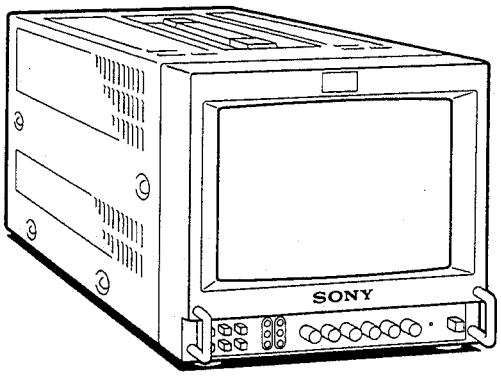
PVM-9041QM/9044QM

SERVICE MANUAL

AEP Model

PVM-9041QM
Chassis No. SCC-F09B-A
PVM-9044QM
Chassis No. SCC-F09A-A

SP 00151



SPECIFICATIONS

Video signal

Color system	PAL, SECAM, NTSC3.58, NTSC4.43
Resolution	**PVM-9044QM:** 450 TV lines **PVM-9041QM:** 250 TV lines
Aperture correction	–4.0 dB – +6.0 dB (at 3.0 MHz)
Frequency response	6.0 MHz (–3.0 dB) at all inputs
Synchronization	AFC time constant 1.0 msec.

Picture performance

Normal scan	6% over scan of CRT effective screen area
Underscan	3% underscan of CRT effective screen area
H. linearity	Less than 7.0% (typical)
V. linearity	Less than 7.0% (typical)
Convergence	Central area: 0.43mm (typical) Peripheral area: 0.53mm (typical)
Raster size stability	H: 1.0%, V: 1.5%
High voltage regulation	3.0%
Color temperature	D65

Inputs and Outputs

Inputs	Y/C IN: 4-pin mini DIN connector (See the pin assignment on page 2.) VIDEO IN: BNC connector 1 Vp-p ± 6dB, sync negative AUDIO IN: phono jack, –5 dBs, less than 47k ohms R/R-Y, G/Y, B/B-Y: BNC connector R, G, B channels: 0.7 Vp-p, ±6 dB Sync on green : 0.3 Vp-p, negative, 75 ohms terminated R-Y, Y, B-Y channels: 0.7 Vp-p, ±6 dB (Standard color bar signal of 100% chrominance) EXT SYNC IN: BNC connector Composite sync 4 Vp-p, ±6 dB, negative
Loop-through outputs	Y/C OUT: 4-pin mini DIN connector VIDEO OUT: BNC connector, 75 ohms terminated AUDIO OUT: phono jack Output level 0.5 W EXT SYNC OUT: BNC connector, 75 ohms terminated
Tally/remote input	TALLY/REMOTE: 8-pin mini DIN connector (See the pin assignment on page 2.)

General

Power consumption	43 W at AC operation 40 W at DC operation

– Continued on next page –

MICROFILM

TRINITRON® COLOR VIDEO MONITOR

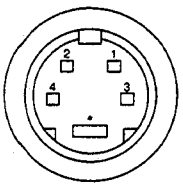
SONY®

Power requirements	100 – 240 V AC, 50/60 Hz (for all models) 12 V DC, with the Sony (NP-1A/1B) battery pack (not supplied) or AC-500/500CE AC power adaptor (not supplied)
Operating temperature range	0 – 35 °C
Storage temperature range	–10 – +40 °C
Humidity	0 – 90%
Dimensions	Approx. 217 x 217 x 352.5 mm (w/h/d) (8 5/8 x 8 5/8 x 14 inches) not incl. projecting parts and controls
Weight	Approx. 7.8 kg (17 lb 3 oz) not incl. battery packs
Accessory supplied	AC power cord (1) Cable with an 8-pin connector

Design and specifications are subject to change without notice.

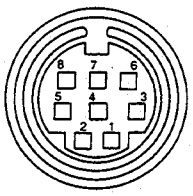
Pin Assignment

Y/C IN connector (4-pin mini DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

TALLY/REMOTE connector (8-pin mini DIN)



Pin No.	Signal
1	Blue only
2	H/V delay
3	GND
4	INT/EXT SYNC
5	Tally
6	Underscan/normal scan
7	A/B or RGB/Y R-Y B-Y
8	RGB/LINE

For remote control, connect the pin of the desired function to pin 3 (GND).

TABLE OF CONTENTS

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

SECTION 1
GENERAL

1-1. FEATURES

Four color systems available

The monitor can display PAL, SECAM, NTSC3.58 and NTSC4.43* signals. The appropriate color system is selected automatically.

* A signal of NTSC4.43 is used for playing back NTSC recorded video cassettes with a video tape recorder/player especially designed for use with this system.

Super Fine Pitch Trinitron picture tube

(PVM-9044QM only)

The Super Fine Pitch Trinitron picture tube provides a high resolution picture. Horizontal resolution is more than 450 TV lines at the center of the picture.

Blue only picture

The picture can be displayed in blue and black only. This facilitates hue adjustment and the observation of video noise.

Analog RGB/component input connectors

Analog RGB or component (Y, R-Y and B-Y) signals from video equipment can be input through these connectors.

Y/C input connector

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Comb filter

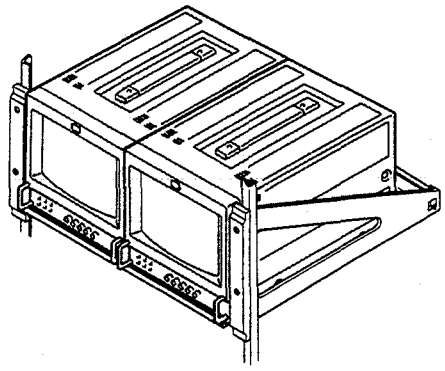
When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Automatic termination

The Y/C, VIDEO IN and EXT SYNC IN connectors are terminated at 75 ohms inside, when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

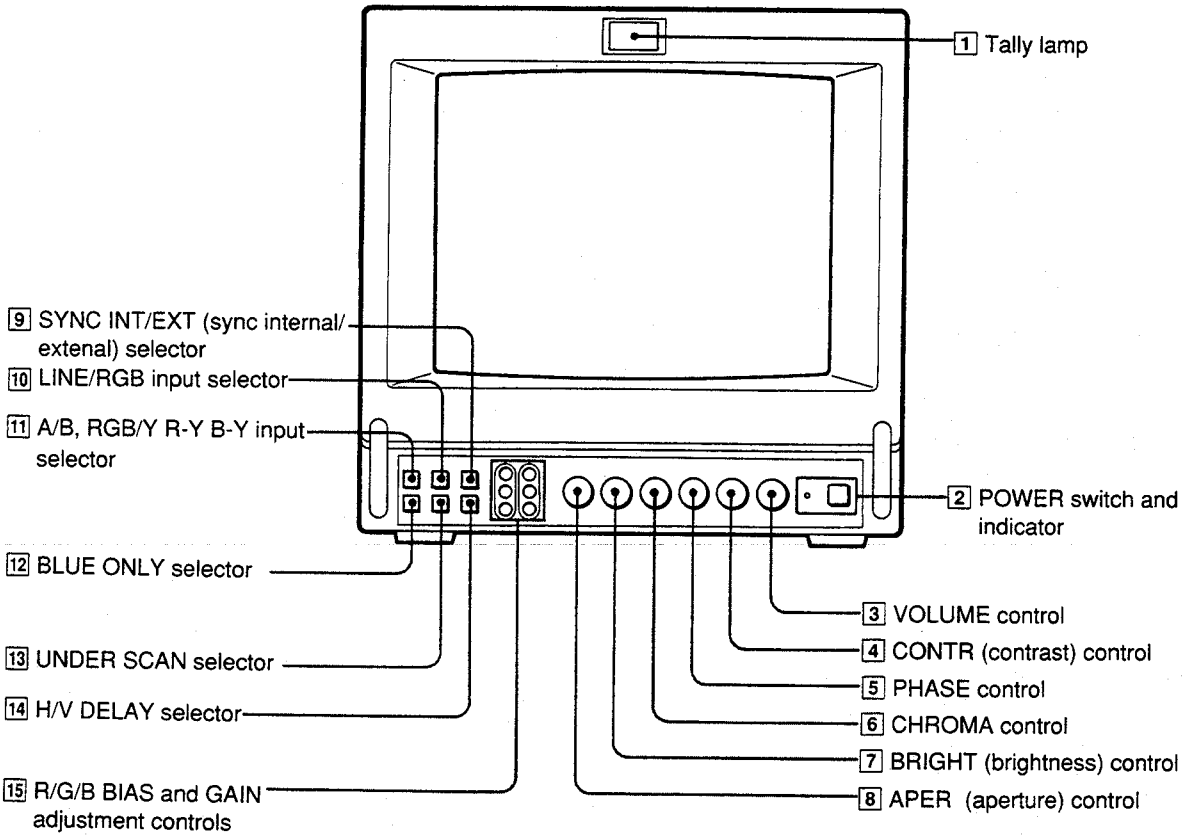
EIA standard 19-inch rack mounting

By using an MB-507 mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the MB-507.



1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS

Front



1 Tally lamp

2 POWER switch and indicator
Depress to turn the monitor on. The indicator will light up in green.
The POWER indicator also functions as the battery indicator. When the internal battery becomes weak or the power supplied through the DC12V IN jack decreases, the indicator flashes.

3 VOLUME control
Turn this control clockwise or counterclockwise to obtain the desired volume.

4 CONTR (contrast) control
Turn clockwise to make the contrast stronger and counterclockwise to make it weaker.

5 PHASE control
This control is effective only for the $NTSC_{3.58}$ and $NTSC_{4.43}$ color systems. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

Notes

- The PHASE, CHROMA and APER control settings have no effect on an analog RGB signal.
- The PHASE control has no effect on component singals.
- The PHASE control setting is effective only for the NTSC system.

6 CHROMA control
Turn clockwise to make the color intensity stronger and counterclockwise to make it weaker.

7 BRIGHT (brightness) control
Turn clockwise for more brightness and counterclockwise for less.

8 APER (aperture) control
Turn clockwise for more sharpness and counterclockwise for less.

9 SYNC INT/EXT (sync internal/external) selector
Keep this button released (INT) to operate the monitor on the sync signal from the displayed composite video signal.
Depress this button (EXT) to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel.

[10] **LINE/RGB input selector**
Select the program to be monitored. Keep this button released (LINE) for a signal fed through the LINE A or LINE B connectors. Depress this button (RGB) for a signal fed through the RGB connectors.

[11] **A/B, RGB/Y R-Y B-Y input selector**
When the LINE/RGB input selector is set to LINE,
keep this button released (A) for a signal fed through the LINE A connectors. Depress this button (B) for a signal fed through the LINE B connectors.

When the LINE/RGB input selector is set to RGB,
select the RGB signal or the component signal which is fed through the RGB input connectors. Keep this button released (RGB) for the RGB signal. Depress this button (Y R-Y B-Y) for the component signal.

[12] **BLUE ONLY selector**
Depress this button to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" control adjustments and the observation of video noise.

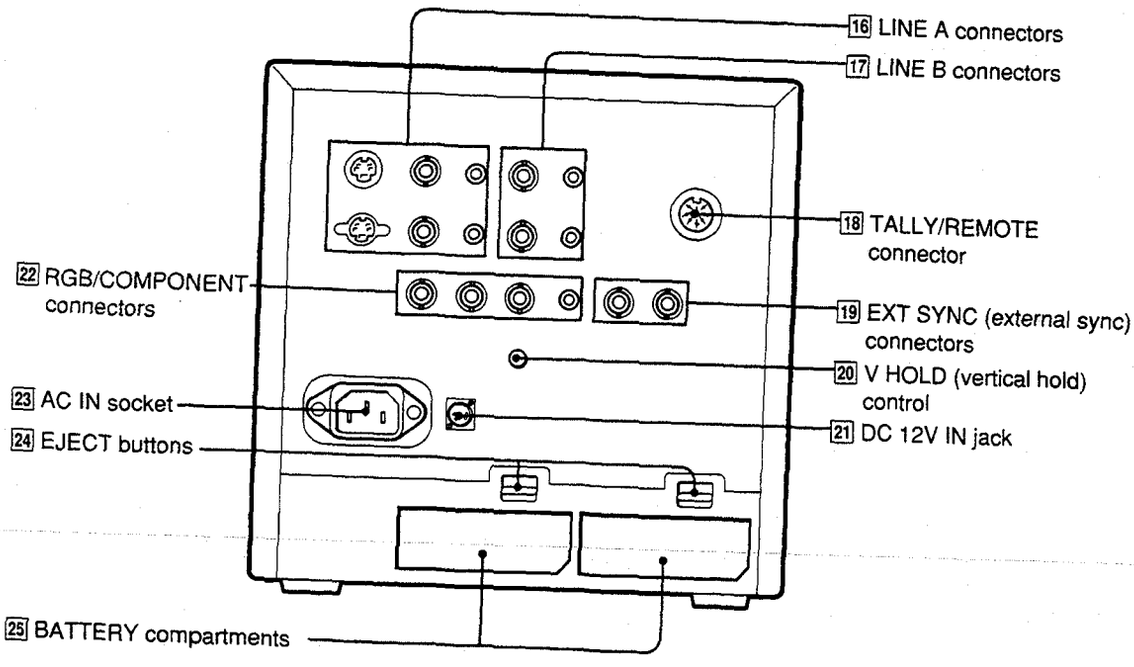
[13] **UNDER SCAN selector**
Depress this button for underscanning. The display size is reduced by approximately 3% so that four corners of the raster are visible.

[14] **H/V DELAY selector**
Depress this button to observe the horizontal and vertical sync signals at the same time. The horizontal sync signal is displayed in the left quarter of the screen; the vertical sync signal is displayed near the center of the screen.

[15] **R/G/B BIAS and GAIN adjustment controls**
Used for white balance fine adjustment.
BIAS and GAIN controls are provided for the R (red), G (green) and B (blue) screens.

BIAS: Adjust the white balance and brightness of the screen at the lowlight.
GAIN: Adjust the white balance and brightness of the screen at the highlight.

Rear



16 LINE A connectors
To monitor the signal fed through these connectors, keep the LINE/RGB selector and the A/B, RGB/Y R-Y B-Y selector on the front panel released (LINE and A).

Note

The Y/C IN connector has a priority over the VIDEO IN connector.
When a plug is connected to the Y/C IN connector, the VIDEO IN connector is automatically disconnected.

17 LINE B connectors
To monitor the signal fed through these connectors, keep the LINE/RGB selector released (LINE) and depress the A/B, RGB/Y R-Y B-Y selector (B) on the front panel.

***VIDEO IN* (BNC):** Connect to the video output of a video camera, VCR or other video equipment.
VIDEO OUT (BNC): Loop-through output of the VIDEO IN connector. Connect to the video input of a VCR or another monitor.
AUDIO IN (phono jack): Connect to the audio output of a VCR or a microphone (through a suitable microphone amplifier).
AUDIO OUT (phono jack): Loop-through output of the AUDIO IN connector. Connect to the audio input of a VCR or another monitor.

18 TALLY/REMOTE connector (8-pin mini DIN)
Connect to the tally output of a control console, special-effect generator, etc. The tally lamp on the front panel will be turned on and off by the connected equipment. This connector can be used for connecting a remote controller. For the pin assignment of this connector, see "Specifications" on page 2.

19 EXT SYNC (external sync) connectors
IN (BNC): When this monitor operates on an external sync signal, connect the reference signal from a sync generator to this connector. In this case, depress the SYNC INT/EXT selector (EXT) on the front panel.
OUT (BNC): Loop-through output of the EXT SYNC IN connector. Connect to the external sync input of video equipment to be synchronized with this monitor.

20 V HOLD (vertical hold) control
Turn to stabilize the picture if it rolls vertically.

21 DC 12V IN jack (XLR, 4 pin)
Connect the Sony AC-500/500CE AC power adaptor (not supplied).

22 RGB/component input connectors

R/R-Y, G/Y, B/B-Y (BNC), AUDIO (phono):
To monitor a signal fed through these connectors, depress the LINE/RGB selector on the front panel (RGB). When the SYNC INT/EXT selector on the front panel is released (INT), the monitor operates on the sync signal from the G/Y channel.

To monitor the analog RGB signal
Connect to the analog RGB signal outputs of a video camera having no sync signal. Keep the A/B, RGB/Y R-Y B-Y selector on the front panel released (RGB).

To monitor the component signal
Connect to the R-Y/Y/B-Y component signal outputs of a Sony BetaCam video camera. Depress the A/B, RGB/Y R-Y B-Y selector on the front panel (Y R-Y B-Y).

23 AC IN socket
Connect the supplied AC power cord to this socket and to a wall outlet.

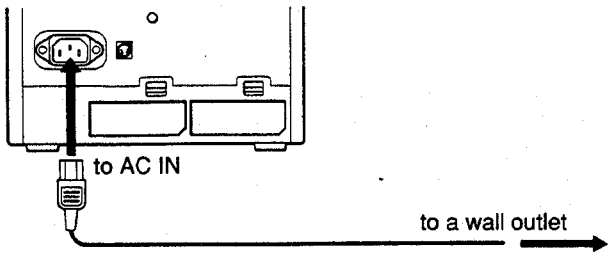
24 EJECT buttons
Press the EJECT button upwards to remove the battery pack.

25 BATTERY compartments
Insert the NP-1A/1B battery pack (not supplied).

1-3. POWER SOURCES

House Current

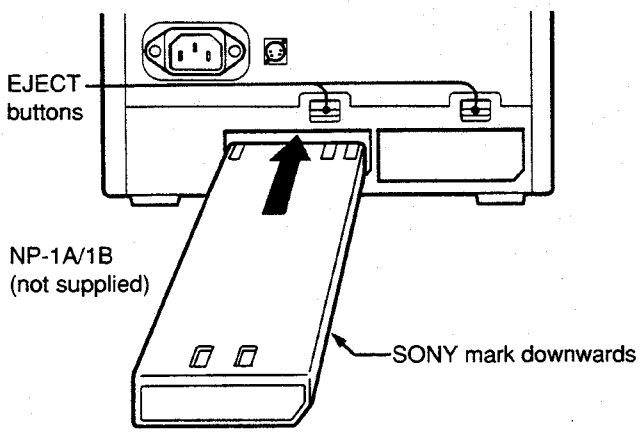
Connect the supplied AC power cord to the AC IN socket and to a wall outlet.



When the AC power cord is plugged into the AC IN socket, the battery pack (if installed) or the AC power adaptor (if connected) is automatically disconnected.

Rechargeable Battery

The monitor can operate with one or two battery packs. For extended use, two battery packs are recommended.



To remove the battery pack, press the EJECT button upwards.

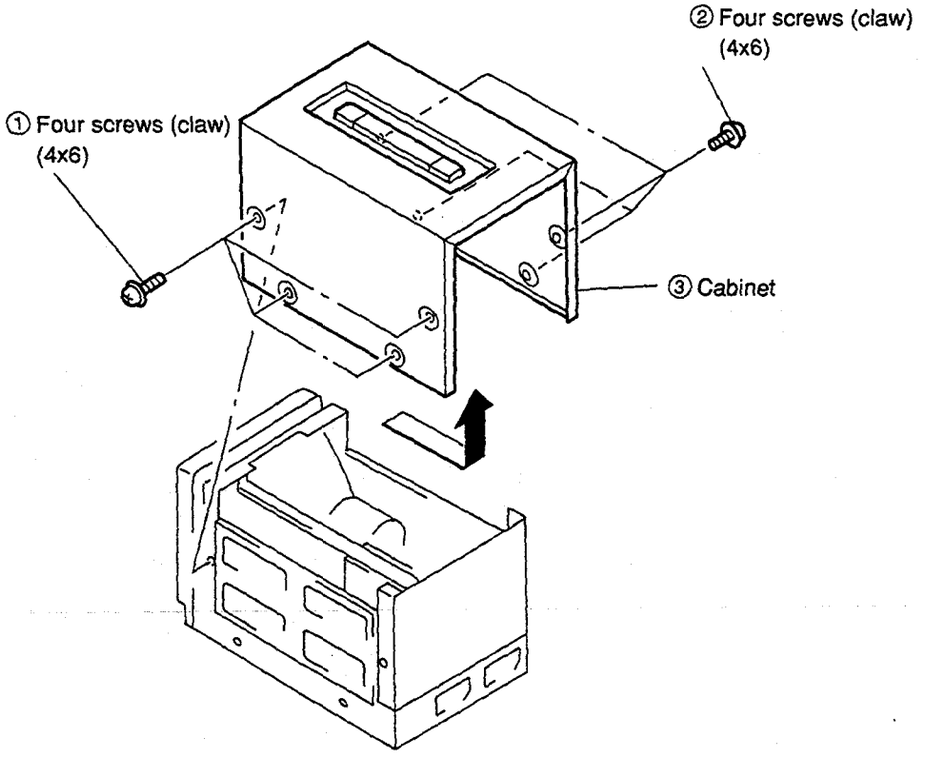
For charging, use the BC-1WA battery charger (not supplied) for the NP-1A or the BC-1WB for the NP-1B.

Note

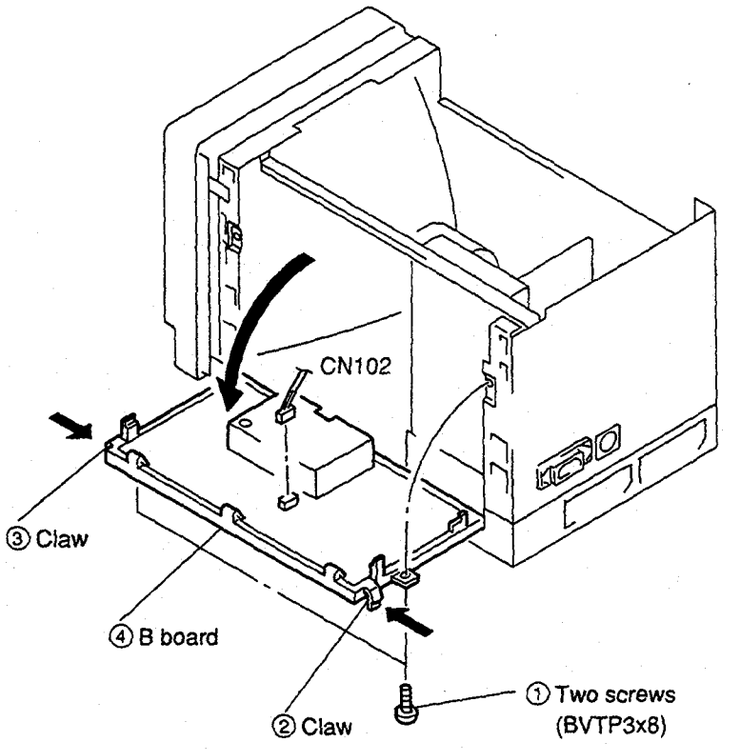
Make sure that the AC power cord and the AC power adaptor are disconnected from the monitor. Otherwise, the monitor cannot operate on the battery pack(s).

SECTION 2
DISASSEMBLY

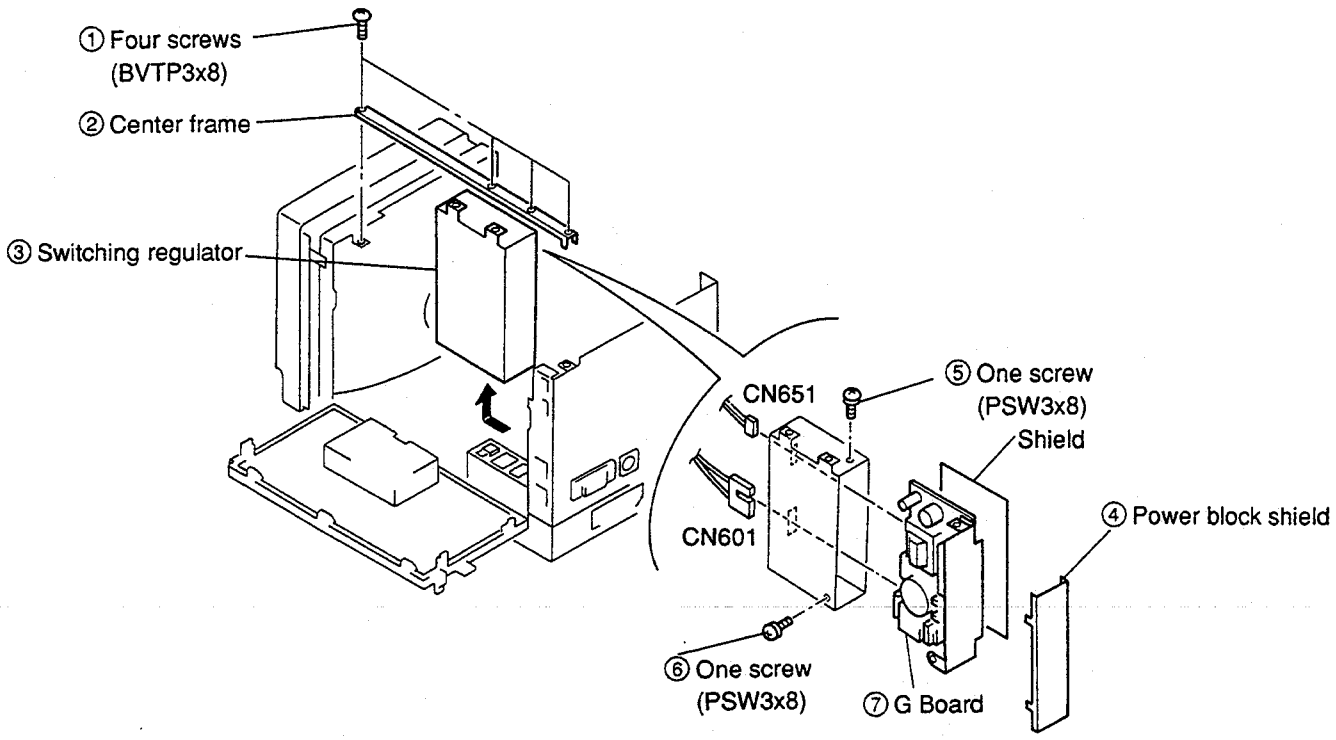
2-1. CABINET REMOVAL



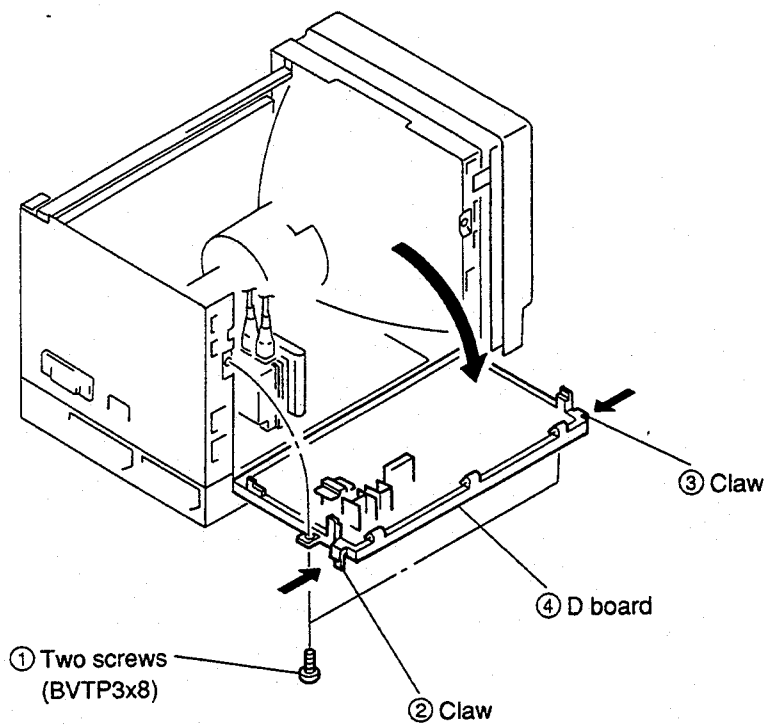
2-2. B BOARD REMOVAL



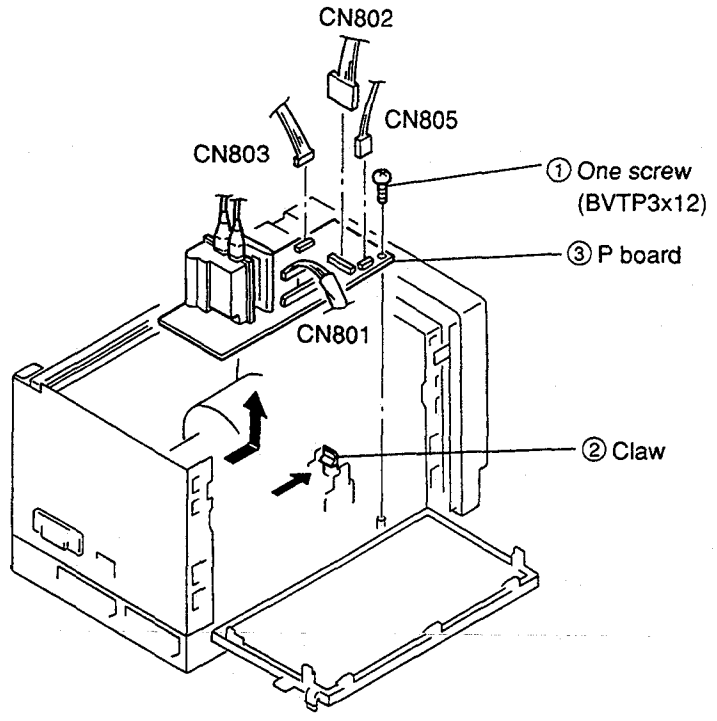
2-3. SWITCHING REGULATOR REMOVAL



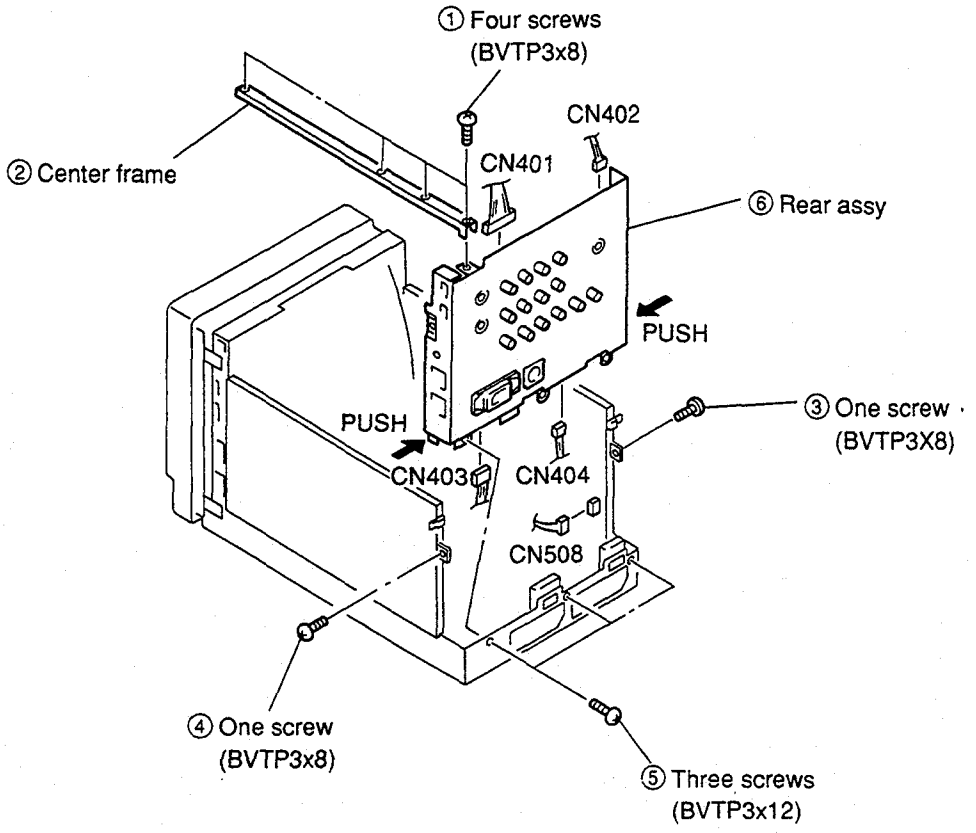
2-4. D BOARD REMOVAL



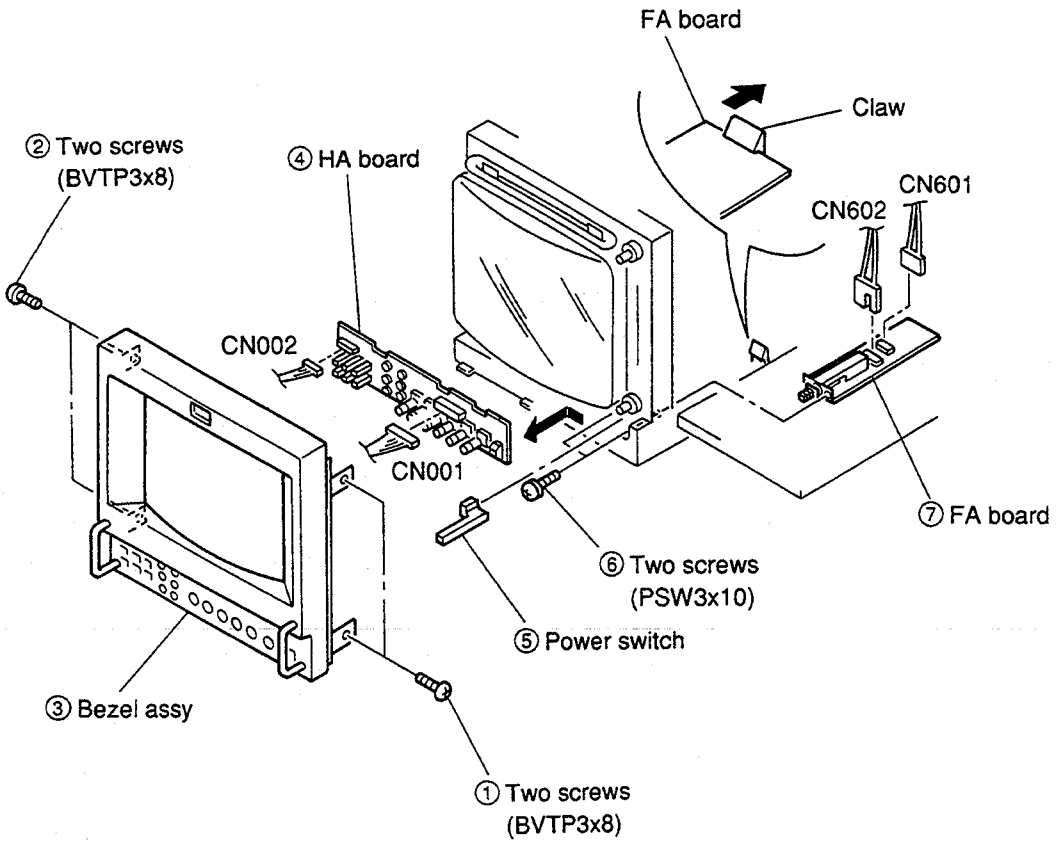
2-5. P BOARD REMOVAL



2-6. REAR ASSY REMOVAL



2-7. HA AND FA BOARDS REMOVAL



2-8. PICTURE TUBE REMOVAL

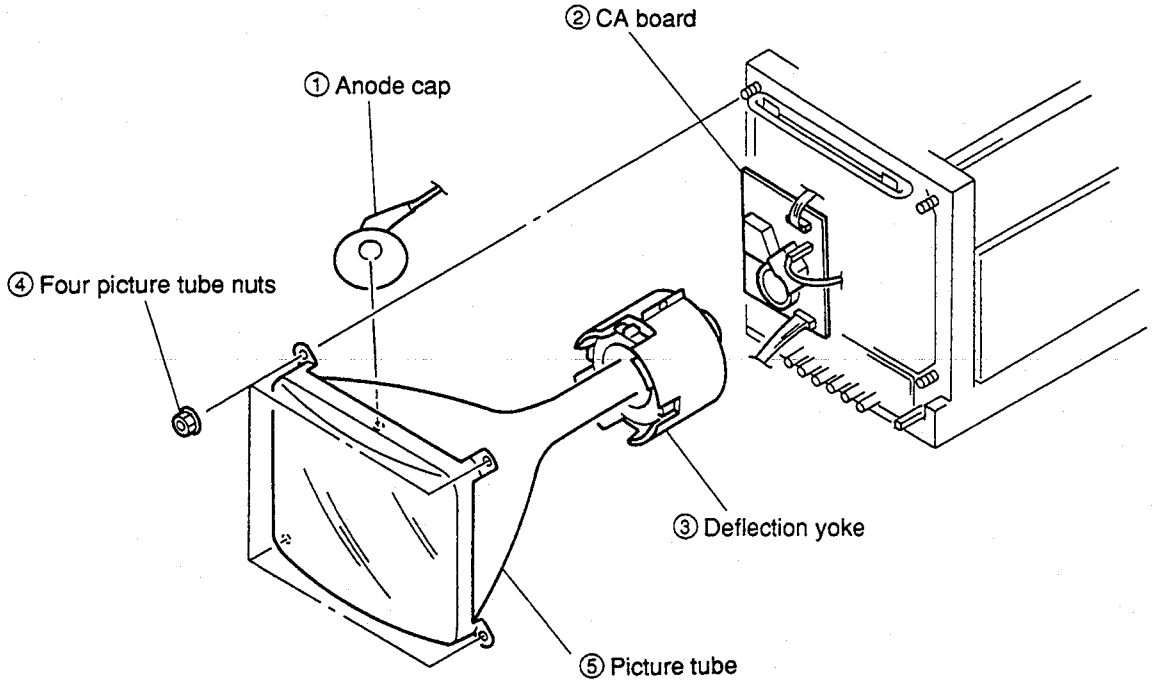
Note : Caution for ANODE CAP installation.
When you replace PICTURE TUBE or FBT, remove RTV on ANODE CAP so that PICTURE TUBE and FBT can be separated. Please adhere picture tube and anode cap in accordance with the following procedure.

ADHERING PROCEDURE OF ANODE CAP.

1. Clean PICTURE TUBE ANODE CAP with ethnaol to remove original RTV.
2. Dry clean face with air.
3. Use KE-490RTV (RTV silicone adhesive, SHIN-ETSU CHEMICAL).

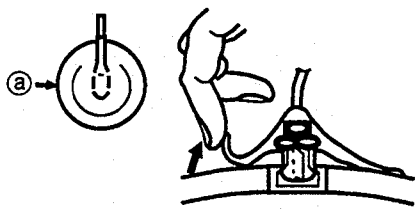
Part. No.	Description
7-322-065-19	Silicone (RTV) KE-490W

4. Install ANODE CAP.
5. Adeguately apply RTV to the entire picture tube anode area, piace the anode cap onto the picture tube and push it down securety so that no air pockets remain beneath the cap.
6. Dry more than 12 hours at room temperature.

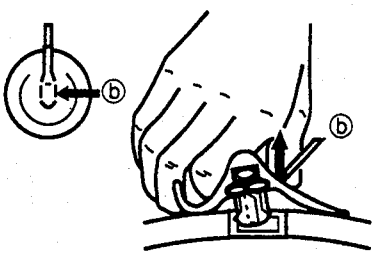


• REMOVAL OF ANODE-CAP

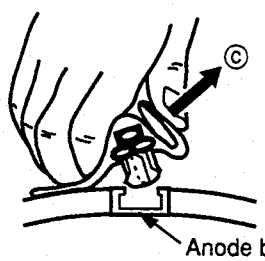
• REMOVING PROCEDURES



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.



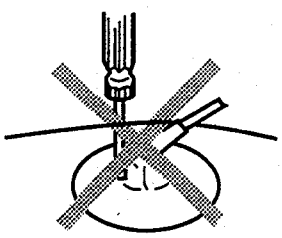
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

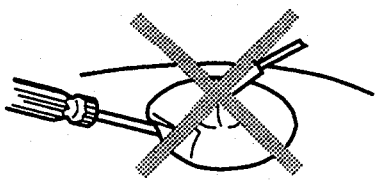
• HOW TO HANDLE AN ANODE-CAP

① Don't hurt the surface of anode-caps with sharp shaped material!

② Don't press the rubber hardly not to hurt inside of anode-caps!
A metal fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly!





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted:

CONTRAST control 80%
BRIGHTNESS control 50%

Perform the adjustments in order as follows:

3-1. Beam Landing
3-2. Convergence
3-3. Focus
3-4. White Balance

Note: Test equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. Color Analyzer (Minolta)
4. Luminance Level Meter

3-1. BEAM LANDING

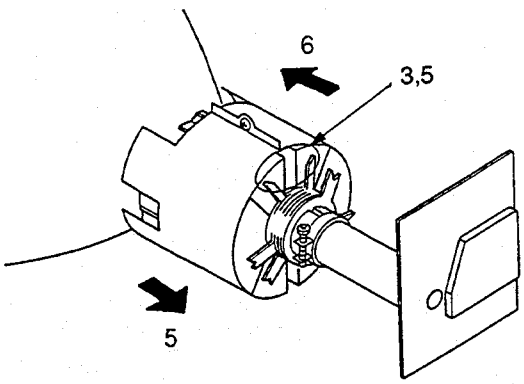
Precaution

1. Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
2. Turn the power switch for the unit ON and erase the magnetic force using a degausser.

(1) Beam Landing

1. Receive an entirely white signal with the pattern generator.
   CONTRAST ..... MAX.
   BRIGHTNESS ..... set easy to observe
2. Adjust the white balance, G2 voltage and convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig.3-1.
4. Switch over the pattern generator to green.
5. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and blue and red are at the sides, evenly. (Fig.3-2)
6. Move the deflection yoke forward, and adjust so that the entire screen becomes green. Repeat 5 to 7 as to red and blue.
7. When landing at the corners is not right, correct by using the magnet. (Fig.3-3)
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

CAUTION: When correction magnet is used, be sure to degauss the unit.



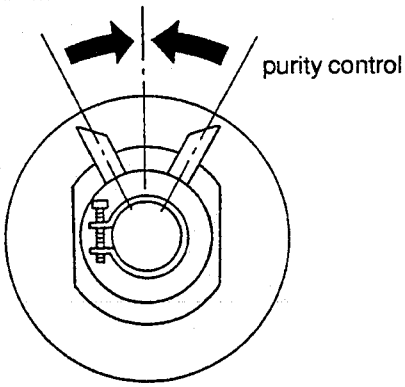


Fig.3-1

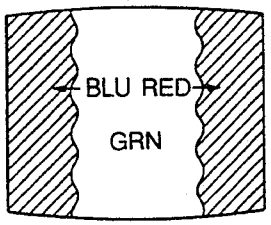


Fig.3-2

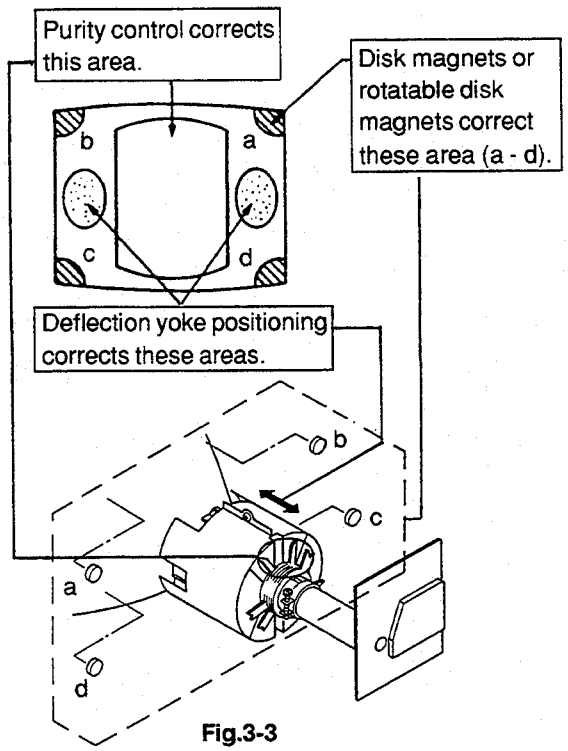


Fig.3-3

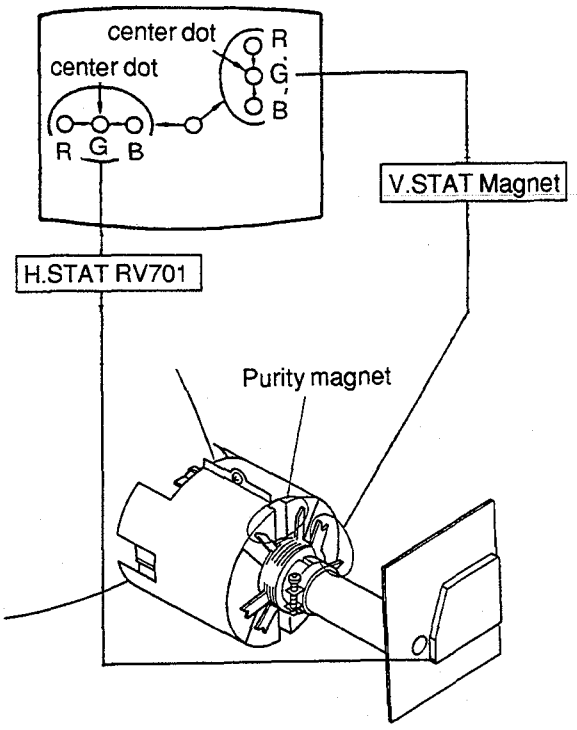
3-2. CONVERGENCE

(1) Horizontal and vertical Static Convergence Adjustment on the Center of Screen.

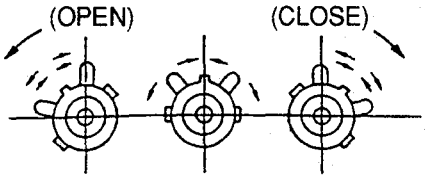
- Before starting, perform V. SIZE, V. CENT, H.SIZE, H.CENT and Screen Distortion Adjustment rightly.

(Static Convergence Adjustment)

1. Receive a dot signal, setting BRIGHTNESS minimum and set CONTRAST to normal.
2. Adjust H.STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
3. Adjust V.STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)

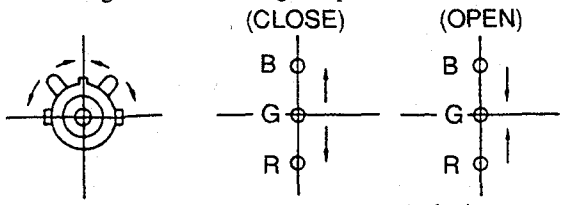


* If the red, green and blue dots do not coincide on the center of screen with H.STAT VR, perform adjustment using V.STAT at the same time while tracking.
(Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.)

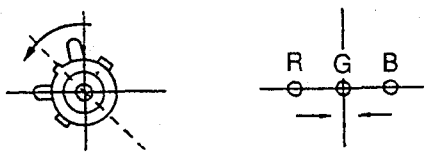


4. When the V.STAT magnet is moved in the direction of arrow A and b, red, green and blue dots move as shown below.

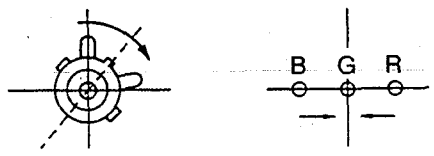
① When moving the V.STAT Magnet open or close.



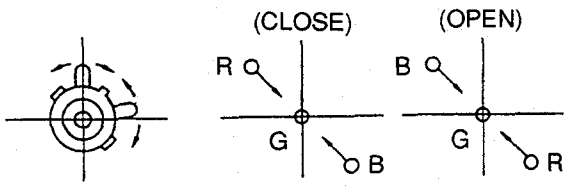
② When moving the V.STAT magnet counterclockwise.



③ When moving the V.STAT magnet clockwise.



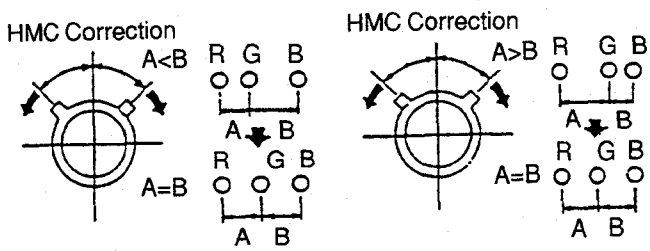
④ When tilt the V.STAT magnet and open or close.



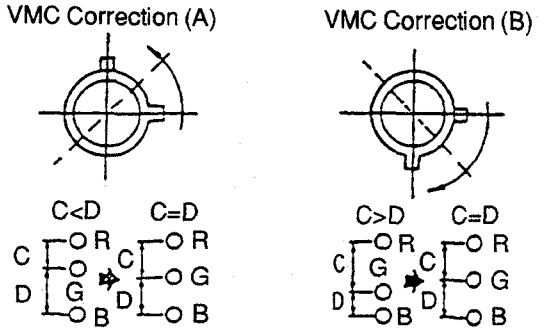
* If the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

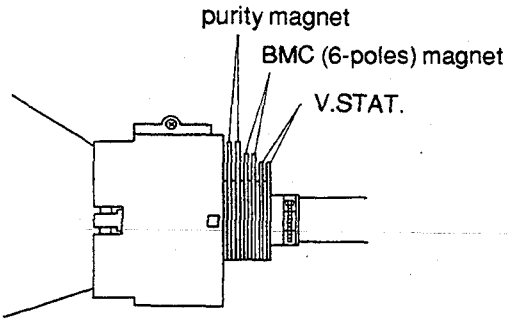
5. HMC and VMC correction for BMC (6-Poles) magnet.

① HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.



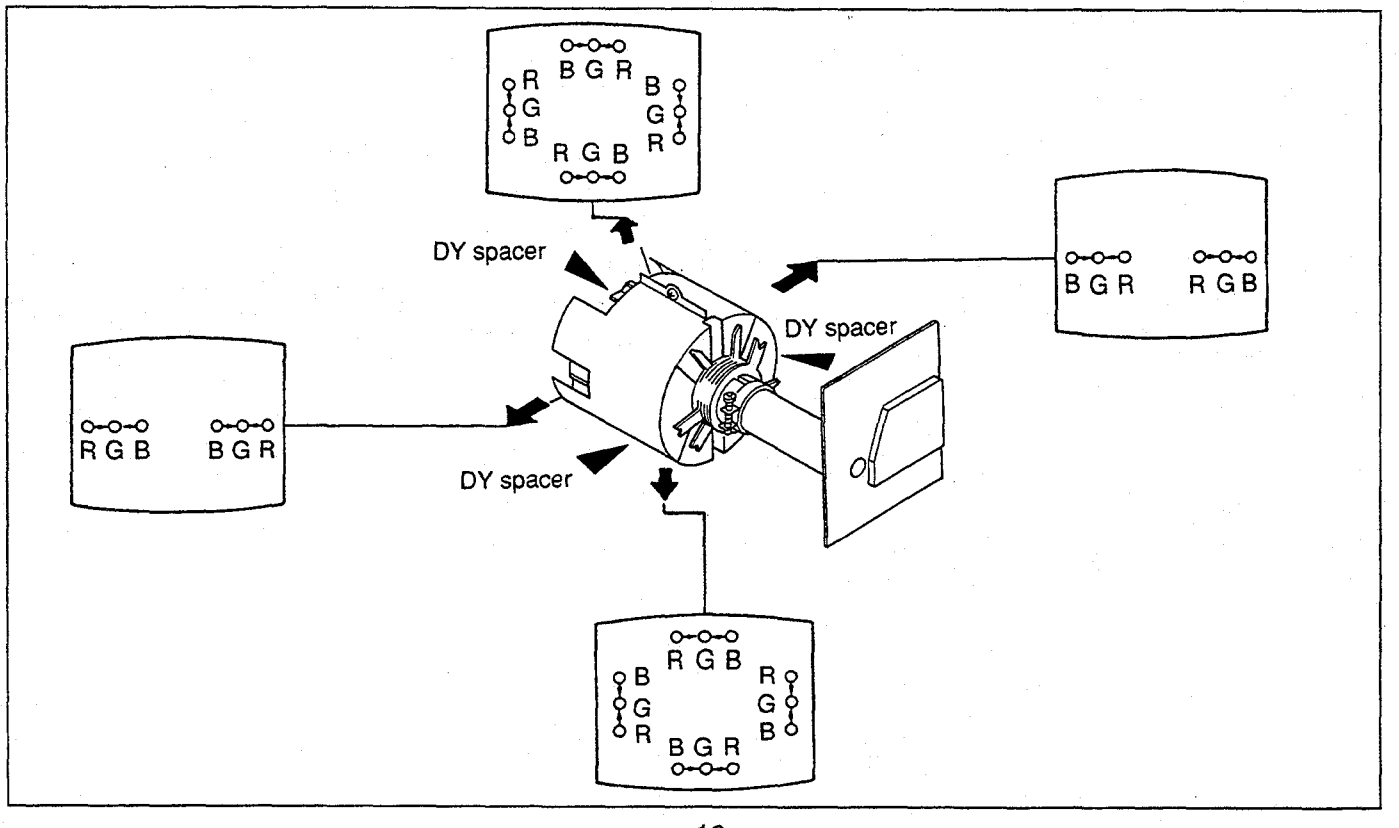
② VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.



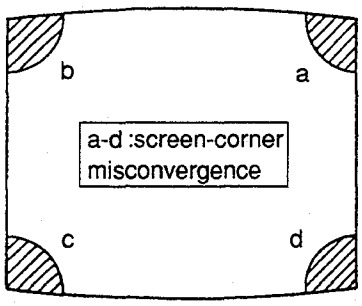


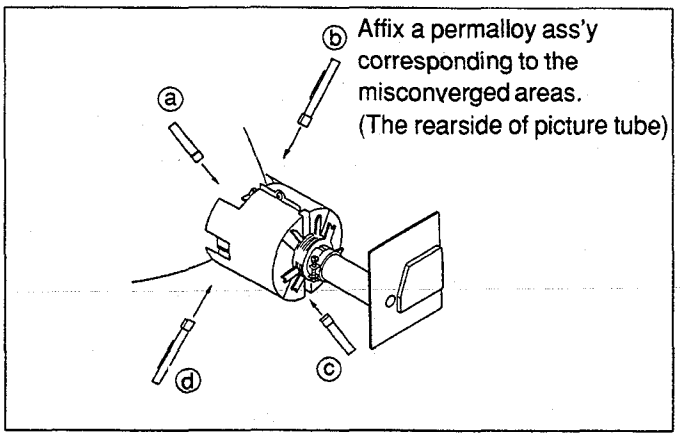
(2) Horizontal and Vertical Dynamic Convergence Adjustment at the Environs of the Screen (Dynamic Convergence Adjustment)

1. When there is misconvergence at the sides of screen, adjust for best convergence as follows by moving the deflection yoke.
2. Loosen deflection yoke screw. Remove deflection yoke spacers. Move the deflection yoke for best convergence. Tighten the deflection yoke screw. Install three deflection yoke spacers.



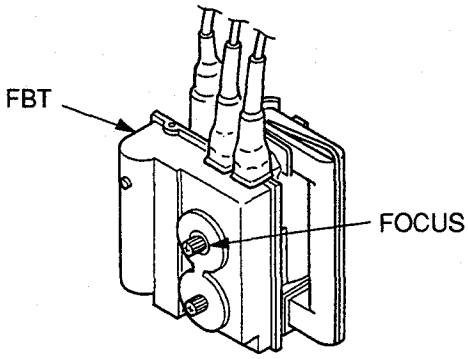
Screen-corner Convergence





3-3. FOCUS

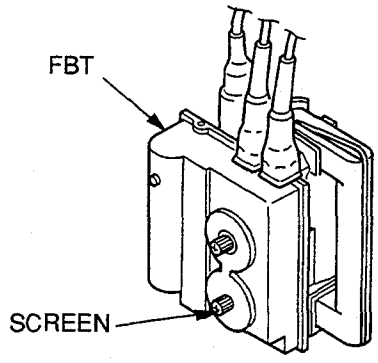
1. Receive the broadcast.
2. CONTRAST → Normal
3. Adjust FOCUS control so that the focus on the center of screen becomes to the best.



3-4. WHITE BALANCE

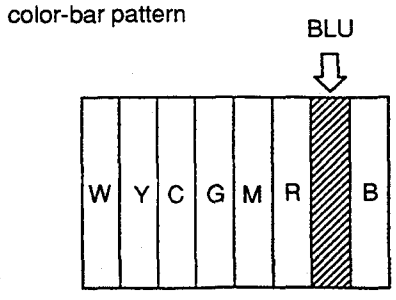
[Screen (G2) Voltage Adjustment]

1. Receive a dot signal with the pattern generator.
2. Adjust R. G. B cut-off controls so that respective cathode voltage against ground becomes 103V DC.
3. Observing the screen, adjust SCREEN control so that the background of the dot signal is bright dimly.



[White Balance]

1. Receive a color-bar pattern signal with the pattern generator. (Make black and white screen by chroma switch off.)
2. • BRIGHTNESS 50%
   • CONTRAST ..... Minimum
   • CHROMA 50%
   • DRIVE control ..... Mechanical center
   • BKG control ..... Mechanical center
3. Adjust RV118 (SUB BRT) on B board so that the blue stripe portion on the color-bar pattern signal is bright dimly.



4. Receive an entirely white signal from the pattern generator.
5. CONTRAST ..... 70% (90 degree clockwise from mechanical center.)
6. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 3 Nits. (The condition the screen is bright dimly.)
7. Adjust white balance at cut-off using RV119 (G-C/O) and RV121 (B-C/0).
8. Change the all-white signal luminance level to 100 IREs.
9. Adjust white balance at high-light using RV120 (G-GAIN) and RV121 (B-GAIN).
10. Change the unit to blue ONLY mode.
11. Adjust white balance (at high-light) in blue ONLY mode using RV124 *R-GAIN/BL) and RV125 (G-GAIN/BL).
12. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 8 Nits. Confirm that white balance at cut-off is satisfactory..

SECTION 4
SAFETY RELATED ADJUSTMENT

4-1. SAFETY RELATED ADJUSTMENTS

B+ ADJUSTMENT AND B+ MAX CHECK FOR SERVICING (⊠ RV651)

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on G board : (Power supply block)
IC601, IC651, PH601, C654, R653, R655, R656, R657, RV651.

1. Input the AC power supply voltage 240V $^{+1}_{-0}$ V.
2. Input the monoscope signal.
3. Set as follows.
   - CONTRAST 80%
   - BRIGHTNESS 50%
4. Connect the digital multimeter to RY1601 pin-⑦ on the D board.
5. Adjust RV651 on the G board so that the +B voltage becomes 40.0 ± 0.1V.
6. After adjusting RV651, fix it with an epoxy.
7. Input the AC power supply voltage 240V $^{+1}_{-0}$ V.
8. Input the dot signal.
9. Set as follows.
   - CONTRAST ..... Minimum
   - BRIGHTNESS ..... Minimum
10. Check that the B+ voltage is below 41.9V.
    If it is above this value, repeat from step 1.

B+ MAX IN DC POWER INPUT MODE, CONFIRMATION (⊠ RV1603)

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on D board :
Q1601, Q1602, Q1603, D1601, D1602, D1603, D1604, D1605, C1601, C1602, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1629, R1628, R1630, RV1601, RV1603.

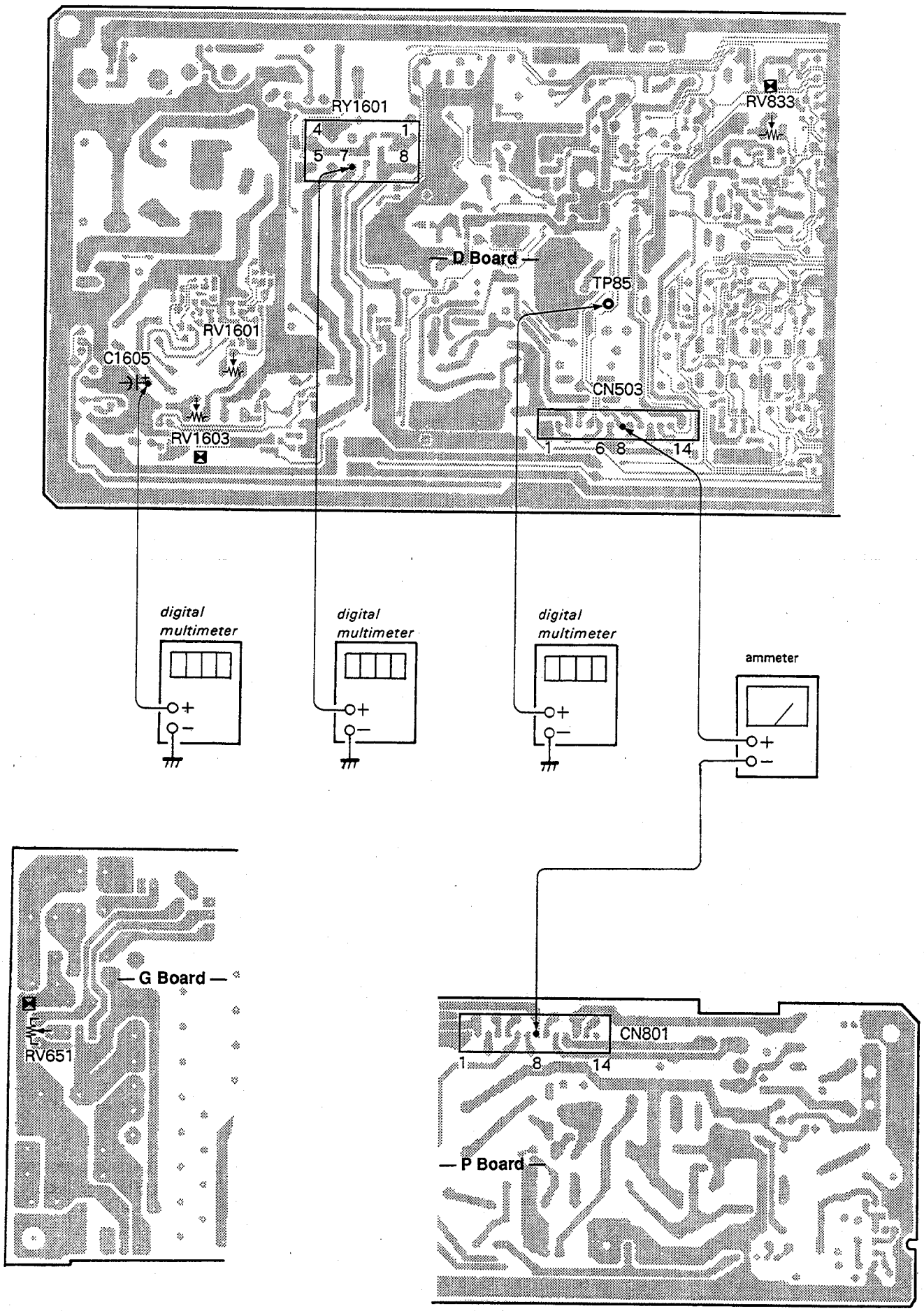
1. Supply DC 12V $^{+0.4}_{-0}$ V from DC 12V IN connector.
2. Receive a dot signal.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Minimum
4. Connect a digital multimeter to C1605 positive + side of D board.
5. Turn RV1601 on the D board fully clockwise. Confirm that the voltage of C1605 + pin is less than 41.9V DC.
6. If step 5 is not satisfied, readjust the RV1603. After adjusting, fasten RV1603 in place with epoxy.

HOLD-DOWN CIRCUIT CONFIRMATION (⊠ RV833) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on D board:
IC502, Q833, Q834, Q835, Q836, D835, D836, C519, C843, C844, C845, C846, C847, C848, RV833, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R861, R862, R863.
◪ on P board:NL801,T802 (FBT),C814.

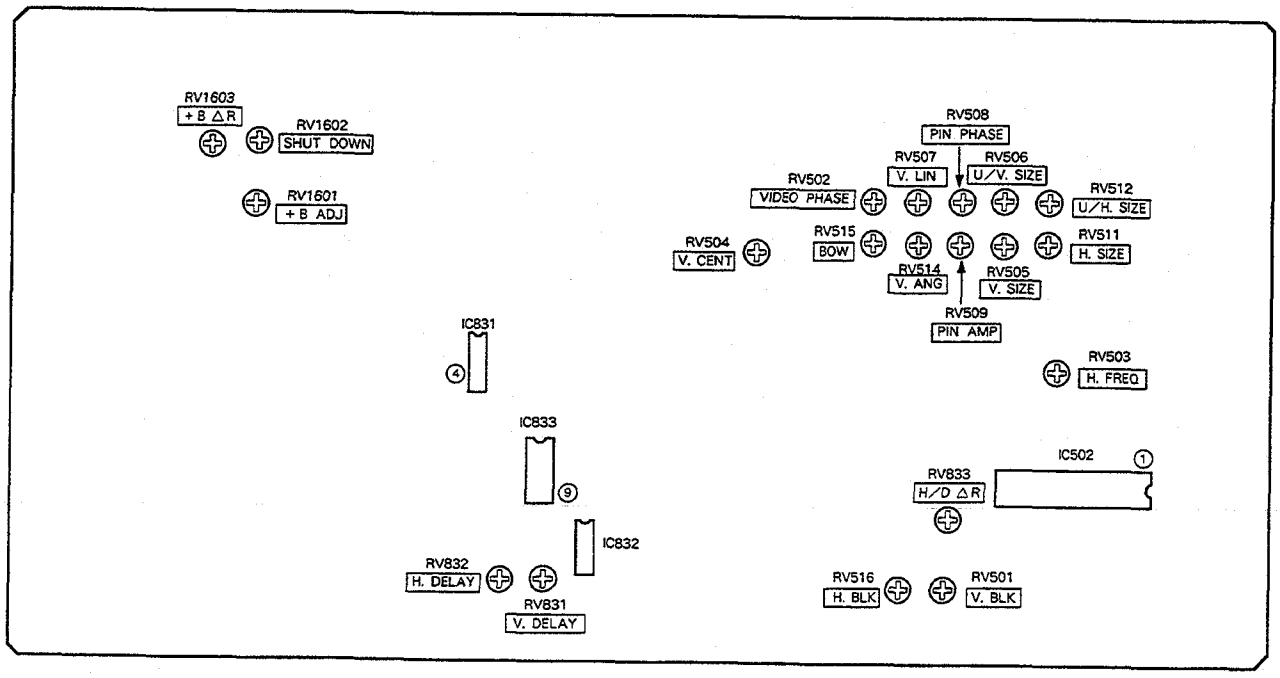
1. Receive an entire white signal.
2. • CONTRAST ..... Maximum
   • BRIGHTNESS ..... Maximum
3. Connect a digital multimeter to the TP85 (CN503 pin-⑥).
4. Confirm the voltage is 14.1 ± 3.0V DC.
5. Receive a dot signal.
6. Connect an ammeter between D board CN503 pin-⑧ and P board CN801 pin-⑧.
7. Adjust BRIGHTNESS and CONTRAST so that the current is IABL = 160 ± 30 μA.
8. Apply an external DC voltage gradually to TP85. When the voltage becomes 18.5V ± 0.1V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
9. When external DC voltage at TP85 becomes 17.5V ± 0.1V DC, confirm the HOLD-DOWN circuit doesn't operate.
10. Receive an entire white signal.
11. Adjust with BRIGHTNESS and CONTRAST controls so that the current is IABL = 520 ± 30 μA.
12. Apply DC voltage of 17.8V ± 0.1V to TP85. Confirm the HOLD-DOWN circuit operates immediately and raster disappears.
13. With the same set-up as steps 10 and 11, supply 16.8V ± 0.1V DC to TP85. Confirm that the HOLD-DOWN circuit doesn't operate.
14. When above specifications are not satisfied, readjust RV833. After adjusting, fasten RV833 in place with epoxy.


RY1601
4
1
5
7
8
RV833
— D Board —
TP85
RV1601
C1605
CN503
RV1603
1
6
8
14
digital multimeter
digital multimeter
digital multimeter
ammeter
— G Board —
RV651
CN801
1
8
14
— P Board —

SECTION 5
CIRCUIT ADJUSTMENTS

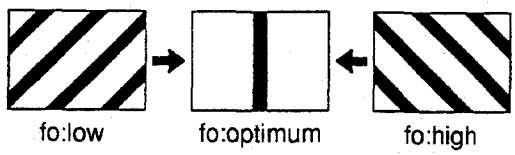
5-1. D BOARD ADJUSTMENTS

—D BOARD (COMPONENT SIDE)—



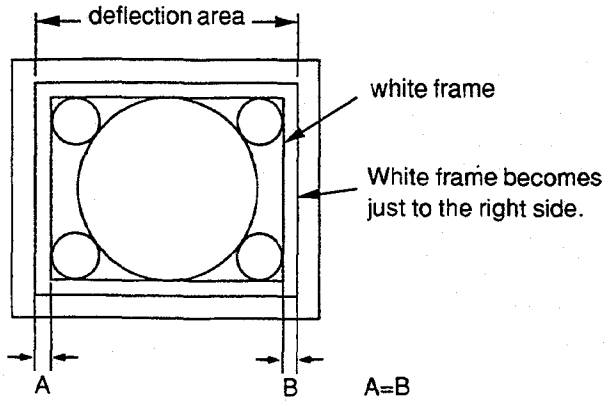
HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT (RV503)

1. Receive a monoscope signal.
2. Connect pin-① of IC502 to ground with 100µF/16V electrolytic capacitor.
3. Adjust RV503 (H.FREQ) so that the screen streaming to stops.



SCREEN PHASE ADJUSTMENTS (RV502, RV512, RV516)

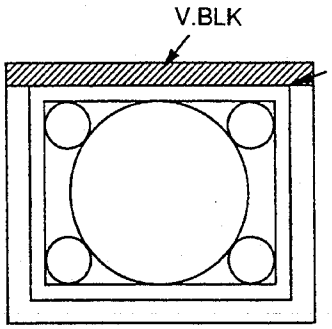
1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Maximum.
4. Adjust RV512 (U/H. SIZE) so that the white frame of monoscope signal becomes visible.
5. Adjust RV516 (H.BLK) for minimum BLKG width so that all the deflection area becomes visible.
6. Adjust RV502 (VIDEO PHASE) so that the monoscope's white frames should have equal width.



H.V BLK ADJUSTMENTS (RV501,RV516)

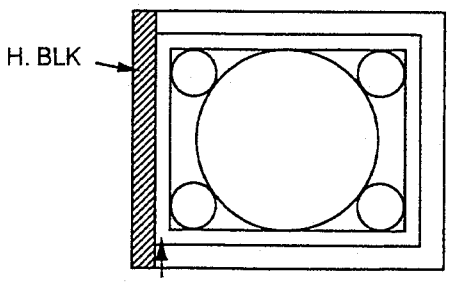
1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Maximum.
4. V. BLK Adjustment (RV501)

(1) Adjust RV501(V. BLK) so that the upper side white frame of monoscope signal is not blanked.



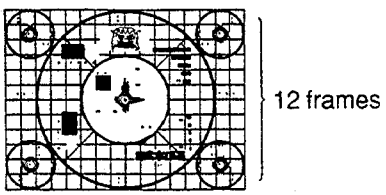
5. H. BLK Adjustment (RV516)

(1) Adjust with RV516 (H. BLK) so that the left end white vertical line of the white frame of monoscope signal is not blanked as following figure.

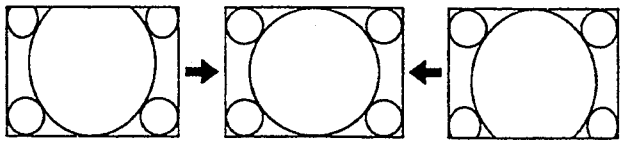


VERTICAL DEFLECTION PART ADJUSTMENTS (RV504, RV505, RV506, RV507)

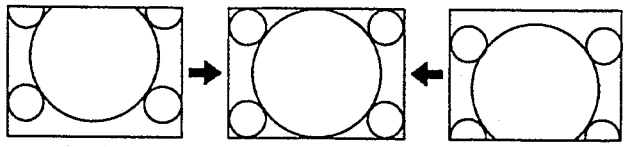
1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. Adjust RV505 (V. SIZE) so that the vertical size of monoscope signal becomes 12 frames.



4. Adjust RV507 (V.LIN) the vertical linearity.



5. Adjust RV504 (V. CENT) the vertical position.



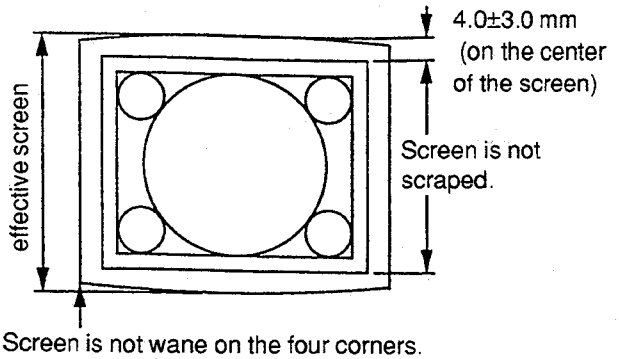
6. V. SIZE ADJUSTMENT (RV505)

(1) Adjust RV505 (V. SIZE) so that the vertical size of monoscope signal becomes 11.75 +0.2 frames.

7. V.SIZE IN UNDERSCAN MODE ADJUSTMENT (RV506)

(1) Set U/S (Under Scan) switch to Under mode.

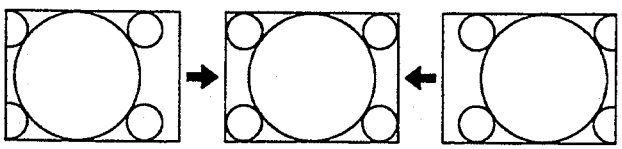
(2) Adjust the Under V.SIZE with RV506 (U/V. SIZE) as follows.



HORIZONTAL DEFLECTION PART ADJUSTMENTS (RV508, RV509, RV511, RV514, RV515, RV801/P board)

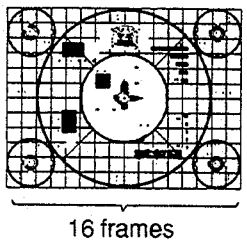
1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. H. CENT Adjustment (RV801 on P board)

(1) Adjust RV801 on P board (H. CENT) the horizontal position.



4. H. SIZE Adjustment (RV511)

(1) Adjust RV511 (H. SIZE) the horizontal size of 16 frames of monoscope signal.

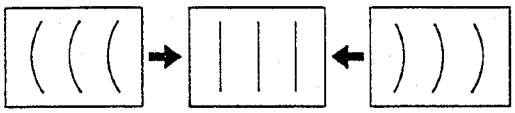


5. PIN AMP. PIN PHASE, V. ANG, BOW ADJUSTMENTS (RV508 RV509, RV514, RV515)

Adjust RV514 (V. ANG) and RV515 (BOW) to correct vertical angular distortion and bow distortion. Adjust RV509 (PIN AMP) and RV508 (PIN PHASE) so that vertical lines become straight.

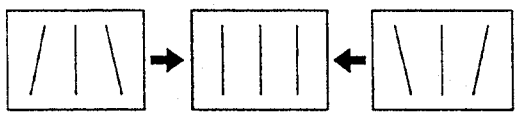
- V. ANG (RV514)

- BOW (RV515)



- PIN AMP (RV509)

- PIN PHASE (RV508)



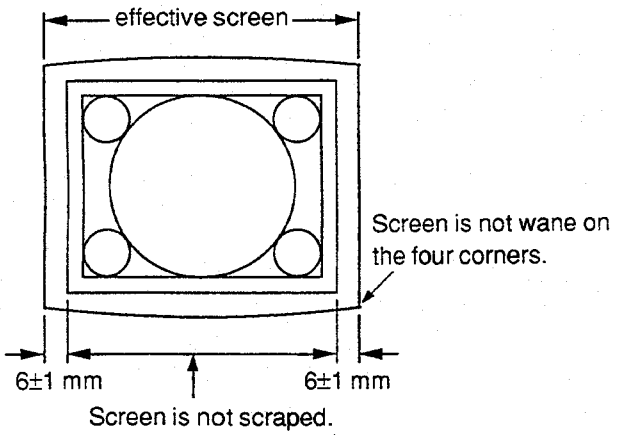
6. H. SIZE ADJUSTMENT (RV511)

(1) Adjust RV511 (H. SIZE) so that the horizontal size becomes 16 ± 0.2 frames.

7. UNDERSCAN MODE H.SIZE ADJUSTMENT (RV512)

(1) Set U/S (Under Scan) switch to Under mode.

(2) Adjust RV512 (U/H. SIZE) the Under H. SIZE as shown in the figure.

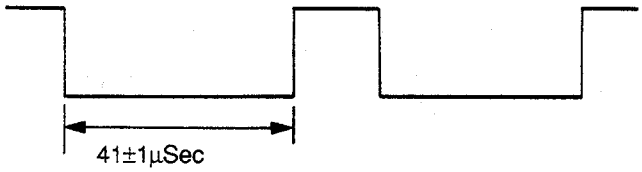


H V DELAY ADJUSTMENT (RV831, RV832)

1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. Set H V DELAY switch to DELAY mode.
4. H. DELAY Adjustment (RV832)

(1) Connect an oscilloscope to pin-④ of IC831.

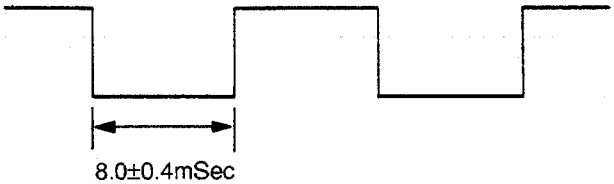
(2) Adjust RV832 (H. DELAY) to becomes 41 ± 1 µsec.



5. V. DELAY Adjustment (RV831)

(1) Connect an oscilloscope to pin-⑨ of IC833.

(2) Adjust RV831 to become 8.0 ± 0.4msec as follows.



SHUT-DOWN VOLTAGE ADJUSTMENT (RV1602)

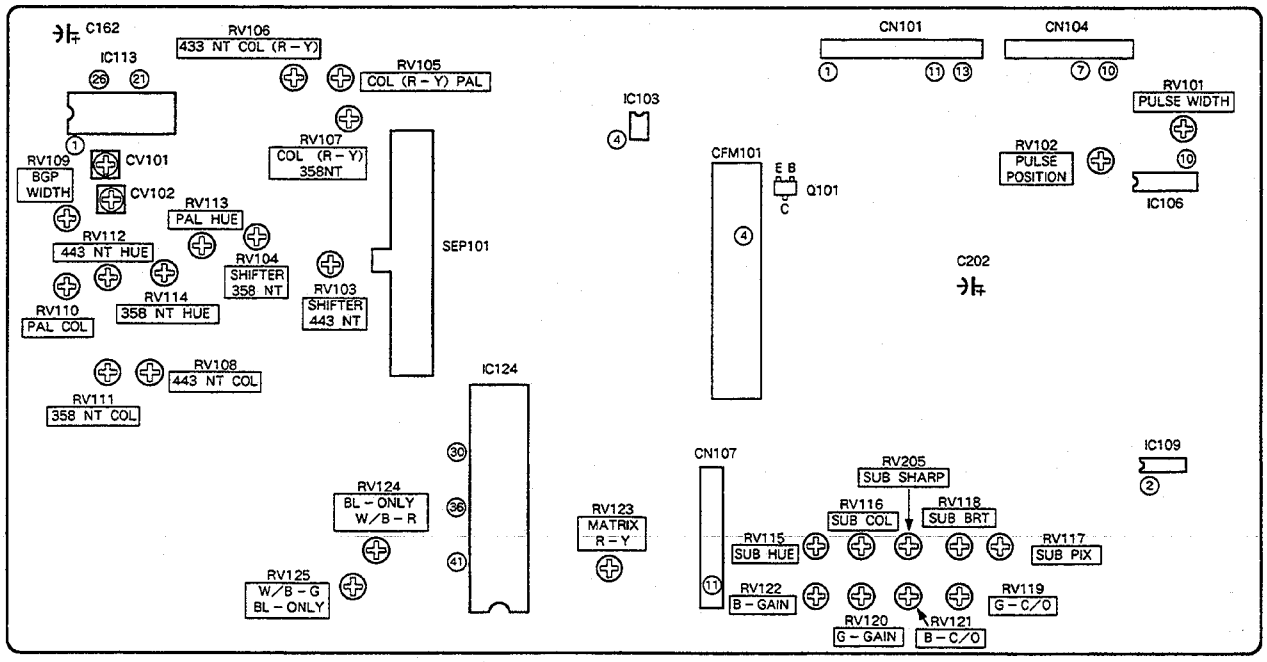
1. Fully rotate RV1602 in the direction that does not shut-down.
2. Supply a 9.4V $^{+0.1}_{-0}$V voltage to the C1602 side of L1602 on the D board.
3. Turn AC power switch ON.
4. Rotate D board RV1602 (SHT DOWN) slowly to the point that shuts-down the unit.

B+ VOLTAGE DURING DC OPERATE MODE, ADJUSTMENT (RV1601)

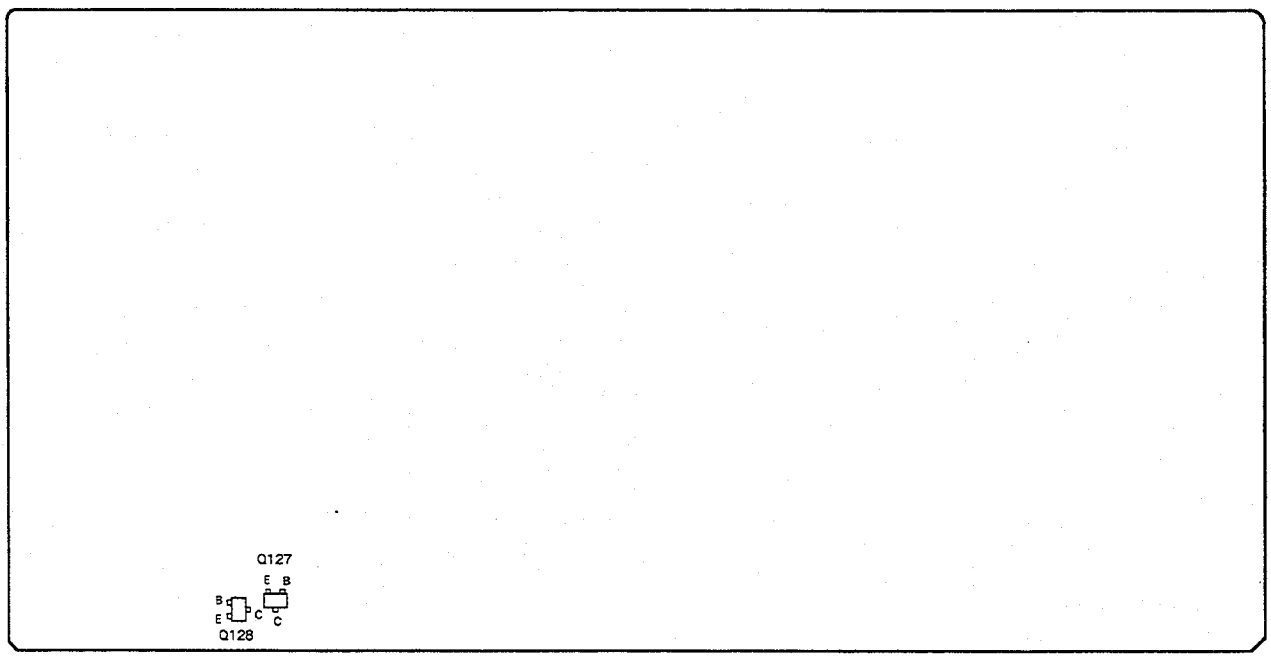
1. Supply DC12V±0.2V to DC 12V IN connector.
2. Receive a monoscope signal.
3. • CONTRAST 80%
   • BRIGHTNESS 50%
4. Connect a digital voltmeter to C1605 + positive side on D board.
5. Adjust RV1601 on the D board for 40.0±0.1V DC.

B BOARD ADJUSTMENT

-B BOARD (COMPONENT SIDE)-

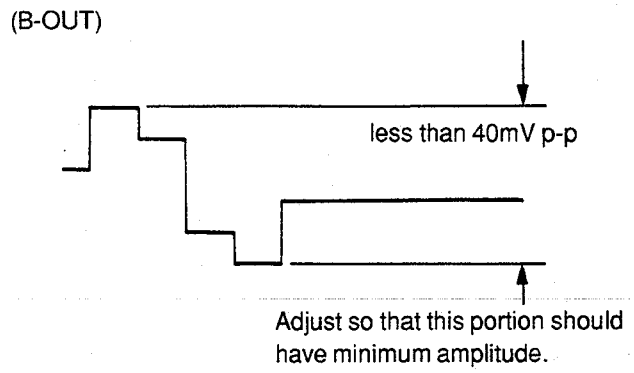


-B BOARD (CONDUCTOR SIDE)-

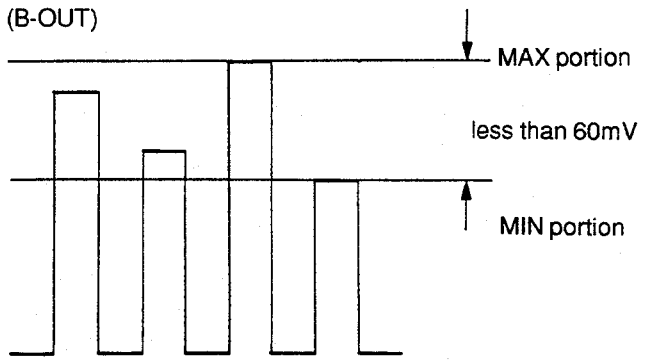


PRIMARY COLOR MATRIX ADJUSTMENT (RV115, RV116, RV123)

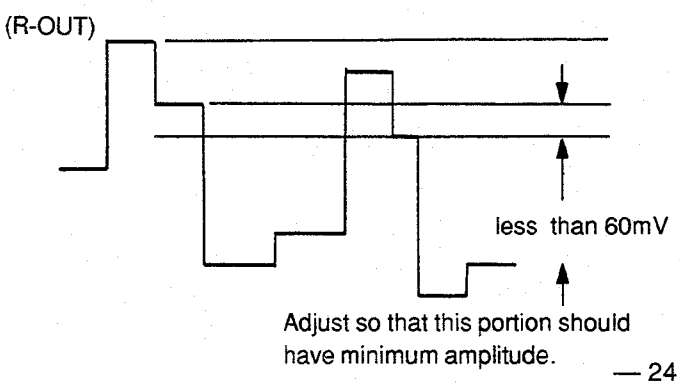
1. Supply component color bar signal (75% chroma color bar) to the equipment so that Y signal is supplied to EXT SYNC and R-Y signal to R-Y connectors Operate the equipment in external sync mode.
2. Connect oscilloscope to IC124 pin-㉚ (B-OUT).
3. Adjust RV115 (SUB HUE) to obtain the Blue output as shown in figure.



4. Supply component color bar signal (75% color bar) to the component input connector to feed R-Y and B-Y signals. Operate the equipment in internal SYNC mode.
5. Connect oscilloscope to IC124 pin-㉚ (SUB-COL). Adjust RV116 (SUB-COL) so that waveform peaks should have the same level.

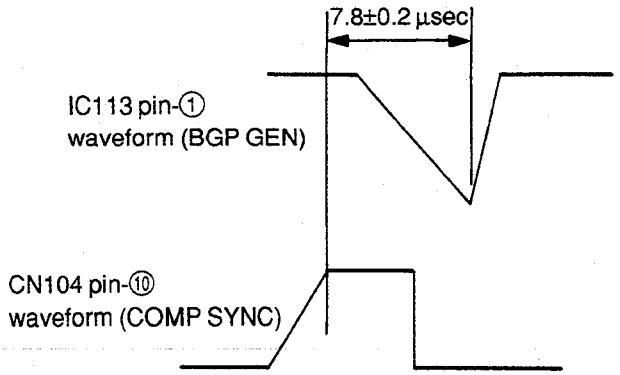


6. Connect oscilloscope to IC124 pin-㊶ (R-OUT).
7. Adjust RV123 ((R-Y)-IN) so that waveform peaks should have the same level.



BURST GATE PULSE WIDTH ADJUSTMENT (RV109)

1. Receive color bar signal.
2. Connect dual trace oscilloscope to CN104 connector pin-⑩ (COMP-SYNC) and IC113 (M51279) pin-① (BGP-WIDTH). Adjust RV109 (BGP-WIDTH) to obtain the relationship as shown in the figure.

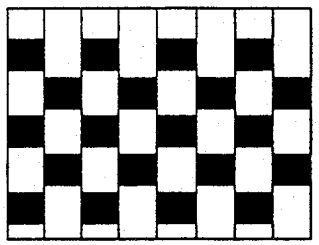


VXO ADJUSTMENT (CV101,CV102)

1. 3.58MHz VXO adjustment (CV101)

(1) Receive NTSC color bar signal.
(2) Connect +5V power line to IC113 pin-㉖ (ID-FILT-REF) via a 4700Ω resistor.
(3) Ground IC109 pin-② by connecting it to ground.
(4) Ground C162 – negative side by connecting it to ground.
(5) Connect frequency counter to IC113 pin-㉑. Adjust CV101 (358FO) for 3579545±20Hz.
(This adjustment can be alternatively done by observing screen as below.)

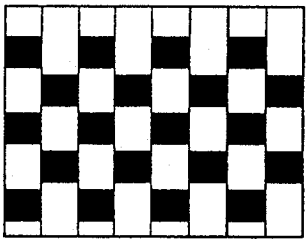
Adjust color synchronization by CV101 (358FO).



Adjust so that color stripes disappear and the hue change is stabilized extremely.

2. 4.43MHz VXO adjustment (CV102)
(1) Receive PAL colour bar signal.
(2) Connect +12V power line to IC109 pin-②.
(3) Connect frequency counter to IC113 pin-㉑. Adjust CV102 (443FO) for 4433619±20Hz.
(This adjustment can be alternatively done by observing screen as below.)

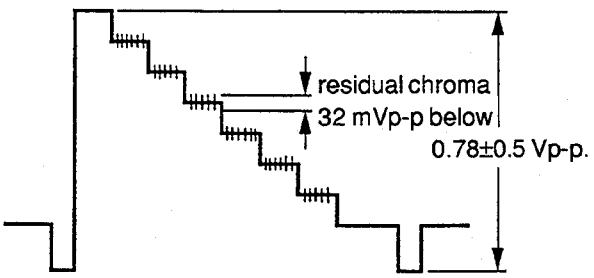
Adjust colour synchronization by CV102(443FO).



Adjust so that colour stripes disappear and the hue change is stabilized extremely.

NTSC COMB FILTER ADJUSTMENT (RV1,T1/CFM101 BOARD)

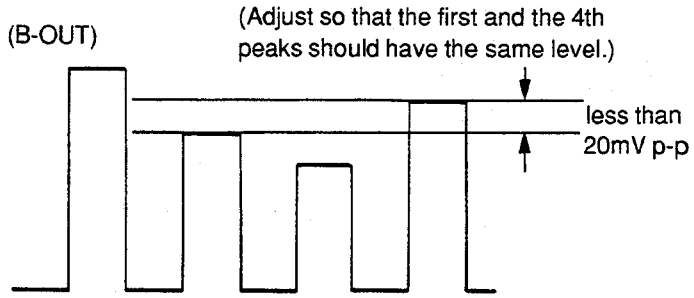
1. Receive NTSC 3.58 color bar signal.
2. Connect an oscilloscope to C202 – negative side.
3. Confirm the Y OUT is 0.78±0.5 Vp p.
4. Confirm the residual chroma is 32 mVp-p below. If it is above 35 mVp p, adjust with RV1 and T1 on CFM201 board while tracking.



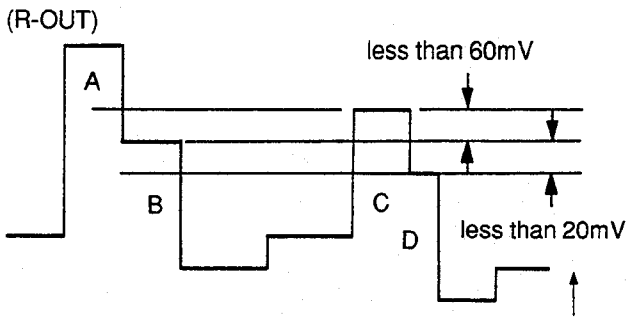
NTSC COLOR DEMODULATION ADJUSTMENT (RV114,RV111,RV104,RV107)

1. NTSC 3.58MHz - HUE adjustment (RV114)
(1) Supply NTSC color bar signal including burst and R-Y component. (For example, Tektronix 1410SG output color bar signal with B-Y component removed.)
(2) Connect an oscilloscope to Q128 emitter (B-Y OUT).
(3) Adjust RV114 (358NT - HUE) so that all the waveform peaks should have equal amplitude (look flat) except burst. (Level difference should be less than 10mV p-p.)

2. NTSC 3.58MHz - COLOR adjustment (RV111)
(1) Receive NTSC 3.58 color bar signal.
(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
(3) Adjust RV111(358NT-COL) so that waveform peaks should have the same level (most flat).



3. NTSC 3.58MHz - COLOR (R-Y) adjustment (RV104, RV107)
(1) Receive the color bar signal.
(2) Connect an oscilloscope to the Q127 emitter (R-Y OUT), and adjust RV104 (358NT-SHIFT) so that the output of the burst section (B-Y axis signal output) becomes 0.
(3) Connect an oscilloscope to IC124 pin-㊶ (R-OUT). Adjust RV107 (358NT-COL (R-Y)) so that the level difference should be minimum.



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

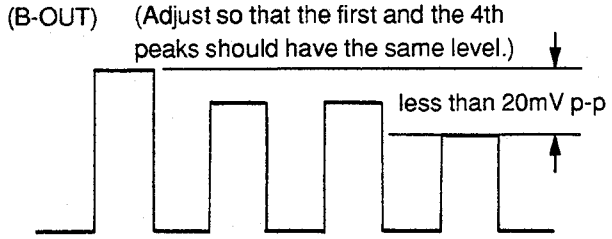
NTSC 4.43MHZ COLOR DEMODULATION ADJUSTMENT (RV108,RV112,RV103,RV106)

1. NTSC 4.43MHz - COLOR adjustment (RV108,RV112)

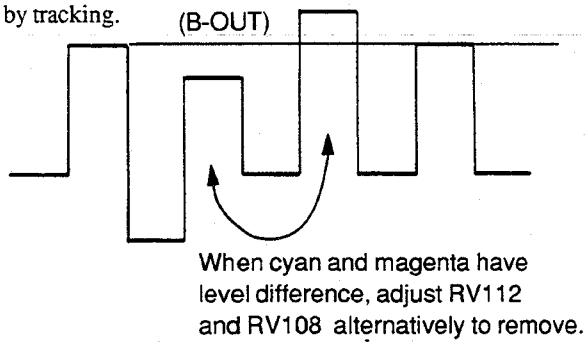
(1) Receive NTSC 4.43 color bar signal (75% color bar).

(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).

(3) Adjust RV108 (443NT-COL) so that waveform peaks should have the same level (most flat).



(4) When cyan and magenta have level difference, adjust RV112 (443NT-HUE) and RV108 (443NT-COL) alternatively to remove, by tracking.

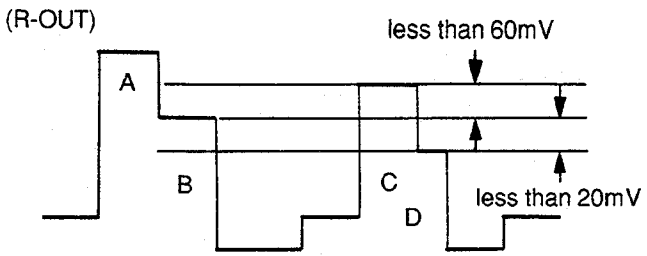


2. NTSC 4.43MHz - COLOR (R-Y) adjustment (RV103, RV106)

(1) Receive the NTSC 4.43 color bar signal (75%, chroma color bar).

(2) Connect an oscilloscope to the Q127 emitter (R-Y OUT), and adjust RV103(443NT-SHIFT) so that the output of the burst section (B-Y axis signal output) becomes 0.

(3) Connect an oscilloscope to IC124 pin-㊶ (R-OUT). Adjust RV106 (443NT-COL (R-Y)) so that the level difference should be minimum.



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

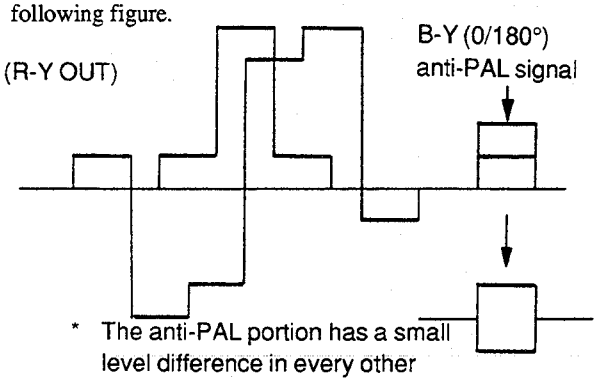
PAL COLOR DEMODULATION ADJUSTMENT (RV113,RV2/SEP101, RV110,RV105,RV205)

1. PAL PHASE Adjustment (RV113,RV2/SEP101)

(1) Receive the special PAL color-bar.

(2) Connect an oscilloscope to emitter of Q127 (R-Y OUT).

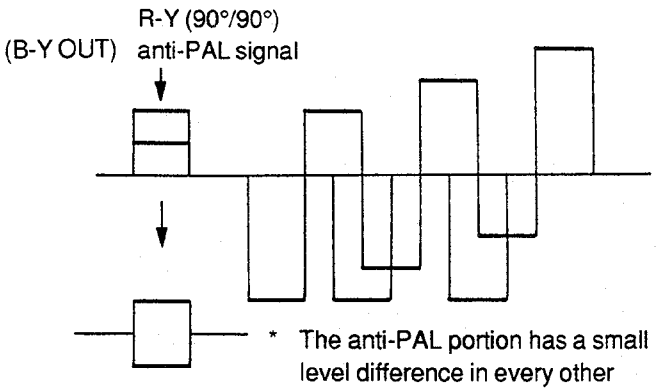
(3) Adjust RV113 (PAL-PHASE) so that B-Y (0/180°) anti-PAL portion (in the R-Y demodulated output) becomes "0" (flat) as following figure.



* The anti-PAL portion has a small level difference in every other horizontal period. So, adjust so that average becomes "0".

(4) Connect an oscilloscope to emitter of Q128 (B-Y OUT).

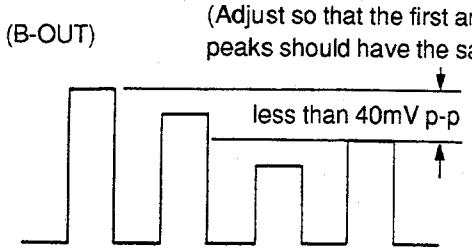
(5) Adjust RV2 inside SEP101 so that R-Y (90°/90°) anti-PAL portion (in B-Y demodulated output) becomes "0" (flat) as following figure.



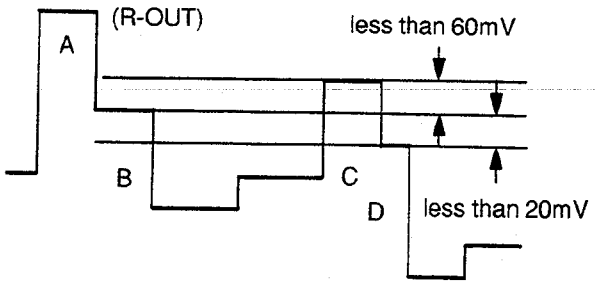
* The anti-PAL portion has a small level difference in every other horizontal period. So, adjust so that average becomes "0".

(For the adjustments of (3) and (5), it is also possible to set the color level to MAX with the chroma adjusting knob of the unit and erase the color of the anti-pal signal section.)

2. PAL COLOR ADJUSTMENT (RV110)
(1) Receive PAL color bar signal (75% color bar).
(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
(3) Adjust RV110 (PAL-COL) so that waveform peaks should have the same level (most flat).



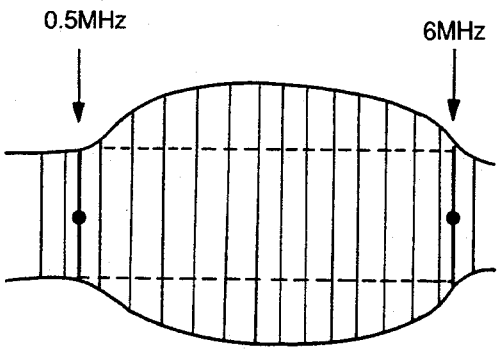
3. PAL-COLOR-(R-Y) ADJUSTMENT (RV105)
(1) Connect an oscilloscope to IC124 pin-㊶ (R-OUT).
(2) Adjust RV105 (PAL-COL-(R-Y)) so that waveform peaks should have the same level (most flat).



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

SUB-SHARP ADJUSTMENT (RV205)

(1) Receive a sweep signal (or multi-burst).
* • Bandwidth should be more than 10MHz (flat).
• Composite sync should be included.
• Turn burst off.
(2) Connect an oscilloscope to IC124 pin-㊱ (G-OUT).
(3) Adjust RV205 (SUB-SHARP) as shown.



Example of sweep signal output waveform

[specification]
6MHz/0.5MHz=0±0.5dB

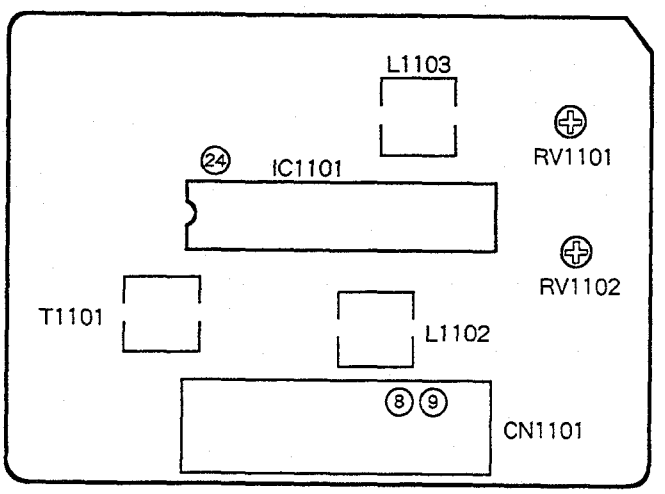
CHROMA H PULSE POSITION ADJUSTMENT (RV101,RV102)

(1) Receive the SECAM color bar signal.
(The left edge of the screen should not be colored.)
(2) Set to the under-scan mode.
(3) Adjust RV101 (PLUSE-WIDTH) until the point immediately before the color on the left edge of the screen disappears.
(4) Release the under-scan mode.
(5) Set the HV DELAY mode.
(6) Adjust RV102 (PULSE-POSI) untill the point immediately before the rising color of the image after back porch diappears.

Note : If image phase adjustment or HV DELAY amount adjustment during HV DELAY is performed after completing the adjustment in this section, re-adjustments will be required. Therefore, performed this adjustment after the two mentioned have been performed.

S BOARD ADJUSTMENTS

—S BOARD (COMPONENT SIDE)—

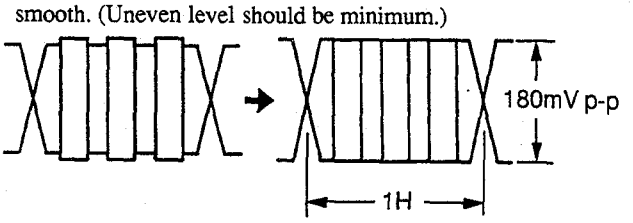


SECAM (T1101,L1102,L1103)

1. Receive SECAM color-bar.
2. Bell Filter Adjustment (T1101)

(1) Connect an oscilloscope to IC1101 pin-㉔.

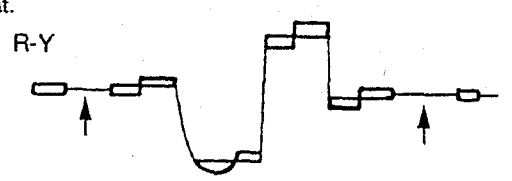
(2) Adjust T1101 (Bell Filter) so that the chroma waveform becomes smooth. (Uneven level should be minimum.)



3. Color Balance Adjustment (L1102,L1103)

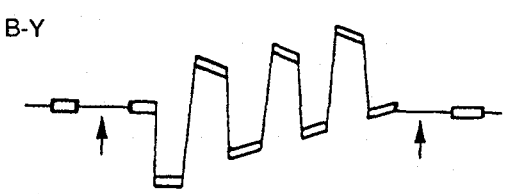
(1) Connect an oscilloscope to pin-⑨ (R-Y) of CN1101 connector.

(2) Adjust L1102 (R-Y) so that the non-colored portion level becomes flat.



(3) Connect an oscilloscope to pin-⑧ (B-Y) of CN1101 connector.

(4) Adjust L1103 (B-Y) so that the non-colored portion level becomes flat.

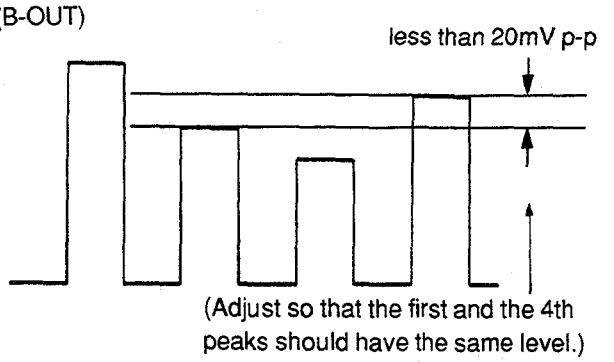


(5) When adjusting the color level of the unit to MAX or MIN using the chroma adjusting knob, check that the white balance of the colorless section does not change.

DEMODULATION LEVEL ADJUSTMENT (RV1101,RV1102)

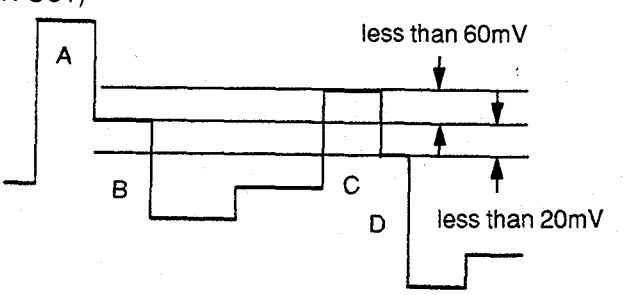
1. Receive SECAM color-bar.
2. Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
3. Adjust S board RV1101 (SEC-COL) so that waveform peaks should have the same level (most flat).

(B-OUT)



4. Connect an oscilloscope to IC124 pin-㊶ (R-OUT).
5. Adjust S board RV1102 (SEC-COL (R-Y)) so that the level difference should be minimum.

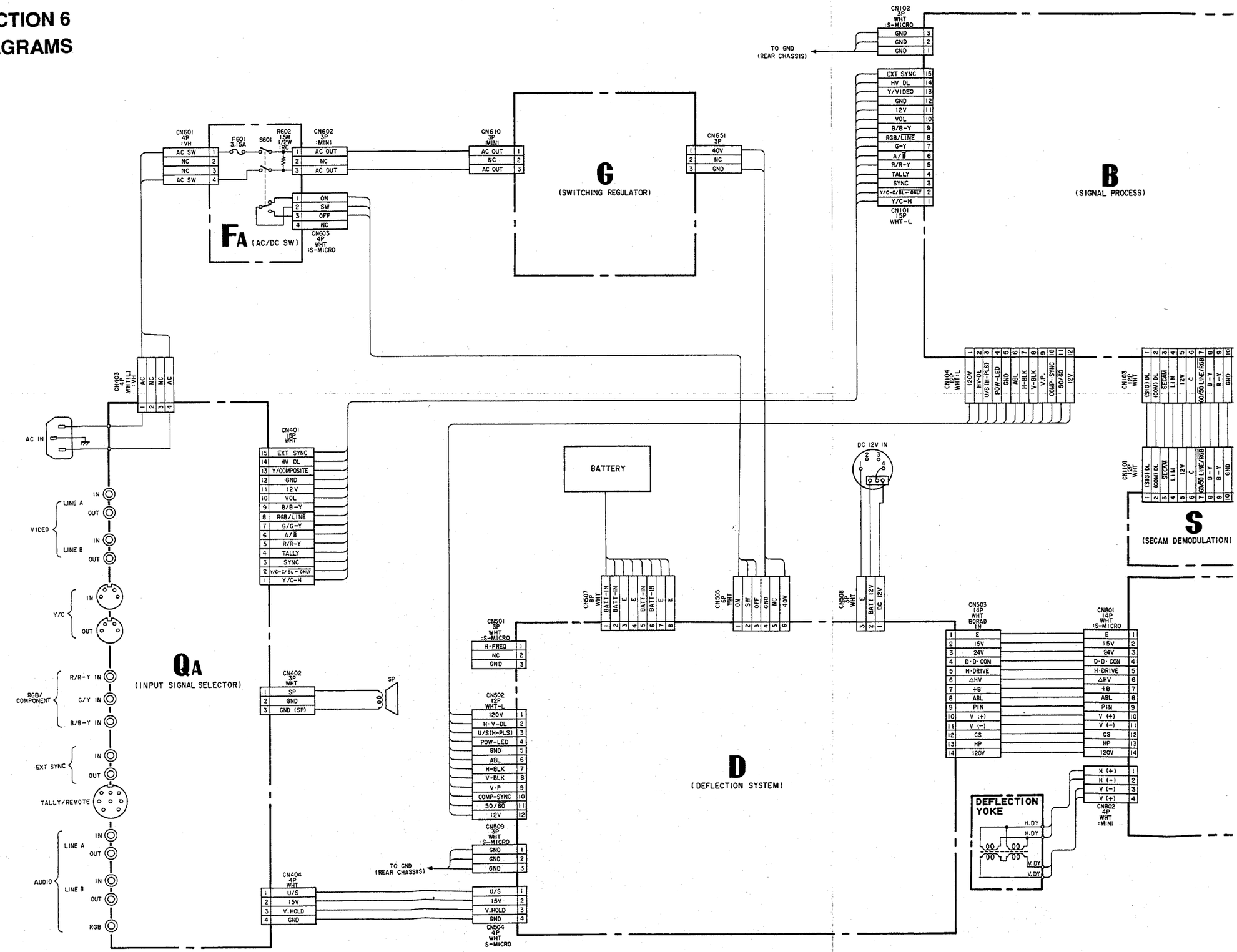
(R-OUT)



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

SECTION 6
DIAGRAMS

6-1. FRAME SCHEMATIC DIAGRAM



7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

G
(SWITCHING REGULATOR)

B
(SIGNAL PROCESS)

HA
(USER CONTROL WHITE BALANSE)

X
(TALLY LAMP)

S
(SECAM DEMODULATION)

D
(DEFLECTION SYSTEM)

P
(H OUT,FBT)

CA
(CRT SOCKET)

CN602 3P :MINI — AC OUT / NC / AC OUT
CN610 3P :MINI — AC OUT 1 / NC 2 / AC OUT 3
CN651 3P — 1 40V / 2 NC / 3 GND
CN603 4P WHT S-MICRO — ON / SW / OFF / NC

CN102 3P WHT :S-MICRO — GND 3 / GND 2 / GND 1
TO GND (REAR CHASSIS)
CN101 15P WHT-L — EXT SYNC 15 / HV DL 14 / Y/VIDEO 13 / GND 12 / 12V 11 / VOL 10 / B/B-Y 9 / RGB/LINE 8 / G-Y 7 / A/B 6 / R/R-Y 5 / TALLY 4 / SYNC 3 / Y/C-C/BL-ONLY 2 / Y/C-H 1

CN108 3P WHT :S-MICRO — 1 TALLY / 2 NC / 3 GND
CN21 3P WHT-L :S-MICRO — TALLY 1 / NC 2 / GND 3

CN107 13P — 1 GND / 2 12V / 3 POW-LED / 4 VOL / 5 CONTRAST / 6 PHASE / 7 CHROMA / 8 BRT / 9 APERTURE / 10 LINE/RGB / 11 NORM/DELAY / 12 NORM/ 870 / 13 NORM/UNDER
CN001 13P WHT — GND 1 / 12V 2 / POW-LED 3 / VOL 4 / CONTRAST 5 / PHASE 6 / CHROMA 7 / BRT 8 / APERTURE 9 / LINE/RGB 10 / NORM/DELAY 11 / NORM/ 870 12 / NORM/UNDER 13

CN106 8P — 1 NORM/ EXT / 2 A/B / 3 R BIAS / 4 G BIAS / 5 B BIAS / 6 G GAIN / 7 B GAIN / 8 R GAIN
CN002 8P WHT — NORM/ EXT 1 / A/B 2 / R BIAS 3 / G BIAS 4 / B BIAS 5 / G GAIN 6 / B GAIN 7 / R GAIN 8

CN105 6P WHT :S-MICRO — 1 B / 2 NC / 3 G / 4 NC / 5 NC / 6 R

CN104 12P WHT-L — 120V / H·V-DL / U/S(H-PLS) / POW-LED / GND / ABL / H-BLK / V-BLK / V.P. / COMP-SYNC / 50/60 / 12V
CN103 12P WHT — (SIG) DL / (COM) DL / SECAM / LIM / 12V / C / 60/50 LINE/RGB / B-Y / R-Y / GND / BGP / DLY-H.P.
CN1101 12P WHT — (SIG) DL / (COM) DL / SECAM / LIM / 12V / C / 60/50 LINE/RGB / B-Y / R-Y / GND / BGP / DLY-H.P.

