

## PHOTOFACT® Folder

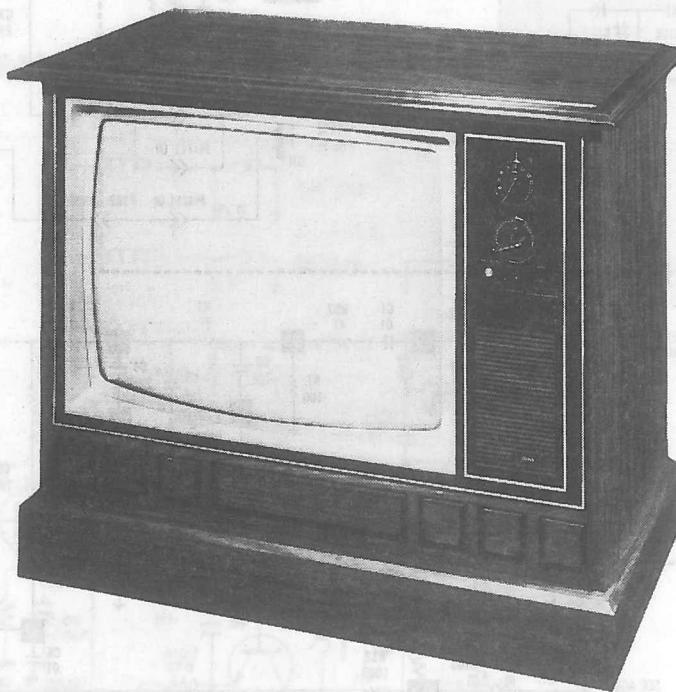
with CIRCUITRACE™

CITEK CHASSIS  
ECC-2601 (K4100)

For Supplier Address See PHOTOFACT Index

COLOR TV

MODEL	CHASSIS
7345	ECC-2601 (K4100)
7346	ECC-2601 (K4100)
7388	ECC-2601 (K4100)
7389	ECC-2601 (K4100)



Model 7345

## SAFETY PRECAUTIONS

See page 4.

## SERVICE INFORMATION

See page 7.

## INDEX

	Page		Page
Alignment		Photos (Continued)	
TV.....	6,7	Main (QB) Board.....	15,16,29,30
Block Diagram.....	41	Neck (QC) Board.....	8
Convergence Adjustments.....	26	Power/Sound (QF) Board.....	37
Disassembly Instructions.....	43	Tuner Assembly.....	28
Fail Safe .....	7	Video/Chroma (QE) Board.....	12,13,33
Miscellaneous Adjustments.....	39	Placement Chart.....	9
Parts List		Resistance Measurements.....	36
TV.....	19 thru 25	Safety Precautions.....	4
Photos		Schematics	
Antenna (P282) Board.....	17	Power Supply.....	5,40
Cabinet-Rear View.....	45	TV.....	2,3,42
Control (RD) Board.....	38	UHF Tuner.....	44
Convergence (P287) Board.....	18,26,27	VHF Tuner.....	44
CRT Neck Assembly.....	39	Service Information.....	7
Horiz/Vert (RU) Board.....	14,31,32	Servicing in the Field.....	45
IF Pack (QD) Board.....	10,11,34,35	Troubleshooting Check Chart.....	36

## HOWARD W. SAMS &amp; 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. 80PD2581

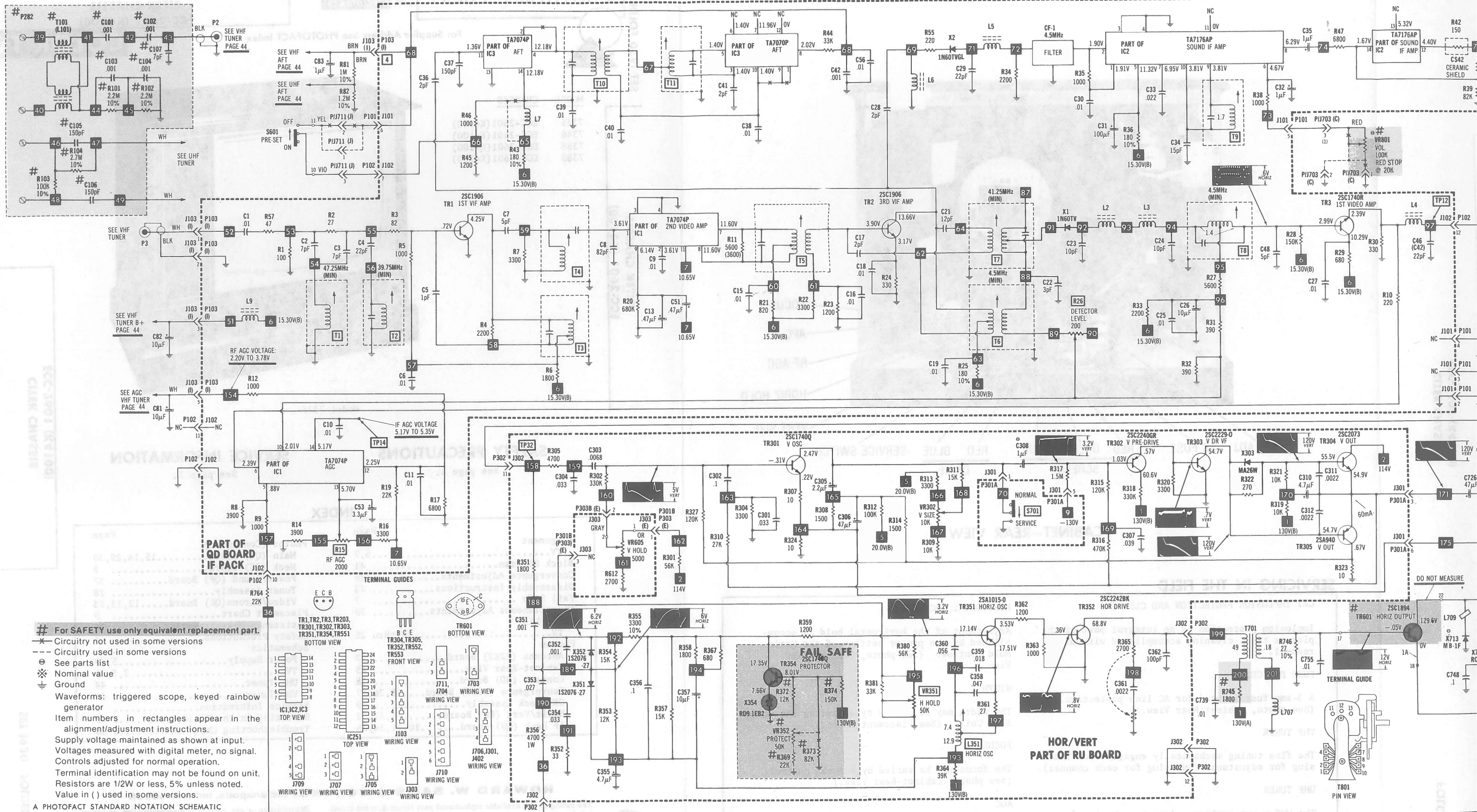
10 9 8 7 6 5 4 3 2 1 0

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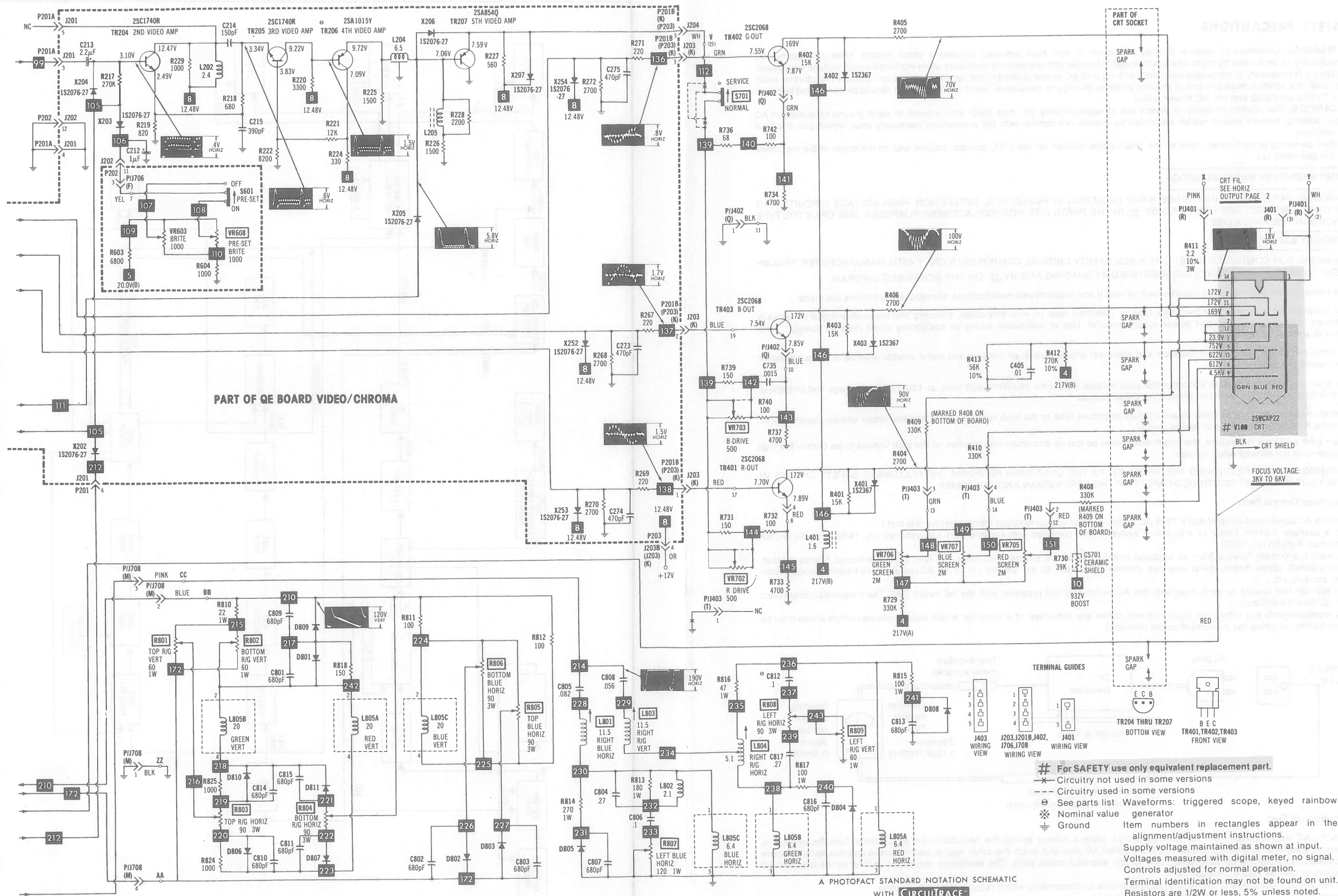
SET 1930 FOLDER 1













SAFETY PRECAUTIONS

**WARNING:** Operation of receiver outside of cabinet or with back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment. When it is necessary to make measurements or tests with AC power applied to the receiver chassis, an isolation Transformer must be used as a safety precaution and to prevent possible damage to transistors. Isolation Transformer should be connected between the TV line cord plug and the AC power outlet.

**CAUTION:** The chassis of these receivers are at approximately 85 volts RMS with respect to earth ground regardless of AC input polarity. Service should not be attempted by anyone not familiar with the precautions necessary when working on this type of receiver.

Before servicing is performed, read all the precautions labeled on the CRT, chassis, cabinet and on the inside of the rear cover of the television set.

X-RAY RADIATION WARNING NOTICE

**WARNING:** PARTS WHICH INFLUENCE X-RAY RADIATION IN HORIZONTAL DEFLECTION, HIGH VOLTAGE CIRCUITS AND PICTURE TUBE, ETC., ARE INDICATED BY # IN THE PARTS LIST. FOR REPLACEMENT PURPOSES, USE ONLY THE TYPE SHOWN IN THE PARTS LIST.

PRODUCT SAFETY NOTICE

**WARNING:** FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER RECOMMENDED PARTS. THESE PARTS ARE IDENTIFIED BY SHADING AND BY # ON THE SCHEMATIC DIAGRAM.

The manufacturer's warranty and liabilities will be void if any unauthorized modifications, alterations or additions are made.

For replacement purposes, use the same type or specified type of wire and cable, ensuring that the positioning of the wires is followed (especially for H.V. and power supply circuits). Use of alternative wiring or positioning could result in damage to the set or in a shock or fire hazard.

To avoid possible exposure to X-radiation and electrical shock hazard, all barriers and metal shields must be in place whenever the chassis is operating.

Using an accurate and reliable voltmeter the ultor voltage should be  $28,000 \pm 1,500$  volts at 120 VAC line voltage and brightness control fully counterclockwise (No Raster) for these chassis.

Operations at a higher voltage may cause a failure of picture tube or the high voltage supply, and also under certain circumstances produce X-radiation in excess of design levels.

Every time a chassis is serviced, the brightness should be run up and down with a meter on the high voltage to be certain the high voltage does not exceed rated voltage.

**WARNING:** BEFORE RETURNING THE RECEIVER TO THE CUSTOMER PERFORM THE FOLLOWING SAFETY CHECKS IN ITEM 1 AND 2 FOR THE CONTINUED SAFETY OF THE SERVICEMAN AND CUSTOMER.

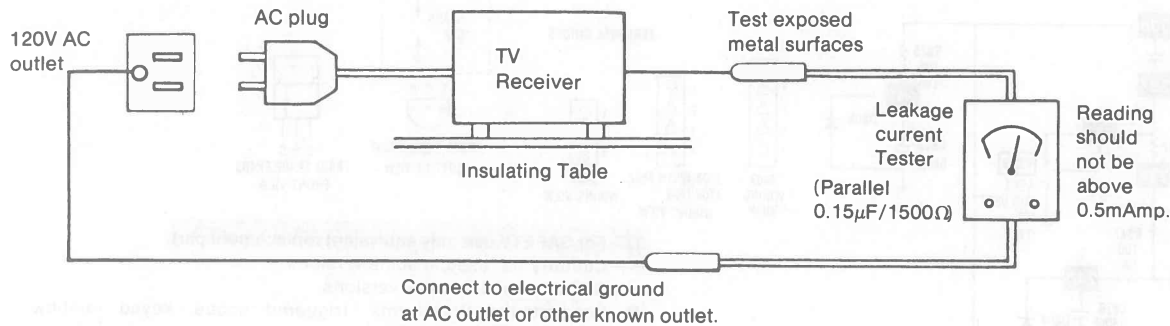
1. Leakage Current Test:

Plug the AC power cord directly into a 120V AC outlet. (Do not use an isolation transformer for this test.) Use a Leakage Current Tester or a metering system which complies with Underwriters Laboratories (UL 1410 Para. 50) or CSA (Electrical Bulletin No. 1095).

Measure the current flowing from all exposed metal parts of the cabinet, including the rear cover, (antennas, handle bracket, metal cabinet, screw heads, metal overlays, control shaft, etc.) to the ground pin of an AC outlet or to a known ground (water-pipe, conduit, etc.).

This leakage test should be performed with the AC switch ON and repeated with the AC switch OFF. The measured current must be less than 0.5 milliamp.

Any measurements not within the limits outlined above are indicative of a potential shock hazard and corrective action must be taken before returning the instrument to the customer.

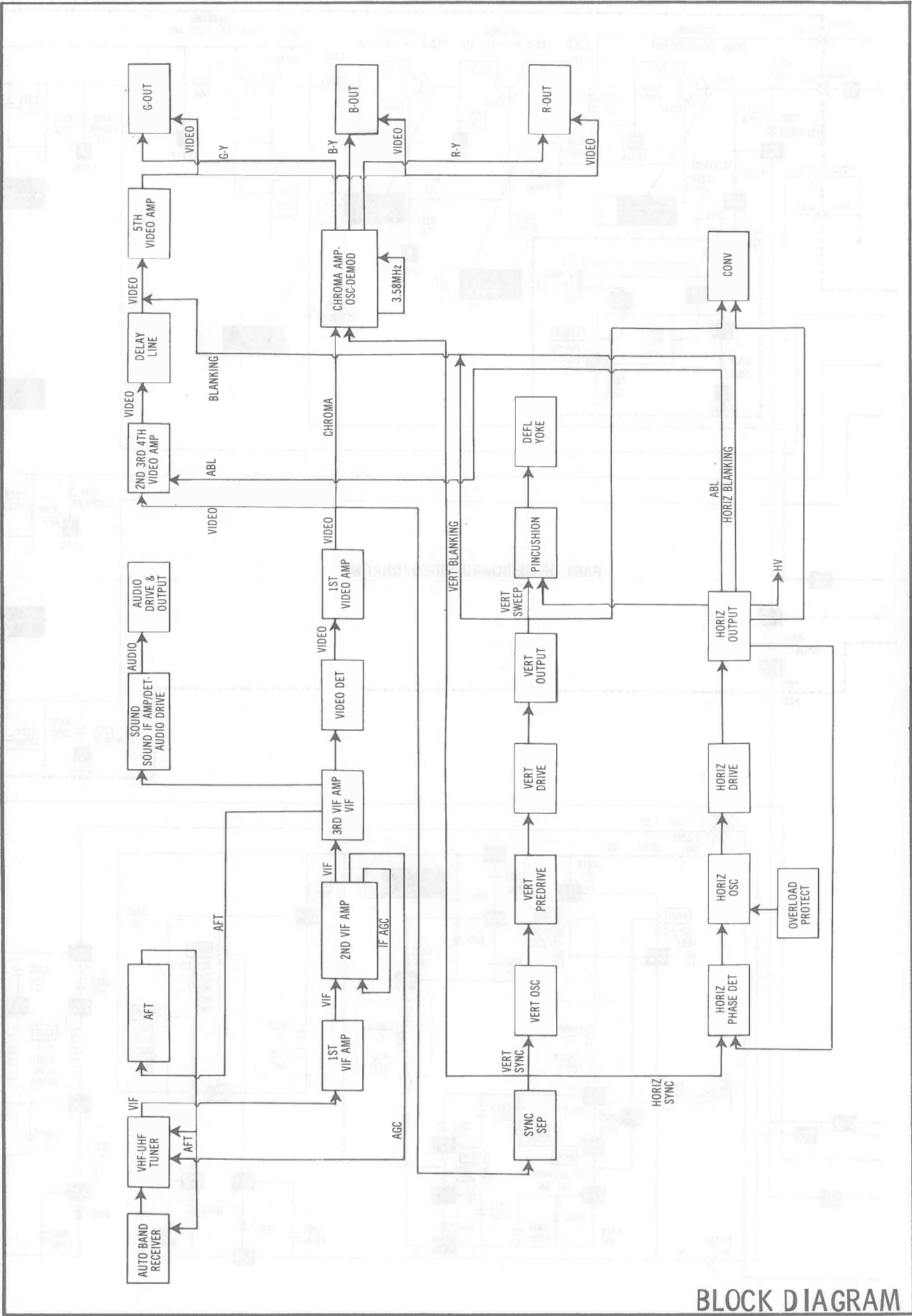


2. Resistance Test:

With the AC plug removed from the 120V AC outlet, place a jumper across the two attachment plug prongs. Turn the switch ON. Using an ohmmeter, connect one lead to the jumpered AC plug and touch the other lead to each exposed antenna terminal screw or coaxial connector (when applicable), and to any exposed metal parts. The resistance measured should not be less than 1.0 megohm or greater than 5.2 megohms.

