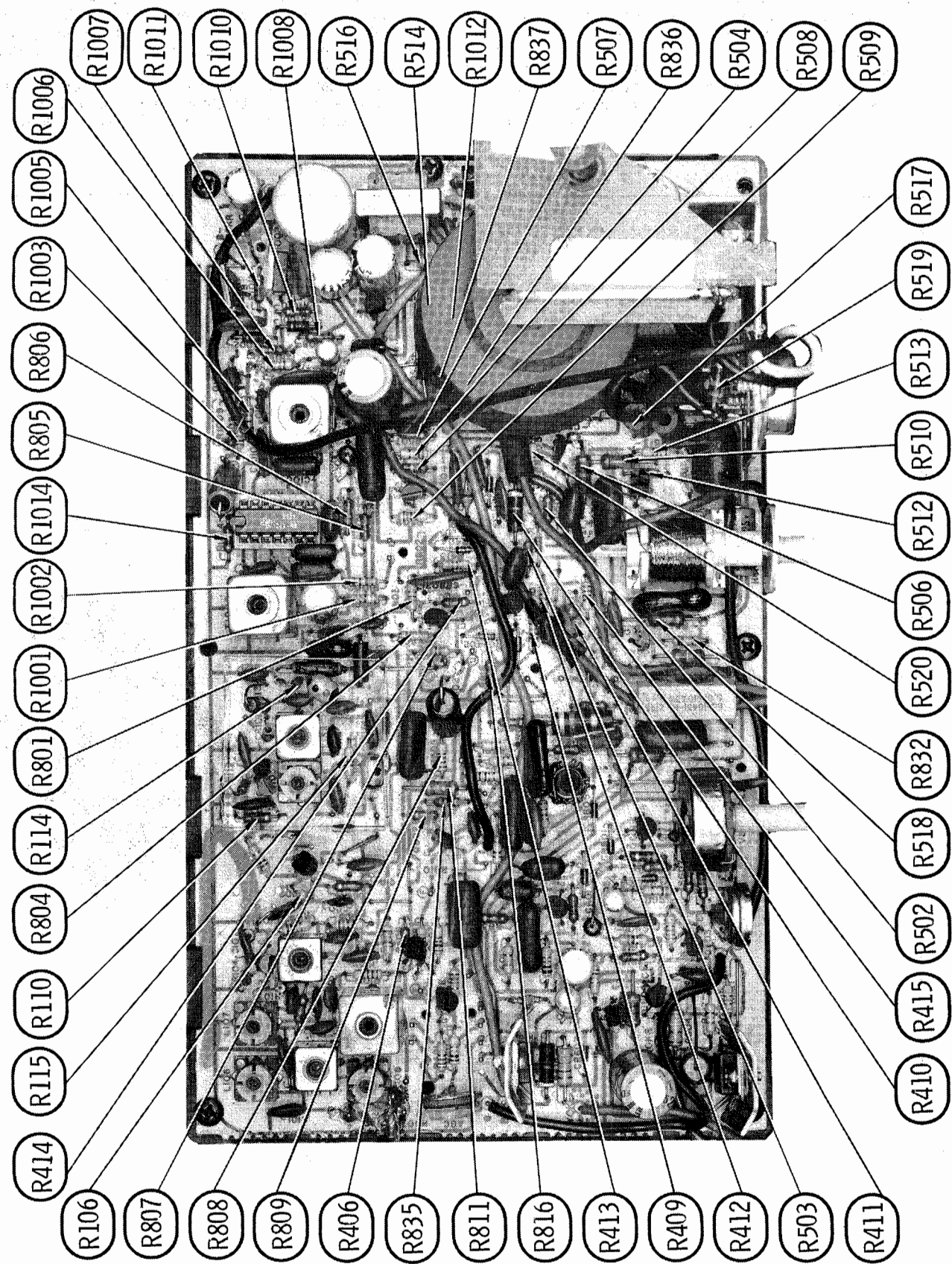
MAIN BOARD



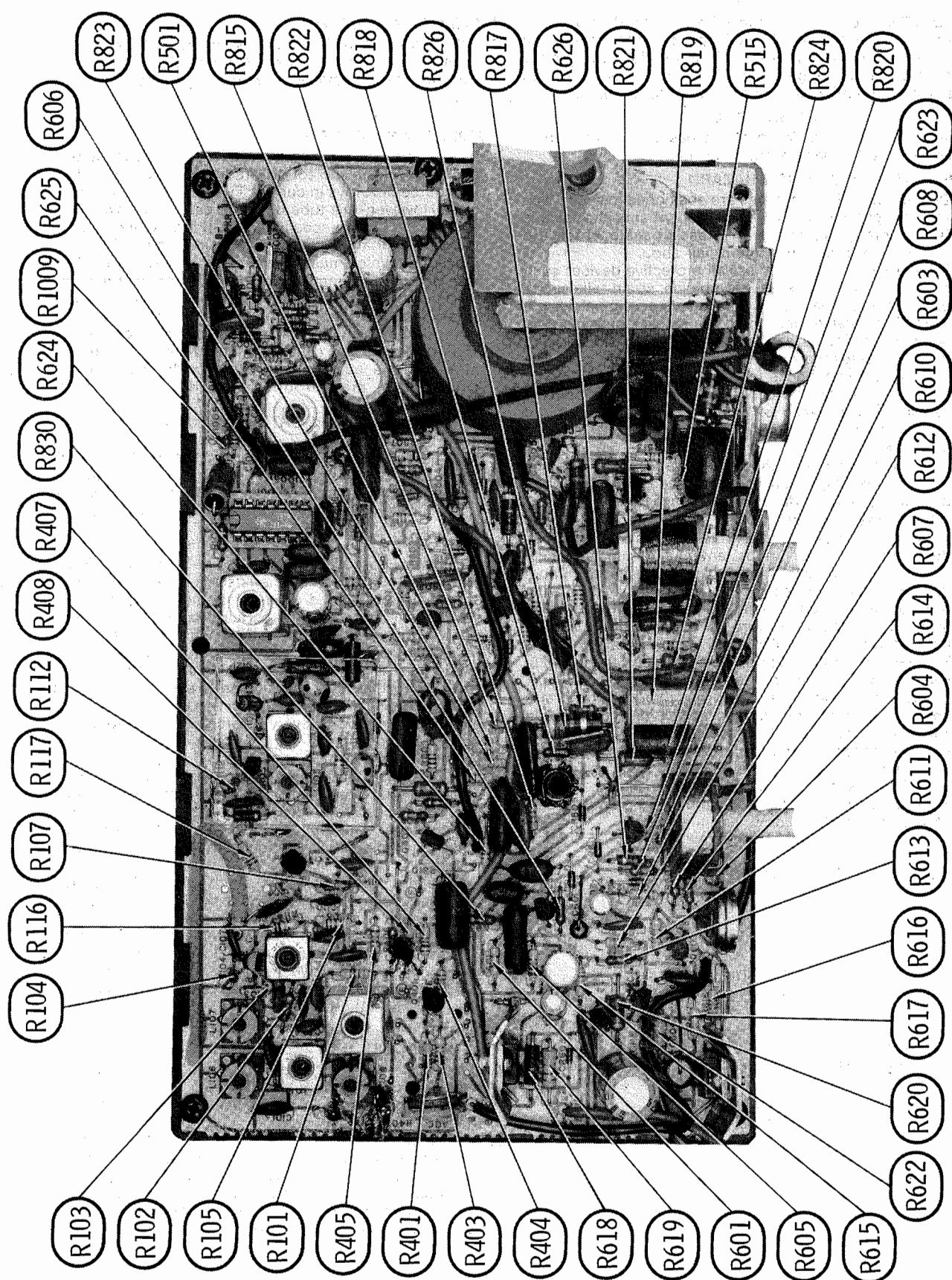
ZENITH
CHASSIS 12GB

FOLDER 2

MAIN BOARD



MAIN BOARD



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CHASSIS 12GB

FOLDER 2

SAFETY PRECAUTIONS

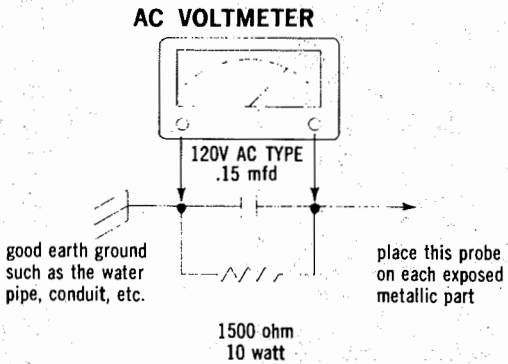
CAUTION: No modification of any circuit should be attempted. Service work should be performed only after you are thoroughly familiar with all of the following safety checks and servicing guidelines. To do otherwise increases the risk of potential hazards and injury to the user.

SAFETY CHECKS

After the original service problem has been corrected, a check should be made of the following:

SUBJECT: FIRE & SHOCK HAZARD

- 1. Be sure that all components are positioned in such a way to avoid possibility of adjacent components shorts. This is especially important on those chassis which are transported to and from the repair shop.
- 2. Never release a repair unless all protective devices such as insulators, barriers, covers, shields, strain reliefs, and other hardware have been reinstalled per original design.
- 3. Soldering must be inspected to uncover possible cold solder joints, frayed leads, damaged insulation (including AC cord), solder splashes or sharp solder points. Be certain to remove all loose foreign particles.
- 4. Check across-the-line capacitor and other components for physical evidence of damage or deterioration and replace if necessary. Follow original layout, lead length and dress.
- 5. No lead or component should touch a receiving tube or a resistor rated at 1 watt or more. Lead tension around protruding metal surfaces must be avoided.
- 6. After re-assembly of the set always perform an AC leakage test on all exposed metallic parts of the cabinet, the channel selector knobs, antenna terminals, handle and screws to be sure the set is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this test. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm 10 watt resistor (63-10401-76), paralleled by a .15 mfd, 150V AC type capacitor (22-4384) between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination 1500 ohm resistor and .15 mfd. capacitor. Reverse the AC plug and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed .75 volts RMS. This corresponds to 0.5 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



SUBJECT: IMPLOSION

- 1. All Zenith picture tubes are equipped with an integral implosion system, but care should be taken to avoid damage during installation. Avoid scratches.

