MODIFICATION HISTORY

MODEL NAME :
CPD-E100/E100E

SERVICE MANUAL

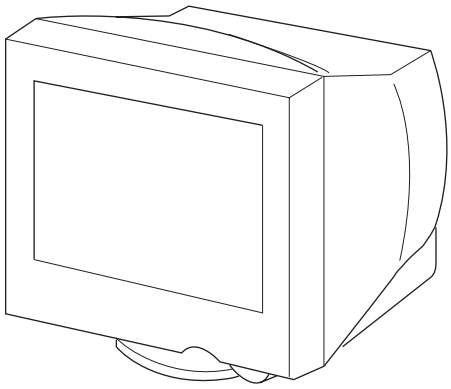
PARTS No. : 9-978-659-01

* Blue characters are linking.

# No.	DATA	CONTENTS
#1	2000.2	Adds omitted parts numbers. (P.7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 7-8)
#2	2000.2	Alteration of parts supply, as the service division had changed. (P.6-1)
#3	2000.3	Parts number clerical error correction of MANUAL, INSTRUCTION (AEP). (P.6-2)
#4	2000.3	Decide on part nunmber (IC901 on D board). (P.7-5)
#5	2000.3	Parts number clerical error correction (C625 on D board). (P.7-4)
#6	2000.5	Add omitted part (LABEL, INFORMATION). (P.6-1)

CPD-E100/E100E

SERVICE MANUAL



CPD-E100

US Model

Canadian Model

EQ Model

S.Hemisphere Model

Chassis No. SCC-L27J-A

CPD-E100E

AEP Model

Chassis No. SCC-L27L-A

X11R CHASSIS

SPECIFICATIONS

CRT	0.24 mm aperture grille pitch (center) 15 inches measured diagonally 90-degree deflection
Viewable image size	Approx. 285 × 214 mm (w/h) (11 1/4 × 8 1/2 inches) 14.0" viewing image
Resolution	
Maximum	Horizontal: 1280 dots Vertical: 1024 lines
Recommended	Horizontal: 800 dots Vertical: 600 lines
Standard image area	Approx. 270 × 202 mm (w/h) (10 3/4 × 8 inches)
Deflection frequency*	Horizontal: 30 to 70 kHz Vertical: 48 to 120 Hz
AC input voltage/current	100 to 240 V, 50 – 60 Hz, 1.2 – 0.6 A
Power consumption	Max. 95 W
Dimensions	Approx. 356 × 378 × 388 mm (w/h/d) (14 1/8 × 15 × 15 3/8 inches)
Mass	Approx. 14 kg (30 lb 14 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)

* Recommended horizontal and vertical timing condition
- Horizontal sync width should be more than 1.0 µsec.
- Horizontal blanking width should be more than 3.6 µsec.
- Vertical blanking width should be more than 500 µsec.

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR COMPUTER DISPLAY

SONY®

DIAGNOSIS

Failure	Power LED
HV or +B Failure or H Stop	Blink Amber (On 0.5 sec, Off 0.5 sec)
V Stop	Blink Amber (On 1.5 sec, Off 0.5 sec)
ABL Failure	Blink Amber (On 0.5 sec, Off 1.5 sec)
Aging/Self-Test	Blink Amber (On 0.5 sec, Off 0.5 sec) .... Blink Green (On 0.5 sec, Off 0.5 sec)

TIMING SPECIFICATION

PRIMARY MODE 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	640 X 480	720 X 400	800 X 600	800 X 600	832 X 624	1024 X 768	1024 X 768	1280 X 1024
CLOCK	25.175 MHz	36.000 MHz	28.322 MHz	49.500 MHz	56.250 MHz	57.283 MHz	78.750 MHz	94.500 MHz	108.000 MHz
— HORIZONTAL —									
H-FREQ	31.469 kHz	43.269 kHz	31.469 kHz	46.875 kHz	53.674 kHz	49.725 kHz	60.024 kHz	68.677 kHz	63.981 kHz
	usec	usec	usec	usec	usec	usec	usec	usec	usec
H. TOTAL	31.778	23.111	31.777	21.333	18.631	20.111	16.660	14.561	15.630
H. BLK	6.356	5.333	6.355	5.172	4.409	5.586	3.657	3.725	3.778
H. FP	0.636	1.556	0.636	0.323	0.569	0.559	0.203	0.508	0.444
H. SYNC	3.813	1.556	3.813	1.616	1.138	1.117	1.219	1.016	1.037
H. BP	1.907	2.222	1.907	3.232	2.702	3.910	2.235	2.201	2.296
H. ACTIV	25.422	17.778	25.422	16.162	14.222	14.524	13.003	10.836	11.852
— VERTICAL —									
V. FREQ(HZ)	59.940 Hz	85.008 Hz	70.087 Hz	75.000 Hz	85.061 Hz	74.550 Hz	75.030 Hz	84.997 Hz	60.020 Hz
	lines	lines	lines	lines	lines	lines	lines	lines	lines
V. TOTAL	525	509	449	625	631	667	800	808	1066
V. BLK	45	29	49	25	31	43	32	40	42
V. FP	10	1	12	1	1	1	1	1	1
V. SYNC	2	3	2	3	3	3	3	3	3
V. BP	33	25	35	21	27	39	28	36	38
V. ACTIV	480	480	400	600	600	624	768	768	1024
— SYNC —									
INT(G)	NO	NO	NO	NO	NO	NO	NO	NO	NO
EXT(H/V)/POLARITY	YES -/-	YES -/-	YES -/+	YES +/+	YES +/+	YES -/-	YES +/+	YES +/+	YES +/+
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

99.7.2 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 video graphics board that is DPMS (Display Power Management Signaling) compliant, the monitor will automatically reduce power consumption in three stages as shown right.

* "Sleep" and "deep sleep" are power saving modes defined by the Environmental Protection Agency.

**When your computer enters the "active off" mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After 20 seconds, the monitor enters the power saving mode.

Power mode	Power consumption	⏻ (power) indicator
normal operation	≤ 95 W	green
1 standby	≤ 15 W	green and orange alternate
2 supend (sleep)*	≤ 15 W	green and orange alternate
3 active off** (deep sleep)*	≤ 5 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.

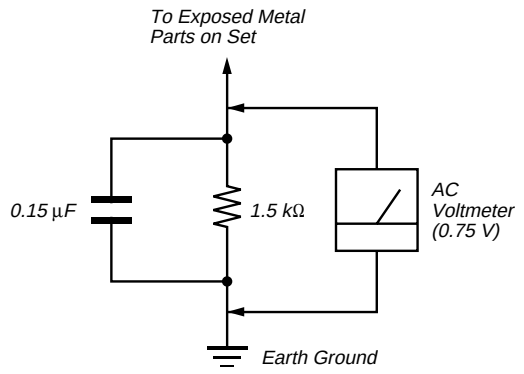


Fig. A. Using an AC voltmeter to check AC leakage.

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.

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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 5 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

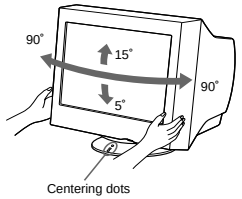
- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the screen's coating.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ballpoint 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.

Use of the tilt-swivel

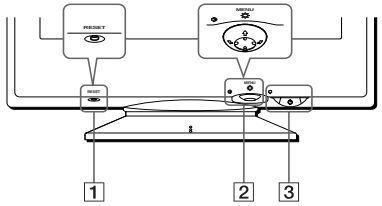
This monitor can be adjusted within the angles shown below. To find the center of the monitor's turning radius, align the center of the monitor's screen with the centering dots on the stand.
Hold the monitor at the bottom with both hands when you turn it horizontally or vertically. Be careful not to pinch your fingers at the back of the monitor when you tilt the monitor up vertically.



Identifying parts and controls

See the pages in parentheses for further details.

Front

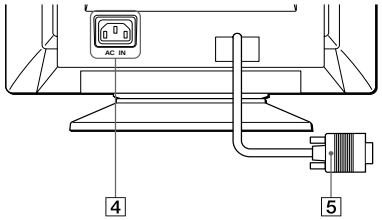


1 RESET button (page 12)
This button resets the adjustments to the factory settings.

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

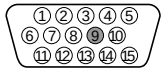
3 ⏻ (power) switch and indicator (pages 7, 13, 16)
This button turns the monitor on and off. The power indicator lights up in green when the monitor is turned on, and either flashes in green and orange, or lights up in orange when the monitor is in power saving mode.

Rear



4 AC IN connector (page 6)
This connector provides AC power to the monitor.

5 Video input connector (HD15) (page 6)
This connector inputs RGB video signals (0.700 Vp-p, positive) and sync signals.



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

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)

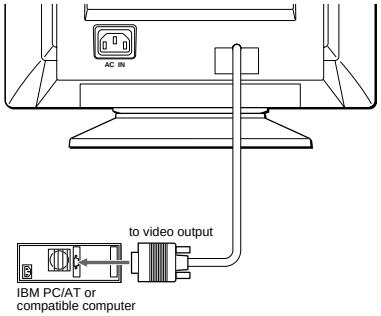
Step 1: Connect your monitor to your computer

Turn off the monitor and computer before connecting.

Note

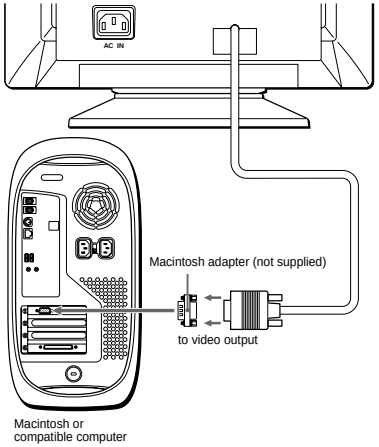
Do not touch the pins of the video cable connector as this might bend the pins.

■ Connecting to an IBM PC/AT or compatible computer



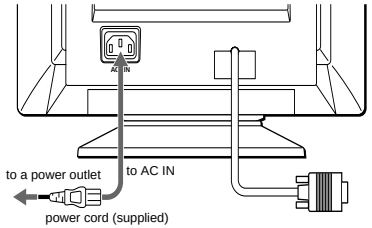
■ Connecting to a Macintosh or compatible computer

You will need a Macintosh adapter (not supplied).



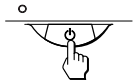
Step 2: Connect the power cord

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, confirm that your computer's graphic 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 graphic 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.

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:

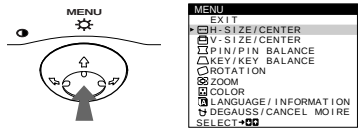
- High Color (16 bit) → 65,536 colors
- True Color (24 bit) → about 16.77 million colors

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

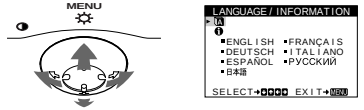
Selecting the on-screen menu language (LANGUAGE/ INFORMATION)

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

1 Press the center of the control button.
See page 9 for more information on using the control button.



2 Move the control button ↓/↑ to highlight LANGUAGE/INFORMATION and press the center of the control button again.



3 Move the control button ↓/↑ to select (LANGUAGE) and move ←/→ to select a language.

- ENGLISH
- FRANÇAIS: French
- DEUTSCH: German
- ITALIANO: Italian
- ESPAÑOL: Spanish
- РУССКИЙ: Russian
- 日本語: Japanese

To close the menu

Press the center of the control button once to return to the main MENU, and press again selecting EXIT to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 30 seconds.

To reset to English

Press the RESET button while the (LANGUAGE) menu is displayed on the screen.

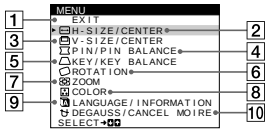
US

Customizing Your Monitor

You can make numerous adjustments to your monitor using the on-screen menu.

Navigating the menu

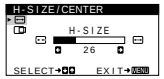
Press the center of the control button to display the main MENU on your screen. See page 9 for more information on using the control button.



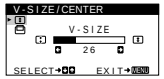
Use the control button to select one of the following menus.

1 EXIT
Select EXIT to close the menu.

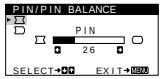
2 H-SIZE/CENTER (page 10)
Select the H-SIZE/CENTER menu to adjust the picture's horizontal size and centering.



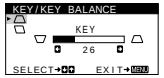
3 V-SIZE/CENTER (page 10)
Select the V-SIZE/CENTER menu to adjust the picture's vertical size and centering.



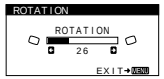
4 PIN/PIN BALANCE (page 10)
Select the PIN/PIN BALANCE menu to adjust the curvature picture's sides.



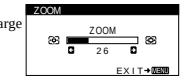
5 KEY/KEY BALANCE (page 10)
Select the KEY/KEY BALANCE menu to adjust the angle of the picture's sides.



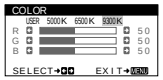
6 ROTATION (page 11)
Select the ROTATION menu to adjust the picture's rotation.



7 ZOOM (page 11)
Select the ZOOM menu to enlarge or reduce the picture.

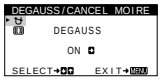


8 COLOR (page 11)
Select the COLOR menu to adjust the picture's color temperature. You can use this to match the monitor's colors to a printed picture's colors.



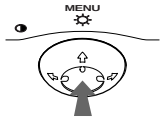
9 LANGUAGE/INFORMATION (page 7, 15)
Select the LANGUAGE/INFORMATION menu to choose the on-screen menu's language and display this monitor's information box.

10 DEGAUSS/CANCEL MOIRE (page 12)
Select the DEGAUSS/CANCEL MOIRE menu to degauss the screen and adjust the moire cancellation level.

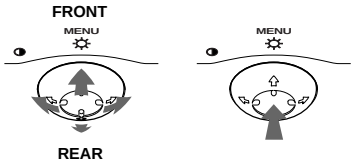


■ Using the control button

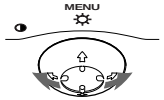
1 Display the main MENU.
Press the center of the control button to display the main MENU on your screen.



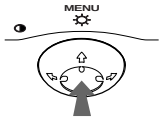
2 Select the menu you want to adjust.
Highlight the desired menu by moving the control button towards the rear to go up (↑), towards the front to go down (↓), and left (←) or right (→) to move sideways.



3 Adjust the menu.
Move the control button left (←) or right (→) to make the adjustment.



4 Close the menu.
Press the center of the control button once to return to the main MENU, and press again selecting EXIT to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 30 seconds.



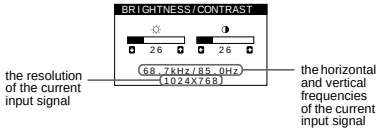
■ Resetting the adjustments

Press the RESET button. See page 12 for more information on resetting the adjustments.

Adjusting the brightness and contrast

Brightness and contrast adjustments are made using a separate BRIGHTNESS/CONTRAST menu.
These settings are stored in memory for all input signals.

1 Move the control button in any direction.
The BRIGHTNESS/CONTRAST menu appears on the screen.



The horizontal and vertical frequencies of the current input signal are displayed in the BRIGHTNESS/CONTRAST menu. If the signal matches one of this monitor's factory preset modes, the resolution is also displayed.

2 Move the control button ↓/↑ to adjust the brightness (☼), and ←/→ to adjust the contrast (◑).
The menu automatically disappears after about 3 seconds.

US

Adjusting the horizontal size or centering of the picture (H-SIZE/ CENTER)

These settings are stored in memory for the current input signal.

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

2 **Move the control button ↓/↑ to highlight H-SIZE/ CENTER and press the center of the control button again.**
The H-SIZE/CENTER menu appears on the screen.

3 **First move the control button ↓/↑ to select the desired adjustment item. Then move the control button ←/→ to make the adjustment.**

Select	To
H-SIZE	adjust the horizontal size
H-CENTER	adjust the horizontal centering

Adjusting the vertical size or centering of the picture (V-SIZE/ CENTER)

These settings are stored in memory for the current input signal.

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

2 **Move the control button ↓/↑ to highlight V-SIZE/ CENTER and press the center of the control button again.**
The V-SIZE/CENTER menu appears on the screen.

3 **First move the control button ↓/↑ to select the desired adjustment item. Then move the control button ←/→ to make the adjustment.**

Select	To
V-SIZE	adjust the vertical size
V-CENTER	adjust the vertical centering

Adjusting the curvature of the picture's sides (PIN/PIN BALANCE)

These settings are stored in memory for the current input signal.

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

2 **Move the control button ↓/↑ to highlight PIN/PIN BALANCE and press the center of the control button again.**
The PIN/PIN BALANCE menu appears on the screen.

3 **First move the control button ↓/↑ to select the desired adjustment item. Then move the control button ←/→ to make the adjustment.**

Select	To
PIN	expand or contract the picture sides
PIN BALANCE	shift the picture sides to the left or right

Adjusting the angle of the picture's sides (KEY/KEY BALANCE)

These settings are stored in memory for the current input signal.

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

2 **Move the control button ↓/↑ to highlight KEY/ KEY BALANCE and press the center of the control button again.**
The KEY/KEY BALANCE menu appears on the screen.

3 **First move the control button ↓/↑ to select the desired adjustment item. Then move the control button ←/→ to make the adjustment.**

Select	To
KEY	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 picture's rotation (ROTATION)

This setting is stored in memory for all input signals.

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

2 **Move the control button ↓/↑ to highlight ROTATION and press the center of the control button again.**
The ROTATION menu appears on the screen.

3 **Move the control button ←/→ to rotate the picture.**

Enlarging or reducing the picture (ZOOM)

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

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

2 **Move the control ↓/↑ button to highlight ZOOM and press the center of the control button again.**
The ZOOM menu appears on the screen.

3 **Move the control button ←/→ to enlarge or reduce the picture.**

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

Adjusting the color of the picture (COLOR)

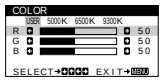
The COLOR settings allow you to adjust the picture's color temperature by changing the color level of the white color field. Colors appear reddish if the temperature is low, and bluish if the temperature is high. This adjustment is useful for matching the monitor's colors to a printed picture's colors.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

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

2 **Move the control button ↓/↑ to highlight COLOR and press the center of the control button again.**
The COLOR menu appears on the screen.

3 **Move the control button ←/→ to select a color temperature.**
The preset color temperatures are 5000K, 6500K, and 9300K. 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.

4 **If necessary, fine tune the color temperature.**
First move the control button ←/→ to select USER. Then move the control button ↓/↑ to select R (red), G (green), or B (blue) and move ←/→ to make the adjustment.



If you fine tune the color temperature, the new color settings are stored in memory and recalled whenever you select USER.

US

Additional settings (DEGAUSS/ CANCEL MOIRE)

You can manually degauss (demagnetize) the monitor, and adjust the moire cancellation level.

1 Press the center of the control button.
The main MENU appears on the screen.

2 Move the control button ↓/↑ to highlight ☃ DEGAUSS/CANCEL MOIRE and press the center of the control button again.
The DEGAUSS/CANCEL MOIRE menu appears on the screen.

3 Move the control button ↓/↑ to select the desired adjustment item.
Adjust the selected item according to the following instructions.

