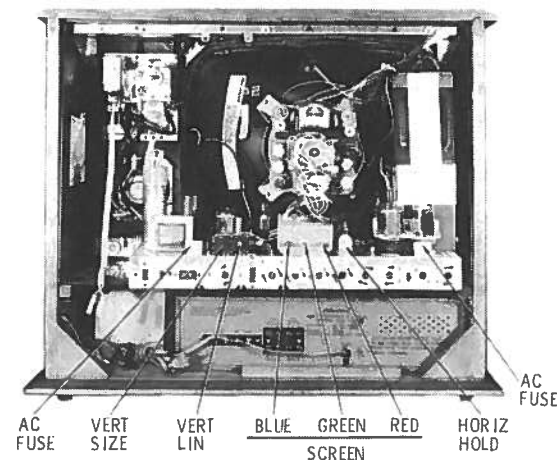


TUNER ASSEMBLY



CABINET-REAR VIEW

### DISASSEMBLY INSTRUCTIONS

#### CHASSIS REMOVAL

In combination models radio must be removed first. Remove six screws holding cabinet. Disconnect antenna wires and remove cabinet back.

Disconnect CRT socket, anode lead, speaker leads, degaussing coil lead, and ground wires. Remove all knobs.

Remove five screws holding chassis, four holding tuner, and two holding lower control bracket.

Loosen and remove convergence board and yoke. Chassis may now be removed from cabinet.

#### PICTURE TUBE REMOVAL

Follow Chassis Removal procedure.

Remove four screws holding picture-tube shield. Remove four screws holding picture tube. Do not lift picture tube by the neck.

### SERVICING IN THE FIELD

#### CRT IMPLOSION PROTECTION AND CLEANING

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

#### FUSE DEVICES

A 1.7-amp fuse is used for AC line protection. (See photo, Cabinet-Rear View.)

A .225-amp fuse is used for filament protection. (See photo, Cabinet-Rear View.)

#### VHF TUNER

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

#### HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the horizontal hold coil.

#### FOCUS

The focus may be varied by connecting the lead from pin 9 to various voltage terminals. (See Tube Placement Chart.)

#### AGC

The AGC may be varied by AGC and AGC Delay controls. (See Tube Placement Chart.)

SET 1392 FOLDER 1

ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

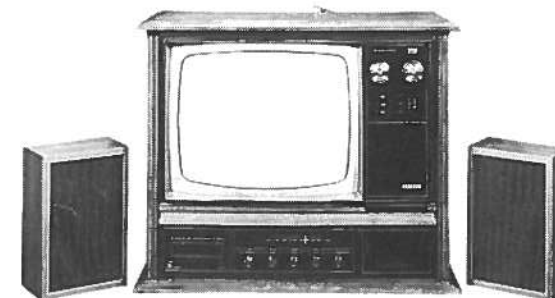
PHOTOFACT® Folder

with CIRCUITRACE™

For Supplier Address See PHOTOFACT Index

ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

COLOR TV



Model MS6201T

MODEL	CHASSIS
2157P	T15K10-1B
2197P	"
2227P	T15K10-2B
6177P	T15K10-1A
6201T	T15K10-1A
6247P	T15K10-2A
MS6201T	T15K10-1A, 10K3, 6Z5
S6187P	T16K10-1A
S6198T	"
S6257P	T16K10-2A
SK2197P	T15K10-1B

Covering Runs 10,11,12,13

### SAFETY PRECAUTIONS

Make sure line voltage does not exceed rating of set. Check high-voltage regulation and adjust to correct value. Be sure shields and rear cover are in place and secure.

Beware of shock from high voltage or AC line. Discharge high voltage to HV cage only.

Use extreme care when handling picture tube. Do not bump, scratch, or exert undue strain.

CAUTION: One side of AC line connected to chassis. Use isolation transformer for servicing. Make certain isolation networks are in place and exposed metal is safe to touch before returning set to customer.

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



The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed. 4PB944

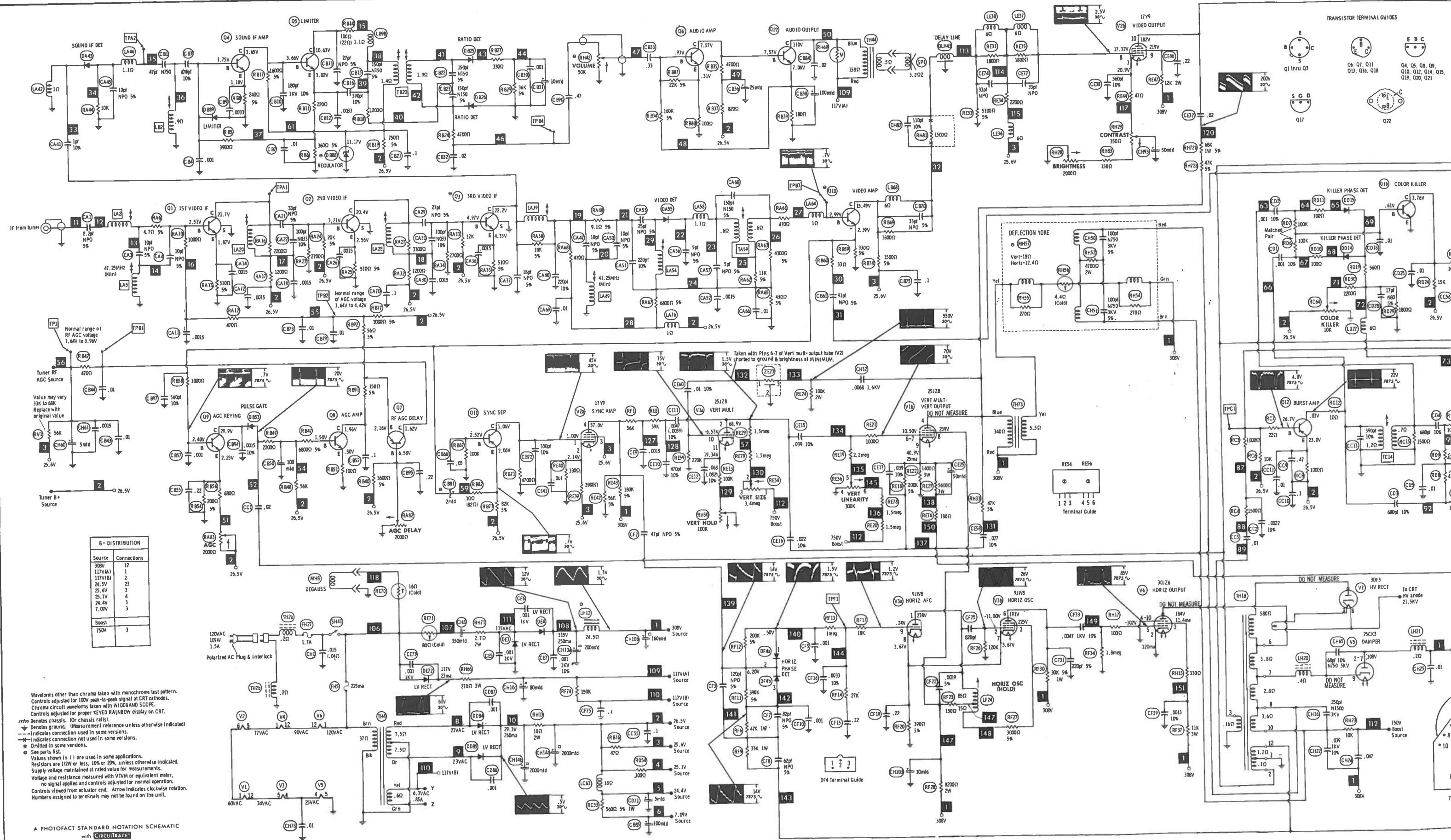
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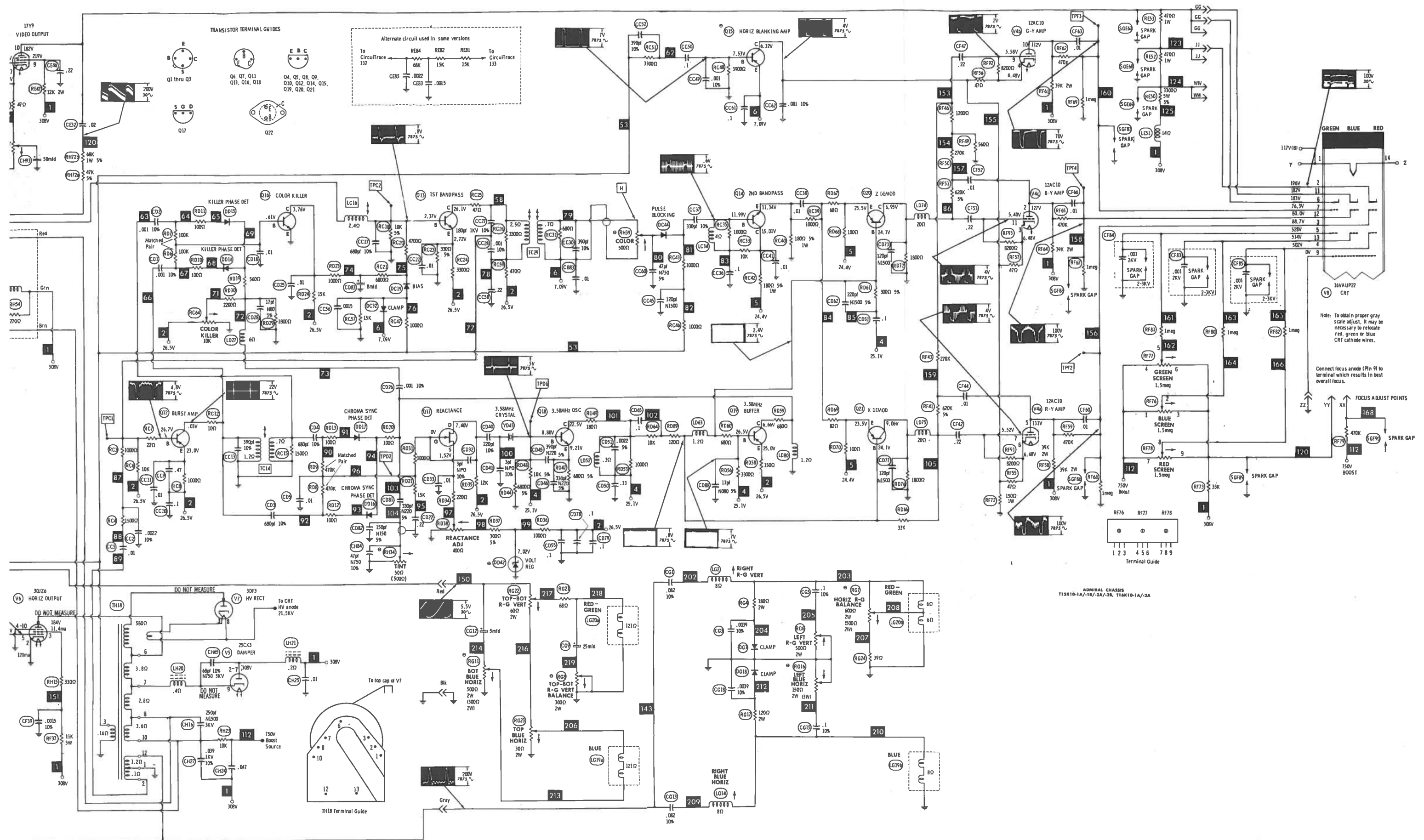
DATE 4-74

SET 1392 FOLDER 1

ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

SET 1392 FOLDER 1









TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer, or observe polarity, and maintain line voltage at 120VAC. Allow a 20-minute warm-up period for receiver and test equipment. Suggested Alignment Tools:

GC ELECTRONICS

LA2,LA5,LA20,LA28,LA39,LA49,LA54,  
LC16,TA59,TC29 VHF IF Output, LV22 .. 9296, 9297, 9300

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. 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 that shown. Connect a +6 volt bias supply to TPB2, low side to ground.

VIDEO IF ALIGNMENT

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input to TPB3, low side to ground.	Thru .001mfd to TP4  on VHF tuner, low side to ground.	44MHz (10MHz Sweep)	41.25MHz 47.25MHz	Adjust LA49 for MINIMUM. See Fig. 1.  Adjust LA5 for MINIMUM. See Fig. 1.
"	"	"	41.25MHz 42.17MHz 44.00MHz 45.75MHz 47.25MHz	Adjust LA2, LA20, LA28, LA39, and LA54 for maximum gain and symmetry of response. See Fig. 2. LA20 affects 45.75MHz marker. LA39 affects 42.17MHz and 44.00MHz markers. LA54 affects 44.00MHz and 45.75MHz markers. VHF IF Output, LV22, affects tilt.

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 TA59 for MINIMUM beat interference.

SOUND IF ALIGNMENT

Tune in a station and adjust TB20 (Top) 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 TB20 (Bottom) and LB2.

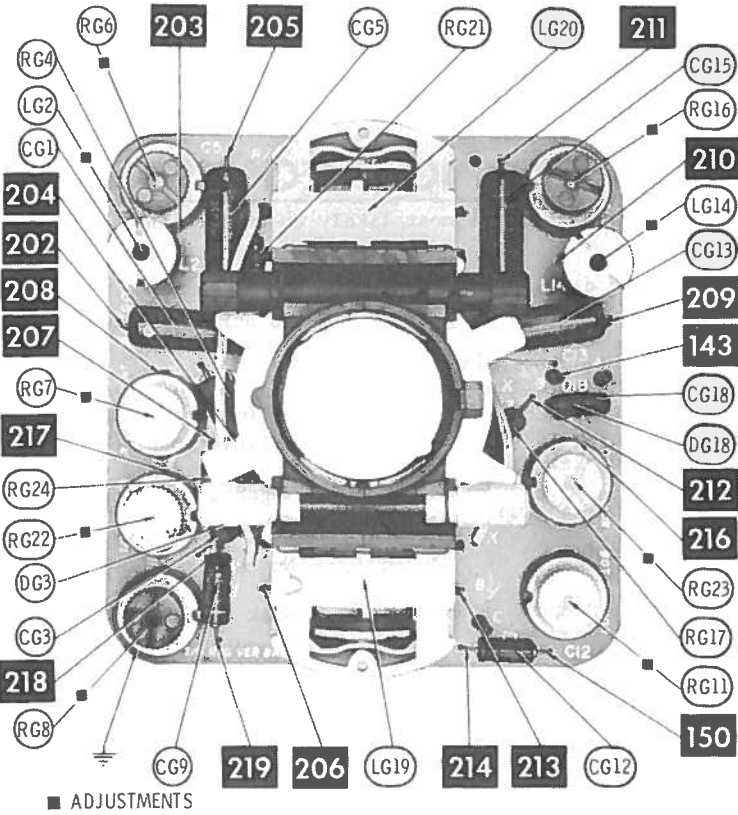
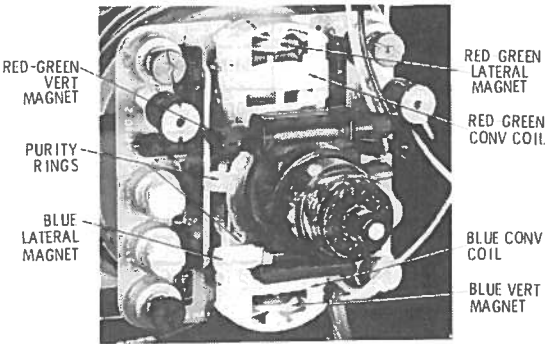
CONVERGENCE ADJUSTMENTS

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

Perform center dot convergence using convergence magnets.

- Adjust RG22 and RG8 to converge red and green vertical center line from top to bottom of screen.
- Adjust RG7 to converge red and green horizontal lines along vertical center line from top to bottom of screen.
- Adjust RG6 to converge red and green vertical lines, left side of screen.
- Adjust LG2 to converge red and green vertical lines, right side of screen.
- Adjust RG23 and RG11 to converge blue horizontal lines along vertical center line from top to bottom of screen.
- Adjust RG16 and LG14 to converge blue horizontal lines, left and right sides of screen.

Touch up appropriate controls if necessary.

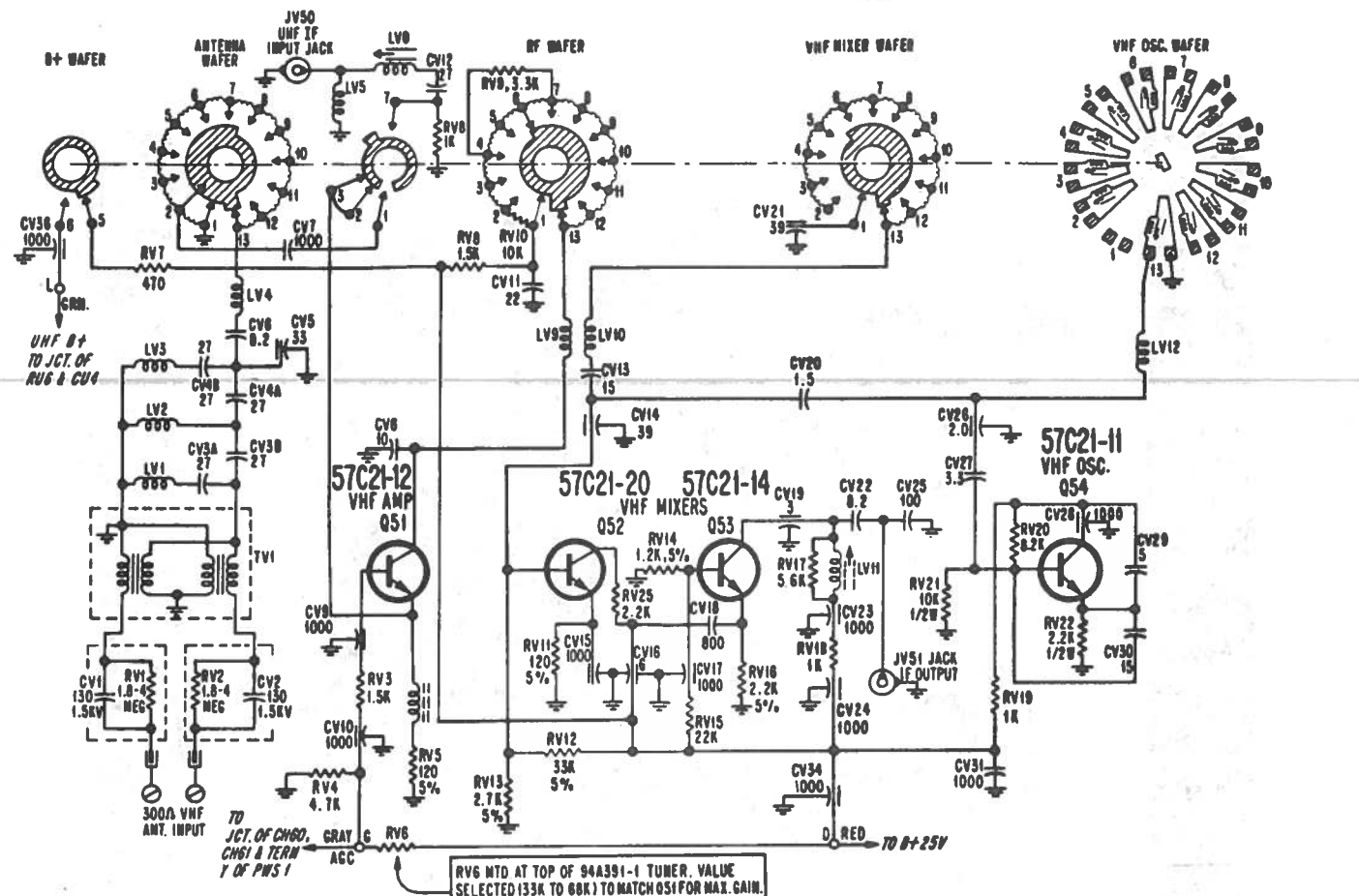


CONVERGENCE A Howard W. Sams CIRCUITRACE<sup>TM</sup> Photo

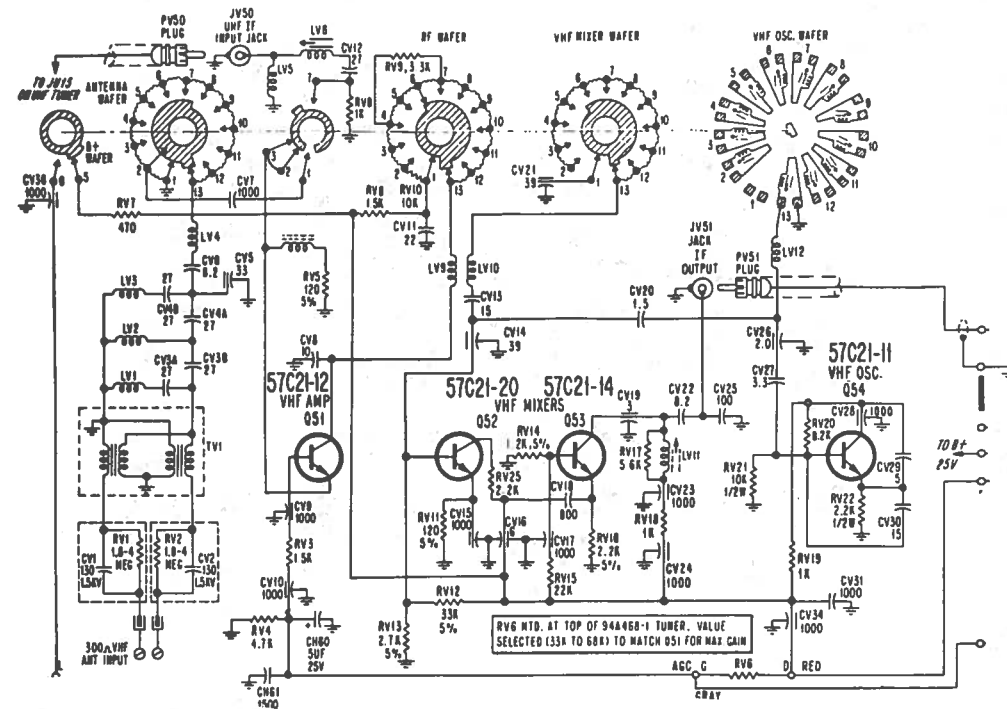
ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

FOLDER 1

# VHF TUNER 94A391-1 (ALTERNATE VHF TUNER)



# VHF TUNER 94A468-1



Courtesy of the Manufacturer

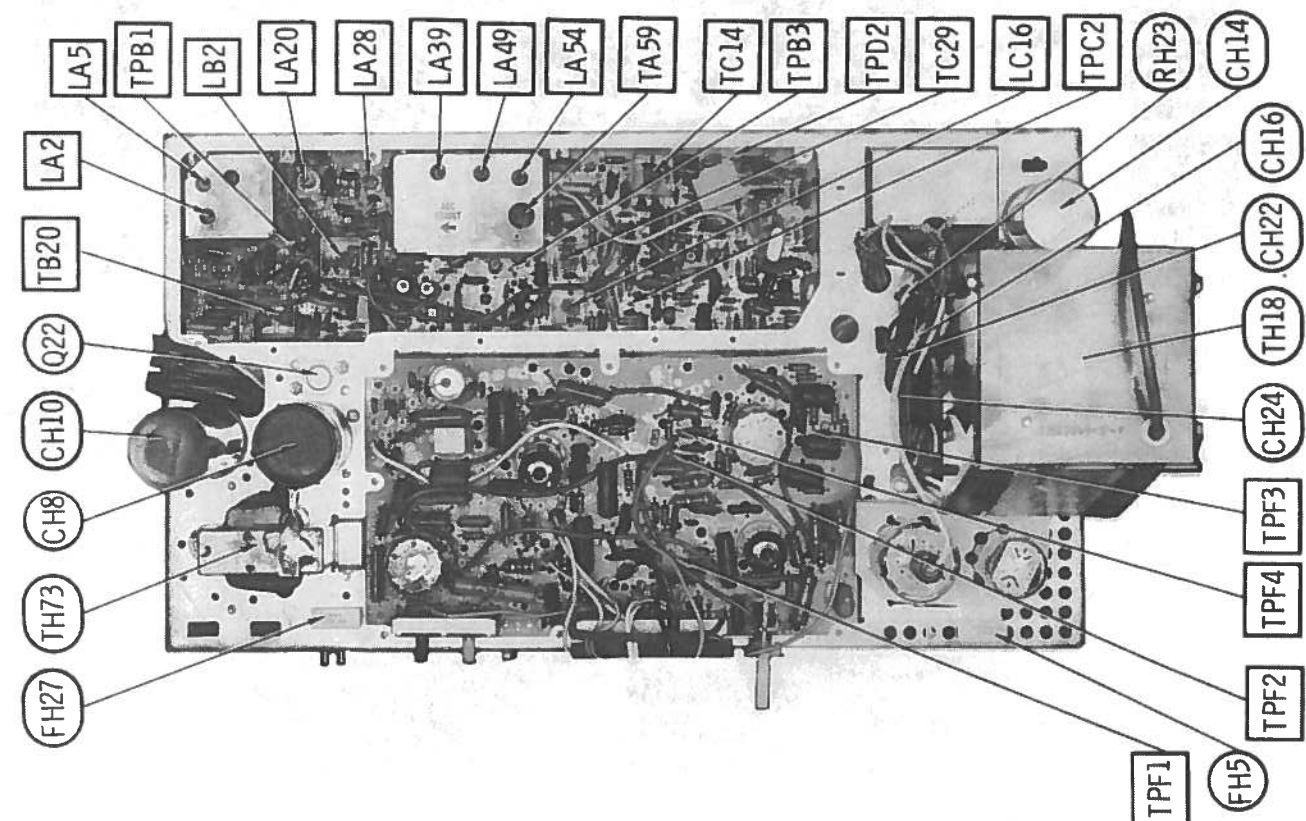
# TV ALIGNMENT INSTRUCTIONS (Continued)

## CHROMA BANDPASS ALIGNMENT

Connect as explained in preliminary instructions.

Connect a jumper from point TPD1 to ground. Turn color killer control to maximum. Turn the color, tint, AGC, and AGC delay controls to mid-range position. Disconnect horizontal output tube, V6, cathode lead.

CONNECT SCOPE	SWEEP GENERATOR COUPLING	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
Vertical input thru detector probe to H, low side to ground.	Thru .1mfd to TPC2, low side to ground.	3.58MHz (3-5MHz Sweep)	3.08MHz 3.58MHz 4.08MHz	Adjust TC29 (top and bottom) for maximum gain and symmetry of response. See Fig.3.
"	Thru .001mfd to TP4 on VHF tuner, low side to ground.	44MHz (10MHz Sweep)	3.08MHz 3.58MHz 4.08MHz (4.5MHz Trap)	Adjust LC16 for maximum gain and symmetry of response. See Fig. 4. If necessary, retouch TC29. Inability to obtain proper bandpass alignment may be due to misadjustment of the 4.5MHz trap. Adjust TA59 for MINIMUM at 4.5MHz.
After completing Chroma Bandpass Alignment, reset color killer. (Refer to Miscellaneous Adjustments.)				

