

MODEL 2377A-44

CAUTIONONE SIDE OF AC LINE CONNECTED TO CHASSIS

TRADE NAME	Penncrest Model 2377A-44, 2377A-48	
SUPPLIER	For current address, see Annual Index.	
TYPE SET	Television Receiver	
TUBES	VHF: Fourteen, UHF: One Transistor	
POWER SUPPLY	110-120 Volts AC, 60 Cycles	RATING 150 Watts, 1.5 Amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)	

SERVICING IN THE FIELDSAFETY GLASS

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

FUSE OR FUSE DEVICE

A Circuit Breaker is used for low voltage power supply protection and may be reset by depressing the reset button.

VHF OSCILLATOR ADJUSTMENT

The Fine Tuning mechanically engages oscillator slug for adjustment (one slug for each channel).

AGC

The AGC may be varied by means of an AGC control. (See "Tube Placement Chart" for location.)

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Coarse adjustment of the horizontal hold is accomplished

by the proper setting of the Horizontal Hold (Coarse) control. (See "Tube Placement Chart" for location.)

WIDTH

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

FOCUS

The focus may be varied by connecting the lead from R32, off pin 4 of the picture tube, to various voltage points. (See "Chassis - Rear View" photo for location.)

CENTERING

Centering is accomplished by 2 magnetic rings located on yoke rear cover.

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. SA029



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DATE 1 -67

SET 859 FOLDER 3

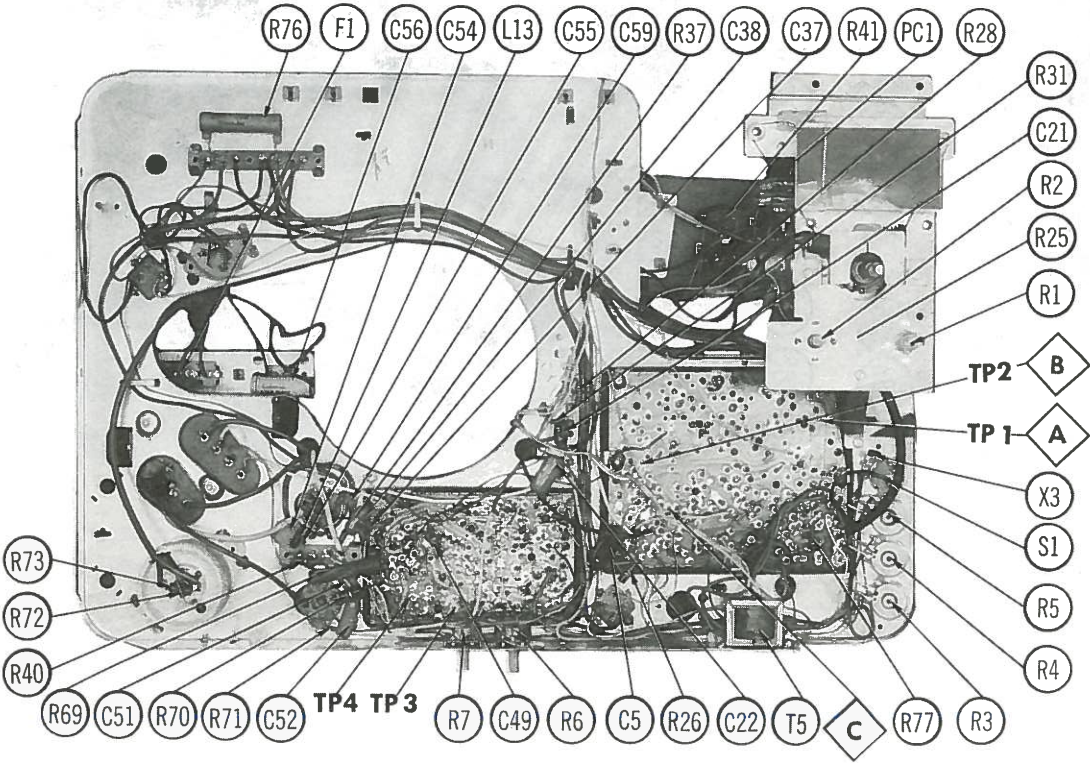
RESISTANCE MEASUREMENTS

ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	4BZ6	335K	47Ω	14Ω	15Ω	3200Ω †	3200Ω †	0Ω		
V2	4BZ6	330K	47Ω	15Ω	16Ω	3200Ω †	3200Ω †	0Ω		
V3	4DK6	0Ω	180Ω	16Ω	17Ω	3000Ω †	3000Ω †	0Ω		
V4	8JV8	0Ω	2.2meg	26K †	5.5Ω	9Ω	90Ω	1meg	12K †	5600Ω †
V5	4AU6	4.4Ω	0Ω	9Ω	10Ω	39K †	39K †	150Ω		
V6	4DT6	.5Ω	680K	10Ω	12Ω	1.1meg †	22K †	560K		
V7	6AQ5	300K	390Ω	12Ω	14Ω	800Ω †	330Ω †	300K		
V8	13GF7	0Ω	1.9meg	900Ω	26Ω	20Ω	430Ω †	NC	4.5meg †	720K
V9	8FQ7	24K †	1.9meg	820Ω	17Ω	20Ω	220K †	150K	820Ω	TP
V10	17JT6	6800Ω †	180K	0Ω	30Ω	26Ω	24K †	6800Ω †	NC	8.3Ω †
V11	17AY3	NC	25.1Ω †	TP	35Ω	30Ω	NC	25.1Ω †	NC	850K
V12	1K3	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP 423.3Ω †
V13	19FDP4	3.5Ω	82K	820K †	100K †	TP	NC	300K	5.5Ω	
V201	3HQ5	1.8meg	0Ω	1.5Ω	0Ω	3700Ω †	0Ω	0Ω		
V15	5GJ7	0Ω	220K	0Ω	1.5Ω	3.5Ω	3600Ω †	9000Ω †	14K †	47K

