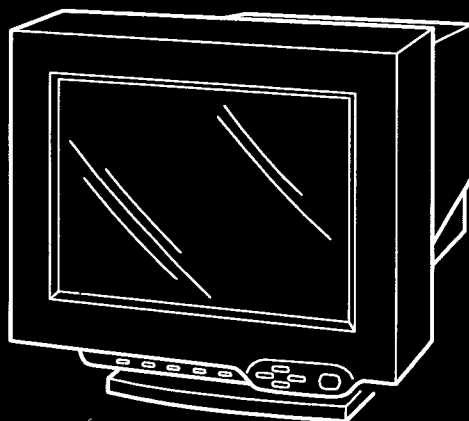


CPD-20SF2/20SF2T

SERVICE MANUAL

Multiscan20sf II



CPD-20SF2
US Model
Canadian Model
AUS Model
ES Model
Chassis No. SCC-J37B-A

CPD-20SF2T
AEP Model
UK Model
Chassis No. SCC-J50A-A

N-2 CHASSIS

SPECIFICATIONS

Picture tube	0.30 mm aperture grille pitch 20 inches measured diagonally (19" maximum viewing image) 90-degree deflection
Video image area	Approx. 388 × 292 mm (w/h) (15 3/8 × 11 1/2 inches)
Resolution	Horizontal: Max. 1280 dots Vertical: Max. 1024 lines
Standard image area	Approx. 350 × 280 mm (w/h) (13 7/8 × 11 1/8 inches)
Deflection frequency	Horizontal: 30 to 85 kHz Vertical: 48 to 150 Hz
AC input voltage/current	100 to 120 V, 50/60 Hz, 1.7 A 220 to 240 V, 50 – 60 Hz, 1.2 A
Power consumption	Max. 150 W
Dimensions	Approx. 472 × 493.5 × 501 mm (w/h/d) (18 5/8 × 19 1/2 × 19 3/4 inches)
Mass	Approx. 29.5 kg (65 lb 1 oz)

Design and specifications are subject to change without notice.



TRINITRON® COLOR COMPUTER DISPLAY
SONY®

DIAGNOSIS

Failure	Power Saving LED	Power LED
HV failure	Off	Blink Amber
Horizontal/Vertical deflection failure, thermal protector	Blink Amber	Off
ABL protector	Blink Amber	Blink Amber
Aging/Self Test	Off	Blink Amber, Off, Green and Off

Aging Mode: Raster aging

During Power Save, press "OPTION" Key for longer than 2 seconds.

Self Test: OSD color-bar indication

During Power Save, press "CONTRAST+" Key for longer than 2 seconds.

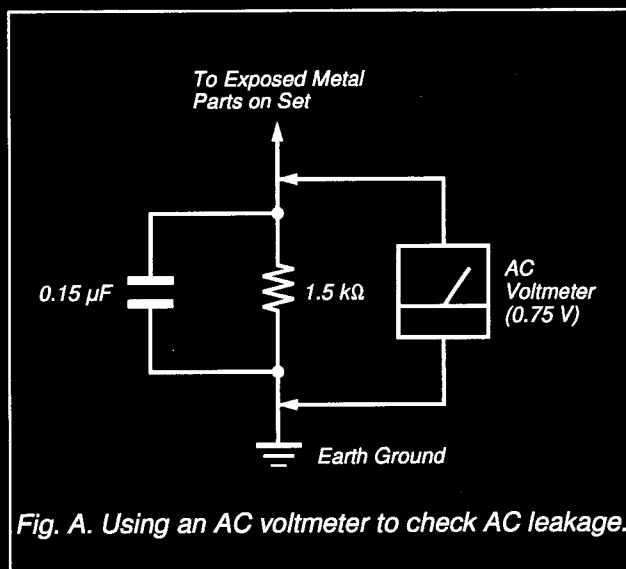
TIMING SPECIFICATION

Mode	1	2	3	4	5	6	7	8	9 (PRIMARY)	10
Resolution(H x V) Dot Clock(MHz)	640 x 480 25.175	720 x 400 28.322	640 x 480 36.000	832 x 624 57.285	800 x 600 56.250	1024 x 768 80.000	1280 x 1024 110.000	1024 x 768 94.500	1152 x 870 100.000	1280 x 1024 135.000
Horizontal										
Hor. freq. (kHz)	31.469	31.469	43.269	49.727	53.674	60.241	63.953	68.677	68.681	79.976
H-total	31.778	31.777	23.111	20.110	18.631	16.600	15.636	14.561	14.560	12.504
H-Front porch	0.636	0.636	0.889	0.559	0.569	0.550	0.727	0.508	0.320	0.119
H-Sync width	3.813	3.813	1.333	1.117	1.138	1.200	1.018	1.016	1.280	1.067
H-Back porch	1.907	1.907	3.111	3.910	2.702	2.050	2.255	2.201	1.440	1.837
H-blanking	6.356	6.355	5.333	5.586	4.409	3.800	4.000	3.725	3.040	3.022
H-Active (μsec)	25.422	25.422	17.778	14.524	14.222	12.800	11.636	10.836	11.520	9.481
Vertical										
Ver. freq. (Hz)	59.940	70.087	85.008	74.553	85.061	74.927	59.938	84.997	75.062	75.025
V-total	525	449	509	667	631	804	1067	808	915	1066
V-Front porch	10	12	1	3	1	3	1	1	3	1
V-Sync. width	2	2	3	3	3	3	5	3	3	3
V-Back porch	33	35	25	37	27	30	37	36	39	38
V-blanking	45	49	29	43	31	36	43	40	45	42
V-Active (Lines)	480	400	480	624	600	768	1024	768	870	1024
Sync.	External	External	External	External	External	External	External	External	External	External
H-Polarity	(-)	(-)	(-)	(-)	(+)	(-)	(-)	(+)	(-)	(+)
V-Polarity	(-)	(+)	(-)	(-)	(+)	(-)	(-)	(+)	(-)	(+)
CS-Polarity	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Scanning mode	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace	Non-Interlace

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

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

WARNING!!

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

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

AVERTISSEMENT!!

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

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

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

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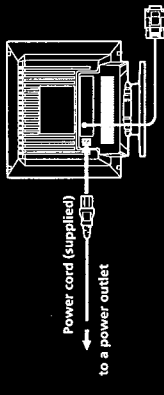
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The operating instructions mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

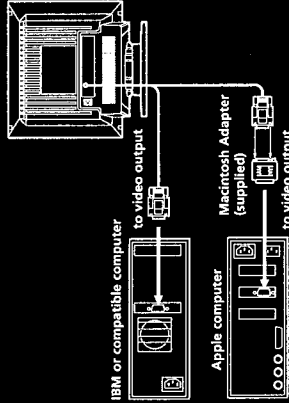
Getting Started

This monitor will sync with any IBM or compatible system equipped with VGA or greater graphics capability. Although this monitor will sync to other platforms running at horizontal frequencies between 30 and 85 kHz, including Macintosh and Power Macintosh systems, a cable adaptor is required. Please consult your dealer for advice on which adaptor is suitable for your needs.

Step 1: With the monitor switched off, attach the power cord to the monitor, and the other end to a power outlet.



Step 2: With the computer switched off, attach the video signal cable to the video output.



Step 3: Turn on the monitor and computer.

Step 4: If necessary, adjust the user controls according to your personal preference.

The installation of your Multiscan 20sII is complete. Enjoy your monitor.

Note: Use HD15 (Female)-HD15 (Male) without No.9 pin) adaptor (supplied) for current DOS computer which has no compliance of DDC 2AB and its No.9 pin is discontinued.

Using Your Monitor

Preset and User Modes

The Multiscan 20sII has factory preset modes for the 10 most popular industry standards for true "plug and play" capability.

For less common modes, the Multiscan 20sII's Digital Multiscan Technology will perform all of the complex adjustments necessary to ensure a high quality picture for any tuning between 30 and 85 kHz.

However, due to the wide variety of video boards on the market, it may be necessary for the user to fine tune the vertical/horizontal size and centering.

No.	Resolution (dots x lines)	Horizontal Frequency	Vertical Frequency	Graphics Mode
1	640 x 480	31.5 kHz	60 Hz	VGA Graphic ¹⁾
2	720 x 400	31.5 kHz	70 Hz	VGA Text ¹⁾
3	640 x 480	43.3 kHz	85 Hz	VESA ²⁾
4	832 x 624	49.7 kHz	75 Hz	Macintosh 16" Color ³⁾
5	800 x 600	53.7 kHz	85 Hz	VESA ²⁾
6	1024 x 768	60.0 kHz	75 Hz	Macintosh 19" Color ³⁾
7	1280 x 1024	64.0 kHz	60 Hz	VESA ²⁾
8	1024 x 768	68.7 kHz	85 Hz	VESA ²⁾
9	1152 x 870	68.7 kHz	75 Hz	Macintosh 21" Color ³⁾
10	1280 x 1024	80.0 kHz	75 Hz	VESA ²⁾

Note: For Windows[®] users, check your video board manual or the utility program which comes with your graphic board and select the highest available refresh rate to maximize monitor performance.

Recommended horizontal timing conditions

Horizontal sync width should be >4.8% of total horizontal time.

Horizontal blanking width should be >3.0 μsec.

- 1) VGA is a trademark of IBM Corporation.
- 2) VESA is a trademark of Video Electronics Standard Association.
- 3) Macintosh is a trademark of Apple Computer Inc.
- 4) Windows[®] is a registered trademark of Microsoft Corporation in the United States and other countries.

SECTION 1 GENERAL

Adjustments

When one of the preset-type signals is input, no picture adjustment is necessary. You can, however, adjust the picture to your preferences by the following procedure described below. You can adjust the all items on the OSD (On Screen Display). The item to be adjusted is indicated in white on the OSD.

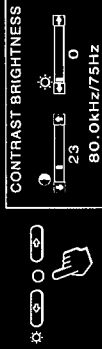
Control Panel



Adjusting the Picture Brightness

The adjustment data becomes the common setting for all input signal.

- 1 Press the $\leftarrow/\rightarrow$ button. The "CONTRAST/BRIGHTNESS" OSD (On Screen Display) appears.



- 2 Press the $\uparrow/\downarrow$ buttons to adjust picture brightness. $\leftarrow/\rightarrow$ for less brightness $\uparrow/\downarrow$ for more brightness

The "CONTRAST/BRIGHTNESS" OSD disappears 3 seconds after you release the buttons.

To reset, press RESET button while the OSD is on.

Adjusting the Picture Contrast

The adjustment data becomes the common setting for all input signal.

- 1 Press the $\leftarrow/\rightarrow$ button. The "CONTRAST/BRIGHTNESS" OSD (On Screen Display) appears.



- 2 Press the $\uparrow/\downarrow$ buttons to adjust picture contrast. $\leftarrow/\rightarrow$ for less contrast $\uparrow/\downarrow$ for more contrast

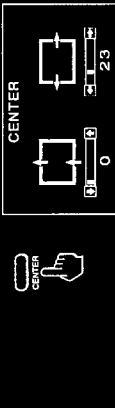
The "CONTRAST/BRIGHTNESS" OSD disappears 3 seconds after you release the buttons.

To reset, press RESET button while the OSD is on.

Adjusting the Picture Centering

The adjustment data becomes the unique setting for the input signal received.

- 1 Press the CENTER button. The "CENTER" OSD (On Screen Display) appears.



- 2 For vertical picture adjustment Press the $\uparrow/\downarrow$ buttons.



$\uparrow$... to move up
 $\downarrow$... to move down

For horizontal picture adjustment Press the $\leftarrow/\rightarrow$ buttons.



$\leftarrow$... to move left
 $\rightarrow$... to move right

To erase the "CENTER" OSD, press the CENTER button again. The "CENTER" OSD automatically disappears 10 seconds after you release the buttons.

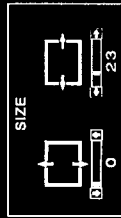
To reset, press RESET button while the OSD is on.

Adjustments

Adjusting the Picture Size

The adjustment data becomes the unique setting for the input signal received.

- 1 Press the **SIZE** button.
The "SIZE" OSD (On Screen Display) appears.



- 2 For vertical picture adjustment
Press the **0** $\updownarrow$ buttons.



$\uparrow$... to enlarge
 $\downarrow$... to diminish

For horizontal picture adjustment
Press the **0** $\leftarrow \rightarrow$ buttons.



$\leftarrow$... to diminish
 $\rightarrow$... to enlarge

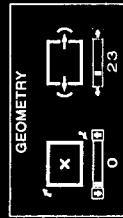
To erase the "SIZE" OSD, press the **SIZE** button again.
The "SIZE" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press **RESET** button while the OSD is on.

Adjusting the Picture Rotation

The adjustment data becomes the common setting for all input signal.

- 1 Press the **GEOM** button.
The "GEOMETRY" OSD (On Screen Display) appears.



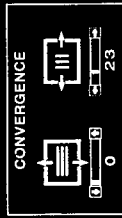
To erase the "GEOMETRY" OSD, press the **GEOM** button again.
The "GEOMETRY" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press **RESET** button while the OSD is on.

Adjusting the Convergence

The adjustment data becomes the common setting for all input signals.

- 1 Press the **CONV** button.
The "CONVERGENCE" OSD (On Screen Display) appears.



- 2 For vertical adjustment
Press the **0** $\updownarrow$ buttons.



$\uparrow$... to move Red up and Blue down
 $\downarrow$... to move Red down and Blue up

For horizontal adjustment
Press the **0** $\leftarrow \rightarrow$ buttons.



$\leftarrow$... to move Red to the right and Blue to the left
 $\rightarrow$... to move Red to the left and Blue to the right

To erase the "CONVERGENCE" OSD, press the **CONV** button again.
The "CONVERGENCE" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press **RESET** button while the OSD is on.

Setting the Color Temperature

The selected color temperature becomes the common setting for all input signals. (The factory presetting is 9300K.)

- 1 Press **COLOR** button.
The "COLOR TEMPERATURE" OSD (On Screen Display) appears.



- 2 Adjust with the **0** $\updownarrow$ and **0** $\leftarrow \rightarrow$ buttons.

To select 9300K, 6500K, or 5000K
Press **0** $\updownarrow$ buttons.



To obtain the desired color temperature between 5000K and 9300K

- 1 Press **0** $\updownarrow$ buttons to select user mode (000).



- 2 Press **0** $\leftarrow \rightarrow$ buttons.



$\leftarrow$... for lower temperature (to be reddish)
 $\rightarrow$... for higher temperature (to be bluish)

Your most recent adjusted color temperature will be recalled by pressing **0** $\updownarrow$ button.
The factory presetting is 6500K for the user adjustable mode of color temperature.

To erase the "COLOR TEMPERATURE" OSD, press the **COLOR** button again.
The "COLOR TEMPERATURE" OSD automatically disappears 10 seconds after you release the buttons.

To reset, press **RESET** button while the OSD is on.

Adjustments

Resetting the Adjustment Data to Factory-preset Levels

To reset an adjustment item

Press the button of the adjustment item you want to reset, and then press the RESET button before the OSD (On Screen Display) disappears.

To reset the brightness, contrast, size, center, pincushion, and color temperature adjustment data at once (for the received signal)

Press the RESET button with something like a pen for one second before OSD disappears.



To reset all adjustment data to factory-preset levels

Press and hold the RESET button for more than 2 seconds. All adjustment data including the brightness and contrast are reset to factory-preset levels.



Entering New Timings

When using a video mode that is not one of the 10 factory preset modes, some fine tuning may be required to optimize the display to your preferences. Simply adjust the monitor according to the preceding adjustment instructions. The adjustments will be stored automatically and recalled whenever that mode is used.

A total of 15 user-defined modes can be stored in memory. If the 16th mode is entered, it will replace the first.

Power Saving Function

This monitor meets the power saving guidelines set by the EPA Energy Star Program as well as the more stringent NUTEK 803299 (TCO92) guidelines. It is capable of reduced power consumption when used with a computer equipped with Display Power Management Signaling (DPMS). By sensing the absence of the sync signal coming from the computer, it will reduce the power consumption as follows:

CAUTION: The Power Saving function will automatically put the monitor into Active-off state if the power switch is turned on without any video signal input. Once the horizontal and vertical sync are sensed, the monitor will automatically return to its Normal operation state.

	State	Power consumption	Required resumption time	POWER SAVING Indicator	POWER indicator
1	Normal operation	100%	—	off	green on
2	Standby (1st step of power saving)	approx. 70%	approx. 3 sec.	orange on	green on
3	Suspend (2nd step of power saving)	approx. 10%	approx. 5 sec.	orange on	green on
4	Active-off (3rd step of power saving)	approx. 4%	approx. 10 sec.	orange on	off
5	Power-off	0%	—	off	off

Plug and Play

This monitor complies with the DDC1™, DDC2B™ and DDC2B™ which are the Display Data Channel (DDC) standards of VESA.

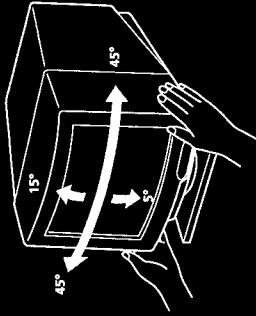
When a DDC1 host system is connected, the monitor synchronizes with the V. CLK in accordance with the VESA standards and outputs the EDID (Extended Display Identification) to the data line.

When a DDC2B or DDC2B host system is connected, the monitor automatically switches to each communication.

• DDC™ is a trade mark of Video Electronics Standard Association.

Use of the Tilt-Swivel

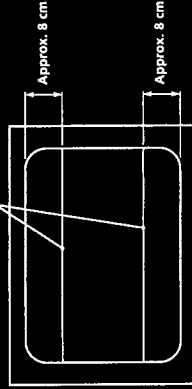
With the tilt-swivel, this unit can be adjusted to be viewed at your desired angle within 90° horizontally and 20° vertically. To turn the unit vertically and horizontally, hold it at its bottom with both hands.



Damper Wire

Using a white background, very thin horizontal stripes on the screen are visible as shown on the illustration. These stripes are damper wires. These wires are attached to the aperture grille inside the Trinitron tube and are there to damp vibrations of the aperture grille in order to prevent them from influencing to the picture quality.

Damper wire



Specifications

Picture tube

0.30 mm aperture grille pitch
20 inches measured diagonally (19" maximum viewing image) 90-degree deflection

Video image area

Approx. 388 × 292 mm (w/h)
(15 5/8 × 11 1/2 inches)

Resolution

Horizontal: Max. 1280 dots
Vertical: Max. 1024 lines

Standard image area

Approx. 350 × 280 mm (w/h)
(13 7/8 × 11 1/8 inches)

Deflection frequency

Horizontal: 30 to 85 kHz
Vertical: 48 to 150 Hz

AC input voltage/current

100 to 120 V, 50/60 Hz, 1.7 A
220 to 240 V, 50 - 60 Hz, 1.2 A

Power consumption

Max. 150 W
Approx. 472 × 483.5 × 501 mm (w/h/d)

Dimensions

(18 5/8 × 19 1/2 × 19 3/4 inches)

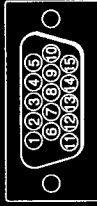
Mass

Approx. 29.5 kg (65 lb 1 oz)

Pin assignment

Video signal cable (HD15) (Male)

The cable accepts RGB video signals (0.714 Vp-p or leave out, positive), and SYNC signals.



Pin No.	Signal	Pin No.	Signal
1	Red	8	Blue Ground
2	Green	9	DDC + 5V
	(Composite Sync on Green)	10	Ground
3	Blue	11	—
4	—	12	Bi-Directional Data (SDA)*
5	DDC Ground*	13	H. Sync
6	Red Ground	14	V. Sync
7	Green Ground	15	Data Clock (SCL)*

* Display Data Channel (DDC) Standard by VESA.

Design and specifications are subject to change without notice.

Troubleshooting

This section may help you isolate a problem and as a result, eliminate the need to contact technical support, allowing continued productivity.