KG KB G2 — PICTURE TUBE — H — CV KR G1 G4 HV

CN701 6P WHT :S-MICRO — B / NC / G / NC / NC / R
CN702 1P WHT :MINI1 — CRT-GND

FBT HV / FBT FOCUS / FBT SCREEN
CN803 5P WHT :S-MICRO — 120V / E / NC / H1 / H2
CN703 5P WHT :S-MICRO — 120V / E / NC / H1 / H2

CN805 3P WHT S-MICRO — DGC / NC / DGC
DGC

BATTERY
DC 12V IN
CN507 8P WHT — BATT-IN / BATT-IN / E / E / BATT-IN / BATT-IN / E / E
CN505 6P WHT — ON / SW / OFF / GND / NC / 40V
CN508 3P WHT — E / BATT 12V / DC 12V

CN503 14P WHT BORAD IN — E / 15V / 24V / D·D·CON / H·DRIVE / △HV / +B / ABL / PIN / V (+) / V (−) / CS / HP / 120V
CN801 14P WHT :S-MICRO — E / 15V / 24V / D·D·CON / H·DRIVE / △HV / +B / ABL / PIN / V(+) / V(−) / CS / HP / 120V
CN802 4P WHT :MINI — H(+) / H(−) / V(−) / V(+)

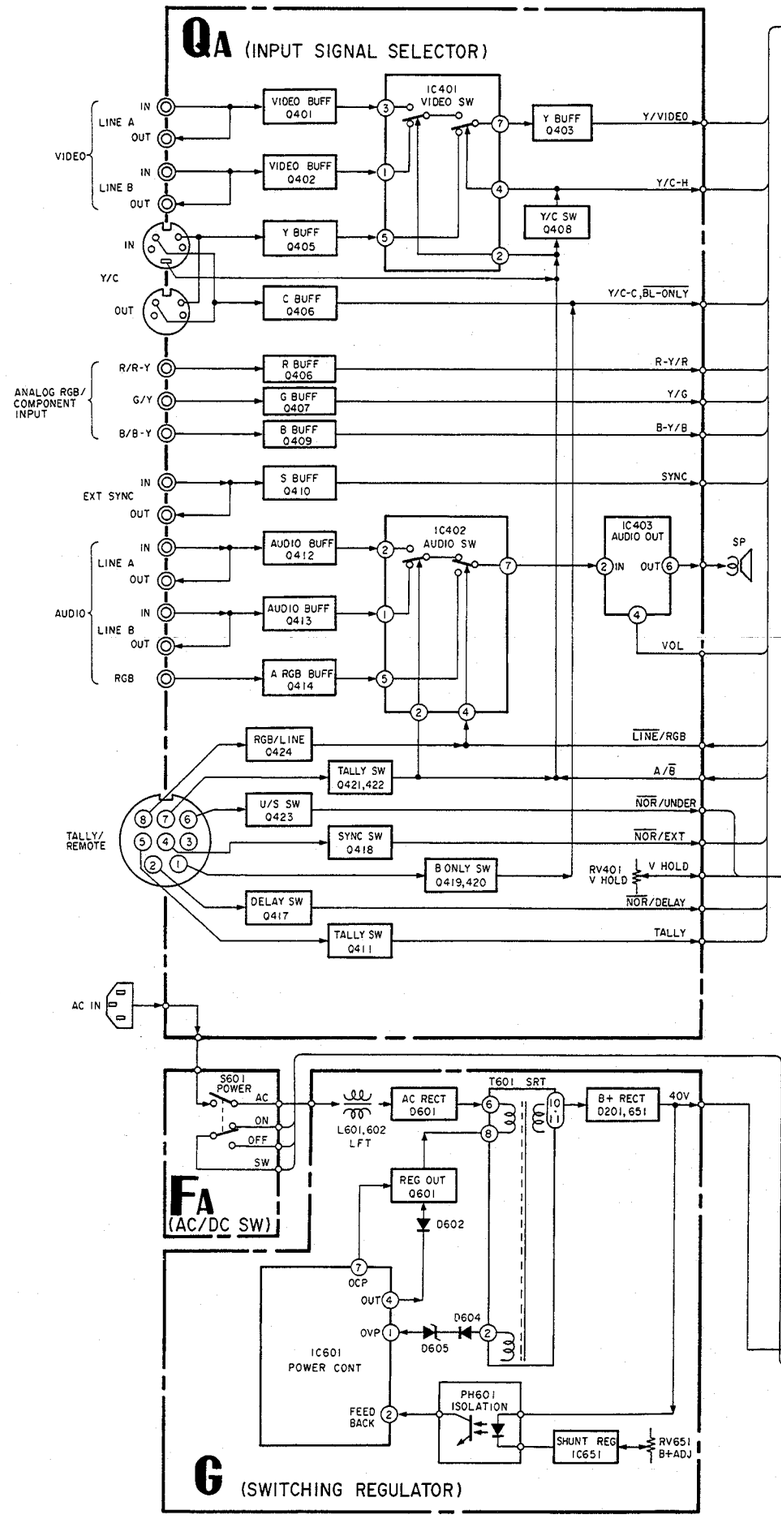
DEFLECTION YOKE — H.DY / H.DY / V.DY / V.DY

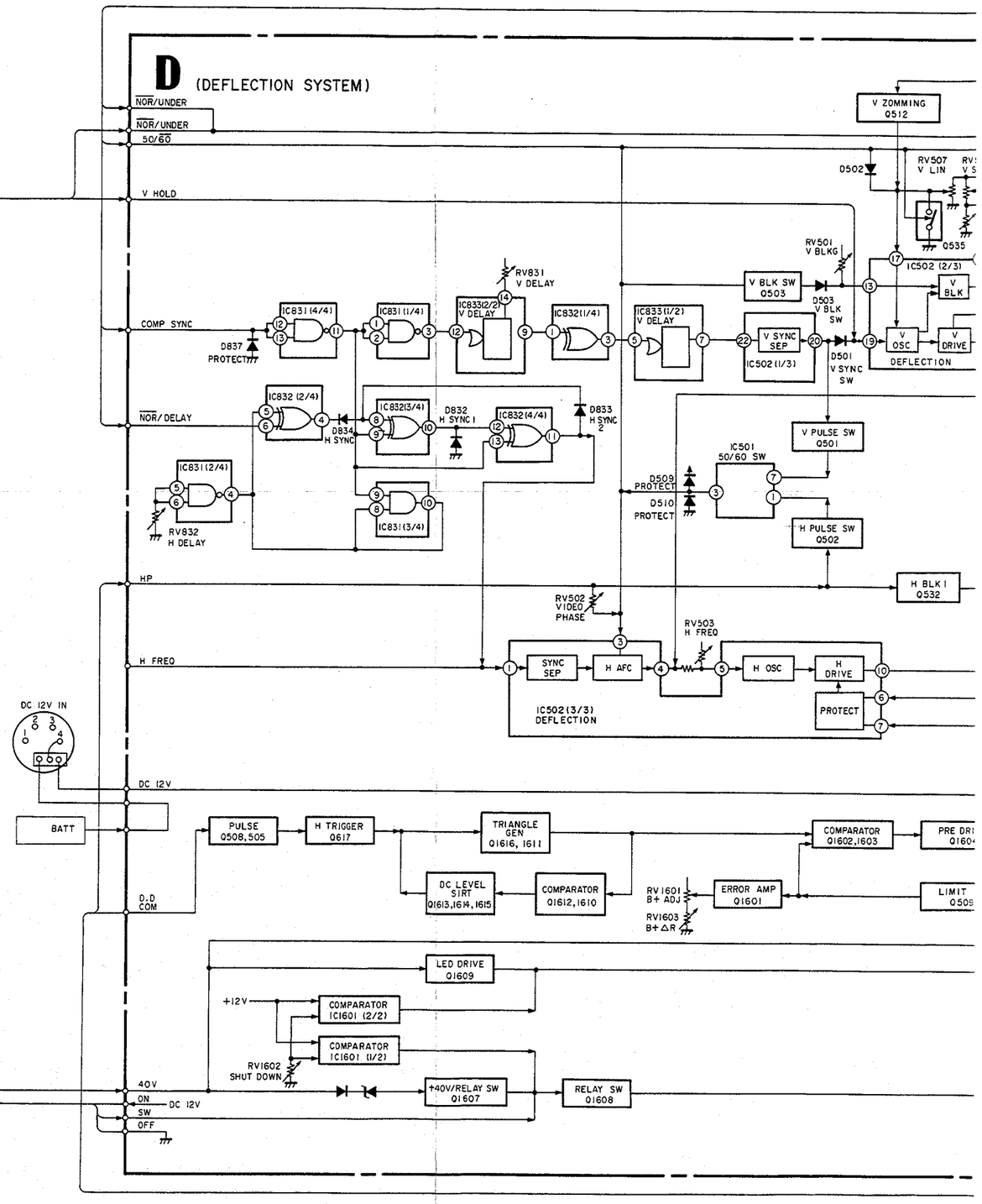
SP

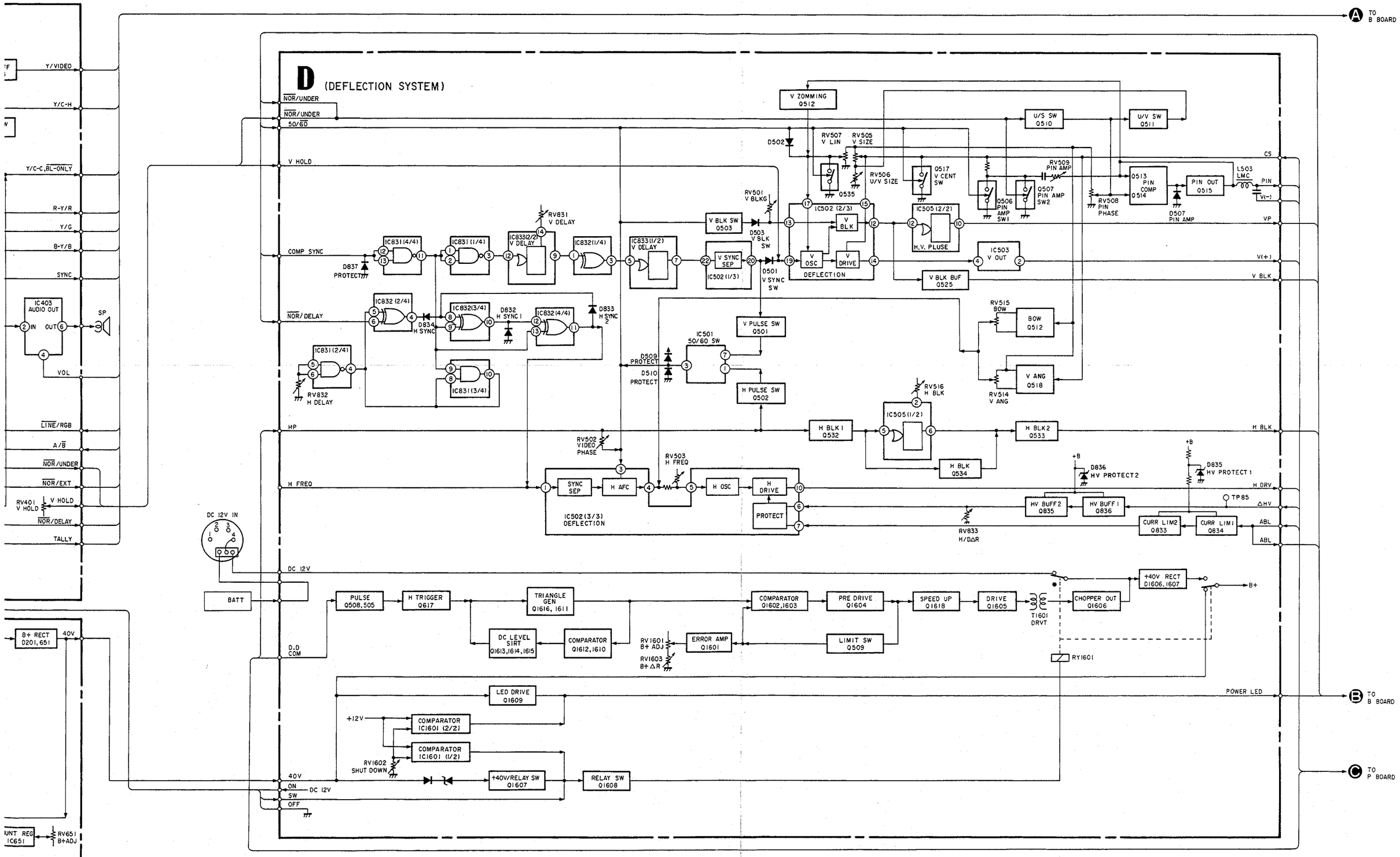
CN501 3P WHT :S-MICRO — H·FREQ / NC / GND
CN502 12P WHT-L — 120V / H·V-DL / U/S(H-PLS) / POW-LED / GND / ABL / H-BLK / V-BLK / V·P / COMP-SYNC / 50/60 / 12V
CN509 3P WHT :S-MICRO — GND / GND / GND
TO GND (REAR CHASSIS)
CN504 4P WHT S-MICRO — U/S / 15V / V.HOLD / GND

PVM-9041QM/9044QM PVM-9041QM

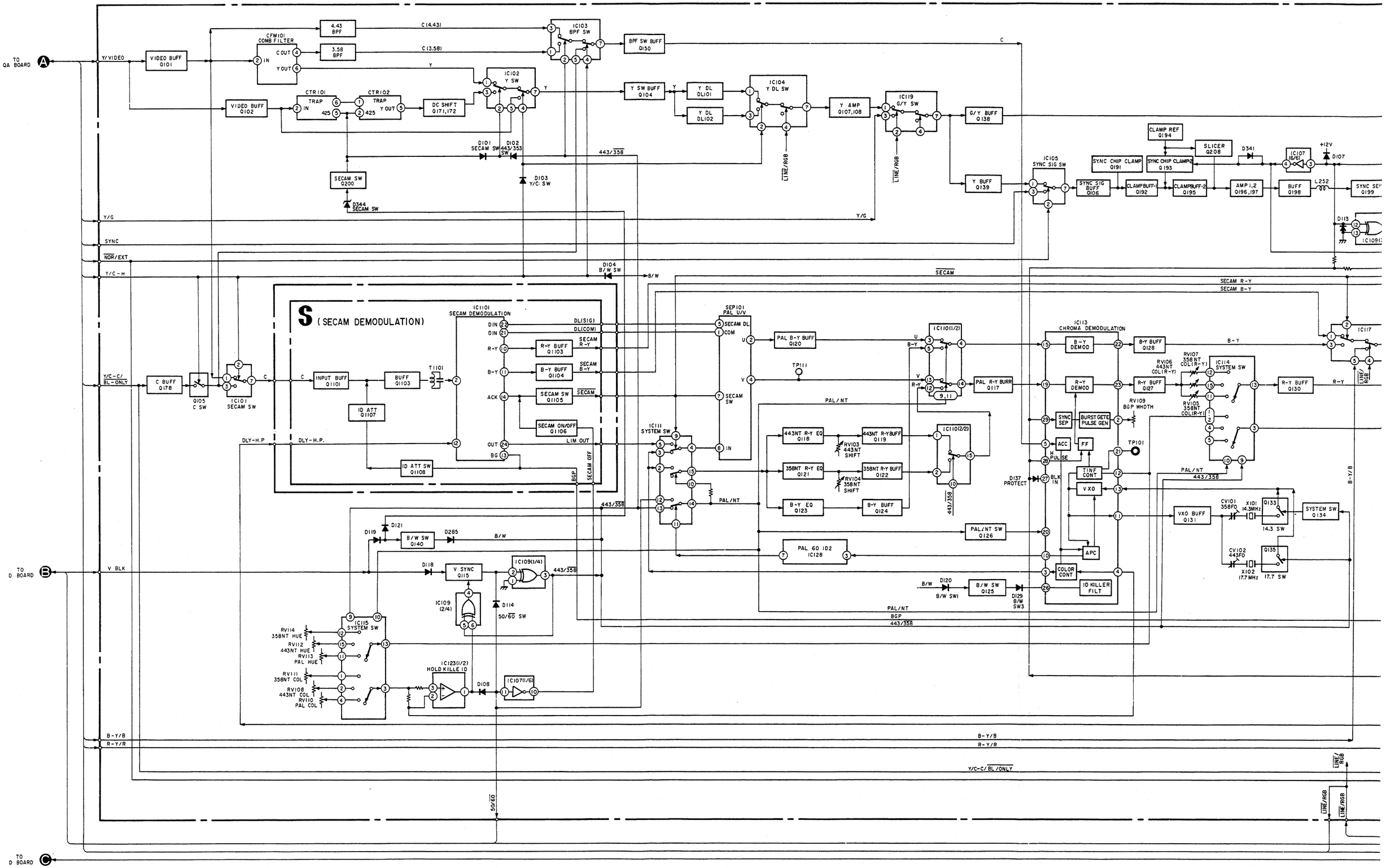
6-2. BLOCK DIAGRAM (1)

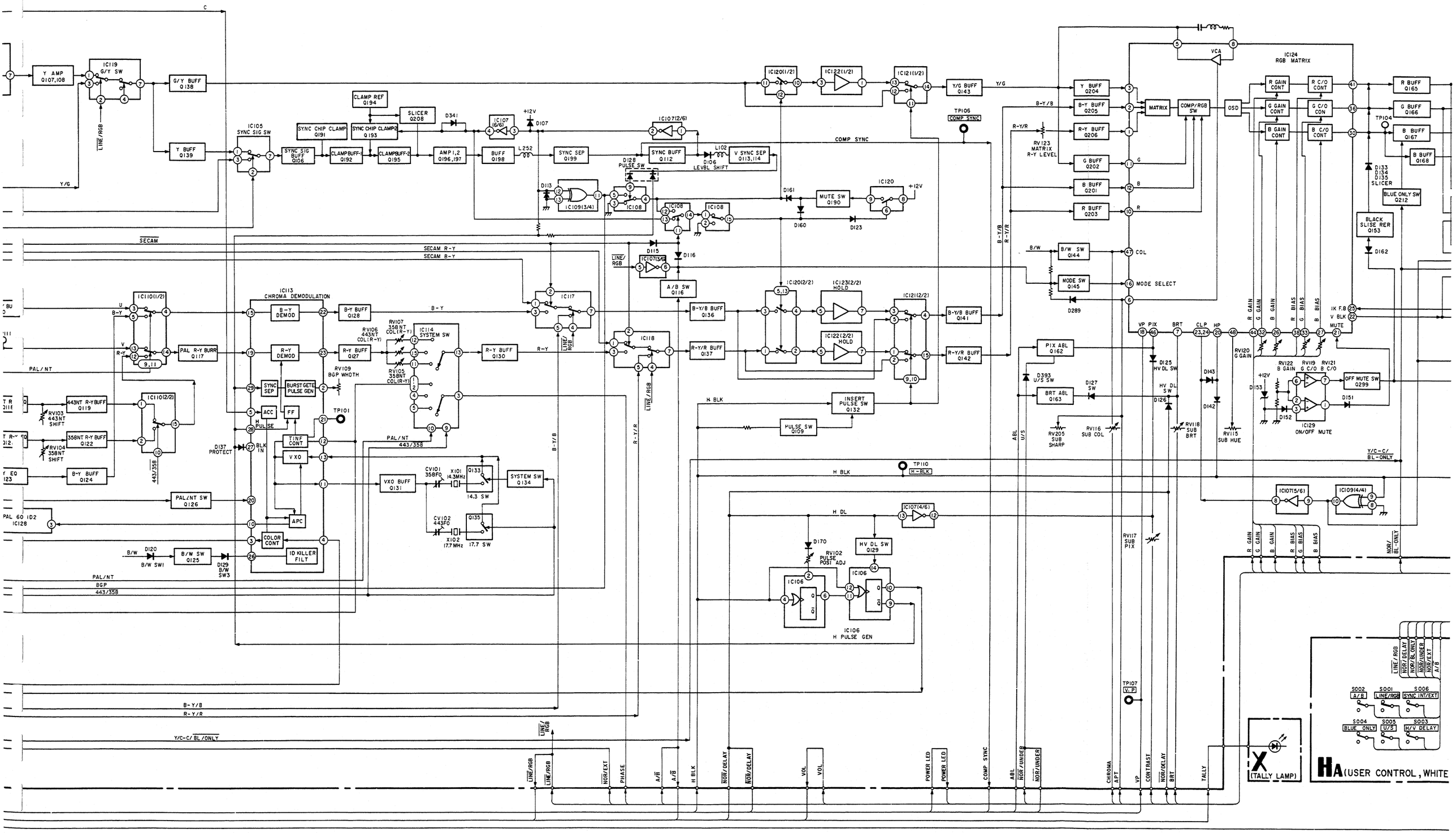


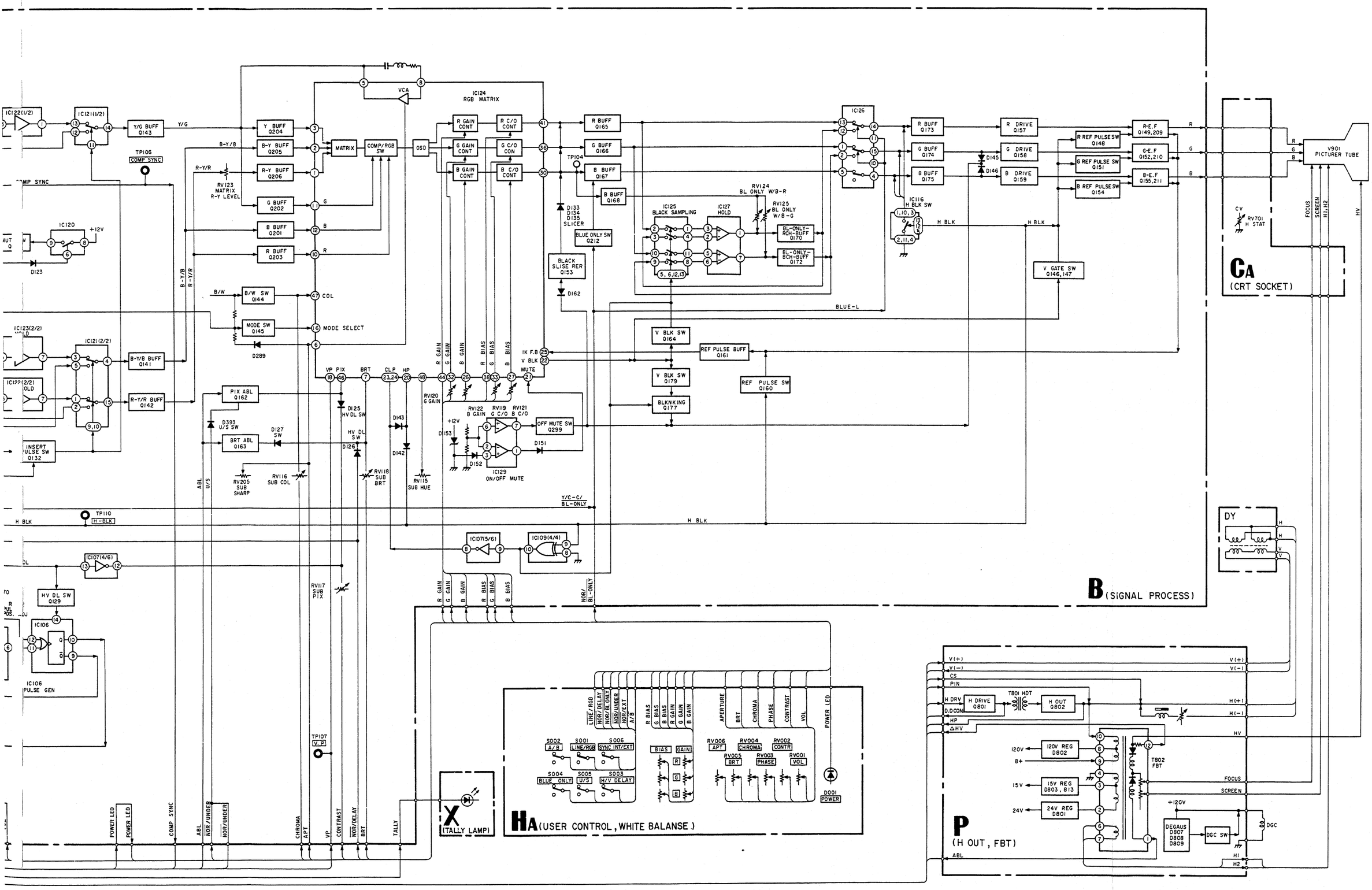



D (DEFLECTION SYSTEM)
NOR/UNDER
NOR/UNDER
50/60
V HOLD
COMP SYNC
NOR/DELAY
HP
H FREQ
DC 12V
D.D COM
40V ON SW OFF
DC 12V IN
BATT
V ZOMMING Q512
RV507 V LIN
RV505 V SIZE
RV506 U/V SIZE
Q535
D502
U/S SW Q510
U/V SW Q511
Q517 V CENT SW
RV509 PIN AMP
Q507 PIN AMP SW2
Q506 PIN AMP SW1
RV508 PIN PHASE
Q513 PIN COMP Q514
PIN OUT Q515
L503 LMC
D507 PIN AMP
CS
PIN
V(-)
VP
V(+)
V BLK
RV501 V BLKG
V BLK SW Q503
D503 V BLK SW
IC502 (2/3)
V BLK
V OSC
V DRIVE
DEFLECTION
IC505 (2/2)
H.V. PLUSE
IC503 V OUT
V BLK BUF Q525
RV831 V DELAY
IC831 (4/4)
IC831 (1/4)
IC833 (2/2) V DELAY
IC832 (1/4)
D837 PROTECT
V SYNC SEP
IC502 (1/3)
D501 V SYNC SW
IC833 (1/2) V DELAY
IC832 (2/4)
IC832 (3/4)
IC832 (4/4)
D832 H SYNC 1
D833 H SYNC 2
D834 H SYNC
IC831 (2/4)
RV832 H DELAY
IC831 (3/4)
V PULSE SW Q501
IC501 50/60 SW
D509 PROTECT
D510 PROTECT
H PULSE SW Q502
RV515 BOW
BOW Q512
V ANG Q518
RV514 V ANG
RV516 H BLK
IC505 (1/2)
H BLK 1 Q532
H BLK 2 Q533
H BLK Q534
RV502 VIDEO PHASE
RV503 H FREQ
SYNC SEP
H AFC
H OSC
H DRIVE
PROTECT
IC502 (3/3) DEFLECTION
+B
D836 HV PROTECT 2
D835 HV PROTECT 1
TP85
HV BUFF 2 Q835
HV BUFF 1 Q836
CURR LIM2 Q833
CURR LIM1 Q834
RV833 H/DAR
H DRV
△HV
ABL
PULSE Q508, 505
H TRIGGER Q617
TRIANGLE GEN Q1616, 1611
DC LEVEL SIRT Q1613,1614,1615
COMPARATOR Q1612,1610
RV1601 B+ ADJ
RV1603 B+ △R
ERROR AMP Q1601
COMPARATOR Q1602,1603
PRE DRIVE Q1604
LIMIT SW Q509
SPEED UP Q1618
DRIVE Q1605
T1601 DRVT
CHOPPER OUT Q1606
+40V RECT D1606, 1607
B+
RY1601
LED DRIVE Q1609
POWER LED
+12V
COMPARATOR IC1601 (2/2)
COMPARATOR IC1601 (1/2)
RV1602 SHUT DOWN
+40V/RELAY SW Q1607
RELAY SW Q1608
IC403 AUDIO OUT
SP
VOL
Y/VIDEO
Y/C-H
Y/C-C, BL-ONLY
R-Y/R
Y/G
B-Y/B
SYNC
LINE/RGB
A/B
NOR/UNDER
NOR/EXT
RV401 V HOLD
V HOLD
NOR/DELAY
TALLY
B+ RECT D201, 651
40V
UNT REG IC651
RV651 B+ADJ
A TO B BOARD
B TO B BOARD
C TO P BOARD

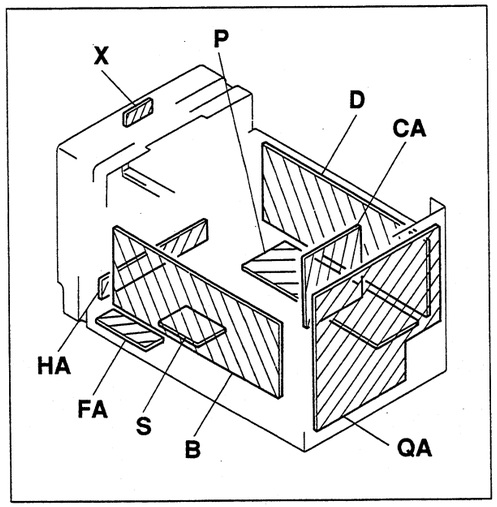
6-3. BLOCK DIAGRAM (2)




C
Y AMP Q107,108
IC119 G/Y SW
G/Y BUFF Q138
LINE/RGB
Y BUFF Q139
Y/G
IC105 SYNC SIG SW
SYNC SIG BUFF Q106
CLAMP REF Q194
SYNC CHIP CLAMP Q191
SYNC CHIP CLAMP2 Q193
SLICER Q208
CLAMPBUFF-1 Q192
CLAMPBUFF-2 Q195
AMP1,2 Q196,197
BUFF Q198
D341
IC107 (6/6)
+12V
D107
L252
SYNC SEP Q199
IC107(2/6)
SYNC BUFF Q112
L102
V SYNC SEP Q113,114
D106 LEVEL SHIFT
D128 PULSE SW
COMP SYNC
D113
IC109(3/4)
IC108
IC108
D161
MUTE SW Q190
IC120
+12V
D160
D123
SECAM
SECAM R-Y
SECAM B-Y
D115
IC107(3/6)
D116
LINE/RGB
A/B SW Q116
IC120(1/2)
IC122(1/2)
IC121(1/2)
Y/G BUFF Q143
TP105 COMP SYNC
IC110(1/2)
IC113 CHROMA DEMODULATION
B-Y DEMOD
B-Y BUFF Q128
B-Y
IC117
B-Y/B BUFF Q136
IC120(2/2)
IC123(2/2) HOLD
IC121(2/2)
B-Y/B BUFF Q141
PAL R-Y BURR Q117
R-Y DEMOD
R-Y BUFF Q127
RV106 443NT COL(R-Y)
RV107 358NT COL(R-Y)
IC114 SYSTEM SW
RV105 358NT COL(R-Y)
R-Y BUFF Q130
R-Y
IC118
R-Y/R BUFF Q137
IC122(2/2) HOLD
R-Y/R BUFF Q142
PAL/NT
RV109 BGP WHDTH
SYNC SEP
BURST GETE PULSE GEN
ACC
H PULSE
FF
TP101
443NT R-Y BUFF Q119
RV103 443NT SHIFT
IC110(2/2)
358NT R-Y BUFF Q122
RV104 358NT SHIFT
443/358
B-Y BUFF Q124
TINF CONT
VXO
D137 PROTECT
BLK IN
VXO BUFF Q131
CV101 358FO
X101 14.3MHz
Q133
SYSTEM SW Q134
14.3 SW
CV102 443FO
Q135
X102 17.7MHz
17.7 SW
PAL/NT SW Q126
APC
COLOR CONT
ID KILLER FILT
B/W
D120
B/W SW1
B/W SW Q125
D129 B/W SW3
PAL/NT BGP 443/358
H BLK
INSERT PULSE SW Q132
PULSE SW Q109
TP110 H-BLK
H DL
IC107(4/6)
D170
RV102 PULSE POST ADJ
HV DL SW Q129
IC106
IC106 H PULSE GEN
B-Y/B
R-Y/R
Y/C-C/BL/ONLY
VCA
IC124 RGB MATRIX
Y BUFF Q204
B-Y BUFF Q205
R-Y BUFF Q206
G BUFF Q202
B BUFF Q201
R BUFF Q203
MATRIX
COMP/RGB SW
OSD
RV123 MATRIX R-Y LEVEL
B/W SW Q144
MODE SW Q145
D289
COL
MODE SELECT
PIX ABL Q162
D393 U/S SW
BRT ABL Q163
D127 SW
RV205 SUB SHARP
RV116 SUB COL
D125 HV DL SW
HV DL SW
D126
RV118 SUB BRT
D143
D142
RV115 SUB HUE
R GAIN CONT
G GAIN CONT
B GAIN CONT
R C/O CONT
G C/O CON
B C/O CONT
R BUFF Q165
G BUFF Q166
B BUFF Q167
B BUFF Q168
TP104
D133 D134 D135 SLICER
BLUE ONLY SW Q212
BLACK SLISE RER Q153
D162
VP PIX
BRT
CLP
HP
IK F.B
V BLK
MUTE
RV120 G GAIN
RV122 B GAIN
RV119 G C/O
RV121 B C/O
OFF MUTE SW Q299
IC129 ON/OFF MUTE
D153
D152
D151
IC107(5/6)
IC109(4/4)
RV117 SUB PIX
R GAIN
G GAIN
B GAIN
R BIAS
G BIAS
B BIAS
NOR/BL-ONLY
TP107 V.P
LINE/RGB
NOR/DELAY
NOR/BL-ONLY
NOR/UNDER
NOR/EXT
A/B
S002 A/B
S001 LINE/RGB
S006 SYNC INT/EXT
S004 BLUE ONLY
S005 U/S
S003 H/V DELAY
X (TALLY LAMP)
HA (USER CONTROL, WHITE
LINE/RGB
NOR/EXT
PHASE
A/B
A/B
H BLK
NOR/DELAY
NOR/DELAY
VOL
VOL
POWER LED
POWER LED
COMP SYNC
ABL U/S
NOR/UNDER
NOR/UNDER
CHROMA APT
VP
CONTRAST
NOR/DELAY BRT
TALLY


IC124 RGB MATRIX
VCA
IC125 BLACK SAMPLING
IC127 HOLD
IC126
IC116 H BLK SW
IC120
IC121(1/2)
IC122(1/2)
IC123(2/2)
IC121(2/2)
IC122(2/2)
IC107(4/6)
IC107(5/6)
IC109(4/4)
IC129 ON/OFF MUTE
IC106 PULSE GEN
Y/G BUFF Q143
Y BUFF Q204
B-Y BUFF Q205
R-Y BUFF Q206
G BUFF Q202
B BUFF Q201
R BUFF Q203
MATRIX
COMP/RGB SW
OSD
R GAIN CONT
G GAIN CONT
B GAIN CONT
R C/O CONT
G C/O CON
B C/O CONT
R BUFF Q165
G BUFF Q166
B BUFF Q167
B BUFF Q168
BLUE ONLY SW Q212
BLACK SLISE RER Q153
D133 D134 D135 SLICER
D162
RV123 MATRIX R-Y LEVEL
RV124 BL ONLY W/B-R
RV125 BL ONLY W/B-G
BL-ONLY-RCH-BUFF Q170
BL-ONLY-BCH-BUFF Q172
R BUFF Q173
G BUFF Q174
B BUFF Q175
R DRIVE Q157
G DRIVE Q158
B DRIVE Q159
D145
D146
R REF PULSE SW Q148
G REF PULSE SW Q151
B REF PULSE SW Q154
R-E.F Q149,209
G-E.F Q152,210
B-E.F Q155,211
V GATE SW Q146,147
H BLK
BLUE-L
V BLK SW Q164
V BLK SW Q179
BLKNKING Q177
REF PULSE BUFF Q161
REF PULSE SW Q160
OFF MUTE SW Q299
D151
D152
D153
+12V
RV122 B GAIN
RV119 G C/O
RV121 B C/O
RV120 G GAIN
B/W SW Q144
MODE SW Q145
D289
B-Y/B BUFF Q141
R-Y/R BUFF Q142
INSERT PULSE SW Q132
PIX ABL Q162
BRT ABL Q163
D393 U/S SW
D127 SW
D125 HV DL SW
D126
D143
D142
HV DL SW Q129
RV116 SUB COL
RV118 SUB BRT
RV115 SUB HUE
RV205 SUB SHARP
RV117 SUB PIX
TP104
TP105 COMP SYNC
TP110 H-BLK
TP107 V.P
B/W
B-Y/B
R-Y/R
Y/G
Y/C-C/BL-ONLY
COL
MODE SELECT
IK F.B
V BLK
MUTE
VP PIX
BRT
CLP
HP
R GAIN
G GAIN
B GAIN
R BIAS
G BIAS
B BIAS
NOR/BL-ONLY
ABL
U/S
POWER LED
COMP SYNC
NOR/UNDER
CHROMA
APT
VP
CONTRAST
NOR/DELAY
TALLY
V(+)
V(-)
CS
PIN
H DRV
D.DCON
HP
△HV
H DRIVE Q801
T801 HDT
H OUT Q802
120V REG D802
15V REG D803, 813
24V REG D801
T802 FBT
DEGAUS D807 D808 D809
DGC SW
DGC
+12GV
H(+)
H(-)
HV
FOCUS
SCREEN
H1
H2
DY
H
V
CV
RV701 H STAT
FOCUS
SCREEN
H1,H2
HV
V901 PICTURER TUBE
R
G
B
CA (CRT SOCKET)
B (SIGNAL PROCESS)
P (H OUT, FBT)
X (TALLY LAMP)
HA (USER CONTROL, WHITE BALANSE)
LINE/RGB
NOR/DELAY
NOR/BL ONLY
NOR/UNDER
NOR/EXT
A/B
APERTURE
BRT
CHROMA
PHASE
CONTRAST
VOL
POWER LED
S002 A/B
S001 LINE/RGB
S006 SYNC INT/EXT
S004 BLUE ONLY
S005 U/S
S003 H/V DELAY
RV006 APT
RV004 CHROMA
RV002 CONTR
RV005 BRT
RV003 PHASE
RV001 VOL
D001 POWER
BIAS
GAIN

6-4. CIRCUIT BOARDS LOCATION



6-5. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W
- All resistors are in ohms.
- ▭: nonflammable resistor.
- ▭: fusible resistor.
- △: internal component.
- ▭: panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⊠ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment until the specified value is achieved. (Refer to RV651,RV1603, and RV833 adjust on page 18 and 19.)
- When replacing the part in below table be sure to parform the related adjustment.

Part replaced (◪)	Adjustment (⊠)
IC601, IC651, PH601, C654, R653, R655,R656,R657,RV651	RV651 (B+ MAX)
Q1601, Q1602, Q1603, D1601, D1602, D1603, D1604, D1605, C1601, C1602, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV1601, RV1603	RV1603 (B+MAX IN DC POWER INPUT MODE)
IC502, Q833, Q834, Q835, Q836, D835, D836, C519, C814, C843, C844, C845, C846, C847, C848, RV833, R523, R850, R851,R852, R853, R854, R855, R856, R857, R858, R859, R861, R862, R863, NL801	RV833 (HOLD-DOWN)

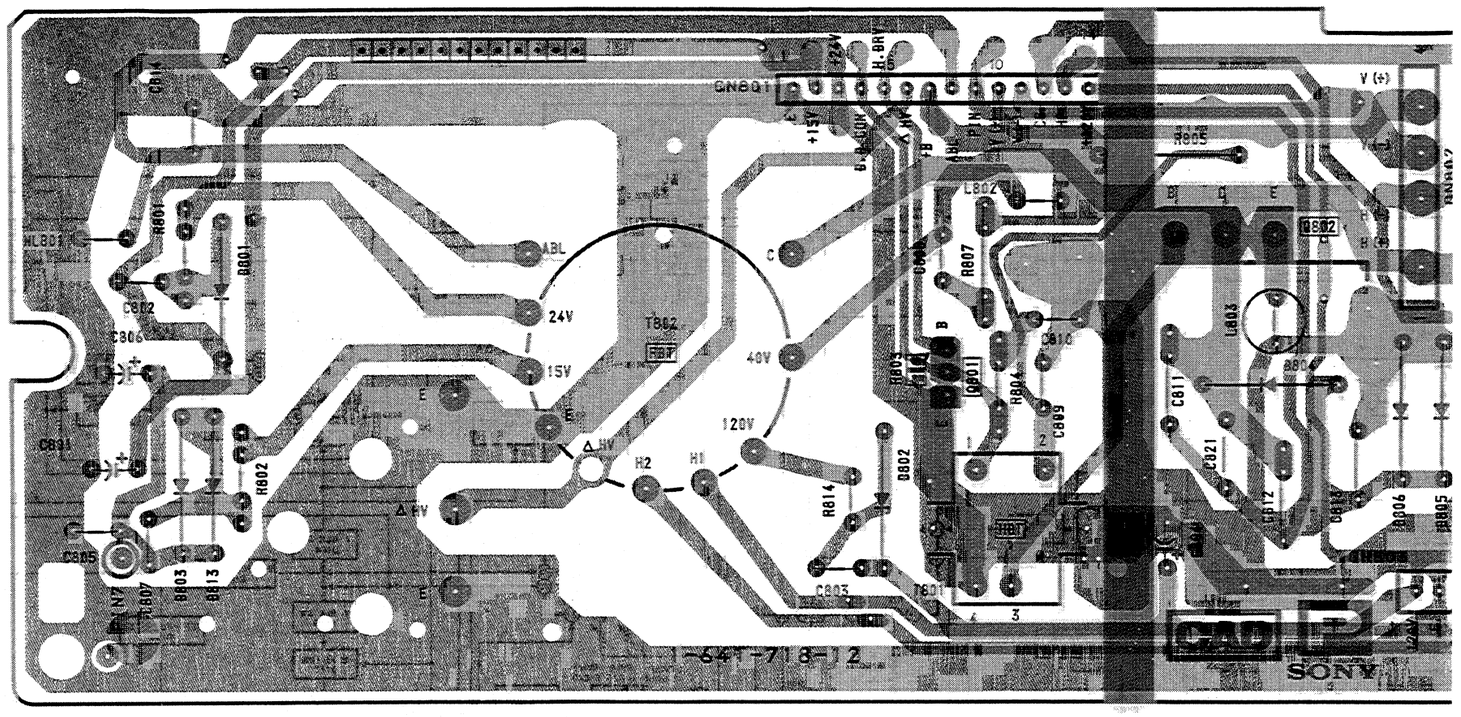
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a PAL color-bar signal input.
- ▭: adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- ▬▬ : B+ bus.
- ■ ■ ■ : B- bus.
- ▒▒▒ : signal path.
- No mark : with PAL coior-bar signal received or common voltage.
- ( ) : with SECAM color-bar signal received.
- < > : with NTSC 3.58 color-bar signal received.
- (( )) : with NTSC 4.43 color-bar signal received.
- [ ] : with S (Y/C) color-bar signal received.
- { } : with analog RGB color-bar signal received.
- << >> : with component color-bar signal received.
- ※ : measurement impossibility.

Reference information

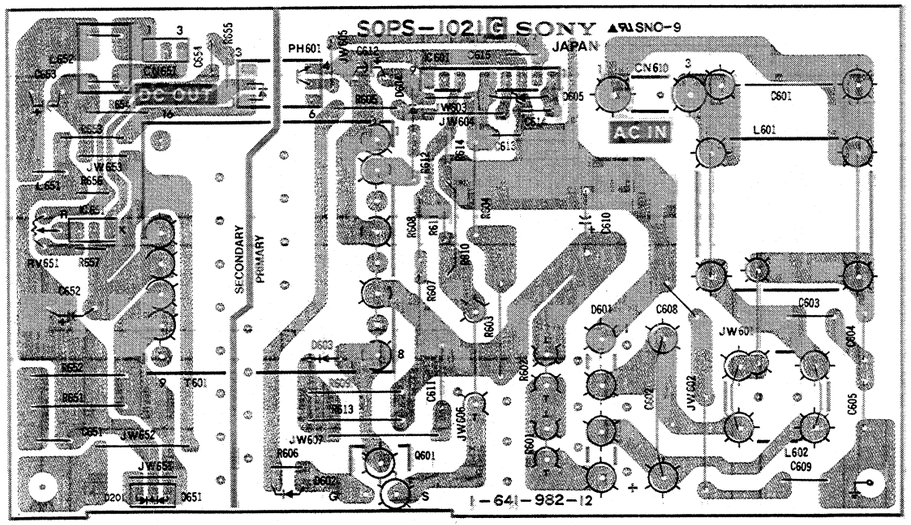
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLEWIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

P [H OUT, FBT] **G** [SWITCHING REGULATOR] **X**

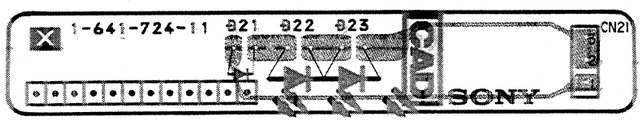
— P Board —



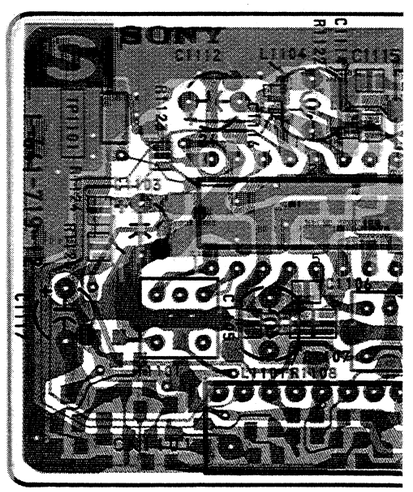
— G Board —



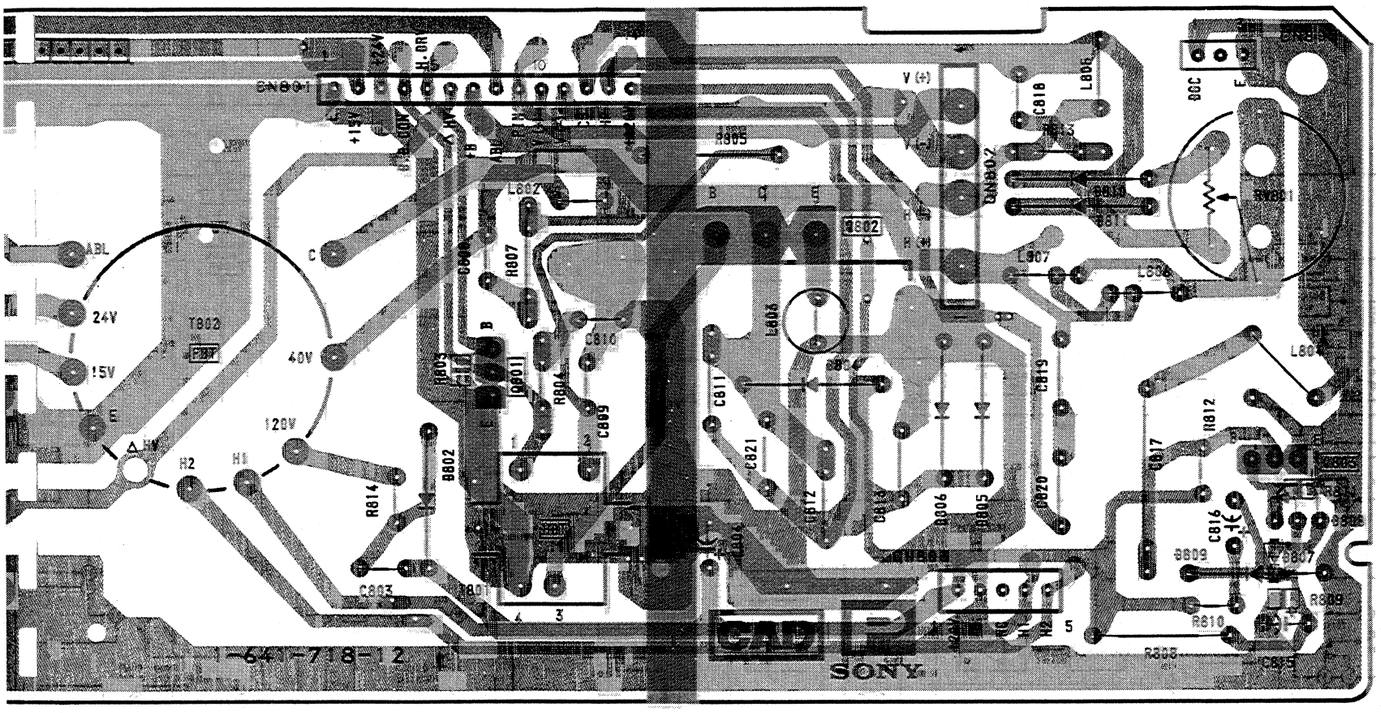
— X Board —



— S Board — — Component side —



- ▒▒▒ : Pattern from the side which enables see
- ▒▒▒ : Pattern of the rear side.



:(LATOR]

X [TALLY LAMP]

S [SECAM DEMODULATION]

FA [AC/ DC]

— S Board — — Component side —

• ▨ : Pattern from the side which enables seeing.

• ▨ : Pattern of the rear side.

— FA Board —

— S Board — — Conductor side —

• ▨ : Pattern from the side which enables seeing.

• ▨ : Pattern of the rear side.

QA Board

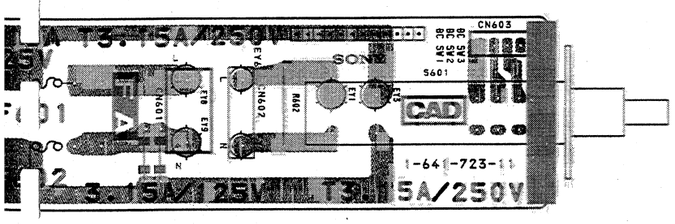
IC	
IC401	B-4
IC402	D-4
IC403	H-4
TRANSISTOR	
Q401	C-8
Q402	C-6
Q403	C-4
Q404	B-9
Q405	B-10
Q406	E-9
Q407	E-7
Q408	B-10
Q409	E-5
Q410	E-3
Q411	D-2
Q412	C-7
Q413	C-4
Q414	E-4
Q416	G-3
Q417	D-1
Q418	C-1
Q419	B-2
Q420	B-2
Q421	B-2
Q422	B-2
Q423	C-1
Q424	B-3
DIODE	
D401	D-2
D402	D-3
D403	F-3
D404	C-8
D405	C-8
D406	C-6
D407	C-6
D408	C-9
D409	C-9
D410	D-1
D411	D-2
D412	C-1
D413	C-2
D414	C-11
D415	C-11
D416	E-9
D417	E-9
D418	E-8
D419	E-8
D420	F-5
D421	E-5
D422	E-3
D423	E-4
D424	B-2
D425	B-1
D426	B-2
D427	B-2
D428	C-1
D429	C-1
D430	B-2
D431	B-2
VARIABLE RESISTOR	
RV401	F-7

QA [INPUT SIGNAL SELECTOR]

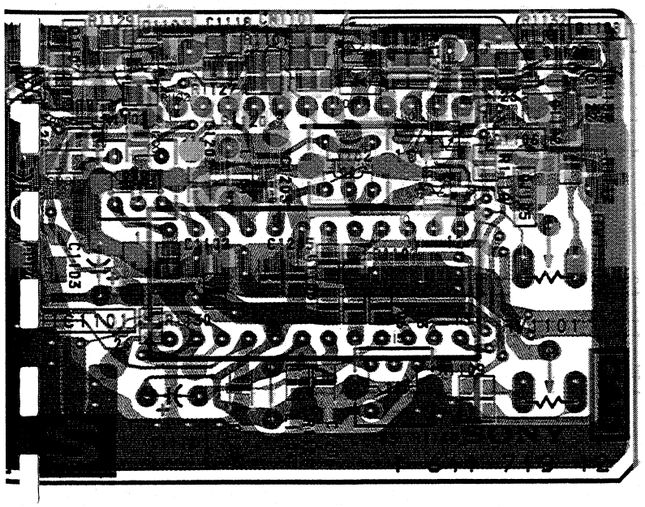
— QA Board —

FA [AC/ DC]

'A Board —



E Board — — Conductor side —



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

QA Board

IC	
IC401	B-4
IC402	D-4
IC403	H-4

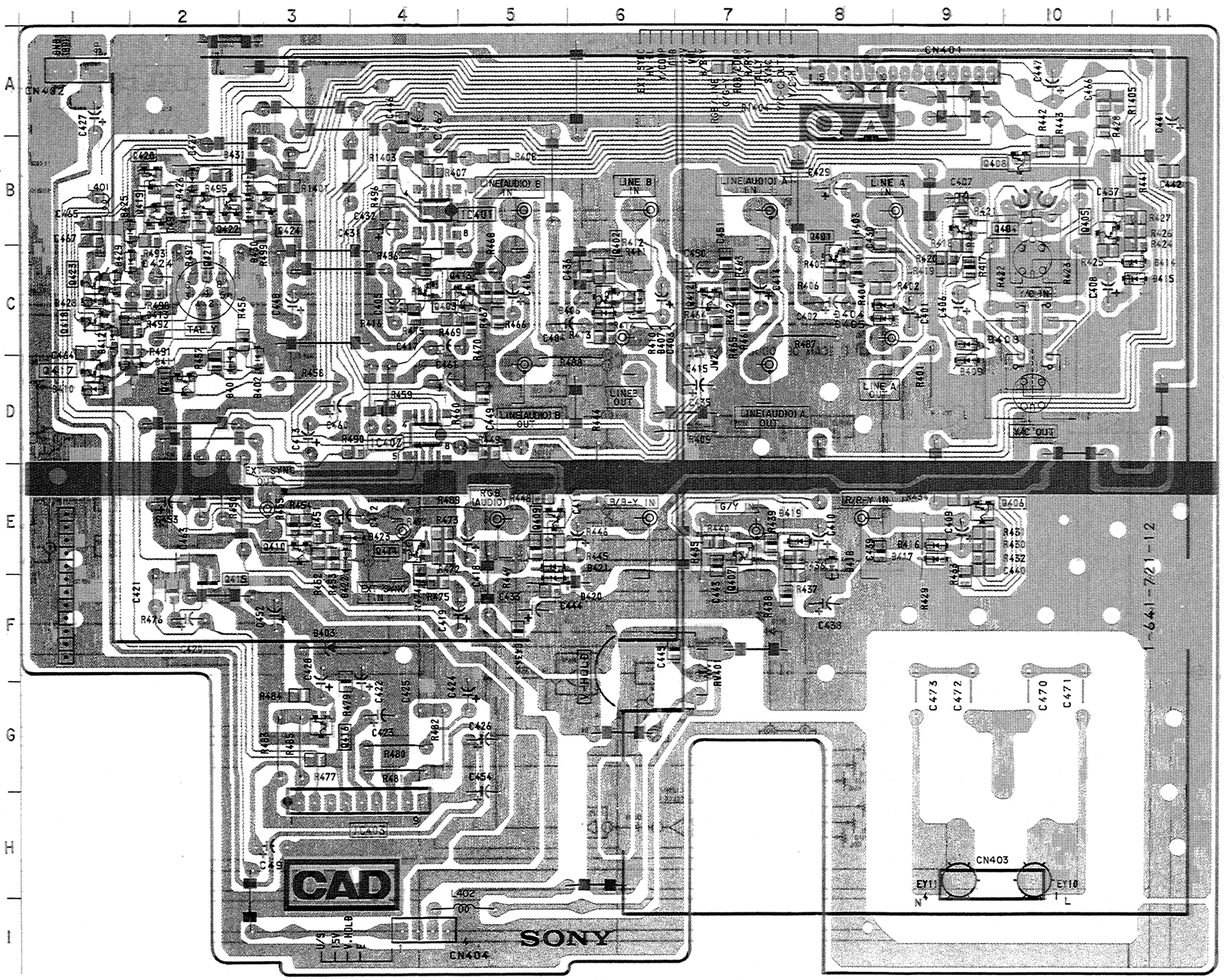
TRANSISTOR	
Q401	C-8
Q402	C-6
Q403	C-4
Q404	B-9
Q405	B-10
Q406	E-9
Q407	E-7
Q408	B-10
Q409	E-5
Q410	E-3
Q411	D-2
Q412	C-7
Q413	C-4
Q414	E-4
Q416	G-3
Q417	D-1
Q418	C-1
Q419	B-2
Q420	B-2
Q421	B-2
Q422	B-2
Q423	C-1
Q424	B-3

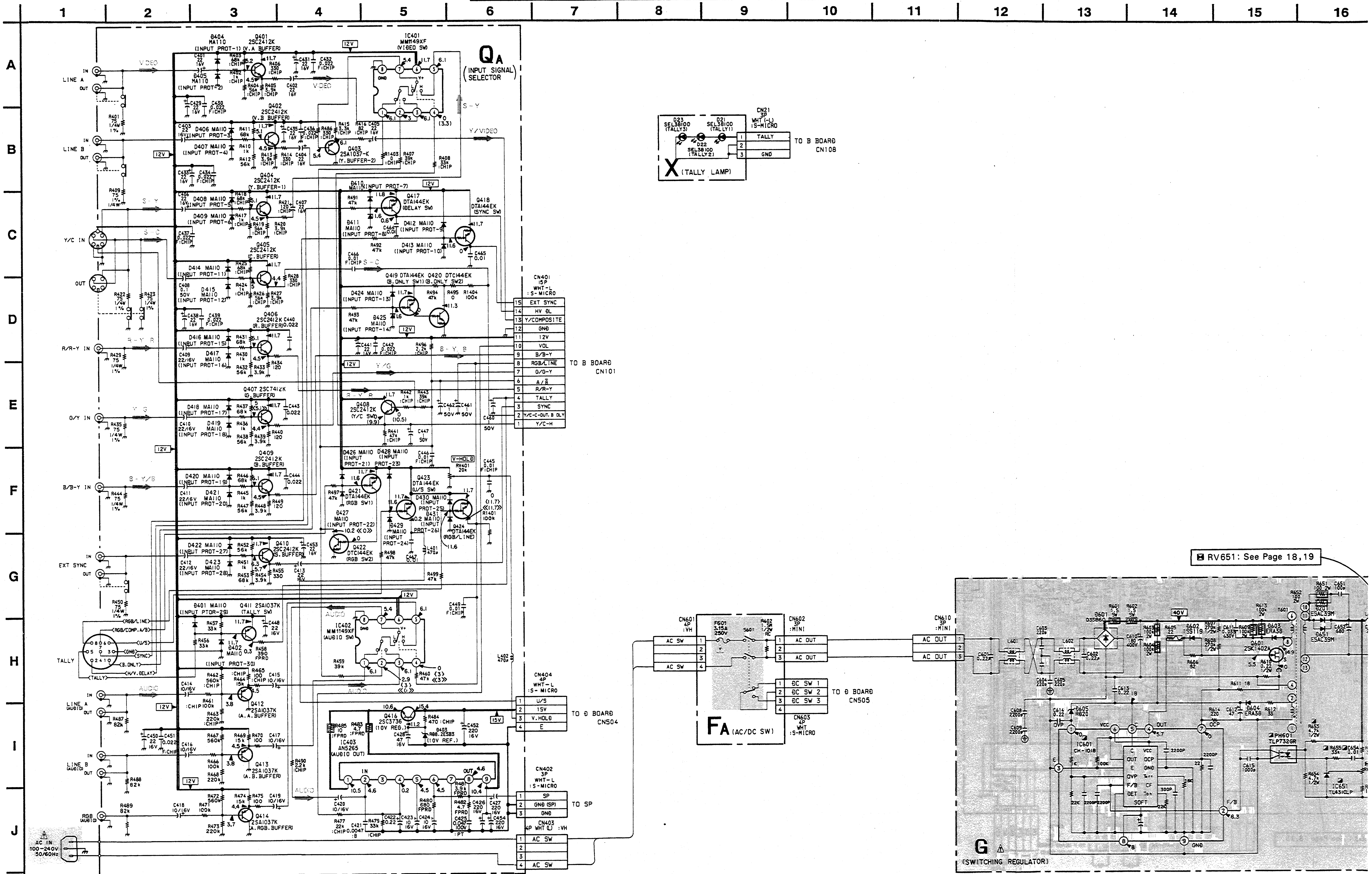
DIODE	
D401	D-2
D402	D-3
D403	F-3
D404	C-8
D405	C-8
D406	C-6
D407	C-6
D408	C-9
D409	C-9
D410	D-1
D411	D-2
D412	C-1
D413	C-2
D414	C-11
D415	C-11
D416	E-9
D417	E-9
D418	E-8
D419	E-8
D420	F-5
D421	E-5
D422	E-3
D423	E-4
D424	B-2
D425	B-1
D426	B-2
D427	B-2
D428	C-1
D429	C-1
D430	B-2
D431	B-2

VARIABLE RESISTOR	
RV401	F-7

QA [INPUT SIGNAL SELECTOR]

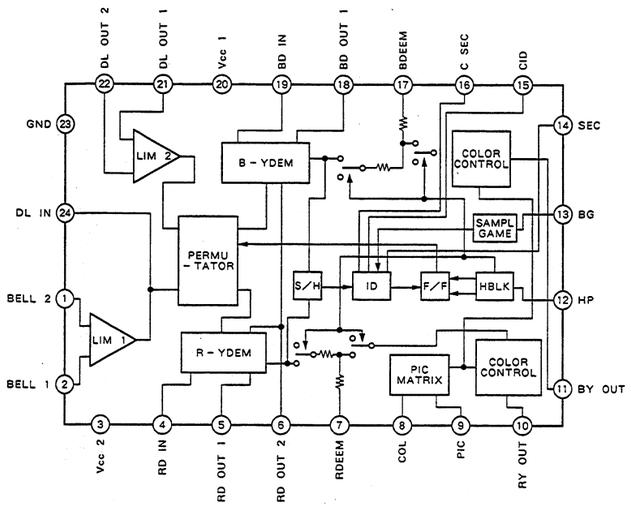
— QA Board —



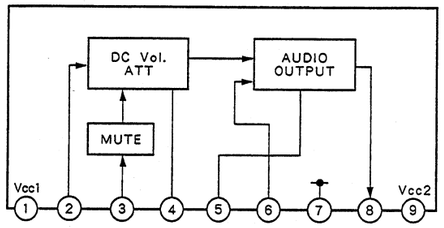

QA (INPUT SIGNAL SELECTOR)
X (TALLY LAMP)
FA (AC/DC SW)
G (SWITCHING REGULATOR)
RV651: See Page 18,19
LINE A
LINE B
Y/C IN
R/R-Y IN
G/Y IN
B/B-Y IN
EXT SYNC
TALLY
AC IN 100-240V 50/60Hz
TO B BOARD CN101
TO B BOARD CN108
TO B BOARD CN504
TO B BOARD CN505
TO SP
IC401 MM1149XF (VIDEO SW)
IC402 MM1149XF (AUDIO SW)
IC403 AN5265 (AUDIO OUT)
IC601 CH-101B
CN401 15P WHT-L :S-MICRO
CN404 4P WHT-L :S-MICRO
CN402 3P WHT-L :S-MICRO
CN403 4P WHT (L) :VH
CN21 3P WHT (-L) :S-MICRO
CN601 4P :VH
CN602 3P :MINI
CN603 4P WHT :S-MICRO
CN610 3P :MINI

15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30

S BOARD IC1101 CXA1214P



QA BOARD IC403 AN5265



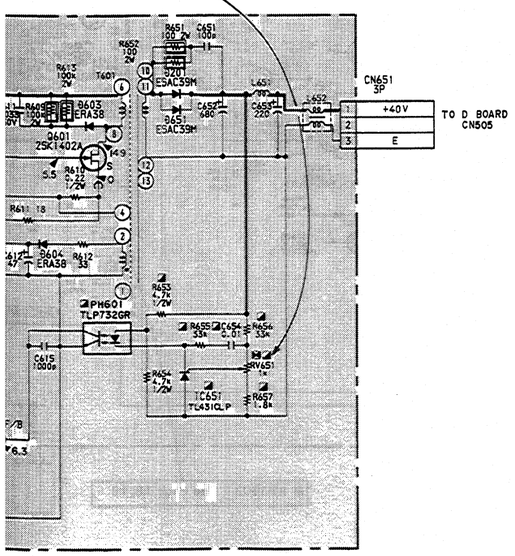
P BOARD WAVEFORMS

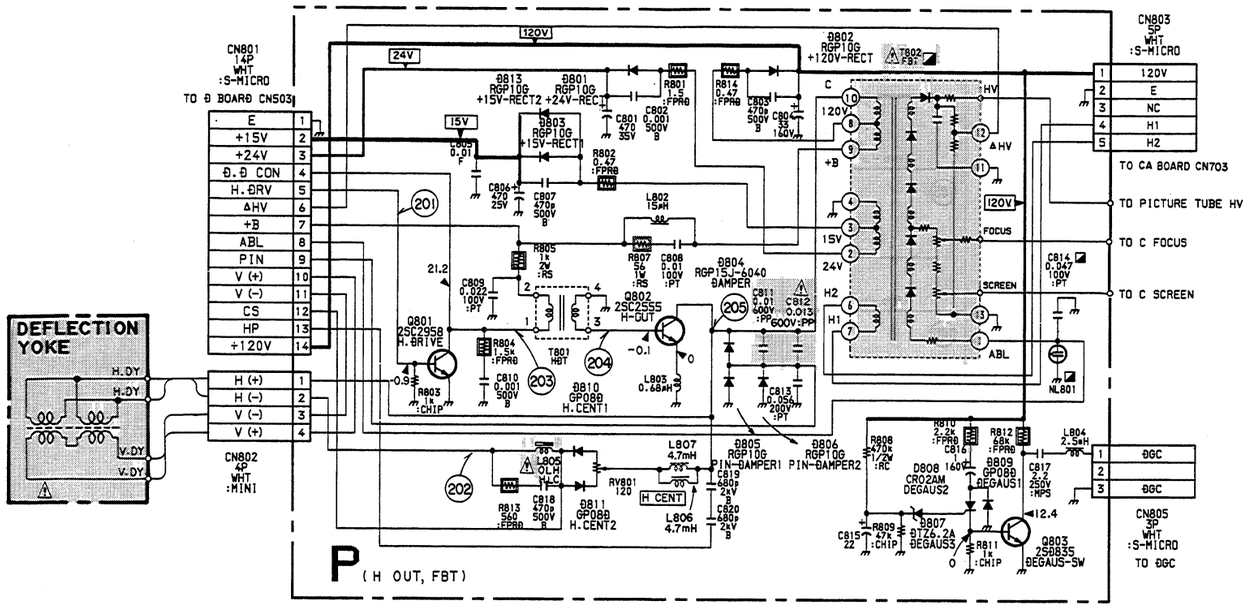
(201) 2.5Vp-p (H)	(202) 80Vp-p (H)	(203) 46Vp-p (H)
(204) 22Vp-p (H)	(205) 320Vp-p (H)	

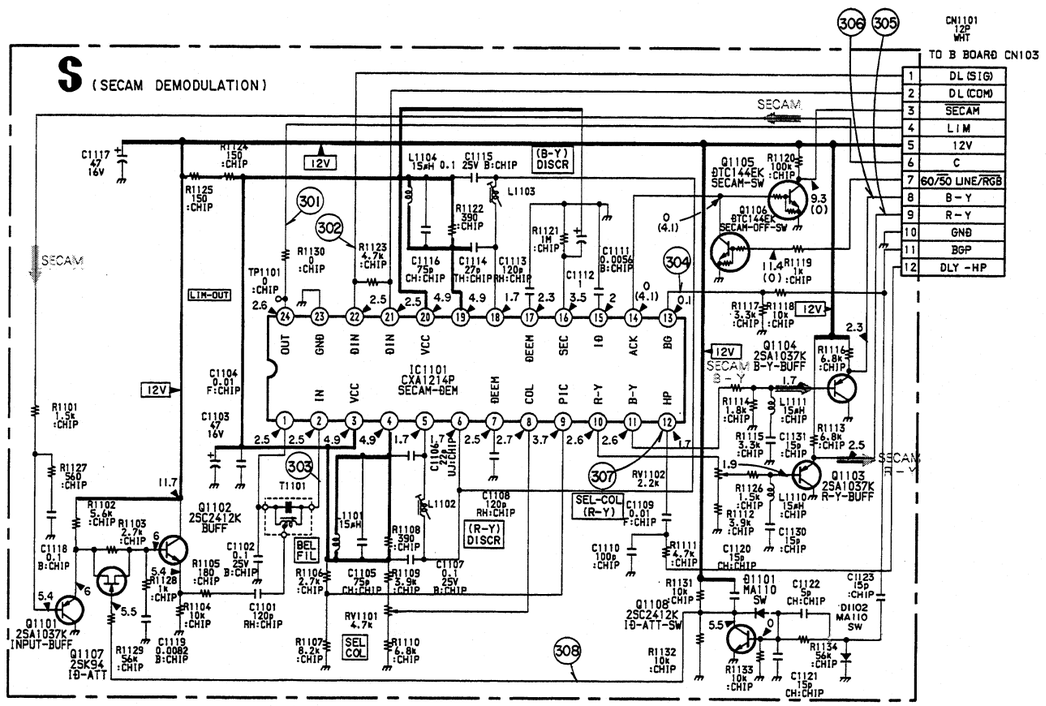
S BOARD WAVEFORMS

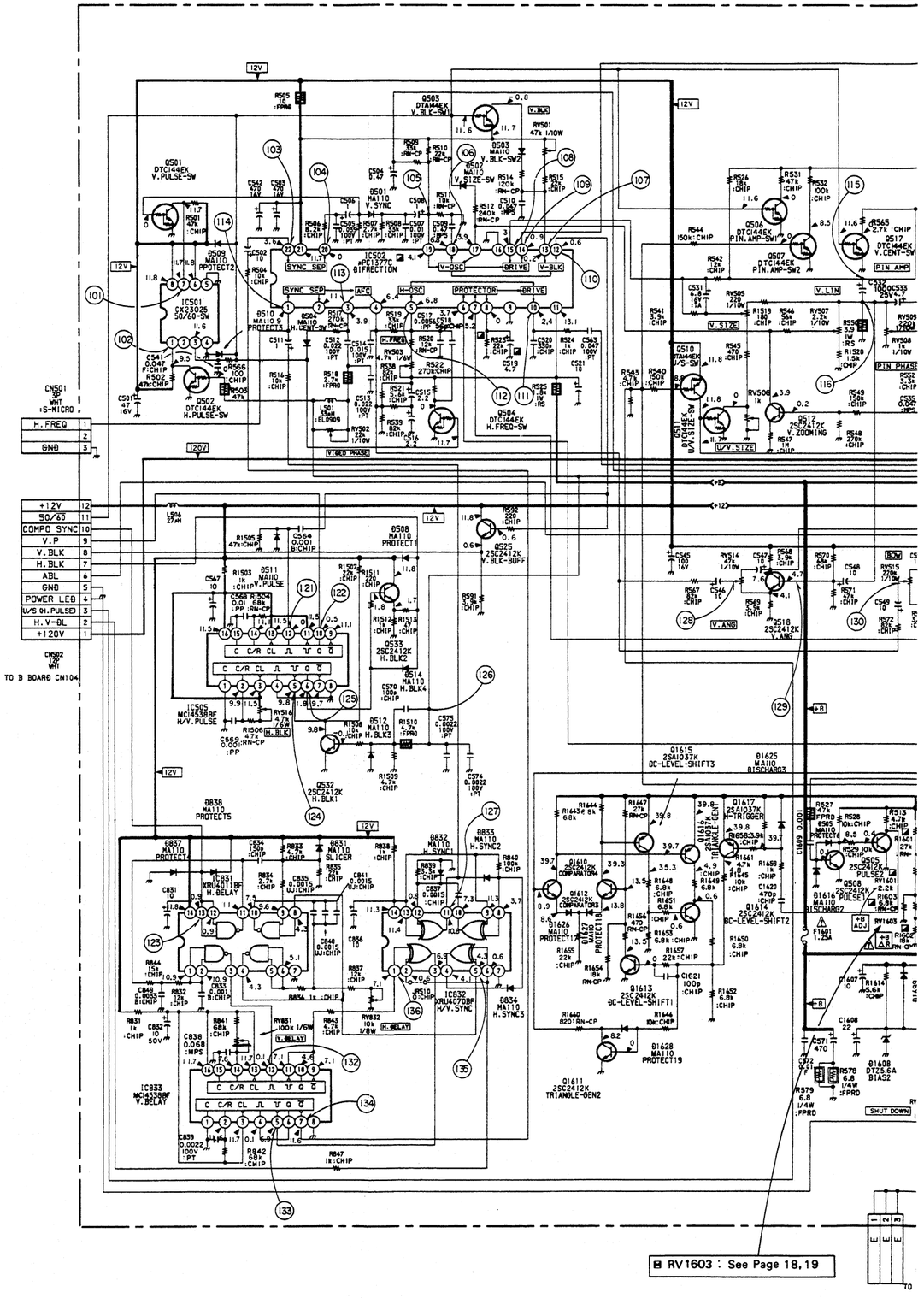
(301) SECAM 0.8Vp-p (H)	(302) SECAM 0.7Vp-p (H)	(303) SECAM 0.1Vp-p (H)	(304) SECAM 3Vp-p (H)
(305) SECAM 0.6Vp-p (H)	(306) SECAM 0.7Vp-p (H)	(307) SECAM 3.4Vp-p (H)	(308) SECAM 6Vp-p (H)

51: See Page 18,19



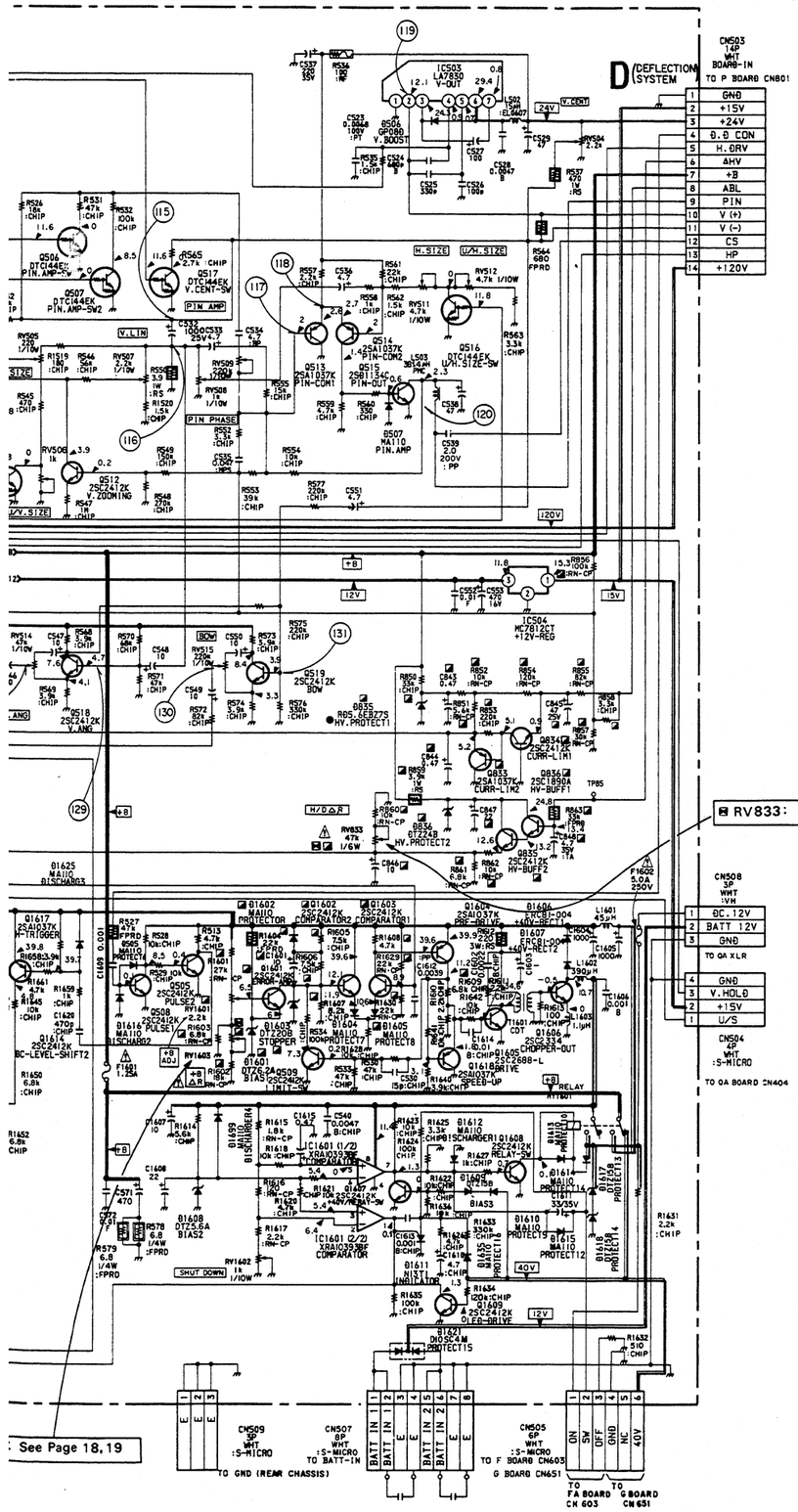






D BOARD WAVEFORMS

■ RV1603 : See Page 18,19

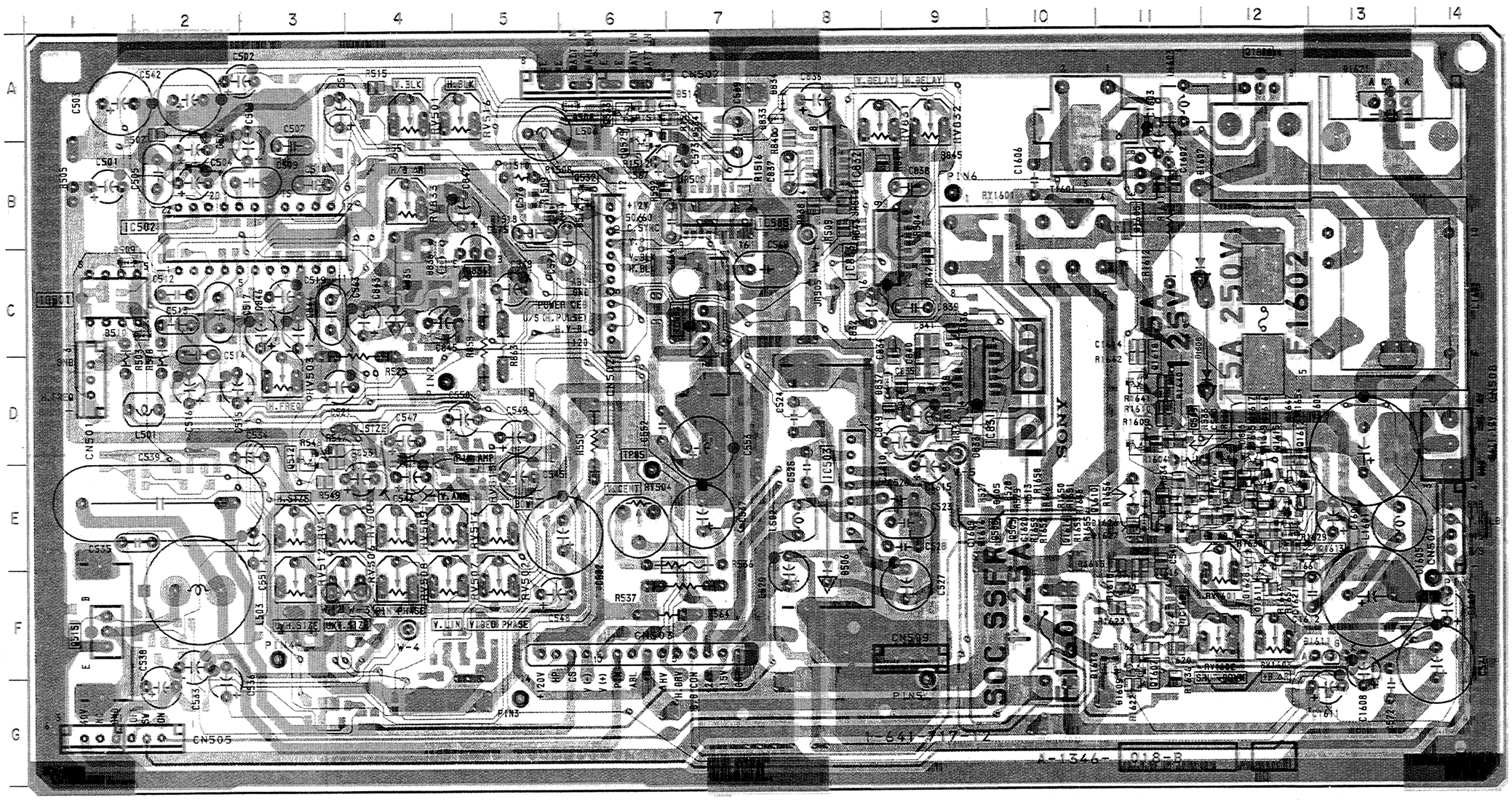


D BOARD IC501 CX23025

D BOARD IC503 LA7830

D [DEFLECTION SYSTEM]

— D Board — — Component side —



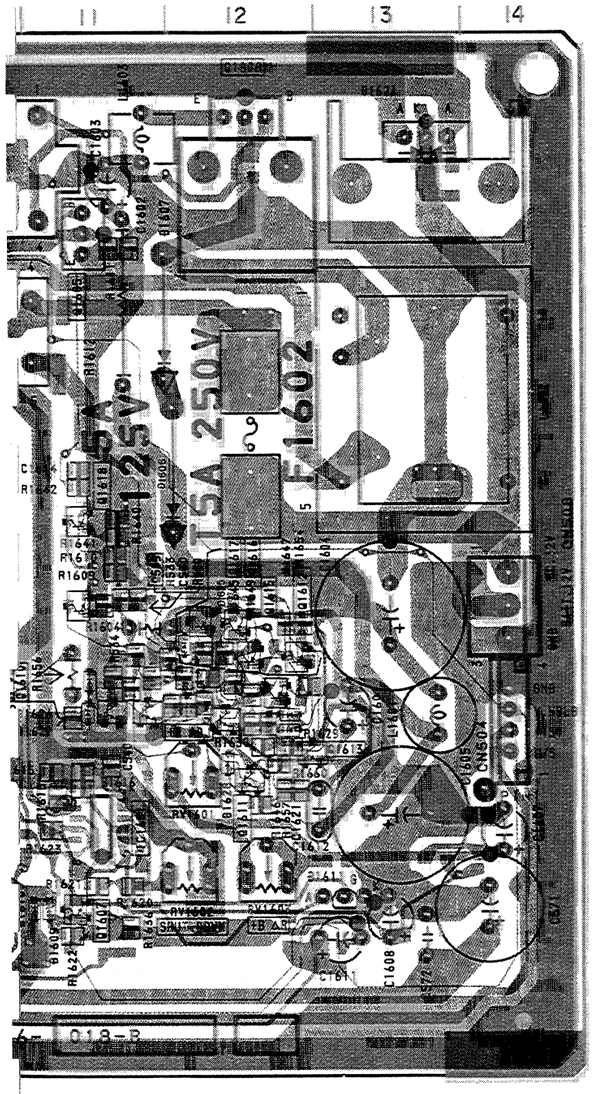
D Board (Component S

IC		DIOI
IC501	C-1	D505
IC505	B-7	D508
IC831	D-9	D509
IC832	B-8	D510
IC833	C-8	D512
IC1601	F-11	D514
		D833
TRANSISTOR		D834
		D836
Q505	E-11	D837
Q508	E-11	D838
Q509	D-11	D1609
Q512	D-3	D1610
Q525	A-6	D1616
Q532	B-6	D1621
Q533	A-6	D1625
Q1607	F-11	D1626
Q1610	E-12	D1627
Q1611	F-12	D1628
Q1612	D-12	
Q1613	E-13	
Q1614	E-12	
Q1615	D-12	
Q1616	D-12	
Q1617	D-12	
Q1618	D-11	

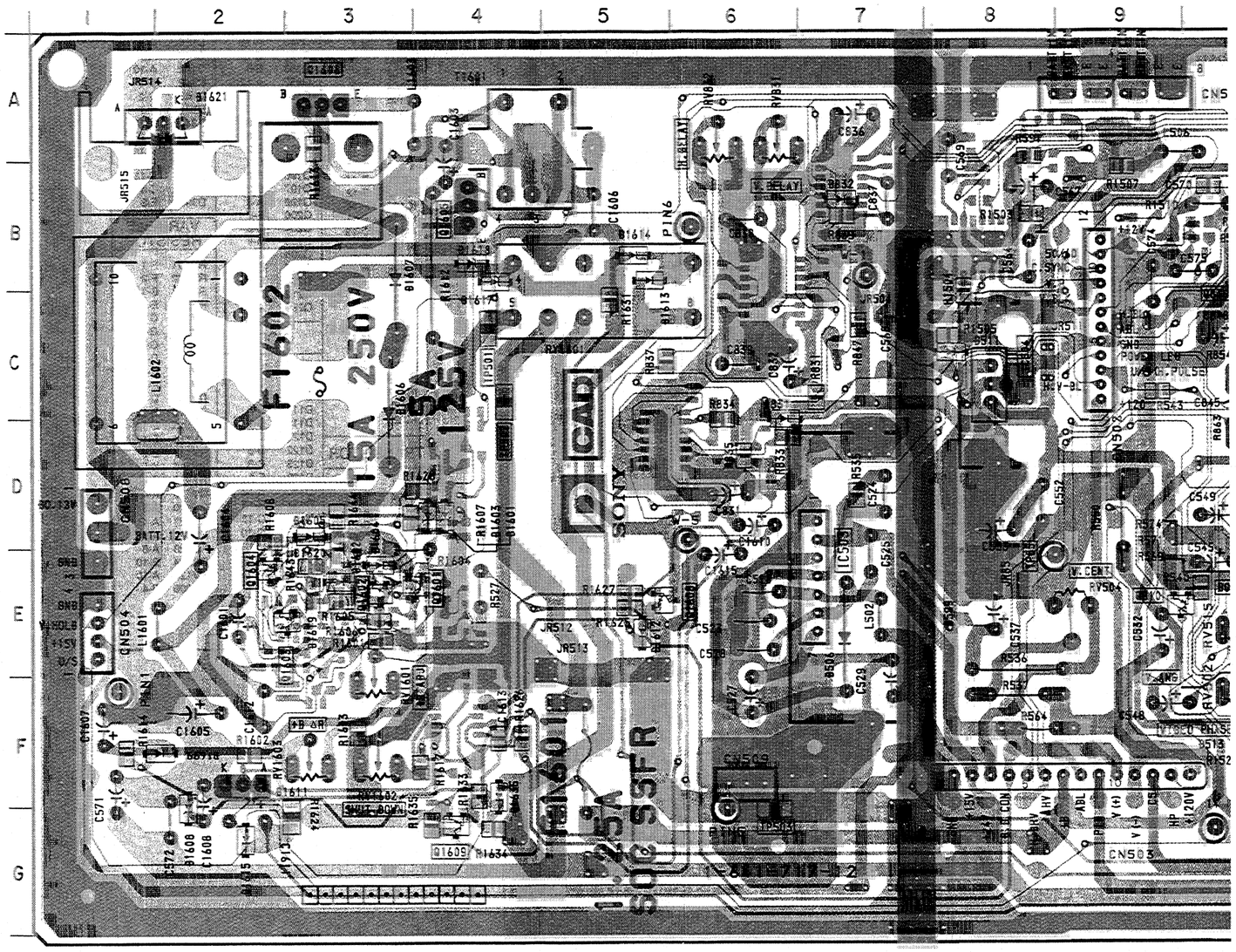
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

D Board (Component Side)

IC		DIODE	
IC501	C-1	D505	E-11
IC505	B-7	D508	A-6
IC831	D-9	D509	C-1
IC832	B-8	D510	C-2
IC833	C-8	D512	B-6
IC1601	F-11	D514	A-7
TRANSISTOR		D833	A-7
Q505	E-11	D834	A-8
Q508	E-11	D836	C-4
Q509	D-11	D837	D-9
Q512	D-3	D838	D-9
Q525	A-6	D1609	F-11
Q532	B-6	D1610	F-11
Q533	A-6	D1616	E-11
Q1607	F-11	D1621	A-13
Q1610	E-12	D1625	D-12
Q1611	F-12	D1626	E-12
Q1612	D-12	D1627	E-12
Q1613	E-13	D1628	E-12
Q1614	E-12		
Q1615	D-12		
Q1616	D-12		
Q1617	D-12		
Q1618	D-11		

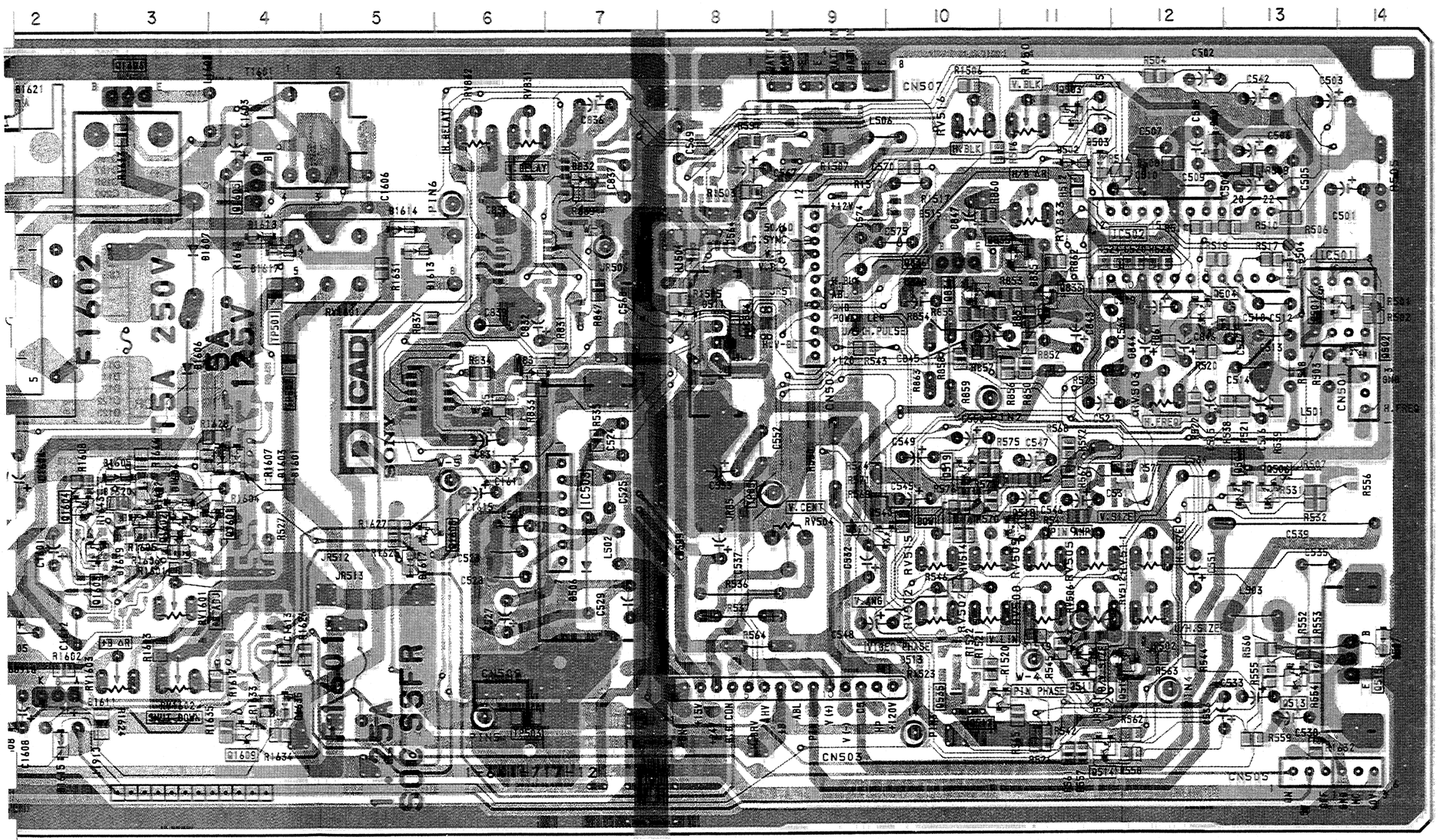


— D Board — — Conductor side —



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

ductor side —



D Board (Conductor Side)

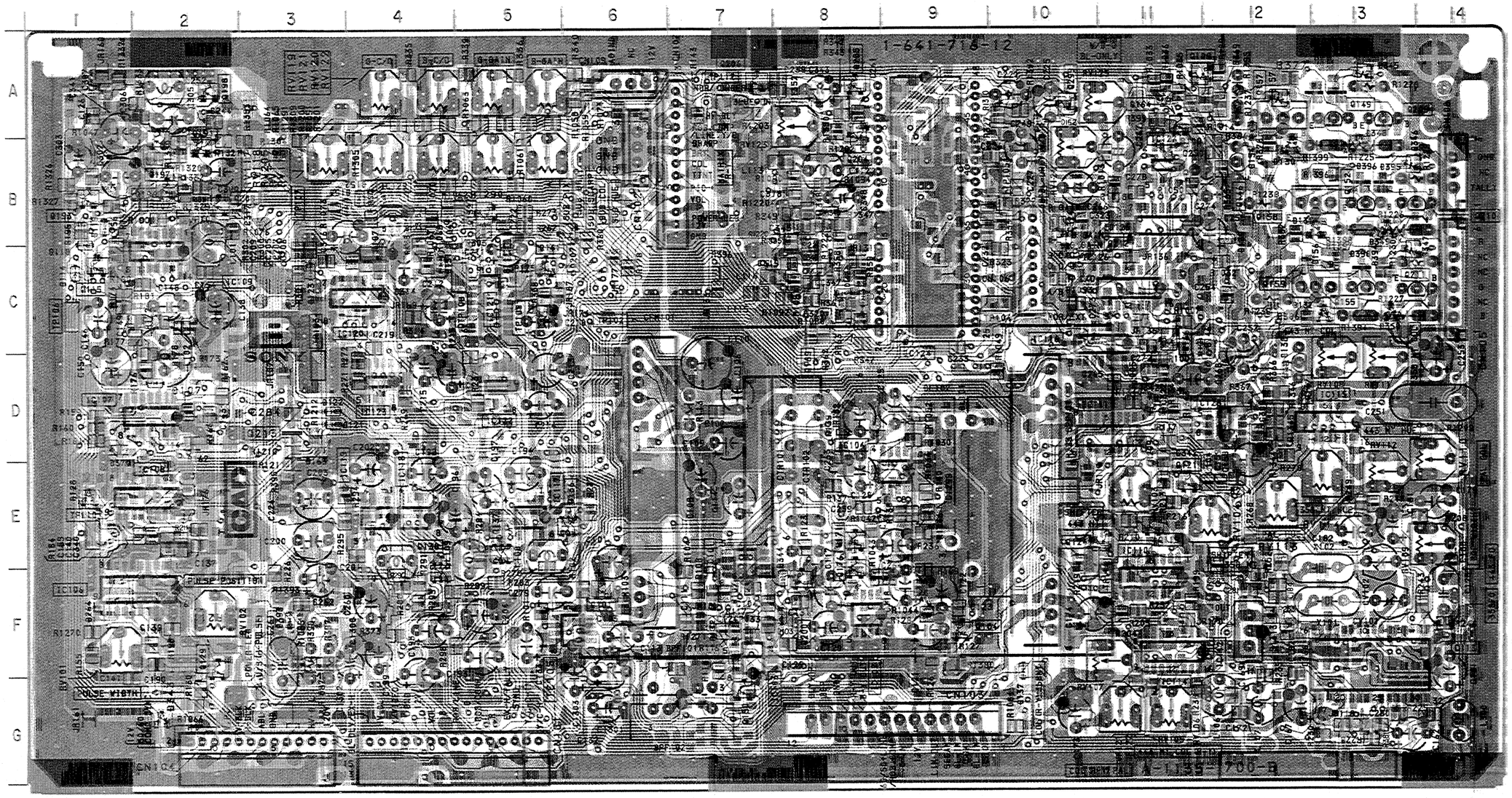
IC		DIODE		FUSE	
IC502	B-12	D501	A-12	F1601	F-5
IC503	E-7	D502	B-11	VARIABLE RESISTOR	
IC504	C-8	D503	B-11		
TRANSISTOR		D504	C-13	RV501	A-11
		D506	E-7	RV502	F-10
Q501	C-14	D507	F-14	RV503	D-12
Q502	C-14	D511	C-8	RV504	E-9
Q503	A-11	D599	E-8	RV505	E-11
Q504	C-12	D831	C-6	RV506	F-11
Q506	E-13	D832	B-7	RV507	F-10
Q507	E-13	D835	C-11	RV508	F-11
Q510	E-9	D1601	D-4	RV509	F-11
Q511	F-11	D1602	D-3	RV511	E-12
Q513	F-13	D1603	D-4	RV512	F-11
Q514	G-11	D1604	D-3	RV514	E-10
Q515	F-14	D1605	D-3	RV515	E-10
Q516	F-12	D1606	C-3	RV516	A-10
Q517	F-10	D1607	B-3	RV831	A-6
Q518	E-11	D1608	G-2	RV832	A-6
Q519	D-10	D1611	F-2	RV833	B-11
Q833	C-11	D1612	E-5	RV1601	F-3
Q834	C-10	D1613	B-5	RV1602	F-3
Q835	B-11	D1614	B-5	RV1603	F-3
Q836	C-10	D1615	G-2		
Q1601	E-3	D1617	B-4		
Q1602	E-3	D1618	B-4		
Q1603	E-2	D1619	D-3		
Q1604	E-2	D1621	A-2		
Q1605	B-4	D1635	F-4		
Q1606	A-3	D1699	F-2		
Q1608	E-5				
Q1609	G-4				

• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

PVM-9041QM/9044QM PVM-9041QM/9044QM

B [SIGNAL PROCESS]

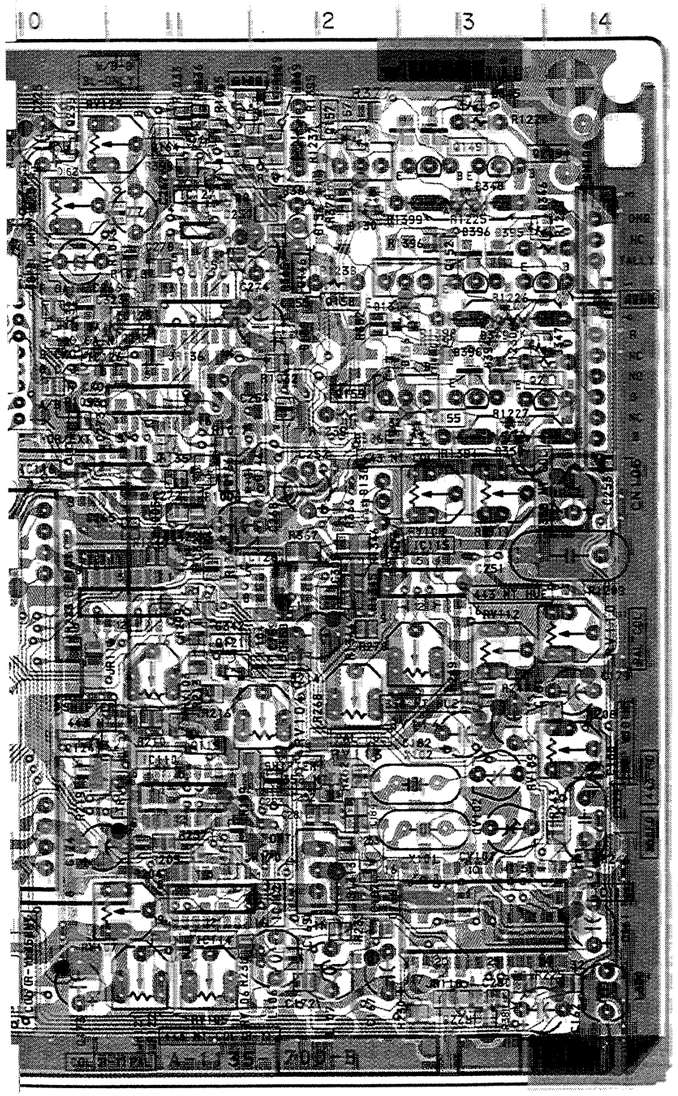
— B Board — — Component side —



B Board (Component Side)

IC		Q141	C-5	D153	B-
IC101	E-7	Q145	C-7	D154	B-
IC102	F-8	Q149	A-13	D156	C
IC103	F-7	Q150	G-7	D157	A-
IC104	E-9	Q153	B-6	D162	A
IC105	F-6	Q157	A-12	D342	D
IC106	F-1	Q164	A-11	D343	G
IC107	D-2	Q166	C-11	D344	F-
IC108	E-2	Q171	E-8	D345	A-
IC109	C-2	Q176	E-8	D346	B-
IC110	F-11	Q191	B-2	D347	C
IC111	D-11	Q193	B-1	D348	B
IC112	F-12	Q196	B-2	D349	B-
IC113	F-14	Q197	B-2	D350	C
IC114	F-11	Q198	A-2	D393	F-
IC115	D-13	Q200	F-8	VARIAE	
IC116	B-10	Q204	B-8	RESIST	
IC117	E-5	Q205	A-8	RV101	F-
IC118	E-4	Q206	A-7	RV102	F-
IC119	E-4	Q207	B-6	RV103	E
IC120	C-4	Q208	B-2	RV104	E-
IC121	C-5	Q212	C-11	RV105	G
IC122	D-5	Q299	A-10	RV106	G
IC123	D-4	DIODE		RV107	G
IC124	A-9	D103	F-8	RV108	D
IC125	B-11	D107	D-2	RV109	E-
IC126	C-11	D114	C-1	RV110	E-
IC127	B-11	D118	B-1	RV111	D
IC128	D-12	D119	B-1	RV112	E-
IC129	B-4	D121	D-3	RV113	E-
TRANSISTOR		D122	D-3	RV114	E-
Q101	F-6	D123	C-3	RV115	B
Q104	F-9	D128	E-1	RV116	B-
Q109	A-11	D130	B-12	RV118	B-
Q115	C-1	D131	B-13	RV119	A-
Q119	E-11	D132	C-13	RV120	A-
Q121	E-11	D137	G-10	RV121	A-
Q124	E-10	D138	D-12	RV122	A-
Q129	F-2	D139	B-12	RV123	A-
Q132	B-2	D142	C-8	RV124	B
Q136	E-6	D143	C-8	RV125	A-
Q137	E-5	D146	C-12	RV205	B-
Q138	F-4	D151	C-4		
		D152	B-4		

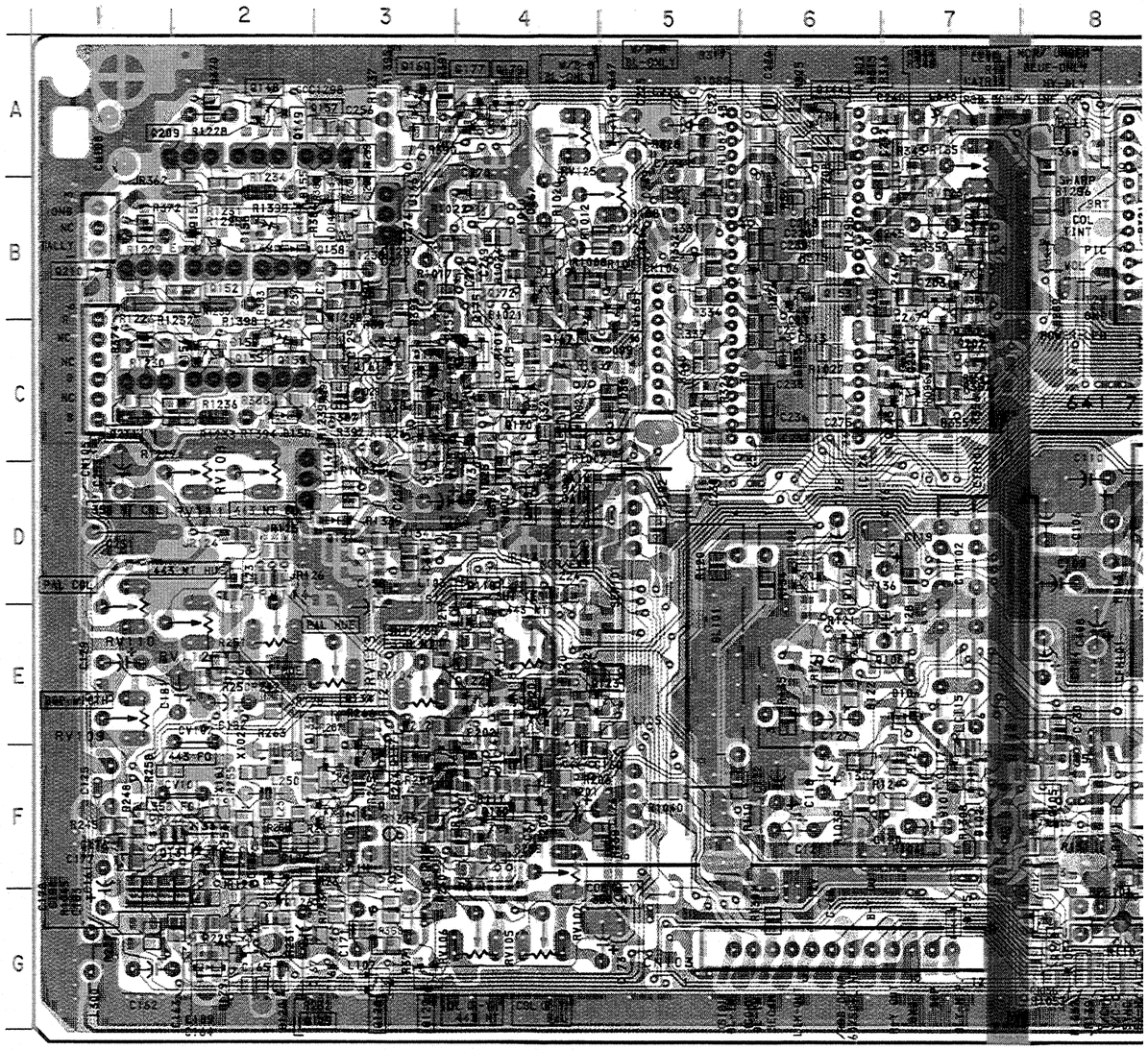
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.



B Board (Component Side)

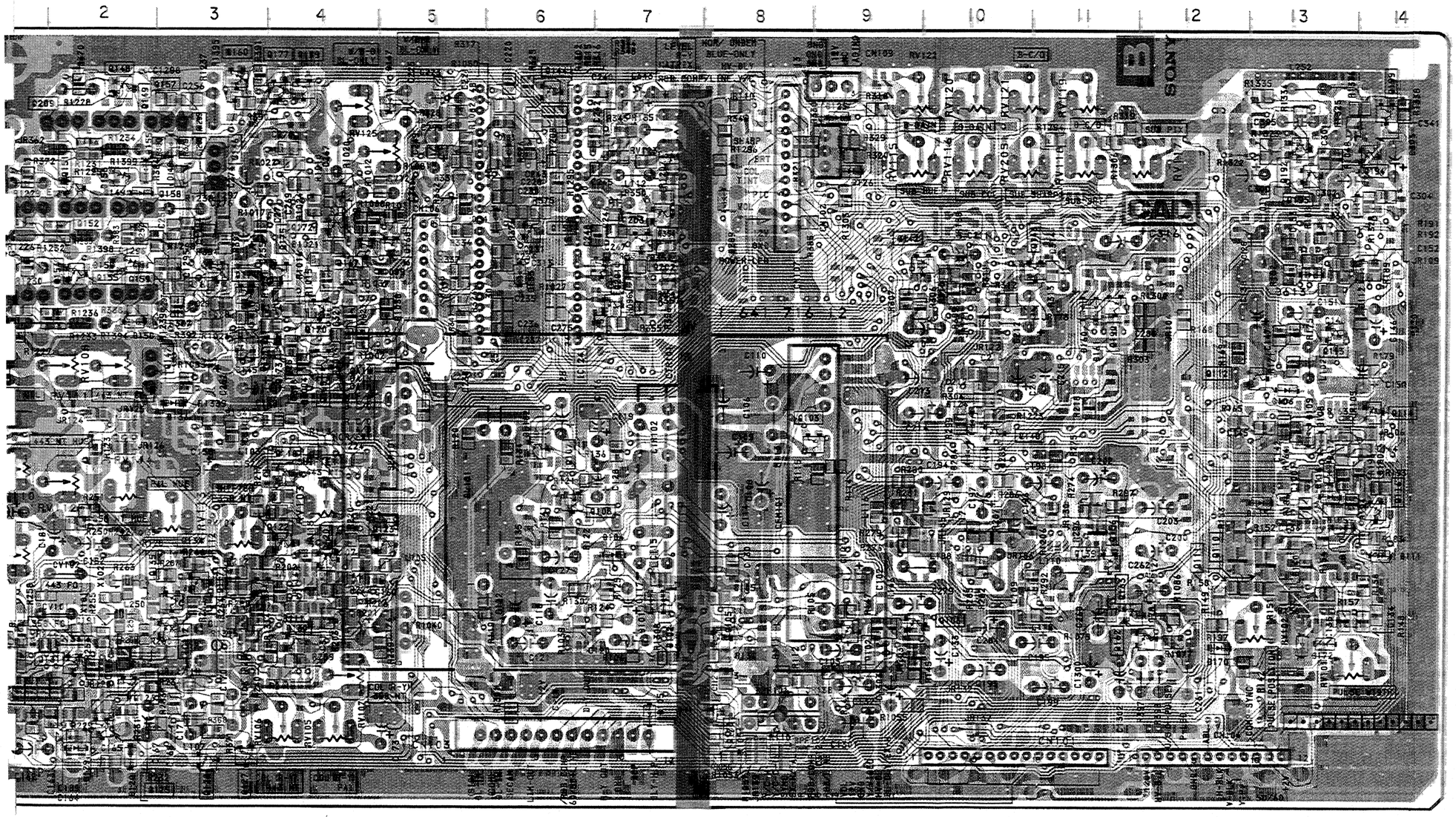
IC		TRANSISTOR				DIODE				VARIABLE RESISTOR	
IC101	E-7	Q101	F-6	Q141	C-5	D103	F-8	D153	B-3	RV101	F-1
IC102	F-8	Q104	F-9	Q145	C-7	D107	D-2	D154	B-12	RV102	F-2
IC103	F-7	Q109	A-11	Q149	A-13	D114	C-1	D156	C-12	RV103	E-11
IC104	E-9	Q115	C-1	Q150	G-7	D118	B-1	D157	A-12	RV104	E-12
IC105	F-6	Q119	E-11	Q153	B-6	D119	B-1	D162	A-10	RV105	G-11
IC106	F-1	Q121	E-11	Q157	A-12	D121	D-3	D342	D-11	RV106	G-11
IC107	D-2	Q124	E-10	Q164	A-11	D122	D-3	D343	G-2	RV107	G-11
IC108	E-2	Q129	F-2	Q166	C-11	D123	C-3	D344	F-8	RV108	D-13
IC109	C-2	Q132	B-2	Q171	E-8	D128	E-1	D345	A-13	RV109	E-14
IC110	F-11	Q136	E-6	Q176	E-8	D130	B-12	D346	B-13	RV110	E-14
IC111	D-11	Q137	E-5	Q191	B-2	D131	B-13	D347	C-14	RV111	D-13
IC112	F-12	Q138	F-4	Q193	B-1	D132	C-13	D348	B-13	RV112	E-13
IC113	F-14			Q196	B-2	D137	G-10	D349	B-13	RV113	E-12
IC114	F-11			Q197	B-2	D138	D-12	D350	C-13	RV114	E-13
IC115	D-13			Q198	A-2	D139	B-12	D393	F-3	RV115	B-5
IC116	B-10			Q200	F-8	D142	C-8			RV116	B-5
IC117	E-5			Q204	B-8	D143	C-8			RV118	B-4
IC118	E-4			Q205	A-8	D146	C-12			RV119	A-4
IC119	E-4			Q206	A-7	D151	C-4			RV120	A-5
IC120	C-4			Q207	B-6	D152	B-4			RV121	A-4
IC121	C-5			Q208	B-2					RV122	A-5
IC122	D-5			Q212	C-11					RV123	A-8
IC123	D-4			Q299	A-10					RV124	B-10
IC124	A-9									RV125	A-10
IC125	B-11									RV205	B-4
IC126	C-11										
IC127	B-11										
IC128	D-12										
IC129	B-4										

— B Board — — Conductor side —



• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

conductor side —



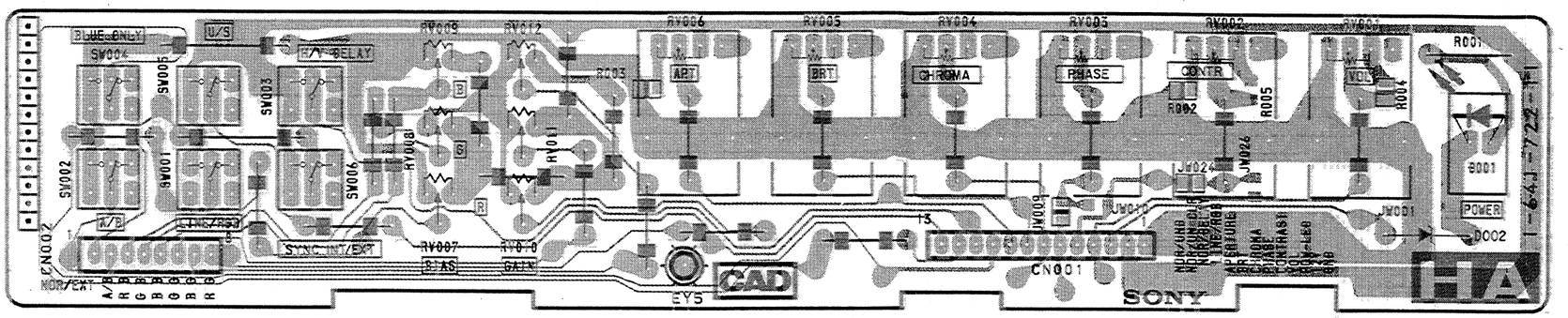
B Board (Conductor Side)

TRANSISTOR					
Q102	F-9	Q158	B-3	D109	D-13
Q103	D-8	Q159	C-2	D110	E-13
Q105	F-8	Q160	A-3	D111	E-14
Q106	F-9	Q161	C-3	D112	C-14
Q107	D-6	Q162	F-12	D113	C-13
Q108	E-6	Q163	F-11	D115	E-13
Q112	D-13	Q165	D-4	D116	D-13
Q114	D-14	Q167	C-4	D117	D-13
Q116	E-14	Q168	B-5	D120	G-2
Q117	F-3	Q170	C-4	D124	D-10
Q118	E-4	Q172	B-4	D125	A-9
Q120	E-4	Q173	C-4	D126	B-9
Q122	E-4	Q174	C-3	D127	F-12
Q123	E-5	Q175	C-4	D129	G-2
Q125	G-2	Q177	A-4	D133	B-6
Q126	G-2	Q178	G-8	D134	B-6
Q127	G-3	Q179	A-4	D135	C-6
Q128	G-3	Q190	C-11	D136	D-3
Q130	F-4	Q192	B-13	D144	D-3
Q131	F-2	Q194	B-14	D145	D-3
Q133	F-2	Q195	B-13	D147	A-5
Q134	E-3	Q199	A-14	D148	B-3
Q135	F-3	Q201	C-7	D149	B-2
Q139	E-11	Q202	B-7	D150	C-2
Q140	D-10	Q203	B-7	D155	B-2
Q142	C-9	Q209	A-2	D158	B-2
Q143	C-10	Q210	B-1	D159	C-2
Q144	A-6	Q211	C-1	D160	C-11
Q146	B-3	DIODE		D161	C-11
Q147	D-2	D101	F-7	D170	F-12
Q148	A-2	D102	F-7	D171	F-13
Q151	B-2	D104	E-7	D172	F-13
Q152	B-2	D105	G-7	D284	D-10
Q154	C-2	D106	D-13	D285	D-10
Q155	C-2	D108	D-13	D289	B-8
				D341	B-13

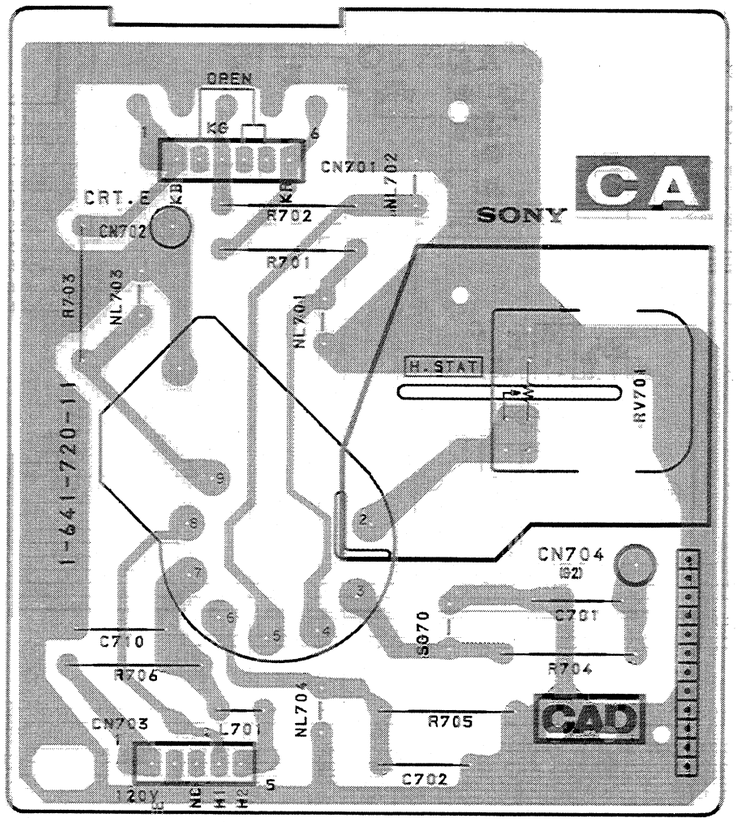
• : Pattern from the side which enables seeing.
• : Pattern of the rear side.

