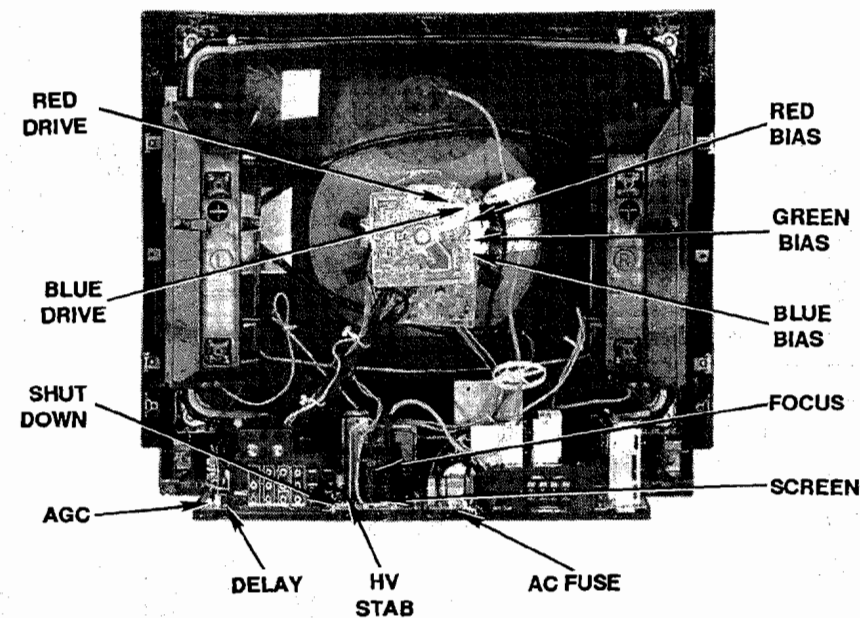


CABINET - REAR VIEW



TEST JIG HOOKUP				
Function	Chek-A-Color Adapter No.	PC Board Plug nNo.	Pin	Color
CRT	B239	P401	1	Yellow
Yoke	D482		2	Grey
Yoke Setting	YP1A		3	Blue
Comments	Focus Tap		4	Red

The listing of any available replacement part herein in no case constitutes a recommendation, warranty, or guarantee by Howard W. Sams & Company as to the quality and suitability of such replacement part. The numbers of the listed parts have been compiled from information furnished to Howard W. Sams & Company by the manufacturers of the specific type of replacement part listed.

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PHOTOFACT® Technical Service Data

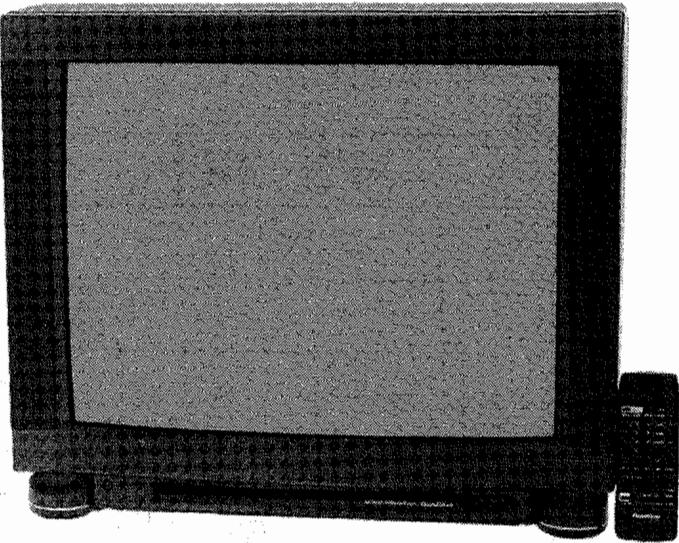
SET 3028

MODELS CMT-2702A, CMT-2902 (CHASSIS NC-98A)

GOLDSTAR

INDEX	
High Voltage Shutdown Adjust	5
IC Functions	5
Important Parts Information	6
Parts List	1, 5, 6
Photos	
Cabinet-Rear View	1
Placement Chart	5
Safety Precautions	1
Schematics	
Audio / PIP	3
Audio / Video Switch	3
CPU	4
CRT	2
Decoder	4
MPX	3
Power Supply	2
Remote Transmitter	3
Television	2
Velocity	3
Terminal Guides and Notes	5
Test Equipment	1
Test Jig Hookup	1
Tuner Information	5

GOLDSTAR  
Models CMT-2702A, CMT-2902 (Chassis NC-98A)

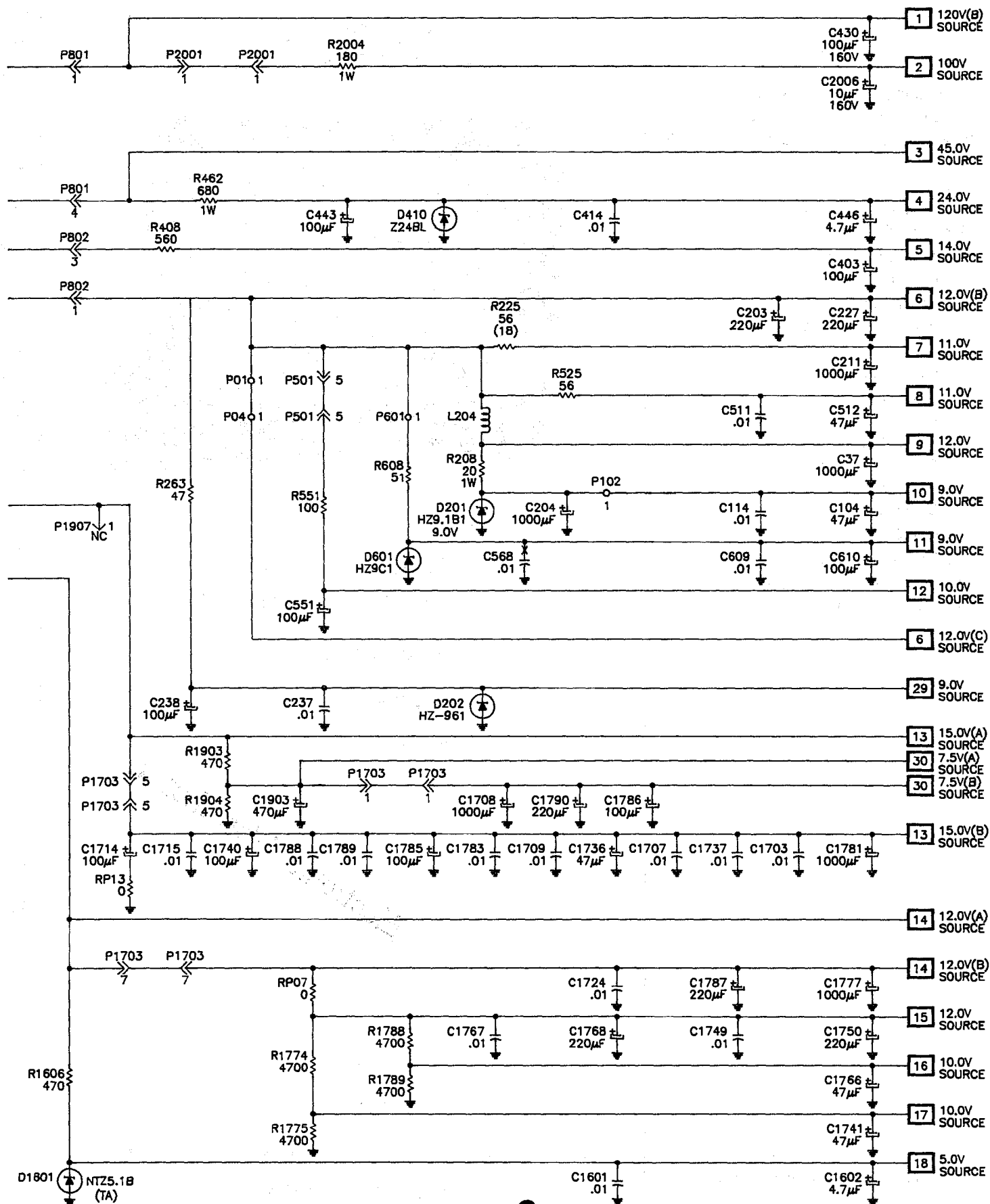


Essential coverage  
for servicing a television receiver...

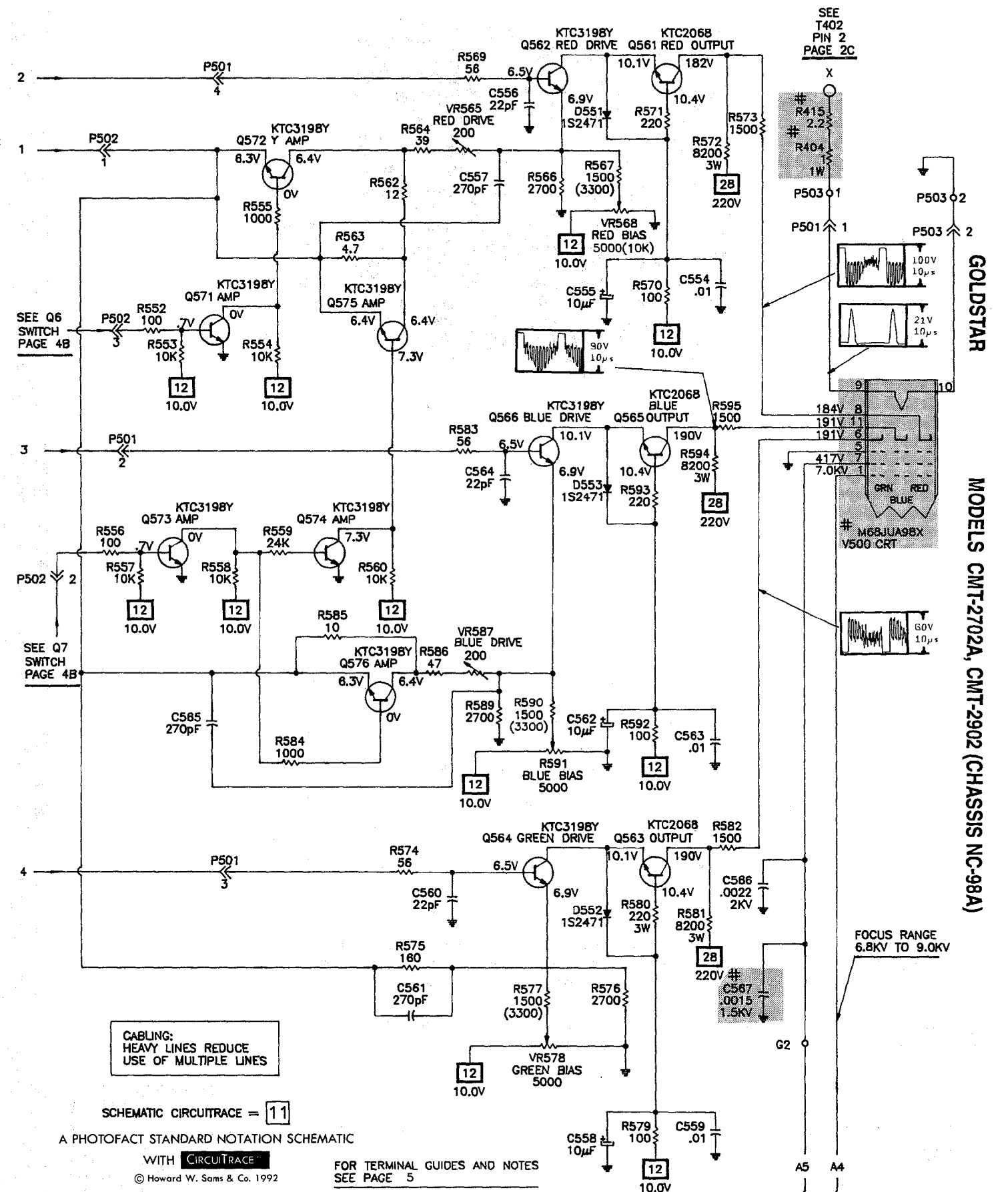
- Schematics
- Component locations
- Parts lists

  
**HOWARD W. SAMS & COMPANY**  
AUGUST 1992 SET 3028

## POWER SUPPLY SCHEMATIC continued



## CRT SCHEMATIC



SAFETY PRECAUTIONS

SERVICE WARNING

ONLY qualified service technicians who are familiar with safety checks and guidelines should perform service work. For continued SAFETY:

- 1. Before replacing parts, disconnect power source to protect electrostatically sensitive parts.
- 2. Do not attempt to modify any circuit unless so recommended by the manufacturer.
- 3. When servicing chassis, use an isolation transformer between the line cord and power receptacle.

SERVICING HIGH VOLTAGE AND PICTURE TUBE

Use EXTREME CAUTION when servicing the High Voltage circuits.

- 1. To discharge static High Voltage, connect a 10-kilohm resistor in series with a test lead between chassis and picture tube anode lead.
- 2. DO NOT lift picture tube by the neck.
- 3. ALWAYS wear shatterproof goggles when handling picture tube to protect eyes in case of implosion.

X-RAY RADIATION AND HIGH VOLTAGE LIMITS

Be aware of the instructions and procedures covering x-ray radiation. In solid-state receivers and monitors, the picture tube is the only potential source of x-rays.

