

NEC

MODEL CT-2062S

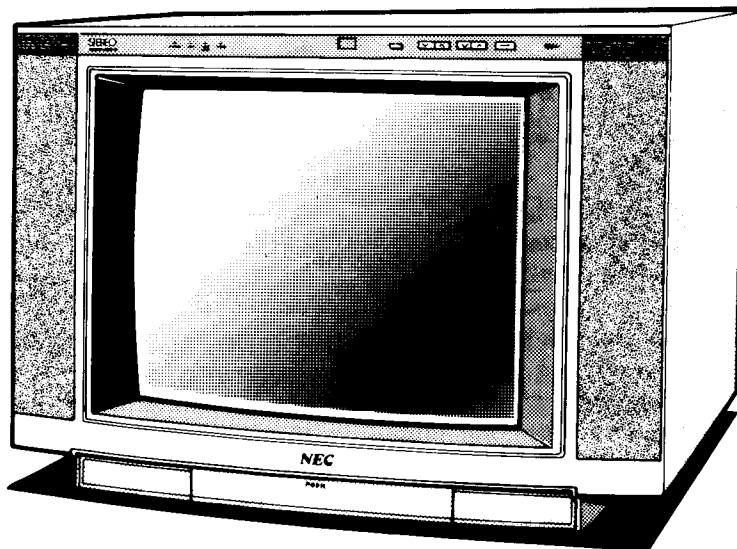
COLOR TELEVISION MONITOR

SERVICE MANUAL

PART NO. 399910630



Better Service
Better Reputation
Better Profit



SAFETY CAUTION:

Before servicing this chassis, it is important that the service technician read and follow the "Safety Precautions" and "Product Safety Notice" in this Service Manual.

* For continued X-radiation protection, replace picture tube with original type or NEC approved equivalent type.

WARNING:

SHOCK HAZARD — Use an isolation transformer when servicing.

NEC Corporation

TOKYO, JAPAN

SERVICE ADJUSTMENTS

1. +B2 VOLTAGE

- (1) Confirm that AC voltage is 120Vrms, 60Hz.
- (2) Connect a DC voltmeter between pin 1 (ground) and pin 4 of IC601, then check that +B2 voltage is within $130V \pm 1VDC$.

2. VIF ADJUSTMENT

2-1. PIF Adjustment (T201)

- (1) Feed in a non-modulated 45.75 MHz/15mVrms signal to the IF IN terminal of the tuner.
- (2) Connect the AGC VR to pin 22 of IC201 as shown in Fig. 1.

IF IN terminal is on the solder side of the tuner

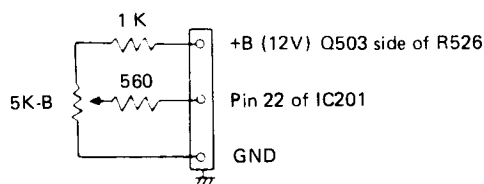


Fig. 1 AGC VR

- (3) Connect a digital voltmeter to pin 47 of IC201 and adjust the AGC VR so that the voltage at pin 47 of IC201 is approx. 4.5V.
- (4) Adjust T201 to maximize the voltage at pin 47.
- (5) If the voltage at pin 47 exceeds 5V, repeat steps (3) and (4).

2-2. AFT Adjustment (T202)

Note: This adjustment must be done only after T201 adjustment is completed.

- (1) Repeat "PIF adjustment" steps (1) through (3).
- (2) Connect a digital voltmeter to pin 22 of IC101 (IC101 side of R151).
- (3) Adjust T202 so as to obtain $2.7 \pm 0.1VDC$ at pin 22 of IC101.

2-3. QUASI SIF Adjustment (T203)

- (1) Feed an AM modulated test signal (carrier frequency 45.75MHz, and modulated at 30% by a 15.75kHz, 15mVrms) into the IF terminal of the tuner.
- (2) Connect an oscilloscope to pin 41 of IC201.
- (3) Adjust T203 so as to minimize the signal on the oscilloscope.
- (4) Next, feed in a standard color bar signal and non-modulated sound signal.
- (5) Connect an oscilloscope to pin 34 of IC201.
- (6) Adjust T203 so as to minimize the signal on the oscilloscope.

3. RF AGC ADJUSTMENT

- (1) Feed in a standard color bar signal (60dB μ at 75 Ω terminated).
- (2) Connect a DC voltmeter (or a digital voltmeter) to the AGC terminal of TUNER (TP103).

- (3) Adjust the RF AGC VR (VR201) so that the voltage on the voltmeter stops just before it reaches maximum reading (approx. 7V).
- (4) Increase the input signal level by 3dB μ (to 63dB μ) and check that the reading on the voltmeter decreases by more than 1.5 VDC. If necessary, repeat steps (3) and (4).

4. SIF ADJUSTMENT (T301)

- (1) Into pin 36 of IC201, feed an FM modulated signal (Carrier frequency 4.5MHz, modulating signal 1kHz, 7.5kHz frequency deviation, 100mVrms) through a 0.1 μ F capacitor.
- (2) Connect an oscilloscope to pin 34 of IC201 (IC201 side of R302).
- (3) Adjust T301 so as to maximize the signal on the oscilloscope.

5. PICTURE

White Balance Adjustment

Note: Allow 12 minutes warm-up time before adjustment.

- (1) Feed in a monoscope pattern (or equivalent) signal.
- (2) Set VR901 (R. DRIVE), VR902 (B. DRIVE), VR903 (R. BIAS), VR904 (G. BIAS) and VR905 (B. BIAS), to the mechanical center positions. Set SCREEN VR, PICTURE VR and SHARPNESS VR to their minimum positions and set B LEVEL VR to its center position.
- (3) Connect a jumper lead between TP401 and ground. Adjust the SUB B LEVEL VR (VR702B) so that the voltage at the G.K terminal of the CRT is 170VDC.
- (4) Turn the SCREEN VR gradually clockwise, until the first colored horizontal line appears faintly on the screen.
- (5) Turn the BIAS VR of the first colored line counterclockwise until it disappears.
- (6) Turn the SCREEN VR gradually clockwise to produce a second barely visible colored horizontal line on the screen. Similarly turn the BIAS VR counterclockwise until it disappears.
- (7) Turn the SCREEN VR gradually clockwise to produce a third barely visible colored horizontal line on the screen, but this time do not adjust the BIAS VR.
- (8) Turn the BIAS VRs of the first and second colors clockwise until they appear on the screen as brightly as the third color. At this time, the BIAS VR of the third color is at its mechanical center, and the white balance is adjusted.
- (9) However if the remaining color does not appear at item (7) even if the SCREEN VR is at maximum, turn the associated BIAS VR by 45 degrees in a clockwise direction and repeat steps (4) through (8).
- (10) Remove the jumper lead from TP401.
- (11) Set the B LEVEL VR and PICTURE VR to their maximum positions and check the White balance by adjusting VR901 and VR902.
- (12) Turn the B LEVEL VR and PICTURE VR to confirm the tracking of the white balance. If necessary, repeat steps (3) through (11).

6. SUB B LEVEL VR ADJUSTMENT

- (1) Feed in a monoscope pattern signal.
- (2) Set the B LEVEL VR to the center click position and turn the PICTURE and SHARPNESS VRs to the minimum position.
- (3) Adjust the SUB B LEVEL VR (VR702B) so that square A and B of the contrast chart are black, and square C is just barely lighter than square A.

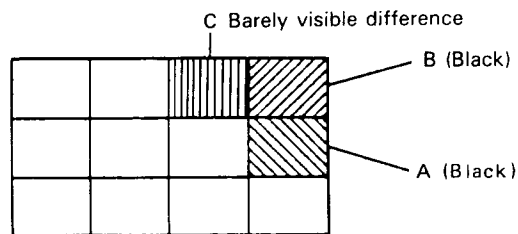


Fig. 2

7. COMB FILTER ADJUSTMENT

- (1) Feed in a standard color bar signal.
- (2) Connect an oscilloscope between pin 13 of IC201 and ground. Set the oscilloscope to 0.5V/div.
- (3) Adjust T6001 and VR6001 alternately to minimize the chrominance element in the video signal.

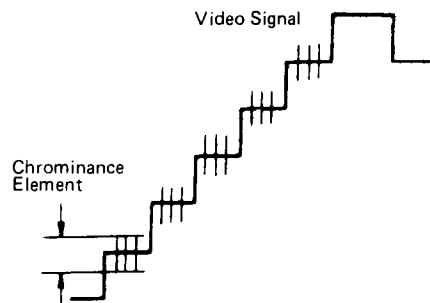


Fig. 3

8. SUB COLOR AND SUB TINT ADJUSTMENT

- (1) Feed in a standard color bar signal and set the AUTO COLOR switch to the ON position.
- (2) Set the COLOR VR and TINT VR and B LEVEL VR to their center positions. Set the PICTURE VR to its minimum position.
- (3) Connect an oscilloscope between the "BK" terminal on the VIDEO-CRT PWB and ground. Set the oscilloscope to 5V/div.
- (4) Adjust the SUB COLOR VR (VR702H) and SUB TINT VR (VR702F) to obtain the waveform on the oscilloscope shown in Fig. 4.

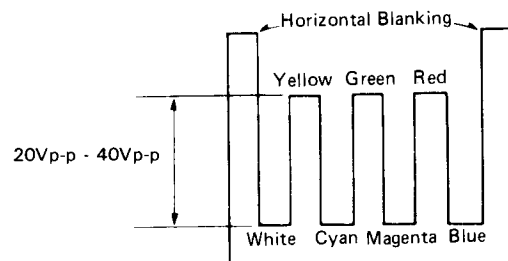


Fig. 4

9. SD FREE-RUN FREQUENCY ADJUSTMENT

- (1) Connect a 16V/100 μ F capacitor between pin 5 of IC104 and ground. Thereafter, connect a probe of CH1 of a two channel oscilloscope to the terminal "VT3" and another probe of CH2 to pin 9 of IC104 respectively.
- (2) Feed in a color bar signal.
- (3) Set the oscilloscope to dual mode (two channel mode) and its time axis to the horizontal sync mode. Adjust trigger of CH1 to obtain a synchronized color bar signal on the scope.
- (4) Adjust VR101 so the 15.75kHz sawtooth waveform in CH2 is synchronized and comes to a standstill.

10. HORIZONTAL AND VERTICAL ADJUSTMENT

10-1. Horizontal Position

- (1) Feed in a monoscope pattern signal.
- (2) Adjust the center of the picture to the correct position using the H. CENTERING switch (S501). The centering switch can be set at either R or L.

10-2. Vertical Position and Vertical Height

- (1) Feed in a monoscope pattern signal.
- (2) Adjust the center of the picture to the correct position using the V. CENTERING switch (S401).
- (3) Adjust the V. HEIGHT VR (VR401) so that the outer circle of the pattern is correctly shaped.