Any resistance value below or above this range indicates an abnormality which requires corrective action. Repeat the test with the AC switch in the OFF position.

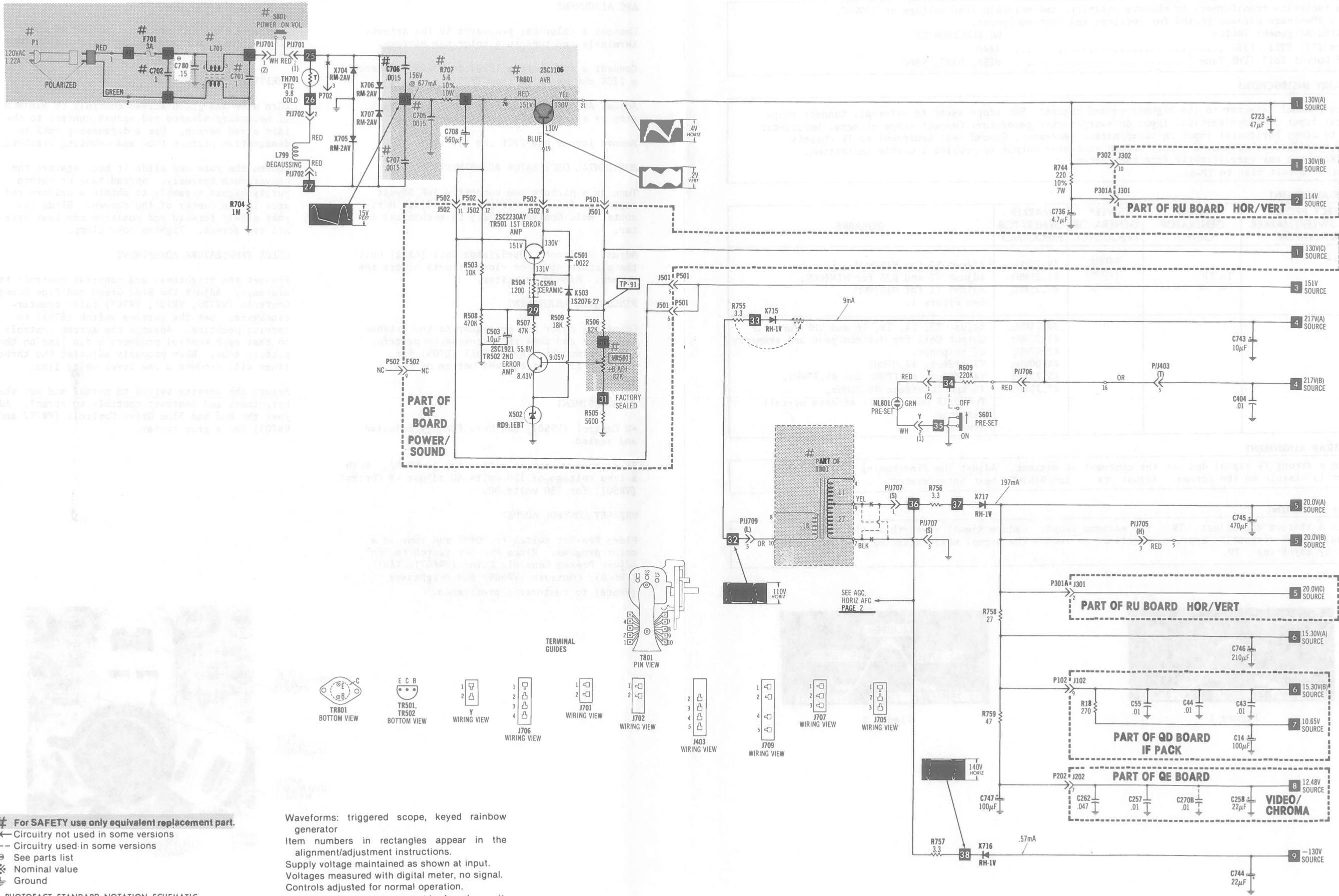
Courtesy of the Manufacturer



BLOCK DIAGRAM

CITEK CHASSIS  
ECC-2601 (K4100)

FOLDER 1

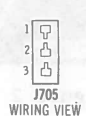
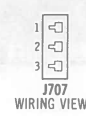
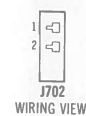
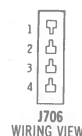
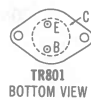


# For SAFETY use only equivalent replacement part.  
 - Circuitry not used in some versions  
 --- Circuitry used in some versions  
 ⊕ See parts list  
 \* Nominal value  
 ⊥ Ground

A PHOTOFACIT STANDARD NOTATION SCHEMATIC  
 WITH CIRCUITRACE  
 © Howard W. Sams & Co., Inc. 1980

Waveforms: triggered scope, keyed rainbow generator  
 Item numbers in rectangles appear in the alignment/adjustment instructions.  
 Supply voltage maintained as shown at input.  
 Voltages measured with digital meter, no signal.  
 Controls adjusted for normal operation.  
 Terminal identification may not be found on unit.  
 Resistors are 1/2W or less, 5% unless noted.  
 Value in ( ) used in some versions.

#### TERMINAL GUIDES





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:

T1 thru T11, T251, L351 .....	GC ELECTRONICS
VHF IF Output Coil (VHF Tuner) .....	9440
	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 TP-14.

VIDEO IF ALIGNMENT

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP-12	To TP on VHF tuner.	44MHz (10MHz Sweep)	39.75MHz 41.25MHz 47.25MHz	Adjust T2 for MINIMUM. Adjust T7 and R26 for MINIMUM. Adjust T1 for MINIMUM. See Figure 1.
"	"	"	39.75MHz 41.25MHz 42.17MHz 44.00MHz 45.75MHz 47.25MHz	Adjust T3, T4, T5, T6 and VHF Tuner IF Output Coil for Maximum gain and symmetry of response. T3 affects 44.00MHz. T4 affects 42.17MHz and 45.75MHz. T5 and T6 affect 45.75MHz. Tuner IF Output Coil affects 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 T8 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust T9 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 T9.

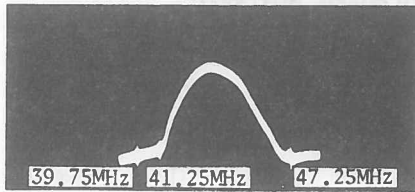


Figure 1

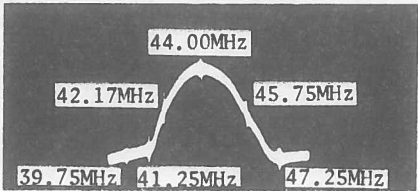


Figure 2

MISCELLANEOUS ADJUSTMENTS

APC ALIGNMENT

Connect a color bar generator to the antenna terminals and tune in a color bar pattern.

Connect a jumper from TP201 to TP205. Connect a 220K ohm resistor from TP203 to TP205.

Adjust APC Control (VR251) until color bars stop or slowly drift across the screen.

Remove jumper and 220K ohm resistor.

HORIZONTAL OSCILLATOR ADJUSTMENT

Tune in a picture and connect a 1uF 50volt capacitor from TP32 to ground. Adjust Horizontal Hold Control (VR351) to mechanical center.

Adjust Horizontal Oscillator Coil (L351) until the picture stops or slowly floats across the screen. Remove capacitor.

PINCUSHION ADJUSTMENT

Connect a color bar generator to the antenna terminals and tune in a crosshatch pattern. Adjust Pincushion Phase Coil (L705) for straight lines at top and bottom of the screen.

B+ ADJUSTMENT

+B Control (VR501) has been factory adjusted and sealed.

If necessary connect a DC meter to TP-91. With a line voltage of 120 volts AC adjust +B Control (VR501) for 130 volts DC.

PRE-SET CONTROL ADJUST

Place Pre-Set Switch to "Off" and tune in a color program. Place Pre-Set Switch to "On". Adjust Preset Control; Color (VR607), Tint (VR606), Contrast (VR609) and Brightness (VR608) to customer's preference.

RF AGC ADJUSTMENT

Tune in a weak VHF station. Adjust RF AGC Control (R15) for Maximum contrast and MINIMUM snow.

PURITY ADJUSTMENTS

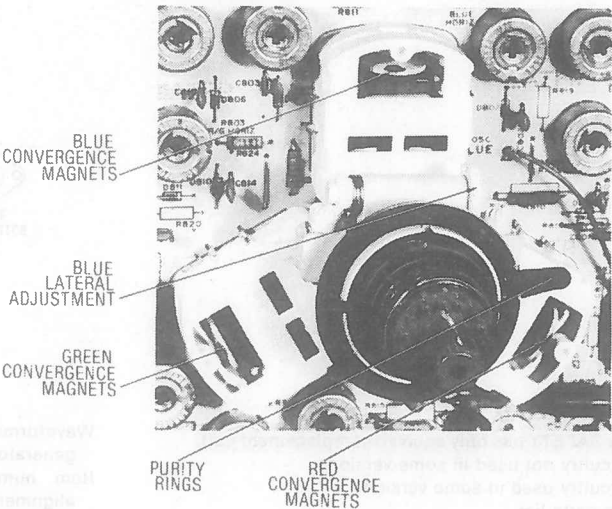
Turn blue and green screen controls to MINIMUM. If necessary advance red screen control to obtain a red screen. Use a degaussing coil to demagnetize picture tube and mounting brackets.

Loosen the yoke and slide it back against the convergence assembly. Spread tabs or rotate purity magnet assembly to obtain a uniform red area in the center of the screen. Slide the yoke slowly forward and position for best over-all red screen. Tighten yoke clamp.

COLOR TEMPERATURE ADJUSTMENT

Pre-set the brightness and contrast controls to midrange. Adjust the Red, Green and Blue Screen Controls (VR705, VR706, VR707) fully counter-clockwise. Set the service switch (S701) to service position. Advance the screen controls so that each control produces a dim line on the picture tube. When properly adjusted the three lines will produce a low level white line.

Return the service switch to normal and set the brightness and contrast controls to normal. Adjust the Red and Blue Drive Controls (VR702 and VR703) for a gray raster.



CRT NECK ASSEMBLY

CITEK CHASSIS  
ECC-2601 (K4100)

FOLDER 1



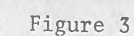
38

## AUTOMATIC FINE TUNING ALIGNMENT

CONNECT DC METER	CONNECT SIGNAL GENERATOR OUTPUT	SIGNAL GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To Pin 4 of P103, low side to ground.	To antenna terminals.	46.00MHz		Adjust T10 for MINIMUM.
"	"	45.75MHz		Adjust T11 to obtain 6.5-volts on DC voltmeter.

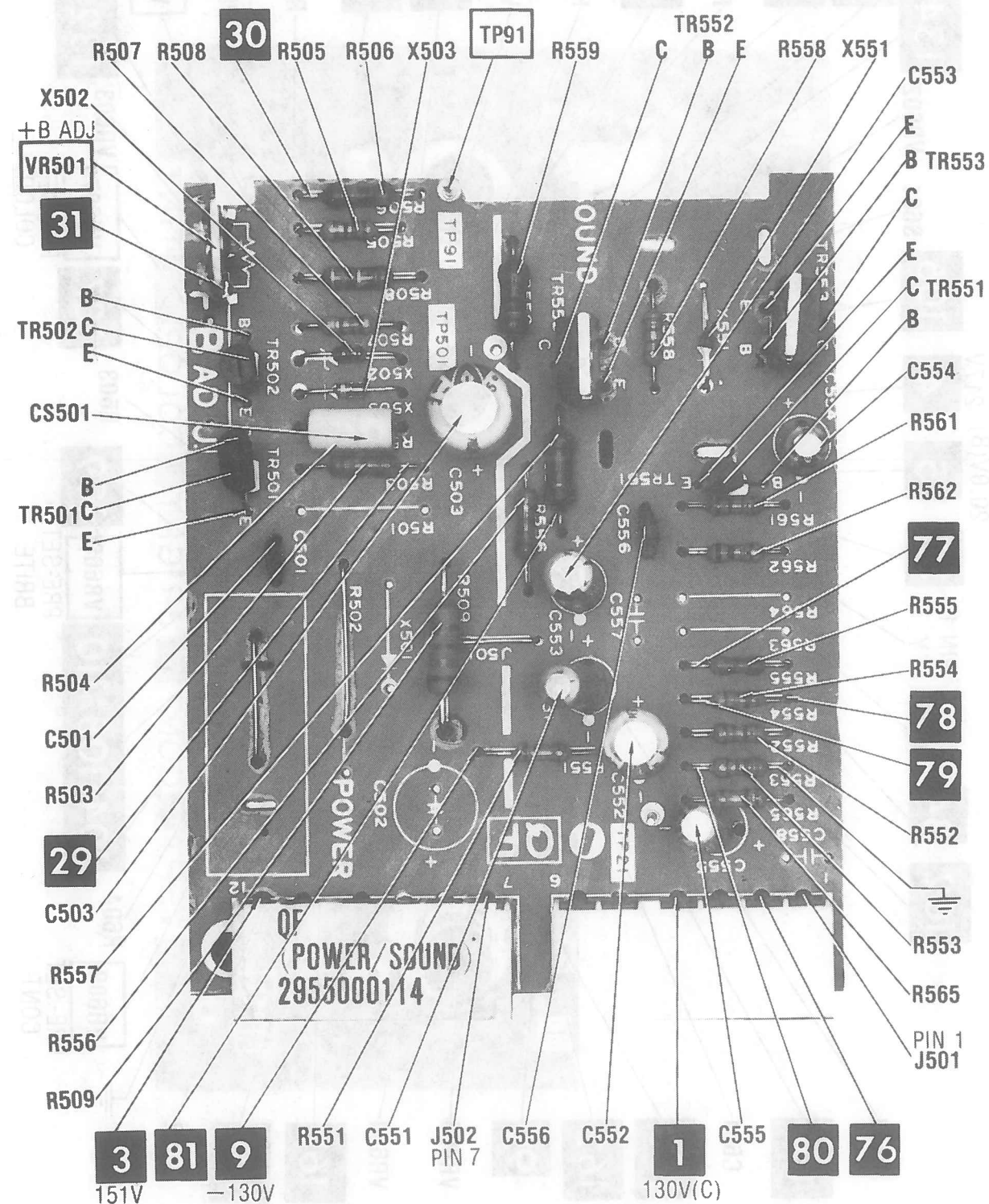
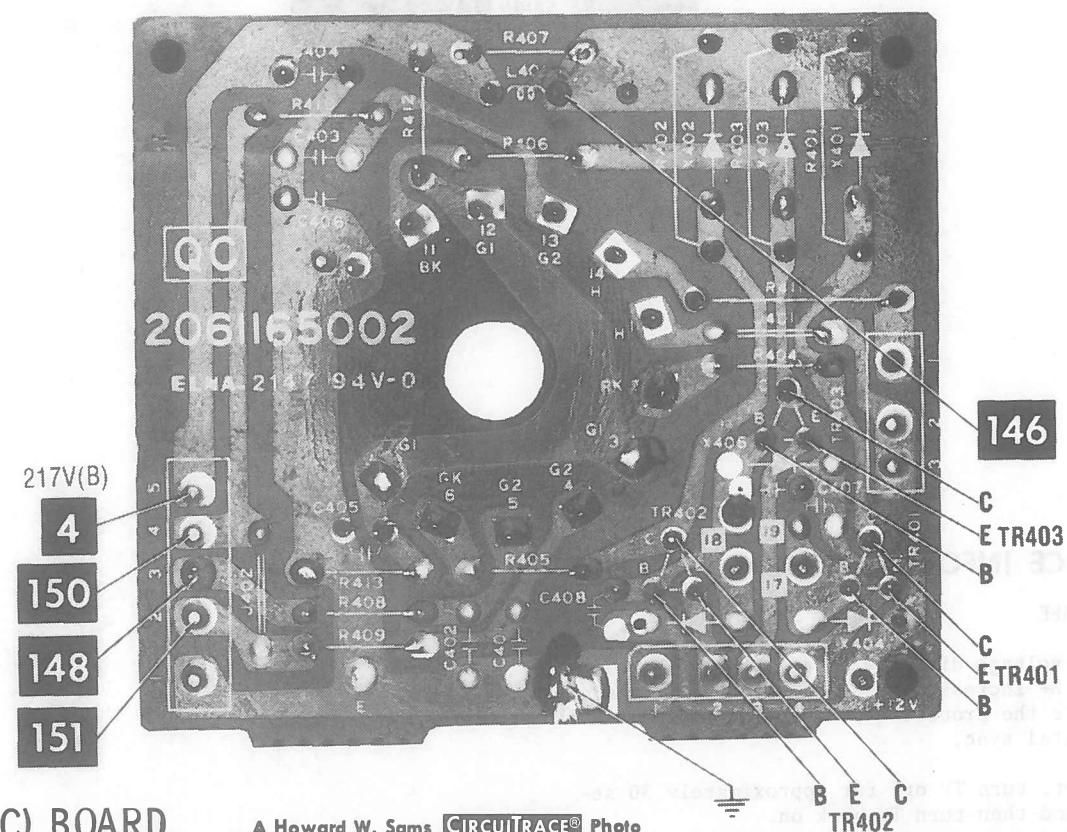
### CHROMA BANDPASS ALIGNMENT

DETECTOR PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP41, low side to TP205.	To Pin 8 of J202, low side to TP205.	3.58MHz (3-5MHz Sweep)	3.08MHz 3.58MHz 4.08MHz	Adjust T251 for maximum gain and symmetry of response. See Figure 3.



To reset, turn TV off for approximately 30 seconds and then turn TV back on.