- 1. Keep an accurate High Voltage meter available at all times. Check meter calibration periodically.
- 2. Whenever servicing a chassis, check High Voltage at various brightness levels to be sure it is regulating properly.
- 3. Keep High Voltage at rated value, NO HIGHER. Excessive High Voltage may cause x-ray radiation or failure of associated components. DO NOT depend on protection circuits to keep voltage at rated value.
- 4. When troubleshooting a set with excessive High Voltage, avoid close contact with picture tube. DO NOT operate set longer than necessary. To locate the cause of excessive High Voltage, use a variable AC transformer to regulate voltage.
- 5. In present chassis, many electrical and mechanical components have safety-related characteristics which are not detectable by visual inspection. Such components are identified by a # on both the schematic and the parts list. For SAFETY, use only equivalent replacement parts when replacing these components.

SAFETY CHECKS – FIRE AND SHOCK HAZARD

Cold Leakage Checks for Sets with Isolated Ground

- 1. Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch ON.
- 2. Use an ohmmeter to measure the resistance between the jumpered AC plug and any exposed metal cabinet parts such as antenna screw heads, control shafts, or handle brackets. Exposed metal parts with a return path should measure between 200 kilohms and 5 megohms. Parts without a return path must register infinity.

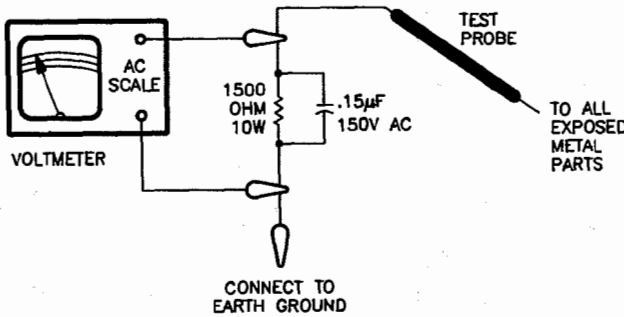
Hot Leakage Current Check

- 1. Plug the AC cord directly into AC outlet. DO NOT use an isolation transformer.
- 2. Use a 1500-ohm, 10-watt resistor in parallel with a .15-microfarad 150-volt AC capacitor to connect between any exposed metal parts on the set and a good earth ground. (See figure below.)
- 3. Use an AC voltmeter with at least 1000 ohms-per-volt sensitivity to measure the voltage across the resistor. Check all exposed metal parts and measure voltage at each point.
- 4. Voltage readings should not exceed .75 volts RMS (5 milliamps AC). Any value exceeding this limit constitutes a potential shock hazard and must be corrected.
- 5. If AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning set to customer.

- 1. Check repaired area for poorly soldered or de-soldered connections, and check entire circuit board for solder splashes.
- 2. Check inner board 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 and restore proper lead dress.



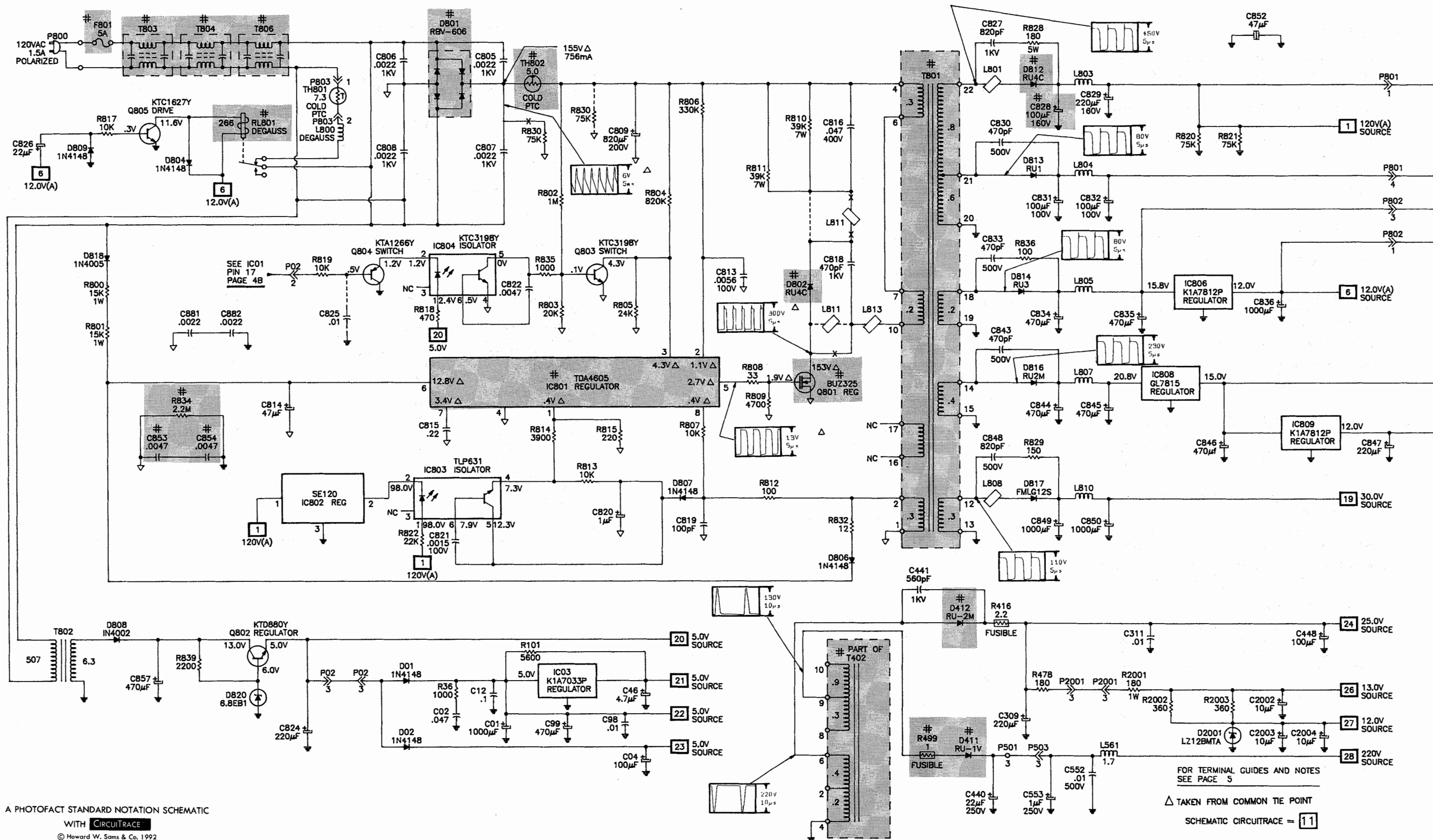
TEST EQUIPMENT

Test equipment listed by participating manufacturers illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.

Equipment	B&K Precision No.	Sencore No.
Oscilloscope	1541A, 2120, 2125, 2160, 2190, 2522	SC61
Generators		
RGB	1249A, 1260	RG67
Multiburst Signal	1251, 1260	VA62A
Color Bar	1211A, 1249A, 1251, 1260	VA62A, CG25, NT64
TV Stereo	2009	ST65, ST66
Analog VOM	114, 117, 177, 214	-
Digital VOM	377, 388HD, 2700 Series, 2831A, 2860, 2900 Series	DVM37, DVM56A, SC61
Frequency Meter	1803A, 1804A, 1805, 1822, 1851, 1855	FC71, SC61
Hi-Voltage Probe	HV-44	HP200
VOM/DMM	-	TP212
Accessory Probes	PR-28(HV)	-
Isolation Transformer	TR110, 1604, 1653, 1655	PR57
Capacitance Analyzer	810A, 815, 820, 830	LC76, LC101, LC102
CRT Analyzer	480, 490	CR70
Temperature Probe	TP-28, TP-30	-
AC Leakage Tester	1655	PR57
Logic Probe	DP21, DP51	-
Logic Pulser	DP31, DP101	-
Inductance Analyzer	875A	LC76, LC101, LC102
Flyback Yoke Tester	875A	VA62A, LC76, LC101, LC102
TV Stereo Power Monitor	-	SR68
Field Strength Meter	-	FS73, FS74
Transistor Tester	510, 520B, 530	TF46
Video Analyzer	-	VA62A
Modulator/Converter	1201	-

GOLDSTAR  
MODELS CMT-2702A, CMT-2902 (CHASSIS NC-98A)

## POWER SUPPLY SCHEMATIC



A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH CIRCUITRACE  
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PARTS LIST

SEMICONDUCTORS

(Select replacement for best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
D1 - 7	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D9 - D12	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D14, 16	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D18	HZ3.6	0DZ360000BA	NTE5006A	ECG5006A	SK3A6
D19	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D22 - D24	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D25	HZ5C2	-	NTE5010A	ECG5010A	SK5A1
	MTZ5.1B(TA)	0DZ510009AB	NTE5010A	ECG5010A	SK5A1
D28, 29	-	0DL206000AC	-	-	-
D201	HZ9.1B1	-	NTE139A	ECG139A	SK9V1
D202	HZ-9C1	-	NTE5018A	ECG5018A	SK9A1
	Z9.1B	0DZ910009BA	NTE139A	ECG139A	SK9V1
D203, 7	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D298, 99	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D301	1N4002	0DD400209AA	NTE116	ECG116	SK3311
D401, 2	HZ6.3	-	NTE137A	ECG137A	SK6V2
	Z6.2A	0DZ620000BA	NTE137A	ECG137A	SK6V2
# D403, 4	GU-3C	-	NTE552	ECG552	SK9000
	GU3C	0DD300000EJ	NTE552	ECG552	SK9000
D405	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D406, 7	Z12BM	-	NTE5021A	ECG5021A	SK12A
	Z12BMTA	0DZ120009AA	NTE5021A	ECG5021A	SK12A
D410	Z24BL	0DZ240009BB	NTE5023A	ECG5023A	SK24A
# D411	RU-1V	-	NTE552	ECG552	SK9000
	RU-1AV	0DD100009AE	NTE552	ECG552	SK9000
# D412	RU-2M	-	NTE552	ECG552	SK9000
	RU-2M(V)TA	0DD200009AF	NTE552	ECG552	SK9000
D501, 2	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D551 - D553	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D601	HZ9C1	-	NTE5018A	ECG5018A	SK9A1
	Z9.1B	0DZ910009BA	NTE139A	ECG139A	SK9V1
# D801	RBV-606	-	NTE5330	ECG5330	SK9972
	RBV606	0DD606000AA	NTE5330	ECG5330	SK9972
# D802	RU4C	0DD400000AF	NTE506	ECG506	SK3925
D804, 6, 7	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D808	1N4002	0DD400209AA	NTE116	ECG116	SK3311
D809	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
# D812	RU4C	0DD400000AF	NTE506	ECG506	SK3925