11. HIGH VOLTAGE CHECK

- (1) Feed in a blank raster signal. Check that +B2 is 130VDC.
- (2) Set the B LEVEL and PICTURE controls to their minimum positions and check that the CRT anode voltage is 27.90 + 1kV.

12. HIGH VOLTAGE PROTECTOR CHECK

- (1) Feed in a blank raster signal. Set PICTURE and B LEVEL to their minimum positions.
- (2) Turn the VACATION SW off and short R691A (210 Ω /16W) with a switch, then turn the VACATION SW on.
- (3) Set the AC line voltage at about 90Vrms and switch POWER on. Gradually increase the AC line voltage and confirm that high voltage protector operates and that horizontal oscillation stops.
- (4) The high voltage protector should operate at less than 35.13kV.
- (5) Turn off the VACATION SW and remove the switch from R691A.
After 10 seconds, turn on the VACATION SW and then the POWER SW. Confirm that the set operates normally.

13. FOCUS CONTROL ADJUSTMENT

- (1) Feed in a crosshatch pattern signal.
- (2) Set the B LEVEL VR and PICTURE VR to their maximum positions.
- (3) Adjust the FOCUS VR so that the central part of the crosshatch shows the sharpest details.

14. SOUND MULTIPLEX

- (1) Feed in a 100% modulated 400Hz monaural signal.
- (2) Adjust VR301 so the output at TP301 is $247.5 \pm 5\text{mVrms}$.

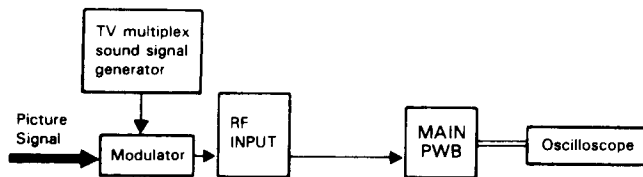


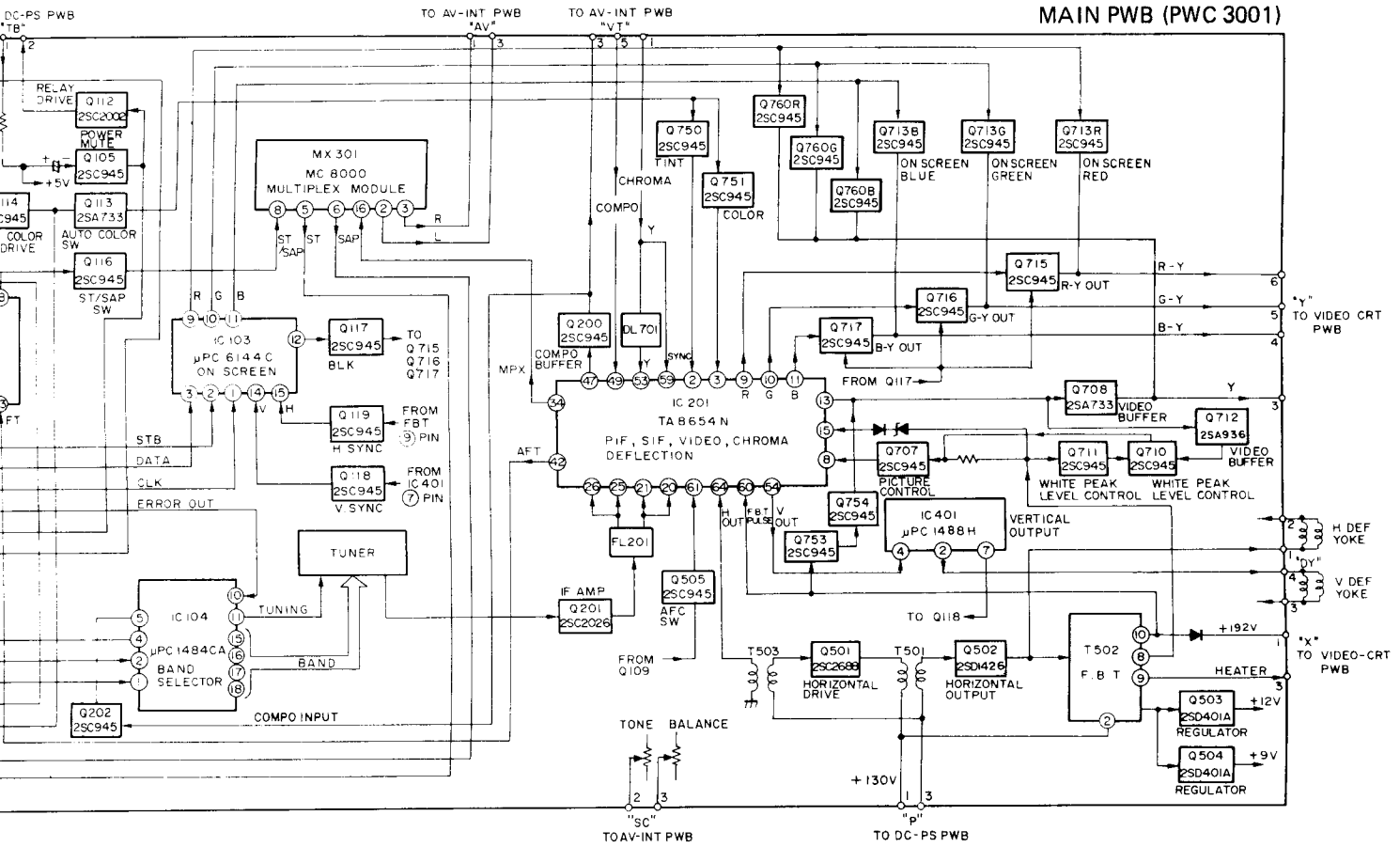
Fig. 5 Input Connection

15. SOUND OUTPUT ADJUSTMENT (BALANCE)

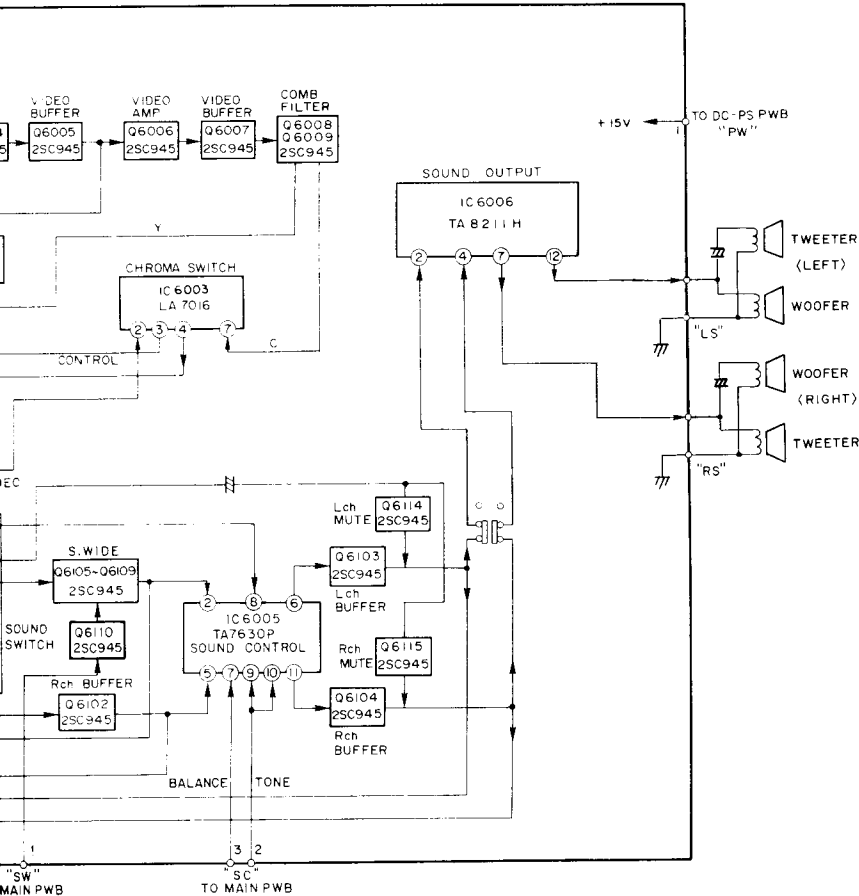
15-1. L ch, R ch Balance Adjustment

- (1) Apply 400Hz signal to the left channel audio input jack.
- (2) Set the controls and switch as follows:
 - TV/VIDEO - VIDEO
 - SPEAKER switch - ON
- (3) Connect an AC RMS voltmeter between TP6002 and ground.
- (4) Set the VOLUME to obtain $2.8 \text{ Vrms} \pm 0.2\text{Vrms}$ (1W) on the voltmeter.
- (5) Connect the voltmeter between TP6001 and ground. Adjust VR6101 to obtain the same reading as in step (4).