## 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
V100	FIL	300K	56K	1.6M	1.8M	300K	56K	NC	80M	NC	300K	56K	1.7M	FIL
IC1	10K	10K	0	0	2950	539	1084	1084	655K	342	500	5140	2430	INF
IC2	INF	INF	0	0	459	13K	7060	10K	5820	5820	INF	2570	5740	31K
IC3	INF	387	INF	387	INF	INF	8270	6970	INF	INF	INF	INF	0	387
IC251	2640	2610	2430	2420	1877	2340	1881	8100	23K	23K	INF	0	INF	INF
					PIN 15 4770	PIN 16 98K	PIN 17 4480	PIN 18 10K	PIN 19 7590	PIN 20 5350	PIN 21 1M	PIN 22 315	PIN 23 2630	PIN 24 2640
ITEM	E	B	C		ITEM	E	B	C		ITEM	E	B	C	
TR1	0	196	767		TR302	3300	470K	347K		TR403	697	2860	300K	
TR2	330	880	443		TR303	0	3300	60K(1)		TR501	INF(2)	470K	480K	
TR3	321	4450	944		TR304	30K	60K(1)	40K(1)		TR502	40K(1)	6000	517K	
TR203	315	29K	2590		TR305	30K	60K(1)	10		TR551	680	9800	70K(1)	
TR204	820	740K	317		TR351	40K(1)	40K(1)	2200		TR552	114K	70K(1)	40K(1)	
TR205	1500	4950	3600		TR352	0	1000	40K(1)		TR553	114K	70K(1)	0	
TR206	627	3600	757		TR354	INF(2)	9170	40K(1)		TR601	0	.18	40K(1)	
TR207	590	757	0		TR401	724	2870	300K		TR801	40K(1)	INF(2)	480K	
TR301	20	87K	21K		TR402	688	2870	300K						

(1) This reading will vary depending upon the condition of the electrolytic in the circuit.  
(2) Reading depends upon polarity of meter connections.

## TROUBLESHOOTING CHECK CHART

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

### PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Fuse, X704 thru X707, X715, X716, X717, AVR, 1st/2nd Error Amp.

NO PIC, NO SOUND, HAS RASTER: 1st/2nd/3rd VIF Amp, Tuner.

NO PIC, NO SOUND, HAS SNOW: Tuner, AGC (IC1).  
NO PIC, HAS SOUND, NO RASTER: 1st/2nd/3rd/4th/5th Video Amp, CRT.

NO PIC, HAS SOUND, HAS RASTER: X1, 1st/2nd/3rd/4th/5th Video Amp.

HAS PIC, NO SOUND: X2, Filter (CF-1), Sound IF Amps (IC2), Audio Drive/Outs.

OVERLOADED PICTURE: AGC (IC1).  
LOW OR EXCESSIVE BRIGHTNESS: 1st/2nd/3rd/4th/5th Video Amps, X202 thru X207.

### SWEEP

NO RASTER, HAS SOUND: HV Rect (T801), CRT.  
NO RASTER, NO SOUND: Protector, Horiz Osc/Drive/Output, X713.

NO VERT DEFLECTION: V Osc/Pre-Drive/Drive/Outs.

NO VERT LIN OR FOLDOVER: V Pre-Drive/Drive/Outs, X303.

POOR HORIZ LIN OR FOLDOVER: Horiz Drive/Output, X713.

NARROW PICTURE: Horiz Drive/Output, X713.  
VERT OFF FREQUENCY: V Osc.  
HORIZ OFF FREQUENCY: Horiz Osc.

### SYNC

NO VERT SYNC: V Osc.  
NO HORIZ SYNC: Horiz Osc, X351, X352.  
NO VERT/HORIZ SYNC: Sync Sep.

### RASTER

YELLOW (NO BLUE): Chroma Amp/Osc/Demod (IC251), B Out, X403, CRT.

CYAN (NO RED): Chroma Amp/Osc/Demod (IC251), R Out, X401, CRT.

MAGENTA (NO GREEN): Chroma Amp/Osc/Demod (IC251), G Out, X402, CRT.

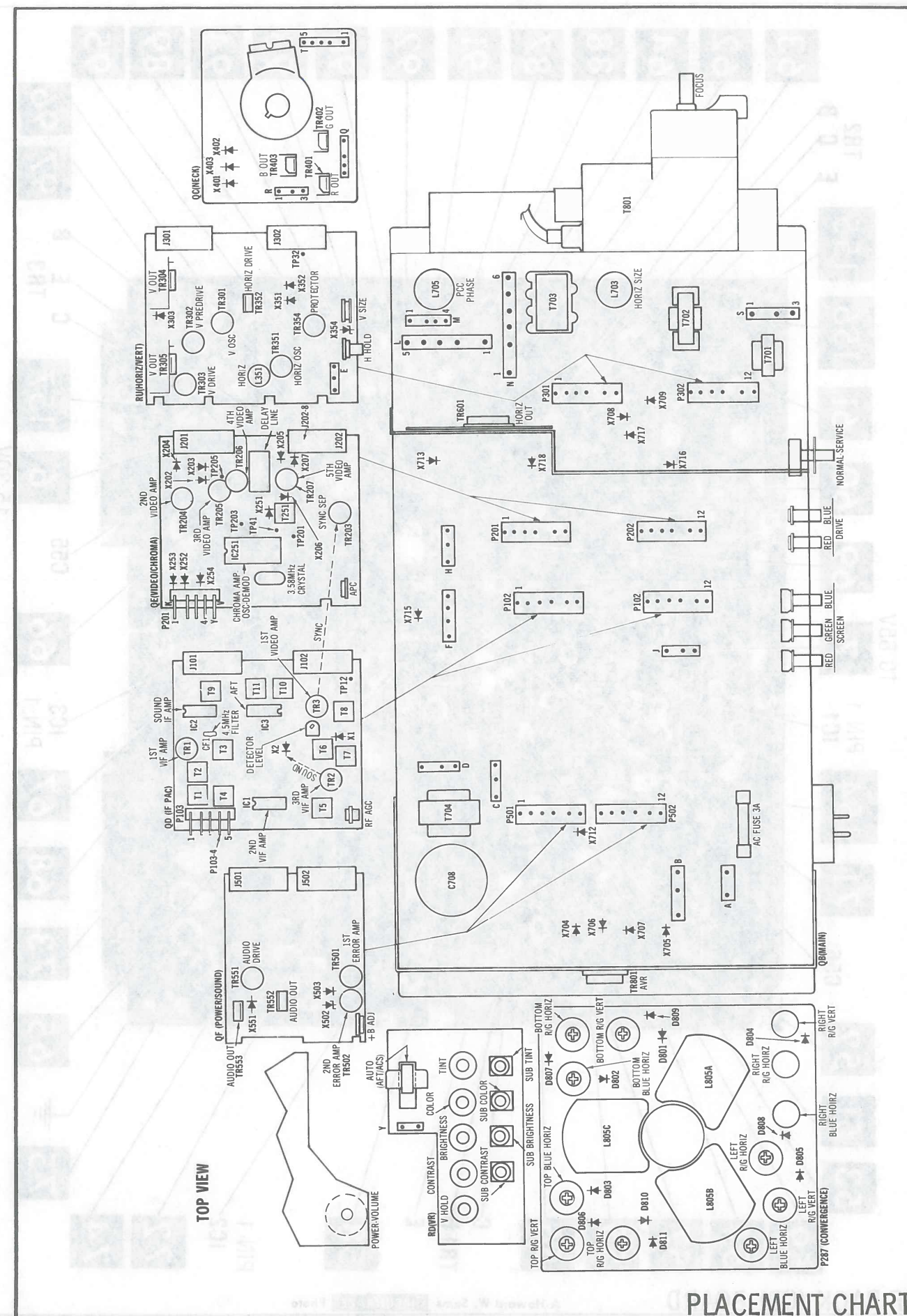
### COLOR (B/W operating normally)

NO COLOR: Chroma Amp/Osc/Demod (IC251).  
WEAK COLOR: Chroma Amp/Osc/Demod (IC251).  
NO COLOR SYNC: Chroma Amp/Osc/Demod (IC251).  
NO GREEN: Chroma Amp/Osc/Demod (IC251), G Out, X402.

NO BLUE: Chroma Amp/Osc/Demod (IC251), B Out, X403.

NO RED: Chroma Amp/Osc/Demod (IC251), R Out, X401.

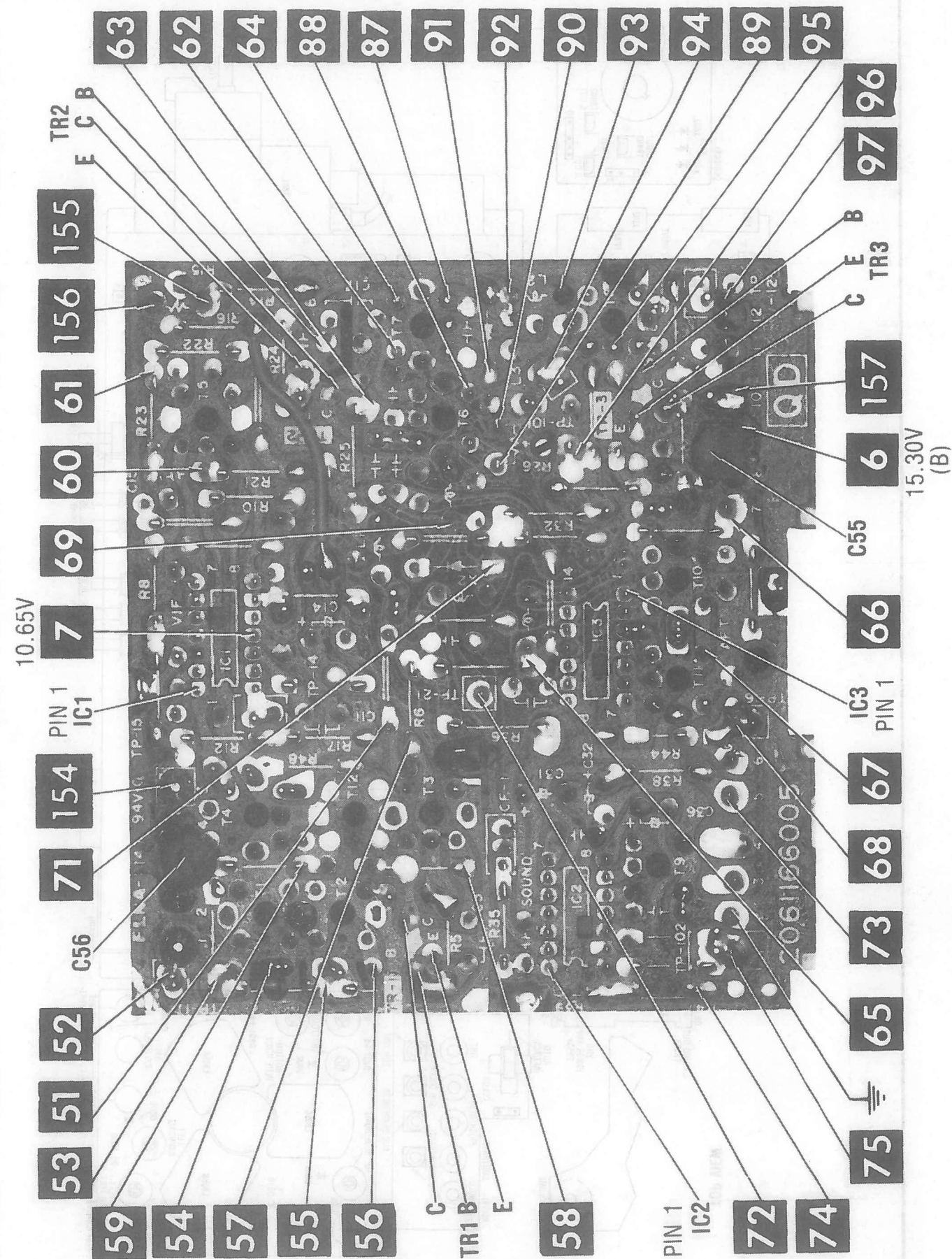
INCORRECT HUE (TINT): Chroma Amp/Osc/Demod (IC251).



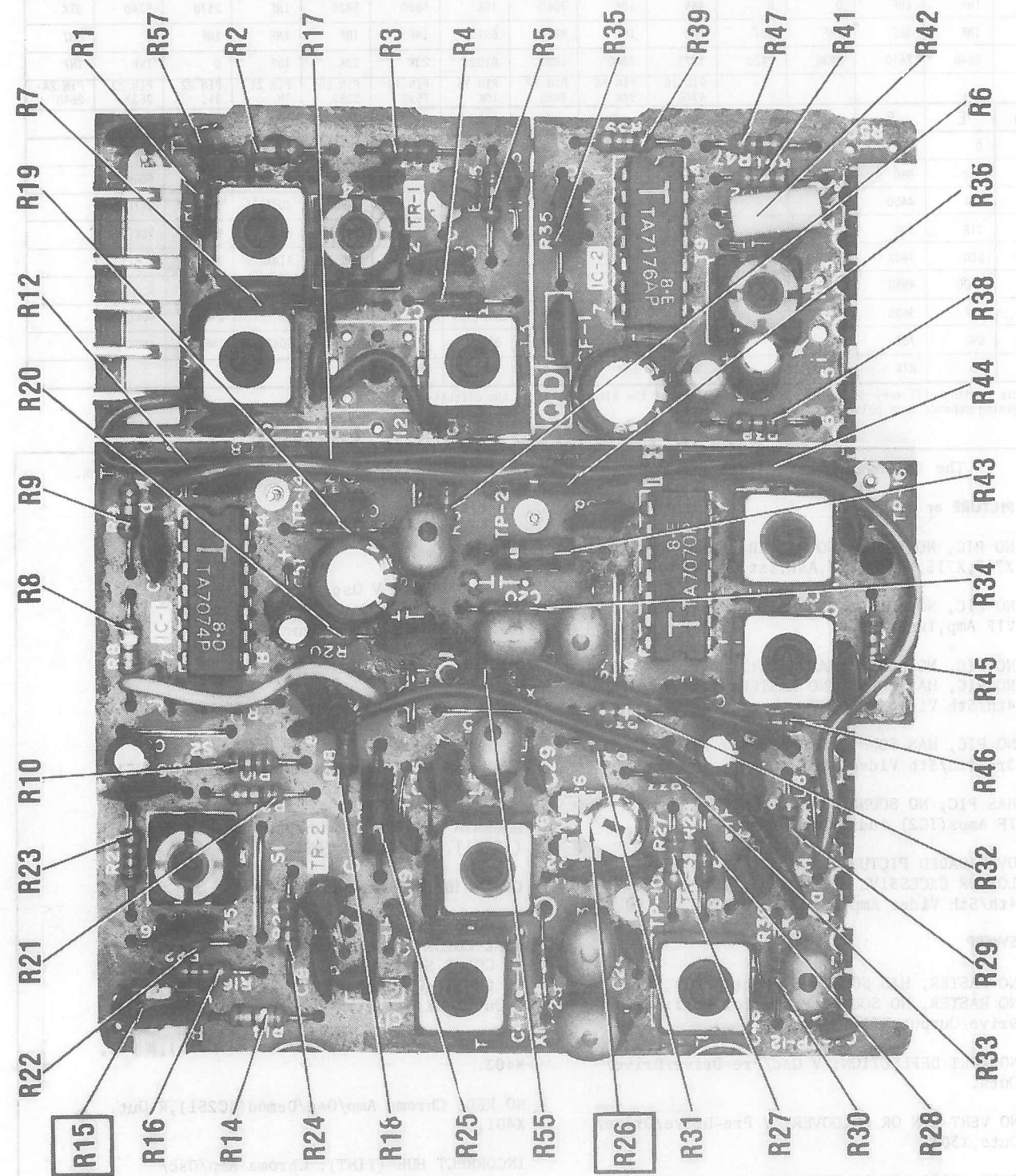
CITEK CHASSIS  
ECC-2601 (K4100)