# For SAFETY use only equivalent replacement part.

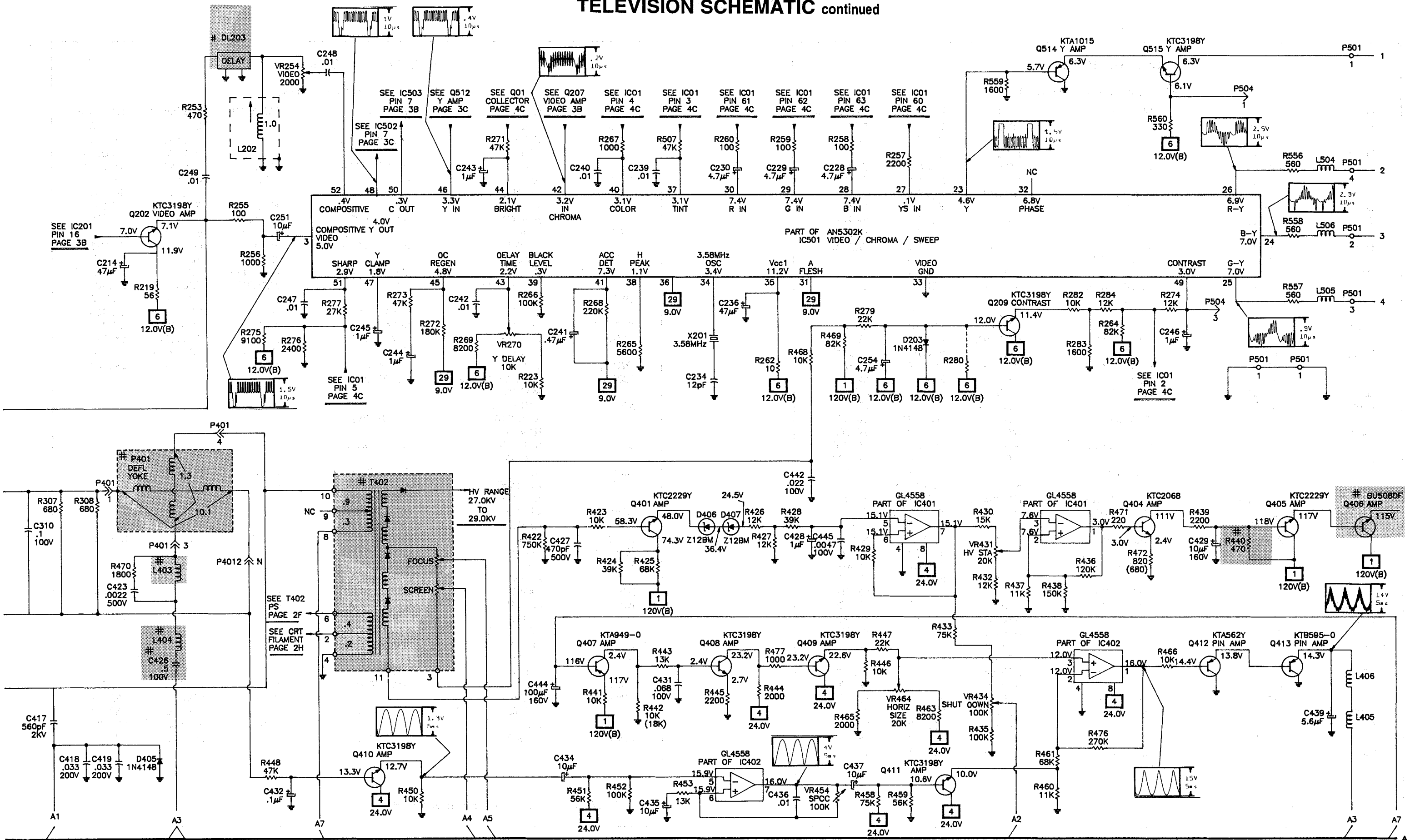
SEMICONDUCTORS continued

(Select replacement for best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
D813	RU1	-	NTE552	ECG552	SK9000
	RU1V	0DD100009AC	NTE552	ECG552	SK9000
D814	RU3	-	NTE580	ECG580	SK3318A
	RU3V	0DD300009AB	NTE580	ECG580	SK3318A
D816	RU2M	-	NTE552	ECG552	SK9000
	RU-2M(V)	0DD20000AF	NTE552	ECG552	SK9000
D817	FMLG12S	-	NTE597	ECG597	SK9858
	FML-G12S	0DD120000BB	NTE597	ECG597	SK9858
D818	1N4005	-	NTE116	ECG116	SK3313
	1N4005GP	0DD400509BA	NTE116	ECG116	SK3313
D820	6.8EB1	-	NTE5014A	ECG5014A	SK6A8
	Z6.8BHTA	0DZ680009AA	NTE5014A	ECG5014A	SK6A8
D1601	MTZ5.1B(TA)	0DZ510009AB	NTE5010A	ECG5010A	SK5A1
D1602 - D1605	1N4148	-	NTE519	ECG519	SK3100
	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D1701, 2	1S2471	0DD247109AA	NTE519	ECG519	SK3100
D2001	Z12BMTA	0DZ120009AA	NTE5021A	ECG5021A	SK12A
	Z12BM	-	NTE5021A	ECG5021A	SK12A
D2002, 3	1S2471	0DD247109AA	NTE519	ECG519	SK3100
IC01	M37100M8-222SP	0IMI371008B	-	-	-
	M37100	-	-	-	-
IC02	NMC9346N	-	-	-	-
	NMC9346	0INS934600B	-	-	-
	HY93C46	-	-	-	-
IC03	KIA7033P	0IKE703300A	-	-	-
	KIA7033	-	-	-	-
IC26	KA33V	0ISS330000A	NTE615P	ECG615A	SK9976
IC101	HA11566NT	-	-	-	-
	HA11566	0IHI115660A	-	-	-
IC201	GL3812	0IGS381200A	-	-	-
	HA11518	0IGS381200A	-	-	-
IC301	LA7831	0ISA783100A	NTE1797	ECG1797	SK9753
IC401, 2	GL4558	0IGS455800A	-	-	-
IC501	AN5302K	-	-	-	-
	AN5302	0IMA530200A	-	-	-
IC502, 3	LA7016	0ISA701600A	NTE1781	ECG1781	SK9746
IC506	M5194L	0IMI514940A	-	-	-
	M514940	-	-	-	-
IC601	UPC1871CU	0INE187100A	-	-	-
# IC801	TDA4605	0ISM460500A	-	-	-
IC802	SE120	-	-	-	-
	SE120N	0ISK120000A	-	-	-
IC803, 4	TLP631	0IT0631000A	NTE3041	ECG3041	SK2041
IC806	KIA7812P	-	NTE966	ECG966	SK3592
	KIA78012AP(KEC)	0IKE780120A	NTE966	ECG966	SK3592
	GL7812	-	NTE966	ECG966	SK3592
IC808	GL7815	0IGS781500A	NTE968	ECG968	SK3593

# For SAFETY use only equivalent replacement part.





## PARTS LIST continued

## SEMICONDUCTORS continued

(Select replacement for best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
IC809	KIA7812P	-	NTE966	ECG966	SK3592
	GL7812	OIGS781200A	NTE966	ECG966	SK3592
IC1600	MM74HC595N	-	-	-	-
	MC74HC595N	-	-	-	-
	MM74HC595	OINS745950A	-	-	-
IC1701, 2	GL4558	OIGS455800A	-	-	-
IC1703	GD4066BD	-	NTE4066B	ECG4066B	SK4066B
	GD4066B	OIGS406600A	NTE4066B	ECG4066B	SK4066B
IC1704	MN3008	OIMA300800A	-	-	-
IC1705	MN3101	OIMA310100A	NTE1639	ECG1639	-
IC1706	GL4558	OIGS455800A	-	-	-
IC1707	TA7629P	OIT0762900A	-	-	-
IC1708	GL4558	OIGS455800A	-	-	-
IC1709	GL348	OIGS348000A	-	-	-
IC1711, 12	LMC1992N	OINS199200A	-	-	-
	LMC-1992	-	-	-	-
IC1713	GL4558	-	-	-	-
IC1901, 2	GL4558	OIGS455800A	-	-	-
IC1903, 4	TA8200AH	OIT0820000A	-	-	-
Q1 - Q7	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q11	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q12	KTA1015Y	-	NTE290A	ECG290A	SK9132
	KTA1015	OTR101509AA	NTE290A	ECG290A	SK9132
Q13	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q14	KTA1015Y	OTR101509AA	NTE290A	ECG290A	SK9132
	KTA1015	-	NTE290A	ECG290A	SK9132
Q15	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q101	KTC3197	-	NTE107	ECG107	SK3293
	KTC388A(TA)	OTR388009AA	NTE85	ECG85	SK9229
	KTC388A	-	NTE85	ECG85	SK3132
Q201	2SC3875	-	NTE2408	ECG2408	SK10099
	2SC3875S(LO)	OTR387500AA	NTE2408*	ECG2408*	SK10099*
Q202	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q202A	2SC3875	-	NTE2408	ECG2408	SK10099
	2SC3875S(LO)	OTR387500AA	NTE2408*	ECG2408*	SK10099*
Q203 - Q205	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229

\* Lead configuration may vary from original.

## SEMICONDUCTORS continued

(Select replacement for best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q207, 9	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q401	KTC2229Y	-	NTE399	ECG399	SK9352
	KTC2229-Y(TA)	OTR222909AB	NTE399	ECG399	SK9352
	KTC2229	-	NTE399	ECG399	SK9352
Q402	KTC2068	-	NTE376	ECG376	SK3219
	KTC2068FA-1	OTR206800BB	NTE376	ECG376	SK3219
# Q403	2SD1886	OTR188600AA	NTE2324*	ECG2324	SK10136
Q404	KTC2068	-	NTE376	ECG376	SK3219
	KTC2229-Y(TA)	OTR222909AB	NTE399	ECG399	SK9352
Q405	KTC2229Y	-	NTE399	ECG399	SK9352
	KTC2229-Y(TA)	OTR222909AB	NTE399	ECG399	SK9352
# Q406	BU508DF	OTR508000EA	NTE2300	ECG2300	SK9476
	BU508	-	NTE2300	ECG2300	SK9476
Q407	KTA949-O	OTR949000AB	NTE32	ECG32	SK3867A
Q408 - Q411	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q412	KTA562Y	-	NTE290A	ECG290A	SK3114A
	KTA562Y	OTR562009AA	NTE290A	ECG290A	SK3114A
	KTA562	-	NTE290A	ECG290A	SK3114A
Q413	KT595-O	OTR595000AB	NTE55	ECG55	SK9367
	KT595	-	NTE55	ECG55	SK9367
Q415	KTA1015Y	OTR101509AA	NTE290A	ECG290A	SK9132
	KTA1015	-	NTE290A	ECG290A	SK9132
Q501 - Q509	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q511 - Q513	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q514	KTA1015Y	-	NTE290A	ECG290A	SK9132
	KTA1015	OTR101509AA	NTE290A	ECG290A	SK9132
Q515	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
Q561	KTC2068	-	NTE376	ECG376	SK3219
	KTC2068FA-1	OTR206800BB	NTE376	ECG376	SK3219
Q562	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q563	KTC2068	-	NTE376	ECG376	SK3219
	KTC2068FA-1	OTR206800BB	NTE376	ECG376	SK3219
Q564	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815-Y	OTR181509AB	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q565	KTC2068	-	NTE376	ECG376	SK3219
	KTC2068FA-1	OTR206800BB	NTE376	ECG376	SK3219

# For SAFETY use only equivalent replacement part.

\* Lead configuration may vary from original.

**Schematic Circuittrace = [11]**

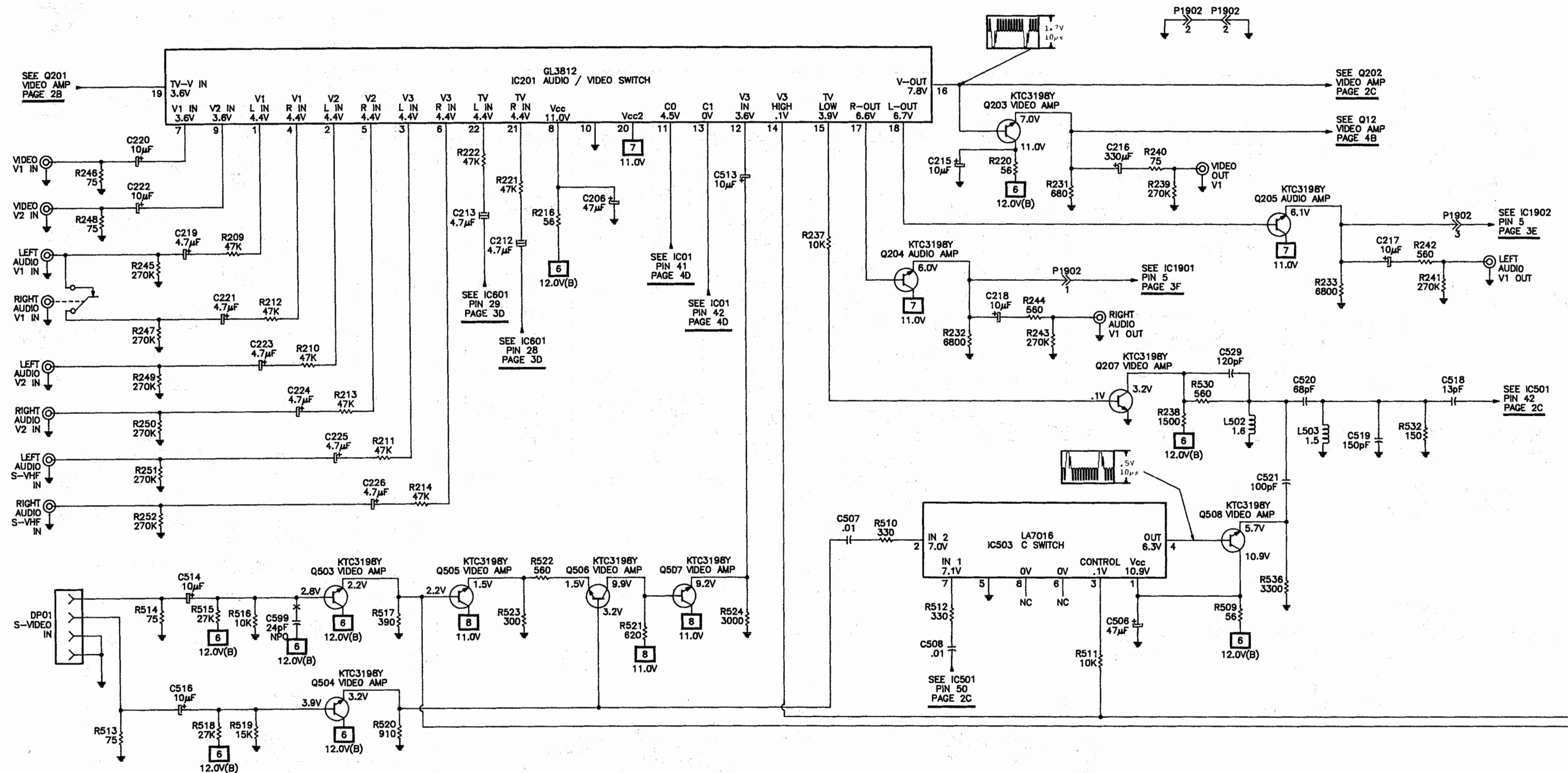
FOR TERMINAL GUIDES AND NOTES  
SEE PAGE 5

