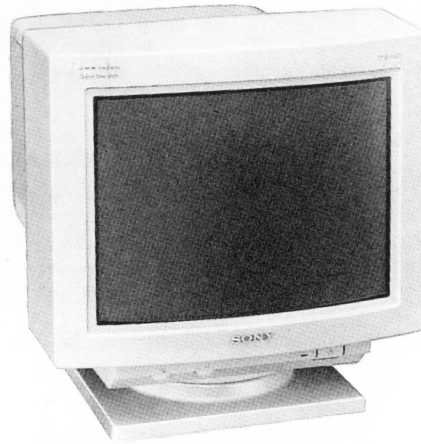


# CPD-1320

## SERVICE MANUAL

*US Model  
Canadian Model*

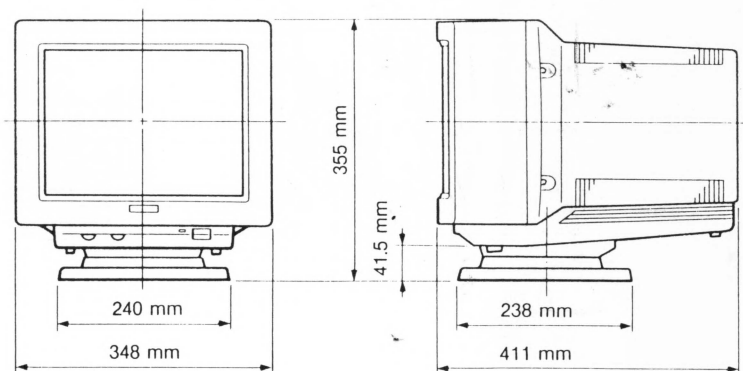
Chassis No. SCC-C39A-A



### SPECIFICATIONS

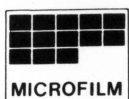
Picture tube	Super Fine Pitch Trinitron color tube 13-inch (visual, measured diagonally) 90 degree deflection Useful screen: 268mm × 201mm Phosphor: P22 Aperture Grille pitch: 0.25mm Non-glare coating
Resolution format	640 × 480 VGA graphic mode 720 × 400 VGA text mode
Scanning frequency	Horizontal : 31.5 kHz Vertical : 60/70 Hz
Input connector	Three-row D-sub 15 pin (male)
Video input signal	Analog RGB positive 0.714 V <sub>p-p</sub> /75Ω terminated
Sync input	H/V separated TTL level
Power requirements	120V AC, 50/60 Hz

Dimensions	355(H) × 348(W) × 411(D) mm (14 × 13 <sup>3</sup> / <sub>4</sub> × 16 <sup>1</sup> / <sub>8</sub> inches)
------------	--



Weight	12.7 kg (28 lb) Including the tilt-swivel
Supplied accessory	AC power cord (1)

Design and specification subject to change without notice.



TRINITRON® CHARACTER DISPLAY  
**SONY®**


TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>1. GENERAL</b>			<b>4. SAFETY RELATED ADJUSTMENTS</b>		12
1-1.	Location and Function of Controls	4	<b>5. CIRCUIT ADJUSTMENTS</b>		
1-2.	Connections	4	5-1.	D Board Adjustments	14
1-3.	Use of the Tilt-swivel	5	<b>6. DIAGRAMS</b>		
1-4.	Timing Charts (VGA Compatible)	5	6-1.	Block Diagram	17
<b>2. DISASSEMBLY</b>			6-2.	Circuit Boards Location	20
2-1.	Cabinet Removal	6	6-3.	Schematic Diagram	20
2-2.	B and D Boards Removal	6	6-4.	Printed Wiring Boards	25
2-3.	Service Portion	6	6-5.	Semiconductors	28
2-4.	Picture Tube Removal	7	<b>7. EXPLODED VIEW</b>		30
2-5.	Removal of Anode Cap	7	<b>8. ELECTRICAL PARTS LIST</b>		32
<b>3. SET-UP ADJUSTMENTS</b>					
3-1.	Landing Adjustments	8			
3-2.	Deflection Yoke Neck Adjustments	9			
3-3.	G2 Adjustments	11			
3-4.	White Balance Adjustments	11			

**WARNING !!**

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS. THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.


**SAFETY-RELATED COMPONENT WARNING !!**

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

**ATTENTION!!**

AFIN D'ÉVITER TOUT RISQUE D'ÉLECTROCUTION PROVENANT D'UN CHÂSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ÊTRE UTILISÉ LORS DE TOUT DÉPANNAGE. LE CHÂSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!**

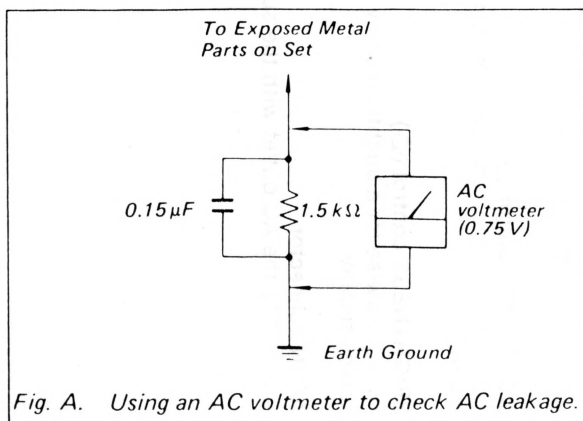
LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MARQUE  SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÈCES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÈCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. 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.



## 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 cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.



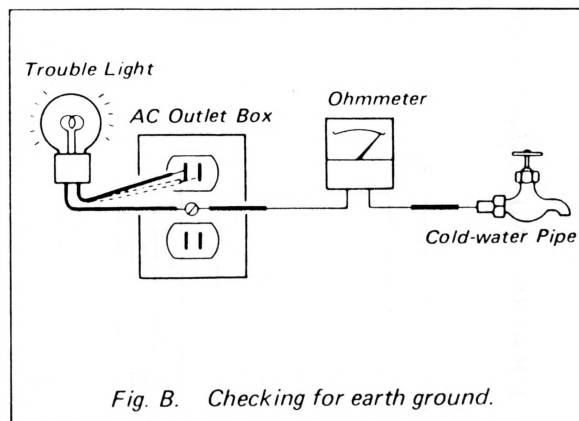
### LEAKAGE TEST

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 VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

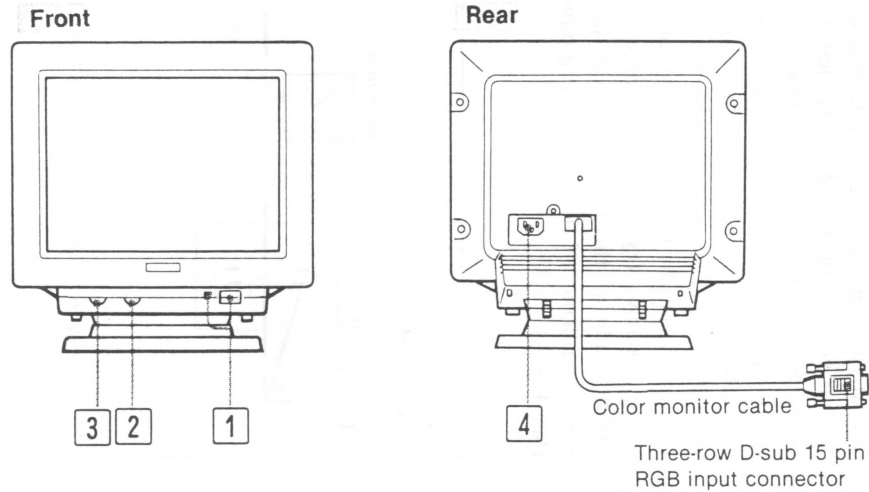
### HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)



# SECTION 1 GENERAL

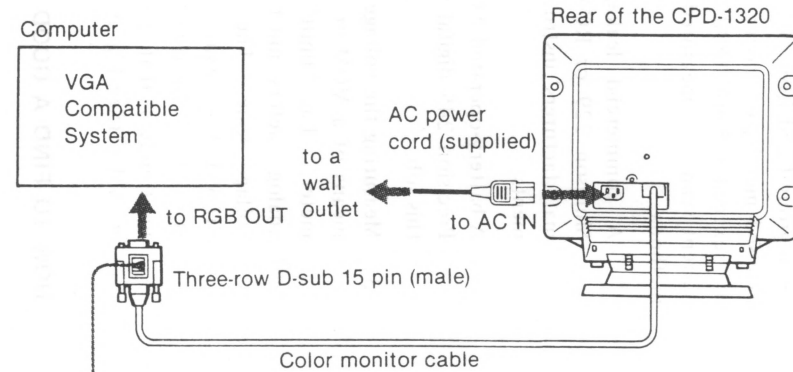
## 1-1. LOCATION AND FUNCTION OF CONTROLS



- 1 POWER switch and indicator**  
To turn on the power of the unit, press this switch. The indicator will light up. To turn off the unit, press it again.
- 2 CONTRAST control (☉)**  
Turn clockwise to increase contrast, or counterclockwise for less contrast.
- 3 BRIGHTNESS control (☀)**  
Turn clockwise for a brighter display, or turn counterclockwise for a darker display.
- 4 AC IN connector**  
Connect to the AC outlet with the supplied AC power cord.

## 1-2. CONNECTIONS

Connect the power cord and the color monitor cable as shown. Be sure to turn the power of the unit off before making any connections.

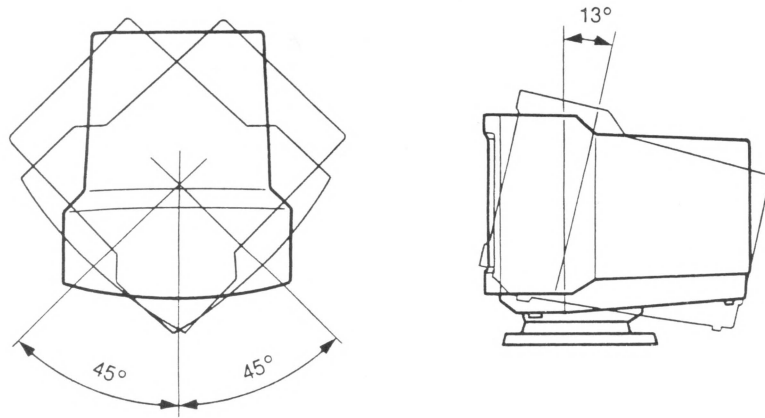


**1** Align the plug with the receptacle. **2** Plug in and tighten the screws by a hand.

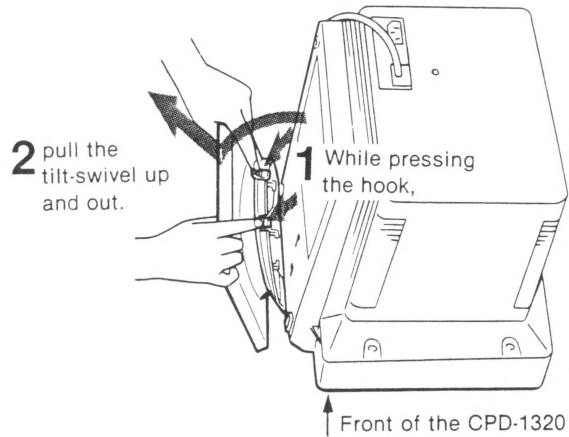
To disconnect the plug, loosen the screws.

### 1-3. USE OF THE TILT-SWIVEL

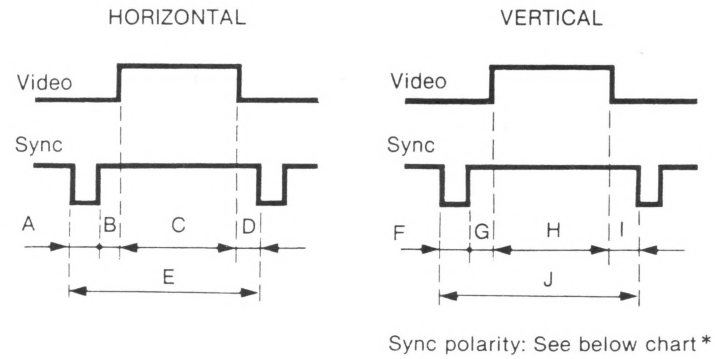
With the tilt-swivel, this unit can be adjusted to be viewed at your desired angle within 90° horizontally and 13° vertically.



The tilt-swivel can be removed from this unit.



### 1-4. TIMING CHARTS (VGA COMPATIBLE)



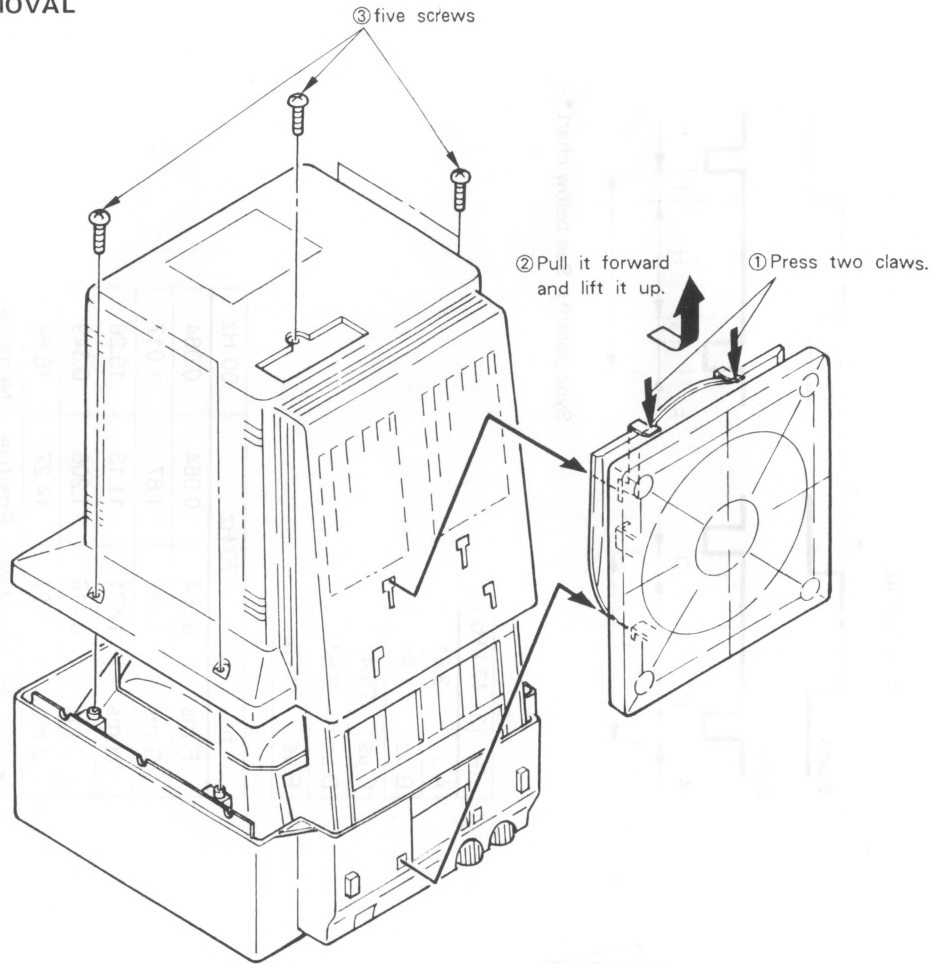
f <sub>H</sub>	31.47 kHz
A μs	3.81
B μs	1.91
C μs	25.42
D μs	0.64
E μs	31.78

f <sub>v</sub>	70 Hz	60 Hz		
F ms	0.064	0.064		
G ms	1.08	1.87		
H ms	12.71	11.13		
I ms	0.416	1.206		
J ms	14.27	14.27		
* sync polarity	H	Negative	Positive	Negative
	V	Positive	Negative	Negative
Reso- lution	dots	720	640	640
	lines	400	350	480

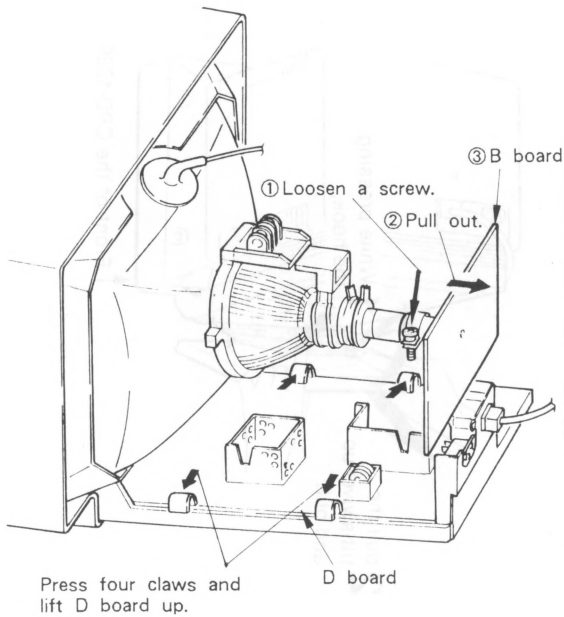


## SECTION 2 DISASSEMBLY

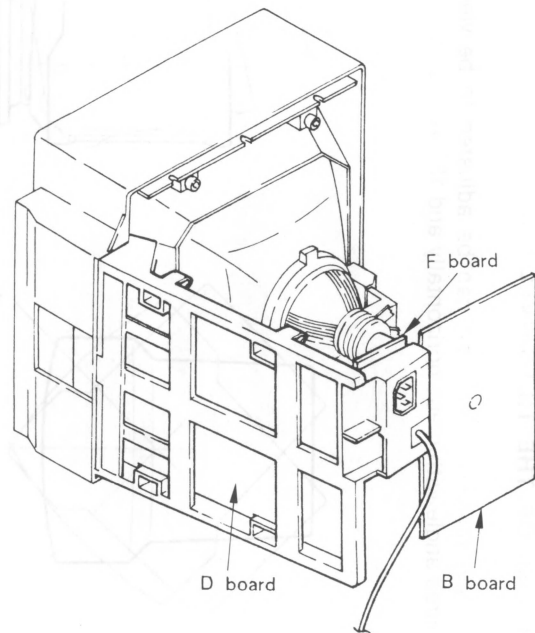
### 2-1. CABINET REMOVAL



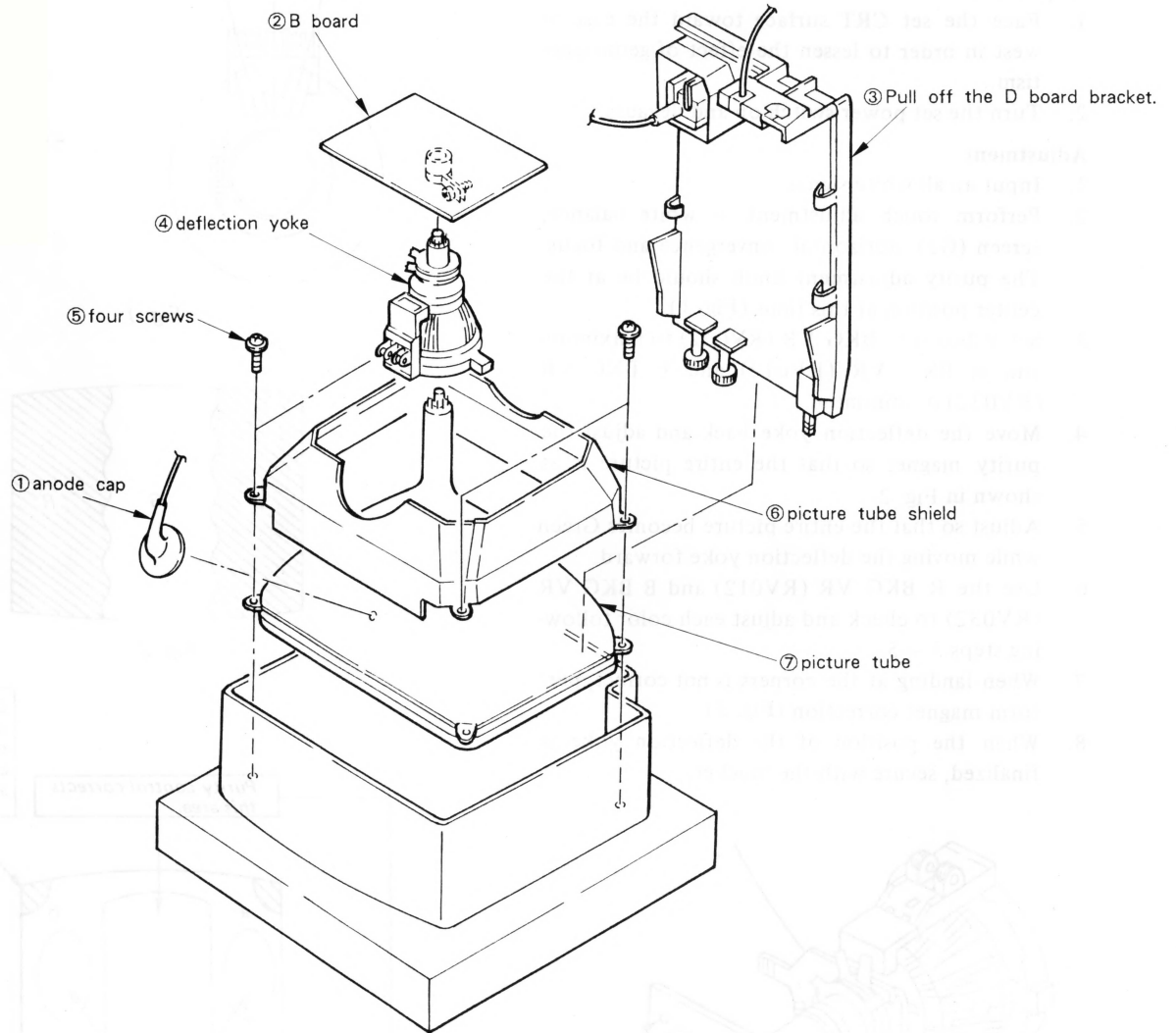
### 2-2. B AND D BOARDS REMOVAL



### 2-3. SERVICE POSITION

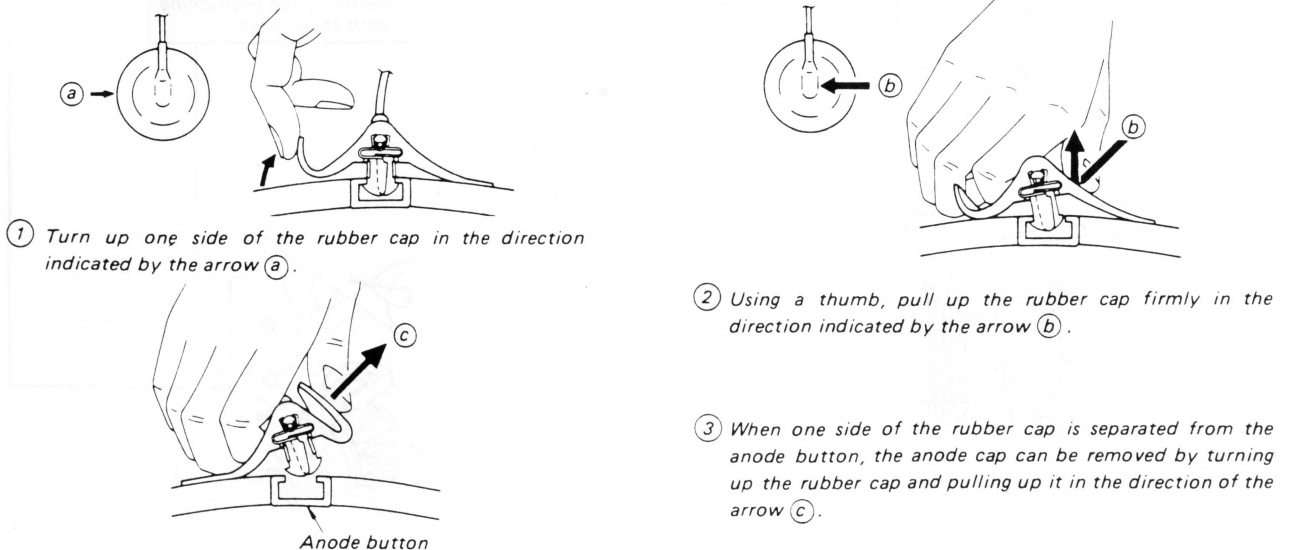


2-4. PICTURE TUBE REMOVAL



2-5. REMOVAL OF ANODE CAP

• Removing Procedures



## SECTION 3 SET-UP ADJUSTMENTS

### 3-1. LANDING ADJUSTMENT

**Preparations:**

1. Face the set CRT surface toward the east or west in order to lessen the effect of geomagnetism.
2. Turn the set power switch on and degauss.