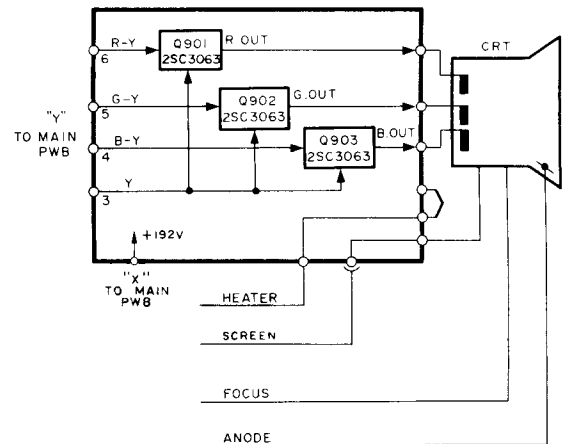
DIAGRAMS



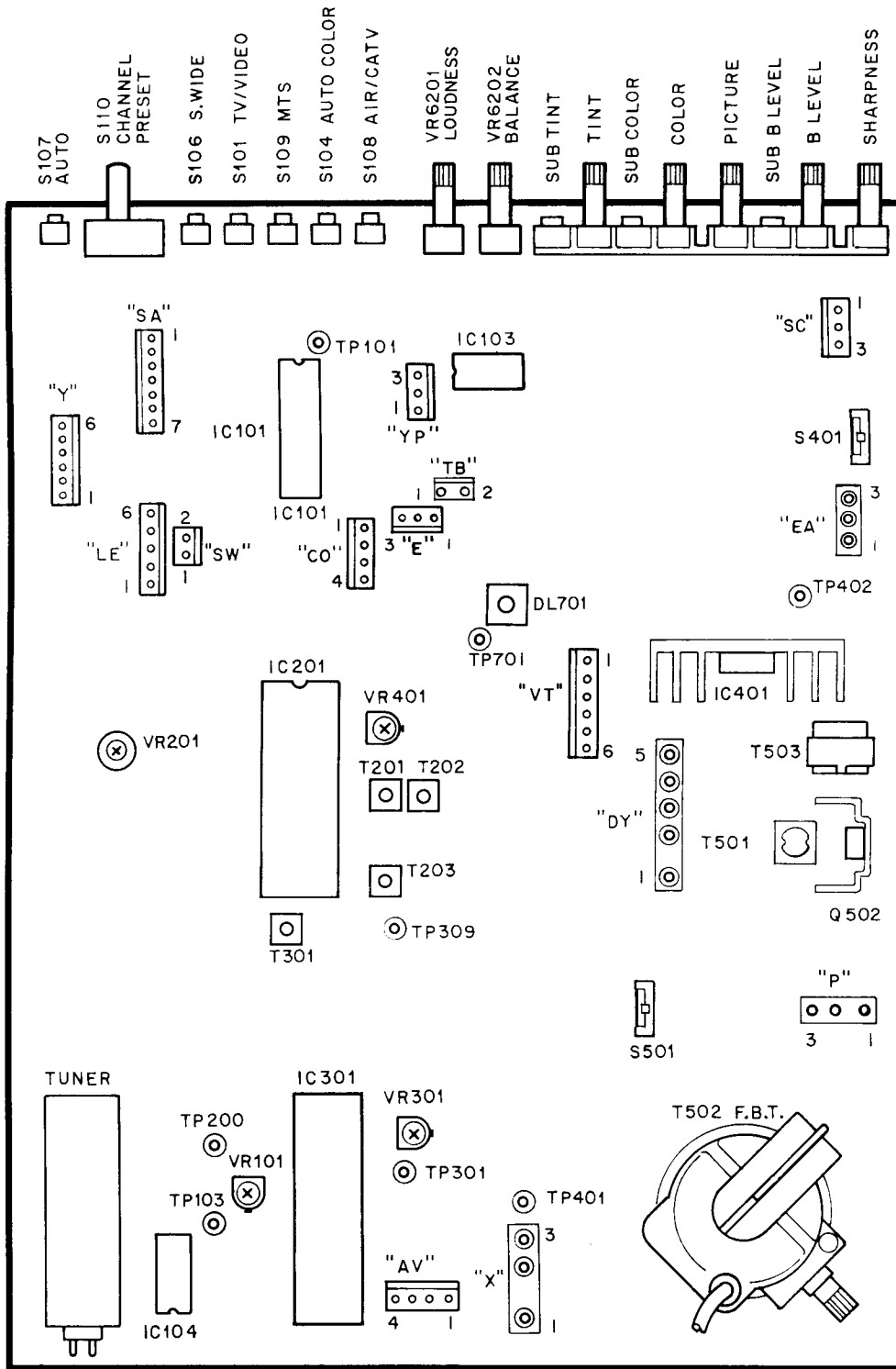
AV-INT PWB (PWC 2987)



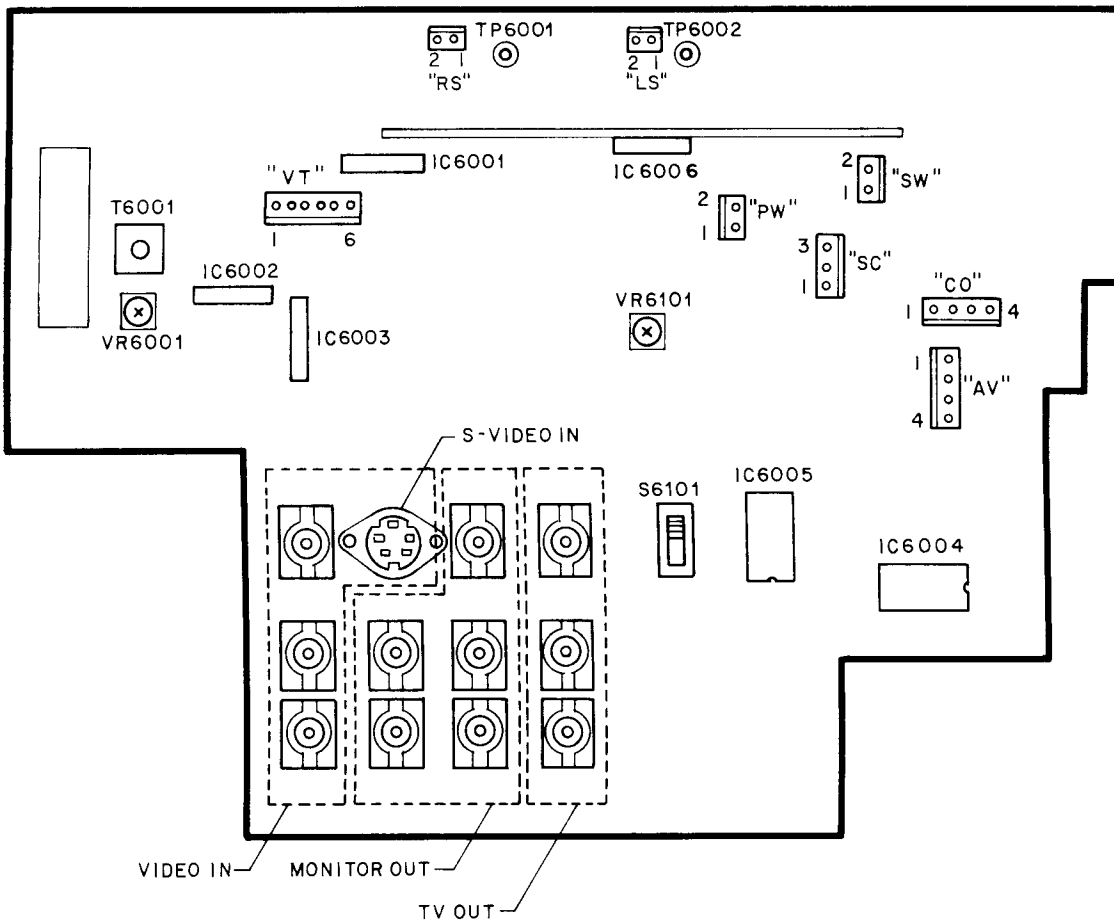
VIDEO-CRT PWB (PWC 3025)



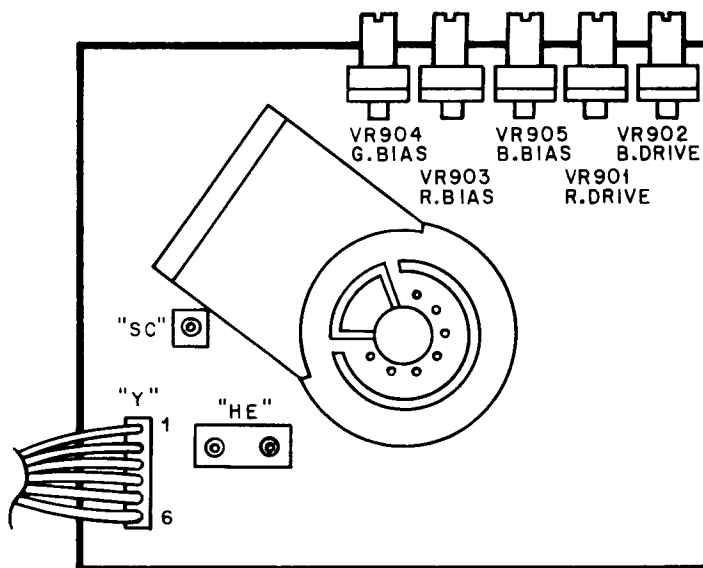
PARTS LOCATION DIAGRAMS



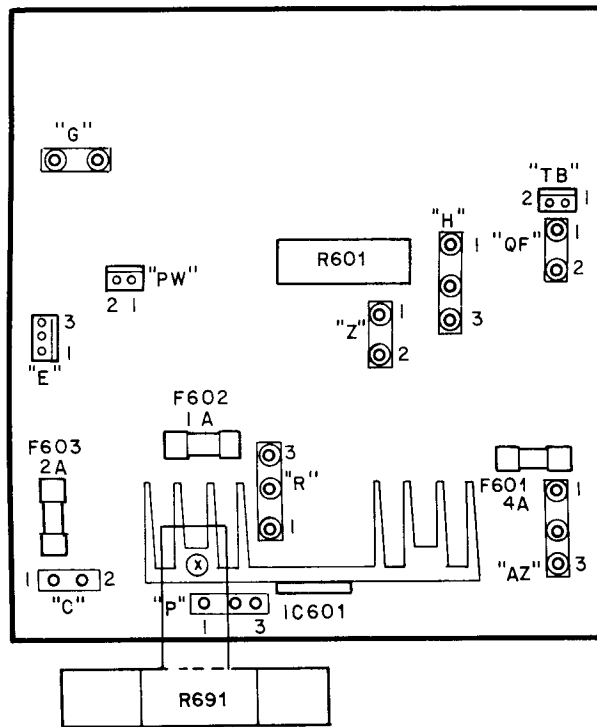
MAIN PWB (PWC 3001)



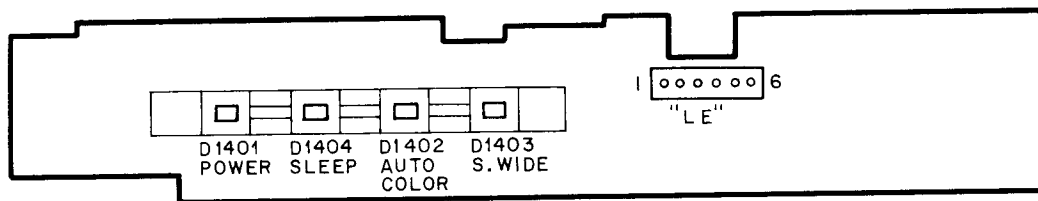
AV-INT PWB (PWC 2987)



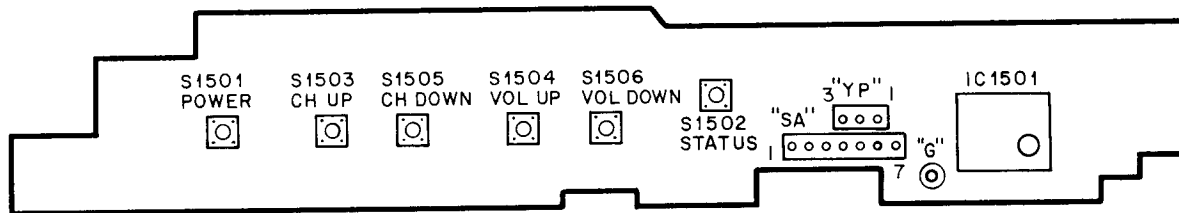
VIDEO-CRT PWB (PWC 3025)



DC-PS PWB (PWC 2981)



LED PWB (PWC 2972A)



CTL PWB (PWC 2972B)

REPLACEMENT PARTS LIST

Notes:

1. Parts orders must contain model name, parts number and description.
2. When you place an order for spare parts, please refer to the respective service manual and mention the right parts number on your P.O. Sheets.
3. Standard resistors, capacitors and coils which are normally available from local electronics suppliers are not stocked in our warehouse.