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH CIRCUITRACE<sup>®</sup>

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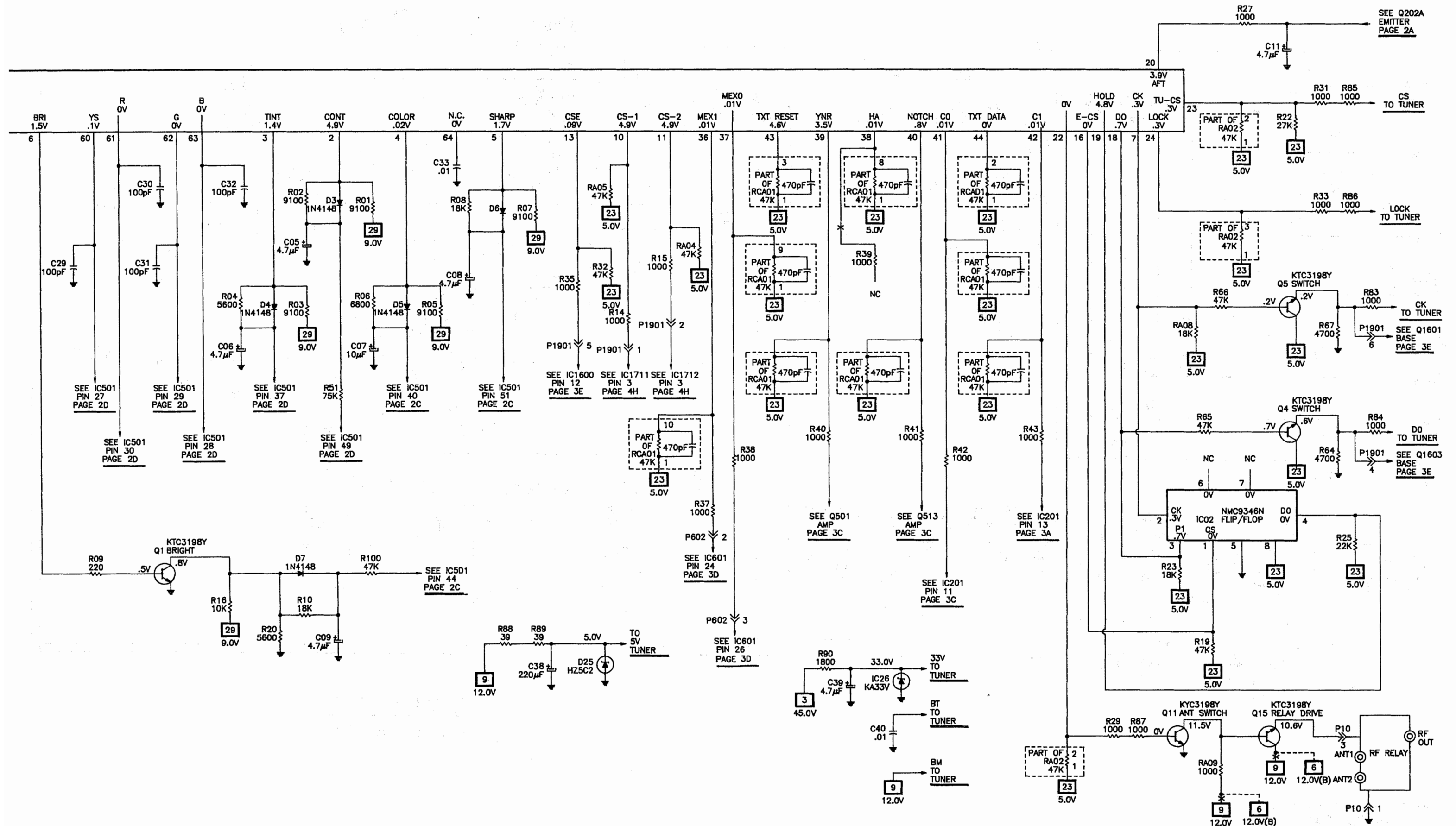


## AUDIO/VIDEO SWITCH SCHEMATIC



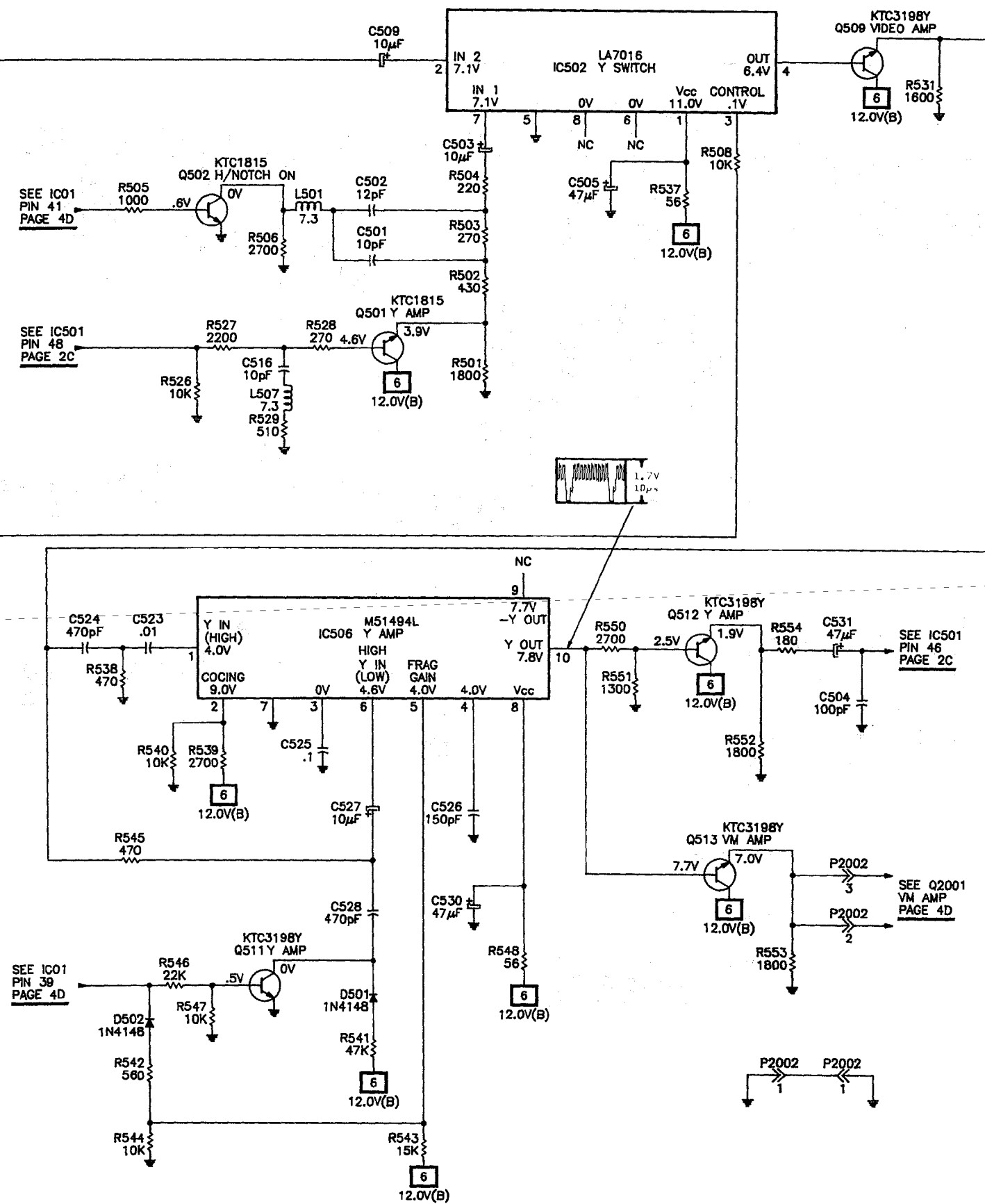
FOR TERMINAL GUIDES AND NOTES  
SEE PAGE 5

SCHEMATIC CIRCUITRACE = 11



# C

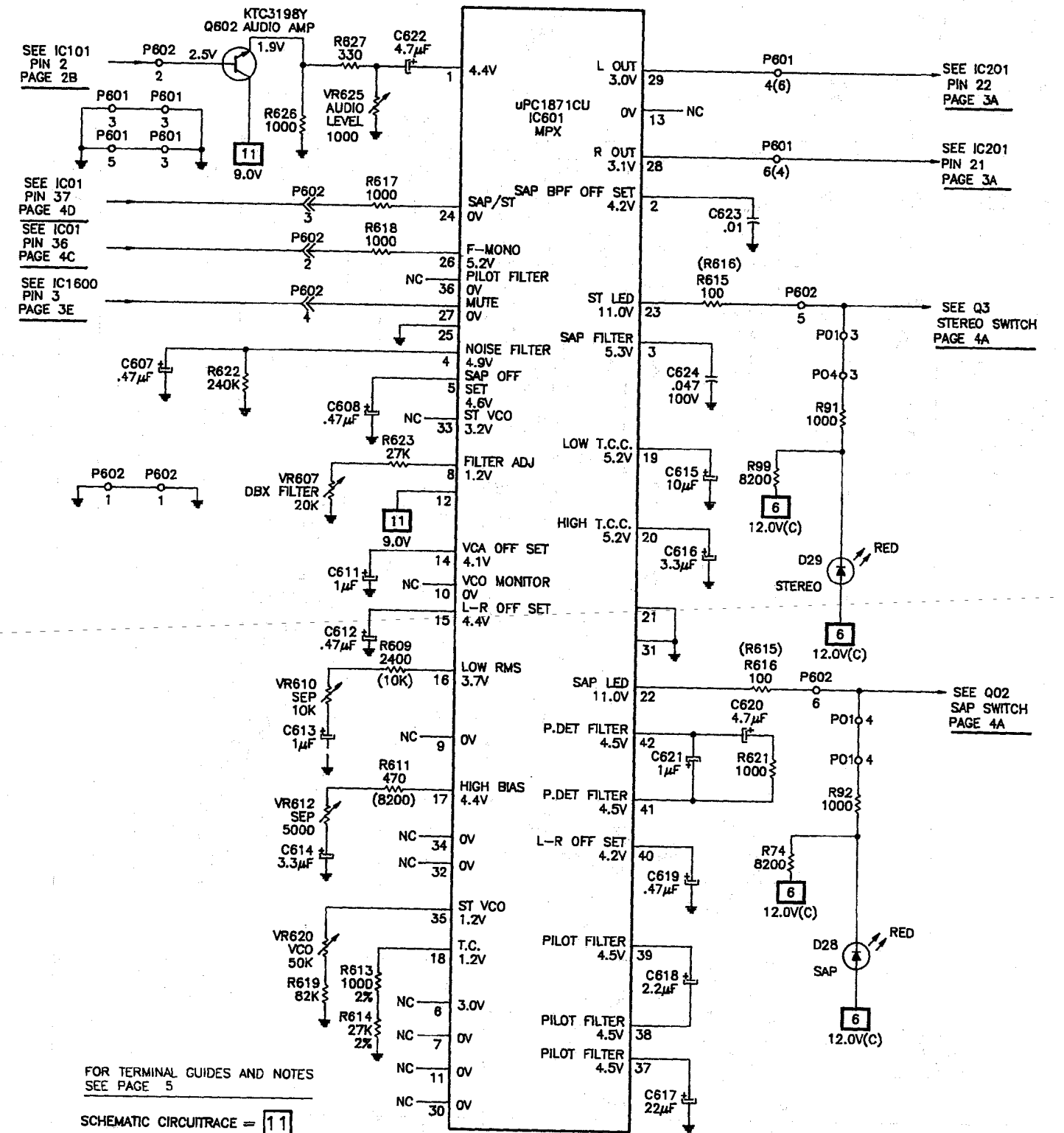
## AUDIO/VIDEO SWITCH SCHEMATIC continued



