

SAFETY PRECAUTIONS

SERVICE WARNING

Only qualified service technicians who are familiar with safety checks and guidelines should perform service work. Before replacing parts, disconnect power source to protect electrostatically sensitive parts. Do not attempt to modify any circuit unless so recommended by the manufacturer. When servicing the receiver, use an isolation transformer between the line cord and power receptacle.

SERVICING THE HIGH VOLTAGE AND CRT

Use EXTREME CAUTION when servicing the high voltage circuits. To discharge static high voltage, connect a 10K ohms resistor in series with a test lead between the receiver ground and CRT anode lead. DO NOT lift the CRT by the neck. Always wear shatterproof goggles when handling the CRT 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 CRT is the only potential source of X-rays. Keep an accurate high voltage meter available at all times. Check meter calibration periodically. Whenever servicing a receiver, check the high voltage at various brightness levels to be sure it is regulating properly. 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. When troubleshooting a receiver with excessive high voltage, avoid close contact with the CRT. DO NOT operate the receiver longer than necessary. To locate the cause of excessive high voltage, use a variable AC transformer to regulate voltage. In present receivers, 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.

GENERAL GUIDELINES

Perform a final SAFETY CHECK before returning receiver to customer. Check repaired area for poorly soldered connections, and check entire circuit board for solder splashes. Check board wiring for pinched wires or wires contacting any high wattage resistors. 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.

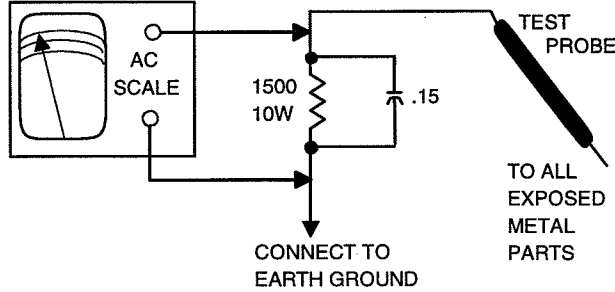
SAFETY CHECKS -- FIRE AND SHOCK HAZARD

Cold Leakage Checks for Receivers with Isolated Ground

Unplug the AC cord, connect a jumper across the plug prongs, and turn the power switch on (if applicable). Use an ohmmeter to measure the resistance between the jumped 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 1M ohms and 5.2M ohms. Parts without a return path must measure infinity.

Hot Leakage Current Check

Plug the AC cord directly into an AC outlet. DO NOT use an isolation transformer. Use a 1500 ohms, 10W resistor in parallel with a .15µF capacitor to connect between any exposed metal parts on the receiver and a good earth ground. (See figure below.) 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. Voltage measurements should not exceed .75VAC, 500µA. Any value exceeding this limit constitutes a potential shock hazard and must be corrected. If the AC plug is not polarized, reverse the AC plug and repeat exposed metal part voltage measurement at each point.



HORIZONTAL OSCILLATOR DISABLE TEST

Place a jumper between TP891 and TP892 (pins 3 and 4 of IC801). Connect a high voltage probe to the CRT anode. Set the AC supply to 45VAC. Turn the receiver on and slowly increase the AC supply. Confirm the high voltage does not exceed 27.9kV when the horizontal just begins to pull out of sync. If the high voltage should exceed 27.9kV or the receiver fails to lose horizontal sync, the horizontal oscillator disable circuit should be repaired. Remove jumper.

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

Reproduction or use, without express permission, of editorial or pictorial content, in any manner, is prohibited. No patent liability is assumed with respect to the use of the information contained herein.

© 2001 SAMS Technical Publishing

5436 West 78th Street  
Indianapolis, IN 46268-4149

Printed in the United States of America 5 4 3 2 1

066331



TVCRfacts™

TVCR-331  
Technical Service Data

TVCR-331

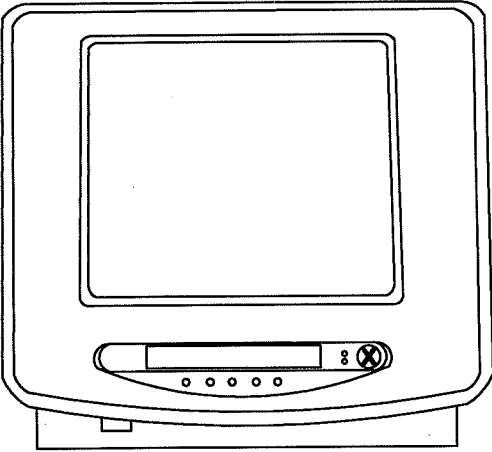
MODEL PV-M1327

PANASONIC

INDEX

Exploded Views ..... 1  
Horizontal Oscillator Disable Test ... 1  
IC Functions ..... 4  
Important Parts Information ..... 5  
Mechanical Alignment ..... 1  
Miscellaneous Adjustments ..... 1  
Model Coverage Notes ..... 5  
Parts List  
Cabinet ..... 5  
Electrical ..... 5, 6  
Mechanical ..... 1  
Placement Chart ..... 4  
Safety Precautions ..... 1  
Schematic Component Location ..... 4  
Schematic Notes ..... 2  
Schematics  
Head Amp Board ..... 3  
Power Supply ..... 2  
Servo ..... 3  
System Control ..... 2  
Television ..... 2  
VCR System Control ..... 3  
Service Information ..... 1  
Test Equipment ..... 3

PANASONIC  
Model PV-M1327

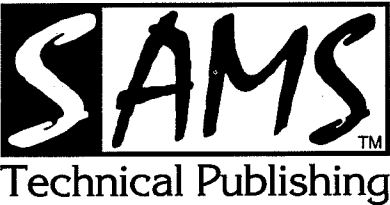


Coverage includes these additional models and chassis.

BRAND	MODELS
PANASONIC	PV-M1347
PANASONIC	PV-M1357W
PANASONIC	PV-M2037
QUASAR	VV1307
QUASAR	VV1317W
QUASAR	VV2007
QUASAR	VV2017W

Essential coverage  
for servicing a TV/VCR...

- Schematics
- Electrical Parts List
- Placement Chart
- Exploded Views
- Mechanical Alignment
- Mechanical Parts List
- Waveforms

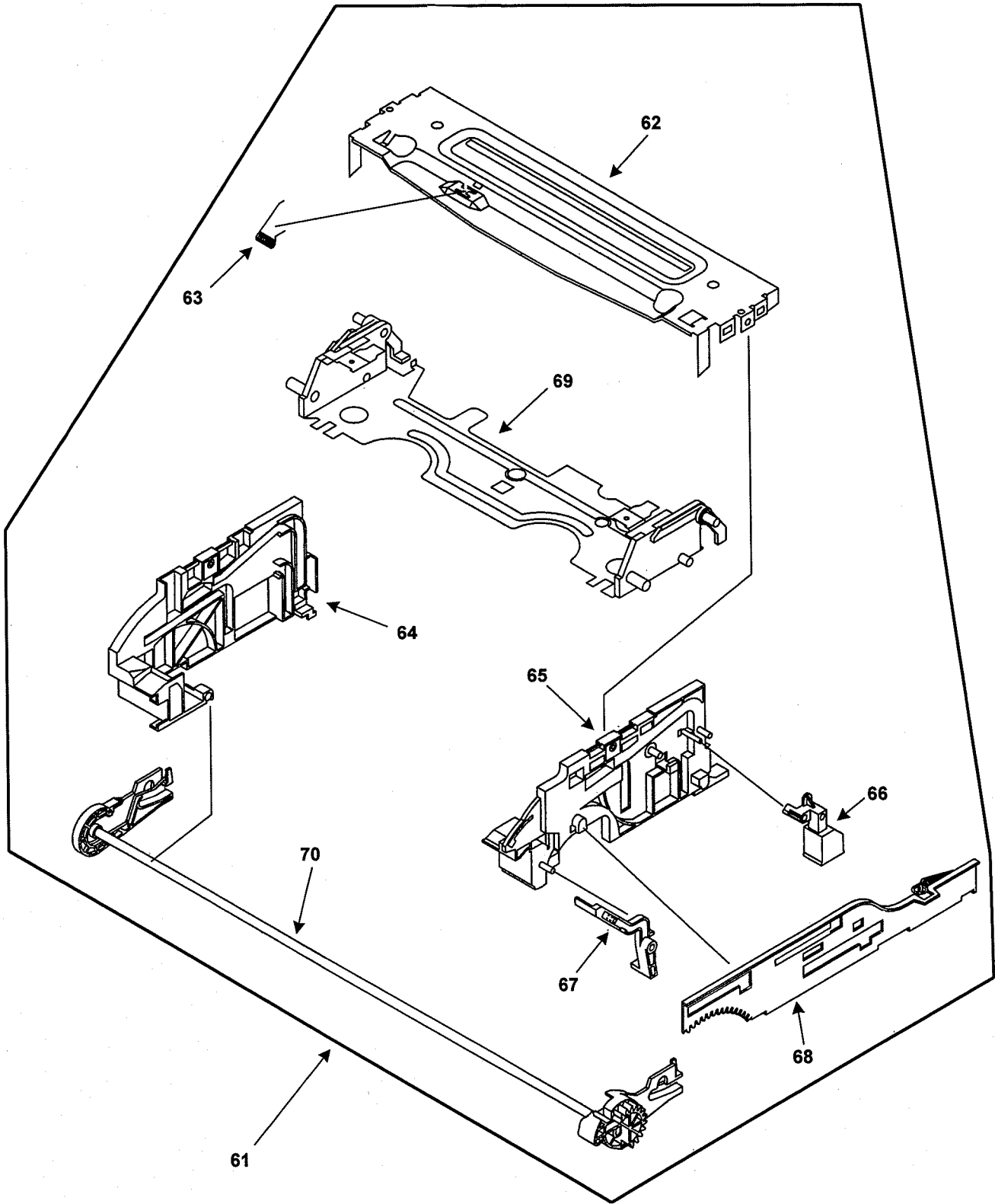


MARCH 2001 SET TVCR-331

For Supplier Address,  
See PHOTOFACT Annual Index



EXPLODED VIEW - CASSETTE UP ASSEMBLY



MECHANICAL PARTS LIST

Item No.	Description	Part No.	Item No.	Description	Part No.
1	Full Erase Head	VBSS0032	30	Tension Spring	VMBS1164
2	Loading Motor Unit	VXKS0851	41	Center Clutch Unit	VXPS0379
3	Tension Arm Boss	VDBS0349	42	Changing Gear Spring	VMBS1151
4	S Brake Arm Boss	VDBS0351	43	Changing Gear	VDGS0425
5	Opener Piece	VMDS0971	44	Idler Arm Unit	VXLS1053
6	Worm Wheel Gear	VDGS0428	45	PC Board Holder	VMDS0985
7	Intermediate Gear	VDGS0429	46	Main Lever Guide	VMDS0982
8	Main Cam Gear	VDGS0430	47	Changing Lever B	VMLS0973
9	S Reel Table	VDRS0054	49	S Loading Arm Unit	VXLS1054
10	T Reel Table	VDRS0055	50	T Loading Arm Unit	VXLS1056
11	Cylinder Unit (15)	VEGS0397	51	Capstan Rotor Kit *	VXPS0382K
	Cylinder Unit (16)	VEGS0395	52	Capstan Stator Kit **	VEMS0316K
12	Audio/Control Head Unit	VEHS0559	53	FG Head	VBKS0040
13	Upper Cylinder Unit (15)	VEHS0554	54	Capstan Belt	VDVS0087
	Upper Cylinder Unit (16)	VEHS0553	55	Sub Rotor	VMAS2135
14	Connector, 8 Pin	VJSS0882	57	Grounding Plate Unit	VXBS0061
15	Communication Cable	VJWS6JB100LL	58	Sub S Brake Arm Unit	VXLS1070
16	Loading Post Base-S Unit	VXDS0198	59	Sub S Brake Spring	VMBS1155
17	Loading Post Base-T Unit	VXDS0195	61	Cassette Up Assembly	VXYS1172
18	Pinch Arm Unit	VXLS1058	62	Top Plate	VMAS2131
19	Main Lever Drive Arm	VMLS0978	63	Grounding Spring	VMBS1159
20	P5 Arm Unit	VXLS1063	64	Left Side Plate	VMDS0976
21	Drive Rack Arm	VMLS0976	65	Right Side Plate	VMDS0974
22	Changing Lever A	VMLS0972	66	Sensor Cover	VMDS0979
23	Main Lever	VMLS0977	67	Opener Lever	VMLS0987
24	Loading Rack Unit	VXLS1072	68	Drive Rack Unit	VXLS1064
25	S Brake Arm Unit	VXLS1061	69	Holder Unit	VXAS4404
26	S Spring Arm	VMLS0982	70	Wiper Arm Unit	VXLS1065
27	T Brake Unit	VXLS1062	415	Reel Washer ***	VMXS0925
28	T Brake Spring	VMBS1150	416	Reel Washer ***	VMXS0922
29	Tension Arm Unit	VXLS1074	417	Reel Washer ***	VMXS0924

See Model Coverage Notes on page 5 for notes in ( ).

\* Includes capstan rotor unit, holder unit, and stopper.

\*\* Includes capstan stator unit and all of Item No. 51.

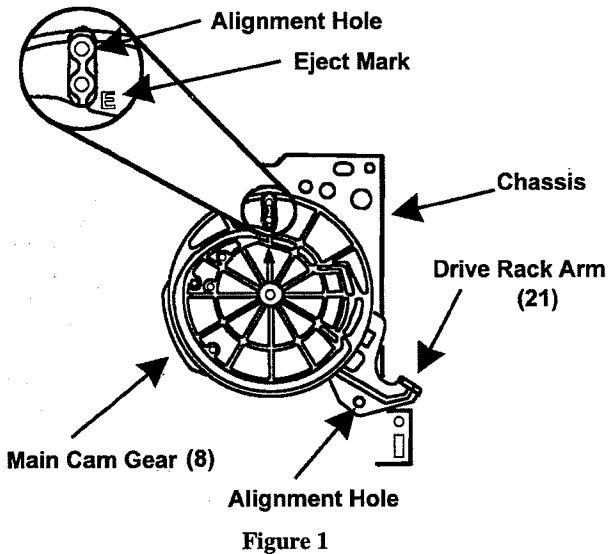
\*\*\* Cut Washer is not reusable. If removed replace with new one.

