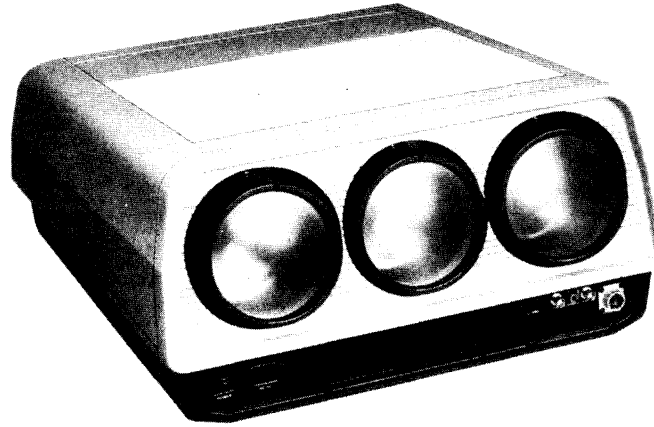


VPH-1000Q

SERVICE MANUAL

*US Model
Canadian Model*

Chassis No. SCC-B80B-A



SPECIFICATIONS

Optical

Projection system	3 picture tubes, 3 lenses, direct projection system
Picture tube	5.5-inch high-brightness monochrome tubes, with coolant sealed
Projection lens	High-performance hybrid lenses F1.0/130 mm
Projected picture size	70 – 250 inches measured diagonally Factory-adjusted to 100 inches measured diagonally
Light output	600 lm

General

Color system	PAL, SECAM, NTSC and NTSC ^{4.43} systems, switched automatically
Resolution	650 TV lines (video input)
Test signal	Cross-hair test pattern generator incorporated
Speaker	5 x 9 cm (2 x 3 1/2 inches), 1 unit, 3 W

— Continued on next page —

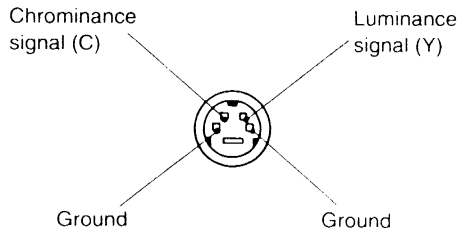


COLOR VIDEO PROJECTOR
SONY®

Inputs

LINE IN

S VIDEO: 4-pin mini DIN connector
 Y (luminance) signal: 1 Vp-p ±2 dB, sync negative, 75 ohms terminated
 C (chrominance) signal: burst
 0.286 Vp-p ±2dB, 75 ohms terminated (NTSC)
 0.3 Vp-p ±2dB, 75 ohms terminated (PAL)



VIDEO: BNC connector
 Composite video input, 1 Vp-p ±2 dB, sync negative, 75 ohms terminated
 AUDIO: phono jack
 -5 dBs
 Impedance: more than 47 kohms

TO VPR-722S

14-pin connector

Output

MONITOR OUT

VIDEO: BNC connector
 Composite video output, 1 Vp-p ±2 dB, impedance 75 ohms,
 Selected video output
 With the remote controller:
 Video signal from the controller*
 Without the remote controller:
 Video signal from the LINE IN VIDEO connector*
 * The separated Y and C signals input to the S VIDEO connector is output as a composite video signal.

Power requirements

120V AC, 50/60 Hz

Power consumption

230 W max., 3.0 A max.

Dimensions

Approx. 532 x 288 x 597 mm (w/h/d)
 (21 x 11³/₈ x 23⁵/₈ inches)
 With the brackets pushed down, incl. projecting parts and controls

Weight

Approx. 30 kg
 (66 lb 2 oz)

Accessories supplied

AC power cord (1)
 Spacer for 200" projection (4)

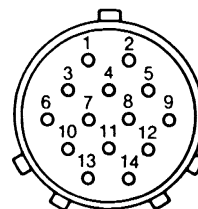
Design and specifications subject to change without notice.

Optional Accessories

Remote controller VPR-722S
 Projector pedestal SU-722
 Projector suspension support PSS-722, PSS-10
 Screen VPS-100F1 (100" flat)
 VPS-120F (120" flat)
 VPS-72HG1 (72" curved)
 VPS-100HG1 (100" curved)
 VPS-700R (70" rear projection)
 Carrying case VLC-1040
 CCQ BRS cables

Pin Assignment

TO VPR-722S connector (14-pin)



Pin No.	Signal	Pin No.	Signal
1	Ground	8	Input select
2	+28V \approx 60mA	9	Audio (incl. volume control)
3	Hue 1	10	Brightness
4	Hue 2	11	Sharpness or chrominance signal
5	Hue 3	12	Color
6	Video or luminance signal	13	Picture
7	Ground (video)	14	Power ON: 12V OFF: 0 V

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.

Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

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.

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 watt 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)

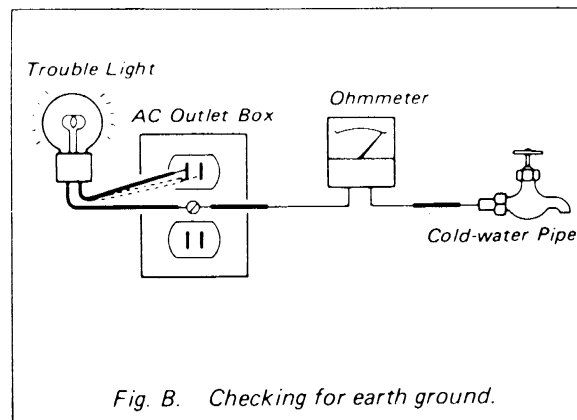
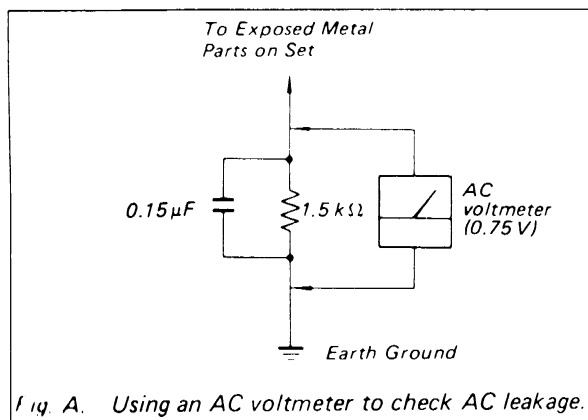




TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
1. GENERAL					
1-1.	Location and Function of Controls	5	4-9.	G-R TILT Adjustment	37
1-2.	Position and Registration Adjustment	7	4-10.	BLUE DY Adjustment	37
1-3.	Projecting	8	4-11.	G-B V. Registration Adjustment	38
1-4.	Installation Diagrams (1)	10	4-12.	G-B H. Registration Adjustment	38
1-5.	System Connections	18	4-13.	G-B TILT Adjustment	38
1-6.	Installation Diagrams (2)	20	4-14.	White Balance Adjustment	38
1-7.	Notes on Installation	21	4-15.	SUB-BRIGHT Adjustment	38
1-8.	Polarity Change	23	5. SAFETY RELATED ADJUSTMENTS		
1-9.	Lens Focus Adjustment	24	5-1.	PA and PC Board Adjustments	39
1-10.	Registration Adjustment	25	6. CIRCUIT ADJUSTMENTS		
1-11.	Conversion For 200" (150" - 250") Projection	27	6-1.	BA Board Adjustment	41
2. DISASSEMBLY			7. DIAGRAMS		
2-1.	Removal of Cabinet and Lens	29	7-1.	Circuit Boards Location	44
2-2.	Removal of Switching Regulator, QA Board, QB Board and FA Board	29	7-2.	Quick Reference	45
2-3.	Removal of PA Board	30	7-3.	Block Diagrams	46
2-4.	Removal of High-Voltage DC Block	30	7-4.	Frame Schematic Diagram	57
2-5.	Removal of Picture Tube	31	7-5.	Schematic Diagrams and Printed Wiring Boards QB, QA Boards	61
3. CIRCUIT DESCRIPTIONS				D, DB Boards	68
3-1.	HV Regulation Circuit	32		E, EB, EC, ED, PA, PB, PC, DY, Y, X, HA Boards	76
3-1-1.	HV Regulation Section	32		BA, BC, Boards	86
3-1-2.	HV Regulation Control Section	33		BB, CR, CG, RB Boards	96
4. SET-UP ADJUSTMENTS				FA, FB, Boards and TK15	105
4-1.	Basic Adjustments	34	7-6.	Semiconductors	109
4-2.	GREEN Focus Adjustment	34	8. EXPLODED VIEWS		
4-3.	RED Focus Adjustment	34	8-1.	Lens	111
4-4.	BLUE Focus Adjustment	34	8-2.	Panel	112
4-5.	GREEN Picture Adjustment	35	8-3.	ED Board	113
4-6.	RED DY Adjustment	36	8-4.	Bass Assy	114
4-7.	TILT Adjustment	36	9. ELECTRICAL PARTS LIST		115
4-8.	G-R H. Registration Adjustment	37			

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.