4. The components identified by a Δ mark or with the symbol Nos. shaded are critical for safety. Replace only with parts number specified.
5. Parts identified with * * are American made parts.

SYMBOL	PARTS NO	DESCRIPTION
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*** CRT & TUNER ***

Δ CRT **	33021907	CRT-A51JPE96X
Δ TU101	34343411	CATV ELECTRONIC TUNER

*** ICS ***

IC101	37058312	MOS UPD1712CU-568 (PLL)
IC103	37058265	MOS UPD6144C-503 (CG)
IC104	37001087	IC UPC1484CA (VCR)
Δ IC201	37007032	IC TA8654N (NTSC 1 CHIP)
Δ IC401	37006013	IC UPC1488H(V.OUT)
IC503	37005143	IC L7812CV (REG)
Δ IC504	37005142	IC L7809CV (REG)
IC6001	37011116	IC LA7016 (SWITCH)
IC6002	37011116	IC LA7016 (SWITCH)
IC6003	37011116	IC LA7016 (SWITCH)
IC6004	37053280	MOS HCF4066BEY (SWITCH)
IC6005	37001101	IC TDA1526 (SOUND)
IC6006	37011174	IC TDA2009S (AMP)
Δ IC601	37005068	IC STR30130 (REG)

*** TRANSISTORS ***

Q102	350A0617	TR 2PA733A Q
Q103	350A0617	TR 2PA733A Q
Q104	350A0617	TR 2PA733A Q
Q105	350J0117	TR 2PC945 Q
Q106	350J0117	TR 2PC945 Q
Q107	350J0117	TR 2PC945 Q
Q109	350J0117	TR 2PC945 Q
Q110	350J0117	TR 2PC945 Q
Q111	350J0117	TR 2PC945 Q
Q112	350E3212	TR, 2SC2002-T L
Q113	350A0617	TR 2PA733A Q
Q114	350J0117	TR 2PC945 Q
Q115	350J0117	TR 2PC945 Q
Q116	350J0117	TR 2PC945 Q
Q117	350J0117	TR 2PC945 Q
Q118	350J0117	TR 2PC945 Q
Q119	350J0117	TR 2PC945 Q
Q150	350J0117	TR 2PC945 Q

SYMBOL	PARTS NO	DESCRIPTION
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Q200	350J0117	TR 2PC945 Q
Q201	35053700	TR, 2SC2026
Q202	350J0117	TR 2PC945 Q
Q501	35056312	TR, 2SC2688 L
Δ Q502	35067000	TR, 2SD1426
Q505	350J0117	TR 2PC945 Q
Q6001	350J0117	TR 2PC945 Q
Q6002	350J0117	TR 2PC945 Q
Q6003	350J0117	TR 2PC945 Q
Q6004	350J0117	TR 2PC945 Q
Q6005	350J0117	TR 2PC945 Q
Q6006	350J0117	TR 2PC945 Q
Q6007	350J0117	TR 2PC945 Q
Q6008	350J0117	TR 2PC945 Q
Q6009	350J0117	TR 2PC945 Q
Q6010	350J0117	TR 2PC945 Q
Q6011	350J0117	TR 2PC945 Q
Q6101	350J0117	TR 2PC945 Q
Q6102	350J0117	TR 2PC945 Q
Q6103	350J0117	TR 2PC945 Q
Q6104	350J0117	TR 2PC945 Q
Q6105	350J0117	TR 2PC945 Q
Q6106	350J0117	TR 2PC945 Q
Q6107	350J0117	TR 2PC945 Q
Q6108	350J0117	TR 2PC945 Q
Q6109	350J0116	TR 2PC945 P
Q6110	350J0117	TR 2PC945 Q
Q6114	350J0117	TR 2PC945 Q
Q6115	350J0117	TR 2PC945 Q
Q6201	350J0117	TR 2PC945 Q
Q6202	350J0117	TR 2PC945 Q
Q707	350J0117	TR 2PC945 Q
Q708	350A0617	TR 2PA733A Q
Q710	350J0117	TR 2PC945 Q
Q711	350J0117	TR 2PC945 Q
Q712	350A0300	TR 2SA936-T
Q713B	350J0117	TR 2PC945 Q
Q713G	350J0117	TR 2PC945 Q
Q713R	350J0117	TR 2PC945 Q

SYMBOL	PARTS NO	DESCRIPTION
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Q715	350J0117	TR 2PC945 Q
Q716	350J0117	TR 2PC945 Q
Q717	350J0117	TR 2PC945 Q
Q750	350J0117	TR 2PC945 Q
Q751	350J0117	TR 2PC945 Q
Q753	350J0117	TR 2PC945 Q
Q754	350J0117	TR 2PC945 Q
Q760B	350J0117	TR 2PC945 Q
Q760G	350J0117	TR 2PC945 Q
Q760R	350J0117	TR 2PC945 Q
Q901	35084401	TR,2SC3063-RL
Q902	35084401	TR,2SC3063-RL
Q903	35084401	TR,2SC3063-RL

*** DIODES ***

D100	360K1040	DIODE 1N4531
D101	360K1040	DIODE 1N4531
D102	360K1040	DIODE 1N4531
D103	360K1040	DIODE 1N4531
D104	360K1040	DIODE 1N4531
D106	360K1040	DIODE 1N4531
D107	360K1040	DIODE 1N4531
D108	360K1040	DIODE 1N4531
D109	360K1040	DIODE 1N4531
D111	360K1040	DIODE 1N4531
D112	360K1040	DIODE 1N4531
D113	360K1040	DIODE 1N4531
D114	360K1040	DIODE 1N4531
D115	360K1040	DIODE 1N4531
D116	360K1040	DIODE 1N4531
D117	360K1040	DIODE 1N4531
D118	360K1040	DIODE 1N4531
D119	360K1040	DIODE 1N4531
D123	360K1040	DIODE 1N4531
D124	360K1040	DIODE 1N4531
D125	360K1040	DIODE 1N4531
D126	360K1040	DIODE 1N4531
D127	360K1040	DIODE 1N4531
D130	360K1040	DIODE 1N4531
D131	360K1040	DIODE 1N4531

SYMBOL	PARTS NO	DESCRIPTION
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D140	360K1040	DIODE 1N4531
D1401	36801152	DIODE,LIGHT-E SEL1321G-D
D1402	36801152	DIODE,LIGHT-E SEL1321G-D
D1403	36801152	DIODE,LIGHT-E SEL1321G-D
D1404	36801152	DIODE,LIGHT-E SEL1321G-D
D141	360K1040	DIODE 1N4531
D142	360K1040	DIODE 1N4531
D145	360K1040	DIODE 1N4531
D146	360K1040	DIODE 1N4531
D147	360K1040	DIODE 1N4531
D148	360K1040	DIODE 1N4531
D149	360K1040	DIODE 1N4531
△ D2001	361K7566	DIODE BYD33G-T
△ D401	361K7566	DIODE BYD33G-T
△ D501	361K7567	DIODE BYD33J-T
D502	361K7566	DIODE BYD33G-T
D503	361K7566	DIODE BYD33G-T
△ D504	361K7567	DIODE BYD33J-T
△ D505	361K7567	DIODE BYD33J-T
D506	361K7566	DIODE BYD33G-T
△ D601	361K7582	DIODE BYD14M
△ D602	361K7582	DIODE BYD14M
△ D603	361K7582	DIODE BYD14M
△ D604	361K7582	DIODE BYD14M
D6101	360K1040	DIODE 1N4531
D6102	360K1040	DIODE 1N4531
D6103	360K1040	DIODE 1N4531
D6301	360K1040	DIODE 1N4531
△ D651	361K7582	DIODE BYD14M
△ D652	361K7582	DIODE BYD14M
△ D653	361K7582	DIODE BYD14M
△ D654	361K7582	DIODE BYD14M
D662	360K1040	DIODE 1N4531
D701	360K1040	DIODE 1N4531
D702	360K1040	DIODE 1N4531
D703	360K1040	DIODE 1N4531
D704	360K1040	DIODE 1N4531
D705	361K7566	DIODE BYD33G-T
D706	360K1040	DIODE 1N4531

SYMBOL	PARTS NO	DESCRIPTION
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D707	360K1040	DIODE 1N4531
D708	360K1040	DIODE 1N4531
D720B	360K1040	DIODE 1N4531
D720G	360K1040	DIODE 1N4531
D720R	360K1040	DIODE 1N4531
D730	360K1040	DIODE 1N4531
FD101	36108045	DIODE ARRAY 1S2473*4K
FD102	36108046	DIODE ARRAY 1S2473*4A
FD103	36108032	DIODE ARRAY 1S2473*5
FD104	36108033	DIODE ARRAY 1S2473*5A
△ TH601	38112013	THERMISTOR, POSITIVE
ZD101	360K3139	DIODE RD5.6EB(2)-T4
ZD102	360K3139	DIODE RD5.6EB(2)-T4
ZD103	360K3139	DIODE RD5.6EB(2)-T4
ZD104	360K3100	DIODE RD5.1EB(2)-T4
ZD105	360K3139	DIODE RD5.6EB(2)-T4
ZD110	360K3121	DIODE RD6.8EB(3)-T4
ZD125	360K3125	DIODE RD13EB(2)-T4
ZD126	360K3125	DIODE RD13EB(2)-T4
ZD127	360K3125	DIODE RD13EB(2)-T4
ZD128	360K3125	DIODE RD13EB(2)-T4
△ ZD2002	360K3711	DI RD30ESB(3)/ESAB(3)-T4
ZD501	360K3121	DIODE RD6.8EB(3)-T4
ZD502	360K3154	DIODE RD12EB(1)-T4
ZD6101	360K3671	DI RD12ESB(2)/ESAB(2)-T4
ZD6102	360K3100	DIODE RD5.1EB(2)-T4
ZD701	360K3128	DIODE RD2.0EB-T4

*** TRANSFORMERS ***

T501	46399007	TRANS, H. DRIVE
△ T502	47105326	F. B. T
△ T503	46302101	TRANS, PULSE
△ T601	** 45020107	TRANS, POWER 15V 0.8A

*** VARIABLE RESISTORS ***

VR101	41071211	R, VARIABLE B4.7K
VR201	41061513	R, VARIABLE B10K
VR301	41071210	R, VARIABLE B3.3K
VR401	41505106	R, VARIABLE B3K

SYMBOL	PARTS NO	DESCRIPTION
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VR6001	41071205	R, VARIABLE B470H
VR6101	41071213	R, VARIABLE B10K
VR6201	41011333	R, VARIABLE B10K-H
VR6202	41011333	R, VARIABLE B10K-H
VR702	41014743	R, VARIABLE
VR901	41087102	R, VARIABLE B200H
VR902	41087102	R, VARIABLE B200H
VR903	41087101	R, VARIABLE B3K
VR904	41087101	R, VARIABLE B3K
VR905	41087101	R, VARIABLE B3K