**Adjustment:**

1. Input an all white signal.
2. Perform rough adjustment of white balance, screen (G2), horizontal convergence and focus. The purity adjustment knob should be at the center position at this time. (Fig. 1)
3. Set B board G BKG VR (RV022) to maximum and R BKG VR (RV012) and B BKG VR (RV032) to minimum.
4. Move the deflection yoke back and adjust the purity magnet so that the entire picture is as shown in Fig. 2.
5. Adjust so that the entire picture becomes Green while moving the deflection yoke forward.
6. Use the R BKG VR (RV012) and B BKG VR (RV032) to check and adjust each color following steps 3 – 5.
7. When landing at the corners is not correct, perform magnet correction (Fig. 3).
8. When the position of the deflection yoke is finalized, secure with the bracket.

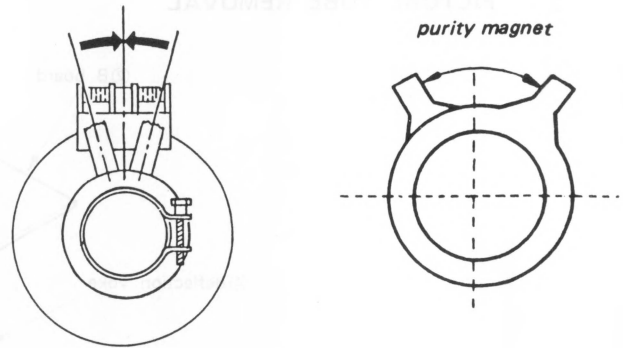


Fig. 1

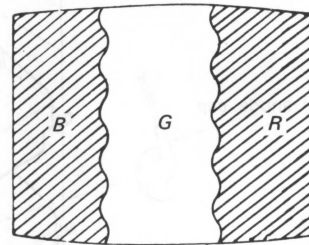


Fig. 2

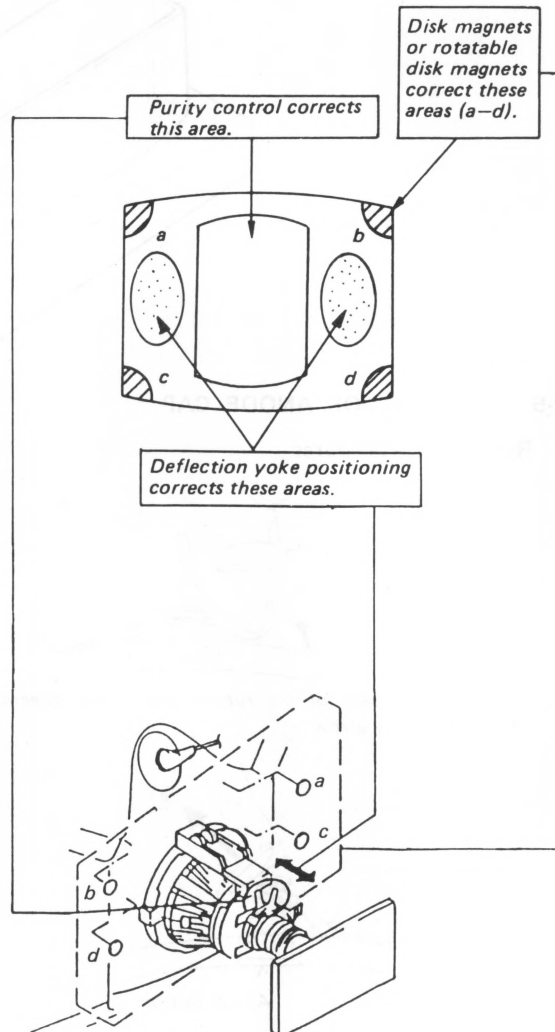
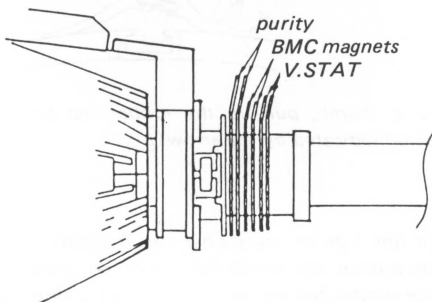
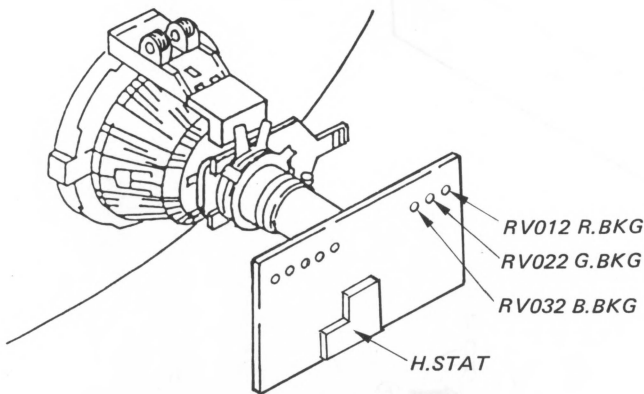


Fig. 3



**3-2. DEFLECTION YOKE NECK ADJUSTMENT**

Perform this adjustment when there is misconvergence and pincushion distortion at the top and bottom of the picture.

1. Tilt the deflection yoke up and down to adjust when the pincushion distortion is not the same at the top and bottom of the picture. (Fig. 4)

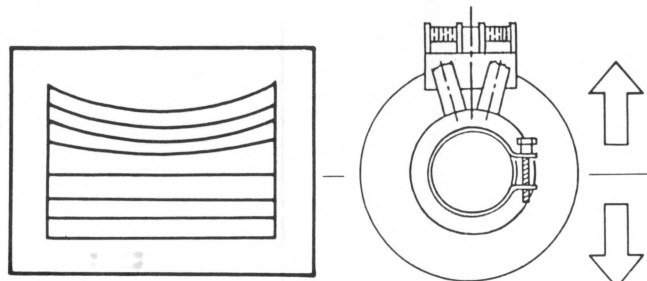


Fig. 4

2. When there is misconvergence at the top and bottom of the picture as shown in Fig. 5, tilt the deflection yoke to the left and right to adjust.

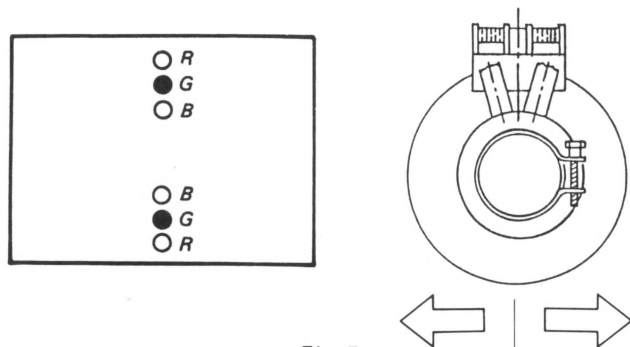
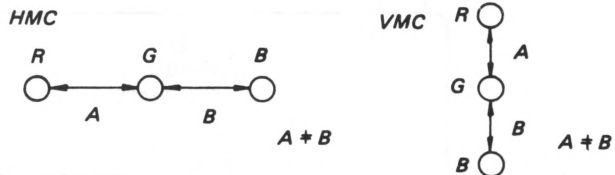


Fig. 5



Dot Movement due to BMC Magnet movement

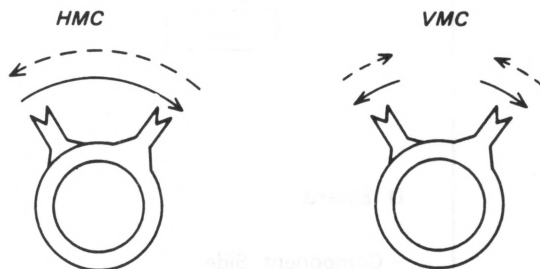
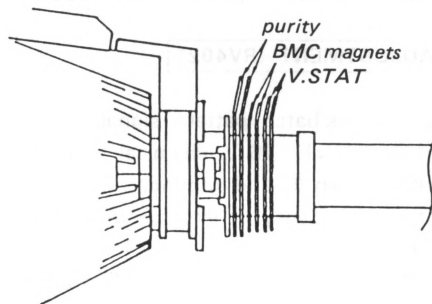
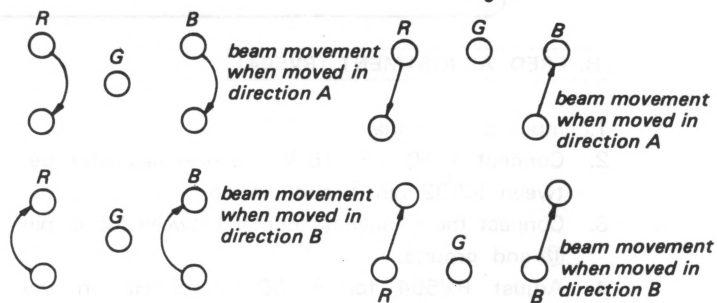


Fig. 6

Fig. 7



- 1) Convergence Adjustment for Picture Center (H. STAT, V. STAT)
  1. Input a dot signal, and with BRT at minimum, adjust for optimum picture with PICTURE.
  2. Line up picture center and horizontal direction RGB dots with H. STAT VR (RV081).
  3. Line up picture center and vertical direction RGB dots with V. STAT magnet.
- 2) Picture center horizontal direction asymmetrical misconvergence (HMC)
 

Picture center vertical direction asymmetrical misconvergence (VMC)

  1. For HMC, move the BMC magnet to adjust so that the R and B dots are symmetrical to the right and left of the G dot.
  2. For VMC, move the BMC magnet to adjust so that the R and B dots are symmetrical above and below the G dot.

3) Picture Periphery Convergence Adjustment

1. For Y crosstalk, adjust with the Y crosstalk correction magnet.

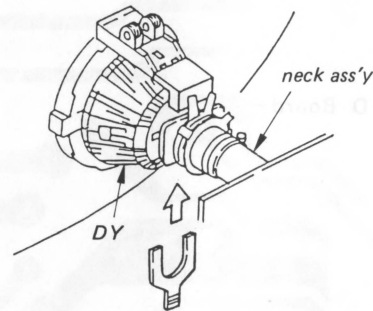
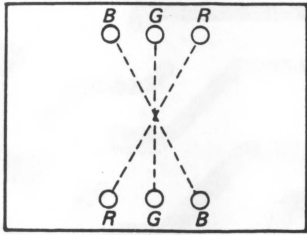
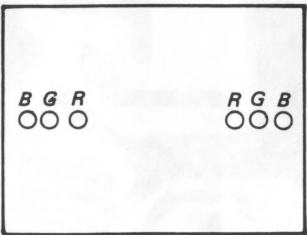


Fig. 8

2. Adjust with the X crosstalk adjustment magnet when there is H TILT.



When red dots are off to the inside at the right and left.

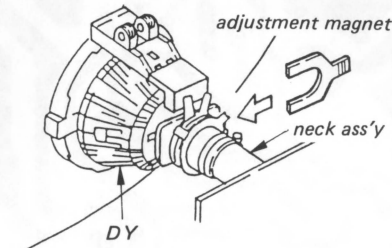
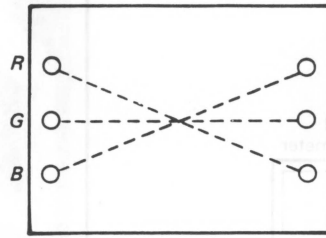


Fig. 9

3. Adjust with the deflection yoke H. CV correction coil when there is X crosstalk. (Fig. 10)



In this case adjust with coil A in Fig. 11.

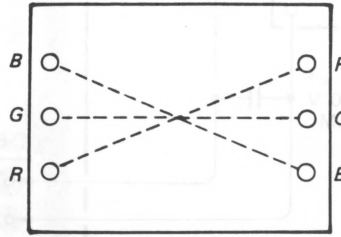


Fig. 10

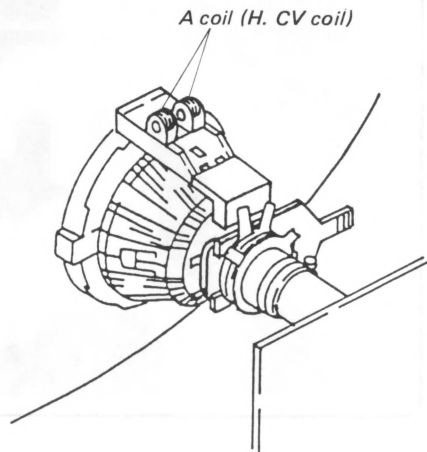
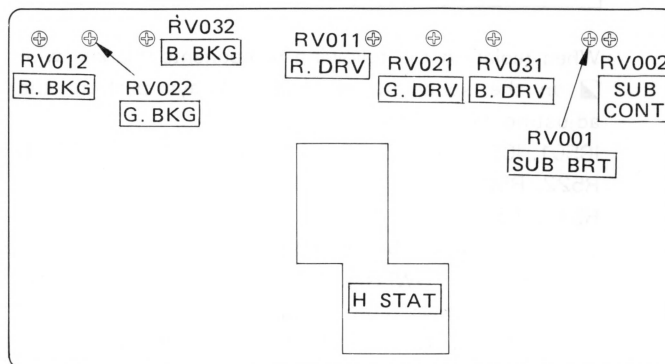


Fig. 11

**3-3. G<sub>2</sub> ADJUSTMENT**

1. Receive a dot signal.
2. R, G, B BKG VR . . . . . MINIMUM  
 R, G, B DRIVE VR . . . . . MAXIMUM  
 SUB BRT VR . . . . . MAXIMUM  
 SUB CONT VR . . . . . CENT
3. Gradually darken the picture with screen VR, and confirm that color remains glowing on the picture.
4. Apply 140 V DC with regulated power supply to the cathode of the color which remained glowing for cut off color check.
5. Adjust the screen VR so that the back-ground is just cut off.

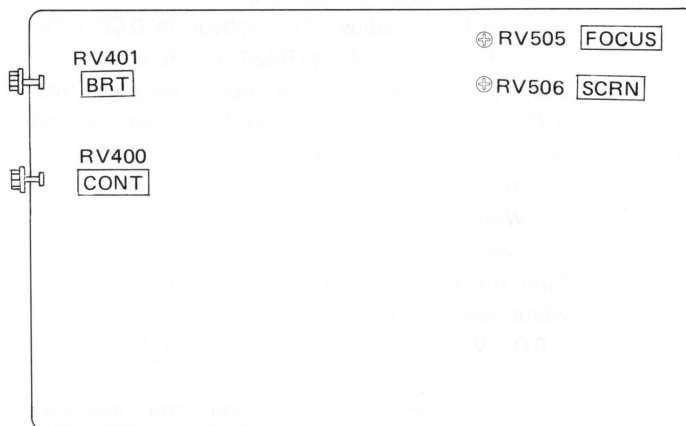
**B BOARD – Component Side –**



**3-4. WHITE BARANCE ADJUSTMENT**

1. Receive a entire-white signal.
2. Erase the magnetic force using a degausser.
3. R, G, B BKG VR . . . . . MINIMUM  
 R, G, B DRIVE VR . . . . . MAXIMUM  
 SUB BRIGHT VR . . . . . CENTER  
 SUB CONTRAST VR . . . . . CENTER  
 BRIGHT VR . . . . . CENTER  
 CONTRAST VR . . . . . MINIMUM
4. Install the senser of analyzer to the center of screen.
5. Set the CONTRAST VR (RV400) to minimum, and adjust BKG VR for optimum white balance of cut off (3 – 4 NIT).
6. Set the CONTRAST VR (RV400) to maximum, and adjust DRIVE VR for optimum white balance of highlight (100 – 105 NIT).
7. Adjust white balance of cut off and highlight several times, and these should be enter inside a standard.
8. Receive a entire-brack signal.
9. BRIGHT VR . . . . . MAXIMUM
10. Adjust SUB BRIGHT VR (RV002) so that the picture luminance is 1 NIT (0.8 – 1 NIT).
11. Adjust CONTRAST VR (RV001) so that the picture luminance is 120 NIT (115 – 125 NIT).
12. Put back BRIGHT VR to center.

**D BOARD – Component Side –**



**3-5. FOCUS ADJUSTMENT**

1. Receive a character signal.
2. Adjust FOCUS VR so that the focus of entire picture becomes optimum condition.



## SECTION 4

### SAFETY RELATED ADJUSTMENTS

#### R524, CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

When replacing the following components (marked with ■ on the schematic diagram), always perform the adjustments as follows.

IC501, IC502, D502, D505, R514, R515, R518, R519, R522, R524, R526, R527, R528, R531, R541, R543, R547, T500

##### (1) Preparation before confirmation

1. Turn the POWER switch ON, and receive entirely white signals, and adjust  $V_{ABL}$  voltage to  $0.47 \pm 0.01$  V DC with BRIGHT and CONTRAST controls.
2. Confirm that the voltage of  $7.9 \pm 0.5$  V DC appears between pin ① of D-6 connector and ground.

##### (2) Hold-down operation confirmation

1. Turn the POWER switch ON, and receive entirely dot signals and adjust  $V_{ABL}$  voltage to 0.08 V DC with BRIGHT and CONTRAST controls.
2. Using an external DC power supply, apply less than 9.73 V DC between pin ① of D-6 connector and ground and confirm that the hold-down works. (Raster disappears)

NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

3. Turn the POWER switch ON, and receive entirely white signals and adjust  $V_{ABL}$  voltage to  $0.47 \pm 0.01$  V DC with BRIGHT and CONTRAST controls.
4. Using an external DC power supply, apply less than 9.27 V DC between pin ① of D-6 connector and ground and confirm that the hold-down works. (Raster disappears)

NOTE : When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- \* Use a digital multimeter whose input impedance over 100 M $\Omega$  when confirming the voltage of the TP85.

#### CONFIRMATION WHEN REPLACING R543

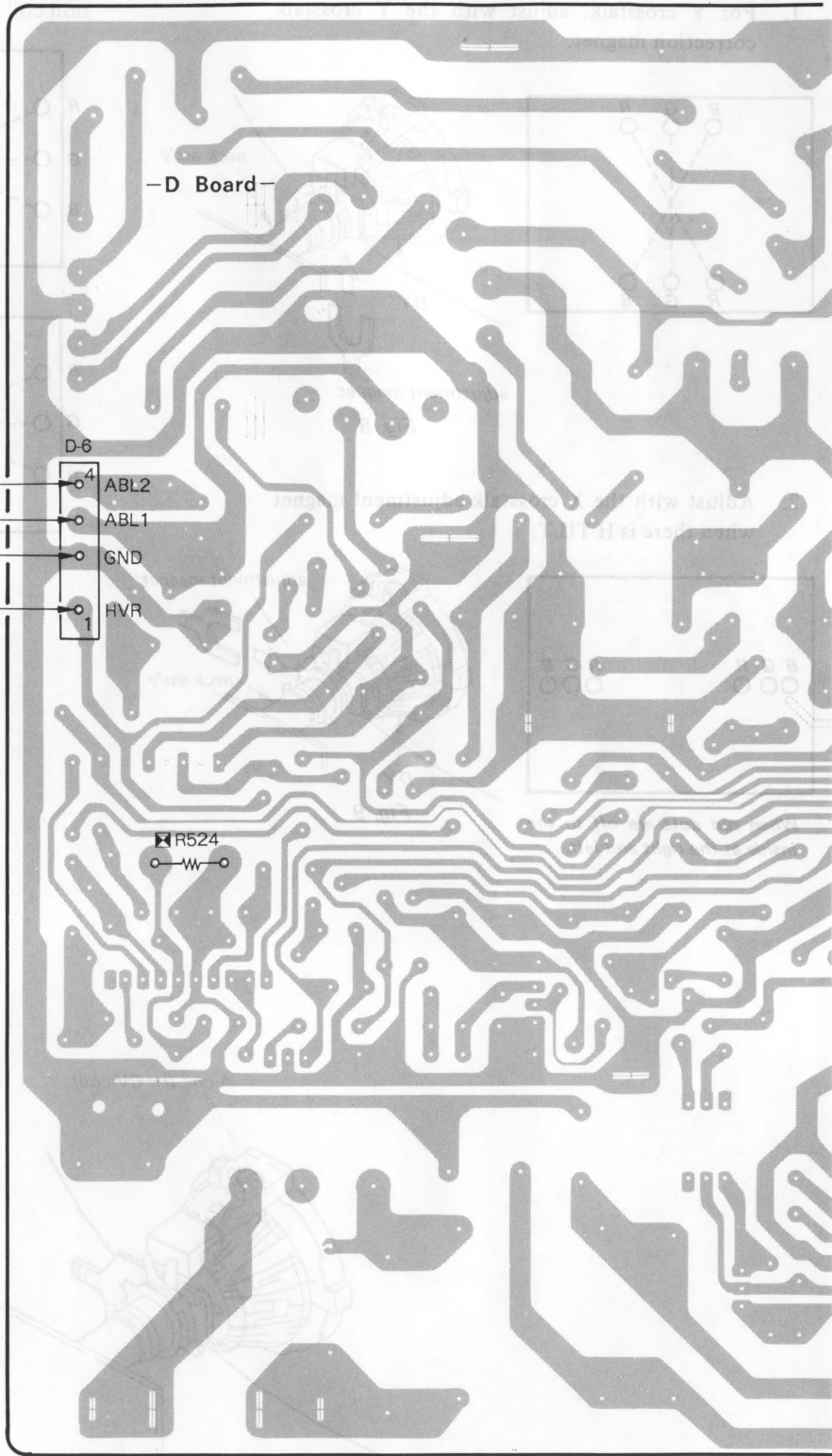
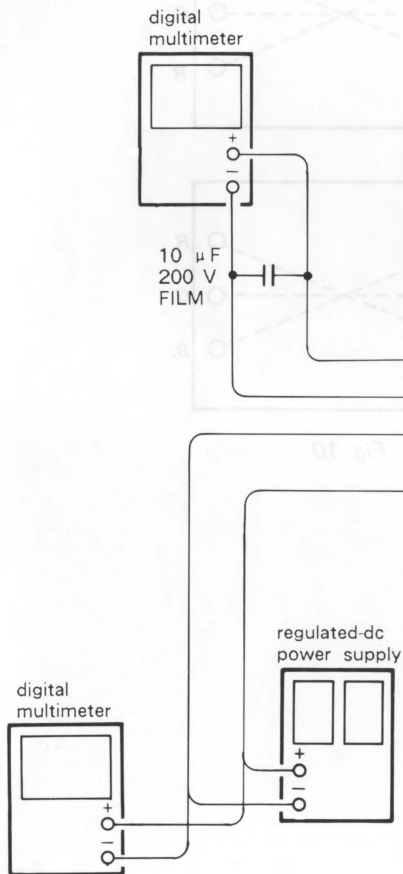
Confirm that R543 is  $1.0 \text{ k}\Omega \pm 1\%$  when replacing R543.