# D

## MPX SCHEMATIC

SET 3028 Page 3



FOR TERMINAL GUIDES AND NOTES  
SEE PAGE 5

SCHEMATIC CIRCUITTRACE = 11

A PHOTOFAC STANDARD NOTATION SCHEMATIC

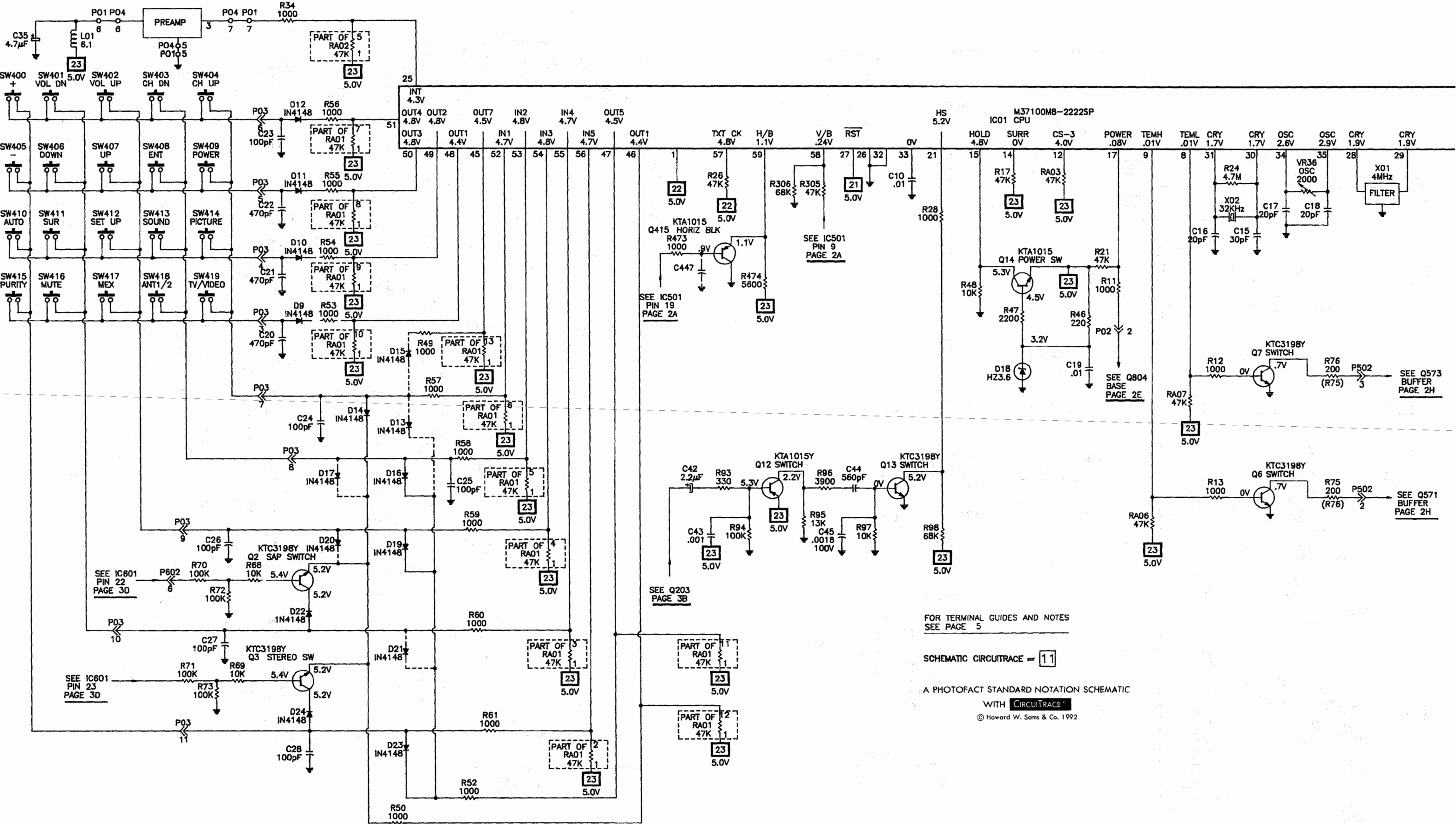
WITH CIRCUITTRACE

© Howard W. Sams & Co. 1992

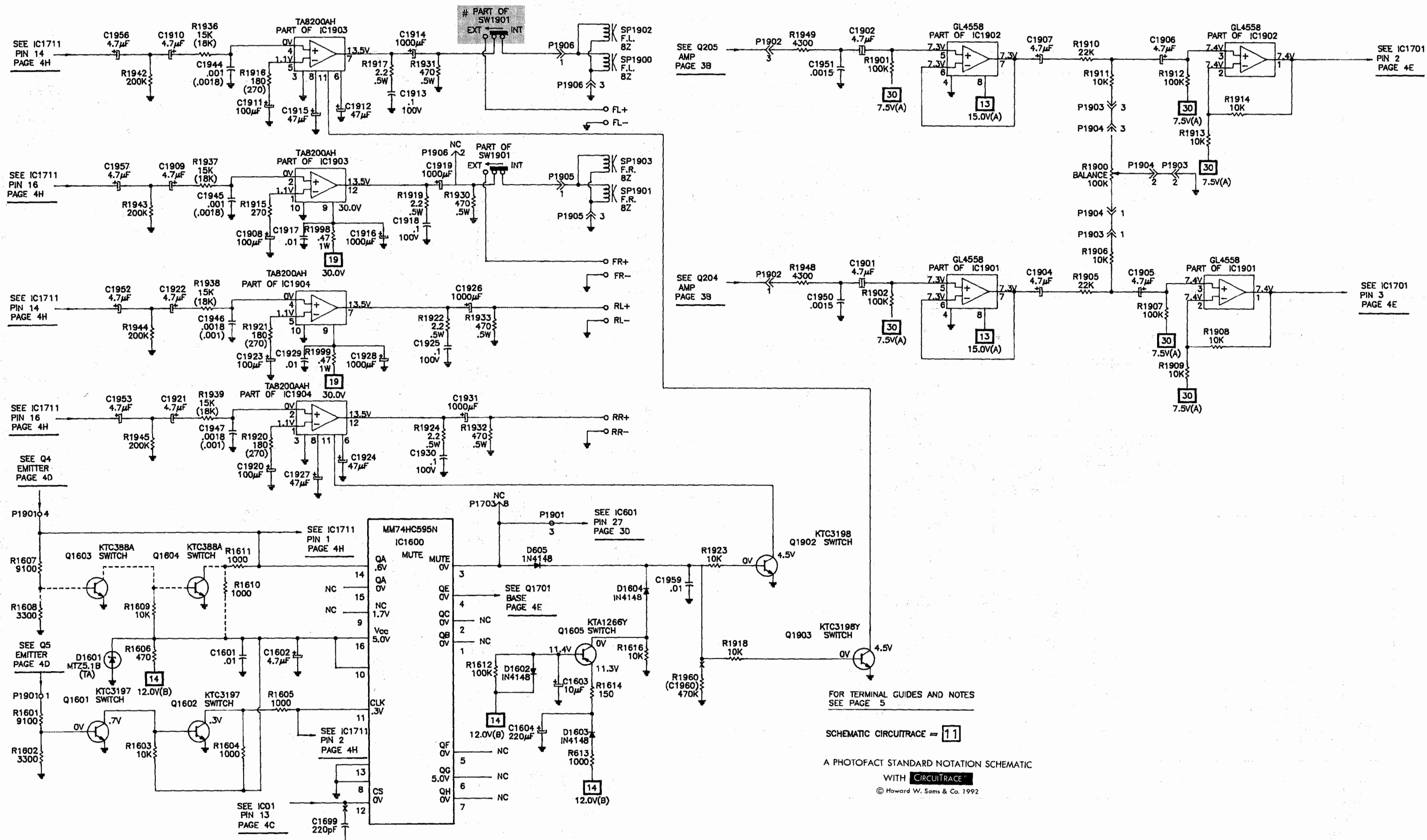
A

CPU SCHEMATIC

B

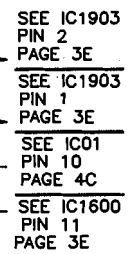


# AUDIO/PIP SCHEMATIC



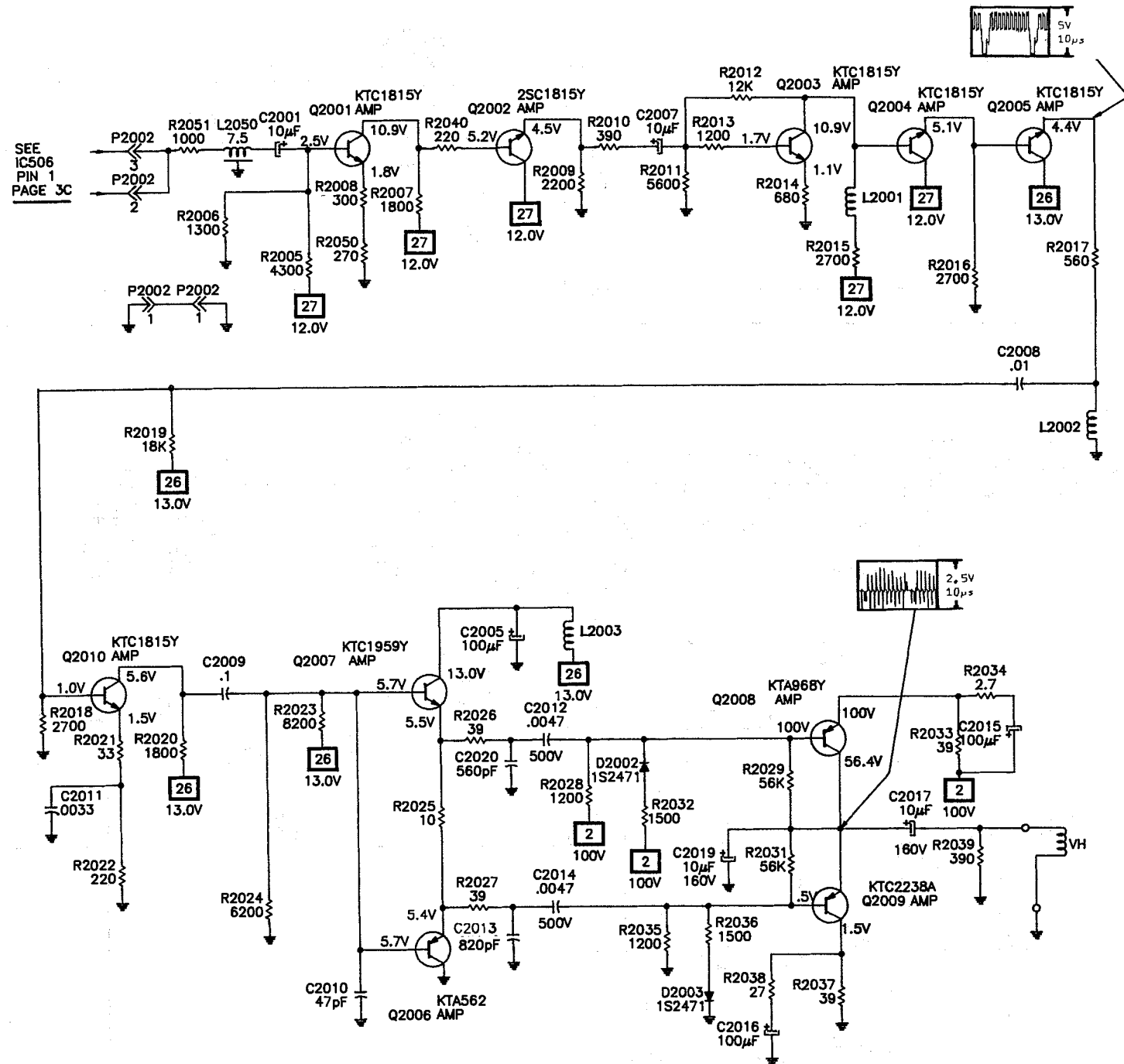


$$\text{NC} \begin{array}{c} \text{P1702} \\ \text{P1702} \end{array} \begin{array}{c} \text{P1702} \\ \text{P1702} \end{array} \begin{array}{c} \text{P1702} \\ \text{P1702} \end{array}$$



**MODELS CMT-2702A, CMT-2902 (CHASSIS NC-98A)**

## VELOCITY SCHEMATIC



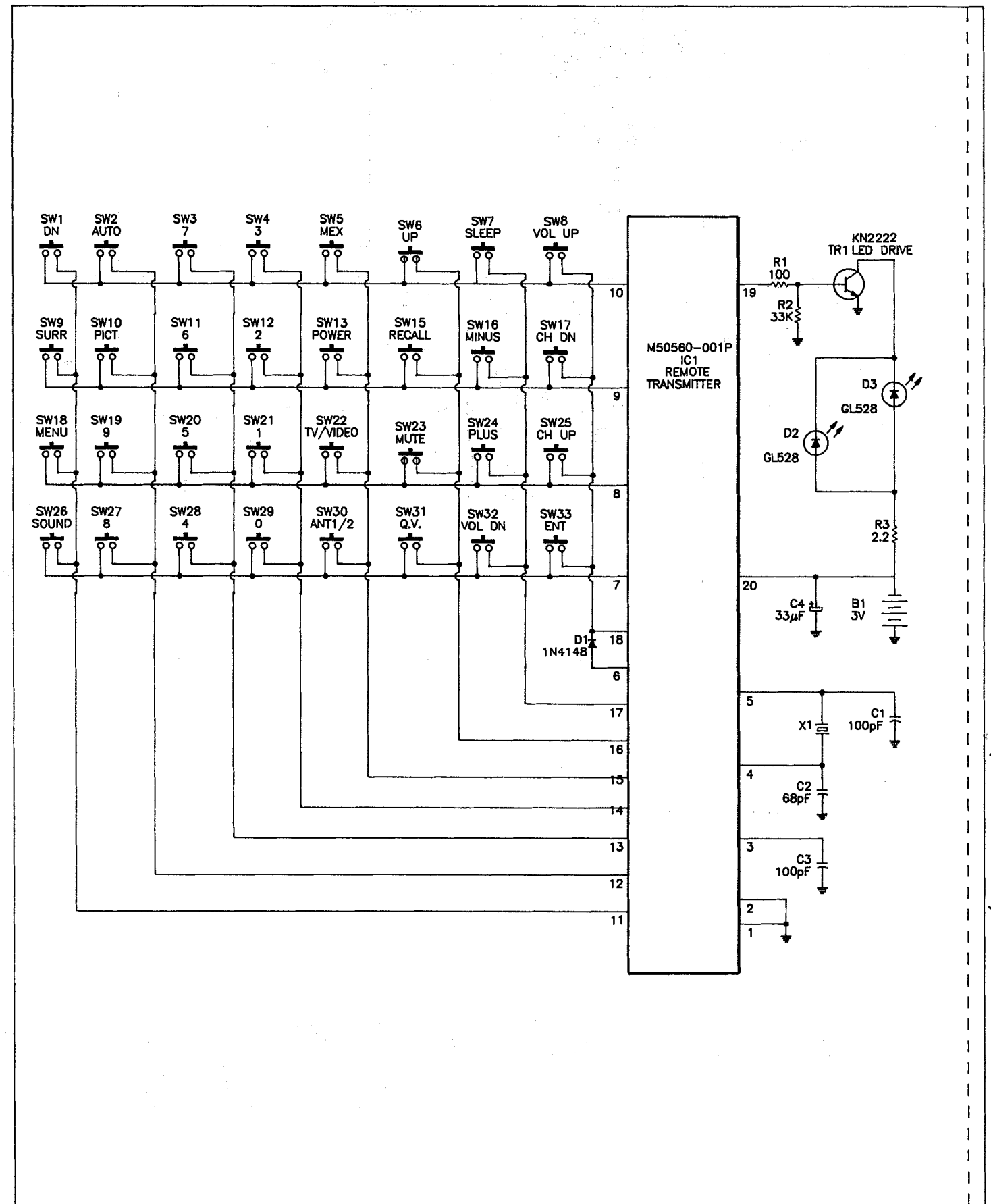
FOR TERMINAL GUIDES AND NOTES  
SEE PAGE 5