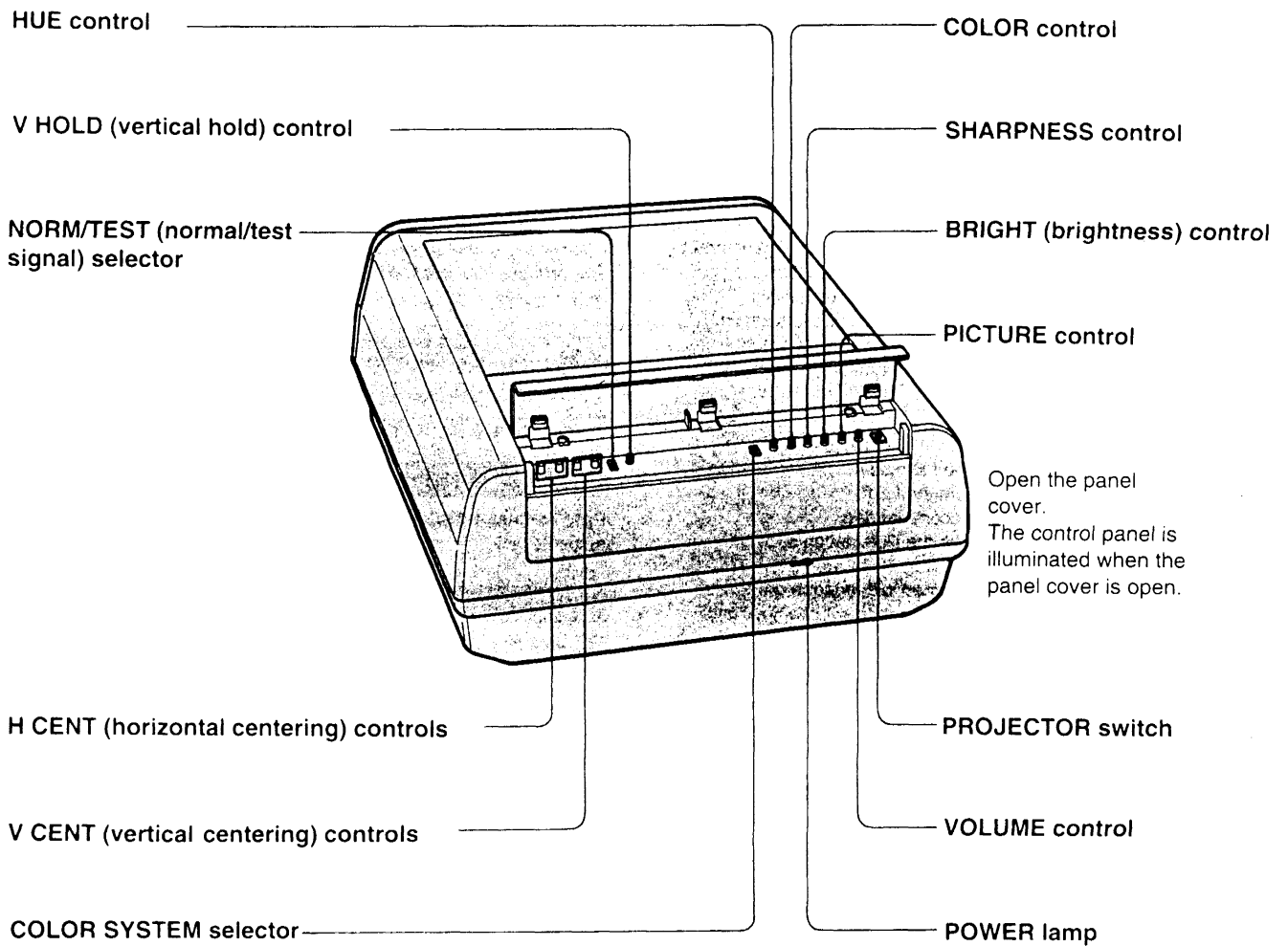
ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

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.

SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS

Control panel



COLOR SYSTEM selector
Normally set to AUTO.
Set to SECAM when the color of a picture from SECAM color sources is disturbed.

Connector panel

Blue lens

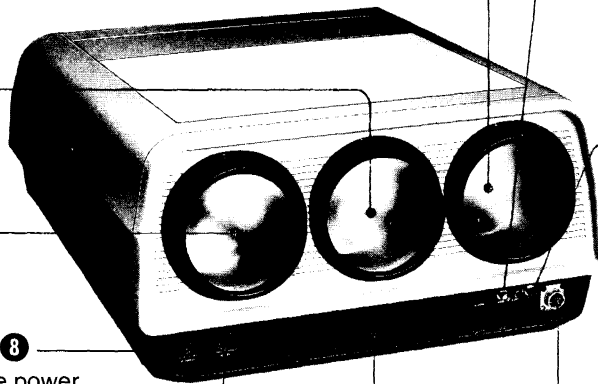
Green lens

Red lens

POWER switch 7 8

Depress to turn on the power.
When the remote controller is connected,
power is supplied to the controller.

AC IN socket



Speaker

LINE IN (line input) connectors

S VIDEO (4-pin, mini DIN)
VIDEO (BNC)
AUDIO (phono)

Note

The VIDEO connector is disconnected automatically when a cable is connected to the S VIDEO connector.

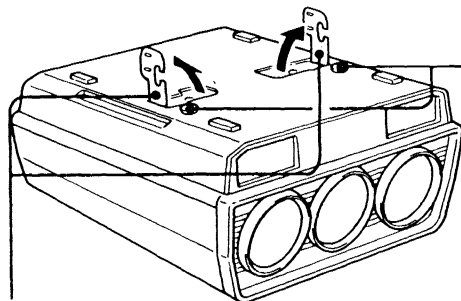
MONITOR OUT (monitor output) connector (BNC)

The signal input to the TO VPR-722S, S VIDEO or VIDEO input connector is output from this connector.*
If signals are connected to each connector, the output signal is selected according to the following priority: TO VPR-722S, S VIDEO and VIDEO.

TO VPR-722S connector (14-pin, male)

* The separated Y (luminance) and C (chrominance) signals input to the S VIDEO connector is output as composite video signal.

Bottom



Brackets

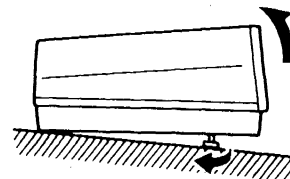
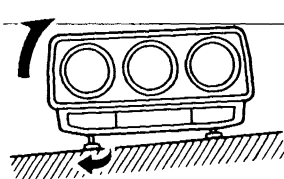
Used for attaching the projector to the PSS-722 suspension support or the SU-722 pedestal.

Adjustable feet

The horizontal balance and angle of the projector can be adjusted with these feet.
The feet are factory-adjusted to the shortest length for a flat base.

Turn either foot to obtain horizontal balance.

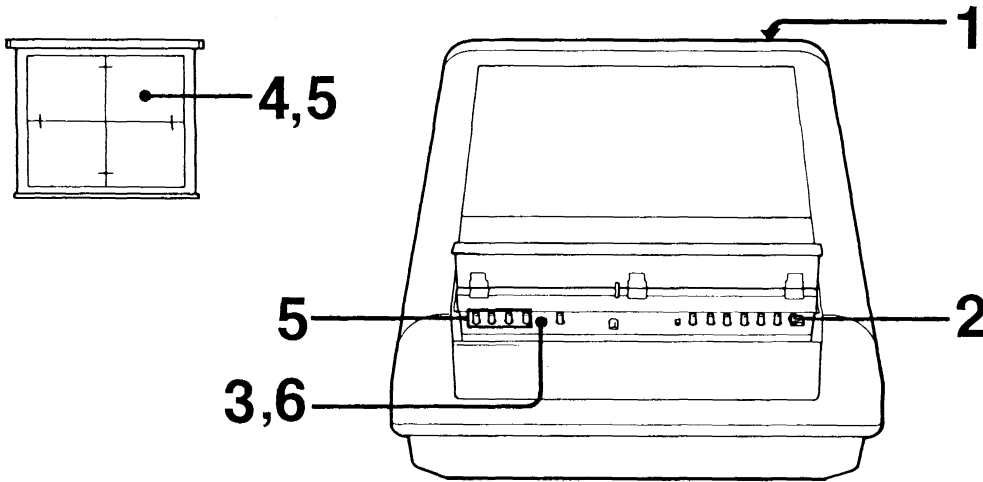
Turn both feet to adjust the angle.



