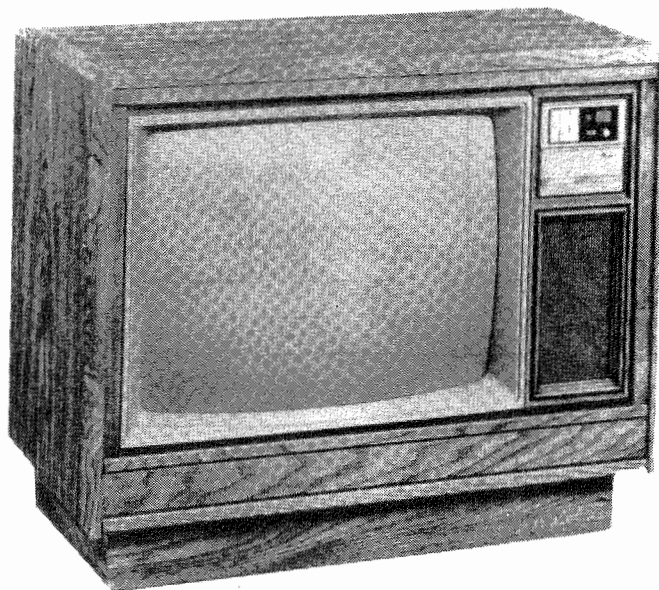


MODELS
CG4600PE01
CG471 2AK01
CG4716PE01MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

Representative Model

SAFETY PRECAUTIONS

See Page 5

INDEX

	Page		Page
Alignment		Quick-Checks Troubleshooting	
TV	6	CRT Board	30
Chassis Break-Down	42,43	Main Board	9,40
Convergence Adjustments	7	Safety Precautions	5
Disassembly Instructions	44	Schematics	
GridTrace Location Guide		Antenna Module	15
CRT Board	19	Channel Select/Display Module ...	16
Main Board	11,38	Interconnect Wiring Diagram...	36,37
Secondary Controls	13	Power Supply	47,48,49
IC Functions	14,35	Secondary Control	17
Miscellaneous Adjustments	7	Switches and Secondary Controls	4,45
Parts List		Terminal Guides and Notes	34
TV	20 thru 28	TV	2
Photos		Video Amplifier	3,46
Cabinet-Rear View	44	Servicing in the Field	44
CRT Board	18,19,30	Test Equipment	6
CRT Neck Assembly	7	Test-Jig Hookup	32
Main Board	8,9,10,39,40,41	Troubleshooting	32,33
Secondary Controls	12,13,17	Troubleshooting Aid	31
130V Power Supply	29		

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

SET 2654 FOLDER 2

SAMS**Howard W. Sams & Co.**

4300 West 62nd Street, P.O. Box 7092, Indianapolis, Indiana 46206 U.S.A.

The listing of any available replacement part herein does not constitute in any case a recommendation, warranty or guaranty by Howard W. Sams & Co. 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. by the manufacturers of the particular type of replacement part listed.

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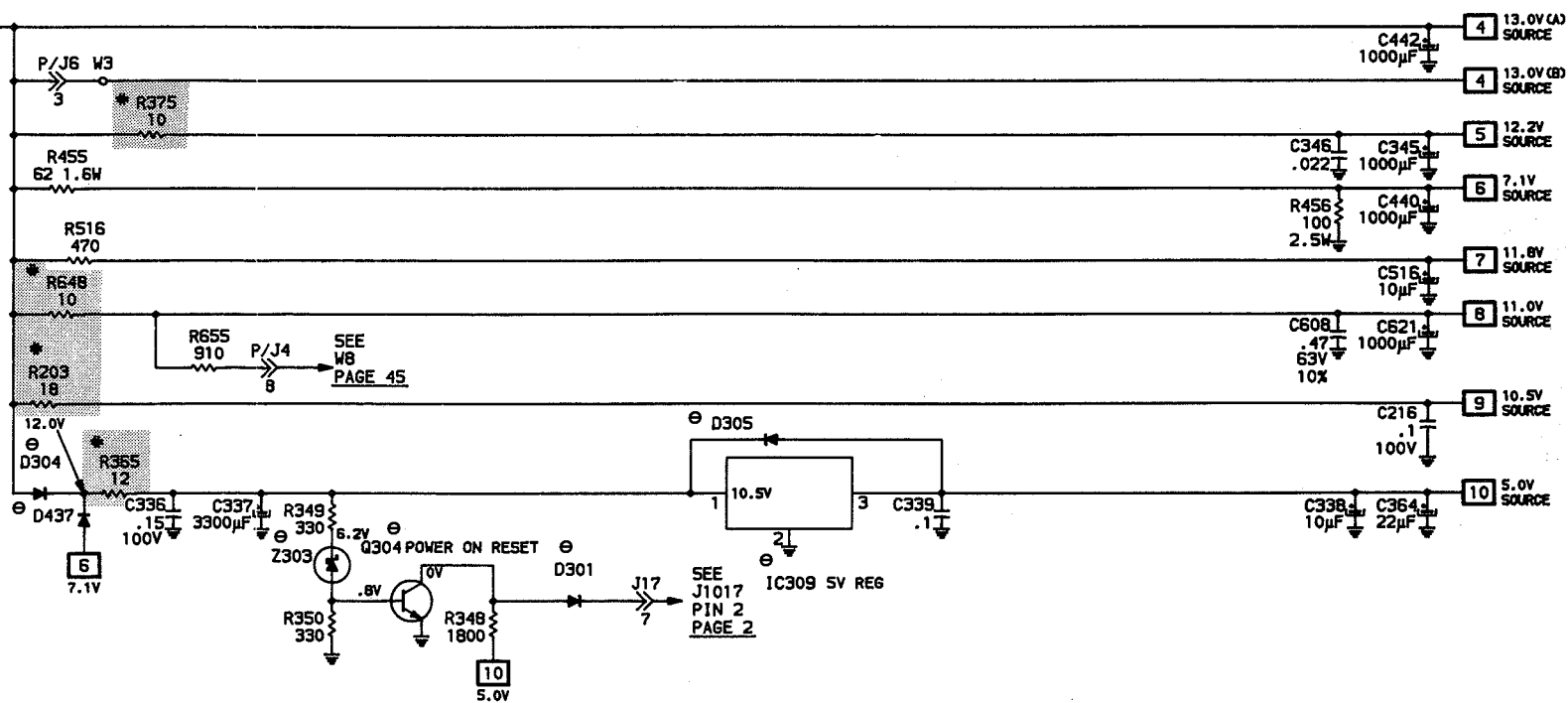
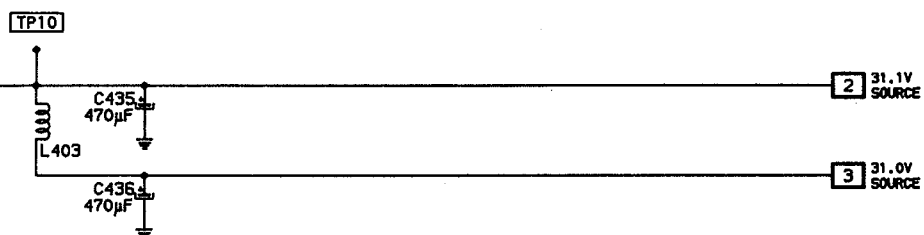
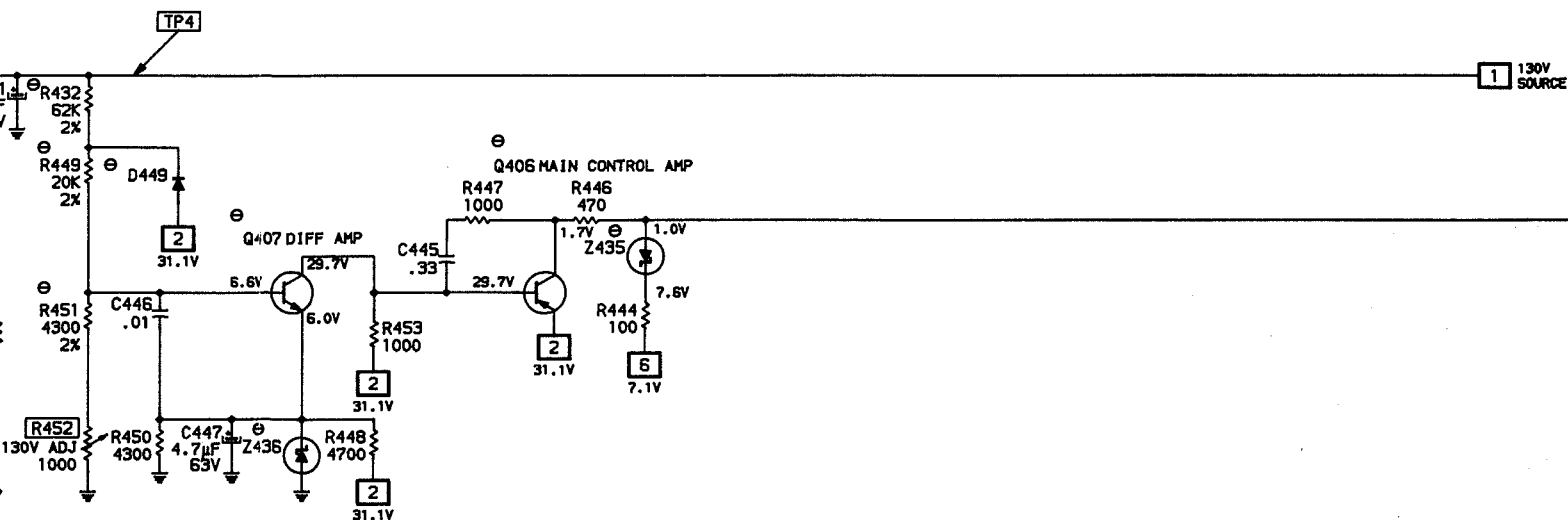
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SET 2654 FOLDER 2







POWER SUPPLY

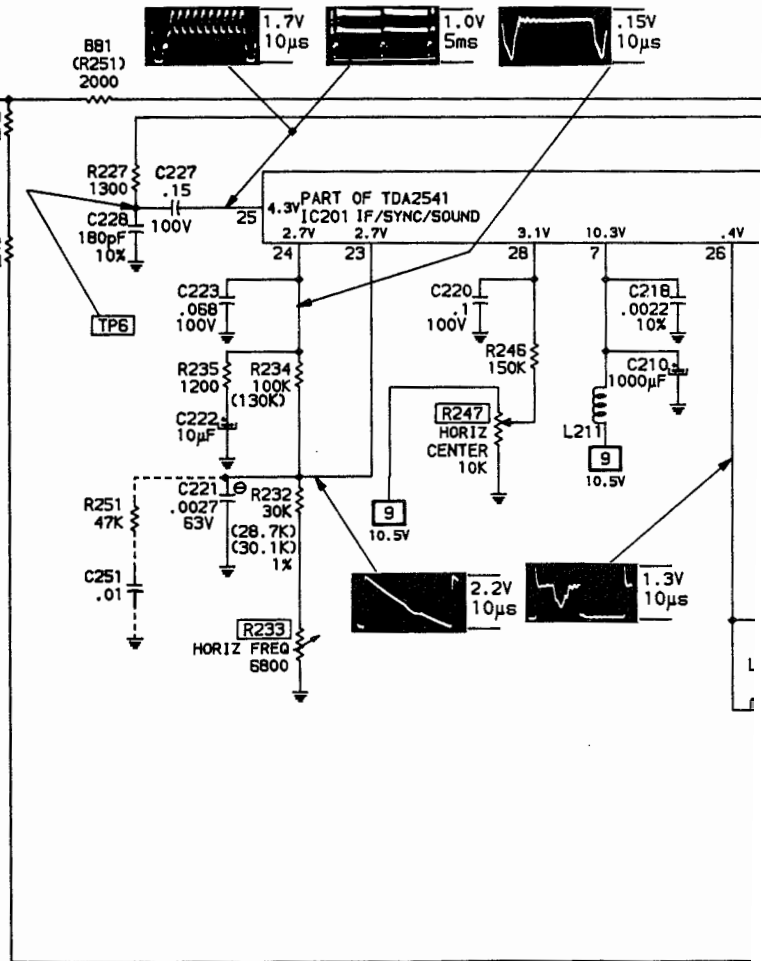
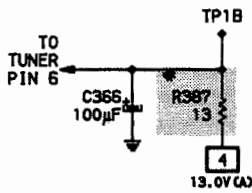
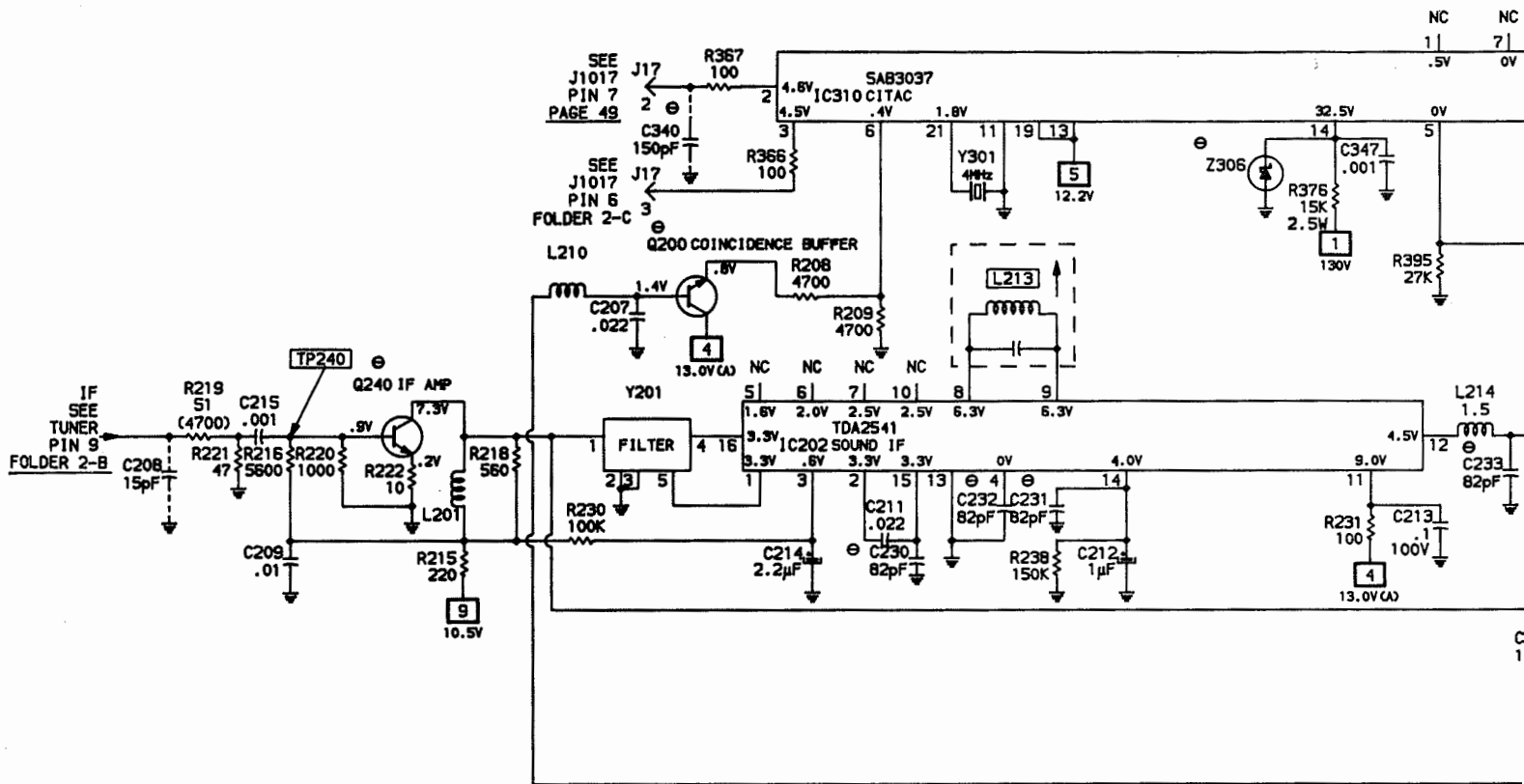
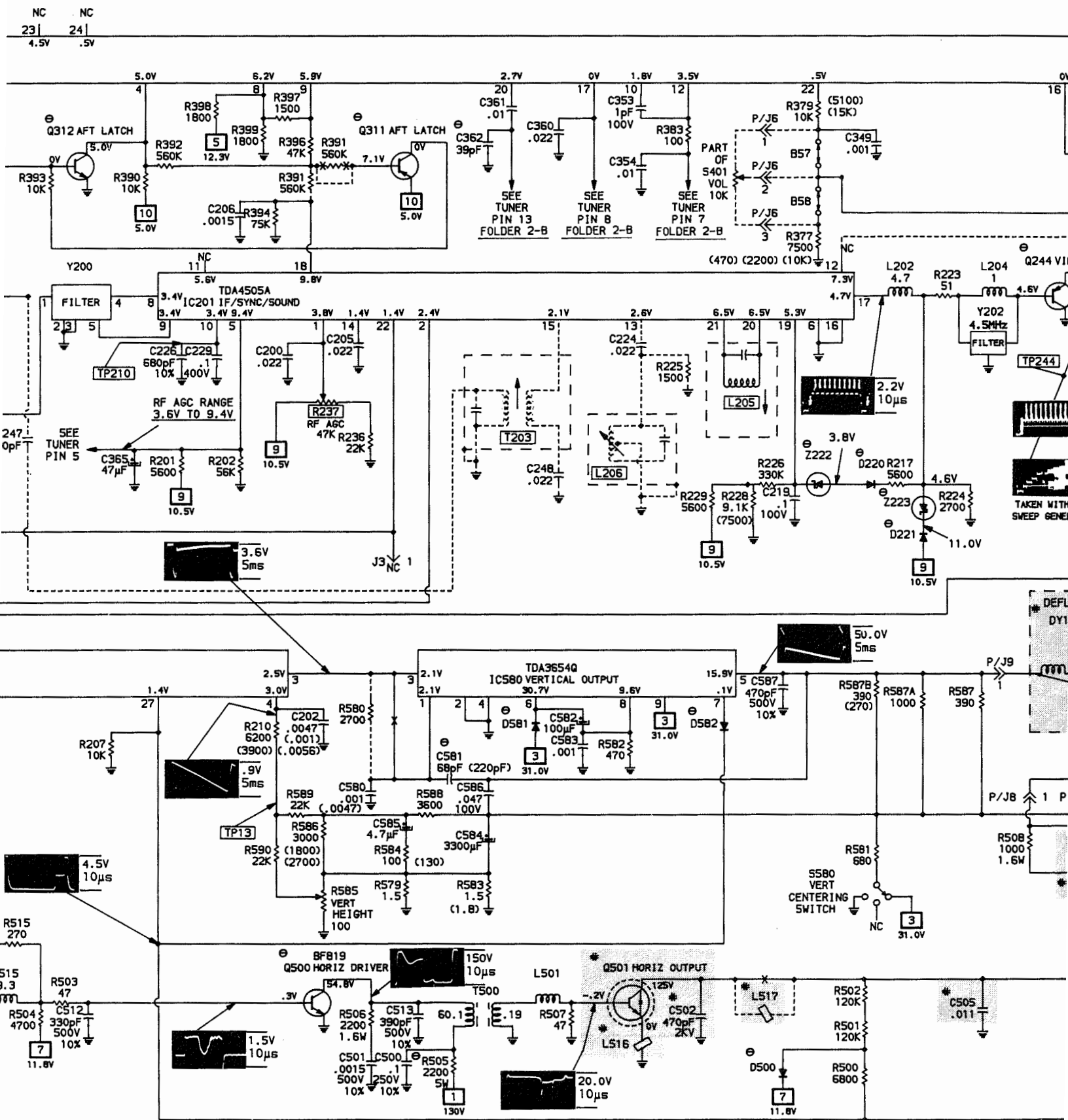


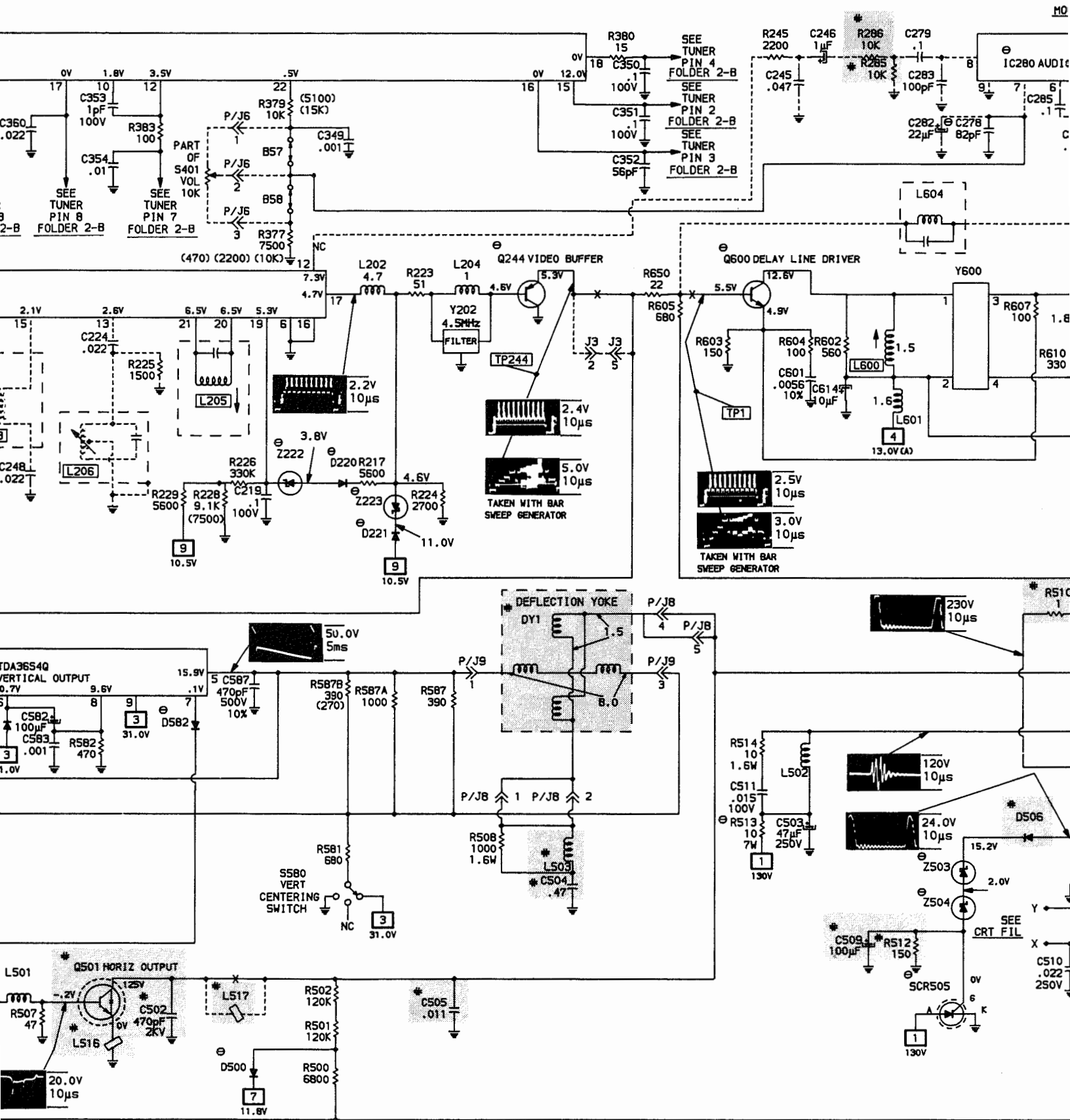
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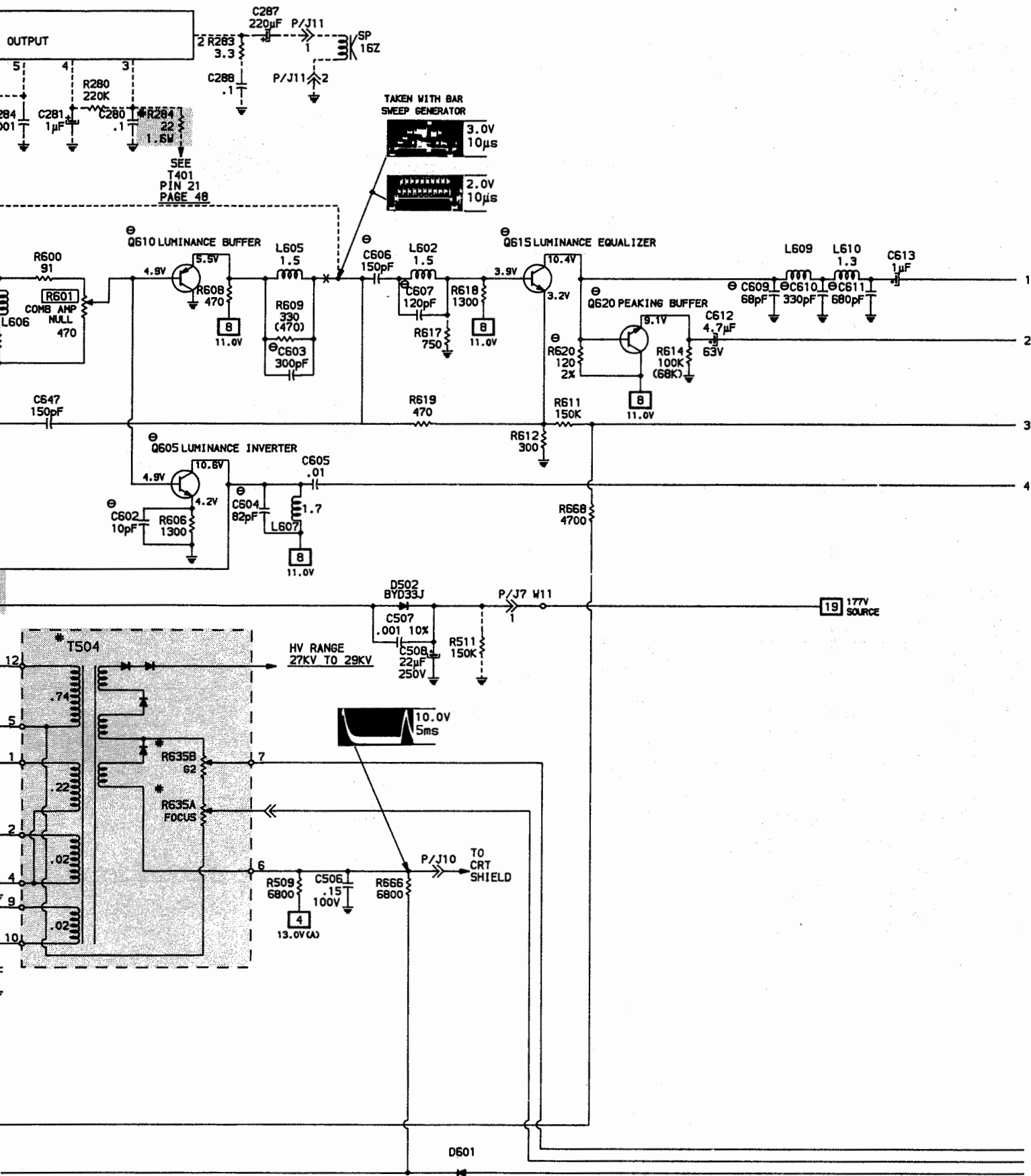
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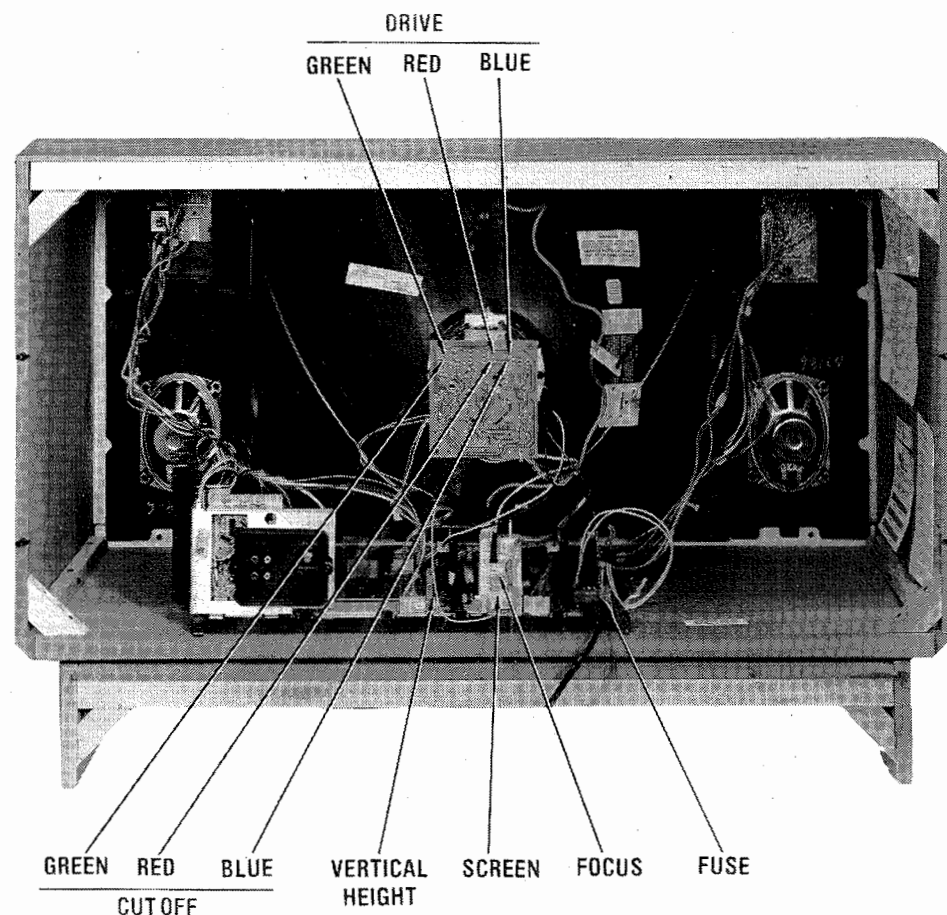
FOR TERMINAL GUIDES AND NOTES
SEE PAGE 34

A PHOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**









CABINET-REAR VIEW

DISASSEMBLY INSTRUCTIONS

CHASSIS REMOVAL

Remove five screws holding cabinet back and remove back. Disconnect speaker and antenna connectors. Channel readout may be removed at this point of disassembly. Remove one screw holding readout to cabinet front and remove assembly from cabinet. Disconnect HV anode, CRT socket, deflection yoke connectors, de-gaussing coil connector and ground leads. Remove six screws holding main board assembly

to cabinet bottom and remove assembly from cabinet.

CRT REMOVAL

Follow "Chassis Removal" procedure and lay set facedown on a soft protective surface. Loosen and remove CRT neck assemblies. Remove four screws holding CRT to cabinet front and lift CRT out of cabinet. Do not lift CRT by the neck.

SERVICING IN THE FIELD

CRT IMPLSION PROTECTION AND CLEANING

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

FUSE DEVICES

A 4-amp fuse is used for AC line protection. (See photo, Cabinet - Rear View.)

CHANNEL TUNING

Channel Up and Down buttons are provided for channel scanning. Add and Delete buttons are provided for channel pretuning. Ten numbered buttons on remote are provided for two-digit entry channel selection.

HORIZONTAL OSCILLATOR

Adjustment of the horizontal hold is accomplished by the proper setting of the Horizontal Frequency Control.

FOCUS

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

AGC

The AGC may be varied by an AGC control. (See Main Board photo.)

CENTERING

Vertical centering is accomplished by proper adjustment of the vertical centering switch. (See Main Board photo.)

SAFETY PRECAUTIONS

SERVICE WARNING

Service work should be performed only by qualified service technicians who are familiar with safety checks and guide lines.

1. For continued safety, no modification of any circuit should be attempted unless recommended by manufacturer.
2. Disconnect power source before replacing parts as some parts may be electrostatic sensitive.
3. Use an isolation transformer between the line cord and power receptacle, when servicing chassis.

SERVICING HIGH VOLTAGE AND PICTURE TUBE

When servicing the High Voltage circuits, extreme caution should be used.

1. Discharge static High Voltage by connecting a 10 kohms resistor in series with a test lead between chassis and anode lead of picture tube.
2. Wear shatter-proof eye protection (goggles) when handling the picture tube in case of implosion.
3. DO NOT lift picture tube by the neck.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Service personnel should be aware of the procedures and instructions covering x-ray radiation. The only potential source of x-ray in present day solid state receivers and monitors is the picture tube.

1. It is only when High Voltage is excessive that x-ray radiation is capable of being emitted from shell of picture tube. Be sure the High Voltage is set at specified level.
2. An accurate High Voltage meter should be available at all times. Meter calibration should be checked periodically.
3. High Voltage should be kept at rated value - NO HIGHER. Higher voltages may cause x-ray radiation or failure of other associated components. DO NOT depend on protection circuit to keep voltages at rated value.
4. Every time a chassis is serviced, High Voltage should be checked at various brightness levels to be sure it is regulating properly.
5. While troubleshooting a set with excessive High Voltage, avoid being close to picture tube. DO NOT operate longer than it is necessary to locate the cause of excessive High Voltage. Use a variable AC transformer to regulate voltage.
6. Many components, electrical and mechanical, in present chassis have safety related characteristics which are not evident with visual inspection. When these components are known, they are identified with a # on the schematic and in the parts list. When replacing these components, for SAFETY, use only an equivalent replacement part.

SAFETY CHECKS-FIRE AND SHOCK HAZARD

Cold Leakage Checks (Sets with isolated ground.)

1. Unplug the AC cord and connect a jumper across the two prongs on the plug.
2. Turn on power switch.
3. Measure the resistance, with an Ohm meter, between the jumpered AC plug and any exposed metal cabinet parts on the set such as: antenna screw heads, control shafts, handle brackets. Exposed metal parts that have a return path should measure between 200 kohms and 5 megohm. Parts without a return path must measure infinity.

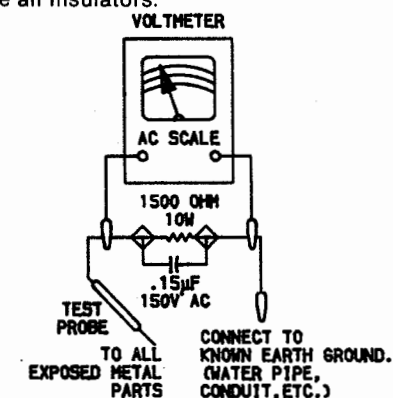
Leakage Current Hot Check

1. Plug the AC cord directly into AC outlet. DO NOT use an isolation transformer.
2. Connect a 1500 Ohm 10 watt resistor, in parallel with a .15μF 150V AC capacitor, between any exposed metal parts on the set and a good earth ground such as a water pipe. (See Figure below.)
3. Using an AC volt meter, with 1000 Ohms per volt or more sensitivity, measure the voltage across the resistor. Check each exposed part and measure voltage at each point.
4. Reverse the AC plug and repeat voltage measurement at each point.
5. The voltage at any point should not exceed .75 volts RMS. This corresponds to .5 milliamps AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected.

GENERAL GUIDE LINES

A final SAFETY check before returning the set to customer.

1. Check area repaired for poorly soldered or de-soldered connections. Check entire circuit board surface for solder splashes.
2. Check interboard wiring for pinched wires or wires contacting any high-wattage resistors.
3. Check that all control knobs, shields, covers, grounds and mounting hardware have been replaced. Be sure to replace all insulators.



MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

FOLDER 2

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

CAPACITORS

ITEM No.	RATING	MFGR. PART No.	ITEM No.	RATING	MFGR. PART No.
C204	82 NPO 50V 5%	2508418205	C607	120 NPO 50V 5%	2508411215
C208	15 NPO 50V 5%	2508411505	C609	18 NPO 50V 5%	2508411805
C230	82 NPO 50V 5%	2508418205		68 NPO 50V 5%	2508416805
C231	82 NPO 50V 5%	2508418205		22 NPO 50V 5%	2508412205
C232	82 NPO 50V 5%	2508418205		100 NPO 50V 5%	2508411015
C233	82 NPO 50V 5%	2508418205	C610	82 NPO 50V 5%	2508418205
C278	82 NPO 50V 5%	2508418205		330 N750 50V 5%	2508433315
C340	150 N220 50V 5%	2508421515		100 NPO 50V 5%	2508411015
C362	39 NPO 50V 5%	2508413905		470 N750 50V 5%	2508444715
C400	.22 120VAC	2509842240	C611	180 N220 50V 5%	2508421815
C439	68 N750 50V 5%	2508686805		680 N220 50V 10%	2508446819
C448	.0047 125VAC	2506260014		220 N220 50V 5%	2508422215
C502	470 2KV 10%	2508850004		.001 100V 5%	2508451025
C504	.47 400V 5%	2508050002	C615	15 N220 50V 5%	
	.43 400V 5%	2508050004		150 NPO 50V 5%	2508421515
C505	.011 2KV	2508181135	C624	100 NPO 50V 5%	2508411015
C602	10pF NPO 50V 10%	2508411008	C625	10pF NPO 50V 5%	2508411008
	4.7pF NPO 50V 10%	2508414798		4.7pF NPO 50V 10%	2508414798
C603	300 N750 50V 5%	2508433015		13 NPO 50V 5%	2508411305
C604	82 NPO 50V 5%	2508418205		2-40pF Trimmer	2602290001
C606	180 N220 50V 5%	2508421815			
	150 N220 50V 5%	2508421515			
	220 N220 50V 5%	2508422215			

For SAFETY use only equivalent replacement part.
Items Not Listed Are Normally Available At Local Distributors.

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

ITEM NO.	FUNCTION	RESISTANCE	MFGR. PART NO.	NOTES
R28	Red Drive	2200	2204202222	
R29	Red Cut-Off	4700	2204204722	
R33	Green Drive	2200	2204202222	
R41	Green Cut-Off	4700	2204204722	
R45	Blue Drive	2200	2204202222	
R48	Blue Cut-Off	4700	2204204722	
R201	Balance	50K	2204590011	
		Detent @ 50%		
R202	Bass	50K	2204590011	
		Detent @ 50%		
R203	Treble	50K	2204590011	
		Detent @ 50%		
R233	Horiz Freq Adjust	4700	2204804722 (1)	
		6800	2204806822 (2)	
R237	RF AGC	47K	2204804732	
R247	Horiz Centering Adjust	10K	2204801032	
R452	130V Adjust	1000	2204801022	
R585	Vert Height Adjust	100	2204801012	
R601	Comb Amp Null	470	2204804712	
R622	Color	10K	2304590001	
R623	Picture	10K	2304590001	
R624	Sharpness	10K	2304590016	
		Detent @ 50%		
R625	Brightness	10K	2304590001	
	Tint	10K	2304590001	

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

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

ITEM NO.	FUNCTION	RESISTANCE	MFGR. PART NO.	NOTES
R634	Color Osc Adjust	10K	2204801032	
R635A	Focus		(3)	
R635B	Screen		(3)	
R710	Volume Limiter	500	2204130027	

For SAFETY use only equivalent replacement part.
(1) Early Production.
(2) Late Production.
(3) Part of Horizontal Output Transformer #T504, Part No. 3620541002.

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		
		MFGR. PART No.	NTE PART No.	
R19	12K 2% 1/2W Carbon Film	2302821232	HW312	
R20	12K 2% 1/2W Carbon Film	2302821232	HW312	
R21	12K 2% 1/2W Carbon Film	2302821232	HW312	
R22	12K 2% 1/2W Carbon Film	2302821232	HW312	
R37	12K 2% 1/2W Carbon Film	2302821232	HW312	
R38	12K 2% 1/2W Carbon Film	2302821232	HW312	
R39	12K 2% 1/2W Carbon Film	2302821232	HW312	
R40	12K 2% 1/2W Carbon Film	2302821232	HW312	
R52	12K 2% 1/2W Carbon Film	2302821232	HW312	
R53	12K 2% 1/2W Carbon Film	2302821232	HW312	
R54	12K 2% 1/2W Carbon Film	2302821232	HW312	
R55	12K 2% 1/2W Carbon Film	2302821232	HW312	
R203	18 5% 1/2W Carbon Film	2302231805	HW018	
R232	30K 5% 1/8W Carbon Film	2303153035 (1)	EW330	
	30.1K 1% 1/8W Carbon Film	2303323012 (2)		
R284	22 5% 1.6W Metal Film	2303092295		
R365	12 5% 1/2W Carbon Film	2302231205	HW012	
R375	10 5% 1/4W Carbon Film	2302181005	QW010	
R387	13 5% 1/4W Carbon Film	2302181305	QW013	
R400	33 5% 1/4W Carbon Film	2302813305	QW033	
	20 5% 1/4W Carbon Film	2302812005		
R401	PTC 10.1 Cold	2302070008		
R402	10 5% 1/4W Carbon Film	2302811005	QW010	
	20 5% 1/4W Carbon Film	2302812005		
R403	NTC 18.4 Cold	2303240001		
R405	5600 5% 5W WW	2303315625	5W256	
R408	56 5% 5W WW	2400800143	5W056	
R416	1000 5% 1/8W Carbon Film	2303151025	EW210	
R419	8200 2% 1/4W Carbon Film	2303158222	EW282	
R420	1100 2% 1/4W Carbon Film	2302811122	QW211	
R422	56 5% 1/4W Metal Film	2302685695	QW056	
R430	56 5% 1/4W Metal Film	2302685695	QW056	
R432	62K 2% 1/4W Carbon Film	2302816232	QW362	
	56K 2% 1/8W Carbon Film	2302815632	EW356	
R433	1 5% 1/2W Carbon Film	2302231095	HW100	
R434	1 5% 1/2W Carbon Film	2302231095	HW100	
R449	20K 2% 1/4W Carbon Film	2302812032	QW320	
R451	4300 2% 1/2W Carbon Film	2303154322	HW243	
R454	4.7M 5% 1/2W Metal Film	2302674755	HW547	
R505	2200 5% 5W WW		5W222	
	2200 10% 5W WW	2400800181	5W222	

MAGNAVOX CHASSIS
25C80104/11/12/13/14/15,26C80406

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

RESISTORS (Power and Special)

ITEM No.	RATING	REPLACEMENT DATA		
		MFGR. PART No.	NTE PART No.	
# R510	1 5% 1/4W Carbon Film	2302181095	QW1D0	
# R512	150 5% 1/4W Carbon Film	2302811515	QW115	
R513	10 5% 7W WW	2400810125		
R620	120 2% 1/4W Carbon Film	2302811212	QW112	
# R648	110 2% 1/4W Carbon Film	2302811112	QW111	
	10 5% 1/2W Carbon Film	2302231005	HW010	

For SAFETY use only equivalent replacement part.
(1) Early Production Chassis.
(2) Late Production Chassis.

COILS (RF-IF)

ITEM No.	FUNCTION	MFGR. PART No.	ITEM No.	FUNCTION	MFGR. PART No.
L40	RF Choke (56uH)	3618135609	L502	RF Choke (27.4uH)	3620440001
L60	RF Choke (10uH)	3620410003	L503	Horiz Linearity	3620280003
L201	Peaking (0.68uH)	3618130680		Horiz Linearity	3620280001
L202	Peaking (3.3uH)	3618133399	L515	RF Choke (180uH)	3618131819
	Peaking (1.2uH)	3618131299	L600	Comb Phase	3619660003
L204	Peaking (4.7uH)	3618134799	L601	RF Choke (10uH)	3618131009
L205	Video IF	3617990008	L602	Peaking (10uH)	3618131009
L206	Sound Discriminator	3619680005	L604	3.58MHz Trap	3616910002
L210	Peaking (2.2uH)	3618132290	L605	Peaking (10uH)	3618131009
L211	RF Choke (2.2uH)	3618132290	L606	Peaking (18uH, 5%)	3618131805
L213	Audio Detector (45.7MHz)	3617990008	L607	RF Choke (15uH, 5%)	3618131505
	Peaking (12uH)	3618131209	L609	Peaking (12uH)	3618131205
# L400	Line Filter	3619150002		Peaking (15uH)	3618131505
	Line Filter	3619150003		Peaking (3.3uH)	3618133395
L402	RF Choke (3.3uH)	3618353395	L610	Peaking (27uH)	3618132705
L403	RF Choke (12uH)	3618351209		Peaking (33uH)	3618133309
L404	RF Choke (3.6uH)	3620430001		Peaking (6.8uH)	3618136895
L406	RF Choke (12uH)	3620410001	L614	Peaking (6.8uH)	3618136899
L414	RF Choke (5.3uH)	3620410002	L615	Peaking (6.8uH)	3618136899
L415	RF Choke (10uH)	3620410003	L616	Peaking (6.8uH)	3618136899
L416	RF Choke (1.0uH)	3618351099	Y600	Delay Line	3615790006
L501	RF Choke (3.75uH)	3620430001			

For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS

ITEM No.	FUNCTION	MFGR. PART No.	OTHER IDENTIFICATION	NOTES
# DY1	Yoke Horiz 1.39mH 100° Vert 15.6mH	3620470002 (2) or	362047-2 (1)	
# T401	Switch Mode	3620570001	3112 338 31041(1)	
# T500	Horiz Drive	3204030003	30541 (1)	
# T504	Horiz Output	3620541002	362054-2B (1)	

For SAFETY use only equivalent replacement part.
(1) Number on unit.

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
Z408	5301571220	NTE5030A	ECG5030A	SK22A/5030A	103-144	
Z417	5301571130	NTE5021T1	ECG5021T1			
Z435	5303020003	NTE5013A	ECG5013A	SK6A2/5013A	103-Z9008	
Z436	5302541039	NTE5013T1	ECG5013T1			
	5303291629					
Z503	5302491160	NTE5010A	ECG5010A	SK5A1/5010A	103-279-10	# #
Z504	5302491519					

For SAFETY use only equivalent replacement part.
+ Rotate 180° to conform with original lead configuration.

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MFGR. PART No.	ITEM No.	RATING	MFGR. PART No.
C402	220 10V 22 35V	2702152210 2702152135	C509	100 25V	2702151225

For SAFETY use only equivalent replacement part.
Items Not Listed Are Normally Available At Local Distributors.

WIRING DATA

High Voltage Lead	Use BELDEN No. 9867 (30 KV)
Shielded Hook-up Wire	Use BELDEN No. 8401 or 8421 (Single-Conductor)
General-use Unshielded Hook-up Wire	Use BELDEN No. 8208 (Two-Conductor)
300-Ohm Tuner Input Lead	Use BELDEN No. 8529 (Solid) Available in 13 Colors
75-Ohm Tuner Input Lead	Use BELDEN No. 8522 (Stranded) Available in 13 Colors
300-Ohm Antenna Lead-In	Use BELDEN No. 8225
Antenna Rotor Cable	Use BELDEN No. 8241
	Use BELDEN No. 8275 (Foam Core) or 8285 (Foam Jacketed)
	Use BELDEN No. 8464 (Flat) or 8484 (Round) 4-Conductor
	Use BELDEN No. 8485 (Round) 5-Conductor
	Use BELDEN No. 8488 (Round) 8-Conductor

25C801/04/11/12/13/14/15,26C804/06

MAGNAVOX CHASSIS

FOLDER 2

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
Q240	6104420001	NTE319P	EOG319P	SK9432/319P	121-Z9021	#
Q244	6104340001	NTE159	EOG159	SK3466/159	121-Z9003	
Q304	6104350001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q311	6104340001	NTE159	EOG159	SK3466/159	121-Z9003	
Q312	6104350001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q400	6105320003	NTE2315	EOG2315			
Q402	C327(EUROPE)	NTE159	EOG159	SK3466/159	121-Z9003	
	6103690001	NTE159	EOG159	SK3466/159	121-Z9003	
Q403	6105000001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q406	C557(EUROPE)	NTE159	EOG159	SK3466/159	121-Z9003	
	6104980001	NTE159	EOG159	SK3466/159	121-Z9003	
Q407	6105000004	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q410	6104350001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q431	6103600001	NTE288	EOG288	SK3434/288	121-Z9046	
Q432	C3038	NTE51	EOG51	SK9452/51		
	6105510001	NTE51	EOG51	SK9452/51		
Q500	BF819	NTE198	EOG198	SK3220/198	121-Z9028	#
	6105310001	NTE198	EOG198	SK3220/198	121-Z9028	
Q501	6104330002	NTE2302	EOG2302	SK9422		
Q600,605	6104350001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
Q610	6104340001	NTE159	EOG159	SK3466/159	121-Z9003	
Q615,620	6104350001	NTE123AP	EOG123AP	SK3854/123AP	121-Z9000A	
SCR401	BT138-500	NTE56008	EOG56008	SK3660/56008		
	6110190001	NTE56008	EOG56008	SK3660/56008		
SCR505	611018-1	NTE5456	EOG5457	SK3598/5457	185-Z9010	
	6110180001	NTE5456	EOG5457	SK3598/5457	185-Z9010	
Z222	5301571439	NTE5008A	EOG5008A	SK4A3/5008A	103-Z79-08	-A001 CHASSIS -B002 & LATER CHASSIS
Z223	5302491759	NTE5015A	EOG5015A	SK7A5/5015A	103-Z9002	
Z223	5302491829					
Z303	5301571569	NTE5011A	EOG5011A	SK5A6/5011A	103-Z9007	
Z306	5301571330	NTE5036A	EOG5036A	SK33A/5036A	103-Z9004	

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" X 6" PM 16 Ohms	5846120001		

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
# F400	Fuse	1815205400	4 Amp @ 125VAC
L400A	Degaussing Coil	3620210003	
L405	Ferrite Bead	3640460003	
L409	Ferrite Bead	3640460001	
L410	Ferrite Bead	3640460003	
L411	Ferrite Bead	3640050001	
L413	Ferrite Bead	3640050001	
L417	Ferrite Bead	3640460003	
L418	Ferrite Bead	3640460001	
L516	Ferrite Bead	3640460001	
L518	Ferrite Bead	3640460001	Cable/Normal (ASC197) Secondary Control Cable/Normal (ASC199) Secondary Control Cable/Normal (ASC201) Secondary Control Channel Select/Display Module ADP017 Vertical Centering
S104	Switch	1606730004	
	Switch	1607110001	
	Switch	1607100007	
S451	Switch	1607160001	
S580	Switch	1606720001	
Y200	Filter	3620600001	
Y201	Filter	3620700001	
Y202	Filter	3617560001	
Y301	Crystal	5604440010	
Y601	Crystal	5604450002	7.1590MHz UHF/RUSSELL Replacement Antenna BOW-4H VHF/RUSSELL Replacement Assembly BEA-1H
	Antenna		
	Antenna Balun		
	Cord	3618050001	
	CRT	4614070006	
	Magnet	A63AAM01XP	
	Module	3615730008	
	Module	ADP017	
	Module	ADP021	
	Module	ADP023	
	Module	ATU001	Convergence & Purity Channel Select/Display Channel Select/Display Channel Select/Display Channel Select/Display TS12A Tuning System Module TS12A Tuning System Module TS12C Tuning System Module TS12C Tuning System Module TS12C Tuning System Module Main Board Assembly Main Board Assembly Main Board Assembly CRT Socket Board Secondary Control Secondary Control Secondary Control Secondary Control Secondary Control Cable/Normal Switch
	Module	ATU002	
	Module	ATU006	
	Module	ATU008	
	Module	ATU009	
	Module	EMC804	
	Module	EMC806	
	Module	EMC814	
	Module	APT030	
	Module	ASC184	
	Module	ASC197	Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly Tuner Control Unit Assembly
	Module	ASC198	
	Module	ASC199	
	Module	ASC201	
	Module	ASW060	
	Module	ATC377	
	Module	ATC451	
	Module	ATC452	
	Module	ATC453	
	Module	ATC454	
	Module	ATC477	
	Module	ATC458	Tuner Control Unit Assembly Tuner Control Unit Assembly
	Module	ATC459	
	Module	ATC460	Tuner Control Unit Assembly Tuner Control Unit Assembly
	Module	ATC483	

25C801/04/1/1/2/13/14/15,26C804/06

MAGNAVOX CHASSIS

FOLDER 2

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
	Module	ATU001	TS12A Tuning System
	Module	ATU006	TS12C Tuning System
	Module	ATU007	TS12B Tuning System
	Module	340293	Varactor Tuner
	Module	340297	Varactor Tuner
	Module	7050560010	Volume/On-Off Control Assembly
	Module	7050560011	Volume Control Assembly
	Module	7050560012	Volume Control Assembly
	Wedge	6458520001	Yoke (3 used)

For SAFETY use only equivalent replacement part.