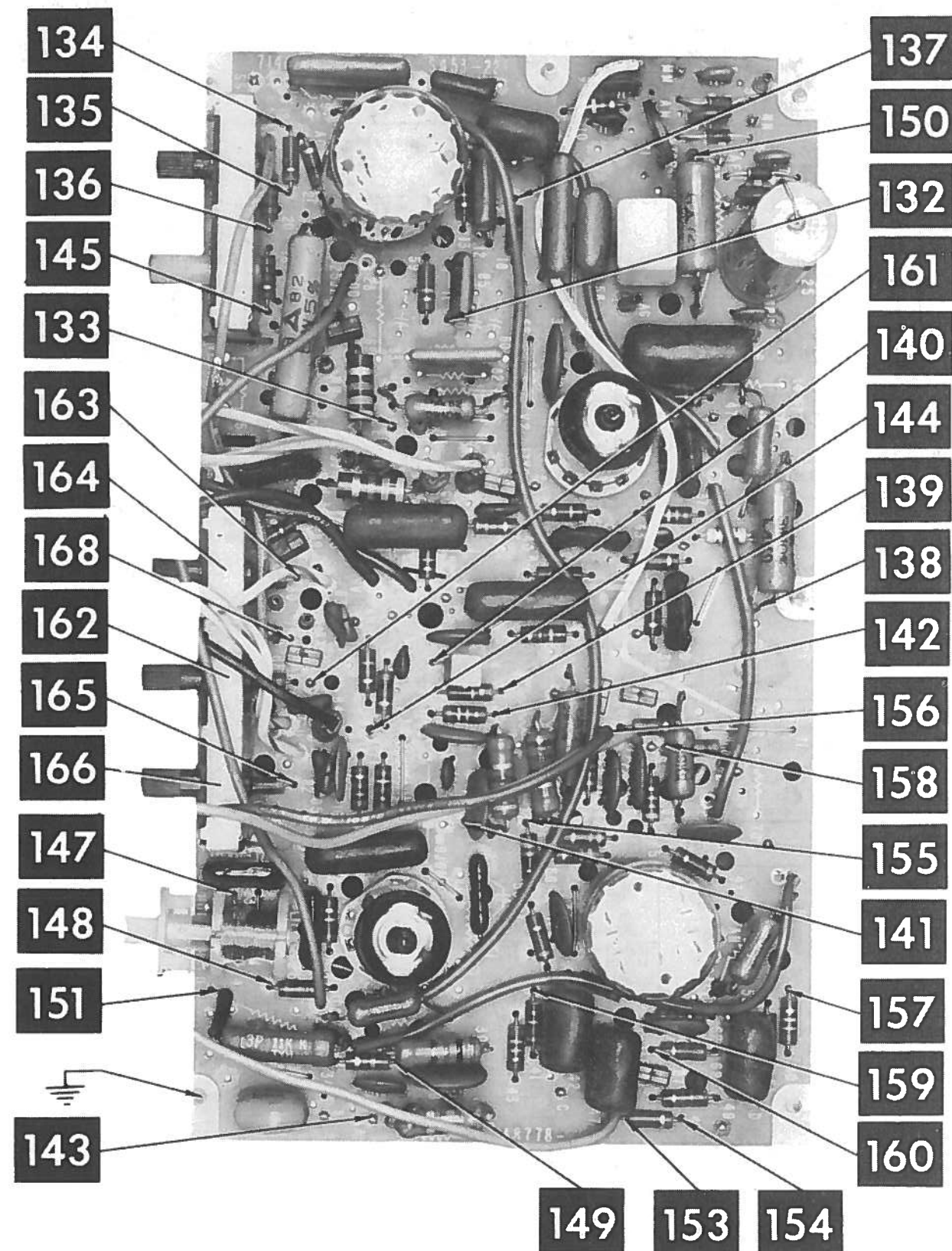
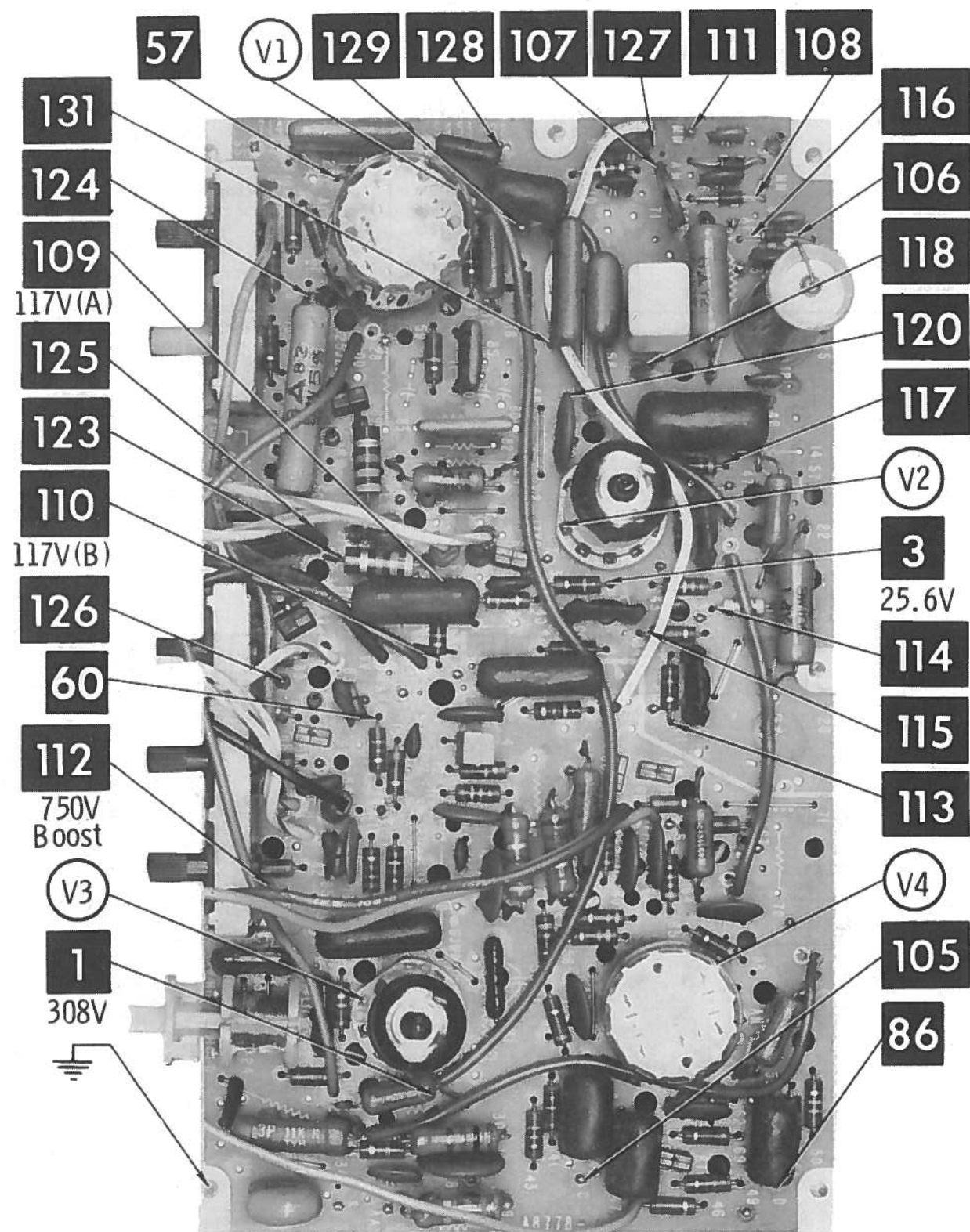


## CHASSIS—TOP VIEW

SET 1392 FOLDER 1

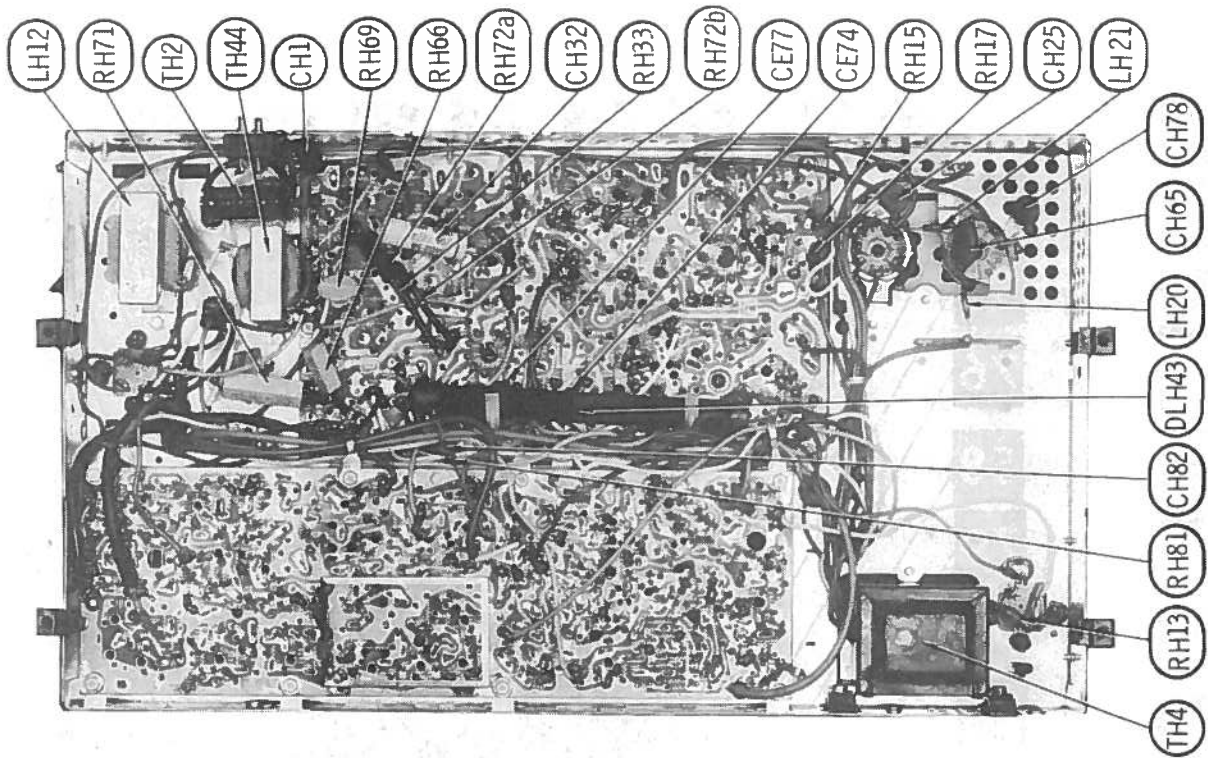
FOLDER 1



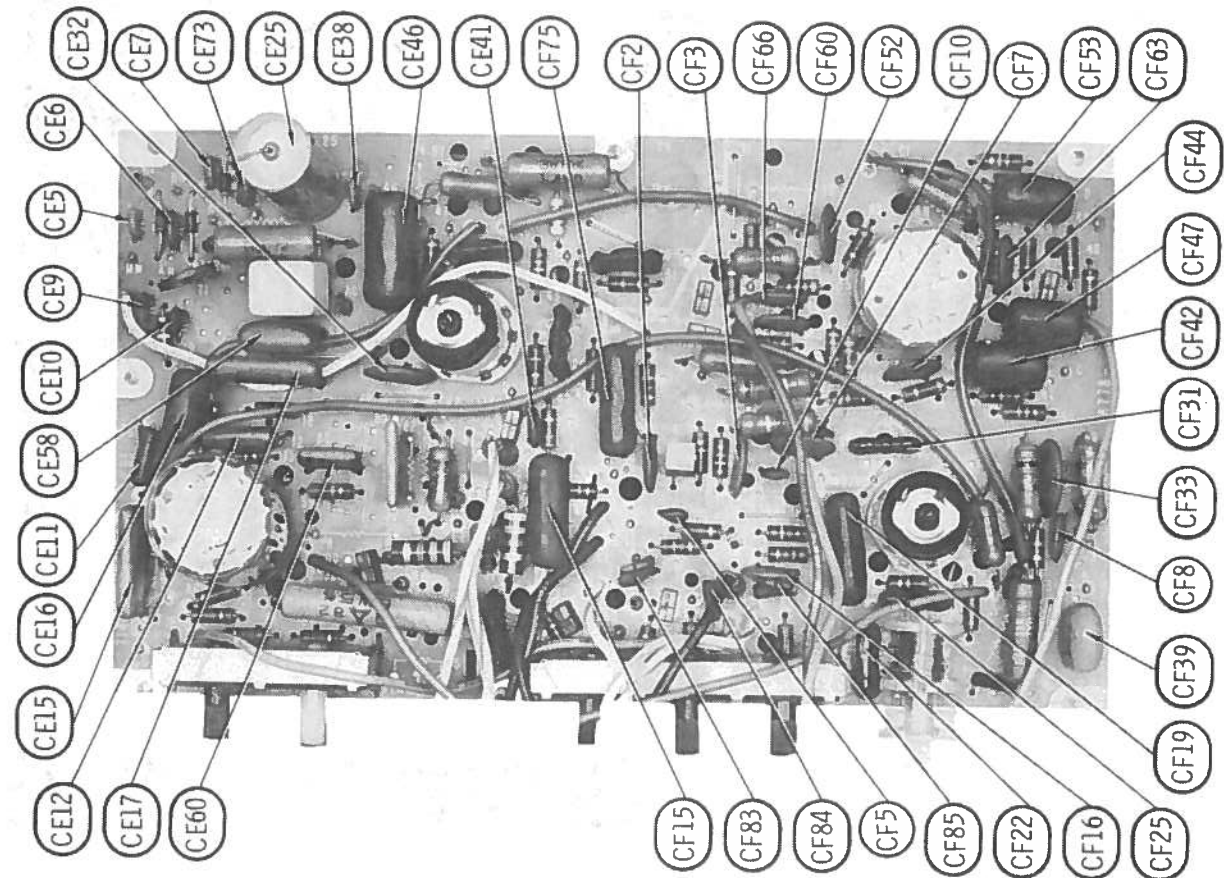
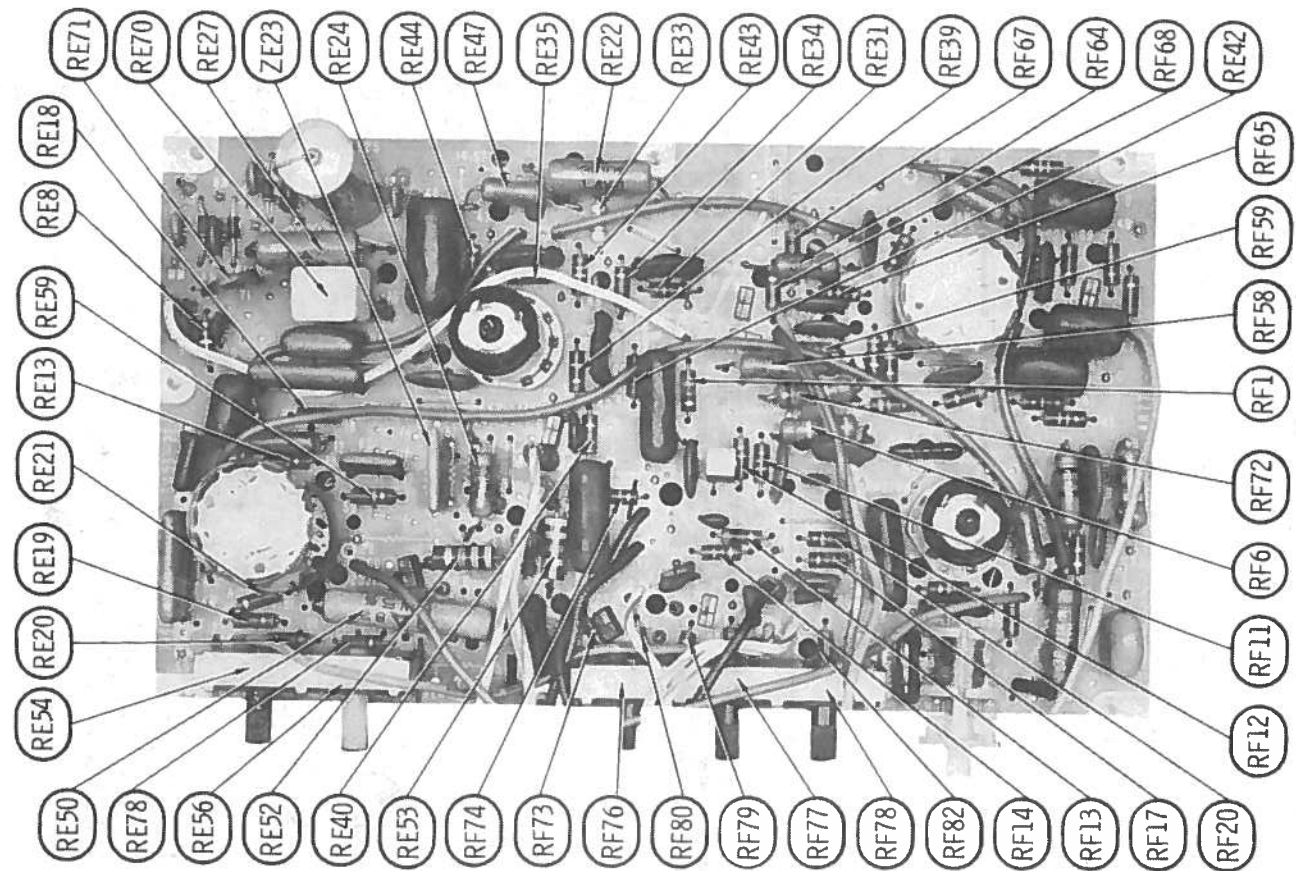
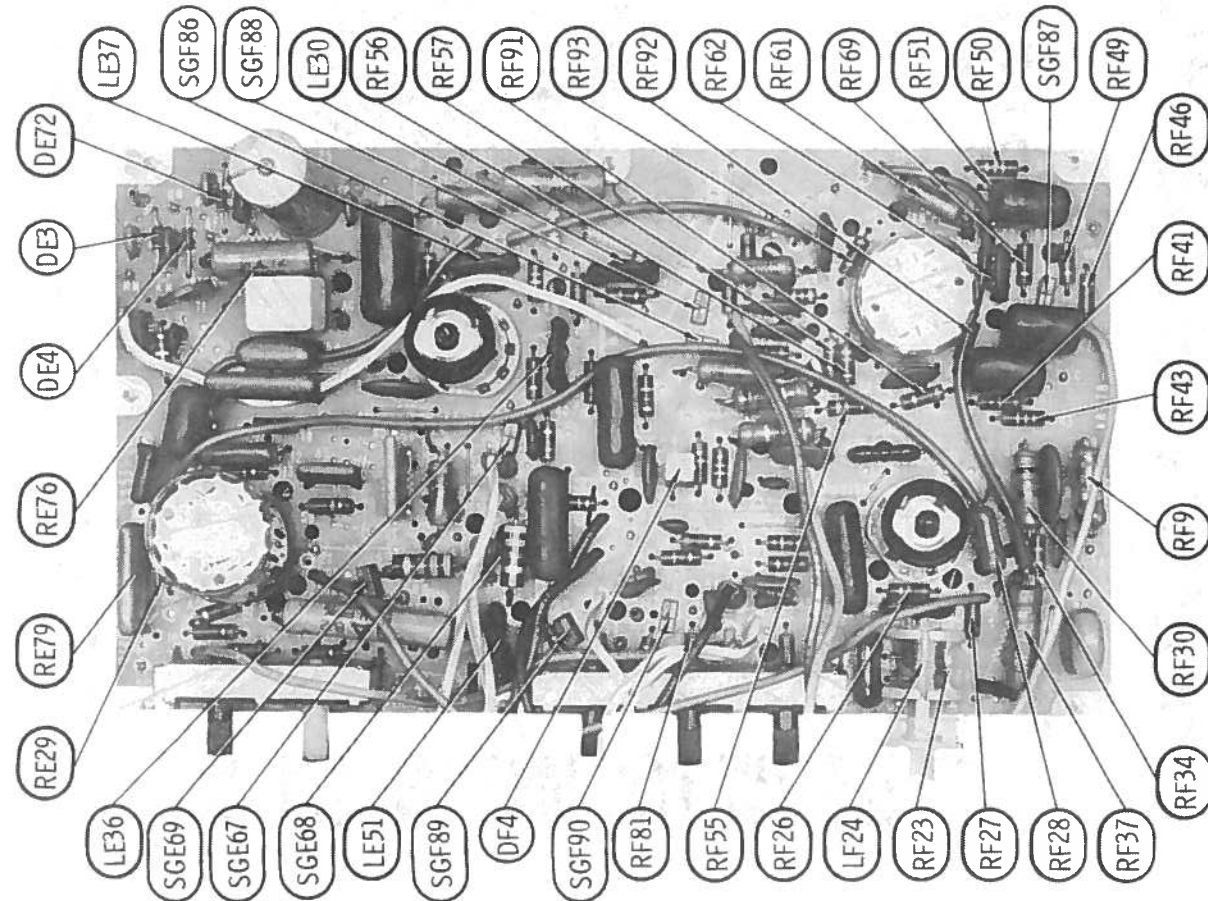


ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A





CHASSIS-BOTTOM VIEW



PWS2

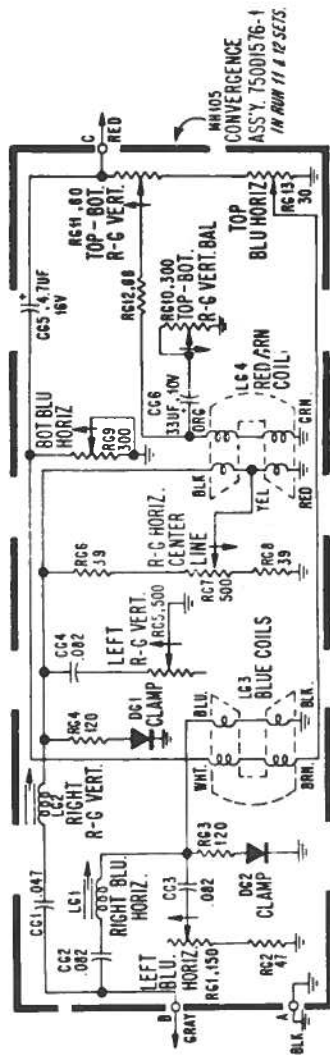
ADMIRAL CHASSIS  
T16K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

FOLDER 1

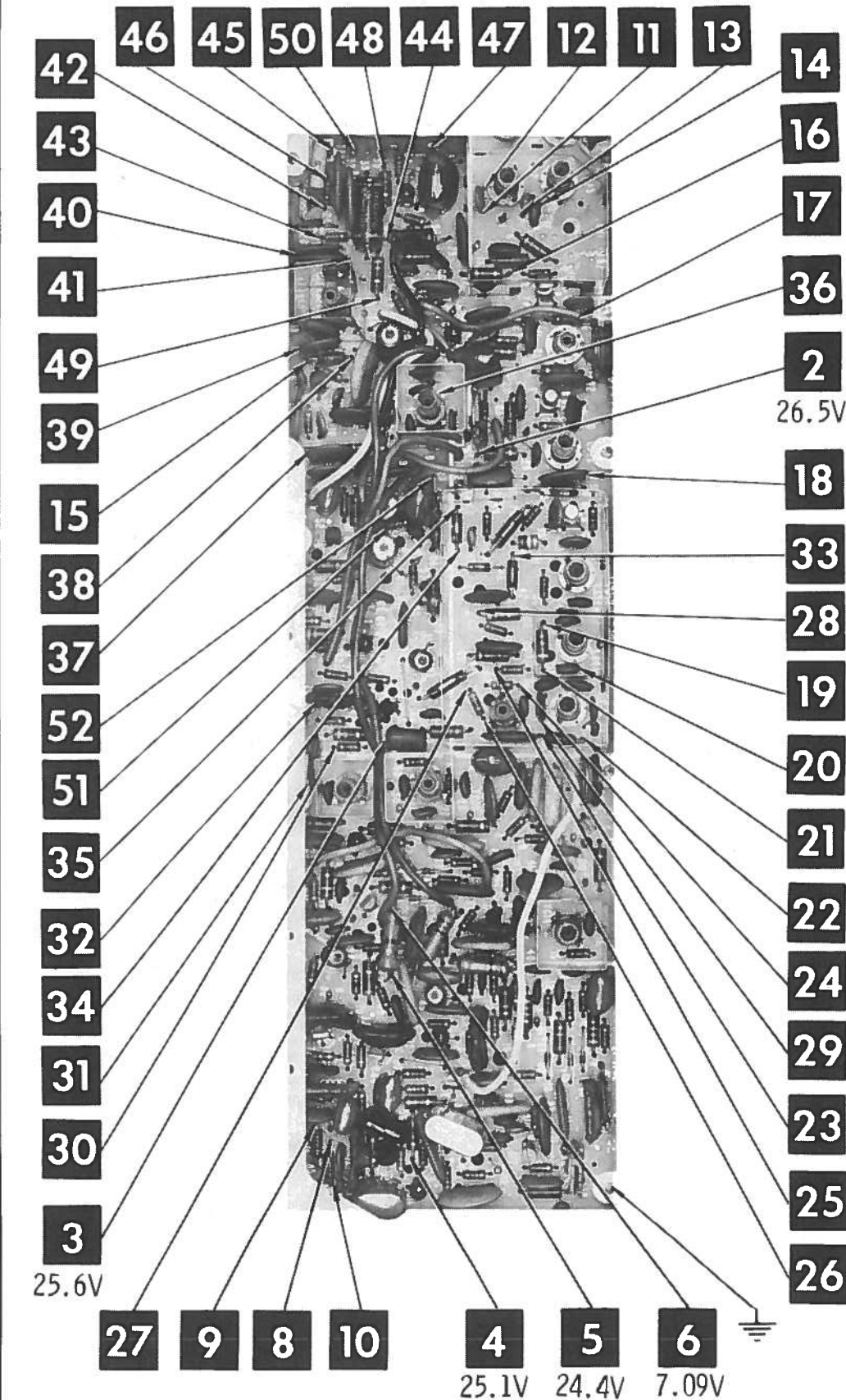


750A1576-1 CONVERGENCE ASSEMBLY

- |       |                                    |             |
|-------|------------------------------------|-------------|
| RG1   | Red/Green Horiz. Right Cont. ....  | 75A64-34    |
| RG3,4 | 120 Ohm, 2 Watt .....              | 61A162-121  |
| RG5   | Red/Green Horiz. Left Cont. ....   | 75A64-31    |
| RG7   | Red/Green Horiz. Difference Amp .. | 75A64-31    |
| RG9   | Blue Horiz. Bottom Cont. ....      | 2075A89-176 |
| RG10  | Red/Green Vert. Balance Cont. .... | 75A64-2     |
| RG11  | Blue Vert. Left Cont. ....         | 75A64-6     |
| RG13  | Red/Green Vert. Right Cont. ....   | 64A25-9     |
| CG1   | .047mf, 10%, 600V, Filmatic .....  | 64A52-23    |
| CG2,3 | .082mf, 10%, 200V, Filmatic .....  | 64A52-23    |
| CG4   | .082mf, 10%, 200V, Filmatic .....  | 67A72-9     |
| CG5   | 4.7mf, 16V, Electrolytic .....     | 2067A64-185 |
| CG6   | 33mf, 10V, Electrolytic .....      | 2073A4-2    |
| LG1   | Blue Horiz. Right Coil .....       | 2073A4-1    |
| LG2   | Red/Green Horiz. Right Coil .....  | 2073A4-3    |
| LG3   | Blue Dynamic Coil .....            | 2073A4-3    |
| LG4   | Red/Green Dynamic Coils .....      | 93A42-7     |
| DG1,2 | Clamp Diode .....                  |             |

