

Gateway 2000 VX700



⁰⁰
US Model
Canadian Model
AEP Model
S. Hemisphere Model
Chassis No. SCC-L07J-A

D-1H_{CHASSIS}

SPECIFICATIONS

Picture tube	0.25 mm aperture grill pitch 17 inches measured diagonally 90-degree deflection	Deflection frequency	Horizontal: 31.0 to 85 KHz Vertical: 50 to 120 Hz
Video image area	(16" maximum viewing image) Approx. 327 x 243 mm (w/h) (12 ^{7/8} x 9 ^{5/8} inches)	AC input voltage / current	100 to 120 V, 50/60 Hz, 1.8 A 220 to 240V, 50/60Hz, 1A
Resolution	Horizontal: Max. 1600 dots Vertical: Max. 1200 lines	Dimensions	406 x 432 x 420 mm (w/h/d) (16 x 17 ^{1/8} x 16 ^{5/8} inches)
Standard image area	Approx. 312 x 234 mm (w/h) (12 ^{3/8} x 9 ^{1/4} inches)	Mass	Approx. 18.0 kg (39 lb 11 oz)

Design and specifications are subject to change without notice.

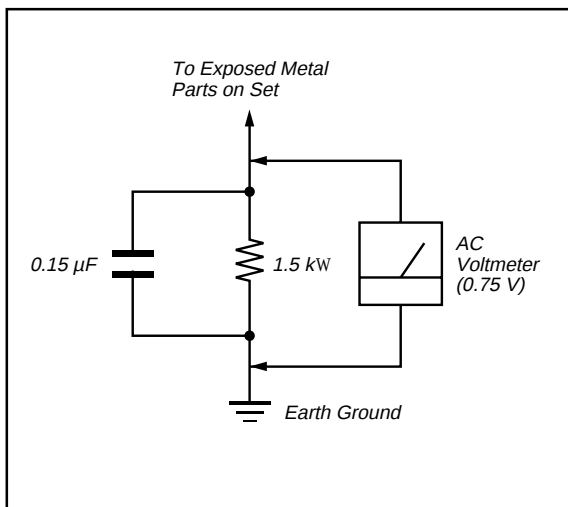
GATEWAY 2000

rest of the system off. However, once the

SAFETY CHECK-OUT (US Model only)

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

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



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 FONCTIONNEMENT SUSPECTE.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL		5
2. DISASSEMBLY		
2-1.	Cabinet Removal	9
2-2.	Service Position	9
2-3.	D and A Board Removal	9
2-4.	Picture Tube Removal	10
3. SAFETY RELATED ADJUSTMENT		11
4. ADJUSTMENTS		12
5. DIAGRAMS		
5-1.	Block Diagram	15
5-2.	Circuit Boards Location	18
5-3.	Schematic Diagrams and Printed Wiring Boards	18
1.	D Board - Schematic Diagram	19
2.	A Board - Schematic Diagram	23
5-4.	Semiconductors	27
6. EXPLODED VIEWS		
6-1.	Chassis	29
6-2.	Packing Materials	30
7. ELECTRICAL PARTS LIST		31

SECTION 1

GENERAL

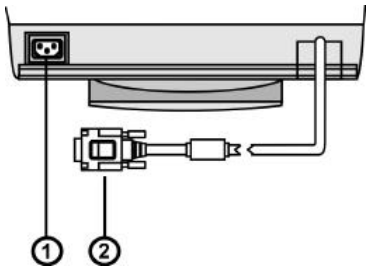
The instructions given here are partial abstracts from the Operating Instruction Manual. The page numbers shown reflect those of the Operating Instruction Manual.

Setup

To set up the VX700:

1. Be sure the power to both the computer and monitor is switched off. The VX700 power switch is on the lower right corner on the front of the monitor.
2. Connect the female end of the power cable to the power receptacle on the back panel of the monitor, and the other end to a grounded 120 or 240 VAC outlet.
3. Connect the video signal cable to the matching video output receptacle on the rear panel of the computer. Secure the connection with the screws on the connectors.

Connectors



1. Power cable connector. Connect the appropriate end of the power cable here. The other end connects to a grounded 120 or 240 VAC outlet.
2. Video cable connector. Connect this end of the video cable to the video connector on the back of the computer. The other end is permanently attached to the monitor.

Operating the Monitor

To use your VX700:

1. Press the power switch on the monitor to ON. The power indicator on the front of the monitor lights. Power up the computer.
2. Adjust the controls to get the best picture. Here, you will want to experiment with the screen settings to choose the ideal image size and position for your needs. The monitor already has preset modes for the most popular settings. Illustrated details on the screen controls can be found in the "Screen controls and functions" section of this manual.

Note:

You may notice two thin, dark lines on the screen located approximately one-third from the upper and lower edges (these lines are most obvious on white backgrounds). These are the damper wires inside the Cathode Ray Tube, and they are completely normal.

Using the tilt-swivel

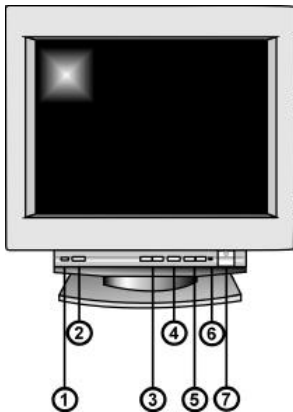
With the tilt-swivel, you can adjust your monitor to view the screen at any desired angle within 180 degrees horizontal and 20 degrees vertical. To turn the monitor both vertically and horizontally, hold it at its bottom with both hands.



Note:

Due to the sensitivity of this monitor to the earth's magnetic field, you may experience minor irregularities in the display if you swivel the monitor through more than 180 degrees while it is on. If this happens, turn the monitor off and back on again. The display should return to normal.

Screen controls and functions



1. RESET button. Resets the adjustments to the factory settings.
2. VGE button. Selects the Video Graphics Enhancement (VGE) mode.
3. Brightness buttons. Adjusts the picture brightness. Function as the up and down arrow buttons when adjusting other items.
4. Contrast buttons. Adjusts the contrast. Function as the left and right arrow buttons when adjusting other items.
5. MENU button. Displays the MENU OSD (On-Screen Display).
6. Power indicator light. Displays green when the monitor is turned on, and displays in orange when the monitor is in power saving mode.
7. Power switch. Turns the monitor on and off.

Video Graphics Enhancement (VGE)

The Video Graphics Enhancement (VGE) button allows you to automatically change the characteristics of the picture on the screen to match the use of your monitor. Press the VGE button to scroll between the three modes.

Each time you press the VGE button, the mode appears on the screen and changes to the next available mode: STANDARD, PRESENTATION, AND GRAPHICS/VIDEO. The mode indicator appears on the screen for about three seconds.

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

The PRESENTATION mode is useful for giving presentations that require a brighter display.

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

On-screen display (OSD)

Your VX700 monitor is equipped with a feature called On-Screen Display (OSD). OSD allows you to see the function adjustment you are currently using.

Brightness

Pressing the up or down arrow button displays the Brightness/Contrast control and allows you to adjust the Brightness. Brightness increases or decreases the brightness of the display by adjusting the black level of the screen.

Contrast

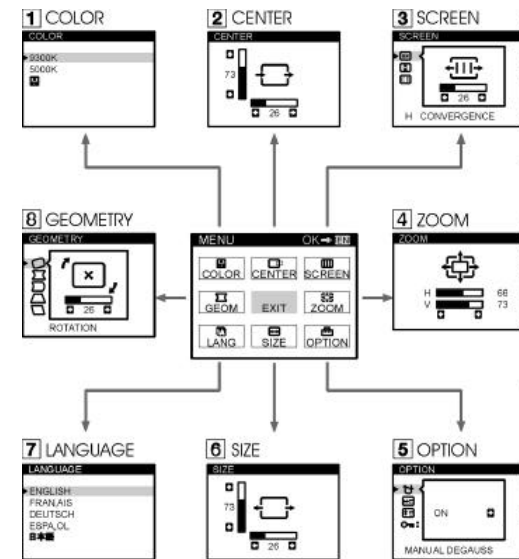
Pressing the left or right arrow button displays the Brightness/Contrast control and allows you to adjust the contrast level of the display.

Menu

Pressing the MENU button displays the OSD main Menu screen. The following illustration details the options available in the OSD main Menu.

Use the arrow buttons to move around in the OSD main Menu screen. When the option you want to adjust is highlighted, press the Menu button again to enter the option's menu screen.

Press the Menu button again to exit an option's menu screen and return to the OSD main Menu screen.



1. **COLOR:** Use the up and down arrow buttons to select the color you want the display to use.
2. **CENTER:** The up and down arrow buttons move the screen up or down. The left and right arrow buttons move the screen left or right.
3. **SCREEN:** Use the up and down arrow buttons to select the H CONVERGENCE, V CONVERGENCE, or MOIRE CANCEL option. Then use the appropriate arrow buttons to adjust the screen image.
4. **ZOOM:** Use the left and right arrow buttons to adjust zoom the screen larger or smaller.
5. **OPTION:** Use the up and down arrow buttons to select the MANUAL DEGAUSS, OSD H POSITION, OSD V POSITION, OR CONTROL LOCK option. Then use the appropriate arrow buttons to adjust the option.
6. **SIZE:** The up and down arrow buttons increase or decrease the vertical size of the screen image. The left and right arrow buttons increase or decrease the horizontal size of the screen image.
7. **LANGUAGE:** Use the up and down arrow buttons to select the language you want the OSD to display.
8. **GEOMETRY:** Use the up and down arrow buttons to select the ROTATION, PINCUSHION, PIN BALANCE, KEYSTONE, or KEY BALANCE option. Then use the appropriate arrow buttons to adjust the option.

Troubleshooting

If you are experiencing problems with your VX700-069 monitor, this troubleshooting section may help you to identify and solve any minor difficulties you may encounter. For any display concerns, insure that the monitor has warmed up for approximately 45 minutes before making a final judgment.

No picture

If neither the power indicator nor the power saving indicators are lit, check first to see that the power cord is properly connected to both the back of the monitor and the wall outlet. Then, check to see that the monitor power switch is on.

If the power saving indicator is lit:

- ◆ Make sure that the computer is powered up.
- ◆ Check to see if the monitor recovers from sleep mode when you press any key on the keyboard or move the mouse.
- ◆ Make sure that the video signal cable is properly connected to the back of the system.
- ◆ Make sure that the video signal cable is not damaged or cracked in any way.
- ◆ Check the video connector system for any pins that might be bent or pushed in.
- ◆ Make sure that the video card is properly seated in the slot of the system board.
- ◆ Use the monitor's self-diagnosis function to check for any other problems. To use the self-diagnosis, power down the monitor, then press and hold the power switch for eight seconds. During this time, you should see the power indicator light begin to blink (after about five seconds), and the screen should turn white, and then a display of three colored bars appears in the middle of the display. If you observe these conditions, the monitor is working properly.

If both the power indicator and power saving indicators are flashing, a potential monitor failure exists.

"Out of Scan Range" message appears on the screen or Picture is scrambled

Check the video card manual and setup software to obtain the proper monitor setting for your VX700 monitor. Following are procedures for setting the monitor in both Windows 95 and Windows for Workgroups.

To set the monitor type:

1. Start up the system and press F8 when the screen displays the "Starting Windows 95..." message.
2. Select **Safe mode** and wait for the system to finish starting up. Safe mode starts Windows 95 in a low-resolution protected mode.
3. Click **Start**, **Settings**, and **Control Panel**. The Control Panel screen opens.
4. Double-click the **Display** icon. The Display Properties screen opens.
5. Click the **Settings** tab.
6. Click **Advanced Properties**. The Advanced Display Properties screen opens.
7. Click the **Monitor** tab.
8. Click **Change....** The Select Device screen opens.
9. Select **Plug and Play monitor (VESA DDC)**
10. Restart Windows 95.

Display colors are missing

- ◆ Power down the system and turn both the system and monitor off. Turn on the monitor, and then turn on the system. Or, if your system is already running, leave the monitor turned on, and reboot your system.
- ◆ Power down the system and turn both the system and monitor off. Detach the video connector from the system. Examine the video cable connector for any pins that might be bent or pushed in. Reattach the cable when you've finished examining it. Turn on your monitor and then the system.
- ◆ Make sure the video cable is not damaged in any way.
- ◆ Use the monitor's self-diagnosis function to check for any other problems. To use the self-diagnosis, power down the monitor, then press and hold the power switch until three color bars appear. During this time, you should see the power indicator light begin to blink (after about five seconds), then the screen should turn white, then a display of three colored bars appears in the middle of the white display. If you observe these conditions, the monitor is working properly.

Picture is fuzzy

Adjust the contrast and brightness controls to improve the image. Adding extension cables or switchboxes may degrade the screen image. If you have either or both of these items attached, check your screen image with the monitor attached directly to the system.

Picture bounces, jitters, or has wavy oscillations

Video problems can have many causes. Check through the list below to eliminate any potential causes.

- ◆ Non-shielded speakers are too close to the monitor.
- ◆ Strong magnetic fields are in proximity to the monitor.
- ◆ Your monitor is positioned too close to another monitor.
- ◆ The monitor is located too close to power supplies, electric fan,

fluorescent lighting, metal shelf, or laser printer.

If nothing else solves the problem, try plugging the monitor into another outlet, preferably one on a different circuit, or connect the monitor to a different computer in a different room or location.