HA [USER CONTROL, WHITE BALANSE] CA [CRT SOCKET]

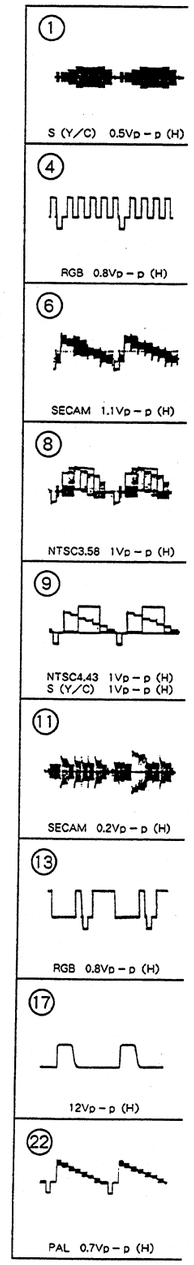
— HA Board —

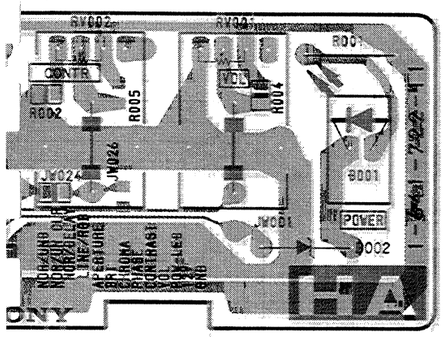


— CA Board —



B BOARD WAVEF





B BOARD WAVEFORMS

PVM-9041QM/9044QM

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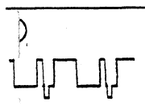
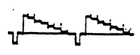
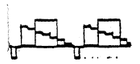


RGB 1Vp-p (H)



COMPONENT 1Vp-p (H)

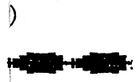


(Y/C) 1Vp-p (H)

⑥

PAL 0.9Vp-p (H)

)

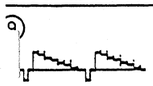


S (Y/C) 0.5Vp-p (H)

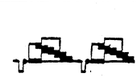
⑧

SECAM 1Vp-p (H)

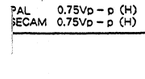
a)



PAL 0.75Vp-p (H)
ECAM 0.75Vp-p (H)

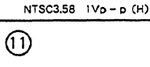


NTSC3.58 1Vp-p (H)



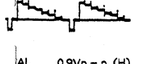
NTSC4.43 0.15Vp-p (H)

⑪

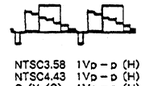


PAL 0.3Vp-p (H)

)



AL 0.9Vp-p (H)
ECAM 0.9Vp-p (H)



NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)

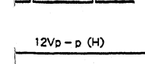
⑮

12Vp-p (H)

⑯

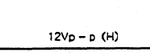
12Vp-p (H)

)



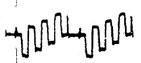
ECAM 0.6Vp-p (H)

㉑



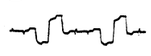
SECAM 0.5Vp-p (H)

⑬



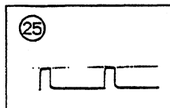
12Vp-p (H)

㉔



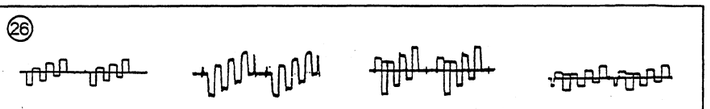
12Vp-p (H)

⑫



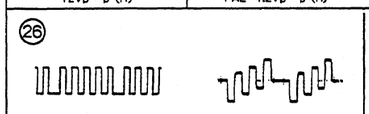
12Vp-p (H)

㉖



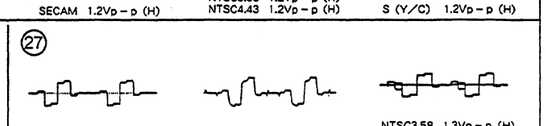
PAL 1.2Vp-p (H) SECAM 1.2Vp-p (H) NTSC3.58 1.2Vp-p (H) NTSC4.43 1.2Vp-p (H) S (Y/C) 1.2Vp-p (H)

㉖



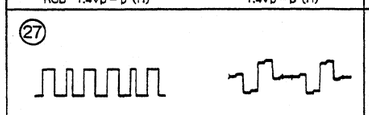
RGB 1.4Vp-p (H) COMPONENT 1.4Vp-p (H)

㉗



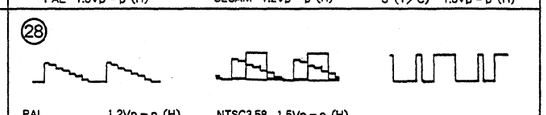
PAL 1.3Vp-p (H) SECAM 1.2Vp-p (H) NTSC3.58 1.3Vp-p (H) NTSC4.43 1.3Vp-p (H) S (Y/C) 1.3Vp-p (H)

㉗



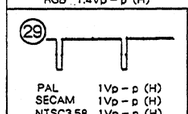
RGB 1.4Vp-p (H) COMPONENT 1.4Vp-p (H)

㉘



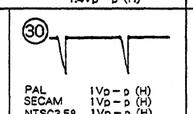
PAL 1.2Vp-p (H) SECAM 1.2Vp-p (H) COMPONENT 1.4Vp-p (H) NTSC3.58 1.5Vp-p (H) NTSC4.43 1.5Vp-p (H) S (Y/C) 1.5Vp-p (H) RGB 1.4Vp-p (H)

㉙



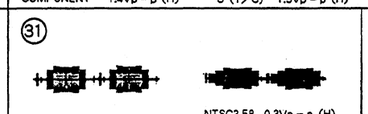
PAL 1Vp-p (H)
SECAM 1Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)

㉚



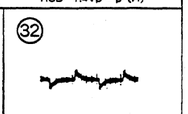
PAL 1Vp-p (H)
SECAM 1Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)

㉛



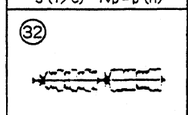
PAL 0.36Vp-p (H) NTSC3.58 0.3Vp-p (H) NTSC4.43 0.3Vp-p (H) S (Y/C) 0.32Vp-p (H)

㉜



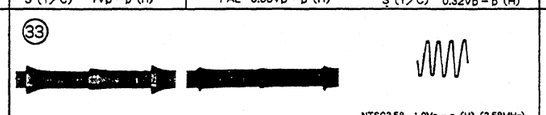
PAL 0.2Vp-p (H)

㉜



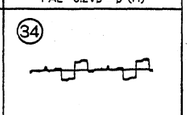
SECAM 1Vp-p (H)

㉝



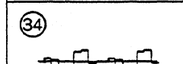
PAL 0.7Vp-p (H) SECAM 1.1Vp-p (H) NTSC3.58 1.0Vp-p (H) (3.58MHz) NTSC4.43 0.6Vp-p (H) (4.43MHz) S (Y/C) 1.0Vp-p (H) (3.58MHz)

㉞



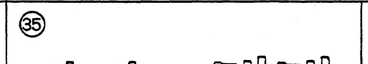
PAL 1.2Vp-p (H)

㉞



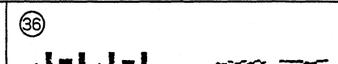
NTSC3.58 1.2Vp-p (H)
NTSC4.43 1.2Vp-p (H)
S (Y/C) 1.2Vp-p (H)

㉟



PAL 0.5Vp-p (H) NTSC3.58 1.2Vp-p (H) NTSC4.43 0.6Vp-p (H) S (Y/C) 1.2Vp-p (H)

㊱



PAL 0.4Vp-p (H) SECAM 0.1Vp-p (H)

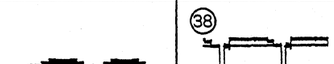
㊱

NTSC3.58 0.3Vp-p (H)
NTSC4.43 0.45Vp-p (H)
S (Y/C) 0.35Vp-p (H)

㊲

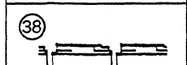
PAL 0.55Vp-p (H) SECAM 0.1Vp-p (H) NTSC3.58 0.4Vp-p (H) S (Y/C) 0.4Vp-p (H)

㊳



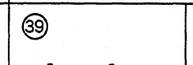
PAL 0.4Vp-p (H)
SECAM 1Vp-p (H)
RGB 0.4Vp-p (H)
COMPONENT 0.4Vp-p (H)

㊳



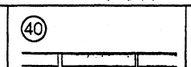
NTSC3.58 0.4Vp-p (H)
NTSC4.43 0.4Vp-p (H)
S (Y/C) 0.4Vp-p (H)

㊴



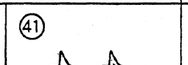
12Vp-p (H)

㊵



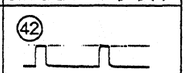
PAL 11Vp-p (H)

㊶



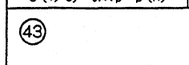
PAL 1.8Vp-p (H)

㊷



PAL 8.5Vp-p (H)
SECAM 11Vp-p (H)
NTSC3.58 11Vp-p (H)
NTSC4.43 11Vp-p (H)
S (Y/C) 11Vp-p (H)
RGB 8.5Vp-p (H)
COMPONENT 8.5Vp-p (H)

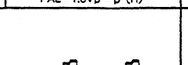
㊸



PAL 0.35Vp-p (H)

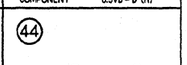
SECAM 0.35Vp-p (H)

NTSC3.58 0.35Vp-p (H)
NTSC4.43 0.32Vp-p (H)
S (Y/C) 0.35Vp-p (H)



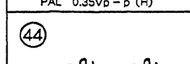
COMPONENT 0.28Vp-p (H)

㊹

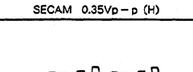


PAL 0.45Vp-p (H)

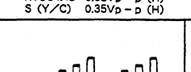
㊹



SECAM 0.45Vp-p (H)

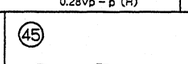


NTSC3.58 0.45Vp-p (H)
NTSC4.43 0.4Vp-p (H)

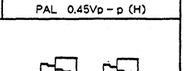


S (Y/C) 0.33Vp-p (H)
COMPONENT 0.36Vp-p (H)

㊺

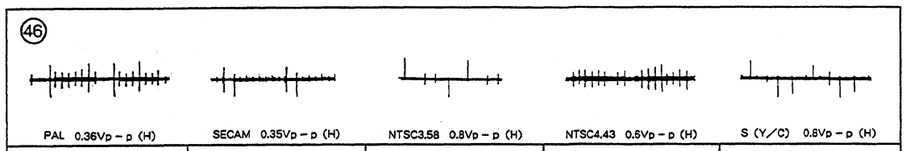


PAL 0.5Vp-p (H)
SECAM 0.5Vp-p (H)
COMPONENT 0.6Vp-p (H)



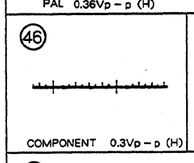
NTSC3.58 0.8Vp-p (H)
NTSC4.43 0.8Vp-p (H)
S (Y/C) 0.6Vp-p (H)

㊻



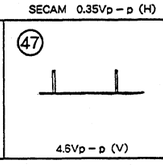
PAL 0.36Vp-p (H) SECAM 0.35Vp-p (H) NTSC3.58 0.8Vp-p (H) NTSC4.43 0.6Vp-p (H) S (Y/C) 0.8Vp-p (H)

㊻



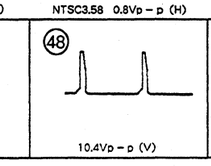
COMPONENT 0.3Vp-p (H)

㊼



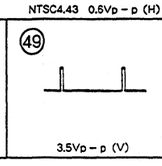
4.5Vp-p (V)

㊽



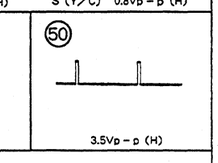
10.4Vp-p (V)

㊾



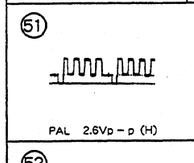
3.5Vp-p (V)

㊿

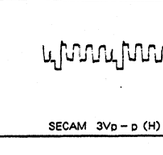


3.5Vp-p (H)

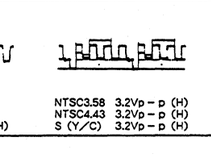
(51)



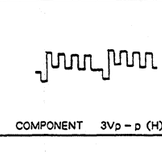
PAL 2.6Vp-p (H)



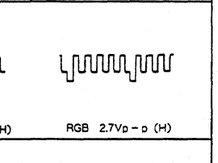
SECAM 3Vp-p (H)



NTSC3.58 3.2Vp-p (H)
NTSC4.43 3.2Vp-p (H)
S (Y/C) 3.2Vp-p (H)

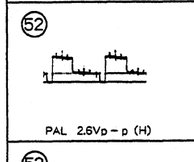


COMPONENT 3Vp-p (H)

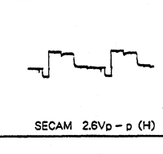


RGB 2.7Vp-p (H)

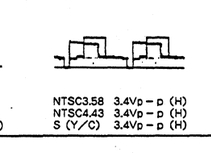
(52)



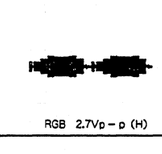
PAL 2.6Vp-p (H)



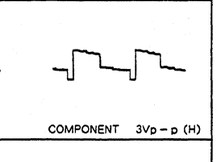
SECAM 2.6Vp-p (H)



NTSC3.58 3.4Vp-p (H)
NTSC4.43 3.4Vp-p (H)
S (Y/C) 3.4Vp-p (H)

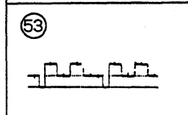


RGB 2.7Vp-p (H)

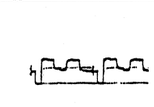


COMPONENT 3Vp-p (H)

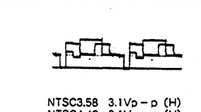
(53)



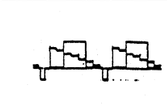
PAL 2.5Vp-p (H)



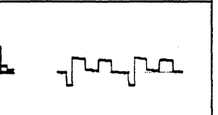
SECAM 2.6Vp-p (H)



NTSC3.58 3.1Vp-p (H)
NTSC4.43 3.1Vp-p (H)
S (Y/C) 3.1Vp-p (H)

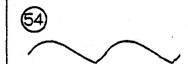


RGB 2.6Vp-p (H)

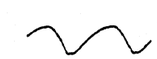


COMPONENT 2.8Vp-p (H)

(54)

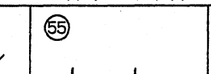


PAL 0.6Vp-p (V)
SECAM 0.6Vp-p (V)
RGB 0.6Vp-p (V)
COMPONENT 0.6Vp-p (V)



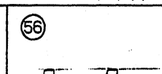
NTSC3.58 0.9Vp-p (V)
NTSC4.43 1Vp-p (H)
S (Y/C) 0.7Vp-p (V)

(55)



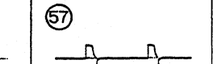
11Vp-p (H)

(56)



10Vp-p (H)

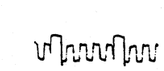
(57)



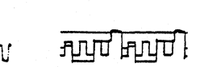
2.4Vp-p (H)

(58)

PAL 72Vp-p (H)



SECAM 80Vp-p (H)

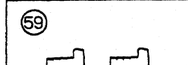


NTSC3.58 86Vp-p (H)
NTSC4.43 90Vp-p (H)
S (Y/C) 86Vp-p (H)

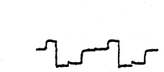
RGB 70Vp-p (H)

COMPONENT 80Vp-p (H)

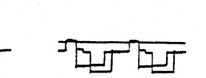
(59)



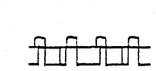
PAL 76Vp-p (H)



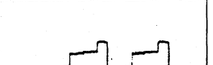
SECAM 72Vp-p (H)
NTSC3.58 72Vp-p (H)



NTSC4.43 90Vp-p (H)
S (Y/C) 86Vp-p (H)

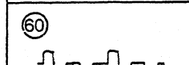


RGB 70Vp-p (H)

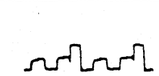


COMPONENT 80Vp-p (H)

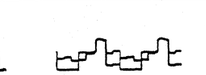
(60)



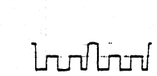
PAL 66Vp-p (H)



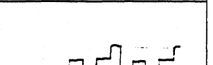
SECAM 64Vp-p (H)



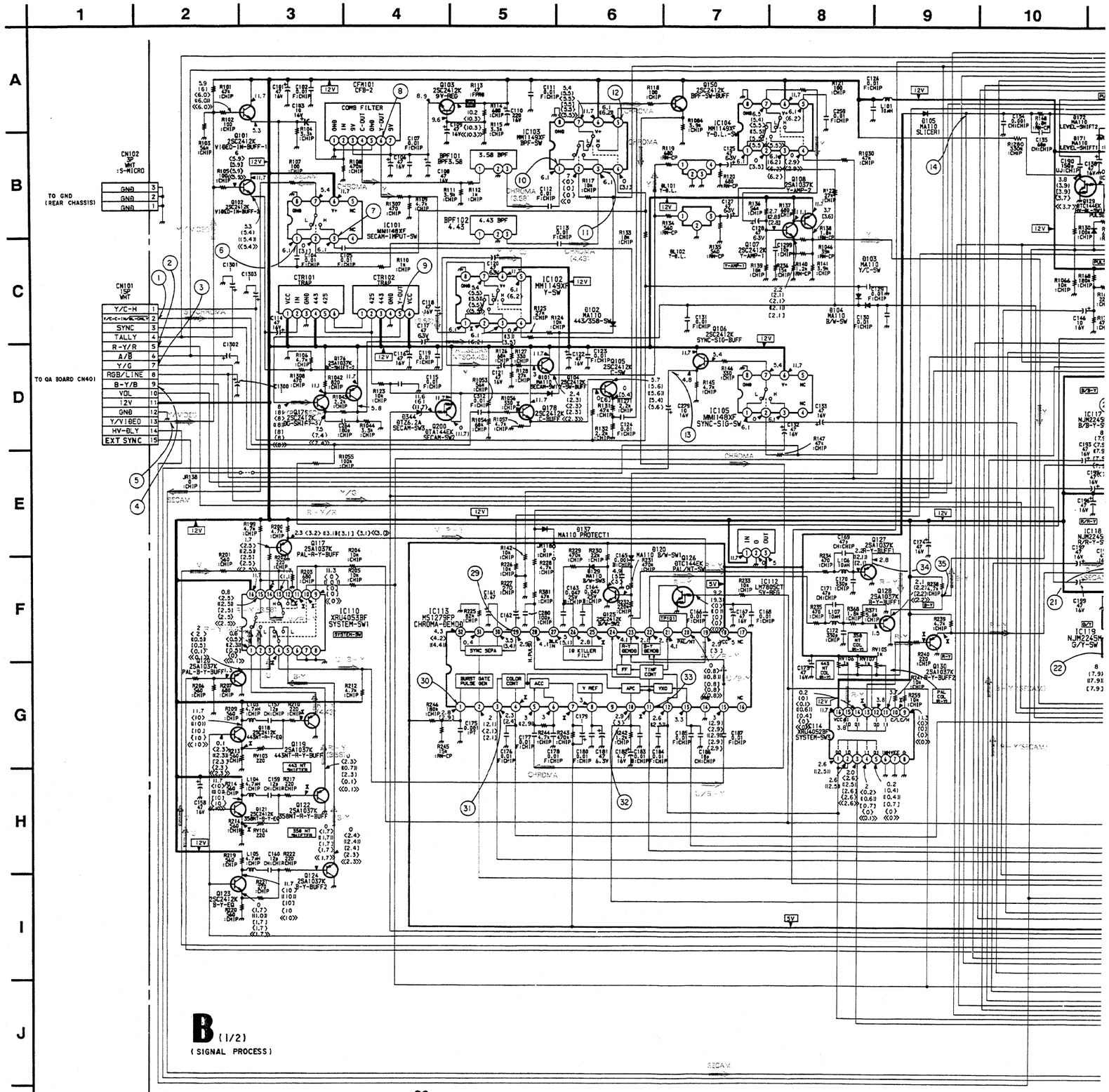
NTSC3.58 80Vp-p (H)
NTSC4.43 90Vp-p (H)
S (Y/C) 80Vp-p (H)



RGB 70Vp-p (H)

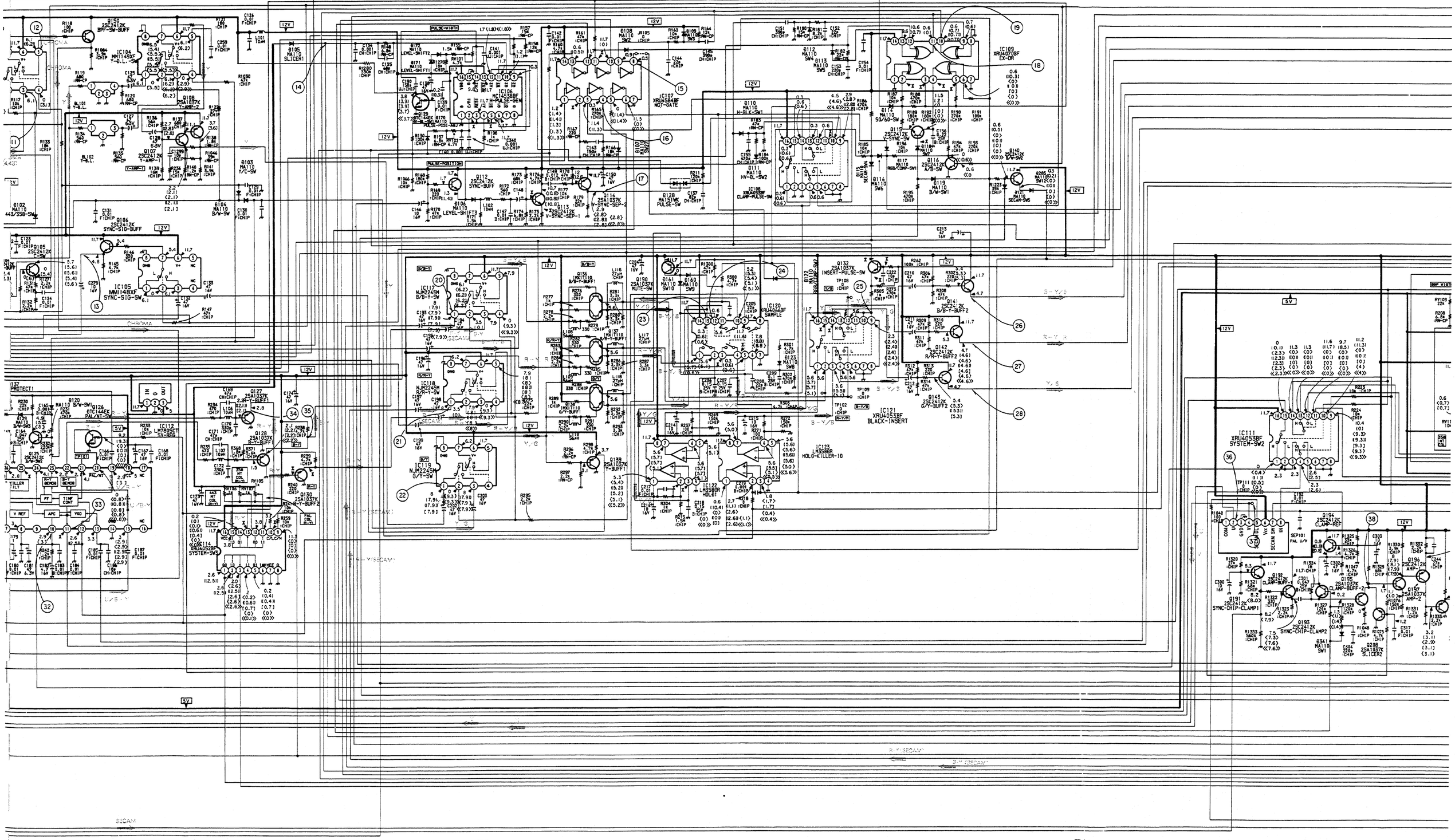


COMPONENT 80Vp-p (H)



B (1/2)
(SIGNAL PROCESS)

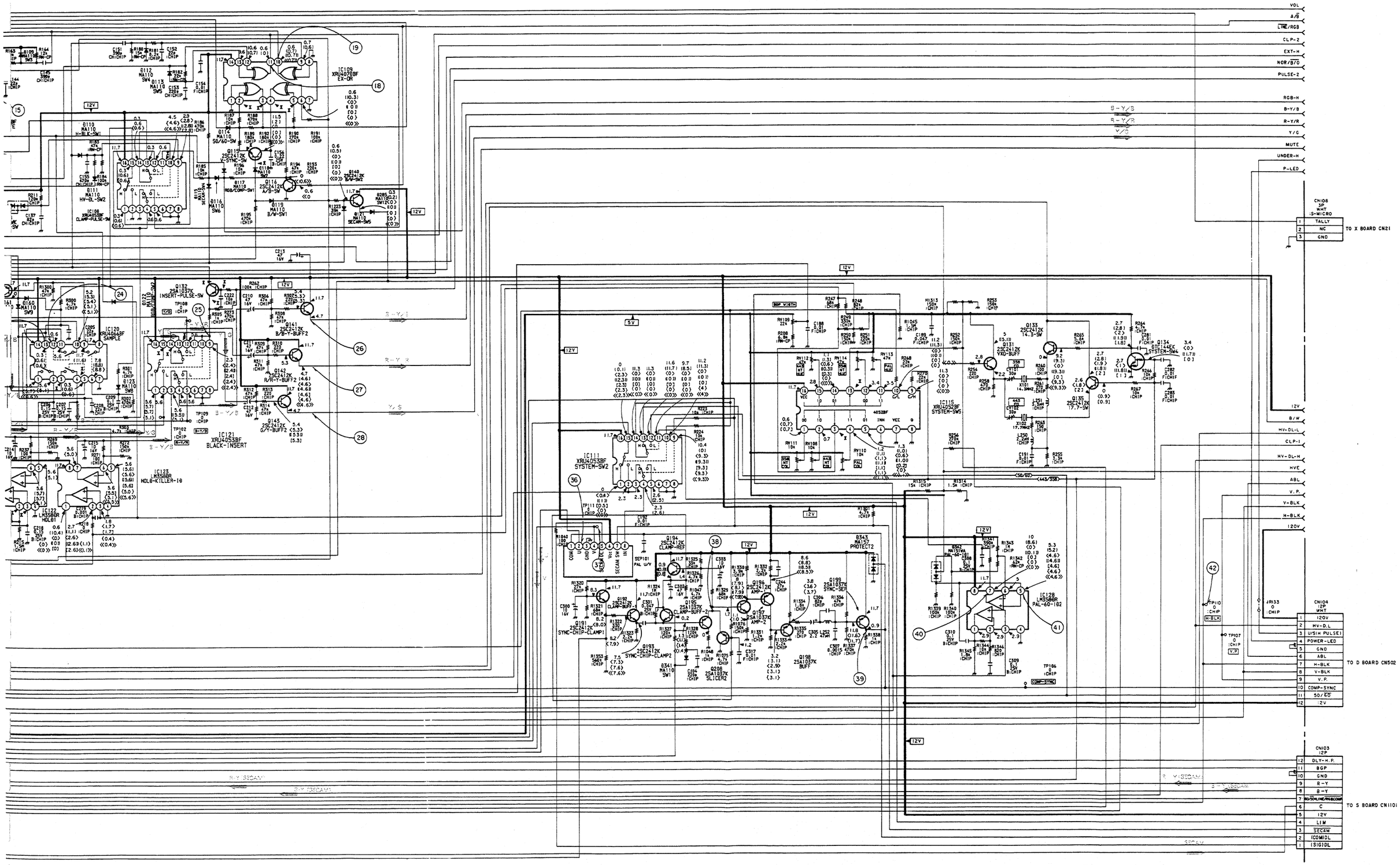
6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

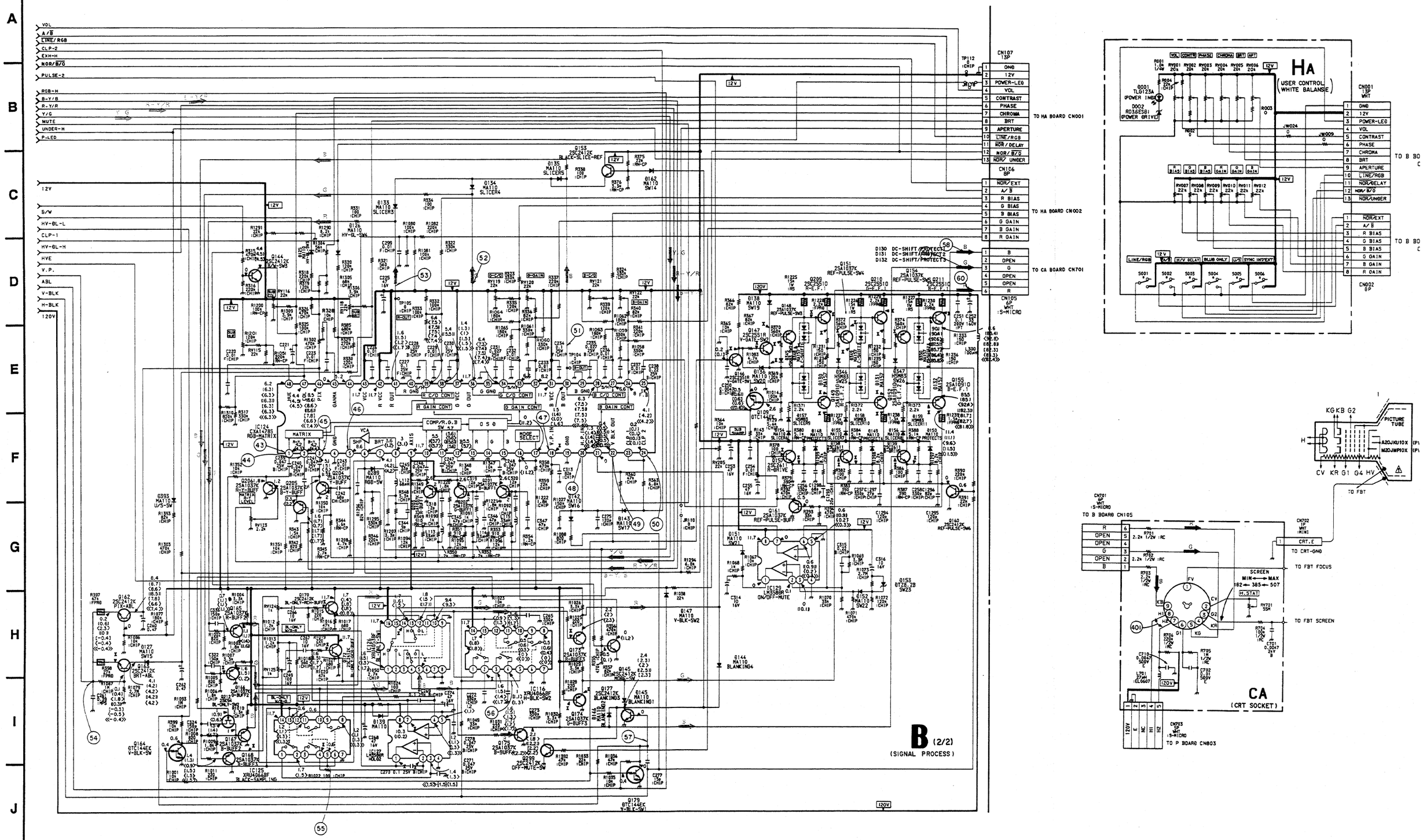


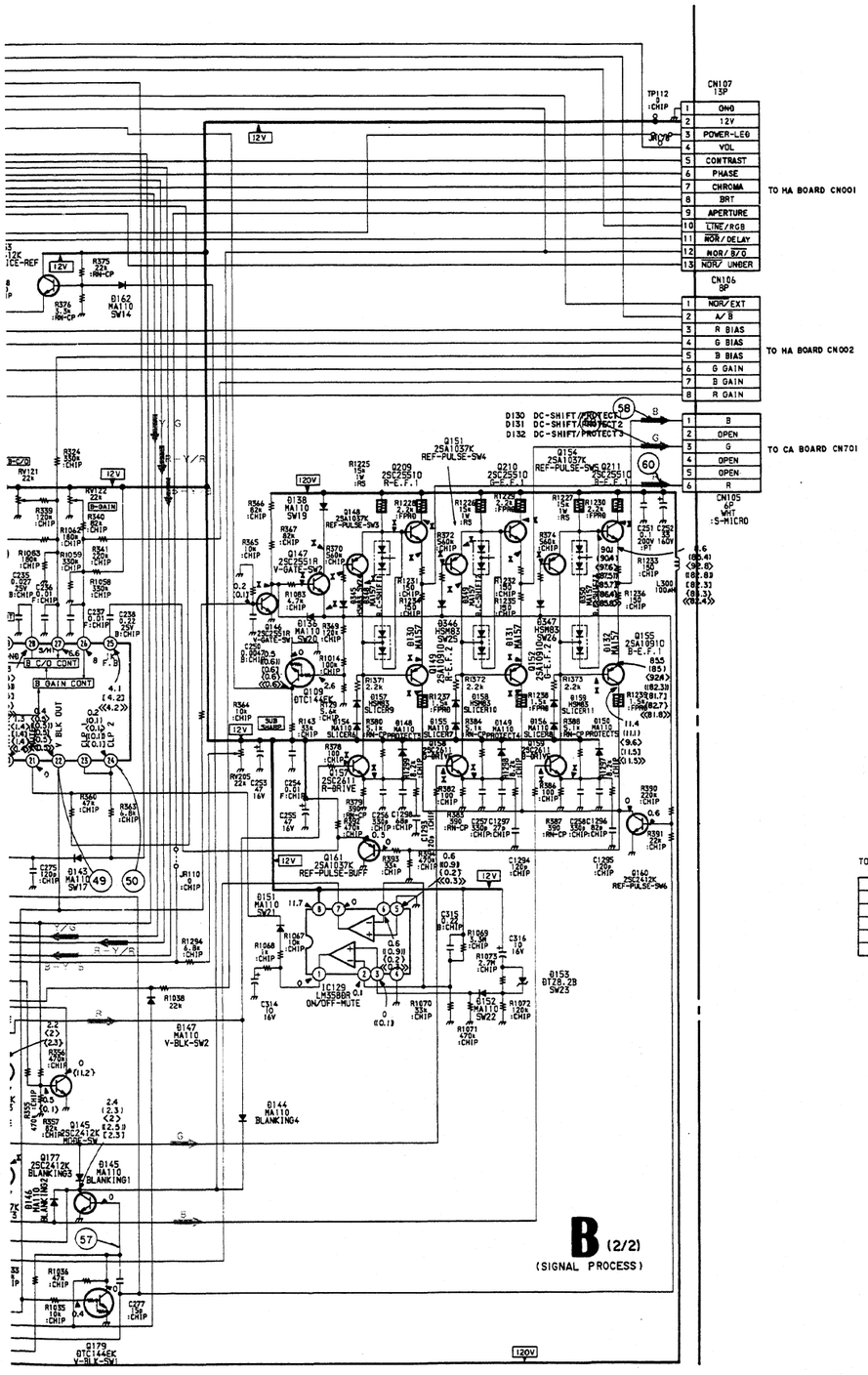
— 70 —

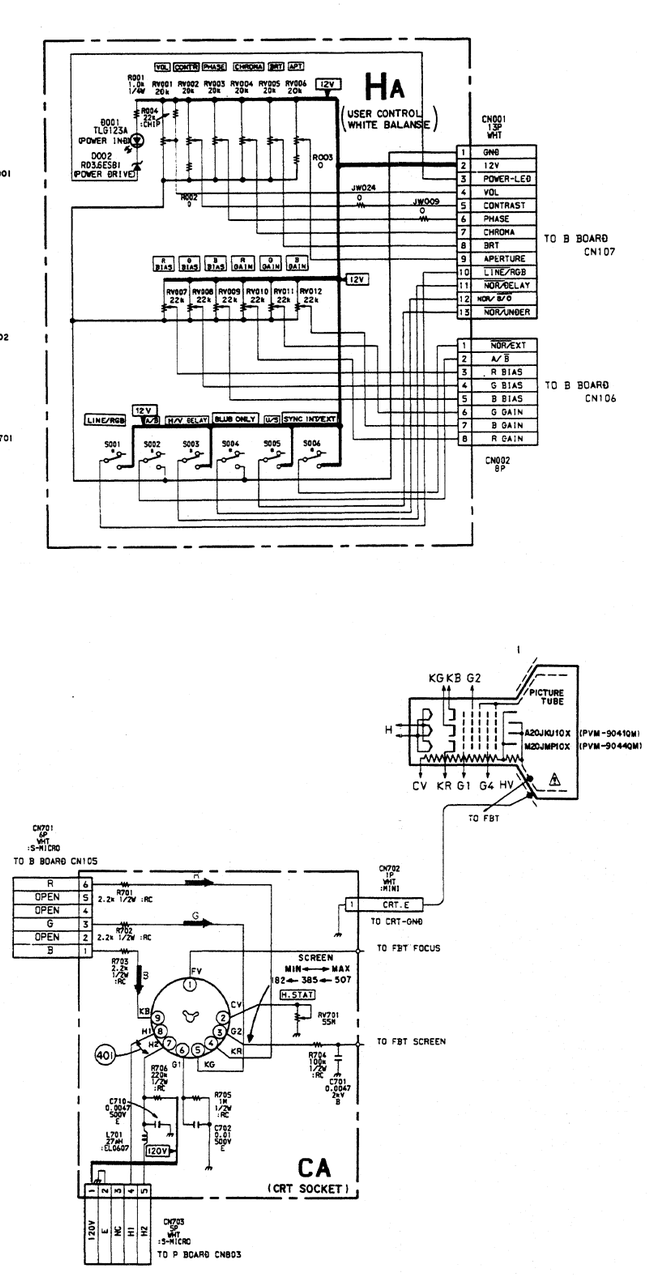
— 71 —

14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29




B (2/2)
(SIGNAL PROCESS)
HA
(USER CONTROL WHITE BALANSE)
CA
(CRT SOCKET)
TO HA BOARD CN001
TO HA BOARD CN002
TO CA BOARD CN701
TO B BOARD CN105
TO P BOARD CN803
TO CRT-GND
TO FBT FOCUS
TO FBT SCREEN
TO FBT
PICTURE TUBE
KG KB G2
CV KR G1 G4 HV
SCREEN
MIN MAX
182 385 507





— B Board —

X

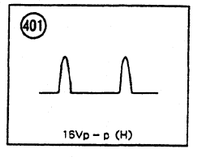
< TRANSISTOR >

		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
Q113	E	0.5	0.5	0.4	0.4	0.5	0.5	0.5
	B	1.0	1.0	0.9	0.9	0.9	0.9	1.0
Q115	E	11.2	9.3	0.0	10.6	0.0	0.0	0.0
	B	2.8	2.2	0.1	2.4	0.1	0.1	0.0
Q118	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q119	B	0.1	0.0	1.7	1.7	1.7	1.7	1.7
Q121	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q122	B	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q130	E	4.3	4.3	4.4	4.4	4.5	4.4	4.4
	B	3.7	3.7	3.8	3.8	3.9	3.8	3.8
Q132	E	2.3	2.3	2.4	2.3	2.4	2.4	2.4
	C	1.8	1.7	1.7	1.7	1.7	1.8	1.8
	B	2.7	2.6	2.6	2.7	2.8	2.7	2.8
Q146	C	116.7	114.4	110.4	113.2	113.7	114.3	114.1
Q147	E	117.9	115.6	111.6	114.5	115.0	115.5	115.4
	C	126.0	123.5	120.3	123.4	123.8	124.6	124.4
	B	119.8	119.5	110.5	118.4	118.2	114.2	114.2
Q148	C	86.1	84.9	91.2	83.4	82.6	82.5	82.2
	B	94.0	93.3	86.3	92.4	92.1	94.2	90.6
Q149	E	1.6	1.6	1.4	1.7	1.7	1.7	1.7
	C	86.1	84.9	91.2	83.4	82.7	82.5	82.5
Q151	E	90.7	91.4	98.0	87.9	87.0	86.5	86.4
	C	89.2	89.8	98.5	88.4	85.3	84.9	84.7
	B	92.1	92.7	100.2	89.5	92.4	90.5	88.9
Q152	E	86.1	86.0	92.6	82.6	82.9	82.6	82.7
	C	10.8	10.5	9.7	10.9	10.9	10.9	11.0
Q154	B	92.5	92.9	99.8	90.1	88.7	90.4	89.2
Q155	B	88.3	88.5	95.7	85.7	83.9	84.6	83.9
Q157	E	82.4	81.1	87.5	79.9	79.9	80.8	79.4
	B	86.0	84.8	91.2	84.4	82.7	82.5	82.1
Q158	E	1.6	1.5	1.3	1.6	1.6	1.7	1.7
	B	2.1	2.0	1.8	2.1	2.2	2.2	2.2
Q159	E	1.6	1.6	1.3	1.6	1.7	1.7	1.7
	B	2.2	2.1	1.5	2.1	2.2	2.2	2.2
Q163	E	0.2	0.6	2.7	0.5	−0.5	−0.7	−0.6
Q166	B	0.9	0.9	0.6	1.0	1.0	1.0	1.0
Q168	C	2.1	2.0	1.6	2.1	2.2	2.1	2.2
Q170	B	2.3	2.3	2.1	2.4	2.4	2.4	2.4
Q172	B	2.2	2.1	1.9	2.2	2.3	2.2	2.3
Q173	B	1.7	1.6	1.4	1.7	1.7	1.7	1.7
Q174	E	2.1	2.0	1.8	2.1	2.2	2.2	2.2
	B	1.6	1.5	1.3	1.6	1.6	1.7	1.7
Q178	B	6.2	6.3	6.2	6.3	6.1	6.2	6.2
Q209	E	83.4	81.5	87.9	80.3	80.4	80.4	79.8
	C	115.8	113.2	110.7	113.2	113.8	114.5	114.2
	B	87.8	86.4	92.8	85.0	84.3	84.2	83.8
Q210	E	86.5	86.3	93.1	83.0	83.3	83.0	82.8
	C	116.5	114.2	111.5	113.9	114.5	115.1	114.9
Q211	C	115.9	113.6	111.7	113.3	113.8	114.5	114.3

< IC >

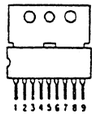
		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
IC102	②	6.6	6.8	0.0	6.6	0.0	0.0	0.0
IC106	②	0.2	0.1	0.1	0.1	0.1	0.1	0.2
	④	1.8	1.7	1.7	1.7	1.7	1.8	1.8
IC107	②	10.7	10.7	10.6	10.6	10.6	10.6	10.6
	⑪	1.2	10.7	0.0	0.0	0.0	0.0	0.0
IC108	⑪	9.7	0.4	9.7	9.6	9.6	1.1	9.6
IC109	②	11.3	11.3	0.0	10.8	0.0	0.0	0.0
	③	11.3	11.4	0.0	11.3	0.0	0.0	0.0
	④	11.7	0.0	0.0	11.7	0.0	0.0	0.0
	⑤	11.0	11.1	0.0	11.0	0.0	0.0	0.0
IC110	④	2.1	2.2	2.5	2.5	2.5	2.5	2.5
	⑩	11.3	11.3	0.0	11.3	0.0	0.0	0.0
	⑪	11.3	11.3	0.0	0.0	0.0	0.0	0.0
	⑫	0.8	0.8	2.5	2.5	2.5	2.5	2.5
	⑭	1.7	1.7	2.5	2.6	2.5	2.5	2.5
IC113	④	2.7	1.1	2.6	2.6	2.6	1.1	1.1
	⑦	4.2	4.3	4.2	4.3	4.3	4.8	4.8
	⑪	3.0	2.9	2.8	3.0	2.8	2.9	2.9
	㉕	2.2	2.5	2.9	2.2	1.9	2.8	2.8
IC114	⑩	11.4	11.3	0.0	0.0	0.0	0.0	0.0
	⑱	3.7	3.7	3.8	3.8	3.8	3.9	3.9
IC115	③	1.2	1.1	0.6	0.7	0.7	0.6	0.6
	⑬	3.5	3.5	3.4	2.8	3.4	3.4	3.4
IC116	②	0.0	0.0	1.0	1.1	1.1	1.3	1.1
IC120	③	5.5	5.6	5.6	5.6	5.6	5.6	5.6
	④	5.5	5.6	5.6	5.6	5.6	5.0	5.6
IC121	⑬	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	⑭	5.6	5.7	5.6	5.6	5.7	5.7	5.7
	⑮	5.6	5.7	5.6	5.6	5.7	5.7	5.6
IC122	②	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	③	5.3	5.3	5.4	5.2	5.2	5.1	5.1
IC124	⑱	0.1	0.1	0.2	0.2	0.2	0.2	0.2
IC125	④	1.4	1.4	1.3	1.4	1.5	1.5	1.5
IC128	②	1.6	1.5	1.3	1.6	1.6	1.7	1.6
	⑤	1.6	1.5	1.3	1.6	1.6	1.8	1.7
	⑭	1.7	1.6	1.4	1.7	1.7	1.6	1.7
IC127	①	3.0	2.9	2.8	3.0	3.1	3.0	3.0
	②	1.4	1.4	1.3	1.5	1.5	1.5	1.5
	⑦	2.1	2.7	2.4	2.8	2.8	2.8	2.8

CA BOARD WAVEFORM

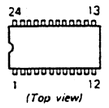


6-6. SEMICONDUCTORS

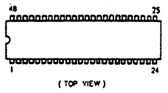
AN5265



CXA1214P



CXA1478S



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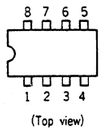

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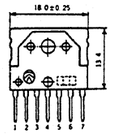

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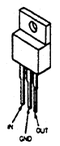
LM7812CT
MC7812CT



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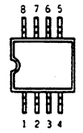
LM358DR
MM1148XFF
MM1149XF
NJM2245M
XRA10393F



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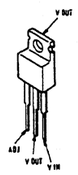

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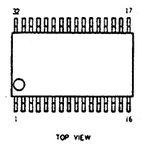
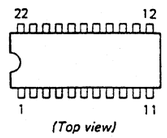


µPC1377C



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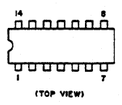

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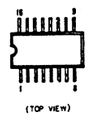

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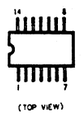

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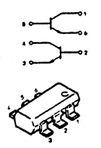
2SA1162-G
2SC2412K

IMX1
IMX1T110



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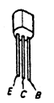
2SC2551-0
2SC2551R



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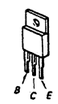

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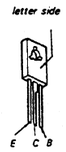

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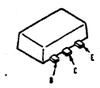

2SK94

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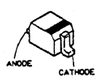
DTZ20B
DTZ24B
DTZ5.6A
DTZ6.2-TT11
DTZ6.2B
DTZ8.2B
RD15SB1



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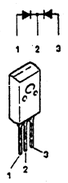
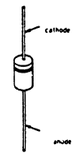


ERC81-004



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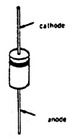
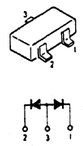
1SS83
1SS83TD

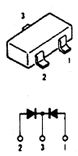


MA110

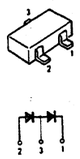
MA151WA
1S2836



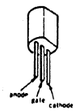
MA151WK
MA152WK



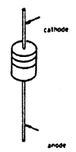
MA157
1SS226



N13T1



RD3.6ESB1
RD5.6ESB2
RD8.2ESB3



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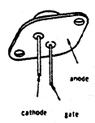
SLP281C-50
TLG123A

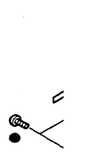


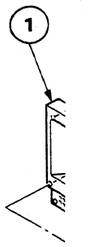
U05G

NOTE:
- Items with not stocke routine ser
- The constr indicated v column.

7-1. CHA

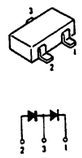
● : BVTP3
▲ : BVTP3





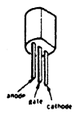
REF. NO.	PART
1	X-40
1	X-40
2	4-03
3	*4-03
4	*4-03
5	*4-03
6	*1-64
7	1-54
8	*A-11
9	*A-13
10	⚠1-41
11	A-13
12	⚠1-57
13	*A-11
14	⚠1-43

MA157
1SS226

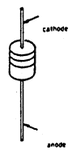


STN

N13T1



RD3.6ESB1
RD5.6ESB2
RD8.2ESB3



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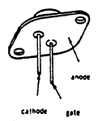
SLP281C-50
TLG123A



U05G

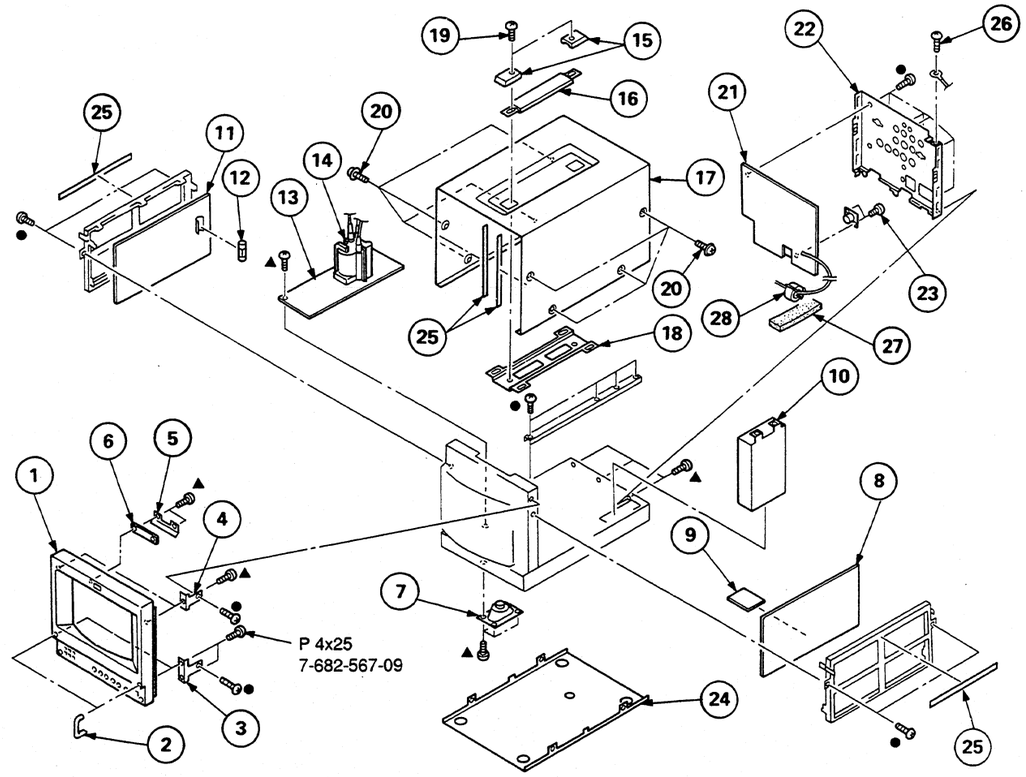
SECTION 7
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. CHASSIS

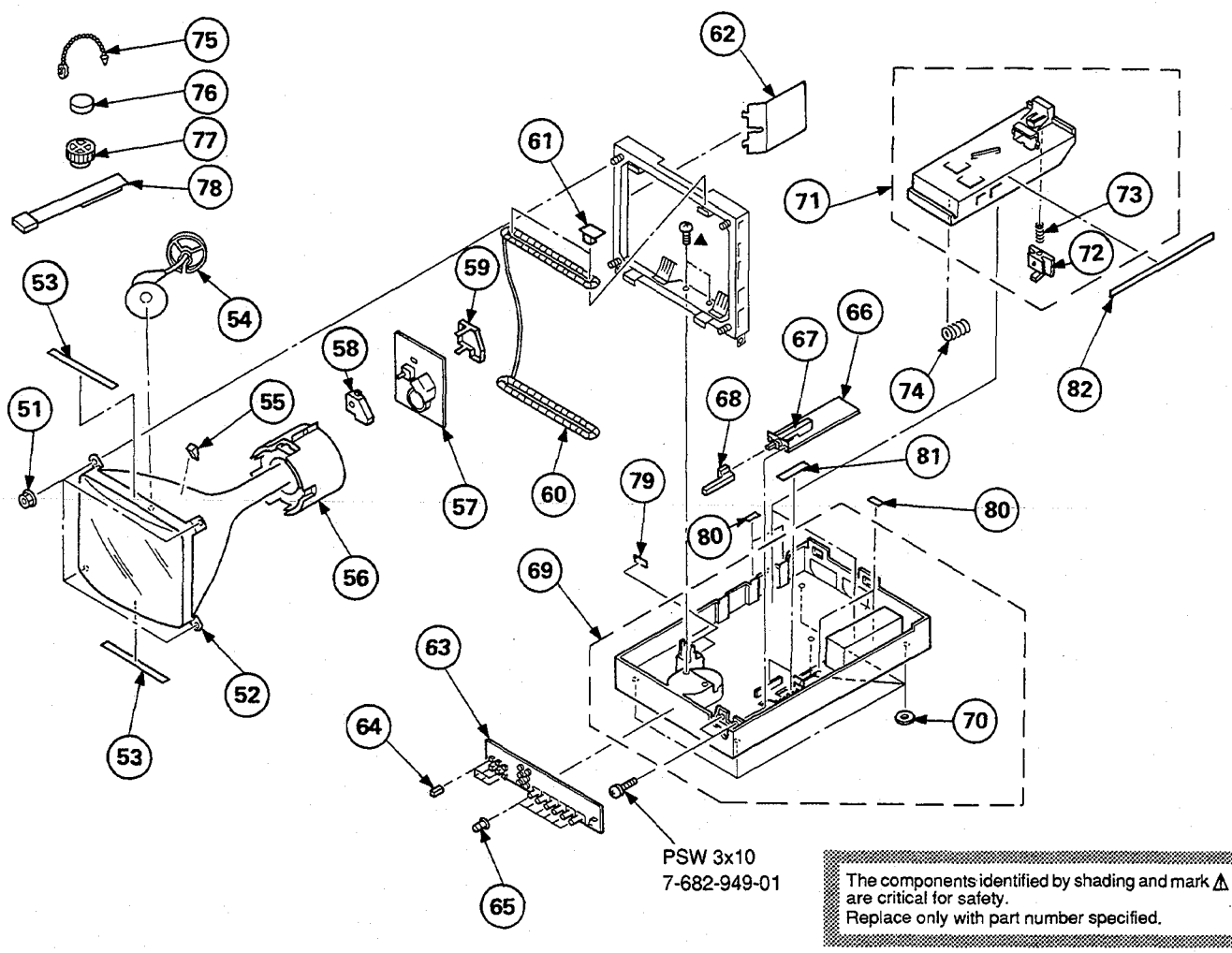
● : BVTP3x8 7-685-646-79
▲ : BVTP3x12 7-685-648-79



REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4030-164-6	BEZEL ASSY (PVM-9041QM only)	
1	X-4030-278-1	BEZEL ASSY (PVM-9044QM only)	
2	4-034-844-01	HANDLE, PROTECTOR	
3	*4-034-845-01	BRACKET (L), BEZEL	
4	*4-034-846-01	BRACKET (U), BEZEL	
5	*4-035-388-01	PLATE, LIGHT INTERCEPTION	
6	*1-641-724-11	PC BOARD, X	
7	1-544-252-11	SPEAKER	
8	*A-1135-716-A	B BOARD, COMPLETE	
9	*A-1394-368-A	S BOARD, COMPLETE	
10	⚠1-413-720-21	SWITCHING REGULATOR	
11	A-1346-018-A	D BOARD, COMPLETE	
12	⚠1-576-232-11	FUSE (H.B.C.) (5A 250V)	
13	*A-1195-048-A	P BOARD, COMPLETE	
14	⚠1-439-526-11	TRANSFORMER ASSY, FLYBACK	
15	4-034-847-01	HANDLE (BASE)	
16	3-419-372-31	HANDLE	
17	*4-034-867-01	CABINET	
18	*X-4030-273-1	REINFORCEMENT ASSY, HANDLE	
19	4-035-452-01	SCREW (M4X10)	
20	4-034-834-01	SCREW (CLAW) (4X6)	
21	A-1275-099-A	QA BOARD, COMPLETE	
22	*4-034-864-01	CHASSIS, R	
23	4-035-802-01	SCREW (M2.6X6)	
24	*4-034-870-02	CABINET, BOTTOM	
25	*4-035-691-01	CLOTH, VIBRATION PROOF	
26	4-389-025-01	SCREW (M4X8) (EXT TOOTH WASHER)	
27	*4-036-058-01	SPONGE	
28	1-543-925-11	CORE, FERRITE	

7-2. PICTURE TUBE

▲ : BVTP3x12 7-685-648-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-304-511-00	FLANGE NUT, 5MM	
52 ⚠	8-737-151-05	CRT A20JKU10X (PVM-9041QM only)	
52 ⚠	8-737-651-05	CRT A20JMP10X (PVM-9044QM only)	
53	4-035-332-01	CLOTH, PROTECTION	
54	*4-034-856-01	HOLDER, HV CABLE	
55	4-309-369-00	SPACER, DEFLECTION YOKE	
56 ⚠	1-451-319-22	DEFLECTION YOKE (Y9FXC)	
57	*1-641-720-11	CA BOARD	
58	*4-376-133-11	COVER (MAIN), CV VOL	
59	*4-376-132-11	COVER (REAR LID), CV VOL	
60 ⚠	1-426-043-00	COIL, DEGAUSSING	
61	4-380-534-01	CAP, DGC	
62	*4-034-850-01	INSULATOR	
63	*A-1371-782-A	HA BOARD, MOUNTED	
64	4-034-849-01	SWITCH (SMALL), PUSH	
65	X-4030-162-1	KNOB ASSY, CONTROL	
66	*1-641-723-11	FA BOARD	
67	⚠1-692-050-11	SWITCH, PUSH (AC POWER) (1 KEY)	
68	4-034-841-01	SWITCH, POWER	
69	*X-4030-166-1	CHASSIS ASSY, BOTTOM	
70	4-034-840-01	RUBBER, FOOT	
71	*X-4030-163-1	GUIDE ASSY, BATTERY	
72	4-034-861-01	KNOB, BATTERY	
73	4-876-347-01	SPRING, COMPRESSION	
74	3-669-594-00	SPRING, COMPRESSION	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-126-11	MAGNET	
77	1-452-094-00	MAGNET, ROTATABLE DISK; 15 MM ϕ	
78	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
79	*4-036-047-02	RUBBER, VIBRATION PROOF	
80	3-839-640-00	CUSHION	
81	3-831-441-11	CUSHION (F)	
82	*4-035-691-01	CLOTH, VIBRATION PROOF	

B

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F: nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF: μF, PF: μμF

COILS
- MMH: mH, UH: μH

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-716-A	B BOARD, COMPLETE			
		**********			
	3-710-578-01	COVER, VOLUME, 6 MOLD			
		<FILTER>			
BPF101	1-236-363-11	FILTER, BAND PASS			
BPF102	1-236-364-11	FILTER, BAND PASS			
		<CAPACITOR>			
C101	1-124-589-11	ELECT	47MF	20%	16V
C102	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C103	1-126-157-11	ELECT	10MF	20%	16V
C104	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C105	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C106	1-124-477-11	ELECT	47MF	20%	16V
C107	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C108	1-124-477-11	ELECT	47MF	20%	16V
C109	1-124-477-11	ELECT	47MF	20%	16V
C110	1-124-120-11	ELECT	220MF	20%	16V
C111	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C112	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C113	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C114	1-124-477-11	ELECT	47MF	20%	16V
C115	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C116	1-124-589-11	ELECT	47MF	20%	16V
C117	1-126-154-11	ELECT	47MF	20%	6.3V
C118	1-126-154-11	ELECT	47MF	20%	6.3V
C119	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C120	1-126-154-11	ELECT	47MF	20%	6.3V
C121	1-124-477-11	ELECT	47MF	20%	16V
C122	1-124-477-11	ELECT	47MF	20%	16V
C123	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C124	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C125	1-126-154-11	ELECT	47MF	20%	6.3V
C126	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C127	1-126-154-11	ELECT	47MF	20%	6.3V
C128	1-126-154-11	ELECT	47MF	20%	6.3V
C129	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C130	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C131	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C132	1-124-589-11	ELECT	47MF	20%	16V
C133	1-124-589-11	ELECT	47MF	20%	16V
C134	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C135	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C137	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C138	1-124-589-11	ELECT	47MF	20%	16V
C139	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C140	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C141	1-163-141-00	CERAMIC CHIP	0.001MF	5%	50V
C142	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C143	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C144	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C145	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C146	1-126-157-11	ELECT	10MF	20%	16V
C147	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C148	1-126-160-11	ELECT	1MF	20%	50V
C149	1-163-022-00	CERAMIC CHIP	0.012MF	10%	50V
C150	1-124-589-11	ELECT	47MF	20%	16V
C151	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C152	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C153	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C154	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C155	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C156	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C157	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C158	1-124-477-11	ELECT	47MF	20%	16V
C159	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C160	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C161	1-124-902-00	ELECT	0.47MF	20%	50V
C162	1-124-903-11	ELECT	1MF	20%	50V
C163	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C164	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C165	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C166	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C167	1-124-477-11	ELECT	47MF	20%	16V
C168	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C169	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C170	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C171	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C172	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C173	1-124-589-11	ELECT	47MF	20%	16V
C174	1-124-477-11	ELECT	47MF	20%	16V
C175	1-108-792-11	MYLAR	0.001MF	5%	50V
C176	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C177	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C178	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C179	1-126-160-11	ELECT	1MF	20%	50V
C180	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C181	1-126-154-11	ELECT	47MF	20%	6.3V
C182	1-126-163-11	ELECT	4.7MF	20%	16V
C183	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C184	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C185	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C186	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C187	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C188	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C189	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C190	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C191	1-163-031-11	CERAMIC CHIP	0.01MF		50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C192	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C193	1-124-589-11	ELECT	47MF	20%	16V
C194	1-124-589-11	ELECT	47MF	20%	16V
C195	1-124-589-11	ELECT	47MF	20%	16V
C196	1-124-589-11	ELECT	47MF	20%	16V
C197	1-124-589-11	ELECT	47MF	20%	16V
C198	1-124-589-11	ELECT	47MF	20%	16V
C199	1-124-589-11	ELECT	47MF	20%	16V
C202	1-124-589-11	ELECT	47MF	20%	16V
C203	1-124-589-11	ELECT	47MF	20%	16V
C204	1-124-589-11	ELECT	47MF	20%	16V
C205	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C206	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C207	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C208	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C210	1-124-589-11	ELECT	47MF	20%	16V
C211	1-124-589-11	ELECT	47MF	20%	16V
C212	1-124-589-11	ELECT	47MF	20%	16V
C213	1-124-589-11	ELECT	47MF	20%	16V
C214	1-126-157-11	ELECT	10MF	20%	16V
C215	1-126-157-11	ELECT	10MF	20%	16V
C216	1-126-157-11	ELECT	10MF	20%	16V
C217	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C218	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C219	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C220	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C221	1-124-903-11	ELECT	1MF	20%	50V
C222	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C223	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C225	1-124-477-11	ELECT	47MF	20%	16V
C226	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C227	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C228	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C229	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C230	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C231	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C232	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C233	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C234	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C235	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C236	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C237	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C238	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C239	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C240	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C241	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C242	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C243	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C244	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C245	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C246	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C247	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C248	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C249	1-126-101-11	ELECT	100MF	20%	16V
C250	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C251	1-110-364-11	MYLAR	0.1MF	10%	200V
C252	1-123-935-00	ELECT	33MF	20%	160V
C253	1-124-477-11	ELECT	47MF	20%	16V
C254	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C255	1-124-477-11	ELECT	47MF	20%	16V
C256	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C257	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C258	1-163-129-00	CERAMIC CHIP	330PF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C259	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C260	1-124-465-00	ELECT	0.47MF	20%	50V
C261	1-137-193-11	FILM	0.39MF	5%	50V
C262	1-124-465-00	ELECT	0.47MF	20%	50V
C264	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C265	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C266	1-126-320-11	ELECT	10MF	20%	16V
C267	1-126-320-11	ELECT	10MF	20%	16V
C268	1-124-477-11	ELECT	47MF	20%	16V
C269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C270	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C271	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C272	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C273	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C274	1-124-477-11	ELECT	47MF	20%	16V
C275	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C277	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C278	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C279	1-126-157-11	ELECT	10MF	20%	16V
C280	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C281	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C282	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C283	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C299	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C300	1-126-157-11	ELECT	10MF	20%	16V
C301	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C302	1-124-589-11	ELECT	47MF	20%	16V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C305	1-124-257-00	ELECT	2.2MF	20%	50V
C306	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C307	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C310	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C312	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C313	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C314	1-126-157-11	ELECT	10MF	20%	16V
C315	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C316	1-126-157-11	ELECT	10MF	20%	16V
C317	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C318	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C319	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C320	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C321	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C324	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C340	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C344	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C345	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C346	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C347	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C1293	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1294	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1295	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1296	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C1297	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C1298	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C1299	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C1300	1-126-160-11	ELECT	1MF	20%	50V
C1301	1-126-160-11	ELECT	1MF	20%	50V
C1302	1-126-160-11	ELECT	1MF	20%	50V

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
C1303	1-126-160-11	ELECT 1MF 20% 50V	
		<FILTER BLOCK>	
CFM101	1-464-880-11	FILTER BLOCK, COM (CFB-2)	
		<CONNECTOR>	
CN101	1-506-480-11	PIN, CONNECTOR 15P	
CN102	*1-564-506-11	PLUG, CONNECTOR 3P	
CN103	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
CN104	1-506-477-11	PIN, CONNECTOR 12P	
CN105	*1-564-509-11	PLUG, CONNECTOR 6P	
CN106	1-506-473-11	PIN, CONNECTOR 8P	
CN107	1-506-478-11	PIN, CONNECTOR 13P	
CN108	*1-564-506-11	PLUG, CONNECTOR 3P	
		<TRAP MODULE>	
CTR101	1-236-366-11	MODULE, TRAP	
CTR102	1-236-365-11	MODULE, TRAP	
		<TRIMMER>	
CV101	1-141-245-00	CAP, TRIMMER	
CV102	1-141-245-00	CAP, TRIMMER	
		<DIODE>	
D101	8-719-404-46	DIODE MA110	
D102	8-719-404-46	DIODE MA110	
D103	8-719-404-46	DIODE MA110	
D104	8-719-404-46	DIODE MA110	
D105	8-719-404-46	DIODE MA110	
D106	8-719-404-46	DIODE MA110	
D107	8-719-404-46	DIODE MA110	
D108	8-719-404-46	DIODE MA110	
D109	8-719-404-46	DIODE MA110	
D110	8-719-404-46	DIODE MA110	
D111	8-719-404-46	DIODE MA110	
D112	8-719-404-46	DIODE MA110	
D113	8-719-404-46	DIODE MA110	
D114	8-719-404-46	DIODE MA110	
D115	8-719-404-46	DIODE MA110	
D116	8-719-404-46	DIODE MA110	
D117	8-719-404-46	DIODE MA110	
D118	8-719-404-46	DIODE MA110	
D119	8-719-404-46	DIODE MA110	
D120	8-719-404-46	DIODE MA110	
D121	8-719-404-46	DIODE MA110	
D122	8-719-404-46	DIODE MA110	
D123	8-719-404-46	DIODE MA110	
D125	8-719-404-46	DIODE MA110	
D126	8-719-404-46	DIODE MA110	
D127	8-719-404-46	DIODE MA110	
D128	8-719-400-18	DIODE MA152WK	
D129	8-719-404-46	DIODE MA110	
D130	8-719-800-76	DIODE 1SS226	
D131	8-719-800-76	DIODE 1SS226	
D132	8-719-800-76	DIODE 1SS226	
D133	8-719-404-46	DIODE MA110	
D134	8-719-404-46	DIODE MA110	
D135	8-719-404-46	DIODE MA110	
D136	8-719-404-46	DIODE MA110	
D137	8-719-404-46	DIODE MA110	
D138	8-719-404-46	DIODE MA110	
D139	8-719-404-46	DIODE MA110	
D142	8-719-404-46	DIODE MA110	
D143	8-719-404-46	DIODE MA110	
D144	8-719-404-46	DIODE MA110	
D145	8-719-404-46	DIODE MA110	
D146	8-719-404-46	DIODE MA110	
D147	8-719-404-46	DIODE MA110	
D148	8-719-404-46	DIODE MA110	
D149	8-719-404-46	DIODE MA110	
D150	8-719-404-46	DIODE MA110	
D151	8-719-404-46	DIODE MA110	
D152	8-719-404-46	DIODE MA110	
D153	8-719-977-20	DIODE DTZ8.2B	
D154	8-719-404-46	DIODE MA110	
D155	8-719-404-46	DIODE MA110	
D156	8-719-404-46	DIODE MA110	
D157	8-719-901-83	DIODE 1SS83	
D158	8-719-901-83	DIODE 1SS83	
D159	8-719-901-83	DIODE 1SS83	
D160	8-719-404-46	DIODE MA110	
D161	8-719-404-46	DIODE MA110	
D162	8-719-404-46	DIODE MA110	
D170	8-719-404-46	DIODE MA110	
D171	8-719-404-46	DIODE MA110	
D172	8-719-404-46	DIODE MA110	
D285	8-719-404-46	DIODE MA110	
D289	8-719-404-46	DIODE MA110	
D341	8-719-404-46	DIODE MA110	
D342	8-719-104-34	DIODE 1S2836	
D343	8-719-800-76	DIODE 1SS226	
D344	8-719-105-XX	DIODE RD6.2M-B1	
D345	8-719-901-83	DIODE 1SS83	
D346	8-719-901-83	DIODE 1SS83	
D347	8-719-901-83	DIODE 1SS83	
D348	8-719-800-76	DIODE 1SS226	
D349	8-719-800-76	DIODE 1SS226	
D350	8-719-800-76	DIODE 1SS226	
D393	8-719-404-46	DIODE MA110	
		<DELAY LINE>	
DL101	1-415-632-11	DELAY LINE, Y	
DL102	1-415-633-11	DELAY LINE, Y	
		<IC>	
IC101	8-759-048-09	IC MM1148XF	
IC102	8-759-501-21	IC MM1149XF	
IC103	8-759-501-21	IC MM1149XF	
IC104	8-759-501-21	IC MM1149XF	
IC105	8-759-048-09	IC MM1148XF	
IC106	8-759-009-51	IC MC14538BF	
IC107	8-759-509-57	IC XRU4584BF	
IC108	8-759-509-17	IC XRU4053BF	
IC109	8-759-509-37	IC XRU4070BF	
IC110	8-759-509-17	IC XRU4053BF	
IC111	8-759-509-17	IC XRU4053BF	
IC112	8-759-924-12	IC LM7805CT	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC113	8-759-631-08	IC M51279FP	
IC114	8-759-509-13	IC XRU4052BF	
IC115	8-759-509-13	IC XRU4052BF	
IC116	8-759-509-05	IC XRU4066BF	
IC117	8-759-711-32	IC NJM2245M	
IC118	8-759-711-32	IC NJM2245M	
IC119	8-759-711-32	IC NJM2245M	
IC120	8-759-509-05	IC XRU4066BF	
IC121	8-759-509-17	IC XRU4053BF	
IC122	8-759-998-98	IC LM358D	
IC123	8-759-998-98	IC LM358D	
IC124	8-752-052-62	IC CXA1478S	
IC125	8-759-509-05	IC XRU4066BF	
IC126	8-759-509-17	IC XRU4053BF	
IC127	8-759-998-98	IC LM358D	
IC128	8-759-998-98	IC LM358D	
IC129	8-759-998-98	IC LM358D	
		<COIL>	
L101	1-410-470-11	INDUCTOR 10UH	
L102	1-410-090-41	INDUCTOR 18MMH	
L103	1-412-002-31	INDUCTOR CHIP 4.7UH	
L104	1-412-002-31	INDUCTOR CHIP 4.7UH	
L105	1-412-002-31	INDUCTOR CHIP 4.7UH	
L106	1-410-470-11	INDUCTOR 10UH	
L107	1-410-470-11	INDUCTOR 10UH	
L108	1-408-418-00	INDUCTOR 56UH	
L109	1-408-418-00	INDUCTOR 56UH	
L110	1-408-418-00	INDUCTOR 56UH	
L112	1-408-419-00	INDUCTOR 68UH	
L113	1-410-947-31	INDUCTOR CHIP 33UH	
L114	1-410-947-31	INDUCTOR CHIP 33UH	
L115	1-410-947-31	INDUCTOR CHIP 33UH	
L116	1-412-011-31	INDUCTOR CHIP 27UH	
L117	1-412-011-31	INDUCTOR CHIP 27UH	
L118	1-412-011-31	INDUCTOR CHIP 27UH	
L250	1-410-997-31	INDUCTOR CHIP 2.2UH	
L251	1-410-999-11	INDUCTOR CHIP 3.3UH	
L252	1-410-478-11	INDUCTOR 47UH	
L300	1-410-482-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q101	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q102	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q103	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q104	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q105	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q106	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q107	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q108	8-729-216-22	TRANSISTOR 2SA1162-G	
Q109	8-729-901-01	TRANSISTOR DTC144EK	
Q112	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q113	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
Q115	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q116	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q117	8-729-216-22	TRANSISTOR 2SA1162-G	
Q118	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q119	8-729-216-22	TRANSISTOR 2SA1162-G	
Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q123	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q124	8-729-216-22	TRANSISTOR 2SA1162-G	
Q125	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q126	8-729-901-01	TRANSISTOR DTC144EK	
Q127	8-729-216-22	TRANSISTOR 2SA1162-G	
Q128	8-729-216-22	TRANSISTOR 2SA1162-G	
Q129	8-729-901-01	TRANSISTOR DTC144EK	
Q130	8-729-216-22	TRANSISTOR 2SA1162-G	
Q131	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q132	8-729-216-22	TRANSISTOR 2SA1162-G	
Q133	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q134	8-729-901-01	TRANSISTOR DTC144EK	
Q135	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q136	8-729-907-26	TRANSISTOR IMX1	
Q137	8-729-907-26	TRANSISTOR IMX1	
Q138	8-729-907-26	TRANSISTOR IMX1	
Q139	8-729-216-22	TRANSISTOR 2SA1162-G	
Q140	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q141	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q142	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q143	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q144	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q145	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q146	8-729-255-12	TRANSISTOR 2SC2551-O	
Q147	8-729-255-12	TRANSISTOR 2SC2551-O	
Q148	8-729-216-22	TRANSISTOR 2SA1162-G	
Q149	8-729-200-17	TRANSISTOR 2SA1091-O2	
Q150	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q151	8-729-216-22	TRANSISTOR 2SA1162-G	
Q152	8-729-200-17	TRANSISTOR 2SA1091-O2	
Q153	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q154	8-729-216-22	TRANSISTOR 2SA1162-G	
Q155	8-729-200-17	TRANSISTOR 2SA1091-O2	
Q157	8-729-326-11	TRANSISTOR 2SC2611	
Q158	8-729-326-11	TRANSISTOR 2SC2611	
Q159	8-729-326-11	TRANSISTOR 2SC2611	
Q160	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q162	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q163	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q164	8-729-901-01	TRANSISTOR DTC144EK	
Q165	8-729-216-22	TRANSISTOR 2SA1162-G	
Q166	8-729-216-22	TRANSISTOR 2SA1162-G	
Q167	8-729-216-22	TRANSISTOR 2SA1162-G	
Q168	8-729-216-22	TRANSISTOR 2SA1162-G	
Q170	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q171	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q172	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q173	8-729-216-22	TRANSISTOR 2SA1162-G	
Q174	8-729-216-22	TRANSISTOR 2SA1162-G	
Q175	8-729-216-22	TRANSISTOR 2SA1162-G	
Q176	8-729-216-22	TRANSISTOR 2SA1162-G	
Q177	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q178	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q179	8-729-901-01	TRANSISTOR DTC144EK	
Q190	8-729-216-22	TRANSISTOR 2SA1162-G	
Q191	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q192	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q193	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q194	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q195	8-729-216-22	TRANSISTOR 2SA1162-G	
Q196	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q197	8-729-216-22	TRANSISTOR 2SA1162-G	

B

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q198	8-729-216-22	TRANSISTOR 2SA1162-G	
Q199	8-729-216-22	TRANSISTOR 2SA1162-G	
Q200	8-729-901-06	TRANSISTOR DTA144EK	
Q201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q208	8-729-216-22	TRANSISTOR 2SA1162-G	
Q209	8-729-255-12	TRANSISTOR 2SC2551-O	
Q210	8-729-255-12	TRANSISTOR 2SC2551-O	
Q211	8-729-255-12	TRANSISTOR 2SC2551-O	
Q212	8-729-109-44	TRANSISTOR 2SK94-X4	
Q299	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<RESISTOR>	
JR105	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR110	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR118	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR133	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR138	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR178	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R101	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R102	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R103	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R104	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R105	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R106	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R107	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R108	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R109	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R110	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R111	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R112	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R113	1-249-401-11	CARBON 47 5% 1/4W	F
R114	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R115	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W	
R117	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R118	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R119	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R120	1-216-647-11	METAL CHIP 680 0.50% 1/10W	
R121	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R122	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R123	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R124	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R125	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R126	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R127	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R128	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R129	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R130	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R131	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R132	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R133	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R134	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R135	1-216-645-11	METAL CHIP 560 0.50% 1/10W	
R136	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R137	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R138	1-216-657-11	METAL CHIP 1.8K 0.50% 1/10W	
R139	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R140	1-216-653-11	METAL CHIP 1.2K 0.50% 1/10W	

REF.NO.	PART NO.	DESCRIPTION	REMARK
R141	1-216-063-00	METAL GLAZE 3.9K 5% 1/10W	
R142	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R143	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R145	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R146	1-216-037-00	METAL GLAZE 330 5% 1/10W	
R147	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R148	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R155	1-216-655-11	METAL CHIP 1.5K 0.50% 1/10W	
R157	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R158	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R160	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R161	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R163	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R164	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R165	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R166	1-216-681-11	METAL CHIP 18K 0.50% 1/10W	
R167	1-216-635-11	METAL CHIP 220 0.50% 1/10W	
R168	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R169	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R170	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R171	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R172	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R173	1-216-093-00	METAL GLAZE 68K 5% 1/10W	
R174	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W	
R175	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R176	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R177	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R178	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R179	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R180	1-216-679-11	METAL CHIP 15K 0.50% 1/10W	
R181	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R182	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R183	1-216-691-11	METAL CHIP 47K 0.50% 1/10W	
R184	1-216-699-11	METAL CHIP 100K 0.50% 1/10W	
R185	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R186	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R187	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R188	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R189	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R190	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R191	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R192	1-216-103-00	METAL GLAZE 180K 5% 1/10W	
R193	1-216-105-00	METAL GLAZE 220K 5% 1/10W	
R194	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R195	1-216-113-00	METAL GLAZE 470K 5% 1/10W	
R196	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R197	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R198	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R199	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R200	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R201	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R202	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R203	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R204	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R205	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R206	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R207	1-216-045-00	METAL GLAZE 680 5% 1/10W	
R208	1-216-671-11	METAL CHIP 6.8K 0.50% 1/10W	
R209	1-216-043-00	METAL GLAZE 560 5% 1/10W	
R210	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R211	1-216-099-00	METAL GLAZE 120K 5% 1/10W	
R212	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R213	1-216-043-00	METAL GLAZE 560 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R214	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R215	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R216	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R217	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R218	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R219	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R220	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R222	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R224	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R225	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R226	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R227	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R228	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R229	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R230	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R231	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R232	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R233	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R234	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R235	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R236	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R239	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R241	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R242	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R243	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R244	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R245	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R246	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R247	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R248	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R249	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R250	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R251	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R252	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R253	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R254	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R255	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R256	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R258	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R259	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R260	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R261	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R262	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R263	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R264	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R265	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R266	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R267	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R268	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R269	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R270	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R272	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R273	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R275	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R276	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R277	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R278	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R279	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R280	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R281	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R282	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R283	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R284	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R285	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R286	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R287	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R288	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R289	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R290	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R291	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R292	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R293	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R295	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R296	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R297	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R298	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R300	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R303	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R304	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R307	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R308	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R309	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R310	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R311	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R312	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R313	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R314	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R315	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R316	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R317	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R318	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R319	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R320	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R321	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R322	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R323	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R324	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R325	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R326	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R328	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R329	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R330	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R331	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R332	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R333	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R334	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R335	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R336	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R337	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R338	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R339	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R340	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R341	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R342	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R343	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
R344	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R345	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R346	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R348	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R349	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R350	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R351	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R352	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R353	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R354	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R355	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R356	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R357	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R358	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R359	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R363	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R364	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R366	1-216-244-00	METAL GLAZE	82K	5%	1/8W	
R367	1-216-244-00	METAL GLAZE	82K	5%	1/8W	
R368	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R369	1-216-248-00	METAL GLAZE	120K	5%	1/8W	
R370	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R371	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R372	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R374	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R375	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R376	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R379	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R380	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R381	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R382	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R383	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R384	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R385	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R386	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R387	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R388	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R390	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R391	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R392	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R393	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R394	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R397	1-249-437-11	CARBON	47K	5%	1/4W	F
R398	1-249-434-11	CARBON	27K	5%	1/4W	F
R399	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1001	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1002	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1003	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1004	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1005	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1006	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1007	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1008	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1009	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1010	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1011	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1012	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1013	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1014	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R1015	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1016	1-216-089-00	METAL GLAZE	47K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1017	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1018	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1019	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1020	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1021	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1022	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1023	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1024	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1025	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1026	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1027	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1028	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1029	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1030	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1031	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1032	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1033	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1035	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1036	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1038	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1040	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1042	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1043	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1044	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1045	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1046	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R1047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1049	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1050	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1051	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1053	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1054	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1055	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1056	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1058	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1059	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1060	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1061	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1062	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1063	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1064	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1065	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1066	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1067	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1068	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1069	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R1070	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1071	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1072	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1073	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1075	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1076	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1077	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1079	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1080	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1081	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1082	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1084	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1086	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1087	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1088	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1090	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1091	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1092	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1093	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1094	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1095	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1096	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1200	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R1201	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R1207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1208	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1220	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1221	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1222	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1223	1-216-087-11	METAL GLAZE	39K	5%	1/10W	
R1225	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1226	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1227	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1228	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1229	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1230	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1231	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1232	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1233	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1234	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1235	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1236	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1237	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1238	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1239	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1270	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1271	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1280	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1290	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1291	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1294	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1295	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1296	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1297	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1298	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1299	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1300	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1303	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1305	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1306	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1307	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1308	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1309	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1310	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R1313	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1314	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1315	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1320	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1321	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1322	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1323	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1324	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1325	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1326	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1327	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1328	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1329	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1330	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1331	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1332	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1333	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1334	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1335	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1338	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1339	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1340	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1341	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R1342	1-216-694-11	METAL CHIP	62K	0.50%	1/10W	
R1343	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1344	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1345	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1346	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1348	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1351	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1353	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R1371	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1372	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1373	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1392	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1393	1-216-095-00	METAL GLAZE	82K	5%	1/10W	

<VARIABLE RESISTOR>

RV101	1-241-763-11	RES, ADJ, CERMET 4.7K
RV102	1-241-763-11	RES, ADJ, CERMET 4.7K
RV103	1-238-009-11	RES, ADJ, CARBON 220
RV104	1-238-009-11	RES, ADJ, CARBON 220
RV105	1-238-012-11	RES, ADJ, CARBON 1K
RV106	1-238-012-11	RES, ADJ, CARBON 1K
RV107	1-238-012-11	RES, ADJ, CARBON 1K
RV108	1-238-016-11	RES, ADJ, CARBON 10K
RV109	1-241-703-11	RES, ADJ, CERMET 22K
RV110	1-238-016-11	RES, ADJ, CARBON 10K
RV111	1-238-016-11	RES, ADJ, CARBON 10K
RV112	1-238-019-11	RES, ADJ, CARBON 47K
RV113	1-238-019-11	RES, ADJ, CARBON 47K
RV114	1-238-019-11	RES, ADJ, CARBON 47K
RV115	1-238-017-11	RES, ADJ, CARBON 22K
RV116	1-238-017-11	RES, ADJ, CARBON 22K
RV118	1-238-017-11	RES, ADJ, CARBON 22K
RV119	1-238-017-11	RES, ADJ, CARBON 22K
RV120	1-238-017-11	RES, ADJ, CARBON 22K
RV121	1-238-017-11	RES, ADJ, CARBON 22K
RV122	1-238-017-11	RES, ADJ, CARBON 22K
RV123	1-238-013-11	RES, ADJ, CARBON 2.2K
RV124	1-238-012-11	RES, ADJ, CARBON 1K
RV125	1-238-012-11	RES, ADJ, CARBON 1K
RV205	1-238-017-11	RES, ADJ, CARBON 22K

B P FA

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<MODULE>				
SEP101	1-808-654-11	MODULE				
		<CRYSTAL>				
X101	1-527-722-00	OSCILLATOR, CRYSTAL				
X102	1-577-259-11	VIBRATOR, CRYSTAL				
**********						
	*A-1195-048-A	P BOARD, COMPLETE				
		**********				
		<CAPACITOR>				
C801	1-126-104-11	ELECT	470MF	20%	35V	
C802	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C803	1-102-228-00	CERAMIC	470PF	10%	500V	
C804	1-123-935-00	ELECT	33MF	20%	160V	
C805	1-101-004-00	CERAMIC	0.01MF		50V	
C806	1-124-480-11	ELECT	470MF	20%	25V	
C807	1-102-228-00	CERAMIC	470PF	10%	500V	
C808	1-106-367-00	MYLAR	0.01MF	10%	100V	
C809	1-106-375-12	MYLAR	0.022MF	10%	100V	
C810	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C811 ⚠	1-137-544-11	FILM	0.01MF	3%	600V	
C812 ⚠	1-137-545-11	FILM	0.013MF	3%	600V	
C813	1-106-385-00	MYLAR	0.056MF	5%	200V	
C814	1-106-383-00	MYLAR	0.047MF	10%	100V	
C815	1-126-233-11	ELECT	22MF	20%	50V	
C816	1-124-798-11	ELECT	1MF	20%	160V	
C817	1-130-800-00	FILM	2.2MF	10%	250V	
C818	1-102-228-00	CERAMIC	470PF	10%	500V	
C819	1-162-116-00	CERAMIC	680PF	10%	2KV	
C820	1-162-116-00	CERAMIC	680PF	10%	2KV	
		<CONNECTOR>				
CN801	*1-564-595-11	PLUG, CONNECTOR 14P				
CN802	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P				
CN803	*1-564-508-11	PLUG, CONNECTOR 5P				
CN805	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P				
		<DIODE>				
D801	8-719-300-33	DIODE RU-3AM				
D802	8-719-300-33	DIODE RU-3AM				
D803	8-719-300-33	DIODE RU-3AM				
D804	8-719-979-85	DIODE EGP-20G				
D805	8-719-300-33	DIODE RU-3AM				
D806	8-719-300-33	DIODE RU-3AM				
D807	8-719-105-XX	DIODE RD6.2M-B1				
D808	8-719-008-28	THYRISTOR CR02AM-4TB				
D809	8-719-911-55	DIODE U05G				
D810	8-719-911-55	DIODE U05G				
D811	8-719-911-55	DIODE U05G				
D813	8-719-300-33	DIODE RU-3AM				
		<COIL>				
L802	1-459-442-00	COIL (WITH CORE)				
L803	1-422-613-11	COIL, AIR CORE				
L804	1-459-109-00	COIL,DUST CORE				
L805 ⚠	1-460-225-11	COIL, HORIZONTAL LINEARITY				
L806	1-407-500-00	INDUCTOR	4.7MMH			
L807	1-407-500-00	INDUCTOR	4.7MMH			

REF.NO.	PART NO.	DESCRIPTION				REMARK
		<NEON LAMP>				
NL801	1-519-108-XX	LAMP, NEON				
		<TRANSISTOR>				
Q801	8-729-195-82	TRANSISTOR 2SC2958				
Q802	8-729-201-62	TRANSISTOR 2SC2555				
	*4-363-404-00	HOLDER, IC; Q802				
	4-382-854-01	SCREW (M3X8), P, SW (+); Q802				
	4-879-937-00	SHEET, MICA; Q802				
Q803	8-729-906-24	TRANSISTOR 2SD835				
		<RESISTOR>				
R801	1-249-383-11	CARBON	1.5	5%	1/4W	F
R802	1-249-377-11	CARBON	0.47	5%	1/4W	F
R803	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R804	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R805	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R807	1-216-425-11	METAL OXIDE	56	5%	1W	F
R808	1-202-846-00	SOLID	470K	20%	1/2W	
R809	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R810	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R811	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R812	1-249-439-11	CARBON	68K	5%	1/4W	F
R813	1-249-414-11	CARBON	560	5%	1/4W	F
R814	1-249-377-11	CARBON	0.47	5%	1/4W	F
		<VARIABLE RESISTOR>				
RV801	1-223-102-00	RES, ADJ, WIREWOUND 120				
		<TRANSFORMER>				
T801	1-437-082-31	HDT				
T802 ⚠	1-439-526-11	TRANSFORMER ASSY, FLYBACK				
**********						
	*1-641-723-11	FA BOARD				
		********				
	1-533-223-11	CLIP, FUSE				
	*4-341-751-01	EYELET EY6, EY7				
	*4-341-752-01	EYELET EY1, EY3, EY8, EY9				
		<CONNECTOR>				
CN601	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P				
CN602	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P				
CN603	1-564-507-11	PLUG, CONNECTOR 4P				
		<FUSE>				
F601 ⚠	1-576-230-11	FUSE (H.B.C.) (3.15A/250V)				
		<RESISTOR>				
R602	1-202-721-00	SOLID	1.5M	20%	1/2W	
		<SWITCH>				
S601 ⚠	1-692-050-11	SWITCH, PUSH (AC POWER) (1KEY)				
**********						

QA

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	A-1275-099-A	QA BOARD, COMPLETE			
		**********			
	1-537-408-11	TERMINAL BOARD, IN/OUT (LINE B)			
⚠	1-537-410-11	TERMINAL BOARD, IN/OUT (LINE A)& AC INLET			
	*4-341-752-01	EYELET EY10, EY11			
		<CAPACITOR>			
C401	1-124-234-00	ELECT	22MF	20%	16V
C402	1-124-234-00	ELECT	22MF	20%	16V
C403	1-124-234-00	ELECT	22MF	20%	16V
C404	1-124-234-00	ELECT	22MF	20%	16V
C405	1-124-234-00	ELECT	22MF	20%	16V
C406	1-124-234-00	ELECT	22MF	20%	16V
C407	1-124-234-00	ELECT	22MF	20%	16V
C408	1-124-463-00	ELECT	0.1MF	20%	50V
C409	1-124-234-00	ELECT	22MF	20%	16V
C410	1-124-234-00	ELECT	22MF	20%	16V
C411	1-124-234-00	ELECT	22MF	20%	16V
C412	1-124-234-00	ELECT	22MF	20%	16V
C413	1-124-234-00	ELECT	22MF	20%	16V
C414	1-126-157-11	ELECT	10MF	20%	16V
C415	1-126-157-11	ELECT	10MF	20%	16V
C416	1-126-157-11	ELECT	10MF	20%	16V
C417	1-126-157-11	ELECT	10MF	20%	16V
C418	1-126-157-11	ELECT	10MF	20%	16V
C419	1-126-157-11	ELECT	10MF	20%	16V
C420	1-126-157-11	ELECT	10MF	20%	16V
C421	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C422	1-124-464-11	ELECT	0.22MF	20%	50V
C423	1-126-157-11	ELECT	10MF	20%	16V
C424	1-126-157-11	ELECT	10MF	20%	16V
C425	1-108-634-11	MYLAR	0.047MF	10%	100V
C426	1-128-499-11	ELECT	220MF	20%	16V
C427	1-128-499-11	ELECT	220MF	20%	16V
C428	1-124-589-11	ELECT	47MF	20%	16V
C429	1-124-234-00	ELECT	22MF	20%	16V
C430	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C431	1-124-234-00	ELECT	22MF	20%	16V
C432	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C433	1-124-234-00	ELECT	22MF	20%	16V
C434	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C435	1-124-234-00	ELECT	22MF	20%	16V
C436	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C437	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C438	1-124-234-00	ELECT	22MF	20%	16V
C439	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C440	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C441	1-124-234-00	ELECT	22MF	20%	16V
C442	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C443	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C444	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C445	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C446	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C447	1-126-301-11	ELECT	1MF	20%	50V
C448	1-124-234-00	ELECT	22MF	20%	16V
C449	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C450	1-124-234-00	ELECT	22MF	20%	16V
C451	1-163-033-00	CERAMIC CHIP	0.022MF		50V
C452	1-128-499-11	ELECT	220MF	20%	16V
C453	1-124-234-00	ELECT	22MF	20%	16V
C454	1-128-499-11	ELECT	220MF	20%	16V
C460	1-126-301-11	ELECT	1MF	20%	50V
C461	1-126-301-11	ELECT	1MF	20%	50V
C462	1-126-301-11	ELECT	1MF	20%	50V
C464	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C465	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C466	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C467	1-163-031-11	CERAMIC CHIP	0.01MF		50V
		<CONNECTOR>			
CN401	1-506-494-11	PIN, CONNECTOR 15P			
CN402	*1-564-518-11	PLUG, CONNECTOR 3P			
CN403	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 4P			
CN404	*1-564-519-11	PLUG, CONNECTOR 4P			
		<DIODE>			
D401	8-719-404-46	DIODE MA110			
D402	8-719-404-46	DIODE MA110			
D403	8-719-110-09	DIODE RD8.2ES-B3			
D404	8-719-404-46	DIODE MA110			
D405	8-719-404-46	DIODE MA110			
D406	8-719-404-46	DIODE MA110			
D407	8-719-404-46	DIODE MA110			
D408	8-719-404-46	DIODE MA110			
D409	8-719-404-46	DIODE MA110			
D410	8-719-404-46	DIODE MA110			
D411	8-719-404-46	DIODE MA110			
D412	8-719-404-46	DIODE MA110			
D413	8-719-404-46	DIODE MA110			
D414	8-719-404-46	DIODE MA110			
D415	8-719-404-46	DIODE MA110			
D416	8-719-404-46	DIODE MA110			
D417	8-719-404-46	DIODE MA110			
D418	8-719-404-46	DIODE MA110			
D419	8-719-404-46	DIODE MA110			
D420	8-719-404-46	DIODE MA110			
D421	8-719-404-46	DIODE MA110			
D422	8-719-404-46	DIODE MA110			
D423	8-719-404-46	DIODE MA110			
D424	8-719-404-46	DIODE MA110			
D425	8-719-404-46	DIODE MA110			
D426	8-719-404-46	DIODE MA110			
D427	8-719-404-46	DIODE MA110			
D428	8-719-404-46	DIODE MA110			
D429	8-719-404-46	DIODE MA110			
D430	8-719-404-46	DIODE MA110			
D431	8-719-404-46	DIODE MA110			
		<IC>			
IC401	8-759-501-21	IC MM1149XF			
IC402	8-759-501-21	IC MM1149XF			
IC403	8-759-420-04	IC AN5265			
		<COIL>			
L401	1-410-682-31	INDUCTOR	470UH		
L402	1-410-682-31	INDUCTOR	470UH		

QA

<TRANSISTOR>

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q401	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q402	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q403	8-729-216-22	TRANSISTOR 2SA1162-G	
Q404	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q405	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q406	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q407	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q408	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q411	8-729-216-22	TRANSISTOR 2SA1162-G	
Q412	8-729-216-22	TRANSISTOR 2SA1162-G	
Q413	8-729-216-22	TRANSISTOR 2SA1162-G	
Q414	8-729-216-22	TRANSISTOR 2SA1162-G	
Q416	8-729-145-18	TRANSISTOR 2SC3736	
Q417	8-729-901-06	TRANSISTOR DTA144EK	
Q418	8-729-901-06	TRANSISTOR DTA144EK	
Q419	8-729-901-06	TRANSISTOR DTA144EK	
Q420	8-729-901-01	TRANSISTOR DTC144EK	
Q421	8-729-901-06	TRANSISTOR DTA144EK	
Q422	8-729-901-01	TRANSISTOR DTC144EK	
Q423	8-729-901-06	TRANSISTOR DTA144EK	
Q424	8-729-901-06	TRANSISTOR DTA144EK	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
R401	1-214-702-00	METAL	75	1%	1/4W	
R402	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R403	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R404	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R405	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R406	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R407	1-216-087-11	METAL GLAZE	39K	5%	1/10W	
R408	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R409	1-214-702-00	METAL	75	1%	1/4W	
R410	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R411	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R412	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R413	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R414	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R415	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R416	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R417	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R418	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R419	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R420	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R421	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R422	1-214-702-00	METAL	75	1%	1/4W	
R423	1-214-702-00	METAL	75	1%	1/4W	
R424	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R425	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R426	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R427	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R428	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R429	1-214-702-00	METAL	75	1%	1/4W	
R430	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R431	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R432	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R433	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R434	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R435	1-214-702-00	METAL	75	1%	1/4W	
R436	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R437	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R438	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R439	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R440	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R441	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R442	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R443	1-216-087-11	METAL GLAZE	39K	5%	1/10W	
R444	1-214-702-00	METAL	75	1%	1/4W	
R445	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R446	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R447	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R448	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R449	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R450	1-214-702-00	METAL	75	1%	1/4W	
R451	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R452	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R453	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R454	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R455	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R456	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R457	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R458	1-247-707-11	CARBON	390	5%	1/4W	
R459	1-216-087-11	METAL GLAZE	39K	5%	1/10W	
R460	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R461	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R462	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R463	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R464	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R465	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R466	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R467	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R468	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R469	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R471	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R472	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R473	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R474	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R475	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R477	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R479	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R480	1-247-711-11	CARBON	680	5%	1/4W	
R481	1-247-720-11	CARBON	3.9K	5%	1/4W	
R482	1-249-455-11	CARBON	4.7	5%	1/4W	
R483	1-249-389-11	CARBON	4.7	5%	1/4W	F
R484	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R485	1-247-688-11	CARBON	10	5%	1/4W	F
R486	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R487	1-249-468-11	CARBON	82K	5%	1/4W	
R488	1-249-468-11	CARBON	82K	5%	1/4W	
R489	1-249-468-11	CARBON	82K	5%	1/4W	
R490	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R491	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R492	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R493	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R494	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R495	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R496	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R497	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R498	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R499	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1401	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1403	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1404	1-216-097-00	METAL GLAZE	100K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
		<VARIABLE RESISTOR>			
RV401	1-230-481-11	RES, VAR, CARBON 20K			
		**********			
	*1-641-720-11	CA BOARD			
		********			
	1-526-958-41	SOCKET, PICTURE TUBE			
		<CAPACITOR>			
C701	1-162-114-00	CERAMIC	0.0047MF	10%	2KV
C702	1-102-050-00	CERAMIC	0.01MF	99%	500V
C710	1-161-830-00	CERAMIC	0.0047MF	99%	500V
		<CONNECTOR>			
CN701	*1-564-509-11	PLUG, CONNECTOR 6P			
CN702	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN703	*1-564-508-11	PLUG, CONNECTOR 5P			
		<COIL>			
L701	1-410-668-11	INDUCTOR	27UH		
		<RESISTOR>			
R701	1-202-822-00	SOLID	2.2K	20%	1/2W
R702	1-202-822-00	SOLID	2.2K	20%	1/2W
R703	1-202-822-00	SOLID	2.2K	20%	1/2W
R704	1-202-838-00	SOLID	100K	20%	1/2W
R705	1-202-719-00	SOLID	1M	20%	1/2W
R706	1-202-842-11	SOLID	220K	20%	1/2W
		<VARIABLE RESISTOR>			
RV701	1-230-164-00	RES, ADJ, METAL GLAZE 55M			
	*4-376-132-11	COVER (REAR LID), CV VOL; RV701			
	*4-376-133-11	COVER (MAIN), CV VOL; RV701			
		**********			
	A-1346-018-A	D BOARD, COMPLETE			
		**********			
	1-533-189-11	HOLDER, FUSE			
	3-710-578-01	COVER, VOLUME, 6 MOLD			
	*3-738-015-01	COVER, (DIA. 6) CARBON VR			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<CAPACITOR>			
C501	1-124-477-11	ELECT	47MF	20%	16V
C502	1-124-907-11	ELECT	10MF	20%	50V
C503	1-126-103-11	ELECT	470MF	20%	16V
C504	1-124-902-00	ELECT	0.47MF	20%	50V
C505	1-106-381-12	MYLAR	0.039MF	10%	100V
C506	1-124-903-11	ELECT	1MF	20%	50V
C507	1-106-367-00	MYLAR	0.01MF	10%	100V
C508	1-124-903-11	ELECT	1MF	20%	50V
C509	1-136-173-00	FILM	0.47MF	5%	50V
C510	1-136-161-00	FILM	0.047MF	5%	50V
C511	1-124-903-11	ELECT	1MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C512	1-106-375-12	MYLAR	0.022MF	10%	100V
C513	1-106-375-12	MYLAR	0.022MF	10%	100V
C514	1-106-371-00	MYLAR	0.015MF	10%	100V
C515	1-124-925-11	ELECT	2.2MF	20%	50V
C516	1-124-925-11	ELECT	2.2MF	20%	50V
C517	1-130-480-00	FILM	0.0056MF	5%	50V
C518	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C519	1-124-927-11	ELECT	4.7MF	20%	50V
C520	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C521	1-124-907-11	ELECT	10MF	20%	50V
C523	1-106-363-00	MYLAR	0.0068MF	10%	100V
C524	1-102-116-00	CERAMIC	680PF	10%	50V
C525	1-102-820-00	CERAMIC	330PF	5%	50V
C526	1-102-973-00	CERAMIC	100PF	5%	50V
C527	1-124-122-11	ELECT	100MF	20%	50V
C528	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C529	1-124-910-11	ELECT	47MF	20%	50V
C530	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C531	1-131-370-00	TANTALUM	6.8MF	10%	16V
C532	1-124-557-11	ELECT	1000MF	20%	25V
C533	1-124-927-11	ELECT	4.7MF	20%	50V
C534	1-124-768-11	ELECT	4.7MF	20%	50V
C535	1-136-161-00	FILM	0.047MF	5%	50V
C536	1-124-927-11	ELECT	4.7MF	20%	50V
C537	1-124-484-11	ELECT	220MF	20%	35V
C538	1-124-910-11	ELECT	47MF	20%	50V
C539	1-136-113-00	FILM	2MF	5%	200V
C540	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C541	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C542	1-126-103-11	ELECT	470MF	20%	16V
C545	1-126-101-11	ELECT	100MF	20%	16V
C546	1-124-907-11	ELECT	10MF	20%	50V
C547	1-124-907-11	ELECT	10MF	20%	50V
C548	1-124-907-11	ELECT	10MF	20%	50V
C549	1-124-907-11	ELECT	10MF	20%	50V
C550	1-124-907-11	ELECT	10MF	20%	50V
C551	1-124-927-11	ELECT	4.7MF	20%	50V
C552	1-101-004-00	CERAMIC	0.01MF		50V
C553	1-126-103-11	ELECT	470MF	20%	16V
C563	1-106-383-00	MYLAR	0.047MF	10%	100V
C564	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C567	1-124-907-11	ELECT	10MF	20%	50V
C568	1-130-736-11	FILM	0.01MF	5%	50V
C569	1-130-471-00	FILM	0.001MF	5%	50V
C570	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C571	1-124-913-11	ELECT	470MF	20%	50V
C572	1-101-004-00	CERAMIC	0.01MF		50V
C574	1-106-351-00	MYLAR	0.0022MF	10%	100V
C575	1-106-351-00	MYLAR	0.0022MF	10%	100V
C831	1-124-907-11	ELECT	10MF	20%	50V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C834	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C835	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C836	1-124-907-11	ELECT	10MF	20%	50V
C837	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C838	1-136-163-00	FILM	0.068MF	5%	50V
C839	1-106-351-00	MYLAR	0.0022MF	10%	100V
C840	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C841	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C843	1-124-902-00	ELECT	0.47MF	20%	50V
C844	1-124-902-00	ELECT	0.47MF	20%	50V
C845	1-124-477-11	ELECT	47MF	20%	25V
C846	1-124-907-11	ELECT	10MF	20%	50V

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
C847	1-126-233-11	ELECT	22MF	20%	50V
C848	1-131-351-00	TANTALUM	4.7MF	10%	35V
C849	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1601	1-124-907-11	ELECT	10MF	20%	50V
C1602	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1603	1-124-903-11	ELECT	1MF	20%	50V
C1604	1-128-500-51	ELECT	1000MF	20%	50V
C1605	1-124-922-11	ELECT	1000MF	20%	50V
C1606	1-102-074-00	CERAMIC	0.001MF	10%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V
C1608	1-126-233-11	ELECT	22MF	20%	50V
C1609	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1610	1-124-927-11	ELECT	4.7MF	20%	50V
C1611	1-124-482-11	ELECT	33MF	20%	35V
C1612	1-136-257-00	FILM	0.0039MF	5%	50V
C1613	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1614	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1615	1-124-465-00	ELECT	0.47MF	20%	50V
C1620	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1621	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

<CONNECTOR>

CN501	*1-564-506-11	PLUG, CONNECTOR 3P
CN502	1-506-477-11	PIN, CONNECTOR 12P
CN504	*1-564-507-11	PLUG, CONNECTOR 4P
CN505	*1-564-509-11	PLUG, CONNECTOR 6P
CN507	*1-564-511-11	PLUG, CONNECTOR 8P
CN508	*1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P
CN509	*1-564-506-11	PLUG, CONNECTOR 3P

<DIODE>

D501	8-719-404-46	DIODE MA110
D502	8-719-404-46	DIODE MA110
D503	8-719-404-46	DIODE MA110
D504	8-719-404-46	DIODE MA110
D505	8-719-404-46	DIODE MA110
D506	8-719-911-55	DIODE U05G
D507	8-719-404-46	DIODE MA110
D508	8-719-404-46	DIODE MA110
D509	8-719-404-46	DIODE MA110
D510	8-719-404-46	DIODE MA110
D511	8-719-404-46	DIODE MA110
D512	8-719-404-46	DIODE MA110
D514	8-719-404-46	DIODE MA110
D831	8-719-404-46	DIODE MA110
D832	8-719-404-46	DIODE MA110
D833	8-719-404-46	DIODE MA110
D834	8-719-404-46	DIODE MA110
D835	8-719-109-89	DIODE RD5.6ES-B2
D836	8-719-977-69	DIODE DTZ24B
D837	8-719-404-46	DIODE MA110
D838	8-719-404-46	DIODE MA110
D1601	8-719-105-XX	DIODE RD6.2M-B1
D1602	8-719-404-46	DIODE MA110
D1603	8-719-977-61	DIODE DTZ20B
D1604	8-719-404-46	DIODE MA110
D1605	8-719-404-46	DIODE MA110
D1606	8-719-981-00	DIODE ERC81-004
D1607	8-719-981-00	DIODE ERC81-004
D1608	8-719-977-02	DIODE DTZ5.6A
D1609	8-719-977-49	DIODE DTZ15B
D1610	8-719-404-46	DIODE MA110
D1611	8-729-101-31	TRANSISTOR N13T1
D1612	8-719-404-46	DIODE MA110
D1613	8-719-404-46	DIODE MA110
D1614	8-719-404-46	DIODE MA110
D1615	8-719-404-46	DIODE MA110
D1616	8-719-404-46	DIODE MA110
D1617	8-719-977-49	DIODE DTZ15B
D1618	8-719-977-49	DIODE DTZ15B
D1621	8-719-510-12	DIODE D10SC4M
D1625	8-719-404-46	DIODE MA110
D1626	8-719-404-46	DIODE MA110
D1627	8-719-404-46	DIODE MA110
D1628	8-719-404-46	DIODE MA110
D1635	8-719-404-46	DIODE MA110
D1699	8-719-404-46	DIODE MA110

<FUSE>

F1601 ⚠	1-532-777-21	FUSE, MICRO (SECONDARY) (1.25A/125V)
F1602 ⚠	1-576-232-11	FUSE (H.B.C.) (5.0A/250V)

<IC>

IC501	8-759-909-70	IC CX23025
IC502	8-759-100-60	IC UPC1377C
IC503	8-759-801-98	IC LA7830
IC504	8-759-929-62	IC MC7812CT
IC505	8-759-009-51	IC MC14538BF
IC831	8-759-509-29	IC XRU4011BF
IC832	8-759-509-37	IC XRU4070BF
IC833	8-759-009-51	IC MC14538BF
IC1601	8-759-509-91	IC XRA10393F

<COIL>

L501	1-410-093-11	INDUCTOR 33MMH
L502	1-410-665-31	INDUCTOR 15UH
L503	1-424-625-11	COIL, CHOKE (PMC) 381.4UH
L506	1-412-530-31	INDUCTOR 27UH
L1601	1-459-155-00	COIL (WITH CORE) 45UH
L1602	1-424-626-12	COIL, CHOKE 390UH
L1603	1-410-397-21	FERRITE BEAD INDUCTOR