SCHEMATIC CIRCUITRACE = 11

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITRACE**  
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## G

## REMOTE TRANSMITTER SCHEMATIC



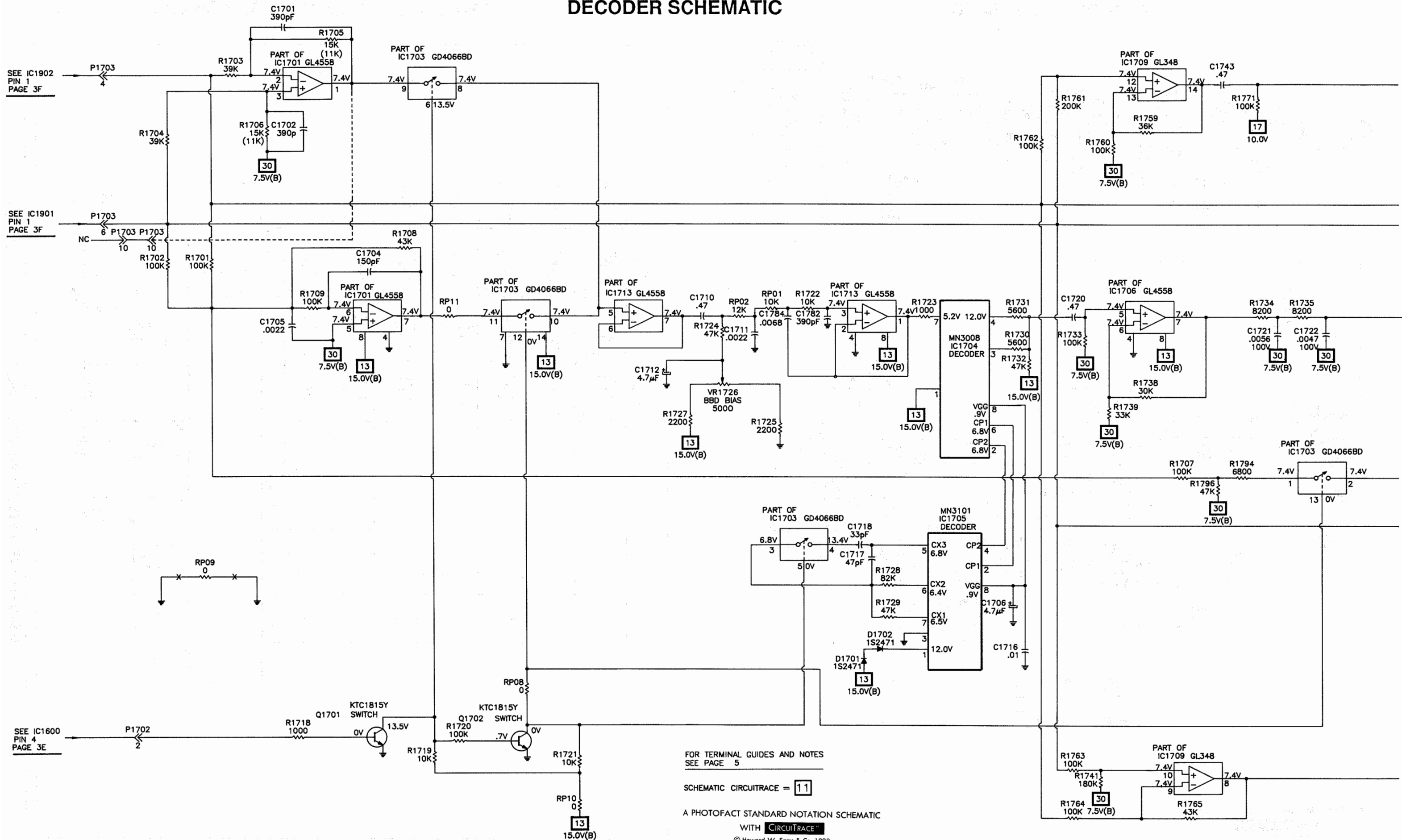
**GOLDSTAR**

**MODEL S CMT-2702A CMT-2902 (CHASSIS NC-08A)**

## H

SET 3028 Page 3

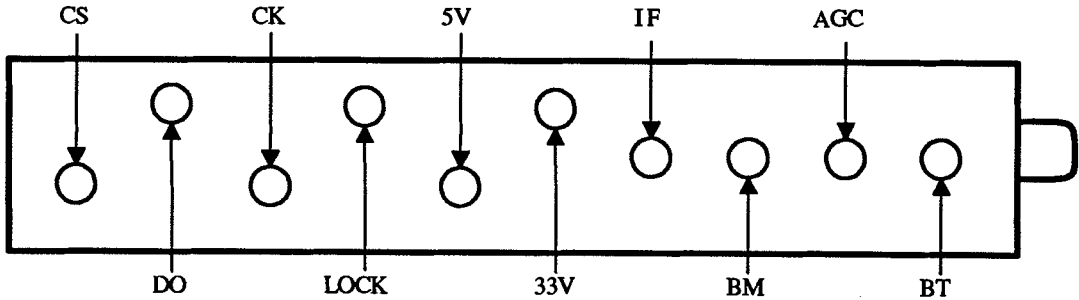
# DECODER SCHEMATIC



TUNER INFORMATION

TUNER VOLTAGE CHART			
Pin	VHF Low Band	VHF High Band	UHF Band
BT	1.2V	4.0V	6.7V
AGC	6.7V	8.0V	8.0V
BM	11.4V	11.4V	11.4V
33V	32.5V	32.5V	32.5V
5V	5.0V	5.0V	5.0V
LOCK	.2V	.2V	.2V
CK	.3V	.3V	.3V
DO	1.0V	1.0V	1.0V
CS	.5V	.5V	.5V

Note: VHF Low Band voltages taken on channel 2.  
VHF High Band voltages taken on channel 7.  
UHF Band voltages taken on channel 14.



PARTS LIST continued

SEMICONDUCTORS continued					
(Select replacement for best results.)					
Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
Q566	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q571 - Q576	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q601	2SC3881	0TR388100AA	-	-	-
Q602	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q602A	2SC3875	-	NTE2408	ECG2408	SK10099
	2SC3875S(LO)	0TR387500AA	NTE2408*	ECG2408*	SK10099*
# Q801	BUZ325	0TF325000AA	-	-	-
Q802	KTD880Y	-	NTE152	ECG152	SK3440
	KTD880-Y	0TR880000AB	NTE152	ECG152	SK3893
Q803	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
Q804	KTA1266Y	-	NTE290A	ECG290A	SK3114A
	KTA1015	0TR101509AA	NTE290A	ECG290A	SK9132
Q805	KTC1627Y	-	NTE382	ECG382	SK9137
	KTC1627	0TR162700AC	NTE382	ECG382	SK9137
Q1601, 2	KTC3197	-	NTE107	ECG107	SK3293
	KTC388A	-	NTE85	ECG85	SK3132
Q1603, 4 (1)	KTC388A(TA)	0TR388009AA	NTE85	ECG85	SK9229
Q1605	KTC388A	-	NTE85	ECG85	SK3132
	KTA1266Y	-	NTE290A	ECG290A	SK3114A
Q1701, 2, 3	KTA1015	0TR101509AA	NTE290A	ECG290A	SK9132
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
Q1902, 3	KTC3198Y	-	NTE85	ECG85	SK9229
	KTC1815	-	NTE85	ECG85	SK3124A
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
Q2001 - Q2005	KTC1815Y	-	NTE85	ECG85	SK3124A
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229
Q2006	KTA562Y	0TR562009AA	NTE290A	ECG290A	SK3114A
	KTA562TM-Y	-	NTE290A	ECG290A	SK3114A
Q2007	KTC1959Y	0TR195909AA	NTE85	ECG85	SK9229
	KTC1959-Y	-	NTE85	ECG85	SK9229
Q2008	KTA968Y	-	NTE398	ECG398	SK9363
	KTA968-Y	0TR968000AA	NTE398	ECG398	SK9363
	KTA968A-Y	-	NTE398	ECG398	SK9363
Q2009	KTC2238A	-	NTE375	ECG375	SK9118
	KTC2238A-Y	0TR223800AA	NTE375	ECG375	SK9118
Q2010	KTC1815Y	-	NTE85	ECG85	SK3124A
	KTC1815-Y	0TR181509AB	NTE85	ECG85	SK9229

# For SAFETY use only equivalent replacement part.  
\* Lead configuration may vary from original.  
(1) Used in some versions.

GOLDSTAR

MODELS CMT-2702A, CMT-2902 (CHASSIS NC-98A)

### Important Parts Information

- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
- Where items may be replaced with equivalent parts, several alternates are shown from participating vendors.
- On the parts lists, safety items are marked with a # to remind you that only exact replacements are recommended for these items.
- When ordering parts, state the model number, part number, and description.

### Obtaining Parts

Many of these parts are available from your local Sams authorized distributor or the manufacturer of the equipment. Call Sams for the name of your nearest distributor:

800-428-7267

Or consult the Sams *Annual Index* for the address of the original equipment manufacturer.

### Participating Vendors

Information on test equipment and replacement parts is listed in these pages for the following participating vendors. Consult the Sams *Annual Index* for their current address.