Picture appears to be ghosting

- ◆ Eliminate the use of video extension cables and/or switch boxes.
- ◆ Check to ensure that a good connection exists between the monitor and the computer (make sure the video cable is in good condition and is connected properly at both ends).

Color is not uniform

Non-uniform color can have many causes. Please make sure the monitor is warmed up (at least 45 minutes) before making a final judgment about color uniformity.

Note:

The earth's magnetic field can affect monitor performance. All monitors that use cathode ray tube (CRT) technology are susceptible to the earth's magnetic properties. Thorough degaussing should eliminate most effects caused by the earth's magnetism.

Check through the list below to eliminate any potential causes.

- ◆ Non-shielded speakers are too close to the monitor.
- ◆ Strong magnetic fields are in proximity to the monitor.
- ◆ Your monitor is positioned too close to another monitor or a metal shelf or metal support.
- ◆ Screen needs degaussing.

The monitor has an auto-degauss function that automatically demagnetizes the metal frame in the cathode ray tube (CRT). This function is triggered when you power up the monitor. Sometimes more than one degauss cycle is required to eliminate magnetizing effects. If this is the case, use the degauss control available in the on-screen display at intervals of more than 20 minutes each.

Image is not sized or centered properly

Use the size and center controls to adjust the image as desired. See the

section of this manual entitled, "Screen controls and functions."

Image cannot be adjusted full screen (to the bezel edge)

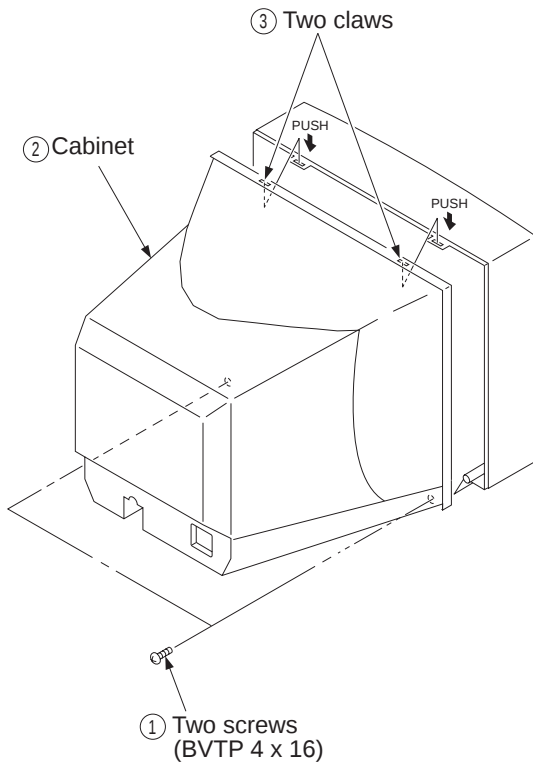
Some video modes used by your monitor produce images that cannot be adjusted all the way out to the bezel edge (the edge where the screen glass and monitor casing plastic meet). This condition does NOT indicate that the monitor is defective. Unfortunately, there is no clear answer to solve this problem. The best solution is to try different refresh rates (Hz) or resolutions until you find one that works best.

A fine horizontal line (wire) is visible across the screen

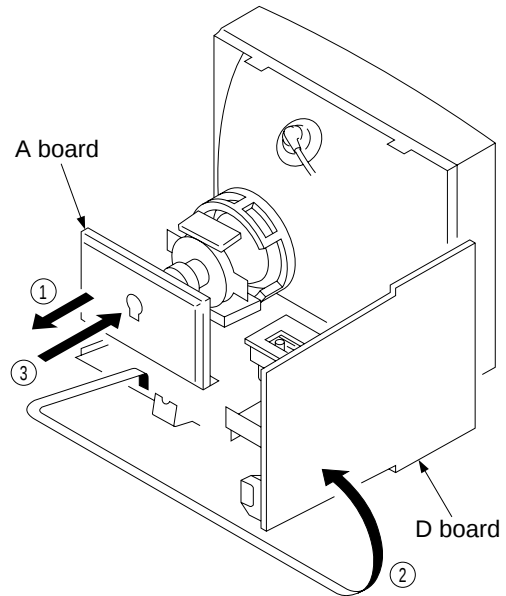
This monitor uses thin damper wires located approximately 2.5 inches down from the upper bezel edge and 2.5 inches up from the lower bezel edge to stabilize the internal aperture grille. These wires are most obvious when the monitor displays a white background. The aperture grille allows more light to pass through to the screen for brighter colors and greater luminescence. The damper wires are a critical part of the overall monitor design and do not negatively affect the monitor's function.

SECTION 2 DISASSEMBLY

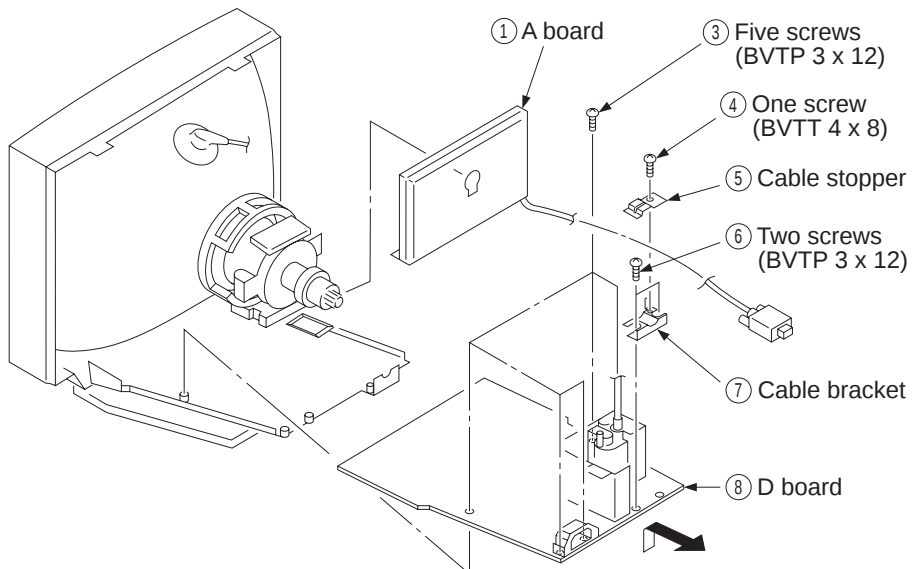
2-1. CABINET REMOVAL



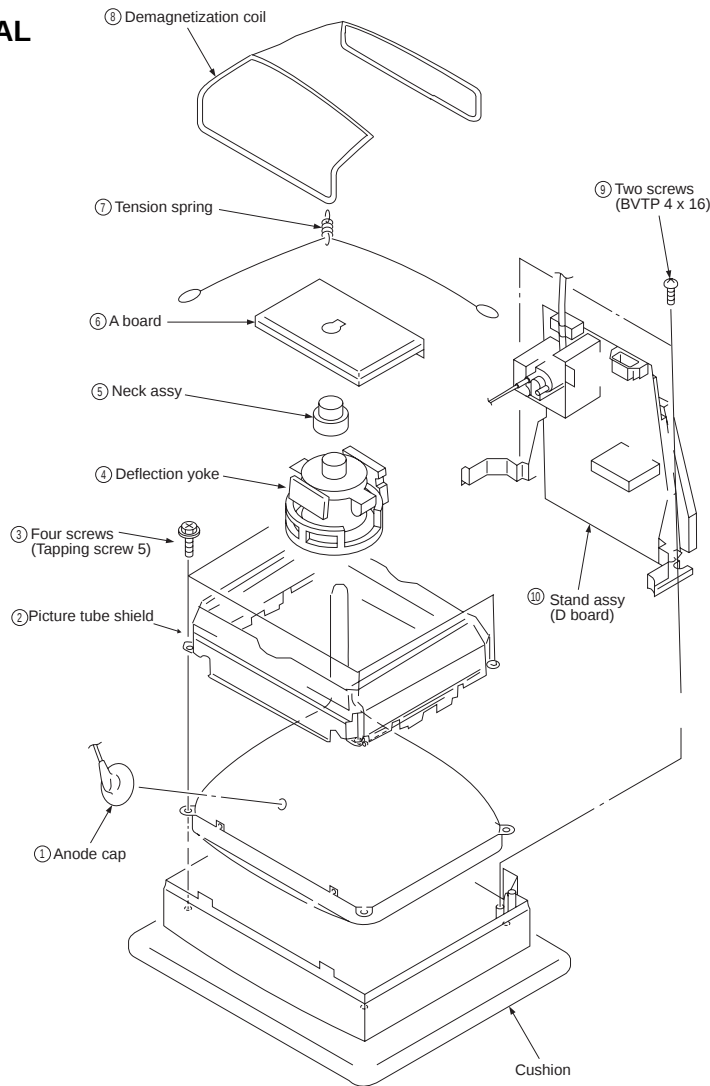
2-2. SERVICE POSITION



2-3. D and A BOARD REMOVAL



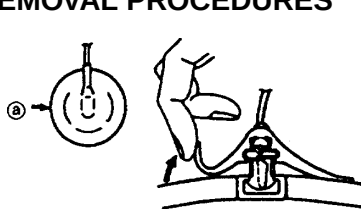
2-4. PICTURE TUBE REMOVAL



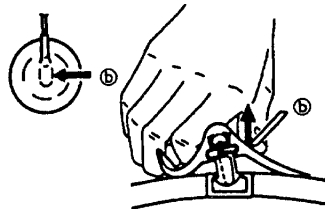
REMOVAL OF THE ANODE-CAP

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.

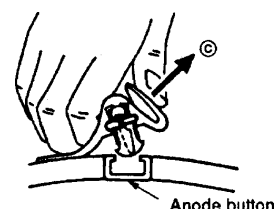
REMOVAL PROCEDURES



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



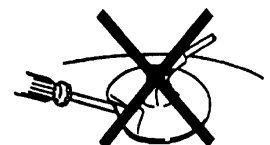
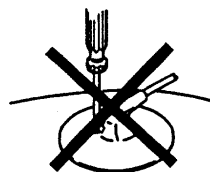
- ② Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ②.



- 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 ③.

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 (☒)
RV501
Part Replaced (☑)
RV501, T501, R545, R546, R548, R550, R547, R549, R552, D517, IC605, IC901, C540, C542, C544, C541, C535, IC501, C558, R567, R564, C555, C553, C554, C561

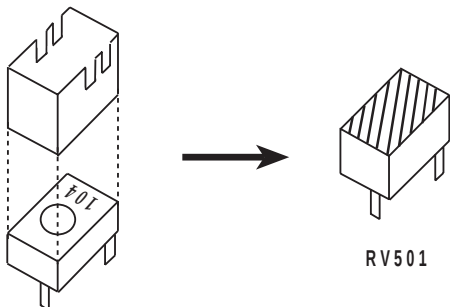
※ Allow the unit to warm up for one minute prior to checking the following conditions:

a) HV Regulator Check

- 1) Input white cross hatch signal. (fH = 64 kHz)
- 2) Minimum CONT and BRT controls.
- 3) Cut off Screen VR (G2).
- 4) Input voltage: 120 ± 2 VAC
- 5) Confirm that the voltage is within the voltage range shown below.

Standard voltage: $25.0\text{KV} \pm 0.5\text{KV}$

- 6) When replacing components identified by ☑, make sure to recheck the High Voltage.
- 7) Verify the High Voltage as shown above ($25.0\text{KV} \pm 0.5\text{KV}$) is within specification. If not, set H. SIZE data at minimum (-127) and then adjust RV501 on "D" Board.
- 8) After adjusting the High Voltage within specification, put the RV cover on RV501 as shown below and apply sufficient amount of RTV around RV501.



b) HV Hold-Down Check

- 1) Using an external DC Power supply, apply the voltage shown below between cathode of D517 on "D" Board and GND, and confirm that the HV Hold-Down circuit works. (Raster disappears)
Apply DC Voltage: 31.4 ± 0.01 VDC

Check Condition

- Input voltage : 120 ± 2 VAC
- Input signal : (fH = 64 kHz), White Cross Hatch
- Controls : CONT (max) & BRT (center)
- B+ Voltage : 185 ± 3.0 VDC

c) Beam Protector Check (Software logic)

- 1) Using an external DC power supply, apply the voltage 8.8 ± 0.01 VDC between pin (11) of FBT (T501) and GND, and confirm that the voltage across C541 is 3.7 VDC or less.