<TRANSISTOR>

Q501	8-729-901-01	TRANSISTOR DTC144EK
Q502	8-729-901-01	TRANSISTOR DTC144EK
Q503	8-729-901-06	TRANSISTOR DTA144EK
Q504	8-729-901-01	TRANSISTOR DTC144EK
Q505	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q506	8-729-901-01	TRANSISTOR DTC144EK
Q507	8-729-901-01	TRANSISTOR DTC144EK
Q508	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q509	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q510	8-729-901-06	TRANSISTOR DTA144EK
Q511	8-729-901-01	TRANSISTOR DTC144EK
Q512	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q513	8-729-216-22	TRANSISTOR 2SA1162-G
Q514	8-729-216-22	TRANSISTOR 2SA1162-G
Q515	8-729-313-42	TRANSISTOR 2SD1134-C
Q516	8-729-901-01	TRANSISTOR DTC144EK
Q517	8-729-901-01	TRANSISTOR DTC144EK
Q518	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q519	8-729-920-74	TRANSISTOR 2SC2412K-QR
Q525	8-729-920-74	TRANSISTOR 2SC2412K-QR

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q532	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q533	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q833	8-729-216-22	TRANSISTOR 2SA1162-G				
Q834	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q835	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q836	8-729-309-08	TRANSISTOR 2SC1890A				
Q1601	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1602	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1603	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1604	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1605	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q1606	8-729-133-42	TRANSISTOR 2SC2334-L				
Q1607	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1608	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1609	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1610	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1611	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1612	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1613	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1614	8-729-920-74	TRANSISTOR 2SC2412K-QR				
Q1615	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1616	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1617	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1618	8-729-216-22	TRANSISTOR 2SA1162-G				

<RESISTOR>

JR510	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R501	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R502	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	F
R504	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R505	1-249-393-11	CARBON	10	5%	1/4W	F
R506	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R507	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R508	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R509	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R510	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R511	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R512	1-218-761-11	METAL CHIP	240K	0.50%	1/10W	
R513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R514	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R515	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R516	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R517	1-216-107-00	METAL CHIP	270K	0.50%	1/10W	
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R519	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R520	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R521	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R522	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R523	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R524	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R525	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R526	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R527	1-249-437-11	CARBON	47K	5%	1/4W	F
R528	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R529	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R530	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R531	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R533	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R534	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R535	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R536	1-212-881-11	FUSIBLE	100	5%	1/4W	F

REF.NO.	PART NO.	DESCRIPTION				REMARK
R537	1-215-867-00	METAL OXIDE	470	5%	1W	F
R538	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R539	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R540	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R541	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R542	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R543	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R544	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R545	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R546	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R547	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R548	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R549	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R550	1-216-356-00	METAL OXIDE	3.9	5%	1W	F
R552	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R553	1-216-087-11	METAL GLAZE	39K	5%	1/10W	
R554	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R555	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R562	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R563	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R564	1-249-415-11	CARBON	680	5%	1/4W	F
R565	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R566	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R567	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R568	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R569	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R570	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R571	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R572	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R573	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R574	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R575	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R576	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R577	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R578	1-249-457-11	CARBON	6.8	5%	1/4W	F
R579	1-249-457-11	CARBON	6.8	5%	1/4W	F
R591	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R592	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R831	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R832	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R833	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R834	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R835	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R836	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R837	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R838	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R839	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R840	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R841	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R842	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R843	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R844	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R847	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R850	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R851	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R852	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R853	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R854	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	

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- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R855	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R856	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R857	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R858	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R859	1-216-436-00	METAL OXIDE	3.9K	5%	1W	F
R860	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R861	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R862	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R863	1-249-435-11	CARBON	33K	5%	1/4W	F
R1503	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1504	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R1505	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1506	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1507	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1508	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1510	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1511	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1512	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1513	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1519	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1520	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1601	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1602	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R1603	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1604	1-249-433-11	CARBON	22K	5%	1/4W	F
R1605	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1606	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1607	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1608	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1609	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1610	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1611	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1612	1-215-913-11	METAL OXIDE	220	5%	3W	F
R1613	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1614	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1615	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1616	1-216-629-11	METAL CHIP	120	0.50%	1/10W	
R1617	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1618	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1620	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1621	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1624	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R1625	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1626	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1627	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1628	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1629	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1630	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1631	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1632	1-216-042-00	METAL GLAZE	510	5%	1/10W	
R1633	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1634	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1635	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1640	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1641	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1642	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1643	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1644	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1645	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1646	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1647	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1648	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1649	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1650	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1652	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1653	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1654	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R1655	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1656	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R1657	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1658	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1659	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1660	1-216-649-11	METAL CHIP	820	0.50%	1/10W	
R1661	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	

<VARIABLE RESISTOR>

RV501	1-238-019-11	RES, ADJ, CARBON 47K
RV502	1-238-017-11	RES, ADJ, CARBON 22K
RV503	1-241-763-11	RES, ADJ, CERMET 4.7K
RV504	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K
RV505	1-238-009-11	RES, ADJ, CARBON 220
RV506	1-238-012-11	RES, ADJ, CARBON 1K
RV507	1-238-013-11	RES, ADJ, CARBON 2.2K
RV508	1-238-012-11	RES, ADJ, CARBON 1K
RV509	1-238-021-11	RES, ADJ, CARBON 220K
RV511	1-238-015-11	RES, ADJ, CARBON 4.7K
RV512	1-238-015-11	RES, ADJ, CARBON 4.7K
RV514	1-238-019-11	RES, ADJ, CARBON 47K
RV515	1-238-021-11	RES, ADJ, CARBON 220K
RV516	1-241-763-11	RES, ADJ, CERMET 4.7K
RV831	1-228-997-00	RES, ADJ, METAL GLAZE 100K
RV832	1-241-764-11	RES, ADJ, CERMET 10K
⊠RV833⚠		RES, ADJ, CERMET
RV1601	1-241-700-11	RES, ADJ, CERMET 2.2K
RV1602	1-238-012-11	RES, ADJ, CARBON 1K
⊠RV1603⚠		RES, ADJ, CERMET

<RELAY>

RY1601	1-515-481-21	RELAY (G2R-212P-V)

<TRANSFORMER>

T1601	1-437-216-11	TRANSFORMER, DRIVE

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	*A-1371-782-A	HA BOARD, COMPLETE
		**********
	*4-348-208-00	HOLDER, LED
	*4-341-751-01	EYELET EY5

<CONNECTOR>

CN001	1-506-478-11	PIN, CONNECTOR 13P
CN002	1-506-473-11	PIN, CONNECTOR 8P

<DIODE>

D001	8-719-920-05	DIODE SLP281C-50
D002	8-719-109-68	DIODE RD3.6ESB1

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<RESISTOR>			
JW009	1-216-295-00	METAL GLAZE	0	5% 1/10W	
JW024	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R001	1-247-713-11	CARBON	1K	5% 1/4W	
R002	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R003	1-216-295-00	METAL GLAZE	0	5% 1/10W	
R004	1-216-081-00	METAL GLAZE	22K	5% 1/10W	
		<VARIABLE RESISTOR>			
RV001	1-241-846-11	RES, VAR, CARBON 20K			
RV002	1-241-846-11	RES, VAR, CARBON 20K			
RV003	1-241-845-11	RES, VAR, CARBON 20K			
RV004	1-241-845-11	RES, VAR, CARBON 20K			
RV005	1-241-845-11	RES, VAR, CARBON 20K			
RV006	1-241-845-11	RES, VAR, CARBON 20K			
RV007	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
RV008	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
RV009	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
RV010	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
RV011	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
RV012	1-226-773-11	RES, ADJ, METAL GLAZE 22K			
		<SWITCH>			
S001	1-554-419-00	SWITCH, PUSH (1 KEY)			
S002	1-554-419-00	SWITCH, PUSH (1 KEY)			
S003	1-554-419-00	SWITCH, PUSH (1 KEY)			
S004	1-554-419-00	SWITCH, PUSH (1 KEY)			
S005	1-554-419-00	SWITCH, PUSH (1 KEY)			
S006	1-554-419-00	SWITCH, PUSH (1 KEY)			
**********					
*1-641-724-11		X BOARD			
		*******			
		<CONNECTOR>			
CN21	*1-564-518-11	PLUG, CONNECTOR 3P			
		<DIOE>			
D21	8-719-023-78	DIODE SEL3810DLC05			
D22	8-719-023-78	DIODE SEL3810DLC05			
D23	8-719-023-78	DIODE SEL3810DLC05			
**********					
*A-1394-368-A		S BOARD, COMPLETE			
		**********			
3-710-578-01		COVER, VOLUME, 6 MOLD			
		<CAPACITOR>			
C1101	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C1102	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1103	1-124-589-11	ELECT	47MF	20% 16V	
C1104	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1105	1-163-114-00	CERAMIC CHIP	75PF	5% 50V	
C1106	1-163-101-00	CERAMIC CHIP	22PF	5% 50V	
C1107	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1108	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C1109	1-163-031-11	CERAMIC CHIP	0.01MF	50V	
C1110	1-163-117-00	CERAMIC CHIP	100PF	5% 50V	
C1111	1-163-018-00	CERAMIC CHIP	0.0056MF	10% 50V	
C1112	1-126-160-11	ELECT	1MF	20% 50V	
C1113	1-163-119-00	CERAMIC CHIP	120PF	5% 50V	
C1114	1-163-103-00	CERAMIC CHIP	27PF	5% 50V	
C1115	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1116	1-163-114-00	CERAMIC CHIP	75PF	5% 50V	
C1117	1-124-589-11	ELECT	47MF	20% 16V	
C1118	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C1119	1-163-020-00	CERAMIC CHIP	0.0082MF	10% 50V	
C1120	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C1121	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C1122	1-163-222-11	CERAMIC CHIP	5PF	0.25PF 50V	
C1123	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C1130	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
C1131	1-163-097-00	CERAMIC CHIP	15PF	5% 50V	
		<CONNECTOR>			
CN1101	*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P			
		<DIODE>			
D1101	8-719-404-46	DIODE MA110			
D1102	8-719-404-46	DIODE MA110			
		<IC>			
IC1101	8-752-056-67	IC CXA1214P			
		<COIL>			
L1101	1-408-411-00	INDUCTOR	15UH		
L1102	1-404-496-00	COIL			
L1103	1-404-496-00	COIL			
L1104	1-408-411-00	INDUCTOR	15UH		
L1110	1-412-008-31	INDUCTOR CHIP	15UH		
L1111	1-412-008-31	INDUCTOR CHIP	15UH		
		<TRANSISTOR>			
Q1101	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1102	8-729-920-74	TRANSISTOR 2SC2412K-QR			
Q1103	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1104	8-729-216-22	TRANSISTOR 2SA1162-G			
Q1105	8-729-901-01	TRANSISTOR DTC144EK			
Q1106	8-729-901-01	TRANSISTOR DTC144EK			
Q1107	8-729-109-44	TRANSISTOR 2SK94-X4			
Q1108	8-729-920-74	TRANSISTOR 2SC2412K-QR			
		<RESISTOR>			
R1101	1-216-053-00	METAL GLAZE	1.5K	5% 1/10W	
R1102	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W	
R1103	1-216-059-00	METAL GLAZE	2.7K	5% 1/10W	
R1104	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1105	1-216-031-00	METAL GLAZE	180	5% 1/10W	
R1106	1-216-059-00	METAL GLAZE	2.7K	5% 1/10W	
R1107	1-216-071-00	METAL GLAZE	8.2K	5% 1/10W	
R1108	1-216-039-00	METAL GLAZE	390	5% 1/10W	
R1109	1-216-063-00	METAL GLAZE	3.9K	5% 1/10W	
R1110	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	

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Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1111	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1112	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1113	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1114	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1116	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1117	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1118	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1120	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1121	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1122	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1123	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1124	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1125	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1126	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1127	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1128	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1129	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1130	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R1131	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1132	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1133	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1134	1-216-091-00	METAL GLAZE	56K	5%	1/10W	

<VARIABLE RESISTOR>

RV1101	1-238-015-11	RES, ADJ, CARBON 4.7K	
RV1102	1-238-013-11	RES, ADJ, CARBON 2.2K	

<TRANSISTOR>

T1101	1-404-584-11	COIL	

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G BOARD (SOPS-1021)
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⚠	4-812-134-11	RIVET NYLON, 3.5φ	

<CAPACITOR>

C601	⚠ 1-136-889-11	METALIZED FILM	0.22MF	20%	250V
C602	⚠ 1-136-889-11	METALIZED FILM	0.22MF	20%	250V
C603	⚠ 1-161-973-51	CERAMIC	220PF	10%	400V
C604	⚠ 1-161-973-51	CERAMIC	220PF	10%	400V
C605	⚠ 1-161-973-51	CERAMIC	220PF	10%	400V
C608	⚠ 1-161-742-51	CERAMIC	0.0022MF	20%	400V
C609	⚠ 1-161-742-51	CERAMIC	0.0022MF	20%	400V
C610	⚠ 1-125-724-11	ELECT	180MF	20%	400V
C611	⚠ 1-136-206-21	METALIZED FILM	0.033MF	10%	630V
C612	⚠ 1-124-910-51	ELECT	47MF	20%	50V
C613	⚠ 1-137-190-91	METALIZED FILM	0.22MF	5%	50V
C614	⚠ 1-137-190-91	METALIZED FILM	0.22MF	5%	50V
C615	⚠ 1-130-471-91	PE TEREPHTHALATE	0.001MF	5%	50V
C651	⚠ 1-161-925-11	CERAMIC	100PF B	10%	500V
C652	⚠ 1-128-486-51	ELECT	680MF	20%	50V
C653	⚠ 1-128-485-51	ELECT	220MF	20%	50V
C654	⚠ 1-130-483-91	PE TEREPHTHALATE	0.01MF	5%	50V

<CONNECTOR>

CN610	⚠* 1-560-436-11	HORIZONTAL PIN ASSY 3P	
CN651	⚠* 1-564-518-11	PLUG, CONNECTOR 3P	

REF.NO.	PART NO.	DESCRIPTION	REMARK

<DIODE>

D201	⚠ 8-719-971-08	DIODE ESAC39M 06C	
D601	⚠ 8-719-510-27	DIODE D3SB60	
D602	⚠ 8-719-921-20	DIODE 1SS119TD	
D603	⚠ 8-719-981-47	DIODE ERA38-06TP1	
D604	⚠ 8-719-981-47	DIODE ERA38-06TP1	
D605	⚠ 8-719-113-44	DIODE RD20ES-T1B3	
D651	⚠ 8-719-971-08	DIODE ESAC39M 06C	

<IC>

IC601	⚠ 1-809-086-12	HIC CH-1018	
IC651	⚠ 8-759-908-15	IC TL431CLP	
PH601	⚠ 8-759-045-81	IC TLP732GR-LF2	

<COIL>

L601	⚠ 1-424-616-11	TRANSFORMER, LINE FILTER	
L602	⚠ 1-424-574-11	L.F.T	
L651	⚠ 1-424-255-41	COIL, CHOKE (MOLDE) 10UH	
L652	⚠ 1-424-615-11	COIL, CHOKE	

<TRANSISTOR>

Q601	⚠ 8-729-322-18	TRANSISTOR 2SK1402A	

<RESISTOR>

R601	⚠ 1-205-940-51	CEMENT	1.5	5%	5W	F
R602	⚠ 1-205-940-51	CEMENT	1.5	5%	5W	F
R603	⚠ 1-215-904-11	METAL OXIDE	100K	5%	2W	F
R604	⚠ 1-215-904-11	METAL OXIDE	100K	5%	2W	F
R605	⚠ 1-212-865-61	FUSIBLE	22	5%	1/4W	F
R606	⚠ 1-247-805-91	CARBON	82	5%	1/4W	
R607	⚠ 1-260-128-91	CARBON	270K	5%	1/2W	
R608	⚠ 1-260-128-91	CARBON	270K	5%	1/2W	
R609	⚠ 1-215-904-51	METAL OXIDE	100K	5%	2W	F
R610	⚠ 1-207-455-11	WIRE	0.22	10%	1/2W	
R611	⚠ 1-247-789-91	CARBON	18	5%	1/4W	
R612	⚠ 1-247-795-91	CARBON	33	5%	1/4W	
R613	⚠ 1-215-904-51	METAL OXIDE	100K	5%	2W	F
R614	⚠ 1-247-815-91	CARBON	220	5%	1/4W	
R651	⚠ 1-215-886-51	METAL OXIDE	100	5%	2W	F
R652	⚠ 1-215-886-51	METAL OXIDE	100	5%	2W	F
R653	⚠ 1-260-107-91	CARBON	4.7K	5%	1/2W	
R654	⚠ 1-260-107-91	CARBON	4.7K	5%	1/2W	
R655	⚠ 1-247-867-91	CARBON	33K	5%	1/4W	
R656	⚠ 1-247-867-91	CARBON	33K	5%	1/4W	
R657	⚠ 1-247-837-91	CARBON	1.8K	5%	1/4W	

<VARIABLE RESISTOR>

⊠RV651	⚠ 1-237-443-11	RES, ADJ, CARBON 1K	

<TRANSFORMER>

T601	⚠ 1-450-760-11	TRANSFORMER, CONVERTER	

****

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS	
		**********	
	⚠.1-413-720-21	SWITCHING REGULATOR (SOPS-1021)	
	⚠.1-426-043-12	COIL, DEGAUSSING	
	⚠.1-451-319-22	DEFLECTION YOKE (Y9FXC)	
	1-452-126-11	MAGNET	
	1-543-925-11	CORE, FERRITE	
	1-544-252-11	SPEAKER	
	1-690-871-11	CABLE (MINI DIN) 8P	
V901	⚠.8-737-151-05	PICTURE TUBE (A20JKU10X) (PVM-9041QM)	
	⚠.8-737-651-05	PICTURE TUBE (M20JMP10X) (PVM-9044QM)	

****

	PART NO.	DESCRIPTION	REMARK
		ACCESSORIES & PACKING MATERIALS	
		**********	
	⚠.1-590-910-11	CORD SET, POWER (10.0A/250V)	
	1-690-871-11	CABLE (MINI DIN) 8P	
	2-990-241-02	HOLDER (A), PLUG	
	*3-170-078-01	HOLDER (B), PLUG	
	*3-704-301-01	BAG (STANDARD), PROTECTION	
	3-754-506-21	MANUAL, INSTRUCTION	
	4-034-835-01	PLATE, TALLY	
	*4-034-955-01	CUSHION (UPPER) (ASSY)	
	*4-034-956-01	CUSHION (LOWER) (ASSY)	
	*4-035-784-01	INDIVIDUAL CARTON	

Sony Corporation
Display Products Group

English
92EL0913-1
Printed in Japan

9-978-259-01

PVM-9041QM/9044QM

SONY

SERVICE MANUAL

AEP Model

PVM-9041QM
Chassis No. SCC-F09B-A
PVM-9044QM
Chassis No. SCC-F09A-A

SUPPLEMENT-1

INTRODUCTION

- B board : The transistor is changed to the pair transistor (Q189).
  The diodes are changed to the three-terminal diodes.
  (D185, D186, D187, D188, D191, D390 and D1382)
- D board : The transistors are changed to the pair transistors.
  (Q569, Q576, Q579 and Q599)
  The diodes are changed to the three-terminal diodes.
  (D520, D521, D848, D1620, D1622 and D1623)
- S board : The pattern is modified.

Note)
Before using the circuit board, confirm that the parts number shown below and the parts number of the circuit board which is being used in your set are the same.

Board (Complete No.)	Board Part. No.
B (A-1135-716-A)	1-641-716-15
D (A-1346-018-A)	1-641-717-16
S (A-1394-368-A)	1-641-719-15

TABLE OF CONTENTS

(CAUTION)

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

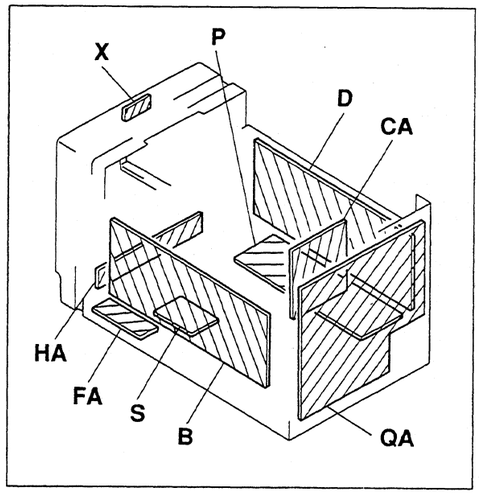
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

Super 1

SECTION 1
DIAGRAMS

1-1. CIRCUITS BOARDS LOCATION



Part replaced (◪)	Adjustment (⊠)
IC601, IC651, PH602, C655, R653, R655, R656, R657, RV651	RV651 (B+ MAX)
Q1601, Q1602, Q1603, D1601, D1603, D1622, D1623, C1601, C1602, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV1601, RV1603	RV1603 (B+ MAX IN DC POWER INPUT MODE)
IC502, Q833, Q834, Q835, Q836, D835, D836, C519, C843, C844, C845, C846, C847, C848, RV833, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R861, R862, R863, NL801	R833 (HOLD-DOWN)

1-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytic.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power ¼ W

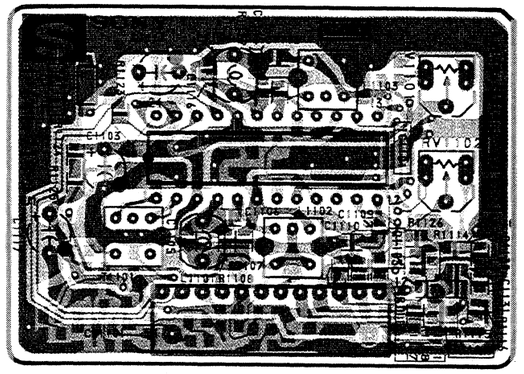
- All resistors are in ohms.
- ⊟ : nonflammable resistor.
- ⊟ : fusible resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⊠ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⊠ and repeat the adjustment until the specified value is achieved.
- When replacing the part in below table be sure to perform the related adjustment.

Reference information

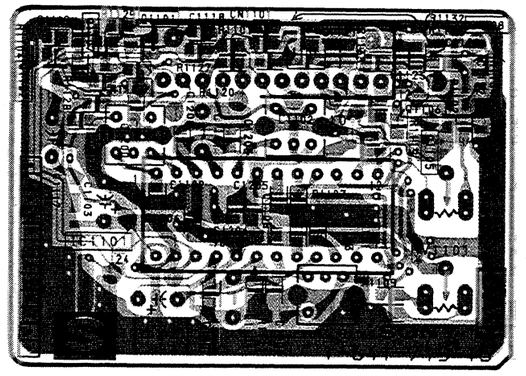
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE WIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

S [SECAM DEMODULATION]

– S Board – – Component Side –



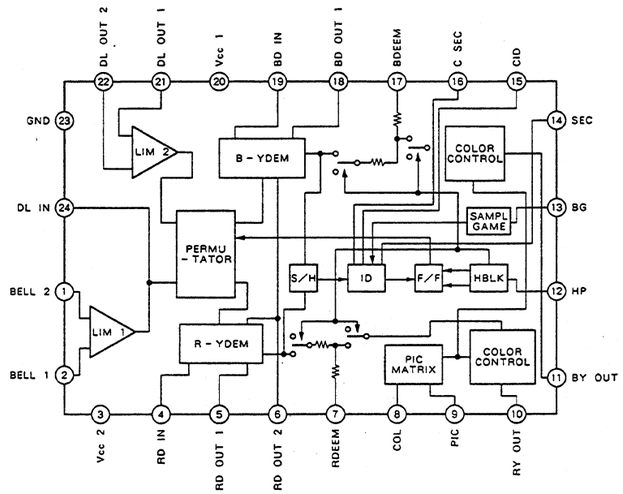
– S Board – – Conductor Side –

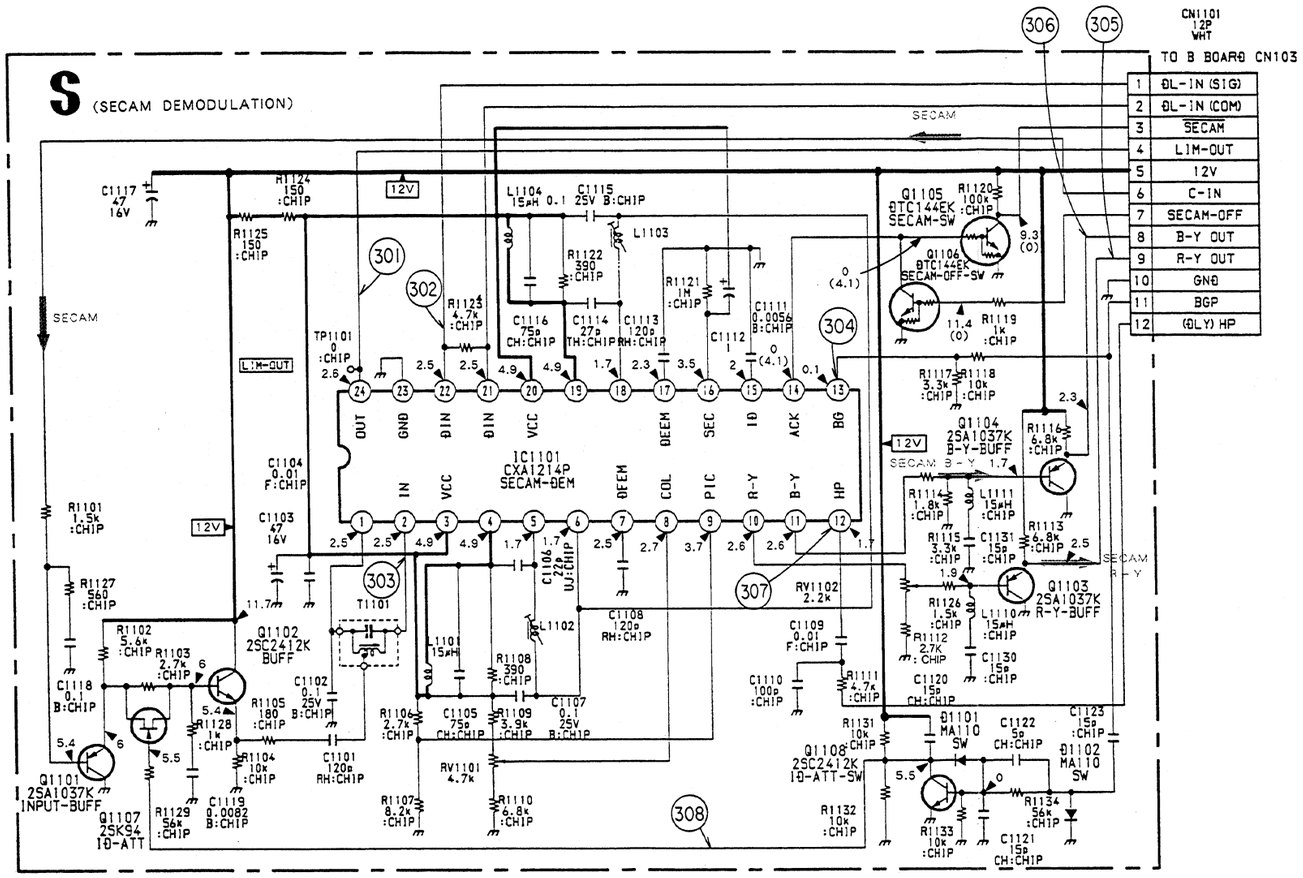


- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

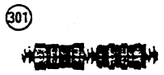
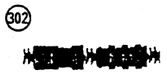
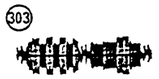
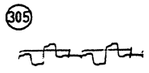
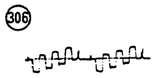
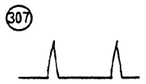
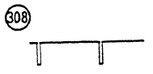
A B C D E F G H I J

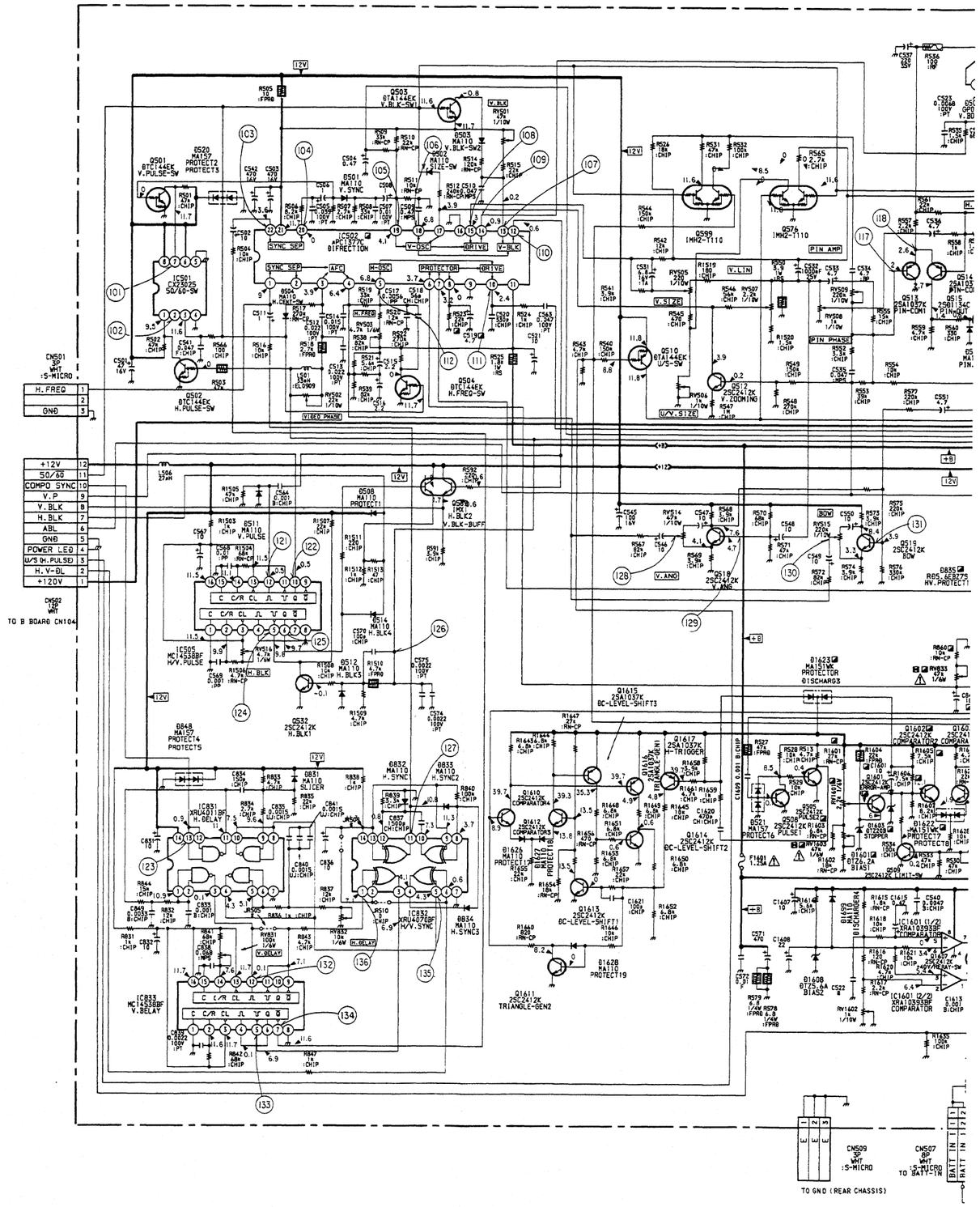
S Board IC1101 CXA1214P





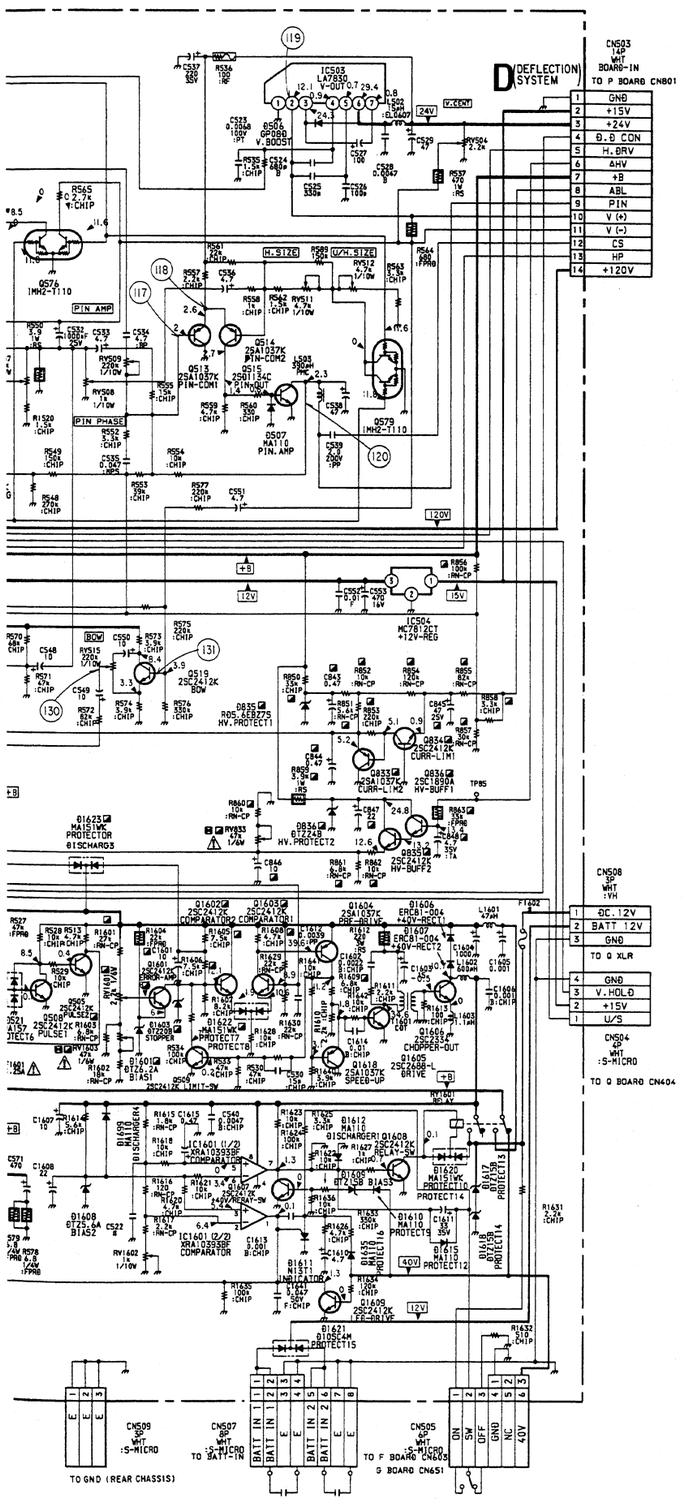
• S BOARD WAVEFORMS

301  SECAM 0.8Vp-p (H)	302  SECAM 0.7Vp-p (H).	303  SECAM 0.1Vp-p (H)	304  SECAM 3Vp-p (H)
305  SECAM 0.6Vp-p (H)	306  SECAM 0.7Vp-p (H)	307  SECAM 3.4Vp-p (H)	308  SECAM 6Vp-p (H)

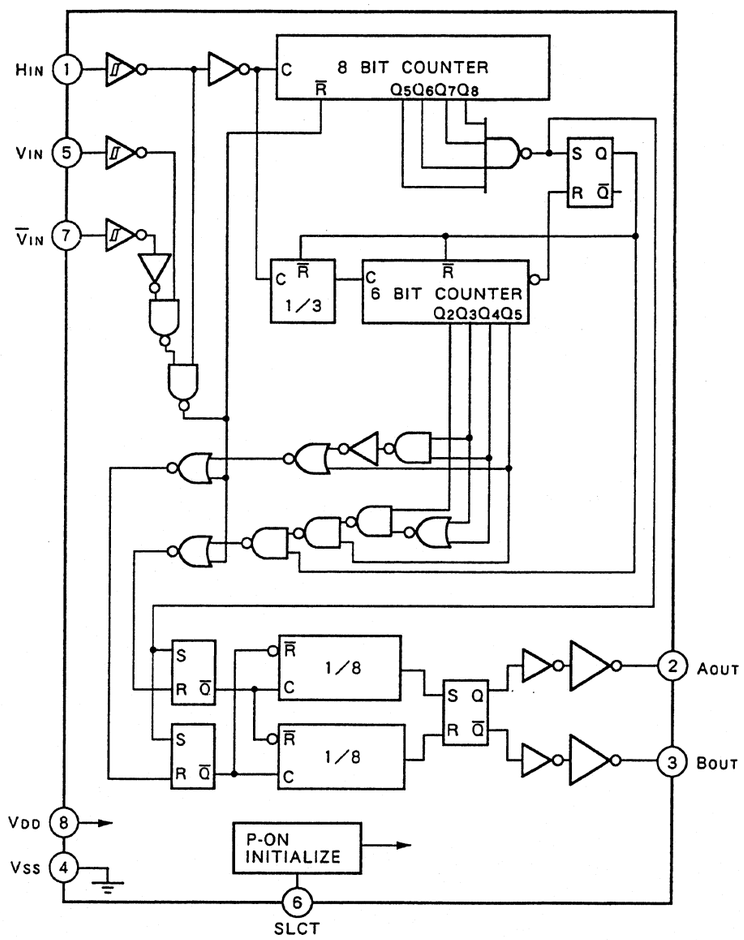


• D BOARD WAVEFORMS

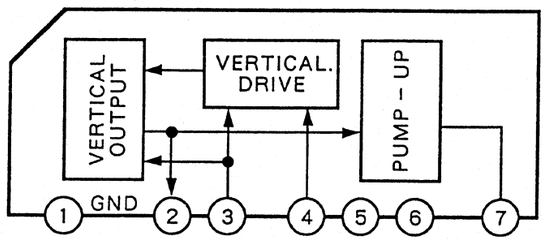
ONY SP-00151/ DRUCK33



D BOARD IC501 CX23025

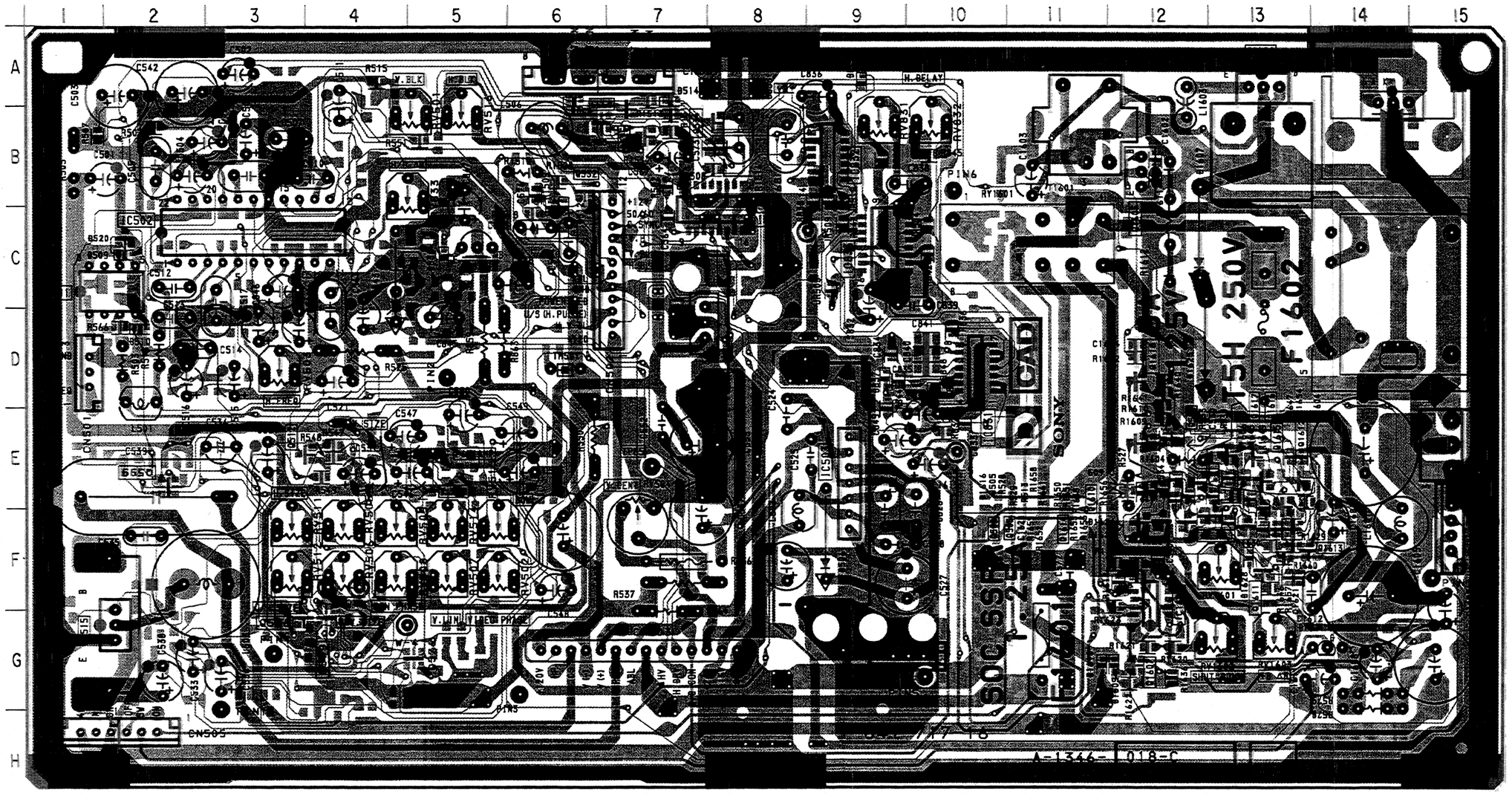


D BOARD IC503 LA7830



D [DEFLECTION SYSTEM]

– D Board – – Component Side –



D Board (Component Side)

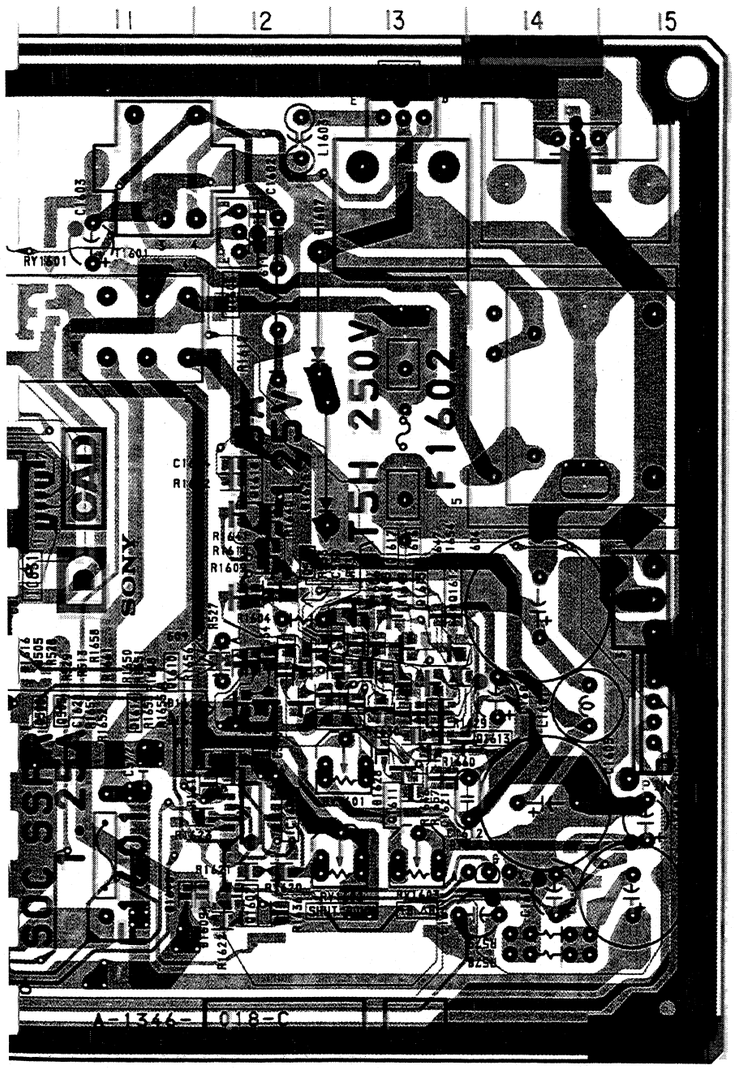
IC	
IC505	C – 8
IC831	D – 10
IC832	B – 9
IC833	C – 9
IC1601	F – 12

TRANSISTOR	
Q505	F – 12
Q508	F – 12
Q509	E – 12
Q512	E – 4
Q532	B – 6
Q576	G – 5
Q579	G – 4
Q599	E – 2
Q1607	G – 12
Q1610	E – 13
Q1611	F – 13
Q1612	E – 13
Q1613	F – 13
Q1614	F – 13
Q1615	E – 13
Q1616	E – 13
Q1617	E – 13
Q1618	D – 12

DIODE	
D508	A – 6
D512	C – 6
D514	A – 7
D520	C – 2
D521	F – 12
D833	A – 8
D834	A – 9
D836	C – 5
D848	D – 10
D1609	G – 12
D1610	G – 10
D1626	F – 13
D1627	F – 13
D1628	F – 13

- ▒▒ : Pattern from the side which enables seeing.
- ▒▒ : Pattern of the rear side.

– D Board – – Conductor Side –

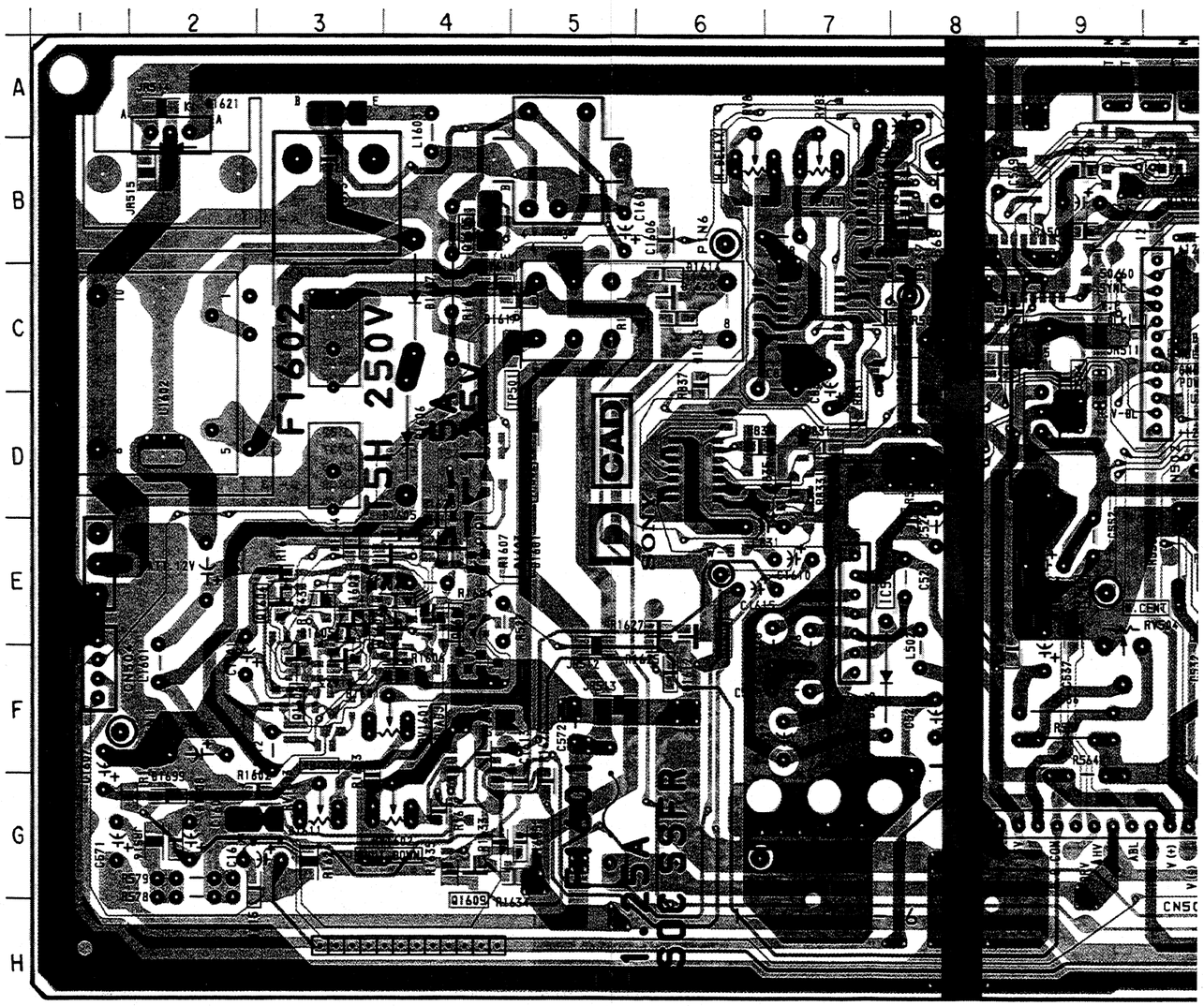


D Board (Component Side)

IC	
IC505	C – 8
IC831	D – 10
IC832	B – 9
IC833	C – 9
IC1601	F – 12

TRANSISTOR	
Q505	F – 12
Q508	F – 12
Q509	E – 12
Q512	E – 4
Q532	B – 6
Q576	G – 5
Q579	G – 4
Q599	E – 2
Q1607	G – 12
Q1610	E – 13
Q1611	F – 13
Q1612	E – 13
Q1613	F – 13
Q1614	F – 13
Q1615	E – 13
Q1616	E – 13
Q1617	E – 13
Q1618	D – 12

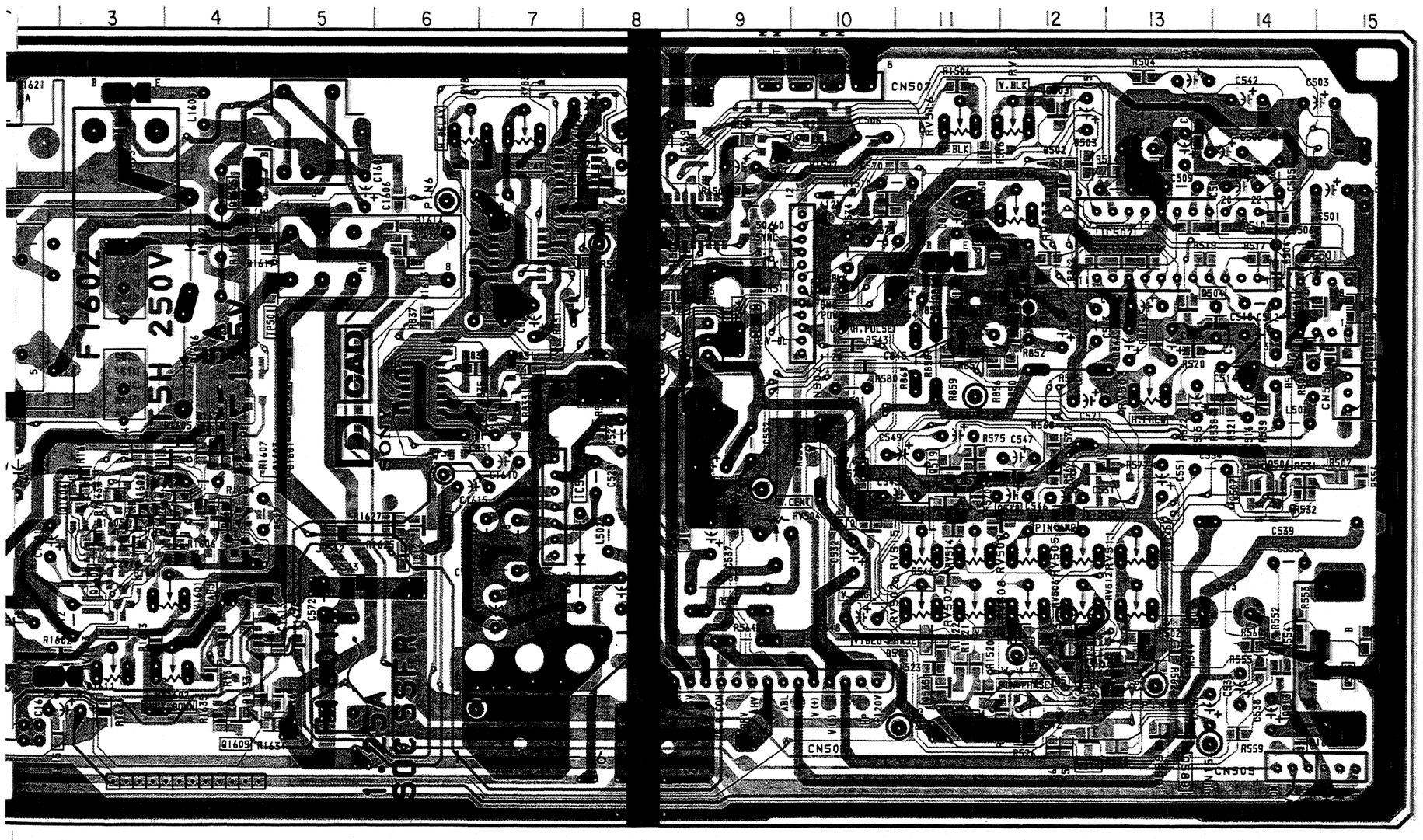
DIODE	
D508	A – 6
D512	C – 6
D514	A – 7
D520	C – 2
D521	F – 12
D833	A – 8
D834	A – 9
D836	C – 5
D848	D – 10
D1609	G – 12
D1610	G – 10
D1626	F – 13
D1627	F – 13
D1628	F – 13



- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

PVM-9041QM/9044QM

r Side –



D Board (Conductor Side)

IC		TRANSISTOR		DIODE	
IC501	C – 15	Q501	C – 15	D501	B – 13
IC502	C – 13	Q502	D – 15	D502	B – 12
IC503	E – 7	Q503	A – 12	D503	B – 12
IC504	D – 9	Q504	C – 13	D504	C – 14
		Q510	E – 10	D506	F – 7
		Q513	G – 14	D507	G – 15
		Q515	G – 15	D511	C – 8
		Q518	E – 12	D589	G – 13
		Q519	E – 11	D831	D – 7
		Q569	B – 6	D832	B – 7
		Q589	G – 13		
		Q833	C – 12		
		Q834	C – 11		
		Q835	C – 11		
		Q836	C – 11		
		Q1601	E – 4		
		Q1602	E – 4		
		Q1603	F – 3		
		Q1604	E – 3		
		Q1605	B – 4		
		Q1606	A – 3		
		Q1608	E – 6		
		Q1609	G – 4		

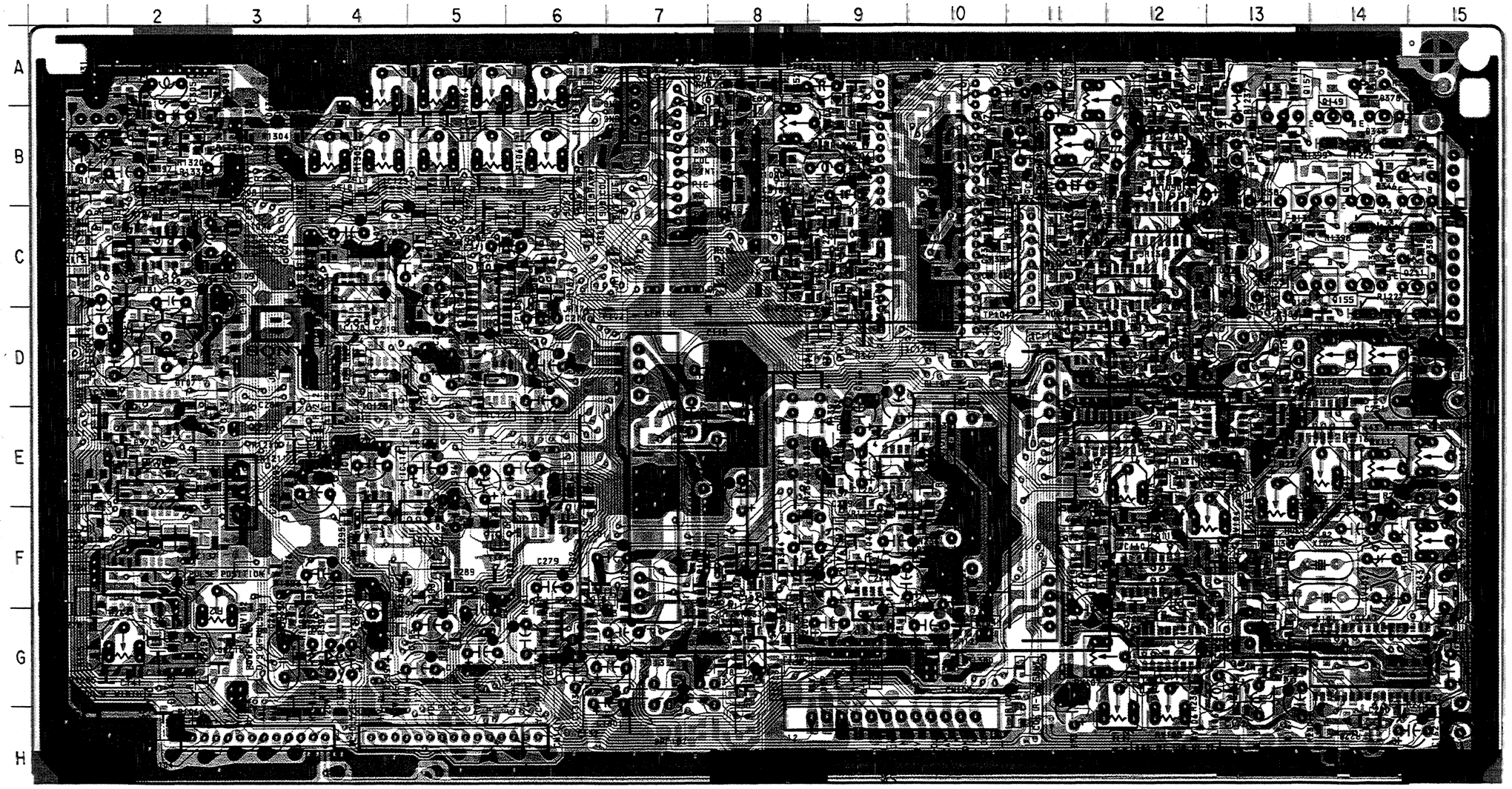
		VARIABLE RESISTOR	
D835	C – 12	RV501	B – 12
D1601	E – 4	RV502	F – 11
D1603	E – 4	RV503	D – 13
D1606	D – 4	RV504	E – 9
D1607	C – 4	RV505	F – 12
D1608	G – 2	RV506	F – 12
D1611	G – 3	RV507	F – 11
D1612	F – 6	RV508	F – 12
D1615	G – 2	RV509	F – 12
D1617	C – 4	RV511	F – 13
D1618	C – 4	RV512	F – 13
D1620	C – 6	RV514	F – 11
D1622	E – 4	RV515	F – 11
D1623	F – 3	RV516	B – 11
D1635	G – 5	RV831	B – 7
D1699	G – 2	RV832	B – 6
		RV833	B – 12
		RV1601	F – 4
		RV1602	G – 4
		RV1603	G – 3

- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

PVM-9041QM/9044QM PVM-9041QM/9044QM

B [SIGNAL PROCESS]

– B Board – – Component Side –



B Board (Component Side)

IC		IC		IC	
IC102	G – 9	Q101	F – 6	D107	D – 2
IC103	G – 8	Q104	G – 10	D121	E – 4
IC104	E – 9	Q109	A – 12	D122	E – 4
IC105	G – 6	Q115	C – 1	D123	C – 4
IC106	F – 2	Q119	F – 12	D128	E – 1
IC107	E – 2	Q121	E – 12	D130	B – 13
IC108	E – 2	Q124	F – 11	D131	C – 14
IC109	C – 2	Q129	G – 3	D132	D – 14
IC110	F – 12	Q132	C – 5	D137	G – 11
IC111	E – 11	Q136	F – 6	D138	B – 13
IC113	G – 14	Q137	F – 5	D139	C – 13
IC114	G – 12	Q138	F – 5	D146	D – 12
IC115	E – 14	Q141	C – 6	D151	C – 5
IC116	D – 11	Q150	G – 8	D152	B – 4
IC117	F – 6	Q164	B – 12	D153	B – 4
IC118	F – 5	Q166	D – 12	D154	B – 13
IC119	F – 4	Q171	F – 9	D156	C – 13
IC120	C – 4	Q176	F – 9	D157	A – 13
IC121	D – 5	Q189	G – 4	D162	B – 11
IC122	D – 5	Q191	B – 2	D188	C – 9
IC123	D – 4	Q193	B – 1	D191	C – 1
IC125	C – 12	Q196	B – 2	D342	D – 12
IC126	C – 12	Q197	B – 2	D343	H – 2
IC127	C – 12	Q198	A – 3	D344	F – 8
IC128	E – 13	Q200	F – 8	D345	A – 14
IC129	B – 4	Q204	B – 9	D346	B – 14
		Q205	A – 9	D347	C – 14
		Q206	A – 8	D348	B – 14
		Q208	B – 3	D349	C – 14
		Q212	C – 11	D350	D – 14
		Q299	A – 11	D390	D – 1
				D393	G – 3

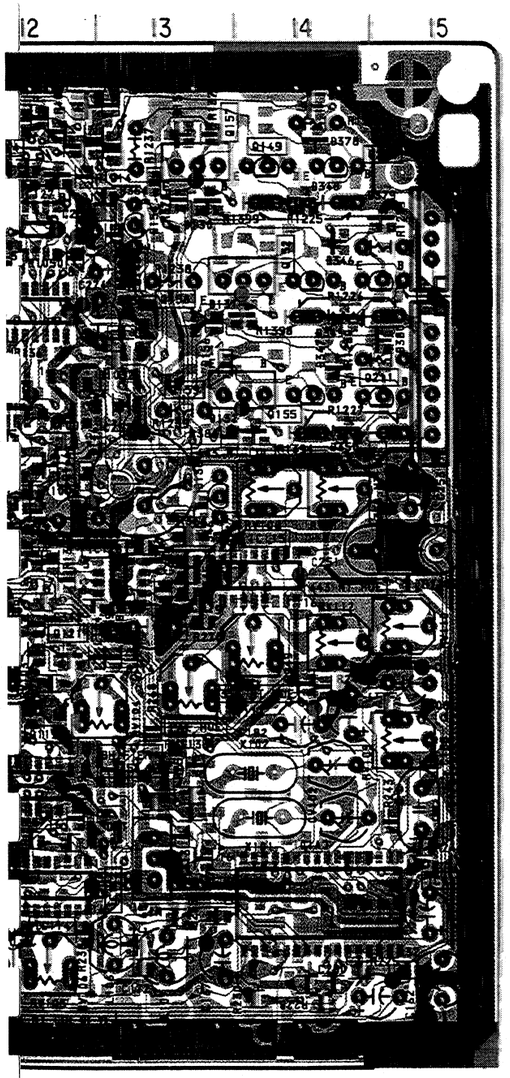
TRANSISTOR

DIODE

- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

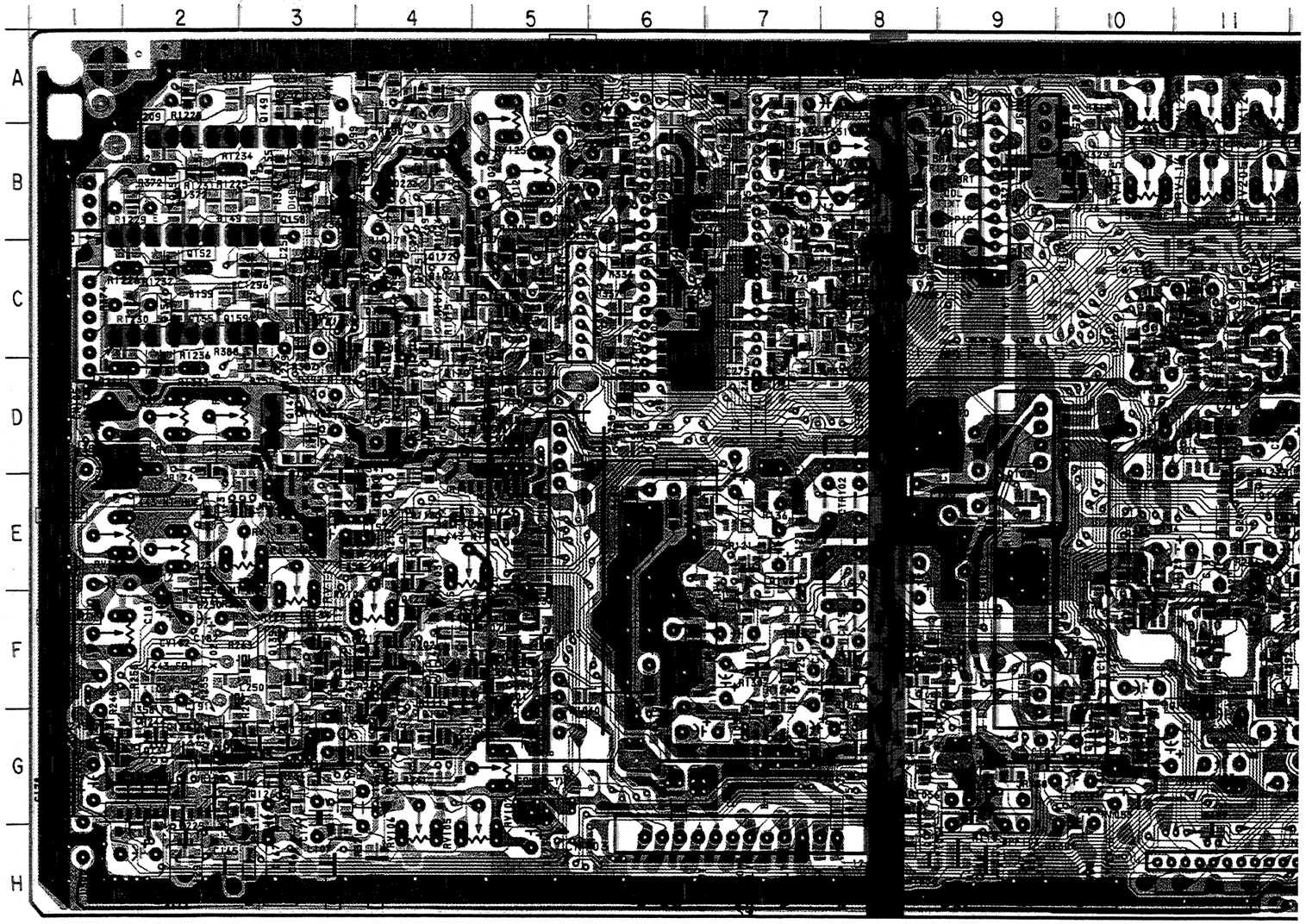
SONY SP-00151/ DRUCK38

B Board (Component Side)



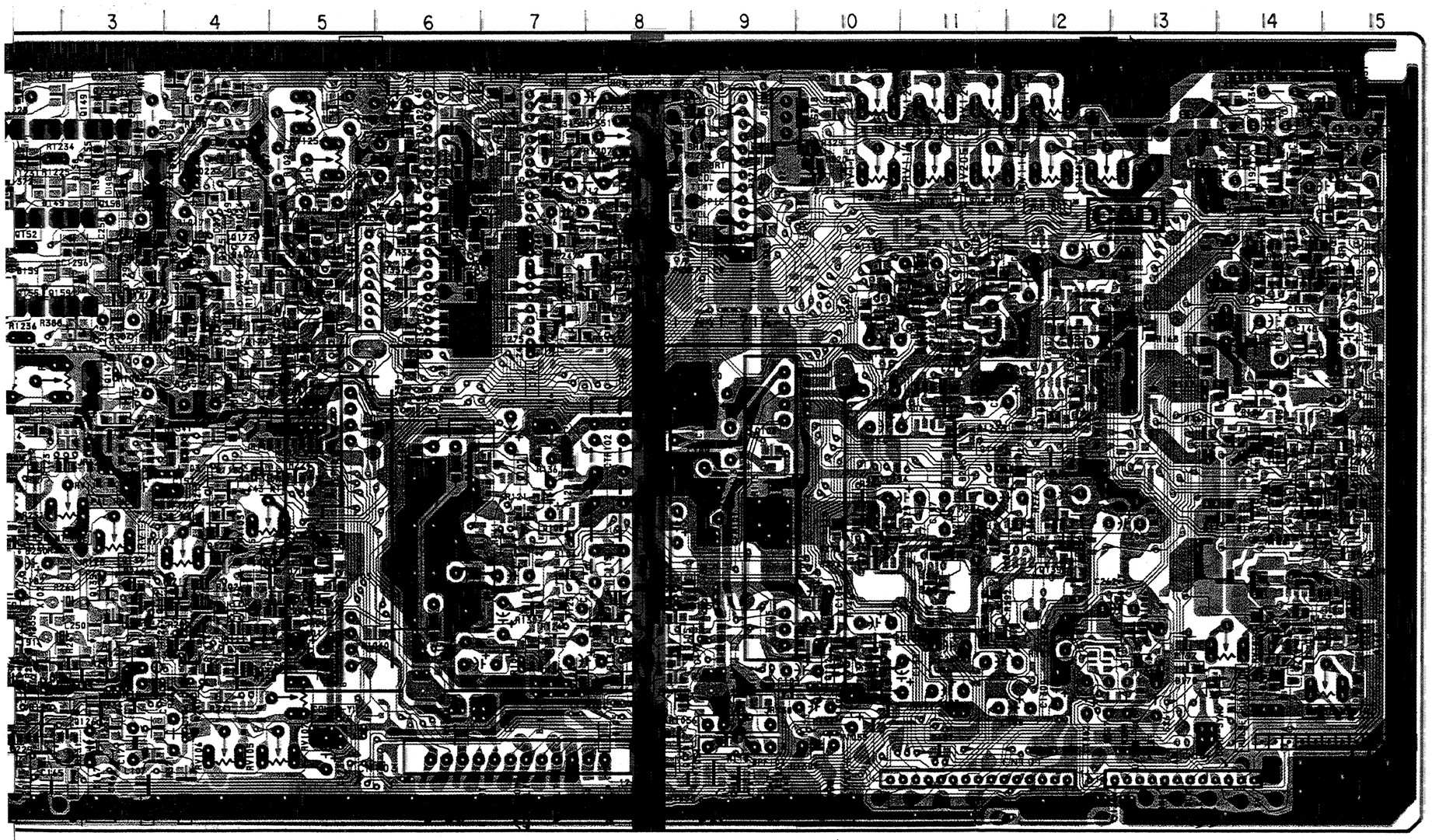
IC			
IC102	G – 9	Q189	G – 4
IC103	G – 8	Q191	B – 2
IC104	E – 9	Q193	B – 1
IC105	G – 6	Q196	B – 2
IC106	F – 2	Q197	B – 2
IC107	E – 2	Q198	A – 3
IC108	E – 2	Q200	F – 8
IC109	C – 2	Q204	B – 9
IC110	F – 12	Q205	A – 9
IC111	E – 11	Q206	A – 8
IC113	G – 14	Q208	B – 3
IC114	G – 12	Q212	C – 11
IC115	E – 14	Q299	A – 11
IC116	D – 11	**DIODE**	
IC117	F – 6	D107	D – 2
IC118	F – 5	D121	E – 4
IC119	F – 4	D122	E – 4
IC120	C – 4	D123	C – 4
IC121	D – 5	D128	E – 1
IC122	D – 5	D130	B – 13
IC123	D – 4	D131	C – 14
IC125	C – 12	D132	D – 14
IC126	C – 12	D137	G – 11
IC127	C – 12	D138	B – 13
IC128	E – 13	D139	C – 13
IC129	B – 4	D146	D – 12
TRANSISTOR		D151	C – 5
Q101	F – 6	D152	B – 4
Q104	G – 10	D153	B – 4
Q109	A – 12	D154	B – 13
Q115	C – 1	D156	C – 13
Q119	F – 12	D157	A – 13
Q121	E – 12	D162	B – 11
Q124	F – 11	D188	C – 9
Q129	G – 3	D191	C – 1
Q132	C – 5	D342	D – 12
Q136	F – 6	D343	H – 2
Q137	F – 5	D344	F – 8
Q138	F – 5	D345	A – 14
Q141	C – 6	D346	B – 14
Q150	G – 8	D347	C – 14
Q164	B – 12	D348	B – 14
Q166	D – 12	D349	C – 14
Q171	F – 9	D350	D – 14
Q176	F – 9	D390	D – 1
		D393	G – 3

– B Board – – Conductor Side –



- ▒▒▒ : Pattern from the side which enables seeing.
- ▒▒▒ : Pattern of the rear side.

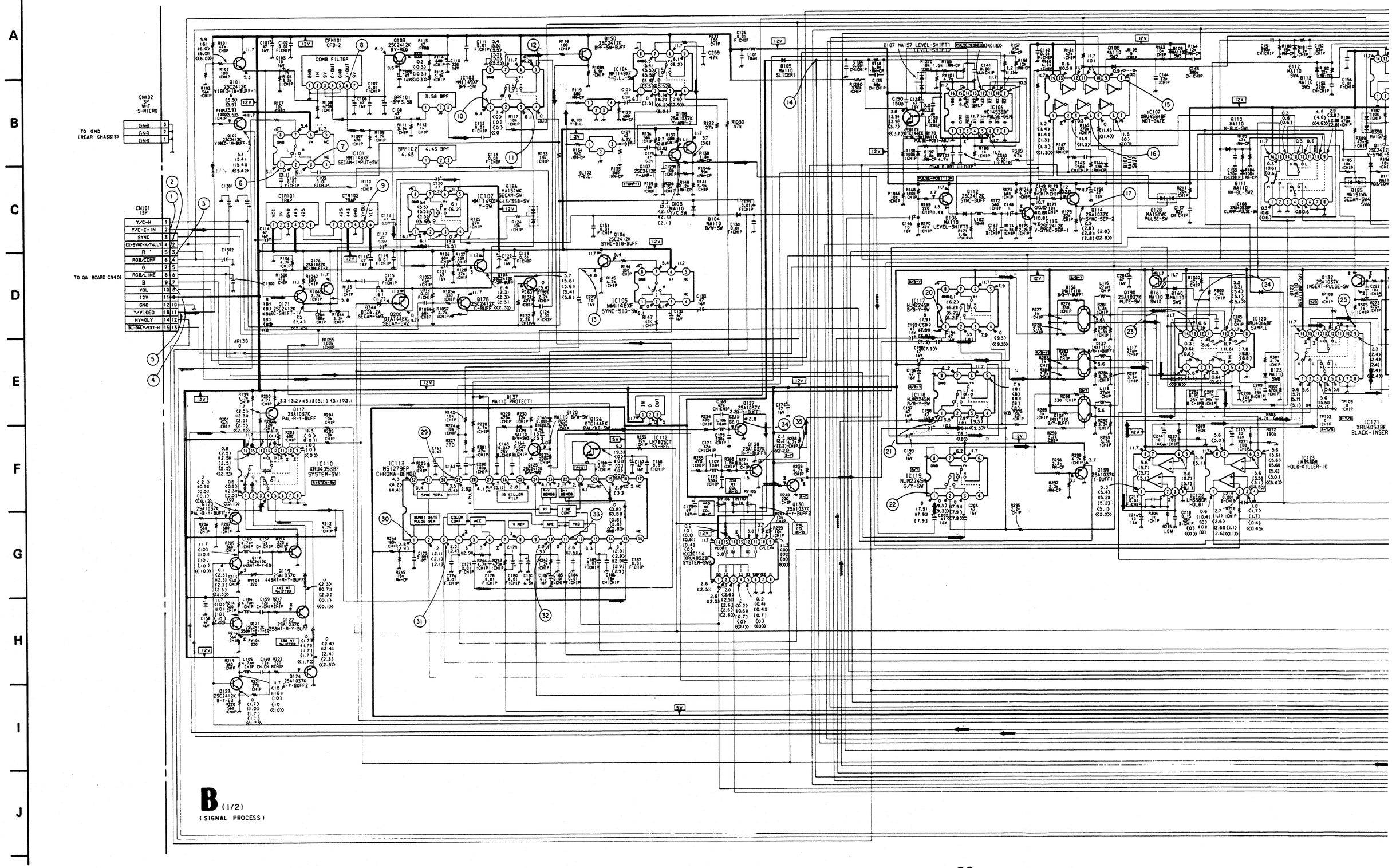
r Side –



B Board (Conductor Side)

IC		TRANSISTOR		Q174	C – 4	VARIABLE RESISTOR	
IC112	G – 3	Q102	G – 10	Q175	C – 4	RV101	G – 15
IIC124	C – 7	Q103	E – 9	Q177	A – 4	RV102	G – 14
		Q106	F – 10	Q179	A – 4	RV103	E – 4
		Q107	E – 7	Q190	C – 12	RV104	F – 4
		Q108	E – 7	Q192	B – 14	RV105	H – 5
		Q112	D – 14	Q194	B – 15	RV106	H – 4
		Q113	D – 14	Q195	B – 14	RV107	G – 5
		Q114	D – 15	Q199	A – 15	RV108	D – 2
		Q116	E – 15	Q201	C – 7	RV109	F – 1
		Q117	F – 15	Q202	C – 8	RV110	E – 1
		Q118	E – 4	Q203	C – 8	RV111	D – 2
		Q120	F – 4	Q210	B – 2	RV112	E – 2
		Q122	F – 4	Q211	C – 2	RV113	F – 3
		Q123	F – 5	DIODE		RV114	E – 3
		Q125	H – 2	D104	F – 7	RV115	A – 10
		Q126	G – 3	D105	G – 8	RV116	B – 11
		Q127	H – 4	D106	D – 14	RV118	B – 12
		Q128	H – 3	D108	E – 14	RV119	A – 12
		Q130	G – 4	D109	E – 14	RV120	A – 11
		Q131	G – 2	D110	F – 14	RV121	A – 11
		Q133	G – 3	D111	F – 15	RV122	A – 10
		Q134	F – 3	D112	C – 15	RV123	B – 8
		Q135	F – 3	D113	C – 14	RV124	B – 5
		Q139	F – 12	D117	E – 14	RV125	A – 5
		Q140	E – 11	D120	H – 3	RV205	B – 11
		Q142	C – 10	D125	A – 10		
		Q143	C – 11	D126	B – 10		
		Q144	A – 7	D127	F – 13		
		Q145	C – 7	D129	H – 2		
		Q146	B – 3	D133	B – 6		
		Q147	D – 3	D134	C – 6		
		Q148	A – 2	D135	C – 6		
		Q149	B – 2	D136	D – 3		
		Q151	B – 2	D144	D – 4		
		Q152	B – 2	D145	D – 4		
		Q153	C – 7	D147	A – 5		
		Q154	C – 2	D148	B – 3		
		Q155	C – 2	D149	B – 2		
		Q157	B – 3	D150	D – 3		
		Q158	B – 3	D155	B – 3		
		Q159	C – 3	D158	B – 3		
		Q160	A – 4	D159	C – 2		
		Q161	C – 3	D160	D – 12		
		Q165	D – 4	D161	D – 12		
		Q167	C – 5	D170	G – 13		
		Q168	C – 5	D185	E – 14		
		Q170	C – 4	D186	F – 8		
		Q172	C – 4	D187	G – 14		
		Q173	D – 4	D285	E – 11		
				D289	B – 8		
				D341	B – 14		
				D1382	D – 12		

- ▒▒ : Pattern from the side which enables seeing.
- ▒▒ : Pattern of the rear side.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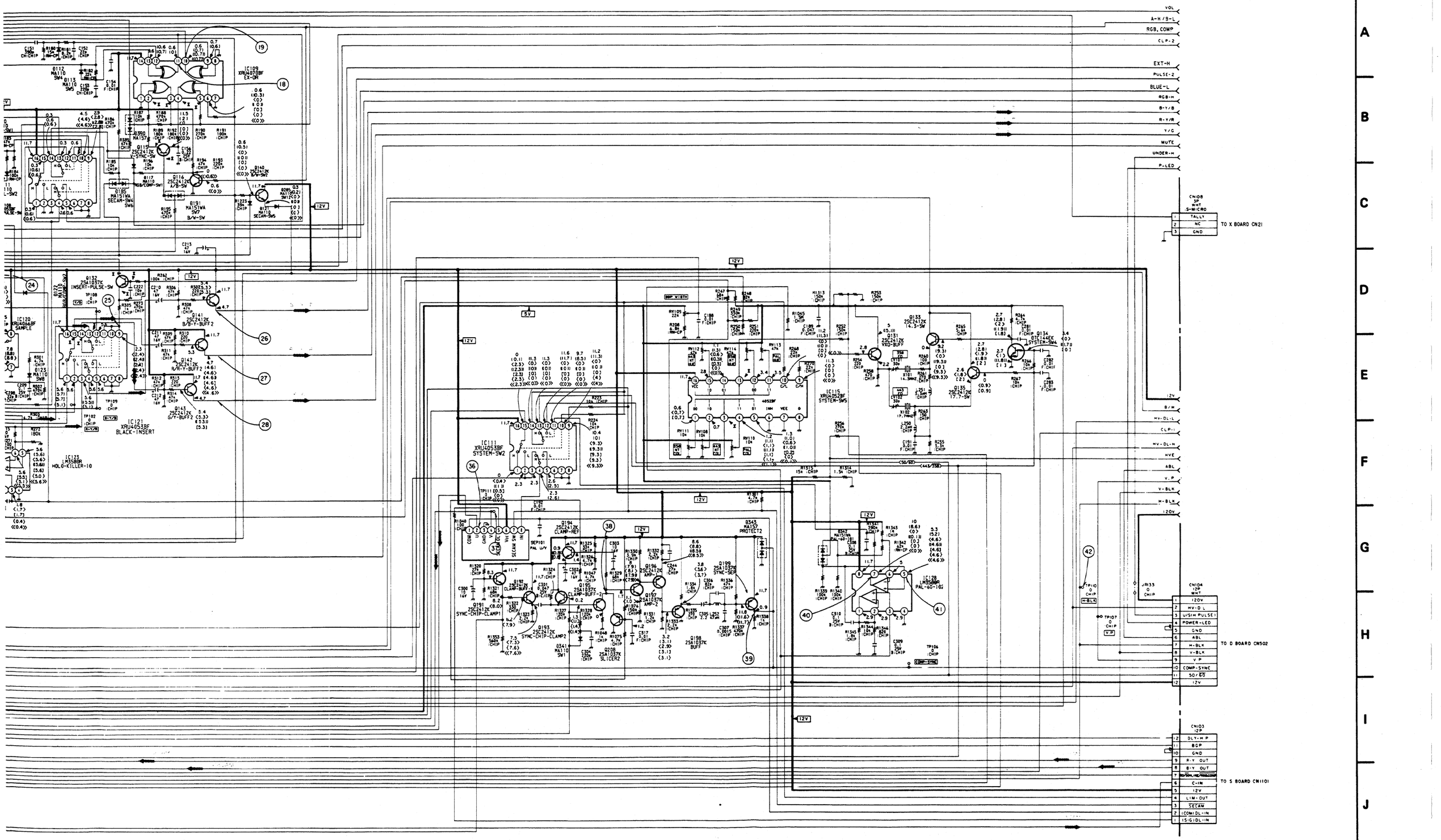
CN102 3P WHT :S-MICRO
TO GND (REAR CHASSIS)
CN101 13P
Y/C-H
Y/C-C-IN
SYNC
EX-SYNC-H/TALLY
R
RGB/COMP
G
RGB/LINE
B
VOL
12V
GND
Y/VIDEO
HV-DLY
BL-ONLY/EXT-H
TO QA BOARD CN401
Q101 2SC2412K VIDEO-IN-BUFF-1
Q102 2SC2412K VIDEO-IN-BUFF-2
CFM101 CFB-2
COMB FILTER
Q103 2SC2412K 9V-REG
BPF101 BPF3.58
3.58 BPF
BPF102 4.43
4.43 BPF
IC101 MM1148XF SECAM-INPUT-SW
IC103 MM1149XF BPF-SW
IC102 MM1149XF Y-SW
IC104 MM1149XF Y-D.L-SW
Q150 2SC2412K BPF-SW-BUFF
CTR101 TRAP
CTR102 TRAP
D186 MA151WK SECAM-SW1
Q107 2SC2412K Y-AMP-1
Q108 2SA1037K Y-AMP-2
DL101 Y-D.L
DL102 Y-D.L
D103 MA110 Y/C-SW
D104 MA110 B/W-SW
D105 MA110 SLICER1
Q106 2SC2412K SYNC-SIG-BUFF
IC105 MM1148XF SYNC-SIG-SW
Q171 2SC2412K SHIFT-1
Q176 2SA1037K SHIFT-2
D344 BTA144EK SECAM-SW3
Q200 DTA144EK SECAM-SW2
Q178 2SC2412K C-BUFF
D187 MA157 LEVEL-SHIFT1
IC106 MC14538BF H-PULSE-GEN
Q129 PULSE-POSI-ADJ
D108 MA110 SW2
IC107 XRU4584BF NOT-GATE
Q112 2SC2412K SYNC-BUFF
D106 MA110 LEVEL-SHIFT3
Q114 2SA1037K V-SYNC-SEP-2
D107 MA110 SW7
D128 MA151WK PULSE-SW
D110 MA110 H-BLK-SW1
D111 MA110 HV-DL-SW2
IC108 XRU4053BF CLAMP-PULSE-SW
D112 MA110 SW4
D113 MA110 SW5
D185 MA151WA SECAM-SW4
IC110 XRU4053BF SYSTEM-SW1
Q117 2SA1037K PAL-R-Y-BUFF
Q116 2SA1037K PAL-B-Y-BUFF
Q118 2SC2412K 443NT-R-Y-EQ
Q119 2SA1037K 443NT-R-Y-BUFF
Q121 2SC2412K 358NT-R-Y-EQ
Q122 2SA1037K 358NT-R-Y-BUFF
Q123 2SC2412K B-Y-EQ
Q124 2SA1037K B-Y-BUFF2
D137 MA110 PROTECT1
D120 MA110 B/W-SW1
Q126 DTC144EK PAL/NT-SW
IC113 M51279FP CHROMA-DEMOD
SYNC SEP
BURST GATE PULSE GEN
COLOR CONT
ACC
Y REF
APC
VXO
KILLER FILT
R-Y DEMOD
B-Y DEMOD
TINT CONT
IC112 L78L05CT 5V-REG
Q127 2SA1037K R-Y-BUFF1
Q128 2SA1037K R-Y-BUFF1
Q130 2SA1037K R-Y-BUFF2
IC114 XRU4052BF SYSTEM-SW3
IC117 NJM2245M B/R-Y-SW
IC118 NJM2245M R/R-Y-SW
IC119 NJM2245M G/Y-SW
Q190 2SA1037K MUTE-SW
D161 MA110 SW10
D160 MA110 SW9
IC120 XRU4066BF SAMPLE
D122 MA110 HOLD-AMP-SW2
Q132 2SA1037K INSERT-PULSE-SW
Q139 2SA1037K Y-BUFF1
IC122 LM358DR HOLD
IC123 M358DR HOLD-KILLER-10
IC121 XRU4053BF BLACK-INSER
12V
5V
B (1/2)
(SIGNAL PROCESS)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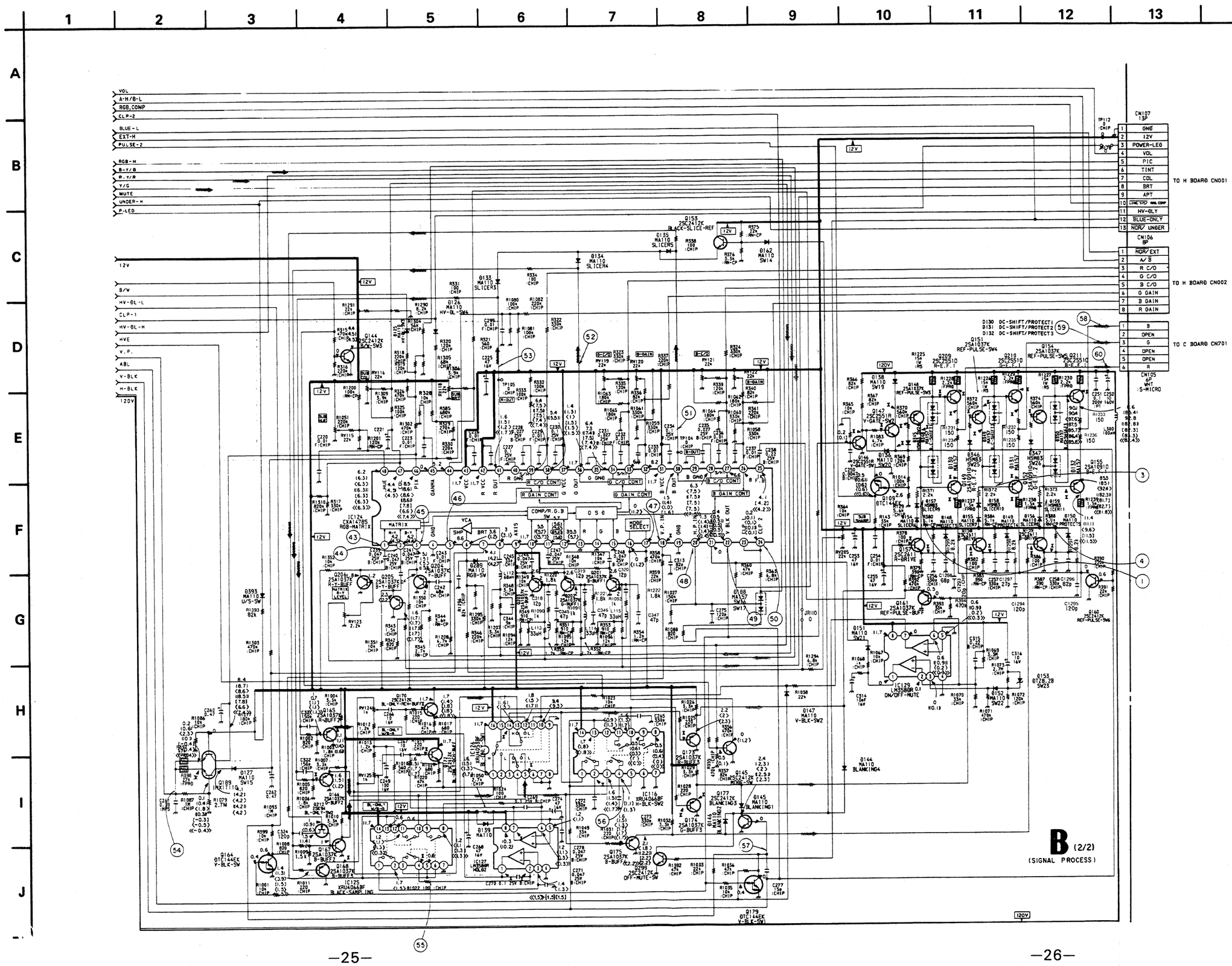
IC109 XRU4070BF EX-OR
IC120 XRU4064BF SAMPLE
IC121 XRU4053BF BLACK-INSERT
IC123 LM3580R HOLD-KILLER-10
IC111 XRU4053BF SYSTEM-SW2
IC115 XRU4052BF SYSTEM-SW3
IC128 LM3580R PAL-60-10Z
Q132 2SA1057K INSERT-PULSE-SW
Q141 2SC2412K B/B-Y-BUFF2
Q142 2SC2412K R/R-Y-BUFF2
Q143 2SC2412K G/Y-BUFF2
Q119 2SC2412K Y-SYNC-SW
Q116 2SC2412K A/B-SW
Q140 2SC2412K B/W-SW2
Q131 2SC2412K VXO-BUFF
Q133 2SC2412K 14.3-SW
Q135 2SC2412K 17.7-SW
Q134 DTC144EC SYSTEM-SW4
Q194 2SC2412K CLAMP-REF
Q192 2SC2412K CLAMP-BUFF1
Q195 2SA1037K CLAMP-BUFF2
Q193 2SC2412K SYNC-CHIP-CLAMP2
Q191 2SC2412K SYNC-CHIP-CLAMP1
Q196 2SC2412K AMP-1
Q197 2SA1037K AMP-2
Q208 2SA1037K SLICER2
Q198 2SA1037K BUFF
Q199 2SA1037K SYNC-SEP
Q343 MA157WA PAL-60-10Z
Q343 MA157 PROTECT2
Q341 MA110 SW1
Q123 MA110 SW8
Q113 MA110 SW5
Q112 MA110 SW4
Q117 MA110 RGB/COMP-SW1
Q185 MA151WA SECAM-SW6
Q191 MA151WA SW7 B/W-SW
Q131 MA110 SECAM-SW5
Q3 MA110 SW7
VOL
A-H/B-L
RGB, COMP
CLP-2
EXT-H
PULSE-2
BLUE-L
RGB-H
B-Y/B
R-Y/R
Y/C
MUTE
UNDER-H
P-LED
CN108 2P WHT -S-MICRO
1 TALLY
2 NC
3 GND
TO X BOARD CN21
12V
B/W
HV-DL-L
CLP-L
HV-DL-H
HVE
ABL
V-P
V-BLK
H-BLK
120V
CN104 12P WHT
1 120V
2 HV-DL
3 U/SW PULSE1
4 POWER-LED
5 GND
6 ABL
7 H-BLK
8 V-BLK
9 V-P
10 COMP-SYNC
11 50/60
12 12V
TO D BOARD CN502
CN103 12P
12 DLY-H-P
11 BCP
10 GND
9 R-Y OUT
8 B-Y OUT
7 RGB/SHL/HD/RGBCOMP
6 C-IN
5 12V
4 LIM-OUT
3 SECAM
2 (COM)DL-IN
1 (SIG)DL-IN
TO S BOARD CN1101


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
A B C D E F G H I J
VOL
A-H/B-L
RGB,COMP
CLP-2
BLUE-L
EXT-H
PULSE-2
RGB-H
B-Y/B
R-Y/R
Y/G
MUTE
UNDER-H
P-LED
12V
B/W
HV-OL-L
CLP-1
HV-OL-H
HVE
V.P.
ABL
V-BLK
H-BLK
120V
CN107 13P
1 GND
2 12V
3 POWER-LED
4 VOL
5 PIC
6 TINT
7 COL
8 BRT
9 APT
10 LINE Y/C RGB, COMP
11 HV-DLY
12 BLUE-ONLY
13 NOR/ UNDER
TO H BOARD CN001
CN106 8P
1 NOR/ EXT
2 A/ B
3 R C/O
4 G C/O
5 B C/O
6 G GAIN
7 B GAIN
8 R GAIN
TO H BOARD CN002
CN105 6P SMT :S-MICRO
1 B
2 OPEN
3 G
4 OPEN
5 OPEN
6 R
TO C BOARD CN701
D130 DC-SHIFT/PROTECT1
D131 DC-SHIFT/PROTECT2
D132 DC-SHIFT/PROTECT3
B (2/2)
(SIGNAL PROCESS)

— B Board —

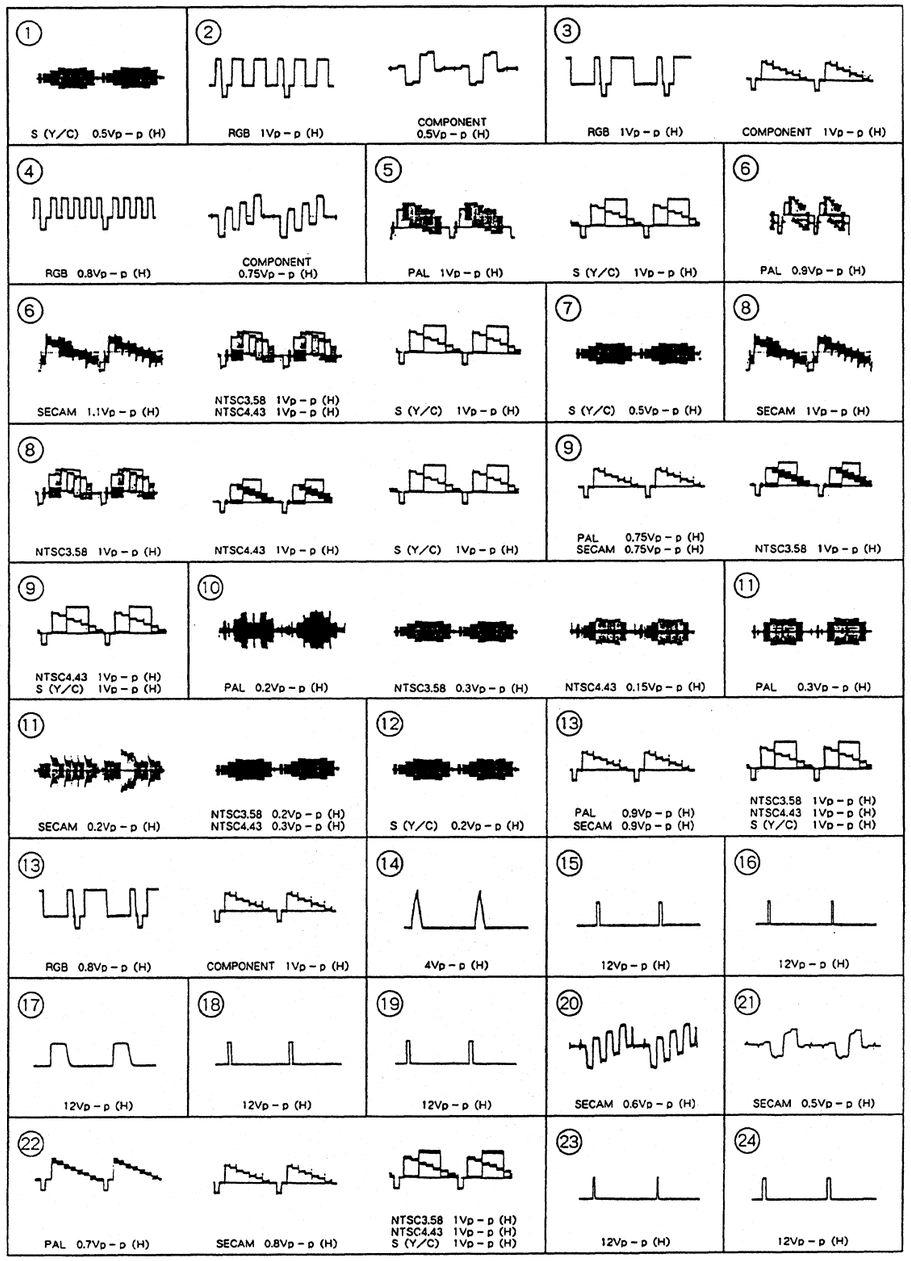
< TRANSISTOR >

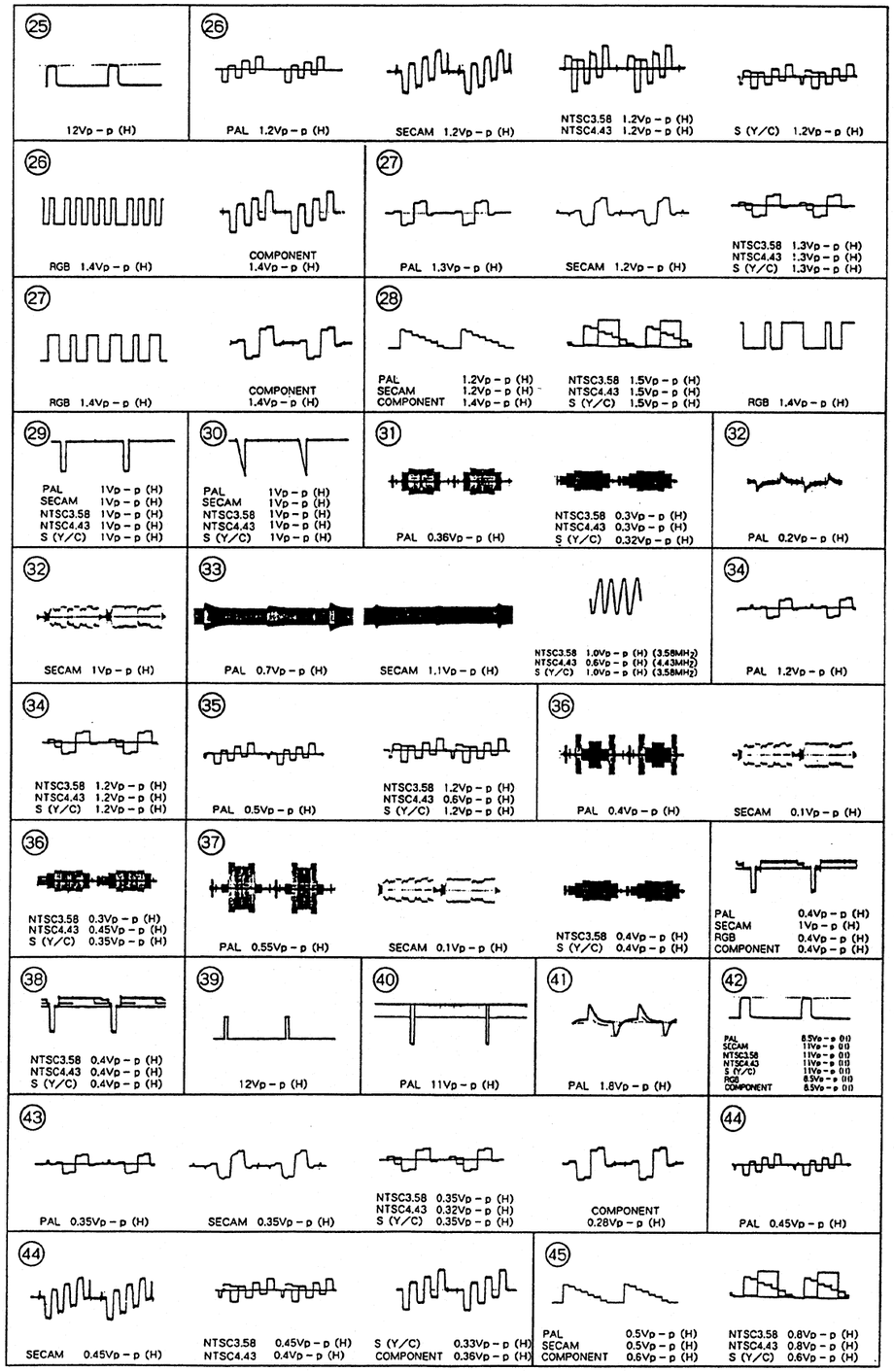
		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
Q113	E	0.5	0.5	0.4	0.4	0.5	0.5	0.5
	B	1.0	1.0	0.9	0.9	0.9	0.9	1.0
Q115	E	11.2	9.3	0.0	10.6	0.0	0.0	0.0
	B	2.8	2.2	0.1	2.4	0.1	0.1	0.0
Q118	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q119	B	0.1	0.0	1.7	1.7	1.7	1.7	1.7
Q121	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q122	B	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q130	E	4.3	4.3	4.4	4.4	4.5	4.4	4.4
	B	3.7	3.7	3.8	3.8	3.9	3.8	3.8
Q132	E	2.3	2.3	2.4	2.3	2.4	2.4	2.4
	C	1.8	1.7	1.7	1.7	1.7	1.8	1.8
	B	2.7	2.6	2.6	2.7	2.8	2.7	2.8
Q146	C	116.7	114.4	110.4	113.2	113.7	114.3	114.1
Q147	E	117.9	115.6	111.6	114.5	115.0	115.5	115.4
	C	126.0	123.5	120.3	123.4	123.8	124.6	124.4
	B	119.8	119.5	110.5	118.4	118.2	114.2	114.2
Q148	C	86.1	84.9	91.2	83.4	82.6	82.5	82.2
	B	94.0	93.3	86.3	92.4	92.1	94.2	90.6
Q149	E	1.6	1.6	1.4	1.7	1.7	1.7	1.7
	C	86.1	84.9	91.2	83.4	82.7	82.5	82.5
Q151	E	90.7	91.4	98.0	87.9	87.0	86.5	86.4
	C	89.2	89.8	96.5	86.4	85.3	84.9	84.7
	B	92.1	92.7	100.2	89.5	92.4	90.5	88.9
Q152	E	86.1	86.0	92.6	82.6	82.9	82.6	82.7
	C	10.6	10.5	9.7	10.9	10.9	10.9	11.0
Q154	B	92.5	92.9	99.8	90.1	88.7	90.4	89.2
Q155	B	88.3	88.5	95.7	85.7	83.9	84.6	83.9
Q157	E	82.4	81.1	87.5	79.9	79.9	80.8	79.4
	B	86.0	84.8	91.2	84.4	82.7	82.5	82.1
Q158	E	1.6	1.5	1.3	1.6	1.6	1.7	1.7
	B	2.1	2.0	1.8	2.1	2.2	2.2	2.2
Q159	E	1.6	1.6	1.3	1.6	1.7	1.7	1.7
	B	2.2	2.1	1.5	2.1	2.2	2.2	2.2
Q163	E	0.2	0.6	2.7	0.5	−0.5	−0.7	−0.6
Q166	B	0.9	0.9	0.6	1.0	1.0	1.0	1.0
Q168	C	2.1	2.0	1.6	2.1	2.2	2.1	2.2
Q170	B	2.3	2.3	2.1	2.4	2.4	2.4	2.4
Q172	B	2.2	2.1	1.9	2.2	2.3	2.2	2.3
Q173	B	1.7	1.6	1.4	1.7	1.7	1.7	1.7
Q174	E	2.1	2.0	1.8	2.1	2.2	2.2	2.2
	B	1.6	1.5	1.3	1.6	1.6	1.7	1.7
Q178	B	6.2	6.3	6.2	6.3	6.1	6.2	6.2
Q209	E	83.4	81.5	87.9	80.3	80.4	80.4	79.8
	C	115.8	113.2	110.7	113.2	113.8	114.5	114.2
	B	87.8	86.4	92.8	85.0	84.3	84.2	83.8
Q210	E	86.5	86.3	93.1	83.0	83.3	83.0	82.8
	C	116.5	114.2	111.5	113.9	114.5	115.1	114.9
Q211	C	115.9	113.6	111.7	113.3	113.8	114.5	114.3

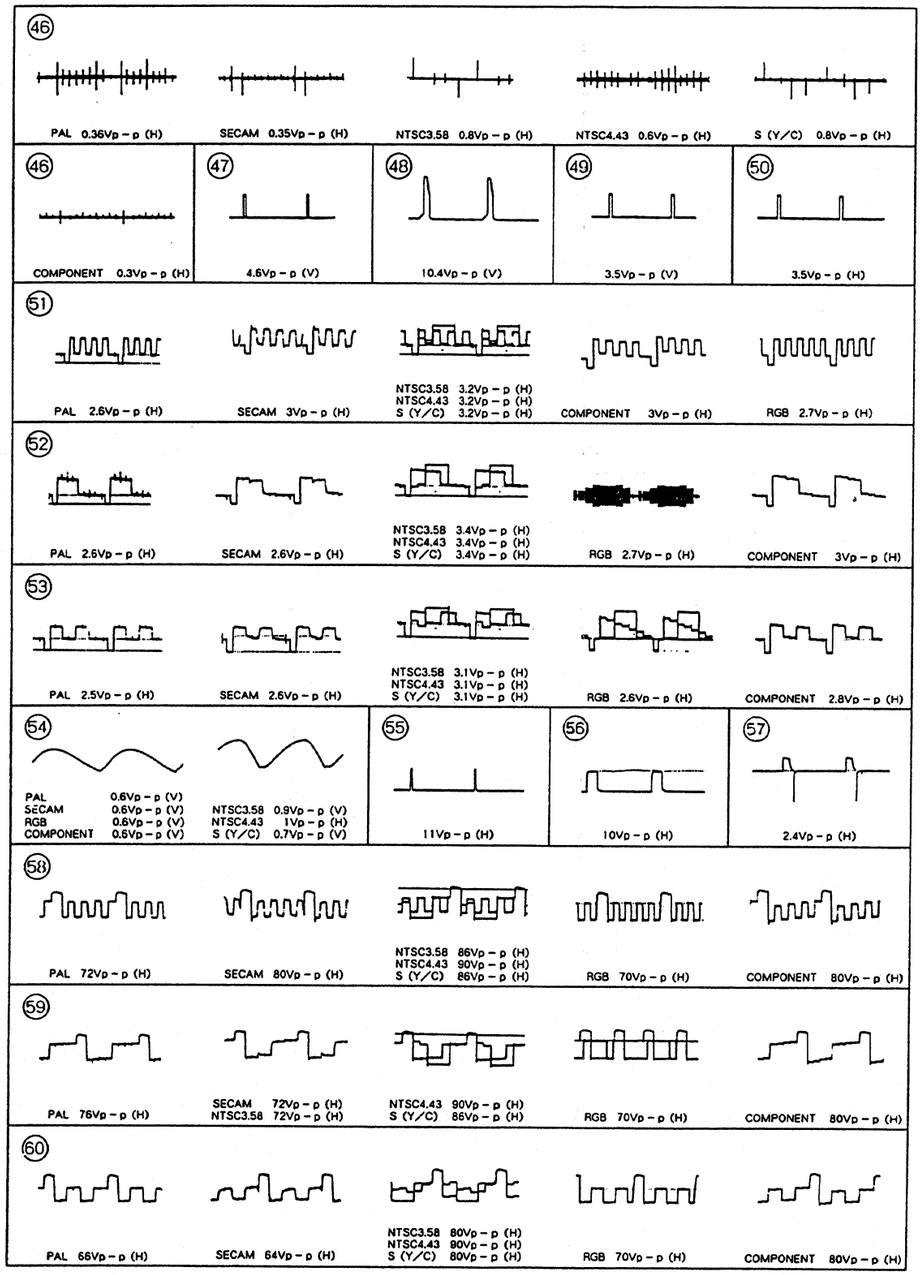
< IC >

		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
IC102	②	6.6	6.8	0.0	6.6	0.0	0.0	0.0
IC106	②	0.2	0.1	0.1	0.1	0.1	0.1	0.2
	④	1.8	1.7	1.7	1.7	1.7	1.8	1.8
IC107	②	10.7	10.7	10.6	10.6	10.6	10.6	10.6
	⑪	1.2	10.7	0.0	0.0	0.0	0.0	0.0
IC108	⑪	9.7	0.4	9.7	9.6	9.6	1.1	9.6
IC109	②	11.3	11.3	0.0	10.8	0.0	0.0	0.0
	③	11.3	11.4	0.0	11.3	0.0	0.0	0.0
	④	11.7	0.0	0.0	11.7	0.0	0.0	0.0
	⑤	11.0	11.1	0.0	11.0	0.0	0.0	0.0
IC110	④	2.1	2.2	2.5	2.5	2.5	2.5	2.5
	⑩	11.3	11.3	0.0	11.3	0.0	0.0	0.0
	⑪	11.3	11.3	0.0	0.0	0.0	0.0	0.0
	⑫	0.8	0.8	2.5	2.5	2.5	2.5	2.5
	⑭	1.7	1.7	2.5	2.6	2.5	2.5	2.5
IC113	④	2.7	1.1	2.6	2.6	2.6	1.1	1.1
	⑦	4.2	4.3	4.2	4.3	4.3	4.8	4.8
	⑪	3.0	2.9	2.8	3.0	2.8	2.9	2.9
	⑮	2.2	2.5	2.9	2.2	1.9	2.8	2.8
IC114	⑯	11.4	11.3	0.0	0.0	0.0	0.0	0.0
	⑬	3.7	3.7	3.8	3.8	3.8	3.9	3.9
IC115	③	1.2	1.1	0.6	0.7	0.7	0.6	0.6
	⑬	3.5	3.5	3.4	2.8	3.4	3.4	3.4
IC116	②	0.0	0.0	1.0	1.1	1.1	1.3	1.1
IC120	③	5.5	5.6	5.6	5.6	5.6	5.6	5.6
	④	5.5	5.6	5.6	5.6	5.6	5.0	5.6
IC121	⑬	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	⑭	5.6	5.7	5.6	5.6	5.7	5.7	5.7
	⑮	5.6	5.7	5.6	5.6	5.7	5.7	5.6
IC122	②	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	③	5.3	5.3	5.4	5.2	5.2	5.1	5.1
IC124	⑱	0.1	0.1	0.2	0.2	0.2	0.2	0.2
IC125	④	1.4	1.4	1.3	1.4	1.5	1.5	1.5
IC126	②	1.6	1.5	1.3	1.6	1.6	1.7	1.6
	⑤	1.6	1.5	1.3	1.6	1.6	1.6	1.7
	⑭	1.7	1.8	1.4	1.7	1.7	1.6	1.7
IC127	①	3.0	2.9	2.6	3.0	3.1	3.0	3.0
	②	1.4	1.4	1.3	1.5	1.5	1.5	1.5
	⑦	2.1	2.7	2.4	2.8	2.8	2.8	2.8

• B BOARD WAVEFORMS



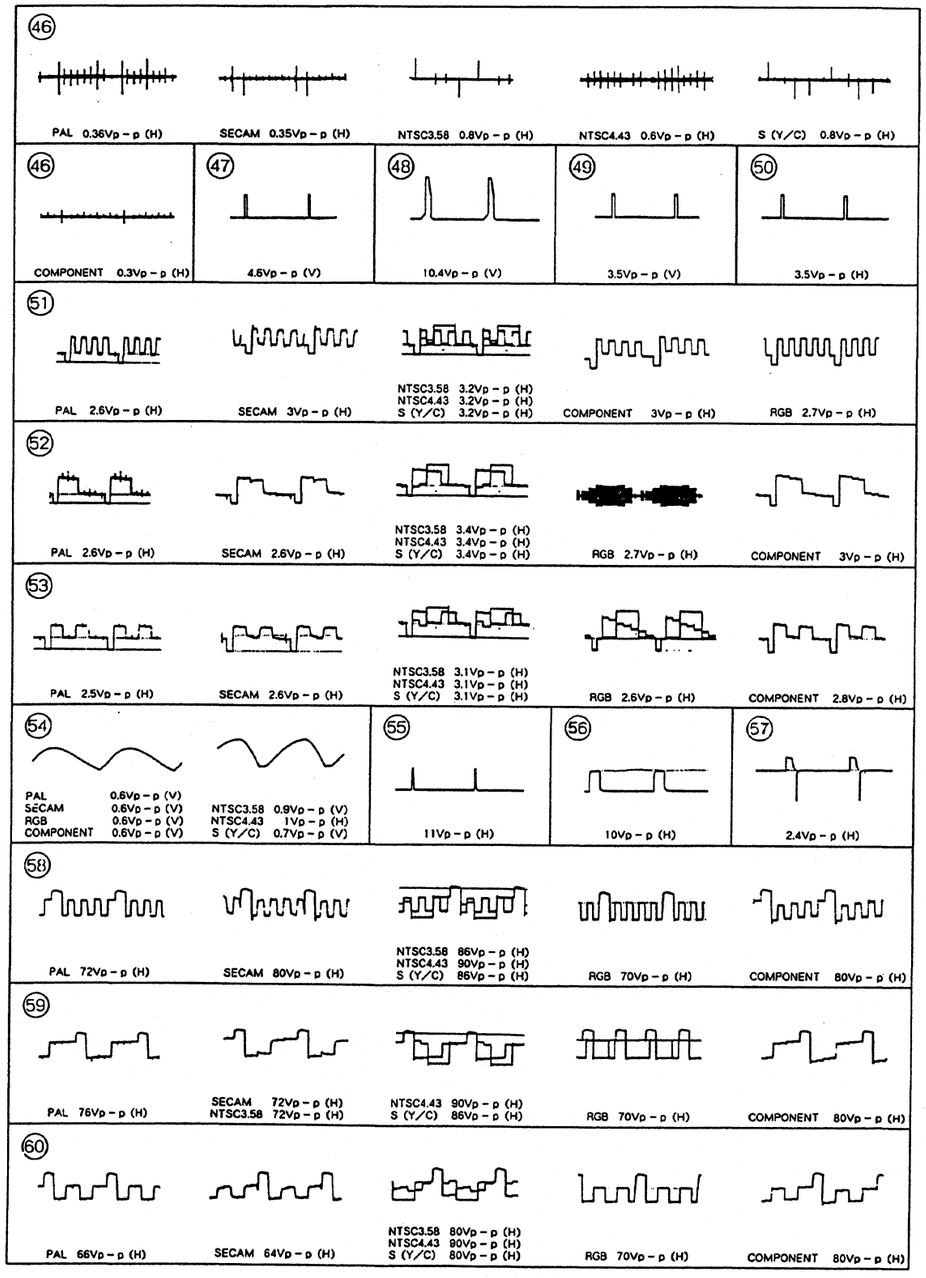




NOTE:

The compone
shading and r
cal for safety
Replace only
specified.