#### CONFIRMATION WHEN REPLACING IC602, R608

Confirm that the voltage of B+ MAX voltage is within the standard value when replacing IC602 and R608.

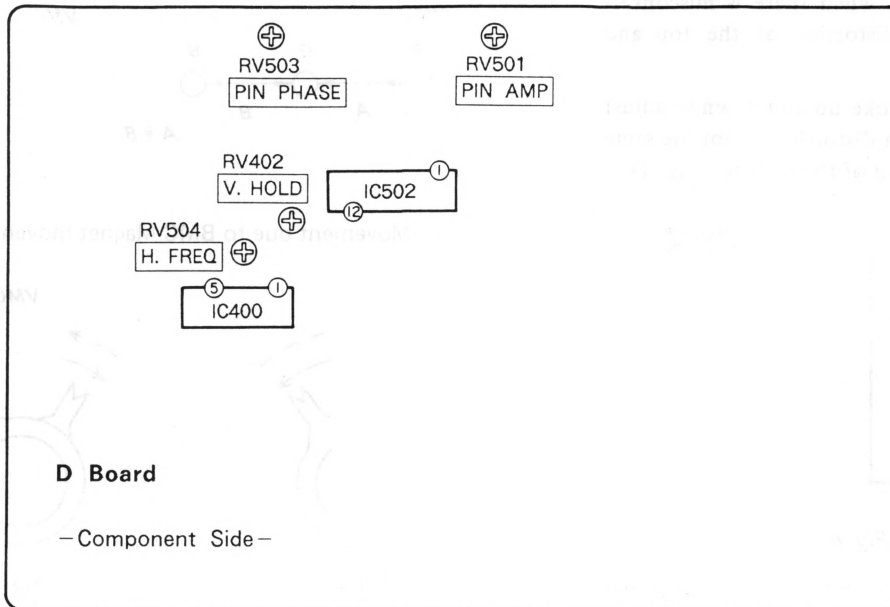
#### B+ VOLTAGE CONFIRMATION

1. Supply  $130 \pm 3$  V AC to with variable auto-transformer.
2. Receive entirely black signals.
3. Set the CONTRAST and BRIGHT control in to minimum.
4. Confirm the voltage of B+ line is less than 121.5 V DC.



## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. D BOARD ADJUSTMENTS



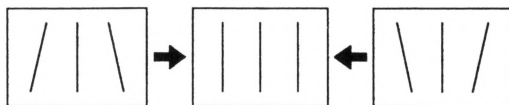
#### H. FREQ ADJUSTMENT (RV504)

1. Input a no signal.
2. Connect a 10  $\mu$ F/16 V chemical capacitor between IC502 pin ① and ground.
3. Connect the frequency counter between IC502 pin ⑫ and ground.
4. Adjust RV504 for  $31.50 \pm 0.05$  kHz on the frequency counter.
5. Disconnect chemical capacitor from IC502.

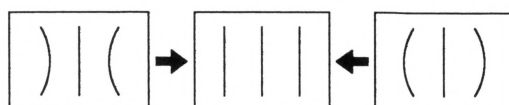
#### V. FREQ ADJUSTMENT (RV402)

1. Receive a cross-hatch pattern signal.
2. Connect a 10  $\mu$ F/16 V chemical capacitor between IC400 pin ⑤ and ground.
3. Connect the frequency counter between IC400 pin ① and ground.
4. Adjust RV402 (V. HOLD) for  $56.5 \pm 0.5$  Hz on the frequency counter.
5. Disconnect chemical capacitor from IC400.

#### PIN PHASE ADJUSTMENT (RV503)



#### PIN AMP ADJUSTMENT (RV501)

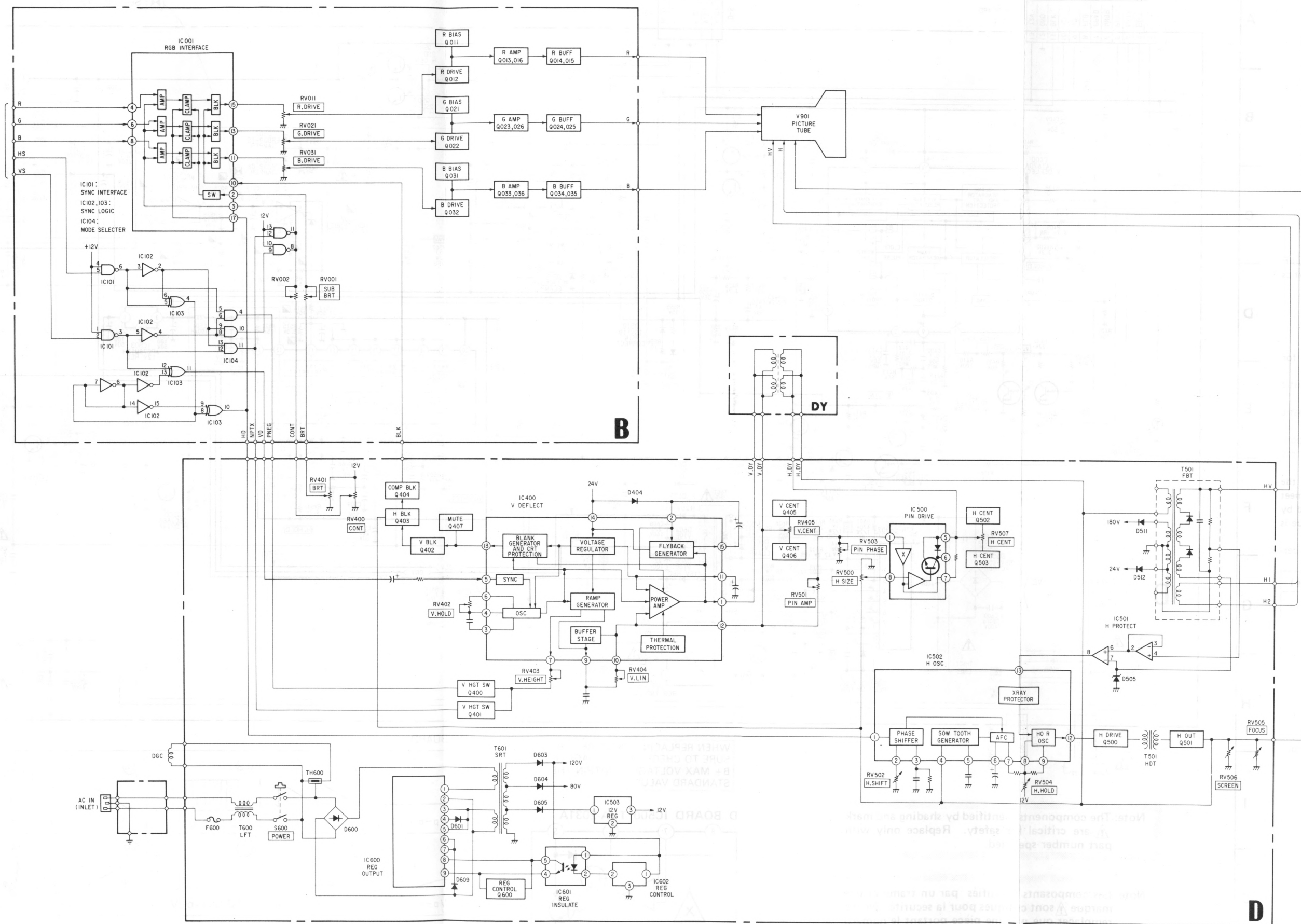






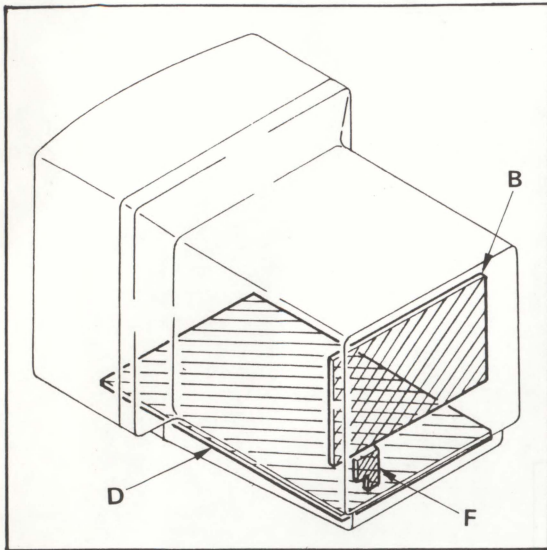
SECTION 6  
DIAGRAMS

6-1. BLOCK DIAGRAM





6-2. CIRCUIT BOARDS LOCATION



Note:

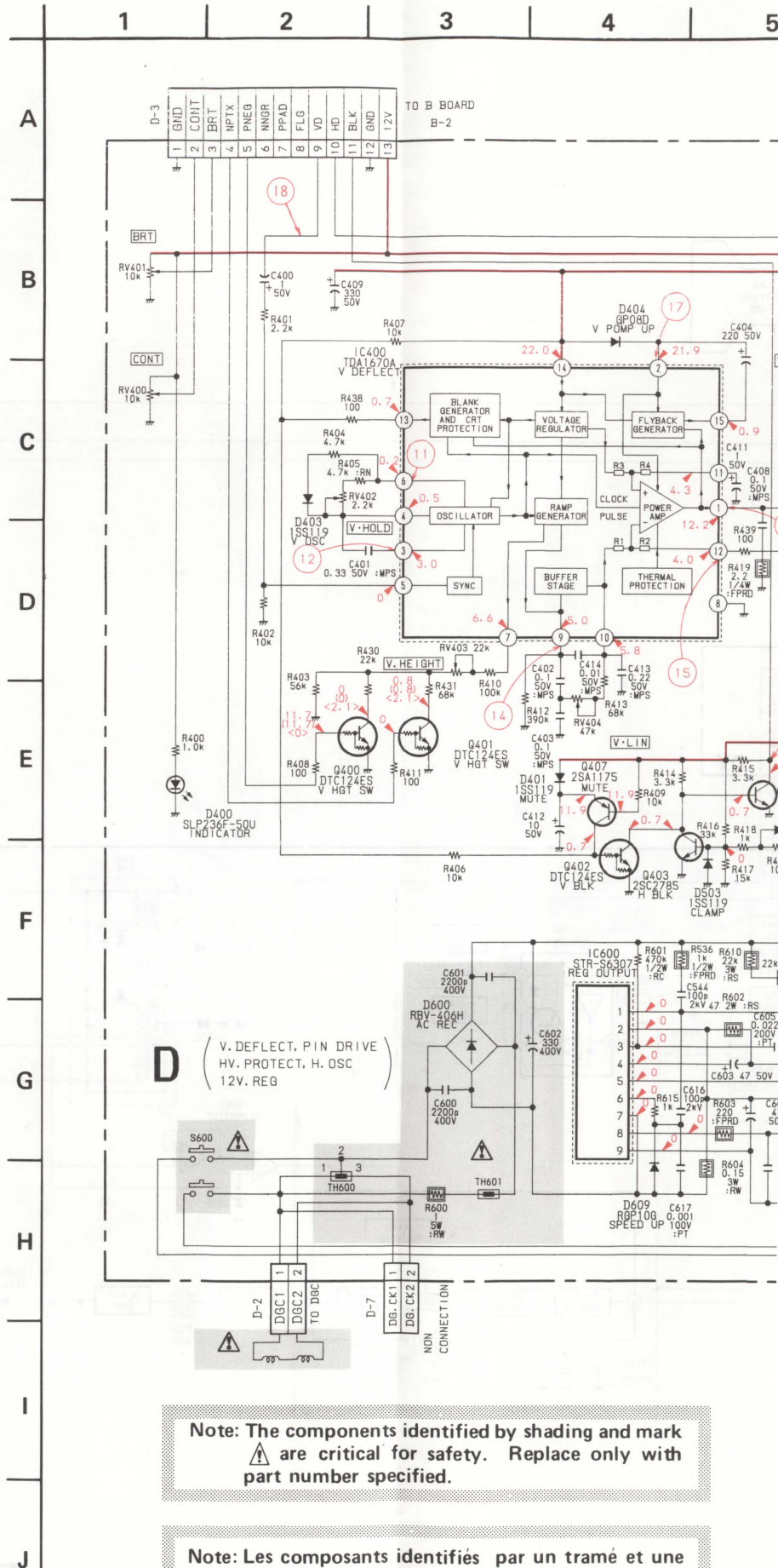
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\mu\text{F}$  50VV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms.
- $\Delta$  : internal component.
- $\square$  : nonflammable resistor.
- $\square$  : adjustment for repair.
- Indication of resistance, which does not have one for rating electrical power is as follows.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by  $\square$  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by  $\square$ , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  $\square$  and repeat the adjustment until the specified value is achieved. (Refer to R524 adjustment on page 12, 13.) When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ( $\square$ )	Adjustment ( $\square$ )
IC501, IC502, D502, D505, R514, R515, R518, R519, R522, R524, R526, R527, R528, R531, R541, R543, R547, T500	R524

- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
- $\text{---}$  : B+ bus.
- Voltage variations may be noted due to normal production tolerances.
- The hold down check point is pin ① of D-6 connector.
- $\square$  : signal path.
- Input Signal  
VGA
  - TEXT (CGA EMULATE) 31.5 kHz, 70 kHz: no mark
  - EGA EMULATE 31.5 kHz, 70 kHz: ( )
  - GRAPHICS 31.5 kHz, 60 kHz: < >
- Sync Polarity

	H	V
TEXT (CGA EMULATE)	Negative	Positive
EGA EMULATE	Positive	Negative
GRAPHICS	Negative	Negative

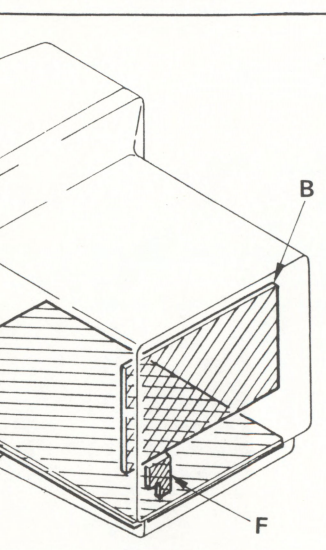
6-3. SCHEMATIC DIAGRAMS



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

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





in  $\mu F$  unless otherwise noted. pF:  $\mu F$  not indicated except for electrolytics...  
ohms.  
component.  
able resistor.  
t for repair.  
istance, which does not have one for  
wer is as follows.  
adjustable resistors have characteristic  
erwise noted.  
identified by  $\square$  in this basic schematic  
carefully factory-selected for each set  
regulations regarding X-ray radiation.  
nt be required, replace only with the  
ed.  
components identified by  $\square$ , make the  
ents indicated. If results do not meet  
e, change the component identified by  
adjustment until the specified value is  
R524 adjustment on page 12, 13.)  
e part in below table, be sure to per-  
j-  
ment.

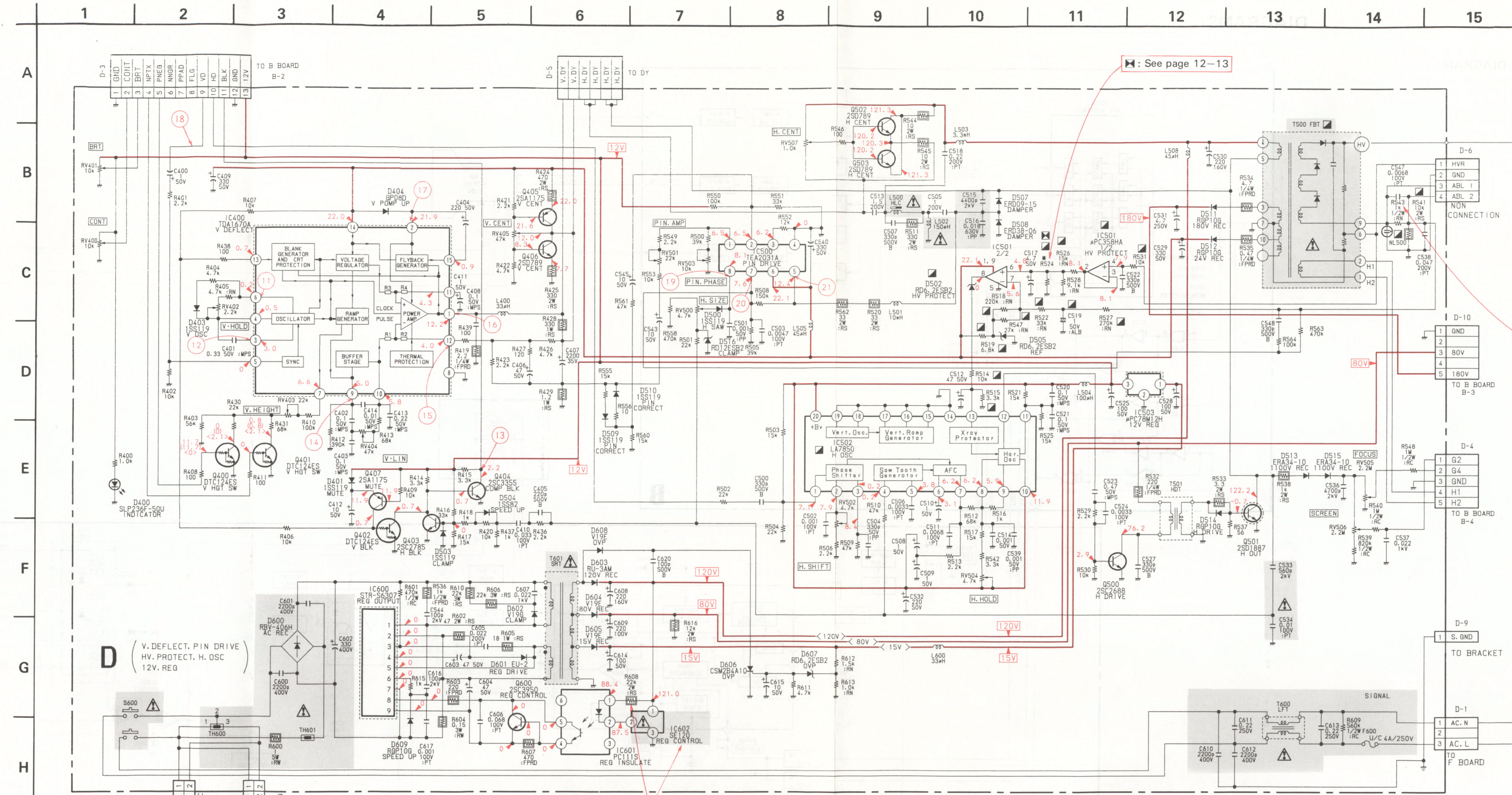
Table with 2 columns: Component (e.g., R502, D505, R514, R19, R522, R524, R28, R531, R541, R500) and Adjustment (R524).

V.  
with respect to ground unless otherwise  
with a 10 M $\Omega$  digital multimeter.  
with a color-bar signal input.  
may be noted due to normal produc-  
eck point is pin ① of D-6 connector.

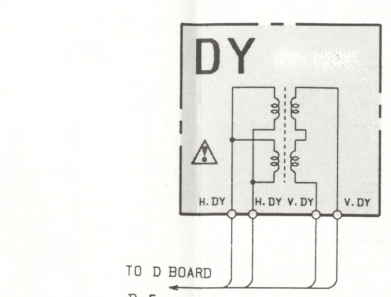
ULATE) 31.5 kHz, 70 kHz: no mark  
31.5 kHz, 70 kHz: ( )  
kHz, 60 kHz: < >

Table with 3 columns: Component (e.g., V, H, V), H, V. Rows include 'MULATE', 'E', and 'Negative', 'Positive', 'Negative', 'Negative'.

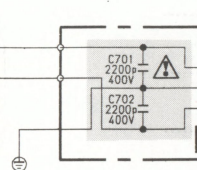
6-3. SCHEMATIC DIAGRAMS



See page 12-13



WHEN REPLACING R543, BE SURE TO CHECK THE R543 IS 1.0K $\Omega$   $\pm$  1%



D BOARD IC500 TEA-2031A. Includes a circuit diagram of the IC500 and a table of test points with waveforms and voltage levels.