No picture

- If neither the (power) indicator nor the POWER SAVING indicator is lit:
 - Check that the power cord is properly connected.
 - Check that the power switch is in the "ON" position.
- If the POWER SAVING indicator is lit:
 - Check that your computer power switch is in the "ON" position.
 - The monitor will recover when you press any key on the keyboard of the computer.
 - Check that the video cable is properly connected.
 - Ensure that no pins are bent or pushed in the HD15 connector of the cable.
 - Check that the video card is seated completely in a proper bus slot.
 - Check that the video sync signal is within that specified for the monitor.
- If using a Mac system, check that a proper HD15-D15 adapter is provided to work correctly with your Macintosh.
 - If you do the above procedures and the monitor does not recover:
 - Unplug the video cable (HD15) then press and hold the ⌘ + button for 2 seconds to display the color bars. Then, turn the monitor off and on by pressing the (power) switch.
- If the monitor does not recover, the monitor is out of order.
- If the (power) and/or the POWER SAVING indicator is flashing:
 - Turn the monitor off and on. If the indicator is not flashing, the monitor is in the normal condition. If the indicator is still flashing, there is a potential monitor failure.
- If your computer is a Macintosh system:
 - Check that micro switches are properly set on the Macintosh adapter for your system. (See the adapter manual.)

Picture is scrambled

- Check your graphics board manual for the proper monitor setting on your Multiscan 2048i.
- Check this manual and confirm that the graphic mode and the frequency at which you are trying to operate is supported. Even within the proper range some video boards may have a sync pulse that is too narrow for the monitor to sync correctly.

Color is not uniform

- Trip the power switch once to activate the Auto-degauss cycle*.

White does not look white

- Adjust the "COLOR TEMPERATURE" on the OSD. (page 7)
- If your computer is a Macintosh system, check that micro switches are properly set on the Macintosh adapter for your system. (See the adapter manual.)

Screen image is not centered or sized properly

- Adjust the "CENTER", "SIZE", or "GEOMETRY" on the OSD (pages 5, 6).
- Some video modes do not fill the screen to the edge of the monitor. There is no single answer to solve the problem. There is a tendency to have this problem on higher refresh timings and Macintosh video timings.

Edges of the image are curved

- Adjust pinclusion using the "GEOMETRY" OSD. (page 6)

White lines show red or blue shades at edges

- Adjust the "CONVERGENCE" on the OSD. (page 7)

Picture is fuzzy

- Adjust the "CONTRAST" and "BRIGHTNESS" on the OSD (page 5). We have come across several brands of SVGA boards that have an excessive video output level which creates a fuzzy picture at max contrast.
- Trip the power switch once to activate the Auto-degauss cycle*.
- If red or blue shades are found at the edge of images, adjust the "CONVERGENCE" on the OSD. (page 7)

Picture bounces or has wavy oscillations

- Isolate and eliminate any potential sources of electric or magnetic fields. Common causes for this symptom are electric fans, fluorescent lighting, laser printers, and so on.
- If you have another monitor close to this monitor, increase the distance between them to reduce the interference.
- Try plugging the monitor into a different AC outlet, preferably on a different circuit.
- Try the monitor on a completely different computer in a different room.

Picture appears to be ghosting

- Eliminate the use of video cable extension cables and/or video switch boxes if this symptom occurs. Excessive cable length or weak connections can preclude this symptom.

Two fine horizontal line (wire) is visible

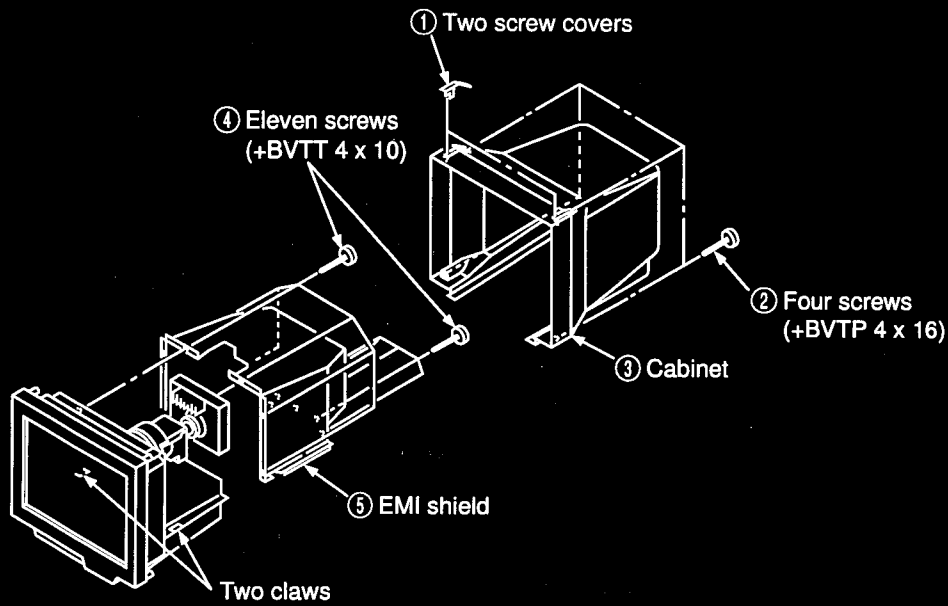
- This wire stabilizes the vertically striped Aperture Grille. This Aperture Grille allows more light to pass through to the screen giving the Trinitron CRT more color and brightness.

Wavy or elliptical (moire) pattern is visible

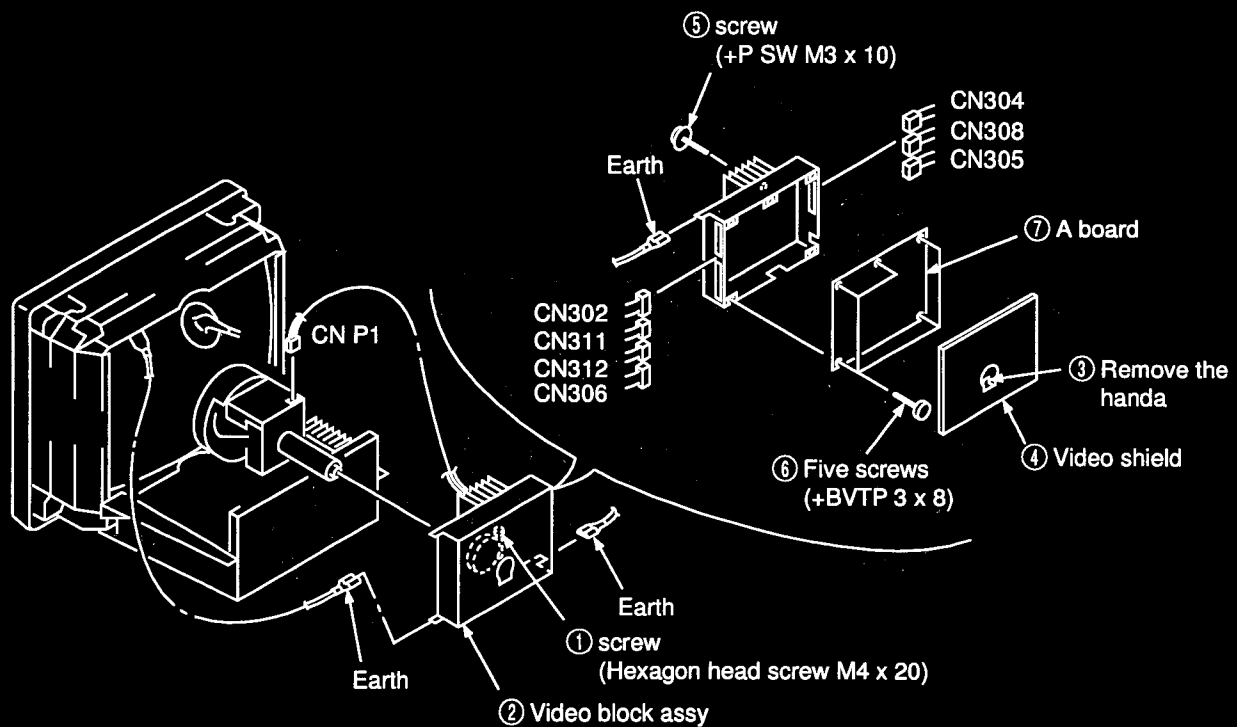
- Due to the relationship between resolution, monitor dot pitch and the pitch of some image patterns, certain screen backgrounds, especially gray, sometimes show moire. This can only be eliminated by changing your desktop pattern.
- * The Auto-degauss function demagnetizes the metal frame of the CRT to obtain a neutral field for uniform color reproduction. If a second degauss cycle is needed, allow a minimum interval of 20 minutes for the best result.
- If the problem persists, call your authorized Sony dealer from a location near your monitor.
- Note the model name and the serial number of your monitor. Also note the make and name of your computer and video board.

SECTION 2 DISASSEMBLY

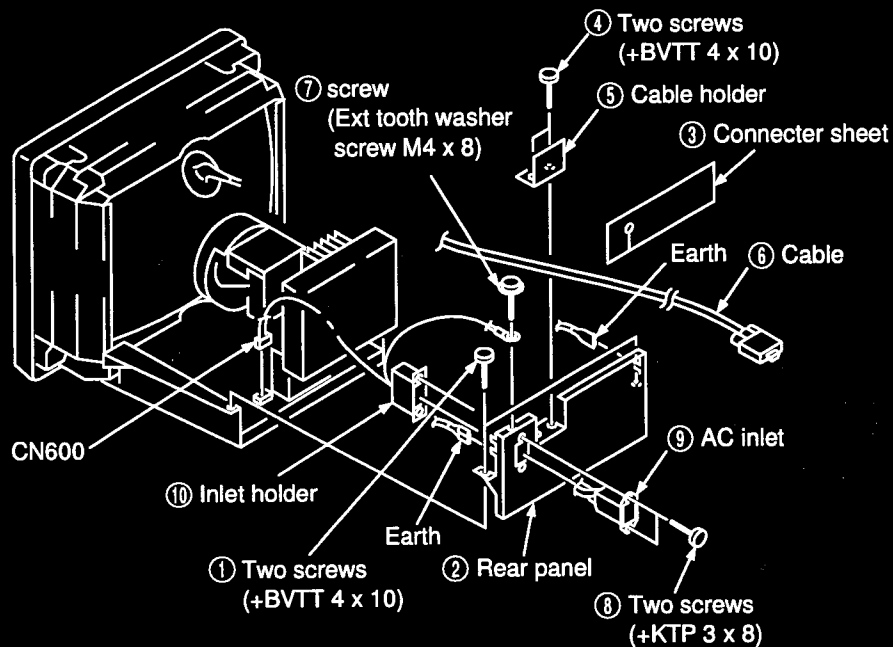
2-1. CABINET AND EMI SHIELD REMOVAL



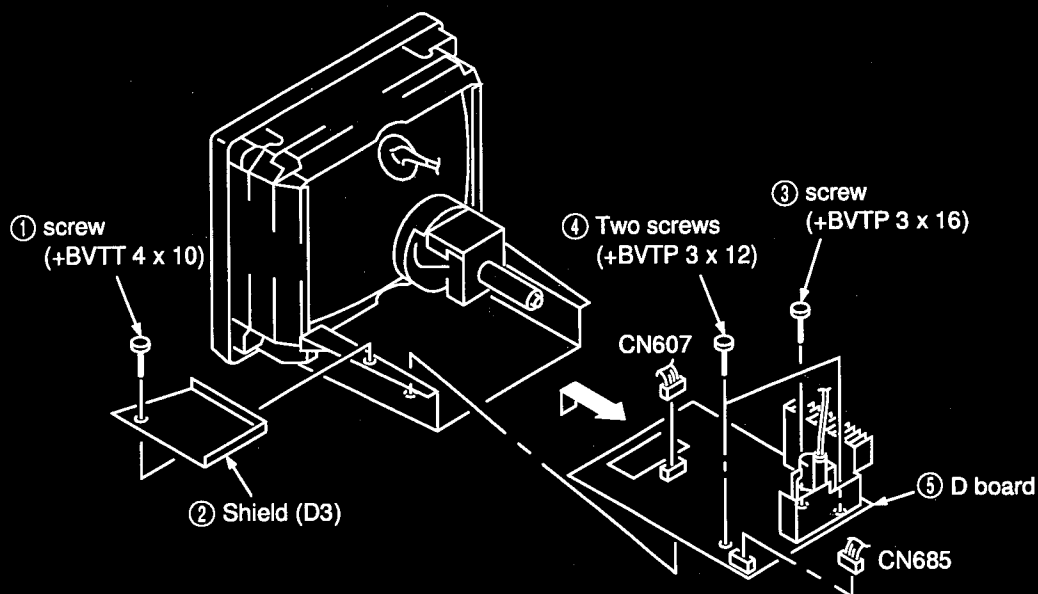
2-2. A BOARD REMOVAL



2-3. REAR PANEL REMOVAL

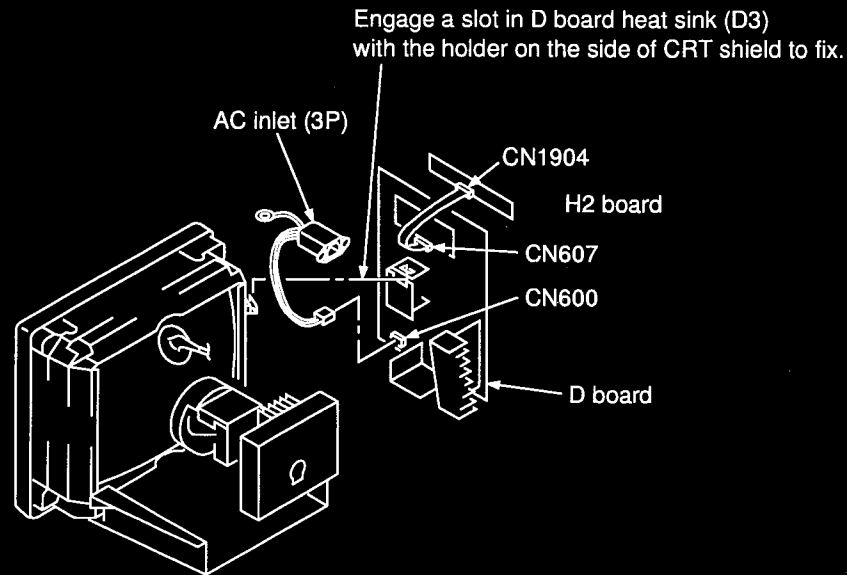


2-4. D BOARD REMOVAL

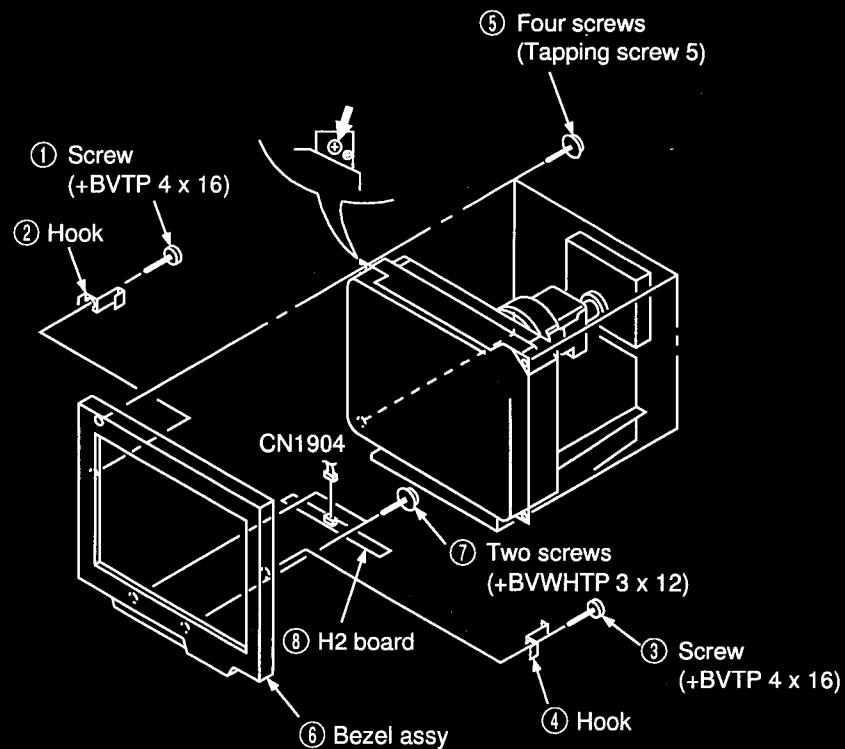


2-5. SERVICE POSITION

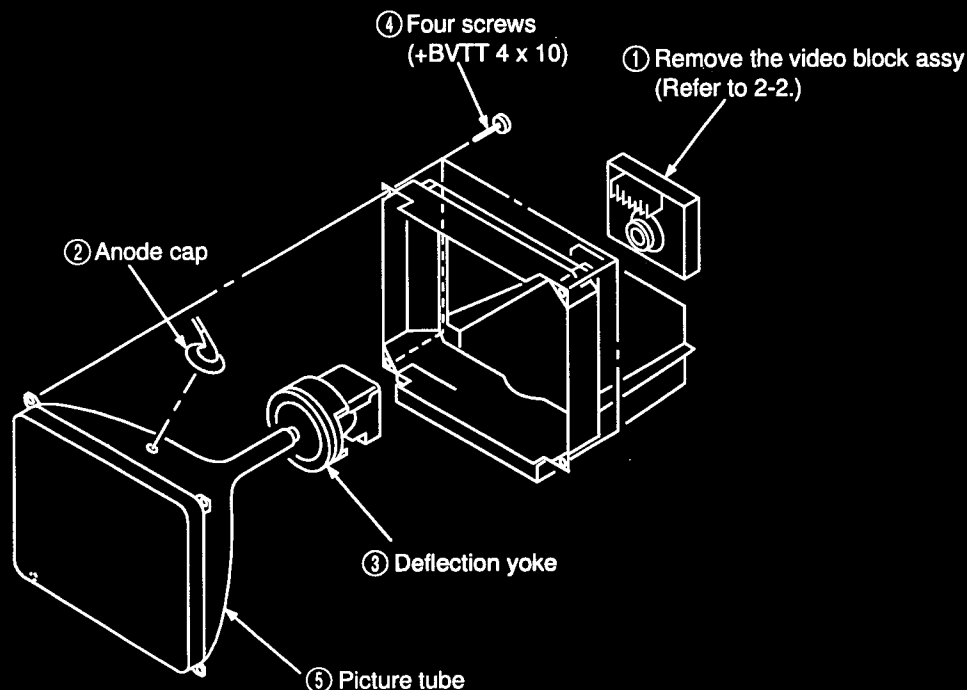
Remove the AC inlet (Refer to 2-3.)
 Remove the D board (Refer to 2-4.)
 Remove the H2 board (Refer to 2-6.)



2-6. H2 BOARD REMOVAL



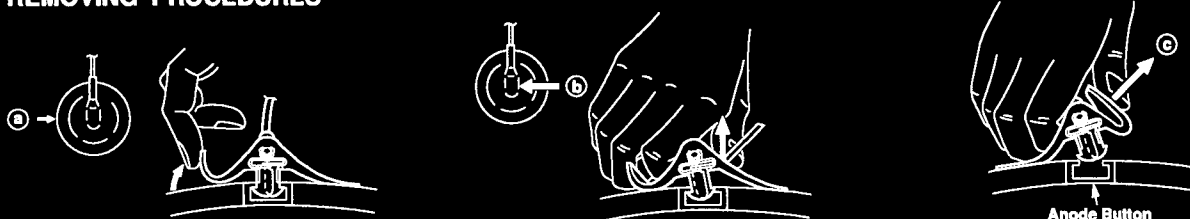
2-7. PICTURE TUBE REMOVAL



• REMOVAL OF ANODE-CAP

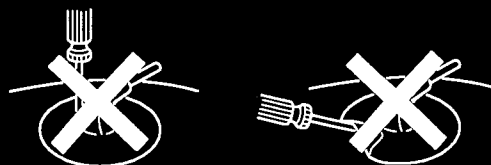
NOTE: Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield or carbon painted on the CRT, after removing the anode.

• REMOVING PROCEDURES



• HOW TO HANDLE AN ANODE-CAP

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



SECTION 3

SAFETY RELATED ADJUSTMENT

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

	Part Replaced (☒)
SCREEN	RV401

	Part Replaced (☑)
HV Regulator Circuit	D board IC401, IC403, RV401, FBT(T404), D425, R423, R460, R461, R462, R493 • Mounted D board
HV Hold-Down Circuit	D board IC401, D439, D422, D443, D444, R422, R435, R448, R490 • Mounted D board
Beam Current Protector Circuit	D board IC401, D429, D445, R435, R470, R472, R487, R491, R497, R501, R503, R508 • Mounted D board

※ Confirm one minute later turning on the power.

