

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, degaussing coil connector and ground leads. Remove two screws holding tuning selector panel to cabinet front and remove assembly from cabinet. Remove one screw holding audio input jack to cabinet top and remove from cabinet. Remove one screw holding remote receiver to cabinet front and remove from cabinet. Remove

one screw holding videomatic sensor to cabinet front and remove from cabinet. Remove four screws holding control panels to cabinet front and remove assembly from cabinet. Remove two screws holding main board assembly to cabinet bottom and slide assembly out of 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 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 .25-amp fuse is used for remote receiver power-supply protection. (See photo, Cabinet - Rear View.)

A 5-amp fuse is used for AC line protection. (See Alignment Photo.)

LAMP ACCESSIBILITY

Lamp is accessible after removing cabinet back.

VHF/UHF TUNER

Ten numbered buttons are provided for two digit channel selection with ch (channel up) and ch (channel down) buttons provided for channel scanning. Fine tuning is automatic. No pretuning.

HORIZONTAL OSCILLATOR

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

FOCUS

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

SET 2384 FOLDER 1

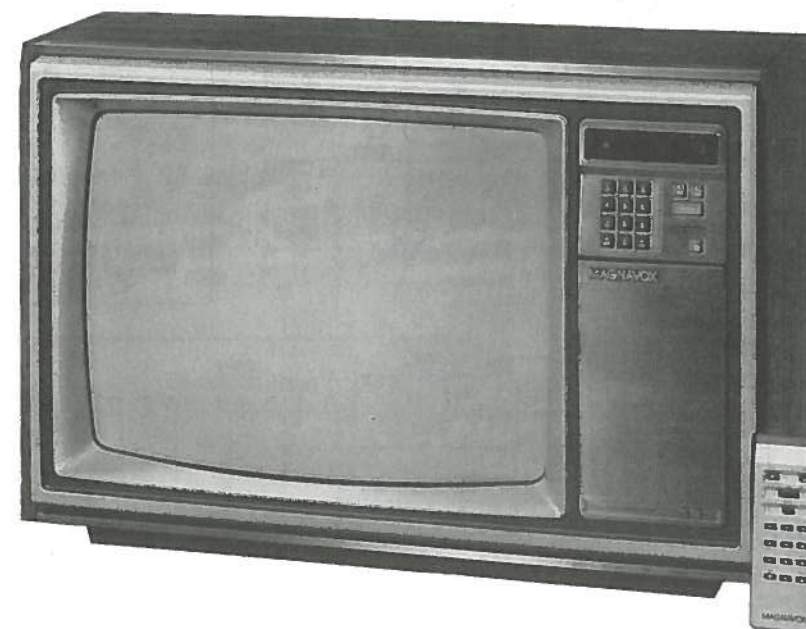
SAMS

PHOTOFACT®

For Supplier Address See PHOTOFACT Index

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

*Master - Sch.
+ Photos*



Model RC4243WA01

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

SAFETY PRECAUTIONS

See page 4.

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SAMS

Howard W. Sams & Co.

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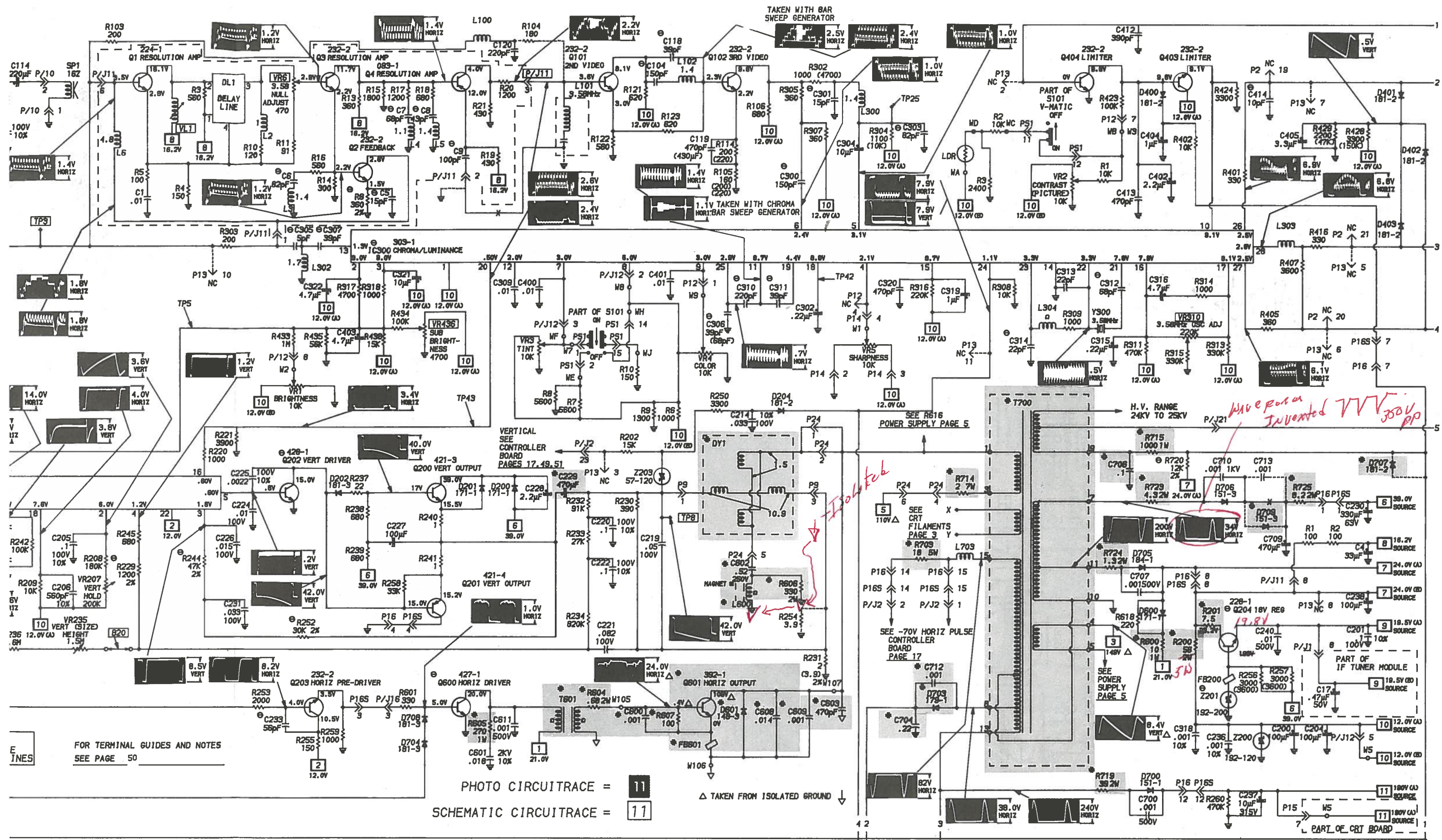
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DATE 2-86

SET 2384 FOLDER 1

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

SET 2384 FOLDER 1

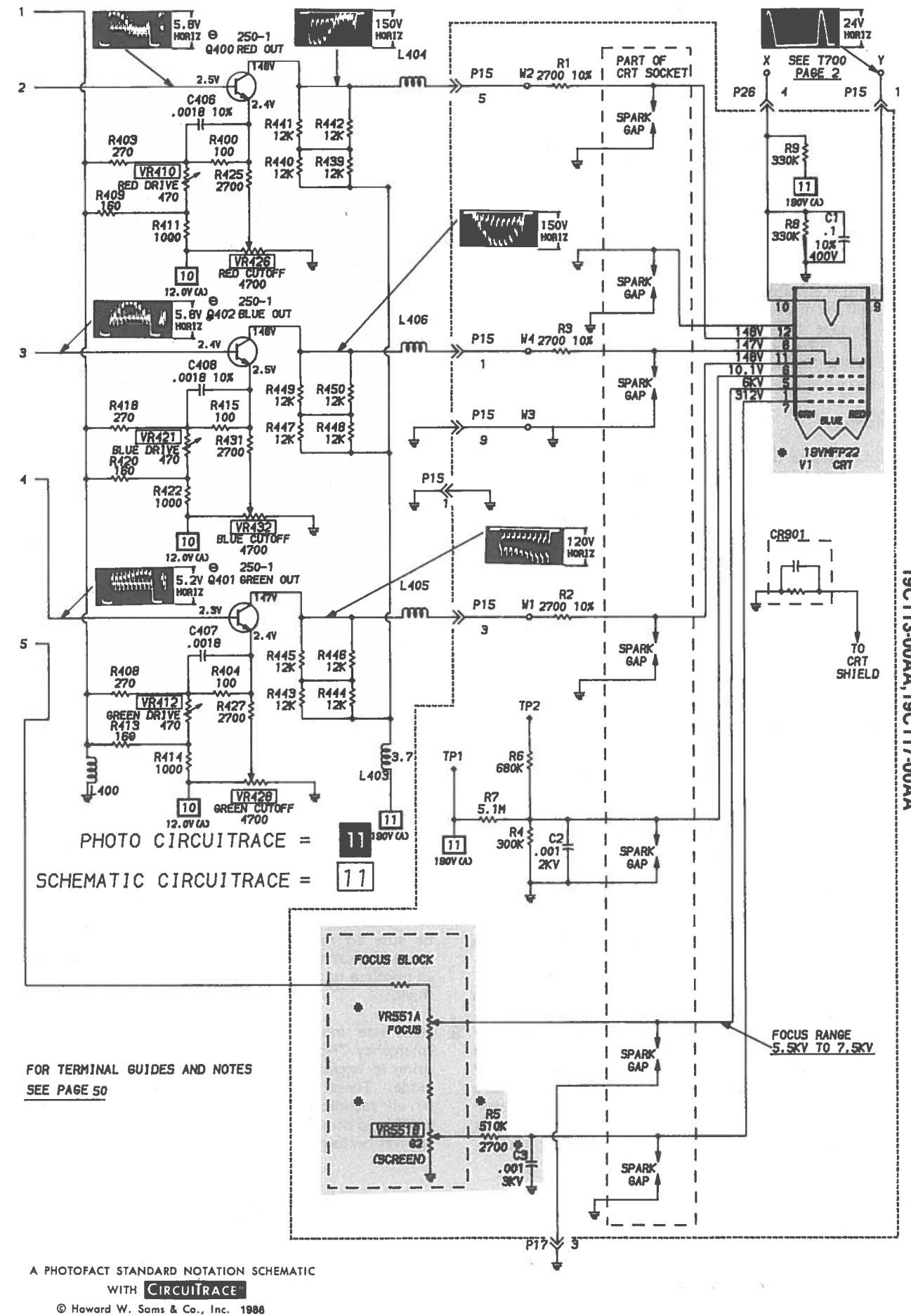
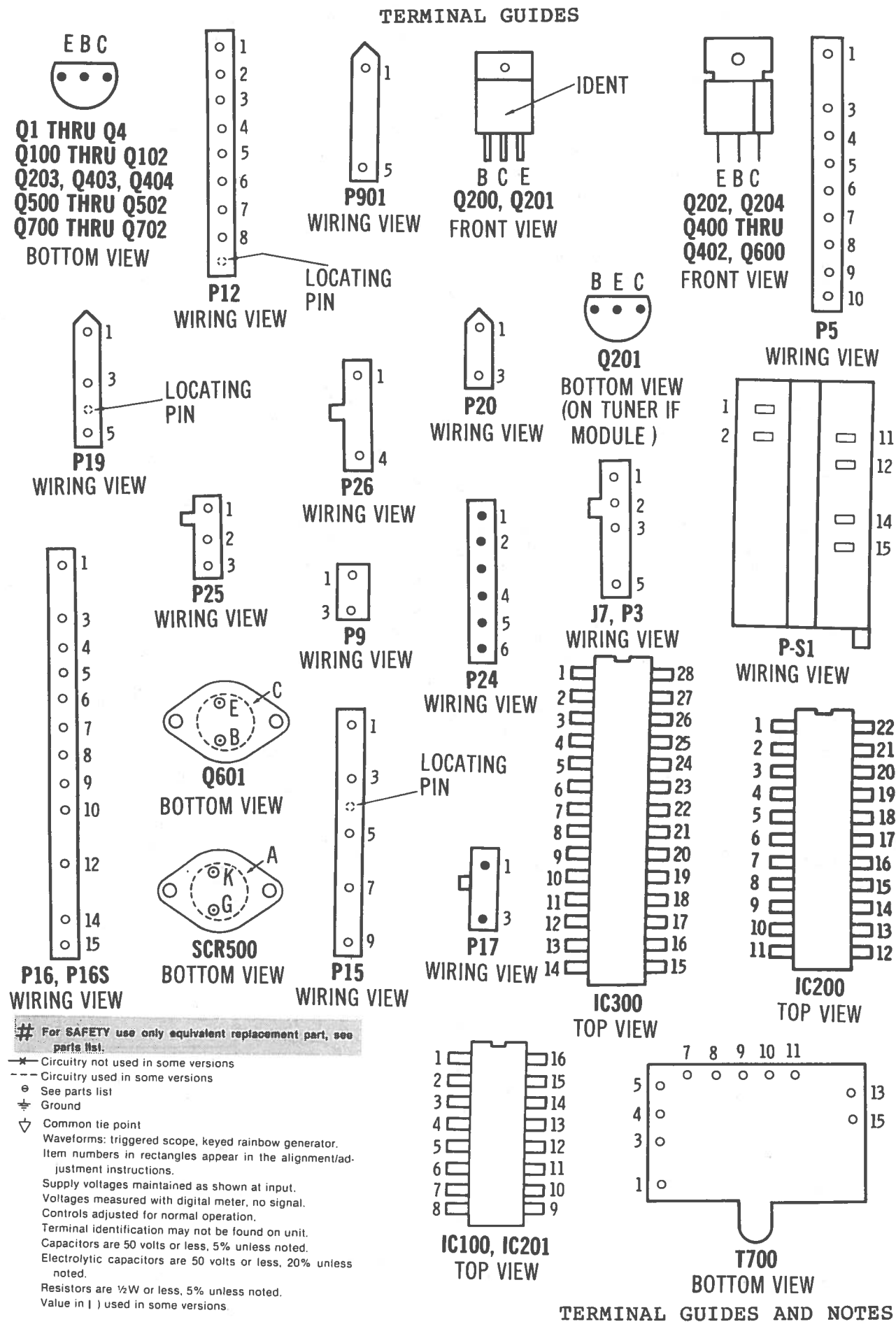


FOR TERMINAL GUIDES AND NOTES
SEE PAGE 50

PHOTO CIRCUITRACE = 11

SCHEMATIC CIRCUITRACE = 11

Δ TAKEN FROM ISOLATED GROUND ↓



SAFETY PRECAUTIONS

AC Leakage Tests

- 1. Do not use an isolation transformer during this test. Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner: Connect a 1500 ohm, 10 watt resistor paralleled by a .15 mfd. AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination 1500 ohm resistor and a .15 mfd. capacitor. Reverse the AC plug and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed .45 volts RMS. This corresponds to 0.3 milliamps AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

Implosion

- 1. All picture tubes used in current model receivers are equipped with an integral implosion system.

Older model receivers originally equipped with a separate safety glass must always have the safety glass in place since there is no other implosion protection.

Care should always be used, and safety glasses worn, whenever handling any picture tube. Avoid scratching or other damage during installation.
- 2. Use only replacement tubes as specified by Magnavox.

X-Radiation

- 1. Be sure procedures and instructions to all your service personnel cover the subject of X-radiation. Potential sources of X-Rays in TV receivers are the picture tube and (where applicable) the HV Regulator and HV Rectifier tubes. However, these tubes do not emit measurable X-Rays when the HV is at the factory specified level. It is only when the HV is excessive that X-Radiation is capable of penetrating the walls of these tubes or the HV cage and escaping into the room. The basic precaution which must be exercised is to keep the HV at the factory recommended level.
- 2. To avoid possible exposure to X-Radiation and electrical shock hazard only the manufacturer's specified anode connectors must be used; the HV compartment and all metal shields, where used, must be kept in place whenever the chassis is operating. If a shield is missing, it should be replaced at once as a standard servicing procedure. The degaussing shield also serves as an X-Ray shield in color sets. Do not defeat.

- 3. It is essential that the service technician has available at all times an accurate HV meter. The calibration of this meter should be checked periodically against a reference standard.

- 4. When the HV circuitry is operating properly there is no possibility of an X-Radiation problem. Every time a color set is serviced, the brightness should be run up and down while monitoring the HV with a meter to be certain that the HV does not exceed the specified value and that it is regulated correctly.

We suggest that you and your service technicians review test procedures so that HV and HV regulation are always checked as a standard servicing procedure, and the reason for this prudent routine be clearly understood by everyone. It is important to use an accurate and reliable HV meter. It is recommended that the HV reading be recorded on each customers invoice, which will demonstrate a proper concern for the customer's safety.

- 5. When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, reduce the line voltage by means of a Variac to bring the HV into acceptable limits while troubleshooting. Do not operate the chassis longer than necessary to locate the cause of the excessive HV.

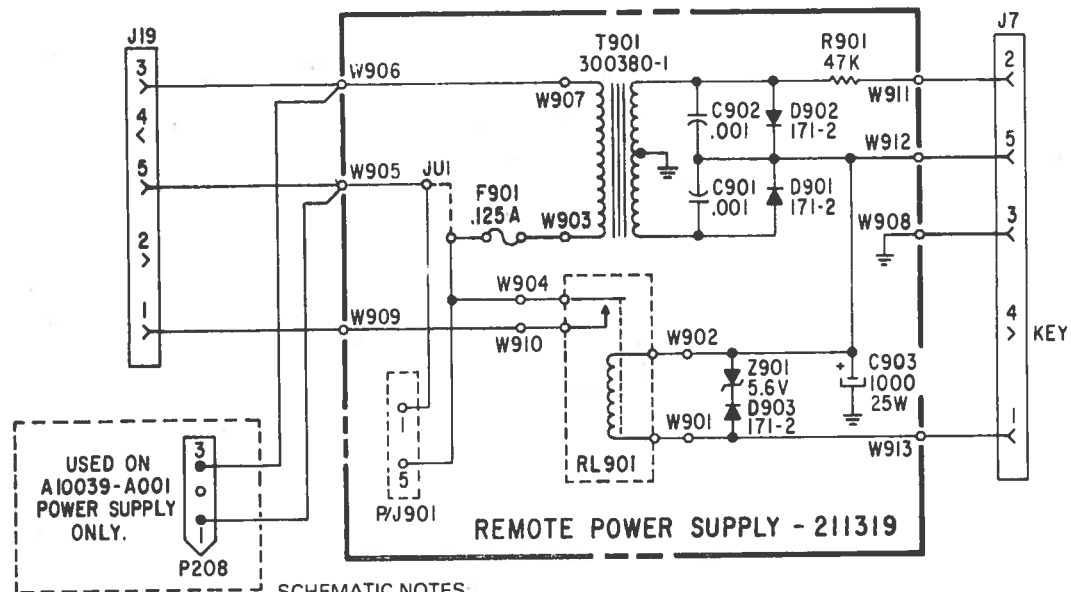
- 6. Magnavox is now using new type picture tubes specifically designed to withstand higher operating voltages, without creating undesirable X-Radiation. It is strongly recommended that any shop test fixture which is to be used with the new higher voltage chassis, be equipped with one of the new type tubes designed for this service. Addition of a permanently connected HV meter to the shop test fixture is advisable. The CRT types used in these new sets should never be replaced with any other types as that may result in excessive X-Radiation.

- 7. Many earlier color sets use a shunt type regulator tube, which is another potential source of radiation. In many cases, improved types of regulator tubes are now available and early types have been obsoleted. Be sure to replace with the new type tubes for maximum safety, whenever servicing a set containing an obsolete type regulator tube. Be sure to replace all shields.

- 8. Most late model receivers contain some type of emergency "Hold Down" circuit to prevent HV from rising to excessive levels in the presence of a failure mode. These various circuits should be understood by all technicians servicing them, especially since many hold down circuits are inoperative as long as the receiver performs normally.

Courtesy of the Manufacturer

19C1 REMOTE POWER SUPPLY MODULE SCHEMATIC DIAGRAM



- SCHEMATIC NOTES:
UNLESS OTHERWISE SPECIFIED:
- 1. ALL CAPACITANCE VALUES SHOWN ARE IN MICRO-FARADS
 - 2. VOLTAGES ARE DC WITH RESPECT TO THE ISOLATED (COLD) GROUND
 - 3. LINE VOLTAGE MAINTAINED AT 120VAC, 60Hz VIA AN ISOLATION TRANSFORMER
 - 4. FOR VOLTAGE, WATTAGE OR TOLERANCE OF CAPACITORS OR RESISTORS, REFER TO THE REPLACEMENT PARTS LIST.
 - 5. CONNECTION TO P901 IS INCORPORATED ON THE A10013 REMOTE POWER SUPPLY MODULES ONLY.
 - 6. JUMPER JU1 IS PRESENT ON ALL REMOTE POWER SUPPLY MODULES EXCEPT THE A10013 SERIES.
 - 7. CONNECTOR P208 IS INCORPORATED ON THE A10039 REMOTE POWER SUPPLY MODULES ONLY.

WARNING

For continued safety of this product, parts highlighted by shading in the parts lists in this manual should be used as replacements for those parts highlighted in the schematic diagrams in this service manual. Use of substitute replacement parts which do not have the same specified safety characteristics may create shock, fire or other hazards.