Check Condition

- Input voltage : 120 ± 2 VAC
- Input signal : (fH = 64 kHz), White Cross Hatch
- Controls : CONT (max) & BRT (center)

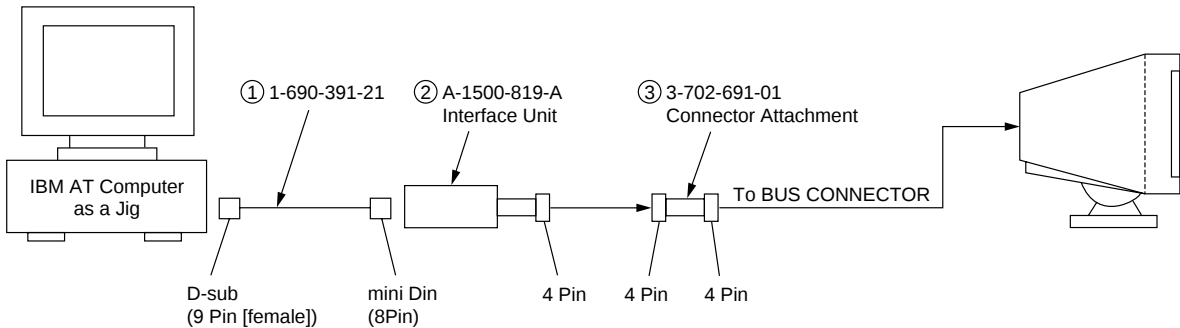
d) B+ MAX. Check

- 1) Input white cross hatch (fH = 64 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: 185 ± 3.0 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, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.
5. Moving the DY forward, adjust so that an entire screen becomes 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)

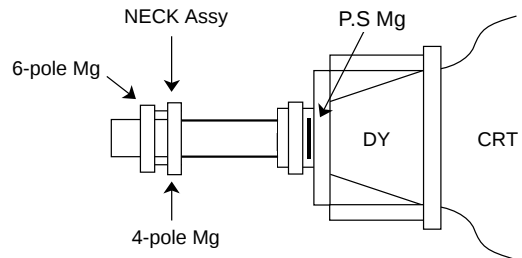
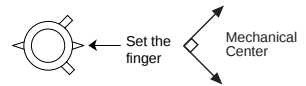
● Convergence Rough Adjustment

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

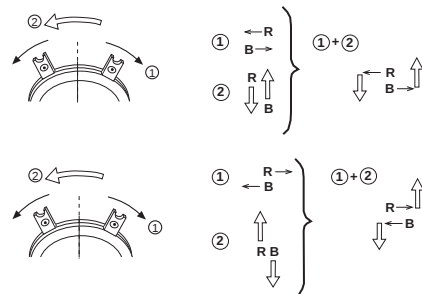
Set DY four-pole magnet to mechanical center before adjustment.

This should be prime mode.



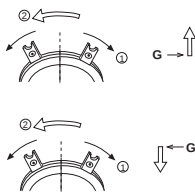
1. Receive R.B. cross-hatch.
2. Adjust H.STAT and V.STAT at four-pole magnet.

Four-Pole Magnet



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

Six-Pole Magnet



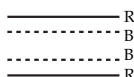
- Receive R.B. cross-hatch.
- Adjust H.TILT by swinging the DY neck right and left.
- Adjust XCV with XCV core.

XCV movement



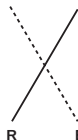
- Adjust V.TILT with TLV VR.

TLV movement



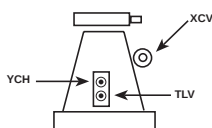
- Adjust Y.CROSS with YCH VR.

YCH movement



- Paint lock the four-pole and six-pole Mg.

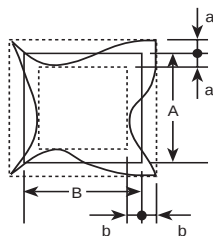
VR Adjustment on DY



Zero Position NECK Ass'y



Vertical and Horizontal Position and Size Specification

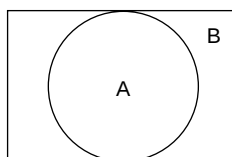


$a < 2.5 \text{ mm}$
 $b < 2.5 \text{ mm}$

A	B
202	270

Convergence Specification

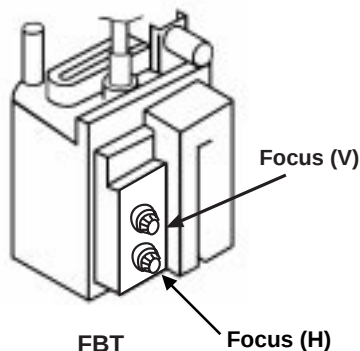
Horizontal and Vertical



$A \leq 0.30 \text{ mm}$
 $B \leq 0.30 \text{ mm}$

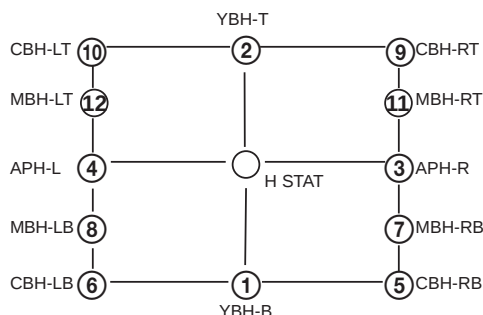
Focus adjustment

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



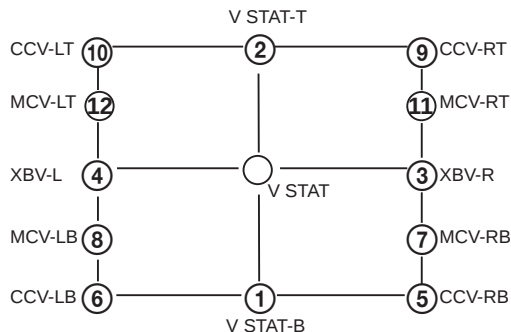
- Digital Convergence Adjustment

A. Horizontal Convergence



Adjust each misconvergence point in sequence.

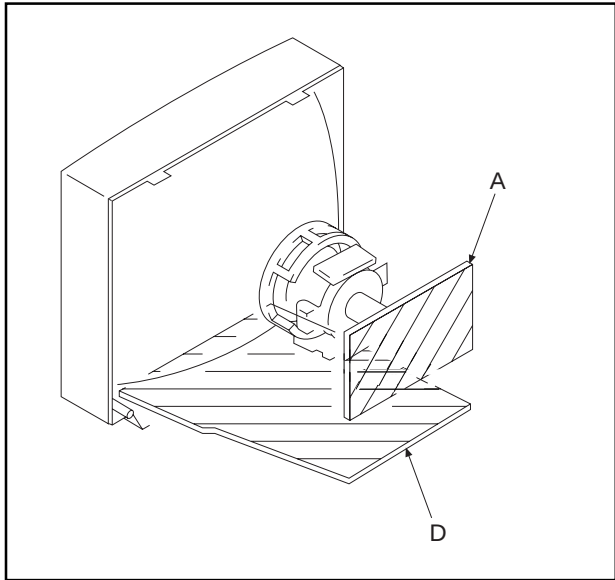
B. Vertical Convergence



Adjust each misconvergence point in sequence.

- Repeat the procedure of A and B so that the convergence of the whole screen is within the specification.

5-2. CIRCUIT BOARDS LOCATION



5-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF : $\mu\mu\text{F}$ 50V 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.
- Δ : internal component.
-  : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- $\perp$: 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 RV501 () as indicated. (See page 11)

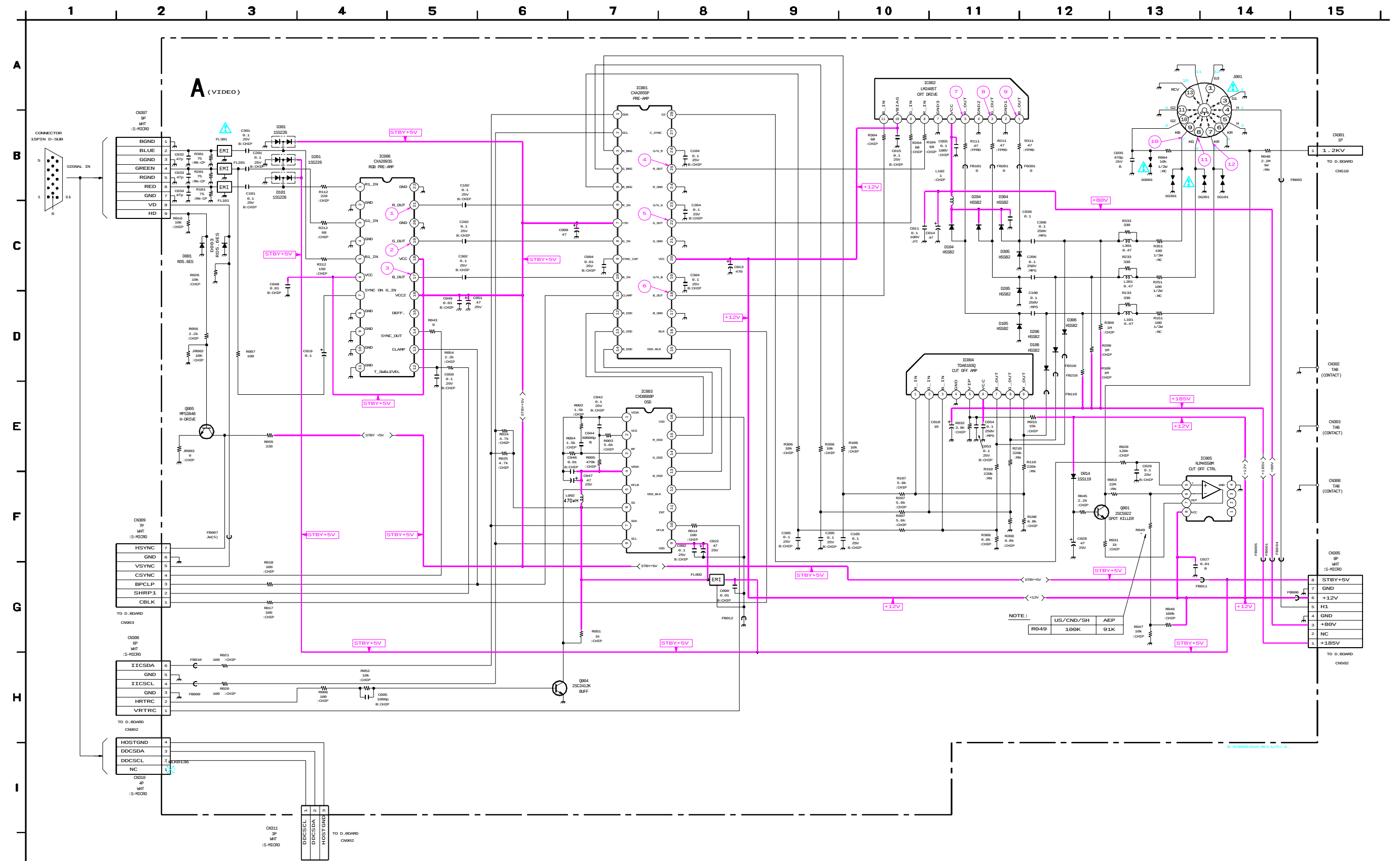
Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par un trame et une marque Δ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

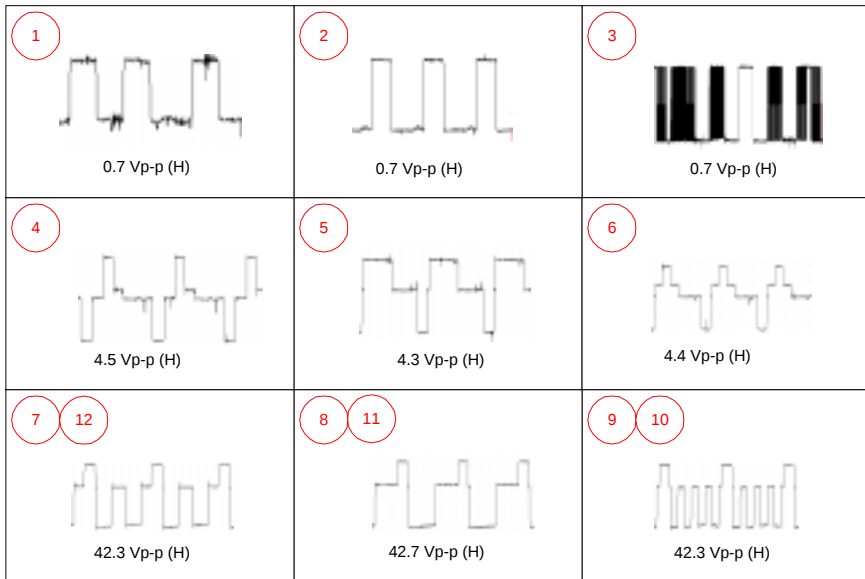
- When replacing parts shown in the table below, be sure to perform the safety related adjustment.