MECHANICAL ALIGNMENT

Numbers in parenthesis indicate the number used in the Mechanical Parts List and Exploded Views. All alignments are made with unit in the eject mode.

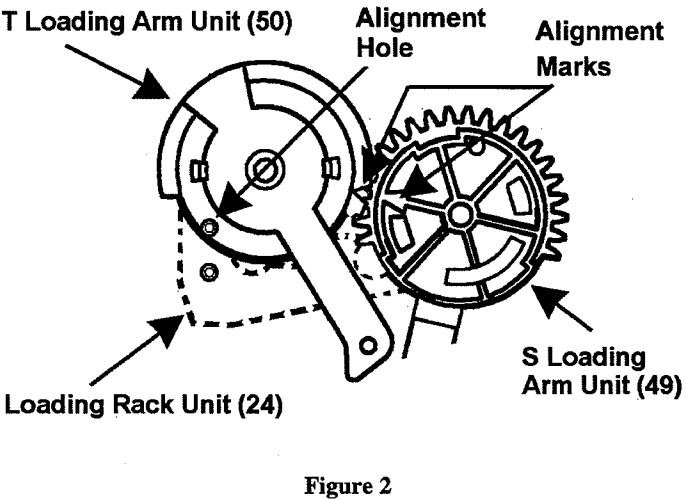
MAIN CAM GEAR ALIGNMENT

When installing the main cam gear (8) replacement of a new push nut, Part No. VHNS0070, is recommended. Install the drive rack arm (21) so the alignment hole aligns with the hole in chassis. Install the main cam gear so the two holes marked for the eject mode are aligned with the hole in chassis. See figure 1. If the main cam gear does not fasten down securely or wobbles after installation replace main cam gear and push nut.



LOADING ARMS ALIGNMENT

Position the loading rack unit (24) so the alignment hole aligns with chassis. Install the S loading arm unit (49). Install the T loading arm unit (50) so the triangle indent is aligned with the arrow on the S loading arm unit. Confirm the alignment hole is aligned with chassis and loading rack. See Figure 2.



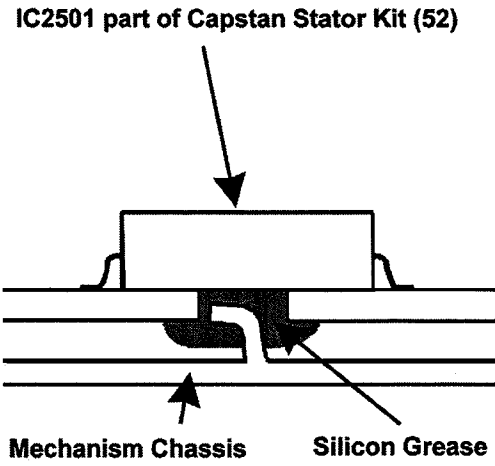
SERVICE INFORMATION

CAPSTAN ROTOR UNIT

The capstan rotor stopper (part of 51) must be cut to remove and a new capstan rotor kit (51) must be obtained. Take extra care as to not scratch the shaft or the holder unit. If the shaft is scratched during removal replacement is recommended.

CAPSTAN STATOR UNIT

If capstan stator kit (52) is removed replacement of the capstan stator kit, capstan rotor kit (51), and capstan rotor stopper (part of 51) is recommended. The capstan stator kit (51) includes all parts. Because even an invisible scratch on the shaft can cause unstable tape paths. When installing the capstan stator kit apply silicon grease, Part No. VFK1301, as shown in figure 3. Be sure to not over apply, or under apply the grease. IC2501 will get hot while unit is operating. After complete capstan stator kit is installed, adjust the distance of fg head to the rotor for .11 to .15 mm.



MISCELLANEOUS ADJUSTMENTS

NOTE: This receiver employs digital customer controls. All adjustments are at normalized position unless otherwise indicated.

HIGH VOLTAGE CHECK

Tune in a picture. Set brightness and picture for a black raster. Connect a high voltage probe to CRT anode. High voltage should read 22kV to 24kV. .

PURITY

Operate the receiver for 15 minutes to allow warm-up of CRT. Use a degaussing coil to demagnetize the CRT. This adjustment must be performed in Stop mode. Tune in a green pattern signal. Loosen the clamp screw and slide the deflection yoke back. Loosen the retainer screw. Adjust purity tabs to center the vertical green band. Slowly slide the deflection yoke forward until a uniform green screen is obtained. Tighten the clamp and retainer screws.

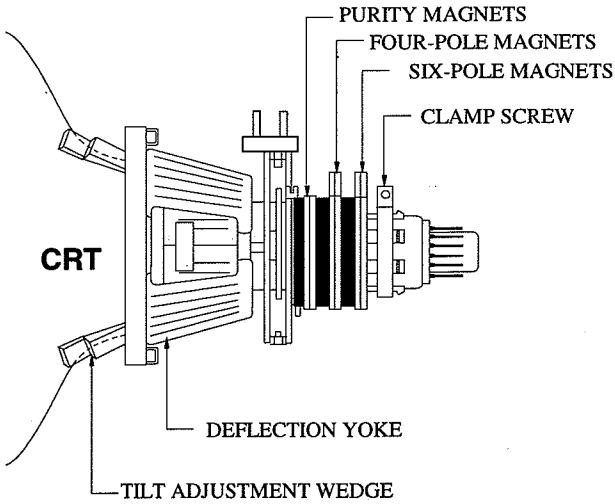
CONVERGENCE

Connect a signal generator to video input terminal and tune in a dot pattern. Adjust the 4-pole magnets to converge the red and blue dots at the center of the screen. Adjust the 6-pole magnets to converge the red/blue dots over the green dots at the center of the screen.

NOTE: Spread the two tabs of each set of magnets equally and opposite to converge vertically, and rotate both tabs in the same direction to converge horizontally. Since the four and six pole magnets interact, repeat the adjustment until center convergence is correct.

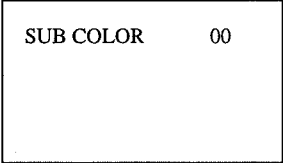
Tune in a crosshatch pattern. Remove rubber wedges between the deflection yoke and CRT. Tilt deflection yoke up or down to converge the vertical lines at the top and bottom of the screen and the horizontal lines at the left and right sides of the screen. Tilt the deflection yoke left or right to converge the horizontal lines at the top and bottom of the screen and the vertical lines at the left and right sides of the screen. Repeat convergence procedure if necessary to obtain the best overall convergence. Replace rubber wedges.

CRT NECK ASSEMBLY



ENTERING EVR ADJUSTMENT MODE

Turn the receiver on, press and hold the STOP, FF, and VOL. DOWN button together on the remote for 5 seconds with no cassette inserted. the receiver will display the adjustments one adjustment function at a time. Press channel up or down button on the remote to select the item to be adjusted. To select the value to adjust press the volume up or down. To change the value press channel up or down. To change to a new selection press the volume up or down.



EXIT EVR ADJUSTMENT MODE

NOTE: Always exit EVR adjustment mode when finished making adjustments.

To exit adjustment mode, press the power button off and on.

Adjustment	Range	Default Level
Sub Color	C0-FF, 00-3F	00
Sub Tint	E0-FF, 00-1F	00
Sub Brightness	C0-FF, 00-3F	F0
Sub Sharpness	E0-FF, 00-1F	00
Red Cutoff	00 - 7F	1E
Green Cutoff	00 - FF	3C
Blue Cutoff	00 - FF	3C
Red Drive	00 - 7F	40
Blue Drive	00 - 7F	40
Sub Contrast	00 - 7F	06
H Center	00 - 0F	08
Vertical Size	00 - 7F	40

SUB TINT

This adjustment must be performed in Stop mode. Tune in a picture. Using the remote enter the EVR adjustment mode, press the channel up button to select Sub Tint. Press the volume up button on the remote, that will move the control to the value setting. Press the channel up or down button to adjust for the best flesh tone on picture

WHITE BALANCE

Operate the receiver for 15 minutes. This adjustment must be performed in Stop mode. Tune in a crosshatch pattern. Adjust the focus control on T551 to the sharpest picture. Adjust the screen control on T551 to minimum. Tune in a luminance pattern. Turn the screen control to have a very faint display. Adjust Blue Cutoff, Green Cutoff, and Red Cutoff , to have a white screen. Set the sub brightness control to have adequate brightness. Adjust Red Drive, and Blue Drive to have the best white raster possible.

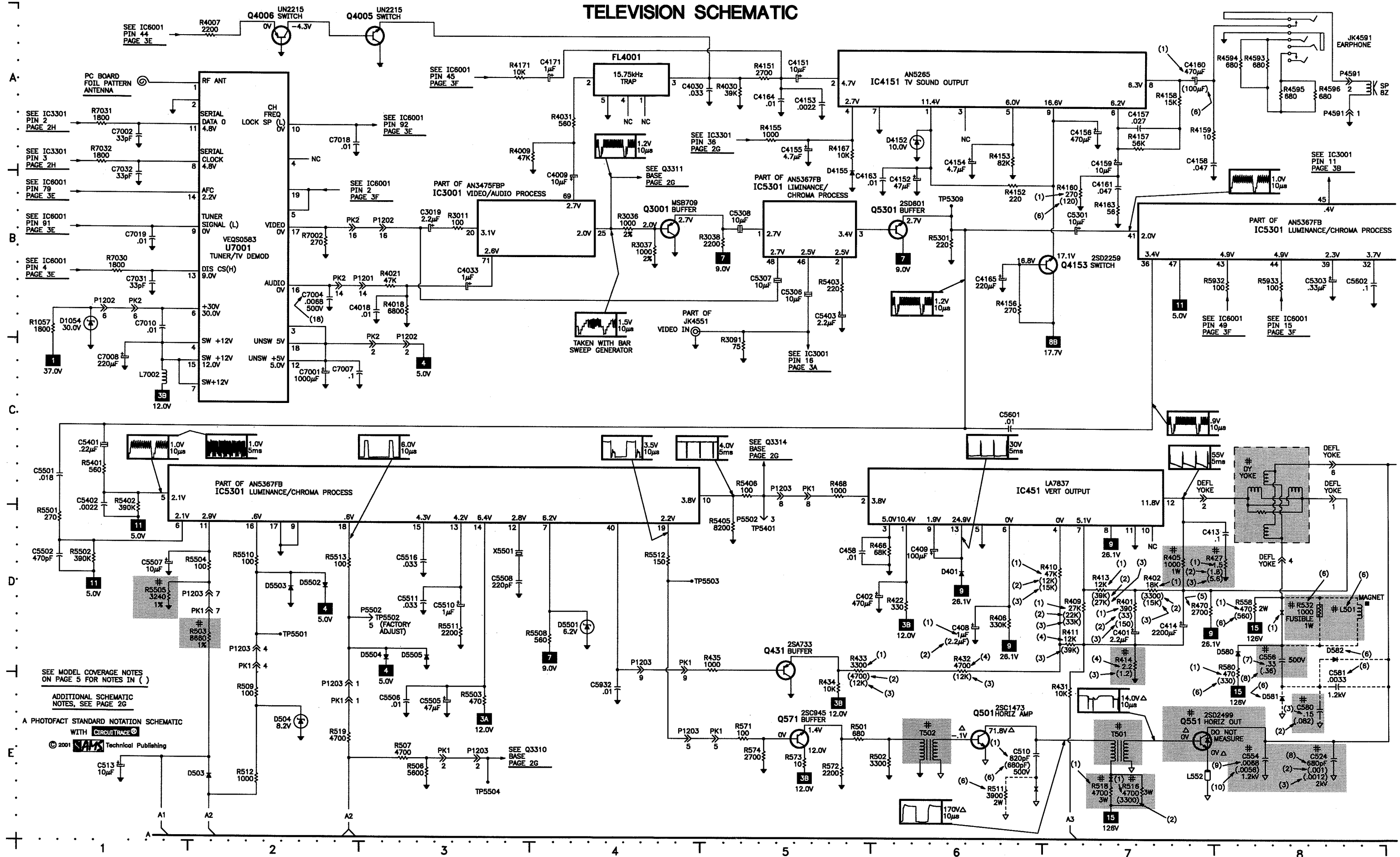
HORIZONTAL CENTER

This adjustment must be performed in Stop mode. Tune in a crosshatch pattern. Set color and brightness to midrange. Set the contrast to maximum. Adjust H Center for best horizontal centering with slight overscan on both sides.

VERTICAL SIZE

This adjustment must be performed in Stop mode. Tune in a crosshatch pattern. Set color and brightness to midrange. Set the contrast to maximum. Adjust Vertical Size for slight overscan on top and bottom.

