

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. Examples of typical electrostatically sensitive parts are integrated circuits, some field effect transistors, and semiconductor "chip" components.
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. Maintain AC line voltage at rated input.
4. Many electrical and mechanical parts are used in this VCR to provide protection against electrical shock, fire, and RF interference. These parts should be replaced with exact replacements only.
5. Use extreme caution when handling the printed circuit boards. Some semiconductor devices can be damaged easily by static electricity. Drain off any electrostatic charge on your body by touching a known earth ground. Wear a commercially available discharging wrist strap device. This should be removed prior to applying power to the VCR under test.
6. Use a grounded-tip, low voltage soldering iron. After removing an electrical assembly containing electrostatically sensitive parts, place the assembly on a conductive surface such as aluminum foil.
7. Minimize body movement to avoid building an electrostatic charge when handling electrostatically sensitive parts.
8. Use an isolation (times 10) probe on oscilloscope.
9. Do not remove or install boards with AC power applied.
10. Do not use freon-propelled sprays or vacuum operated desoldering devices. These can generate electrical charges sufficient to damage semiconductor devices.
11. This VCR is equipped with a grounded three-prong AC plug. This plug must fit into a grounded AC power outlet. Do not defeat the AC plug safety feature.
12. Periodically examine the AC power cord for damaged or cracked insulation.
13. The VCR cabinet is equipped with vents to prevent heat build-up. Never block, cover, or obstruct these vents. Instructions should be given, especially to children, that objects

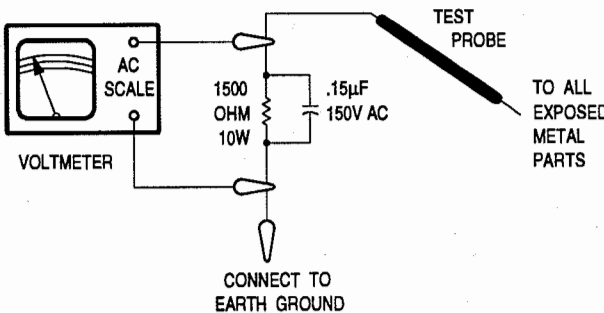
should not be dropped or pushed into the vents of the cabinet. This could cause shock or equipment damage.

14. Remove plug from AC outlet during electrical storms. Do not allow anything to rest on AC power cord. Unplug AC power cord from outlet before cleaning VCR.
15. Never use liquids or aerosols directly on the VCR. Spray on cloth and then apply to the VCR cabinet. Make sure the VCR is disconnected from the AC power line. Never expose the VCR to liquids. If exposed to liquids, turn the VCR off. Do not place the VCR near possible liquid sources.

SAFETY CHECKS -- FIRE AND SHOCK HAZARD

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 Volts 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 5000 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 .3 volts RMS. 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.



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.

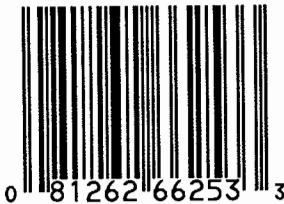
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VCRfacts® Technical Service Data

VCR-253

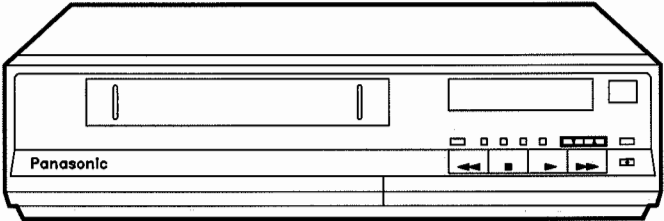
MODEL PV-2700B

PANASONIC

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PANASONIC
MODEL PV-2700B



Coverage includes these additional models.

BRAND	MODEL	BRAND	MODEL
PANASONIC	PV-2700B-K	PANASONIC	PV-2700W
PANASONIC	PV-2700R	PANASONIC	PV-2700W-K
PANASONIC	PV-2700R-K		

The following models are similar to this basic coverage and may effectively be repaired using this service information. However, minor differences may be found between these models and those in the basic coverage.

BRAND	MODEL	BRAND	MODEL
MAGNAVOX	VR9610AT01	QUASAR	VH5270
MAGNAVOX	VR9614AT01	QUASAR	VH5270-K
MAGNAVOX	VR9622AT01	SYLVANIA	VC8922AT01
PHILCO	VT8720AT01		

Essential coverage
for servicing a video cassette recorder...

- Schematics
- Exploded Views
- Interconnect Diagram
- Mechanical Alignment
- Electrical Parts List
- Mechanical Parts List
- Waveforms
- Service Information

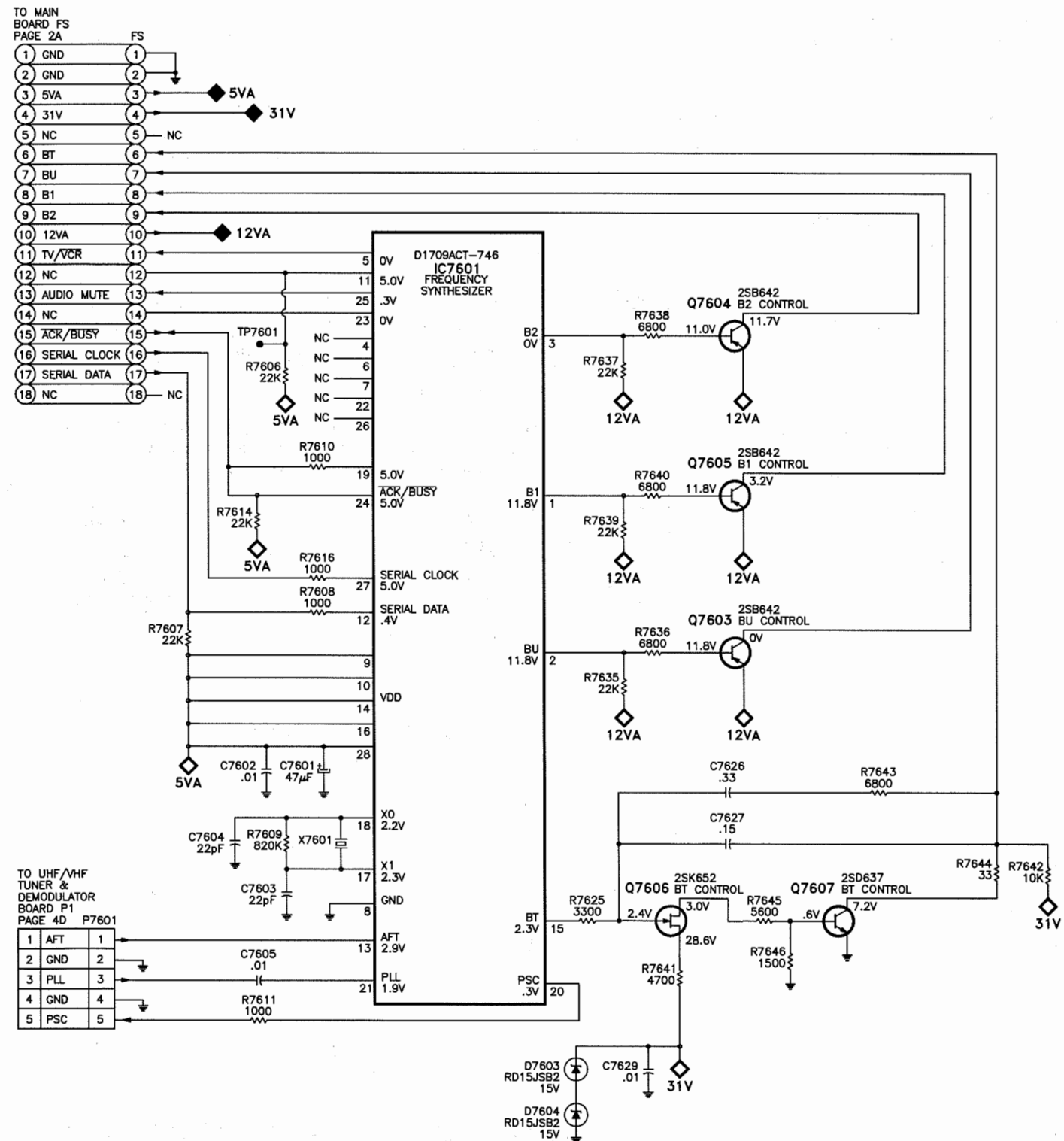


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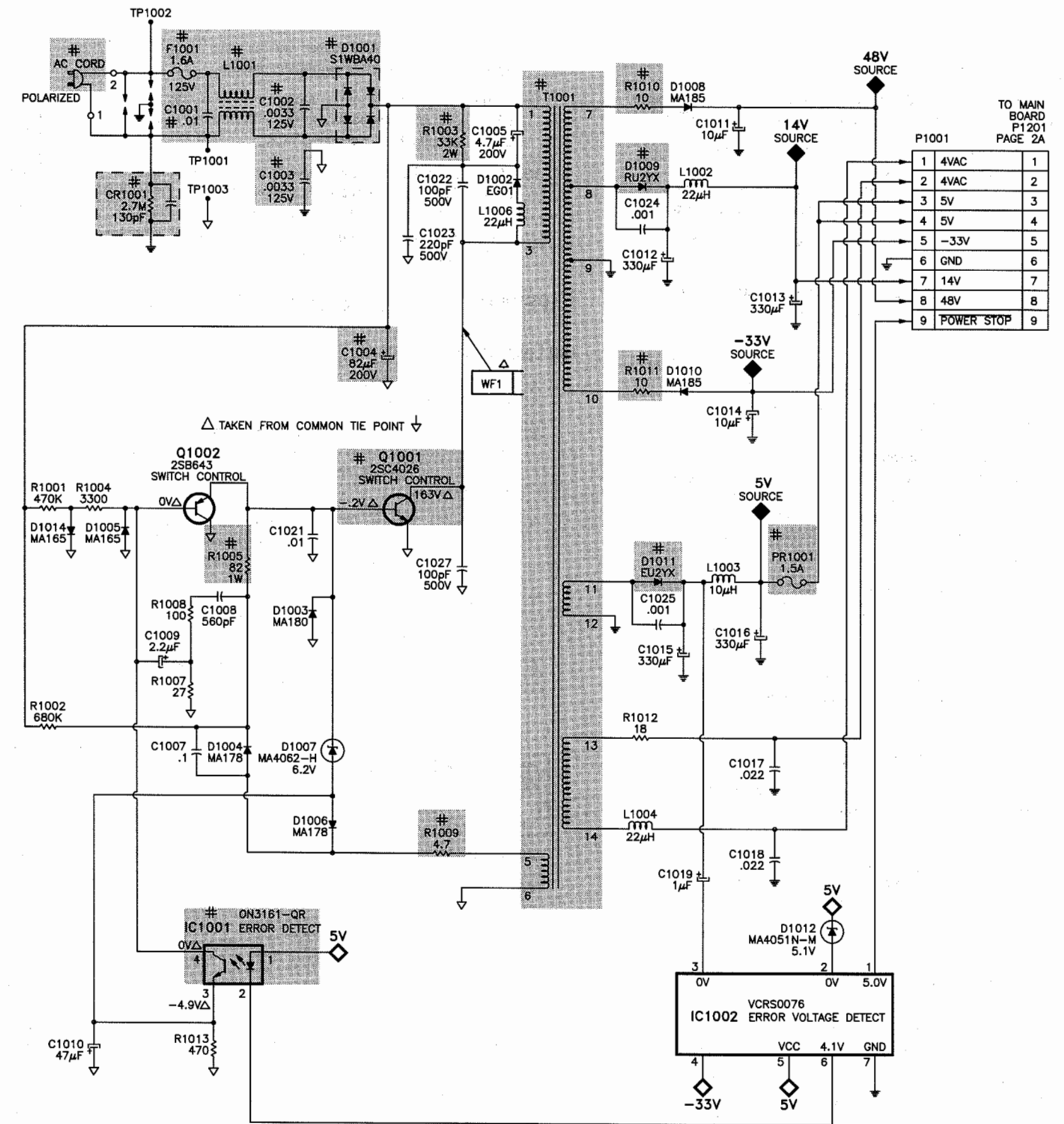
JUNE 1994 VCR-253

For Supplier Address,
See PHOTOFACT Annual Index

G FREQUENCY SYNTHESIZER BOARD



H POWER SUPPLY BOARD SCHEMATIC



VOLTAGES TAKEN
IN PLAYBACK

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2

A PHOTOFAC STANDARD NOTATION SCHEMATIC

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PANASONIC

MODEL PV-2700B

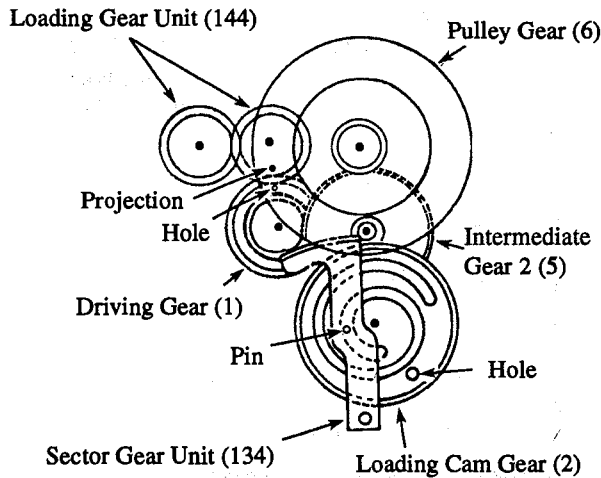
MECHANICAL ALIGNMENT

CHASSIS GEAR ALIGNMENT

Use figure 1 and exploded views for reference in the following steps. All gears must align exactly right, not one gear can be one tooth off.