Degaussing the screen

The monitor is automatically demagnetized (degaussed) when the power is turned on.
To manually degauss the monitor, first move the control button ↓/↑ to select ☃ (DEGAUSS). Then move the control button →.
The screen is degaussed for about 5 seconds. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

Adjusting the moire*

If elliptical or wavy patterns appear on the screen, adjust the moire cancellation level.
To adjust the amount of moire cancellation, first move the control button ↓/↑ to select ▣ (CANCEL MOIRE). Then move the control button ←/→ until the moire effect 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

Resetting the adjustments

This monitor has the following three reset methods. Use the RESET button to reset the adjustments.

Resetting a single adjustment item

Use the control button to select the adjustment item you want to reset, and press the RESET button.

Resetting all of the adjustment data for the current input signal

Press the RESET button when no menu is displayed on the screen.
Note that the following items are not reset by this method:
- on-screen menu language (page 7)
- picture's rotation (page 11)

Resetting all of the adjustment data for all input signals

Press and hold the RESET button for more than two seconds.
Note that the following item is not reset by this method:
- color menu user settings (page 11)

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 (horizontal: 30 – 70 kHz, vertical: 48 – 120 Hz). 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 for Windows users

For Windows users, check your video board manual or the utility program which comes with your graphic 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 video 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	≤ 95 W	green
1 standby	≤ 15 W	green and orange alternate
2 suspend (sleep)*	≤ 15 W	green and orange alternate
3 active off** (deep sleep)*	≤ 5 W	orange
power off	0 W	off

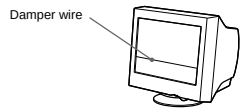
* "Sleep" and "deep sleep" are power saving modes defined by the Environmental Protection Agency.
** When your computer enters the "active off" mode, the input signal is cut and NO INPUT SIGNAL appears on the screen. After 20 seconds, the monitor enters the power saving mode.

Troubleshooting

Before contacting technical support, refer to this section.

If thin line appears on your screen (damper wire)

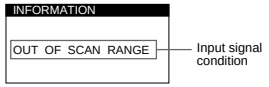
The line you are experiencing on your screen is normal for the Trinitron monitor and is not a malfunction. This is shadow from the damper wire used to stabilize the aperture grill and is most noticeable when the screen's background is lightly (usually white). The aperture grille is the essential element 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 being 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 (page 6). • 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 the computer's power is "on." • Check that the graphic 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 ("CPD-E100") from among the Sony monitors in the Windows 95/98 monitor selection screen.
If using a Macintosh system	• Check that the Macintosh adapter (not supplied) 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 16" 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 video 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 12). • Select CANCEL MOIRE and adjust the moire cancellation effect (page 12).
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 or centering (page 10). Note that some video modes do not fill the screen to the edges.
Edges of the image are curved	• Select PIN/PIN BALANCE, KEY/KEYBALANCE, or ROTATION, and adjust the picture's shape and rotation (page 10, 11).
Wavy or elliptical pattern (moire) is visible	• Select CANCEL MOIRE and adjust the moire cancellation effect (page 12). **■Problems caused by the connected computer or other equipment** • Change your desktop pattern.
Color is not uniform	• Degauss the monitor* (page 12). 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.
White does not look white	• Adjust the color temperature (page 11).
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 five 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.

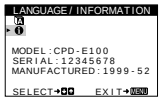
Displaying this monitor's name, serial number, and date of manufacture (INFORMATION)

1 Press the center of the control button.
The main MENU appears on the screen.

2 Move the control button ↓/↑ to highlight 🄰 LANGUAGE/INFORMATION and press the center of the control button again.
The LANGUAGE/INFORMATION menu appears on the screen.

3 Move the control button ↓/↑ to select ⓘ (INFORMATION).
This monitor's information box appears on the screen.

Example

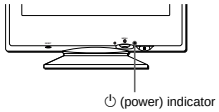


If the problem persists, call your authorized Sony dealer and give the following information.
• Model name: CPD-E100
• Serial number
• Name and specifications of your computer and graphics board.

US

Self-diagnosis function

This monitor is equipped with a self-diagnosis function. If there is a problem with your monitor or computer, 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.

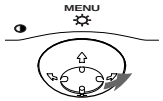


If the ⏻ (power) indicator is green

1 Disconnect the video input cable or turn off the connected computer.

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

3 Move the control button ➡ for 2 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 input 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.

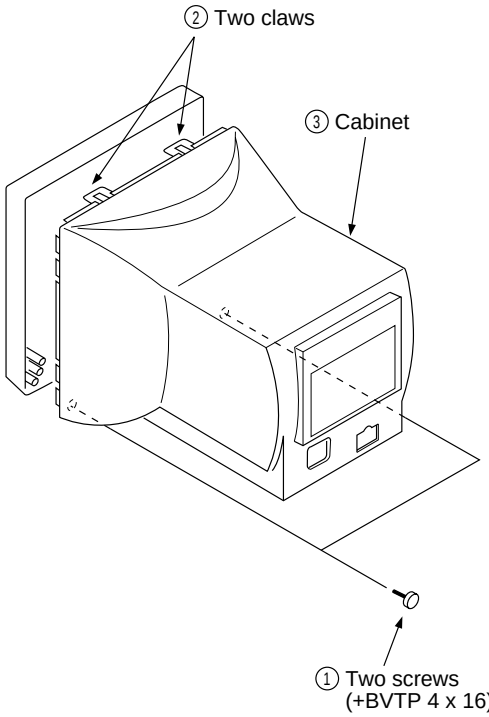
If the ⏻ (power) indicator is flashing orange

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

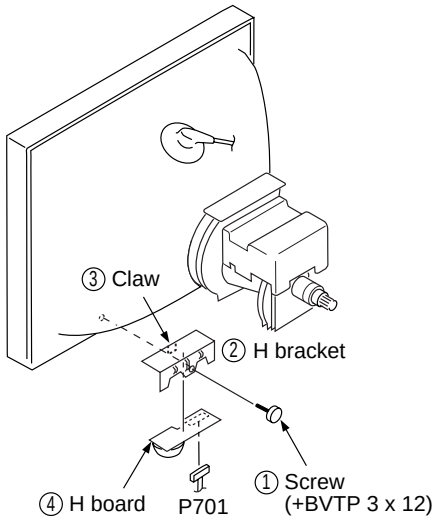
If the ⏻ (power) indicator is still flashing, there is a potential monitor failure. Count the number of seconds between orange flashes of the ⏻ (power) indicator and inform your authorized Sony dealer of the monitor's condition. Be sure to note the model name and serial number of your monitor. Also note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

SECTION 2
DISASSEMBLY

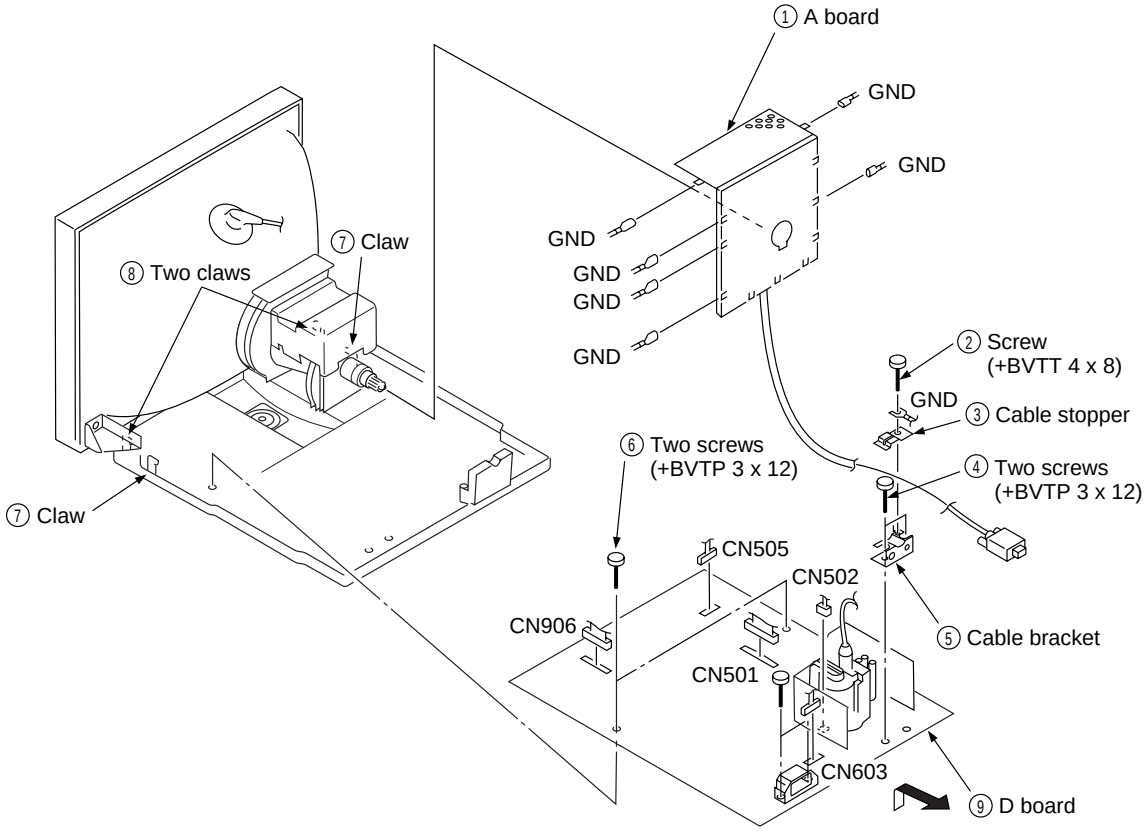
2-1. CABINET REMOVAL



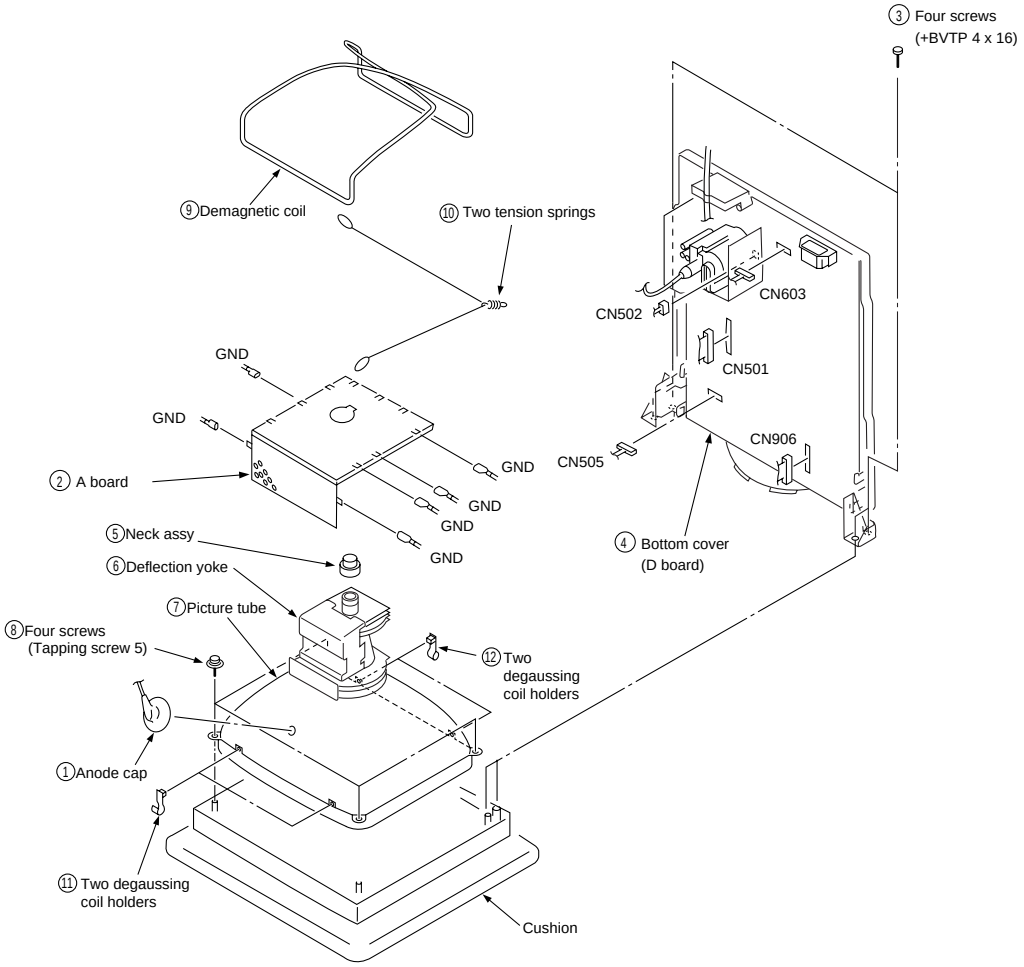
2-3. H BOARD REMOVAL



2-2. A AND D BOARDS REMOVAL



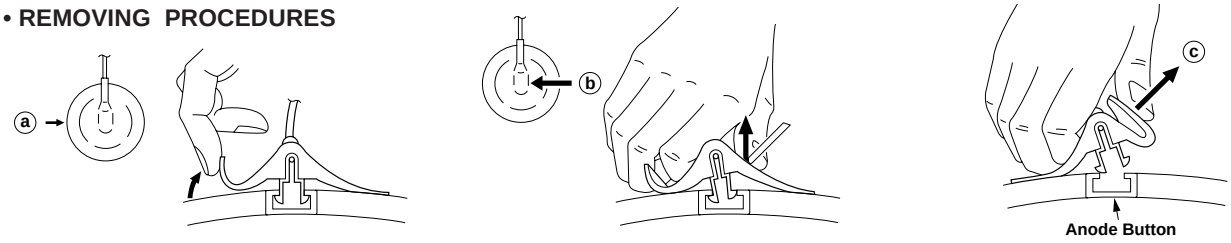
2-4. PICTURE TUBE REMOVAL



• 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 ⓑ.

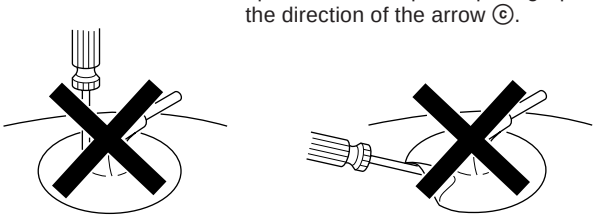
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ⓒ.

• HOW TO HANDLE AN ANODE-CAP

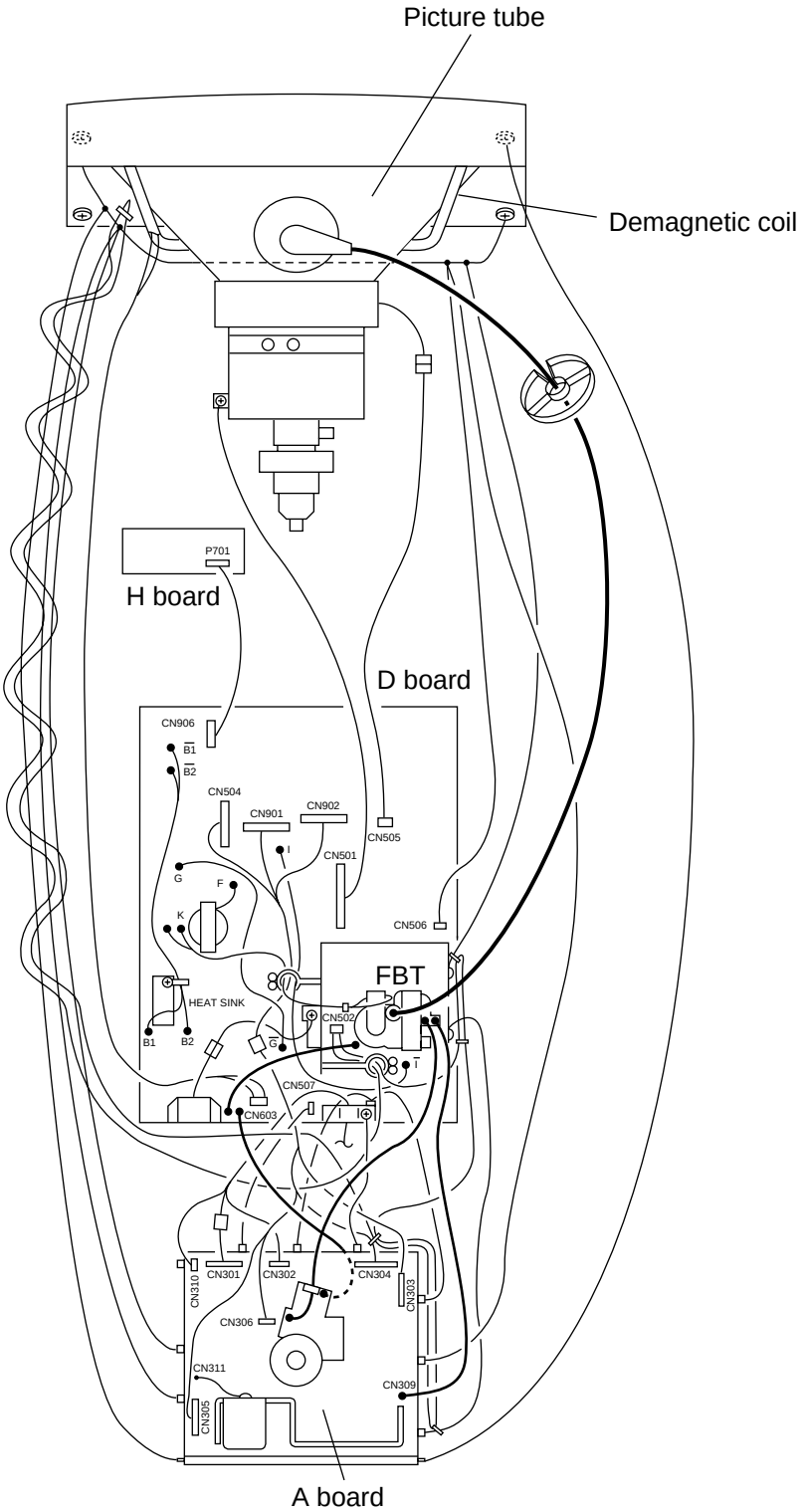
① Don't scratch the surface of anode-caps with shartp shaped material!

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.



2-5. 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 IC502, IC503, Q511, D510, C535, R515, R554, R559, R560, R596, RV501, T501 (FBT)
HV Hold-down Circuit Check	D board IC501, R598, R599, T501 (FBT)
Beam Current Protector Circuit Check	D board T501 (FBT)

* Confirm one minute later turning on the power.

- **HV Protector Circuit Check**

Confirm that the voltage between cathode of D521 on D board and GND is more than 28.5 V DC and Using external DC Power Supply, apply the voltage shown below between cathode of D521 and GND, and confirm that the HV HOLD DOWN circuite works. (TV Raster disappears)

Standard voltage : Less than 34 V DC

Check Condition

- Input voltage : 100 – 120 V AC
- Input signal : White Cross hatch at Max fH
- Beam control : CONT : 255, BRT : 80

- **Beam Current Protector Check**

Connect a variable resistor (250 kΩ or more) and an ammeter in series between FBT pin ① on D board and GND. Decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuite works (TV Raster disappears). The current must be within the range shown below.