SUBJECT: X-RADIATION

- 1. Be sure procedures and instructions to all service personnel cover the subject of X-radiation. The only potential source of X-rays in current TV receivers is the picture tube. However, this tube does not emit X-rays when the HV is at the factory-specified level. It is only when the HV is excessive that X-radiation can be generated. The basic precaution which must be exercised is to keep the HV at the factory-recommended level. Refer to the X-ray Precaution Label which is located inside each television receiver for the correct high voltage. The proper value is also given in the applicable service manual. Operation at higher voltages may cause a failure of the picture tube or high voltage supply and, also, under certain circumstances, may produce radiation in excess of desirable levels.
- 2. Only Zenith specified CRT anode connectors must be used.
- 3. It is essential that the serviceman has available at all times an accurate high voltage meter. The calibration of this meter should be checked periodically against a reference standard, such as the one available at your distributor.
- 4. When the high voltage circuitry is operating properly there is no possibility of an X-radiation problem. Every time a monochrome chassis is serviced, the brightness should be run up and down while monitoring the high voltage with a meter to be certain that the high voltage does not exceed the specified value and that it is regulating correctly. We suggest that you and your service organization review test procedures so that voltage regulation is always checked as a standard servicing procedure, and that the reason for this prudent routine be clearly understood by everyone. It is important to use an accurate and reliable high voltage reading on each customer's invoice.
- 5. When trouble shooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage compartment. Do not operate the chassis longer than is necessary to locate the cause of excessive voltage.
- 6. In all earlier model receivers which used a high voltage rectifier vacuum tube, that tube should be replaced only with a Zenith recommended replacement type or a Zenith recommended solid state rectifier replacement. The high voltage compartment and all metal shields, where used, must be kept in place whenever the chassis is operating. If a shield is missing, it should be replaced at once as a standard servicing procedure.

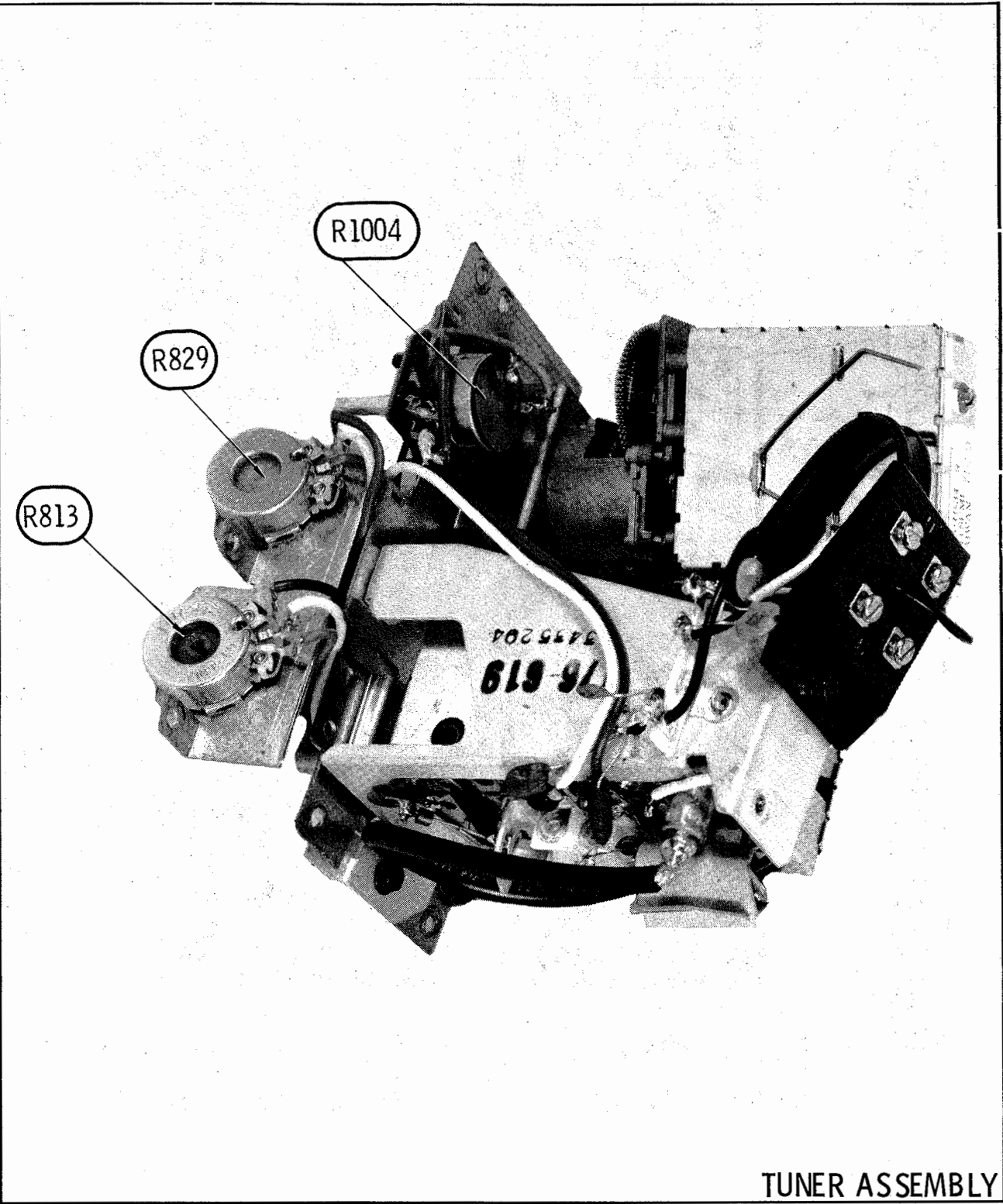
SUBJECT:

TIPS ON PROPER INSTALLATION

- 1. Never install any receiver in a closed-in recess, cubbyhole or closely fitting shelf space.
- 2. Never install receiver over, or close to a heat duct, or in the path of heated air flow.
- 3. Avoid conditions of high humidity such as: Outdoor patio installations where dew is a factor; near steam radiators where steam leakage is a factor.
- 4. Avoid placement where draperies may obstruct rear venting. Customer should also avoid use of decorative scarves or other coverings which might obstruct ventilation.

SAFETY PRECAUTIONS

- 5. Wall and shelf mounted installations must use the factory approved mounting kit and mounting instructions.
- 6. A receiver mounted to a shelf or platform must retain its original feet or the equivalent thickness in spacers for adequate air flow from the bottom. Bolts or screws used for fasteners must not touch any parts or wiring. Perform leakage tests on customized installations.
- 7. Caution customers against the use of receiver on a sloping shelf or in a tilted position, unless properly secured.
- 8. In using a roll-about cart receiver, it should be stable in its mounting to the cart. Caution customer on trying to roll a cart with small casters across thresholds or deep pile carpets.
- 9. Caution customers against the use of a cart or stand that has not been "listed" by Underwriters' Laboratories, Inc. for use with their specific model of television receiver.



Courtesy of the Manufacturer



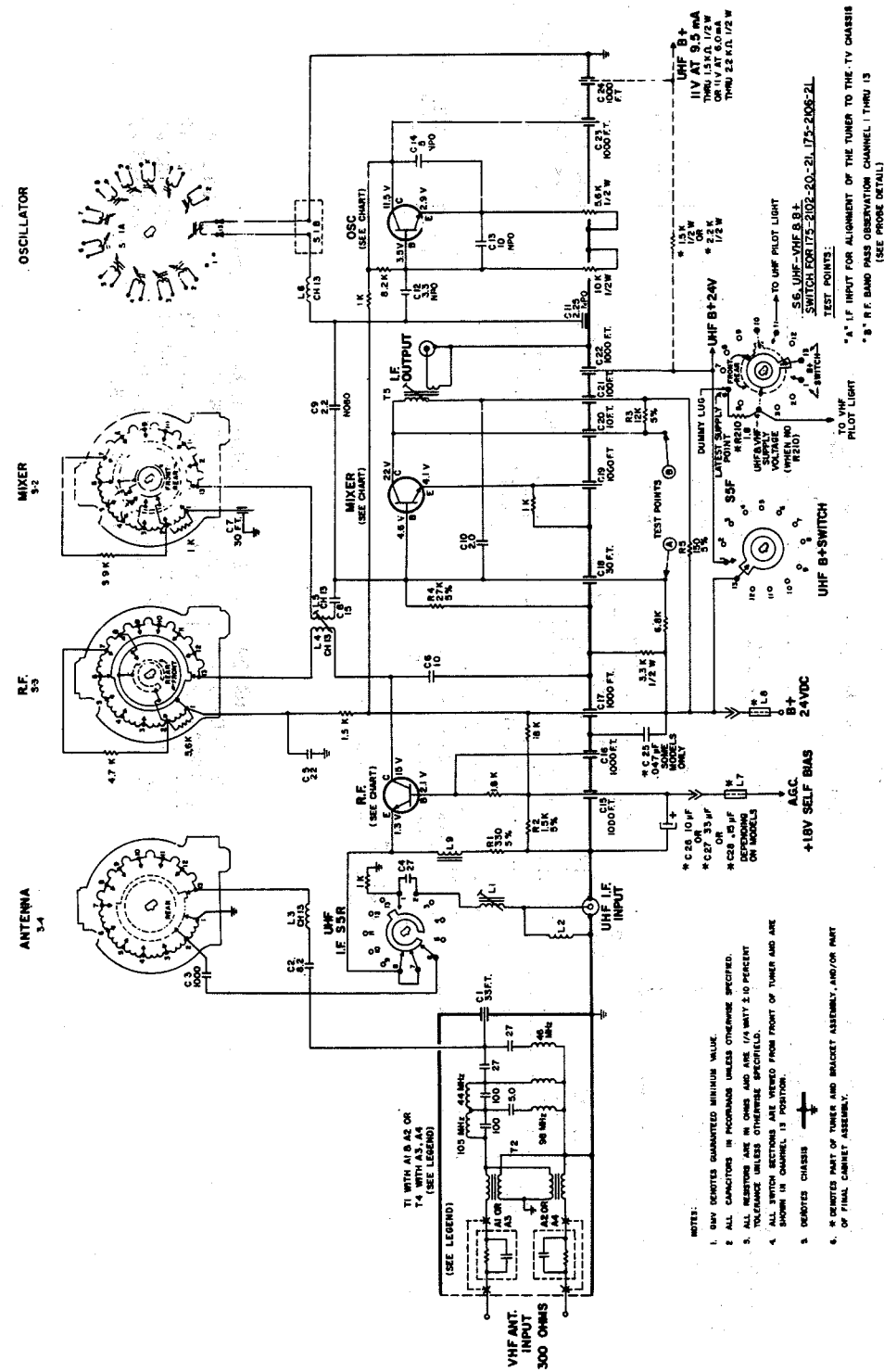


FIG. 28 — SCHEMATIC DIAGRAM VHF TUNERS

175-2100-20	175-2103-20	175-2101-21
175-2101-20	175-2104-20	175-2102-21
175-2102-20	175-2105-20	175-2104-21
		175-2106-21