Check Condition

- Input voltage : 118~122 V AC
- Input signal : White dots or Cross Hatch
- Controls : BRT and CONT → Minimum

a) HV Hold-Down Check

- 1) Using an external DC Power supply, apply the voltage shown below between cathode of D439 on D board and GND, and confirm that the HV Hold-Down circuit works. (TV Raster disappears)
Standard voltage: Less than 28.40 V DC

b) Beam Current Protector Circuit Check-1 (Hardware logic)

- 1) Record the initial value of ABL-SHUTDOWN and using a PC computer, input the "255" for resistor value.
- 2) Connect a resistor (100 K Ω) between pin ② of CN811 and pin ⑮ of CN812.
- 3) Confirm that the raster appears on the CRT screen.
- 4) Connect a variable resistor (12 K Ω or more) and an ammeter in series between pin ⑪ of FBT (T404) and GND, then, decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuit works (TV Raster disappears).
The current must be within the range shown below.
Standard current: Less than 1.48 mA
- 5) Turn off the Unit.

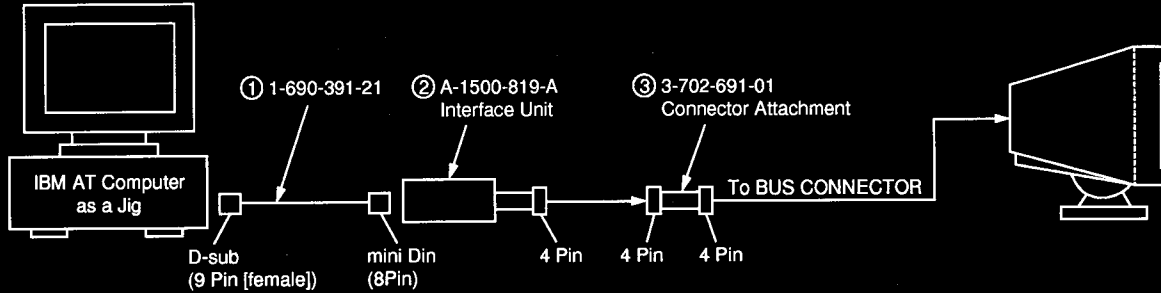
c) Beam Current Protector Circuit Check-2 (Software logic)

- 1) Make a short between pin ⑮ of CN811 and pin ① of CN810.
- 2) Confirm that the raster appears on the CRT screen.
- 3) Connect a variable resistor (12 K Ω or more) and an ammeter in series between pin ⑪ of FBT (T404) and GND, then, decrease gradually the resistance of the variable resistor from maximum to minimum, and confirm that the Beam Current Protector Circuit works (TV Raster disappears).
The current must be within the range shown below.
Standard current: Less than 1.30 mA
- 4) Back the value of ABL-SHUTDOWN to the initial regulation value.
- 5) Turn off the Unit.

SECTION 4

ADJUSTMENTS

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



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

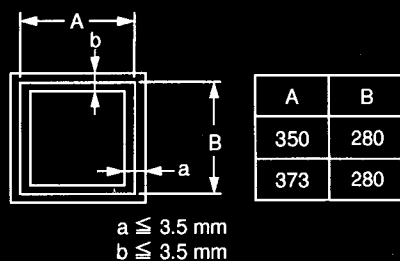
● White Balance Adjustment Specification

Adjustments Procedure	Input signal	Value of CONT, BRT	Adjust point	Specification
COLOR BAL = 3 (9300K)				
1	32 step Gray scale	CONT-255 BRT-80	G2	While changing value of "G2" register, adjust to be CUTOFF at first Step (pedestal level) and to be barely bright at second one.
2	All black (0IRE)	CONT-255 BRT-255 *Note 1	BRIGHTNESS MAX, R CUTOFF MAX, B BUTOFF MAX	$0.283 \pm 0.010, 0.298 \pm 0.010 (x, y)$ $Y = 8^{+1}_{-0.5} \text{ cd/m}^2$
3	All White (100 IRE)	CONT-255 BRT-255	CONT MAX/BRT MAX, G DRIVE, B DRIVE	$0.283 \pm 0.005, 0.298 \pm 0.005 (x, y)$ $Y = 100 \pm 2 \text{ cd/m}^2$
4	Gray (30 IRE)	CONT-255 BRT-80	R CUTOFF MIN, B CUTOFF MIN	$0.283 \pm 0.005, 0.298 \pm 0.005 (x, y)$
5	All White (100 IRE)	CONT-255 BRT-80 *Note 2	CONT MAX/BRT CENT, G DRIVE, B DRIVE	$0.283 \pm 0.005, 0.298 \pm 0.005 (x, y)$ $Y = 100 \pm 2 \text{ cd/m}^2$
6	All White (100 IRE)	CONT-0 BRT-80	CONT MIN/BRT CENT	$Y = 10 \pm 1 \text{ cd/m}^2$
7	All White (100 IRE)	COLOR TEMP DIGIT = 93	Color save	
8	All White (100 IRE)	CONT-255 BRT-255	The value of ABL which the above condition shall plus 11, and stored the value in "ABL CONT LIMIT".	
9	All White (100 IRE)	CONT-255 BRT-255	Add 23 to the ABL value given in step 8's luminance setting, and store the value in "ABL SHUTDOWN" register.	
COLOR BAL = 2 (6500K)				
Copy all data of "COLOR BAL = 3"				
1	All White (100 IRE)	CONT-255 BRT-80	Store adjustment value in Step "COLOR BAL = 3" in "R CUTOFF MAX", "B CUTOFF MAX", "BRIGHTNESS MAX", "BRIGHTNESS MIN" and "CONT MIN/BRT CENT". Store 180 in "R DRIVE"	
2	All Black (0 IRE)	CONT-255 BRT-255	R CUTOFF MAX, B CUTOFF MAX	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 8^{+1}_{-0.5} \text{ cd/m}^2$
3	All White (100 IRE)	CONT-255 BRT-255	CONT MAX/BRT MAX, G DRIVE, B DRIVE	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 90 \pm 2 \text{ cd/m}^2$
4	Gray (30 IRE)	CONT-255 BRT-80	R CUTOFF MIN, B CUTOFF MIN	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$
5	All White (100 IRE)	CONT-255 BRT-80 *Note 2	CONT MAX/BRT CENT, G DRIVE, B DRIVE	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 90 \pm 2 \text{ cd/m}^2$
6	All White (100 IRE)	COLOR TEMP DIGIT = 65	Color save	
COLOR BAL = 1 (5000K)				
Copy all data of "COLOR BAL = 2"				
1	All White (100 IRE)	CONT-255 BRT-80	Store adjustment value in Step "COLOR BAL = 3" in "R CUTOFF MAX", "B CUTOFF MAX", "BRIGHTNESS MAX", "BRIGHTNESS MIN" and "CONT MIN/BRT CENT". Store 200 in "R DRIVE"	
2	All Black (0 IRE)	CONT-255 BRT-255	R CUTOFF MAX, B CUTOFF MAX	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 8^{+1}_{-0.5} \text{ cd/m}^2$
3	ALL White (100 IRE)	CONT-255 BRT-255	CONT MAX/BRT MAX, G DRIVE, B DRIVE	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 80 \pm 2 \text{ cd/m}^2$
4	Gray (30 IRE)	CONT-255 BRT-80	R CUTOFF MIN, B CUTOFF MIN	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$
5	All White (100 IRE)	CONT-255 BRT-80 *Note 2	CONT MAX/BRT CENT, G DRIVE, B DRIVE	$0.313 \pm 0.005, 0.329 \pm 0.005 (x, y)$ $Y = 80 \pm 2 \text{ cd/m}^2$
6	All White (100 IRE)	COLOR TEMP DIGIT = 50	Color save	
Confirm G2, Set "COLOR BAL = 3"				
Copy all data of "COLOR BAL = 1"				
1	32 step Gray scale	CONT-255 BRT-80	The point next step service save to pedestal level become to be visible.	

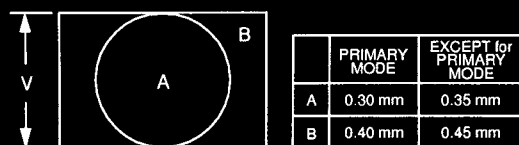
*Note 1: Store calculated value in "BRIGHTNESS MIN". $(150 - \text{"BRIGHTNESS MAX"}) \times \frac{80}{175} + 70$

*Note 2: Repeat steps 4 and 5 to obtain tracking.

● Vertical and Horizontal Position and Size Specification



● Convergence Specification



● Convergence Rough Adjustment

- Receive an image of the white crosshatch signals (white lines on black).
- Place the protrusions (A and B) of the 6-fold poles magnet attached to the CRT neck upon each other. (See fig. 3)
- Make rough adjustment of the H direction convergence by using H. STAT VR (RV101. Right side of the video case).
- Make a rough adjustment of the V direction convergence by using "V. CONV".

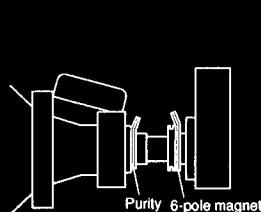


Fig. 1

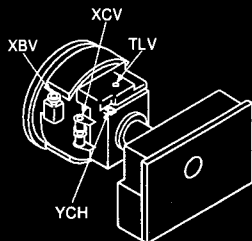


Fig. 2



Fig. 3



Fig. 4

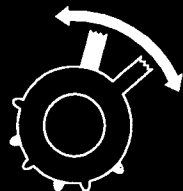
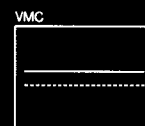
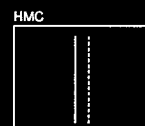
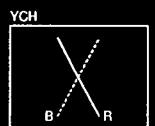
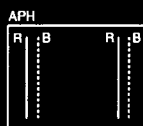
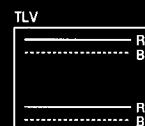
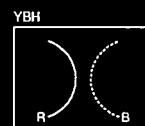
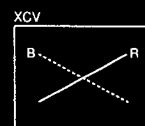
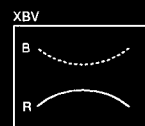
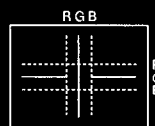


Fig. 5

● Convergence Fine Adjustment

- Input white crosshatch signals (white lines on black) in the prime mode.
Adjust the screen size to 373mm × 280mm.
- Check that the value of "H. CONV" and "V. CONV" is "0" (center).
- Turn the H. STAT VR and set the parallel lines of the 3 colors R, G and B (vertical lines). Set the parallel lines of the 3 colors R, G and B with "V. CONV" (horizontal lines).
- Turn the magnet ring (6-fold poles) behind the DY and adjust so that the R-G distance of the parallel lines of the 3 colors and the B-G distance become identical.
 - HMC Adjust Gradually change the opening or closing angle of two tabs. (See fig. 4)
 - VMC Adjust Gradually rotate two tabs simultaneously. (See fig. 5)
- Return the value of H. STAT VR and "V. CONV" used in (3) and set the misconvergence of the center of the screen to zero.
- Fine adjustment of convergence
 - Turn the XBV VR to adjust the XBV misconvergence.
 - Turn the XCV VR to adjust the XCV misconvergence.
Note: When correcting XBV, readjust "V. CONV".
When XCV exceeds the adjustment range, adjust by tilting the DY vertically.
 - Move the TLH correcting board to rightside and leftside, adjust the H. TILT misconvergence.
Note: Also readjust H. STAT VR.
 - Adjust APH misconvergence with "APH VR".
Note: Obtain tracking about step c) and d).
 - With the YBH VR on DY adjust the YBH misconvergence for the upper half screen.
 - With the YCH VR on DY adjust the YCH misconvergence for the upper half screen.
 - With the TLV VR on DY, adjust top and bottom TLV.
Note: When horizontal trapezoid is out of specification, obtain tracking by moving the DY neck left and right.
 - Adjust "V. STAT" with "V. CONV".
Adjust "V. CONV TOP".
Adjust "V. CONV BOM".
The above adjustments are within ±50. Cannot completely adjust, readjust step f).
 - Check the convergence across whole screen, as needed adjust horizontal static and perform steps c) through i), also use correction permalloys.
 - Check the convergence across whole screen.
 - Fix the 6-fold poles, XCV VR, XBV VR, TLH correcting board, H. STAT VR with white paint.
 - Fix the DY wedges (5) and permalloys with RTV.



G R & B

●Landing Rough Adjustment

1. Enter the full white signal. (or the full black dots signal).
2. Set the contrast to the maximum.
3. Make the screen monogreen.
4. Reverse the DY, and adjust coarsely the purity magnet so that a green raster positions in the center of screen.

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

5. Moving the DY forward, adjust so that an entire screen becomes monogreen.

6. Adjust the tilt of DY, and fix lightly with a clamp.

Note: "TILT" shall be set at 0.

●Landing Fine Adjustment

1. Put the set inside the Helmholtz coil.
2. Input the single green signal and set the CONT control to MAX.

Note: Set to $\Sigma 1k=300 \mu A$ with the signal green signal, and after aging for about 30 minutes, adjust so that it is exactly this value.

3. Demagnetize the metal part of the chassis with the hand degausser and coil degausser, and the CRT surface with the hand degausser.

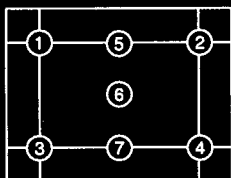
Input AC 230V to AC IN, turn on and off the power to perform auto degaussing.

Demagnetize the CRT surface with the hand degausser again.

Note:

- (1) Adjust in a non-magnetic field. $BV=45uT$.
- (2) If adjusting in a magnetic fields, add the shift from the non-magnetic field in your estimation.
4. Attach the wobbling coil to the designated part of the CRT neck.
5. Attach the sensor of the landing adjustment unit on the CRT surface.
6. Adjust the DY position and purity, and the DY tilt, and landing of the center and 4 corners with the landing checker.

<Specification>



Adjust the green of corners ① to ④, and center ⑥ to $\pm 5 \mu m$, and red and blue to within $\pm 7 \mu m$ of green, and the difference between red and blue to within $\pm 10 \mu m$.

Adjust the green of ⑤ and ⑦ to within $\pm 10 \mu m$, and red and blue to within $\pm 7 \mu m$ of green, and the difference between red and blue to within $\pm 10 \mu m$.

(Set each corner to 1st frame of the crosshatch.)

7. For the up/down and left/right swing, swing the DY and insert a wedge so that the up and down pins are equal at the top and bottom and the horizontal trapezoid is equal at the left and right. Insert the wedge firmly so that the DY does not shake.

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

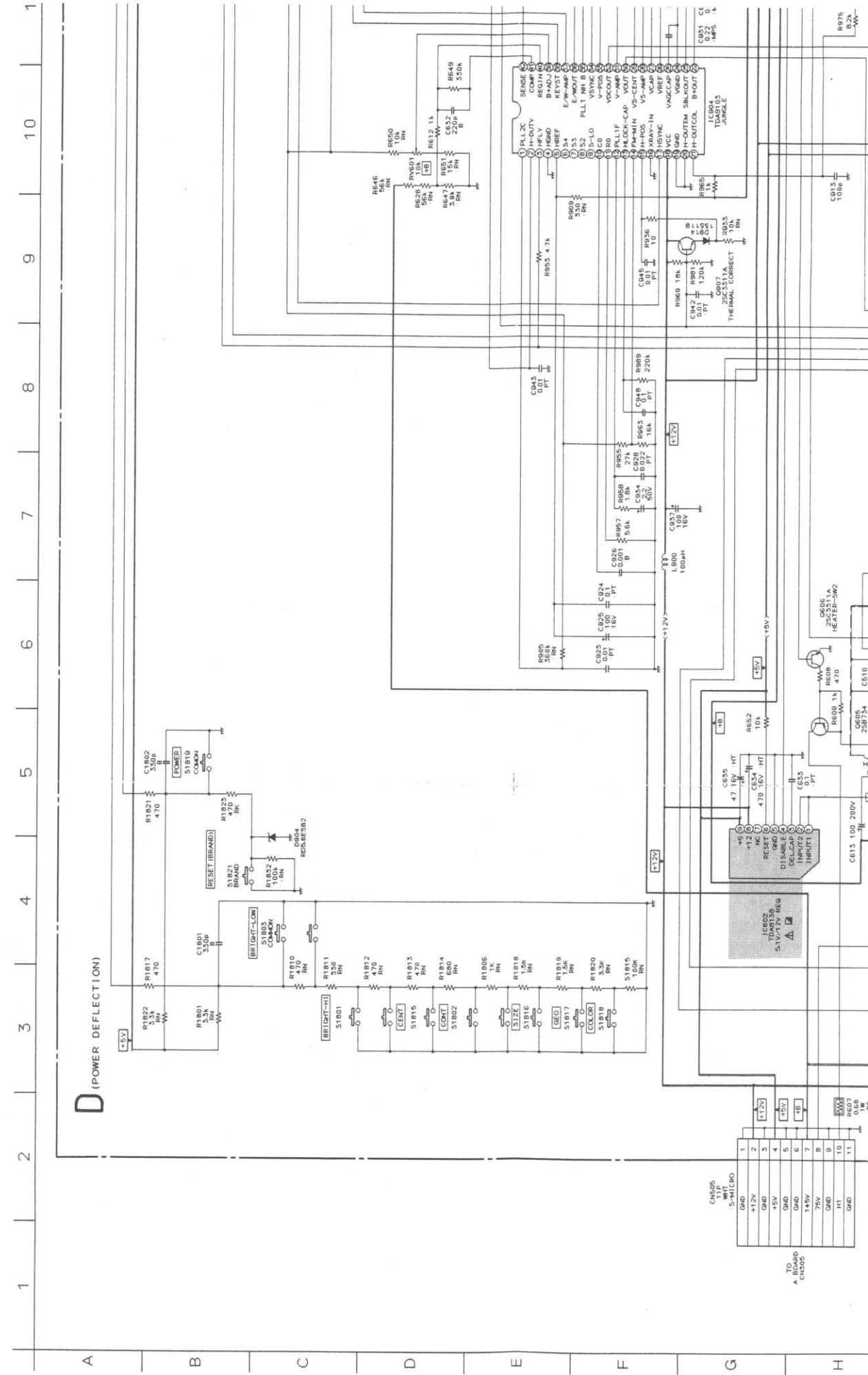
Note:

- (1) Do not paste more than 2 magnets to one corner.
- (2) Paste within 80 to 100 mm from the DY on the diagonal line of the magnet.
- (3) If using the magnet, be sure to demagnetize with the hand degausser and check.
9. Remove the sensor and wobbling coil.
10. Switch the signal to R.G.B., and check that each color is pure.
11. Check that the DY is not tilting, and fix the purity Mg with a white pen.
12. Fasten DY with screw.

