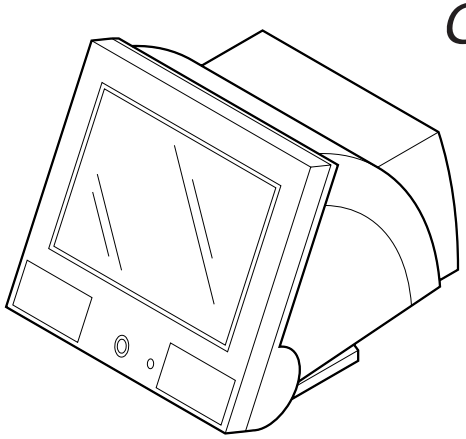
HMD-V200

SERVICE MANUAL

US Model
Canadian Model

Chassis No. SCC-L28B-A



HIT CHASSIS

SPECIFICATIONS

CRT	0.24 mm aperture grille pitch 17 inches measured diagonally 90-degree deflection FD Trinitron
Viewable image size	Approx. 327 × 243 mm (w/h) (12 7/8 × 9 5/8 inches) 16.0" viewing image
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 312 × 234 mm (w/h) (12 3/8 × 9 1/4 inches)
Deflection frequency*	Horizontal: 30 to 70 kHz Vertical: 48 to 120 Hz
Speaker	1W + 1W (max.)
Headphones output	Stereo minijack, impedance 8Ω
Audio input	3.5 mm stereo miniplug, input level 0.7 Vrms typical
AC input voltage/current	100 to 120 V, 50 – 60 Hz, 1.8 – 1.5 A
Power consumption	Max. 150 W
Dimensions	Approx. 411.5 × 390 × 474 mm (w/h/d) (16 1/4 × 15 3/8 × 18 3/4 inches) when tilted at a 25° angle
Mass	Approx. 22 kg (48 lb 8 oz)
Plug and Play	DDC1/DDC2B
Supplied accessories	Power cord (1) Windows Monitor Information Disk (1) Warranty card (1) Notes on cleaning the screen's surface (1) This instruction manual (1)

Preset mode timing table

No.	Resolution (dots × lines)	Horizontal Frequency	Vertical Frequency	Graphics Mode
1	640 × 400	31.5 kHz	70 Hz	MCGA
2	640 × 480	31.5 kHz	60 Hz	VGA
3	640 × 480	43.3 kHz	85 Hz	VESA
4	800 × 600	37.9 kHz	60 Hz	VESA
5	800 × 600	46.9 kHz	75 Hz	VESA
6	1024 × 768	60.0 kHz	75 Hz	VESA
7	1024 × 768	68.7 kHz	85 Hz	VESA
8	1152 × 864	54.9 kHz	60 Hz	ATI
9	1280 × 1024	64.0 kHz	59 Hz	VESA

* Recommended horizontal and vertical timing condition
- Horizontal sync width duty should be more than 4.8% of total horizontal time or 0.8 µsec, whichever is larger.
- Horizontal blanking width should be more than 2.5 µsec.
- Vertical blanking width should be more than 450 µsec.

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR GRAPHIC DISPLAY

SONY®

DIAGNOSIS

Failure	Power LED
HV Failure	Blink Amber (On 0.5 sec, Off 0.5 sec)
H Stop or V Stop (Included S-Cap), Thermal Failure	Blink Amber (On 1.5 sec, Off 0.5 sec)
ABL Failure	Blink Amber (On 0.5 sec, Off 1.5 sec)
Aging/Over Ride	Blink Green (On 0.5 sec, Off 0.5 sec) .... Blink Red (On 0.5 sec, Off 0.5 sec)

TIMING SPECIFICATION

PRIMARY MODE				PRIMARY					
MODE AT PRODUCTION	MODE 1	MODE 2	MODE 3	MODE 4	MODE 5	MODE 6	MODE 7	MODE 8	MODE 9
RESOLUTION	640 X 480	800 X 600	800 X 600	1024 X 768	1024 X 768	1280 X 1024	640 X 400	640 X 480	1152 X 864
CLOCK	36.000 MHZ	40.000 MHZ	49.500 MHZ	78.750 MHZ	94.500 MHZ	108.000 MHZ	25.175 MHZ	25.175 MHZ	80.000 MHZ
— HORIZONTAL —									
H-FREQ	43.269 kHz	37.879 kHz	46.875 kHz	60.023 kHz	68.677 kHz	63.981 kHz	31.469 kHz	31.469 kHz	54.945 kHz
	usec	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	23.111	26.400	21.333	16.660	14.561	15.630	31.778	31.778	18.200
H. BLK	5.333	6.400	5.172	3.657	3.725	3.778	6.356	6.356	3.800
H. FP	1.556	1.000	0.323	0.203	0.508	0.444	0.636	0.636	0.800
H. SYNC	1.556	3.200	1.616	1.219	1.016	1.037	3.813	3.813	1.400
H. BP	2.222	2.200	3.232	2.235	2.201	2.296	1.907	1.907	1.600
H. ACTIV	17.778	20.00	16.162	13.003	10.836	11.852	25.422	25.422	14.400
— VERTICAL —									
V. FREQ(HZ)	85.008 Hz	60.317 Hz	75.000 Hz	75.029 Hz	84.997 Hz	60.020 Hz	70.086 Hz	59.940 Hz	59.984 Hz
	lines	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	509	628	625	800	808	1066	449	525	916
V. BLK	29	28	25	32	40	42	49	45	52
V. FP	1	1	1	1	1	1	12	10	6
V. SYNC	3	4	3	3	3	3	2	2	5
V. BP	25	23	21	28	36	38	35	33	41
V. ACTIV	480	600	600	768	768	1024	400	480	864
— SYNC —									
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO	NO
EXT(H/V)/POLARITY	YES N/N	YES P/P	YES P/P	YES P/P	YES P/P	YES P/P	YES N/P	YES N/N	YES P/P
EXT(CS)/POLARITY	NO	NO	NO	NO	NO	NO	NO	NO	NO
INT/NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT	NON INT

99.4.20 VER.

Power saving function

This monitor meets the power-saving guidelines set by VESA, ENERGY STAR, and NUTEK. If the monitor is connected to a computer or graphics board that is DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown right.

When your computer enters a power saving mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After a few seconds, the monitor also enters the power saving mode.

* Even if you turn the power off, the ⏻ (power) indicator remains lit for a few seconds.

Power mode	Power consumption*	⏻ (power) indicator
normal operation	≤ 150 W	green
1 suspend	≤ 15 W	green and orange alternate
2 active off	≤ 2 W	orange
power off*	0 W	off

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC Leakage. Check leakage as described below.

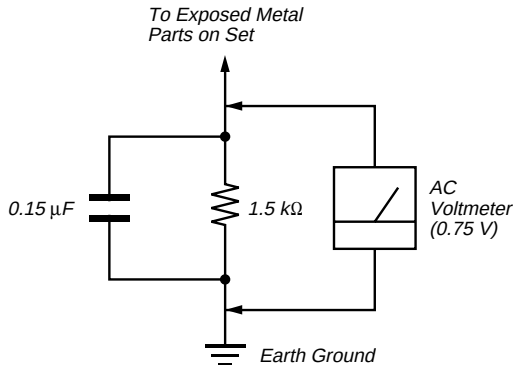


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

WARNING!!

NEVER TURN ON THE POWER IN A CONDITION IN WHICH THE DEGAUSS COIL HAS BEEN REMOVED.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR 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 FOR SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

AVERTISSEMENT!!

NE JAMAIS METTRE SOUS TENSION QUAND LA BOBINE DE DEMAGNETISATION EST ENLEVÉE.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SONT CRITIQUES POUR LA SÉCURITÉ. NE LES REMPLACER QUE PAR UNE PIÈCE PORTANT LE NUMÉRO SPECIFIÉ. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

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.

Precautions

Warning on power connections

- Use the supplied power cord. If you use a different power cord, be sure that it is compatible with your local power supply.
  For the customers in the U.S.A.
  If you do not use the appropriate cord, this monitor will not conform to mandatory FCC standards.

Example of plug types

for 100 to 120 V AC for 200 to 240 V AC

- Before disconnecting the power cord, wait at least 30 seconds after turning off the power to allow the static electricity on the screen's surface to discharge.
- After the power is turned on, the screen is demagnetized (degaussed) for about 3 seconds. This generates a strong magnetic field around the screen which may affect data stored on magnetic tapes and disks placed near the monitor. Be sure to keep magnetic recording equipment, tapes, and disks away from the monitor.

The equipment should be installed near an easily accessible outlet.

Installation

Do not install the monitor in the following places:

- on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies, etc.) that may block the ventilation holes
- near heat sources such as radiators or air ducts, or in a place subject to direct sunlight
- in a place subject to severe temperature changes
- in a place subject to mechanical vibration or shock
- on an unstable surface
- near equipment which generates magnetism, such as a transformer or high voltage power lines
- near or on an electrically charged metal surface

Maintenance

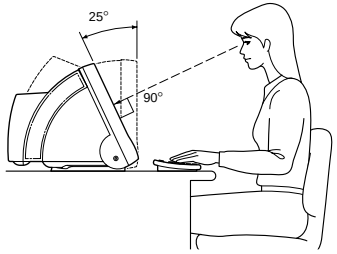
- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the screen's coating.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ballpoint pen or screwdriver. This type of contact may result in a scratched picture tube.
- Clean the cabinet, panel and controls with a soft cloth lightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent, such as alcohol or benzene.

Transportation

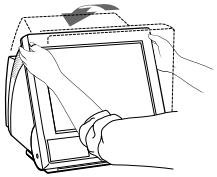
When you transport this monitor for repair or shipment, use the original carton and packing materials.

Positioning your monitor

This monitor is ergonomically designed to reduce eye and muscle fatigue by allowing you to view the screen in a relaxed position. To adjust the monitor correctly, place it in front of you and tilt the screen backwards (max. 25°) until your line of sight is at a right angle to the screen.



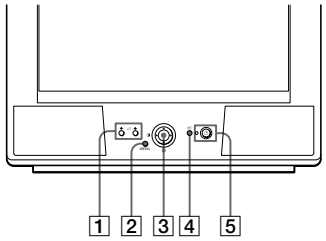
When adjusting the monitor, hold it at the top with both hands as shown below.



Identifying parts and controls

See the pages in parentheses for further details..

Front



1 Volume buttons
These buttons adjust speaker volume.

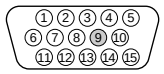
2 MENU button (page 9)
This button is used to display the menu.

3 Control button (page 9)
The control button is used to make adjustments to the monitor, including brightness and contrast adjustments.

4 (mute) button
This button mutes sound. To restore sound, press the (mute) button again or press the Volume Up button.

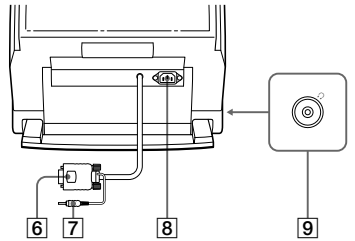
5 (power) switch and indicator (pages 7, 13, 16)
This button turns the monitor on and off. The power indicator lights up in green when the monitor is turned on, and either flashes in green and orange, or lights up in orange when the monitor is in power saving mode.

6 Video signal cable (HD15) (page 6)
The connector of the cable inputs RGB video signals (0.700 Vp-p, positive) and sync signals.



Pin No.	Signal
1	Red
2	Green
3	Blue
4	ID (Ground)
5	DDC Ground*
6	Red Ground
7	Green Ground
8	Blue Ground

Rear



Pin No.	Signal
9	–
10	Ground
11	ID (Ground)
12	Bi-Directional Data (SDA)*
13	H. Sync
14	V. Sync
15	Data Clock (SCL)*

* DDC (Display Data Channel) is a standard of VESA.

7 Audio plug (page 6)
This stereo audio plug inputs audio signals.

8 AC IN connector (page 7)
This connector provides AC power to the monitor.

9 Headphones jack
Standard mini-plug headphones can be connected. The speakers are turned off when headphones are connected.

1-1

US

Setup

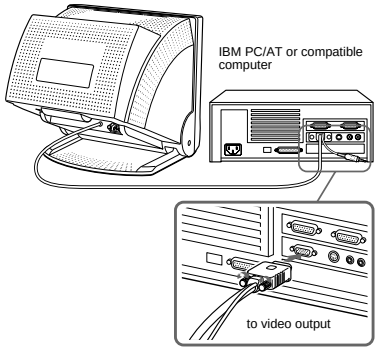
Before using your monitor, check that the following accessories are included in your carton:

- Power cord (1)
- Windows Monitor Information Disk (1)
- Warranty card (1)
- Notes on cleaning the screen's surface (1)
- This instruction manual (1)

Step 1: Connect your monitor to your computer

Turn off the monitor and computer before connecting.

■ Connecting to an IBM PC/AT or compatible computer

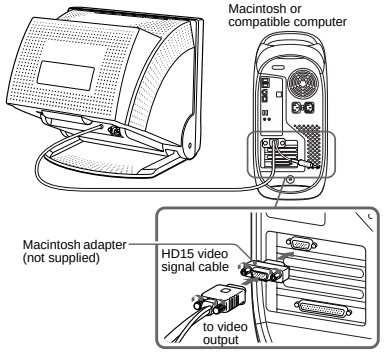


Note

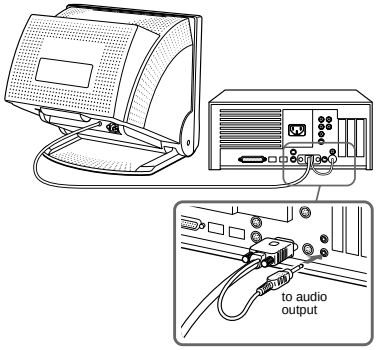
Do not touch the pins of the video cable connector as this might bend the pins.

■ Connecting to a Macintosh

Use a Macintosh adapter (not supplied).

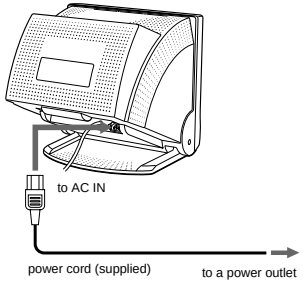


■ Connecting the audio plug



Step 2: Connect the power cord

With the monitor and computer switched off, first connect the power cord to the monitor, then connect it to a power outlet.



Step 3: Turn on the monitor and computer

First turn on the monitor, then turn on the computer.

The installation of your monitor is complete.
If necessary, use the monitor's controls to adjust the picture.

If no picture appears on your screen

- Check that the monitor is correctly connected to the computer.
- If NO INPUT SIGNAL appears on the screen, check the connections, and confirm that your computer's graphics board is completely seated in the correct bus slot.
- If you are replacing an old monitor with this model and OUT OF SCAN RANGE appears on the screen, reconnect the old monitor. Then adjust the computer's graphics board so that the horizontal frequency is between 30 – 70 kHz and the vertical frequency is between 48 – 120 Hz.

For more information about the on-screen messages, see "Trouble symptoms and remedies" on page 14.

US

For customers using Windows 95/98

To maximize the potential of your monitor, install the new model information file from the supplied Windows Monitor Information Disk onto your PC.
This monitor complies with the "VESA DDC" Plug & Play standard. If your PC/graphics board complies with DDC, select "Plug & Play Monitor (VESA DDC)" or this monitor's model name as the monitor type in the "Control Panel" of Windows 95/98. If your PC/graphics board has difficulty communicating with this monitor, load the Windows Monitor Information Disk and select this monitor's model name as the monitor type.

For customers using Windows NT4.0

Monitor setup in Windows NT4.0 is different from Windows 95/98 and does not involve the selection of monitor type. Refer to the Windows NT4.0 instruction manual for further details on adjusting the resolution, refresh rate, and number of colors.

Adjusting the monitor's resolution and color number

Adjust the monitor's resolution and color number by referring to your computer's instruction manual. The color number may vary according to your computer or video board. The color palette setting and the actual number of colors are as follows:

- High Color (16 bit) → 65,536 colors
- True Color (24 bit) → about 16.77 million colors

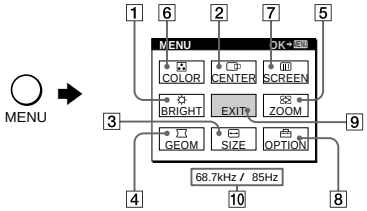
In true color mode (24 bit), speed may be slower.

Customizing Your Monitor

You can make numerous adjustments to your monitor using the on-screen menu. To change the menu language, see OPTION on page 12.

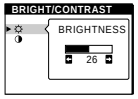
Navigating the menu

Press the MENU button to display the main MENU on your screen. See page 9 for more information on using the buttons.

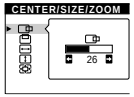


Use the control button to select one of the following menus.

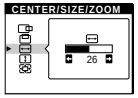
1 BRIGHT (page 9)
Select the BRIGHTmenu to adjust the picture's brightness and contrast.



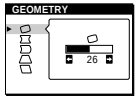
2 CENTER (page 9)
Select the CENTER menu to adjust the picture's centering.



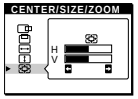
3 SIZE (page 9)
Select the SIZE menu to adjust the picture's horizontal and vertical size.



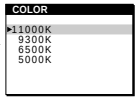
4 GEOM (page 10)
Select the GEOM menu to adjust the picture's rotation and shape.



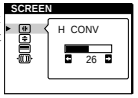
5 ZOOM (page 10)
Select the ZOOM menu to enlarge or reduce the picture.



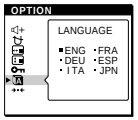
6 COLOR (page 10)
Select the COLOR menu to adjust the picture's color temperature. You can use this to match the monitor's colors to a printed picture's colors.



7 SCREEN (page 11)
Select the SCREEN menu to adjust the picture's quality. You can adjust the vertical and horizontal convergence, landing, and moire cancellation effect.



8 OPTION (page 11)
Select OPTION to adjust the monitor's options. The options include:
- increasing the bass
- degaussing the screen
- changing the on-screen menu position
- locking the controls
- changing the menu language
- resetting the adjustments

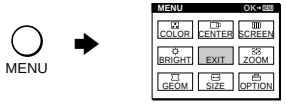


9 EXIT
Select EXIT to close the menu.

10 The horizontal and vertical frequencies of the current input signal

■ Using the buttons

1 Press the MENU button.
The main MENU appears on the screen.



2 Select the menu you want to adjust.
Move the control button up, down, left, or right to highlight the desired menu. Press the MENU button to select the menu item.

3 Adjust the menu.
Press the control button up or down to select the desired adjustment item, then press the control button left or right to make the adjustment.

4 Close the menu.
Press the MENU button once to return to the main menu, and twice to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 30 seconds.

■ Resetting the adjustments

Select the RESET menu. See page 12 for more information on resetting the adjustments.

Adjusting the brightness and contrast

Brightness and contrast adjustments can be made directly using the control button.
Press the control button up or down to adjust the brightness and left or right to adjust the contrast.
The adjustments also can be made using the menu.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight ☼ BRIGHT and press the MENU button again.
The BRIGHT/CONTRAST menu appears on the screen.

3 Press the control button up or down to select ☼ (brightness) or ◑ (contrast).

4 Press the control button left or right to make the adjustment.

Adjusting the centering of the picture (CENTER)

US

This setting is stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight CENTER and press the MENU button.
The CENTER menu appears on the screen.

3 Press the control button up or down to select (vertical centering) or (horizontal centering).

4 Press the control button left or right to make the adjustment.

Adjusting the size of the picture (SIZE)

This setting is stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight SIZE and press the MENU button.
The SIZE menu appears on the screen.

3 Press the control button up or down to select (vertical size) or (horizontal size).

4 Press the control button left or right to make the adjustment.

Enlarging or reducing the picture (ZOOM)

This setting is stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight ZOOM and press the MENU button.
The ZOOM menu appears on the screen.

3 Press the control button left or right to enlarge or reduce the picture.

Note
Adjustment stops when either the horizontal or vertical size reaches its maximum or minimum value.

Adjusting the shape of the picture (GEOM)

The GEOM settings allow you to adjust the rotation and shape of the picture.
The rotation setting is stored in memory for all input signals. All other settings are stored in memory for the current input signal.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight GEOM and press the MENU button.
The GEOMETRY menu appears on the screen.

3 First press the control button up or down to select the desired adjustment item. Then press the control button left or right to make the adjustment.

Select	To
ROTATION	rotate the picture
PINCUSHION	expand or contract the picture sides
PIN BALANCE	shift the picture sides to the left or right
KEYSTONE	adjust the picture width at the top of the screen
KEY BALANCE	shift the picture to the left or right at the top of the screen

Adjusting the color of the picture (COLOR)

The COLOR settings allow you to adjust the picture's color temperature by changing the color level of the white color field. Colors appear reddish if the temperature is low, and bluish if the temperature is high. This adjustment is useful for matching the monitor's colors to a printed picture's colors.
This setting is stored in memory for all input signals.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight COLOR and press the MENU button.
The COLOR menu appears on the screen.

3 Press the control button up and down to select a color temperature.
The preset color temperatures are 5000K, 6500K, 9300K and 11000K. Since the default setting is 9300K, the whites will change from a bluish hue to a reddish hue as the temperature is lowered to 6500K and 5000K, or from a reddish hue to a bluish hue as it is heightened to 11000K.

Adjusting the quality of the picture (SCREEN)

The SCREEN settings allow you to adjust the quality of the picture by controlling the convergence, moire, and landing.
- If you see red or blue shadows around letters or lines, adjust the convergence.
- If elliptical or wavy patterns appear on the screen, cancel the moire.
- If the color is irregular, adjust the landing.

The CANCEL MOIRE setting is stored in memory for the current input signal. All other settings are stored in memory for all input signals.

1 Press the MENU button.
The main MENU appears on the screen.

2 Move the control button to highlight SCREEN and press the MENU button.
The SCREEN menu appears on the screen.

3 First press the control button up or down to select the desired adjustment item. Then press the control button left or right to make the adjustment.

Select	To
H CONV	horizontally shift red or blue shadows
V CONV	vertically shift red or blue shadows
LANDING	reduce any irregularities in the color to a minimum
CANCEL MOIRE*	adjust the degree of moire cancellation until the moire is at a minimum

* Moire is a type of natural interference which produces soft, wavy lines on your screen. It may appear due to interference between the pattern of the picture on the screen and the phosphor pitch pattern of the monitor.

Example of moire

Note
The picture may become fuzzy when the moire is cancelled.

Additional settings (OPTION)

You can increase the bass level of the speakers, manually degauss (demagnetize) the monitor, change the menu position, lock the controls and change the menu language.

1 Press the MENU button.
The main MENU appears on the screen.

2 Press the control button to highlight OPTION and press the MENU button.
The OPTION menu appears on the screen.

3 Press the control button up and down to highlight the desired adjustment item.
Adjust the selected item according to the following instructions.

Activating bass boost

Activate bass boost to increase the bass level of the speakers.
To activate the bass boost, first press the control button up or down to select +(BASS BOOST). Then press the control button to the right to turn bass boost ON.

Degaussing the screen

The monitor is automatically demagnetized when the power is turned on.
To manually degauss the monitor, first press the control button up or down to select (MANUAL DEGAUSS). Then press the control button to the right.
The screen is degaussed for about 3 seconds. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

Changing the menu's position.

Change the menu's position if it is blocking an image on the screen.
To change the menu's on-screen position, first press the control button up or down to select (OSD H POSITION) for horizontal adjustment, or (OSD V POSITION) for vertical adjustment. Then press the control button left or right to shift the on-screen menu.

Locking the controls.

To protect adjustment data by locking the controls, first press the control button up or down to select (CONTROL LOCK). Then press the control button to the right to select ON.
Only the (power) switch, (mute) button, EXIT, and (CONTROL LOCK) of the OPTION menu will operate. If any other items are selected, the mark appears on the screen.

To cancel the control lock
Repeat the procedure above and set (CONTROL LOCK) to OFF.

Selecting the on-screen menu language (LANGUAGE)

English, French, German, Spanish, Italian, and Japanese versions of the on-screen menus are available. The default setting is English.

To change the menu language, first press the control button up or down to select (LANGUAGE). Then press the control button left or right to select a language.

Resetting the adjustments

This monitor has the following two reset methods. Use the RESET menu to reset the adjustments.

CURRENT MODE
This option resets adjustments and settings except for + (BASS BOOST) and the on-screen menu position.

ALL DATA
This option resets all adjustments and settings to the factory settings.

To reset the adjustments

1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the control button to highlight OPTION and press the MENU button.**
The OPTION menu appears on the screen.

3 **Press the control button up and down to select (RESET), then press the control button to the right.**

4 **Press the control button up and down to select CURRENT MODE or ALL DATA, then press the control button to the right.**
The adjustments for the selected mode are reset to the factory settings.

Technical Features

Preset and user modes

When the monitor receives an input signal, it automatically matches the signal to one of the factory preset modes stored in the monitor's memory to provide a high quality picture at the center of the screen. (See Appendix for a list of the factory preset modes.) For input signals that do not match one of the factory preset modes, the digital Multiscan technology of this monitor ensures that a clear picture appears on the screen for any timing in the monitor's frequency range. If the picture is adjusted, the adjustment data is stored as a user mode and automatically recalled whenever the same input signal is received.

Note on sync signals

Input the sync signal as HD/VD separate or composite format. This monitor does not accept sync on green.

Note for Windows users

For Windows users, check your video board manual or the utility program which comes with your graphics board and select the highest available refresh rate to maximize monitor performance.

Power saving function

This monitor meets the power-saving guidelines set by VESA, ENERGY STAR, and NUTEK. If the monitor is connected to a computer or graphics board that is DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown below.

Power mode	Power consumption*	(power) indicator
normal operation	≤ 150 W	green
1 suspend	≤ 15 W	green and orange alternate
2 active off	≤ 2 W	orange
power off*	0 W	off

When your computer enters a power saving mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After a few seconds, the monitor also enters the power saving mode.

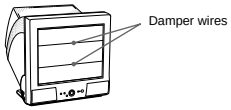
* Even if you turn the power off, the (power) indicator remains lit for a few seconds.

Troubleshooting

Before contacting technical support, refer to this section.

If thin lines appear on your screen (damper wires)

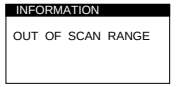
The lines you are experiencing on your screen are normal for the Trinitron monitor and are not a malfunction. These are shadows from the damper wires used to stabilize the aperture grille and are most noticeable when the screen's background is light (usually white). The aperture grille is the essential element that makes a Trinitron picture tube unique by allowing more light to reach the screen, resulting in a brighter, more detailed picture.



On-screen messages

US

If there is something wrong with the input signal, one of the following messages appears on the screen. To solve the problem, see "Trouble symptoms and remedies" on page 14.



The input signal condition

OUT OF SCAN RANGE
indicates that the input signal is not supported by the monitor's specifications.

NO INPUT SIGNAL
indicates that no signal is input to the monitor.

Trouble symptoms and remedies

If the problem is caused by the connected computer or other equipment, please refer to the connected equipment's instruction manual. Use the self-diagnosis function (page 16) if the following recommendations do not resolve the problem.

Symptom	Check these items
No picture	
If the ⏻ (power) indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the NO INPUT SIGNAL message appears on the screen, or if the ⏻ (power) indicator is either orange or alternating between green and orange	• Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets. • Check that the HD15 video input connector's pins are not bent or pushed in. **■Problems caused by the connected computer or other equipment** • The computer is in power saving mode. Try pressing any key on the computer keyboard. • Check that your computer's power is "on." • Check that your computer's graphics board is completely seated in the proper bus slot.
If the OUT OF SCAN RANGE message appears on the screen	**■Problems caused by the connected computer or other equipment** • Check that the video frequency range is within that specified for the monitor. If you replaced an old monitor with this monitor, reconnect the old monitor and adjust the frequency range to the following. Horizontal: 30 – 70 kHz Vertical: 48 – 120 Hz
If no message is displayed and the ⏻ (power) indicator is green or flashing orange	• Use the Self-diagnosis function (page 16).
If using Windows 95/98	• If you replaced an old monitor with this monitor, reconnect the old monitor and do the following. Install the Windows Monitor Information Disk (page 7) and select this monitor ("HMD-V200") from among the Sony monitors in the Windows 95/98 monitor selection screen.
If using a Macintosh system	• Check that the Macintosh adapter and the video signal cable are properly connected (page 6).
Picture flickers, bounces, oscillates, or is scrambled	• Isolate and eliminate any potential sources of electric or magnetic fields such as other monitors, laser printers, electric fans, fluorescent lighting, or televisions. • Move the monitor away from power lines or place a magnetic shield near the monitor. • Try plugging the monitor into a different AC outlet, preferably on a different circuit. • Try turning the monitor 90° to the left or right. **■Problems caused by the connected computer or other equipment** • Check your graphics board manual for the proper monitor setting. • Confirm that the graphics mode (VESA, Macintosh 21" Color, etc.) and the frequency of the input signal are supported by this monitor (Appendix). Even if the frequency is within the proper range, some graphics boards may have a sync pulse that is too narrow for the monitor to sync correctly. • Adjust the computer's refresh rate (vertical frequency) to obtain the best possible picture.
Picture is fuzzy	• Adjust the brightness and contrast (page 9). • Degauss the monitor* (page 11). • If you adjust CANCEL MOIRE, the picture may become fuzzy. Decrease the moire cancellation effect (page 11).