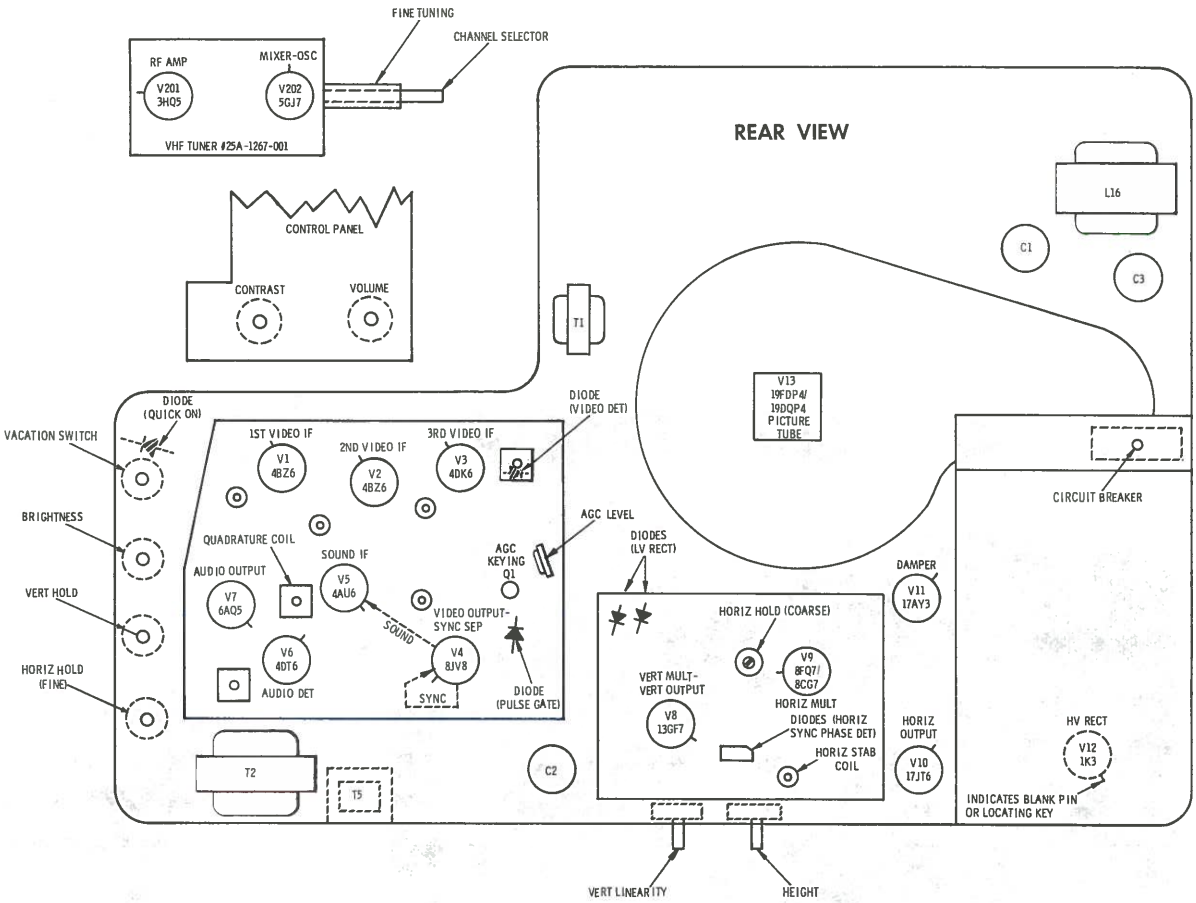
† MEASURED FROM OUTPUT OF X2.
‡ MEASURED FROM PIN 9 OF V11.

NC NO CONNECTION
TP TIE POINT

V202



CHASSIS—FRONT VIEW



TUBE FAILURE CHECK CHART

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

POWER SUPPLY FAILURE

No raster, no sound F1, X1, X2

SWEEP FAILURE

No raster, has sound V10, V11, V12, V13
No vertical deflection V8
Poor vert. linearity or foldover V8
Poor horiz. linearity or foldover V9, V10, V11, V12
Narrow picture V9, V10, V11, V12, X1, X2
Vert. off freq. V8
Horiz. off freq. X6, V9

