Self Diagnosis Supported model

CPD-420GS/GST

SERVICE MANUAL

CPD-420GS

US Model

Canadian Model

Chassis No. SCC-L20A-A

CPD-420GST

AEP Model

Chassis No. SCC-L20D-A

D98 CHASSIS

SPECIFICATIONS

Picture tube	0.25 - 0.27 mm aperture grill pitch 19 inches measured diagonally 90-degree deflection Trinitron
Video image area	(18" maximum viewing image) Approx. 365 x 274 mm (w/h) ($14^{3/8}$ x $10^{7/8}$ inches)
Resolution	Horizontal: Max 1600 dots Vertical: Max. 1200 lines
Standard image area	Approx. 352 x 264 mm (w/h) ($13^{7/8}$ x $10^{1/2}$ inches)
Input Signal	
Video	Analog RGB (75 ohms typical) 0.7 V_{p-p}, Positive
Sync	External HD/VD, Composite Polarity Free TTL Video Composite (Sync on Green) 0.3 V_{p-p}, Negative

Power Consumption	
Maximum	130 W
Nominal	100 W
Deflection frequency	Horizontal: 30 to 96 kHz Vertical: 48 to 120 Hz
AC input voltage / current	100 to 120 V, 50/60 Hz, 1.7 A 220 to 240, 50/60 Hz, 1.2 A
Dimensions	444 x 467 x 455 (w/h/d) ($17^{1/2}$ x $18^{1/2}$ x 18 inches)
Mass	Approx. 26 kg (57 lb 5 oz)

Design and specifications are subject to change without notice.

TRINITRON® COLOR COMPUTER DISPLAY

SONY®

MICROFILM

POWER SAVING FUNCTION

The monitor has three Power Saving modes. By sensing the absence of a video signal from the computer, it reduces power consumption as follows:

NOTE: If no video signal is input to the monitor, the "NO INPUT SIGNAL" message appears. After about 30 seconds, the Power Saving function automatically puts the monitor into active-off mode and the indicator lights up orange. Once the monitor detects horizontal and vertical sync signals, the monitor automatically resumes normal operation mode.

	State	Power Consumption	Required Recovery Time	⏻ Power Indicator
1	Normal Operation	≤ 130W	—	Green on
2	Standby (1st mode)	≤ 15W	approx. 5 sec.	Green and orange alternate
3	Suspend (2nd mode)	≤ 15W	approx. 5 sec.	Green and orange alternate
4	Active-off (3rd mode)	≤ 8W	approx. 5 sec.	Orange
5	Power-off	0W	—	Off
6	Failure modes	—	—	See below

SELF DIAGNOSIS FUNCTION

When a failure occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

	Status	Area of Failure	LED Indication
1	Failure 1	HV or B+	Orange (0.5 second)/Off (0.5 second)
2	Failure 2	H Stop, V Stop, Thermal	Orange (1.5 second)/Off (0.5 second)
3	Failure 3	ABL	Orange (0.5 second)/Off (1.5 second)
4	Aging/Self Test		Orange (0.5 second)/Off (0.5 second)/ Green (0.5 second)/Off (0.5 second)

TIMING SPECIFICATION

MODE	1	2	3
Resolution (H x V)	720 x 400	1280 x 960	1600 x 1200
Dot Clock (MHz)	28.321	148.500	202.500
HORIZONTAL			
Hor. Freq. (kHz)	31.468	85.938	93.750
H-Total	31.779	11.636	10.667
H-Blanking	6.356	3.017	2.765
H-Front Porch	0.636	0.431	0.316
H-Sync.	3.178	1.077	0.948
H-Back Porch	2.542	1.508	1.501
H-Active (µsec)	25.423	8.620	7.901
VERTICAL			
Ver. Freq. (Hz)	70.084	85.002	75.000
V-Total	449	1011	1250
B-Blanking	49	51	50
V-Front Porch	13	1	1
V-Sync.	2	3	3
V-Back Porch	34	47	46
V-Active (lines)	400	960	1200
SYNC.			
Int (G)	NO	NO	NO
Ext (H/V)/Polarity	YES -/+	YES +/+	YES +/+
Ext (CS)/Polarity	NO	NO	NO
Int/Non Int	Non Int	Non Int	Non Int

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 next.

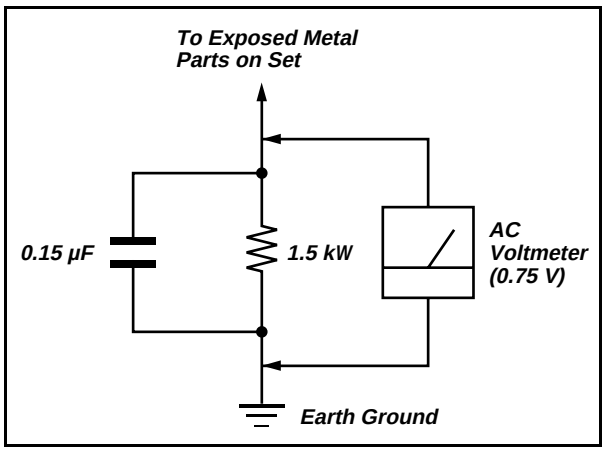

Fig A

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 microampere). 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 instructions.
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's 250 and Sanwa SH-63Trd are examples of passive VOMs that are suitable. Nearly all battery operated digital multimeters that have a 2V 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 ENLEVEE.

ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES SONT D’UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L’IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU’UN MAUVAIS FONTIONNEMENT SUSPECTE.

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The instructions given here are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual.

SECTION 1
GENERAL

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 US
  If you do not use the appropriate cord, this monitor will not conform to mandatory FCC Standards.

Example of plug types

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

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

The equipment should be installed near an easily accessible outlet.

Installation

Do not install the monitor in the following places:

- on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) 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

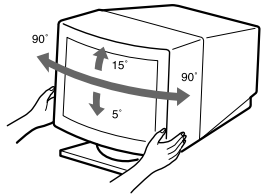
- Clean the screen with a soft cloth. If you use a glass cleaning liquid, do not use any type of cleaner containing an anti-static solution or similar additive as this may scratch the screen's coating.
- Do not rub, touch, or tap the surface of the screen with sharp or abrasive items such as a ball point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

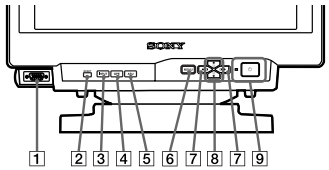
This monitor can be adjusted within the angles shown below. To turn the monitor vertically or horizontally, hold it at the bottom with both hands.



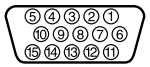
Identifying parts and controls

See the pages in parentheses for further details.

Front



1 Front Video Input connector (HD15) (page 6)
Pull open this connector to connect a laptop or second computer. This connector inputs RGB video signals and sync signals from your computer.

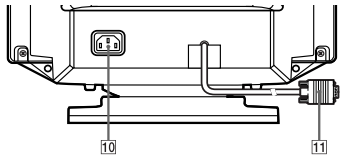


Pin No.	Signal
1	Red
2	Green (Composite Sync on Green)
3	Blue
4	ID (Ground)
5	Ground
6	Red Ground
7	Green Ground
8	Blue Ground
9	Not used
10	Ground
11	ID (Ground)
12	Bi-Directional Data (SDA)*
13	H. Sync
14	V. Sync
15	Data Clock (SCL)*

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

2 RESET (reset) button (page 9)
This button resets the adjustments to the factory settings.

Rear



3 INPUT (input) button (page 8)
This button selects the Front or Rear Video Input signal. The input signal and corresponding on-screen messages change each time you press this button.

4 GPE (graphic picture enhancement) button (page 8)
This button selects the Graphic Picture Enhancement (GPE) Mode.

5 ASC (auto sizing and centering) button (page 8)
This button automatically adjusts the size and centering of the picture.

6 MENU button (page 9)
This button displays the MENU OSD.

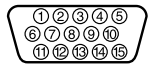
7 ◑ (contrast) (🡐/🡒) buttons (page 10)
These buttons adjust the contrast and function as the (🡐/🡒) buttons when adjusting other items.

8 ☼ (brightness) (🡑/🡓) buttons (page 10)
These buttons adjust the picture brightness and function as the (🡓/🡑) buttons when adjusting other items.

9 ⏻ (power) switch and indicator (page 7)
This button turns the monitor on or off. The 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.

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

11 Rear Video Input connector (HD15) (page 6)
This connector inputs RGB video signals and sync signals from your computer.



Refer to 1 for pin assignment.

US

CPD-420GS/GST

Setup

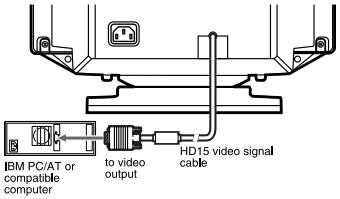
Before using your monitor, check that the following accessories are included in your carton:

- Power cord (1)
- HD15 video signal cable (1)
- Macintosh adapter (1)
- Windows Monitor Information Disk (1)
- Warranty card (1)
- Notes on cleaning the screen's surface (1)
- This instruction manual (1)

Step 1:Connect your monitor to your computer

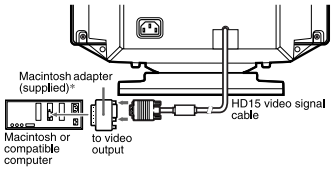
Turn off the monitor and computer before connecting.

■ Connecting to an IBM PC/AT or compatible computer



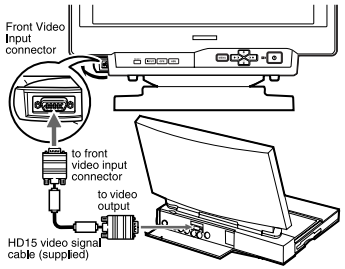
■ Connecting to a Macintosh or compatible computer

Use the supplied Macintosh adapter.



* Connect the supplied Macintosh adapter to the computer before connecting the cable. This adapter is compatible with Macintosh LC, Performa, Quadra and Power Macintosh, G3 series computers. Macintosh II series and some older versions of PowerBook models may need an adapter with micro switches (not supplied).

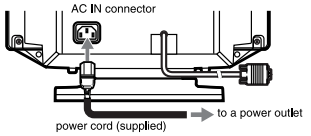
■ Connecting to a laptop or second compute



Open the Front Video Input connector on the left side of the fron panel to connect a laptop or a second computer using the supplie HD15 video signal cable. Use the supplied Macintosh adapter to connect a Macintosh laptop or second computer.

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, try changing the input signal (page 8), and confirm that your computer's graphic video 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, re-connect the old monitor. Then adjust the computer's graphic video board so that the horizontal frequency is between 30–96 kHz, and the vertical frequency is between 48–120 Hz.
- If you are using a laptop computer, make sure it is set up to output a signal to an external monitor.

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

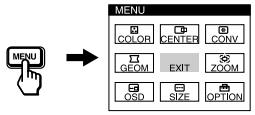
For customers using Windows 95/98
To maximize the potential of your monitor, install the new model information file from the supplied Windows Monitor Information Disk onto your PC. (Refer to the “Readme” file for further instruction.)
This monitor complies with the “VESA DDC” Plug & Play standard. If your PC/Graphic video 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/Graphic video 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.)

Selecting the on-screen menu language (OPTION)

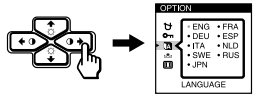
English, French, German, Spanish, Italian, Dutch, Swedish, Russian and Japanese versions of the on-screen menus are available. The default setting is English.

1 Press the MENU button



2 Press the ☼ ↕/↕ and ◑ ↔/↔ buttons to select “OPTION”, and press the MENU button again.

3 Press the ↕/↕ buttons to select “A (LANGUAGE)”, then press the ↔/↔ buttons to select the desired language.



- ENG: English
- FRA: French
- DEU: German
- ESP: Spanish
- ITA: Italian
- NLD: Dutch
- SWE: Swedish
- RUS: Russian
- JPN: Japanese

To close the menu
Press the MENU button once to return to the main menu, and twice to return to normal viewing. If no buttons are pressed, the menu closes automatically after about 10 seconds.

To reset to English
Press the RESET button while “A (LANGUAGE)” is highlighted in the OPTION menu.

US

Selecting the input signal

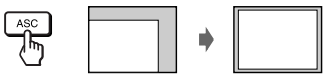
You can connect two computers to this monitor using the Front and Rear Video Input connectors. Switch between the two computers using the INPUT button.

Press the INPUT button.
The input signal and corresponding on-screen messages (FRONT INPUT/REAR INPUT) change each time you press this button.

Automatically sizing and centering the picture

You can easily adjust the picture to fill the screen by pressing the ASC (auto sizing and centering) button.

Press the ASC button.
The picture automatically fills the screen.



Note
- This function is intended for use with a computer running Windows or similar graphic user interface software that provides a full-screen picture. It may not work properly if the background color is dark or if the input picture does not fill the screen to the edges (such as an MS-DOS prompt).

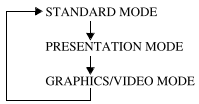
Selecting the Graphic Picture Enhancement (GPE) Mode

The Graphic Picture Enhancement (GPE) button allows you to automatically change the characteristics of the picture on the screen to match the way you use your monitor. Simply press the GPE button to scroll between the three modes.

1 Turn on the monitor and computer.

2 Press the GPE button to set the mode.

Each time you press the GPE button, the mode changes and appears on the screen as follows.



The STANDARD MODE is ideal for spreadsheets, word processing, and other text oriented applications.

The PRESENTATION MODE is useful for presentation programs that require vivid colors.

The GRAPHICS/VIDEO MODE gives movies and games enhanced visual appeal by increasing the sharpness and brightness.

The selected mode indication appears on the screen for about three seconds.

If the screen appears too white, adjust the color temperature as explained in "Adjusting the color of the picture (COLOR)" on page 11.

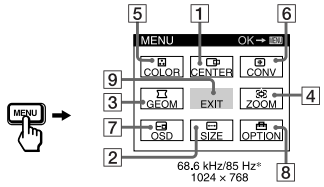
Note
- The PRESENTATION MODE and GRAPHICS/VIDEO MODE may produce ghost images when displaying text oriented applications. These modes change the brightness of the picture dynamically according to changes in moving pictures. If ghost images appear, set the GPE to STANDARD MODE.

Customizing Your Monitor

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

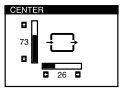
Navigating the menu

Press the MENU button to display the main MENU on your screen.

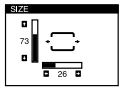


Use the ☼ (brightness) ♦/♦ or ◑ (contrast) ♦/♦ buttons to select the desired function.

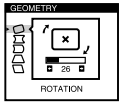
1 CENTER (page 10)
Select the CENTER menu to adjust the picture's centering.



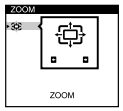
2 SIZE (page 10)
Select the SIZE menu to adjust the picture's horizontal and vertical size.



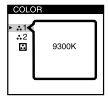
3 GEOM (page 10)
Select the GEOM menu to adjust the picture's rotation and shape.



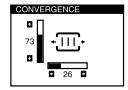
4 ZOOM (page 10)
Select the ZOOM menu to enlarge or reduce the picture.



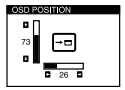
5 COLOR (page 11)
Select the COLOR menu to adjust the picture's color temperature. You can use this to match the monitor's colors to a printed picture's colors.



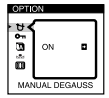
6 CONV (page 11)
Select the CONV menu to adjust the picture's quality. You can adjust the vertical and horizontal convergence.



7 OSD (page 11)
Select the OSD menu to move the on-screen menu position.



8 OPTION (page 11)
Select the OPTION menu to adjust the monitor's options. The options include:
- degaussing the monitor
- locking the controls
- changing the OSD language
- restoring the color image (Image Restoration)
- adjusting the moire



9 EXIT
Select EXIT to close the menu.

* The horizontal and vertical frequencies of the current input signal are displayed below the main MENU. When receiving a VESA input signal, the resolution is also displayed.

■ Resetting the adjustments

Press the RESET button while the adjustment item is displayed on the screen. See page 12 for more information on resetting the adjustments.

Adjusting the brightness and contrast

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

1 **Press any of the ☼ (brightness) ↓/↑ or ◑ (contrast) ←/→ buttons.**
The BRIGHTNESS/CONTRAST menu appears on the screen.

2 **Press the ☼ ↓/↑ buttons to adjust the brightness, and the ◑ ←/→ buttons to adjust the contrast.**
The OSD automatically disappears after about 3 seconds.

Adjusting the centering of the picture (CENTER)

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

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

2 **Press the ☼ ↓/↑ buttons to highlight CENTER and press the MENU button again.**
The CENTER menu appears on the screen.

3 **Press the ☼ ↓/↑ buttons to adjust the vertical centering, and the ◑ ←/→ buttons to adjust the horizontal centering.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Adjusting the size of the picture (SIZE)

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

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

2 **Press the ☼ ↓/↑ buttons to highlight SIZE and press the MENU button again.**
The SIZE menu appears on the screen.

3 **Press the ☼ ↓/↑ buttons to adjust the vertical size, and the ◑ ←/→ buttons to adjust the horizontal size.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Adjusting the shape of the picture (GEOM)

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

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

2 **Press the ◑ ←/→ buttons to highlight GEOM and press the MENU button again.**
The GEOMETRY menu appears on the screen.

3 **First press the ☼ ↓/↑ buttons to select the desired adjustment item. Then press the ◑ ←/→ buttons to adjust the setting.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

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

Enlarging or reducing the picture (ZOOM)

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

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

2 **Press the ◑ ←/→ buttons to highlight ZOOM and press the MENU button again.**
The ZOOM menu appears on the screen.

3 **Press the right ◑ → button to enlarge the picture or the left ◑ ← button to reduce the picture.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Note

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

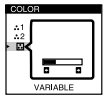
Adjusting the color of the picture (COLOR)

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.

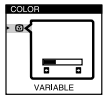
1 **Press the MENU button.**
The main MENU appears on the screen.

2 **Press the ☼ ↓/↑ and ◑ ←/→ buttons to highlight COLOR and press the MENU button again.**
The COLOR menu appears on the screen.

3 **Press the ☼ ↓/↑ buttons to select a color temperature.**
The preset color temperatures are ∴1 (9300K) and ∴2 (5000K). Since the default setting is 9300K, the whites change from a bluish hue to a reddish hue as the temperature is lowered to 5000K.
You can also fine tune the color temperature by selecting in step 2 above, and using the ◑ ←/→ buttons to adjust the color temperature manually.



If you are using the Presentation or Graphic/Video mode, the following COLOR OSD appears when "COLOR" is selected.



This OSD allows you to adjust the color temperature between 11,000K to 9,300K.
Press the ◑ ←/→ buttons to adjust the color temperature.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Adjusting the quality of the picture (CONV)

The CONV settings allow you to adjust the quality of the picture by eliminating red or blue shadows around letters, characters and lines.
Both settings are stored in memory for all input signals.

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

2 **Press the ☼ ↓/↑ and ◑ ←/→ buttons to highlight CONV and press the MENU button again.**
The CONVERGENCE menu appears on the screen.

3 **Press the ◑ ←/→ buttons to adjust the horizontal convergence, or the ☼ ↓/↑ buttons to adjust the vertical convergence.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Adjusting the OSD position (OSD)

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

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

2 **Press the ☼ ↓/↑ and ◑ ←/→ buttons to highlight OSD and press the MENU button again.**
The OSD POSITION menu appears on the screen.

3 **Press the ☼ ↓/↑ buttons to adjust the vertical position or the ◑ ←/→ buttons to adjust the horizontal position.**
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

Additional settings (OPTION)

You can manually degauss (demagnetize) the screen, lock the controls, change the OSD language, restore the color image, and cancel the moire.

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

2 **Press the ☼ ↓/↑ and ◑ ←/→ buttons to highlight OPTION and press the MENU button again.**
The OPTION menu appears on the screen.

3 **Press the ☼ ↓/↑ buttons to highlight the desired adjustment item.**
Adjust the selected item according to the following instructions.
The OSD automatically disappears after about 30 seconds. To close the OSD, press the MENU button again.

US

Degaussing the monitor

The monitor is automatically degaussed (demagnetized) when the power is turned on.

To manually degauss the monitor, first press the ☼ +/+ buttons to highlight ☿ (MANUAL DEGAUSS). Then press only the right ◑ + button

The monitor is degaussed for about three seconds. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.

Locking the controls

To protect adjustment data by locking the controls, first press the ☼ +/+ buttons to highlight 🔑 (CONTROL LOCK). Then press the right ◑ + button to turn the lock ON.

Only the ⏻ (power) switch, EXIT and 🔑 (CONTROL LOCK) of the 🧰 OPTION menu will operate. If any other items are selected, the 🔑 mark appears on the screen.

To cancel the control lock

Repeat the procedure above and set 🔑 (CONTROL LOCK) to OFF.

Changing the OSD language

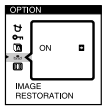
This setting allows you to change the language of the OSD (see page 7).

Restoring the Color Image

The color of most display monitors tend to gradually lose brilliance after several years of service. The Image Restoration feature allows you to restore the color to the original factory preset levels.

To restore the image, first press the ☼ +/+ buttons to select 🖼 (IMAGE RESTORATION). Then press the right ◑ + button.

A white rectangle appears in the center of the screen while the image is being restored (about two seconds).



Note

- Before using this feature, the monitor must be in normal operation mode (Green power indicator) for at least 30 minutes. If the monitor goes into power saving mode, you must return the monitor to normal operation mode and wait for 30 minutes for the monitor to be ready. You may need to adjust your computer's power saving settings to help keep the monitor in normal operation mode for the full 30 minutes. If the monitor is not ready, the following message will appear.

- The monitor may gradually lose its ability to perform this function due to the natural aging of the picture tube.

Cancelling the moire

To turn the moire cancellation function on or off, first press the ☼ +/+ buttons to highlight ▯ (CANCEL MOIRE). Then press the ◑ +/+ buttons to turn the moire cancellation ON or OFF.

Adjusting the amount of the moire cancellation

Before you can adjust this setting, the Cancel Moire setting must be turned ON.

To adjust the amount of moire cancellation, first press the ☼ +/+ buttons to highlight ▯ (MOIRE ADJUST). Then press the ◑ +/+ buttons to adjust the amount of moire cancellation 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 four reset methods. Use the RESET button to reset the adjustments.