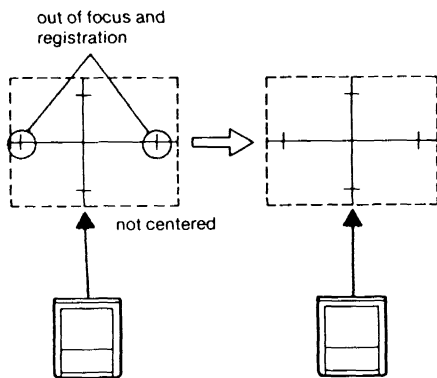
1-2. POSITION AND REGISTRATION ADJUSTMENT

Installation and preliminary adjustments should be carried out by qualified Sony personnel.

When the projector is installed on a desk or on the floor using the pedestal, it can be easily moved but it may be necessary to readjust the registration.



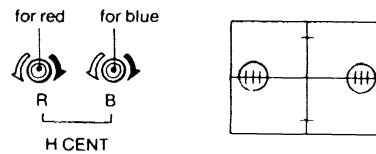
- 1 Depress the POWER switch (ON).
- 2 Depress the PROJECTOR switch (ON).
- 3 Set the NORM/TEST selector to TEST.
The built-in cross-hair test pattern will be displayed.
- 4 Check if the test pattern is centered and focused.
If not, move the projector slightly so that the pattern is clearly displayed.



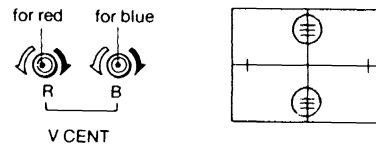
For the appropriate distance between the projector and the screen.

- 5 Adjust the H CENT and V CENT controls so that the red and blue lines converge with the green line and the test pattern is seen as white.

Turn the controls clockwise to move the red and blue vertical lines to the right; turn counterclockwise to move to the left.



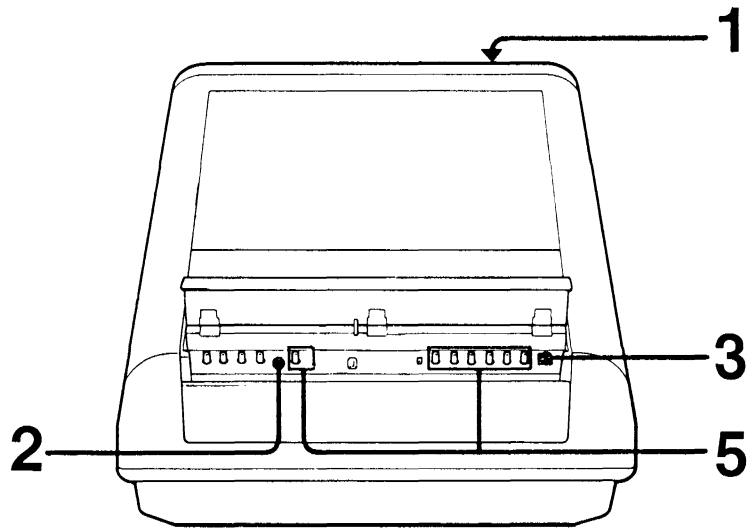
Turn the controls clockwise to move the red and blue horizontal lines upward; turn counterclockwise to move downward.



- 6 After the adjustment is complete, set the NORM/TEST selector to NORM.

1-3. PROJECTING

Operation



- 1** Depress the POWER switch (ON).
- 2** Make sure that the NORM/TEST selector is set to NORM.
- 3** Depress the PROJECTOR switch(ON).
The green POWER lamp will light.
- 4** Turn on the connected equipment.
The picture will be projected on the screen and the sound will be heard from the speaker.
- 5** Adjust the picture and sound to your preference.
See "Picture and sound adjustments" on page 9.

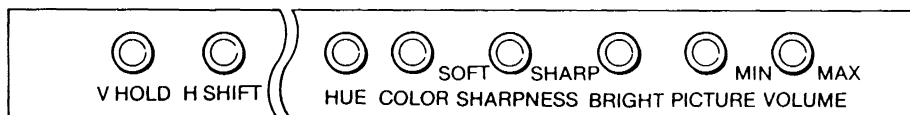
To turn off the projector

Press the PROJECTOR switch again (OFF).

To turn off the power

Press the POWER switch (OFF).

Picture and Sound Adjustments



VOLUME	Turn toward MAX to increase volume, and toward MIN to decrease it.
PICTURE	Turn clockwise to increase picture contrast, color intensity and brightness in the proper ratio, and counterclockwise to decrease them.
BRIGHT	Turn clockwise for more brightness, and counterclockwise for less.
SHARPNESS	Turn clockwise for sharp picture, and counterclockwise for soft.
COLOR	Turn clockwise for more color intensity, and counterclockwise for less.

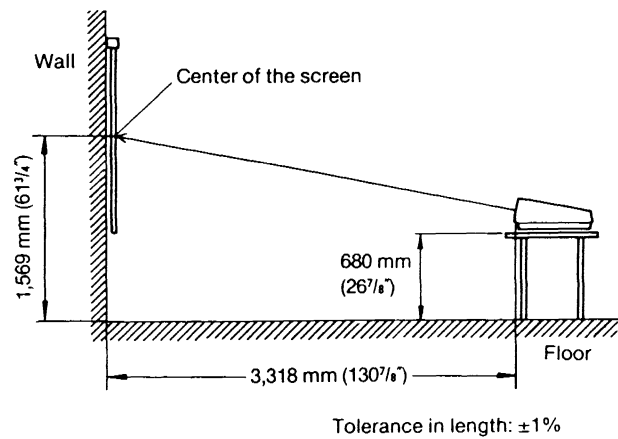
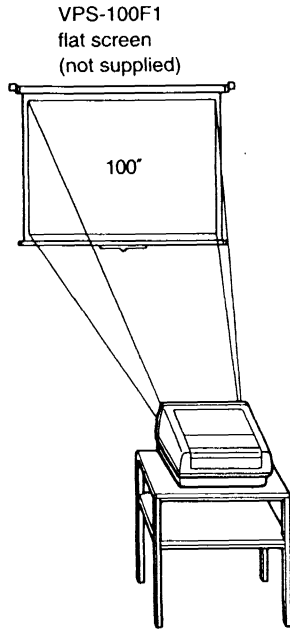
HUE	(Effective only for a program of the NTSC or NTSC4.43 color system) Turn clockwise to make the skin tones greenish, and counterclockwise to make them purplish.
H SHIFT	Turn to adjust the horizontal position of the picture.
V HOLD	If the picture rolls vertically, turn until the picture stabilizes.

1-4. INSTALLATION DIAGRAMS(1)

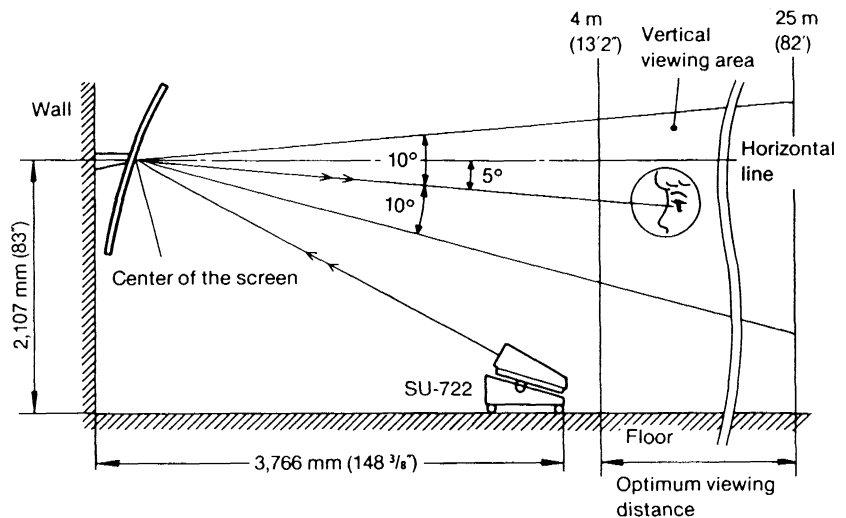
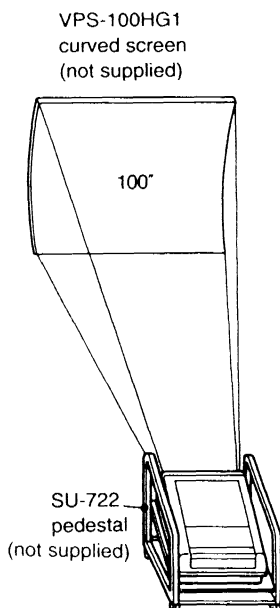
For the same type of installation in another place, no readjustment is required, although the projector should be placed in the proper position.
 The projector is preadjusted at the factory for 100" projection, and internal conversion is necessary for other projection sizes.
 For internal conversion, consult the qualified Sony personnel.