## TELEVISION SCHEMATIC



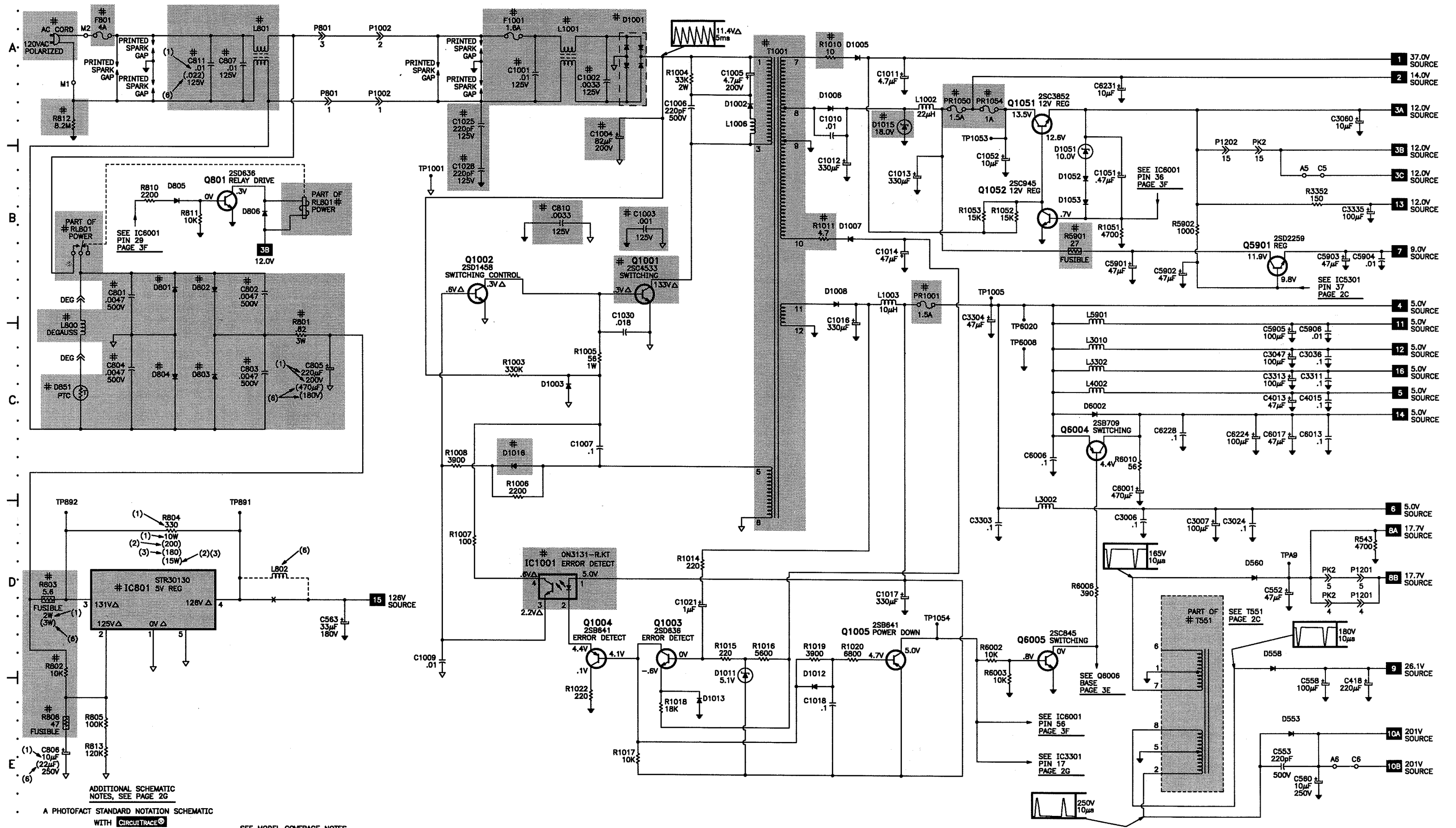
## D





**F**

## POWER SUPPLY SCHEMATIC



## H



TVCR-331 Page 2



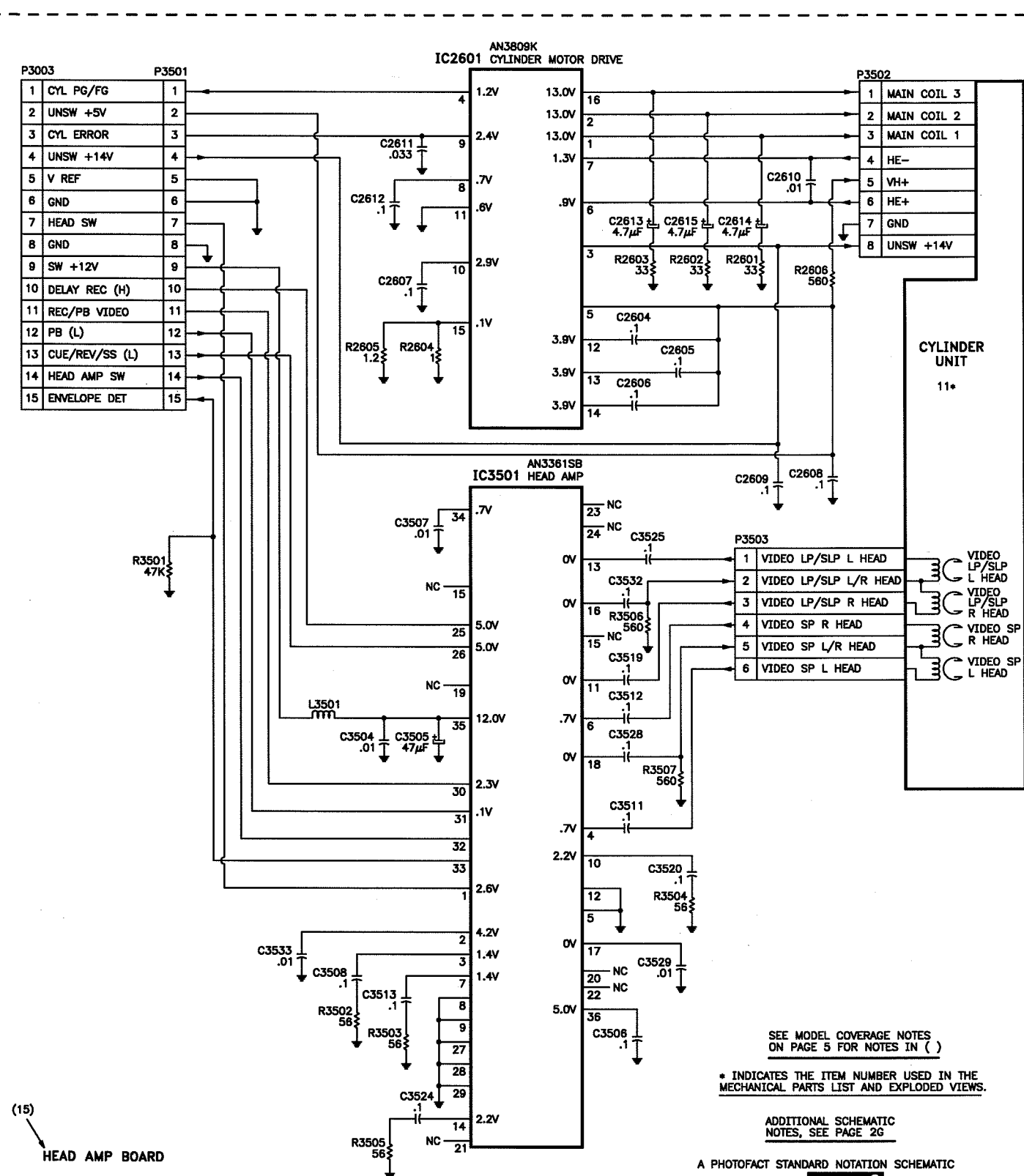
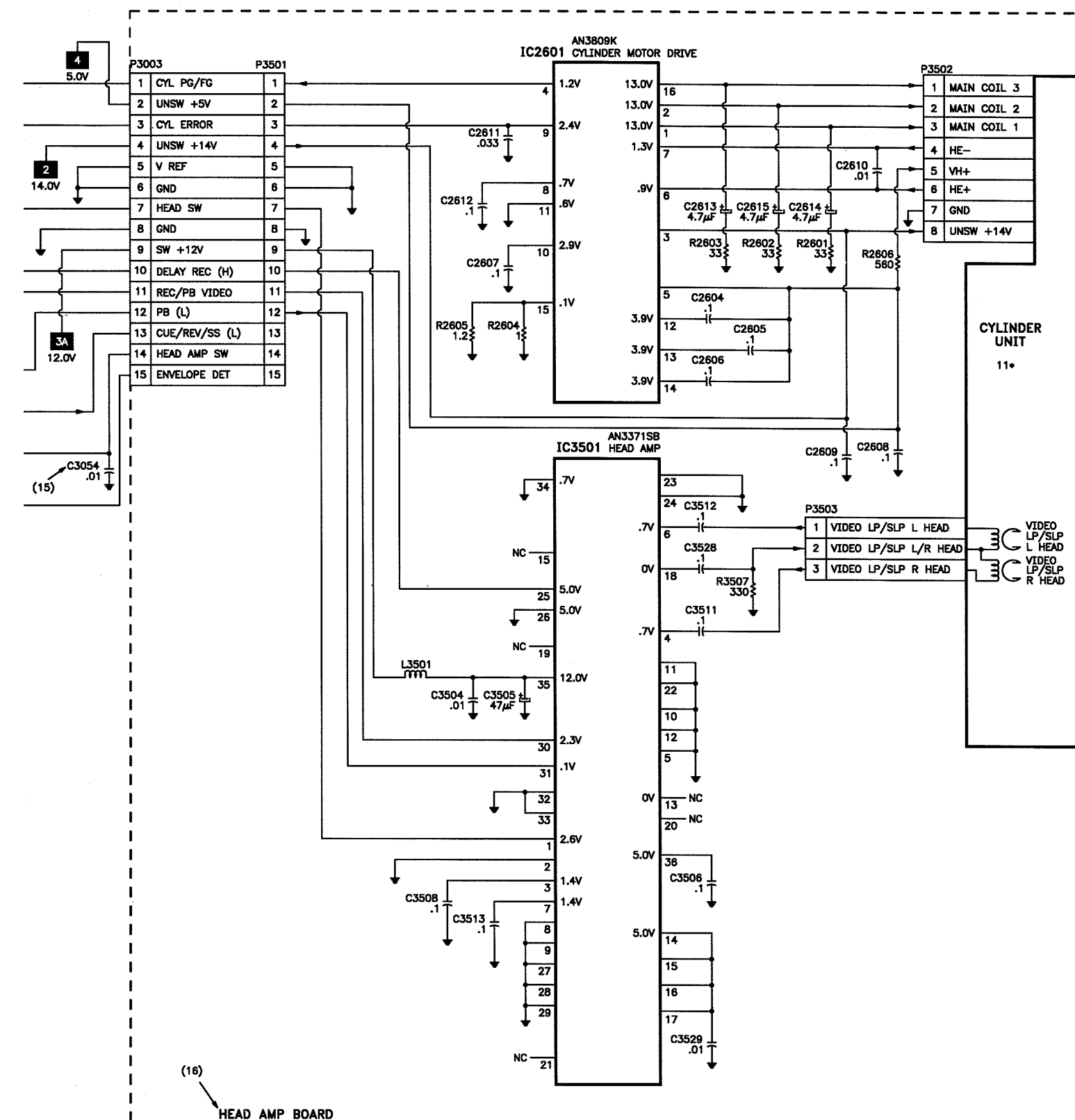
# B



# C

## HEAD AMP BOARD, VCR SYSTEM CONTROL SCHEMATIC continued

D



SEE MODEL COVERAGE NOTES  
ON PAGE 5 FOR NOTES IN ( )

\* INDICATES THE ITEM NUMBER USED IN THE  
MECHANICAL PARTS LIST AND EXPLODED VIEWS.

ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 26

A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH CIRCUITACE®

© 2001 SAMS Technical Publishing

## SERVO SCHEMATIC

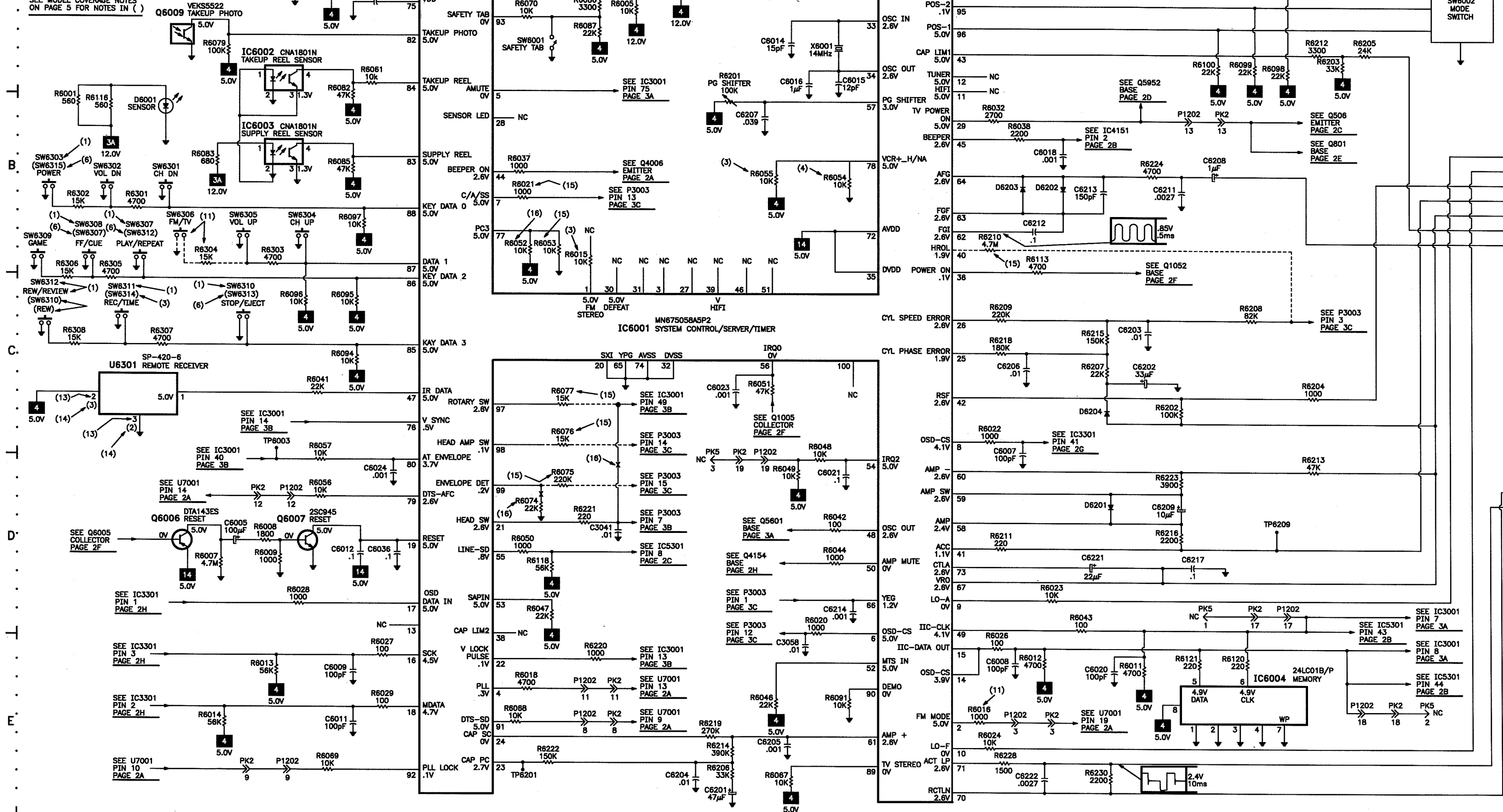
F

ADDITIONAL SCHEMATIC  
NOTES, SEE PAGE 2G

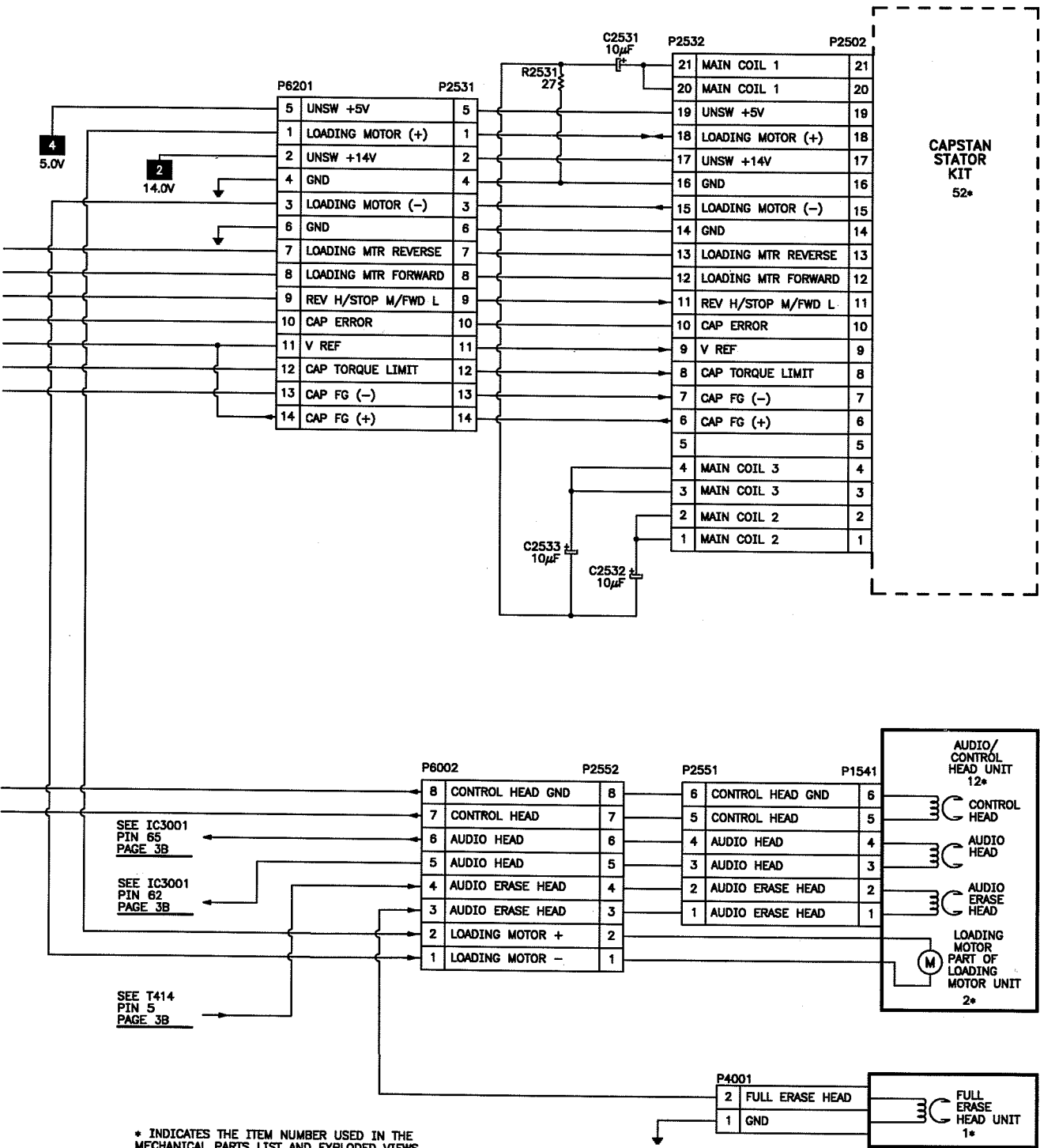
• A PHOTOFACT STANDARD NOTATION SCHEMATIC  
WITH **CIRCUITTRACE®**

• © 2001 **SAMS** Technical Publishing

A. SEE MODEL COVERAGE NOTES  
ON PAGE 5 FOR NOTES IN ( )



G  
SERVO SCHEMATIC continued



\* INDICATES THE ITEM NUMBER USED IN THE MECHANICAL PARTS LIST AND EXPLODED VIEWS.

ADDITIONAL SCHEMATIC NOTES, SEE PAGE 2G

A PHOTOFACIT STANDARD NOTATION SCHEMATIC

WITH CIRCUITACE<sup>®</sup>  
© 2001 SAMS Technical Publishing

TEST EQUIPMENT

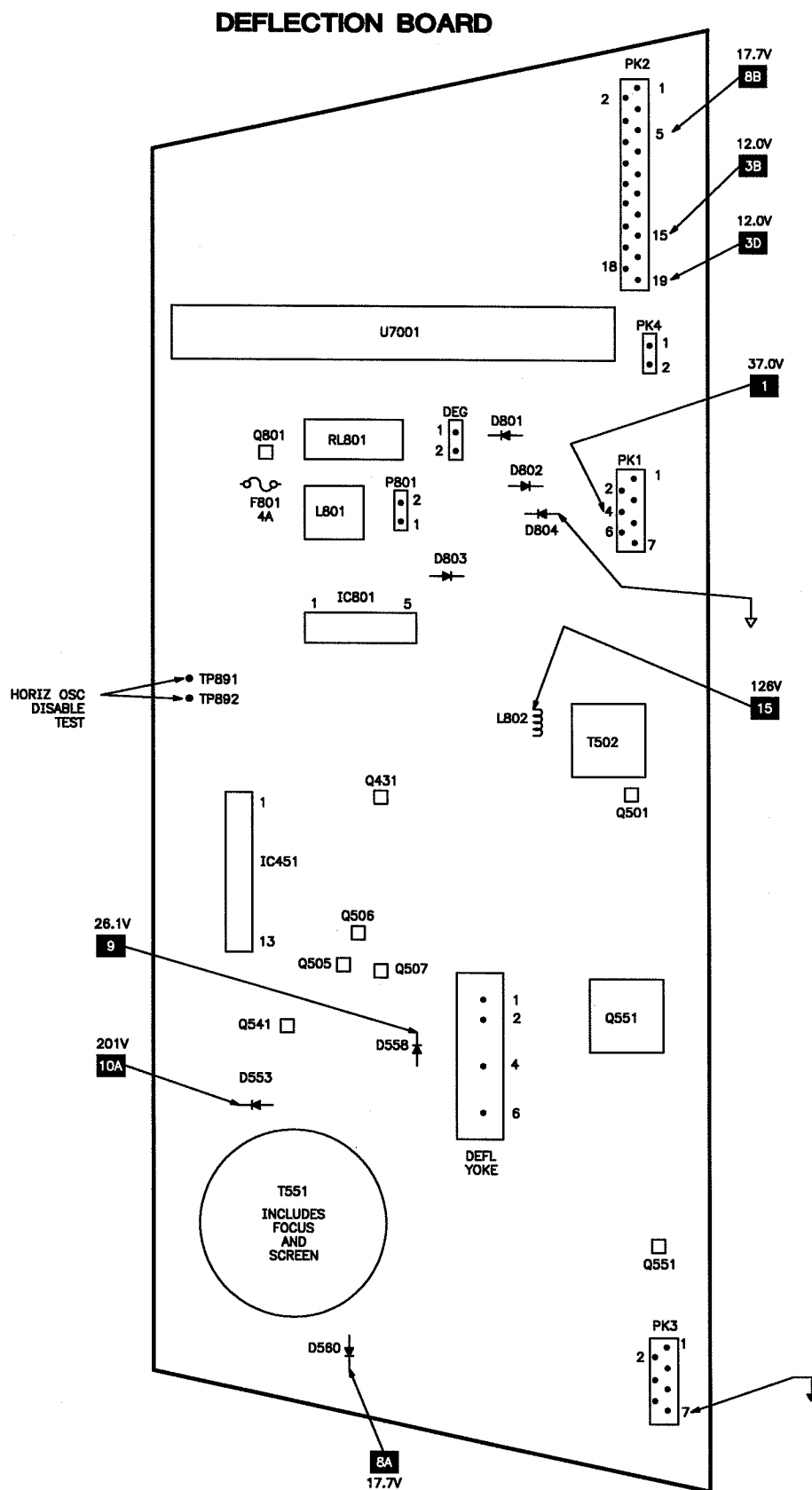
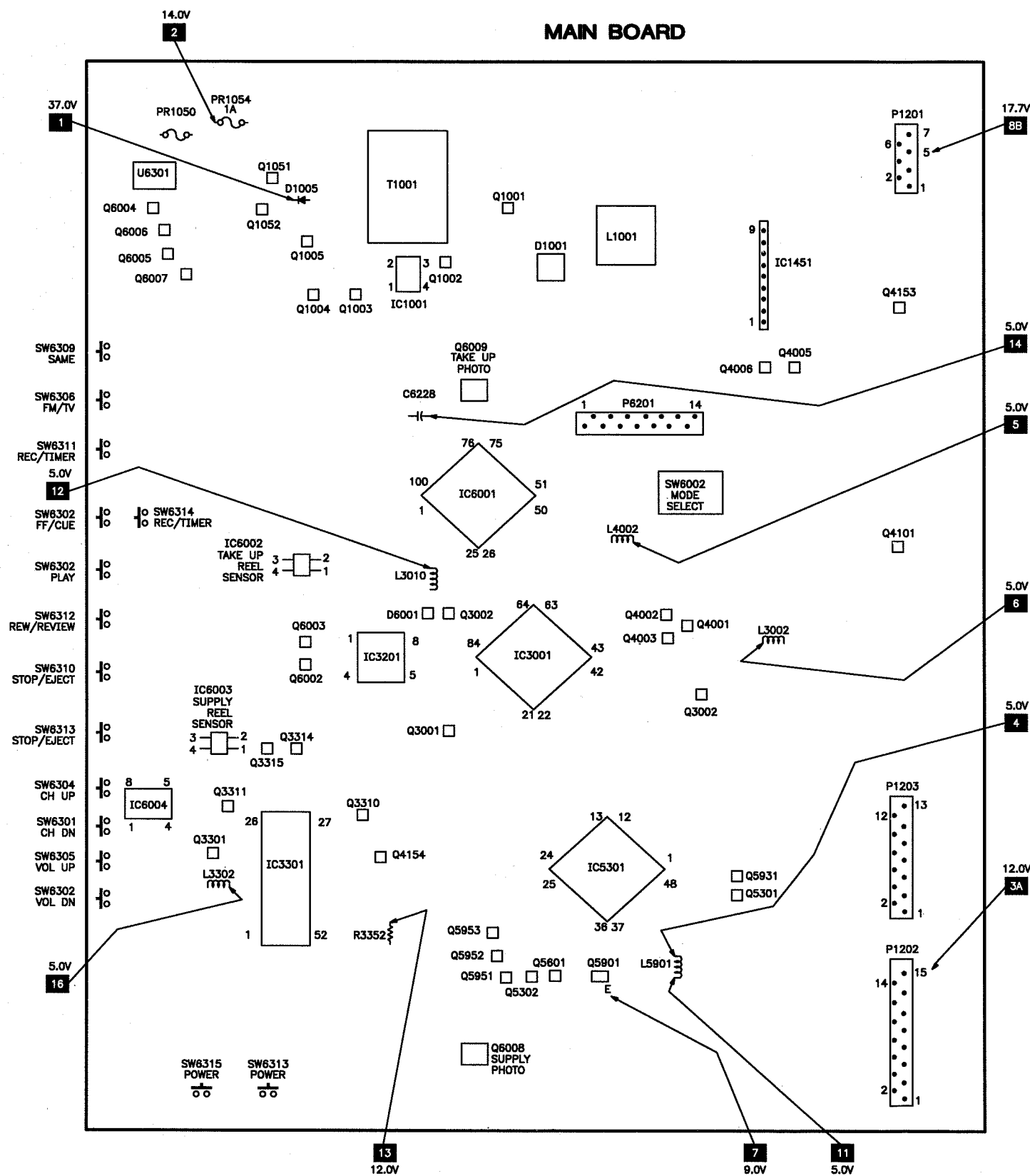
Test equipment listed by participating manufacturer illustrates typical or equivalent equipment used by Sams engineers to obtain measurements. This equipment is compatible with most types used by field service technicians.