REF.NO.	PART
	*A-11
BPF101	1-23
BPF102	1-23
C101	1-12
C102	1-16
C103	1-12
C104	1-16
C105	1-16
C106	1-12
C107	1-16
C108	1-12
C109	1-12
C110	1-12
C111	1-16
C112	1-16
C113	1-16
C114	1-12
C115	1-16
C116	1-12
C117	1-12
C118	1-12
C119	1-16
C120	1-12
C121	1-12
C122	1-12
C123	1-16
C124	1-16
C125	1-12
C126	1-16
C127	1-12
C128	1-12
C129	1-16
C130	1-16
C131	1-16
C132	1-12
C133	1-12
C134	1-16
C135	1-16
C137	1-16
C138	1-12
C139	1-16
C140	1-16
C141	1-16
C142	1-16



SECTION 2
ELECTRICAL PARTS LIST

B

NOTE:

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION		REMARK
	*A-1135-716-A	B BOARD, COMPLETE		
		**********		
		<FILTER>		
BPF101	1-236-363-11	FILTER, BAND PASS		
BPF102	1-236-364-11	FILTER, BAND PASS		
		<CAPACITOR>		
C101	1-124-589-11	ELECT 47MF	20% 16V	
C102	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C103	1-126-157-11	ELECT 10MF	20% 16V	
C104	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C105	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C106	1-124-477-11	ELECT 47MF	20% 16V	
C107	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C108	1-124-477-11	ELECT 47MF	20% 16V	
C109	1-124-477-11	ELECT 47MF	20% 16V	
C110	1-124-120-11	ELECT 220MF	20% 16V	
C111	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C112	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C113	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C114	1-124-477-11	ELECT 47MF	20% 16V	
C115	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C116	1-124-589-11	ELECT 47MF	20% 16V	
C117	1-126-154-11	ELECT 47MF	20% 6.3V	
C118	1-126-154-11	ELECT 47MF	20% 6.3V	
C119	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C120	1-126-154-11	ELECT 47MF	20% 6.3V	
C121	1-126-154-11	ELECT 47MF	20% 6.3V	
C122	1-124-477-11	ELECT 47MF	20% 16V	
C123	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C124	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C125	1-126-154-11	ELECT 47MF	20% 6.3V	
C126	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C127	1-126-154-11	ELECT 47MF	20% 6.3V	
C128	1-126-154-11	ELECT 47MF	20% 6.3V	
C129	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C130	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C131	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C132	1-124-589-11	ELECT 47MF	20% 16V	
C133	1-124-589-11	ELECT 47MF	20% 16V	
C134	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V	
C135	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	
C137	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	
C138	1-124-589-11	ELECT 47MF	20% 16V	
C139	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C140	1-163-205-00	CERAMIC CHIP 0.001MF	5% 50V	
C141	1-163-141-00	CERAMIC CHIP 0.001MF	5% 50V	
C142	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C143	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	
C144	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	
C145	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	
C146	1-126-157-11	ELECT 10MF	20% 16V	
C147	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	
C148	1-126-160-11	ELECT 1MF	20% 50V	
C149	1-163-022-00	CERAMIC CHIP 0.012MF	10% 50V	
C150	1-124-589-11	ELECT 47MF	20% 16V	
C151	1-163-131-00	CERAMIC CHIP 390PF	5% 50V	
C152	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	
C153	1-163-125-00	CERAMIC CHIP 220PF	5% 50V	
C154	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C155	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	
C156	1-164-299-11	CERAMIC CHIP 0.22MF	10% 25V	
C157	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	
C158	1-124-477-11	ELECT 47MF	20% 16V	
C159	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	
C160	1-163-229-11	CERAMIC CHIP 12PF	5% 50V	
C161	1-124-902-00	ELECT 0.47MF	20% 50V	
C162	1-124-903-11	ELECT 1MF	20% 50V	
C163	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	
C164	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V	
C165	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	
C166	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C167	1-124-477-11	ELECT 47MF	20% 16V	
C168	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C169	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	
C170	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	
C171	1-163-243-11	CERAMIC CHIP 47PF	5% 50V	
C172	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	
C173	1-124-589-11	ELECT 47MF	20% 16V	
C174	1-124-477-11	ELECT 47MF	20% 16V	
C175	1-108-792-11	MYLAR 0.001MF	5% 50V	
C176	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C177	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C178	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C179	1-126-160-11	ELECT 1MF	20% 50V	
C180	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C181	1-126-154-11	ELECT 47MF	20% 6.3V	
C182	1-126-163-11	ELECT 4.7MF	20% 16V	
C183	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	
C184	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C185	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C186	1-163-099-00	CERAMIC CHIP 18PF	5% 50V	
C187	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C188	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C189	1-163-035-00	CERAMIC CHIP 0.047MF	50V	
C190	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	
C191	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C192	1-163-031-11	CERAMIC CHIP 0.01MF	50V	
C193	1-124-589-11	ELECT 47MF	20% 16V	

B

REF.NO.	PART NO.	DESCRIPTION			REMARK
C194	1-124-589-11	ELECT	47MF	20%	16V
C195	1-124-589-11	ELECT	47MF	20%	16V
C196	1-124-589-11	ELECT	47MF	20%	16V
C197	1-124-589-11	ELECT	47MF	20%	16V
C198	1-124-589-11	ELECT	47MF	20%	16V
C199	1-124-589-11	ELECT	47MF	20%	16V
C202	1-124-589-11	ELECT	47MF	20%	16V
C203	1-124-589-11	ELECT	47MF	20%	16V
C204	1-124-589-11	ELECT	47MF	20%	16V
C205	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C206	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C207	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C208	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C210	1-124-589-11	ELECT	47MF	20%	16V
C211	1-124-589-11	ELECT	47MF	20%	16V
C212	1-124-589-11	ELECT	47MF	20%	16V
C213	1-124-589-11	ELECT	47MF	20%	16V
C214	1-126-157-11	ELECT	10MF	20%	16V
C215	1-126-157-11	ELECT	10MF	20%	16V
C216	1-126-157-11	ELECT	10MF	20%	16V
C217	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C218	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C219	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C220	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C221	1-124-903-11	ELECT	1MF	20%	50V
C222	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C223	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C225	1-124-477-11	ELECT	47MF	20%	16V
C226	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C227	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C228	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C229	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C230	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C231	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C232	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C233	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C234	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C235	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C236	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C237	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C238	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C239	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C240	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C241	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C242	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C243	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C244	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C245	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C246	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C247	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C248	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C249	1-126-101-11	ELECT	100MF	20%	16V
C250	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C251	1-110-364-11	MYLAR	0.1MF	10%	200V
C252	1-123-935-00	ELECT	33MF	20%	160V
C253	1-124-477-11	ELECT	47MF	20%	16V
C254	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C255	1-124-477-11	ELECT	47MF	20%	16V
C256	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C257	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C258	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C259	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C260	1-124-465-00	ELECT	0.47MF	20%	50V
C261	1-137-193-11	FILM	0.39MF	5%	50V
C262	1-124-465-00	ELECT	0.47MF	20%	50V
C264	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C265	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C266	1-126-320-11	ELECT	10MF	20%	16V
C267	1-126-320-11	ELECT	10MF	20%	16V
C268	1-124-477-11	ELECT	47MF	20%	16V
C269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C270	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C271	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C272	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C273	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C274	1-124-477-11	ELECT	47MF	20%	16V
C275	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C277	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C278	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C279	1-126-157-11	ELECT	10MF	20%	16V
C280	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C281	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C282	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C283	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C299	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C300	1-126-157-11	ELECT	10MF	20%	16V
C301	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C302	1-124-589-11	ELECT	47MF	20%	16V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C305	1-124-257-00	ELECT	2.2MF	20%	50V
C306	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C307	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C310	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C312	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C313	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C314	1-126-157-11	ELECT	10MF	20%	16V
C315	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C316	1-126-157-11	ELECT	10MF	20%	16V
C317	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C318	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C319	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C320	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C321	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C324	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C340	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C344	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C345	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C346	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C347	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C1293	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1294	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1295	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1296	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C1297	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C1298	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C1299	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C1300	1-126-160-11	ELECT	1MF	20%	50V
C1301	1-126-160-11	ELECT	1MF	20%	50V
C1302	1-126-160-11	ELECT	1MF	20%	50V
C1303	1-126-160-11	ELECT	1MF	20%	50V

<FILTER BLOCK>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CFM101	1-464-880-11	FILTER BLOCK, COM (CFB-2)	

<CONNECTOR>

CN101	1-506-480-11	PIN, CONNECTOR 15P	
CN102	*1-564-506-11	PLUG, CONNECTOR 3P	
CN103	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
CN104	1-506-477-11	PIN, CONNECTOR 12P	
CN105	*1-564-509-11	PLUG, CONNECTOR 6P	
CN106	1-506-473-11	PIN, CONNECTOR 8P	
CN107	1-506-478-11	PIN, CONNECTOR 13P	
CN108	*1-564-506-11	PLUG, CONNECTOR 3P	

<TRAP MODULE>

CTR101	1-236-366-11	MODULE, TRAP	
CTR102	1-236-365-11	MODULE, TRAP	

<TRIMMER>

CV101	1-141-418-11	CAP, ADJ	
CV102	1-141-418-11	CAP, ADJ	

<DIODE>

D103	8-719-404-46	DIODE MA110	
D104	8-719-404-46	DIODE MA110	
D105	8-719-404-46	DIODE MA110	
D106	8-719-404-46	DIODE MA110	
D107	8-719-404-46	DIODE MA110	
D108	8-719-404-46	DIODE MA110	
D109	8-719-404-46	DIODE MA110	
D110	8-719-404-46	DIODE MA110	
D111	8-719-404-46	DIODE MA110	
D112	8-719-404-46	DIODE MA110	
D113	8-719-404-46	DIODE MA110	
D117	8-719-404-46	DIODE MA110	
D120	8-719-404-46	DIODE MA110	
D121	8-719-404-46	DIODE MA110	
D122	8-719-404-46	DIODE MA110	
D123	8-719-404-46	DIODE MA110	
D125	8-719-404-46	DIODE MA110	
D126	8-719-404-46	DIODE MA110	
D127	8-719-404-46	DIODE MA110	
D128	8-719-400-18	DIODE MA152WK	
D129	8-719-404-46	DIODE MA110	
D130	8-719-800-76	DIODE 1SS226	
D131	8-719-800-76	DIODE 1SS226	
D132	8-719-800-76	DIODE 1SS226	
D133	8-719-404-46	DIODE MA110	
D134	8-719-404-46	DIODE MA110	
D135	8-719-404-46	DIODE MA110	
D136	8-719-404-46	DIODE MA110	
D137	8-719-404-46	DIODE MA110	
D138	8-719-404-46	DIODE MA110	
D139	8-719-404-46	DIODE MA110	
D144	8-719-404-46	DIODE MA110	
D145	8-719-404-46	DIODE MA110	
D146	8-719-404-46	DIODE MA110	
D147	8-719-404-46	DIODE MA110	
D148	8-719-404-46	DIODE MA110	
D149	8-719-404-46	DIODE MA110	
D150	8-719-404-46	DIODE MA110	
D151	8-719-404-46	DIODE MA110	
D152	8-719-404-46	DIODE MA110	
D153	8-719-977-20	DIODE DTZ8.2B	
D154	8-719-404-46	DIODE MA110	
D155	8-719-404-46	DIODE MA110	
D156	8-719-404-46	DIODE MA110	
D157	8-719-901-83	DIODE 1SS83	
D158	8-719-901-83	DIODE 1SS83	
D159	8-719-901-83	DIODE 1SS83	
D160	8-719-404-46	DIODE MA110	
D161	8-719-404-46	DIODE MA110	
D162	8-719-404-46	DIODE MA110	
D170	8-719-404-46	DIODE MA110	
D185	8-719-104-34	DIODE 1S2836	
D186	8-719-400-18	DIODE MA152WK	
D187	8-719-800-76	DIODE 1SS226	
D188	8-719-800-76	DIODE 1SS226	
D191	8-719-104-34	DIODE 1S2836	
D285	8-719-404-46	DIODE MA110	
D289	8-719-404-46	DIODE MA110	
D341	8-719-404-46	DIODE MA110	
D342	8-719-104-34	DIODE 1S2836	
D343	8-719-800-76	DIODE 1SS226	
D344	8-719-105-XX	DIODE RD6.2M-B1	
D345	8-719-901-83	DIODE 1SS83	
D346	8-719-901-83	DIODE 1SS83	
D347	8-719-901-83	DIODE 1SS83	
D348	8-719-800-76	DIODE 1SS226	
D349	8-719-800-76	DIODE 1SS226	
D350	8-719-800-76	DIODE 1SS226	
D390	8-719-800-76	DIODE 1SS226	
D393	8-719-404-46	DIODE MA110	

<DELAY LINE>

DL101	1-415-632-11	DELAY LINE, Y	
DL102	1-415-633-11	DELAY LINE, Y	

<IC>

IC101	8-759-048-09	IC MM1148XF	
IC102	8-759-501-21	IC MM1149XF	
IC103	8-759-501-21	IC MM1149XF	
IC104	8-759-501-21	IC MM1149XF	
IC105	8-759-048-09	IC MM1148XF	
IC106	8-759-009-51	IC MC14538BF	
IC107	8-759-509-57	IC XRU4584BF	
IC108	8-759-509-17	IC XRU4053BF	
IC109	8-759-509-37	IC XRU4070BF	
IC110	8-759-509-17	IC XRU4053BF	
IC111	8-759-509-17	IC XRU4053BF	
IC112	8-759-924-12	IC LM7805CT	
IC113	8-759-631-08	IC M51279FP	
IC114	8-759-509-13	IC XRU4052BF	
IC115	8-759-509-13	IC XRU4052BF	
IC116	8-759-509-05	IC XRU4066BF	
IC117	8-759-711-32	IC NJM2245M	
IC118	8-759-711-32	IC NJM2245M	
IC119	8-759-711-32	IC NJM2245M	
IC120	8-759-509-05	IC XRU4066BF	
IC121	8-759-509-17	IC XRU4053BF	
IC122	8-759-998-98	IC LM358D	
IC123	8-759-998-98	IC LM358D	
IC124	8-752-052-62	IC CXA1478S	

B B

EMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
V				
	CFM101	1-464-880-11	FILTER BLOCK, COM (CFB-2)	
V				
V			<CONNECTOR>	
V				
V	CN101	1-506-480-11	PIN, CONNECTOR 15P	
	CN102	*1-564-506-11	PLUG, CONNECTOR 3P	
V	CN103	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
V	CN104	1-506-477-11	PIN, CONNECTOR 12P	
V	CN105	*1-564-509-11	PLUG, CONNECTOR 6P	
V				
V	CN106	1-506-473-11	PIN, CONNECTOR 8P	
	CN107	1-506-478-11	PIN, CONNECTOR 13P	
	CN108	*1-564-506-11	PLUG, CONNECTOR 3P	
V				
V			<TRAP MODULE>	
V				
	CTR101	1-236-366-11	MODULE, TRAP	
V	CTR102	1-236-365-11	MODULE, TRAP	
V				
V			<TRIMMER>	
V				
	CV101	1-141-418-11	CAP, ADJ	
V	CV102	1-141-418-11	CAP, ADJ	
V				
V			<DIODE>	
V				
	D103	8-719-404-46	DIODE MA110	
V	D104	8-719-404-46	DIODE MA110	
V	D105	8-719-404-46	DIODE MA110	
V	D106	8-719-404-46	DIODE MA110	
V	D107	8-719-404-46	DIODE MA110	
V				
	D108	8-719-404-46	DIODE MA110	
V	D109	8-719-404-46	DIODE MA110	
V	D110	8-719-404-46	DIODE MA110	
V	D111	8-719-404-46	DIODE MA110	
V	D112	8-719-404-46	DIODE MA110	
V				
	D113	8-719-404-46	DIODE MA110	
V	D117	8-719-404-46	DIODE MA110	
V	D120	8-719-404-46	DIODE MA110	
V	D121	8-719-404-46	DIODE MA110	
V	D122	8-719-404-46	DIODE MA110	
V				
	D123	8-719-404-46	DIODE MA110	
V	D125	8-719-404-46	DIODE MA110	
V	D126	8-719-404-46	DIODE MA110	
V	D127	8-719-404-46	DIODE MA110	
V	D128	8-719-400-18	DIODE MA152WK	
V				
	D129	8-719-404-46	DIODE MA110	
V	D130	8-719-800-76	DIODE 1SS226	
V	D131	8-719-800-76	DIODE 1SS226	
V	D132	8-719-800-76	DIODE 1SS226	
V	D133	8-719-404-46	DIODE MA110	
V				
	D134	8-719-404-46	DIODE MA110	
V	D135	8-719-404-46	DIODE MA110	
V	D136	8-719-404-46	DIODE MA110	
V	D137	8-719-404-46	DIODE MA110	
V	D138	8-719-404-46	DIODE MA110	
V				
	D139	8-719-404-46	DIODE MA110	
V	D144	8-719-404-46	DIODE MA110	
V	D145	8-719-404-46	DIODE MA110	
V	D146	8-719-404-46	DIODE MA110	
V	D147	8-719-404-46	DIODE MA110	
V				
	D148	8-719-404-46	DIODE MA110	
	D149	8-719-404-46	DIODE MA110	
	D150	8-719-404-46	DIODE MA110	

REF.NO.	PART NO.	DESCRIPTION	REMARK
D151	8-719-404-46	DIODE MA110	
D152	8-719-404-46	DIODE MA110	
D153	8-719-977-20	DIODE DTZ8.2B	
D154	8-719-404-46	DIODE MA110	
D155	8-719-404-46	DIODE MA110	
D156	8-719-404-46	DIODE MA110	
D157	8-719-901-83	DIODE 1SS83	
D158	8-719-901-83	DIODE 1SS83	
D159	8-719-901-83	DIODE 1SS83	
D160	8-719-404-46	DIODE MA110	
D161	8-719-404-46	DIODE MA110	
D162	8-719-404-46	DIODE MA110	
D170	8-719-404-46	DIODE MA110	
D185	8-719-104-34	DIODE 1S2836	
D186	8-719-400-18	DIODE MA152WK	
D187	8-719-800-76	DIODE 1SS226	
D188	8-719-800-76	DIODE 1SS226	
D191	8-719-104-34	DIODE 1S2836	
D285	8-719-404-46	DIODE MA110	
D289	8-719-404-46	DIODE MA110	
D341	8-719-404-46	DIODE MA110	
D342	8-719-104-34	DIODE 1S2836	
D343	8-719-800-76	DIODE 1SS226	
D344	8-719-105-XX	DIODE RD6.2M-B1	
D345	8-719-901-83	DIODE 1SS83	
D346	8-719-901-83	DIODE 1SS83	
D347	8-719-901-83	DIODE 1SS83	
D348	8-719-800-76	DIODE 1SS226	
D349	8-719-800-76	DIODE 1SS226	
D350	8-719-800-76	DIODE 1SS226	
D390	8-719-800-76	DIODE 1SS226	
D393	8-719-404-46	DIODE MA110	
		<DELAY LINE>	
DL101	1-415-632-11	DELAY LINE, Y	
DL102	1-415-633-11	DELAY LINE, Y	
		<IC>	
IC101	8-759-048-09	IC MM1148XF	
IC102	8-759-501-21	IC MM1149XF	
IC103	8-759-501-21	IC MM1149XF	
IC104	8-759-501-21	IC MM1149XF	
IC105	8-759-048-09	IC MM1148XF	
IC106	8-759-009-51	IC MC14538BF	
IC107	8-759-509-57	IC XRU4584BF	
IC108	8-759-509-17	IC XRU4053BF	
IC109	8-759-509-37	IC XRU4070BF	
IC110	8-759-509-17	IC XRU4053BF	
IC111	8-759-509-17	IC XRU4053BF	
IC112	8-759-924-12	IC LM7805CT	
IC113	8-759-631-08	IC M51279FP	
IC114	8-759-509-13	IC XRU4052BF	
IC115	8-759-509-13	IC XRU4052BF	
IC116	8-759-509-05	IC XRU4066BF	
IC117	8-759-711-32	IC NJM2245M	
IC118	8-759-711-32	IC NJM2245M	
IC119	8-759-711-32	IC NJM2245M	
IC120	8-759-509-05	IC XRU4066BF	
IC121	8-759-509-17	IC XRU4053BF	
IC122	8-759-998-98	IC LM358D	
IC123	8-759-998-98	IC LM358D	
IC124	8-752-052-62	IC CXA1478S	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC125	8-759-509-05	IC XRU4066BF	
IC126	8-759-509-17	IC XRU4053BF	
IC127	8-759-998-98	IC LM358D	
IC128	8-759-998-98	IC LM358D	
IC129	8-759-998-98	IC LM358D	
		<JUMPER RESISTOR>	
JR105	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR110	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR133	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR138	1-216-295-00	METAL GLAZE 0 5% 1/10W	
JR178	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		<COIL>	
L101	1-410-470-11	INDUCTOR 10UH	
L102	1-410-090-41	INDUCTOR 18MMH	
L103	1-412-002-31	INDUCTOR CHIP 4.7UH	
L104	1-412-002-31	INDUCTOR CHIP 4.7UH	
L105	1-412-002-31	INDUCTOR CHIP 4.7UH	
L106	1-410-470-11	INDUCTOR 10UH	
L107	1-410-470-11	INDUCTOR 10UH	
L112	1-408-419-00	INDUCTOR 68UH	
L113	1-410-947-31	INDUCTOR CHIP 33UH	
L114	1-410-947-31	INDUCTOR CHIP 33UH	
L115	1-410-947-31	INDUCTOR CHIP 33UH	
L116	1-412-011-31	INDUCTOR CHIP 27UH	
L117	1-412-011-31	INDUCTOR CHIP 27UH	
L118	1-412-011-31	INDUCTOR CHIP 27UH	
L250	1-410-997-31	INDUCTOR CHIP 2.2UH	
L251	1-410-999-11	INDUCTOR CHIP 3.3UH	
L252	1-410-478-11	INDUCTOR 47UH	
L300	1-410-482-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q101	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q102	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q103	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q104	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q105	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q106	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q107	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q108	8-729-216-22	TRANSISTOR 2SA1162-G	
Q109	8-729-901-01	TRANSISTOR DTC144EK	
Q112	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q113	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
Q115	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q116	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q117	8-729-216-22	TRANSISTOR 2SA1162-G	
Q118	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q119	8-729-216-22	TRANSISTOR 2SA1162-G	
Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q123	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q124	8-729-216-22	TRANSISTOR 2SA1162-G	
Q125	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q126	8-729-901-01	TRANSISTOR DTC144EK	
Q127	8-729-216-22	TRANSISTOR 2SA1162-G	
Q128	8-729-216-22	TRANSISTOR 2SA1162-G	
Q129	8-729-901-01	TRANSISTOR DTC144EK	
Q130	8-729-216-22	TRANSISTOR 2SA1162-G	

REF.NO.	PART NO.	DESCRIPTION	REMARK
Q131	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q132	8-729-216-22	TRANSISTOR 2SA1162-G	
Q133	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q134	8-729-901-01	TRANSISTOR DTC144EK	
Q135	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q136	8-729-907-26	TRANSISTOR IMX1	
Q137	8-729-907-26	TRANSISTOR IMX1	
Q138	8-729-907-26	TRANSISTOR IMX1	
Q139	8-729-216-22	TRANSISTOR 2SA1162-G	
Q140	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q141	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q142	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q143	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q144	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q145	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q146	8-729-255-12	TRANSISTOR 2SC2551-O	
Q147	8-729-255-12	TRANSISTOR 2SC2551-O	
Q148	8-729-216-22	TRANSISTOR 2SA1162-G	
Q149	8-729-200-17	TRANSISTOR 2SA1091-O	
Q150	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q151	8-729-216-22	TRANSISTOR 2SA1162-G	
Q152	8-729-200-17	TRANSISTOR 2SA1091-O	
Q153	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q154	8-729-216-22	TRANSISTOR 2SA1162-G	
Q155	8-729-200-17	TRANSISTOR 2SA1091-O	
Q157	8-729-326-11	TRANSISTOR 2SC2611	
Q158	8-729-326-11	TRANSISTOR 2SC2611	
Q159	8-729-326-11	TRANSISTOR 2SC2611	
Q160	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q164	8-729-901-01	TRANSISTOR DTC144EK	
Q165	8-729-216-22	TRANSISTOR 2SA1162-G	
Q166	8-729-216-22	TRANSISTOR 2SA1162-G	
Q167	8-729-216-22	TRANSISTOR 2SA1162-G	
Q168	8-729-216-22	TRANSISTOR 2SA1162-G	
Q170	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q171	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q172	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q173	8-729-216-22	TRANSISTOR 2SA1162-G	
Q174	8-729-216-22	TRANSISTOR 2SA1162-G	
Q175	8-729-216-22	TRANSISTOR 2SA1162-G	
Q176	8-729-216-22	TRANSISTOR 2SA1162-G	
Q177	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q178	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q179	8-729-901-01	TRANSISTOR DTC144EK	
Q189	8-729-907-26	TRANSISTOR IMX1	
Q190	8-729-216-22	TRANSISTOR 2SA1162-G	
Q191	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q192	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q193	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q194	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q195	8-729-216-22	TRANSISTOR 2SA1162-G	
Q196	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q197	8-729-216-22	TRANSISTOR 2SA1162-G	
Q198	8-729-216-22	TRANSISTOR 2SA1162-G	
Q199	8-729-216-22	TRANSISTOR 2SA1162-G	
Q200	8-729-901-06	TRANSISTOR DTA144EK	
Q201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q208	8-729-216-22	TRANSISTOR 2SA1162-G				
Q209	8-729-255-12	TRANSISTOR 2SC2551-O				
Q210	8-729-255-12	TRANSISTOR 2SC2551-O				
Q211	8-729-255-12	TRANSISTOR 2SC2551-O				
Q212	8-729-109-44	TRANSISTOR 2SK94				
Q299	8-729-422-27	TRANSISTOR 2SD601A-Q				
		<RESISTOR>				
R101	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R102	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R103	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R104	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R105	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R106	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R107	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R108	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R109	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R111	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R112	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R113	1-249-401-11	CARBON	47	5%	1/4W	F
R114	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R119	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R120	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R121	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R122	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R124	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R125	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R126	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R127	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R128	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R129	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R130	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R131	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R132	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R133	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R134	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R135	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R136	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R137	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R138	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R139	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R140	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R141	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R142	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R143	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R145	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R146	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R147	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R148	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R155	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R157	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R158	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R160	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R161	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R163	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R164	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R165	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R166	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R167	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R168	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R169	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R170	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R171	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R172	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R173	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R174	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R175	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R176	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R177	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R178	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R179	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R180	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R181	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R182	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R183	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R184	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R185	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R186	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R187	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R188	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R189	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R190	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R191	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R192	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R193	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R194	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R195	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R196	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R197	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R198	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R199	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R200	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R201	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R202	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R203	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R206	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R207	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R208	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R209	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R210	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R211	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R212	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R213	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R214	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R215	1-216-127-11	METAL GLAZE	1.8M	5%	1/10W	
R216	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R217	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R218	1-216-295-00	METAL GLAZE	0	5%	1/10W	
R219	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R220	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R222	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R224	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R225	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R226	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R227	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R228	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R229	1-216-113-00	METAL GLAZE	470K	5%	1/10W	

B

REF.NO.	PART NO.	DESCRIPTION				REMARK
R230	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R231	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R232	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R233	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R234	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R235	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R236	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R239	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R241	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R242	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R243	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R244	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R245	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R246	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R247	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R248	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R249	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R250	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R251	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R252	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R253	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R254	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R255	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R256	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R258	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R259	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R260	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R261	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R262	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R263	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R264	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R265	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R266	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R267	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R268	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R269	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R270	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R272	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R273	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R275	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R276	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R277	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R278	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R280	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R281	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R282	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R283	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R284	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R286	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R287	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R288	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R289	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R290	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R292	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R293	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R295	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R296	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R297	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R298	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R300	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R303	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R304	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R307	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R308	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R309	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R310	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R311	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R312	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R313	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R314	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R315	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R316	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R317	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R318	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R319	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R320	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R321	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R322	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R323	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R324	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R325	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R326	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R328	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R329	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R330	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R331	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R332	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R333	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R334	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R335	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R336	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R337	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R338	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R339	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R340	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R341	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R342	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R343	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R344	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R345	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R346	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R348	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R349	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R350	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R351	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R352	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R353	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R354	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R355	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R356	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R357	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R358	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R359	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R360	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R363	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R364	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R366	1-216-244-00	METAL GLAZE	82K	5%	1/8W	
R367	1-216-244-00	METAL GLAZE	82K	5%	1/8W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R368	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R369	1-216-248-00	METAL GLAZE	120K	5%	1/8W	
R370	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R371	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R372	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R374	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R375	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R376	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R379	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R380	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R381	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R382	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R383	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R384	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R385	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R386	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R387	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R388	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W	
R389	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R390	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R391	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R392	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R393	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R394	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R397	1-249-437-11	CARBON	47K	5%	1/4W	F
R398	1-249-434-11	CARBON	27K	5%	1/4W	F
R399	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1001	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1002	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1003	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1004	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1005	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1006	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1007	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1008	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1009	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1010	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1011	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1012	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1013	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1014	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R1015	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1016	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1017	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1018	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1019	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1020	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1021	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1022	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1023	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1024	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1025	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1026	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1027	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1028	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1029	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1030	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1031	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1032	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1033	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1035	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1036	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1038	1-216-081-00	METAL GLAZE	22K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1040	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1042	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1043	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1044	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1045	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1046	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R1047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1049	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1050	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1051	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1053	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1054	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1055	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1056	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1058	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1059	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1060	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1061	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1062	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1063	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1064	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1065	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1066	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1067	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1068	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1069	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R1070	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1071	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1072	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1073	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1075	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1076	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1077	1-216-103-00	METAL GLAZE	180K	5%	1/10W	
R1079	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1080	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1081	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1082	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1084	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1086	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1087	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1088	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1090	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1091	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1092	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1093	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1094	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1095	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1096	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1200	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R1201	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R1207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1208	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1220	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1221	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1222	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1223	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1225	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1226	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1227	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1228	1-249-421-11	CARBON	2.2K	5%	1/4W	F

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R1229	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1230	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1231	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1232	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1233	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1234	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1235	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1236	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1237	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1238	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1239	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1270	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1271	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1280	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1290	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1291	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1294	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1295	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1296	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1297	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1298	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1299	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1300	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1303	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1305	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1306	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1307	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1308	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1309	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1310	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R1313	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1314	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1315	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1320	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1321	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1322	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1323	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1324	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1325	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1326	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1327	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1328	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1329	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1330	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1331	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1332	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1333	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1334	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1335	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1336	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1338	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1339	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1340	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1341	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R1342	1-216-694-11	METAL CHIP	62K	0.50%	1/10W	
R1343	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1344	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1345	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1346	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1348	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1351	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1353	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R1371	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1372	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1373	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1392	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1393	1-216-095-00	METAL GLAZE	82K	5%	1/10W	

<VARIABLE RESISTOR>

RV101	1-241-763-11	RES, ADJ, CERMET	4.7K
RV102	1-241-763-11	RES, ADJ, CERMET	4.7K
RV103	1-238-009-11	RES, ADJ, CARBON	220
RV104	1-238-009-11	RES, ADJ, CARBON	220
RV105	1-241-627-11	RES, ADJ, CARBON	1K
RV106	1-241-627-11	RES, ADJ, CARBON	1K
RV107	1-241-627-11	RES, ADJ, CARBON	1K
RV108	1-241-630-11	RES, ADJ, CARBON	10K
RV109	1-241-765-11	RES, ADJ, CERMET	22K
RV110	1-241-630-11	RES, ADJ, CARBON	10K
RV111	1-241-630-11	RES, ADJ, CARBON	10K
RV112	1-238-019-11	RES, ADJ, CARBON	47K
RV113	1-238-019-11	RES, ADJ, CARBON	47K
RV114	1-238-019-11	RES, ADJ, CARBON	47K
RV115	1-241-631-11	RES, ADJ, CARBON	22K
RV116	1-241-631-11	RES, ADJ, CARBON	22K
RV118	1-241-631-11	RES, ADJ, CARBON	22K
RV119	1-241-631-11	RES, ADJ, CARBON	22K
RV120	1-241-631-11	RES, ADJ, CARBON	22K
RV121	1-241-631-11	RES, ADJ, CARBON	22K
RV122	1-241-631-11	RES, ADJ, CARBON	22K
RV123	1-241-628-11	RES, ADJ, CARBON	2.2K
RV124	1-241-627-11	RES, ADJ, CARBON	1K
RV125	1-241-627-11	RES, ADJ, CARBON	1K
RV205	1-241-631-11	RES, ADJ, CARBON	22K

<MODULE>

SEP101	1-808-654-11	MODULE

<CRYSTAL>

X101	1-527-722-00	OSCILLATOR, CRYSTAL
X102	1-577-259-11	VIBRATOR, CRYSTAL

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	A-1346-018-A	D BOARD, COMPLETE
		**********
	1-533-189-11	HOLDER, FUSE
	*3-738-015-01	COVER, (DIA. 6) CARBON VR
	4-382-854-01	SCREW (M3X8), P, SW (+)
	4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

C501	1-124-477-11	ELECT	47MF	20%	16V
C502	1-124-907-11	ELECT	10MF	20%	50V
C503	1-126-103-11	ELECT	470MF	20%	16V
C504	1-124-902-00	ELECT	0.47MF	20%	50V
C505	1-106-381-12	MYLAR	0.039MF	10%	100V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C506	1-124-903-11	ELECT	1MF	20%	50V
C507	1-106-367-00	MYLAR	0.01MF	10%	100V
C508	1-124-903-11	ELECT	1MF	20%	50V
C509	1-136-173-00	FILM	0.47MF	5%	50V
C510	1-136-161-00	FILM	0.047MF	5%	50V
C511	1-124-903-11	ELECT	1MF	20%	50V
C512	1-106-375-12	MYLAR	0.022MF	10%	100V
C513	1-106-375-12	MYLAR	0.022MF	10%	100V
C514	1-106-371-00	MYLAR	0.015MF	10%	100V
C515	1-124-925-11	ELECT	2.2MF	20%	50V
C516	1-124-925-11	ELECT	2.2MF	20%	50V
C517	1-130-480-00	FILM	0.0056MF	5%	50V
C518	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C519	1-124-927-11	ELECT	4.7MF	20%	50V
C520	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C521	1-124-907-11	ELECT	10MF	20%	50V
C523	1-106-363-00	MYLAR	0.0068MF	10%	100V
C524	1-102-116-00	CERAMIC	680PF	10%	50V
C525	1-102-820-00	CERAMIC	330PF	5%	50V
C526	1-102-973-00	CERAMIC	100PF	5%	50V
C527	1-124-122-11	ELECT	100MF	20%	50V
C528	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C529	1-124-910-11	ELECT	47MF	20%	50V
C530	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C531	1-131-370-00	TANTALUM	6.8MF	10%	16V
C532	1-124-557-11	ELECT	1000MF	20%	25V
C533	1-124-927-11	ELECT	4.7MF	20%	50V
C534	1-124-768-11	ELECT	4.7MF	20%	50V
C535	1-136-161-00	FILM	0.047MF	5%	50V
C536	1-124-927-11	ELECT	4.7MF	20%	50V
C537	1-124-484-11	ELECT	220MF	20%	35V
C538	1-124-910-11	ELECT	47MF	20%	50V
C539	1-136-113-00	FILM	2MF	5%	200V
C540	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C541	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C542	1-126-103-11	ELECT	470MF	20%	16V
C545	1-126-101-11	ELECT	100MF	20%	16V
C546	1-124-907-11	ELECT	10MF	20%	50V
C547	1-124-907-11	ELECT	10MF	20%	50V
C548	1-124-907-11	ELECT	10MF	20%	50V
C549	1-124-907-11	ELECT	10MF	20%	50V
C550	1-124-907-11	ELECT	10MF	20%	50V
C551	1-124-927-11	ELECT	4.7MF	20%	50V
C552	1-101-004-00	CERAMIC	0.01MF		50V
C553	1-126-103-11	ELECT	470MF	20%	16V
C563	1-106-383-00	MYLAR	0.047MF	10%	100V
C564	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C567	1-124-907-11	ELECT	10MF	20%	50V
C568	1-130-736-11	FILM	0.01MF	5%	50V
C569	1-130-471-00	FILM	0.001MF	5%	50V
C570	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C571	1-124-913-11	ELECT	470MF	20%	50V
C572	1-101-004-00	CERAMIC	0.01MF		50V
C574	1-106-351-00	MYLAR	0.0022MF	10%	100V
C575	1-106-351-00	MYLAR	0.0022MF	10%	100V
C831	1-124-907-11	ELECT	10MF	20%	50V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C834	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C835	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C836	1-124-907-11	ELECT	10MF	20%	50V
C837	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C838	1-136-163-00	FILM	0.068MF	5%	50V
C839	1-106-351-00	MYLAR	0.0022MF	10%	100V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C840	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C841	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C843	1-124-902-00	ELECT	0.47MF	20%	50V
C844	1-124-902-00	ELECT	0.47MF	20%	50V
C845	1-124-477-11	ELECT	47MF	20%	25V
C846	1-124-907-11	ELECT	10MF	20%	50V
C847	1-124-916-11	ELECT	22MF	20%	50V
C848	1-131-351-00	TANTALUM	4.7MF	10%	35V
C849	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1601	1-124-907-11	ELECT	10MF	20%	50V
C1602	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1603	1-104-348-11	ELECT	15MF	20%	50V
C1604	1-128-500-51	ELECT	1000MF	20%	50V
C1605	1-124-922-11	ELECT	1000MF	20%	50V
C1606	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V
C1608	1-124-916-11	ELECT	22MF	20%	50V
C1609	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1610	1-124-927-11	ELECT	4.7MF	20%	50V
C1611	1-124-482-11	ELECT	33MF	20%	35V
C1612	1-136-257-00	FILM	0.0039MF	5%	50V
C1613	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1614	1-164-232-11	CERAMIC CHIP	0.01MF	10%	50V
C1615	1-124-465-00	ELECT	0.47MF	20%	50V
C1620	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C1621	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C1641	1-163-035-00	CERAMIC CHIP	0.047MF		50V

<CONNECTOR>

CN501	*1-564-506-11	PLUG, CONNECTOR 3P	
CN502	1-506-477-11	PIN, CONNECTOR 12P	
CN504	*1-564-507-11	PLUG, CONNECTOR 4P	
CN505	*1-564-509-11	PLUG, CONNECTOR 6P	
CN507	*1-564-511-11	PLUG, CONNECTOR 8P	
CN508	*1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P	
CN509	*1-564-506-11	PLUG, CONNECTOR 3P	

<DIODE>

D501	8-719-404-46	DIODE MA110
D502	8-719-404-46	DIODE MA110
D503	8-719-404-46	DIODE MA110
D504	8-719-404-46	DIODE MA110
D506	8-719-908-03	DIODE GP08D
D507	8-719-404-46	DIODE MA110
D508	8-719-404-46	DIODE MA110
D511	8-719-404-46	DIODE MA110
D512	8-719-404-46	DIODE MA110
D514	8-719-404-46	DIODE MA110
D520	8-719-800-76	DIODE 1SS226
D521	8-719-800-76	DIODE 1SS226
D831	8-719-404-46	DIODE MA110
D832	8-719-404-46	DIODE MA110
D833	8-719-404-46	DIODE MA110
D834	8-719-404-46	DIODE MA110
D835	8-719-109-89	DIODE RD5.6ES-B2
D836	8-719-977-69	DIODE DTZ24B
D848	8-719-800-76	DIODE 1SS226
D1601	8-719-105-XX	DIODE RD6.2M-B1
D1603	8-719-977-61	DIODE DTZ20B
D1606	8-719-981-00	DIODE ERC81-004
D1607	8-719-981-00	DIODE ERC81-004

D

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D1608	8-719-977-02	DIODE DTZ5.6A	
D1609	8-719-977-49	DIODE DTZ15B	
D1610	8-719-404-46	DIODE MA110	
D1611	8-729-101-31	TRANSISTOR N13T1	
D1612	8-719-404-46	DIODE MA110	
D1615	8-719-404-46	DIODE MA110	
D1617	8-719-977-49	DIODE DTZ15B	
D1618	8-719-977-49	DIODE DTZ15B	
D1620	8-719-400-18	DIODE MA152WK	
D1621	8-719-510-12	DIODE D10SC4M	
D1622	8-719-400-18	DIODE MA152WK	
D1623	8-719-400-18	DIODE MA152WK	
D1626	8-719-404-46	DIODE MA110	
D1627	8-719-404-46	DIODE MA110	
D1628	8-719-404-46	DIODE MA110	
D1635	8-719-404-46	DIODE MA110	
D1699	8-719-404-46	DIODE MA110	
		<FUSE>	
F1601⚠	1-532-777-21	FUSE, MICRO (SECONDARY) (1.25A/125V)	
F1602⚠	1-576-232-11	FUSE (H.B.C) (5.0A/250V)	
		<IC>	
IC501	8-759-909-70	IC CX23025	
IC502	8-759-100-60	IC UPC1377C	
IC503	8-759-801-98	IC LA7830	
IC504	8-759-701-79	IC MC7812CT	
IC505	8-759-009-51	IC MC14538BF	
IC831	8-759-509-29	IC XRU4011BF	
IC832	8-759-509-37	IC XRU4070BF	
IC833	8-759-009-51	IC MC14538BF	
IC1601	8-759-509-91	IC XRA10393F	
		<JUMPER RESISTOR>	
JR510	1-216-295-00	METAL GLAZE 0 5% 1/10W	
		<COIL>	
L501	1-410-093-11	INDUCTOR 33MMH	
L502	1-410-665-31	INDUCTOR 15UH	
L503	1-424-625-11	COIL, CHOKE (PMC) 390UH	
L506	1-412-530-31	INDUCTOR 27UH	
L1601	1-459-155-00	COIL (WITH CORE) 47UH	
L1602	1-402-785-11	COIL, CHOKE 600UH	
L1603	1-410-397-21	FERRITE BEAD INDUCTOR	
		<TRANSISTOR>	
Q501	8-729-901-01	TRANSISTOR DTC144EK	
Q502	8-729-901-01	TRANSISTOR DTC144EK	
Q503	8-729-901-06	TRANSISTOR DTA144EK	
Q504	8-729-901-01	TRANSISTOR DTC144EK	
Q505	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q508	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q509	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q510	8-729-901-06	TRANSISTOR DTA144EK	
Q512	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q513	8-729-216-22	TRANSISTOR 2SA1162-G	
Q514	8-729-216-22	TRANSISTOR 2SA1162-G	
Q515	8-729-313-42	TRANSISTOR 2SD1134-C	
Q518	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q519	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q532	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q569	8-729-907-26	TRANSISTOR IMX1	
Q576	8-729-920-48	TRANSISTOR IMH2	
Q579	8-729-920-48	TRANSISTOR IMH2	
Q599	8-729-920-48	TRANSISTOR IMH2	
Q833	8-729-216-22	TRANSISTOR 2SA1162-G	
Q834	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q835	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q836	8-729-255-12	TRANSISTOR 2SC2551-O	
Q1601	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1602	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1603	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1604	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1605	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q1606	8-729-133-42	TRANSISTOR 2SC2334-L	
Q1607	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1608	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1609	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1610	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1611	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1612	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1613	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1614	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q1615	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1616	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1617	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1618	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R501	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R502	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R503	1-249-437-11	CARBON 47K 5% 1/4W	F
R504	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R505	1-249-393-11	CARBON 10 5% 1/4W	F
R506	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W	
R507	1-216-059-00	METAL GLAZE 2.7K 5% 1/10W	
R508	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R509	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	
R510	1-216-683-11	METAL CHIP 22K 0.50% 1/10W	
R511	1-216-675-11	METAL CHIP 10K 0.50% 1/10W	
R512	1-218-761-11	METAL CHIP 240K 0.50% 1/10W	
R513	1-216-065-00	METAL GLAZE 4.7K 5% 1/10W	
R514	1-218-754-11	METAL CHIP 120K 0.50% 1/10W	
R515	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R516	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R517	1-218-762-11	METAL CHIP 270K 0.50% 1/10W	
R518	1-249-422-11	CARBON 2.7K 5% 1/4W	F
R519	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R520	1-216-677-11	METAL CHIP 12K 0.50% 1/10W	
R521	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R522	1-216-107-00	METAL GLAZE 270K 5% 1/10W	
R523	1-216-081-00	METAL GLAZE 22K 5% 1/10W	
R524	1-216-049-00	METAL GLAZE 1K 5% 1/10W	
R525	1-216-434-11	METAL OXIDE 1.8K 5% 1W	F
R526	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R527	1-249-437-11	CARBON 47K 5% 1/4W	F
R528	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R529	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R530	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R531	1-216-089-00	METAL GLAZE 47K 5% 1/10W	
R532	1-216-097-00	METAL GLAZE 100K 5% 1/10W	
R533	1-216-089-00	METAL GLAZE 47K 5% 1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R534	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R535	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R536	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R537	1-215-867-00	METAL OXIDE	470	5%	1W	F
R538	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R539	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R540	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R541	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R542	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R543	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R544	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R545	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R546	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R547	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R548	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R549	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R550	1-216-356-00	METAL OXIDE	3.9	5%	1W	F
R552	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R553	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R554	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R555	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R562	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R563	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R564	1-249-415-11	CARBON	680	5%	1/4W	F
R565	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R566	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R567	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R568	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R569	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R570	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R571	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R572	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R573	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R574	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R575	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R576	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R577	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R578	1-249-457-11	CARBON	6.8	5%	1/4W	F
R579	1-249-457-11	CARBON	6.8	5%	1/4W	F
R589	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R591	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R592	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R831	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R832	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R833	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R834	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R835	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R836	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R837	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R838	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R839	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R840	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R841	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R842	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R843	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R844	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R847	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R850	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R851	1-216-669-11	METAL CHIP	5.6K	0.50%	1/10W	
R852	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R853	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R854	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R855	1-216-697-11	METAL CHIP	82K	0.50%	1/10W	
R856	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R857	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R858	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R859	1-216-436-00	METAL OXIDE	3.9K	5%	1W	F
R860	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R861	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R862	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R863	1-249-435-11	CARBON	33K	5%	1/4W	F
R1503	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1504	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R1505	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R1506	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1507	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1508	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1510	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1511	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1512	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1513	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1519	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1520	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1601	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1602	1-216-681-11	METAL CHIP	18K	0.50%	1/10W	
R1603	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1604	1-249-433-11	CARBON	22K	5%	1/4W	F
R1605	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1606	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1607	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1608	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1609	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1610	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1611	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1612	1-215-913-11	METAL OXIDE	220	5%	3W	F
R1613	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1614	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1615	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1616	1-216-629-11	METAL CHIP	120	0.50%	1/10W	
R1617	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1618	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1620	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1621	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1624	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R1625	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1626	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1627	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1628	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1629	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1630	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1631	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1632	1-216-042-00	METAL GLAZE	510	5%	1/10W	
R1633	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1634	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1635	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1640	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1641	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1642	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

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• The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION			REMARK
R1643	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1644	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1645	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1646	1-216-073-00	METAL GLAZE	10K	5% 1/10W	
R1647	1-216-685-11	METAL CHIP	27K	0.50% 1/10W	
R1648	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1649	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1650	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1651	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1652	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1653	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W	
R1654	1-216-681-11	METAL CHIP	18K	0.50% 1/10W	
R1655	1-216-081-00	METAL GLAZE	22K	5% 1/10W	
R1656	1-216-643-11	METAL CHIP	470	0.50% 1/10W	
R1657	1-216-081-00	METAL GLAZE	22K	5% 1/10W	
R1658	1-216-063-00	METAL GLAZE	3.9K	5% 1/10W	
R1659	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R1660	1-216-649-11	METAL CHIP	820	0.50% 1/10W	
R1661	1-216-065-00	METAL GLAZE	4.7K	5% 1/10W	
		<VARIABLE RESISTOR>			
RV501	1-238-019-11	RES, ADJ, CARBON 47K			
RV502	1-241-631-11	RES, ADJ, CARBON 22K			
RV503	1-241-763-11	RES, ADJ, CERMET 4.7K			
RV504	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K			
RV505	1-238-009-11	RES, ADJ, CARBON 220			
RV506	1-241-627-11	RES, ADJ, CARBON 1K			
RV507	1-241-628-11	RES, ADJ, CARBON 2.2K			
RV508	1-241-627-11	RES, ADJ, CARBON 1K			
RV509	1-238-021-11	RES, ADJ, CARBON 220K			
RV511	1-241-629-11	RES, ADJ, CARBON 4.7K			
RV512	1-241-629-11	RES, ADJ, CARBON 4.7K			
RV514	1-238-019-11	RES, ADJ, CARBON 47K			
RV515	1-238-021-11	RES, ADJ, CARBON 220K			
RV516	1-241-763-11	RES, ADJ, CERMET 4.7K			
RV831	1-228-997-00	RES, ADJ, METAL GLAZE 100K			
RV832	1-241-764-11	RES, ADJ, CERMET 10K			
⊠RV833⚠	1-228-996-11	RES, ADJ, METAL GLAZE 47K			
RV1601	1-241-762-11	RES, ADJ, CERMET 2.2K			
RV1602	1-241-627-11	RES, ADJ, CARBON 1K			
⊠RV1603⚠	1-228-996-11	RES, ADJ, METAL GLAZE 47K			
		<RELAY>			
RY1601	1-515-481-21	RELAY (G2R-212P-V)			
		<TRANSFORMER>			
T1601	1-437-216-11	TRANSFORMER, DRIVE			

****

*A-1394-368-A S BOARD, COMPLETE
****

		<CAPACITOR>		
C1101	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C1102	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1103	1-124-589-11	ELECT 47MF	20%	16V
C1104	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C1105	1-163-114-00	CERAMIC CHIP 75PF	5%	50V
C1106	1-163-101-00	CERAMIC CHIP 22PF	5%	50V
C1107	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1108	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C1109	1-163-031-11	CERAMIC CHIP 0.01MF		50V
C1110	1-163-117-00	CERAMIC CHIP 100PF	5%	50V
C1111	1-163-018-00	CERAMIC CHIP 0.0056MF	10%	50V
C1112	1-126-160-11	ELECT 1MF	20%	50V
C1113	1-163-119-00	CERAMIC CHIP 120PF	5%	50V
C1114	1-163-103-00	CERAMIC CHIP 27PF	5%	50V
C1115	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1116	1-163-114-00	CERAMIC CHIP 75PF	5%	50V
C1117	1-124-589-11	ELECT 47MF	20%	16V
C1118	1-164-004-11	CERAMIC CHIP 0.1MF	10%	25V
C1119	1-163-020-00	CERAMIC CHIP 0.0082MF	10%	50V
C1120	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1121	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1122	1-163-222-11	CERAMIC CHIP 5PF	0.25PF	50V
C1123	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1130	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
C1131	1-163-097-00	CERAMIC CHIP 15PF	5%	50V
		<CONNECTOR>		
CN1101*	1-565-488-11	CONNECTOR, BOARD TO BOARD 12P		
		<DIODE>		
D1101	8-719-404-46	DIODE MA110		
D1102	8-719-404-46	DIODE MA110		
		<IC>		
IC1101	8-752-056-67	IC CXA1214P		
		<COIL>		
L1101	1-408-411-00	INDUCTOR 15UH		
L1102	1-404-496-00	COIL		
L1103	1-404-496-00	COIL		
L1104	1-408-411-00	INDUCTOR 15UH		
L1110	1-412-008-31	INDUCTOR CHIP 15UH		
L1111	1-412-008-31	INDUCTOR CHIP 15UH		
		<TRANSISTOR>		
Q1101	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1102	8-729-422-27	TRANSISTOR 2SD601A-Q		
Q1103	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1104	8-729-216-22	TRANSISTOR 2SA1162-G		
Q1105	8-729-901-01	TRANSISTOR DTC144EK		
Q1106	8-729-901-01	TRANSISTOR DTC144EK		
Q1107	8-729-109-44	TRANSISTOR 2SK94		
Q1108	8-729-422-27	TRANSISTOR 2SD601A-Q		
		<RESISTOR>		
R1101	1-216-053-00	METAL GLAZE	1.5K	5% 1/10W
R1102	1-216-067-00	METAL GLAZE	5.6K	5% 1/10W
R1103	1-216-059-00	METAL GLAZE	2.7K	5% 1/10W
R1104	1-216-073-00	METAL GLAZE	10K	5% 1/10W
R1105	1-216-031-00	METAL GLAZE	180	5% 1/10W
R1106	1-216-059-00	METAL GLAZE	2.7K	5% 1/10W
R1107	1-216-071-00	METAL GLAZE	8.2K	5% 1/10W
R1108	1-216-039-00	METAL GLAZE	390	5% 1/10W
R1109	1-216-063-00	METAL GLAZE	3.9K	5% 1/10W
R1110	1-216-069-00	METAL GLAZE	6.8K	5% 1/10W

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1111	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1112	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1113	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1114	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1116	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1117	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1118	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1120	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1121	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1122	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1123	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1124	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1125	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1126	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1127	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1128	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1129	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1131	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1132	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1133	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1134	1-216-091-00	METAL GLAZE	56K	5%	1/10W	

<VARIABLE RESISTOR>

RV1101	1-241-629-11	RES, ADJ, CARBON 4.7K	
RV1102	1-241-628-11	RES, ADJ, CARBON 2.2K	

<TRANSFORMER>

T1101	1-404-584-11	COIL	

9-978-259-81

Sony Corporation
Display Products Group

English
93AL0512-1
Printed in Japan

PVM-9041QM/9044QM

SONY
SERVICE MANUAL

AEP Model

PVM-9041QM
Chassis No. SCC-F09B-A
PVM-9044QM
Chassis No. SCC-F09A-A

SUPPLEMENT-3

File this supplement with the service manual.

INTRODUCTION

New Product, which have a changeover switch with both 16 : 9 and 4 : 3, has come from the following Serial Number.

Model	Serial Number
PVM-9041QM	2,500,001 and later
PVM-9044QM	2,500,001 and later

MICROFILM

SPECIFICATIONS

Video signal

Color system	**PVM-9044QM/9041QM:** PAL, SECAM, NTSC, NTSC4.43
Resolution	**PVM-9044QM:** 450 TV lines **PVM-9041QM:** 250 TV lines
Aperture correction	–4.0 dB – +6.0 dB (at 3.0 MHz)
Frequency response	6.0 MHz (–3.0 dB) at all inputs
Synchronization	AFC time constant 1.0 msec.

Picture performance

Normal scan	6% over scan of CRT effective screen area
Underscan	3% underscan of CRT effective screen area
H. linearity	Less than 7.0% (typical)
V. linearity	Less than 7.0% (typical)
Convergence	Central area: 0.43 mm (typical) Peripheral area: 0.53 mm (typical)
Raster size stability	H: 1.0%, V: 1.5%
High voltage regulation	3.0%
Color temperature	D65

Inputs and Outputs

Inputs	Y/C IN: 4-pin mini DIN connector (See the pin assignment on page 10.) VIDEO IN: BNC connector 1Vp-p ± 6 dB, sync negative AUDIO IN: phono jack, –5 dBs, less than 47k ohms R/R-Y, G/Y, B/B-Y: BNC connector R, G, B channels: 0.7 Vp-p, ±6 dB Sync on green: 0.3 Vp-p, negative, R-Y, Y, B-Y channels: 0.7 Vp-p, ±6 dB (Standard color bar signal of 100% chrominance) EXT SYNC IN: BNC connector Composite sync 4 Vp-p, ±6 dB, negative
Loop-through outputs	Y/C OUT: 4-pin mini DIN connector, 75 ohms terminated VIDEO OUT: BNC connector, 75 ohms terminated AUDIO OUT: phono jack Output level 0.5 W EXT SYNC OUT: BNC connector, 75 ohms terminated
Remote input	REMOTE: 8-pin mini DIN connector (See the pin assignment on page 10.)

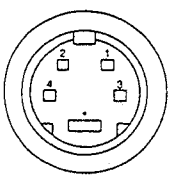
General

Power consumption	**PVM-9044QM/9041QM** 43 W at AC operation 40 W at DC operation
Power requirements	100 – 240 V AC, 50/60 Hz (for all models) 12 V DC, with the Sony (NP-1A/1B) battery pack (not supplied) or AC-550/550CE AC power adaptor (not supplied)
Operating temperature range	0 – 35°C
Storage temperature range	–10 – +40°C
Humidity	0 – 90%
Dimensions	Approx. 217 × 217 × 352.5 mm (w/h/d) ($8^5/_8 \times 8^5/_8 \times 14$ inches) not incl. projecting parts and controls
Weight	Approx. 7.8 kg (17 lb 3 oz) not incl. battery packs
Accessory supplied	AC power cord (1) Cable with an 8-pin connector (1) AC plug holders (1 set) Tally plate (1)

Design and specifications are subject to change without notice.

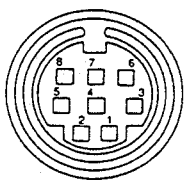
Pin Assignment

Y/C IN connector (4-pin mini DIN)



Pin No.	Signal	Description
1	Y-input	1 Vp-p, sync negative, 75 ohms
2	CHROMA sub-carrier-input	300 mVp-p, burst Delay time between Y and C: within 0±100 nsec., 75 ohms
3	GND for Y-input	GND
4	GND for CHROMA-input	GND

REMOTE connector (8-pin mini DIN)



Pin No.	Signal
1	Blue only
2	H/V delay
3	GND
4	INT/EXT SYNC
5	Tally
6	Underscan/normal scan
7	A/B or RGB/Y R-Y B-Y
8	RGB/LINE

For remote control, connect the pin of the desired function to pin 3 (GND).

TABLE OF CONTENTS

SECTION 1
GENERAL

The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remein as in the manual.

1-1. FEATURES

Four color systems available

(PVM-9044QM/9041QM only)

The monitor can display PAL, SECAM, NTSC and NTSC4.43[1] signals. The appropriate color system is selected automatically.

HR (High Resolution) Trinitron® [2] picture tube

(PVM-9044QM only)

The HR Trinitron picture tube provides a high resolution picture. Horizontal resolution is more than 450 TV lines at the center of the picture.

Blue only picture

(PVM-9044QM/9041QM only)

The picture can be displayed in blue and black only. This facilitates hue adjustment and the observation of video noise.

Analog RGB/component input connectors

(PVM-9044QM/9041QM only)

Analog RGB or component (Y, R-Y and B-Y) signals from video equipment can be input through these connectors.

Y/C input connector

The video signal, split into the chrominance signal (C) and the luminance signal (Y), can be input through this connector, eliminating the interference between the two signals, which tends to occur in a composite video signal, assuring video quality.

Beam current feedback circuit

The built-in beam current feedback circuit assures stable white balance.

Comb filter

(PVM-9044QM/9041QM only)

When NTSC video signals are received, a comb filter activates to increase the resolution, resulting in fine picture detail without color spill or color noise.

Under scan 4:3/16:9 selector[3]

(PVM-9044QM/9041QM only)

The monitor can display the 16:9 signal with the correct ratio of width and height, compressing the picture vertically. Selecting 16:9 with the UNDER SCAN 4:3/16:9 selector on the rear panel in the under scan mode changes the ratio of the picture to 16:9.

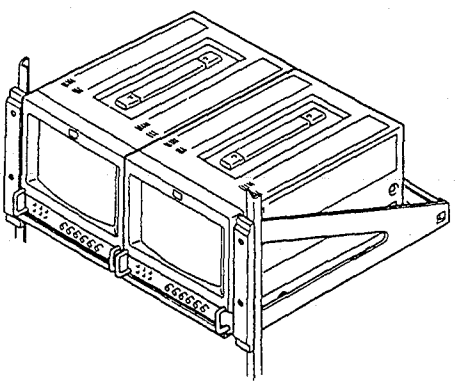
Automatic termination

(only connectors marked ⋔[3])

The Y/C, VIDEO IN and EXT SYNC IN[4] connectors are terminated at 75 ohms inside, when no cable is connected to the loop-through output connectors. When a cable is connected to an output connector, the 75-ohm termination is automatically released.

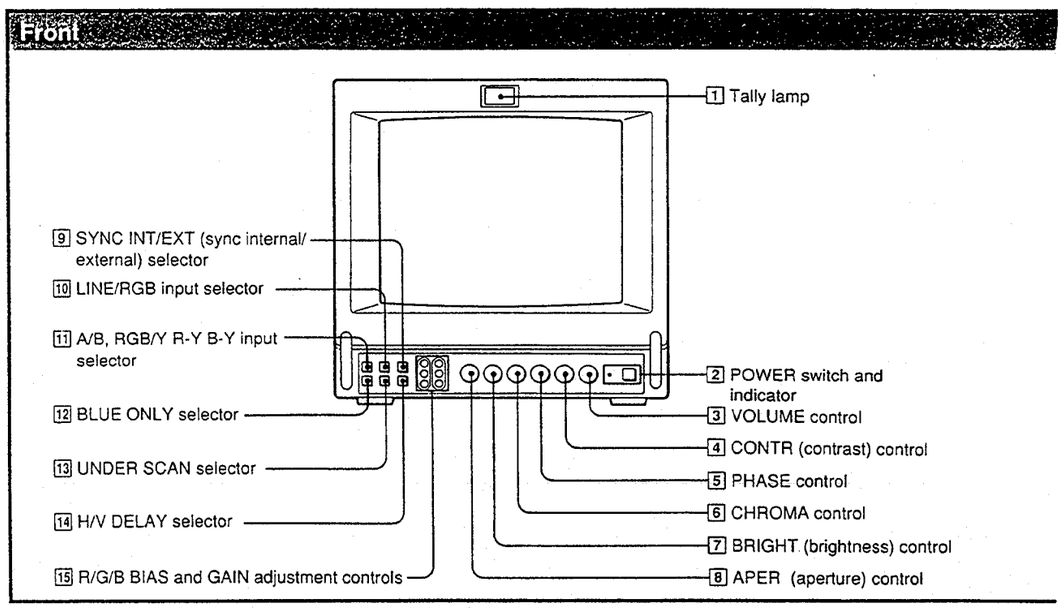
EIA standard 19-inch rack mounting

By using an MB-507 mounting bracket (not supplied), the monitor can be mounted in an EIA standard 19-inch rack. For details on mounting, see the instruction manual of the MB-507.



1) An NTSC4.43 signal is used for playing back NTSC-recorded video cassettes with a video tape recorder/player especially designed for use with this system.
2) Trinitron is a trademark of Sony Corporation.
3) The UNDER SCAN 4:3/16:9 selector and the ⋔ mark have been adopted since the serial No. 2500001 product.
4) The EXT SYNC IN connector is provided with the PVM-9044QM/9041QM only.

1-2. LOCATION AND FUNCTION OF PARTS AND CONTROLS



1 Tally lamp

2 POWER switch and indicator
Depress to turn the monitor on. The indicator will light up in green.
The POWER indicator also functions as the battery indicator. When the internal battery becomes weak or the power supplied through the DC12V IN jack decreases, the indicator flashes.

3 VOLUME control
Turn this control clockwise or counterclockwise to obtain the desired volume.

4 CONTR (contrast) control
Turn clockwise to make the contrast stronger and counterclockwise to make it weaker.

5 PHASE control
This control is effective only for the NTSC and NTSC4.43 color systems. Turn clockwise to make the skin tones greenish and counterclockwise to make them purplish.

6 CHROMA control
Turn clockwise to make the color intensity stronger and counterclockwise to make it weaker.

7 BRIGHT (brightness) control
Turn clockwise for more brightness and counterclockwise for less.

8 APER (aperture) control
Turn clockwise for more sharpness and counterclockwise for less.

Notes

- The PHASE, CHROMA and APER control settings have no effect on an analog RGB signal.
- The PHASE control has no effect on component singals.
- The PHASE control setting is effective only for the NTSC system.

9 SYNC INT/EXT (sync internal/external) selector
Keep this button released (INT) to operate the monitor on the sync signal from the displayed composite video signal.
Depress this button (EXT) to operate the monitor on an external sync signal fed through the EXT SYNC connector on the rear panel.

10 LINE/RGB input selector
Select the program to be monitored. Keep this button released (LINE) for a signal fed through the LINE A or LINE B connectors. Depress this button (RGB) for a signal fed through the RGB connectors.

11 A/B, RGB/Y R-Y B-Y input selector
When the LINE/RGB input selector is set to LINE,
keep this button released (A) for a signal fed through the LINE A connectors. Depress this button (B) for a signal fed through the LINE B connectors.

When the LINE/RGB input selector is set to RGB,
select the RGB signal or the component signal which is fed through the RGB input connectors. Keep this button released (RGB) for the RGB signal. Depress this button (Y R-Y B-Y) for the component signal.

12 BLUE ONLY selector
Depress this button to turn off the red and green signals. A blue signal is displayed as an apparent monochrome picture on the screen. This facilitates "chroma" and "phase" control adjustments and the observation of video noise.

13 UNDER SCAN selector
Depress this button for underscanning. The display size is reduced by approximately 3% so that four corners of the raster are visible.

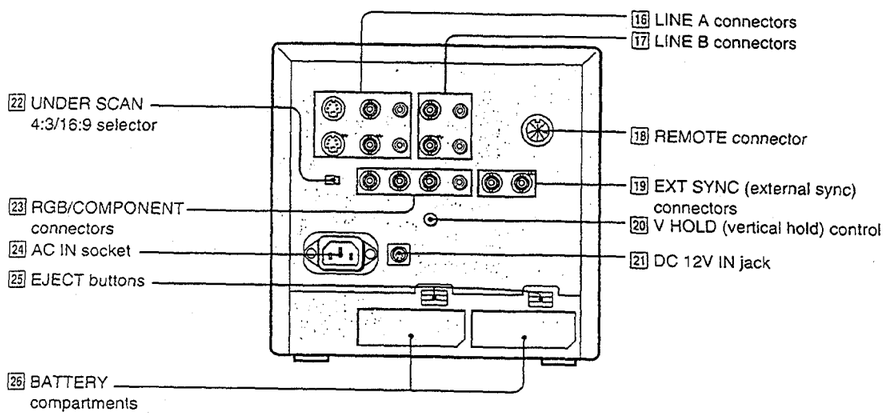
With this buton depressed, if the UNDER SCAN 4:3/16:9 selector on the rear panel is set to 16:9, the ratio of the picture changes to 16:9.

14 H/V DELAY selector
Depress this button to observe the horizontal and vertical sync signals at the same time. The horizontal sync signal is displayed in the left quarter of the screen; the vertical sync signal is displayed near the center of the screen.

15 R/G/B BIAS and GAIN adjustment controls
Used for white balance fine adjustment.
BIAS and GAIN controls are provided for the R (red), G (green) and B (blue) screens.

BIAS: Adjust the white balance and brightness of the screen at the lowlight.
GAIN: Adjust the white balance and brightness of the screen at the highlight.

Rear



16 LINE A connectors
To monitor the signal fed through these connectors, keep the LINE/RGB selector and the A/B, RGB/Y R-Y B-Y selector on the front panel released (LINE and A).

17 LINE B connectors
To monitor the signal fed through these connectors, keep the LINE/RGB selector released (LINE) and depress the A/B, RGB/Y R-Y B-Y selector on the front panel (B).

VIDEO IN (BNC): Connect to the video output of a video camera, VCR or other video equipment.
VIDEO OUT (BNC): Loop-through output of the VIDEO IN connector. Connect to the video input of a VCR or another monitor.
AUDIO IN (phono jack): Connect to the audio output of a VCR or a microphone (through a suitable *microphone amplifier*).
AUDIO OUT (phono jack): Loop-through output of the AUDIO IN connector. Connect to the audio input of a VCR or another monitor.

18 REMOTE connector (8-pin mini DIN)
Connect to the tally output of a control console, special-effect generator, etc. The tally lamp on the front panel will be turned on and off by the connected equipment. This connector can be used for connecting a *remote controller*. For the pin assignment of this connector, see "Specifications" on page 10.

Note

The Y/C IN connector has a priority over the VIDEO IN connector.
When a plug is connected to the Y/C IN connector, the VIDEO IN connector is automatically disconnected.

19 EXT SYNC (external sync) connectors
IN (BNC): When this monitor operates on an external sync signal, connect the reference signal from a sync generator to this connector. In this case, depress the SYNC INT/EXT selector on the front panel (EXT).
OUT (BNC): Loop-through output of the EXT SYNC IN connector. Connect to the external sync input of video equipment to be synchronized with this monitor.

20 V HOLD (vertical hold) control
Turn to stabilize the picture if it rolls vertically.

21 DC 12V IN jack (XLR, 4 pin)
Connect the Sony AC-550/550CE AC power adaptor (not supplied).

22 UNDER SCAN 4:3/16:9 selector
Set to compress the picture vertically to monitor the 16:9 input signal with the correct ratio.
The function of the UNDER SCAN button on the front panel is changed by the position of this selector.

UNDER SCAN button / 4:3/16:9 selector	Not depressed (⊔)	Depressed (⎓)
When the selector is set to 4:3	The 4:3 input signal is monitored with overscanning.	The 4:3 input signal is monitored with underscanning.
When the selector is set to 16:9	The 4:3 input signal is monitored with overscanning.	The 16:9 input signal is monitored with underscanning. (Compressed vertically)

The UNDER SCAN 4:3/16:9 selector has been adopted since the serial No. 2500001 product.

23 RGB/COMPONENT input connectors

R/R-Y, G/Y, B/B-Y (BNC), AUDIO (phono):
To monitor a signal fed through these connectors, depress the LINE/RGB selector on the front panel (RGB). When the SYNC INT/EXT selector on the front panel is released (INT), the monitor operates on the sync signal from the G/Y channel.

To monitor the analog RGB signal
Connect to the analog RGB signal outputs of a video camera. Keep the A/B, RGB/Y R-Y B-Y selector on the front panel released (RGB).

To monitor the component signal
Connect to the R-Y/Y/B-Y component signal outputs of a Sony BetaCam video camera. Depress the A/B, RGB/Y R-Y B-Y selector on the front panel (Y R-Y B-Y).

24 AC IN socket
Connect the supplied AC power cord to this socket and to a wall outlet.

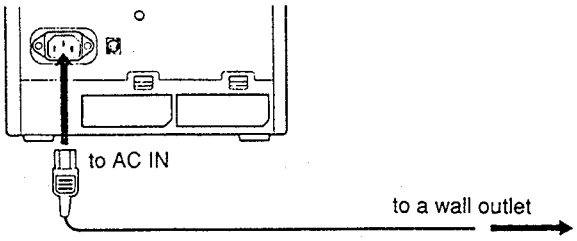
25 EJECT buttons
Press the EJECT button upwards to remove the battery pack.

26 BATTERY compartments
Insert the NP-1A/1B battery pack (not supplied).

1-3. POWER SOURCES

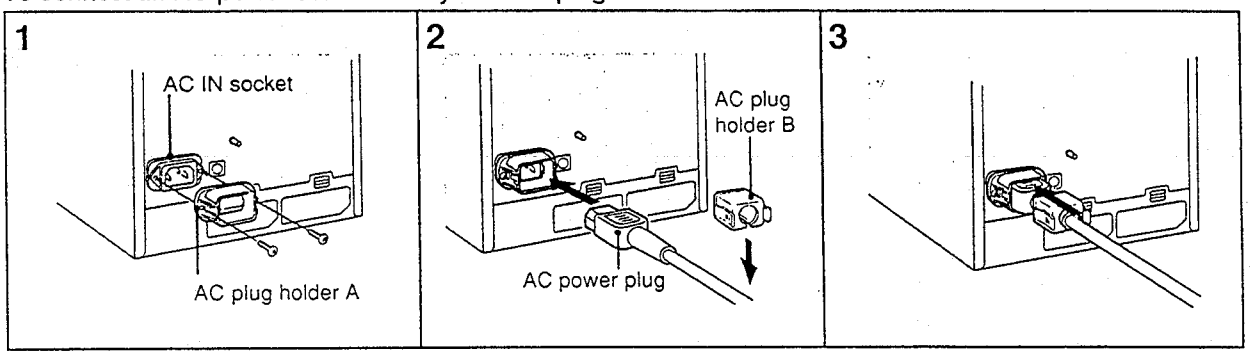
House Current (for all models)

Connect the supplied AC power cord to the AC IN socket and to a wall outlet.



For the PVM-9044QM/9041QM
When the AC power cord is plugged into the AC IN socket, the battery pack (if installed) or the AC power adaptor (if connected) is automatically disconnected.

To connect an AC power cord securely with AC plug holders



1 Remove the AC IN socket screws and then use them to attach the AC plug holder A (supplied) to the AC IN socket.

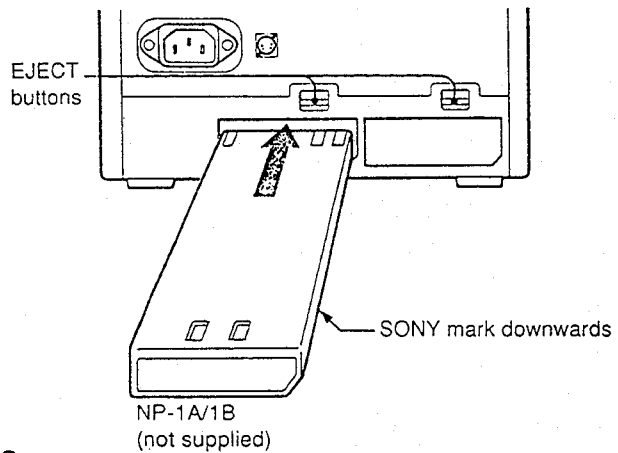
2 Plug the power cord to the AC IN socket. Then, attach the supplied AC plug holder B on top of the AC power cord.

3 Slide AC plug holder B over the cord until it locks.

To remove the AC power cord
Pull out AC plug holder B by squeezing the left and right sides.

Rechargeable Battery (PVM-9044QM/9041QM only)

The monitor can operate with one or two battery packs. For extended use, two battery packs are recommended.



To remove the battery pack, press the EJECT button upwards.

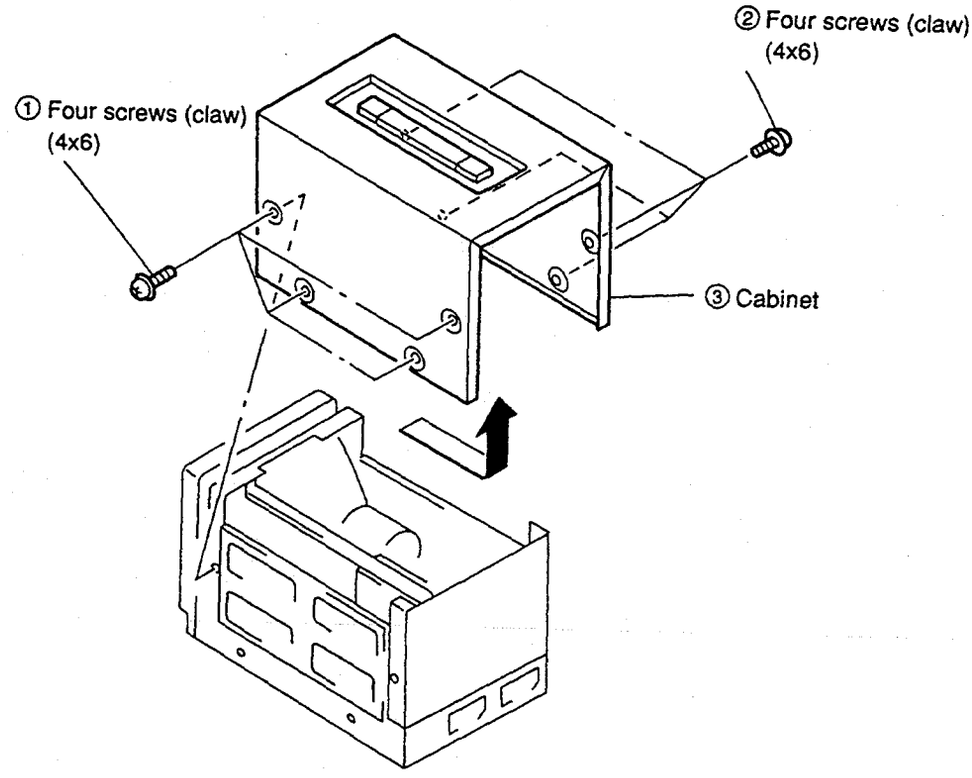
For charging, use the BC-1WA battery charger (not supplied) for the NP-1A or the BC-1WB for the NP-1B.

Note

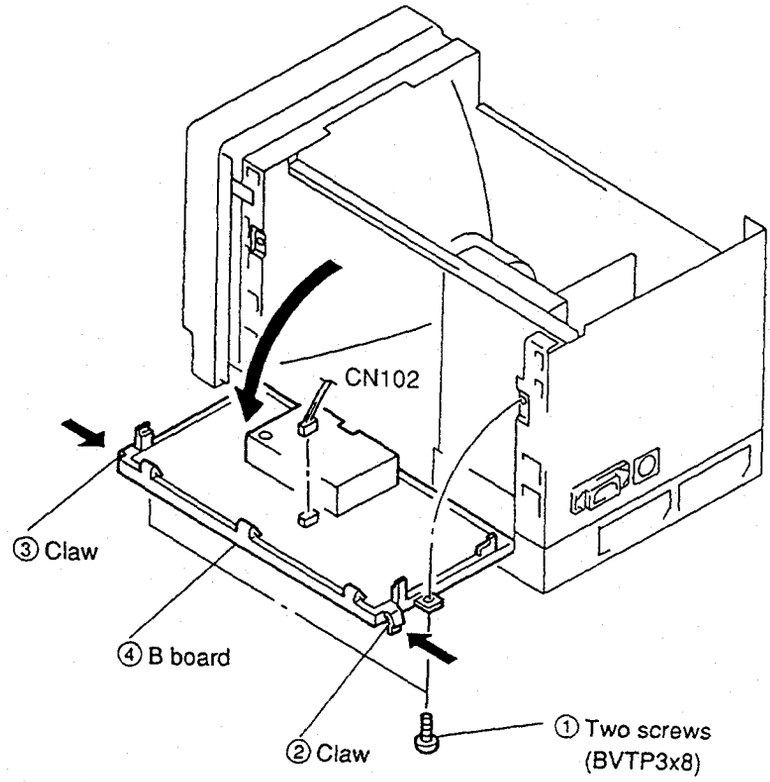
Make sure that the AC power cord and the AC power adaptor are disconnected from the monitor. Otherwise, the monitor cannot operate on the battery pack(s).

SECTION 2
DISASSEMBLY

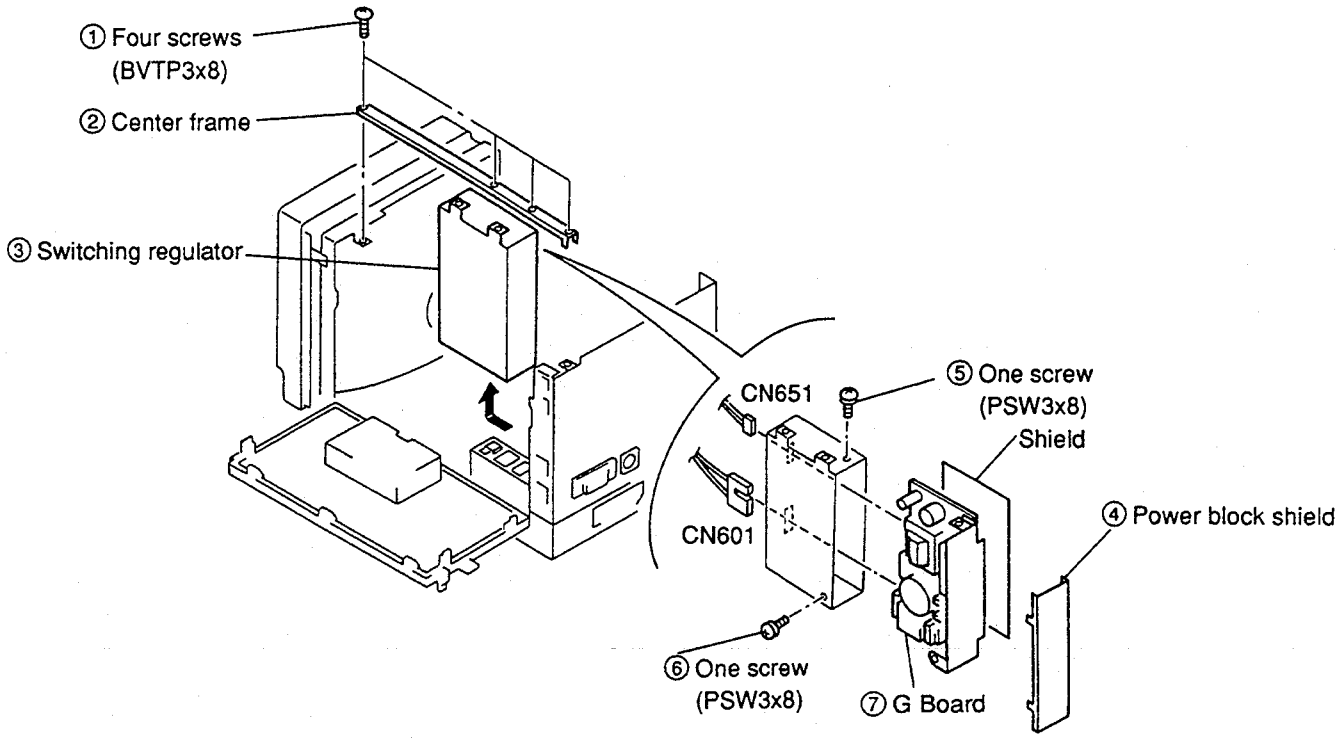
2-1. CABINET REMOVAL



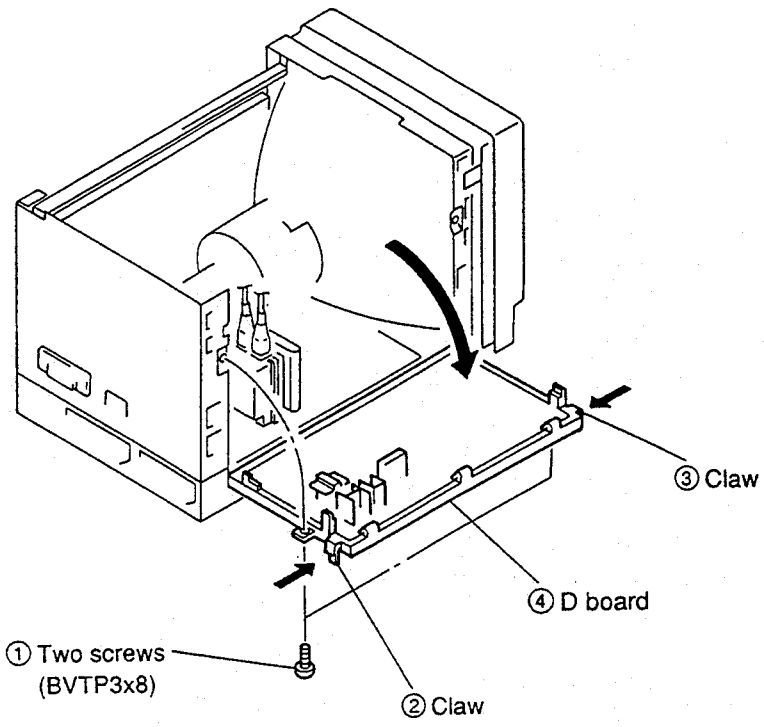
2-2. B BOARD REMOVAL



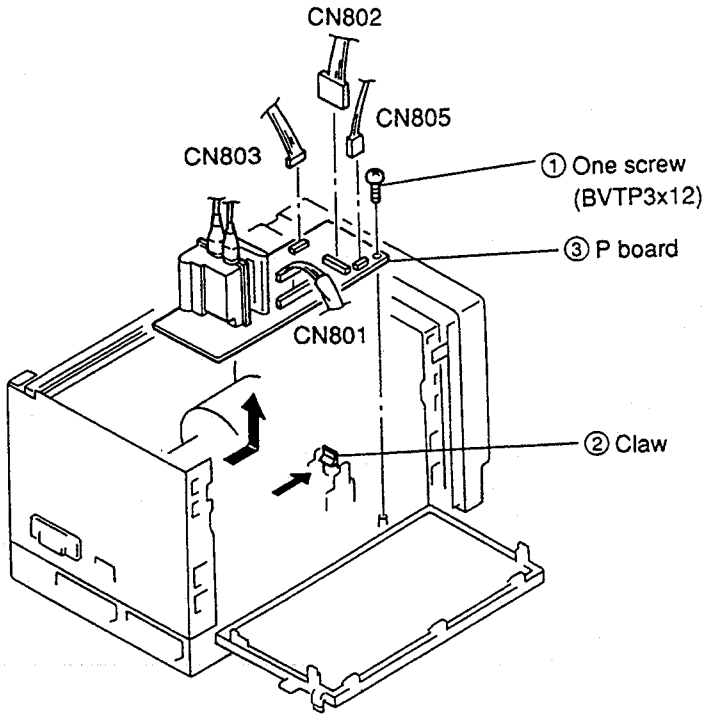
2-3. SWITCHING REGULATOR REMOVAL



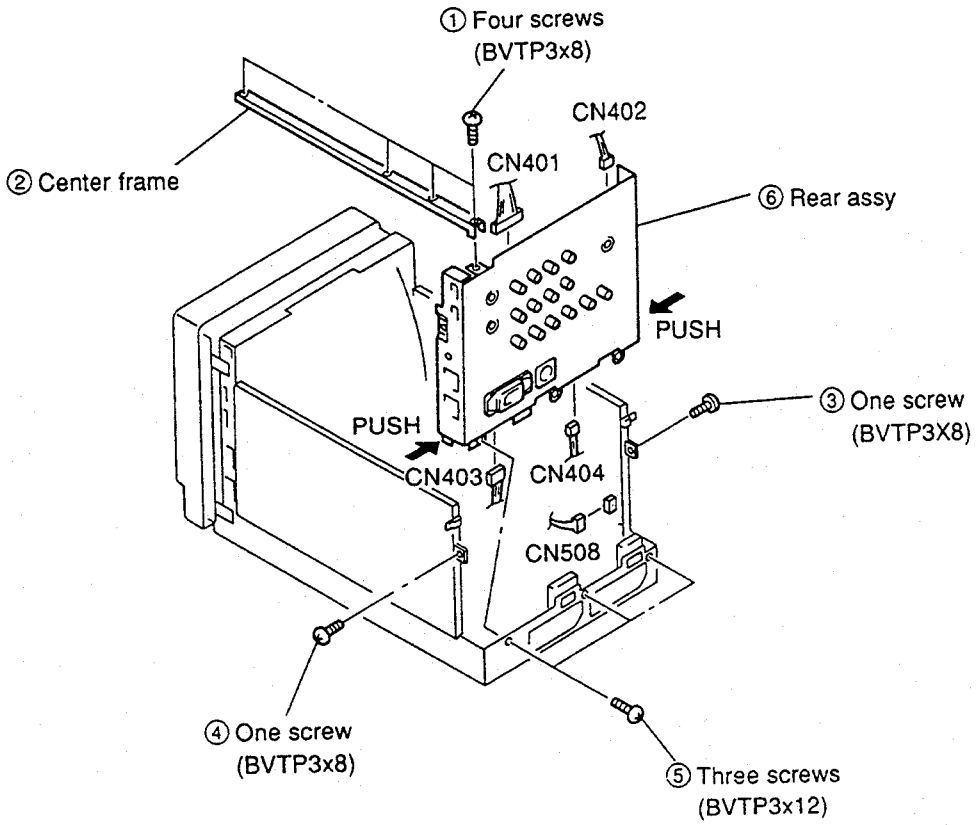
2-4. D BOARD REMOVAL



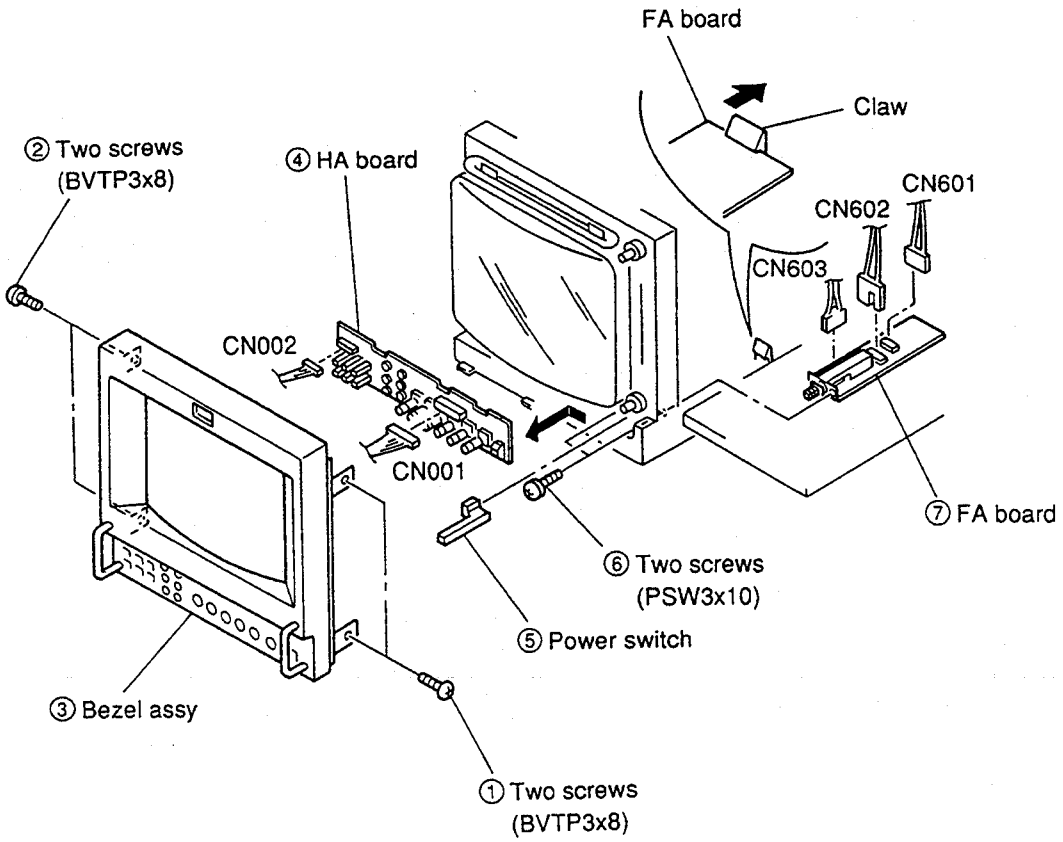
2-5. P BOARD REMOVAL



2-6. REAR ASSY REMOVAL



2-7. HA AND FA BOARDS REMOVAL



2-8. PICTURE TUBE REMOVAL

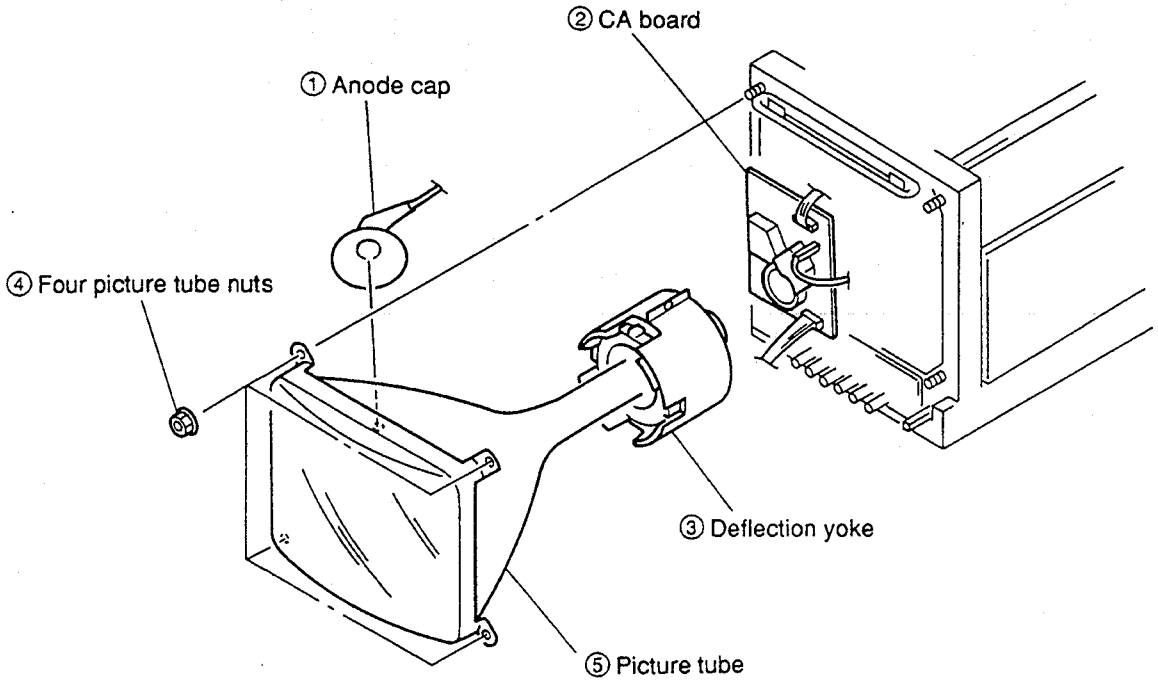
Note : Caution for ANODE CAP installation.
When you replace PICTURE TUBE or FBT, remove RTV on ANODE CAP so that PICTURE TUBE and FBT can be separated. Please adhere picture tube and anode cap in accordance with the following procedure.

ADHERING PROCEDURE OF ANODE CAP.

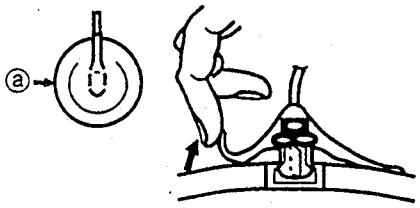
1. Clean PICTURE TUBE ANODE CAP with ethnaol to remove original RTV.
2. Dry clean face with air.
3. Use KE-490RTV (RTV silicone adhesive, SHIN-ETSU CHEMICAL).

Part. No.	Description
7-322-065-19	Silicone (RTV) KE-490W

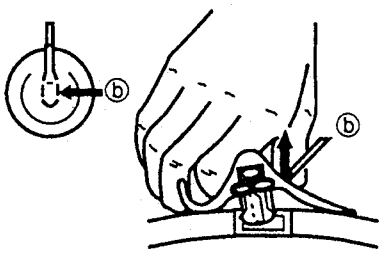
4. Install ANODE CAP.
5. Adeguately apply RTV to the entire picture tube anode area, piace the anode cap onto the picture tube and push it down securety so that no air pockets remain beneath the cap.
6. Dry more than 12 hours at room temperature.



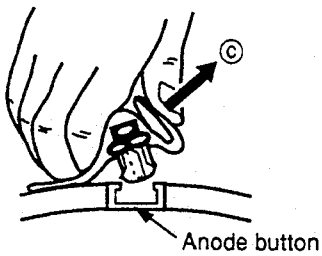
- **REMOVAL OF ANODE-CAP**
- **REMOVING PROCEDURES**



① Turn up one side of the rubber cap in the direction indicated by the arrow ⓐ.



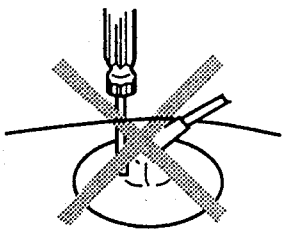
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ⓑ.

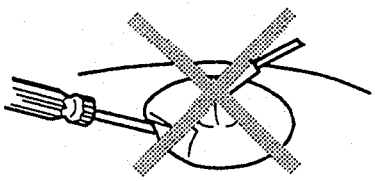


③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

- **HOW TO HANDLE AN ANODE-CAP**

① Don't hurt the surface of anode-caps with sharp shaped material!
② Don't press the rubber hardly not to hurt inside of anode-caps!
A metal fitting called as shatter-hook terminal is built in the rubber.
③ Don't turn the foot of rubber over hardly!





SECTION 3
SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

The control and switch below should be set as follows unless otherwise noted:

CONTRAST control 80%
BRIGHTNESS control 50%

Perform the adjustments in order as follows:

3-1. Beam Landing
3-2. Convergence
3-3. Focus
3-4. White Balance

Note: Test equipment Required.

1. Color Bar/Pattern Generator
2. Degausser
3. Color Analyzer (Minolta)
4. Luminance Level Meter

3-1. BEAM LANDING

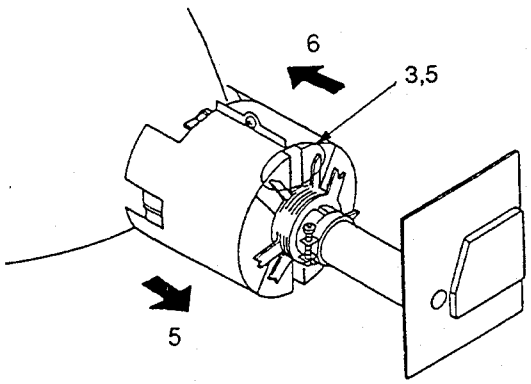
Precaution

1. Set the side of the unit with the PICTURE TUBE so that it faces east or west in order to reduce the influence of external magnetic force.
2. Turn the power switch for the unit ON and erase the magnetic force using a degausser.

(1) Beam Landing

1. Receive an entirely white signal with the pattern generator.
   CONTRAST ..... MAX.
   BRIGHTNESS ..... set easy to observe
2. Adjust the white balance, G2 voltage and convergence roughly.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown in Fig.3-1.
4. Switch over the pattern generator to green.
5. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and blue and red are at the sides, evenly. (Fig.3-2)
6. Move the deflection yoke forward, and adjust so that the entire screen becomes green. Repeat 5 to 7 as to red and blue.
7. When landing at the corners is not right, correct by using the magnet. (Fig.3-3)
8. When the position of the deflection yoke is determined, tighten it with a deflection yoke mounting screw.

CAUTION: When correction magnet is used, be sure to degauss the unit.



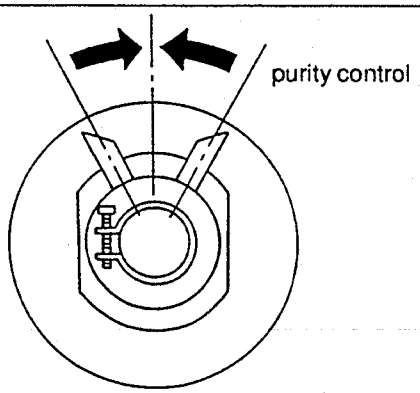


Fig.3-1

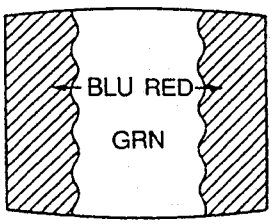


Fig.3-2

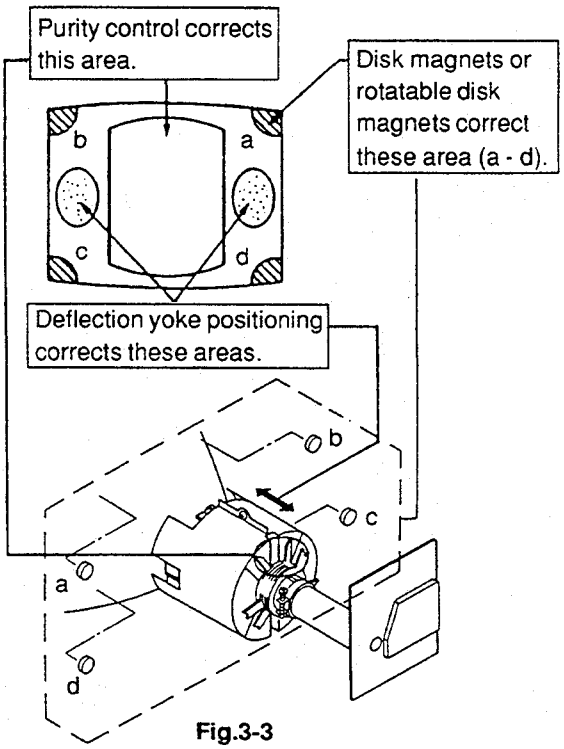


Fig.3-3

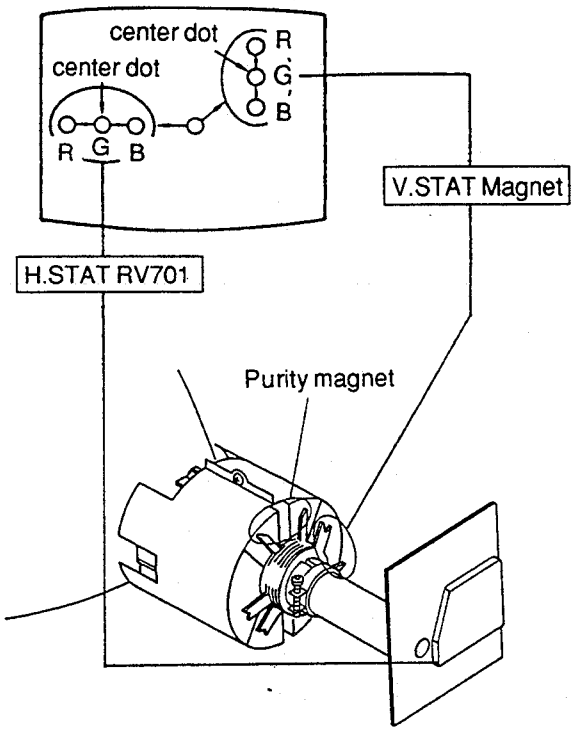
3-2. CONVERGENCE

(1) Horizontal and vertical Static Convergence Adjustment on the Center of Screen.

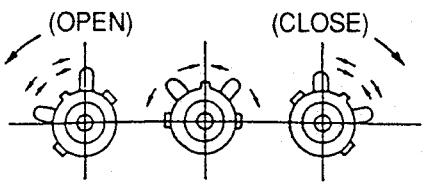
- Before starting, perform V. SIZE, V. CENT, H.SIZE, H.CENT and Screen Distortion Adjustment rightly.

(Static Convergence Adjustment)

1. Receive a dot signal, setting BRIGHTNESS minimum and set CONTRAST to normal.
2. Adjust H.STAT VR to coincide red, green and blue dots on the center of screen. (Horizontal movement)
3. Adjust V.STAT magnet to coincide red, green and blue dots on the center of screen. (Vertical movement)

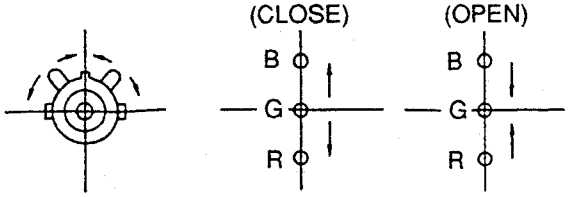


* If the red, green and blue dots do not coincide on the center of screen with H.STAT VR, perform adjustment using V.STAT at the same time while tracking.
(Tilt the V.STAT magnet and adjust static convergence to open or close the V.STAT magnet.)

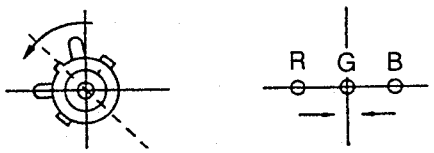


4. When the V.STAT magnet is moved in the direction of arrow A and b, red, green and blue dots move as shown below.

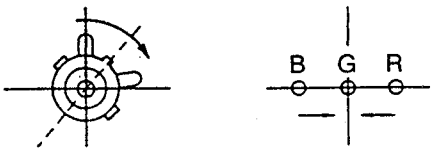
① When moving the V.STAT Magnet open or close.



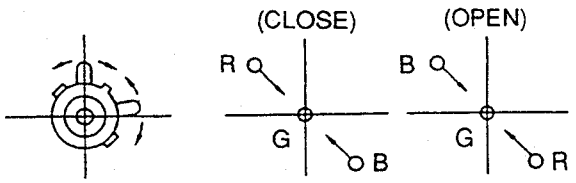
② When moving the V.STAT magnet counterclockwise.



③ When moving the V.STAT magnet clockwise.



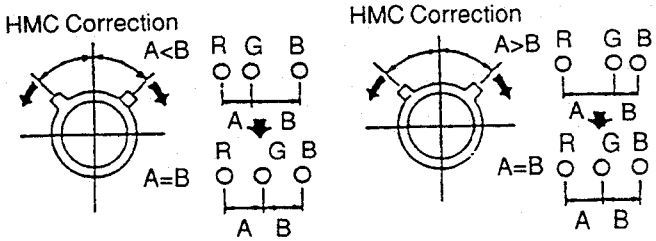
④ When tilt the V.STAT magnet and open or close.



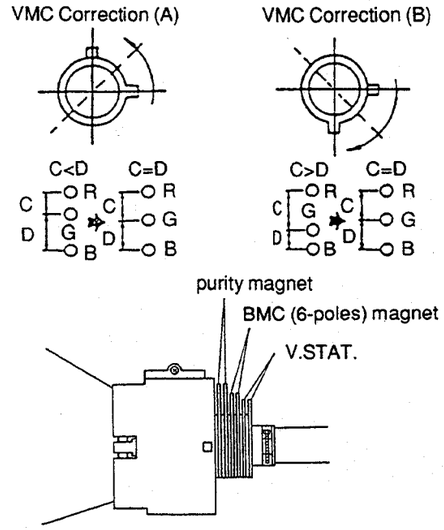
* If the red and green dots do not coincide with blue dot, adjustment with BMC (6-poles) magnet.

5. HMC and VMC correction for BMC (6-Poles) magnet.

① HMC (Horizontal Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

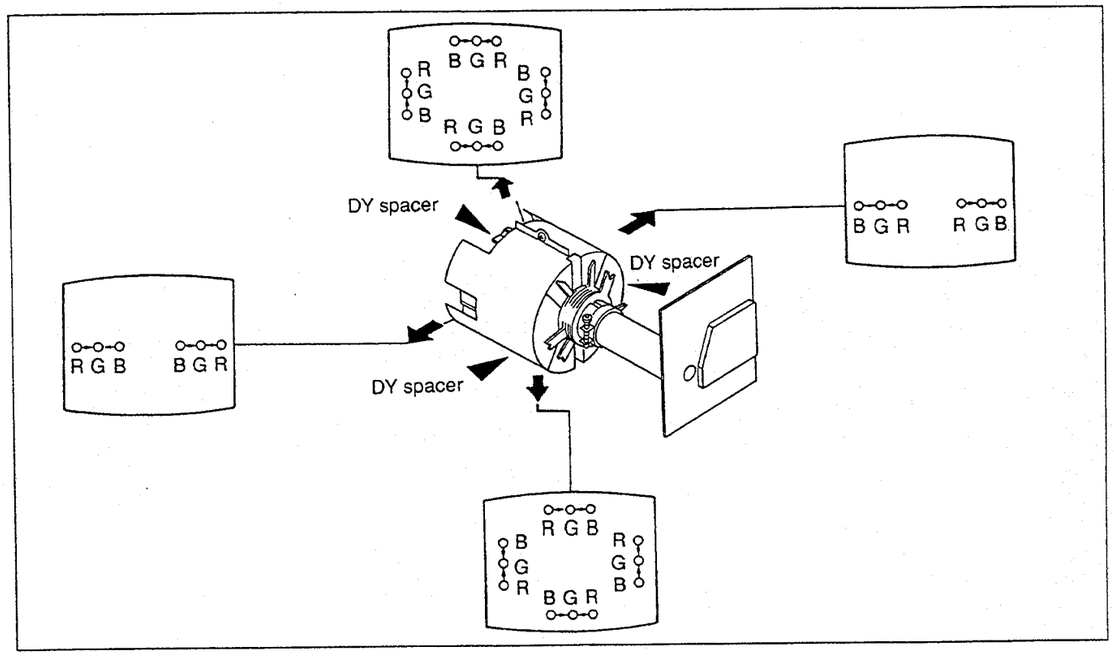


② VMC (Vertical Misconvergence) correction and motion of the Electron Beam with the BMC (6-poles) magnet.

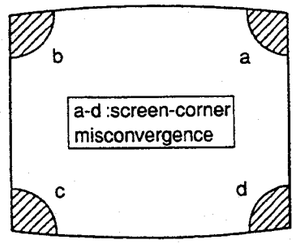


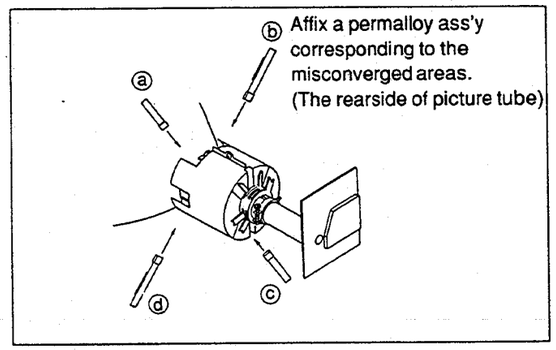
(2) Horizontal and Vertical Dynamic Convergence Adjustment at the Environs of the Screen (Dynamic Convergence Adjustment)

1. When there is misconvergence at the sides of screen, adjust for best convergence as follows by moving the deflection yoke.
2. Loosen deflection yoke screw. Remove deflection yoke spacers. Move the deflection yoke for best convergence. Tighten the deflection yoke screw. Install three deflection yoke spacers.



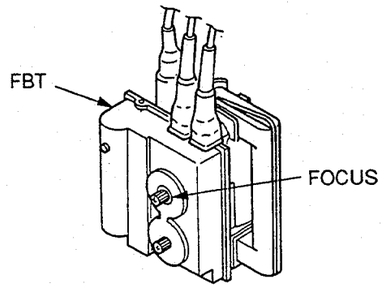
Screen-corner Convergence





3-3. FOCUS

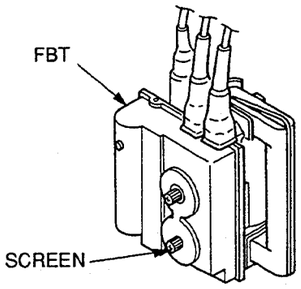
1. Receive a monoscope signal.
2. CONTRAST → Normal
3. Adjust FOCUS control so that the focus on the center of screen becomes to the best.



3-4. WHITE BALANCE

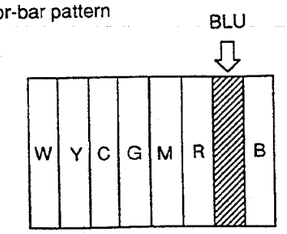
[Screen (G2) Voltage Adjustment]

1. Receive a dot signal with the pattern generator.
2. Adjust R. G. B cut-off controls so that respective cathode voltage against ground becomes 103V DC.
3. Observing the screen, adjust SCREEN control so that the background of the dot signal is bright dimly.



[White Balance]

1. Receive a color-bar pattern signal with the pattern generator. (Make black and white screen by chroma switch off.)
2. • BRIGHTNESS 50%
   • CONTRAST .....Minimum
   • CHROMA 50%
   • DRIVE control .....Mechanical center
   • BKG control .....Mechanical center
3. Adjust RV118 (SUB BRT) on B board so that the blue stripe portion on the color-bar pattern signal is bright dimly.