FOLDER 1





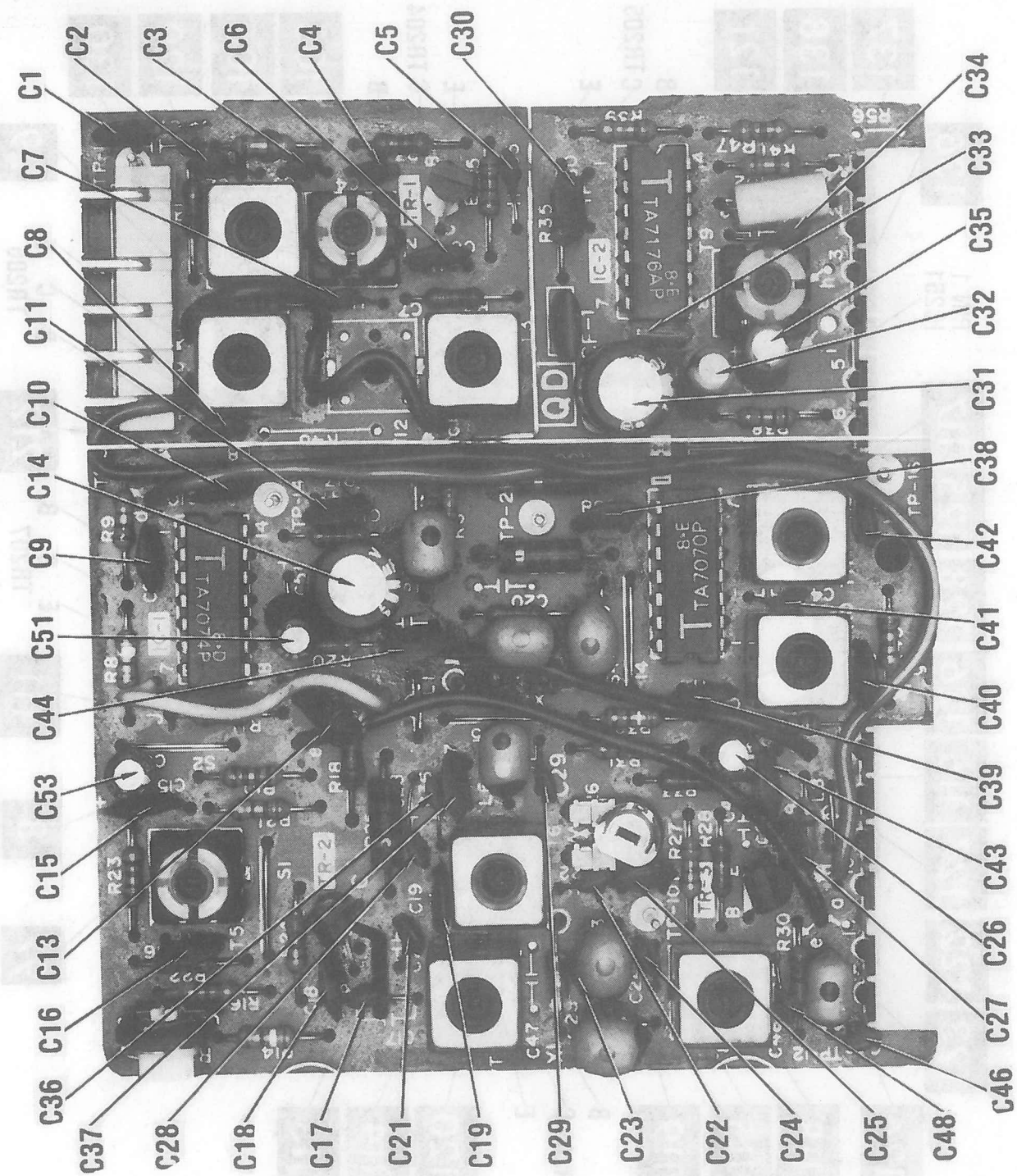
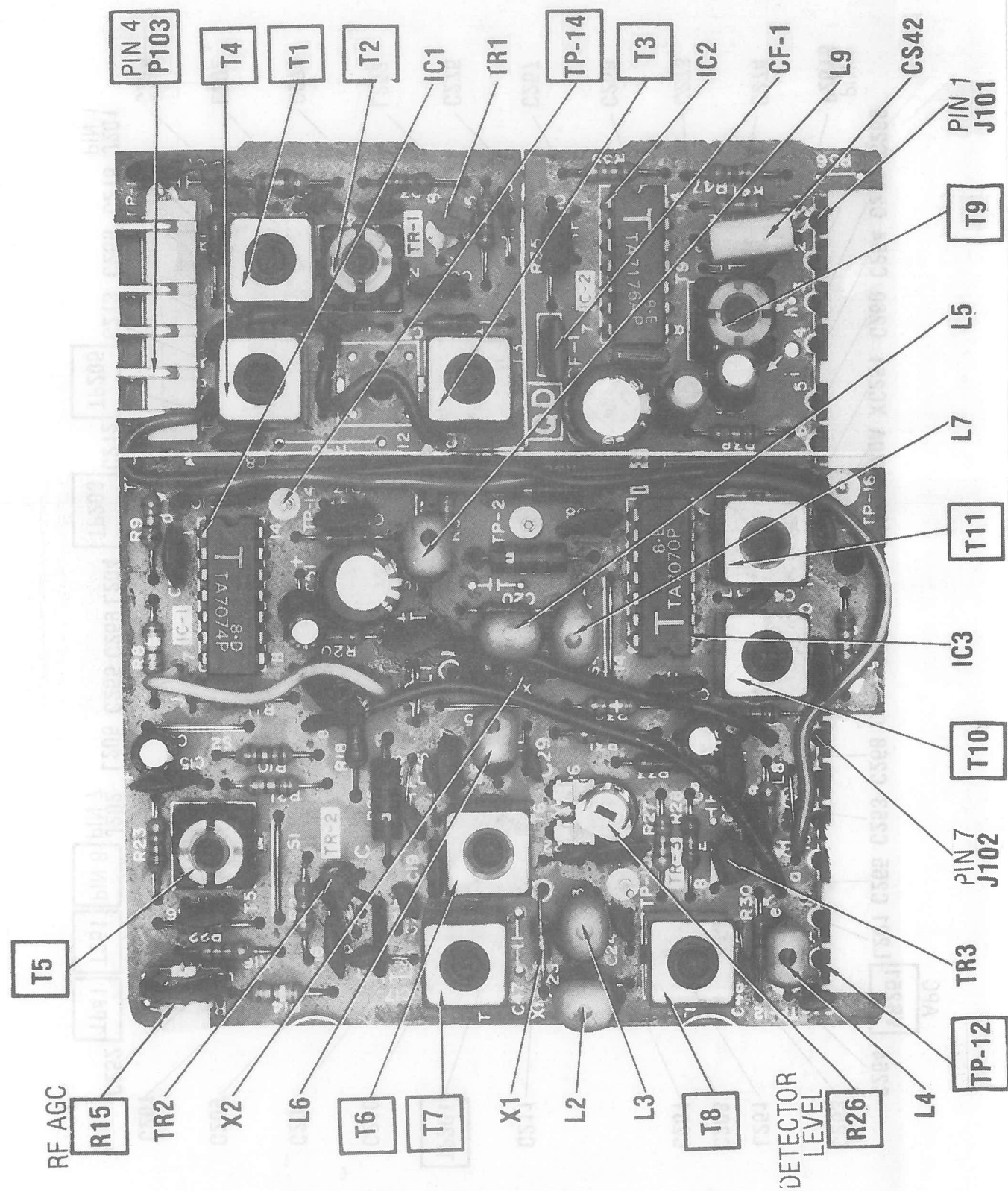
IF PACK (QD) BOARD

A Howard W. Sams **CIRCUITRACE®** Photo

**IF PACK (QD) BOARD**

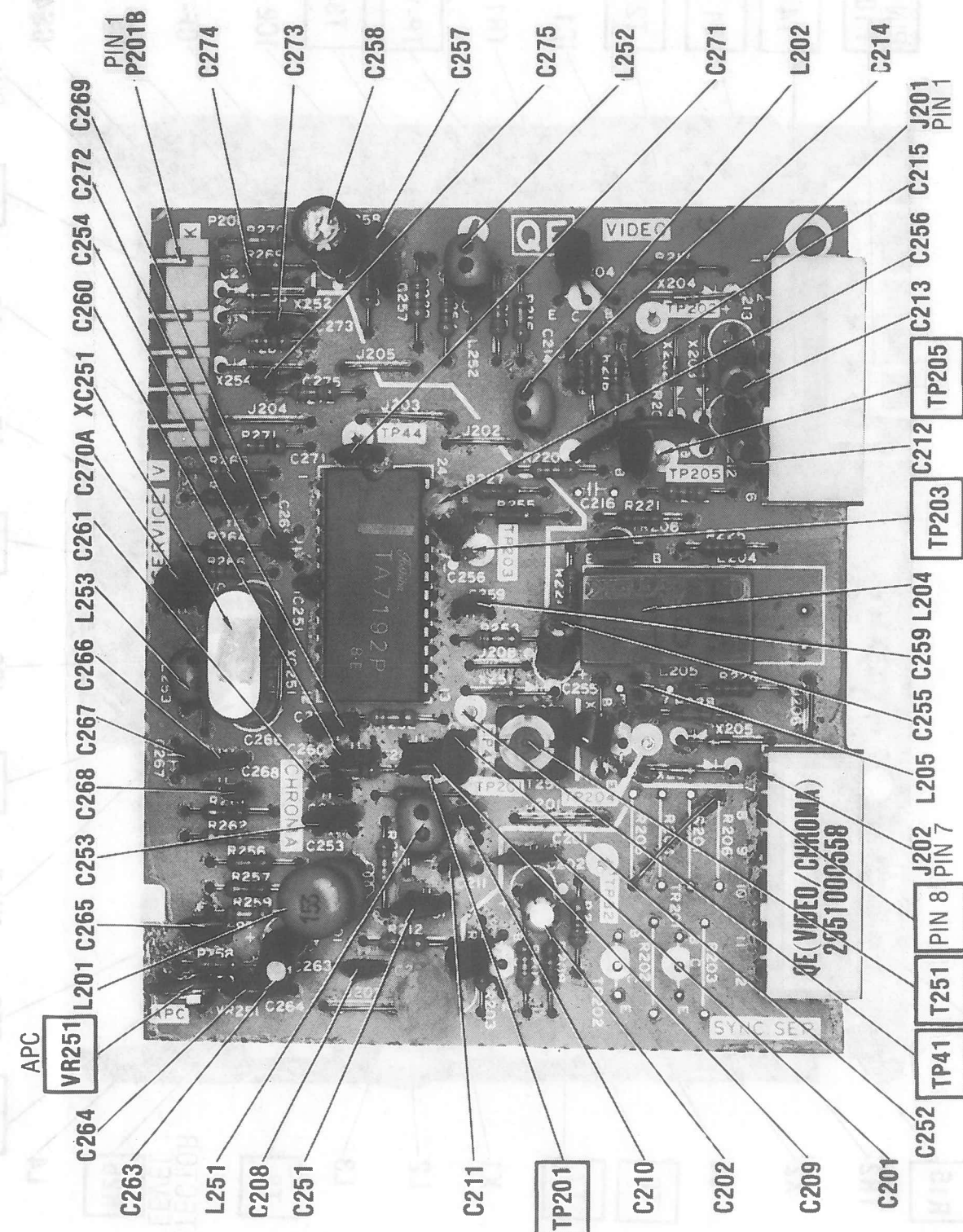
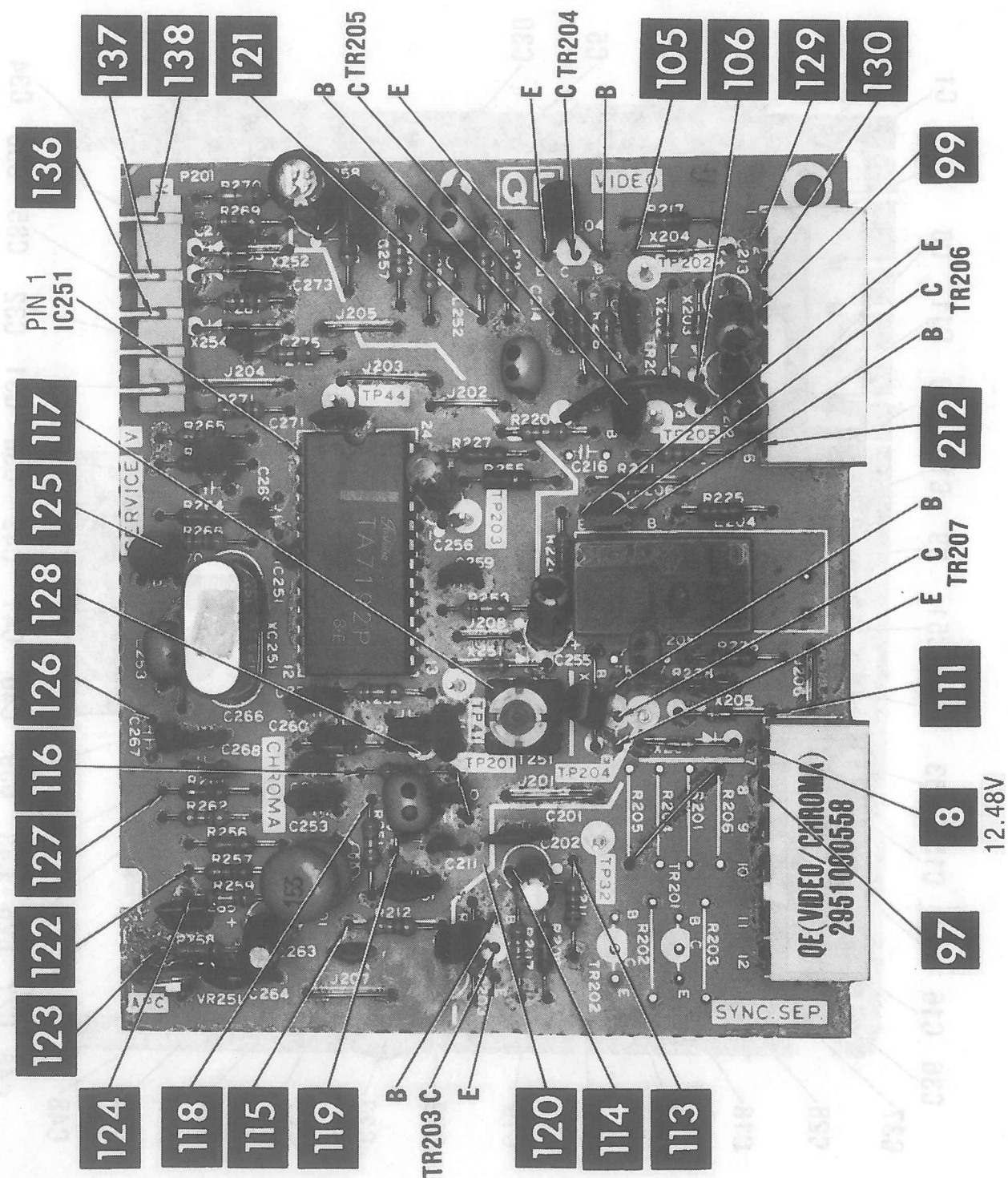


IF PACK (QD) BOARD



IF PACK (QD) BOARD





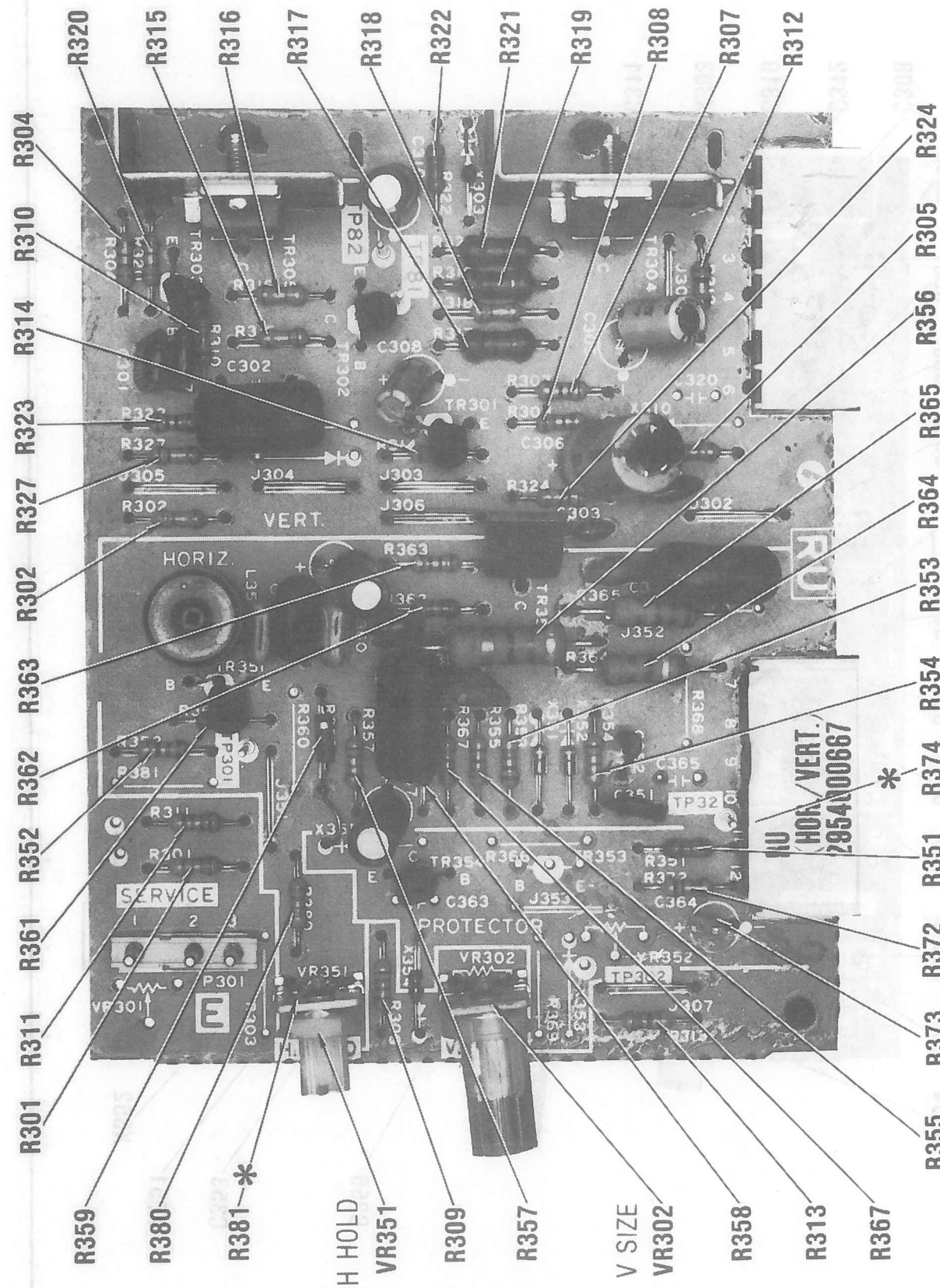
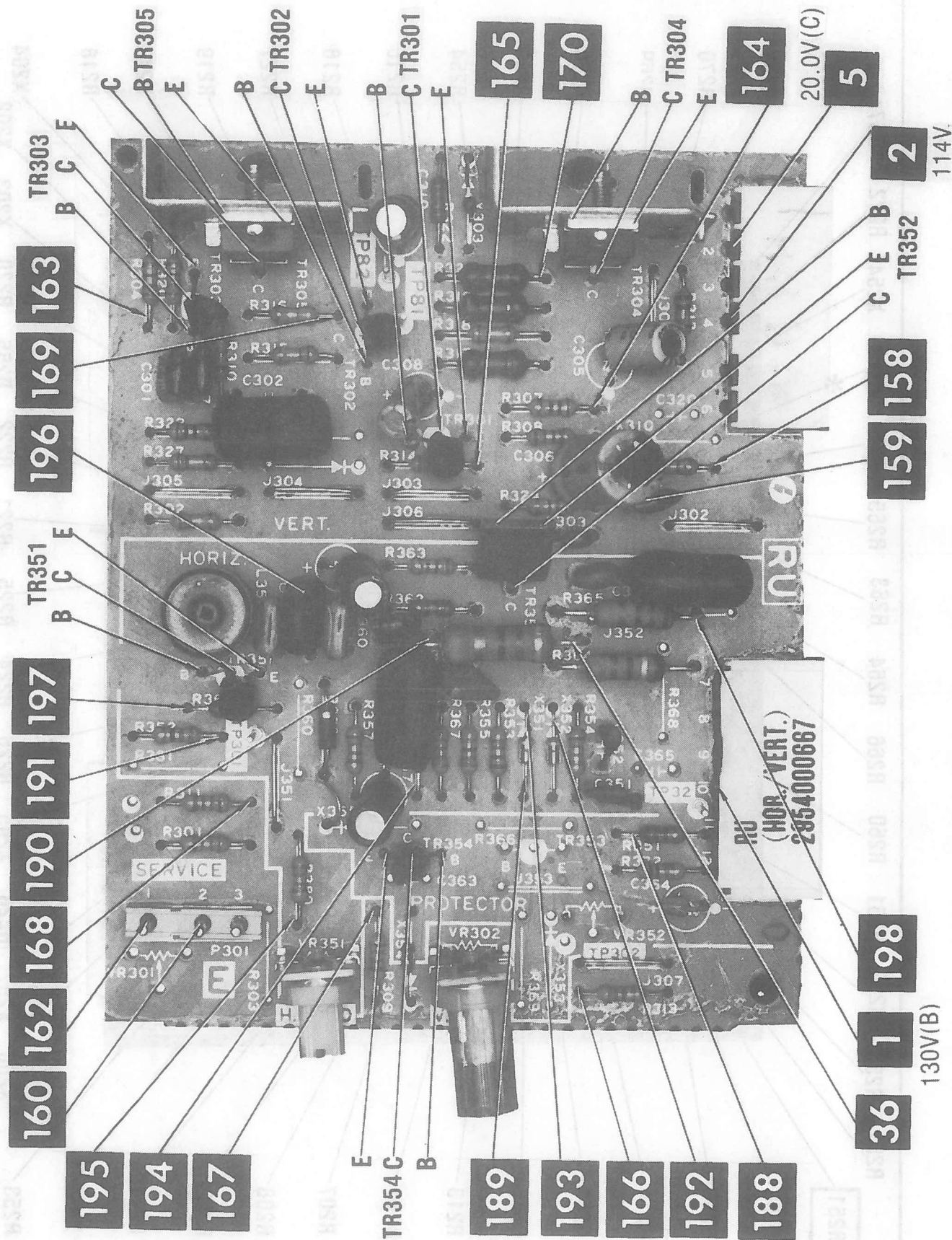