Equipment	Sencore No.
Oscilloscope	SC3100
Generators	
RGB	CM2125
Multiburst Signal	VG91
Color Bar	VG91
TV Stereo	VG91
Digital VOM	SC3100
Frequency Meter	SC3100
Hi-Voltage Probe	HP200
Accessory Probes	TP212
Isolation Transformer	PR570
Capacitance Analyzer	LC102
CRT Analyzer	CR7000
AC Leakage Tester	PR570
Inductance Analyzer	LC102
Flyback Yoke Tester	TVA92
Field Strength Meter	SL753
Transistor Tester	TF46
Horizontal Analyzer	HA-2500
Video Analyzer	VG91, TVA92

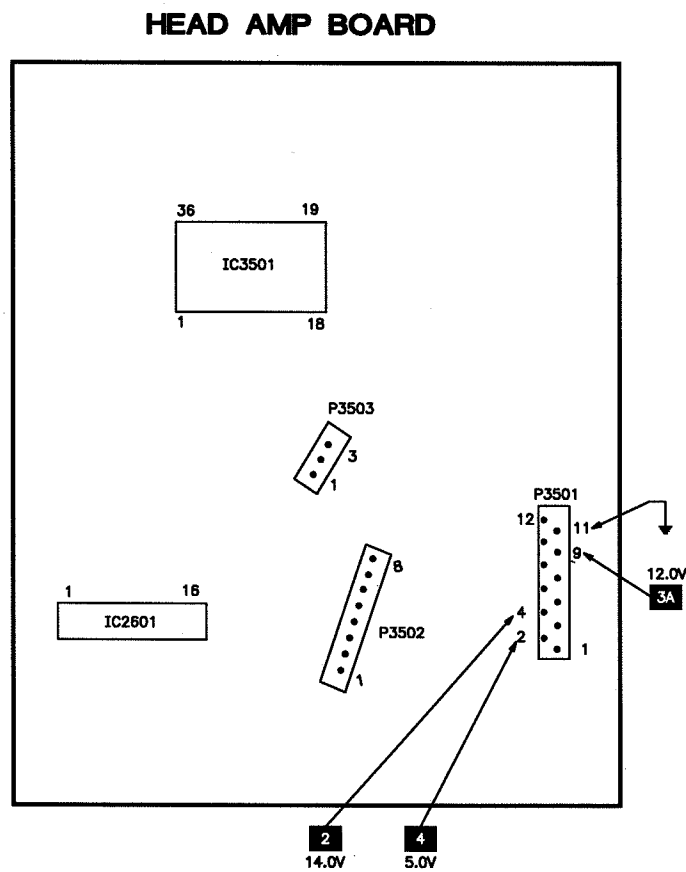
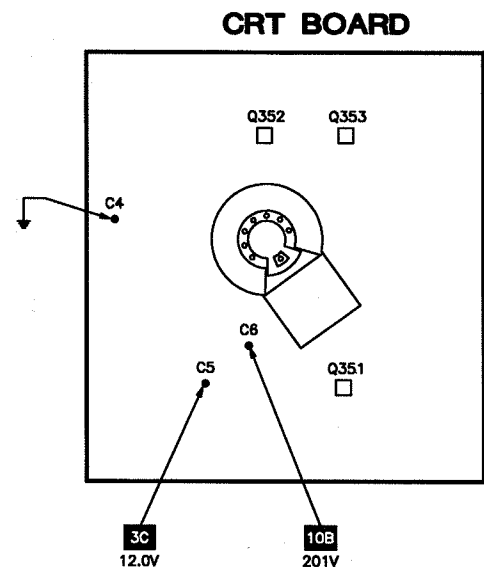
PANASONIC

MODEL PV-M1327

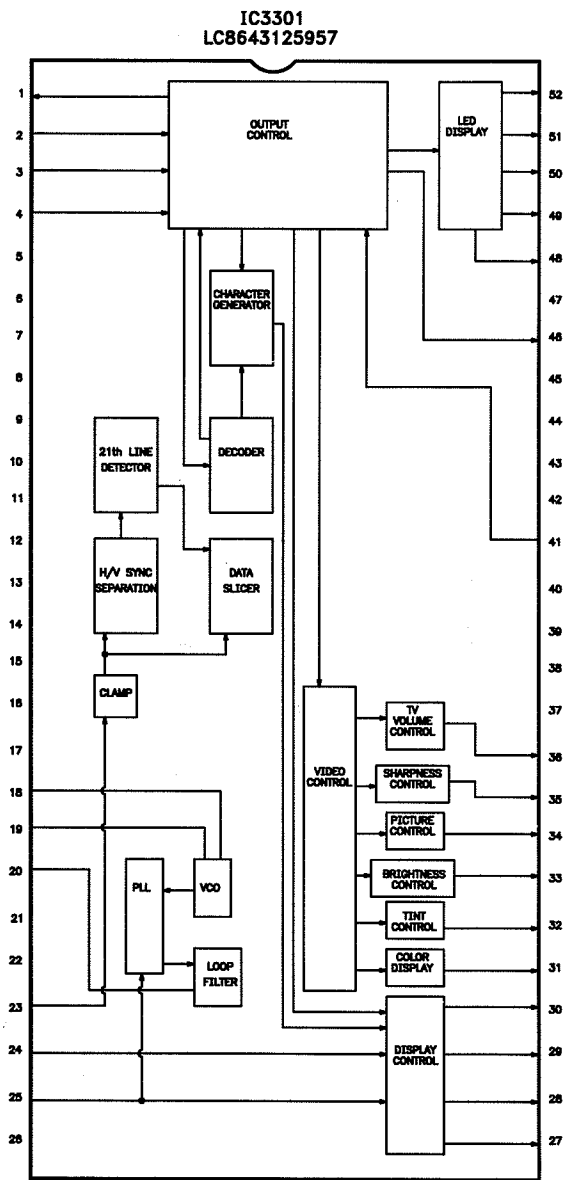
PLACEMENT CHART



PLACEMENT CHART continued



IC FUNCTIONS

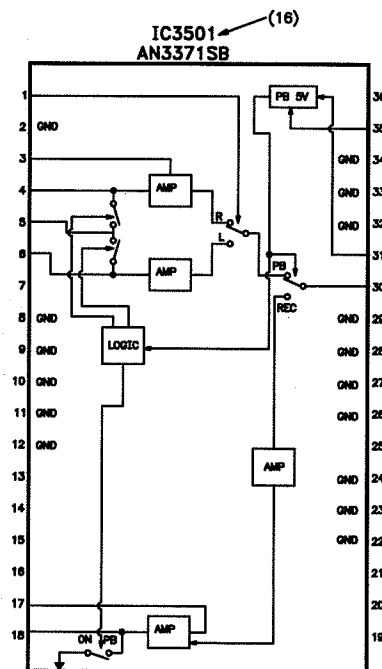
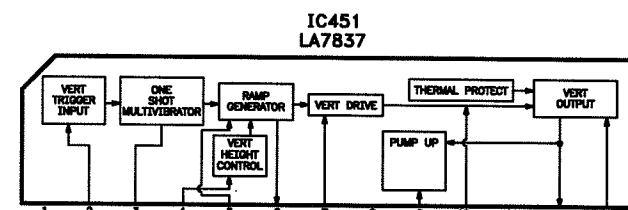
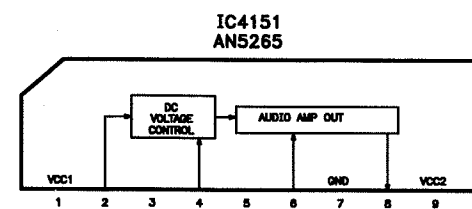
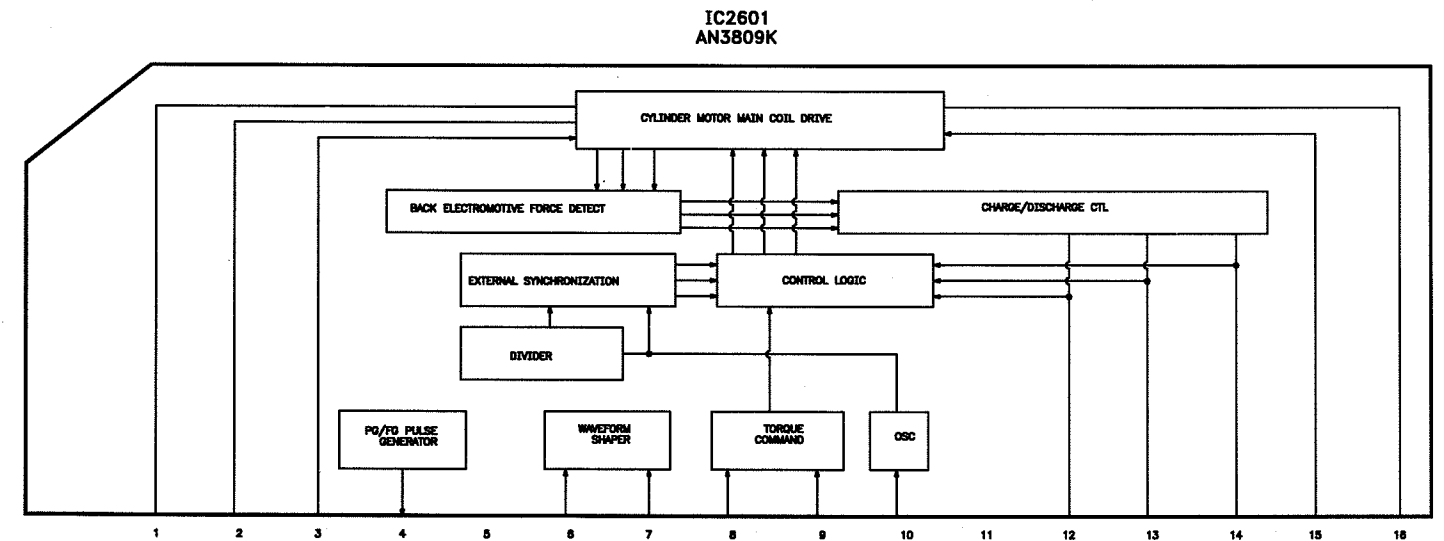
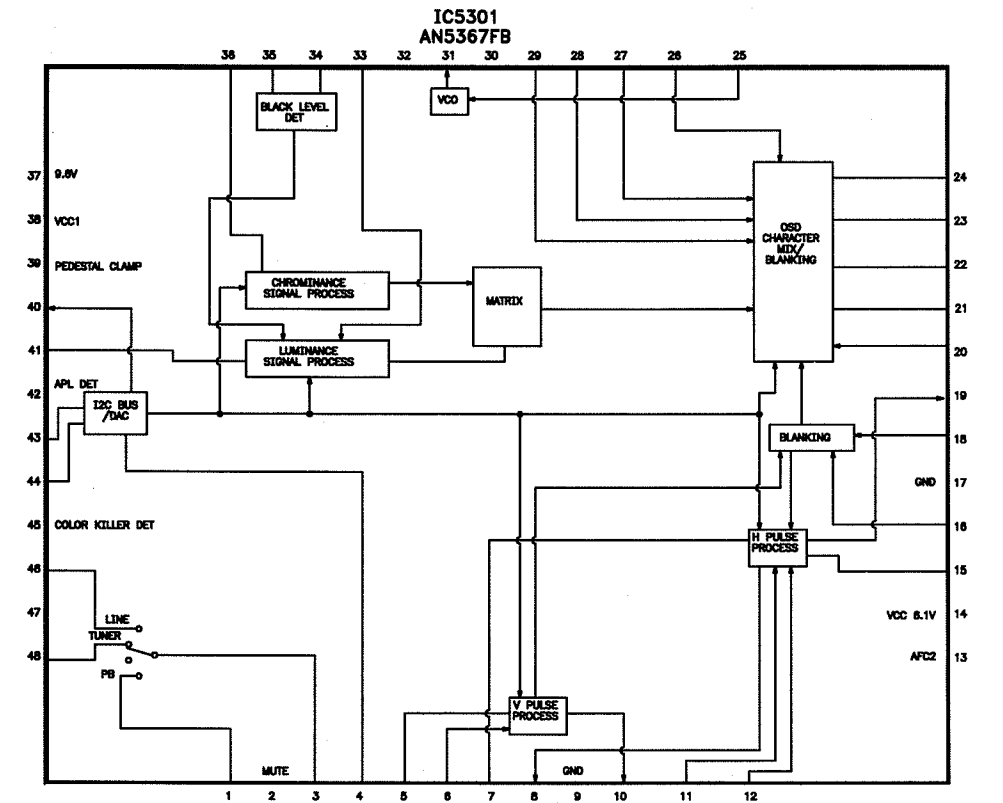
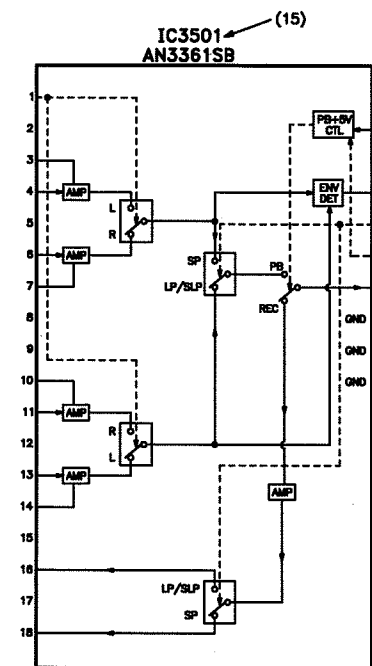
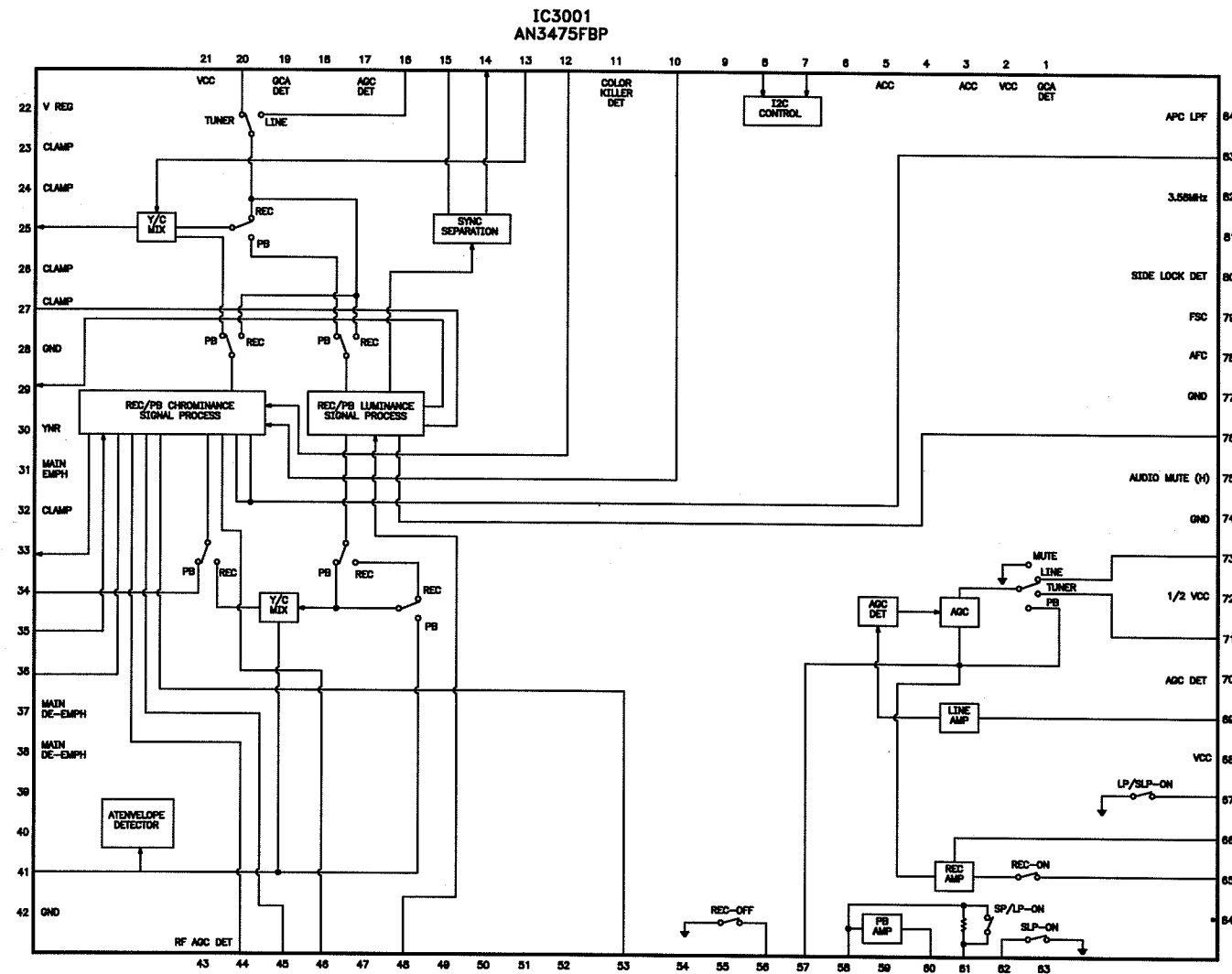