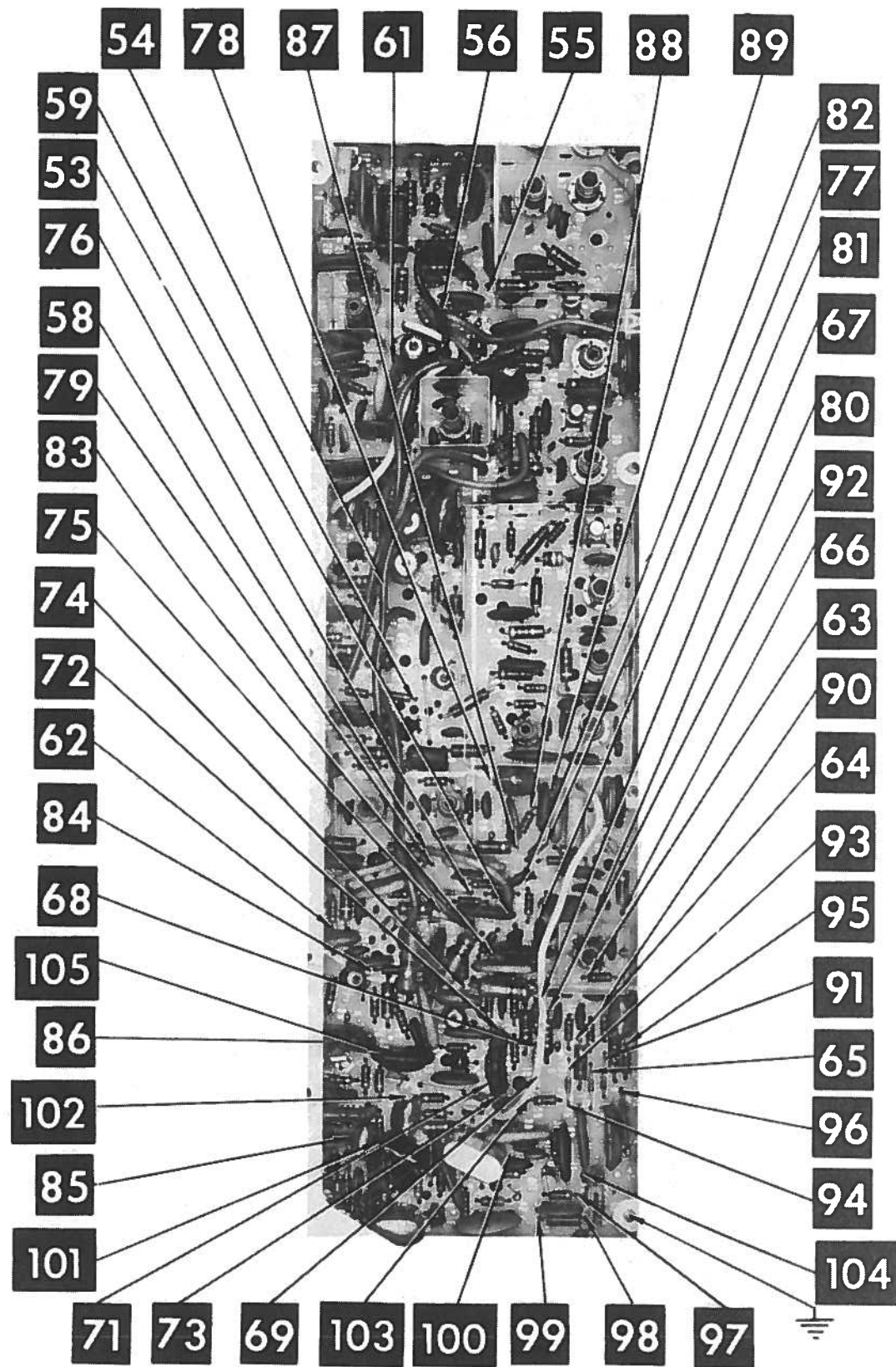


Courtesy of the Manufacturer



A Howard W. Sams CIRCUITRACE® Photo

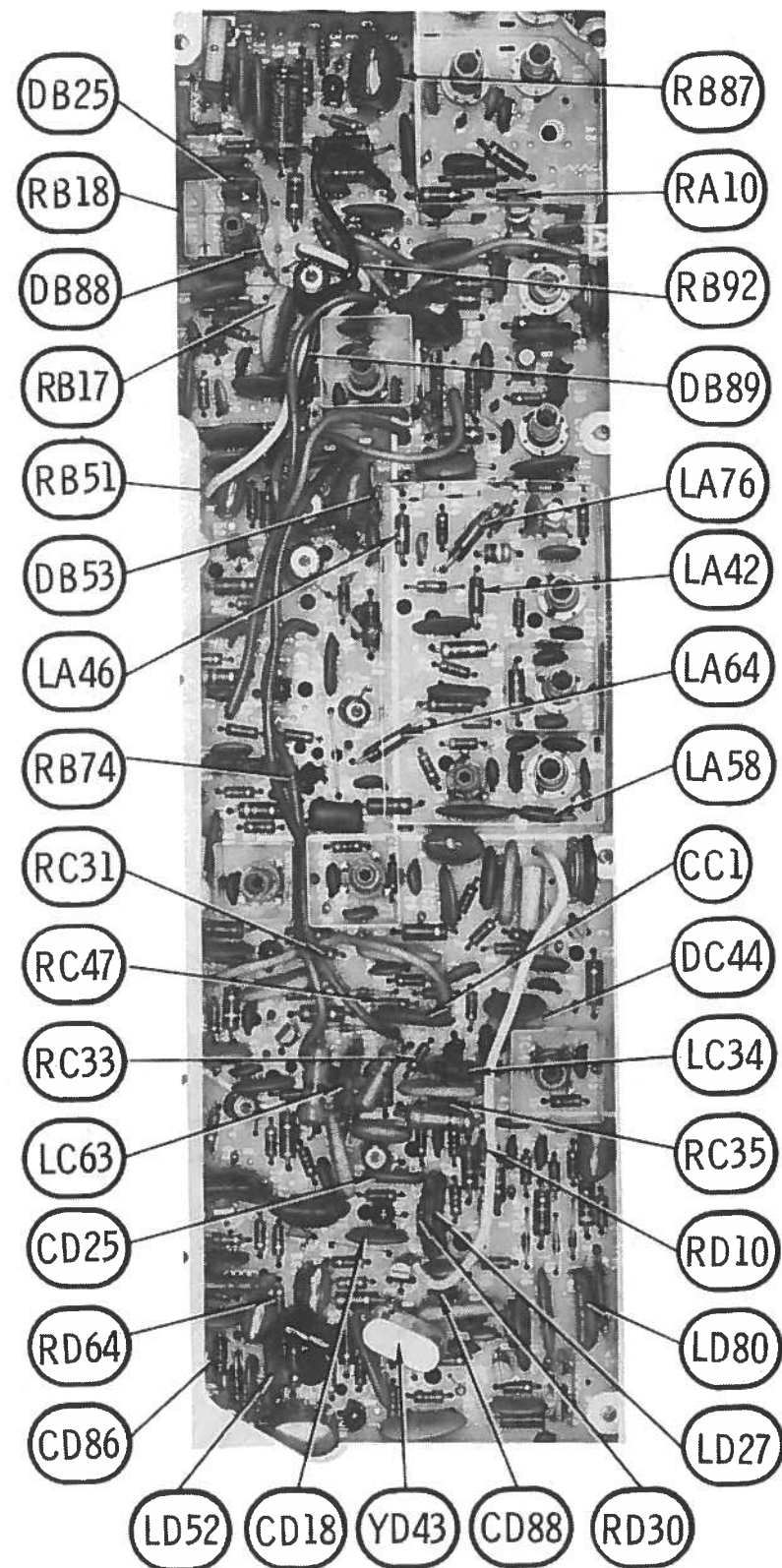
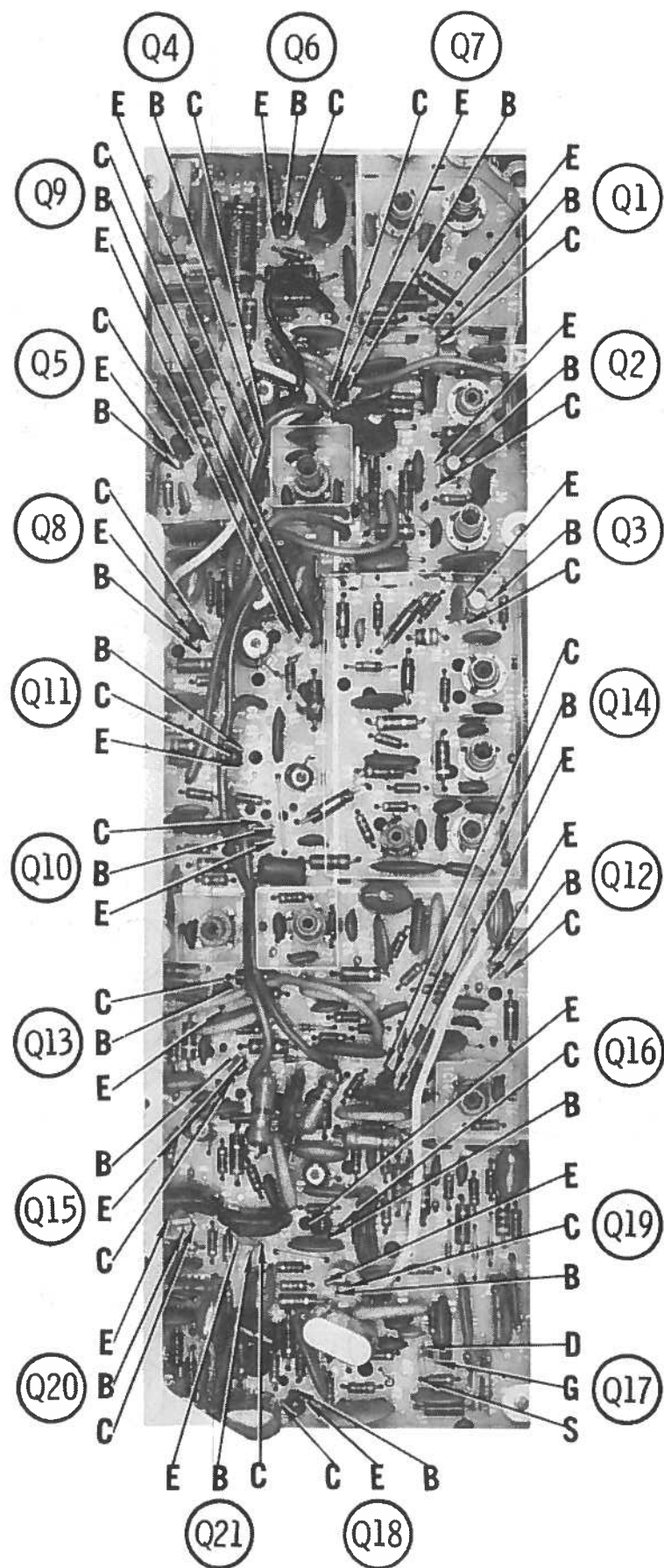
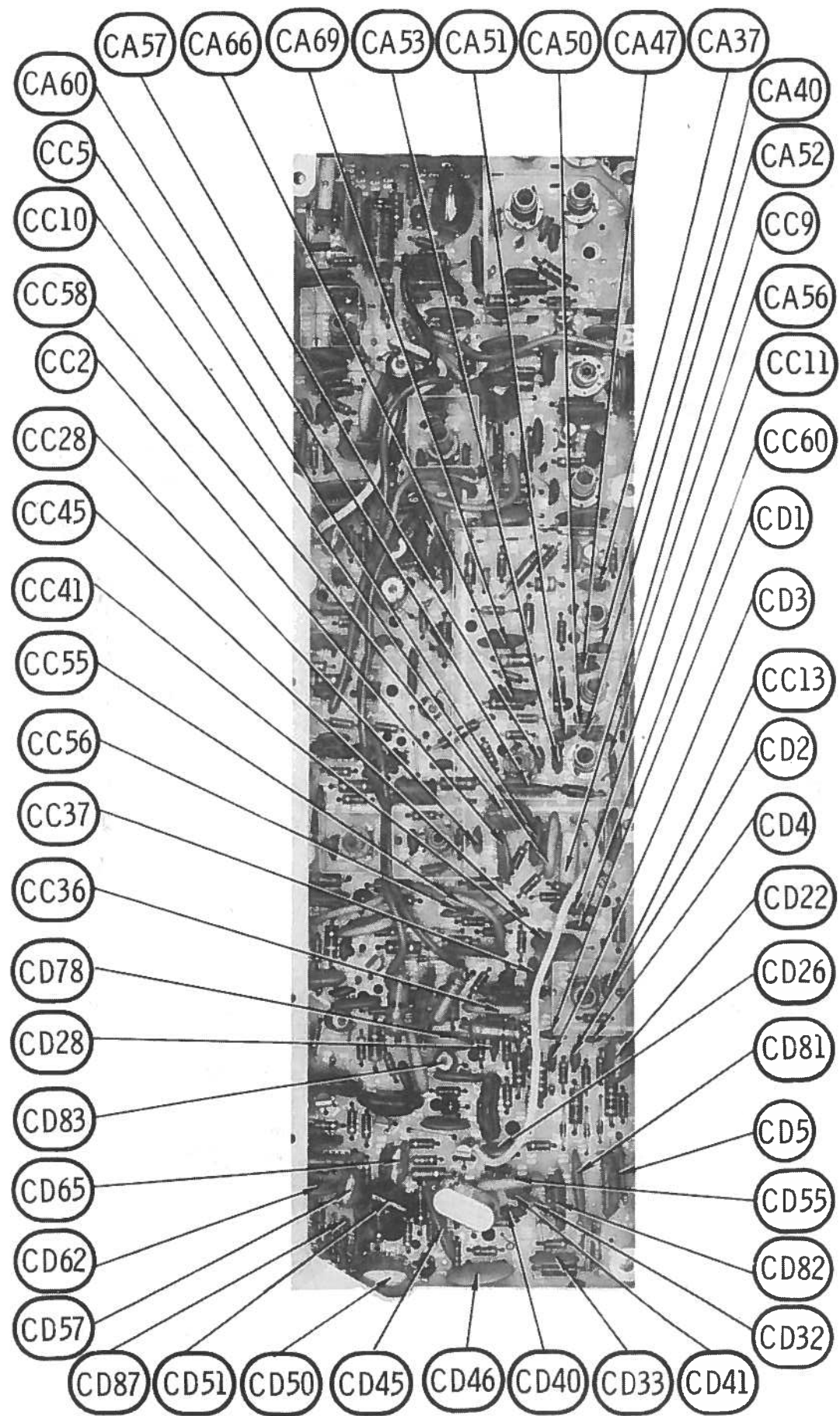
PWS1



ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

FOLDER 1



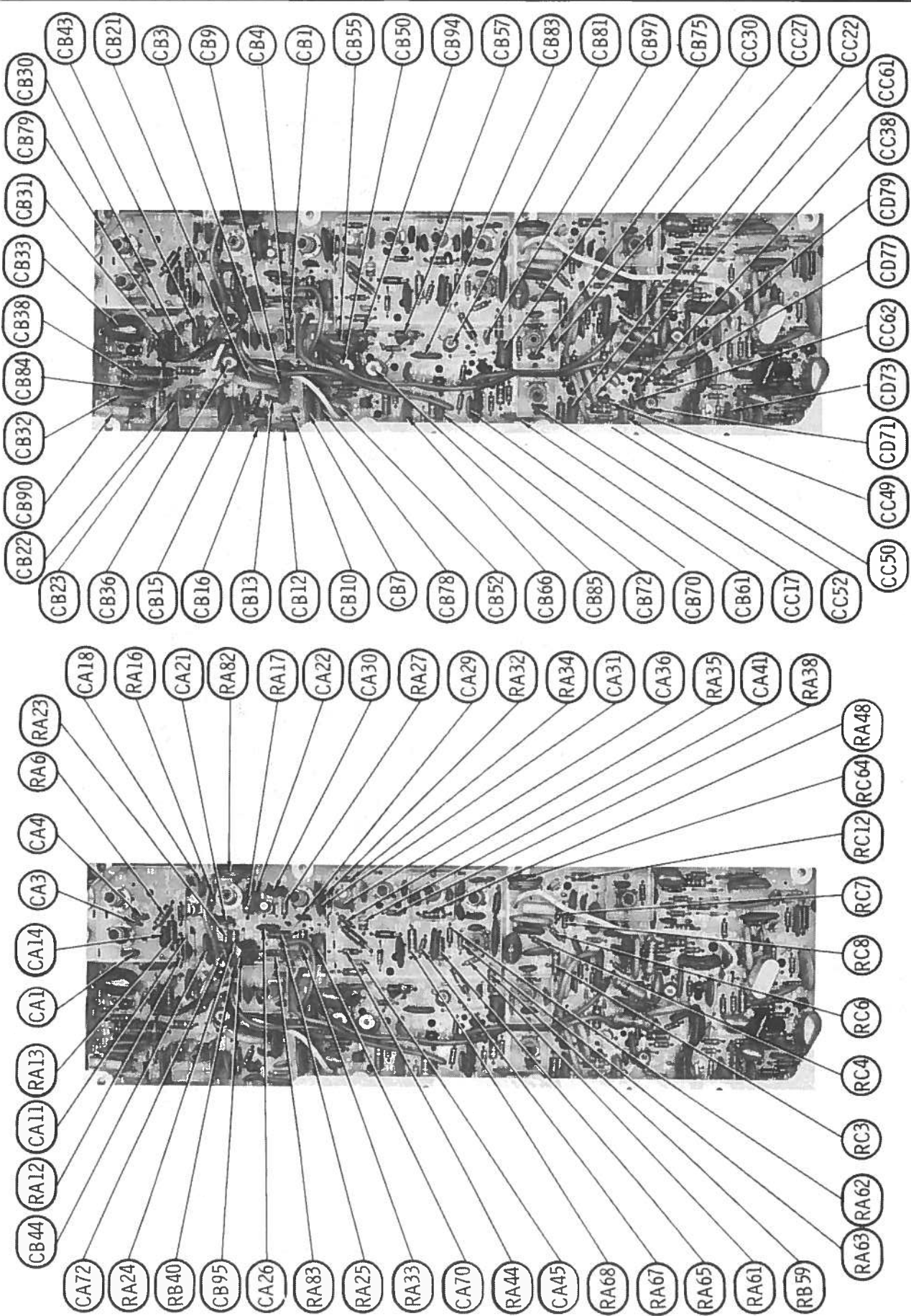


PWS1

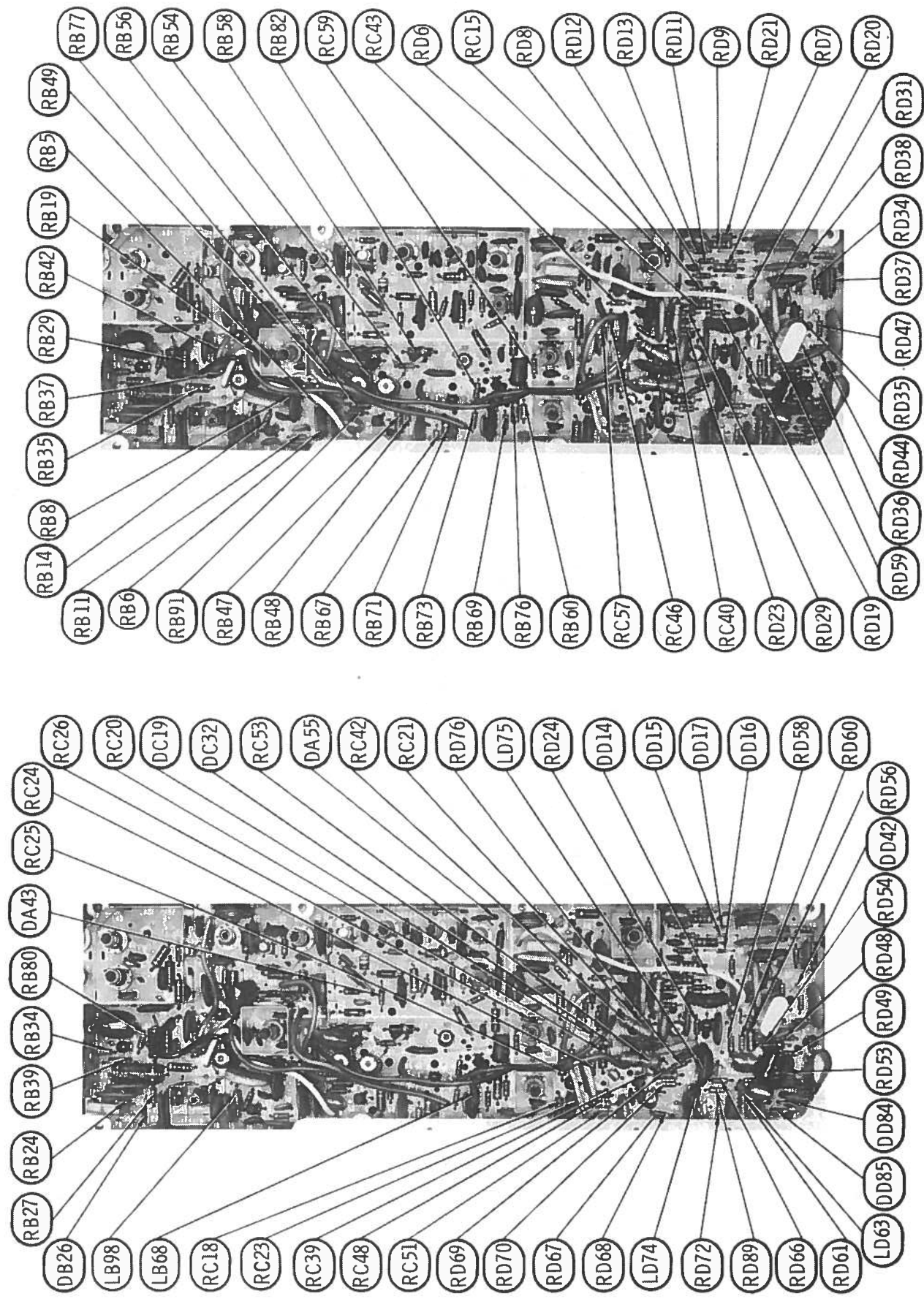
ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

FOLDER 1





PWS1

ADMIRAL CHASSIS  
T1SK10-1A/-1B/-2A/-2B, T16K10-1A/-2A



## MISCELLANEOUS ADJUSTMENTS

### HORIZONTAL SWEEP CIRCUIT ADJUSTMENTS

#### Connect:

A 0-500ma meter in series with cathode lead of horizontal output tube.  
A .47mfd capacitor across meter.  
A VTVM through a high-voltage probe to picture-tube anode connector.  
Point TPF1 to ground.

Tune in a TV station and set all controls for normal operation. Adjust the Horizontal Oscillator coil, LF24 slug, until picture "floats" with the blanking bars vertical. Remove the short from Point TPF1.

High voltage should be 21.5KV on picture-tube anode with MINIMUM brightness. Check to see that horizontal output current does not exceed 160ma.

Adjust focus, height and vertical linearity controls.

### AGC ADJUSTMENT

Tune in a strong TV station and advance the AGC control until instability appears in the picture (pulling, jitter, overload, etc.). Reduce the control to the point just below the instability and check all available stations for proper AGC action.

### COLOR AFC ALIGNMENT

Set the color killer control to fully counterclockwise. Set the tint control to the center of its range. Set color control to maximum. Connect a color bar generator to the antenna terminals. Adjust receiver for normal color reception.

Short Point TPD2 to ground. Adjust Reactance control, RD38, until color bars stand still or drift slowly. Remove the short from Point TPD2 and check to see that the color bars will sync with a low-level input signal. If necessary, retouch Reactance control for the best hold.

Connect the vertical input of a scope to Point TPF2. See waveform on schematic for pattern obtained. Check the range of the tint control. The bars should move 30° either side of proper signal. If necessary, adjust TC14 for proper range of control.

### COLOR AFC ALIGNMENT (CONTINUED)

Check for proper waveform at G-Y and B-Y outputs: Points TPF3 and TPF4. Tune in a weak signal or reduce the signal at the antenna terminals to obtain a snowy picture. Adjust the color killer control to eliminate the color in the snow. Check with a color signal to make sure killer is not killing the color signal.

### PURITY ADJUSTMENTS

Perform center dot convergence using convergence magnets. If picture tube appears to be magnetized use a degaussing coil to demagnetize tube and mounting brackets. Disable blue and green guns by turning the blue and green screen controls down.

Loosen deflection yoke and move it rearward until it is against convergence-yoke assembly. Adjust purity magnet and rotate assembly until a red spot appears at the center of the picture tube. Slide the deflection yoke forward to obtain a uniform red over entire picture-tube face. A low-power microscope is useful to observe the beam landings.

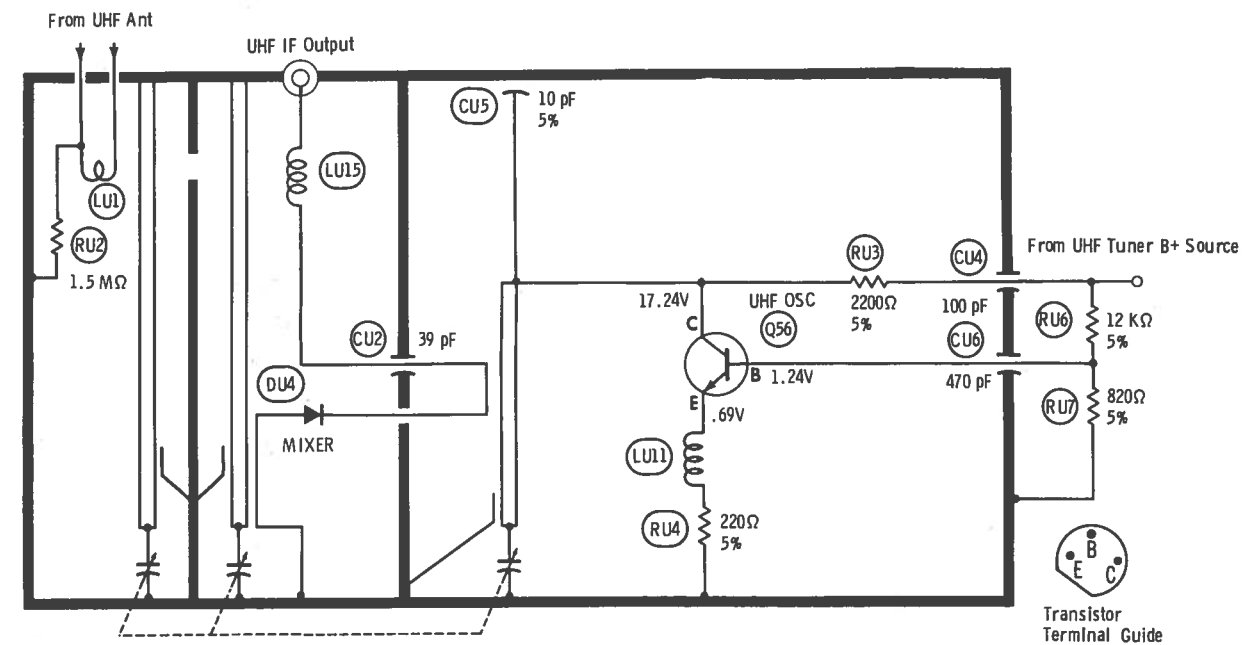
### AGC DELAY ADJUSTMENT

Tune in a weak station and reduce the signal at the antenna terminals to obtain a snowy picture. Advance the AGC Delay control, RA82, clockwise to obtain maximum snow, then turn counterclockwise just past the point when MINIMUM snow is obtained.

