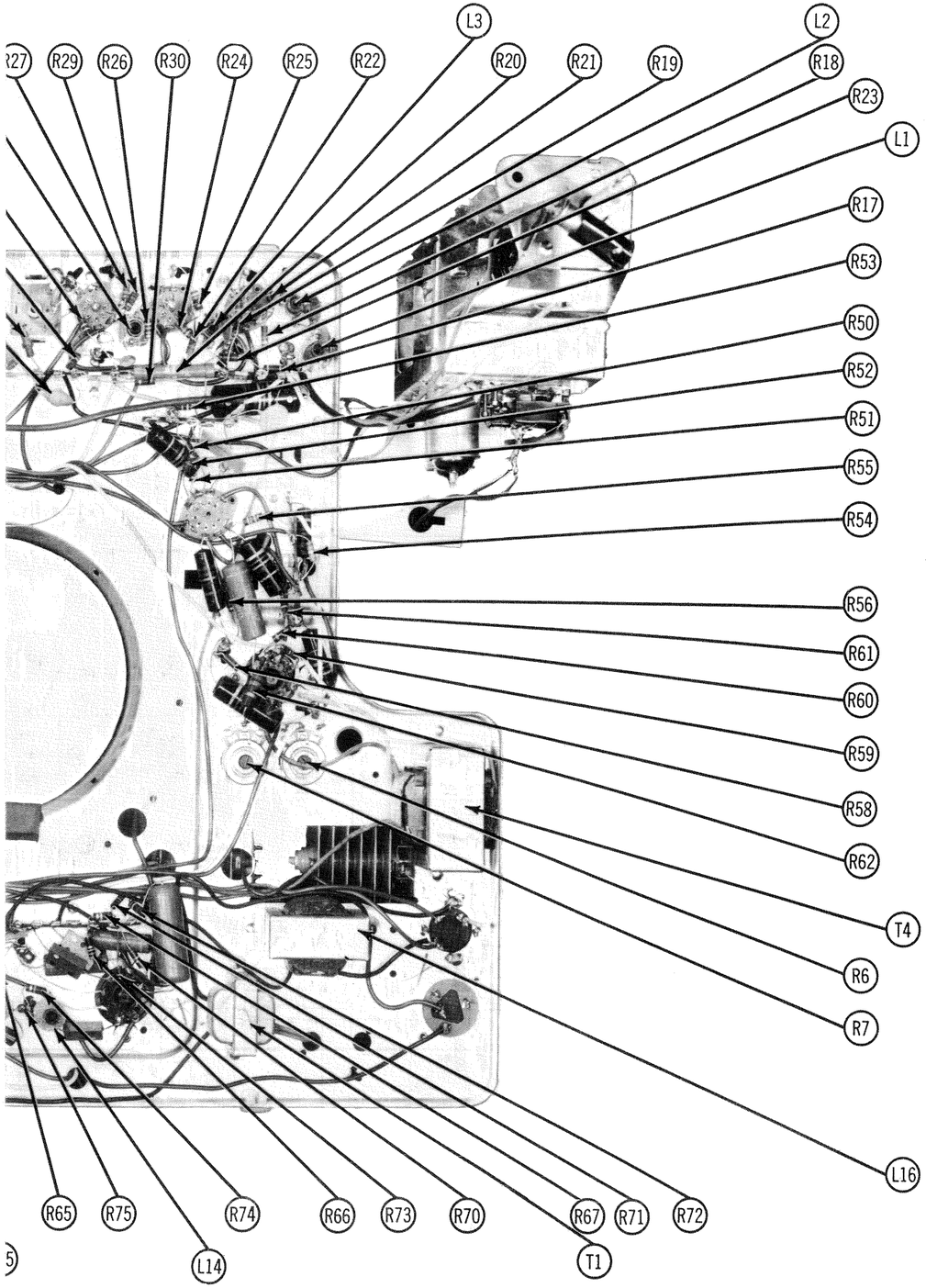


TOR AND INDUCTOR IDENTIFICATION

PHOTOFACT* Folder

*TRADE MARK

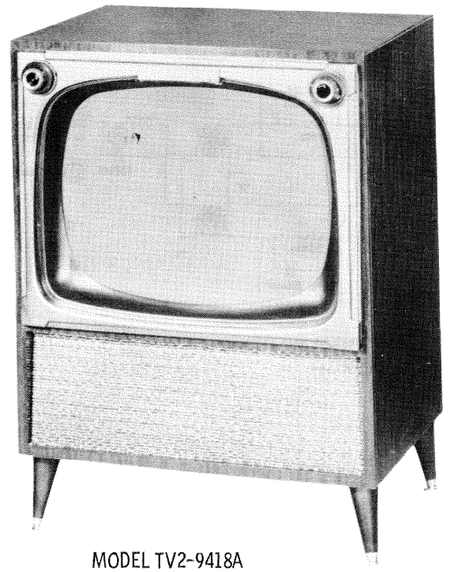
DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

1. Remove 4 wood screws and the rear cover.
2. Remove 2 speaker leads.
3. Remove the antenna terminal board by loosening 2 wood screws.
4. Remove 2 metal screws holding the top of the chassis to the rear of the cabinet.
5. Remove 2 metal screws from inside the cabinet, holding the bottom of the chassis to 2 lower brackets.
6. Remove chassis by sliding out from the front of the cabinet.
7. Remove 4 speaker nuts and the speaker.

CAUTION NOTE

ONE SIDE OF AC LINE CONNECTED TO CHASSIS



MODEL TV2-9418A

TRADE NAME	Coronado	MODELS	TV2-9414A, B, TV2-9415A, B, TV2-9416A, B, TV2-9417A, B, TV2-9418A, B, TV2-9419A, B, TV2-9420A, B, TV2-9421A, B, TV2-9422A, TV2-9423A, TV2-9424A, TV2-9425A
SUPPLIER	Gamble-Skogomo, Inc., 15 North 8th. St., Minneapolis, Minn.		
TYPE SET	Television Receiver		
TUBES	Sixteen		
POWER SUPPLY	110-120 Volts AC, 60 Cycle	RATING	155 Watts, 1.35 Amp. @ 117 Volts AC
TUNING RANGE	Channels 2 thru 13 VHF, 14 thru 83 UHF, Video IF 45.75MC, Sound IF 41.25MC (Intercarrier)		

SERVICING IN THE FIELD

TUNER OSCILLATOR ADJUSTMENTS

Touch-up adjustment of the VHF oscillator is possible by removing the channel selector and fine tuning knobs. Set the fine tuning at the center of its range. The adjustments are accessible, one at a time, as the channel selector is rotated. Adjust for best picture and sound.

PICTURE TUBE SAFETY GLASS CLEANING

1. Remove the name plate by pulling straight out.
2. Remove 2 metal screws and the retainer bracket.
3. Remove the safety glass.

FOCUS

Adjust the ion trap for the best focus consistent with maximum brightness.

HORIZONTAL OSCILLATOR FIELD ADJUSTMENT

Set the horizontal hold control to the center of its range and adjust the horizontal frequency slug (B1) until the picture synchronizes horizontally.

SOUND IF DETECTOR BUZZ ADJUSTMENT

To eliminate audio detector buzz, adjust the buzz control for MINIMUM buzz and maximum sound. (For location see tube placement chart).

FUSES

A thermal circuit breaker is used for LV power supply protection and may be closed by means of a reset button. (For location, see tube placement chart).

CENTERING

Centering is accomplished mechanically by adjusting two magnetic rings around the neck of the picture tube. Rotate the two rings around the neck of the tube until the picture is properly centered.