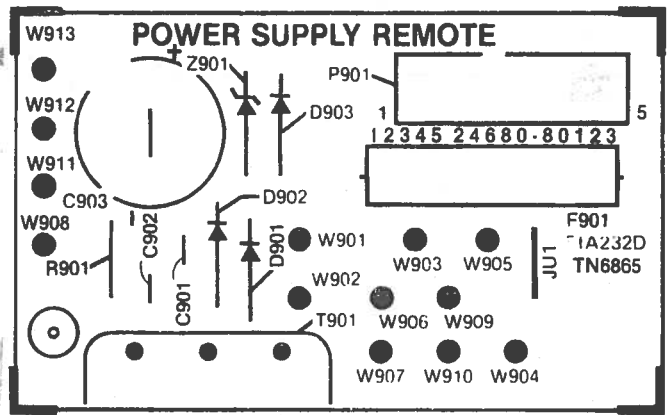
For maximum reliability and performance, all other parts should be replaced by those having identical specifications.

Under no circumstances should the original design be modified or altered without written permission from the N.A.P. Consumer Electronics Corp. NAPCEC assumes no liability, express or implied, arising out of any unauthorized modification of design.

A10013-A001 & -B002
A10029-A001, -B002, -C003, -D004 & -E005
A10039-A001 & -B002

Ref.	Description	Part No.
Transformer		
T901	Power Transformer	3003800002
Capacitors		
C901	Ceramic, 1000pF., 10%, 50V	2507231029
C902	Ceramic, 1000pF., 10%, 50V	2507231029
C903	Electrolytic, 1000uF., 25V	2701091325
Resistor		
R901	Carbon Film, 47k ohm, 5%, 1/4W	2302144735
Semiconductors		
D901	Silicon Diode	5301711002
D902	Silicon Diode	5301711002
D903	Silicon Diode	5301711002
Z901	Zener Diode, 5.6V	5301711569
Miscellaneous		
RL901	Relay	1804140010
F901	Slow-Blow Fuse, .125A	1808555012
	Insulator f/ Relay Contacts	6448300002
	Wrap-Around Insulator f/ Relay	6447910001
J7	5 Pin Square Wire Housing	1812101005
	Square Wire Contacts f/ J7 (4 used)	1810110003
J19	5 Pin Connector Housing	1812440002
	Female Contacts f/ J19 (3 used)	1809520002
	Positive Polarizing Key f/ J19	1446920001
P901	Male Contact Pins (2 used - A10013 only)	1808820004
P208	3 Pin Male Contact Housing (A10039 only)	1807350001
	Male Contact f/ P208	1807260002
	Female Contact f/ P208	1807250002

REMOTE POWER SUPPLY MODULE
P.C. BOARD OVERLAY
(VIEWED FROM THE COMPONENT SIDE)



- Remote Power Supply Module P.C. Board Notes
- 1. Connection to P901 is made on A10013 assemblies only.
 - 2. Jumper JU1 is present on all versions except the A10013 assemblies only.

Courtesy of the Manufacturer

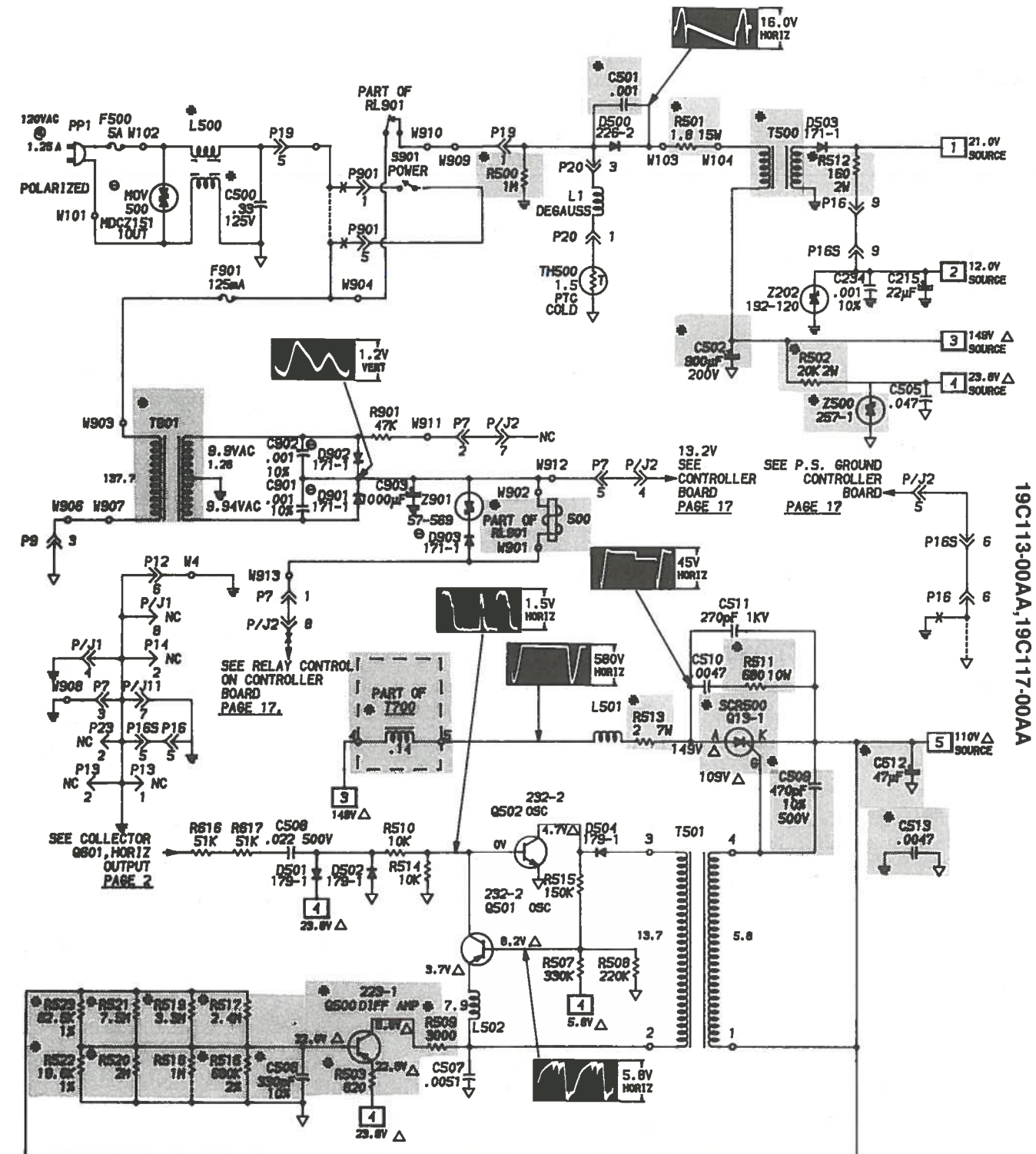
REMOTE POWER SUPPLY (19C1)

A10003 & A10023 REPLACEMENT PARTS LIST (CONTINUED)

REF.	DESCRIPTION	PART NO.	REF.	DESCRIPTION	PART NO.
R3	820 ohm	2302738215	R221	150K ohm	2302141545
R4	3900 ohm	2302143925			
R5	300 ohm	2302733015			
R6	47K ohm	2302144735	Controls		
R7	1800 ohm	2302731825	RV216	RF Delay Adjustment, 200K ohm, 30%	2203022243
R8	330 ohm	2302143315			
R9	100 ohm	2302731015	Coils		
R10	1500 ohm	2302141525	L1	Coil, 2½ Turns	
R11	100K ohm	2302141045	L2	Coil, 16½ Turns	
R12	100 ohm	2302141015	L3	Coil, 2½ Turns	
R13	820 ohm	2302148215	L4	Coil, 12½ Turns	
R14	100 ohm	2302141015	L5	Coil, 7½ Turns	
R15	100K ohm	2302141045	L6	Coil, 11½ Turns	
R16	1500 ohm	2302141525	L7	Coil, 11½ Turns	
R17	9100 ohm	2302149125	L8	Coil, 9½ Turns	
R18	100K ohm	2302141045	L9	Coil, 8½ Turns	
R19	470K ohm	2302144745	L10	Coil, 2½ Turns	
R20	12K ohm	2302141235	L11	Part of the Copper Pattern	
R21	3.3 Meg ohm	2302203355	L12	Coil, 3½ Turns	
R22	820 ohm	2302148215	L13	Coil, 3½ Turns	
R23	4.7 ohm	2302144795	L14	Coil, 12½ Turns	
R24	3900 ohm	2302143925	L15	Coil, 12½ Turns	
R25	470 ohm	2302144715	L16	Part of the Copper Pattern	
R26	5.6K ohm	2302145625	L17	Coil, 16½ Turns	
R27	10K ohm	2302731035	L18	Coil, 17½ Turns	
R28	22 ohm	2302142205	L19	Coil, 17½ Turns	
R29	22 ohm	2302142205	L21	Inductor	3615400004
R30	1800 ohm	2302141825	L22	Peaking Coil, 5.6uH.	
R31	5.6K ohm	2302145625	L23	Coil, 9½ Turns	
R32	5.6K ohm	2302145625	L24	Coil, 8½ Turns	
R33	22 ohm	2302142205	L25	Coil, 3½ Turns	
R34	10 ohm	2302731005	L26	Coil, 4½ Turns	
R35	20K ohm	2302142035	L27	Inductor	3615400004
R36	1 Meg ohm	2302141055	L29	Inductor	3615400004
R37	1K ohm	2302731025	L30	Coil, 4½ Turns (Late Production)	
R38	2200 ohm	2302732225	L30	Coil, 3½ Turns (Early Production)	
R39	12K ohm	2302731235	L101	UHF Antenna Line	7338140001
R40	39K ohm	2302143935	L102	UHF Antenna Coil	3617470002
R41	2200 ohm	2302142225	L103	Coil, 2½ Turns	
R42	3900 ohm	2302143925	L104	Coil, 3½ Turns	
R43	150 ohm	2302141515	L105	Coil, 3½ Turns	
R44	390 ohm	2302733915	L106	Coil, 5½ Turns	
R45	680 ohm	2302146815	L107	Coil, 8½ Turns	
R46	22K ohm	2302732235	L108	RF Drain Line	
R101	1.5 Meg ohm	2302121559	L109	Interstage Mixer Line	
R102	100K ohm	2302141045	L110	Coil, 3½ Turns	
R103	220K ohm	2302732245	L111	Shorted Turn Strip	
R104	33K ohm	2302733335	L112	Coil, 8½ Turns	
R105	330 ohm	2302143315	L113	UHF Line Osc. Coil	
R106	2200 ohm	2302732225	L114	Coil, 1½ Turns	
R107	47 ohm	2302144705	L115	Coil, 12½ Turns	
R108	22K ohm	2302142235	L116	Coil, 8½ Turns	
R109	22K ohm	2302142235	L117	Coil, 3½ Turns	
R110	22K ohm	2302142235	L118	Coil, 16½ Turns	
R111	100K ohm	2302731035	L119	Coil, 4½ Turns	
R113	91 ohm	2302739105	L120	Inductor	
R114	47 ohm	2302334705	L130	Inductor	
R115	820 ohm	2302738215	L202	RF Coil, 41.25MHz. Trap Adj.	3617091006
R116	47 ohm	2302734705	L203	Peaking Coil, 1.2uH.	3617351299
R117	6.8K ohm	2302736825	L204	Peaking Coil, 1.2uH. (-B002 Versions Only)	3617351299
R118	6.2K ohm	2302736225	L204	Peaking Coil, 5.6uH. (-A001 Versions Only)	3617355699
R119	2700 ohm	2302142725	L205	Peaking Coil, 10uH.	3617351099
R120	2700 ohm	2302142725	L206	RF Coil, Detector Coil	3617091006
R121	3.3K ohm	2302143325	L207	RF Coil, AFT Coil	3617091004
R122	2200 ohm	2302142225	L208	Peaking Coil, 1.2uH.	3617351299
R123	6.8 ohm	2302146895	L209	Peaking Coil, 1.2uH.	3617351299
R201	1500 ohm	2302141525	L210	Peaking Coil, 5.6uH. (-B002 Versions Only)	3618345699
R202	13K ohm	2302731335			
R204	150 ohm	2302731515	Miscellaneous		
R205	820 ohm	2302148215	SWIF201	Filter	3617530001
R206	1500 ohm	2302141525	CF201	4.5MHz Trap	3617560001
R208	6.8K ohm	2302146825	FB1	Ferrite Bead	3640050005
R209	47 ohm	2302734705	FB2	Ferrite Bead	3640050005
R210	51 ohm	2302145105	FB3	Ferrite Bead	3640050005
R211	4700 ohm	2302144725	FB4	Ferrite Bead	3640050005
R212	150 ohm	2302141515	FB5	Ferrite Bead	3640050005
R214	10K ohm	2302141035	FB6	Ferrite Bead	3640050002
R215	68K ohm	2302736835	FB7	Ferrite Bead	3640050005
R218	2200 ohm	2302732225	FB101	Ferrite Bead	3640050005
R219	1800 ohm	2302141825		Top Cover	7338170002
R220	91K ohm	2302149135		Bottom Cover	7339420001

Courtesy of the Manufacturer

PARTS LIST (A10003 & A10023)



FOR TERMINAL GUIDES AND NOTES

SEE PAGE 50

A PHOTOFAC T STANDARD NOTATION SCHEMATIC

WITH CIRCUITRACE

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PHOTO CIRCUITRACE = 11

SCHEMATIC CIRCUITRACE = 11

POWER SUPPLY -

SET 2384 FOLDER T

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 Name	B & K Precision Equipment No.	Sencore Equipment No.	Simpson Equipment No.
OSCILLOSCOPE	1560	SC61	454
GENERATORS			
RGB	1260		
MULTIBURST SIGNAL	1260	VA62	
COLOR BAR	1211A,1248,1251,1260	VA62, CG25	431
ANALOG VOM	277		260-7,160,165, 260-6XL,260-7P, 260-6XLP
DIGITAL VOM	2830	DVM37,DVM56,SC61	463,464,470,474,467E
FREQUENCY METER	1803,1805	FC71,SC61	710
HI-VOLTAGE PROBE	HV-44	HP200	248
VOM/DMM			00168,00411,00749
Accessory probes			
ISOLATION TRANSFORMER	TR110,1604,1653,1655	PR57	
CAPACITANCE ANALYZER	820	LC53	
CRT ANALYZER	467,470	CR70	
TEMPERATURE PROBE	TP-28		IR-10,00760,00758; 383,389,388
AC LEAKAGE TESTER	1655	PR57	229
ILLUMINATION METER			408-2
LOGIC PROBE	DP51		
LOGIC PULSER	DP101		
INDUCTANCE ANALYZER		LC53	
FLYBACK YOKE TESTER		LC53,VA62	

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
L202, L206, L207..... 9296, 9297, 9300
T101..... 9293

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 +7.5V bias to TP11.

VIDEO IF ALIGNMENT (SWEEP MARKER GENERATOR)

DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP3	To TP7 on Tuner.	44MHz (10MHz Sweep)	41.25MHz	Adjust L202 for MINIMUM See Figure 1.
"	"	"	41.25MHz 42.17MHz 44.00MHz 45.75MHz	Adjust L206 for Maximum gain and symmetry of response. L206 affects 45.75MHz. See Figure 2.

A10003 and A10023 REPLACEMENT PARTS LIST

REF.	DESCRIPTION	PART NO.	REF.	DESCRIPTION	PART NO.
Connectors					
J1a	8 pin Connector	1813650008	C39	Ceramic, 330pF.	2507233319
J1b	8 pin Connector	1813650008	C40	Ceramic, 330pF.	2507233319
	75 ohm Input Connector	1813530001	C41	Ceramic, 1000pF., 50V	2506640003
Semiconductors					
IC1	Integrated Circuit	6122940001	C42	Ceramic, 33pF.	2507233300
IC201	Integrated Circuit	6121260001	C43	Ceramic, 1000pF.	2507231029
Q1	MOSFET Transistor (A001, A002 only)	6104180001	C44	Ceramic, 1000pF.	2507231029
Q1	MOSFET Transistor (A003, A004 only)	6104180002	C45	Ceramic, 1000pF.	2507231029
Q2	MOSFET Transistor	6103990001	C46	Electrolytic, 10uF., 50V	2701591150
Q3	High Frequency Transistor	6103900001	C47	Ceramic, 220pF. (All except D004)	2507332210
Q4	NPN Transistor	6104200001	C48	Ceramic, 200pF., (D004 only)	2508422015
Q101	MOSFET Transistor	6104180001	C49	Ceramic, 1000pF.	2507231029
Q102	NPN Transistor	6104190002	C50	Ceramic, 4.7pF.	2507394799
Q103	High Frequency Transistor	6103900001	C51	Ceramic, 1000pF., 50V	2506640003
Q201	NPN Transistor	6104190002	C52	Ceramic, 1000pF.	2507231029
D1	Diode (Bandswitching)	5302051003	C53	Ceramic, 1000pF.	2507231029
D2	Diode (Bandswitching)	5302051003	C54	Ceramic, 2200pF.	2507232229
D3	Diode (Bandswitching)	5302051003	C56	Ceramic, 6.8pF.	2507256890
D4	Diode (Bandswitching)	5302051003	C57	Ceramic, 1000pF.	2507231029
D5	Diode (Bandswitching)	5302051003	C58	Ceramic, 2200pF.	2507232229
D6	Diode (Silicon)	5301811001	C59	Polyester Film, .047uF., 50V	2508454730
D7	Diode (Silicon)	5301811001	C101	Ceramic, 68pF.	2507336800
D8	Diode (Bandswitching)	5302051003	C103	Ceramic, 68pF.	2507336800
D9	Diode (Bandswitching)	5302051003	C104	Ceramic, 2.7pF.	2507252790
D10	Diode (Bandswitching)	5302051003	C105	Ceramic, 100pF.	2507331010
D104	Diode	5301941003	C106	Ceramic, 120pF.	2508541219
VR1	Varactor Diode	5302301001	C107	Ceramic, 18pF.	2508521805
VR2	Varactor Diode	5302301001	C108	Ceramic, 18pF.	2508521805
VR3	Varactor Diode	5302301001	C110	Ceramic, 1000pF.	2507231029
VR4	Varactor Diode	5302301001	C111	Ceramic, 1000pF.	2507231029
VR5	Varactor Diode	5301951004	C112	Ceramic, 27pF.	2507332700
VR101	Varactor Diode	5301951004	C114	Ceramic, 2.7pF.	2507332790
VR102	Varactor Diode	5301951004	C117	Ceramic, 1pF.	2507471090
VR103	Varactor Diode	5301951004	C118	Ceramic, 82pF.	2507338200
VR105	Varactor Diode	5301951004	C119	Ceramic, 18pF.	2508521805
Capacitors					
C1	Ceramic, 150pF.	2507331510	C120	Ceramic, 8.2pF., 50V	2508528298
C2	Ceramic, 5.6pF.	2507335690	C124	Ceramic, 330pF.	2507233319
C3	Ceramic, 100pF.	2507331010	C125	Ceramic, 56pF., 50V, (A001 only)	2508535605
C4	Ceramic, 100pF.	2507331010	C125	Ceramic, 56pF., 50V, (All except A001)	2509535605
C5	Ceramic, 22pF.	2507332200	C126	Ceramic, 27pF.	2507312700
C6	Ceramic, 100pF.	2507331010	C127	Ceramic, 2.2pF.	2507252290
C7	Ceramic, 1.5pF.	25072251590	C128	Ceramic, 1.5pF.	2507311590
C9	Ceramic, 1000pF.	2507231029	C129	Ceramic, 12pF., (D004 only)	2508521205
C10	Ceramic, 1000pF.	2507231029	C129	Ceramic, 18pF., (All except D004)	2508521805
C11	Ceramic, 1000pF.	2507231029	C133	Ceramic, 1000pF.	2507231029
C12	Tubular, .30pF.	2502210045	C136	Ceramic, 2200pF.	2507232229
C13	Ceramic, 1000pF.	2507231029	C138	Ceramic, 22pF.	2507472205
C14	Ceramic, 1000pF., 50V	2506640003	C140	Ceramic, 1000pF.	2507231029
C15	Ceramic, 27pF.	2507322700	C141	Ceramic, 1000pF.	2507231029
C16	Ceramic, 1000pF.	2507231029	C201	Ceramic, 560pF.	2507235619
C17	Ceramic, 1000pF.	2507231029	C202	Ceramic, 15pF.	2507251509
C18	Ceramic, 1000pF.	2507231029	C203	Ceramic, 2200pF.	2507232229
C19	Ceramic, 1000pF.	2507231029	C204	Ceramic, 56pF., 50V, (All except D004)	2507256800
C20	Ceramic, 1000pF.	2507231029	C204	Ceramic, 68pF., (D004 only)	2507256800
C21	Ceramic, 1000pF.	2507231029	C205	Ceramic, 560pF.	2507235619
C22	Ceramic, 27pF.	2507332700	C206	Ceramic, 560pF.	2507235619
C23	Ceramic, 27pF.	2507332700	C207	Ceramic, 22nF.	2508582239
C24	Ceramic, 27pF.	2507332700	C209	Ceramic, 2200pF.	2507232229
C25	Ceramic, 22pF.	2507332200	C210	Ceramic, 22nF.	2508582239
C26	Ceramic, 1000pF.	2507231029	C211	Ceramic, 47pF.	2505464705
C27	Ceramic, 22pF.	2507332200	C212	Ceramic, 47pF.	2507254700
C28	Ceramic, 1000pF.	2507231029	C213	Ceramic, 2200pF.	2507232229
C29	Ceramic, 1000pF.	2507231029	C214	Electrolytic, 22uF., 25V	2701592125
C30	Ceramic, 22pF.	2507332200	C215	Ceramic, 56pF., 50V	2507255600
C31	Ceramic, 1pF.	2507251090	C216	Ceramic, 1000pF.	2507251010
C32	Ceramic, 1000pF.	2507231029	C217	Electrolytic	2701595050
C33	Ceramic, 1000pF., 50V (A001 only)	2506640003	C218	Electrolytic, 2.2uF., 50V	2701592050
C33	Ceramic, 680pF., (All except A001)	2508556810	C219	Electrolytic, 22uF., 25V	2701592125
C34	Ceramic, 82pF.	2507318200	C220	Ceramic, 2200pF.	2507232229
C35	Ceramic, 2.2pF.	2507312290	C221	Electrolytic, 22uF., 25V	2701592125
C36	Ceramic, 8.2pF.	2507298290	C222	Ceramic, 47pF.	2507254700
C37	Ceramic, 1000pF.	2507231029	C223	Ceramic, 4.7pF.	2507394799
C38	Ceramic, 10pF.	2507311200	C224	Ceramic, 10pF.	2507251009
			C225	Ceramic, 100pF.	2507251010
Resistors †					
R2	100K ohm	2302731045			

† Unless otherwise indicated all resistors are 5%, 1/4 Watt

Courtesy of the Manufacturer

TROUBLESHOOTING (Continued)

VIDEO

Inject a video signal at the base of the 1st Video Transistor (Q100) and check for proper picture on the CRT. If the proper picture is present, refer to the "IF-AGC" section of this Troubleshooting guide. If there is no picture on the CRT, check for the proper video waveform at TP25. If the video waveform is not present at TP25, check voltages, waveforms and associated circuitry of Transistor Q100, 2nd Video Transistor (Q101) and 3rd Video Transistor (Q102). If the video waveform is present at TP25, check for 11.83V at pin 1 of the Chroma/Luminance IC (IC300), check voltages, waveforms and components associated with pins 2 thru 6, 10 and 24 of IC300. If the proper voltages are present at pins 10 and 4 of IC300, check voltages, waveforms and components associated with pins 26, 27 and 28 of IC300, the Red Output Transistor (Q400), the Green Output Transistor (Q401), the Blue Output Transistor (Q402) and check the CRT and CRT voltages and waveforms. If the picture is too dark or very bright, check voltages, waveforms and components associated with the Peak White Limiter Transistor (Q404), the Peak White Limiter Buffer Transistor (Q403) and check the CRT and CRT voltages and waveforms. Check blanking waveforms at pin 24 of IC300.