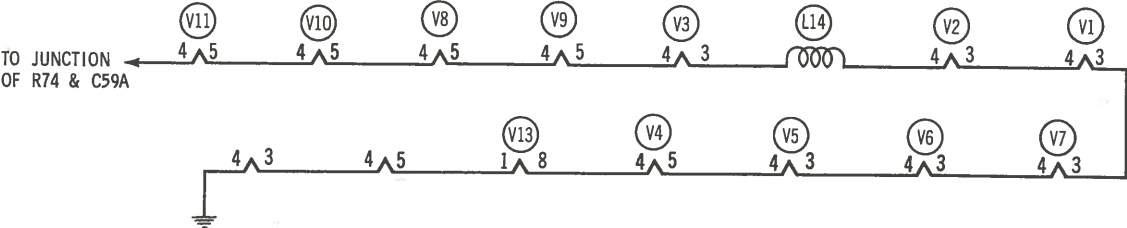
LOSS OF PICTURE OR SOUND

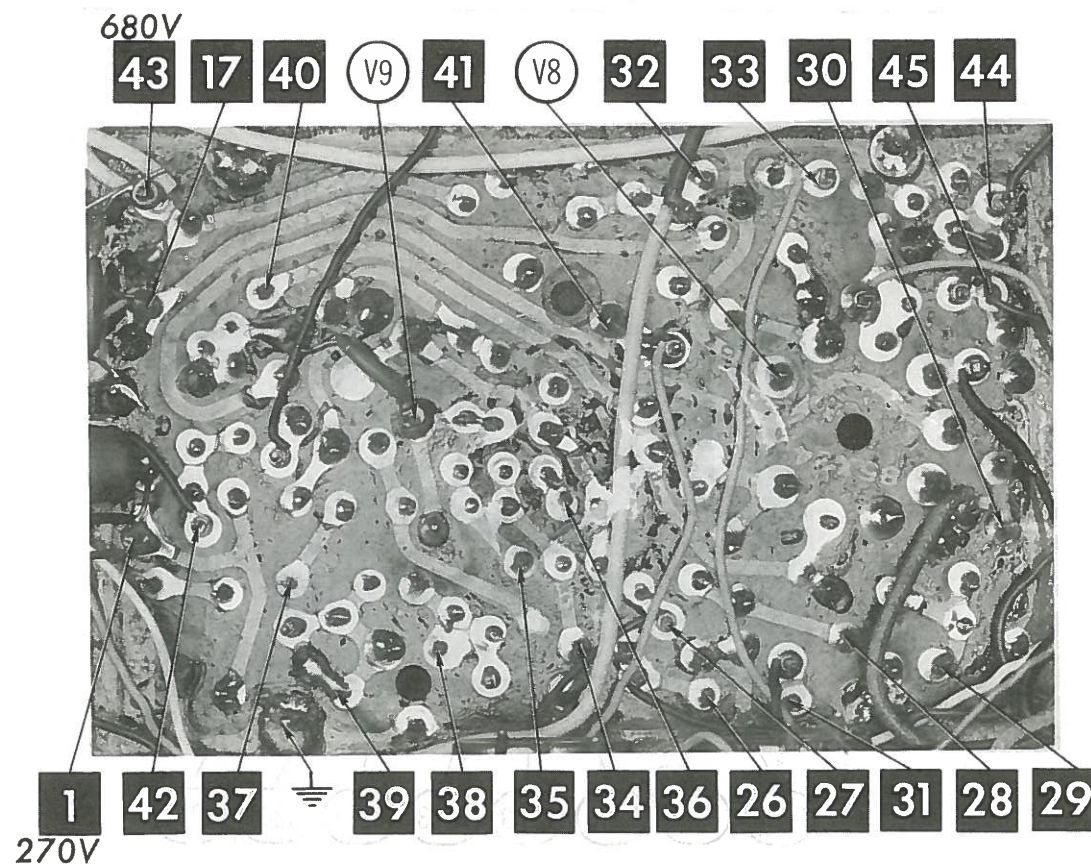
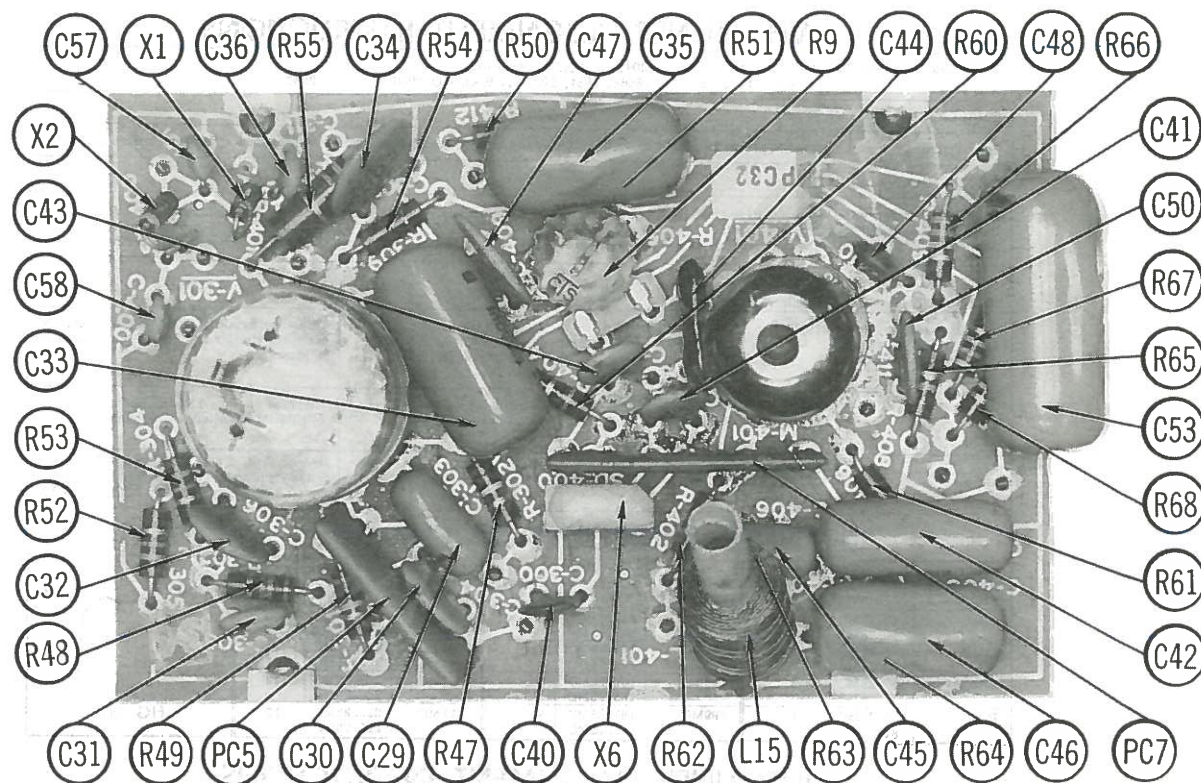
No pic, no sound, has raster V1, V2, V3, X4, V4
No pic, no sound, has snow V201, V202, V1, V2, V3
No pic, has sound, has raster V4, V13
Has pic, no sound V5, V6, V7
Overloaded picture V4

SYNC FAILURE

No vert. sync V4
No horiz. sync V4
No vert. or horiz. sync V4

This receiver employs tubes used in a series filament network, an open filament in any tube will cause the set to be inoperative. (See circuit below.)





A Howard W. Sams **CIRCUITRACE** Photo **SWEEP PRINTED BOARD** ARROWS INDICATING TUBE LOCATIONS ARE POINTING TO PIN 1 UNLESS OTHERWISE INDICATED

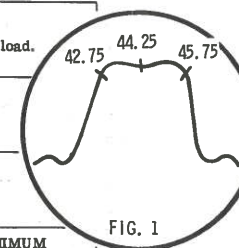
ALIGNMENT INSTRUCTIONS

Use an isolation transformer and maintain voltage at 117 volts. Allow a 20-minute warm-up period for the receiver and test equipment.
Suggested Alignment Tools: A1 thru A12 GENERAL CEMENT #8606, 8606L, 8869 .. WALSCO #2543, 2544, 2588
Mixer Plate Coil ... GENERAL CEMENT #9296, 9297, 9300 ... WALSCO #2510, 2546, 2547

VIDEO IF ALIGNMENT

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

INDICATOR	GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	ADJUST	REMARKS
1.	Connect DC probe of a VTVM thru a 47K resistor to point \diamond . Common to ground.		41.25MC 47.25MC	A1 A2	Adjust for MINIMUM.
2.	Connect vertical input of a scope to point \diamond . Low side to ground.	44MC (10MC Sweep)	42.75 MC 44.25 MC 45.75 MC	A3, A4	Adjust for maximum amplitude and MINIMUM tilt with markers as shown in Figure 1.
3.	Connect vertical input of a scope to point \diamond . Low side to ground.	44MC (10MC Sweep)	41.25 MC 42.75 MC 44.25 MC 45.75 MC 47.25 MC	A5, A6, A7 and Mixer Plate Coil	Adjust for maximum gain and symmetry of response with markers as shown in Figure 2. In order to obtain a proper response, it may be necessary to slightly retouch A3 and A4.