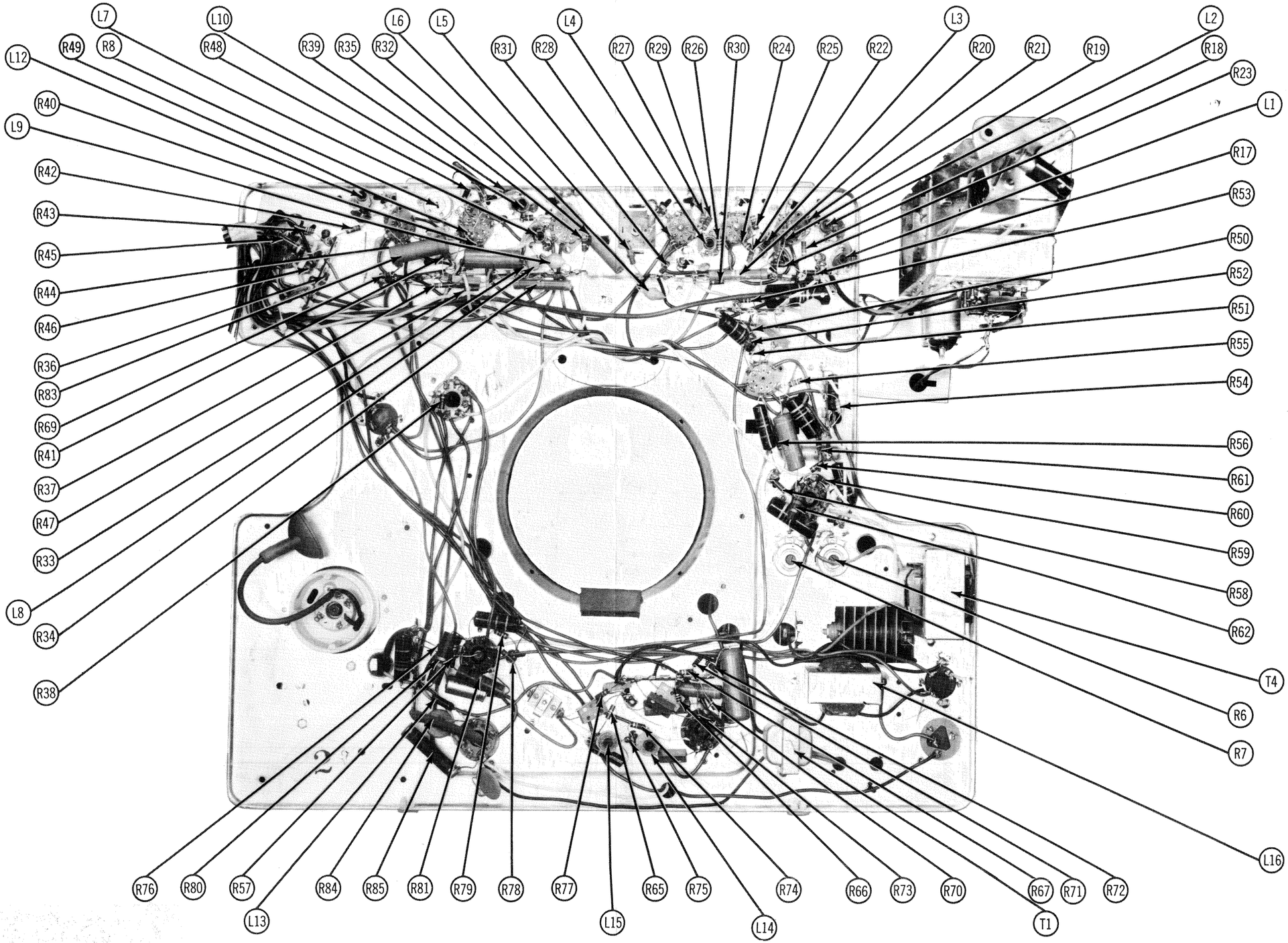
HOWARD W. SAMS & CO., INC. • Indianapolis 5, Indiana

G921R

DATE 11-57 SET 379 FOLDER 2

FOLDER 2

CORONADO MODELS TV2-9414A, B, TV2-9415A, B, TV2-9416A, B, TV2-9417A, B, TV2-9418A, B, TV2-9419A, B, TV2-9420A, B, TV2-9421A, B, TV2-9422A, TV2-9423A, TV2-9424A, TV2-9425A



CHASSIS BOTTOM VIEW-RESISTOR AND INDUCTOR IDENTIFICATION

FOLDER 2

PHOT

CHASSIS REM

1. Remove 4 w
2. Remove 2 s
3. Remove the screws.
4. Remove 2 r the rear of the
5. Remove 2 r the bottom of t
6. Remove cha the cabinet.
7. Remove 4 s

ONE SI

TRADE NAME

SUPPLIER
TYPE SET
TUBES
POWER SUPP
TUNING RANG

TUNER OSCILL

Touch-up adjus removing the c the fine tuning are accessible, rotated. Adjust

PICTURE TUB

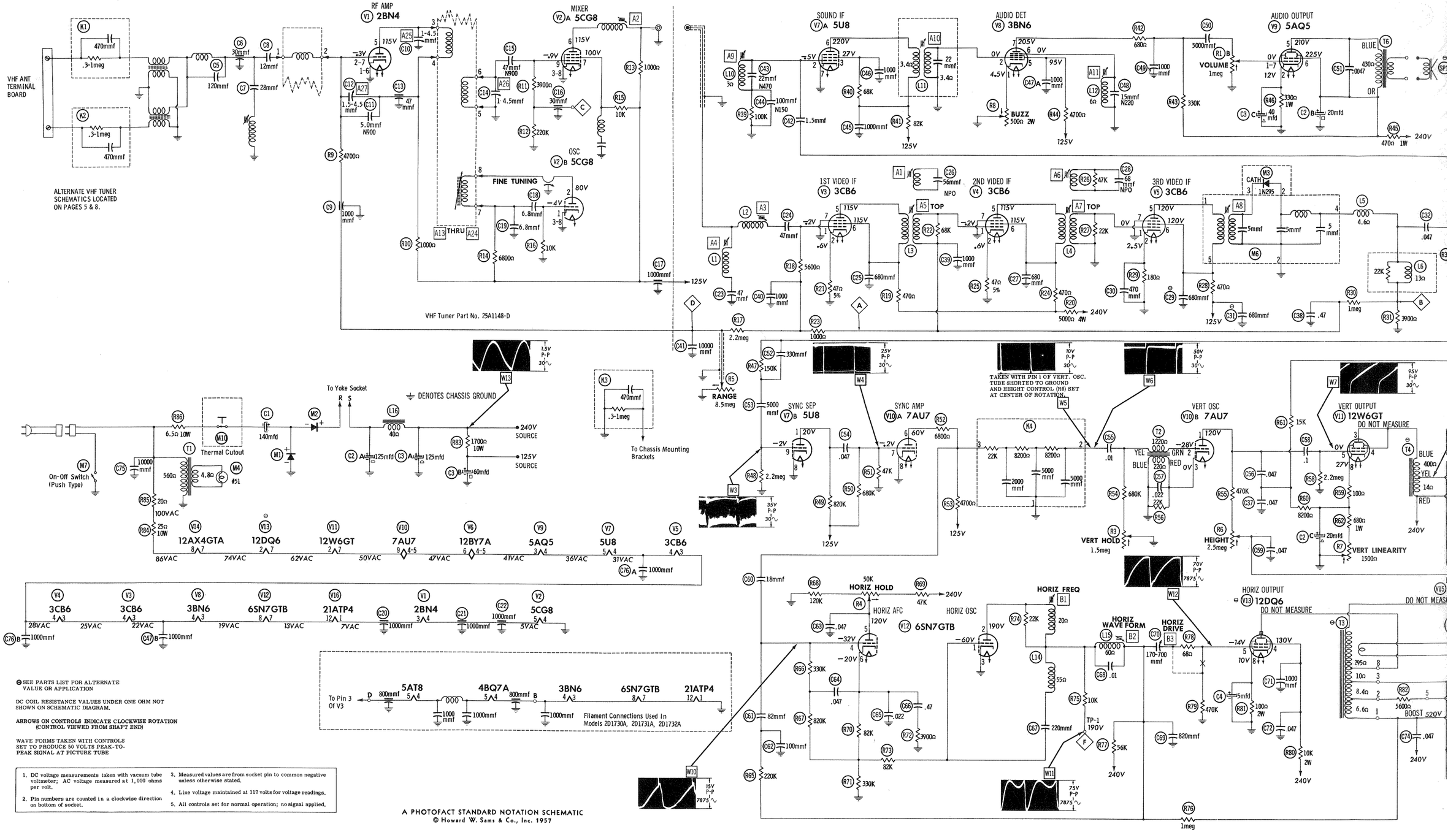
1. Remove the
2. Remove 2 m
3. Remove the

FOCUS

Adjust the ion t maximum brigh

HORIZONTAL

Set the horizon



⊖ SEE PARTS LIST FOR ALTERNATE VALUE OR APPLICATION

DC COIL RESISTANCE VALUES UNDER ONE OHM NOT SHOWN ON SCHEMATIC DIAGRAM.

ARROWS ON CONTROLS INDICATE CLOCKWISE ROTATION (CONTROL VIEWED FROM SHAFT END)

WAVE FORMS TAKEN WITH CONTROLS SET TO PRODUCE 50 VOLTS PEAK-TO-PEAK SIGNAL AT PICTURE TUBE

1. DC voltage measurements taken with vacuum tube voltmeter; AC voltage measured at 1,000 ohms per volt.
2. Pin numbers are counted in a clockwise direction on bottom of socket.
3. Measured values are from socket pin to common negative unless otherwise stated.
4. Line voltage maintained at 117 volts for voltage readings.
5. All controls set for normal operation; no signal applied.

A PHOTOFACT STANDARD NOTATION SCHEMATIC

art No. 25A1148-D

MIXER V2A 5CG8

OSC V2B 5CG8

FINE TUNING

SOUND IF V7A 5U8

AUDIO DET V8 3BN6

AUDIO OUTPUT V9 5AQ5

VOLUME 1meg

BUZZ 500Ω 2W

BLUE T6

OR

SP1 6"

1ST VIDEO IF V3 3CB6

2ND VIDEO IF V4 3CB6

3RD VIDEO IF V5 3CB6

CATH M3 1N295

TOP

VIDEO OUTPUT V6 12BY7A

4.5mc.(Min)

CONTRAST 1000Ω

BRIGHTNESS 500K

ION TRAP

PICTURE TUBE V16 21ATP4

RANGE 8.5meg

To Chassis Mounting Brackets

SYNC SEP V7B 5U8

SYNC AMP V10A 7AU7

TAKEN WITH PIN 1 OF VERT. OSC. TUBE SHORTED TO GROUND AND HEIGHT CONTROL (R8) SET AT CENTER OF ROTATION.