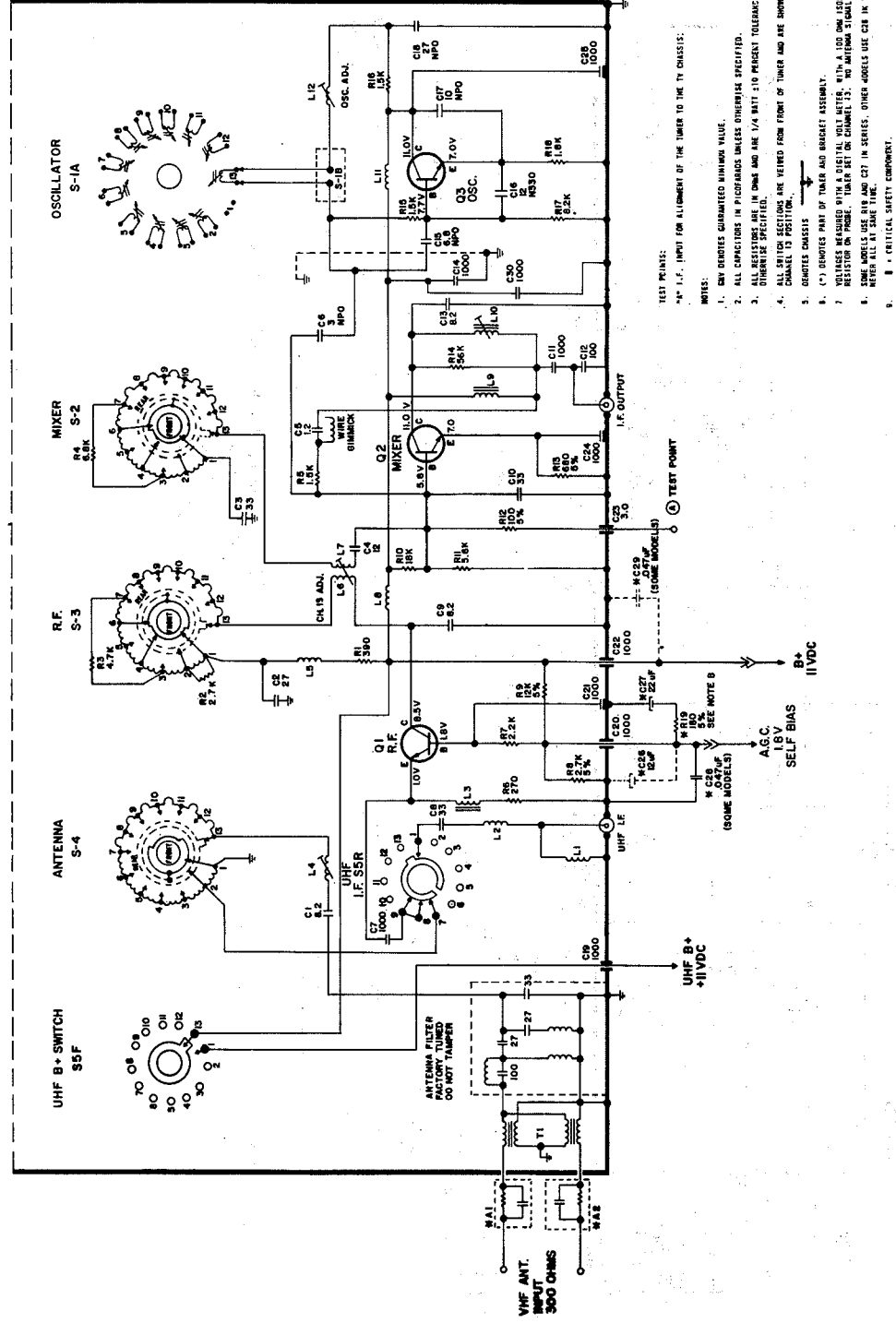
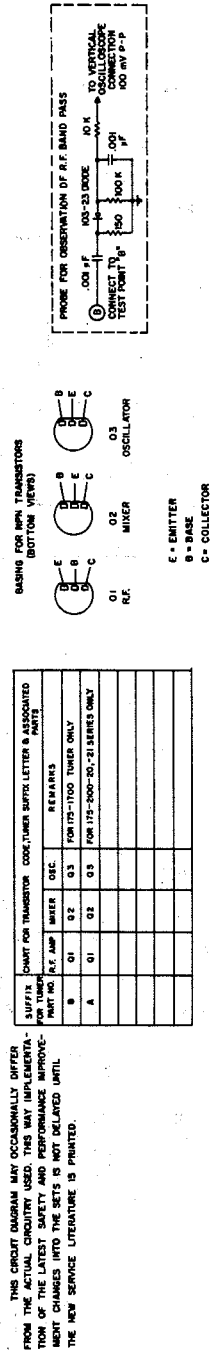


FIG. 37A SCHEMATIC DIAGRAM VHF TUNER 175-1725

TUNER PART NUMBER-SUFFIX LETTER	CHART FOR TRANSISTOR CODE, TUNER SUFFIX LETTER				
	RT AMP.	Q1	MIXER Q2	OSC. Q3	REMARKS
A					

THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUITRY USED. THIS MAY BE DUE TO THE LATEST SAFETY AND PERFORMANCE REQUIREMENTS. ANY CHANGES INTO THE SETS IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

Q1 Q2 & Q3

Q1

Q2 & Q3

**E-EMITTER
B-BASE
C-COLLECTOR**

The diagram shows two transistor packages. The left package, labeled 'Q1', has three pins at its base: pin 1 (left) is labeled 'E' (Emitter), pin 2 (middle) is labeled 'C' (Collector), and pin 3 (right) is labeled 'B' (Base). The right package, labeled 'Q2 & Q3', also has three pins at its base: pin 1 (left) is labeled 'E' (Emitter), pin 2 (middle) is labeled 'C' (Collector), and pin 3 (right) is labeled 'B' (Base).