1. Remove sub clutch base (105), sector gear unit (134), loading cam gear (2), pulley gear (6), driving gear (1), main lever unit (118), and mode select switch base unit (121).
2. Rotate loading gear until loading posts S (114) and T (116) units are in the fully unloaded position. The projection on the loading gear should be pointing directly towards the front of the unit.
3. Install the driving gear so that the hole on the driving gear aligns with the projection on the loading gear. Install C-ring to secure driving gear.
4. Slide the main lever unit so that the hole of in the main lever unit aligns with the hole in the chassis.
NOTE: This is the position for the main lever unit when the mode select switch base unit is to be installed.
5. Install loading cam gear with the simple slot side facing up. Position it so the hole aligns with the hole in the main lever unit and chassis. Install C-ring to secure loading cam gear.
6. Install sector gear unit with the pin in the inner slot, or the slot closest to the C-ring on loading cam gear. Install C-ring to secure sector gear unit.
7. Install pulley gear onto shaft and secure it with C-ring. Install loading belt (12).
8. Install sub clutch base, securing it with screws.
9. Confirm the main lever unit is in the position noted in step 4. Install the mode select switch base unit so that the movable projection on mode select switch base unit fits onto the tab on the main lever unit. Slide the mode select switch base unit sideways until the v-notch on projection lines up with v-notch on the mode select switch base unit case. Tighten screw to secure mode select switch base unit.
10. Turn the pulley gear unit to manually confirm the smooth movement of the mechanism.

Figure 1

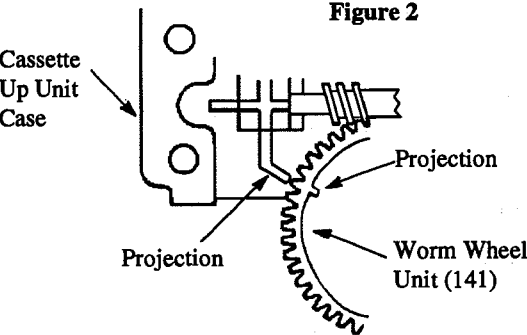


CASSETTE UP GEAR ALIGNMENT

Use figure 2 and exploded views for reference in the following steps.

1. Remove cassette up unit from the chassis. Remove loading motor spring (38), switch angle (36), worm wheel unit (141), main shaft gear R (9), worm shaft unit (140) and wiper gear R unit (129) from the right side of cassette up unit. Remove cassette compartment opener lever (75), wiper gear L unit (135) and main shaft unit (142) from the left side of cassette up unit.
2. Confirm that the pin on the cassette holder guide R unit (107) is at the furthest left in the slot of the side plate R (110).
3. Install wiper gear R unit so that the pin mentioned in step 2, fits into the slot of the wiper gear R unit. Secure with screw.
4. Install wiper gear L unit in the same manner as in step 3. Pull the ratchet lever (74) out of the way until wiper gear L unit is installed.
5. Install worm shaft unit. To install loosen the top plate from the body of cassette compartment.
6. Install main shaft into the left side. Align the gear on main shaft so that the projection on the wiper gear L unit meets the projection on the gear of the main shaft.
7. Install main shaft gear R on the right side in the same manner as in step 6. Confirm the projection points are aligned on the left and right side.
8. Install worm wheel unit, on the right side, so that the projection on the cassette up unit case and projection on worm wheel unit are aligned. See figure 2.
9. Install switch angle unit and loading motor spring with screws.
10. Install cassette compartment opener lever into the opening of cassette door. Snap the cassette compartment opener lever down onto the pin it was removed from. Confirm that the cassette door opens smoothly when the cassette compartment opener lever is pushed down.

Figure 2



Numbers in parenthesis indicate the item number used in the mechanical parts list and exploded views.

MECHANICAL PARTS LIST

Item Description	Part No.	Item Description	Part No.	Item Description	Part No.
1 Driving Gear	VDGS0039	64 Switch Piece	VMDS0236	130 Idler Gear Arm	VXLS0382
2 Loading Cam Gear	VDGS0041	65 Side Plate L	VMDS0370	131 Arm Lever	VXLS0384
3 Intermediate Gear A	VDGS0066	66 Cassette Holder Guide R	VMDS0371	132 Idler Stopper	VXLS0390
4 Release Gear	VDGS0068	67 Cassette Holder Guide L	VMDS0372	134 Sector Gear Unit	VXLS0395
5 Intermediate Gear 2	VDGS0093	68 Post Stopper T	VMDS0373	135 Wiper Gear L Unit	VXLS0453
6 Pulley Gear	VDGS0094	69 Cassette Opener Guide	VMDS0376	136 Idler Gear Arm	VXLS0454
7 Idler Gear	VDGS0109	70 Post Stopper S	VMDS0444	137 Pressure Roller Lever Unit	VXLS0455
8 Intermediate Gear B	VDGS0097	71 Capstan Holder Guide	VMDS0445	138 Erase Head Module	VXLS0456
9 Main Shaft Gear R	VDGS0099	72 Oil Pool	VMFS0103	Erase Head Module	VXLS0470
10 Supply Roller	VDPS0091	73 Cushion	VMFS0108	Erase Head Module	VXLS0471
11 Clutch Pulley	VDPS0094	74 Ratchet Lever	VMLS0381	Erase Head Module	VXLS0472
12 Loading Belt	VDVS0052	75 Cassette Compartment Opener Lever	VMLS0382	139 Capstan Rotor Unit	VXPS0136
13 Capstan Belt	VDVS0053	76 Holder Guide Lever R	VMLS0433	140 Worm Shaft Unit	VXPS0139
14 DD Cylinder Assembly	VEGS0116	77 Cassette Opener	VMLS0434	141 Worm Wheel Unit	VXPS0146
15 Upper Cylinder Assembly	VEHS0144	78 Change Arm B	VMLS0438	142 Main Shaft	VXPS0156
16 A/C Head Module	VEHS0152	79 Soft Brake Arm S	VMLS0441	143 Idler Frame Unit	VXPS0157
17 Capstan FG Head Module	VEHS0153	80 Holder Guide Lever L	VMLS0446	144 Loading Gear Unit	VXPS0158
18 Cassette Loading Motor Unit	VEMS0149	81 Release Lever	VMLS0447	145 Clutch Gear Unit	VXPS0182
19 Capstan Stator Coil Assembly	VEMS0152	82 Erase Head Lever	VMLS0497	146 Capstan Pulley Unit	VXPS0185
20 Loading Motor Unit	VEMS0153	83 Wiper Gear L	VMLS0536	147 Supply Reel Table Unit	VXRS0029
21 Blind Panel (1)	VGPS1330	84 Sub Clutch Arm	VMLS0537	148 Takeup Reel Table Unit	VXRS0031
21 Blind Panel (2)	VGPS1331	85 Lock Piece	VMLS0537	149 Brake S Unit	VXZS0115
26 RT Connection Terminal	VJRS0020	86 Collar	VMXS0035	150 Brake T Unit	VXZS0116
30 Shaft Holder Plate	VMA0545	87 Collar	VMXS0408	151 Tension Band Unit	VXZS0118
32 Loading Motor Bracket	VMA01216	88 Limiter Supporter	VMXS0475	152 Soft Brake T Unit	VXZS0120
33 Cassette Compartment Top Plate	VMA01329	89 Sleeve	VMXS0500	155 Post Cap P4	VMXS0129
34 Cassette Holder	VMA01330	90 Sleeve	VMXS0501	159 Wiper Gear R	VMLS0379
35 Cassette Guide	VMA01331	91 Capstan Seal	VMX0251	402 Adjust Screw	VHDS0041
36 Switch Angle	VMA01332	98 Shield Plate	VSCS0947	416 Adjust Nut	VHNS0036
37 Grounding Plate F	VMA01333	102 Tape Remain Indicator	VXAS0737	417 Idler Angle	VMA0872
38 Loading Motor Spring	VMA01334	103 Roller Post Unit	VXAS0754	418 O-Ring	VMGS0100
39 Pressure Roller Spring	VMBS0334	104 Dew Sensor Module	VXAS0890	419 Silent Washer	VMGS0102
40 Soft Brake Spring S	VMBS0341	105 Sub Clutch Base	VXAS1041	420 Cut Washer (6)	VMXS0336
41 Adjust Spring	VMBS0404	106 Thrust Holder	VMA01220	421 Cut Washer (6)	VMXS0376
42 Loading Spring	VMBS0434	107 Cassette Holder Guide R Unit	VXAS0983	422 Capstan Thrust Washer	VMX0265
43 Sub Lever Spring	VMBS0438	108 Cassette Holder Guide L Unit	VXAS0984	423 Inertia Roller Upper Limiter	VNWS0002
44 Idler Stopper Spring	VMBS0440	109 Cassette Holder Unit	VXAS0985	424 M3 Nut	XNG3E
45 Cassette Holder Guide Spring R	VMBS0441	110 Side Plate R	VXAS0987	425 M5 Nut	XNG5E
46 Cassette Holder Guide Spring L	VMBS0442	111 Switch Angle Unit	VXAS0988	437 Retaining Ring E-type 1.5	XUC15FP
47 Release Lever Spring	VMBS0443	112 Loading Base 1 Unit	VXAS0994	438 Retaining Ring E-type 2.5	XUC25FP
48 Wiper Spring R	VMBS0444	113 Shaft Holder Block S Unit	VXAS0995	439 Retaining Ring C-type 3	XUEV3VW
49 Wiper Spring L	VMBS0445	114 Loading Post S Unit	VXAS0996	440 Retaining Ring C-type 4	XUEV4FP
50 Ratchet Lever Spring	VMBS0446	115 Shaft Holder Block T Unit	VXAS0997	441 Retaining Ring C-type 4	XUEV4VW
52 Soft Brake Spring T	VMBS0524	116 Loading Post T Unit	VXAS0998	442 Poly Slider Washer 2	XWGV2D5G
53 Brake Arm Spring	VMBS0631	117 Shaft Holder Plate	VXAS0999	443 Poly Slider Washer 3	XWGV3D54G
54 Supply Inertia Spring	VMBS0577	118 Main Lever Unit	VXAS1000	444 Poly Slider Washer 5	XWGV5D9G
55 Change Arm Spring	VMBS0614	119 Sub Lever	VXAS1001	445 Washer 4	XWG4D10
56 Adjust Spring	VMBS0615	120 Sub Lever Unit	VXAS1002	446 Washer 5	XWG5J12
57 A/C Head Spring	VMBS0616	121 Mode Select Switch Base Unit	VXAS1006	447 Poly Slider Washer 3 (3)	XWV3A54
58 Erase Head Lever Spring	VMBS0617	122 Grounding Plate	VXBS0025	448 Poly Slider Washer 3 (3)	XWV3A8
59 Idler Arm Spring	VMBS0618	123 Capstan Holder	VXDS0020	449 Poly Slider Washer 3 (4)	XWV3D54
60 Blind Panel Spring	VMBS0634	124 FF Slide Lever Unit	VXKS0388	450 Poly Slider Washer 3 (4)	XWV3D8
61 Post Spring P4	VMBS0623	125 Tension Arm Unit	VXLS0276	451 Poly Slider Washer 3 (5)	XWV3Z54
62 Tension Spring	VMBS0625	126 Loading Arm R Unit	VXLS0320	452 Poly Slider Washer 3 (5)	XWV3Z8
63 Inertia Roller Limiter	VMDS0063	127 Loading Arm L Unit	VXLS0321	453 Poly Slider Washer 3	XWV35D6
Inertia Roller Limiter	VMDS0332	129 Wiper Gear R Unit	VXLS0335	454 Poly Slider Washer 3	XWV4D9

(1) Used in models PV-2700B and PV-2700B-K.

(2) Used in models PV-2700R, PV-2700R-K, PV-2700W, and PV-2700W-K.