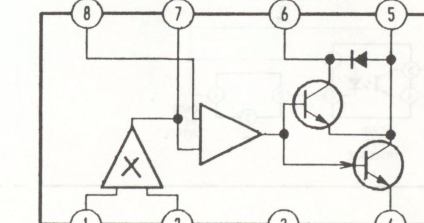
Point	Waveform	Value
①	[Sawtooth]	3.2 Vp-p (V)
②	[Sawtooth]	3.8 Vp-p (V)
③	[Square]	12.0Vp-p (V)
④	[Sawtooth]	11 Vp-p (V)
⑤	[Sawtooth]	2 Vp-p (V)
⑥	[Square]	45 Vp-p (V)
⑦	[Square]	26 Vp-p (V)
⑧	[Square]	10.0Vp-p (V)
⑨	[Sawtooth]	2.2 Vp-p (H)
⑩	[Sawtooth]	1.5 Vp-p (V)
⑪	[Square]	23 Vp-p (H)

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

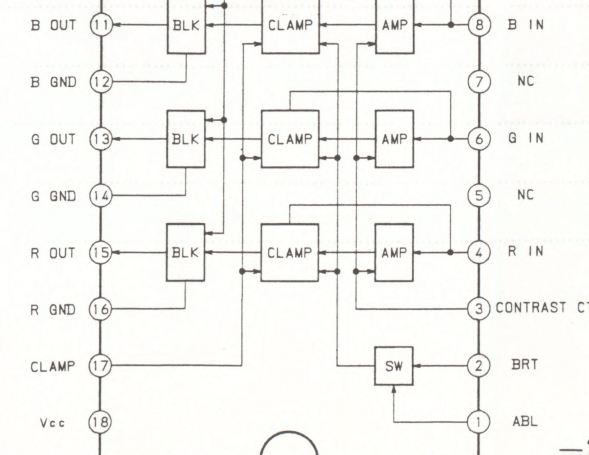
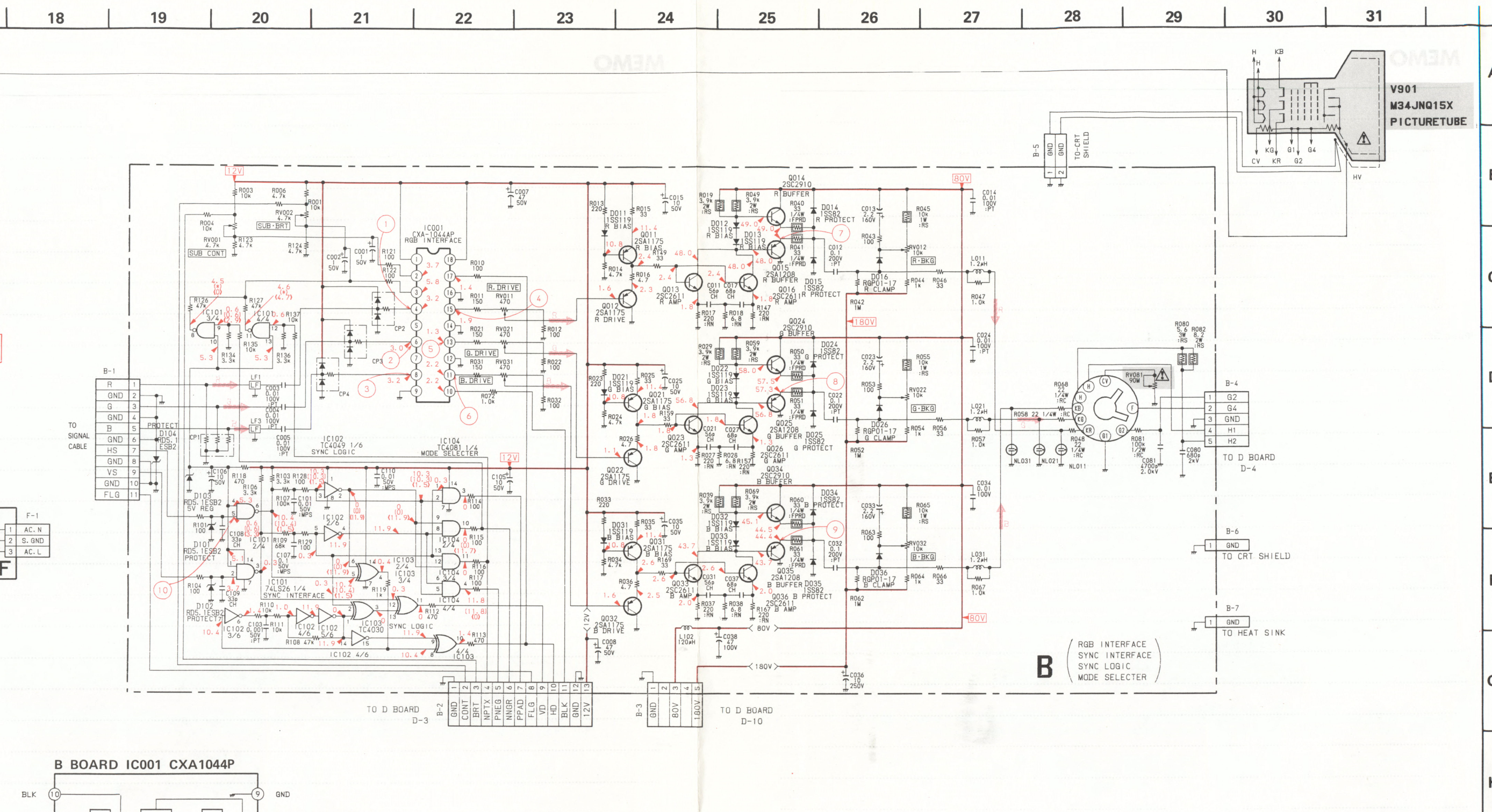
Note: Les composants identifiés par un tramé et une marque  $\square$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

D BOARD

WHEN REPLACING IC602, R608 BE SURE TO CHECK THE VOLTAGE OF B+ MAX VOLTAGE IS WITHIN THE STANDARD VALUE.



CPD-1320 CPD-1320



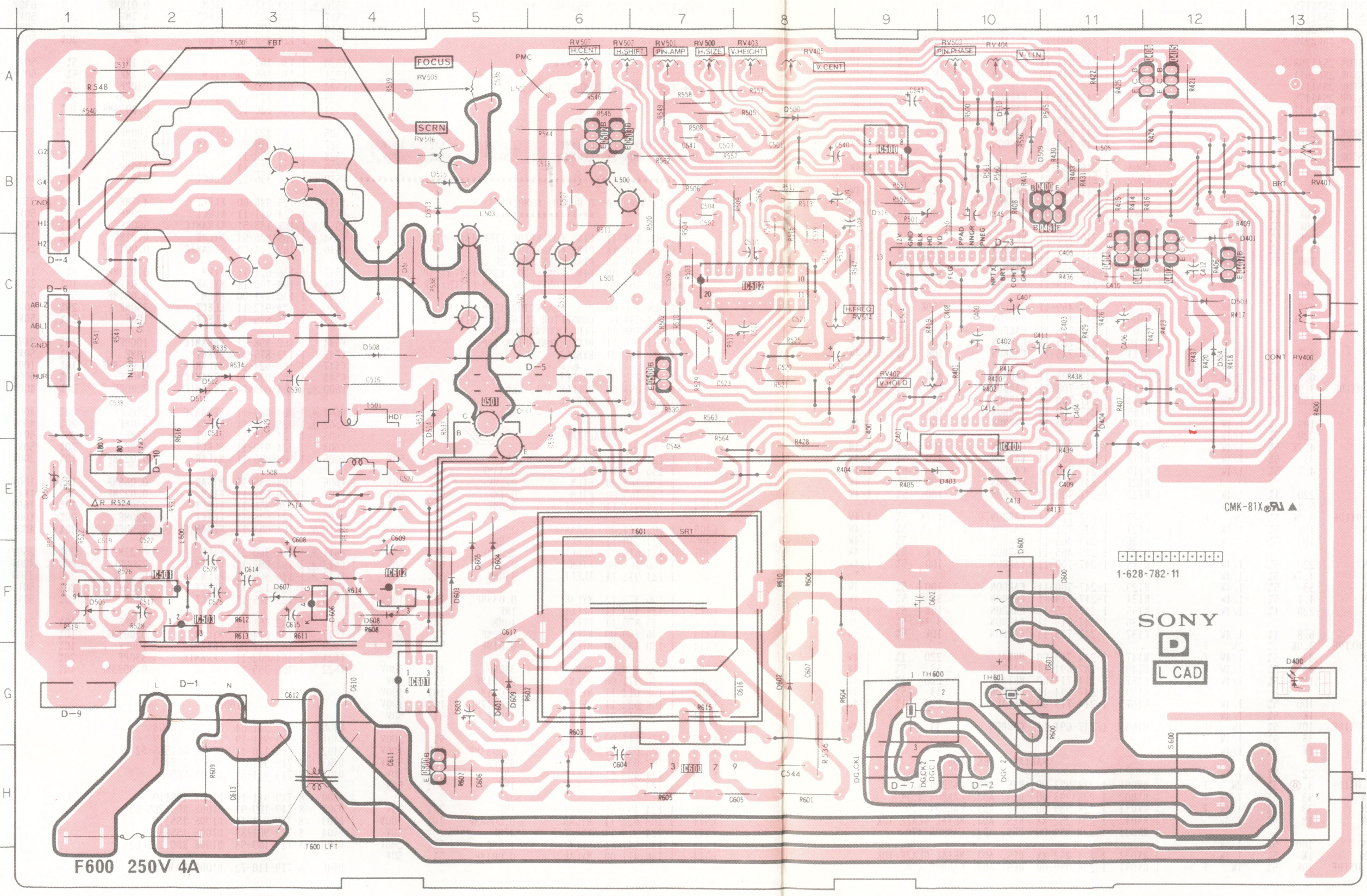
B BOARD test point table with waveforms and voltage levels.

Point	Waveform	Value
①	[Square]	0.8 Vp-p (H)
②	[Square]	0.8 Vp-p (H)
③	[Square]	0.8 Vp-p (H)
④	[Square]	4 Vp-p (H)
⑤	[Square]	4 Vp-p (H)
⑥	[Square]	4 Vp-p (H)
⑦	[Square]	60 Vp-p (H)
⑧	[Square]	60 Vp-p (H)
⑨	[Square]	60 Vp-p (H)
⑩	[Square]	60 Vp-p (H)
⑪	[Square]	3.8 Vp-p (H)



D V. DEFLECT, PIN DRIVE  
HV. PROTECT, H. OSC  
12V. REG

6-4. PRINTED WIRING BOARDS - Conductor Side -  
- D Board -



IC	
IC400	E-10
IC501	B-9
IC502	F-2
IC503	C-8
IC600	H-7
IC601	G-4
IC602	F-4

TRANSISTOR	
Q400	B-11
Q401	B-11
Q402	C-12
Q403	C-11
Q404	C-11
Q405	A-12
Q406	A-12
Q407	C-12
Q500	D-7
Q501	D-5
Q502	B-6
Q503	B-6
Q600	H-5

DIODE	
D400	G-13
D401	C-12
D403	E-9
D404	D-11
D500	A-8
D502	E-1
D503	C-12
D504	D-12
D505	F-1
D507	C-4
D508	D-4
D509	B-10
D510	A-10
D511	D-2
D512	D-2
D513	B-5
D514	D-5
D515	B-5
D516	B-9
D600	G-10
D601	G-5
D602	G-8
D603	F-5
D604	F-5
D605	F-5
D606	F-3
D607	F-3
D608	G-4
D609	G-5

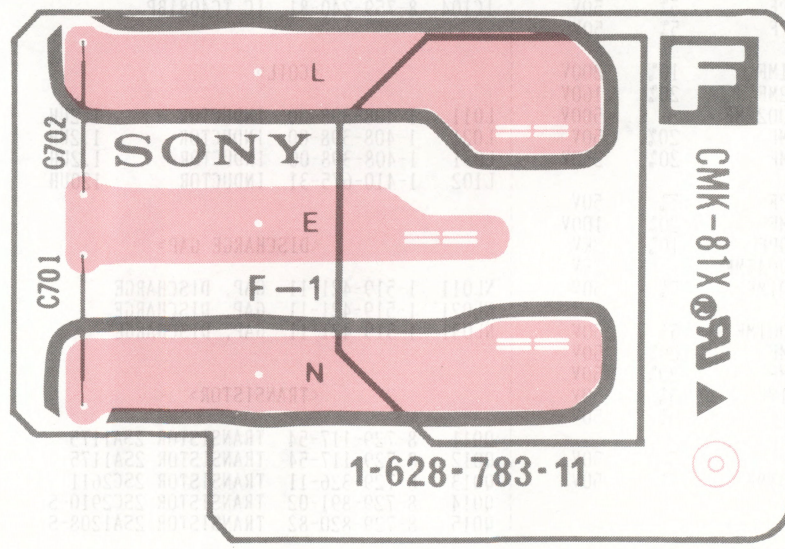
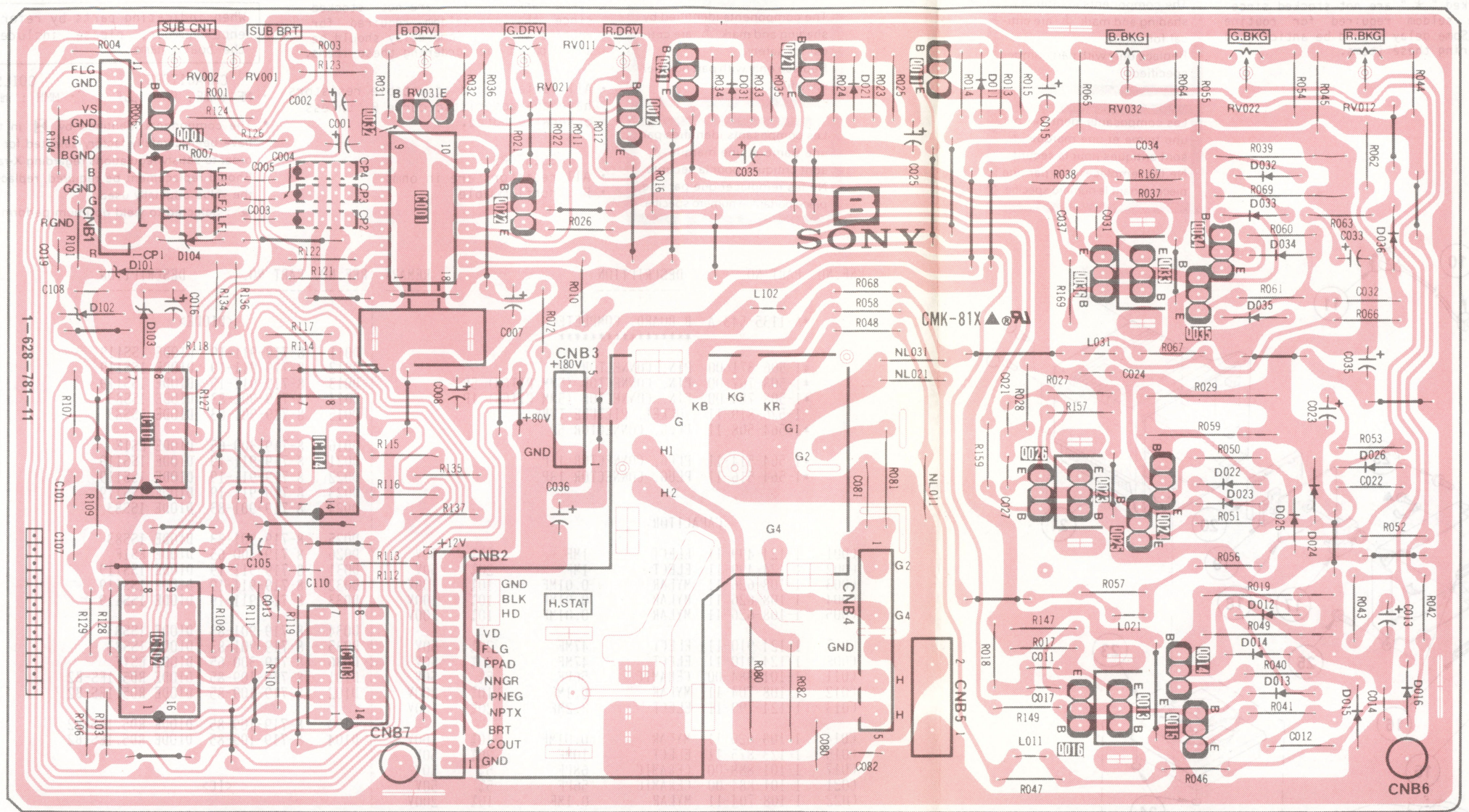
  

VARIABLE RESISTOR	
RV400	C-13
RV401	B-13
RV402	D-9
RV403	A-8
RV404	A-10
RV405	A-8
RV500	A-7
RV501	A-7
RV502	A-6
RV503	A-10
RV504	C-8
RV505	A-5
RV506	B-5
RV507	A-6

B RGB INTERFACE, SYNC INTERFACE  
SYNC LOGIC, MODE SELECTER

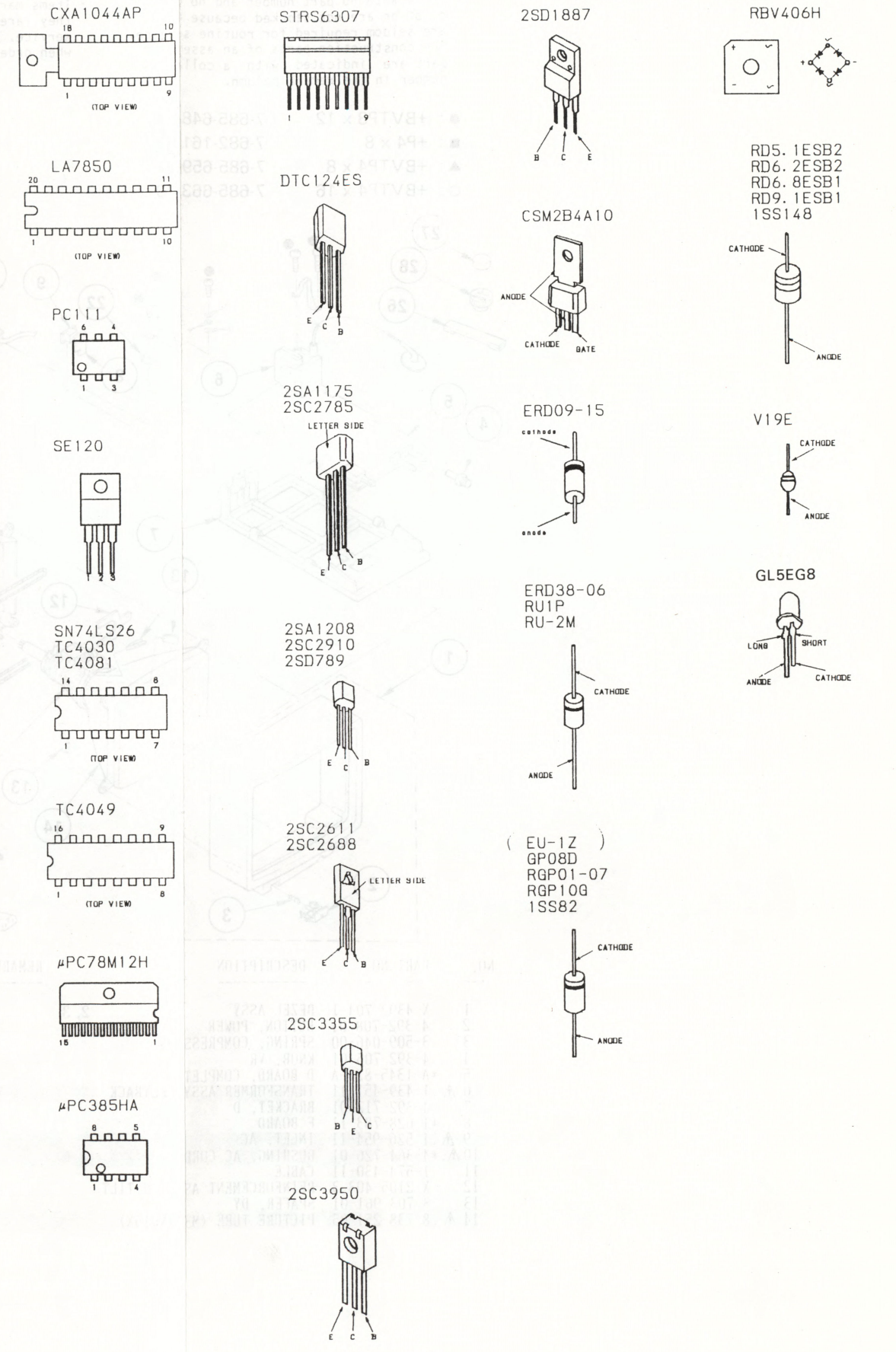
F

- B Board -



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

6-5. SEMICONDUCTORS





SECTION 7 EXPLODED VIEW

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

Items marked with \* 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 A are critical for safety. Replace only with part number specified.

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

- +BVTP3 x 12 7-685-648-71
+P4 x 8 7-682-161-01
+BVTP4 x 8 7-685-659-71
+BVTP4 x 16 7-685-663-79

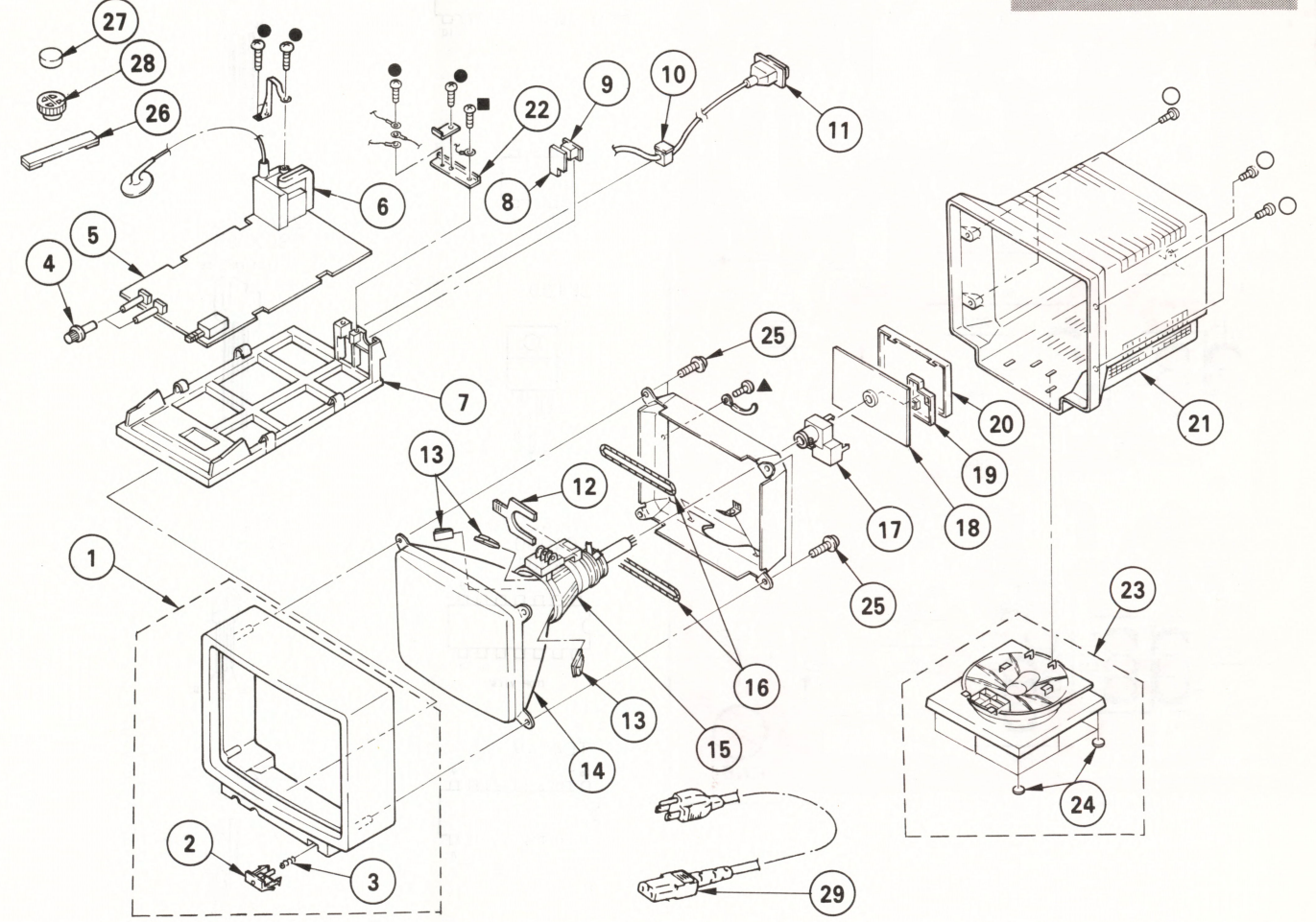


Table with 4 columns: NO., PART NO., DESCRIPTION, REMARK. Lists parts 1 through 29 with their respective part numbers and descriptions.