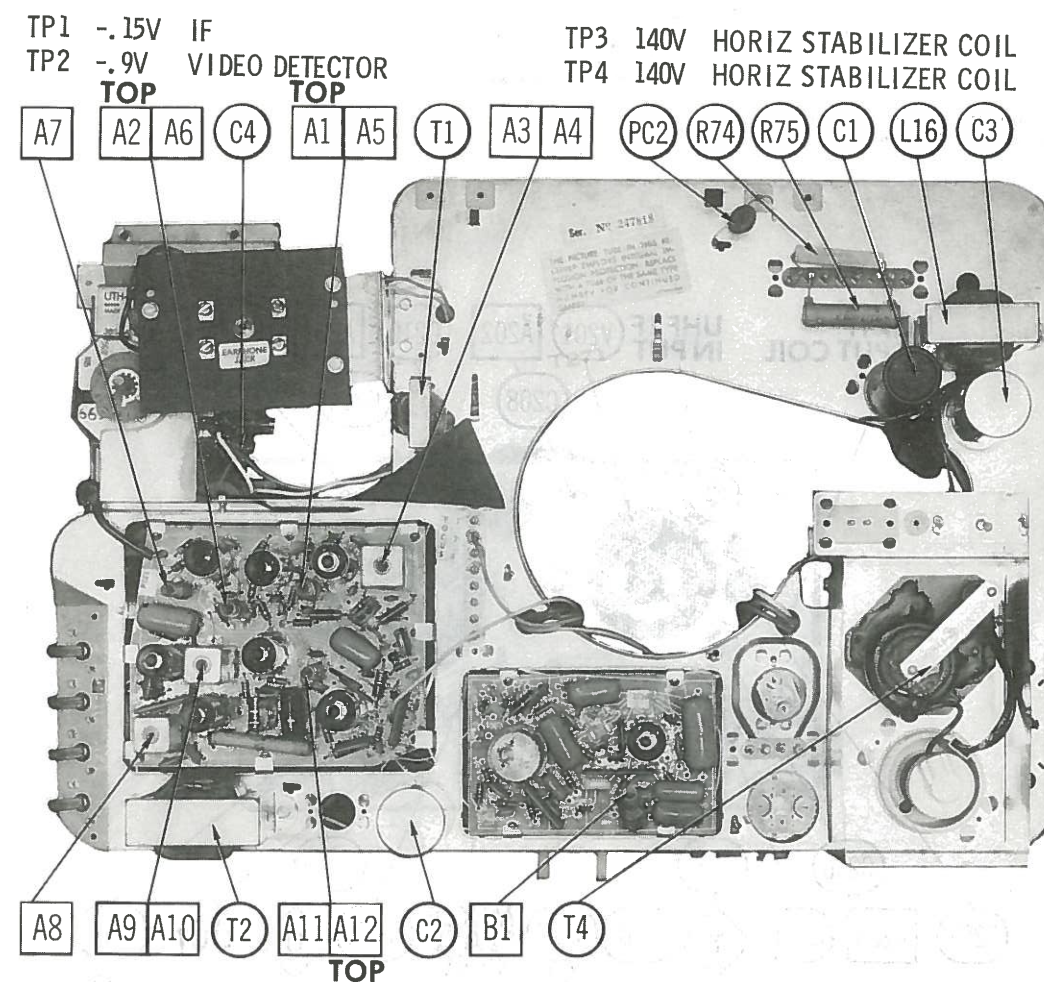
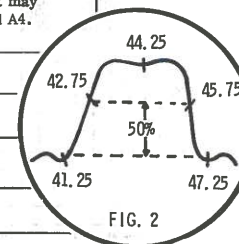


4.5 MC TRAP ALIGNMENT

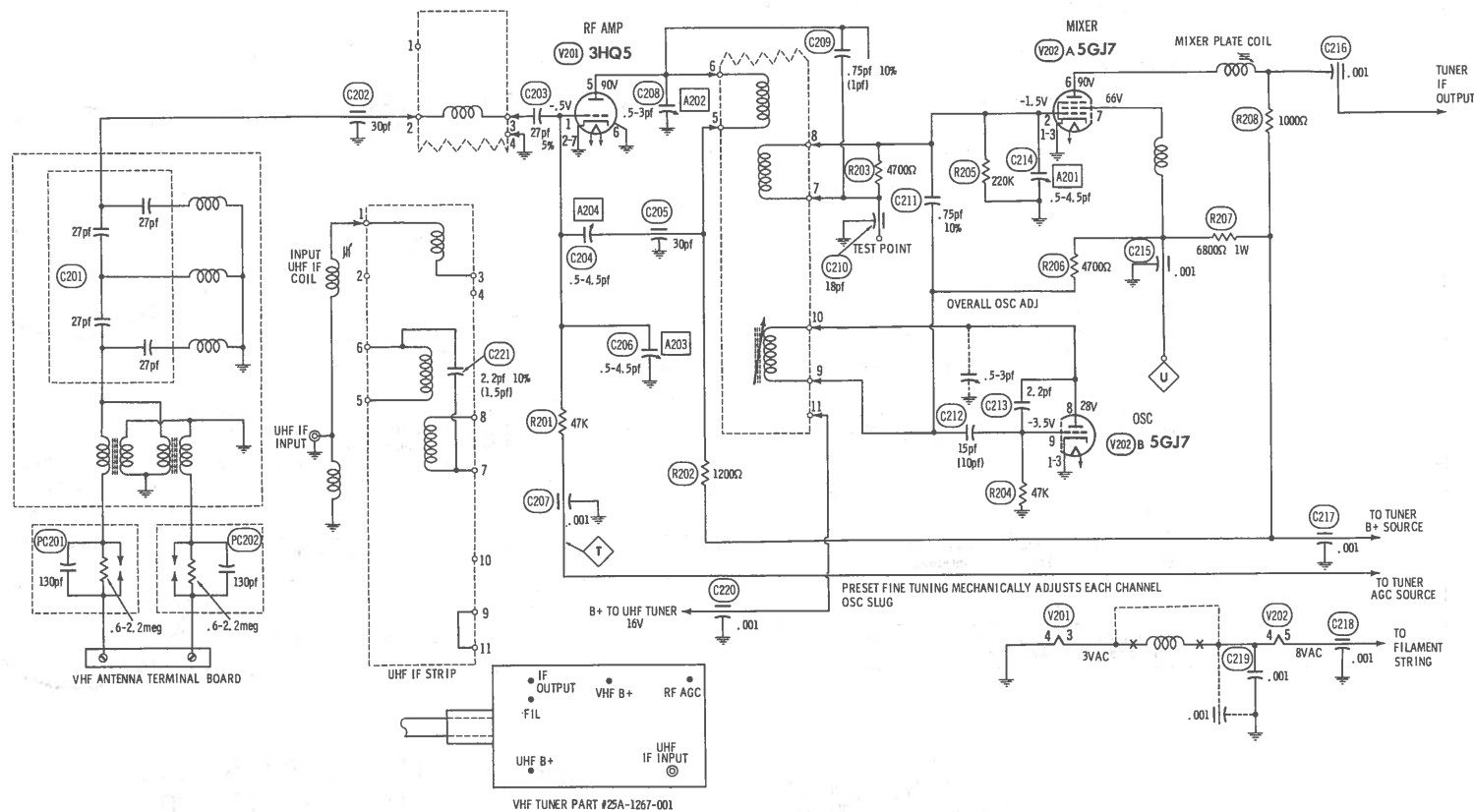
Tune in a strong TV signal and set the Contrast at maximum. Adjust the Fine Tuning until a beat pattern is visible on the screen. Adjust A12 for MINIMUM beat interference.