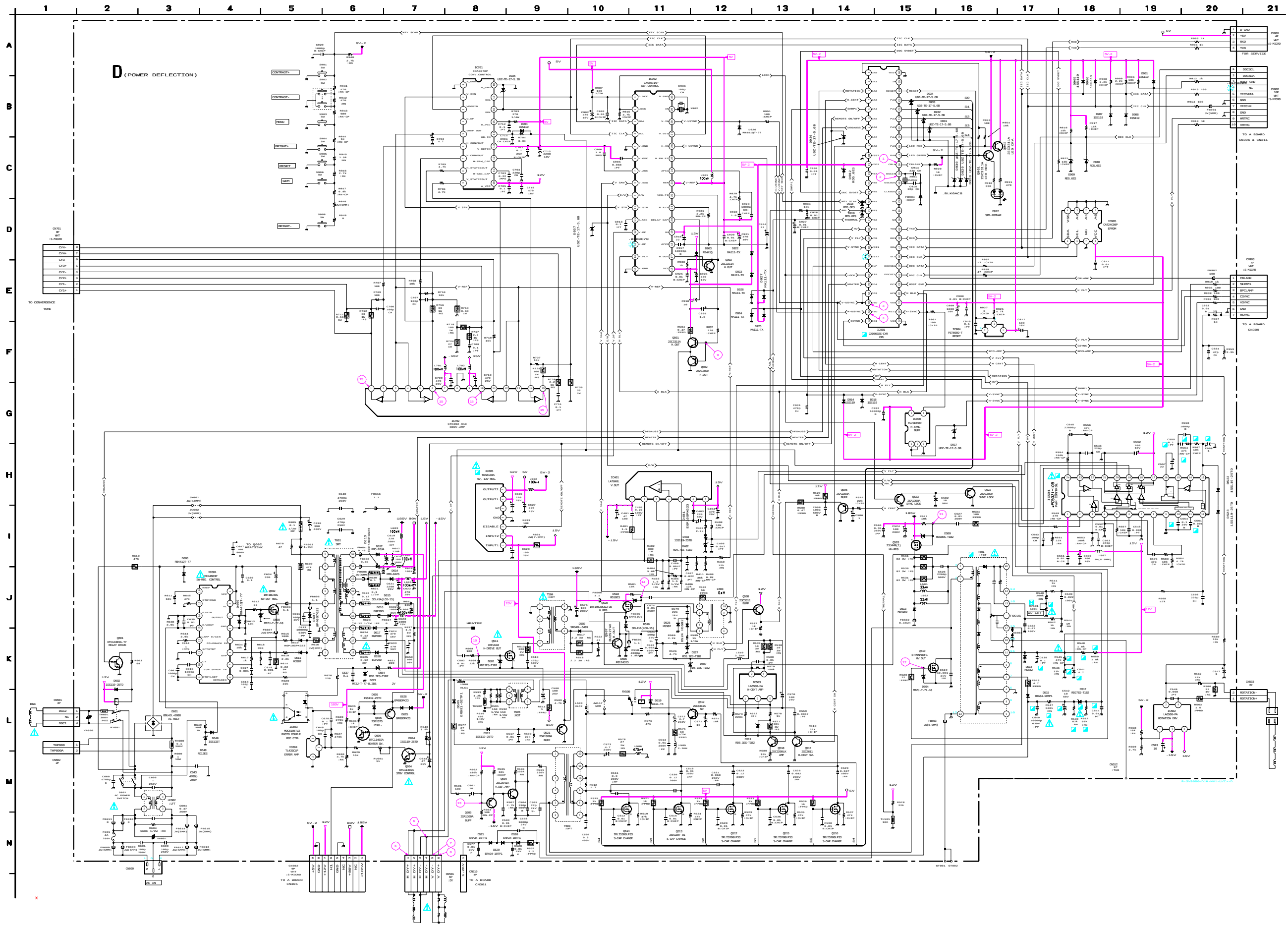
D - BOARD
Part Replaced ()
RV501
Part Replaced ()
RV501, T501, R545, R546, R548, R550, R547, R549, R552, D517, IC605, IC901, C540, C542, C544, C541, C535, IC501, C558, R567, R564, C555, C553, C554, C561

- All voltages are in volts.
- Readings are taken with a 10 M Ω 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.

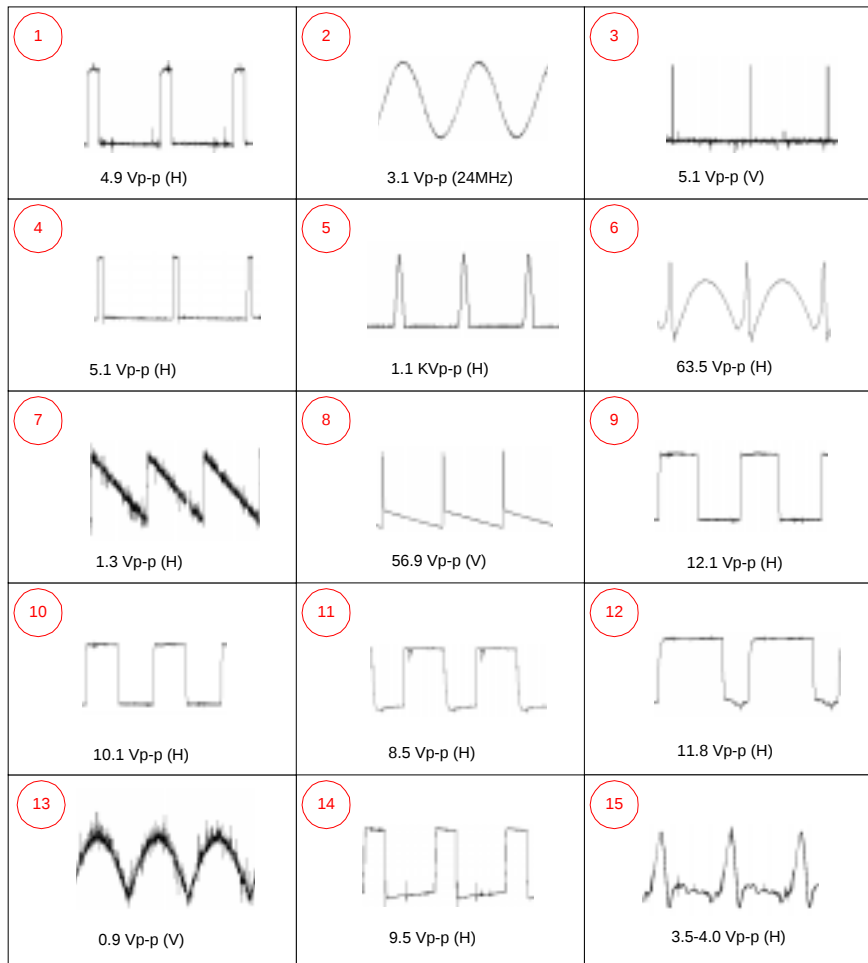


• A BOARD WAVEFORMS

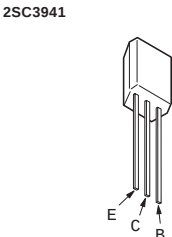
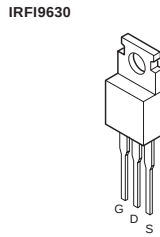
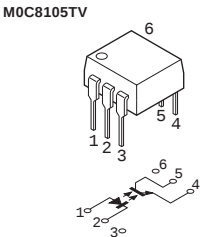
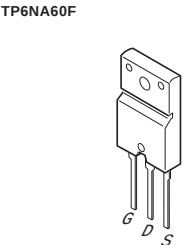
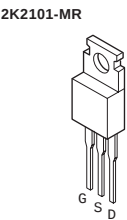
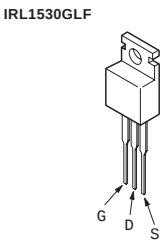
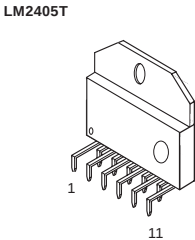
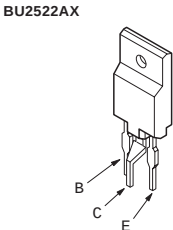
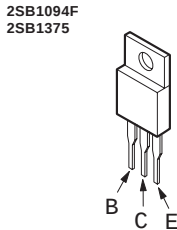
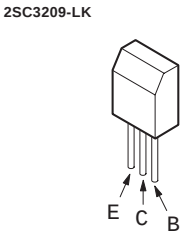
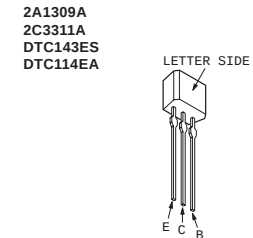
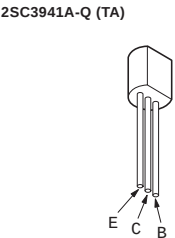
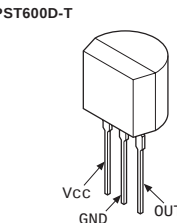
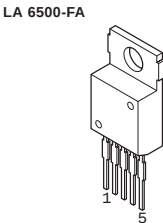
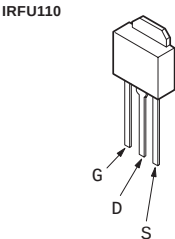
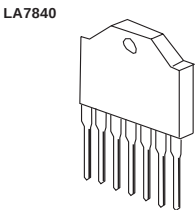
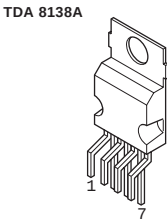
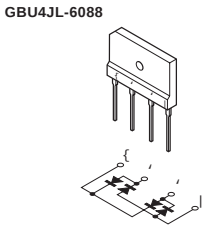
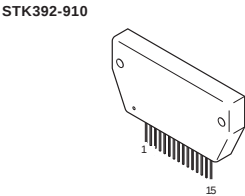
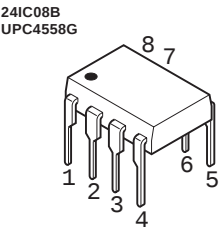
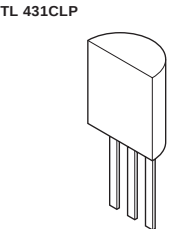
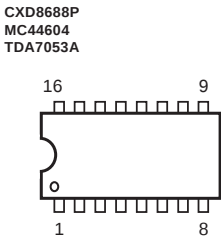
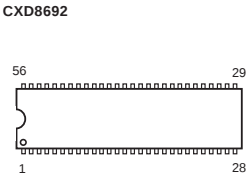
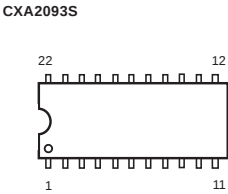
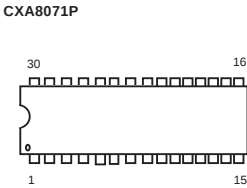
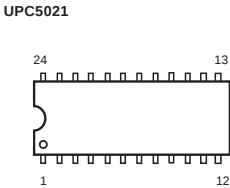
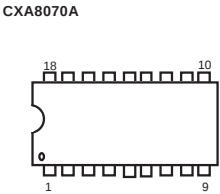
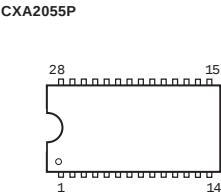
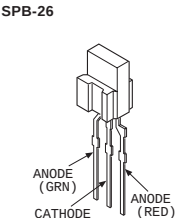
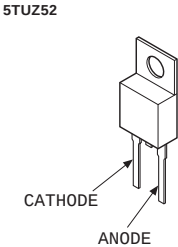
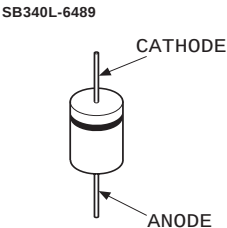
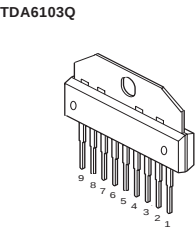
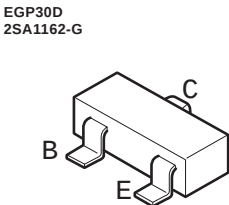
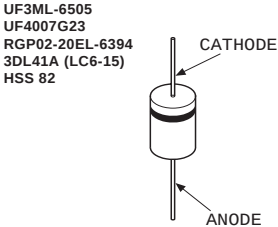
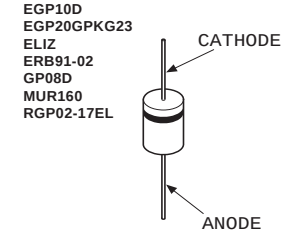
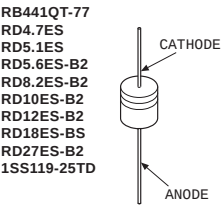




• D BOARD WAVEFORMS



5-4. SEMICONDUCTORS



EXPLODED VIEWS

• Items with no part number and no description are not stocked because they are seldom required for routine service.

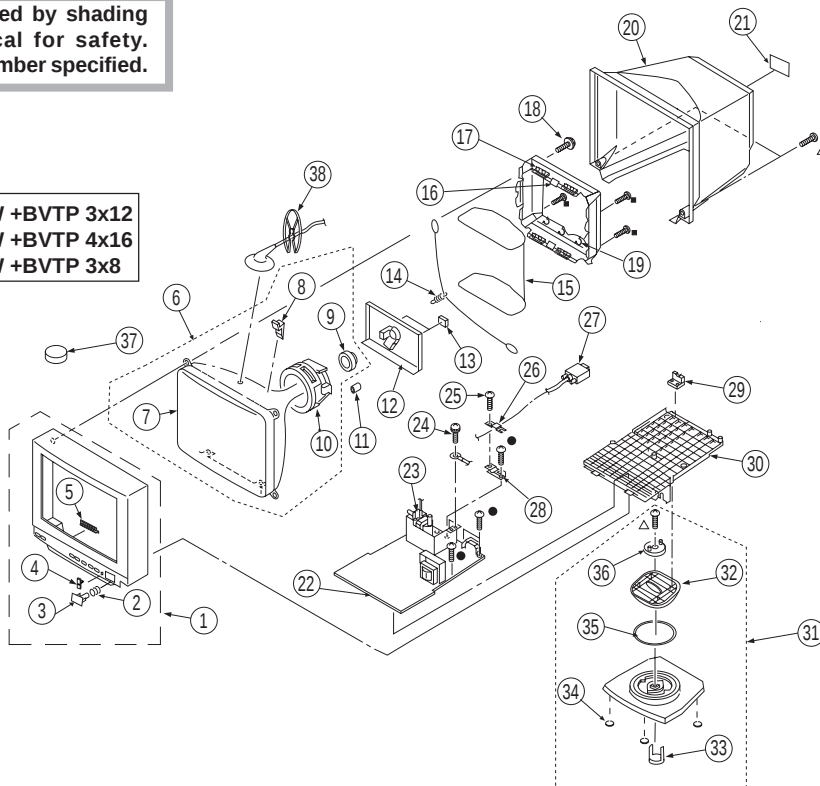
• Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• The component parts of an assembly are indicated by the reference numbers in the remark column.