- Standard current : Less than 1.50 mA

Check Condition

- Input voltage : 100 – 120 V AC
- Input signal : White Cross hatch at Max fH
- Beam control : CONT : 255, BRT : 80

- **B+ Voltage Check**

Standard voltage : 152 ± 5.0 V DC

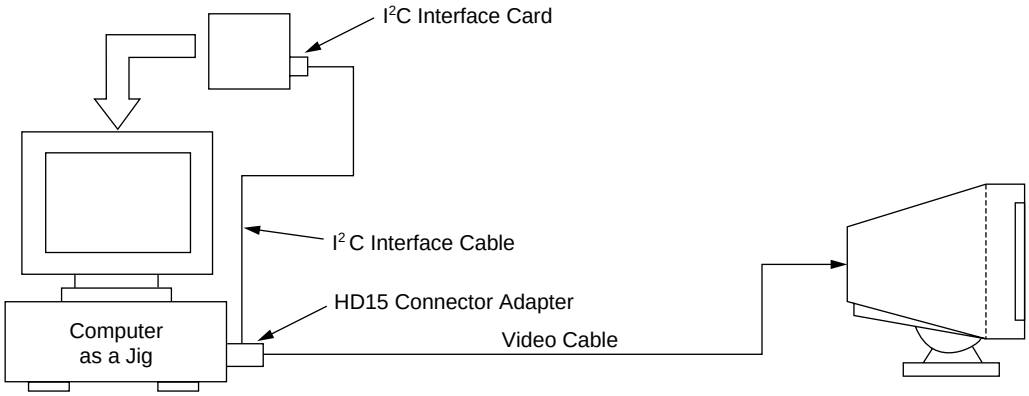
Check Condition

- Input voltage : 100 – 120 V AC

  Note : Use NF power supply or make sure that distortion factor is 3% or less.
- Input signal : White Cross hatch at 64.0 kHz
- Beam control : CONT : 255, BRT : 80

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.



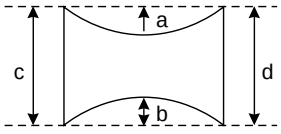
- **Landing Fine Adjustment**

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

7. Adjust the DY position and purity, and the DY tilt.
8. Fasten DY with screw.

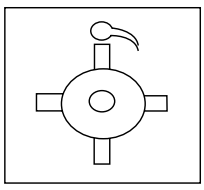
Note: Torque 20 $^{+2}_{-1}$kgcm

9. Adjust top and bottom pins by pitching DY up and down with two wedges.
   Also leave the yaw of DY to physical center position with Another two wedes.



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

<How to drive in wedges>



L/D control specification

± 5	± 7	± 5
± 5	± 7	± 5
± 5	± 7	± 5

(μm)

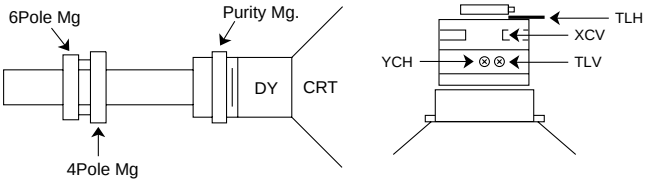
10. If the corner landing is out of specification, put a disk magnet for the landing correction.
11. Perform auto degauss in case disk magnets are used.
12. Remove the sensor and wobbling coil.
13. Fix purity magnet on DY with UL black tape.

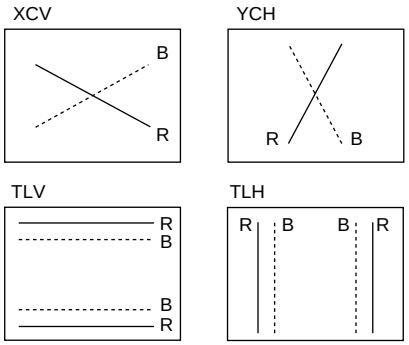
- **Convergence Rough Adjustment**

1. Enter the crosshatch signal.
2. Recheck focus and readjust when focus was worse.
3. Adjust roughly H. STAT and V. STAT convergence by 4 pole magnet.
4. Adjust roughly HMC and VMC by 6 pole magnet.

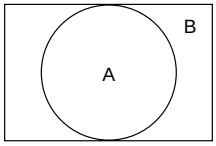
- **Convergence Adjustment**

1. Adjust H and V Stat by 4 pole magnet.
2. Adjust 6 pole magnet perform HMC and VMC.
3. Adjust 4 pole magnet close both Stat of R.G.B just overlap each other Horizontal and Vertical.
4. Adjust TLH for side MC by TLH magnet when R or B is in the opposite direction.
5. Adjust XCV to correct Vertical cross MC.
6. Adjust TLV to corect Vertical tilt MC.
7. Adjust YCH to correct top and bottom Horizontal cross MC.
8. Using permalloys to correct MC of the cornters.
9. Check convergence for whole screen. If necessary, perform step from 3-7 and correct with permalloys.
10. Paint lock 4 pole magnet, 6 poles magnets, XBV reactor XCV corrector and TLH corrector handle.





- **Convergence Specification**



MODE	All mode
A	0.30 mm
B	0.35 mm

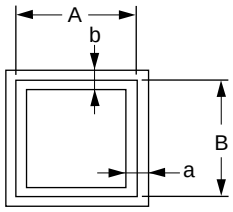
- **White Balance Adjustment Specification**

(1) 9300K
x = 0.283 ± 0.01
y = 0.298 ± 0.01

(2) 6500K
x = 0.313 ± 0.01
y = 0.329 ± 0.01

(2) 5000K
x = 0.346 ± 0.01
y = 0.359 ± 0.01

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

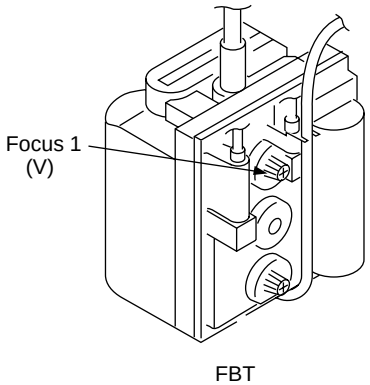


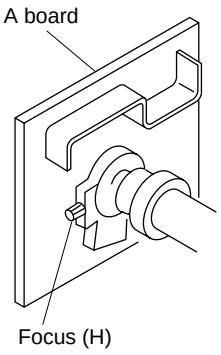
a ≦ 1.5 mm
b ≦ 1.5 mm

MODE	All mode
A	270 mm
B	202 mm

- **Focus adjustment**

Adjust the focus volume H and V for the optimum focus.

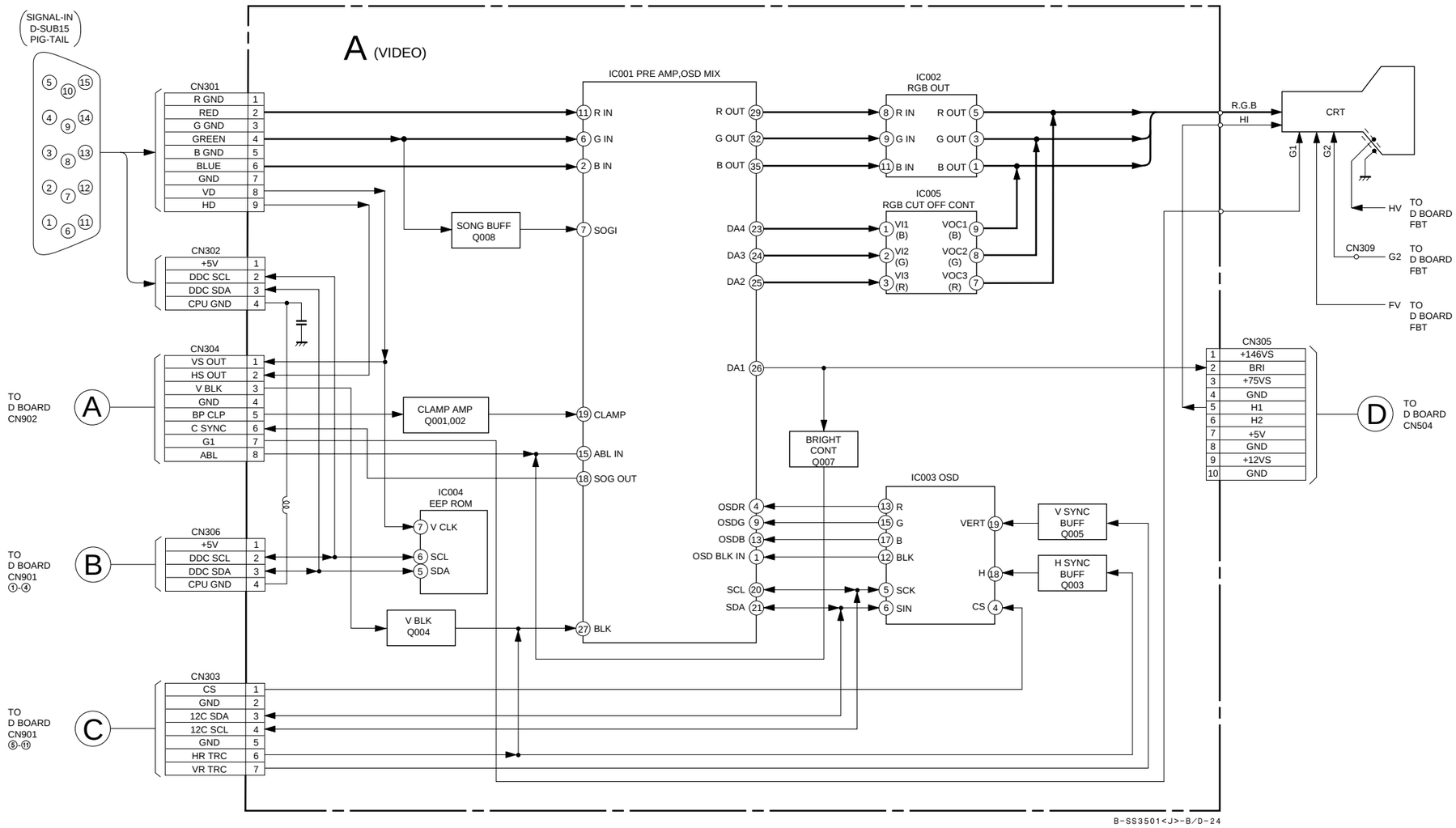


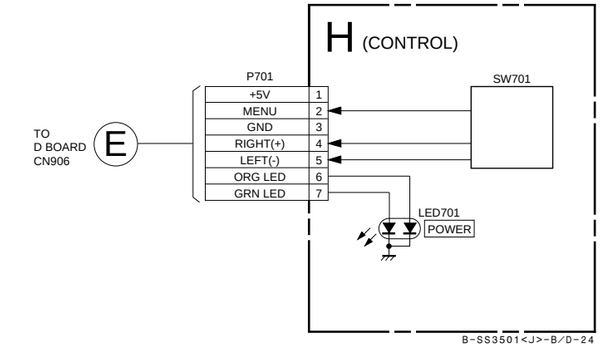


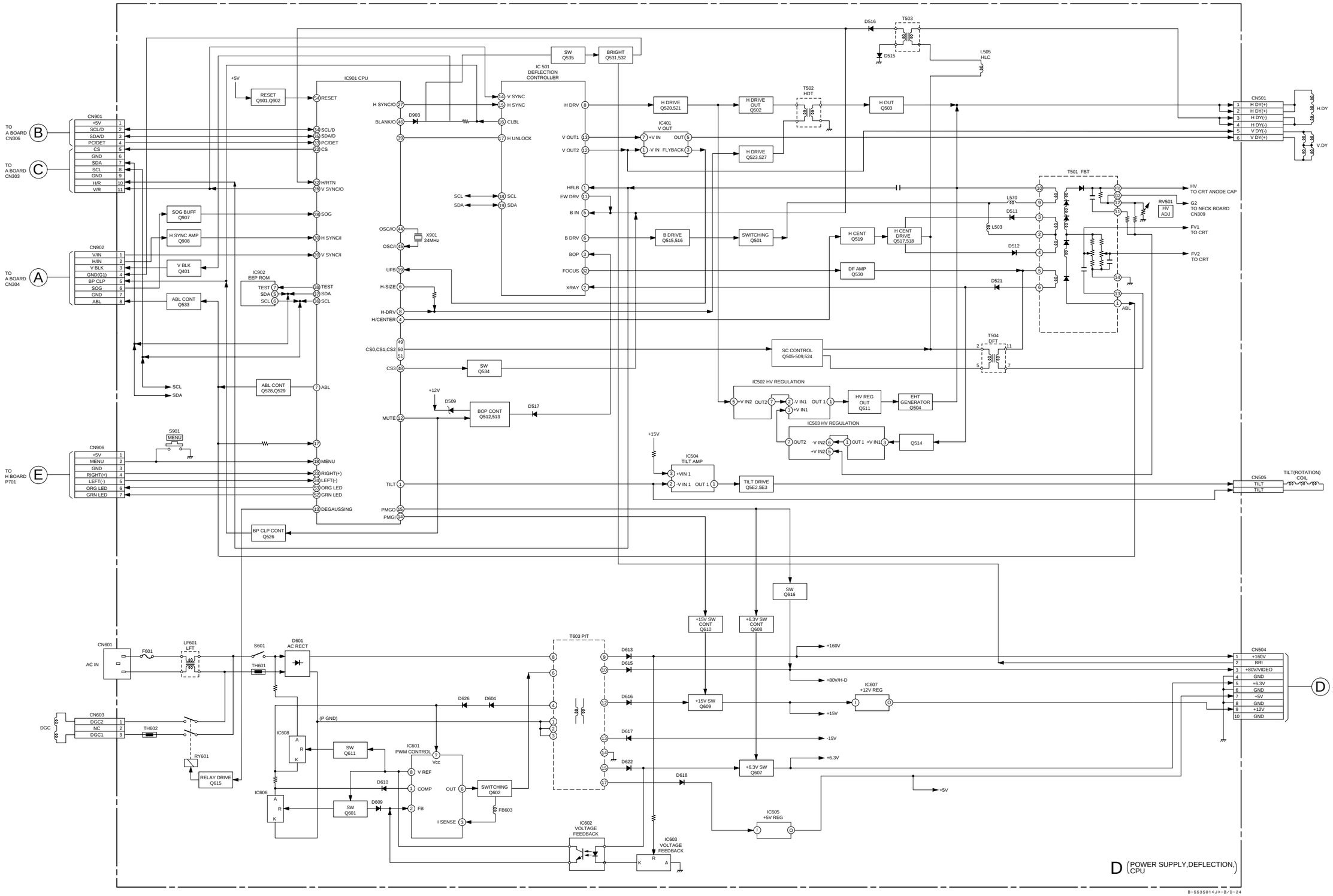
MEMO

SECTION 5
DIAGRAMS

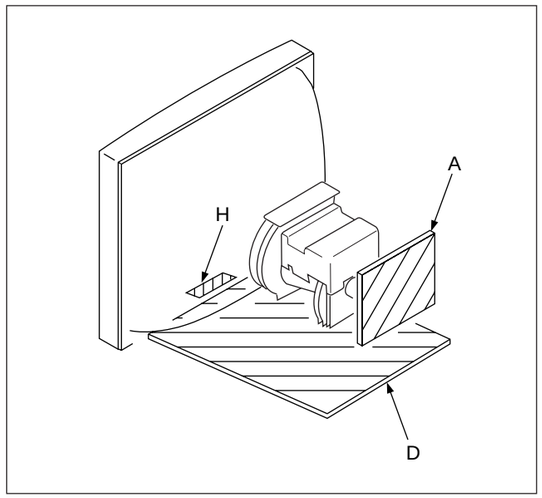
5-1. BLOCK DIAGRAMS






CN901
+5V
SCL/D
SDA/D
PC/DET
CS
GND
SDA
SCL
GND
H/R
V/R
TO A BOARD CN306
TO A BOARD CN303
CN902
V/IN
H/IN
V BLK
GND(G1)
BP CLP
SOG
GND
ABL
TO A BOARD CN304
CN906
+5V
MENU
GND
RIGHT(+)
LEFT(-)
ORG LED
GRN LED
TO H BOARD P701
S901
MENU
IC901 CPU
RESET Q901,Q902
SOG BUFF Q907
H SYNC AMP Q908
V BLK Q401
ABL CONT Q533
IC902 EEP ROM
ABL CONT Q528,Q529
BP CLP CONT Q526
SW Q535
BRIGHT Q531,532
IC 501 DEFLECTION CONTROLLER
D903
X901 24MHz
SW Q534
BOP CONT Q512,513
D509
D517
SW Q611
SW Q601
IC608
IC606
IC601 PWM CONTROL
SWITCHING Q602
FB603
D610
D609
D626
D604
IC602 VOLTAGE FEEDBACK
IC603 VOLTAGE FEEDBACK
H DRIVE Q520,521
H DRIVE OUT Q502
H DRIVE Q523,527
T502 HDT
IC401 V OUT
B DRIVE Q515,516
SWITCHING Q501
SC CONTROL Q505-509,524
IC502 HV REGULATION
HV REG OUT Q511
EHT GENERATOR Q504
IC503 HV REGULATION
Q514
IC504 TILT AMP
TILT DRIVE Q5E2,5E3
H OUT Q503
D516
T503
D515
L505 HLC
T501 FBT
L570
D511
L503
D512
D521
RV501 HV ADJ
H CENT Q519
H CENT DRIVE Q517,518
DF AMP Q530
T504 DFT
+15V SW CONT Q610
+6.3V SW CONT Q608
SW Q616
+15V SW Q609
+6.3V SW Q607
IC607 +12V REG
IC605 +5V REG
T603 PIT
D613
D615
D616
D617
D622
D618
CN501
H DY(+)
H DY(+)
H DY(-)
H DY(-)
V DY(-)
V DY(+)
H.DY
V.DY
CN505
TILT
TILT
TILT(ROTATION) COIL
CN504
+160V
BRI
+80V/VIDEO
GND
+6.3V
GND
+5V
GND
+12V
GND
TO A BOARD CN305
HV TO CRT ANODE CAP
G2 TO NECK BOARD CN309
FV1 TO CRT
FV2 TO CRT
ABL
CN601
AC IN
F601
LF601 LFT
S601
D601 AC RECT
TH601
CN603
DGC2
NC
DGC1
DGC
TH602
RY601
RELAY DRIVE Q615
D626
D604
(P GND)
+160V
+80V/H-D
+15V
-15V
+6.3V
+5V
D (POWER SUPPLY,DEFLECTION,) CPU
B-SS3501<J>-B/D-24