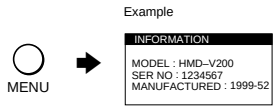
Symptom	Check these items
Picture is ghosting	• Eliminate the use of video cable extensions and/or video switch boxes. • Check that all plugs are firmly seated in their sockets.
Picture is not centered or sized properly	• Adjust the size (page 9) or centering (page 9). Note that some video modes do not fill the screen to the edges.
Edges of the image are curved	• Adjust the geometry (page 10).
Wavy or elliptical pattern (moire) is visible	• Cancel the moire (page 11). **■Problems caused by the connected computer or other equipment** • Change your desktop pattern.
Color is not uniform	• Degauss the monitor* (page 11). If you place equipment that generates a magnetic field, such as a speaker, near the monitor, or if you change the direction the monitor faces, color may lose uniformity. • Adjust the landing (page 11).
White does not look white	• Adjust the color temperature (page 10).
Letters and lines show red or blue shadows at the edges	• Adjust the convergence (page 11).
Monitor buttons do not operate	• If the control lock is set to ON, set it to OFF (page 11).
There is no sound	• Raise the volume. • If the 🔇 mark appears on the screen, press the 🔇 (mute) button to cancel the mute. • Unplug your headphones from the monitor.
A hum is heard right after the power is turned on	• This is the sound of the auto-degauss cycle. When the power is turned on, the monitor is automatically degaussed for three seconds.

* If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result. A humming noise may be heard, but this is not a malfunction.

US

Displaying this monitor's name, serial number, and date of manufacture.

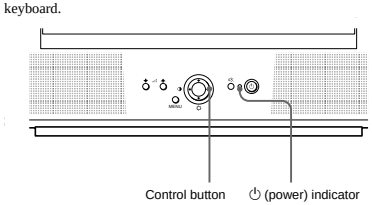
While the monitor is receiving a video signal, press and hold the MENU button for more than five seconds to display this monitor's information box.



If the problem persists, call your authorized Sony dealer and give the following information.
- Model name: HMD-V200
- Serial number
- Name and specifications of your computer and graphics board.

Self-diagnosis function

This monitor is equipped with a self-diagnosis function. If there is a problem with your monitor or computer(s), the screen will go blank and the ⏻ (power) indicator will either light up green or flash orange. If the ⏻ (power) indicator is lit in orange, the computer is in power saving mode. Try pressing any key on the keyboard.



If the ⏻ (power) indicator is green

1 **Disconnect the video signal cable, or turn off the connected computer.**

2 **Press the ⏻ (power) button to turn the monitor off and on.**

3 **Press the control button to the right for 5 seconds before the monitor enters power saving mode.**

If all four color bars appear (white, red, green, blue), the monitor is working properly. Reconnect the video signal cable and check the condition of your computer.

If the color bars do not appear, there is a potential monitor failure. Inform your authorized Sony dealer of the monitor's condition.

If the ⏻ (power) indicator is flashing orange

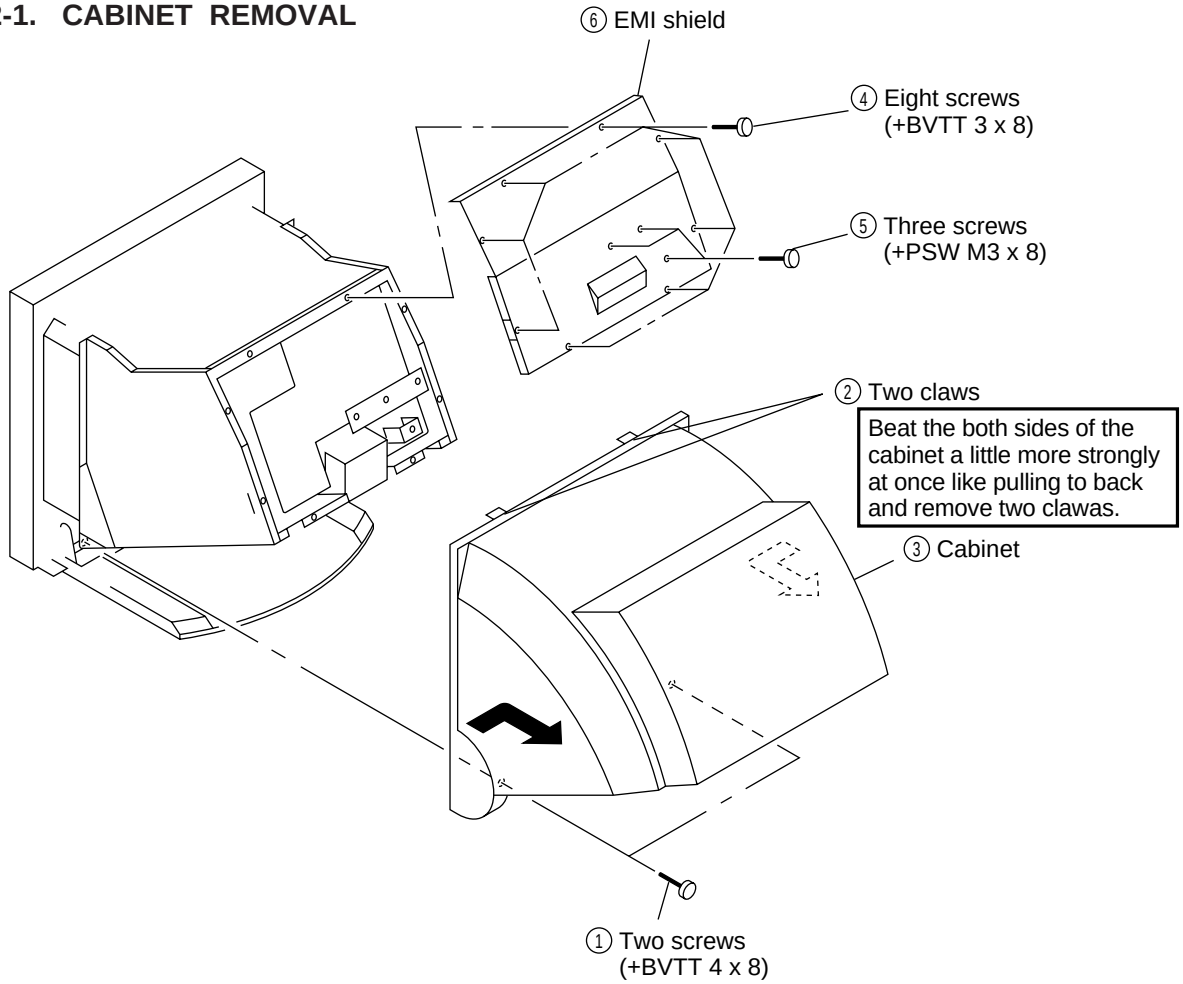
Press the ⏻ (power) button to turn the monitor off and on.
If the ⏻ (power) indicator lights up green, the monitor is working properly.

If the ⏻ (power) indicator is still flashing, there is a potential monitor failure. Count the number of seconds between orange flashes of the ⏻ (power) indicator and inform your authorized Sony dealer of the monitor's condition. Be sure to note the model name and serial number of your monitor. Also note the make and model of your computer and graphics board.

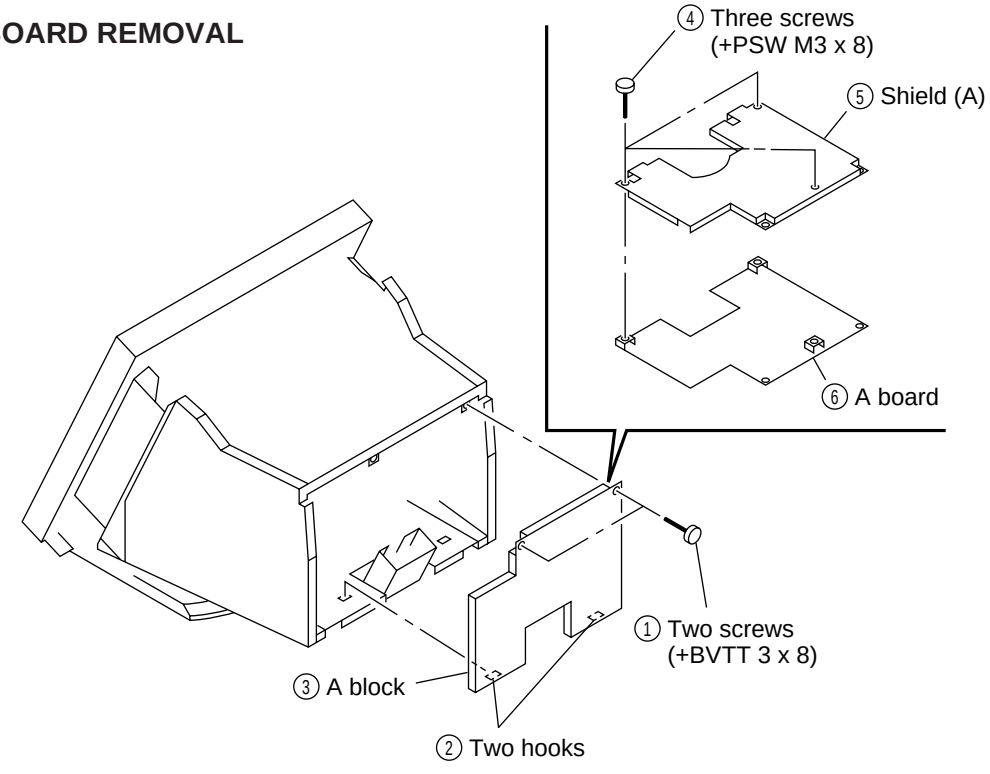
MEMO

SECTION 2
DISASSEMBLY

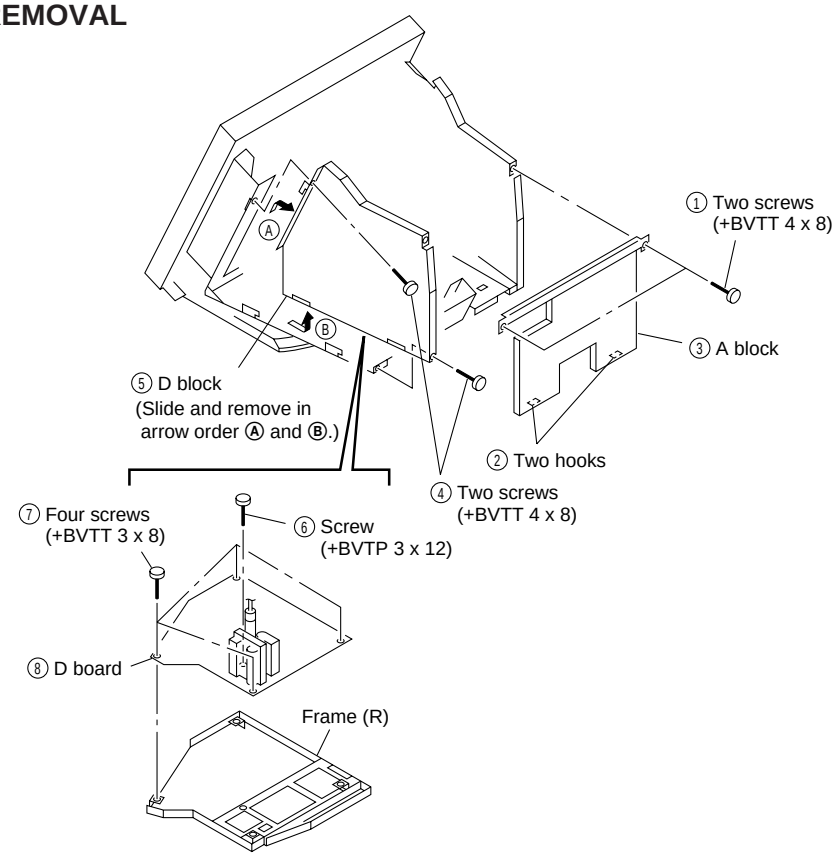
2-1. CABINET REMOVAL



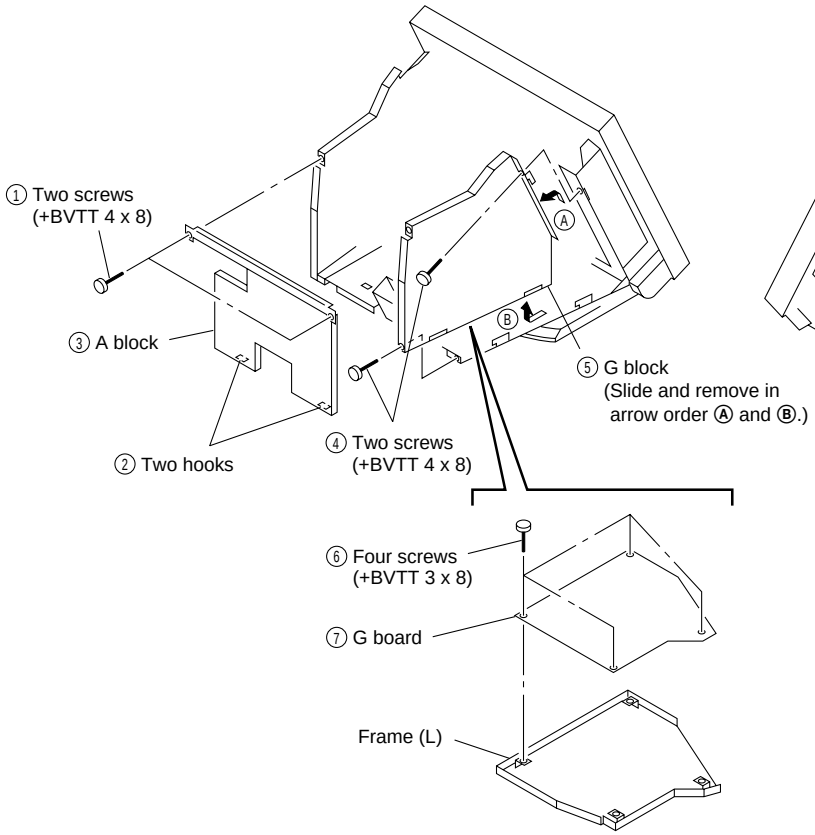
2-2. A BOARD REMOVAL



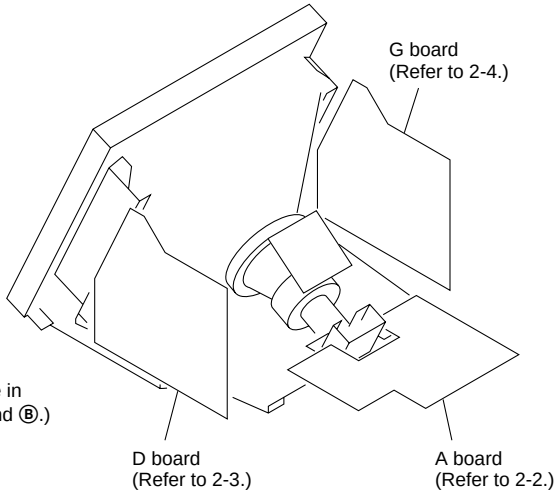
2-3. D BOARD REMOVAL



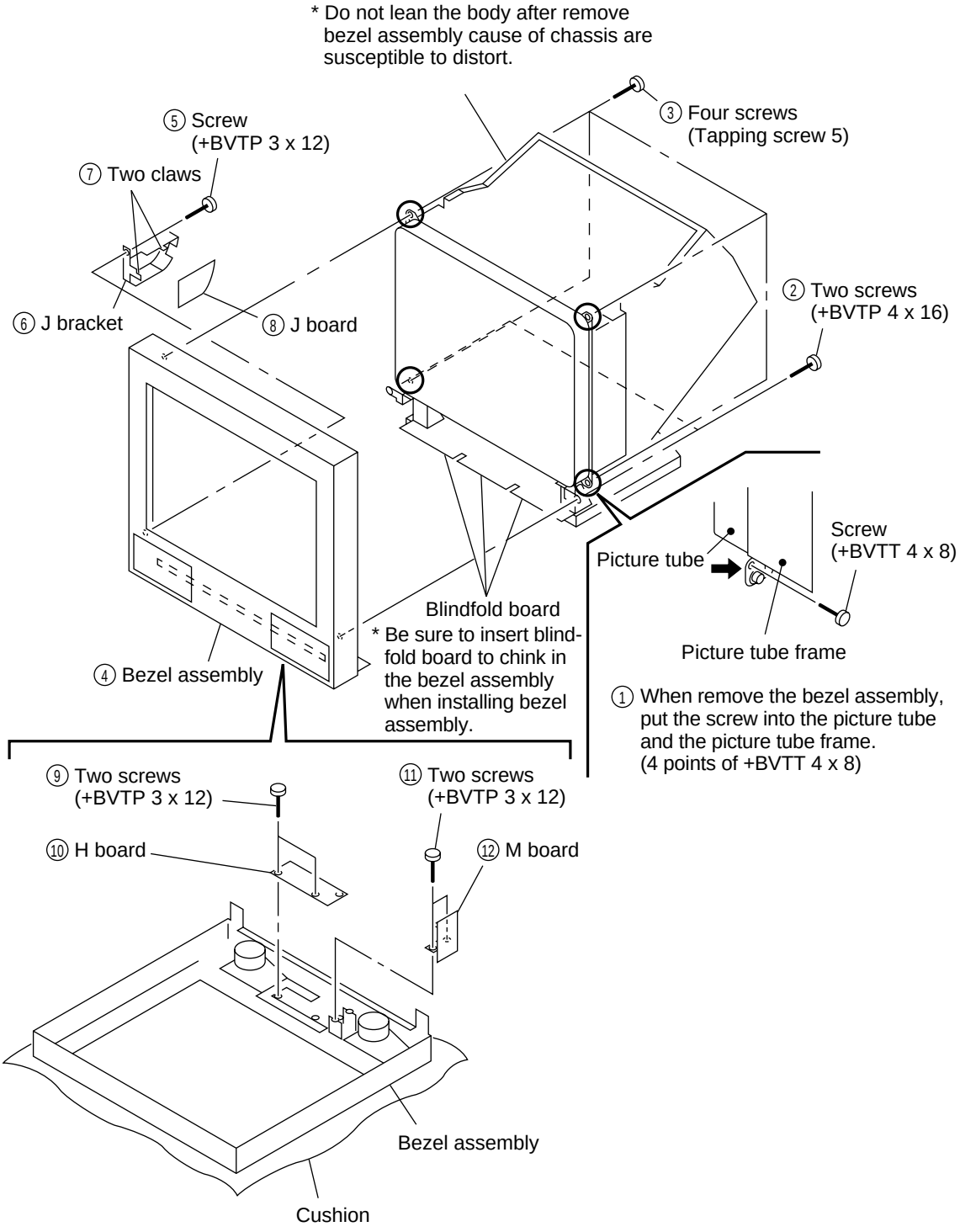
2-4. G BOARD REMOVAL



2-5. SERVICE POSITION



2-6. BEZEL ASSEMBLY, J, H AND M BOARDS REMOVAL

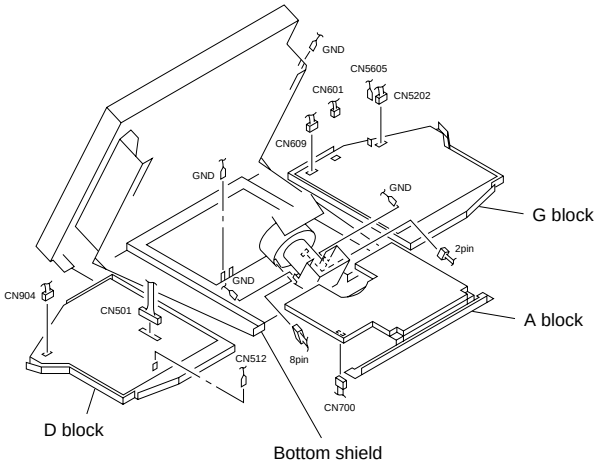


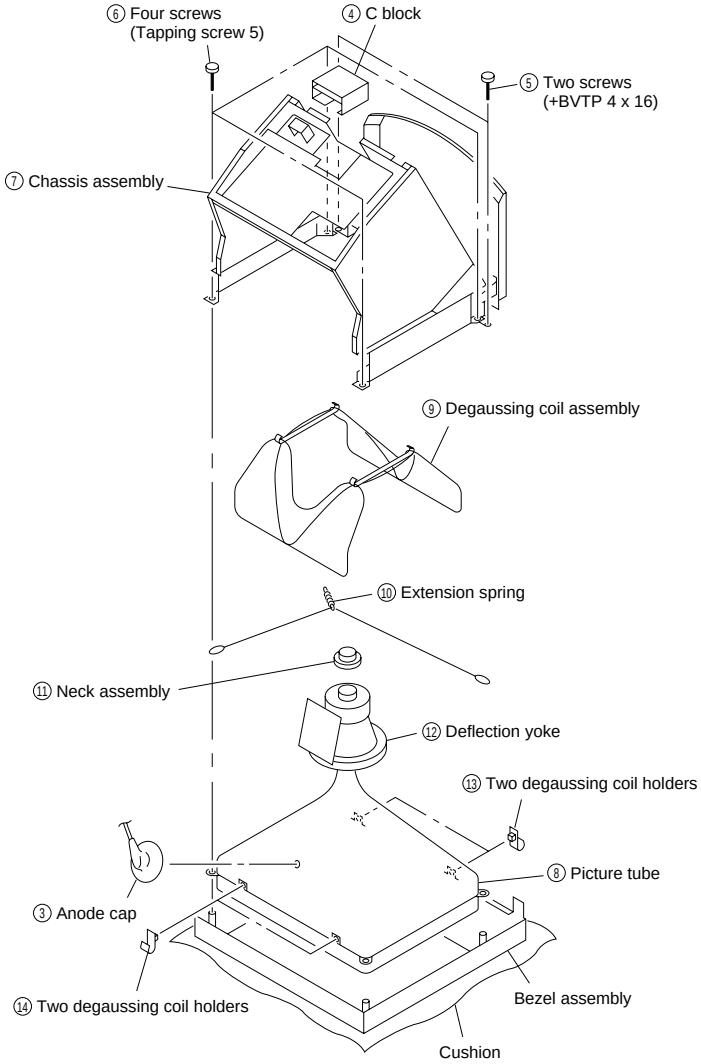
2-7. PICTURE TUBE REMOVAL

① Remove the connectors after removed A, D and G blocks.

* Cause of bottom shields are susceptible to distort as a precaution after remove D and G blocks.

② Assemble A, D, G blocks.

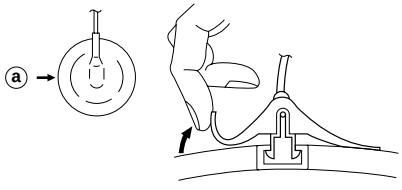




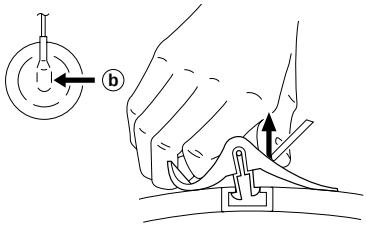
• REMOVAL OF ANODE-CAP

NOTE: 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.

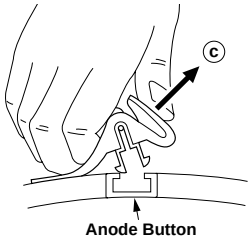
• REMOVING PROCEDURES



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 ⓑ.



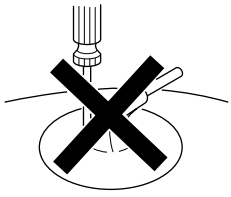
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

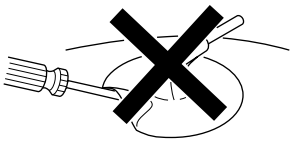
• HOW TO HANDLE AN ANODE-CAP

① Don't scratch the surface of anode-caps with shartp shaped material!

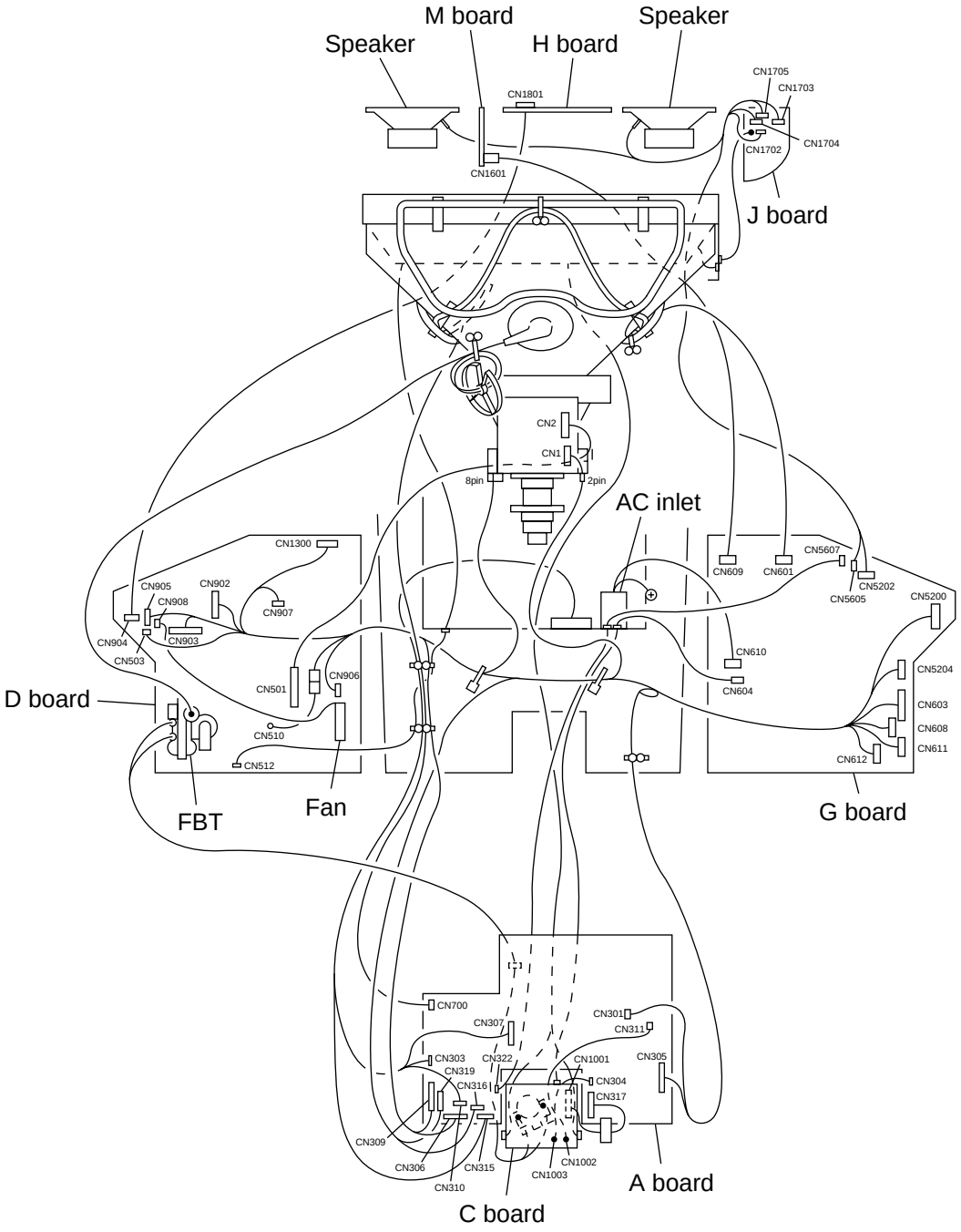
② Don't press the rubber hardly not to damege inside of anode-caps! A material fitting called as shatter-hook terminal is built in the rubber.

③ Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or damage the rubber.





2-8. HARNESS LOCATION



SECTION 3
SAFETY RELATED ADJUSTMENT

When replacing or repairing the shown below table, the following operational checks must be performed as a safety precaution against X-rays emissions from the unit.

	Part Replaced (⋈)
HV ADJ	RV501

	Part Replaced (◪)
HV Regulator Circuit Check	D board IC501, C532, C534, C539, C553, C554, C555, C556, C558, C561, R540, R541, R542, R544, R564, R567, R568, RV501, T501 (FBT)
HV Protector Circuit Check	D board IC901, D515, D517, C540, C542, C544, R524, R543, R547, R549, R552, R592 T501 (FBT) G board IC610
Beam Current Protector Circuit Check	D board IC901, D514, C535, C541, C928, R515, R545, R546, R548, R550, R934, T501 (FBT) G board IC604, IC610

* Confirm one minute later turning on the power.