4. Receive an entirely white signal from the pattern generator.
5. CONTRAST .....70% (90 degree clockwise from mechanical center.)
6. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 3 Nits. (The condition the screen is bright dimly.)
7. Adjust white balance at cut-off using RV119 (G-C/O) and RV121 (B-C/0).
8. Change the all-white signal luminance level to 100 IREs.
9. Adjust white balance at high-light using RV120 (G-GAIN) and RV121 (B-GAIN).
10. Change the unit to blue ONLY mode.
11. Adjust white balance (at high-light) in blue ONLY mode using RV124 *R-GAIN/BL) and RV125 (G-GAIN/BL).
12. Using the luminance level meter, adjust the luminance level of the pattern generator becomes 8 Nits. Confirm that white balance at cut-off is satisfactory..

SECTION 4
SAFETY RELATED ADJUSTMENT

4-1. SAFETY RELATED ADJUSTMENTS

B+ ADJUSTMENT AND B+ MAX CHECK FOR SERVICING (⊠ RV651)

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on G board : (Power supply block)
IC601, IC651, PH601, C654, R653, R655, R656, R657, RV651.

1. Input the AC power supply voltage 240V $^{+1}_{-0}$ V.
2. Input the monoscope signal.
3. Set as follows.
   - CONTRAST 80%
   - BRIGHTNESS 50%
4. Connect the digital multimeter to RY1601 pin-⑦ on the D board.
5. Adjust RV651 on the G board so that the +B voltage becomes 40.0 ± 0.1V.
6. After adjusting RV651, fix it with an epoxy.
7. Input the AC power supply voltage 240V $^{+1}_{-0}$ V.
8. Input the dot signal.
9. Set as follows.
   - CONTRAST ..... Minimum
   - BRIGHTNESS ..... Minimum
10. Check that the B+ voltage is below 41.9V.
    If it is above this value, repeat from step 1.

B+ MAX IN DC POWER INPUT MODE, CONFIRMATION (⊠ RV1603)

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on D board :
Q1601, Q1602, Q1603, D1601, D1602, D1603, D1622, C1601, C1602, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV1601, RV1603.

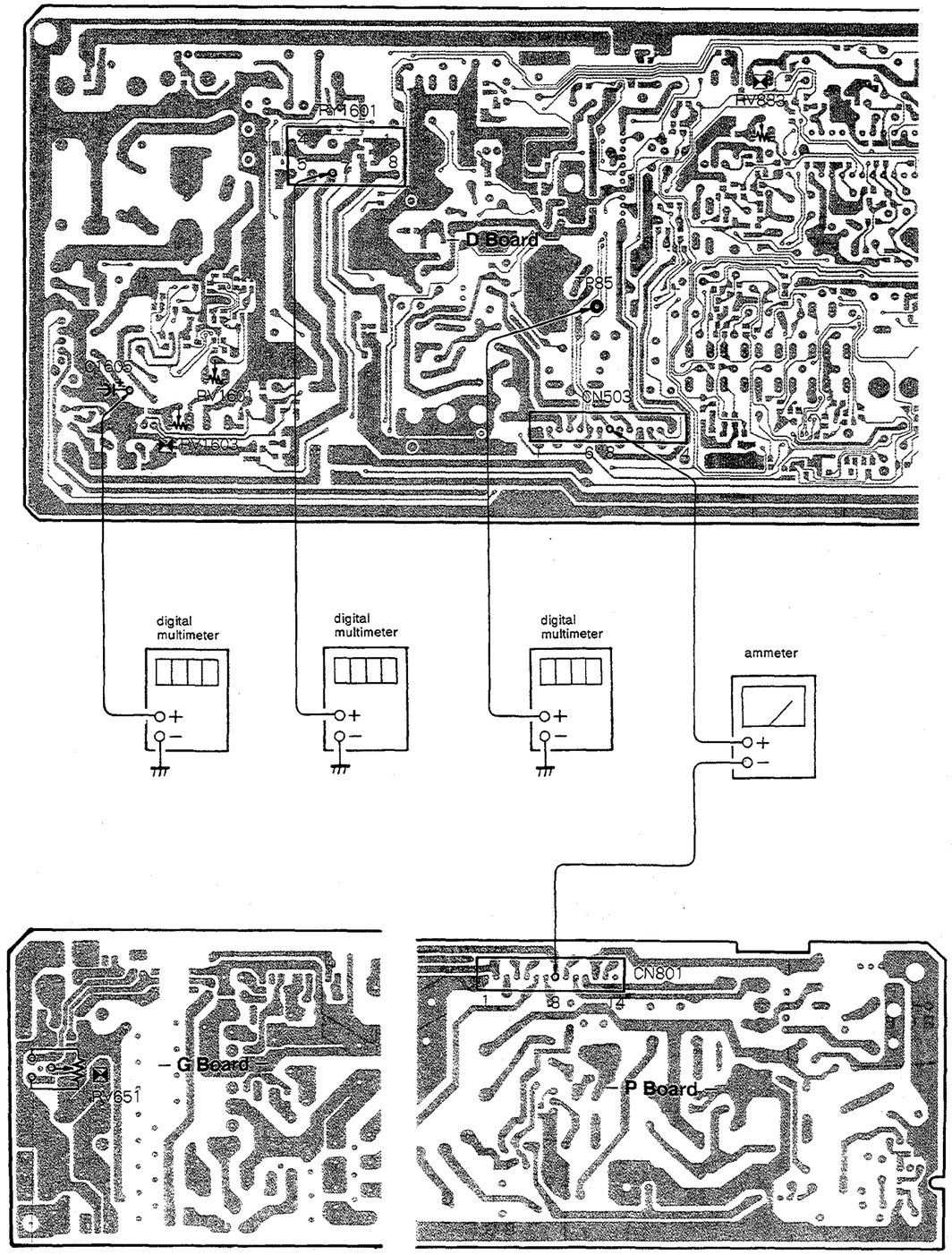
1. Supply DC 12V $^{+0.4}_{-0}$ V from DC 12V IN connector.
2. Receive a dot signal.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Minimum
4. Connect a digital multimeter to C1605 positive + side of D board.
5. Turn RV1601 on the D board fully clockwise. Confirm that the voltage of C1605 + pin is less than 41.9V DC.
6. If step 5 is not satisfied, readjust the RV1603. After adjusting, fasten RV1603 in place with epoxy.

HOLD-DOWN CIRCUIT CONFIRMATION (⊠ RV833) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

◪ on D board :
IC502, Q833, Q834, Q835, Q836, D835, D836, C519, C843, C844, C845, C846, C847, C848, RV833, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863.
◪ on P board : C814, NL801, T802 (FBT)

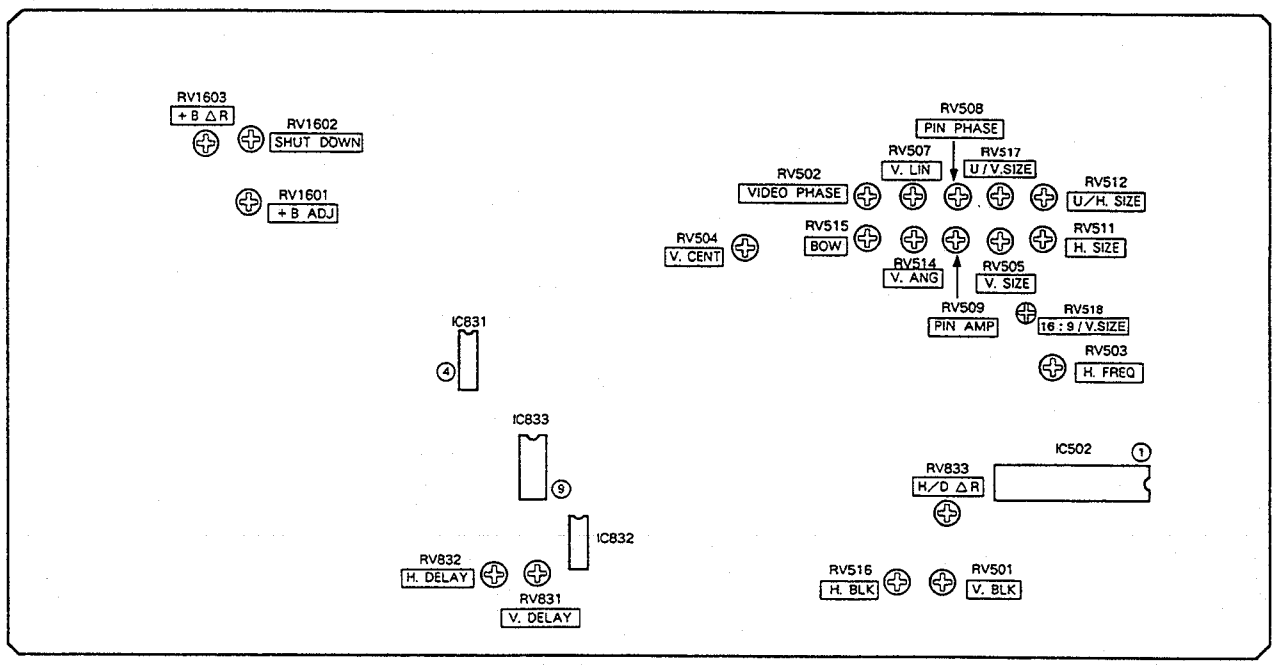
1. Receive an entire white signal.
2. • CONTRAST ..... Maximum
   • BRIGHTNESS ..... Maximum
3. Connect a digital multimeter to the TP85 (CN503 pin-⑥).
4. Confirm the voltage is 14.1 ± 3.0V DC.
5. Receive a dot signal.
6. Connect an ammeter between D board CN503 pin-⑧ and P board CN801 pin-⑧.
7. Adjust BRIGHTNESS and CONTRAST so that the current is IABL = 160 ± 30 µA.
8. Apply an external DC voltage gradually to TP85. When the voltage becomes 18.5V ± 0.1V DC, confirm the HOLD-DOWN circuit operates immediately and raster disappears.
9. When external DC voltage at TP85 becomes 17.5V ± 0.1V DC, confirm the HOLD-DOWN circuit doesn't operate.
10. Receive an entire white signal.
11. Adjust with BRIGHTNESS and CONTRAST controls so that the current is IABL = 520 ± 30 µA.
12. Apply DC voltage of 17.8V ± 0.1V to TP85. Confirm the HOLD-DOWN circuit operates immediately and raster disappears.
13. With the same set-up as steps 10 and 11, supply 16.8V ± 0.1V DC to TP85. Confirm that the HOLD-DOWN circuit doesn't operate.
14. When above specifications are not satisfied, readjust RV833. After adjusting, fasten RV833 in place with epoxy.



SECTION 5
CIRCUIT ADJUSTMENTS

5-1. D BOARD ADJUSTMENTS

—D BOARD (COMPONENT SIDE)—

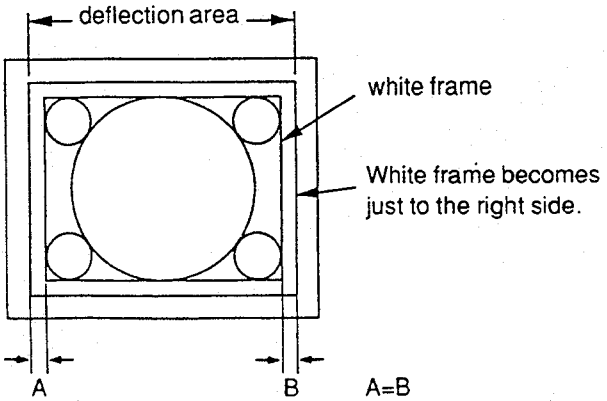


HORIZONTAL OSCILLATION FREQUENCY ADJUSTMENT (RV503)

1. Receive a monoscope signal.
2. Connect pin-① of IC502 to ground with 100μF/16V electrolytic capacitor.
3. Adjust RV503 (H.FREQ) so that the screen streaming to stops.

SCREEN PHASE ADJUSTMENTS (RV502, RV512, RV516)

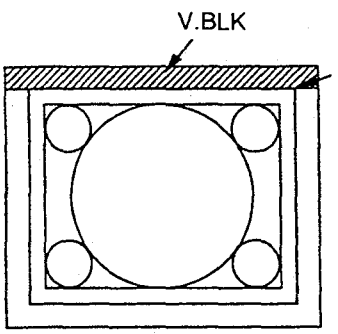
1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
   Set U/S 4:3/16:9 SW to 4:3 mode.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Maximum.
4. Adjust RV512 (U/H. SIZE) so that the white frame of monoscope signal becomes visible.
5. Adjust RV516 (H.BLK) for minimum BLKG width so that all the deflection area becomes visible.
6. Adjust RV502 (VIDEO PHASE) so that the monoscope's white frames should have equal width.



H.V BLK ADJUSTMENTS (RV501,RV516)

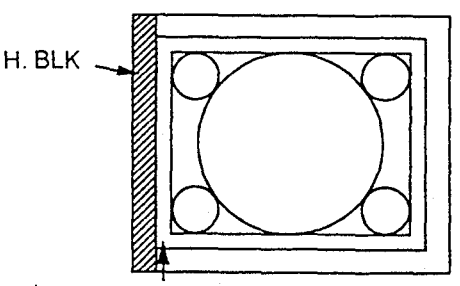
1. Receive a monoscope signal.
2. Set U/S (Under Scan) switch to Under mode.
   Set U/S 4:3/16:9 SW to 4:3 mode.
3. • CONTRAST ..... Minimum
   • BRIGHTNESS ..... Maximum.
4. V. BLK Adjustment (RV501)

(1) Adjust RV501(V. BLK) so that the upper side white frame of monoscope signal is not blanked.



5. H. BLK Adjustment (RV516)

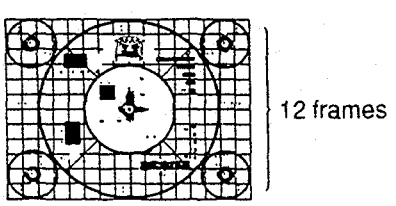
(1) Adjust with RV516 (H. BLK) so that the left end white vertical line of the white frame of monoscope signal is not blanked as following figure.



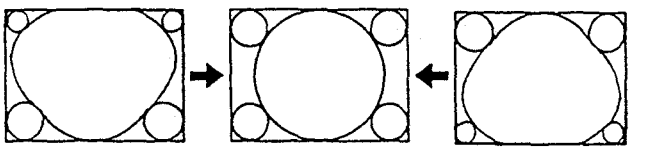
Make not to blank the left end white vertical line of the white frame of monoscope signal.

VERTICAL DEFLECTION PART ADJUSTMENTS (RV504, RV505, RV507, RV517, RV518)

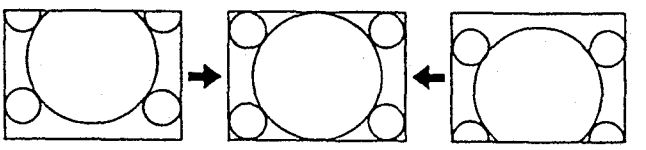
1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. Adjust RV505 (V. SIZE) so that the vertical size of monoscope signal becomes 12 frames.



4. Adjust RV507 (V.LIN) the vertical linearity.

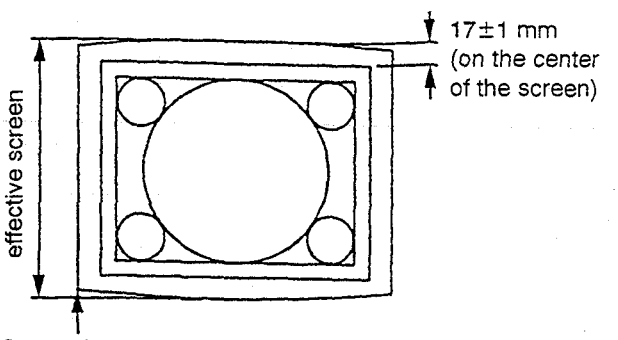


5. Adjust RV504 (V. CENT) the vertical position.



6. 16:9/V.SIZE ADJUSTMENT (RV518)

(1) Set U/S (Under Scan) switch to Under mode.
(2) Set 16:9/4:3 switch to 16:9 mode.
(3) Adjust the 16:9/V.SIZE with RV518 (16:9/V.SIZE) as follows.

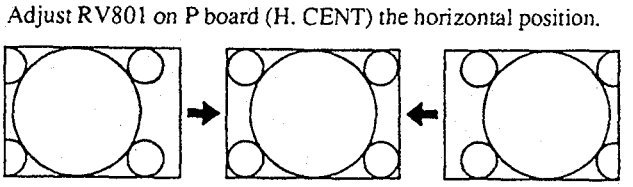


Screen is not wane on the four corners.

HORIZONTAL DEFLECTION PART ADJUSTMENTS (RV508, RV509, RV511, RV514, RV515, RV801/P board)

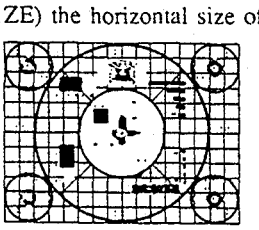
1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. H. CENT Adjustment (RV801 on P board)

(1) Adjust RV801 on P board (H. CENT) the horizontal position.



4. H. SIZE Adjustment (RV511)

(1) Adjust RV511 (H. SIZE) the horizontal size of 16 frames of monoscope signal.



5. PIN AMP. PIN PHASE, V. ANG, BOW ADJUSTMENTS (RV508 RV509, RV514, RV515)

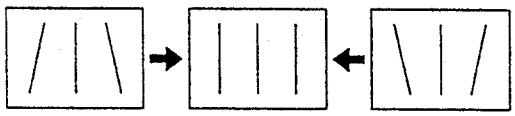
Adjust RV514 (V. ANG) and RV515 (BOW) to correct vertical angular distortion and bow distortion. Adjust RV509 (PIN AMP) and RV508 (PIN PHASE) so that vertical lines become straight.

- V. ANG (RV514)

- BOW (RV515)

- PIN AMP (RV509)

- PIN PHASE (RV508)



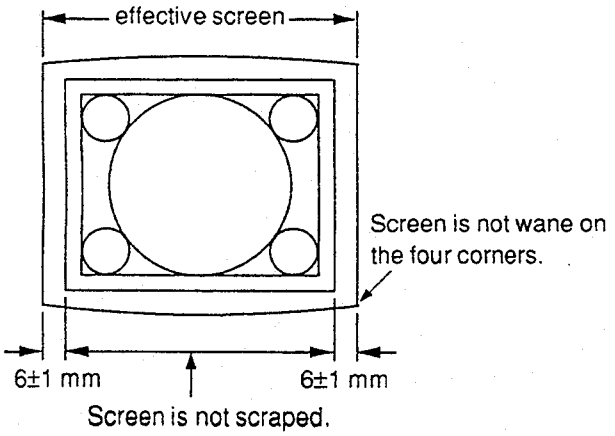
6. H. SIZE ADJUSTMENT (RV511)

(1) Adjust RV511 (H. SIZE) so that the horizontal size becomes 16 ± 0.2 frames.

7. UNDERSCAN MODE H.SIZE ADJUSTMENT (RV512)

(1) Set U/S (Under Scan) switch to Under mode.

(2) Adjust RV512 (U/H. SIZE) the Under H. SIZE as shown in the figure.

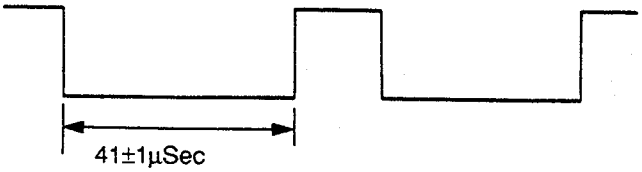


H V DELAY ADJUSTMENT (RV831, RV832)

1. Receive a monoscope signal.
2. • CONTRAST 70%
   • BRIGHTNESS 50%
3. Set H V DELAY switch to DELAY mode.
4. H. DELAY Adjustment (RV832)

(1) Connect an oscilloscope to pin-④ of IC831.

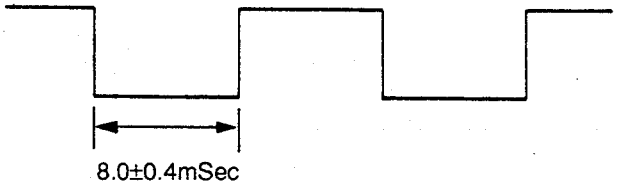
(2) Adjust RV832 (H. DELAY) to becomes 41 ± 1 µsec.



5. V. DELAY Adjustment (RV831)

(1) Connect an oscilloscope to pin-⑨ of IC833.

(2) Adjust RV831 to become 8.0 ± 0.4msec as follows.



SHUT-DOWN VOLTAGE ADJUSTMENT (RV1602)

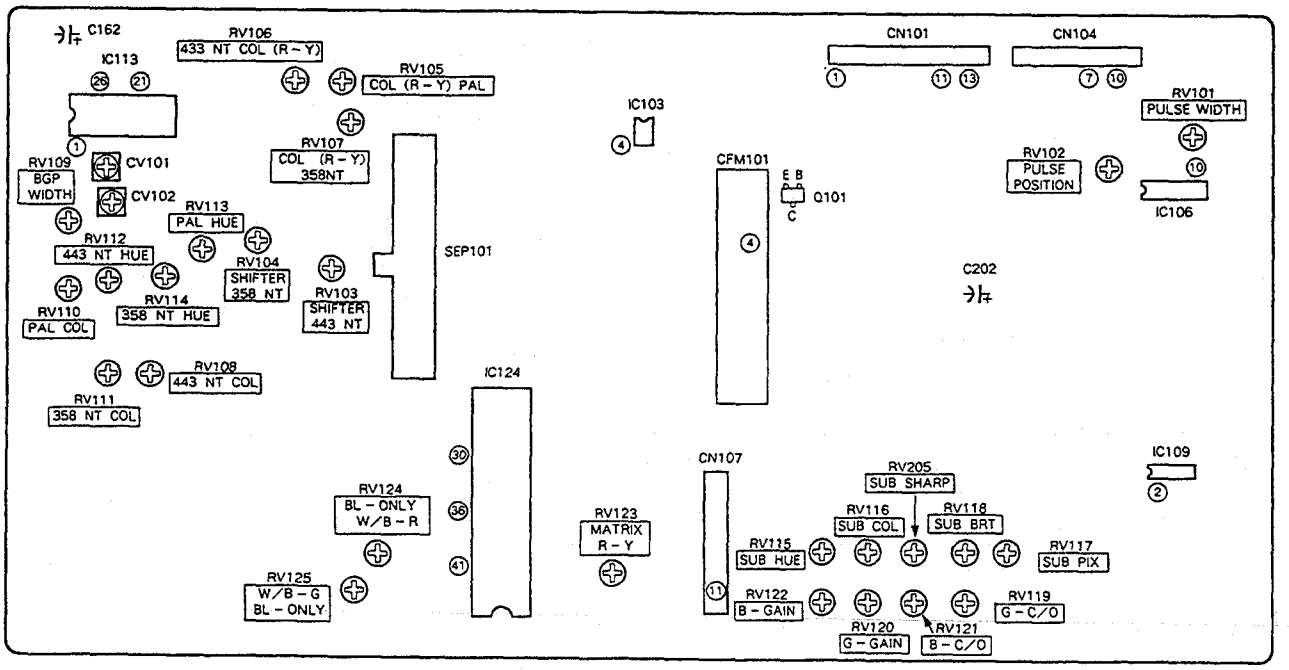
1. Fully rotate RV1602 in the direction that does not shut-down.
2. Supply a 9.4V $^{+0.1}_{-0}$V voltage to the C1602 side of L1602 on the D board.
3. Turn AC power switch ON.
4. Rotate D board RV1602 (SHT DOWN) slowly to the point that shuts-down the unit.

B+ VOLTAGE DURING DC OPERATE MODE, ADJUSTMENT (RV1601)

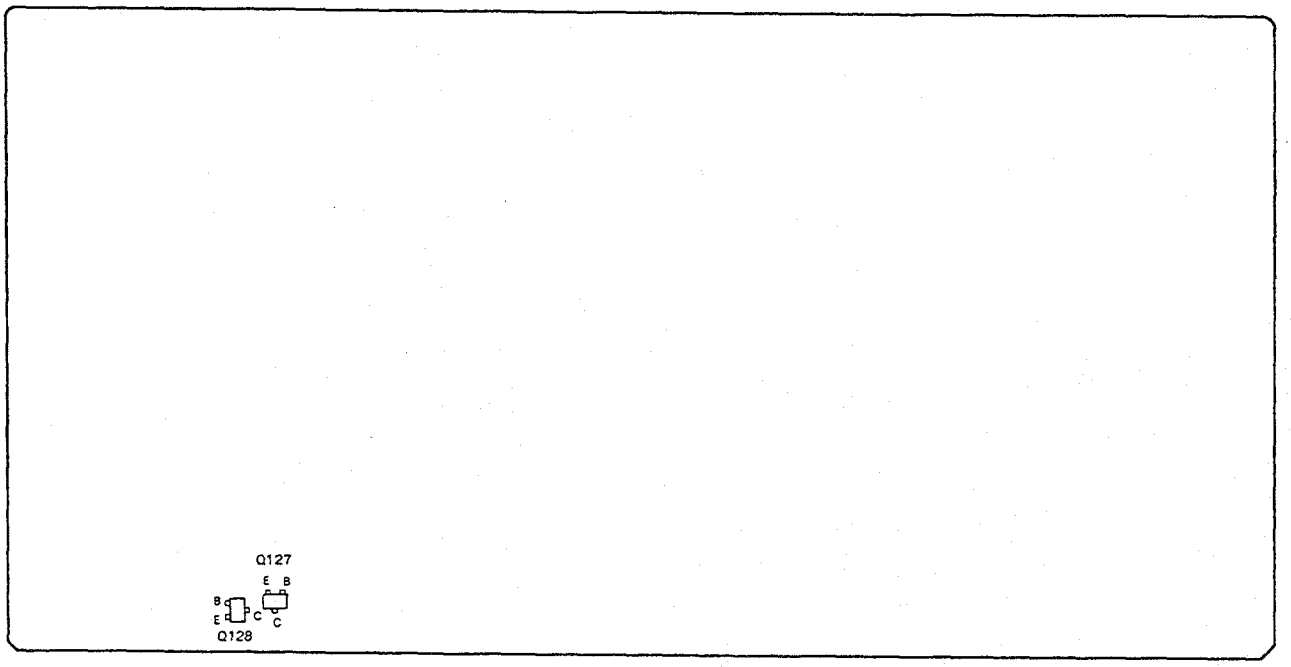
1. Supply DC12V±0.2V to DC 12V IN connector.
2. Receive a monoscope signal.
3. • CONTRAST 80%
   • BRIGHTNESS 50%
4. Connect a digital voltmeter to C1605 + positive side on D board.
5. Adjust RV1601 on the D board for 40.0±0.1V DC.

5-2. B BOARD ADJUSTMENT

-B BOARD (COMPONENT SIDE)-



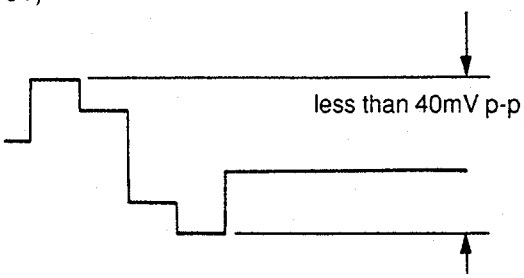
-B BOARD (CONDUCTOR SIDE)-



PRIMARY COLOR MATRIX ADJUSTMENT (RV115, RV116, RV123)

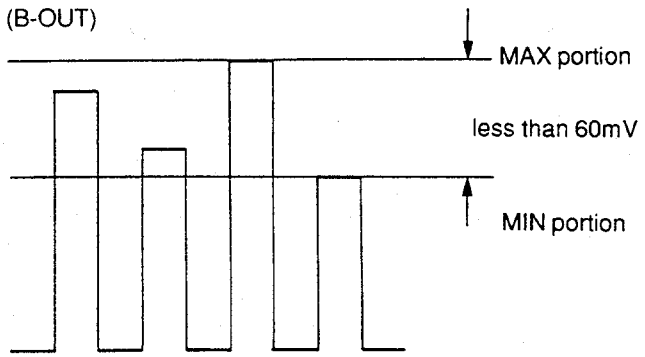
1. Supply component color bar signal (75% chroma color bar) to the equipment so that Y signal is supplied to EXT SYNC and R-Y signal to R-Y connectors Operate the equipment in external sync mode.
2. Connect oscilloscope to IC124 pin-㉚ (B-OUT).
3. Adjust RV115 (SUB HUE) to obtain the Blue output as shown in figure.

(B-OUT)



4. Supply component color bar signal (75% color bar) to the component input connector to feed R-Y and B-Y signals. Operate the equipment in internal SYNC mode.
5. Connect oscilloscope to IC124 pin-㉚ (SUB-COL). Adjust RV116 (SUB-COL) so that waveform peaks should have the same level.

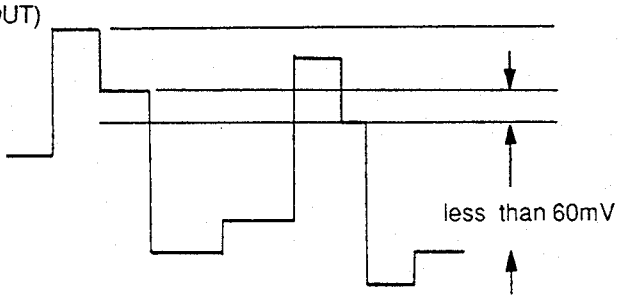
(B-OUT)



(Adjust so that the first and the 4th peaks should have the same level.)

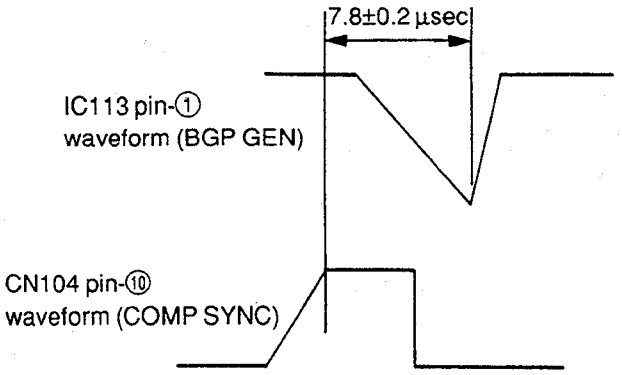
6. Connect oscilloscope to IC124 pin-㊶ (R-OUT).
7. Adjust RV123 ((R-Y)-IN) so that waveform peaks should have the same level.

(R-OUT)



BURST GATE PULSE WIDTH ADJUSTMENT (RV109)

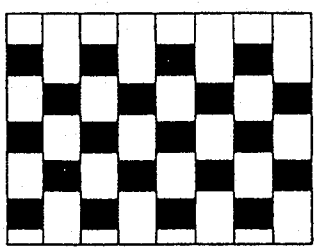
1. Receive color bar signal.
2. Connect dual trace oscilloscope to CN104 connector pin-⑩ (COMP-SYNC) and IC113 (M51279) pin-① (BGP-WIDTH). Adjust RV109 (BGP-WIDTH) to obtain the relationship as shown in the figure.



VXO ADJUSTMENT (CV101,CV102)

1. 3.58MHz VXO adjustment (CV101)
(1) Receive NTSC color bar signal.
(2) Connect +5V power line to IC113 pin-㉖ (ID-FILT-REF) via a 4700Ω resistor.
(3) Ground IC109 pin-② by connecting it to ground.
(4) Ground C162 – negative side by connecting it to ground.
(5) Connect frequency counter to IC113 pin-㉑. Adjust CV101 (358FO) for 3579545±20Hz.
(This adjustment can be alternatively done by observing screen as below.)

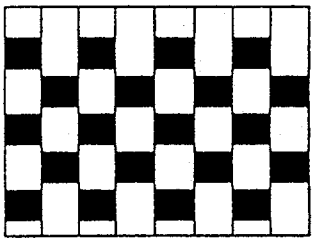
Adjust color synchronization by CV101 (358FO).



Adjust so that color stripes disappear and the hue change is stabilized extremely.

2. 4.43MHz VXO adjustment (CV102)
(1) Receive PAL colour bar signal.
(2) Connect +12V power line to IC109 pin-②.
(3) Connect frequency counter to IC113 pin-㉑. Adjust CV102 (443FO) for 4433619±20Hz.
(This adjustment can be alternatively done by observing screen as below.)

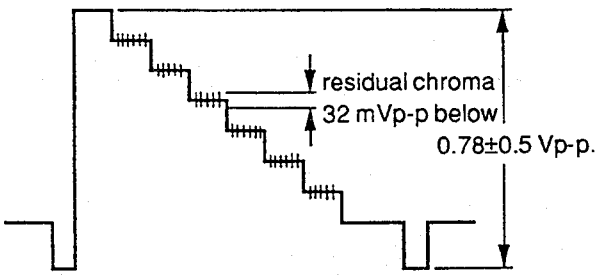
Adjust colour synchronization by CV102(443FO).



Adjust so that colour stripes disappear and the hue change is stabilized extremely.

NTSC COMB FILTER ADJUSTMENT (RV1,T1/CFM101 BOARD)

1. Receive NTSC 3.58 color bar signal.
2. Connect an oscilloscope to C202 – negative side.
3. Confirm the Y OUT is 0.78±0.5 Vp p.
4. Confirm the residual chroma is 32 mVp-p below. If it is above 35 mVp-p, adjust with RV1 and T1 on CFM101 board while tracking



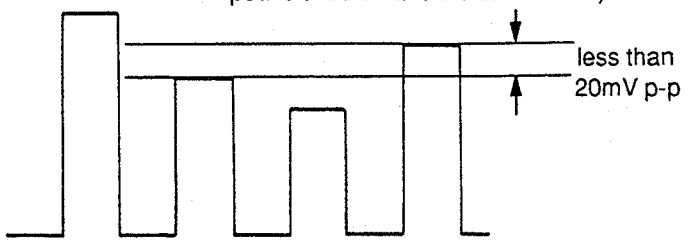
NTSC COLOR DEMODULATION ADJUSTMENT (RV114,RV111,RV104,RV107)

1. NTSC 3.58MHz - HUE adjustment (RV114)
(1) Supply NTSC color bar signal including burst and R-Y component. (For example, Tektronix 1410SG output color bar signal with B-Y component removed.)
(2) Connect an oscilloscope to Q128 emitter (B-Y OUT).
(3) Adjust RV114 (358NT - HUE) so that all the waveform peaks should have equal amplitude (look flat) except burst. (Level difference should be less than 10mV p-p.)

2. NTSC 3.58MHz - COLOR adjustment (RV111)
(1) Receive NTSC 3.58 color bar signal.
(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
(3) Adjust RV111(358NT-COL) so that waveform peaks should have the same level (most flat).

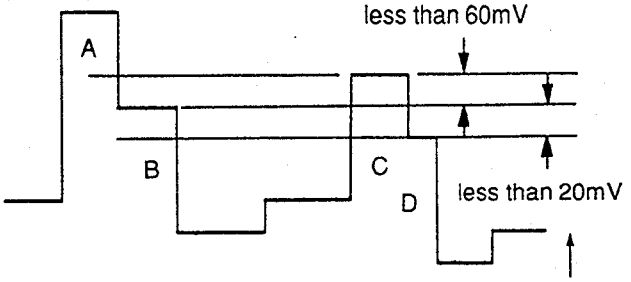
(B-OUT)

(Adjust so that the first and the 4th peaks should have the same level.)



3. NTSC 3.58MHz - COLOR (R-Y) adjustment (RV104, RV107)
(1) Receive the color bar signal.
(2) Connect an oscilloscope to the Q127 emitter (R-Y OUT), and adjust RV104 (358NT-SHIFT) so that the output of the burst section (B-Y axis signal output) becomes 0.
(3) Connect an oscilloscope to IC124 pin-㊶ (R-OUT). Adjust RV107 (358NT-COL (R-Y)) so that the level difference should be minimum.

(R-OUT)



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

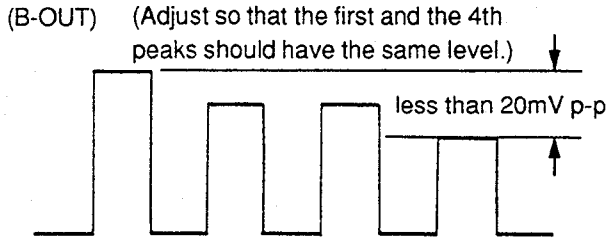
NTSC 4.43MHZ COLOR DEMODULATION ADJUSTMENT (RV108,RV112,RV103,RV106)

1. NTSC 4.43MHz - COLOR adjustment (RV108,RV112)

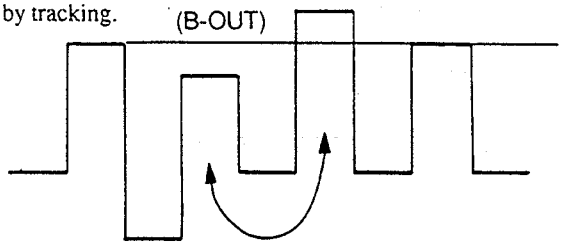
(1) Receive NTSC 4.43 color bar signal (75% color bar).

(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).

(3) Adjust RV108 (443NT-COL) so that waveform peaks should have the same level (most flat).



(4) When cyan and magenta have level difference, adjust RV112 (443NT-HUE) and RV108 (443NT-COL) alternatively to remove, by tracking.



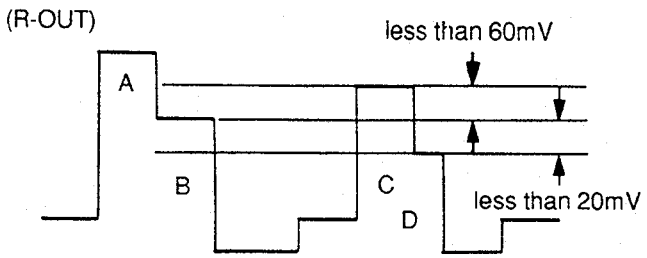
When cyan and magenta have level difference, adjust RV112 and RV108 alternatively to remove.

2. NTSC 4.43MHz - COLOR (R-Y) adjustment (RV103, RV106)

(1) Receive the NTSC 4.43 color bar signal (75%, chroma color bar).

(2) Connect an oscilloscope to the Q127 emitter (R-Y OUT), and adjust RV103(443NT-SHIFT) so that the output of the burst section (B-Y axis signal output) becomes 0.

(3) Connect an oscilloscope to IC124 pin-㊶ (R-OUT). Adjust RV106 (443NT-COL (R-Y)) so that the level difference should be minimum.



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

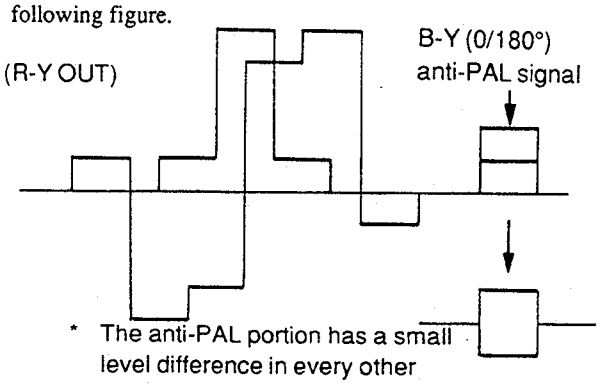
PAL COLOR DEMODULATION ADJUSTMENT (RV113, RV2/SEP101, RV110, RV105)

1. PAL PHASE Adjustment (RV113,RV2/SEP101)

(1) Receive the special PAL color-bar.

(2) Connect an oscilloscope to emitter of Q127 (R-Y OUT).

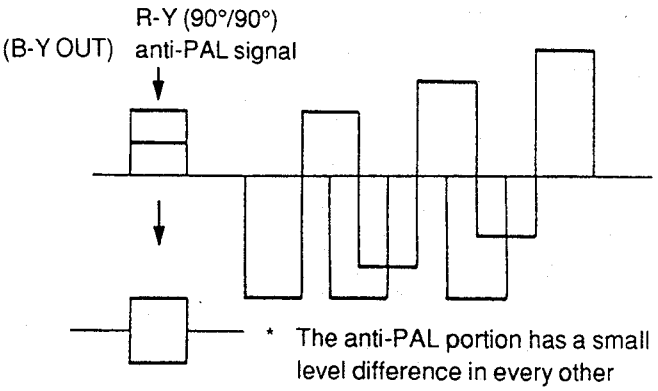
(3) Adjust RV113 (PAL-PHASE) so that B-Y (0/180°) anti-PAL portion (in the R-Y demodulated output) becomes "0" (flat) as following figure.



* The anti-PAL portion has a small level difference in every other horizontal period. So, adjust so that average becomes "0".

(4) Connect an oscilloscope to emitter of Q128 (B-Y OUT).

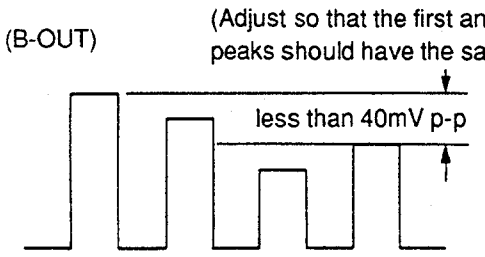
(5) Adjust RV2 inside SEP101 so that R-Y (90°/90°) anti-PAL portion (in B-Y demodulated output) becomes "0" (flat) as following figure.



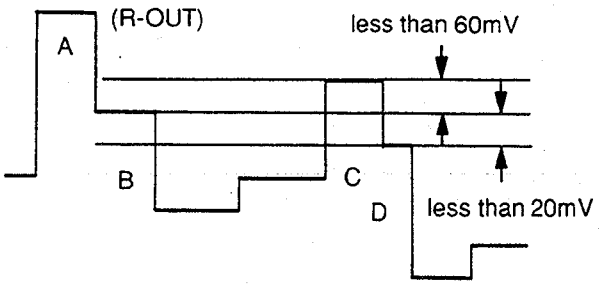
* The anti-PAL portion has a small level difference in every other horizontal period. So, adjust so that average becomes "0".

(For the adjustments of (3) and (5), it is also possible to set the color level to MAX with the chroma adjusting knob of the unit and erase the color of the anti-pal signal section.)

2. PAL COLOR ADJUSTMENT (RV110)
(1) Receive PAL color bar signal (75% color bar).
(2) Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
(3) Adjust RV110 (PAL-COL) so that waveform peaks should have the same level (most flat).



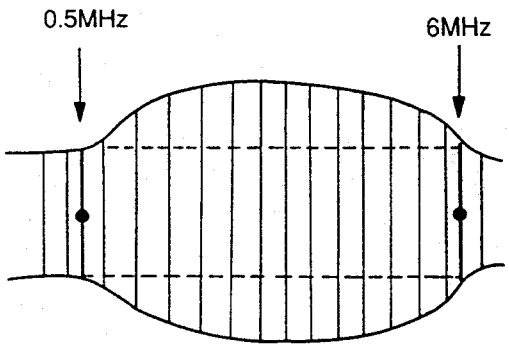
3. PAL-COLOR-(R-Y) ADJUSTMENT (RV105)
(1) Connect an oscilloscope to IC124 pin-㊶ (R-OUT).
(2) Adjust RV105 (PAL-COL-(R-Y)) so that waveform peaks should have the same level (most flat).



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

SUB-SHARP ADJUSTMENT (RV205)

(1) Receive a sweep signal (or multi-burst).
* • Bandwidth should be more than 10MHz (flat).
• Composite sync should be included.
• Turn burst off.
(2) Connect an oscilloscope to IC124 pin-㊱ (G-OUT).
(3) Adjust RV205 (SUB-SHARP) as shown.



Example of sweep signal output waveform

[specification]
6MHz/0.5MHz=0±0.5dB

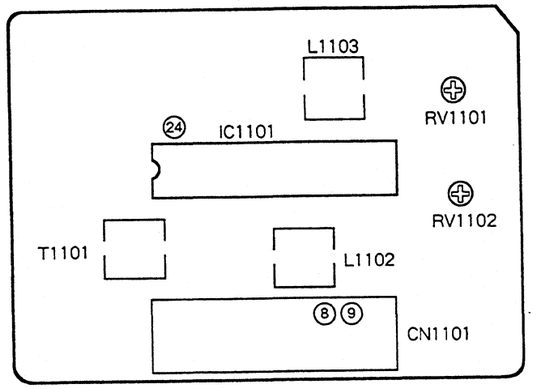
CHROMA H PULSE POSITION ADJUSTMENT (RV101,RV102)

(1) Receive the SECAM color bar signal.
(The left edge of the screen should not be colored.)
(2) Set to the under-scan mode.
(3) Adjust RV101 (PLUSE-WIDTH) until the point immediately before the color on the left edge of the screen disappears.
(4) Release the under-scan mode.
(5) Set the HV DELAY mode.
(6) Adjust RV102 (PULSE-POSI) untill the point immediately before the rising color of the image after back porch diappears.

Note : If image phase adjustment or HV DELAY amount adjustment during HV DELAY is performed after completing the adjustment in this section, re-adjustments will be required. Therefore, performed this adjustment after the two mentioned have been performed.

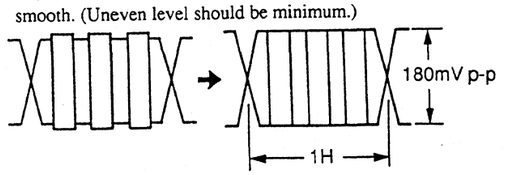
5-3. S BOARD ADJUSTMENTS

—S BOARD (COMPONENT SIDE)—

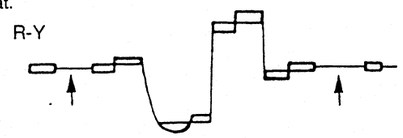


SECAM (T1101,L1102,L1103)

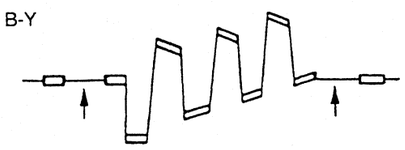
1. Receive SECAM color-bar.
2. Bell Filter Adjustment (T1101)
(1) Connect an oscilloscope to IC1101 pin-㉔.
(2) Adjust T1101 (Bell Filter) so that the chroma waveform becomes smooth. (Uneven level should be minimum.)



3. Color Balance Adjustment (L1102,L1103)
(1) Connect an oscilloscope to pin-⑨ (R-Y) of CN1101 connector.
(2) Adjust L1102 (R-Y) so that the non-colored portion level becomes flat.



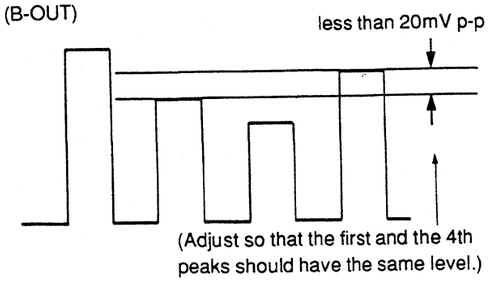
(3) Connect an oscilloscope to pin-⑧ (B-Y) of CN1101 connector.
(4) Adjust L1103 (B-Y) so that the non-colored portion level becomes flat.



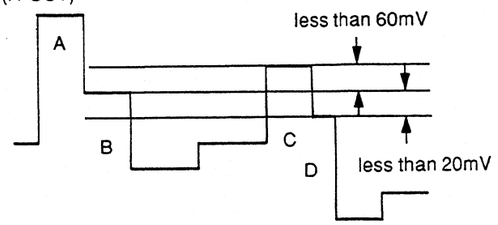
(5) When adjusting the color level of the unit to MAX or MIN using the chroma adjusting knob, check that the white balance of the colorless section does not change.

DEMODULATION LEVEL ADJUSTMENT (RV1101,RV1102)

1. Receive SECAM color-bar.
2. Connect an oscilloscope to IC124 pin-㉚ (B-OUT).
3. Adjust S board RV1101 (SEC-COL) so that waveform peaks should have the same level (most flat).



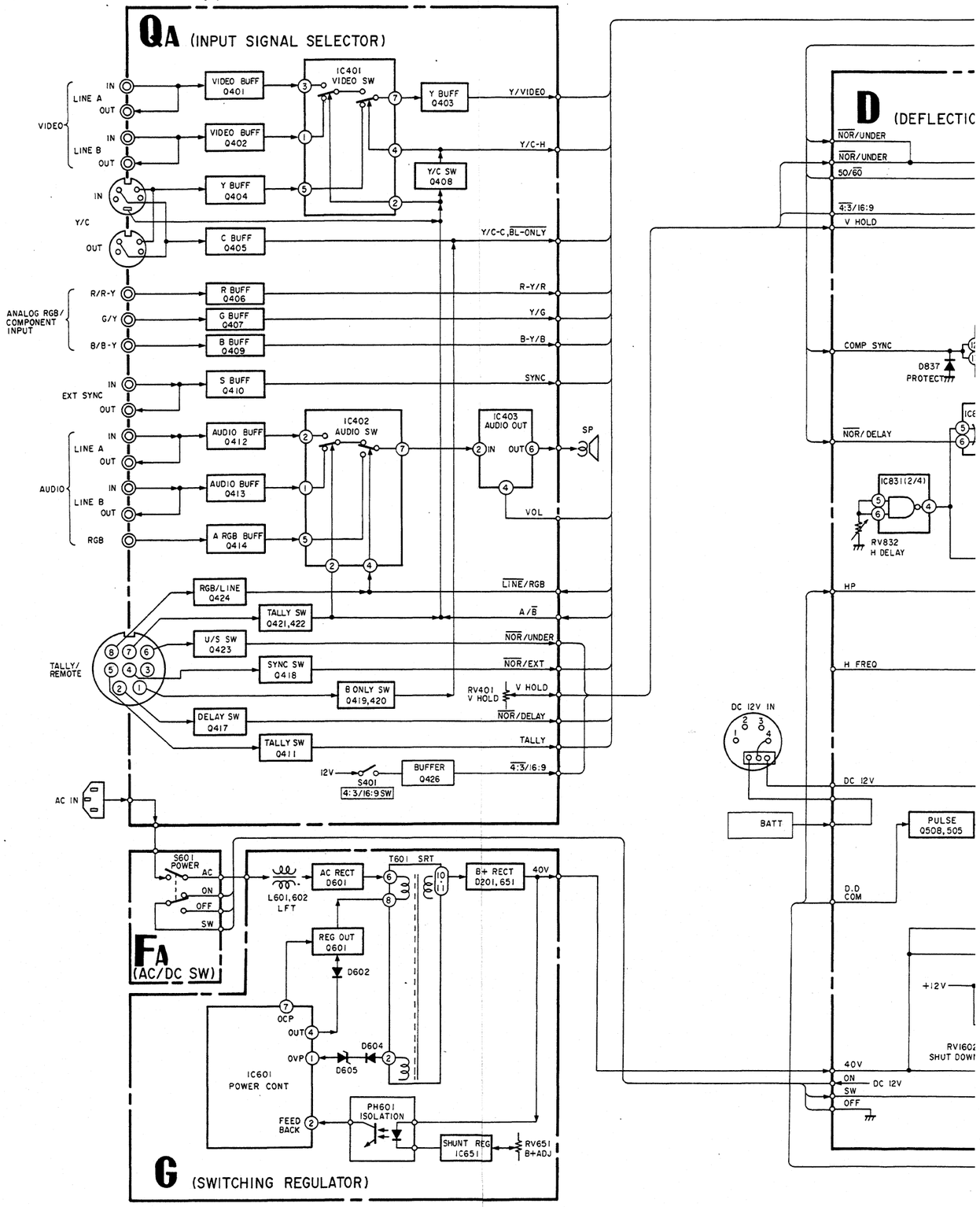
4. Connect an oscilloscope to IC124 pin-㊶ (R-OUT).
5. Adjust S board RV1102 (SEC-COL (R-Y)) so that the level difference should be minimum.



(Adjust for B=D. [less than 20mV] Also level difference between B and C should be less than 60mV.)

SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAMS (1)

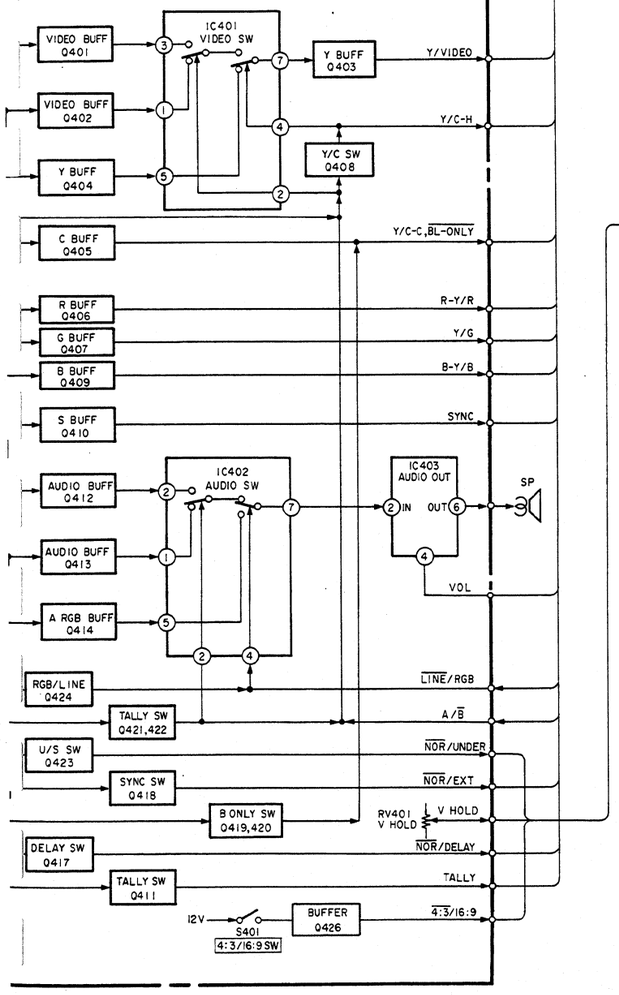


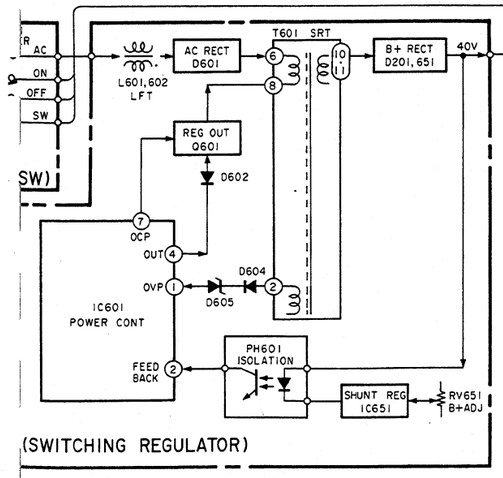
SECTION 6 DIAGRAMS

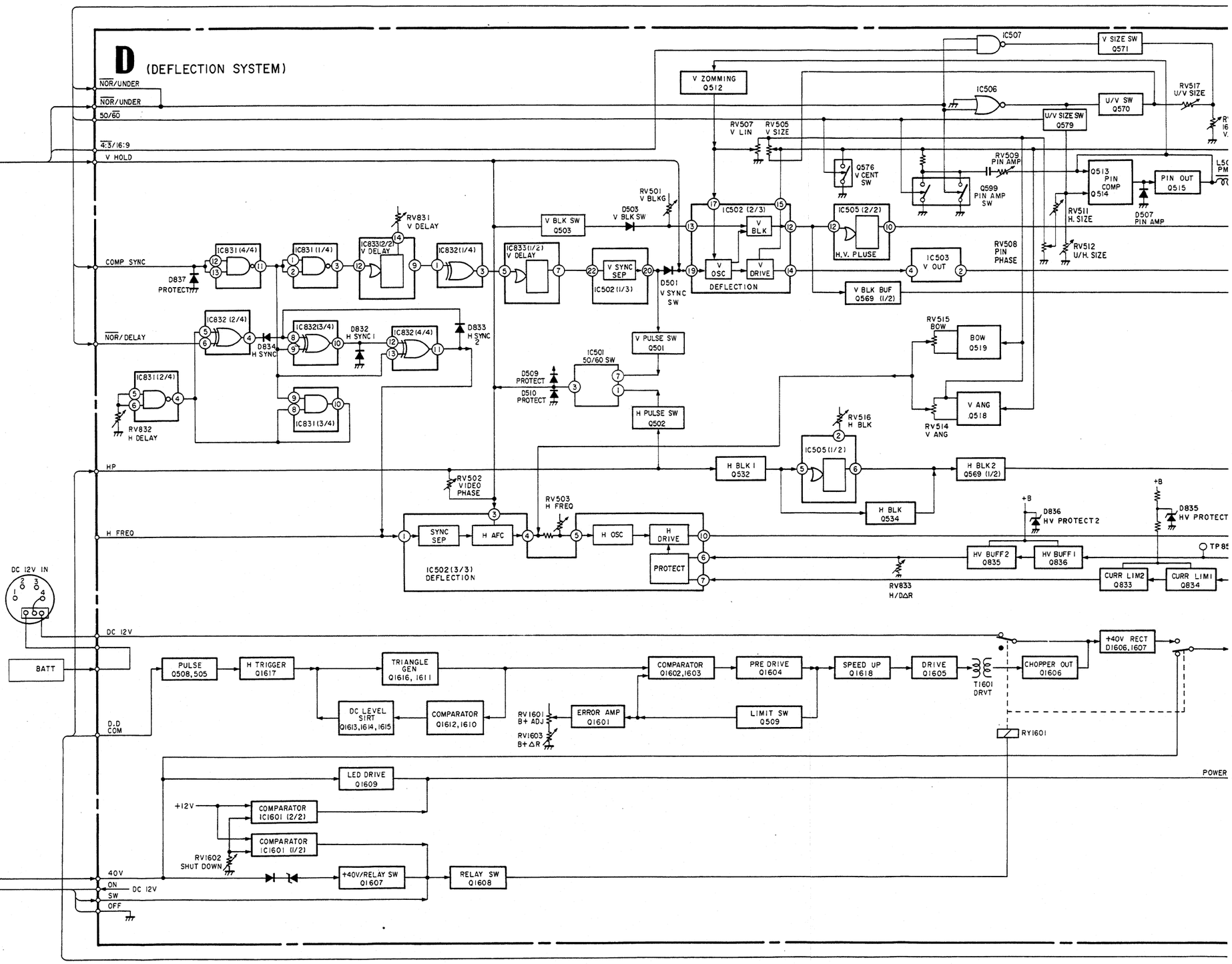
Sup 3

MS (1)

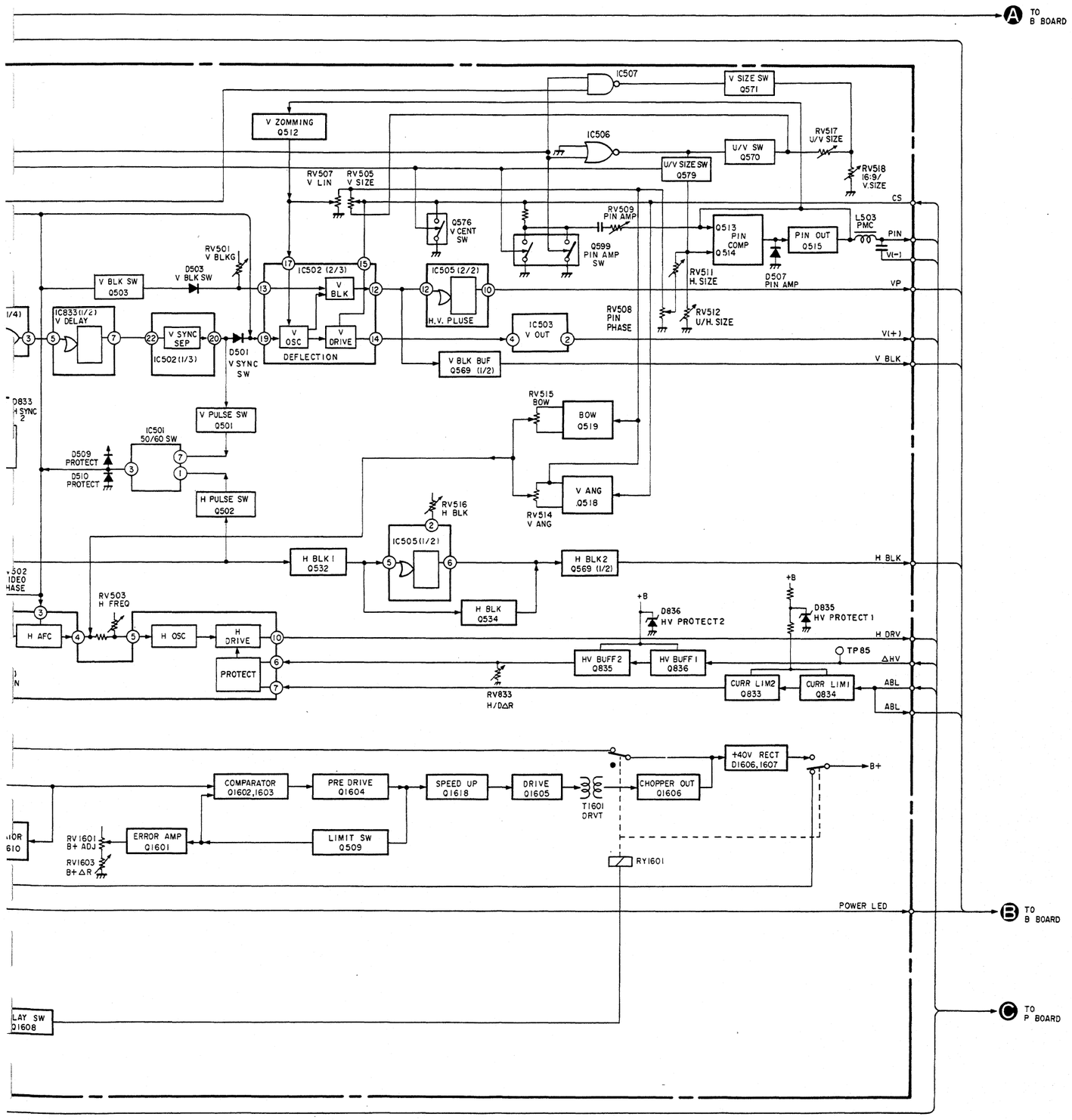
(INPUT SIGNAL SELECTOR)





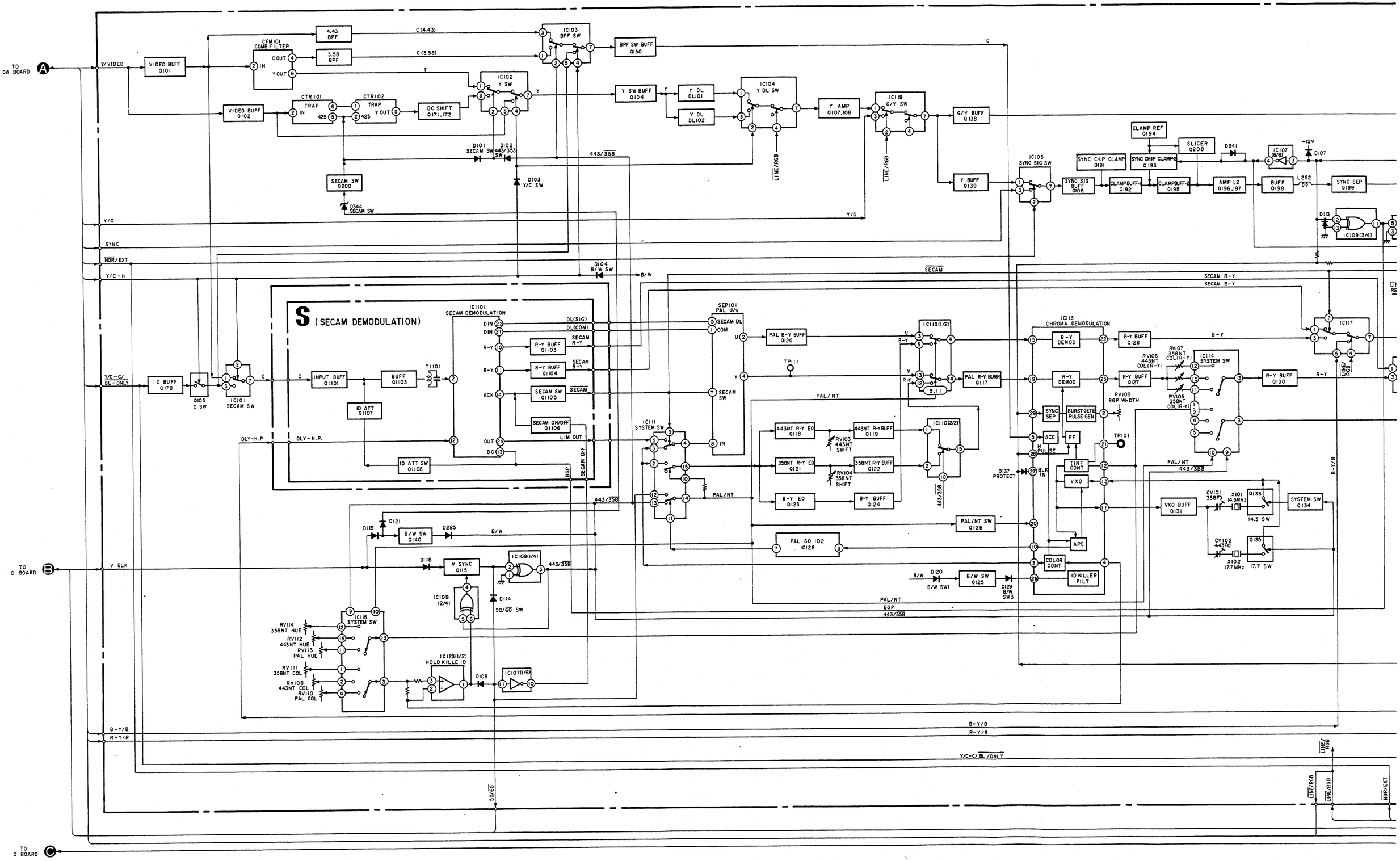


PVM-9041QM/9044QM

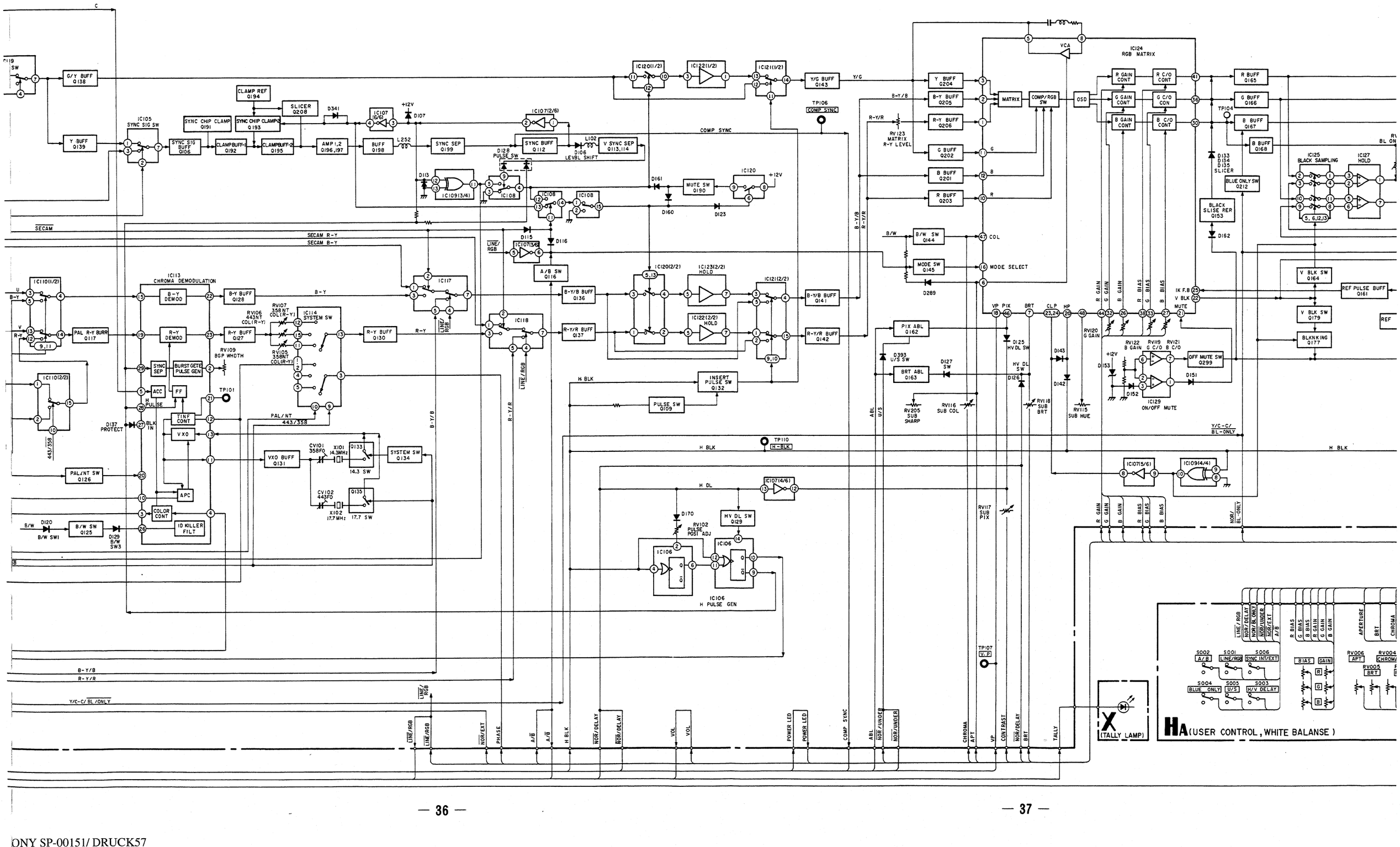


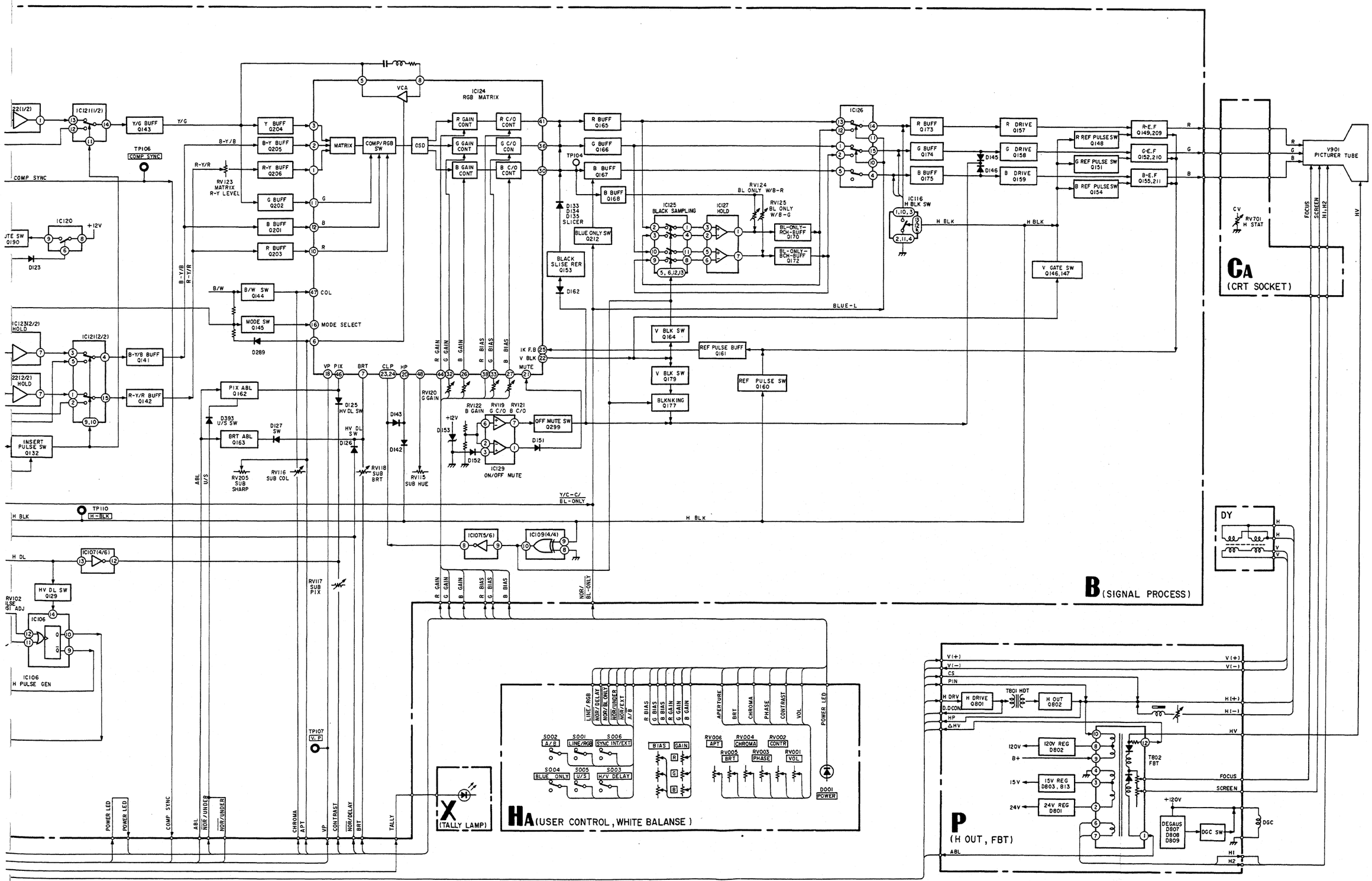
PVM-9041QM/9044QM PVM-9041QM/9044QM

BLOCK DIAGRAMS (2)

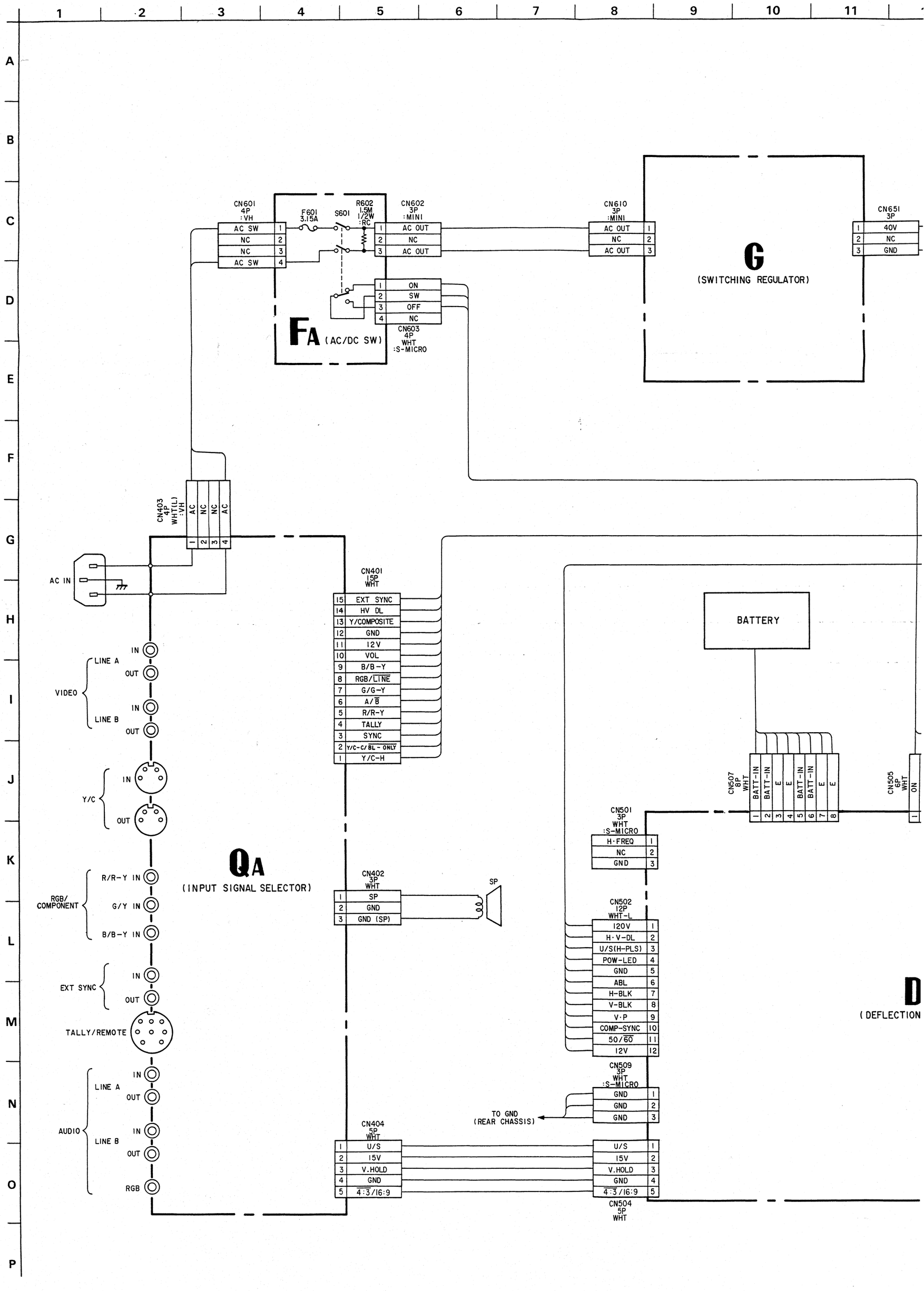


PVM-9041QM/9044QM PV




IC124 RGB MATRIX
VCA
Y BUFF Q204
B-Y BUFF Q205
R-Y BUFF Q206
G BUFF Q202
B BUFF Q201
R BUFF Q203
MATRIX
COMP/RGB SW
OSD
R GAIN CONT
G GAIN CONT
B GAIN CONT
R C/O CONT
G C/O CON
B C/O CONT
R BUFF Q165
G BUFF Q166
B BUFF Q167
B BUFF Q168
IC126
R BUFF Q173
G BUFF Q174
B BUFF Q175
R DRIVE Q157
G DRIVE Q158
B DRIVE Q159
D145
D146
R REF PULSE SW Q148
G REF PULSE SW Q151
B REF PULSE SW Q154
R-E.F Q149,209
G-E.F Q152,210
B-E.F Q155,211
V901 PICTURER TUBE
CA (CRT SOCKET)
RV701 H STAT
FOCUS
SCREEN
H1,H2
HV
IC116 H BLK SW
H BLK
V GATE SW Q146,147
IC125 BLACK SAMPLING
IC127 HOLD
RV124 BL ONLY W/B-R
RV125 BL ONLY W/B-G
BL-ONLY-RCH-BUFF Q170
BL-ONLY-BCH-BUFF Q172
BLUE ONLY SW Q212
BLACK SLISE RER Q153
D133 D134 D135 SLICER
D162
BLUE-L
V BLK SW Q164
REF PULSE BUFF Q161
V BLK SW Q179
BLKNKING Q177
REF PULSE SW Q160
OFF MUTE SW Q299
D151
IC129 ON/OFF MUTE
D152
D153
RV122 B GAIN
RV119 G C/O
RV121 B C/O
RV120 G GAIN
D125 HV DL SW
D126
D127 SW
D142
D143
D393 U/S SW
PIX ABL Q162
BRT ABL Q163
RV205 SUB SHARP
RV116 SUB COL
RV118 SUB BRT
RV115 SUB HUE
RV117 SUB PIX
IC123(2/2) HOLD
IC121(2/2)
IC122(2/2) HOLD
B-Y/B BUFF Q141
R-Y/R BUFF Q142
INSERT PULSE SW Q132
IC120
+12V
JTE SW Q190
D123
RV123 MATRIX R-Y LEVEL
B/W SW Q144
MODE SW Q145
D289
TP106 COMP SYNC
TP104
TP110 H-BLK
TP107 V.P
IC107(5/6)
IC109(4/4)
IC107(4/6)
H DL
HV DL SW Q129
RV102 PULSE WIDTH ADJ
IC106
IC106 H PULSE GEN
COMP SYNC
H BLK
B-Y/B
R-Y/R
B/W
COL
MODE SELECT
VP PIX
BRT
CLP
HP
R GAIN
G GAIN
B GAIN
R BIAS
G BIAS
B BIAS
IK F.B
V BLK
MUTE
ABL
U/S
Y/C-C/ BL-ONLY
NOR/ BL-ONLY
B (SIGNAL PROCESS)
DY
H
V
HA (USER CONTROL, WHITE BALANSE)
LINE/RGB
NOR/DELAY
NOR/BL ONLY
NOR/UNDER
NOR/EXT
A/B
APERTURE
BRT
CHROMA
PHASE
CONTRAST
VOL
POWER LED
S002 A/B
S001 LINE/RGB
S006 SYNC INT/EXT
S004 BLUE ONLY
S005 U/S
S003 H/V DELAY
RV006 APT
RV004 CHROMA
RV002 CONTR
RV005 BRT
RV003 PHASE
RV001 VOL
D001 POWER
BIAS
GAIN
X (TALLY LAMP)
P (H OUT, FBT)
V(+)
V(-)
CS
PIN
H DRV
D.DCON
HP
△HV
ABL
H DRIVE Q801
H OUT Q802
T801 HDT
T802 FBT
120V REG D802
15V REG D803, 813
24V REG D801
120V
B+
15V
24V
+120V
DEGAUS D807 D808 D809
DGC SW
DGC
H(+)
H(-)
HV
FOCUS
SCREEN
H1
H2

6-2. FRAME SCHEMATIC DIAGRAM



CN102
3P
WHT
:S-MICRO

GND	3
GND	2
GND	1

TO GND
(REAR CHASSIS)

EXT SYNC	15
HV DL	14
Y/VIDEO	13
GND	12
12V	11
VOL	10
B/B-Y	9
RGB/$\overline{\text{LINE}}$	8
G-Y	7
A/$\overline{\text{B}}$	6
R/R-Y	5
TALLY	4
SYNC	3
Y/C-C/$\overline{\text{BL}}$-ONLY	2
Y/C-H	1

CN101
15P
WHT-L

CN651
3P

40V	1
NC	2
GND	3

CN108
3P
WHT
:S-MICRO

1	TALLY
2	NC
3	GND

CN107
13P

1	GND
2	12V
3	POW-LED
4	VOL
5	CONTRAST
6	PHASE
7	CHROMA
8	BRT
9	APERTURE
10	$\overline{\text{LINE}}$/RGB
11	$\overline{\text{NORM}}$/DELAY
12	NORM/ $\overline{\text{B70}}$
13	$\overline{\text{NORM}}$/UNDER

CN001
13P
WHT

GND	
12V	
POW-LED	
VOL	
CONTRAST	
PHASE	
CHROMA	
BRT	
APERTURE	
$\overline{\text{LINE}}$/RGB	
$\overline{\text{NORM}}$/DELAY	
NORM/ $\overline{\text{B70}}$	
$\overline{\text{NORM}}$/UNDER	

B
(SIGNAL PROCESS)

1	$\overline{\text{NORM}}$/ EXT
2	A/ $\overline{\text{B}}$
3	R BIAS
4	G BIAS
5	B BIAS
6	G GAIN
7	B GAIN
8	R GAIN

CN106
8P

CN002
8P
WHT

$\overline{\text{NORM}}$/ EXT	
A/ $\overline{\text{B}}$	
R BIAS	
G BIAS	
B BIAS	
G GAIN	
B GAIN	
R GAIN	

1	B
2	NC
3	G
4	NC
5	NC
6	R

CN105
6P
WHT
:S-MICRO

CN104
12P
WHT:L

1	120V
2	HV-DL
3	U/S (H-PLS)
4	POW-LED
5	GND
6	ABL
7	H-BLK
8	V-BLK
9	V.P.
10	COMP-SYNC
11	50/$\overline{60}$
12	12V

CN103
12P
WHT

1	(SIG)DL
2	(COM)DL
3	$\overline{\text{SECAM}}$
4	LIM
5	I2V
6	C
7	60/$\overline{50}$ LINE/$\overline{\text{RGB}}$
8	B-Y
9	R-Y
10	GND
11	BGP
12	DL Y-H.P.

CN1101
12P
WHT

1	(SIG)DL
2	(COM)DL
3	$\overline{\text{SECAM}}$
4	LIM
5	I2V
6	C
7	60/$\overline{50}$ LINE/$\overline{\text{RGB}}$
8	B-Y
9	R-Y
10	GND
11	BGP
12	DL Y-H.P.

S
(SECAM DEMODULATION)

DC 12V IN

CN505
6P
WHT

1	ON
2	SW
3	OFF
4	GND
5	NC
6	40V

CN508
3P
WHT

3	E
2	BATT 12V
1	DC 12V

CN503
14P
WHT
BORAD IN

1	E
2	15V
3	24V
4	D·D·CON
5	H·DRIVE
6	△HV
7	+B
8	ABL
9	PIN
10	V (+)
11	V (−)
12	CS
13	HP
14	120V

CN801
14P
WHT
:S-MICRO

E	1
15V	2
24V	3
D·D·CON	4
H·DRIVE	5
△HV	6
+B	7
ABL	8
PIN	9
V (+)	10
V (−)	11
CS	12
HP	13
120V	14

D
(DEFLECTION SYSTEM)

DEFLECTION YOKE
H.DY
H.DY
V.DY
V.DY

H (+)	1
H (−)	2
V (−)	3
V (+)	4

CN802
4P
WHT
:MINI

P
(H OUT,FBT)

FBT H
FBT FOCU
FBT SCREE

6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17

CN102
3P
WHT
:S-MICRO

GND	3
GND	2
GND	1

TO GND
(REAR CHASSIS)

EXT SYNC	15
HV DL	14
Y/VIDEO	13
GND	12
12V	11
VOL	10
B/B-Y	9
RGB/$\overline{\text{LINE}}$	8
G-Y	7
A/$\overline{\text{B}}$	6
R/R-Y	5
TALLY	4
SYNC	3
Y/C-C/$\overline{\text{BL-ONLY}}$	2
Y/C-H	1

CN101
15P
WHT-L

CN610
3P
:MINI

AC OUT	1
NC	2
AC OUT	3

G
(SWITCHING REGULATOR)

CN651
3P

1	40V
2	NC
3	GND

B
(SIGNAL PROCESS

CN104
12P
WHT-L

1	120V
2	HV-DL
3	U/S (H-PLS)
4	POW-LED
5	GND
6	ABL
7	H-BLK
8	V-BLK
9	V.P.
10	COMP-SYNC
11	50/$\overline{60}$
12	12V

CN1101
12P
WHT

BATTERY

DC 12V IN

CN507
8P
WHT

1	BATT-IN
2	BATT-IN
3	E
4	E
5	BATT-IN
6	BATT-IN
7	E
8	E

CN505
6P
WHT

1	ON
2	SW
3	OFF
4	GND
5	NC
6	40V

CN508
3P
WHT

3	E
2	BATT 12V
1	DC 12V

CN503
14P
WHT
BORAD
IN

1	E
2	15V
3	24V
4	D·D·CON
5	H·DRIVE
6	△HV
7	+B
8	ABL
9	PIN
10	V (+)
11	V (−)
12	CS
13	HP
14	120V

CN801
14P
WHT
:S-MICRO

E	1
15V	2
24V	3
D·D·CON	4
H·DRIVE	5
△HV	6
+B	7
ABL	8
PIN	9
V (+)	10
V (−)	11
CS	12
HP	13
120V	14

CN501
3P
WHT
:S-MICRO

H·FREQ	1
NC	2
GND	3

SP

CN502
12P
WHT-L

120V	1
H·V-DL	2
U/S(H-PLS)	3
POW-LED	4
GND	5
ABL	6
H-BLK	7
V-BLK	8
V·P	9
COMP-SYNC	10
50/$\overline{60}$	11
12V	12

D
(DEFLECTION SYSTEM)

CN802
4P
WHT
:MINI

H (+)	1
H (−)	2
V (−)	3
V (+)	4

DEFLECTION
YOKE
H.DY
H.DY
V.DY
V.DY

CN509
3P
WHT
:S-MICRO

GND	1
GND	2
GND	3

TO GND
REAR CHASSIS)

U/S	1
15V	2
V.HOLD	3
GND	4
4:3/16:9	5

CN504
5P
WHT

CN108
3P
WHT
:S-MICRO

1	TALLY
2	NC
3	GND

CN21
3P
WHT-L
:S-MICRO

TALLY	1
NC	2
GND	3

X
(TALLY LAMP)

CN107
13P

1	GND
2	12V
3	POW-LED
4	VOL
5	CONTRAST
6	PHASE
7	CHROMA
8	BRT
9	APERTURE
10	LINE/RGB
11	NORM/DELAY
12	NORM/B70
13	NORM/UNDER

CN001
13P
WHT

GND	1
12V	2
POW-LED	3
VOL	4
CONTRAST	5
PHASE	6
CHROMA	7
BRT	8
APERTURE	9
LINE/RGB	10
NORM/DELAY	11
NORM/B70	12
NORM/UNDER	13

HA
(USER CONTROL
WHITE BALANSE)

1	NORM/EXT
2	A/B
3	R BIAS
4	G BIAS
5	B BIAS
6	G GAIN
7	B GAIN
8	R GAIN

CN106
8P

CN002
8P
WHT

NORM/EXT	1
A/B	2
R BIAS	3
G BIAS	4
B BIAS	5
G GAIN	6
B GAIN	7
R GAIN	8

CN105
6P
WHT
:S-MICRO

1	B
2	NC
3	G
4	NC
5	NC
6	R

KG KB G2
H
CV KR GI G4 HV
PICTURE TUBE

CN103
12P
WHT

1	(SIG)DL
2	(COM)DL
3	SECAM
4	LIM
5	12V
6	C
7	60/50 LINE/RGB
8	B-Y
9	R-Y
10	GND
11	BGP
12	DLY-H.P.

CN1101
12P
WHT

1	(SIG)DL
2	(COM)DL
3	SECAM
4	LIM
5	12V
6	C
7	60/50 LINE/RGB
8	B-Y
9	R-Y
10	GND
11	BGP
12	DLY-H.P.

S
(SECAM DEMODULATION)

CN701
6P
WHT
:S-MICRO

B	1
NC	2
G	3
NC	4
NC	5
R	6

CN702
1P
WHT
:MINI

1	CRT-GND

FBT HV
FBT FOCUS
FBT SCREEN

FBT FOCUS
FBT SCREEN

CA
(CRT SOCKET)

CN803
5P
WHT
:S-MICRO

1	120V
2	E
3	NC
4	H1
5	H2

CN703
5P
WHT
:S-MICRO

120V	1
E	2
NC	3
H1	4
H2	5

CN801
14P
WHT
S-MICRO

E	1
15V	2
24V	3
D-CON	4
H-DRIVE	5
△HV	6
+B	7
ABL	8
PIN	9
V (+)	10
V (-)	11
CS	12
HP	13
120V	14

P
(H OUT,FBT)

H (+)	1
H (-)	2
V (-)	3
V (+)	4

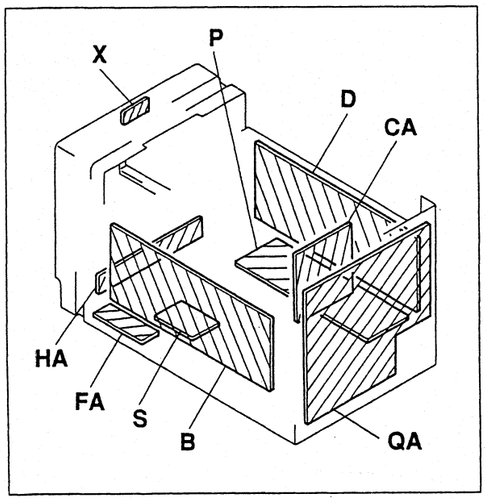
CN802
4P
WHT
:MINI

CN805
3P
WHT
S-MICRO

1	DGC
2	NC
3	DGC

DGC

6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted.
  pF: μμF 50WV or less are not indicated except for electrolytics.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4W
- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  Should replacement be required, replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.
  (Refer to RV651, RV1603 and RV833 adjust on Page 19 and 20.)
- When replacing the part in below table be sure to parform the related adjustment.

Part replaced (◪)	Adjustment (⋈)
IC601, IC651, PH601, C654, R653, R655, R656, R657, RV651— G BOARD	RV651 (B+ MAX)
Q1601, Q1602, Q1603, D1601, D1602, D1603, D1622, C1601, C1602, R1601, R1602, R1603, R1604, R1605, R1606, R1607, R1608, R1628, R1629, R1630, RV1601, RV1603 — D BOARD	RV1603 (B+ MAX IN DC POWER INPUT MODE)
IC502, Q833, Q834, Q835, Q836, D835, D836, C519, C843, C844, C845, C846, C847, C848, RV833, R523, R850, R851, R852, R853, R854, R855, R856, R857, R858, R859, R860, R861, R862, R863 — D BOARD NL801, T802, C814 — P BOARD	RV833 (HOLD-DOWN)

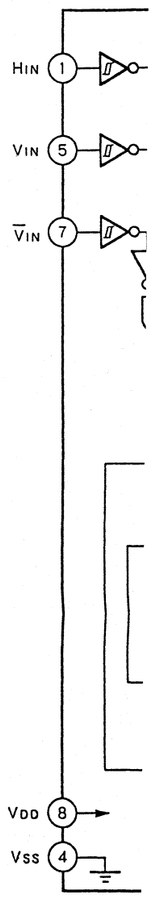
- All voltages are in V.
- Voltage are dc with respect to ground unless otherwise noted.
- Readings are taken with a color-bar signal input.
- Readings are taken with a PAL color-bar signal input.
- : adjustment for repair.
- Voltage variations may be noted due to normal production tolerance.
- : B+ bus.
- : B- bus.
- : signal path.
- No mark : with PAL coior-bar signal received or common voltage.
- ( ) : with SECAM color-bar signal received.
- < > : with NTSC 3.58 color-bar signal received.
- (( )) : with NTSC 4.43 color-bar signal received.
- [ ] : with S (Y/C) color-bar signal received.
- { } : with analog RGB color-bar signal received.
- << >> : with component color-bar signal received.

Reference information

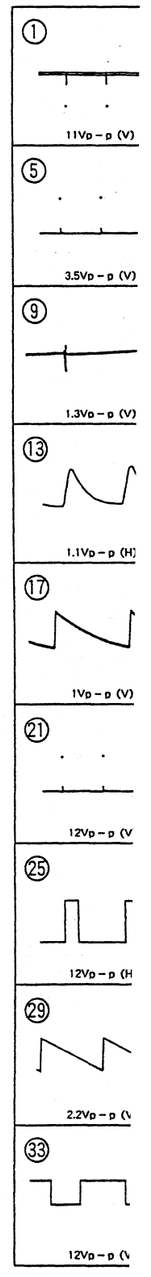
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLEWIREWOUND
	: RB	NONFLAMMABLE CEMENT
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

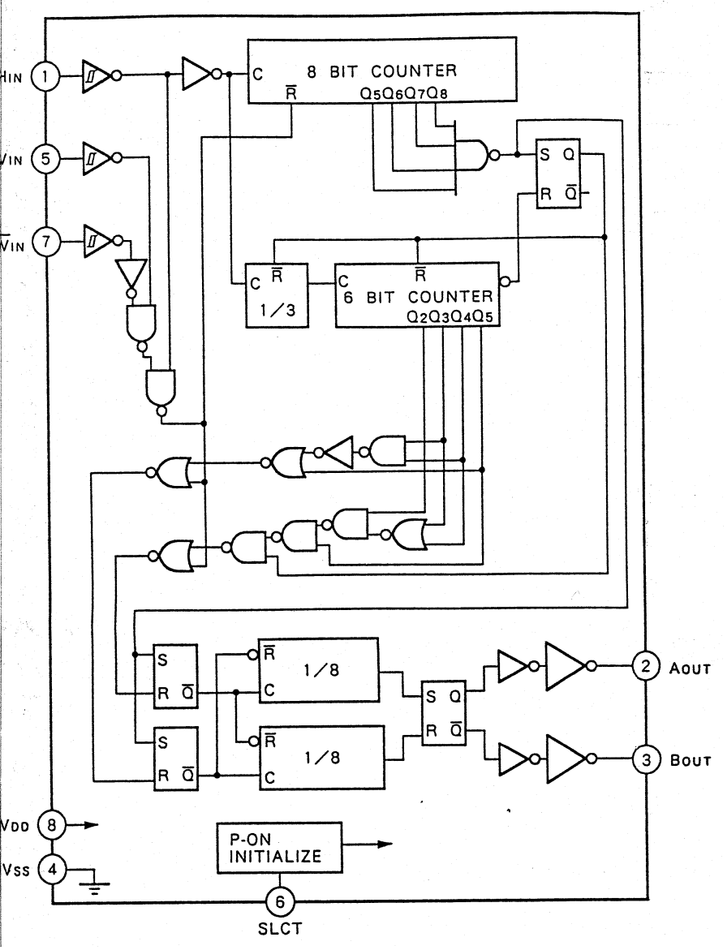
D BOARD



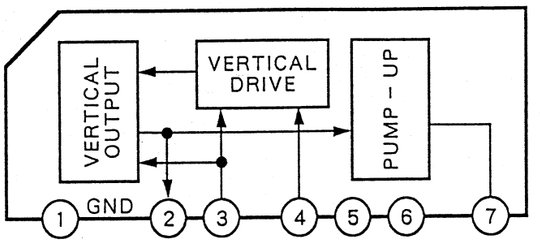
• D BOARD W



D BOARD IC501 CX23025



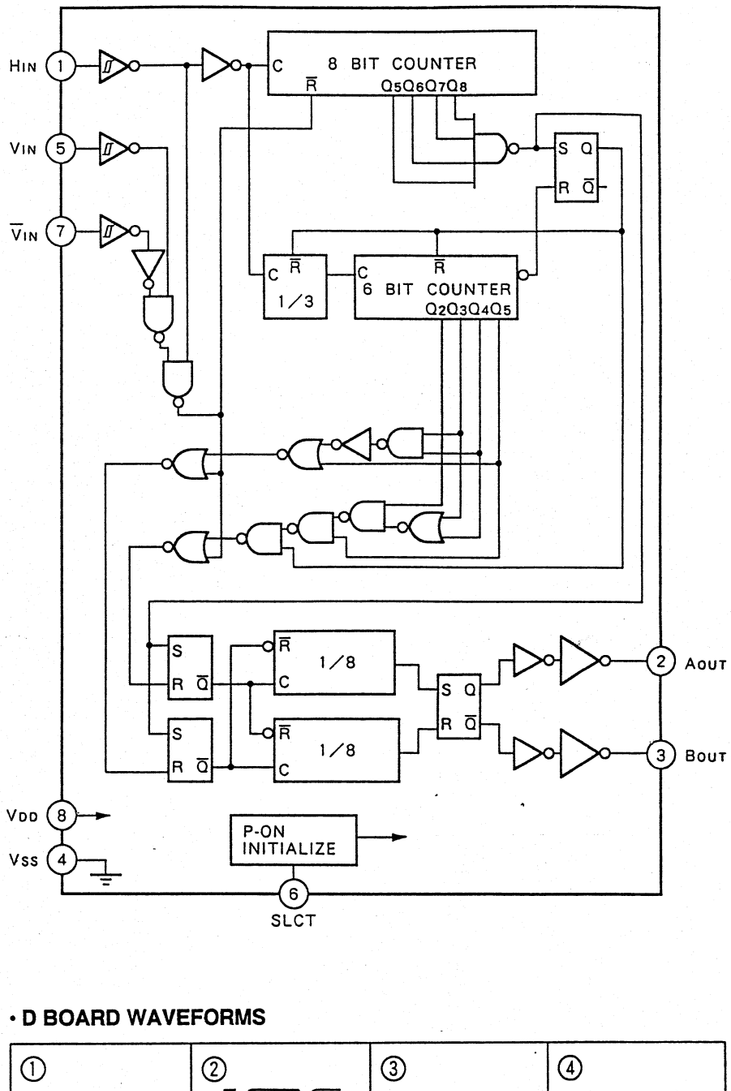
D BOARD IC503 LA7830



• D BOARD WAVEFORMS

① 11Vp – p (V)	② 11Vp – p (H)	③ 0.25Vp – p (V)	④ 10.5Vp – p (V)
⑤ 3.5Vp – p (V)	⑥ 3Vp – p (V)	⑦ 6.0Vp – p (V)	⑧ 1.5Vp – p (V)
⑨ 1.3Vp – p (V)	⑩ 10Vp – p (V)	⑪ 6Vp – p (H)	⑫ 4.4Vp – p (H)
⑬ 1.1Vp – p (H)	⑭ 6.4Vp – p (H)	⑮ 36Vp – p (H)	⑯ 2.2Vp – p (V)
⑰ 1Vp – p (V)	⑱ 1Vp – p (V)	⑲ 46Vp – p (V)	⑳ 1.1Vp – p (V)
㉑ 12Vp – p (V)	㉒ 12Vp – p (V)	㉓ 12Vp – p (H)	㉔ 12Vp – p (H)
㉕ 12Vp – p (H)	㉖ 32Vp – p (H)	㉗ 12Vp – p (H)	㉘ 0.5Vp – p (V)
㉙ 2.2Vp – p (V)	㉚ 0.32Vp – p (H)	㉛ 0.6Vp – p (V)	㉜ 12Vp – p (V)
㉝ 12Vp – p (V)	㉞ 12Vp – p (V)	㉟ 12Vp – p (H)	㊱ 12Vp – p (V)

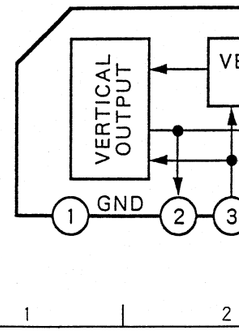
D BOARD IC501 CX23025

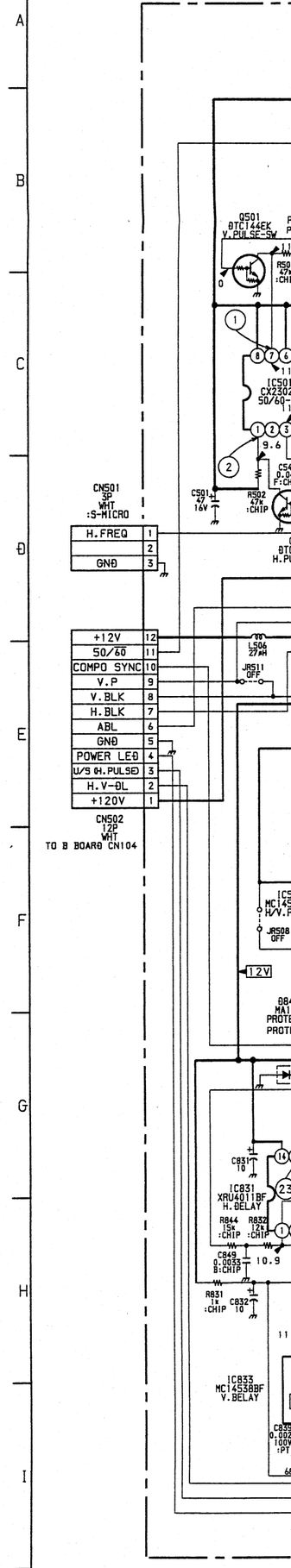


• D BOARD WAVEFORMS

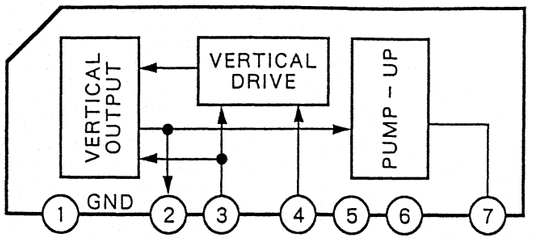
① 11Vp-p (V)	② 11Vp-p (H)	③ 0.25Vp-p (V)	④ 10.5Vp-p (V)
⑤ 3.5Vp-p (V)	⑥ 3Vp-p (V)	⑦ 6.0Vp-p (V)	⑧ 1.5Vp-p (V)
⑨ 1.3Vp-p (V)	⑩ 10Vp-p (V)	⑪ 6Vp-p (H)	⑫ 4.4Vp-p (H)
⑬ 1.1Vp-p (H)	⑭ 6.4Vp-p (H)	⑮ 36Vp-p (H)	⑯ 2.2Vp-p (V)
⑰ 1Vp-p (V)	⑱ 1Vp-p (V)	⑲ 46Vp-p (V)	⑳ 1.1Vp-p (V)
㉑ 12Vp-p (V)	㉒ 12Vp-p (V)	㉓ 12Vp-p (H)	㉔ 12Vp-p (H)
㉕ 12Vp-p (H)	㉖ 32Vp-p (H)	㉗ 12Vp-p (H)	㉘ 0.5Vp-p (V)
㉙ 2.2Vp-p (V)	㉚ 0.32Vp-p (H)	㉛ 0.6Vp-p (V)	㉜ 12Vp-p (V)
㉝ 12Vp-p (V)	㉞ 12Vp-p (V)	㉟ 12Vp-p (H)	㊱ 12Vp-p (V)

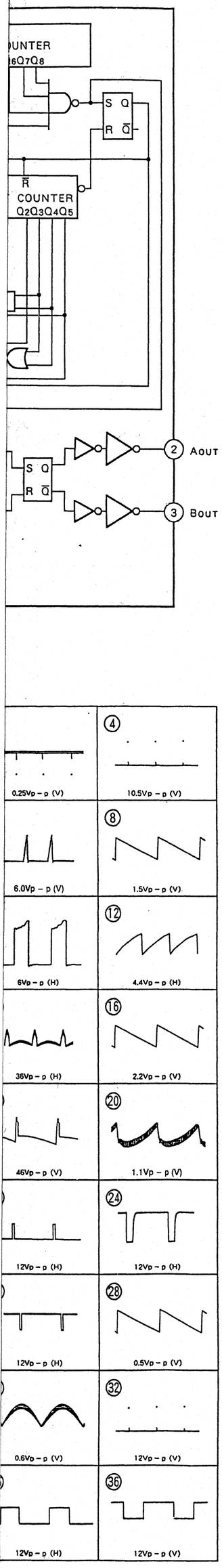
D BOARD IC503 LA78





D BOARD IC503 LA7830





D [DEFLECTION SYSTEM]

– D BOARD – 〈Component Side〉

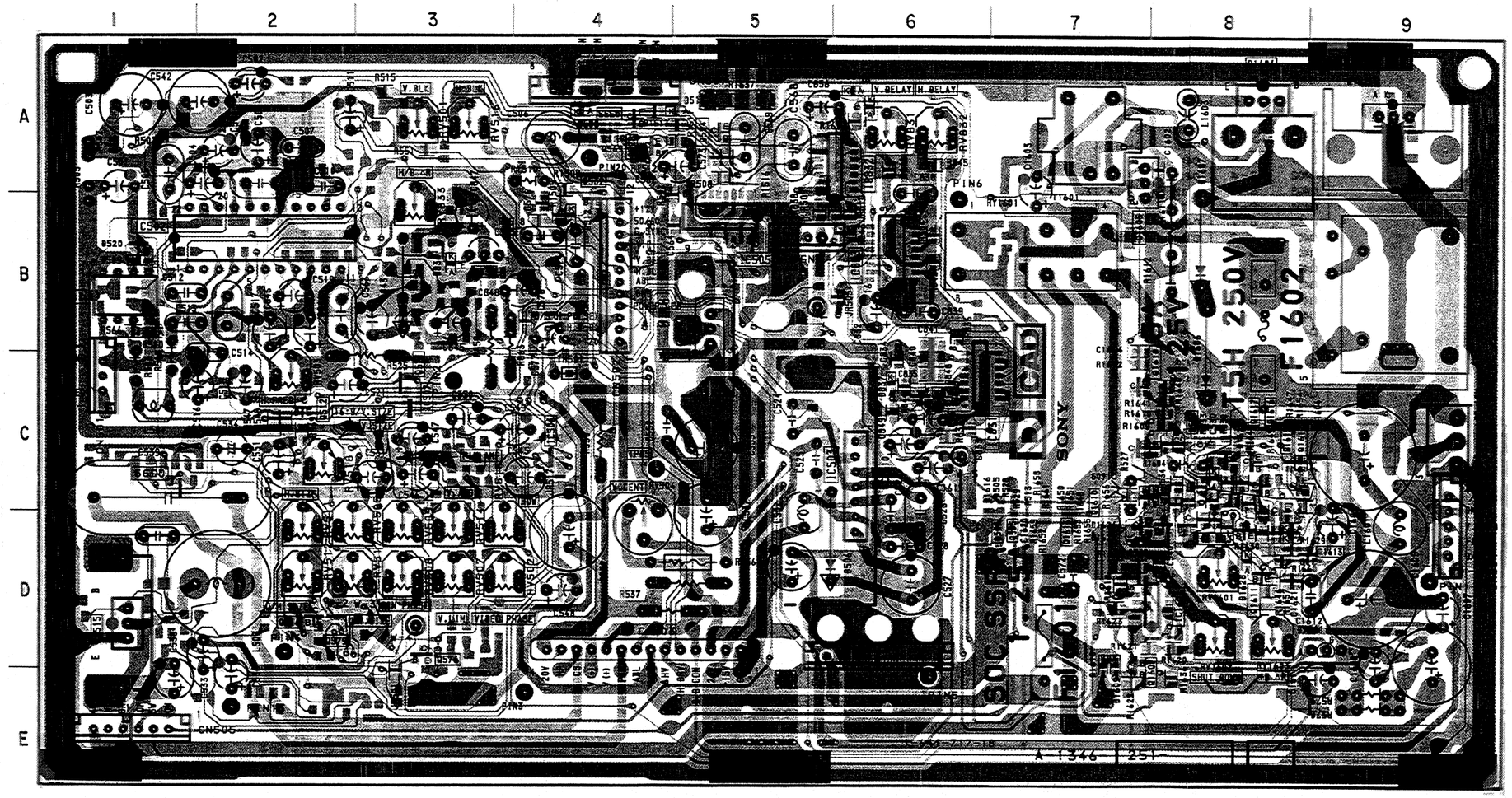
D BOARD (Component Side)

IC	
IC501	B – 1
IC502	B – 2
IC503	C – 6
IC504	B – 5
IC505	B – 5
IC506	C – 4
IC507	C – 3
IC831	C – 7
IC832	A – 6
IC833	B – 6
IC1601	D – 8

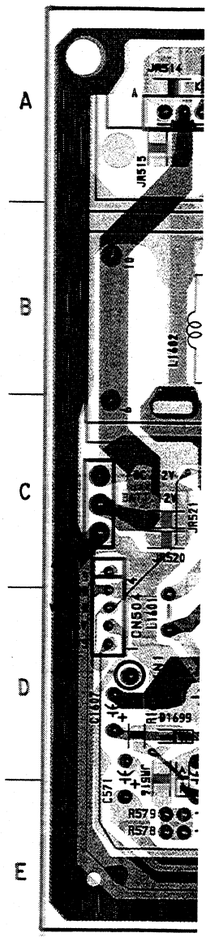
TRANSISTOR	
Q505	D – 8
Q508	D – 8
Q509	C – 8
Q512	C – 2
Q514	A – 5
Q515	D – 1
Q532	A – 4
Q569	A – 4
Q571	C – 3
Q576	D – 2
Q579	D – 2
Q599	C – 1
Q836	B – 3
Q1605	B – 7
Q1606	A – 8
Q1607	E – 8
Q1610	D – 7
Q1611	D – 8
Q1612	C – 8
Q1613	D – 9
Q1614	D – 8
Q1615	C – 8
Q1616	C – 8
Q1617	C – 8
Q1618	C – 8

DIODE	
D506	D – 6
D508	A – 4
D512	B – 4
D514	A – 5
D520	B – 1
D521	D – 8
D833	A – 6
D834	A – 6
D835	B – 3
D836	B – 3
D848	C – 6
D1606	C – 8
D1607	A – 8
D1609	D – 7
D1610	D – 7
D1611	D – 9
D1621	A – 9
D1626	D – 8
D1627	D – 8
D1628	D – 8