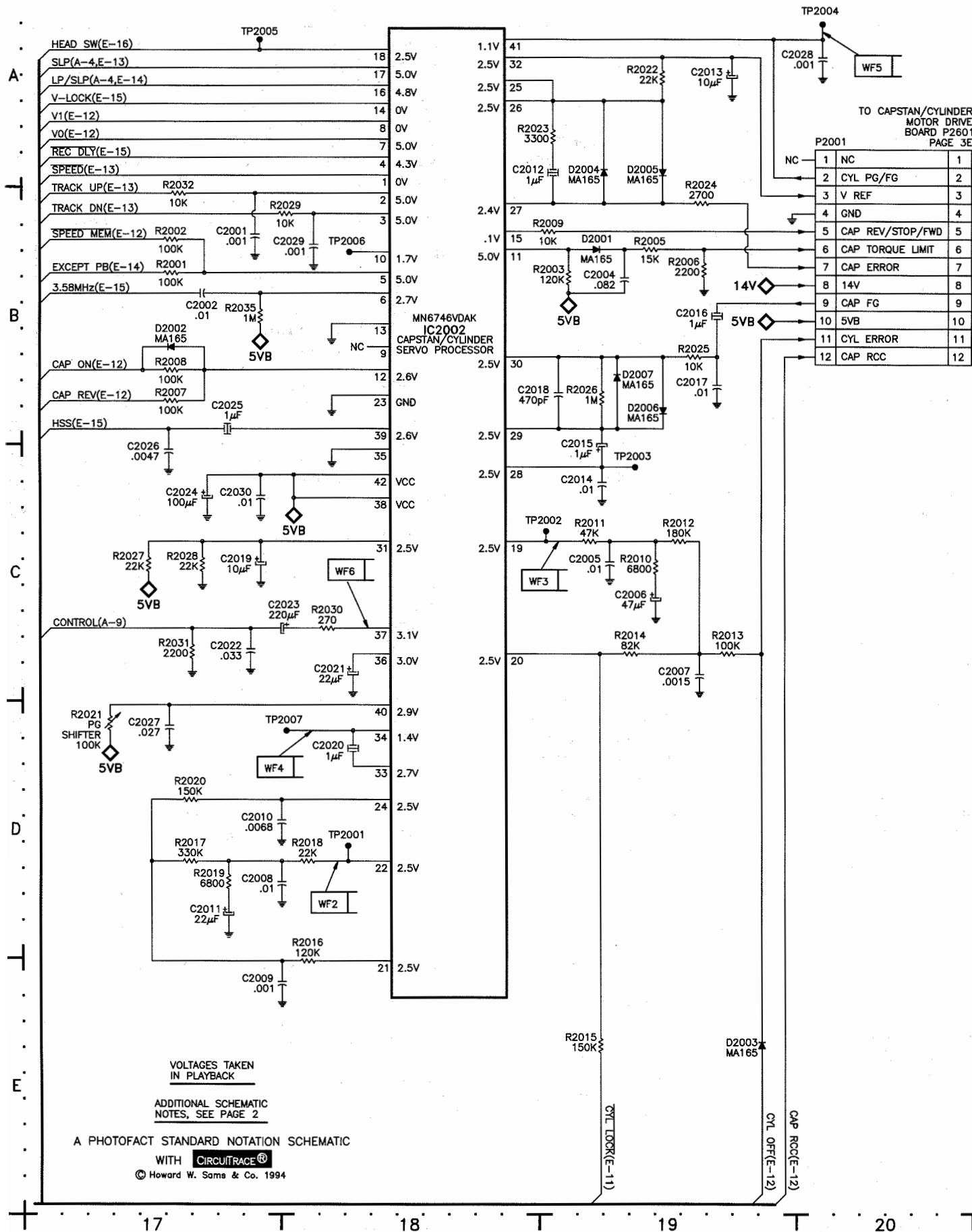
(3) t=0.25.

(4) t=0.5

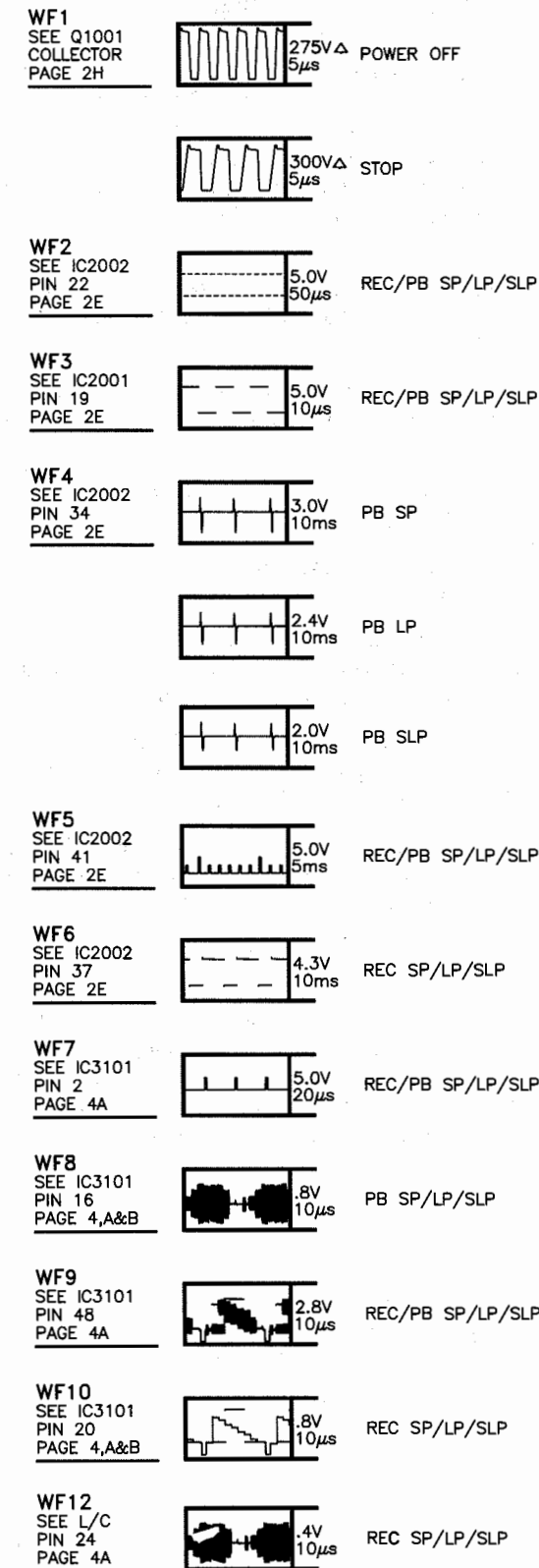
(5) t=0.13

(6) This is not a reusable item. If removed, install a new one.

E MAIN BOARD SCHEMATIC continued



WAVEFORMS

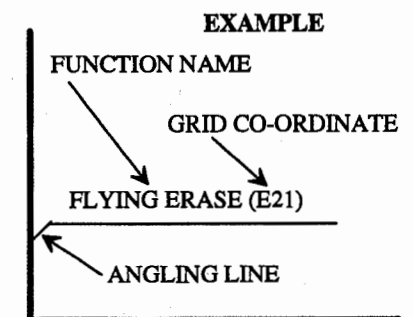


SCHEMATIC NOTES

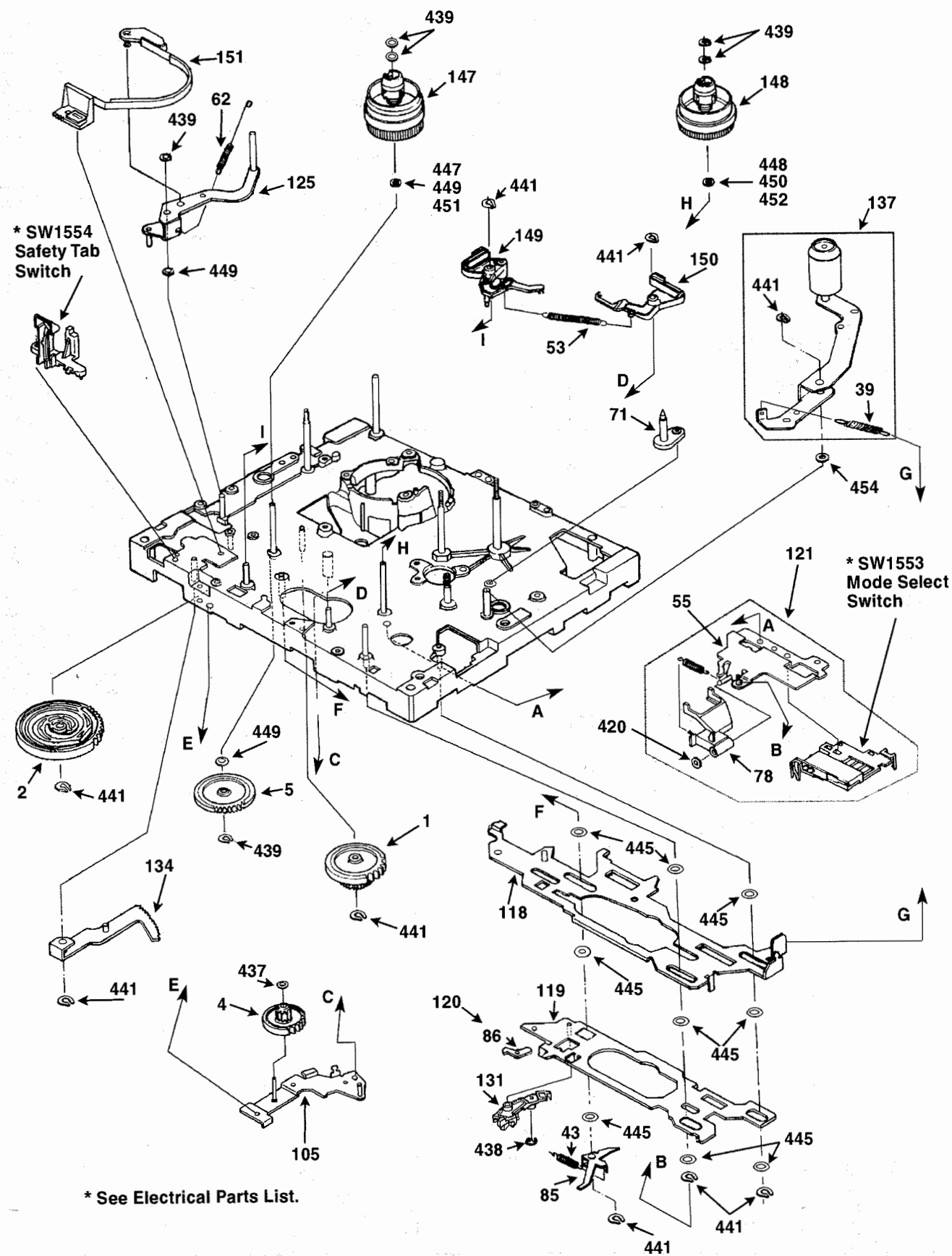
- # For SAFETY use only equivalent replacement part, see parts list.
- ✕ Circuitry not used in some sets.
- Circuitry used in some versions.
- ⬇ Ground
- ⬆ Chassis ground
- ⬇ Common tie point
- △ Taken from common tie point
- ◆ 12V SOURCE CIRCUITTRACE® point where a voltage source is developed in the power supply or on a board.
- ◆ 12V CIRCUITTRACE® point where a previously developed voltage source supplies voltage on a board.
- ◇ 12V CIRCUITTRACE® point where a component, or a board, connects to a voltage source supply.

— Cabling: Heavy lines reduce use of multiple lines.

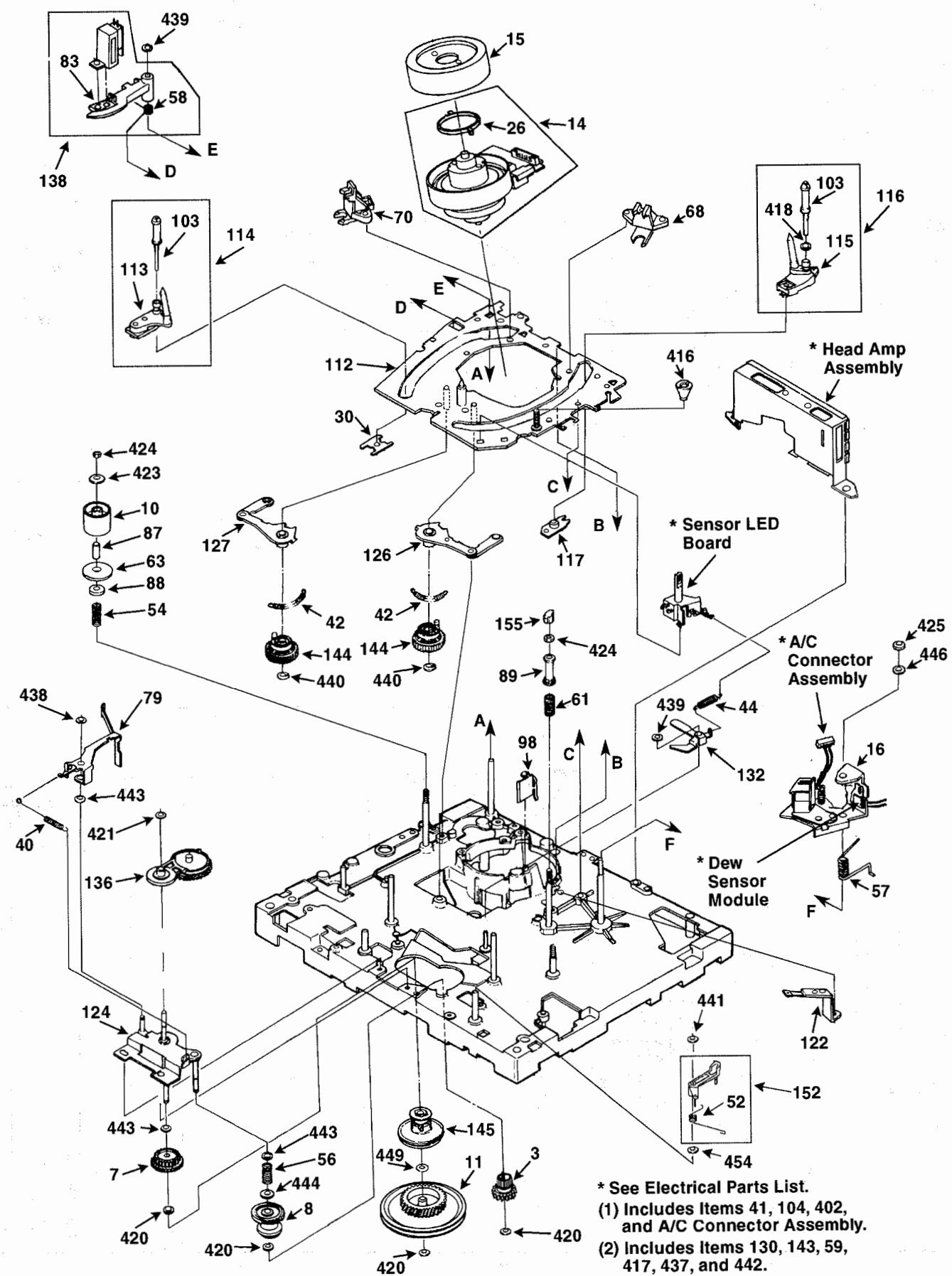
Voltages are taken from ground, unless noted otherwise.
Waveforms are taken from ground, unless noted otherwise.
Waveforms taken with triggered scope and NTSC color bar generator with window pattern. Waveform voltage is peak to peak. Timebase is per division. Waveforms shown at 10 divisions. Supply voltages maintained as seen at input.
Controls adjusted for normal operation.
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 1/2 W or less, 5% or greater unless noted.
Value in () used in some versions.
Measurements with switching as shown, unless noted.
Rated voltage shown on zener diodes.
Terminal identification may not be found on unit.
If a board schematic has a grid locator at the left and bottom sides, function names and (grid co-ordinates) are added to lines shown entering or exiting the heavy cabling line. The (grid co-ordinates) help to locate where the other connecting points to the same line are located on the same schematic or on another schematic of the same board. A further help has been to use an angling line to indicate direction of the same line exiting the heavy cabling line.