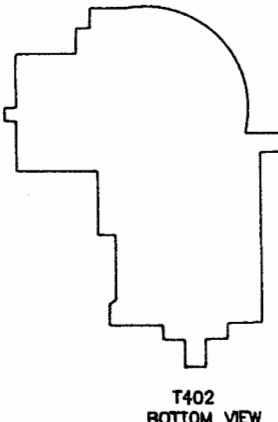
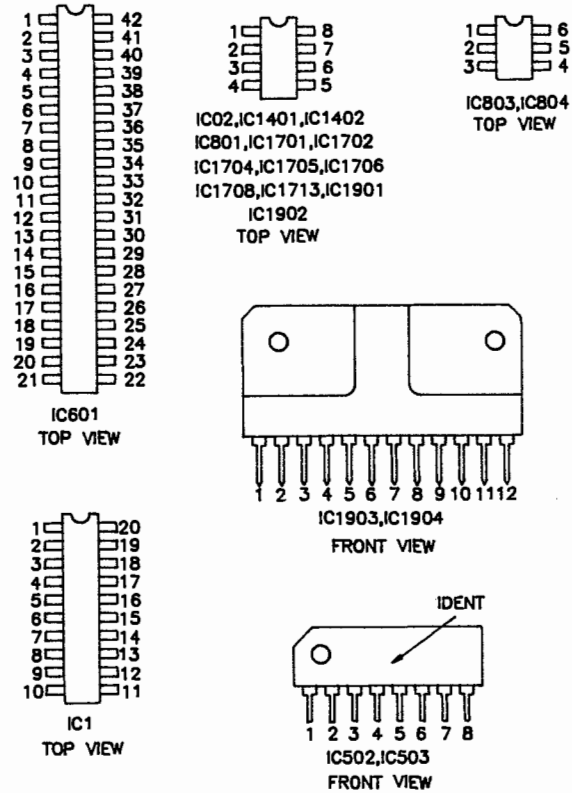
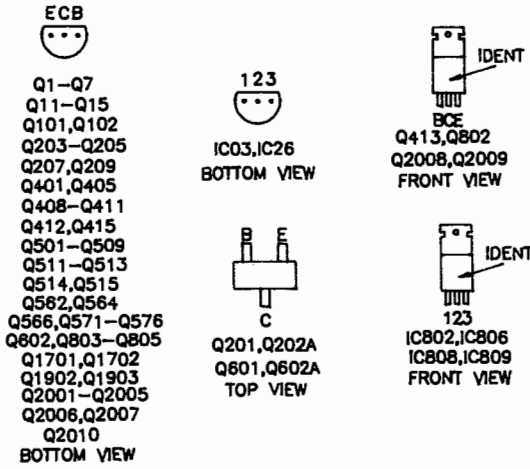
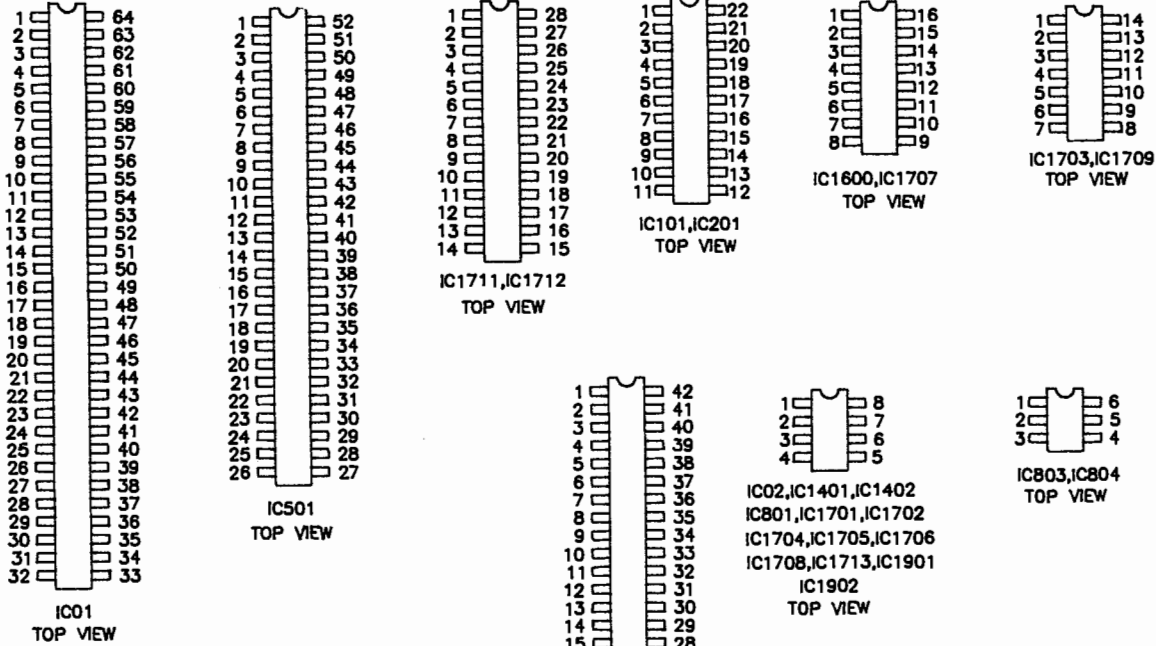
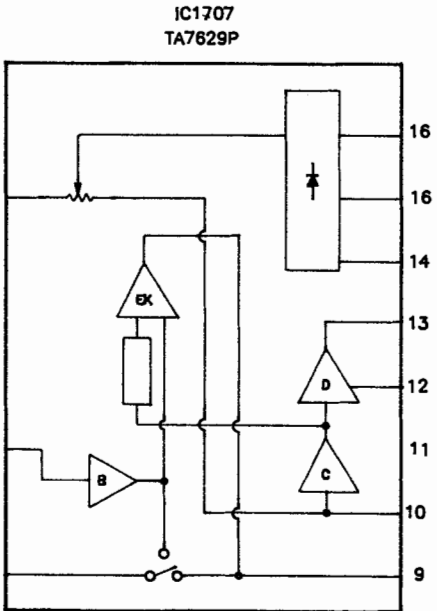
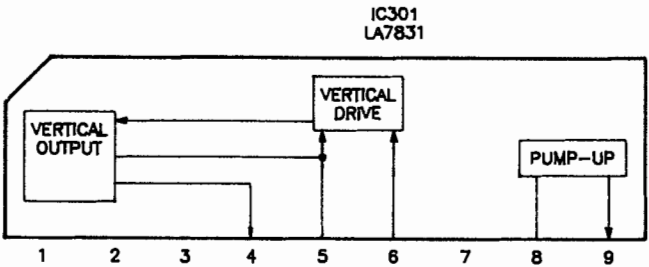
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|--|--|
| ▪ B&K Precision                                | ▪ PTS Electronics Corporation (PTS)            |
| ▪ Custom Components Corporation (Chek-A-Color) | ▪ Quam-Nichols Co. (Quam)                      |
| ▪ EVG / Russell Industries, Inc.               | ▪ Sencore, Inc.                                |
| ▪ NTE Electronics, Inc. (NTE)                  | ▪ Thomson Consumer Electronics, Inc. (SK, TCE) |
| ▪ Philips ECG Company (ECG)                    |  |



TERMINAL GUIDES AND NOTES

REVISION

IC FUNCTIONS



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

--- Circuitry not used in some versions

--- Circuitry used in some versions

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 voltage 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% or greater unless noted.

Electrolytic capacitors are 50 volts or less.

20% or greater unless noted.

Resistors are 1/2W or less.

5% or greater unless noted.

Value in ( ) used in some versions.

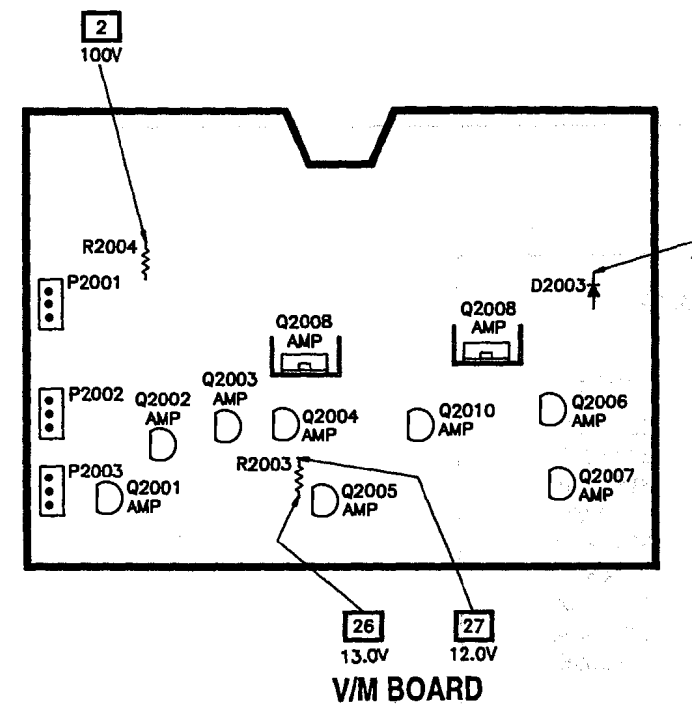
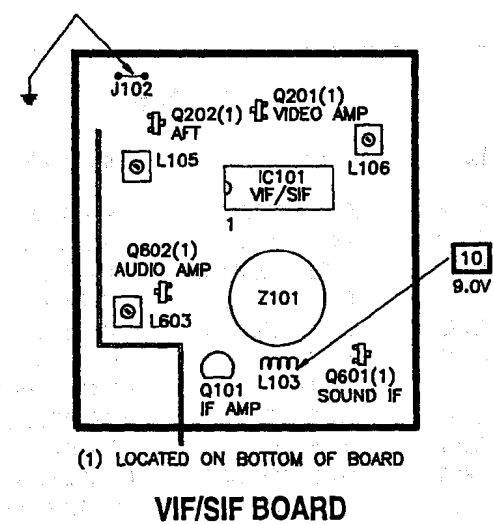
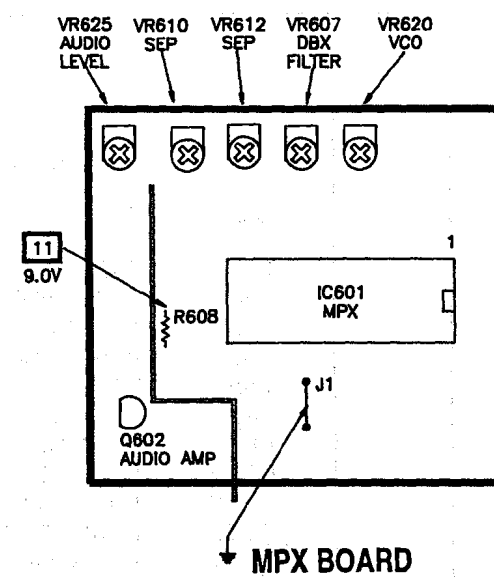
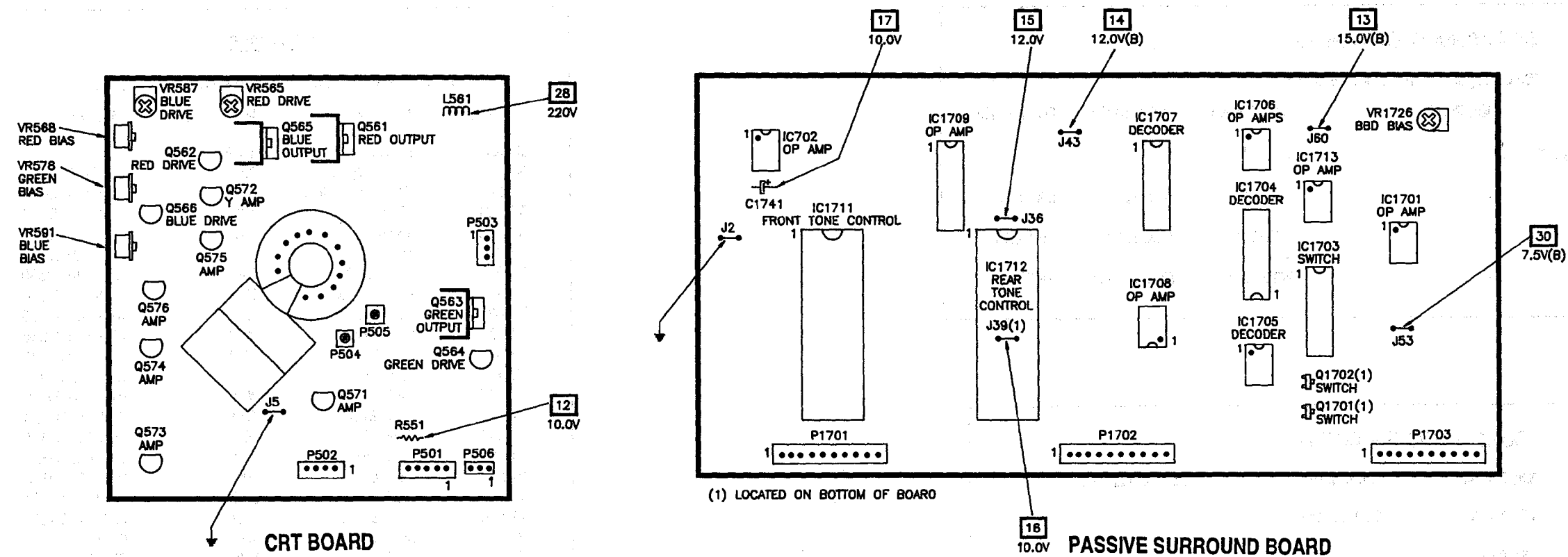
Measurements with switching as shown, unless noted.

10/10/2019

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10/10/2019

## PLACEMENT CHART continued



## HIGH VOLTAGE SHUTDOWN ADJUST

Turn the set on. Turn shutdown control VR434 fully counter clockwise, Receive a colorbar pattern and set autopicture to normal. Connect a digital voltmeter to jumper J253, Adjust VR434 for 0.5V.

PARTS LIST
continued

SEMICONDUCTORS
continued

(Select replacement for best results.)

Item No.	Type No.	Mfr. Part No.	NTE Part No.	ECG Part No.	TCE Part No.
REMOTE TRANSMITTER -					
D1	1N4148	-	NTE519	ECG519	SK3100
D2, 3	GL-528	-	-	-	-
	EL-1L3	-	NTE3017	ECG3017	SK10321
IC1	M50560-001P	-	-	-	-
TR1	KN2222	-	NTE123AP	ECG123AP	SK3854

COILS & TRANSFORMERS

Item No.	Function	Mfr. Part No.	On-Unit No.	Russell Part No.
# P401	Yoke 110° Horiz .78mh Vert 2 5mh	153-306A	TLY15448F	-
# T401	Horiz Drive	151-060A	-	-
# T402	Flyback	154-179K(1)	-	-
# T801	Switch Mode	151-362B	-	-
T802	Standby	151-329D	-	-

# For SAFETY use only equivalent replacement part.  
(1) Focus and Screen controls are part of transformer T402.

CABINET PARTS

Item	Part No.
Back Cover	303-D09B
Cabinet Assembly	300-837L
Control Door Assembly	315-407P
Door, Control	315-408B
Grille	314-186D
Leg	444-085G
Speaker Assembly, Left	120-C30A
Speaker Assembly, Right	120-C29A
Window, Led	316-235E

CONTROLS

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

Item No.	Function	Resistance	Mfr. Part No.
R1900	Balance	100K	-
VR36	OSD Adjust	2000	0RV1202D230
VR206	RF AGC Adjust	5000	0RV1502D230
VR234	Video	1000	0RV1102D230
VR254	Video	2000	0RV1202D230
VR270	Delay Y	10K	0RV1103D230
VR314	Vertical Size	200	0RV1201D230
VR412	H- Centering	200	0RV1201D230
VR431	H. V. Stab	22K	0RV1223D330
VR434	Shut Down	100K	0RV1104D230
VR454	SPCC	100K	0RV1104D230
VR464	H. Size	22K	0RV1223D330
VR565	Red Drive	200	0RV1201D550
VR568	Blue Bias	5000	0RV1502D550
VR578	Green Bias	5000	0RV1502D550
VR587	Blue Drive	200	0RV1201D550
VR591	Blue Bias	5000	0RV1502D550
VR607	DBX Filter	22K	0RV1223D330
VR610	Separation	5000	0RV1502D230
VR612	Separation	5000	0RV1502D230
VR620	VCO	50K	0RV1503D230
VR625	Audio Level	1000	0RV1102D230
VR1726	BBD Bias	5000	0RV1502D230