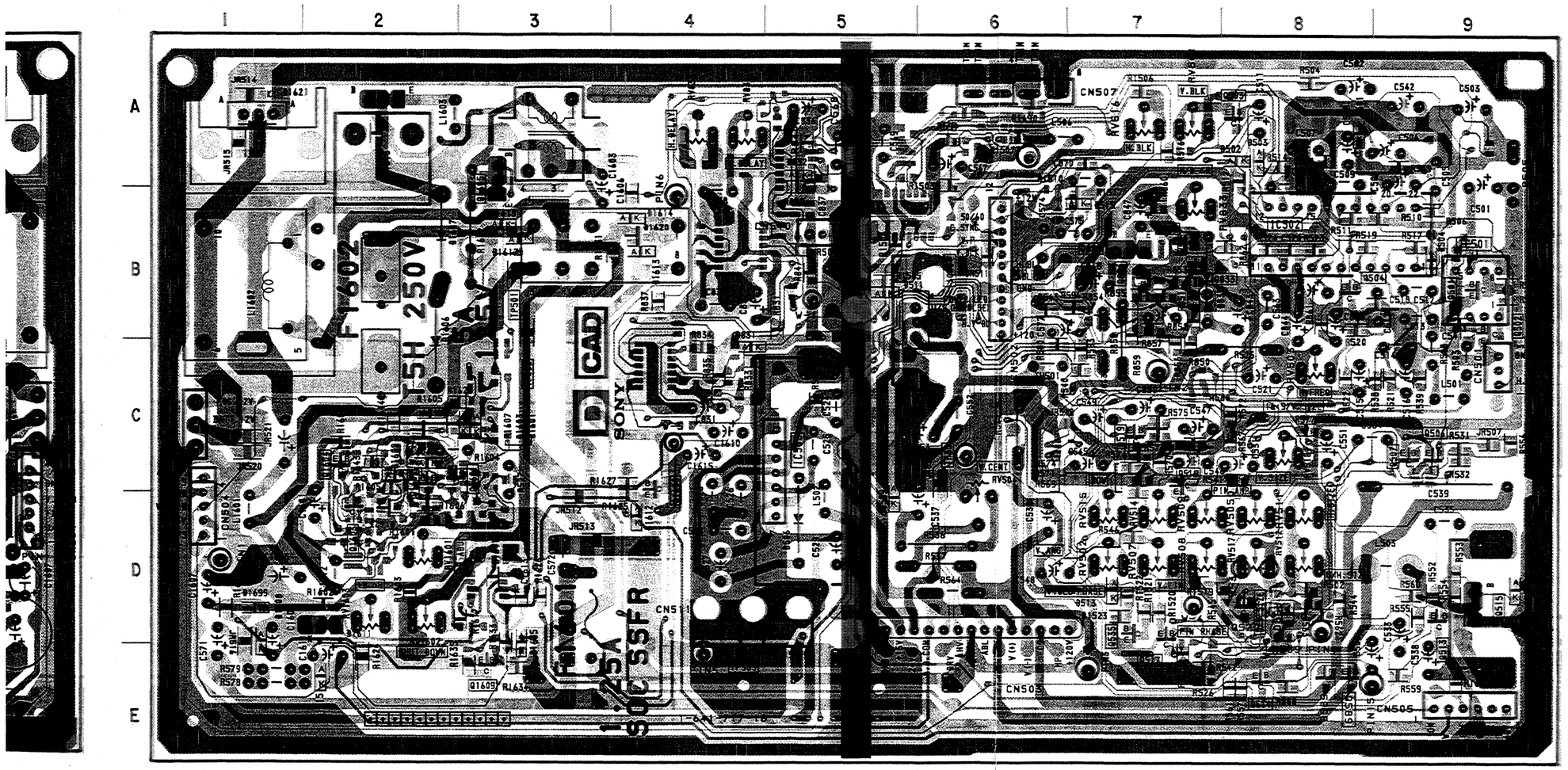
VARIABLE RESISTOR	
RV501	A – 3
RV502	D – 3
RV503	C – 2
RV504	D – 4
RV505	D – 3
RV507	D – 3
RV508	D – 3
RV509	D – 3
RV511	D – 2
RV512	D – 2
RV514	D – 3
RV515	C – 3
RV516	A – 3
RV517	D – 3
RV518	C – 2
RV831	A – 6
RV832	A – 6
RV833	B – 3
RV1601	D – 8
RV1602	D – 8
RV1603	D – 8



– D BOARD –



– **D BOARD** – 〈Conductor Side〉



D BOARD (Conductor Side)

IC	
IC501	B – 9
IC502	B – 8
IC503	C – 5
IC504	B – 6

TRANSISTOR	
Q501	B – 9
Q502	B – 9
Q503	A – 8
Q504	B – 8
Q513	D – 9
Q514	E – 8
Q515	D – 9
Q518	C – 7
Q519	C – 7
Q570	D – 8
Q833	B – 7
Q834	B – 7
Q835	B – 7
Q836	B – 7
Q1601	C – 2
Q1602	C – 2
Q1603	D – 2
Q1604	C – 2
Q1605	A – 3
Q1606	A – 2
Q1608	C – 4
Q1609	E – 3

DIODE	
D501	A – 8
D502	A – 8
D503	A – 8
D504	B – 9
D506	D – 5
D507	D – 9
D511	B – 5
D831	C – 4
D832	A – 5
D835	B – 7
D1601	C – 3
D1603	C – 3
D1606	B – 2
D1607	B – 2
D1608	D – 1
D1611	D – 2
D1612	D – 4
D1615	E – 2
D1617	B – 3
D1618	B – 3
D1620	B – 4
D1621	A – 1
D1622	C – 2
D1623	D – 2
D1635	D – 3
D1699	D – 1

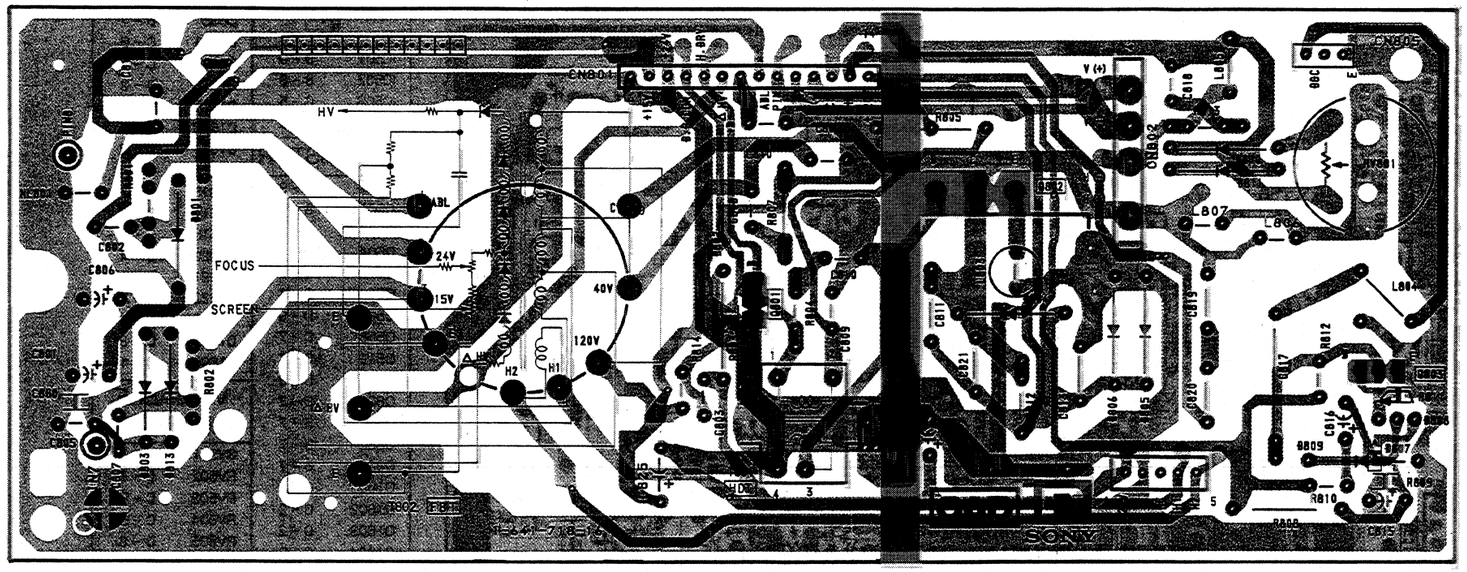
VARIABLE RESISTOR	
RV501	A – 7
RV502	D – 7
RV503	C – 8
RV504	C – 6
RV505	D – 8
RV507	D – 7
RV508	D – 7
RV509	D – 7
RV511	D – 8
RV512	D – 8
RV514	D – 7
RV515	D – 7
RV516	A – 7
RV517	D – 8
RV518	C – 8
RV831	A – 4
RV832	A – 4
RV833	B – 7
RV6101	D – 2
RV1602	D – 2
RV1603	D – 2

Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

P [H OUT, FBT] **G** [SWITCHING REGULATOR] **X** [TALLY LAMP] **FA** [AC/DC SW] **HA** [USER CONTROL WHITE BALANSE] **CA** [CRT SOCKET] **QA** [INPUT SIGNAL SELECTOR] **S** [SECAM DEMODULATION]

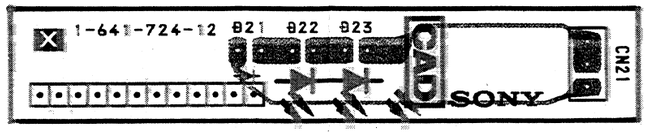
– P BOARD –



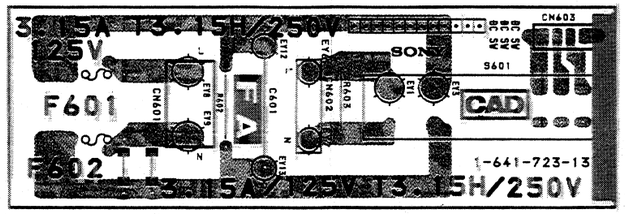
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

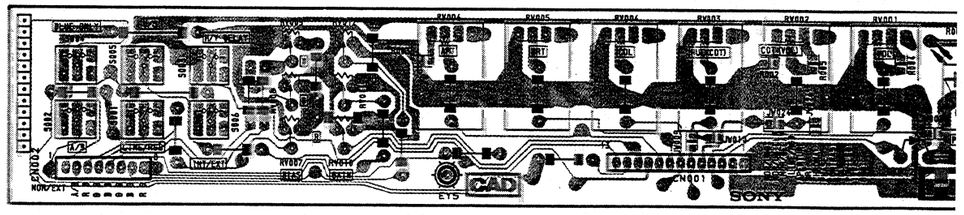
– X BOARD –



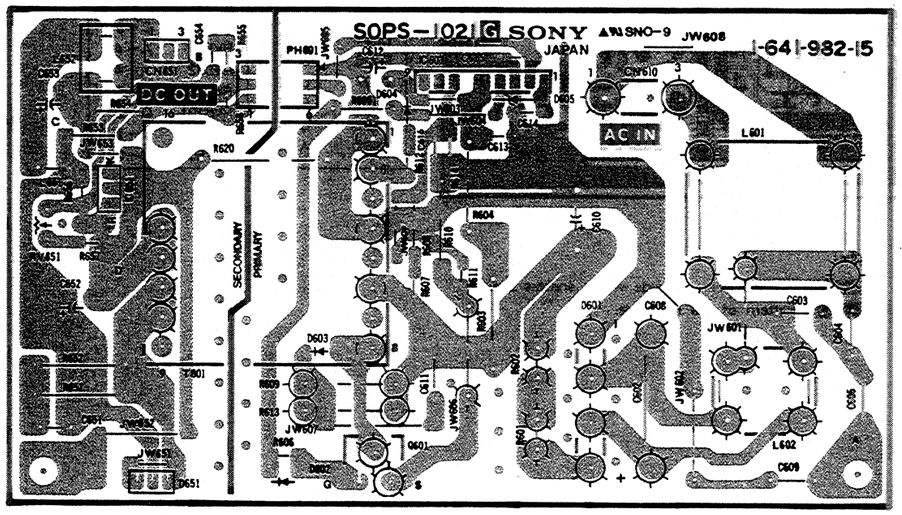
– FA BOARD –



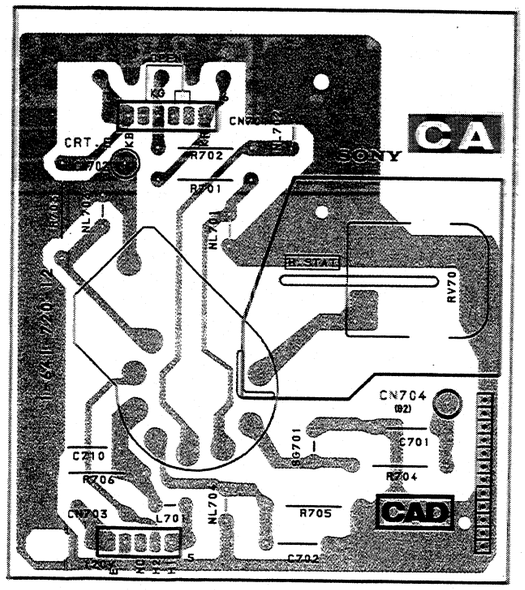
– HA BOARD –



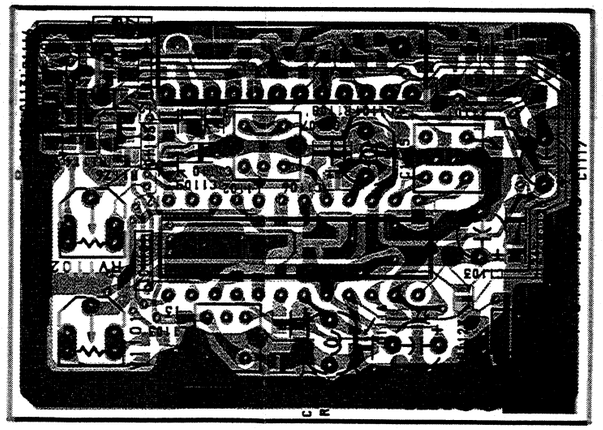
– G BOARD –

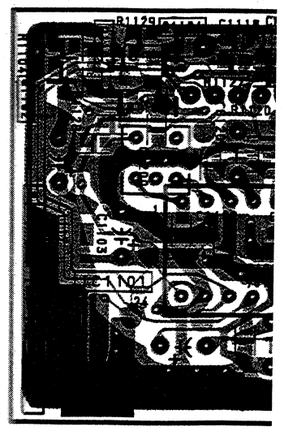


– CA BOARD –



– S BOARD – 〈Component Side〉 〈Conductor Side〉



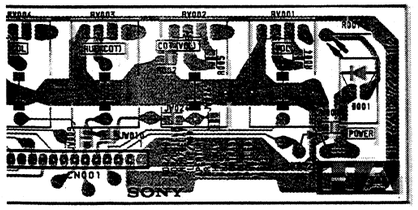


Note :

- : Pa
- : Pa

ONY SP-00151/ DRUCK61

CN21

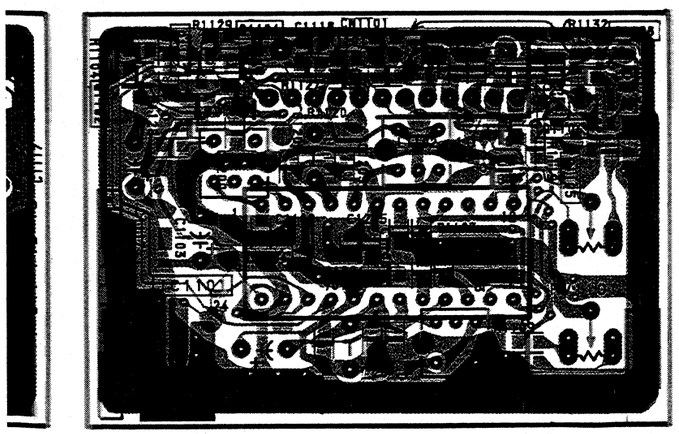


QA BOARD

IC		TRANSISTOR		DIODE	
IC401	B-3	Q401	B-5	D401	C-2
IC402	C-3	Q402	B-4	D402	C-2
IC403	E-3	Q403	B-3	D403	D-2
		Q404	B-6	D404	B-6
		Q405	B-7	D405	B-6
		Q406	D-7	D406	B-4
		Q407	D-5	D407	B-4
		Q408	A-7	D408	B-6
		Q409	C-4	D409	C-6
		Q410	D-2	D410	C-1
		Q411	C-1	D411	C-1
		Q412	B-5	D412	B-1
		Q413	B-3	D413	B-1
		Q414	D-3	D414	B-7
		Q416	E-2	D415	B-7
		Q417	C-1	D416	D-6
		Q418	B-1	D417	D-6
		Q419	B-1	D418	D-5
		Q420	A-1	D419	D-5
		Q421	B-2	D420	D-4
		Q422	B-2	D421	D-4
		Q423	B-1	D422	D-2
		Q424	B-2	D423	D-3
		Q426	D-7	D424	B-1
				D425	B-1
				D426	B-1
				D427	A-2
				D428	B-1
				D429	B-1
				D430	B-2
				D431	A-2

VARIABLE RESISTOR	
RV401	D-4

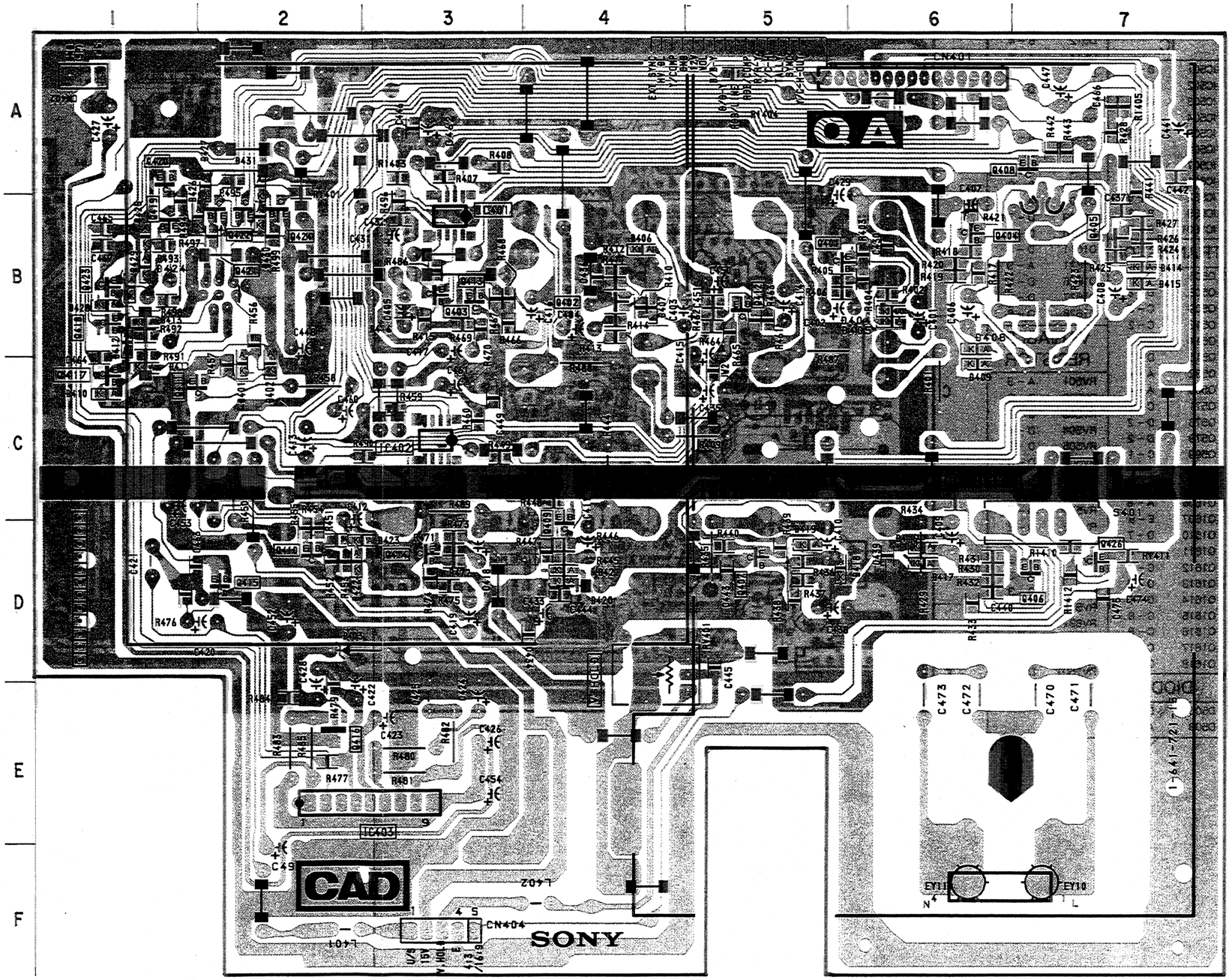
〈Conductor Side〉

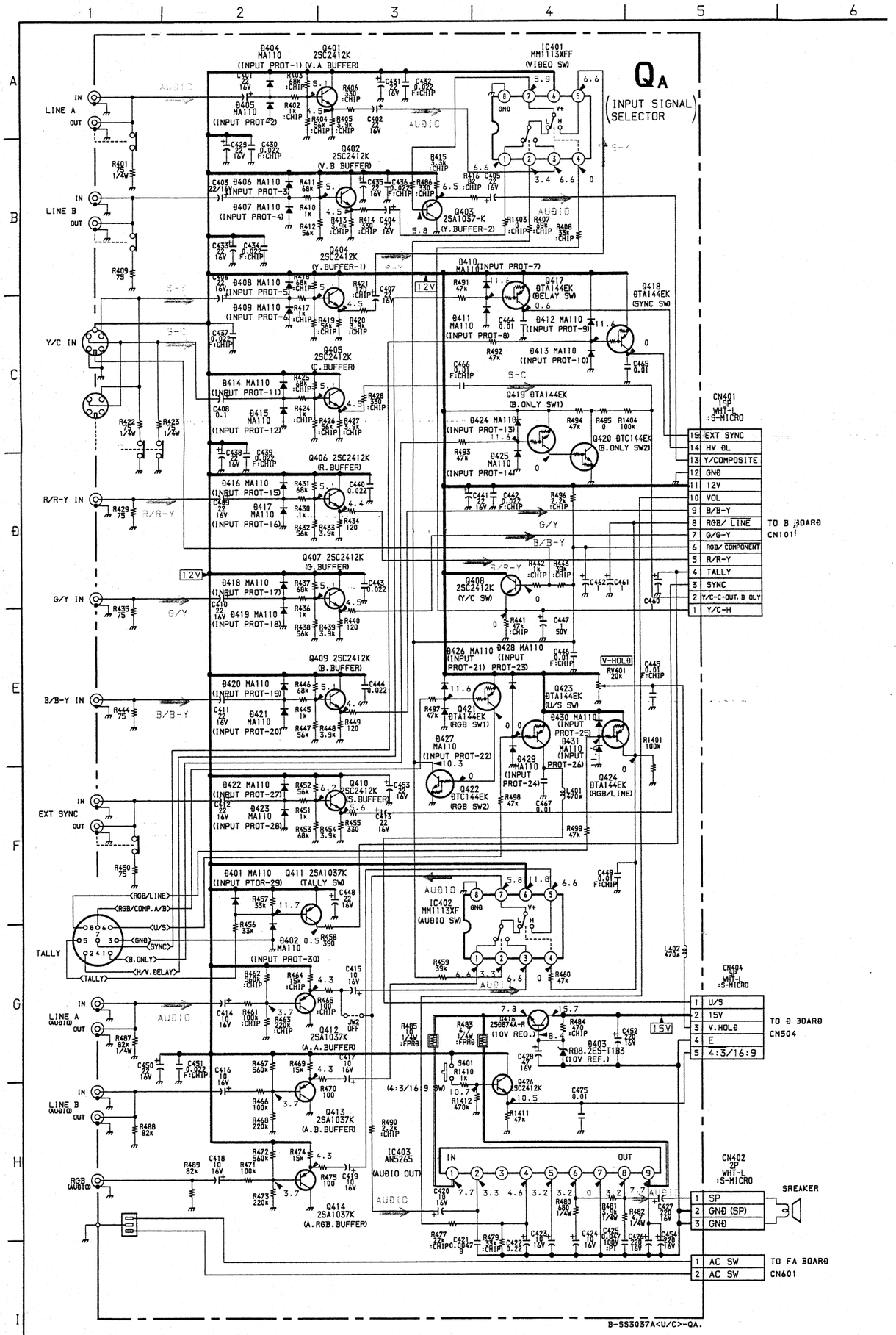


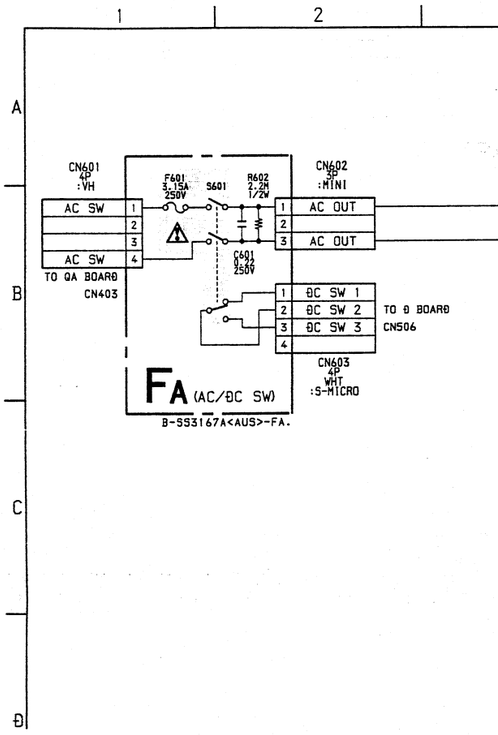
Note :

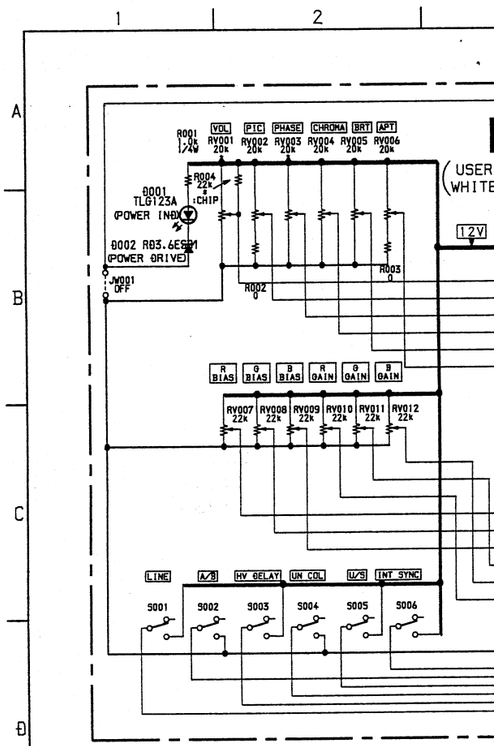
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

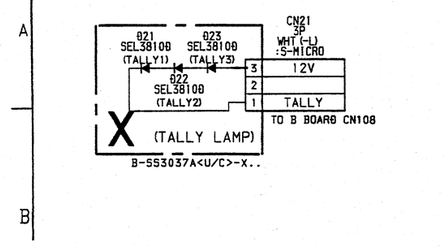
– QA BOARD –



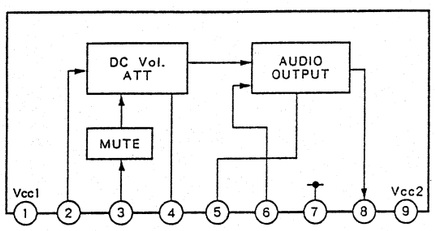


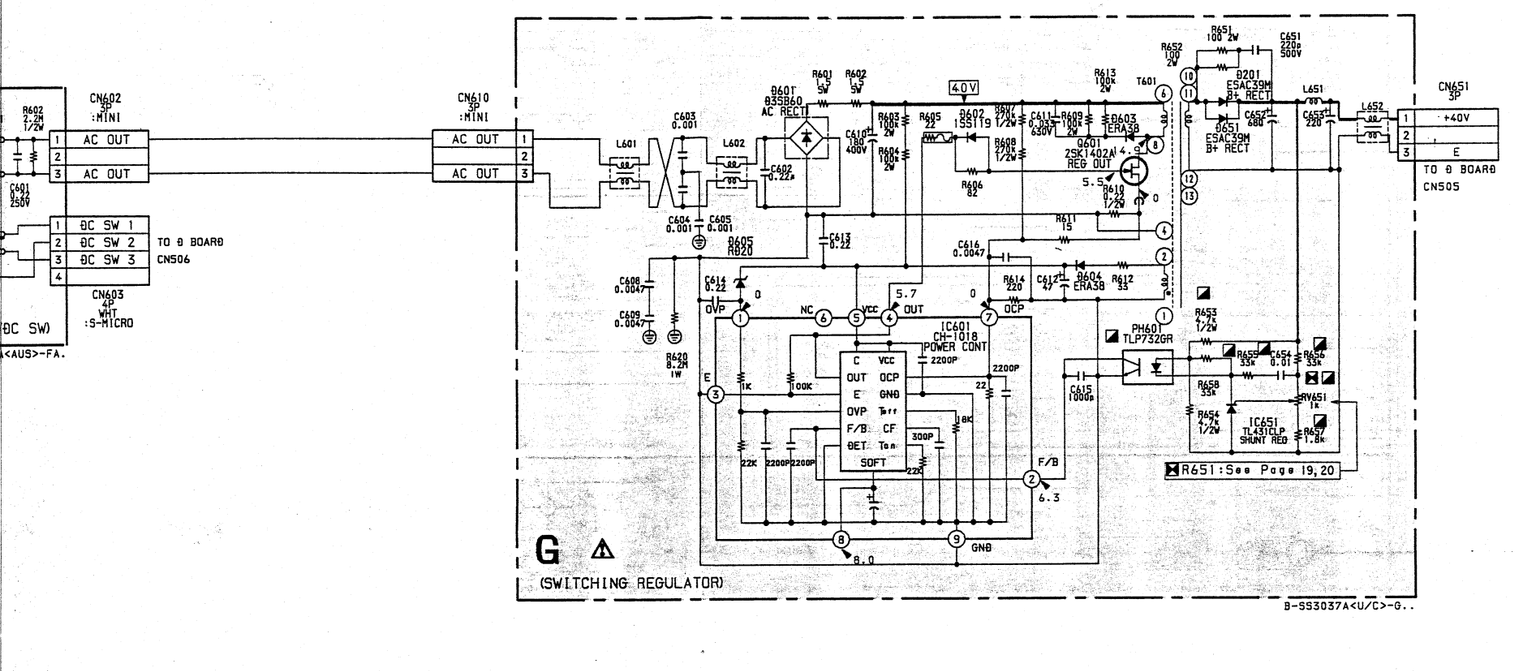


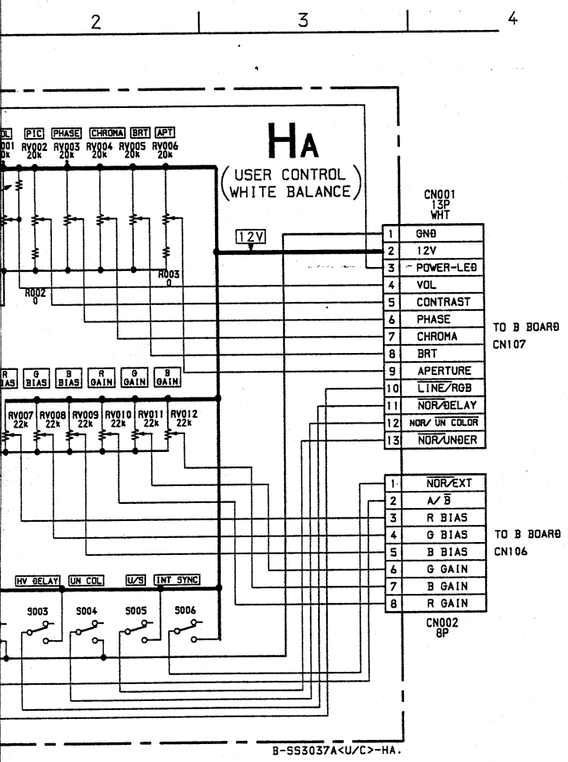


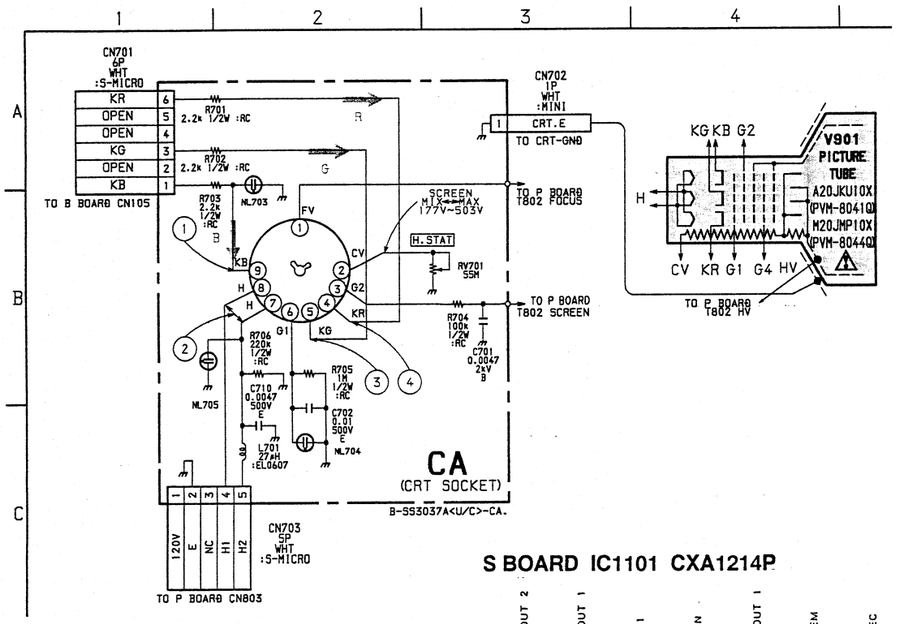


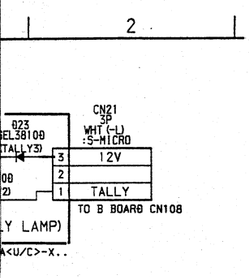
QA BOARD IC403 AN5265







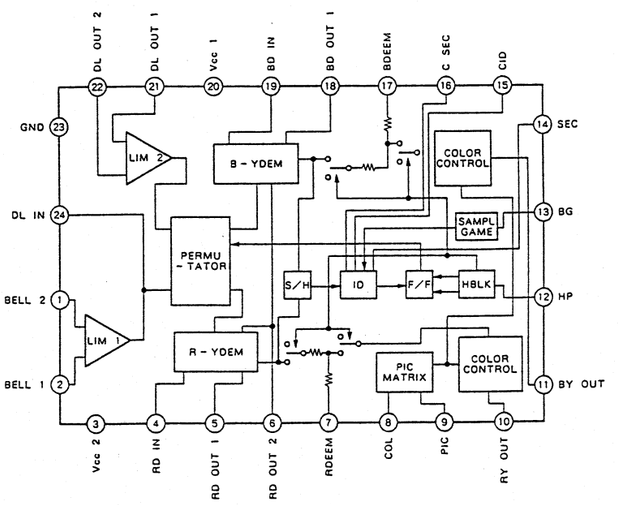




• CA BOARD WAVEFORMS

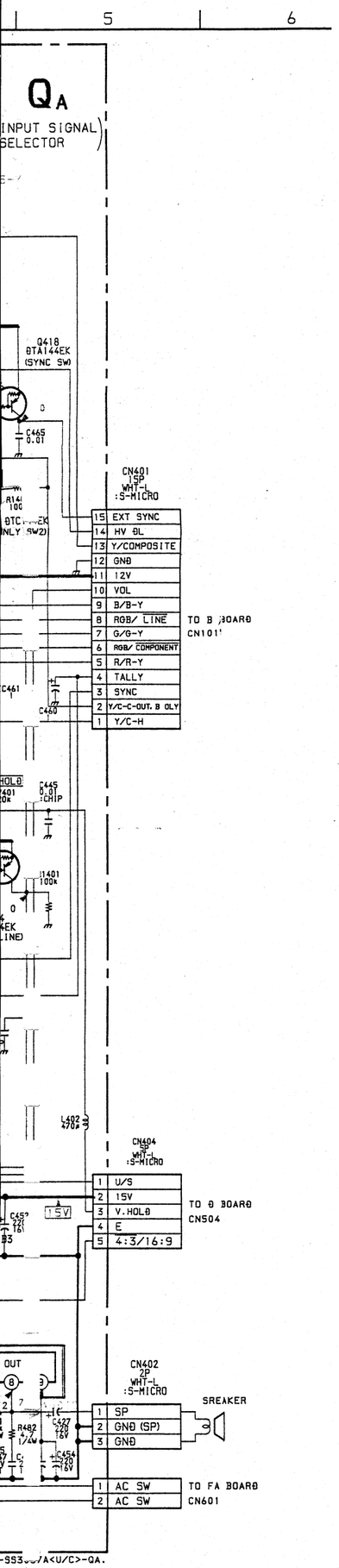
① 40.5 Vp-p (H)	② 16.0 Vp-p (H)
③ 48.0 Vp-p (H)	④ 50.5 Vp-p (H)

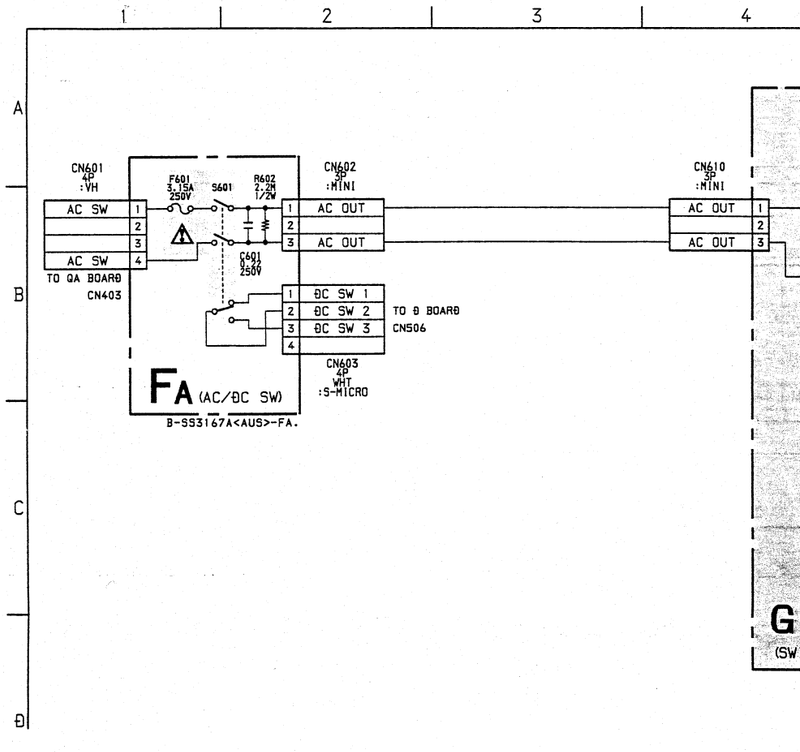
S BOARD IC1101 CXA1214P

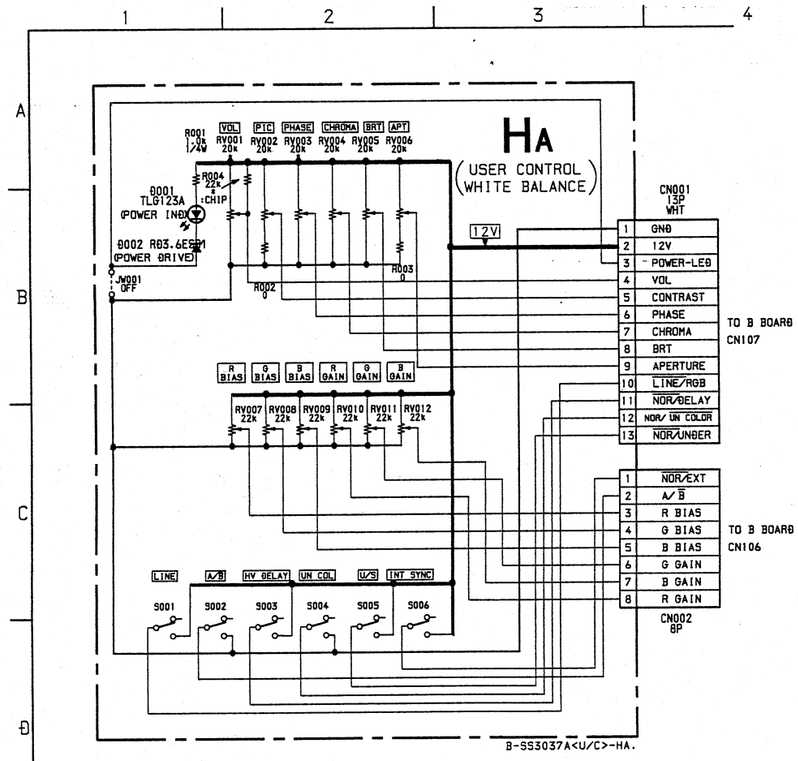


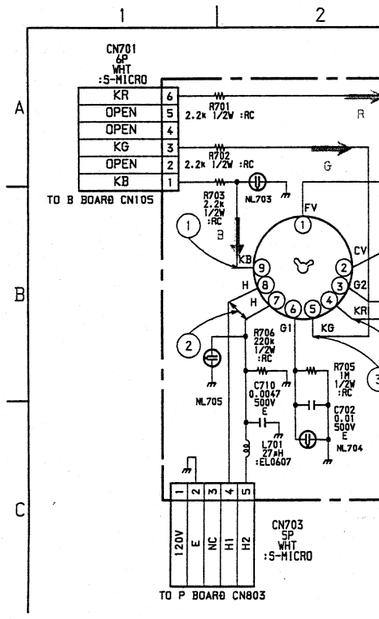
• S BOARD WAVEFORMS

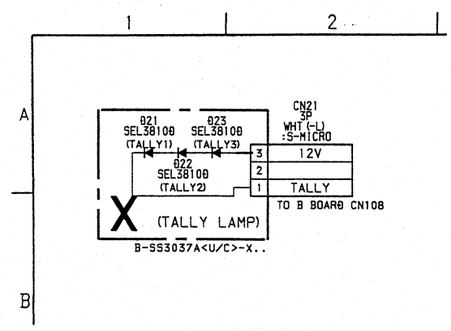
① SECAM 0.8Vp-p (H)	② SECAM 0.7Vp-p (H)	③ SECAM 0.1Vp-p (H)	④ SECAM 3Vp-p (H)
⑤ SECAM 0.6Vp-p (H)	⑥ SECAM 0.7Vp-p (H)	⑦ SECAM 3.4Vp-p (H)	⑧ SECAM 6Vp-p (H)







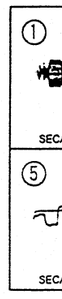


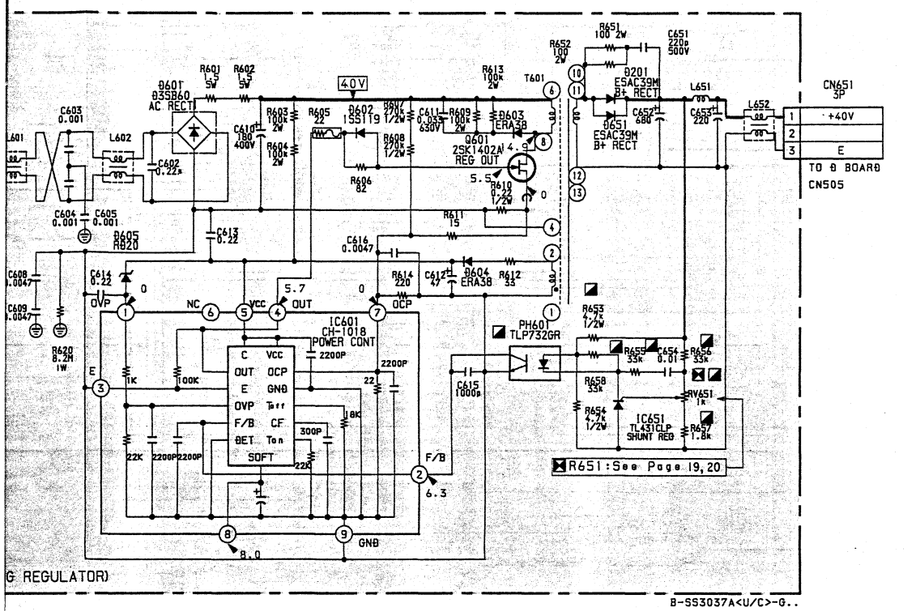


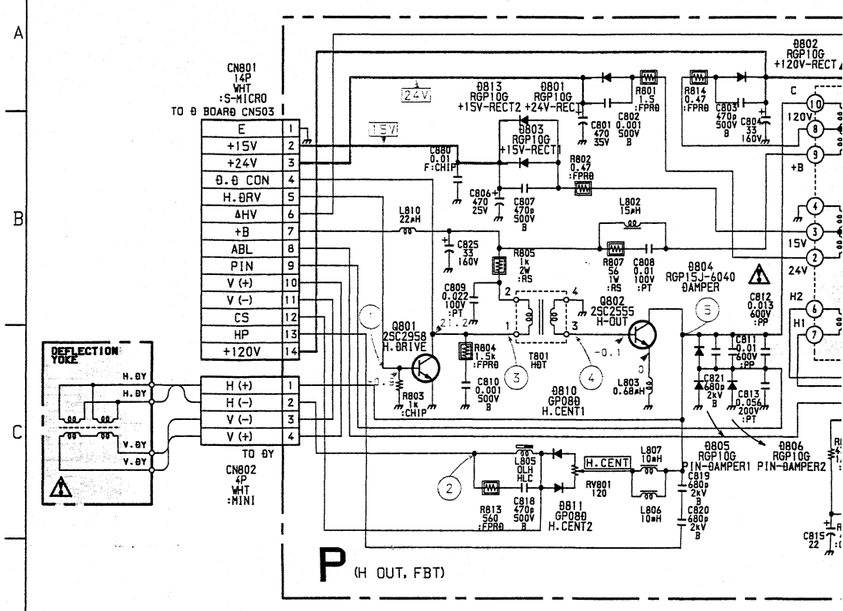
• CA BOARD WAVEFORMS

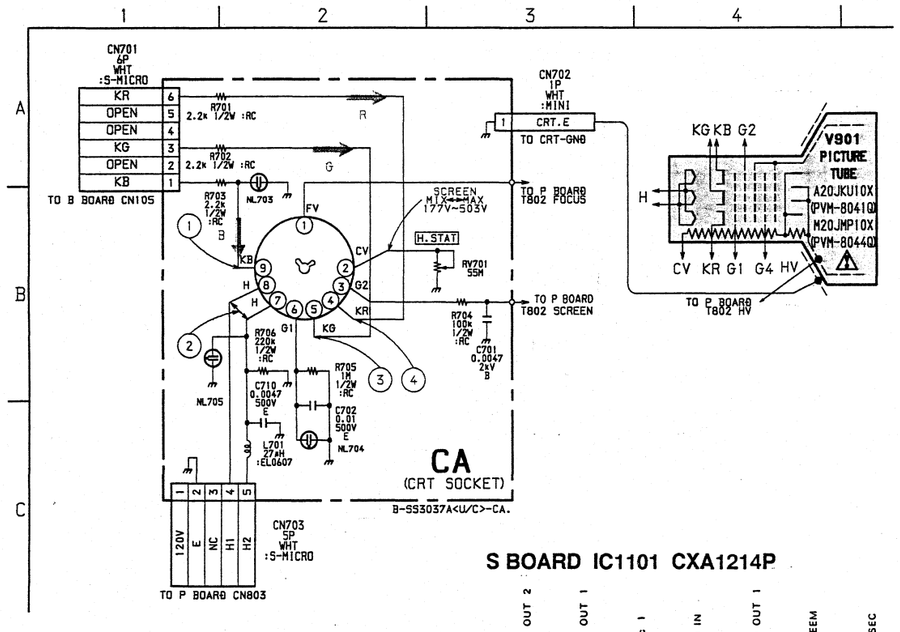
① 40.5 Vp-p (H)	② 16.0 Vp-p (H)
③ 48.0 Vp-p (H)	④ 50.5 Vp-p (H)

• S B









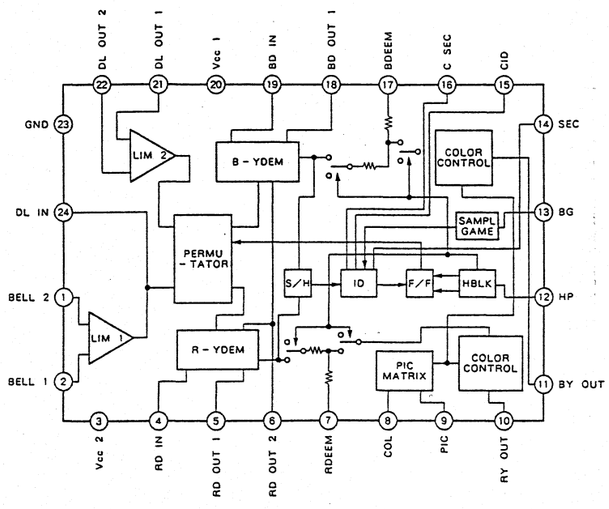
• P BOARD WAVEFORMS

① 2.5Vp-p (H)	② 80Vp-p (H)	③ 46Vp-p (H)
④ 22Vp-p (H)	⑤ 320Vp-p (H)	

• CA BOARD WAVEFORMS

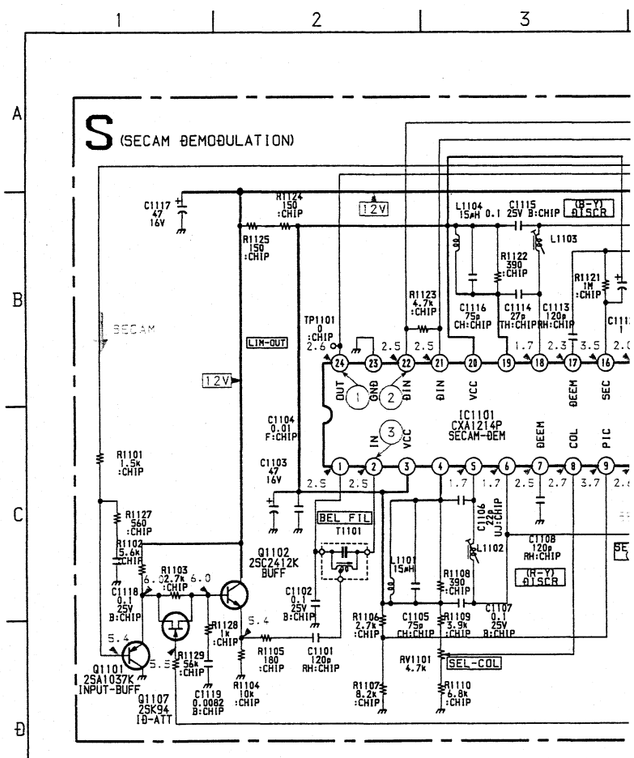
① 40.5 Vp-p (H)	② 16.0 Vp-p (H)
③ 48.0 Vp-p (H)	④ 50.5 Vp-p (H)

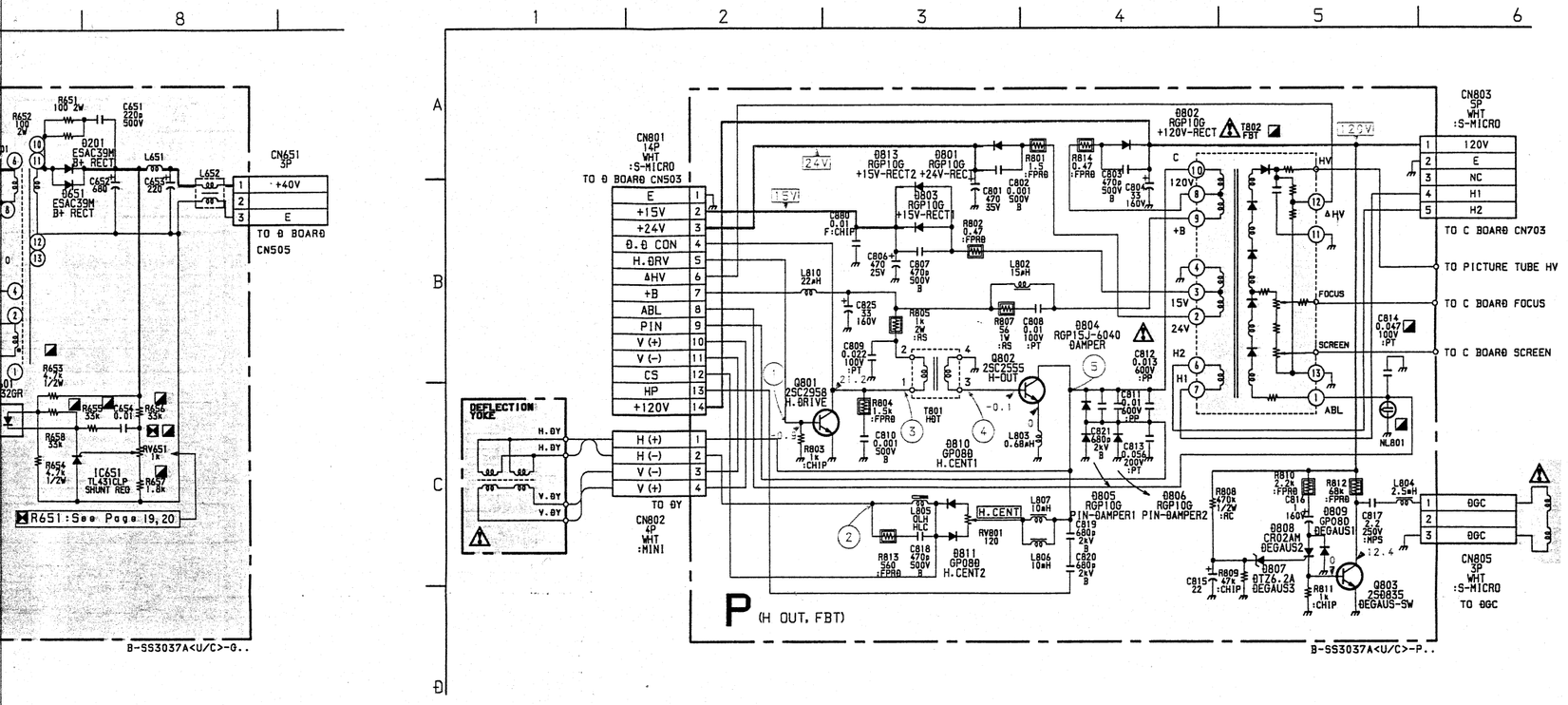
S BOARD IC1101 CXA1214P

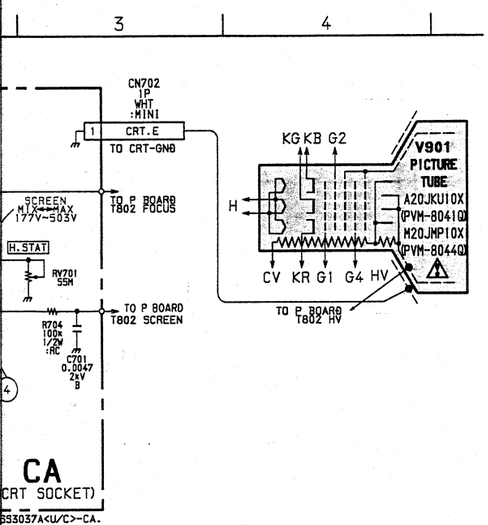


• S BOARD WAVEFORMS

① SECAM 0.8Vp-p (H)	② SECAM 0.7Vp-p (H)	③ SECAM 0.1Vp-p (H)	④ SECAM 3Vp-p (H)
⑤ SECAM 0.6Vp-p (H)	⑥ SECAM 0.7Vp-p (H)	⑦ SECAM 3.4Vp-p (H)	⑧ SECAM 6Vp-p (H)



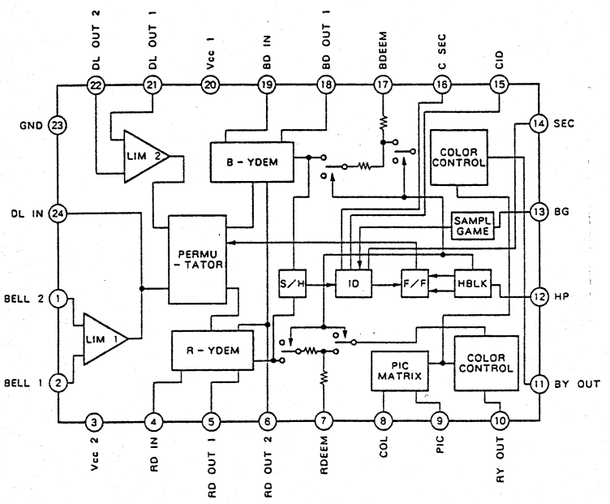




• P BOARD WAVEFORMS

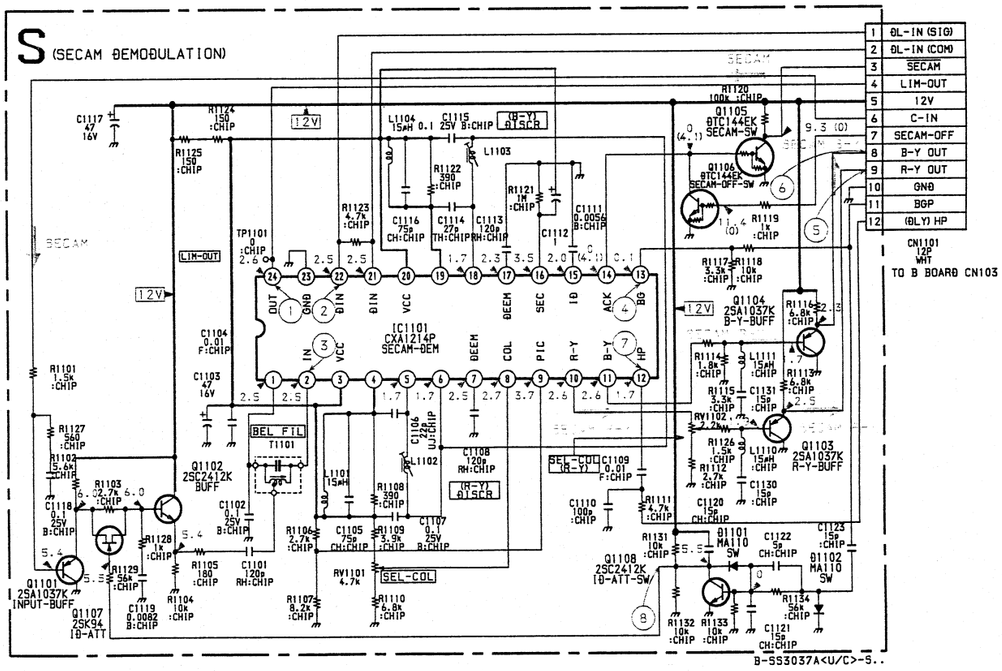
① 2.5Vp-p (H)	② 80Vp-p (H)	③ 46Vp-p (H)
④ 22Vp-p (H)	⑤ 320Vp-p (H)	

S BOARD IC1101 CXA1214P



RD WAVEFORMS

0.8Vp-p (H)	② SECAM 0.7Vp-p (H)	③ SECAM 0.1Vp-p (H)	④ SECAM 3Vp-p (H)
0.6Vp-p (H)	⑥ SECAM 0.7Vp-p (H)	⑦ SECAM 3.4Vp-p (H)	⑧ SECAM 6Vp-p (H)



B BOARD

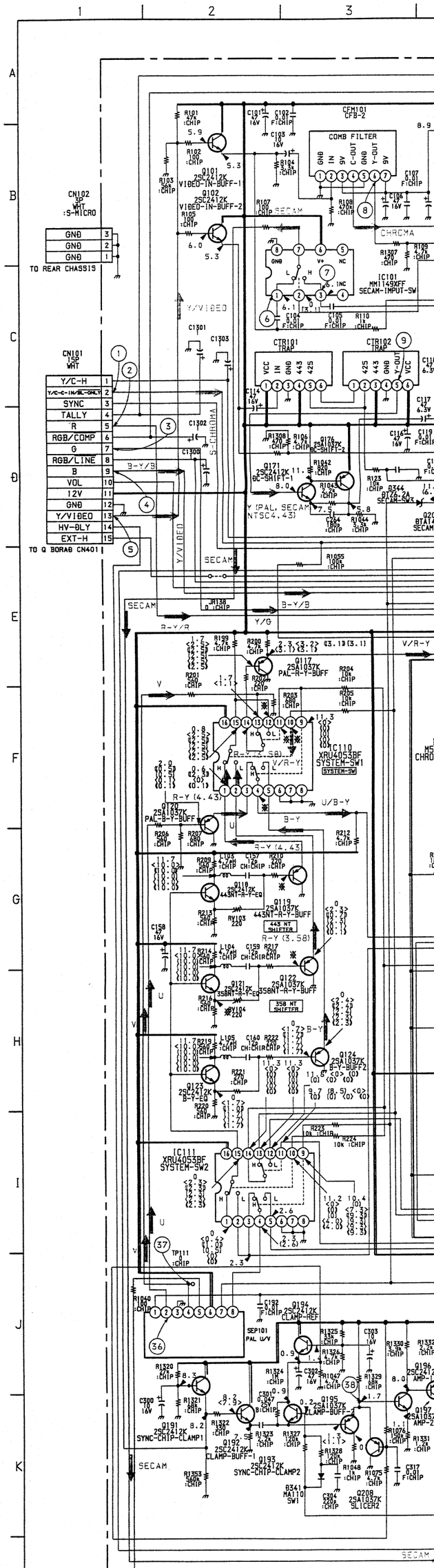
As to the voltage value shown by the mark ※ on the Schematic Diagram, see another list.

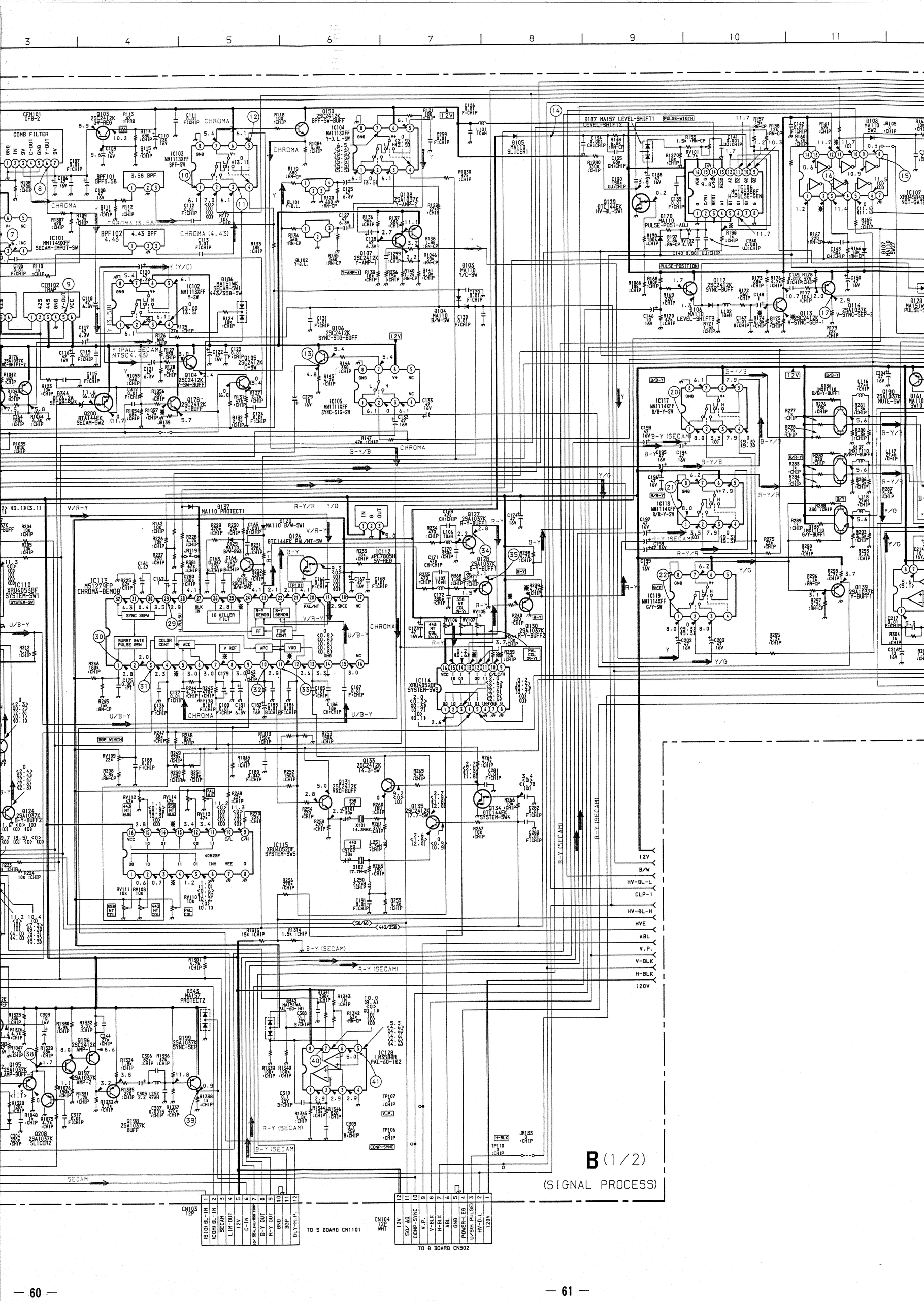
< TRANSISTOR >

		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
Q113	E	0.5	0.5	0.4	0.4	0.5	0.5	0.5
	B	1.0	1.0	0.9	0.9	0.9	0.9	1.0
Q115	E	11.2	9.3	0.0	10.8	0.0	0.0	0.0
	B	2.8	2.2	0.1	2.4	0.1	0.1	0.0
Q118	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q119	B	0.1	0.0	1.7	1.7	1.7	1.7	1.7
Q121	E	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q122	B	0.0	0.0	1.7	1.7	1.7	1.7	1.7
Q130	E	4.3	4.3	4.4	4.4	4.5	4.4	4.4
	B	3.7	3.7	3.8	3.8	3.9	3.8	3.8
Q132	E	2.3	2.3	2.4	2.3	2.4	2.4	2.4
	C	1.8	1.7	1.7	1.7	1.7	1.8	1.8
	B	2.7	2.6	2.6	2.7	2.8	2.7	2.8
Q146	C	116.7	114.4	110.4	113.2	113.7	114.3	114.1
Q147	E	117.9	115.6	111.6	114.5	115.0	115.5	115.4
	C	126.0	123.5	120.3	123.4	123.8	124.6	124.4
	B	119.8	119.5	110.5	118.4	118.2	114.2	114.2
Q148	C	86.1	84.9	91.2	83.4	82.6	82.5	82.2
	B	94.0	93.3	86.3	92.4	92.1	94.2	90.6
Q149	E	1.6	1.6	1.4	1.7	1.7	1.7	1.7
	C	86.1	84.9	91.2	83.4	82.7	82.5	82.5
Q151	E	90.7	91.4	98.0	87.9	87.0	86.5	86.4
	C	89.2	89.8	96.5	86.4	85.3	84.9	84.7
	B	92.1	92.7	100.2	89.5	92.4	90.5	88.9
Q152	E	86.1	86.0	92.6	82.6	82.9	82.6	82.7
	C	10.8	10.5	9.7	10.9	10.9	10.9	11.0
Q154	B	92.5	92.9	99.8	90.1	88.7	90.4	89.2
Q155	B	88.3	88.5	95.7	85.7	83.9	84.6	83.9
Q157	E	82.4	81.1	87.5	79.9	79.9	80.8	79.4
	B	86.0	84.8	91.2	84.4	82.7	82.5	82.1
Q158	E	1.6	1.5	1.3	1.6	1.6	1.7	1.7
	B	2.1	2.0	1.8	2.1	2.2	2.2	2.2
Q159	E	1.6	1.6	1.3	1.6	1.7	1.7	1.7
	B	2.2	2.1	1.5	2.1	2.2	2.2	2.2
Q163	E	0.2	0.6	2.7	0.5	−0.5	−0.7	−0.6
Q166	B	0.9	0.9	0.6	1.0	1.0	1.0	1.0
Q168	C	2.1	2.0	1.6	2.1	2.2	2.1	2.2
Q170	B	2.3	2.3	2.1	2.4	2.4	2.4	2.4
Q172	B	2.2	2.1	1.9	2.2	2.3	2.2	2.3
Q173	B	1.7	1.6	1.4	1.7	1.7	1.7	1.7
Q174	E	2.1	2.0	1.8	2.1	2.2	2.2	2.2
	B	1.6	1.5	1.3	1.6	1.6	1.7	1.7
Q178	B	6.2	6.3	6.2	6.3	6.1	6.2	6.2
Q209	E	83.4	81.5	87.9	80.3	80.4	80.4	79.8
	C	115.6	113.2	110.7	113.2	113.8	114.5	114.2
	B	87.8	86.4	92.8	85.0	84.3	84.2	83.8
Q210	E	86.5	86.3	93.1	83.0	83.3	83.0	82.8
	C	116.5	114.2	111.5	113.9	114.5	115.1	114.9
Q211	C	115.9	113.6	111.7	113.3	113.8	114.5	114.3

< IC >

		PAL	SECAM	NTSC 3.58	NTSC 4.43	S (Y/C)	ANALOG RGB	COMPO-NENT
IC102	②	6.6	6.6	0.0	6.6	0.0	0.0	0.0
IC106	②	0.2	0.1	0.1	0.1	0.1	0.1	0.2
	④	1.8	1.7	1.7	1.7	1.7	1.8	1.8
IC107	②	10.7	10.7	10.6	10.6	10.6	10.6	10.6
	⑪	1.2	10.7	0.0	0.0	0.0	0.0	0.0
IC108	①	9.7	0.4	9.7	9.6	9.6	1.1	9.6
IC109	②	11.3	11.3	0.0	10.8	0.0	0.0	0.0
	③	11.3	11.4	0.0	11.3	0.0	0.0	0.0
	④	11.7	0.0	0.0	11.7	0.0	0.0	0.0
	⑤	11.0	11.1	0.0	11.0	0.0	0.0	0.0
IC110	④	2.1	2.2	2.5	2.5	2.5	2.5	2.5
	⑩	11.3	11.3	0.0	11.3	0.0	0.0	0.0
	⑪	11.3	11.3	0.0	0.0	0.0	0.0	0.0
	⑫	0.8	0.8	2.5	2.5	2.5	2.5	2.5
	⑬	1.7	1.7	2.5	2.6	2.5	2.5	2.5
IC113	④	2.7	1.1	2.6	2.6	2.6	1.1	1.1
	⑦	4.2	4.3	4.2	4.3	4.3	4.6	4.6
	⑪	3.0	2.9	2.8	3.0	2.8	2.9	2.9
	⑮	2.2	2.5	2.9	2.2	1.9	2.8	2.8
IC114	⑫	11.4	11.3	0.0	0.0	0.0	0.0	0.0
	⑬	3.7	3.7	3.8	3.8	3.8	3.9	3.9
IC115	③	1.2	1.1	0.6	0.7	0.7	0.6	0.6
	⑬	3.5	3.5	3.4	2.8	3.4	3.4	3.4
IC116	②	0.0	0.0	1.0	1.1	1.1	1.3	1.1
IC120	③	5.5	5.6	5.6	5.6	5.6	5.6	5.6
	④	5.5	5.6	5.6	5.6	5.6	5.0	5.6
IC121	⑬	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	⑭	5.6	5.7	5.6	5.6	5.7	5.7	5.7
	⑮	5.6	5.7	5.6	5.6	5.7	5.7	5.6
IC122	②	5.3	5.3	5.4	5.2	5.2	5.1	5.1
	③	5.3	5.3	5.4	5.2	5.2	5.1	5.1
IC124	⑥	0.1	0.1	0.2	0.2	0.2	0.2	0.2
IC125	④	1.4	1.4	1.3	1.4	1.5	1.5	1.5
IC126	②	1.6	1.5	1.3	1.6	1.6	1.7	1.6
	⑤	1.6	1.5	1.3	1.6	1.6	1.6	1.7
	⑥	1.7	1.6	1.4	1.7	1.7	1.6	1.7
IC127	①	3.0	2.9	2.6	3.0	3.1	3.0	3.0
	②	1.4	1.4	1.3	1.5	1.5	1.5	1.5
	⑦	2.1	2.7	2.4	2.8	2.8	2.8	2.8





B (1/2)
(SIGNAL PROCESS)

TSC .43	S (Y/C)	ANALOG RGB	COMPO-NENT
6.6	0.0	0.0	0.0
0.1	0.1	0.1	0.2
1.7	1.7	1.8	1.8
10.6	10.6	10.8	10.6
0.0	0.0	0.0	0.0
9.6	9.6	1.1	9.5
10.8	0.0	0.0	0.0
11.3	0.0	0.0	0.0
0.0	0.0	0.0	0.0
2.5	2.5	2.5	2.5
2.6	2.5	2.5	2.5
2.6	2.6	1.1	1.1
4.3	4.3	4.8	4.8
3.0	2.8	2.9	2.9
2.2	1.9	2.8	2.8
0.0	0.0	0.0	0.0
3.8	3.8	3.9	3.9
0.7	0.7	0.8	0.8
2.8	3.4	3.4	3.4
1.1	1.1	1.3	1.1
5.6	5.6	5.6	5.6
5.6	5.6	5.0	5.6
5.2	5.2	5.1	5.1
5.6	5.7	5.7	5.7
5.6	5.7	5.7	5.6
5.2	5.2	5.1	5.1
5.2	5.2	5.1	5.1
0.2	0.2	0.2	0.2
1.4	1.5	1.5	1.5
1.6	1.6	1.7	1.6
1.8	1.8	1.8	1.7
1.7	1.7	1.6	1.7
3.0	3.1	3.0	3.0
1.5	1.5	1.5	1.5
2.8	2.8	2.8	2.8

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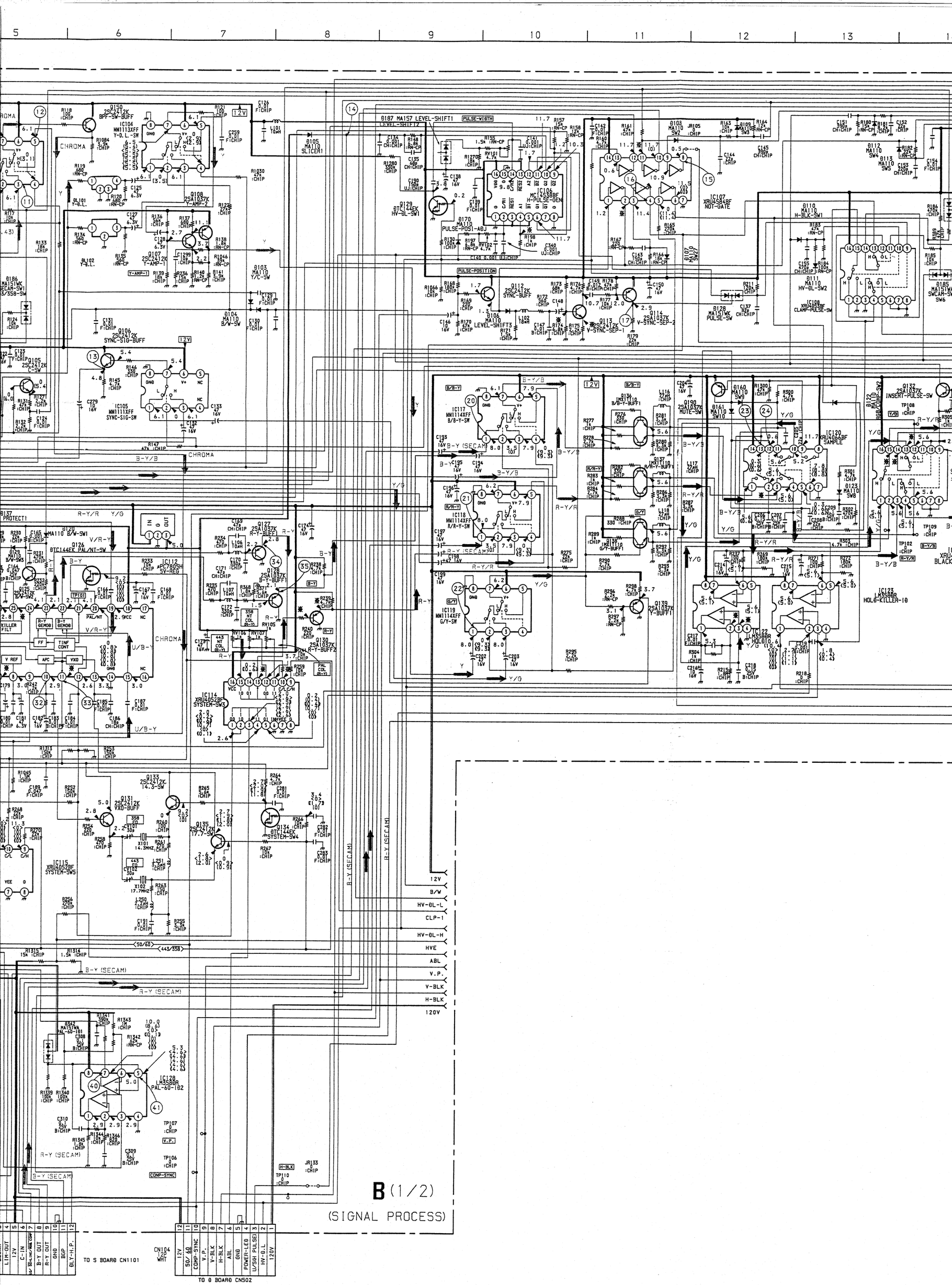
board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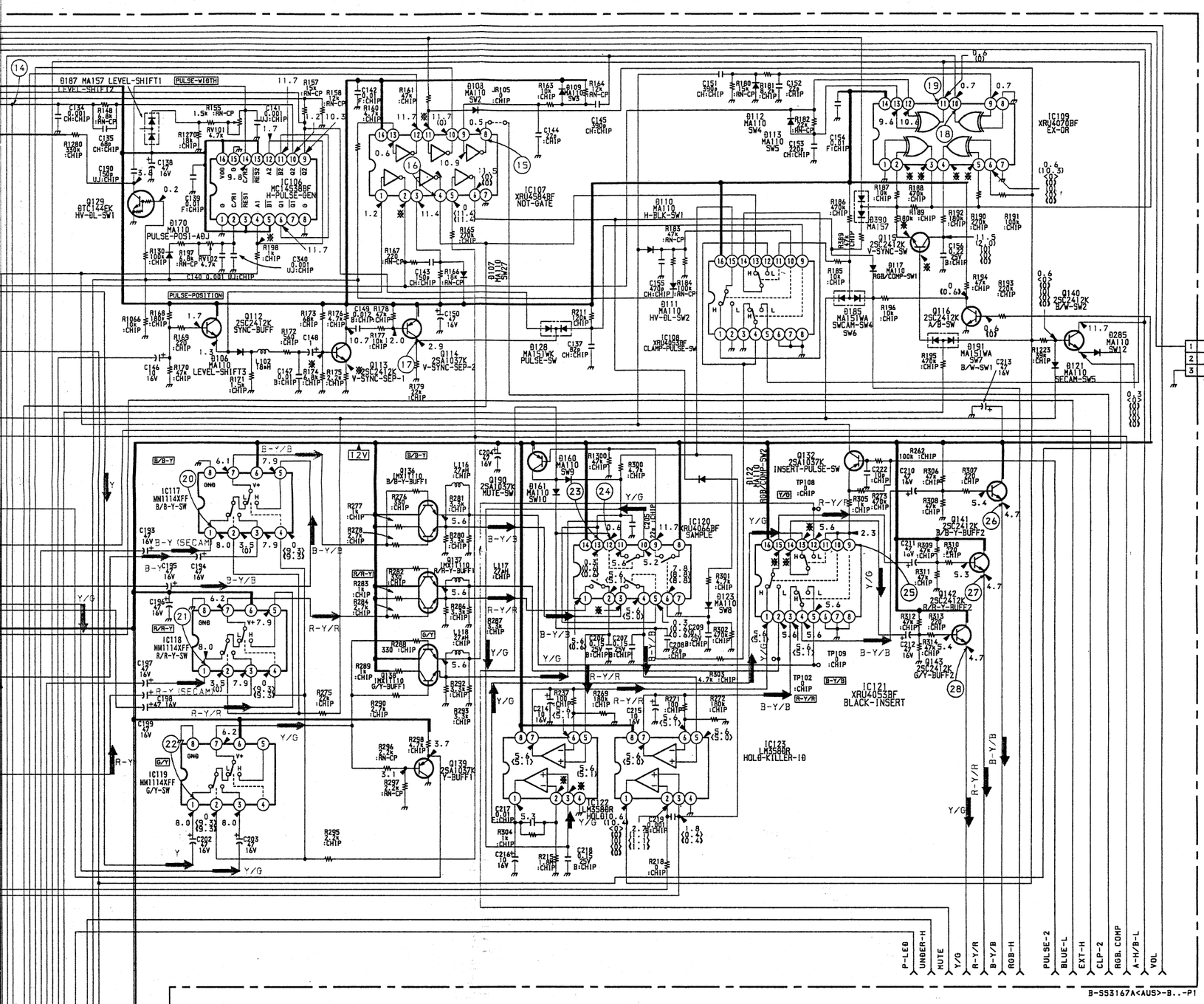
6
7
8
9
10
11
12
13
CHROMA
Y
B-Y/B
R-Y/R
Y/G
V/R-Y
U/B-Y
R-Y (SECAM)
B-Y (SECAM)
12V
B/W
HV-DL-L
CLP-1
HV-DL-H
HVE
ABL
V.P.
V-BLK
H-BLK
120V
TO S BOARD CN1101
TO B BOARD CN502
B (1/2)
(SIGNAL PROCESS)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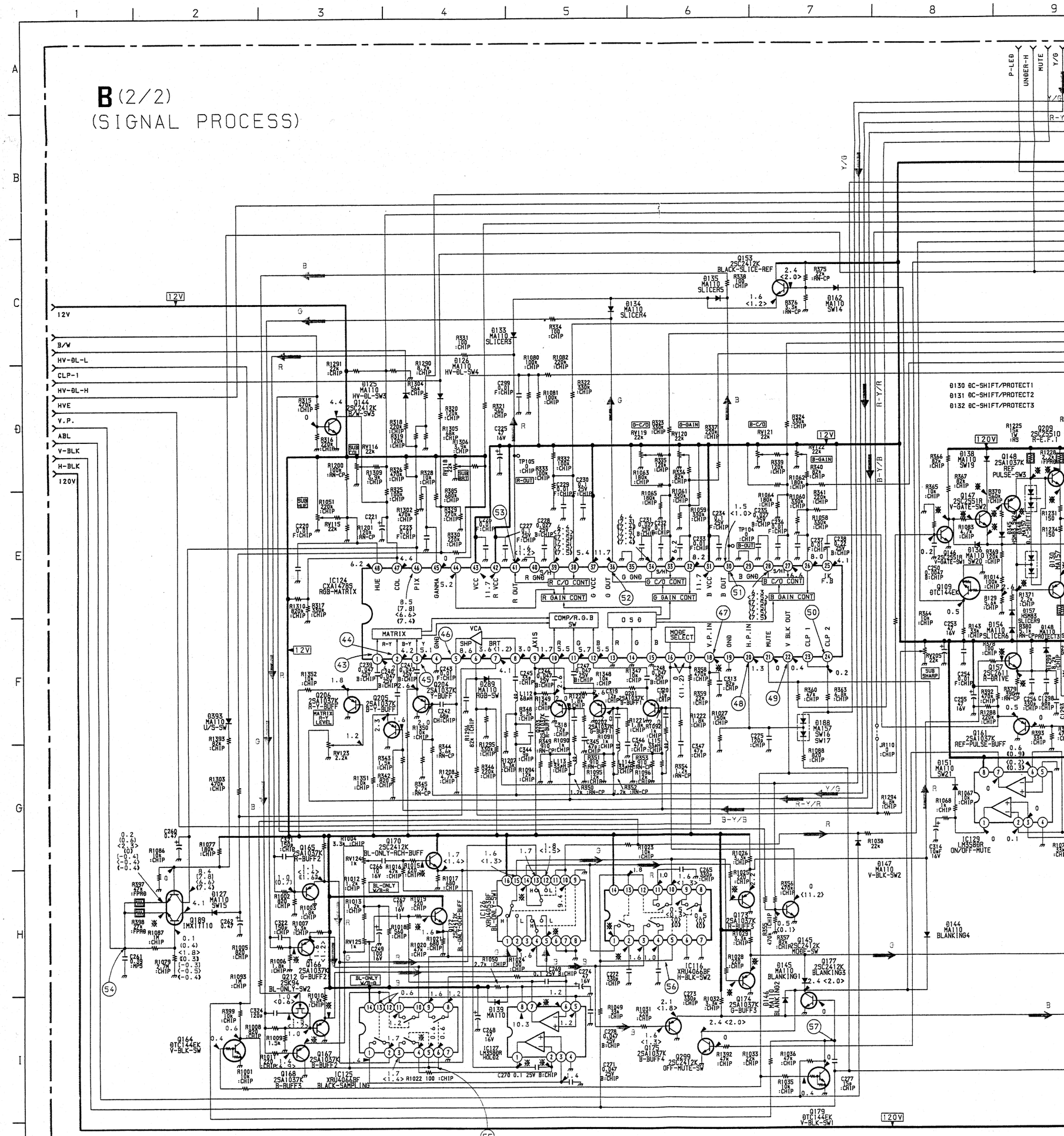
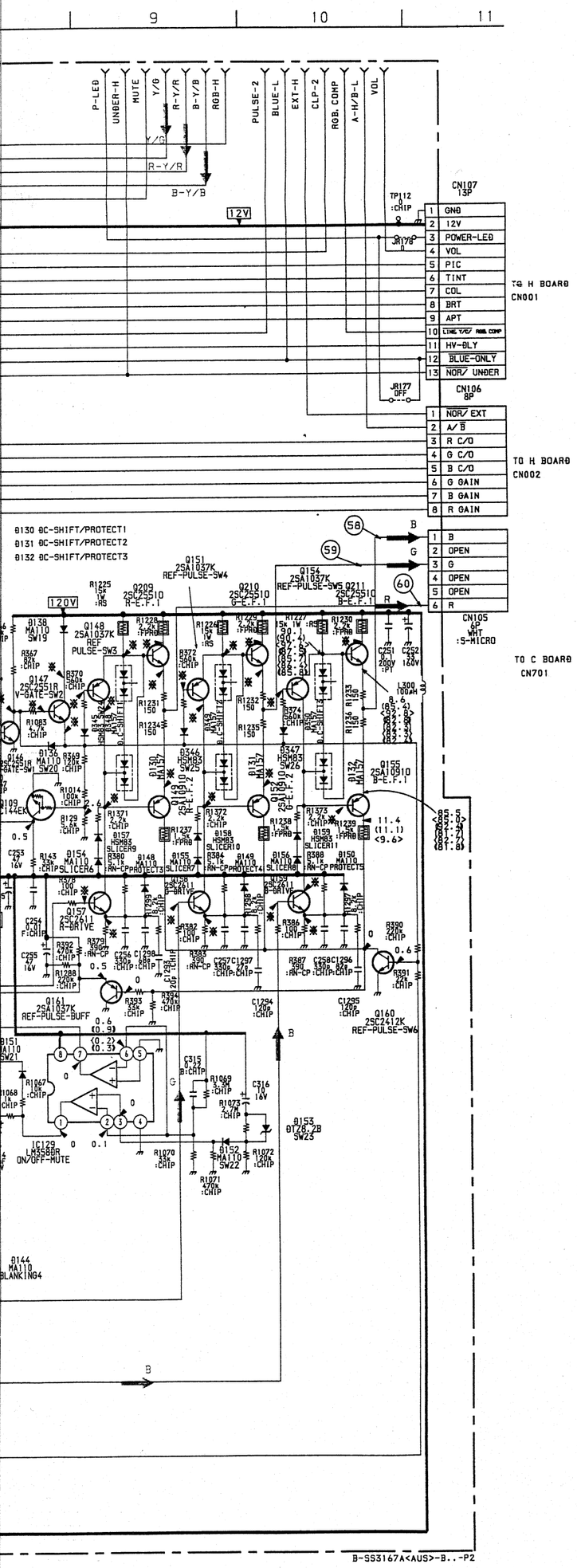
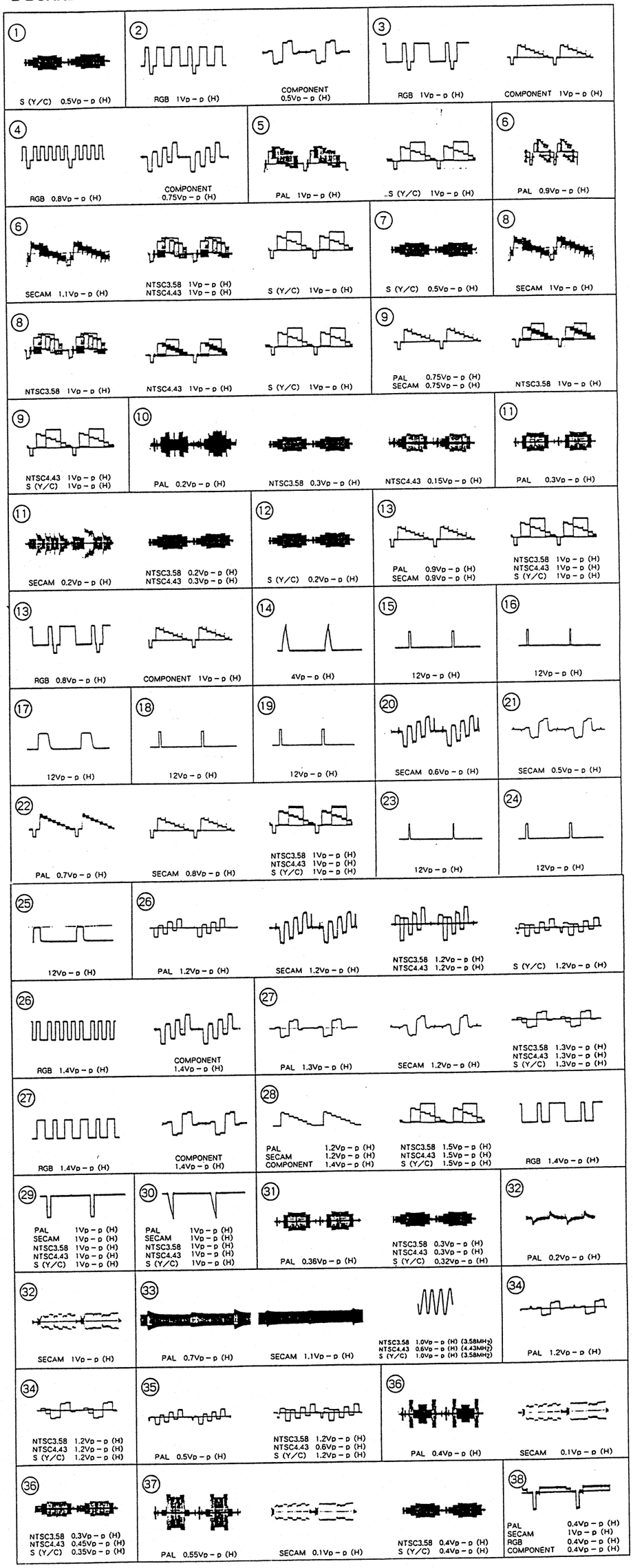
10
11
12
13
14
15
16
Q187 MA157 LEVEL-SHIFT1
LEVEL-SHIFT2
PULSE-WIDTH
PULSE-POSITION
IC106 MC14538BF H-PULSE-GEN
IC107 XRU4584BF NOT-GATE
IC109 XRU4070BF EX-OR
IC120 XRU4066BF SAMPLE
IC121 XRU4053BF BLACK-INSERT
IC122 LM3588R HOLD-KILLER-IB
IC123 LM3588R HOLD-KILLER-IB
IC117 MM1114XFF B/B-Y-SW
IC118 MM1114XFF R/R-Y-SW
IC119 MM1114XFF G/Y-SW
Q129 DTC144EK HV-BL-SW1
Q170 MA110 PULSE-POSI-ADJ
Q112 2SC2412K SYNC-BUFF
Q106 MA110 LEVEL-SHIFT3
Q114 2SA1037K V-SYNC-SEP-2
Q113 2SC2412K V-SYNC-SEP-1
Q128 MA151WK PULSE-SW
Q110 MA110 H-BLK-SW1
Q111 MA110 HV-BL-SW2
Q115 2SC2412K V-SYNC-SW
Q117 MA110 RGB/COMP-SW1
Q116 2SC2412K A/B-SW
Q191 MA151WA SW7 B/W-SW1
Q121 MA110 SECAM-SW5
Q285 MA110 SW12
Q140 2SC2412K B/W-SW2
Q132 2SA1037K INSERT-PULSE-SW
Q141 2SC2412K B/B-Y-BUFF2
Q142 2SC2412K R/R-Y-BUFF2
Q143 2SC2412K G/Y-BUFF2
Q136 MN1110 B/B-Y-BUFF1
Q137 MN1110 R/R-Y-BUFF1
Q138 MN1110 G/Y-BUFF1
Q139 2SA1037K Y-BUFF1
Q190 2SA1037K MUTE-SW
Q122 MA110 RGB/COMP-SW2
Q123 MA110 SW8
Q161 MA110 SW9
Q160 MA110 SW10
D103 MA110 SW2
D107 MA110 SW3
D112 MA110 SW4
D113 MA110 SW5
D185 MA151WA SWCAR-SW4 SW6
D191 MA151WA SW7 B/W-SW1
D121 MA110 SECAM-SW5
D285 MA110 SW12
D122 MA110 RGB/COMP-SW2
D123 MA110 SW8
D161 MA110 SW9
D160 MA110 SW10
CN108 3P WHT S-MICRO
1 TALLY
2 NC
3 GND
TO X BOARD CN21
12V
B/W
HV-BL-L
CLP-1
HV-BL-H
HVE
ABL
V.P.
V-BLK
H-BLK
120V
R-Y (SECAM)
P-LED
UNDER-H
MUTE
Y/G
R-Y/R
B-Y/B
RGB-H
PULSE-2
BLUE-L
EXT-H
CLP-2
RGB. COMP
A-H/B-L
VDL
B-S93167A<AUS>-B..-P1
B (1/2)
SIGNAL PROCESS)

B (2/2)
(SIGNAL PROCESS)

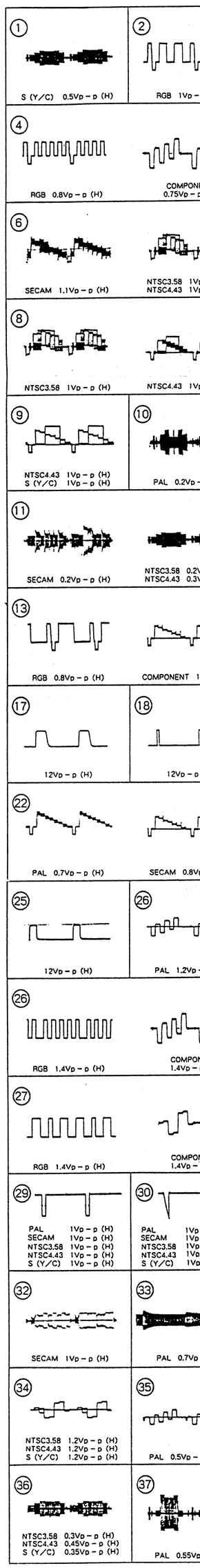




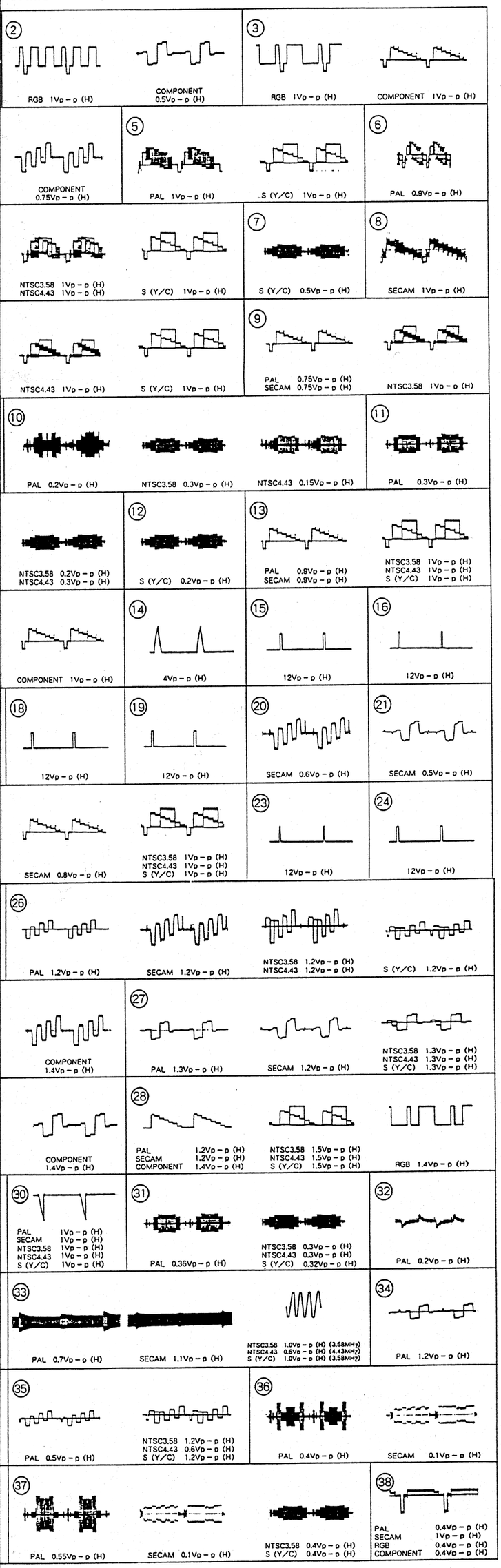
• B BOARD WAVEFORMS

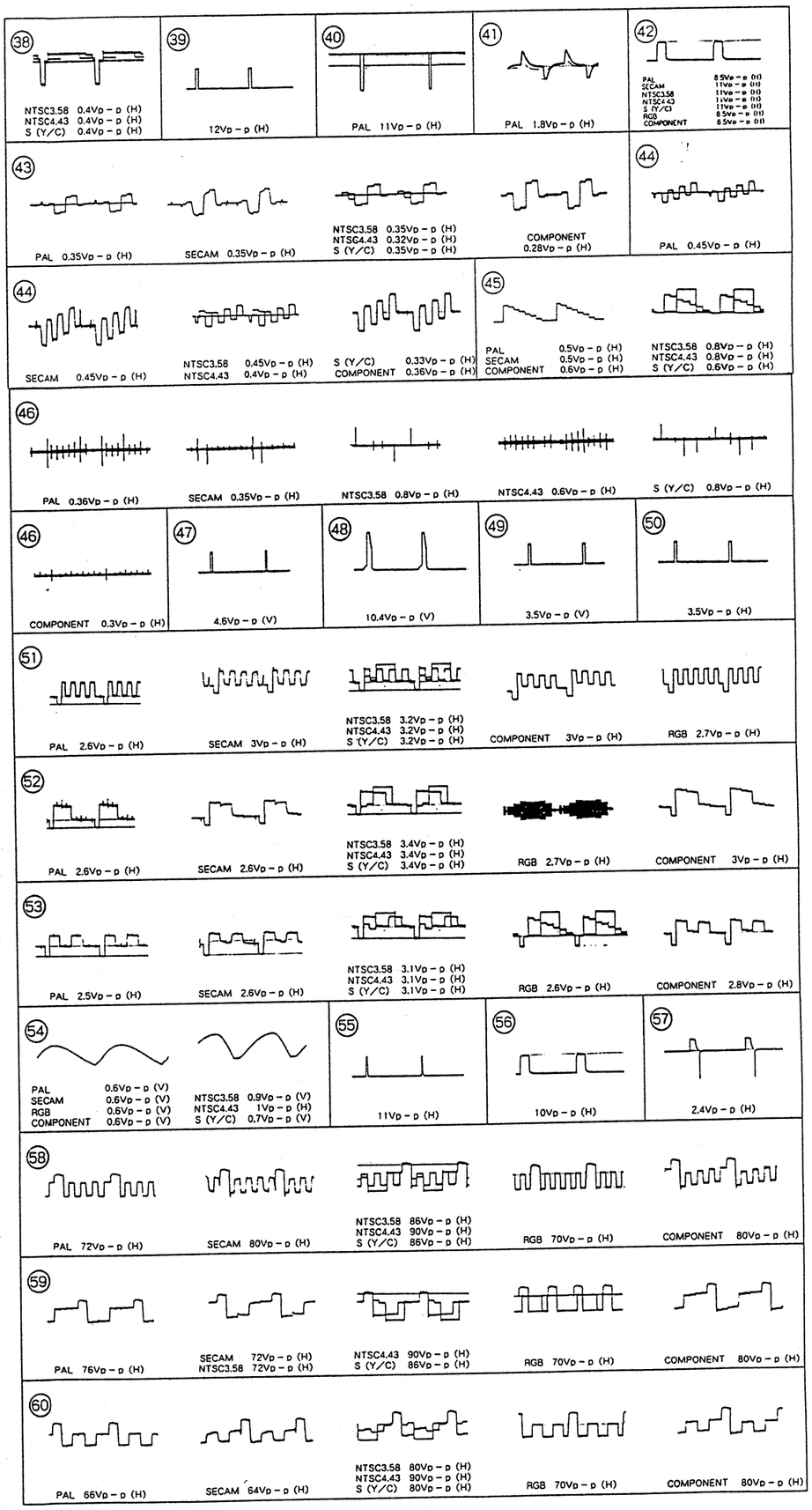


• B BOARD WAVEFORMS



FORMS


②
RGB 1Vp-p (H)
COMPONENT 0.5Vp-p (H)
③
RGB 1Vp-p (H)
COMPONENT 1Vp-p (H)
COMPONENT 0.75Vp-p (H)
⑤
PAL 1Vp-p (H)
..S (Y/C) 1Vp-p (H)
⑥
PAL 0.9Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)
⑦
S (Y/C) 0.5Vp-p (H)
⑧
SECAM 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)
⑨
PAL 0.75Vp-p (H)
SECAM 0.75Vp-p (H)
NTSC3.58 1Vp-p (H)
⑩
PAL 0.2Vp-p (H)
NTSC3.58 0.3Vp-p (H)
NTSC4.43 0.15Vp-p (H)
⑪
PAL 0.3Vp-p (H)
NTSC3.58 0.2Vp-p (H)
NTSC4.43 0.3Vp-p (H)
⑫
S (Y/C) 0.2Vp-p (H)
⑬
PAL 0.9Vp-p (H)
SECAM 0.9Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)
COMPONENT 1Vp-p (H)
⑭
4Vp-p (H)
⑮
12Vp-p (H)
⑯
12Vp-p (H)
⑱
12Vp-p (H)
⑲
12Vp-p (H)
⑳
SECAM 0.6Vp-p (H)
㉑
SECAM 0.5Vp-p (H)
SECAM 0.8Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)
㉓
12Vp-p (H)
㉔
12Vp-p (H)
㉖
PAL 1.2Vp-p (H)
SECAM 1.2Vp-p (H)
NTSC3.58 1.2Vp-p (H)
NTSC4.43 1.2Vp-p (H)
S (Y/C) 1.2Vp-p (H)
COMPONENT 1.4Vp-p (H)
㉗
PAL 1.3Vp-p (H)
SECAM 1.2Vp-p (H)
NTSC3.58 1.3Vp-p (H)
NTSC4.43 1.3Vp-p (H)
S (Y/C) 1.3Vp-p (H)
COMPONENT 1.4Vp-p (H)
㉘
PAL 1.2Vp-p (H)
SECAM 1.2Vp-p (H)
COMPONENT 1.4Vp-p (H)
NTSC3.58 1.5Vp-p (H)
NTSC4.43 1.5Vp-p (H)
S (Y/C) 1.5Vp-p (H)
RGB 1.4Vp-p (H)
㉚
PAL 1Vp-p (H)
SECAM 1Vp-p (H)
NTSC3.58 1Vp-p (H)
NTSC4.43 1Vp-p (H)
S (Y/C) 1Vp-p (H)
㉛
PAL 0.36Vp-p (H)
NTSC3.58 0.3Vp-p (H)
NTSC4.43 0.3Vp-p (H)
S (Y/C) 0.32Vp-p (H)
㉜
PAL 0.2Vp-p (H)
㉝
PAL 0.7Vp-p (H)
SECAM 1.1Vp-p (H)
NTSC3.58 1.0Vp-p (H) (3.58MHz)
NTSC4.43 0.6Vp-p (H) (4.43MHz)
S (Y/C) 1.0Vp-p (H) (3.58MHz)
㉞
PAL 1.2Vp-p (H)
㉟
PAL 0.5Vp-p (H)
NTSC3.58 1.2Vp-p (H)
NTSC4.43 0.6Vp-p (H)
S (Y/C) 1.2Vp-p (H)
㊱
PAL 0.4Vp-p (H)
SECAM 0.1Vp-p (H)
㊲
PAL 0.55Vp-p (H)
SECAM 0.1Vp-p (H)
NTSC3.58 0.4Vp-p (H)
S (Y/C) 0.4Vp-p (H)
㊳
PAL 0.4Vp-p (H)
SECAM 1Vp-p (H)
RGB 0.4Vp-p (H)
COMPONENT 0.4Vp-p (H)


㊳
NTSC3.58 0.4Vp-p (H)
NTSC4.43 0.4Vp-p (H)
S (Y/C) 0.4Vp-p (H)
㊴
12Vp-p (H)
㊵
PAL 11Vp-p (H)
㊶
PAL 1.8Vp-p (H)
㊷
PAL 0.5Vp-p (H)
SECAM 11Vp-p (H)
NTSC3.58 11Vp-p (H)
NTSC4.43 11Vp-p (H)
S (Y/C) 11Vp-p (H)
RGB 0.5Vp-p (H)
COMPONENT 0.5Vp-p (H)
㊸
PAL 0.35Vp-p (H)
SECAM 0.35Vp-p (H)
NTSC3.58 0.35Vp-p (H)
NTSC4.43 0.32Vp-p (H)
S (Y/C) 0.35Vp-p (H)
COMPONENT 0.28Vp-p (H)
㊹
PAL 0.45Vp-p (H)
㊹
SECAM 0.45Vp-p (H)
NTSC3.58 0.45Vp-p (H)
NTSC4.43 0.4Vp-p (H)
S (Y/C) 0.33Vp-p (H)
COMPONENT 0.36Vp-p (H)
㊺
PAL 0.5Vp-p (H)
SECAM 0.5Vp-p (H)
COMPONENT 0.6Vp-p (H)
NTSC3.58 0.8Vp-p (H)
NTSC4.43 0.8Vp-p (H)
S (Y/C) 0.6Vp-p (H)
㊻
PAL 0.36Vp-p (H)
SECAM 0.35Vp-p (H)
NTSC3.58 0.8Vp-p (H)
NTSC4.43 0.6Vp-p (H)
S (Y/C) 0.8Vp-p (H)
㊻
COMPONENT 0.3Vp-p (H)
㊼
4.6Vp-p (V)
㊽
10.4Vp-p (V)
㊾
3.5Vp-p (V)
㊿
3.5Vp-p (H)
(51)
PAL 2.6Vp-p (H)
SECAM 3Vp-p (H)
NTSC3.58 3.2Vp-p (H)
NTSC4.43 3.2Vp-p (H)
S (Y/C) 3.2Vp-p (H)
COMPONENT 3Vp-p (H)
RGB 2.7Vp-p (H)
(52)
PAL 2.6Vp-p (H)
SECAM 2.6Vp-p (H)
NTSC3.58 3.4Vp-p (H)
NTSC4.43 3.4Vp-p (H)
S (Y/C) 3.4Vp-p (H)
RGB 2.7Vp-p (H)
COMPONENT 3Vp-p (H)
(53)
PAL 2.5Vp-p (H)
SECAM 2.6Vp-p (H)
NTSC3.58 3.1Vp-p (H)
NTSC4.43 3.1Vp-p (H)
S (Y/C) 3.1Vp-p (H)
RGB 2.6Vp-p (H)
COMPONENT 2.8Vp-p (H)
(54)
PAL 0.6Vp-p (V)
SECAM 0.6Vp-p (V)
RGB 0.6Vp-p (V)
COMPONENT 0.6Vp-p (V)
NTSC3.58 0.9Vp-p (V)
NTSC4.43 1Vp-p (H)
S (Y/C) 0.7Vp-p (V)
(55)
11Vp-p (H)
(56)
10Vp-p (H)
(57)
2.4Vp-p (H)
(58)
PAL 72Vp-p (H)
SECAM 80Vp-p (H)
NTSC3.58 86Vp-p (H)
NTSC4.43 90Vp-p (H)
S (Y/C) 86Vp-p (H)
RGB 70Vp-p (H)
COMPONENT 80Vp-p (H)
(59)
PAL 76Vp-p (H)
SECAM 72Vp-p (H)
NTSC3.58 72Vp-p (H)
NTSC4.43 90Vp-p (H)
S (Y/C) 86Vp-p (H)
RGB 70Vp-p (H)
COMPONENT 80Vp-p (H)
(60)
PAL 66Vp-p (H)
SECAM 64Vp-p (H)
NTSC3.58 80Vp-p (H)
NTSC4.43 90Vp-p (H)
S (Y/C) 80Vp-p (H)
RGB 70Vp-p (H)
COMPONENT 80Vp-p (H)

B BOARD (Component Side)

IC

IC101	D-5
IC102	D-6
IC103	E-5
IC104	C-6
IC105	D-4
IC106	D-1
IC107	C-1
IC108	C-1
IC109	B-2
IC110	D-7
IC111	C-7
IC112	D-8
IC113	D-9
IC114	D-8
IC115	C-9
IC116	B-7
IC117	D-4
IC118	D-3
IC119	D-3
IC120	B-3
IC121	B-3
IC122	C-3
IC123	C-3
IC124	B-6
IC125	B-7
IC126	B-7
IC127	A-8
IC128	C-8
IC129	B-3

TRANSISTOR

Q101	D-4
Q104	D-6
Q109	A-8
Q115	B-1
Q119	D-8
Q121	C-8
Q124	D-7
Q129	D-2
Q132	B-3
Q136	C-4
Q137	D-3
Q138	D-4
Q141	B-4
Q146	B-8
Q147	C-8
Q149	A-9
Q150	E-5
Q152	B-9
Q155	B-9
Q157	A-8
Q158	B-8
Q159	B-8
Q164	A-8
Q166	B-8
Q171	D-6
Q176	D-6
Q189	D-2
Q191	A-2
Q193	B-1
Q196	A-1
Q197	A-1
Q198	A-2
Q200	D-5
Q204	A-6
Q205	A-6
Q206	A-5
Q208	B-2
Q209	A-9
Q210	B-9
Q211	B-9
Q212	B-7
Q299	A-7

DIODE

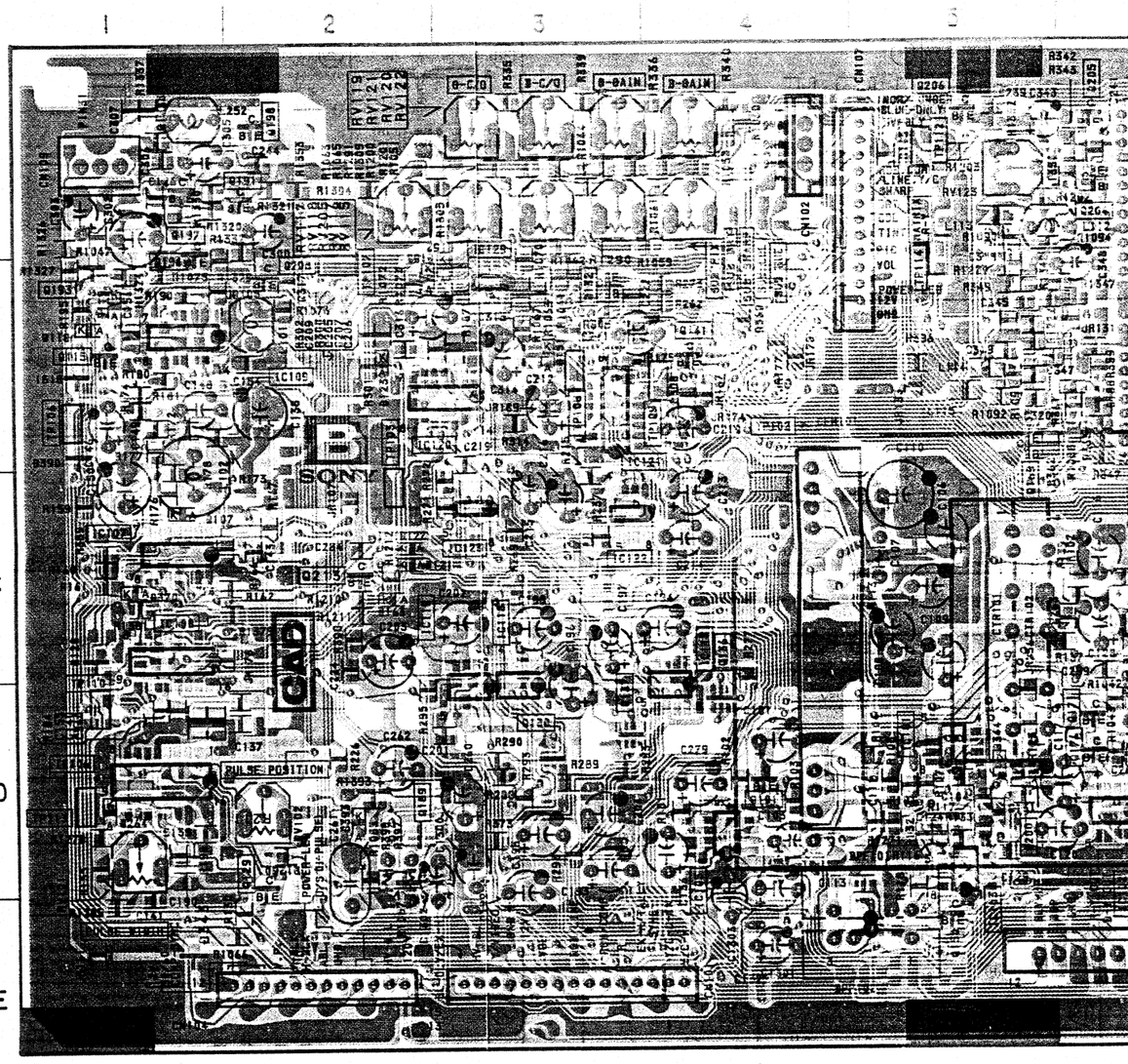
D103	D-5
D107	C-1
D121	C-2
D122	C-2
D123	B-2
D128	C-1
D130	A-8
D131	B-8
D132	B-8
D137	E-7
D138	C-8
D139	B-8
D146	C-8
D151	B-3
D152	B-3
D153	B-2
D154	A-8
D156	B-8
D157	A-8
D162	A-7
D188	B-6
D191	B-1
D342	C-7
D343	E-1
D344	D-5
D345	A-9
D346	B-9
D347	B-9
D348	A-9
D349	B-9
D350	B-9
D390	B-1
D393	D-2

VARIABLE RESISTOR

RV101	D-1
RV102	D-2
RV103	C-7
RV104	D-8
RV105	E-7
RV106	E-8
RV107	E-7
RV108	C-9
RV109	D-9
RV110	C-9
RV111	C-9
RV112	C-9
RV113	D-8
RV114	C-9
RV115	A-4
RV116	A-3
RV118	A-3
RV119	A-3
RV120	A-3
RV121	A-3
RV122	A-4
RV123	A-5
RV124	A-7
RV125	A-7
RV205	A-3

B [SIGNAL PROCESS]

– **B BOARD** – 〈Component Side〉



B BOARD (Conductor Side)

IC

IC101	D-6
IC124	C-4

TRANSISTOR

Q102	D-6
Q103	C-6
Q105	D-5
Q106	D-7
Q107	C-4
Q108	C-5
Q112	C-9
Q113	B-9
Q114	C-9
Q116	C-9
Q117	D-2
Q118	C-3
Q120	D-3
Q122	D-3
Q123	D-3
Q125	E-2
Q126	E-2
Q127	E-2
Q128	E-2
Q129	E-2
Q130	D-3
Q131	D-1
Q133	D-1
Q134	D-2
Q135	D-2
Q139	D-8
Q140	C-7
Q142	B-7
Q143	B-7
Q144	A-4
Q145	B-5
Q146	A-2
Q147	C-2
Q148	A-2
Q149	A-2
Q151	A-1
Q152	B-1
Q153	B-4
Q154	B-1
Q155	B-1
Q156	D-8
Q157	A-2
Q158	B-2
Q159	B-2
Q160	A-2
Q161	B-2
Q165	C-3
Q167	B-3
Q168	B-3
Q170	B-3
Q172	B-3
Q173	C-3
Q174	B-2
Q175	B-3
Q177	A-3
Q178	E-5
Q179	A-3
Q190	B-8
Q192	A-9
Q194	A-9
Q195	A-9
Q199	A-9
Q201	B-5
Q202	B-5
Q203	B-5
Q209	A-1
Q210	B-1
Q211	B-1

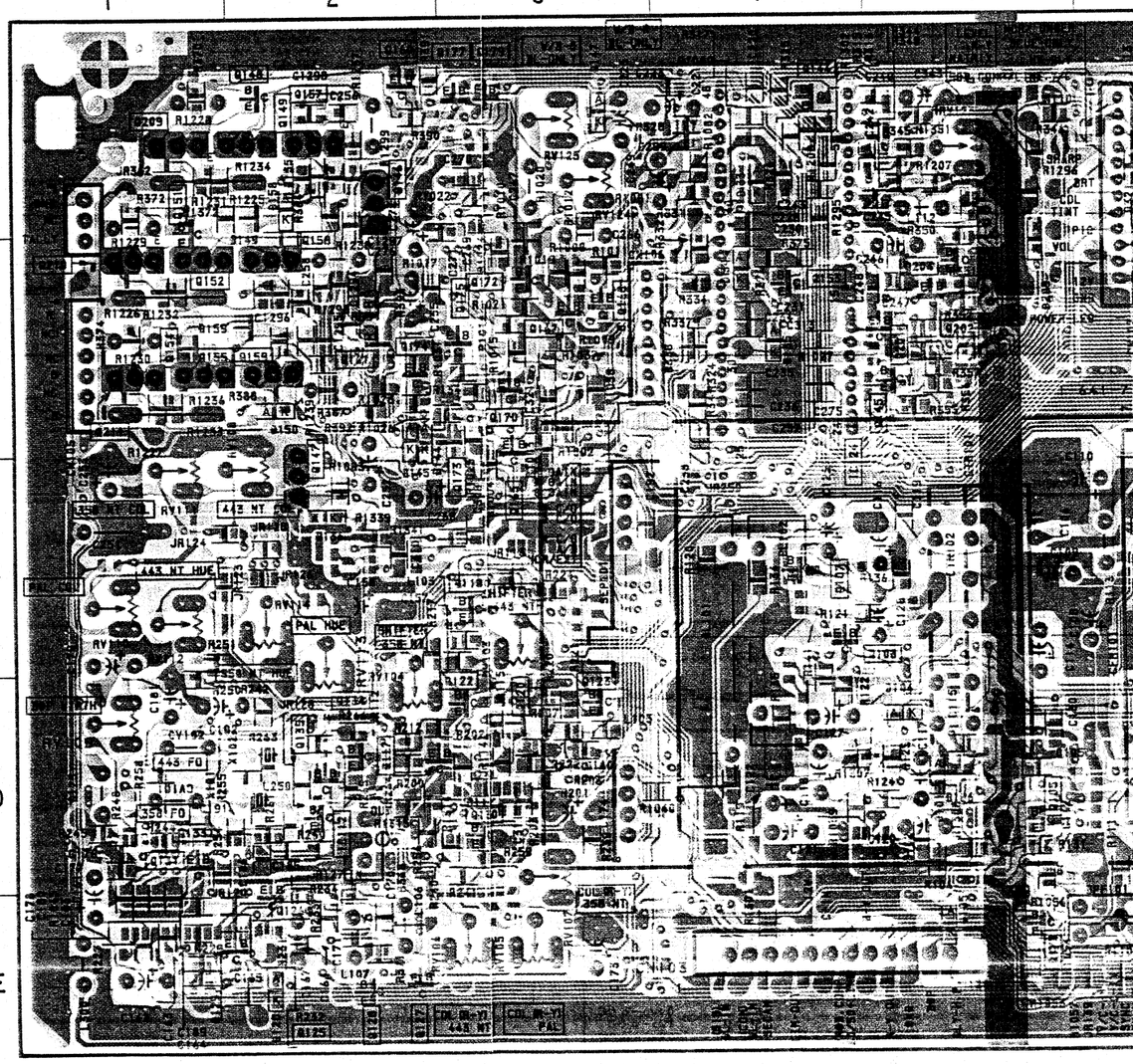
DIODE

D104	D-5
D105	E-5
D106	C-9
D108	C-9
D109	C-9
D110	D-9
D111	D-9
D112	B-9
D113	B-9
D117	C-9
D120	E-2
D125	A-6
D126	A-6
D127	D-8
D129	E-1
D133	A-4
D134	B-4
D135	B-4
D136	C-2
D144	C-2
D145	C-2
D147	A-3
D149	A-2
D150	B-2
D155	A-2
D158	A-2
D159	B-1
D160	B-8
D161	B-8
D170	D-8
D185	C-9
D186	D-5
D187	D-9
D285	C-7
D289	B-5
D341	B-9

VARIABLE RESISTOR

RV101	D-9
RV102	D-9
RV103	C-3
RV104	D-2
RV105	E-3
RV106	E-3
RV107	D-3
RV108	C-2
RV109	D-1
RV110	C-1
RV111	C-1
RV112	C-1
RV113	D-2
RV114	C-2
RV115	A-6
RV116	A-7
RV118	A-7
RV119	A-7
RV120	A-7
RV121	A-7
RV122	A-7
RV123	A-3
RV124	A-3
RV125	A-3
RV205	A-7

– **B BOARD** – 〈Conductor Side〉

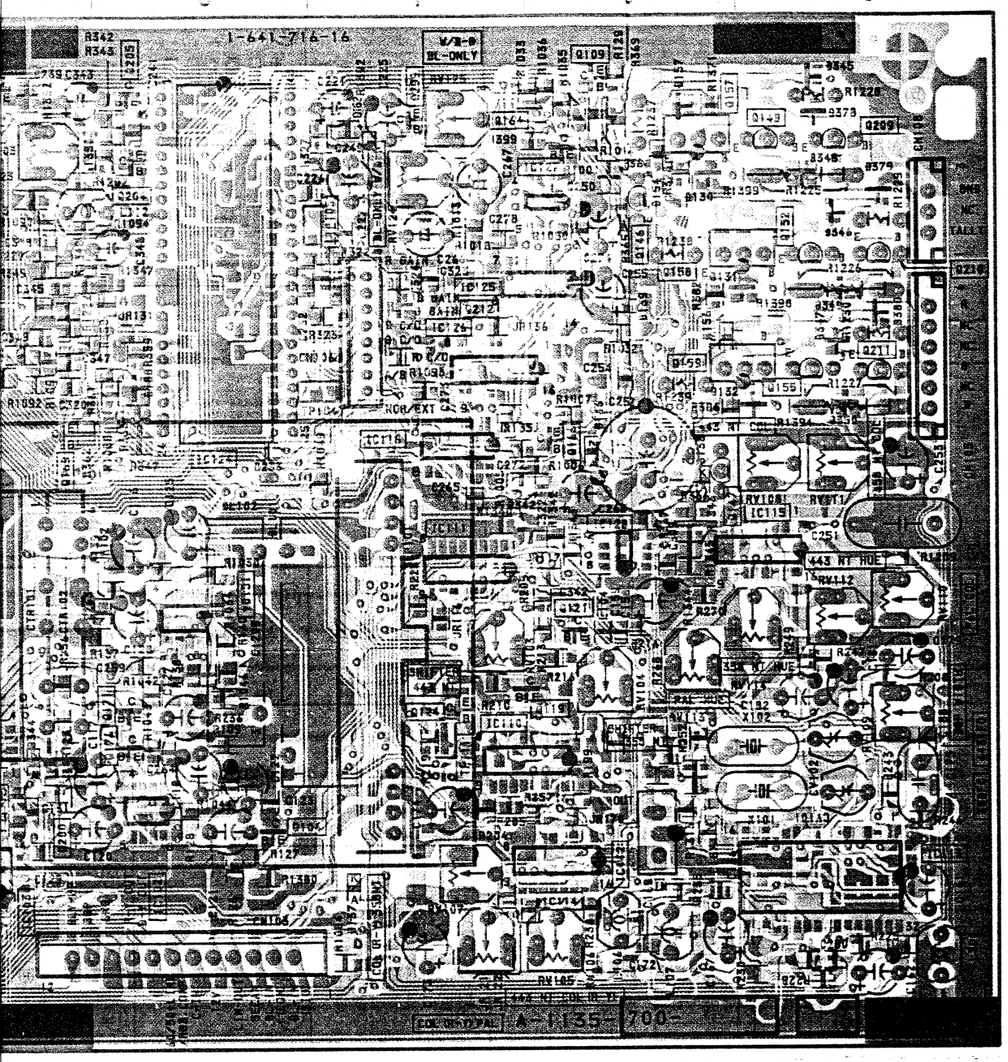


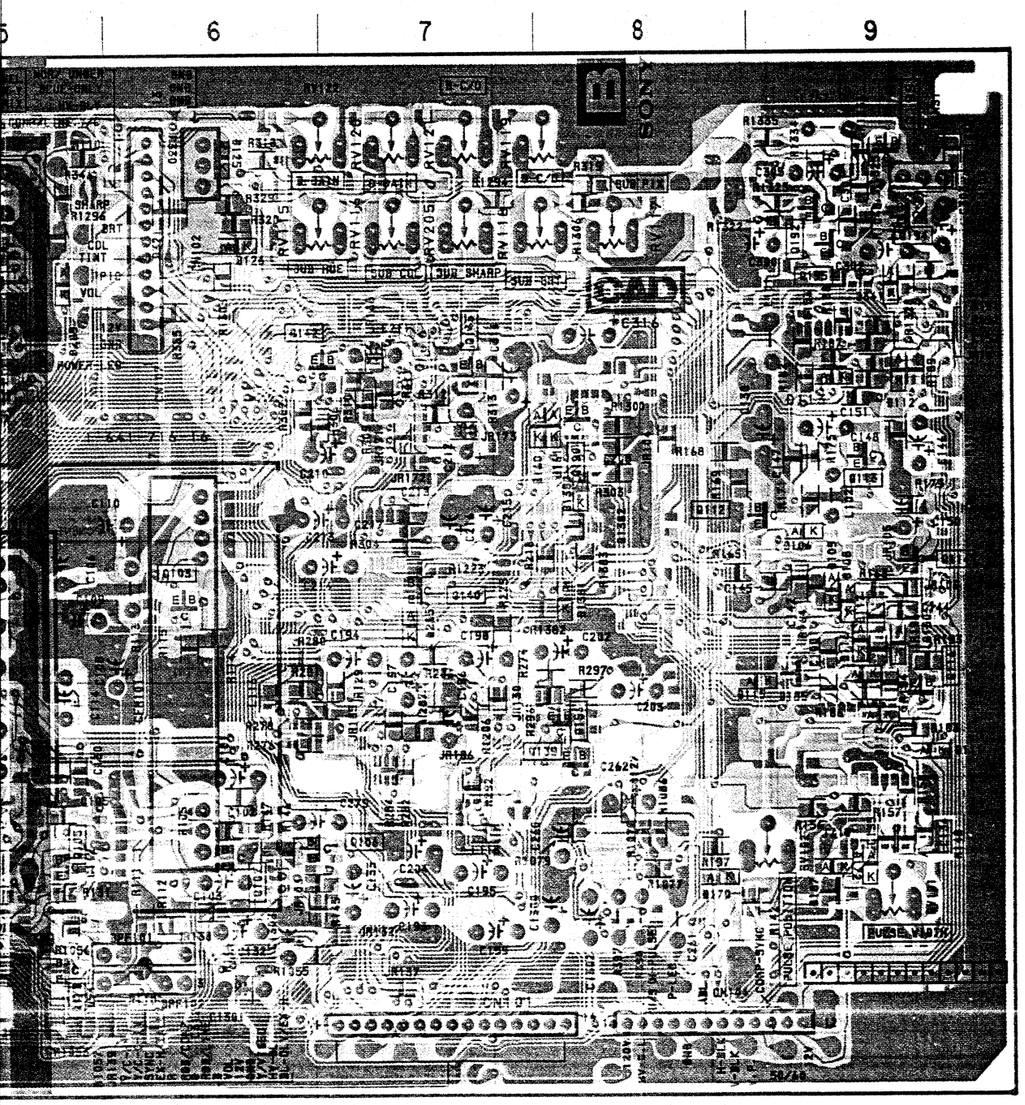
Schematic diagram

← B (2/2) board

Note :

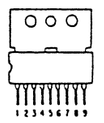
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.