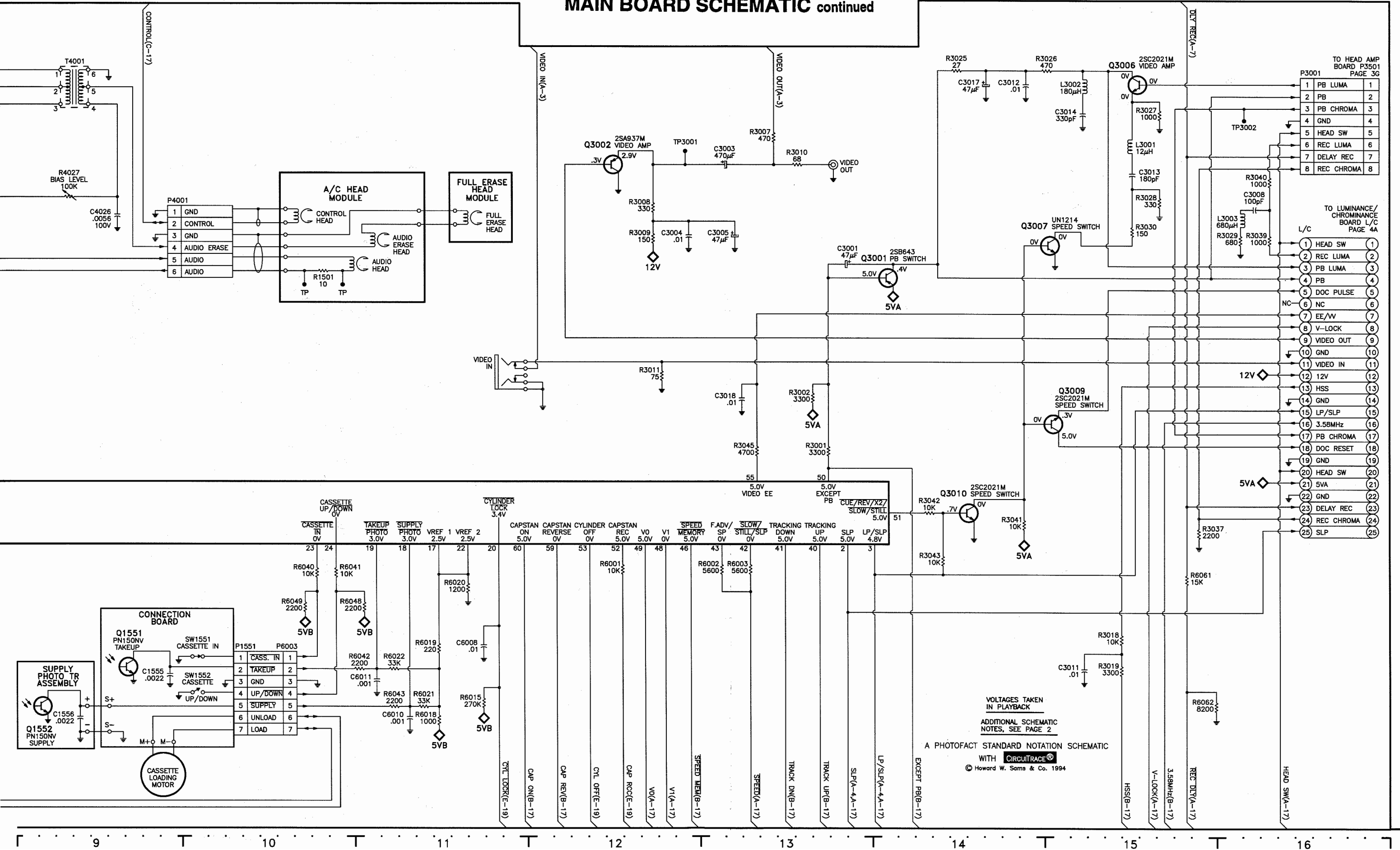
EXPLODED VIEW - TOP (1 OF 3)



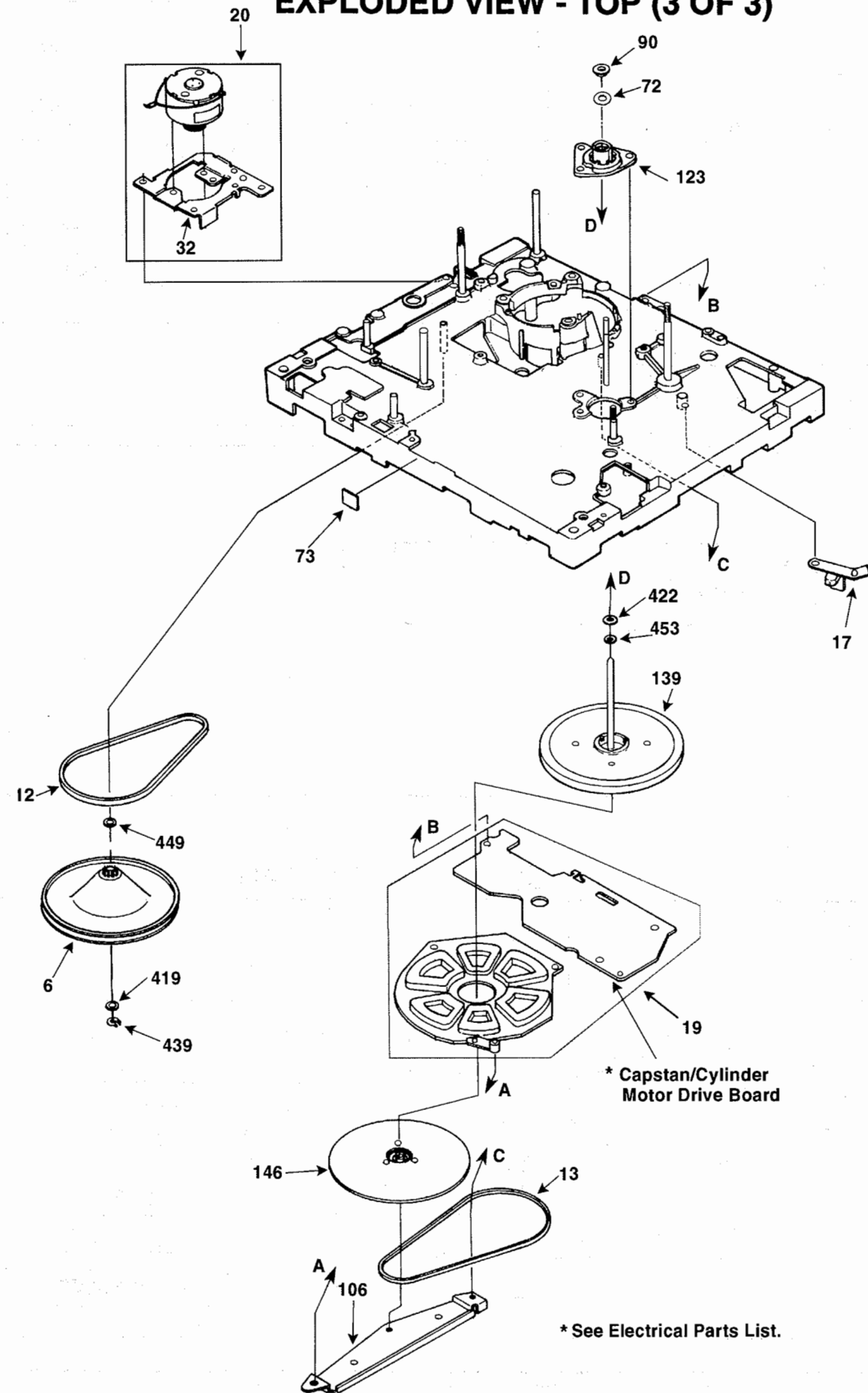
EXPLODED VIEW - TOP (2 OF 3)



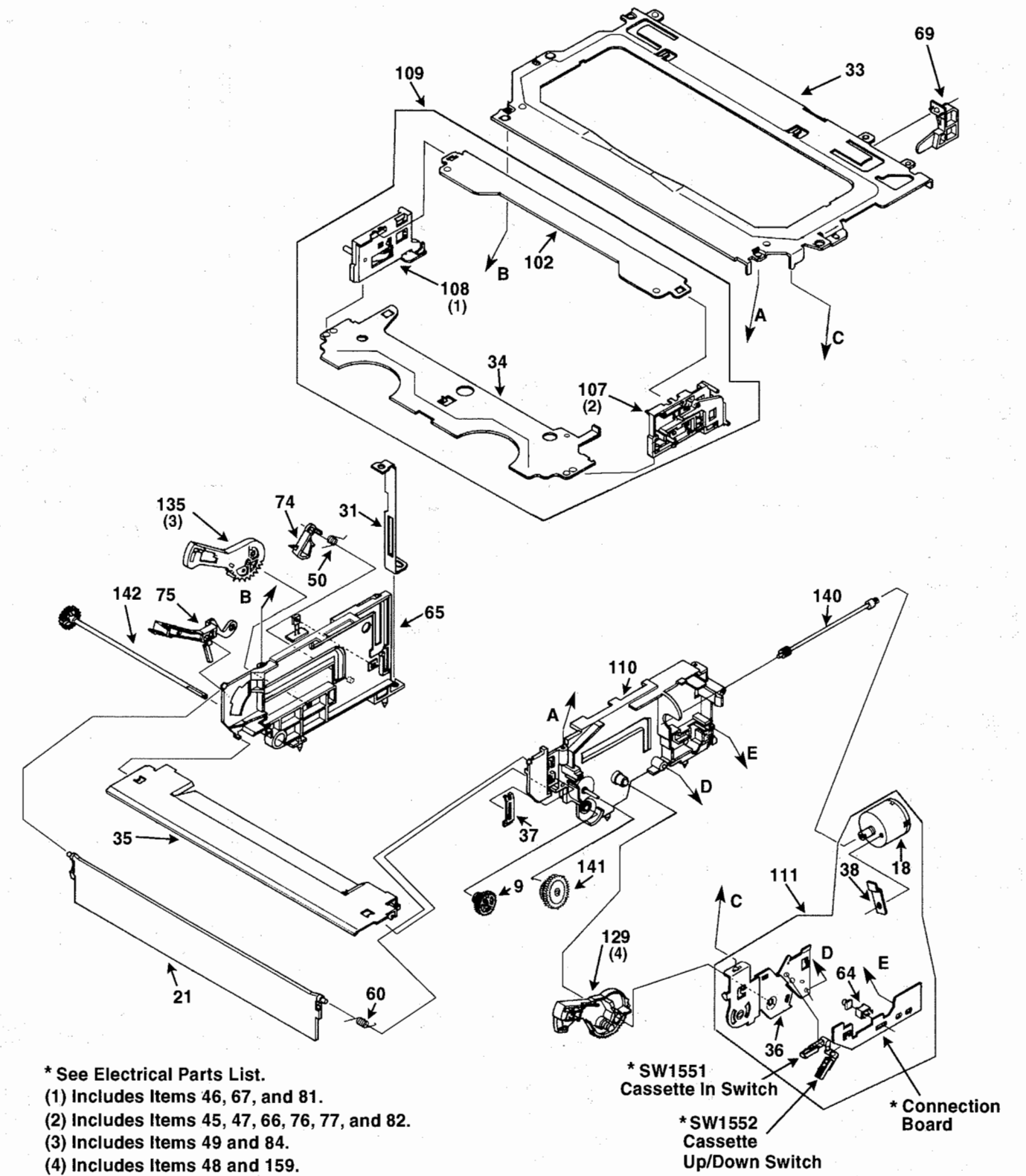
MAIN BOARD SCHEMATIC continued



EXPLODED VIEW - TOP (3 OF 3)



EXPLODED VIEW - CASSETTE UP UNIT



* See Electrical Parts List.