VERTICAL

Check for 11.83V at pin 22 of the Sync Processor IC (IC200) and for 40.3V at the collector of the Vertical Output Transistor (Q200). Inject a vertical signal at the base of the Vertical Driver Transistor Q202. If the vertical deflection returns, check voltages, waveforms and components associated with pins 1 thru 5 and 22 of IC200. If the vertical deflection does not return, check voltages, waveforms and components associated with the Vertical Output Transistors (Q200 and Q201), Transistor Q202, Diodes D201 and D202, Electrolytic C229, the vertical winding on the deflection yoke and associated circuitry. Vertical linearity or foldover problems can be caused by condition of Electrolytics C227 and C229, Capacitors C219 thru C222, C224, C226 and C231. If the vertical is off frequency, check the voltages and components associated with pins 1 thru 5 of IC200.

SYNC

If the TV has no vertical sync, check voltages, waveforms and components associated with pins 21 and 1 thru 4 of the Sync Processor IC (IC200). If the TV has no horizontal sync, check voltages, waveforms and components associated with pins 21, 10, 12 thru 15 and 17 of IC200. If there is no vertical or horizontal sync, check voltages, waveforms and components associated with pins 1, 12, 17, 19 and 20 of IC200 and check for 12.27V at pin 11 and 11.83V at pin 22 of IC200.

RASTER

If there is a missing color or cannot setup B & W, check the CRT and CRT voltages and waveforms. Check the voltages and waveforms on the Red Output Transistor (Q400), Green Output Transistor (Q401), Blue Output Transistor (Q402) and at pins 26, 27 and 28 of the

Chroma/Luminance IC (IC300) and associated circuitry. If there is no red, check voltages and waveform son pin 26 of IC300, pin 8 of the CRT socket, Transistor Q400 and associated circuitry. If there is no green, check voltages and waveforms on pin 27 of IC300, pin 6 of the CRT socket, Transistor Q401 and associated circuitry. If there is no blue, check voltages and waveforms on pin 28 of IC300, pin 11 of the CRT socket, Transistor Q402 and associated circuitry. If the raster has a keystone shape, check the deflection yoke. If the raster has width or height problems, refer to the "Horizontal", "Vertical" and "Power Supply" sections of this Troubleshooting guide.

CHROMA

If the TV has no color or weak color for a chroma waveform at TP6. If the proper waveform is not present, check for 11.83V at pin 1 of the Chroma/Luminance IC (IC300), check voltages and waveforms at pins 1 and 6 of plug P11 (the High Resolution Filter Module plug) and check voltages, waveforms and components associated with Transistors (Q1 and Q2) on the High Resolution Filter Module. Check voltages, waveforms and components associated with pins 9, 13, 14, 18, 25, 11, 19, 21, 22 and 23 of IC300. If the color is out of sync, check the 3.58MHz Oscillator at pins 21, 22 and 23 of IC300, check the adjustment of the 3.58MHz Adjust Control (VR310), check voltages and components associated with pins 16 and 17 of IC300 and check the burst gate waveform at pin 20 of IC300. If there is incorrect hue (tint), check voltages, waveforms and components associated with pins 7, 16, 17, 19, 20 and 25 of IC300. If there is a missing color, check voltages, waveforms and components associated with pins 26, 27 and 28 of IC300, Red, Green and Blue Output Transistors (Q400, Q401 and Q402) and check the CRT and CRT voltages and waveforms.

DIFFERENTIAL AMP/OSCILLATOR/SCR

The Differential Amp Transistor (Q500) and Oscillator Transistors (Q501 and Q502) conserve power by monitoring the horizontal pulse at the base of Transistor Q502. Transistors Q501 and Q502 function as a multivibrator to turn On Regulator SCR (SCR500) only during trace, while during retrace SCR (SCR500) will be shut Off by a negative pulse from the Horizontal Output Transformer (T700). At the same time the base of Transistor Q500 monitors the 112V source (measured to isolated ground) thru a resistor network to turn On the Oscillator circuit as needed. This circuit functions as a regulator and energy saver.

CIRCUIT DESCRIPTION

SHUT DOWN

In normal operating condition the Shut Down Transistor (Q702) is turned On, the Comparator Transistor (Q700) is turned Off and the Latch Transistor (Q701) is turned Off. If the high voltage rises above the safety level, the voltage at the emitter of Transistor Q700 will rise above 6V and will turn On. Transistors Q700 and Q701 which kills the Horizontal Drive Shutting down the set. Voltages measured in Shut Down Q500, E 24-5, B 28-5, C 2-7, Q502 E 0V, B 0V, C 9.47V, TP24 (146V).

TV ALIGNMENT INSTRUCTIONS (Continued)

SOUND IF ALIGNMENT

Tune in a station and adjust T101 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 T101.

VIDEO IF ALIGNMENT (BAR SWEEP GENERATOR)

BAR SWEEP GENERATOR	SCOPE INPUT	REMARKS
To Antenna Terminal	To TP3	Perform Video IF Adjustments per SWEEP/MARKER GENERATOR Instructions above. See Figure 3.

AUTOMATIC FINE TUNING ALIGNMENT

Connect as explained in preliminary instructions unless specified otherwise.				
DIRECT PROBE FROM SWEEP/MARKER GENERATOR	SWEEP GENERATOR OUTPUT	SWEEP GENERATOR FREQUENCY	MARKER GENERATOR FREQUENCY	REMARKS
To TP40	To TP7 on Tuner	44MHz (10MHz Sweep)	45.75MHz	Adjust L207 for Maximum gain and symmetry or response. See Figure 4.

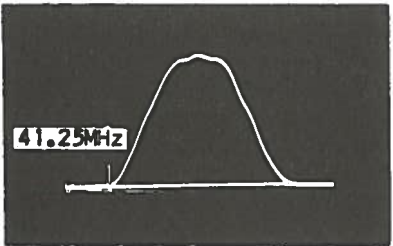


Figure 1

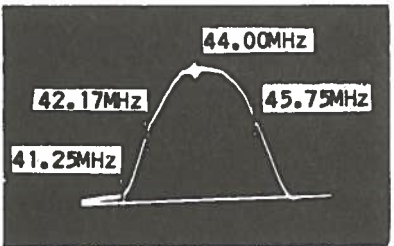


Figure 2



Figure 3

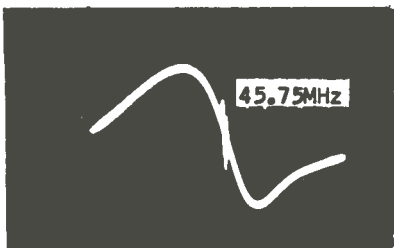


Figure 4

MISCELLANEOUS ADJUSTMENTS

AGC ADJUSTMENT

Tune in a weak station. Turn RF Delay Control (RV216) in the direction which causes snow to appear and then in the opposite direction until snow just disappears.

HIGH VOLTAGE CHECK

Connect a high voltage meter to the CRT HV anode. Tune in a picture and adjust Picture and Brightness Controls to MINIMUM. High voltage should read 25.5KV ± 1.5KV.

HORIZONTAL HOLD ADJUSTMENT

Tune in a station and connect a jumper from TP41 to ground. Adjust Horizontal Hold Control (VR227) until picture stops or slowly floats. Remove jumper and check by switching from channel to channel.

VOLUME TRIM ADJUSTMENT

Tune in a station. Depress and hold Volume Down button until volume level is at zero. Adjust Volume Trim Control (VR101) clockwise until audio is obtained and then turn counter-clockwise until audio just disappears.

APC ADJUSTMENT

Connect a color bar generator to the antenna terminals and tune in a color bar pattern. Turn set Off and connect a 100K Ohm Resistor from TP5 to TP42. Connect a .01uF Capacitor from TP43 to ground. Turn set On and allow at least a two-minute period for circuits to stabilize before making adjustment. Adjust 3.58MHz Adjust Control (VR310) until colors stop or slowly float.

COLOR TEMPERATURE

Turn set On allow a 10-minute warm up period. Set Picture, Brightness, Sharpness and Tint Controls to midrange. Set Sub Brightness (VR436), Red Cutoff (VR426), Blue Cutoff (VR432), Green Cutoff (VR428), Red Drive (VR410), Blue Drive (VR421), Green Drive (VR412), and G2 (VR551B) Controls fully counterclockwise. Connect a jumper from B20 to ground. Connect a jumper from TP1 to TP2 (on CRT Socket Board). Adjust G2 Control until a line just appears. Remove jumpers from B20 to ground and TP1 to TP2. Tune in a picture and adjust Sub Brightness Control for normal brightness. Adjust Drive Controls for best white picture highlights. Adjust Cutoff Controls for best white picture lowlights. Alternately adjust Drive and Cutoff Controls until proper tracking is obtained at high and low brightness levels.

V-MATIC

The V-matic is preset at the factory and is not service adjustable.

PURITY ADJUSTMENTS

Before attempting to purity adjustments the receiver should be operated for at least a fifteen-minute warm-up period. Turn Picture

and Brightness Controls to Maximum. Use a degaussing coil to demagnetize the CRT. Adjust Red Drive Control (VR410) and Blue Drive Control (VR421) to obtain a green raster. Advance Green Drive Control (VR412) if necessary. Loosen the deflection yoke clamp screw and slide the deflection yoke back to obtain a vertical green band. Rotate and spread the tabs of the Purity Magnet until the green band is centered on the screen. Move the deflection yoke slowly forward until a uniform green screen is obtained.

SCR TRIGGER ADJUSTMENTS

SCR Trigger Coil (T501) is preset at the factory and is not service adjustable.

CONVERGENCE ADJUSTMENTS

Connect a color bar generator to the antenna terminals and tune in a dot pattern. Adjust 4-Pole Magnets to converge the red and blue dots at the center of the screen. Adjust 6-Pole Magnets to converge the red/blue dots over the green dots at the center of the screen. Tune in a crosshatch pattern. Remove the rubber wedges between the deflection yoke and CRT. Tilt the deflection yoke up or down to converge the vertical lines at the top and bottom of the screen and the horizontal lines at the right and left sides of the screen. Tilt the deflection yoke to the right or left to converge the horizontal lines at the top and bottom of the screen and the vertical lines at the right and left sides of the screen. Repeat convergence procedure if necessary to obtain the best overall convergence. Replace the rubber wedges.

FAILSAFE

If the high voltage increases to an unsafe level, the high voltage protection circuitry will activate and cause loss of raster.

HIGH RESOLUTION FILTER ADJUSTMENT
(COMB FILTER)

(WITH COLOR BAR GENERATOR)

Connect a Color Bar Generator to the antenna terminals and tune in a color bar pattern. Connect a Scope to Pin 3 of P11 Plug. Adjust 3.58MHz Null Control (VR6) and VL1 for minimum color content in color bars.

(WITH CHROMA BAR/SWEEP GENERATOR)

Connect a Chroma Bar/Sweep Generator to the antenna terminals and tune in a Chroma Bar/Sweep Pattern. Connect a Scope to Pin 3 of P11 Plug. Adjust 3.56MHz Null Control (VR6) and VL1 to minimize the 3.56MHz bar.

TEST JIG HOOKUP

FUNCTION	Chek-A-Color ADAPTER NO.	RCA / TeleMatic ADAPTER NO.	ZENITH ADAPTER NO.
CRT YOKE YOKE SETTING	B239 D4152 (1) YPI, Focus Tap	10J683 10J700 (1) Horiz 1.2, Vert 14, FVS-3950 Focus Supply	852-441 852-442 (1) Horiz 1.2, Vert 14, Focus Tap

(1) If vertical sweep is reversed, rotate vertical plug 180°.

TROUBLESHOOTING

POWER SUPPLY

Check the AC line Fuse (F500). If open, check Diode D500, Capacitors C500, C501, Electrolytic C502, Regulator SCR (SCR500), Horizontal Output Transformer (T700), Horizontal Output Transistor (Q601) and Damper Diode (D601). Replace defective components, check for short to ground, apply 120VAC and check for 148V (measured to Common Tie Point) at the cathode of Diode D500. If this voltage is absent check voltages at SCR (SCR500), check for 21.5V at the cathode of Diode D503, check voltages and components associated with Differential Amp Transistor (Q500) and Oscillator Transistors (Q501 and Q502). Refer to the "Differential Amp/Oscillator/SCR" section of the Circuit Description. Check sources from Transformer T700. Check for 185V at the cathode of Diode D700, 31.1V at the cathode of Diode D703, 23.8V at the cathode of Diode D705 and 42.1V at the cathode of Diode D706. Also, check voltages and components associated with the 18V Regulator Transistor (Q204). If these sources are missing, refer to the "Horizontal Circuit" section of this Troubleshooting guide. Check the sources for the remote on the Remote Power Supply Module. Check for 120VAC between pin 3 and pin 5 of plug J19, 11.58V at the cathode of Diodes D901 and D902, 11.10V at the cathode of Diode D903 and 1.15V at the anode of Diode D903.

HORIZONTAL

Check for 108V (measured from isolated ground) at the collector of the Horizontal Output Transistor (Q601). If the voltage is about 146V and there is a ticking sound, the Shut Down circuit may be activated. Refer to the "Shut Down" section of the Circuit Description. If the 108V is missing, check for 112V at TP18 (measured from isolated ground), check Resistor R714, Damper Diode (D601), Transistor Q601, Capacitor C608, C609 and C603. Inject a horizontal signal at the base of Transistor Q601. If the high voltage returns, check voltages, waveforms and components associated with the Horizontal Drive Transistor (Q600), Horizontal Pre-Driver Transistor (Q203), pins 7, 9, 10, 11, 14 and 15 of the Sync Processor IC (IC200) and associated circuitry. If the high voltage does not return with the horizontal signal at the base of Transistor Q601, check Transistor Q601, and check the Horizontal Output Transformer (T700). The high

voltage rectifier is part of Transformer T700 and may be defective. Check for possible shorts at the sources developed from Transformer T700 that can load down the horizontal circuit. Check the sources at the cathode of Diodes D700, D703, D705 and D706. Poor horizontal linearity can be caused by the condition of Capacitors C600, C602, C603, C608 and C609, Horizontal Driver Transformer (T601), Linearity Coil (L600) and associated circuitry. If the horizontal is off frequency, check voltages, waveforms and components associated with pins 9, 10 and 14 of IC200.

IF-AGC

The IF-AGC section is part of the tuner assembly. To troubleshoot this section, remove the tuner assembly and use extension cables connected between P1 and J1. Inject a video IF signal at TP12 and check for the proper picture on the CRT. If the proper picture is present, check the IF Pre-Amp Transistor (Q201), the tuner, AGC and AFT circuits. If there is no picture on the CRT, check for a video waveform at pin 12 of the IF/AFT/AGC (IC201). If the proper waveform is not present, check for 11.79V at pin 11 of IC201. Apply AGC bias to pin 14 of IC201 while monitoring pin 12 of IC201 with a scope. If the video waveform returns, check voltages and waveforms associated with pins 3, 4, 5, and 14 of IC201. If video does not return at pin 10, check the voltages, waveforms and components associated with IC201.

AUDIO

Inject an audio signal at pin 11 of the Sound IC (IC100). With volume at Maximum, check for sound from speaker. If there is no sound, check Electrolytic C114, the speaker and associated circuitry. If there is sound from the speaker, check the voltages on pin 8 of IC100 (it should vary from 3.3V with MINIMUM volume to 1.7V with Maximum volume). Inject a sound IF signal at pin 1 of IC100 and check for sound from the speaker with volume at Maximum. If there is no sound from the speaker, check for 22.7V at pin 14 of IC100 and check voltages and components associated with pins 1 thru 10 of IC100.

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 (T700). Refer to "Troubleshooting" Power Supply and Horizontal circuits.

NO PIC, NO SOUND, HAS RASTER: Check IF-AGC and source voltages from Horizontal Output Transformer (T700). Refer to "Troubleshooting" IF-AGC and Horizontal circuits.

NO PIC, HAS SOUND, NO RASTER: Check Horizontal Output Transformer (T700) 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 (T700). 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.

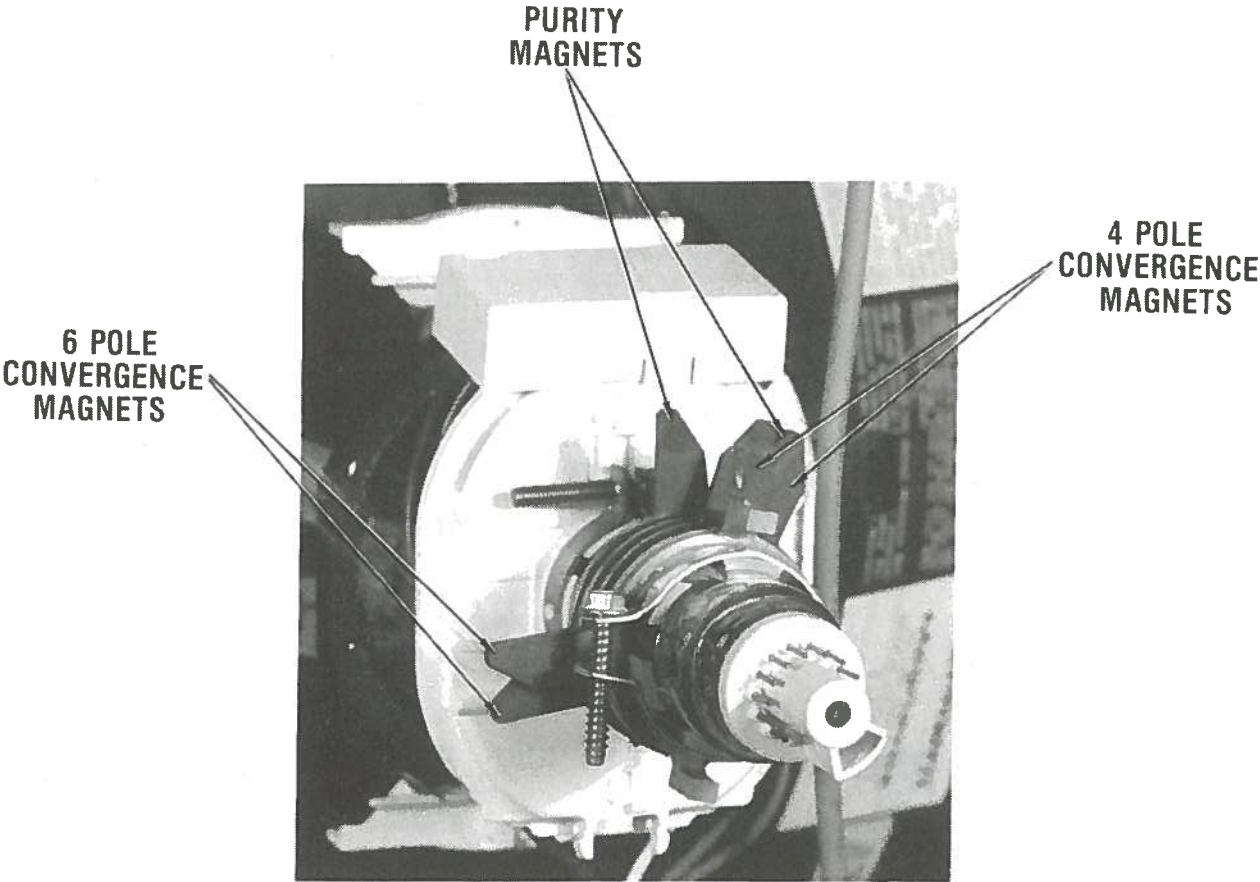
NO BLUE: Check Chroma and Blue Output circuits. Refer to "Troubleshooting" Raster circuit.