For 100" Projection

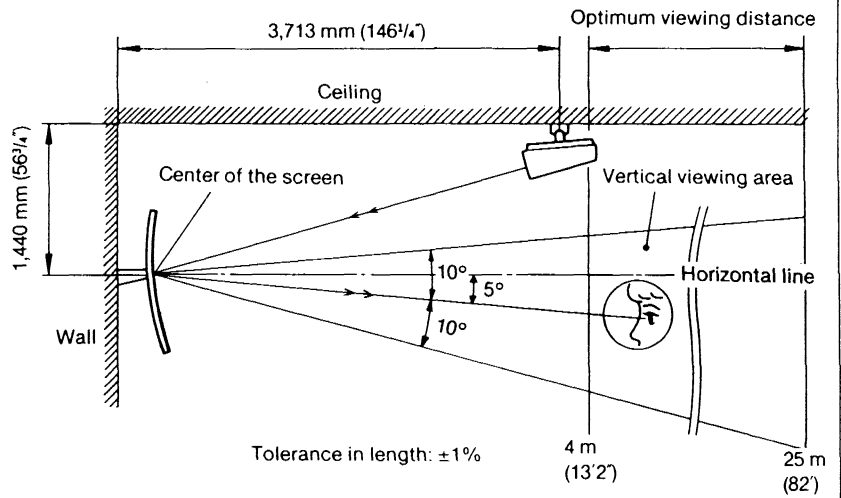
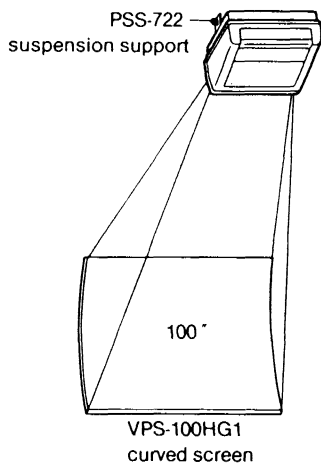
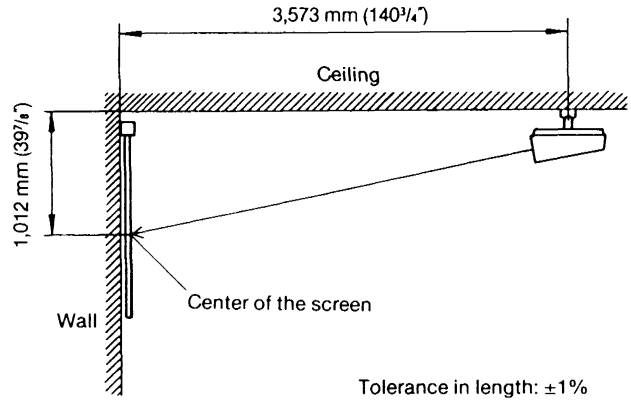
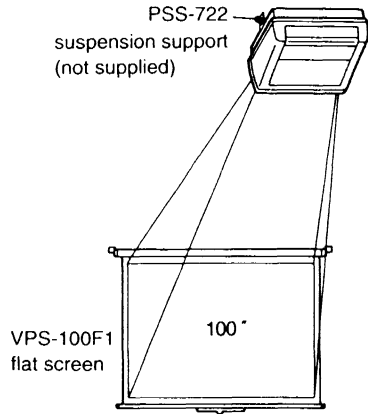
Desk



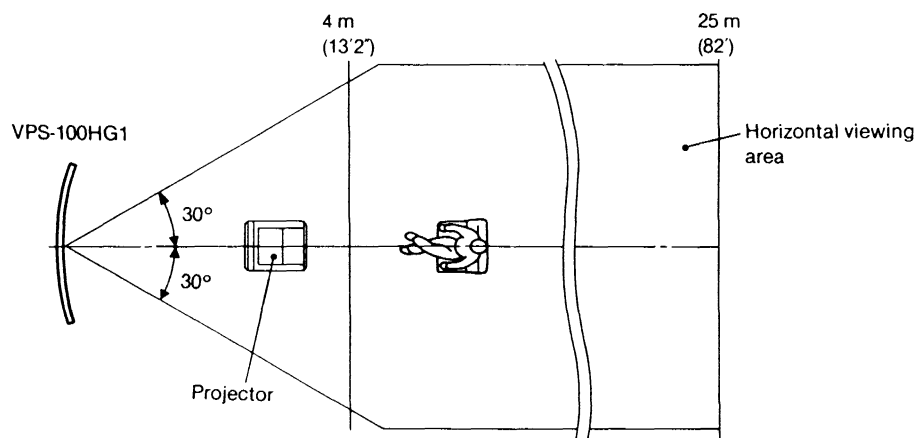
Floor



Ceiling

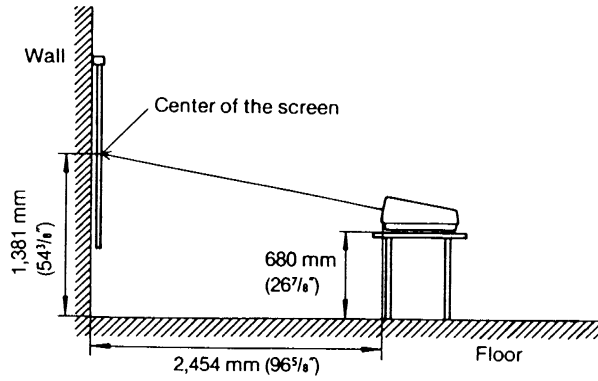
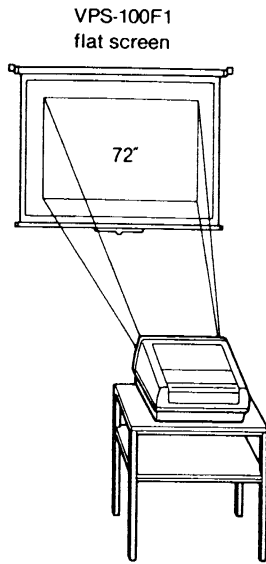


Horizontal viewing area for the VPS-100HG1



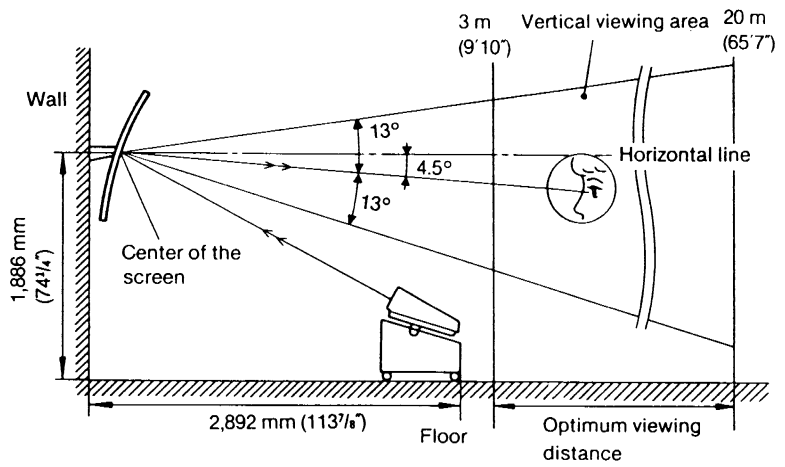
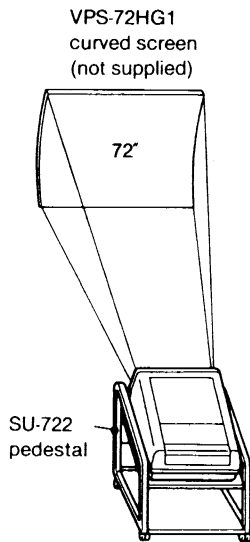
For 72" Projection

Desk



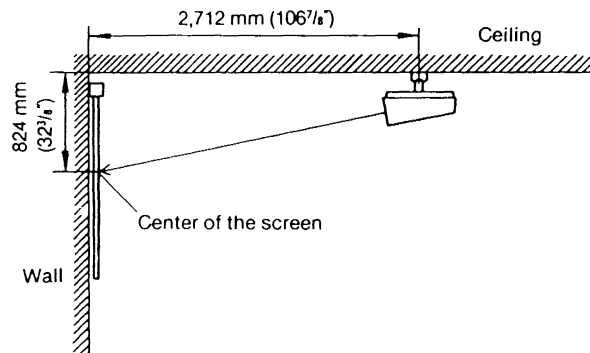
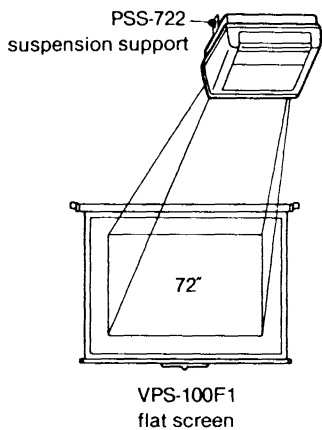
Tolerance in length: $\pm 1\%$