### GRAY SCALE ADJUSTMENTS

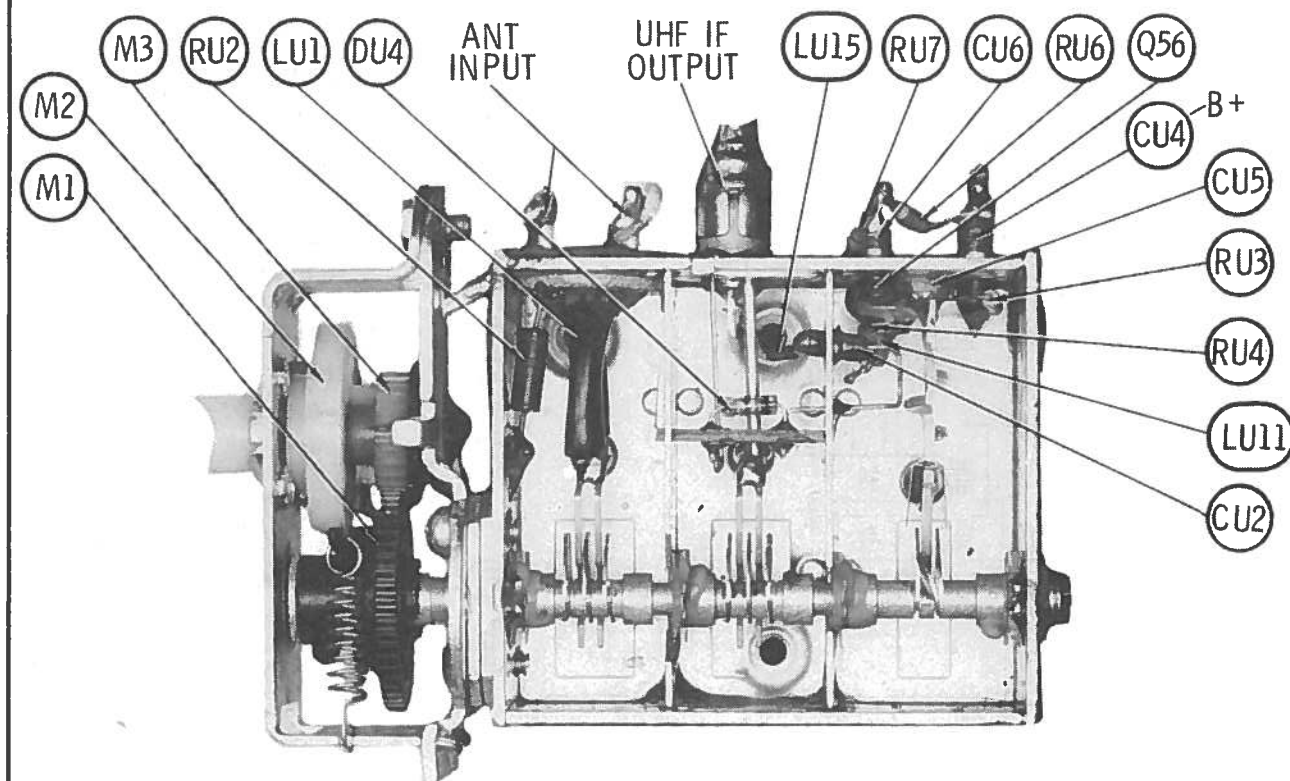
Tune in a black and white picture or a color picture with color control set to MINIMUM. Set tint control to mid-range. Set brightness and contrast controls to near maximum setting. Advance the screen controls to produce a black and white picture without blooming.

Set contrast to MINIMUM and brightness control for a dim picture. Adjust the screen controls for a black and white picture. Turn contrast and brightness controls to maximum. If black and white picture is not maintained, move the cathode of the predominant color to WW (low drive) or JJ (medium drive) or GG (high drive) position which gives the best black and white picture at all useable range of brightness control.



A PHOTOFAC STANDARD NOTATION SCHEMATIC

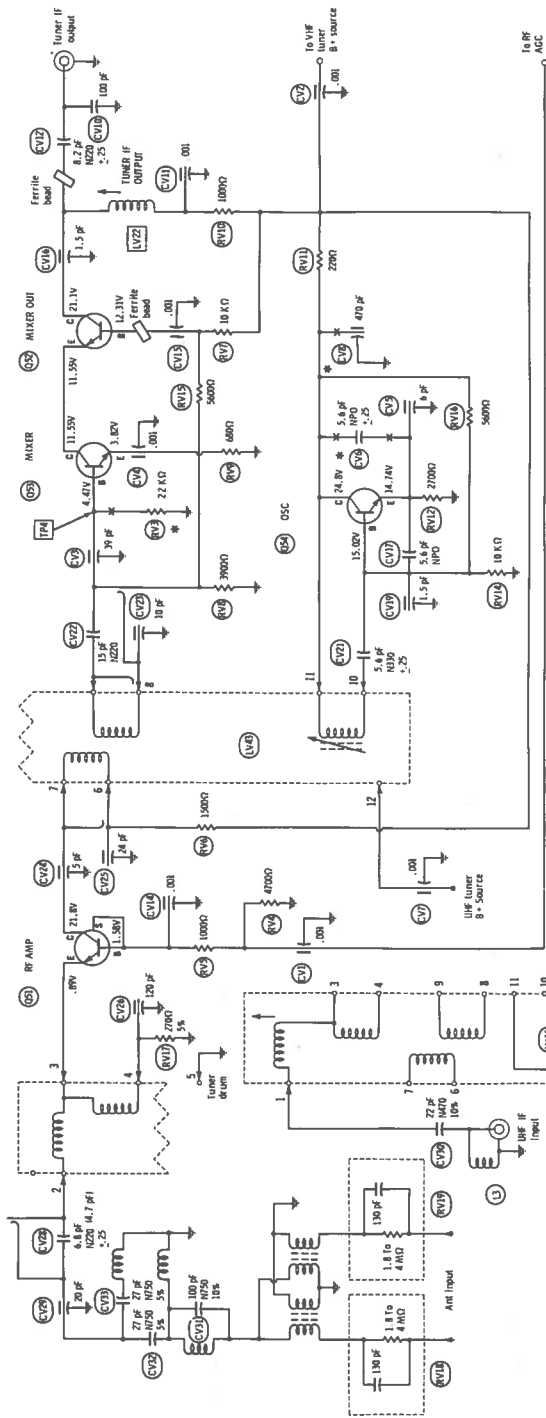
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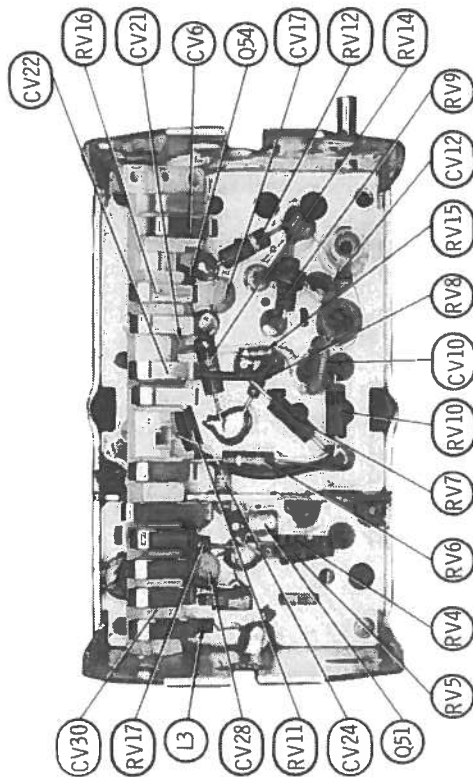
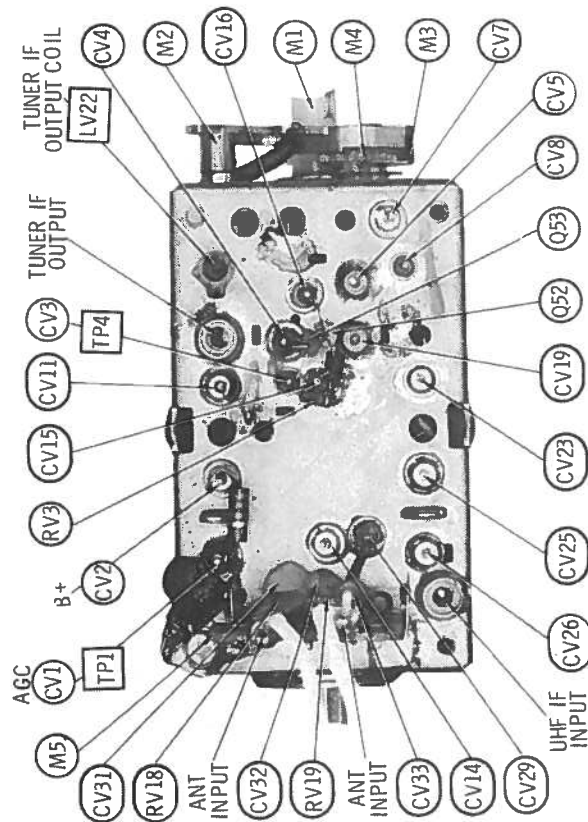
UHF TUNER 94A361-2

ADMIRAL CHASSIS  
T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A

FOLDER 1



VHF TUNER 94A383-3



### VHF TUNER ALIGNMENT INSTRUCTIONS

Suggested Alignment Tools: LV44A ... GC ELECTRONICS 9440

#### OSCILLATOR ADJUSTMENTS

The oscillator slug for each channel is preset with the fine-tuning control. Adjust the fine tuning for best picture and sound.

#### RF AND MIXER ADJUSTMENTS

Connect the sweep generator across antenna terminals with 120-ohm carbon resistor in each lead. Refer to chart below for generator frequencies. Connect the synchronized sweep voltage from the sweep generator to the horizontal input of the scope for horizontal deflection. Use 10Mhz sweep unless otherwise noted. Connect a variable bias to the RF AGC line at Point TP1. Adjust bias to obtain response curve showing no overload.

CHANNEL	CONNECT SCOPE	REMARKS
13	Vertical input to point TP4 low side to ground.	Expand or compress appropriate coils for maximum gain and symmetry of response similar to Fig. 201 with markers as shown.
12	Vertical input thru 2 to point TP4 low side to ground.	Check all channels and make compromise adjustments by expanding or compressing appropriate coils if necessary.

GENERATOR FREQUENCY				FIG. 201 SOUND VIDEO
SWEEP	MARKER	SWEEP	MARKER	
(2) 57MHz	55.25MHz	(6) 85MHz	83.25MHz	
(3) 63MHz	59.75MHz	(7) 117MHz	87.75MHz	
(4) 69MHz	61.25MHz	(8) 179MHz	175.25MHz	
(5) 79MHz	65.75MHz	(9) 207MHz	199.25MHz	
	71.25MHz		203.75MHz	
	77.25MHz		205.25MHz	
	81.75MHz		209.75MHz	
			211.25MHz	
			215.75MHz	

### UHF TUNER ALIGNMENT INSTRUCTIONS

Select a UHF station. Adjust UHF IF input coil for best picture and sound.

### 94A361-2

#### UHF TUNER PARTS LIST AND DESCRIPTION

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

#### SEMICONDUCTORS

ITEM No.	TYPE / MFG. No. / PART No.	REPLACEMENT DATA					
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.
D4 Q56	1N82AG/93A59-1 57821-2	1N82A GE-11	1N82AG 1RTR-83	PTC217 PTC133 PTC133	HEP700 HEP720 HEP720	SK3089 SK3019 SK3019	RT108 RT108

#### CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA			
			ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	SPRAGUE PART No.
C2 C4 C5 C6	39 100 10 470 5%					

#### COILS (RF-IF)

ITEM No.	USE	MFG. PART No.	NOTES
LU1 LU11	UHF Input Oscillator		
LU5	UHF IF Output		

#### MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1	Hub, Gear & Clutch Assembly	700A1368-1	
M2	Sleeve	33A1422-1	Fine Tuning
M3	Shaft & Gear Assembly	700A1367-1	Tuning

### 94A383-3

#### VHF TUNER PARTS LIST AND DESCRIPTION

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

#### SEMICONDUCTORS

ITEM No.	TYPE / MFG. No. / PART No.	REPLACEMENT DATA					
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.
Q51 Q52 Q53 Q54	57821-6 57821-9 57821-9 57821-2	GE-39 GE-11 GE-11 GE-11	1RTR-70 1RTR-80 1RTR-80 1RTR-80	PTC126 PTC115 PTC115 PTC115	HEP709 HEP720 HEP720 HEP720	SK3018 SK3018 SK3018 SK3018	RT113 RT107 RT107 RT107

#### CAPACITORS

ITEM No.	RATING	MFG. PART No.	REPLACEMENT DATA			
			ARCO/ELMENDO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	SPRAGUE PART No.
CV1 CV2 CV3 CV4 CV5 CV6 CV7 CV8 CV9 CV10 CV11 CV12 CV13 CV14 CV15 CV16 CV17 CV18 CV19 CV20 CV21 CV22 CV23 CV24 CV25 CV26 CV27 CV28 CV29 CV30 CV31 CV32 CV33	.001 .001 39 .001 6 5.6 NPO 470 .001 100 100 8.2 N220 .001 1.5 1.5 NPO 5.6 N330 15 N220 10 5 24 120 6.8 N220 20 20 22 100 N750 27 N750 5%					

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

#### COILS (RF-IF)

ITEM No.	USE	MFG. PART No.	NOTES
L3 LV22 LV43	UHF Input IF Tuner IF Output Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc	73A95-555 73A96-555 73A97-555 73A98-555 73A99-555 73A100-555	Channel 2 Channel 3 Channel 4 Channel 5 Channel 6 Channel 7
LV44	Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc Ant. RF, Mixer, Osc	73A101-555 73A102-555 73A103-555 73A104-555 73A105-555 73A106-555	Channel 8 Channel 9 Channel 10 Channel 11 Channel 12 Channel 13

#### MISCELLANEOUS

ITEM No.	PART NAME	PART No.	NOTES
M1 M2 M3 M4 M5	Gear & Fine Tuning Shaft Lever Clutch Gear Antenna Input Assembly	30A71-3 20A85-5 18A373-1 30A44-9 700A638-584	Gear Engagement Gear Engagement Pinion Balun

17K10-1A/1B/1C/2A/2B, 17K10-1A/2A/2B

FOLDER 1

**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 (Sweep Circuits)**

ITEM No.	FUNCTION	REPLACEMENT DATA					
		MFGR. PART No.	MILLER PART No.	STANCOR PART No.	THORDARSON MEISSNER PART No.	TRIAD PART No.	WORKMAN PART No.
LF24 LG2	Horiz Oscillator (Hold) Right R/G Vert Lines	94A351-1 72A411-2 2073A4-1 (2)					
LG14	Right Blue Horiz Lines	72A411-2 72A411-3 (1) 2073A4-2 (2)					
LG19	Convergence Yoke Blue Coil	94A459-1 2073A4-3 (2)					
LG20	Red and Green Coil	94A459-2 2073A4-3 (2)					

(1) Alternate Part may be used in some versions. (2) Used in Convergence Board, Part No. 750A1576-1.

**FILTER CHOKE**

ITEM No.	RATINGS			REPLACEMENT DATA				NOTES
	CURRENT (Measured)	DC RES.	INDUCTANCE (0 CURRENT 1000~)	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
LH12	.25ADC	24.5	.7H	74A30-5(-H)	C2343	26C77	C-27X	

**TRANSFORMERS (Sweep Circuits)**

ITEM No.	USE	REPLACEMENT DATA				NOTES
		MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
PH57	Yoke (Horiz 11.8mh) 90° (Vert 22.5mh)	94A379-6	DY-102AC (1)	Y133 (1)	YC-315-2 (1)	(1) See Component Connection Data.
TH18 TH73	Yoke, Alternate Horiz Output Vert Output	94A379-5 (2) 79A158-2 79A165-1				(2) Used in Models 2157P, 2197P, 2227P, SK2197P

**SWEEP COMPONENT CONNECTION DATA**

ORIGINAL →	YOKE										YOKE PLUG									
REPLACEMENT ↓	Original Connections																			
	RED	BRN	YEL	GRN																
STANCOR	RED	BRN	YEL	GRN (1)																
THORDARSON	RED	BRN	YEL	GRN (1)																
TRIAD	RED	BRN	YEL	GRN (1)																

(1) Remove yoke plug and orange lead.

**TRANSFORMER (Power)**

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
TH4	120VAC @ .17AAC	46VAC CT @ .26ADC	6.3VAC @ .85AAC	80A108-9(-5)				

**TRANSFORMER (Audio Output)**

ITEM No.	IMPEDANCE		RATING	REPLACEMENT DATA				NOTES
	PRI.	SEC.		MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
TH44	1600	3.2		79A141-1(-D)	A-3332 (1)	24550	S-2X	(1) Drill new mounting hole.

**SPEAKER**

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" PH 3.2 ohms	78A216-3	4C25	

**FUSE DEVICES**

ITEM No.	DESCRIPTION	REPLACEMENT DATA					
		PART No.		BUSS PART No.		LITTELFUSE PART No.	
		DEVICE	HOLDER	DEVICE	HOLDER	DEVICE	HOLDER
FH5 FH27	.225A Chemical Fuse 1.7A Chemical Fuse	84A28-12 84A28-6	84A27-12 84A27-6				
							W225-1 W1700-1

**MISCELLANEOUS**

ITEM No.	PART NAME	PART No.	NOTES
	VHF Antenna	69A344-3	Used in Models 6201T, MS6201T (2 used)
	VHF Antenna	69A340-3	Used in Model S6198T
	VHF Antenna	69A340-1	Used in Models 2157P, 2197P, 2227P, 6177P, 6247P, S6187P, S6257P, SK2197P (2 used in some versions).
	UHF Antenna	69A304-3	
	VHF Tuner	94A383-3	
	VHF Tuner	94A391-1	
	VHF Tuner	94A468-1	
	UHF Tuner	94A336-2	
	UHF Tuner	94A361-2	
	Delay Line	72A217-3	
DLH43	Degaussing Coil	700A1574-1	
SGE67	Spark Gap	62A2-1	
SGE68	Spark Gap	62A2-1	
SGE69	Spark Gap	62A2-1	
SGF86	Spark Gap	62A2-1	
SGF87	Spark Gap	62A2-1	
SGF88	Spark Gap	62A2-1	
SGF89	Spark Gap	62A2-1	
SGF90	Spark Gap	62A2-1	
SH41	Switch	77A202-1	On-Off
	Switch	77A198-4	Sonar On-Off Used in Chassis T16K10-1A
YD43	Crystal	93A22-1	3.58 MHz
	Magnet	71A61-1	Purity Blue Lateral Assembly
ZE23	Component Combination	87A6-29	Vertical Integrator
	Socket	87A84-B	HV Rectifier
	Socket	700A681-16	CRT

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

ITEM	PART No.	ITEM	PART No.
Model 2157P, 2197P, SK2197P		Model 6177P	
Cabinet Front	34A334-19	Cabinet Front	34A335-24
Cabinet Back Assembly	33A1230-14	Cabinet Back	33A1231-15
Handle	37A315-2	Handle	37A315-2
Indicator, UHF	33A1406-6	Indicator, UHF	33A1406-6
Indicator, VHF	33A1406-5	Indicator, VHF	33A1406-5
Knob-Bright, Contrast, Vert. Hold	33A1234-3	Knob-AFC	33A929-4
Knob-Color, Tint, Volume	33A1482-3	Knob-Bright, Contrast, Vert. Hold	33A1234-3
Knob-Slide Switch	33A929-4	Knob-Color, Tint, Volume	33A1482-3
Knob-UHF Fine Tuning	33A1408-2	Knob-UHF Fine Tuning	33A1408-2
Knob-VHF Fine Tuning	33A1408-1	Knob-VHF Fine Tuning	33A1408-1
Model 2227P		Model 6201T, MS6201T	
Cabinet Front	34A334-27	Cabinet Front	34A335-35
Cabinet Back Assembly	33A1230-14	Cabinet Back Assembly	33A1231-19
Handle	37A315-2	Indicator, UHF	33A1406-6
Indicator, UHF	33A1406-6	Indicator, VHF	33A1406-5
Indicator, VHF	33A1406-5	Knob-AFC	33A929-4
Knob-Bright, Contrast, Vert. Hold	33A1234-3	Knob-Brightness, Contrast, Vert. Hold	33A1234-3
Knob-Color	20A66-21	Knob-Color, Tint, Volume	33A1482-3
Knob-Tint	20A66-20	Knob-UHF Fine Tuning	33A1408-2
Knob-On/Off-Volume	20A66-22	Knob-VHF Fine Tuning	33A1408-1
Knob-UHF Fine Tuning	33A1408-2		
Knob-VHF Fine Tuning	33A1408-1		
Models 6247P, S6257P		Models S6187P, S6198T	
Cabinet-Top Panel 6247P	34A335-37	Cabinet-Top Panel S6198T	35A2025-61
Cabinet Front S6257P	34A335-38	Cabinet-End Panel S6198T	35A2025-62
Handle	37A315-2	Cabinet-Base Frame S6198T	35A2025-63
Knob-Bright, Contrast, Vert. Hold	33A1234-3	Cabinet-Front S6198T	34A335-32
Knob-Tint	20A66-20	Cabinet-Back S6198T	33A1231-19
Knob-Color	20A66-21	Cabinet-Front S6187P	34A335-25
Knob-On/Off-Volume	20A66-22	Cabinet-Back S6187P	33A1231-15
Knob-UHF Fine Tuning	33A1408-2	Handle S6187P	37A315-2
Knob-VHF Fine Tuning	33A1408-1	Knob-Bright, Contrast, Vert. Hold	33A1234-3
UHF, Indicator	33A1406-6	Knob-Color, Tint, Volume	33A1482-3
VHF, Indicator	33A1406-5	Knob-On/Off	33A929-4
		Knob-UHF Fine Tuning	33A1408-2
		Knob-VHF Fine Tuning	33A1408-1
		Indicator, UHF	33A1406-6
		Indicator, VHF	33A1406-5

**94A336-2  
UHF TUNER PARTS LIST AND DESCRIPTION**  
(When ordering parts, state Model, Part Number, and Description.)

**SEMICONDUCTORS**

ITEM No.	TYPE / MFGR. No. / PART No.	REPLACEMENT DATA						
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.
Q301	57821-2	GE-11	1RTR-83	PTC133	HEP720	SK3019	RT108	ECG 161
X301	1N82AG/93A59-1	1N82A	1N82AG	PTC217	HEP700	SK3089		ECG 112

**CAPACITORS**

ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA			
			ARCO/ELMENC0 PART No.	CENTRALAB PART No.	CORNELL DUBILIER PART No.	MALLORY PART No.
C301	30pf					
C302	.47pf					
C303	10pf					
C304						
C305	100pf					
C306	30pf					

**PARTS LIST AND DESCRIPTION**

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

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

**WIRING DATA**

High Voltage Lead	Use BELDEN No. 8868 (25KV)
Shielded Hook-up Wire	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
300-ohm Tuner Input Lead	Use BELDEN No. 8225
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

**PICTURE TUBE**

ITEM No.	REPLACEMENT DATA				NOTES
	MFGR. PART No.	GENERAL ELECTRIC PART No.	RCA PART No.	SYLVANIA PART No.	
V8	16VAUP22				Used in Models 6177P, 6201T, 6247P, MS6201T, S6187P, S6198T, S6257P
	16VAXP22		H-16VAXP22 (1)		Used in Models 6201T, MS6201T
	12VAXP22				Used in Models 2157P, 2197P, 2227P, SK2197P

(1) Hi-Lite

**TUBES**

AMPEREX		GENERAL ELECTRIC		RCA		SYLVANIA	
ITEM No.	USE	TYPE		ITEM No.	USE	TYPE	
V1	Vert Mult - Vert Output	25J28		V5	Damper	25CK3	
V2	Sync Amp - Video Output	90J8		V6	Horiz Output	30J26	
V3	Horiz AFC - Horiz Oscillator	12AC10		V7	HV Rectifier	30F3	
V4	G-Y Amp - B-Y Amp - R-Y Amp						

**SEMICONDUCTORS**

REPLACEMENT DATA									
ITEM No.	TYPE / MFGR. No. / PART No.	GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLORY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	
DA43	93A77-1	1N34A5	1N34A	PTC207	HEP134	SK3087		ECG 109	
DA55	93A77-1	1N34A5	1N34A	PTC207	HEP134	SK3087		ECG 109	
DB25	93A77-1	1N34A5 (7)	1N34A (7)	PTC207 (7)	HEP134 (7)	SK3087 (7)		ECG 109 (7)	
DB26	93A77-1								
DB53	93A64-1	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177	
DB88	93A39-13	GE-2D-11	Z-1212	ZB11	HEP20415	SK3092	RT242	ECG 5074	
	93A39-12+	GE-2D-11	Z-1212	ZB11	HEP20415	SK3092	RT242	ECG 5074	
	11.2 V Zener								
DB89	93A64-1 (93A55-1)+	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177	
DC19	93A64-1	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177	
DC32	93A64-1	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177	
DC44	93A64-1	GE-300	D200	PTC214	HEPR0602	SK3100	RT218	ECG 177	
DD14	93A64-1	GE-300 (7)	D200MP (6)	PTC215 (6)	HEPR0602(7)	SK3100 (7)	RT218 (7)	ECG 178MP (6)	
DD15	93A64-1								
DD16	93A64-1	GE-300 (7)	D200MP (6)	PTC215 (6)	HEPR0602(7)	SK3100 (7)	RT218 (7)	ECG 178MP (6)	
DD17	93A64-1								
DD42	93A39-11		Z-1206	ZB6.8	HEP20409		RT238	ECG 5071	
	93A39-14+								
	7 V Zener								
DD84	93A42-7	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0053	SK3016 or SK3031	RT214 or RT215	ECG 116 or ECG 117	
DD85	93A42-7	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0053	SK3016 or SK3031	RT214 or RT215	ECG 116 or ECG 117	
DE3	93A52-1	GE-504A	8D6 or 5A6D	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117	
DE4	93A52-1	GE-504A	8D6 or 5A6D	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117	
DE72	93A52-1	GE-504A	8D6 or 5A6D	PTC202	HEPR0054	SK3017A or SK3032	RT210 or RT215	ECG 116 or ECG 117	
DF4	93A5-10	66C1	DD04	PTC407	HEPR9001	SK3016 or SK3031	RT214 or RT215	ECG 116 or ECG 117	
DG3	93A42-7	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0053	SK3016 or SK3031	RT214 or RT215	ECG 116 or ECG 117	
DG18	93A42-7	GE-504A	8D4 or 5A4D	PTC201 or PTC202	HEPR0053	SK3016 or SK3031	RT214 or RT215	ECG 116 or ECG 117	
Q1	57A141-4 (57A179-4)+	GE-39	1RTR-71						
Q2	57A141-4 (57A179-4)+	GE-39	1RTR-71		HEP709	SK3117	RT113	ECG 161	
Q3	57A142-4	GE-39	1RTR-70	PTC126	HEP709	SK3117	RT113	ECG 161	
	57A180-4	GE-39	1RTR-70			SK3132	RT112	ECG 161	
Q4	57A151-6	GE-11	1RTR-95	PTC115	HEP50	SK3018	RT113	ECG 108	
Q5	57A152-12	GE-11	1RTR-95	PTC115	HEP50	SK3039	RT113	ECG 108	
Q6	57A153-9	GE-10	1RTR-51	PTC123	HEP53	SK3124	RT102	ECG 123A	
Q7	57A137-12	GE-22	1RTR-52	PTC103	HEP52	SK3114	RT115	ECG 159	
Q8	57A136-12	GE-17	1RTR-51	PTC136	HEP736	SK3018	RT113	ECG 123A	
Q9	57A136-12	GE-17	1RTR-51	PTC136	HEP736	SK3018	RT115	ECG 123A	
Q10	57A160-8	GE-61	TR-21	PTC132	HEP723	SK3018	RT110	ECG 154	
Q11	57A137-12	GE-22	1RTR-52	PTC103	HEP52	SK3114	RT115	ECG 159	
Q12	57A145-12	GE-21	1RTR-52	PTC103	HEP51	SK3114	RT115	ECG 159	
Q13	57A143-12	GE-20	TR-21	PTC115	HEP50	SK3018	RT108	ECG 123A	
Q14	57A144-12	GE-20	TR-21	PTC136	HEP53	SK3039	RT108	ECG 123A	
Q15	57A148-12	GE-22	1RTR-52	PTC103	HEP51	SK3114	RT115	ECG 159	
Q16	57A146-12	GE-11	1RTR-95	PTC115	HEP50	SK3039	RT113	ECG 108	
Q17	57A143-12	GE-FET-2	FE-100	PTC152	HEPB02	SK3018	RT175	ECG 132	
	57A150-12	FE-100	FE-100	PTC152	HEPB02	SK3018	RT175	ECG 132	
Q18	57A149-12	GE-20	TR-21	PTC136	HEP53	SK3039	RT108	ECG 123A	
Q19	57A159-12	GE-21		PTC103	HEP57	SK3114	RT115	ECG 159	
Q20	57A159-12	GE-21		PTC103	HEP57	SK3114	RT115	ECG 159	
Q21	57A159-12	GE-21		PTC103	HEP57	SK3114	RT115	ECG 159	
Q22	57A158-10	GE-12	TR-23	PTC104	HEP240	SK3021	RT128	ECG 124	