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

ITEM	PART No.	PART No.	PART No.
MODEL	CG4600PE01	CG4712AK01	CG4716PE01
Cabinet, Back	6457570001	6457570001	6457710001
Mask	1444980048	1451860039	1451860039
Button-Cabinet Back (2 used)	1416240001	1416240001	1416240001
Castors (4 used)		1204170002	1204170002
Clip-Back	7348370001	7348370001	7348370001
Control Head	1455140004	1455140005	1455140005
Cup-CRT	1458110001	1458110001	1458110001
Door-Secondary Control	1455130005	1455130005	1455130005
Door Assembly-Secondary Control	7050580010	7050580011	7050580011
Front Base & Drawer		1452020002	1456540006
Glide-Plastic (4 used)	1209760006	1209760006	
Grille Cloth		4011080010	4011080013
Grille Cloth Assembly	4011570005		
Handle-Door	1453490002	1453490002	1453490002
Housing Control	1454540007	1454540012	
Housing Control/Speaker			1444170004
Inlay-Door	1520070009	1520070010	1520070010
Inlay-Secondary Controls	1520060004	1520060006	1520060006
Inner Frame	1444990016	1444990016	1444990016
Knob-On/OFF/Volume	1449540004	1449540004	1449540004
Knob-Channel Select	1454430001		
LED-Channel Display	5303030001	5303200002	5303200002
Lens-Control	1455120005	1458230004	1458230004
Overlay-Speaker	1442320003	1444170004	1455360014
Phono Plug	1810950003		
Pushbutton (1)		1455360014	1455360014
Pushbutton (2)		1455360015	1455360015
Pushbutton (3)		1455360016	1455360016
Pushbutton (4)		1455360017	1455360017
Pushbutton (5)		1455360018	1455360018
Pushbutton (6)		1455360019	1455360019
Pushbutton (7)		1455360020	1455360020
Pushbutton (8)		1455360021	1455360021
Pushbutton (9)		1455360022	1455360022
Pushbutton (0)		1455360023	1455360023
Pushbutton-Channel Down		1455360024	1455360024
Pushbutton-Channel Up		1455360025	1455360025
Socket-Castor (4 used)		1414830001	1414830001

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
D437	5302990001	NTE177	ECG177	SK9091/177	103-131	USED LATE VERSIONS -E005 CHASSIS ONLY #
D438	5301810001	NTE177	ECG177	SK9091/177	103-131	
D449	5301810001	NTE177	ECG177	SK9091/177	103-131	
D450	5301810001	NTE177	ECG177	SK9091/177	103-131	
D500	5301810001	NTE177	ECG177	SK9091/177	103-131	
D502	BYD33J	NTE580	ECG580	SK5036/580	212-29000	LATE PRODUCTION MONO CHASSIS ONLY
D506	5303100003	NTE580	ECG580	SK5036/580	212-29000	
D581	5302660001	NTE177	ECG177	SK9091/177	103-131	
D582, 601	5302990001	NTE177	ECG177	SK9091/177	103-131	
D702	5301810001	NTE177	ECG177	SK9091/177	103-131	
IC201	TD44505A					-E005 CHASSIS
IC202	6125070001	NTE1413	ECG1413	SK7635/1413		
IC202	TD42541	NTE1413	ECG1413	SK7635/1413		
IC202	6121260001					
IC202	6125880001					
IC280	6124670001					-E005 CHASSIS
IC309	612479-1	NTE960	ECG960	SK3591/960	221-29043	
IC310	6124790001	NTE960	ECG960	SK3591/960	221-29043	
IC310	SAB3037					
IC310	6125450001					
IC404	PS2021	NTE3041	ECG3041	SK2041/3041		-E005 CHASSIS
IC580	5302980001	NTE3041	ECG3041	SK2041/3041		
IC640	TD43654Q	NTE1567	ECG1567	SK7805/1567		
IC640	6124440001	NTE1567	ECG1567	SK7805/1567		
IC640	TD43564					
IC640	6125080001					-E005 CHASSIS
IC640	6126150001	NTE171	ECG171	SK3201/171	121-822	
Q26	6102500003	NTE159	ECG159	SK3466/159	121-29003	
Q35	6104340001	NTE171	ECG171	SK3201/171	121-822	
Q40, 47	6102500003	NTE123AP	ECG123AP	SK3854/123AP	121-29000A	
Q200	6104350001					

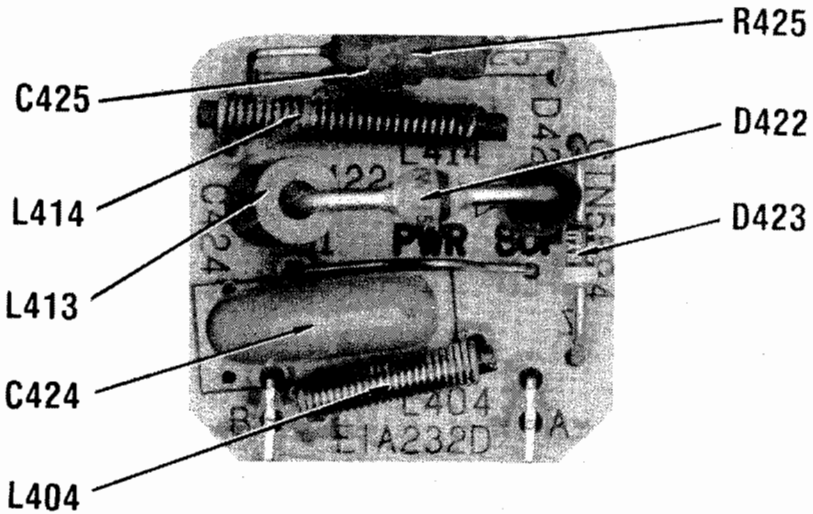
MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

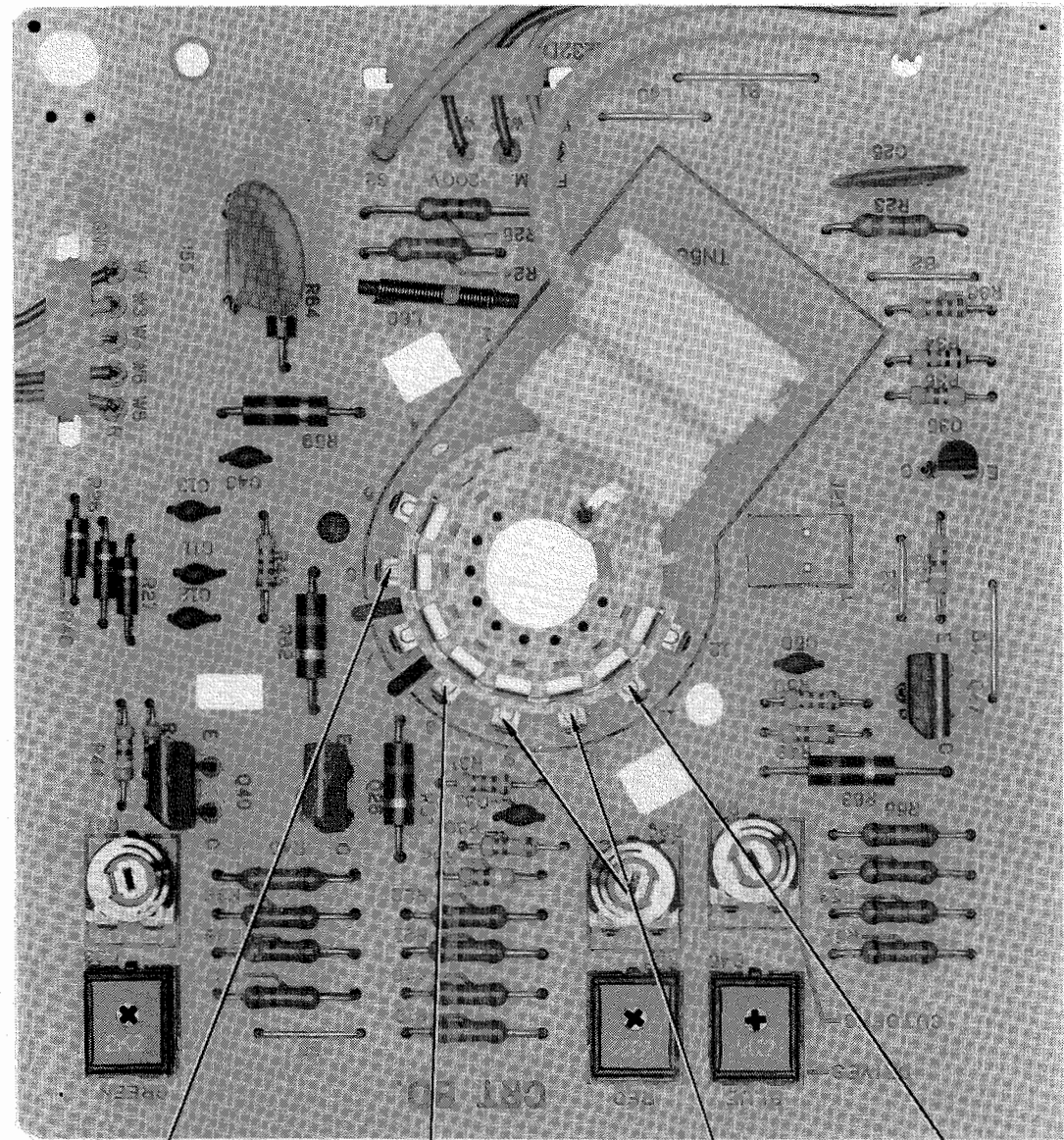
PARTS LIST AND DESCRIPTION

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFG. PART No./ TYPE No.	/					NOTES
		NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.		
D220, 221, 301 D304 D305 D402 D402	5301810001 5302990002 5301810001 5301810001 5302990002	NTE177 NTE177 NTE177	ECG177 ECG177 ECG177	SK9091/177 SK9091/177 SK9091/177	103-131 103-131 103-131	-A001 CHASSIS -B002 & LATER CHASSIS	
D404 THRU D407	1N5062	NTE506	ECG506	SK3175A	212-Z9007		
D409	5302620001	NTE506	ECG506	SK3175A	212-Z9007		
D414	5303100003	NTE580	ECG580	SK5036/580	212-Z9000		
D415	5302990001	NTE580	ECG580	SK5036/580	212-Z9000		
D416	5302600002	NTE580	ECG580	SK5036/580	212-Z9000		
D418	5302990001	NTE177	ECG177	SK9091/177	103-131		
D419	5301810001	NTE177	ECG177	SK9091/177	103-131		
D420, 21 D422	5301810001 BYW95C 5303051003	NTE177 NTE580 NTE580	ECG177 ECG580 ECG580	SK9091/177 SK5036/580 SK5036/580	103-131 212-Z9000 212-Z9000		
D423	BYD33J 5303101003	NTE580 NTE580	ECG580 ECG580	SK5036/580 SK5036/580	212-Z9000 212-Z9000		
D424	BYV95C 5302600002	NTE580 NTE580	ECG580 ECG580	SK5036/580 SK5036/580	212-Z9000 212-Z9000		
D425	BZV46-1V5 5303010002	NTE580	ECG580	SK5036/580	212-Z9000		
D431 D431	5302680001 5302600001	NTE519 NTE580	ECG519 ECG580	SK3100/519 SK5036/580	103-131 212-Z9000	-A001 CHASSIS -B002 & LATER CHASSIS	
D432	BYV27-150 5303260003	NTE588	ECG588				
D433	BYV33J 5303100003	NTE580 NTE580	ECG580 ECG580	SK5036/580 SK5036/580	212-Z9000 212-Z9000		
D434	BYV95C 5302600002	NTE580 NTE580	ECG580 ECG580	SK5036/580 SK5036/580	212-Z9000 212-Z9000		





V1 PIN 6
GREEN OUTPUT



V1 PIN 8
RED OUTPUT



V1 PINS 9-10
FILAMENT

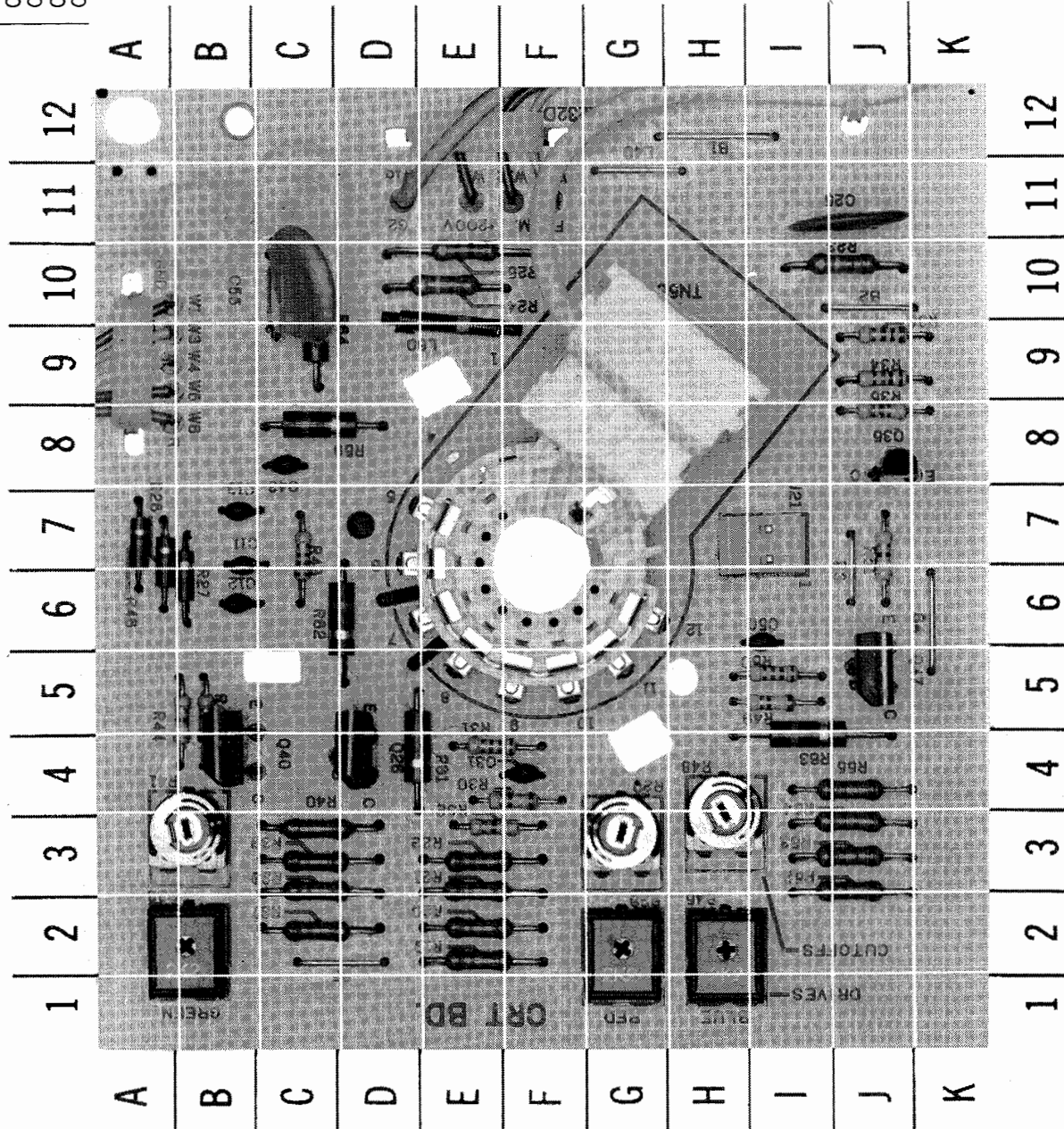


V1 PIN 11
BLUE OUTPUT

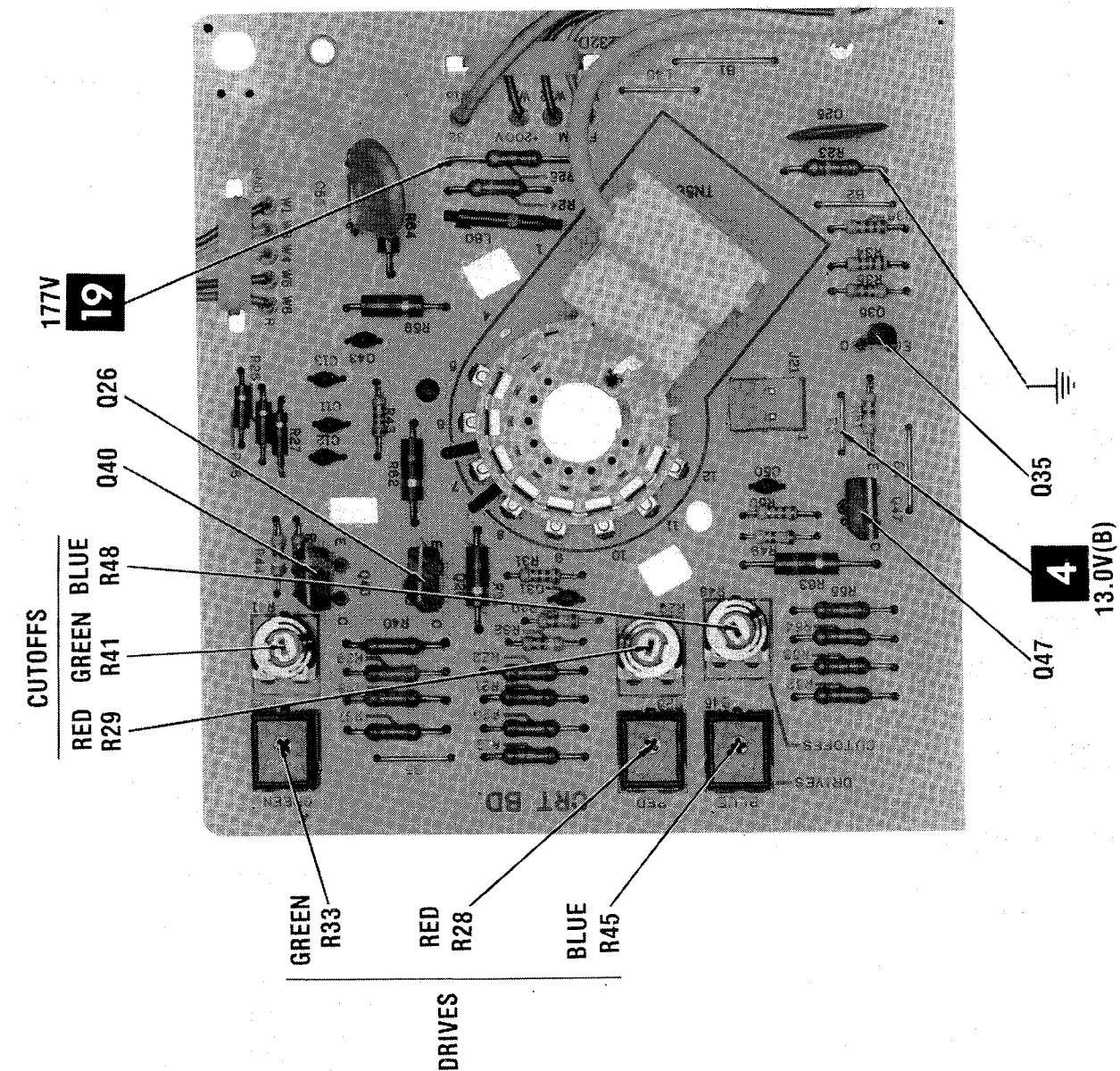
CRT BOARD

GridTrace LOCATION GUIDE

C11	C43	C-8
C12	B-7	I-6
C13	B-6	C-10
C25	B-7	I-7
C31	J-11	E-10
	F-4	D-4
		J-8
		B-4
		J-5
		E-2
		E-2
		E-3
		E-3
		I-10
		E-10
		E-10
		A-7
		B-6
		G-2
		G-6
		F-4
		E-4
		E-3
		B-2
		J-9
		J-9
		C-2
		C-3
		C-3
		C-3
		B-3
		B-5
		C-7
		B-5
		H-2
		A-7
		H-3
		I-5
		I-5
		J-7
		J-3
		J-3
		J-4
		C-8
		D-6
		I-4
		C-9



MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06



TROUBLESHOOTING AID

Note: Waveforms taken with triggered scope, Keyed-Rainbow generator. Schematic voltages measured with digital meter, no signal. Controls adjusted for normal operation.

PICTURE or SOUND

NO PIC, NO SOUND, NO RASTER: Check AC power supply and sources generated from Horizontal Output Transformer (T504). Refer to "Troubleshooting" Power Supply and Horizontal circuits.

NO PIC, NO SOUND, HAS RASTER: Check IF-AGC and source voltages from Horizontal Output Transformer (T504). Refer to "Troubleshooting" IF-AGC and Horizontal circuits.

NO PIC, HAS SOUND, NO RASTER: Check Horizontal Output Transformer (T504) sources and Video circuit. Refer to "Troubleshooting" Horizontal and Video circuits.

NO PIC, HAS SOUND, HAS RASTER: Refer to "Troubleshooting" Video circuit.

HAS PIC, NO SOUND: Refer to "Troubleshooting" Audio circuit.

OVERLOADED PICTURE: Refer to "Troubleshooting" IF-AGC circuit.

LOW OR EXCESSIVE BRIGHTNESS: Check Video and Luminance circuits. Refer to "Troubleshooting" Video circuit.

SWEEP

NO RASTER, HAS SOUND: Check HV rectifier, Part of Horizontal Output Transformer (T504). Refer to "Troubleshooting" Horizontal circuit.

NO RASTER, NO SOUND: Refer to "Troubleshooting" Horizontal circuit.

NO VERT DEFLECTION: Refer to "Troubleshooting" Vertical circuit.

POOR VERT LIN OR FOLDOVER: Refer to "Troubleshooting" Vertical circuit.

POOR HORIZ LIN OR FOLDOVER: Refer to "Troubleshooting" Horizontal circuit.

NARROW PICTURE: Refer to "Troubleshooting" Horizontal circuit.

VERT OFF FREQUENCY: Refer to "Troubleshooting" Vertical circuit.

HORIZ OFF FREQUENCY: Refer to "Troubleshooting" Horizontal circuit.

SYNC

NO VERT/HORIZ SYNC: Refer to "Troubleshooting" Sync circuit.

RASTER

YELLOW (NO BLUE): Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

CYAN (NO RED): Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

MAGENTA (NO GREEN): Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

COLOR (B/W operating normally)

NO COLOR: Refer to "Troubleshooting" Chroma circuit.

WEAK COLOR: Refer to "Troubleshooting" Chroma circuit.

NO COLOR SYNC: Refer to "Troubleshooting" Chroma circuit.