SECTION 8 ELECTRICAL PARTS LIST

B

NOTE:

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

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

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

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

RESISTORS
All resistors are in ohms
F: nonflammable

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

CAPACITORS
COILS
\* MF: μF, PF: μμF \* MMH: mH, UH: μH
The components identified by B 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.

Table with 4 columns: REF. NO., PART NO., DESCRIPTION, REMARK. Lists electrical parts A through 110, including board components, capacitors, resistors, and transistors.

Table with 4 columns: REF. NO., PART NO., DESCRIPTION, REMARK. Lists electrical parts 110 through 115, including diodes, ICs, coils, discharge gaps, and transistors.

B

Table with 4 columns: REF. NO., PART NO., DESCRIPTION, REMARK. Lists electrical parts 116 through 169, including carbon components, resistors, and variable resistors.

B

F

D

Table with 4 columns: REF. NO., PART NO., DESCRIPTION, REMARK. Lists electrical parts 170 through 215, including resistors, capacitors, and board components.

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

Table with 4 columns: REF. NO., PART NO., DESCRIPTION, REMARK. Lists electrical parts 216 through 250, including film capacitors, diodes, and resistors.



D

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

Les composants identifiés par une trame et une marque  $\Delta$  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
D507	8-719-973-95	DIODE ERD09-15		Q502	8-729-378-92	TRANSISTOR 2SD789-4	
D508	8-719-939-07	DIODE ERD38-06		Q503	8-729-378-92	TRANSISTOR 2SD789-4	
D509	8-719-911-19	DIODE 1SS119		Q600	8-729-809-21	TRANSISTOR 2SC3950-C	
D510	8-719-911-19	DIODE 1SS119					
D511	8-719-925-06	DIODE ERC25-06S					
D512	8-719-925-06	DIODE ERC25-06S					
D513	8-719-974-48	DIODE ERA34-10					
D514	8-719-925-06	DIODE ERC25-06S					
D515	8-719-974-48	DIODE ERA34-10					
D516	8-719-110-31	DIODE RD12ES-T1B2					
D600 $\Delta$	8-719-311-72	DIODE RBV406H-01					
D601	1-806-326-11	DIODE EU2					
D602	8-719-971-20	DIODE ERC38-06					
D603	8-719-300-33	DIODE RU-3AM					
D604	8-719-971-20	DIODE ERC38-06					
D605	8-719-971-20	DIODE ERC38-06					
D606	8-719-913-64	THYRISTOR CSM2B4A10					
D607	8-719-109-93	DIODE RD6.2ES-B2					
D608	8-719-971-20	DIODE ERC38-06					
D609	8-719-925-06	DIODE ERC25-06S					
		<FUSE>					
F600 $\Delta$	1-532-600-11	FUSE, GLASS TUBE 4A/250V					
	1-533-190-11	CLIP, FUSE; F600					
		<IC>					
IC400	8-759-945-36	IC TDA1670A					
IC500	8-759-942-16	IC TEA2031A					
IC501	8-759-144-17	IC UPC358HA					
IC502	8-759-821-42	IC LA7851					
IC503	8-759-604-39	IC UPC78M12H					
IC600	8-749-920-67	IC STR S6307					
IC601	8-719-939-00	IC PC111S					
IC602 $\Delta$	8-749-920-68	IC SE-120N					
		<COIL>					
L400	1-410-669-31	INDUCTOR 33UH					
L500 $\Delta$	1-459-744-21	HLC					
L501	1-459-104-00	COIL, DUST CORE					
L502 $\Delta$	1-459-592-11	COIL (WITH CORE) (PMC)					
L503	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE					
L504	1-410-645-31	INDUCTOR 100UH					
L505	1-459-155-00	COIL (WITH CORE) 45UH					
L508	1-459-155-00	COIL (WITH CORE) 45UH					
L600	1-410-669-31	INDUCTOR 33UH					
		<NEON LAMP>					
NL500	1-519-108-XX	LAMP, NEON					
		<TRANSISTOR>					
Q400	8-729-900-36	TRANSISTOR DTC124ES					
Q401	8-729-900-36	TRANSISTOR DTC124ES					
Q402	8-729-900-36	TRANSISTOR DTC124ES					
Q403	8-729-178-51	TRANSISTOR 2SC2785					
Q404	8-729-104-80	TRANSISTOR 2SC3355					
Q405	8-729-117-54	TRANSISTOR 2SA1175					
Q406	8-729-378-92	TRANSISTOR 2SD789-4					
Q407	8-729-117-54	TRANSISTOR 2SA1175					
Q500	8-729-119-80	TRANSISTOR 2SC2688-K					
Q501	8-729-805-07	TRANSISTOR 2SD1887-CA					
		<RESISTOR>					
R400	1-247-713-11	CARBON 1K 5% 1/4W					
R401	1-247-717-11	CARBON 2.2K 5% 1/4W					
R402	1-247-725-11	CARBON 10K 5% 1/4W					
R403	1-249-466-11	CARBON 56K 5% 1/4W					
R404	1-247-721-11	CARBON 4.7K 5% 1/4W					
R405	1-247-721-11	CARBON 4.7K 5% 1/4W					
R406	1-247-725-11	CARBON 10K 5% 1/4W					
R407	1-247-725-11	CARBON 10K 5% 1/4W					
R408	1-247-700-11	CARBON 100 5% 1/4W					
R409	1-247-725-11	CARBON 10K 5% 1/4W					
R410	1-249-469-11	CARBON 100K 5% 1/4W					
R411	1-247-700-11	CARBON 100 5% 1/4W					
R412	1-246-535-00	CARBON 390K 5% 1/4W					
R413	1-249-467-11	CARBON 68K 5% 1/4W					
R414	1-247-719-11	CARBON 3.3K 5% 1/4W					
R415	1-247-719-11	CARBON 3.3K 5% 1/4W					
R416	1-247-726-11	CARBON 33K 5% 1/4W					
R417	1-249-460-11	CARBON 15K 5% 1/4W					
R418	1-247-713-11	CARBON 1K 5% 1/4W					
R419	1-249-451-11	CARBON 2.2 5% 1/4W	F				
R420	1-247-725-11	CARBON 10K 5% 1/4W					
R421	1-247-717-11	CARBON 2.2K 5% 1/4W					
R422	1-247-721-11	CARBON 4.7K 5% 1/4W					
R423	1-247-717-11	CARBON 2.2K 5% 1/4W					
R424	1-215-890-11	METAL OXIDE 470 5% 2W	F				
R425	1-215-889-00	METAL OXIDE 330 5% 2W	F				
R426	1-247-721-11	CARBON 4.7K 5% 1/4W					
R427	1-247-701-11	CARBON 120 5% 1/4W					
R428	1-215-867-00	METAL OXIDE 470 5% 1W	F				
R429	1-216-350-11	METAL OXIDE 1.2 5% 1W	F				
R430	1-249-462-11	CARBON 22K 5% 1/4W					
R431	1-249-467-11	CARBON 68K 5% 1/4W					
R436	1-247-717-11	CARBON 2.2K 5% 1/4W					
R437	1-247-713-11	CARBON 1K 5% 1/4W					
R438	1-247-700-11	CARBON 100 5% 1/4W					
R439	1-247-700-11	CARBON 100 5% 1/4W					
R440	1-247-717-11	CARBON 2.2K 5% 1/4W					
R500	1-249-464-11	CARBON 39K 5% 1/4W					
R501	1-249-462-11	CARBON 22K 5% 1/4W					
R502	1-249-462-11	CARBON 22K 5% 1/4W					
R503	1-249-460-11	CARBON 15K 5% 1/4W					
R504	1-249-462-11	CARBON 22K 5% 1/4W					
R505	1-249-464-11	CARBON 39K 5% 1/4W					
R506	1-247-717-11	CARBON 2.2K 5% 1/4W					
R508	1-247-883-00	CARBON 150K 5% 1/4W					
R509	1-249-465-11	CARBON 47K 5% 1/4W					
R510	1-249-465-11	CARBON 47K 5% 1/4W					
R511	1-215-889-00	METAL OXIDE 330 5% 2W	F				
R512	1-249-467-11	CARBON 68K 5% 1/4W					
R513	1-247-717-11	CARBON 2.2K 5% 1/4W					
R514	1-247-725-11	CARBON 10K 5% 1/4W					
R515	1-247-719-11	CARBON 3.3K 5% 1/4W					
R516	1-247-713-11	CARBON 1K 5% 1/4W					
R517	1-249-460-11	CARBON 15K 5% 1/4W					
R518	1-214-785-00	METAL 220K 1% 1/4W					
R519	1-247-723-11	CARBON 6.8K 5% 1/4W					
R520	1-215-883-11	METAL OXIDE 33 5% 2W	F				

D

- The components identified by  $\Delta$  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.
- \* : Selected to yield optimum performance.

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R521	1-249-460-11	CARBON	15K 5% 1/4W
R522	1-214-765-00	METAL	33K 1% 1/4W
$\Delta$ R524		METAL	1/4W
R525	1-249-460-11	CARBON	15K 5% 1/4W
R526	1-214-757-00	METAL	15K 1% 1/4W
R527	1-214-787-00	METAL	270K 1% 1/4W
R528	1-214-752-00	METAL	9.1K 1% 1/4W
R529	1-247-717-11	CARBON	2.2K 5% 1/4W
R530	1-247-725-11	CARBON	10K 5% 1/4W
R531	1-247-725-11	CARBON	10K 5% 1/4W
R532	1-247-704-11	CARBON	220 5% 1/4W F
R533	1-216-375-00	METAL OXIDE	3.3 5% 2W F
R534	1-249-455-11	CARBON	4.7 5% 1/4W F
R535	1-249-443-11	CARBON	0.47 5% 1/4W F
R536	1-247-752-11	CARBON	1K 5% 1/2W F
R537	1-247-697-11	CARBON	56 5% 1/4W
R538	1-215-892-11	METAL OXIDE	1K 5% 2W F
R539	1-202-849-00	SOLID	820K 10% 1/2W
R540	1-202-719-00	SOLID	1M 10% 1/2W
R541	1-215-898-11	METAL OXIDE	10K 5% 2W F
R542	1-247-719-11	CARBON	3.3K 5% 1/4W
R543	1-214-864-00	METAL	1K 1% 1/2W
R544	1-215-880-00	METAL OXIDE	10 5% 2W F
R545	1-215-880-00	METAL OXIDE	10 5% 2W F
R546	1-247-700-11	CARBON	100 5% 1/4W
R547	1-214-763-00	METAL	27K 1% 1/4W
R548	1-202-719-00	SOLID	1M 10% 1/2W
R549	1-247-717-11	CARBON	2.2K 5% 1/4W
R550	1-249-469-11	CARBON	100K 5% 1/4W
R551	1-247-726-11	CARBON	33K 5% 1/4W
R552	1-249-459-11	CARBON	12K 5% 1/4W
R553	1-247-725-11	CARBON	10K 5% 1/4W
R555	1-249-460-11	CARBON	15K 5% 1/4W
R556	1-247-688-11	CARBON	10 5% 1/4W
R558	1-247-895-00	CARBON	470K 5% 1/4W
R560	1-249-460-11	CARBON	15K 5% 1/4W
R561	1-249-465-11	CARBON	47K 5% 1/4W
R562	1-215-883-11	METAL OXIDE	33 5% 2W F
R563	1-247-895-00	CARBON	470K 5% 1/4W
R564	1-249-469-11	CARBON	100K 5% 1/4W
R600 $\Delta$	1-217-286-11	WIREWOUND	1 10% 5W F
R601	1-202-846-00	SOLID	470K 10% 1/2W
R602	1-215-884-11	METAL OXIDE	47 5% 2W F
R603	1-247-704-11	CARBON	220 5% 1/4W F
R604	1-207-642-00	WIREWOUND	0.15 10% 3W F
R605	1-216-422-91	METAL OXIDE	18 5% 1W F
R606	1-215-925-11	METAL OXIDE	22K 5% 3W F
R607	1-247-708-11	CARBON	470 5% 1/4W F
R608	1-215-900-11	METAL OXIDE	22K 5% 2W F
R609 $\Delta$	1-202-847-91	SOLID	560K 10% 1/2W
R610	1-215-925-11	METAL OXIDE	22K 5% 3W F
R611	1-247-721-11	CARBON	4.7K 5% 1/4W
R612	1-214-733-00	METAL	1.5K 1% 1/4W
R613	1-214-729-00	METAL	1K 1% 1/4W
R615	1-247-713-11	CARBON	1K 5% 1/4W
R616	1-216-463-00	METAL OXIDE	12K 5% 2W F
< VARIABLE RESISTOR >			
RV400	1-238-449-21	RES. VAR. CARBON	10K
RV401	1-238-449-21	RES. VAR. CARBON	10K
RV402	1-224-250-XX	RES. ADJ. METAL GLAZE	2.2K
RV403	1-230-498-11	RES. ADJ. CARBON	47K
RV404	1-230-498-11	RES. ADJ. CARBON	47K

REF. NO.	PART NO.	DESCRIPTION	REMARK
RV405	1-230-497-11	RES. ADJ. CARBON	22K
RV500	1-230-720-11	RES. ADJ. CARBON	4.7K
RV501	1-230-497-11	RES. ADJ. CARBON	22K
RV502	1-230-720-11	RES. ADJ. CARBON	4.7K
RV503	1-230-496-11	RES. ADJ. CARBON	10K
RV504	1-224-251-XX	RES. ADJ. METAL GLAZE	4.7K
RV505	1-226-114-00	RES. ADJ. METAL GLAZE	2.2M
RV506	1-230-641-11	RES. ADJ. METAL GLAZE	2.2M
RV507	1-230-718-11	RES. ADJ. CARBON	1K
< SWITCH >			
S600 $\Delta$	1-571-433-11	SWITCH, PUSH (AC POWER)	
< TRANSFORMER >			
T500 $\Delta$	1-439-451-11	TRANSFORMER ASSY. FLYBACK	
T501	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
T600 $\Delta$	1-421-776-11	LFT	
T601 $\Delta$	1-449-503-11	TRANSFORMER, REGULATOR	
< THERMISTOR >			
TH600 $\Delta$	1-806-710-12	THERMISTOR (POSITIVE)	
TH601	1-808-625-11	THERMISTOR, POWER	
*****			
MISCELLANEOUS			
*****			
1-574-430-11	CABLE		
$\Delta$ 1-426-146-41	COIL, DEMAGNETIZATION		
$\Delta$ 1-451-336-11	DEFLECTION YOKE (SY-175E)		
1-452-032-00	MAGNET, DISK; 10MM $\phi$		
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$		
V901 $\Delta$	8-738-251-05	PICTURE TUBE (M34JNQ15X)	
*****			
ACCESSORIES AND PACKING MATERIALS			
*****			
PART NO.	DESCRIPTION	REMARK	
1-551-812-00	CORD, POWER (3 CORE)		
3-786-812-21	MANUAL, INSTRUCTION		
*4-312-246-00	BAG, PROTECTION		

# CPD-1320

## SONY<sup>®</sup> SERVICE MANUAL

US Model  
Canadian Model  
Serial No. 5,001,001 and later  
CHASSIS No. SCC-C39A-A


### SUPPLEMENT-1

SUBJECT: CIRCUIT MODIFICATION

File this supplement with the service manual.

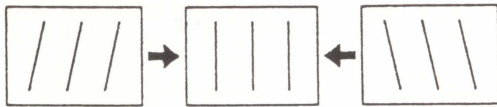
#### INTRODUCTIONS

1. Circuit adjustment added.
  2. Circuit modified.
- B Board.  
D Board.

 : Indicate modified portion

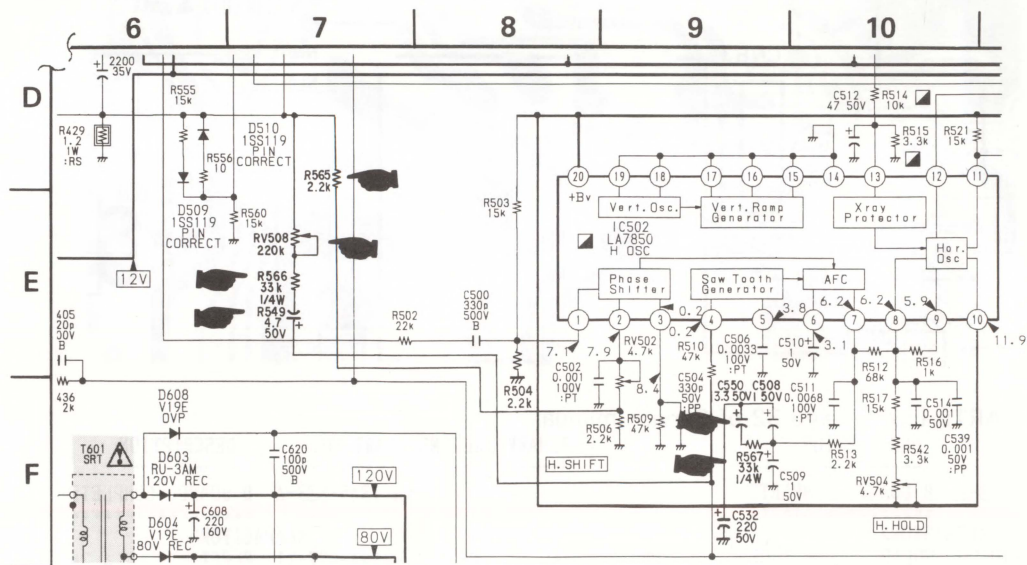
5-1. D BOARD ADJUSTMENTS: Page 14 of Service manual.

V.ANGLE ADJUSTMENT (RV508)

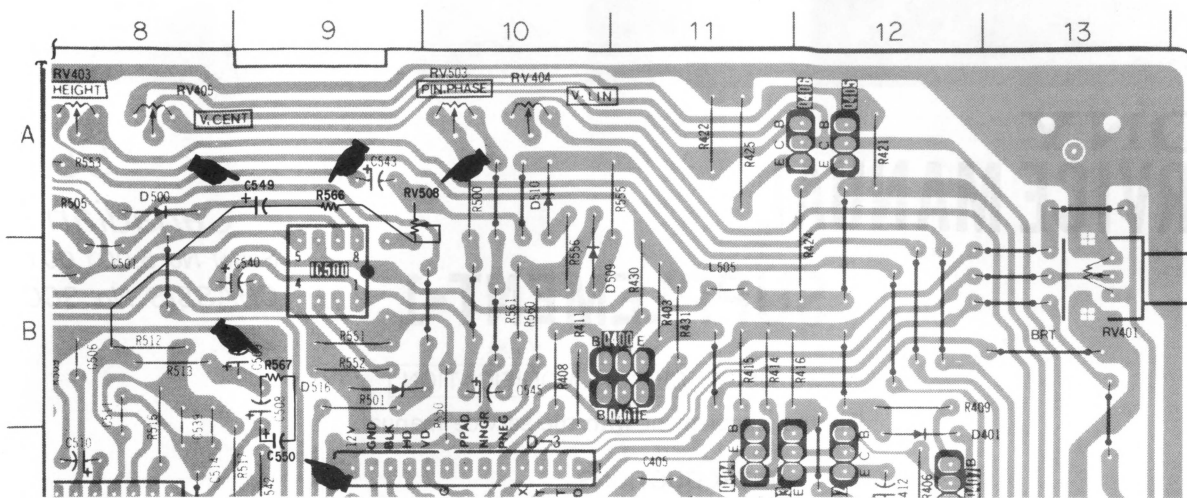


6-3. SCHEMATIC DIAGRAMS: page 20 of Service manual.

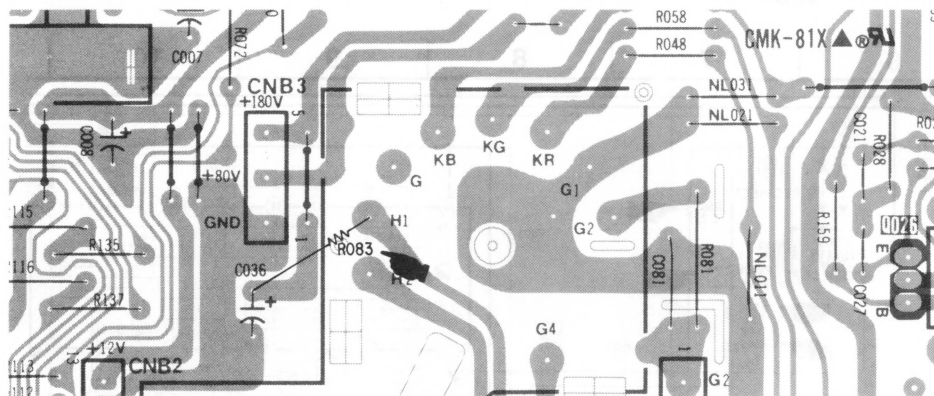
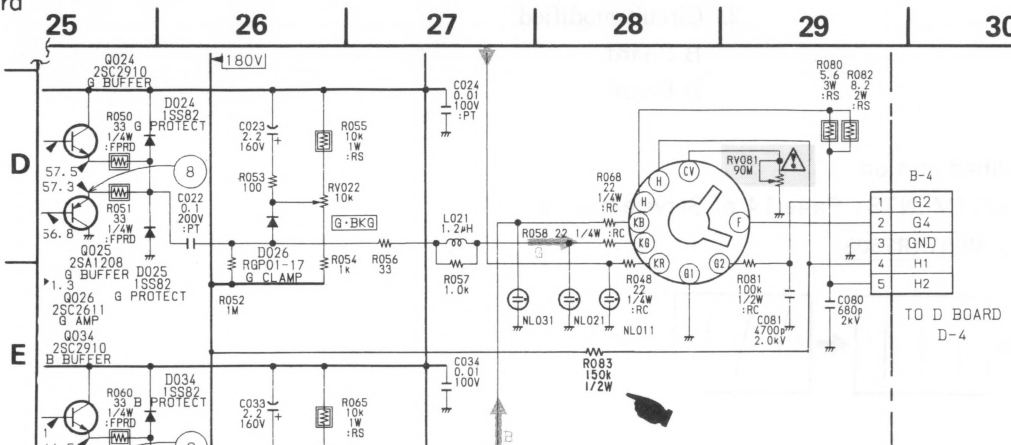
D Board







B Board














**SECTION 6  
DIAGRAMS**



**TABLE OF CONTENTS**

<u>Section</u>	<u>Title</u>	<u>Page</u>
<b>6. DIAGRAMS</b>		
6-3.	Schematic Diagrams .....	3
6-4.	Printed Wiring Board .....	5
<b>8. ELECTRICAL PARTS LIST</b>	.....	7

**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in ohms.
- $\Delta$  : internal component.
-  : nonflammable resistor.
-  : adjustment for repair.
- Indication of resistance, which does not have one for rating electrical power is as follows.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by  and repeat the adjustment until the specified value is achieved. (Refer to R524 adjustment on page 12, 13.) When replacing the part in below table, be sure to perform the related adjustment.