CAPACITORS

Item	Rating	Mfr. Part No.
# C416	.01 1.6KV 5%	181-131D
C417	560 2KV 10%	056102510
# C420	.0033 1.6KV 5%	181-131J
# C421	.068 200V 5%	181-059U
# C422	.0091 1.6KV 5%	181-083B
# C426	.5 5%	181-128D
C441	560 1KV 10%	0CK56101510
C566	.0022 2KV 10%	0CK22202510
# C567	.0015 1.5KV	165-004A
C805	.0022 1KV 10%	0CK22201510
C806	.0022 1KV 10%	0CK22201510
C807	.0022 1KV 10%	0CK22201510
C808	.0022 1KV 10%	0CK22201510
C818	470 1KV 10%	0CK47101510
C827	820 1KV 10%	0CK22101510
# C853	.0047	181-410A
# C854	.0047	181-410A
RCA01	470 X 9	167-033C

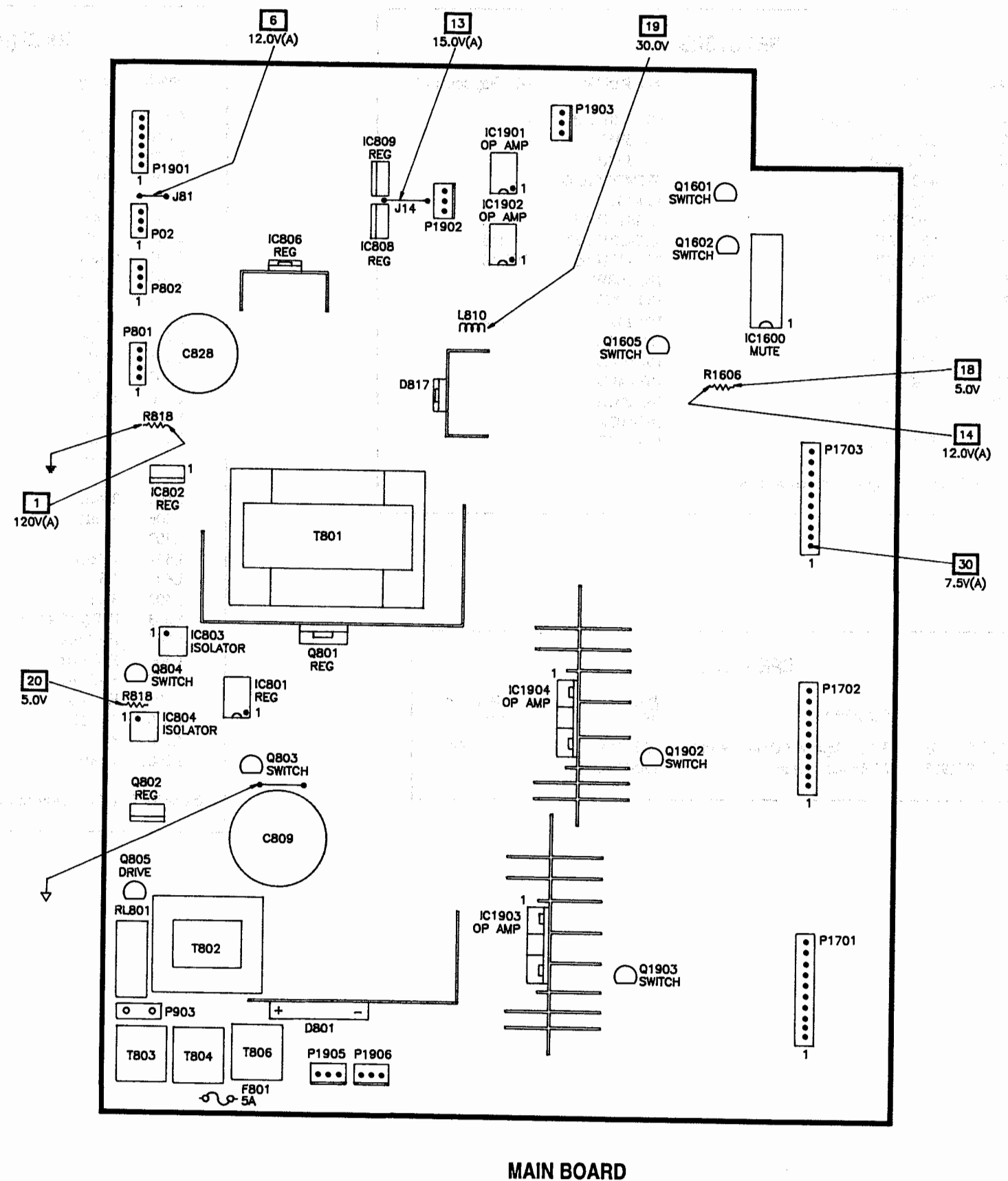
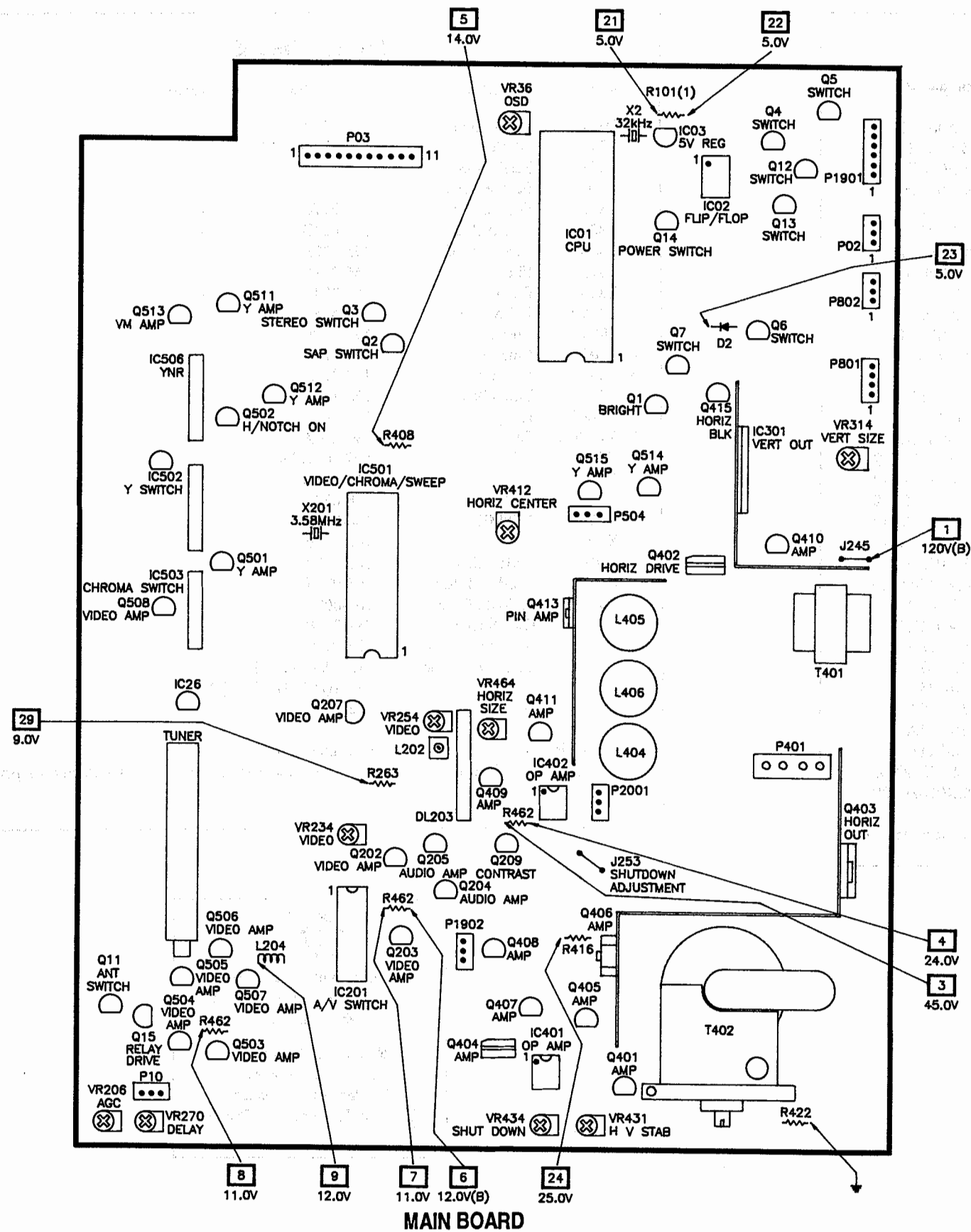
# For SAFETY use only equivalent replacement part.

ELECTROLYTIC CAPACITORS

Item	Rating	Mfr. Part No.
C02	.047	181-002B
C301	2.2 25V 10%	181-0322
C314	1 25V 10%	181-032Q
C615	10 16V 10%	181-032T
C616	3.3 16V	181-032G
# C828	100 160V	181-102E
C852	47 25V 20% NP	181-064L
C1726	10 16V NP	181-064P
C1727	1 50V 20% NP	181-064R
C1735	1 50V 20% NP	181-064R
C1901	4.7 16V NP	181-064N
C1902	4.7 16V NP	181-064N

# For SAFETY use only equivalent replacement part.

## PLACEMENT CHART





PARTS LIST continued

RESISTORS

Item No.	Rating	Mfr. Part No.	NTE Replacement
# R404	1 5% 1W Fusible	ORS0101J665	-
# R415	2.2 Fusible	180-305J	-
# R416	2.2 Fusible	180-149P	-
# R440	470 5% 1/2W	ORD4700H609	-
# R499	1 1/2W	180-149N	-
R572	8200 3W	ORS8201L667	3W218
R582	8200 3W	ORS8201L667	3W218
R594	8200 3W	ORS8201L667	3W218
R810	39K 7W	180-108W	-
R811	39K 7W	180-108W	-
R828	180 5W	180-142E	5W118
# R834	2.2M	180-042A	-
RA01	47K X 12	167-040E	-
RA02	47K X 4	167-040D	-
TH301	15.6 Cold NTC	163-001A	-
TH801	7.3 Cold PTC	163-007A	-
# TH802	5 Cold NTC	163-025B	-

# For SAFETY use only equivalent replacement part.

SPEAKERS

Item No.	Description	Mfr. Part No.	Quam Part No.
SP1900, SP1901	3 1/2" Square 8 Ohm 5W PM	120-C43A	3C25Z8
SP1902, SP1903	2" Round 8 Ohm	120-C44A	-

COILS (RF-IF)

Item No.	Rating	Mfr. Part No.
L01	68uH	0LA0682K119
L101	.79uH	150-167E
L102	68uH	0LA0682K119
L103	10uH	0LA0102K119
L105	AFT	150-327G
L106	VCO	150-327B
L107	8.2uH	0LA0821K119
L201	6.8uH	0LA0681K119
L202	3.58MHz	150-327X
L204	Choke	150-679D
L301	12uH	0LA0122K119
# L403	Linearity	150-716C
# L404	Choke	150-717D
L405	120uH	150-481C
L406	120uH	150-481C
L501	82uH	0LA0822K119
L502	12uH	0LA0122K119
L503	10uH	0LA0102K119
L504	2.2uH	0LA0221K119
L505	2.2uH	0LA0221K119
L506	2.2uH	0LA0221K119
L507	82uH	0LA0822K119
L561	120uH	0LA1200K130
L601	1uH	150-167D
L602	33uH	0LA0332K119
L603	IFT (SIF 4.5MHz)	150-678E
L803	H-Choke	150-235A
L804	H-Choke	150-235A
L805	H-Choke	150-235A
L807	H-Choke	150-235A
L810	260uH	150-711A
L2001	33mH	0LR0332K520
L2002	10mH	0LR0102K520

# For SAFETY use only equivalent replacement part.

MISCELLANEOUS

Item No.	Description	Mfr. Part No.	Notes
# DL203	Delay Line	175-005B	-
# F801	5A Fuse	OFM5001A512	-
L401	Ferrite Bead	-	-
L402	Ferrite Bead	-	-
L800	Degaussing	150-277C	-
L801	Ferrite Bead	125-022B	-
L808	Ferrite Bead	125-022B	-
L811	Filter	166-204A	-
L813	Filter	166-204A	-
L2050	Delay Line	150-536A	-
P800	Cord AC	174-060Q	-
# T803	Line Filter	150-713A	-
# T804	Line Filter	150-713A	-
# T806	Line Filter	150-715A	-
# RL801	Relay	141-018A	-
# SW1901	EXT	140-290A	-
# V500	CRT	M68JUA98X	-
X1		166-235A	-
X2	32kHz	156-028A	-
X201	3.58MHz	156-001C	-
X401		166-015P	-
Z101	SAW Filter	166-236A	-
Z201	4.5MHz Filter	166-031K	-
Z601	4.5MHz Filter	166-003D	-
	CRT Socket	381-074B	-
	Remote Transmitter	105-056C	-
	UHF/VHF Tuner	113-198G/TERH7-D60A(DOC181CH) (1)-	-
	Wedge	472-017A	-

# For SAFETY use only equivalent replacement part.  
(1) Contact PTS Electronics Corporation for replacement; order by manufacturer's part number.



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M. Herkless, J. Kocha,  
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