Note: Torque $20 \pm 2kg \cdot cm$

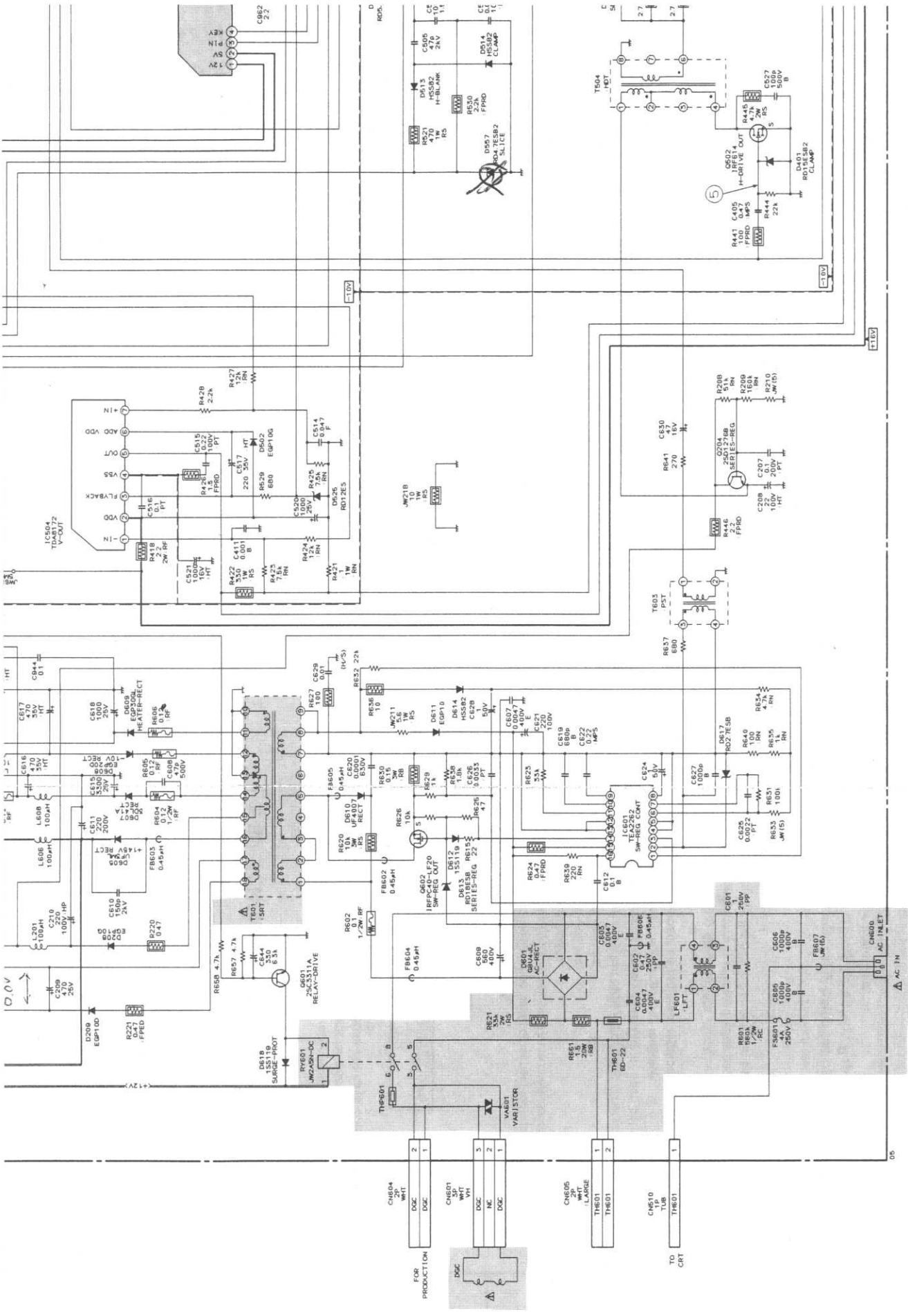
175F2

● D BOARD WAVEFORMS

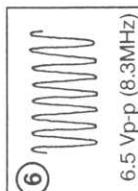


No.	Voltage [V]
12	2.2
13	7.3
14	3.3
15	3.4
17	0.6
21	5.8
22	3.0
23	5.0
25	5.1
26	8.1
27	3.6
28	3.5
29	4.5
30	3.5
31	4.1
32	3.6
33	4.7
34	0
35	0.1
36	2.3
37	2.7
38	4.5
39	4.3
40	4.8
41	3.0
42	0.1
G	0.7
D	15.1
B	55.0
C	58.6
E	54.5
B	54.5
C	57.9
E	53.9
B	57.6
C	75.4
E	56.5
B	3.9
C	159.8
E	3.4
B	1.8
C	6.8
D	1.3
B	3.4
E	3.9
G	3.6
D	56.3
G	142.3
	52.1
	144.8

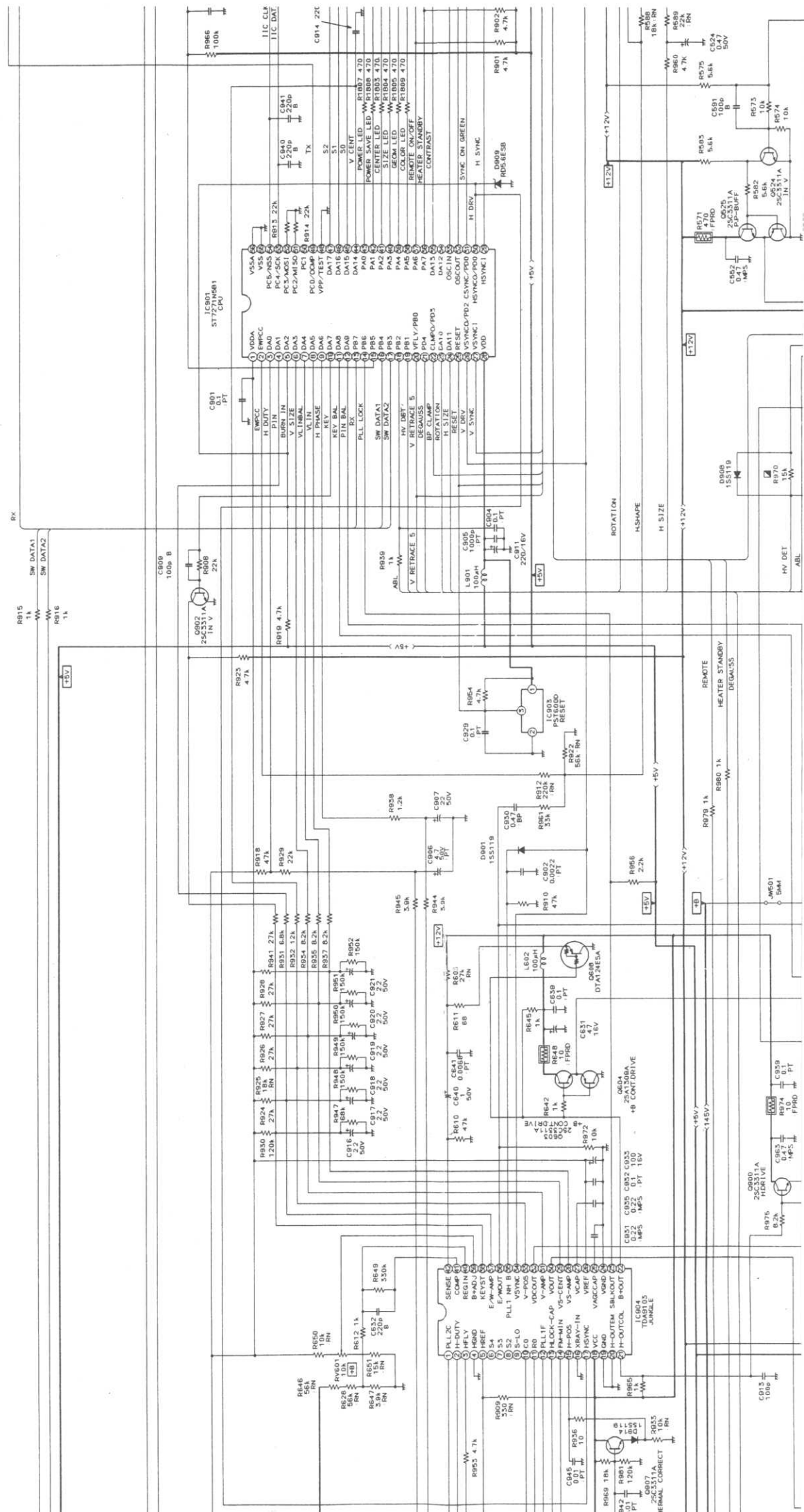
B	-0.5
C	52.2
G	6.3
D	11.2
G	5.0
D	0
G	5.0
D	0
G	5.0
D	0
B	6.7
E	6.3
B	6.7
C	11.9
E	6.3
B	0.3
C	7.6
B	7.6
E	7.4
B	7.5
E	7.4
B	0
C	11.9
G	3.2
D	125.3
S	0.1
B	2.9
E	3.1
B	2.9
E	3.1
B	6.0
C	6.4
E	6.7
B	0.7
C	0
B	3.0
E	1.6
B	*
C	0
E	5.9
B	0.3
C	5.4
B	0.7
C	0
E	0
B	0
C	0
B	4.5
E	11.9
E	3.9



Schematic diagram
 board



175F2



A (VIDEO)



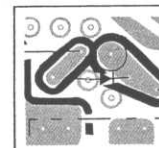


← **A** board

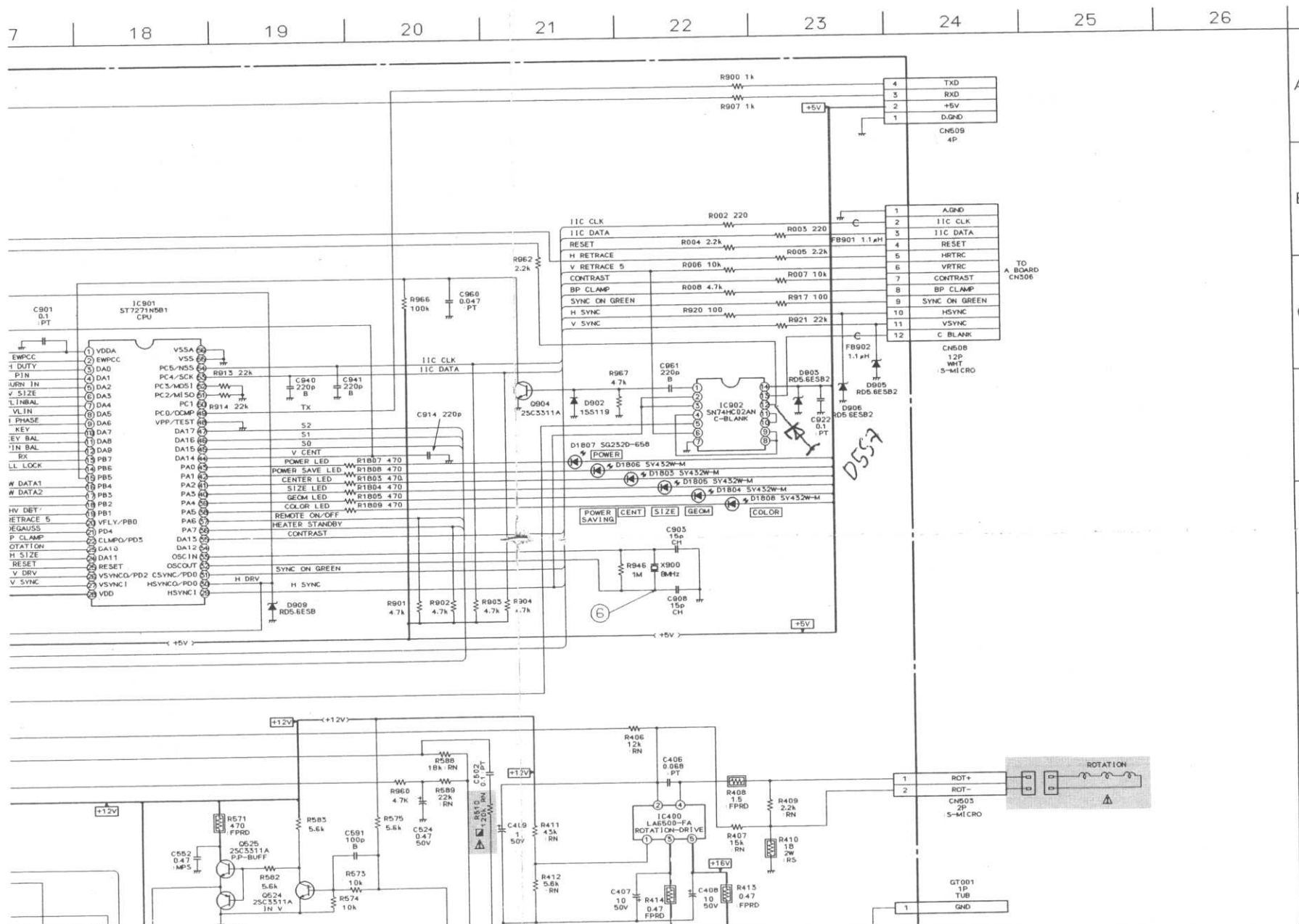


X900 A-4

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



17SF2



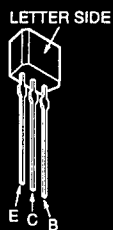
● D BOARD SEMICONDUCTOR LOCATION

IC	
IC400	A-1
IC501	A-2
IC504	C-1
IC601	C-3
IC602	C-3
IC901	A-4
IC902	B-2
IC903	A-3
IC904	A-3

TRANSISTOR	
Q202	E-1
Q203	E-1
Q204	C-2
Q401	C-1
Q402	C-1
Q403	C-1
Q502	C-2
Q503	E-2
Q507	C-2
Q510	C-1
Q512	B-1
Q513	B-1
Q514	B-1
Q517	B-1
Q518	B-1
Q524	A-1
Q525	B-1
Q526	B-1
Q601	C-4
Q602	C-3
Q603	A-2
Q604	A-3
Q605	B-3
Q606	B-3
Q608	A-2
Q900	A-2
Q901	A-2
Q902	A-3
Q903	A-2
Q904	B-3
Q907	A-2

DIODE	
D201	D-2
D203	E-2
D204	E-2
D205	E-2
D208	C-4
D209	C-4
D401	C-2
D403	B-1
D501	D-2
D502	B-1

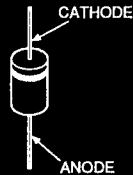


μ PC1093J2SA1175-HFE
2SC2785-HFE
2SC3311A-QRSTA

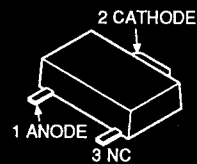
2SC4833MNP



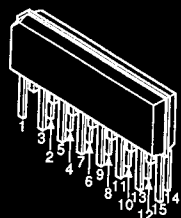
D2S4MF



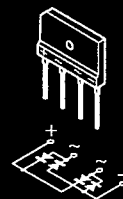
PS2501-1-L



VPS12

2SA1371
2SA1371-D

2SK669

D4SB60L
D4SB60L-F

1SS226

DTC124EKA-T146
2SA1037K-T-146-QR
2SA1162-G
2SA1462-Y33
2SC1623-L5L6
2SC2412K-T-146-QR

2SC2458-YGR



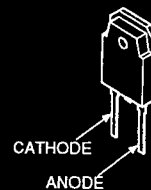
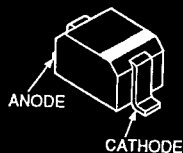
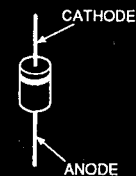
2SK2077(LB SONY)



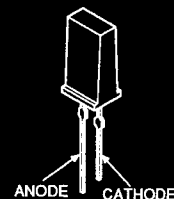
D5L60



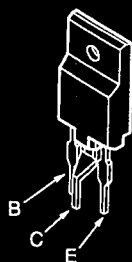
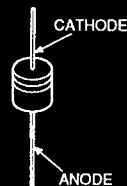
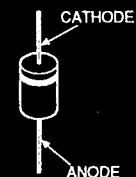
5TUZ52

IRFI9630GS-LF
2SC3746
2SC4686A(LB SONY)2SC3209LK-TP
2SD774-T-3
2SD774-34DTZ4.7C
MA110EGP10D
S2LA20F

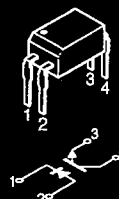
SEL1922D-C

2SA1091-Q
2SC2551-Q

2SC4632LS-CB7

D1NS4
MTZJ-4.7C
MTZJ-5.1A
RD12ES-B2
RD16ES-B3
RD18ES-B2
RD24ES-B3
RD3.3ES-B2
RD4.7ES-B2
RD5.1ES-B1
RD5.1ES-B2
RD5.6ES-B2
RD9.1ES-B2
1SS119-25EGP20G
ERA22-08
ERB91-02
GP08D
GP08DPKG23
HSS82
RGP02-20EL-6394
10E2

PC817-B



SECTION 6

EXPLODED VIEWS

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

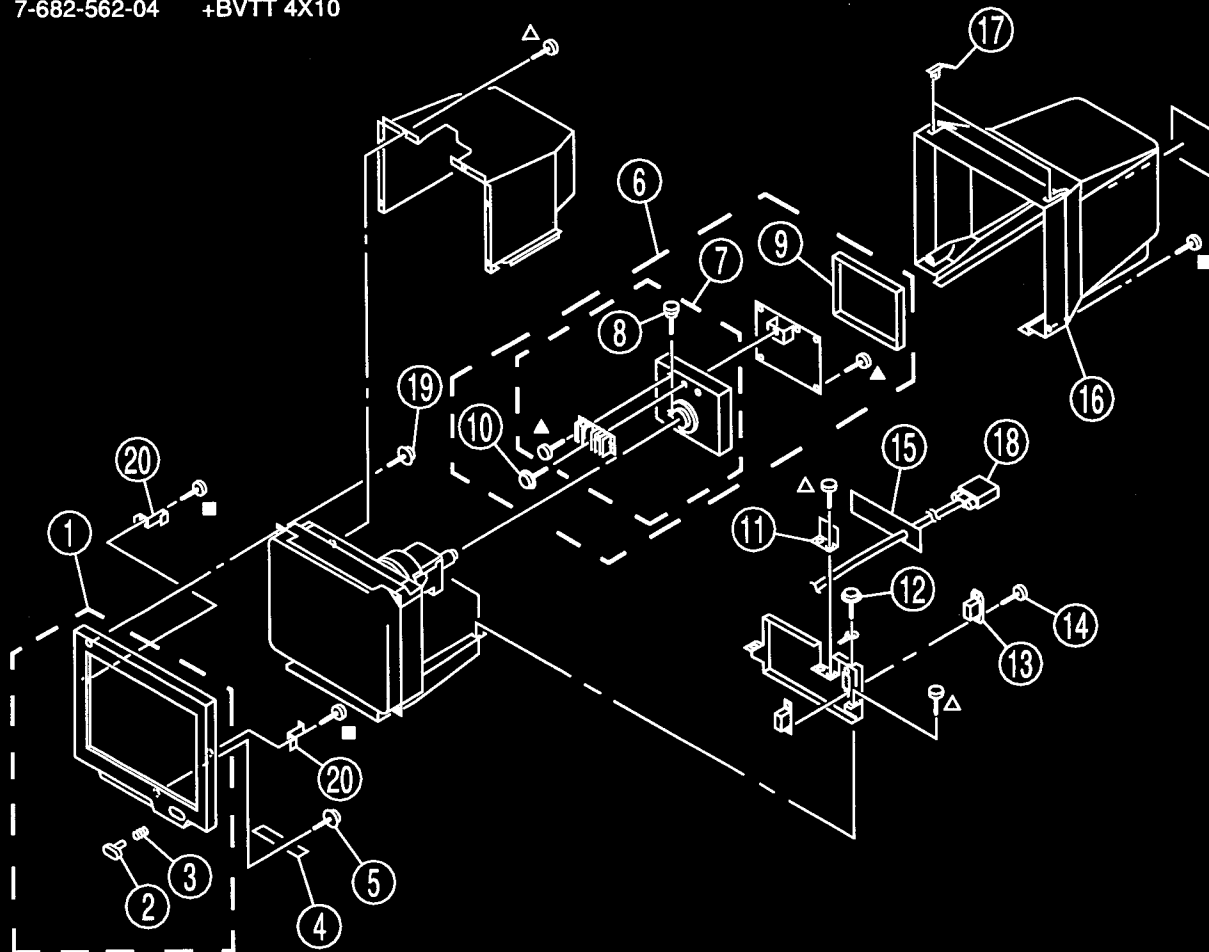
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

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

6-1. CHASSIS

- $\blacktriangle$ 7-685-646-79 +BVTP 3X8
 $\blacksquare$ 7-685-663-79 +BVTP 4X16
 $\triangle$ 7-682-562-04 +BVTT 4X10