Floor

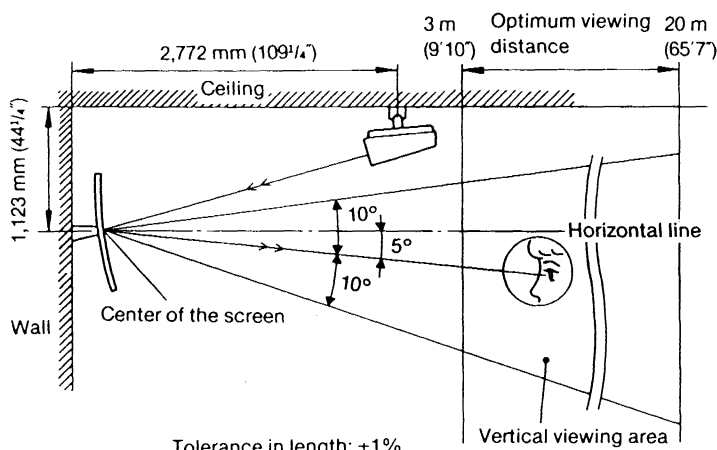
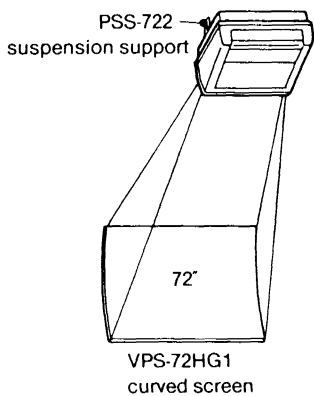


Tolerance in length: $\pm 1\%$

Ceiling

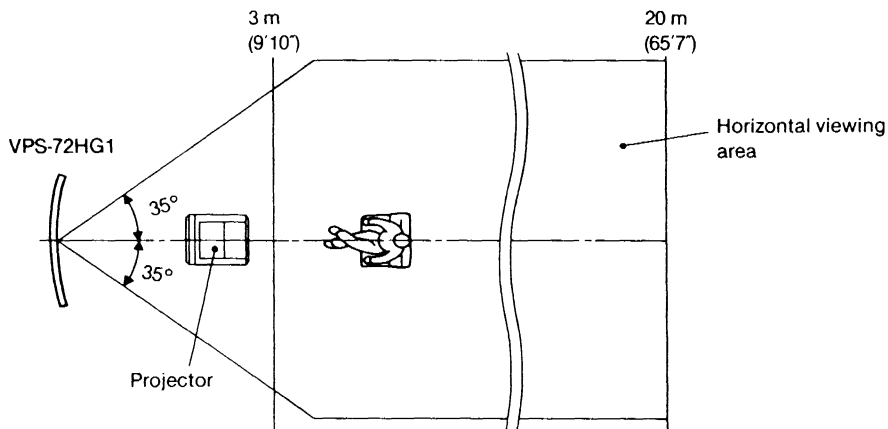


Tolerance in length: $\pm 1\%$



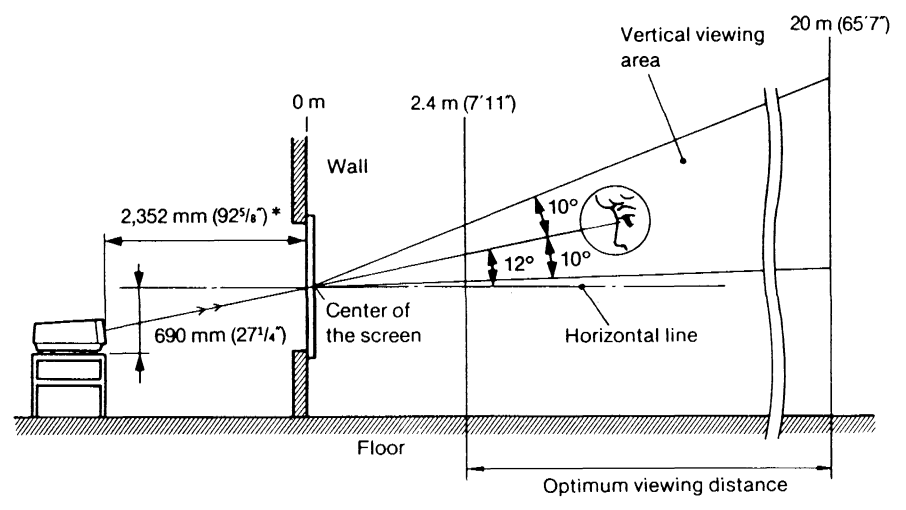
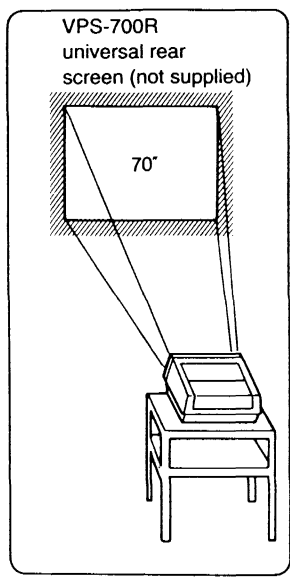
Tolerance in length: $\pm 1\%$

Horizontal viewing area for the VPS-72HG1



For 70" Rear Projection
Desk

The viewing area is set upwards.

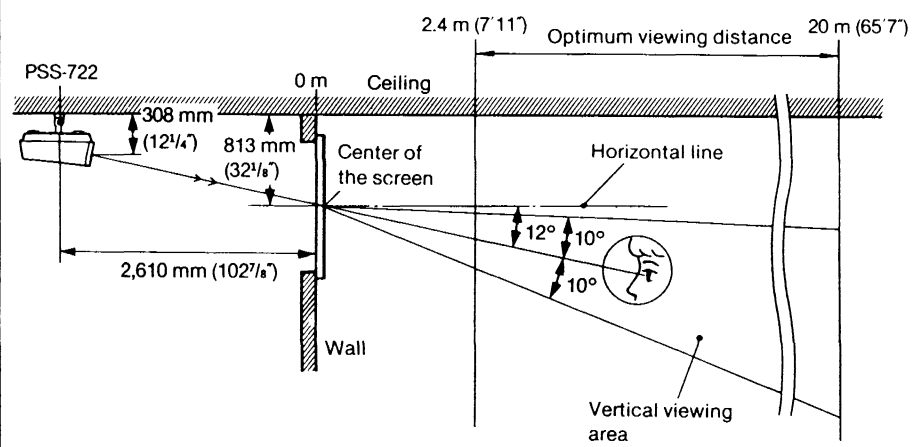
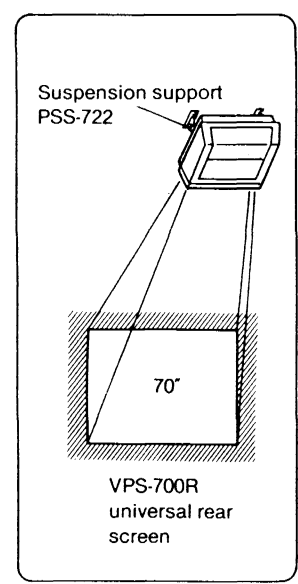


* Distance between the rear of the screen and the center of the G lens.