SOUND IF ALIGNMENT

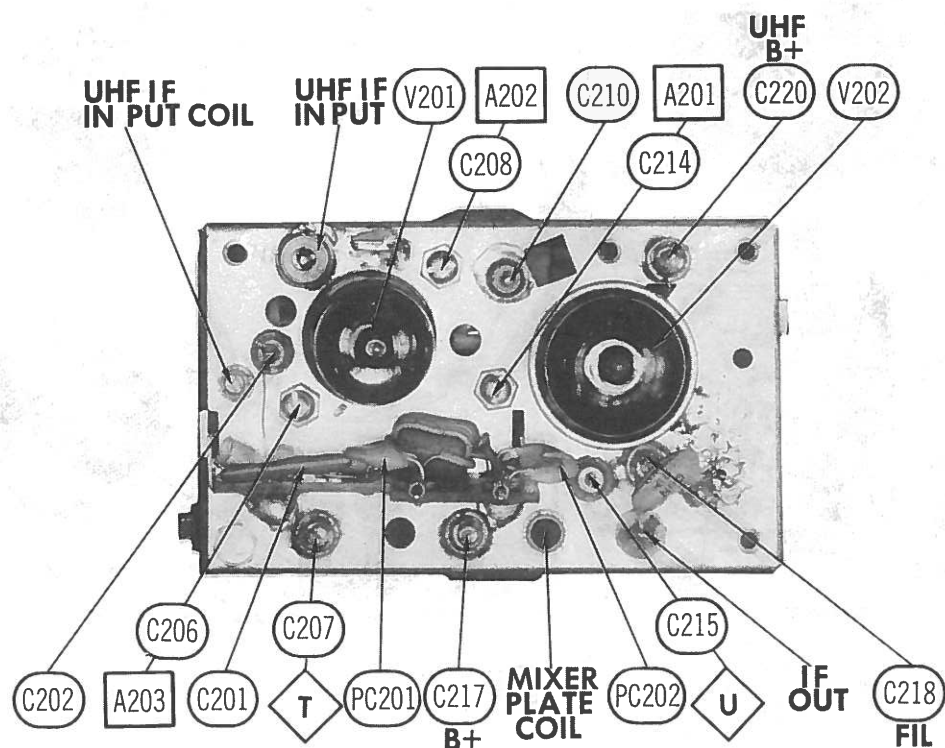
Tune in a station and adjust A8 for maximum sound. Reduce signal strength at the antenna terminals until distortion appears. Continue to reduce signal while aligning for undistorted output by adjusting A9, A10, and A11.



CHASSIS—REAR VIEW



A PHOTOFAC STANDARD NOTATION SCHEMATIC
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VHF TUNER 25A1267-001

VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: A201, A202, A203, A204, and UHF IF Input Coil:
GENERAL CEMENT #8868, 8987, 9089 ... WALSCO #2531-X, 2541, 2587

OSCILLATOR ADJUSTMENTS

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

RF AND MIXER ALIGNMENT

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

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

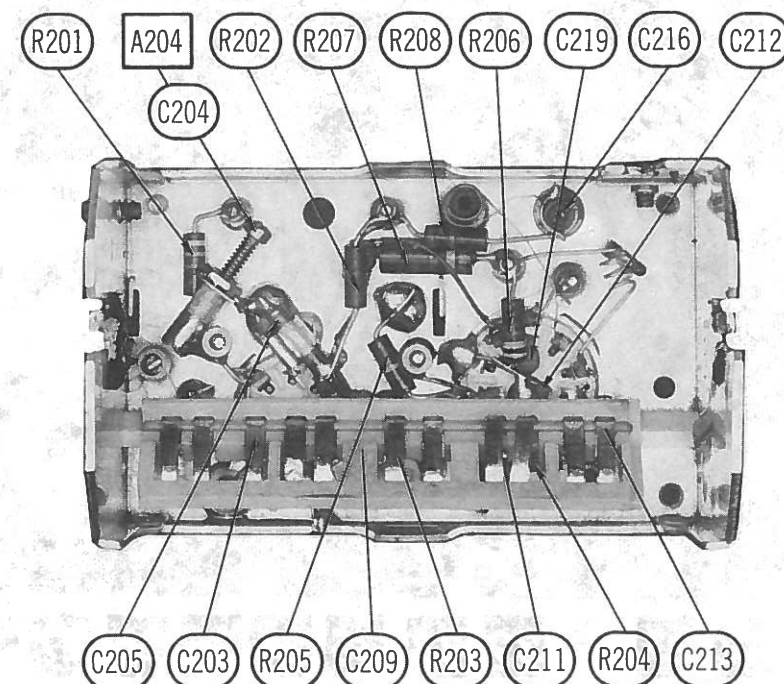
CHANNEL & FREQUENCY CHART

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

FIG. 201

UHF TUNER ALIGNMENT INSTRUCTIONS

Tune to a UHF station and adjust UHF IF Input coil for best picture and sound. Tune UHF Channel Selector to the lowest UHF channel operating in the area (low end of the dial). Adjust UHF Low Channel Oscillator Trimmer for best picture and sound.



VHF PARTS LIST AND DESCRIPTION

VHF TUNER 25A1267-001

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	3HQ5	V202	Mixer - Osc.	5GJ7

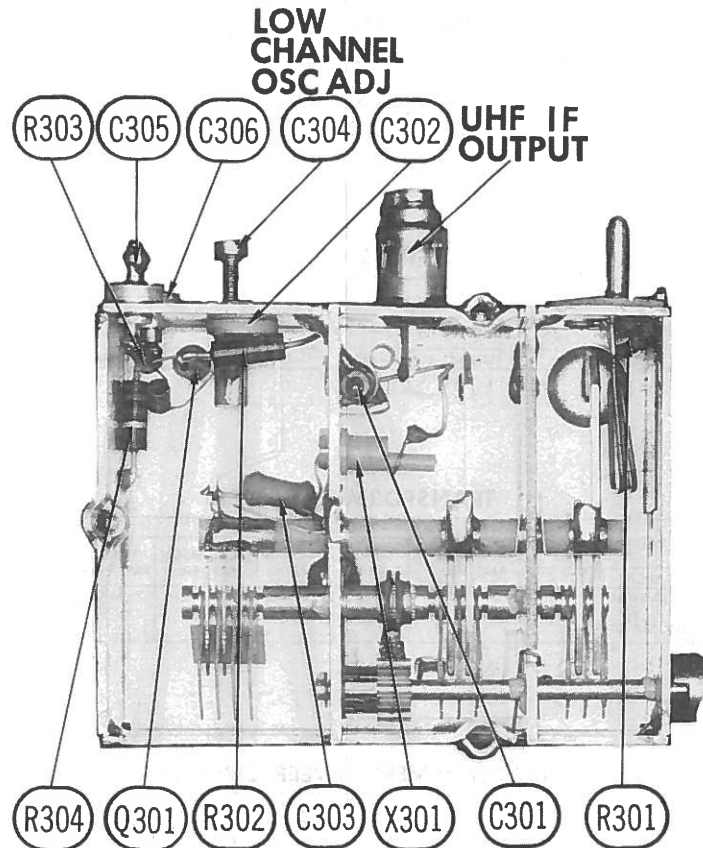
CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA					
			AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.
C201A	27							
B	27							
C	27							
D	27							
C202	30							
C203	27		DI-27	DD-270		CCD-270	GP427	10TS-Q27
C204	.5-4.5	5%						
C205	30							
C206	.5-4.5							
C207	.002		EF-001	MFT-1000		CCF-102	CT280A	
C208	.5-3							
C209	.75pf	10%						
C210	18							
C211	.75pf	10%						
C212	15	(10) †	DI-15	DD-150		CCD-150	GP415	10TS-Q15
C213	2.2							
C214	.5-4.5							
C215	.001		EF-001	MFT-1000		CCF-102	CT280A	
C216	.001		EF-001	MFT-1000		CCF-102	CT280A	
C217	.001		EF-001	MFT-1000		CCF-102	CT280A	
C218	.001		EF-001	MFT-1000		CCF-102	CT280A	
C219	.001		EF-001	MFT-1000		CCF-102	CT280A	
C220	.001		EF-001	MFT-1000		CCF-102	CT280A	
C221	2.2	10%						