*** RELAYS & SWITCHES ***

△ RL651	65690001	RELAY G5P-1
S101	65361028	PUSH SWITCH
S104	65361028	PUSH SWITCH
S106	65361028	PUSH SWITCH
S107	65361028	PUSH SWITCH
S108	65361028	PUSH SWITCH
S109	65361028	PUSH SWITCH
S110	65130003	SWITCH, SLIDE
S1501	65361008	SWITCH, PUSH BUTTON
S1502	65361008	SWITCH, PUSH BUTTON
S1503	65361008	SWITCH, PUSH BUTTON
S1504	65361008	SWITCH, PUSH BUTTON
S1505	65361008	SWITCH, PUSH BUTTON
S1506	65361008	SWITCH, PUSH BUTTON
S401	66099003	SWITCH, LEVER
S501	66099003	SWITCH, LEVER
S6101	65114002	SWITCH, SLIDE
△ S691	65208006	SWITCH, SEE-SAW

*** COILS & FILTERS ***

CF201	61107011	CERAMIC TRAP
CF301	61105011	COIL, FILTER 4.5MHZ
CF501	61111805	CERAMIC OSC CSB503F30
△ DEG	** 61321402	COIL, DEGAUSSING
DL6001	61511055	DL 1H EN645B35G
DL701	61511042	DELAY LINE 0.15US
FB201	61605037	FERRITE BEADS

SYMBOL	PARTS NO	DESCRIPTION
FL201 H-O-FB L101	61120093 61605039 610F7014	1F DOUBLE SAWF F1802J FERRITE BEADS COIL,FILTER 5.6UH
L102 L104 L151 L152 L198	610E1726 610F7014 610E1719 610E1714 610E1729	COIL,FILTER 56UHA,T (S) COIL,FILTER 5.6UH COIL,FILTER 15UH COIL,FILTER 5.6UH COIL,FILTER 100UH
L199 L201 L202 L203 L204	610E1729 61011111 61011133 61011128 610E1721	COIL,FILTER 100UH COIL,SAW MATCHING R31 COIL,SAW MATCHING 1R1 COIL,SAW MATCHING R79 COIL,FILTER 22UHA,T (S)
L205 L206 △ L501 △ L502 L503	610F7514 610E1717 61064055 60917057 610E1721	COIL,FILTER 5.6UH COIL,FILTER 10UHA,T (S) COIL,FILTER 4700UH COIL,H,LIN COIL,FILTER 22UHA,T (S)
L6001 L6002 L6003 △ L601 L6010	61013013 610E1730 610E1727 61062012 610F7523	COIL,FILTER 10UH COIL,FILTER 120UH COIL,FILTER 68UHA,T (S) COIL,LINE FILTER COIL,FILTER P330
L703 L720 L751 L909 T201	61013026 610F7518 61013015 610E1730 60255001	COIL,FILTER 120UH COIL,FILTER 12UH COIL,FILTER 15UH COIL,FILTER 120UH VIF/QIF DET COIL 45MHZ
T202 T203 T301 T6001	60255002 60255001 60370002 60565020	AFT COIL 45MHZ VIF/QIF DET COIL 45MHZ COIL,DETECTOR 4.5MHZ COIL,D.L MATCHING

*** PWB ASSYS ***

	93S50A01	AV-INT PWB ASSY
	93S50F01	MAIN PWB ASSY
	93S50G01	VIDEO-CRT PWB ASSY
	93S50N01	DC-PS PWB ASSY
	93S50T01	CTL-LED PWB ASSY

SYMBOL	PARTS NO	DESCRIPTION
*** ELECTRICAL PARTS & MISCELLANEOUS PARTS ***		
△	70032053	SG/CRT SOCKET
FC101	39016030	C,NETWORK 50V 560PF
FC102	39016050	C,NETWORK 50V 560PF
FC103	39016030	C,NETWORK 50V 560PF
FC104	39016050	C,NETWORK 50V 560PF
FH601	71205037	HOLDER,FUSE
FH602	71205037	HOLDER,FUSE
FH603	71205037	HOLDER,FUSE
FR101	39030086	R,NETWORK 5*33K 5% 1/8W
FR102	39030039	R,NETWORK 4*33K 5% 1/8W
FR103	39030039	R,NETWORK 4*33K 5% 1/8W
FR104	39030086	R,NETWORK 5*33K 5% 1/8W
△ F601	66690117	FUSE MF51NF125V4A-UC
△ F602	66690111	FUSE MF51NM250V1A-UC
△ F603	66690114	FUSE NM250V2A-UC
△ MG1	49005024	CPC MAGNET
MX301	79606091	US SND MULTIPLEX MODULE
P-ANT	71110942	300-75 ATTACHMENT PLUG
△ PSCORD **	70891001	LINE CORD UC-2 L2.3
RV1501	79606090	PHOTO SENS UNIT
SK-201	70102924	SOCKET 64P,IC
SP-LS **	63010111	SPEAKER 90*55 8H 5W ALN
SP-LT	63001706	SPEAKER 50MM 8H 12W
SP-RS **	63010111	SPEAKER 90*55 8H 5W ALN
SP-RT	63001706	SPEAKER 50MM 8H 12W
**	24BS0641	BATTERY COVER
WEDG	70301520	WEDGE 10
△ X101 **	48007398	DEFLECTION YOKE
	64003029	X'TAL 4.5MHZ (NDK-M)
X751	64003022	X'TAL OSC 3.58MHZ

SYMBOL	PARTS NO	DESCRIPTION
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*** PRINTED & PACKING MATERIALS ***

**	2DMT0572	CARTON BOX(CT-2062S)
**	24806961	BAG,POLYETHYLENE(270*370)
**	24830762	BAG,PROTECTION
**	78059831	INSTRUCTION BOOK
**	79608711	REMOTE UNIT,RC-1040E
**	79UY1012	SAFETY CARD USA
**	2DMS9771	FILLER T
**	2DMS9781	FILLER B

*** RESISTORS ***

△ R122	40371163	R,METAL 390H 5% 1W
△ R168	40371173	R,METAL 1K 5% 1W
△ R194	40372147	R,METAL 82H 5% 2W
△ R198	40177117	R,CARBON 4.7H 5% 1/4W
△ R2002	401K5705	R,CARBON 22K 5% 1/6W
△ R2003	401K5703	R,CARBON 18K 5% 1/6W
△ R411	40371159	R,METAL 270H 5% 1W
△ R412	40399036	R,METAL 1.0H 5% 1W
△ R420	40178101	R,CARBON 1.0H 5% 1/2W
R507	40372181	R,METAL 2.2K 5% 2W
△ R508	40372197	R,METAL 10K 5% 2W
R512	40373189	R,METAL 4.7K 5% 3W
△ R513	40175101	R,CARBON 1H 5% 1/4W
R514	40371159	R,METAL 270H 5% 1W
R516	40372185	R,METAL 3.3K 5% 2W
△ R517	40371117	R,METAL 4.7H 5% 1W
△ R518	40175109	R,CARBON 2.2H 5% 1/4W
△ R519	40371101	R,METAL 1.0H 5% 1W
△ R520	40178101	R,CARBON 1.0H 5% 1/2W
△ R522	40177173	R,CARBON 1.0K 5% 1/4W
R523	401K5723	R,CARBON 120K 5% 1/6W
△ R525	40854124	R,FUSE 9.1H 5% 1W
△ R526	40372129	R,METAL 15H 5% 2W
△ R529	40371151	R,METAL 120H 5% 1W
△ R601	40216029	R,WIRE 1.5H 5% 5W

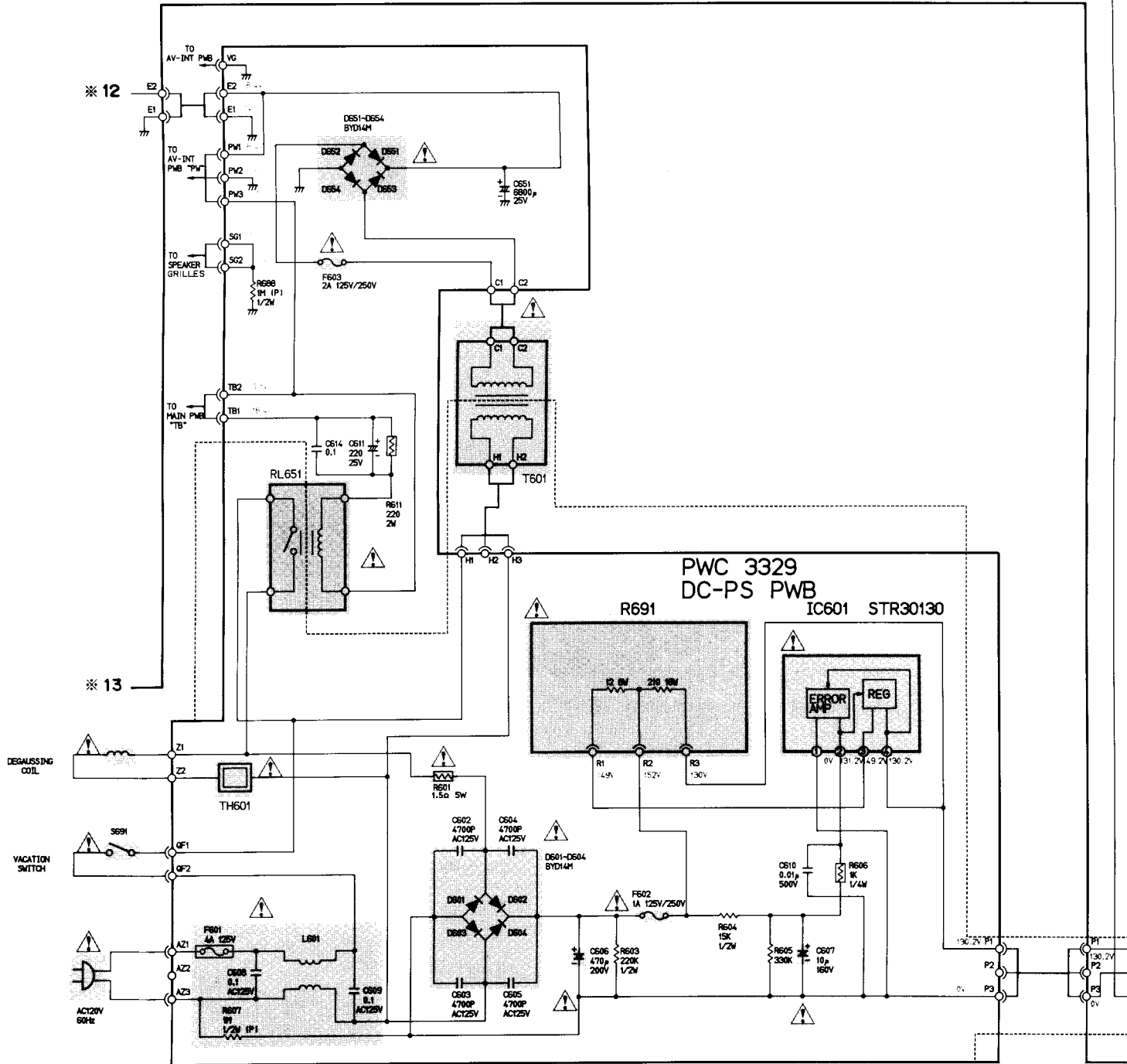
SYMBOL	PARTS NO	DESCRIPTION
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△ R607	400B3745	R,SOLID 1.0M 5% 1/2W
R611	40372157	R,METAL 220H 5% 2W
△ R691	40223009	RESISTOR,WIRE 210H 5% 16W
△ R699	400B3753	R,SOLID 2.2M 5% 1/2W
R784	40371161	R,METAL 330H 5% 1W
△ R901	40372197	R,METAL 10K 5% 2W
△ R902	40372197	R,METAL 10K 5% 2W
△ R903	40372197	R,METAL 10K 5% 2W