- **HV Protector Circuit Check**

Confirm that the voltage between cathode of D517 on D board and GND is more than 32.0 V DC and Using external DC Power Supply, apply the voltage shown below between cathode of D517 and GND, and confirm that the HV HOLD DOWN circuite works. (TV Rester disappears)

Standard voltage : Less than 35.66 V DC

Check Condition

- Input voltage : 120 ± 2 V AC
- Input signal : Cross hatch (White lines on black) at 69.0kHz
- Beam control : CONT : 255 (max), BRT : 128

- **Beam Current Protector Check**

Connect a variable resister (20 kΩ or more) and an ammeter in series between FBT pin ⑪ on D board and GND, then, decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuit works (TV Rester disappears). The current must be within the range shown below.

- Standard current : Less than 1.70 mA

Check Condition

- Input voltage : 120 ± 2 V AC
- Input signal : Cross hatch (White lines on black) at 69.0kHz
- Beam control : CONT : 255 (max), BRT : 128

- **B+ Voltage Check**

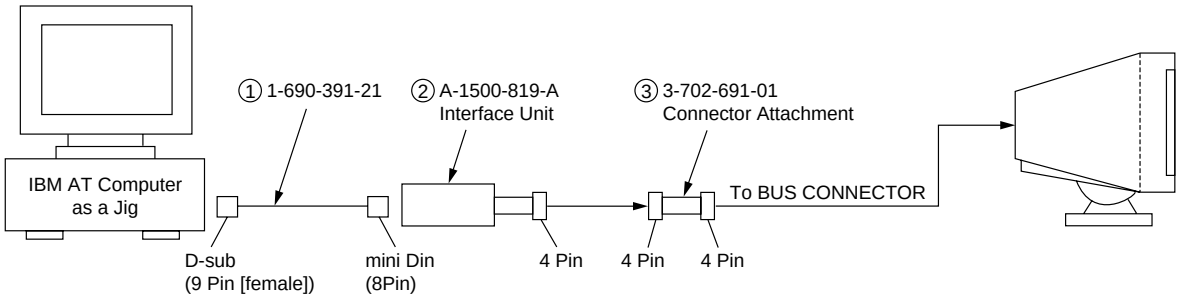
Standard voltage : 150.0 ± 1.5 V DC

Check Condition

- Input voltage : 120 V AC
  Note : Use NF power supply or make sure that distortion factor is 3% or less.
- Input signal : Cross hatch (White lines on black) at 69.0 kHz
- Beam control : CONT : 255 (max), BRT : 128

SECTION 4
ADJUSTMENTS

Connect the communication cable of the computer to the connector located on the D board on the monitor. Run the service software and then follow the instruction.



*The parts above (①~③) are necessary for DAS adjustment.

- **Landing Rough Adjustment**

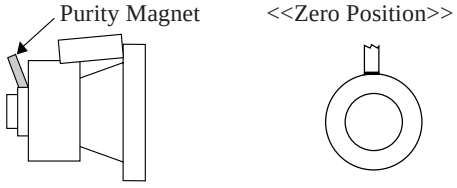
1. Enter the full white signal. (or the full black dots signal)
2. Set the contrast to "CONT"=MAX.
3. Make the screen monogreen.

Note: Off the outputs from R ch and B ch of SG.

4. Reverse the DY, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Moving the DY forward, adjust so that an entire screen becomes monogreen.
6. Adjust the tilt of DY, and fix lightly with a clamp.

- **Landing Fine Adjustment**

1. Put the set inside the Helmholtz coil.
2. Input the single green signal.
3. Demagnetize the CRT surface with the hand degausser , and perform auto degaussing.
4. Attach the wobbling coil to the designated part of the CRT neck.
5. Attach the sensor of the landing adjustment unit on the CRT surface.
   Purity magnet position



6. Adjust the DY position and purity, and the DY tilt.

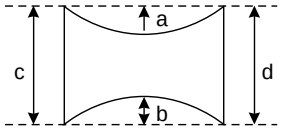
   L/D control specification

±5	±7	±5
±5	±7	±5
±5	±7	±5

7. Fasten DY with screw.

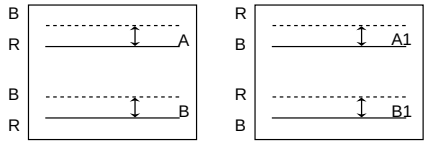
Note: Torque 22 ±2kgcm (2.2 ± 0.2 Nm)
Perform auto degaussing.

8. Adjust each top and bottom pins by two wedges and then not swing DY neck right and left. Fix by two wedges while it standing perpendicular (both side evennly) adjust H. Trap to become horizontal trapezoid.
   (When fixing DY with wedges, insert wedges completely so that the DY does not shake.)



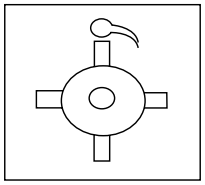
"a" and "b" must be equal, and "c" and "d" must be equal.

Signal : Inverted crosshatch (Make the monogreen)



"A" and "B", "A1" and "B1" must be equal.

<How to drive in wedges>



9. Check the landing of each corner, and if they do not satisfy the specification, paste a Disk-Mg onto the funnel and adjust.

Note:

(1) When necessary to paste magnets more than 2 pieces, be careful that the convergence and the distortion would be alterable.
(2) Paste within 80 to 120 mm from the DY on the diagonal line of the magnet.

10. If using the magnet, be sure to demagnetize with the degausser and check.
11. Remove the sensor and wobbling coil.
12. Check that the DY is not tilting.

- **Convergence Rough Adjustment**

1. Enter the white crosshatch signal (white lines on black).
2. Adjust roughly the horizontal and vertical convergence at four-pole magnet.
3. Adjust roughly HMC and VMC at six-pole magnet.

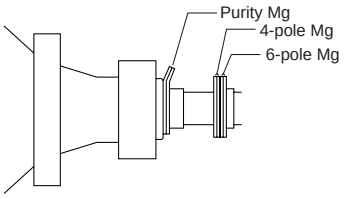
- **Convergence Adjustment**

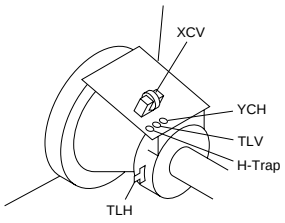
Static convergence

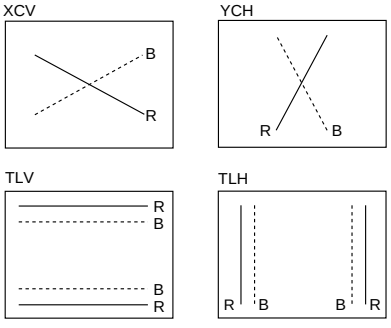
1. Off the digital convergence. (Set all digital convergence register to "0" state)
2. Receive the crosshatch of R and B.
3. Recieve H. STAT and V. STAT by 4 pole magnet.
4. Recieve the white crosshatch signal.
5. Recieve HMC and VMC by 6 pole magnet.
6. Recieve the crosshatch of R and B.

Note: Adjust H. STAT and V. STAT in the beggining by 4 pole magnet not adjuust them by register immediately.
When not adjust well, adjust the registers ranges of H. STAT and V. STAT within ±30.

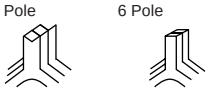
7. Insert to TLH correction board and correct H. TILT.
8. Correct XCV by XCV core.
9. Correct V. TILT bu TLV-VR.
10. Correct Y cross by YCH-VR.
11. Correct to get the most suitable convergence pattern.
When necessary, adjust above mentioned from step 1 to step 10 reiterate.
12. Paint lock TLH corection board, XCV core, neck assy 4 and 6 pole magnet.



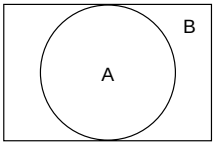




<<Neck Assy's Zero Position>>



- **Convergence Specification**



MODE	All mode
A	0.20 mm
B	0.24 mm

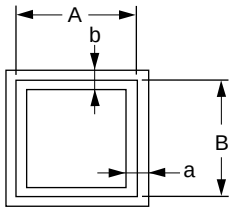
- **White Balance Adjustment Specification**

(1) 11000K
x = 0.274 ± 0.008
y = 0.287 ± 0.008

(2) 9300K
x = 0.283 ± 0.008
y = 0.298 ± 0.008

(3) 5000K
x = 0.345 ± 0.008
y = 0.358 ± 0.008

- **Vertical and Horizontal Position and Size Specification**

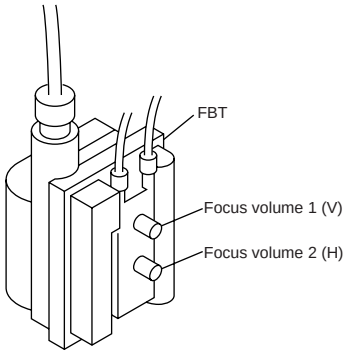


MODE	All mode
A	312 mm
B	234 mm

a ≦ 1.8 mm
b ≦ 1.8 mm

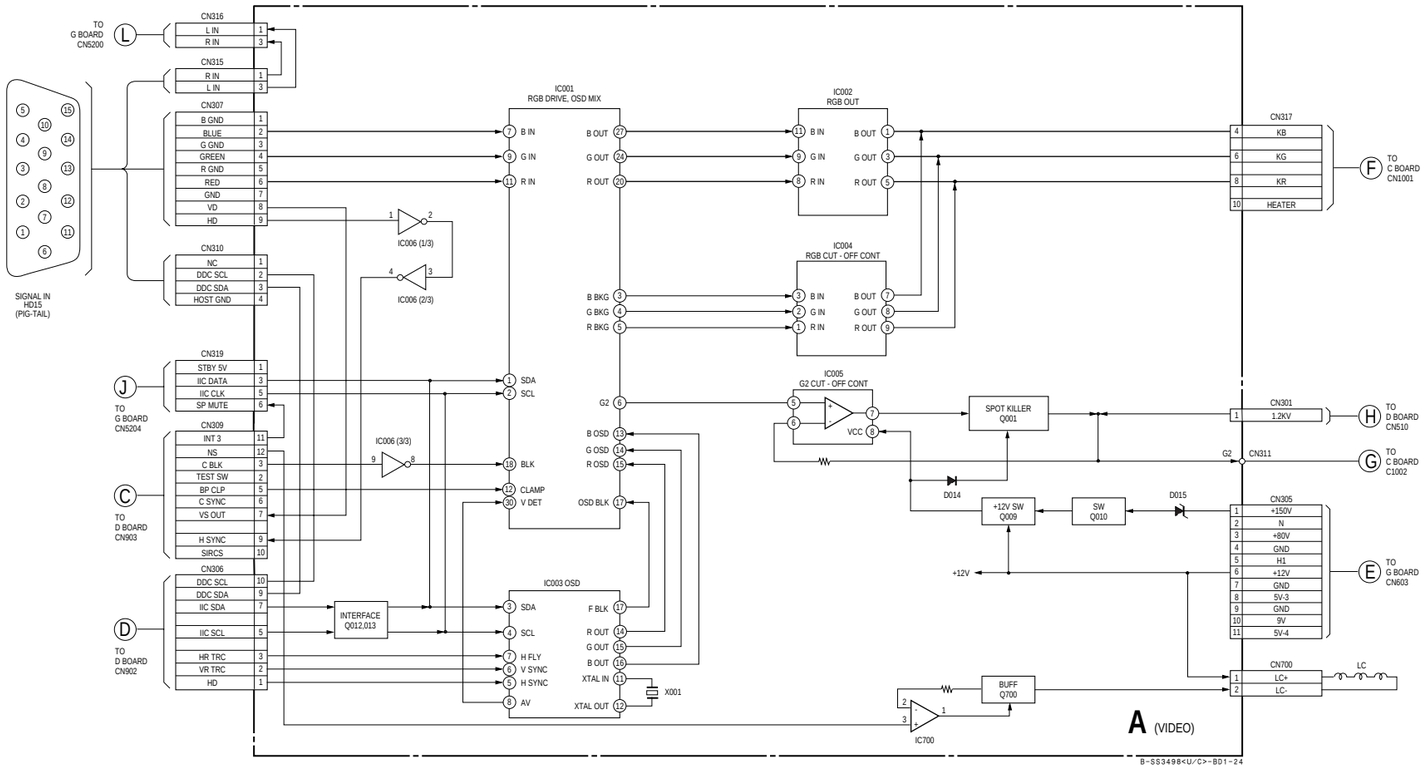
- **Focus adjustment**

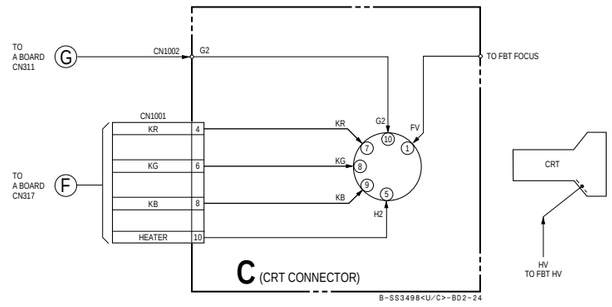
Adjust the focus volume 1 and 2 for the optimum focus.

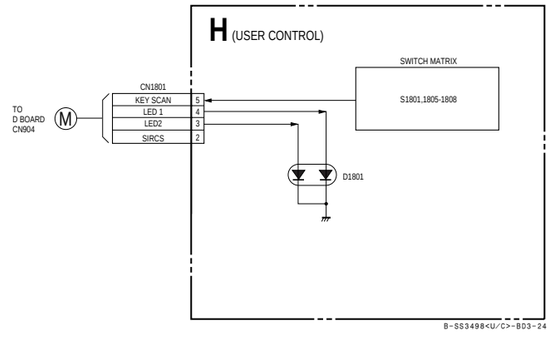


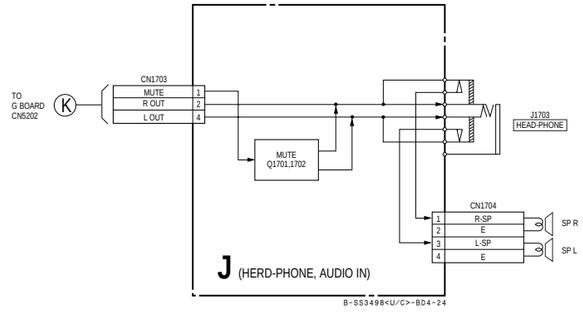
SECTION 5
DIAGRAMS

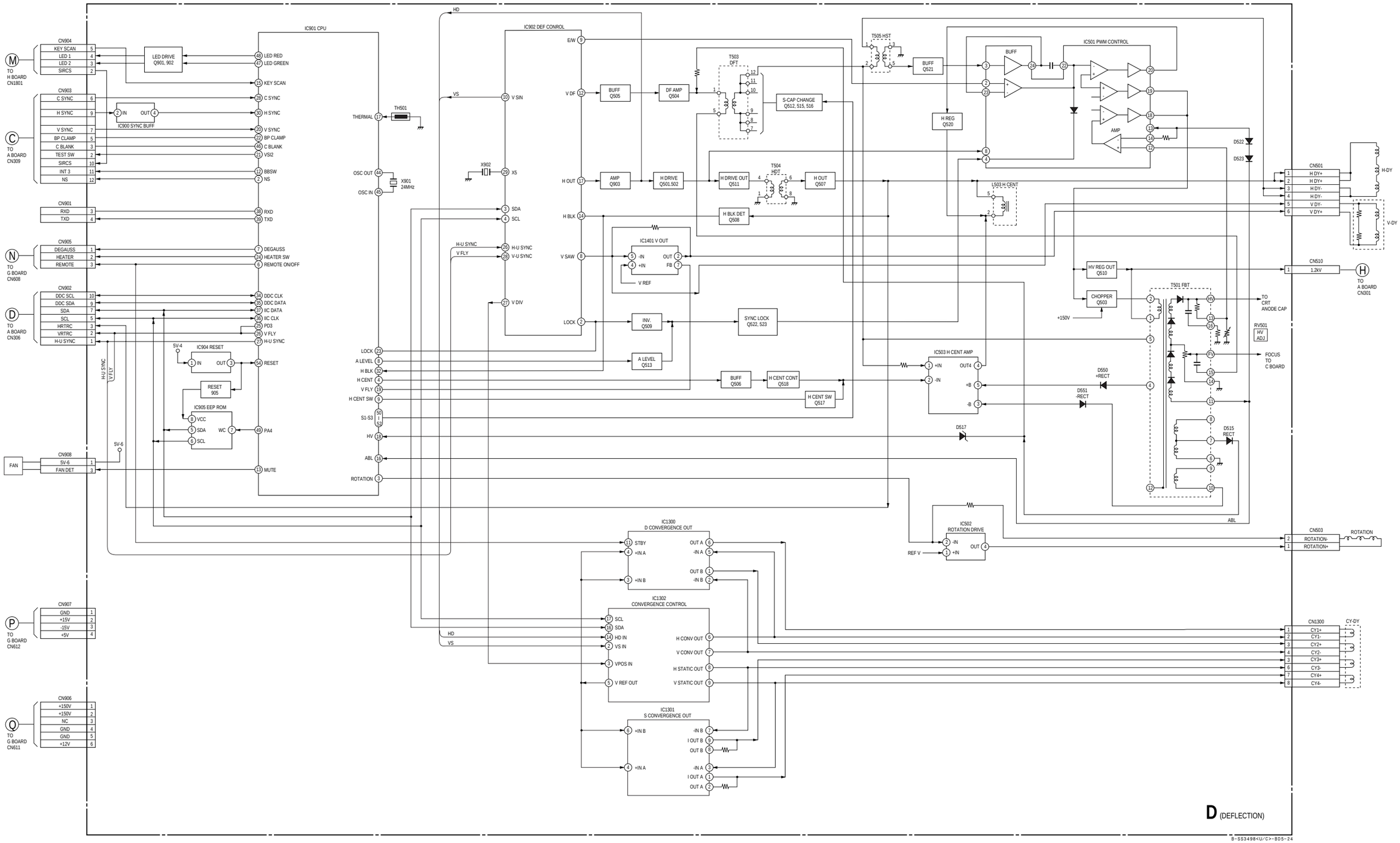
5-1. BLOCK DIAGRAMS

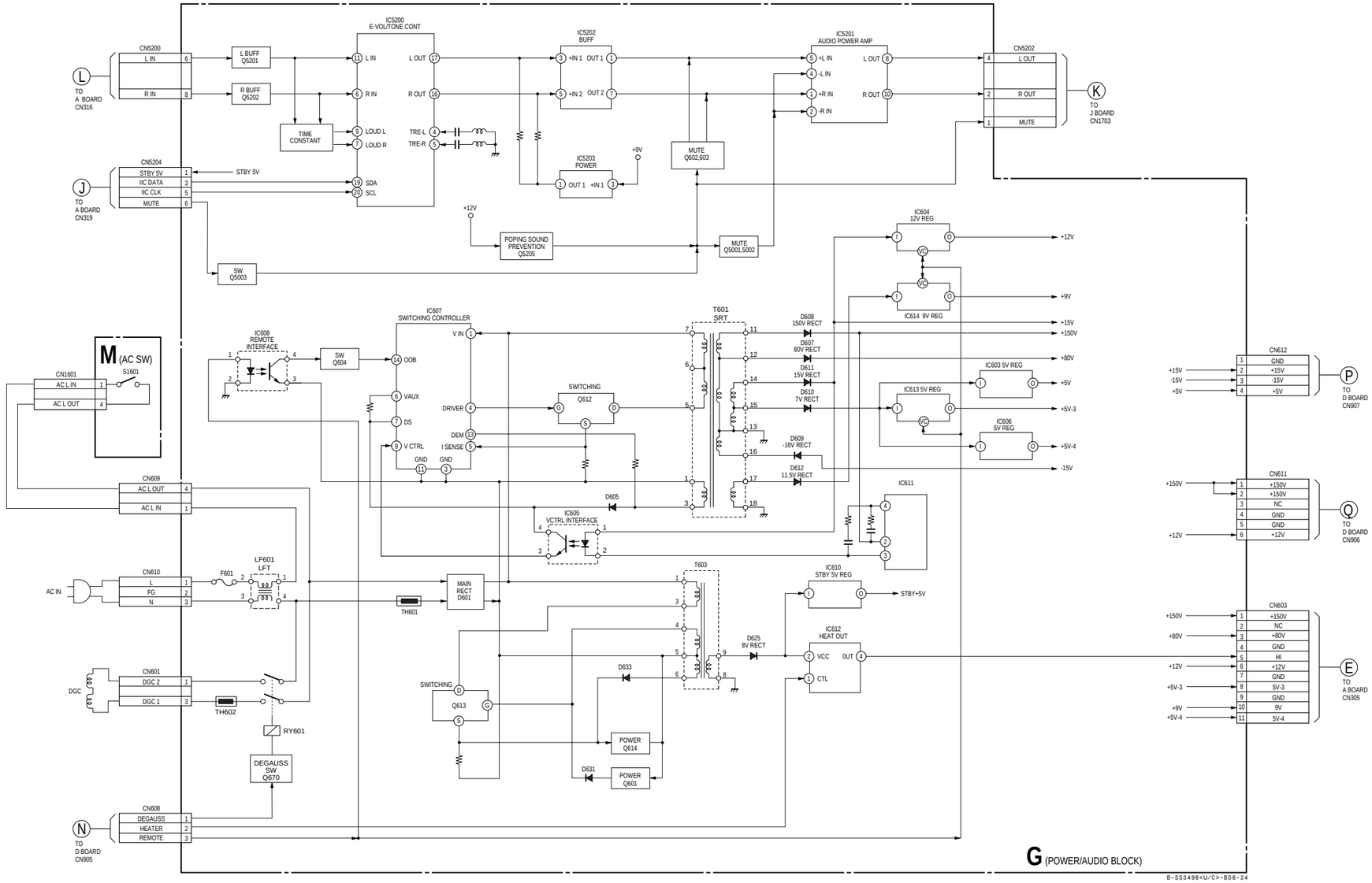




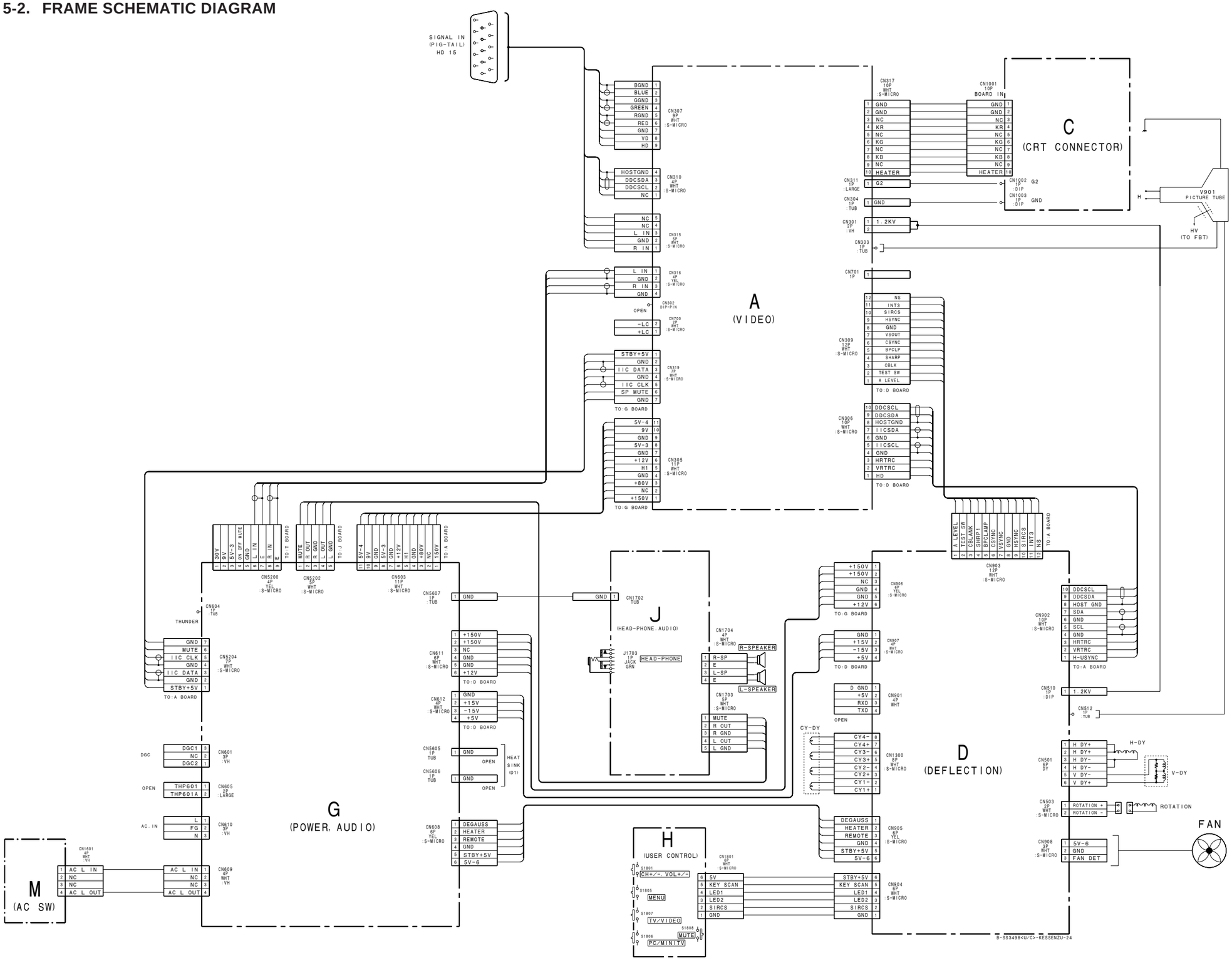




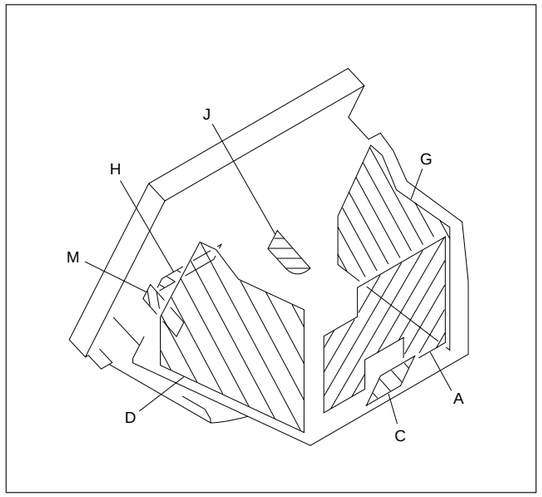

IC901 CPU
HD
VS
IC902 DEF CONROL
TH501
THERMAL
X902
X901
24MHz
OSC OUT
OSC IN
H-U SYNC
V FLY
V-U SYNC
V DIV
SDA
SCL
LOCK
A LEVEL
H BLK
H CENT
V FLY
H CENT SW
S1-S3
HV
ABL
ROTATION
MUTE
E/W
V DF
H OUT
V SAW
BUFF Q505
DF AMP Q504
T503 DFT
S-CAP CHANGE Q512, 515, 516
AMP Q903
H DRIVE Q501.502
H DRIVE OUT Q511
T504 HDT
H OUT Q507
H BLK DET Q508
IC1401 V OUT
V REF
INV. Q509
SYNC LOCK Q522, 523
A LEVEL Q513
BUFF Q506
H CENT CONT Q518
H CENT SW Q517
T505 HST
BUFF Q521
H REG Q520
IC501 PWM CONTROL
BUFF
AMP
D522
D523
L503 H CENT
CN501
H DY+
H DY-
V DY-
V DY+
H-DY
V-DY
HV REG OUT Q510
CHOPPER Q503
+150V
CN510
1.2kV
T501 FBT
TO CRT ANODE CAP
RV501 HV ADJ
FOCUS TO C BOARD
IC503 H CENT AMP
D550 +RECT
D551 -RECT
D517
D515 RECT
IC502 ROTATION DRIVE
REF V
CN503
ROTATION
ROTATION-
ROTATION+
IC1300 D CONVERGENCE OUT
STBY
IC1302 CONVERGENCE CONTROL
H CONV OUT
V CONV OUT
H STATIC OUT
V STATIC OUT
VPOS IN
V REF OUT
IC1301 S CONVERGENCE OUT
I OUT B
I OUT A
CN1300
CY-DY
CY1+
CY1-
CY2+
CY2-
CY3+
CY3-
CY4+
CY4-
CN904
KEY SCAN
LED 1
LED 2
SIRCS
LED DRIVE Q901, 902
LED RED
LED GREEN
KEY SCAN
TO H BOARD CN1801
CN903
C SYNC
H SYNC
V SYNC
BP CLAMP
C BLANK
TEST SW
SIRCS
INT 3
NS
IC900 SYNC BUFF
VSI2
BBSW
TO A BOARD CN309
CN901
RXD
TXD
CN905
DEGAUSS
HEATER
REMOTE
TO G BOARD CN608
CN902
DDC SCL
DDC SDA
SDA
SCL
HRTRC
VRTRC
H-U SYNC
TO A BOARD CN306
IC904 RESET
RESET 905
IC905 EEP ROM
VCC
WC
PA4
5V-4
5V-6
CN908
FAN
5V-6
FAN DET
FAN
CN907
GND
+15V
-15V
+5V
TO G BOARD CN612
CN906
+150V
NC
+12V
TO G BOARD CN611
D (DEFLECTION)
B-SS3498<U/C>-BD5-24


IC5200
E-VOL/TONE CONT
IC5202
BUFF
IC5201
AUDIO POWER AMP
CN5200
L IN
R IN
L BUFF Q5201
R BUFF Q5202
TIME CONSTANT
LOUD L
LOUD R
TRE-L
TRE-R
IC5203
POWER
+9V
MUTE Q602,603
CN5202
L OUT
R OUT
MUTE
TO J BOARD CN1703
CN5204
STBY 5V
IIC DATA
IIC CLK
MUTE
SDA
SCL
TO A BOARD CN319
+12V
POPING SOUND PREVENTION Q5205
MUTE Q5001,5002
SW Q5003
IC604
12V REG
IC614 9V REG
IC603 5V REG
IC613 5V REG
IC606 5V REG
IC607
SWITCHING CONTROLLER
IC608
REMOTE INTERFACE
SW Q604
T601
SRT
D608 150V RECT
D607 80V RECT
D611 15V RECT
D610 7V RECT
D609 -16V RECT
D612 11.5V RECT
SWITCHING Q612
IC605
VCTRL INTERFACE
D605
IC611
CN612
CN611
CN603
TO D BOARD CN907
TO D BOARD CN906
TO A BOARD CN305
M (AC SW)
S1601
CN1601
AC L IN
AC L OUT
CN609
CN610
AC IN
F601
LF601
LFT
TH601
MAIN RECT D901
T603
IC610
STBY 5V REG
STBY+5V
IC612
HEAT OUT
D625 8V RECT
D633
SWITCHING Q613
POWER Q614
D631
POWER Q601
CN601
DGC
DGC 2
DGC 1
TH602
RY601
DEGAUSS SW Q670
CN608
DEGAUSS
HEATER
REMOTE
TO D BOARD CN905
G (POWER/AUDIO BLOCK)
B-SS3498<U/C>-BD6-24

5-2. FRAME SCHEMATIC DIAGRAM



5-3. CIRCUIT BOARDS LOCATION



5-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in µF unless otherwise noted. (pF: µµF) Capacitors without voltage indication are all 50 V.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

  Pitch: 5 mm
  Rating electrical power 1/4 W (CHIP : 1/10 W)

- All resistors are in ohms.
- : nonflammable resistor.
- : fusible resistor.
- △ : internal component.
- : panel designation, and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : earth-ground.
- : earth-chassis.
- All voltages are in V.
- Readings are taken with a 10 MΩ digital multimeter.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- ∗ : Can not be measured.
- Circled numbers are waveform references.
- : B + bus.
- : B – bus.
- 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. (See page 3-1)
- When replacing the part in below table, be sure to perform the related adjustment.