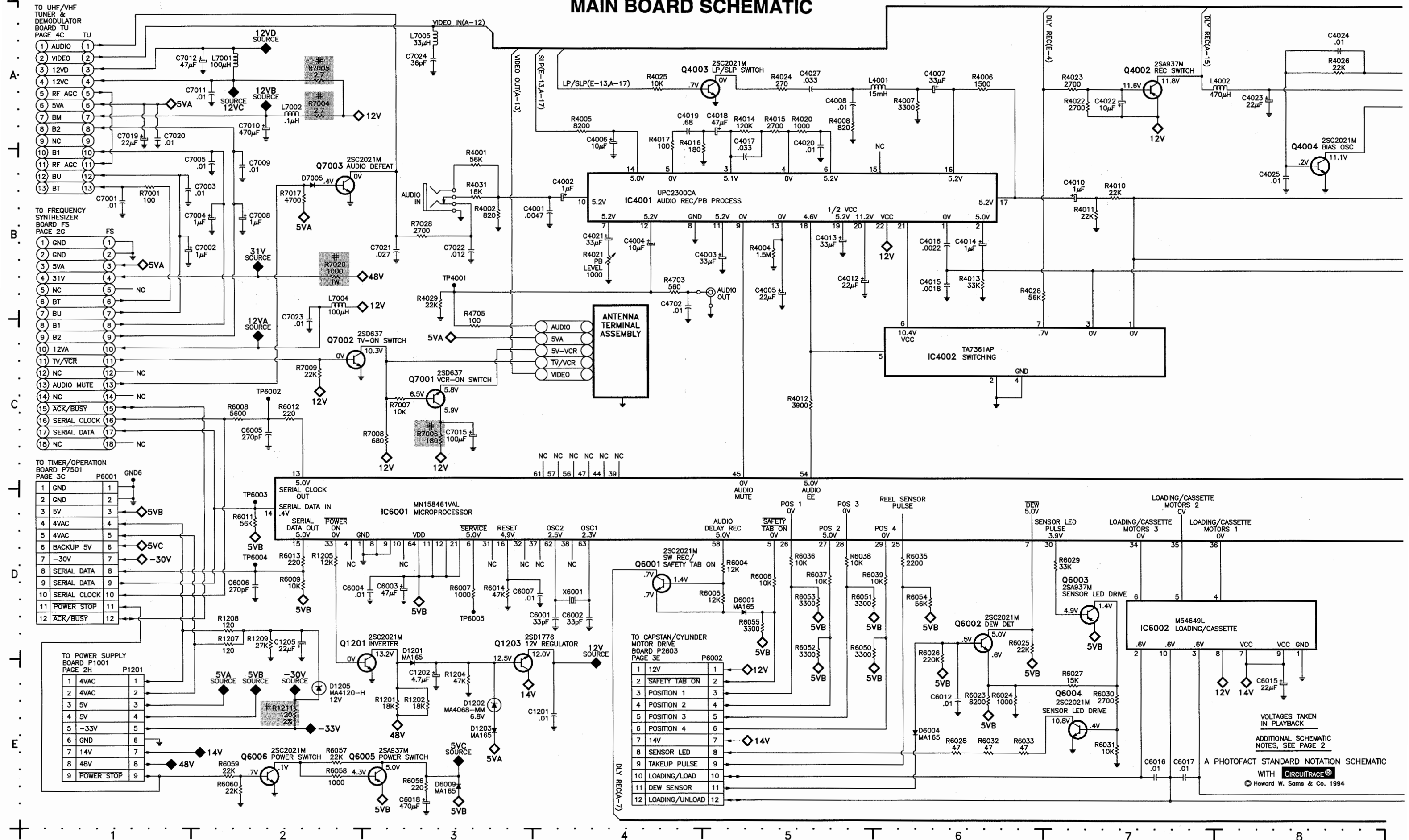
(1) Includes Items 46, 67, and 81.

(2) Includes Items 45, 47, 66, 76, 77, and 82.

(3) Includes Items 49 and 84.

(4) Includes Items 48 and 159.