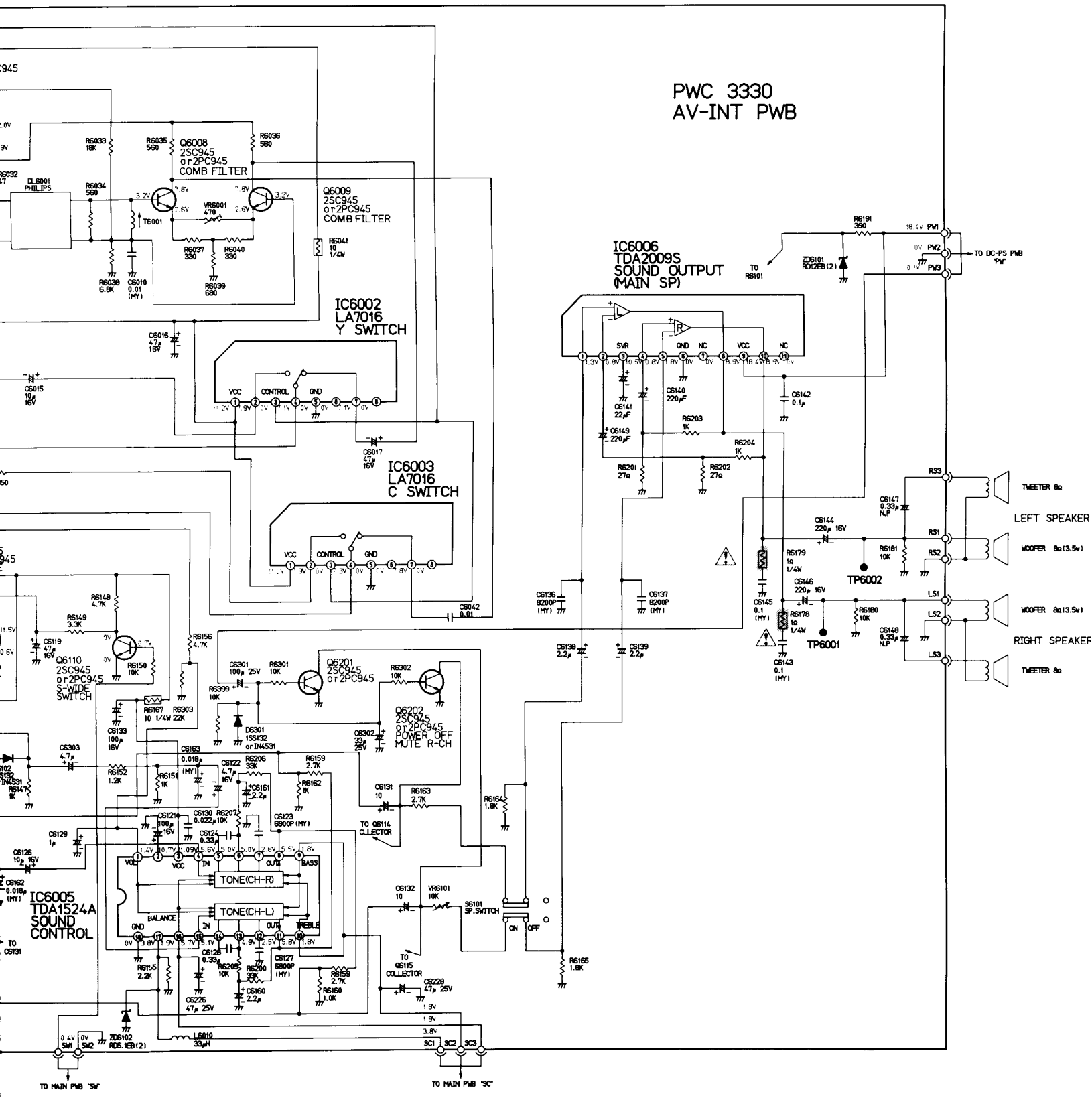
*** CAPACITORS ***

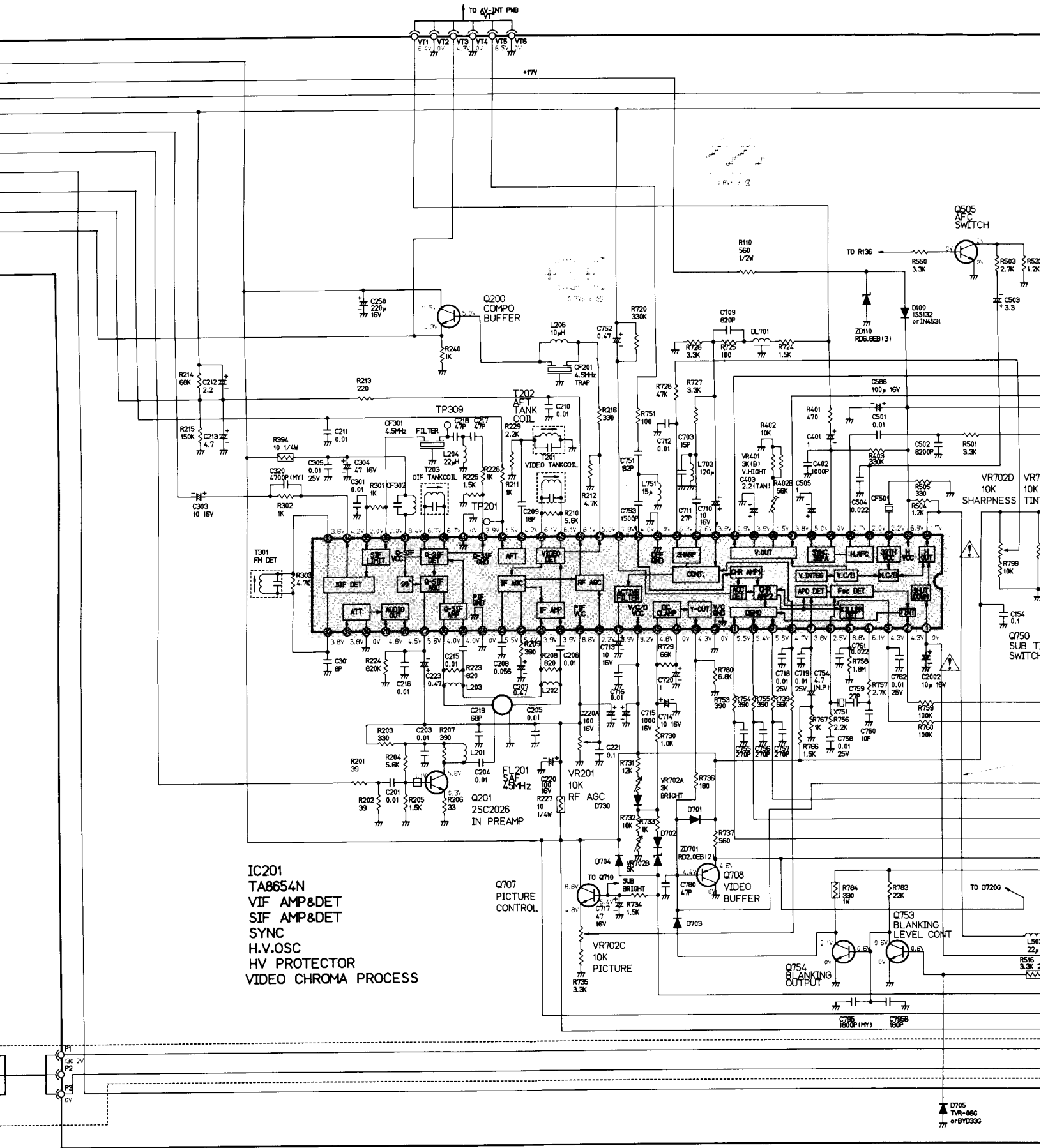
C108	43099063	C,ELEC 5V 47000UF
△ C2001	430B6066	C,ELEC 50V 22UF
△ C2002	430B6065	C,ELEC 50V 10UF
C508	4203J575	C,CERAMIC 500V 0.01UF
C509	420C9560	C,CERAMIC 500V 560PF
△ C510	42808559	C,METAL FILM1.6KV0.0105UF
C511	420C9567	C,CERAMIC 500V 2200PF
△ C512	4302F557	C,ELEC 250V 22UF
△ C513	4309J064	C,ELEC 160V 100UF
C514	42703881	C,MYLAR 400V 0.33UF
C515	420C9567	C,CERAMIC 500V 2200PF
C516	42849113	C,METAL 250V 0.1UF
C518	420C9567	C,CERAMIC 500V 2200PF
C519	420C9567	C,CERAMIC 500V 2200PF
C526	420C9567	C,CERAMIC 500V 2200PF
C531	42041019	C,CERAMIC 2000V 1000PF
△ C602	42099097	C,CERAMIC AC125V 0.0047UF
△ C603	42099097	C,CERAMIC AC125V 0.0047UF
△ C604	42099097	C,CERAMIC AC125V 0.0047UF
△ C605	42099097	C,CERAMIC AC125V 0.0047UF
△ C606	43109033	C,ELEC 200V 470UF
△ C607	4302J516	C,ELEC 160V 10UF
△ C608	42899025	C,METAL FILM 125V 0.1UF
△ C609	42899025	C,METAL FILM 125V 0.1UF
C610	4203J575	C,CERAMIC 500V 0.01UF
△ C698	42824213	C,METAL FILM 250V 0.01UF
△ C699	42824213	C,METAL FILM 250V 0.01UF
C905	4201J575	C,CERAMIC 500V 0.01UF
C922	42041019	C,CERAMIC 2000V 1000PF