SCHEMATIC COMPONENT LOCATION GUIDE

AC CORD	A17	C2604	B43	C3231	D35	C4032	E38	C6014	A5	D1006	A21	JK4551	C4	Q5901	B23	R528	D12	R3011	B3	R3507	C43	R5511	D3	R6066	E5	R6311	E31
C351	B15	C2604	B47	C3232	D35	C4033	B3	C6015	B5	D1007	B21	L501	D8	Q5901	C12	R532	D8	R3012	B38	R3507	D47	R5512	D4	R6067	E5	R6312	E30
C352	C15	C2605	B43	C3233	D35	C4102	B39	C6016	B5	D1008	C21	L552	E7	Q5931	D26	R541	E12	R3013	D38	R4001	D38	R5513	D2	R6068	E3	R6313	E31
C353	A15	C2605	B47	C3234	D35	C4103	B39	C6017	C23	D1011	E20	L800	C17	Q5951	D14	R542	E13	R3016	C34	R4002	D38	R5601	C33	R6069	E2	R7002	B2
C354	D16	C2606	B43	C3235	D36	C4104	B39	C6018	B6	D1012	E21	L801	A18	Q5952	D14	R543	D24	R3017	B36	R4003	E38	R5604	C13	R6070	A3	R7030	B1
C401	D7	C2606	B47	C3236	D35	C4105	A40	C6020	E6	D1013	E20	L802	D18	Q5953	D15	R544	E12	R3024	E35	R4004	A36	R5610	C33	R6074	D3	R7031	A1
C402	D5	C2607	B42	C3237	D35	C4151	A5	C6021	D5	D1015	A21	L1001	A19	Q6002	A4	R552	E11	R3025	D37	R4005	C36	R5611	C33	R6075	D3	R7031	B1
C408	D6	C2607	B46	C3301	B28	C4152	B6	C6023	C4	D1016	C19	L1002	A21	Q6003	A4	R553	E11	R3026	B36	R4006	E38	R5612	C33	R6076	D3	R7032	B1
C409	D6	C2608	C44	C3302	C28	C4153	A5	C6024	D3	D1051	B22	L1003	C21	Q6004	C22	R554	D11	R3028	E37	R4007	A2	R5613	C34	R6077	C3	RL801	B17
C413	D7	C2608	C48	C3303	D22	C4154	B6	C6036	D2	D1052	B22	L1006	A20	Q6005	D22	R555	D11	R3029	B35	R4008	A38	R5901	B22	R6078	A2	RL801	B18
C414	D7	C2609	C44	C3304	C22	C4155	A5	C6036	D3	D1053	B22	L3001	B36	Q6006	D1	R556	D11	R3032	E34	R4009	B3	R5902	B23	R6079	A2	SP	A8
C418	E24	C2609	C48	C3305	D27	C4156	A7	C6201	E4	D1054	C1	L3002	D22	Q6007	D2	R558	D8	R3034	D38	R4010	A34	R5931	D27	R6082	B2	SW69	C1
C458	D5	C2610	A44	C3306	D28	C4157	A7	C6202	C7	D3301	D27	L3004	A36	Q6008	A2	R559	D12	R3035	B37	R4011	B34	R5932	B8	R6083	B2	SW6001	A3
C510	E6	C2610	A48	C3307	D27	C4158	B7	C6203	C7	D3302	D29	L3005	E35	Q6009	A1	R561	A16	R3036	B4	R4012	B38	R5933	B8	R6085	B2	SW6002	A8
C513	E1	C2611	A42	C3308	B28	C4159	B7	C6204	E4	D4152	A6	L3010	C22	R304	D11	R571	E5	R3037	B4	R4014	B38	R5951	D14	R6086	A4	SW6301	B1
C516	E12	C2611	A46	C3309	B27	C4160	A7	C6205	E5	D4155	B5	L3231	E36	R351	B15	R572	E5	R3038	B5	R4015	B38	R5952	D14	R6087	A4	SW6302	B1
C520	D12	C2613	B43	C3310	D28	C4161	B7	C6206	C6	D5304	C11	L3301	D28	R352	C15	R573	E5	R3042	C38	R4018	B3	R5953	D15	R6091	E5	SW6303	B1
C521	E13	C2613	B47	C3311	C24	C4163	B6	C6207	B5	D5501	D4	L3302	C22	R353	A15	R574	E5	R3043	D33	R4021	B3	R5954	D13	R6092	E5	SW6304	B2
C523	E12	C2614	B44	C3312	B27	C4164	A5	C6208	B7	D5502	D2	L3501	C42	R354	B15	R580	D8	R3044	D33	R4030	A5	R5955	D14	R6094	C2	SW6305	B2
C524	E8	C2614	B48	C3313	C23	C4165	B6	C6209	D7	D5503	D2	L3501	C46	R354	C15	R801	C18	R3045	E33	R4031	A4	R5956	D15	R6095	C2	SW6306	B1
C541	E12	C2615	B43	C3314	D27	C4171	A4	C6211	B7	D5504	D3	L4002	C22	R355	C15	R802	D17	R3046	E34	R4033	E38	R5957	D15	R6096	C2	SW6307	C1
C552	D23	C2615	B47	C3317	A29	C5301	B7	C6212	B6	D5505	D3	L4004	A36	R356	A15	R803	D17	R3077	A33	R4101	B39	R6001	B1	R6097	B2	SW6308	C1
C553	E23	C3001	D38	C3326	A32	C5302	C9	C6213	B6	D5601	B34	L4005	E38	R358	C14	R804	D17	R3081	C39	R4102	A39	R6002	D22	R6098	A7	SW6310	C2
C554	E8	C3006	D23	C3335	B24	C5303	B8	C6214	D5	D5951	D15	L4101	A40	R360	B15	R805	E17	R3082	C39	R4103	B39	R6003	E22	R6099	A7	SW6311	C1
C556	D8	C3007	D23	C3363	B28	C5305	C11	C6217	D7	D5952	D14	L5901	C22	R361	C15	R806	E17	R3083	C38	R4151	A5	R6005	A4	R6100	A7	SW6312	C1
C558	E24	C3008	C34	C3504	C42	C5306	B5	C6218	A6	D5953	A13	L6001	C23	R362	A15	R810	B17	R3084	C38	R4152	B6	R6006	D22	R6111	A7	T501	E7
C560	E24	C3009	D37	C3504	C46	C5307	B5	C6221	D6	D5954	C14	L7002	C1	R363	B15	R811	B17	R3085	C38	R4153	B6	R6007	D2	R6112	A7	T502	E6
C561	E11	C3010	A36	C3505	C42	C5308	B5	C6222	E6	D5955	B14	PR1001	C21	R365	B15	R812	A17	R3091	C5	R4155	A5	R6008	D2	R6113	C6	T551	C10
C563	D18	C3011	B36	C3505	C46	C5401	C1	C6223	A2	D6001	B1	PR1050	A22	R367	A14	R813	E17	R3304	D29	R4156	B6	R6009	D2	R6116	B1	T551	D23
C580	E8	C3012	B36	C3506	D43	C5402	D1	C6224	C23	D6002	C22	PR1054	A22	R367	B14	R1003	C19	R3305	D29	R4157	A7	R6010	C23	R6118	D3	T1001	A21
C582	E8	C3012	D38	C3506	E47	C5403	B5	C6228	C23	D6010	D8	Q351	B15	R401	D7	R1004	A20	R3307	D29	R4158	A7	R6011	E7	R6120	E7	T4101	A39
C801	B17	C3015	A35	C3507	C46	C5501	C1	C6228	C7	D6011	D8	Q352	C15	R402	D7	R1005	C20	R3310	C28	R4159	A7	R6012	B23	R6121	E7	TP51	E11
C802	B18	C3016	E35	C3508	D42	C5502	D1	C6231	A23	D6201	D6	Q353	A15	R405	D7	R1006	D19	R3312	D29	R4160	B7	R6012	E6	R6201	B4	TP52	E11
C803	C18	C3019	B3	C3508	D46	C5505	E3	C7001	C2	D6202	B6	Q431	E5	R406	D6	R1007	D19	R3321	A28	R4163	B7	R6013	E2	R6202	C7	TPD1	D11
C804	C17	C3020	D37	C3511	C43	C5506	E3	C7002	A1	D6203	B6	Q501	E6	R409	D7	R1008	C19	R3325	B28	R4167	A5	R6014	E2	R6203	A8	TPD2	D11
C805	C18	C3021	A34	C3511	D47	C5507	D1	C7004	B2	D6204	C6	Q505	E12	R410	D7	R1010	A21	R3326	C28	R4171	A3	R6016	E6	R6204	C7	U6301	C1
C806	E17	C3022	C34	C3512	C43	C5508	D3	C7007	C2	D6205	C7	Q506	D13	R411	D7	R1011	B21	R3329	D28	R4595	A8	R6018	E3	R6205	A8	U7001	A2
C807	A18	C3023	E35	C3512	C47	C5510	D3	C7008	C1	D6302	E30	Q507	D13	R413	D7	R1014	D20	R3330	B27	R4596	A8	R6020	E5	R6206	E4	V300	B16
C808	D18	C3024	D23	C3513	D42	C5511	D3	C7010	C1	D6303	E30	Q541	E13	R414	D7	R1015	D20	R3331	B28	R5301	B6	R6021	B3	R6207	C6	X	D9
C810	B19	C3025	E37	C3513	D46	C5516	D3	C7018	A2	D6304	E30	Q551	E7	R422	D6	R1016	D21	R3336	D29	R5302	C11	R6022	D6	R6208	C7	X3301	B28
C811	A18	C3026	B36	C3519	C47	C5601	C6	C7031	B1	D6305	E30	Q801	B18	R427	D7	R1017	E20	R3338	A29	R5304	C12	R6023	D6	R6209	C6	X5501	D3
C1001	A19	C3027	A35	C3520	D47	C5602	B8	C7032	B1	DY	C8	Q1001	B20	R431	E7	R1018	E20	R3341	C29	R5305	C9	R6024	E6	R6210	B6	X5601	B10
C1002	A20	C3030	D37	C3524	E46	C5603	B10	D401	D6	F801	A17	Q1002	B19	R432	E6	R1019	D21	R3346	C29	R5306	B9	R6026	E6	R6211	D6	X6001	A5
C1003	B20	C3031	C37	C3525	C47	C5604	C13	D503	E2	F1001	A19	Q1003	D20	R433	E5	R1020	D21	R3347	D29	R5308	C12	R6027	E2	R6212	A7		
C1004	B20	C3032	E38	C3528	C43	C5605	C12	D504	E2	FL4001	A4	Q1004	D20	R434	E5	R1022	E20	R3352	B24	R5309	C12	R6028	D2	R6213	D7		
C1005	A20	C3034	B35	C3528	D47	C5606	B9	D508	E12	IC451	C6	Q1005	D21	R435	E4	R1051	B23	R3354	A29	R5311	A13	R6029	E2	R6214	E4		
C1006	A20	C3035	E37	C3529	D47	C5607	C33	D522	E12	IC801	D17	Q1051	B22	R466	D6	R1052	B22	R3361	B27	R5312	C13	R6032	B6	R6215	C6		
C1007	C20	C3036	C24	C3529	E43	C5901	B22	D541	E12	IC1001	D19	Q1052	B22	R468	D5	R1053	B22	R3362	B27	R5313	B13	R6035	A3	R6216	D7		
C1009	D19	C3038	B34	C3532	C47	C5902	B23	D553	E23	IC2601	A43	Q3001	B4	R470	D7	R1057	C1	R3363	B27	R5314	B9	R6037	B3	R6218	C6		
C1010	B21	C3041	D4	C3533	D46	C5903	B24	D554	D12	IC2601	A46	Q3002	C39	R501	E5	R2601	B44	R3365	B26	R5315	B9	R6038	B6	R6219	E4		
C1011	A21	C3043	E34	C4001	E35	C5904	B24	D558	D23	IC3001	B3	Q3310	B27	R502	E6	R2601	B48	R3366	B27	R5316	B9	R6041	C2	R6220	E4		
C1012	B21	C3044	B36	C4002	A37	C5905	C23	D560	D23	IC3001	C36	Q3311	B26	R503	D2	R2602	B43	R3369	D27	R5317	B11	R6042	D5	R6221	D3		
C1013	B21	C3045	B37	C4003	A37	C5906	C24	D580	D8	IC3201	D36	Q3314	A26	R506	E3	R2602	B47	R3372	B26	R5318	B11	R6043	E6	R6222	E3		
C1014	B21	C3046	E34	C4004	D38	C5931	D26	D581	D8	IC3301	C28	Q3314	B26	R507	E3	R2603	B43	R3375	A25	R5401	C1	R6044	D5	R6223	D7		
C1016	C21	C3047	C23	C4005	E38	C5932	E4	D581	E8	IC3501	C43	Q3315	A26	R509	E2	R2603	B47	R3377	A26	R5402	D1	R6046	E5	R6224	B7		
C1017	D21	C3050	A34	C4006	A37	C5951	D15	D801	B17	IC3501	C47	Q4001	B38	R511	E6	R2604	B42	R3378	B26	R5403	B5	R6047	D3	R6228	E6		
C1018	E21	C3053	C34	C4007	C35	C6001	C23</																				