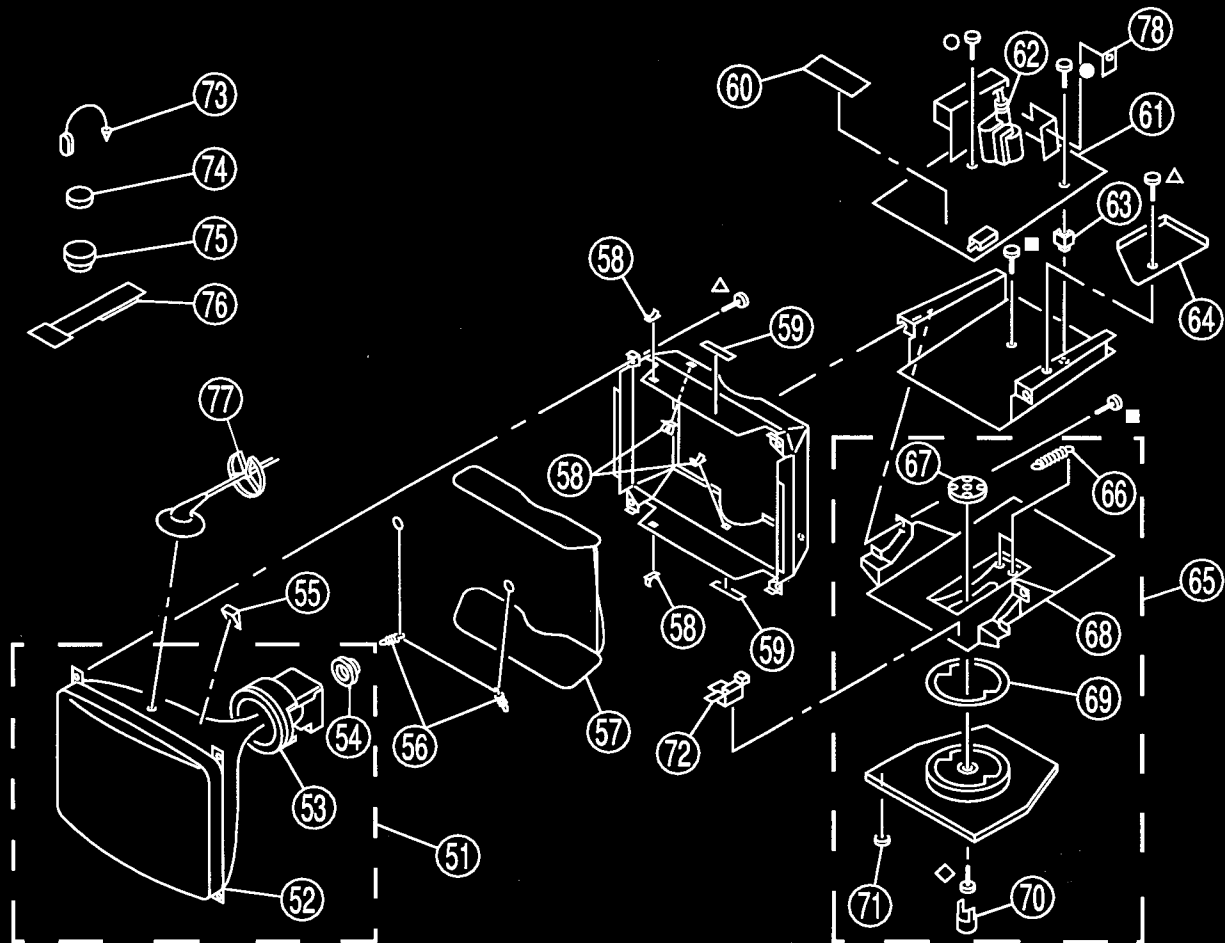
REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
1	X-4033-247-1	BEZEL ASSY (20SF2/20SF2T for Japan-made set)	2,3	11	*4-051-440-01	HOLDER, CABLE	
1	X-4033-381-1	BEZEL ASSY (20SF2 for USA-made set)	2,3	12	4-389-025-01	SCREW (M4X8)(EXT TOOTH WASHER)	
1	X-4033-486-1	BEZEL ASSY (20SF2T for UK-made set)	2,3	13	Δ 1-251-382-22	INLET, AC 3P (WITH NOISE FILTER)	
2	4-051-699-01	BUTTON, POWER (20SF2/20SF2T for Japan-made set)		14	4-052-345-01	SCREW, (3X8) (+K), TAPPING	
2	4-052-488-01	BUTTON, POWER (20SF2 for USA-made set)		15	4-051-698-01	PLATE, REAR	
2	4-053-036-01	BUTTON, POWER (20SF2 for UK-made set)		16	4-051-441-01	CABINET (20SF2/20SF2T for Japan-made set)	
3	3-571-801-01	SPRING, COMPRESSION		16	4-052-494-01	CABINET (20SF2 for USA-made set)	
4	*8-933-167-00	H2 BOARD, COMPLETE		16	4-052-498-01	CABINET (20SF2T for UK-made set)	
5	4-029-432-01	SCREW (3X12), (+) BVWHTP		17	4-051-442-01	COVER, SCREW (20SF2/20SF2T for Japan-made set)	
6	*8-933-165-00	A BLOCK ASSY (A BOARD)	7-10	17	4-052-487-01	COVER, SCREW (20SF2 for USA-made set)	
7	X-4033-078-1	VIDEO BLOCK ASSY	8	17	4-052-497-01	COVER, SCREW (20SF2T for UK-made set)	
8	4-041-627-01	SCREW (M4X20), HEXAGON HEAD		18	1-776-033-11	CABLE	
9	*4-050-693-01	SHIELD, VIDEO		19	4-365-808-01	SCREW (5), TAPPING	
10	4-382-854-11	SCREW (M3X10), P, SW (+)		20	*4-051-566-01	HOOK	

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

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

6-2. PICTURE TUBE

- 7-685-648-79 +BVTP 3X12
- 7-685-663-79 +BVTP 4X16
- 7-685-650-79 +BVTP 3X16
- Δ 7-682-562-04 +BVTT 4X10
- ◇ 7-685-664-79 +BVTP 4X20

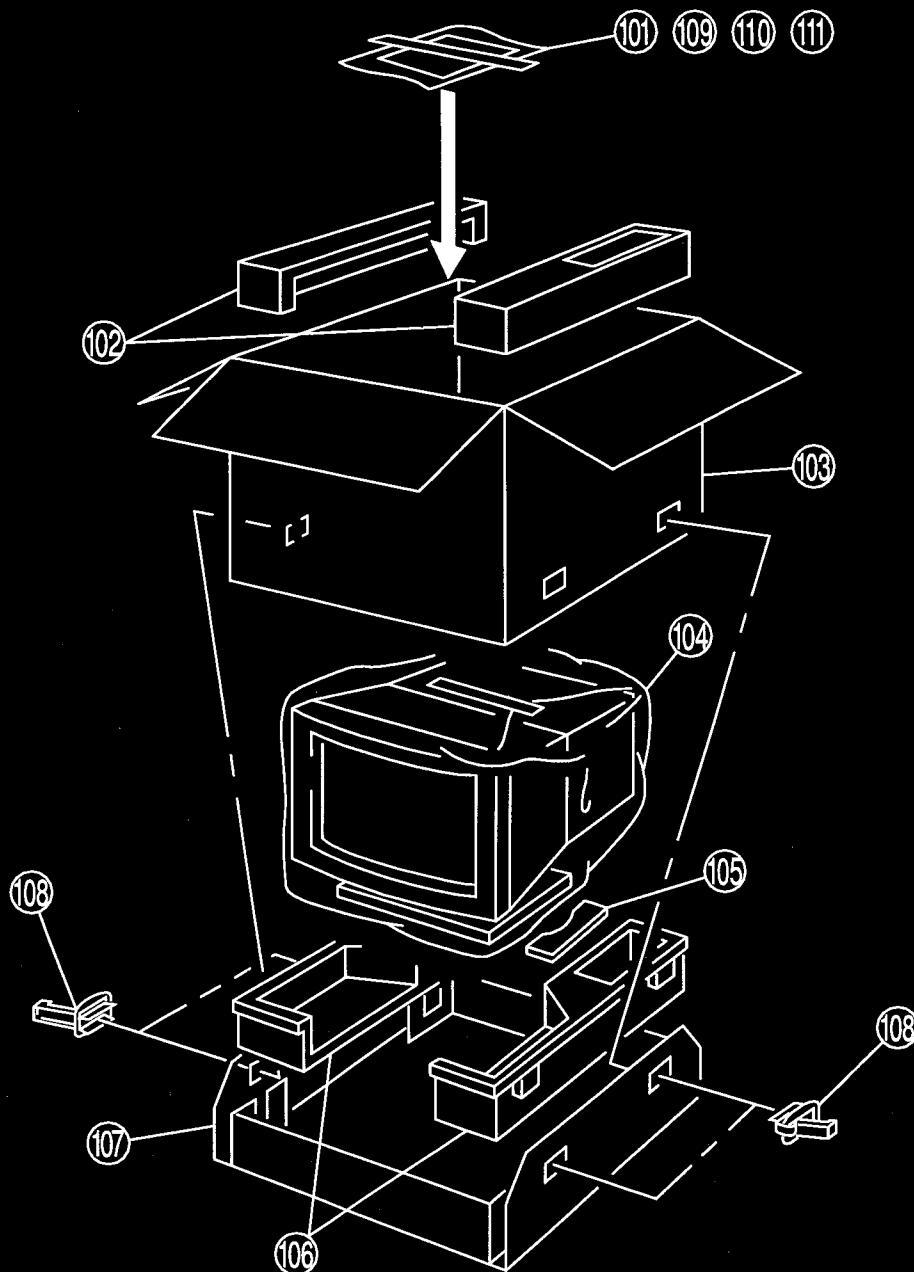


REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
51	Δ 8-736-048-97	ITC ASSY (20SQ8-R3) (20SF2T)	52-54	62	Δ X-4033-530-1	TRANSFORMER ASSY. FLYBACK (NX-4140/J1A4)	
51	Δ 8-736-050-95	ITC ASSY (20SQ4-R3) (20SF2 except for AUS Model)	52-54	63	* 4-382-848-01	HOLDER, PCB	
51	Δ 8-736-364-92	ITC ASSY (20SQ4-RS4) (20SF2 AUS Model)	52-54	64	* 4-051-908-01	SHIELD (D3)	
52	Δ 8-736-048-05	PICTURE TUBE 20SQ8 (20SF2T)		65	X-4033-198-1	STAND ASSY (20SF2)	66-71
52	Δ 8-736-050-05	PICTURE TUBE 20SQ4 (20SF2 except for AUS Model)		65	X-4033-490-1	STAND ASSY (20SF2T)	66-71
52	Δ 8-736-364-05	PICTURE TUBE 20SQ4 (20SF2 AUS Model)		66	4-046-901-01	SPRING, TENSION	
53	Δ 1-451-438-11	DEFLECTION YOKE		67	4-050-692-01	STOPPER (A)	
54	Δ 8-453-006-11	NECK ASSY, PICTURE TUBE (NA3013-M)		68	4-051-443-01	COVER, BOTTOM	
55	4-040-897-01	SPACER, DY		69	* 4-041-625-01	RING, TILT SWIVEL	
56	4-369-318-00	SPRING, TENSION (20SF2/20SF2T for Japan-made set)		70	4-041-621-01	STOPPER (B)	
56	4-369-318-31	SPRING, TENSION (20SF2 for USA-made set) (20SF2T for UK-made set)		71	4-047-474-01	FOOT, RUBBER	
57	Δ 1-406-790-71	COIL, DEMAGNETIZATION		72	4-051-438-01	SLIDER	
58	* 4-395-824-01	HOLDER, DEGAUSSING COIL		73	4-308-870-00	CLIP, LEAD WIRE	
59	* 9-911-844-99	CUSHION		74	1-452-032-00	MAGNET, DISK ; 10mm ϕ	
60	* 8-933-155-00	N BOARD, COMPLETE		75	1-452-094-01	MAGNET, ROTATABLE DISK ; 15mm ϕ	
61	* 8-933-166-00	D BOARD, COMPLETE		76	X-403-058-41	PERMALLOY ASSY, CORRECTION	
				77	* 3-704-372-01	HOLDER, HV CABLE	
				78	* 4-052-771-02	SHIELD, D6	

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

6-3. PACKING MATERIALS

Les composants identifiés par un tramé 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
101	3-810-323-11	MANUAL, INSTRUCTION (20SF2)		108	*4-396-077-01	JOINT	
101	3-810-323-21	MANUAL, INSTRUCTION (20SF2T)		109	Δ 1-765-717-11	CORD SET, POWER (10A/250V) (20SF2T)	
102	*4-051-452-01	CUSHION (UPPER) (ASSY)		109	Δ 1-765-718-11	CORD SET, POWER (10A/125V) (20SF2)	
103	*4-051-451-01	INDIVIDUAL CARTON (20SF2)		109	Δ 1-775-706-11	CORD SET, POWER (10A/250V) (20SF2 UK Model)	
103	*4-052-476-01	INDIVIDUAL CARTON (20SF2T)		110	1-774-332-11	ADAPTOR, CONVERSION (for Macintosh)	
104	*4-041-927-31	BAG, POLYETHYLENE		111	1-774-648-11	ADAPTOR, CONVERSION (for VGA)	
105	*4-046-460-01	PAT, TILT FIXED					
106	*4-051-453-01	CUSHION (LOWER) (ASSY)					
107	*4-051-450-01	TRAY					



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 shading
and mark Δ are critical for safety.
Replace only with part number specified.

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C320	1-124-903-11	ELECT 1MF	20% 50V	FB006	1-412-911-11	INDUCTOR, FERRITE BEAD	
C324	1-163-125-00	CERAMIC CHIP 220pF	5% 50V	FB007	1-412-911-11	INDUCTOR, FERRITE BEAD	
<u>CONNECTOR</u>				FB008	1-412-911-11	INDUCTOR, FERRITE BEAD	
CN301*	1-766-179-11	PIN, CONNECTOR (PC BOARD)	2P	FB014	1-412-911-11	INDUCTOR, FERRITE BEAD	
CN302*	1-564-525-11	PLUG, CONNECTOR	10P	<u>IC</u>			
CN304*	1-564-521-11	PLUG, CONNECTOR	6P	IC001	8-759-358-83	IC LM2283	
CN305*	1-564-522-11	PLUG, CONNECTOR	7P	IC002	8-759-060-00	IC BA10324AF	
CN306*	1-564-525-11	PLUG, CONNECTOR	10P	IC003	8-752-073-52	IC CXA2016S	
CN308*	1-564-520-11	PLUG, CONNECTOR	5P	IC005	8-749-011-84	IC VPS12	
CN311*	1-564-520-11	PLUG, CONNECTOR	5P	IC006	8-759-359-03	IC LSC4312P	
CN312*	1-564-519-11	PLUG, CONNECTOR	4P	IC007	8-759-370-08	IC 24LC21T/SN	
<u>DIODE</u>				IC008	8-759-008-67	IC MC14066BF	
D001	8-719-404-46	DIODE MA110		IC010	8-759-100-96	IC UPC4558G2	
D002	8-719-404-46	DIODE MA110		IC012	8-759-044-65	IC M62352FP	
D003	8-719-976-XX	DIODE UDZ-TE-17-5.1B		<u>JACK</u>			
D004	8-719-976-XX	DIODE UDZ-TE-17-5.1B		J001	Δ 1-251-116-12	SOCKET, CRT	
D005	8-719-404-46	DIODE MA110		<u>CHIP CONDUCTOR</u>			
D006	8-719-800-76	DIODE 1SS226		JR001	1-216-295-91	CONDUCTOR, CHIP	
D007	8-719-404-46	DIODE MA110		JR002	1-216-295-91	CONDUCTOR, CHIP	
D008	8-719-970-83	DIODE HSS82		JR101	1-216-295-91	CONDUCTOR, CHIP	
D009	8-719-404-46	DIODE MA110		JR201	1-216-295-91	CONDUCTOR, CHIP	
D010	8-719-404-46	DIODE MA110		JR301	1-216-295-91	CONDUCTOR, CHIP	
D011	8-719-970-83	DIODE HSS82		<u>COIL</u>			
D016	8-719-800-76	DIODE 1SS226		L001	1-410-682-31	INDUCTOR 470UH	
D018	8-719-976-XX	DIODE UDZ-TE-17-5.1B		L002	1-410-645-31	INDUCTOR 100UH	
D019	8-719-404-46	DIODE MA110		L003	1-410-645-31	INDUCTOR 100UH	
D020	8-719-404-46	DIODE MA110		L004	1-410-678-31	INDUCTOR 220UH	
D021	8-719-404-46	DIODE MA110		L005	1-410-678-31	INDUCTOR 220UH	
D022	8-719-404-46	DIODE MA110		L102	1-414-137-31	INDUCTOR 0.22UH	
D101	8-719-800-76	DIODE 1SS226		L202	1-414-137-31	INDUCTOR 0.22UH	
D103	8-719-970-83	DIODE HSS82		L302	1-414-137-31	INDUCTOR 0.22UH	
D104	8-719-970-83	DIODE HSS82		<u>TRANSISTOR</u>			
D105	8-719-970-83	DIODE HSS82		Q001	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D107	8-719-970-83	DIODE HSS82		Q002	8-729-216-22	TRANSISTOR 2SA1162-G	
D202	8-719-800-76	DIODE 1SS226		Q003	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D203	8-719-970-83	DIODE HSS82		Q004	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D204	8-719-970-83	DIODE HSS82		Q005	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D205	8-719-970-83	DIODE HSS82		Q006	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D207	8-719-970-83	DIODE HSS82		Q007	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D301	8-719-800-76	DIODE 1SS226		Q008	8-729-216-22	TRANSISTOR 2SA1162-G	
D303	8-719-970-83	DIODE HSS82		Q009	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D304	8-719-970-83	DIODE HSS82		Q010	S 8-729-032-61	TRANSISTOR 2SC5022-02	
D305	8-719-970-83	DIODE HSS82		Q010 S	8-729-823-81	TRANSISTOR 2SC4632LS-CB7	
D307	8-719-970-83	DIODE HSS82		Q060 S	8-729-032-61	TRANSISTOR 2SC5022-02	
<u>FERRITE BEAD</u>				Q060 S	8-729-823-81	TRANSISTOR 2SC4632LS-CB7	
FB001	1-412-911-11	INDUCTOR, FERRITE BEAD		Q101	8-729-255-12	TRANSISTOR 2SC2551-O	
FB002	1-412-911-11	INDUCTOR, FERRITE BEAD		Q102	8-729-200-17	TRANSISTOR 2SA1091-O	
FB003	1-412-911-11	INDUCTOR, FERRITE BEAD					
FB004	1-412-911-11	INDUCTOR, FERRITE BEAD					
FB005	1-412-911-11	INDUCTOR, FERRITE BEAD					

REF.NO.	PART NO.	DESCRIPTION	REMARK			REF.NO.	PART NO.	DESCRIPTION	REMARK		
Q104	8-729-112-65	TRANSISTOR 2SA1462-Y33				R050	1-216-025-91	METAL GLAZE 100	5%	1/10W	
Q201	8-729-255-12	TRANSISTOR 2SC2551-O				R051	1-216-095-00	METAL GLAZE 82K	5%	1/10W	
Q202	8-729-200-17	TRANSISTOR 2SA1091-O				R052	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
Q204	8-729-112-65	TRANSISTOR 2SA1462-Y33				R053	1-202-830-00	SOLID 10K	20%	1/2W	
Q301	8-729-255-12	TRANSISTOR 2SC2551-O									
Q302	8-729-200-17	TRANSISTOR 2SA1091-O				R054	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
Q304	8-729-112-65	TRANSISTOR 2SA1462-Y33				R055	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W	
						R056	1-218-768-11	METAL CHIP 470K	0.50%	1/10W	
						R057	1-216-659-11	METAL CHIP 2.2K	0.50%	1/10W	
						R058	1-216-667-11	METAL CHIP 4.7K	0.50%	1/10W	
						R059	1-216-659-11	METAL CHIP 2.2K	0.50%	1/10W	
						R060	1-216-073-00	METAL GLAZE 10K	5%	1/10W	
						R061	1-216-093-00	METAL GLAZE 68K	5%	1/10W	
						R062	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R066	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R071	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
						R072	1-216-069-00	METAL GLAZE 6.8K	5%	1/10W	
						R073	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
						R074	1-216-017-91	METAL GLAZE 47	5%	1/10W	
						R075	1-216-017-91	METAL GLAZE 47	5%	1/10W	
						R077	1-216-089-91	METAL GLAZE 47K	5%	1/10W	
						R078	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R079	1-216-121-91	METAL GLAZE 1M	5%	1/10W	
						R080	1-216-061-00	METAL GLAZE 3.3K	5%	1/10W	
						R081	1-211-895-11	METAL 10M	10%	1/4W	
						R082	1-211-885-21	METAL 2.2M	5%	1W	
						R083	1-216-073-00	METAL GLAZE 10K	5%	1/10W	
						R084	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R085	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R087	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R088	1-216-025-91	METAL GLAZE 100	5%	1/10W	
						R090	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R091	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R093	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R094	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R095	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
						R096	1-216-025-91	METAL GLAZE 100	5%	1/10W	
						R097	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
						R098	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
						R099	1-216-025-91	METAL GLAZE 100	5%	1/10W	
						R100	1-216-105-91	METAL GLAZE 220K	5%	1/10W	
						R101	1-216-631-11	METAL CHIP 150	0.50%	1/10W	
						R102	1-216-631-11	METAL CHIP 150	0.50%	1/10W	
						R103	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R104	1-216-121-91	METAL GLAZE 1M	5%	1/10W	
						R106	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R107	1-216-113-00	METAL GLAZE 470K	5%	1/10W	
						R108	1-247-735-11	SOLID 47	20%	1/2W	
						R109	1-216-039-00	METAL GLAZE 390	5%	1/10W	
						R111	1-216-093-00	METAL GLAZE 68K	5%	1/10W	
						R112	1-216-121-91	METAL GLAZE 1M	5%	1/10W	
						R113	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	
						R114	1-216-097-91	METAL GLAZE 100K	5%	1/10W	
						R115	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R116	1-216-097-91	METAL GLAZE 100K	5%	1/10W	
						R117	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
						R118	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W	