5-2. CIRCUIT BOARDS LOCATION



5-3. 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 IC502, IC503, Q511, D510, C535, R515, R554, R559, R560, R596, RV501, T501 (FBT)
HV Hold-down Circuit Check	D board IC501, R598, R599, T501 (FBT)
Beam Current Protector Circuit Check	D board T501 (FBT)

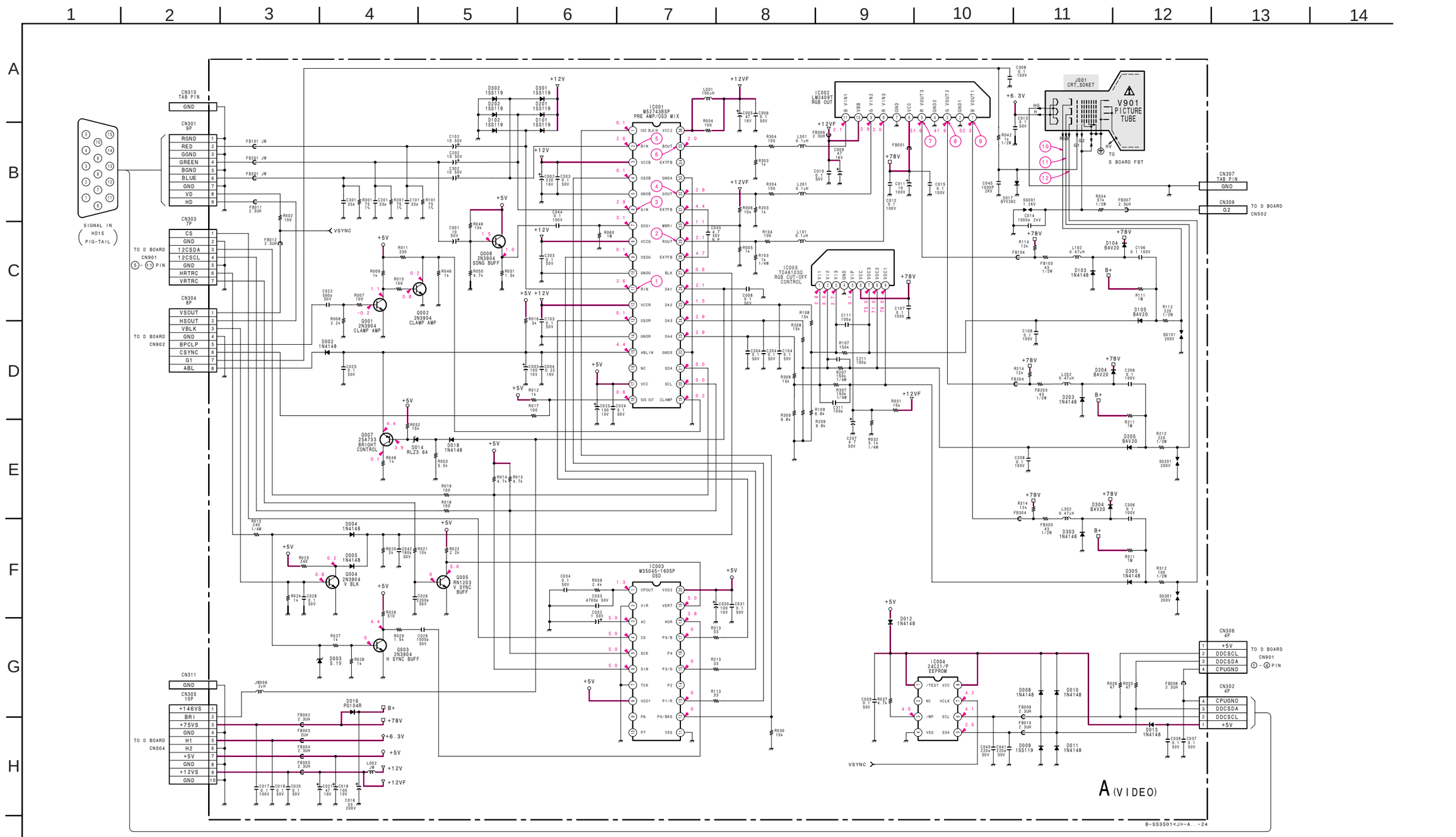
- Divided circuit diagram
  One sheet of D board circuit diagram is divided into three sheets, each having the code D-ⓐ to D-ⓒ . For example, the destination (ab1) on the D-ⓐ sheet is connected to (ab1) on the D-ⓑ sheet.

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

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

Note: Les composants identifiés par 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



• A BOARD WAVEFORMS

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫
0.7 Vp-p (H)	3.7 Vp-p (H)	1.0 Vp-p (H)	4.6 Vp-p (H)	0.7 Vp-p (H)	3.6 Vp-p (H)	52.0 Vp-p (H)	64.0 Vp-p (H)	52.0 Vp-p (H)	52.0 Vp-p (H)	64.0 Vp-p (H)	52.0 Vp-p (H)

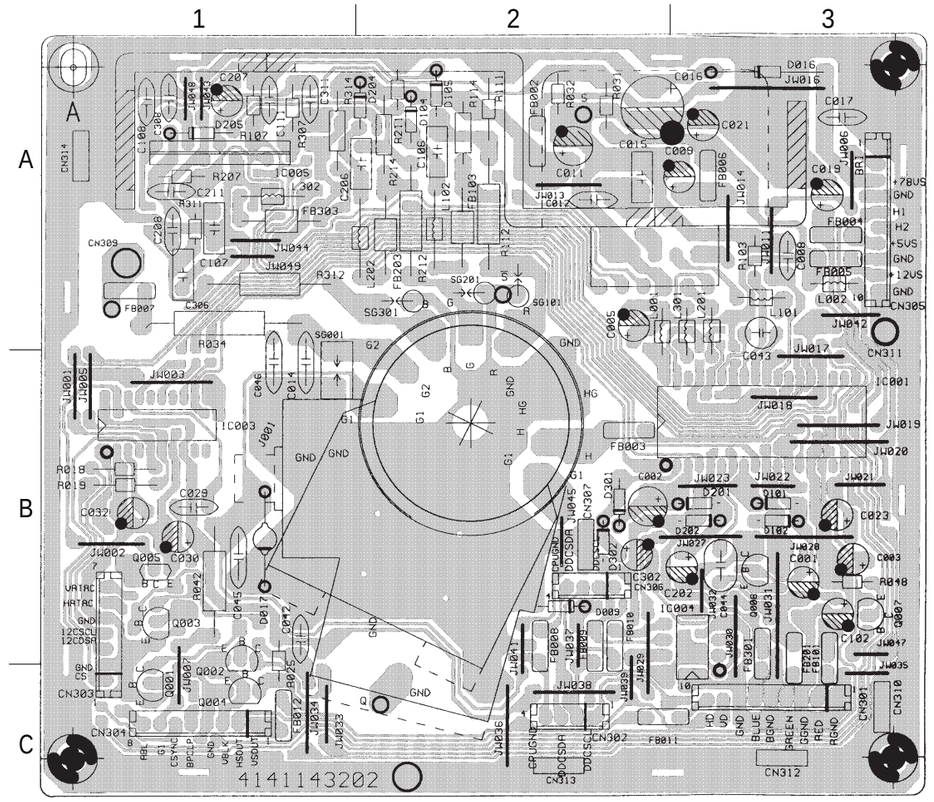
Schematic diagram

A board ➡

A [VIDEO]

— A BOARD (Conductor Side) —

— A BOARD (Component Side) —



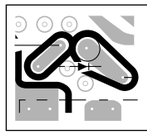
• Pattern of the rear side.

• A BOARD SEMICONDUCTOR LOCATION

IC	(Conductor Side)	(Component Side)
IC001	B–1	B–3
IC002	A–1	A–3
IC003	B–3	B–1
IC004	B–1	B–3
IC005	A–3	A–1

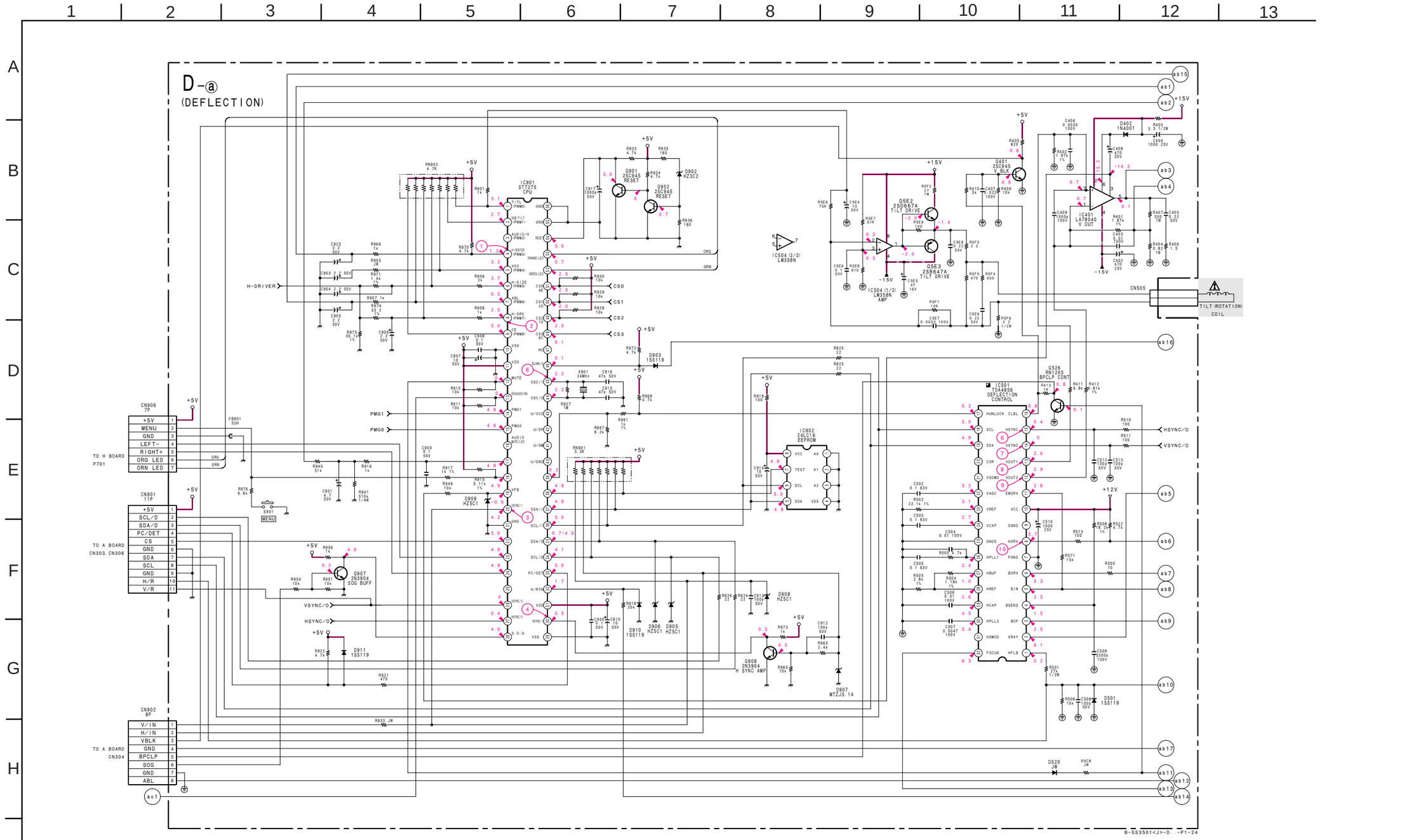
TRANSISTOR	(Conductor Side)	(Component Side)
Q001	C–3	C–1
Q002	B–3	B–1
Q003	B–3	B–1
Q004	C–3	C–1
Q005	B–3	B–1
Q007	B–1	B–3
Q008	B–1	B–3

DIODE	(Conductor Side)	(Component Side)
D002	C–3	
D003	B–3	
D004	B–3	
D005	C–3	
D008	C–2	
D009	B–2	
D010	C–2	
D011	B–2	
D012	B–1	
D013	C–1	
D014	B–1	
D016	A–1	A–3
D017	B–3	B–1
D018	A–1	
D101	B–1	B–3
D102	B–1	B–3
D103	A–2	
D104	A–2	A–2
D105	A–2	A–2
D201	B–1	B–3
D202	B–1	B–3
D203	A–2	
D204	A–2	A–1
D205	A–3	A–1
D301	B–1	B–2
D302	B–2	B–2
D303	A–2	
D304	A–2	
D305	A–3	



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

(2) Schematic Diagram of D (ⓐ-ⓒ) Boards



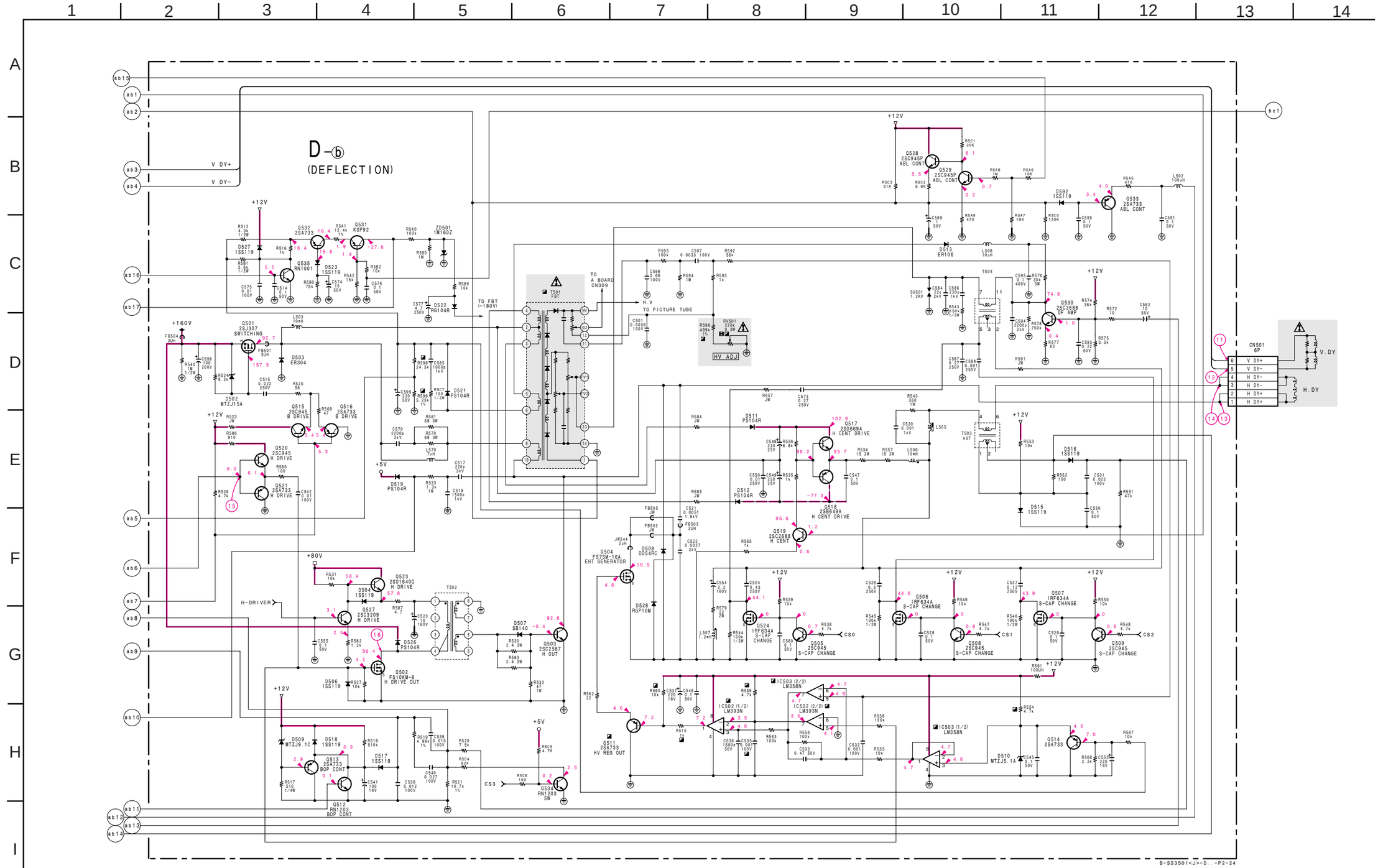
- Divided circuit diagram
  One sheet of D board circuit diagram is divided into three sheets, each having the code D-ⓐ to D-ⓒ . For example, the destination (ab1) on the D-ⓐ sheet is connected to (ab1) on the D-ⓑ sheet.

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

- **D - ⓐ BOARD WAVEFORMS**

①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩
3.2 Vp-p (H)	3.4 Vp-p (H)	4.0 Vp-p (V)	5.0 Vp-p (H)	2.8 Vp-p (24MHz)	5.0 Vp-p (H)	5.0 Vp-p (V)	3.0 Vp-p (V)	2.0 Vp-p (V)	12.0 Vp-p (H)

Schematic diagram
D -ⓐ board ➡

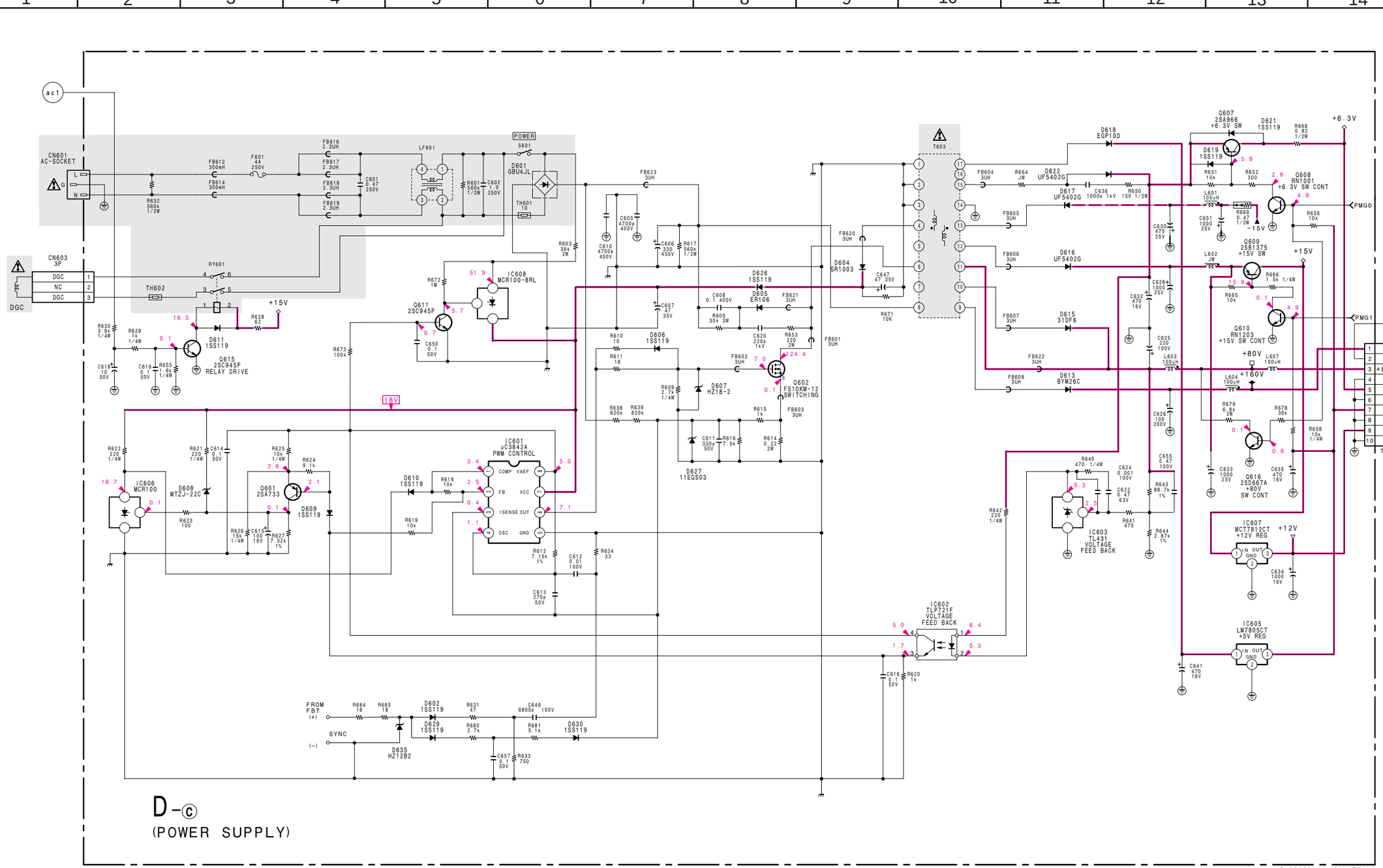


- Divided circuit diagram
  One sheet of D board circuit diagram is divided into three sheets, each having the code D-ⓐ to D-ⓒ . For example, the destination ab1 on the D-ⓐ sheet is connected to ab1 on the D-ⓑ sheet.