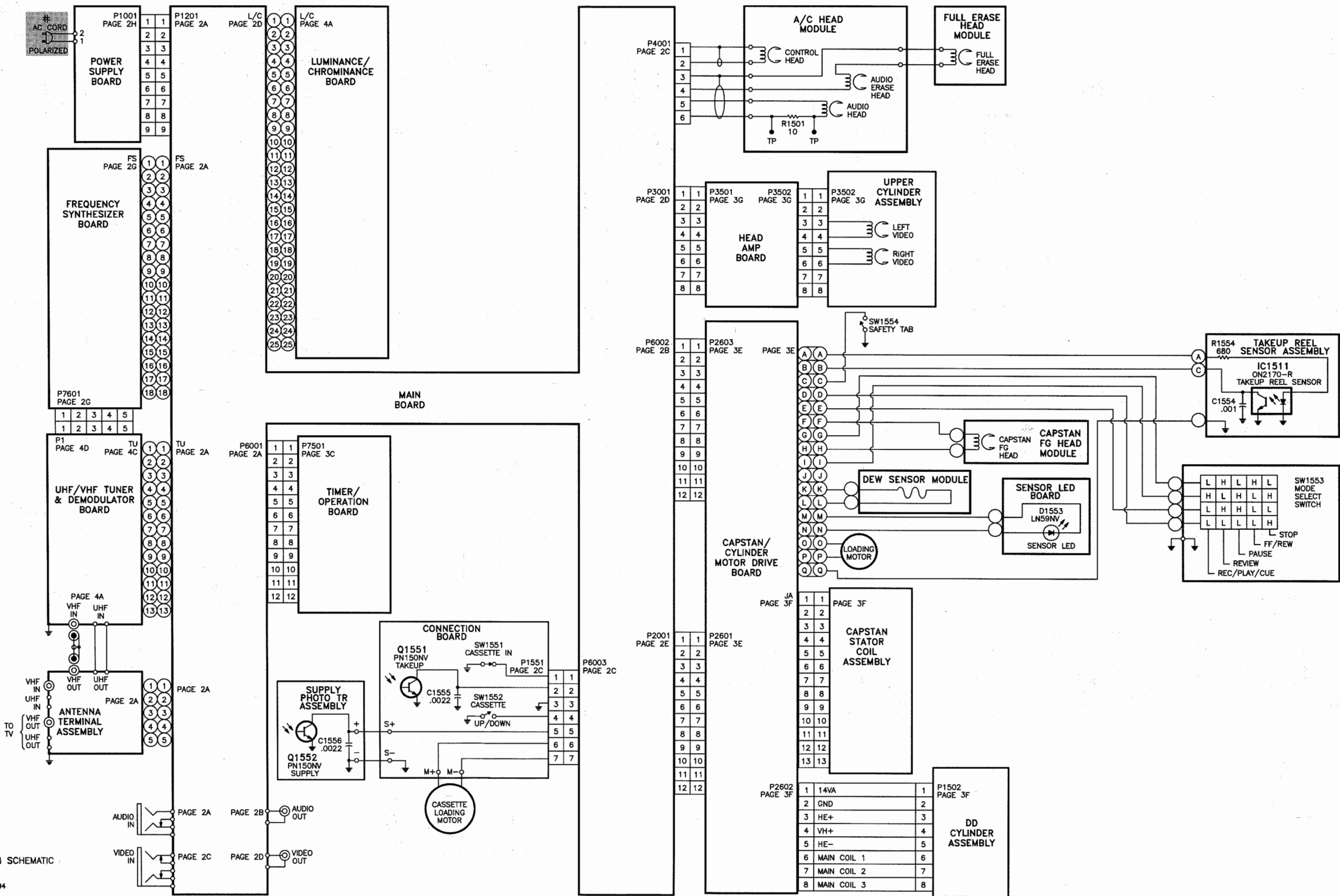
MAIN BOARD SCHEMATIC



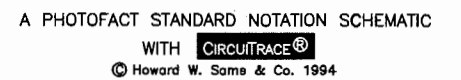
A

INTERCONNECT DIAGRAM

B



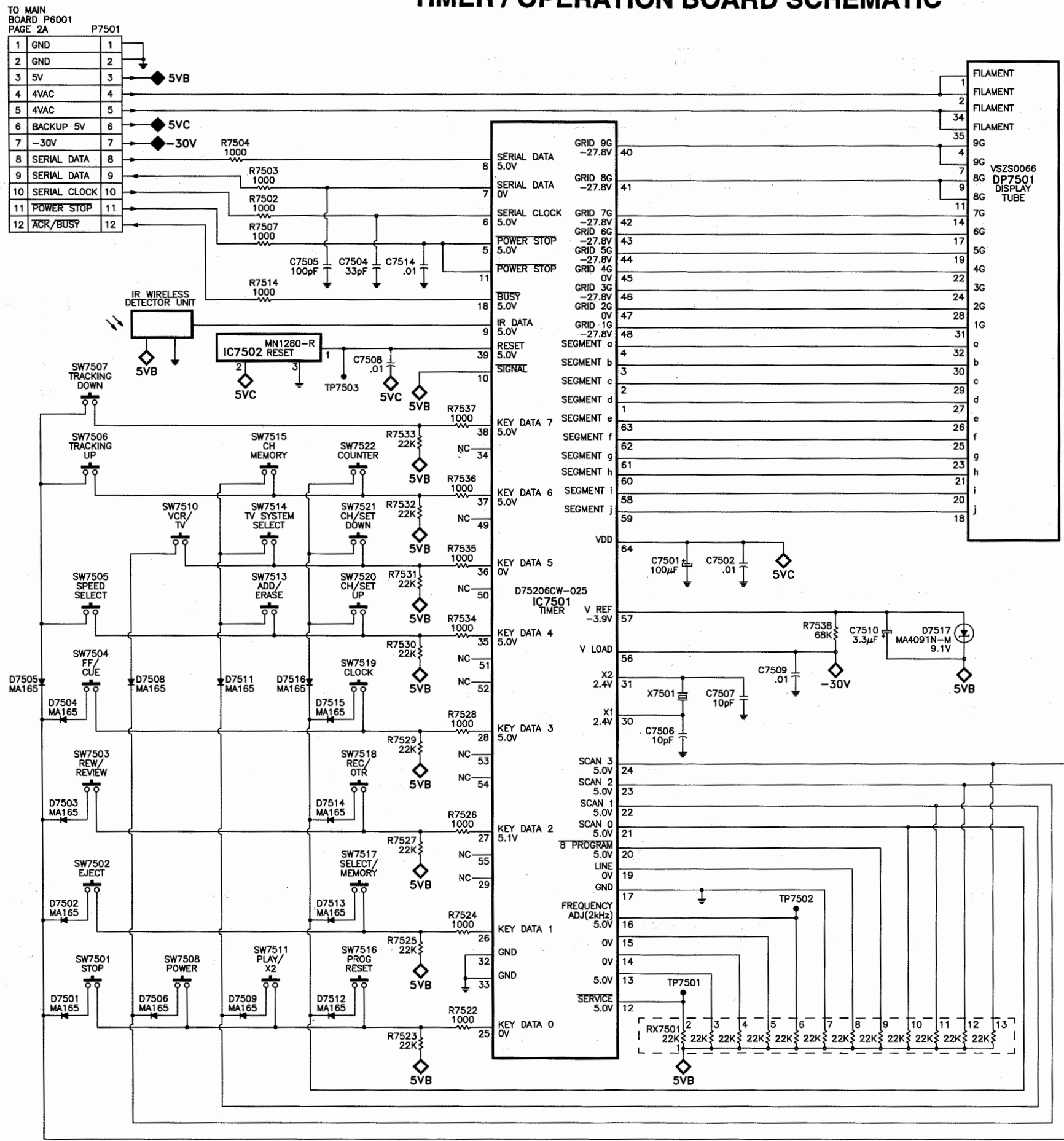
D



C

D

TIMER / OPERATION BOARD SCHEMATIC

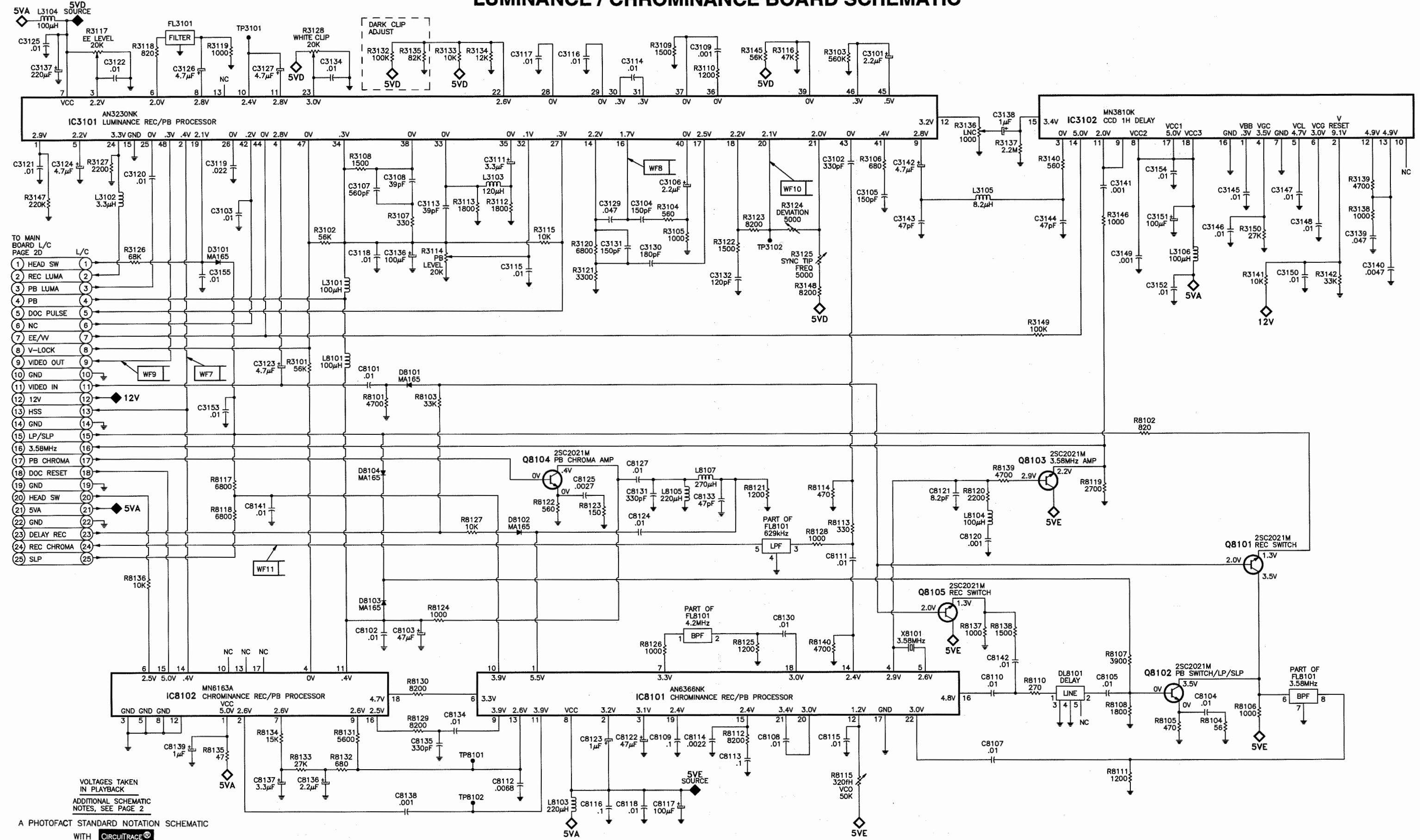


VOLTAGES TAKEN
IN PLAYBACK

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2

A PHOTOFAC STANDARD NOTATION SCHEMATIC
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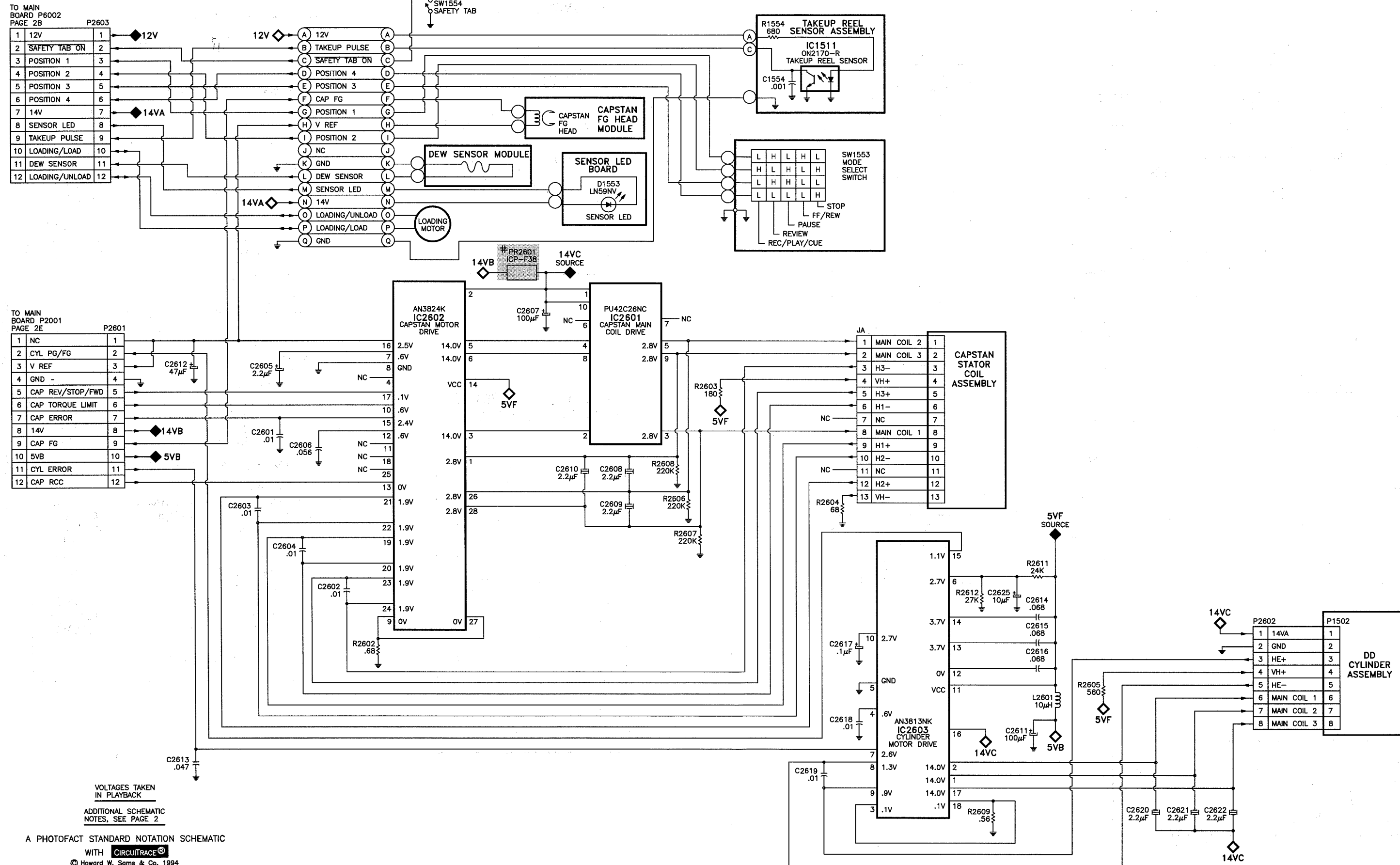
LUMINANCE / CHROMINANCE BOARD SCHEMATIC



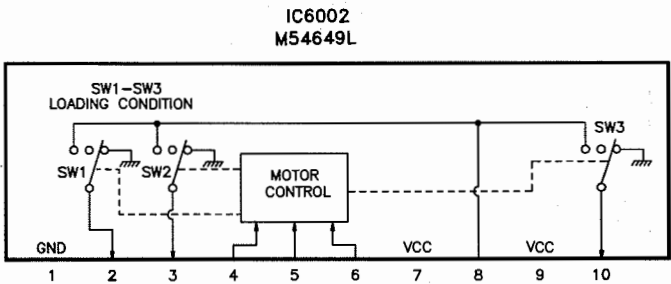
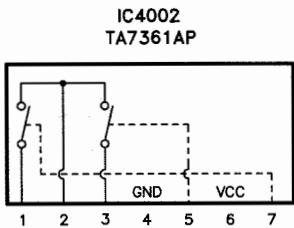
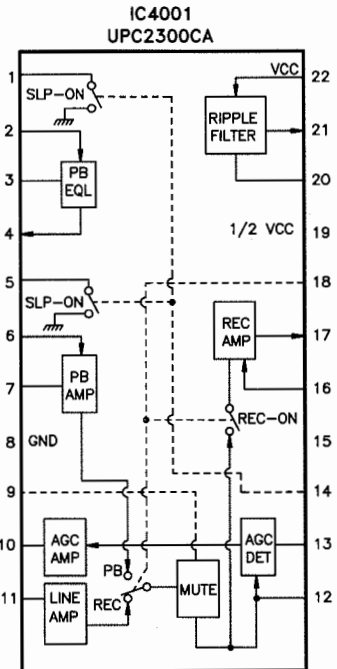
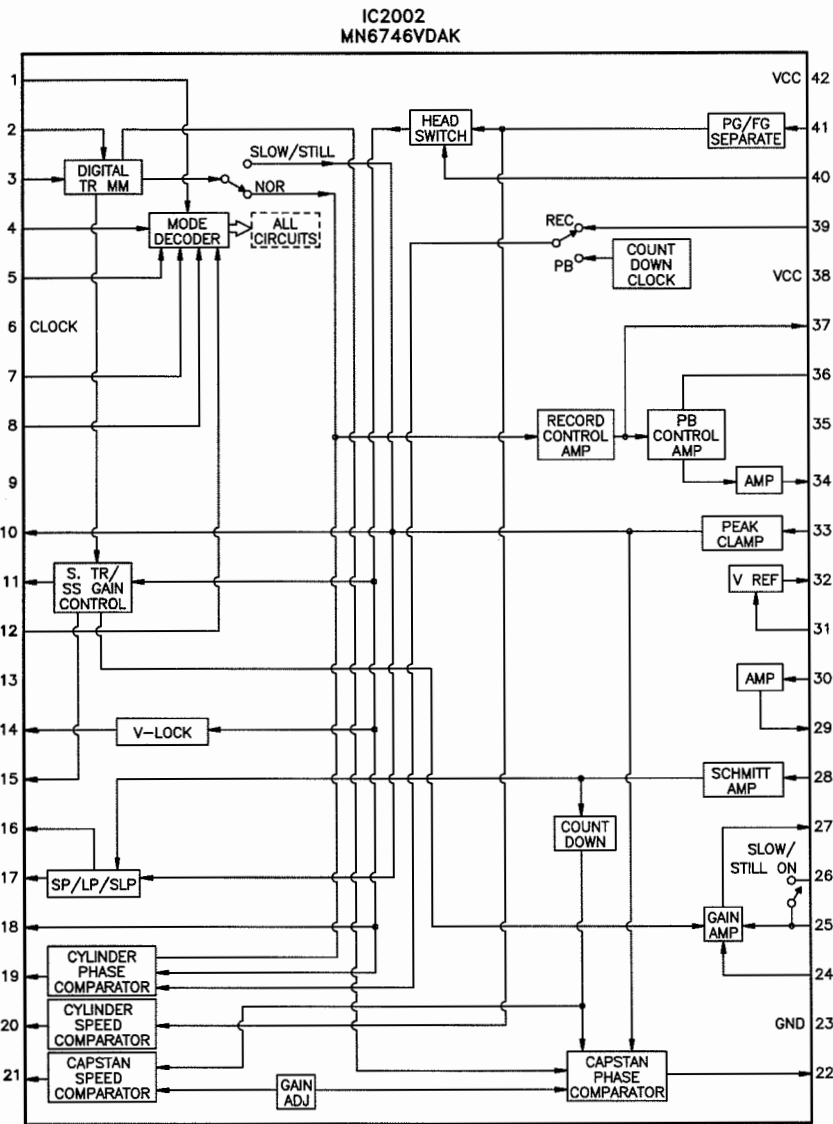
E

CAPSTAN / CYLINDER MOTOR DRIVE BOARD SCHEMATIC

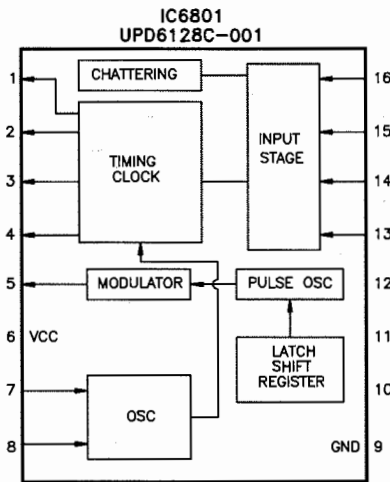
F



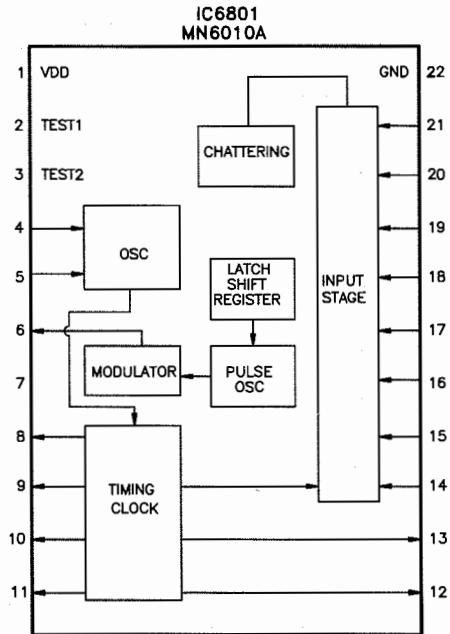
MAIN BOARD



IR WIRELESS TRANSMITTER (14 FUNCTION) BOARD



IR WIRELESS TRANSMITTER (24 FUNCTION) BOARD



ELECTRICAL PARTS LIST

CABINET PARTS

Item	Notes
Models PV-2700, PV2700B-K	
Bottom Panel	VKUS0143
Front Panel Control Rack - Lower (1)	VGUS1878
Front Panel Control Rack - Upper (1)	VGUS1842
Front Panel Unit	VYPS3715
Rubber Foot	VKAS0014
Top Cover	VKMS0463
Tracking Button (1)	VGUS1880
IR Wireless Transmitter	
Case - Bottom	VKMS0460
Case - Top	VKMS0458
Rubber Plate for Contact	VMGS0103
Models PV-2700R, PV2700R-K	
Bottom Panel	VKUS0143
Front Panel Control Rack - Lower (1)	VGUS1879
Front Panel Control Rack - Upper (1)	VGUS1842
Front Panel Unit	VYPS3716
Rubber Foot	VKAS0014
Top Cover	VKMS0464
Tracking Button (1)	VGUS1881
IR Wireless Transmitter	
Case - Bottom	VKMS0461
Case - Top	VKMS0459
Rubber Plate for Contact	VMGS0104
Models PV-2700W, PV-2700W-K	
Bottom Panel	VKUS0143
Front Panel Control Rack - Lower (1)	VGUS1843
Front Panel Control Rack - Upper (1)	VGUS1842
Front Panel Unit	VYPS3714
Rubber Foot	VKAS0014
Top Cover	VKMS0448
Tracking Button (1)	VGUS1865
IR Wireless Transmitter	
Case - Bottom	VKMS0450
Case - Top	VKMS0449
Rubber Plate for Contact	VMGS0101

(1) Included with Front Panel Unit.