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

6-1. CHASSIS

- 7-685-648-79 SCREW +BVTP 3x12
- △ 7-685-663-71 SCREW +BVTP 4x16
- 7-685-646-79 SCREW +BVTP 3x8



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4035-468-1	BEZEL ASSY (U/C/SH)	2-4	20	*	4-061-479-21	CABINET (AEP)
1	X-4035-714-1	BEZEL ASSY (AEP)	2-5	21	*	4-063-811-01	LABEL, INFORMATION (U/C)
2	3-653-339-21	SPRING, COMPRESSION (U/C/SH)		21	*	4-063-811-11	LABEL, INFORMATION (SH)
2	3-653-339-11	SPRING, COMPRESSION (AEP)		21	*	4-064-875-01	LABEL, INFORMATION (AEP)
3	4-061-777-11	BUTTON, POWER (U/C/SH)		22	*	A-1346-761-A	D BOARD, COMPLETE (U/C/SH)
3	4-062-635-21	BUTTON, POWER (AEP)		22	*	A-1346-766-A	D BOARD, COMPLETE (AEP)
4	4-061-776-01	GUIDE, LIGHT (U/C/SH)		23	△	1-453-241-11	TRANSFORMER ASSY, FLYBACK (NX-4400//X4L4) (U/C/SH)
4	4-062-634-01	GUIDE, LIGHT (AEP)		23	△	1-453-274-11	TRANSFORMER ASSY, FLYBACK (NX-4400//U2L4) (AEP)
5	4-062-637-21	BUTTON, MULTI (AEP)		24		4-389-025-01	SCREW (M4x8)(EXT. TOOTHWASHER)
6	△ 8-738-733-82	ITC ASSY, 17FRFM-R2 (U/C/AEP)	7-10	25		7-685-881-09	SCREW + BVTT 4x8 (S)
6	△ 8-738-728-81	ITC ASSY, 17FRFM-RS2 (SH)	7-10	26	*	4-045-131-01	STOPPER, CABLE (U/C/SH)
7	△ 8-738-726-05	CRT, 17FRFM (SDP) (U/C)		26	*	4-045-131-11	STOPPER, CABLE (AEP)
7	△ 8-738-728-05	CRT, 17FRFM (MTY DY S/FILM) (SH)		27	*	1-783-650-11	CABLE ASSY, VIDEO (U/C/SH)
7	△ 8-738-733-05	CRT, 17FRFM (EMI/GUN) (AEP)		27	*	1-782-837-11	CABLE ASSY (15P DSUB CONNECTOR) (AEP)
8	4-040-897-01	SPACER, DY		28	*	4-045-130-01	BRACKET, CABLE (U/C/SH)
9	△ 1-452-923-21	NECK ASSY		28	*	4-045-130-21	BRACKET, CABLE (AEP)
10	△ 8-451-490-22	DY Y17FRJ3-X (U/C/SH)		29	*	4-060-542-21	COVER, CABLE (U/C/SH)
10	△ 8-451-490-11	DY Y17FRJ3-M (AEP)		29	*	4-060-892-31	COVER, CABLE (AEP)
11	1-500-386-11	FILTER CLAMP (FERRITE CORE)		30	*	4-060-541-11	BRACKET, CHASSIS (U/C/SH)
12	*	A-1298-648-A	A BOARD, COMPLETE (U/C/SH)	30	*	4-060-891-21	BRACKET, CHASSIS (AEP)
12	*	A-1298-649-A	A BOARD, COMPLETE (AEP)	31		X-4035-469-1	BASE ASSY, STAND (U/C/SH)
13	*	4-061-571-01	CUSHION, A (U/C/SH)	31		X-4035-715-1	BASE ASSY, STAND (AEP)
13	*	4-062-321-01	CUSHION, A (AEP)				
14	*	4-061-573-01	SPRING, TENSION (U/C/SH)	32		4-060-534-41	SLIDER (U/C/SH)
14	*	4-047-316-01	SPRING, TENSION (AEP)	32		4-060-877-21	SLIDER (AEP)
15	△ 1-416-282-21	COIL, DEMAGNETIZATION		33		4-041-621-01	STOPPER (B) (AEP)
16		4-041-758-02	HOLDER, DEGAUSSING COIL (2)	33		4-041-621-21	STOPPER (B) (U/C/SH)
17		4-056-260-01	SPACER, DEGAUSSING COIL	34	*	4-060-533-01	CUSHION
18	*	4-365-808-01	SCREW (5), TAPPING (U/C/SH)	35		4-060-879-01	RING, TILT/SWIVEL (AEP)
18	*	4-203-648-01	SCREW (5), TAPPING (AEP)	36		4-060-531-01	STOPPER, A (U/C/SH)
19		4-041-021-02	HOLDER, DEGAUSSING COIL (6)	36		4-060-425-01	STOPPER, A (AEP)
20	*	4-061-061-21	CABINET (U/C/SH)	37		1-452-032-00	MAGNET, DISC
				38		3-704-372-31	HOLDER, HV CABLE (U/C/SH)
				38		4-202-693-01	HOLDER, HV CABLE (AEP)

SECTION 7

ELECTRICAL PARTS LIST

Note:

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

Note:

Les composants identifiés par un trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components identified by **Δ** 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 = μ F

INDUCTORS

- UH = μ H, MMH = mH

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

REF.NO.	PART NO.	DESCRIPTION	REMARK
A			
*	A-1298-648-A A COMPLETE PC BOARD (U/C/SH)		
*	A-1298-649-A A COMPLETE PC BOARD (AEP)		
	4-382-854-11	SCREW (M3X10), P, SW (+)	
<u>CAPACITOR</u>			
C004	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C005	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C009	1-104-664-11	ELECT 47MF	20% 25V
C011	1-106-220-00	MYLAR 0.1MF	10% 100V
C013	1-128-528-11	ELECT 470MF	20% 16V
C014	1-128-562-11	ELECT 47MF	20% 100V
C015	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C018	1-107-652-11	ELECT 10MF	20% 200V
C019	1-130-495-00	FILM 0.1MF	5% 50V
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
C032	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C033	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C034	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C035	1-162-134-11	CERAMIC 470PF	10% 2KV
C036	1-104-503-12	CERAMIC CHIP 0.1MF	10% 100V
C042	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C044	1-164-344-11	CERAMIC CHIP 0.068MF	10% 25V
C046	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C047	1-104-664-11	ELECT 47MF	20% 25V
C048	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C049	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C050	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C051	1-104-664-11	ELECT 47MF	20% 25V

REF.NO.	PART NO.	DESCRIPTION	REMARK
C053	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C054	1-137-528-11	FILM 0.1MF	10% 250V
C055	1-104-503-12	CERAMIC CHIP 0.1MF	10% 100V
C090	1-163-021-91	CERAMIC CHIP 0.01MF	10% 50V
C092	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C101	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C102	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	1-137-528-11	FILM 0.1MF	10% 250V
C201	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C202	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C204	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C205	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C206	1-137-528-11	FILM 0.1MF	10% 250V
C301	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C302	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C304	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C305	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C306	1-137-528-11	FILM 0.1MF	10% 250V

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	1-564-511-11	PLUG, CONNECTOR	8P
CN306 *	1-564-509-11	PLUG, CONNECTOR	6P
CN307 *	1-564-512-11	PLUG, CONNECTOR	9P
CN308	1-695-915-11	TAB (CONTACT)	
CN309 *	1-564-510-11	PLUG, CONNECTOR	7P
CN310 *	1-564-507-11	PLUG, CONNECTOR	4P
CN311 *	1-564-506-11	PLUG, CONNECTOR	3P



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
DIODE				IC005 8-759-100-96 IC UPC4558G2			
D001	8-719-109-89	DIODE RD5.6ESB2		IC006	8-752-082-65	IC CXA2093S	
D003	8-719-109-89	DIODE RD5.6ESB2		JACK			
D014	8-719-911-19	DIODE 1SS119-25		J001 A	1-251-598-11	SOCKET, CRT	
D101	8-719-800-76	DIODE 1SS226		CHIP CONDUCTOR			
D104	8-719-970-83	DIODE HSS82		JR002	1-216-073-00	RES,CHIP 10K 5% 1/10W	
D105	8-719-970-83	DIODE HSS82		JR003	1-216-295-91	SHORT	
D106	8-719-970-83	DIODE HSS82		COIL			
D201	8-719-800-76	DIODE 1SS226		L002	1-410-682-31	INDUCTOR 470UH	
D204	8-719-970-83	DIODE HSS82		L101	1-410-750-41	INDUCTOR 0.47UH	
D205	8-719-970-83	DIODE HSS82		L102	1-412-052-21	INDUCTOR CHIP 1UH	
D206	8-719-970-83	DIODE HSS82		L201	1-410-750-41	INDUCTOR 0.47UH	
D301	8-719-800-76	DIODE 1SS226		L301	1-410-750-41	INDUCTOR 0.47UH	
D304	8-719-970-83	DIODE HSS82		TRANSISTOR			
D305	8-719-970-83	DIODE HSS82		Q001	8-729-032-61	TRANSISTOR 2SC5022-02	
D306	8-719-970-83	DIODE HSS82		Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
FERRITE BEAD				Q005	8-729-045-08	TRANSISTOR MPS3646	
FB001	1-412-911-11	FERRITE		RESISTOR			
FB003	1-412-911-11	FERRITE		R002	1-216-053-00	RES,CHIP 1.5K 5% 1/10W	
FB004	1-412-911-11	FERRITE		R003	1-216-067-00	RES,CHIP 5.6K 5% 1/10W	
FB005	1-412-911-11	FERRITE		R004	1-216-053-00	RES,CHIP 1.8K 5% 1/10W	
FB006	1-412-911-11	FERRITE		R005	1-216-113-00	RES,CHIP 470K 5% 1/10W	
FB009	1-412-911-11	FERRITE		R006	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB010	1-412-911-11	FERRITE		R007	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB011	1-412-911-11	FERRITE		R014	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB012	1-412-911-11	FERRITE		R016	1-216-073-00	RES,CHIP 10K 5% 1/10W	
FB101	1-216-295-91	SHORT		R017	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB110	1-412-911-11	FERRITE		R018	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB201	1-216-295-91	SHORT		R020	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB210	1-412-911-11	FERRITE		R021	1-216-025-91	RES,CHIP 100 5% 1/10W	
FB301	1-216-295-91	SHORT		R024	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
FB310	1-412-911-11	FERRITE		R025	1-216-065-91	RES,CHIP 4.7K 5% 1/10W	
FILTER				R026	1-216-073-00	RES,CHIP 10K 5% 1/10W	
FL002	1-412-911-11	FERRITE		R029	1-216-099-00	RES,CHIP 120K 5% 1/10W	
FL101 A	1-414-793-21	FERRITE		R031	1-216-049-91	RES,CHIP 1K 5% 1/10W	
FL201 A	1-414-793-21	FERRITE		R032	1-216-063-91	RES,CHIP 3.9K 5% 1/10W	
FL301 A	1-414-793-21	FERRITE		R033	1-216-077-00	RES,CHIP 15K 5% 1/10W	
IC				R043	1-216-295-91	SHORT	
IC001	8-752-076-89	IC CXA2055P		R045	1-216-057-00	RES,CHIP 2.2K 5% 1/10W	
IC002	8-759-435-33	IC LM2405T		R046	1-216-097-91	RES,CHIP 100K 5% 1/10W	
IC003	8-759-478-65	IC CXD8688P		R047	1-216-073-00	RES,CHIP 10K 5% 1/10W	
IC004	8-759-434-40	IC TDA6103Q/N3,112					

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

Note: Les composants identifiés par un trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une