## PARTS LIST AND DESCRIPTION (CONTINUED)

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

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

## ELECTROLYTIC CAPACITORS

ITEM No.	RATING	REPLACEMENT DATA					
		MFGR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
CB31	10 15V	67A72-8	ME-1-E-010	EA15-10	WBR10-25	MTA10035	TVA-1145
CB35	25 35V	67A72-13	ME-4-J-025	EA50-25	WBR25-50	MTA2550	TVA-1305
CB38	100 10V	67A72-10	ME-4-D-100	EA15-100	WBR100-16	MTA100E10	TVA-1130
CB50	100 10V	67A72-10	ME-4-D-100	EA15-100	WBR100-16	MTA100E10	TVA-1130
CB81	2 15V	67A72-14	ME-1-E-002	EA15-2	WBR2-50	MTA2050	TVA-1141
CB85	100 10V	67A72-10	ME-4-D-100	EA15-100	WBR100-16	MTA100E10	TVA-1130
CB71	5 25V	67A72-9	ME-1-E-010	EA30-5	WBR10-25	MTA10035	TVA-1145
CB83	8 15V	67A72-1	CTA-1250	EA15-10	WBR50-150	TC49A	TVA-1414
CE25	50 150V	67A72-8	ME-2-D-025	EA15-25	WBR25-25	MTA25020	TVA-1129.91
CB9	25 10V	67A72-9	ME-1-G-005	EA30-5	WBR5-50	MTA5050	TVA-1203
CG12	5 10V	67A72-9	ME-1-G-005	EA30-5	WBR5-50	MTA5050	TVA-1203
CH8	350 200V	67A15-50Z			AA0253A (1)	FP141 (1)	TVA-1485 (1)
CH10a	200 350V	67A15-403			DD0052A	FP420, 406	TVA-14634, 20
b	160 350V						
c	80 200V						
d	10 350V						
CH14a	2000 40V	67A15-413					TVA-2335.9
CH60	5 25V	67A72-9	ME-1-G-005	EA30-5	WBR5-50	MTA5050	TVA-1203
CH93	50 35V	67A72-11	ME-7-J-050	EA50-50	WBR60-50	MTA5050	TVA-1308

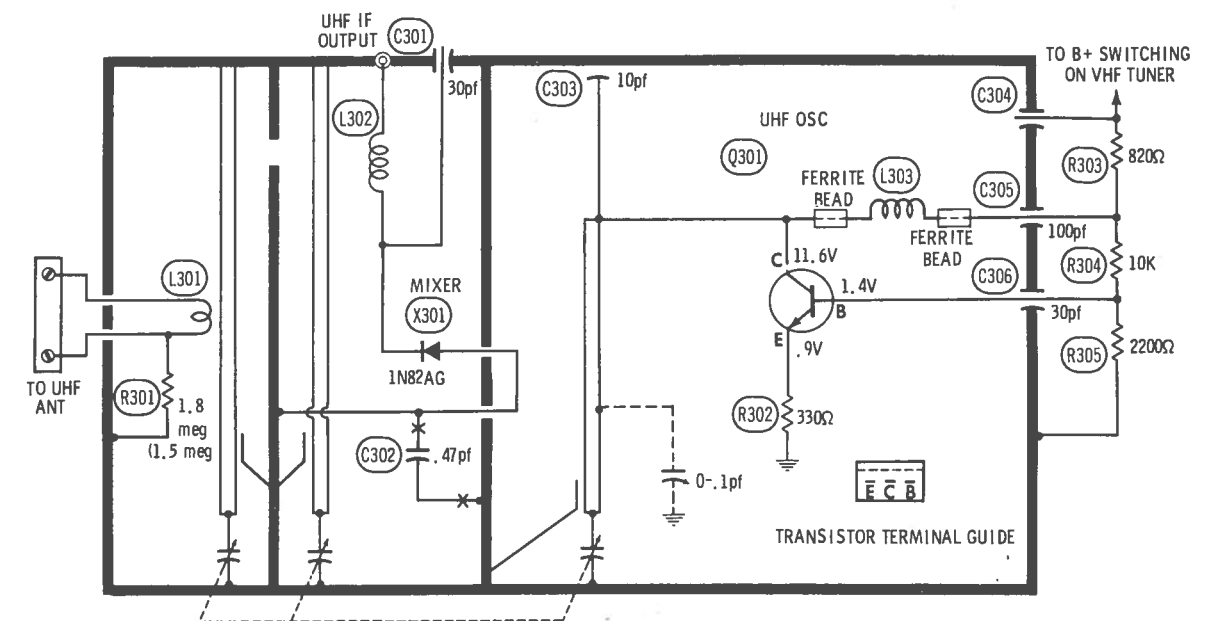
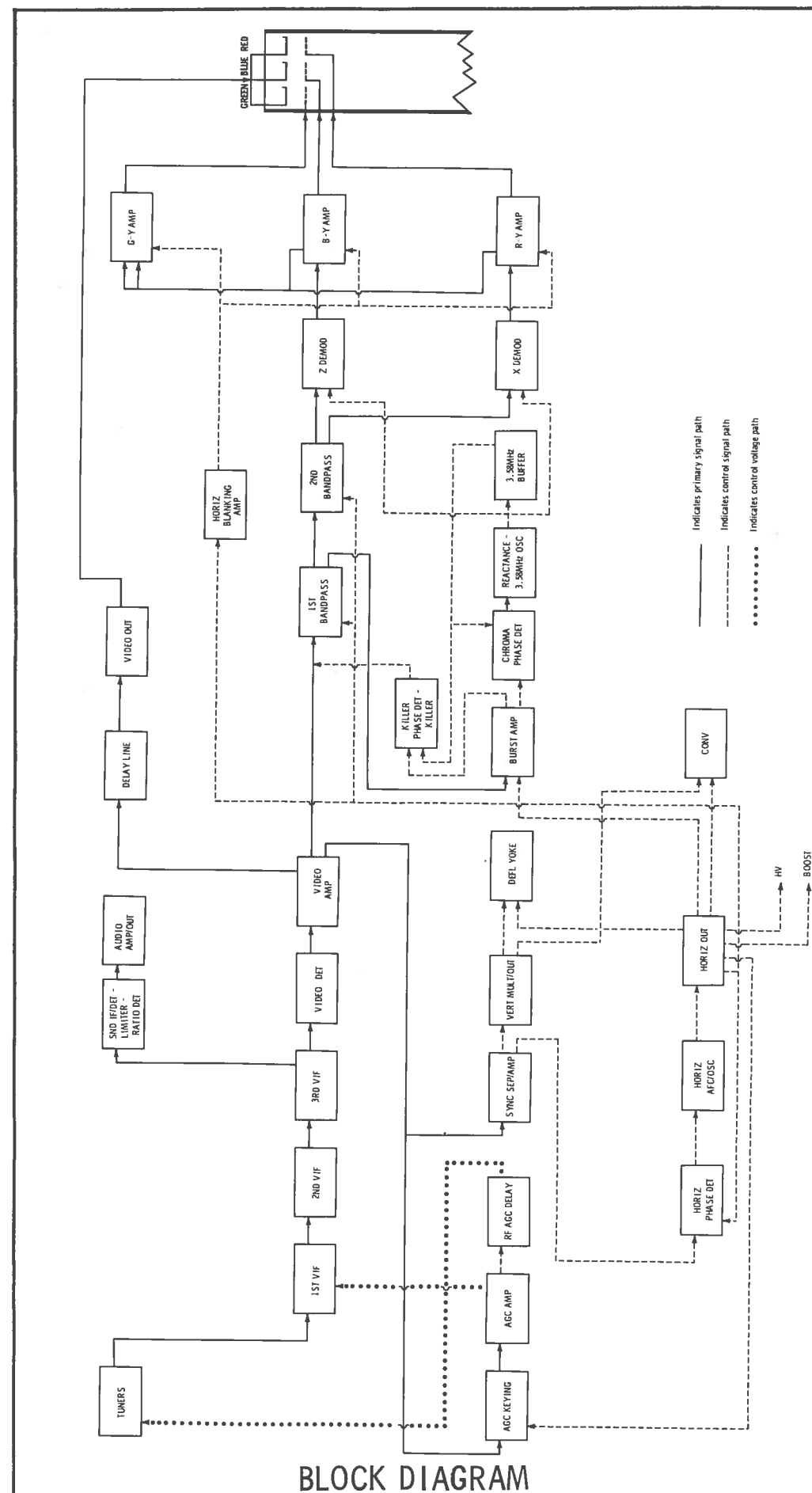
(1) Use insulating sleeve and mounting wafer.  
(2) Indicates Aerovox part supplied by Arco.

## CAPACITORS

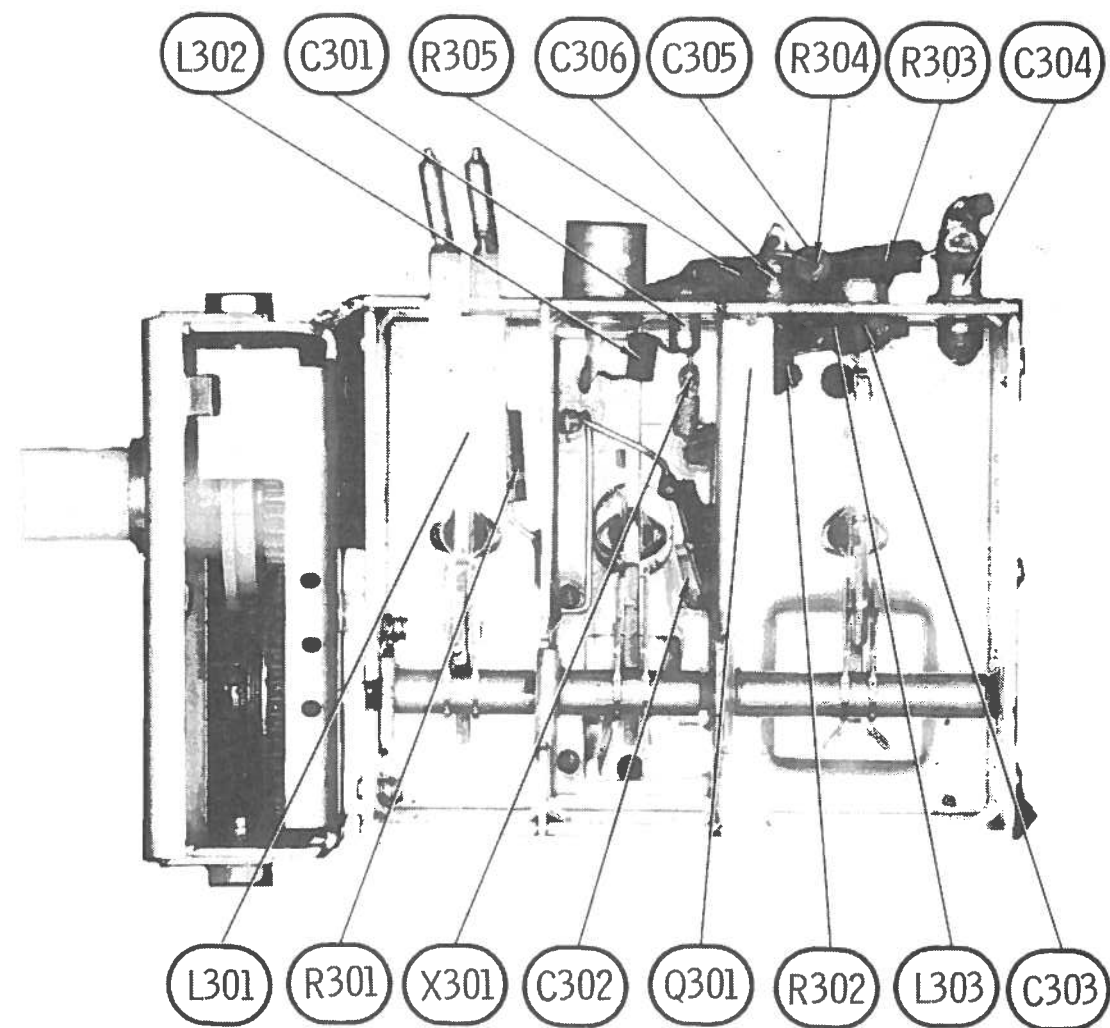
ITEM No.	RATING	MFGR. PART No.	REPLACEMENT DATA					
			ARCO/ELMENC PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
CA1	8.2 NPO	5%	CC10-100	DTZ-10	NP08P2	CH0410	10TCC-V82	
CA3	10 NPO	5%	CC10-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA4	10 NPO	5%	CC10-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA11	.0015		CCD-152	00-152	GP215	CH0410	10TCC-Q10	
CA14	.0015		CCD-152	00-152	GP215	CH0410	10TCC-Q10	
CA18	.0015		CCD-152	00-152	GP215	CH0410	10TCC-Q10	
CA21	33 NPO	5%	CCD-330	DTZ-33	NP033	CH0433	10TCC-Q33	
CA22	100 N033	5%	CCD-152	00-152	GP215	CH0433	10TCC-Q33	
CA26	.0015		CCD-152	00-152	GP215	CH0433	10TCC-Q33	
CA30	27 NPO	5%	CCD-270	00-270	NP027	CH0427	10TCC-Q27	
CA30	.0015		CCD-152	00-152	GP215	CH0427	10TCC-Q27	
CA31	10 N033	10%	CCD-152	00-152	GP215	CH0427	10TCC-Q27	
CA35	.0015		CCD-152	00-152	GP215	CH0427	10TCC-Q27	
CA37	18 NPO	5%	CCD-180	00-180	NP018	CH0418	10TCC-Q18	
CA40	220	10%	CCD-220	00-220	GP220	CH0422	10TCC-Q22	
CA41	10 NPO	10%	CCD-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA45	10 NPO	5%	CCD-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA47	10 NPO	5%	CCD-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA50	10 NPO	5%	CCD-100	DTZ-10	NP010	CH0410	10TCC-Q10	
CA51	220	10%	CCD-220	00-220	GP220	CH0422	10TCC-Q22	
CA52	.0015		CCD-152	00-152	GP215	CH0425	10TCC-Q25	
CA53	25 NPO	5%	CCD-25	DTZ-25	NP05	CH0425	10TCC-Q25	
CA56	5 NPO	5%	CCD-5	DTZ-5	NP05	CH0425	10TCC-Q25	
CA57	5 NPO	5%	CCD-5	DTZ-5	NP05	CH0425	10TCC-Q25	
CA60	150 N1500	5%	CCD-150	00-150	GP10000	CH0410	10TCC-Q10	
CA66	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CA69	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CA70	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CA72	.0015		CCD-152	00-152	GP215	CH0425	10TCC-Q25	
CB1	47 N750	10%	CCD-47	00-47	NP047	CH0447	10TCC-Q47	
CB3	470	10%	CCD-470	00-470	NP047	CH0447	10TCC-Q47	
CB4	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CB7	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB9	.0033		CCD-332	00-332	GP330	CH0430	10TCC-Q30	
CB10	180 1KV	10%	CCD-180	00-180	GP180	CH0418	10TCC-Q18	
CB12	.0033		CCD-332	00-332	GP330	CH0430	10TCC-Q30	
CB13	27 NPO	5%	CCD-270	00-270	NP027	CH0427	10TCC-Q27	
CB15	150 N150	5%	CCD-150	00-150	GP10000	CH0410	10TCC-Q10	
CB16	390	10%	CCD-390	00-390	GP390	CH0439	10TCC-Q39	
CB21	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB22	150 N150	5%	CCD-150	00-150	GP10000	CH0410	10TCC-Q10	
CB23	150 N150	5%	CCD-150	00-150	GP10000	CH0410	10TCC-Q10	
CB30	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CB32	.02		CCD-203	00-203	GP203	CH0423	10TCC-Q23	
CB33	.33		CCD-330	00-330	GP330	CH0430	10TCC-Q30	
CB43	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB44	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB52	.1 50V		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB55	.22 50V		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB57	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CB61	91 NPO	5%	CCD-91	00-91	NP091	CH0491	10TCC-Q91	
CB66	.05 50V		CCD-503	00-503	NP053	CH0453	10TCC-Q53	
CB70	33 NPO	5%	CCD-330	00-330	GP330	CH0430	10TCC-Q30	
CB72	330	10%	CCD-330	00-330	GP330	CH0430	10TCC-Q30	
CB75	.1 50V		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB78	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB79	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB83	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CB84	.02		CCD-203	00-203	GP203	CH0423	10TCC-Q23	
CB90	.47 50V		CCD-47	00-47	NP047	CH0447	10TCC-Q47	
CB94	.0015		CCD-152	00-152	GP215	CH0425	10TCC-Q25	
CB95	.22 50V		CCD-22	00-22	NP022	CH0422	10TCC-Q22	
CB97	560	10%	CCD-560	00-560	GP560	CH0560	10TCC-Q560	
CC1	.02		CCD-203	00-203	GP203	CH0423	10TCC-Q23	
CC2	.0022		CCD-222	00-222	GP222	CH0422	10TCC-Q22	
CC5	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC9	.47		CCD-47	00-47	NP047	CH0447	10TCC-Q47	
CC10	.1		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC11	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC13	390	10%	CCD-390	00-390	GP390	CH0439	10TCC-Q39	
CC17	680	10%	CCD-680	00-680	GP680	CH0680	10TCC-Q680	
CC22	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC27	180 1KV	10%	CCD-180	00-180	GP180	CH0418	10TCC-Q18	
CC28	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CC30	390	10%	CCD-390	00-390	GP390	CH0439	10TCC-Q39	
CC36	.1		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC37	330	10%	CCD-330	00-330	GP330	CH0430	10TCC-Q30	
CC38	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC41	.01		CCD-103	00-103	GP10000	CH0410	10TCC-Q10	
CC45	120 N1500	10%	CCD-120	00-120	GP10000	CH0410	10TCC-Q10	
CC49	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CC50	.1		CCD-391	00-391	GP390	CH0439	10TCC-Q39	
CC52	390	10%	CCD-390	00-390	GP390	CH0439	10TCC-Q39	
CC55	.0015		CCD-152	00-152	GP215	CH0425	10TCC-Q25	
CC58	.22		CCD-222	00-222	GP222	CH0422	10TCC-Q22	
CC60	.47 N750	5%	CCD-47	00-47	NP047	CH0447	10TCC-Q47	
CC61	.1		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	
CC62	.001		CCD-102	00-102	GP1000	CH0410	10TCC-Q10	

## CAPACITORS

ITEM No.	RATING		MFGR. PART No.	REPLACEMENT DATA				
				ARCO/ELMENC PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
CD1	.001	10%		CCD-102	DD-102	GP1000	GP210	10TS-D10
CD2	.001	10%		CCD-102	DD-102	GP1000	GP210	10TS-D10
CD3	.680	10%		CCD-681	DD-681	GP680	GP368	10TS-T68
CD4	.680	10%		CCD-681	DD-681	GP680	GP368	10TS-T68
CD5	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CD18	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CD22	.22	50V		4DP-5-224		GP4P22	4P54022	4PS-P22
CD25	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CD26	.001	10%		CCD-102	DD-102	GP1000	GP210	10TS-D10
CD28	.17	NPO		CCD-180		NP018	CN0418	10TCC-Q18
CD32	.3	NPO		CCD-103	DD-103	GP10000	GPJ120	10TCC-V30
CD33	.01			CCD-103	DD-103	GP220	GF330	10TS-S10
CD40	220	10%		CCD-221	DD-221			10TS-T22
CD41	.3	NPO						10TCC-V30
CD45	390	N220	5%	65A10-431	*		*	10TCCR-T39
CD46	330	N220	5%	65A10-430	*		*	10TCCR-T33
CD50	.33	50V			60P-6-334			
CD51	.0022	100V	5%			DPMS6P33	ENF6033	6PS-P33
CD55	.1		65A45-42					
CD57	.1	50V		1DP-2-104				5GA-P10
CD62	220	N1500	5%			DPMS2P1	ENF1A1010	225P10491W03
CD65	.1	50V		1DP-2-104				10TCN-T22
CD73	120	N1500		65A10-211		DPMS2P1	ENF1A1010	225P10491W03
CD77	120	N1500		65A10-211	*		*	10TCN-T12
CD78	.1			65A45-42			*	10TCN-T12
CD79	.1			65A45-42				5GA-P10
CD81	330	N220	5%	65A80-75	*		*	5GA-P10
CD82	150	N150	5%	65A10-427	*		*	10TCR-T33
CD86	.001						*	10TCR-T33
CD87	.001			CCD-102	DD-102	GP1000	GP210	10TS-D10
CD88	.17	N080	5%	CCD-102	DD-102	GP1000	GP210	10TS-D10
CE5	.001	1KV		CCD-102	DD-102	GP1000	GP210	10TCN-Q18
CE6	.001	1KV		CCD-102	DD-102	GP1000	GP210	10TS-D10
CE7	.001	1KV		CCD-102	DD-102	GP1000	GP210	10TS-D10
CE9	.0015			CCD-152	DD-152	GP1000	GP215	10TS-D15
CE10	.470	400V	10%	CCD-471	DD-471		GP347	10TS-T47
CE11	.0047	400V	10%	6DP-1-472		DM5470	ENF5247	6PS-47
CE12	.068	200V	10%	6DP-3-683		DPMS568	4P5-688	4PS-688
CE15	.039	600V	10%	6DP-3-393		DPMS6539	PVC6539	6PS-S39
CE16	.022	600V	10%	6DP-2-223		DPMS622	ENF6722	6PS-S22
CE17	.039	600V	10%	6DP-3-393		DPMS6539	PVC6539	6PS-S39
CE32	.02			CCD-203	DD-203			10TS-S20
CE38	.560	10%		CCD-561	DD-561	GP560	GP120	10TS-T56
CE41	.001			CCD-102	DD-102	GP1000	ENF210	10TS-D10
CE46	.22	400V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CE58	.027	600V	10%	6DP-3-273		DPMS627	PVC6127	6PS-S27
CE60	.01	400V	10%	4DP-1-103		GP1000	GP210	10TS-S10
CE73	.001	1KV		CCD-102	CPR-10000J	DPMS651	ENF6110	4PS-S10
CE74	.33	NPO		CCD-102	DD-102	GP1000	GP210	10TS-D10
CE74	.33	NPO		CCD-102	DD-102	GP1000	GP210	10TS-D10
CE77	.33	NPO		CCD-102	DD-102	GP1000	GP210	10TS-D10
CF2	.47	NPO	5%	CCD-470	DD-470	NP047	CN0447	10TCC-Q47
CF3	.120	NPO	5%	CCD-121	DD-120			10TCC-T12
CF5	.001			CCD-102	DD-102	GP1000	GP210	10TS-D10
CF7	.82	NPO	5%	CCD-820	DD-82	NP082	CN0482	10TCC-Q82
CF8	.62	NPO	5%	65A10-187				
CF10	.001			CCD-102	DD-102	GP1000	GP210	10TS-D10
CF15	.22	200V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CF16	.0033		10%	CCD-332	DD-332	GP3300	JF233	10TS-Q33
CF19	.22	200V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CF22	.0039	500V		4DP-20-392J		CD19F0392J003	SX239	424HE3901J501
CF25	.820	500V	5%	19B-821		CD19B821J500	SX382	424HE2200J501
CF31	.220	500V	5%	19B-221J		CD15F0221J03	MS-382	
CF33	.0047	1KV	10%	CCD-472	DD-472G	GP4700	JF247	10TS-D47
CF39	.0015	600V	10%	6DP-1-142		DPMS6D15	ENF6215	6PS-D15
CF42	.22	200V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CF44	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CF47	.22	200V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CF52	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CF53	.22	200V		4DP-5-224		DPMS4P22	ENF4022	4PS-P22
CF60	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CF61	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CF66	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CF75	.1	400V		4DP-3-104		DPMS4P1	ENF4010	4PS-P10
CF83	.001	2KV						
CF84	.001	2KV						
CF85	.001	2KV						
CG1	.082	200V	10%	60P-4-823		DPMS6S82	PVC6239	6PS-S82
CG3	.0039	600V	10%	2DP-1-392		DPMS6039	ENF2010	2PS-P10
CG5	.1	200V	10%	2DP-3-104		DPMS2P1	ENF2010	2PS-P10
CG13	.082	200V	10%	60P-4-823		DPMS6S82	PVC6239	6PS-S82
CG15	.1	200V	10%	2DP-3-104		DPMS2P1	ENF2010	2PS-P10
CG18	.0039	200V	10%	60P-1-392		DPMS6039	PVC6239	6PS-S39
CH1	.015	150VAC		63A23-7				10PS-S39
CH16	.250	N1500/3KV		63A23-9-2				16PS-S47
CH22	.039	1KV	10%	64A31-170				10TS-S10
CH24	.047	600V						16PS-D68
CH25	.01			16DP-5-473		DPMS16547		
CH32	.0068	1.6KV		CCD-103	DD-103	GP10000	PJF110	10TS-S10
CH50	100	N750/3KV	5%	16DP-3-682		DPMS16068	PVC12658	16PS-D68
CH51	100	N750/3KV	5%	65A10-47				
CH61	.0015			65A10-47				
CH65	.68	N750/5KV	10%					
CH78	.01			CCD-103	DD-103	GP10000	JF110	10TS-S10
CH82	.110			CCD-103	DD-103	GP10000	JF110	10TS-S10
CH84	.47	N750	10%	CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10
				CCD-103	DD-103	GP10000	JF110	10TS-S10