	Part Replaced (⋈)
HV ADJ	RV501

	Part Replaced (◪)
HV Regulator Circuit Check	D board IC501, C532, C534, C539, C553, C554, C555, C556, C558, C561, R540, R541, R542, R544, R564, R567, R568, RV501, T501 (FBT)
HV Protector Circuit Check	D board IC901, D515, D517, C540, C542, C544, R524, R543, R547, R549, R552, R592 T501 (FBT) G board IC610
Beam Current Protector Circuit Check	D board IC901, D514, C535, C541, C928, R515, R545, R546, R548, R550, R934, T501 (FBT) G board IC604, IC610

- Divided circuit diagram
  One sheet of D, A and G boards circuit diagram are divided into two sheets, each having the code D-ⓐ to D-ⓑ (A-ⓐ to A-ⓑ, G-ⓐ to G-ⓑ). For example, the destination ab1 on the D-ⓐ sheet is connected to ab1 on the D-ⓑ sheet.

  a b 1 → Ref. No.
  → Circuit diagram division code

Terminal name of semiconductors in silk screen printed circuit (∗)

	Device	Printed symbol	Terminal name	Circuit
①	Transistor	T	Collector / Base / Emitter	
②	Transistor	—	Collector / Base / Emitter	
③	Diode		Cathode / Anode	
④	Diode	T	Cathode / Anode / (NC)	
⑤	Diode	—	Cathode / Anode / (NC)	
⑥	Diode	T	Common / Anode / Cathode	
⑦	Diode	—	Common / Anode / Cathode	
⑧	Diode	T	Common / Anode / Anode	
⑨	Diode	—	Common / Anode / Anode	
⑩	Diode	T	Common / Cathode / Cathode	
⑪	Diode	—	Common / Cathode / Cathode	
⑫	Diode		Anode Cathode / Anode Anode / Cathode Anode	
⑬	Transistor (FET)		Drain / Source / Gate	
⑭	Transistor (FET)		Drain / Source / Gate	
⑮	Transistor (FET)		Source / Drain / Gate	
⑯	Transistor		Emitter / Collector / Base	
–	Discrete semiconductot			

(Chip semiconductors that are not actually used are included.)

Ver.1.6

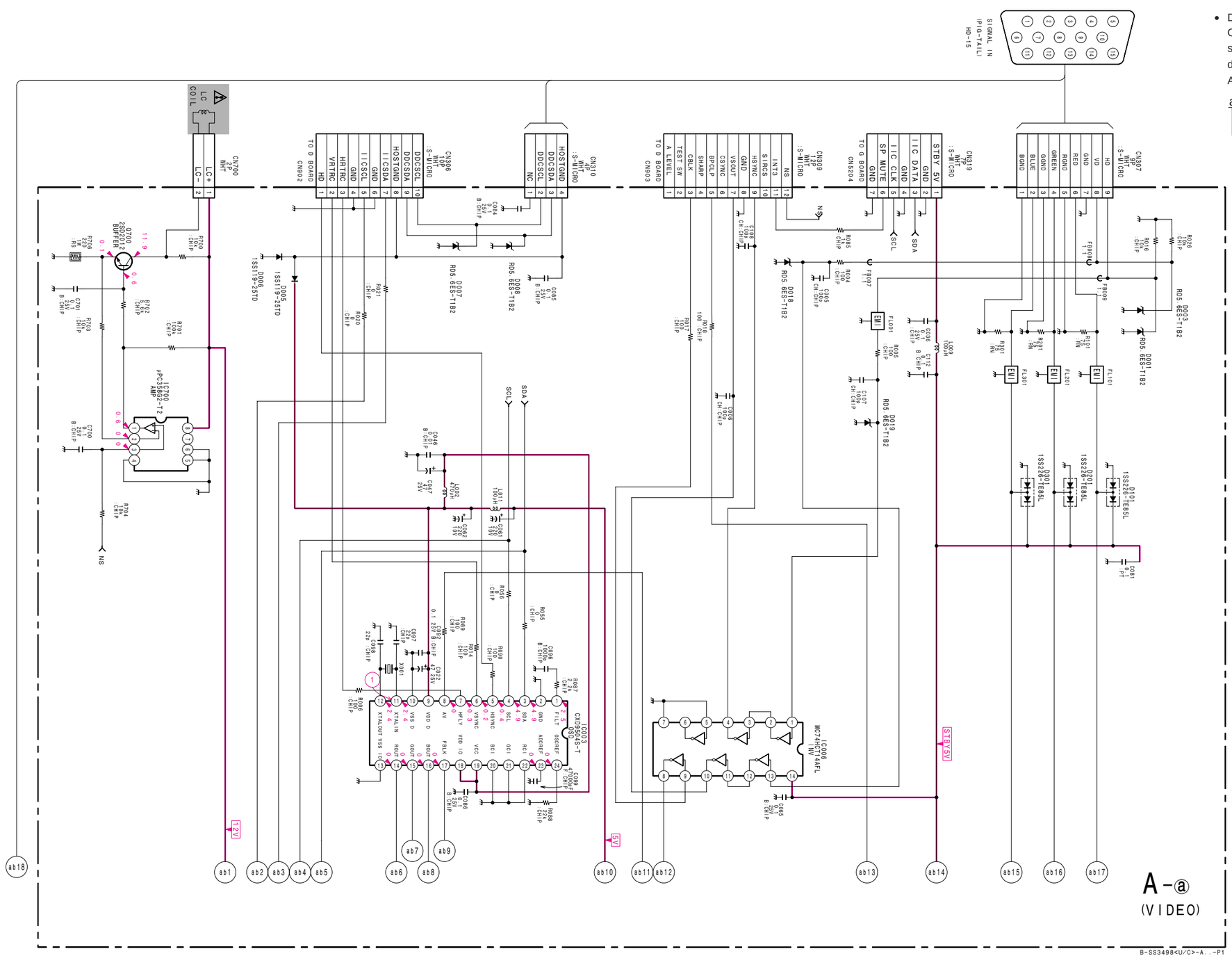
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés per un tramé et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

(1) Schematic Diagram of A (ⓐ, ⓑ) Board

- Divided circuit diagram
  One sheet of A board circuit diagram is divided into two sheets, each having the code A-ⓐ to A-ⓑ . For example, the destination ab1 on the A-ⓐ sheet is connected to ab1 on the A-ⓑ sheet.

a b 1
- 1 → Ref. No.
- a b → Circuit diagram division code

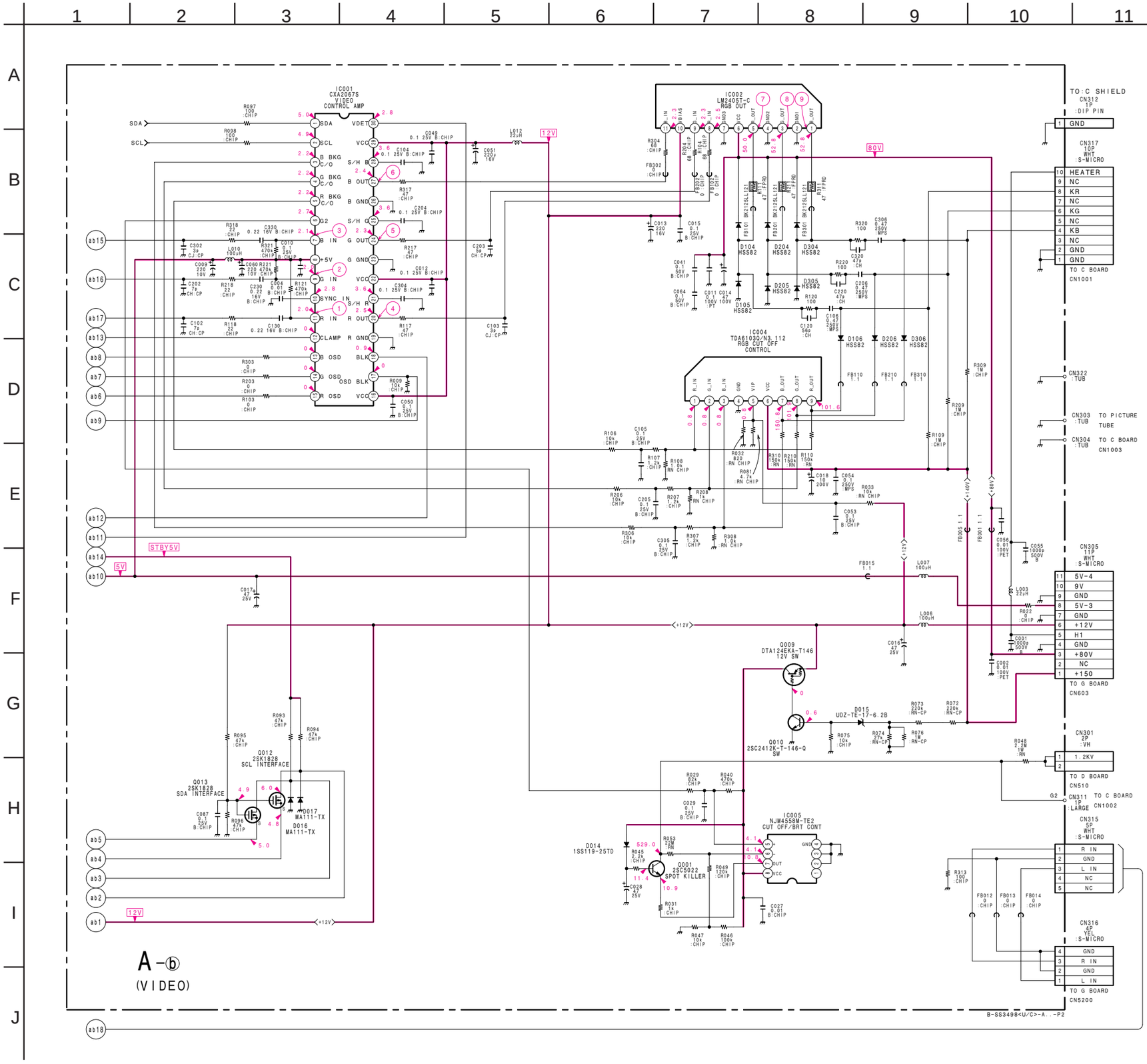


- **A - ⓐ BOARD WAVEFORM**

① 5.2 Vp-p (0.12µ sec)

Schematic diagram

A -ⓐ board ➡



- Divided circuit diagram
  One sheet of A board circuit diagram is divided into two sheets, each having the code A-ⓐ to A-ⓑ . For example, the destination ab1 on the A-ⓐ sheet is connected to ab1 on the A-ⓑ sheet.

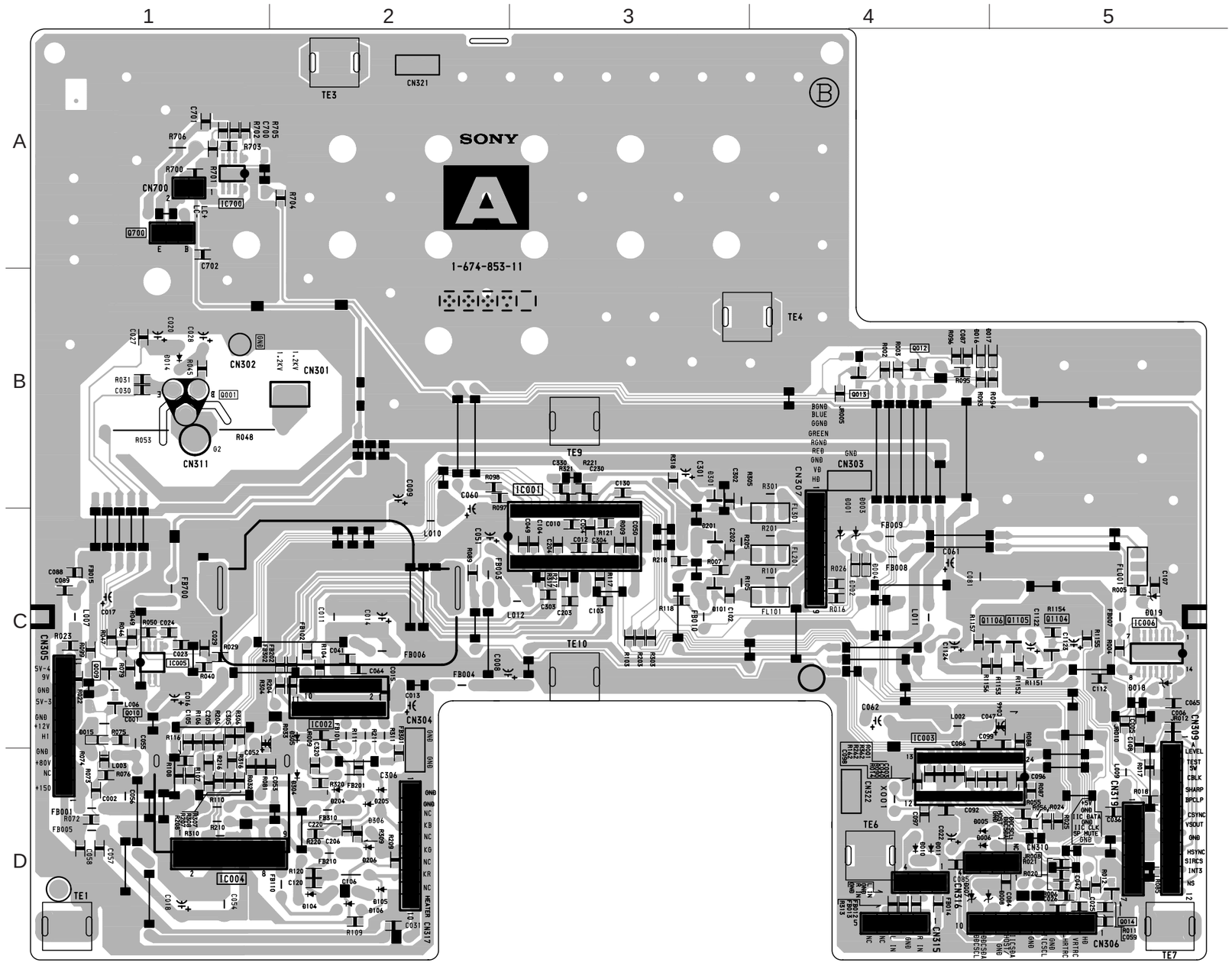
a b 1
- 1 — Ref. No.
- a b — Circuit diagram division code

• A - ⓑ BOARD WAVEFORMS

① 0.7 Vp-p (H)	② 1.0 Vp-p (H)
③ 0.7 Vp-p (H)	④ 4.4 Vp-p (H)
⑤ 4.0 Vp-p (H)	⑥ 4.0 Vp-p (H)
⑦ 58 Vp-p (H)	⑧ 54 Vp-p (H)
⑨ 54 Vp-p (H)	

A ［VIDEO］

— A BOARD —



- **A BOARD**
  SEMICONDUCTOR LOCATION

IC		
IC001	C–3	
IC002	C–2	
IC003	D–4	
IC004	D–1	
IC005	C–1	
IC006	C–5	
IC700	A–1	

TRANSISTOR		
Q001	B-1	✻
Q009	C-1	①
Q010	C-1	①
Q012	B-4	①
Q013	B-4	①
Q700	A-1	–

DIODE		
D001	C-4	✻
D003	C-4	–
D005	D-4	–
D006	D-4	–
D007	D-4	–
D008	D-5	–
D014	B-1	–
D015	C-1	③
D016	B-4	③
D017	B-4	③
D018	C-5	–
D019	C-5	–
D101	C-3	⑥
D104	D-2	–
D105	D-2	–
D106	D-2	–
D201	C-3	⑥
D204	D-2	–
D205	D-2	–
D206	D-2	–
D301	B-3	⑥
D304	D-2	–
D305	C-2	–
D306	D-2	–

CRYSTAL		
X001	D–4	

✻: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-10)

Schematic diagram

⬅ A -ⓑ board

D ［DEFLECTION］

- **D BOARD SEMICONDUCTOR LOCATION**

IC	
IC501	C–2
IC502	A–3
IC503	E–5
IC900	B–2
IC901	B–2
IC902	C–1
IC904	B–2
IC905	B–1
IC906	–
IC1300	E–1
IC1301	D–2
IC1302	D–1
IC1401	E–2

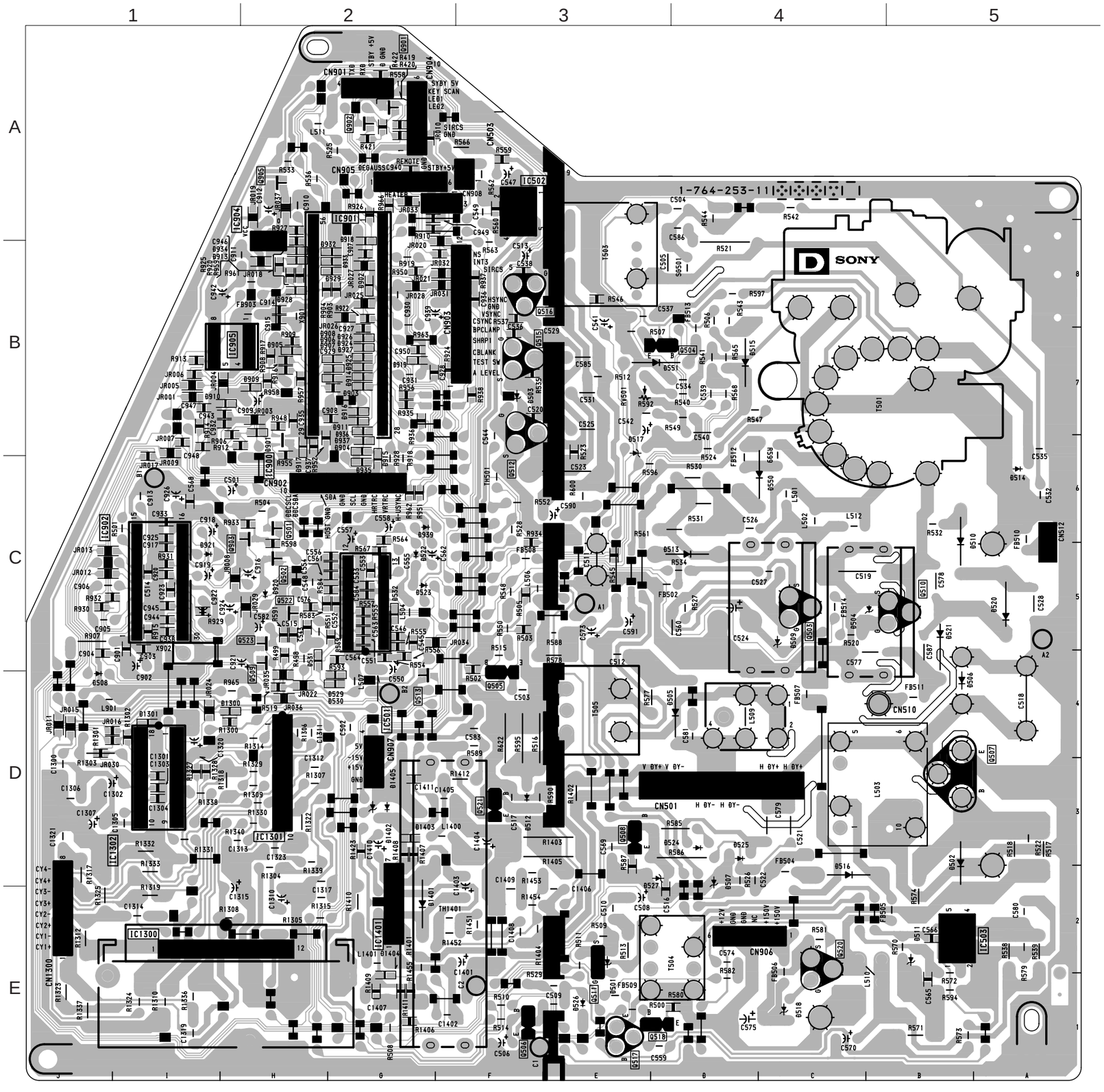
TRANSISTOR		*
Q501	C–2	①
Q502	C–2	①
Q503	C–4	–
Q504	B–3	–
Q505	D–3	–
Q506	E–3	–
Q507	D–5	–
Q508	D–3	–
Q509	C–2	①
Q510	C–5	–
Q511	E–3	–
Q512	B–3	–
Q513	D–2	①
Q515	B–3	–
Q516	B–3	–
Q518	E–3	–
Q520	E–4	–
Q521	D–3	–
Q522	C–2	①
Q523	C–2	①
Q901	A–2	①
Q902	A–2	①
Q903	C–2	①
Q905	A–2	①

DIODE		*
D501	E–3	–
D502	D–5	–
D503	B–2	–
D504	C–4	–
D505	D–4	–
D506	D–5	–
D507	D–4	–
D509	C–4	–
D510	C–5	–
D511	E–5	–
D512	D–3	–
D513	C–4	–
D514	C–5	–
D515	B–4	–
D516	D–4	–
D517	B–3	–
D518	E–4	–
D520	C–5	–
D521	C–5	–
D522	C–2	–
D523	C–2	–
D524	D–4	–
D525	D–4	–
D526	E–3	–
D527	D–3	–
D533	–	
D550	C–4	–
D551	B–3	–
D901	B–2	③
D902	B–2	③
D903	B–2	③
D904	B–2	③
D905	B–2	③
D906	B–2	③
D907	B–2	③
D908	B–2	③
D909	B–2	③
D910	B–1	③
D911	B–2	③
D914	B–2	③
D915	C–2	③
D916	B–2	③
D917	B–2	③
D918	B–2	③
D919	B–2	③
D920	C–2	–
D924	B–2	③
D925	B–2	③
D928	B–2	③
D929	B–2	③
D932	B–2	③
D933	B–2	③
D934	B–2	③
D935	C–2	③
D936	B–2	③
D937	B–2	③
D939	C–2	–
D1300	D–1	③
D1301	D–1	③
D1401	E–2	–
D1402	D–2	–
D1403	D–2	③
D1404	E–2	③
D1405	D–2	–