REF.NO.	PART NO.	DESCRIPTION	REMARK
R048	1-211-885-21	METAL	2.2M 5% 1W
R049	1-216-097-91	RES,CHIP	100K 5% 1/10W (U/C/SH)
R049	1-216-096-00	RES,CHIP	91K 5% 1/10W (AEP)
R051	1-216-049-91	RES,CHIP	1K 5% 1/10W
R052	1-216-073-00	RES,CHIP	10K 5% 1/10W
R053	1-219-621-91	METAL	22M 10% 1/4W
R054	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R055	1-247-815-91	CARBON	220 5% 1/4W
R056	1-216-057-00	RES,CHIP	2.2K 5% 1/10W
R064	1-202-830-00	SOLID	10K 20% 1/2W
R101	1-215-394-00	METAL	75 1% 1/4W
R104	1-216-021-00	RES,CHIP	68 5% 1/10W
R106	1-216-073-00	RES,CHIP	10K 5% 1/10W
R107	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R108	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R109	1-216-121-91	RES,CHIP	1M 5% 1/10W
R110	1-215-477-00	METAL	220K 1% 1/4W
R111	1-249-401-11	CARBON	47 5% 1/4W F
R112	1-216-033-00	RES,CHIP	220 5% 1/10W
R133	1-249-411-11	CARBON	330 5% 1/4W
R151	1-202-549-00	SOLID	100 20% 1/2W
R201	1-215-394-00	METAL	75 1% 1/4W
R204	1-216-021-00	RES,CHIP	68 5% 1/10W
R206	1-216-073-00	RES,CHIP	10K 5% 1/10W
R207	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R208	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R209	1-216-121-91	RES,CHIP	1M 5% 1/10W
R210	1-215-477-00	METAL	220K 1% 1/4W
R211	1-249-401-11	CARBON	47 5% 1/4W F
R212	1-216-021-00	RES,CHIP	68 5% 1/10W
R233	1-249-411-11	CARBON	330 5% 1/4W
R251	1-202-549-00	SOLID	100 20% 1/2W
R301	1-215-394-00	METAL	75 1% 1/4W
R304	1-216-021-00	RES,CHIP	68 5% 1/10W
R306	1-216-073-00	RES,CHIP	10K 5% 1/10W
R307	1-216-067-00	RES,CHIP	5.6K 5% 1/10W
R308	1-216-069-00	RES,CHIP	6.8K 5% 1/10W
R309	1-216-121-91	RES,CHIP	1M 5% 1/10W
R310	1-215-477-00	METAL	220K 1% 1/4W
R311	1-249-401-11	CARBON	47 5% 1/4W F
R312	1-216-029-00	RES,CHIP	150 5% 1/10W
R333	1-249-411-11	CARBON	330 5% 1/4W
R351	1-202-549-00	SOLID	100 20% 1/2W

REF.NO.	PART NO.	DESCRIPTION	REMARK
---------	----------	-------------	--------

SPARK GAP

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



* A-1343-761-A D BOARD COMPLETE (U/C/SH)

* A-1346-766-A D BOARD COMPLETE (AEP)

1-533-223-11 CLIP, FUSE
 2-371-561-00 BUSHING (P), INSULATING
 * 4-060-552-01 HOLDER, LED
 4-060-555-01 SHEET, INSULATOR
 4-382-854-11 SCREW (M3X10), P, SW (+)
 4-382-854-21 SCREW (M3X14), P, SW (+)
 4-389-025-01 SCREW (M4) (EXT TOOTH WASHER)

CAPACITOR

C401	1-107-932-11	ELECT	47MF	20%	100V
C402	1-106-228-00	MYLAR	0.22MF	10%	100V
C403	1-126-969-11	ELECT	220MF	20%	50V
C404	1-126-941-11	ELECT	470MF	20%	25V
C405	1-137-374-11	FILM	0.047MF	5%	50V
C406	1-137-368-11	FILM	0.0047MF	5%	50V
C407	1-137-372-11	FILM	0.022MF	5%	50V
C501	1-126-964-11	ELECT	10MF	20%	50V
C502	1-137-370-11	FILM	0.01MF	5%	50V
C503	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C504	1-102-030-00	CERAMIC	330PF	10%	500V
C505	1-109-879-11	CERAMIC	22PF	5%	2KV
C506	1-126-960-11	ELECT	1MF	20%	50V
C507	1-117-964-11	FILM	0.3MF	5%	400V
C508	1-104-665-11	ELECT	100MF	20%	25V
C509	1-162-117-00	CERAMIC	100PF	10%	500V
C510	1-102-228-00	CERAMIC	470PF	10%	500V
C511	1-119-862-11	FILM	0.3MF	5%	200V
C512	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C513	1-126-964-11	ELECT	10MF	20%	50V
C514	1-119-861-11	FILM	0.91MF	5%	200V
C515	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V
C516	1-117-206-21	FILM	0.36MF	5%	250V
C517	1-137-370-11	FILM	0.01MF	5%	50V
C518	1-117-954-11	FILM	4300PF	3%	1.8KV



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
C519	1-136-538-11	FILM	0.001MF	3%	2KV	C574	1-117-879-91	CAPACITOR	0.01MF	10%	250V
C520	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C575	1-107-955-11	ELECT	100MF	20%	200V
C521	1-107-444-11	CERAMIC	100PF	5%	2KV	C576	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C522	1-136-481-11	MYLAR	0.0022MF	10%	100V	C577	1-115-349-51	CERAMIC	0.01MF		2KV
C523	1-115-511-11	FILM	0.12MF	5%	250V	C578	1-117-214-11	CERAMIC	0.001MF	10%	2KV
C524	1-107-955-11	ELECT	100MF	20%	200V	C579	1-109-879-11	CERAMIC	22PF	5%	2KV
C525	1-119-860-11	FILM	0.082MF	5%	200V	C580	1-137-370-11	FILM	0.01MF	5%	50V
C526	1-164-646-11	CERAMIC	2200PF	10%	500V	C582	1-126-964-11	ELECT	10MF	20%	50V
C527	1-117-879-91	CAPACITOR	0.01MF	10%	250V	C601 Δ	1-113-894-11	CERAMIC	100PF	10%	250V
C528	1-115-349-51	CERAMIC	0.01MF		2KV	C604 Δ	1-104-708-11	FILM	0.47MF	20%	250V
C529	1-136-060-00	FILM	0.047MF	5%	400V	C605 Δ	1-107-533-11	FILM	1MF	20%	250V
C530	1-115-511-11	FILM	0.12MF	5%	250V	C608 Δ	1-113-894-11	CERAMIC	100PF	10%	250V
C531	1-115-509-11	FILM	0.068MF	5%	250V	C610	1-109-984-11	ELECT(BLOCK)	390MF	20%	400V
C532	1-137-426-11	FILM	0.47MF	10%	100V	C611	1-107-444-11	CERAMIC	100PF	5%	2KV
C535	1-130-495-00	FILM	0.1MF	5%	50V	C613	1-136-203-11	FILM	10000PF	5%	630V
C536	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C614	1-136-177-00	FILM	1MF	5%	50V
C538	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C615	1-137-364-11	FILM	0.001MF	5%	50V
C539	1-137-418-11	FILM	0.022MF	10%	100V	C616	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C540	1-136-203-11	FILM	10000PF	5%	630V	C617	1-137-364-11	FILM	0.001MF	5%	50V
C541	1-126-963-11	ELECT	4.7MF	20%	50V	C618	1-102-106-00	CERAMIC	100PF	10%	50V
C542	1-126-964-11	ELECT	10MF	20%	50V	C619	1-125-700-11	ELECT(BLOCK)	220MF	20%	200V
C543	1-102-973-00	CERAMIC	100PF	5%	50V	C620	1-107-933-11	ELECT	100MF	20%	100V
C544	1-137-370-11	FILM	0.01MF	5%	50V	C621	1-107-890-11	ELECT	2200MF	20%	25V
C545	1-163-037-11	CERAMIC CHIP	0.022MF	10%	50V	C622	1-126-941-11	ELECT	470MF	20%	25V
C546	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C623	1-126-942-61	ELECT	1000MF	20%	25V
C547	1-126-960-11	ELECT	1MF	20%	50V	C624	1-126-935-11	ELECT	470MF	20%	16V
C548	1-137-364-11	FILM	0.001MF	5%	50V	C625	1-130-495-00	FILM	0.1MF	5%	50V
C549	1-137-375-11	FILM	0.068MF	5%	50V	C626	1-107-889-11	ELECT	220MF	20%	25V
C550	1-126-933-11	ELECT	100MF	20%	16V	C627	1-107-889-11	ELECT	220MF	20%	25V
C551	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C628	1-104-665-11	ELECT	100MF	20%	25V
C552	1-163-021-91	CERAMIC CHIP	0.01MF	10%	50V	C629	1-113-900-11	CERAMIC	470PF	10%	250V
C553	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	C630	1-130-495-00	FILM	0.1MF	5%	50V
C554	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V	C632	1-107-914-11	ELECT	1000MF	20%	25V
C555	1-130-495-00	FILM	0.1MF	5%	50V	C633	1-126-935-11	ELECT	470MF	20%	16V
C556	1-163-259-91	CERAMIC CHIP	220PF	5%	50V	C634	1-126-940-11	ELECT	330MF	20%	25V
C557	1-126-965-11	ELECT	22MF	20%	50V	C635	1-137-370-11	FILM	0.01MF	5%	50V
C558	1-126-960-11	ELECT	1MF	20%	50V	C637	1-130-495-00	FILM	0.1MF	5%	50V
C559	1-137-368-11	FILM	0.0047MF	5%	50V	C640	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C560	1-117-206-21	FILM	0.36MF	5%	250V	C643 Δ	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C561	1-163-009-11	CERAMIC CHIP	0.001MF	10%	50V	C644	1-104-664-11	ELECT	47MF	20%	25V
C562	1-126-933-11	ELECT	100MF	20%	16V	C645	1-102-973-00	CERAMIC	100PF	5%	50V
C563	1-163-005-11	CERAMIC CHIP	470PF	10%	50V	C647	1-102-228-00	CERAMIC	470PF	10%	500V
C570	1-104-665-11	ELECT	100MF	20%	25V	C650	1-126-933-11	ELECT	100MF	20%	16V
C571	1-126-964-11	ELECT	10MF	20%	50V	C660 Δ	1-113-912-11	CERAMIC	0.0047MF	20%	250V
C572	1-107-651-11	ELECT	4.7MF	20%	250V	C661	1-163-275-11	CERAMIC CHIP	0.001MF	5%	50V
C573	1-107-651-11	ELECT	4.7MF	20%	250V	C701	1-164-004-11	CERAMIC CHIP	0.1MF	10%	25V



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK
C702	1-126-963-11	ELECT	4.7MF 20% 50V
C703	1-136-169-00	FILM	0.22MF 5% 50V
C704	1-163-259-91	CERAMIC CHIP	220PF 5% 50V
C705	1-130-495-00	FILM	0.1MF 5% 50V
C706	1-102-973-00	CERAMIC	100PF 5% 50V
C707	1-102-973-00	CERAMIC	100PF 5% 50V
C708	1-130-495-00	FILM	0.1MF 5% 50V
C709	1-126-941-11	ELECT	470MF 20% 25V
C710	1-126-941-11	ELECT	470MF 20% 25V
C711	1-130-495-00	FILM	0.1MF 5% 50V
C712	1-130-495-00	FILM	0.1MF 5% 50V
C713	1-126-927-11	ELECT	2200MF 20% 10V
C714	1-163-131-00	CERAMIC CHIP	390PF 5% 50V
C715	1-126-935-11	ELECT	470MF 20% 16V
C902	1-126-935-11	ELECT	470MF 20% 16V
C903	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C905	1-137-375-11	FILM	0.068MF 5% 50V
C906	1-136-177-00	FILM	1MF 5% 50V
C908	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C909	1-126-926-11	ELECT	1000MF 20% 10V
C910	1-130-495-00	FILM	0.1MF 5% 50V
C911	1-137-370-11	FILM	0.01MF 5% 50V
C912	1-126-933-11	ELECT	100MF 20% 16V
C913	1-130-495-00	FILM	0.1MF 5% 50V
C914	1-102-514-11	CERAMIC	22PF 5% 50V
C915	1-102-514-11	CERAMIC	22PF 5% 50V
C916	1-126-965-11	ELECT	22MF 20% 50V
C917	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C918	1-126-964-11	ELECT	10MF 20% 50V
C920	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C921	1-126-935-11	ELECT	470MF 20% 16V
C922	1-126-960-11	ELECT	1MF 20% 50V
C923	1-163-275-11	CERAMIC CHIP	0.001MF 5% 50V
C924	1-126-965-11	ELECT	22MF 20% 50V
C925	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C926	1-126-935-11	ELECT	470MF 20% 16V
C927	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C928	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C929	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V
C930	1-137-370-11	FILM	0.01MF 5% 50V
C931	1-163-133-00	CERAMIC CHIP	470PF 5% 50V
C932	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C933	1-163-021-91	CERAMIC CHIP	0.01MF 10% 50V
C934	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C935	1-136-177-00	FILM	1MF 5% 50V
C936	1-163-251-11	CERAMIC CHIP	100PF 5% 50V