NO GREEN: Check Chroma and Green Output circuits. Refer to "Troubleshooting" Raster circuit.

NO BLUE: Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

NO RED: Check Chroma and Red Output circuits. Refer to "Troubleshooting" Raster circuit.

INCORRECT HUE (TINT): Refer to "Troubleshooting" Chroma circuit.

TEST JIG HOOKUP

FUNCTION	Chek-A-Color ADAPTER NO.
CRT YOKE YOKE SETTING	B239 YP1 Focus Tap

TROUBLESHOOTING

POWER SUPPLY DESCRIPTION

When 120V AC is supplied to the set, 158V* is developed at TP22. The voltage developed at TP22 is simultaneously applied to Switch Mode Regulator Transistor (Q400), Duty Cycle Control Transistors (Q402, Q403) through Resistors and Switched Mode Transformer (T401) to initialize the power supply into operation. After the circuit has been pulsed into operation, its operation is sustained by feedback pulses from Horizontal Output Transformer (T401) and bias voltages from Opto Isolator IC (IC404) and Main Control Amp Transistor (Q406) and Differential Amp Transistor (Q407). The pulses developed by Transformer T401 are rectified by diodes to provide operating voltages for the rest of the set. Diodes D431 and D433 provide a rectified operating voltage for Mode Switch Transistor (Q410), Standby Power Switch Transistors (Q431, Q432) and Voltage Regulator IC (IC309) in Standby mode. In Standby mode the Power Supply is operating at a reduced potential because of the loading provided by Transistors Q410, Q431, Q432, IC309 and the 13.0V applied across Zener Diode Z435. In Standby mode 18.9V is present at TP4; 2.87V at TP5; 4.4V at TP8; 3.8V at TP10; Transistor Q402 E-4.9, B-5.1V, C-1.9V; Transistor Q403 E-1.9V, B-1.7V, C-5.1V; Transistor Q406 E-3.8V, B-3.8V, C-9.9V and Transistor Q407 E-1.8V, B-9.6V, C-3.8V. When the Power button is depressed, Transistor Q410 is turned on which turns off Transistor Q432. This action removes the 13.0V across Zener Diode Z435 and the load provided by Transistors Q410, Q431 and Q432, enabling the Power supply to go to full Power mode, thus providing the proper operating voltages for the rest of the set.

* With respect to isolated ground.

POWER SUPPLY

Check the AC Fuse F400. If fuse is open, check Bridge Rectifier Diodes D404 thru D407, Capacitors C400, C404 thru C407, Thermistor R401, Electrolytic C403 and Switch Mode Regulator Transistor (Q400). Apply 120V AC and check for 155V* at the collector of Transistor Q400. If this voltage is absent, check Line Filter (L400), Thermistor R403 and the winding of Switched Mode Transformer (T401) from pins

5 to pins 7. If 155V* is present at the collector of Transistor Q400, depress the Power Switch and check for 130V at TP4. If this voltage is absent, check the voltages, waveforms and components associated with Transformer T401, Transistor Q400, Duty Cycle Control Transistors (Q402, Q403), Differential Amp Transistor (Q407), Main Amp Control Transistor (Q407), Standby Power Switch Transistors (Q431, Q432) and Mode Switch Transistor (Q410). If 130V is present at TP4, refer to the "Horizontal" section of this Troubleshooting guide. If Transformer T401 is being overloaded by a short or other condition, a very loud high frequency sound will be heard coming from the set.

* With respect to isolated ground.

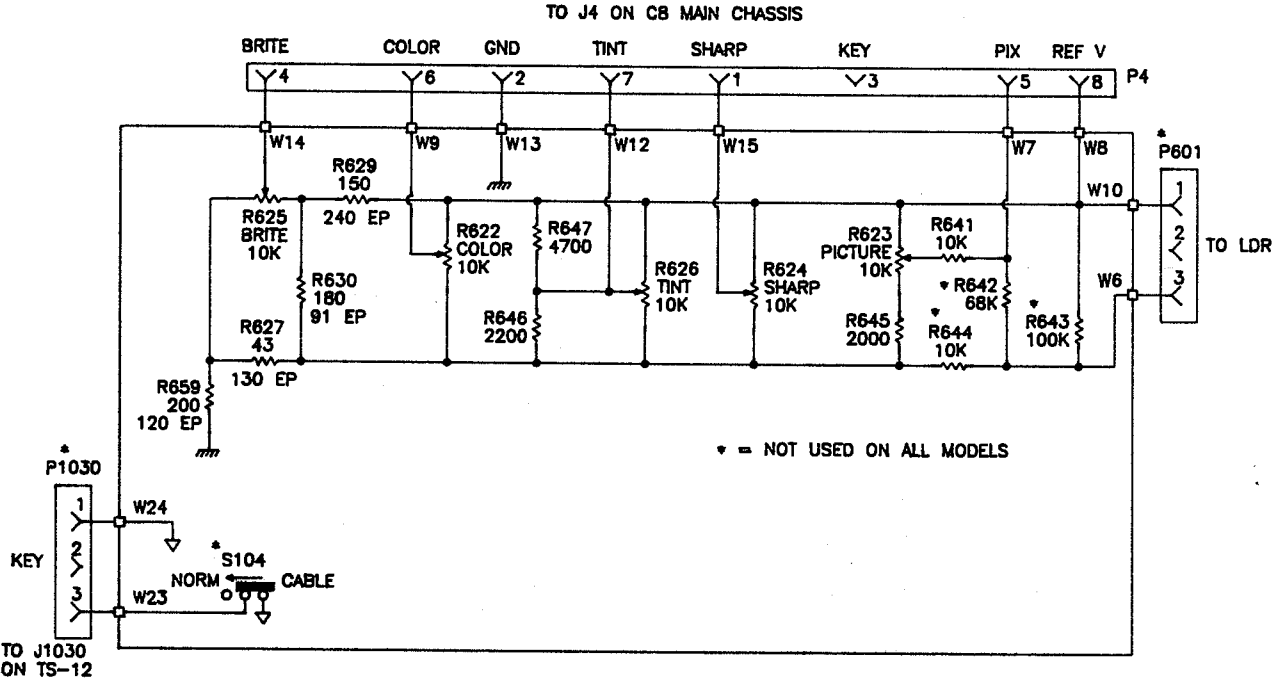
HORIZONTAL

Determine if the TV is in shutdown, refer to the "High Voltage Shutdown" section of this Troubleshooting guide. If the TV is not in shutdown, inject a horizontal signal at the base of the Horizontal Output Transistor (Q501). If horizontal deflection is now present, check the voltages, waveforms and components associated with pins 7, 23 thru 28 of IF/Sync/Sound IC (IC201) and the Horizontal Driver Transistor (Q500). If there is still no horizontal sweep, check the voltages, waveforms and components associated with Transistor Q501 and the Horizontal Output Transformer (T504). Check Diodes D502, D506 and associated components for defects. The high voltage rectifier is part of Transformer T504 and if defective will affect the performance of the horizontal circuits. If the horizontal oscillator is off frequency, check the voltages, waveforms and components associated with pins 23, 24 and 28 of IC201. Horizontal linearity or width problems may be caused by Capacitors C501, C502, C504 and C505 being defective.

HIGH VOLTAGE SHUTDOWN

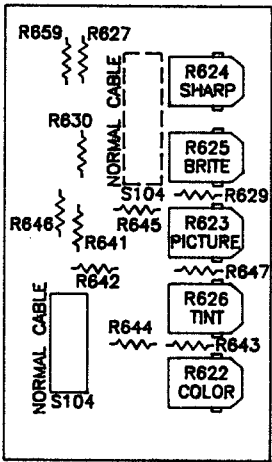
The high voltage is monitored by Diode D506 rectifying pulses from the Horizontal Output Transformer (T504) and applying the voltage to the cathode of Zener Diode Z503. Should the high voltage increase, the rectified voltage at the cathode of Zener Diode Z503 will also

ASC184,ASC197,ASC198,ASC199 & ASC201
SCHEMATIC DIAGRAM

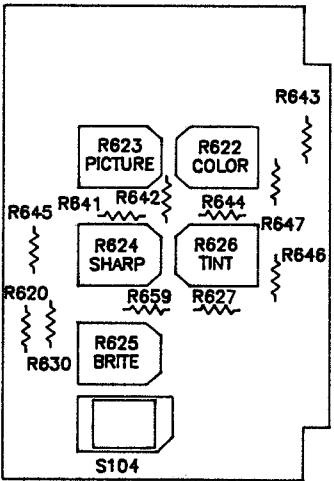


A PHOTOFACT STANDARD NOTATION SCHEMATIC
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ASC184,ASC198,
ASC199 & ASC201
SECONDARY CONTROL
MODULE P.C. BOARD
OVERLAY
(COMPONENT VIEW)



ASC197
SECONDARY CONTROL
MODULE P.C. BOARD
OVERLAY
(COMPONENT VIEW)

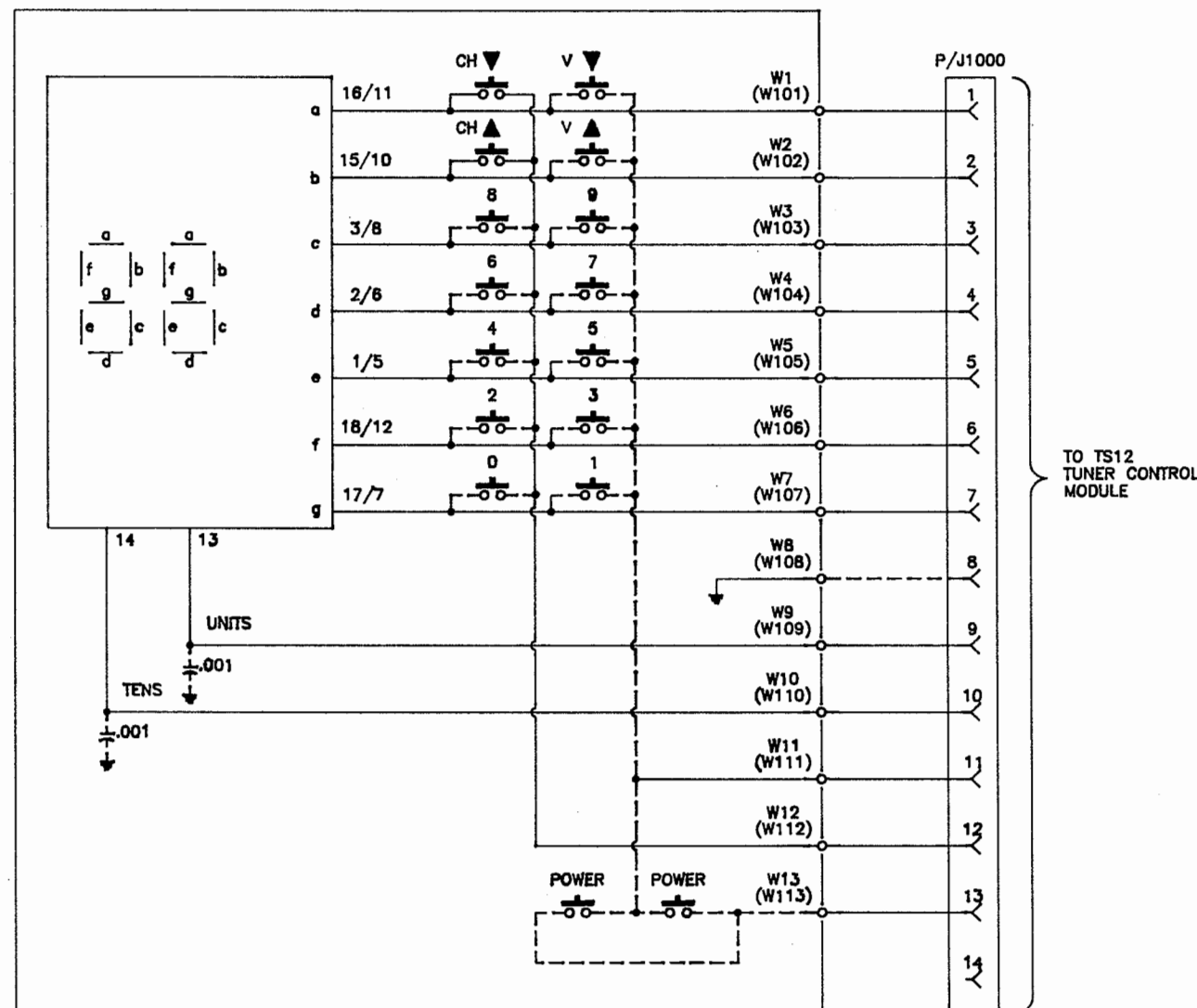


SECONDARY CONTROL BOARD

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

FOLDER 2

CHANNEL SELECT/DISPLAY MODULE SCHEMATIC DIAGRAM



TROUBLESHOOTING (Continued)

Increase and trigger Zener Diodes Z503 and Z504 into conduction. This triggers Over-voltage Shutdown SCR (SCR505) which shuts down the set. To troubleshoot, disconnect Diode D506 from the circuit and check the voltage at TP4. If the voltage is more than 135V, troubleshoot the power supply. If the voltage at TP4 is less than 130V, check the components associated with the collector circuit of the Horizontal Output Transistor (Q501) and SCR505. Return Diode D506 to the circuit.

Voltages Taken In Shutdown

	SCR505	TP4
K	0V	.9V
G	.74V	
A	.9V	

IF-AGC

Inject a video IF signal at the IF Input and check for video on the CRT. If video is present, check the Tuner, Tuner Control and Tuner AFT circuit. If there is no video on the CRT, check for a video waveform at TP1. If video is present, refer to the "Video" section of this Troubleshooting guide. If there is no video at TP1, apply AGC bias to pin 19 of IF/Sync/Sound IC (IC201). If video is present at TP1, check the voltages and components associated with the AGC circuit at pins 1, 5 and 19 of IC201. If there is no video at TP1, check the voltages, waveforms and components associated with pins 7 thru 10, 17, 18 and 22 of IC201 and IF Preamp Transistor (Q240). A defective AGC circuit can cause an overloaded picture, excessive snow or loss of audio and video. See the AGC Voltage Chart for AGC voltages with signal.

	IC201
Pin 1	3.9V
Pin 5	5.2V
Pin 19	4.5V

AUDIO

Select an active TV channel and check for an audio waveform at pin 12 of IF/Sync/Sound IC (IC201). If audio is missing, check voltages, waveforms and components associated with pins 11 thru 15 of IC201. If an audio waveform is present at pin 12 of IC201, check for an audio waveform at pin 2 of the Audio Output IC (IC280). If there is no audio at pin 2 of IC280, check voltages, waveforms and components associated with IC280.

VIDEO

Inject a video signal at TP1 and check for video on the CRT. If video is present, troubleshoot the "IF/AGC" section. If there is no video on the CRT, check for a video waveform at pins 13, 14 and 15 of Chroma/Luminance IC (IC640). If there is no video at pins 13, 14 and 15 of IC640, check the voltages, waveforms and components associated with pins 1, 7 and 9 thru 15 of IC640. If video is present at pins 13, 14 and 15 of IC640, check the voltages, waveforms and components associated with the CRT and output Transistors (Q26, Q40 and Q47). If the brightness is inadequate or cannot be controlled, check the voltages and components associated with pins 7 and 12 of IC640 and pin 7 of the CRT.

VERTICAL

Inject a vertical drive signal at pin 3 of IF/Sync/Sound IC (IC201). If vertical deflection is now present, check the voltages, waveforms and components associated with pins 2, 3, 4 and 27 of IC201. If there is still no vertical sweep, check the voltages, waveforms and components associated with the Vertical output IC (IC580). Vertical linearity or height problems may be caused by the vertical feedback and bias circuits, check Electrolytics C582, C584 and C585 for defects.

SYNC

Check for a video waveform at TP6. If the video waveform is missing, check the components associated with TP6. If a video waveform is present at TP6 and there is no vertical or horizontal sync, Capacitor C227 or IC201 may be defective.

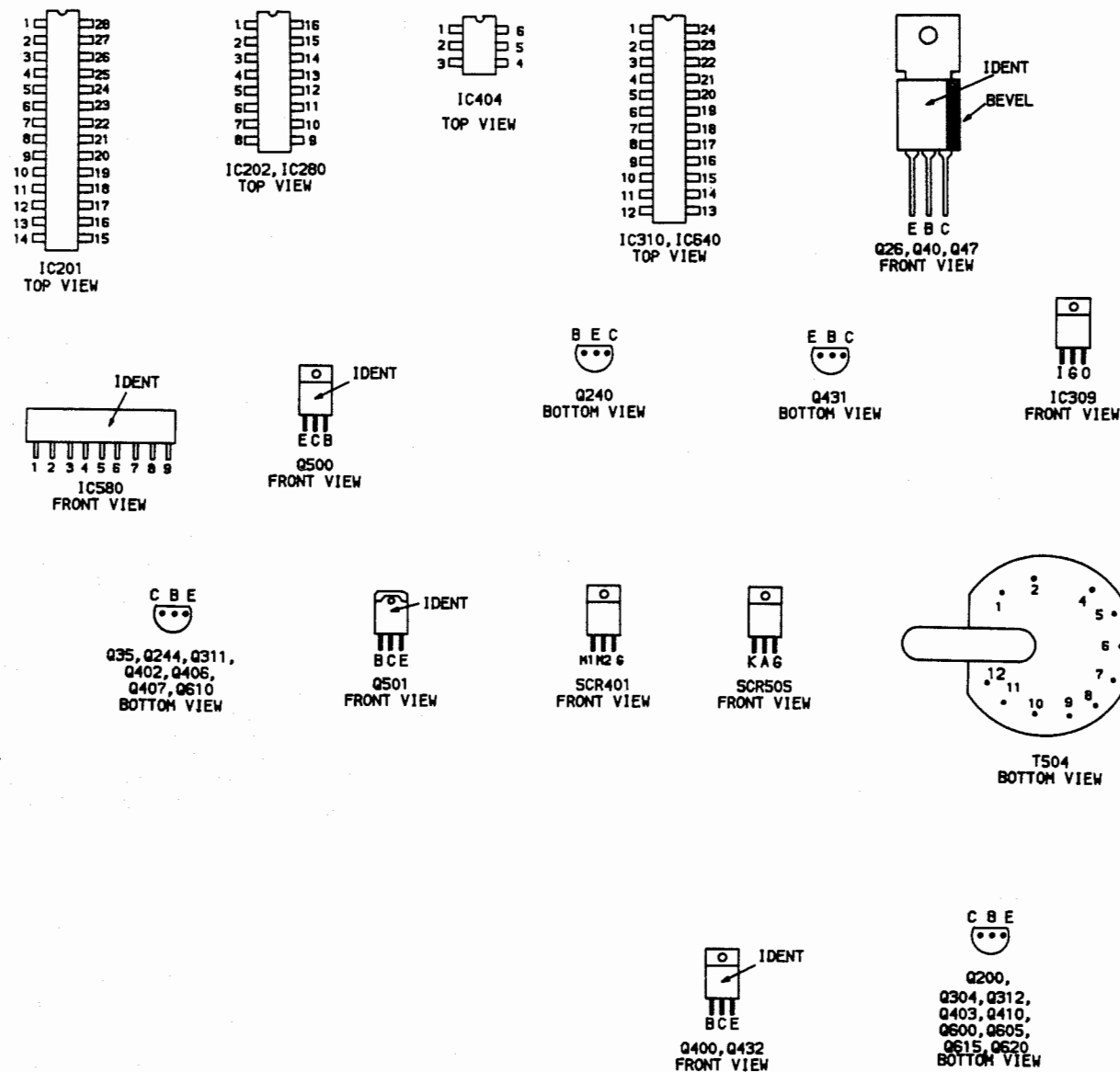
RASTER

Check the CRT and CRT voltages. If there is no Red, check the voltages and components associated with pin 15 of Chroma/Luminance IC (IC640) and Red Output Transistor (Q26). If there is no Green, check the voltages and components associated with pin 14 of IC640 and Green Output Transistor (Q40). If there is no Blue, check the voltages and components associated with pin 13 of IC640 and Blue output Transistor (Q47). If the raster has a keystone shape, check the Deflection Yoke (DY1). If the raster has height or width problems, refer to the "Vertical", "Horizontal" and "Power Supply" sections of this Troubleshooting guide.

CHROMA

Check for a chroma waveform at pin 3 of Chroma/Luminance IC (IC640). If the waveform is missing, check the components associated with pin 3. If the chroma waveform is present at pin 3, check for the proper chroma waveforms at pins 13, 14 and 15 of IC640. If these waveforms are missing, check the voltages, waveforms and components associated with pins 1 thru 6, 8 and 16 thru 24 of IC640. Check the 7.16MHz oscillator at pins 20 and 22 of IC640. Check the voltages and components associated with the Color Control and pin 6 of IC640. If there is no color sync, check the voltages, waveforms and components associated with pin 8 of IC640. If there is inadequate Tint Range, check the voltages and components associated with the Tint Control and pin 21 of IC640. If the proper chroma waveforms are present at pins 13, 14 and 15 of IC640, refer to the "Raster" section of this Troubleshooting guide.

TERMINAL GUIDES AND NOTES



For SAFETY use only equivalent replacement part, see parts list.

— Circuitry not used in some versions

--- Circuitry used in some versions

⊙ See parts list

⊛ Nominal value

⊥ Ground

⊞ Chassis

▽ Common tie point

Waveforms and voltages are taken from ground, unless noted otherwise.

Waveforms: triggered scope, keyed rainbow generator.

Item numbers in rectangles appear in the alignment/adjustment instructions.

Supply voltages maintained as shown at input.

Voltages measured with digital meter, no signal.

Controls adjusted for normal operation.

Terminal identification may not be found on unit.

Capacitors are 50 volts or less, 5% unless noted.

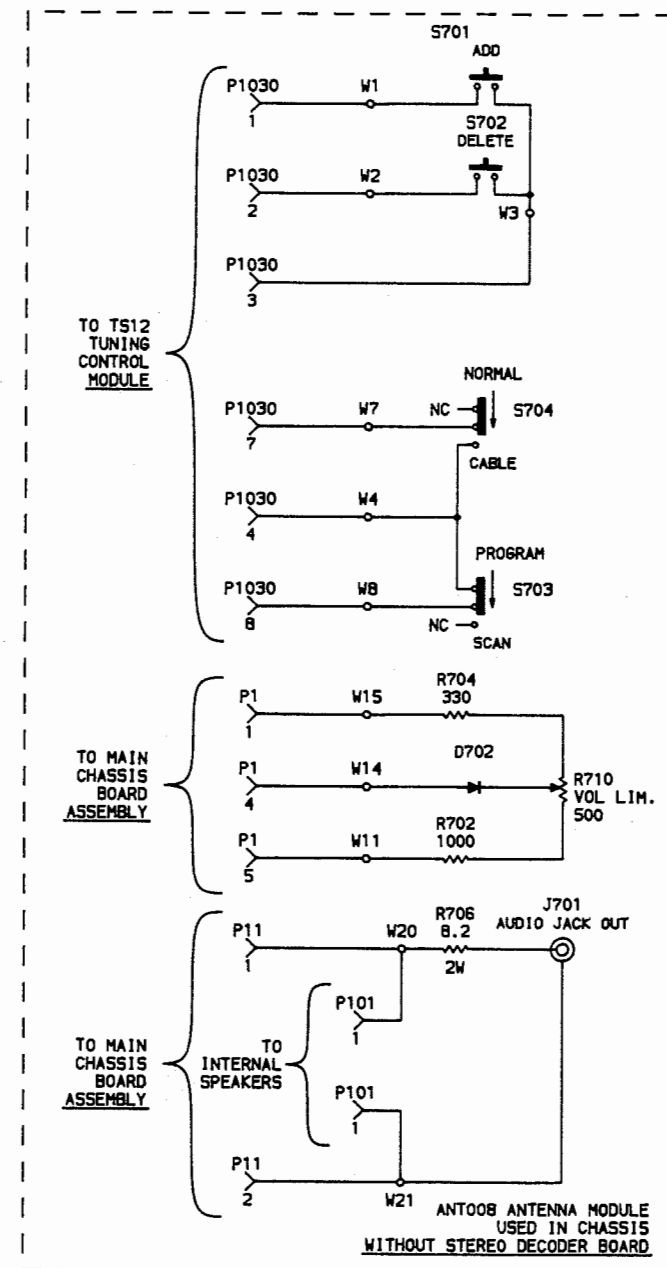
Electrolytic capacitors are 50 volts or less, 20% unless noted.

Resistors are 1/2W or less, 5% unless noted.

Value in () used in some versions.

10% unless noted.

Measurements with switching as shown, unless noted.