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

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	PENNCREST PART No.	REPLACEMENT DATA
PC201	Antenna Isolation	.6-2.2 meg, 130pf		Centralab RC-428
PC202	Antenna Isolation	.6-2.2 meg, 130pf		Aerovox PA-821 Centralab RC-428 Aerovox PA-821



PARTS LIST AND DESCRIPTION

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

TUBES

ITEM No.	USE	TYPE	ITEM No.	USE	TYPE
V201	RF Amp.	3HQ5	V8	Audio Detector	4DT6
V202	Mixer-Osc.	5GJ7	V7	Audio Output	6AQ5
V1	1st Video IF	4BZ6	V8	Vert. Mult. - Vert. Output	13QF7
V2	2nd Video IF	4BZ6	V9	Horiz. Mult.	8FQ7/8CG7
V3	3rd Video IF	4DK6	V10	Horiz. Output	17J76
V4	Video Output - Sync Sep.	8JV8	V11	Damper	17AY3
V5	Sound IF	4AU6	V12	HV Rectifier	1K3

PICTURE TUBE

ITEM No.	PENNCREST PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	NOTES
V13	19FDP4 or 19DQ4	19DQ4 ①	19DQ4 ①	19FDP4 ②	① Aluminized ② Silver Screen "85"

TRANSISTORS

ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA	NOTES	PENNCREST PART No.
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.
Q301		UHF Oscillator		GE-11	NPN
Q1		AGC Keyer		GE-10	NPN

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES		RECTIFIERS		
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	RCA PART No.	SARKES TARZIAN PART No.
X1	.300A	66X0023-001	GE-504A or GE-505	8D4 or 5A4-D	1N2070 or VB400	SK-3018 or SK-3017	40C or S-5960-1
X2	.300A	66X0023-001	GE-504A or GE-505	8D4 or 5A4-D	1N2070 or VB400	SK-3018 or SK-3017	40C or S-5960-1
X3	.240A	66X0023-001	GE-504A or GE-505	8D4 or 5A4-D	1N2070 or 1N540	SK-3018 or SK-3017	40C or F-4
X4		66X0020-001	GE-504A or GE-505	8D4 or 5A4-D	A50 or 1N536	SK-3018 or SK-3017	F-4 or 40C
X5		66X0038-001	GE-504A or GE-505	8D4 or 5A4-D			
X6		66X0025-001	6GC1	DD04			

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA
	CAP. VOLT.	PENNCREST PART No.
C1	140 150	45X0500-001
C2A	125 300	45X0521-001
B	10 300	
C	20 300	
D	100 50	
C3A	125 300	45X0520-001
B	60 300	
C	20 50	

* Not normally in distributor's stock. Available thru distributor on order to manufacturer.
① Use insulating sleeve and mounting wafer.

UHF PARTS LIST AND DESCRIPTION

UHF TUNER 25A1267-001

TRANSISTORS

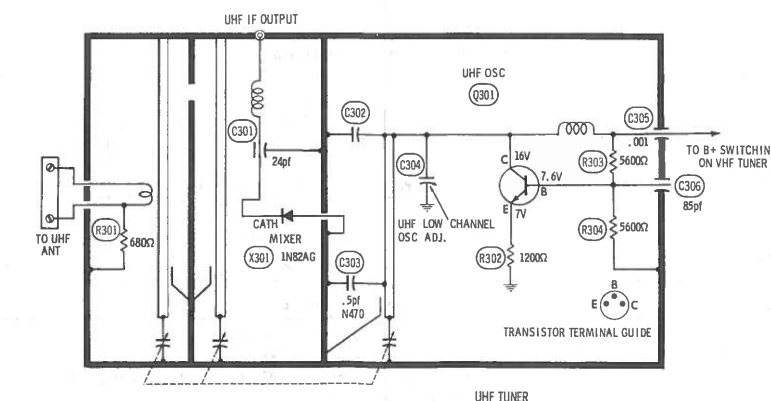
ITEM No.	ORIG. TYPE	USE	REPLACEMENT DATA	NOTES	PENNCREST PART No.
			DELCO PART No.	GENERAL ELECTRIC PART No.	RCA PART No.
Q301		UHF Oscillator		GE-11	NPN

POWER RECTIFIERS & SIGNAL DIODES

ITEM No.	MEASURED CURRENT	ORIGINAL Part or Type No.	RECTIFIERS & DIODES	RECTIFIERS
			GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.
X301		1N82AG	1N82A	1N82AG

CAPACITORS

ITEM No.	RATING	REMARKS	REPLACEMENT DATA
			AEROVOX PART No.
C301	24		
C302	.5 N470		
C303			
C304	.001		
C305			
C306	85		



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UHF TUNER 25A1267-001

PENNCREST
MODELS 2377A-44, 2377A-48

FOLDER 3

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

ITEM No.	RATING	REMARKS	REPLACEMENT DATA						
			AEROVOX PART No.	CENTRALAB PART No.	CORNEILL- DUBILIER PART No.	ELMENCO PART No.	MALLORY PART No.	SPRAGUE PART No.	
C40	33	N150 10%	#80X0099-058				*	*	
C41	22	N75 10%	#80X0099-007					*	
C42	1	200V							
C43	22	N75 10%	#80X0099-007					*	
C44	330	10%							
C45	.0056	400V 10%							
C46	.1	400V							
C47	.002	10%							
C48	.001	N75 10%	#80X0033-001						
C49	68	N75 10%						*	
C50	.002								
C51	.047	400V							
C52	.047	400V							
C53	.22	600V							
C54	82	N1500 5KV 10%	#80X0098-017						
C55	.001								
C56	.1	600V							
C57	.001								
C58	.001								
C59A	.001								
B	.001								
C60	.001								
C61	.001								
C62	.470								
C63	.001								

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

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

ITEM No.	USE	RESIST-ANCE	REPLACEMENT DATA				
			PENNCREST PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS-IRC PART No.	MALLORY PART No.
R1 R2	Volume/Switch Contrast	1meg 350Ω	36X0471-001 40X0585-030	F1-500, SN100	B47-500-S ① or (A47-500-S, RN-3 ①, TT-2)	B11-103, TM4 ① or (BU11, CF4, SS6) *	PTA52L ① or (RU52L, SL37, SN1000 ①) or (UA52L, SN1000 ①)
	Contrast	350Ω	40X0585-027	F1-500, SN200	A47-500-S, RN-3 ①, TT-2	B11-103, TM4 ① or (BU11, CF4, SS6) *	PTA52L ② or (RU52L, SL37, SN2000 ①) or (UA52L, SN2000 ①)
R3	Horiz. Hold (Fine)	50K	40X0585-009	F1-50K, SNK104	A47-50K-S, RN-3, TT-2	B11-123, TM4 or (BU11, CF12, SS6) *	PTA54L ② or (RU54L, SL37, SN2000) or (UA54L, SN2000)
R4	Vert. Hold	1.5meg	40X0585-008	F1-1.5meg, SNK104	A47-1.5meg-S, RN-3, TT-2	B11-138, TM4 or (BU11, CF18, SS6) *	PTA52L ② or (RU155L, SL37, SN2000) or (UA155L, SN2000)
R5	Brightness	500K	40X0585-010	F1-500K, SNK104	A47-500K-S, RN-3, TT-2	B11-133, TM4 or (BU11, CF16, SS6) *	PTA55L ② or (RU55L, SL37, SN2000) or (UA55L, SN2000)
R6	Vert. Linearity	1000Ω	40X0585-042	TT-511 or (F1-1000, SNK012)	B47-1000-S or (A47-1000-S, RN-3, TT-2)	B11-108, TM4 or (BU11, CF6, SS6) *	PTA152L or (RU13L, SL37, SN1000) or (UA13L, SN1000)
R7	Height	7.5meg	40X0585-002	TT-90 or (F1-7.5meg, SNK012)	B47-7.5meg-S or (A47-7.5meg-S, RN-3, TT-2)	HLC6	PTA755L or (UA755L, SN1000)
R8 R9	AGC Level Horiz. Hold (Coarse)	500Ω 300K	40X0592-001 40X0590-001			X201R501B U201R254B	MTC52L1 MTC325314