# IC FUNCTIONS continued



SEE MODEL COVERAGE NOTES  
ON PAGE 5 FOR NOTES IN ( )

MODEL COVERAGE NOTES

- (1) Used in models PV-M1327, PV-M1347, PV-M1357W, VV1307, and VV1317W.
- (2) Used in models VV2007 and VV2017W.
- (3) Used in model PV-M2037.
- (4) Used in models PV-M1327, PV-M1347, PV-M1357W, VV1307, VV1317W, VV2007, and VV2017W.
- (5) Used in models PV-M1327, PV-M1347, PV-M1357W, PV-M1347, PV-M2037, VV1307, and VV1317W.
- (6) Used in models PV-M2037, VV7007, and VV2017W.
- (7) Used in models PV-M1327, PV-M1347, PV-M1357W, PV-M2037, VV2007, and VV2017W.
- (8) Used in models VV1307 and VV1317W.
- (9) Used in models PV-M1327, PV-M1347, and PV-M1357W.
- (10) Used in models PV-M2037, VV1307, VV1317W, VV2007, and VV2017W.
- (11) Used in models PV-M1347, PV-M1357W, and PV-M2037
- (12) Used in models PV-M1327, PV-M1347, PV-M2037, VV1307, and VV2007.
- (13) Used in models PV-M1327, PV-M1347, PV-M1357W, and PV-M2037.
- (14) Used in models VV1307, VV1317W, VV2007, and VV2017W.
- (15) Used in models PV-M1347 and PV-M1357W.
- (16) Used in models PV-M1327, PV-M2037, VV1307, VV1317W, VV2007, and VV2017W.
- (17) Used in models PV-M1357W, VV1317W, and VV2017W.
- (18) Used in models PV-M1327, VV1307, VV1317W, VV2007, and VV2017W.
- (19) Used in models PV-M1347 and PV-M2037.
- (20) Used in model PV-M1327.
- (21) Used in model VV1307.
- (22) Used in model VV1317W.
- (23) Used in model PV-M1347.
- (24) Used in model PV-M1357W.
- (25) Used in model VV2007.
- (26) Used in model VV2017W.
- (27) Used in models VV1307 and VV2007.
- (28) Used in models VV1317W and VV2017W.

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.

- Philips ECG Company (ECG)
- Sencore, Inc.

CABINET PARTS LIST

CABINET PARTS

Item	Mfr. Part No.
<b>Model PV-M1327</b>	
Button - Channel/Volume (Up/Down)	LBX61025A
Button - Power	LBX61023A
Button - Unit Operation	LXQBX1137P
Button - VCR	LBX61026A
Cabinet Front Assembly	LXQKY1137P
Cabinet Rear	LKV60201A
Cassette Door Lid	LKK688009A
Cassette Door Lid Spring	TES7612
Rear Cover Piece	TKK778575
Swivel	LKG60100A
Swivel Bracket	LKG60200A
<b>Transmitter</b>	
Battery Cover	VKFS2221
<b>Model PV-M1347W</b>	
Button - Channel/Volume (Up/Down)	LBX61025A
Button - Power	LBX61023A
Button - Unit Operation	LXQBX1137GP
Button - VCR	LBX61026A
Cabinet Front Assembly	LXQKY1137GP
Cabinet Rear	LKV60201A
Cassette Door Lid	LKK688007A
Cassette Door Lid Spring	TES7612
Rear Cover Piece	TKK778575
Swivel	LKG60100A
Swivel Bracket	LKG60200A
<b>Transmitter</b>	
Battery Cover	VKFS2221
<b>Model PV-M1357W</b>	
Button - Channel/Volume (Up/Down)	LBX61033A
Button - Power	LBX61031A
Button - Unit Operation	LXQBX2137GP
Button - VCR	LBX6103A
Cabinet Front Assembly	LXQKY2137GP
Cabinet Rear	LKV60202A
Cassette Door Lid	LKK688008A
Cassette Door Lid Spring	TES7612
Rear Cover Piece	TKK778575
Swivel	LKG60100A
Swivel Bracket	LKG60201A
<b>Transmitter</b>	
Battery Cover	VKFS2223
<b>Model PV-M2037</b>	
Button - Channel/Volume (Up/Down)	LBX61003A
Button - Power	LBX61001A
Button - Unit Operation	LXQBX1207P
Button - VCR	LBX61004A
Cabinet Front Assembly	LXQKY2207P
Cabinet Rear	LKQKV1207GP
Cassette Door Lid	LKK688003A
Cassette Door Lid Spring	TES7612
Rear Cover Unit	LXQKV1207GP
<b>Transmitter</b>	
Battery Cover	VKFS2221

CABINET PARTS continued

Item	Mfr. Part No.
<b>Model VV1307</b>	
Button - Channel/Volume (Up/Down)	LBX61010A
Button - Power	LBX61009A
Button - Unit Operation	LXQBX1137Q
Button - VCR	LBX61011A
Cabinet Front Assembly	LXQKY1137Q
Cabinet Rear	LKV60201A
Cassette Door Lid	LKK688010A
Cassette Door Lid Spring	TES7612
Rear Cover Piece	TKK778575
<b>Transmitter</b>	
Battery Cover	VKFS2221
<b>Model VV1317W</b>	
Button - Channel/Volume (Up/Down)	LBX61028A
Button - Power	LBX61027A
Button - Unit Operation	LXQBX1137QW
Button - VCR	LBX61029A
Cabinet Front Assembly	LXQKY1137QW
Cabinet Rear	LKV60202A
Cassette Door Lid	LKK688011A
Cassette Door Lid Spring	TES7612
Rear Cover Piece	TKK778575
<b>Transmitter</b>	
Battery Cover	VKFS2223
<b>Model VV2007</b>	
Button - Channel/Volume (Up/Down)	LBX61006A
Button - Power	LBX61005A
Button - Unit Operation	LXQBX1207Q
Button - VCR	LBX61007A
Cabinet Front Assembly	LXQKY2207Q
Cabinet Rear	LKV60101A
Cassette Door Lid	LKK688004A
Cassette Door Lid Spring	TES7612
<b>Transmitter</b>	
Battery Cover	VKFS2221
<b>Model VV2017W</b>	
Button - Channel/Volume (Up/Down)	LBX61018A
Button - Power	LBX61017A
Button - Unit Operation	LXQBX1207QW
Button - VCR	LBX61019A
Cabinet Front Assembly	LXQKY2207QW
Cabinet Rear	LKV60102A
Cassette Door Lid	LKK688006A
Cassette Door Lid Spring	TES7612
<b>Transmitter</b>	
Battery Cover	VKFS2223

ELECTRICAL PARTS LIST

SEMICONDUCTORS			
Item No.	Type No.	Mfr. Part No.	ECG Part No.
D401	-	ERB12-01V	ECG116
D503	-	ERB43-04V	ECG552
D504	-	MA4082-M	ECG5016A
D507	-	MA4200-H	-
D508	-	MA165	ECG519
D541	-	MA165	ECG519
D553	-	ERB43-04V	ECG552
D554	-	MA167	ECG519
D558, 60	-	ERB43-04V	ECG552
D580 (1)	-	MA167	ECG519
D580 (6)	-	MA185	ECG552
D581 (6)	-	ERB44-04V	ECG552
D582 (6)	-	RH2FV	ECG558
# D801 Thru	-		
# D804	-	EM02BMV	ECG125
	-	ERC13-08V	ECG125
D805	-	MA165	ECG519
D806	-	MA167	ECG519
# D1001	-	S1WBA40	ECG5332
	-	S1WBA60	ECG5332
	-	S1WBA60B	-
D1002	-	ERA18-04	ECG552
D1003, 05	-	ERA18-04	ECG552
D1006	-	RU2YXLFC1	-
D1007	-	ERA18-04	ECG552
D1008	-	EK13	ECG586
D1011	-	MA4051NH	-
D1012	-	MA858	ECG519
D1013	-	MA165	ECG519
# D1015	-	RD18FB	ECG5077A
# D1016	-	MA165	ECG519
D1051	-	MA4100N	ECG5019A
D1052, 53	-	MA165	ECG519
D1054	-	HZ30-3TD	-
D3301	-	MA372J	-
D3302	-	MA165	ECG519
D4152	-	MA4120-M	-
D4155	-	MA4056-M	ECG5011A
D5304	-	MA165	ECG519
D5501	-	MA4062-L	ECG5012A
D5502 Thru	-		
D5505	-	MA165	ECG519
D5601	-	MA165	ECG519
D5951	-	MA165	ECG519
D5952	-	MA4051-M	ECG5010T1
D5953, 54, 55	-	MA165	ECG519
D6001	-	VEKS5521	-
D6002	-	MA165	ECG519
D6201 Thru	-		
D6204	-	MA165	ECG519
D6302	-	LN31GCPHLMU	ECG3024
D6303 (1)	-	LN21RCPHLMV	ECG3022
D6304 (1)	-	LN31GCPHLMU	ECG3024
D6304 (6)	-	LN21RCPHLMV	ECG3022
D6305 (1)	-	LN41YCPHLM	-
D6305 (6)	-	LN31GCPHLMU	ECG3024
D6306 (6)	-	LN41YCPHLM	-
D6307 (3)	-	LN41YCPHLM	-
IC451	-	LA7837	ECG7104
# IC801	-	STR30130	ECG1777
# For SAFETY use only equivalent replacement part. See Model Coverage Notes on page 5 for notes in ( ).			

SEMICONDUCTORS continued			
Item No.	Type No.	Mfr. Part No.	ECG Part No.
# IC1001	-	0N3131-R,KT	ECG3098
IC2601	-	AN3809K	-
IC3001	-	AN3475FBP	-
IC3201	-	MN3885S	-
IC3301	-	LC8643125957	-
IC3501 (15)	-	AN3361SB	-
IC3501 (16)	-	AN3371SB	-
IC4151	-	AN5265	ECG1789
IC5301	-	AN5367FB	-
IC6001	-	MN675058A5P2	-
IC6002, 03	-	CNA1801N	-
IC6004	-	24LC01B/PS1	-
Q351, 52, 53 (1)	-	2SC1473-QNC	ECG399
Q351, 52, 53 (6)	-	2SC3063-RL	ECG157
Q431	-	2SA733(TQ)	ECG290A
Q501 (1)	-	2SC1473-QNC	ECG399
Q501 (6)	-	2SC2653H-CL	ECG198
Q505, 06	-	2SA733(TQ)	ECG290A
Q507	-	2SC945A(TQ)	ECG85
Q541	-	2SA733(TQ)	ECG290A
# Q551 (1)	-	2SD2499LBMA	-
# Q551 (6)	-	2SD1555LBMTV	-
# Q551 (6)	-	2SD2499LBMA	-
Q571	-	2SC945A(TQ)	ECG85
Q801	-	2SD636(Q,R,S)	ECG16
# Q1001	-	2SC4533LP,KT	ECG2339
	-	2SC5130LF608	ECG186
Q1002	-	2SD1458	ECG2505
Q1003	-	2SD636(Q,R,S)	ECG16
Q1004	-	2SB641(Q,R,S)	ECG19
Q1005	-	2SB641(R,S)	ECG19
Q1051	-	2SC3852	ECG56%
Q1052	-	2SC945A(TP)	ECG85
Q3001	-	2SB709(R,S)	ECG2409
Q3002	-	2SD601(R,S)	ECG2408
Q3310	-	2SD601(R,S)	ECG2408
Q3311	-	2SB709(R,S)	ECG2409
Q3314	-	IMX1	-
Q3315	-	UN2112	ECG2417
Q4001	-	2SB709(R,S)	ECG2409
Q4002, 03	-	2SD601A(R,S)	ECG2408
Q4005	-	UN2215	-
Q4006	-	UN2115	-
Q4101	-	2SC945A(TP)	ECG85
Q4153	-	2SD2259	ECG2505
Q4154	-	UN2212	ECG2416
Q5301, 02	-	2SD601(R,S)	ECG2408
Q5601	-	2SD601(R,S)	ECG2408
Q5901	-	2SD2259	ECG2505
Q5931	-	2SD601(R,S)	ECG2408
Q5951	-	2SB709(R,S)	ECG2409
Q5952	-	2SD601(R,S)	ECG2408
Q5953	-	2SB709(R,S)	ECG2409
Q6002	-	2SD601(R,S)	ECG2408
Q6003, 04	-	2SB709(R,S)	ECG2409
Q6005	-	2SC945A(TP)	ECG85
Q6006	-	DTA143ES	ECG2368
Q6007	-	2SC945A(TP)	ECG85
Q6008, 09	-	VEKS5522	-
# For SAFETY use only equivalent replacement part. See Model Coverage Notes on page 5 for notes in ( ). % Used insulating hardware supplied with replacement.			