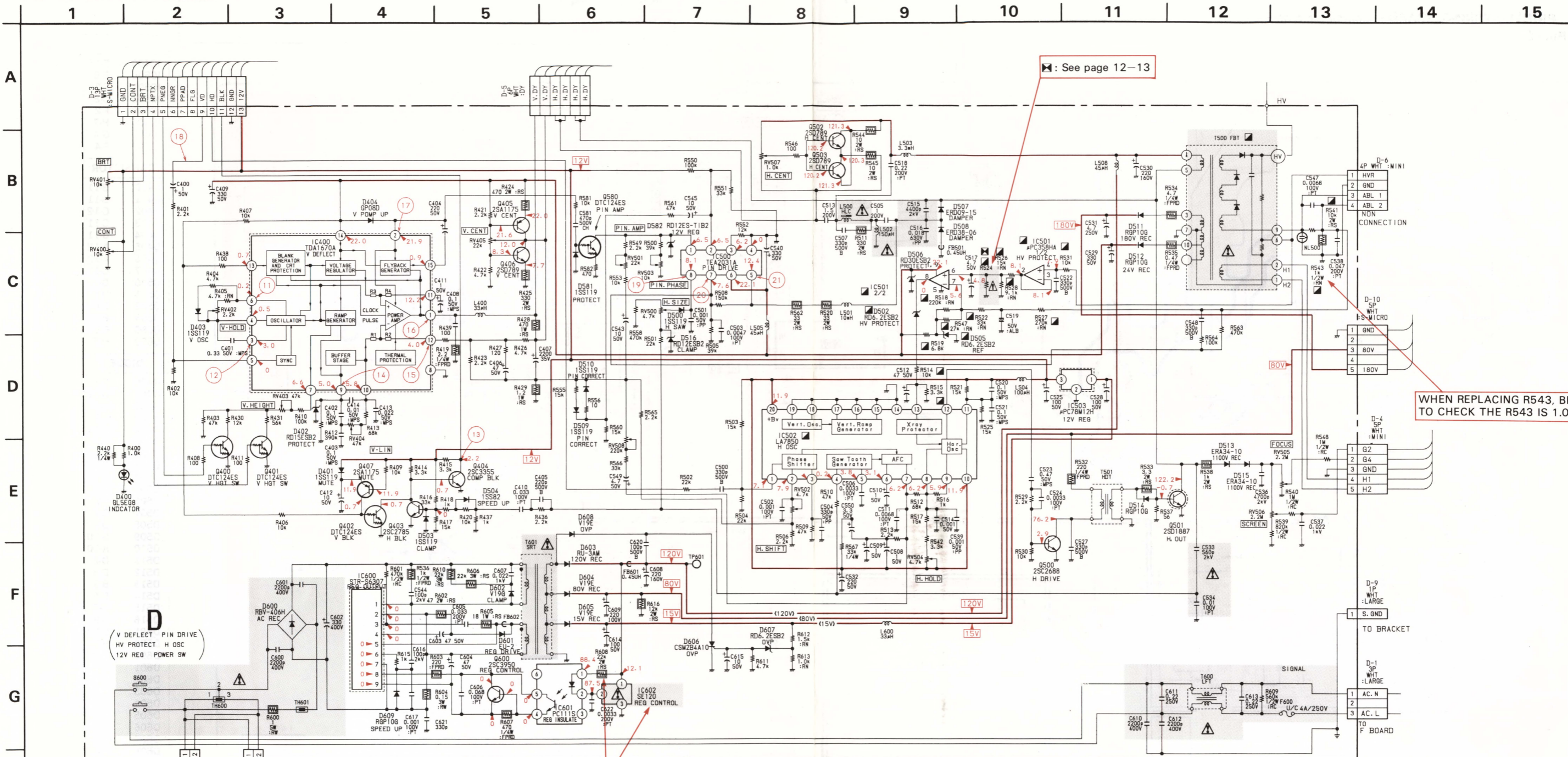
Part replaced (  )	Adjustment (  )
IC501, IC502, D502, D505, R514, R515, R518, R519, R522, R524, R526, R527, R528, R531, R541, R543, R547, T500	R524

- All voltages are in V
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 M $\Omega$  digital multimeter.
- Readings are taken with a color-bar signal input.
-  : B+ bus.
- Voltage variations may be noted due to normal production tolerances.
- The hold down check point is pin ① of D-6 connector.
-  : signal path.
- Input Signal  
VGA
  - TEXT (CGA EMULATE) 31.5 kHz, 70 kHz: no mark
  - EGA EMULATE 31.5 kHz, 70 kHz: ( )
  - GRAPHICS 31.5 kHz, 60 kHz: < >
- Sync Polarity

	H	V
TEXT (CGA EMULATE)	Negative	Positive
EGA EMULATE	Positive	Negative
GRAPHICS	Negative	Negative



6-3. SCHEMATIC DIAGRAMS



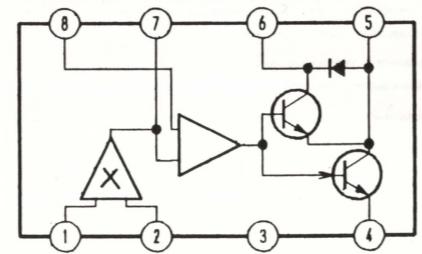
WHEN REPLACING R543, BE SURE TO CHECK THE R543 IS 1.0kΩ ± 1%

WHEN REPLACING IC602, R608 BE SURE TO CHECK THE VOLTAGE OF B+ MAX VOLTAGE IS WITHIN THE STANDARD VALUE.

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

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

D BOARD IC500 TEA-2031A



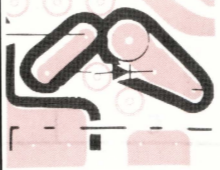
D BOARD

11	12	13	14	15
3.2 Vp-p (V)	3.8 Vp-p (V)	12.0Vp-p (V)	11 Vp-p (V)	2 Vp-p (V)
16	17	18	19	20
45 Vp-p (V)	26 Vp-p (V)	10.0Vp-p (V)	2.2 Vp-p (H)	1.5Vp-p (V)
				21
				23 Vp-p (H)

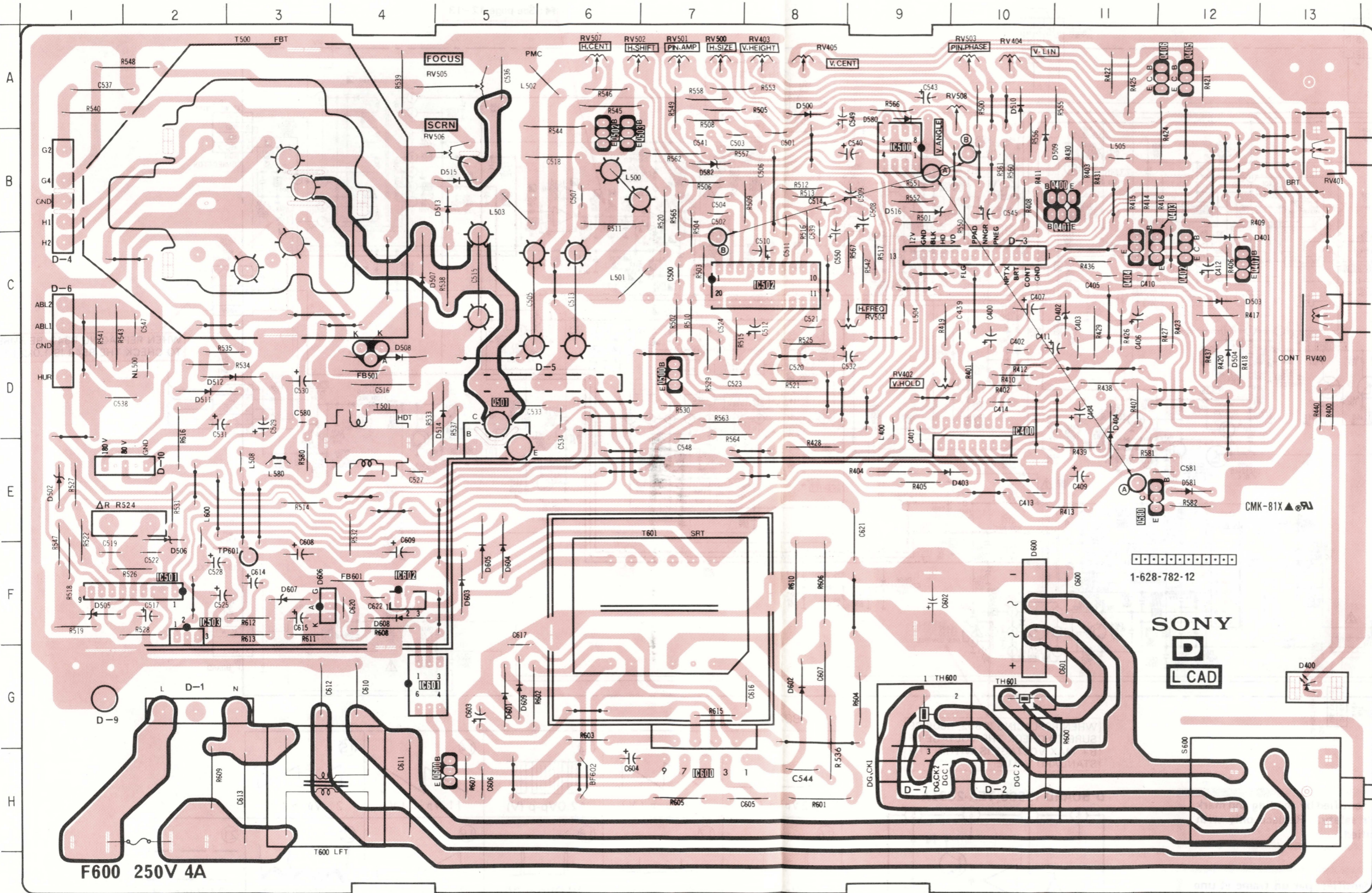


**D** [ V. DEFLECT, PIN DRIVE ]  
[ HV. PROTECT, H, OSC ]  
[ 12V. REG ]

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



**6-4. PRINTED WIRING BOARD — Conductor Side —**  
**—D Board—**



IC	
IC400	E-15
IC500	B-9
IC501	F-2
IC502	C-8
IC503	F-2
IC600	H-7
IC601	G-4
IC602	F-4

TRANSISTOR	
Q400	B-11
Q401	B-11
Q402	C-12
Q403	C-11
Q404	C-11
Q405	A-12
Q406	A-12
Q407	C-12
Q500	D-7
Q501	D-5
Q502	B-6
Q503	B-6
Q580	E-11
Q600	H-5

DIODE	
D400	G-13
D401	C-12
D402	C-11
D403	E-9
D404	D-11
D500	A-8
D502	E-1
D503	C-12
D504	D-12
D505	F-1
D506	F-2
D507	C-4
D508	D-4
D509	B-10
D510	A-10
D511	D-2
D512	D-3
D513	B-5
D514	D-5
D515	B-5
D516	B-9
D581	E-12
D582	B-7
D600	F-10
D601	G-5
D602	G-8
D603	F-5
D604	F-5
D605	F-5
D606	F-3
D607	F-3
D608	F-4
D609	G-5

VARIABLE RESISTOR	
RV400	C-13
RV401	B-13
RV402	D-9
RV403	A-8
RV404	A-10
RV405	A-8
RV500	A-7
RV501	A-7
RV502	A-6
RV503	A-10
RV504	C-9
RV505	A-5
RV506	B-5
RV507	A-6
RV508	A-10



## SECTION 8 ELECTRICAL PARTS LIST

D

**NOTE:**

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

**RESISTORS**

- All resistors are in ohms
- F : nonflammable

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

**CAPACITORS**

- MF :  $\mu$ F, PF :  $\mu$  $\mu$ F

**COILS**

- MMH : mH, UH :  $\mu$ H

- The components identified by  $\boxtimes$  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.
- \* : Selected to yield optimum performance.

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

Les composants identifiés par une trame et par une marque  $\Delta$  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	*A-1345-823-A	D BOARD, COMPLETE *****					
	4-309-378-00	WASHER		C525	1-124-122-11	ELECT 100MF	20% 50V
	*4-341-751-01	EYELET		C527	1-102-030-00	CERAMIC 330PF	10% 500V
	*4-341-752-01	EYELET		C528	1-124-122-11	ELECT 100MF	20% 50V
	*4-380-083-01	HOLDER (E), LED		C529	1-124-912-11	ELECT 330MF	20% 50V
	*4-386-664-01	SPRING		C530	1-126-356-11	ELECT 220MF	20% 160V
	*4-392-731-01	COVER, SHORT RING		C531	1-123-946-00	ELECT 4.7MF	20% 250V
		<CAPACITOR>		C532	1-124-911-11	ELECT 220MF	20% 50V
C400	1-124-499-11	ELECT 1MF	20% 50V	C533 $\Delta$	1-162-135-51	CERAMIC 560PF	10% 2KV
C401	1-136-171-00	FILM 0.33MF	5% 50V	C534 $\Delta$	1-108-626-91	MYLAR 0.01MF	10% 100V
C402	1-136-165-00	FILM 0.1MF	5% 50V	C536	1-162-114-00	CERAMIC 0.0047MF	2KV
C403	1-136-165-00	FILM 0.1MF	5% 50V	C537	1-136-627-11	FILM 0.022MF	3% 1KV
C404	1-124-911-11	ELECT 220MF	20% 50V	C538	1-108-700-11	MYLAR 0.047MF	10% 200V
C405	1-102-244-00	CERAMIC 220PF	10% 500V	C539	1-130-471-00	FILM 0.001MF	5% 50V
C406	1-124-910-11	ELECT 47MF	20% 50V	C540	1-124-912-11	ELECT 330MF	20% 50V
C407	1-124-618-11	ELECT 2200MF	20% 35V	C543	1-123-875-11	ELECT 10MF	20% 50V
C408	1-136-165-00	FILM 0.1MF	5% 50V	C544	1-162-558-11	CERAMIC 100PF	10% 2KV
C409	1-124-912-11	ELECT 330MF	20% 50V	C545	1-123-875-11	ELECT 10MF	20% 50V
C410	1-106-379-12	MYLAR 0.033MF	10% 100V	C547	1-108-624-11	MYLAR 0.0068MF	10% 100V
C411	1-124-499-11	ELECT 1MF	20% 50V	C548	1-102-030-00	CERAMIC 330PF	10% 500V
C412	1-123-875-11	ELECT 10MF	20% 50V	C549	1-124-927-11	ELECT 4.7MF	20% 50V
C413	1-136-157-00	FILM 0.022MF	5% 50V	C550	1-123-382-00	ELECT 3.3MF	20% 50V
C414	1-130-483-00	MYLAR 0.01MF	5% 50V	C581	1-102-228-00	CERAMIC 470PF	10% 500V
C500	1-102-030-00	CERAMIC 330PF	10% 500V	C600 $\Delta$	1-164-003-11	CERAMIC 2200PF	20% 400V
C501	1-130-471-00	FILM 0.001MF	5% 50V	C601 $\Delta$	1-164-003-11	CERAMIC 2200PF	20% 400V
C502	1-108-614-11	MYLAR 0.001MF	10% 100V	C602 $\Delta$	1-125-555-11	ELECT 330MF	20% 400V
C503	1-108-622-11	MYLAR 0.0047MF	10% 100V	C603	1-124-910-11	ELECT 47MF	20% 50V
C504	1-130-012-00	FILM 330PF	5% 50V	C604	1-124-910-11	ELECT 47MF	20% 50V
C505	1-136-111-00	FILM 1MF	5% 200V	C605	1-108-698-11	MYLAR 0.033MF	10% 200V
C506	1-108-620-11	MYLAR 0.0033MF	10% 100V	C606	1-108-636-11	MYLAR 0.068MF	10% 100V
C507	1-102-030-00	CERAMIC 330PF	10% 500V	C607	1-136-627-11	FILM 0.022MF	3% 1KV
C508	1-124-499-11	ELECT 1MF	20% 50V	C608	1-126-356-11	ELECT 220MF	20% 160V
C509	1-124-499-11	ELECT 1MF	20% 50V	C609	1-124-628-11	ELECT 220MF	20% 100V
C510	1-124-499-11	ELECT 1MF	20% 50V	C610 $\Delta$	1-164-003-11	CERAMIC 2200PF	20% 400V
C511	1-108-624-11	MYLAR 0.0068MF	10% 100V	C611 $\Delta$	1-136-360-51	FILM 0.22MF	20% 250V
C512	1-124-910-11	ELECT 47MF	20% 50V	C612 $\Delta$	1-164-003-11	CERAMIC 2200PF	20% 400V
C513	1-136-541-11	FILM 1.5MF	5% 200V	C613 $\Delta$	1-136-360-51	FILM 0.22MF	20% 250V
C514	1-130-471-00	MYLAR 0.001MF	5% 50V	C614	1-124-122-11	ELECT 100MF	20% 50V
C515 $\Delta$	1-136-069-11	FILM 0.0044MF	3% 2KV	C615	1-123-875-11	ELECT 10MF	20% 50V
C516 $\Delta$	1-129-717-51	FILM 0.018MF	10% 630V	C616	1-162-558-11	CERAMIC 100PF	10% 2KV
C517	1-124-927-11	ELECT 4.7MF	20% 50V	C617	1-108-614-11	MYLAR 0.001MF	10% 100V
C518	1-106-399-00	MYLAR 0.22MF	10% 200V	C620	1-162-117-00	CERAMIC 100PF	10% 500V
C519	1-124-499-11	ELECT 1MF	20% 50V	C621	1-164-002-11	CERAMIC 330PF	20% 400V
C520	1-136-165-00	FILM 0.1MF	5% 50V	C622	1-106-355-12	MYLAR 0.0033MF	10% 200V
C521	1-136-165-00	FILM 0.1MF	5% 50V			<CONNECTOR>	
C522	1-102-030-00	CERAMIC 330PF	10% 500V	D1	*1-506-348-99	PIN, CONNECTOR 3P	
C523	1-136-173-00	FILM 0.47MF	5% 50V	D2	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
C524	1-108-620-11	MYLAR 0.0033MF	10% 100V	D3	*1-564-516-11	PLUG, CONNECTOR 13P	
				D4	*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P	
				D5	*1-564-038-00	CONNECTOR PLUG, DY (MINI) 6P	



D

Les composants identifiés par une trame et par une marque  $\Delta$  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D6	*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P		IC500	8-759-942-16	IC TEA2031A	
D7	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		IC501	8-759-144-17	IC UPC358HA	
D8	*1-506-371-00	PIN, CONNECTOR 2P		IC502	8-759-821-42	IC LA7851	
D10	*1-564-508-11	PLUG, CONNECTOR 5P		IC503	8-759-604-39	IC M5F78M12	
<DIODE>				IC600	8-749-920-67	IC STR-S6307	
D400	8-719-941-64	DIODE GL5EG8		IC601	8-719-939-00	DIODE PC111S	
D401	8-719-911-19	DIODE 1SS119		IC602 $\Delta$	8-749-920-68	IC SE-120N	
D402	8-719-110-41	DIODE RD15ES-B2		<NEON LAMP>			
D403	8-719-911-19	DIODE 1SS119		NL500	1-519-108-99	LAMP, NEON	
D404	8-719-911-55	DIODE U05G		<TRANSISTOR>			
D500	8-719-911-19	DIODE 1SS119		Q400	8-729-900-36	TRANSISTOR DTC124ES	
D502	8-719-109-93	DIODE RD6.2ES-B2		Q401	8-729-900-36	TRANSISTOR DTC124ES	
D503	8-719-911-19	DIODE 1SS119		Q402	8-729-900-36	TRANSISTOR DTC124ES	
D504	8-719-901-83	DIODE 1SS83		Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
D505	8-719-109-93	DIODE RD6.2ES-B2		Q404	8-729-104-80	TRANSISTOR 2SC3355	
D506	8-719-110-72	DIODE RD30ES-B2		Q405	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D507	8-719-973-95	DIODE ERD09-15		Q406	8-729-320-62	TRANSISTOR 2SD789-34	
D508	8-719-939-07	DIODE ERD38-06		Q407	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D509	8-719-911-19	DIODE 1SS119		Q500	8-729-119-80	TRANSISTOR 2SC2688-LK	
D510	8-719-911-19	DIODE 1SS119		Q501	8-729-805-07	TRANSISTOR 2SD1887-CA	
D511	8-719-300-33	DIODE RU-3AM		Q502	8-729-320-62	TRANSISTOR 2SD789-34	
D512	8-719-300-33	DIODE RU-3AM		Q503	8-729-320-62	TRANSISTOR 2SD789-34	
D513	8-719-974-48	DIODE ERA34-10		Q580	8-729-900-36	TRANSISTOR DTC124ES	
D514	8-719-300-33	DIODE RU-3AM		Q600	8-729-809-22	TRANSISTOR 2SC3950-D	
D515	8-719-974-48	DIODE ERA34-10		<RESISTOR>			
D516	8-719-110-31	DIODE RD12ES-B2		R400	1-247-713-11	CARBON	1K 5% 1/4W
D581	8-719-911-19	DIODE 1SS119		R401	1-247-717-11	CARBON	2.2K 5% 1/4W
D582	8-719-110-31	DIODE RD12ES-B2		R402	1-247-725-11	CARBON	10K 5% 1/4W
D600 $\Delta$	8-719-305-07	DIODE RBV-406H		R403	1-249-465-11	CARBON	47K 5% 1/4W
D601	1-806-326-11	DIODE EU2		R404	1-247-721-11	CARBON	4.7K 5% 1/4W
D602	8-719-971-20	DIODE ERC38-06		R405	1-214-745-00	METAL	4.7K 1% 1/4W
D603	8-719-300-33	DIODE RU-3AM		R406	1-247-725-11	CARBON	10K 5% 1/4W
D604	8-719-971-20	DIODE ERC38-06		R407	1-247-725-11	CARBON	10K 5% 1/4W
D605	8-719-971-20	DIODE ERC38-06		R408	1-247-700-11	CARBON	100 5% 1/4W
D606	8-719-913-64	THYRISTOR CSM2B4A10		R409	1-247-725-11	CARBON	10K 5% 1/4W
D607	8-719-109-93	DIODE RD6.2ES-B2		R410	1-249-469-11	CARBON	100K 5% 1/4W
D608	8-719-971-20	DIODE ERC38-06		R411	1-247-700-11	CARBON	100 5% 1/4W
D609	8-719-300-33	DIODE RU-3AM		R412	1-246-535-00	CARBON	390K 5% 1/4W
<FUSE>				R413	1-249-467-11	CARBON	68K 5% 1/4W
F600 $\Delta$	1-532-600-11	FUSE, GLASS TUBE 4A/250V		R414	1-247-719-11	CARBON	3.3K 5% 1/4W
	1-533-190-11	CLIP, FUSE; F600		R415	1-247-719-11	CARBON	3.3K 5% 1/4W
<COIL>				R416	1-247-726-11	CARBON	33K 5% 1/4W
FB501	1-410-396-41	INDUCTOR 0.45UH		R417	1-249-460-11	CARBON	15K 5% 1/4W
FB601	1-410-396-41	INDUCTOR 0.45UH		R418	1-247-713-11	CARBON	1K 5% 1/4W
FB602	1-410-396-41	INDUCTOR 0.45UH		R419	1-249-451-11	CARBON	2.2 5% 1/4W F
L400	1-410-669-31	INDUCTOR 33UH		R420	1-247-725-11	CARBON	10K 5% 1/4W
L500 $\Delta$	1-459-744-21	HLC		R421	1-247-717-11	CARBON	2.2K 5% 1/4W
L501	1-459-104-00	COIL, DUST CORE		R422	1-247-721-11	CARBON	4.7K 5% 1/4W
L502 $\Delta$	1-459-592-11	COIL (WITH CORE) (PMC)		R423	1-247-717-11	CARBON	2.2K 5% 1/4W
L503	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE		R424	1-215-890-11	METAL OXIDE	470 5% 2W F
L504	1-410-645-31	INDUCTOR 100UH		R425	1-215-889-00	METAL OXIDE	330 5% 2W F
L505	1-459-155-00	COIL (WITH CORE) 45UH		R426	1-247-721-11	CARBON	4.7K 5% 1/4W
L508	1-459-155-00	COIL (WITH CORE) 45UH		R427	1-247-701-11	CARBON	120 5% 1/4W
L600	1-410-669-31	INDUCTOR 33UH		R428	1-215-867-00	METAL OXIDE	470 5% 1W F
<IC>				R429	1-216-350-11	METAL OXIDE	1.2 5% 1W F
IC400	8-759-945-36	IC TDA1670A		R430	1-249-459-11	CARBON	12K 5% 1/4W
				R431	1-249-466-11	CARBON	56K 5% 1/4W
				R436	1-247-717-11	CARBON	2.2K 5% 1/4W

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

Les composants identifiés par une trame et par une marque  $\Delta$  sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

The components identified by  $\Delta$  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.