VERT OSC V10B 7AU7

VERT OUTPUT V11 12W6GT

DO NOT MEASURE

DEFLECTION YOKE

Vert. - 39Ω
Horiz. - 40Ω

S R To LV Power Supply

VERT HOLD 1.5meg

HEIGHT 2.5meg

VERT LINEARITY 1500Ω

HORIZ HOLD 50K

HORIZ AFC

HORIZ OSC V12 6SN7GTB

HORIZ FREQ

HORIZ WAVE FORM

HORIZ DRIVE

HORIZ OUTPUT V13 12DQ6

HV RECT V15 1B3GT

BOOST 520V

DAMPER V14 12AX4GTA

HV TRANSFORMER TERMINAL BOARD

SIS GROUND

240V SOURCE

125V SOURCE

60mfd

V6 12BY7A 4-5 41VAC

V9 5AQ5 3 4 36VAC

V7 5U8 5 4 31VAC

V5 3CB6 4 3

C76A 1000mmf

V2 5CG8 5 4 5VAC

4BQ7A 5 4

3BN6 4 3

6SN7GTB 8 7

21ATP4 12 1

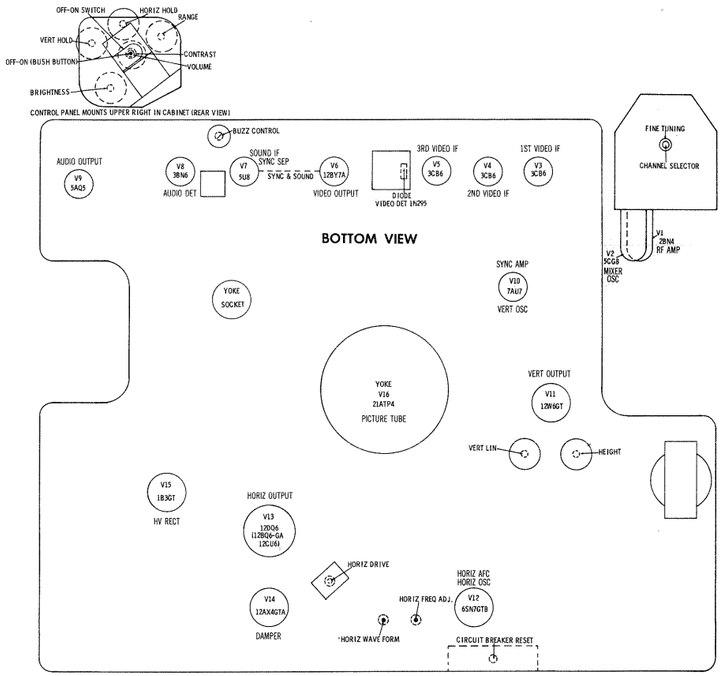
Filament Connections Used In Models 2D1730A, 2D1731A, 2D1732A

TANDARD NOTATION SCHEMATIC
d W. Sams & Co., Inc. 1957

RESISTANCE MEASUREMENTS

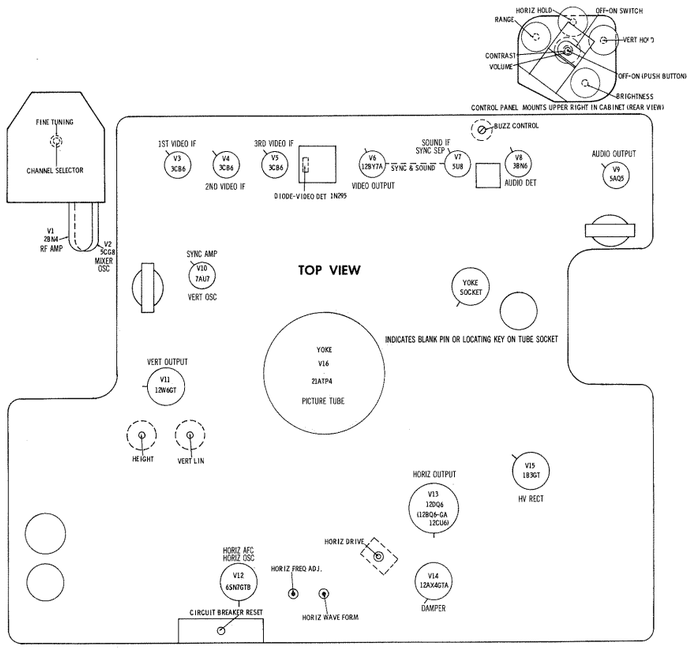
ITEM	TUBE	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9
V1	2BN4	0Ω	2Meg	1.5Ω	1Ω	† 2700Ω	0Ω	1Meg		
V2	5CG8	10K	† 8500Ω	0Ω	0Ω	1Ω	† 2700Ω	† 12K	0Ω	220K
V3	3CB6	1Meg	47Ω	5Ω	6Ω	† 5500Ω	† 5500Ω	0Ω		
V4	3CB6	1Meg	47Ω	6Ω	7Ω	† 5500Ω	† 5500Ω	0Ω		
V5	3CB6	.1Ω	180Ω	7Ω	8.5Ω	† 2200Ω	† 2200Ω	0Ω		
V6	12BY7A	• 300Ω	1Meg	0Ω	13Ω	13Ω	14Ω	† 3700Ω	† 1700Ω	0Ω
V7	5U8	† 820K	100K	† 150K	8.5Ω	10Ω	† 82K	0Ω	0Ω	2.2Meg
V8	3BN6	• 450Ω	3.4Ω	4.5Ω	5Ω	† 6500Ω	6Ω	† 330K		
V9	5AQ5	55Ω	330Ω	13Ω	10Ω	† 950Ω	† 500Ω	55Ω		
V10	7AU7	‡ • 2.3Meg	• 1.1Meg	22K	14Ω	14Ω	† 13K	38K	0Ω	15Ω
V11	12W6GT	TP	17Ω	† 400Ω	† 400Ω	2.2Meg	TP	15Ω	• 1000Ω	
V12	6SN7GTB	400K	† 56K	0Ω	1.5Meg	• † 55K	400K	3Ω	4.5Ω	
V13	12DQ6	NC	20Ω	TP	† 10K	470K	TP	17Ω	100Ω	TOP CAP † 10Ω
V14	12AX4GTA	TP	NC	¶	NC	† 40Ω	NC	20Ω	22Ω	
V15	1B3GT	PINS 1 THRU 8 HAVE INFINITE RESISTANCE								TOP CAP ‡ 305Ω
V16	21ATP4	1.5Ω	23K	PIN 6 † 100K	PIN 10 ‡ 470K	PIN 11 170K	PIN 12 3Ω			

† MEASURED FROM OUTPUT OF M 2.
‡ MEASURED FROM PIN 3 OF V14.
• THIS READING WILL VARY, CONTROL SET FOR NORMAL OPERATION.
¶ THIS READING CAN VARY GREATLY, (10K MINIMUM), DUE TO THE CONDITION OF THE ELECTROLYTIC CAPACITOR CONNECTED IN THE ASSOCIATED CIRCUIT.
TP TIE POINT
NC NO CONNECTION



TUBE PLACEMENT CHART

TUBE PLACEMENT CHART



TUBE FAILURE CHECK CHART

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

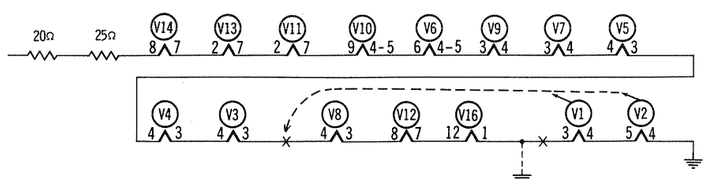
POWER SUPPLY FAILURE
No raster, no sound - **Circuit Breaker (M10), Rectifier (M1, M2)**

LOSS OF PICTURE OR SOUND
No pic, no sound, has raster - V3, V4, V5, Diode (M3), V6
No pic, no sound, has snow - V1, V2
No pic, has sound, has raster - V6, V16
Has pic, no sound - V7, V8, V9

SYNC FAILURE
No vert. sync - V7, V10
No horiz. sync - V7, V10, V12
No vert. or horiz. sync - V7, V10

SWEEP FAILURE
No raster, has sound - V12, V13, V14, V15, V16
No vertical deflection - V10, V11
Poor vert. linearity or foldover - V10, V11
Poor horiz. linearity or foldover - V12, V13, V14
Narrow picture - V12, V13, V14, M1, M2
Vert. off freq. - V10
Horiz. off freq. - V12