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

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

IC FUNCTIONS

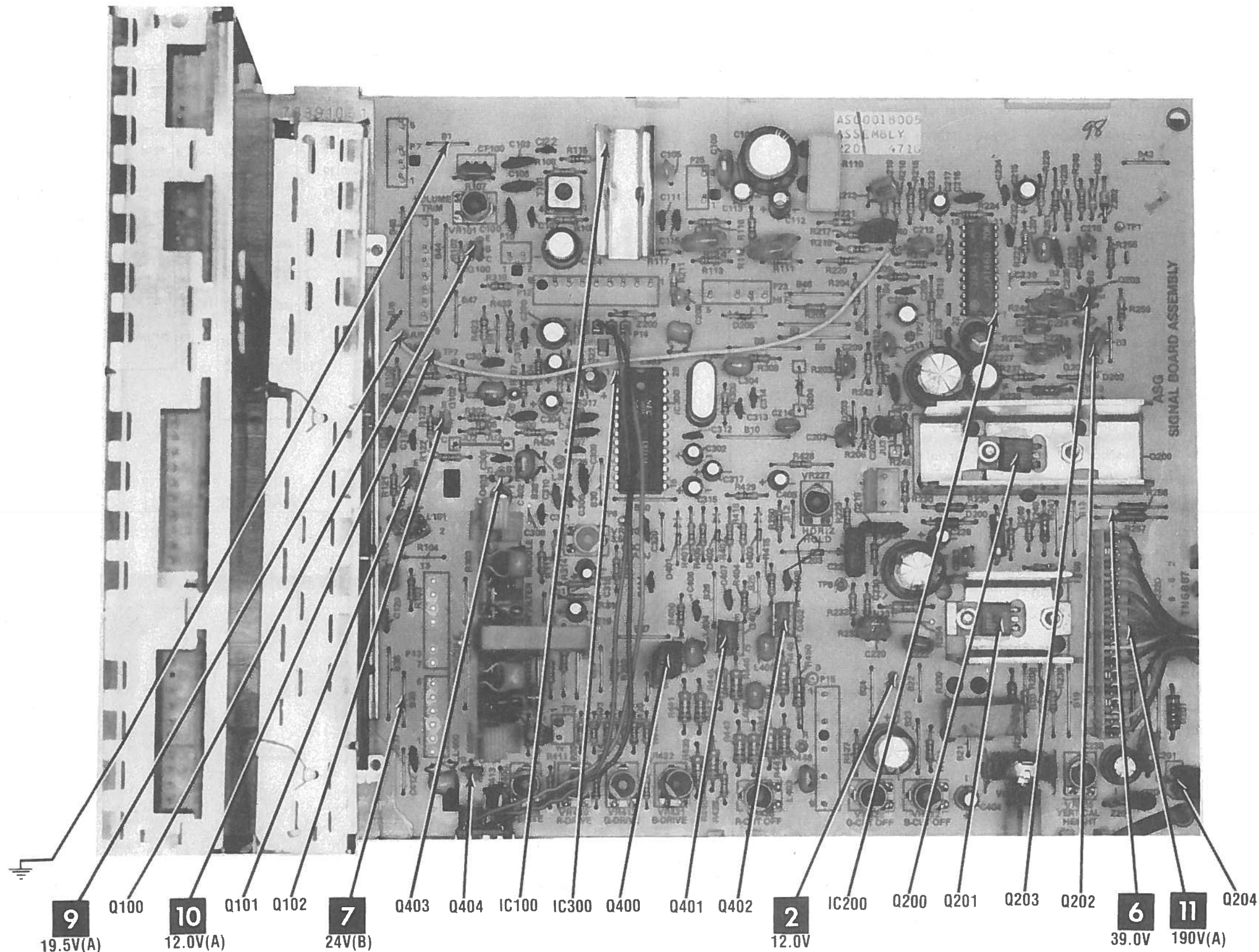
IC100 6123051			PINOUTS		IC200 LA1460			IC300 K8211A			
1	IF IN	DE-EM	16	1	VERT SYNC IN	VCC	22	1	VCC	B OUT	28
2			15					2		G OUT	27
3		VCC	14	2	VERT OSC	VIDEO IN	21	3	BRITE	R OUT	26
4	GND	GND	13	3	VERT BIAS IN	VIDEO OUT	20	4	PEAK	DEMO IN	25
5	GND	GND	12	4	VERT SAW	SYNC IN	19	5	VIDEO IN	BLANK IN	24
6	DET	AUDIO OUT	11	5	VERT OUT	BURST GATE TIMING	18	6	PEAK FILTER	OSC	23
7	DET	COMP	10	6		SYNC OUT	17	7	TINT	OSC	22
8	VOL	FEEDBACK	9	7		BLANK OUT	16	8	AUTO SET	OSC	21
				8		GND	15	9	COLOR	BURST GATE IN	20
				9		HORIZ OUT	14	10	PIX	ACC IN	19
				10		HORIZ OSC	13	11	CHROMA OUT	KILLER	18
				11		VCC	12	12			17
								13	CH IN		16
								14			15



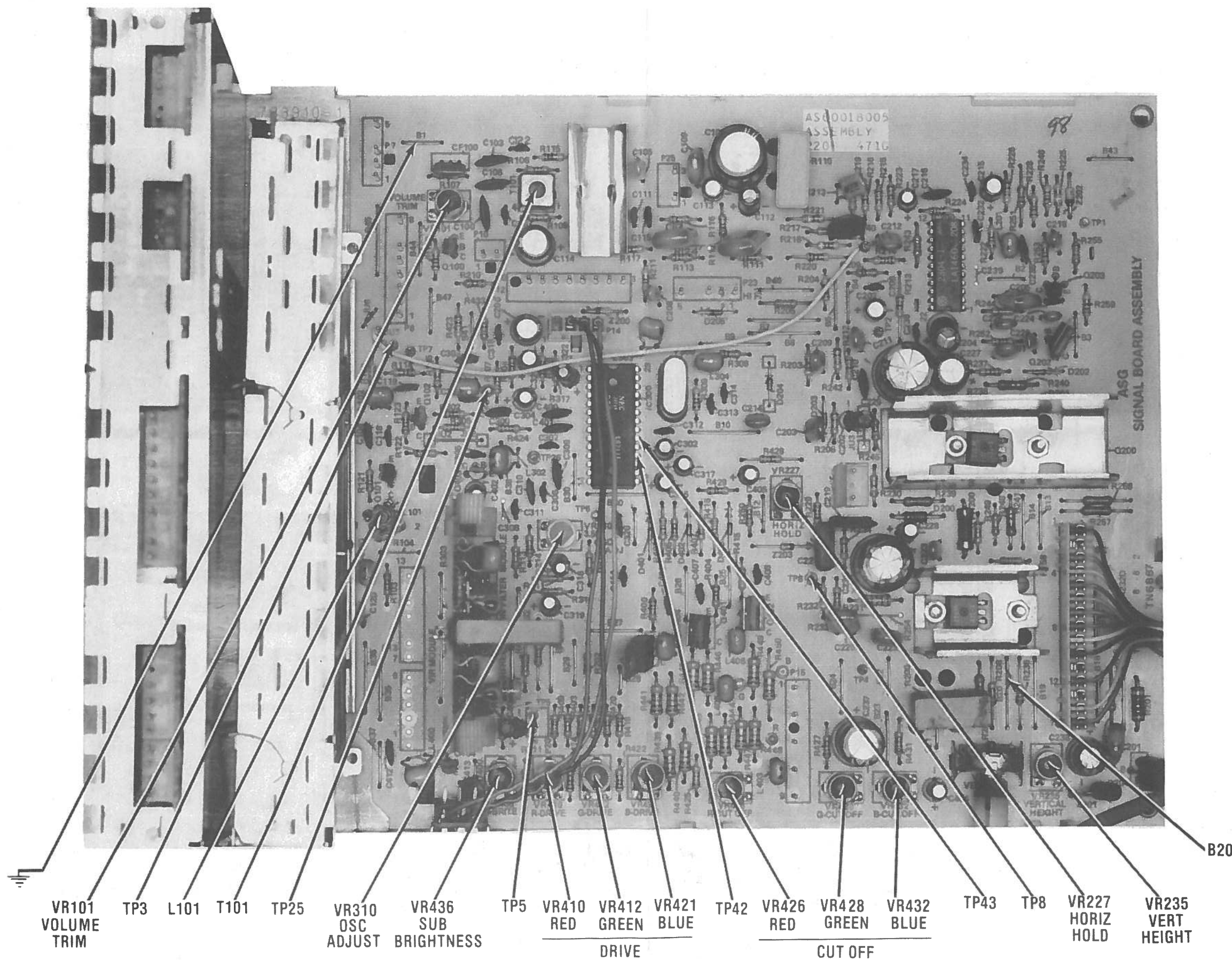
CRT NECK ASSEMBLY

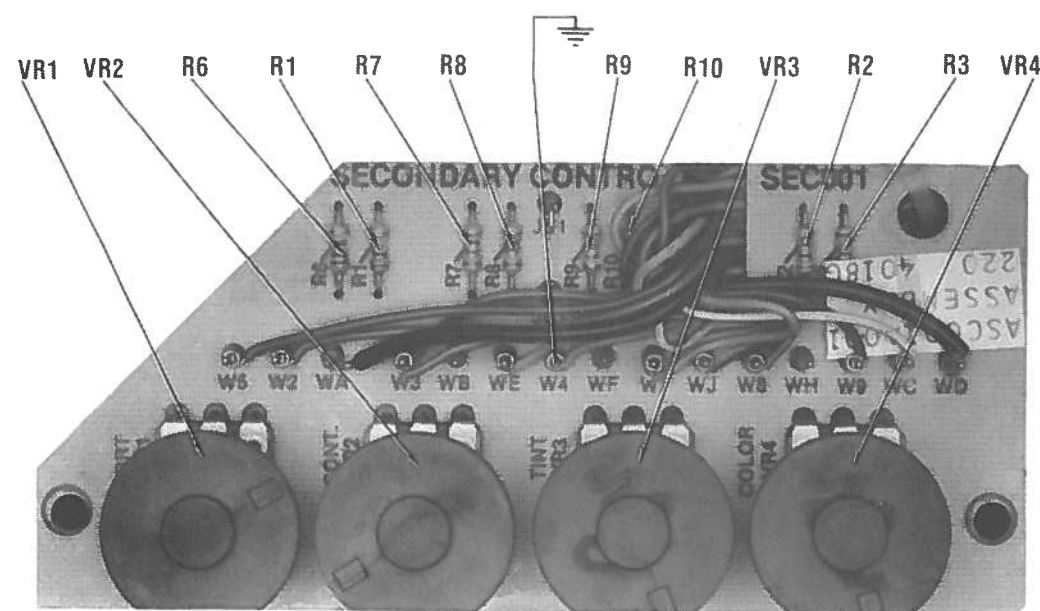
MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