Tolerance in length: ±1%

Ceiling

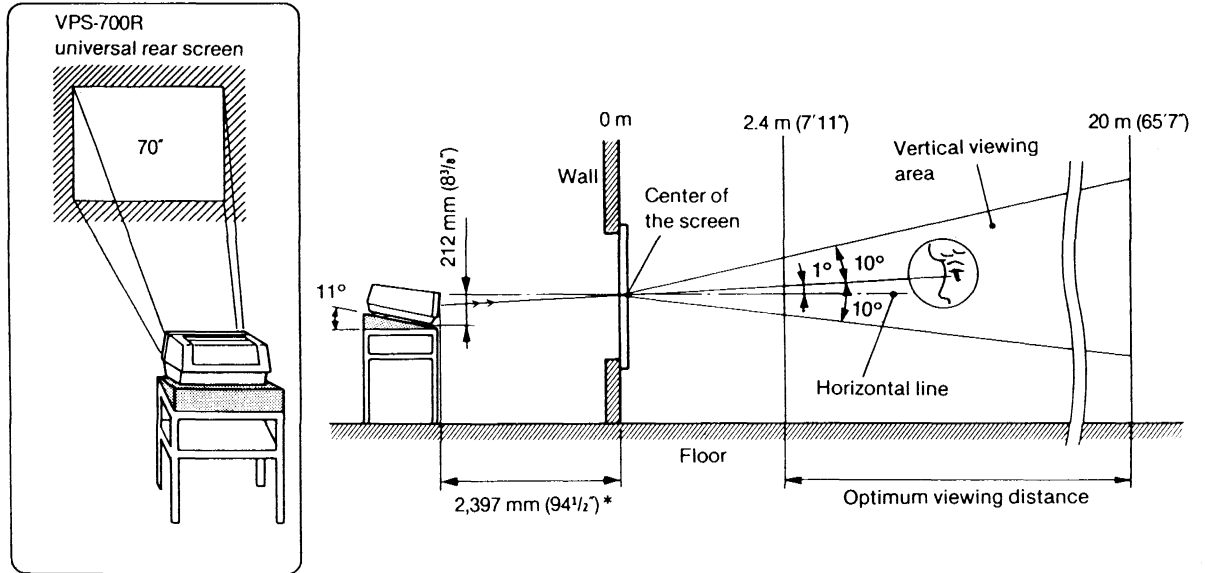
The viewing area is set downwards.



Tolerance in length: ±1%

Level Projection

The viewing area is set approximately direct (approx. 1° upward).

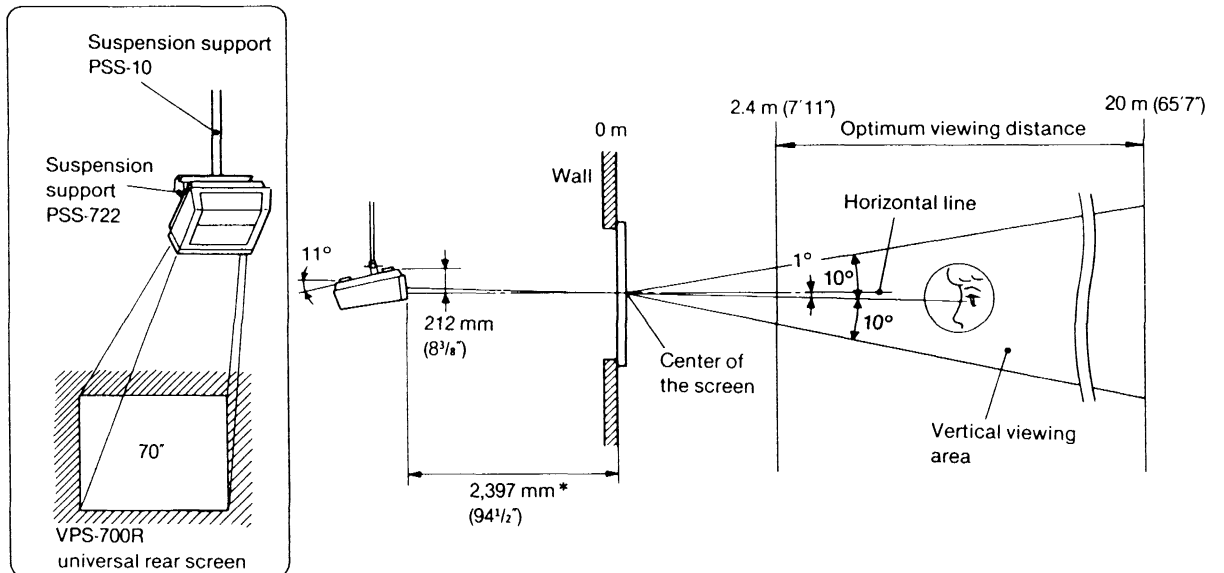


* Distance between the rear of the screen and the center of the G lens.

Tolerance in length: ±1%

Upturned Level Projection

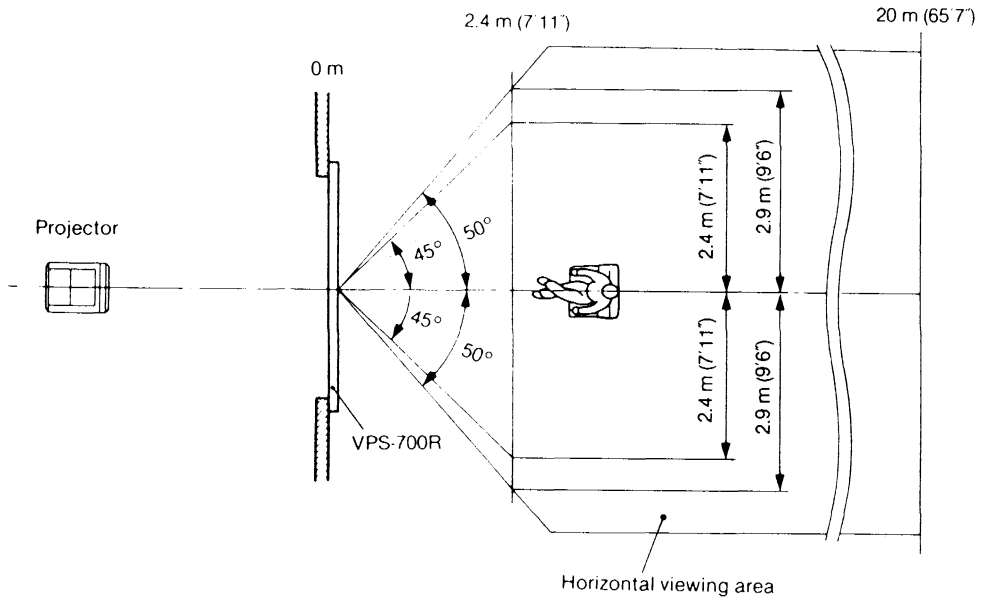
The viewing area is set approximately direct (approx. 1° downward).



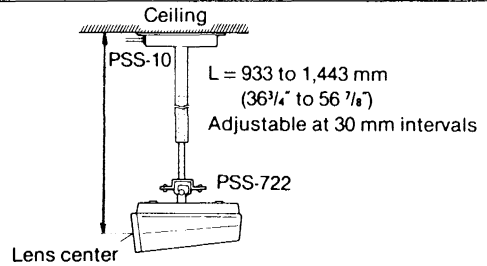
* Distance between the rear of the screen and the center of the G lens.

Tolerance in length: ±1%

Horizontal viewing area for the VPS-700R



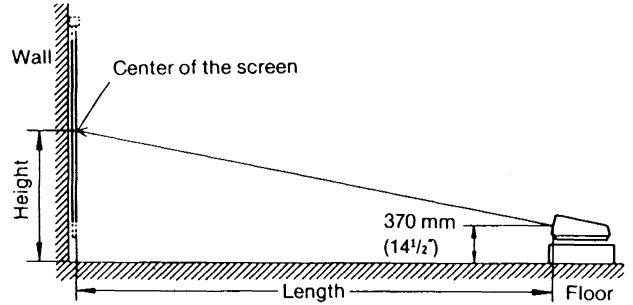
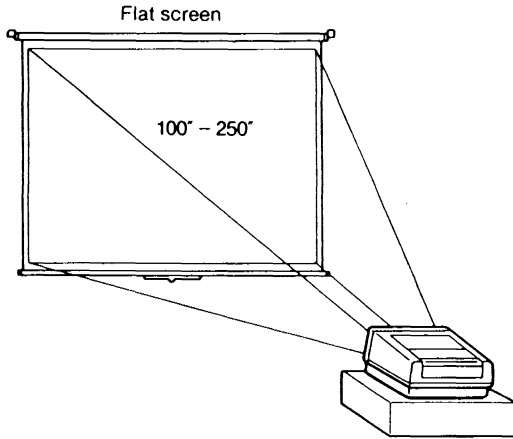
To adjust the distance between the ceiling and the projector, use the optional PSS-10 projector suspension support in combination with the PSS-722.



For 100"–250" Projection

Decide the length and height according to the size of the screen to be used.
 For a screen not described in the tables, set the length approximately 1.6 times screen width.