Resetting a single adjustment item

Navigate through the on-screen menus to select the adjustment item you want to reset, and press the RESET button. You can do this while you are adjusting an item.

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)
- on-screen menu position (page 11)
- control lock (page 12)

Resetting all of the adjustment data for all input signals

Press and hold the reset button for more than two seconds when no menu is displayed on the screen. This resets everything to the factory preset mode.

Resetting all of the adjustment data to the factory presets

Press and hold the reset button for more than five seconds. This resets everything to the factory presets including the input selection.

Note

- The RESET button does not function when 🔑 (CONTROL LOCK) is set to ON.

Technical Features

Preset and user modes

When the monitor receives an input signal, it automatically matches the signal to one of the 26 factory preset modes stored in the monitor's memory to provide a high quality picture at the center of the screen. (See the 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: 30–96 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 graphic video board manual or the utility program which comes with your graphic video board and select the highest available refresh rate to maximize monitor performance.

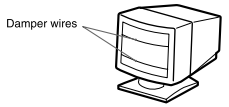
Troubleshooting

This section may help you find the cause of a problem so you can solve the problem yourself.

If thin lines appear on your screen (damper wires)

The lines you may be seeing on your screen are normal for the Trinitron monitor and are not a malfunction. These are shadows from the damper wires that stabilize the aperture grille, and are most noticeable when the screen's background is light (usually white).

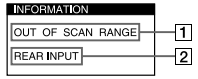
The aperture grille is the essential element that makes a Trinitron picture tube unique by allowing more light to reach the screen, resulting in a brighter, more detailed picture.



US

On-screen messages

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



1 The input signal condition

OUT OF SCAN RANGE

Indicates that the input signal is not supported by the monitor's specifications.

NO INPUT SIGNAL

Indicates that no signal is input, or that no signal is input from the selected connector (Front or Rear).

2 The connector indicator

This message indicates which connector (Front or Rear) is receiving the wrong signal.

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 do not resolve the problem.

Symptom	Check these items
No picture	
If the ⏻ (power) indicator is not lit	• Check that the power cord is properly connected. • Check that the ⏻ (power) switch is in the "on" position.
If the NO INPUT SIGNAL message appears on the screen, or if the ⏻ (power) indicator is either orange or alternating between green and orange	• Check that the video signal cable is properly connected and all plugs are firmly seated in their sockets. • Check that the input select setting is correct (page 8). • Check that the HD15 video input cable'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 video 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: 30–96 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 "CPD-420GS" from among the Sony monitors in the Windows 95/98 monitor selection screen.
If using a Macintosh system	• Check that the Macintosh adapter and the video signal cable are properly connected (page 6).
Picture flickers, bounces, oscillates, or is scrambled	• Isolate and eliminate any potential sources of electric or magnetic fields such as other monitors, laser printers, electric fans, fluorescent lighting and 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 graphic video board manual for the proper monitor setting. • Confirm that the graphics mode (VESA, Macintosh 21" Color, etc.) and the frequency of the input signal are supported by this monitor (Appendix). Even if the frequency is within the proper range, some graphic 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 10). • Degauss the monitor* (page 12). • If CANCEL MOIRE is ON, the picture may become fuzzy. Decrease the moire cancellation effect (page 12) or set CANCEL MOIRE to OFF.
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	• Press the ASC button (page 8). • Adjust the size (page 10) or centering (page 10). Note that some video modes do not fill the screen to the edges.

Symptom	Check these items
Edges of the image are curved	• Adjust the geometry (page 10).
Wavy or elliptical pattern (moire) is visible	• Cancel the moire (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).
Letters and lines show red or blue shadows at the edges	• Adjust the convergence (page 11).
Monitor buttons do not operate	• If the control lock is set to ON, set it to OFF (page 12).
Image Restoration does not function 	• Image restoration does not work unless the monitor has been in normal operation (Green power indicator) for at least 30 minutes. See page 12 for detailed information about Image Restoration. • In order to keep the monitor "on", you may need to check the PC's power saving setting. • The monitor may gradually lose its ability to perform this function due to the natural aging of the picture tube.
A hum is heard right after the power is turned on	• This is the normal sound of the auto-degauss cycle. When the power is turned on, the monitor is automatically degaussed for three seconds.

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

US

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

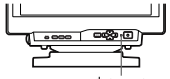
While the monitor is receiving a video signal, press and hold the MENU button for more than three seconds to display this monitor's information box.

Example

If the problem persists, call your authorized Sony dealer and give the following information:
• Model name: CPD-420GS
• Serial number: (see back of monitor)
• Name and specifications of your computer and graphic video board.

Self-diagnosis function

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



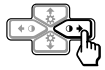
⏻ (power) indicator

If the ⏻ (power) indicator is green

1 **Remove any plugs from the Front and Rear Video Input connectors, or turn off the connected computer(s).**

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

3 **Press and hold the right ◑ → button for two 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 cables and check the condition of your computer(s).

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

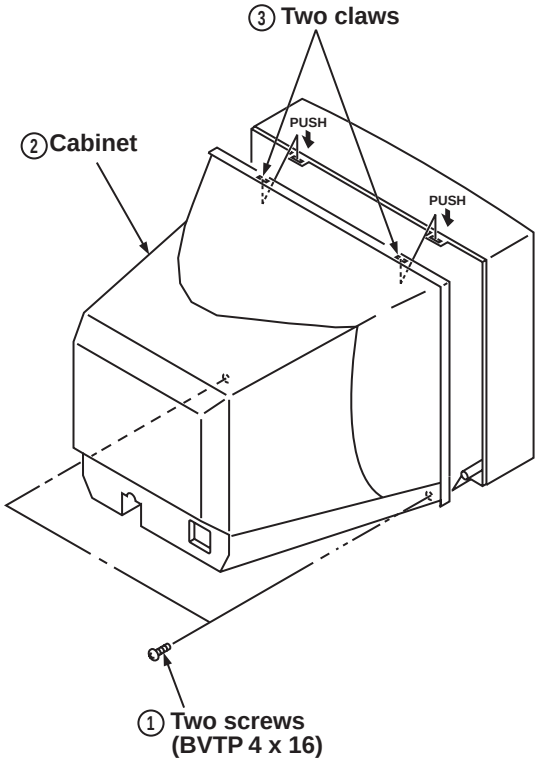
If the ⏻ (power) indicator is flashing orange

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

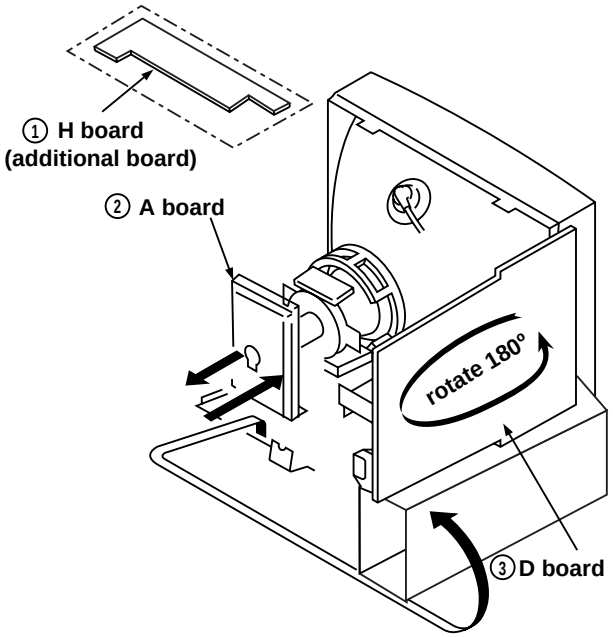
If the ⏻ (power) indicator is still flashing, there is a potential monitor failure. Count the number of seconds between orange flashes of the ⏻ (power) indicator and inform your authorized Sony dealer of the monitor's condition. Be sure to note the model name and serial number of your monitor. Also note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

SECTION 2
DISASSEMBLY

2-1. CABINET REMOVAL



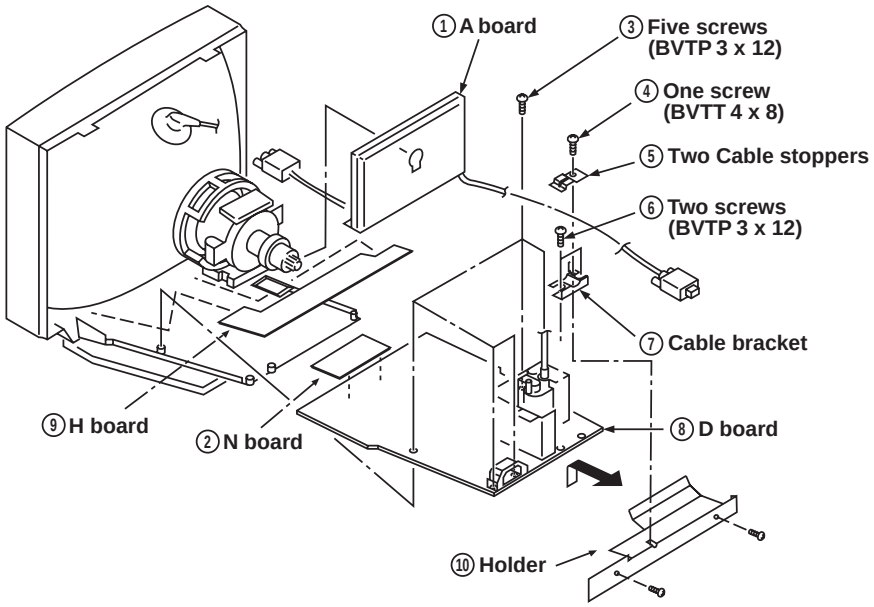
2-2. SERVICE POSITION



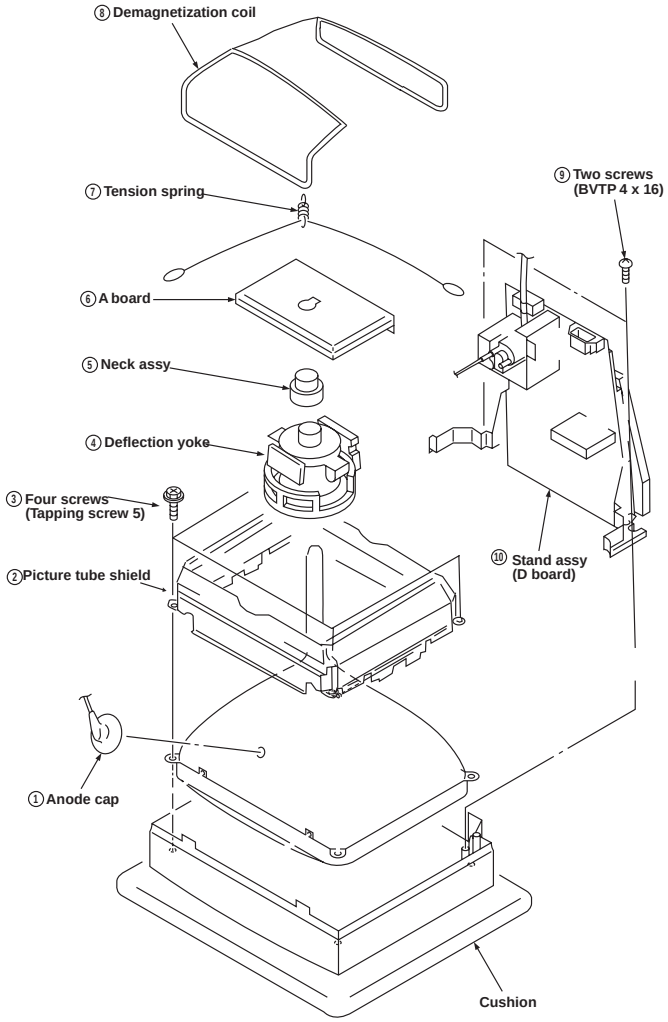
1 When the D-board is placed in service position, the Safety Earth Wire (green and yellow wire) is disconnected.

2 After service is completed and the D-board reinstalled, the Safety Earth Wire must be reattached to the chassis with the proper screw. This must be confirmed before any subsequent procedures are attempted.

2-3. D, H, N and A BOARD REMOVAL



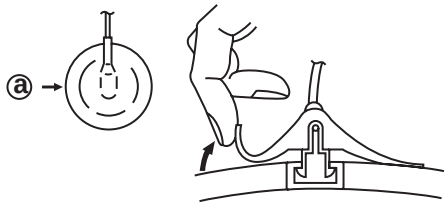
2-4. PICTURE TUBE REMOVAL



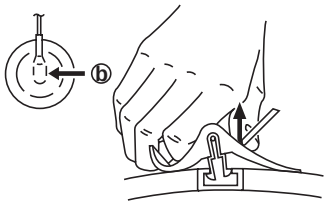
REMOVAL OF THE ANODE-CAP

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.

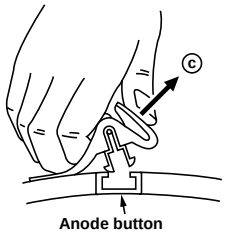
REMOVAL PROCEDURES



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



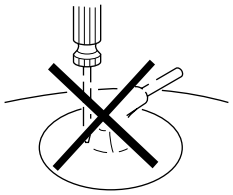
2. Use your thumb to pull the rubber cap firmly in the direction indicated by arrow b.

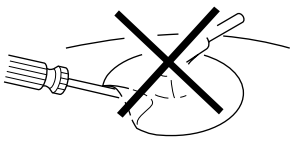


3. When one side of the rubber cap separates from the anode button, the anode-cap can be removed by turning the rubber cap and pulling it in the direction of arrow c.

HOW TO HANDLE AN ANODE-CAP

1. Do not use sharp objects which may cause damage to the surface of the anode-cap.
2. Do not squeeze the rubber covering too hard to avoid damaging the anode-cap. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.





SECTION 3
SAFETY RELATED ADJUSTMENT

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

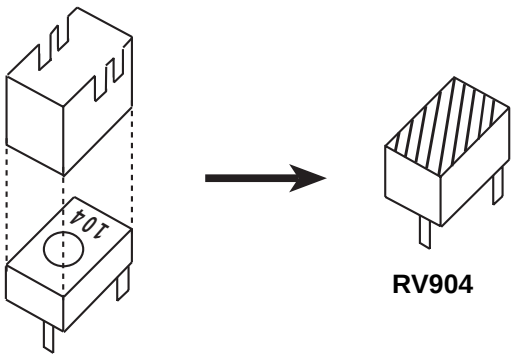
D - BOARD
Part Replaced (▣)
RV904
Part Replaced (◪)
T901, R903, IC805, R921, R922, R812, D908, IC605, R913, R914, D802, D909

※ Allow the unit to warm up for one minute prior to checking the following conditions:

a) HV Regulator Check

1. Input white cross hatch signal. (fH = 94 kHz)
2. Maximum CONT and BRT controls.
3. Input voltage: 120 ± 2 VAC
4. Confirm that the voltage is within the voltage range shown below.

   Standard voltage: 27.0KV ± 0.2KV
5. When replacing components identified by ◪, make sure to recheck the High Voltage.
6. Verify the High Voltage as shown above (27.0KV ± 0.2KV) is within specification. If not, set H. SIZE data at minimum (-127) and then adjust RV904 on "D" Board.
7. After adjusting the High Voltage within specification, put the RV cover on RV904 as shown below and apply sufficient amount of RTV around RV904.



RV904

b) HV Hold-Down Check

1. Using an external DC Power supply, apply the voltage shown below between cathode of D908 on "D" Board and GND, and confirm that the HV Hold-Down circuit works. (Raster disappears). Apply DC Voltage: 21.5 ± 0.5 VDC.

Check Condition

- Input voltage: 120 ± 2 VAC
- Input signal: (fH = 94 kHz), White Cross Hatch
- Controls: CONT (max) & BRT (min)
- B+ Voltage: 181 ± 4.0 VDC

c) Beam Protector Check (Software logic)

1. Using an external current source, apply 1.30 ± 0.05 mA between pin (11) of FBT (T501) and GND, and confirm that the voltage at CN801 pin (1) is 2.25 VDC or less.

Check Condition

- Input voltage: 120 ± 2 VAC
- Input signal: (fH = 94 kHz), White Cross Hatch
- Controls: CONT (max) & BRT (min)

d) B+ MAX. Check

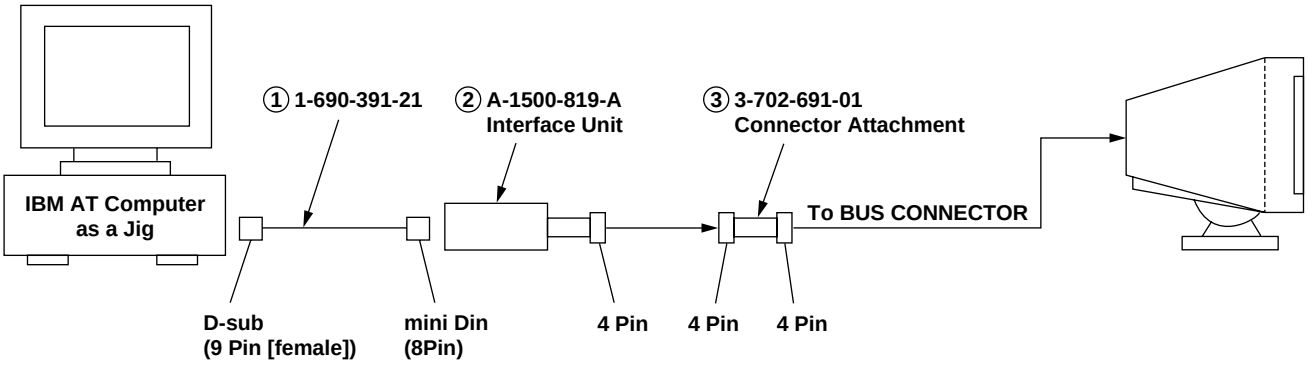
1. Input white cross hatch (fH = 94 kHz) signal.
2. CONT (max) & BRT (center)
3. Input voltage: 120 ± 2 VAC

   Note: Use NF power supply or make sure that distortion factor is 3% or less.
4. Confirm that the voltage is within the voltage range shown below.

   Standard voltage: 181 ± 4.0 VDC

SECTION 4
ADJUSTMENTS

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



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

Allow a 30 minute warm-up period prior to making the following adjustments:

Landing Rough Adjustment

1. Enter the full white signal.
2. Adjust the contrast to the maximum.
3. Input full green signal.
4. Moving the DY backward, adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Moving the DY forward, adjust so that an entire screen becomes pure green.
6. Adjust the tilt of DY, and tighten lightly with a clamp.

Landing Fine Adjustment

1. Place the set in the Helmholtz coil.
2. Enter a green signal only.
3. Degauss the entire screen with hand-degausser. Then auto-degauss it.
4. Attach a wobbling coil to the specified position of CRT neck.
5. Attach a landing adjuster sensor on the CRT.
6. Using a landing checker, adjust the DY position, purity, tilt of DY.
7. Clamp the DY screw.

Clamping torque: 22 ± 2 kgcm (2.2± 0.2 N.m)

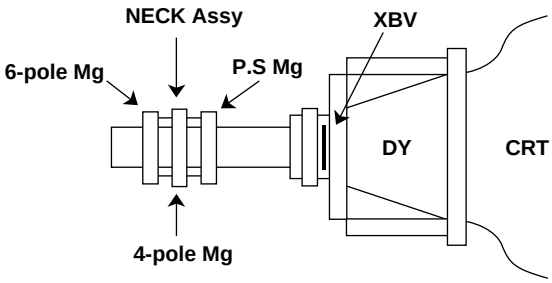
Convergence Rough Adjustment

1. All digital convergence data should be zero by MCP.
2. Enter the white crosshatch signal.
3. Adjust roughly the horizontal and vertical convergence at four-pole magnet.
4. Adjust roughly HMC and VMC at six-pole magnet.

Convergence Fine Adjustment

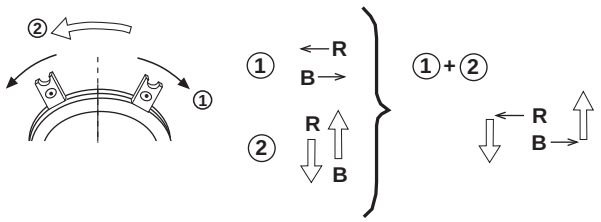
Set DY four-pole magnet to mechanical center before adjustment.

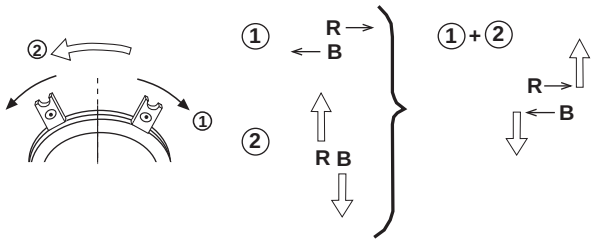
This should be prime mode.



1. Receive R.B. cross-hatch.
2. Adjust H.STAT and V.STAT at four-pole magnet.

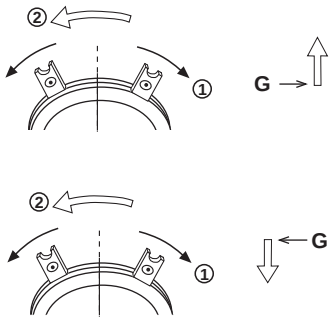
Four-Pole Magnet





3. Receive White cross-hatch.
4. Adjust HMC and VMC at six-pole magnet.

Six-Pole Magnet

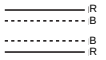


5. Receive R.B. cross-hatch.
6. Adjust H.TILT by swinging the DY neck right and left.
7. Adjust XCV with XCV core.

XCV movement

8. Adjust V.TILT with TLV VR.

TLV movement.

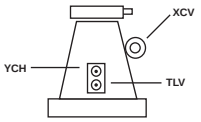


9. Adjust Y.CROSS with YCH VR.

YCH movement

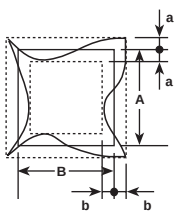
10. Paint lock the four-pole and six-pole magnet.