HORIZ/VERT (RU) BOARD

A Howard W. Sams CIRCUITRACE® Photo



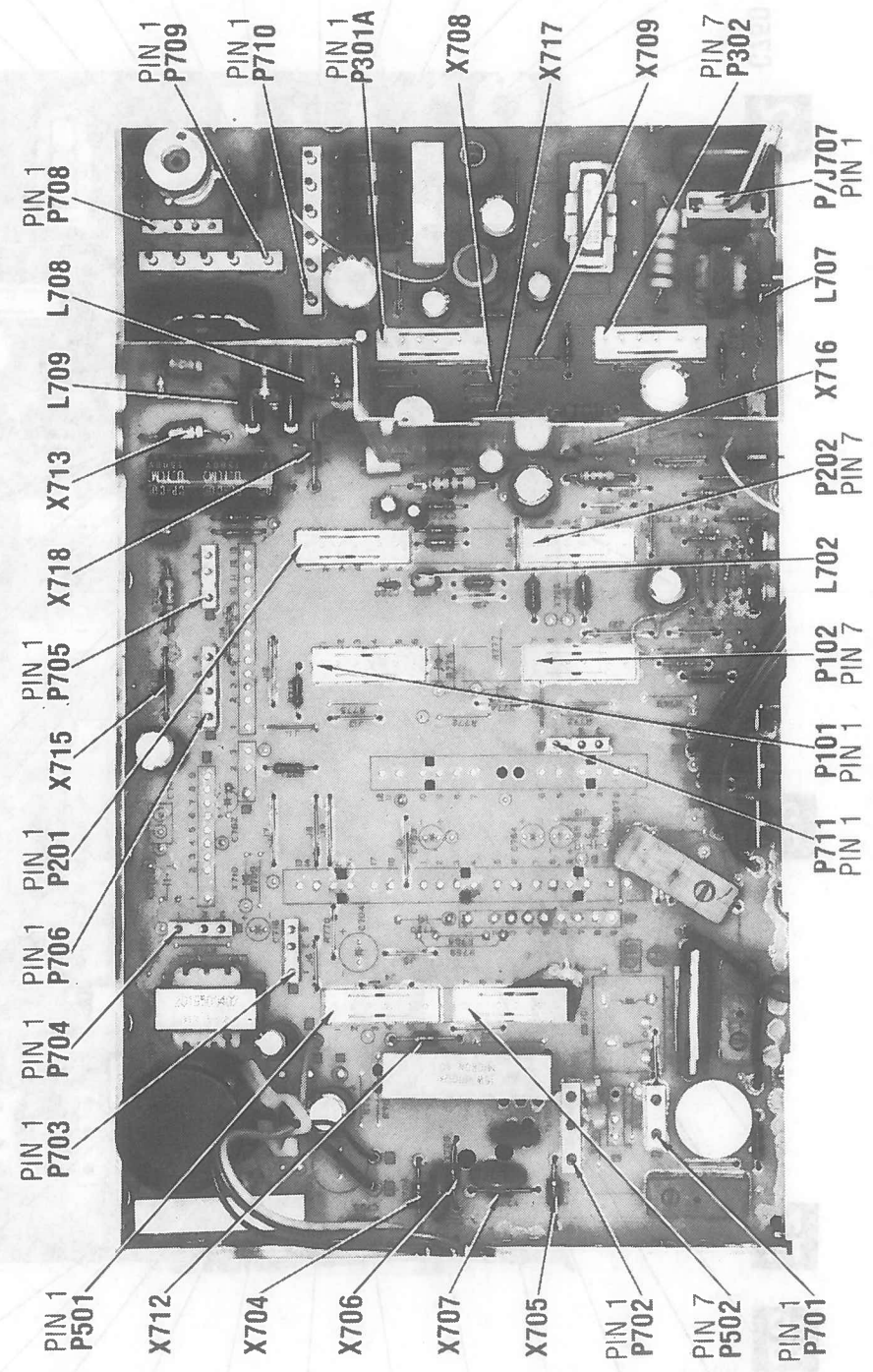
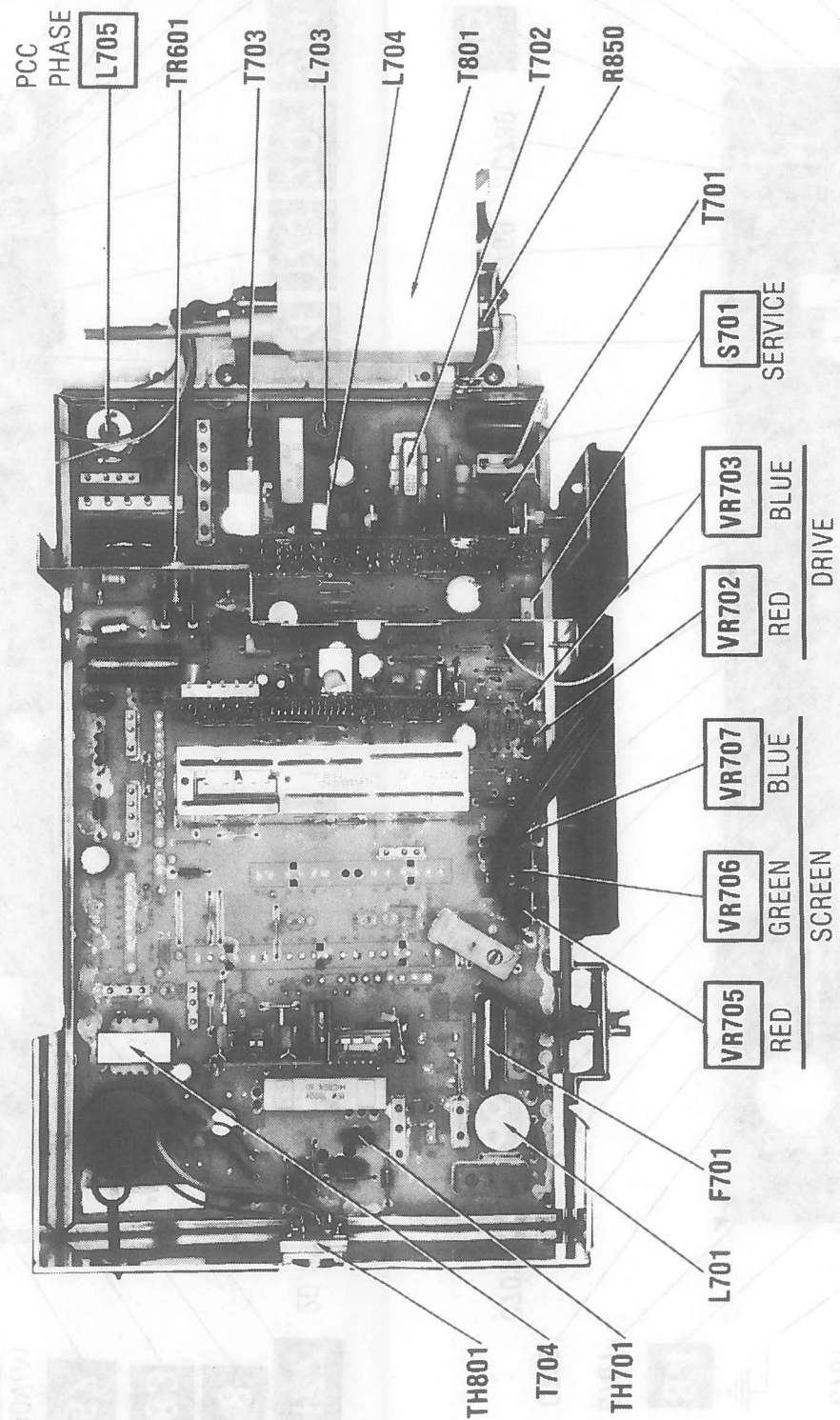
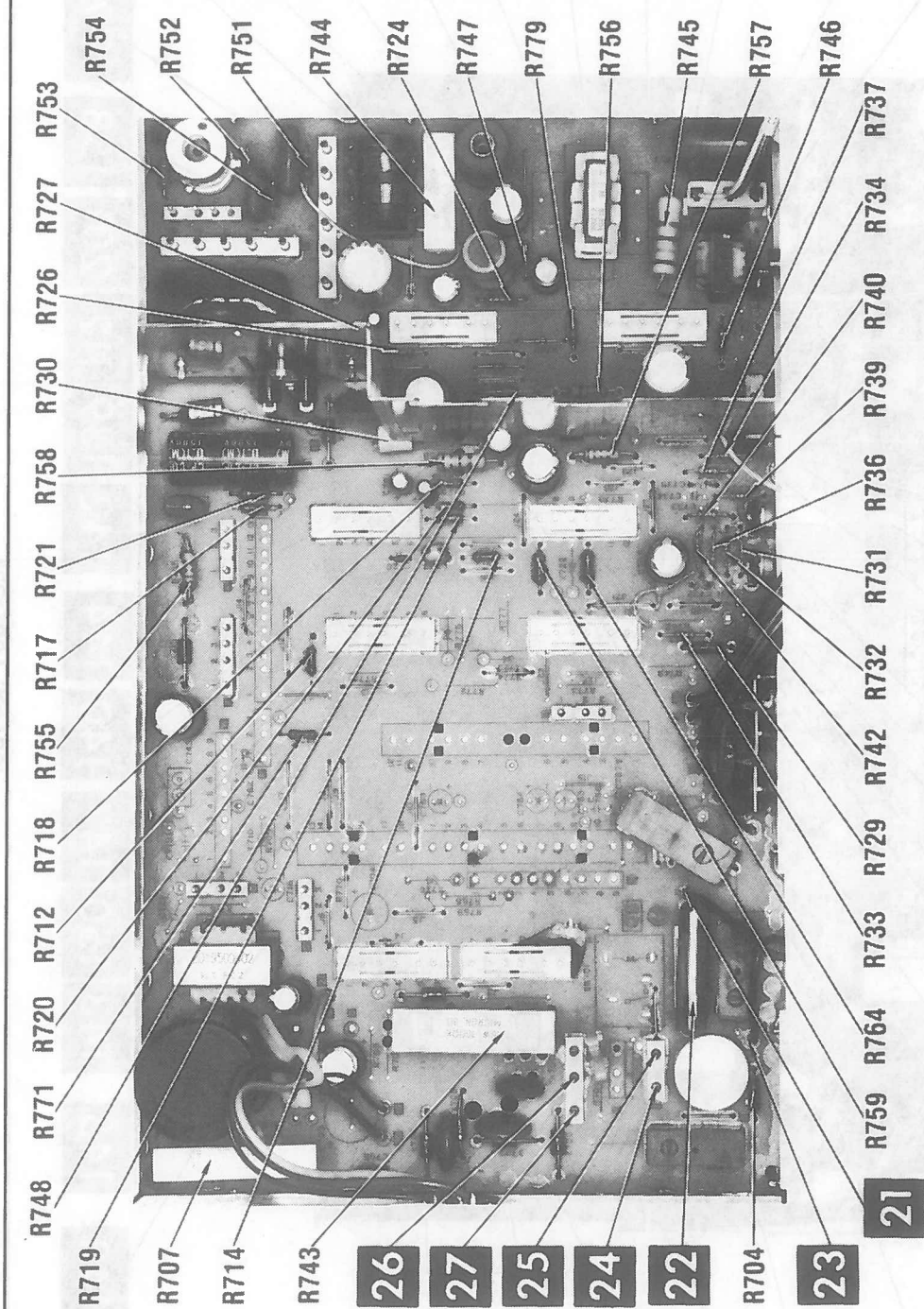
\* LOCATED ON BOTTOM OF BOARD