FOLDER 1

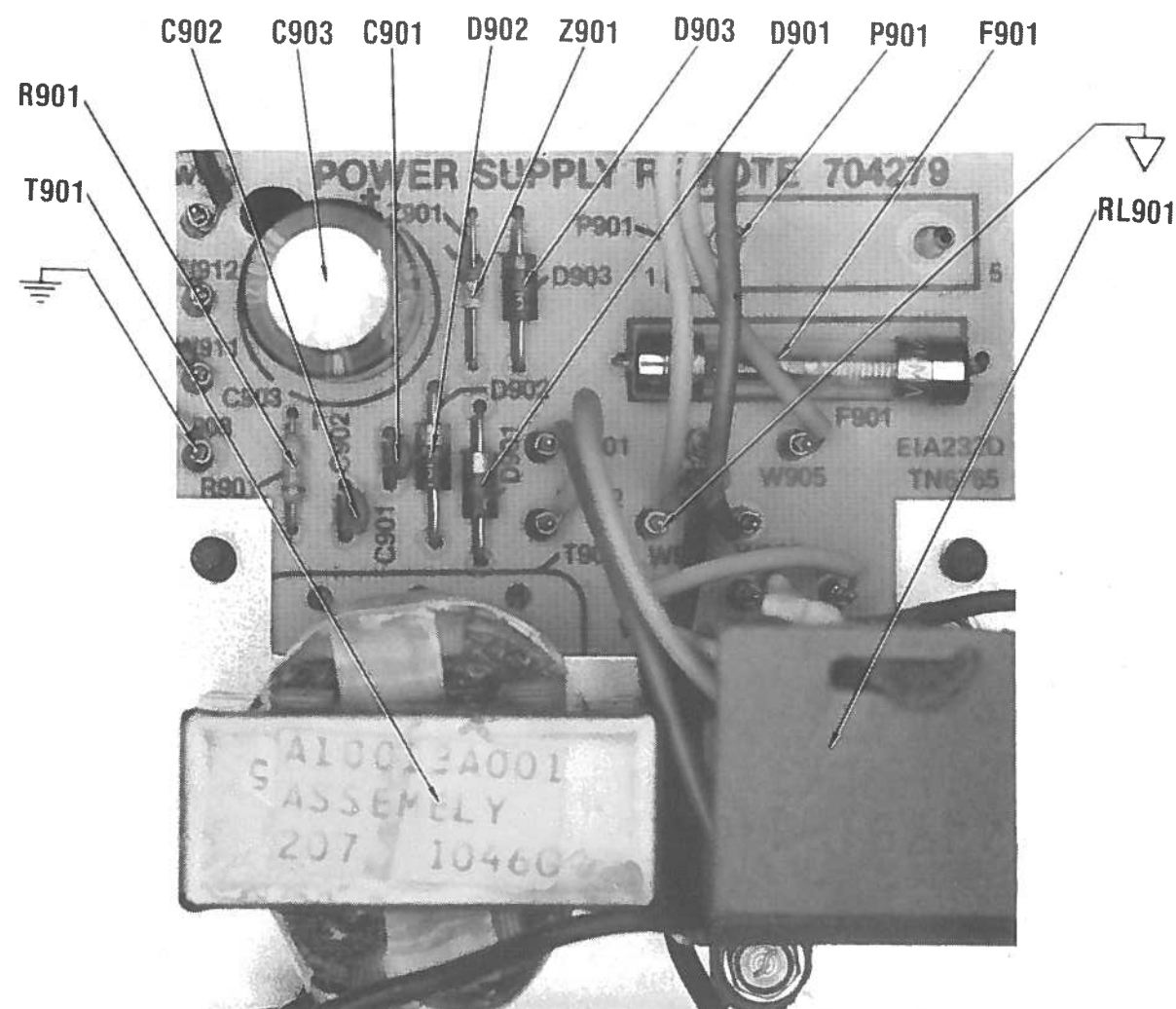


ARROWS ON IC'S INDICATE PIN 1 UNLESS NOTED





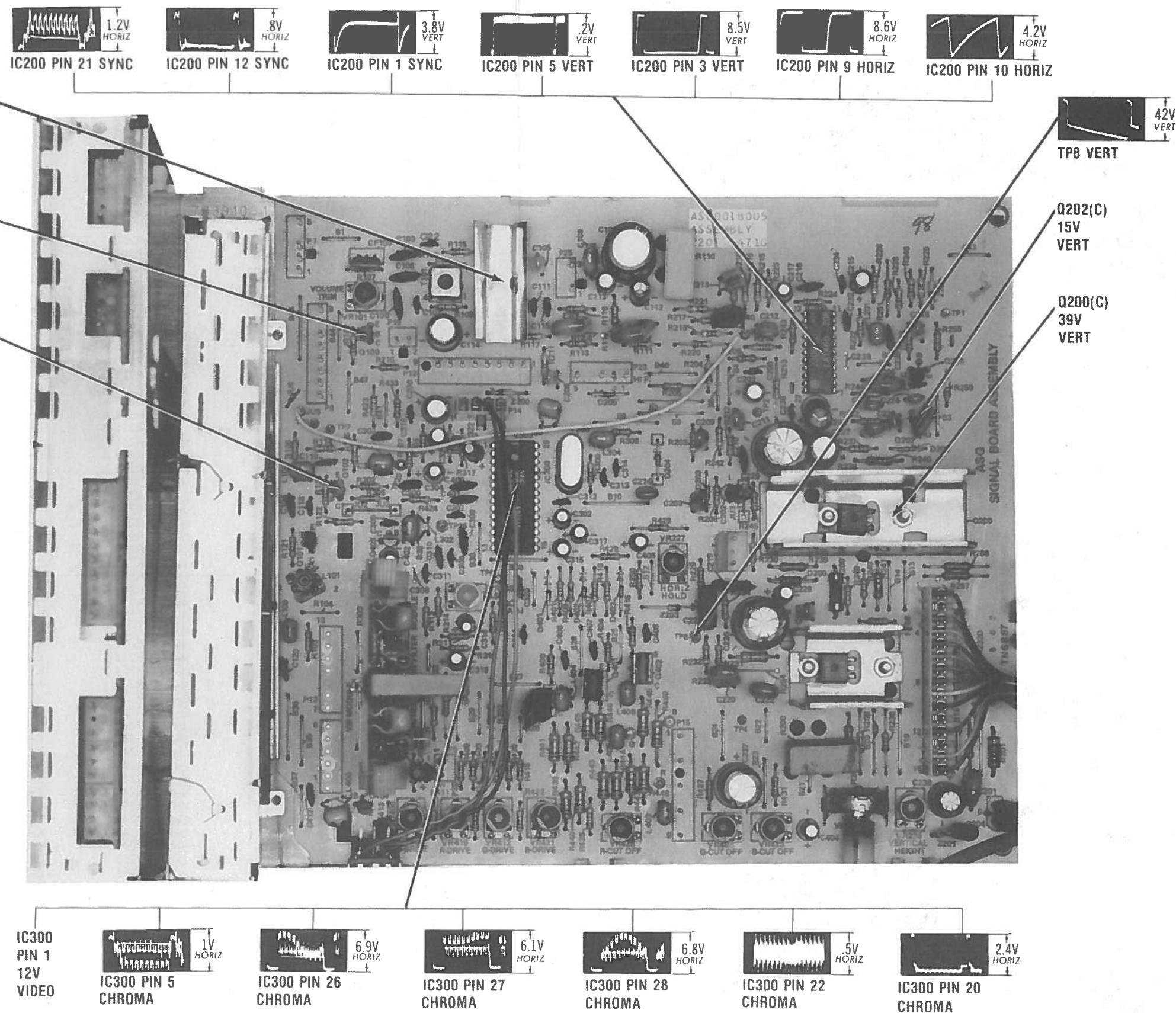
SECONDARY CONTROLS



REMOTE POWER BOARD

SIGNAL BOARD-GridTrace LOCATION GUIDE

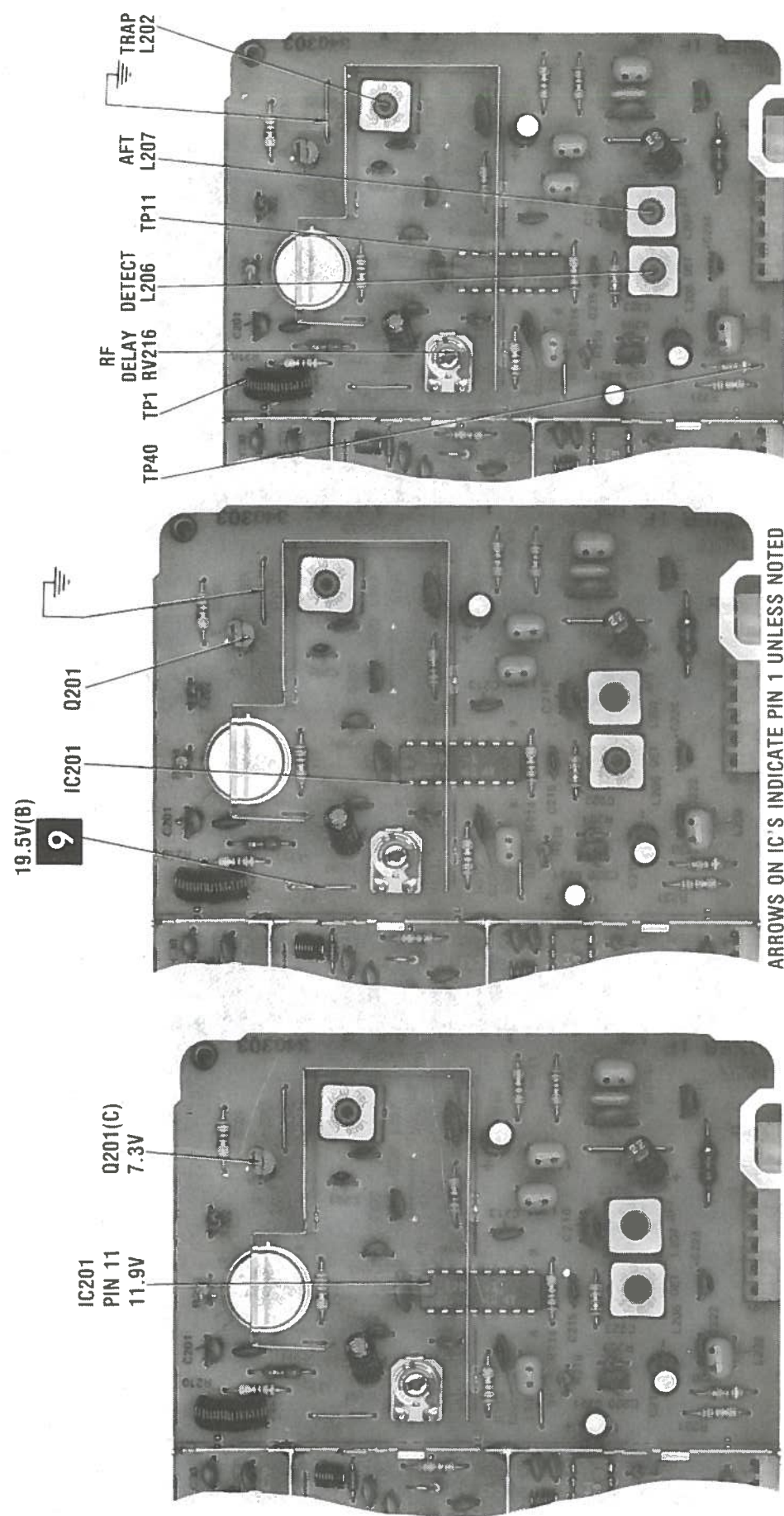
B20	N-22	C315	J-14	Q402	M-16	R260	N-21	VR432	Q-19
C100	C-10	C316	L-11	Q403	I-9	R300	N-9	VR436	P-10
C103	B-10	C317	I-14	Q404	P-9	R302	H-9	Y300	G-14
C104	I-7	C318	F-10	R100	J-7	R303	L-9	Z200	F-12
C105	B-13	C319	L-11	R102	E-9	R304	G-10	Z201	Q-23
C106	C-10	C320	K-13	R103	L-7	R305	H-9	Z202	C-23
C107	C-10	C321	G-11	R105	G-9	R307	G-10	Z203	K-17
C108	B-16	C322	G-12	R106	G-7	R308	G-15		
C109	B-15	C400	H-11	R107	C-9	R309	H-15		
C110	D-16	C401	H-11	R108	B-11	R313	K-10		
C111	D-13	C402	J-9	R109	D-11	R314	K-11		
C112	C-16	C403	O-10	R110	B-17	R315	K-12		
C113	C-15	C404	Q-20	R111	D-16	R316	L-11		
C114	D-11	C405	I-16	R112	D-15	R317	G-11		
C115	D-13	C406	L-14	R113	D-14	R318	G-11		
C117	D-13	C407	L-15	R114	G-8	R400	L-14		
C118	H-7	C408	L-16	R115	B-11	R401	K-14		
C119	G-8	C412	P-7	R116	D-14	R402	O-24		
C120	M-7	C413	P-9	R117	D-13	R403	O-12		
C122	B-11	C414	L-13	R200	O-20	R404	L-15		
C200	F-11	CF100	B-9	R201	O-25	R405	K-14		
C201	P-24	Control ler	I-2	R202	N-12	R407	K-15		
C202	H-18	D200	J-20	R203	G-17	R408	O-12		
C203	H-17	D201	H-22	R204	E-18	R409	O-11		
C204	F-20	D202	G-23	R205	F-17	R411	P-11		
C205	E-22	D203	H-17	R206	H-18	R413	O-12		
C206	E-19	D204	G-16	R208	N-21	R414	P-12		
C207	F-19	D205	F-15	R209	E-19	R415	L-16		
C208	E-14	D400	P-9	R210	E-9	R416	K-15		
C209	G-17	D401	K-14	R211	E-13	R418	O-13		
C210	G-18	D402	K-14	R212	G-18	R420	O-12		
C211	F-18	D403	K-15	R213	F-19	R422	P-13		
C212	D-19	FB200	Q-24	R214	E-19	R423	F-9		
C213	C-18	HI Resolution Board	M-9	R215	C-19	R424	H-10		
C214	H-16	IC100	C-12	R216	C-18	R425	P-14		
C215	C-21	IC200	E-20	R217	D-17	R427	P-18		
C216	C-20	IC300	H-13	R218	C-18	R428	I-16		
C217	C-19	L100	L-7	R219	D-17	R429	J-15		
C218	D-23	L102	J-7	R220	D-17	R431	P-19		
C219	K-18	L103	H-7	R221	D-21	R433	F-10		
C220	M-18	L201	D-22	R222	C-19	R434	O-10		
C221	K-17	L300	G-9	R223	C-20	R435	M-11		
C222	M-19	L302	I-10	R224	C-22	R438	N-11		
C223	K-20	L303	F-13	R225	C-22	R439	P-14		
C224	F-23	L304	G-15	R226	C-22	R440	P-14		
C225	F-22	L400	P-8	R228	J-17	R441	O-14		
C226	G-20	L403	P-16	R229	J-19	R442	O-14		
C227	K-19	L404	M-14	R230	L-19	R443	P-15		
C228	G-19	L405	N-15	R231	L-17	R444	P-15		
C229	K-19	L406	M-16	R232	L-18	R445	N-14		
C230	G-22	P1	C-5	R233	K-18	R446	N-15		
C231	D-21	P2	B-2	R234	N-22	R447	O-16		
C232	F-23	P7	B-7	R236	G-21	R448	O-16		
C233	C-21	P8	E-8	R237	G-22	R449	N-16		
C234	D-22	P9	J-18	R238	J-20	R500	N-16		
C235	F-20	P10	D-10	R239	G-22	T101	C-11		
C236	P-18	P11	L-10	R240	K-22	TH200	K-21		
C237	P-24	P12	E-11	R241	G-18	TP3	F-8		
C238	D-18	P14	F-12	R242	D-20	TP5	O-11		
C300	H-10	P15	N-17	R243	F-22	TP8	L-17		
C301	H-9	P16	M-23	R244	H-19	TP25	H-10		
C302	I-14	P23	E-15	R245	C-23	TP42	I-13		
C303	G-9	P25	C-14	R246	K-21	TP43	I-13		
C304	H-11	Q100	D-9	R248	J-16	Tuner	I-5		
C305	I-9	Q101	I-7	R249	C-22	VR101	C-9		
C306	J-11	Q102	H-8	R250	F-22	VR207	P-21		
C307	I-11	Q200	I-21	R251	D-23	VR227	J-17		
C309	J-11	Q201	M-21	R252	J-24	VR235	P-23		
C310	J-10	Q202	F-23	R253	J-24	VR310	K-11		
C311	H-14	Q203	E-23	R255	K-22	VR410	P-11		
C312	H-15	Q204	P-25	R256	F-24	VR412	P-12		
C313	H-15	Q400	N-13	R257		VR421	P-13		
C314	H-15	Q401	M-15	R258		VR426	Q-15		
				R259		VR428	Q-18		



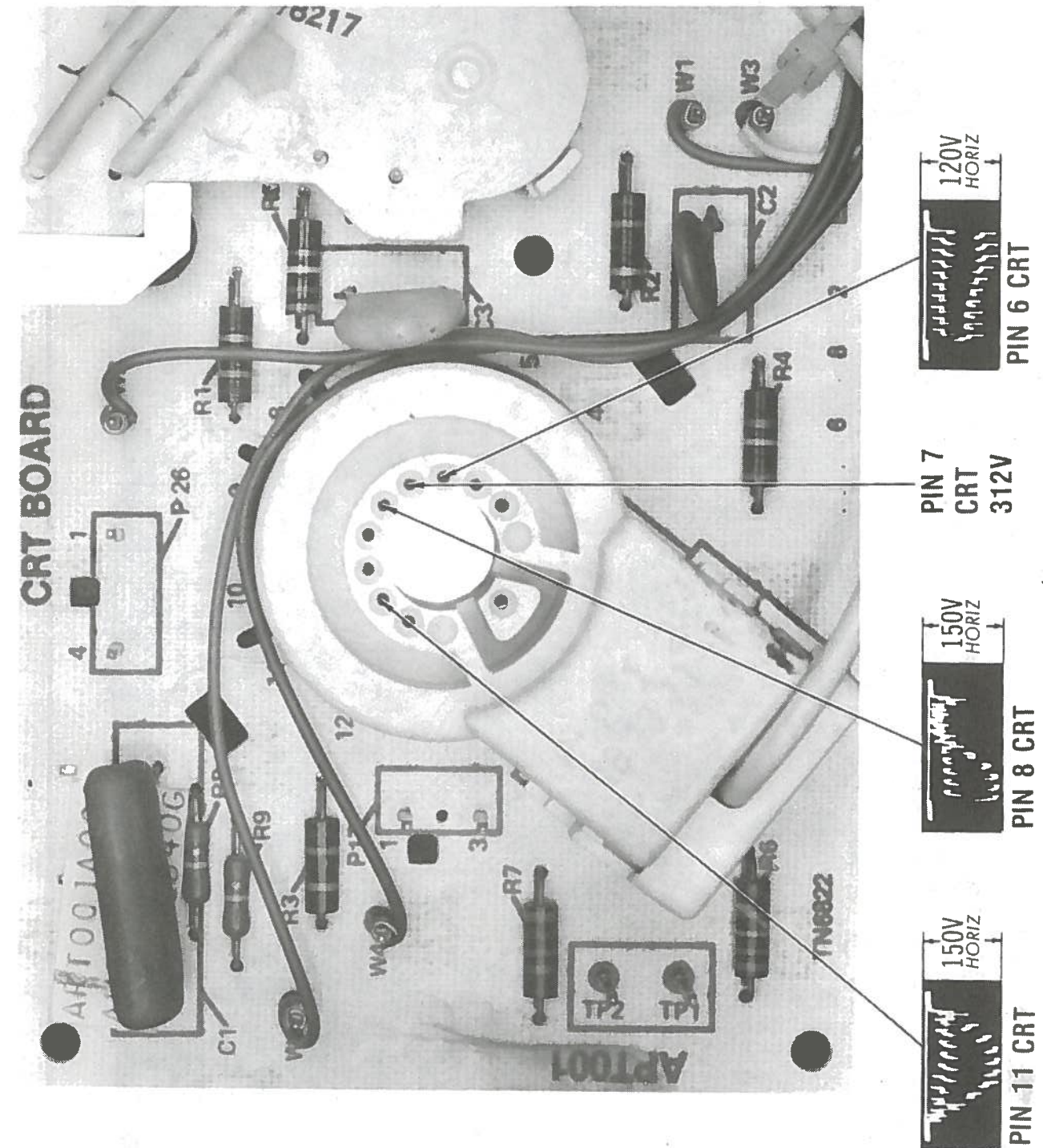
MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

FOLDER 1

8

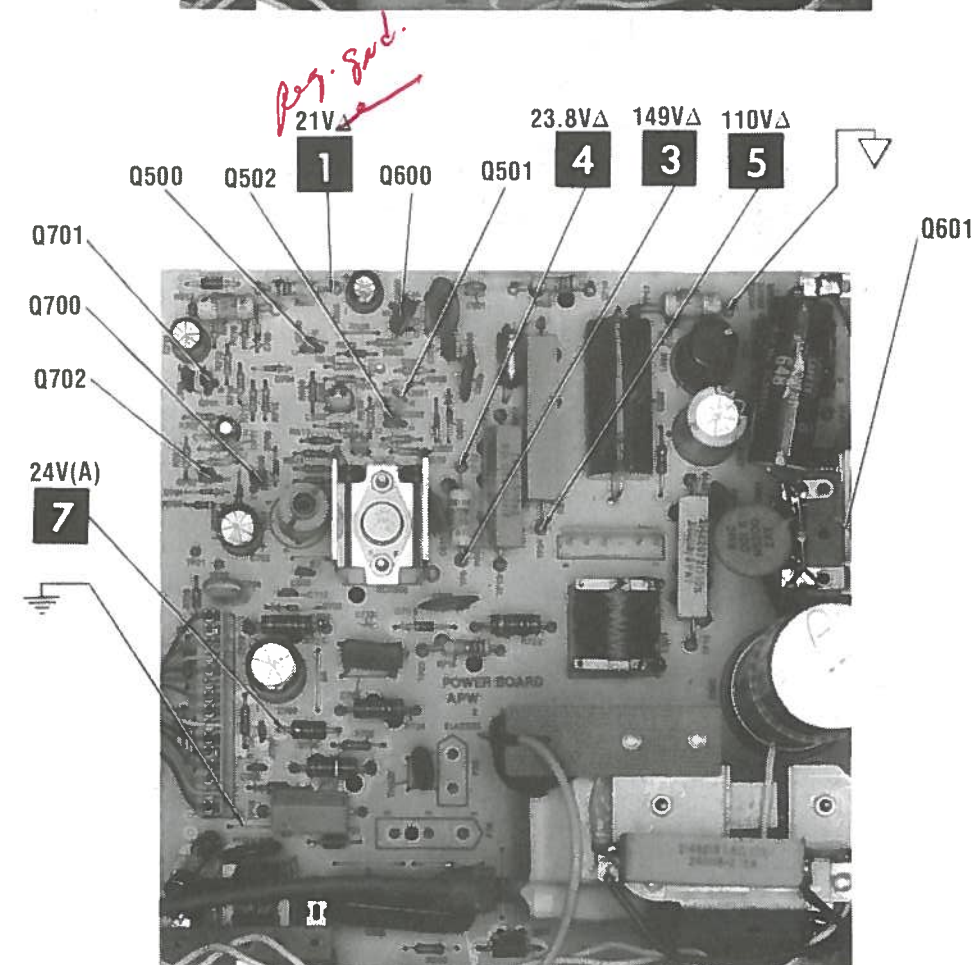
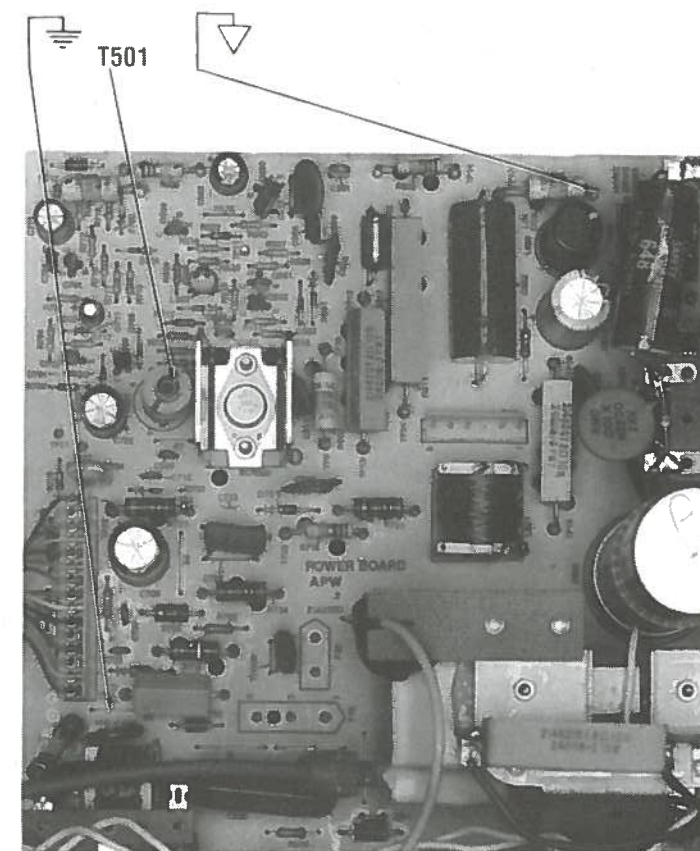


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CRT BOARD

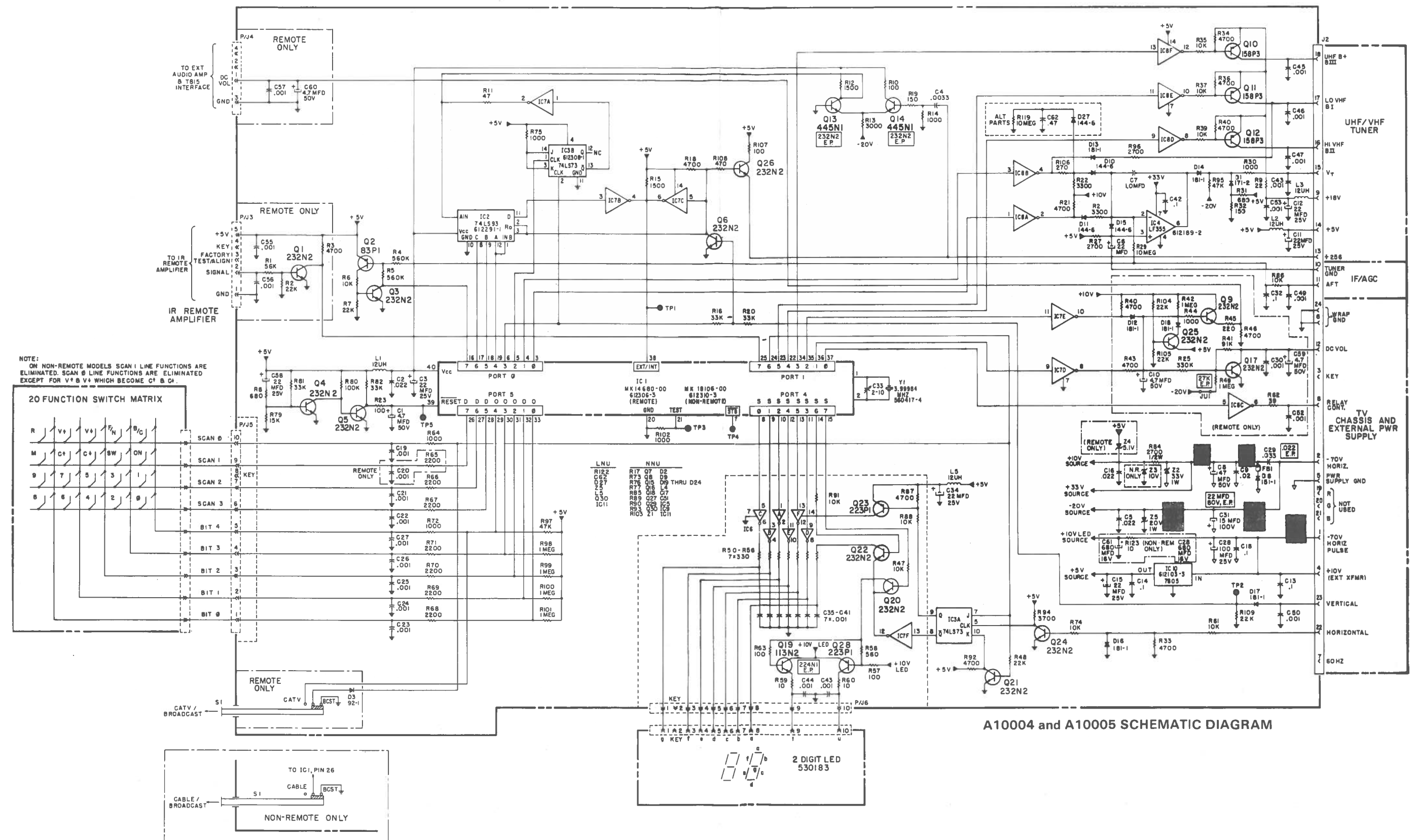
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MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