VR Adjustment on DY



Zero Position NECK Ass'y

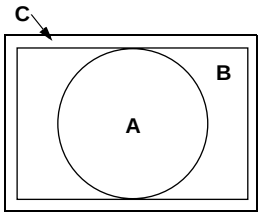
Vertical and Horizontal Position and Size Specification



a < 3.0 mm
b < 3.0 mm

A	B
264	352

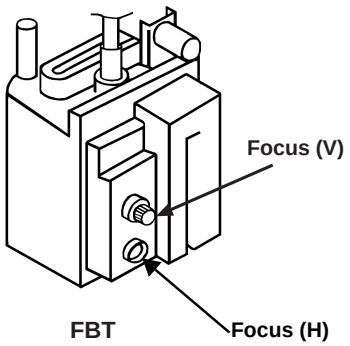
Convergence Specification



A ≤ 0.25mm
B ≤ 0.30mm
C ≤ 0.35mm

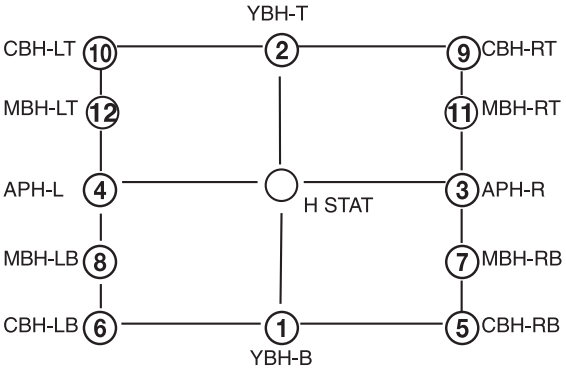
Focus adjustment

Adjust focus (V) and focus (H) for optimum focus.



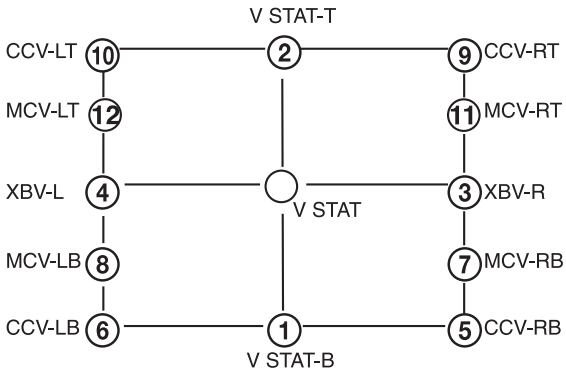
11. Digital Convergence Adjustment

A. Horizontal Convergence



Adjust each misconvergence point in sequence.

B. Vertical Convergence



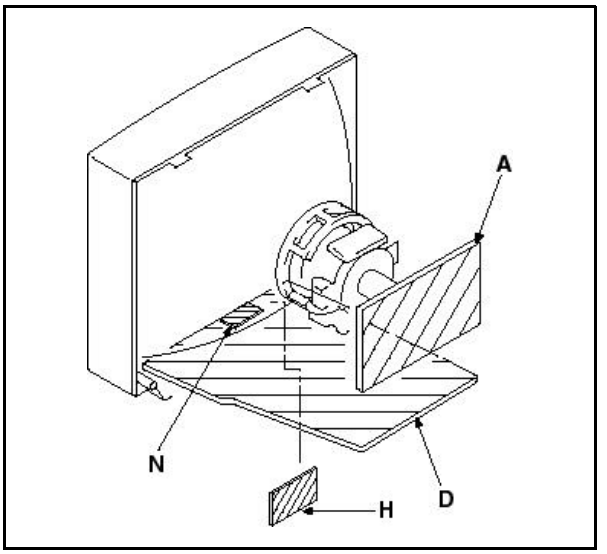
Adjust each misconvergence point in sequence.

C. Repeat the procedure of A and B so that the convergence of the entire screen is within the specification.

NOTES:

NOTES:

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

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

  Pitch: 5 mm

  Rating electrical power 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.
- 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 by using RV904 (⊠) as indicated. (See page 14)

Note:

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

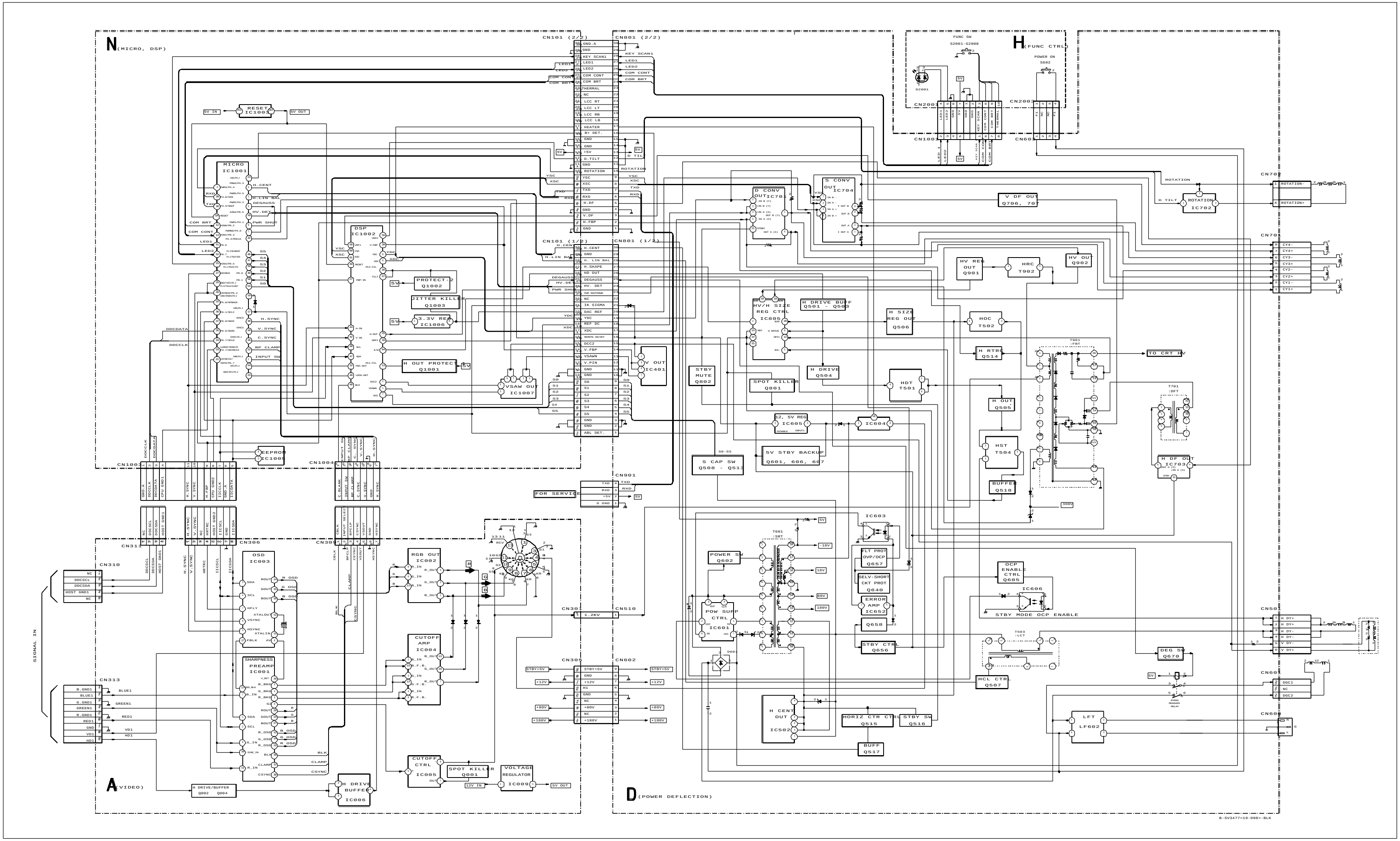
Note:

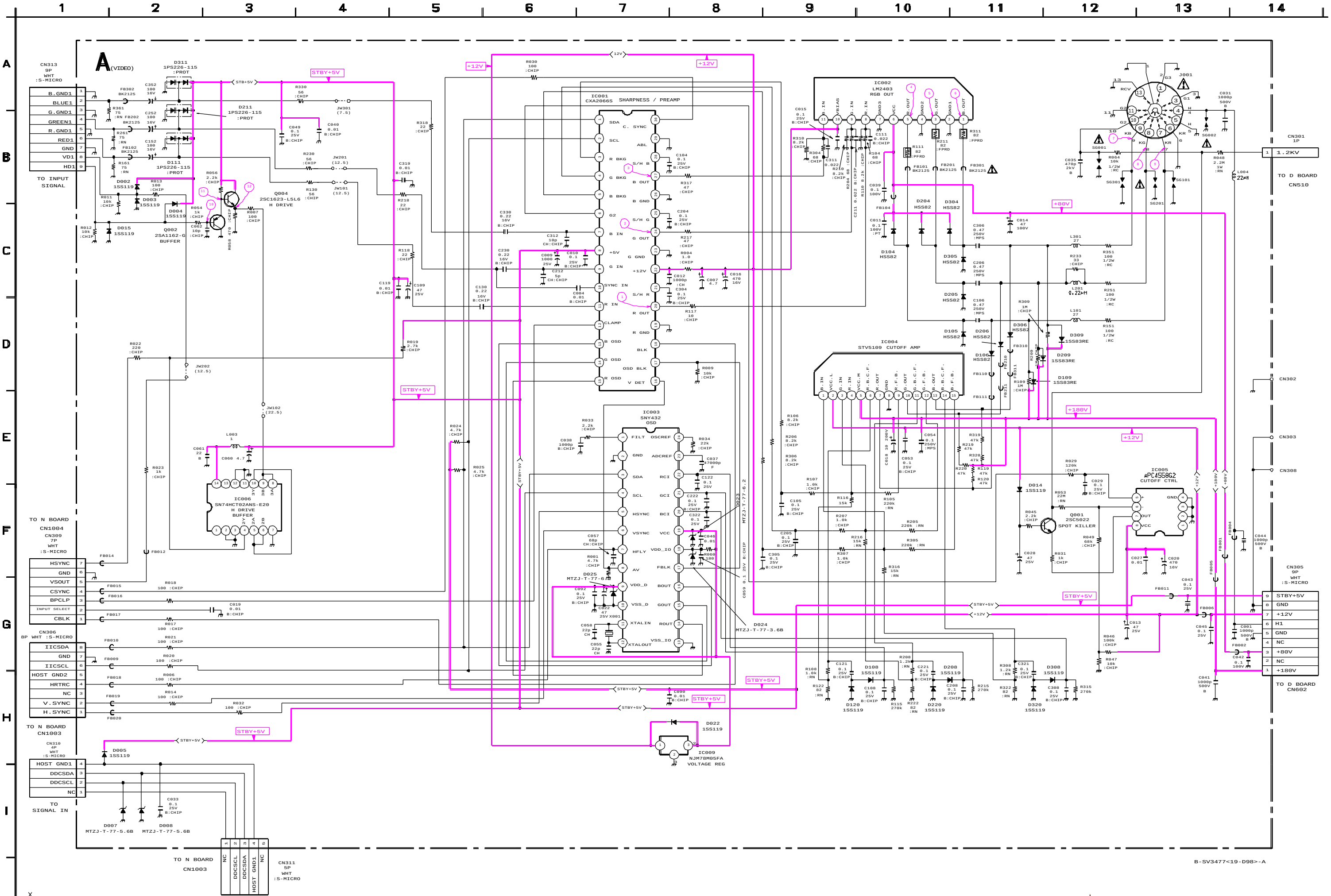
Les composants identifies per un trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

- When replacing parts shown in the table below, be sure to perform the safety related adjustment.

D - BOARD
Part Replaced (⊠)
RV904
Part Replaced (◪)
T901, R903, IC805, R921, R922, R812, D908, IC605, R913, R914, D802, D909

- All voltages are in volts.
- 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.
- * : Cannot be measured.
- Circled numbers are waveform references.
- : B +bus.
- : B - bus.

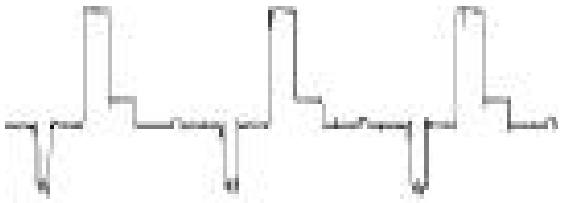

N (MICRO, DSP)
H (FUNC CTRL)
A (VIDEO)
D (POWER DEFLECTION)
SIGNAL IN
CN101 (2/2)
CN801 (2/2)
CN101 (1/2)
CN801 (1/2)
RESET IC1001
MICRO IC1001
DSP IC1002
PROTECT-2 Q1002
JITTER KILLER Q1003
3.3V REG IC1006
H OUT PROTECT Q1001
VSAW OUT IC1007
EEPROM IC1005
V OUT IC401
FOR SERVICE
CN901
CN1003
CN1004
CN311
CN306
CN304
CN310
CN313
OSD IC003
SHARPNESS PREAMP IC001
RGB OUT IC002
CUTOFF AMP IC004
CUTOFF CTRL IC005
SPOT KILLER Q001
VOLTAGE REGULATOR IC009
H DRIVE BUFFER IC006
H DRIVE/BUFFER Q002 Q004
CN301
CN510
CN305
CN602
FUNC SW S2001-S2008
POWER ON S602
D2001
CN2001
CN2003
CN1001
CN603
D CONV OUT IC701
S CONV OUT IC704
V DF OUT Q706, 707
ROTATION IC702
CN702
CN701
HV REG OUT Q901
HRC T902
HV OUT Q902
HV/H SIZE REG CTRL IC805
H DRIVE BUFF Q501 - Q503
H SIZE REG OUT Q506
HOC T502
H RTRC Q514
T901 :FBT
TO CRT HV
STBY MUTE Q802
SPOT KILLER Q801
H DRIVE Q504
HDT T501
H OUT Q505
12, 5V REG IC605
IC604
T701 :DFT
HST T504
5V STBY BACKUP Q601, 606, 607
S CAP SW Q508 - Q513
BUFFER Q518
H DF OUT IC703
IC603
T601 :SRT
POWER SW Q602
FLT PROT OVP/OCP Q657
SELV-SHORT CKT PROT Q640
ERROR AMP IC652
Q658
POW SUPP CTRL IC601
STBY CTRL Q656
OCP ENABLE CTRL Q605
IC606
STBY MODE OCP ENABLE
T503 :LCT
DEG SW Q670
HCL CTRL Q507
H CENT OUT IC502
HORIZ CTR CTRL Q515
STBY SW Q516
BUFF Q517
LFT LF602
CN501
CN601
CN606
B-SV3477<19-D98>-BLK



1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I
A (VIDEO)
CN313 9P WHT :S-MICRO
B.GND1
BLUE1
G.GND1
GREEN1
R.GND1
RED1
GND
VD1
HD1
TO INPUT SIGNAL
D311 1PS226-115 :PROT
D211 1PS226-115 :PROT
D111 1PS226-115 :PROT
STBY+5V
+12V
IC001 CXA2066S SHARPNESS / PREAMP
SDA
SCL
R BKG
G BKG
B BKG
G2
B IN
+5V
G IN
SYNC IN
R IN
CLAMP
B OSD
G OSD
R OSD
C. SYNC
ABL
S/H B
B OUT
B GND
S/H G
G OUT
G GND
+12V
S/H R
R OUT
R GND
BLK
OSD BLK
V DET
Q004 2SC1623-L5L6 H DRIVE
Q002 2SA1162-G BUFFER
D002 1SS119
D003 1SS119
D004 1SS119
D015 1SS119
IC006 SN74HCT02ANS-E20 H DRIVE BUFFER
IC003 SNY432 OSD
FILT
GND
SDA
SCL
HSYNC
VSYNC
HFLY
AV
VDD_D
VSS_D
XTALIN
XTALOUT
OSCREF
ADCREF
RCI
GCI
BCI
VCC
VDD_IO
FBLK
BOUT
GOUT
ROUT
VSS_IO
D025 MTZJ-T-77-6.2
D023 MTZJ-T-77-6.2
D024 MTZJ-T-77-3.6B
D022 1SS119
IC009 NJM78M05FA VOLTAGE REG
IC002 LM2403 RGB OUT
B.IN
VBIAS
G.IN
R.IN
GND3
VCC
R.OUT
GND2
G.OUT
GND1
B.OUT
IC004 STV5109 CUTOFF AMP
D104 HSS82
D204 HSS82
D304 HSS82
D105 HSS82
D205 HSS82
D305 HSS82
D106 HSS82
D206 HSS82
D306 HSS82
D109 1SS83RE
D209 1SS83RE
D309 1SS83RE
+80V
+180V
IC005 μPC4558G2 CUTOFF CTRL
Q001 2SC5022 SPOT KILLER
D014 1SS119
D108 1SS119
D120 1SS119
D208 1SS119
D220 1SS119
D308 1SS119
D320 1SS119
J001
CN301 1P
1.2KV
TO D BOARD CN510
CN302
CN303
CN308
CN305 9P WHT :S-MICRO
STBY+5V
GND
+12V
H1
GND
NC
+80V
NC
+180V
TO D BOARD CN602
TO N BOARD CN1004
CN309 7P WHT :S-MICRO
HSYNC
GND
VSOUT
CSYNC
BPCLP
INPUT SELECT
CBLK
CN306 8P WHT :S-MICRO
IICSDA
GND
IICSCL
HOST GND2
HRTRC
NC
V.SYNC
H.SYNC
TO N BOARD CN1003
CN310 4P WHT :S-MICRO
HOST GND1
DDCSDA
DDCSCL
NC
TO SIGNAL IN
D005 1SS119
D007 MTZJ-T-77-5.6B
D008 MTZJ-T-77-5.6B
TO N BOARD CN1003
CN311 5P WHT :S-MICRO
NC
DDCSCL
DDCSDA
HOST GND1
NC
B-SV3477<19-D98>-A
X

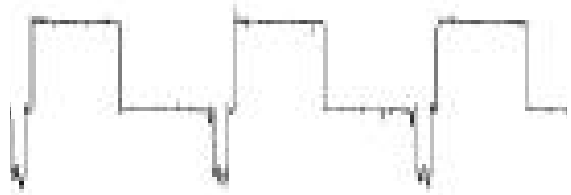
A BOARD WAVEFORMS

1



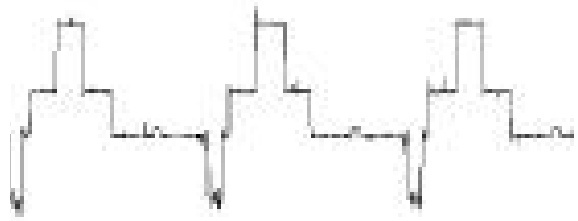
4.66V_{p-p} (H)

2



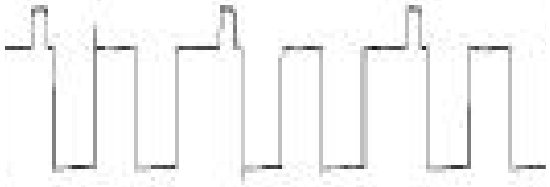
4.37V_{p-p} (H)

3



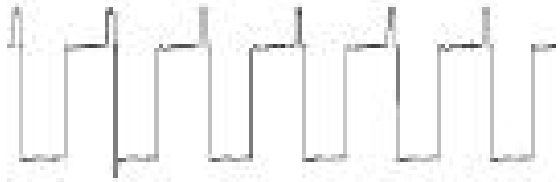
4.37V_{p-p} (H)

4



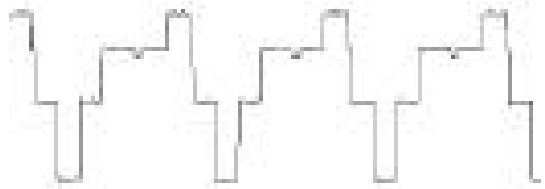
52.50V_{p-p} (H)

5



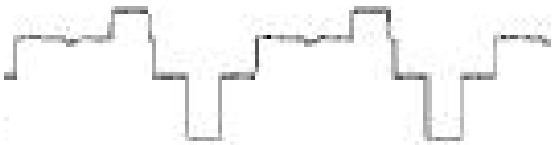
38.75V_{p-p} (H)

6



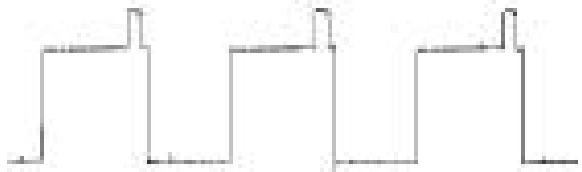
38.44V_{p-p} (H)

7



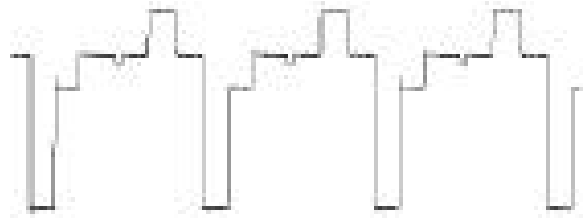
48.13V_{p-p} (H)
100.0 VDC above GND

8



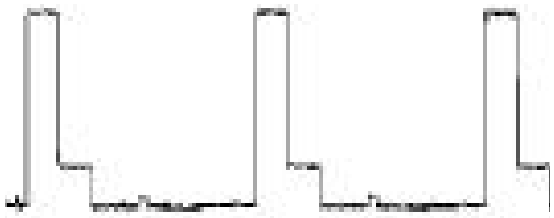
38.13V_{p-p} (H)

9



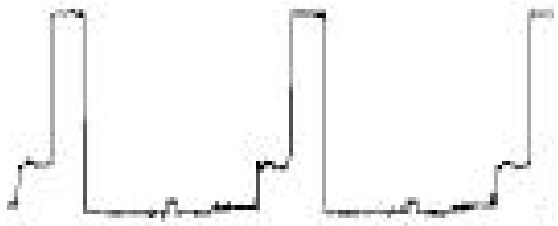
51.88V_{p-p} (H)

10



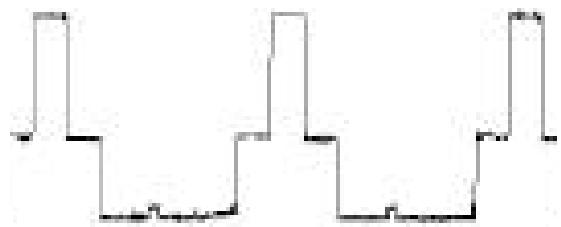
0.76V_{p-p} (H)

11



0.76V_{p-p} (H)

12



0.76V_{p-p} (H)

A BOARD IC VOLTAGE LIST

IC001	
pin	volt
1	4.70
2	4.30
3	2.47
4	2.56
5	2.09
6	3.25
7	2.00
8	5.03
9	1.97
10	3.03
11	1.96
12	0.10
13	0.01
14	0.00
15	0.00
16	0.03
17	0.01
18	0.54
19	GND
20	2.54
21	3.66
22	11.81
23	GND
24	2.45
25	3.65
26	GND
27	2.54
28	3.65
29	GND
30	0.19