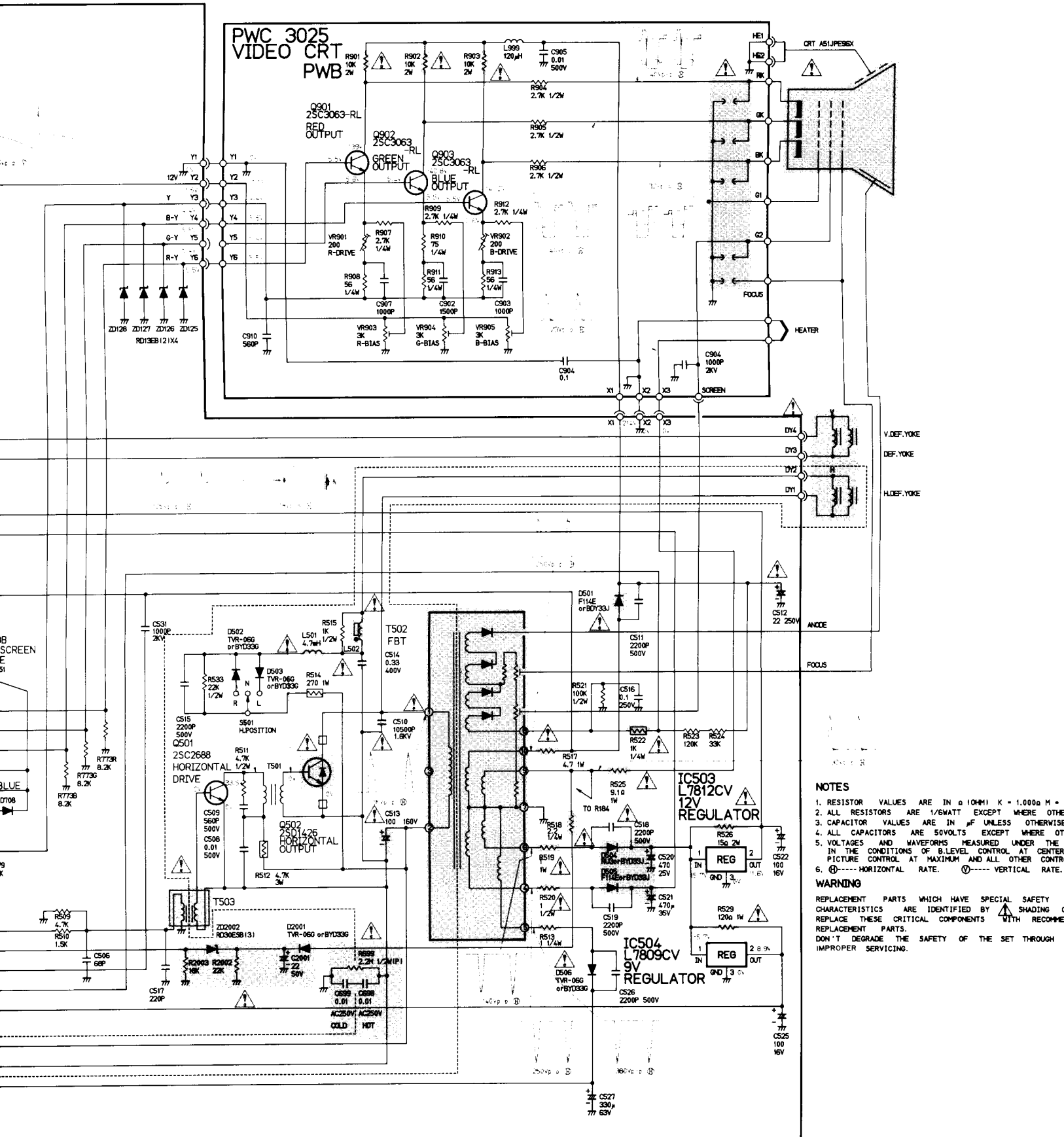
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PWC 3330
AV-INT PWB







NOTES

1. RESISTOR VALUES ARE IN Ω (OHM) K = 1,000 Ω M = 1,000,000 Ω
2. ALL RESISTORS ARE 1/8WATT EXCEPT WHERE OTHERWISE SPECIFIED
3. CAPACITOR VALUES ARE IN μF UNLESS OTHERWISE SPECIFIED
4. ALL CAPACITORS ARE 50VOLTS EXCEPT WHERE OTHERWISE SPECIFIED
5. VOLTAGES AND WAVEFORMS MEASURED UNDER THE CONDITIONS OF BLEVEL CONTROL AT CENTER POSITION
6. ⊕----- HORIZONTAL RATE. ⊙----- VERTICAL RATE.

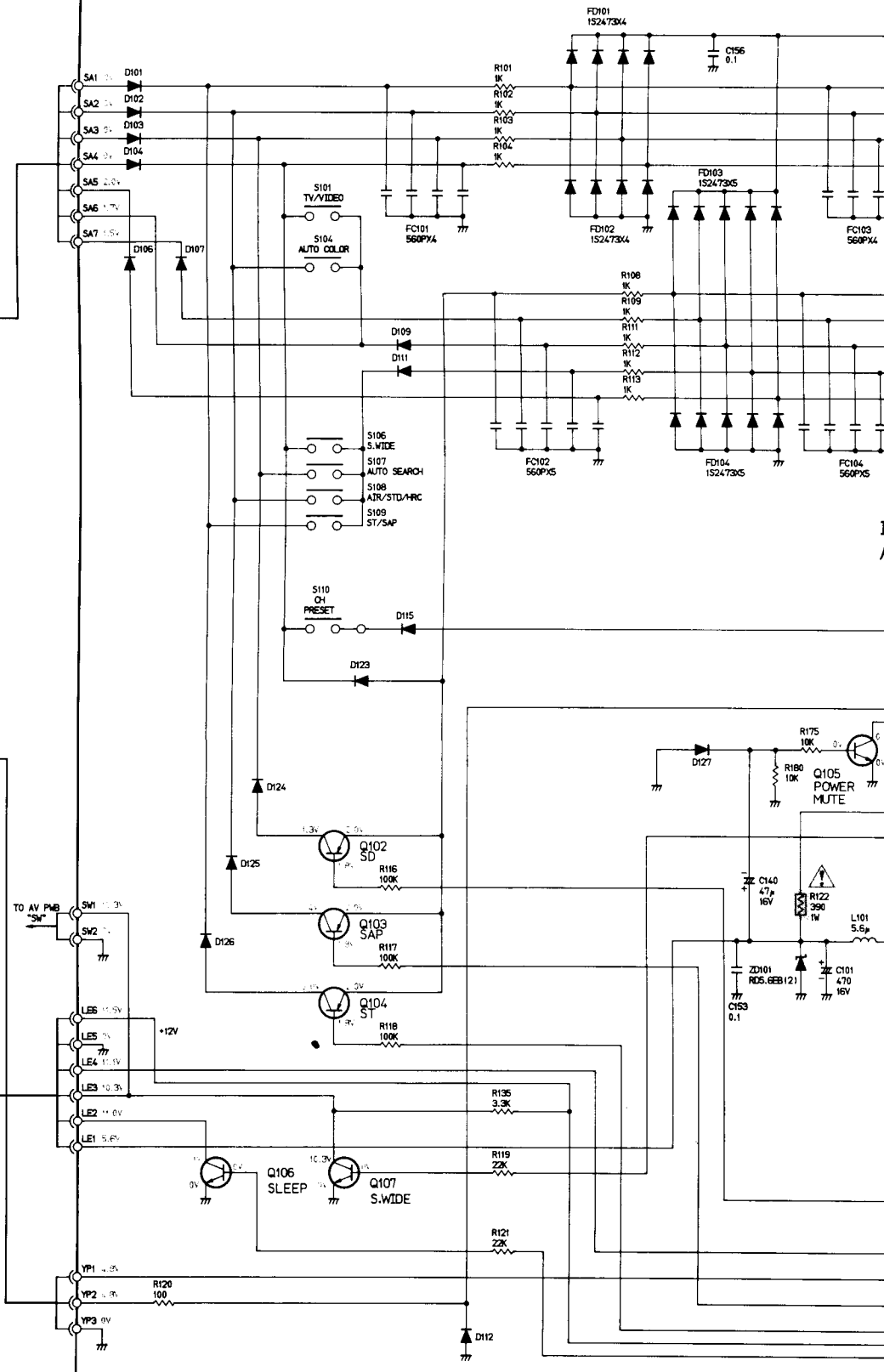
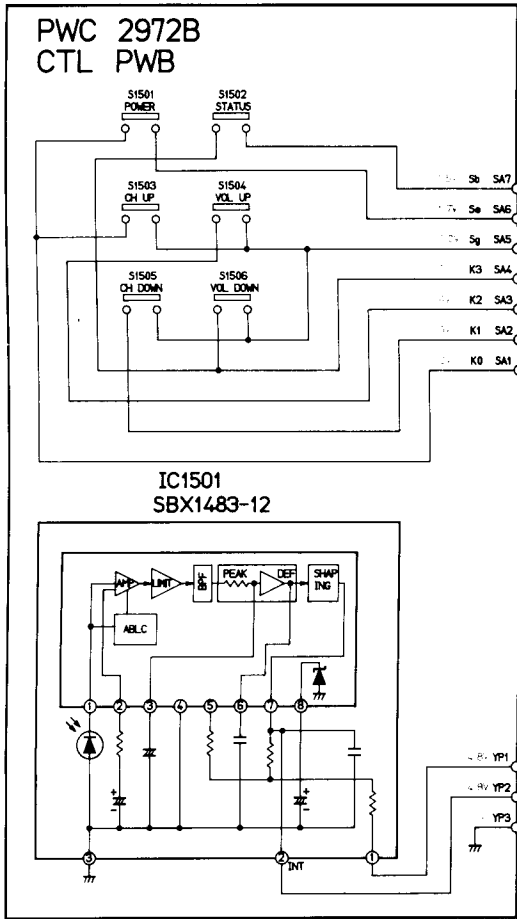
WARNING

REPLACEMENT PARTS WHICH HAVE SPECIAL SAFETY CHARACTERISTICS ARE IDENTIFIED BY SHADING. REPLACE THESE CRITICAL COMPONENTS WITH RECOMMENDED REPLACEMENT PARTS. DON'T DEGRADE THE SAFETY OF THE SET THROUGH IMPROPER SERVICING.