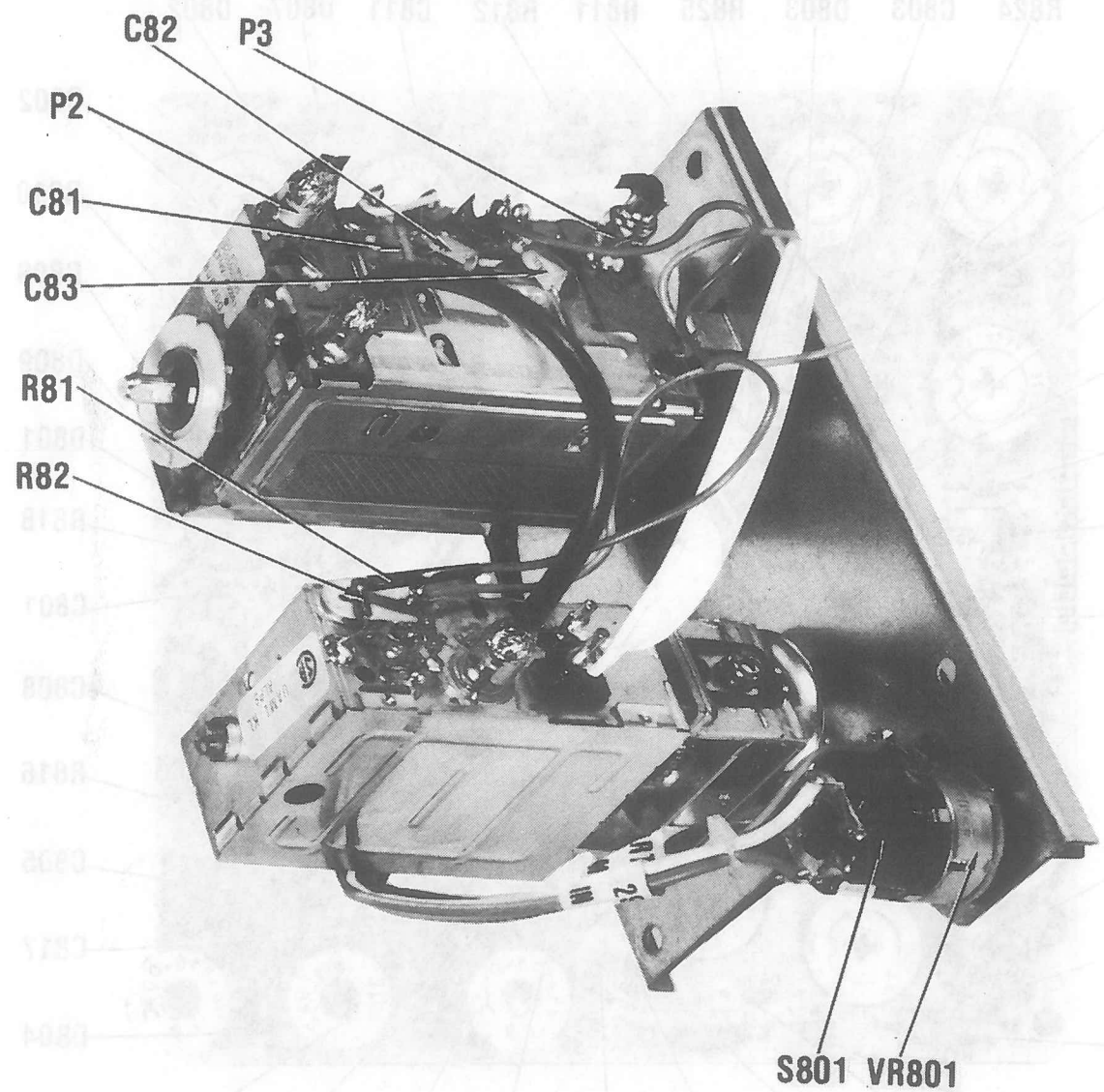
HORIZ/VERT (RU) BOARD



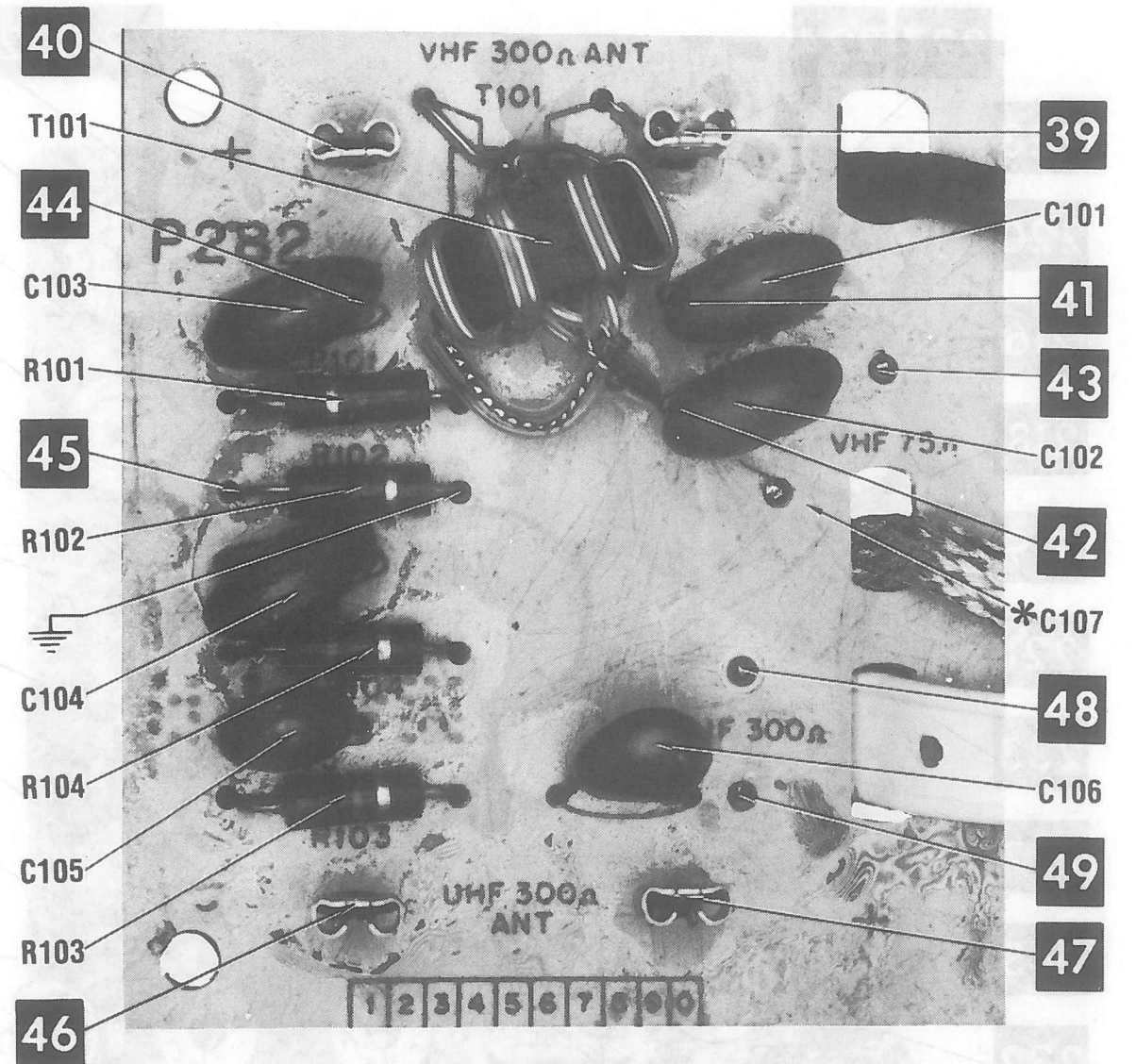








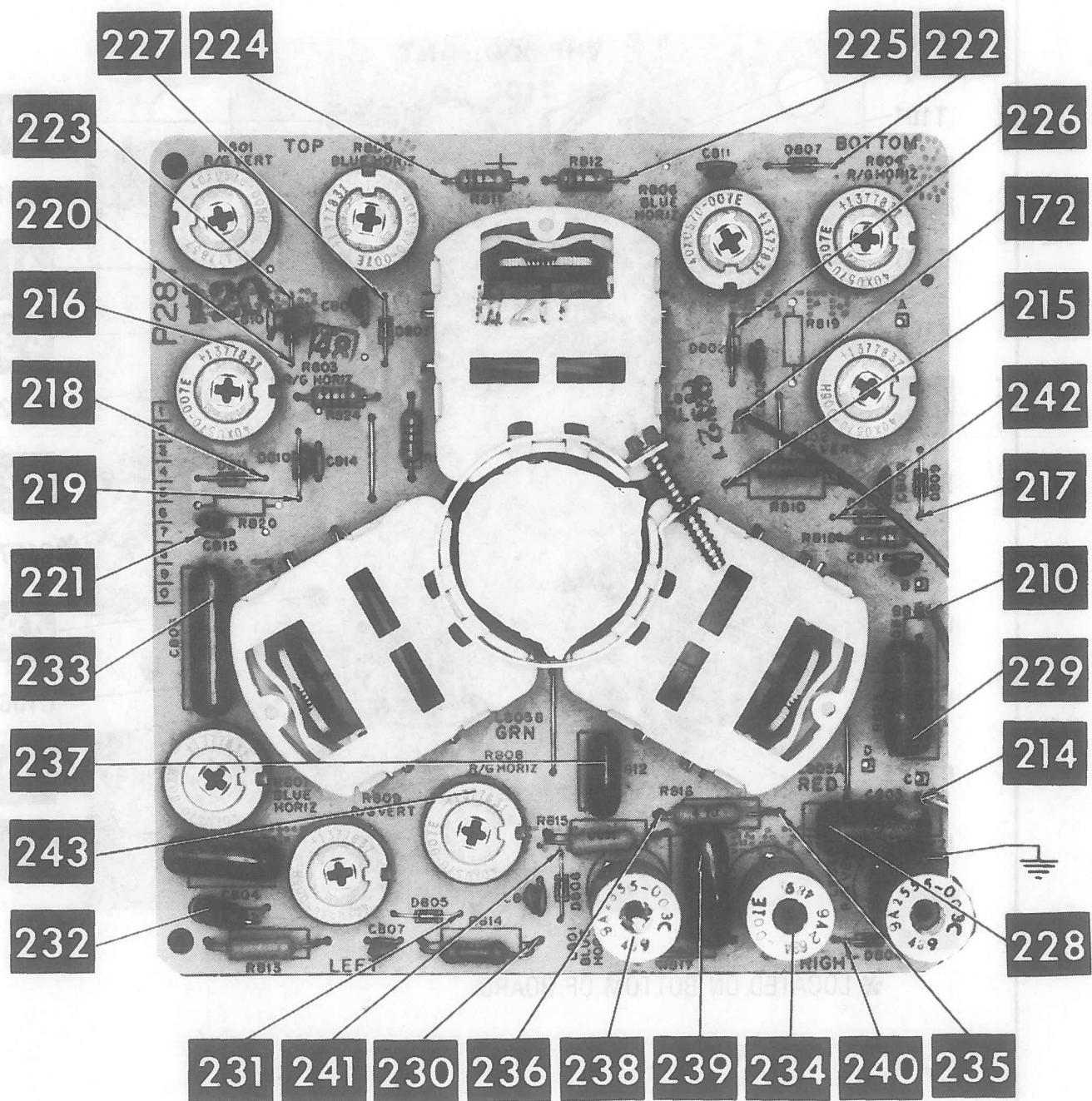
TUNER ASSEMBLY



\* LOCATED ON BOTTOM OF BOARD

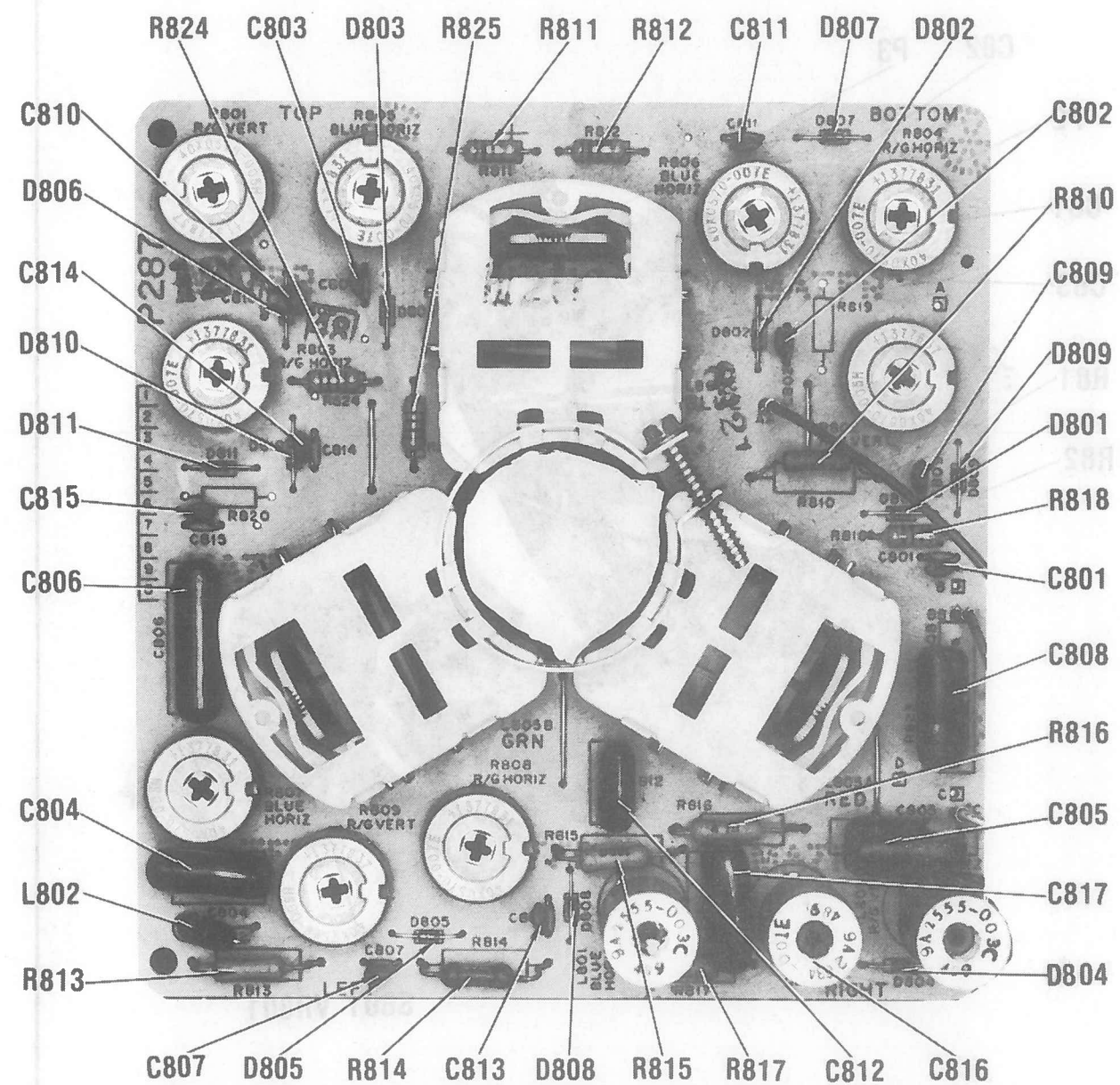
ANTENNA (P282) BOARD





CONVERGENCE (P287) BOARD

A Howard W. Sams CIRCUITRACE® Photo



CONVERGENCE (P287) BOARD

## CONVERGENCE ADJUSTMENTS

NOTE: Maintain center convergence throughout setup procedure. Use crosshatch pattern for all other adjustments. View pattern as displayed on TV screen. Connect dot/crosshatch generator to antenna terminals. Use dot pattern for center dot convergence. Miscellaneous Adjustments should be made before proceeding to Convergence Adjustments.

Adjust R801 and R805 to converge red and green vertical center line from top to bottom of screen.

Adjust R803 and R804 to converge red and green horizontal lines along vertical center line from top to bottom of screen.

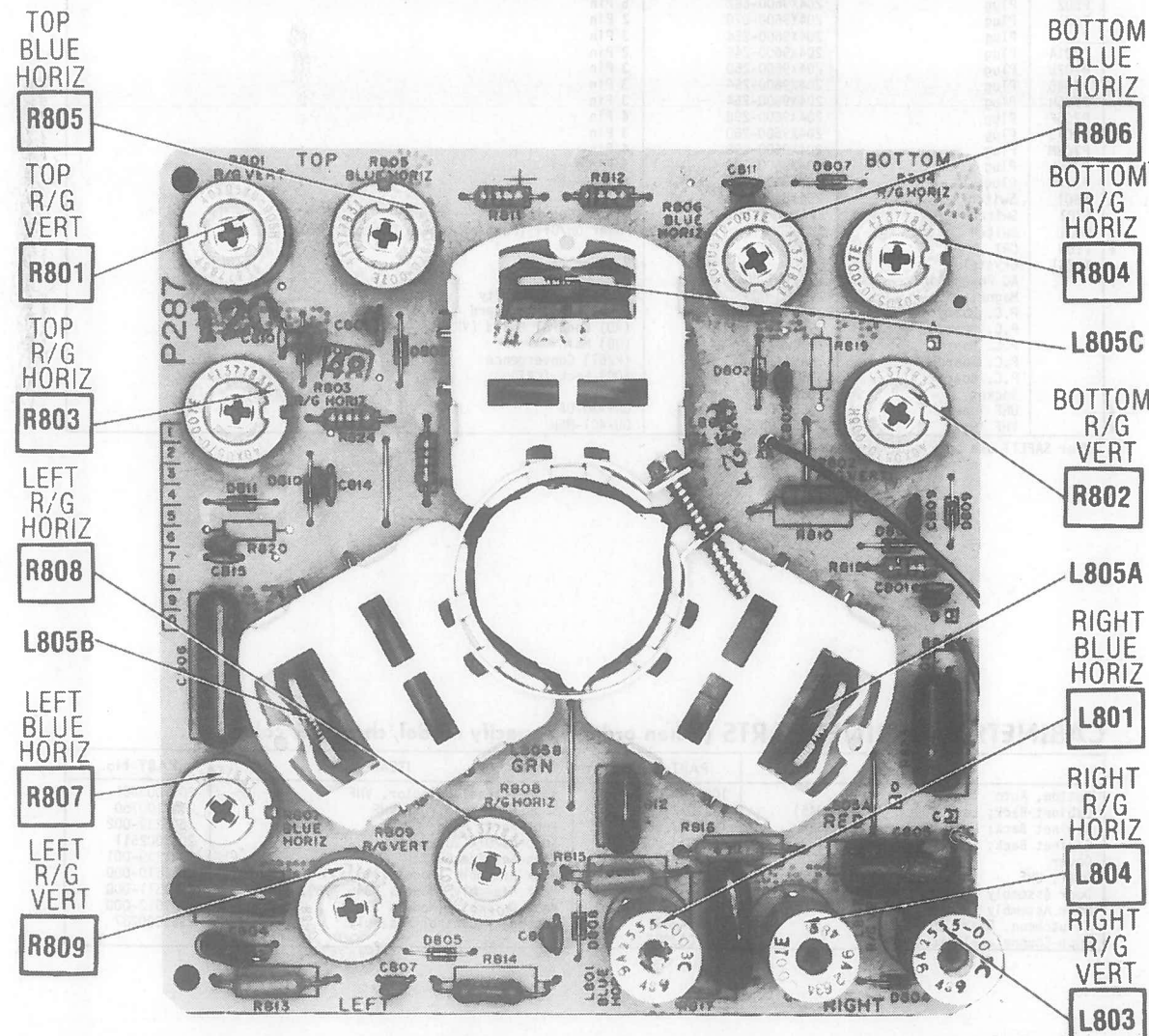
Adjust R808 and R809 to converge red and green vertical and horizontal lines, left side of screen.

Adjust L803 and L804 to converge red and green vertical and horizontal lines, right side of screen.

Adjust R802 and R806 to converge blue horizontal lines along vertical center line from top to bottom of screen.

Adjust R807 and L801 to converge blue horizontal lines, left and right sides of screen.

Touch up appropriate controls if necessary.



CONVERGENCE (P287) BOARD

## 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. 9867 (30 KV)
Shielded Hook-up Wire .....	Use BELDEN No. 8401 or 8421 (Single-Conductor)
General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8208 (Two-Conductor)
	8522 (Solid) Available in 13 Colors
	8522 (Stranded) Available in 13 Colors
300-Ohm Tuner Input Lead .....	Use BELDEN No. 8225
75-Ohm Tuner Input Lead .....	Use BELDEN No. 8241
300-Ohm Antenna Lead-in .....	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
Antenna Rotor Cable .....	Use BELDEN No. 8464 (Flat) or 8484 (Round) 4-Conductor
	8485 (Round) 5-Conductor
	8488 (Round) 8-Conductor

## MODULES/PLUG-IN BOARDS

ITEM No.	PART NAME	MFR. PART No.	NOTES
	Plug In Board	2933000583	(QD) IF Pack
	Plug In Board	2951000558	(QE) Video/Chroma
	Plug In Board	2955000114	(QF) Audio/Power
	Plug In Board	2954000667	(RU) Horiz/Vertical

## SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFR. PART No.	REPLACEMENT DATA						
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
D801		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D802		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D803		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D804		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D805		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D806		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D807		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D808		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D809		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D810		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
D811		66X0046-001	GE-300	PTC214	SK3175/177	ECG177	TM177	WEP1062/177	103-131
IC1	TA7074P, GL	200X2120-012	GEIC-97	PTC746	SK3168/749	ECG749	TM749	WEP2027/749	221-29013
IC2	TA7176AP	200X2110-269	GEIC-148	PTC726	SK3072/712	ECG712	TM712	WEP507/712	221-48
IC3	TA7070P, GL	200X2100-022	GEIC-149	PTC754	SK3365/1004	ECG1004	TM1004	WEP2123/1004	221-29022
IC201 (IC251)	TA7192P	200X2501-708	GEIC-328		SK3725/1196	ECG1196	TM1196	WEP2261/1196	221-29064
TR1	2SC1906	200X3190-604	GE-86	PTC132*	SK3293/107	ECG107	TM107	WEP923/316*	121-925*
TR2	2SC1906	200X3190-604	GE-86	PTC132*	SK3293/107	ECG107	TM107	WEP923/316*	121-925*
TR3	2SC1740R	200X3174-014	GE-62	PTC121*	SK3122	ECG123AP*	TM123AP*	WEP736/123A*	121-29000A*
TR203	2SA1015Y	200X4082-614	GE-82*	PTC103*	SK3114/290	ECG290	TM290	WEP62/159*	121-29003*
	2SA826Q	200X4082-614	GE-89*	PTC177	SK3114/290	ECG159*	TM159*	WEP62/159*	121-29003*
TR204	2SC1740R	200X3174-014	GE-62	PTC121*	SK3122	ECG123AP*	TM123AP*	WEP736/123A*	121-29000A*
TR205	2SC1740R	200X3174-014	GE-62	PTC121*	SK3122	ECG123AP*	TM123AP*	WEP736/123A*	121-29000A*
TR206	2SA1015Y	200X4082-614	GE-82*	PTC103*	SK3114/290	ECG290	TM290	WEP62/159*	121-29003*
TR207	2SA854Q	200X4085-415	GE-89*	PTC103*	SK3247/234	ECG234	TM234	WEP907/234	121-879*
TR301	2SC1740Q	200X3174-006	GE-62	PTC121*	SK3122	ECG123AP*	TM123AP*	WEP736/123A*	121-29000A*
TR302	2SC2240GR, GL	200X3224-007	GE-220*	PTC170*	SK3244	ECG287*	TM287*	WEP68/287*	121-29045*
TR303	2SC2229-0	200X3222-907	GE-220*	PTC170*	SK3219	ECG375	TM375	WEP780/291	121-29047
TR304	2SC2073, LBL2	200X3207-306							
TR305	2SA940, LBL2	200X4094-001			SK3441/292	ECG292	TM292	WEP781/292	121-29048
TR351	2SA1015-0	200X4101-500	GE-82*	PTC103*	SK3114/290	ECG290	TM290	WEP62/159*	121-29003*
TR352	2SC2242BK LB, GL2	200X3224-204	GE-251		SK3219	ECG198	TM198	WEP779/198	121-29028
# TR354	2SC1740Q	200X3174-006	GE-62	PTC121*	SK3122	ECG123AP*	TM123AP*	WEP736/123A*	121-29000A*
TR401	2SC2068, LB	200X3206-800	GE-251		SK3219	ECG376	TM376	WEP779/198	121-29028
TR402	2SC2068, LB	200X3206-800	GE-251		SK3219	ECG376	TM376	WEP779/198	121-29028
TR403	2SC2068, LB	200X3206-800	GE-251		SK3219	ECG376	TM376	WEP779/198	121-29028
TR501	2SC2230AY	200X3223-025	GE-220*	PTC170*	SK3244	ECG287*	TM287*	WEP68/287*	121-29045*
TR502	2SC1921	200X3192-101	GE-222	PTC170*	SK3433/287*	ECG287*	TM287*	WEP750	121-777-01
TR551	2SC2240GR, GL	200X3224-007	GE-220*	PTC170*	SK3244	ECG287*	TM287*	WEP68/287*	121-29045*
TR552	2SC2073 LB, GL2	200X3207-306			SK3219	ECG375	TM375	WEP780/291	121-29047
TR553	2SA940 LB, GL2	200X4094-001			SK3441/292	ECG292	TM292	WEP781/292	121-29048
# TR601	2SC1894	2003189408	GE-259	PTC146	SK3111	ECG238	TM238	WEP740B/165	121-29001
# TR801	2SC1106	2003110607	GE-73	PTC118	SK3559/162	ECG162	TM162	WEP707/162	121-29018



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.