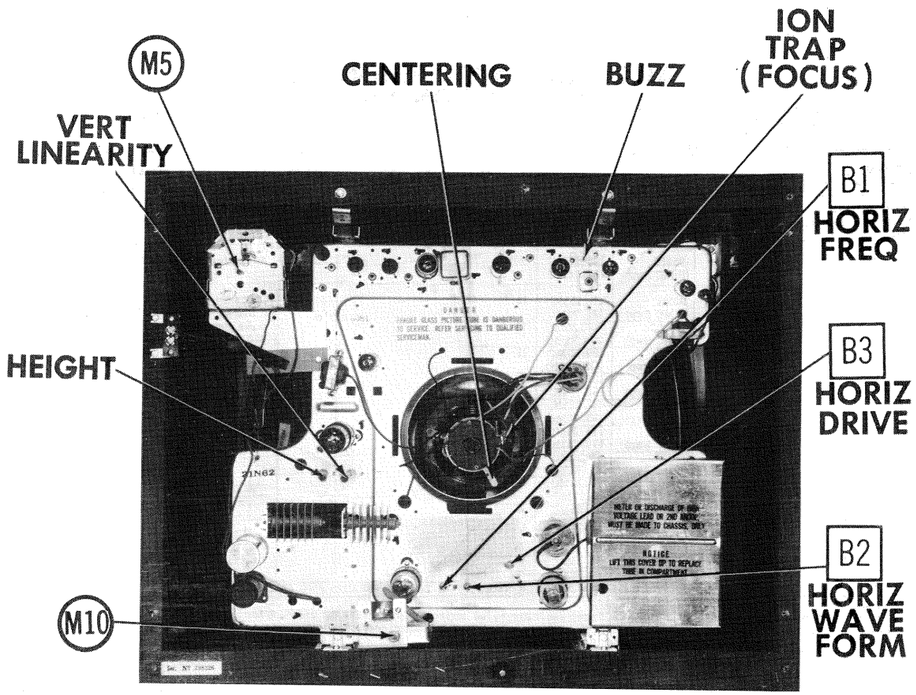
This receiver employs tubes used in a series filament network, an open filament in any tube in the series will cause the set to be inoperative.(See circuit below).



CORONADO MODELS TV2-9414A, B, TV2-9415A, B, TV2-9416A, B, TV2-9417A, B, TV2-9418A, B, TV2-9419A, B, TV2-9420A, B, TV2-9421A, B, TV2-9422A, TV2-9423A, TV2-9424A, TV2-9425A

FOLDER 2

CHASSIS BOTTOM VIEW-CAPACITOR AND ALIGNMENT IDENTIFICATION



CABINET—REAR VIEW

HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

Turn the set on and tune in a TV station, preferably with a test pattern.
Turn the horizontal hold control to the center of its range.
Connect a short clip lead across the horizontal waveform coil (L15).
Adjust the horizontal frequency slug (B1) until the picture synchronizes horizontally.
Remove the clip lead from L15. Connect the vertical amplifier of the scope thru a low capacity probe to point (F). Low side to chassis.

Adjust the horizontal waveform slug (B2) for equal peaks of round and sharp peaks of waveform as in Fig. 6. While making this adjustment, keep the picture in sync with the horizontal hold control and B1.
Adjust the horizontal drive trimmer (B3) clockwise as far as possible without the presence of vertical white lines or compression near the center of the picture.

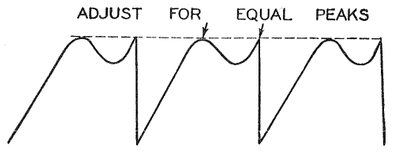
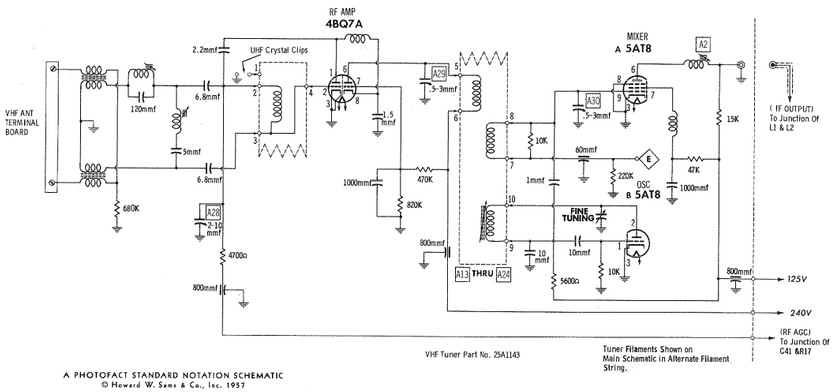
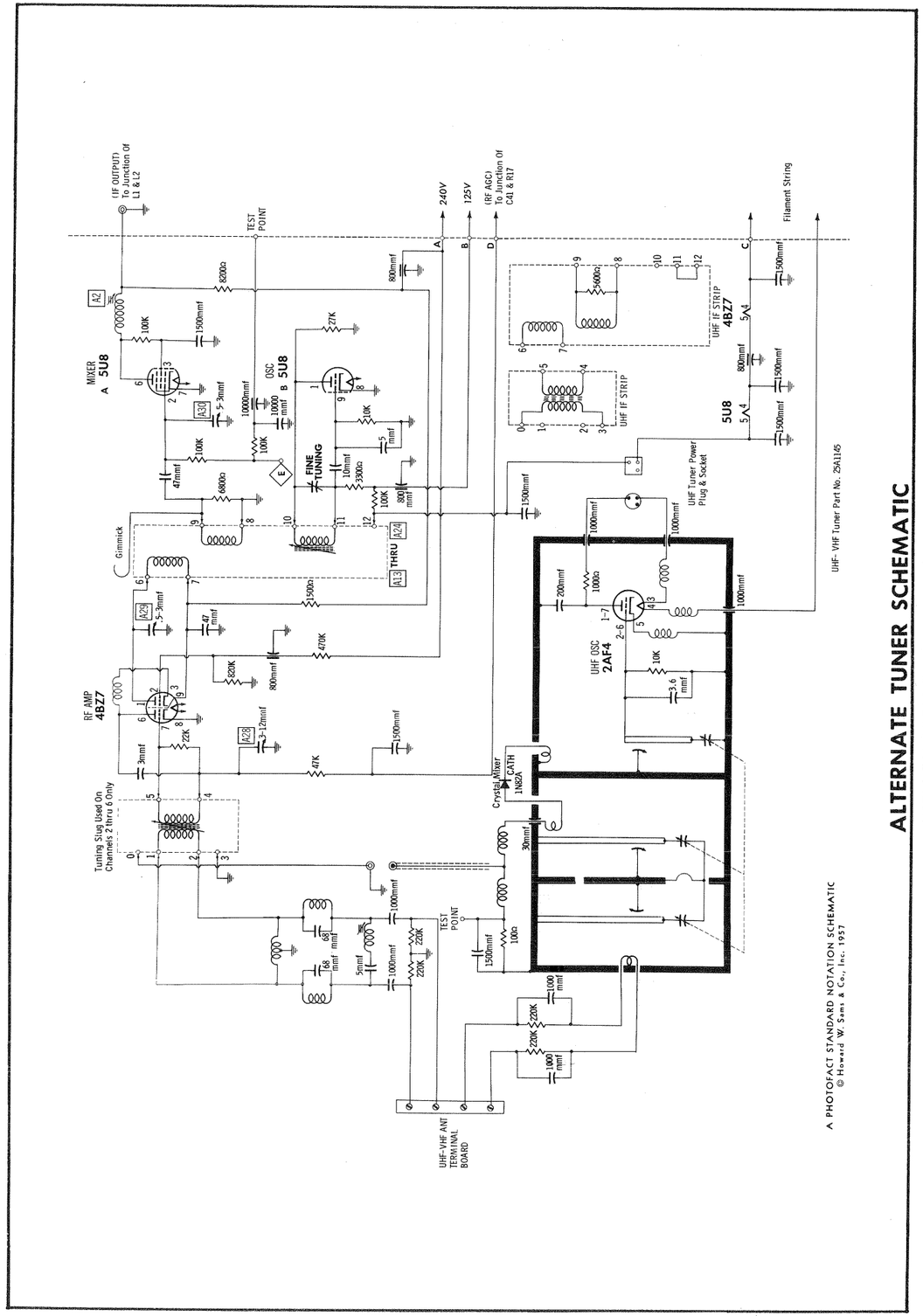


FIG. 6



ALTERNATE TUNER SCHEMATIC



ALTERNATE TUNER SCHEMATIC

CORONADO MODELS TV2-9414A, B, TV2-9415A, B, TV2-9416A, B, TV2-9417A, B, TV2-9418A, B, TV2-9419A, B, TV2-9420A, B, TV2-9421A, B, TV2-9422A, TV2-9423A, TV2-9424A, TV2-9425A

FOLDER 2

ALIGNMENT INSTRUCTIONS

ALIGNMENT INSTRUCTIONS—READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT

USE AN ISOLATION TRANSFORMER TO PROTECT THE TEST EQUIPMENT.
The High Voltage lead should be securely taped and kept away from the chassis.
Allow a 20 minute warm-up period for the receiver and test equipment.