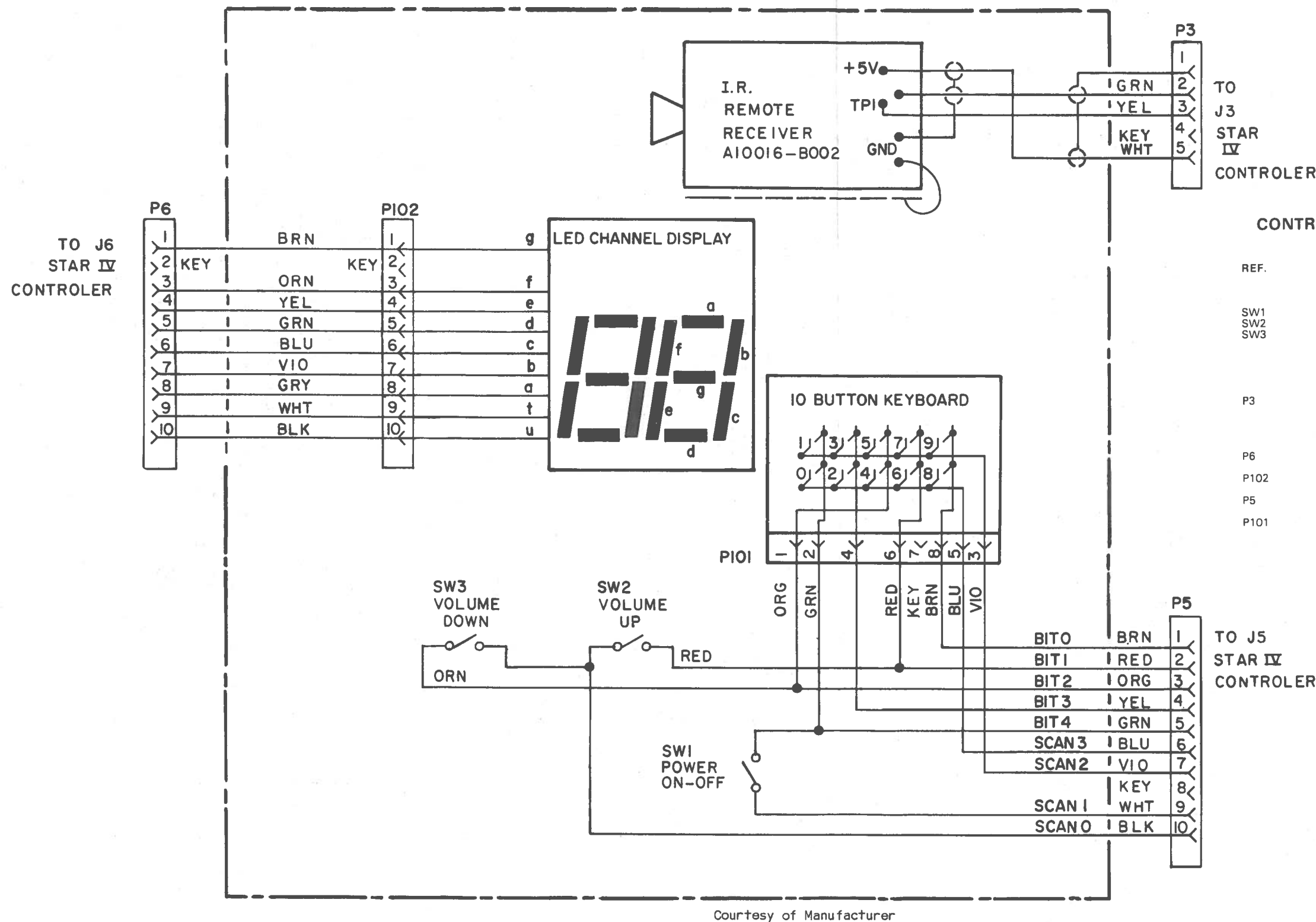
FOLDER 1

POWER BOARD



Courtesy of the Manufacturer

ATC021-A001 SCHEMATIC DIAGRAM

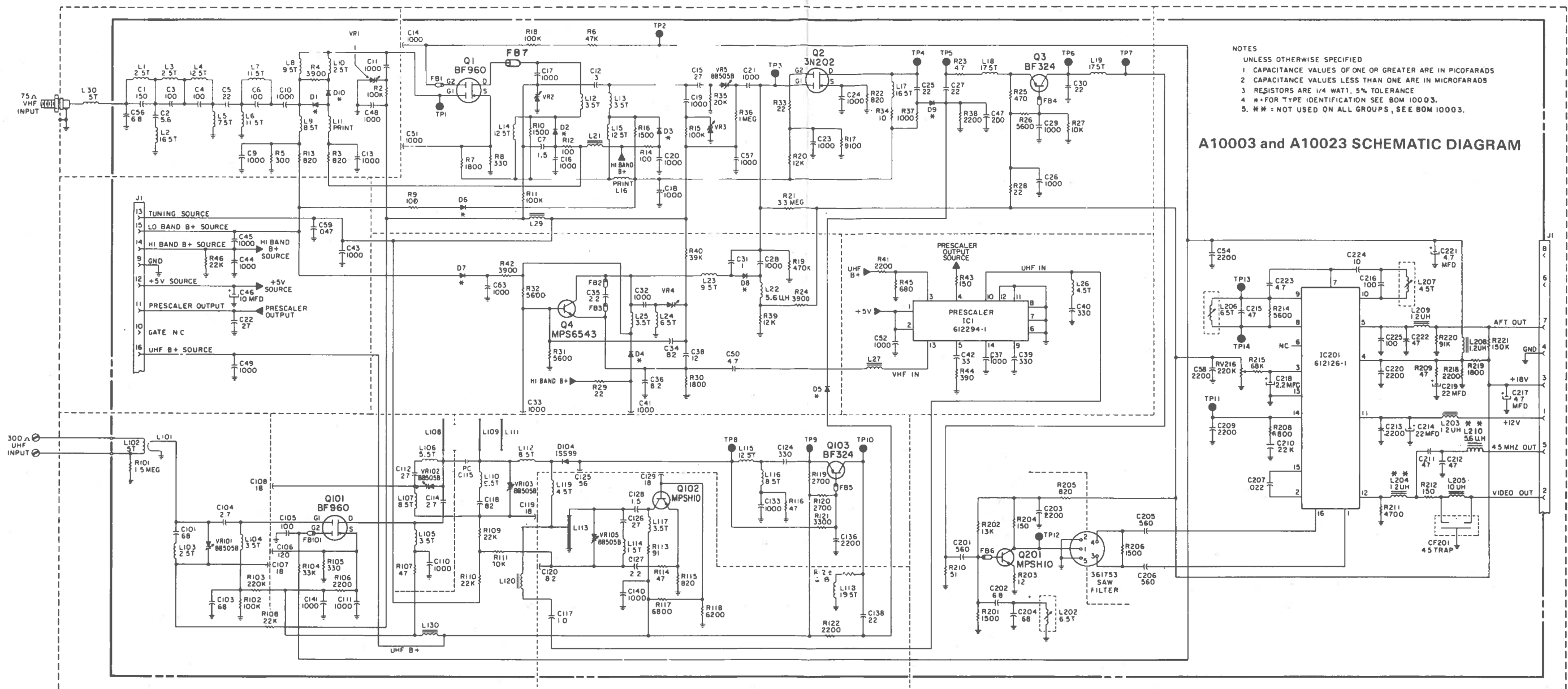


Courtesy of Manufacturer

ATC021-A001 CONTROL UNIT REPLACEMENT PARTS LIST

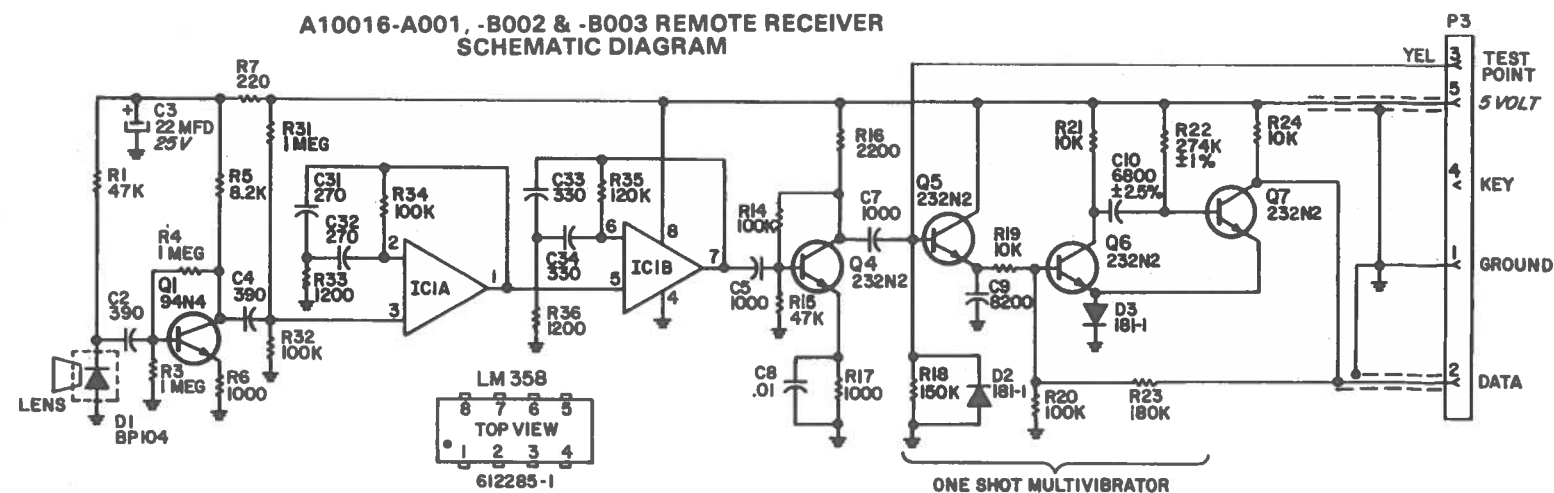
REF.	DESCRIPTION	PART NO.
CONTROLS & SWITCHES		
SW1	Power On-Off Switch	160681-1
SW2	Volume Up Switch	160681-1
SW3	Volume Down Switch	160681-1
	10 Button Keyboard	703979-1
MISCELLANEOUS		
P3	Infrared Remote Receiver	A10016-8002
	-5 Pin Square Wire Connector	181210-5
	-Negative Polarizing Key f/P3	181076-1
	-Square Wire Contacts f/P3	181011-1
	LED Channel Display	530234-1
	STAR Controller Module to LED Cable Asm.	-----
P6	-10 Pin Square Wire Connector w/Contacts	181350-10
	-Negative Polarizing Key f/P6	181351-1
P102	-10 Pin Square Wire Connector w/Contacts	181512-10
	-Negative Polarizing Key f/P102	181513-1
P5	10 Pin Square Wire Connector w/Contacts	181350-10
	Negative Polarizing Key f/P5	181351-1
P101	8 Pin Square Wire Connector	181193-8
	Negative Polarizing Key f/P101	181201-1
	Square Wire Contacts f/P101	181133-1
	Capristor (Connected from Control Unit Bezel to CRT Mounting Bracket)	250233-7
	Infrared Remote Transmitter	704101-1

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA



MAGNAVOX CHASSIS
 19C113-00AA, 19C117-00AA

A10016-A001, -B002 & -B003 REMOTE RECEIVER SCHEMATIC DIAGRAM

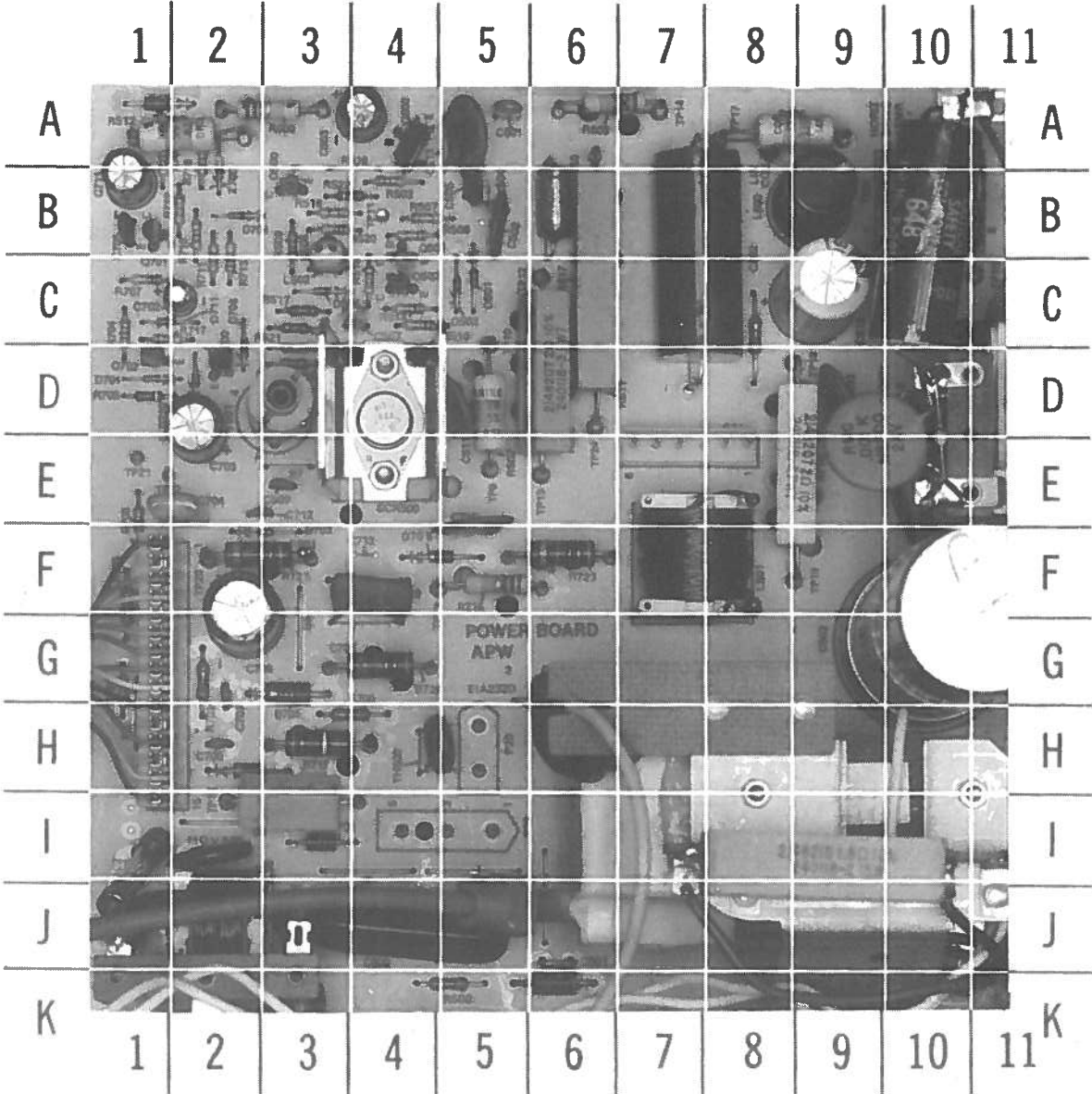


A10016-A001, -B002 & -B003 REMOTE RECEIVER MODULE REPLACEMENT PARTS LIST

Ref.	Description	Part No.	Ref.	Description	Part No.
Capacitors			Resistors (Cont'd.)		
C2	Ceramic, 390pF., 10%, 50V	2508313919	R21	Carbon Film, 10 kilohm, 5%, 1/4W	2302731035
C3	Electrolytic, 22uF., 25V	2701592125	R22	Metal Film, 274 kilohm, 1%, 1/4W	2302552743
C4	Ceramic, 390pF., 10%, 50V	2508313919	R23	Carbon Film, 180 kilohm, 5%, 1/4W	2302141845
C5	Ceramic, 1000pF., 10%, 50V	2508311029	R24	Carbon Film, 10 kilohm, 5%, 1/4W	2302141035
C7	Ceramic, 1000pF., 10%, 50V	2508311029	R31	Carbon Film, 1 megohm, 5%, 1/4W	2302731055
C8	Ceramic, 0.1uF., 10%, 50V	2508311039	R32	Carbon Film, 100 kilohm, 5%, 1/4W	2302731045
C9	Polypropylene, 8200pF., 2.5%, 63V	2508778222	R33	Carbon Film, 1200 ohm, 5%, 1/4W	2302731225
C10	Polypropylene, 6800pF., 2.5%, 63V	2508778222	R34	Carbon Film, 100 kilohm, 5%, 1/4W	2302731045
C31	Ceramic, 270pF., 10%, 50V	2508312719	R35	Carbon Film, 120 kilohm, 5%, 1/4W	2302731245
C32	Ceramic, 270pF., 10%, 50V	2508312719	R36	Carbon Film, 1200 ohm, 5%, 1/4W	2302731225
C33	Ceramic, 270pF., 10%, 50V	2508312719			
C34	Ceramic, 270pF., 10%, 50V	2508312719			
Resistors			Semiconductors		
R1	Carbon Film, 47 kilohm, 5%, 1/4W	2302734735	D1	Photo Diode	5302120001
R3	Carbon Film, 1 megohm, 5%, 1/4W	2302731055	D2	Silicon Diode	5301819001
R4	Carbon Film, 1 megohm, 5%, 1/4W	2302731055	D3	Silicon Diode	5301819001
R5	Carbon Film, 8200 ohm, 5%, 1/4W	2302738225	D4	NPN Silicon Transistor	6100940004
R6	Carbon Film, 1 kilohm, 5%, 1/4W	2302731025	Q4	NPN Silicon Transistor	6102320002
R7	Carbon Film, 220 ohm, 5%, 1/4W	2302732215	Q5	NPN Silicon Transistor	6102320002
R14	Carbon Film, 100 kilohm, 5%, 1/4W	2302731045	Q6	NPN Silicon Transistor	6102320002
R15	Carbon Film, 47k ohm, 5%, 1/4W	2302734735	Q7	NPN Silicon Transistor	6102320002
R16	Carbon Film, 2200 ohm, 5%, 1/4W	2302732225	IC1	Low Power Dual Op-Amp	6122850001
R17	Carbon Film, 1 kilohm, 5%, 1/4W	2302731025			
R18	Carbon Film, 150 kilohm, 5%, 1/4W	2302731545	Miscellaneous		
R19	Carbon Film, 10 kilohm, 5%, 1/4W	2302731035	P3	5 Pin Square Wire Connector	1812100005
R20	Carbon Film, 100 kilohm, 5%, 1/4W	2302141045		Negative Polarizing Key (P3)	1810760001
				Square Wire Contacts (P3 (4 used))	1810110003
				Lens (Photo Diode)	1443170001

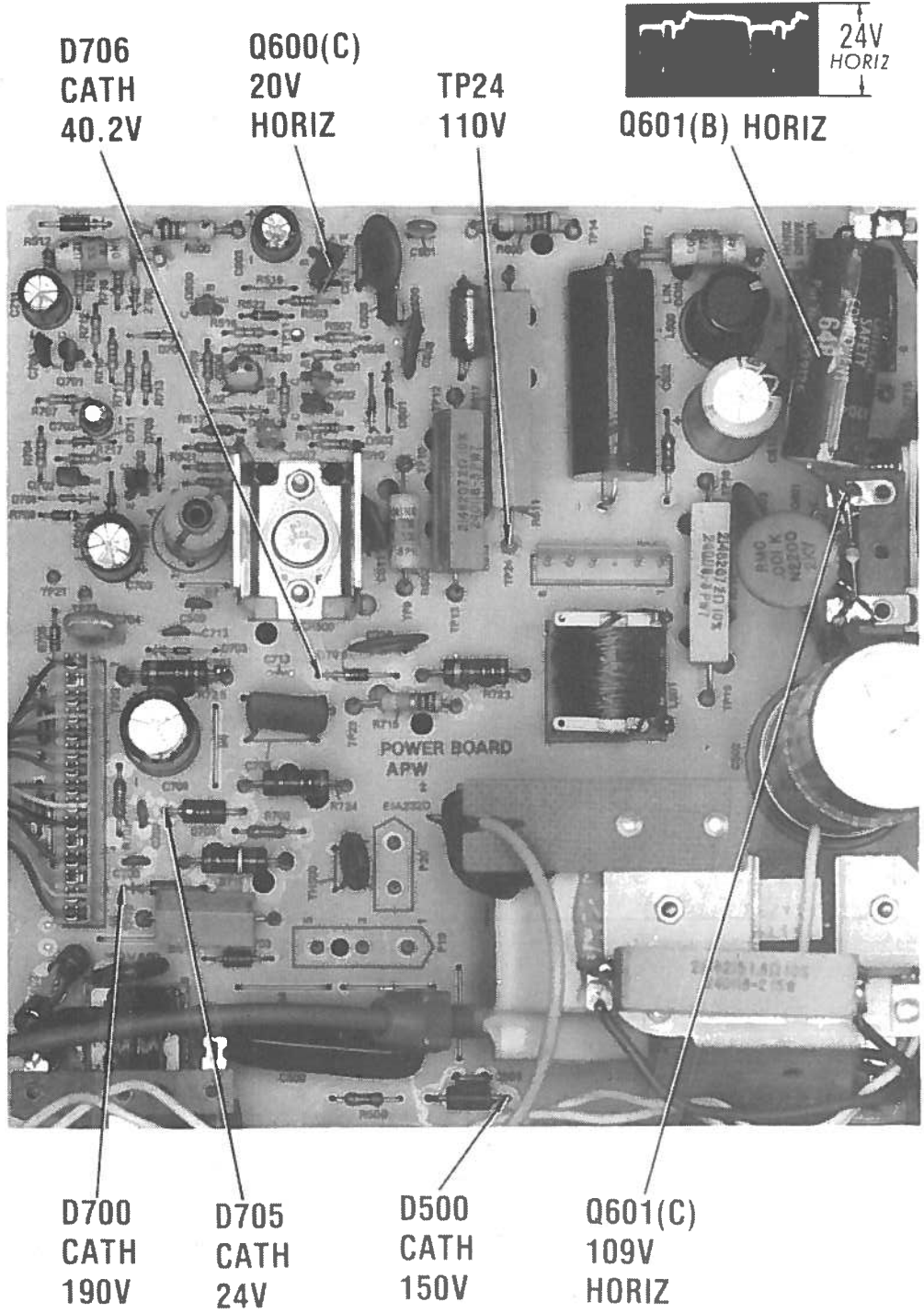
POWER BOARD-GridTrace LOCATION GUIDE

C500	J-4	C707	G-2	L502	B-3	R513	D-6	R707	C-1
C501	J-6	C709	F-2	L600	B-9	R514	C-4	R708	E-1
C502	F-10	C710	E-5	L703	I-3	R515	C-4	R709	D-1
C505	B-5	C711	B-1	MOV500	I-2	R516	B-3	R710	B-2
C506	B-3	C712	E-3	P16	G-1	R517	C-3	R711	C-2
C507	C-4	D500	K-6	P19	I-5	R519	C-3	R712	B-2
C508	B-5	D501	C-5	P20	H-5	R520	B-3	R713	C-2
C509	E-3	D502	C-5	P24	E-7	R521	D-3	R714	D-9
C510	B-6	D503	D-10	Q500	B-3	R522	B-3	R715	F-5
C511	D-5	D504	C-3	Q501	B-4	R523	D-3	R717	C-1
C512	C-9	D600	A-1	Q502	C-4	R600	A-3	R718	A-2
C513	A-5	D601	E-10	Q600	A-4	R601	F-2	R719	H-3
C600	D-10	D700	H-2	Q601	D-11	R604	C-10	R720	G-1
C601	A-5	D701	D-1	Q700	D-2	R605	A-7	R723	F-6
C602	B-7	D703	F-3	D701	B-1	R606	A-9	R724	G-4
C603	D-9	D704	B-2	Q702	D-1	R607	D-10	R725	F-3
C608	B-10	D705	G-3	R500	K-5	R616	C-8	SCR500	D-4
C609	D-10	D706	F-5	R501	I-9	R617	C-6	T500	J-10
C611	A-5	D708	D-2	R502	D-5	R618	A-2	T501	D-3
C700	H-2	D710	D-2	R503	B-4	R700	H-4	T601	A-10
C702	C-2	D711	C-1	R507	B-4	R701	G-2	T700	I-9
C703	D-2	F500	I-1	R508	B-4	R703	I-3	TH500	H-4
C704	E-2	FB601	E-10	R509	B-3	R704	C-1	TP18	D-9
C705	B-1	L500	J-2	R511	C-6	R705	F-1	Z500	B-5
C706	F-4	L501	F-7	R512	A-2	R706	A-1	Z700	A-2