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

• D - ⓑ BOARD WAVEFORMS

⑪	⑫	⑬	⑭	⑮	⑯
58.0 Vp-p (V)	1.8 Vp-p (V)	1k Vp-p (H)	62.0 Vp-p (H)	12.0 Vp-p (H)	120 Vp-p (H)

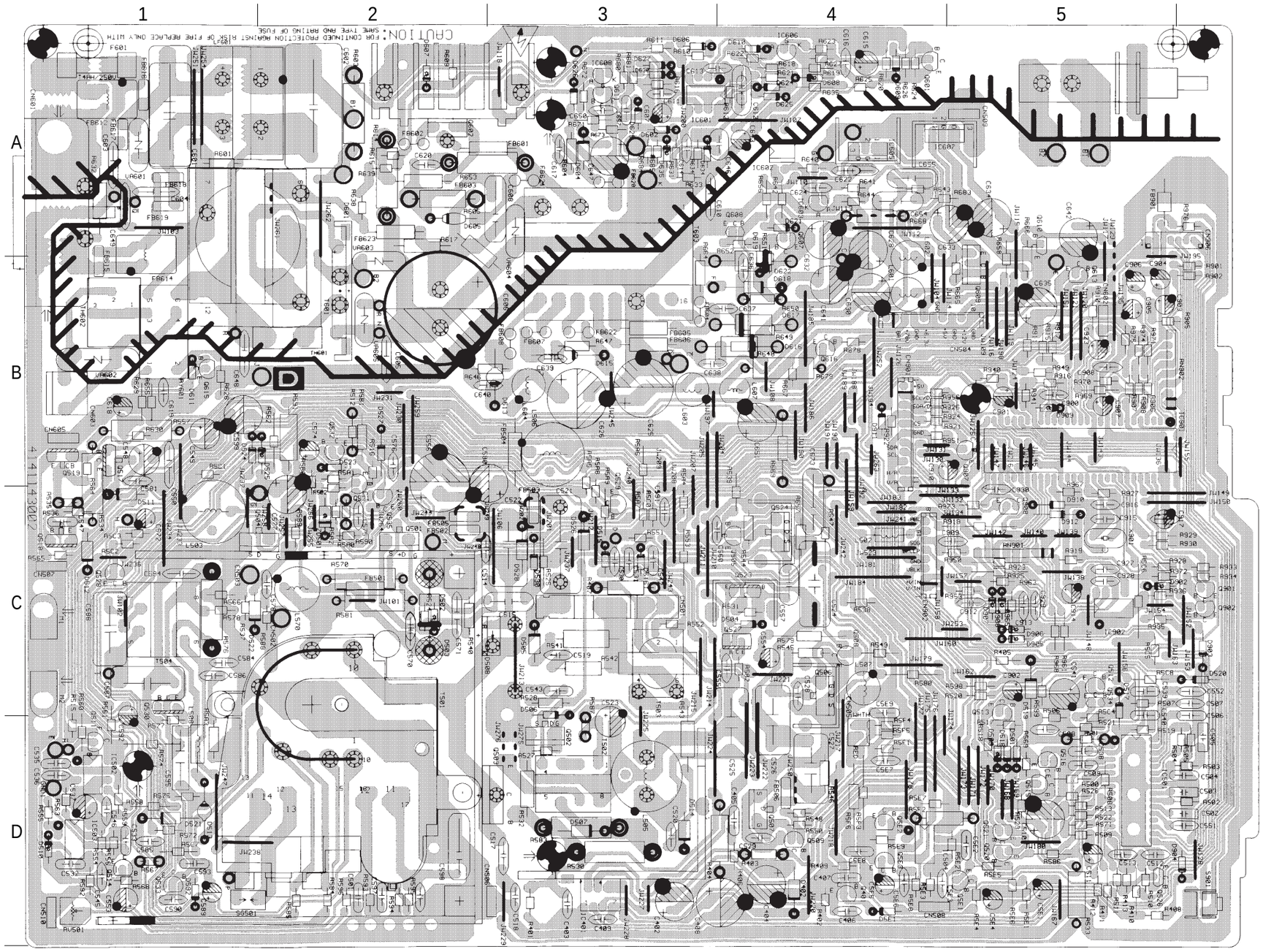


- Divided circuit diagram
  One sheet of D board circuit diagram is divided into three sheets, each having the code D-ⓐ to D-ⓒ . For example, the destination (ab1) on the D-ⓐ sheet is connected to (ab1) on the D-ⓑ sheet.

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

D ［DEDFLECTION, POWER SUPPLY］

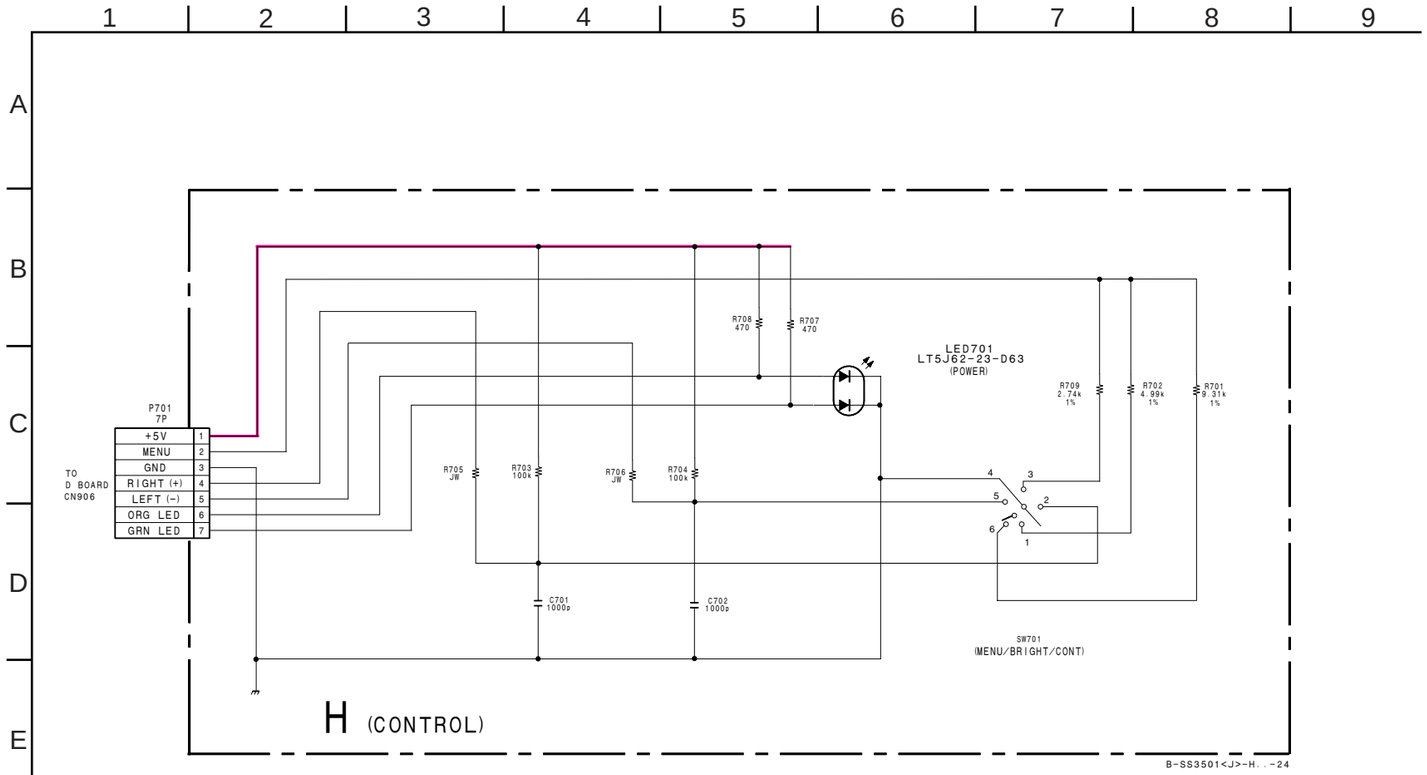
— D BOARD —



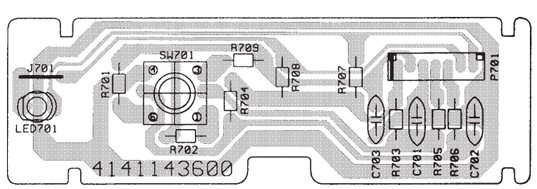
- **D BOARD**
  SEMICONDUCTOR LOCATION

IC		DIODE	
IC401	D-3	D402	D-4
IC501	D-5	D501	D-5
IC502	D-1	D502	C-2
IC503	D-1	D503	C-2
IC504	D-4	D504	C-4
IC601	A-3	D506	D-3
IC602	A-4	D507	D-3
IC603	A-4	D508	C-3
IC605	A-4	D509	D-5
IC606	A-4	D510	D-1
IC607	A-5	D511	C-1
IC608	A-3	D512	C-1
IC901	B-5	D513	D-1
IC902	C-5	D515	C-3
		D516	C-3
TRANSISTOR		D517	C-5
		D518	D-5
Q401	D-4	D519	C-5
Q501	C-2	D521	D-1
Q502	D-3	D522	C-2
Q503	D-3	D523	B-2
Q504	C-2	D526	C-3
Q505	C-4	D527	B-2
Q506	C-4	D528	C-3
Q507	D-4	D592	D-1
Q508	C-4	D601	A-2
Q509	D-4	D602	A-3
Q511	D-1	D604	A-3
Q512	C-5	D605	A-2
Q513	D-5	D606	A-3
Q514	D-1	D607	A-2
Q515	D-5	D608	A-4
Q516	D-5	D609	A-4
Q517	B-1	D610	A-3
Q518	C-1	D611	B-1
Q519	B-1	D613	B-3
Q520	D-5	D615	B-3
Q521	D-5	D616	B-4
Q523	C-4	D617	B-4
Q524	C-4	D618	B-4
Q526	D-5	D619	B-4
Q527	C-4	D621	A-4
Q528	C-1	D622	B-4
Q529	C-3	D626	A-3
Q530	C-1	D627	A-3
Q531	C-2	D629	A-3
Q532	B-2	D630	A-3
Q533	D-1	D635	A-3
Q534	C-5	D902	C-5
Q535	C-2	D903	C-5
Q5E2	D-4	D905	C-5
Q5E3	D-4	D906	C-5
Q601	A-4	D907	C-5
Q602	A-2	D908	C-5
Q607	A-4	D909	B-5
Q608	A-4	D910	C-5
Q609	B-5	D911	B-4
Q610	A-5	ZD501	C-2
Q611	A-3		
Q615	B-1	VARIABLE RESISTOR	
Q616	B-4		
Q901	C-5	RV501	D-1
Q902	C-5		
Q907	B-5	CRYSTAL	
Q908	C-5		
		X901	C-5

(3) Schematic Diagram of H Board

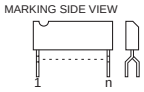


H ［USER CONTROL, LED］



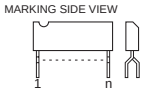
5-4. SEMICONDUCTORS

LA78040



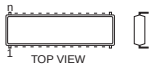
7 pin ZIP

LM2409



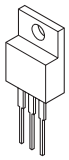
11 pin ZIP

LM358N
LM393N
M24C16BN6
uC3842A
24LC21/P

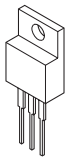


8 pin DIP

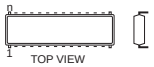
LM7805CT
TA7805S



MCT7812CT

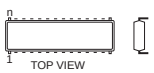


M35045-160SP



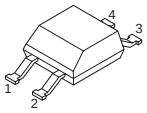
20 pin DIP

M52743BSP

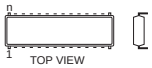


36 pin DIP

PC123F2

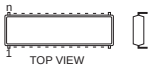


ST7275



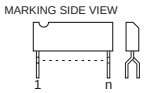
56 pin DIP

TDA4856



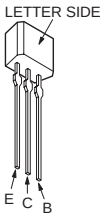
32 pin DIP

TDA6103Q

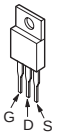


9 pin ZIP

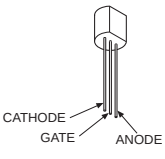
DTC124ESA
RN1203



FS10KM-6
FS10KM-12
FS7KM-16A

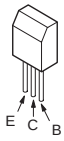


MCR100

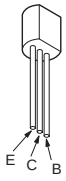


2N3904

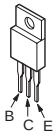
2SA1221-L
2SC3209LK



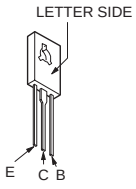
2SA733-Q
2SC945-P



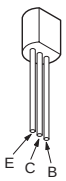
2SB1094-LK
2SB1375



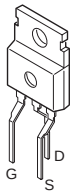
2SB647A
2SC2688-LK
2SD1640Q,R
2SD667A-C
2SD669AVC



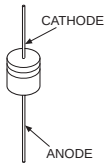
2SC2383-O



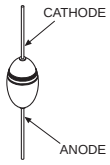
2SJ307-CB14



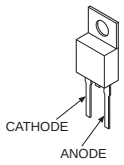
BAV20
MTZJ-22C
MTZJ-5.1A
MTZJ-9.1C
RD3.3ESB2
RD9.1ESB3
1SS119-25



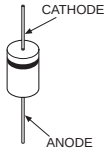
BYV26C



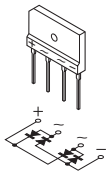
DD54RC



ER106
HZ18-2
HZ22-2
HZ3C2
MTZJ-T-73-15A
PG104R
SB140
SR1003
UF5402G
1N4001
1N4148
31DF6



GBU4JL-6088



SECTION 6
EXPLODED VIEWS

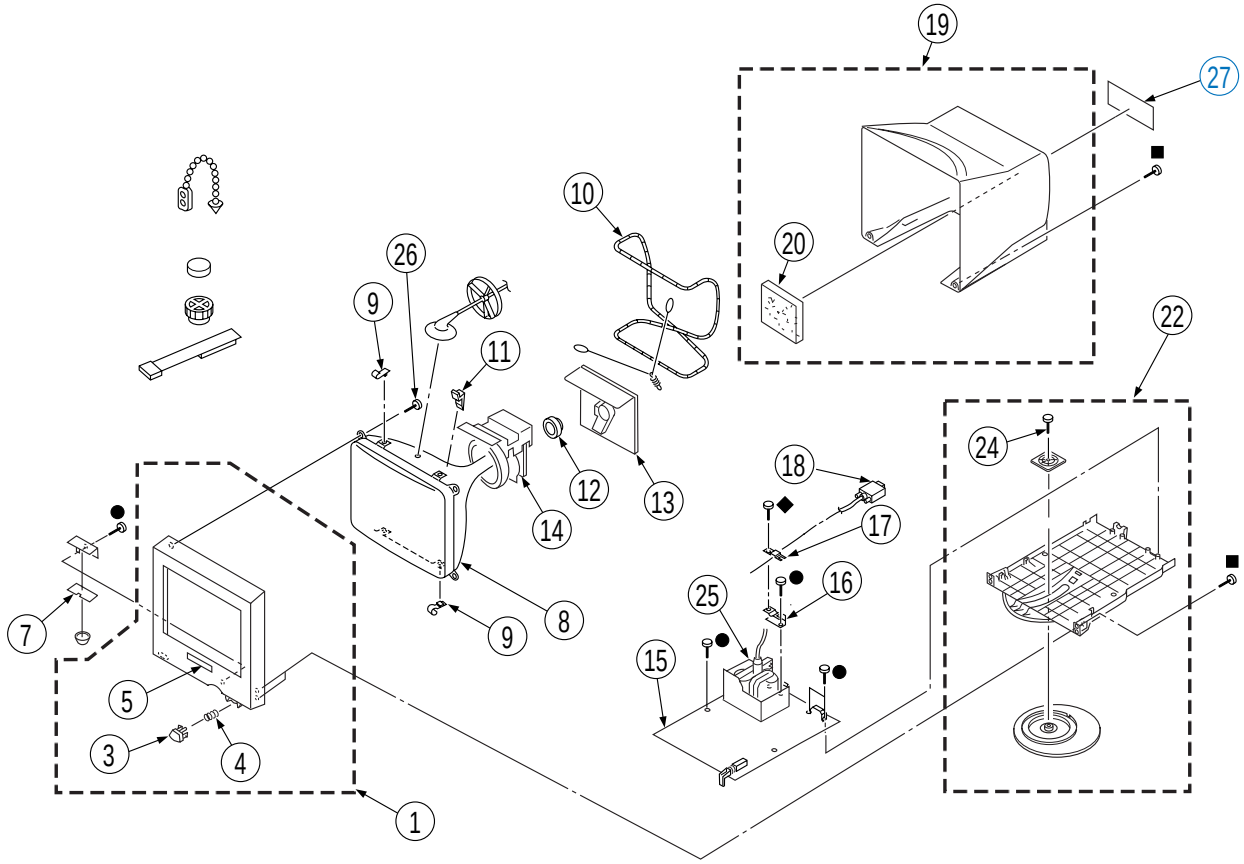
NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for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