VIDEO IF ALIGNMENT

Connect the negative lead of a 1.5 volts bias supply to point (A). For steps 3 thru 7 increase bias at point (A) to 4.5 volts.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide usable pattern on scope.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
1.	Direct	High side to ungrounded tube shield floating over mixer-oscillator tube (V2). Low side to chassis	44.5MC (10MC Swp)	47.25MC	Any non-interfering channel	Vert. Amp. thru detector (Fig. 1) to pin 5 (plate) of 3CB6 (V3). Low side to chassis.	A1	Adjust to place marker in trap notch as in Fig. 2.
2.	"	"	"	41.25MC 45.75MC	"	"	A2, A3, A4	Adjust for response curve similar to Fig. 2 with markers as indicated. A2 and A3 controls shape of curve top and positions 45.75MC marker. A3 positions 41.25MC marker. Both markers must be correctly positioned before proceeding with alignment.
3.	"	"	"	42.8MC	"	Vert. Amp. thru 47K to point (B). Low side to chassis.	A5	Adjust sweep output for 2 volts at point (B). Adjust for maximum amplitude at marker.
4.	"	"	"	41.25MC	"	"	A6	Adjust for MINIMUM amplitude at marker.
5.	"	"	"	45.3MC	"	"	A7	Adjust for maximum amplitude at marker.
6.	"	"	"	44.0MC	"	"	A8	"
7.	"	"	"	41.25MC 42.4MC 42.8MC 44.0MC 44.5MC 45.3MC 45.75MC 47.25MC	"	"		Check for response curve similar to Fig. 3 with markers as indicated. If necessary SLIGHTLY retouch A1,and A4 thru A8 for desired reponse. DO NOT retouch A2 or A3.

SOUND IF ALIGNMENT

Turn the set on and tune in a TV station. Reduce the signal strength at the antenna terminals by using an attenuator or similar device until a "Hiss" is heard in the sound.
Adjust A9, A10, All and buzz control (R8) for maximum undistorted sound and MINIMUM buzz.
If the hiss disappears during alignment, reduce signal strength still further.

4.5MC TRAP ALIGNMENT

Use 0-10 volt scale on VTVM.

	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	CHANNEL	CONNECT VTVM	ADJUST	REMARKS
8.	.001MFD	High side to pin 2 (grid) of 12BY7A (V6). Low side to chassis.	4.5MC (Unmod)	Any non-interfering	DC probe to pin 11 (cathode) of picture tube. Common to chassis.	A12	Adjust for MINIMUM deflection.

VHF OSCILLATOR ALIGNMENT

Connect the negative lead of 3 volt bias supply to point (D). Positive to chassis.
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Set the fine tuning control to the center of its range.
Use only enough sweep generator output to provide usable pattern on scope.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
9.	Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	213MC (10MC Swp)	211.25MC 215.75MC	13	Vert. Amp. thru 47K to point (B). Low side to chassis.	A13	Adjust to place sound marker in trap notch as in Fig. 4. Video marker should fall at 50%.
			207MC (10MC Swp)	205.25MC 209.75MC	12		A14	
			201MC (10MC Swp)	199.25MC 203.75MC	11		A15	
			195MC (10MC Swp)	193.25MC 197.75MC	10		A16	
			189MC (10MC Swp)	187.25MC 191.75MC	9		A17	
			183MC (10MC Swp)	181.25MC 185.75MC	8		A18	
			177MC (10MC Swp)	175.25MC 179.75MC	7		A19	
			85MC (10MC Swp)	83.25MC 87.75MC	8		A20	
			79MC (10MC Swp)	77.25MC 81.75MC	5		A21	
			69MC (10MC Swp)	67.25MC 71.75MC	4		A22	
			63MC (10MC Swp)	61.25MC 65.75MC	3		A23	
			57MC (10MC Swp)	55.25MC 59.75MC	2		A24	

ALIGNMENT INSTRUCTIONS (cont)

VHF RF AND MIXER ALIGNMENT FOR TUNER #25A1148-D

Connect bias as under "VHF Oscillator Alignment".
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide usable pattern on scope.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
10.	Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	195MC (10MC Swp)	193.25MC 197.75MC	10	Vert. Amp. thru 10K to point (C). Low side to chassis.	A25, A26	Adjust A25 and A26 for response similar to Fig. 5 with markers on shoulders of curve.
11.	"	"	195MC (10MC Swp)	193.25MC 197.75MC	"	"	A27	Adjust for MINIMUM amplitude.
12.	"	"	213MC (10MC Swp)	211.25MC 215.75MC	13	"		Check for response similar to Fig. 5. If markers fall below 70% on any channel, make compromise adjustment of A25 and A26 with channel switch set to that channel. Check all other channels to see that they have not been seriously affected.
			207MC (10MC Swp)	205.25MC 209.75MC	12			
			201MC (10MC Swp)	199.25MC 203.75MC	11			
			189MC (10MC Swp)	187.25MC 191.75MC	9			
			183MC (10MC Swp)	181.25MC 185.75MC	8			
			177MC (10MC Swp)	175.25MC 179.75MC	7			
			85MC (10MC Swp)	83.25MC 87.75MC	6			
			79MC (10MC Swp)	77.25MC 81.75MC	5			
			69MC (10MC Swp)	67.25MC 71.75MC	4			
			63MC (10MC Swp)	61.25MC 65.75MC	3			
			57MC (10MC Swp)	55.25MC 59.75MC	2			

VHF RF AND MIXER ALIGNMENT FOR TUNERS #25A1145 AND 25A1143

Connect bias as under "VHF Oscillator Alignment".
Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the oscilloscope for horizontal deflection.
The sweep generator output lead should be terminated with its characteristic impedance, usually 50 ohms.
Use only enough sweep generator output to provide usable pattern on scope.

	DUMMY ANTENNA	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	CHANNEL	CONNECT SCOPE	ADJUST	REMARKS
13.	Two 120Ω Carbon Resistors	Across antenna terminals with 120Ω in each lead.	207MC (10MC Swp)	205.25MC 209.75MC	12	Vert. Amp. thru 10K to point (E). Low side to chassis.	A28, A29, A30	Adjust for response curve similar to Fig. 5, with markers above 90%.
14.	"	"	213MC (10MC Swp)	211.25MC 215.75MC	13	"		Check for response similar to Fig. 5. If markers fall below 70% on any channel, make compromise adjustments of A28, A29, and A30 with channel switch set to that channel. Check all other channels to see that they have not been seriously affected.
			201MC (10MC Swp)	199.25MC 203.75MC	11			
			195MC (10MC Swp)	193.25MC 197.75MC	10			
			189MC (10MC Swp)	187.25MC 191.75MC	9			
			183MC (10MC Swp)	181.25MC 185.75MC	8			
			177MC (10MC Swp)	175.25MC 179.75MC	7			
			85MC (10MC Swp)	83.25MC 87.75MC	6			
			79MC (10MC Swp)	77.25MC 81.75MC	5			
			69MC (10MC Swp)	67.25MC 71.75MC	4			
			63MC (10MC Swp)	61.25MC 65.75MC	3			
			57MC (10MC Swp)	55.25MC 59.75MC	2			

UHF TUNER ALIGNMENT

This portion of the receiver has been properly aligned at the factory and is very stable. Alignment of this portion should not be required in the field.

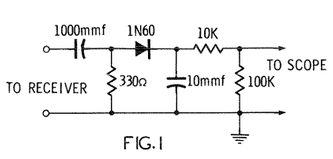


FIG.1

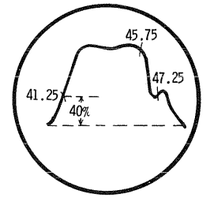


FIG. 2

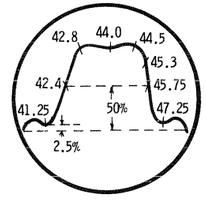


FIG. 3

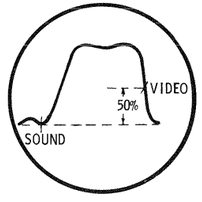


FIG. 4

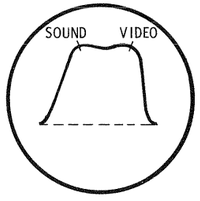


FIG. 5

PARTS LIST AND DESCRIPTIONS (Continued)

CRYSTAL DIODES

ITEM No.	ORIG. TYPE	REPLACEMENT DATA			NOTES
		CORONADO PART No.	CBS PART No.	SYLVANIA PART No.	
M3	1N295 *		1N60	1N60	Video Det. (Pigtail)

* A CK706 or 1N60 may be used in this application.