IC002	
pin	volt
1	54.20
2	GND
3	55.50
4	GND
5	53.80
6	77.80
7	GND
8	2.52
9	2.43
10	11.89
11	2.52

IC003	
pin	volt
1	2.99
2	GND
3	4.69
4	4.33
5	0.47
6	0.04
7	0.00
8	0.03
9	5.03
10	GND
11	2.23
12	2.49
13	GND
14	0.00
15	0.00
16	0.01
17	0.01
18	3.79
19	5.03
20	0.91
21	0.96

IC004	
pin	volt
1	3.76
2	11.90
3	3.78
4	3.80
5	182.30
6	1.13
7	103.40
8	GND
9	100.90
10	101.10
11	1.35
12	98.50
22	1.02
23	3.41
24	1.22

IC005	
pin	volt
1	N.C.
2	GND
3	GND
4	GND
5	3.21
6	3.24
7	10.92
8	11.89

IC006	
pin	volt
1	N.C.
2	N.C.
3	N.C.
4	GND
13	110.10
14	1.22
15	107.70
16	0.29
17	0.29
18	GND
19	4.03
20	4.03
21	0.29
22	GND
23	N.C.
24	5.08

IC007	
1	N.C.
2	N.C.
3	GND
4	4.80
5	0.29
6	0.29
7	GND
8	4.03
9	4.03
10	0.29
11	GND
12	GND
13	N.C.
14	5.08

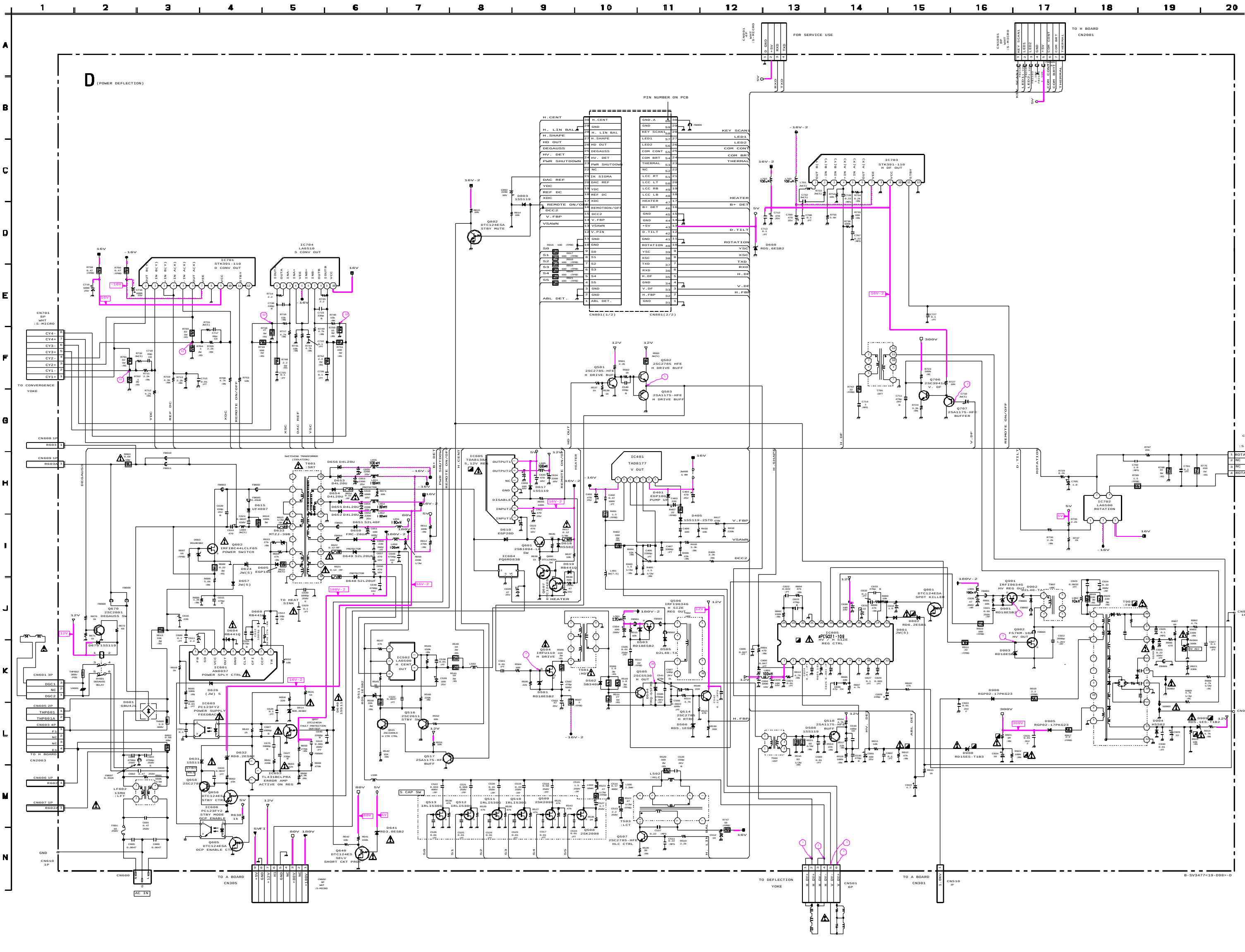
IC008	
1	5.02
2	1.42
3	5.02
4	5.02
5	1.42
6	5.02
7	1.42
8	4.48
9	0.00
10	GND
11	1.42
12	0.00
5	4.58
6	4.59
7	0.00
8	5.03

13	1.42
14	0.00
15	0.00
16	1.42
17	0.37
18	0.03
19	0.05
20	GND
21	0.08
22	4.52
23	GND
24	5.02
25	N.C.
26	GND
27	2.09
28	5.02
29	GND

30	2.07
31	5.02
32	GND
33	GND
34	GND
35	2.08
36	5.02

IC009	
pin	volt
I	11.89
G	GND
O	5.03

m
V


D (POWER DEFLECTION)
FOR SERVICE USE
CN801 4P WHT :S-MICRO
D GND
+5V
RXD
TXD
TO H BOARD CN2001
CN1001 8P WHT :S-MICRO
KEY SCAN1
LED1
LED2
GND
+5V
COM CONT
COM BRT
THERMAL
PIN NUMBER ON PCB
CN801(1/2)
CN801(2/2)
H.CENT
H. LIN BAL
H.SHAPE
HD OUT
DEGAUSS
HV. DET
PWR SHUTDOWN
NC
IK SIGMA
DAC REF
YDC
REF DC
XDC
REMOTE ON/OFF
DCC2
V.FBP
VSAWN
V.PIN
GND
S0
S1
S2
S3
S4
S5
ABL DET.
GND.A
HEATER
B+ DET
D.TILT
ROTATION
YSC
XSC
H.DF
V.DF
H.FBP
IC701 STK391-110 D CONV OUT
IC704 LA6510 S CONV OUT
IC703 STK391-110 H DF OUT
CN701 8P WHT :S-MICRO
CY4-
CY4+
CY3-
CY3+
CY2-
CY2+
CY1-
CY1+
TO CONVERGENCE YOKE
Q802 DTC124ESA STBY MUTE
D803 1SS119
Q501 2SC2785-HFE H DRIVE BUFF
Q502 2SC2785 HFE H DRIVE BUFF
Q503 2SA1175-HFE H DRIVE BUFF
Q706 2SC3941A V. DF
Q707 2SA1175-HFE BUFFER
T701 :DFT
D660 RD5.6ESB2
CN702 4P WHT :S-MICRO
ROTATION-
NC
ROTATION+
IC702 LA6500 ROTATION
CN608 1P
CN609 1P
SWITCHING TRANSFORMER (ISOLATION)
T601 :SRT
IC605 TDA8138A 5,12V REG
IC401 TAD8177 V OUT
Q602 IRFIBC44LCLF65 POWER SWITCH
IC601 AN8037 POWER SPLY CTRL
Q601 2SB1094-LK SW
IC604 PQ6RD83B
Q670 2SC2001 DEGAUSS SW
D670 1SS119
CN601 3P
DGC1
DGC2
CN605 2P
THP601
THP601A
CN603 4P
TO H BOARD CN2003
CN606 1P
CN607 1P
D601 GBU4JL
IC603 PC123FY2 POWER SUPPLY FEEDBACK
Q657 DTC124ESA FAULT PROTECTION OVP/OCP
IC652 TL431BCLPRA ERROR AMP ACTIVE ON REG
Q658 2SC2785
Q656 DTC124ESA STBY CTRL
IC606 PC123FY2 STBY MODE OCP ENABLE
Q605 DTC124ESA OCP ENABLE CTRL
LF602 13MH :LFT
CN600
AC IN
GND
CN610 1P
TO A BOARD CN305
CN602 9P WHT :S-MICRO
+5V
+12V
H1
+80V
+180V
Q640 DTC124ES SELV SHORT CKT PROT
IC502 LA6500 H CENT OUT
Q516 2SC2611 STBY SW
Q515 2SC3209LK H CTR CTRL
Q517 2SA1175-HFE BUFF
Q504 IRFU110 H DRIVE
T501 :HDT
Q506 IRFI9634G H SIZE REG OUT
Q505 2SC5530 H OUT
Q514 2SC2785 H RTRC
IC805 µPC5021-109 HV / H SIZE REG CTRL
Q801 DTC124ESA SPOT KILLER
Q518 2SA1175-HFE BUFF
S CAP SW
Q513 IRLI530G
Q512 IRLI530G
Q511 IRLI530G
Q510 IRLI530G
Q509 2SK2098
Q508 2SK2098
T503 :LCT
Q507 2SC2785-HFE HLC CTRL
L502 :HLC
TO DEFLECTION YOKE
CN501 6P
H DY+
H DY-
V DY-
V DY+
TO A BOARD CN301
CN510 1P
Q901 IRFI9634G HV REG OUT
Q902 FS7KM-18A HV OUT
T901 :FBT
D906 RGP02-17PKG23
D905 RGP02-17PKG23
D908 RD15ES-T1B3
D909 RD5.1ES-T1B2
D904 HSS82
CN999 1P
CN904 1P
HV ADJ
B-SV3477<19-D98>-D

D BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q501	0.36	5.89	GND
Q502	5.89	11.94	5.97
Q503	5.89	GND	5.97
Q505	-0.61	-26.0	GND
Q507	2.08	6.34	1.46
Q514	-0.09	11.94	0.46
Q515	4.10	92.40	3.57
Q516	0.02	92.40	GND
Q517	3.48	GND	4.10
Q518	4.49	GND	5.10
Q601	16.41	6.53	16.41
Q605	4.60	0.04	GND
Q606	0.08	16.41	GND
Q607	1.73	0.08	GND
Q640	3.16	0.00	GND
Q656	4.60	0.00	GND
Q657	0.00	7.72	GND
Q658	0.00	6.46	GND
Q670	0.00	11.94	GND
Q706	1.97	66.20	1.41
Q707	1.32	GND	1.97
Q801	0.02	5.81	GND
Q802	4.60	0.02	GND

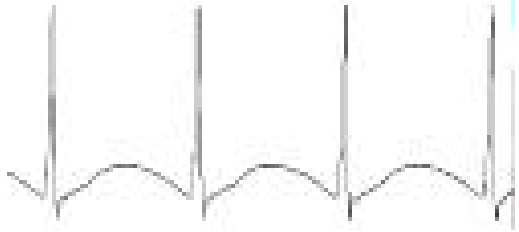
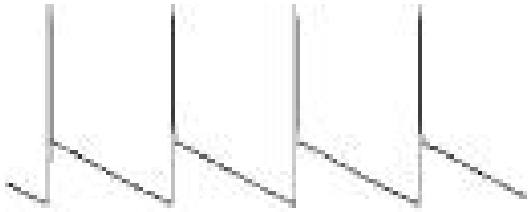
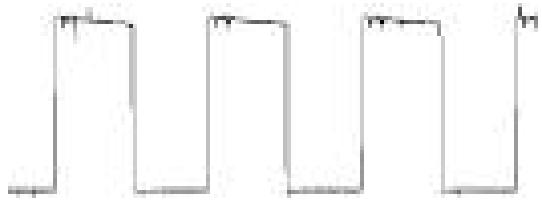
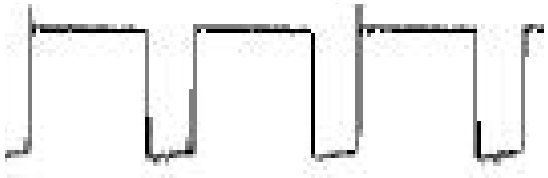
All voltages are in V

D BOARD IC VOLTAGE LIST

IC401		IC603		IC652		IC703		IC805	
pin	volt	pin	volt	pin	volt	pin	volt	pin	volt
1	1.18	1	7.71	A	2.48	1	-0.05	1	11.91
2	16.30	2	6.68	G	GND	2	-0.05	2	4.18
3	-15.99	3	GND	K	6.70	3	-0.04	3	4.18
4	-16.49	4	5.93	IC701		4	-0.07	4	5.50
5	0.14	IC604		pin	volt	5	-0.08	5	8.82
6	15.96	pin	volt	1	0.12	6	-0.72	6	3.90
7	1.18	I	7.20	2	0.51	7	-16.59	7	GND
IC502		G	GND	3	0.52	8	GND	8	0.15
pin	volt	VC	5.02	4	0.52	9	16.38	9	GND
1	98.14	O	6.35	5	0.52	10	N.C.	10	8.26
2	95.30	IC605		6	0.10	11	4.60	11	4.47
3	87.00	pin	volt	7	-16.51	12	GND	12	5.01
4	97.00	1	6.51	8	GND	IC704		13	5.81
5	103.20	2	16.39	9	16.29	pin	volt	14	5.81
IC601		3	4.56	10	N.C.	1	-0.29	15	4.98
pin	volt	4	GND	11	3.03	2	-0.31	16	11.30
1	0.25	5	N.C.	12	GND	3	1.18	17	11.94
2	1.20	6	12.02	IC702		4	1.18	18	6.52
3	2.13	7	5.07	pin	volt	5	-16.52	19	7.98
4	0.01	IC606		1	1.59	6	1.18	20	5.73
5	GND	pin	volt	2	1.59	7	1.18	21	GND
6	4.86	1	5.07	3	-16.52	8	-0.02	22	4.16
7	17.40	2	1.15	4	0.08	9	-0.02	23	4.18
8	1.88	3	GND	5	16.34	10	16.34	24	4.18
9	6.52	4	0.04						

All voltages are in V

D BOARD WAVEFORMS

1  1.1KV$_{p-p}$ (H)	2  128.8V$_{p-p}$ (H)	3  1.36V$_{p-p}$ (V)
4  59.38V$_{p-p}$ (V)	5  11.19V$_{p-p}$ (H)	6  10.81V$_{p-p}$ (H)
7  8.25V$_{p-p}$ (H)	8  13.06V$_{p-p}$ (H)	9  1.42V$_{p-p}$ (V)
11  11.09V$_{p-p}$ (H)	12  0.05 ~ 0.2V$_{p-p}$ (H)	12  0.05 ~ 0.7V$_{p-p}$ (V)

D BOARD TRANSISTOR VOLTAGE LIST

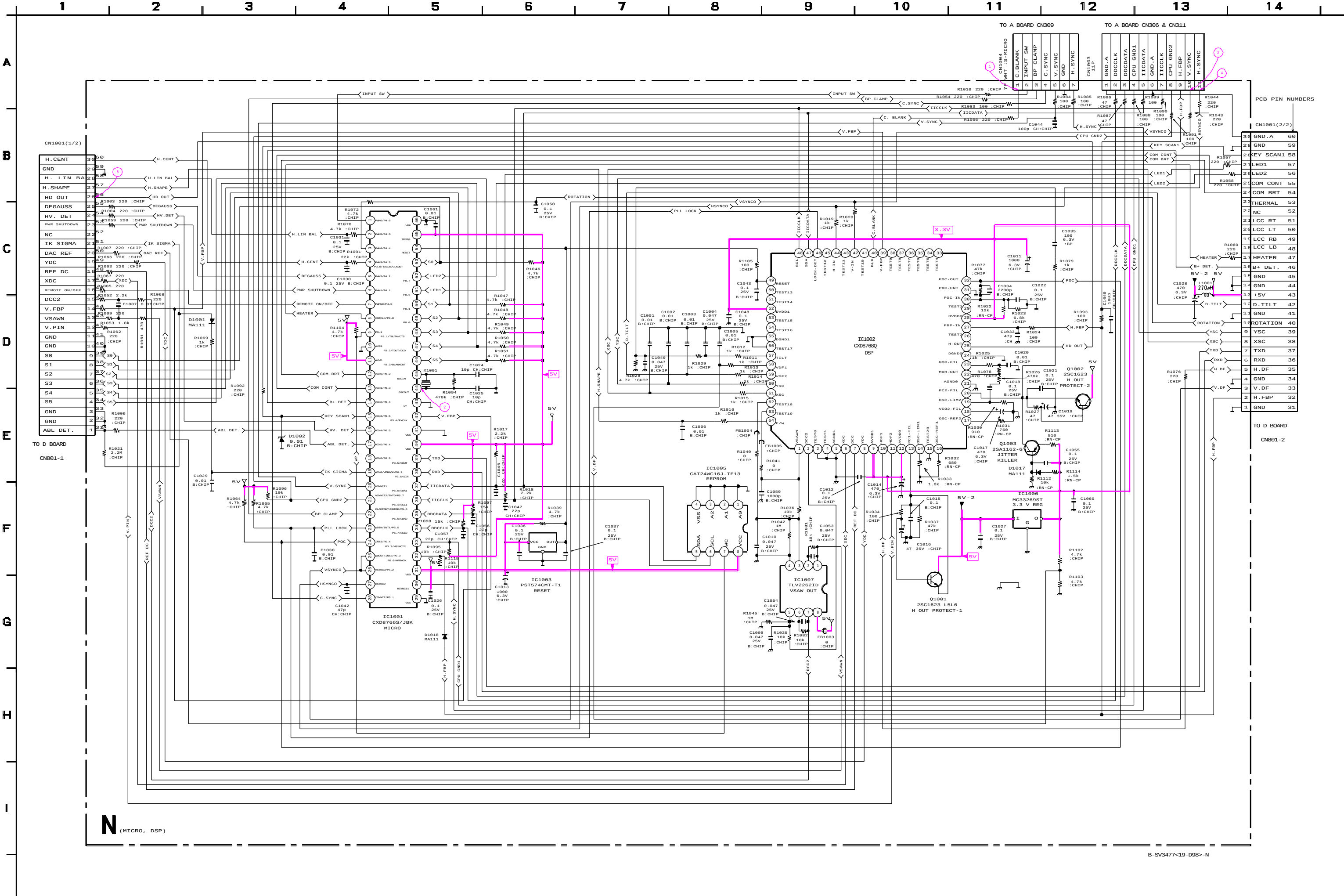
	G	D	S
Q504	-12.24	-3.17	-16.46
Q506	178.50	93.70	182.20
Q508	0.07	43.70	GND
Q509	0.07	41.30	GND
Q510	0.00	41.40	GND
Q511	5.02	0.00	GND
Q512	5.02	0.00	GND
Q513	0.07	40.43	GND
Q602	4.85	157.80	GND
Q901	179.10	89.20	182.20
Q902	7.98	66.50	GND

All voltages are in V

D BOARD SEMICONDUCTOR LOCATION

DIODE	
D401	F7
D405	G6
D501	E4
D502	D5
D503	C4
D504	D6
D505	D4
D506	C6
D508	D6
D511	F4
D601	C2
D603	E2
D604	E3
D605	E2
D608	D3
D610	I2
D614	F3
D615	E1
D617	G3
D618	I2
D619	I3
D631	F2
D632	G3
D633	E2
D640	F3
D641	F3
D648	G2
D649	G2
D650	G2
D651	G2
D652	F1
D653	G1
D654	F1
D655	G1
D656	G1
D660	I5
D670	B4
D802	H4
D803	G3
D901	B4
D902	B4
D903	A4
D904	C6
D905	A6
D906	A5
D908	A6
D909	C6

IC	
IC401	F6
IC502	F4
IC601	D3
IC603	F3
IC604	I1
IC605	H3
IC606	E3
IC652	F2
IC701	H7
IC702	I6
IC703	E6
IC704	I7
IC805	H5
TRANSISTOR	
Q501	I3
Q502	I3
Q503	I3
Q504	E4
Q505	D5
Q506	C4
Q507	E5
Q508	G4
Q509	G5
Q510	G5
Q511	G5
Q512	G6
Q513	F6
Q514	D6
Q515	F4
Q516	F4
Q517	F4
Q518	E6
Q601	H2
Q602	E2
Q605	F3
Q606	I2
Q607	I2
Q640	F3
Q656	G3
Q657	F3
Q658	F3
Q670	A4
Q706	A7
Q707	A7
Q801	H4
Q802	H4
Q901	B4
Q902	A4

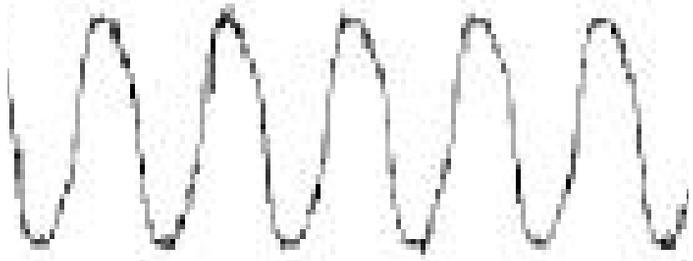

1 2 3 4 5 6 7 8 9 10 11 12 13 14
A B C D E F G H I
TO A BOARD CN309
TO A BOARD CN306 & CN311
CN1004 7P WHT :S-MICRO
C.BLANK
INPUT SW
BP CLAMP
C.SYNC
V.SYNC
GND
H.SYNC
CN1003 11P
GND.A
DDCCLK
DDCDATA
CPU GND1
IICDATA
GND.A
IICCLK
CPU GND2
H.FBP
V.SYNC
H.SYNC
PCB PIN NUMBERS
CN1001(1/2)
H.CENT
GND
H. LIN BAL
H.SHAPE
HD OUT
DEGAUSS
HV. DET
PWR SHUTDOWN
NC
IK SIGMA
DAC REF
YDC
REF DC
XDC
REMOTE ON/OFF
DCC2
V.FBP
VSAWN
V.PIN
GND
GND
S0
S1
S2
S3
S4
S5
GND
GND
ABL DET.
TO D BOARD
CN801-1
CN1001(2/2)
GND.A
GND
KEY SCAN1
LED1
LED2
COM CONT
COM BRT
THERMAL
NC
LCC RT
LCC LT
LCC RB
LCC LB
HEATER
B+ DET.
GND
GND
+5V
D.TILT
GND
ROTATION
YSC
XSC
TXD
RXD
H.DF
GND
V.DF
H.FBP
GND
TO D BOARD
CN801-2
IC1001
CXD8766S/JBK
MICRO
IC1002
CXD8768Q
DSP
IC1003
PST574CMT-T1
RESET
IC1005
CAT24WC16J-TE13
EEPROM
IC1007
TLV2262ID
VSAW OUT
IC1006
MC33269ST
3.3 V REG
Q1001
2SC1623-L5L6
H OUT PROTECT-1
Q1002
2SC1623
H OUT
PROTECT-2
Q1003
2SA1162-G
JITTER
KILLER
D1017
MA111
D1001
MA111
D1002
0.01
B:CHIP
D1018
MA111
X1001
5V
3.3V
5V-2
N (MICRO, DSP)
B-SV3477<19-D98>-N