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	MFR. PART No.	REPLACEMENT DATA						
			GENERAL ELECTRIC PART No.	MALLORY PART No.	RCA PART No.	SYLVANIA PART No.	THORDARSON PART No.	WORKMAN PART No.	ZENITH PART No.
X1	1N60TV-TPGL	201X2000-118	1N60	PTC206	SK3088	ECG109	TM109	WEP134/109	103-29001
X2	1N60TVGL	200X8000-026	1N60	PTC206	SK3088	ECG109	TM109	WEP134/109	103-29001
X202	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X203	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X204	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X205	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X206	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X207	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X251	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X252	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X253	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X254	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X303	MA26W	200X8010-102		PTC302	SK3864/605	ECG605			
X351	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X352	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X354	RD9.1EB2	201X2220-878	GEZD-9.1	ZM9.1B	SK3784/5018A	ECG5018A	TM5018A	WEP1419/5018	103-279-18
X401	1S2367	201X2100-126	GE-511	PTC216	SK3318	ECG116	TM116	WEP172/506	103-287
X402	1S2367	201X2100-126	GE-511	PTC216	SK3318	ECG116	TM116	WEP172/506	103-287
X403	1S2367	201X2100-126	GE-511	PTC216	SK3318	ECG116	TM116	WEP172/506	103-287
X502	RD9.1EBT	201X2220-118	GEZD-9.1	ZM9.1B	SK3784/5018A	ECG5018A	TM5018A	WEP1419/5018	103-279-18
X503	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X551	MA26W	200X8010-102		PTC302	SK3864/605	ECG605			
X704	RM-2AV	201X3130-109	GE-509	PTC203	SK3080	ECG125	TM125	WEP170/125	212-Z9000
X705	RM-2AV	201X3130-109	GE-509	PTC203	SK3080	ECG125	TM125	WEP170/125	212-Z9000
X706	RM-2AV	201X3130-109	GE-509	PTC203	SK3080	ECG125	TM125	WEP170/125	212-Z9000
X707	RM-2AV	201X3130-109	GE-509	PTC203	SK3080	ECG125	TM125	WEP170/125	212-Z9000
X708	1S2076A-07-27	201X2010-131	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X709	1S2076-27	201X2010-159	GE-514	PTC214	SK3100/519	ECG519	TM519	WEP925/519	103-131
X712	RM-12V	201X3120-255	GE-504A	PTC201	SK3311	ECG552	TM552	WEP156	212-76-02
X713	MB-1F		GE-530		SK3925/525	ECG525		WEP177/525	212-Z9010
X715	SB-2CGL	200X8130-171	GE-530		SK3925/525	ECG525		WEP177/525	212-Z9010
X716	RH-1V	201X2120-009	GE-510	PTC205	SK3081/125	ECG525	TM525	WEP170/125	212-Z9000
X717	RH-1V	201X2120-009	GE-510	PTC205	SK3081/125	ECG525	TM525	WEP170/125	212-Z9000
X718	RC-2V	201X2100-119	GE-530		SK3925/525	ECG525	TM525	WEP177/525	212-Z9010

# For SAFETY use only equivalent replacement part.  
\* Lead configuration may vary from original.

MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
CF1	Ceramic Filter	205X2200-040	4.5MHz
L708	Ferrite Bead	201X4710-134	
L709	Ferrite Bead	201X4710-134	
L799	Degaussing Coil	9A2711-005	
NL801	Neon Lamp	2011110089	NE-2G (Green) Auto
J403	Connector	204X9300-958	6 Pin
J404	Connector	204X9300-958	6 Pin
J405	Connector	204X9300-958	6 Pin
J406	Connector	204X9300-958	6 Pin
J407	Connector	204X9300-958	6 Pin
J408	Connector	204X9300-958	6 Pin
J701	Socket	2065004407	2 Pin
J702	Socket	3A0627-003	3 Pin
J703	Socket	2065004345	3 Pin
J704	Socket	2065004328	3 Pin
P201	Plug	204X9600-850	5 Pin
P202	Plug	204X2000-682	6 Pin
P203	Plug	204X2000-682	6 Pin
P301	Plug	204X9600-254	3 Pin
P302	Plug	204X9600-682	6 Pin
P303	Plug	204X9600-682	6 Pin
P401	Plug	204X9600-254	3 Pin
P402	Plug	204X9600-298	4 Pin
P403	Plug	204X9600-329	5 Pin
P501	Plug	204X9600-682	6 Pin
P502	Plug	204X9600-682	6 Pin
P601	Plug	204X9600-670	2 Pin
P71	Plug	204X9600-254	3 Pin
P701A	Plug	204X9600-249	2 Pin
P702B	Plug	204X9600-260	3 Pin
P704D	Plug	204X9600-254	3 Pin
P705H	Plug	204X9600-254	3 Pin
P706F	Plug	204X9600-298	4 Pin
P707S	Plug	204X9600-260	3 Pin
P708M	Plug	204X9600-298	4 Pin
P709L	Plug	204X9600-333	5 Pin
P710N	Plug	204X9600-380	6 Pin
S601	Switch	204X8200-612	ACS/AFT
S701	Switch	204X8100-196	Normal/Service
S801	Switch	2935000710	Power On/Off (Part of Volume Control VR801)
V100	CRT	25VCX22	
XC251	Crystal	13X1193-001	3.58MHz
	AC Power Cord	2A0590-003	
	Magnet	38A5417-000	Blue Lateral/Purity
	P.C. Board	2966000287	(P282) Antenna Board
	P.C. Board	2950001454	(RD) Control Board (VR)
	P.C. Board	38A5442-000	(QB) Main
	P.C. Board	2957000637	(P287) Convergence
	Socket	2082000933	(QC) Neck (CRT)
	UHF Tuner	2055100528	CRT
	VHF Tuner	2055000895	URT-307UA
			GU-4C1-M5W

#For SAFETY use only equivalent replacement part.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA			
		MFR. PART No.	MALLORY PART No.	SPRAGUE PART No.	
				Q-LINE	GENERAL LINE
C13	.47 50V	203X0025-001	VTT47A63	QV1-3	EV-1610
C14	100 16V	203X0010-045	VTT100E16	QV1-95	EV-1231
C26	10 16V	203X0010-003	VTT10B25	QV1-41	EV-1222
C31	100 16V	203X0010-045	VTT100E16	QV1-95	EV-1231
C32	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C35	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C51	.47 50V	203X0025-001	VTT47A63	QV1-3	EV-1610
C53	3.3 50V	203X0025-030	VTT3R3A50	QV1-25	EV-1618.1
C81	10 25V	203X0015-082	VTT10B25		EV-1422
C82	10 25V	203X0015-082	VTT10B25		EV-1422
C83	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C202	2.2 50V	203X0025-026	VTT2R2A50	QV1-21	EV-1617.1
C212	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C213	2.2 50V	203X0625-045	VTT2R2A50	QV1-21	EV-1617.1
C255	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C256	.47 50V	203X0025-001	VTT47A63	QV1-3	EV-1610
C258	22 25V	203X0615-040	VTT22D25		EV-1424
C263	4.7 25V	203X0615-008	VTT4R7B50	QV1-31	EV-1619.1
C305	2.2 50V 10%	203X0025-163	VTT2R2A50	QV1-21	EV-1617.1
C306	47 50V 10%	203X0025-087	VTT47J63	QV1-79	EV-1626
C308	2.2 50V	203X0025-019	VTT2R2A50	QV1-21	EV-1617.1
C310	4.7 50V	203X0625-045	VTT4R7B50	QV1-31	EV-1619.1
C355	4.7 50V	203X0625-045	VTT4R7B50	QV1-31	EV-1619.1
C357	10 25V	203X0615-023	VTT10B25		EV-1422
C503	10 16V	203X0040-020	VTT10B25*	QV1-41*	EV-1222*
C551	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615
C552	10 50V	203X0025-058	VTT10D63	QV1-45	EV-1622
C553	4.7 50V	203X0025-043	VTT4R7B50	QV1-31	EV-1619.1
C554	22 10V	203X0005-004	VTT22B16	QV1-55	EV-1224
C555	3.3 50V	203X0025-030	VTT3R3A50*	QV1-25	EV-1618.1
C601	47 10V	203X0005-029	VTT47D16	QV1-73	EV-1226
C708	560 200V	203X0220-075			
C722	10 160V	203X0040-020	TC52A*		TVA-1504*
C723	47 160V	203X0040-052	TC59C*		TVA-1512*
C724	22 160V	203X0040-034	TC57B*		TVA-1509*
C725	1 50V	203X0025-019	VTT1A50	QV1-11	EV-1615

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

ITEM	PART No.	ITEM	PART No.
Button, Auto	10A1237-001	Knob-Channel Selector, VHF	2087003661
Cabinet Back; Less Cover (Model 7345)	14X1073-001	Knob-Fine Tune, UHF/VHF	2087100750
Cabinet Back; Less Cover (Model 7346)	14X1073-002	Knob-Horiz Hold	10A1239-002
Cabinet Back; Less Cover (Models 7388,7389)	14X1073-005	Knob-On/Off Volume	2087302511
Cover	57X0279-001	Knob-Service Switch	10A1239-001
Dial, UHF	2087200916	Mask Assembly (Model 7345)	26A1510-000
Door Assembly (Models 7345,7388)	38A5493-000	Mask Assembly (Models 7346,7389)	26A1511-000
Door Assembly (Models 7346,7389)	38A5461-000	Mask Assembly (Models 7388)	26A1512-000
Escutcheon, Rear Controls	4X2464-001	Secondary Control Assembly	2966000287
Knob-Channel Selector, UHF	2077003983		

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				
		MFGR. PART No.	OTHER IDENTIFICATION	MILLER PART No.	THORDARSON PART No.	TRIAD PART No.
# L351	Horiz Oscillator	201X5200-138	G13350			
L703	Horiz Size	201X5000-060				
L704	Horiz Linearity	202X2400-144				
L705	Pincushion Phase	201X5010-116				
L801	Right Blue Horiz	9A2555-003				
L802	Blue Shaper (120uH)	9A2751-001				
L803	Right R/G Vert	9A2555-003				
L804	Right R/G Horiz	9A2634-001				
L805	Convergence Yoke	9A2769-001				
A/B/C						
# L806	Yoke Horiz 1.41mH 90° Vert 159mH	9A2790-001				
T701	Horiz Driver	202X1200-080				
T702	Side Pincushion	202X1210-216				
T703	Top & Bottom Pincushion	202X1200-123				
# T801	Horiz Output	2009720106 (1)				

#For SAFETY use only equivalent replacement part.  
(1)HF Unit includes rectifier, resistor, and focus control.

TRANSFORMER (Audio Output)

ITEM No.	IMPEDANCE		REPLACEMENT DATA			NOTES
	PRI.	SEC.	MFGR. PART No.	THORDARSON PART No.	TRIAD PART No.	
T704	800	8	201X9500-402 2019500402 (1)			(1) Number on unit.

SPEAKER

ITEM No.	TYPE		REPLACEMENT DATA		NOTES
			MFGR. PART No.	QUAM PART No.	
SP	5" PM	8 Ohm	12A0672-001	5A1Z8	

FUSE DEVICES

ITEM No.	DESCRIPTION	REPLACEMENT DATA				
		PART No.		BUSS PART No.		WORKMAN PART No.
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE
# F701	3A @ 125V Quick-Acting Pigtail	204X7120-062		GJV3		

#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.

ELECTROLYTIC CAPACITORS(cont)

ITEM No.	RATING	REPLACEMENT DATA			
		MFGR. PART No.	MALLORY PART No.	SPRAGUE PART No.	
				Q-LINE	GENERAL LINE
C726	47 160V	203X0040-052	TC59C*	QV1-11	TVA-1512*
C729	1 50V	203X0025-019	VT11A50		EV-1615
C736	4.7 150V	203X0040-013	TC50XB*		TVA-1544*
C743	10 25V	203X0050-031	VT110B25		EV-1422
C744	22 160V	203X0040-034	TC57B*	QV1-157 QV1-119 QV1-95	TVA-1509*
C745	470 25V	203X0015-053	VT1470M25		EV-1451
C746	220 25V	203X0015-035	VT1220K25		EV-1340
C747	100 16V	203X0010-045	VT1100E16		EV-1231
C754	100 25V NP	203X0313-003	TCN425B		TVAN-1207.1
C759	22 50V	203X0025-064	VT122D25		EV-1424
C761	10 25V	203X0015-082	VT110B25		EV-1422

\* Axial replacement for radial device.

CAPACITORS

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA		
			MALLORY PART No.	SPRAGUE PART No.	
				Q-LINE	GENERAL LINE
C1	.01 50V		MAG5011		
C2	7pF 50V +.5		CN0568		10TCC-V68
C3	7pF 50V +.5		CN0568		10TCC-V68
C4	22 50V +.5		CN0422		10TCC-Q22
C5	1pF 50V +.25	202X8000-031	CN0510		
C6	.01 50V		MAG5011		
C7	5pF 50V +.25	202X8000-130	CN0547		
C8	82 50V 10%		CN0482		10TCC-Q82
C9	.01 50V		MAG5011		
C10	.01 50V		MAG5011		
C11	.01 50V		MAG5011		
C15	.01 50V		MAG5011		
C16	.01 50V		MAG5011		
C17	2pF 50V +.25	202X8000-076	CN0522		
C18	.01 50V		MAG5011		
C19	.01 50V		MAG5011		
C21	12 N470 50V 10%	202X8042-074	*		10TCT-Q12
C22	3pF 50V +.25	202X8000-093	CN0533		
C23	10 50V +.1		CN0410	QCC2-15	10TCC-Q10
C24	10 50V .1		CN0410	QCC2-15	10TCC-Q10
C25	.01 50V		MAG5011		
C27	.01 50V		MAG5011		
C28	2pF 50V +.25	202X8000-076	CN0522		
C29	22 50V 10%		CN0422		10TCC-Q22
C30	.01 50V		MAG5011		
C33	.022 50V 10%		M192P2239R8	QFT2-127	1FT-S22
C34	15 50V 10%		CN0415		10TCC-Q15
C36	2pF 50V +.25	202X8000-076	CN0522		
C37	150 50V 10%		CN0315		10TCC-T15
C38	.01 50V		MAG5011		
C39	.01 50V		MAG5011		
C40	.01 50V		MAG5011		
C41	2pF 50V +.25	202X8000-076	CN0522		
C42	.001 50V		GP210	QCT2-41	10TS-D10
	22 50V		CN0422		10TCC-Q22
C43	.01 50V		MAG5011		
C44	.01 50V		MAG5011		
C46	22 50V 10%		CN0422		10TCC-Q22
C48	5pF 50V +.25	202X8000-130	CN0547		
C55	.01 50V		MAG5011		
C56	.01 50V		MAG5011		
C101	.001 125V AC	202X7810-108			
C102	.001 125V AC	202X7810-108			
C103	.001 125V AC	202X7810-108			
C104	.001 125V AC	202X7810-108			
C105	150 125V AC 10%	202X7810-140			
C106	150 125V AC 10%	202X7810-140			
C107	7pF 50V +.5	202X8000-187			
C201	560 50V 5%		SX356	QW1-45	MWC-561
C208	270 50V 5%		GP327		10TS-T27
C209	.01 50V 10%		M192P1039R8	QFT2-91	1FT-S10
C210	820 50V 10%		GP382		10TS-T82
C211	680 50V 10%		GP368		10TS-T68
C214	150 50V 5%		CN0315	QCT2-34	10TCC-T15
C215	390 50V 5%		GP339	QW1-39	10TS-T39
C251	330 50V 5%		SX333		MWB-331
C252	.01 50V		MAG5011		
C253	220 50V 5%		SX322	QW1-35	MWA-221
C254	.01 50V		MAG5011		
C257	.01 50V 10%		EWFTA110	QF1-91	1PB-S10
C259	56 50V 10%		CN0456		10TCC-Q56
C260	.01 50V		MAG5011		
C261	33 50V 10%		CN0433		
C262	.047 50V 10%		M192P4739R8	QCC2-22	10TCC-Q33
C264	.022 50V 10%		M192P2239R8	QFT2-171	1FT-S47
C265	.022 50V 10%		M192P2239R8	QFT2-127	1FT-S22
C266	82 50V 10%		CN0482		10TCC-Q82
C267	22 50V 5%		CN0422		10TCC-Q22
C268	18 50V 5%		CN0418		10TCC-Q18
C269	100 50V 10%		GP310	QCT2-24	10TS-T10
C270	.01 50V		MAG5011		
C271	.01 50V		MAG5011		