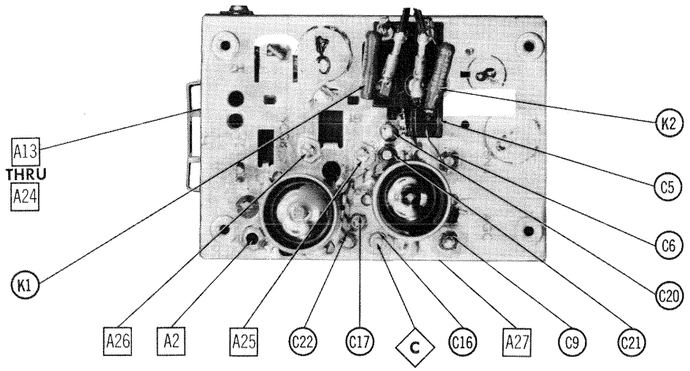
MISCELLANEOUS

ITEM No.	PART NAME	CORONADO PART No.	NOTES
M4	Dial Light		#51 Type (A type #15 may be used in some versions)
M5	Tuner	25A1148-D	VHF
	Tuner	25A1145	UHF-VHF
	Tuner	25A1143	VHF
M6	Video Det. Assy.	9A2370	Includes 4th. Video IF, peaking coil, caps., M3
M7	Switch	2A464	On-off (Push type)
M8	Centering Device	2A435	Includes rear yoke cover
M9	Ion Trap	2A421	
M10	Circuit Breaker	2A461	

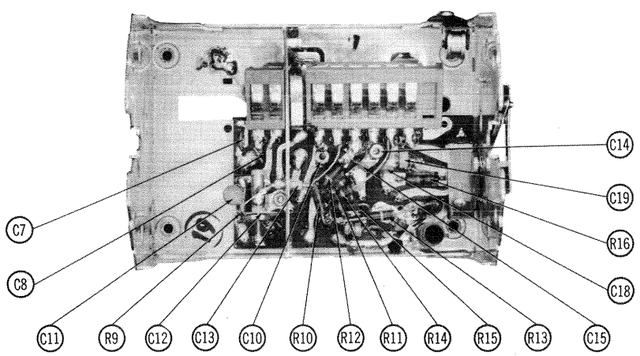
CABINETS & CABINET PARTS

(When Ordering Cabinets & Cabinet Parts, Specify Model, Chassis & Color)

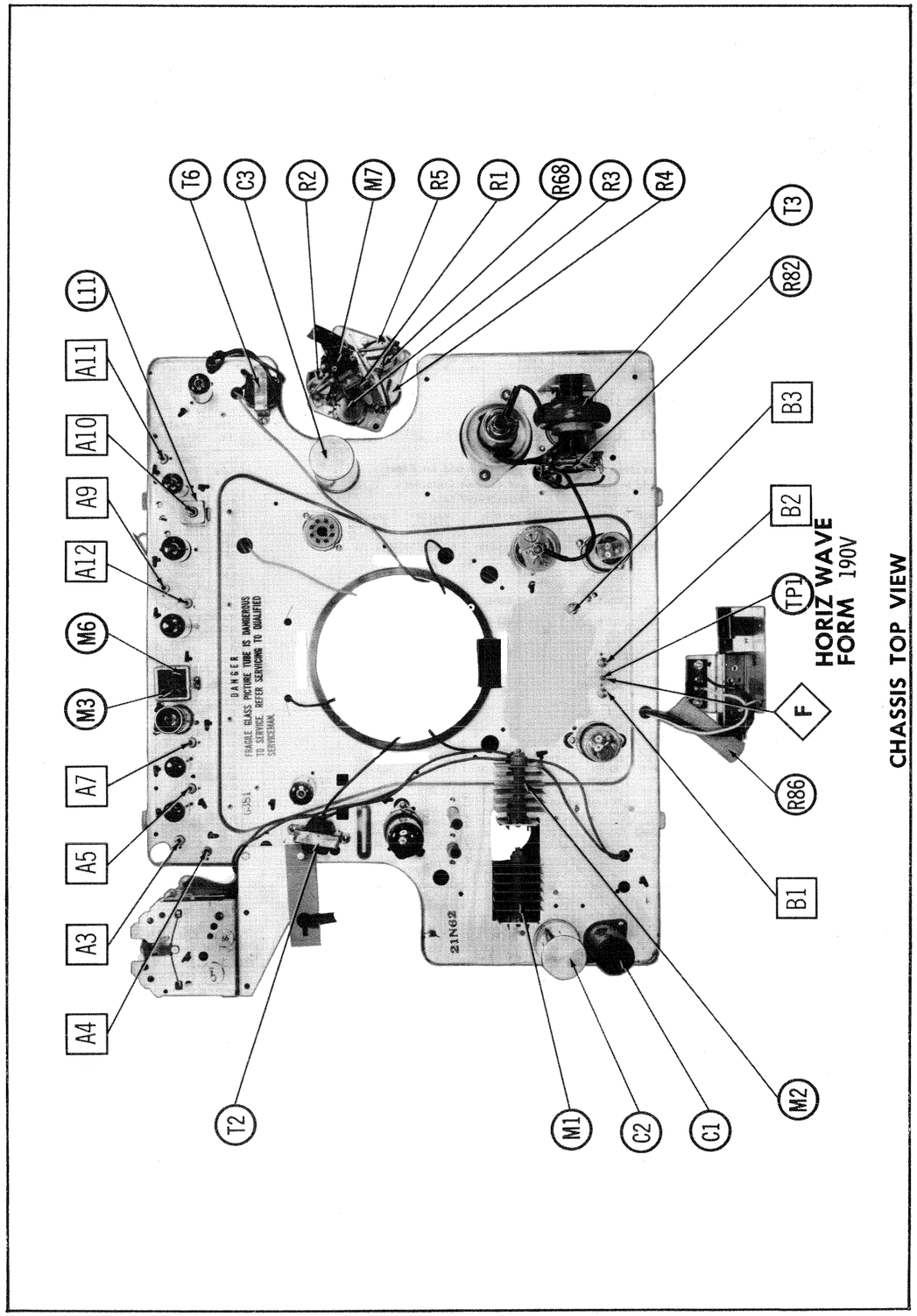
NAME	PART NO.	DESCRIPTION
Safety Glass	17X193-1	Tinted - Models TV2-9414A, 14B, 15A, 15B, 16A,16B, 17B, 18A, 18B, 19A, 19B, 20A, 20B, 21A, 21B
Safety Glass	17X192	Models TV2-9422A, 23A, 24A, 25A
Mask	4X1287-1	Models TV2-9422A, 23A, 24A, 25A
Mask	S-38A220	Models TV2-9414A, 14B, 15A, 15B, 16A, 16B, 17A, 17B, 18A, 18B, 19A, 19B, 20A, 20B, 21A, 21B
Leg	81X7-3	Mahogany
Leg	81X7-4	Blonde



RF TUNER TOP VIEW



RF TUNER BOTTOM VIEW



CHASSIS TOP VIEW
HORIZ WAVE FORM 190V

CORONADO MODELS TV2-9414A, B, TV2-9415A, B, TV2-9416A, B, TV2-9417A, B, TV2-9418A, B, TV2-9419A, B, TV2-9420A, B, TV2-9421A, B, TV2-9422A, TV2-9423A, TV2-9424A, TV2-9425A

FOLDER 2

PARTS LIST AND DESCRIPTIONS

TUBES (GENERAL ELECTRIC, SYLVANIA)

ITEM No.	USE	TYPE	NOTES
V1	RF Amplifier	2BN4	
V2	Mixer-Oscillator	5CG8	
V3	1st. Video IF Amp.	3CB6	
V4	2nd. Video IF Amp.	3CB6	
V5	3rd. Video IF Amp.	3CB6	
V6	Video Output	12BY7A	
V7	Sound IF - Sync Sep.	5U8	
V8	Audio Det.	3BN6	

ITEM No.	USE	TYPE	NOTES
V9	Audio Output	5AQ5	
V10	Sync Amp. - Vert. Osc.	7AU7	
V11	Vert. Output	12W6GT	
V12	Horiz. AFC-Horiz. Osc.	6SN7GTB	
V13	Horiz. Output	12DQ6	Note 1
V14	Damper	12AX4GTA	
V15	HV Rectifier	1B3GT	

Note 1. Some versions may use a 12CU6 or 12BQ6GA in this application.

PICTURE TUBE

ITEM No.	REPLACEMENT DATA			NOTES
	CORONADO PART No.	GENERAL ELECTRIC PART No.	SYLVANIA PART No.	
V16	21ATP4	21ATP4/ 21ATP4A ①	21ATP4/ 21ATP4A ② 21ATP4A ②	① Aluminized ② Silver screen "85"

ELECTROLYTIC CAPACITORS

ITEM No.	RATING CAP.	RATING VOLT.	REPLACEMENT DATA CORONADO PART No.	AEROVOX PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	PYRAMID PART No.	SANGAMO PART No.	SPRAGUE PART No.
C1	140	150	45X421	AFHSI-23	XA0261	FPII7	TMS-24	MT-15150	TVL-1428
C2A	▲125	300	45X431	AFH4-0260	DO046	FP218 TC36	TMT-26		R2376 *
B	■20	300							
C	▲20	50							
C3A	▲125	300	45X420	AFH3-99-82	DO040 BR505	FP375.4 TC80			TVL-3574.6
B	■60	300							
C	▲40	50							
C4	5	50	45X418	PRS50V5	BBR5-50	TC30	TD-5-50	MT-0504	TVA-1303

* Non-catalog item.

FIXED CAPACITORS

Capacity values given in the rating column are in mfd. for Paper Capacitors, and in mmfd. for Mica and Ceramic Capacitors.