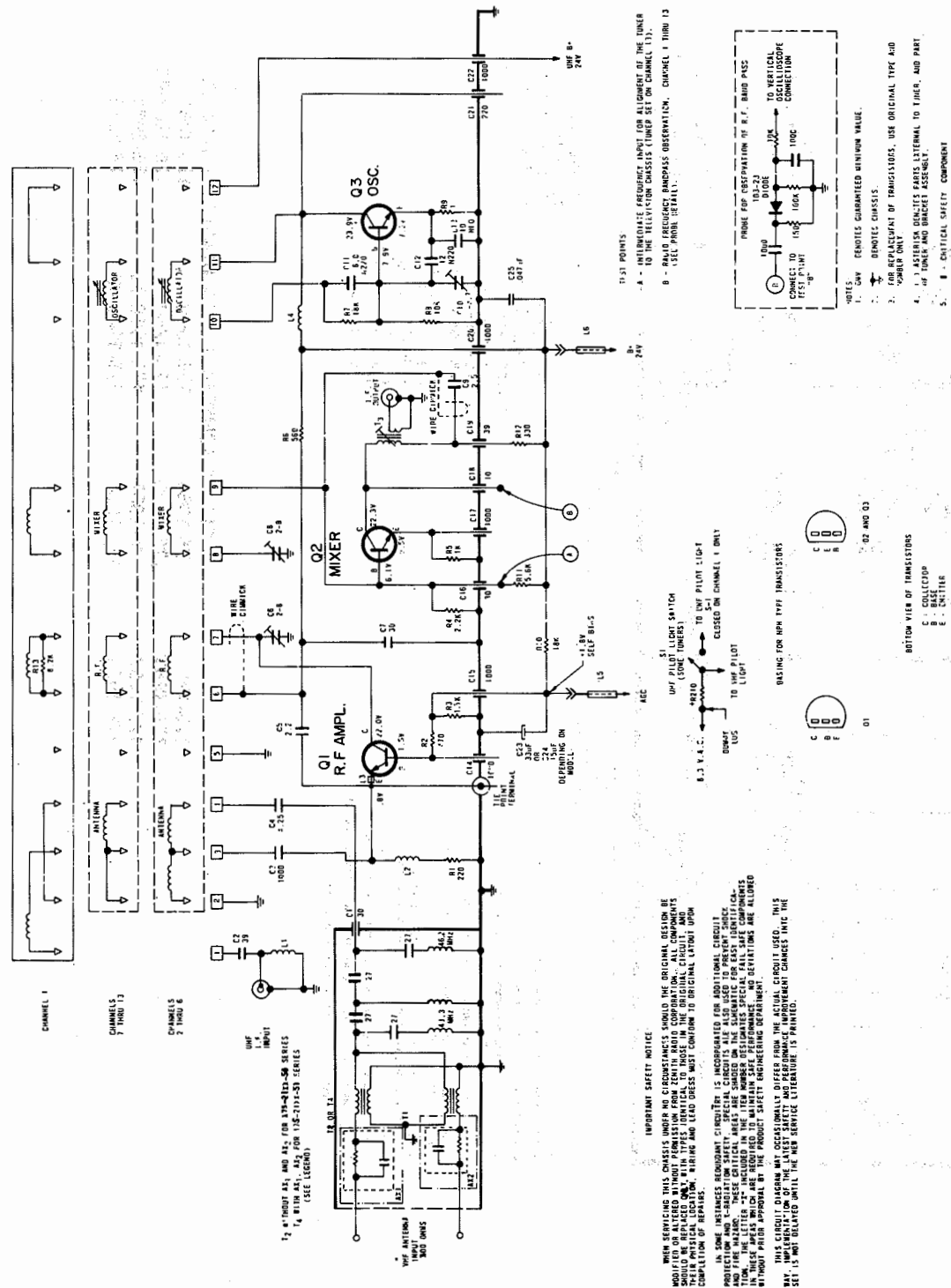


FIG. 30 - SCHEMATIC DIAGRAM VHF TUNERS
175-2101-50
175-2102-50
175-2104-50
175-2106-51

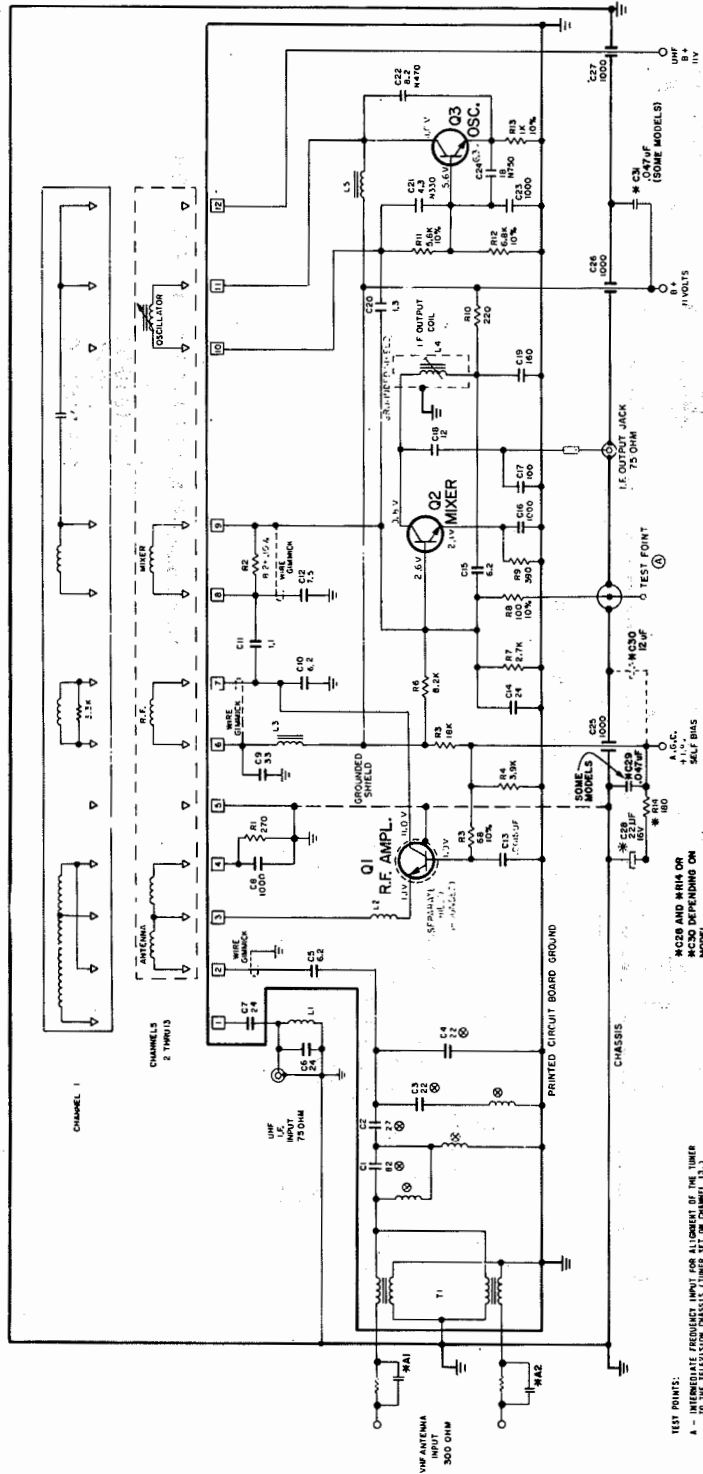
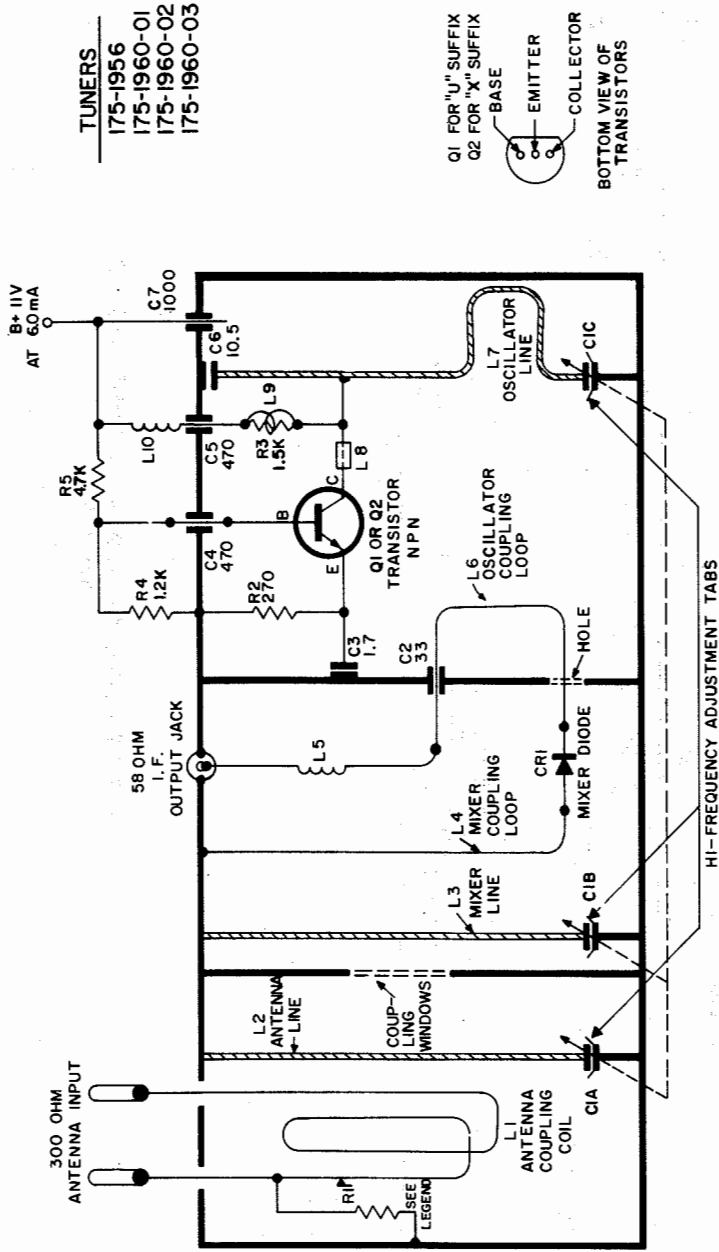


CHART FOR TRANSDUCER CODE, TUNER SUFFIX LETTER			
TUNER PART NUMBER	TRANSFORMER	OSCILLATOR	REMARKS
A	Q1	Q2	
B	Q1	Q2	
C	Q1	Q2	
D	Q1	Q2	
E	Q1	Q2	