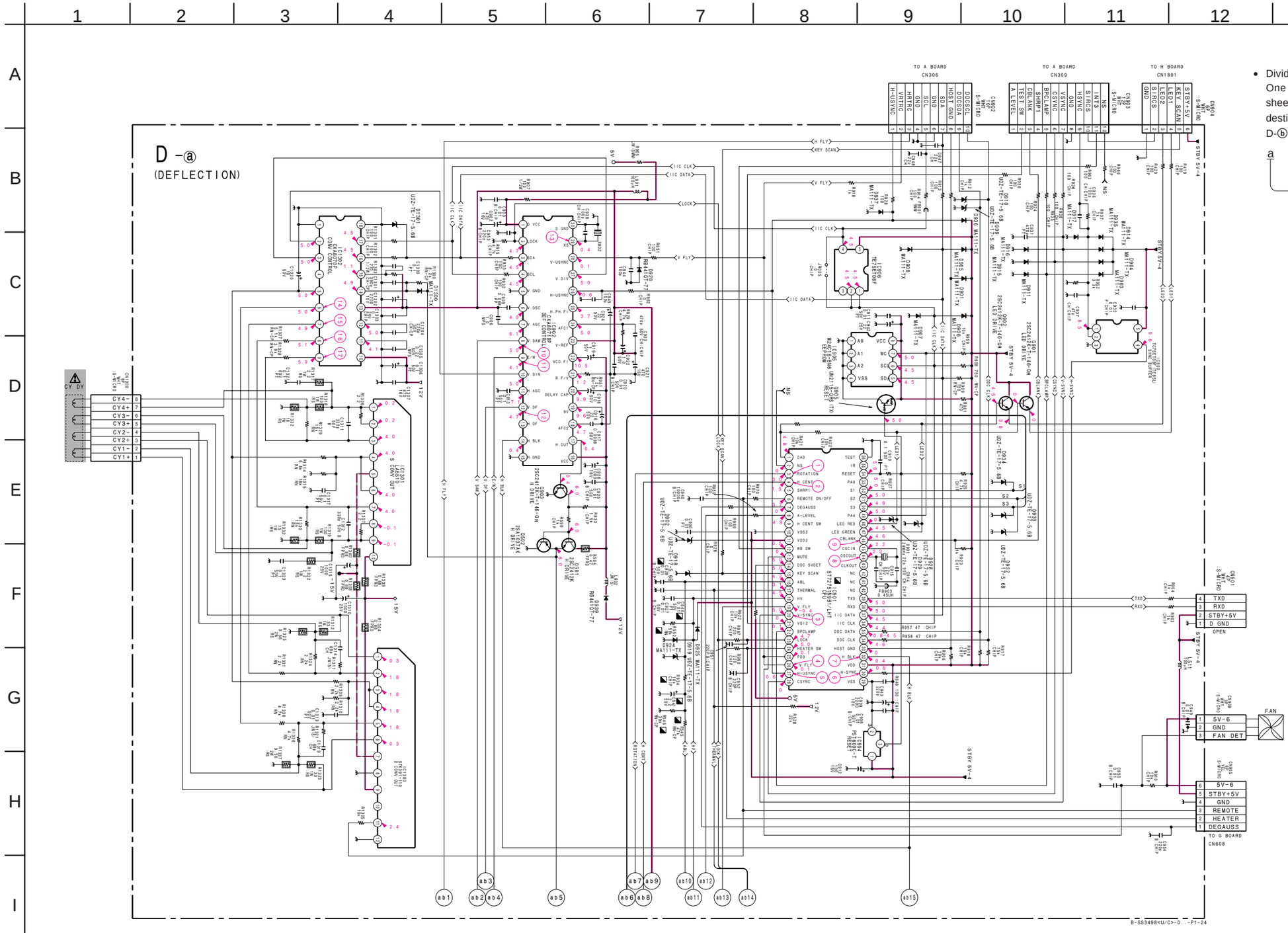
VARIABLE RESISTOR	
RV501	B–3

CRYSTAL	
X901	B–2
X902	C–1

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-10)**



(2) Schematic Diagram of D (ⓐ, ⓑ) Board



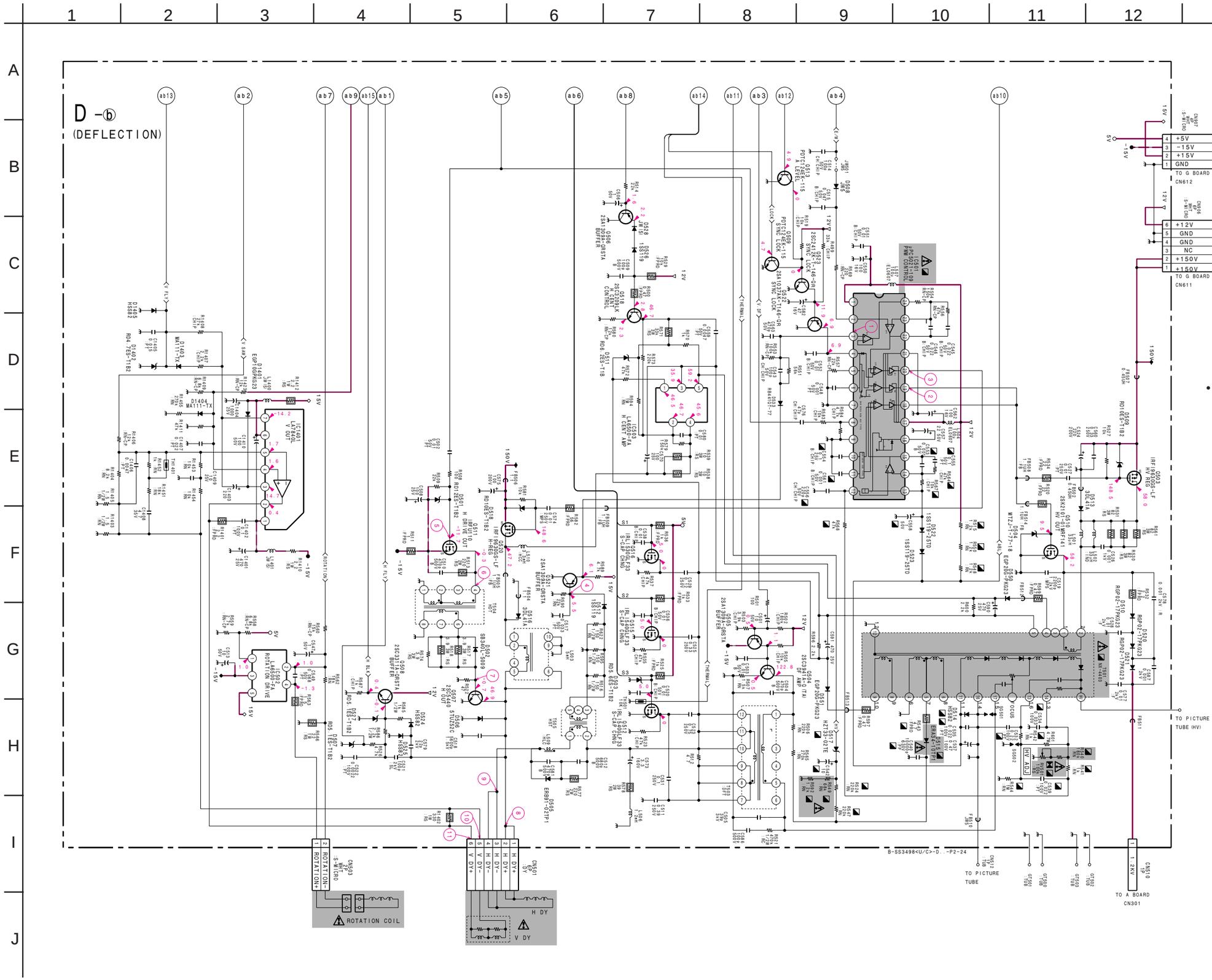
- Divided circuit diagram
  One sheet of D board circuit diagram is divided into two sheets, each having the code D-ⓐ to D-ⓑ . For example, the destination(ab1)on the D-ⓐ sheet is connected to(ab1)on the D-ⓑ sheet.

a b 1 → Ref. No.
Circuit diagram division code

• D - ⓐ BOARD WAVEFORMS

① 2.0 Vp-p (8μ sec)	② 2.0 Vp-p (8μ sec)
③ 5.0 Vp-p (V)	④ 5.0 Vp-p (V)
⑤ 5.0 Vp-p (H)	⑥ 5.0 Vp-p (H)
⑦ 4.8 Vp-p (H)	⑧ 1.6 Vp-p (24MHz)
⑨ 5.0 Vp-p (H)	⑩ 4.0 Vp-p (V)
⑪ 0.4 Vp-p (V)	⑫ 1.0 Vp-p (V)
⑬ 0.5 Vp-p (32μ sec)	⑭ 0.5 Vp-p (H)
⑮ 0.5 Vp-p (V)	⑯ 0.5 Vp-p (H)
⑰ 0.5 Vp-p (V)	

Schematic diagram
D -ⓐ board ➡

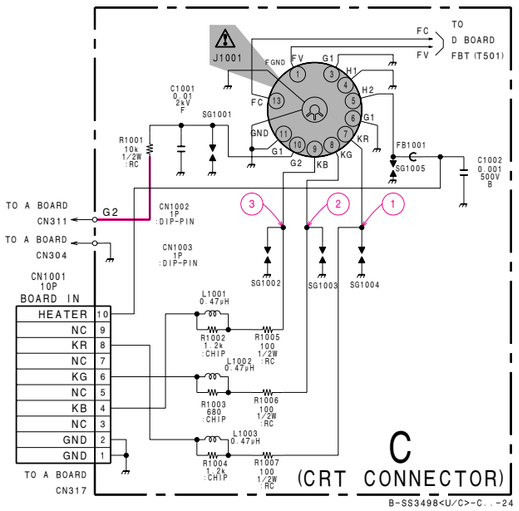


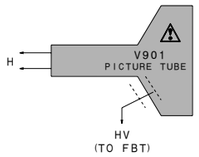
- Divided circuit diagram
  One sheet of D board circuit diagram is divided into two sheets, each having the code D-ⓐ to D-ⓑ . For example, the destination ab1 on the D-ⓐ sheet is connected to ab1 on the D-ⓑ sheet.

a b 1
- 1 — Ref. No.
- a b — Circuit diagram division code

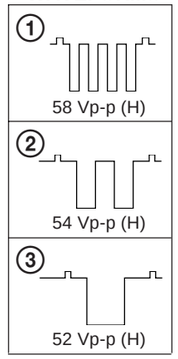
• D - ⓑ BOARD WAVEFORMS

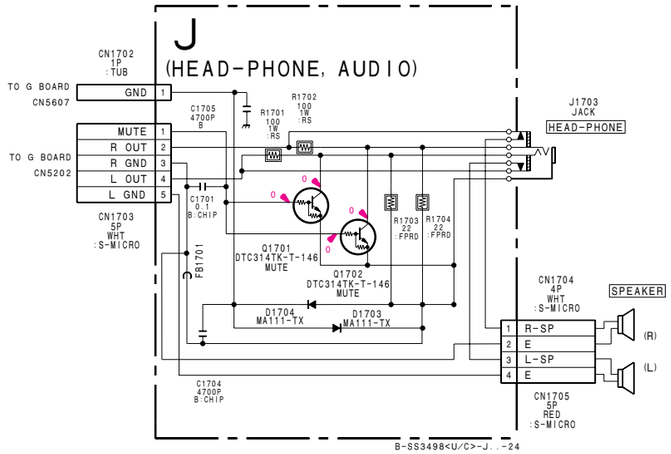
① 0.4 Vp-p (V)	② 12 Vp-p (32μ sec)
③ 11 Vp-p (32μ sec)	④ 0.7 Vp-p (V)
⑤ 10 Vp-p (H)	⑥ 36 Vp-p (H)
⑦ 4.0 Vp-p (H)	⑧ 900 Vp-p (H)
⑨ 50 Vp-p (H)	⑩ 1.6 Vp-p (V)
⑪ 60 Vp-p (V)	

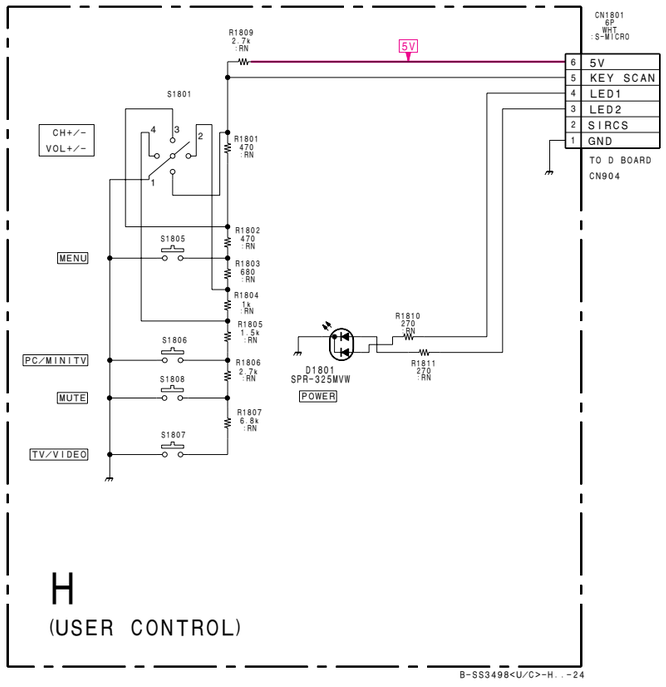


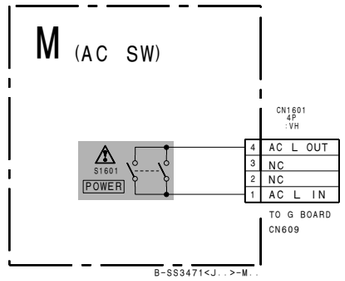


• **C BOARD WAVEFORMS**



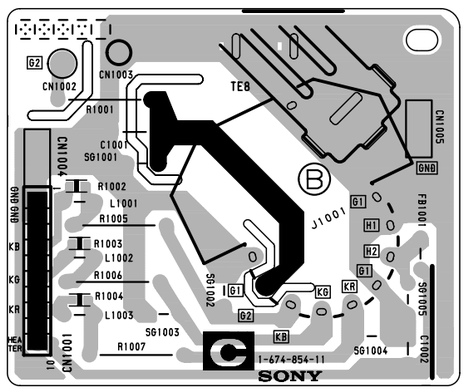




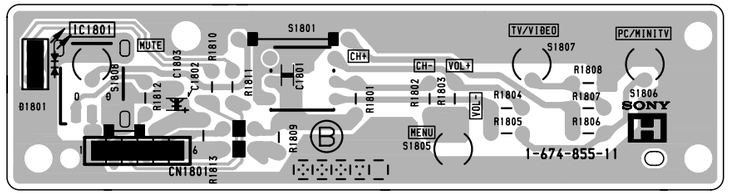


C ［CRT CONNECTOR］ H ［USER CONTROL ］ J ［HEAD-PHONE, AUDIO ］ M ［AC SW ］

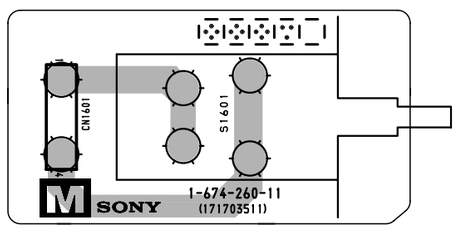
— C BOARD —



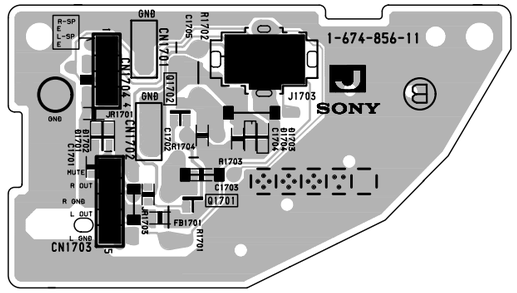
— H BOARD —



— M BOARD —



— J BOARD —



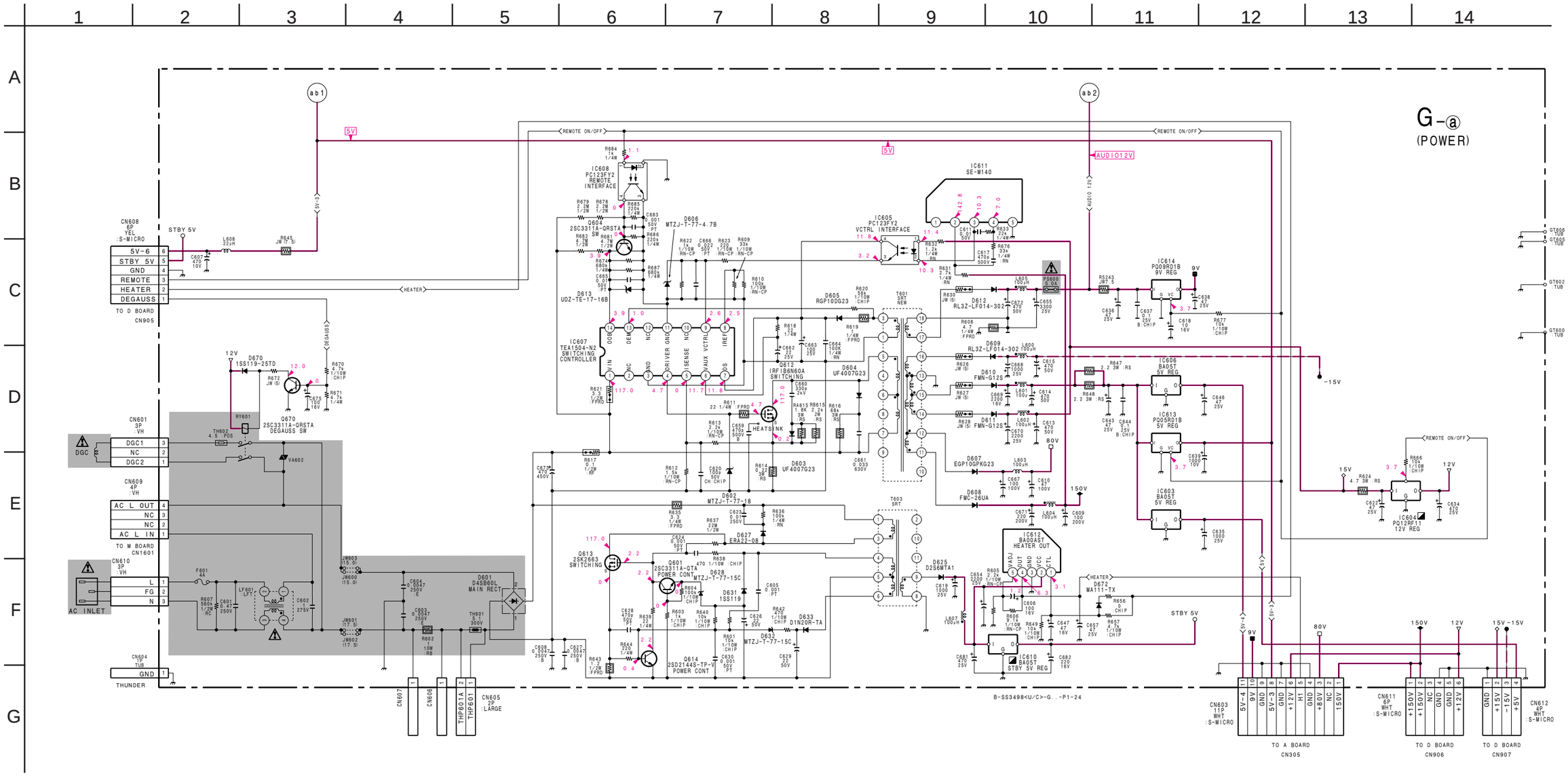
J BOARD

Terminal name of semiconductors in silk screen printed circuit (*)

Ref.	*
Q1701, Q1702	①
D1703, D1704	③

***: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-10)**

(4) Schematic Diagrams of G (ⓐ, ⓑ) Boards

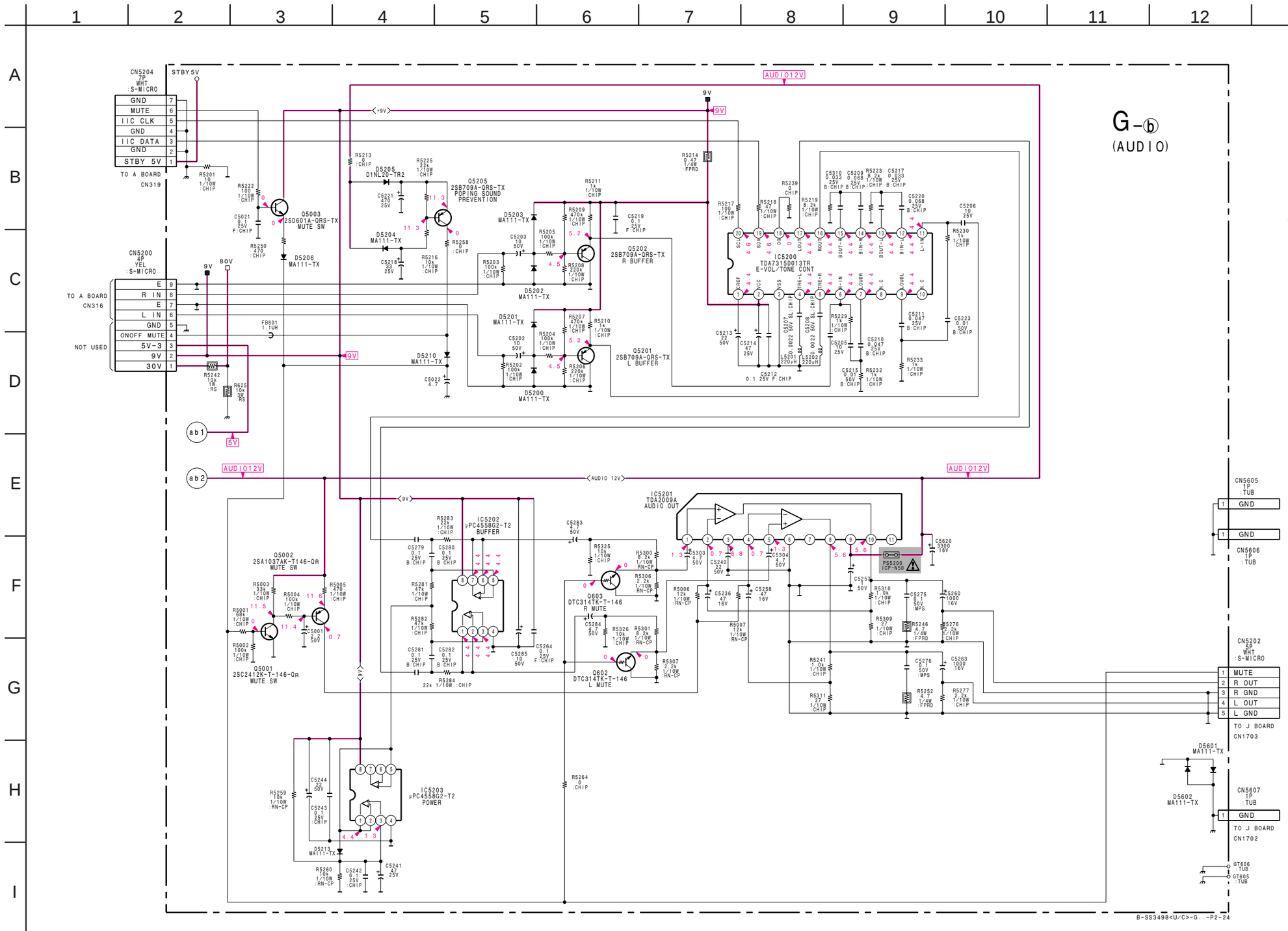


- Divided circuit diagram
  One sheet of G board circuit diagram is divided into two sheets, each having the code G-ⓐ to G-ⓑ . For example, the destination (ab1) on the G-ⓐ sheet is connected to (ab1) on the G-ⓑ sheet.

  a b 1
  - 1 — Ref. No.
  - a b — Circuit diagram division code

Schematic diagram

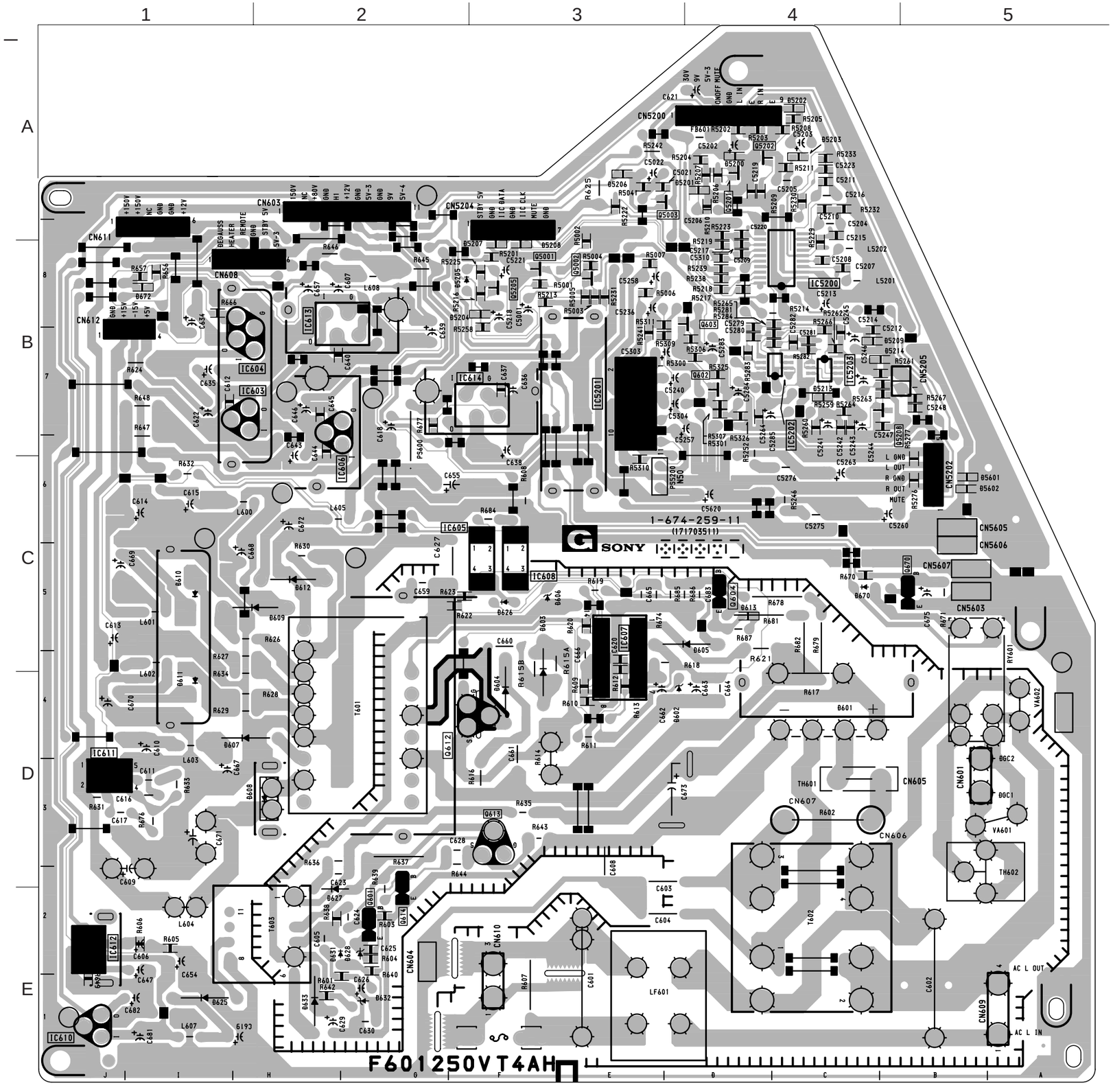
G -ⓐ board ➡



- Divided circuit diagram
  One sheet of G board circuit diagram is divided into two sheets, each having the code G-ⓐ to G-ⓑ . For example, the destination (ab1) on the G-ⓐ sheet is connected to (ab1) on the G-ⓑ sheet.

a b 1
- 1 — Ref. No.
- a b — Circuit diagram division code

— G BOARD —



- **G BOARD**
  SEMICONDUCTOR LOCATION

IC		
IC603	B–1	
IC604	B–1	
IC605	C–3	
IC606	B–2	
IC607	C–3	
IC608	C–3	
IC610	E–1	
IC611	D–1	
IC612	E–1	
IC613	B–2	
IC614	B–3	
IC5200	B–4	
IC5201	B–3	
IC5202	B–4	
IC5203	B–4	

TRANSISTOR		*
Q601	E-2	–
Q602	B-4	①
Q603	B-4	①
Q604	C-4	–
Q612	D-2	–
Q613	D-3	–
Q614	E-2	–
Q670	C-5	–
Q5001	B-3	①
Q5002	B-3	①
Q5003	A-3	①
Q5201	A-4	①
Q5202	A-4	①
Q5205	B-3	①

DIODE		*
D601	D-4	–
D602	D-3	–
D603	C-3	–
D604	D-3	–
D605	C-4	–
D606	C-3	–
D607	D-1	–
D608	D-2	–
D609	C-2	–
D610	C-1	–
D611	D-1	–
D612	C-2	–
D613	C-4	③
D625	E-1	–
D627	E-2	–
D628	E-2	–
D631	E-2	–
D632	E-2	–
D633	E-2	–
D670	C-4	–
D672	B-1	③
D5200	A-4	③
D5201	A-4	③
D5202	A-4	③
D5203	A-4	③
D5204	B-3	③
D5205	B-2	–
D5206	A-3	③
D5210	–	
D5213	B-4	③
D5601	C-5	③
D5602	C-5	③

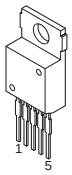
*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 5-10)

Schematic diagram

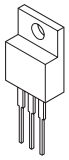
← G -ⓑ board

5-5. SEMICONDUCTORS

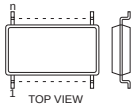
BA00AST
LA6500FA



BA05T

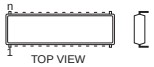


BA10358F
NJM4558M
UPC358G2
UPC4558G2



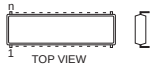
8 pin SOP

CXA2067S
CXA8071BP



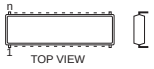
30 pin DIP

CXA8070P



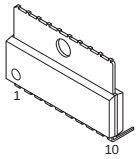
18 pin DIP

CXD9504S

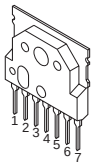


24 pin DIP

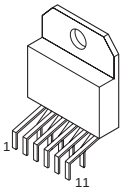
LA6510



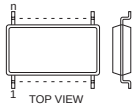
LA7840L



LM2405T

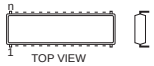


MC74HCT14AFL



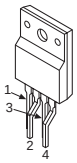
14 pin SOP

M24C16-BN6

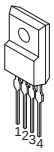


8 pin DIP

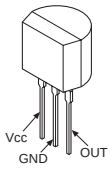
PQ05RD1B
PQ09RD1B



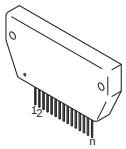
PQ12RF11



PST600C-T

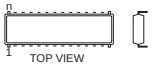


STK391-110



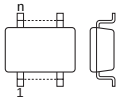
MARKING SIDE VIEW

ST72751N9B1/LHT



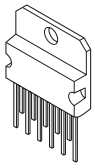
56 pin DIP

TC7SET08F

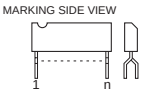


5 pin CHIP

TDA2009A

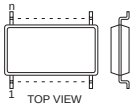


TDA6103Q/N3,112



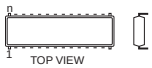
9 pin ZIP

TDA7315D013TR



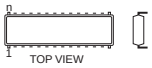
20 pin SOP

TEA1504-N2



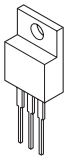
14 pin DIP

UPC5021-109

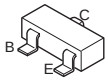


24 pin DIP

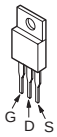
UPC574J



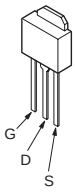
DTA114TK
DTA124EKA-T146
DTC144EKA-T146
DTC314TKH04
DTC314TK-T-146
PDTC124EK-115
UN2115-QRS
2SA1037AK-T146-R
2SA1037K-T-146-QR
2SA1162G
2SB709A-QRS-TX
2SC1623-L5L6
2SC2412K-T-146-Q
2SC2412K-T-146-QR
2SD601A-Q
2SD601A-QRS-TX