POWER BOARD

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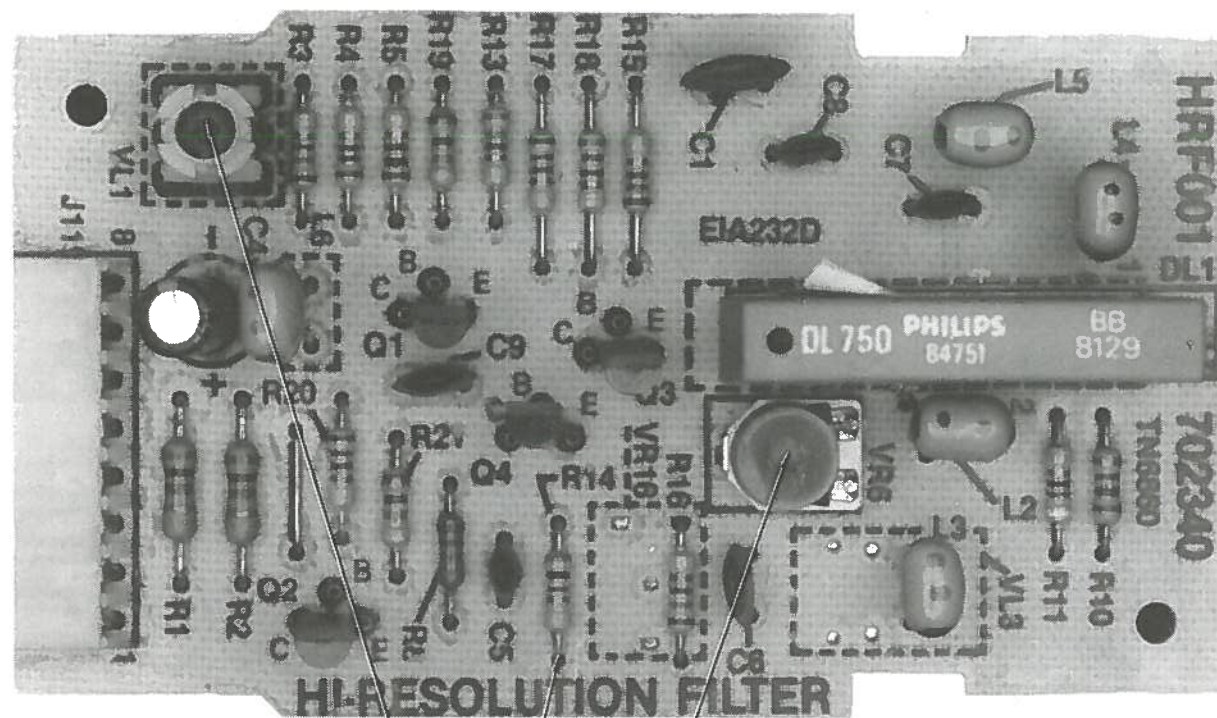


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POWER BOARD

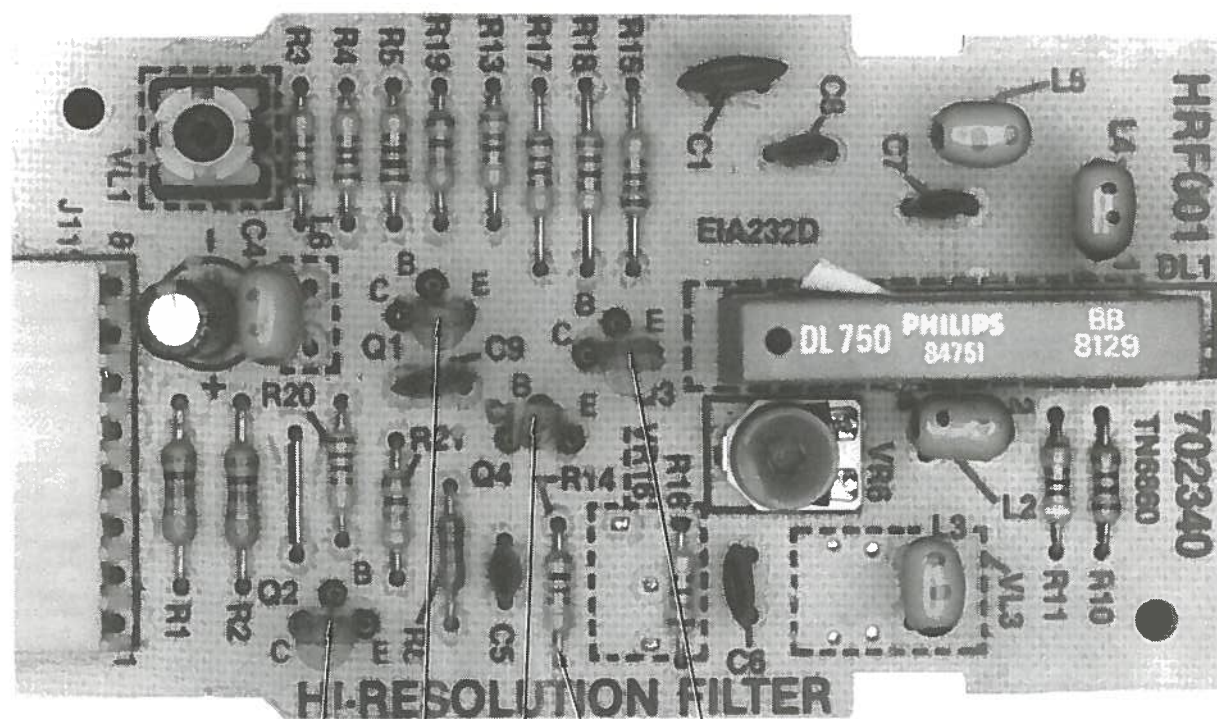
MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

FOLDER 1



VL1

VR6
3.58MHz
NULL CONTROL



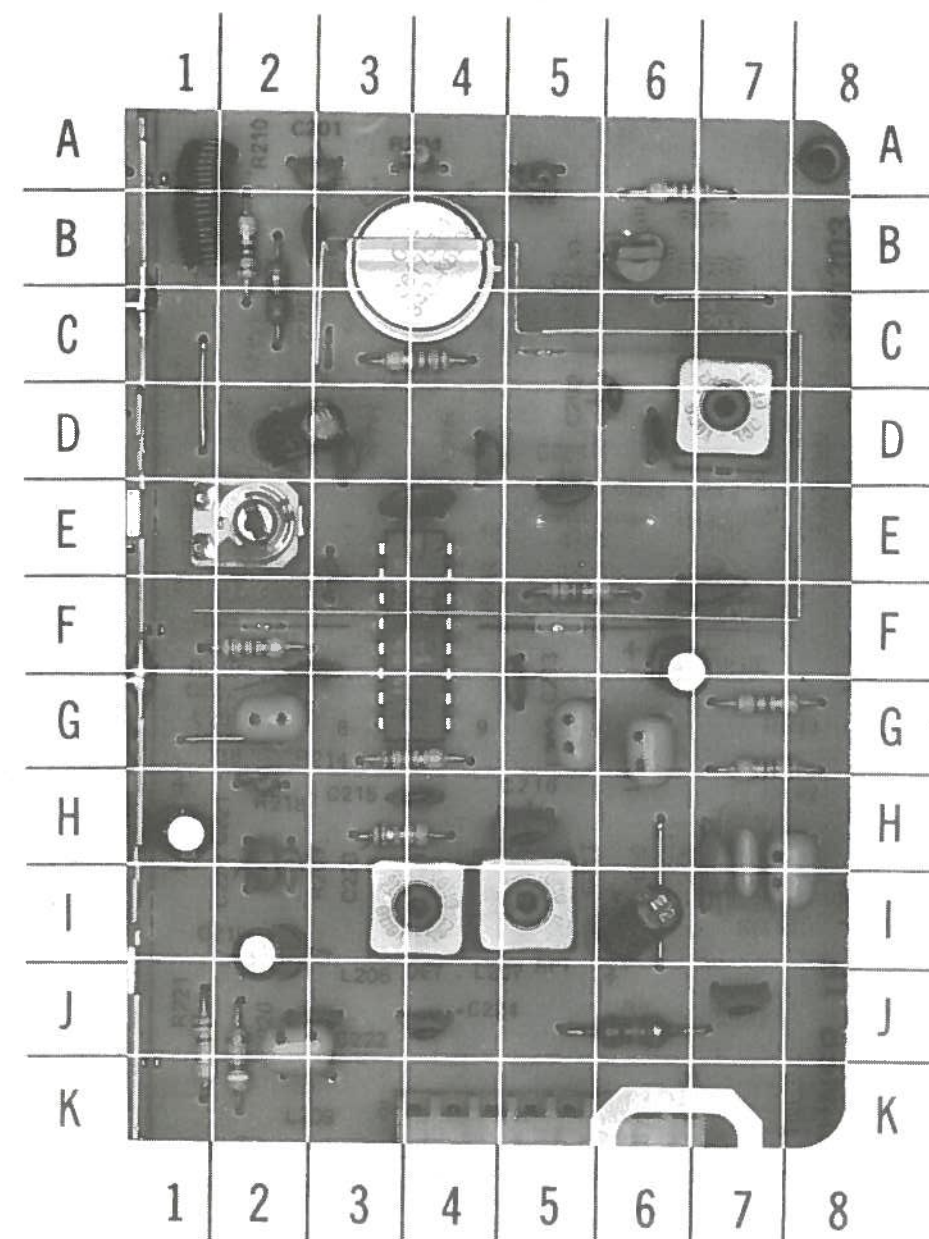
Q2

Q1

Q4

Q3

HIGH RESOLUTION FILTER BOARD



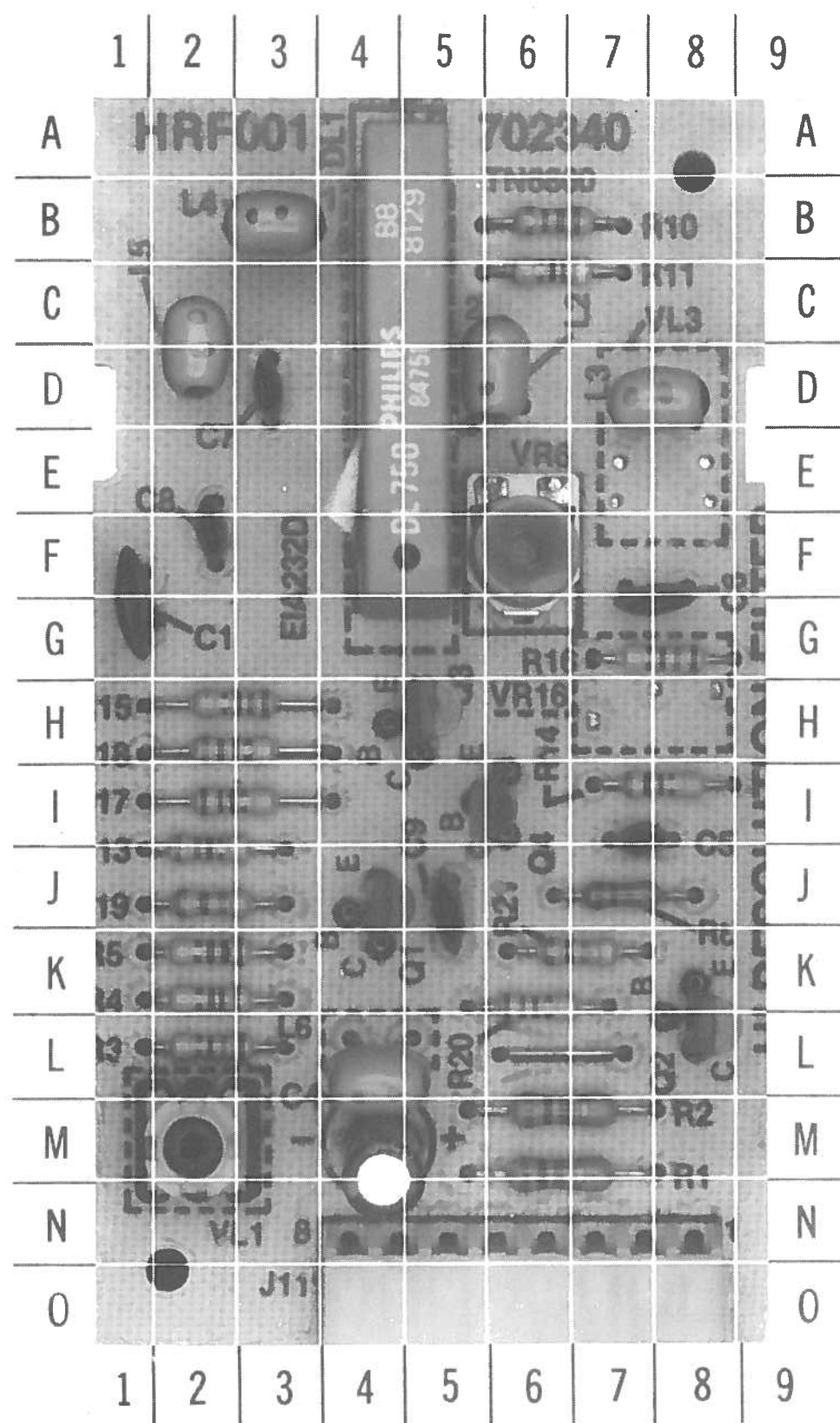
TUNER IF BOARD-
GridTrace
LOCATION GUIDE

C201	A-3
C202	D-6
C203	B-2
C204	D-6
C205	D-4
C206	D-3
C207	E-4
C209	E-5
C210	F-7
C211	H-7
C212	J-7
C213	G-5
C214	F-6
C215	H-4
C216	H-5
C217	I-6
C218	D-2
C219	I-2
C220	I-2
C221	H-1
C222	J-3
C223	H-3
C224	J-4
C225	F-3
CF201	H-7
FB6	B-6
IC201	F-4
J1	K-5
L202	D-7
L203	G-5
L204	G-6
L205	H-8
L206	I-4
L207	I-5
L208	G-2
L209	J-2
L210	J-6
L219	B-1
Q201	B-6
R201	A-6
R202	A-5
R204	A-4
R205	C-2
R206	C-4
R208	F-5
R209	H-2
R210	B-2
R211	G-7
R212	G-7
R214	G-4
R215	E-3
R218	H-2
R219	F-2
R220	J-2
R221	J-1
RV216	E-2
SF1	B-4
TP7	A-1
TP11	F-4
TP40	K-2

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

FOLDER 1

TUNER IF BOARD

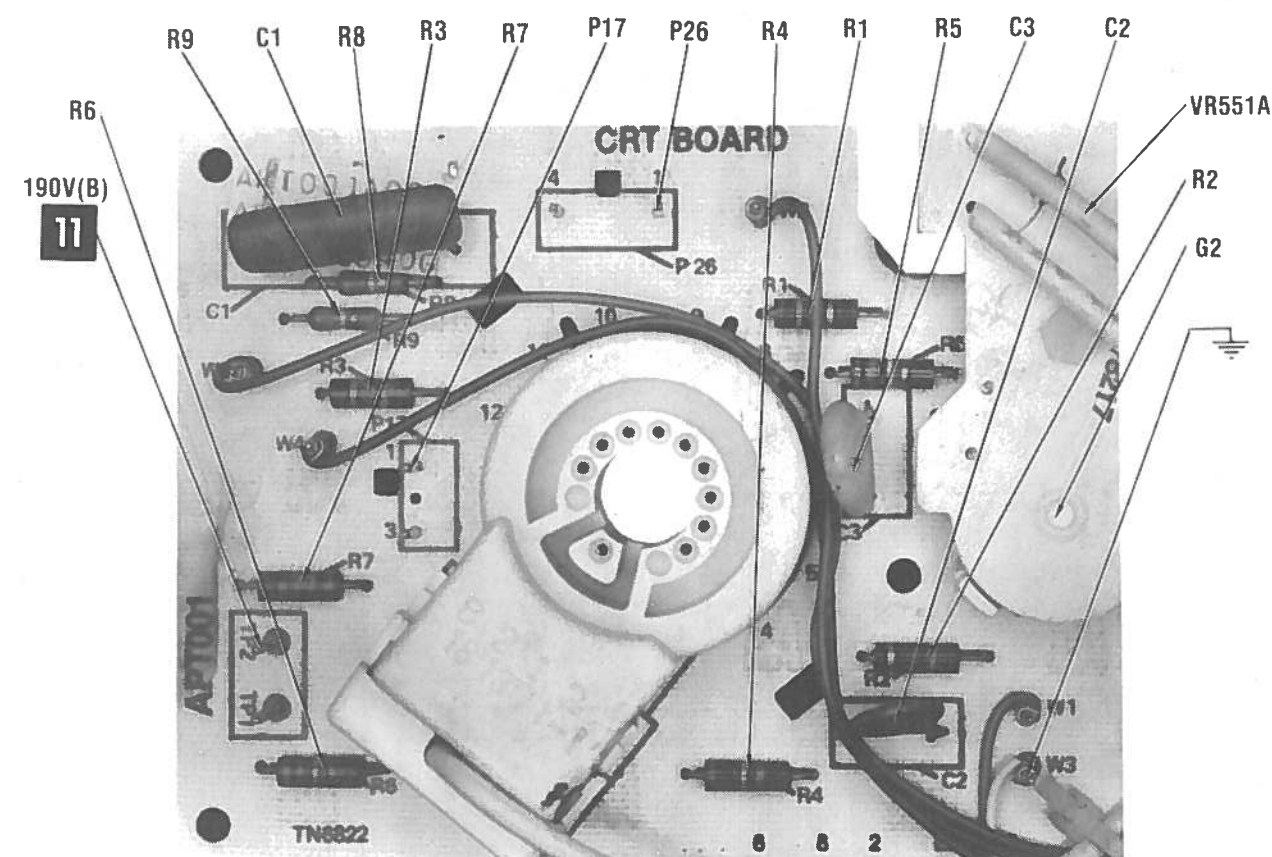
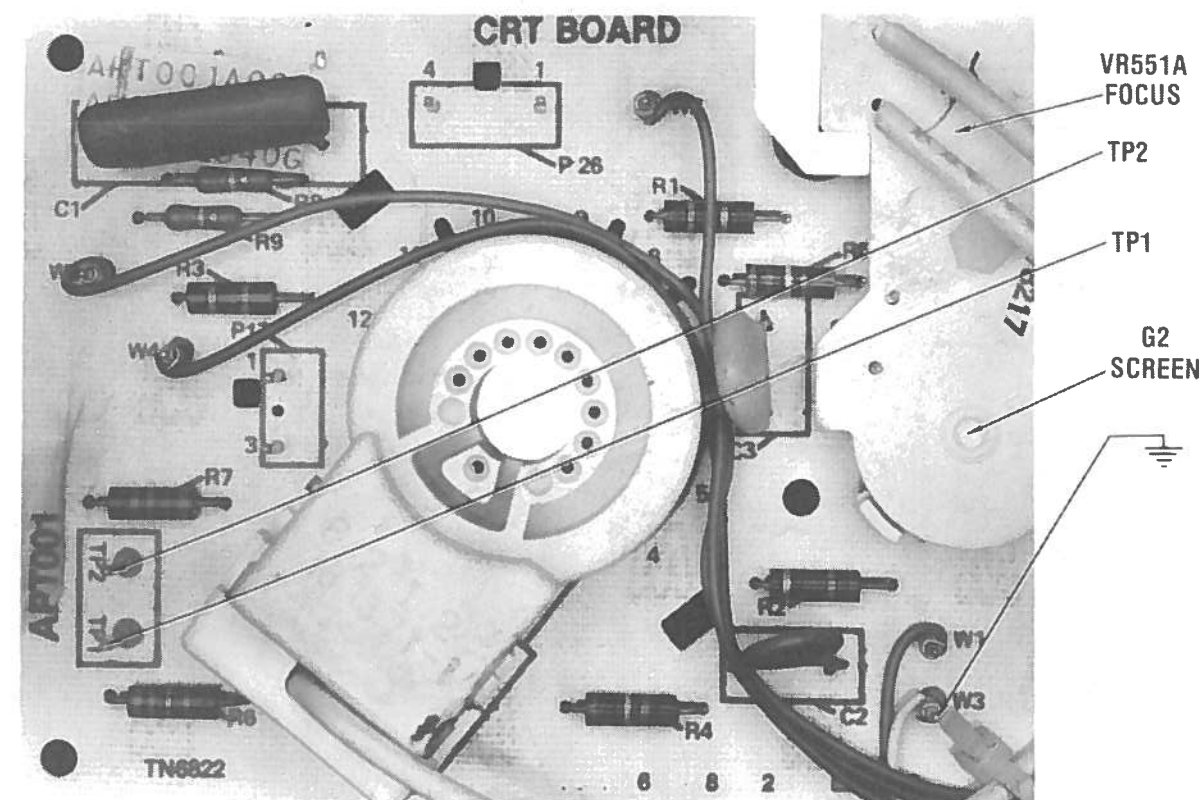


HIGH RESOLUTION
FILTER BOARD-
GridTrace
LOCATION GUIDE

C1	G-1
C4	M-4
C5	I-7
C6	G-7
C7	D-3
C8	F-2
C9	J-5
DL	D-5
J11	O-6
L2	D-6
L3	D-8
L4	B-3
L5	D-2
L6	L-4
Q1	J-4
Q2	L-8
Q3	H-5
Q4	I-6
R1	M-6
R2	M-6
R3	L-2
R4	K-2
R5	K-2
R8	J-7
R10	B-6
R11	C-6
R13	J-2
R14	I-8
R15	H-2
R16	G-8
R17	I-2
R18	H-2
R19	J-2
R20	K-6
R21	K-7
VL1	M-2
VR6	F-6

HIGH RESOLUTION FILTER BOARD

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CRT BOARD

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

FOLDER 1

PARTS LIST AND DESCRIPTION (Continued)

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

MISCELLANEOUS

ITEM No.	PART NAME	MFGR. PART No.	NOTES
CF1	Filter		4.5MHz
CF100	Filter	361796-1	4.5MHz
DL1	Delay Line	361579-3	High Resolution
FB200	Ferrite Bead	364005-1	
FB601	Ferrite Bead	364005-1	
LDR	Light Dependent Resistor		
L1	Degaussing Coil	361786-1	
# MOV500	Varistor	230225-2	
# PPI	Power Cord	461313-3	AC
# RL901	Relay	1604140010	Power On/Off
S101	Switch		V-Matic
SF1	SAW Filter	3617530001	
# V1	CRT	MV19VMFP22 or 19VMCP22 or 19VLT22	
Y300	Crystal	560404-2	3.58MHz
	Antenna UHF	7012090005	UHF RUSSELL Replacement BOW-4H
	Antenna VHF	732960005	VHF RUSSELL Replacement Assembly POR-MAG
	PC Board	A10003 or A10003-D04 or A10023	Tuner/IF
	PC Board	A10004	Star Control
	PC Board	A10029	Remote Power
	PC Board	ASC001	Secondary Controls
	PC Board	ASG001-A002 Thru B005	Signal Processing
	PC Board	ATC021	Tuner Control Unit
	PC Board	APT001-A002/B003	CRT Socket
	PC Board	APW001/2/3	Power Deflection
	PC Board	A10016-B002	Remote Receiver
	Purity Magnet	361573-8	Convergence
	Socket	181371-1	CRT
	Transmitter	7041010001	
	Wedges	644867-1	CRT (3 used)

For SAFETY use only equivalent replacement part.