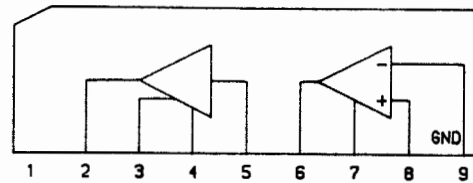
MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15, 26C804/06

FOLDER 2

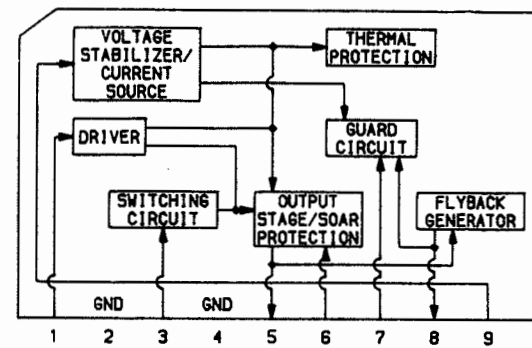
A PHOTOFAC STANDARD NOTATION SCHEMATIC
© Howard W. Sams & Co., Inc. 1989

ANTENNA MODULE (ANT008)

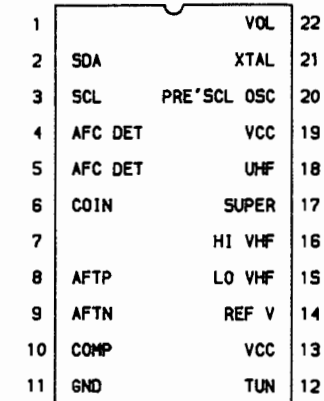
IC280



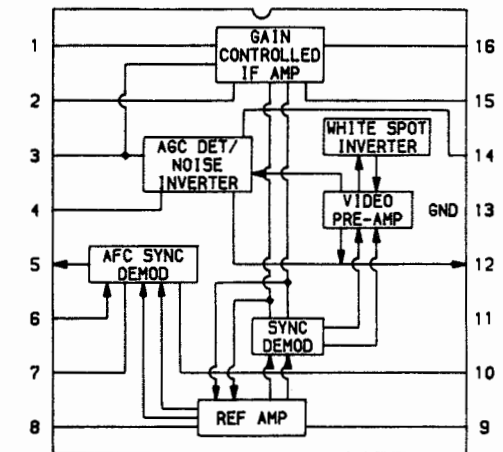
IC580



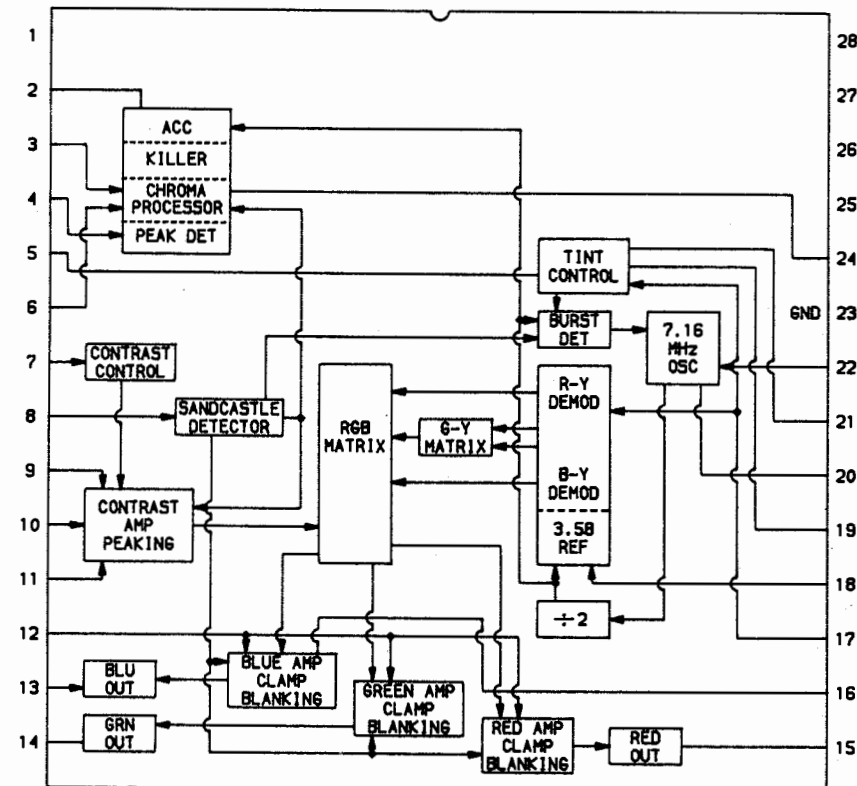
IC310



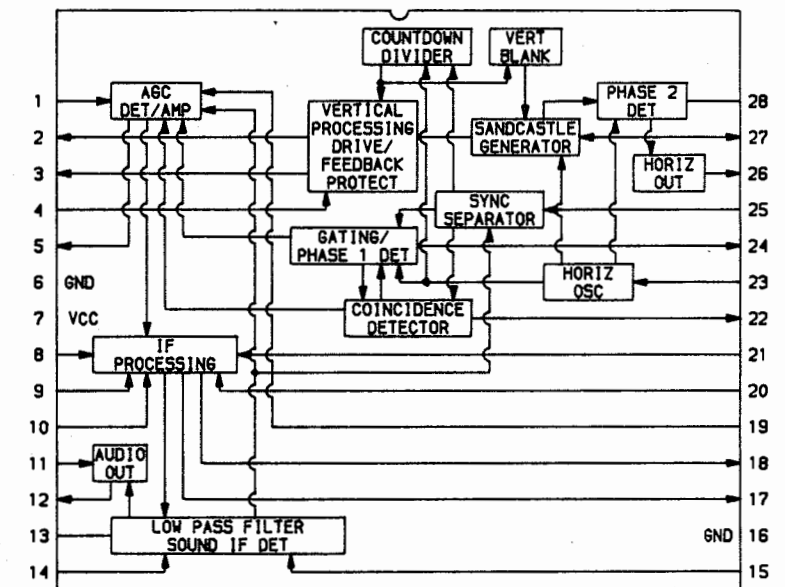
IC202



IC640



IC201



MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

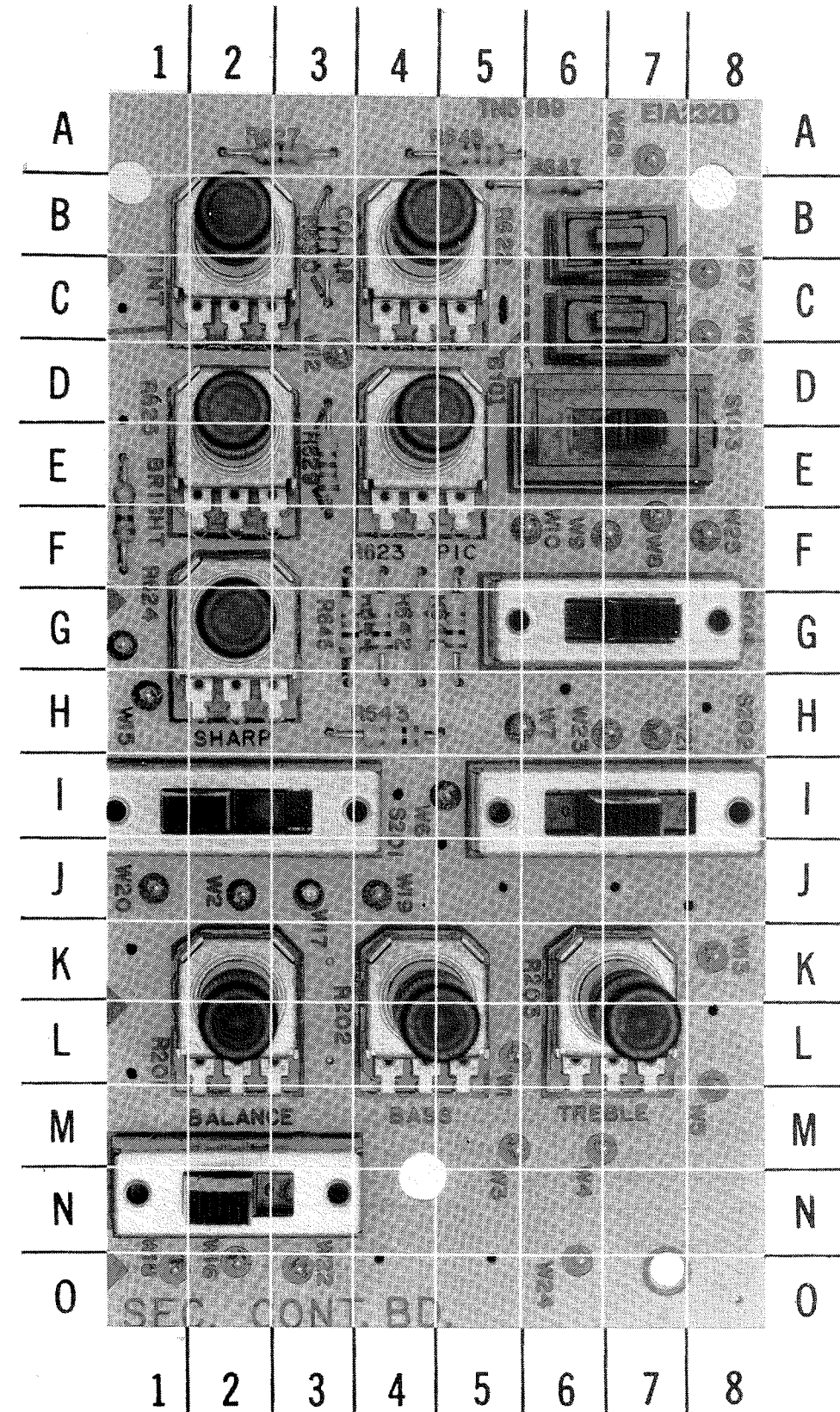
The diagram illustrates the internal wiring of the C-8 Main Chassis. Key components and their connections include:

- Secondary Control Board:** Contains various relays (W101, W102, W111, W113, W6, W10, W7, W9, W12, W15, W23, W24, W28) and connectors (P1, P2, P/J1030, P/J1020, P/J1017, P/J1000, P/J1090).
- Display Boards:** Multiple boards labeled "DISPLAY" with connectors (1, 10, 14) and components (W1, W13).
- Keyboard/Display Board:** Features a keyboard connector (W1, W13) and a display connector (1, 10, 14).
- Power Section:** Includes a "POWER" board with a power switch (P1, P2), a light dimmer (LDR), and a "SPEAKER".
- CRT Board:** Controls the CRT with relays (W1, W3, W4, W5, W6, W11, W12, W13, W15) and connectors (P/J6, P/J7, P/J10, P/J8, P/J9, P/J15, P/J21). It also includes a "FOCUS" control and a "HORIZONTAL YOKE" coil.
- Other Components:** A "TUNER" with an "RF IN" jack, an "IR RECEIVER", a "VOLUME" control, and a "POWER" switch (S401).

*** NOT USED ON SOME MODELS**

36

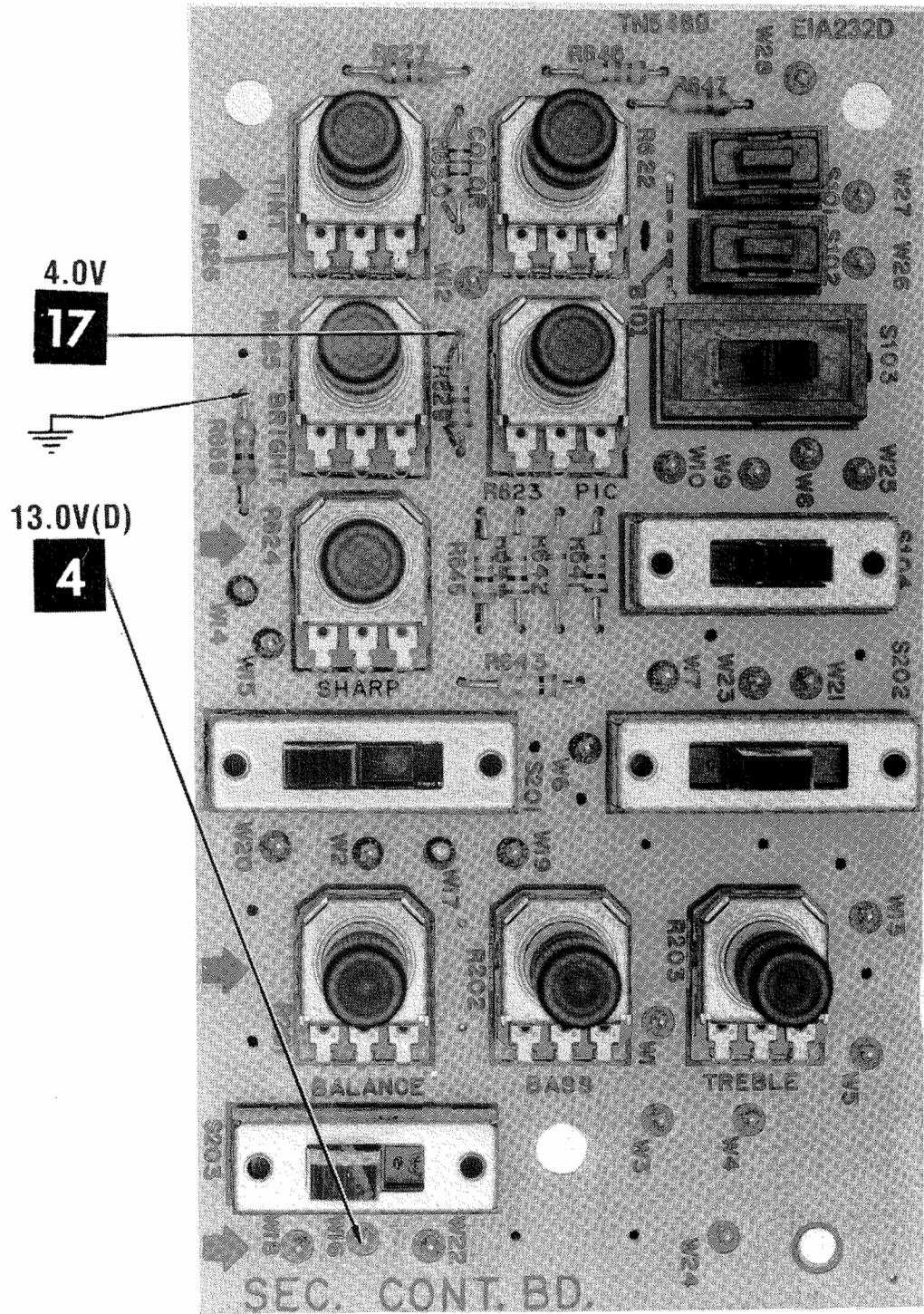
R201	L-2	R626	B-2	R644	G-4	S102	C-7
R202	L-5	R627	A-3	R645	G-3	S103	E-7
R203	L-7	R629	E-3	R646	A-5	S104	G-7
R622	B-5	R630	B-3	R647	B-6	S201	I-2
R623	D-5	R641	G-5	R659	F-1	S202	I-7
R624	G-2	R642	G-4	S101	B-7	S203	N-2
R625	D-2	R643	H-4				



SECONDARY CONTROL BOARD

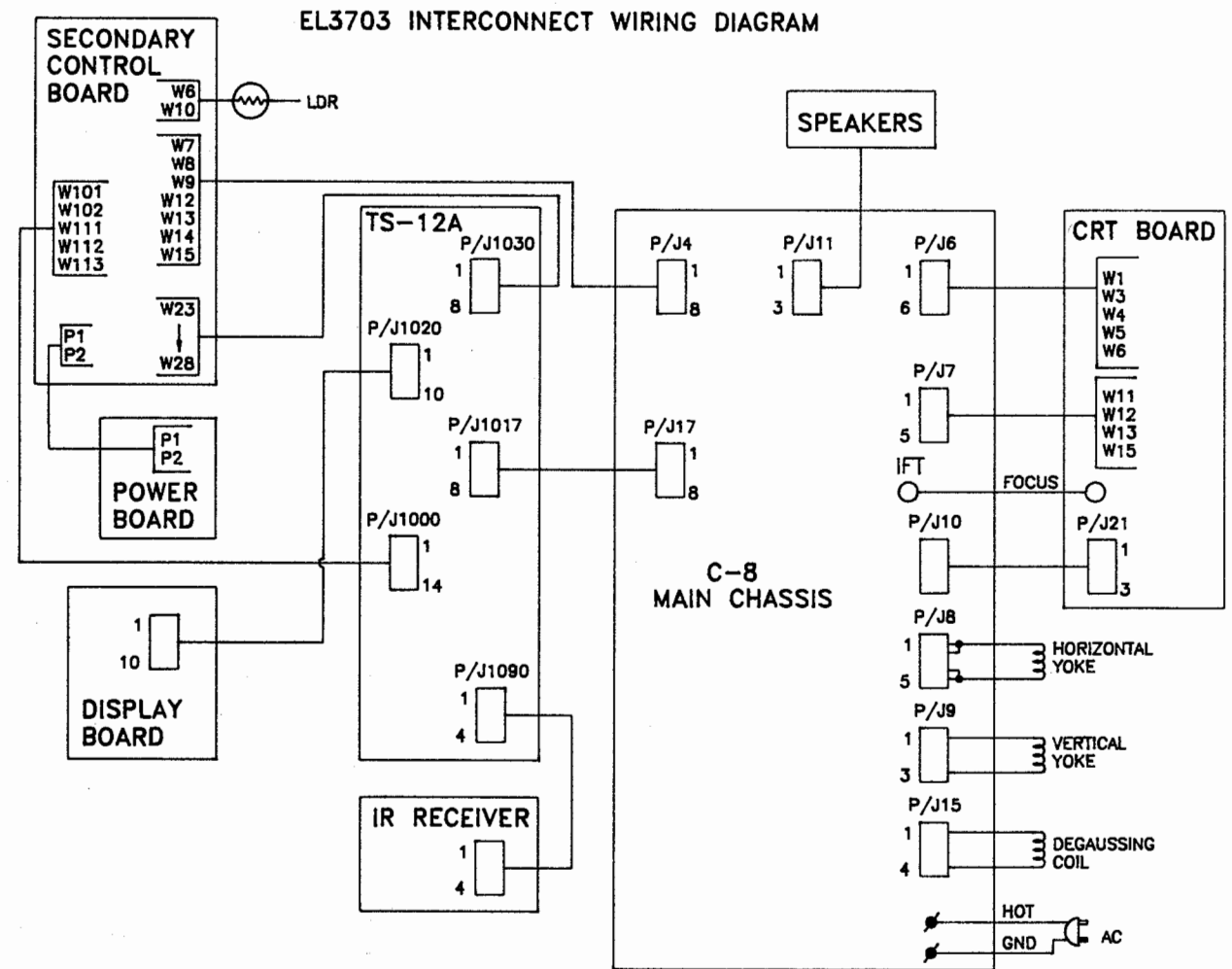
MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

FOLDER 2



SECONDARY CONTROL BOARD

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MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15, 26C804/06