A PHOTOFACT STANDARD NOTATION SCHEMATIC



UHF TUNER 94A336-2

**ADMIRAL CHASSIS**  
**T15K10-1A/-1B/-2A/-2B, T16K10-1A/-2A**

## FOLDER 1

CHASSIS

In case of  
Removal of  
antenna

Disconnection  
lead:   
Removal of

Removal of  
ing :

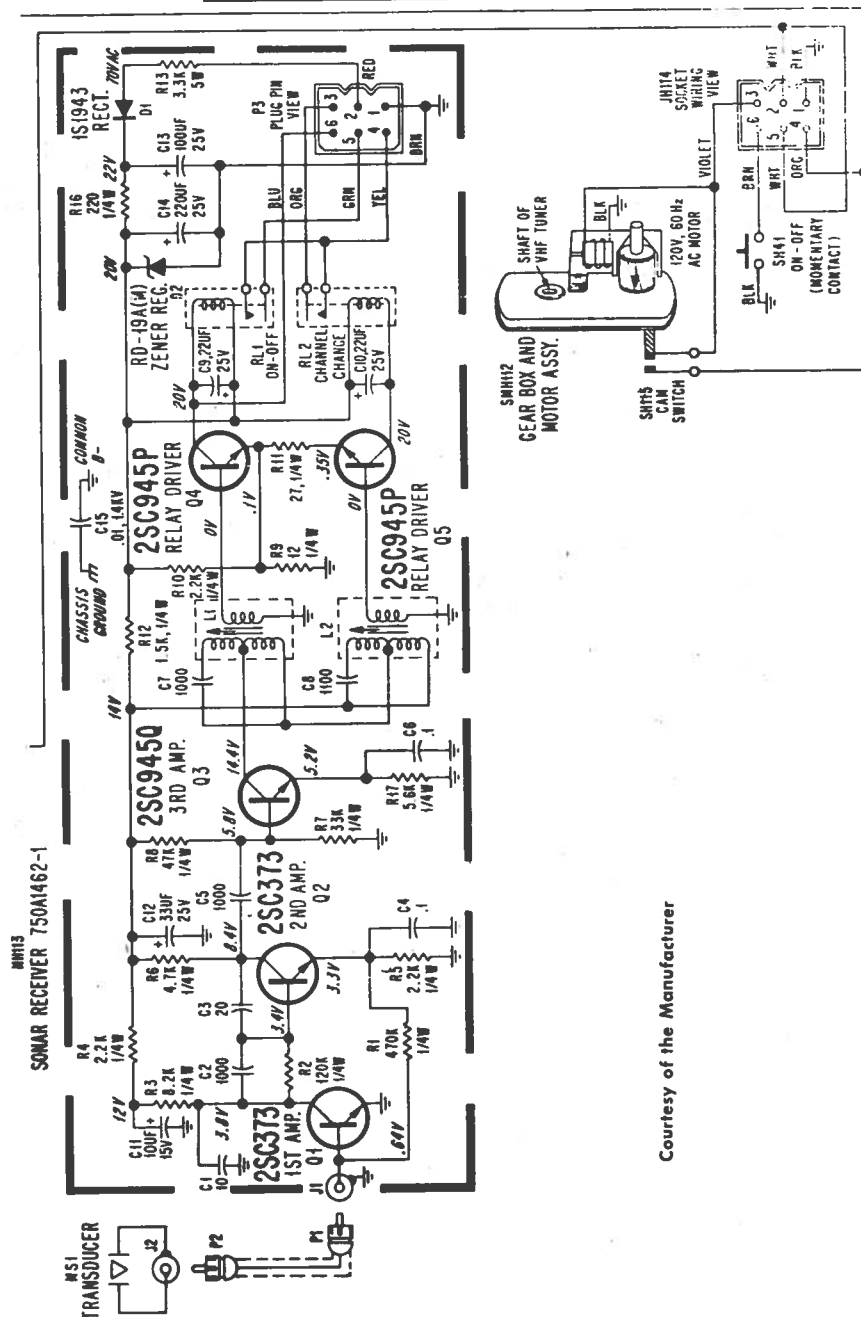
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## PHOTOFACT® Folder

ADMIRAL REMOTE  
CONTROL 750A1462-2, 750A1462-9ADMIRAL REMOTE  
CONTROL 750A1462-2, 750A1462-9

## IMPORTANT FILING NOTICE

This PHOTOFACT Folder covers equipment used with the TV chassis covered in PHOTOFACT SET 1392 FOLDER 1. File this Folder with the TV Folder in the yellow filing jacket provided.



Courtesy of the Manufacturer

## RECEIVER 750A1462-1

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



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DATE 4-74

SET 1392 FOLDER 1-A

ADMIRAL REMOTE  
CONTROL 750A1462-2, 750A1462-9





# PHOTOFACT® Folder

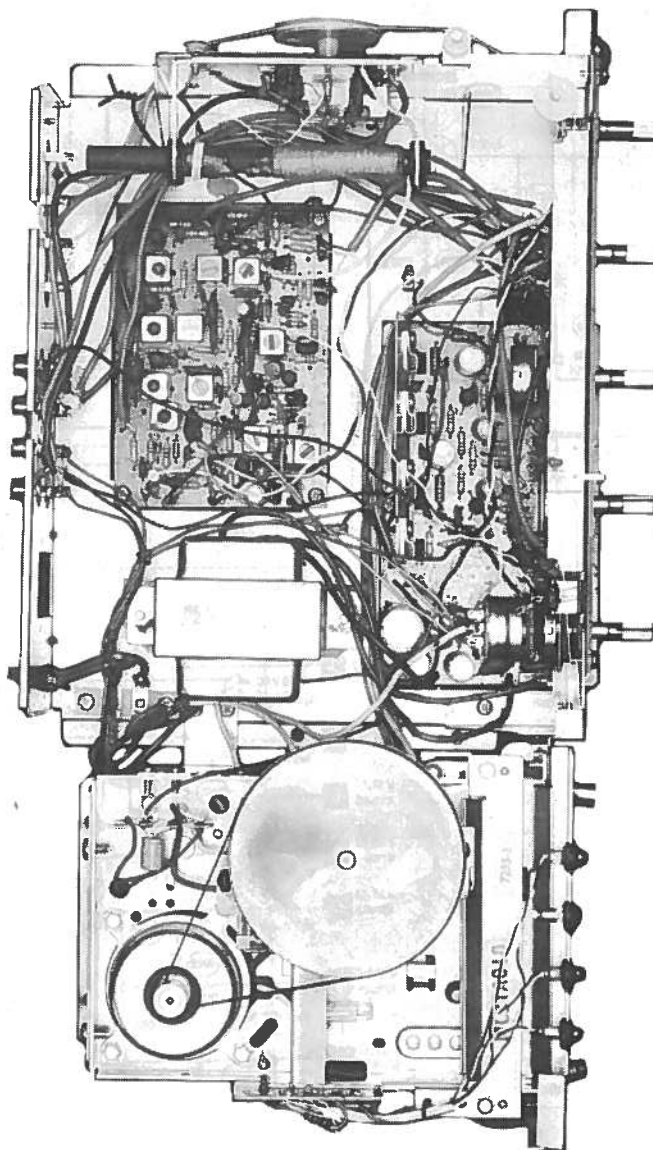
with CIRCUITRACE™

**ADMIRAL CHASSIS  
6Z5, 10K3**

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**ADMIRAL CHASSIS  
6Z5, 10K3**



**ADMIRAL CHASSIS  
6Z5, 10K3**

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



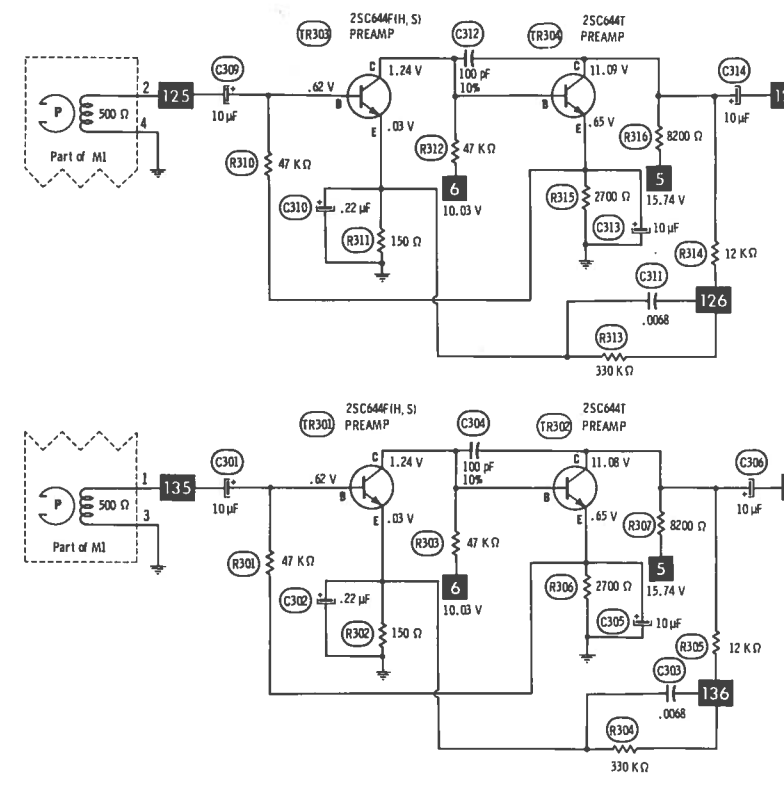
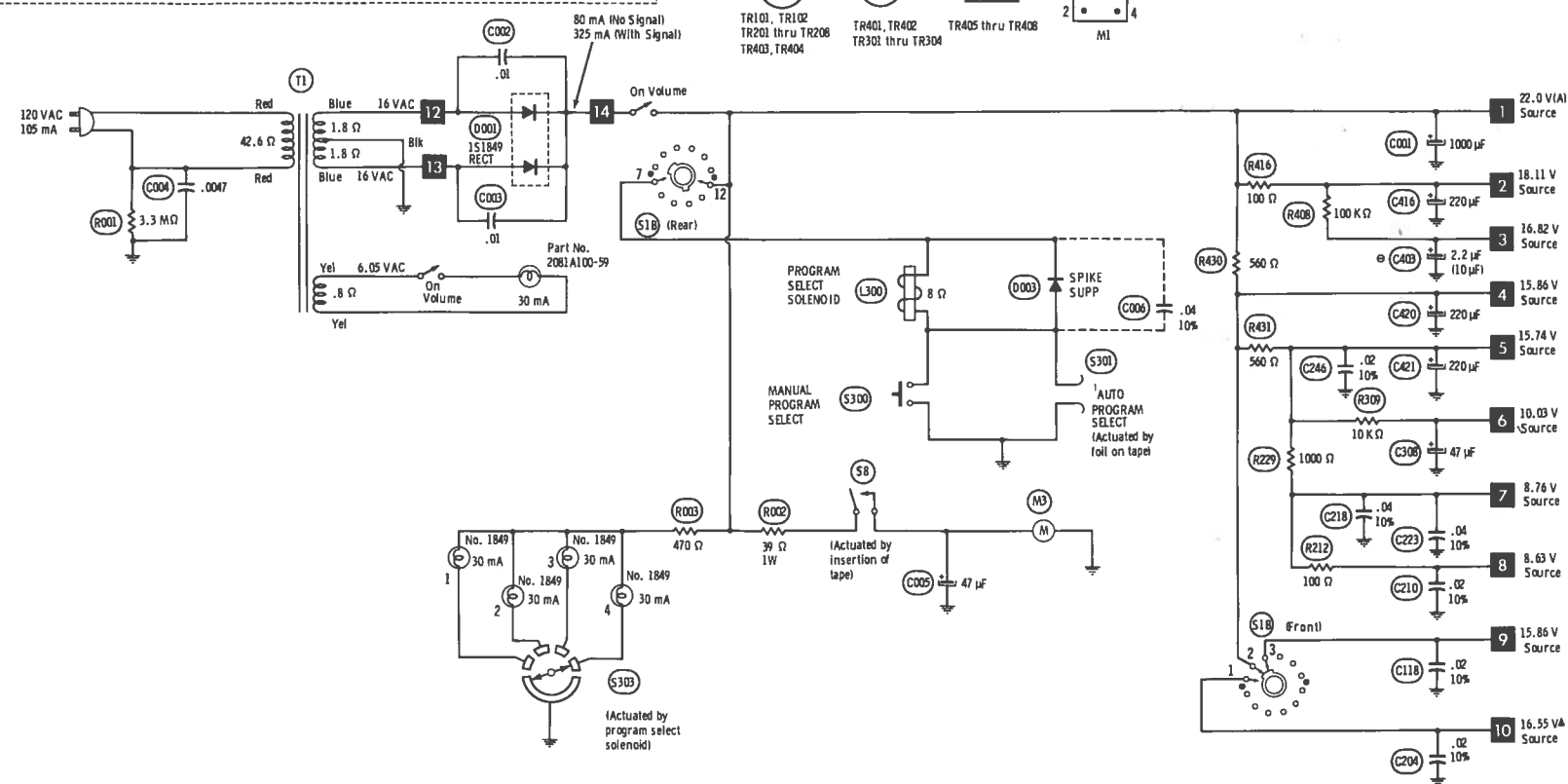
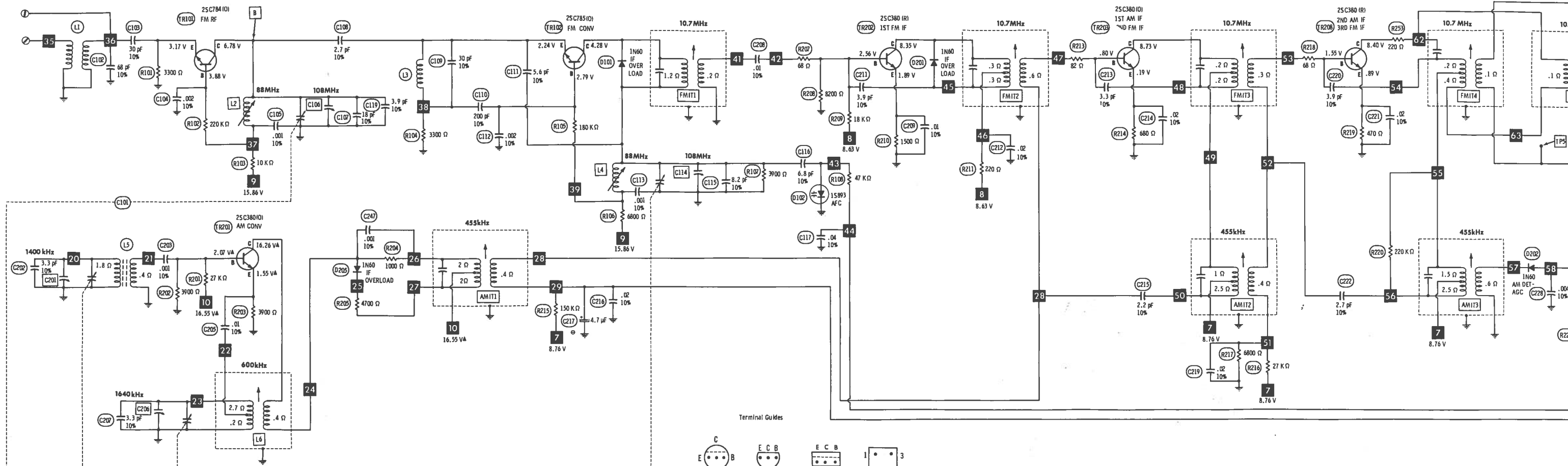
The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co., Inc., as to the quality and suitability of such replacement part. The numbers of these parts have been compiled from information furnished to Howard W. Sams & Co., Inc., by the manufacturers of the particular type of replacement part listed.

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DATE 4-74

SET 1392 FOLDER 1-B

**NOTE: DEMAGNETIZE HEADS AFTER SERVICING**



- Taken during stereocast.
- ◆ Denotes ground. (Voltage reference unless otherwise indicated).
- Indicates connection used in some versions.
- \* Indicates connection not used in some versions.
- Omitted in some versions.
- ④ See parts list.

Measurements taken with switching in position shown unless otherwise indicated.

▲ Measured with switching in "AM" position.

Values shown in **1** are used in some applications.

Resistors are 1/2W or less, 10% or 20%, unless otherwise indicated.

Supply voltage measured at all rated values for measurements.

Voltage and resistance measured with VTVM or equivalent meter.

No signal applied and controls adjusted for normal operation.

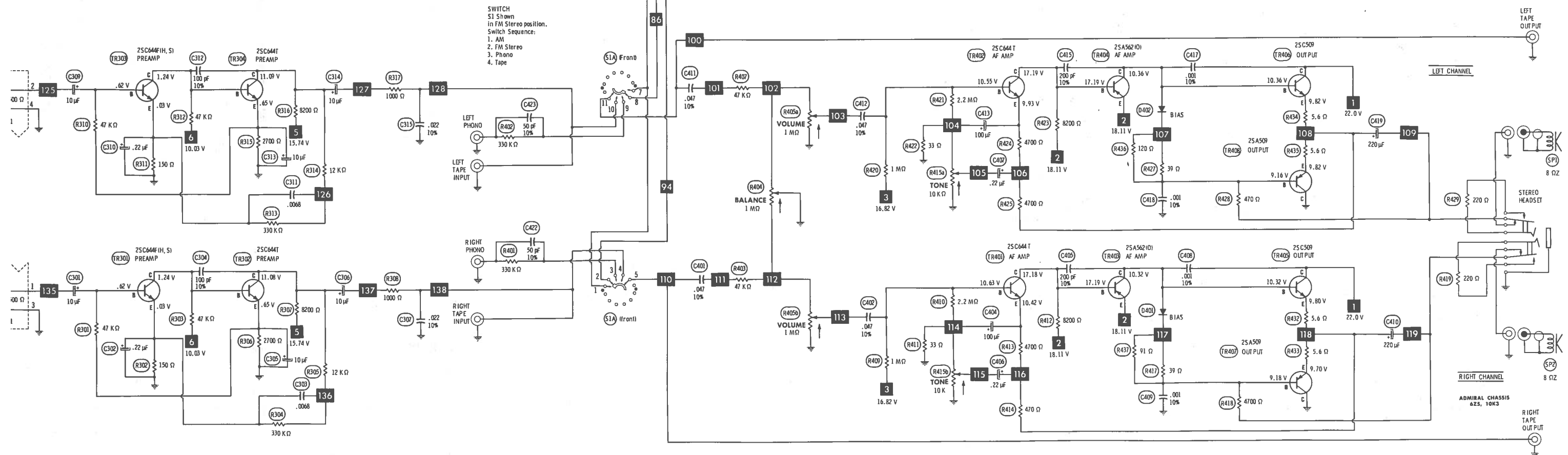
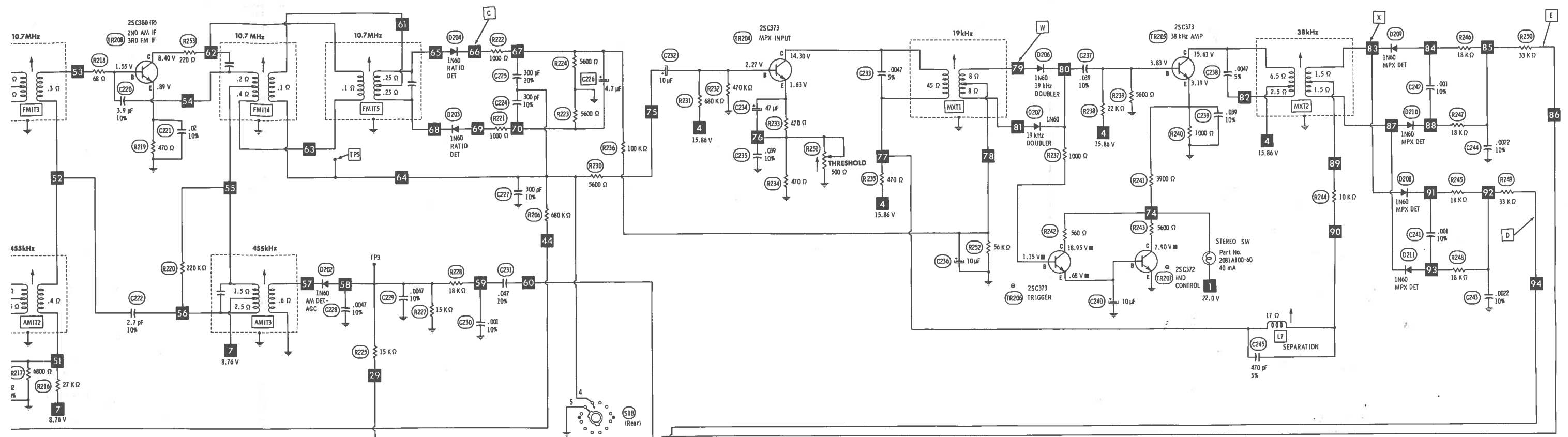
**Arrow** on control indicates direction of advance.

Numbers assigned to terminals may not be found on the unit.

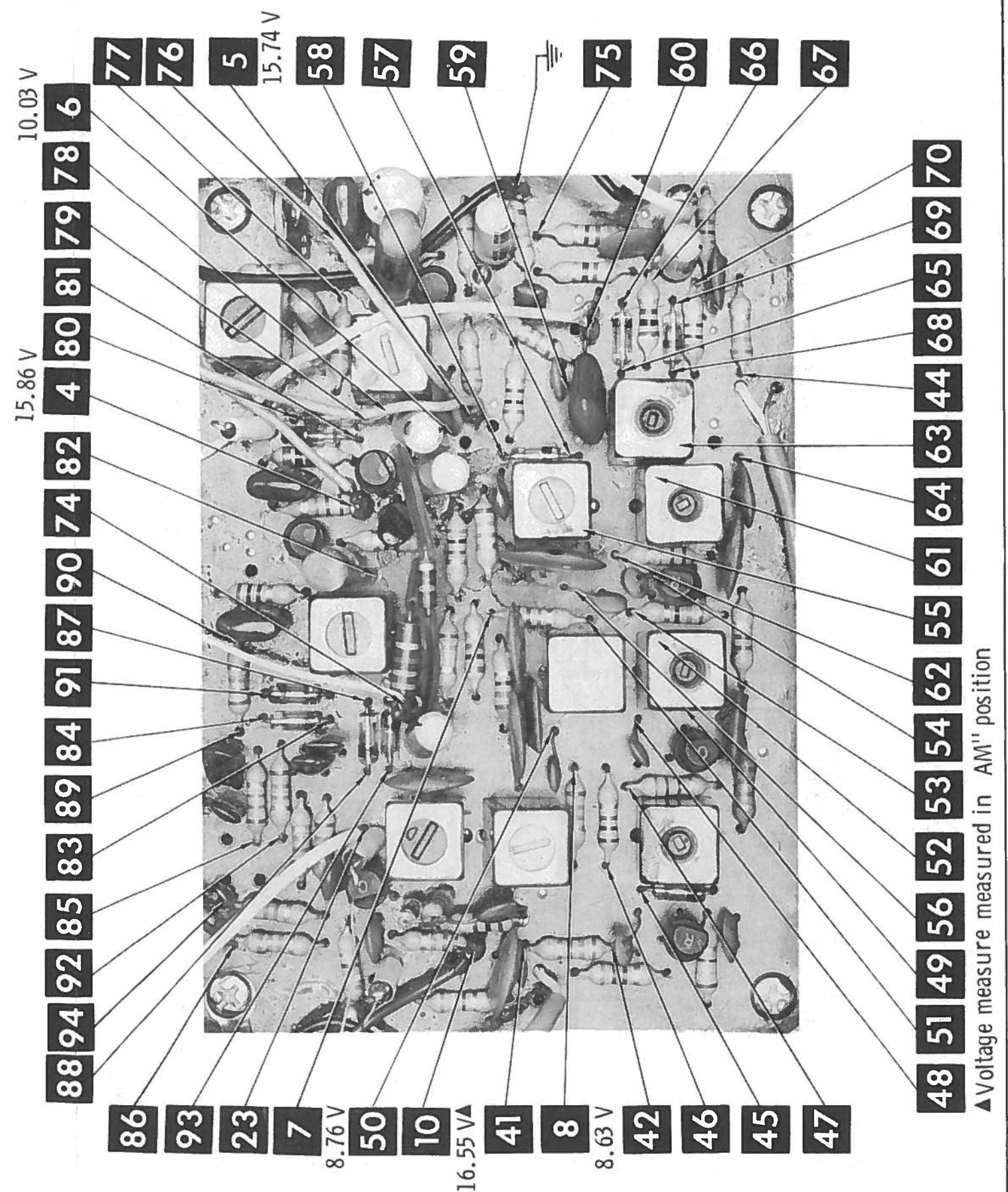
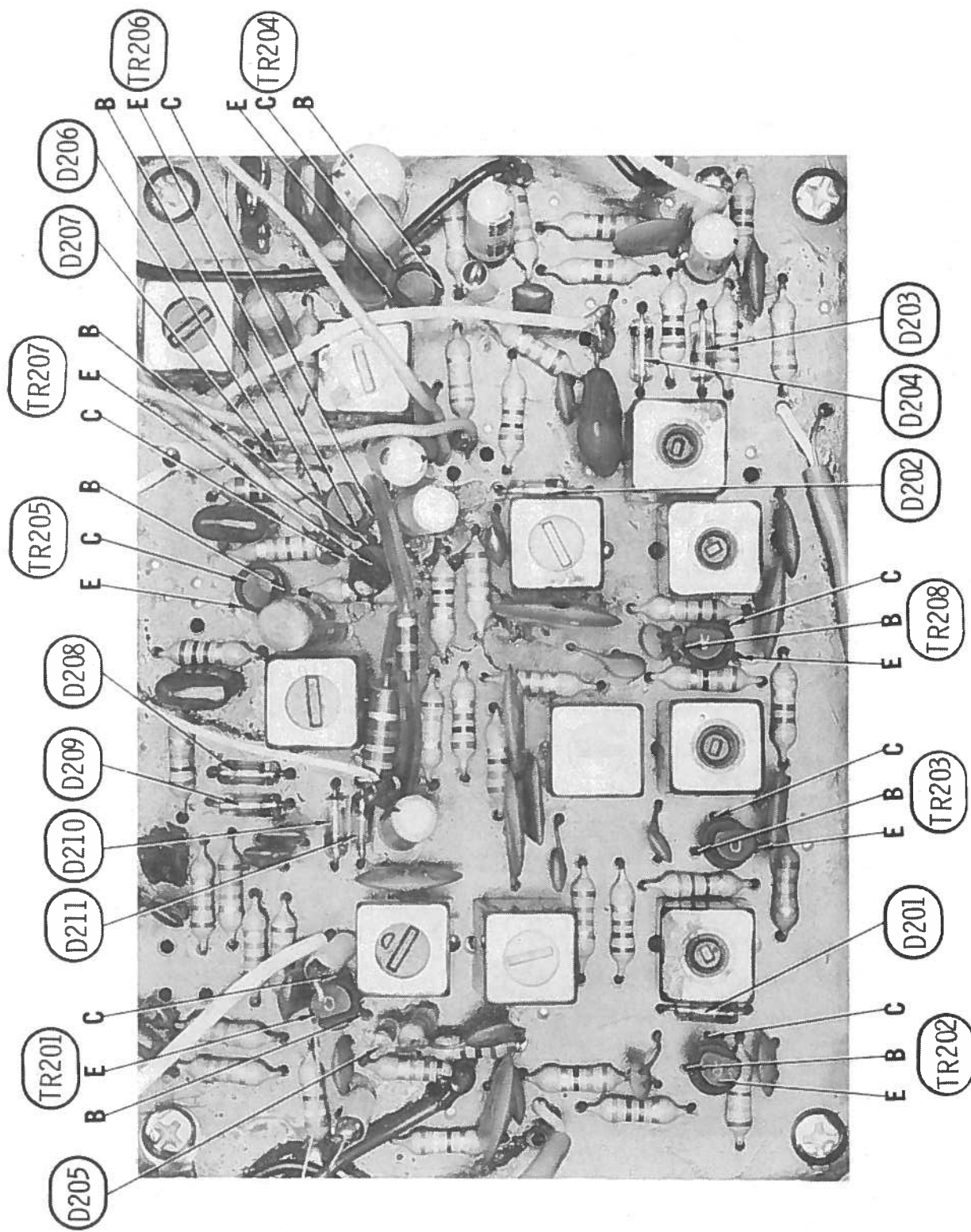
Transistor resistances vary widely. No resistance measurements taken.