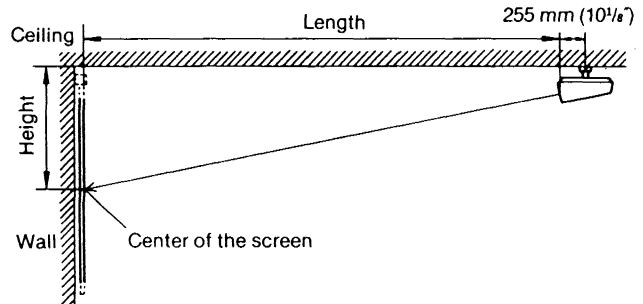
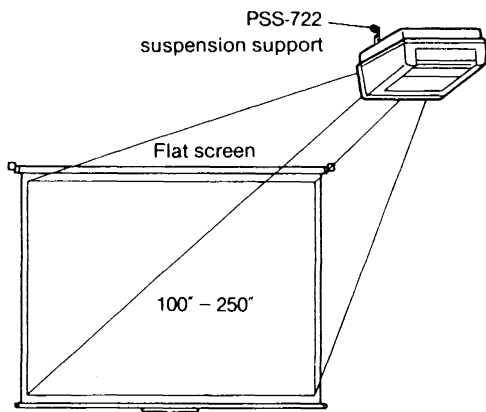
Floor



Screen size	150 inches	200 inches	250 inches
Length mm	4850 (191')	6410 (252½')	7960 (313½')
Height mm	1410 (55½')	1740 (68½')	2080 (82')

Tolerance in length: ±1%

Ceiling



Screen size	150 inches	200 inches	250 inches
Length mm	4850 (191')	6410 (252½')	7960 (313½')
Height mm	1350 (53¼')	1680 (66¼')	2020 (79½')

Tolerance in length: ±1%

To use 150" to 250" screens, the projector should be converted for 200" projection. For conversion, consult the qualified Sony personnel.

To transport the projector, use the VLC-1040 carrying case (not supplied).

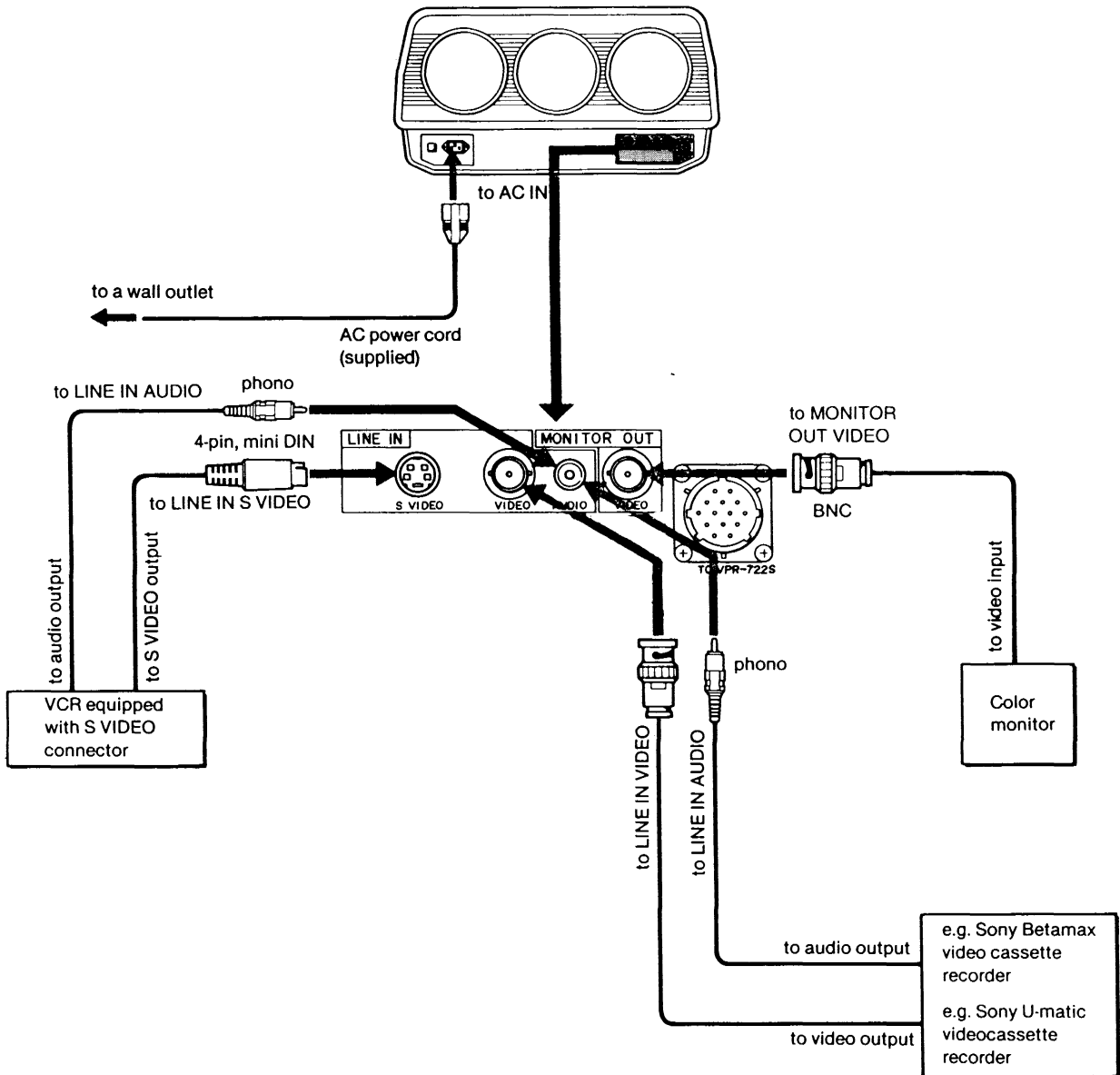


1-5. SYSTEM CONNECTIONS

Notes on Connections

- First make sure that the power to each piece of equipment is turned off.
- The cable connectors should be fully inserted into the jacks. A loose connection may cause hum and noise.
- To disconnect the cable, pull it out by grasping the plug. Never pull the cable itself.
- Use suitable connecting cables according to the equipment to be connected.
- For connection to the VIDEO IN and TO VPR-722S connectors, the connecting cable may be extended to max. 50 m (164 feet 1/2 inch). If the connecting cable is longer than 50 m, picture quality may be impaired somewhat.
- Read the instruction manual of the equipment to be connected.

Connection without Using the Remote controller

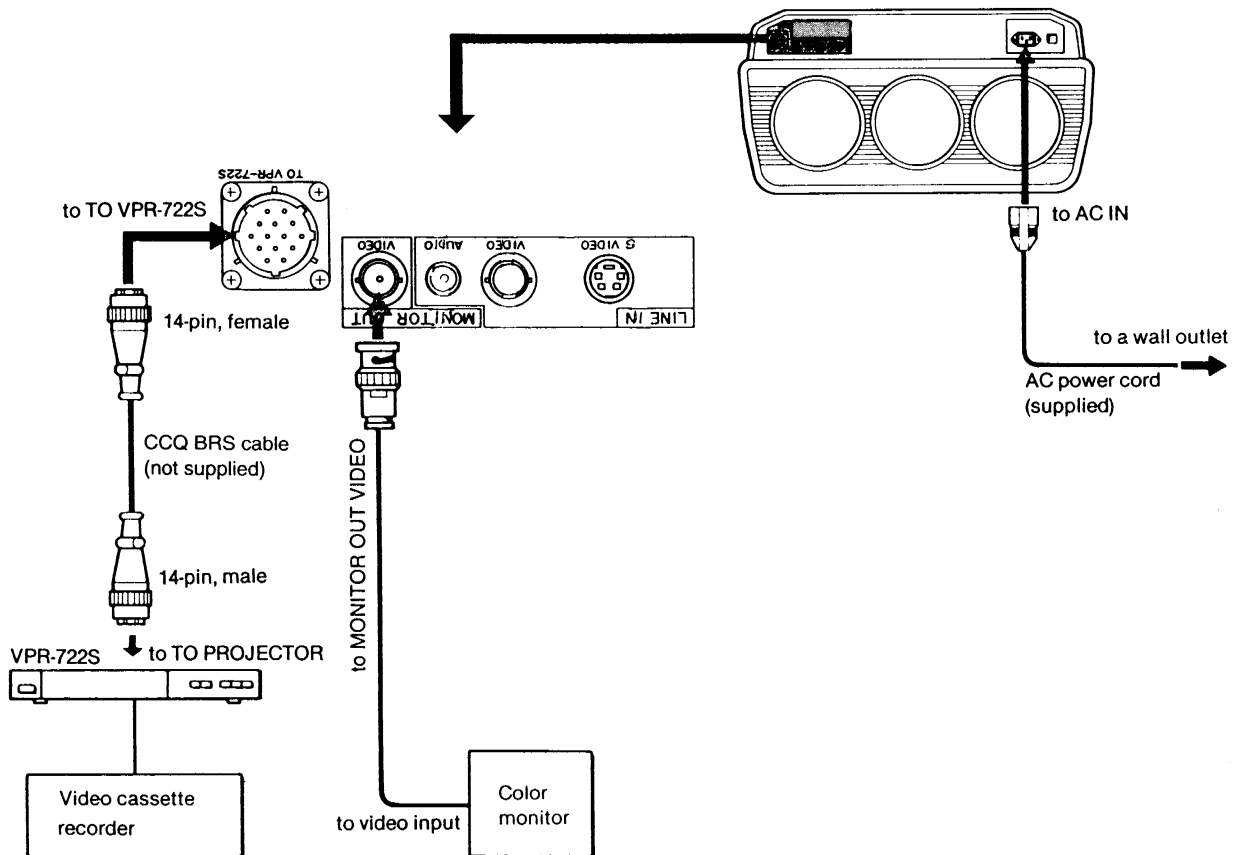


Using the Remote Controller

Use the VPR-722S remote controller (not supplied) when the projector is installed on the ceiling or when you want to operate the projector at a distance from your seat.