G



IC3501
RECORD MODE
VOLTAGE CHART

1	0V
2	0V
3	1.8V
4	.4V
5	—
6	10.4V
7	0V
8	.5V
9	11.6V
10	8.1V
11	3.8V
12	5.7V
13	5.7V

1	.3V	8	1.6V
2	0V	9	0V
3	0V	10	.5V
4	0V	11	.3V
5	0V	12	.3V
6	0V	13	0V
7	.5V	14	.3V

P3502		P3502		UPPER CYLINDER ASSEMBLY	
NC	1 NC	1			
NC	2 NC	2			
→	3 VIDEO L HEAD	3	→	LEFT VIDEO	
→	4 VIDEO R/L HEAD	4	→		
→	5 VIDEO R/L HEAD	5	→	RIGHT VIDEO	
→	6 VIDEO R HEAD	6	→		
NC	7 NC	7			
NC	8 NC	8			

VOLTAGES TAKEN
IN PLAYBACK

ADDITIONAL SCHEMATIC
NOTES, SEE PAGE 2

A PHOTOFACT STANDARD NOTATION SCHEMATIC
WITH **CIRCUITRACE®**
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H

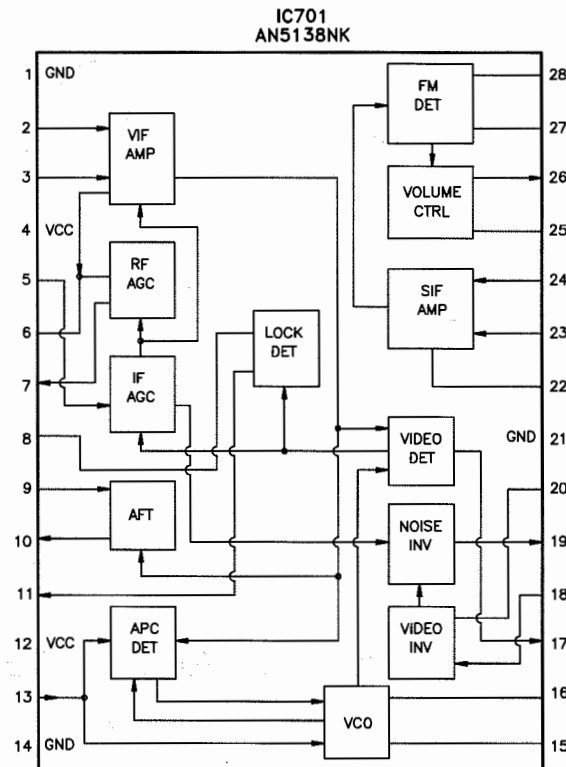
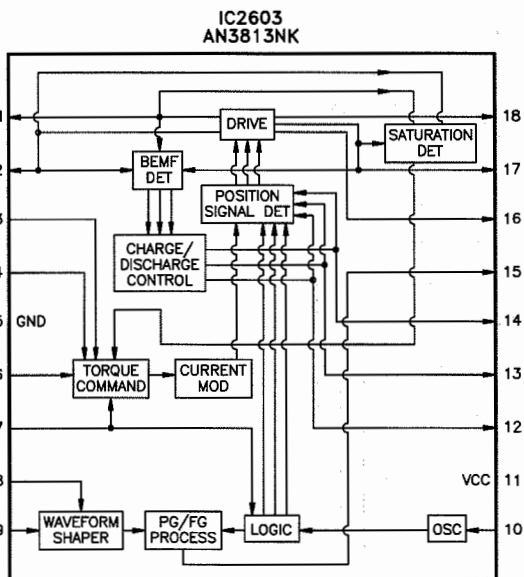
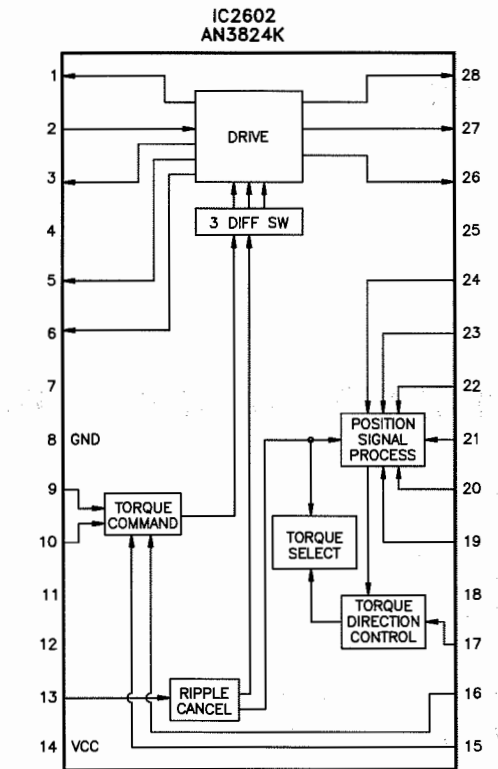
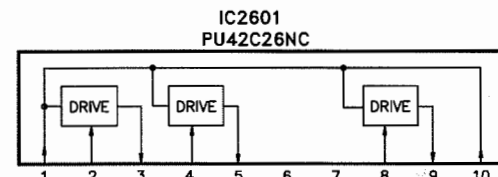
**MODEL PV-2700B**

CAPSTAN / CYLINDER MOTOR DRIVE BOARD

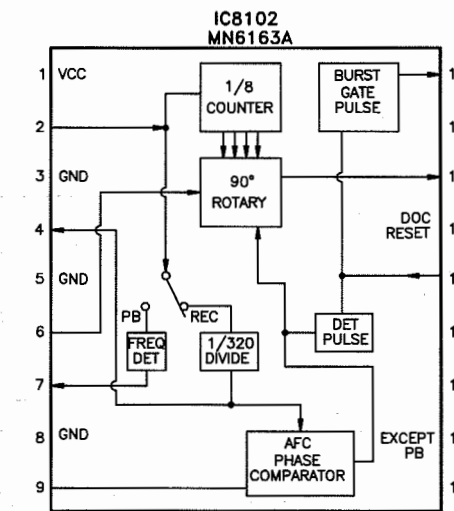
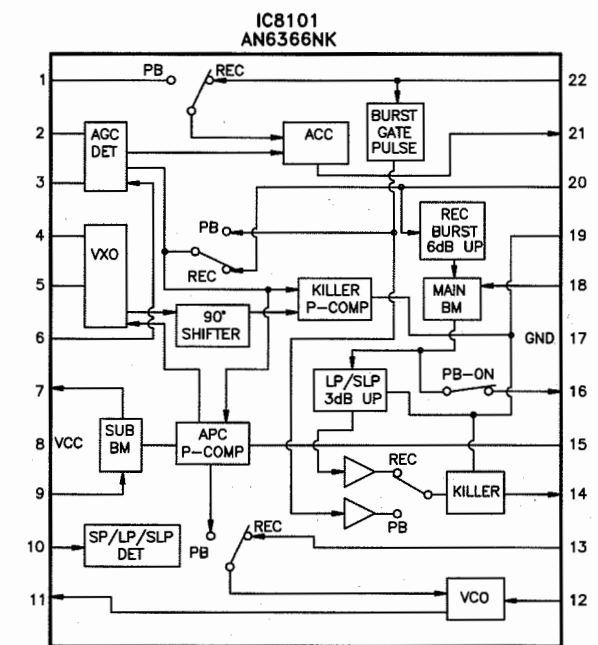
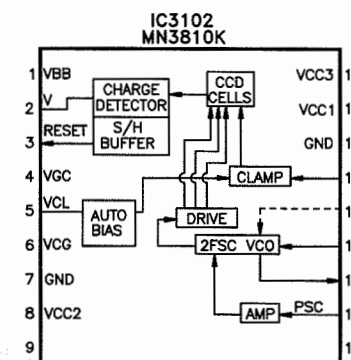
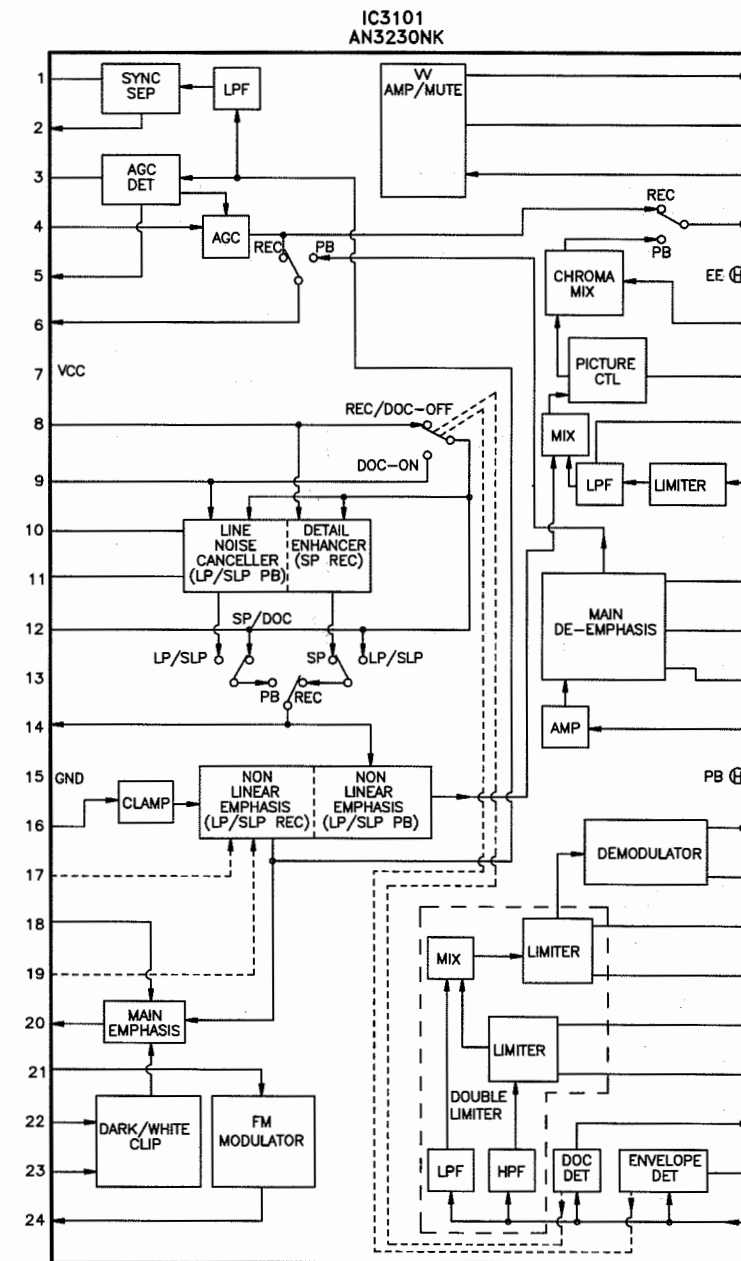
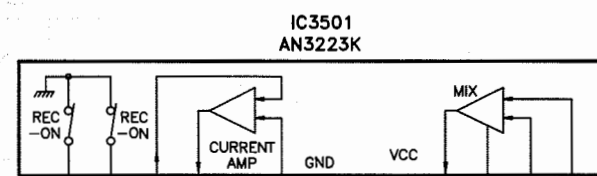
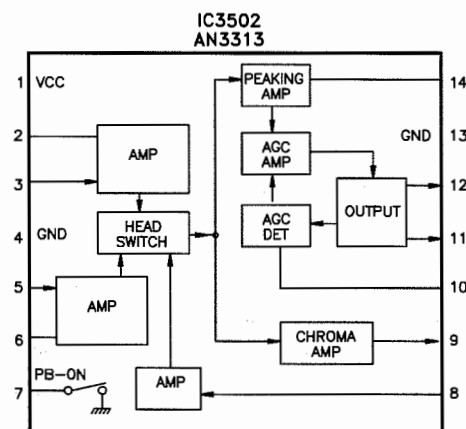
UHF / VHF TUNER & DEMODULATOR BOARD

IC FUNCTIONS

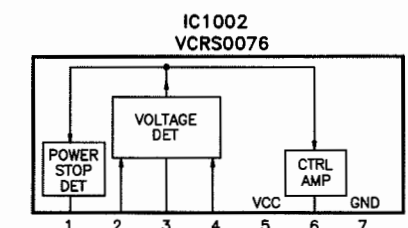
LUMINANCE / CHROMINANCE BOARD



HEAD AMP BOARD



POWER SUPPLY BOARD



ELECTRICAL PARTS LIST continued

MAIN BOARD continued			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS continued			
IC4001	UPC2300CA	-	-
	UPC2300ACA	-	-
IC4002	TA7361AP	-	-
	UPC1513HA	-	-
IC6001	MN158461VAL	-	-
IC6002	M54649L	-	-
	AN6662	-	-
Q1201	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q1203	2SD1776(PO)	-	-
	2SC3852	-	-
Q3001	2SB643(QRS)	-	-
	2SB644(QRS)	-	-
Q3002	2SA937M(RS)	-	-
	2SB641(QRS)	-	-
Q3006	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q3007	UN1214	-	-
Q3009, 10	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q4002	2SA937M(RS)	-	-
	2SB641(QRS)	-	-
Q4003, 04	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q6001, 02	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q6003	2SA937M(RS)	-	-
	2SB641(QRS)	-	-
Q6004	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q6005	2SA937M(RS)	-	-
	2SB641(QRS)	-	-
Q6006	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
Q7001, 02	2SD637(QRS)	-	-
Q7003	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
OTHER			
# R1211	120 2% 1/4W	ERD2FCGP121S	-
	120 2% 1/4W	ERD2FCGP121P	-
R2021	100K	EVN39C00YB15	Shifter PG
R4021	1000	EVNE4AA00B13	PB Level
R4027	100K	EVNE4AA00B15	Bias Level
# R7004, 05	2.7 1/2W	ERDS1FJ2R7P	-
# R7006	180 1/2W	ERDS1FJ181P	-
# R7020	1000 1W	ERG1SJ102P	-
X6001	Crystal	VSXS0012	-
	Crystal	VSXS0028	-
	PC Board	VEPS0289A1	Main
# For SAFETY use only equivalent replacement part.			