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R119	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R309	1-216-039-00	METAL GLAZE 390	5% 1/10W
R120	1-216-017-91	METAL GLAZE 47	5% 1/10W	R311	1-216-093-00	METAL GLAZE 68K	5% 1/10W
R121	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R122	1-216-037-00	METAL GLAZE 330	5% 1/10W	R312	1-216-121-91	METAL GLAZE 1M	5% 1/10W
R123	1-216-017-91	METAL GLAZE 47	5% 1/10W	R313	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R124	1-216-663-11	METAL CHIP 3.3K	0.50% 1/10W	R314	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R125	1-216-041-00	METAL GLAZE 470	5% 1/10W	R315	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R126	1-216-041-00	METAL GLAZE 470	5% 1/10W	R316	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R127	1-216-041-00	METAL GLAZE 470	5% 1/10W	R317	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R128	1-216-017-91	METAL GLAZE 47	5% 1/10W	R318	1-216-039-00	METAL GLAZE 390	5% 1/10W
R129	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	R319	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R131	1-216-037-00	METAL GLAZE 330	5% 1/10W	R320	1-216-017-91	METAL GLAZE 47	5% 1/10W
R132	1-216-113-00	METAL GLAZE 470K	5% 1/10W	R321	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R133	1-216-017-91	METAL GLAZE 47	5% 1/10W	R322	1-216-037-00	METAL GLAZE 330	5% 1/10W
R135	1-216-295-91	CONDUCTOR, CHIP		R323	1-216-017-91	METAL GLAZE 47	5% 1/10W
R136	1-216-295-91	CONDUCTOR, CHIP		R324	1-216-663-11	METAL CHIP 3.3K	0.50% 1/10W
R138	1-216-025-91	METAL GLAZE 100	5% 1/10W	R331	1-216-037-00	METAL GLAZE 330	5% 1/10W
R141	1-216-295-91	CONDUCTOR, CHIP		R332	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R150	1-216-009-00	METAL GLAZE 22	5% 1/10W	R333	1-216-017-91	METAL GLAZE 47	5% 1/10W
R171	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R335	1-216-295-91	CONDUCTOR, CHIP	
R172	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R336	1-216-295-91	CONDUCTOR, CHIP	
R201	1-216-631-11	METAL CHIP 150	0.50% 1/10W	R341	1-216-295-91	CONDUCTOR, CHIP	
R202	1-216-631-11	METAL CHIP 150	0.50% 1/10W	R350	1-216-009-00	METAL GLAZE 22	5% 1/10W
R203	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R371	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R204	1-216-121-91	METAL GLAZE 1M	5% 1/10W	R372	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R206	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R207	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R208	1-247-735-11	SOLID 47	20% 1/2W				
R209	1-216-039-00	METAL GLAZE 390	5% 1/10W				
R211	1-216-093-00	METAL GLAZE 68K	5% 1/10W				
R212	1-216-121-91	METAL GLAZE 1M	5% 1/10W				
R213	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W				
R214	1-216-097-91	METAL GLAZE 100K	5% 1/10W				
R215	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R216	1-216-097-91	METAL GLAZE 100K	5% 1/10W				
R217	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R220	1-216-017-91	METAL GLAZE 47	5% 1/10W				
R221	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R222	1-216-037-00	METAL GLAZE 330	5% 1/10W				
R223	1-216-017-91	METAL GLAZE 47	5% 1/10W				
R224	1-216-663-11	METAL CHIP 3.3K	0.50% 1/10W				
R231	1-216-037-00	METAL GLAZE 330	5% 1/10W				
R232	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R233	1-216-295-91	CONDUCTOR, CHIP					
R235	1-216-295-91	CONDUCTOR, CHIP					
R241	1-216-017-91	METAL GLAZE 47	5% 1/10W				
R250	1-216-009-00	METAL GLAZE 22	5% 1/10W				
R271	1-216-097-91	METAL GLAZE 100K	5% 1/10W				
R272	1-216-097-91	METAL GLAZE 100K	5% 1/10W				
R301	1-216-631-11	METAL CHIP 150	0.50% 1/10W				
R302	1-216-631-11	METAL CHIP 150	0.50% 1/10W				
R303	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R304	1-216-121-91	METAL GLAZE 1M	5% 1/10W				
R306	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R307	1-216-113-00	METAL GLAZE 470K	5% 1/10W				
R308	1-247-735-11	SOLID 47	20% 1/2W				

VARIABLE RESISTOR

RV101 1-223-410-11 RES, ADJ, METAL FILM 110M

SPARK GAP

SG001 1-519-422-11 GAP, SPARK
 SG002 1-519-422-11 GAP, SPARK
 SG101 1-519-504-11 GAP, DISCHARGE
 SG201 1-519-504-11 GAP, DISCHARGE
 SG301 1-519-504-11 GAP, DISCHARGE

* 8-933-166-00 D BOARD, COMPLETE

2-371-561-00 BUSHING (P), INSULATING
 3-710-578-01 COVER, VOLUME 6 MOLD
 4-034-094-01 SHEET, INSULATOR
 * 4-043-154-01 HOLDER, IC
 * 4-043-990-01 HEAT SINK

4-051-602-11 SHEET, RADIATION
 4-382-854-11 SCREW (M3X10), P, SW (+)
 4-389-026-11 SHEET, BN
 4-812-134-00 RIVET (DIA. 3.5), NYLON

CAPACITOR

C400 1-137-368-11 FILM 0.0047MF 5% 50V
 C401 1-137-372-11 FILM 0.022MF 5% 50V

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

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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
C402	1-136-173-00	FILM	0.47MF 5% 50V	C466	1-106-359-00	MYLAR	0.0047MF 10% 200V
C403	1-128-528-11	ELECT	470MF 20% 25V	C467	1-126-934-11	ELECT	220MF 20% 16V
C404	1-136-169-00	FILM	0.22MF 5% 50V	C470	1-128-528-11	ELECT	470MF 20% 10V
C405	1-137-368-11	FILM	0.0047MF 5% 50V	C471	1-126-925-11	ELECT	470MF 20% 10V
C406	1-102-244-00	CERAMIC	220pF 10% 500V	C472	1-136-169-00	FILM	0.22MF 5% 50V
C407	1-106-375-12	MYLAR	0.022MF 200V	C473	1-102-114-00	CERAMIC	470pF 10% 50V
C408	1-106-375-12	MYLAR	0.022MF 200V	C501	1-106-228-00	MYLAR	0.22MF 10% 100V
C409	1-104-664-11	ELECT	47MF 20% 25V	C502	1-137-399-11	FILM	0.1MF 5% 50V
C411	1-107-433-11	FILM	0.006MF 3% 2KV	C503	1-107-894-11	ELECT	220MF 20% 35V
C412	1-129-898-00	FILM	0.0022MF 10% 630V	C505	1-102-112-00	CERAMIC	330pF 10% 50V
C413	1-162-558-11	CERAMIC	100pF 10% 2KV	C506	1-137-399-11	FILM	0.1MF 5% 50V
C414	1-107-648-91	ELECT	100MF 20% 200V	C507	1-215-493-00	METAL	1M 1% 1/4W
C415	1-162-558-11	CERAMIC	100pF 10% 2KV	C519	1-101-006-00	CERAMIC	0.047MF 50V
C416	1-162-114-00	CERAMIC	0.0047MF 2KV	C520	1-128-528-11	ELECT	470MF 20% 25V
C417	1-102-106-00	CERAMIC	100pF 10% 50V	C521	1-128-528-11	ELECT	470MF 20% 25V
C418	1-104-664-11	ELECT	47MF 20% 25V	C522	1-101-006-00	CERAMIC	0.047MF 50V
C419	1-137-370-11	FILM	0.01MF 5% 50V	C600	1-113-707-11	ELECT	220MF 20% 450V
C420	1-126-967-11	ELECT	47MF 20% 50V	C601	1-137-479-11	FILM	1MF 10% 400V
C421	1-137-368-11	FILM	0.0047MF 5% 50V	C602	1-137-399-11	FILM	0.1MF 5% 50V
C422	1-126-964-11	ELECT	10MF 20% 50V	C603	1-107-902-11	ELECT	1MF 20% 50V
C423	1-137-399-11	FILM	0.1MF 5% 50V	C604	1-137-368-11	FILM	0.0047MF 5% 50V
C424	1-137-371-11	FILM	0.015MF 5% 50V	C605	1-136-169-00	FILM	0.22MF 5% 50V
C425	1-104-664-11	ELECT	47MF 20% 25V	C606	1-102-125-00	CERAMIC	0.0047MF 10% 50V
C426	1-137-364-11	FILM	0.001MF 5% 50V	C607	1-126-965-11	ELECT	22MF 20% 50V
C428	1-106-359-00	MYLAR	0.0047MF 10% 200V	C608	1-126-967-11	ELECT	47MF 20% 50V
C429	1-137-364-11	FILM	0.001MF 5% 50V	C609	1-136-169-00	FILM	0.22MF 5% 50V
C430	1-107-648-91	ELECT	100MF 20% 200V	C610	1-128-339-11	ELECT	2200MF 20% 16V
C431	1-136-105-00	FILM	0.33MF 5% 200V	C611	1-128-339-11	ELECT	2200MF 20% 16V
C432	1-113-714-11	FILM	2000pF 3% 1.2KV	C612	1-137-399-11	FILM	0.1MF 5% 50V
C433	1-137-368-11	FILM	0.0047MF 5% 50V	C613	1-102-114-00	CERAMIC	470pF 10% 50V
C435	1-137-399-11	FILM	0.1MF 5% 50V	C614	1-137-399-11	FILM	0.1MF 5% 50V
C436	1-137-399-11	FILM	0.1MF 5% 50V	C615	1-164-646-11	CERAMIC	2200pF 10% 500V
C437	1-126-963-11	ELECT	4.7MF 20% 50V	C616 Δ	1-113-926-91	ELECT	0.0047MF 250V
C438	1-102-106-00	CERAMIC	100pF 10% 50V	C617 Δ	1-113-926-91	ELECT	0.0047MF 250V
C440	1-136-173-00	FILM	0.47MF 5% 50V	C618	1-104-664-11	ELECT	47MF 20% 25V
C441	1-137-364-11	FILM	0.001MF 5% 50V	C619	1-126-933-11	ELECT	100MF 20% 10V
C442	1-137-372-11	FILM	0.022MF 5% 50V	C620	1-104-664-11	ELECT	47MF 20% 25V
C443	1-126-964-11	ELECT	10MF 20% 50V	C621	1-104-664-11	ELECT	47MF 20% 25V
C445	1-102-114-00	CERAMIC	470pF 10% 50V	C622	1-104-664-11	ELECT	47MF 20% 25V
C446	1-137-364-11	FILM	0.001MF 5% 50V	C623	1-104-664-11	ELECT	47MF 20% 25V
C447	1-137-399-11	FILM	0.1MF 5% 50V	C624	1-104-664-11	ELECT	47MF 20% 25V
C448	1-137-399-11	FILM	0.1MF 5% 50V	C625	1-104-664-11	ELECT	47MF 20% 25V
C449	1-164-646-11	CERAMIC	2200pF 10% 500V	C628	1-104-332-11	CERAMIC	470pF 10% 2KV
C450	1-136-169-00	FILM	0.22MF 5% 50V	C630	1-124-925-11	ELECT	2.2MF 20% 50V
C451	1-126-963-11	ELECT	4.7MF 20% 50V	C631	1-102-129-00	CERAMIC	0.01MF 10% 50V
C453	1-104-666-11	ELECT	220MF 20% 25V	C633	1-104-664-11	ELECT	47MF 20% 25V
C454	1-137-368-11	FILM	0.0047MF 5% 50V	C634	1-165-136-11	CERAMIC	3300pF 10% 500V
C455	1-124-903-11	ELECT	1MF 20% 50V	C635	1-136-169-00	FILM	0.22MF 5% 50V
C456	1-104-664-11	ELECT	47MF 20% 25V	C636	1-164-644-11	CERAMIC	330pF 10% 500V
C458	1-137-374-11	FILM	0.047MF 5% 50V	C637	1-107-955-11	ELECT	100MF 20% 200V
C459	1-137-399-11	FILM	0.1MF 5% 50V	C638	1-107-952-91	ELECT	22MF 20% 200V
C460	1-137-366-11	FILM	0.0022MF 5% 50V	C639	1-137-399-11	FILM	0.1MF 5% 50V
C461	1-162-114-00	CERAMIC	0.0047MF 2KV	C640	1-129-719-00	FILM	0.027MF 5% 630V
C462	1-137-399-11	FILM	0.1MF 5% 50V	C642	1-104-800-11	ELECT	100MF 20% 100V
C463	1-102-973-00	CERAMIC	100pF 5% 50V	C643	1-107-928-11	ELECT	4.7MF 20% 100V
C464	1-124-903-11	ELECT	1MF 20% 50V	C644	1-164-644-11	CERAMIC	330pF 10% 500V



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C645	1-126-963-11	ELECT	4.7MF 20% 50V	C1403	1-101-804-00	CERAMIC 10pF 5% 500V	
C646	1-136-169-00	FILM	0.22MF 5% 50V	C1404	1-101-804-00	CERAMIC 10pF 5% 500V	
C647	1-164-644-11	CERAMIC	330pF 10% 500V	C1405	1-126-964-11	ELECT 10MF 20% 50V	
C648	1-137-399-11	FILM	0.1MF 5% 50V	C1406	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C649	1-107-890-11	ELECT	2200MF 20% 25V	C1407	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C650	1-104-664-11	ELECT	47MF 20% 25V	C1408	1-137-399-11	FILM 0.1MF 5% 50V	
C651	1-107-890-11	ELECT	2200MF 20% 25V	C1409	1-102-106-00	CERAMIC 100pF 10% 50V	
C652	1-104-664-11	ELECT	47MF 20% 25V	C1410	1-102-129-00	CERAMIC 0.01MF 10% 50V	
C653	1-137-399-11	FILM	0.1MF 5% 50V	C1411	1-104-664-11	ELECT 47MF 20% 25V	
C654	1-102-989-00	CERAMIC	68pF 5% 500V	C1412	1-126-964-11	ELECT 10MF 20% 50V	
C670	1-102-989-00	CERAMIC	68pF 5% 500V	C1413	1-136-169-00	FILM 0.22MF 5% 50V	
C671	1-104-665-11	ELECT	100MF 20% 25V	C1501	1-137-375-11	FILM 0.068MF 5% 50V	
C672	1-137-399-11	FILM	0.1MF 5% 50V				
C673	1-130-489-00	FILM	0.033MF 5% 50V				
C674	1-126-925-11	ELECT	470MF 20% 10V				
C676	1-137-399-11	FILM	0.1MF 5% 50V				
C677	1-104-665-11	ELECT	100MF 20% 25V				
C678	1-128-526-11	ELECT	100MF 20% 25V				
C679	1-130-489-00	FILM	0.033MF 5% 50V				
C680	1-136-538-11	FILM	0.001MF 3% 2KV				
C681	1-136-171-00	FILM	0.33MF 5% 50V				
C682	1-137-372-11	FILM	0.022MF 5% 50V				
C683	1-126-105-11	ELECT	1000MF 20% 25V				
C684	1-137-399-11	FILM	0.1MF 5% 50V				
C685 Δ	1-113-513-11	FILM	1MF 20% 250V				
C687 Δ	1-113-900-51	CERAMIC	470pF 10% 400V				
C688 Δ	1-113-900-51	CERAMIC	470pF 10% 400V				
C690 Δ	1-113-513-11	FILM	1MF 20% 250V				
C691	1-107-422-11	CERAMIC	150pF 10% 1KV				
C692	1-107-422-11	CERAMIC	150pF 10% 1KV				
C702	1-102-112-00	CERAMIC	330pF 10% 50V				
C703	1-137-372-11	FILM	0.022MF 5% 50V				
C704	1-126-964-11	ELECT	10MF 20% 50V				
C705	1-137-399-11	FILM	0.1MF 5% 50V				
C706	1-126-964-11	ELECT	10MF 20% 50V				
C707	1-137-370-11	FILM	0.01MF 5% 50V				
C708	1-137-370-11	FILM	0.01MF 5% 50V				
C709	1-137-370-11	FILM	0.01MF 5% 50V				
C710	1-136-193-11	FILM	0.47MF 10% 250V				
C711	1-107-510-11	FILM	0.07MF 5% 400V				
C712	1-113-695-11	FILM	000002211MF 5% 400V				
C713	1-137-370-11	FILM	0.01MF 5% 50V				
C714	1-107-847-11	FILM	0.36MF 5% 400V				
C715	1-110-969-11	FILM	0.89MF 5% 400V				
C716	1-107-849-11	FILM	1.5MF 5% 400V				
C721	1-136-122-00	FILM	0.47MF 5% 400V				
C723	1-136-203-11	FILM	0.0001MF 5% 630V				
C724	1-137-370-11	FILM	0.01MF 5% 50V				
C725	1-113-481-11	FILM	0.001MF 5% 630V				
C726	1-107-652-11	ELECT	10MF 20% 200V				
C727	1-124-903-11	ELECT	1MF 20% 50V				
C728	1-137-368-11	FILM	0.0047MF 5% 50V				
C729	1-136-169-00	FILM	0.22MF 5% 50V				
C802	1-102-112-00	CERAMIC	330pF 10% 50V				
C1401	1-107-909-11	ELECT	47MF 20% 50V				
C1402	1-104-718-91	CERAMIC	33pF 5% 2KV				
				CONNECTOR			
				CN401*	1-774-513-11	PIN, CONNECTOR (PC BOARD)	9P
				CN402	1-764-101-11	PIN, CONNECTOR (PC BOARD)	2P
				CN500 Δ	1-691-960-11	CONNECTOR (AC POWER)	3P
				CN601	1-695-915-11	TAB (CONTACT)	
				CN606*	1-564-510-11	PLUG, CONNECTOR	7P
				CN607	1-564-511-11	PLUG, CONNECTOR	8P
				CN608*	1-564-508-11	PLUG, CONNECTOR	5P
				CN685*	1-580-689-11	PIN, CONNECTOR (PC BOARD)	4P
				CN701*	1-564-512-11	PLUG, CONNECTOR	9P
				CN803*	1-508-879-00	BASE POST	
				CN804*	1-564-509-11	PLUG, CONNECTOR	6P
				CN805*	1-564-513-11	PLUG, CONNECTOR	10P
				CN810*	1-774-591-11	CONNECTOR, BOARD TO BOARD	20P
				CN811*	1-774-591-11	CONNECTOR, BOARD TO BOARD	20P
				CN812*	1-774-591-11	CONNECTOR, BOARD TO BOARD	20P
				DIODE			
				D401	8-719-109-89	ZENER DIODE RD5.6ESB2	
				D402	8-719-911-19	DIODE 1SS119-25	
				D403	8-719-911-19	DIODE 1SS119-25	
				D404	8-719-911-19	DIODE 1SS119-25	
				D405	8-719-911-19	DIODE 1SS119-25	
				D406	8-719-984-73	DIODE SB560	
				D407	8-719-110-46	ZENER DIODE RD16ESB3	
				D408	8-719-110-31	ZENER DIODE RD12ESB2	
				D410	8-719-049-12	DIODE 5TUZ52	
				D411	8-719-048-73	DIODE ERC90M-03	
				D412	8-719-110-17	ZENER DIODE RD10ESB2	
				D413	8-719-911-19	DIODE 1SS119-25	
				D414	8-719-018-82	DIODE RGP02-20EL-6394	
				D415	8-719-911-19	DIODE 1SS119-25	
				D416	8-719-110-17	ZENER DIODE RD10ESB2	
				D417	8-719-110-13	ZENER DIODE RD9.1ESB2	
				D418	8-719-109-85	ZENER DIODE RD5.1ESB2	
				D419	8-719-911-19	DIODE 1SS119-25	
				D420	8-719-911-19	DIODE 1SS119-25	
				D421	8-719-911-19	DIODE 1SS119-25	
				D422 Δ	8-719-941-75	DIODE ERB91-02	
				D423	8-719-911-19	DIODE 1SS119-25	
				D424	8-719-911-19	DIODE 1SS119-25	
				D425 Δ	8-719-111-81	ZENER DIODE RD5.1ESB1	