CPD-1320

D

\* : Selected to yield optimum performance.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R437	1-247-713-11	CARBON	1K 5% 1/4W	R565	1-247-717-11	CARBON	2.2K 5% 1/4W
R438	1-247-700-11	CARBON	100 5% 1/4W	R566	1-247-726-11	CARBON	33K 5% 1/4W
R439	1-247-700-11	CARBON	100 5% 1/4W	R567	1-247-726-11	CARBON	33K 5% 1/4W
R440	1-247-717-11	CARBON	2.2K 5% 1/4W	R581	1-247-725-11	CARBON	10K 5% 1/4W
R500	1-249-464-11	CARBON	39K 5% 1/4W	R582	1-247-708-11	CARBON	470 5% 1/4W
R501	1-249-462-11	CARBON	22K 5% 1/4W	R600 $\Delta$	1-217-286-11	WIREWOUND	1 10% 5W F
R502	1-249-462-11	CARBON	22K 5% 1/4W	R601	1-202-846-00	SOLID	470K 10% 1/2W
R503	1-249-460-11	CARBON	15K 5% 1/4W	R602	1-215-884-11	METAL OXIDE	47 5% 2W F
R504	1-249-462-11	CARBON	22K 5% 1/4W	R603	1-247-704-11	CARBON	220 5% 1/4W F
R505	1-249-464-11	CARBON	39K 5% 1/4W	R604	1-207-642-00	WIREWOUND	0.15 10% 3W F
R506	1-247-717-11	CARBON	2.2K 5% 1/4W	R605	1-216-422-11	METAL OXIDE	18 5% 1W F
R508	1-247-883-00	CARBON	150K 5% 1/4W	R606	1-215-925-11	METAL OXIDE	22K 5% 3W F
R509	1-249-465-11	CARBON	47K 5% 1/4W	R607	1-247-708-11	CARBON	470 5% 1/4W F
R510	1-249-465-11	CARBON	47K 5% 1/4W	R608	1-215-900-11	METAL OXIDE	22K 5% 2W F
R511	1-215-889-00	METAL OXIDE	330 5% 2W F	R609 $\Delta$	1-202-847-91	SOLID	560K 10% 1/2W
R512	1-249-467-11	CARBON	68K 5% 1/4W	R610	1-215-925-11	METAL OXIDE	22K 5% 3W F
R513	1-247-717-11	CARBON	2.2K 5% 1/4W	R611	1-247-721-11	CARBON	4.7K 5% 1/4W
R514	1-247-725-11	CARBON	10K 5% 1/4W	R612	1-214-733-00	METAL	1.5K 1% 1/4W
R515	1-247-719-11	CARBON	3.3K 5% 1/4W	R613	1-214-729-00	METAL	1K 1% 1/4W
R516	1-247-713-11	CARBON	1K 5% 1/4W	R615	1-247-713-11	CARBON	1K 5% 1/4W
R517	1-249-460-11	CARBON	15K 5% 1/4W	R616	1-216-463-00	METAL OXIDE	12K 5% 2W F
R518	1-214-785-00	METAL	220K 1% 1/4W			<VARIABLE RESISTOR>	
R519	1-247-723-11	CARBON	6.8K 5% 1/4W	RV400	1-238-449-21	RES, VAR, CARBON	10K
R520	1-215-883-11	METAL OXIDE	33 5% 2W F	RV401	1-238-449-21	RES, VAR, CARBON	10K
R521	1-249-460-11	CARBON	15K 5% 1/4W	RV402	1-224-250-99	RES, ADJ, METAL GLAZE	2.2K
R522	1-214-765-00	METAL	33K 1% 1/4W	RV403	1-230-498-11	RES, ADJ, CARBON	47K
$\Delta$ R524 $\Delta$		METAL		RV404	1-230-498-11	RES, ADJ, CARBON	47K
R525	1-249-460-11	CARBON	15K 5% 1/4W	RV405	1-230-497-11	RES, ADJ, CARBON	22K
R526	1-214-757-00	METAL	15K 1% 1/4W	RV500	1-230-720-11	RES, ADJ, CARBON	4.7K
R527	1-214-787-00	METAL	270K 1% 1/4W	RV501	1-230-497-11	RES, ADJ, CARBON	22K
R528	1-214-752-00	METAL	9.1K 1% 1/4W	RV502	1-230-720-11	RES, ADJ, CARBON	4.7K
R529	1-247-717-11	CARBON	2.2K 5% 1/4W	RV503	1-230-496-11	RES, ADJ, CARBON	10K
R530	1-247-725-11	CARBON	10K 5% 1/4W	RV504	1-224-251-99	RES, ADJ, METAL GLAZE	4.7K
R531	1-247-725-11	CARBON	10K 5% 1/4W	RV505	1-226-114-00	RES, ADJ, METAL GLAZE	2.2M
R532	1-247-704-11	CARBON	220 5% 1/4W F	RV506	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M
R533	1-216-375-00	METAL OXIDE	3.3 5% 2W F	RV507	1-230-718-11	RES, ADJ, CARBON	1K
R534	1-249-455-11	CARBON	4.7 5% 1/4W F	RV508	1-228-998-00	RES, ADJ, CARBON	220K
R535	1-249-443-11	CARBON	0.47 5% 1/4W F			<SWITCH>	
R536	1-247-752-11	CARBON	1K 5% 1/2W F	S600 $\Delta$	1-571-433-11	SWITCH, PUSH (AC POWER)	
R537	1-247-697-11	CARBON	56 5% 1/4W			<TRANSFORMER>	
R538	1-215-892-11	METAL OXIDE	1K 5% 2W F	T500 $\Delta$	1-439-451-11	TRANSFORMER ASSY, FLYBACK (NX-2400)	
R539	1-202-849-00	SOLID	820K 10% 1/2W	T501	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
R540	1-202-719-00	SOLID	1M 10% 1/2W	T600 $\Delta$	1-421-776-11	LFT	
R541	1-215-898-11	METAL OXIDE	10K 5% 2W F	T601 $\Delta$	1-449-503-11	TRANSFORMER, REGULATOR	
R542	1-247-719-11	CARBON	3.3K 5% 1/4W			<THERMISTOR>	
R543	1-214-864-00	METAL	1K 1% 1/2W	TH600 $\Delta$	1-806-710-13	THERMISTOR (POSITIVE)	
R544	1-215-880-00	METAL OXIDE	10 5% 2W F	TH601 $\Delta$	1-808-625-11	THERMISTOR, POWER	
R545	1-215-880-00	METAL OXIDE	10 5% 2W F				
R546	1-247-700-11	CARBON	100 5% 1/4W				
R547	1-214-763-00	METAL	27K 1% 1/4W				
R548	1-202-719-00	SOLID	1M 10% 1/2W				
R549	1-247-717-11	CARBON	2.2K 5% 1/4W				
R550	1-249-469-11	CARBON	100K 5% 1/4W				
R551	1-247-726-11	CARBON	33K 5% 1/4W				
R552	1-249-459-11	CARBON	12K 5% 1/4W				
R553	1-247-725-11	CARBON	10K 5% 1/4W				
R555	1-249-460-11	CARBON	15K 5% 1/4W				
R556	1-247-688-11	CARBON	10 5% 1/4W				
R558	1-247-895-00	CARBON	470K 5% 1/4W				
R560	1-249-460-11	CARBON	15K 5% 1/4W				
R561	1-249-465-11	CARBON	47K 5% 1/4W				
R562	1-215-883-11	METAL OXIDE	33 5% 2W F				
R563	1-247-895-00	CARBON	470K 5% 1/4W				
R564	1-249-469-11	CARBON	100K 5% 1/4W				





# CPD-1320

## SONY<sup>®</sup> SERVICE MANUAL

*US Model  
Canadian Model*

*Chassis No. SCC-C39A-A  
Serial No. 7,000,001 and later*

BT-846-01  
AC-136-18  
ET-858-28  
ET-858-28

## SUPPLEMENT-3

File this supplement with the service manual.

### INTRODUCTION

1. EXPLODED VIEW Modification
2. ELECTRICAL PARTS LIST Modification



### EXPLODED VIEW

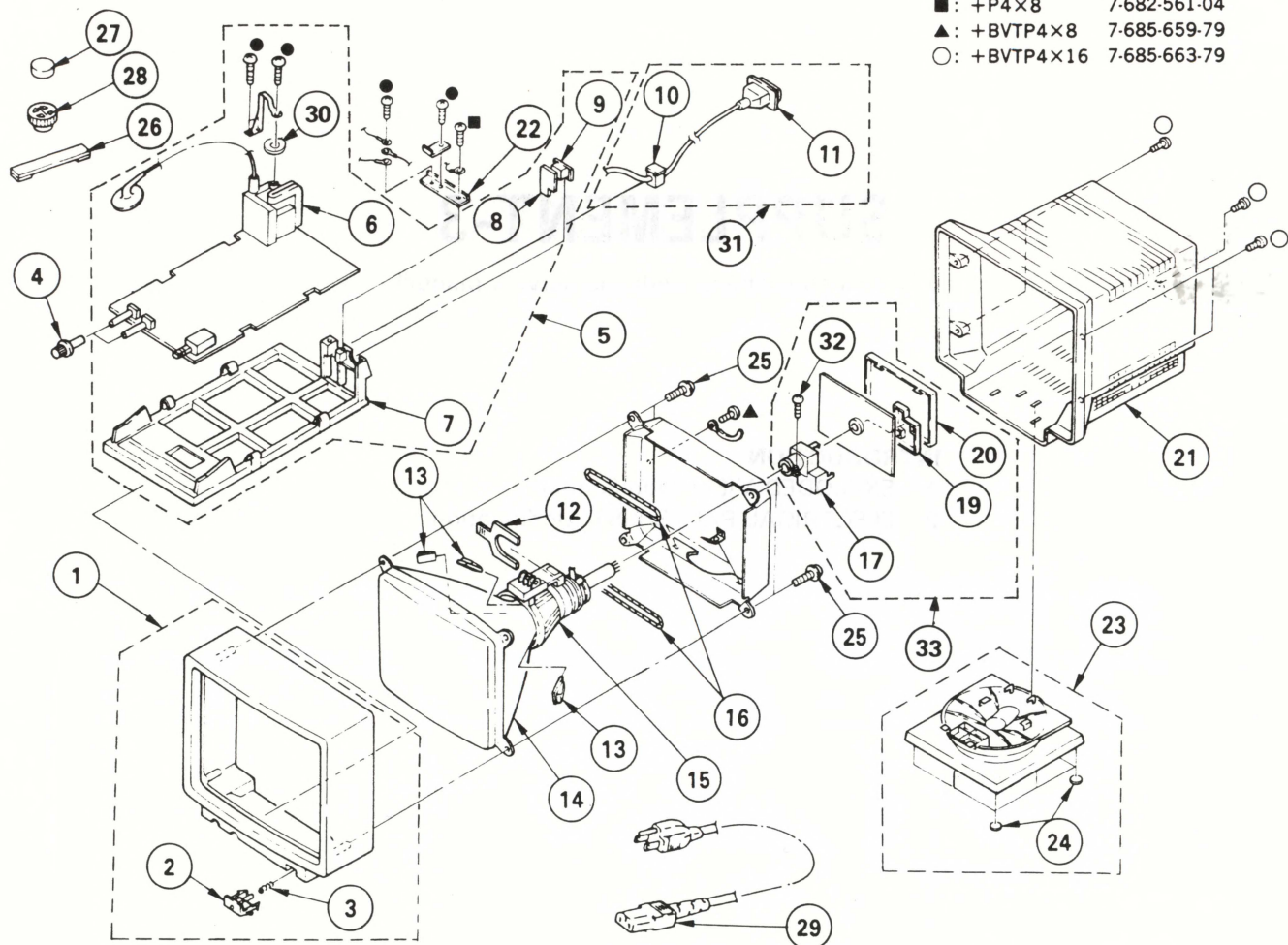
**NOTE:**

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

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

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

- : +BVTP3×12 7-685-648-79
- : +P4×8 7-682-561-04
- ▲: +BVTP4×8 7-685-659-79
- : +BVTP4×16 7-685-663-79



NO.	PART NO.	DESCRIPTION	REMARK	NO.	PART NO.	DESCRIPTION	REMARK
1	X-4392-704-1	BEZEL ASSY	2,3	17	X-4392-701-1	HOLDER ASSY, B PC BOARD	32
2	4-392-708-01	BUTTON, POWER		19	*4-392-704-01	COVER, H.STAT	
3	3-509-046-01	SPRING, COMPRESSION		20	*4-392-718-01	SHIELD	
4	4-392-705-01	KNOB, VR		21	4-392-714-01	CABINET	
5	*A-1478-336-A	D BLOCK ASSY	6,7,8,9,30	22	*4-392-717-01	HOLDER, CABLE	
6	▲.1-439-451-21	TRANSFORMER ASSY, FLYBACK (NX-2402)		23	X-4392-703-2	TILT ASSY	24
7	4-392-712-01	BRACKET, D		24	*4-860-711-00	FELT	
8	*1-628-783-11	F BOARD		25	4-307-249-00	SCREW(5), TAPPING	
9	▲.1-526-954-11	INLET, AC		26	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
10	▲.*4-364-726-01	BUSHING, AC CORD		27	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
11	1-574-430-11	CABLE		28	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
12	X-2105-403-3	REINFORCEMENT ASSY, H.TILT		29	▲.1-557-377-11	CORD, POWER	
13	3-703-003-00	SPACER, DY		30	*4-392-732-01	SPACER, INSULATING	
14	▲.8-738-251-05	PICTURE TUBE (M34JNQ15X)		31	*A-1499-823-A	CABLE ASSY, SIGNAL	10,11
15	▲.1-451-336-11	DEFLECTION YOKE (Y14FBC4)		32	*2-101-802-01	SCREW, FASTENING, SEPARATOR	
16	▲.1-426-442-11	COIL, DEMAGNETIZATION		33	*A-1478-029-A	B BLOCK ASSY	17,19,20,32





B

REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>			
Q011	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q012	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q013	8-729-326-11	TRANSISTOR 2SC2611	
Q014	8-729-891-02	TRANSISTOR 2SC2910-S	
Q015	8-729-820-82	TRANSISTOR 2SA1208-S	
Q016	8-729-326-11	TRANSISTOR 2SC2611	
Q021	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q022	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q023	8-729-326-11	TRANSISTOR 2SC2611	
Q024	8-729-891-02	TRANSISTOR 2SC2910-S	
Q025	8-729-820-82	TRANSISTOR 2SA1208-S	
Q026	8-729-326-11	TRANSISTOR 2SC2611	
Q031	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q032	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q033	8-729-326-11	TRANSISTOR 2SC2611	
Q034	8-729-891-02	TRANSISTOR 2SC2910-S	
Q035	8-729-820-82	TRANSISTOR 2SA1208-S	
Q036	8-729-326-11	TRANSISTOR 2SC2611	
<RESISTOR>			
R001	1-247-725-11	CARBON 10K 5%	1/4W
R003	1-247-725-11	CARBON 10K 5%	1/4W
R004	1-247-725-11	CARBON 10K 5%	1/4W
R006	1-247-721-11	CARBON 4.7K 5%	1/4W
R010	1-247-700-11	CARBON 100 5%	1/4W
R011	1-247-702-11	CARBON 150 5%	1/4W
R012	1-247-700-11	CARBON 100 5%	1/4W
R013	1-247-704-11	CARBON 220 5%	1/4W
R014	1-247-721-11	CARBON 4.7K 5%	1/4W
R015	1-247-694-11	CARBON 33 5%	1/4W
R016	1-249-455-11	CARBON 4.7 5%	1/4W
R017	1-214-713-00	METAL 220 1%	1/4W
R018	1-214-677-00	METAL 6.8 1%	1/4W
R019	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R021	1-247-702-11	CARBON 150 5%	1/4W
R022	1-247-700-11	CARBON 100 5%	1/4W
R023	1-247-704-11	CARBON 220 5%	1/4W
R024	1-247-721-11	CARBON 4.7K 5%	1/4W
R025	1-247-694-11	CARBON 33 5%	1/4W
R026	1-249-455-11	CARBON 4.7 5%	1/4W
R027	1-214-713-00	METAL 220 1%	1/4W
R028	1-214-677-00	METAL 6.8 1%	1/4W
R029	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R031	1-247-702-11	CARBON 150 5%	1/4W
R032	1-247-700-11	CARBON 100 5%	1/4W
R033	1-247-704-11	CARBON 220 5%	1/4W
R034	1-247-721-11	CARBON 4.7K 5%	1/4W
R035	1-247-694-11	CARBON 33 5%	1/4W
R036	1-249-455-11	CARBON 4.7 5%	1/4W
R037	1-214-713-00	METAL 220 1%	1/4W
R038	1-214-677-00	METAL 6.8 1%	1/4W
R039	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R040	1-247-694-11	CARBON 33 5%	1/4W F
R041	1-247-694-11	CARBON 33 5%	1/4W F
R042	1-246-545-00	CARBON 1M 5%	1/4W
R043	1-247-700-11	CARBON 100 5%	1/4W
R044	1-247-717-11	CARBON 2.2K 5%	1/4W
R045	1-216-438-11	METAL OXIDE 8.2K 5%	1W F
R046	1-247-694-11	CARBON 33 5%	1/4W
R047	1-247-713-11	CARBON 1K 5%	1/4W
R048	1-247-692-11	SOLID 22 5%	1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R049	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R050	1-247-694-11	CARBON 33 5%	1/4W F
R051	1-247-694-11	CARBON 33 5%	1/4W F
R052	1-246-545-00	CARBON 1M 5%	1/4W
R053	1-247-700-11	CARBON 100 5%	1/4W
R054	1-247-717-11	CARBON 2.2K 5%	1/4W
R055	1-216-438-11	METAL OXIDE 8.2K 5%	1W F
R056	1-247-694-11	CARBON 33 5%	1/4W
R057	1-247-713-11	CARBON 1K 5%	1/4W
R058	1-247-692-11	SOLID 22 5%	1/4W
R059	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R060	1-247-694-11	CARBON 33 5%	1/4W F
R061	1-247-694-11	CARBON 33 5%	1/4W F
R062	1-246-545-00	CARBON 1M 5%	1/4W
R063	1-247-700-11	CARBON 100 5%	1/4W
R064	1-247-717-11	CARBON 2.2K 5%	1/4W
R065	1-216-438-11	METAL OXIDE 8.2K 5%	1W F
R066	1-247-694-11	CARBON 33 5%	1/4W
R067	1-247-713-11	CARBON 1K 5%	1/4W
R068	1-247-692-11	SOLID 22 5%	1/4W
R069	1-216-484-00	METAL OXIDE 3.9K 5%	3W F
R072	1-247-713-11	CARBON 1K 5%	1/4W
R080	1-216-400-11	METAL OXIDE 8.2 5%	3W F
R081	1-202-838-00	SOLID 100K 10%	1/2W
R082	1-216-400-11	METAL OXIDE 8.2 5%	3W F
R083	1-202-840-00	SOLID 150K 10%	1/2W
R101	1-247-700-11	CARBON 100 5%	1/4W
R103	1-247-719-11	CARBON 3.3K 5%	1/4W
R104	1-247-700-11	CARBON 100 5%	1/4W
R106	1-247-719-11	CARBON 3.3K 5%	1/4W
R107	1-249-469-11	CARBON 100K 5%	1/4W
R108	1-249-465-11	CARBON 47K 5%	1/4W
R109	1-247-726-11	CARBON 33K 5%	1/4W
R110	1-247-725-11	CARBON 10K 5%	1/4W
R111	1-247-725-11	CARBON 10K 5%	1/4W
R112	1-247-708-11	CARBON 470 5%	1/4W
R113	1-247-708-11	CARBON 470 5%	1/4W
R114	1-247-700-11	CARBON 100 5%	1/4W
R115	1-247-700-11	CARBON 100 5%	1/4W
R116	1-247-700-11	CARBON 100 5%	1/4W
R117	1-247-700-11	CARBON 100 5%	1/4W
R118	1-247-708-11	CARBON 470 5%	1/4W
R119	1-247-713-11	CARBON 1K 5%	1/4W
R121	1-247-700-11	CARBON 100 5%	1/4W
R122	1-247-700-11	CARBON 100 5%	1/4W
R123	1-247-721-11	CARBON 4.7K 5%	1/4W
R124	1-247-721-11	CARBON 4.7K 5%	1/4W
R126	1-249-465-11	CARBON 47K 5%	1/4W
R127	1-249-465-11	CARBON 47K 5%	1/4W
R128	1-247-700-11	CARBON 100 5%	1/4W
R129	1-247-700-11	CARBON 100 5%	1/4W
R134	1-247-719-11	CARBON 3.3K 5%	1/4W
R135	1-247-725-11	CARBON 10K 5%	1/4W
R136	1-247-719-11	CARBON 3.3K 5%	1/4W
R137	1-247-725-11	CARBON 10K 5%	1/4W
R147	1-214-713-00	METAL 220 1%	1/4W
R149	1-247-694-11	CARBON 33 5%	1/4W
R157	1-214-713-00	METAL 220 1%	1/4W
R159	1-247-694-11	CARBON 33 5%	1/4W
R167	1-214-713-00	METAL 220 1%	1/4W
R169	1-247-694-11	CARBON 33 5%	1/4W