FIG. 37 - SCHEMATIC DIAGRAM VHF TUNERS
175-1740

ZENITH
CHASSIS 12GB

Courtesy of the Manufacturer

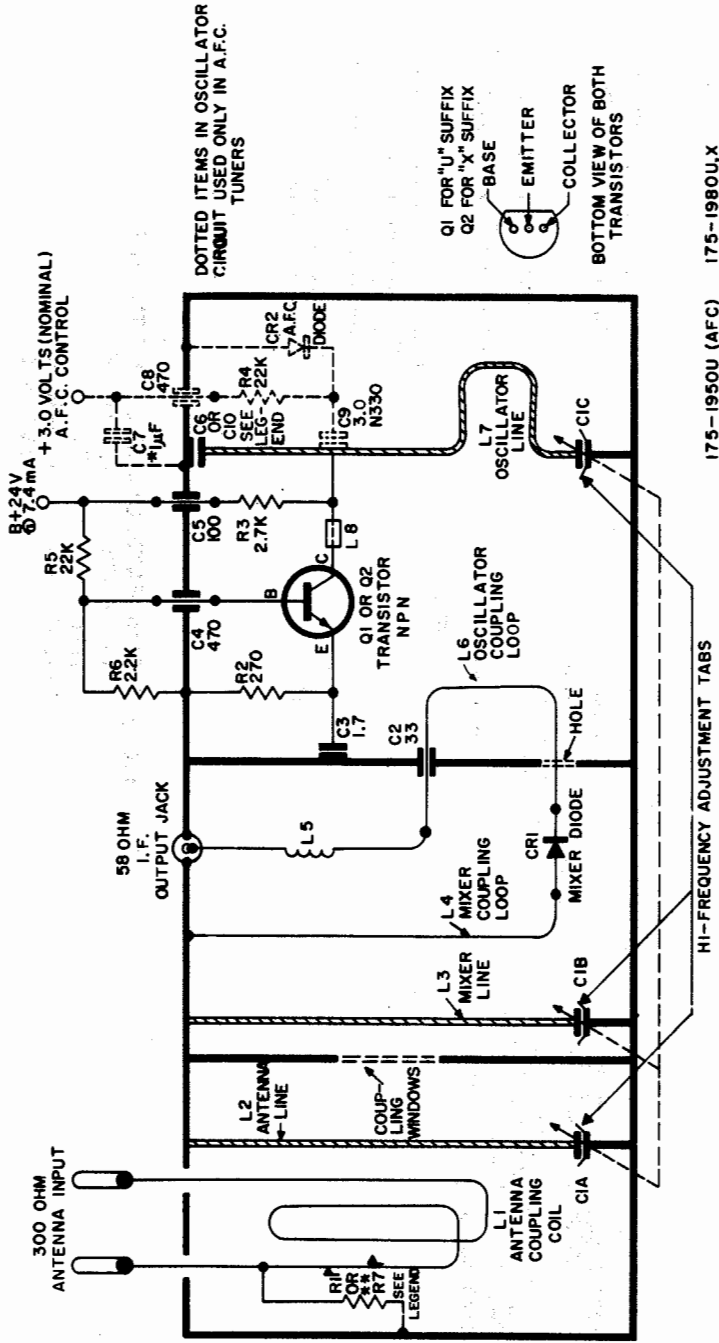


TUNERS
175-1956
175-1960-01
175-1960-02
175-1960-03

Q1 FOR "U" SUFFIX
Q2 FOR "X" SUFFIX
BASE
EMITTER
COLLECTOR
BOTTOM VIEW OF TRANSISTORS

- NOTES
1. G.M.V. DENOTES: GUARANTEED MINIMUM VALUE.
 2. DENOTES CHASSIS.
 3. FOR SERVICE TRANSISTOR REPLACEMENT, USE ONLY THE TYPE THAT WAS ORIGINALLY SUPPLIED IN TUNER.
 4. ALL CAPACITORS IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
 5. ALL RESISTORS ARE 1/4 WATT, PLUS OR MINUS 5 PERCENT TOLERANCE UNLESS OTHERWISE SPECIFIED.
 6. THE SPECIFIED UHF TUNER B PLUS INPUT MUST COINCIDE WITH THE B PLUS SUPPLY AVAILABLE FROM THE VHF TUNER AND TELEVISION CHASSIS.
 7. P INDICATES PLUS OR MINUS 20 PERCENT TOLERANCE PERMISSIBLE.

FIG. 60 SCHEMATIC DIAGRAM UHF TUNERS
175-1956
175-1960-01
175-1960-02
175-1960-03



DOTTED ITEMS IN OSCILLATOR CIRCUIT USED ONLY IN A.F.C. TUNERS

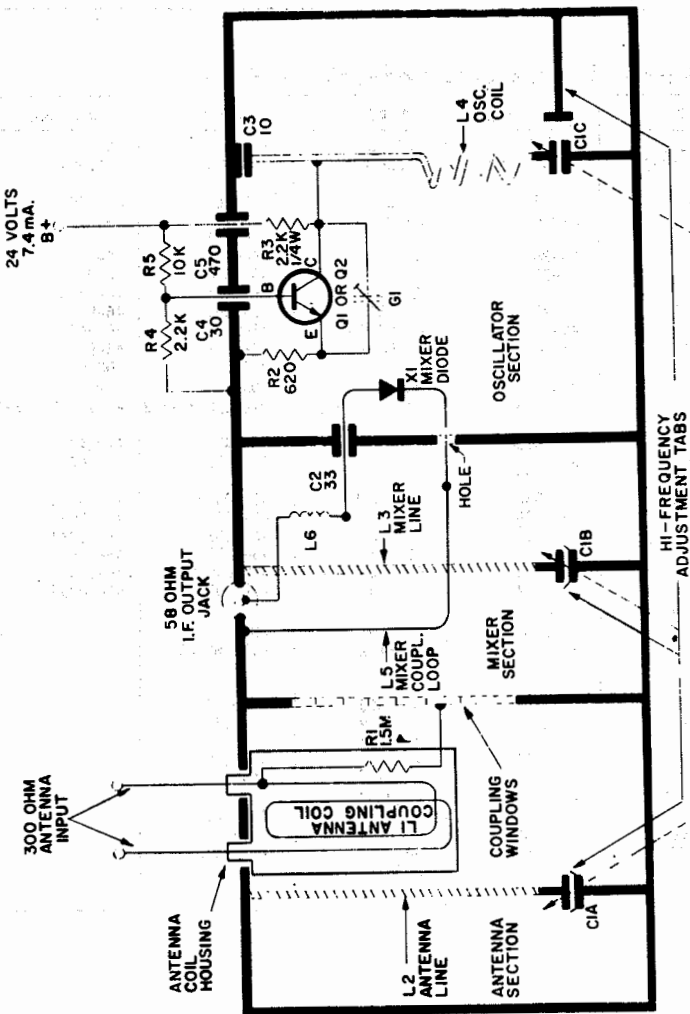
Q1 FOR "U" SUFFIX
Q2 FOR "X" SUFFIX
BASE
EMITTER
COLLECTOR
BOTTOM VIEW OF BOTH TRANSISTORS

- NOTES
1. G.M.V. DENOTES: GUARANTEED MINIMUM VALUE.
 2. DENOTES CHASSIS.
 3. FOR SERVICE TRANSISTOR REPLACEMENT, USE ONLY THE TYPE THAT WAS ORIGINALLY SUPPLIED IN TUNER.
 4. ALL CAPACITORS IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
 5. ALL RESISTORS ARE 1/4 WATT, PLUS OR MINUS 5 PERCENT TOLERANCE UNLESS OTHERWISE SPECIFIED.
 6. THE SPECIFIED UHF TUNER B PLUS INPUT MUST COINCIDE WITH THE B PLUS SUPPLY AVAILABLE FROM THE VHF TUNER AND TELEVISION CHASSIS.
 7. P INDICATES PLUS OR MINUS 20 PERCENT TOLERANCE PERMISSIBLE.
 8. DOTTED ITEMS IN OSCILLATOR CIRCUIT USED ONLY IN A.F.C. TUNERS.
 9. DENOTES LINE CONNECTED APPLICATION, NOT CHASSIS.

175-1950U (AFC)
175-1951U
175-1952U
175-1953U
175-1954U
175-1955U
175-1957U
175-1958U (AFC)
175-1959U (AFC)
175-1960U
175-1961U
175-1962U
175-1963U (AFC)

FIG. 63 SCHEMATIC DIAGRAM UHF TUNERS
175-1950
175-1951
175-1952
175-1953
175-1954
175-1955
175-1956
175-1957
175-1958
175-1959
175-1960
175-1961-02
175-1960-03
175-1981
175-2225-01
175-2225-01 (AFC)

TUNERS
175-2227
175-2227-01
175-2227-02



- NOTES:
1. C.DENOTES CHASSIS.
 2. FOR SERVICE TRANSISTOR REPLACEMENT, USE ONLY THE TYPE AND NUMBER THAT WAS ORIGINALLY SUPPLIED IN TUNER.
 3. ALL CAPACITORS IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
 4. ALL RESISTORS ARE IN OHMS AND ARE 0.5 WATT, PLUS OR MINUS 10 PERCENT TOLERANCE UNLESS OTHERWISE SPECIFIED.
 5. P INDICATES PLUS OR MINUS 20 PERCENT TOLERANCE PERMISSIBLE.
 6. G.V.V. DENOTES GUARANTEED MINIMUM VALUE.
 7. F.T. DENOTES FEED THROUGH CAPACITOR.
 8. + DENOTES EXTERNAL TO TUNER AND PART OF TUNER AND BRACKET ASSEMBLY.

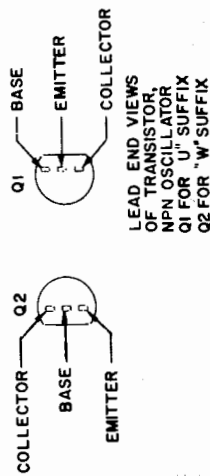
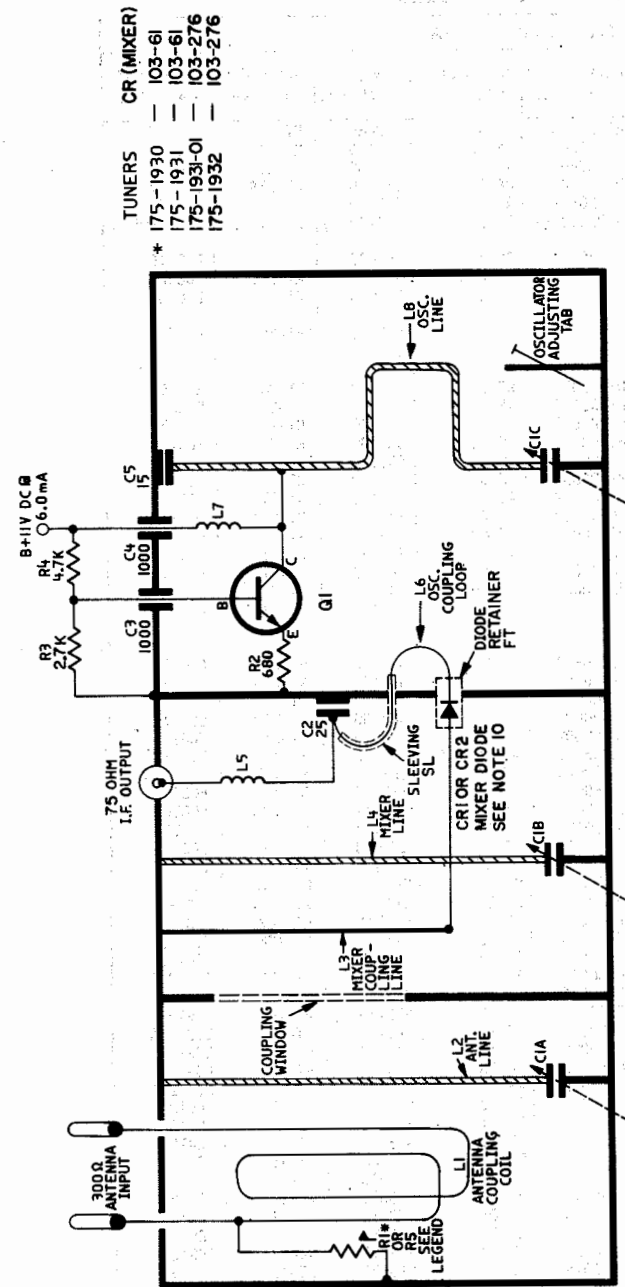


FIG. 64 SCHEMATIC DIAGRAM UHF TUNERS
175-2227
175-2227-01
175-2227-02

*THIS CIRCUIT DIAGRAM MAY OCCASIONALLY DIFFER FROM THE ACTUAL CIRCUIT USED. THIS WAY IMPLEMENTATION OF THE LATEST SAFETY AND PERFORMANCE IMPROVEMENT CHANGES INTO THE SETS IS NOT DELAYED UNTIL THE NEW SERVICE LITERATURE IS PRINTED.