INTERCONNECT WIRING DIAGRAM EL3703

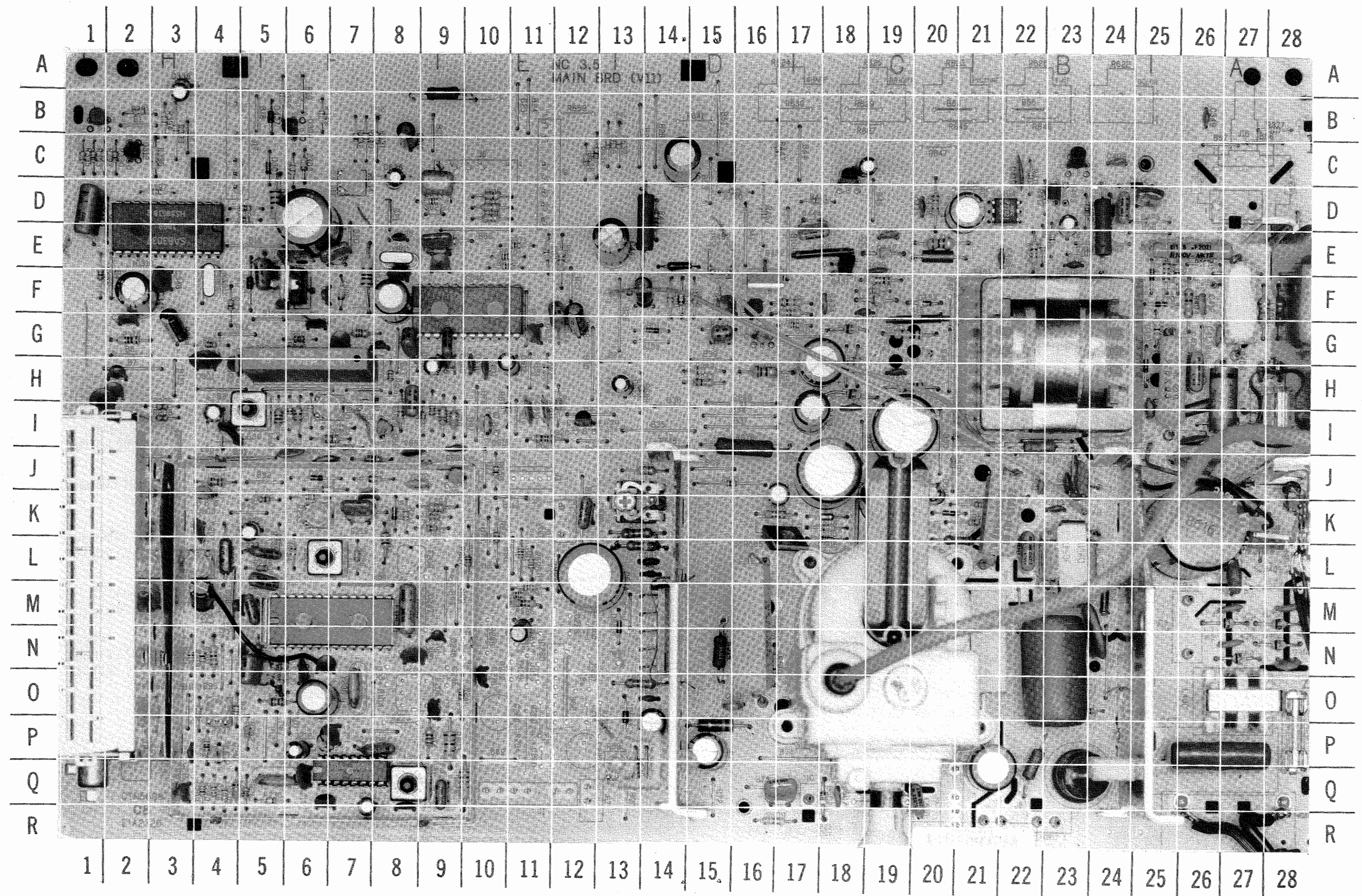
FOLDER 2

MAIN BOARD-GridTrace LOCATION GUIDE

C200	N-5	C432	I-18	D301	C-5	L602	J-7	R367	D-5	R515	I-14	Y600	G-6
C201	N-5	C433	H-17	D304	F-5	L605	I-7	R375	G-2	R516	K-21	Y601	E-8
C202	N-6	C434	F-18	D305	F-5	L606	I-6	R376	I-16	R579	Q-13	Z222	J-6
C205	N-8	C435	G-17	D402	J-27	L607	G-7	R377	B-28	R581	K-13	Z223	J-7
C206	J-7	C436	P-15	D404	D-28	L609	I-9	R379	F-4	R582	O-14	Z303	C-6
C207	K-4	C437	E-19	D405	N-28	L610	I-9	R380	J-1	R583	Q-14	Z306	F-7
C209	Q-3	C438	D-21	D406	N-27	L614	D-10	R383	F-1	R584	M-11	Z408	F-27
C210	O-6	C439	E-19	D407	M-27	L615	D-10	R387	N-4	R585	Q-13	Z417	E-22
C211	Q-6	C440	C-14	D409	H-25	L616	D-10	R390	C-2	R586	M-11	Z435	E-14
C212	P-6	C442	E-13	D414	C-25	Q200	J-4	R392	C-1	R587	L-13	Z436	F-14
C213	P-8	C443	D-20	D415	F-27	Q240	P-4	R393	C-1	R587A	K-13	Z503	K-18
C214	R-7	C444	C-17	D416	E-26	Q244	J-9	R394	B-3	R588	L-12	Z504	K-18
C215	P-3	C445	G-15	D418	E-25	Q304	B-6	R395	C-1	R589	M-11		
C216	Q-9	C446	F-15	D419	E-23	Q311	B-1	R396	C-3	R590	L-11		
C218	N-6	C447	F-14	D420	F-25	Q312	C-2	R397	D-3	R600	I-6		
C219	K-7	C448	J-26	D421	H-25	Q400	I-28	R398	D-1	R601	I-6		
C220	M-5	C449	C-19	D424	H-18	Q402	C-23	R399	B-3	R602	I-4		
C221	L-4	C500	L-22	D425	D-25	Q403	D-23	R400	K-28	R603	Q-4		
C222	K-5	C501	J-22	D431	F-19	Q406	G-16	R401	L-27	R604	G-4		
C223	L-5	C502	N-24	D432	E-19	Q407	F-16	R402	K-27	R605	G-6		
C226	N-9	C503	J-18	D433	F-20	Q410	C-18	R403	M-28	R606	H-8		
C227	M-5	C504	N-23	D434	G-18	Q431	E-18	R404	F-26	R607	G-6		
C228	M-4	C505	N-21	D437	B-5	Q432	F-16	R405	H-25	R608	I-8		
C229	M-8	C506	Q-17	D449	H-18	Q500	J-23	R406	E-26	R609	I-7		
C230	Q-6	C507	Q-18	D500	K-20	Q501	O-25	R407	F-28	R610	I-6		
C231	P-7	C508	Q-21	D502	Q-18	Q600	H-4	R408	F-27	R611	H-12		
C232	Q-8	C509	J-17	D506	K-18	Q605	H-7	R409	D-23	R612	I-10		
C233	O-9	C510	Q-20	D581	O-13	Q610	I-8	R416	E-23	R614	H-11		
C278	O-10	C511	Q-16	D582	M-13	Q615	I-10	R417	D-22	R617	I-9		
C336	F-5	C512	J-23	D601	G-14	Q620	I-12	R418	C-22	R618	I-9		
C337	D-6	C513	K-23	F400	P-28	R201	O-4	R419	E-23	R619	I-7		
C338	B-3	C516	J-20	IC201	M-7	R202	P-5	R420	E-25	R620	I-11		
C339	E-7	C580	L-14	IC202	Q-7	R203	P-9	R421	D-24	R631	C-8		
C345	F-2	C581	L-14	IC309	F-6	R207	L-10	R422	E-24	R632	C-7		
C346	F-3	C582	P-14	IC310	E-3	R208	I-3	R423	E-25	R633	D-9		
C347	F-6	C583	O-14	IC404	D-22	R209	I-3	R424	E-22	R634	C-7		
C349	B-26	C584	L-12	IC580	N-14	R210	N-5	R430	G-25	R635	C-12		
C350	N-1	C585	N-11	IC640	F-10	R215	Q-5	R431	J-15	R636	C-13		
C351	P-1	C586	K-15	J1	Q-12	R216	Q-4	R432	H-18	R637	E-11		
C352	I-1	C587	M-14	J4	B-11	R217	K-8	R433	H-20	R638	C-12		
C353	D-1	C601	H-4	J6	C-10	R218	Q-4	R434	G-19	R639	C-13		
C354	H-2	C602	Q-8	J7	R-21	R219	N-4	R437	F-19	R640	C-7		
C360	H-1	C603	J-6	J8	R-23	R220	Q-4	R438	F-19	R648	F-7		
C361	G-2	C604	G-6	J9	K-12	R221	N-3	R439	D-20	R650	J-10		
C362	H-2	C605	G-7	J10	Q-17	R222	P-4	R440	D-16	R655	E-12		
C364	G-3	C606	J-6	J11	Q-12	R223	K-9	R441	D-17	R666	P-15		
C365	O-1	C607	J-8	J15	M-6	R224	K-9	R443	C-16	R668	H-13		
C366	M-4	C608	H-8	J17	D-4	R226	L-7	R444	D-14	R670	E-10		
C400	P-27	C609	I-9	L201	Q-4	R227	K-10	R446	F-15	R671	E-11		
C401	J-27	C610	I-11	L202	L-8	R228	K-7	R447	G-15	R672	E-10		
C402	J-28	C611	I-11	L204	K-9	R229	K-6	R448	F-17	S580	K-13		
C403	K-26	C612	H-10	L205	L-6	R230	Q-5	R449	F-17	SCR401	K-28		
C404	M-28	C613	H-13	L210	J-4	R231	Q-10	R450	F-14	SCR505	K-17		
C405	N-28	C614	I-4	L211	Q-5	R232	K-5	R451	F-15	T401	G-23		
C406	N-27	C618	G-8	L213	Q-8	R233	K-6	R452	E-15	T500	L-23		
C407	M-27	C619	B-8	L214	P-9	R234	L-6	R453	G-17	T504	N-19		
C408	H-26	C620	E-9	L400	O-27	R235	L-5	R454	O-25	TP1	K-11		
C409	C-24	C621	F-8	L402	F-27	R236	O-4	R455	A-9	TP2	C-3		
C410	H-25	C624	F-8	L403	H-16	R237	O-4	R456	D-14	TP4	I-18		
C412	F-26	C625	E-8	L405	H-26	R238	P-6	R457	D-16	TP5	H-18		
C413	C-26	C626	C-8	L406	E-18	R239	H-16	R500	J-20	TP6	L-10		
C414	H-27	C627	D-9	L409	I-28	R240	N-5	R501	K-20	TP8	E-18		
C415	C-23	C630	H-10	L410	I-27	R240A	N-5	R502	K-21	TP10	H-17		
C417	H-27	C631	H-10	L415	F-20	R242	H-15	R503	J-22	TP13	L-11		
C418	D-24	C632	G-11	L416	D-24	R243	H-15	R504	K-21	TP24	P-9		
C419	C-22	C633	E-9	L417	E-20	R244	O-9	R505	K-22	TP210	N-7		
C420	D-25	C634	F-12	L418	F-23	R246	L-5	R506	I-22	TP240	Q-4		
C421	D-23	C635	H-9	L501	M-24	R247	L-4	R507	O-24	TP244	K-10		
C422	E-26	C640	G-9	L502	N-16	R251	L-11	R508	P-22	TP615	F-10		
C423	H-19	C641	E-9	L503	Q-23	R348	C-6	R509	R-16	TP634	D-8		
C426	E-21	C642	F-12	L515	J-14	R349	B-6	R510	N-16	Y200	O-7		
C427	F-18	C647	I-4	L516	M-25	R350	B-5	R512	K-16	Y201	Q-5		
C430	I-26	D220	K-8	L600	I-5	R365	D-5	R513	M-16	Y202	J-8		
C431	I-19	D221	J-6	L601	I-5	R366	D-5	R514	N-15	Y301	F-4		

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

FOLDER 2



MAIN BOARD

A Howard W. Sams GRIDTRACE™ Photo

MAIN BOARD

MAGNAVOX CHASSIS
25C8010/4/1/12/13/14/15,26C804/06

FOLDER 2



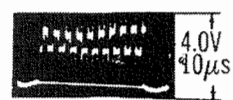
IC640 PIN 10
IC VIDEO IN



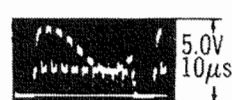
IC640 PIN 3
CHROMA



IC640 PIN 13
BLUE CHROMA



IC640 PIN 14
GREEN CHROMA



IC640 PIN 15
RED CHROMA

IC640 PIN 1
11.0V

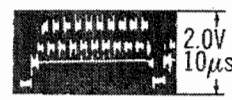
D432 CATHODE
13.0V SOURCE

D434 CATHODE
31.1V SOURCE

IC309 PIN 3
5.0V SOURCE



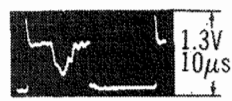
Q244 EMITTER
VIDEO



Q610 EMITTER
VIDEO

IC201 PIN 5
RF AGC
3.6V-9.4V

IC201 PIN 7
10.3V



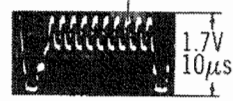
IC201 PIN 26
HORIZ OSC



IC201 PIN 3
VERTICAL OSC



IC201 PIN 25
VERTICAL SYNC



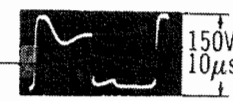
IC201 PIN 25
HORIZ SYNC

IC202 PIN 11
AUDIO
9.0V

IC580 PIN 9
31.0V



IC580 PIN 5
VERTICAL OUT

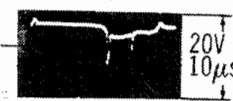


Q500 COLLECTOR
HORIZ DRIVE



Q500 BASE
HORIZ DRIVE

Q500 COLLECTOR
54.8V



Q501 BASE
HORIZ OUTPUT

Q501 COLLECTOR
125V

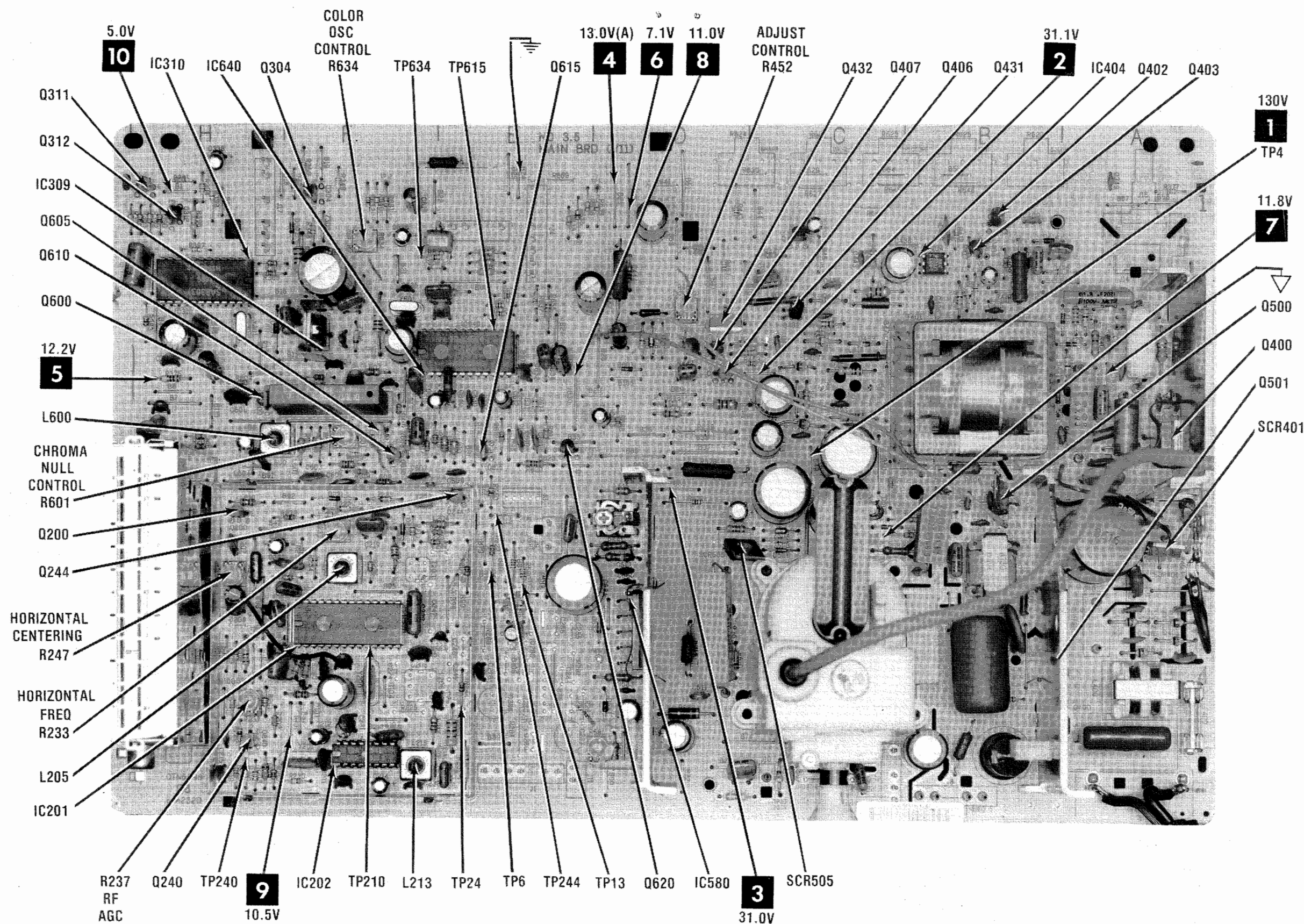
JCT D406-D407
158VΔ SOURCE

COMMON
TIE POINTΔ

D502 CATHODE
177V SOURCE

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

FOLDER 2



CHASSIS BREAK-DOWN

25C801 (-00AA)

EMC806	Main Chassis Board Asm
340297	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC377	Tuner Control Unit Asm
ADP017	Channel Select/Display Module
ASC184	Secondary Control Module
7050560012	Volume Control Asm
ATU007	TS12B Tuning System Module

25C804 (-00AA & -00BB)

EMC804	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC458	Tuner Control Unit Asm
ASW060	Cable/Normal Switch Module
ASC198	Secondary Control Module
7050560012	Volume Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

25C811 (-00AA & -00BB)

EMC804	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC459	Tuner Control Unit Asm
ASW060	Cable/Normal Switch Module
ASC198	Secondary Control Module
7050560012	Volume Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

25C812 (-00AA & -00BB)

EMC804	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC460	Tuner Control Unit Asm
ASW060	Cable/Normal Switch Module
ASC198	Secondary Control Module
7050560011	Volume Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

25C813 (-00AA)

EMC806	Main Chassis Board Asm
340297	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC453	Tuner Control Unit Asm
ADP017	Channel Select/Display Module
ASC184	Secondary Control Module
7050560012	Volume Control Asm
ATU007	TS12B Tuning System Module

MISCELLANEOUS ADJUSTMENTS

PRETUNING

1. Connect antenna.
2. Open secondary control access door.
3. Slide PRO-NORM Switch to program position.
4. Incrementing from channel two thru sixty-nine, momentarily depress ADD (for wanted channels) or DEL (for unwanted channels) buttons for desired preturning results.
5. Close secondary control access door.

RF AGC ADJUSTMENT

Tune in a station and allow a 15-minute warm-up time. Adjust RF AGC Control (R237) clockwise until snow (noise appears in picture and then counterclockwise until snow just disappears.

130V B+ ADJUSTMENT

Allow a 15-minute warm-up time and maintain line voltage at 120V AC. Connect a digital voltmeter to TP4, low side to chassis ground. Set Volume, Brightness and Picture Controls to MINIMUM. Adjust 130V Adjust Control (R452) for 130V \pm 1.0V DC reading on meter.

HORIZONTAL FREQUENCY ADJUSTMENT

Tune in a station and allow a 15-minute warm-up time. Place a short from TP6 to chassis ground. Adjust Horizontal Frequency Control (R233) until picture stops or slowly floats across screen. Remove short from TP6 and check all active channels for proper horizontal lock-in.

HORIZONTAL CENTERING ADJUSTMENT

Tune in a station and allow a 15-minute warm-up time. Adjust Horizontal Centering Control (R247) to position the picture horizontally for best viewing.

BLACK AND WHITE TRACKING

Tune in a station and allow a 15-minute warm-up time. Set Screen Control fully counterclockwise. Set Brightness, Picture and Color Controls to MINIMUM. Adjust Red (R28), Green (R33) and Blue (R45) Drive Controls fully clockwise. Set Red (R29), Green (R41) and Blue (R48) Cut Off Controls to their mechanical center. Place a jumper from TP13 to ground. Advance Screen Control to produce a dim line of one color. Adjust Cut Off Controls of two remaining colors to produce a dim white line. Disconnect the jumper from TP13 and ground. Tune in a station and set Brightness and Picture Controls for sufficient brightness to

produce a normal picture. Adjust Red (R28), Green (R33) and Blue (R45) Drive Controls to produce a normal black and white picture. Turn Brightness and Picture Controls to Maximum and check for blooming and/or retrace and adjust Screen Control slightly counterclockwise to eliminate problem.

COMB FILTER ADJUSTMENT

Connect a color bar generator to the antenna terminals and tune in a color bar pattern. Connect oscilloscope to TP615 (Pin 15 of IC640), low side to ground. Adjust Chroma Amp Null Control (R601) and Chroma Phase Null Coil (L600) for MINIMUM Chroma Component in waveform.

COLOR OSCILLATOR ADJUSTMENT

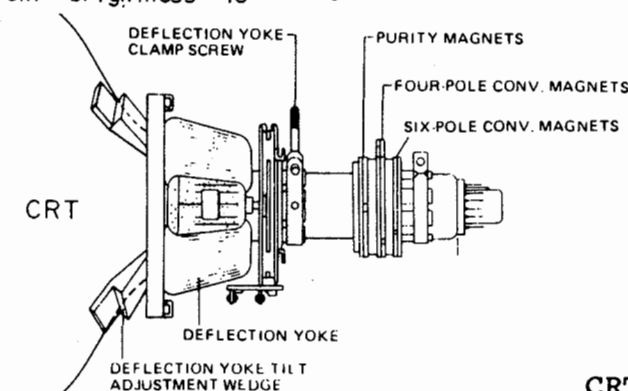
Tune in a color bar signal and allow a 15-minute warm-up time. Connect digital voltmeter to TP634 (Junction R633 and Wiper of R634), low side to ground. Adjust Color Oscillator Control (R634) for 4.0V \pm 0.1V DC reading on meter. Disconnect color bar generator and tune in an active channel. Check that the color locks in properly. Check all active channels and adjust Oscillator Control (R634) slightly if lock-in is slow.

PURITY ADJUSTMENT

Allow a 15-minute warm-up time. Set Red Cut Off Control (R29) fully clockwise. Set Blue (R48) and Green (R41) Cut Off Controls fully counterclockwise. Loosen deflection yoke and remove rubber wedges. Move yoke assembly forward against the CRT bell. Adjust purity magnets to center the vertical red band on the CRT. Pull deflection yoke back to produce a uniform red screen. Use Cut Off Controls to produce blue and green fields to check purity of blue and green. Tighten deflection yoke, replace rubber wedges and perform Black and White Tracking.

CONVERGENCE ADJUSTMENT

Tune in a crosshatch pattern and allow a 15-minute warm-up time. Spread and rotate the tabs of the 4-pole magnets to converge the red and blue lines at the center of the screen. Spread and rotate the 6-pole magnets to converge the red/blue with the green lines at the center of the screen. Remove wedges between CRT and deflection yoke. Tilt the deflection yoke vertically and horizontally to converge the edges of the screen. Replace rubber wedges.



CRT NECK ASSEMBLY

25C801/04/11/12/13/14/15, 26C804/06
MAGNAVOX CHASSIS

FOLDER 2

TEST EQUIPMENT

Test Equipment listed by Manufacturer illustrates typical or equivalent equipment used by SAMS' Engineers to obtain measurements and is compatible with most types used by field service technicians.

Equipment	B & K Precision Equipment No.	Sencore Equipment No.	Notes
OSCILLOSCOPE	1560, 1564, 1541	SC61	
GENERATORS			
RGB	1249,1260		
MULTIBURST SIGNAL	1251,1260	VA62	
COLOR BAR	1211A,1249,1251,1260	VA62,CG25	
ANALOG VOM	277,111,116		
DIGITAL VOM	2830,2806	DVM37,DVM56,SC61	
FREQUENCY METER	1803,1805	FC71,SC61	
HI-VOLTAGE PROBE	HV-44	HP200	
VOM/DMM			
Accessory probes	PR-28(HV)		
ISOLATION TRANSFORMER	TR110,1604,1653,1655	PR57	
CAPACITANCE ANALYZER	820,810,830	LC53,LC75,LC76, LC77	
CRT ANALYZER	467,470	CR70	
TEMPERATURE PROBE	TP-28,TP-30		
AC LEAKAGE TESTER	1655	PR57	
LOGIC PROBE	DP51,DP21		
LOGIC PULSER	DP101,DP31		
INDUCTANCE ANALYZER	875	LC53,LC75,LC76,LC77	
FLYBACK YOKE TESTER	875	LC53,VA62	
TV STEREO GENERATOR	2009	ST65,ST66	
FIELD STRENGTH METER		FS73,FS74	

TV ALIGNMENT INSTRUCTIONS

Use an isolation transformer and observe power supply polarity. Maintain line voltage at 120V AC. Allow a 20-minute warm-up period for receiver and test equipment.

PRELIMINARY INSTRUCTIONS

Set the channel selector to the highest unused channel. Set scope sweep to external. Connect scope vertical input to scope vertical input on sweep/marker generator. Connect scope external horizontal input to scope horizontal input on sweep/marker generator. Ground test equipment to TV chassis unless specified otherwise. Use only enough generator output to provide a usable indication.
Note: Response may vary slightly from that shown.
Connect a 6.7V Bias to TP210 (Pin 10 IC201).

VIDEO IF ALIGNMENT (SWEEP MARKER GENERATOR)

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
TP244 (Emitter of Q244)	TP240 (Base of Q240)	44MHz (10MHz Sweep)	45.75MHz	Adjust L205 for Maximum 45.75MHz marker. See Figure 1.

VIDEO IF ALIGNMENT (BAR SWEEP GENERATOR)

BAR SWEEP GENERATOR	SCOPE INPUT	REMARKS
Antenna Terminals	TP244	Perform Video IF Adjustments per SWEEP/MARKER GENERATOR Instructions above See Figure 2.

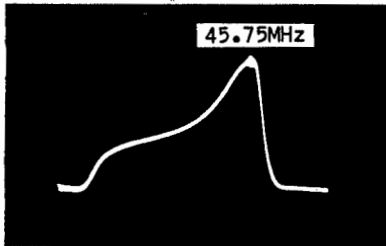


Figure 1

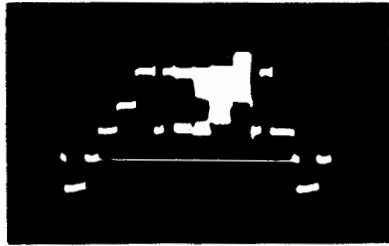


Figure 2

CHASSIS BREAK-DOWN (continued)

25C814 (-00AA & -00BB)

EMC804	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC483	Tuner Control Unit Asm
ASW060	Cable/Normal Switch Module
ASC198	Secondary Control Module
7050560011	Volume Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

25C815 (-00AA)

EMC806	Main Chassis Board Asm
340297	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC454	Tuner Control Unit Asm
ADP017	Channel Select/Display Module
ASC184	Secondary Control Module
7050560012	Volume Control Asm
ATU007	TS12B Tuning System Module

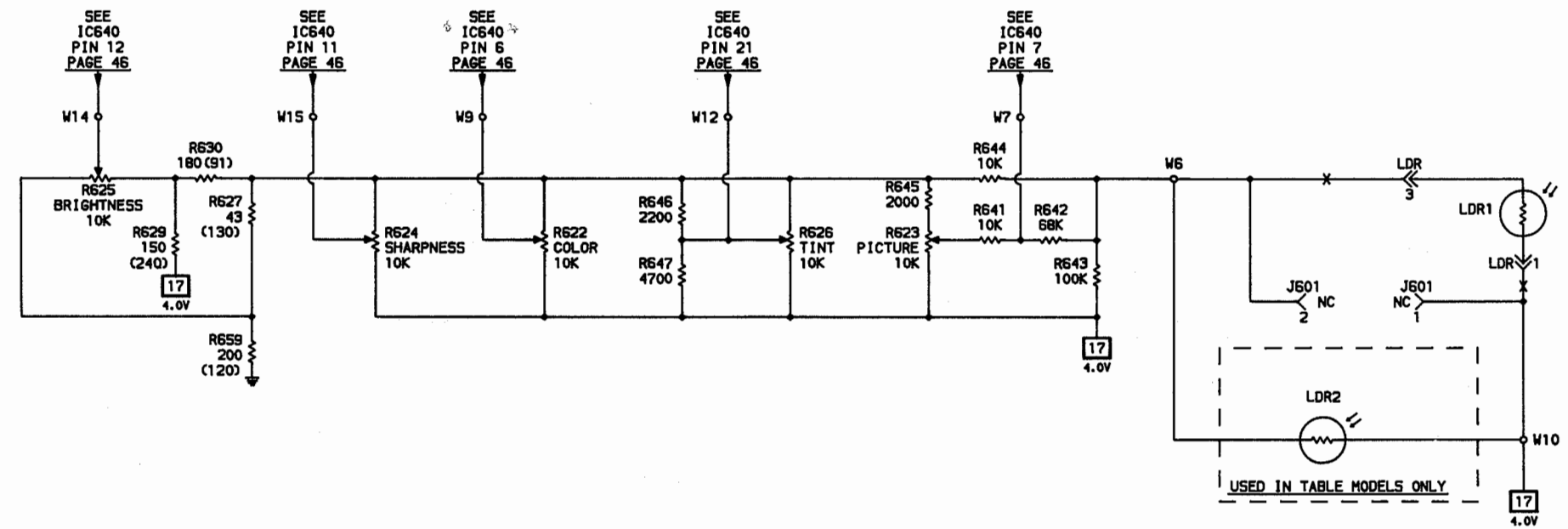
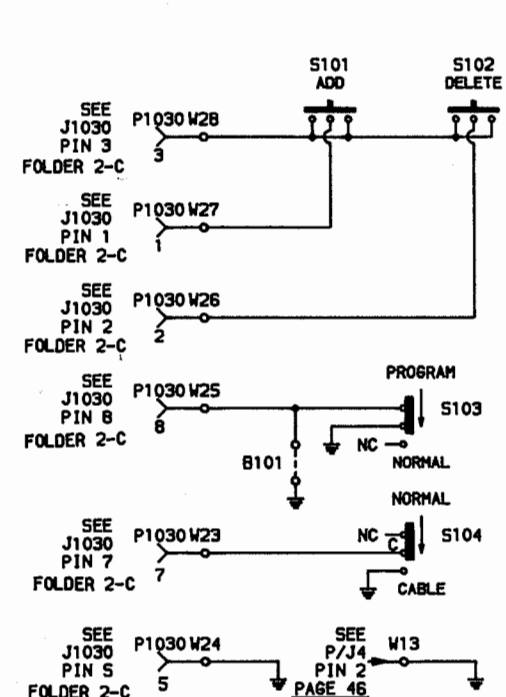
26C804 (-00AA & -00BB)