* "SNAPTROL"
① File flat.

② Use portion of original shaft to obtain desired length.

ITEM No.	RATING	REPLACEMENT DATA			ITEM No.	RATING	REPLACEMENT DATA		
		IRC PART No.	WORKMAN PART No.	PENNCREST PART No.			IRC PART No.	WORKMAN PART No.	PENNCREST PART No.
R27	5600N 10W	PW10-6000	10W-SQ-5.6K	43X0450-014	R74	32N 10W	PW10-30	10W-SQ-32.5	43X0401-021
R56	Thermistor 3.5Ω (Cold)		FR3-5		R75	50 15W	PW20-5	20W-SQ-5	43X04317-001
R69	6800Ω 7W	PW10-7000	7G-8.8K	43X0450-015	R76	2500N 15W	PW20-2500	20W-SQ-2.5K	43X0313-001

ITEM No.	USE	REPLACEMENT DATA				
		PENNCREST PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	WORKMAN PART No.
L1	1st Video IF	9A2541-001			7537	
L2	2nd Video IF/ 47.25MC Trap	9A2540-001			7536	
L3	3rd Video IF/ 41.25MC Trap	9A2539-001			7535	
L4	4th Video IF/ Detector Assembly	9A2606-001 ①				
L5	RF Choke (16uh)	9A2432-001			74F155A P	T989
L6	Peaking (500uh)	36A0094-006	19-3500	BC-878	6174	T353
L7	Peaking (500uh)	36A0094-005 ②	19-3500	BC-878	6174	T353
L8	Sound Take-off/ 4.5MC Trap	9A2598-001			7129	
L9	Peaking (500uh)	36A0094-006	19-3500	BC-878	6174	T353
L10	Peaking (80uh)	36A0094-015	19-3060	TV-193	6110	T302
L11	Sound Interstage	9A2611-001				
L12	Quadrature	9A2595-001		TV-234	7137	T269
L13	RF Choke (1.5uh)	9A2380-001	19-1001	BC-562	4604	T856
L14	Filament Choke (2.1uh)	9A2543-001		BC-563	74F226A P	

① Includes X4.

② Includes 680Ω Resistor.

ITEM No.	USE	REPLACEMENT DATA						
		PENNCREST PART No.	MERIT PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	WORKMAN PART No.
L15	Horiz. Stabilizer	9A2515-001		6335-G		HS-16		TA121

ITEM No.	RATINGS			REPLACEMENT DATA					NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	PENNCREST PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
L16	.3A DC	25Ω	.7H	52X0112-004	C-4084	C-2347	26C78	C-28X	

ITEM No.	RATING			REPLACEMENT DATA					NOTES
	PRI.	SEC. 1	SEC. 2	PENNCREST PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	117V AC @ .014A AC	6.3V AC .13A AC		54X0024-003	P-2846①	P-8405①	21F21①	F-13X①	① Drill new mounting holes.

ITEM No.	USE	REPLACEMENT DATA					NOTES
		PENNCREST PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T2	Vert. Output	51X0239-002	A-2984	VO-115	26S07	A-140X	
T3	Yoke (Horiz. 17.6mh) 114° (Vert. 13.8mh)	9A2625-001(A)	MDF-127 ①②	DY-45A ②	Y-52 ③	Y-60-1 ④	
	Yoke Clamp	30X0628-001					
	Width Sleeve	11X0197-003					
T4	Horiz. Output	53X0425-001(C)					

- ① Remove yoke plug and leads; use original leads.
- ② Use original horizontal damping capacitor (68pF @ 3KV) if necessary.
- ③ If insufficient width, add a capacitor (approximately 120pF @ 6KV) in parallel with original 27pF capacitor.
- ④ Remove 27pF capacitor, 470Ω resistors and jumper from yoke terminals #5 and #8.

ORIGINAL →	HV TRANSFORMER				VERTICAL OUTPUT			YOKE					YOKE PLUG							
REPLACEMENT ↓	Original Connections				Original Connections			Original Connections					1	2	3	4	5	6	7	8
					Blue	Red	Yellow	1	2	3	4	5	6	7	8	TO YOKE TERMINAL				
MERIT					Green	Red	Yellow	8	6, 4	11	5	2	1, 3	10	7	†	†			
STANCOR					Green	Red	Yellow	2	1, 3	▲	7	6	5, 8	4						
THORDARSON					Green	Red	Yellow	2	1, 3	▲	7	6	5, 8	4						
TRIAD					Blue	Red	Yellow	2	1, 3	▲	7	6	5, 8	4						

- † Use original Thermistor (3.5Ω Cold) and install between Yoke Terminals #10 and #7.
- ‡ Use original Resistor (5.6K, 2 watt) and install between Yoke Terminals #4 and #11.
- ▲ Use original Resistor (5.6K, 2 watt) and install between Yoke Terminals #1 and #3 and Horizontal Output Transformer Terminal #4.