ITEM NUMBER	PART NUMBER	DESCRIPTION	RATING
C1A	POT OF ROTOR ASSEMBLY	ANTENNA TUNING OSCILLATOR TUNING	PART OF ROTOR ASSEMBLY
C2	22-3001	20 PF FEED THRU CAPACITOR ±5%	500 V
C3	22-3001	100 PF FEED THRU CAPACITOR 6 M V	500 V
C4	22-3002	1000 PF FEED THRU CAPACITOR 6 M V	500 V
C5	22-3002	15 PF LEADLESS OSC CAPACITOR ±5%	50 V
R1*	83-10526-02	3.3 MEDIUM RESISTOR ±20% (HOT CHASSIS ONLY)	1/2 W
R2	83-4804	680 OHM RESISTOR ±5% FILM TYPE	1/4 W
R3	83-4798	2.7K OHM RESISTOR ±5% FILM TYPE	1/4 W
R4	83-4804	2.7K OHM RESISTOR ±5% FILM TYPE	1/4 W
R5	83-10526	1.5 MEDIUM RESISTOR ±20% (COLD CHASSIS ONLY)	1/2 W
L1	20-3021	ANTENNA COUPLING COIL	
L2	20-3046	ANTENNA COUPLING LINE	
L3	20-3046	MIXER LINE	
L4	20-3046	MIXER LINE	
L5	20-3046	I.F. COUPLING COIL	
L6	20-3046	OSC. COUPLING LOOP (PART OF CR1 0100E)	
L7	20-3050	R.F. CHOKER COIL	
L8		OSC. LINE	
CR1	103-81	MIXER DIODE (5082A)	
CR2	103-276	MIXER DIODE (1551B) HOT CARRIER	
Q1	121-991	TRANSISTOR NPN, PLASTIC (25C288A)	
FT	104-164	INSULATOR, DIODE RETAINER	
SL	79-203	TEFLON SLEEVING .37 INCH LONG	



- NOTES:
1. G.V.V. DENOTES GUARANTEED MINIMUM VALUE.
 2. C.DENOTES CHASSIS.
 3. FOR SERVICE TRANSISTOR REPLACEMENT, USE ONLY THE TYPE THAT WAS ORIGINALLY SUPPLIED IN TUNER.
 4. ALL CAPACITORS IN PICOFARADS UNLESS OTHERWISE SPECIFIED.
 5. ALL RESISTORS ARE .25 WATT, PLUS OR MINUS 5 PERCENT TOLERANCE UNLESS OTHERWISE SPECIFIED.
 6. THE SPECIFIED UHF TUNER B PLUS INPUT MUST COINCIDE WITH THE B PLUS SUPPLY AVAILABLE FROM THE VHF TUNER AND TV CHASSIS.
 7. P INDICATES PLUS OR MINUS 20 PERCENT TOLERANCE PERMISSIBLE.
 8. TUNERS USING Q1 TRANSISTOR HAVE SUFFIX LETTER "W".
 9. (4S) TUNERS WITH ASTERISK ARE FOR LINE CONNECTED OPERATION (HOT CHASSIS), OTHERS FOR TRANSFORMER ISOLATED OPERATION (COLD CHASSIS).
 10. CR1 AND CR2 ARE NOT INTERCHANGEABLE.

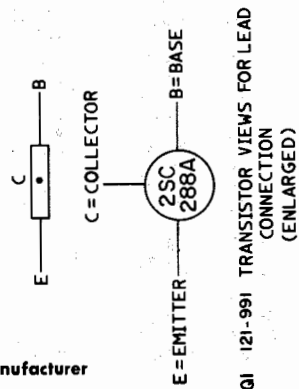


FIG. 59 SCHEMATIC DIAGRAM UHF TUNERS
175-1930
175-1931
175-1931-01
175-1932
175-1934

ZENITH
CHASSIS 12GB

FOLDER 2

Courtesy of the Manufacturer

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.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V201	12VBQP4 (1) # 12VBHP4 (2) # 12VBFP4 (3) #			12VBHP4	(1) All Models (2) All models (3) G1350F4/L4/Y4, G1350F8/L8/Y8, G1360W4, G1363B4, G1363B8, G1365Y4, G1370X4, G1370X8

For SAFETY use only equivalent replacement part.

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
CR101		103-23	1N60	1N60	PTC206	HEPR9135	RE 47	SK3088	RT-263	ECG109
CR401		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR402		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR403		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR404		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR501		103-142	GE-300(7)	D200MP (6)	PTC214M (6)	HEPR0602 (7)	RE 52 (7)	SK3100 (7)	RT-218 (7)	ECG178MP (6)
CR502		103-142								
CR503		103-261-01	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR504		103-239#	GE-504A	JJ1300	PTC211		RE 200	SK3068	RT-229	ECG503
		103-239-01#	GE-504A	JJ1300	PTC211		RE 200	SK3068	RT-229	ECG503
		(1)								
		103-239-02#	GE-504A		PTC213			SK3108	RT-204	ECG505
		(1)								
		103-275# (1)								
CR506		103-263#	GE-511	D172	PTC216	HEPR3012	RE 55	SK3130	RT-203	ECG506
CR508		103-263#	GE-511	D172	PTC216	HEPR3012	RE 55	SK3130	RT-203	ECG506
CR509		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR601		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR602		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR603		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR604		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR605		103-261-01	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR701		103-261-01#	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR702		103-261-01#	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR703		103-261-01#	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR704		103-261-01#	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR706		103-279-20	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
CR707		103-280-02	GE-504A	5A4D	PTC201	HEPR0052	RE 49	SK3030	RT-213	ECG116
		(10)			ZB11B			SK3139	RT-242	ECG5074
CR803		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR804		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR805		103-261-02	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR1001		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
CR1002		103-142	GE-300	D200	PTC214	HEPR0602	RE 52	SK3100	RT-218	ECG177
IC1001		221-48	IC-507		PTC726	HEPC6063P	RE 305-IC	SK3072	TVM-11	ECG712
Q101		121-503	GE-60	TR-24	PTC132	HEPS0020	RE 28	SK3117	RT-187	ECG161
		121-505(1)	GE-60	TR-24	PTC132	HEPS0020	RE 28	SK3117	RT-113	ECG161
Q102		121-506(1)	GE-60	TR-24	PTC132	HEPS0020	RE 28	SK3117	RT-187	ECG161
		121-504	GE-60	TR-24	PTC132	HEPS0020	RE 28	SK3117	RT-187	ECG161
Q103		121-522	GE-61	TR-21	PTC132	HEPS0015	RE 28	SK3018	RT-187	ECG233
		121-524(1)	GE-60	TR-70	PTC132	HEPS0020	RE 192	SK3117	RT-187	ECG233
		121-951(1)	GE-20	TR-21	PTC132	HEPS0015	RE 28	SK3018	RT-108A	ECG233
Q401		121-699	GE-21	TR-30	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q402		121-499	GE-20	TR-24	PTC136	HEPS0024	RE 13	SK3124	RT-102	ECG123A
Q403		121-699	GE-21	TR-30	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q501		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q502		121-972	GE-20	TR-24	PTC136	HEPS0015	RE 13	SK3122	RT-172	ECG123A
Q503		121-446	GE-22	TR-20	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q504		121-996#	GE-38	TR-61	PTC129A	HEPS0021	RE 30	SK3115	RT-148	ECG163
Q601		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q602		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q603		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q604		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q605		121-975	GE-20	TR-24	PTC136	HEPS0025	RE 13	SK3122	RT-172	ECG123A
Q606		121-992(5)	GE-66	TR-76	PTC167		RE 21	SK3054	RT-154	ECG152
		121-808(1)(5)	GE-66	TR-76	PTC167		RE 21	SK3054	RT-154	ECG152
Q607		121-994(5)	GE-69	TR-77	PTC166		RE 22	SK3083	RT-155	ECG153
		121-977(1)(5)	GE-69	TR-77	PTC166		RE 22	SK3083	RT-155	ECG153
Q701		121-765#	GE-21	TR-88	PTC141	HEPS0019	RE 18	SK3025	RT-115	ECG129
		121-446(1)	GE-22	TR-20	PTC103	HEPS0019	RE 26	SK3114	RT-126A	ECG159
Q702		121-992#	GE-66	TR-76	PTC167		RE 21	SK3054	RT-154	ECG152
Q801		121-895	GE-60	TR-51	PTC132	HEPS0020	RE 28	SK3117	RT-187	ECG161
Q802		121-434	GE-10	TR-21	PTC121	HEPS0015	RE 13	SK3124	RT-172	ECG123A
Q803		121-868	GE-27	TR-60	PTC117	HEPS3021	RE 23	SK3104	RT-159A	ECG171
		121-990(1)	GE-27	TR-60	PTC117	HEPS3021	RE 23	SK3104	RT-159A	ECG171