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

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

**B** **F** **D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<VARIABLE RESISTOR>							
RV001	1-228-993-00	RES, ADJ, CARBON 4.7K		C414	1-130-483-00	MYLAR 0.01MF 5%	50V
RV002	1-228-993-00	RES, ADJ, CARBON 4.7K		C500	1-102-030-00	CERAMIC 330PF 10%	500V
RV011	1-228-989-00	RES, ADJ, CARBON 470		C501	1-130-471-00	FILM 0.001MF 5%	50V
RV012	1-224-252-99	RES, ADJ, METAL GLAZE 10K		C502	1-108-614-11	MYLAR 0.001MF 10%	100V
RV021	1-228-989-00	RES, ADJ, CARBON 470		C503	1-108-622-11	MYLAR 0.0047MF 10%	100V
RV022	1-224-252-99	RES, ADJ, METAL GLAZE 10K		C504	1-130-012-00	FILM 330PF 5%	50V
RV031	1-228-989-00	RES, ADJ, CARBON 470		C505	1-136-111-00	FILM 1MF 5%	200V
RV032	1-224-252-99	RES, ADJ, METAL GLAZE 10K		C506	1-108-620-11	MYLAR 0.0033MF 10%	100V
RV081 $\Delta$	1-230-798-21	RES, ADJ, METAL GLAZE 90M		C507	1-102-030-00	CERAMIC 330PF 10%	500V
*****				C508	1-124-791-11	ELECT 1MF 20%	50V
*1-628-783-11	F BOARD	*****		C509	1-124-791-11	ELECT 1MF 20%	50V
$\Delta$ 1-526-954-11	INLET, AC			C510	1-124-791-11	ELECT 1MF 20%	50V
1-543-421-11	CORE, BEAD			C511	1-108-624-11	MYLAR 0.0068MF 10%	100V
<CAPACITOR>				C512	1-124-910-11	ELECT 47MF 20%	50V
C701 $\Delta$	1-164-003-11	CERAMIC 2200PF 20% 400V		C513	1-136-541-11	FILM 1.5MF 5%	200V
C702 $\Delta$	1-164-003-11	CERAMIC 2200PF 20% 400V		C514	1-130-471-00	MYLAR 0.001MF 5%	50V
*****				C515 $\Delta$	1-136-069-11	FILM 0.0044MF 3%	2KV
*A-1478-336-A	D BLOCK ASSY	*****		C516 $\Delta$	1-129-717-51	FILM 0.018MF 10%	630V
4-392-712-01	BRACKET, D			C517	1-124-927-11	ELECT 4.7MF 20%	50V
*4-392-732-01	SPACER, INSULATING			C518	1-106-399-00	MYLAR 0.22MF 10%	200V
*****				C519	1-124-499-11	ELECT 1MF 20%	50V
D BOARD (D BLOCK ASSY)		*****		C520	1-136-165-00	FILM 0.1MF 5%	50V
*1-506-348-99	PIN, CONNECTOR 3P			C521	1-136-165-00	FILM 0.1MF 5%	50V
*1-506-371-00	PIN, CONNECTOR 2P			C522	1-102-030-00	CERAMIC 330PF 10%	500V
*1-508-766-00	PIN, CONNECTOR (5MM PITCH) 4P			C523	1-136-173-00	FILM 0.47MF 5%	50V
*1-508-767-00	PIN, CONNECTOR (5MM PITCH) 5P			C524	1-108-620-11	MYLAR 0.0033MF 10%	100V
*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P			C525	1-124-122-11	ELECT 100MF 20%	50V
*1-564-508-11	PLUG, CONNECTOR 5P			C527	1-102-030-00	CERAMIC 330PF 10%	500V
*1-564-516-11	PLUG, CONNECTOR 13P			C528	1-124-122-11	ELECT 100MF 20%	50V
*1-568-536-11	PLUG (MINIATURE DV) 6P			C529	1-124-912-11	ELECT 330MF 20%	50V
4-309-378-00	WASHER			C530	1-126-356-11	ELECT 220MF 20%	160V
*4-341-751-01	EYELET			C531	1-123-946-00	ELECT 4.7MF 20%	250V
*4-341-752-01	EYELET			C532	1-124-360-00	ELECT 1000MF 20%	16V
*4-380-083-01	HOLDER (E), LED			C533 $\Delta$	1-162-135-51	CERAMIC 560PF 10%	2KV
*4-386-664-01	SPRING			C534 $\Delta$	1-108-626-91	MYLAR 0.01MF 10%	100V
*4-392-731-01	COVER, SHORT RING			C536	1-162-114-00	CERAMIC 0.0047MF 2KV	
<CAPACITOR>				C537	1-136-627-11	FILM 0.022MF 3%	1KV
C400	1-124-791-11	ELECT 1MF 20%	50V	C538	1-108-700-11	MYLAR 0.047MF 10%	200V
C401	1-136-171-00	FILM 0.33MF 5%	50V	C539	1-130-471-00	FILM 0.001MF 5%	50V
C402	1-136-165-00	FILM 0.1MF 5%	50V	C540	1-124-912-11	ELECT 330MF 20%	50V
C403	1-136-165-00	FILM 0.1MF 5%	50V	C543	1-123-875-11	ELECT 10MF 20%	50V
C404	1-124-911-11	ELECT 220MF 20%	50V	C544	1-162-558-11	CERAMIC 100PF 10%	2KV
C405	1-102-244-00	CERAMIC 220PF 10%	500V	C545	1-123-875-11	ELECT 10MF 20%	50V
C406	1-124-910-11	ELECT 47MF 20%	50V	C547	1-108-624-11	MYLAR 0.0068MF 10%	100V
C407	1-124-618-11	ELECT 2200MF 20%	35V	C548	1-102-030-00	CERAMIC 330PF 10%	500V
C408	1-136-165-00	FILM 0.1MF 5%	50V	C549	1-124-927-11	ELECT 4.7MF 20%	50V
C409	1-124-912-11	ELECT 330MF 20%	50V	C550	1-123-382-00	ELECT 3.3MF 20%	50V
C410	1-106-379-12	MYLAR 0.033MF 10%	100V	C581	1-102-228-00	CERAMIC 470PF 10%	500V
C411	1-124-791-11	ELECT 1MF 20%	50V	C600 $\Delta$	1-164-003-11	CERAMIC 2200PF 20%	400V
C412	1-123-875-11	ELECT 10MF 20%	50V	C601 $\Delta$	1-164-003-11	CERAMIC 2200PF 20%	400V
C413	1-136-157-00	FILM 0.022MF 5%	50V	C602 $\Delta$	1-125-555-11	ELECT 330MF 20%	400V
				C603	1-124-910-11	ELECT 47MF 20%	50V
				C604	1-124-910-11	ELECT 47MF 20%	50V
				C605	1-108-698-11	MYLAR 0.033MF 10%	200V
				C606	1-108-636-11	MYLAR 0.068MF 10%	100V
				C607	1-136-627-11	FILM 0.022MF 3%	1KV
				C608	1-126-356-11	ELECT 220MF 20%	160V
				C609	1-124-628-11	ELECT 220MF 20%	100V
				C610 $\Delta$	1-164-003-11	CERAMIC 2200PF 20%	400V
				C611 $\Delta$	1-136-891-11	FILM 0.47MF 20%	250V
				C612 $\Delta$	1-164-003-11	CERAMIC 2200PF 20%	400V
				C613 $\Delta$	1-136-891-11	FILM 0.47MF 20%	250V
				C614	1-124-122-11	ELECT 100MF 20%	50V



D

Les composants identifiés par une trame et une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
C615	1-123-875-11	ELECT 10MF 20%	50V
C616	1-162-558-11	CERAMIC 100PF 10%	2KV
C617	1-108-614-11	MYLAR 0.001MF 10%	100V
C620	1-162-117-00	CERAMIC 100PF 10%	500V
C621	1-161-742-00	CERAMIC 2200PF 20%	400V
C622	1-108-686-11	MYLAR 0.0033MF 10%	200V
<DIODE>			
D400	8-719-941-64	DIODE GL5EG8	
D401	8-719-911-19	DIODE ISS119	
D402	8-719-110-41	DIODE RD15ES B2	
D403	8-719-911-19	DIODE ISS119	
D404	8-719-911-55	DIODE U05G	
D500	8-719-911-19	DIODE ISS119	
D502	8-719-109-93	DIODE RD6.2ES B2	
D503	8-719-911-19	DIODE ISS119	
D504	8-719-901-83	DIODE ISS83	
D505	8-719-109-93	DIODE RD6.2ES B2	
D506	8-719-110-72	DIODE RD30ES B2	
D507	8-719-973-95	DIODE ERD09 15	
D508	8-719-939-07	DIODE ERD38 06	
D509	8-719-911-19	DIODE ISS119	
D510	8-719-911-19	DIODE ISS119	
D511	8-719-300-33	DIODE RU-3AM	
D512	8-719-300-33	DIODE RU-3AM	
D513	8-719-974-48	DIODE ERA34-10	
D514	8-719-300-33	DIODE RU-3AM	
D515	8-719-974-48	DIODE ERA34 10	
D516	8-719-110-31	DIODE RD12ES B2	
D581	8-719-911-19	DIODE ISS119	
D582	8-719-110-31	DIODE RD12ES B2	
D583	8-719-913-44	DIODE ERA82-004	
D600 $\Delta$	8-719-305-07	DIODE RBV-406H	
D601	8-719-302-06	DIODE EU2A	
D602	8-719-971-20	DIODE ERC38-06	
D603	8-719-300-33	DIODE RU-3AM	
D604	8-719-971-20	DIODE ERC38 06	
D605	8-719-971-20	DIODE ERC38 06	
D606	8-719-913-64	THYRISTOR CSM2B4A10	
D607	8-719-109-93	DIODE RD6.2ES B2	
D608	8-719-971-20	DIODE ERC38-06	
D609	8-719-300-33	DIODE RU-3AM	
<FUSE>			
F600 $\Delta$	1-532-600-11	FUSE, GLASS TUBE 4A/250V	
	1-533-190-11	CLIP, FUSE; F600	
<COIL>			
FB501	1-410-396-41	INDUCTOR 0.45UH	
FB601	1-410-396-41	INDUCTOR 0.45UH	
FB602	1-410-396-41	INDUCTOR 0.45UH	
L400	1-410-669-31	INDUCTOR 33UH	
L500 $\Delta$	1-459-744-21	HLC	
L501	1-459-104-00	COIL, DUST CORE	
L502 $\Delta$	1-459-592-11	COIL (WITH CORE) (PMC)	
L503	1-459-075-00	COIL, DYNAMIC CONVERSION CHOKE	
L504	1-410-645-31	INDUCTOR 100UH	
L505	1-459-155-00	COIL (WITH CORE) 45UH	
L508	1-459-155-00	COIL (WITH CORE) 45UH	
L600	1-410-669-31	INDUCTOR 33UH	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<IC>			
IC400	8-759-945-36	IC TDA1670A	
IC500	8-759-942-16	IC TEA2031A	
IC501	8-759-144-17	IC UPC358HA	
IC502	8-759-821-42	IC LA7851	
IC503	8-759-604-39	IC M5F78M12	
IC600	8-749-920-67	IC STR-S6307	
IC601	8-719-939-00	DIODE PC111S	
IC602 $\Delta$	8-749-920-68	IC SE-120N	
<NEON LAMP>			
NL500	1-519-108-99	LAMP, NEON	
<TRANSISTOR>			
Q400	8-729-900-36	TRANSISTOR DTC124ES	
Q401	8-729-900-36	TRANSISTOR DTC124ES	
Q402	8-729-900-36	TRANSISTOR DTC124ES	
Q403	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q404	8-729-104-80	TRANSISTOR 2SC3355	
Q405	8-729-119-76	TRANSISTOR 2SA1175 HFE	
Q406	8-729-320-62	TRANSISTOR 2SD789-34	
Q407	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q500	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q501	8-729-805-07	TRANSISTOR 2SD1887-CA	
Q502	8-729-320-62	TRANSISTOR 2SD789-34	
Q503	8-729-320-62	TRANSISTOR 2SD789-34	
Q580	8-729-900-36	TRANSISTOR DTC124ES	
Q600	8-729-809-22	TRANSISTOR 2SC3950-D	
<RESISTOR>			
R400	1-247-713-11	CARBON 1K 5%	1/4W
R401	1-247-717-11	CARBON 2.2K 5%	1/4W
R402	1-247-725-11	CARBON 10K 5%	1/4W
R403	1-249-465-11	CARBON 47K 5%	1/4W
R404	1-247-721-11	CARBON 4.7K 5%	1/4W
R405	1-214-745-00	METAL 4.7K 1%	1/4W
R406	1-247-725-11	CARBON 10K 5%	1/4W
R407	1-247-725-11	CARBON 10K 5%	1/4W
R408	1-247-700-11	CARBON 100 5%	1/4W
R409	1-247-725-11	CARBON 10K 5%	1/4W
R410	1-249-469-11	CARBON 100K 5%	1/4W
R411	1-247-700-11	CARBON 100 5%	1/4W
R412	1-246-535-00	CARBON 390K 5%	1/4W
R413	1-249-467-11	CARBON 68K 5%	1/4W
R414	1-247-719-11	CARBON 3.9K 5%	1/4W
R415	1-247-719-11	CARBON 3.3K 5%	1/4W
R416	1-247-726-11	CARBON 33K 5%	1/4W
R417	1-249-460-11	CARBON 15K 5%	1/4W
R418	1-247-713-11	CARBON 1K 5%	1/4W
R419	1-249-451-11	CARBON 2.2 5%	1/4W F
R420	1-247-725-11	CARBON 10K 5%	1/4W
R421	1-247-717-11	CARBON 2.2K 5%	1/4W
R422	1-247-721-11	CARBON 4.7K 5%	1/4W
R423	1-247-717-11	CARBON 2.2K 5%	1/4W
R424	1-215-890-11	METAL OXIDE 470 5%	2W F
R425	1-215-888-00	METAL OXIDE 220 5%	2W F
R426	1-247-721-11	CARBON 4.7K 5%	1/4W
R427	1-247-701-11	CARBON 120 5%	1/4W
R428	1-215-867-00	METAL OXIDE 470 5%	1W F
R429	1-216-350-11	METAL OXIDE 1.2 5%	1W F



The components identified by **X** 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.

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 spécifique.

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

**D**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R430	1-249-459-11	CARBON	12K 5% 1/4W	R562	1 215-883-11	METAL OXIDE	33 5% 2W F
R431	1-249-466-11	CARBON	50K 5% 1/4W	R563	1-247-895-00	CARBON	470K 5% 1/4W
R436	1-247-717-11	CARBON	2.2K 5% 1/4W	R564	1-249-469-11	CARBON	100K 5% 1/4W
R437	1-247-713-11	CARBON	1K 5% 1/4W	R565	1-247-717-11	CARBON	2.2K 5% 1/4W
R438	1-247-700-11	CARBON	100 5% 1/4W	R566	1-247-726-11	CARBON	33K 5% 1/4W
R439	1-247-700-11	CARBON	100 5% 1/4W	R567	1-247-726-11	CARBON	33K 5% 1/4W
R440	1-247-717-11	CARBON	2.2K 5% 1/4W	R581	1-247-725-11	CARBON	10K 5% 1/4W
R500	1-249-464-11	CARBON	39K 5% 1/4W	R582	1-247-708-11	CARBON	470 5% 1/4W
R501	1-249-462-11	CARBON	22K 5% 1/4W	R600 <b>Δ</b>	1-217-286-11	WIREWOUND	1 10% 5W F
R502	1-249-462-11	CARBON	22K 5% 1/4W	R601	1-202-846-00	SOLID	470K 10% 1/2W
R503	1-249-460-11	CARBON	15K 5% 1/4W	R602	1-215-884-11	METAL OXIDE	47 5% 2W F
R504	1-249-462-11	CARBON	22K 5% 1/4W	R603	1-247-704-11	CARBON	220 5% 1/4W F
R505	1-249-464-11	CARBON	39K 5% 1/4W	R604	1-207-642-00	WIREWOUND	0.15 10% 3W F
R506	1-247-717-11	CARBON	2.2K 5% 1/4W	R605	1-216-422-11	METAL OXIDE	18 5% 1W F
R508	1-247-883-00	CARBON	150K 5% 1/4W	R606	1-215-925-11	METAL OXIDE	22K 5% 3W F
R509	1-249-465-11	CARBON	47K 5% 1/4W	R607	1-247-708-11	CARBON	470 5% 1/4W F
R510	1-249-465-11	CARBON	47K 5% 1/4W	R608	1-215-900-11	METAL OXIDE	22K 5% 2W F
R511	1-215-889-00	METAL OXIDE	330 5% 2W F	R609 <b>Δ</b>	1-202-847-91	SOLID	560K 10% 1/2W
R512	1-249-467-11	CARBON	68K 5% 1/4W	R610	1-215-925-11	METAL OXIDE	22K 5% 3W F
R513	1-247-717-11	CARBON	2.2K 5% 1/4W	R611	1-247-721-11	CARBON	4.7K 5% 1/4W
R514	1-247-725-11	CARBON	10K 5% 1/4W	R612	1-214-733-00	METAL	1.5K 1% 1/4W
R515	1-247-719-11	CARBON	3.3K 5% 1/4W	R613	1-214-729-00	METAL	1K 1% 1/4W
R516	1-247-713-11	CARBON	1K 5% 1/4W	R615	1-247-713-11	CARBON	1K 5% 1/4W
R517	1-249-460-11	CARBON	15K 5% 1/4W	R616	1-216-463-00	METAL OXIDE	12K 5% 2W F
R518	1-214-785-00	METAL	220K 1% 1/4W			<VARIABLE RESISTOR>	
R519	1-247-723-11	CARBON	6.8K 5% 1/4W	RV400	1-238-449-21	RES, VAR, CARBON	10K
R520	1 215-883-11	METAL OXIDE	33 5% 2W F	RV401	1-238-449-21	RES, VAR, CARBON	10K
R521	1-249-460-11	CARBON	15K 5% 1/4W	RV402	1-224-250-99	RES, ADJ, METAL GLAZE	2.2K
R522	1-214-765-00	METAL	33K 1% 1/4W	RV403	1-230-498-11	RES, ADJ, CARBON	47K
<b>X</b> R524 <b>Δ</b>		METAL	1/4W	RV404	1-230-498-11	RES, ADJ, CARBON	47K
R525	1-249-460-11	CARBON	15K 5% 1/4W	RV405	1-230-497-11	RES, ADJ, CARBON	22K
R526	1-214-757-00	METAL	15K 1% 1/4W	RV500	1-230-720-11	RES, ADJ, CARBON	4.7K
R527	1-214-787-00	METAL	270K 1% 1/4W	RV501	1-230-497-11	RES, ADJ, CARBON	22K
R528	1-214-752-00	METAL	9.1K 1% 1/4W	RV502	1-230-720-11	RES, ADJ, CARBON	4.7K
R529	1-247-717-11	CARBON	2.2K 5% 1/4W	RV503	1-230-496-11	RES, ADJ, CARBON	10K
R530	1-247-725-11	CARBON	10K 5% 1/4W	RV504	1-224-251-99	RES, ADJ, METAL GLAZE	4.7K
R531	1-247-725-11	CARBON	10K 5% 1/4W	RV505	1-226-114-00	RES, ADJ, METAL GLAZE	2.2M
R532	1-247-704-11	CARBON	220 5% 1/4W F	RV506	1-230-641-11	RES, ADJ, METAL GLAZE	2.2M
R533	1-216-375-00	METAL OXIDE	3.3 5% 2W F	RV507	1-230-494-11	RES, ADJ, CARBON	1K
R534	1-249-455-11	CARBON	4.7 5% 1/4W F	RV508	1-228-998-00	RES, ADJ, CARBON	220K
R535	1-249-443-11	CARBON	0.47 5% 1/4W F			<SWITCH>	
R536	1-247-752-11	CARBON	1K 5% 1/2W F	S600 <b>Δ</b>	1-571-433-11	SWITCH, PUSH (AC POWER)	
R537	1-247-697-11	CARBON	56 5% 1/4W F			<TRANSFORMER>	
R538	1-215-892-11	METAL OXIDE	1K 5% 2W F	T500 <b>Δ</b>	1-439-451-21	TRANSFORMER ASSY, FLYBACK (NX-2402)	
R539	1-202-849-00	SOLID	820K 10% 1/2W	T501	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
R540	1-202-719-00	SOLID	1M 10% 1/2W	T600 <b>Δ</b>	1-421-776-11	LFT	
R541	1-215-898-11	METAL OXIDE	10K 5% 2W F	T601 <b>Δ</b>	1-449-503-11	TRANSFORMER, REGULATOR	
R542	1-247-719-11	CARBON	3.3K 5% 1/4W			<THERMISTOR>	
R543	1-214-864-00	METAL	1K 1% 1/2W	TH600 <b>Δ</b>	1-808-059-31	THERMISTOR, POSITIVE	
R544	1-215-880-00	METAL OXIDE	10 5% 2W F	TH601 <b>Δ</b>	1-808-625-11	THERMISTOR, POWER	
R545	1-215-880-00	METAL OXIDE	10 5% 2W F			*****	
R546	1-247-700-11	CARBON	100 5% 1/4W			MISCELLANEOUS	
R547	1-214-763-00	METAL	27K 1% 1/4W			*****	
R548	1-202-719-00	SOLID	1M 10% 1/2W			<b>Δ</b> 1-426-442-11	COIL, DEMAGNETIZATION
R549	1-247-717-11	CARBON	2.2K 5% 1/4W				
R550	1-249-469-11	CARBON	100K 5% 1/4W				
R551	1-247-726-11	CARBON	33K 5% 1/4W				
R552	1-249-459-11	CARBON	12K 5% 1/4W				
R553	1-247-725-11	CARBON	10K 5% 1/4W				
R555	1-249-460-11	CARBON	15K 5% 1/4W				
R556	1-247-688-11	CARBON	10 5% 1/4W				
R558	1-247-895-00	CARBON	470K 5% 1/4W				
R560	1-249-460-11	CARBON	15K 5% 1/4W				
R561	1-249-465-11	CARBON	47K 5% 1/4W				

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

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

REF.NO. PART NO. DESCRIPTION REMARK

$\Delta$ 1-451-336-11	DEFLECTION YUKE (Y14FBC4)	
1-452-032-00	MAGNET, DISK; 10MM $\phi$	
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
1-574-430-11	CABLE	
V901 $\Delta$ 8-738-251-05	PICTURE TUBE (M34JNQ15X)	

\*\*\*\*\*

ACCESSORIES AND PACKING MATERIALS

\*\*\*\*\*

PART NO. DESCRIPTION REMARK

$\Delta$ 1-557-377-11	CORD, POWER (3 CORE)	
3-786-812-41	MANUAL, INSTRUCTION	
*4-312-246-00	BAG, PROTECTION	
*4-392-724-01	SPACER	
*4-392-742-01	CUSHION (UPPER) (ASSY)	
*4-392-743-01	CUSHION (LOWER) (ASSY)	
*4-392-745-01	INDIVIDUAL CARTON	