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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
IC603	8-749-011-42	IC SI-3050F		Q411	8-729-140-96	TRANSISTOR 2SD774-34	
IC606	8-759-231-53	IC TA7805S		Q413	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC607	8-759-982-38	IC RC7905FA		Q414	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC608	8-759-143-11	IC UPC24M12HF		Q415	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC609	8-759-231-53	IC TA7805S		Q416	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC630	8-749-012-05	IC DM-57		Q417	8-729-015-28	TRANSISTOR IRF19630GS	
IC701	8-759-822-38	IC LA6510		Q418	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC702	8-749-011-63	IC IRSY5305		Q419	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC1401	8-759-634-51	IC M5218AP		Q420	8-729-032-88	TRANSISTOR IRFG50LF21	
<u>COIL</u>				Q423	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L401	1-412-529-11	INDUCTOR 22UH		Q424	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L402	1-411-592-21	COIL, CHOKE 500UH		Q425	8-729-029-86	TRANSISTOR DTC124ESA	
L403	1-406-675-11	COIL, CHOKE 4.7mH		Q426	8-729-029-40	TRANSISTOR DTA124ESA	
L405	1-411-666-11	COIL, HORIZONTAL LINEARITY		Q600	8-729-034-74	TRANSISTOR FS16SM-10-A8	
L406	1-411-709-11	COIL, HORIZONTAL LINEARITY		Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L407	1-412-545-11	INDUCTOR 470UH		Q602	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L408	1-412-545-11	INDUCTOR 470UH		Q603	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L409	1-411-594-11	COIL, CHOKE 5mH		Q604	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L410	1-408-409-00	INDUCTOR 10UH		Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L630	1-403-588-11	CIL, CHOKE 22UH		Q606	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L631	1-408-409-00	INDUCTOR 10UH		Q608	8-729-803-76	TRANSISTOR 2SA1371-E	
L632	1-403-588-11	CIL, CHOKE 22UH		Q609	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L633	1-403-588-11	CIL, CHOKE 22UH		Q610	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L701	1-412-521-21	INDUCTOR 4.7UH		Q640	8-729-119-76	TRANSISTOR 2SA1175-HFE	
L702	1-414-493-41	INDUCTOR 4.7mH		Q641	8-729-230-45	TRANSISTOR 2SC2458-YGR	
L703	1-414-493-41	INDUCTOR 4.7mH		Q642	8-729-119-76	TRANSISTOR 2SA1175-HFE	
<u>PHOTO COUPLER</u>				Q643	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PH670	8-749-010-64	PHOTO COUPLER PC123F2		Q644	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PH675	8-719-156-73	PHOTO COUPLER PS2501-1-L		Q645	8-729-016-15	TRANSISTOR 2SC4833MNP	
<u>IC LINK</u>				Q647	8-729-016-15	TRANSISTOR 2SC4833MNP	
PS401	Δ 1-533-592-31	LINK, IC		Q648	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PS402	Δ 1-533-590-31	LINK, IC		Q649	8-729-119-76	TRANSISTOR 2SA1175-HFE	
PS670	Δ 1-532-605-91	LINK, IC 0.4A/150V		Q671	8-729-119-78	TRANSISTOR 2SC2785-HFE	
PS671	Δ 1-532-984-91	LINK, IC 2A/90V		Q672	8-729-119-76	TRANSISTOR 2SA1175-HFE	
PS672	Δ 1-532-984-91	LINK, IC 2A/90V		Q674	8-729-032-36	TRANSISTOR 2SC4052MNP	
PS673	Δ 1-532-984-91	LINK, IC 2A/90V		Q675	8-729-032-36	TRANSISTOR 2SC4052MNP	
<u>TRANSISTOR</u>				Q686	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q401	8-729-119-76	TRANSISTOR 2SA1175-HFE		Q702	8-729-032-61	TRANSISTOR 2SC5022-02	
Q402	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q703	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q403	8-729-820-73	TRANSISTOR 2SC3746		Q704	8-729-808-36	TRANSISTOR 2SK669	
Q404	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q405	8-729-119-76	TRANSISTOR 2SA1175-HFE		Q1402	8-729-020-07	TRANSISTOR 2SC4686A(LBSONY)	
Q406	8-729-119-78	TRANSISTOR 2SC2785-HFE		Q1403	8-729-140-96	TRANSISTOR 2SD774-34	
Q407	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3		Q1404	8-729-029-40	TRANSISTOR DTA124ESA	
Q407	8-729-033-99	TRANSISTOR 2SC5301-CC		<u>RESISTOR</u>			
Q408	8-729-015-28	TRANSISTOR IRF19630GS		R401	1-247-807-31	CARBON 100 5% 1/4W	
Q409	8-729-119-76	TRANSISTOR 2SA1175-HFE		R402	1-249-393-11	CARBON 10 5% 1/4W F	
Q410	8-729-029-86	TRANSISTOR DTC124ESA		R403	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R404	1-249-417-11	CARBON 1K 5% 1/4W	
				R405	1-249-417-11	CARBON 1K 5% 1/4W	
				R406	1-249-413-11	CARBON 470 5% 1/4W	
				R407	1-249-421-11	CARBON 2.2K 5% 1/4W	
				R408	1-249-393-11	CARBON 10 5% 1/4W F	
				R409	1-249-397-11	CARBON 22 5% 1/4W F	
				R410	1-260-296-11	CARBON 2.2 5% 1/2W	

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R411	1-215-861-00	METAL OXIDE	47 5% 1W F	R468	1-247-863-91	CARBON	22K 5% 1/4W
R412	1-249-421-11	CARBON	2.2K 5% 1/4W	R469	1-249-433-11	CARBON	22K 5% 1/4W F
R413	1-216-396-11	METAL OXIDE	3.9 5% 3W F	R470 Δ	1-215-453-91	METAL	22K 1% 1/4W
R414	1-215-437-00	METAL	4.7K 1% 1/4W	R471	1-249-393-11	CARBON	10 5% 1/4W F
R415	1-216-447-00	METAL OXIDE	27 5% 2W F	R472 Δ	1-215-455-91	METAL	27K 1% 1/4W
R416	1-247-863-91	CARBON	22K 5% 1/4W	R473	1-249-397-11	CARBON	22 5% 1/4W F
R417	1-215-437-00	METAL	4.7K 1% 1/4W	R476	1-249-441-11	CARBON	100K 5% 1/4W
R418	1-249-429-11	CARBON	10K 5% 1/4W	R477	1-215-913-11	METAL OXIDE	220 5% 3W F
R419	1-249-421-11	CARBON	2.2K 5% 1/4W	R478	1-215-913-11	METAL OXIDE	220 5% 3W F
R420	1-247-807-31	CARBON	100 5% 1/4W	R479	1-215-913-11	METAL OXIDE	220 5% 3W F
R421	1-216-396-11	METAL OXIDE	3.9 5% 3W F	R480	1-249-429-11	CARBON	10K 5% 1/4W
R422 Δ	1-215-425-91	METAL	1.5K 1% 1/4W	R481	1-247-807-31	CARBON	100 5% 1/4W
R423 Δ	1-215-469-91	METAL	100K 1% 1/4W	R482	1-249-417-11	CARBON	1K 5% 1/4W F
R424	1-249-425-11	CARBON	4.7K 5% 1/4W	R483	1-249-429-11	CARBON	10K 5% 1/4W
R425	1-202-719-00	SOLID	1M 20% 1/2W	R484	1-215-421-00	METAL	1K 1% 1/4W
R426	1-202-826-00	SOLID	4.7K 20% 1/2W	R485	1-247-891-00	CARBON	330K 5% 1/4W
R427	1-215-455-00	METAL	27K 1% 1/4W	R486	1-247-895-91	CARBON	470K 5% 1/4W
R428	1-247-887-00	CARBON	220K 5% 1/4W	R487 Δ	1-215-455-91	METAL	27K 1% 1/4W
R429	1-215-861-00	METAL OXIDE	47 5% 1W F	R488	1-215-437-00	METAL	4.7K 1% 1/4W
R430	1-215-425-00	METAL	1.5K 1% 1/4W	R489	1-215-457-00	METAL	33K 1% 1/4W
R431	1-249-417-11	CARBON	1K 5% 1/4W F	R490 Δ	1-249-369-91	CARBON	4.7 5% 1/4W F
R432	1-215-891-11	METAL OXIDE	680 5% 2W F	R491 Δ	1-247-700-71	CARBON	100 5% 1/4W F
R433	1-216-396-11	METAL OXIDE	3.9 5% 3W F	R492	1-249-429-11	CARBON	10K 5% 1/4W
R434	1-249-417-11	CARBON	1K 5% 1/4W	R493 Δ	1-215-474-91	METAL	160K 1% 1/4W
R435 Δ	1-247-871-91	CARBON	47K 5% 1/4W	R494	1-215-459-00	METAL	39K 1% 1/4W
R436	1-215-445-00	METAL	10K 1% 1/4W	R495	1-215-445-00	METAL	10K 1% 1/4W
R437	1-249-413-11	CARBON	470 5% 1/4W	R496	1-202-826-00	SOLID	4.7K 20% 1/2W
R438	1-214-840-00	METAL	100 1% 1/2W	R497 Δ	1-215-459-91	METAL	39K 1% 1/4W
R439	1-249-437-11	CARBON	47K 5% 1/4W	R498	1-202-826-00	SOLID	4.7K 20% 1/2W
R440	1-249-417-11	CARBON	1K 5% 1/4W	R499	1-249-435-11	CARBON	33K 5% 1/4W
R441	1-214-840-00	METAL	100 1% 1/2W	R501 Δ	1-215-443-91	METAL	8.2K 1% 1/4W
R442	1-249-437-11	CARBON	47K 5% 1/4W	R502	1-249-421-11	CARBON	2.2K 5% 1/4W
R443	1-249-421-11	CARBON	2.2K 5% 1/4W	R503 Δ	1-215-441-91	METAL	6.8K 1% 1/4W
R444	1-249-429-11	CARBON	10K 5% 1/4W	R504	1-215-439-00	METAL	5.6K 1% 1/4W
R445	1-214-840-00	METAL	100 1% 1/2W	R505	1-249-421-11	CARBON	2.2K 5% 1/4W
R446	1-215-449-00	METAL	15K 1% 1/4W	R506	1-215-453-00	METAL	22K 1% 1/4W
R447	1-215-459-00	METAL	39K 1% 1/4W	R508 Δ	1-215-675-71	METAL OXIDE	10K 5% 1W F
R448 Δ	1-215-421-91	METAL	1K 1% 1/4W	R509	1-215-475-00	METAL	180K 1% 1/4W
R449	1-249-425-11	CARBON	4.7K 5% 1/4W	R510	1-215-467-00	METAL	82K 1% 1/4W
R450	1-216-393-00	METAL OXIDE	2.2 5% 3W F	R511	1-214-798-21	METAL	1.8 1% 1/2W
R451	1-249-421-11	CARBON	2.2K 5% 1/4W	R512	1-215-866-11	METAL OXIDE	330 5% 1W F
R452	1-216-393-00	METAL OXIDE	2.2 5% 3W F	R513	1-249-383-11	CARBON	1.5 5% 1/4W F
R453	1-260-085-11	CARBON	68 5% 1/2W	R514	1-215-409-00	METAL	330 1% 1/4W
R454	1-215-451-00	METAL	18K 1% 1/4W	R515	1-215-423-00	METAL	1.2K 1% 1/4W
R455	1-247-887-00	CARBON	220K 5% 1/4W	R516	1-249-413-11	CARBON	470 5% 1/4W F
R456	1-249-421-11	CARBON	2.2K 5% 1/4W	R517	1-249-415-11	CARBON	680 5% 1/4W
R457	1-249-429-11	CARBON	10K 5% 1/4W	R521	1-216-393-00	METAL OXIDE	2.2 5% 3W F
R458	1-215-863-11	METAL OXIDE	100 5% 1W F	R522	1-216-393-00	METAL OXIDE	2.2 5% 3W F
R460 Δ	1-247-849-91	CARBON	5.6K 5% 1/4W	R524	1-215-433-00	METAL	3.3K 1% 1/4W
R461 Δ	1-247-849-91	CARBON	5.6K 5% 1/4W	R525	1-215-459-00	METAL	39K 1% 1/4W
R462 Δ	1-215-425-91	METAL	1.5K 1% 1/4W	R526	1-214-798-21	METAL	1.8 1% 1/2W
R463	1-249-401-11	CARBON	47 5% 1/4W F	R530	1-249-421-11	CARBON	2.2K 5% 1/4W
R464	1-249-393-11	CARBON	10 5% 1/4W F	R531	1-249-421-11	CARBON	2.2K 5% 1/4W
R465	1-216-385-11	METAL OXIDE	0.47 5% 3W F	R532	1-215-443-00	METAL	8.2K 1% 1/4W
R466	1-249-417-11	CARBON	1K 5% 1/4W	R533	1-215-453-00	METAL	22K 1% 1/4W
R467	1-249-417-11	CARBON	1K 5% 1/4W	R534	1-215-421-00	METAL	1K 1% 1/4W



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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R535	1-215-429-00	METAL	2.2K 1% 1/4W	R656	1-260-127-11	CARBON	220K 5% 1/2W
R536	1-215-453-00	METAL	22K 1% 1/4W	R657	1-260-292-11	CARBON	1 5% 1/2W
R537	1-215-421-00	METAL	1K 1% 1/4W				
R600	1-249-393-11	CARBON	10 5% 1/4W	R658	1-260-127-11	CARBON	220K 5% 1/2W
R601	1-249-425-11	CARBON	4.7K 5% 1/4W	R659	1-249-389-11	CARBON	4.7 5% 1/4W
R602	1-249-417-11	CARBON	1K 5% 1/4W	R660	1-260-288-11	CARBON	0.47 5% 1/2W
R603	1-215-428-00	METAL	2K 1% 1/4W	R663	1-215-469-00	METAL	100K 1% 1/4W
R604	1-247-887-00	CARBON	220K 5% 1/4W	R664	1-247-791-91	CARBON	22 5% 1/4W
R605	1-247-807-31	CARBON	100 5% 1/4W	R665	1-249-429-11	CARBON	10K 5% 1/4W
R606	1-215-445-00	METAL	10K 1% 1/4W	R668	1-249-393-11	CARBON	10 5% 1/4W F
R607	1-247-887-00	CARBON	220K 5% 1/4W	R669	1-249-391-11	CARBON	6.8 5% 1/4W
R608	1-247-883-00	CARBON	150K 5% 1/4W	R670	1-249-393-11	CARBON	10 5% 1/4W F
R609	1-215-485-00	METAL	470K 1% 1/4W	R671	1-247-863-91	CARBON	22K 5% 1/4W
R610	1-215-483-00	METAL	390K 1% 1/4W	R672	1-247-815-91	CARBON	220 5% 1/4W
R611	1-215-457-00	METAL	33K 1% 1/4W	R673	1-249-429-11	CARBON	10K 5% 1/4W
R612	1-215-483-00	METAL	390K 1% 1/4W	R674	1-247-863-91	CARBON	22K 5% 1/4W
R613	1-215-483-00	METAL	390K 1% 1/4W	R675	1-215-451-00	METAL	18K 1% 1/4W
R614	1-215-445-00	METAL	10K 1% 1/4W	R676	1-215-403-00	METAL	180 1% 1/4W
R615	1-215-437-00	METAL	4.7K 1% 1/4W	R677	1-202-933-61	FUSIBLE	0.1 10% 1/2W F
R617	1-260-288-11	CARBON	0.47 5% 1/2W	R678	1-215-419-00	METAL	820 1% 1/4W
R619	1-212-942-00	FUSIBLE	2.2 5% 1/2W F	R679	1-215-433-00	METAL	3.3K 1% 1/4W
R621	1-249-437-11	CARBON	47K 5% 1/4W	R680	1-247-815-91	CARBON	220 5% 1/4W
R622	1-247-863-91	CARBON	22K 5% 1/4W	R681	1-247-891-00	CARBON	330K 5% 1/4W
R623	1-249-413-11	CARBON	470 5% 1/4W	R682	1-249-425-11	CARBON	4.7K 5% 1/4W
R624	1-249-429-11	CARBON	10K 5% 1/4W	R683	1-249-429-11	CARBON	10K 5% 1/4W
R625	1-249-425-11	CARBON	4.7K 5% 1/4W	R685	1-247-891-00	CARBON	330K 5% 1/4W
R626	1-249-437-11	CARBON	47K 5% 1/4W	R686	1-247-891-00	CARBON	330K 5% 1/4W
R627	1-247-895-91	CARBON	470K 5% 1/4W	R687	1-249-391-11	CARBON	6.8 5% 1/4W
R628	1-216-397-11	METAL OXIDE	4.7 5% 3W F	R688	1-247-891-00	CARBON	330K 5% 1/4W
R629	1-249-421-11	CARBON	2.2K 5% 1/4W	R689	1-260-083-11	CARBON	47 5% 1/2W
R630	1-215-485-00	METAL	470K 1% 1/4W	R692	1-218-191-11	METAL OXIDE	0.1 5% 1W F
R631	1-215-485-00	METAL	470K 1% 1/4W	R693	1-218-191-11	METAL OXIDE	0.1 5% 1W F
R632	1-249-429-11	CARBON	10K 5% 1/4W	R694	1-249-421-11	CARBON	2.2K 5% 1/4W
R633	1-247-807-31	CARBON	100 5% 1/4W	R695	1-249-441-11	CARBON	100K 5% 1/4W
R634	1-249-429-11	CARBON	10K 5% 1/4W	R696 Δ	1-202-914-91	SOLID	390K 20% 1/2W
R635	1-249-425-11	CARBON	4.7K 5% 1/4W	R701	1-249-381-11	CARBON	1 5% 1/4W F
R636	1-249-429-11	CARBON	10K 5% 1/4W	R702	1-215-863-11	METAL OXIDE	100 5% 1W F
R637	1-249-429-11	CARBON	10K 5% 1/4W	R703	1-249-385-11	CARBON	2.2 5% 1/4W
R638	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	R704	1-249-425-11	CARBON	4.7K 5% 1/4W
R639	1-247-895-91	CARBON	470K 5% 1/4W	R705	1-249-431-11	CARBON	15K 5% 1/4W
R640	1-249-417-11	CARBON	1K 5% 1/4W	R707	1-249-425-11	CARBON	4.7K 5% 1/4W
R641	1-249-429-11	CARBON	10K 5% 1/4W	R708	1-249-417-11	CARBON	1K 5% 1/4W
R642	1-249-425-11	CARBON	4.7K 5% 1/4W	R709	1-216-341-11	METAL OXIDE	0.22 5% 1W F
R643	1-218-642-11	METAL OXIDE	100K 5% 1W F	R710	1-215-445-00	METAL	10K 1% 1/4W
R644	1-215-904-11	METAL OXIDE	100K 5% 2W F	R711	1-215-465-00	METAL	68K 1% 1/4W
R645	1-249-429-11	CARBON	10K 5% 1/4W F	R712	1-215-463-00	METAL	56K 1% 1/4W
R646	1-202-842-11	SOLID	220K 20% 1/2W	R713	1-215-861-00	METAL OXIDE	47 5% 1W F
R647	1-249-429-11	CARBON	10K 5% 1/4W	R714	1-215-445-00	METAL	10K 1% 1/4W
R648	1-249-429-11	CARBON	10K 5% 1/4W	R715	1-215-445-00	METAL	10K 1% 1/4W
R649	1-249-429-11	CARBON	10K 5% 1/4W	R716	1-215-457-00	METAL	33K 1% 1/4W
R650	1-249-389-11	CARBON	4.7 5% 1/4W	R717	1-249-417-11	CARBON	1K 5% 1/4W
R651	1-249-413-11	CARBON	470 5% 1/4W F	R718	1-249-421-11	CARBON	2.2K 5% 1/4W
R652	1-215-481-00	METAL	330K 1% 1/4W	R719	1-249-385-11	CARBON	2.2 5% 1/4W
R653	1-247-791-91	CARBON	22 5% 1/4W	R720	1-249-381-11	CARBON	1 5% 1/4W F
R654	1-215-461-00	METAL	47K 1% 1/4W	R721	1-249-417-11	CARBON	1K 5% 1/4W
R655	1-216-345-11	METAL OXIDE	0.47 5% 1W F	R722	1-249-417-11	CARBON	1K 5% 1/4W
				R723	1-249-417-11	CARBON	1K 5% 1/4W

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

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.