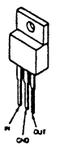


6-5. SEMICONDUCTORS

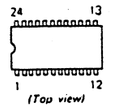
AN5265



LM7805CT
TA7812S
µPC7805H

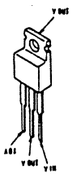


CXA1214P

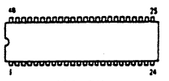


(Top view)

MC14538BF

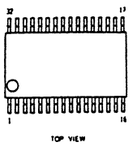


CXA1478S



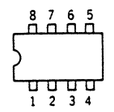
(TOP VIEW)

M51279FP



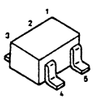
TOP VIEW

CX23025

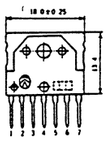


(Top view)

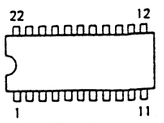
TC4S01F
TC4S11F



LA7830

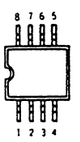


µPC1377C



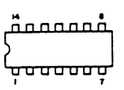
(Top view)

LM358DR
MM1111XFF
MM1113XFF
MM1114XFF
MM1148XFF
MM1149XF
NJM2245M
XRA10393F



(TOP VIEW)

XRU4011BF
XRU4070BF

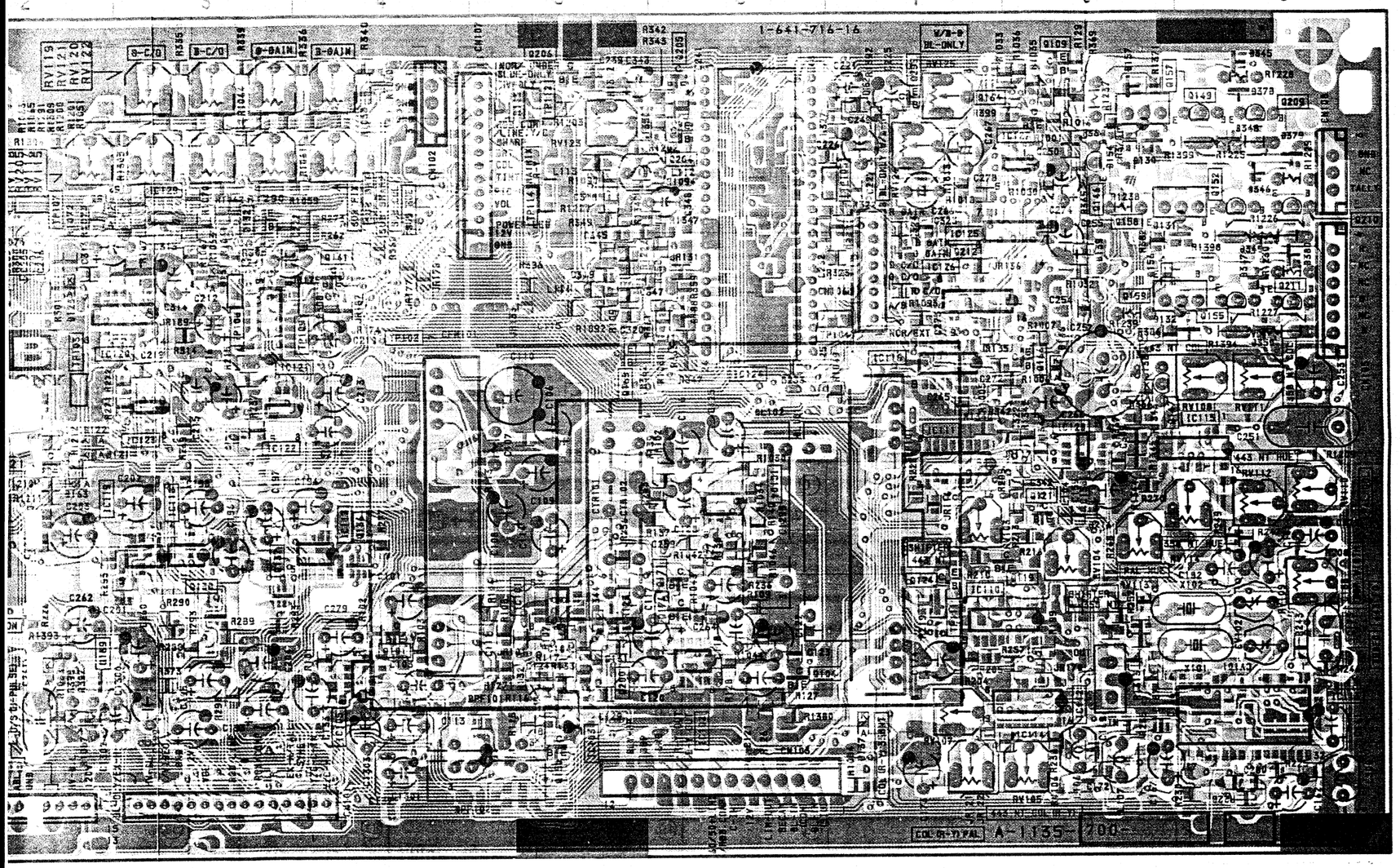


(TOP VIEW)

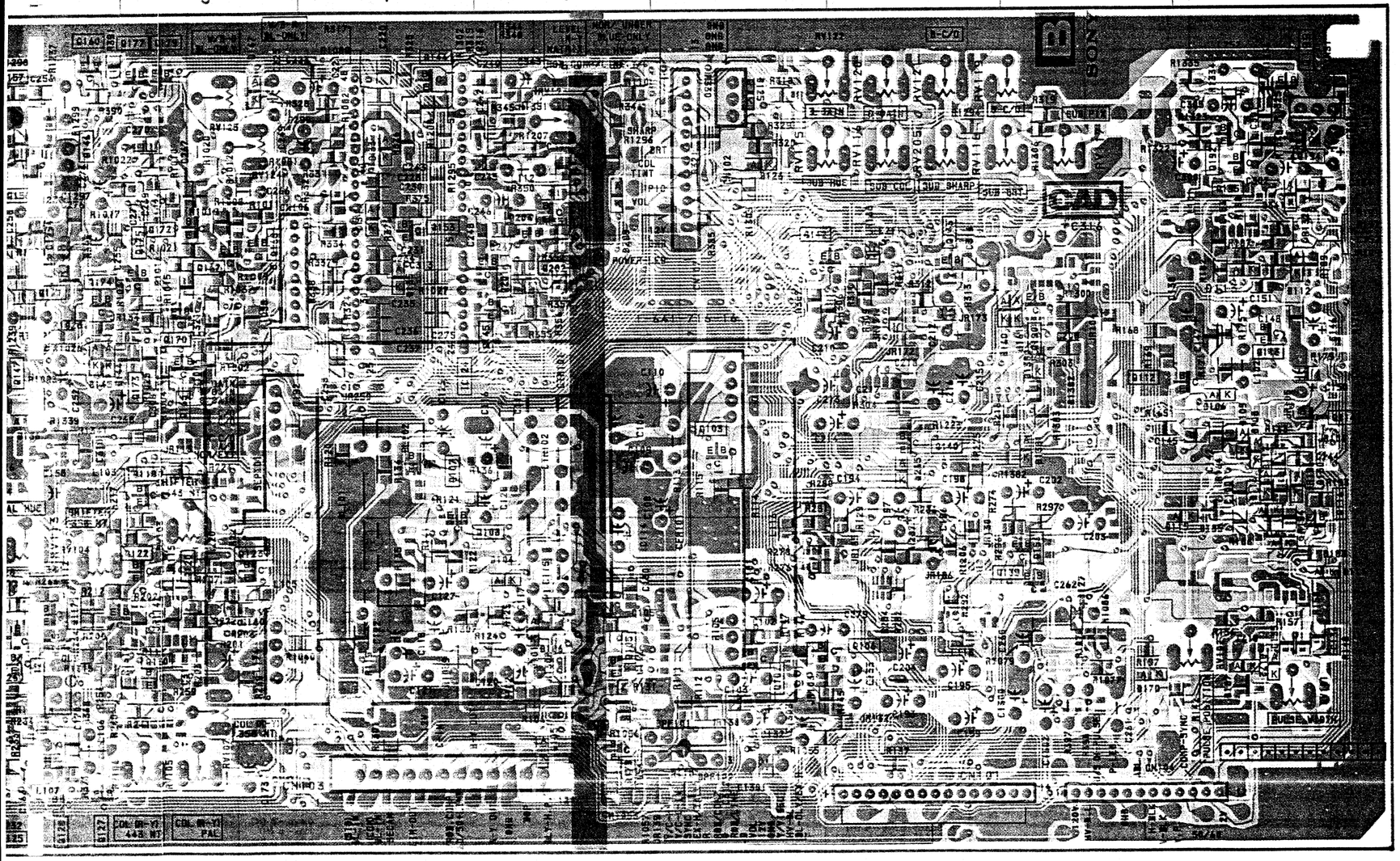
Note :

- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

Side〉

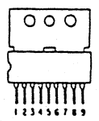


Side〉



6-5. SEMICONDUCTORS

AN5265



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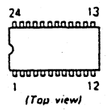

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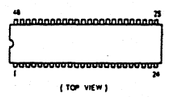

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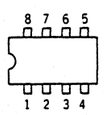
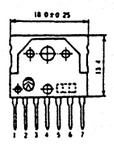


LA7830



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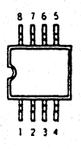
MM1113XFF
MM1114XFF
MM1148XFF
MM1149XF
NJM2245M
XRA10393F



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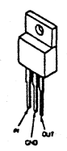
TA7812S
µPC7805H



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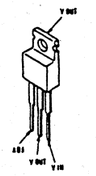

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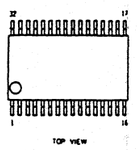

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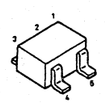

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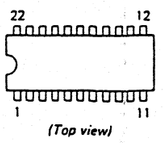

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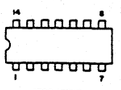

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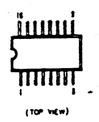

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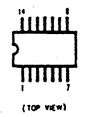

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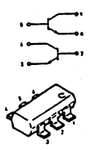
DTC144EK
2SA1037K
2SC2412K

IMH2
IMX1T110



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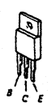
2SC1890-A
2SC2551-0
2SC2551R

2SC2334-L
2SD1134
2SD835



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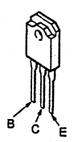

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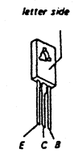

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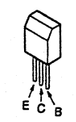
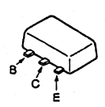
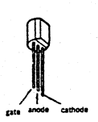


2SD874A-R

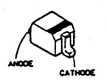


2SK94

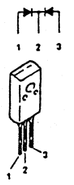
CR02AM-4



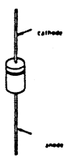
DTZ15B
DTZ20B
DTZ24B
DTZ5.6A
DTZ6.2A
DTZ6.2B
DTZ8.2B
RD15SB1



D10SC4M



ERC81-004



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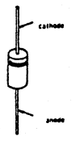
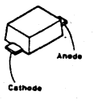
RGP10GPKG23
RGP15J



MA110



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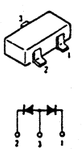
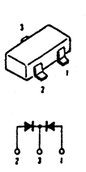
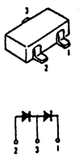


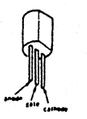
MA151WK



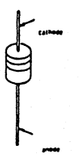
MA157



N13T1



RD3.6ESB1
RD8.2ESB3



SEL3810DLC05
TLG123A

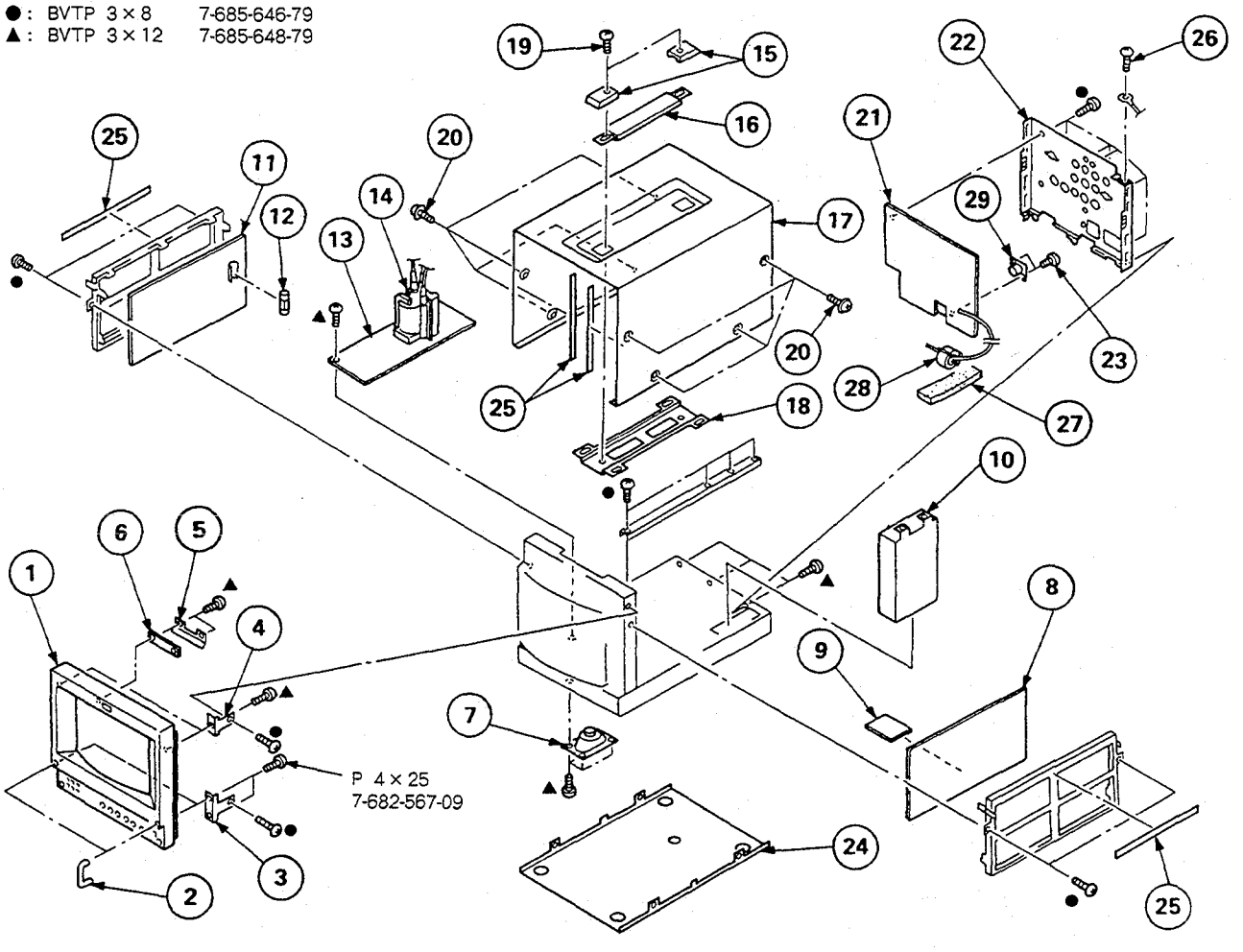
SECTION 7
EXPLODED VIEWS

NOTE :
- Items with on part number and on description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

7-1. CHASSIS

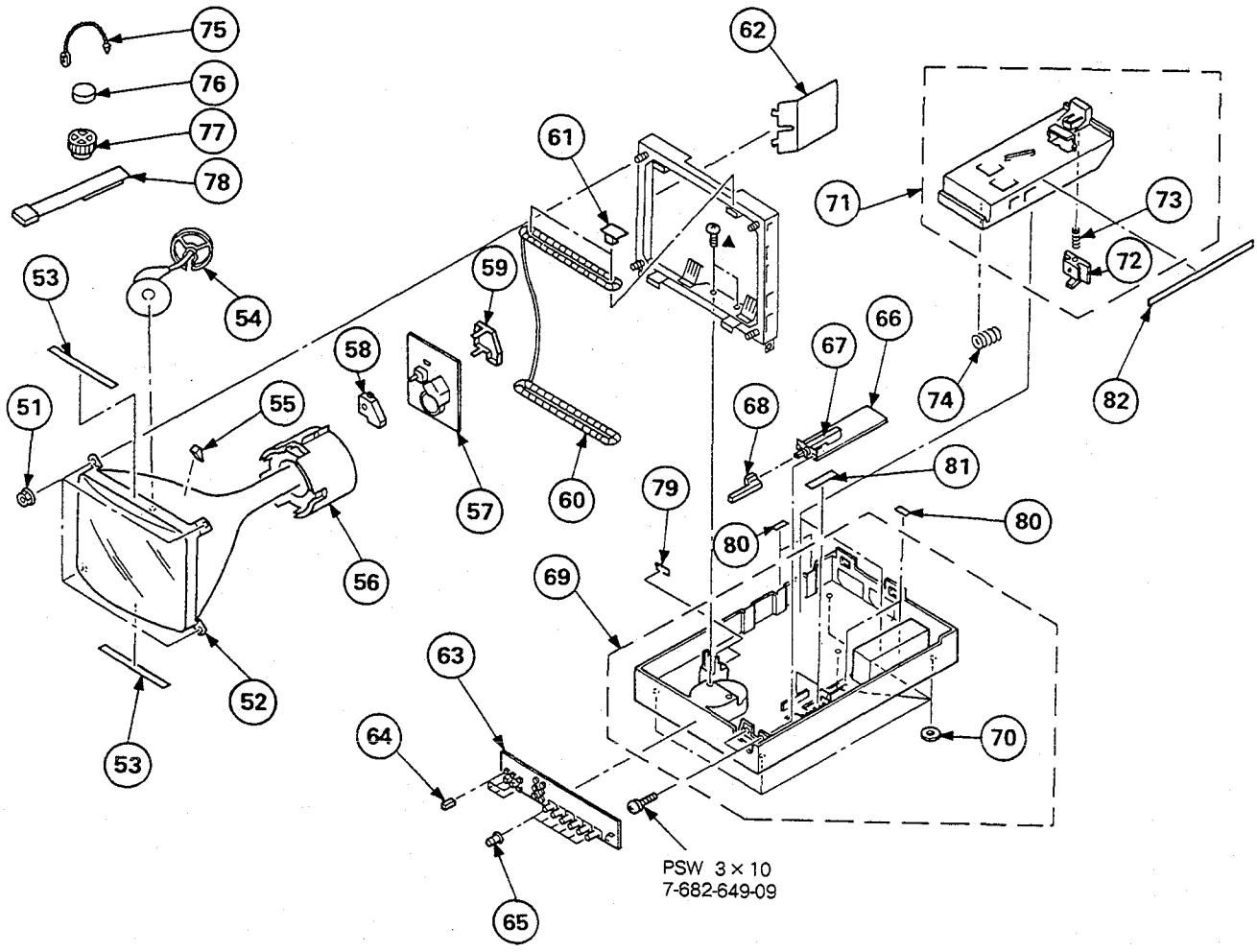
●: BVTP 3 × 8 7-685-646-79
▲: BVTP 3 × 12 7-685-648-79



REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4032-139-1	BEZEL ASSY (PVM-9044QM)	
1	X-4030-164-6	BEZEL ASSY (PVM-9041QM)	
2	4-037-569-01	HANDLE, PROTECTOR	
3	*4-034-845-01	BRACKET (L), BEZEL	
4	*4-034-846-01	BRACKET (U), BEZEL	
5	*4-035-388-01	PLATE, LIGHT INTERCEPTION	
6	*A-1390-276-A	X BOARD, CMOPLET	
7	1-544-252-11	SPEAKER	
8	*A-1135-716-A	B BOARD, COMPLETE	
9	*A-1394-368-A	S BOARD, COMPLETE	
10	⚠1-413-720-24	SWITCHING REGULATOR (SOPS-1021(A))	
11	*A-1346-251-A	D BOARD, COMPLETE	
12	⚠1-576-232-11	FUSE (H.B.C.) (5.0A/250V)	
13	*A-1195-048-A	P BOARD, COMPLETE	
14	⚠1-439-526-12	TRANSFORMER ASSY, FLYBACK	
15	4-034-847-01	HANDLE (BASE)	
16	3-419-372-31	HANDLE	
17	*4-034-867-01	CABINET	
18	*X-4030-273-1	REINFORCEMENT ASSY, HANDLE	
19	4-035-452-01	SCREW (M4X10)	
20	4-034-834-01	SCREW (CLAW) (4X6), CASE	
21	*A-1275-121-A	QA BOARD, COMPLETE	
22	*4-034-864-71	CHASSIS, A	
23	4-035-802-01	SCREW (M2.6X.6)	
24	*4-034-870-02	CABINET, BOTTOM	
25	*4-035-691-01	CLOTH, VIBRATION PROOF	
26	4-389-025-01	SCREW (M4X8)(EXT TOOTH WASHER)	
27	*4-036-058-01	SPONGE	
28	1-941-913-02	CORE ASSY, FERRITE	
29	1-941-866-12	CONNECTOR ASSY	

7-2. PICTURE TUBE

▲: BVTP 3 × 12 7-685-648-79



The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
51	4-304-511-00	NUT (M5), FLANGE	
52	⚠8-737-154-05	PICTURE TUBE (O9NDX) (PVM-9041QM)	
52	⚠8-737-651-05	PICTURE TUBE (O9FX) (PVM-9044QM)	
53	4-035-332-01	CLOTH, PROTECTION	
54	*4-034-856-01	HOLDER, HV CABLE	
55	4-309-369-00	SPACER, DEFLECTION YOKE	
56	⚠1-451-319-22	DEFLECTION YOKE (Y9FXC)	
57	*A-1331-183-A	CA BOARD, COMPLETE	
58	*4-376-133-11	COVER (MAIN), CV VOL	
59	*4-376-132-11	COVER (REAR LID), CV VOL	
60	⚠1-426-043-12	COIL, DEGAUSSING	
61	4-380-534-01	CAP, DGC	
62	*4-034-850-01	INSULATOR	
63	*A-1371-782-A	HA BOARD, COMPLETE	
64	4-034-849-01	SWITCH (SMALL), PUSH	
65	X-4030-162-2	KNOB ASSY, CONTROL	
66	*A-1241-070-A	FA BOARD, COMPLETE	
67	1-692-050-11	SWITCH, PUSH (AC POWER) (1KEY)	
68	4-034-841-11	BUTTOM, POWER SWICH	
69	*X-4030-166-1	CHASSIS ASSY, BOTTOM	70
70	4-034-840-01	RUBBER, FOOT	
71	*X-4030-163-1	GUIDE ASSY, BATTERY	72,73
72	4-034-861-01	KNOB, BATTERY	
73	4-876-347-01	SPRING, COMPRESSION	
74	3-669-594-00	SPRING, COMPRESSION	
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-126-11	MAGNET	
77	1-452-094-00	MAGNET, ROTATABLE DISK; 15MMφ	
78	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
79	*4-036-047-02	RUBBER, VIBRATION PROOF	
80	3-839-640-00	CUSHION	
81	3-831-441-11	CUSHION (F)	
82	*4-035-691-01	CLOTH, VIBRATION PROOF	

SECTION 8
ELECTRICAL PARTS LIST

B

NOTE :

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms.
- F : nonflammable

When indicating parts by reference number, please include the board name.

CAPACITORS
- MF : μF, PF : μμF

COILS
- MMH : mH, UH : μH

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. *Should replacement be required, replace* only with the value originally used.
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-716-A	B BOARD, COMPLETE **********			
		<FILTER>			
BPF101	1-236-363-11	FILTER, BAND PASS			
BPF102	1-236-364-11	FILTER, BAND PASS			
		<CAPACITOR>			
C101	1-124-589-11	ELECT 47MF	20%	16V	
C102	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C103	1-126-157-11	ELECT 10MF	20%	16V	
C104	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C105	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C106	1-124-477-11	ELECT 47MF	20%	16V	
C107	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C108	1-124-477-11	ELECT 47MF	20%	16V	
C109	1-124-477-11	ELECT 47MF	20%	16V	
C110	1-124-120-11	ELECT 220MF	20%	16V	
C111	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C112	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C113	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C114	1-124-477-11	ELECT 47MF	20%	16V	
C115	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C116	1-124-589-11	ELECT 47MF	20%	16V	
C117	1-126-154-11	ELECT 47MF	20%	6.3V	
C118	1-126-154-11	ELECT 47MF	20%	6.3V	
C119	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C120	1-126-154-11	ELECT 47MF	20%	6.3V	
C121	1-126-154-11	ELECT 47MF	20%	6.3V	
C122	1-124-477-11	ELECT 47MF	20%	16V	
C123	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C124	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C125	1-126-154-11	ELECT 47MF	20%	6.3V	
C126	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C127	1-126-154-11	ELECT 47MF	20%	6.3V	
C128	1-126-154-11	ELECT 47MF	20%	6.3V	
C129	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C130	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C131	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C132	1-124-589-11	ELECT 47MF	20%	16V	
C133	1-124-589-11	ELECT 47MF	20%	16V	
C134	1-163-275-11	CERAMIC CHIP 0.001MF	5%	50V	
C135	1-163-113-00	CERAMIC CHIP 68PF	5%	50V	
C137	1-163-249-11	CERAMIC CHIP 82PF	5%	50V	
C138	1-124-589-11	ELECT 47MF	20%	16V	
C139	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C140	1-163-205-00	CERAMIC CHIP 0.001MF	5%	50V	
C141	1-163-141-00	CERAMIC CHIP 0.001MF	5%	50V	
C142	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C143	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	
C144	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	
C145	1-163-131-00	CERAMIC CHIP 390PF	5%	50V	
C146	1-126-157-11	ELECT 10MF	20%	16V	
C147	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C148	1-126-160-11	ELECT 1MF	20%	50V	
C149	1-163-022-00	CERAMIC CHIP 0.012MF	10%	50V	
C150	1-124-589-11	ELECT 47MF	20%	16V	
C151	1-163-131-00	CERAMIC CHIP 390PF	5%	50V	
C152	1-163-101-00	CERAMIC CHIP 22PF	5%	50V	
C153	1-163-125-00	CERAMIC CHIP 220PF	5%	50V	
C154	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C155	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C156	1-164-299-11	CERAMIC CHIP 0.22MF	10%	25V	
C157	1-163-229-11	CERAMIC CHIP 12PF	5%	50V	
C158	1-124-477-11	ELECT 47MF	20%	16V	
C159	1-163-229-11	CERAMIC CHIP 12PF	5%	50V	
C160	1-163-229-11	CERAMIC CHIP 12PF	5%	50V	
C161	1-124-902-00	ELECT 0.47MF	20%	50V	
C162	1-124-903-11	ELECT 1MF	20%	50V	
C163	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C164	1-163-809-11	CERAMIC CHIP 0.047MF	10%	25V	
C165	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C166	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C167	1-124-477-11	ELECT 47MF	20%	16V	
C168	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C169	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	
C170	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	
C171	1-163-243-11	CERAMIC CHIP 47PF	5%	50V	
C172	1-163-129-00	CERAMIC CHIP 330PF	5%	50V	
C173	1-124-589-11	ELECT 47MF	20%	16V	
C174	1-124-477-11	ELECT 47MF	20%	16V	
C175	1-108-792-11	MYLAR 0.001MF	5%	50V	
C176	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C177	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C178	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C179	1-126-160-11	ELECT 1MF	20%	50V	
C180	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C181	1-126-154-11	ELECT 47MF	20%	6.3V	
C182	1-126-163-11	ELECT 4.7MF	20%	16V	
C183	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C184	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C185	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C186	1-163-099-00	CERAMIC CHIP 18PF	5%	50V	
C187	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C188	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C189	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
C190	1-163-121-00	CERAMIC CHIP 150PF	5%	50V	
C191	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C192	1-163-031-11	CERAMIC CHIP 0.01MF		50V	
C193	1-124-589-11	ELECT 47MF	20%	16V	

B

REF.NO.	PART NO.	DESCRIPTION			REMARK
C194	1-124-589-11	ELECT	47MF	20%	16V
C195	1-124-589-11	ELECT	47MF	20%	16V
C196	1-124-589-11	ELECT	47MF	20%	16V
C197	1-124-589-11	ELECT	47MF	20%	16V
C198	1-124-589-11	ELECT	47MF	20%	16V
C199	1-124-589-11	ELECT	47MF	20%	16V
C202	1-124-589-11	ELECT	47MF	20%	16V
C203	1-124-589-11	ELECT	47MF	20%	16V
C204	1-124-589-11	ELECT	47MF	20%	16V
C205	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C206	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C207	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C208	1-163-101-00	CERAMIC CHIP	22PF	5%	50V
C209	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C210	1-124-589-11	ELECT	47MF	20%	16V
C211	1-124-589-11	ELECT	47MF	20%	16V
C212	1-124-589-11	ELECT	47MF	20%	16V
C213	1-124-589-11	ELECT	47MF	20%	16V
C214	1-126-157-11	ELECT	10MF	20%	16V
C215	1-126-157-11	ELECT	10MF	20%	16V
C216	1-126-157-11	ELECT	10MF	20%	16V
C217	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C218	1-164-298-11	CERAMIC CHIP	0.15MF	10%	25V
C219	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C220	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C221	1-124-903-11	ELECT	1MF	20%	50V
C222	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C223	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C225	1-124-477-11	ELECT	47MF	20%	16V
C226	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C227	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C228	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C229	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C230	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C231	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C232	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C233	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C234	1-163-038-00	CERAMIC CHIP	0.1MF		25V
C235	1-163-986-00	CERAMIC CHIP	0.027MF	10%	25V
C236	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C237	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C238	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C239	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C240	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C241	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C242	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C243	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C244	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C245	1-163-105-00	CERAMIC CHIP	33PF	5%	50V
C246	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C247	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C248	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C249	1-126-101-11	ELECT	100MF	20%	16V
C250	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C251	1-110-364-11	MYLAR	0.1MF	10%	200V
C252	1-123-935-00	ELECT	33MF	20%	160V
C253	1-124-477-11	ELECT	47MF	20%	16V
C254	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C255	1-124-477-11	ELECT	47MF	20%	16V
C256	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C257	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C258	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C259	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C260	1-124-465-00	ELECT	0.47MF	20%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C261	1-137-193-11	FILM	0.39MF	5%	50V
C262	1-124-465-00	ELECT	0.47MF	20%	50V
C264	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C265	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C266	1-126-320-11	ELECT	10MF	20%	16V
C267	1-126-320-11	ELECT	10MF	20%	16V
C268	1-124-477-11	ELECT	47MF	20%	16V
C269	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C270	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C271	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C272	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C273	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C274	1-124-477-11	ELECT	47MF	20%	16V
C275	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C277	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C278	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C279	1-126-157-11	ELECT	10MF	20%	16V
C280	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C281	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C282	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C283	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C299	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C300	1-126-157-11	ELECT	10MF	20%	16V
C301	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C302	1-124-589-11	ELECT	47MF	20%	16V
C303	1-126-157-11	ELECT	10MF	20%	16V
C304	1-163-125-00	CERAMIC CHIP	220PF	5%	50V
C305	1-124-257-00	ELECT	2.2MF	20%	50V
C306	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C307	1-163-145-00	CERAMIC CHIP	0.0015MF	5%	50V
C308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C309	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C310	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C312	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C313	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C314	1-126-157-11	ELECT	10MF	20%	16V
C315	1-164-299-11	CERAMIC CHIP	0.22MF	10%	25V
C316	1-126-157-11	ELECT	10MF	20%	16V
C317	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C318	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C319	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C320	1-163-095-00	CERAMIC CHIP	12PF	5%	50V
C321	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C322	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C324	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C340	1-163-205-00	CERAMIC CHIP	0.001MF	5%	50V
C344	1-163-092-00	CERAMIC CHIP	9PF	0.25PF	50V
C345	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C346	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C347	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C1293	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1294	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1295	1-163-119-00	CERAMIC CHIP	120PF	5%	50V
C1296	1-163-115-00	CERAMIC CHIP	82PF	5%	50V
C1297	1-163-103-00	CERAMIC CHIP	27PF	5%	50V
C1298	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C1299	1-163-093-00	CERAMIC CHIP	10PF	5%	50V
C1300	1-126-160-11	ELECT	1MF	20%	50V
C1301	1-126-160-11	ELECT	1MF	20%	50V
C1302	1-126-160-11	ELECT	1MF	20%	50V
C1303	1-126-160-11	ELECT	1MF	20%	50V

<FILTER>

REF.NO.	PART NO.	DESCRIPTION	REMARK
CFM101	1-464-880-11	FILTER BLOCK, COM (CFB-2)	
		<CONNECTOR>	
CN101	1-506-480-11	PIN, CONNECTOR 15P	
CN102	*1-564-506-11	PLUG, CONNECTOR 3P	
CN103	*1-565-503-11	CONNECTOR, BOARD TO BOARD 12P	
CN104	*1-564-011-11	PIN, CONNECTOR 12P	
CN105	*1-564-509-11	PLUG, CONNECTOR 6P	
CN106	1-506-473-11	PIN, CONNECTOR 8P	
CN107	1-506-478-11	PIN, CONNECTOR 13P	
CN108	*1-564-506-11	PLUG, CONNECTOR 3P	
		<TRAP MODULE>	
CTR101	1-236-366-11	MODULE, TRAP	
CTR102	1-236-365-11	MODULE, TRAP	
		<TRIMMER>	
CV101	1-141-418-11	CAP, ADJ	
CV102	1-141-418-11	CAP, ADJ	
		<DIODE>	
D103	8-719-404-46	DIODE MA110	
D104	8-719-404-46	DIODE MA110	
D105	8-719-404-46	DIODE MA110	
D106	8-719-404-46	DIODE MA110	
D107	8-719-404-46	DIODE MA110	
D108	8-719-404-46	DIODE MA110	
D109	8-719-404-46	DIODE MA110	
D110	8-719-404-46	DIODE MA110	
D111	8-719-404-46	DIODE MA110	
D112	8-719-404-46	DIODE MA110	
D113	8-719-404-46	DIODE MA110	
D117	8-719-404-46	DIODE MA110	
D120	8-719-404-46	DIODE MA110	
D121	8-719-404-46	DIODE MA110	
D122	8-719-404-46	DIODE MA110	
D123	8-719-404-46	DIODE MA110	
D125	8-719-404-46	DIODE MA110	
D126	8-719-404-46	DIODE MA110	
D127	8-719-404-46	DIODE MA110	
D128	8-719-801-78	DIODE 1SS184	
D129	8-719-404-46	DIODE MA110	
D130	8-719-800-76	DIODE 1SS226	
D131	8-719-800-76	DIODE 1SS226	
D132	8-719-800-76	DIODE 1SS226	
D133	8-719-404-46	DIODE MA110	
D134	8-719-404-46	DIODE MA110	
D135	8-719-404-46	DIODE MA110	
D136	8-719-404-46	DIODE MA110	
D137	8-719-404-46	DIODE MA110	
D138	8-719-404-46	DIODE MA110	
D139	8-719-404-46	DIODE MA110	
D144	8-719-404-46	DIODE MA110	
D145	8-719-404-46	DIODE MA110	
D146	8-719-404-46	DIODE MA110	
D147	8-719-404-46	DIODE MA110	
D148	8-719-404-46	DIODE MA110	
D149	8-719-404-46	DIODE MA110	
D150	8-719-404-46	DIODE MA110	
D151	8-719-404-46	DIODE MA110	
D152	8-719-404-46	DIODE MA110	
D153	8-719-977-20	DIODE DTZ8.2B	
D154	8-719-404-46	DIODE MA110	
D155	8-719-404-46	DIODE MA110	
D156	8-719-404-46	DIODE MA110	
D157	8-719-901-83	DIODE 1SS83	
D158	8-719-901-83	DIODE 1SS83	
D159	8-719-901-83	DIODE 1SS83	
D160	8-719-404-46	DIODE MA110	
D161	8-719-404-46	DIODE MA110	
D162	8-719-404-46	DIODE MA110	
D170	8-719-404-46	DIODE MA110	
D185	8-719-104-34	DIODE 1S2836	
D186	8-719-801-78	DIODE 1SS184	
D187	8-719-800-76	DIODE 1SS226	
D188	8-719-800-76	DIODE 1SS226	
D191	8-719-104-34	DIODE 1S2836	
D285	8-719-404-46	DIODE MA110	
D289	8-719-404-46	DIODE MA110	
D341	8-719-404-46	DIODE MA110	
D342	8-719-104-34	DIODE 1S2836	
D343	8-719-800-76	DIODE 1SS226	
D344	8-719-105-99	DIODE RD6.2M-B1	
D345	8-719-901-83	DIODE 1SS83	
D346	8-719-901-83	DIODE 1SS83	
D347	8-719-901-83	DIODE 1SS83	
D348	8-719-800-76	DIODE 1SS226	
D349	8-719-800-76	DIODE 1SS226	
D350	8-719-800-76	DIODE 1SS226	
D390	8-719-800-76	DIODE 1SS226	
D393	8-719-404-46	DIODE MA110	
		<DELAY LINE>	
DL101	1-415-632-11	DELAY LINE, Y	
DL102	1-415-633-11	DELAY LINE, Y	
		<IC>	
IC101	8-759-084-76	IC MM1111XF	
IC102	8-759-287-89	IC MM1113XFF	
IC103	8-759-287-89	IC MM1113XFF	
IC104	8-759-287-89	IC MM1113XFF	
IC105	8-759-084-76	IC MM1111XF	
IC106	8-759-009-51	IC MC14538BF	
IC107	8-759-509-57	IC XRU4584BF	
IC108	8-759-509-17	IC XRU4053BCF	
IC109	8-759-509-37	IC XRU4070BF	
IC110	8-759-509-17	IC XRU4053BCF	
IC111	8-759-509-17	IC XRU4053BCF	
IC112	8-759-924-12	IC LM7805CT	
IC113	8-759-631-08	IC M51279FP	
IC114	8-759-932-64	IC BU4052BCF	
IC115	8-759-932-64	IC BU4052BCF	
IC116	8-759-509-05	IC XRU4066BCF	
IC117	8-759-711-32	IC NJM2245M	
IC118	8-759-711-32	IC NJM2245M	
IC119	8-759-711-32	IC NJM2245M	
IC120	8-759-509-05	IC XRU4066BCF	
IC121	8-759-509-17	IC XRU4053BCF	
IC122	8-759-998-98	IC LM358D	
IC123	8-759-998-98	IC LM358D	
IC124	8-752-052-62	IC CXA1478S	

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REF.NO.	PART NO.	DESCRIPTION	REMARK
IC125	8-759-509-05	IC XRU4066BCF	
IC126	8-759-509-17	IC XRU4053BCF	
IC127	8-759-998-98	IC LM358D	
IC128	8-759-998-98	IC LM358D	
IC129	8-759-998-98	IC LM358D	
		<COIL>	
L101	1-410-470-11	INDUCTOR 10UH	
L102	1-410-090-41	INDUCTOR 18MMH	
L103	1-412-002-31	INDUCTOR CHIP 4.7UH	
L104	1-412-002-31	INDUCTOR CHIP 4.7UH	
L105	1-412-002-31	INDUCTOR CHIP 4.7UH	
L106	1-410-470-11	INDUCTOR 10UH	
L107	1-410-470-11	INDUCTOR 10UH	
L112	1-408-419-00	INDUCTOR 68UH	
L113	1-410-947-31	INDUCTOR CHIP 33UH	
L114	1-410-947-31	INDUCTOR CHIP 33UH	
L115	1-410-947-31	INDUCTOR CHIP 33UH	
L116	1-412-011-31	INDUCTOR CHIP 27UH	
L117	1-412-011-31	INDUCTOR CHIP 27UH	
L118	1-412-011-31	INDUCTOR CHIP 27UH	
L250	1-410-997-31	INDUCTOR CHIP 2.2UH	
L251	1-410-999-11	INDUCTOR CHIP 3.3UH	
L252	1-410-478-11	INDUCTOR 47UH	
L300	1-410-482-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q101	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q102	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q103	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q104	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q105	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q106	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q107	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q108	8-729-216-22	TRANSISTOR 2SA1162-G	
Q109	8-729-901-01	TRANSISTOR DTC144EK	
Q112	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q113	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q114	8-729-216-22	TRANSISTOR 2SA1162-G	
Q115	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q116	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q117	8-729-216-22	TRANSISTOR 2SA1162-G	
Q118	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q119	8-729-216-22	TRANSISTOR 2SA1162-G	
Q120	8-729-216-22	TRANSISTOR 2SA1162-G	
Q121	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q122	8-729-216-22	TRANSISTOR 2SA1162-G	
Q123	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q124	8-729-216-22	TRANSISTOR 2SA1162-G	
Q125	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q126	8-729-901-01	TRANSISTOR DTC144EK	
Q127	8-729-216-22	TRANSISTOR 2SA1162-G	
Q128	8-729-216-22	TRANSISTOR 2SA1162-G	
Q129	8-729-901-01	TRANSISTOR DTC144EK	
Q130	8-729-216-22	TRANSISTOR 2SA1162-G	
Q131	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q132	8-729-216-22	TRANSISTOR 2SA1162-G	
Q133	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q134	8-729-901-01	TRANSISTOR DTC144EK	
Q135	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q136	8-729-907-26	TRANSISTOR IMX1	
Q137	8-729-907-26	TRANSISTOR IMX1	
Q138	8-729-907-26	TRANSISTOR IMX1	
Q139	8-729-216-22	TRANSISTOR 2SA1162-G	
Q140	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q141	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q142	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q143	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q144	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q145	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q146	8-729-255-12	TRANSISTOR 2SC2551-O	
Q147	8-729-255-12	TRANSISTOR 2SC2551-O	
Q148	8-729-216-22	TRANSISTOR 2SA1162-G	
Q149	8-729-200-17	TRANSISTOR 2SA1091-O	
Q150	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q151	8-729-216-22	TRANSISTOR 2SA1162-G	
Q152	8-729-200-17	TRANSISTOR 2SA1091-O	
Q153	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q154	8-729-216-22	TRANSISTOR 2SA1162-G	
Q155	8-729-200-17	TRANSISTOR 2SA1091-O	
Q157	8-729-326-11	TRANSISTOR 2SC2611	
Q158	8-729-326-11	TRANSISTOR 2SC2611	
Q159	8-729-326-11	TRANSISTOR 2SC2611	
Q160	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q161	8-729-216-22	TRANSISTOR 2SA1162-G	
Q164	8-729-901-01	TRANSISTOR DTC144EK	
Q165	8-729-216-22	TRANSISTOR 2SA1162-G	
Q166	8-729-216-22	TRANSISTOR 2SA1162-G	
Q167	8-729-216-22	TRANSISTOR 2SA1162-G	
Q168	8-729-216-22	TRANSISTOR 2SA1162-G	
Q170	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q171	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q172	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q173	8-729-216-22	TRANSISTOR 2SA1162-G	
Q174	8-729-216-22	TRANSISTOR 2SA1162-G	
Q175	8-729-216-22	TRANSISTOR 2SA1162-G	
Q176	8-729-216-22	TRANSISTOR 2SA1162-G	
Q177	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q178	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q179	8-729-901-01	TRANSISTOR DTC144EK	
Q189	8-729-907-26	TRANSISTOR IMX1	
Q190	8-729-216-22	TRANSISTOR 2SA1162-G	
Q191	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q192	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q193	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q194	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q195	8-729-216-22	TRANSISTOR 2SA1162-G	
Q196	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q197	8-729-216-22	TRANSISTOR 2SA1162-G	
Q198	8-729-216-22	TRANSISTOR 2SA1162-G	
Q199	8-729-216-22	TRANSISTOR 2SA1162-G	
Q200	8-729-901-06	TRANSISTOR DTA144EK	
Q201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q208	8-729-216-22	TRANSISTOR 2SA1162-G	
Q209	8-729-255-12	TRANSISTOR 2SC2551-O	
Q210	8-729-255-12	TRANSISTOR 2SC2551-O	
Q211	8-729-255-12	TRANSISTOR 2SC2551-O	
Q212	8-729-141-53	TRANSISTOR 2SK94-X2X3X4	
Q299	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

<RESISTOR>

REF.NO.	PART NO.	DESCRIPTION				REMARK
JR105	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR110	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR133	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR138	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR178	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R101	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R102	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R103	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R104	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R105	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R106	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R107	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R108	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R109	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R110	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R111	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R112	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R113	1-249-401-11	CARBON	47	5%	1/4W	F
R114	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R118	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R119	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R120	1-216-647-11	METAL CHIP	680	0.50%	1/10W	
R121	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R122	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R124	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R125	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R126	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R127	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R128	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R129	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R130	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R131	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R132	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R133	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R134	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R135	1-216-645-11	METAL CHIP	560	0.50%	1/10W	
R136	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R137	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R138	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R139	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R140	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R141	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R142	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R143	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R145	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R146	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R147	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R148	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R155	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R157	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R158	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R160	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R161	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R163	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R164	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R165	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R166	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R167	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R168	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R169	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R170	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R171	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R172	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R173	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R174	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R175	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R176	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R177	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R178	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R179	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R180	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R181	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R182	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R183	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R184	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R185	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R186	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R187	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R188	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R189	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R190	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R191	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R192	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R193	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R194	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R195	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R196	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R197	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R198	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R199	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R200	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R201	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R202	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R203	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R206	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R207	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R208	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R209	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R210	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R211	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R212	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R213	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R214	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R215	1-216-127-11	METAL GLAZE	1.8M	5%	1/10W	
R216	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R217	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R218	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R219	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R220	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R222	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R223	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R224	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R225	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R226	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R227	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R228	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R229	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R230	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R231	1-216-113-00	METAL GLAZE	470K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R232	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R233	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R234	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R235	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R236	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R237	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R238	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R239	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R240	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R241	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R242	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R243	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R244	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R245	1-216-679-11	METAL CHIP	15K	0.50%	1/10W	
R246	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R247	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R248	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R249	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R250	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R251	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R252	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R253	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R254	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R255	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R256	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R258	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R259	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R260	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R261	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R262	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R263	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R264	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R265	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R266	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R267	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R268	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R269	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R270	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R271	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R272	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R273	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R275	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R276	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R277	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R278	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R280	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R281	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R282	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R283	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R284	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R286	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R287	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R288	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R289	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R290	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R292	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R293	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R295	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R296	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R297	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R298	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R300	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R303	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R304	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R305	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R306	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R307	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R308	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R309	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R310	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R311	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R312	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R313	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R314	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R315	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R316	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R317	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R318	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R319	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R320	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R321	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R322	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R323	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R324	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R325	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R326	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R328	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R329	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R330	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R331	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R332	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R333	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R334	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R335	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R336	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R337	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R338	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R339	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R340	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R341	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R342	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R343	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R344	1-216-664-11	METAL CHIP	3.6K	0.50%	1/10W	
R345	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W	
R346	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R348	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R349	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R350	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R351	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R352	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R353	1-216-650-11	METAL CHIP	910	0.50%	1/10W	
R354	1-216-653-11	METAL CHIP	1.2K	0.50%	1/10W	
R355	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R356	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R357	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R358	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R359	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R360	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R363	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R364	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R365	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R368	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R369	1-216-248-00	METAL GLAZE	120K	5%	1/8W	
R370	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R371	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	

REF.NO.	PART NO.	DESCRIPTION				REMARK
R372	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R374	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R375	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R376	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W	
R378	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R379	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R380	1-208-799-11	METAL CHIP	5.1K	0.50%	1/10W	
R381	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R382	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R383	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R384	1-208-799-11	METAL CHIP	5.1K	0.50%	1/10W	
R385	1-216-117-00	METAL GLAZE	680K	5%	1/10W	
R386	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R387	1-216-641-11	METAL CHIP	390	0.50%	1/10W	
R388	1-208-799-11	METAL CHIP	5.1K	0.50%	1/10W	
R389	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R390	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R391	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R392	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R393	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R394	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R397	1-249-437-11	CARBON	47K	5%	1/4W	F
R398	1-249-434-11	CARBON	27K	5%	1/4W	F
R399	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1001	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1002	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1003	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1004	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1005	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1006	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1007	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1008	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1009	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1010	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1011	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1012	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1013	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1014	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R1015	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1016	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1017	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1018	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1019	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1020	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1021	1-216-045-00	METAL GLAZE	680	5%	1/10W	
R1022	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1023	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1024	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1025	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1026	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1027	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1028	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1029	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1030	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1031	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1032	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1033	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1035	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1036	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1038	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1040	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1042	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1043	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1044	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1045	1-216-125-00	METAL GLAZE	1.5M	5%	1/10W	
R1046	1-216-689-11	METAL CHIP	39K	0.50%	1/10W	
R1047	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1048	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1049	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1050	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1051	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1053	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1054	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1055	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1056	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1057	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1058	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1059	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1060	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1061	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1062	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1063	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1064	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1065	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1066	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1067	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1068	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1069	1-216-133-00	METAL GLAZE	3.3M	5%	1/10W	
R1070	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1071	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1072	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1073	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1075	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1076	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1077	1-216-103-91	METAL GLAZE	180K	5%	1/10W	
R1079	1-216-131-11	METAL GLAZE	2.7M	5%	1/10W	
R1080	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1081	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1082	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1083	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1084	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1086	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1087	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1088	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1090	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1091	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1092	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1093	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1094	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1095	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1096	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R1200	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R1201	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R1207	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1208	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1220	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1221	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1222	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1223	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R1225	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1226	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1227	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R1228	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1229	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1230	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1231	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1232	1-216-029-00	METAL GLAZE	150	5%	1/10W	

B P

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1233	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1234	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1235	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1236	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1237	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1238	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1239	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R1270	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R1271	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1280	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1288	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R1290	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1291	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1294	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1295	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1296	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R1297	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1298	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1299	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1300	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1301	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1302	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1303	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1304	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1305	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1306	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1307	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1308	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R1309	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1310	1-216-119-00	METAL GLAZE	820K	5%	1/10W	
R1313	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R1314	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1315	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R1320	1-216-083-00	METAL GLAZE	27K	5%	1/10W	
R1321	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1322	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R1323	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1324	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1325	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R1326	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1327	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1328	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1329	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R1330	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1331	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R1332	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1333	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1334	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1335	1-216-035-00	METAL GLAZE	270	5%	1/10W	
R1336	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1337	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
R1338	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1339	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1340	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1341	1-216-111-00	METAL GLAZE	390K	5%	1/10W	
R1342	1-216-694-11	METAL CHIP	62K	0.50%	1/10W	
R1343	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1344	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1345	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1346	1-216-047-00	METAL GLAZE	820	5%	1/10W	
R1347	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1348	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1349	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1350	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1351	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1352	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1353	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R1371	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1372	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1373	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1392	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1393	1-216-095-00	METAL GLAZE	82K	5%	1/10W	

<VARIABLE RESISTOR>

RV101	1-241-763-11	RES, ADJ, CERMET	4.7K
RV102	1-241-763-11	RES, ADJ, CERMET	4.7K
RV103	1-241-759-21	RES, ADJ, CARBON	220
RV104	1-241-759-21	RES, ADJ, CARBON	220
RV105	1-241-761-11	RES, ADJ, CARBON	1K
RV106	1-241-761-11	RES, ADJ, CARBON	1K
RV107	1-241-761-11	RES, ADJ, CARBON	1K
RV108	1-241-630-11	RES, ADJ, CARBON	10K
RV109	1-241-765-11	RES, ADJ, CERMET	22K
RV110	1-241-630-11	RES, ADJ, CARBON	10K
RV111	1-241-630-11	RES, ADJ, CARBON	10K
RV112	1-238-019-11	RES, ADJ, CARBON	47K
RV113	1-238-019-11	RES, ADJ, CARBON	47K
RV114	1-238-019-11	RES, ADJ, CARBON	47K
RV115	1-241-765-11	RES, ADJ, CARBON	22K
RV116	1-241-765-11	RES, ADJ, CARBON	22K
RV118	1-241-765-11	RES, ADJ, CARBON	22K
RV119	1-241-765-11	RES, ADJ, CARBON	22K
RV120	1-241-765-11	RES, ADJ, CARBON	22K
RV121	1-241-765-11	RES, ADJ, CARBON	22K
RV122	1-241-765-11	RES, ADJ, CARBON	22K
RV123	1-241-628-11	RES, ADJ, CARBON	2.2K
RV124	1-241-761-11	RES, ADJ, CARBON	1K
RV125	1-241-761-11	RES, ADJ, CARBON	1K
RV205	1-241-765-11	RES, ADJ, CARBON	22K

<MODULE>

SEP101	1-808-654-11	MODULE

<CRYSTAL>

X101	1-527-722-00	OSCILLATOR, CRYSTAL
X102	1-577-259-11	VIBRATOR, CRYSTAL

****

*A-1195-048-A P BOARD, COMPLETE
****

<CAPACITOR>

C801	1-126-104-11	ELECT	470MF	20%	35V
C802	1-162-318-11	CERAMIC	0.001MF	10%	500V
C803	1-102-228-00	CERAMIC	470PF	10%	500V
C804	1-123-935-00	ELECT	33MF	20%	160V
C806	1-124-480-11	ELECT	470MF	20%	25V
C807	1-102-228-00	CERAMIC	470PF	10%	500V
C808	1-106-367-00	MYLAR	0.01MF	10%	100V
C809	1-106-375-12	MYLAR	0.022MF	10%	100V
C810	1-162-318-11	CERAMIC	0.001MF	10%	500V
C811	⚠ 1-137-544-91	FILM	0.01MF	3%	600V
C812	⚠ 1-137-545-91	FILM	0.013MF	3%	600V

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

P FA QA

REF.NO.	PART NO.	DESCRIPTION			REMARK
C813	1-106-385-00	MYLAR	0.056MF	5%	200V
C814	1-106-383-00	MYLAR	0.047MF	10%	100V
C815	1-124-916-11	ELECT	22MF	20%	50V
C816	1-124-798-11	ELECT	1MF	20%	160V
C817	1-130-800-00	FILM	2.2MF	10%	250V
C818	1-102-228-00	CERAMIC	470PF	10%	500V
C819	1-162-116-00	CERAMIC	680PF	10%	2KV
C820	1-162-116-00	CERAMIC	680PF	10%	2KV
C821	1-162-116-00	CERAMIC	680PF	10%	2KV
C825	1-123-024-21	ELECT	33MF		160V
C880	1-163-031-11	CERAMIC CHIP	0.01MF		50V
		<CONNECTOR>			
CN801	1-564-595-11	PLUG, CONNECTOR 14P			
CN802	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P			
CN803	*1-564-508-11	PLUG, CONNECTOR 5P			
CN805	*1-560-123-00	PLUG, CONNECTOR (2.5MM) 3P			
		<DIODE>			
D801	8-719-302-43	DIODE EL1Z			
D802	8-719-302-43	DIODE EL1Z			
D803	8-719-302-43	DIODE EL1Z			
D804	8-719-979-85	DIODE EGP20G			
D805	8-719-302-43	DIODE EL1Z			
D806	8-719-302-43	DIODE EL1Z			
D807	8-719-105-99	DIODE RD6.2M-B1			
D808	8-719-018-72	THYRISTOR CR02AM-4TB			
D809	8-719-908-03	DIODE GP08D			
D810	8-719-908-03	DIODE GP08D			
D811	8-719-908-03	DIODE GP08D			
D813	8-719-302-43	DIODE EL1Z			
		<COIL>			
L802	1-459-442-00	COIL (WITH CORE)			
L803	1-422-613-11	COIL, AIR CORE			
L804	1-459-109-00	COIL,DUST CORE			
L805	1-460-225-11	COIL, HORIZONTAL LINEARITY			
L806	1-414-098-11	MICRO INDUCTOR 10MMH			
L807	1-414-098-11	MICRO INDUCTOR 10MMH			
L810	1-412-529-11	INDUCTOR	22UH		
		<NEON LAMP>			
NL801	1-519-108-99	LAMP, NEON			
		<TRANSISTOR>			
Q801	8-729-195-82	TRANSISTOR 2SC2958-L			
Q802	8-729-201-62	TRANSISTOR 2SC2555-2			
	*4-043-154-01	HOLDER, IC; Q802			
	4-382-854-01	SCREW (M3X8), P, SW (+); Q802			
	4-879-937-00	SHEET, MICA; Q802			
Q803	8-729-906-24	TRANSISTOR 2SD835			
		<RESISTOR>			
R801	1-249-383-11	CARBON	1.5	5% 1/4W	F
R802	1-249-377-11	CARBON	0.47	5% 1/4W	F
R803	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R804	1-249-419-11	CARBON	1.5K	5% 1/4W	F
R805	1-215-892-11	METAL OXIDE	1K	5% 2W	F
R807	1-216-425-11	METAL OXIDE	56	5% 1W	F
R808	1-202-846-00	SOLID	470K	20% 1/2W	
R809	1-216-089-91	METAL GLAZE	47K	5% 1/10W	
R810	1-249-421-11	CARBON	2.2K	5% 1/4W	F
R811	1-216-049-00	METAL GLAZE	1K	5% 1/10W	
R812	1-249-439-11	CARBON	68K	5% 1/4W	F
R813	1-249-414-11	CARBON	560	5% 1/4W	F
R814	1-249-377-11	CARBON	0.47	5% 1/4W	F
		<VARIABLE RESISTOR>			
RV801	1-223-102-00	RES, ADJ, WIREWOUND 120			
		<TRANSFORMER>			
T801	1-437-082-31	HDT			
T802	⚠1-439-526-12	TRANSFORMER ASSY, FLYBACK			
		**********			
	*A-1241-070-A	FA BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C601	1-136-185-00	FILM	0.22MF	20%	250V
		<CONNECTOR>			
CN601	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P			
CN602	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P			
CN603	*1-564-507-11	PLUG, CONNECTOR 4P			
		<FUSE>			
F601	⚠1-576-230-11	FUSE (H.B.C.) (3.15A/250V)			
	1-533-223-11	CLIP, FUSE			
		<RESISTOR>			
R602	1-214-945-00	METAL	2.2M	5% 1/2W	
		<SWITCH>			
S601	1-692-050-11	SWITCH, PUSH (AC POWER) (1KEY)			
		**********			
	*A-1275-121-A	QA BOARD, CONPLETE			
		**********			
	1-537-408-21	TERMINAL BOARD B, INPUT/OUTPUT			
	1-537-410-11	TERMINAL BOARD A, INPUT/OUTPUT			
		<CAPACITOR>			
C401	1-124-234-00	ELECT	22MF	20%	16V
C402	1-124-234-00	ELECT	22MF	20%	16V
C403	1-124-234-00	ELECT	22MF	20%	16V
C404	1-124-234-00	ELECT	22MF	20%	16V
C405	1-124-234-00	ELECT	22MF	20%	16V
C406	1-124-234-00	ELECT	22MF	20%	16V
C407	1-124-234-00	ELECT	22MF	20%	16V
C408	1-124-463-00	ELECT	0.1MF	20%	50V
C409	1-124-234-00	ELECT	22MF	20%	16V
C410	1-124-234-00	ELECT	22MF	20%	16V
C411	1-124-234-00	ELECT	22MF	20%	16V

QA

REF.NO.	PART NO.	DESCRIPTION				REMARK
C412	1-124-234-00	ELECT	22MF	20%	16V	
C413	1-124-234-00	ELECT	22MF	20%	16V	
C414	1-126-157-11	ELECT	10MF	20%	16V	
C415	1-126-157-11	ELECT	10MF	20%	16V	
C416	1-126-157-11	ELECT	10MF	20%	16V	
C417	1-126-157-11	ELECT	10MF	20%	16V	
C418	1-126-157-11	ELECT	10MF	20%	16V	
C419	1-126-157-11	ELECT	10MF	20%	16V	
C420	1-126-157-11	ELECT	10MF	20%	16V	
C421	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C422	1-124-464-11	ELECT	0.22MF	20%	50V	
C423	1-126-157-11	ELECT	10MF	20%	16V	
C424	1-126-157-11	ELECT	10MF	20%	16V	
C425	1-108-634-11	MYLAR	0.047MF	10%	100V	
C426	1-128-499-11	ELECT	220MF	20%	16V	
C427	1-128-499-11	ELECT	220MF	20%	16V	
C428	1-124-589-11	ELECT	47MF	20%	16V	
C429	1-124-234-00	ELECT	22MF	20%	16V	
C430	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C431	1-124-234-00	ELECT	22MF	20%	16V	
C432	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C433	1-124-234-00	ELECT	22MF	20%	16V	
C434	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C435	1-124-234-00	ELECT	22MF	20%	16V	
C436	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C437	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C438	1-124-234-00	ELECT	22MF	20%	16V	
C439	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C440	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C441	1-124-234-00	ELECT	22MF	20%	16V	
C442	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C443	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C444	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C445	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C446	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C447	1-126-301-11	ELECT	1MF	20%	50V	
C448	1-124-234-00	ELECT	22MF	20%	16V	
C449	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C450	1-124-234-00	ELECT	22MF	20%	16V	
C451	1-163-033-00	CERAMIC CHIP	0.022MF		50V	
C452	1-128-499-11	ELECT	220MF	20%	16V	
C453	1-124-234-00	ELECT	22MF	20%	16V	
C454	1-128-499-11	ELECT	220MF	20%	16V	
C460	1-126-301-11	ELECT	1MF	20%	50V	
C461	1-126-301-11	ELECT	1MF	20%	50V	
C462	1-126-301-11	ELECT	1MF	20%	50V	
C464	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C465	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C466	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C467	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C475	1-163-031-11	CERAMIC CHIP	0.01MF		50V	

<CONNECTOR>

CN401	1-506-494-11	PIN, CONNECTOR 15P	
CN402	*1-564-518-11	PLUG, CONNECTOR 3P	
CN403	*1-580-690-11	PIN, CONNECTOR (PC BOARD) 2P	
CN404	*1-564-520-11	PLUG, CONNECTOR 5P	

<DIODE>

D401	8-719-404-46	DIODE MA110	
D402	8-719-404-46	DIODE MA110	
D403	8-719-110-09	DIODE RD8.2ESB3	
D404	8-719-404-46	DIODE MA110	
D405	8-719-404-46	DIODE MA110	
D406	8-719-404-46	DIODE MA110	
D407	8-719-404-46	DIODE MA110	
D408	8-719-404-46	DIODE MA110	
D409	8-719-404-46	DIODE MA110	
D410	8-719-404-46	DIODE MA110	
D411	8-719-404-46	DIODE MA110	
D412	8-719-404-46	DIODE MA110	
D413	8-719-404-46	DIODE MA110	
D414	8-719-404-46	DIODE MA110	
D415	8-719-404-46	DIODE MA110	
D416	8-719-404-46	DIODE MA110	
D417	8-719-404-46	DIODE MA110	
D418	8-719-404-46	DIODE MA110	
D419	8-719-404-46	DIODE MA110	
D420	8-719-404-46	DIODE MA110	
D421	8-719-404-46	DIODE MA110	
D422	8-719-404-46	DIODE MA110	
D423	8-719-404-46	DIODE MA110	
D424	8-719-404-46	DIODE MA110	
D425	8-719-404-46	DIODE MA110	
D426	8-719-404-46	DIODE MA110	
D427	8-719-404-46	DIODE MA110	
D428	8-719-404-46	DIODE MA110	
D429	8-719-404-46	DIODE MA110	
D430	8-719-404-46	DIODE MA110	
D431	8-719-404-46	DIODE MA110	

<IC>

IC401	8-759-287-89	IC MM1113XFF
IC402	8-759-287-89	IC MM1113XFF
IC403	8-759-420-04	IC AN5265

<COIL>

L401	1-410-682-31	INDUCTOR	470UH
L402	1-410-682-31	INDUCTOR	470UH

<TRANSISTOR>

Q401	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q402	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q403	8-729-216-22	TRANSISTOR 2SA1162-G
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q405	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q406	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q407	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q408	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q409	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q410	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q411	8-729-216-22	TRANSISTOR 2SA1162-G
Q412	8-729-216-22	TRANSISTOR 2SA1162-G
Q413	8-729-216-22	TRANSISTOR 2SA1162-G
Q414	8-729-216-22	TRANSISTOR 2SA1162-G
Q416	8-729-420-81	TRANSISTOR 2SD874A-R
Q417	8-729-901-06	TRANSISTOR DTA144EK
Q418	8-729-901-06	TRANSISTOR DTA144EK
Q419	8-729-901-06	TRANSISTOR DTA144EK
Q420	8-729-901-01	TRANSISTOR DTC144EK
Q421	8-729-901-06	TRANSISTOR DTA144EK
Q422	8-729-901-01	TRANSISTOR DTC144EK

QA CA

REF.NO.	PART NO.	DESCRIPTION				REMARK
Q423	8-729-901-06	TRANSISTOR DTA144EK				
Q424	8-729-901-06	TRANSISTOR DTA144EK				
Q426	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
R401	1-214-702-00	METAL	75	1%	1/4W	
R402	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R403	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R404	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R405	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R406	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R407	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R408	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R409	1-214-702-00	METAL	75	1%	1/4W	
R410	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R411	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R412	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R413	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R414	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R415	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R416	1-216-023-00	METAL GLAZE	82	5%	1/10W	
R417	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R418	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R419	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R420	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R421	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R422	1-214-702-00	METAL	75	1%	1/4W	
R423	1-214-702-00	METAL	75	1%	1/4W	
R424	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R425	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R426	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R427	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R428	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R429	1-214-702-00	METAL	75	1%	1/4W	
R430	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R431	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R432	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R433	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R434	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R435	1-214-702-00	METAL	75	1%	1/4W	
R436	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R437	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R438	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R439	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R440	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R441	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R442	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R443	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R444	1-214-702-00	METAL	75	1%	1/4W	
R445	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R446	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R447	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R448	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R449	1-216-027-00	METAL GLAZE	120	5%	1/10W	
R450	1-214-702-00	METAL	75	1%	1/4W	
R451	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R452	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R453	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R454	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R455	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R456	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R457	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R458	1-247-707-11	CARBON	390	5%	1/4W	
R459	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R460	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R461	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R462	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R463	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R464	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R465	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R466	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R467	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R468	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R469	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R470	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R471	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R472	1-216-115-00	METAL GLAZE	560K	5%	1/10W	
R473	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R474	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R475	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R477	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R479	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R480	1-247-711-11	CARBON	680	5%	1/4W	
R481	1-247-720-11	CARBON	3.9K	5%	1/4W	
R482	1-249-455-11	CARBON	4.7	5%	1/4W	
R483	1-249-389-11	CARBON	4.7	5%	1/4W	F
R484	1-216-041-00	METAL GLAZE	470	5%	1/10W	
R485	1-247-688-11	CARBON	10	5%	1/4W	F
R486	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R487	1-249-468-11	CARBON	82K	5%	1/4W	
R488	1-249-468-11	CARBON	82K	5%	1/4W	
R489	1-249-468-11	CARBON	82K	5%	1/4W	
R490	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R491	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R492	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R493	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R494	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R495	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R496	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R497	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R498	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R499	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1401	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1403	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R1404	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1410	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1411	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1412	1-216-113-00	METAL GLAZE	470K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV401	1-237-994-11	RES, VAR, CARBON 20K				
		<SWITCH>				
S401	1-570-145-11	SWITCH, SLIDE				
**********						
	*A-1331-183-A	CA BOARD, COMPLETE				
		**********				
	1-251-244-11	SOCKET, PICTURE TUBE				
		<CAPACITOR>				
C701	1-162-114-00	CERAMIC	0.0047MF	10%	2KV	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C710	1-161-830-00	CERAMIC	0.0047MF	99%	500V
		<CONNECTOR>			
CN701	*1-564-509-11	PLUG, CONNECTOR 6P			
CN702	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			
CN703	*1-564-508-11	PLUG, CONNECTOR 5P			
		<COIL>			
L701	1-410-668-11	INDUCTOR	27UH		
		<RESISTOR>			
R701	1-202-822-00	SOLID	2.2K	20% 1/2W	
R702	1-202-822-00	SOLID	2.2K	20% 1/2W	
R703	1-202-822-00	SOLID	2.2K	20% 1/2W	
R704	1-202-838-00	SOLID	100K	20% 1/2W	
R706	1-202-842-11	SOLID	220K	20% 1/2W	
		<VARIABLE RESISTOR>			
RV701	1-230-164-00	RES, ADJ, METAL GLAZE 55M			
	*4-376-132-11	COVER (REAR LID), CV VOL; RV701			
	*4-376-133-11	COVER (MAIN), CV VOL; RV701			
**********					
	*A-1346-251-A	D BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C501	1-124-477-11	ELECT	47MF	20%	16V
C502	1-124-907-11	ELECT	10MF	20%	50V
C503	1-126-103-11	ELECT	470MF	20%	16V
C504	1-124-902-00	ELECT	0.47MF	20%	50V
C505	1-106-381-12	MYLAR	0.039MF	10%	100V
C506	1-124-903-11	ELECT	1MF	20%	50V
C507	1-106-367-00	MYLAR	0.01MF	10%	100V
C508	1-124-903-11	ELECT	1MF	20%	50V
C509	1-136-173-00	FILM	0.47MF	5%	50V
C510	1-136-161-00	FILM	0.047MF	5%	50V
C511	1-124-903-11	ELECT	1MF	20%	50V
C512	1-106-375-12	MYLAR	0.022MF	10%	100V
C513	1-106-375-12	MYLAR	0.022MF	10%	100V
C514	1-106-371-00	MYLAR	0.015MF	10%	100V
C515	1-124-925-11	ELECT	2.2MF	20%	50V
C516	1-124-925-11	ELECT	2.2MF	20%	50V
C517	1-130-480-00	FILM	0.0056MF	5%	50V
C518	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C519	1-124-927-11	ELECT	4.7MF	20%	50V
C520	1-163-129-00	CERAMIC CHIP	330PF	5%	50V
C521	1-124-907-11	ELECT	10MF	20%	50V
C523	1-106-363-00	MYLAR	0.0068MF	10%	100V
C524	1-102-116-00	CERAMIC	680PF	10%	50V
C525	1-102-820-00	CERAMIC	330PF	5%	50V
C526	1-102-074-00	CERAMIC	0.001MF	10%	50V
C527	1-124-122-11	ELECT	100MF	20%	50V
C528	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C529	1-124-910-11	ELECT	47MF	20%	50V
C530	1-163-097-00	CERAMIC CHIP	15PF	5%	50V
C531	1-131-370-00	TANTALUM	6.8MF	10%	16V
C532	1-124-557-11	ELECT	1000MF	20%	25V
C533	1-124-927-11	ELECT	4.7MF	20%	50V
C534	1-124-768-11	ELECT	4.7MF	20%	50V
C535	1-136-161-00	FILM	0.047MF	5%	50V
C536	1-124-927-11	ELECT	4.7MF	20%	50V
C537	1-124-484-11	ELECT	220MF	20%	35V
C538	1-124-910-11	ELECT	47MF	20%	50V
C539	1-136-113-00	FILM	2MF	5%	200V
C540	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C541	1-163-035-00	CERAMIC CHIP	0.047MF		50V
C542	1-126-103-11	ELECT	470MF	20%	16V
C545	1-126-101-11	ELECT	100MF	20%	16V
C546	1-124-907-11	ELECT	10MF	20%	50V
C547	1-124-907-11	ELECT	10MF	20%	50V
C548	1-124-907-11	ELECT	10MF	20%	50V
C549	1-124-907-11	ELECT	10MF	20%	50V
C550	1-124-907-11	ELECT	10MF	20%	50V
C551	1-124-927-11	ELECT	4.7MF	20%	50V
C552	1-101-004-00	CERAMIC	0.01MF		50V
C553	1-126-103-11	ELECT	470MF	20%	16V
C563	1-106-383-00	MYLAR	0.047MF	10%	100V
C564	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C567	1-124-907-11	ELECT	10MF	20%	50V
C568	1-130-736-11	FILM	0.01MF	5%	50V
C569	1-130-471-00	FILM	0.001MF	5%	50V
C570	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C571	1-124-913-11	ELECT	470MF	20%	50V
C572	1-101-004-00	CERAMIC	0.01MF		50V
C574	1-106-351-00	MYLAR	0.0022MF	10%	100V
C575	1-106-351-00	MYLAR	0.0022MF	10%	100V
C578	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C831	1-124-907-11	ELECT	10MF	20%	50V
C832	1-124-907-11	ELECT	10MF	20%	50V
C833	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C834	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C835	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C836	1-124-907-11	ELECT	10MF	20%	50V
C837	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C838	1-136-163-00	FILM	0.068MF	5%	50V
C839	1-106-351-00	MYLAR	0.0022MF	10%	100V
C840	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C841	1-163-209-00	CERAMIC CHIP	0.0015MF	5%	50V
C843	1-124-902-00	ELECT	0.47MF	20%	50V
C844	1-124-902-00	ELECT	0.47MF	20%	50V
C845	1-124-477-11	ELECT	47MF	20%	25V
C846	1-124-907-11	ELECT	10MF	20%	50V
C847	1-124-916-11	ELECT	22MF	20%	50V
C848	1-131-351-00	TANTALUM	4.7MF	10%	35V
C849	1-164-182-11	CERAMIC CHIP	0.0033MF	10%	50V
C1601	1-124-907-11	ELECT	10MF	20%	50V
C1602	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1603	1-104-348-11	ELECT	15MF	20%	50V
C1604	1-128-500-51	ELECT	1000MF	20%	50V
C1605	1-124-922-11	ELECT	1000MF	20%	50V
C1606	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1607	1-124-907-11	ELECT	10MF	20%	50V
C1608	1-124-916-11	ELECT	22MF	20%	50V
C1609	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1610	1-124-927-11	ELECT	4.7MF	20%	50V
C1611	1-124-482-11	ELECT	33MF	20%	35V
C1612	1-136-257-00	FILM	0.0039MF	5%	50V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C1613	1-163-009-11	CERAMIC CHIP 0.001MF	10%	50V	
C1614	1-164-232-11	CERAMIC CHIP 0.01MF	10%	50V	
C1615	1-124-465-00	ELECT 0.47MF	20%	50V	
C1620	1-163-133-00	CERAMIC CHIP 470PF	5%	50V	
C1621	1-163-117-00	CERAMIC CHIP 100PF	5%	50V	
C1641	1-163-035-00	CERAMIC CHIP 0.047MF		50V	
		<CONNECTOR>			
CN501	*1-564-506-11	PLUG, CONNECTOR 3P			
CN502	*1-564-011-11	PIN, CONNECTOR 12P			
CN504	*1-564-508-11	PLUG, CONNECTOR 5P			
CN505	*1-564-509-11	PLUG, CONNECTOR 6P			
CN507	1-564-511-11	PLUG, CONNECTOR 8P			
CN508	*1-564-104-00	PIN, CONNECTOR (B3P-VH) 3P			
CN509	*1-564-506-11	PLUG, CONNECTOR 3P			
		<DIODE>			
D501	8-719-404-46	DIODE MA110			
D502	8-719-404-46	DIODE MA110			
D503	8-719-404-46	DIODE MA110			
D504	8-719-404-46	DIODE MA110			
D506	8-719-908-03	DIODE GP08D			
D507	8-719-404-46	DIODE MA110			
D508	8-719-404-46	DIODE MA110			
D511	8-719-404-46	DIODE MA110			
D512	8-719-404-46	DIODE MA110			
D514	8-719-404-46	DIODE MA110			
D520	8-719-800-76	DIODE 1SS226			
D521	8-719-800-76	DIODE 1SS226			
D831	8-719-404-46	DIODE MA110			
D832	8-719-404-46	DIODE MA110			
D833	8-719-404-46	DIODE MA110			
D834	8-719-404-46	DIODE MA110			
D835	8-719-109-89	DIODE RD5.6ESB2			
D836	8-719-977-69	DIODE DTZ24B			
D848	8-719-800-76	DIODE 1SS226			
D1601	8-719-105-99	DIODE RD6.2M-B1			
D1603	8-719-977-61	DIODE DTZ20B			
D1606	8-719-981-00	DIODE ERC81-004			
D1607	8-719-981-00	DIODE ERC81-004			
D1608	8-719-977-02	DIODE DTZ5.6A			
D1609	8-719-977-49	DIODE DTZ15B			
D1610	8-719-404-46	DIODE MA110			
D1611	8-729-101-31	TRANSISTOR N13T1			
D1612	8-719-404-46	DIODE MA110			
D1615	8-719-404-46	DIODE MA110			
D1617	8-719-977-49	DIODE DTZ15B			
D1618	8-719-977-49	DIODE DTZ15B			
D1620	8-719-801-78	DIODE 1SS184			
D1621	8-719-510-12	DIODE D10SC4M			
	4-382-854-11	SCREW (M3X10), P, SW (+); Q1621			
D1622	8-719-801-78	DIODE 1SS184			
D1623	8-719-801-78	DIODE 1SS184			
D1626	8-719-404-46	DIODE MA110			
D1627	8-719-404-46	DIODE MA110			
D1628	8-719-404-46	DIODE MA110			
D1635	8-719-404-46	DIODE MA110			
D1699	8-719-404-46	DIODE MA110			
		<FUSE>			

REF.NO.	PART NO.	DESCRIPTION	REMARK
F1601⚠	1-532-777-21	FUSE, MICRO (SECONDARY) (1.25A/125V)	
F1602	1-533-189-11	HOLDER, FUSE	
		<IC>	
IC501	8-759-909-70	IC CX23025	
IC502	8-759-100-60	IC UPC1377C	
IC503	8-759-801-98	IC LA7830	
	4-382-854-01	SCREW (M3X8), P, SW (+); IC503	
IC504	8-759-231-58	IC TA7812S	
	4-382-854-01	SCREW (M3X8), P, SW (+); IC504	
IC505	8-759-009-51	IC MC14538BF	
IC506	8-759-209-54	IC TC4S01F	
IC507	8-759-209-69	IC TC4S11F	
IC831	8-759-509-29	IC XRU4011BF	
IC832	8-759-509-37	IC XRU4070BF	
IC833	8-759-009-51	IC MC14538BF	
IC1601	8-759-509-91	IC XRA10393F	
		<COIL>	
L501	1-410-093-11	INDUCTOR 33MMH	
L502	1-410-665-31	INDUCTOR 15UH	
L503	1-424-625-11	COIL, CHOKE (PMC) 381.4UH	
L506	1-412-530-31	INDUCTOR 27UH	
L1601	1-459-155-00	COIL (WITH CORE) 45UH	
L1602	1-402-785-11	COIL, CHOKE 600UH	
L1603	1-410-397-21	FERRITE BEAD INDUCTOR 1.1UH	
		<TRANSISTOR>	
Q501	8-729-901-01	TRANSISTOR DTC144EK	
Q502	8-729-901-01	TRANSISTOR DTC144EK	
Q503	8-729-901-06	TRANSISTOR DTA144EK	
Q504	8-729-901-01	TRANSISTOR DTC144EK	
Q505	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q512	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q513	8-729-216-22	TRANSISTOR 2SA1162-G	
Q514	8-729-216-22	TRANSISTOR 2SA1162-G	
Q515	8-729-313-42	TRANSISTOR 2SD1134-C	
	4-382-854-01	SCREW (M3X8), P, SW (+); Q515	
Q518	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q519	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q532	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q569	8-729-907-26	TRANSISTOR IMX1	
Q570	8-729-901-00	TRANSISTOR DTC124EK	
Q571	8-729-901-00	TRANSISTOR DTC124EK	
Q576	8-729-901-01	TRANSISTOR DTC144EK	
Q579	8-729-920-48	TRANSISTOR IMH2	
Q599	8-729-920-48	TRANSISTOR IMH2	
Q833	8-729-216-22	TRANSISTOR 2SA1162-G	
Q834	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q835	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q836	8-729-255-12	TRANSISTOR 2SC2551-O	
Q1601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1603	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q1604	8-729-216-22	TRANSISTOR 2SA1162-G	
Q1605	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q1606	8-729-133-42	TRANSISTOR 2SC2334-L	
	4-382-854-01	SCREW (M3X8), P, SW (+); Q1606	
Q1607	8-729-120-28	TRANSISTOR 2SC1623-L5L6	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
Q1608	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1609	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1610	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1611	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1612	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1613	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1614	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1615	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1616	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1617	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1618	8-729-216-22	TRANSISTOR 2SA1162-G				
		<RESISTOR>				
JR510	1-216-295-91	METAL GLAZE	0	5%	1/10W	
JR517	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R501	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R502	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R503	1-249-437-11	CARBON	47K	5%	1/4W	F
R504	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R505	1-249-393-11	CARBON	10	5%	1/4W	F
R506	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R507	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R508	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R509	1-216-687-11	METAL CHIP	33K	0.50%	1/10W	
R510	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R511	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R512	1-218-761-11	METAL CHIP	240K	0.50%	1/10W	
R513	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R514	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R515	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R516	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R517	1-218-762-11	METAL CHIP	270K	0.50%	1/10W	
R518	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R519	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R520	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R521	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R522	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R523	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R524	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R525	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R526	1-216-079-00	METAL GLAZE	18K	5%	1/10W	
R527	1-249-437-11	CARBON	47K	5%	1/4W	F
R528	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R529	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R530	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R531	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R532	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R533	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R534	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R535	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R536	1-212-881-11	FUSIBLE	100	5%	1/4W	F
R537	1-215-867-00	METAL OXIDE	470	5%	1W	F
R538	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R539	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R540	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R541	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R542	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R543	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R544	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R545	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R546	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R547	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R548	1-216-107-00	METAL GLAZE	270K	5%	1/10W	
R549	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R550	1-216-357-00	METAL OXIDE	4.7	5%	1W	F
R552	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R553	1-216-689-11	METAL GLAZE	39K	5%	1/10W	
R554	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R555	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R557	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R558	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R559	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R560	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R561	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R562	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R563	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R564	1-249-415-11	CARBON	680	5%	1/4W	F
R565	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R566	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R567	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R568	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R569	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R570	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R571	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R572	1-216-095-00	METAL GLAZE	82K	5%	1/10W	
R573	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R574	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R575	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R576	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R577	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R578	1-249-457-11	CARBON	6.8	5%	1/4W	F
R579	1-249-457-11	CARBON	6.8	5%	1/4W	F
R589	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R591	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R592	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R593	1-216-101-00	METAL GLAZE	150K	5%	1/10W	
R594	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R831	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R832	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R833	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R834	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R835	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R836	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R837	1-216-075-00	METAL GLAZE	12K	5%	1/10W	
R838	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R839	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R840	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R841	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R842	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R843	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R844	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R847	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R850	1-216-085-00	METAL GLAZE	33K	5%	1/10W	
R851	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W	
R852	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R853	1-216-105-00	METAL GLAZE	220K	5%	1/10W	
R854	1-218-754-11	METAL CHIP	120K	0.50%	1/10W	
R855	1-216-697-91	METAL CHIP	82K	0.50%	1/10W	
R856	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R857	1-216-686-11	METAL CHIP	30K	0.50%	1/10W	
R858	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R859	1-216-436-00	METAL OXIDE	3.9K	5%	1W	F
R860	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R861	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R862	1-216-675-11	METAL CHIP	10K	0.50%	1/10W	
R863	1-249-435-11	CARBON	33K	5%	1/4W	F

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The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

• The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION				REMARK
R1503	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1504	1-216-695-11	METAL CHIP	68K	0.50%	1/10W	
R1505	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R1506	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R1507	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1508	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1510	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1511	1-216-033-00	METAL GLAZE	220	5%	1/10W	
R1512	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1513	1-216-017-00	METAL GLAZE	47	5%	1/10W	
R1519	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1520	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1601	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1602	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R1603	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W	
R1604	1-249-433-11	CARBON	22K	5%	1/4W	F
R1605	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1606	1-216-070-00	METAL GLAZE	7.5K	5%	1/10W	
R1607	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1608	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1609	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1610	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1611	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1612	1-215-913-11	METAL OXIDE	220	5%	3W	F
R1613	1-216-025-00	METAL GLAZE	100	5%	1/10W	
R1614	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1615	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W	
R1616	1-216-629-11	METAL CHIP	120	0.50%	1/10W	
R1617	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R1618	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1620	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1621	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1622	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1623	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1624	1-216-246-91	METAL GLAZE	100K	5%	1/8W	
R1625	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1626	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1627	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1628	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1629	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1630	1-216-683-11	METAL CHIP	22K	0.50%	1/10W	
R1631	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R1632	1-216-042-00	METAL GLAZE	510	5%	1/10W	
R1633	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R1634	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R1635	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1636	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1640	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1641	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1642	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1643	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1644	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1645	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1646	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1647	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R1648	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1649	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1650	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1651	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1652	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1653	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1654	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R1655	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1656	1-216-643-11	METAL CHIP	470	0.50%	1/10W	
R1657	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
R1658	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1659	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1660	1-216-649-11	METAL CHIP	820	0.50%	1/10W	
R1661	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1691	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

<VARIABLE RESISTOR>

RV501	1-238-019-11	RES, ADJ, CARBON 47K	
RV502	1-241-765-11	RES, ADJ, CARBON 22K	
RV503	1-241-763-11	RES, ADJ, CERMET 4.7K	
RV504	1-224-250-XX	RES, ADJ, METAL GLAZE 2.2K	
RV505	1-241-759-21	RES, ADJ, CARBON 220	
RV507	1-241-628-11	RES, ADJ, CARBON 2.2K	
RV508	1-241-761-11	RES, ADJ, CARBON 1K	
RV509	1-241-768-11	RES, ADJ, CARBON 220K	
RV511	1-241-763-11	RES, ADJ, CARBON 4.7K	
RV512	1-241-763-11	RES, ADJ, CARBON 4.7K	
RV514	1-238-019-11	RES, ADJ, CARBON 47K	
RV515	1-241-768-11	RES, ADJ, CARBON 220K	
RV516	1-241-763-11	RES, ADJ, CERMET 4.7K	
RV517	1-241-760-11	RES, ADJ, CARBON 470	
RV518	1-241-763-11	RES, ADJ, CARBON 4.7K	
RV831	1-228-997-00	RES, ADJ, METAL GLAZE 100K	
RV832	1-241-764-11	RES, ADJ, CERMET 10K	
⊠RV833⚠		RES, ADJ, METAL GLAZE	
	*3-738-015-01	COVER, (DIA. 6) CARBON VR; RV833	
RV1601	1-241-762-11	RES, ADJ, CERMET 2.2K	
RV1602	1-241-761-11	RES, ADJ, CARBON 1K	
⊠RV1603⚠		RES, ADJ, METAL GLAZE	
	*3-738-015-01	COVER, (DIA. 6) CARBON VR; RV1603	

<RELAY>

RY1601	1-755-022-11	RELAY, POWER

<TRANSFORMER>

T1601	1-437-216-11	TRANSFORMER, DRIVE

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	*A-1371-782-A	HA BOARD,COMPLETE
		**********
	*4-348-208-00	HOLDER, LED

<CONNECTOR>

CN001	1-506-478-11	PIN, CONNECTOR 13P
CN002	*1-564-007-11	PIN, CONNECTOR 8P

<DIODE>

D001	8-719-920-05	DIODE SLP281C-50
D002	8-719-109-68	DIODE RD3.6ESB1

<RESISTOR>

JW009	1-216-295-91	METAL GLAZE	0	5%	1/10W
JW024	1-216-295-91	METAL GLAZE	0	5%	1/10W
R001	1-247-713-11	CARBON	1K	5%	1/4W

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R002	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R003	1-216-295-91	METAL GLAZE	0	5%	1/10W	
R004	1-216-081-00	METAL GLAZE	22K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV001	1-223-504-21	RES, VAR, CARBON 20K				
RV002	1-223-504-21	RES, VAR, CARBON 20K				
RV003	1-223-735-11	RES, VAR, CARBON 20K				
RV004	1-223-735-11	RES, VAR, CARBON 20K				
RV005	1-223-735-11	RES, VAR, CARBON 20K				
RV006	1-223-735-11	RES, VAR, CARBON 20K				
RV007	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
RV008	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
RV009	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
RV010	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
RV011	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
RV012	1-226-773-11	RES, ADJ, METAL GLAZE 22K				
		<SWITCH>				
S001	1-554-419-00	SWITCH, PUSH (1 KEY)				
S002	1-554-419-00	SWITCH, PUSH (1 KEY)				
S003	1-554-419-00	SWITCH, PUSH (1 KEY)				
S004	1-554-419-00	SWITCH, PUSH (1 KEY)				
S005	1-554-419-00	SWITCH, PUSH (1 KEY)				
S006	1-554-419-00	SWITCH, PUSH (1 KEY)				
**********						
	*A-1390-276-A	X BOARD, COMPLETE				
		**********				
		<CONNECTOR>				
CN21	*1-564-518-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D21	8-719-023-78	DIODE SEL3810DLC05				
D22	8-719-023-78	DIODE SEL3810DLC05				
D23	8-719-023-78	DIODE SEL3810DLC05				
**********						
	*A-1394-368-A	S BOARD, COMPLETE				
		**********				
		<CAPACITOR>				
C1101	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C1102	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1103	1-124-589-11	ELECT	47MF	20%	16V	
C1104	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C1105	1-163-114-00	CERAMIC CHIP	75PF	5%	50V	
C1106	1-163-101-00	CERAMIC CHIP	22PF	5%	50V	
C1107	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1108	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C1109	1-163-031-11	CERAMIC CHIP	0.01MF		50V	
C1110	1-163-117-00	CERAMIC CHIP	100PF	5%	50V	
C1111	1-163-018-00	CERAMIC CHIP	0.0056MF	10%	50V	
C1112	1-126-160-11	ELECT	1MF	20%	50V	
C1113	1-163-119-00	CERAMIC CHIP	120PF	5%	50V	
C1114	1-163-103-00	CERAMIC CHIP	27PF	5%	50V	
C1115	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1116	1-163-114-00	CERAMIC CHIP	75PF	5%	50V	
C1117	1-124-589-11	ELECT	47MF	20%	16V	
C1118	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	
C1119	1-163-020-00	CERAMIC CHIP	0.0082MF	10%	50V	
C1120	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C1121	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C1122	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V	
C1123	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C1130	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
C1131	1-163-097-00	CERAMIC CHIP	15PF	5%	50V	
		<CONNECTOR>				
CN1101	*1-565-488-11	CONNECTOR, BOARD TO BOARD 12P				
		<DIODE>				
D1101	8-719-404-46	DIODE MA110				
D1102	8-719-404-46	DIODE MA110				
		<IC>				
IC1101	8-752-056-67	IC CXA1214P				
		<COIL>				
L1101	1-408-411-00	INDUCTOR	15UH			
L1102	1-404-496-00	COIL				
L1103	1-404-496-00	COIL				
L1104	1-408-411-00	INDUCTOR	15UH			
L1110	1-412-008-31	INDUCTOR CHIP	15UH			
L1111	1-412-008-31	INDUCTOR CHIP	15UH			
		<TRANSISTOR>				
Q1101	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1102	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
Q1103	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1104	8-729-216-22	TRANSISTOR 2SA1162-G				
Q1105	8-729-901-01	TRANSISTOR DTC144EK				
Q1106	8-729-901-01	TRANSISTOR DTC144EK				
Q1107	8-729-109-44	TRANSISTOR 2SK94-X4				
Q1108	8-729-120-28	TRANSISTOR 2SC1623-L5L6				
		<RESISTOR>				
R1101	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1102	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W	
R1103	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1104	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1105	1-216-031-00	METAL GLAZE	180	5%	1/10W	
R1106	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1107	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W	
R1108	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1109	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W	
R1110	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1111	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1112	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W	
R1113	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1114	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W	
R1115	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1116	1-216-069-00	METAL GLAZE	6.8K	5%	1/10W	
R1117	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W	
R1118	1-216-073-00	METAL GLAZE	10K	5%	1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R1119	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1120	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R1121	1-216-121-00	METAL GLAZE	1M	5%	1/10W	
R1122	1-216-039-00	METAL GLAZE	390	5%	1/10W	
R1123	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W	
R1124	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1125	1-216-029-00	METAL GLAZE	150	5%	1/10W	
R1126	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W	
R1127	1-216-043-00	METAL GLAZE	560	5%	1/10W	
R1128	1-216-049-00	METAL GLAZE	1K	5%	1/10W	
R1129	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
R1131	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1132	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1133	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R1134	1-216-091-00	METAL GLAZE	56K	5%	1/10W	
		<VARIABLE RESISTOR>				
RV1101	1-241-763-11	RES, ADJ, CARBON 4.7K				
RV1102	1-241-628-11	RES, ADJ, CARBON 2.2K				
		<TRANSFORMER>				
T1101	1-404-584-11	COIL				
**********						
		G BOARD (SOPS-1021(A))				
		*******				
	4-812-134-11	RIVET NYLON, 3.5φ				
		<CAPACITOR>				
C602 ⚠	1-136-889-11	METALIZED FILM 0.22MF		20%	250V	
C603 ⚠	1-161-741-00	CERAMIC 0.001MF B		10%	400V	
C604 ⚠	1-161-741-00	CERAMIC 0.001MF B		10%	400V	
C605 ⚠	1-161-741-00	CERAMIC 0.001MF B		10%	400V	
C608 ⚠	1-162-599-12	CERAMIC 0.0047MF		20%	400V	
C609 ⚠	1-162-599-12	CERAMIC 0.0047MF		20%	400V	
C610 ⚠	1-125-724-11	ELECT 180MF		20%	400V	
C611 ⚠	1-136-206-21	METALIZED FILM 0.033MF		10%	630V	
C612 ⚠	1-124-910-51	ELECT 47MF		20%	50V	
C613 ⚠	1-137-190-91	METALIZED FILM 0.22MF		5%	50V	
C614 ⚠	1-137-190-91	METALIZED FILM 0.22MF		5%	50V	
C615 ⚠	1-130-471-91	PE TEREPHTHALATE 0.001MF		5%	50V	
C616 ⚠	1-130-479-00	FILM 0.0047MF		5%	50V	
C651 ⚠	1-161-825-11	CERAMIC 220PF B		10%	500V	
C652 ⚠	1-128-486-51	ELECT 680MF		20%	50V	
C653 ⚠	1-128-485-51	ELECT 220MF		20%	50V	
C654 ⚠	1-130-483-91	PE TEREPHTHALATE 0.01MF		5%	50V	
		<CONNECTOR>				
CN610 ⚠	*1-560-436-11	HORIZONTAL PIN ASSY 3P				
CN651 ⚠	*1-564-518-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D201 ⚠	8-719-971-08	DIODE ESAC39M 06C				
D601 ⚠	8-719-510-27	DIODE D3SB60				
D602 ⚠	8-719-921-20	DIODE 1SS119TD				
D603 ⚠	8-719-981-47	DIODE ERA38-06TP1				
D604 ⚠	8-719-981-47	DIODE ERA38-06TP1				
D605 ⚠	8-719-113-44	DIODE RD20ES-T1B3				
D651 ⚠	8-719-971-08	DIODE ESAC39M 06C				
		<IC>				
IC601 ⚠	1-809-086-12	HIC CH-1018				
IC651 ⚠	8-759-908-15	IC TL431CLP				
PH601 ⚠	8-759-045-81	IC TLP732GR-LF2				
		<COIL>				
L601 ⚠	1-424-616-11	TRANSFORMER, LINE FILTER				
L602 ⚠	1-424-574-11	L.F.T				
L651 ⚠	1-424-255-41	COIL, CHOKE (MOLDE) 10UH				
L652 ⚠	1-424-615-11	COIL, CHOKE				
		<TRANSISTOR>				
Q601 ⚠	8-729-322-18	TRANSISTOR 2SK1402A				
		<RESISTOR>				
R601 ⚠	1-205-940-51	CEMENT	1.5	5%	5W	F
R602 ⚠	1-205-940-51	CEMENT	1.5	5%	5W	F
R603 ⚠	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R604 ⚠	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R605 ⚠	1-212-865-61	FUSIBLE	22	5%	1/4W	F
R606 ⚠	1-247-805-91	CARBON	82	5%	1/4W	
R607 ⚠	1-260-128-91	CARBON	270K	5%	1/2W	
R608 ⚠	1-260-128-91	CARBON	270K	5%	1/2W	
R609 ⚠	1-215-904-51	METAL OXIDE	100K	5%	2W	F
R610 ⚠	1-207-455-11	WIRE	0.22	10%	1/2W	
R611 ⚠	1-249-395-11	CARBON(SMALL)	15	5%	1/4W	
R612 ⚠	1-247-795-91	CARBON	33	5%	1/4W	
R613 ⚠	1-215-904-51	METAL OXIDE	100K	5%	2W	F
R614 ⚠	1-247-815-91	CARBON	220	5%	1/4W	
R620 ⚠	1-218-265-11	METAL OXIDE	8.2M	5%	1W	
R651 ⚠	1-215-886-51	METAL OXIDE	100	5%	2W	F
R652 ⚠	1-215-886-51	METAL OXIDE	100	5%	2W	F
R653 ⚠	1-260-107-91	CARBON	4.7K	5%	1/2W	
R654 ⚠	1-260-107-91	CARBON	4.7K	5%	1/2W	
R655 ⚠	1-247-867-91	CARBON	33K	5%	1/4W	
R656 ⚠	1-247-867-91	CARBON	33K	5%	1/4W	
R657 ⚠	1-247-837-91	CARBON	1.8K	5%	1/4W	
R658 ⚠	1-249-435-11	CARBON(SMALL)	33K	5%	1/4W	
		<VARIABLE RESISTOR>				
⊠RV651 ⚠	1-237-443-11	RES, ADJ, CARBON 1K				
		<TRANSFORMER>				
T601 ⚠	1-450-760-11	TRANSFORMER, CONVERTER				
**********						
		MISCELLANEOUS				
		**********				
	⚠ 1-413-720-24	SWITCHING REGULATOR (SOPS-1021(A))				
	⚠ 1-426-043-12	COIL, DEGAUSSING				
	⚠ 1-451-319-22	DEFLECTION YOKE (Y9FXC)				
	1-452-126-11	MAGNET				
	1-544-252-11	SPEAKER				
	⚠ 1-576-232-11	FUSE (H.B.C.) (5.0A/250V)				
	1-690-871-11	CABLE (MINI DIN) 8P				

The components identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	1-941-866-12	CONNECTOR ASSY	
	1-941-913-02	CORE ASSY, FERRITE	
V901	⚠ 8-737-154-05	PICTURE TUBE (09NDX) (PVM-9041QM)	
V901	⚠ 8-737-651-05	PICTURE TUBE (09FX) (PVM-9044QM)	
	**********	**********	
		ACCESSORIES AND PACKING MATERIALS	
		**********	
⚠	1-590-910-11	CORD SET, POWER (10A/250V)	
	1-690-871-11	CABLE (MINI DIN) 8P	
	2-990-241-02	HOLDER (A), PLUG	
	3-170-078-01	HOLDER (B), PLUG	
	*3-704-301-01	BAG (STANDARD), PROTECTION	
	3-754-506-24	MANUAL, INSTRUCTION	
	4-034-835-01	PLATE, TALLY	
	*4-034-955-01	CUSHION (UPPER) (ASSY)	
	*4-034-956-01	CUSHION (LOWER) (ASSY)	
	*4-046-435-01	INDIVIDUAL CARTON (PVM-9041QM)	
	*4-046-436-01	INDIVIDUAL CARTON (PVM-9044QM)	

9-978-259-84

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