EMC814	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC451	Tuner Control Unit Asm
ADP021	Channel Select/Display Module
ASC197	Secondary Control Module
7050560010	Volume/On-Off Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

26C806 (-00AA & -00BB)

EMC814	Main Chassis Board Asm
340293	Varactor Tuner Module
APT030	CRT Socket Board Module
ATC452	Tuner Control Unit Asm
ADP023	Channel Select/Display Module
ASC197	Secondary Control Module
7050560010	Volume/On-Off Control Asm
ATU001	TS12A Tuning System Module (-00AA)
ATU006	TS12C Tuning System Module (-00BB)

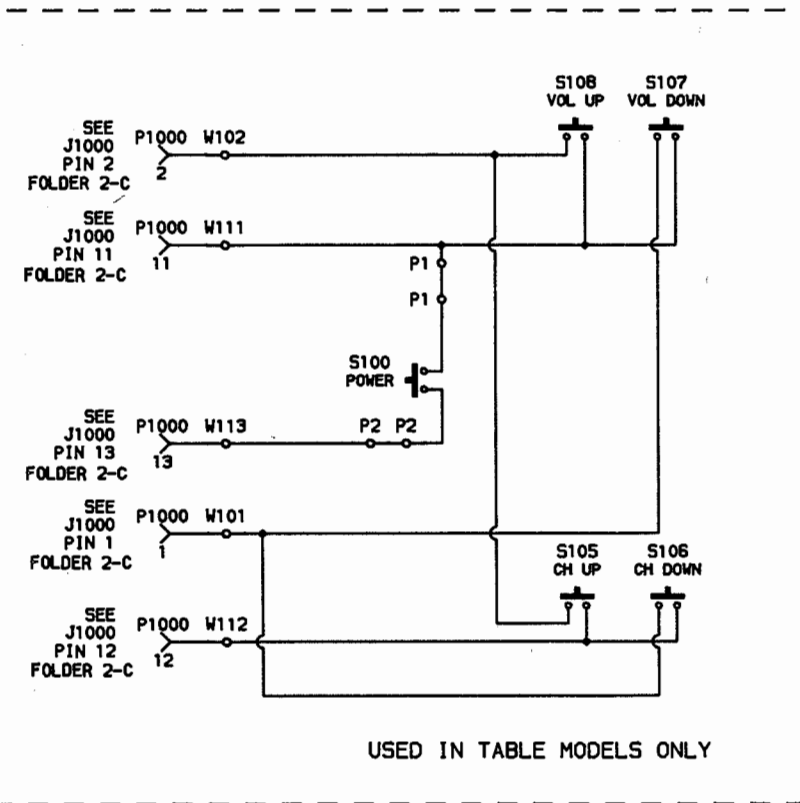
25C801/04/11/12/13/14/15,26C804/06
MAGNAVOX CHASSIS



USED IN TABLE MODELS ONLY

FOR TERMINAL GUIDES AND NOTES
SEE PAGE 34

PHOTO CIRCUITRACE = 11
SCHEMATIC CIRCUITRACE = 11



HOTOFAC STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE**
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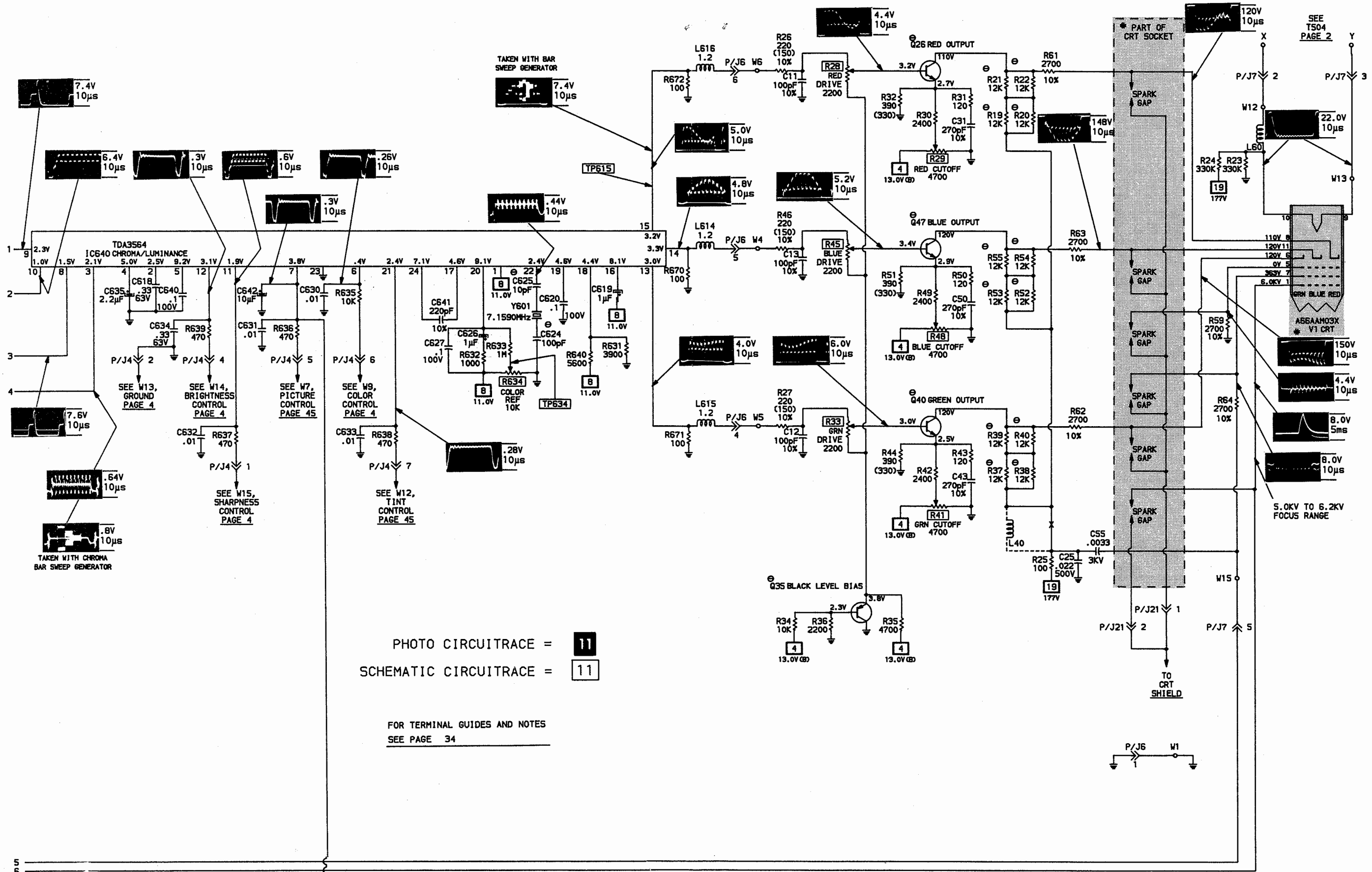


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 SCHEMATIC CIRCUITRACE = 11

FOR TERMINAL GUIDES AND NOTES
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 WITH CIRCUITRACE

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FOLDER 2

PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

CAPACITORS

ITEM No.	RATING	MFGR. PART No.
C12 C13	TS-12B/C 27 NPO 5% 27 NPO 5%	

ITEM No.	RATING	MFGR. PART No.

COILS (RF-IF)

ITEM No.	FUNCTION	MFGR. PART No.
L1	TS-12B/C TUNER CONTROL	
L2	Peaking (4.7uH)	3618134799
L3	Peaking (4.7uH)	3618134799
L4	Peaking (4.7uH)	3618134799
L5	Peaking (4.7uH)	3618134799
L6	Peaking (4.7uH)	3618134799

ITEM No.	FUNCTION	MFGR. PART No.
L7	Peaking (4.7uH)	3618134799
L18	Peaking (4.7uH)	3618134799
L19	Peaking (4.7uH)	3618134799
L20	Peaking (3.3uH)	3618133399
L21	Peaking (3.3uH)	3618133399
L30	Peaking (4.7uH)	3618134799
L40	Peaking (4.7uH)	3618134799
L50	Peaking (12uH)	3618133399

For SAFETY use only equivalent replacement part.

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
Y1	TS-12B/C TUNER CONTROL Resonator	3620560002	Ceramic, 6MHz

For SAFETY use only equivalent replacement part.

SET 2654 FOLDER 2-A

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25C801/04/11/12/13/14/15,26C804/06

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25C801/04/11/12/13/14/15,26C804/06

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25C801/04/11/12/13/14/15,26C804/06

**COVERAGE FOR:
TUNING SYSTEM TS-12B/C**

SAMS™

Howard W. Sams & Co.

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DATE 4-89

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PARTS LIST AND DESCRIPTION

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
TS-12B/C TUNER CONTROL						
D11	5301811001	NTE177	ECG177	SK9091/177	103-131	
D14	5302471001	NTE112	ECG112	SK3089/112	103-61	
D30	5301811001	NTE177	ECG177	SK9091/177	103-131	
D40	5301811001	NTE177	ECG177	SK9091/177	103-131	
IC1000	6125710001	NTE701	ECG701	SK9026/701	221-105	ATU008-A001 ATU009-A001
IC1000	6125760001					
Q30	6102230001	NTE159	ECG159	SK3466/159	121-Z9003	
Q40	6102230001	NTE159	ECG159	SK3466/159	121-Z9003	
Q60	6102320002	NTE123AP	ECG123AP	SK3854/123AP	121-Z9000A *	

For SAFETY use only equivalent replacement part.

* Lead configuration may vary from original.

PARTS LIST AND

When ordering parts, state

CAPACITORS

ITEM No.	RATING
C12	TS-12B/C 27 NPO 5%
C13	27 NPO 5%

COILS (RF-IF)

ITEM No.	FUNCTION
L1	TS-12B/C TUNE
L2	Peak ing (4.7u
L3	Peak ing (4.7u
L4	Peak ing (4.7u
L5	Peak ing (4.7u
L6	Peak ing (4.7u

For SAFETY use only

MISCELLANEOUS

ITEM No.	PART No.
Y1	TS-12B/C TUNE Resonator

For SAFETY use only

DESCRIPTION (Continued)

Model, Part Number, and Description

MFGR. PART No.

ITEM No.	RATING	MFGR. PART No.

MFGR. PART No.
R CONTROL
H) 3618134799
H) 3618134799
H) 3618134799
H) 3618134799
H) 3618134799
H) 3618134799

ITEM No.	FUNCTION	MFGR. PART No.
L7	Peak Ing (4.7uH)	3618134799
L18	Peak Ing (4.7uH)	3618134799
L19	Peak Ing (4.7uH)	3618134799
L20	Peak Ing (3.3uH)	3618133399
L21	Peak Ing (3.3uH)	3618133399
L30	Peak Ing (4.7uH)	3618134799
L40	Peak Ing (4.7uH)	3618134799
L50	Peak Ing (12uH)	3618133399

equivalent replacement part.

ME	MFGR. PART No.	NOTES
ER CONTROL	3620560002	Ceramic, 6MHz

equivalent replacement part.

SET 2654 FOLDER 2-A

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25C801/04/11/12/13/14/15, 26C804/06

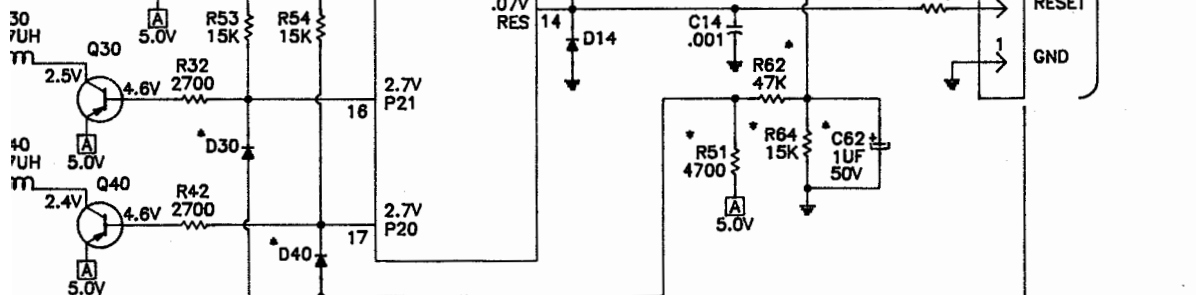
COVERAGE
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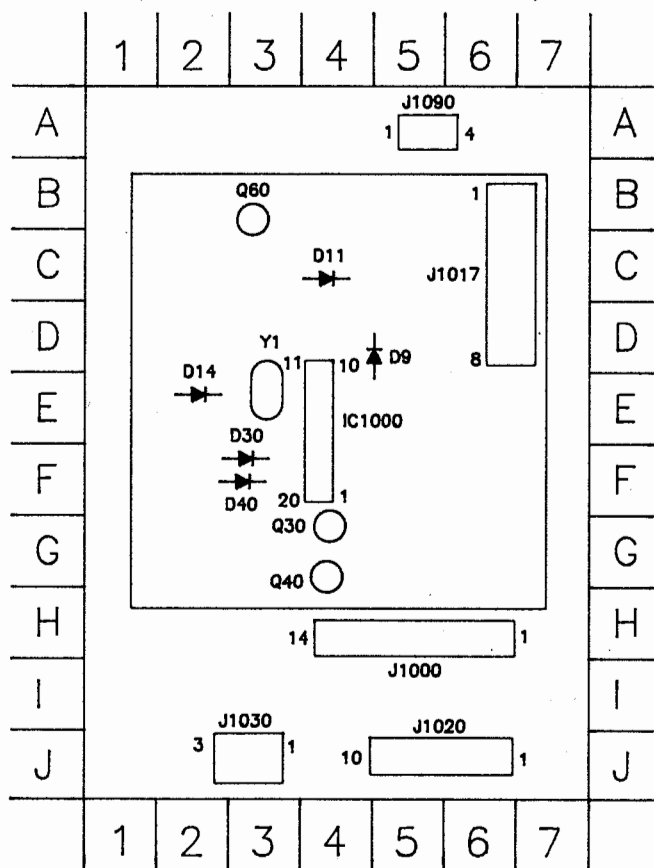
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TUNING SYSTEM TS-12B/C-GridTrace LOCATION GUIDE

C1	I-7	C53	A-4	L6	G-5	R11	C-3
C2	I-6	C54	E-2	L7	G-5	R12	D-3
C3	I-6	C60	A-6	L18	C-4	R14	B-4
C4	I-6	C62	B-2	L19	D-4	R15	E-2
C5	I-6	C90	A-6	L20	C-5	R30	I-2
C6	I-5	D9	D-5	L21	C-5	R32	G-3
C7	I-5	D11	C-4	L30	G-4	R40	I-2
C8	I-3	D14	E-2	L40	G-5	R42	G-3
C11	I-2	D30	F-3	L50	D-5	R51	G-2
C12	D-4	D40	F-3	Q30	G-4	R52	G-2
C13	D-4	IC1000	E-4	Q40	G-4	R53	G-3
C14	B-3	J1000	H-5	Q60	B-3	R54	G-3
C15	I-2	J1017	C-6	R1	F-7	R56	B-4
C18	C-4	J1020	J-5	R2	F-6	R58	D-6
C20	C-4	J1030	J-3	R3	F-6	R59	E-5
C21	C-5	J1090	A-5	R4	F-6	R60	B-4
C30	J-4	L1	G-7	R5	F-6	R62	C-2
C40	I-5	L2	G-6	R6	F-5	R64	C-2
C50	D-5	L3	G-6	R7	F-5	R90	C-6
C51	E-6	L4	G-6	R8	F-5	Y1	E-3
C52	D-4	L5	G-6				

ATU006, ATU007, ATU008 & ATU009 (TS12B/C) P.C. BOARD OVERLAY (COMPONENT VIEW)

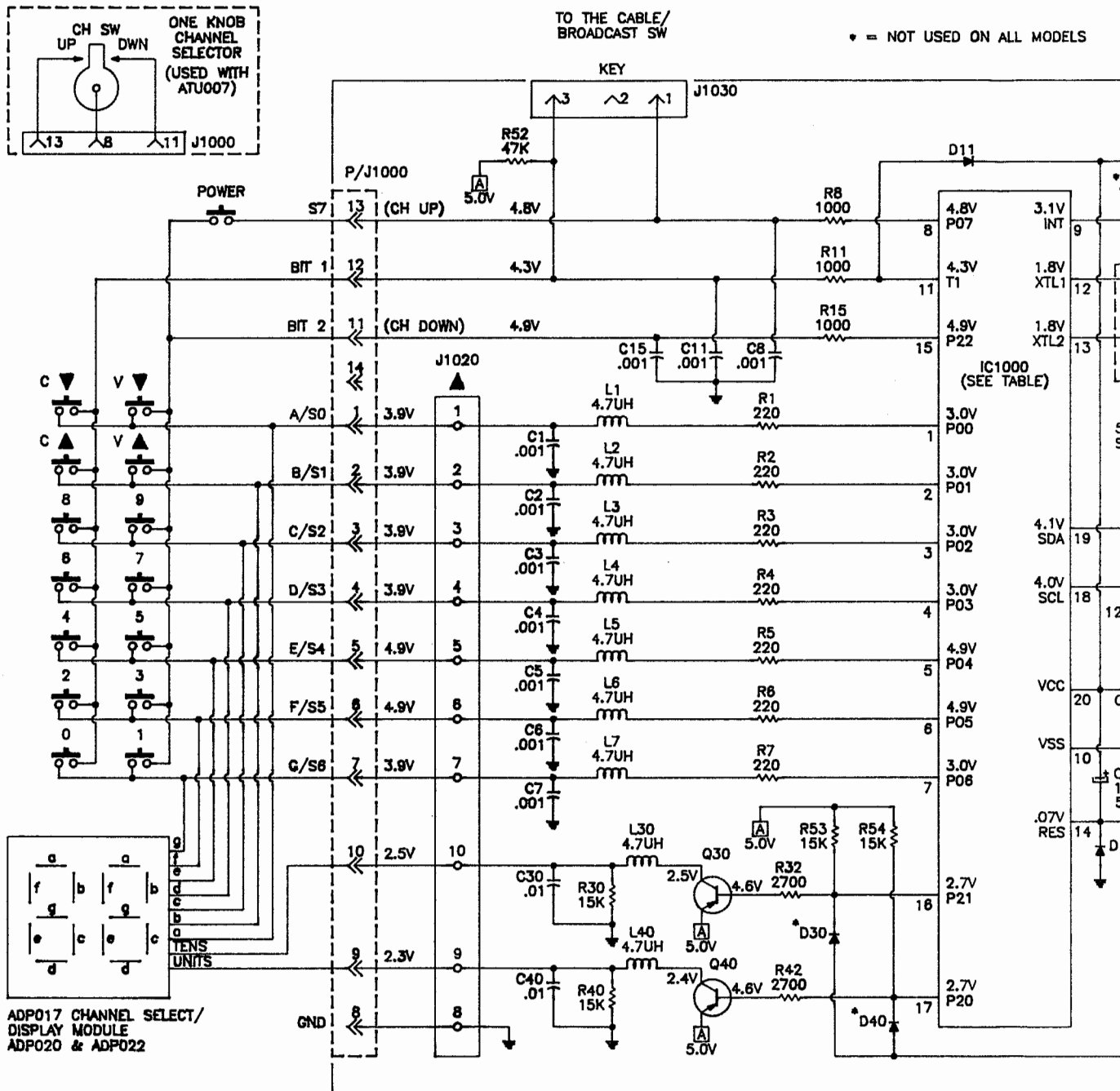


TUNING SYSTEM TS-12B/C

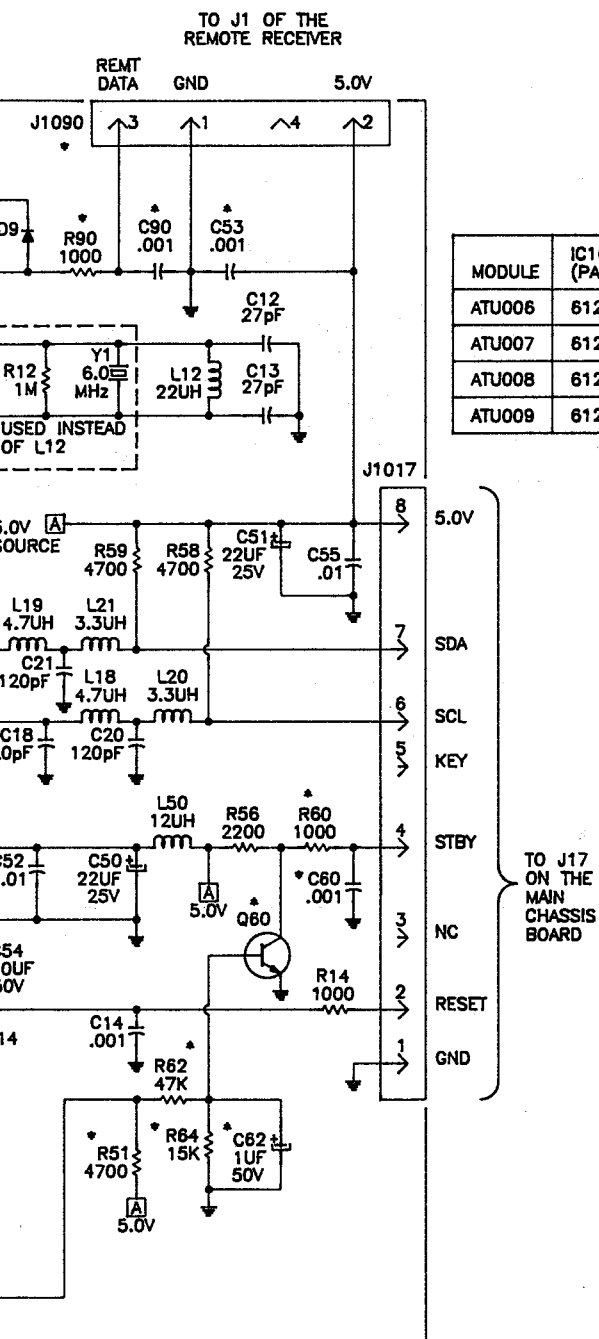
A Howard W. Sams **GRIDTRACE™** Photo

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15, 26C804/06

ATU006, ATU007, ATU008 & ATU009 (TS12
SCHEMATIC DIAGRAM
(-A001 VERSIONS)



2B/C)



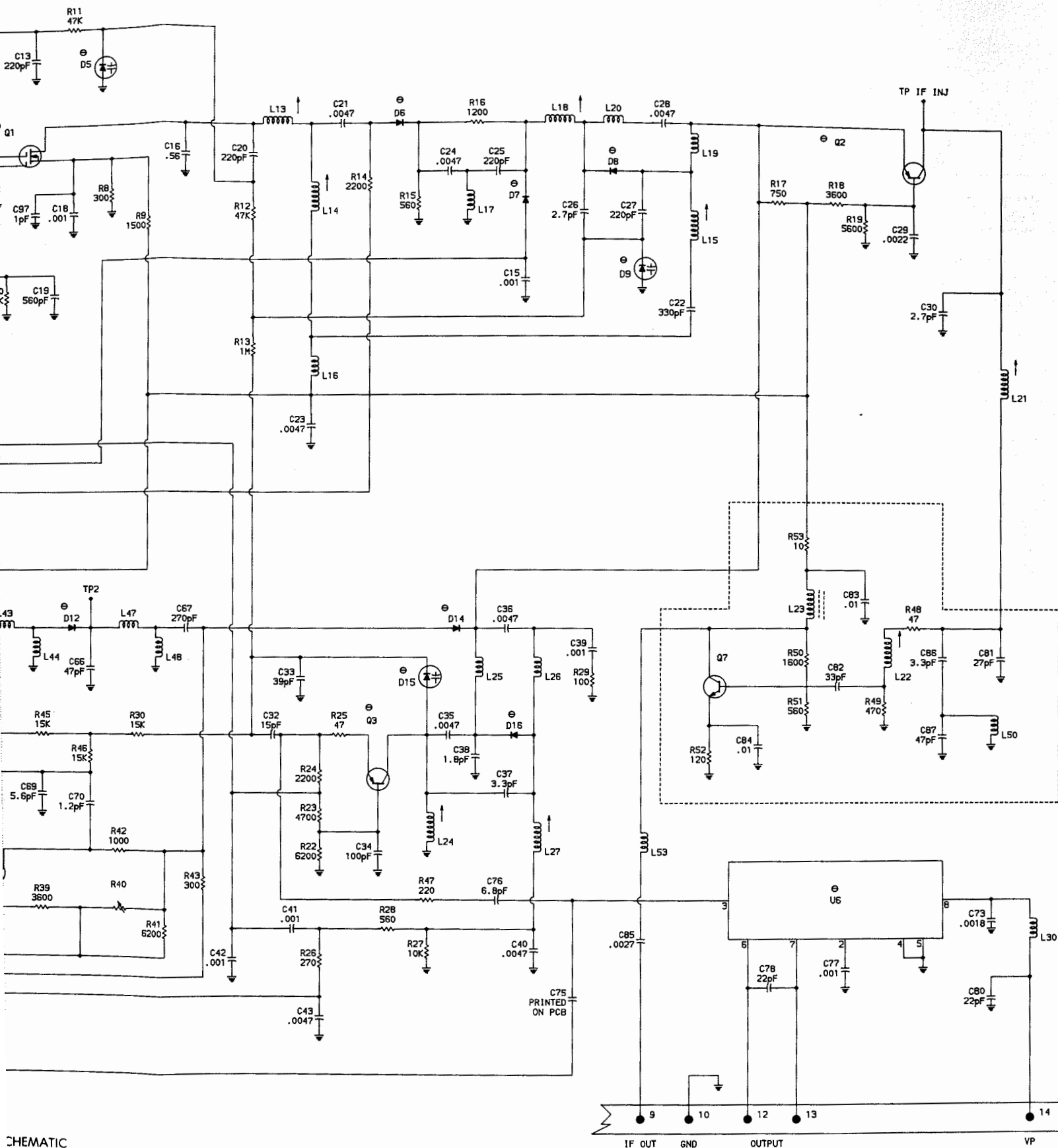
MODULE	IC1000 (PART NO.)
ATU006	6125710001
ATU007	6125780001
ATU008	6125710001
ATU009	6125760001