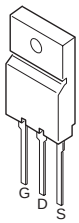
IRFI9630GS
IRFI9630GS-LF



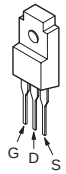
IRFU110
IRFU110A



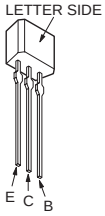
IRLI530GLF33



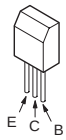
IRLI540GLF33



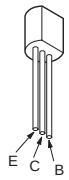
2SA1175-HFE
2SA1309A-QRSTA
2SC2785-HFE
2SC3311A-QRSTA
2SC3311A-QTA



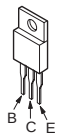
2SC3209LK



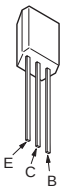
2SC3941A-Q



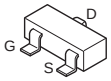
2SC5022-02
2SD2012



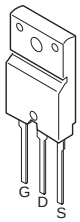
2SD2144S-V



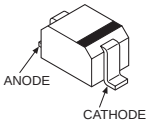
2SK1828



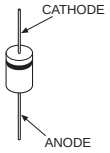
2DK2101-01MR-F141



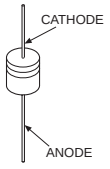
DTZ-TT11-16B
MA111
RD5.6S-B
UDZ-TE-17-16B
UDZ-TE-17-5.6B
UDZ-TE-17-6.2B



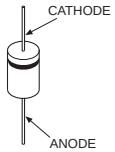
D1NL20
EGP20G
ERA22-08
ERB91-02
HSS82
HZT33-02TE
RGP02-17EL-6433
RGP02-17PKG23
RGP10DG23
RL3Z-LF014-302
UF400SPKG23
3DL41A



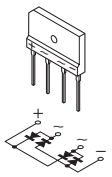
D1N20R
EGP10GPKG23
MTZJ-T-77-15C
MTZJ-T-77-18
MTZJ-T-77-4.7B
MTZJ-4.7C
RB441QT-77
RD10ES-B2
RD12ES-B2
RD15ES-B3
RD18ES-B2
RD4.7ES-B2
RD5.1ES-B2
RD5.6ES-B2
RD6.2ES-B2
1SS119-25



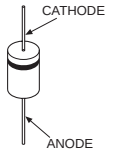
D2S6M
UF4007G23



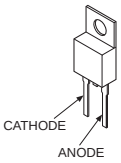
D4SB60L



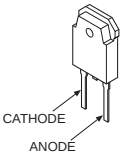
EGP10D
RH-1A



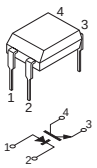
FMC-26US
FMN-G12S



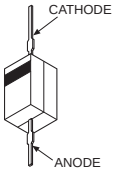
FMQ-G5FMS
5TUZ52C



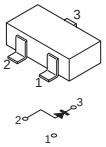
PC123F2
PC123FY2



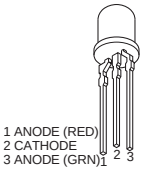
SB340L-5009



1SS226



SPR-325MVW



SECTION 6
EXPLODED VIEWS

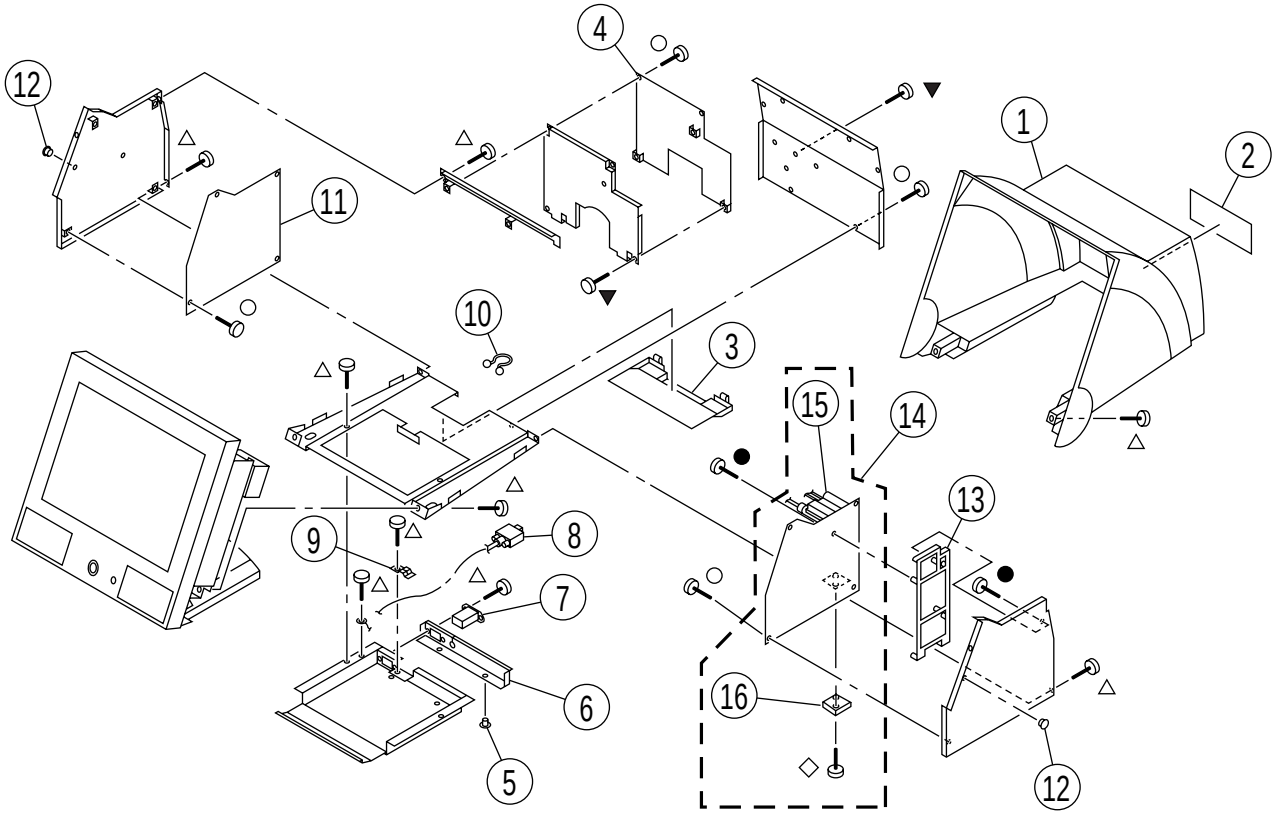
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for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

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

6-1. CHASSIS

● 7-685-648-79 +BVTP 3X12
○ 7-685-872-09 +BVTT 3X8
△ 7-685-881-09 +BVTT 4X8
◇ 7-682-953-09 +PSW 3X20
▼ 7-682-948-01 +PSW 3X8



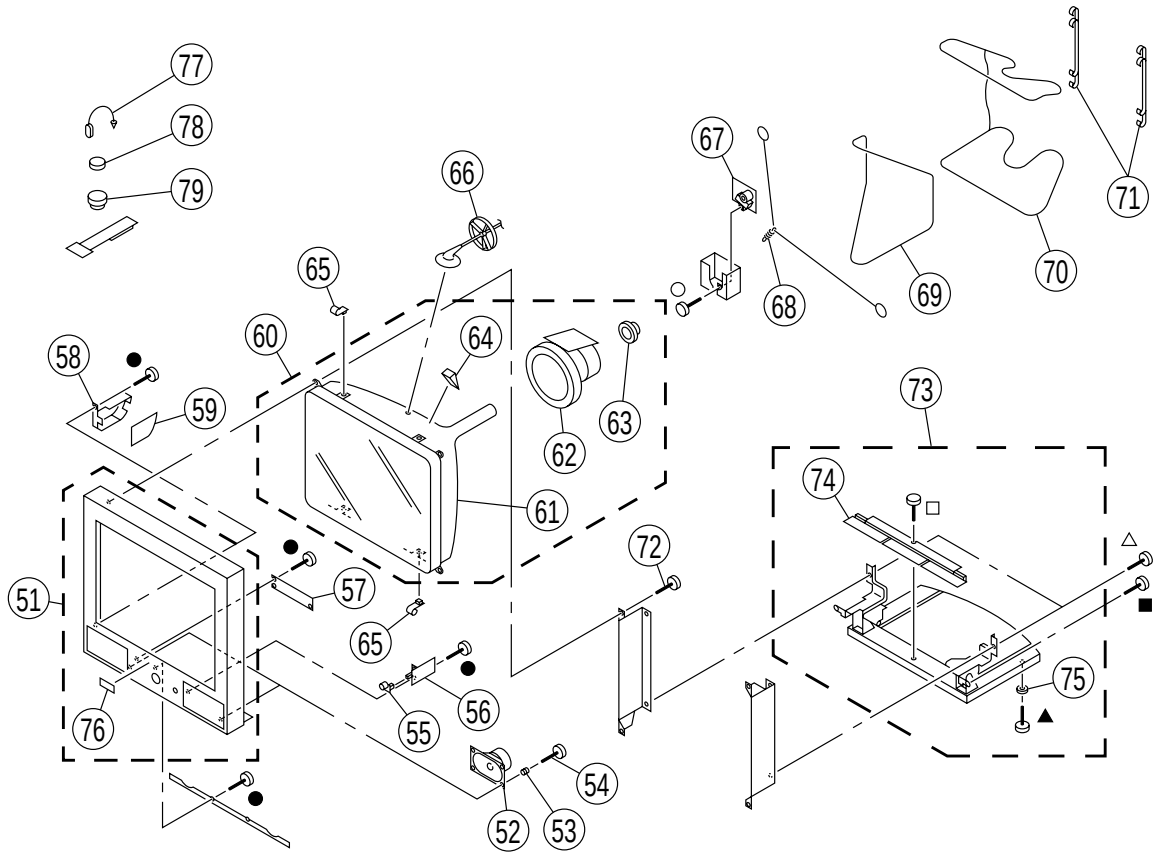
REF.NO.	PART NO.	DESCRIPTION	REMARK
1	4-070-163-21	CABINET [pink]	
1	4-070-163-31	CABINET [blue]	
2	*4-071-035-01	LABEL, INFORMATION [pink]	
2	*4-071-035-11	LABEL, INFORMATION [blue]	
3	4-070-164-01	COVER, BOTTOM [blue]	
3	4-070-164-11	COVER, BOTTOM [pink]	
4	*8-933-373-00	A BOARD, COMPLETE	
5	4-052-842-01	HOLDER, PWB	
6	4-070-528-22	SHEET, CONNECTOR [pink]	
6	4-070-528-32	SHEET, CONNECTOR [blue]	
7	⚠1-785-425-11	INLET,AC (3P)	
8	1-790-707-21	CABLE ASSY (15P D-SUB CONNECTOR)	
9	*4-045-131-01	STOPPER, CABLE	
10	3-701-474-02	LOCK, PURSE	
11	*8-933-374-00	G BOARD, COMPLETE	
12	*4-069-570-11	SPACER, PWB	
13	4-070-527-01	BRACKET, FBT	
14	*A-1346-861-A	D BOARD, COMPLETE	15,16
15	⚠X-4560-146-1	TRANSFORMER ASSY, FLYBACK (NX-4403//J1K4)	
16	1-763-371-11	FAN, DC	

6-2. PICTURE TUBE

- ● 7-685-648-79 +BVTP 3X12
- ▲ 7-685-871-01 +BVTT 3X6
- ■ 7-685-663-71 +BVTP 4X16
- ○ 7-685-872-09 +BVTT 3X8
- △ 7-685-881-09 +BVTT 4X8
- □ 7-685-660-79 +BVTP 4X10

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

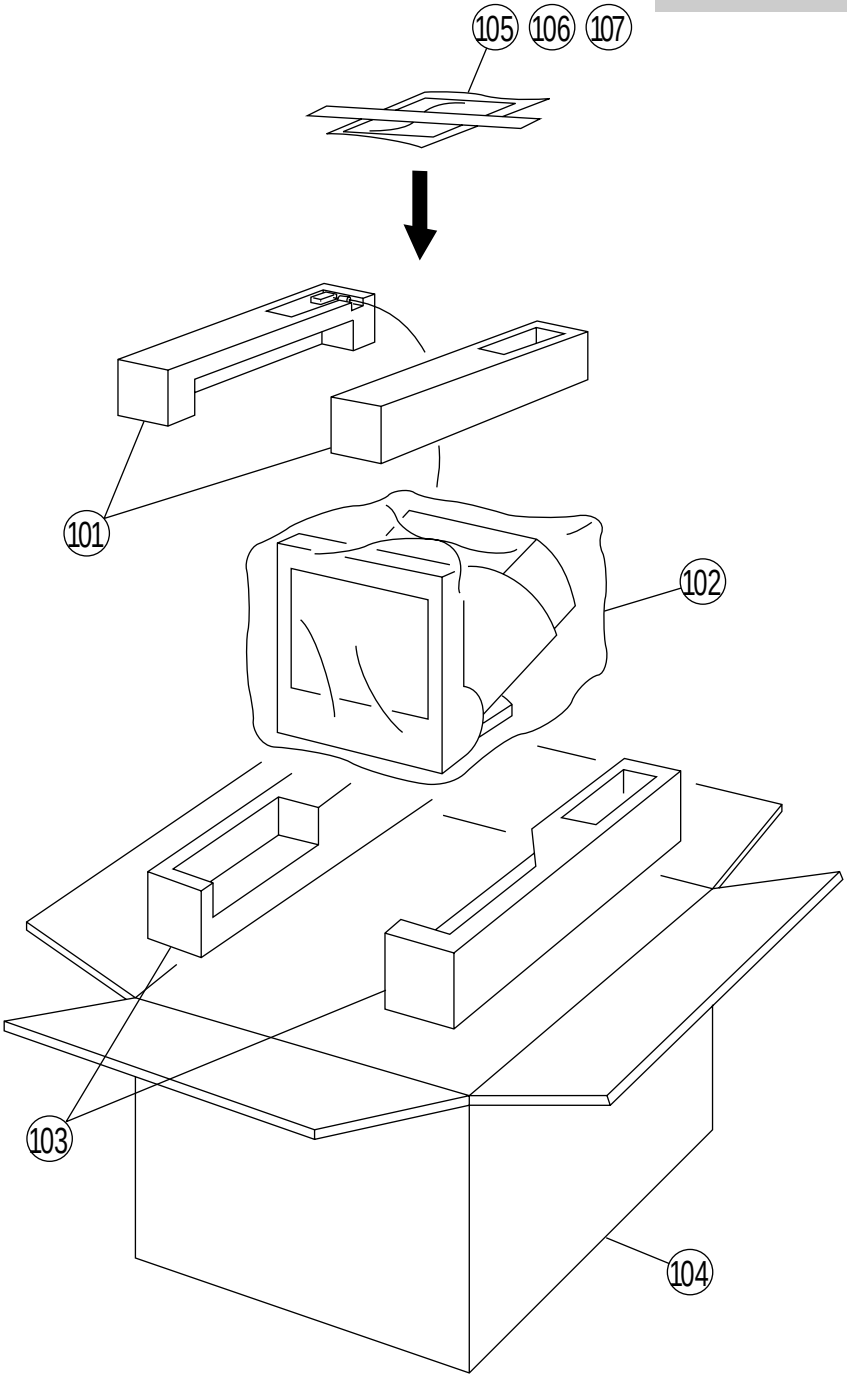


REF.NO.	PART NO.	DESCRIPTION	REMARK
51	X-4036-834-1	BEZEL ASSY [pink]	76
51	X-4036-845-1	BEZEL ASSY [blue]	76
52	1-529-409-11	SPEAKER (5X9CM)	
53	*4-379-189-01	CUSHION, SPEAKER	
54	4-043-388-01	SCREW, STEP TAPPING	
55	4-070-161-01	BUTTON, POWER [blue]	
55	4-070-161-11	BUTTON, POWER [pink]	
56	*1-674-260-11	M BOARD	
57	*8-933-372-00	H BOARD, COMPLETE	
58	4-070-160-01	BRACKET (J) [blue]	
58	4-070-160-11	BRACKET (J) [pink]	
59	*8-933-376-00	J BOARD, COMPLETE	
60	⚠8-738-550-61	ITC ASSY (17TKB-R1)	61-64
61	⚠8-738-546-05	PICTURE TUBE (17TKB) (SDS)	
62	⚠8-451-435-12	DEFLECTION YOKE (Y17TKJ-M)	
63	⚠1-452-923-41	NECK ASSEMBLY (NA-2915)	
64	4-050-492-01	SPACER, DY	
65	4-045-123-01	HOLDER, DEGAUSSING COIL	
66	3-704-372-01	HOLDER, HV CABLE	
67	*8-933-375-00	C BOARD, COMPLETE	
68	*4-047-316-01	SPRING, EXTENSION	
69	⚠1-419-138-11	COIL, LANDING CORRECTION	
70	⚠1-419-139-12	COIL, DEGAUSSING	
71	*4-371-521-01	BAND (L), DEGAUSS COIL	
72	4-365-808-01	SCREW (5), TAPPING	
73	X-4036-650-2	STAND ASSY [blue]	74,75
73	X-4036-704-2	STAND ASSY [pink]	74,75
74	4-070-154-01	BOARD, BLIND	
75	4-070-172-01	FOOT	
76	4-042-353-21	EMBLEM (NO. 7), SONY	
77	4-308-870-00	CLIP, LEAD WIRE	
78	1-452-032-00	MAGNET,DISC ; 10mmø	
79	1-452-094-00	MAGNET,ROTATABLE DISK ; 15mmø	

6-3. PACKING MATERIALS

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



REF.NO.	PART NO.	DESCRIPTION	REMARK
101	*4-069-435-01	CUSHION (UPPER) (ASSY)	
102	*4-041-927-31	BAG, POLYETHYLENE	
103	*4-069-436-01	CUSHION (LOWER) (ASSY)	
104	*4-071-018-02	INDIVIDUAL CARTON	
105	1-772-322-11	DISK, INFORMATION (FOR WINDOWS)	
106	⚠1-765-720-21	CORD SET, POWER	
107	3-867-172-12	MANUAL, INSTRUCTION	

SECTION 7
ELECTRICAL PARTS LIST

A

NOTE:

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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

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.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- CAPACITORS
  MF : μF
- COILS
  UH : μH

REF.NO.	PART NO.	DESCRIPTION			REMARK
	*8-933-373-00	A BOARD, COMPLETE			
		**********			
	4-382-854-01	SCREW (M3X8), P, SW (+)			
		<CAPACITOR>			
C001	1-162-318-11	CERAMIC	0.001MF	10% 500V	
C002	1-137-150-11	MYLAR	0.01MF	10% 100V	
C004	1-163-021-91	CERAMIC CHIP	0.01MF	10% 50V	
C005	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C006	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C009	1-126-934-11	ELECT	220MF	20% 10V	
C010	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C011	1-106-220-00	MYLAR	0.1MF	10% 100V	
C012	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C013	1-126-934-11	ELECT	220MF	20% 16V	
C014	1-128-562-11	ELECT	47MF	20% 100V	
C015	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C016	1-104-664-11	ELECT	47MF	20% 25V	
C017	1-104-664-11	ELECT	47MF	20% 25V	
C018	1-107-652-11	ELECT	10MF	20% 200V	
C022	1-104-664-11	ELECT	47MF	20% 25V	
C027	1-163-021-91	CERAMIC CHIP	0.01MF	10% 50V	
C028	1-104-664-11	ELECT	47MF	20% 25V	
C029	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C036	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C041	1-115-339-11	CERAMIC CHIP	0.1MF	10% 50V	
C046	1-163-021-91	CERAMIC CHIP	0.01MF	10% 50V	
C047	1-104-664-11	ELECT	47MF	20% 25V	
C049	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C050	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C051	1-126-934-11	ELECT	220MF	20% 16V	
C053	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C054	1-137-528-11	FILM	0.1MF	10% 250V	
C055	1-162-318-11	CERAMIC	0.001MF	10% 500V	
C056	1-137-150-11	MYLAR	0.01MF	10% 100V	
C060	1-126-934-11	ELECT	220MF	20% 10V	
C061	1-126-934-11	ELECT	220MF	20% 10V	
C062	1-126-934-11	ELECT	220MF	20% 10V	
C064	1-115-339-11	CERAMIC CHIP	0.1MF	10% 50V	
C065	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C081	1-130-495-00	FILM	0.1MF	5% 50V	
C084	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C085	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C086	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C087	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C092	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C096	1-163-009-11	CERAMIC CHIP	0.001MF	10% 50V	
C097	1-163-235-11	CERAMIC CHIP	22PF	5% 50V	
C098	1-163-235-11	CERAMIC CHIP	22PF	5% 50V	
C099	1-163-035-00	CERAMIC CHIP	0.047MF	50V	
C104	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C106	1-117-450-11	FILM	0.47MF	10% 250V	
C107	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C108	1-163-251-11	CERAMIC CHIP	100PF	5% 50V	
C112	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C120	1-163-245-11	CERAMIC CHIP	56PF	5% 50V	
C130	1-164-489-11	CERAMIC CHIP	0.22MF	10% 16V	
C204	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C205	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C206	1-117-450-11	FILM	0.47MF	10% 250V	
C220	1-163-243-11	CERAMIC CHIP	47PF	5% 50V	
C230	1-164-489-11	CERAMIC CHIP	0.22MF	10% 16V	
C304	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C305	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C306	1-117-450-11	FILM	0.47MF	10% 250V	
C320	1-163-243-11	CERAMIC CHIP	47PF	5% 50V	
C330	1-164-489-11	CERAMIC CHIP	0.22MF	10% 16V	
C700	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
C701	1-164-004-11	CERAMIC CHIP	0.1MF	10% 25V	
		<CONNECTOR>			
CN301	1-764-101-11	PIN, CONNECTOR (PC BOARD) 2P			
CN303	1-695-915-11	TAB (CONTACT)			
CN304	1-695-915-11	TAB (CONTACT)			
CN305	1-764-334-11	PLUG, CONNECTOR 11P			
CN306*	1-564-513-11	PLUG, CONNECTOR 10P			
CN307*	1-564-512-11	PLUG, CONNECTOR 9P			
CN309*	1-564-515-11	PLUG, CONNECTOR 12P			
CN310*	1-564-507-11	PLUG, CONNECTOR 4P			
CN311	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)			
CN315*	1-564-508-11	PLUG, CONNECTOR 5P			
CN316*	1-564-507-11	PLUG, CONNECTOR 4P			

REF.NO.	PART NO.	DESCRIPTION	REMARK
CN317*	1-564-513-11	PLUG, CONNECTOR 10P	
CN319*	1-564-510-11	PLUG, CONNECTOR 7P	
CN322	1-695-915-11	TAB (CONTACT)	
CN700*	1-564-505-11	PLUG, CONNECTOR 2P	
		<DIODE>	
D001	8-719-109-89	ZENER DIODE RD5.6ESB2	
D003	8-719-109-89	ZENER DIODE RD5.6ESB2	
D005	8-719-911-19	DIODE 1SS119-25	
D006	8-719-911-19	DIODE 1SS119-25	
D007	8-719-109-89	ZENER DIODE RD5.6ESB2	
D008	8-719-109-89	ZENER DIODE RD5.6ESB2	
D014	8-719-911-19	DIODE 1SS119-25	
D015	8-719-056-82	ZENER DIODE UDZ-TE-17-6.2B	
D016	8-719-073-01	DIODE MA111-(K8).S0	
D017	8-719-073-01	DIODE MA111-(K8).S0	
D018	8-719-109-89	ZENER DIODE RD5.6ESB2	
D019	8-719-109-89	ZENER DIODE RD5.6ESB2	
D101	8-719-800-76	DIODE 1SS226	
D104	8-719-970-83	DIODE HSS82	
D105	8-719-970-83	DIODE HSS82	
D106	8-719-970-83	DIODE HSS82	
D201	8-719-800-76	DIODE 1SS226	
D204	8-719-970-83	DIODE HSS82	
D205	8-719-970-83	DIODE HSS82	
D206	8-719-970-83	DIODE HSS82	
D301	8-719-800-76	DIODE 1SS226	
D304	8-719-970-83	DIODE HSS82	
D305	8-719-970-83	DIODE HSS82	
D306	8-719-970-83	DIODE HSS82	
		<FERRITE BEAD>	
FB001	1-412-911-11	FERRITE	
FB005	1-412-911-11	FERRITE	
FB007	1-412-911-11	FERRITE	
FB012	1-216-295-91	SHORT	0
FB013	1-216-295-91	SHORT	0
FB014	1-216-295-91	SHORT	0
FB015	1-412-911-11	FERRITE	
FB101	1-414-766-21	INDUCTOR CHIP	
FB102	1-216-295-91	SHORT	0
FB110	1-412-911-11	FERRITE	
FB201	1-414-766-21	INDUCTOR CHIP	
FB202	1-216-295-91	SHORT	0
FB210	1-412-911-11	FERRITE	
FB301	1-414-766-21	INDUCTOR CHIP	
FB302	1-216-295-91	SHORT	0
FB310	1-412-911-11	FERRITE	
		<FILTER>	
FL001	1-412-911-31	FERRITE	
FL101	1-412-911-31	FERRITE	
FL201	1-412-911-31	FERRITE	
FL301	1-412-911-31	FERRITE	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC001	8-752-090-63	IC CXA2067S	
IC002	8-759-435-33	IC LM2405T	
IC003	8-759-592-80	IC CXD9504S-1	
IC004	8-759-434-40	IC TDA6103Q/N3,112	
IC005	8-759-100-96	IC uPC4558G2	
IC006	8-759-544-88	IC MC74HCT14AFEL	
IC700	8-759-510-71	IC BA10358F-E2	
		<COIL>	
L002	1-410-682-31	INDUCTOR 470UH	
L003	1-412-529-11	INDUCTOR 22UH	
L006	1-412-537-31	INDUCTOR 100UH	
L007	1-412-537-31	INDUCTOR 100UH	
L009	1-412-537-31	INDUCTOR 100UH	
L010	1-412-537-31	INDUCTOR 100UH	
L011	1-412-537-31	INDUCTOR 100UH	
L012	1-412-529-11	INDUCTOR 22UH	
		<TRANSISTOR>	
Q001	8-729-032-61	TRANSISTOR 2SC5022-02	
Q009	8-729-027-31	TRANSISTOR DTA124EKA-T146	
Q010	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q012	8-729-025-28	TRANSISTOR 2SK1828	
Q013	8-729-025-28	TRANSISTOR 2SK1828	
Q700	8-729-209-15	TRANSISTOR 2SD2012	
		<RESISTOR>	
R004	1-216-025-91	RES,CHIP	100 5% 1/10W
R005	1-216-025-91	RES,CHIP	100 5% 1/10W
R006	1-216-025-91	RES,CHIP	100 5% 1/10W
R009	1-216-073-00	RES,CHIP	10K 5% 1/10W
R014	1-216-025-91	RES,CHIP	100 5% 1/10W
R016	1-216-073-00	RES,CHIP	10K 5% 1/10W
R017	1-216-025-91	RES,CHIP	100 5% 1/10W
R018	1-216-025-91	RES,CHIP	100 5% 1/10W
R020	1-216-295-91	SHORT	0
R021	1-216-295-91	SHORT	0
R022	1-216-295-91	SHORT	0
R026	1-216-073-00	RES,CHIP	10K 5% 1/10W
R029	1-216-095-00	RES,CHIP	82K 5% 1/10W
R031	1-216-049-91	RES,CHIP	1K 5% 1/10W
R032	1-216-649-11	METAL CHIP	820 0.50% 1/10W
R033	1-216-675-91	METAL CHIP	10K 0.50% 1/10W
R040	1-216-113-00	RES,CHIP	470K 5% 1/10W
R045	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R046	1-216-097-91	RES,CHIP	100K 5% 1/10W
R047	1-216-073-00	RES,CHIP	10K 5% 1/10W
R048	1-211-885-21	METAL	2.2M 5% 1W
R049	1-216-099-00	RES,CHIP	120K 5% 1/10W
R053	1-219-621-91	METAL	22M 10% 1/4W
R055	1-216-295-91	SHORT	0
R056	1-216-295-91	SHORT	0