N BOARD WAVEFORMS

1

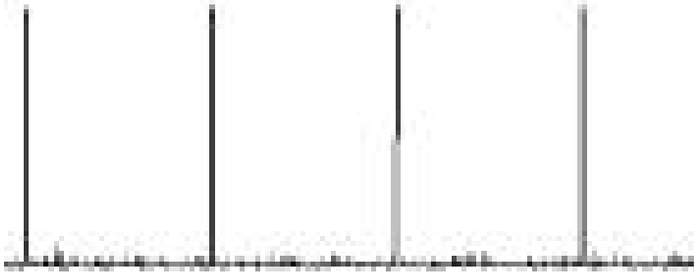
3.38V_{p-p} (H)

2



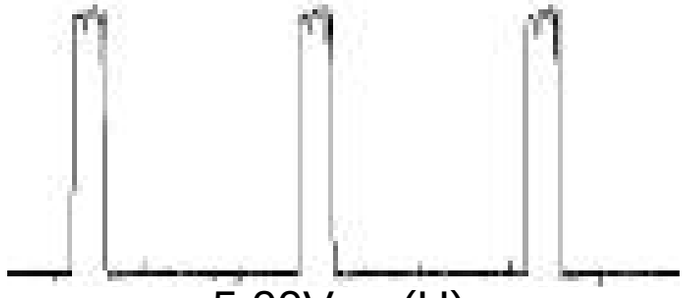
3.56V_{p-p} (8MHz)

3



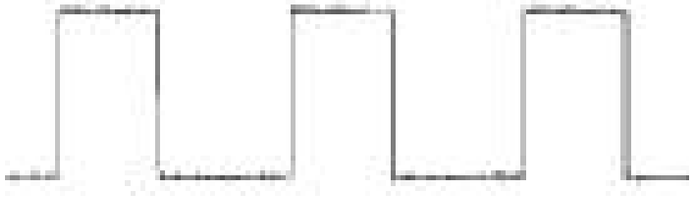
5.03V_{p-p} (V)

4



5.00V_{p-p} (H)

5



3.25V_{p-p} (H)

N BOARD IC VOLTAGE LIST

IC1001	
pin	volt
1	0.03
2	2.95
3	2.92
4	3.41
5	0.01

6	0.01
7	4.92
8	5.02
9	5.02
10	GND
11	5.03
12	0.00

13	0.00
14	-0.41
15	5.06
16	4.16
17	3.92
18	2.48
19	3.83

20	0.32
21	5.02
22	0.12
23	5.03
24	4.70
25	0.03
26	0.03

27	0.46
28	0.19
29	GND
30	4.54
31	5.03
32	0.45
33	0.06

34	4.81
35	4.83
36	4.33
37	4.70
38	0.00
39	5.02
40	5.03

41	GND
42	3.82
43	GND
44	2.41
45	2.31
46	5.06
47	5.06

48	0.06
49	5.02
50	5.02
51	0.12
52	3.64
53	5.07
54	5.02

55	5.03
56	GND

All voltages are in V

N TO D BOARD CONNECTORS VOLTAGES

CN1001 1/2	
pin	volt
1	3.93
2	GND
3	GND
4	0.06
5	0.06
6	0.07
7	5.02
8	5.02
9	0.07

10	GND
11	GND
12	1.64
13	1.44
14	3.83
15	1.43
16	4.60
17	1.56
18	1.59
19	1.56
20	1.48

21	4.00
22	--
23	0.01
24	4.16
25	0.01
26	1.39
27	3.41
28	2.36
29	GND
30	3.48

CN1001 2/2	
pin	volt
1	GND
2	0.46
3	1.32
4	GND
5	1.28
6	0.00
7	5.02
8	1.62
9	1.55

10	2.17
11	GND
12	1.64
13	5.03
14	GND
15	GND
16	-0.42
17	5.02
18	N.C
19	N.C
20	N.C

21	N.C
22	N.C
23	2.52
24	0.00
25	0.00
26	3.64
27	1.07
28	5.06
29	GND
30	GND

CN1003	
pin	volt
1	GND
2	4.81
3	4.83
4	0.01
5	4.70
6	GND
7	4.35
8	5.02
9	0.47

10	0.04
11	0.48

CN1004	
pin	volt
1	0.56
2	0.06
3	0.12
4	0.19
5	0.30
6	GND
7	4.54

All voltages are in V

N BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q1001	0.84	4.47	0.84
Q1002	0.91	5.03	0.91

All voltages are in V

N BOARD
SEMICONDUCTOR LOCATION

DIODE	
D1001	C2
D1002	A3
D1003	A3
D1017	B2
D1018	A4

IC	
IC1001	A3
IC1003	B4
TRANSISTOR	
Q1001	A1
Q1002	B2

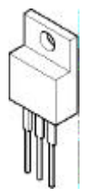
N BOARD
SEMICONDUCTOR LOCATION

IC	
IC1001	A2
IC1002	C3
IC1005	B1

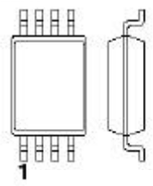
IC1006	A3
IC1007	C2
TRANSISTOR	
Q1003	B2

5-4. SEMICONDUCTORS

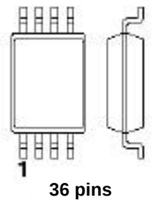
NJM78M05FA



UPC4558G2
24LC21AT

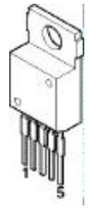


MS278FP

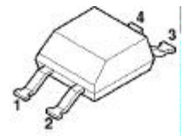


36 pins

LA6500-FA
LA6510

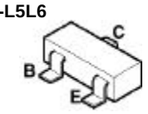


PC123F2



2SC2611

2SA1162-G
2SC1623-L5L6



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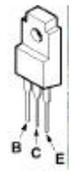

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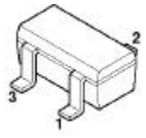
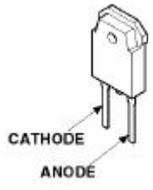


FMQ-G5FMS



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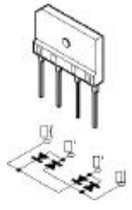

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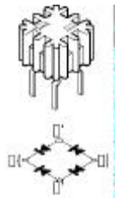

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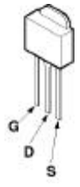

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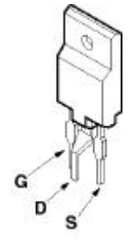

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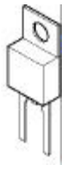

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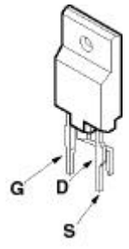
FS7KM-18A-AY



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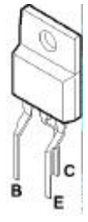
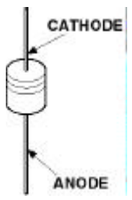


1SS119-25
MTZJ-39B
MTZJ-6.2B
MTZJ-6.2B
RB441Q
RD15ESB3
RD18ESB2
RD3.0ESB2
RD3.6ESB2
RD5.1ESB2
RD5.6ESB2
RD8.2ESB2



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EGP20DPKG23
HSS82
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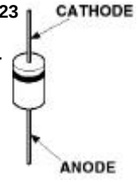
S2L20UF
S2L40F
SB340
UF4007G23



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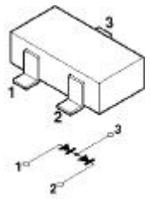

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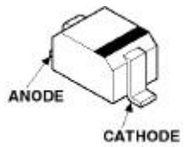

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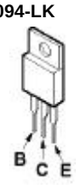
2SB1094-LK



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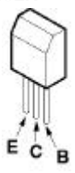

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2SC2785-HFE
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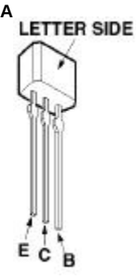
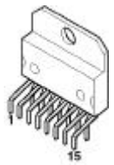


STV5109



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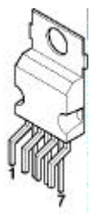
TDA8138A



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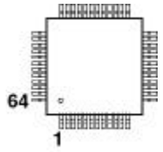
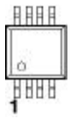


CXD8766S/JBK

CAT24WC16J-TE13
TLV2262IDR



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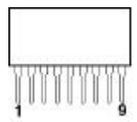

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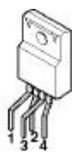
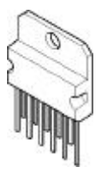
PQ6RD83B

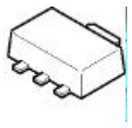


LM2403

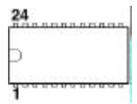


TL431BCLPRA

MC33269ST-33



SNY432



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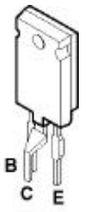

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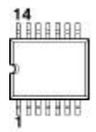


339VYUGW/R2

SECTION 6
EXPLODED VIEWS

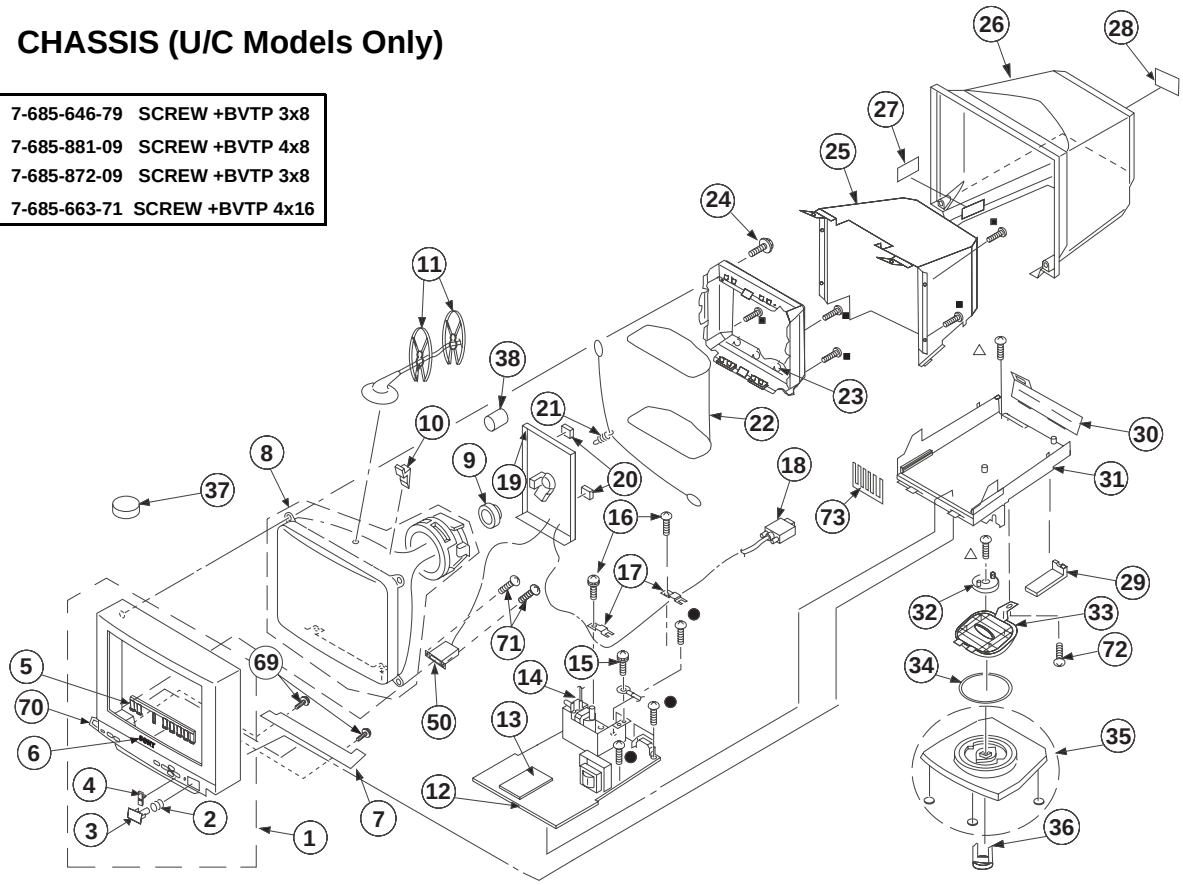
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The component parts of an assembly are indicated by the reference numbers in the remarks column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note:

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

6-1. CHASSIS (U/C Models Only)

●	7-685-646-79	SCREW +BVTP 3x8
△	7-685-881-09	SCREW +BVTP 4x8
■	7-685-872-09	SCREW +BVTP 3x8
▲	7-685-663-71	SCREW +BVTP 4x16

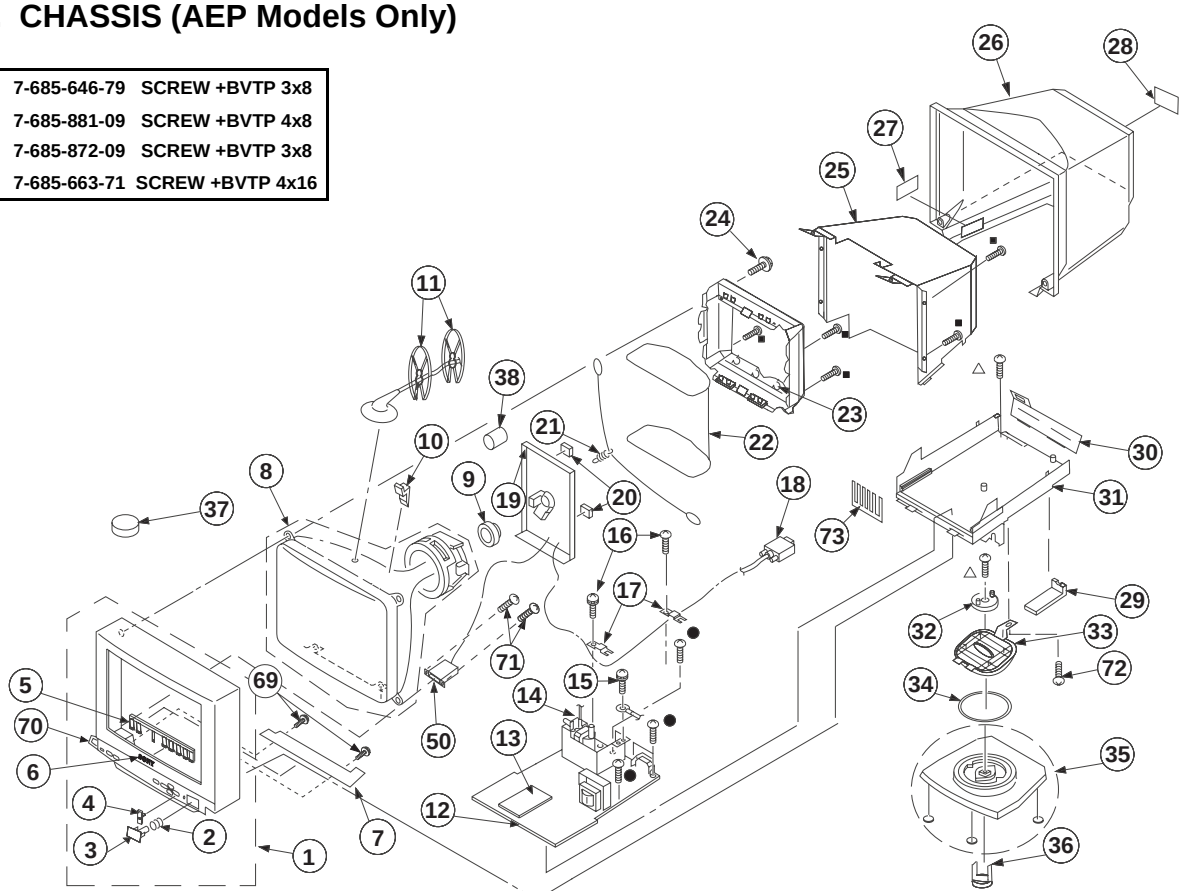


REF NO	PART NO	DESCRIPTION	REMARK
1	X-4036-290-1	BEZEL ASSY	2-6
2	3-653-339-21	SPRING, COMPRESSION	
3	4-060-546-21	BUTTON, POWER	
4	4-060-545-01	GUIDE, LIGHT	
5	4-068-324-01	BUTTON, MULTI	
6	4-044-932-31	EMBLEM (NO.8), SONY	
7*	A-1372-585-A	H MOUNTED PC BOARD	
8 ⚠	8-736-400-61	ITC ASSY 19FRG-R2	
9 ⚠	1-452-932-11	NECK ASSEMBLY	
10	4-040-897-01	SPACER, DY	
11	3-704-372-31	HOLDER, HV CABLE	
12*	A-1346-800-A	D COMPLETE PC BOARD	
13*	A-1343-597-A	N MOUNTED PC BOARD	
14 ⚠	1-453-292-11	TRANSFORMER ASSY, FLYBACK NX-4501//X4E4	
15	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
16	7-685-881-09	SCREW +BVTT 4X8 (S)	
17*	4-045-131-01	STOPPER, CABLE	
18	1-790-039-11	CABLE ASSY (15PDSUB CONNECTOR)	
19*	A-1298-758-A	A COMPLETE PC BOARD	
20*	4-050-329-11	CUSHION (A)	
21*	4-061-573-01	SPRING, TENSION	
22 ⚠	1-416-859-11	COIL, DEMAGNETIC	

REF NO	PART NO	DESCRIPTION	REMARK
23	4-041-021-11	HOLDER, DEGAUSSE COIL	
24	4-365-808-01	SCREW (5), TAPPING	
25	X-4036-132-1	SHIELD ASSY, EMI	
26	4-067-344-01	CABINET	
27	4-067-757-01	COVER, CONNECTOR	
28*	4-068-230-01	LABEL, INFORMATION	
29	4-067-345-01	COVER, CABLE	
30*	4-067-346-01	HOLDER, CABLE	
31	X-4036-135-1	BASE ASSY, CHASSIS	
32	4-060-531-01	STOPPER (A)	
33	4-067-615-01	SLIDER	
34	4-060-705-01	RING, TILT SWIVEL	
35	X-4036-318-1	BASE ASSY, STAND	
36	4-041-621-21	STOPPER (B)	
37	1-452-032-00	MAGNET, DISC	
38	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
50	1-790-044-11	CABLE ASSY, VIDEO	
69	4-029-432-01	SCREW (3X12), (+) BVWHTP	
70*	A-1015-947-A	INPUT HOLDER ASSY	
71	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
72	7-685-881-09	SCREW +BVTT 4X8 (S)	
73*	4-067-989-01	SHIELD, N	

6-2. CHASSIS (AEP Models Only)

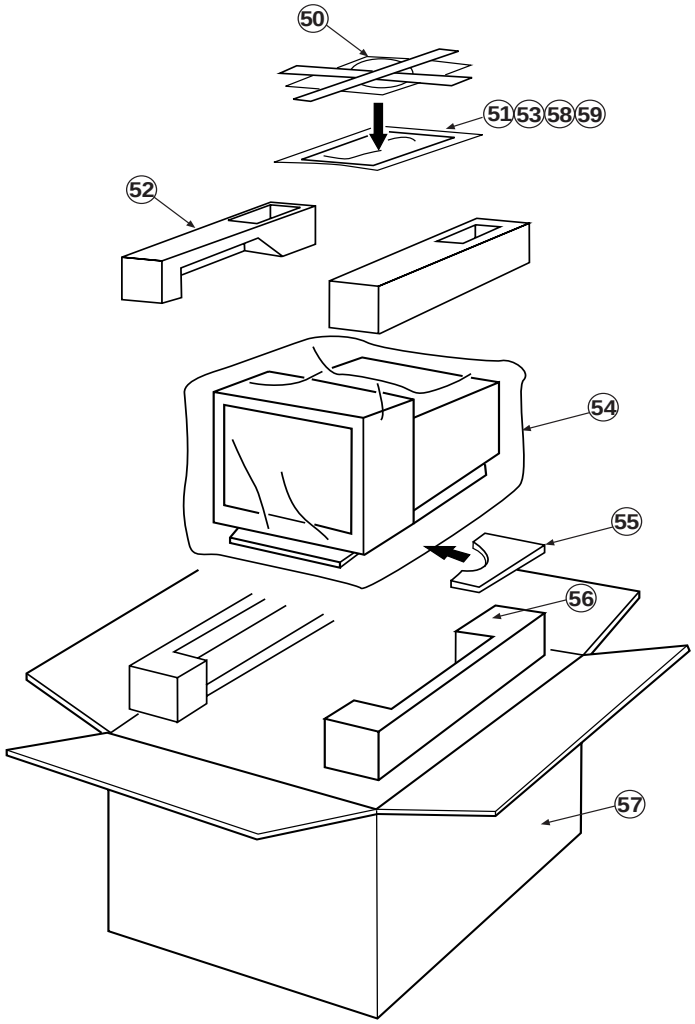
●	7-685-646-79	SCREW +BVTP 3x8
△	7-685-881-09	SCREW +BVTP 4x8
■	7-685-872-09	SCREW +BVTP 3x8
▲	7-685-663-71	SCREW +BVTP 4x16