REF.NO.	PART NO.	DESCRIPTION	REMARK
CONNECTOR			
CN501 *	1-580-798-11	CONNECTOR PIN (DY) 6P	
CN502 *	1-564-512-11	PLUG, CONNECTOR 9P	
CN512	1-695-915-11	TAB (CONTACT)	
CN600 Δ	1-251-644-11	INLET, AC 3P (WITH NOISE FILTER)	
CN601	1-691-960-11	PIN, CONNECTOR (PC BOARD) 3P	
CN602 *	1-506-371-00	PIN, CONNECTOR 2P	
CN701	1-564-511-11	PLUG, CONNECTOR 8P	
CN901 *	1-508-879-11	BASE POST	
CN902	1-564-513-11	PLUG, CONNECTOR 10P	
CN903 *	1-564-510-11	PLUG, CONNECTOR 7P	
DIODE			
D401	8-719-979-58	DIODE EGP10D	
D402	8-719-109-81	DIODE RD4.7ESB2	
D403	8-719-911-19	DIODE 1SS119-25	
D501	8-719-110-31	DIODE RD12ESB2	
D502	8-719-975-77	DIODE SB340	
D504	8-719-110-49	DIODE RD18ESB2	
D505	8-719-941-74	DIODE ERB91-02	
D506	8-719-061-21	DIODE FMQ-G5FMS	
D507	8-719-109-85	DIODE RD5.1ESB2	
D509	8-719-110-17	DIODE RD10ESB2	
D510	8-719-018-82	DIODE RGP02-20EL-6394	
D511	8-719-109-85	DIODE RD5.1ESB2	
D512	8-719-911-19	DIODE 1SS119-25	
D513	8-719-066-40	DIODE MUR160	
D514	8-719-970-83	DIODE HSS82	
D515	8-719-018-82	DIODE RGP02-20EL-6394	
D516	8-719-051-97	DIODE 3DL41A(LC6-15)	
D517 Δ	8-719-110-67	DIODE RD27ESB2	
D518	8-719-110-17	DIODE RD10ESB2	
D519	8-719-404-49	DIODE MA111	
D520	8-719-018-82	DIODE RGP02-20EL-6394	
D521	8-719-018-82	DIODE RGP02-20EL-6394	
D522	8-719-911-19	DIODE 1SS119-25	
D523	8-719-911-19	DIODE 1SS119-25	
D524	8-719-970-83	DIODE HSS82	
D525	8-719-970-83	DIODE HSS82	
D527	8-719-109-85	DIODE RD5.1ESB2	
D601 Δ	8-719-025-88	DIODE GBU4JL-6088	
D602	8-719-911-19	DIODE 1SS119-25	
D605	8-719-911-19	DIODE 1SS119-25	
D606	8-719-986-73	DIODE RB441Q	
D607	8-719-053-19	DIODE UF4007G23	
D608	8-719-110-49	DIODE RD18ESB2	
D609	8-719-986-73	DIODE RB441Q	



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
D610	8-719-302-43	DIODE EL1Z		D935	8-719-976-99	DIODE DTZ5.1B	
D611	8-719-970-83	DIODE HSS82		D936	8-719-158-15	DIODE RD5.6SB	
D612	8-719-067-68	DIODE FMC-26UA		D937	8-719-158-15	DIODE RD5.6SB	
D613	8-719-979-58	DIODE EGP10D					
D614	8-719-058-38	DIODE FMN-G12S					
D615	8-719-051-97	DIODE 3DL41A(LC6-15)					
D616	8-719-048-61	DIODE EGP20DL-6349					
D617	8-719-979-84	DIODE EGP20DPKG23					
D618	8-719-979-84	DIODE EGP20DPKG23					
D622	8-719-110-08	DIODE RD8.2ESB2					
D624	8-719-911-19	DIODE 1SS119-25					
D625	8-719-908-03	DIODE GP08D					
D626	8-719-908-03	DIODE GP08D					
D648 Δ	8-719-110-36	DIODE RD13ESB2					
D649 Δ	8-719-991-33	DIODE 1SS133T-77					
D654	8-719-109-66	DIODE RD3.3ESB2					
D704	8-719-911-19	DIODE 1SS119-25					
D901	8-719-911-19	DIODE 1SS119-25					
D902	8-719-109-89	DIODE RD5.6ESB2					
D903	8-719-986-73	DIODE RB441Q					
D905	8-719-911-19	DIODE 1SS119-25					
D906	8-719-911-19	DIODE 1SS119-25					
D907	8-719-911-19	DIODE 1SS119-25					
D908	8-719-911-19	DIODE 1SS119-25					
D909	8-719-109-89	DIODE RD5.6ESB2					
D910	8-719-109-89	DIODE RD5.6ESB2					
D912	8-719-045-19	DIODE SPB-26MVWF					
D914	8-719-911-19	DIODE 1SS119-25					
D916	8-719-911-19	DIODE 1SS119-25					
D917	8-719-158-15	DIODE RD5.6SB					
D918	8-719-109-89	DIODE RD5.6ESB2					
D919	8-719-109-89	DIODE RD5.6ESB2					
D920	8-719-986-73	DIODE RB441Q					
D922	8-719-404-49	DIODE MA111					
D923	8-719-404-49	DIODE MA111					
D924	8-719-404-49	DIODE MA111					
D925	8-719-404-49	DIODE MA111					
D926	8-719-404-49	DIODE MA111					
D927	8-719-404-49	DIODE MA111					
D928	8-719-158-15	DIODE RD5.6SB					
D929	8-719-158-15	DIODE RD5.6SB					
D930	8-719-158-15	DIODE RD5.6SB					
D931	8-719-158-15	DIODE RD5.6SB					
D932	8-719-158-15	DIODE RD5.6SB					
D933	8-719-158-15	DIODE RD5.6SB					
D934	8-719-158-15	DIODE RD5.6SB					

FUSE

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

FERRITE BEAD

FB502 1-410-396-41 FERRITE 0.45UH

FB504 1-412-911-11 FERRITE

FB506 1-412-911-11 FERRITE

FB601 1-410-396-41 FERRITE 0.45UH

FB602 1-410-396-41 FERRITE 0.45UH

FB603 1-414-487-41 INDUCTOR 1UH

FB604 1-412-911-11 FERRITE

FB605 1-412-911-11 FERRITE

FB610 Δ 1-412-911-11 FERRITE

FB611 Δ 1-412-911-11 FERRITE

FB616 1-412-911-11 FERRITE

FB617 1-412-911-11 FERRITE

FB902 1-247-807-31 CARBON 100 5% 1/4W

FB904 1-543-961-11 FERRITE

TERMINAL

GT001 * 1-537-738-21 TERMINAL, EARTH

GT002 * 1-537-738-21 TERMINAL, EARTH

IC

IC401 8-759-444-83 IC LA7840L

IC501 Δ 8-759-478-76 IC UPC5021-109

IC502 8-759-803-42 IC LA6500-FA

IC503 8-759-803-42 IC LA6500-FA

IC601 Δ 8-759-399-81 IC MC44603P

IC603 Δ 8-749-014-41 IC MOC8105TVZ

IC604 Δ 8-759-908-15 IC TL431CLP

IC605 Δ 8-759-072-98 IC TDA8138A

IC701 8-759-478-66 IC CXA8070P

IC702 8-749-014-32 IC STK392-910A

IC900 8-759-525-10 IC TC7SET08F(Te85L)

IC901 8-759-531-38 IC CXD8692S-CYR

IC902 8-759-537-27 IC CXA8071AP

IC904 8-759-165-81 IC PST600D-T

IC905 8-759-370-34 IC ST24C08FB6

CHIP CONDUCTOR

JR001 1-216-296-91 SHORT

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

Note: Les composants identifiés par un trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
JR002	1-216-296-91	SHORT		<u>FILTER</u>			
JR003	1-216-296-91	SHORT		LF602 Δ 1-429-180-11 TRANSFORMER, LINE FILTER			
JR004	1-216-296-91	SHORT		<u>TRANSISTOR</u>			
JR005	1-216-296-91	SHORT		Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE	
JR006	1-216-296-91	SHORT		Q502	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR007	1-216-296-91	SHORT		Q503	8-729-035-54	TRANSISTOR 2SJ449	
JR008	1-216-296-91	SHORT		Q504	8-729-031-89	TRANSISTOR 2SC3941A-Q(TA)	
JR009	1-216-296-91	SHORT		Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR010	1-216-296-91	SHORT		Q506	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR011	1-216-296-91	SHORT		Q507	8-729-041-64	TRANSISTOR BU2527AX-ON5020	
JR013	1-216-296-91	SHORT		Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE	
JR014	1-216-296-91	SHORT		Q510	8-729-042-45	TRANSISTOR STP5NA80FI	
JR015	1-216-296-91	SHORT		Q511 Δ	8-729-042-34	TRANSISTOR IRFU110A	
JR016	1-216-296-91	SHORT		Q512	8-729-043-16	TRANSISTOR IRLI520GLF33	
JR017	1-216-296-91	SHORT		Q513	8-729-021-79	TRANSISTOR 2SK1307	
JR018	1-216-296-91	SHORT		Q514	8-729-041-93	TRANSISTOR IRLI530GLF33	
JR019	1-216-296-91	SHORT		Q515	8-729-043-16	TRANSISTOR IRLI520GLF33	
JR020	1-216-296-91	SHORT		Q516	8-729-043-16	TRANSISTOR IRLI520GLF33	
JR021	1-216-296-91	SHORT		Q517	8-729-326-11	TRANSISTOR 2SC2611	
JR022	1-216-296-91	SHORT		Q518	8-729-140-50	TRANSISTOR 2SC3209LK	
JR023	1-216-296-91	SHORT		Q519	8-729-119-78	TRANSISTOR 2SC2785-HFE	
JR024	1-216-296-91	SHORT		Q520	8-729-042-23	TRANSISTOR IRF19620GSLF35	
JR025	1-216-296-91	SHORT		Q521	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR026	1-216-296-91	SHORT		Q522	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR027	1-216-296-91	SHORT		Q523	8-729-119-76	TRANSISTOR 2SA1175-HFE	
JR028	1-216-296-91	SHORT		Q601	8-729-029-92	TRANSISTOR DTC143ESA	
JR029	1-216-296-91	SHORT		Q602 Δ	8-729-926-79	TRANSISTOR IRF1BC40	
JR030	1-216-296-91	SHORT		Q604 Δ	8-729-029-66	TRANSISTOR DTC114ESA	
<u>COIL</u>				Q605	8-729-141-83	TRANSISTOR 2SB1094-LK	
L501	1-412-531-31	INDUCTOR	33UH	Q606	8-729-029-66	TRANSISTOR DTC114ESA	
L502	1-412-531-31	INDUCTOR	33UH	Q901	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L503	1-411-594-11	INDUCTOR		Q902	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L505	1-412-552-11	INDUCTOR	2.2MMH	Q903	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L506	1-412-545-11	INDUCTOR	470UH	<u>RESISTOR</u>			
L508	1-416-394-11	COIL, HORIZONTAL LINEARITY		R401	1-249-383-11	CARBON	1.5 5% 1/4W F
L509	1-416-393-11	COIL, HORIZONTAL LINEARITY		R402	1-215-866-11	METAL OXIDE	330 5% 1W F
L510	1-416-367-11	COIL, HORIZONTAL CENTER		R403	1-214-796-00	METAL	1.5 1% 1/2W
L603	1-412-537-31	INDUCTOR	100UH	R404	1-215-439-00	METAL	5.6K 1% 1/4W
L604	1-412-537-31	INDUCTOR	100UH	R405	1-214-796-00	METAL	1.5 1% 1/2W
L605	1-406-665-11	INDUCTOR		R406	1-216-677-11	METAL CHIP	12K 0.50% 1/10W
L606	1-406-665-11	INDUCTOR		R407	1-249-421-11	CARBON	2.2K 5% 1/4W
L701	1-412-537-31	INDUCTOR	100UH	R408	1-216-073-00	RES,CHIP	10K 5% 1/10W
L702	1-412-537-31	INDUCTOR	100UH	R409	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
L901	1-412-537-31	INDUCTOR	100UH	R410	1-215-447-00	METAL	12K 1% 1/4W
L902	1-412-537-31	INDUCTOR	100UH				



Note:

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

Note:

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R411	1-216-688-11	METAL CHIP	36K 0.50% 1/10W	R545 Δ	1-216-691-11	METAL CHIP	47K 0.50% 1/10W
R500	1-249-377-11	CARBON	0.47 5% 1/4W F	R546 Δ	1-215-457-00	METAL	33K 1% 1/4W
R501	1-247-807-31	CARBON	100 5% 1/4W	R547 Δ	1-215-487-00	METAL	560K 1% 1/4W
R502	1-218-758-11	METAL CHIP	180K 0.50% 1/10W				
				R548 Δ	1-216-657-11	METAL CHIP	1.8K 0.50% 1/10W
R503	1-216-675-11	METAL CHIP	10K 0.50% 1/10W	R549 Δ	1-215-467-00	METAL	82K 1% 1/4W
R504	1-249-377-11	CARBON	0.47 5% 1/4W F	R550 Δ	1-215-427-00	METAL	1.8K 1% 1/4W
R505	1-216-073-00	RES,CHIP	10K 5% 1/10W	R551	1-215-453-00	METAL	22K 1% 1/4W
R506	1-215-481-00	METAL	330K 1% 1/4W	R552 Δ	1-215-463-00	METAL	56K 1% 1/4W
R507	1-215-431-00	METAL	2.7K 1% 1/4W	R553	1-216-699-11	METAL CHIP	100K 0.50% 1/10W
				R554	1-218-756-11	METAL CHIP	150K 0.50% 1/10W
R508	1-247-807-31	CARBON	100 5% 1/4W	R556	1-216-691-11	METAL CHIP	47K 0.50% 1/10W
R509	1-247-863-91	CARBON	22K 5% 1/4W	R557	1-216-079-00	RES,CHIP	18K 5% 1/10W
R510	1-216-081-00	RES,CHIP	22K 5% 1/10W	R558	1-215-445-00	METAL	10K 1% 1/4W
R511	1-249-381-11	CARBON	1 5% 1/4W F	R559	1-215-431-00	METAL	2.7K 1% 1/4W
R512	1-249-389-11	CARBON	4.7 5% 1/4W				
				R560	1-215-449-00	METAL	15K 1% 1/4W
R513	1-215-888-00	METAL OXIDE	220 5% 2W F	R561	1-216-474-11	METAL OXIDE	82 5% 3W F
R514	1-216-081-00	RES,CHIP	22K 5% 1/10W	R562	1-215-447-00	METAL	12K 1% 1/4W
R515	1-249-417-11	CARBON	1K 5% 1/4W F	R563	1-249-383-11	CARBON	1.5 5% 1/4W F
R516	9-910-999-31	METAL	150 1% 1/2W	R564	1-216-089-91	RES,CHIP	47K 5% 1/10W
R517	1-216-393-00	METAL OXIDE	2.2 5% 3W F				
				R565	1-215-481-00	METAL	330K 1% 1/4W
R518	1-216-393-00	METAL OXIDE	2.2 5% 3W F	R566	1-215-859-00	METAL OXIDE	22 5% 1W F
R519	1-216-089-91	RES,CHIP	47K 5% 1/10W	R567	1-216-073-00	RES,CHIP	10K 5% 1/10W
R520	1-249-397-11	CARBON	22 5% 1/4W F	R568	1-249-437-11	CARBON	47K 5% 1/4W
R521	1-249-417-11	CARBON	1K 5% 1/4W F	R569	1-216-643-11	METAL CHIP	470 0.50% 1/10W
R522	1-249-401-11	CARBON	47 5% 1/4W				
				R570	1-249-417-11	CARBON	1K 5% 1/4W
R523	1-216-089-91	RES,CHIP	47K 5% 1/10W	R571	1-215-926-00	METAL OXIDE	33K 5% 3W F
R524	1-216-089-91	RES,CHIP	47K 5% 1/10W	R572	1-249-437-11	CARBON	47K 5% 1/4W
R525	1-249-417-11	CARBON	1K 5% 1/4W F	R573	1-247-887-00	CARBON	220K 5% 1/4W
R526	1-249-425-11	CARBON	4.7K 5% 1/4W	R574	1-249-429-11	CARBON	10K 5% 1/4W
R527	1-249-429-11	CARBON	10K 5% 1/4W				
				R575	1-260-314-11	CARBON	68 5% 1/2W
R528	1-247-863-91	CARBON	22K 5% 1/4W	R576	1-249-437-11	CARBON	47K 5% 1/4W
R529	1-249-429-11	CARBON	10K 5% 1/4W F	R577	1-216-447-00	METAL OXIDE	27 5% 2W F
R530	1-216-474-11	METAL OXIDE	82 5% 3W F	R578	1-216-447-00	METAL OXIDE	27 5% 2W F
R531	1-216-474-11	METAL OXIDE	82 5% 3W F	R579	1-247-883-00	CARBON	150K 5% 1/4W
R532	1-249-385-11	CARBON	2.2 5% 1/4W F				
				R580	1-216-077-00	RES,CHIP	15K 5% 1/10W
R533	1-249-417-11	CARBON	1K 5% 1/4W F	R581	1-249-429-11	CARBON	10K 5% 1/4W
R534	1-249-405-11	CARBON	100 5% 1/4W F	R582	1-249-402-11	CARBON	56 5% 1/4W F
R535	1-216-089-91	RES,CHIP	47K 5% 1/10W	R583	1-216-073-00	RES,CHIP	10K 5% 1/10W
R536	1-249-417-11	CARBON	1K 5% 1/4W F	R584	1-216-065-91	RES,CHIP	4.7K 5% 1/10W
R537	1-216-089-91	RES,CHIP	47K 5% 1/10W				
				R585	1-260-099-11	CARBON	1K 5% 1/2W
R538	1-215-905-11	METAL OXIDE	10 5% 3W F	R586	1-249-421-11	CARBON	2.2K 5% 1/4W
R539	1-215-905-11	METAL OXIDE	10 5% 3W F	R587	1-216-049-91	RES,CHIP	1K 5% 1/10W
R540	1-215-476-00	METAL	200K 1% 1/4W	R589	1-249-425-11	CARBON	4.7K 5% 1/4W
R541	1-215-421-00	METAL	1K 1% 1/4W	R590	1-215-453-00	METAL	22K 1% 1/4W
R542	1-215-421-00	METAL	1K 1% 1/4W				
				R591	9-910-999-31	METAL	150 1% 1/2W
R543	1-249-389-11	CARBON	4.7 5% 1/4W F	R592	9-910-999-31	METAL	150 1% 1/2W
R544	1-215-493-00	METAL	1M 1% 1/4W	R593	1-215-423-00	METAL	1.2K 1% 1/4W

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

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



REF.NO.	PART NO.	DESCRIPTION	REMARK			
R600 Δ	1-205-998-11	CEMENTED	1	5%	10W	
R603	1-249-403-11	CARBON	68	5%	1/4W	
R604 Δ	1-202-847-00	SOLID	560K	20%	1/2W	
R605 Δ	1-202-933-61	FUSIBLE	0.1	10%	1/2W	F
R609	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R610	1-215-927-00	METAL OXIDE	47K	5%	3W	F
R611	1-215-445-00	METAL	10K	1%	1/4W	
R612	1-247-791-91	CARBON	22	5%	1/4W	
R613	1-249-429-11	CARBON	10K	5%	1/4W	
R614	1-216-381-11	METAL OXIDE	0.22	5%	3W	F
R615	1-247-885-00	CARBON	180K	5%	1/4W	
R617	1-249-417-11	CARBON	1K	5%	1/4W	
R618	1-215-411-00	METAL	390	1%	1/4W	
R619	1-249-421-11	CARBON	2.2K	5%	1/4W	
R620	1-247-863-91	CARBON	22K	5%	1/4W	
R621 Δ	1-211-761-11	FUSIBLE	0.1	10%	1/2W	
R622 Δ	1-211-874-11	FUSIBLE	0.12	10%	1/2W	
R623 Δ	1-211-874-11	FUSIBLE	0.12	10%	1/2W	
R624 Δ	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R625 Δ	1-219-154-11	FUSIBLE	0.12	10%	1/4W	
R626	1-215-405-00	METAL	220	1%	1/4W	
R627	1-247-895-91	CARBON	470K	5%	1/4W	
R628	1-215-479-00	METAL	270K	1%	1/4W	
R629	1-215-449-00	METAL	15K	1%	1/4W	
R630	1-215-437-00	METAL	4.7K	1%	1/4W	
R631	1-215-405-00	METAL	220	1%	1/4W	
R632	1-216-033-00	RES,CHIP	220	5%	1/10W	
R633	1-249-429-11	CARBON	10K	5%	1/4W	
R634	1-249-431-11	CARBON	15K	5%	1/4W	
R635	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R636	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R637	1-216-351-00	METAL OXIDE	1.5	5%	1W	F
R638	1-215-435-00	METAL	3.9K	1%	1/4W	
R639 Δ	1-211-761-11	FUSIBLE	0.1	10%	1/2W	
R641	1-249-429-11	CARBON	10K	5%	1/4W	F
R642	1-260-127-11	CARBON	220K	5%	1/2W	
R643	1-215-435-00	METAL	3.9K	1%	1/4W	
R644	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W	
R645	1-216-691-11	METAL CHIP	47K	0.50%	1/10W	
R646	1-249-441-11	CARBON	100K	5%	1/4W	
R649 Δ	1-218-642-11	METAL OXIDE	100K	5%	1W	F
R670	1-249-401-11	CARBON	47	5%	1/4W	
R703	1-249-410-11	CARBON	270	5%	1/4W	
R704	1-215-433-00	METAL	3.3K	1%	1/4W	
R705	1-249-425-11	CARBON	4.7K	5%	1/4W	
R706	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF.NO.	PART NO.	DESCRIPTION	REMARK			
R707	1-249-429-11	CARBON	10K	5%	1/4W	
R708	1-249-429-11	CARBON	10K	5%	1/4W	
R709	1-249-429-11	CARBON	10K	5%	1/4W	
R710	1-249-429-11	CARBON	10K	5%	1/4W	
R711	1-216-346-00	METAL OXIDE	0.56	5%	1W	F
R712	1-215-860-11	METAL OXIDE	33	5%	1W	F
R713	1-216-347-11	METAL OXIDE	0.68	5%	1W	F
R716	1-215-860-11	METAL OXIDE	33	5%	1W	F
R717	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R718	1-215-863-11	METAL OXIDE	100	5%	1W	F
R719	1-249-431-11	CARBON	15K	5%	1/4W	
R724	1-216-423-11	METAL OXIDE	27	5%	1W	F
R727	1-249-431-11	CARBON	15K	5%	1/4W	
R728	1-215-863-11	METAL OXIDE	100	5%	1W	F
R729	1-216-353-00	METAL OXIDE	2.2	5%	1W	F
R730	1-215-860-11	METAL OXIDE	33	5%	1W	F
R903	1-249-417-11	CARBON	1K	5%	1/4W	
R904	1-249-417-11	CARBON	1K	5%	1/4W	
R906	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R907	1-260-087-11	CARBON	100	5%	1/2W	
R908	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R909	1-216-057-00	RES,CHIP	2.2K	5%	1/10W	
R910	1-249-411-11	CARBON	330	5%	1/4W	
R911	1-249-413-11	CARBON	470	5%	1/4W	
R912	1-249-417-11	CARBON	1K	5%	1/4W	
R913	1-247-807-31	CARBON	100	5%	1/4W	
R914	1-247-807-31	CARBON	100	5%	1/4W	
R915	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R916	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R917	1-216-077-00	RES,CHIP	15K	5%	1/10W	
R918	1-249-417-11	CARBON	1K	5%	1/4W	
R919	1-249-417-11	CARBON	1K	5%	1/4W	
R920	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R922	1-216-073-00	RES,CHIP	10K	5%	1/10W	
R925	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R927	1-216-295-91	SHORT				
R929	1-216-065-91	RES,CHIP	4.7K	5%	1/10W	
R931	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R933	1-249-417-11	CARBON	1K	5%	1/4W	
R934	1-249-429-11	CARBON	10K	5%	1/4W	
R935	1-247-807-31	CARBON	100	5%	1/4W	
R936	1-247-807-31	CARBON	100	5%	1/4W	
R937	1-249-417-11	CARBON	1K	5%	1/4W	
R938	1-247-807-31	CARBON	100	5%	1/4W	
R940	1-215-431-00	METAL	2.7K	1%	1/4W	
R941	1-216-643-11	METAL CHIP	470	0.50%	1/10W	



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK
R942	1-215-413-00	METAL	470 1% 1/4W
R943	1-216-647-11	METAL CHIP	680 0.50% 1/10W
R944	1-216-651-11	METAL CHIP	1K 0.50% 1/10W
R945	1-215-425-00	METAL	1.5K 1% 1/4W
R946	1-215-431-00	METAL	2.7K 1% 1/4W
R947	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
R949	1-216-295-91	SHORT	
R951	1-216-025-91	RES,CHIP	100 5% 1/10W
R953	1-216-073-00	RES,CHIP	10K 5% 1/10W
R954	1-216-073-00	RES,CHIP	10K 5% 1/10W
R957	1-216-017-91	RES,CHIP	47 5% 1/10W
R958	1-216-017-91	RES,CHIP	47 5% 1/10W
R959	1-216-061-00	RES,CHIP	3.3K 5% 1/10W
R961	1-216-025-91	RES,CHIP	100 5% 1/10W

VARIABLE RESISTOR

Δ RV501	1-241-767-21	RES, ADJ, CERMET 100K
	3-710-578-01	COVER, VOLUME, 6 MOLD (for RV501)
RV601	1-223-480-11	RES, ADJ, CERMET 5K

RELAY

RY500	1-755-137-11	RELAY
RY601	1-755-031-11	RELAY

SWITCH

S601	1-571-433-21	SWITCH, PUSH (AC POWER)
S901	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S901	1-692-532-21	SWITCH, TACTILE (AEP)
S902	1-762-816-11	SWITCH, TACTILE
S903	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S903	1-692-532-21	SWITCH, TACTILE (AEP)
S904	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S904	1-692-532-21	SWITCH, TACTILE (AEP)
S905	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S905	1-692-532-21	SWITCH, TACTILE (AEP)
S906	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S906	1-692-532-21	SWITCH, TACTILE (AEP)
S909	1-692-431-21	SWITCH, TACTILE (U/C/SH)
S909	1-692-532-21	SWITCH, TACTILE (AEP)

SPARK GAP

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

REF.NO.	PART NO.	DESCRIPTION	REMARK
---------	----------	-------------	--------

TRANSFORMER

T501	1-453-241-11	TRANSFORMER ASSY, FLYBACK (NX-4400//X4L4)
		(U/C/SH)
T501	1-453-274-11	TRANSFORMER ASSY, FLYBACK (NX-4400//U2L4)
		(AEP)
T503	1-429-109-11	TRANSFORMER, FERRITE (DFT)
T504	1-429-103-11	TRANSFORMER, FERRITE (HDT)
T505	1-429-211-11	TRANSFORMER, FERRITE (HST)
T601	1-431-534-11	TRANSFORMER, CONVERTER (SRT)

THERMISTOR

TH501	1-807-796-11	THERMISTOR
TH502	1-807-796-11	THERMISTOR
TH600	1-809-827-11	THERMISTOR
TH601	1-809-827-11	THERMISTOR, POSITIVE

VARISTOR

VA600	1-810-622-11	VARISTOR
VA601	1-810-271-21	VARISTOR ZNR-14DK471U

CRYSTAL

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