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R072	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R073	1-218-760-11	METAL CHIP	220K	0.50%	1/10W	
R074	1-216-685-11	METAL CHIP	27K	0.50%	1/10W	
R075	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R076	1-218-776-11	METAL CHIP	1M	0.50%	1/10W	
R081	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W	
R085	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R087	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R088	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R089	1-216-025-91	RES,CHIP	100	5%	1/10W	
R090	1-216-025-91	RES,CHIP	100	5%	1/10W	
R093	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R094	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R095	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R096	1-216-089-91	RES,CHIP	47K	5%	1/10W	
R097	1-216-025-91	RES,CHIP	100	5%	1/10W	
R098	1-216-025-91	RES,CHIP	100	5%	1/10W	
R101	1-215-394-00	METAL	75	1%	1/4W	
R103	1-216-295-91	SHORT	0			
R104	1-216-021-00	RES,CHIP	68	5%	1/10W	
R106	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R107	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	
R108	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R110	1-215-473-00	METAL	150K	1%	1/4W	
R111	1-249-401-11	CARBON	47	5%	1/4W	F
R117	1-216-017-91	RES,CHIP	47	5%	1/10W	
R118	1-216-009-91	RES,CHIP	22	5%	1/10W	
R120	1-216-025-91	RES,CHIP	100	5%	1/10W	
R121	1-216-113-91	RES,CHIP	470K	5%	1/10W	
R201	1-215-394-00	METAL	75	1%	1/4W	
R203	1-216-295-91	SHORT	0			
R204	1-216-021-00	RES,CHIP	68	5%	1/10W	
R206	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R207	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	
R208	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R209	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R210	1-215-473-00	METAL	150K	1%	1/4W	
R211	1-249-401-11	CARBON	47	5%	1/4W	F
R217	1-216-017-91	RES,CHIP	47	5%	1/10W	
R218	1-216-009-91	RES,CHIP	22	5%	1/10W	
R220	1-216-025-91	RES,CHIP	100	5%	1/10W	
R221	1-216-113-91	RES,CHIP	470K	5%	1/10W	
R301	1-215-394-00	METAL	75	1%	1/4W	
R303	1-216-295-91	SHORT	0			
R304	1-216-021-00	RES,CHIP	68	5%	1/10W	
R306	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R307	1-216-051-00	RES,CHIP	1.2K	5%	1/10W	
R308	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R309	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R310	1-215-473-00	METAL	150K	1%	1/4W	
R311	1-249-401-11	CARBON	47	5%	1/4W	F
R313	1-216-025-91	RES,CHIP	100	5%	1/10W	
R317	1-216-017-91	RES,CHIP	47	5%	1/10W	
R318	1-216-009-91	RES,CHIP	22	5%	1/10W	
R320	1-216-025-91	RES,CHIP	100	5%	1/10W	
R321	1-216-113-91	RES,CHIP	470K	5%	1/10W	
R700	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R701	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R702	1-216-067-00	RES,CHIP	5.6K	5%	1/10W	
R703	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R704	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R706	1-215-865-11	METAL OXIDE	220	5%	1W	F

<CRYSTAL>

X001	1-567-890-11	VIBRATOR, CRYSTAL				

****

* 1-674-260-11 M BOARD
****

<CONNECTOR>

CN1601	*1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P				

<SWITCH>

S1601	⚠1-771-736-11	SWITCH, AC POWER WITH PUSH				

****

* 8-933-374-00 G BOARD, COMPLETE
****

	4-382-854-11	SCREW (M3X10), P, SW (+) (IC603, IC604, IC606, IC612, IC613, IC614, Q612, D601, D608, D610, D611)				

<CAPACITOR>

C601	⚠1-104-708-51	FILM	0.47MF	20%	250V	
C602	⚠1-113-513-11	FILM	1MF	20%	275V	
C603	⚠1-113-912-51	CERAMIC	0.0047MF	20%	250V	
C604	⚠1-113-912-51	CERAMIC	0.0047MF	20%	250V	
C605	1-130-471-00	FILM	0.001MF	5%	50V	
C606	1-126-933-11	ELECT	100MF	20%	16V	
C607	1-126-925-11	ELECT	470MF	20%	10V	
C608	1-113-912-11	CERAMIC	0.0047MF	20%	250V	
C609	1-107-955-11	ELECT	100MF	20%	200V	
C610	1-107-932-11	ELECT	47MF	20%	100V	
C611	1-137-370-11	FILM	0.01MF	5%	50V	
C613	1-126-971-11	ELECT	470MF	20%	50V	
C614	1-107-913-11	ELECT	470MF	20%	50V	
C615	1-107-913-11	ELECT	470MF	20%	50V	
C617	1-102-228-00	CERAMIC	470PF	10%	500V	
C618	1-107-906-11	ELECT	10MF	20%	16V	
C619	1-126-942-61	ELECT	1000MF	20%	25V	
C620	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	
C622	1-107-888-11	ELECT	47MF	20%	25V	

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REF.NO.	PART NO.	DESCRIPTION			REMARK
C623	1-137-605-11	FILM	0.01MF	10%	250V
C624	1-130-471-00	FILM	0.001MF	5%	50V
C626	1-126-965-11	ELECT	22MF	20%	50V
C627	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C628	1-136-356-11	FILM	470PF	5%	50V
C629	1-126-965-11	ELECT	22MF	20%	50V
C630	1-130-471-00	FILM	0.001MF	5%	50V
C634	1-128-528-11	ELECT	470MF	20%	25V
C635	1-107-914-11	ELECT	1000MF	20%	25V
C636	1-107-888-11	ELECT	47MF	20%	25V
C637	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C638	1-107-888-11	ELECT	47MF	20%	25V
C639	1-126-926-11	ELECT	1000MF	20%	10V
C643	1-107-888-11	ELECT	47MF	20%	25V
C644	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C646	1-107-888-11	ELECT	47MF	20%	25V
C647	1-104-664-11	ELECT	47MF	20%	16V
C654	1-126-943-11	ELECT	2200MF	20%	25V
C655	1-107-891-11	ELECT	3300MF	20%	25V
C657	1-107-888-11	ELECT	47MF	20%	25V
C659	1-102-228-00	CERAMIC	470PF	10%	500V
C660	1-162-115-00	CERAMIC	330PF	10%	2KV
C661	1-129-720-00	FILM	0.033MF	5%	630V
C662	1-128-551-11	ELECT	22MF	20%	25V
C663	1-104-665-11	ELECT	100MF	20%	25V
C664	1-215-469-00	METAL	100K	1%	1/4W
C665	1-137-370-11	FILM	0.01MF	5%	50V
C666	1-137-372-11	FILM	0.022MF	5%	50V
C667	1-107-933-11	ELECT	100MF	20%	100V
C668	1-107-914-11	ELECT	1000MF	20%	25V
C669	1-126-768-11	ELECT	2200MF	20%	16V
C670	1-107-890-11	ELECT	2200MF	20%	25V
C671	1-107-956-11	ELECT	220MF	20%	200V
C672	1-107-913-11	ELECT	470MF	20%	50V
C673	1-117-753-11	ELECT (BLOCK)	470MF	20%	450V
C675	1-126-933-11	ELECT	100MF	20%	16V
C681	1-126-941-11	ELECT	470MF	20%	25V
C682	1-126-934-11	ELECT	220MF	20%	16V
C683	1-130-471-00	FILM	0.001MF	5%	50V
C5001	1-126-961-11	ELECT	2.2MF	20%	50V
C5021	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5022	1-126-963-11	ELECT	4.7MF	20%	50V
C5202	1-126-964-11	ELECT	10MF	20%	50V
C5203	1-126-964-11	ELECT	10MF	20%	50V
C5205	1-107-698-11	ELECT	10MF	20%	25V
C5206	1-107-698-11	ELECT	10MF	20%	25V
C5207	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C5208	1-164-695-11	CERAMIC CHIP	0.0022MF	5%	50V
C5209	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V
C5210	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C5211	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C5212	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5213	1-126-965-11	ELECT	22MF	20%	50V
C5214	1-104-664-11	ELECT	47MF	20%	25V
C5215	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C5217	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C5218	1-104-663-11	ELECT	33MF	20%	25V
C5219	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5220	1-164-344-11	CERAMIC CHIP	0.068MF	10%	25V
C5221	1-126-941-11	ELECT	470MF	20%	25V
C5223	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C5236	1-104-664-11	ELECT	47MF	20%	16V
C5240	1-126-965-11	ELECT	22MF	20%	50V
C5241	1-104-664-11	ELECT	47MF	20%	25V
C5242	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5243	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5244	1-126-965-11	ELECT	22MF	20%	50V
C5257	1-126-960-11	ELECT	1MF	20%	50V
C5258	1-104-664-11	ELECT	47MF	20%	16V
C5260	1-124-689-11	ELECT	1000MF	20%	16V
C5263	1-124-689-11	ELECT	1000MF	20%	16V
C5264	1-163-038-91	CERAMIC CHIP	0.1MF		25V
C5275	1-136-165-00	FILM	0.1MF	5%	50V
C5276	1-136-165-00	FILM	0.1MF	5%	50V
C5279	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C5280	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C5281	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C5282	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C5283	1-126-963-11	ELECT	4.7MF	20%	50V
C5284	1-126-963-11	ELECT	4.7MF	20%	50V
C5285	1-126-964-11	ELECT	10MF	20%	50V
C5303	1-126-963-11	ELECT	4.7MF	20%	50V
C5304	1-126-963-11	ELECT	4.7MF	20%	50V
C5310	1-163-989-11	CERAMIC CHIP	0.033MF	10%	25V
C5620	1-128-842-31	ELECT	3300MF	20%	16V

<CONNECTOR>

CN601*	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P
CN603	1-764-334-11	PLUG, CONNECTOR 11P
CN604	1-695-915-11	TAB (CONTACT)
CN605*	1-506-371-00	PIN, CONNECTOR 2P
CN606	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN607	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN608*	1-564-509-11	PLUG, CONNECTOR 6P
CN609*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN610*	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P
CN611*	1-564-509-11	PLUG, CONNECTOR 6P
CN612*	1-564-507-11	PLUG, CONNECTOR 4P
CN5200*	1-564-507-11	PLUG, CONNECTOR 4P
CN5202*	1-564-508-11	PLUG, CONNECTOR 5P
CN5204*	1-564-510-11	PLUG, CONNECTOR 7P
CN56051	695-915-11	TAB (CONTACT)
CN56061	695-915-11	TAB (CONTACT)
CN56071	695-915-11	TAB (CONTACT)

<DIODE>

D601 ⚠	8-719-510-53	DIODE D4SB60L
D602	8-719-110-49	ZENER DIODE RD18ESB2
D603	8-719-053-19	DIODE UF4007G23
D604	8-719-053-19	DIODE UF4007G23

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REF.NO.	PART NO.	DESCRIPTION	REMARK
D605	8-719-300-76	DIODE RH-1A	
D606	8-719-921-40	ZENER DIODE MTZJ-4.7C	
D607	8-719-979-58	DIODE EGP10D	
D608	8-719-067-68	DIODE FMC-26UA	
D609	8-719-073-04	DIODE RL3Z-LF014-302	
D610	8-719-058-38	DIODE FMN-G12S	
D611	8-719-058-38	DIODE FMN-G12S	
D612	8-719-073-04	DIODE RL3Z-LF014-302	
D613	8-719-978-69	ZENER DIODE DTZ-TT11-16B	
D625	8-719-018-84	DIODE D2S6M	
D627	8-719-948-45	DIODE ERA22-08	
D628	8-719-110-42	ZENER DIODE RD15ESB3	
D631	8-719-911-19	DIODE 1SS119-25	
D632	8-719-110-42	ZENER DIODE RD15ESB3	
D633	8-719-510-48	DIODE D1N20R	
D670	8-719-911-19	DIODE 1SS119-25	
D672	8-719-073-01	DIODE MA111-(K8).S0	
D5200	8-719-073-01	DIODE MA111-(K8).S0	
D5201	8-719-073-01	DIODE MA111-(K8).S0	
D5202	8-719-073-01	DIODE MA111-(K8).S0	
D5203	8-719-073-01	DIODE MA111-(K8).S0	
D5204	8-719-073-01	DIODE MA111-(K8).S0	
D5205	8-719-510-46	DIODE D1NL20	
D5206	8-719-073-01	DIODE MA111-(K8).S0	
D5210	8-719-073-01	DIODE MA111-(K8).S0	
D5213	8-719-073-01	DIODE MA111-(K8).S0	
D5601	8-719-073-01	DIODE MA111-(K8).S0	
D5602	8-719-073-01	DIODE MA111-(K8).S0	
		<FUSE>	
F601 ⚠	1-576-231-11	FUSE (H.B.C.) (4A/250V)	
	1-533-223-11	HOLDER, FUSE ; F601	
		<FERRITE BEAD>	
FB601	1-412-911-11	FERRITE	
		<TERMINAL>	
GT600*	1-537-738-21	TERMINAL, EARTH	
GT602*	1-537-738-21	TERMINAL, EARTH	
GT605*	1-537-738-21	TERMINAL, EARTH	
GT606*	1-537-738-21	TERMINAL, EARTH	
		<IC>	
IC603	8-759-450-47	IC BA05T	
IC604	8-759-513-72	IC PQ12RF11	
IC605	8-749-010-64	PHOTO COUPLER PC123F2	
IC606	8-759-450-47	IC BA05T	
IC607	8-759-594-75	IC TEA1504-N2	
IC608	8-749-010-64	PHOTO COUPLER PC123F2	
IC610	8-759-450-47	IC BA05T	
IC611	8-759-448-32	IC SE-M140	
IC612	8-759-592-79	IC BA00AST-V5	
IC613	8-759-470-65	IC PQ05RD1B	
IC614	8-759-460-00	IC PQ09RD1B	
IC5200	8-759-273-12	IC TDA7315D013TR	
IC5201	8-759-980-43	IC TDA2009A	
IC5202	8-759-100-96	IC uPC4558G2	
IC5203	8-759-100-96	IC uPC4558G2	
		<COIL>	
L600	1-406-665-11	INDUCTOR 100UH	
L601	1-406-665-11	INDUCTOR 100UH	
L602	1-406-665-11	INDUCTOR 100UH	
L603	1-412-537-31	INDUCTOR 100UH	
L604	1-406-665-11	INDUCTOR 100UH	
L605	1-406-665-11	INDUCTOR 100UH	
L607	1-406-665-11	INDUCTOR 100UH	
L608	1-414-742-21	INDUCTOR 22UH	
L5201	1-410-435-21	INDUCTOR 220UH	
L5202	1-410-435-21	INDUCTOR 220UH	
		<FILTER>	
LF601 ⚠	1-429-180-11	TRANSFORMER, LINE FILTER	
		<IC LINK>	
PS600 ⚠	1-533-597-31	LINK, IC (5A/90V AC, 60V DC)	
PS5200 ⚠	1-532-984-91	LINK, IC (2A/90V)	
		<TRANSISTOR>	
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q603	8-729-920-21	TRANSISTOR DTC314TK-T-146	
Q604	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q612	8-729-049-33	TRANSISTOR IRFIB6N60A	
Q613	8-729-046-40	TRANSISTOR 2SK2663	
Q614	8-729-922-39	TRANSISTOR 2SD2144S-V	
Q670	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q5001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q5002	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q5003	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q5201	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5205	8-729-216-22	TRANSISTOR 2SA1162-G	
		<RESISTOR>	
R601	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R602 ⚠	1-240-919-51	CEMENT 1 10W	
R603	1-216-049-91	RES,CHIP 1K 5% 1/10W	
R604	1-216-097-91	RES,CHIP 100K 5% 1/10W	
R605	1-216-659-11	METAL CHIP 2.2K 0.50% 1/10W	
R606	1-216-674-11	METAL CHIP 9.1K 0.50% 1/10W	
R607 ⚠	1-202-882-91	SOLID 560K 20% 1/2W	
R608	1-249-389-11	CARBON 4.7 5% 1/4W F	
R609	1-216-687-11	METAL CHIP 33K 0.50% 1/10W	

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REF.NO.	PART NO.	DESCRIPTION				REMARK
R610	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R611	1-249-397-11	CARBON	22	5%	1/4W	F
R612	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W	
R613	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R614	1-216-381-11	METAL OXIDE	0.22	5%	3W	F
R616	1-215-928-11	METAL OXIDE	68K	5%	3W	F
R617	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R618	1-247-791-91	CARBON	22	5%	1/4W	
R619	1-249-381-11	CARBON	1	5%	1/4W	F
R620	1-216-091-00	RES,CHIP	56K	5%	1/10W	
R621	1-211-802-11	FUSIBLE	3.3	5%	1/2W	F
R622	1-216-651-11	METAL CHIP	1K	0.50%	1/10W	
R623	1-216-635-11	METAL CHIP	220	0.50%	1/10W	
R624	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R625	1-215-923-00	METAL OXIDE	10K	5%	3W	F
R631	1-215-431-00	METAL	2.7K	1%	1/4W	
R632	1-215-423-00	METAL	1.2K	1%	1/4W	
R633	1-247-863-91	CARBON	22K	5%	1/4W	
R635	1-249-387-11	CARBON	3.3	5%	1/4W	F
R636	1-215-469-00	METAL	100K	1%	1/4W	
R637	1-240-205-91	CARBON	22M	5%	1/2W	
R638	1-216-041-00	RES,CHIP	470	5%	1/10W	
R639	1-247-791-91	CARBON	22	5%	1/4W	
R640	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R642	1-216-041-00	RES,CHIP	470	5%	1/10W	
R643	1-260-293-11	CARBON	1.2	5%	1/2W	
R644	1-247-815-91	CARBON	220	5%	1/4W	
R647	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R648	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R649	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R656	1-216-295-91	SHORT	0			
R657	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R666	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R670	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R671	1-249-425-11	CARBON	4.7K	5%	1/4W	
R674	1-247-899-11	CARBON	680K	5%	1/4W	
R676	1-215-457-00	METAL	33K	1%	1/4W	
R677	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R678	1-219-512-11	CARBON	2.2M	5%	1/2W	
R679	1-219-512-11	CARBON	2.2M	5%	1/2W	
R681	1-219-513-11	CARBON	4.7M	5%	1/2W	
R682	1-219-513-11	CARBON	4.7M	5%	1/2W	
R684	1-249-417-11	CARBON	1K	5%	1/4W	
R685	1-247-887-00	CARBON	220K	5%	1/4W	
R686	1-247-887-00	CARBON	220K	5%	1/4W	
R687	1-247-899-11	CARBON	680K	5%	1/4W	
R5001	1-216-093-91	RES,CHIP	68K	5%	1/10W	
R5002	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R5003	1-216-085-00	RES,CHIP	33K	5%	1/10W	
R5004	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R5005	1-216-041-00	RES,CHIP	470	5%	1/10W	
R5006	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R5007	1-216-677-11	METAL CHIP	12K	0.50%	1/10W	
R5201	1-216-001-00	RES,CHIP	10	5%	1/10W	
R5202	1-240-095-21	RES,CHIP	100K	5%	1/10W	
R5203	1-240-095-21	RES,CHIP	100K	5%	1/10W	
R5204	1-240-095-21	RES,CHIP	100K	5%	1/10W	
R5205	1-240-095-21	RES,CHIP	100K	5%	1/10W	
R5206	1-240-099-21	RES,CHIP	220K	5%	1/10W	
R5207	1-240-103-21	RES,CHIP	470K	5%	1/10W	
R5208	1-240-099-21	RES,CHIP	220K	5%	1/10W	
R5209	1-240-103-21	RES,CHIP	470K	5%	1/10W	
R5210	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5211	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5213	1-216-295-91	SHORT	0			
R5214	1-249-377-11	CARBON	0.47	5%	1/4W	F
R5216	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R5217	1-216-025-91	RES,CHIP	100	5%	1/10W	
R5218	1-216-017-91	RES,CHIP	47	5%	1/10W	
R5219	1-240-082-21	RES,CHIP	8.2K	5%	1/10W	
R5222	1-216-025-91	RES,CHIP	100	5%	1/10W	
R5223	1-240-082-21	RES,CHIP	8.2K	5%	1/10W	
R5225	1-216-081-00	RES,CHIP	22K	5%	1/10W	
R5229	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5230	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5232	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5233	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5239	1-216-295-91	SHORT	0			
R5241	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5242	1-215-875-11	METAL OXIDE	10K	5%	1W	F
R5246	1-249-389-11	CARBON	4.7	5%	1/4W	F
R5250	1-216-041-00	RES,CHIP	470	5%	1/10W	
R5252	1-249-389-11	CARBON	4.7	5%	1/4W	F
R5258	1-216-295-91	SHORT	0			
R5259	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	
R5260	1-216-675-91	METAL CHIP	10K	0.50%	1/10W	
R5264	1-216-295-91	SHORT	0			
R5276	1-216-659-11	RES,CHIP	2.2K	5%	1/10W	
R5277	1-216-659-11	RES,CHIP	2.2K	5%	1/10W	
R5281	1-240-091-21	RES,CHIP	47K	5%	1/10W	
R5282	1-240-091-21	RES,CHIP	47K	5%	1/10W	
R5283	1-216-683-11	RES,CHIP	22K	5%	1/10W	
R5284	1-216-683-11	RES,CHIP	22K	5%	1/10W	
R5300	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R5301	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W	
R5306	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R5307	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R5309	1-240-052-21	RES,CHIP	27	5%	1/10W	
R5310	1-216-651-11	RES,CHIP	1K	5%	1/10W	
R5311	1-240-052-21	RES,CHIP	27	5%	1/10W	
R5325	1-216-675-11	RES,CHIP	10K	5%	1/10W	
R5326	1-216-675-11	RES,CHIP	10K	5%	1/10W	
RA615	1-216-482-21	METAL OXIDE	1.8K	5%	3W	F
RB615	1-215-894-11	METAL OXIDE	2.2K	5%	2W	F

<RELAY>

RY601⚠	1-755-031-11	RELAY	

G C D

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REF.NO.	PART NO.	DESCRIPTION			REMARK
		<TRANSFORMER>			
T601	1-433-935-11	TRANSFORMER, CONVERTER (SRT)			
T603	1-433-936-11	TRANSFORMER, CONVERTER (SRT)			
		<THERMISTOR>			
TH601⚠	1-810-990-11	THERMISTOR, NTC			
TH602⚠	1-803-540-11	THERMISTOR			
		<VARISTOR>			
VA602⚠	1-801-268-51	VARISTOR TNR14V471K660			
**********					
*	8-933-375-00	C BOARD, COMPLETE **********			
		<CAPACITOR>			
C1001	1-115-349-51	CERAMIC	0.01MF		2KV
C1002	1-162-318-11	CERAMIC	0.001MF	10%	500V
		<FERRITE BEAD>			
FB1001	1-412-911-11	FERRITE			
		<JACK>			
J1001⚠	1-451-499-11	SOCKET, PICTURE TUBE			
		<COIL>			
L1001	1-410-750-41	INDUCTOR 0.47UH			
L1002	1-410-750-41	INDUCTOR 0.47UH			
L1003	1-410-750-41	INDUCTOR 0.47UH			
		<RESISTOR>			
R1001	1-202-830-00	SOLID	10K	20%	1/2W
R1002	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1003	1-216-045-00	RES,CHIP	680	5%	1/10W
R1004	1-216-051-00	RES,CHIP	1.2K	5%	1/10W
R1005	1-202-549-00	SOLID	100	20%	1/2W
R1006	1-202-549-00	SOLID	100	20%	1/2W
R1007	1-202-549-00	SOLID	100	20%	1/2W
		<SPARK GAP>			
SG10011	1-519-422-11	GAP, SPARK			
SG10021	1-517-499-21	GAP, SPARK			
SG10031	1-517-499-21	GAP, SPARK			
SG10041	1-517-499-21	GAP, SPARK			
SG10051	1-517-499-21	GAP, SPARK			
**********					
*	A-1346-861-A	D BOARD, COMPLETE **********			
	2-371-561-00	BUSHING (P), INSULATING (IC503)			
	4-061-191-01	SHEET, INSULATE(IC503)			
	4-382-854-11	SCREW (M3X10), P, SW (+) (IC503, IC1401, Q503, Q507, Q510, D506)			
	4-382-854-21	SCREW (M3X14), P, SW (+) (IC1300)			
		<CAPACITOR>			
C501	1-126-964-11	ELECT	10MF	20%	50V
C502	1-137-370-11	FILM	0.01MF	5%	50V
C503	1-102-129-00	CERAMIC	0.01MF	10%	50V
C504	1-102-228-00	CERAMIC	470PF	10%	500V
C505	1-165-157-11	CERAMIC	39PF	5%	3KV
C506	1-126-960-11	ELECT	1MF	20%	50V
C508	1-104-665-11	ELECT	100MF	20%	25V
C509	1-162-117-00	CERAMIC	100PF	10%	500V
C510	1-102-228-00	CERAMIC	470PF	10%	500V
C511	1-115-517-11	FILM	0.39MF	5%	250V
C512	1-102-002-00	CERAMIC	680PF	10%	500V
C513	1-126-964-11	ELECT	10MF	20%	50V
C514	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C515	1-104-760-11	CERAMIC CHIP	0.047MF	10%	50V
C517	1-130-489-00	FILM	0.033MF	5%	50V
C518	1-117-834-11	FILM	5600PF	3%	1.5KV
C519	1-136-064-00	FILM	2200PF	3%	1.2KV
C520	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C521	1-107-444-11	CERAMIC	100PF	5%	2KV
C522	1-136-684-51	MYLAR	0.0022MF	10%	100V
C523	1-117-462-11	FILM	0.75MF	5%	250V
C524	1-107-956-11	ELECT	220MF	20%	200V
C525	1-115-516-11	FILM	0.33MF	5%	250V
C526	1-164-143-11	CERAMIC	0.001MF	10%	1KV
C527	1-117-879-91	CAPACITOR	0.01MF	10%	250V
C528	1-115-349-51	CERAMIC	0.01MF		2KV
C529	1-115-511-11	FILM	0.12MF	5%	250V
C531	1-107-846-11	FILM	0.1MF	5%	250V
C532	1-137-401-11	FILM	0.22MF	10%	100V
C534	1-137-419-11	FILM	0.033MF	10%	100V
C535	1-137-418-11	FILM	0.022MF	10%	100V
C536	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C537	1-128-577-11	ELECT	0.47MF	20%	100V
C538	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C539	1-137-418-11	FILM	0.022MF	10%	100V
C540	1-136-203-11	FILM	10000PF	5%	630V

REF.NO.	PART NO.	DESCRIPTION			REMARK
C541	1-126-961-11	ELECT	2.2MF	20%	50V
C542	1-126-964-11	ELECT	10MF	20%	50V
C543	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C544	1-137-370-11	FILM	0.01MF	5%	50V
C545	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C546	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C547	1-126-960-11	ELECT	1MF	20%	50V
C548	1-130-471-00	FILM	0.001MF	5%	50V
C549	1-137-375-11	FILM	0.068MF	5%	50V
C550	1-126-933-11	ELECT	100MF	20%	16V
C551	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C552	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C553	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C554	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C555	1-130-495-00	FILM	0.1MF	5%	50V
C556	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C557	1-126-965-11	ELECT	22MF	20%	50V
C558	1-126-960-11	ELECT	1MF	20%	50V
C559	1-137-368-11	FILM	0.0047MF	5%	50V
C560	1-117-665-11	FILM	0.33MF	5%	250V
C561	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C562	1-126-933-11	ELECT	100MF	20%	16V
C563	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C570	1-104-665-11	ELECT	100MF	20%	25V
C573	1-107-650-11	ELECT	3.3MF	20%	160V
C574	1-117-879-91	CAPACITOR	0.01MF	10%	250V
C575	1-107-955-11	ELECT	100MF	20%	200V
C576	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C577	1-115-349-51	CERAMIC	0.01MF		2KV
C578	1-117-214-11	CERAMIC	0.001MF	10%	2KV
C579	1-109-879-11	CERAMIC	22PF	5%	2KV
C580	1-137-370-11	FILM	0.01MF	5%	50V
C581	1-102-228-00	CERAMIC	470PF	10%	500V
C582	1-104-664-11	ELECT	47MF	20%	16V
C586	1-162-117-00	CERAMIC	100PF	10%	500V
C587	1-117-214-11	CERAMIC	0.001MF	10%	2KV
C590	1-126-941-11	ELECT	470MF	20%	25V
C591	1-126-941-11	ELECT	470MF	20%	25V
C902	1-126-935-11	ELECT	470MF	20%	16V
C903	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C905	1-136-500-11	FILM	0.068MF	5%	50V
C906	1-136-177-00	FILM	1MF	5%	50V
C908	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C909	1-126-927-11	ELECT	2200MF	20%	10V
C910	1-130-495-00	FILM	0.1MF	5%	50V
C911	1-137-370-11	FILM	0.01MF	5%	50V
C912	1-126-933-11	ELECT	100MF	20%	16V
C913	1-130-495-00	FILM	0.1MF	5%	50V
C914	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C915	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C916	1-126-965-11	ELECT	22MF	20%	50V
C917	1-163-019-00	CERAMIC CHIP	0.0068MF	10%	50V
C918	1-126-964-11	ELECT	10MF	20%	50V
C919	1-126-960-11	ELECT	1MF	20%	50V
C920	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C921	1-126-935-11	ELECT	470MF	20%	16V
C922	1-126-960-11	ELECT	1MF	20%	50V
C923	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C924	1-126-965-11	ELECT	22MF	20%	50V
C925	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C926	1-126-767-11	ELECT	1000MF	20%	16V
C927	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C928	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C930	1-137-370-11	FILM	0.01MF	5%	50V
C931	1-136-356-11	FILM	470PF	5%	50V
C932	1-163-031-11	CERAMIC CHIP	0.01MF		50V
C936	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C937	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C938	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C940	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C942	1-128-551-11	ELECT	22MF	20%	25V
C943	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C944	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C945	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C947	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C948	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C949	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C950	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C951	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C952	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C953	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C954	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C1300	1-130-495-00	FILM	0.1MF	5%	50V
C1301	1-163-131-00	CERAMIC CHIP	390PF	5%	50V
C1302	1-126-927-11	ELECT	2200MF	20%	10V
C1303	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1304	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C1305	1-136-169-00	FILM	0.22MF	5%	50V
C1306	1-130-495-00	FILM	0.1MF	5%	50V
C1307	1-126-935-11	ELECT	470MF	20%	16V
C1310	1-126-942-61	ELECT	1000MF	20%	25V
C1311	1-102-112-00	CERAMIC	330PF	10%	50V
C1312	1-102-112-00	CERAMIC	330PF	10%	50V
C1313	1-137-370-11	FILM	0.01MF	5%	50V
C1314	1-102-525-11	CERAMIC	68PF	5%	50V
C1315	1-126-942-61	ELECT	1000MF	20%	25V
C1317	1-130-495-00	FILM	0.1MF	5%	50V
C1319	1-102-525-11	CERAMIC	68PF	5%	50V
C1320	1-126-964-11	ELECT	10MF	20%	50V
C1321	1-130-495-00	FILM	0.1MF	5%	50V
C1323	1-130-495-00	FILM	0.1MF	5%	50V
C1401	1-128-528-11	ELECT	470MF	20%	25V
C1402	1-106-220-00	MYLAR	0.1MF	10%	100V
C1403	1-126-969-11	ELECT	220MF	20%	50V
C1404	1-126-942-61	ELECT	1000MF	20%	25V
C1405	1-137-371-11	FILM	0.015MF	5%	50V
C1406	1-137-368-11	FILM	0.0047MF	5%	50V
C1407	1-137-372-11	FILM	0.022MF	5%	50V
C1408	1-107-713-11	ELECT	4.7MF	20%	35V
C1409	1-124-006-11	ELECT	10MF	20%	25V
C1410	1-126-968-11	ELECT	100MF	20%	50V