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA CORONADO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C5	120			BPD-00012	DD-121	L10T12	ED-120	UC-5312	5GA-T12	
C6	30									
C7	28									
C8	12									
C9	1000			EF-001	MFT-1000				503C-D1	
C10	1-4.5				829-6		532-B			N900
C11	5.0									
C12	1.5-4.5				829-6		532-B			
C13	47									
C14	1-4.5				829-6		532-B			
C15	47									
C16	30									
C17	1000			EF-001	MFT-1000				503C-D1	
C18	6.8									
C19	6.8									
C20	1000			EF-001	MFT-1000				503C-D1	
C21	1000			EF-001	MFT-1000				503C-D1	
C22	1000			EF-001	MFT-1000				503C-D1	
C23	47		47X603	SI 47	D6-470	LT6Q47	ED-47	UC-5447	5GA-Q47	
C24	47		47X603	SI 47	D6-470	LT6Q47	ED-47	UC-5447	5GA-Q47	
C25	680		80X5	BPD-00068	DD-681	L10T68	ED-680	UC-5368	5GA-T68	
C26	56			NP0-SI 56	TCZ-56	C10Q56C	TCO-56			NP0
C27	680		80X5	BPD-00068	DD-681	L10T68	ED-680	UC-5368	5GA-T68	
C28	68			NP0-SI 68	TCZ-68	C10Q68C	TCO-68		5TCC-Q68	NP0
C29	680		80X15	BPD-00068	DD-681	L10T68	ED-680	UC-5368	5GA-T68	Note 1
C30	470		80X4	BPD-00047	DD-471	BYAI0T47	ED-470	UC-5347	5GA-T47	
C31	680		80X1	BPD-00068	DD-681	L10T68	ED-680	UC-5368	5GA-T68	Note 2
C32	.047	200	RCP10M2473M	BPD-05	DF-503	CUB2S47		GEM-2147	2TM-S47	
C33	30		47X669							N33
C34	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C35	47		47X603	SI 47	D6-470	LT6Q47	ED-47	UC-5447	5GA-Q47	
C36	.1	400	RCP10M4104M	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C37	.047	200	RCP10M2473M	BPD-05	DF-503	CUB2S47		GEM-2147	2TM-S47	
C38	.47	200	RCP10M2474M	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C39	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C40	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C41	10000		47X585	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	
C42	1.5		47X584	NP0-SI 1.5	TCZ-1R5		TCO-1.5	ZT-5515	5TCCB-V15	
C43	22		47X671							N470
C44	100		80X8							N150
C45	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C46	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C47A	1000		80X3	BPD-2X001	DD2-102	BYC6DD1	ED2-001	DCD521	5HK-2D1	
B	1000									
C48	15		47X672							N220
C49	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C50	5000		47X507	BPD-005	DD-502	BYAI0D5	ED-005	DC525	5HK-D5	
C51	.0047	600	RCP10M6472M	BPD-0047	D6-472	CUB6D47	ED-0047	GEM-6247	6TM-D47	
C52	330		47X570	1464-00033		1R5T33			MS-333	
C53	5000		47X507	BPD-005	DD-502	BYAI0D5	ED-005	DC525	5HK-D5	
C54	.047	400	RCP10M4473M	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C55	.01	400	RCP10M4103M	BPD-01	DF-103	CUB4S1	GP-10000	GEM-411	4TM-S1	
C56	.047	400	RCP10M4473M	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C57	.022	200	RCP10M2223M	BPD-02	DF-203	CUB2S22		GEM-2122	2TM-S22	
C58	.1	400	RCP10M4104M	P488N-1	DF-104	CUB4P1		GEM-401	4TM-P1	
C59	.047	600	RCP10M6473M	BPD-05	DF-503	CUB6S47		GEM-6147	6TM-S47	
C60	18		RCM20B180K	1464-000018		1R5Q18			MS-418	
C61	82		RCM20B820K	1464-000082		1R5Q82			MS-482	
C62	100		RCM20B101K	1464-0001		1R5T1		MC235	MS-31	
C63	.047	400	RCP10M4473M	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C64	.047	200	RCP10M2473M	BPD-05	DF-503	CUB2S47		GEM-2147	2TM-S47	
C65	.022	200	RCP10M2223M	BPD-02	DF-203	CUB2S22	ED-02	GEM-2122	2TM-S22	
C66	.47	200	RCP10M2474M	P288N-47		CUB2P47		GEM-2047	2TM-P47	
C67	220		RCM20B221K	1464-00022		1R5T22			MS-322	
C68	.01	400	RCP10M4103M	BPD-01	DF-103	CUB4S1	ED-01	GEM-411	4TM-S1	
C69	820		RCM20B821K	1464-00082		1R5T82			MS-382	
C70	170-700		17A27I							
C71	1000		80X1	BPD-001	DD-102	BYA6D1	ED-1000	DC521	5HK-D1	
C72	.047	400	RCP10M4473M	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C73	56	5000	47X755		DD80-560					
C74	.047	400	RCP10M4473M	BPD-05	DF-503	CUB4S47		GEM-4147	4TM-S47	
C75	10000		47X615	BPD-01	DD-103	BYA6S1	ED-01	DC511	5HK-S1	

CAPACITORS (cont)

ITEM No.	RATING CAP.	RATING VOLT	REPLACEMENT DATA CORONADO PART No.	AEROVOX PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	ERIE PART No.	MALLORY PART No.	SPRAGUE PART No.	NOTES
C76A	1000		80X3	BPD-2X001	DD2-102	BYC6DD1	ED2-001	DCD521	5HK-2D1	
B	1000									

Note 1. Some versions use a 560MMF in this application.
Note 2. Some versions use a 1000MMF in this application.

CONTROLS

ITEM No.	RATING RESISTANCE	RATING WATTS	REPLACEMENT DATA CORONADO PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	IRC PART No.	MALLORY PART No.	INSTALLATION NOTES
R1A	1000Ω		78X25					Contrast
B	1Meg							Volume
R2A	500K		40X416	AB-59	A47-500K-S	Q11-133	U50	Brightness
B	Shaft			AK-8	RS-3/16	NQ	DS-37	
R3A	1.5Meg		40X415	AB-742	A47-1.5Meg-S	Q11-138	U155	Vert. Hold
B	Shaft			AK-8	RS-3/16	NQ	DS-37	
R4A	50K		40X414	AB-31	A47-50K-S	Q11-123	U35	Horiz. Hold
B	Shaft			AK-8	RS-3/16	NQ	DS-37	
R5	*8.5Meg		40X417					
R6A	2.5Meg		40X398	BX-83	A47-2.5Meg-S	Q11-239	TA255L	Height
B	Shaft			Not Req.	FKS-1/2	TQ	Not Req.	
R7A	1500Ω		40X399	B-6	A47-1500-S	Q11-109	PTA152L	Vert. Lin.
B	Shaft			Not Req.	FKS-1/2	TQ	Not Req.	
R8	500Ω	2	40X397		39-500		FL-600	Buzz

* The resistance of this control will vary from 7 to 10 megs.

RESISTORS

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

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA CORONADO PART No.	IRC PART No.	NOTES
R9	4700Ω			BTS-4700	
R10	1000Ω			BTS-1000	
R11	3900Ω			BTS-3900	
R12	220K			BTS-220K	
R13	1000Ω			BTS-1000	
R14	6800Ω			BTS-6800	
R15	10K			BTS-10K	
R16	10K			BTS-10K	
R17	2.2Meg		B84225		
R18	5600Ω		B84562		
R19	470Ω		B85471	BTS-470	
R20	5000Ω	4	43X332	PW4-5000	
R21	47Ω 5%		B83470	BTS-47 5%	
R22	68K		B84683		
R23	1000Ω		B85102		
R24	470Ω		B85471	BTS-470	
R25	47Ω 5%		B83470	BTS-47 5%	
R26	47K		B84473		
R27	22K		B84223	BTS-22K	
R28	470Ω		B85471	BTS-470	
R29	180Ω		B84181	BTS-180	
R30	1Meg		B84105	BTS-1Meg	
R31	3900Ω		B84392	BTS-3900	
R32	1Meg		B84105	BTS-1Meg	
R33	22K		B84223	BTS-22K	
R34	3600Ω	4	43X331		
R35	47Ω		B84470	BTS-47	
R36	100K		B85104	BTS-100K	
R37	180K		B84184	BTS-180K	
R38	1.5Meg		B84155	BTS-1.5Meg	
R39	100K		B84104	BTS-100K	
R40	68K		B84683	BTS-68K	
R41	82K		B84823	BTS-82K	
R42	680Ω		B84681	BTS-680	
R43	330K		B84334	BTS-330K	
R44	4700Ω		B84472		
R45	470Ω	1	C85471	BTA-470	
R46	330Ω	1	C84331	BTA-330	
R47	150K		B84154	BTS-150K	

ITEM No.	RATING OHMS	RATING WATT	REPLACEMENT DATA CORONADO PART No.	IRC PART No.	NOTES
R48	2.2Meg		B84225	BTS-2.2Meg	
R49	820K		B84824	BTS-820K	
R50	680K		B84684	BTS-680K	
R51	47K		B84473	BTS-47K	
R52	6800Ω		B84682	BTS-6800	
R53	4700Ω		B84474	BTS-4700	
R54	680K		B84684	BTS-680K	
R55	470K		B84474	BTS-470K	
R56	22K		B84223	BTS-22K	
R57	470K		B84474	BTS-470K	
R58	2.2Meg		B84225	BTS-2.2Meg	
R59	100Ω		B84101	BTS-100	
R60	8200Ω		B84822	BTS-8200	
R61	15K		B85153	BTS-15K	
R62	680Ω	1	C84681	BTA-680	
R63	560Ω				
R64	560Ω				
R65	220K		B84224		
R66	330K		B84334		
R67	820K		B84824		
R68	120K		B84124		
R69	47K		B84473	BTS-47K	
R70	82K		B84823		
R71	330K		B84334		
R72	3900Ω		B84392		
R73	82K		B84823		
R74	22K		B84223		
R75	10K		B85103	BTS-10K	
R76	1Meg		B84105	BTS-1Meg	
R77	56K		B84563	BTS-56K	
R78	68Ω		B85680	BTS-68	
R79	470K		B84474	BTS-470K	
R80	10K	2	D84103	BTB-10K	
R81	100Ω	2	D84101	BTB-100	
R82	5600Ω		B84562	BTS-5600	
R83	1700Ω	10	43X294	1 3/4A-1750	
R84	25Ω	10	43X290	PW10-25	
R85	20Ω		43X329		
R86	6.5Ω	10	43X293		

TRANSFORMER (MISC.)