REF NO	PART NO	DESCRIPTION	REMARK
1	X-4036-151-1	BEZEL ASSY	2-6
2	3-653-339-11	SPRING, COMPRESSION	
3	4-060-896-01	BUTTON, POWER	
4*	4-060-897-01	GUIDE, LIGHT	
5	4-067-520-01	BUTTON, MULTI	
6*	4-044-932-11	EMBLEM (NO.8), SONY	
7*	A-1372-574-A	H MOUNTED PC BOARD	
8 ⚠	8-736-400-61	ITC ASSY 19FRG-R2	
9 ⚠	1-452-932-11	NECK ASSEMBLY	
10	4-050-492-01	SPACER, DY	
11	4-202-693-01	HOLDER, HV CABLE	
12*	A-1346-801-A	D COMPLETE PC BOARD	
13*	A-1343-601-A	N MOUNTED PC BOARD	
14 ⚠	1-453-292-11	TRANSFORMER ASSY, FLYBACK NX-4501//X4E4	
15	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
16	7-685-881-09	SCREW +BVTT 4X8 (S)	
17*	4-045-131-11	STOPPER, CABLE	
18	1-790-039-11	CABLE ASSY (15PDSUB CONNECTOR)	
19*	A-1298-742-A	A COMPLETE PC BOARD	
20*	4-050-329-11	CUSHION (A)	
21*	4-047-316-01	SPRING, EXTENSION	
22 ⚠	1-416-859-11	COIL, DEMAGNETIC	

REF NO	PART NO	DESCRIPTION	REMARK
23	4-041-021-02	HOLDER, DEGAUSSE COIL	
24	4-203-648-01	SCREW (5), SELF TAPPING	
25	X-4036-132-1	SHIELD ASSY, EMI	
26	4-067-516-01	CABINET	
27	4-063-246-01	COVER, CONNECTOR	
28*	4-067-518-01	LABEL, INFORMATION	
29	4-067-517-01	COVER, CABLE	
30*	4-067-346-01	HOLDER, CABLE	
31	X-4036-135-1	BASE ASSY, CHASSIS	
32	4-060-644-02	STOPPER (A)	
33	4-060-522-01	SLIDER	
34	4-060-643-01	RING, TILT SWIVEL	
35	X-4034-868-1	STAND ASSY	
36	4-041-621-01	STOPPER (B)	
37	1-452-032-00	MAGNET, DISC	
38	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
50	1-790-044-11	CABLE ASSY, VIDEO	
69	4-029-432-01	SCREW (3X12), (+) BVWHTP	
70*	A-1015-937-A	INPUT HOLDER ASSY	
71	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
72	7-685-881-09	SCREW +BVTT 4X8 (S)	
73*	4-067-989-01	SHIELD, N	

6-3. PACKING MATERIALS



REF NO		PART NO	DESCRIPTION	REMARK
50		1-759-641-21	DISK, INFORMATION (V2.30)	U/C
50		1-759-641-12	DISK, INFORMATION (V2.40)	AEP
51	⚠	1-783-722-11	CORD SET, POWER	U/C
51	⚠	1-783-632-11	CORD SET, POWER	AEP
52	*	4-063-373-11	CUSHION (UPPER) (ASSY)	U/C
52	*	4-063-381-21	CUSHION (UPPER) (ASSY)	AEP
53		3-865-054-11	MANUAL, INSTRUCTION	U/C
53		3-865-054-21	MANUAL, INSTRUCTION	AEP
54		4-041-927-11	BAG, POLYETHYLENE	
55	*	4-063-387-01	PAD, FOR TILT FIXING	
56	*	4-063-374-11	CUSHION (LOWER) (ASSY)	U/C
56	*	4-063-382-21	CUSHION (LOWER) (ASSY)	AEP
57	*	4-068-231-01	CARTON, INDIVIDUAL	U/C
57	*	4-067-523-01	CARTON, INDIVIDUAL	AEP
58		1-785-429-11	ADAPTOR, CONVERSION	U/C
59		1-790-043-11	CABLE ASSY, VIDEO	U/C

NOTES:

A

SECTION 7
ELECTRICAL PARTS LIST

Note:

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

Note:

Les composants identifies per un trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.

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.

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

RESISTORS

- All resistors are in ohms
- F : nonflammable

CAPACITORS

- MF = µF

INDUCTORS

- UH = µH, MMH = mH

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

A

*** A-1298-742-A A BOARD, COMPLETE**

4-382-854-01 SCREW (M3X8), P, SW (+)

CAPACITOR

REF NO	PART NO	DESCRIPTION	REMARK		
C001	1-162-318-11	CERAMIC	0.001MF	10%	500V
C004	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C007	1-107-905-11	ELECT	4.7MF	20%	50V
C009	1-107-905-11	ELECT	4.7MF	20%	50V
C010	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C011	1-106-220-00	MYLAR	0.1MF	10%	100V
C012	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C013	1-107-888-11	ELECT	47MF	20%	25V
C014	1-107-932-11	ELECT	47MF	20%	100V
C015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C016	1-128-528-11	ELECT	470MF	20%	16V
C018	1-107-746-11	ELECT	10MF	20%	200V
C019	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C020	1-126-935-11	ELECT	470MF	20%	16V
C022	1-104-664-11	ELECT	47MF	20%	25V
C027	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C028	1-104-664-11	ELECT	47MF	20%	25V
C029	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C031	1-162-318-11	CERAMIC	0.001MF	10%	500V
C032	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C033	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C035	1-162-134-11	CERAMIC	470PF	10%	2KV
C037	1-101-006-00	CERAMIC	0.047MF		50V
C038	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C039	1-104-503-12	CERAMIC CHIP	0.1MF	10%	100V
C040	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C041	1-162-318-11	CERAMIC	0.001MF	10%	500V
C042	1-104-503-12	CERAMIC CHIP	0.1MF	10%	100V
C043	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C044	1-162-318-11	CERAMIC	0.001MF	10%	500V
C045	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C046	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C048	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C049	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C053	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C054	1-137-528-11	FILM	0.1MF	10%	250V
C055	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C057	1-163-113-00	CERAMIC CHIP	68PF	5%	50V
C058	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C059	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C090	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C092	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C104	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C105	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C106	1-117-450-11	FILM	0.47MF	10%	250V
C108	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C109	1-104-664-11	ELECT	47MF	20%	25V
C119	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C120	1-126-933-11	ELECT	100MF	20%	16V
C121	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C122	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C130	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C152	1-126-933-11	ELECT	100MF	20%	16V
C204	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C205	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C206	1-117-450-11	FILM	0.47MF	10%	250V
C208	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C211	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C212	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C220	1-126-933-11	ELECT	100MF	20%	16V
C221	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C222	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C230	1-164-489-11	CERAMIC CHIP	0.22MF	10%	16V
C252	1-126-933-11	ELECT	100MF	20%	16V
C304	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C305	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C306	1-117-450-11	FILM	0.47MF	10%	250V
C308	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C311	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V
C312	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C319	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C320	1-126-933-11	ELECT	100MF	20%	16V
C321	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V

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REF NO	PART NO	DESCRIPTION	REMARK
C322	1-164-004-11	CERAMIC CHIP	0.1MF 10% 25V
C330	1-164-489-11	CERAMIC CHIP	0.22MF 10% 16V
C352	1-126-933-11	ELECT	100MF 20% 16V

CONNECTOR

CN301	1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN302	1-695-915-11	TAB (CONTACT)
CN303	1-695-915-11	TAB (CONTACT)
CN305	1-564-512-11	PLUG, CONNECTOR 9P
CN306	1-564-511-11	PLUG, CONNECTOR 8P
CN307	1-564-513-11	PLUG, CONNECTOR 10P
CN308	1-695-915-11	TAB (CONTACT)
CN309	1-564-510-11	PLUG, CONNECTOR 7P
CN310	1-564-507-11	PLUG, CONNECTOR 4P
CN311	1-564-508-11	PLUG, CONNECTOR 5P
CN312	1-564-506-11	PLUG, CONNECTOR 3P
CN313	1-564-512-11	PLUG, CONNECTOR 9P
CN314	1-695-915-11	TAB (CONTACT)

DIODE

D002	8-719-911-19	DIODE 1SS119-25
D003	8-719-911-19	DIODE 1SS119-25
D004	8-719-911-19	DIODE 1SS119-25
D005	8-719-911-19	DIODE 1SS119-25
D007	8-719-109-89	DIODE RD5.6ESB2
D008	8-719-109-89	DIODE RD5.6ESB2
D010	8-719-109-89	DIODE RD5.6ESB2
D011	8-719-109-89	DIODE RD5.6ESB2
D012	8-719-911-19	DIODE 1SS119-25
D013	8-719-911-19	DIODE 1SS119-25
D014	8-719-911-19	DIODE 1SS119-25
D015	8-719-911-19	DIODE 1SS119-25
D016	8-719-911-19	DIODE 1SS119-25
D019	8-719-911-19	DIODE 1SS119-25
D020	8-719-911-19	DIODE 1SS119-25
D021	8-719-911-19	DIODE 1SS119-25
D022	8-719-911-19	DIODE 1SS119-25
D023	8-719-921-54	DIODE MTZJ-6.2B
D024	8-719-109-69	DIODE RD3.6ESB2
D025	8-719-921-54	DIODE MTZJ-6.2B
D101	8-719-062-51	DIODE 1PS226-115
D104	8-719-970-83	DIODE HSS82
D105	8-719-970-83	DIODE HSS82
D106	8-719-970-83	DIODE HSS82
D108	8-719-911-19	DIODE 1SS119-25
D109	8-719-901-83	DIODE 1SS83
D111	8-719-062-51	DIODE 1PS226-115
D120	8-719-911-19	DIODE 1SS119-25
D201	8-719-062-51	DIODE 1PS226-115
D204	8-719-970-83	DIODE HSS82
D205	8-719-970-83	DIODE HSS82
D206	8-719-970-83	DIODE HSS82
D208	8-719-911-19	DIODE 1SS119-25
D209	8-719-901-83	DIODE 1SS83
D211	8-719-062-51	DIODE 1PS226-115
D220	8-719-911-19	DIODE 1SS119-25
D301	8-719-062-51	DIODE 1PS226-115
D304	8-719-970-83	DIODE HSS82
D305	8-719-970-83	DIODE HSS82
D306	8-719-970-83	DIODE HSS82
D308	8-719-911-19	DIODE 1SS119-25
D309	8-719-901-83	DIODE 1SS83
D311	8-719-062-51	DIODE 1PS226-115
D320	8-719-911-19	DIODE 1SS119-25

FERRITE BEAD

FB001	1-412-911-31	FERRITE
FB002	1-412-911-31	FERRITE
FB004	1-412-911-31	FERRITE
FB005	1-412-911-31	FERRITE
FB006	1-412-911-31	FERRITE
FB009	1-412-911-31	FERRITE
FB010	1-412-911-31	FERRITE
FB011	1-412-911-31	FERRITE
FB012	1-412-911-31	FERRITE
FB015	1-412-911-31	FERRITE
FB016	1-412-911-31	FERRITE
FB017	1-412-911-31	FERRITE
FB018	1-412-911-31	FERRITE
FB019	1-412-911-31	FERRITE
FB020	1-412-911-31	FERRITE
FB101 ⚠	1-500-419-21	FERRITE
FB102 ⚠	1-500-419-21	FERRITE
FB103	1-500-419-21	FERRITE
FB104	1-412-911-31	FERRITE
FB110	1-412-911-31	FERRITE
FB111	1-412-911-31	FERRITE
FB201 ⚠	1-500-419-21	FERRITE
FB202 ⚠	1-500-419-21	FERRITE
FB203	1-500-419-21	FERRITE
FB210	1-412-911-31	FERRITE
FB211	1-412-911-31	FERRITE
FB301 ⚠	1-500-419-21	FERRITE
FB302 ⚠	1-500-419-21	FERRITE
FB303	1-500-419-21	FERRITE

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REF NO	PART NO	DESCRIPTION	REMARK
FB310	1-412-911-31	FERRITE	
FB311	1-412-911-31	FERRITE	
		IC	
IC001	8-752-085-07	IC CXA2066S	
IC002	8-759-530-91	IC LM2403	
IC003	8-759-532-60	IC SNY432	
IC004	8-759-532-61	IC STV5109	
IC005	8-759-100-96	IC UPC4558G2	
IC006	8-759-269-06	IC SN74HCT02ANS-E05	
IC007	8-759-442-20	IC 24LC21AT/SN	
IC008	8-759-541-25	IC M52758FP	
IC009	8-759-701-56	IC NJM78M05FA	
		JACK	
J001 ⚠	1-251-598-11	SOCKET, CRT	
		CHIP CONDUCTOR	
JR001	1-216-296-91	SHORT	
JR002	1-216-296-91	SHORT	
JR003	1-216-296-91	SHORT	
JR004	1-216-296-91	SHORT	
JR012	1-216-295-91	SHORT	
		COIL	
L004	1-412-529-11	INDUCTOR	22UH
L101	1-249-398-11	CARBON	27 5% 1/4W
L201	1-414-137-31	INDUCTOR	0.22UH
L301	1-249-398-11	CARBON	27 5% 1/4W
		TRANSISTOR	
Q001	8-729-032-61	TRANSISTOR 2SC5022-02	
		RESISTOR	
R001	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R004	1-217-671-11	RES,CHIP	1 5% 1/10W
R006	1-216-025-91	RES,CHIP	100 5% 1/10W
R007	1-216-025-91	RES,CHIP	100 5% 1/10W
R008	1-216-025-91	RES,CHIP	100 5% 1/10W
R009	1-216-073-00	RES,CHIP	10K 5% 1/10W
R010	1-216-025-91	RES,CHIP	100 5% 1/10W
R011	1-216-073-00	RES,CHIP	10K 5% 1/10W
R012	1-216-073-00	RES,CHIP	10K 5% 1/10W
R013	1-216-025-91	RES,CHIP	100 5% 1/10W
R014	1-216-025-91	RES,CHIP	100 5% 1/10W
R015	1-216-073-00	RES,CHIP	10K 5% 1/10W
R016	1-216-073-00	RES,CHIP	10K 5% 1/10W
R017	1-216-025-91	RES,CHIP	100 5% 1/10W
R018	1-216-025-91	RES,CHIP	100 5% 1/10W
R019	1-216-059-00	RES,CHIP	2.7K 5% 1/10W
R020	1-216-025-91	RES,CHIP	100 5% 1/10W
R021	1-216-025-91	RES,CHIP	100 5% 1/10W
R022	1-216-025-91	RES,CHIP	100 5% 1/10W
R023	1-216-049-91	RES,CHIP	1K 5% 1/10W
R024	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R025	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R029	1-216-099-00	RES,CHIP	120K 5% 1/10W
R030	1-216-025-91	RES,CHIP	100 5% 1/10W
R031	1-216-049-91	RES,CHIP	1K 5% 1/10W
R032	1-216-025-91	RES,CHIP	100 5% 1/10W
R033	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R034	1-216-081-00	RES,CHIP	22K 5% 1/10W
R045	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R046	1-216-097-91	RES,CHIP	100K 5% 1/10W
R047	1-216-073-00	RES,CHIP	10K 5% 1/10W
R048	1-211-885-21	METAL	2.2M 5% 1W
R049	1-216-093-00	RES,CHIP	68K 5% 1/10W
R053	1-219-621-91	METAL	22M 10% 1/4W
R060	1-249-408-11	CARBON	180 5% 1/4W
R064	1-202-830-00	SOLID	10K 20% 1/2W
R077	1-216-077-00	RES,CHIP	15K 5% 1/10W
R092	1-216-077-00	RES,CHIP	15K 5% 1/10W
R101	1-215-395-00	METAL	82 1% 1/4W
R104	1-216-001-00	RES,CHIP	10 5% 1/10W
R105	1-215-477-00	METAL	220K 1% 1/4W
R106	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R107	1-216-049-91	RES,CHIP	1K 5% 1/10W
R108	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R109	1-216-121-91	RES,CHIP	1M 5% 1/10W
R111	1-249-402-11	CARBON	56 5% 1/4W F
R115	1-216-107-00	RES,CHIP	270K 5% 1/10W
R116	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R117	1-216-017-91	RES,CHIP	47 5% 1/10W
R118	1-216-009-00	RES,CHIP	22 5% 1/10W
R119	1-249-437-11	CARBON	47K 5% 1/4W
R120	1-249-437-11	CARBON	47K 5% 1/4W
R122	1-216-625-11	METAL CHIP	82 0.50% 1/10W
R130	1-216-019-00	RES,CHIP	56 5% 1/10W
R140	1-216-019-00	RES,CHIP	56 5% 1/10W
R151	1-202-549-00	SOLID	100 20% 1/2W
R161	1-215-395-00	METAL	82 1% 1/4W
R201	1-215-395-00	METAL	82 1% 1/4W
R204	1-216-021-00	RES,CHIP	68 5% 1/10W

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REF NO	PART NO	DESCRIPTION	REMARK
R205	1-215-477-00	METAL	220K 1% 1/4W
R206	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R207	1-216-049-91	RES,CHIP	1K 5% 1/10W
R208	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R209	1-216-121-91	RES,CHIP	1M 5% 1/10W
R210	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R211	1-249-405-11	CARBON	100 5% 1/4W F
R215	1-216-107-00	RES,CHIP	270K 5% 1/10W
R216	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R217	1-216-017-91	RES,CHIP	47 5% 1/10W
R218	1-216-009-00	RES,CHIP	22 5% 1/10W
R219	1-249-437-11	CARBON	47K 5% 1/4W
R220	1-249-437-11	CARBON	47K 5% 1/4W
R222	1-216-625-11	METAL CHIP	82 0.50% 1/10W
R230	1-216-019-00	RES,CHIP	56 5% 1/10W
R233	1-216-013-00	RES,CHIP	33 5% 1/10W
R240	1-216-019-00	RES,CHIP	56 5% 1/10W
R251	1-202-549-00	SOLID	100 20% 1/2W
R261	1-215-395-00	METAL	82 1% 1/4W
R301	1-215-395-00	METAL	82 1% 1/4W
R304	1-216-021-00	RES,CHIP	68 5% 1/10W
R305	1-215-477-00	METAL	220K 1% 1/4W
R306	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R307	1-216-049-91	RES,CHIP	1K 5% 1/10W
R308	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W
R309	1-216-121-91	RES,CHIP	1M 5% 1/10W
R310	1-216-071-00	RES,CHIP	8.2K 5% 1/10W
R311	1-249-405-11	CARBON	100 5% 1/4W F
R315	1-216-107-00	RES,CHIP	270K 5% 1/10W
R316	1-216-679-11	METAL CHIP	15K 0.50% 1/10W
R317	1-216-017-91	RES,CHIP	47 5% 1/10W
R318	1-216-009-00	RES,CHIP	22 5% 1/10W
R319	1-249-437-11	CARBON	47K 5% 1/4W
R320	1-249-437-11	CARBON	47K 5% 1/4W
R322	1-216-625-11	METAL CHIP	82 0.50% 1/10W
R330	1-216-019-00	RES,CHIP	56 5% 1/10W
R340	1-216-019-00	RES,CHIP	56 5% 1/10W
R351	1-202-549-00	SOLID	100 20% 1/2W
R361	1-215-395-00	METAL	82 1% 1/4W

SPARK GAP

SG001	⚠ 1-519-422-11	GAP, SPARK	
SG002	⚠ 1-517-499-21	GAP, SPARK	
SG101	⚠ 1-517-499-21	GAP, SPARK	
SG201	⚠ 1-517-499-21	GAP, SPARK	
SG301	⚠ 1-517-499-21	GAP, SPARK	

REF NO	PART NO	DESCRIPTION	REMARK

CRYSTAL

X001	1-567-890-11	VIBRATOR, CRYSTAL	

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*** A-1343-601-A N BOARD, COMPLETE**

CAPACITOR

C1001	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1002	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1003	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1004	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1005	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1006	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1007	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1009	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1010	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1011	1-110-530-11	ELECT CHIP	1000MF	20%	6.3V
C1012	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1013	1-110-530-11	ELECT CHIP	1000MF	20%	6.3V
C1014	1-126-935-11	ELECT	470MF	20%	6.3V
C1015	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1016	1-126-607-11	ELECT CHIP	47MF	20%	4V
C1017	1-126-935-11	ELECT	470MF	20%	6.3V
C1018	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1019	1-126-607-11	ELECT CHIP	47MF	20%	4V
C1020	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1021	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1022	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1024	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1025	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C1026	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1027	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1028	1-126-935-11	ELECT	470MF	20%	6.3V
C1029	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1030	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1031	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1033	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C1034	1-164-161-11	CERAMIC CHIP	0.0022MF	10%	50V
C1035	1-126-235-11	ELECT	100MF	20%	6.3V
C1036	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1037	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1038	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C1040	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1042	1-163-243-11	CERAMIC CHIP	47PF	5%	50V

REF NO	PART NO	DESCRIPTION	REMARK		
C1043	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1044	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C1046	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1047	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1048	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1049	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1050	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1053	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1054	1-163-809-11	CERAMIC CHIP	0.047MF	10%	25V
C1055	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1056	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1057	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C1059	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V
C1060	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V
C1061	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V

CONNECTOR

CN1003	* 1-564-526-11	PLUG, CONNECTOR 11P	
CN1004	* 1-564-522-11	PLUG, CONNECTOR 7P	

DIODE

D1001	8-719-404-49	DIODE MA111			
D1002	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
D1003	1-218-772-11	METAL CHIP	680K	0.50%	1/10W
D1017	8-719-404-49	DIODE MA111			
D1018	8-719-404-49	DIODE MA111			

FERRITE BEAD

FB1003	1-216-295-91	SHORT
FB1004	1-543-960-22	FERRITE
FB1005	1-543-960-22	FERRITE

IC

IC1001	8-759-531-07	IC CXD8766S/JBK
IC1002	8-759-530-55	IC CXD8768Q
IC1003	8-759-420-77	IC PST574CMT-T1
IC1005	8-759-561-53	IC CAT24WC16J-TE13
IC1006	8-759-568-28	IC MC33269ST-33R2
IC1007	8-759-571-91	IC TLV2262IDR

COIL

L1001	1-408-619-31	INDUCTOR	220UH

TRANSISTOR

Q1001	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q1002	8-729-120-28	TRANSISTOR 2SC1623-L5L6
Q1003	8-729-216-22	TRANSISTOR 2SA1162-G