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		
			MALLORY PART No.	SPRAGUE PART No.	
				Q-LINE	GENERAL LINE
C272	47 50V 5%		CN0447	QCC2-26	10TCC-Q47
C273	470 50V 10%		GP347	QCT2-35	10TS-T47
C274	470 50V 10%		GP347	QCT2-35	10TS-T47
C275	470 50V 10%		GP347	QCT2-35	10TS-T47
C301	.033 50V 10%		M192P3339R8	QFT2-149	1FT-S33
C302	.1 100V 10%		EWFA010	QF1-215	1PB-P10
C303	.0068 50V 10%		M192P6829R8	QFT2-73	1FT-D68
C304	.033 50V 10%		M192P3339R8	QFT2-149	1FT-S33
C307	.039 50V 10%		M192P3939R8	QFT2-159	1FT-S39
C311	.0022 50V 10%		GP222	QCT2-46	10TS-D22
C312	.0022 50V 10%		GP222	QCT2-46	10TS-D22
C351	.001 50V 10%		GP210	QCT2-41	10TS-D10
	.0033 50V 10%		GP233	QCT2-107	56A-D33
C352	.001 50V 10%		GP210	QCT2-41	10TS-D10
C353	.027 50V 10%		M192P2739R8	QFT2-139	1FT-S27
C354	.033 50V 10%		M192P3339R8	QFT2-149	1FT-S33
C356	.1 100V 10%		EWFA010	QF1-215	1PB-P10
C358	.047 50V 10%		M192P4739R8	QFT2-171	1FT-S47
C359	.018 100V 10%				
C360	.047 50V 10%		M192P4739R8	QFT2-171	1FT-S47
C361	.0022 600V 10%		EWFA222		6PS-D22
C362	100 500V 10%		CN0310		10TCC-T10
C366	.039 50V 10%		M192P3939R8	QFT2-159	1FT-S39
C380	.033 50V 10%		M192P3339R8	QFT2-149	1FT-S33
C404	.01 500V 10%		EWFA110	QF1-97	6PS-S10
C405	.01 500V 10%		EWFA110	QF1-97	6PS-S10
C501	.0022 50V 10%		GP222	QCT2-46	10TS-D22
C556	22 500V 10%		CN0422		10TCC-Q22
C701	.1 125V AC	203X1810-107			
C702	.1 125V AC	203X1810-107			
C705	.0015 500V 10%		GP215		10TS-D15
C706	.0015 125V				
C707	.0015 125V				
C720	56 50V 5%		CN0456		10TCC-Q56
C727	.1 100V 10%		M192P1049R8	QFT2-215	1FT-P10
C728	470 1.5KV 1%	202X7105-002			
C737	.01 500V 10%		EWFA110	QF1-97	6PS-S10
C739	.01 500V 10%		EWFA110	QF1-97	6PS-S10
C741	.015 1.5KV 5%	203X1270-629			
C748	.1 1.5KV	202X9040-155			
C750	.01 600V 10%		EWFA110	QF1-97	6PS-S10
C751	.047 200V 10%		EWFA147		4PB-S47
C753	.47 200V 10%		EWFA2047		2PB-P47
C755	.01 500V 10%		EWFA110	QF1-97	6PS-S10
C756	470 1.5KV 1%	202X7105-002			
C780	.15 125V AC				
	.047 125V AC	203X1810-412			
C801	680 500V		GP368		10TS-T68
C802	680 500V		GP368		10TS-T68
C803	680 500V		GP368		10TS-T68
C804	.27 100V 10%		EWFA027		1PB-P27
C805	.082 400V 10%		PVC6182		6PS-S82
C806	.082 400V 10%		PVC6182		6PS-S82
C807	680 500V		GP368		10TS-T68
C808	.056 400V 10%		PVC6156		6PS-S56
C809	680 500V		GP368		10TS-T68
C810	680 500V		GP368		10TS-T68
C811	680 500V		GP368		10TS-T68
C812	.1 100V 10%		EWFA010	QF1-215	1PB-P10
C813	680 500V		GP368		10TS-T68
C814	680 500V		GP368		10TS-T68
C815	680 500V		GP368		10TS-T68
C816	680 500V		GP368		10TS-T68
C817	.27 100V 10%		EWFA027		1PB-P27

#For SAFETY use only equivalent replacement part.  
\*Not normally in distributor's stock. Available thru distributor on order to manufacturer.

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

ITEM No.	FUNCTION	RESISTANCE	REPLACEMENT DATA		
			MFR. PART No.	MALLORY PART No.	TRW PART No.
R15	RF AGC	2000	204X2114-076		X201R252B
R26	Detector Level	200	204X2100-001	MTC23L1	
R801	R/G Vert Lines (Top)	60 1W	40X0570-005		110C60
R802	R/G Vert Lines (Bottom)	60 1W	40X0570-005		110C60
R803	R/G Horiz Lines (Top)	90 3W	40X0570-007		
R804	R/G Horiz Lines (Bottom)	90 3W	40X0570-007		
R805	Blue Horiz Lines (Top)	90 3W	40X0570-007		
R806	Blue Horiz Lines (Bottom)	90 3W	40X0570-007		
R807	Blue Horiz Lines (Left)	120 1W	40X0570-003	MRC120F	110C120
R808	R/G Horiz Lines (Left)	90 3W	40X0570-007		
R809	R/G Vert Lines (Left)	60 1W	40X0570-005		
VR251	APC	5000	204X2112-083	RVA0911V502	X260R502B
VR302	Vert Height (Size)	10K	204X2050-299	MTC14L1	X201R103B
VR351	Horiz Hold	50K	204X2050-284	MTC54L1	X201R503B
VR352	Protector Adjust (Factory Sealed)	50K	204X2050-087		
VR501	B+ Adjust (Factory Sealed)	2000	204X2050-058		

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	RESISTANCE	REPLACEMENT DATA		
			MFR. PART No.	MALLORY PART No.	TRW PART No.
VR601	Tint	1000	204X3035-255		
VR602	Color	10K	204X3035-157		
VR603	Brightness (Brite)	1000	204X3035-174		
VR604	Contrast	1000	204X3035-255		
VR605	Vert Hold	5000	204X3035-139		
VR606	Preset Tint	1000	204X2070-040		
VR607	Preset Color	10K	204X2070-023		
VR608	Preset Brightness (Brite)	1000	204X2070-040		
VR609	Preset Contrast	1000	204X2070-040		
VR702	Red Drive	500	204X2114-031	MTC52L1	X201R501B
VR703	Blue Drive	500	204X2114-031	MTC52L1	X201R501B
VR705	Red Screen	2Meg	204X2114-031		
VR706	Green Screen	2Meg	204X2061-018		
VR707	Blue Screen	2Meg	204X2061-018		
VR801	Volume/Switch	100K	204X2061-018		
	Volume/Switch	Stop @ 30K	2935000710 (6)		
	Focus	50K	2009720106 (18)		
VR802		70Meg "Max"			

# For SAFETY use only equivalent replacement part.  
(6) Alternate part, may be used in some versions.  
(18) Part of T801.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		MFR. PART No.	WORKMAN PART No.			MFR. PART No.	WORKMAN PART No.
R101	2.2Meg 10% 1/2W Carbon	203X5202-531	22-2176	R411	2.2 5% 3W Metal Oxide	203X9205-528	
R102	2.2Meg 10% 1/2W Carbon	203X5202-531	22-2176	R707	5.6 10% 10W WW	204X1600-510	24-4024
R103	100K 10% 1/2W Carbon	203X5201-971	22-2144	R743	100 10% 15W WW	204X1700-514	
R104	2.7Meg 10% 1/2W Carbon	203X5202-576	22-2178	R744	220 10% 7W WW	204X1525-046	
R369	22K 5% 1/2W Carbon	203X6001-447	22-2128	R745	1800 5% 3W Metal Oxide	203X9205-002	
R372	15K 5% 1/4W Carbon Film		22-1124	TH701	9.8 Cold PTC	201X0100-034	FR605

#For SAFETY use only equivalent replacement part.

COILS (RF-IF)

ITEM No.	FUNCTION	REPLACEMENT DATA			REMARKS
		PART No.	OTHER IDENTIFICATION	MILLER PART No.	
L2	Peaking	201X4700-292			
L3	Peaking	201X4700-264			
L4	Peaking	201X4700-308			
L5	Peaking	201X4700-264			
L6	Peaking (3.9uH)	201X4100-206			
L7	RF Choke	201X4700-292			
L9	Peaking	201X4700-308			
L101	Balun	201X8000-070			
L201	RF Choke (15mH)	201X4710-245			
L202	Peaking (150uH)	201X4100-586			
L204	Delay Line	202X0810-142			
L205	Peaking (270uH)	201X4100-647			
L251	Peaking (15uH)	201X4100-017			
L252	Peaking (10uH)	201X4100-303			
L253	Peaking (680uH)	201X4100-743			
L401	Peaking (330uH)	201X4100-668			
L701	Line Filter	201X6000-112			
L702	Peaking (33uH)	201X4100-038			
L707	RF Choke (5uH)	201X4710-196			
T1	47.25MHz Trap	201X8510-144	UT-201		
T2	39.75MHz Trap	201X8510-110	UT-102		
T3	Video IF	201X8410-202	UT-401		
T4	Video IF	201X8410-146	UT-303		
T5	Video IF	201X8310-181	UT-203		
T6	Video IF	201X8310-152	UT-104		
T7	41.25MHz Trap	201X8310-168	UT-105		
T8	4.5MHz Trap	201C8500-125	UT-106		
T9	Quadrature	201X9110-027	UT-211		
T10	AFT (Pri)	201X8310-196	UT-207		
T11	AFT (Sec)	201X8410-195	UT-308		
T251	Chroma Take-off	202X0000-091			

#For SAFETY use only equivalent replacement part.

## DISASSEMBLY INSTRUCTIONS

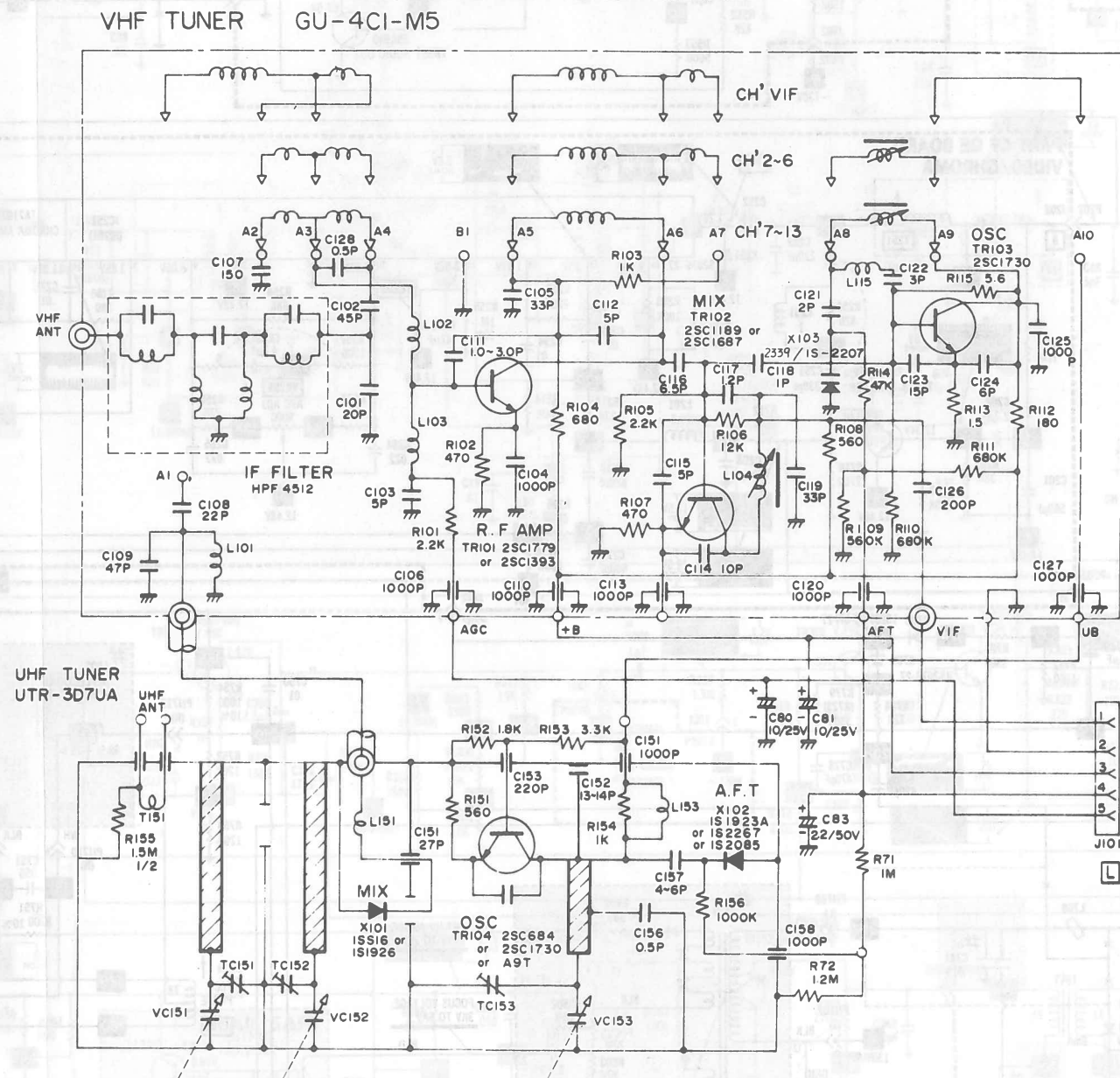
### CHASSIS REMOVAL

Remove nine screws holding cabinet back and remove back from set. Disconnect CRT socket, HV anode lead, deflection yoke plug, convergence board plug, degaussing coil plug, speaker plug, and ground leads. Remove all knobs from cabinet front. Remove three screws holding front panel control board. Remove four nuts holding tuner assembly to cabinet front. Remove two screws holding chassis to cabinet bottom. Remove chassis and control assemblies from cabinet.

### CRT REMOVAL

After removing cabinet back lay set facedown on a soft protective surface. Disconnect CRT socket. Loosen and remove CRT neck assemblies. Remove four screws holding CRT and degaussing shield. Lift degaussing shield from cabinet. Lift CRT from cabinet. Do not lift CRT by the neck.

## SCHEMATIC DIAGRAM



CITEK CHASSIS  
ECC-2601 (K4100)

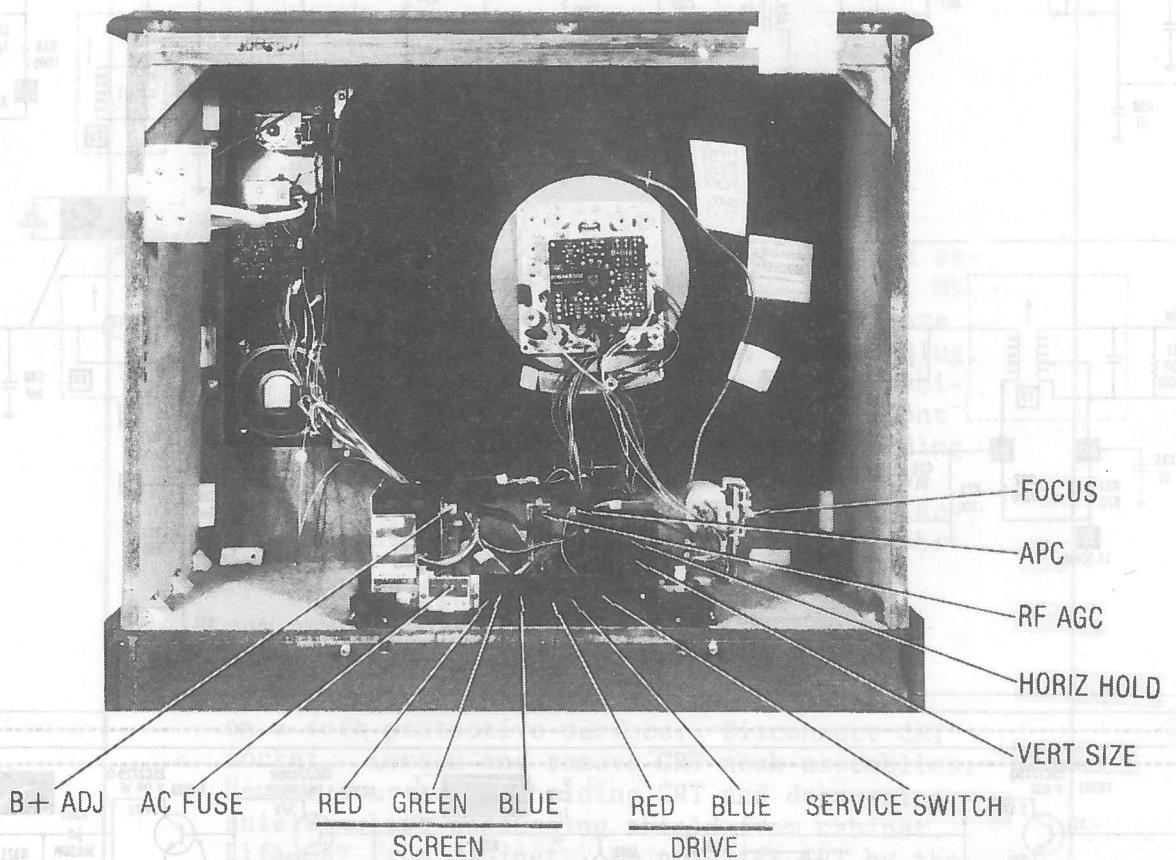
Courtesy of the Manufacturer

UHF/VHF TUNERS

FOLDER 1



## DISASSEMBLY INSTRUCTIONS



**CABINET-REAR VIEW**

## SERVICING IN THE FIELD

### CRT IMPLSION PROTECTION AND CLEANING

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

### FUSE DEVICES

A 3-amp fuse is used for AC line protection. (See photo, Cabinet-Rear View.)

### 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 Control. (See photo, Cabinet-Rear View.)

### WIDTH

The width may be varied by adjusting the Horiz Size Coil. (See Placement Chart.)

### FOCUS

The focus may be varied by a focus control. (See photo, Cabinet-Rear View.)

### AGC

The AGC may be varied by an RF AGC control. (See Placement Chart.)