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REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R724	1-215-864-00	METAL OXIDE	150 5% 1W F	<u>SWITCH</u>			
R725	1-249-417-11	CARBON	1K 5% 1/4W	SW600	1-571-433-21	SWITCH, PUSH (AC POWER)	
R727	1-215-443-00	METAL	8.2K 1% 1/4W	<u>TRANSFORMER</u>			
R728	1-215-485-00	METAL	470K 1% 1/4W	T401	1-429-303-11	TRANSFORMER, FERRITE (HDT)	
R729	1-249-437-11	CARBON	47K 5% 1/4W	T403	1-426-998-11	TRANSFORMER, FERRITE (HST)	
R731	1-249-417-11	CARBON	1K 5% 1/4W	T404	Δ X-4033-530-1	TRANSFORMER, ASSY. FLYBACK (NX-4140/J1A4)	
R734	1-215-909-11	METAL OXIDE	47 5% 3W F	T410	1-429-301-11	TRANSFORMER, FERRITE (HCT)	
R735	1-249-437-11	CARBON	47K 5% 1/4W	T601	1-429-326-11	TRANSFORMER, CONVERTER (PIT)	
R736	1-249-437-11	CARBON	47K 5% 1/4W	T602	1-411-593-21	COIL, CHOK 85UF	
R737	1-249-437-11	CARBON	47K 5% 1/4W	T603	1-429-212-11	TRANSFORMER, CONVERTER (PIT)	
R738	1-249-437-11	CARBON	47K 5% 1/4W	T604	1-427-864-11	TRANSFORMER, CONVERTER (PRT)	
R741	1-215-413-00	METAL	470 1% 1/4W	T604	* 4-051-892-01	CASE, SHIELD (D1)	
R742	1-249-437-11	CARBON	47K 5% 1/4W	T605	1-427-864-11	TRANSFORMER, CONVERTER (PRT)	
R802	1-249-423-11	CARBON	3.3K 5% 1/4W	T686	Δ 1-429-180-11	TRANSFORMER, LINE FILTER	
R804	1-249-413-11	CARBON	470 5% 1/4W	T701	1-423-854-11	TRANSFORMER, FERRITE (DFT)	
R809	1-249-415-11	CARBON	680 5% 1/4W	T1402	1-423-405-12	TRANSFORMER, FERRITE (FRT)	
R1401	1-249-425-11	CARBON	4.7K 5% 1/4W	<u>THERMISTOR</u>			
R1402	1-249-429-11	CARBON	10K 5% 1/4W	TH601	Δ 1-809-260-11	THERMISTOR, POWER	
R1403	1-249-421-11	CARBON	2.2K 5% 1/4W	TH701	1-807-796-11	THERMISTOR	
R1404	1-249-417-11	CARBON	1K 5% 1/4W	<u>THERMISTOR</u>			
R1405	1-249-429-11	CARBON	10K 5% 1/4W	THP685	Δ 1-809-827-11	THERMISTOR, POSITIVE	
R1406	1-249-429-11	CARBON	10K 5% 1/4W	<u>VARISTOR</u>			
R1407	1-249-417-11	CARBON	1K 5% 1/4W	VDR685	Δ 1-807-180-31	VARISTOR ZNR-14DK471U	
R1409	1-247-895-91	CARBON	470K 5% 1/4W	VDR686	Δ 1-810-622-11	VARISTOR	
R1410	1-249-441-11	CARBON	100K 5% 1/4W	VDR687	1-810-974-21	VARISTOR	
R1411	1-247-807-31	CARBON	100 5% 1/4W	*****			
R1412	1-247-807-31	CARBON	100 5% 1/4W	* 8-933-167-00 H2 BOARD, COMPLETE *****			
R1600	1-249-401-11	CARBON	47 5% 1/4W	4-041-624-01	HOLDER (H1), LED		
R1601	1-249-437-11	CARBON	47K 5% 1/4W	4-041-624-01	HOLDER (H1), LED		
R1602	1-249-429-11	CARBON	10K 5% 1/4W	<u>CONNECTOR</u>			
R1603	1-249-429-11	CARBON	10K 5% 1/4W	CN1904	1-564-511-11	PLUG, CONNECTOR	8P
R1604	1-247-863-91	CARBON	22K 5% 1/4W	<u>DIODE</u>			
R1605	1-260-085-11	CARBON	68 5% 1/2W	D1906	8-719-045-19	DIODE SPB-26MVWF	
R1609	1-249-429-11	CARBON	10K 5% 1/4W	D1907	8-719-311-90	DIODE SEL1922D-C	
R1610	1-249-429-11	CARBON	10K 5% 1/4W				
R1611	Δ 1-205-998-11	WIREWOUND	1 5% 10W				
R1701	1-215-485-00	METAL	470K 1% 1/4W				
<u>VARIABLE RESISTOR</u>							
RV401	Δ 1-241-767-21	RES, ADJ, CERMET	100K				
RV601	1-241-761-11	RES, ADJ, CERMET	1K				
<u>RELAY</u>							
RY401	1-755-137-11	RELAY					
RY685	Δ 1-515-849-11	RELAY					
RY686	Δ 1-515-840-12	RELAY					
<u>SPARK GAP</u>							
SG701	1-519-422-11	GAP, SPARK					
SG702	1-519-422-11	GAP, SPARK					



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
<u>TRANSISTOR</u>				C917	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
Q1905	8-729-119-78	TRANSISTOR 2SC2785-HFE		C922	1-136-621-11	FILM 0.1MF	5% 50V
Q1906	8-729-119-78	TRANSISTOR 2SC2785-HFE		C923	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
Q1907	8-729-119-78	TRANSISTOR 2SC2785-HFE		C925	1-126-022-11	ELECT 47MF	20% 25V
<u>RESISTOR</u>				C930	1-163-038-91	CERAMIC CHIP 0.1MF	25V
R1905	1-215-413-00	METAL 470	1% 1/4W	C932	1-137-372-11	FILM 0.022MF	5% 50V
R1907	1-215-409-00	METAL 330	1% 1/4W	C933	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
R1908	1-215-413-00	METAL 470	1% 1/4W	C934	1-137-375-11	FILM 0.068MF	5% 50V
R1910	1-215-413-00	METAL 470	1% 1/4W	C935	1-124-635-00	ELECT 220MF	20% 6.3V
R1912	1-215-417-00	METAL 680	1% 1/4W	C936	1-126-157-11	ELECT 10MF	20% 16V
R1914	1-215-421-00	METAL 1K	1% 1/4W	C937	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
R1916	1-215-425-00	METAL 1.5K	1% 1/4W	C953	1-163-038-91	CERAMIC CHIP 0.1MF	25V
R1917	1-249-413-11	CARBON 470	5% 1/4W	C958	1-126-022-11	ELECT 47MF	20% 25V
R1918	1-215-425-00	METAL 1.5K	1% 1/4W	C959	1-163-038-91	CERAMIC CHIP 0.1MF	25V
R1919	1-249-411-11	CARBON 330	5% 1/4W	C963	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R1920	1-249-413-11	CARBON 470	5% 1/4W	C964	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R1921	1-215-433-00	METAL 3.3K	1% 1/4W	C965	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
R1922	1-215-469-00	METAL 100K	1% 1/4W	C966	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
<u>SWITCH</u>				C967	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
S1904	1-571-532-21	SWITCH, TACTIL (CONT+)		C968	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
S1905	1-571-532-21	SWITCH, TACTIL (CONT-)		C969	1-163-038-91	CERAMIC CHIP 0.1MF	25V
S1906	1-571-532-21	SWITCH, TACTIL (CENT)		C970	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V
S1907	1-571-532-21	SWITCH, TACTIL (SIZE)		C971	1-163-038-91	CERAMIC CHIP 0.1MF	25V
S1908	1-571-532-21	SWITCH, TACTIL (GEOM)		C972	1-163-038-91	CERAMIC CHIP 0.1MF	25V
S1909	1-571-532-21	SWITCH, TACTIL (CONV)		C973	1-126-789-11	ELECT 33MF	20% 25V
S1910	1-571-532-21	SWITCH, TACTIL (OPTION)		C974	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
S1911	1-571-532-21	SWITCH, TACTIL (RESET)		C976	1-163-251-11	CERAMIC CHIP 100pF	5% 50V
S1921	1-762-093-11	SWITCH, TACTILE (BRT +-)		C977	1-163-275-11	CERAMIC CHIP 0.001MF	5% 50V
*****				C978	1-124-257-00	ELECT 2.2MF	20% 50V
* 8-933-155-00 N BOARD, COMPLETE				C979	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
*****				C980	1-163-113-00	CERAMIC CHIP 68pF	5% 50V
<u>CAPACITOR</u>				C981	1-164-222-11	CERAMIC CHIP 0.22MF	25V
C901	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C982	1-137-370-11	FILM 0.01MF	5% 50V
C902	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C984	1-124-455-00	ELECT 100MF	20% 16V
C903	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C985	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C904	1-164-182-11	CERAMIC CHIP 0.0033MF	10% 50V	C986	1-136-621-11	FILM 0.1MF	5% 50V
C905	1-163-038-91	CERAMIC CHIP 0.1MF	25V	C987	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C906	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	C988	1-126-022-11	ELECT 47MF	20% 25V
C907	1-126-301-11	ELECT 1MF	20% 50V	C990	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V
C908	1-163-235-11	CERAMIC CHIP 22pF	5% 50V	C991	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C909	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V	C992	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C910	1-124-635-00	ELECT 220MF	20% 6.3V	C993	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C911	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C994	1-124-635-00	ELECT 220MF	20% 6.3V
C912	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C995	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V
C913	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	C996	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C915	1-163-235-11	CERAMIC CHIP 22pF	5% 50V	C997	1-163-038-91	CERAMIC CHIP 0.1MF	25V
C916	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V	C998	1-163-235-11	CERAMIC CHIP 22pF	5% 50V
				C999	1-163-235-11	CERAMIC CHIP 22pF	5% 50V
				C1000	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V
				C1001	1-163-038-91	CERAMIC CHIP 0.1MF	25V
				C1019	1-163-038-91	CERAMIC CHIP 0.1MF	25V
				<u>CONNECTOR</u>			
				CN910*	1-774-590-11	CONNECTOR, BOARD TO BOARD	20P
				CN911*	1-774-590-11	CONNECTOR, BOARD TO BOARD	20P



REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
		CN912*1-774-590-11 CONNECTOR, BOARD TO BOARD	20P			<u>RESISTOR</u>	
		<u>DIODE</u>		R900	1-216-049-91	METAL GLAZE 1K	5% 1/10W
D901	8-719-404-46	DIODE MA110		R901	1-218-764-11	METAL CHIP 330K	0.50% 1/10W
D902	8-719-404-46	DIODE MA110		R902	1-216-073-00	METAL GLAZE 10K	5% 1/10W
D903	8-719-404-46	DIODE MA110		R903	1-216-073-00	METAL GLAZE 10K	5% 1/10W
D904	8-719-404-46	DIODE MA110		R904	1-208-800-11	METAL CHIP 5.6K	0.50% 1/10W
D905	8-719-404-46	DIODE MA110					
D906	8-719-404-46	DIODE MA110		R905	1-216-025-91	METAL GLAZE 100	5% 1/10W
D907	8-719-404-46	DIODE MA110		R906	1-216-682-11	METAL CHIP 20K	0.50% 1/10W
D908	8-719-404-46	DIODE MA110		R907	1-218-760-11	METAL CHIP 220K	0.50% 1/10W
D909	8-719-404-46	DIODE MA110		R908	1-216-049-91	METAL GLAZE 1K	5% 1/10W
D917	8-719-404-46	DIODE MA110		R909	1-216-073-00	METAL GLAZE 10K	5% 1/10W
D920	8-719-976-96	DIODE DTZ4.7C					
		<u>FERRITE BEAD</u>		R910	1-208-824-11	METAL CHIP 56K	0.50% 1/10W
FB013	1-414-386-11	INDUCTOR, FERRITE BEAD		R911	1-216-627-11	METAL CHIP 100	0.50% 1/10W
FB901	1-412-911-11	INDUCTOR, FERRITE BEAD		R912	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
		<u>IC</u>		R913	1-216-639-11	METAL CHIP 330	0.50% 1/10W
IC901	8-759-182-62	IC CXD8478Q		R914	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
IC902	8-759-156-55	IC CD74HC4046AM		R915	1-216-037-00	METAL GLAZE 330	5% 1/10W
IC903	8-759-162-80	IC MM1170BFB		R916	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
IC904	8-759-370-06	IC HD6433337WA02FP		R917	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
IC905	8-759-981-48	IC TL082M		R918	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC906	8-759-100-96	IC UPC4558G2		R919	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC907	8-759-353-44	IC ST24C08FM6TR		R920	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC908	8-759-008-67	IC MC14066BF		R921	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC909	8-759-981-48	IC TL082M		R922	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC911	8-759-925-90	IC SN74HC74ANS		R923	1-216-089-91	METAL GLAZE 47K	5% 1/10W
IC912	8-759-925-72	IC SN74HC02ANS		R924	1-216-037-00	METAL GLAZE 330	5% 1/10W
IC913	8-759-191-50	IC TDA9102C					
		<u>COIL</u>		R925	1-216-049-91	METAL GLAZE 1K	5% 1/10W
L905	1-410-645-31	INDUCTOR 100UH		R926	1-216-049-91	METAL GLAZE 1K	5% 1/10W
		<u>TRANSISTOR</u>		R927	1-249-393-11	CARBON 10	5% 1/4W F
Q901	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R928	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
Q902	8-729-216-22	TRANSISTOR 2SA1162-G		R929	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q903	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R930	1-208-771-11	METAL CHIP 360	0.50% 1/10W
Q904	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R931	1-216-682-11	METAL CHIP 20K	0.50% 1/10W
Q905	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R932	1-208-806-11	METAL CHIP 10K	0.50% 1/10W
Q907	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R933	1-216-097-91	METAL GLAZE 100K	5% 1/10W
Q908	8-729-027-52	TRANSISTOR DTC124EKA-T146		R934	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
Q909	8-729-027-52	TRANSISTOR DTC124EKA-T146		R935	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
Q910	8-729-232-13	TRANSISTOR 2SK1078		R936	1-216-097-91	METAL GLAZE 100K	5% 1/10W
Q911	8-729-027-52	TRANSISTOR DTC124EKA-T146		R937	1-216-655-11	METAL CHIP 1.5K	0.50% 1/10W
Q912	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R938	1-208-803-11	METAL CHIP 7.5K	0.50% 1/10W
				R939	1-208-824-11	METAL CHIP 56K	0.50% 1/10W
				R940	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
				R941	1-216-671-11	METAL CHIP 6.8K	0.50% 1/10W
				R942	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
				R943	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R944	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R945	1-216-081-00	METAL GLAZE 22K	5% 1/10W
				R946	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R947	1-216-695-11	METAL CHIP 68K	0.50% 1/10W
				R948	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R949	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R950	1-216-694-11	METAL CHIP 62K	0.50% 1/10W
				R951	1-208-784-11	METAL CHIP 1.2K	0.50% 1/10W
				R952	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R953	1-216-659-11	METAL CHIP 2.2K	0.50% 1/10W
				R954	1-216-049-91	METAL GLAZE 1K	5% 1/10W



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

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

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
R955	1-216-033-00	METAL GLAZE 220	5% 1/10W	R1014	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R956	1-216-697-91	METAL CHIP 82K	0.50%1/10W	R1015	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R957	1-216-117-00	METAL GLAZE 680K	5% 1/10W	R1016	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R958	1-216-105-91	METAL GLAZE 220K	5% 1/10W	R1017	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R960	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	R1018	1-216-295-91	CONDUCTOR, CHIP	
R961	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R1020	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R962	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W	R1021	1-208-814-11	METAL CHIP 22K	0.50%1/10W
R964	1-208-771-11	METAL CHIP 360	0.50%1/10W	R1022	1-208-810-11	METAL CHIP 15K	0.50%1/10W
R965	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R1023	1-216-677-11	METAL CHIP 12K	0.50%1/10W
R966	1-216-117-00	METAL GLAZE 680K	5% 1/10W	R1024	1-216-661-11	METAL CHIP 2.7K	0.50%1/10W
R971	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R1025	1-216-685-11	METAL CHIP 27K	0.50%1/10W
R973	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R1026	1-208-814-11	METAL CHIP 22K	0.50%1/10W
R974	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R1027	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R975	1-216-673-11	METAL CHIP 8.2K	0.50%1/10W	R1028	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R976	1-208-800-11	METAL CHIP 5.6K	0.50%1/10W	R1029	1-208-784-11	METAL CHIP 1.2K	0.50%1/10W
R977	1-216-663-11	METAL CHIP 3.3K	0.50%1/10W	R1030	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R978	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W	R1031	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R979	1-216-037-00	METAL GLAZE 330	5% 1/10W	R1032	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R981	1-216-121-91	METAL GLAZE 1M	5% 1/10W	R1033	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R982	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R1034	1-216-631-11	METAL CHIP 150	0.50%1/10W
R983	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R1035	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R985	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1036	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R986	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R1037	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R987	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R1038	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R988	1-216-081-00	METAL GLAZE 22K	5% 1/10W				
R989	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R990	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R991	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R992	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R993	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R994	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R995	1-216-667-11	METAL CHIP 4.7K	0.50%1/10W				
R996	1-216-651-11	METAL CHIP 1K	0.50%1/10W				
R997	1-218-758-11	METAL CHIP 180K	0.50%1/10W				
R998	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R999	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R1000	1-208-806-11	METAL CHIP 10K	0.50%1/10W				
R1001	1-216-295-91	CONDUCTOR, CHIP					
R1002	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R1003	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R1004	1-208-806-11	METAL CHIP 10K	0.50%1/10W				
R1005	1-216-659-11	METAL CHIP 2.2K	0.50%1/10W				
R1006	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R1007	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R1008	1-216-073-00	METAL GLAZE 10K	5% 1/10W				
R1009	1-216-049-91	METAL GLAZE 1K	5% 1/10W				
R1010	1-216-651-11	METAL CHIP 1K	0.50%1/10W				
R1011	1-208-806-11	METAL CHIP 10K	0.50%1/10W				
R1012	1-208-810-11	METAL CHIP 15K	0.50%1/10W				
R1013	1-216-689-11	METAL CHIP 39K	0.50%1/10W				

CRYSTAL

X901 1-577-076-11 VIBRATOR, CRYSTAL

MISCELLANEOUS

Δ 1-251-382-22 INLET, AC 3P(WITH NOISE FILTE)
 Δ 1-406-790-71 COIL, DEMAGNETIZATION
 Δ 1-451-438-11 DEFLECTION YOKE
 Δ 1-765-717-11 CORD SET, POWER (10A/250V) (20SF2T)
 Δ 1-765-718-11 CORD SET, POWER (10A/125V) (20SF2)

Δ 1-775-706-11 CORD SET, POWER (10A/250V)
 (20SF2 UK Model)

1-776-033-11 CABLE

Δ 8-453-006-11 NECK ASSY, PICTURE TUBE (1A3013-M)
 V901 Δ 8-736-048-05 PICTURE TUBE 20SQ8 (20SF2T)
 V901 Δ 8-736-050-05 PICTURE TUBE 20SQ4
 (20SF2 except for AUS Model)

V901 Δ 8-736-364-05 PICTURE TUBE 20SQ4 (20SF2 AUS Model)
 Δ 8-736-048-97 ITC ASSY (20SQ8-R3) (20SF2T)
 Δ 8-736-050-95 ITC ASSY (20SQ4-R3)
 (20SF2 except for AUS Model)
 Δ 8-736-364-92 ITC ASSY (20SQ4-RS4) (20SF2 AUS Model)