ITEM No.	RATING PRI.	RATING SEC. 1	RATING SEC. 2	RATING SEC. 3	REPLACEMENT DATA CORONADO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T1	117VAC ④ 0A	6.3V ④ .2A			54X17 ①	F551I ③②	P-2944.③ ②	P-6134 ③ ②	21F08 ③②	F-13X ②

① 54X16 alternate part number.
② Drill one new mounting hole.
③ Tape center tap on secondary winding.

TRANSFORMERS (SWEEP CIRCUITS)

ITEM No.	USE	REPLACEMENT DATA CORONADO PART No.	Halldorson PART No.	Merit PART No.	RCA TYPE No.	Ram PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
T2	Vert. Osc.	54X10	B6702	A-3003	209T1 ①	V405	A-8125	26A03	A-97X
T3	Horiz. Output	53X359A	FB419 ① * §	HVO-36 ① *§	235T1 ① * §	X094 ① *§	HO-283 *	FLY-16① *§	D-50 ① * §
	Alt. Horiz. Output	53X359							
T4	Vert. Output	51X173A	Z1900 ②③	A-2823① ③		V302 ①③	A-8148④	26S75 ②③	A-118X ①
	Alt. Vert. Output	51X173	Z1900 ②③	A-2823 ① ③		V302①③	A-8148④	26S75 ②③	A-118X ①
T5A	Yoke-Horiz. (24MH)	9A2387-1B	DF607 ⑤⑥	MDF-92 ⑤ ⑥	235D1 ⑤⑥	Y90F19/43 ⑤⑥	DY-16A ⑤ ⑥	Y-16 ⑤⑥	Y-4I & NW1 ⑤
B	(90^0) Vert. (39MH) Alt. Yoke	9A2387	DF607 ⑤⑥	MDF-92 ⑤ ⑥	235D1 ⑤⑥	Y90F19/43 ⑤⑥	DY-16A ⑤ ⑥	Y-16 ⑤⑥	Y-4I & NW1 ⑤
M8	Yoke Rear Cover & Centering Device	2A435							YC1
	Yoke Clamp	30X611							CL1

① Drill new mounting hole(s).
② Use 8 to 1 turns ratio.
③ Connect as auto transformer.
④ Cut and tape green lead.
⑤ Mount with leads cut top and connect same as original using original horizontal damping network.
⑥ Use original rear cover and centering device.
§ This part may be superceded by Parts Manufacturer's introduction of special unit for this application.

*HORIZONTAL OUTPUT TRANSFORMER CONNECTION DATA

Use Original Width Coil Unless Replacement Type Is Listed

	ORIGINAL TERMINAL CONNECTIONS	Halldorson Replacement Connections	Merit Replacement Connections	RCA Replacement Connections	Ram Replacement Connections	Stancor Replacement Connections	Thordarson Replacement Connections	Triad Replacement Connections
	8	9	9	9	9	8	9	9
	3	7 or 5	7 or 5	7 or 5	7 or 5	3	7 or 5	7 or 5
	2	See Note ⑦ NC	See Note ⑦ NC	See Note ⑦ NC	See Note ⑦ NC	2	See Note ⑦ NC	See Note ⑦ NC
	1	1	1	1	1	1	1	1
Special Notes →		⑦	⑦	⑦	⑦		⑦	⑦

⑦ Install new damping network, consisting of approx. 100MMF ⓐ 2KV and 1000Ω ⓐ ½ watt, across horizontal yoke terminals #3 and #7.

TRANSFORMER (AUDIO OUTPUT)

ITEM No.	IMPEDANCE PRI.	IMPEDANCE SEC.	REPLACEMENT DATA CORONADO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.	NOTES
T6	6200Ω	6-8Ω	51X180	Z1000 ①	A-2900①	A-3337	24S60 ①	S-51X①	① Drill one new mounting hole. Tape center tap on primary winding.

SPEAKER

ITEM No.	TYPE SIZE	TYPE FIELD	TYPE V. C. IMP.	REPLACEMENT DATA CORONADO PART No.	QUAM PART No.	NOTES
SP1	6"	PM	6-8Ω	12A538	6AI5Z7	① Alternate part number
	5"	PM	6-8Ω	12A540 ①	5A07RZ6.4	
	8"	PM	6-8Ω	12A539 ①	8A4Z6	

COILS (RF-IF)

ITEM No.	USE	REPLACEMENT DATA CORONADO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	NOTES
L1	IF Coupling Coil	9A2369			6225	
L2	1st. Video IF	9A2365		TV-131	6225	
L3	2nd. Video IF	9A2363			6222	Includes 47.25MC trap and Cap.
L4	3rd. Video IF	9A2364			6221	Includes 41.25MC trap, cap. and resistor. 30 Microhenries
L5	Tweet Choke	9A2375				
L6	Shunt Peaking Coil	36A12	19-3160 *	TV-184 *	6180 *	160 Microhenries, wound on 22K resistor
L7	4.5MC Trap	9A2366	20-1004	TV-151	1469	
L8	Series Peaking Coil	36A28		TV-190 ▲	6132 ▲	350 Microhenries, wound on 6800Ω resistor
L9	Shunt Peaking Coil	36A33	19-3250 ♦	TV-185 ♦	6181 ♦	225 Microhenries, wound on 2200Ω resistor
L10	1st. Sound IF	9A2366	20-1004	TV-151	1469	
L11	2nd. Sound IF	9A2368	17-3495	TV-113	6203	Includes 22MMF Cap.
L12	Quadrature Coil	9A2367	20-1005	TV-121	1480	
L13	RF Choke	9A2380	19-1001		4604	1.5 Microhenries

* Parallel with 22K resistor.
▲ Parallel with 6800Ω resistor.
♦ Parallel with 2200Ω resistor.

TRANSFORMER (HORIZ. OSC.)

ITEM No.	DC RES. PRI.	DC RES. SEC.	REPLACEMENT DATA CORONADO PART No.	MEISSNER PART No.	MERIT PART No.	MILLER PART No.	RCA TYPE No.	Ram PART No.	Thordarson PART No.	NOTES
L14	75Ω		9A2371						HS-7 *	Tapped ⓐ 55Ω, 12.4 to 48.5 Millihenries Horiz. Freq. 7.5 to 30 Millihenries Horiz. Waveform
L15	60Ω		9A2372							

* Enlarge mounting hole.

FILTER CHOKE

ITEM No.	RATINGS TOTAL DIRECT CURRENT	RATINGS D. C. RESISTANCE	RATINGS INDUCTANCE (0 CURRENT 1000 ∿)	REPLACEMENT DATA CORONADO PART No.	Halldorson PART No.	Merit PART No.	Stancor PART No.	Thordarson PART No.	Triad PART No.
L16	.265A	40Ω	.7 HY.	52X95-2	C5037 ①	C-2996 ①	C-2326①	26C44 ①	C-27X

① Drill one new mounting hole.

COMPONENT COMBINATIONS

ITEM No.	USE	DESCRIPTION	CORONADO PART No.	REPLACEMENT DATA	
K1	Ant. Input	470MMF, .3-1Meg	76X11	Centralab	RC-471
K2	Ant. Input	470MMF, .3-1Meg	76X11	Centralab	RC-471
K3	Chassis Isolation	470MMF, .3-1Meg	76X11	Centralab	RC-471
K4	Vert. Integrator	2000MMF, 5000MMF, 5000MMF, 22K, 8200Ω, 8200Ω	76X7	Aerovox Centralab Cornell Dubilier Erie Sprague	PA110 PC-100 115TM1 1405-1 V-1

RECTIFIERS

ITEM No.	RATING CURRENT (Measured)	REPLACEMENT DATA CORONADO PART No.	FEDERAL PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL PART No.	SARKES TARZIAN PART No.	NOTES
M1	.265A	66X16 ①	1090A ①	1N1007 ②	RS300SL ①	300 ①	① Selenium Type.
M2	.265A	66X16 ①	1090A ①	1N1007 ②	RS300SL ①	300 ①	② Germanium Type.