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.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
	AC Power Cord	11-220 #	Models: G1350Y4/Y8, G1363B4/B8
	AC Power Cord	11-230 #	Models: G1350F4/F8/L4/L8, G1370X4/X8, H121L/L1/L2/L3
	AC Power Cord	11-306 #	Models: G1360W4, G1365Y4
	AC Power Cord	11-233 #	Models: H121F/F1/F2/F3/Y/Y1/Y2/Y3
	AC Power Cord	11-323 #	Models: H122J/J1, H123W/W1
	Antenna, UHF	S-59774	
	Antenna, VHF	1-134	
	OC Power Cord	11-307	Models: G1360W4, G1365Y4, H122J/J1, H123W/W1
	Tuner, UHF	175-1934	
	Tuner, UHF	175-1960-01	
	Tuner, VHF	175-1730	
	Tuner, VHF	175-1730-03	
	Tuner, VHF	175-1740	
	Tuner, VHF	175-1725	
	Width Sleeve	199-491	Model: H123W
	Width Sleeve	199-491-01	Models: H121F/F2, H121L/L2, H121Y/Y2, H122J, H126X/X2, HT128W/W2
SP6802	Spark Gap	52-958-02	
SP6803	Spark Gap	52-958-02	
	Earphone	39-56-01	Used in Models: G1360W4, G1363B4/B8, G1365Y4, G1370X4/X8, H123W/W1, H126X/X1/X2/X3, HT128W/W1/W2/W3

For SAFETY use only equivalent replacement part.

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

ITEM	PART No.	PART No.	PART No.	PART No.	PART No.
	MODELS G1350F4/F8	MODELS G1350L4/L8	MODELS G1350Y4/Y8	MODEL G1360W4	MODELS G1363B4/B8
Cabinet Front Assembly	A-02470	A-02472	A-02474	A-00567	A-00569
Cabinet Rear Assembly	A-00433	A-00434	A-00436	A-00437	A-00438
Sun Screen				A-01277	
Knob, UHF Selector	46-9852	46-9872	46-9852	46-9852	46-9897
Knob, UHF Fine Tuning	46-9846	46-9868	46-9846	46-9846	46-9846
Knob, VHF Channel Selector	46-9864	46-9873	46-9862	46-9861	46-9898
Knob, VHF Fine Tuning	46-9851	46-9871	46-9851	46-9851	46-9851
Knob, Brightness/Contrast	46-9860-04	46-9860-02	46-9860-01	46-9860	46-9860-01
Knob, Volume	46-9869	46-9870	46-9869	46-9957	46-9957
Knob, On-Off				800-845	800-844
	MODEL G1365Y4	MODELS G1370X4/X8	MODELS H121F/F1/F2/F3	MODELS H121L/L1/L2/L3	MODELS H121Y/Y1/Y2/Y3
Cabinet Front Assembly	A-00568	A-00566	A-02470	A-02472	A-02474
Cabinet Rear Assembly	A-00439	A-00440	A-03676	A-03677	A-03678
Sun Screen	A-01276	A-01276			
Knob, UHF Selector	46-9852	46-9852	46-10068	46-10069	46-10070
Knob, UHF Fine Tuning	46-9846	46-9846	46-9846	46-9868	46-9846
Knob, VHF Selector	46-9862	46-9862	46-10071	46-10072	46-10073
Knob, VHF Fine Tuning	46-9851	46-9851	46-9851	46-9871	46-9851
Knob, Brightness/Contrast	46-9860-01	46-9860-02	46-9860-04	46-9860-02	46-9860
Knob, Volume	46-9957	46-9957	46-10063	46-10064	46-10065
Knob, On-Off	800-845	800-845			
	MODELS H122J/J1	MODELS H123W/W1	MODELS H126X/X1/X2/X3	MODELS HT128W2/W3	
Cabinet Front Assembly	A-03675	A-00567	A-00566	A-00565	
Cabinet Rear Assembly	A-3680	A-00437	A-03679	A-03679	
Sun Screen		A-01277	A-01277	A-01277	
Knob, UHF Selector	46-10133	46-9852	46-9852	46-10069	
Knob, UHF Fine Tuning	46-9868	46-9846	46-9846	46-9868	
Knob, VHF Selector	46-10109	46-9861	46-9862	46-10074	
Knob, VHF Fine Tuning	46-9871	46-9851	46-9851	46-9871	
Knob, Brightness/Contrast	46-9860-02	46-9860	46-9860-02	46-9860-02	
Knob, Volume	46-9870	46-9957	46-9957	46-10066	
Knob, On-Off		800-845	800-845		

WIRING DATA

High Voltage Lead	Use BELDEN No. 8869 (17 KV)
Shielded Hook-up Wire	Use BELDEN No. 8401 or 8421 (Single-Conductor) 8208 (Two-Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8528 (Solid) Available in 12 Colors 8522 (Stranded) Available in 12 Colors
300-Ohm Tuner Input Lead	Use BELDEN No. 8225
300-Ohm Antenna Lead-in	Use BELDEN No. 8230 or 8275
Antenna Rotor Cable	Use BELDEN No. 8464 (Flat) or 8484 (Round) 4-Conductor 8485 (Round) 5-Conductor 8488 (Round) 8-Conductor

ZENITH
CHASSIS 12GB

FOLDER 2

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.

COILS & TRANSFORMERS (Sweep Circuits)

ITEM No.	FUNCTION	REPLACEMENT DATA				
		MFG. PART No.	OTHER IDENTIFICATION	MILLER PART No.	THORDARSON PART No.	TRIAD PART No.
T501	Horiz Osc (Hold)	95-3137-01				
T502	Horiz Driver	95-3136-02 (3)				
		95-3136-01 (2)				
T201	Yoke Horiz = 24mH	95-3207 #				
	110° Vert .2mH					
T503	Horiz Output	95-3208 #				
		95-3208-01 (1)				
		95-3229 (2)				

For SAFETY use only equivalent replacement part.
(1) Used in Chassis 12GB3X.
(2) Used in Chassis 12GB2X.
(3) Used in Chassis 12GB1X, 12GB3X.

TRANSFORMER (Power)

ITEM No.	RATING		REPLACEMENT DATA			NOTES
	PRI.	SEC. 1	MFG. PART No.	THORDARSON PART No.	TRIAD PART No.	
T701	120V AC @ .35A AC	25V AC @ .8A AC	95-3205 #			# For SAFETY use only equivalent replacement part.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFG. PART No.	QUAM PART No.	
SP201	3" PM 24 Ohms	49-1260-01	30A05Z26R	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA						
		PART No.		BUSS PART No.		LITTELFUSE PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
F701	1A @ 250V Quickacting Pigtail	136-114-15 #		GJV 1		318001		

For SAFETY use only equivalent replacement part.

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.

SEMICONDUCTORS (Select replacement transistor for best results) (Cont)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA							
			GENERAL ELECTRIC PART No.	IR WORKMAN PART No.	MALLORY PART No.	MOTOROLA PART No.	RAYTHEON PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q1001		121-671	GE-20	TR-51	PTC123	HEPS0015	RE 13	SK3124	RT-172	ECG123A
Q1002		121-992(5)	GE-66	TR-76	PTC167		RE 21	SK3054	RT-154	ECG152
Q1003		121-994(5)	GE-69	TR-77	PTC166		RE 21	SK3083	RT-155	ECG153

For Safety use only equivalent replacement part.
(1) Used in some versions.
(5) Half of complementary pair.
(6) Matched pair.
(7) Two required - select matched pair.
(10) Model 12GB2X only.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA			
			CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C403	2.2 50V	22-7292		TOC225M050FL	S050-2R29	
C505	3.3 25V	22-7293		VTT3R3A50	EV-1318	
C510	22 25V	22-7142-05	PC5-50	TC26C	EV-1324	
C513	3 50V NP	22-7369 #	PC25-25	TCN503A	TVAN-1302.1	
C514	100 35V	22-7154-08 #	WBR100-35	MTA100F35		
C519	4.7 250V	22-7379 #				
C603	1 50V	22-7153		VTT1B63	EV-1615	
C609	47 16V	22-7151-07	PC1-50	VTT147D16	EV-1226	
C610	470 16V	22-7151-11	PC50-16	VTT470J16	EV-1250	
C706	2200 35V	22-7489 #				
C707	47 25V	22-7152-07 #	PC50-25	VTT47E25	EV-1326	
C708	220	(1) #				
C709	220 25V	22-7142-09 #	PC250-25	VTT220H25	EV-1340	
C710	220 16V	22-7151-09 #	PC250-25	VTT220G16	EV-1240	
C806	47 16V	22-7151-07	PC50-16	VTT47016	EV-1226	
C813	4.7 250V	22-7379		VTT47D16	EV-1226	
C1008	47 16V	22-7151-07	PC50-16	TT10X25	TVA-1129.91	
C1012	22 10V	22-7150-05	PC25-25	VTT47D16	EV-1226	
C1013	47 16V	22-7151-07	PC50-16	TT15X1	TVA-1140	
C1014	1 15V	22-6358	WBR1-50		EV-1340	
C1017	220 25V	22-7152-09	PC250-25	VTT220H25		

For SAFETY use only equivalent replacement part.
(1) Used in some versions.

CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C101	100 N1500 10%		OTX-101		CN15-310	10TCW-T10
C102	27 NPO 5%				CN0427	10TCC-Q27
C103	.0015		DD-152		GP215	10TS-D15
C104	6pF N150 +.25	22-6158			*	
C105	6pF N150 +.25	22-6158			*	
C106	56 10%				CN0456	10TCC-Q56
C107	.0015		DD-152		GP215	10TS-D15
C108	18 NPO 5%				CN0418	10TCC-Q18
C109	270 10%		DD-271	GP270	GP327	10TS-T27
C110	12 N330 5%	22-6159			*	10TCS-Q12
C111	.0015		DD-152		GP215	10TS-D15
C113	100 N1500 10%		DTX-101		CN15-310	10TCW-T10
C114	.0015		DD-152		GP215	10TS-D15
C116	.0015		DD-152		GP215	10TS-D15
C117	.0015		DD-152		GP215	10TS-D15
C118	270 10%		DD-271	GP270	GP327	10TS-T27
C119	6pF N150 +.25	22-6158			*	
C120	.0015		DD-152		GP215	10TS-D15
C121	4pF N470 +.5	22-6154			*	10TCT-V39
C122	6pF	(1)				
C123	62	(2)				
C124	10	(3)				
C125	12	(4)				
C127	27	(5)				
C128	15	(6)				
C129	7pF	(7)				
C130	100 100V 5%			CD10FD101J03	SX310	424MC1000J501
C131	4.25pF N075 +.25	22-6184			*	
C401	.15 100V 10%			DPMS2P15	EWFA1A015	1PB-P15
C402	.047 100V			DPMS2S47	EWFA1A7	1PB-S47
C501	.001 10%		DD-102		GP210	10TS-D10
C502	.001 10%		DD-102		GP210	10TS-D10
C503	.015 10%			DPMS6S15	EWFA6115	6PS-S15

ZENITH
CHASSIS 12GB

FOLDER 2

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 (cont)

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA			
			CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C504	.0047 10%		DD-102	DPMS2S22	EWFA1A22	10TS-D47
C506	.022 50V 10%				GP210	1PB-S22
C507	.001 10%				EWFA1A233	10TS-D10
C508	.0033 100V 10%			DPMS6D33	EWFA1A233	1PB-D33
C509	.0033 10%			DPMS6D33	EWFA1A110	1PB-D33
C511	.01 50V			DPMS4S1	EWFA1A110	1PB-S10
C512	.033 600V 10%	22-7530 #		DPMS6S33	EWFA1A110	6PS-S33
C518	.001 10%	22-7241 #			GP210	10TS-D10
C520	56 10%				GP456	10TS-Q56
C523	220 10%				GP322	10TS-T22
C526	27 NPO 5%		DD-102		CN0427	10TCC-Q27
C527	.0015	22-5828-02 #	DD-560		GP215	10TS-D15
C528	.0015	22-5828-02 #	DD-221		GP215	10TS-D15
C601	.0056 50V 10%			DPMS6D56	EWFA1A256	1PB-D56
C602	.056 50V 10%			DPMS6S56	EWFA1A156	1PB-S56
C604	.1 50V 10%			DPMS2P1	EWFA1A010	1PB-P10
C605	.001 10%		DD-102		GP210	10TS-D10
C606	.047 100V			DPMS2S47	EWFA1A147	1PB-S47
C607	.047 10V			DPMS2S47	EWFA1A147	1PB-S47
C608	.022 50V 10%			DPMS2S22	EWFA1A122	1PB-S22
C611	470		DD-471	GP470	GP347	10TS-T47
C612	.15			DPMS4P15	EWFA015	4PB-P15
C702	.01		DD-1032	GP10000	GP110	10TS-S10
C703	.01	22-5828-02 #	DD-1032	GP10000	GP110	10TS-S10
C704	.01	22-5828-02 #	DD-1032	GP10000	GP110	10TS-S10
C705	.01	22-5828-02 #	DD-1032	GP10000	GP110	10TS-S10
C712	.05	22-7217 #	DC-503	MGPO5	MAG5015	TGL-S50
C801	.560 N2200 10%	22-6225-06			*	10TCY-T56
C803	.0047 50V 10%			DPMS6D47	EWFA1A247	1PB-D47
C804	220 10%		DD-221		GP322	10TS-T22
C807	.1 200V			DPMS2P1	EWFA2010	2PB-P10
C808	.0027 10%			DPMS6D27	PVC6227	6PS-D27
C809	.0012 1KV 10%		DD-122		GP212	10TS-D12
C810	.01		DD-1032	GP10000	GP110	10TS-S10
C811	.068 50V 10%			DPMS4S68	EWFA1A168	1PB-S68
C814	.047 200V 10%			DPMS4S47	EWFA1A147	4PB-S47
C815	820 1KV 10%		DD-821	GP820	GP382	10TS-T82
C1001	9pF N150 5%	22-6168		HP015	CN0415	10TCC-Q15
C1002	15 NPO 10%		DTZ-15	DPMS6P15	EWFA015	6PS-P15
C1003	.15				*	10TCC-Q12
C1004	12 H330 5%	22-6159				10TCC-T12
C1005	120 H30 5%	22-5912-01				1PB-S47
C1006	.047 100V			DPMS2S47	EWFA1A147	1PB-D82
C1007	.0082 50V 10%			DPMS6D82	EWFA1A282	1PB-S47
C1009	.047 100V			DPMS2S47	EWFA1A147	10TS-S10
C1010	.01		DD-1032	GP10000	GP110	1PB-S47
C1011	.047 100V			DPMS2S47	EWFA1A147	10TS-S10
C1015	.01		DD-1032	GP10000	GP110	10TS-S10
C1016	.01		DD-1032	GP10000	GP110	10TS-S10

For SAFETY use only equivalent replacement part.

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

- (1) Part of L108.
(2) Part of L106.
(3) Part of L101.
(4) Part of L107.
(5) Part of L103.
(6) Part of L104.
(7) Part of L114.

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
R402	AGC Delay	15K	63-10501			MTC153L1	
R602	AGC Delay	25K	63-10636 (6)				
	Vert Hold	2meg	63-10505	F2-2Meg (18), SNK014	A47-2Meg-Z (18), RN-3 or [NP-2Meg-Z, NML-A-300] C-105	RU26A,SN1000 or [UA26A,SN1000]	BU11,CF19,SS6A
R609	Vert Size	1meg	63-9227	T-1Meg		MTC16L1	X201R105B
	Vert Size	1meg	63-9228-04 (6)				
R707	B+ Level	1000	63-9959 #	TSC1BB102C			
R813	Contrast	1000	63-10503-01	F1-1000, SNF100	A47-1000-S, RS-3/16,TT-2 or [HP-1000-S, NMS-A-300,TT-2]	RU13L,SL37,SD750 or [UA13L,SD750]	BU11,CF6,SS16, DC1
R829	Contrast Brightness	1000 250K	63-10503 (6) 63-8896	F1-250K, SNF100	A47-250K-S, RS-3/16,TT-2 or [NP-250K-S, NMS-A-300,TT-2]	RU254L,SL37, SD750 or [UA254L, SD750]	BU11,CF15,SS16, DC1
R1004	Volume/Switch	40K	63-8892-01 #				
	Volume/Switch	40K	63-10504 (6) #				

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.

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

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFR. PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	MALLORY PART No.	TRW PART No.
	Volume (Slider Type)	40K	63-10570 (19)			MSD54A	US503A
	Volume/Switch	40K	63-10167-03 (20) #				

For SAFETY use only equivalent replacement part.

(6) Alternate part, may be used in some versions.

(18) Use original mounting bracket.

(19) Used in Models G1360W4, G1363B4, G1363B8, G1365Y4, G1370X4, G1370X8, H123W, H123W1, H126X, H126X1, H126X2 and H126X3.

(20) Used in Models H122J and H122J1.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFR. PART No.			WORKMAN PART No.	MFR. PART No.
R506	27K 10% 1/2W Carbon	CA-27000	63-1845 #	R704	220 5% 1/4W Carbon	CD-220	63-10353-56 #
R516	47 5% 1/2W Carbon	CA-47	#	R705	470 10% 1/2W Carbon	CA-470	63-1771 #
	180 10% 1W Carbon	CB-180	63-10343-54 (1) #	R706	100 10% 1/2W Carbon	CA-100	63-1743 #
	180 10% 1W Carbon	CB-180	63-10367-54 (1) #	R708	4700 5% 1/4W Carbon	CD-4700	63-8820 #
R517	10 5% 1/4W Carbon	CD-10	63-8794 #	R709	2700 5% 1/4W Carbon	CD-2700	63-8798 #
	10 5% 1/4W Carbon	CD-10	63-4100 # (1)	R711	12 5% 1/2W Carbon	CA-12	63-10565-26 #
R518	10K 5% 1/2W Carbon	CA-10000	63-7238 #	R713	1.5Meg 20% 1/2W Carbon	CA-1.5Meg	63-10526 #
R519	56 10% 1/2W Carbon	CA-56	63-1733 #	R805	2200 2% 1/4W Carbon		63-10351-80
R520	3.3 5% 1/4W Carbon		63-10559-12 #	R806	680 2% 1/4W Carbon		63-10351-68
R622	3.9 5% 1/2W Carbon	CA-3.9	63-10565-14 #		680 2% 1/4W Carbon		63-10557-68 (1)
R702	15 5% 7W WW Carbon		63-10451-52 #	R819	6800 10% 3W WW		63-10431-16 #
R703	270 10% 1W Carbon	CB-270	63-6045 #		8200 10% 3W Film	20-0032	63-4098 (1) #
	270 10% 1W Carbon	CB-270	63-10367-58 # (1)	R1012	100 10% 2W WW		63-10422-72 #

For SAFETY use only equivalent replacement part.

(1) Used in some versions.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L101	Video Input IF	S-94251-01			
L103	3rd Video IF (Pri)	S-94251-04			
L104	3rd Video IF (Sec)	S-94251-05			
L105	47.25MHz Trap	20-3655-01			
L106	Video Input IF	S-94251-09			
L107	39.75MHz Trap	S-94251-08			
L108	41.25MHz Trap	S-94251-07			
L109	Peaking (390uH)	20-2806			
L110	RF Choke (2.2mH)	20-2807			
L112	RF Choke (27uH)	20-2808			
L113	RF Choke (27uH)	20-2808			
L114	1st Video IF	S-94251-10			
L504	RF Choke	20-1337 #			
L801	4.5MHz Trap	20-3145		5240	
T1001	Quadrature	95-2789			
T1002	Sound Input IF	95-2620			

For SAFETY use only equivalent replacement part.