MISCELLANEOUS			
Item No.	Description	Mfr. Part No.	Notes
OTHER			
SW1553	Switch	EVQ-WUM001	Mode Select
SW1554	Switch	VSMS0021	Safety Tab
	Antenna Terminal	VEKS3035	Assembly
	Antenna Terminal	VEKS3036	Assembly
	Coil	VLTS0002	Balun
			(Part of Antenna Terminal Assembly)
	Coil (19)	VEMS0152	Capstan Stator
			(Part of Capstan Stator Coil Assembly)
	Connector (16)	VEKS3046	A/C, Assembly
			(Part of A/C Head Module)
	Converter	VEQS0346	VHF Block/RF
			(Part of Antenna Terminal Assembly)
	Converter	VEQS0347	VHF Block/RF
			(Part of Antenna Terminal Assembly)
	Head (16)	VEHS0152	Audio/Erase/Control
			(Part of A/C Head Module)
	Head (17)	VEHS0153	Capstan FG
			(Part of Capstan FG Head Module)
	Head (138)	VXLS0456	Full Erase
	Head (138)	VXLS0470	Full Erase
	Head (138)	VXLS0471	Full Erase
	Head (138)	VXLS0472	Full Erase
			(Part of Full Erase Head Module)
	Head (15)	VEHS0144	Left/Right Video
			(Part of Upper Cylinder Assembly)
	Motor (18)	VEMS0149	Cassette Loading
			(Part of Cassette Loading Motor Unit)
	Motor (14)	VEGS0116	Direct Drive
			(Part of DD Cylinder Assembly)
	Motor (20)	VEMS0153	Loading
			(Part of Loading Motor Unit)
	Sensor (104)	VXAS0890	Dew
			(Part of Dew Sensor Module)
Number in () indicates the item number used in Mechanical Parts List and Exploded Views.			

POWER SUPPLY BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
# D1001	S1WBA40	-	-
D1002	EG01	-	-
D1003	MA180	-	-
D1004	MA178	-	-
D1005	MA165	-	-
	1SS119	-	-
D1006	MA178	-	-
D1007	MA4062-H	-	-
	MA4062N-H	-	-
D1008	MA185	-	-
# D1009	RU2YX	-	-
D1010	MA185	-	-
# D1011	EU2YX	-	-
D1012	MA4051N-M	-	-
	RD5.1JSB2X	-	-
D1014	MA165	-	-
	1SS119	-	-
# IC1001	ON3161-QR	-	-
	TLP621-G	-	-
IC1002	VCRS0076	-	-
# Q1001	2SC4026	-	-
	2SC4052	-	-
	2SC4073	-	-
Q1002	2SB643(S)	-	-
	2SB1062(S)	-	-
OTHER			
# AC CORD	Line Cord	VJAS0051	AC, Polarized
# C1001	.01	VCKS0004	-
	.01	VCKS0012	-
# C1002	.0033 20% 125V	ECKDNS332MEK	-
	.0033 20% 125V	TCKDNS332ME	-
# C1003	.0033 125V	VCKS0009	-
# C1004	82µF 200V	ECEA2DU820X	-
# CR1001	2.7M, 130pF	EXNG131P275D	Component Combination
# F1001	Fuse	XBA1C16NU100	1.6Amp, 125V
# L1001	29µH	ELF18D290A	Line Choke
	29µH	VLQS0035	Line Choke
	29µH	VLQS0039	Line Choke
# PR1001	Fuse	ICP-F38	1.5Amp
	Fuse	UN10015	1.5Amp
# R1003	33K 2W	ERG2SJ333H	-
	33K 2W	KRG2SJ333H	-
# R1005	82 1W	ERG1SJ820P	-
# R1009	4.7 1/4W	ERD25FJ4R7P	-
# R1010, 11	10 1/4W	ERD25FJ100P	-
# T1001	Power	ETE27K1AY	-
#	Barrier	VMZS0296	-
	Fuse Holder	VJSS0164	For F1001
	PC Board	VEPS0167A1	Power Supply, Assembly
# For SAFETY use only equivalent replacement part.			

PANASONIC

MODEL PV-2700B

MECHANICAL SERVICE TIPS

[illegible]

Write your service tips in the tables above and you will have a record of the defects and repairs you have made using this service information.

Have you ever wanted service tips to fix that VCR quickly? We would like to provide that service for you. As you and other servicemen send in your service tips, we will put the service tips in a database and make the service available.

We invite you to Fax or mail your service tips, together we can make servicing a VCR easier for all of us.

Fax 1-317-298-5604

or mail to:

Howard W. Sams & Company

Attention: VCRfacts

2647 Waterfront Parkway, East Drive

Suite 300

Indianapolis, IN 46214-2041

ELECTRICAL SERVICE TIPS

[illegible]

PANASONIC

MODEL PV-2700B

ELECTRICAL PARTS LIST continued

CAPSTAN / CYLINDER MOTOR DRIVE BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
IC2601	PU42C26NC	-	-
IC2602	AN3824K	-	-
IC2603	AN3813NK	-	-
OTHER			
# PR2601	Fuse	ICP-F38	1.5Amp IC Protector
	Fuse	UN10015	1.5Amp IC Protector
	PC Board	VEPS0291A1	Capstan / Cylinder Motor
# For SAFETY use only equivalent replacement part.			

HEAD AMP BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
IC3501	AN3223K	-	-
IC3502	AN3313	-	-
Q3501	2SB641(QRS)	-	-
	2SA937M(RS)	-	-
OTHER			
R3505	2000	EVNC1AA00B23	Record Chroma Level
	2000	EVND1AA00B23	Record Chroma Level
R3506	1000	EVNC1AA00B13	Record Luma Level
	1000	EVND1AA00B13	Record Luma Level
	PC Board	VEPS0513C1	Head Amp, Assembly

LUMINANCE / CHROMINANCE BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D3101	MA165	-	-
	1SS119	-	-
D8101 Thru			
D8104	MA165	-	-
	1SS119	-	-
IC3101	AN3230NK	-	-
IC3102	MN3810K	-	-
IC8101	AN6366NK	-	-
IC8102	MN6163A	-	-
Q8101 Thru			
Q8105	2SC2021M(RS)	-	-
	2SD636(QRS)	-	-
OTHER			
R3114	20K	EVNE4AA00B24	PB Level
R3117	20K	EVND3AA00B24	EE Level
R3124	5000	EVND3AA00B53	Deviation
R3125	5000	EVND3AA00B53	Sync Tip Freq
R3128	20K	EVNE4AA00B24	White Clip
R3136	1000	EVNE4AA00B13	LNC
R8115	50K	EVNE4AA00B54	320fH VCO
X8101	Crystal	VSXS0038	3.58MHz
	Crystal	VSXS0039	3.58MHz
	Crystal	VSXS0040	3.58MHz
	Crystal	VSXS0041	3.58MHz
	PC Board	VEPS0358A1	Luminance/Chrominance

CONNECTION BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
Q1551	PN150NV	-	-
OTHER			
SW1551	Switch	VSMS0020	Cassette In
SW1552	Switch	VSMS0020	Cassette Up/Down
	PC Board	VJBS00511	Connection

IR WIRELESS TRANSMITTER (14 FUNCTION)			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D6801	SE303ACK	-	-
IC6801	UPD6128C-001	-	-
Q6801	2SD1458	-	-
OTHER			
X6801	Crystal	CSB455EB6	455kHz
	Transmitter (1)	VSQS0531	IR Wireless
	Transmitter (2)	VSQS0530	IR Wireless
	Transmitter (3)	VSQS0532	IR Wireless
(1) Used in Models PV-2700B and PV-2700B-K.			
(2) Used in Models PV-2700W and PV-2700W-K.			
(3) Used in Models PV-2700R and PV-2700R-K.			

FREQUENCY SYNTHESIZER BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D7603, 04	RD15JSB2	-	-
	RD15JSB3	-	-
IC7601	D1709ACT-746	-	-
Q7603 Thru			
Q7605	2SB642(QRS)	-	-
Q7606	2SK652(QR)	-	-
Q7607	2SD637(QRS)	-	-
OTHER			
X7601	Crystal	VSXS0045	-
	Crystal	VSXS0047	-
	PC Board	VEQS0348	Frequency Synthesizer, Assembly

IR WIRELESS TRANSMITTER (24 FUNCTION)			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D6801	SE303ACK	-	-
D6802	MA165	-	-
	1SS119	-	-
D6803, 04	MA154WK	-	-
IC6801	MN6010A	-	-
Q6801	2SD1458	-	-
OTHER			
X6801	Crystal	CSB455EB1	455kHz
	Transmitter	VSQS0591	IR Wireless

MAIN BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D1201	MA165	-	-
	1SS119	-	-
D1202	MA4068-MM	-	-
	RD6.8ESB3M3	-	-
D1203	MA165	-	-
	1SS119	-	-
D1205	MA4120-H	-	-
	RD13ESB1	-	-
	RD13ESB1M4	-	-
D2001 Thru			
D2007	MA165	-	-
	1SS119	-	-
D6001, 04, 09	MA165	-	-
	1SS119	-	-
D7005	-	-	-
IC2002	MN6746VDAK	-	-

ELECTRICAL PARTS LIST continued

SENSOR LED BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D1553	LN59NV	-	-
OTHER			
	PC Board	VXKS0453	Sensor LED, Assembly

SUPPLY PHOTO TR ASSEMBLY			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
Q1552	PN150NV	-	-
OTHER			
	PC Board	VEPS00432A2	Supply Photo TR, Assembly

TAKEUP REEL SENSOR ASSEMBLY			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
IC1511	ON2170	-	-
OTHER			
	PC Board	VEKS3039	Takeup Reel Sensor, Assembly

TIMER / OPERATION BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
D7501 Thru D7506	MA165	-	-
	1SS119	-	-
D7508, 09	MA165	-	-
	1SS119	-	-
D7511 Thru D7516	MA165	-	-
	1SS119	-	-
D7517	MA4091N-M	-	-
	RD9.1JSB2	-	-
IC7501	D75206CW-025	-	-
IC7502	MN1280-R	-	-
OTHER			
DP7501	Display Tube	VSZS0066	-
	Display Tube	VSZS0076	-
RX7501	22K X 12 Network	VCRS0084	-
	22K X 12 Network	VCRS0085	-
SW7501	Switch	EVQQSR05K	Stop
SW7502	Switch	EVQQSR05K	Eject
SW7503	Switch	EVQQSR05K	Rew/Review
SW7504	Switch	EVQQSR05K	FF/Cue
SW7505	Switch	EVQQSR05K	Speed Select
SW7506	Switch	EVQQSR05K	Tracking Up
SW7507	Switch	EVQQSR05K	Tracking Down
SW7508	Switch	EVQQSR05K	Power
SW7510	Switch	EVQQSR05K	VCR/TV
SW7511	Switch	EVQQSR05K	Play/X2
SW7513	Switch	EVQQSR05K	Add/Erase
SW7514	Switch	EVQQSR05K	TV System Select
SW7515	Switch	EVQQSR05K	CH Memory
SW7516	Switch	EVQQSR05K	Prog Reset
SW7517	Switch	EVQQSR05K	Select/Memory
SW7518	Switch	EVQQSR05K	Rec/OTR
SW7519	Switch	EVQQSR05K	Clock
SW7520	Switch	EVQQSR05K	CH/Set Up
SW7521	Switch	EVQQSR05K	CH/Set Down
SW7522	Switch	EVQQSR05K	Counter
X7501	Crystal	VSX0044	-
	Detector Unit	VEQS0354	IR Receiver
	Detector Unit	VEQS0357	IR Receiver
	Detector Unit	VEQS0358	IR Receiver
	PC Board	VEPS07207A1	Timer/Operation

UHF / VHF TUNER & DEMODULATOR BOARD			
Item No.	Description	Mfr. Part No.	Notes
SEMICONDUCTORS			
IC701	AN5138NK	-	-
Q701	2SC2188	-	-
Q702	2SD637(QR)	-	-
OTHER			
R712	56K 2% 1/8W SMT	ERD21TLG563	-
	56K 2% 1/16W SMT	ERJ6GMG563V	-
	56K 2% 1/16W SMT	ERJ6GMYG563V	-
R718	5000	EVNE4AA00B53	Burst Level
R726	3900 2% 1/16W SMT	ERJ6GMG392V	-
	3900 2% 1/16W SMT	ERJ6GMYG392V	-
R727	43K 2% 1/8W SMT	ERJ8GCG433V	-
	43K 2% 1/8W SMT	ERJ8GCYG433V	-
R728	27K 2% 1/16W SMT	ERD21TLG273	-
	27K 2% 1/16W SMT	ERJ6GMYG273V	-
	27K 2% 1/16W SMT	ERJ6GMG273V	-
R732	3300 2% 1/16W SMT	ERJ6GMG332V	-
	3300 2% 1/16W SMT	ERJ6GMYG332V	-
R739	5000	EVNE4AA00B53	RF AGC
	PC Board	VEQS0351	UHF/VHF Tuner & Demodulator

- Important Parts Information
- The parts listed here are those not usually available from a well-stocked supply cabinet or bin.
 - 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.