TUNING SYSTEM TS-12

C1	I-7	C53
C2	I-6	C54
C3	I-6	C60
C4	I-6	C62
C5	I-6	C90
C6	I-5	D9
C7	I-5	D11
C8	I-3	D14
C11	I-2	D30
C12	D-4	D40
C13	D-4	IC1000
C14	B-3	J1000
C15	I-2	J1017
C18	C-4	J1020
C20	C-4	J1030
C21	C-5	J1090
C30	J-4	L1
C40	I-5	L2
C50	D-5	L3
C51	E-6	L4
C52	D-4	L5

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UHF/VHF TUNER (3402970001)

SET 2654 FOLDER 2-B

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MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

COVERAGE FOR:

UHF/VHF TUNER 340293001
UHF/VHF TUNER 340297001

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

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SET 2654 FOLDER 2-B

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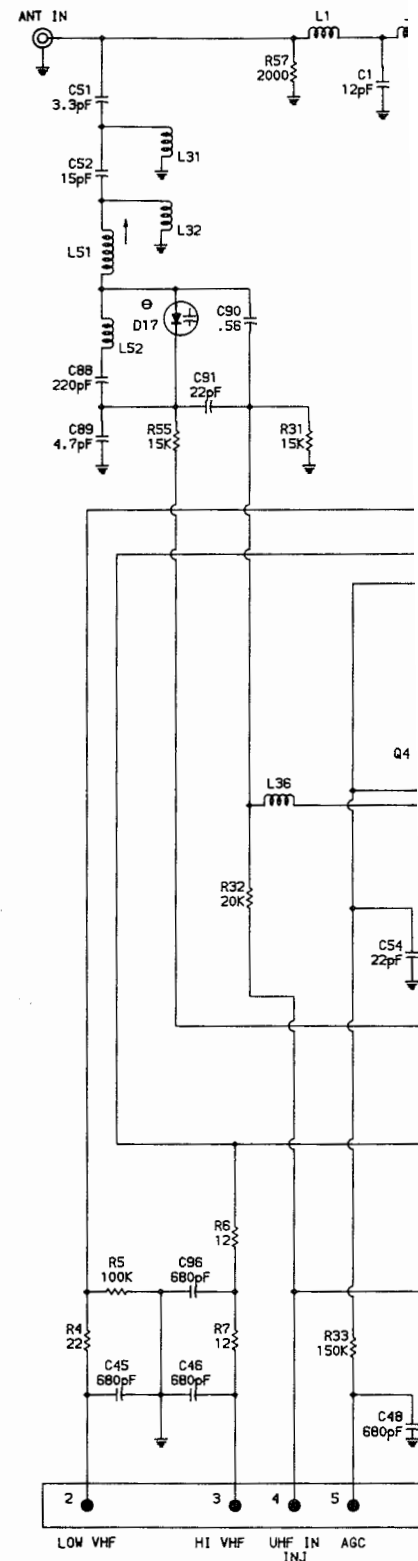


PARTS LIST AND DESCRIPTION

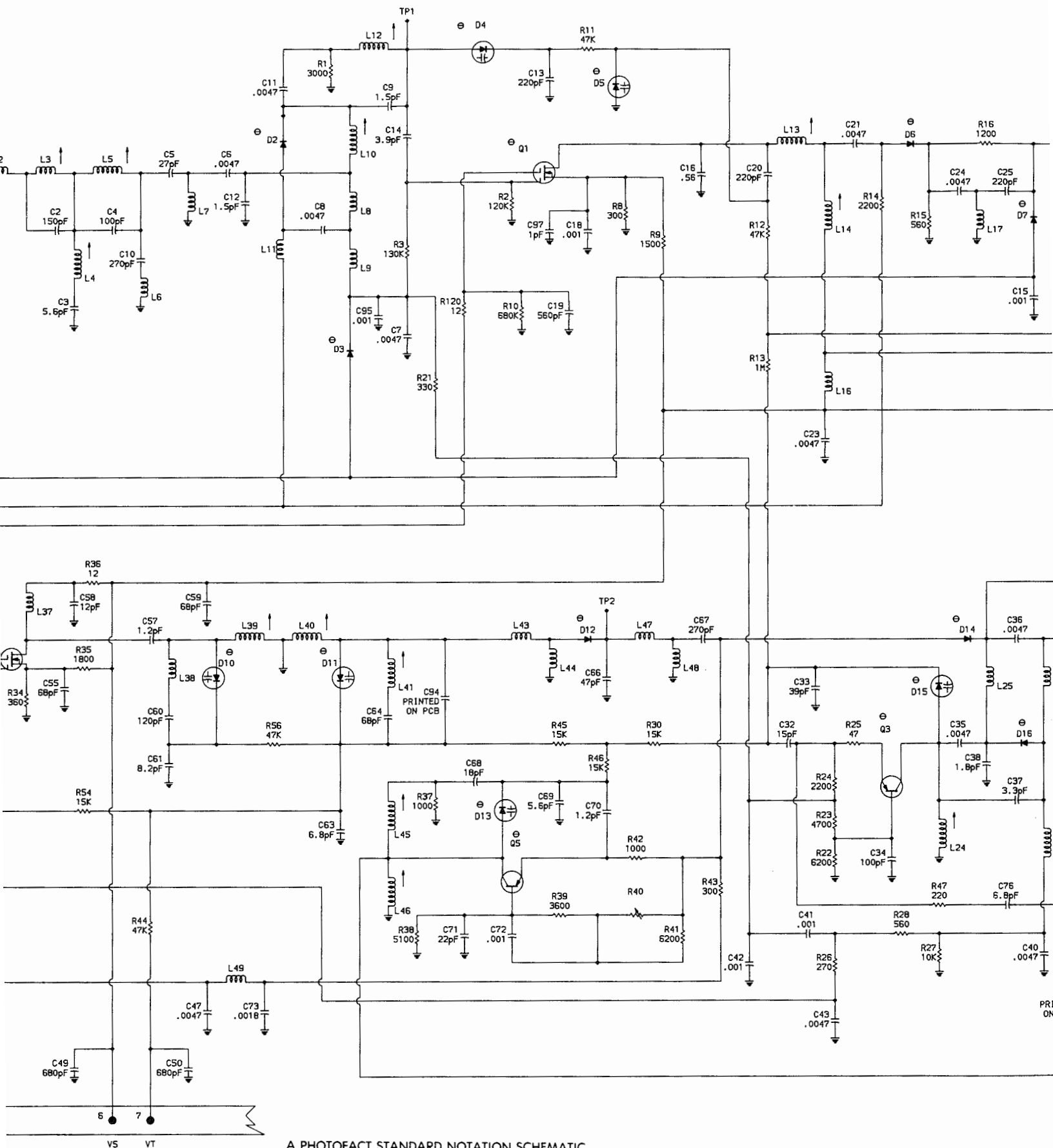
When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
VARACTOR TUNER 3402970001						
D2	5303130001	NTE553	EOG553			
D3	5301800005					
D4,5	5303130002	NTE553	EOG553			
D6						
D7	5301810002	NTE519	EOG519	SK3100/519	103-131	
D8	5303130002	NTE553	EOG553			
D9	5301800005					
D10						
D11						
D12	5301940003					
D13						
D14	5303130001	NTE553	EOG553			
D15	5301800005					
D16	5392100120					
D17						
Q1						
Q2	6190100010	NTE395	EOG395	SK9434		
Q3						
Q4	6105190001					
Q5						
U6	6124400001					



UHF/VHF TUNER (34029)

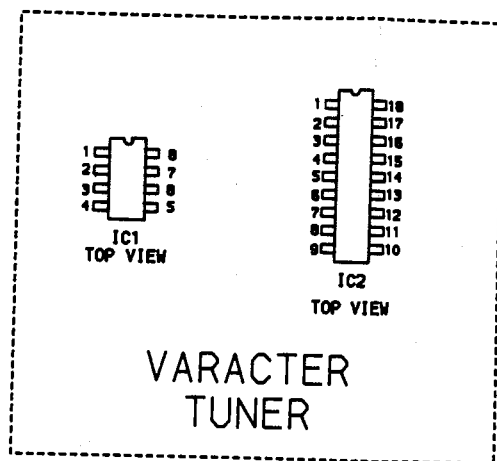


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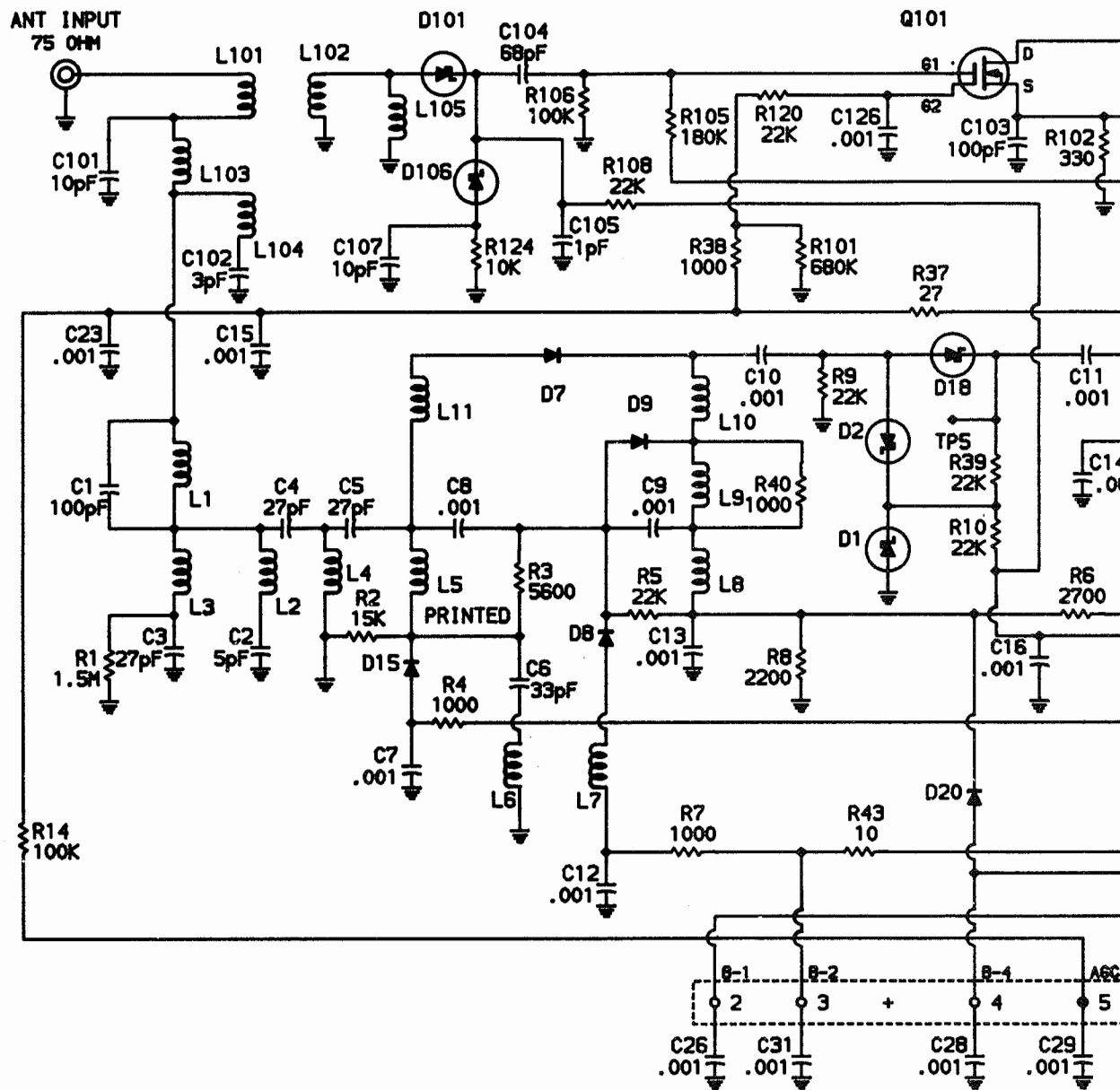


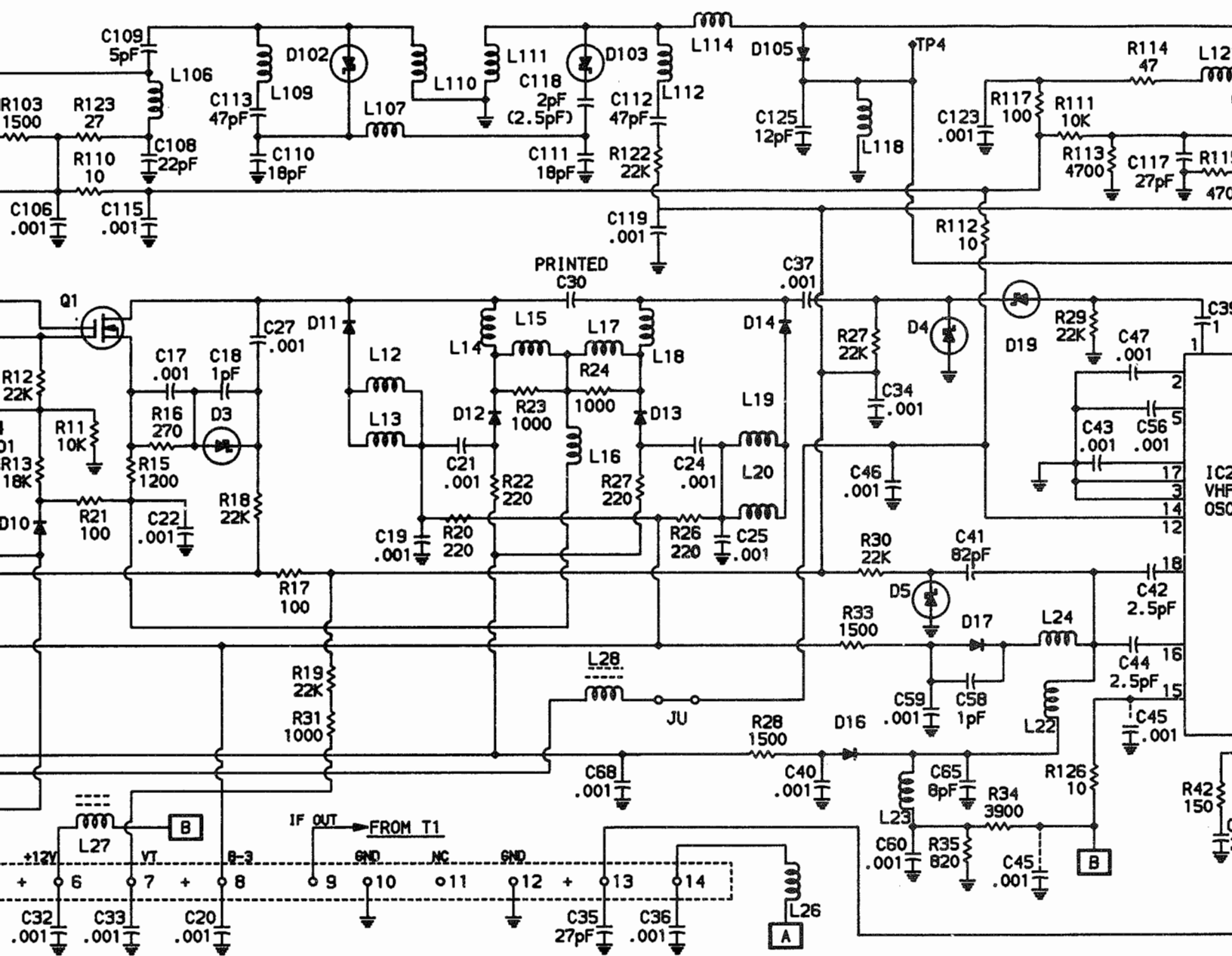
PARTS LIST AND DESCRIPTION (Continued)

When ordering parts, state Model, Part Number, and Description

SEMICONDUCTORS (Select replacement for best results)

ITEM No.	MFGR. PART No./ TYPE No.	NTE PART No.	ECG PART No.	TCE PART No.	ZENITH PART No.	NOTES
VARACTOR TUNER 340293001						
D1 THRU D5	5302300003					USED SOME VERSIONS
D1 THRU D5	1716580001					USED SOME VERSIONS
D7 THRU D17	5303040001					USED SOME VERSIONS
D18, 19	5302300003					
D20	5303040001					
D21	5303040001					
D101 THRU D104	5302300003					
D101 THRU D104	1716580001					
D105, 6	5302300003					
IC1	6124400001					
IC2	6124490002					
Q1	6105210001					
Q101	6105360001					
Q102	6105150002					





PARTS LIST AND DESCRIPTION

When ordering parts, state Model, Part Number, and Description

COILS (RF-IF)

ITEM No.	FUNCTION	MFGR. PART No.
	TS-12A TUNER CONTROL	
L2	Peaking (4.7uH)	3618134799
L3	Peaking (4.7uH)	3618134799
L4	Peaking (3.3uH)	3618133399
L5	Peaking (3.3uH)	3618133399
L18	Peaking (4.7uH)	3618134799
L19	Peaking (4.7uH)	3618134799

ITEM No.	FUNCTION	MFGR. PART No.
L20	Peaking (4.7uH)	3618134799
L21	Peaking (4.7uH)	3618134799
L22	Peaking (4.7uH)	3618134799
L23	Peaking (4.7uH)	3618134799
L24	Peaking (4.7uH)	3618134799
L30	Peaking (4.7uH)	3618134799
L40	Peaking (4.7uH)	3618134799
L50	Peaking (12uH)	3618133399

For SAFETY use only equivalent replacement part.

CAPACITORS

ITEM No.	RATING	MFGR. PART No.
	TS-12A TUNER CONTROL	
C15	27 NPO 5%	2507392705
C16	27 NPO 5%	2507392705

ITEM No.	RATING	MFGR. PART No.

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
Y1	TS-12A TUNER CONTROL Resonator	3620560002	Ceramic, 6MHz

For SAFETY use only equivalent replacement part.

SET 2654 FOLDER 2-C

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MAGNAVOX CHASSIS

25C801/04/11/12/13/14/15,26C804/06

MAGNAVOX CHASSIS

25C801/04/11/12/13/14/15,26C804/06

**COVERAGE FOR:
TUNING SYSTEM TS-12A**

MAGNAVOX CHASSIS
25C801/04/11/12/13/14/15,26C804/06

SET 2654 FOLDER 2-C

SAMS™

Howard W. Sams & Co.

4300 West 62nd Street, P.O. Box 7092, Indianapolis, Indiana 46206 U.S.A.

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DATE 4-89

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PARTS LIST AND

When ordering parts, state

COILS (RF-IF)

ITEM No.	FUNCTION
	TS-12A TUNER
L2	Peaking (4.7u)
L3	Peaking (4.7u)
L4	Peaking (3.3u)
L5	Peaking (3.3u)
L18	Peaking (4.7u)
L19	Peaking (4.7u)

For SAFETY use only

CAPACITORS

ITEM No.	RATING
	TS-12A TUNER
C15	27 NPO 5%
C16	27 NPO 5%

MISCELLANEOUS

ITEM No.	PART NAME
	TS-12A TUNER
Y1	Resonator

For SAFETY use only

DESCRIPTION

Model, Part Number, and Description

	MFGR. PART No.
CONTROL	
1H)	3618134799
2H)	3618134799
3H)	3618133399
4H)	3618133399
5H)	3618134799
6H)	3618134799

equivalent replacement part.

ITEM No.	FUNCTION	MFGR. PART No.
L20	Peaking (4.7uH)	3618134799
L21	Peaking (4.7uH)	3618134799
L22	Peaking (4.7uH)	3618134799
L23	Peaking (4.7uH)	3618134799
L24	Peaking (4.7uH)	3618134799
L30	Peaking (4.7uH)	3618134799
L40	Peaking (4.7uH)	3618134799
L50	Peaking (12uH)	3618133399

	MFGR. PART No.
CONTROL	
	2507392705
	2507392705

ITEM No.	RATING	MFGR. PART No.

NAME	MFGR. PART No.	NOTES
CONTROL	3620560002	Ceramic, 6MHz

equivalent replacement part.

SET 2654 FOLDER 2-C

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PHC

For Supplier Address

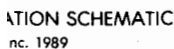
MAGNAVOX CHASSIS

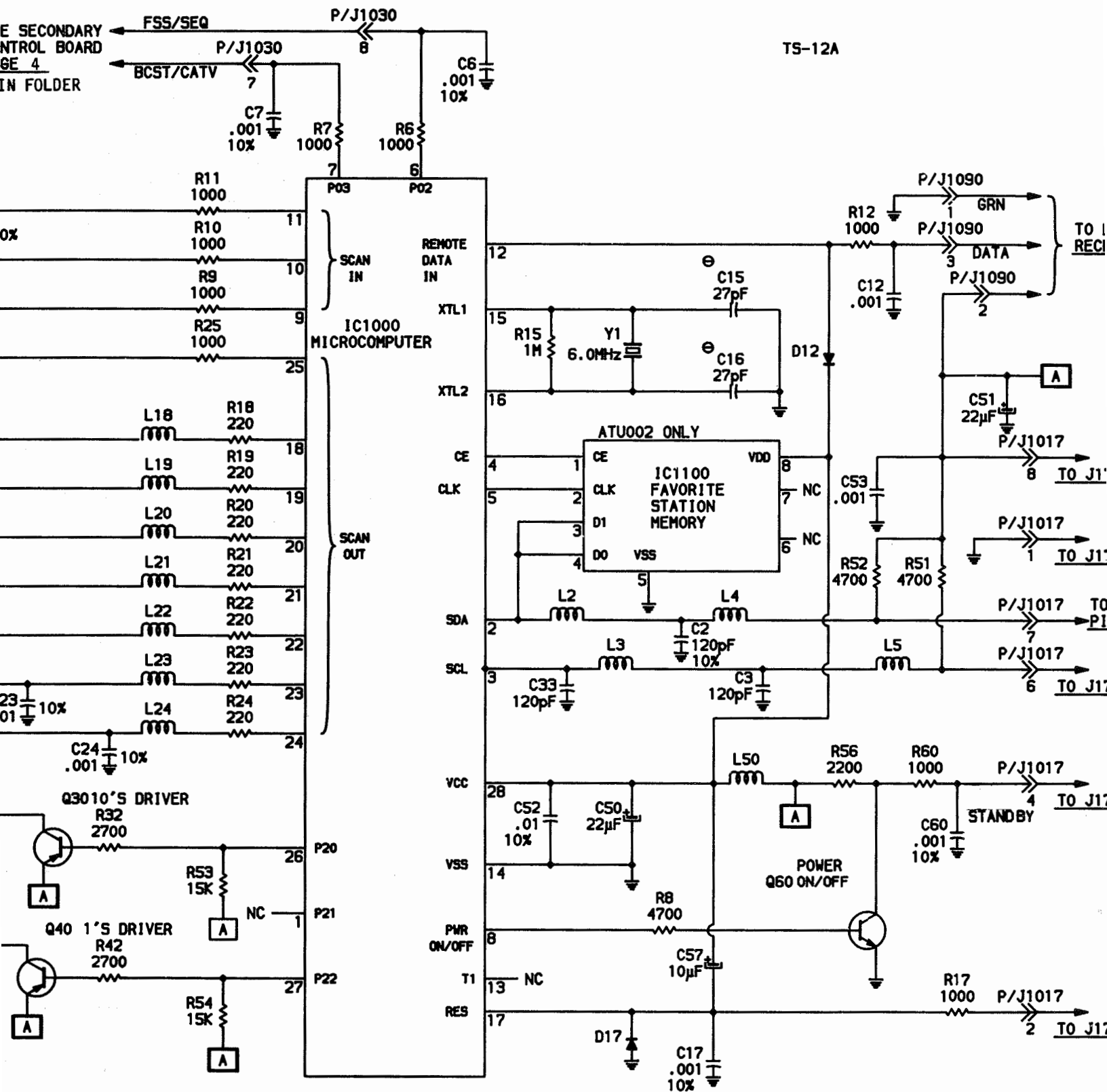
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TS-12A