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
with **CIRCUITRACE**<sup>®</sup>  
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ADRIAL CHASSIS  
625, 10K3



RADIO IF BOARD

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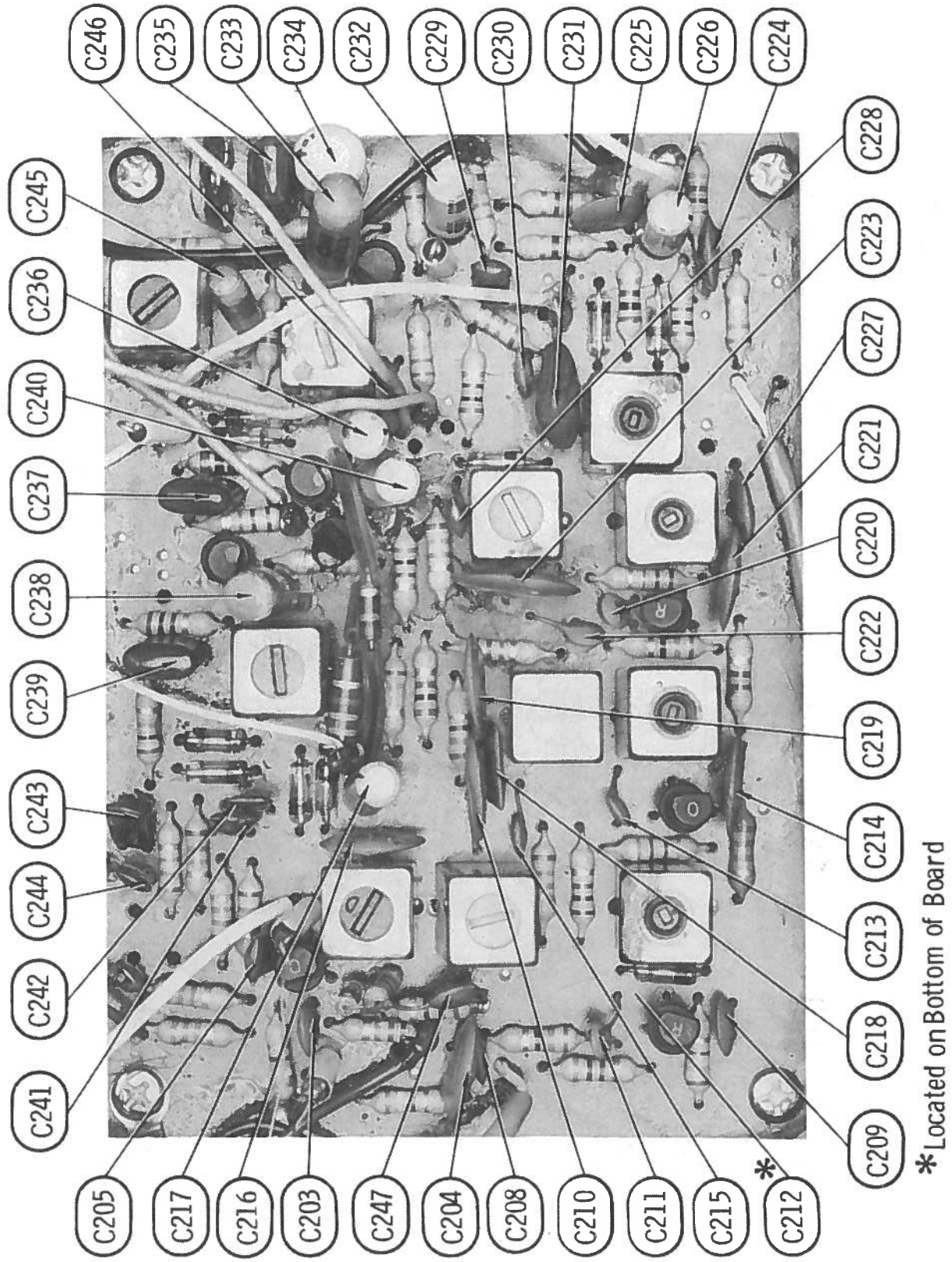
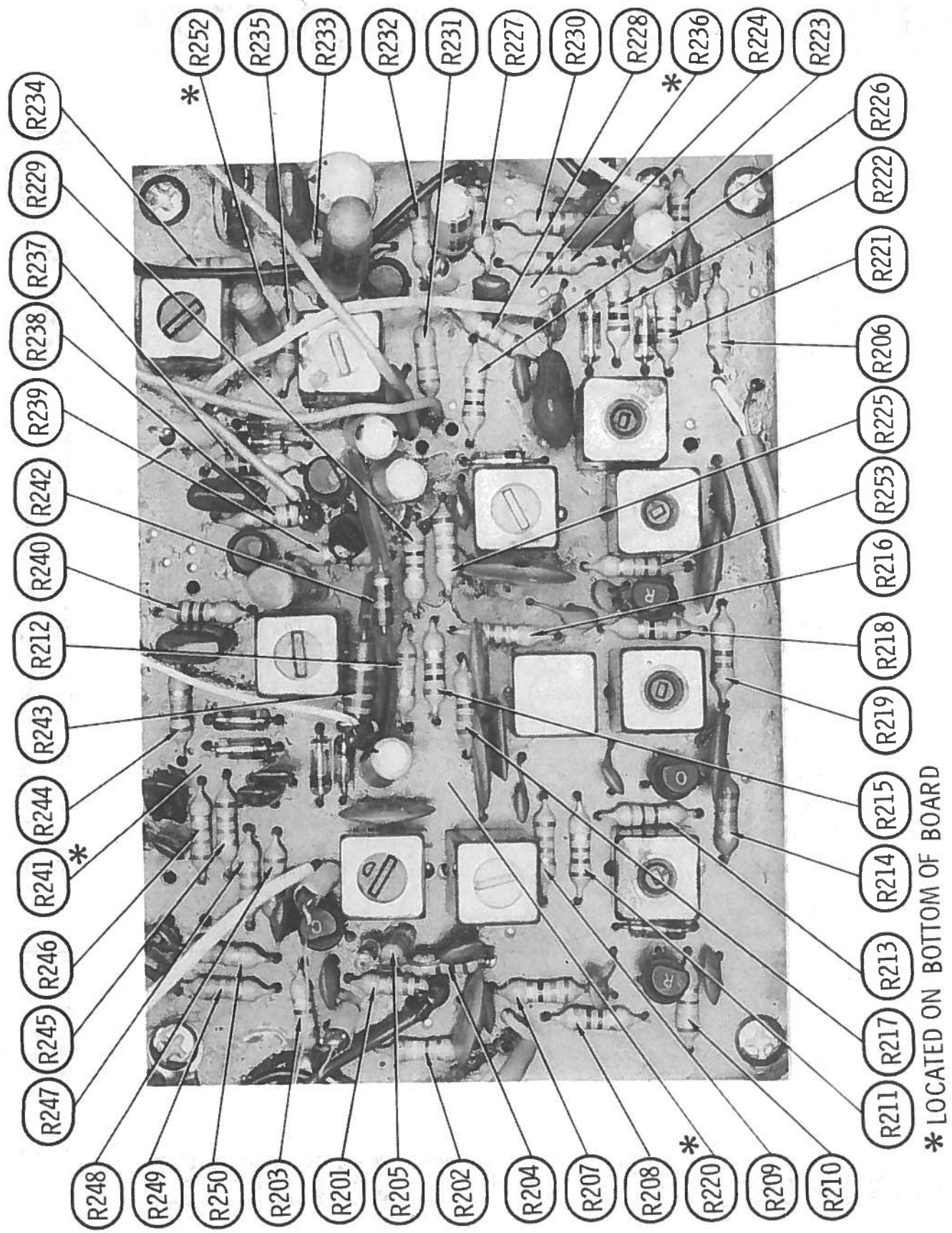
▲ Voltage measure measured in AM" position

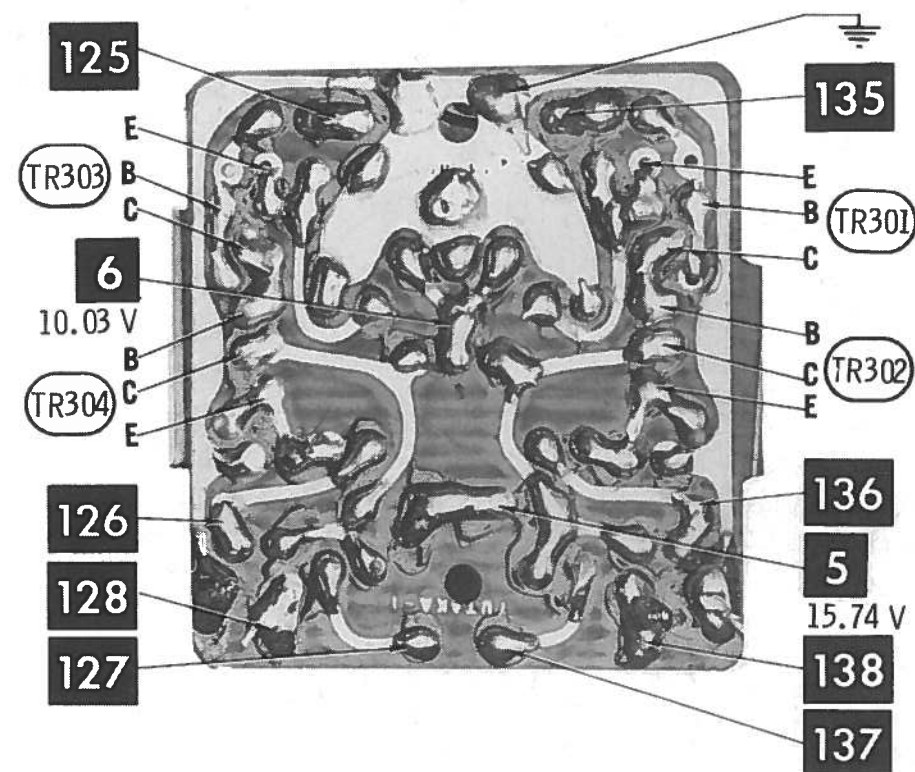
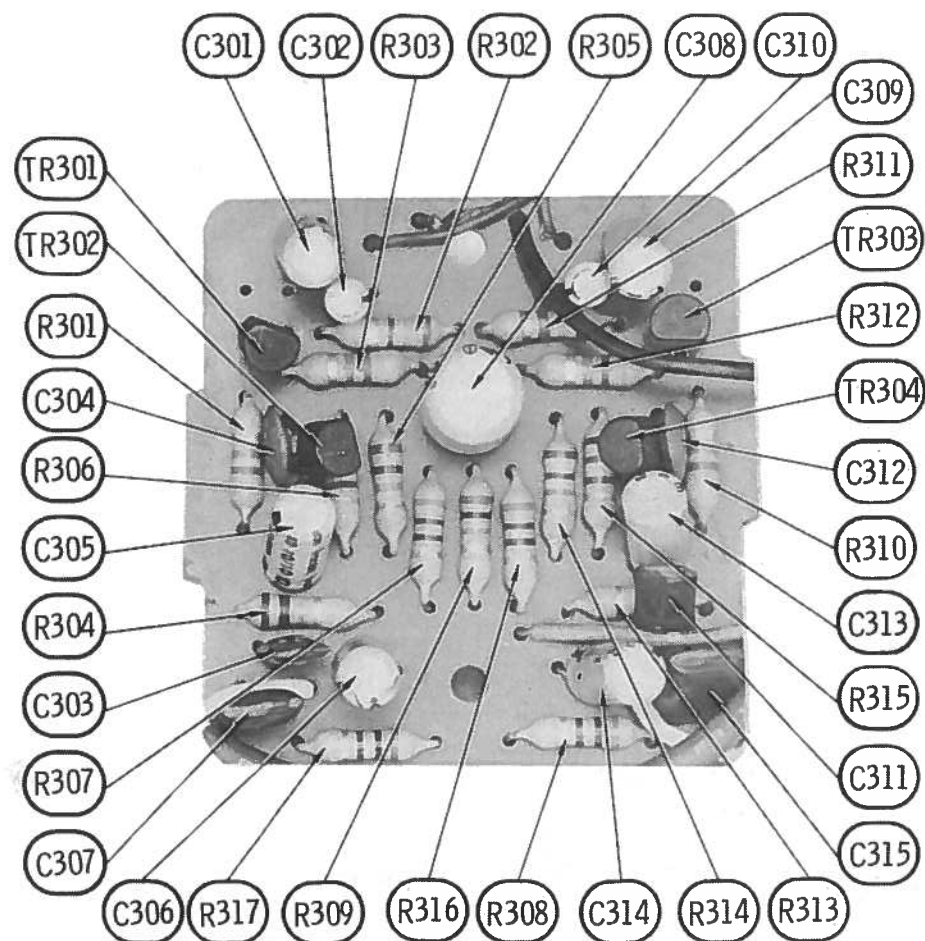
ADMIRAL CHASSIS  
6Z5, 10K3

FOLDER 1-B



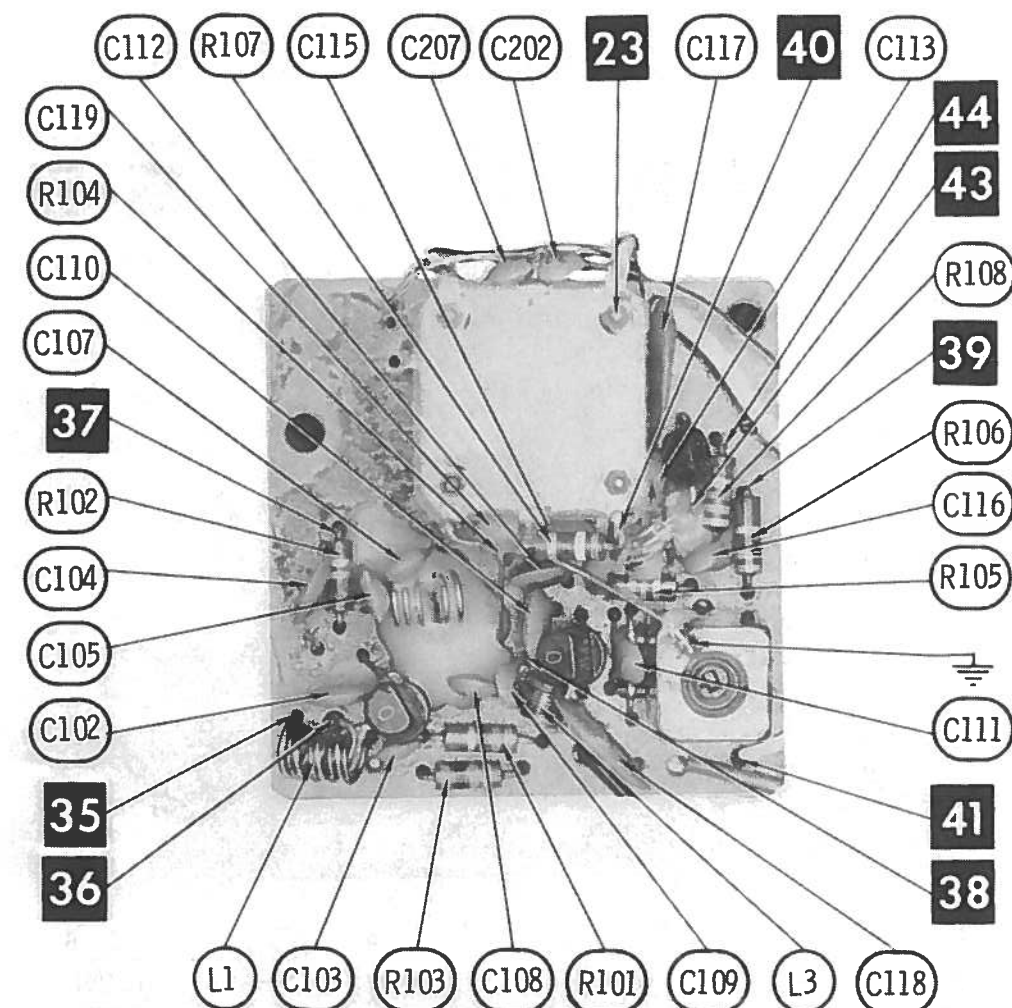
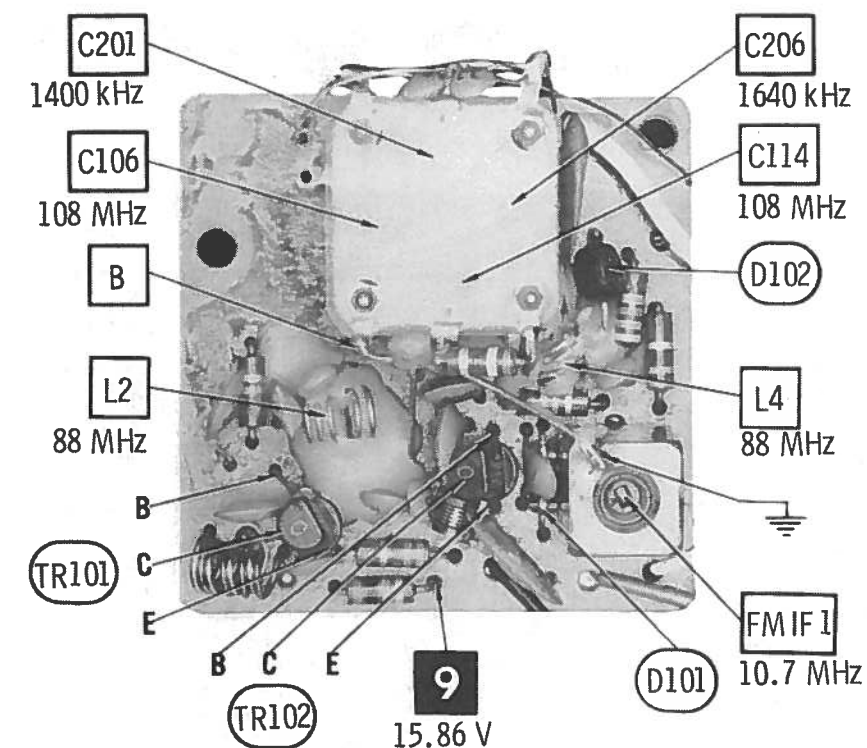
RADIO IF BOARD





TAPE BOARD

A Howard W. Sams CIRCUITRACE® Photo



RADIO RF BOARD

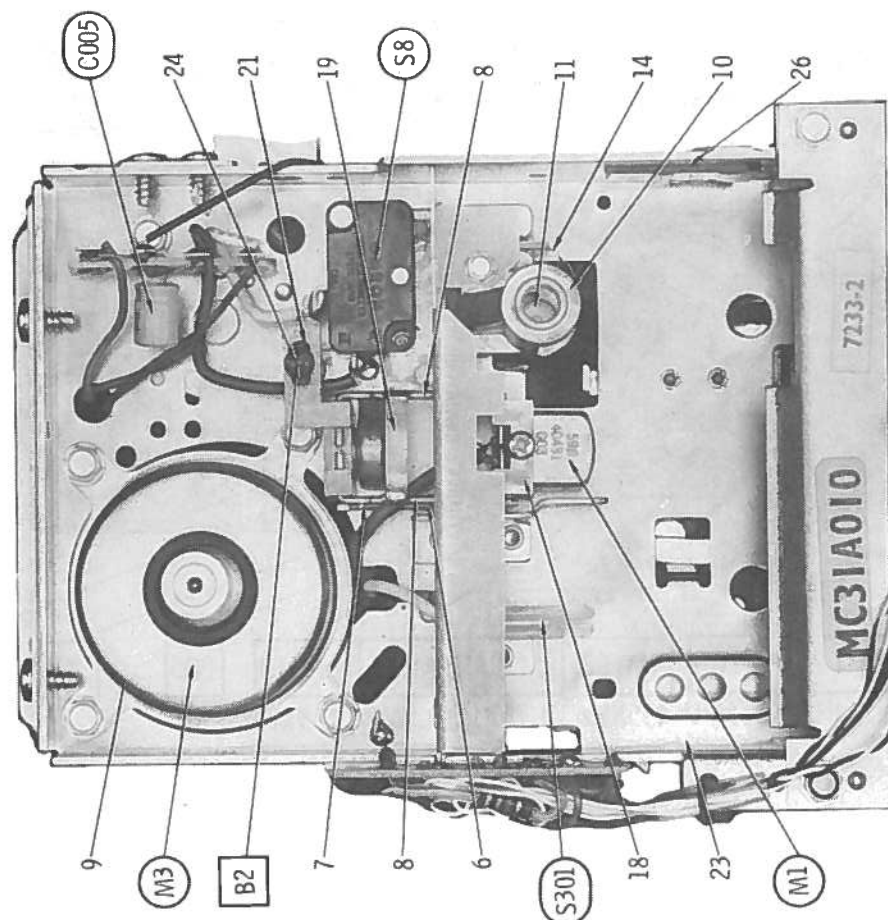
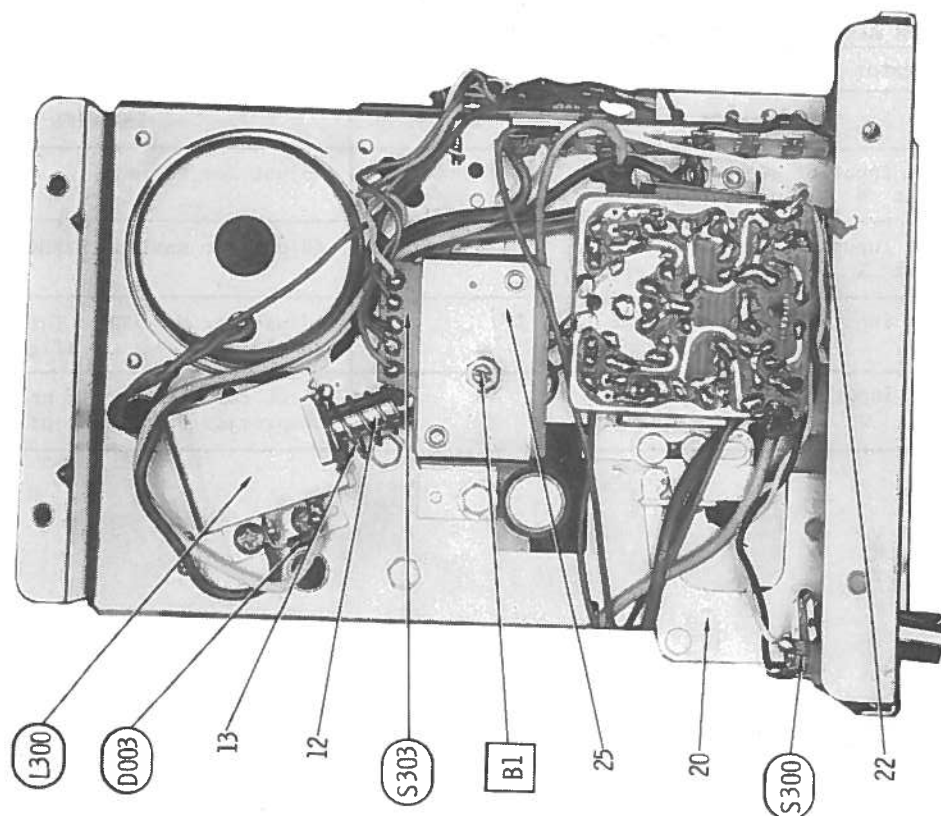
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ADMIRAL CHASSIS  
6Z5, 10K3

FOLDER 1-B







TAPE MECHANICAL

# MECHANICAL PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
1*	*	Flywheel Drive Belt *	14		Actuating Arm
2		Flywheel Assembly	15		Thrust Washer (2 used)
3		Track Changing Cam	16		Pawl Spring
4		Push Pawl	17		Transfer Pin
5		Pull Pawl	18		Head Block
6		Head Tension Spring	19		Spring Retainer
7		Radius Arm (Lower)	20		Manual Ejector Assembly
8		Radius Arm (Upper, 2 used)	21		Azimuth Spring
9		Magnetic Shield	22		Eject Lever Spring
10		Capstan Block Assembly	23		Side Spacer (Left)
11		Spacer	24		Azimuth Adjust Screw
12		Solenoid Plunger	25		Cam and Shaft Assembly
13		Solenoid Spring	26		Side Spacer (Right)

\* Flywheel Drive Belt -- E-V GAME Replacement Number 1424-17.  
WALSCO Replacement Number 1424-17.

## CLEANING

Clean all tape contact surfaces with a soft, lint-free material and head cleaner or methyl alcohol. Use alcohol to remove oil and grease from all driving surfaces.

CAUTION: Avoid getting head cleaner on any plastic surface.

## LUBRICATING

Bearings are oil-less type and do not need lubrication. Lubricate bushings lightly with #20 machine oil. Use a light film of nonhardening grease on cam surfaces.

## HEAD DEMAGNETIZING

Demagnetize head when unit is serviced. Avoid using magnetic materials near head.

## ADJUSTMENTS

ADJUST	REMARKS
Head Height	Play a test cartridge, follow instructions with cartridge, and adjust B1 for proper response.
Head Azimuth	Connect an AC VTVM across right output. Play a test cartridge and adjust B2 for maximum.

## TROUBLE CHART

SYMPTOM	REMARKS
Capstan does not rotate.	Belt (1) dirty, worn, or broken. Assembly (10) binding. Motor defective or not supplied with power.
Track-shift mechanism inoperative.	Switch (S301) dirty. Cam (3) binding or worn. Pawls (4) and (5) worn. Arms (7) and (8) binding. Solenoid (L300) defective or not supplied with power. Cartridge defective.
Wow or Flutter.	Belt (1) dirty or worn. Capstan dirty or binding. Cartridge defective. Motor defective.
Sound weak or distorted.	Head dirty, misaligned, or defective. Cartridge defective. Amplifiers defective.
Tape is pulled from cartridge.	Cartridge defective. Capstan dirty or scored. Arm (14) bent.