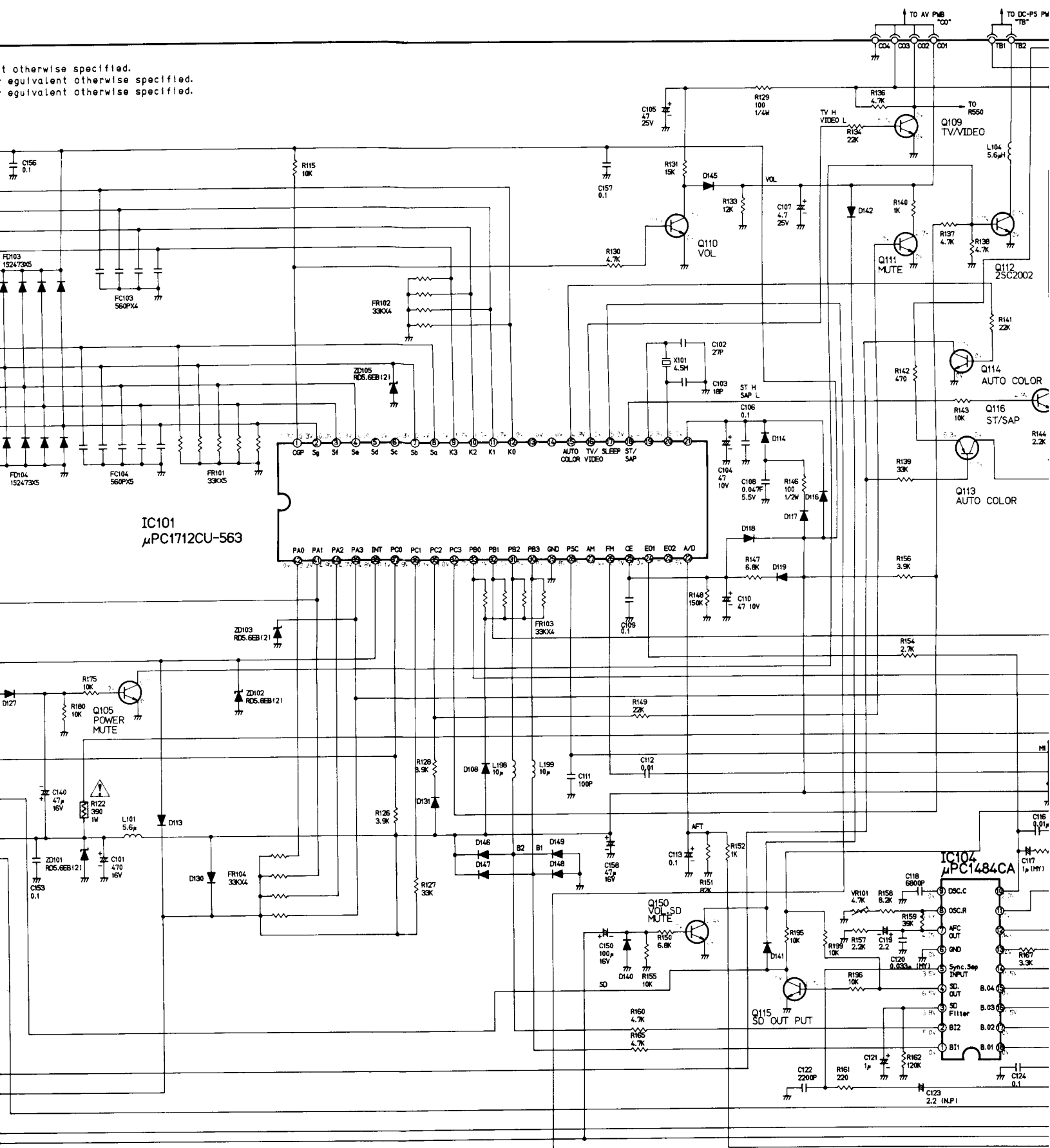
MODEL CT-2062S SCHEMATIC DIAGRAM

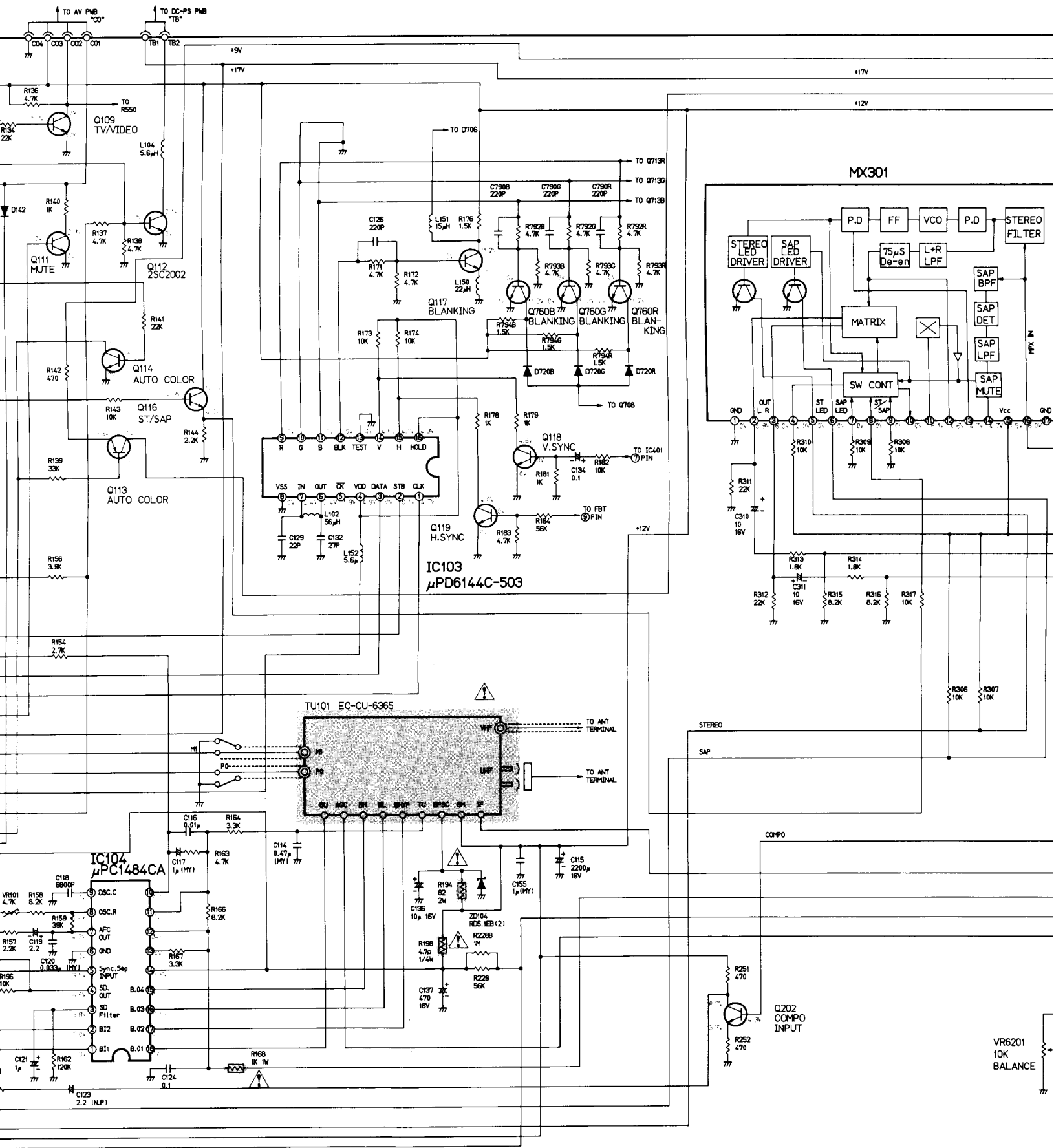
PWC 3001 MAIN PWB

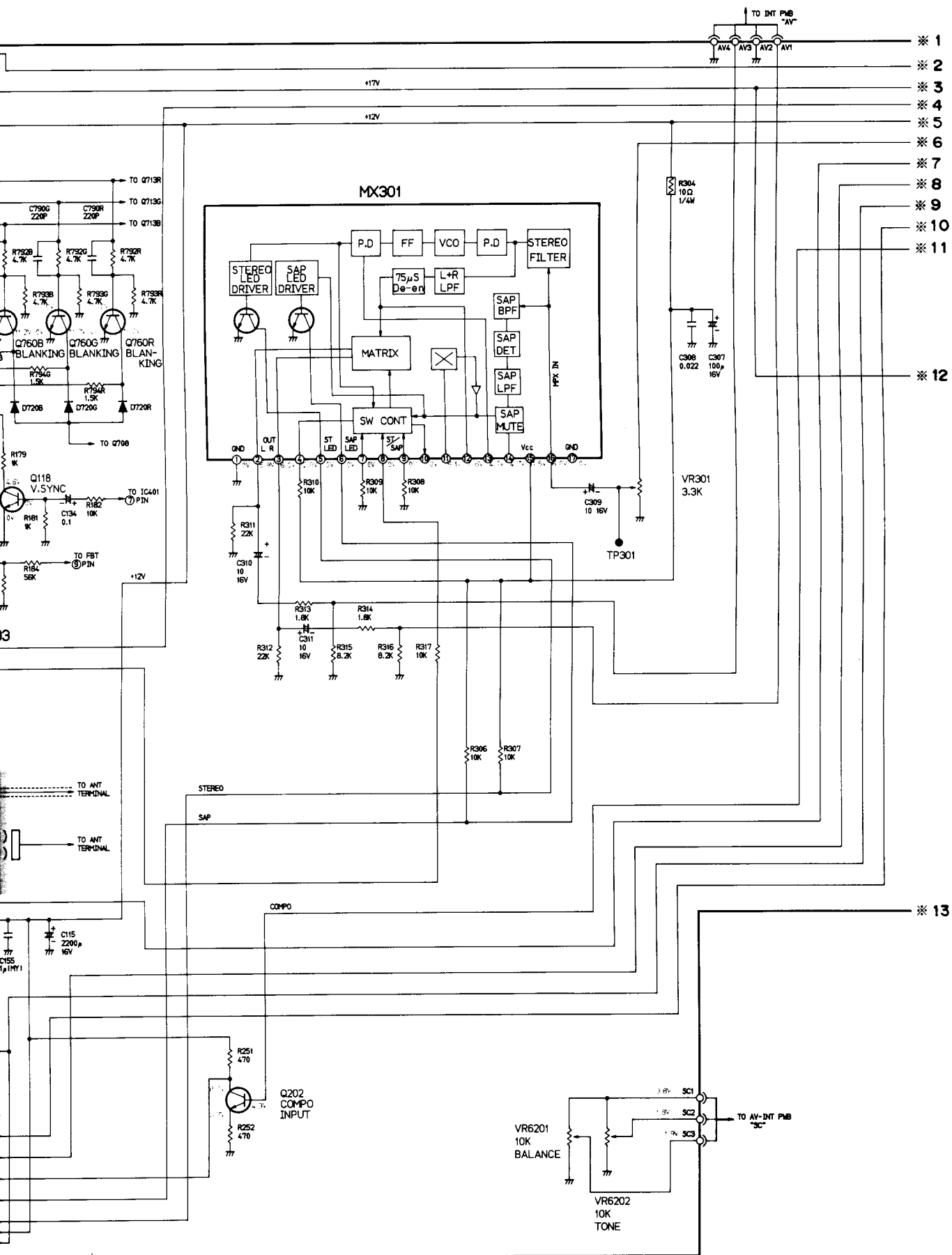
NOTE: ALL diodes are 1S5132 or 1N4531 or equivalent otherwise specified.
ALL PNP transistors are 2SA733 or 2PA733 or equivalent otherwise specified.
ALL NPN transistors are 2SC945 or 2PC945 or equivalent otherwise specified.



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MODEL CT-2062S AV-INT PWB SCHEMATIC DIAGRAM