●	7-685-648-71	+BVTP 3X10	8418113010
■	7-685-663-71	+BVTP 4X16	8418114016
◆	7-685-881-09	+BVTT 4X8	8121114008

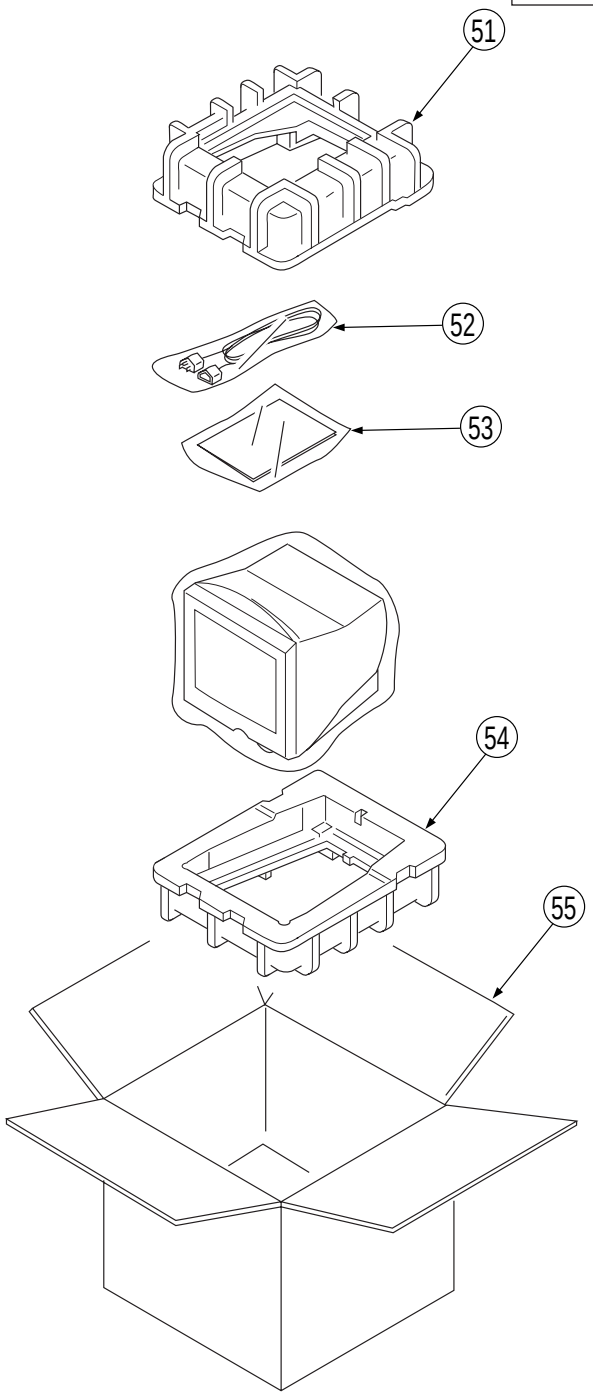


REF.NO.		PART NO.	DESCRIPTION	REMARK	
1		X-4037-232-1	BEZEL ASSY (U/C, EQ, SH)	3-5	GP5C116501
1		X-4037-235-1	BEZEL ASSY (AEP)	3-5	GP5C2E6501
#2	2	~~4-072-979-01~~	~~BEZEL (U/C, EQ, SH)~~		~~1Q010T5C11~~
#2	2	~~4-072-979-11~~	~~BEZEL (AEP)~~		~~1R010T5C21~~
3		4-072-387-01	BUTTON, POWER		1QA70T7C2A
4		4-060-162-01	SPRING, COMPRESSION		2017097C2A
5		4-045-165-11	EMBLEM (NO.6), SONY		9006095S11
#2	6	~~4-072-389-01~~	~~BUTTON, RESET~~		~~1QAF0T7C2A~~
7	*	A-1372-761-A	H BOARD, COMPLETE		SO5C210344
8	⚠	8-734-844-05	PICTURE TUBE (15TKS) (MIZ)		7010040815
9		4-045-123-01	HOLDER, DEGAUSSING COIL		3682315Y11
10	⚠	1-419-569-11	COIL, DEMAGNETIC		7020155R51
11		4-060-166-01	SPACER, DY		3090007Y11
12	⚠	1-452-923-31	NECK ASSY		7047R50000
13	*	A-1294-910-A	A BOARD, COMPLETE		SO5C210244
14	⚠	1-451-509-11	DEFLECTION YOKE (Y15TKF-H)		7039295R50
15	*	A-1343-792-A	D BOARD, COMPLETE		SM5C120144
16	*	4-060-150-01	BRACKET, CABLE		2016095Y11
17	*	4-060-151-01	STOPPER, CABLE		2017095Y11
18		1-792-033-11	CABLE, I/O		C7105C2100
19		X-4037-233-1	CABINET ASSY (U/C, EQ, SH)	20	GP5C117501
19		X-4037-236-1	CABINET ASSY (AEP)	20	GP5C2E7501
20	*	4-060-175-01	CUSHION, A BOARD		9010095C20
#2	21	~~4-072-980-01~~	~~BUCKET (U/C, EQ, SH)~~		~~1Q020T5C20~~
#2	21	~~4-072-980-11~~	~~BUCKET (AEP)~~		~~1Q020V5C20~~
22		X-4037-234-1	STAND ASSY (U/C, EQ, SH)	24	GP5C117001
22		X-4037-237-1	STAND ASSY (AEP)	24	GP5C2E7001
#2	23	~~4-072-981-01~~	~~COVER, BOTTOM (U/C, EQ, SH)~~		~~1Q030T5C20~~
#2	23	~~4-072-981-11~~	~~COVER, BOTTOM (AEP)~~		~~1R030T5C20~~
24		4-384-096-01	SCREW (4X20), TAPPING, +P		8433144020
25	⚠	1-453-333-11	TRANSFORMER, FLYBACK		7050305R50
26		4-365-808-01	SCREW (5), TAPPING		8513145025
#6	27	4-072-344-01	LABEL, INFORMATION (U/C, EQ, SH)		9011295C11
#6	27	4-072-344-11	LABEL, INFORMATION (AEP)		9011295C2E

6-2. 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
51	*	4-074-149-01	CUSHION (UPPER)	9002095C20
52	⚠	1-776-027-41	CORD SET, POWER (U/C)	463210001N
52	⚠	1-765-717-11	CORD SET, POWER (AEP)	463310001N
53		3-867-659-01	MANUAL, INSTRUCTION (U/C, EQ, SH)	9012095C12
#3 53		3-867-659-11	MANUAL, INSTRUCTION (AEP)	9012095C21
54	*	4-074-150-01	CUSHION (LOWER)	9003095C20
55	*	4-072-608-01	INDIVIDUAL CARTON (U/C, EQ, SH)	9001095C11
55	*	4-072-606-01	INDIVIDUAL CARTON (AEP)	9001095C21

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		
	* A-1294-910-A	A BOARD, COMPLETE			
		**********			
		<CAPACITOR>			
C001	1-126-964-91	ELECT	10MF	50V	5156100T50
C002	1-135-390-11	ELECT	220MF		5153221T16
C003	1-135-393-11	ELECT	100MF		5156101T10
C004	1-164-489-91	CERAMIC	0.22MF	16V	7144224106
C005	1-135-397-11	ELECT	47MF		515X470T16
C006	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C008	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C009	1-104-660-91	ELECT	47MF	16V	5156470T16
C010	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C011	1-128-582-91	ELECT	10MF	100V	5156100T01
C012	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C013	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C014	1-161-731-81	CERAMIC	1000PF	2KV	510H1021C3
C015	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C016	1-135-808-11	ELECT	33MF	200V	5156330S07
C017	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C018	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C019	1-135-393-11	ELECT	100MF		5156101T10
C020	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C021	1-104-660-91	ELECT	47MF	16V	5156470T16
C022	1-163-682-91	CHIP CERAMIC	560PF	50V	7183561556
C023	1-135-393-11	ELECT	100MF		5156101T10
C024	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C025	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C026	1-163-013-11	CHIP CERAMIC	2200PF	50V	7144222156
C028	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C029	1-102-074-11	CERAMIC	0.001MF	50V	5101102152
C030	1-135-393-11	ELECT	100MF		5156101T10
C031	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C032	1-135-398-11	ELECT	1MF		5156109T50
C033	1-163-017-11	CERAMIC	4700PF	50V	7144472156
C034	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C037	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C038	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C039	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C040	1-163-259-11	CHIP CERAMIC	220PF	50V	7183221556
C041	1-163-259-11	CHIP CERAMIC	220PF	50V	7183221556
C042	1-135-354-11	CERAMIC	180PF		5101181152
C043	1-135-404-11	ELECT	4.7MF		5162479T35
C044	1-136-189-91	METALIZED FILM	0.1MF	250V	5116104111
C045	1-161-731-81	CERAMIC	1000PF	2KV	510H1021C3
C101	1-163-594-91	CHIP CERAMIC	33PF	50V	7183330556
C102	1-126-964-91	ELECT	10MF	50V	5156100T50
C103	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C104	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C106	1-135-383-11	METALIZED	0.1MF		5075104501
C107	1-135-383-11	METALIZED	0.1MF		5075104501
C108	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C111	1-102-529-81	CERAMIC	100PF	50V	5128101552
C201	1-163-594-91	CHIP CERAMIC	33PF	50V	7183330556
C202	1-126-964-91	ELECT	10MF	50V	5156100T50
C203	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C204	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C206	1-135-383-11	METALIZED	0.1MF		5075104501
C207	1-135-395-11	ELECT	4.7MF	50V	5156479T50
C208	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C211	1-102-529-91	CERAMIC	100PF	50V	5128101552
C301	1-163-594-91	CHIP CERAMIC	33PF	50V	7183330556
C302	1-126-964-91	ELECT	10MF	50V	5156100T50
C303	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C304	1-115-339-91	CERAMIC	0.1MF	50V	7146104456
C306	1-135-383-11	METALIZED	0.1MF		5075104501
C308	1-127-980-11	CERAMIC	0.1MF	100V	7140104214
C311	1-102-529-91	CERAMIC	100PF	50V	5128101552
		<CONNECTOR>			
CN301*	1-564-512-11	PLUG, CONNECTOR 9P			4490900330
CN302*	1-564-507-51	PLUG, CONNECTOR 4P			4490400330
CN303*	1-564-510-51	PLUG, CONNECTOR 7P			4490700330
CN304*	1-564-511-11	PLUG, CONNECTOR 8P			4490800330
CN305*	1-564-513-11	PLUG, CONNECTOR 10P			4491000330
CN306*	1-564-507-51	PLUG, CONNECTOR 4P			4490400330
CN307	1-695-915-11	TAB (CONTACT)			4490100209
CN309	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)			3340236016
CN310	1-695-915-11	TAB (CONTACT)			4490100209
		<DIODE>			
D002	8-719-070-90	DIODE 1N4148			412014148T

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
D003	8-719-079-04	ZENER DIODE RLZ-5.1B	41205051BT
D004	8-719-070-90	DIODE 1N4148	412014148T
D005	8-719-070-90	DIODE 1N4148	412014148T
D008	8-719-070-90	DIODE 1N4148	412014148T
D009	8-719-921-20	DIODE 1SS119-25TD	4120511900
D010	8-719-070-90	DIODE 1N4148	412014148T
D011	8-719-070-90	DIODE 1N4148	412014148T
D012	8-719-070-90	DIODE 1N4148	412014148T
D013	8-719-070-90	DIODE 1N4148	412014148T
D014	8-719-079-05	ZENER DIODE RLZ3.6A	412053600T
D016	8-719-074-25	DIODE PG104R	4130101041
D017	8-719-074-13	DIODE BYV26C	413010426C
D018	8-719-070-90	DIODE 1N4148	412014148T
D101	8-719-921-20	DIODE 1SS119-25TD	4120511900
D102	8-719-921-20	DIODE 1SS119-25TD	4120511900
D103	8-719-070-90	DIODE 1N4148	412014148T
D104	8-719-074-15	DIODE BAV20	413258020U
D105	8-719-074-15	DIODE BAV20	413258020U
D201	8-719-921-20	DIODE 1SS119-25TD	4120511900
D202	8-719-921-20	DIODE 1SS119-25TD	4120511900
D203	8-719-070-90	DIODE 1N4148	412014148T
D204	8-719-074-15	DIODE BAV20	413258020U
D205	8-719-074-15	DIODE BAV20	413258020U
D301	8-719-921-20	DIODE 1SS119-25TD	4120511900
D302	8-719-921-20	DIODE 1SS119-25TD	4120511900
D303	8-719-070-90	DIODE 1N4148	412014148T
D304	8-719-074-15	DIODE BAV20	413258020U
D305	8-719-070-90	DIODE 1N4148	412014148T
		<FERRITE BEAD>	
FB001	1-500-104-21	BEAD, FERRITE (SMD)	4328350006
FB002	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB003	1-419-570-11	COIL, PEAKING	4321338006
FB004	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB005	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB006	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB007	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB008	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB009	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB010	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB011	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB012	1-412-911-11	INDUCTOR, FERRITE BEAD	7099159250
FB103	1-243-472-11	RES, CF 43	4050143055
FB104	1-500-104-21	BEAD, FERRITE (SMD)	4328350006
FB203	1-243-472-11	RES, CF 43	4050143055
FB204	1-500-104-21	BEAD, FERRITE (SMD)	4328350006
FB303	1-243-472-11	RES, CF 43	4050143055
FB304	1-500-104-21	BEAD, FERRITE (SMD)	4328350006
JW006	1-469-403-11	BEAD, FERRITE	4322209046
		<IC>	
IC001	8-759-582-06	IC M52743BSP	4159527432
IC002	8-759-582-08	IC LM2409	4159240900
IC003	8-759-654-38	IC M35045-160SP	4159350454
IC004	8-759-399-78	IC 24LC21/P	4159242100
IC005	8-759-434-40	IC TDA6103Q/N3,112	4159610300
		<SOCKET, PICTURE TUBE>	
J001 ⚠	1-251-335-11	SOCKET, PICTURE TUBE	4570305D11
		<COIL>	
L001	1-469-400-11	INDUCTOR, MICRO 100UH	432B101006
L101	1-469-398-11	INDUCTOR, MICRO 0.1UH	432B108006
#1 L102	1-419-618-11	COIL, PEAKING 0.47µH	432B478006
L201	1-469-398-11	INDUCTOR, MICRO 0.1UH	432B108006
#1 L202	1-419-618-11	COIL, PEAKING 0.47µH	432B478006
L301	1-469-398-11	INDUCTOR, MICRO 0.1UH	432B108006
#1 L302	1-419-618-11	COIL, PEAKING 0.47µH	432B478006
		<TRANSISTOR>	
Q001	8-729-139-04	TRANSISTOR 2N3904	4111139040
Q002	8-729-139-04	TRANSISTOR 2N3904	4111139040
Q003	8-729-139-04	TRANSISTOR 2N3904	4111139040
Q004	8-729-139-04	TRANSISTOR 2N3904	4111139040
Q005	8-729-206-21	TRANSISTOR RN1203	4116612030
Q007	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q008	8-729-139-04	TRANSISTOR 2N3904	4111139040
		<RESISTOR>	
R002	1-216-025-91	RES, CHIP 100	4010110152
R004	1-216-025-91	RES, CHIP 100	4010110152
R005	1-216-049-91	RES, CHIP 1.0K	4010110252
R006	1-216-073-91	RES, CHIP 10K	4010110352
R007	1-216-025-91	RES, CHIP 100	4010110152
R008	1-216-057-91	RES, CHIP 2.2K	4010122252
R009	1-216-049-91	RES, CHIP 1.0K	4010110252
R010	1-216-025-91	RES, CHIP 100	4010110152
R011	1-216-037-11	RES, CHIP 330	4010135152
R012	1-216-049-91	RES, CHIP 1.0K	4010110252
R013	1-216-065-11	RES, CHIP 4.7K	4010147252
R014	1-216-065-11	RES, CHIP 4.7K	4010147252
R015	1-216-034-91	RES, CHIP 240	4010124152
#1 R016	1-216-060-91	RES, CHIP 3K	4010130202
R017	1-216-025-91	RES, CHIP 100	4010110152
R018	1-247-807-91	CARBON (SMALL) 100	4050510155
R019	1-247-807-91	CARBON (SMALL) 100	4050510155
R020	1-243-467-11	RES, CHIP 2K	4010120202
R021	1-216-073-91	RES, CHIP 10K	4010110352
R022	1-216-057-91	RES, CHIP 2.2K	4010122252
R024	1-216-049-91	RES, CHIP 1.0K	4010110252
R025	1-247-816-91	CARBON (SMALL) 240	4050524155
R026	1-216-042-11	RES, CHIP 510	4010151152
R027	1-216-049-91	RES, CHIP 1.0K	4010110252
R028	1-216-049-91	RES, CHIP 1.0K	4010110252
R029	1-216-053-11	RES, CHIP 1.5K	4010115252
R030	1-216-073-91	RES, CHIP 10K	4010110352

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R031	1-247-859-91	CARBON (SMALL) 15K	4050515355
R032	1-247-848-91	CARBON (SMALL) 5.1K	4050551255
R034	1-260-192-91	CARBON (SMALL) 51K	4060251315
R035	1-216-017-11	RES, CHIP 47	4010147052
R036	1-216-017-11	RES, CHIP 47	4010147052
R037	1-216-065-11	RES, CHIP 4.7K	4010147252
R039	1-216-058-11	RES, CHIP 2.4K	4010124202
R042	1-202-868-91	RES, SOLID 1.0K	4060210215
R046	1-216-049-91	RES, CHIP 1.0K	4010110252
R048	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R049	1-216-073-91	RES, CHIP 10K	4010110352
R050	1-216-065-11	RES, CHIP 4.7K	4010147252
R051	1-216-053-11	RES, CHIP 1.5K	4010115252
R052	1-216-679-91	METAL FILM CHIP 15K	4010115352
#1 R053	1-243-674-11	RES, CHIP 5.5K	4010155202
#1 R060	1-216-270-91	RES, CHIP 1M	4010110502
R101	1-216-022-11	RES, CHIP 75	4010175002
R103	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R104	1-216-025-91	RES, CHIP 100	4010110152
R107	1-247-883-91	CARBON (SMALL) 150K	4050515455
R108	1-216-679-11	METAL FILM CHIP 15K	4010115352
#1 R109	1-216-218-91	RES, CHIP 6.8K	4010168202
R111	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R112	1-260-091-91	CARBON (SMALL) 220	4060222115
R113	1-216-013-11	RES, CHIP 33	4010133052
R114	1-243-477-11	RES, CF 12K	4050512355
R201	1-216-022-11	RES, CHIP 75	4010175002
R203	1-216-049-91	RES, CHIP 1.0K	4010110252
R204	1-216-025-91	RES, CHIP 100	4010110152
R207	1-247-883-91	CARBON (SMALL) 150K	4050515455
R208	1-216-679-91	METAL FILM CHIP 15K	4010115352
R209	1-216-069-91	RES, CHIP 6.8K	4010168252
R211	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R212	1-260-091-91	CARBON (SMALL) 220	4060222115
R213	1-216-013-11	RES, CHIP 33	4010133052
R214	1-243-477-11	RES, CF 12K	4050512355
R301	1-216-022-11	RES, CHIP 75	4010175002
R303	1-216-049-91	RES, CHIP 1.0K	4010110252
R304	1-216-025-91	RES, CHIP 100	4010110152
R307	1-247-883-91	CARBON (SMALL) 150K	4050515455
R308	1-216-679-91	METAL FILM CHIP 15K	4010115352
R309	1-216-069-91	RES, CHIP 6.8K	4010168252
R311	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R312	1-202-549-55	RES, SOLID 100	4060210115
R313	1-216-013-00	RES, CHIP 33	4010133052
R314	1-243-477-11	RES, CF 12K	4050512355
	<SPARK GAP>		
SG001	1-519-422-11	GAP, SPARK	5106122204
SG101	1-519-504-32	GAP, DISCHAGE	4705415001
SG201	1-519-504-32	GAP, DISCHAGE	4705415001
SG301	1-519-504-32	GAP, DISCHAGE	4705415001