ADMIRAL CHASSIS  
6Z5, 10K3

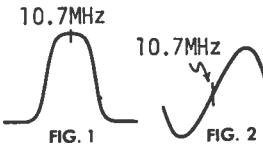
FOLDER 1-B



ALIGNMENT INSTRUCTIONS

CAUTION: Use isolation transformer or observe polarity when connecting test equipment. Maintain line voltage at 120VAC. Allow a 15-minute warm-up period. Use only enough generator output to obtain a suitable indication.

Suggested Alignment Tools: GC ELECTRONICS  
FMIT1 thru FMIT5 ..... 9440  
AMIT1, AMIT2, AMIT3, L6, MXT1, MXT2 .. 8728



AM ALIGNMENT—SELECTOR IN AM POSITION

Connect generator across loop fashioned of several turns of wire. Set volume at maximum.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
455kHz 400-hertz Modulation	Tuning gang fully open	Output meter across voice coil	AMIT3,AMIT2, AMIT1	Adjust for maximum. Repeat until no further improvement is noted.
600kHz	Tune to signal	"	L6	Adjust for maximum.
1640kHz	"	"	C206	Adjust for maximum.
1400kHz	"	"	C201	Adjust for maximum. Repeat AM alignment until no further improvement is noted.

FM IF ALIGNMENT USING AM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001mfd to point B, low side to ground.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
10.7MHz Unmodulated	Point of non- interference	DC probe of VTVM to point C, common to ground.	FMIT4,FMIT3, FMIT2,FMIT1	Adjust for maximum.
"	"	DC probe of VTVM to point TP5, common to ground.	FMIT5	Adjust for zero reading. A positive or negative reading will be obtained on either side of correct setting.

FM IF ALIGNMENT USING FM SIGNAL GENERATOR—SELECTOR IN FM POSITION

High side of generator thru .001mfd to point B, low side to ground.  
Use only enough marker signal for indication. Use 60-hertz frequency modulated signal with 450kHz sweep. Use 60-hertz sawtooth voltage in scope for horizontal deflection.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
10.7MHz 450kHz Sweep	Point of non- interference	Vert input of scope to point C, low side to ground.	FMIT4,FMIT3, FMIT2,FMIT1	Disconnect stabilizing capacitor C 226. Adjust for maximum gain and symmetry of response similar to Fig. 1 with markers as shown. Reconnect C226.
"	"	Vert input of scope to point TP5, low side to ground.	FMIT5	Adjust FMIT5 to place marker at center of S curve similar to Fig. 2. Readjust FMIT4 for maximum amplitude and straightness of line.

FM RF ALIGNMENT—SELECTOR IN FM POSITION

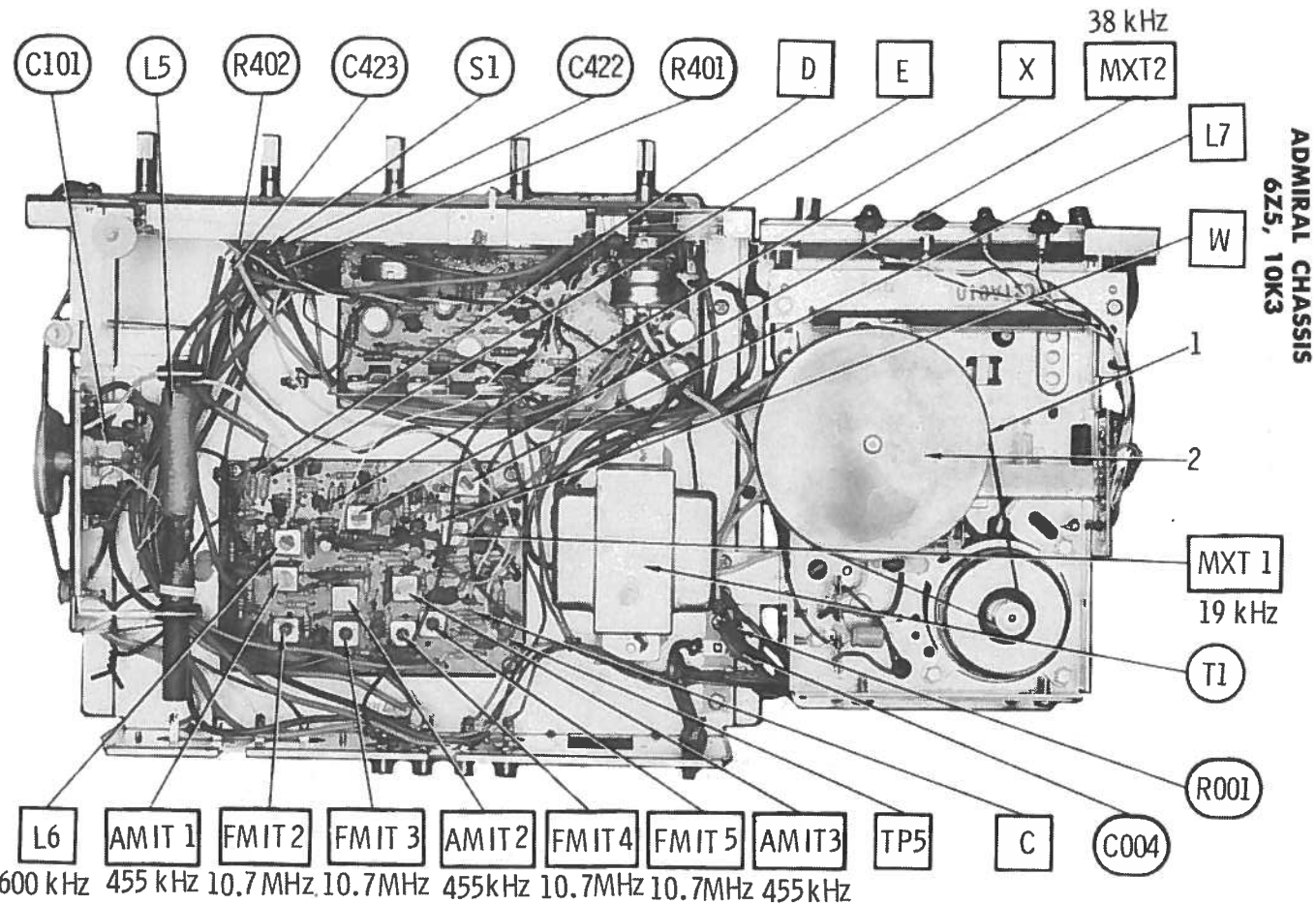
Connect generator across antenna terminals with 120-ohm carbon resistor in series with each lead. Adjustment of coils by bending should not be attempted unless the coil is deformed or replaced.

GENERATOR FREQUENCY	RADIO DIAL SETTING	INDICATOR	ADJUST	REMARKS
88MHz Unmodulated	Low freq end	DC probe of VTVM to point C, common to ground.	L4,L2	Adjust for maximum.
108MHz Unmodulated	Tune to signal	"	C114,C106	Adjust for maximum. Repeat FM RF steps until no further improvement is noted.

ALIGNMENT INSTRUCTIONS (Continued)

FM STEREO MULTIPLEX ALIGNMENT USING FM STEREO SIGNAL GENERATOR (± .0001% ACCURACY)

High side of generator thru 47K to point TP5		low side to ground.	
GENERATOR FREQUENCY	INDICATOR	ADJUST	REMARKS
19kHz	Vert input of scope thru 47K to point W low side to ground.	MXT1,R251	Adjust for maximum.
19kHz	Vert input of scope thru 47K to point X low side to ground.	MXT2	Adjust for maximum 38kHz response.
Modulated Left Channel	Vert input of scope to point E, low side to ground.	L7	Adjust for MINIMUM. This step should require only slight adjustment.
Modulated Right Channel	Vert input of scope to point D, low side to ground.		Check for MINIMUM. If necessary, make compromise adjustment of L7.



ADMIRAL CHASSIS  
6Z5, 10K3

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

General-use Unshielded Hook-up Wire .....	Use BELDEN No. 8530 (Solid) Available in 12 Colors
	8524 (Stranded) Available in 12 Colors
Low-loss Shielded Lead (Interconnecting) .....	Use BELDEN No. 8401 or 8421

ITEM No.	TYPE / MFG. No. / PART No.	REPLACEMENT DATA							
		GENERAL ELECTRIC PART No.	INTERNATIONAL RECTIFIER PART No.	MALLOY PART No.	MOTOROLA PART No.	RCA PART No.	SPRAGUE PART No.	SYLVANIA PART No.	
D001	1S1849/2093A41-103	GE-504A (2)	804 (2) or 5A4D (2)	PTC201 (2) or PTC202 (2)	HEPR0052(2)	SK3030 (2) or SK3031 (2)	RT214 (2) or RT215 (2)	ECG 116 (2) or ECG 117 (2)	
D003	SR1K/2093A41-75	GE-504A	804 or 5A4D	PTC201 or PTC202	HEPR0052	SK3030 or SK3031	RT213 or RT214	ECG 116 or ECG 117	
D101	1N60/93A41-2	1N60	1N60	PTC206	HEP135	SK3088		ECG 109	
D102	1S893/2093A41-101 (8)		GE-90 (8)	D201 (8)		HEPR2503 (8)	SK3126 (8)		
D201	1N60/93A41-2	1N60	1N60	PTC206	HEP135	SK3088		ECG 109	
D202	1N60/93A41-2	1N60	1N60	PTC206	HEP135	SK3088		ECG 109	
D203	1N60/93A41-2	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)	
D204	1N60/93A41-2								
D205	1N60/93A41-2	1N60	1N60	PTC206	HEP135	SK3088		ECG 109	
D206	1N60/93A41-2	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)	
D207	1N60/93A41-2								
D208	1N60/93A41-2	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)	
D211	1N60/93A41-2								
D209	1N60/93A41-2	1N60 (7)	1N60 (7)	PTC206 (7)	HEP135 (7)	SK3088 (7)		ECG 109 (7)	
D210	1N60/93A41-2								
D401	KB-165/2093A41-102								
D402	KB-165/2093A41-102								
TR101	25C784(O) / 2057A2-331	GE-17	1RTR-70	PTC132	HEP56	SK3018	RT108	ECG 107	
TR102	25C785(O) / 2057A2-218	GE-20	1RTR-71	PTC132	HEP720	SK3018	RT108	ECG 107	
TR201	25C380(O) / 2057A2-356	GE-20	TR-24	PTC121	HEP56	SK3018	RT108	ECG 107	
TR202	25C380(R) / 2057A2-220	GE-61	TR-24	PTC121	HEP56	SK3018	RT108	ECG 107	
TR203	25C380(O) / 2057A2-356	GE-20	TR-24	PTC121	HEP56	SK3018	RT108	ECG 107	
TR204	25C373/2057A2-249	GE-62	TR-21	PTC139	HEP55	SK3122	RT102	ECG 199	
TR205	25C373/2057A2-249	GE-62	TR-21	PTC139	HEP55	SK3122	RT102	ECG 199	
TR206	25C373/2057A2-249	GE-62	TR-21	PTC139	HEP55	SK3122	RT102	ECG 199	
	25C372/2057A2-306 (1)	GE-62	TR-24	PTC139	HEP55	SK3122	RT102	ECG 199	
TR207	25C372/2057A2-306 (1)	GE-62	TR-21	PTC139	HEP55	SK3122	RT102	ECG 199	
TR208	25C380(R) / 2057A2-220	GE-61	TR-24	PTC121	HEP56	SK3018	RT108	ECG 107	
TR301	25C644F(H,S) / 2057A2-212	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR302	25C644 T / 2057A2-352	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR303	25C644F(H,S) / 2057A2-212	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR304	25C644T/2057A2-352	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR401	25C644T/2057A2-352	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR402	25C644T/2057A2-352	GE-18	1RTR-51	PTC139	HEP55	SK3124	RT102	ECG 199	
TR403	25A562(O) / 2057A2-353	GE-22	TR-19	PTC103	HEP51	SK3114	RT115	ECG 159	
TR404	25A562(O) / 2057A2-353	GE-22	TR-19	PTC103	HEP51	SK3114	RT115	ECG 159	
TR405	25C509 / 2057A100-40 (3)	GE-63 (9)	TR-24 (9)					ECG 192 (9)	
TR407	25A509 / 2057A100-40 (3)	GE-67 (9)	TR-30 (9)					ECG 193 (9)	
TR406	25C509 / 2057A100-40 (3)	GE-63 (9)	TR-24 (9)					ECG 192 (9)	

ITEM No.	RATING	REPLACEMENT DATA					
		MFGFR. PART No.	ARCO PART No.	CENTRALAB PART No.	CORNELL- DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.
C001	1000 25 V	2067A64-197	RME-P-G-1000	EA30-1000	WBRT1000-25	MTA1000G25	EV-1360
C005	47 16 V	2067A64-145	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C217	4.7 10 V		RME-A-E-005	EP15-5	PC50-50	VT17A7A50	EV-1319
	4.7 10 V	2067A64-104 (1)	RME-A-D-005	EP15-5	PC5-50	MTT47A50	EV-1313
C226	4.7 16 V		RME-A-E-005	EP15-5	PC5-50	VTT47A50	EV-1319
	4.7 10 V	2067A64-104 (1)	RME-A-D-005	EP15-5	PC5-50	VTT47A50	EV-1319
C232	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C234	47 10 V	2067A64-83	RME-D-0-050	EP15-50	PC50-10	MTV50CB15	EV-1226
C236	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C240	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C301	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C302	.22 25 V	2067A64-74		PC1-50		TDC224M050EL	S050-R229
C305	10 10 V	2067A64-86	RME-A-D-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C308	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C308	47 16 V	2067A64-145	RME-E-E-050	EP15-50	PC50-16	MTV50CB15	EV-1226
C309	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C310	.22 25 V	2067A64-74		PC1-50		TDC224M050EL	S050-R229
C313	10 10 V	2067A64-86	RME-A-D-010	EP15-10	PC10-25	VT1T0A25	EV-1222
C314	10 16 V	2067A64-144	RME-B-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
A403	2.2 16 V		RME-A-E-002	EP15-2	WBRT2	MTV22A50	EV-1317
	10 16 V	2067A64-144 (1)	RME-C-E-010	EP15-10	PC10-25	VT1T0A25	EV-1222
A404	100 10 V	67A64-4	RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
A406	.22 25 V	2067A64-74		PC1-50		TDC224M050EL	S050-R229
A407	.22 25 V	2067A64-74		PC1-50		TDC224M050EL	S050-R229
A410	220 16 V	2067A64-92	ME-G-E-200	EA15-250	PC200-16	MTV200E15	EV-1240
A413	100 10 V	67A64-4	RME-E-D-100	EP15-100	PC100-10	MTV100CB10	EV-1130
A416	220 16 V	2067A64-92	ME-G-E-200	EA15-250	PC200-16	MTV200E15	EV-1240
A419	220 16 V	2067A64-92	ME-G-E-200	EA15-250	PC200-16	MTV200E15	EV-1240
A420	220 16 V	2067A64-92	ME-G-E-200	EA15-250	PC200-16	MTV200E15	EV-1240
A421	220 16 V	2067A64-92	ME-G-E-200	EA15-250	PC200-16	MTV200E15	EV-1240

ITEM No.	RATING	MFR. PART No.	REPLACEMENT DATA					
			ARCO/ELMENCO PART No.	CENTRALAB PART No.	CORNELL-DUBILIER PART No.	MALLORY PART No.	SPRAGUE PART No.	
C002	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10	
C003	.01		CCD-103	DD-103	GP10000	JF110	10TS-S10	
C004	.0047 150 VAC			DD-403	AC-5000	UNCS502	12SL-050	
C006	.04	10%				GP140		
C101	Tuning Gang							
C102	.68	10%		DTZ-68		CN0468	10TCC-068	
C103	.30	10%	CCTO-300				10TCC-Q30	
C104	.002	10%	CCTO-202	DD-202	GP2000	GP220	10TS-020	
C105	.001	10%	1DP-2-563		DPMS6556	EWFA156	225P6391W03	
C106	Trimmer	(1)						
C107	.18	10%	CCTO-180		NP018	CN0418	10TCC-Q18	
C108	2.7	10%					10TCC-V27	
C109	.30	10%	CCTO-300				10TCC-Q30	
C110	.200	10%	CCD-201	DD-201	GP200	GP320	10TS-120	
C111	5.6	10%					10TCC-V56	
C112	.002	10%	CCD-202	DD-202	GP2000	GP220	10TS-020	
C113	.001	10%	CCD-102	DD-102	GP1000	GP210	10TS-010	
C114	Trimmer	(1)						
C115	8.2	10%			NP08P2		10TCC-V82	
C116	6.8	10%		DTZ-68R	NP06P8	CN0568	10TCC-V68	
C117	.04	10%	DD-403			GP140		
C118	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C119	3.9	10%			NP03P9		10TCC-V39	
C201	Trimmer	(1)						
C202	3.3	10%		DTZ-3R3	NP03P3	CN0533	10TCC-V33	
C203	.001	10%	CCD-102	DD-102	GP1000	GP210	10TS-010	
C204	.02	10%	DD-203	DD-203		GP120	10TS-S20	
C205	.01 50 V	10%	1DP-1-103	CPR-10000J	DPMS651	EWFA110	225P10391W03	
C206	Trimmer	(1)						
C207	3.3	10%		DTZ-3R3	NP03P3	CN0533	10TCC-V33	
C208	.01	10%	CCD-103	DD-103	GP10000	JF110	10TS-S10	
C209	.01	10%	CCD-103	DD-103	GP10000	JF110	10TS-S10	
C210	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C211	3.9	10%			NP03P9		10TCC-V39	
C212	.02	10%	CCD-203	DD-203	NP03P3	GP120	10TS-S20	
C213	3.3	10%		DTZ-3R3	NP03P3	CN0533	10TCC-V33	
C214	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C215	2.2	10%		DTZ-2R2	NP02P2	CN0522	10TCC-V22	
C216	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C218	.04	10%	160P-5-403		DPMS1654	PVC614	16PS-540	
C219	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C220	3.9	10%			NP03P9	GP120	10TCC-V39	
C221	.02	10%	CCD-203	DD-203		GP120	10TS-S20	
C222	2.7	10%					10TCC-V27	
C223	.04	10%		DD-403		GP140		
C224	.300	10%	CCD-301	DD-301	GP300	GP330	10TS-T30	
C225	.300	10%	CCD-301	DD-301	GP300	GP330	10TS-T30	
C227	.300	10%	CCD-301	DD-301	GP300	GP330	10TS-T30	
C228	.0047	10%	6DP-1-472		DMS6047	EWF6247	6PS-D47	
C229	.0047	10%	6DP-1-472		DMS6047	EWF6247	6PS-D47	
C230	.001	10%	CCD-102	DD-102	GP1000	GP210	10TS-010	
C231	.047 50 V	10%	1DP-2-473		CPR-4700J	EWFA147	225P47391W03	
C232	.0047	5%	DM-30-473		CPR-4700J	CX15F47J303	424M4701J501	
C235	.039 50 V	10%	1MD-1-393		DPMS6539	EWFA139	1PB-S39	
C237	.039 50 V	10%	1MD-1-393		DPMS6539	EWFA139	1PB-S39	
C238	.0047	5%						

(1) Part of Tuning Gang. (2) Not in some versions.

ITEM No.	FUNCTION	RESIST-ANCE	REPLACEMENT DATA				
			MFOR PART No.	CENTRALAB PART No.	CLAROSTAT PART No.	CTS—IRC PART No.	MALLOY PART No.
R251	Threshold	500	2075A89-197	TSV-5000 (1) or TSV-5000 (1)	C-501 (1)	X2018501B (1)	MTC5211 (1)
R404	Balance	1 Meg	2075A89-194 2264020000 (2)	F1-1meg (3), SK5102	A47-1meg-5 (3), K55-3 or [NP-1meg-5 (3), UP-C-400]	BU1 (3),CF17, S51,DC1	RU16L,S136,S13250 or [UA16L (3), SK3500] or U54 (3)
R405a b	Volume,Left Volume, Right/Switch	1 Meg 1 Meg	2075A89-195	F1-1meg (3), R1-1meg, SK5102, CP12,KR2	NP-1meg-5 (3), NR-1meg-5, UP-C-400, DC-2,NHG-21	BU1 (3),CF17, S51,S57A,DC1	P16L,3014 (3), RU16L,CS3500,US43
R415a b	Tone, Left Tone, Right	10 K 10 K	2075A89-196	F1-10K (3), R1-10K, SK5102,CP12	NP-10K-5 (3), NR-10K-5, UP-C-400,DC2	BU1 (3),CF9,C85, S51,S57A,DC1	P14L,3014 (3), RU14L,CS3500

ITEM No.	RATING	REPLACEMENT DATA		ITEM No.	RATING	REPLACEMENT DATA	
		WORKMAN PART No.	MFG. PART No.			WORKMAN PART No.	MFG. PART No.
R002	39 1W, Flim (1			R434	5.6 1/2W, Carbon		2060A54-44
R432	5.6 1/2W, Carbon		2060A54-44	R435	5.6 1/2W, Carbon		2060A54-44
R433	5.6 1/2W, Carbon		2060A54-44				

ITEM No.	USE	REPLACEMENT DATA			
		PART No.	MEISSNER PART No.	MILLER PART No.	REMARKS
AM1T1	AM Interstage IF	2072A254-362			
AM1T2	AM Interstage IF	2072A354-363			
AM1T3	AM Det-AGC	2072A254-364			
FM1T1	FM Input IF	2072A254-358			
FM1T2	FM Interstage IF	2072A254-264			
FM1T3	FM Interstage IF	2072A254-359			
FM1T4	Ratio Detector (Pri.)	2072A254-360			
FM1T5	Ratio Detector (Sec.)	2072A254-361			
L1	FM Antenna	2073A72-178			
L2	FM RF	2073A72-179			
L3	RF Choke	2073A72-116			
L4	FM Oscillator	2073A72-181			
L5	Loopsick	2069A296-26			
L6	AM Oscillator	2069A309-58			
L7	Separation Adjust	2072A254-367			
MXT1	19 kHz	2072A254-365			
MXT2	38 kHz Doubler	2072A254-366			

ITEM No.	RATING			REPLACEMENT DATA				NOTES
	PRI.	SEC. 1	SEC. 2	MFGR. PART No.	STANCOR PART No.	THORDARSON PART No.	TRIAD PART No.	
T1	120 VAC @ .105A AC	32 VAC, CT @ .325A DC	6.05 VAC @ .03A AC	2080A1-47 22213583 (1)				(1) Number on unit.

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFG. PART No.	QUAM PART No.	
SP1	4 1/2" PH 8 ohms	2078A203-76		
SP2	4 1/2" PH 8 ohms	2078A203-76		

ITEM No.	MEASURED			MFR. PART No.	NORTONICS PART No.	DESCRIPTION
	INDUCTANCE	BIAS/ERASE VOLTS (RMS)	BIAS FREQ.			
M1	330 mH				5800 (1)	8-Track Stereo Play

ITEM No.	PART NAME	PART No.	NOTES
L300	Solenoid		Program Select
M3	Motor		Tape Transport
S1	Switch	2077A151-147	AM-FM Stereo-Phono-Tape
S300	Switch	2077A151-146	Manual Program Select
S301	Switch		Automatic Program Select
S303	Switch		Program Indicator (Actuated by solenoid)
S8	Switch		Motor (Actuated by insertion of tape) Micro
	Printed Circuit Board	2014A100-107	RF (With Components)
	Printed Circuit Board	2014A377-185	RF (Without Components)
	Printed Circuit Board	2014A100-108	IF (With Components)
	Printed Circuit Board	2014A377-188	IF (Without Components)
	Printed Circuit Board	2014A100-110	Audio (With Components)
	Printed Circuit Board	2014A377-190	Audio (Without Components)
	Printed Circuit Board	2014A100-109	Tape (With Components)
	Printed Circuit Board	2014A377-189	Tape (Without Components)



# **WIRING DATA**

General-use Unshielded Ho  
Low-loss Shielded Lead (1

## **SEMICONDUCTORS**

ITEM No.	TYPE / MFR. No. / PART No.	GE ELI PA)
D001	1S1849/2093A41-103	GE-I
D003	SR1K/2093A41-75	GE-I
D101	1N60/93A41-2	1N60
D102	1S893/2093A41-101 (S)	
D201	1N60/93A41-2	1N60
D202	1N60/93A41-2	1N60
D203	1N60/93A41-2	1N60
D204	1N60/93A41-2	1N60
D205	1N60/93A41-2	1N60
D206	1N60/93A41-2	1N60
D207	1N60/93A41-2	1N60
D208	1N60/93A41-2	1N60
D211	1N60/93A41-2	1N60
D209	1N60/93A41-2	1N60
D210	1N60/93A41-2	1N60
D401	K8-165/2093A41-102	
D402	K8-165/2093A41-102	
TR101	2SC784(O) / 2057A2-331	GE-I
TR102	2SC785(O) / 2057A2-218	GE-I
TR201	2SC380(O) / 2057A2-356	GE-I
TR202	2SC380(R) / 2057A2-220	GE-I
TR203	2SC380(O) / 2057A2-356	GE-I
TR204	2SC373/2057A2-249	GE-I
TR205	2SC373/2057A2-249	GE-I
TR206	2SC373/2057A2-249	GE-I
TR207	2SC372/2057A2-306 (1) 2SC373/2057A2-249 (1)	GE-I
TR208	2SC380(R) / 2057A2-220	GE-I
TR301	2SC644F(H,S) / 2057A2-212	GE-I
TR302	2SC644 T / 2057A2-352	GE-I
TR303	2SC644F(H,S) / 2057A2-212	GE-I
TR304	2SC644T/2057A2-352	GE-I
TR401	2SC644T/2057A2-352	GE-I
TR402	2SC644T/2057A2-352	GE-I
TR403	2SA562(O) / 2057A2-353	GE-I
TR404	2SA562(O) / 2057A2-353	GE-I
TR405	2SC509 / 2057A100-40 (3)	GE-I
TR406	2SC509 / 2057A100-40 (3)	GE-I
TR407	2SC509 / 2057A100-40 (3)	GE-I
TR408	2SA509 / 2057A100-40 (3)	GE-I

(1) Used in some versions.  
(3) Part Number is for compl  
(7) Two required - select matc  
(8) Varactor  
(9) Complementary Pair.

## **ELECTROLYTIC CAP.**

ITEM No.	RATING	
C001	1000 25 V	206:
C005	47 16 V	206:
C217	4.7 16 V	206:
	4.7 10 V	206:
C226	4.7 16 V	206:
	4.7 10 V	206:
C232	10 16 V	206:
C234	47 10 V	206:
C236	10 16 V	206:
C240	10 16 V	206:
C301	10 16 V	206:
C302	.22 25 V	206:
C305	10 10 V	206:
C306	10 16 V	206:
C308	47 16 V	206:
C309	10 16 V	206:
C310	.22 25 V	206:
C313	10 10 V	206:
C314	10 16 V	206:
C403	2.2 16 V	206:
	10 16 V	206:
C404	100 10 V	67A:
C406	.22 25 V	206:
C407	.22 25 V	206:
C410	220 15 V	206:
C413	100 10 V	67A:
C416	220 15 V	206:
C419	220 16 V	206:
C420	220 16 V	206:
C421	220 16 V	206:

(1) Alternate used in some v