D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN501*	1-580-798-11	CONNECTOR PIN (DY)	
CN503*	1-564-505-11	PLUG, CONNECTOR 2P	
CN512	1-695-915-11	TAB (CONTACT)	
CN901*	1-508-879-11	BASE POST	
CN902*	1-564-513-11	PLUG, CONNECTOR 10P	
CN903*	1-564-515-11	PLUG, CONNECTOR 12P	
CN904*	1-564-509-11	PLUG, CONNECTOR 6P	
CN905*	1-564-509-11	PLUG, CONNECTOR 6P	
CN907*	1-564-507-11	PLUG, CONNECTOR 4P	
CN908*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1300*	1-564-511-11	PLUG, CONNECTOR 8P	
		<DIODE>	
D501	8-719-110-31	ZENER DIODE RD12ESB2	
D502	8-719-047-65	DIODE SB340L-5009	
D503	8-719-109-89	ZENER DIODE RD5.6ESB2	
D504	8-719-110-49	ZENER DIODE RD18ESB2	
D505	8-719-941-74	DIODE ERB91-02	
D506	8-719-061-21	DIODE FMQ-G5FMS	
D507	8-719-109-85	ZENER DIODE RD5.1ESB2	
D509	8-719-110-17	ZENER DIODE RD10ESB2	
D510	8-719-028-72	DIODE RGP02-17EL-6433	
D511	8-719-109-93	ZENER DIODE RD6.2ESB2	
D512	8-719-911-19	DIODE 1SS119-25	
D513	8-719-051-97	DIODE 3DL41A(LC6-15)	
D514	8-719-970-83	DIODE HSS82	
D515 ⚠	8-719-989-44	DIODE ERA34-10TP1	
D516	8-719-051-97	DIODE 3DL41A(LC6-15)	
D517	8-759-157-40	IC uPC574J	
D518	8-719-110-17	ZENER DIODE RD10ESB2	
D520	8-719-028-72	DIODE RGP02-17EL-6433	
D521	8-719-028-72	DIODE RGP02-17EL-6433	
D522	8-719-911-19	DIODE 1SS119-25	
D523	8-719-911-19	DIODE 1SS119-25	
D524	8-719-970-83	DIODE HSS82	
D525	8-719-970-83	DIODE HSS82	
D526	8-719-911-19	DIODE 1SS119-25	
D527	8-719-109-85	ZENER DIODE RD5.1ESB2	
D533	8-719-050-84	DIODE RB441Q-40T-77	
D550	8-719-979-85	DIODE EGP20G-PKG23	
D551	8-719-979-85	DIODE EGP20G-PKG23	
D901	8-719-073-01	DIODE MA111-(K8).S0	
D902	8-719-158-15	ZENER DIODE RD5.6SB	
D903	8-719-073-01	DIODE MA111-(K8).S0	
D904	8-719-073-01	DIODE MA111-(K8).S0	
D905	8-719-073-01	DIODE MA111-(K8).S0	
D906	8-719-073-01	DIODE MA111-(K8).S0	
D907	8-719-073-01	DIODE MA111-(K8).S0	
D908	8-719-073-01	DIODE MA111-(K8).S0	
D909	8-719-158-15	ZENER DIODE RD5.6SB	
D910	8-719-158-15	ZENER DIODE RD5.6SB	
D911	8-719-073-01	DIODE MA111-(K8).S0	
D914	8-719-073-01	DIODE MA111-(K8).S0	
D915	8-719-073-01	DIODE MA111-(K8).S0	
D916	8-719-073-01	DIODE MA111-(K8).S0	
D917	8-719-073-01	DIODE MA111-(K8).S0	
D918	8-719-158-15	ZENER DIODE RD5.6SB	
D919	8-719-158-15	ZENER DIODE RD5.6SB	
D920	8-719-050-84	DIODE RB441Q-40T-77	
D924	8-719-073-01	DIODE MA111-(K8).S0	
D925	8-719-073-01	DIODE MA111-(K8).S0	
D928	8-719-158-15	ZENER DIODE RD5.6SB	
D929	8-719-158-15	ZENER DIODE RD5.6SB	
D932	8-719-158-15	ZENER DIODE RD5.6SB	
D933	8-719-158-15	ZENER DIODE RD5.6SB	
D934	8-719-158-15	ZENER DIODE RD5.6SB	
D935	8-719-073-01	DIODE MA111-(K8).S0	
D936	8-719-073-01	DIODE MA111-(K8).S0	
D937	8-719-073-01	DIODE MA111-(K8).S0	
D939	8-719-050-84	DIODE RB441Q-40T-77	
D1300	8-719-073-01	DIODE MA111-(K8).S0	
D1301	8-719-158-15	ZENER DIODE RD5.6SB	
D1401	8-719-979-58	DIODE EGP10D	
D1402	8-719-109-81	ZENER DIODE RD4.7ESB2	
D1403	8-719-073-01	DIODE MA111-(K8).S0	
D1404	8-719-073-01	DIODE MA111-(K8).S0	
D1405	8-719-970-83	DIODE HSS82	
		<FERRITE BEAD>	
FB502	1-410-396-41	FERRITE	0.45UH
FB504	1-412-911-11	FERRITE	
FB505	1-412-911-11	FERRITE	
FB506	1-412-911-11	FERRITE	
FB507	1-410-396-41	FERRITE	0.45UH
FB508	1-412-911-11	FERRITE	
FB509	1-412-911-11	FERRITE	
FB511	1-412-911-11	FERRITE	
FB512	1-412-911-11	FERRITE	
FB513	1-412-911-11	FERRITE	
FB514	1-412-911-11	FERRITE	
FB903	1-410-396-41	FERRITE	0.45UH
		<TERMINAL>	
GT500*	1-537-738-21	TERMINAL, EARTH	
GT501*	1-537-738-21	TERMINAL, EARTH	
GT502*	1-537-738-21	TERMINAL, EARTH	
GT503*	1-537-738-21	TERMINAL, EARTH	
		<IC>	
IC501 ⚠	8-759-478-76	IC uPC5021-109	
IC502	8-759-803-42	IC LA6500-FA	
IC503	8-759-803-42	IC LA6500-FA	
IC900	8-759-525-10	IC TC7SET08F(TE85L)	
IC901	8-759-638-47	IC ST72751N9B1/LHT	
IC902	8-759-561-29	IC CXA8071BP	
IC904	8-759-165-80	IC PST600C-T	
IC905	8-759-527-72	IC M24C16-BN6	

REF.NO.	PART NO.	DESCRIPTION	REMARK
IC906	8-759-525-10	IC TC7SET08F(TE85L)	
IC1300	8-749-015-00	IC STK391-110	
IC1301	8-759-822-38	IC LA6510	
IC1302	8-759-478-66	IC CXA8070P	
IC1401	8-759-444-83	IC LA7840L	
		<CHIP CONDUCTOR>	
JR001	1-216-296-91	SHORT 0	
JR002	1-216-296-91	SHORT 0	
JR003	1-216-296-91	SHORT 0	
JR004	1-216-296-91	SHORT 0	
JR005	1-216-296-91	SHORT 0	
JR006	1-216-295-91	SHORT 0	
JR007	1-216-295-91	SHORT 0	
JR008	1-216-296-91	SHORT 0	
JR009	1-216-296-91	SHORT 0	
JR010	1-216-295-91	SHORT 0	
JR011	1-216-296-91	SHORT 0	
JR012	1-216-296-91	SHORT 0	
JR013	1-216-296-91	SHORT 0	
JR014	1-216-295-91	SHORT 0	
JR015	1-216-296-91	SHORT 0	
JR016	1-216-295-91	SHORT 0	
JR017	1-216-295-91	SHORT 0	
JR018	1-216-296-91	SHORT 0	
JR019	1-216-296-91	SHORT 0	
JR020	1-216-296-91	SHORT 0	
JR021	1-216-296-91	SHORT 0	
JR022	1-216-296-91	SHORT 0	
JR023	1-216-296-91	SHORT 0	
JR024	1-216-296-91	SHORT 0	
JR025	1-216-296-91	SHORT 0	
JR026	1-216-296-91	SHORT 0	
JR027	1-216-296-91	SHORT 0	
JR028	1-216-296-91	SHORT 0	
JR029	1-216-296-91	SHORT 0	
JR030	1-216-295-91	SHORT 0	
JR031	1-216-296-91	SHORT 0	
JR032	1-216-295-91	SHORT 0	
JR033	1-216-296-91	SHORT 0	
JR034	1-216-296-91	SHORT 0	
JR035	1-216-296-91	SHORT 0	
JR036	1-216-296-91	SHORT 0	
JR037	1-216-296-91	SHORT 0	
		<COIL>	
L501	1-412-531-31	INDUCTOR 33UH	
L502	1-412-531-31	INDUCTOR 33UH	
L503	1-411-594-41	INDUCTOR 5mH	
L504	1-410-645-31	INDUCTOR 100UH	
L506	1-412-550-11	INDUCTOR 1.2mH	
L507	1-410-645-31	INDUCTOR 100UH	
L509	1-419-167-11	COIL, HORIZONTAL LINEARITY	
L510	1-416-367-11	COIL, HORIZONTAL CENTER	
L511	1-412-537-31	INDUCTOR 100UH	
L901	1-412-537-31	INDUCTOR 100UH	
		<TRANSISTOR>	
Q501	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q502	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q503	8-729-015-28	TRANSISTOR IRFI9630GS	
Q504	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q506	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q507	8-729-049-34	TRANSISTOR 2SC5440	
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q509	8-729-043-28	TRANSISTOR PDTC124EK-115	
Q510	8-729-042-42	TRANSISTOR 2SK2101-01MR-F141	
Q511	8-729-042-34	TRANSISTOR IRFU110A	
Q512	8-729-041-95	TRANSISTOR IRLI540GLF33	
Q513	8-729-043-28	TRANSISTOR PDTC124EK-115	
Q515	8-729-041-95	TRANSISTOR IRLI540GLF33	
Q516	8-729-041-93	TRANSISTOR IRLI530GLF33	
Q518	8-729-140-50	TRANSISTOR 2SC3209LK	
Q520	8-729-015-28	TRANSISTOR IRFI9630GS	
Q521	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q522	8-729-026-49	TRANSISTOR 2SA1037AK-T146-R	
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q901	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q902	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q905	8-729-900-51	TRANSISTOR DTA114TK	
		<RESISTOR>	
R419	1-216-025-91	RES,CHIP 100 5% 1/10W	
R420	1-216-025-91	RES,CHIP 100 5% 1/10W	
R421	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R422	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R499	1-216-085-00	RES,CHIP 33K 5% 1/10W	
R500	1-249-377-11	CARBON 0.47 5% 1/4W	F
R501	1-247-807-31	CARBON 100 5% 1/4W	
R502	1-216-103-00	RES,CHIP 180K 5% 1/10W	
R503	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
R504	1-249-377-11	CARBON 0.47 5% 1/4W	F
R505	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R506	1-215-477-00	METAL 220K 1% 1/4W	
R507	1-215-425-00	METAL 1.5K 1% 1/4W	
R508	1-247-807-31	CARBON 100 5% 1/4W	
R509	1-247-863-91	CARBON 22K 5% 1/4W	
R511	1-249-381-11	CARBON 1 5% 1/4W	F
R512	1-249-389-11	CARBON 4.7 5% 1/4W	
R513	1-215-888-00	METAL OXIDE 220 5% 2W	F
R514	1-247-863-91	CARBON 22K 5% 1/4W	
R515	1-215-423-00	METAL 1.2K 1% 1/4W	
R516	1-214-844-81	METAL 150 1% 1/2W	
R517	1-216-396-11	METAL OXIDE 3.9 5% 3W	F
R518	1-216-396-11	METAL OXIDE 3.9 5% 3W	F
R519	1-216-073-00	RES,CHIP 10K 5% 1/10W	
R520	1-249-397-11	CARBON 22 5% 1/4W	F

D

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R521	1-219-510-11	CARBON	470K	5%	1/2W
R522	1-249-401-11	CARBON	47	5%	1/4W
R523	1-216-089-91	RES,CHIP	47K	5%	1/10W
R524	1-215-477-00	METAL	220K	1%	1/4W
R525	1-249-417-11	CARBON	1K	5%	1/4W F
R526	1-249-425-11	CARBON	4.7K	5%	1/4W
R527	1-249-429-11	CARBON	10K	5%	1/4W
R528	1-247-863-91	CARBON	22K	5%	1/4W
R529	1-249-429-11	CARBON	10K	5%	1/4W F
R530	1-216-474-11	METAL OXIDE	82	5%	3W F
R531	1-216-474-11	METAL OXIDE	82	5%	3W F
R532	1-249-385-11	CARBON	2.2	5%	1/4W F
R533	1-249-417-11	CARBON	1K	5%	1/4W F
R534	1-249-397-11	CARBON	22	5%	1/4W F
R535	1-216-089-91	RES,CHIP	47K	5%	1/10W
R536	1-249-417-11	CARBON	1K	5%	1/4W F
R537	1-216-089-91	RES,CHIP	47K	5%	1/10W
R538	1-215-905-11	METAL OXIDE	10	5%	3W F
R539	1-215-905-11	METAL OXIDE	10	5%	3W F
R540 ⚠	1-215-475-91	METAL	180K	1%	1/4W
R541	1-215-421-00	METAL	1K	1%	1/4W
R542	1-215-421-00	METAL	1K	1%	1/4W
R543	1-249-389-11	CARBON	4.7	5%	1/4W F
R544	1-215-493-00	METAL	1M	1%	1/4W
R545	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R546	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R547	1-215-477-00	METAL	220K	1%	1/4W
R548	1-215-423-00	METAL	1.2K	1%	1/4W
R549 ⚠	1-215-465-91	METAL	68K	1%	1/4W
R550	1-215-423-00	METAL	1.2K	1%	1/4W
R551	1-249-438-11	CARBON	56K	5%	1/4W
R552	1-215-463-00	METAL	56K	1%	1/4W
R553	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R554	1-218-756-11	METAL CHIP	150K	0.50%	1/10W
R556	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R557	1-216-683-11	METAL CHIP	22K	0.50%	1/10W
R558	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R559	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R560	1-216-679-11	METAL CHIP	15K	0.50%	1/10W
R561	1-216-474-11	METAL OXIDE	82	5%	3W F
R562	1-215-451-00	METAL	18K	1%	1/4W
R563	1-249-383-11	CARBON	1.5	5%	1/4W F
R564	1-216-089-91	RES,CHIP	47K	5%	1/10W
R565	1-215-479-00	METAL	270K	1%	1/4W
R566	1-215-859-00	METAL OXIDE	22	5%	1W F
R567	1-216-073-00	RES,CHIP	10K	5%	1/10W
R568	1-249-437-11	CARBON	47K	5%	1/4W
R569	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R570	1-249-417-11	CARBON	1K	5%	1/4W
R571	1-215-926-00	METAL OXIDE	33K	5%	3W F
R572	1-249-437-11	CARBON	47K	5%	1/4W
R573	1-247-887-00	CARBON	220K	5%	1/4W
R574	1-216-396-11	METAL OXIDE	3.9	5%	3W F
R577	1-215-913-11	METAL OXIDE	220	5%	3W F
R578	1-216-448-11	METAL OXIDE	39	5%	2W F
R579	1-247-883-00	CARBON	150K	5%	1/4W

REF.NO.	PART NO.	DESCRIPTION			REMARK
R580	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R581	1-249-429-11	CARBON	10K	5%	1/4W
R582	1-249-402-11	CARBON	56	5%	1/4W F
R583	1-216-073-00	RES,CHIP	10K	5%	1/10W
R584	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R585	1-260-099-11	CARBON	1K	5%	1/2W
R586	1-260-103-11	CARBON	2.2K	5%	1/2W
R587	1-216-049-91	RES,CHIP	1K	5%	1/10W
R589	1-249-425-11	CARBON	4.7K	5%	1/4W
R590	1-215-453-00	METAL	22K	1%	1/4W
R592 ⚠	1-215-423-91	METAL	1.2K	1%	1/4W
R594	1-215-493-00	METAL	1M	1%	1/4W
R595	1-214-844-81	METAL	150	1%	1/2W
R596	1-249-421-11	CARBON	2.2K	5%	1/4W
R597	1-249-377-11	CARBON	0.47	5%	1/4W F
R598	1-216-049-91	RES,CHIP	1K	5%	1/10W
R599	1-249-377-11	CARBON	0.47	5%	1/4W F
R600	1-249-421-11	CARBON	2.2K	5%	1/4W
R601	1-259-884-11	CARBON	4.7M	5%	1/4W
R622	1-214-844-81	METAL	150	1%	1/2W
R903	1-216-049-91	RES,CHIP	1K	5%	1/10W
R904	1-216-049-91	RES,CHIP	1K	5%	1/10W
R906	1-216-073-00	RES,CHIP	10K	5%	1/10W
R907	1-260-087-11	CARBON	100	5%	1/2W
R908	1-216-648-11	METAL CHIP	750	0.50%	1/10W
R909	1-216-648-11	METAL CHIP	750	0.50%	1/10W
R910	1-216-073-00	RES,CHIP	10K	5%	1/10W
R912	1-216-049-91	RES,CHIP	1K	5%	1/10W
R913	1-216-025-91	RES,CHIP	100	5%	1/10W
R914	1-216-025-91	RES,CHIP	100	5%	1/10W
R915	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R916	1-216-077-00	RES,CHIP	15K	5%	1/10W
R917	1-216-077-00	RES,CHIP	15K	5%	1/10W
R918	1-249-417-11	CARBON	1K	5%	1/4W
R920	1-216-049-91	RES,CHIP	1K	5%	1/10W
R922	1-216-073-00	RES,CHIP	10K	5%	1/10W
R924	1-216-025-91	RES,CHIP	100	5%	1/10W
R925	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R926	1-216-295-91	SHORT	0		
R927	1-216-295-91	SHORT	0		
R928	1-247-807-31	CARBON	100	5%	1/4W
R929	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R930	1-216-025-91	RES,CHIP	100	5%	1/10W
R931	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R932	1-216-025-91	RES,CHIP	100	5%	1/10W
R933	1-216-053-00	RES,CHIP	1.5K	5%	1/10W
R934	1-216-073-00	RES,CHIP	10K	5%	1/10W
R935	1-216-025-91	RES,CHIP	100	5%	1/10W
R936	1-216-025-91	RES,CHIP	100	5%	1/10W
R937	1-216-049-91	RES,CHIP	1K	5%	1/10W
R938	1-216-025-91	RES,CHIP	100	5%	1/10W
R948	1-216-025-91	RES,CHIP	100	5%	1/10W
R950	1-216-025-91	RES,CHIP	100	5%	1/10W
R951	1-216-025-91	RES,CHIP	100	5%	1/10W
R952	1-216-061-00	RES,CHIP	3.3K	5%	1/10W
R956	1-216-025-91	RES,CHIP	100	5%	1/10W

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

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

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.

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R957	1-216-017-91	RES,CHIP	47	5%	1/10W
R958	1-216-017-91	RES,CHIP	47	5%	1/10W
R959	1-216-073-00	RES,CHIP	10K	5%	1/10W
R961	1-249-413-11	CARBON	470	5%	1/4W
R962	1-216-295-91	SHORT	0		
R963	1-247-807-31	CARBON	100	5%	1/4W
R966	1-216-025-91	RES,CHIP	100	5%	1/10W
R967	1-216-033-00	RES,CHIP	220	5%	1/10W
R968	1-216-033-00	RES,CHIP	220	5%	1/10W
R969	1-216-025-91	RES,CHIP	100	5%	1/10W
R970	1-216-025-91	RES,CHIP	100	5%	1/10W
R1300	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1301	1-216-025-91	RES,CHIP	100	5%	1/10W
R1302	1-216-025-91	RES,CHIP	100	5%	1/10W
R1303	1-260-092-11	CARBON	270	5%	1/2W
R1304	1-249-379-11	CARBON	0.68	5%	1/4W F
R1305	1-249-429-11	CARBON	10K	5%	1/4W
R1306	1-249-385-11	CARBON	2.2	5%	1/4W
R1307	1-249-385-11	CARBON	2.2	5%	1/4W
R1308	1-249-379-11	CARBON	0.68	5%	1/4W F
R1309	1-215-429-00	METAL	2.2K	1%	1/4W
R1310	1-215-429-00	METAL	2.2K	1%	1/4W
R1312	1-215-860-11	METAL OXIDE	33	5%	1W F
R1314	1-215-439-00	METAL	5.6K	1%	1/4W
R1315	1-215-451-00	METAL	18K	1%	1/4W
R1317	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R1318	1-215-863-11	METAL OXIDE	100	5%	1W F
R1319	1-215-863-11	METAL OXIDE	100	5%	1W F
R1322	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R1323	1-215-860-11	METAL OXIDE	33	5%	1W F
R1324	1-215-429-00	METAL	2.2K	1%	1/4W
R1325	1-216-366-00	METAL OXIDE	0.56	5%	2W F
R1327	1-216-668-11	METAL CHIP	5.1K	0.50%	1/10W
R1328	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1329	1-215-449-00	METAL	15K	1%	1/4W
R1330	1-215-449-00	METAL	15K	1%	1/4W
R1331	1-215-429-00	METAL	2.2K	1%	1/4W
R1332	1-216-422-11	METAL OXIDE	18	5%	1W F
R1333	1-215-858-00	METAL OXIDE	15	5%	1W F
R1336	1-215-437-00	METAL	4.7K	1%	1/4W
R1337	1-216-366-00	METAL OXIDE	0.56	5%	2W F
R1338	1-215-437-00	METAL	4.7K	1%	1/4W
R1339	1-249-379-11	CARBON	0.68	5%	1/4W F
R1340	1-249-379-11	CARBON	0.68	5%	1/4W F
R1401	1-249-385-11	CARBON	2.2	5%	1/4W F
R1402	1-215-866-11	METAL OXIDE	330	5%	1W F
R1403	1-214-796-00	METAL	1.5	1%	1/2W
R1404	1-215-443-00	METAL	8.2K	1%	1/4W
R1405	1-214-796-00	METAL	1.5	1%	1/2W
R1406	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1407	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1408	1-216-083-00	RES,CHIP	27K	5%	1/10W
R1409	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1410	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R1411	1-216-691-11	METAL CHIP	47K	0.50%	1/10W
R1412	1-216-353-00	METAL OXIDE	2.2	5%	1W F
R1423	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1451	1-215-451-00	METAL	18K	1%	1/4W
R1452	1-215-421-00	METAL	1K	1%	1/4W
R1453	1-215-445-00	METAL	10K	1%	1/4W
R1454	1-215-445-00	METAL	10K	1%	1/4W
R1455	1-218-762-11	METAL CHIP	270K	0.50%	1/10W

<VARIABLE RESISTOR>

⧓ RV501⚠1-241-767-21 RES, ADJ, CERMET 100K (HV ADJ)

<SPARK GAP>

SG501 1-519-422-11 GAP, SPARK
SG502 1-519-422-11 GAP, SPARK

<TRANSFORMER>

T501 ⚠ X-4560-146-1 TRANSFORMER ASSY, FLYBACK (NX-4403//J1K4)
T503 1-429-109-11 TRANSFORMER, FERRITE (DFT)
T504 1-429-103-11 TRANSFORMER, FERRITE (HDT)
T505 1-426-998-11 TRANSFORMER, FERRITE (HST)

<THERMISTOR>

TH501 1-807-796-11 THERMISTOR
TH1401 1-803-114-11 THERMISTOR, POSITIVE

<CRYSTAL>

X901 1-767-641-11 VIBRATOR, CRYSTAL
X902 1-767-933-11 OSCILLATOR, CERAMIC

****

* 8-933-372-00 H BOARD, COMPLETE
****

<CONNECTOR>

CN1801 *1-564-521-11 PLUG, CONNECTOR 6P

<DIODE>

D1801 8-719-064-11 DIODE SPR-325MVW

<RESISTOR>

R1801	1-215-413-00	METAL	470	1%	1/4W
R1802	1-215-413-00	METAL	470	1%	1/4W
R1803	1-215-417-00	METAL	680	1%	1/4W
R1804	1-215-421-00	METAL	1K	1%	1/4W
R1805	1-215-425-00	METAL	1.5K	1%	1/4W
R1806	1-215-431-00	METAL	2.7K	1%	1/4W

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REF.NO.	PART NO.	DESCRIPTION			REMARK
R1807	1-215-441-00	METAL	6.8K	1%	1/4W
R1809	1-215-431-00	METAL	2.7K	1%	1/4W
R1810	1-215-407-00	METAL	270	1%	1/4W
R1811	1-215-407-00	METAL	270	1%	1/4W
		<SWITCH>			
S1801	1-771-215-11	SWITCH, TACTILE (CH +/-, VOL +/-)			
S1805	1-762-196-21	SWITCH, TACT (MENU)			
S1806	1-762-196-21	SWITCH, TACT (PC/MINI TV)			
S1807	1-762-196-21	SWITCH, TACT (TV/VIDEO)			
S1808	1-762-196-21	SWITCH, TACT (MUTE)			
**********					
*	8-933-376-00	J BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C1701	1-115-339-11	CERAMIC CHIP	0.1MF	10%	50V
C1704	1-163-017-00	CERAMIC CHIP	0.0047MF	10%	50V
C1705	1-102-125-00	CERAMIC	0.0047MF	10%	50V
		<CONNECTOR>			
CN1702	1-695-915-11	TAB (CONTACT)			
CN1703*	1-564-508-11	PLUG, CONNECTOR 5P			
CN1704*	1-564-507-11	PLUG, CONNECTOR 4P			

REF.NO.	PART NO.	DESCRIPTION			REMARK
		<DIODE>			
D1703	8-719-073-01	DIODE MA111-(K8).S0			
D1704	8-719-073-01	DIODE MA111-(K8).S0			
		<FERRITE BEAD>			
FB1701	1-414-597-22	INDUCTOR CHIP 0UH			
		<JACK>			
J1703	1-573-191-21	JACK			
		<TRANSISTOR>			
Q1701	8-729-920-21	TRANSISTOR DTC314TK-T-146			
Q1702	8-729-920-21	TRANSISTOR DTC314TK-T-146			
		<RESISTOR>			
R1701	1-215-863-11	METAL OXIDE	100	5%	1W F
R1702	1-215-863-11	METAL OXIDE	100	5%	1W F
R1703	1-249-397-11	CARBON	22	5%	1/4W F
R1704	1-249-397-11	CARBON	22	5%	1/4W F

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Computer Display Div.

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