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REF.NO.	PART NO.	DESCRIPTION			REMARK
*	A-1343-792-A	D BOARD, COMPLETE			
		**********			
	<CAPACITOR>				
C402	1-128-528-91	ELECT	470MF	25V	5156471S25
C403	1-137-393-91	PETP FILM	0.01MF	100V	5116103511
C404	1-107-491-91	ELECT	1000MF	25V	5153102S25
C405	1-137-378-91	PETP FILM	0.22MF		5077224505
C406	1-137-390-91	PETP FILM	0.0033MF	100V	5116332111
C407	1-137-395-91	PETP FILM	0.022MF	100V	5116223111
C408	1-126-951-11	ELECT	470MF	35V	5156471S35
C409	1-108-365-51	PE TEREPHTHALATE	0.001MF	100V	5116102111
#1 C501	1-135-915-11	PE FILM	0.0056MF		5116562111
C502	1-135-384-11	METALIZED FILM	0.1MF		5075104563
C503	1-135-384-11	METALIZED FILM	0.1MF		5075104563
C504	1-137-393-91	PETP FILM	0.01MF	100V	5116103511
C505	1-135-384-11	METALIZED FILM	0.1MF		5075104563
C506	1-137-393-91	PETP FILM	0.01MF	100V	5116103511
C507	1-137-391-91	PETP FILM	0.0047MF	100V	5116472511
C508	1-102-529-91	CERAMIC	100PF	50V	5128101552
C509	1-137-390-91	PETP FILM	0.0033MF	100V	5116332111
C510	1-107-491-91	ELECT	1000MF	25V	5153102S25
C512	1-102-529-91	CERAMIC	100PF	50V	5128101552
C513	1-102-529-91	CERAMIC	100PF	50V	5128101552
C514	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C515	1-136-195-11	METALIZED FILM	0.022MF	400V	5074223102
C517	1-128-981-11	CERAMIC	220PF		510H221193
C518	1-135-409-11	CERAMIC	1500PF		510H152132
#1 C520	1-135-869-11	CERAMIC	1000PF	1KV	510H102132
C521	1-135-807-11	PHA	5100PF		5197512393
C522	1-135-830-11	MPP	0.0027MF		51902723A3
C523	1-135-399-11	ELECT	10MF		515X100S02
C524	1-135-796-11	PMS	0.43MF		5198434583
C526	1-135-795-11	PMS	0.3MF		5198304583
C527	1-115-511-11	PP FILM (S)	0.12MF	250V	5198124583
C528	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C529	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C530	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C531	1-137-395-91	PETP FILM	0.022MF	100V	5116223111
C532	1-108-365-51	PE TEREPHTHALATE	0.001MF	100V	5116102111
#1 C533	1-137-194-91	METALIZED FILM	0.47MF	50V	5077474505
C535	1-108-365-51	PE TEREPHTHALATE	0.001MF	100V	5116102111
#1 C536	1-135-906-11	CERAMIC	1500PF		5101152152
C537	1-126-934-91	ELECT	220MF	16V	5156221T16
C538	1-137-461-91	PETP FILM	0.012MF	100V	5116123111
C539	1-137-394-91	PETP FILM	0.015MF	100V	5116153111
C540	1-135-794-11	MC	0.027MF		5116273111
C541	1-126-933-91	ELECT	100MF	16V	5156101T16
C542	1-137-393-91	PETP FILM	0.01MF	100V	5116103511
C545	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C546	1-136-497-11	METALIZED FILM	0.1MF		5134104452
C547	1-137-376-91	PETP FILM	0.1MF	50V	5110104550
C548	1-135-403-11	ELECT	220MF		5156221T25
C549	1-135-403-11	ELECT	220MF		5156221T25

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REF.NO.	PART NO.	DESCRIPTION	REMARK
C550	1-135-352-11	METALIZED FILM	0.01MF 5074103102
C553	1-126-934-91	ELECT	220MF 16V 5156221T16
C554	1-109-958-91	ELECT	2.2MF 160V 5156229T02
C555	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C556	1-107-955-91	ELECT	100MF 200V 515X101S07
C560	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C570	1-117-216-11	CERAMIC	2200PF 3KV 510H2221C3
C573	1-135-802-11	PMV	0.27MF 5199274583
C574	1-126-964-91	ELECT	10MF 50V 5156100T50
C575	1-137-393-91	PETP FILM	0.01MF 100V 5116103511
C576	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C577	1-135-394-11	ELECT	4.7MF 5156479T03
C584	1-135-357-11	CERAMIC	22PF 51282205C2
C585	1-164-143-11	CERAMIC	1000PF 1KV 5101102132
C586	1-135-793-11	CCB	220PF 5101221132
C587	1-135-797-11	CMPP	0.27MF 5198274583
C588	1-135-803-11	PMV	0.091MF 5199913583
C589	1-135-398-11	ELECT	1MF 5156109T50
C590	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C591	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C592	1-126-964-91	ELECT	10MF 50V 5156100T52
C593	1-137-378-91	PETP FILM	0.22MF 5077224505
C594	1-117-216-11	CERAMIC	2200PF 3KV 510H2221C3
C595	1-136-199-11	METALIZED FILM	0.1MF 400V 5074104104
C597	1-137-390-91	PETP FILM	0.0033MF 100V 5116332111
C598	1-135-806-11	MEF	0.68MF 100V 5074684101
C599	1-126-969-91	ELECT	220MF 50V 5156221T50
C5E4	1-126-964-91	ELECT	10MF 50V 5156100T50
C5E5	1-104-660-91	ELECT	47MF 16V 5156470T16
C5E6	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C5E7	1-137-390-91	PETP FILM	0.0033MF 100V 5116332111
C5E8	1-137-378-91	PETP FILM	0.22MF 5077224505
C5E9	1-137-378-91	PETP FILM	0.22MF 5077224505
C601 ⚠	1-104-708-51	FILM (POWER)	0.47MF 250V 5066474425
C602 ⚠	1-135-381-11	METALIZED	1MF 5066105425
C605	1-135-351-11	CERAMIC	4700PF 5063472425
C606	1-135-396-11	ELECT	330MF 400V (U/C) 515P331S04
C606	1-135-831-11	ELECT	330MF 450V (AEP) 515P331S45
C607	1-126-947-91	ELECT	47MF 35V 5156470T35
C608	1-136-199-11	METALIZED FILM	0.1MF 400V 5074104104
C610	1-135-351-11	CERAMIC	4700PF 5063472425
C611	1-102-112-91	CERAMIC	330PF 50V 5128331552
#1 C612	1-135-916-11	METALIZED PP	0.01MF 5092103615
C613	1-135-386-11	CERAMIC	270PF 5128271552
C614	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C615	1-126-933-91	ELECT	100MF 16V 5156101T16
C616	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C618	1-126-964-91	ELECT	10MF 50V 5156100T50
C619	1-136-497-11	METALIZED FILM	0.1MF 5134104452
#1 C620	1-135-897-11	CERAMIC	220PF 1KV 510H221132
C622	1-135-804-11	CERAMIC	0.47MF 5075474163
C624	1-108-365-51	PE TEREPHTHALATE	0.001MF 100V 5116102111
#5 C625	1-111-173-11	ELECT	220MF 100V
C626	1-107-955-91	ELECT	100MF 200V 515X101S07
C628	1-107-491-91	ELECT	1000MF 25V 5153102S25
C630	1-128-528-91	ELECT	470MF 25V 5156471S25
C632	1-126-935-91	ELECT	470MF 16V 5156471T16
C633	1-107-491-11	ELECT	1000MF 25V 5153102S25
C634	1-107-884-91	ELECT	1000MF 16V 5156102S16
C635	1-126-935-91	ELECT	470MF 16V 5156471T16
C636	1-164-143-11	CERAMIC	1000PF 1KV 5101102132
C641	1-126-935-91	ELECT	470MF 16V 5156471T16
C646	1-137-392-91	PETP FILM	0.0068MF 5116682111
C647	1-126-947-91	ELECT	47MF 35V 5156470T35
C650	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C651	1-107-491-91	ELECT	1000MF 25V 5153102S25
#1 C655	1-135-911-11	METALIZED FILM	0.47MF 5074474501
C657	1-137-376-91	PETP FILM	0.1MF 50V 5110104550
C900	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C901	1-135-395-11	ELECT	4.7MF 5156479T50
C903	1-126-961-91	ELECT	2.2MF 50V 5156229T50
C904	1-126-961-91	ELECT	2.2MF 50V 5156229T50
C905	1-126-961-91	ELECT	2.2MF 50V 5156229T50
C906	1-126-961-91	ELECT	2.2MF 50V 5156229T50
C907	1-126-964-91	ELECT	10MF 50V 5156100T50
C908	1-136-497-11	METALIZED FILM	0.1MF 5134104452
C910	1-126-964-91	ELECT	10MF 50V 5156100T50
C912	1-102-529-91	CERAMIC	100PF 50V 5128101552
C913	1-102-529-91	CERAMIC	100PF 50V 5128101552
C914	1-126-964-91	ELECT	10MF 50V 5156100T50
C915	1-162-815-91	CERAMIC	47PF 500V 5121470552
C916	1-162-815-91	CERAMIC	47PF 500V 5121470552
C917	1-102-074-11	CERAMIC	0.001MF 50V 5101102152
C923	1-126-961-91	ELECT	2.2MF 50V 5156229T50
C930	1-136-497-11	METALIZED FILM	0.1MF 5134104452

<CONNECTOR>

CN501*	1-580-798-11	CONNECTOR PIN (DY) 6P	4490601506
CN504*	1-564-513-11	PLUG, CONNECTOR 10P	4491000330
CN506	1-695-915-21	TAB (CONTACT)	4490100209
CN507	1-695-915-21	TAB (CONTACT)	4490100209
CN601⚠	1-251-444-11	INLET, AC	4570704350
CN603*	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	4490301100
CN901	1-564-514-11	PLUG, CONNECTOR 11P	4491100330
CN902*	1-564-511-11	PLUG, CONNECTOR 8P	4490800330
CN906*	1-564-510-11	PLUG, CONNECTOR 7P	4490700200

<DIODE>

D402	8-719-904-01	DIODE 1N4001	4120104001
D501	8-719-921-20	DIODE 1SS119-25TD	4120511900
D502	8-719-923-03	ZENER DIODE MTZJ-T-73-15A	41205015AU
D503	8-719-079-06	DIODE ER304	4130303040
D504	8-719-921-20	DIODE 1SS119-25TD	4120511900
D506	8-719-921-20	DIODE 1SS119-25TD	4120511900
D507	8-719-975-76	DIODE SB140	4130104140
D508	8-719-075-31	DIODE DD54RC	4130500540
D509	8-719-921-22	ZENER DIODE 1SS277	41205091CU
D510	8-719-923-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D511	8-719-074-17	DIODE SR1003	4130101003
D512	8-719-074-17	DIODE SR1003	4130101003
D513	8-719-074-26	DIODE ER106	4130101060

D

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 mark ⚠ are critical for safety. Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK
D515	8-719-921-20	DIODE 1SS119-25TD	4120511900
D516	8-719-921-20	DIODE 1SS119-25TD	4120511900
D517	8-719-921-20	DIODE 1SS119-25TD	4120511900
D518	8-719-921-20	DIODE 1SS119-25TD	4120511900
D519	8-719-074-17	DIODE SR1003	4130101003
D521	8-719-074-17	DIODE SR1003	4130101003
D522	8-719-074-25	DIODE PG104R	4130101041
D523	8-719-921-20	DIODE 1SS119-25TD	4120511900
D526	8-719-074-17	DIODE SR1003	4130101003
D527	8-719-921-20	DIODE 1SS119-25TD	4120511900
D528	8-719-077-90	DIODE RGP10M	413010010M
D592	8-719-921-20	DIODE 1SS119-25TD	4120511900
D601 ⚠	8-719-510-63	DIODE D4SB60L-F	4130400600
D602	8-719-921-20	DIODE 1SS119-25TD	4120511900
D604	8-719-074-17	DIODE SR1003	4130101003
D605	8-719-074-13	DIODE BYV26C	413010426C
D606	8-719-921-20	DIODE 1SS119-25TD	4120511900
D607	8-719-902-82	ZENER DIODE HZ18-2	4120501802
D608	8-719-922-32	ZENER DIODE HZ22-2	4120502202
D609	8-719-921-20	DIODE 1SS119-25TD	4120511900
D610	8-719-921-20	DIODE 1SS119-25TD	4120511900
D611	8-719-921-20	DIODE 1SS119-25TD	4120511900
D613	8-719-074-12	DIODE BYM26C	413020426C
D615	8-719-054-72	DIODE 31DF6-FC5	41303031F6
D616	8-719-074-19	DIODE UF5402G	4130305402
D617	8-719-074-19	DIODE UF5402G	4130305402
D618	8-719-979-58	DIODE EGP10D	413010110D
D619	8-719-921-20	DIODE 1SS119-25TD	4120511900
D621	8-719-921-20	DIODE 1SS119-25TD	4120511900
D622	8-719-074-19	DIODE UF5402G	4130305402
D626	8-719-921-20	DIODE 1SS119-25TD	4120511900
D627	1-807-912-11	DIODE 11EQS03	41301011S3
D629	8-719-921-20	DIODE 1SS119-25TD	4120511900
D630	8-719-921-20	DIODE 1SS119-25TD	4120511900
D635	8-719-921-84	ZENER DIODE HZ12B2	4120512B20
D902	8-719-993-42	ZENER DIODE HZ3C2	41205003C2
D903	8-719-921-20	DIODE 1SS119-25TD	4120511900
D905	8-719-922-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D906	8-719-922-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D907	8-719-922-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D908	8-719-922-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D909	8-719-922-33	ZENER DIODE MTZJ-T-77-5.1A	41205051AU
D910	8-719-921-20	DIODE 1SS119-25TD	4120511900
D911	8-719-921-20	DIODE 1SS119-25TD	4120511900
ZD501	8-719-077-81	DIODE 1M160Z	4120510160
		<FUSE>	
F601 ⚠	1-576-231-11	FUSE (H.B.C.) (4A/250V)	5268400052
	1-533-399-21	HOLDER, FUSE ; F601	46905Y1101
		<FERRITE BEAD>	
FB501	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB503	1-469-611-11	INDUCTOR, FERRITE BEAD 2UH	4322209005
FB504	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB601	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB602	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB603	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB604	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB605	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB606	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB607	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB608	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB612⚠	1-419-567-11	TOROID CHOKE 300UH	7067R10301
FB614⚠	1-419-567-11	TOROID CHOKE 300UH	7067R10301
FB616⚠	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB617⚠	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB618⚠	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB619⚠	1-412-911-21	INDUCTOR, FERRITE BEAD	7099159250
FB620	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB621	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB622	1-469-401-11	BEAD, FERRITE 2.8UH	4322309504
FB623	1-469-402-11	BEAD, FERRITE 3UH	4322309006
FB901	1-469-403-11	BEAD, FERRITE	4322209046
JW244	1-469-403-11	BEAD, FERRITE	4322209046
		<IC>	
IC401	8-759-593-28	IC LA78040	4159780400
IC501	8-759-582-05	IC TDA4856	4159485600
IC502	8-759-450-95	IC LM393N	4159393000
IC503	8-759-991-16	IC LM358N	4159358000
IC504	8-759-991-16	IC LM358N	4159358000
IC601	8-759-582-09	IC UC3842A	4159384200
IC602	8-749-010-59	PHOTO COUPLER TLP721F	4159072100
#1 IC603	8-759-007-23	IC MC74HC4316N	415943100A
IC605	8-759-924-12	IC LM7805CT	4159780501
IC606	8-729-048-22	TRANSISTOR MCR100	4114501006
IC607	8-759-279-76	IC MCT7812CT	4159781201
IC608	8-729-051-32	TRANSISTOR MCR100-8RL	4114510080
#4 IC901	8-759-684-95	IC ST72751N9B1	4159727517
IC902	8-759-650-44	IC M24C16BN6	415924C160
		<COIL>	
L502	1-410-521-11	INDUCTOR, MICRO 100UH	4321101006
L503	1-459-104-21	COIL, WITH CORE	4323103003
L505	1-419-568-11	COIL, LINEARITY	708S205R50
L506	1-459-104-21	COIL, WITH CORE	4323103003
L507	1-412-550-25	INDUCTOR, MICRO 1.2mH	4323122003
L508	1-410-328-11	INDUCTOR, MICRO 10UH	4321100006
L570	1-416-989-11	COIL, CHOKE 7UH	4323709003
L601	1-412-537-25	INDUCTOR, MICRO 100UH	4323101303
L603	1-412-537-25	INDUCTOR, MICRO 100UH	4323101303
L604	1-412-537-25	INDUCTOR, MICRO 100UH	4323101303
L607	1-410-645-41	INDUCTOR, MICRO 100UH	4326101005
		<FILTER>	
LF601⚠	1-433-798-11	TRANSFORMER, LINE FILTER	7065Y11133