RESISTOR

R1001	1-216-081-00	RES,CHIP	22K	5%	1/10W
R1003	1-216-033-00	RES,CHIP	220	5%	1/10W
R1004	1-216-033-00	RES,CHIP	220	5%	1/10W
R1005	1-216-033-00	RES,CHIP	220	5%	1/10W
R1006	1-216-033-00	RES,CHIP	220	5%	1/10W
R1007	1-216-033-00	RES,CHIP	220	5%	1/10W
R1009	1-216-033-00	RES,CHIP	220	5%	1/10W
R1010	1-216-033-00	RES,CHIP	220	5%	1/10W
R1011	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1012	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1013	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1014	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1015	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1016	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1017	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1018	1-216-057-00	RES,CHIP	2.2K	5%	1/10W
R1019	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1020	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1021	1-216-129-00	RES,CHIP	2.2M	5%	1/10W
R1022	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1023	1-216-069-00	RES,CHIP	6.8K	5%	1/10W
R1024	1-216-025-91	RES,CHIP	100	5%	1/10W
R1025	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1026	1-216-113-00	RES,CHIP	470K	5%	1/10W
R1027	1-216-017-91	RES,CHIP	47	5%	1/10W
R1028	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1029	1-216-049-91	RES,CHIP	1K	5%	1/10W
R1030	1-216-650-11	METAL CHIP	910	0.50%	1/10W
R1031	1-216-648-11	METAL CHIP	750	0.50%	1/10W
R1032	1-216-647-11	METAL CHIP	680	0.50%	1/10W
R1033	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1034	1-216-025-91	RES,CHIP	100	5%	1/10W
R1035	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1036	1-216-073-00	RES,CHIP	10K	5%	1/10W
R1037	1-216-089-91	RES,CHIP	47K	5%	1/10W
R1039	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1040	1-216-295-91	SHORT	0		
R1041	1-216-043-91	RES,CHIP	560	5%	1/10W
R1042	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1043	1-216-033-00	RES,CHIP	220	5%	1/10W
R1044	1-216-033-00	RES,CHIP	220	5%	1/10W
R1045	1-216-121-91	RES,CHIP	1M	5%	1/10W
R1046	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1047	1-216-065-91	RES,CHIP	4.7K	5%	1/10W
R1048	1-216-065-91	RES,CHIP	4.7K	5%	1/10W

REF NO	PART NO	DESCRIPTION	REMARK
R1049	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1050	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1051	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1052	1-216-659-11	METAL CHIP	2.2K 0.50% 1/10W
R1053	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R1054	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1056	1-216-033-00	RES,CHIP	220 5% 1/10W
R1057	1-216-033-00	RES,CHIP	220 5% 1/10W
R1058	1-216-033-00	RES,CHIP	220 5% 1/10W
R1059	1-216-033-00	RES,CHIP	220 5% 1/10W
R1060	1-216-033-00	RES,CHIP	220 5% 1/10W
R1061	1-216-041-00	RES,CHIP	470 5% 1/10W
R1062	1-216-033-00	RES,CHIP	220 5% 1/10W
R1063	1-216-033-00	RES,CHIP	220 5% 1/10W
R1064	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1065	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1066	1-216-033-00	RES,CHIP	220 5% 1/10W
R1067	1-216-033-00	RES,CHIP	220 5% 1/10W
R1068	1-216-033-00	RES,CHIP	220 5% 1/10W
R1069	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1070	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1072	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1075	1-216-105-91	RES,CHIP	220K 5% 1/10W
R1076	1-216-033-00	RES,CHIP	220 5% 1/10W
R1077	1-216-089-91	RES,CHIP	47K 5% 1/10W
R1078	1-216-041-00	RES,CHIP	470 5% 1/10W
R1079	1-216-049-91	RES,CHIP	1K 5% 1/10W
R1081	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1082	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1083	1-216-025-91	RES,CHIP	100 5% 1/10W
R1084	1-216-025-91	RES,CHIP	100 5% 1/10W
R1085	1-216-025-91	RES,CHIP	100 5% 1/10W
R1086	1-216-017-91	RES,CHIP	47 5% 1/10W
R1087	1-216-017-91	RES,CHIP	47 5% 1/10W
R1088	1-216-025-91	RES,CHIP	100 5% 1/10W
R1089	1-216-025-91	RES,CHIP	100 5% 1/10W
R1090	1-216-025-91	RES,CHIP	100 5% 1/10W
R1091	1-216-025-91	RES,CHIP	100 5% 1/10W
R1092	1-216-033-00	RES,CHIP	220 5% 1/10W
R1093	1-216-025-91	RES,CHIP	100 5% 1/10W
R1094	1-216-113-00	RES,CHIP	470K 5% 1/10W
R1095	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1096	1-216-073-00	RES,CHIP	10K 5% 1/10W
R1097	1-216-077-00	RES,CHIP	15K 5% 1/10W
R1098	1-216-077-00	RES,CHIP	15K 5% 1/10W
R1102	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1103	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1104	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R1105	1-216-025-91	RES,CHIP	100 5% 1/10W
R1112	1-216-675-11	METAL CHIP	10K 0.50% 1/10W
R1113	1-216-644-11	METAL CHIP	510 0.50% 1/10W
R1114	1-216-655-11	METAL CHIP	1.5K 0.50% 1/10W
R1115	1-216-073-00	RES,CHIP	10K 5% 1/10W

CRYSTAL

X1001	1-567-890-11	VIBRATOR, CRYSTAL

D

* *	A-1346-801-A	D BOARD, COMPLETE
*	1-533-725-11	HOLDER, FUSE
	4-061-192-01	SHEET, INSULATE
	4-382-854-01	SCREW (M3X8), P, SW (+)
	4-382-854-11	SCREW (M3X10), P, SW (+)
	4-382-854-21	SCREW (M3X14), P, SW (+)

CAPACITOR

C401	1-126-941-11	ELECT	470MF	20%	25V
C402	1-137-426-11	FILM	0.47MF	10%	100V
C403	1-126-969-11	ELECT	220MF	20%	50V
C404	1-126-941-11	ELECT	470MF	20%	25V
C406	1-137-366-11	FILM	0.0022MF	5%	50V
C407	1-137-367-11	FILM	0.0033MF	5%	50V
C409	1-126-968-11	ELECT	100MF	20%	50V
C501	1-137-370-11	FILM	0.01MF	5%	50V
C502	1-102-228-00	CERAMIC	470PF	10%	500V
C503	1-104-664-11	ELECT	47MF	20%	25V
C504	1-107-648-91	ELECT	100MF	20%	200V
C505	1-117-879-91	CAPACITOR	0.01MF	10%	250V
C506	1-117-959-11	FILM	4700PF	3%	1.8KV
C507	1-107-444-11	CERAMIC	100PF	5%	2KV
C508	1-136-481-11	MYLAR	0.0022MF	10%	100V
C509	1-137-370-11	FILM	0.01MF	5%	50V
C510	1-102-973-00	CERAMIC	100PF	5%	50V
C511	1-136-169-00	FILM	0.22MF	5%	50V
C512	1-126-964-11	ELECT	10MF	20%	50V
C513	1-107-649-11	ELECT	2.2MF	20%	250V
C514	1-117-955-11	FILM	0.17MF	5%	400V
C515	1-115-524-11	FILM	1.5MF	5%	250V
C516	1-137-370-11	FILM	0.01MF	5%	50V
C517	1-137-370-11	FILM	0.01MF	5%	50V
C518	1-115-520-11	FILM	0.68MF	5%	250V
C519	1-115-516-11	FILM	0.33MF	5%	250V
C520	1-115-512-11	FILM	0.15MF	5%	250V
C521	1-115-509-11	FILM	0.068MF	5%	250V
C522	1-117-953-11	FILM	0.033MF	5%	400V
C523	1-137-370-11	FILM	0.01MF	5%	50V
C524	1-137-370-11	FILM	0.01MF	5%	50V

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

Note: **Les composants identifies per un trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifie.**

REF NO	PART NO	DESCRIPTION	REMARK		
C525	1-137-370-11	FILM	0.01MF	5%	50V
C526	1-137-370-11	FILM	0.01MF	5%	50V
C527	1-107-651-11	ELECT	4.7MF	20%	250V
C528	1-162-115-00	CERAMIC	330PF	10%	2KV
C532	1-137-368-11	FILM	0.0047MF	5%	50V
C535	1-102-114-00	CERAMIC	470PF	10%	50V
C537	1-136-169-00	FILM	0.22MF	5%	50V
C538	1-137-370-11	FILM	0.01MF	5%	50V
C539	1-104-665-11	ELECT	100MF	20%	25V
C540	1-102-110-00	CERAMIC	220PF	10%	50V
C541	1-102-114-00	CERAMIC	470PF	10%	50V
C542	1-136-169-00	FILM	0.22MF	5%	50V
C601 ⚠	1-104-708-11	FILM	0.47MF	20%	250V
C602 ⚠	1-104-708-11	FILM	0.47MF	20%	250V
C603 ⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C604 ⚠	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C605 ⚠	1-113-894-11	CERAMIC	100PF	10%	250V
C606 ⚠	1-113-894-11	CERAMIC	100PF	10%	250V
C607	1-102-074-00	CERAMIC	0.001MF	10%	50V
C608	1-137-370-11	FILM	0.01MF	5%	50V
C609	1-130-495-00	FILM	0.1MF	5%	50V
C611	1-126-961-11	ELECT	2.2MF	20%	50V
C612	1-102-074-00	CERAMIC	0.001MF	10%	50V
C613	1-106-343-00	MYLAR	0.001MF	10%	200V
C614	1-102-508-91	CERAMIC	10PF	0.5PF	50V
C615	1-102-114-00	CERAMIC	470PF	10%	50V
C616	1-126-969-11	ELECT	220MF	20%	50V
C618	1-126-767-11	ELECT	1000MF	20%	16V
C619	1-113-608-11	ELECT(BLOCK)	470MF	20%	400V
C620	1-162-129-00	CERAMIC	150PF	10%	2KV
C621	1-136-165-00	FILM	0.1MF	5%	50V
C623	1-126-935-11	ELECT	470MF	20%	16V
C624	1-129-898-00	FILM	0.0022MF	5%	630V
C626	1-102-114-00	CERAMIC	470PF	10%	50V
C627	1-102-110-00	CERAMIC	220PF	10%	50V
C628	1-130-495-00	FILM	0.1MF	5%	50V
C629 ⚠	1-130-495-00	FILM	0.1MF	5%	50V
C630 ⚠	1-113-903-11	CERAMIC	0.001MF	20%	250V
C633 ⚠	1-137-368-11	FILM	0.0047MF	5%	50V
C634	1-126-768-11	ELECT	2200MF	20%	16V
C635	1-126-935-11	ELECT	470MF	20%	16V
C636 ⚠	1-104-664-11	ELECT	47MF	20%	25V
C639	1-104-664-11	ELECT	47MF	20%	25V
C640	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C648	1-162-114-00	CERAMIC	4700PF		1KV
C649	1-162-114-00	CERAMIC	4700PF		1KV
C650	1-125-700-11	ELECT (BLOCK)	220MF	20%	200V
C651	1-128-563-11	ELECT	100MF	20%	100V
C652	1-126-943-11	ELECT	2200MF	20%	25V
C653	1-126-943-11	ELECT	2200MF	20%	25V
C654	1-126-943-11	ELECT	2200MF	20%	25V
C655	1-126-943-11	ELECT	2200MF	20%	25V
C656	1-126-935-11	ELECT	470MF	20%	16V
C657	1-126-935-11	ELECT	470MF	20%	16V
C659	1-126-933-11	ELECT	100MF	20%	16V
C662	1-126-941-11	ELECT	470MF	20%	25V
C675	1-102-124-00	CERAMIC	0.0039MF	10%	50V
C701	1-130-495-00	FILM	0.1MF	5%	50V
C702	1-136-177-00	FILM	1MF	5%	50V
C705	1-126-960-11	ELECT	1MF	20%	50V
C707	1-136-169-00	FILM	0.22MF	5%	50V
C708	1-130-495-00	FILM	0.1MF	5%	50V
C709	1-126-941-11	ELECT	470MF	20%	25V
C711	1-162-134-11	CERAMIC	470PF	10%	2KV
C712	1-126-941-11	ELECT	470MF	20%	25V
C713	1-130-495-00	FILM	0.1MF	5%	50V
C714	1-136-177-00	FILM	1MF	5%	50V
C715	1-137-370-11	FILM	0.01MF	5%	50V
C716	1-126-942-61	ELECT	1000MF	20%	25V
C717	1-102-525-11	CERAMIC	68PF	5%	50V
C718	1-102-525-11	CERAMIC	68PF	5%	50V
C719	1-126-942-61	ELECT	1000MF	20%	25V
C720	1-102-112-00	CERAMIC	330PF	10%	50V
C722	1-130-495-00	FILM	0.1MF	5%	50V
C723	1-102-112-00	CERAMIC	330PF	10%	50V
C725	1-130-495-00	FILM	0.1MF	5%	50V
C726	1-130-495-00	FILM	0.1MF	5%	50V
C727	1-130-495-00	FILM	0.1MF	5%	50V
C728	1-136-169-00	FILM	0.22MF	5%	50V
C801	1-104-665-11	ELECT	100MF	20%	25V
C802	1-130-495-00	FILM	0.1MF	5%	50V
C803	1-126-927-11	ELECT	2200MF	20%	10V
C804	1-126-767-11	ELECT	1000MF	20%	16V
C805	1-137-374-11	FILM	0.047MF	5%	50V
C806	1-137-374-11	FILM	0.047MF	5%	50V
C820	1-126-933-11	ELECT	100MF	20%	16V
C821	1-137-370-11	FILM	0.01MF	5%	50V
C822	1-137-372-11	FILM	0.022MF	5%	50V
C823	1-102-114-00	CERAMIC	470PF	10%	50V
C824	1-137-370-11	FILM	0.01MF	5%	50V
C825	1-130-471-00	FILM	0.001MF	5%	50V
C826	1-102-852-91	CERAMIC	47PF	5%	50V
C827	1-130-495-00	FILM	0.1MF	5%	50V
C828	1-130-471-00	FILM	0.001MF	5%	50V
C829	1-102-110-00	CERAMIC	220PF	10%	50V
C830	1-126-933-11	ELECT	100MF	20%	16V
C831	1-126-965-11	ELECT	22MF	20%	50V

D

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

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REF NO	PART NO	DESCRIPTION	REMARK		
C832	1-130-495-00	FILM	0.1MF	5%	50V
C833	1-102-114-00	CERAMIC	470PF	10%	50V
C834	1-126-960-11	ELECT	1MF	20%	50V
C919	1-126-963-11	ELECT	4.7MF	20%	50V
C920	1-127-711-11	ELECT MELF	47MF	20%	200V
C921	1-117-879-91	CAPACITOR	0.01MF	10%	250V
C922	1-117-626-11	FILM	2000PF	3%	1.2KV
C923	1-137-367-11	FILM	0.0033MF	5%	50V
C924	1-136-105-00	FILM	0.33MF	5%	200V
C925	1-136-165-00	FILM	0.1MF	5%	50V
C926	1-137-401-11	FILM	0.22MF	10%	100V
C927	1-106-220-00	MYLAR	0.1MF	10%	100V
C929	1-126-965-11	ELECT	22MF	20%	50V
C930	1-137-370-11	FILM	0.01MF	5%	50V
C931	1-115-349-51	CERAMIC	0.01MF		2KV
C933	1-115-349-51	CERAMIC	0.01MF		2KV
C934	1-126-964-11	ELECT	10MF	20%	50V

CONNECTOR

CN501	*	1-580-798-11	CONNECTOR PIN (DY) 6P
CN600 ⚠	*	1-785-290-11	INLET, AC 3P(WITH NOISE FILTER)
CN601	*	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P
CN603	*	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P
CN605	*	1-506-371-00	PIN, CONNECTOR 2P
CN606		1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN607		1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN608		1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN609		1-506-108-41	PIN, CONNECTOR (TERMINAL PIN)
CN610		1-695-915-11	TAB (CONTACT)
CN702	*	1-779-944-21	PIN, CONNECTOR (PC BOARD) 4P
CN801		1-785-452-11	SOCKET 30P
CN901	*	1-508-879-11	BASE POST
CN904		1-695-915-11	TAB (CONTACT)
CN999		1-695-915-11	TAB (CONTACT)

DIODE

D401	8-719-979-58	DIODE EGP10D
D405	8-719-911-19	DIODE 1SS119-25
D501	8-719-110-49	DIODE RD18ESB2
D502	8-719-975-77	DIODE SB340
D503	8-719-110-49	DIODE RD18ESB2
D504	8-719-061-21	DIODE FMQ-G5FMS
D505	8-719-052-86	DIODE D2L40-TA
D506	8-719-109-85	DIODE RD5.1ESB2
D508	8-719-911-19	DIODE 1SS119-25
D511	8-719-109-85	DIODE RD5.1ESB2
D601 ⚠	8-719-025-88	DIODE GBU4JL-6088
D603 ⚠	8-719-110-49	DIODE RD18ESB2
D604 ⚠	8-719-050-84	DIODE RB441Q-40T-77
D605	8-719-979-58	DIODE EGP10D
D608	8-719-050-84	DIODE RB441Q-40T-77
D610 ⚠	8-719-979-84	DIODE EGP20DPKG23
D614 ⚠	8-719-110-08	DIODE RD8.2ESB2
D615	8-719-053-19	DIODE UF4007G23
D617	8-719-911-19	DIODE 1SS119-25
D618 ⚠	8-719-970-83	DIODE HSS82
D619 ⚠	8-719-050-84	DIODE RB441Q-40T-77
D631 ⚠	8-719-911-19	DIODE 1SS119-25
D632 ⚠	8-719-110-08	DIODE RD8.2ESB2
D633 ⚠	8-719-982-36	DIODE MTZJ-39B
D640 ⚠	8-719-911-19	DIODE 1SS119-25
D641 ⚠	8-719-109-63	DIODE RD3.0ESB2
D648	8-719-027-43	DIODE S2L20UF
D649	8-719-027-43	DIODE S2L20UF
D650	8-719-067-68	DIODE FMC-26UA
D651	8-719-031-78	DIODE S2L40F
D652	8-719-071-35	DIODE D4L20U
D653	8-719-071-35	DIODE D4L20U
D654	8-719-071-35	DIODE D4L20U
D655	8-719-071-35	DIODE D4L20U
D656	8-719-071-35	DIODE D4L20U
D660	8-719-109-89	DIODE RD5.6ESB2
D670	8-719-911-19	DIODE 1SS119-25
D802 ⚠	8-719-109-92	DIODE RD6.2ESB1
D803	8-719-911-19	DIODE 1SS119-25
D901	8-719-110-49	DIODE RD18ESB2
D902	8-719-052-86	DIODE D2L40-TA
D903	8-719-110-49	DIODE RD18ESB2
D904	8-719-970-83	DIODE HSS82
D905	8-719-028-72	DIODE RGP02-17EL-6433
D906	8-719-028-72	DIODE RGP02-17EL-6433
D908 ⚠	8-719-110-42	DIODE RD15ESB3
D909 ⚠	8-719-109-85	DIODE RD5.1ESB2

FUSE

F601 ⚠	1-576-231-11	FUSE (H.B.C.) 4A/250V

FERRITE BEAD

FB501	1-412-911-31	FERRITE
FB502	1-412-911-31	FERRITE
FB503	1-412-911-31	FERRITE
FB601	1-412-911-31	FERRITE
FB602	1-412-911-31	FERRITE

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

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

REF NO	PART NO	DESCRIPTION	REMARK
FB603	1-412-911-31	FERRITE	
FB604	1-412-911-31	FERRITE	
FB605	1-410-396-41	FERRITE	0.45UH
FB606	1-412-911-31	FERRITE	
FB607 ⚠	1-410-396-41	FERRITE	0.45UH
FB608	1-412-911-31	FERRITE	
FB609	1-412-911-31	FERRITE	
FB610	1-412-911-31	FERRITE	
FB611	1-412-911-31	FERRITE	
FB899	1-412-911-31	FERRITE	
FB901	1-412-911-31	FERRITE	
FB902	1-412-911-31	FERRITE	
FB903	1-412-911-31	FERRITE	
FB904	1-412-911-31	FERRITE	
FB999	1-412-911-31	FERRITE	
FB2101	1-412-911-31	FERRITE	
FB2102	1-412-911-31	FERRITE	
FB2103	1-412-911-31	FERRITE	
FB2104	1-412-911-31	FERRITE	
FB2105	1-412-911-31	FERRITE	

IC

IC401	8-759-339-59	IC TDA8177	
IC502	8-759-803-42	IC LA6500-FA	
IC601 ⚠	8-759-498-08	IC AN8037	
IC603 ⚠	8-749-010-64	PHOTO COUPLER PC123F2	
IC604	8-749-013-76	IC PQ6RD83B	
IC605 ⚠	8-759-072-98	IC TDA8138A	
IC606 ⚠	8-749-010-64	PHOTO COUPLER PC123F2	
IC652 ⚠	8-759-540-60	IC TL431BCLPRA	
IC701	8-749-015-00	IC STK391-110	
IC702	8-759-803-42	IC LA6500-FA	
IC703	8-749-015-00	IC STK391-110	
IC704	8-759-822-38	IC LA6510	
IC805 ⚠	8-759-478-76	IC UPC5021-109	

COIL

L501	1-412-541-21	INDUCTOR	220UH
L502	1-416-747-11	COIL, HORIZONTAL LINEARITY	
L503	1-416-367-11	COIL, HORIZONTAL CENTER	
L504	1-406-677-11	INDUCTOR	10MMH
L505	1-406-673-21	INDUCTOR	2.2MMH
L506	1-412-521-21	INDUCTOR	4.7UH
L605	1-412-537-31	INDUCTOR	100UH
L650	1-412-537-31	INDUCTOR	100UH
L651	1-412-537-31	INDUCTOR	100UH
L652	1-406-665-11	INDUCTOR	100UH
L653	1-406-665-11	INDUCTOR	100UH
L654	1-406-665-11	INDUCTOR	100UH
L655	1-406-665-11	INDUCTOR	100UH
L702	1-412-537-31	INDUCTOR	100UH
L703	1-412-537-31	INDUCTOR	100UH
L801	1-408-615-31	INDUCTOR	100UH
L901	1-412-537-31	INDUCTOR	100UH
L902	1-406-659-11	INDUCTOR	10UH