CONTROLS & RESISTORS		
Item No.	Function/Rating	Mfr. Part No.
# D851 (1)	PTC Thermistor	ERPZ5B0M050F
	PTC Thermistor	VRPSCZ5JM050
	PTC Thermistor	VRPSFZ5JM050
	PTC Thermistor	VRPSJZ5JM050
# D851 (6)	PTC Thermistor	ERPFSB0M050K
	PTC Thermistor	TRPFSB0M050K
	PTC Thermistor	VRPSKF5JM050
# R414 (3)	1.2	ERD25FJ1R2P
# R414 (4)	2.2	ERD25FJ2RP
# R427 (1)	1.5	ERD25FJ5R5P
# R427 (3)	5.6	ERD25FJ5R6P
# R427 (2)	1.8	ERD25FJ1R8P
# R503	8660 1%	ER0S2TKF8661
	8660 1%	VRESR4TF8661
R516 (1)	4700 3W	ERG3ANJ472H
R516 (6)	3300 3W	ERG3ANJ332H
R518 (1)	4700 3W	ERG3ANJ472H
# R532 (6)	1000 1W Fusible	ERQ1CJP102S
# R561 (1)	1 1W Fusible	ERQ1CJP1R0S
# R561 (2)	2.2 2W Fusible	ERQ2CJP2R2S
# R561 (3)	1 2W Fusible	ERQ2CJP1R0S
# R801	.82 10% 3W	ERF3AKR82
	.82 10% 3W	KRF3AKR82
	.82 10% 3W	LAR03R82K02
	.82 10% 3W	LAR03R82K05
# R802 (1)	10K 1/2W	ERDS1FJ103P
	10K 1/2W	ERDS1FPJ103V
# R802 (6)	10K 1/2W	ERDS1FPJ103
	10K 1/2W	ERDS1FPJ103V
# R803 (1)	5.6 2W Fusible	ERQ2ABJP5R6S
# R803 (6)	5.6 3W Fusible	ERQ3CJ5R6H
R804 (1)	330 10W	LAR10331J01
R804 (2)	200 15W	ERF15ZJ201
R804 (3)	180 15W	ERF15ZJ181
# R806	47 Fusible	ERQ14AJ470P
# R812	8.2M 10% 1/2W	VRESC2TK825C
	8.2M 10% 1/2W	VRESC2TK825T
# R1010	10	ERD25FJ100P
	10	ERD25FPJ100P
	10	VRESF4FJ100P
# R1011	4.7	ERD25FJ4R7P
	4.7	ERD25FPJ4R7P
	4.7	VRESF4FJ4R7P
# R1022	220	ERDS2TJ221
# R2604	1 1/4W	ERDS2TJ1R0
# R2605	1.2 1/4W	ERDS2TJ1R2
R3036, 37	1000 2% 1/10W	ERJ6GEYG102V
R4008	27K 2% 1/10W	ERJ6GEYG273V
R4101	56K 2% 1/10W	ERJ6GEYG563V
# R5505	3240 1% 1/10W	ERJ6ENF3241V
# R5901	27 1/2W Fusible	ERQ12AJ270P
R6201	100K PG Shifter	EVNCYAA03B15
# For SAFETY use only equivalent replacement part. See Model Coverage Notes on page 5 for notes in ( ).		

PANASONIC

MODEL PV-M1327

## COILS & TRANSFORMERS

Item No.	Function/Rating	Mfr. Part No.
# DY (2)	Yoke	LLY6306F
	Yoke	LLY6306S
# DY (3)	Yoke	LLY2303F1
	Yoke	LLY6305S1
# DY (8)	Yoke	LLY6307K
# DY (9)	Yoke	TLY26333F5
	Yoke	TLY26391S2
# L501 (2)	-	LLH2602T
# L501 (3)	-	ELH5L423
	-	LLH2601T
L552	Ferrite Bead	TSC925
# L800	Degaussing	-
# L801 (1)	AC Line Filter	ELF18D424F
	AC Line Filter	LLN63011A
	AC Line Filter	VLQS0154
	AC Line Filter	VLQS0159
# L801 (6)	AC Line Filter	ELF18D650C
	AC Line Filter	LLN63021A
	AC Line Filter	VLQS0155
	AC Line Filter	VLQS0158
L802 (6)	22μH	VLQS7A220M
# L1001	AC Line Filter	ELF15N005A
	AC Line Filter	ELF18D290A
	AC Line Filter	LLN23012A
	AC Line Filter	VLQS0157
	AC Line Filter	VLQS0166
	AC Line Filter	VLQS0167
	AC Line Filter	VLQS0168
L1002	22μH	VLQSW07D220M
L1003	9μH	VLQSW07D9R0M
L1006	22μH	VLQSW07D9R0M
L3001 (16)	68μH	VLQSH02R680K
L3002	100μH	ELESN101KA
L3004 (16)	22μH	VLQSH02R220K
L3005	39μH	VLQSH02R390K
L3010	47μH	ELESN470KA
L3231	220μH	ELESN221KA
L3301	5.6μH	VLQSH02R5R6J
L3302	100μH	ELESN101KA
L3501	100μH	ELESN101KA
L4002	100μH	VLQSH02R101K
L4004 (1)	22μH	VLQSH02R220K
L4004 (6)	10μH	VLQSH02R100K
L4005	15mH	VLQSU06R153K
L4101	470μH	ELESN471KA
L5901	100μH	ELESN101KA
L7002	100μH	ELESN101KA
# T501 (1)	Horizontal Drive	TLH15419
# T501 (6)	Horizontal Drive	ETH19Y70AY
# T502	Horizontal Coupling	ETE19Z30AY
# T551 ** (1)	Horizontal Output	KFT2AB073F
	Horizontal Output	LLE6601K
# T551 ** (6)	Horizontal Output	KFT3AB074F
	Horizontal Output	LLE6501K
# T1001	Power	ETS28AD1F5AC
	Power	VTPS0034
	Power	VTPS0038
	Power	VTPS0040
T4101	Oscillator	VLTS0304

**# For SAFETY use only equivalent replacement part.**  
See Model Coverage Notes on page 5 for notes in ( ).  
**\*\* Focus and screen controls are part of T551.**

ELECTRICAL PARTS LIST continued

MISCELLANEOUS

Item No.	Description	Mfr. Part No.	Notes
# AC CORD (12)	Line Cord	TSX7151-N	AC, Polarized
# AC CORD (17)	Line Cord	TSX7152-N	AC, Polarized
# F801	Fuse	VSFS0003A40	4A, 125V
	Fuse	XBA1C40NU100	4A, 125V
# F1001	Fuse	VSFS0003A16	1.6Amp, 125V
	Fuse	VSFS0012A16	1.6Amp, 125V
	Fuse	VSFS0028A16	1.6Amp, 125V
	Fuse	XBA1C16NU100	1.6Amp, 125V
FL4001	Trap	VLFS0014	15.75kHz
JK4551	Jack	LJP28009A	Assembly
JK4591	Jack	LJP68001A	Earphone
# PR1001	Fuse	ICP-F38-1	IC Protector, 1.5A
	Fuse	UN10015	IC Protector, 1.5A
	Fuse	VSFS0029D25	IC Protector, 1.5A
# PR1050	Fuse	ICP-F38-1	IC Protector, 1.5A
	Fuse	UN10015	IC Protector, 1.5A
	Fuse	VSFS0029D25	IC Protector, 1.5A
# PR1054	Fuse	ICP-F25-1	IC Protector, 1A
	Fuse	UN11010	IC Protector, 1A
# RL801	Relay	TSEH0005	Power
	Relay	TSEH8007	Power
	Relay	TSE1860-1	Power
SP	Speaker	LASUSP5904A	8 Ohm
SW6001	Switch	VSHS0058	Safety Tab
SW6002	Switch	VSS0159	Mode
SW6301	Switch	EVQ21405R	Channel Down
SW6302	Switch	EVQ21405R	Volume Down
SW6303 (1)	Switch	EVQPAD09K	Power
SW6304	Switch	EVQ21405R	Channel Up
SW6305	Switch	EVQ21405R	Volume Up
SW6306 (11)	Switch	EVQ21405R	FM/TV
SW6307 (13)	Switch	EVQPB005K	Play/Repeat
SW6307 (14)	Switch	EVQ21405R	Play/Repeat
SW6308 (2)	Switch	EVQ21405R	FF/Cue
SW6308 (3)	Switch	EVQPB005K	FF/Cue
SW6308 (8)	Switch	EVQ21405R	Play/Repeat
SW6308 (9)	Switch	EVQPB005K	FF/Cue
SW6309	Switch	EVQ21405R	Game
SW6310 (2)	Switch	EVQ21405R	Rewind
SW6310 (3)	Switch	EVQPB005K	Rewind
SW6310 (8)	Switch	EVQ21405R	Stop/Eject
SW6310 (9)	Switch	EVQPB005K	Stop/Eject
SW6311 (1)	Switch	EVQ21405R	Record
SW6312 (2)	Switch	EVQ21405R	Stop/Eject
SW6312 (13)	Switch	EVQPB005K	Rewind/Review
SW6312 (14)	Switch	EVQ21405R	Play/Repeat
SW6313 (3)	Switch	EVQPB005K	Stop/Eject
SW6314 (3)	Switch	EVQ21405R	Record
SW6315 (6)	Switch	EVQPB005K	Power
U6301 (13)	Receiver	GPIU292Q	Remote
U6301 (14)	Receiver	PNA4617M00HC	Remote
# V300 (2)	CRT	LXQVB2207Q	-
# V300 (3)	CRT	TXFVB02206	-
# V300 (8)	CRT	LXQVB2137S	-
# V300 (9)	CRT	TXFVB02135	-
X3301	Crystal	VSXS0207	-
X5501	Crystal	CSB503F38	503kHz
X5601	Crystal	VSXS0208-B	-
X6001	Crystal	VSXS0784	14MHz

# For SAFETY use only equivalent replacement part.  
See Model Coverage Notes on page 5 for notes in ( ).

MISCELLANEOUS continued

Item No.	Description	Mfr. Part No.	Notes
1 *	Head	VBSS0032	Full Erase
2 *	Motor Unit	VXKS0851	Loading
11 * (15)	Cylinder Unit	VEGS0397	-
11 * (16)	Cylinder Unit	VEGS0395	-
12 *	Head Unit	VEHS0559	Audio/Control
52 *	Stator Kit	VEMS0316K	Capstan
	Fuse Holder	VJSS3325	For F801, F1001 (2 Used, Each)
	Magnet (4)	LLL62001	Purity/Convergence
	Magnetic Strip (6)	TSM10032-2	Permalloy
	PC Board (2)	LRP23007BZ	CRT
	PC Board (3)	LRP23007AZ	CRT
	PC Board (8)	LRP23007ZZ	CRT
	PC Board (9)	LRP23007YZ	CRT
	PC Board (15)	VEPS5011Z1	Head Amp
	PC Board (16)	VEPS5012Z1	Head Amp
	PC Board	VEPS0A25A	Junction
	PC Board (2)	VEPS3042A1	Main
	PC Board (3)	VEPS3040B1	Main
	PC Board (8)	VEPS3042B1	Main
	PC Board (15)	VEPS3040C1	Main
	PC Board (20)	VEPS3040E1	Main
	PC Board (3)	LRM61002BZ	TV, Main
	PC Board (20)	LRM61002XZ	TV, Main
	PC Board (21)	LRM61002ZZ	TV, Main
	PC Board (22)	LRM61002ZA	TV, Main
	PC Board (23)	LRM61002YZ	TV, Main
	PC Board (24)	LRM61002YA	TV, Main
	PC Board (25)	LRM61002CZ	TV, Main
	PC Board (26)	LRM61002CA	TV, Main
	Socket (3)	TJS1A5050	CRT
	Socket (4)	TJS1A5081	CRT
	Transmitter (19)	VSQS1481	Remote
	Transmitter (20)	VSQS1491	Remote
	Transmitter (24)	VSQS1882	Remote
	Transmitter (27)	VSQS1485	Remote
	Transmitter (28)	VSQS1486	Remote
	Tuner (11)	VEQS0598	UHF/VHF
	Tuner (18)	VEQS0596A	UHF/VHF
	Wedge	LMH65001A	Yoke Positioning (3 Used)

See Model Coverage Notes on page 5 for notes in ( ).  
\* Numbers in parenthesis indicate the number used in the Mechanical Parts List and Exploded Views.

PANASONIC

MODEL PV-M1327