REF.NO.	PART NO.	DESCRIPTION	REMARK
	<TRANSISTOR>		
Q401	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q501	8-729-027-83	TRANSISTOR 2SJ307-CB14	4101603070
Q502	8-729-051-33	TRANSISTOR FS10KM-6	41035010K1
Q503	8-729-043-54	TRANSISTOR 2SC5387	4100253870
Q504	8-729-047-46	TRANSISTOR FS7KM-16A	41035007K0
Q505	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q506	8-729-051-30	TRANSISTOR IRFS634	4105906340
Q507	8-729-051-30	TRANSISTOR IRFS634	4105906340
Q508	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q509	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q511	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q512	8-729-206-21	TRANSISTOR RN1203	4116612030
Q513	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q514	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q515	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q516	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q517	8-729-306-93	TRANSISTOR 2SD669A-D	410030669A
Q518	8-729-306-92	TRANSISTOR 2SD669AVC	410010649A
Q519	8-729-119-80	TRANSISTOR 2SC2688-LK	4100226880
Q520	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q521	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q523	8-729-023-28	TRANSISTOR 2SD1640Q	4100316400
Q524	8-729-051-30	TRANSISTOR IRFS634	4105906340
Q526	8-729-206-21	TRANSISTOR RN1203	4116612030
Q527	8-729-140-51	TRANSISTOR 2SC3209LK-TP	410023209L
Q528	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q529	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q530	8-729-119-80	TRANSISTOR 2SC2688-LK	4100226880
Q531	8-729-051-31	TRANSISTOR KSP92	4112409200
Q532	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q533	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q534	8-729-206-21	TRANSISTOR RN1203	4116612030
Q535	8-729-052-08	TRANSISTOR RN1001	4116610010
Q5E2	8-729-306-72	TRANSISTOR 2SD667A-C	411030667A
Q5E3	8-729-300-72	TRANSISTOR 2SB647A-C	411010647A
Q601	8-729-173-36	TRANSISTOR 2SA733-Q	4110007330
Q602	8-729-048-21	TRANSISTOR FS10KM-12	41035010K0
#1 Q607	8-729-200-36	TRANSISTOR 2SA966-Y	4110009660
Q608	8-729-052-08	TRANSISTOR RN1001	4116610010
Q609	8-729-209-60	TRANSISTOR 2SB1375	4100113750
Q610	8-729-206-21	TRANSISTOR RN1203	4116612030
Q611	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q615	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q616	8-729-306-72	TRANSISTOR 2SD667A-C	411030667A
Q901	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q902	8-729-191-57	TRANSISTOR 2SC945-P	411020945P
Q907	8-729-139-04	TRANSISTOR 2N3904	4111139040
Q908	8-729-139-04	TRANSISTOR 2N3904	4111139040
	<RESISTOR>		
R401	1-243-493-11	RES, PR MF 1.87K	4257041871
R402	1-243-493-11	RES, PR MF 1.87K	4257041871
R403	1-243-471-11	RES, CF 3.3	4050133953
R404	1-216-348-91	METAL OXIDE 0.82	4171082855
R405	1-243-484-11	RES, CF 820	4050582155
R406	1-243-478-11	RES, CF 1.5	4050515955
R407	1-243-487-11	RES, MOF 330	4177133156
R409	1-247-855-91	CARBON (SMALL) 10K	4050510355
R410	1-247-842-91	CARBON (SMALL) 3.0K	4050530255
R411	1-247-851-91	CARBON (SMALL) 6.8K	4050568255
R412	1-242-988-11	METAL FILM 6.81K	4257046811
R413	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R500	1-247-783-91	CARBON (SMALL) 10	4050510055
R501	1-243-473-11	CAP, CF 27K	4050127353
R502	1-240-905-11	METAL FILM 22.1K	4257042212
R503	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R504	1-240-891-11	METAL FILM 1.18K	4257041181
R505	1-240-894-11	METAL FILM 2.8K	4257042801
R506	1-247-855-91	CARBON (SMALL) 10K	4050510355
R508	1-240-904-11	METAL FILM 18.2K	4257041822
R510	1-247-807-91	CARBON (SMALL) 100	4050510155
R511	1-247-807-91	CARBON (SMALL) 100	4050510155
R512	1-242-969-11	CARBON (SMALL) 4.3K	4050143253
R513	1-247-807-91	CARBON (SMALL) 100	4050510155
R515	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R516	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R517	1-247-824-91	CARBON (SMALL) 510	4050551155
R518	1-247-896-91	CARBON (SMALL) 510K	4050551455
R519	1-240-897-11	METAL FILM 4.99K	4257044991
R520	1-240-900-11	METAL FILM 7.5K	4257047501
R521	1-243-491-11	RES, PR MF 10.7K	4257041072
R522	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R524	1-247-853-91	CARBON (SMALL) 8.2K	4050582255
R525	1-243-482-11	RES, CF 56	4050556055
R526	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R527	1-247-855-91	CARBON (SMALL) 10K	4050510355
R530	1-243-489-11	RES, MOF 2.4	4177324955
R531	1-247-855-91	CARBON (SMALL) 10K	4050510355
R532	1-242-980-11	METAL OXIDE 47	4177147056
#1 R533	1-243-675-11	METAL OXIDE 1.3K	4171013253
R534	1-243-499-11	RES, MOF 15	4172015053
R535	1-242-997-11	CARBON 1K	4050510253
R536	1-247-851-91	CARBON (SMALL) 6.8K	4050568255
R538	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R539	1-247-855-91	CARBON (SMALL) 10K	4050510355
R540	1-260-135-91	CARBON (SMALL) 1M	4050110555
#1 R543	1-243-677-11	METAL OXIDE 360	4177136155
R544	1-260-123-11	CARBON (SMALL) 100K	4050110455
R545	1-260-123-11	CARBON (SMALL) 100K	4050110455
R546	1-260-123-11	CARBON (SMALL) 100K	4050110455
R547	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R548	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R549	1-247-855-91	CARBON (SMALL) 10K	4050510355
R550	1-247-855-91	CARBON (SMALL) 10K	4050510355
R551	1-247-871-91	CARBON (SMALL) 47K	4050547355
R552	1-240-889-11	METAL FILM 100	4257041000
R553	1-247-855-91	CARBON (SMALL) 10K	4050510355
R554	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R555	1-247-855-91	CARBON (SMALL) 10K	4050510355
R556	1-247-879-91	CARBON (SMALL) 100K	4050510455

D

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REF.NO.	PART NO.	DESCRIPTION	REMARK
R557	1-243-499-11	RES, MOF 15	4172015053
R558	1-247-879-91	CARBON (SMALL) 100K	4050510455
R559	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R560	1-247-855-91	CARBON (SMALL) 10K	4050510355
R561	1-469-400-11	INDUCTOR, MICRO 100UH	432B101006
R562	1-247-791-91	CARBON (SMALL) 22	4050522055
R563	1-247-879-91	CARBON (SMALL) 100K	4050510455
R565	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R567	1-242-998-11	CARBON 10K	4050510353
R568	1-247-839-91	CARBON (SMALL) 2.2K	4050522255
R569	1-247-799-91	CARBON (SMALL) 47	4050547055
R570	1-215-910-81	METAL OXIDE 68	4177368053
R571	1-247-859-91	CARBON (SMALL) 15K	4050515355
R572	1-247-783-91	CARBON (SMALL) 10	4050510055
R574	1-247-868-91	CARBON (SMALL) 36K	4050536355
R575	1-247-843-91	CARBON (SMALL) 3.3K	4050533255
R576	1-242-973-11	METAL OXIDE 30K	4177330355
R577	1-247-802-91	CARBON (SMALL) 62	4050562055
R578	1-247-900-91	CARBON (SMALL) 750K	4050575455
R579	1-243-500-11	RES, MOF 22	4172022053
R580	1-247-807-91	CARBON (SMALL) 100	4050510155
R581	1-215-910-81	METAL OXIDE 68	4177368053
R582	1-247-833-11	CARBON (SMALL) 1.2K	4050512255
R583	1-243-489-11	RES, MOF 2.4	4177324955
R586	1-243-486-11	RES, CF 910	4050591155
#1 R587	1-247-755-91	CARBON 4.7	4050547953
R589	1-247-855-91	CARBON (SMALL) 10K	4050510355
R590	1-215-493-91	METAL FILM(SMALL) 1.0M	4257041004
R592	1-247-873-91	CARBON (SMALL) 56K	4050556355
R593	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R594	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R595	1-247-879-91	CARBON (SMALL) 100K	4050510455
R596 ⚠	1-243-494-11	METAL FILM 499K	4257044993
R598	1-240-906-11	METAL FILM 24.3K	4257042432
R599	1-243-495-11	METAL FILM 5.23K	4257045231
R5A0	1-243-490-11	RES, PR MF 102K	4257041023
R5A1	1-243-492-11	RES, PR MF 12.4K	4257041242
R5A2	1-247-859-91	CARBON (SMALL) 15K	4050515355
R5A3	1-243-470-11	RES, CF 150K	4050115455
R5A5	1-247-823-91	CARBON (SMALL) 470	4050547155
R5A6	1-247-855-91	CARBON (SMALL) 10K	4050510355
R5A7	1-243-479-11	RES, CF 18K	4050518355
R5A8	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R5A9	1-247-823-91	CARBON (SMALL) 470	4050547155
R5B0	1-247-876-91	CARBON (SMALL) 75K	4050575355
R5B1	1-242-968-11	CARBON (SMALL) 3.6K	4050136255
R5B2	1-247-855-91	CARBON (SMALL) 10K	4050510355
R5C0	1-247-881-91	CARBON (SMALL) 120K	4050512455
R5C1	1-247-862-91	CARBON (SMALL) 20K	4050520355
R5C2	1-247-851-91	CARBON (SMALL) 6.8K	4050568255
R5C3	1-247-872-91	CARBON (SMALL) 51K	4050551355
R5C4	1-247-877-91	CARBON (SMALL) 82K	4050582355
R5C5	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R5C6	1-247-807-91	CARBON (SMALL) 100	4050510155
R5C7	1-260-089-91	CARBON (SMALL) 150	4050115155
R5E6	1-247-876-91	CARBON (SMALL) 75K	4050575355
R5E7	1-247-872-91	CARBON (SMALL) 51K	4050551355
R5E8	1-243-486-11	RES, CF 910	4050591155
R5E9	1-247-807-91	CARBON (SMALL) 100	4050510155
R5F1	1-247-855-91	CARBON (SMALL) 10K	4050510355
#1 R5F2	1-216-423-81	METAL OXIDE 27	4171027053
R5F3	1-247-767-91	CARBON (SMALL) 2.2	4050522955
R5F4	1-247-822-91	CARBON (SMALL) 430	4050543155
R5F5	1-247-823-91	CARBON (SMALL) 470	4050547155
R5F6	1-260-068-91	CARBON (SMALL) 2.2	4050122955
R601 ⚠	1-260-132-11	CARBON (SMALL) 560K	4050156455
R603	1-243-501-11	RES, MOF 39K	4172039355
R605	1-242-973-11	METAL OXIDE 30K	4177330355
R609	1-247-841-91	CARBON (SMALL) 2.7K	4050527255
R610	1-247-783-91	CARBON (SMALL) 10	4050510055
R611	1-247-789-91	CARBON (SMALL) 18	4050518055
R612	1-242-989-11	METAL FILM 7.15K	4257047151
R614	1-216-361-81	METAL OXIDE 0.22	4172022855
R615	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R616	1-243-483-11	RES, CF 7.5K	4050575255
R617	1-227-183-11	RES, MG 560K	4160256455
R618	1-247-855-91	CARBON (SMALL) 10K	4050510355
R619	1-247-855-91	CARBON (SMALL) 10K	4050510355
R620	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R621	1-247-815-91	CARBON (SMALL) 220	4050522155
R622	1-247-815-91	CARBON (SMALL) 220	4050522155
R623	1-247-807-91	CARBON (SMALL) 100	4050510155
R624	1-247-854-91	CARBON (SMALL) 9.1K	4050591255
R625	1-247-855-91	CARBON (SMALL) 10K	4050510355
R626	1-247-859-91	CARBON (SMALL) 15K	4050515355
R627	1-242-990-11	METAL FILM 7.32K	4257047321
R628	1-247-802-91	CARBON (SMALL) 62	4050562055
R629	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R630	1-247-845-91	CARBON (SMALL) 3.9K	4050539255
R631	1-247-799-91	CARBON (SMALL) 47	4050547055
R632 ⚠	1-260-132-11	CARBON (SMALL) 560K	4050156455
R633	1-247-828-91	CARBON (SMALL) 750	4050575155
R634	1-247-795-91	CARBON (SMALL) 33	4050533055
R638	1-243-485-11	RES, CF 820K	4050582455
R639	1-243-485-11	RES, CF 820K	4050582455
R640	1-247-823-91	CARBON (SMALL) 470	4050547155
R641	1-247-823-91	CARBON (SMALL) 470	4050547155
R642	1-247-815-91	CARBON (SMALL) 220	4050522155
R643	1-240-908-11	METAL FILM 88.7K	4257048872
R644	1-242-985-11	METAL FILM 2.87K	4257042871
R650	1-260-089-21	CARBON (SMALL) 150	4050115155
R651	1-247-855-91	CARBON (SMALL) 10K	4050510355
R652	1-243-480-11	RES, CF 300	4050530155
R653	1-215-888-71	METAL OXIDE 220	4172022155
R655	1-247-836-91	CARBON (SMALL) 1.6K	4050516255
R656	1-247-855-91	CARBON (SMALL) 10K	4050510355
R658	1-247-855-91	CARBON (SMALL) 10K	4050510355
R665	1-247-855-91	CARBON (SMALL) 10K	4050510355
R666	1-247-835-91	CARBON (SMALL) 1.5K	4050515255
#1 R668	1-217-421-21	RES, FUSE 0.82	4180282855
#1 R669	1-217-418-61	RES, FUSE 0.47	41802478A5
R671	1-247-855-91	CARBON (SMALL) 10K	4050510355

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 eachset in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF.NO.	PART NO.	DESCRIPTION	REMARK
R672	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R673	1-247-879-91	CARBON (SMALL) 100K	4050510455
R678	1-247-868-91	CARBON (SMALL) 36K	4050536355
#1 R679	1-216-379-81	METAL OXIDE 6.8K	4172068255
R680	1-247-841-91	CARBON (SMALL) 2.7K	4050527255
R681	1-247-848-91	CARBON (SMALL) 5.1K	4050551255
R684	1-247-789-91	CARBON (SMALL) 18	4050518055
R685	1-247-789-91	CARBON (SMALL) 18	4050518055
R901	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R906	1-247-838-91	CARBON (SMALL) 2.0K	4050520255
R907	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R908	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R910	1-247-855-91	CARBON (SMALL) 10K	4050510355
R911	1-247-855-91	CARBON (SMALL) 10K	4050510355
R915	1-240-898-11	METAL FILM 5.11K	4257045111
R916	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R917	1-240-890-11	METAL FILM 1K	4257041001
R918	1-247-862-91	CARBON (SMALL) 20K	4050520355
R919	1-247-807-91	CARBON (SMALL) 100	4050510155
R921	1-247-823-91	CARBON (SMALL) 470	4050547155
R922	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R923	1-247-791-91	CARBON (SMALL) 22	4050522055
R924	1-247-791-91	CARBON (SMALL) 22	4050522055
R925	1-247-791-91	CARBON (SMALL) 22	4050522055
R926	1-247-791-91	CARBON (SMALL) 22	4050522055
R927	1-247-903-91	CARBON (SMALL) 1.0M	4050510555
R928	1-247-855-91	CARBON (SMALL) 10K	4050510355
R929	1-247-855-91	CARBON (SMALL) 10K	4050510355
R930	1-247-855-91	CARBON (SMALL) 10K	4050510355
R933	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R934	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R935	1-247-813-91	CARBON (SMALL) 180	4050518155
R936	1-247-813-91	CARBON (SMALL) 180	4050518155
R940	1-247-872-91	CARBON (SMALL) 51K	4050551355
R941	1-247-896-91	CARBON (SMALL) 510K	4050551455
R949	1-247-855-91	CARBON (SMALL) 10K	4050510355
R950	1-247-855-91	CARBON (SMALL) 10K	4050510355
R951	1-247-855-91	CARBON (SMALL) 10K	4050510355
R956	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R961	1-240-890-11	METAL FILM 1K	4257041001
R963	1-247-840-91	CARBON (SMALL) 2.4K	4050524255
R965	1-247-855-91	CARBON (SMALL) 10K	4050510355
R967	1-247-853-91	CARBON (SMALL) 8.2K	4050582255
R968	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R969	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R970	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R971	1-240-892-11	METAL FILM 1.4K	4257041401
R972	1-247-847-91	CARBON (SMALL) 4.7K	4050547255
R973	1-247-831-91	CARBON (SMALL) 1.0K	4050510255
R974	1-240-888-11	METAL FILM 33.2	4257043329
R975	1-240-907-11	METAL FILM 30.1K	4257043012
R976	1-247-851-91	CARBON (SMALL) 6.8K	4050568255
		<NETWORK RESISTOR>	
RN901	1-234-276-11	NETWORKS	4082083325
RN902	1-234-277-11	NETWORKS	4082084725
		<VARIABLE RESISTOR>	
⧓ RV501 ⚠	1-227-184-11	RES, ADJ, CERMET 220K (HV ADJ)	5.22E+11
		<RELAY>	
RY601 ⚠	1-755-031-11	RELAY	4420612014
		<SWITCH>	
S601 ⚠	1-771-929-11	SWITCH, POWER	4410202014
S901	1-771-930-11	SWITCH, KEY (MENU)	4410604034
		<SPARK GAP>	
SG501	1-519-422-21	GAP, SPARK	5106122204
		<TRANSFORMER>	
T501 ⚠	1-453-333-11	TRANSFORMER, FLYBACK	7050305R50
T502	1-435-293-11	TRANSFORMER, DRIVER	7050207R50
T503	1-433-799-11	TRANSFORMER, FERRITE (HST)	7177H10000
T504	1-435-294-11	TRANSFORMER, FOCUS	7050507C20
T603 ⚠	1-435-292-11	TRANSFORMER, POWER	7050105R50
		<THERMISTOR>	
TH601 ⚠	1-803-533-11	THERMISTOR	710501003B
TH602 ⚠	1-803-963-11	THERMISTOR	7106070027
		<CRYSTAL>	
X901	1-781-719-11	VIBRATOR, CRYSTAL	7152400010

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REF.NO.	PART NO.	DESCRIPTION	REMARK	
	* A-1372-761-A	H BOARD, COMPLETE	**********	
		<CAPACITOR>		
C701	1-135-360-11	CERAMIC	1000PF	7181102552
C702	1-135-360-11	CERAMIC	1000PF	7181102552
		<LED>		
LED701	1-517-965-11	DIODE LT5J62-23-D63 (POWER)		412065J620

REF.NO.	PART NO.	DESCRIPTION				
		<RESISTOR>				
R701	1-240-901-11	METAL FILM	9.31K			4257049311
R702	1-240-897-11	METAL FILM	4.99K			4257044991
R703	1-247-879-91	CARBON (SMALL)	100K	5%	1/4W	4050510455
R704	1-247-879-91	CARBON (SMALL)	100K	5%	1/4W	4050510455
R707	1-247-823-91	CARBON (SMALL)	470	5%	1/4W	4050547155
R708	1-247-823-91	CARBON (SMALL)	470	5%	1/4W	4050547155
R709	1-242-984-11	METAL FILM	2.74K			4257042741
		<SWITCH>				
SW701	1-771-734-11	SWITCH, TACTILE (MENU/BRT/CONT)				4410606000

CPD-E100/E100E

9-978-659-01 99KL24252-1

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