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

ITEM	PART No.	ITEM	PART No.
Models RC4243WA01/02/03/04		Models DCR241PE01/02/03/04	
Cabinet Front	1436630099	Cabinet Front	1436630100
Cabinet Back	1444490013	Cabinet Back	1444490013
Control Bezel	1442210004	Control Bezel	1442210004
Aluminum Overlay F/Control Bezel	1516720004	Aluminum Trim Strip - Top	1514470016
Aluminum Trim Strip - Top	1514470016	Aluminum Trim Strip - Bottom	1514470018
Aluminum Trim Strip - Bottom	1514470018	Aluminum Overlay for Control Bezel	1516720004
Door Assembly	7027030001	Door Assembly	7027030001
Knob - Brightness, Picture, Tint, Color (4 used)	1433130016	Knob - Brightness, Picture, Tint, Color (4 used)	1433130016
Knob - Power, Volume (Up/Down (3 used)	1442230011	Pushbutton - On-Off, Volume Up/Down (3 used)	1442230011
Extender Shaft Vertical Hold	1445800002	Extender Shaft Vertical Hold	1445800002
Extender Shaft Sharpness	1445530004	Extender Shaft Sharpness	1445530004

PARTS LIST AND DESCRIPTION

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFGR. PART No.	GENERAL ELECTRIC PART No.	NTE PART No.	ECG PART No.	RCA PART No.	WORKMAN PART No.	ZENITH PART No.
POWER/DEFLECTION BOARD								
D500	226-2(Diode)	530226-1002	GE-511	NTE506	ECG506	SK3998/506	WEP172/506	103-287
D501,502	179-1	530179-1001	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D503	171-1	530171-1001	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
D504	179-1	530179-1001	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D600	171-1	530171-1001	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
# D601	1483E209							
D700	148-3	530148-1003	GE-511	NTE506	ECG506	SK3998/506	WEP172/506	103-287
D701	151-1	530151-1001	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
D703	181-2	530181-1002	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D704	179-1	530179-1001	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D705	181-3	530181-1003	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D706	184-1	530184-1001	GE-511	NTE506	ECG506	SK3998/506	WEP172/506	103-287
D707	151-3	530151-1003	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
# D708	181-2 (1)	530181-1002	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D709	181-3	530181-1003	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D710	(1)	530151-1003	GE-511	NTE552	ECG552	SK9000/552	WEP172/506	103-287
# D711	181-1F	530181-1002	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
# MOV500	181-2	530181-1002	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
# Q500	181-2	530181-1002	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
# Q501	MDCZ15110UT		V150LA10A	NTE524V15	ECG524V15			
# Q502	223-1	230225-2	V150LA10A	NTE524V15	ECG524V15			
Q600	223-1	610223-1	GE-82	NTE159	ECG159	SK3466/159	WEP62/159	121-29003
# Q601	223-1	610223-1	GE-82	NTE159	ECG159	SK3466/159	WEP62/159	121-29003
# Q700	232-2	610232-2	GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-29000A
	427-1		GE-217	NTE190	ECG190	SK9435/190	WEP749/190	121-29054
	427N2	610427-2	GE-217	NTE190	ECG190	SK9435/190	WEP749/190	121-29054
	392-1	610392-1	GE-259	NTE238	ECG238	SK3710/238	WEP764/238	121-29001
	083-6	610083-6	GE-82	NTE159	ECG159	SK3466/159	WEP62/159	121-29003

PARTS LIST AND DESCRIPTION (Continued)

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

SEMICONDUCTORS (Select replacement transistor for best results)

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	NTE PART No.	ECG PART No.	RCA PART No.	WORKMAN PART No.	ZENITH PART No.
Q701, 702 SCR500 Z500 Z700	232-2	610232-2 611013-1 530257-1 530073-1044	GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-Z9000A
	013-1		NTE5351	ECG5351				
	257-1		NTE5031A	ECG5031A	SK24A/5031A	WEP1433/5031	103-212	
	73-44		NTE5011A	ECG5011A	SK5A6/5011A	WEP1412/5011	103-Z9007	
REMOTE POWER SUPPLY								
D901 thru	171-1	5301711002 5301571569	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D903	171-2		GE-504A	NTE116	ECG116	SK3311	WEP156	212-76-02
Z901	57-569		GEZD-5.6	NTE5011A	ECG5011A	SK5A6/5011A	WEP1412/5011	103-Z9007
SIGNAL PROCESSING BOARD								
D200, 201	171-1	530171-1001 530181-1003 530181-1002	GE-300	NTE177	ECG177	SK9091/177	WEP1062/177	103-131
D202	181-3		GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D203 thru	181-2		GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D205								
D400 thru	181-2	530181-1002	GE-514	NTE519	ECG519	SK3100/519	WEP925/519	103-131
D403								
IC100	612305	612305-1		NTE1231A	ECG1231A	SK9384/1231A		
IC200	2304-1	612304-1		NTE1445	ECG1445	SK9187/1445		221-158
	LA1460			NTE1445	ECG1445	SK9187/1445		
IC300	303-1 (IC)	612303-1		NTE1410	ECG1410	SK9016/1410	WEP1410/1410	
	AN5310			NTE1410	ECG1410	SK9016/1410	WEP1410/1410	
Q100 thru	232-2	610232-2	GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-Z9000A
Q102								
Q200	421-3	610421-3	GE-66A	NTE152	ECG152	SK3893/152	WEP745/152	121-987-03
Q201	421-4	610421-4	GE-69A	NTE153	ECG153	SK3274/153	WEP746/153	121-988-03
Q202	428-1			NTE49	ECG49	SK3178B/49		
	428N2	610428-2		NTE49	ECG49	SK3178B/49		
Q203	232-2	610232-2	GE-123AP	NTE123AP	ECG123AP	SK3854/123AP	WEP736/123A	121-Z9000A
Q204	228-1			NTE49	ECG49	SK3178B/49		
	228N5	610228-5		NTE49	ECG49	SK3178B/49		

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.	WORKMAN PART No.
R244	47K 2% 1/4W Carbon Film	230214-4732	QW347	
R246	15K 2% 1/4W Carbon Film	230214-1532	QW315	
R252	30K 2% 1/4W Carbon Film		QW330	
# TH200	30K 5% 1/4W Carbon Film	230214-3032	QW330	
	20.4K Cold NTC			FR26.5
	37.5K Cold NTC	230130-10		

For SAFETY use only equivalent replacement part.

COILS & TRANSFORMERS

ITEM No.	FUNCTION	MFGR. PART No.	OTHER IDENTIFICATION	NOTES
# DY101	Yoke 90°	3617800002	361780-2 (1)	
# T500	Start-up	320401-1	320401-1 (1)	
T501	SCR Trigger	371738-2		
# T601	Horiz Driver	320402-1	320402-1 (1)	
# T700	Horiz Output	361794-4	361794-3 (1)	
# T901	Remote Power	3003800002	300380-1 (1)	

For SAFETY use only equivalent replacement part.

(1) Number on unit.

SPEAKER

ITEM No.	TYPE	REPLACEMENT DATA		NOTES
		MFGR. PART No.	QUAM PART No.	
SP1	4" X 6" PM 16 Ohms	584612-1 (5846120001)	46A1Z16	

FUSE DEVICES

ITEM NO.	DESCRIPTION	MFGR. PART NO.		NOTES
		DEVICE	HOLDER	
# F502	POWER DEFLECTION 5 Amp @ 125V Fast Acting Pigtail	181374-1500		
F901	REMOTE POWER .125 Amp @ 250V Slow-Blow Pigtail	1808655012		

For SAFETY use only equivalent replacement part.

MAGNAVOX CHASSIS
19C113-00AA, 19C117-00AA

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

ITEM No.	RATING	REPLACEMENT DATA		
		MFGR. PART No.	NTE PART No.	WORKMAN PART No.
	HIGH RESOLUTION MODULE			
R8	360 2% 1/4W Carbon Film POWER/DEFLECTION PANEL	230214-3612	QW136	
R500	1M 5% 1/2W Carbon Film	230212-1055	HW510	22-2168
R501	1.8 10% 15W WW	240118-2		
R502	20K 5% 2W Metal Film	230192-2035	2W320	
R503	820 5% 1/4W Carbon Film	230214-8215	QW182	22-1094
R509	3000 5% 1/4W Carbon Film	230214-3025	QW230	
R511	680 10% 10W WW	240082-69	10W168	
R512	160 5% 2W Metal Film	230192-1615	2W116	
R513	2 10% 7W WW	240118-3		
R516	680K 2% 1/4W Carbon Film	230214-6842	QW468	
R517	2.4M 5% 1/4W Carbon Film	230214-2455		
R518	1M 5% 1/4W Carbon Film	230214-1055	QW510	22-1168
R519	3.3M 5% 1/4W Carbon Film	230214-2055		
R520	2M 5% 1/4W Carbon Film	230214-2055		
R521	7.5M 5% 1/4W Carbon Film	230214-7555		
R522	19.6K 1% 1/4W Metal Film	230255-1962		
R523	82.5K 1% 1/4W Metal Film	230255-8252		
R600	10 10% 1W Metal Film	230201-1009	1W010	22-3048
R604	.68 10% 2W Carbon Comp .68 10% 2W WW	240127-6889	2W068	
R605	270 5% 1W Metal Film	230201-2715	1W127	22-3082
R606	330 10% 2W Metal Film	230192-3319	2W133	22-4084
R607	100 5% 1/4W Carbon Film	230214-1015	QW110	22-1072
R702	8200 5% 1/4W Carbon Film	230214-8225	QW282	22-1118
R703	18 5% 5W WW	240080-131	5W018	
R704	75K 5% 1/4W Carbon Film 68K 5% 1/4W Carbon Film	230214-7535 230214-6835	QW375 QW368	22-1140
R705	1800 5% 1/2W Carbon Film	230212-1825	HW218	22-2102
R706	27K 5% 1/4W Carbon Film	230214-2735	QW327	22-1130
R707	10K 5% 1/4W Carbon Film 12K 5% 1/4W Carbon Film	230214-1035 230214-1235	QW310 QW312	22-1120 22-1122
R708	30.1K 1% 1/4W Metal Film	230255-3012		
R709	5900 1% 1/4W Metal Film	230255-5901		
R710	510 5% 1/4W Carbon Film	230214-5115	QW151	
R711	4700 5% 1/4W Carbon Film	230214-4725	QW247	22-1112
R712	24K 5% 1/4W Carbon Film	230214-2435	QW324	
R714	2 10% 7W WW	240118-3		
R715	1000 10% 1W Metal Film	230201-1029	1W210	22-3096
R716	4700 5% 1/4W Carbon Film 64.9K 1% 1/4W Metal Film	230214-4725 230255-6492	QW247	22-1112
R718	8200 5% 1/4W Carbon Film	230214-8225	QW282	22-1118
R719	39 5% 2W Carbon Comp 39 5% 2W WW	240127-3905	2W039	
R720	12K 2% 1/4W Carbon Film 12K 5% 1/4W Carbon Film	230214-1232 230214-1235	QW312 QW312	22-1122
R723	4.3 5% 2W Carbon Comp 4.3 5% 2W WW	240127-4395	2W4D3	
R724	1.3 5% 2W Carbon Comp 1.3 5% 2W WW	240127-1395	2W1D3	
R725	8.2 5% 2W Carbon Comp 8.2 5% 2W WW	240127-8295	2W8D2	
TH500	PTC 1.5 Cold SIGNAL PROCESSING MODULE			FR605
R110	39 5% 5W WW	240124-3905	5W039	
R200	56 5% 5W WW	240124-5605	5W056	
R201	7.5 5% 1W WW 10 5% 1W WW	240115-7595 240115-1005		
R229	1200 2% 1/4W Carbon Film	230214-1222	QW212	
R231	2 2% 1/2W Carbon Film 3.9 5% 1/2W Carbon Film	230212-2092 230212-3995	HW2D0 HW3D9	22-2038

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

ITEM No.	TYPE No.	MFG. PART No.	REPLACEMENT DATA					
			GENERAL ELECTRIC PART No.	NTE PART No.	ECG PART No.	RCA PART No.	WORKMAN PART No.	ZENITH PART No.
Q400 thru Q402 Q403, 404 Z200 Z201	250-1 250N3 232-2 192-120 192-200(2) (1)	610250-3 610232-2 530192-1120 530192-1200 530192-1180	GE-27 GE-27 GE-123AP GEZD-12 GEZD-20 GEZD-18	NTE171 NTE171 NTE123AP NTE142A NTE5079A NTE5077A	ECG171 ECG171 ECG123AP ECG142A ECG5079A ECG5077A	SK3201/171 SK3201/171 SK3854/123AP SK12V/142A SK20V/5079A SK18V/5077A	WEP702/171 WEP702/171 WEP736/123A WEP112/142 WEP1163/5079 WEP1116/5077	121-822 121-822 121-Z9000A 103-Z9003 103-Z9023 103-Z9022
Z202 Z203	192-120 57-120	530192-1120 530157-1120	GEZD-12 GEZD-12	NTE142A NTE142A	ECG142A ECG142A	SK12V/142A SK12V/142A	WEP1112/142 WEP1112/142	103-Z9003 103-Z9003
TUNER/IF BOARD								
IC201 Q201	126-1 419-1 MP-SH10	6121260001 6104190002		NTE1545 NTE69 NTE229	ECG1545 ECG69 ECG229	SK9379/1545 SK3246A/229	WEP956/229	121-Z9021
HIGH RESOLUTION BOARD								
Q1 Q2,3 Q4	224-1 232-2 083-1	610224-9001 610232-9001 610083-9001	GE-62 GE-123AP GE-82	NTE199 NTE123AP NTE159	ECG199 ECG123AP ECG159	SK3245/199 SK3854/123AP SK3466/159	WEP66/199 WEP736/123A WEP62/159	121-972 121-Z9000A 121-Z9003

#	For SAFETY use only equivalent replacement part.
(1)	Early production models.
(2)	Late production models.

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

FOLDER 1

PARTS LIST AND DESCRIPTION (Continued)

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

ELECTROLYTIC CAPACITORS

ITEM No.	RATING	MFGR. PART No.
	POWER DEFLECTION	
# C502	900 200V	270099-48
# C512	47 160V	270145-2
	SIGNAL PROCESSING	
# C229	470 63V	270168-5263

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

CAPACITORS

ITEM No.	RATING	MFGR. PART No.
	HIGH RESOLUTION	
C5	15 NPO 50V 5% 13 NPO 50V 5% POWER DEFLECTION	250841-1305
# C500	.33 125V 20%	250647-3380
# C501	.001 1KV	250402-3
# C506	330 50V 10%	250831-3319
# C513	.0047 125V 20%	250626-14
# C600	.001 500V 20%	250506-1020
# C602	.52 250V 5%	250687-16
	SIGNAL PROCESSING	
C104	150 NPO 50V 5%	250841-1515
C107	8 NPO 50V ±.5pF	250841-8098
C115	68 NPO 50V 5%	250841-6805
C118	39 NPO 50V 5%	250841-3905
C120	220 N750 50V 10%	250843-2219
C122	27 NPO 50V 5% 22 NPO 50V 5%	250841-2205
C232	82 NPO 50V 5%	250841-8205
C233	56 NPO 50V 5%	250841-5605
C235	120 NPO 50V 5%	250841-1215
C300	150 NPO 50V 5%	250841-1515
C301	15 NPO 50V 5% 3 NPO 50V ±5pF TUNER (VIDEO IF)	250841-1505 250841-3098
C201	560 NPO 50V 5%	250725-3300
C204	33 NPO 50V 5%	250725-6800
C211	47 NPO 500V 5%	250546-4705
C212	47 NPO 50V 5%	250725-4700

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
	CRT BOARD MODULE			
# VR551A	Focus		220392-2	
# B	G2			

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
VR6	HIGH RESOLUTION 3.58 Null Adjust SECONDARY CONTROL	470	220416-4712	
VR1	Brightness	10K	220413-4	
VR2	Contrast	10K	220413-4	
VR3	Tint	10K	220413-4	
VR4	Color	10K	220413-4	
VR5	Sharpness	10K	220398-4	
VR6	Tone SIGNAL PROCESSING	Defent @ 50% 30K	220399-6	
VR101	Volume Trim	10K	220416-1032	
VR207	Vertical Hold	200K	220406-4	
VR227	Horizontal Hold	4700	220416-4722	
VR235	Vertical Height	1.5M 1M	220416-1552 220416-1052	
VR310	3.58MHz Osc Adjust	220K	220416-2242	
VR410	Red Drive Control	470	220416-4712	
VR412	Green Drive Control	470	220416-4712	
VR421	Blue Drive Control	470	220416-4712	
VR426	Red Cut-Off Control	4700	220416-4722	
VR428	Green Cut-Off Control	4700	220416-4722	
VR432	Blue Cut-Off Control	4700	220416-4722	
VR436	Sub-Brite Control	4700	220416-4722	
	TUNER (VIDEO IF)			
VR16	RF Delay Adj	220K 200K	220146-2243 2203022243	

For SAFETY use only equivalent replacement part.

COILS (RF-IF)

ITEM No.	FUNCTION	MFGR. PART No.
	HIGH RESOLUTION	
DL1	Delay Line	361579-3
L2	Peaking (18uH)	361735-1805
L3	Peaking (68uH)	361735-6805
L4	Peaking (22uH)	361735-2205
	POWER DEFLECTION	
# L500	AC Line Choke	361795-1
L501	RF Choke	361737-3
	SIGNAL PROCESSING	
L100	Peaking (10uH)	361735-1009
L101	3.58MHz Trap	361691-1
L102	Peaking (36uH)	361735-3909
L201	Peaking (5.6uH)	361735-5699
L300	Peaking (39uH)	361735-3909 (1)
	Peaking (180uH)	361735-1819 (2)
L302	Peaking (100uH)	361735-1019

(1) Late Production.
(2) Early Production.

ITEM No.	FUNCTION	MFGR. PART No.
	HIGH RESOLUTION	
L5	Peaking (68uH)	361735-6805
L6	Peaking (330uH)	361735-3315
VL1	Variable (12-20uH)	361393-160
	POWER DEFLECTION	
L502	RF Choke (680uH)	361444-6819
L600	Horiz Linearity	361678-4
L703	RF Choke	361528-2
	SIGNAL PROCESSING	
L303	Peaking (5.6uH)	361735-5699
L304	Peaking (39uH)	361735-3909
L400	Peaking (1.2uH)	361444-1299 (1)
	Peaking (1uH)	361444-1099 (2)
L403	Peaking (220uH)	361735-2219
L404	Peaking (4.7uH)	361735-4799
L405	Peaking (4.7uH)	361735-4799
L406	Peaking (4.7uH)	361735-4799
T101	Quadrature	361441-2

Courtesy of the Manufacturer