FILTER

LF602 ⚠	1-433-446-11	TRANSFORMER, LINE FILTER

TRANSISTOR

Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q504 ⚠	8-729-042-34	TRANSISTOR IRFU110A
Q505	8-729-045-51	TRANSISTOR 2SC5530-01
Q506	8-729-043-63	TRANSISTOR IRFI9634G-LF35
Q507	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q508	8-729-043-41	TRANSISTOR 2SK2098-01MR-F119
Q509	8-729-043-41	TRANSISTOR 2SK2098-01MR-F119
Q510	8-729-043-72	TRANSISTOR IRLI530GSLF33
Q511	8-729-043-72	TRANSISTOR IRLI530GSLF33
Q512	8-729-043-72	TRANSISTOR IRLI530GSLF33
Q513	8-729-043-72	TRANSISTOR IRLI530GSLF33
Q514	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q515	8-729-140-50	TRANSISTOR 2SC3209LK
Q516	8-729-326-11	TRANSISTOR 2SC2611
Q517	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q518	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q601 ⚠	8-729-141-83	TRANSISTOR 2SB1094-LK
Q602 ⚠	8-729-046-72	TRANSISTOR IRFIBC44LCLF65
Q605 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q606 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q607 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q640 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q656 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q657 ⚠	8-729-029-86	TRANSISTOR DTC124ESA
Q658 ⚠	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q670	8-729-011-92	TRANSISTOR 2SC2001TP-K1K2
Q706	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)
Q707	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q801	8-729-029-86	TRANSISTOR DTC124ESA
Q802	8-729-029-86	TRANSISTOR DTC124ESA
Q901	8-729-043-63	TRANSISTOR IRFI9634G-LF35

D

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REF NO	PART NO	DESCRIPTION	REMARK			
Q902	8-729-045-22	TRANSISTOR FS7KM-18A-AY				
	RESISTOR					
R401	1-249-383-11	CARBON	1.5	5%	1/4W	F
R402	1-215-866-11	METAL OXIDE	330	5%	1W	F
R403	1-214-796-00	METAL	1.5	1%	1/2W	
R404	1-215-449-00	METAL	15K	1%	1/4W	
R405	1-214-796-00	METAL	1.5	1%	1/2W	
R406	1-215-433-00	METAL	3.3K	1%	1/4W	
R407	1-249-397-11	CARBON	22	5%	1/4W	F
R409	1-215-449-00	METAL	15K	1%	1/4W	
R410	1-215-433-00	METAL	3.3K	1%	1/4W	
R416	1-249-429-11	CARBON	10K	5%	1/4W	
R417	1-247-895-91	CARBON	470K	5%	1/4W	
R418	1-247-887-00	CARBON	220K	5%	1/4W	
R501	1-249-421-11	CARBON	2.2K	5%	1/4W	
R502	1-249-417-11	CARBON	1K	5%	1/4W	
R504	1-247-807-31	CARBON	100	5%	1/4W	
R505	1-247-863-91	CARBON	22K	5%	1/4W	
R506	1-215-888-00	METAL OXIDE	220	5%	2W	F
R507	1-249-381-11	CARBON	1	5%	1/4W	F
R509	1-216-392-11	METAL OXIDE	1.8	5%	3W	F
R510	1-216-392-11	METAL OXIDE	1.8	5%	3W	F
R511	1-216-423-11	METAL OXIDE	27	5%	1W	F
R512	1-249-397-11	CARBON	22	5%	1/4W	F
R513	1-249-429-11	CARBON	10K	5%	1/4W	
R514	1-249-425-11	CARBON	4.7K	5%	1/4W	
R515	1-249-437-11	CARBON	47K	5%	1/4W	
R516	1-214-838-00	METAL	82	1%	1/2W	
R517	1-215-453-00	METAL	22K	1%	1/4W	
R518	1-215-469-00	METAL	100K	1%	1/4W	
R519	1-249-421-11	CARBON	2.2K	5%	1/4W	
R520	1-215-886-11	METAL OXIDE	100	5%	2W	F
R521	1-214-838-00	METAL	82	1%	1/2W	
R522	1-260-312-11	CARBON	47	5%	1/2W	
R523	1-260-312-11	CARBON	47	5%	1/2W	
R525	1-249-437-11	CARBON	47K	5%	1/4W	
R526	1-215-387-00	METAL	39	1%	1/4W	
R527	1-249-437-11	CARBON	47K	5%	1/4W	
R528	1-249-437-11	CARBON	47K	5%	1/4W	
R529	1-249-437-11	CARBON	47K	5%	1/4W	
R530	1-249-437-11	CARBON	47K	5%	1/4W	
R536	1-247-903-00	CARBON	1M	5%	1/4W	
R537	1-249-417-11	CARBON	1K	5%	1/4W	
R538	1-249-417-11	CARBON	1K	5%	1/4W	
R539	1-249-411-11	CARBON	330	5%	1/4W	
R540	1-247-815-91	CARBON	220	5%	1/4W	
R541	1-215-905-11	METAL OXIDE	10	5%	3W	F
R542	1-215-449-00	METAL	15K	1%	1/4W	
R543	1-249-437-11	CARBON	47K	5%	1/4W	
R545	1-215-421-00	METAL	1K	1%	1/4W	
R546	1-215-905-11	METAL OXIDE	10	5%	3W	F
R547	1-249-437-11	CARBON	47K	5%	1/4W	
R548	1-215-477-00	METAL	220K	1%	1/4W	
R549	1-215-473-00	METAL	150K	1%	1/4W	
R550	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R551	1-249-429-11	CARBON	10K	5%	1/4W	
R552	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-215-453-00	METAL	22K	1%	1/4W	
R554	1-249-425-11	CARBON	4.7K	5%	1/4W	
R601 ⚠	1-202-847-00	SOLID	560K	20%	1/2W	
R602 ⚠	1-240-262-41	CEMENTED	0.68	5%	10W	
R603 ⚠	1-240-262-41	CEMENTED	0.68	5%	10W	
R604 ⚠	1-215-461-00	METAL	47K	1%	1/4W	
R605	1-215-469-00	METAL	100K	1%	1/4W	
R606	1-215-423-00	METAL	1.2K	1%	1/4W	
R607	1-249-397-11	CARBON	22	5%	1/4W	F
R608	1-215-439-00	METAL	5.6K	1%	1/4W	
R609 ⚠	1-216-381-11	METAL OXIDE	0.22	5%	3W	F
R610	1-249-417-11	CARBON	1K	5%	1/4W	
R611	1-215-469-00	METAL	100K	1%	1/4W	
R612	1-215-479-00	METAL	270K	1%	1/4W	
R613	1-215-926-00	METAL OXIDE	33K	5%	3W	F
R615 ⚠	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R617 ⚠	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R619	1-215-929-11	METAL OXIDE	100K	5%	3W	F
R621 ⚠	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R622 ⚠	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R630	1-249-417-11	CARBON	1K	5%	1/4W	
R631 ⚠	1-249-417-11	CARBON	1K	5%	1/4W	
R632	1-215-451-00	METAL	18K	1%	1/4W	
R633 ⚠	1-215-455-00	METAL	27K	1%	1/4W	
R635 ⚠	1-249-417-11	CARBON	1K	5%	1/4W	
R636 ⚠	1-249-417-11	CARBON	1K	5%	1/4W	
R637 ⚠	1-249-429-11	CARBON	10K	5%	1/4W	
R638 ⚠	1-215-463-00	METAL	56K	1%	1/4W	
R640	1-215-455-00	METAL	27K	1%	1/4W	
R641	1-247-887-00	CARBON	220K	5%	1/4W	
R642	1-249-429-11	CARBON	10K	5%	1/4W	
R643	1-249-417-11	CARBON	1K	5%	1/4W	
R650	1-260-127-11	CARBON	220K	5%	1/2W	
R654 ⚠	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R658 ⚠	1-247-815-91	CARBON	220	5%	1/4W	
R659 ⚠	1-215-479-00	METAL	270K	1%	1/4W	
R660 ⚠	1-215-435-00	METAL	3.9K	1%	1/4W	
R661	1-247-887-00	CARBON	220K	5%	1/4W	
R662 ⚠	1-249-431-11	CARBON	15K	5%	1/4W	

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

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

D

REF NO	PART NO	DESCRIPTION	REMARK			
R663 ⚠	1-215-447-00	METAL	12K	1%	1/4W	
R666	1-249-441-11	CARBON	100K	5%	1/4W	
R668	1-247-895-91	CARBON	470K	5%	1/4W	
R670	1-249-417-11	CARBON	1K	5%	1/4W	
R671	1-249-417-11	CARBON	1K	5%	1/4W	
R672	1-249-403-11	CARBON	68	5%	1/4W	
R674	1-249-429-11	CARBON	10K	5%	1/4W	
R701	1-216-426-11	METAL OXIDE	82	5%	1W	F
R702	1-216-369-00	METAL OXIDE	1	5%	2W	F
R703	1-216-426-11	METAL OXIDE	82	5%	1W	F
R704	1-216-369-00	METAL OXIDE	1	5%	2W	F
R705	1-215-429-00	METAL	2.2K	1%	1/4W	
R706	1-215-437-00	METAL	4.7K	1%	1/4W	
R707	1-247-863-91	CARBON	22K	5%	1/4W	
R708	1-215-859-00	METAL OXIDE	22	5%	1W	F
R709	1-249-383-11	CARBON	1.5	5%	1/4W	F
R710	1-215-436-00	METAL	4.3K	1%	1/4W	
R711	1-215-429-00	METAL	2.2K	1%	1/4W	
R712	1-215-437-00	METAL	4.7K	1%	1/4W	
R713	1-215-429-00	METAL	2.2K	1%	1/4W	
R714	1-249-385-11	CARBON	2.2	5%	1/4W	
R716	1-215-449-00	METAL	15K	1%	1/4W	
R717	1-215-437-00	METAL	4.7K	1%	1/4W	
R718	1-216-423-11	METAL OXIDE	27	5%	1W	F
R719	1-215-863-11	METAL OXIDE	100	5%	1W	F
R723	1-220-827-91	REGISTER	560K	5%	1/2W	
R724	1-215-433-00	METAL	3.3K	1%	1/4W	
R727	1-249-429-11	CARBON	10K	5%	1/4W	
R729	1-249-428-11	CARBON	8.2K	5%	1/4W	
R733	1-215-397-00	METAL	100	1%	1/4W	
R734	1-215-443-00	METAL	8.2K	1%	1/4W	
R735	1-249-421-11	CARBON	2.2K	5%	1/4W	
R736	1-215-429-00	METAL	2.2K	1%	1/4W	
R737	1-249-417-11	CARBON	1K	5%	1/4W	
R738	1-249-441-11	CARBON	100K	5%	1/4W	
R740	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R741	1-215-451-00	METAL	18K	1%	1/4W	
R742	1-249-397-11	CARBON	22	5%	1/4W	F
R744	1-215-437-00	METAL	4.7K	1%	1/4W	
R745	1-249-385-11	CARBON	2.2	5%	1/4W	
R747	1-249-393-11	CARBON	10	5%	1/4W	F
R748	1-215-449-00	METAL	15K	1%	1/4W	
R749	1-215-437-00	METAL	4.7K	1%	1/4W	
R750	1-215-858-00	METAL OXIDE	15	5%	1W	F
R751	1-215-863-11	METAL OXIDE	100	5%	1W	F
R752	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R753	1-249-429-11	CARBON	10K	5%	1/4W	
R754	1-249-429-11	CARBON	10K	5%	1/4W	
R755	1-249-426-11	CARBON	5.6K	5%	1/4W	

REF NO	PART NO	DESCRIPTION	REMARK			
R759	1-249-377-11	CARBON	0.47	5%	1/4W	F
R760	1-249-377-11	CARBON	0.47	5%	1/4W	F
R775	1-215-864-00	METAL OXIDE	150	5%	1W	F
R801	1-215-413-00	METAL	470	1%	1/4W	
R802	1-215-473-00	METAL	150K	1%	1/4W	
R804	1-215-461-00	METAL	47K	1%	1/4W	
R805	1-249-432-11	CARBON	18K	5%	1/4W	
R806	1-249-429-11	CARBON	10K	5%	1/4W	
R807	1-249-425-11	CARBON	4.7K	5%	1/4W	
R808	1-215-461-00	METAL	47K	1%	1/4W	
R809	1-249-429-11	CARBON	10K	5%	1/4W	
R810	1-249-437-11	CARBON	47K	5%	1/4W	
R811	1-249-429-11	CARBON	10K	5%	1/4W	
R812 ⚠	1-215-461-00	METAL	47K	1%	1/4W	
R813	1-215-437-00	METAL	4.7K	1%	1/4W	
R814	1-249-429-11	CARBON	10K	5%	1/4W	
R815	1-249-429-11	CARBON	10K	5%	1/4W	
R816	1-249-405-11	CARBON	100	5%	1/4W	F
R817	1-249-405-11	CARBON	100	5%	1/4W	F
R818	1-249-405-11	CARBON	100	5%	1/4W	F
R819	1-249-405-11	CARBON	100	5%	1/4W	F
R820	1-249-405-11	CARBON	100	5%	1/4W	F
R821	1-249-405-11	CARBON	100	5%	1/4W	F
R901	1-249-429-11	CARBON	10K	5%	1/4W	
R902	1-249-425-11	CARBON	4.7K	5%	1/4W	
R903 ⚠	1-215-477-00	METAL	220K	1%	1/4W	
R906	1-249-413-11	CARBON	470	5%	1/4W	
R907	1-247-903-00	CARBON	1M	5%	1/4W	
R908	1-219-748-11	CARBON	4.7K	5%	1/2W	
R909	1-219-748-11	CARBON	4.7K	5%	1/2W	
R910	1-249-405-11	CARBON	100	5%	1/4W	F
R911	1-249-397-11	CARBON	22	5%	1/4W	F
R913 ⚠	1-215-445-00	METAL	10K	1%	1/4W	
R914 ⚠	1-215-437-00	METAL	4.7K	1%	1/4W	
R915	1-249-417-11	CARBON	1K	5%	1/4W	
R917	1-249-385-11	CARBON	2.2	5%	1/4W	F
R918	1-249-385-11	CARBON	2.2	5%	1/4W	F
R919	1-215-913-11	METAL OXIDE	220	5%	3W	F
R920	1-215-913-11	METAL OXIDE	220	5%	3W	F
R921 ⚠	1-214-964-00	METAL	1M	1%	1/4W	
R922 ⚠	1-215-469-00	METAL	100K	1%	1/4W	
R923	1-247-891-00	CARBON	330K	5%	1/4W	

VARIABLE RESISTOR

⧓ RV904 ⚠	1-241-767-21	RES, ADJ, CERMET, 100K	
	3-710-578-01	COVER, VOLUME, 6 MOLD	

D H

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

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

REF NO	PART NO	DESCRIPTION	REMARK
		RELAY	
RY601 ⚠	1-755-067-21	RELAY	
		SPARK GAP	
SG901 ⚠	1-519-422-11	GAP, SPARK	
SG902 ⚠	1-519-422-11	GAP, SPARK	
SG903 ⚠	1-519-422-11	GAP, SPARK	
		TRANSFORMER	
T501 ⚠	1-429-103-11	TRANSFORMER, FERRITE (HDT)	
T502	1-411-594-11	INDUCTOR 5MMH	
T503	1-433-411-11	TRANSFORMER, FILTER (LCT)	
T504	1-426-998-11	TRANSFORMER, FERRITE (HST)	
T601 ⚠	1-431-968-11	TRANSFORMER, CONVERTER (SRT)	
T701	1-431-998-11	TRANSFORMER, FERRITE (DFT)	
T901 ⚠	1-453-292-11	FBT ASSY, NX-4501//X4E4	
T902	1-411-567-31	INDUCTOR 500UH	
		THERMISTOR	
TH600 ⚠	1-809-827-11	THERMISTOR	
		THERMISTOR	
THP602 ⚠	1-809-827-11	THERMISTOR, POSITIVE	
		VARISTOR	
VA601 ⚠	1-810-622-11	VARISTOR	

H

*** A-1372-574-A H BOARD, COMPLETE**

* 4-068-021-01 HOLDER, LED

CAPACITOR

C2020	1-102-074-00	CERAMIC	0.001MF	10%	50V

REF NO	PART NO	DESCRIPTION	REMARK
		CONNECTOR	
CN2003	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P	
		DIODE	
D2001	8-719-067-04	DIODE 339VYUGW/R2	
		RESISTOR	
R2011	1-215-449-00	METAL 15K 1% 1/4W	
R2012	1-215-437-00	METAL 4.7K 1% 1/4W	
R2013	1-215-429-00	METAL 2.2K 1% 1/4W	
R2014	1-215-421-00	METAL 1K 1% 1/4W	
R2015	1-215-417-00	METAL 680 1% 1/4W	
R2016	1-215-413-00	METAL 470 1% 1/4W	
R2017	1-215-409-00	METAL 330 1% 1/4W	
R2018	1-215-405-00	METAL 220 1% 1/4W	
R2019	1-215-431-00	METAL 2.7K 1% 1/4W	
R2020	1-249-407-11	CARBON 150 5% 1/4W	
R2021	1-249-413-11	CARBON 470 5% 1/4W	
		SWITCH	
S602 ⚠	1-571-433-21	SWITCH, PUSH (AC POWER)	
S2001	1-692-431-21	SWITCH, TACTILE	
S2002	1-762-816-11	SWITCH, TACTILE	
S2003	1-692-431-21	SWITCH, TACTILE	
S2004	1-692-431-21	SWITCH, TACTILE	
S2005	1-692-431-21	SWITCH, TACTILE	
S2006	1-692-431-21	SWITCH, TACTILE	
S2007	1-692-431-21	SWITCH, TACTILE	
S2008	1-692-431-21	SWITCH, TACTILE	
		MISCELLANEOUS	
⚠	1-452-932-11	NECK ASSEMBLY	
⚠	8-736-400-61	ITC ASSY 19FRG-R2	
⚠	1-416-859-11	COIL, DEMAGNETIC	
⚠	1-453-292-11	FBT ASSY, NX-4501//X4E4	
	1-790-039-11	CABLE ASSY (15PDSUB CONNECTOR)	
	4-202-693-01	HOLDER, HV CABLE (AEP)	
	3-704-372-31	HOLDER, HV CABLE (U/C)	
	3-865-054-21	MANUAL, INSTRUCTION (AEP)	
	3-865-054-11	MANUAL, INSTRUCTION (U/C)	
⚠	1-783-632-11	CORD SET, POWER (AEP)	
⚠	1-783-722-11	CORD SET, POWER (U/C)	

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Self Diagnosis Supported model

CPD-420GS/GST

SERVICE MANUAL

CPD-420GS

US Model

Canadian Model

Chassis No.SCC-L20A-A

CPD-420GST

AEP Model

Chassis No.SCC-L20D-A

D98 CHASSIS

CORRECTION -1

Subject: Digital Convergence Adjustment

Correct the service manual as shown.
File this correction with the service manual.

TRINITRON® COLOR COMPUTER DISPLAY

MICROFILM

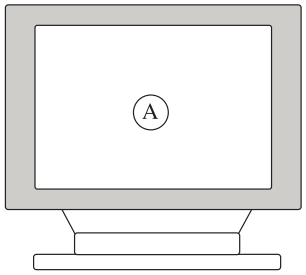
SONY®

Section 4 Adjustments (Page 16)

11. Digital Convergence Adjustment

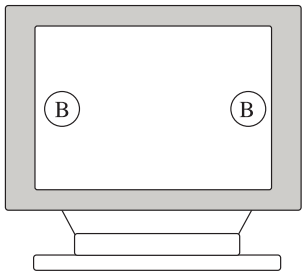
● Set CONV_SWITCH_NDX to 3

Step 1
Adjust area "A" as follows:



1) Adjust H-STAT and V-STAT with 4-poles magnet
2) Adjust HMC and VMC with 6-poles magnet

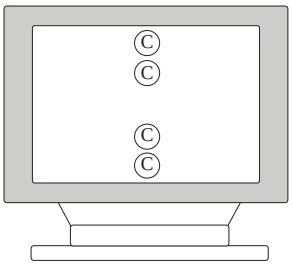
Step 2
Adjust area "B" as follows:



1) Correct H-TILT with TLH correction plate.

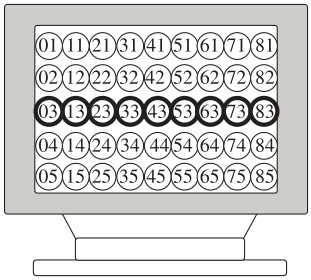
2) Correct XCV with XCV core.

Step 3



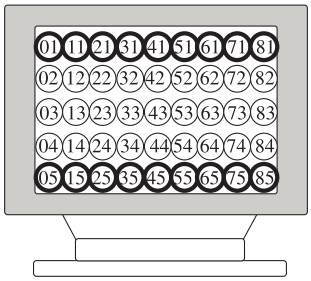
Adjust area "C" with the following register:
"X_STATIC_CONV_PARA_TOP"
"X_STATIC_CONV_PARA_BTM"
"Y_STATIC_CONV_PARA_TOP"
"Y_STATIC_CONV_PARA_BTM"

Step 4



Adjust area "03" - "83" with the following register:
"X DYNAMIC CONV RX03" - "X DYNAMIC CONV RX83"
"Y DYNAMIC CONV RY03" - "Y DYNAMIC CONV RY83"

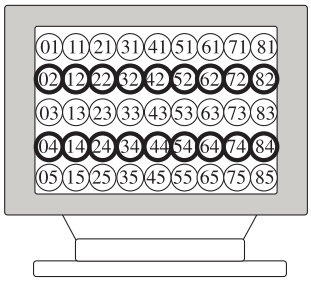
Step 5



Adjust area "0" - "81" with the following register:
"X DYNAMIC CONV RX01" - "X DYNAMIC CONV RX81"
"Y DYNAMIC CONV RY01" - "Y DYNA MIC CONV RY81"

Step 6
Adjust area "05" - "85" with the following register:
'X DYNAMIC CONV RX05" - "X DYNAMIC CONV RX85"
"Y DYNAMIC CONV RY05" - "Y DYNAMIC CONV RY85"

Step 7



Adjust area "02" - "82" with the following register:
"X DYNAMIC CONV RX02" - "X DYNAMIC CONV RX82"
"Y DYNAMIC CONV RY02" - "Y DYNAMIC CONV RY82"

Step 8
Adjust area "04" - "84" with the following register:
"X DYNAMIC CONV RX04" - "X DYNAMIC CONV RX84"
"Y DYNAMIC CONV RY04" - "Y DYNAMIC CONV RY84"

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