ITEM No.	IMPEDANCE		REPLACEMENT DATA					NOTES
			PENNCREST PART No.	MERIT PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
	PRI.	SEC.						
T5	4750Ω	3-4Ω	51X0240-002	A-3026	A-3309	24948	S-6X	

ITEM No.	TYPE			REPLACEMENT DATA			NOTES
				PENNCREST PART No.	JENSEN PART No.	QUAM PART No.	
SP1	3" x 5"	PM	3-4N	12A0645-001	P3X5X3	35A05	

ITEM No.	TYPE	RATING	REPLACEMENT DATA					
			PART No.		LITTELFUSE PART No.		BUSS PART No.	
			FUSE	HOLDER	FUSE	HOLDER	FUSE	HOLDER
F1	Circuit Breaker	2.25 Amp.	2A0568-001		8152.25			

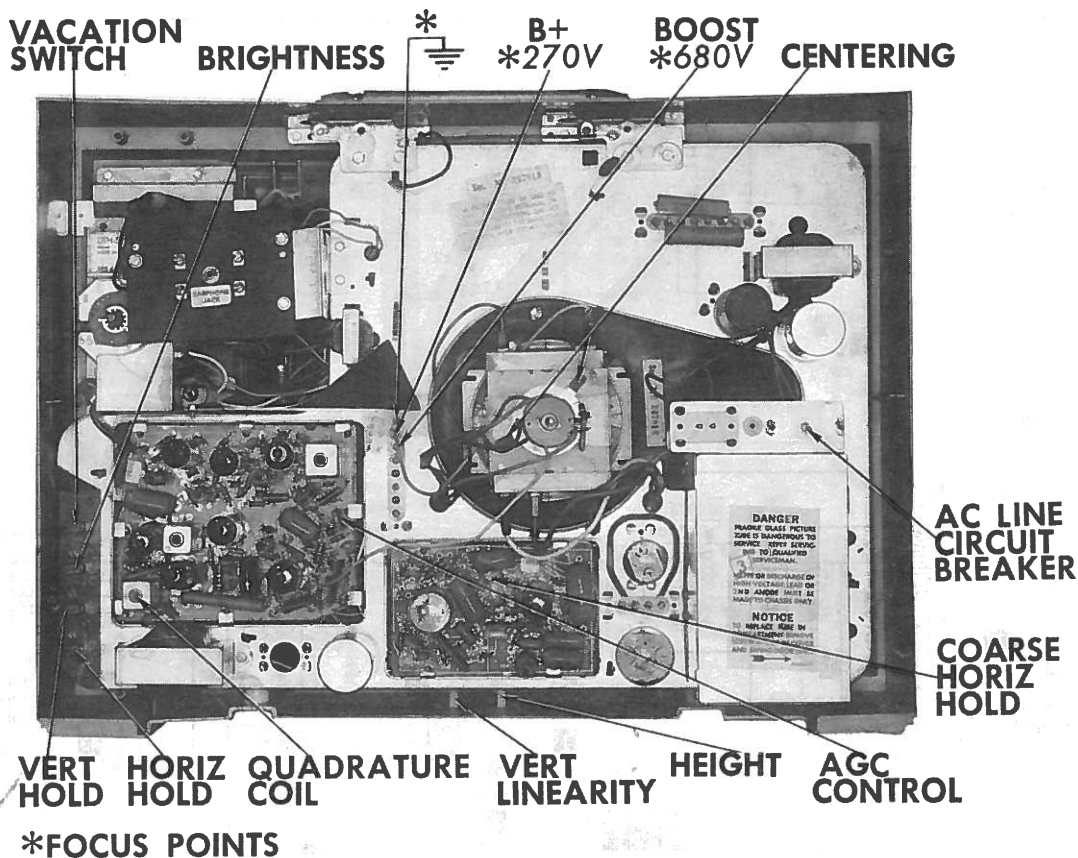
ITEM No.	USE	DESCRIPTION	PENNCREST PART NO.	REPLACEMENT DATA	
PC1	Chassis Isolation	.3-1meg, 470pf	76X0018-001	Centralab Sprague	RC-471 AC1-1
PC2	Handle Isolation	.3-1meg, 470pf	76X0018-001	Aerovox Centralab Sprague	PA-824 RC-471 AC1-1
PC3	AGC Network	330K, 680K, 820K, 22meg, .001	76X0072-001	Aerovox	PA-824
PC4	Sync Take-Off Network	270K, 2.2meg, 150pf, .005	76X0068-001	Centralab Aerovox	PC-454 PA-816
PC5	Integrator Network	12K, 68K, 820pf, .005	76X0070-001		
PC6	Audio Detector Filter Network	680K, 560K, 680K, 220pf, .001, .0047	76X0071-001		
PC7	Horizontal AFC Network	82K, 390K, 390K, 1meg, .001, .002, .002	76X0069-001		

ITEM No.	PART NAME	PENNCREST PART No.	NOTES
M1	VHF Tuner		25A1267-001 (VHF and UHF Combination)
M2	UHF Tuner		
M3	VHF Antenna	9A2640-003	JFD Replacement TA477
M4	UHF Antenna	9A2575-001	JFD Replacement TA545
	Printed Circuit Board	38A3114-000	With Components and Tubes (Sweep)
	Printed Circuit Board	38A3115-000	With Components and Tubes (IF)
S1	Switch	2A0584-003	Vacation

(When Ordering Specify Model, Chassis & Color)

ITEM	PART No.	ITEM	PART No.
Cabinet Front Assembly-Model 2377A-48	38A2970-086	Knob Assembly - On/Off Volume Control	38A3000-184
Cabinet Front Assembly-Model 2377A-44	38A2970-087	Cabinet Back - Model 2377A-48	38X0648-012
Knob Escutcheon	4X2063-007	Cabinet Back - Model 2377A-44	38X0648-014
Knob Assembly - VHF Channel Selector and UHF Position	38A3000-183	Handle Assembly - Less Handle Base	38A3510-002
Knob - Fine Tuning and UHF Channel Sel.	10A1157-005	Handle Base	4X2065-004

High Voltage Lead	Use BELDEN No. 8869	(17KV) or 8868 (25KV)
Shielded Hook-up Wire	Use BELDEN No. 8885	(Single Conductor)
	8738	(Two Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8530	(Solid) Available in 12 Colors
	8524	(Stranded) Available in 12 Colors
Power Cord (Interlock Type)	Use BELDEN No. 8874	(Rubber) or 8895 (Plastic)
300Ω Tuner Input Lead	Use BELDEN No. 8225	
300Ω Antenna Lead-in	Use BELDEN No. 8230	or 8275
Antenna Rotor Cable	Use BELDEN No. 8484	(Flat) or 8484 (Round) - 4 Conductor
	8485	(Round) - 5 Conductor
	8488	(Round) - 8 Conductor



CABINET—REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Tune in a TV station and set all controls for normal operation. Connect a jumper from point Ⓢ (pin 2 of V4) to ground. Connect a jumper across Horizontal Stabilizer coil, L15.

Adjust the Horizontal Hold (Fine) control, R3, to its mechanical center. Adjust the Horizontal Hold (Coarse) control, R9, until the picture stops or "drifts" slowly across the screen.

Remove the jumper across the Horizontal Stabilizer coil. Adjust the Horizontal Stabilizer coil slug, B1, until the picture stops or "drifts" slowly across the screen. Remove the short from point Ⓢ.

DISASSEMBLY INSTRUCTIONS

TV CHASSIS REMOVAL

1. Remove 5 screws holding back cover and remove back cover. On some models it may be necessary to disconnect antenna leads. Remove all knobs.
2. Disconnect yoke plugs, high voltage anode lead, picture tube socket, speaker leads, and ground wire.
3. Remove 9 screws holding chassis, tuner, and controls. Lift out chassis and tuner.

NOTE: Most components may be serviced without removing chassis.

PICTURE TUBE REMOVAL

1. Follow "Chassis Removal" procedure. Lay set face down on a soft protective surface.
2. Remove 1 screw holding picture tube retainer wire and lift out picture tube. Do not lift out by the neck of the tube.