Remote Controllable Operations

- Power on/off
- Picture and sound adjustments

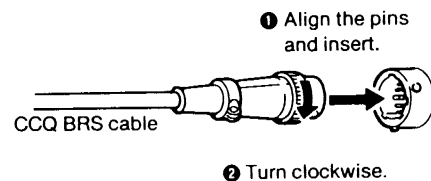


Notes

When the remote controller is connected to the TO VPR-722S connector:

- The LINE IN S VIDEO, VIDEO and AUDIO connectors are disconnected automatically.
- The following controls and switches do not function with the controller connected:
PROJECTOR, HUE, COLOR, SHARPNESS, BRIGHT, PICTURE, VOLUME .

14-pin connector

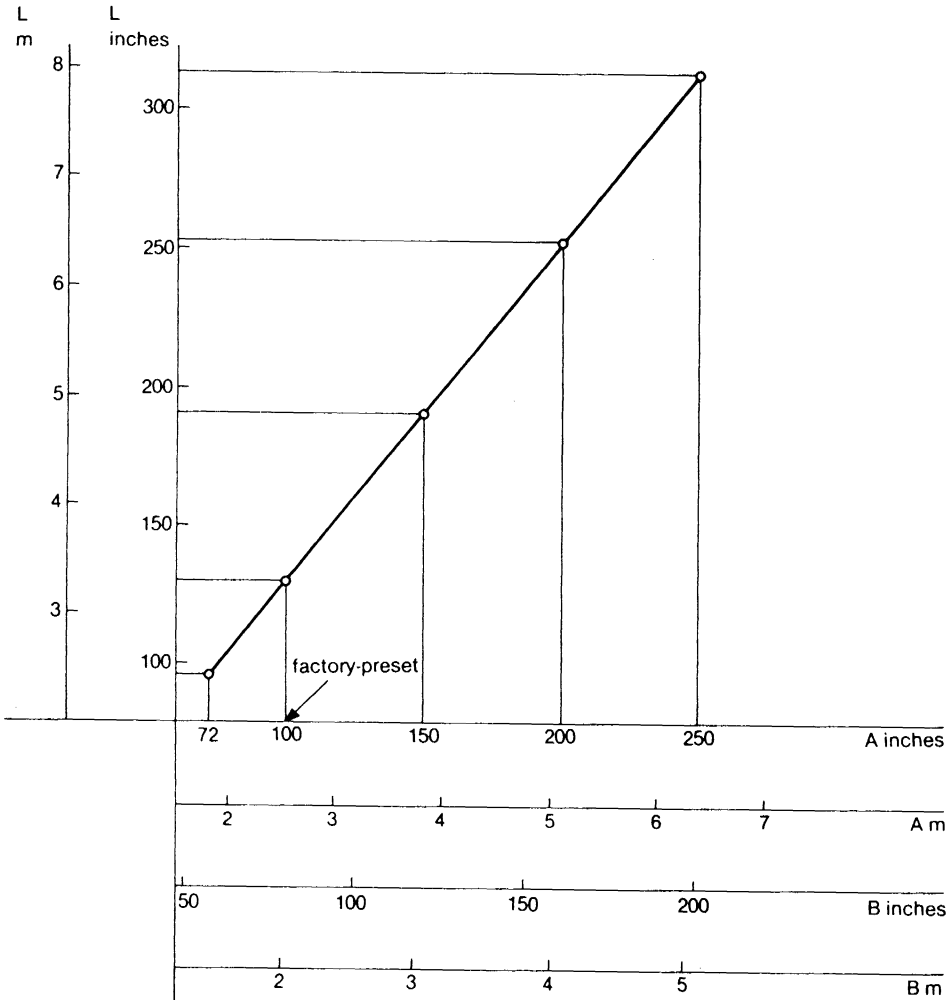


1-6. INSTALLATION DIAGRAMS (2)

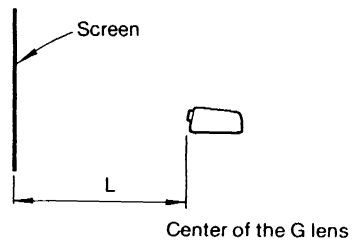
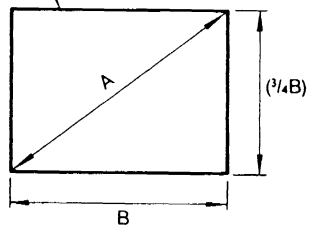
Type 13
and
Type 14

100" - 250" projection

For a screen not described on page 10, use the following graph to decide the distance between the screen and projector (L).



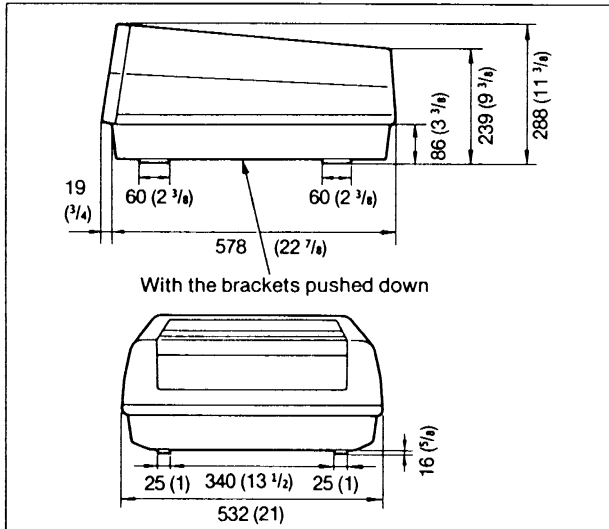
Viewable area of the screen



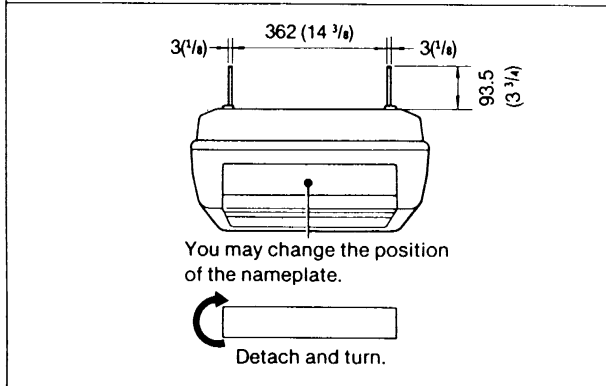
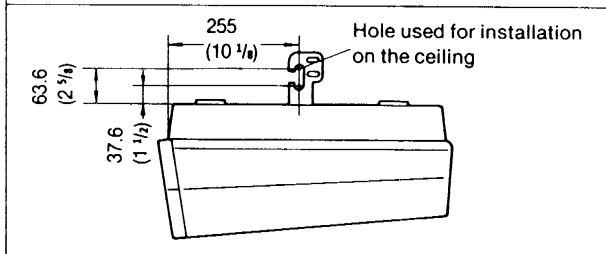
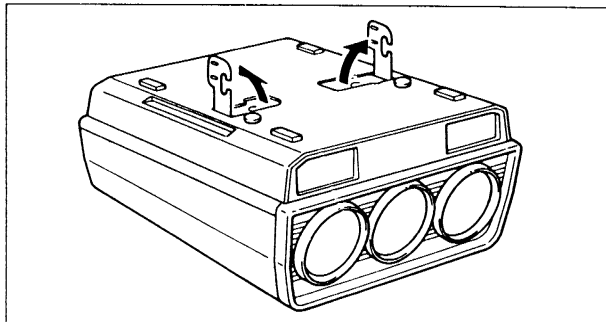
1-7. NOTES ON INSTALLATION

Projector's Dimensions

Unit: mm (inches)

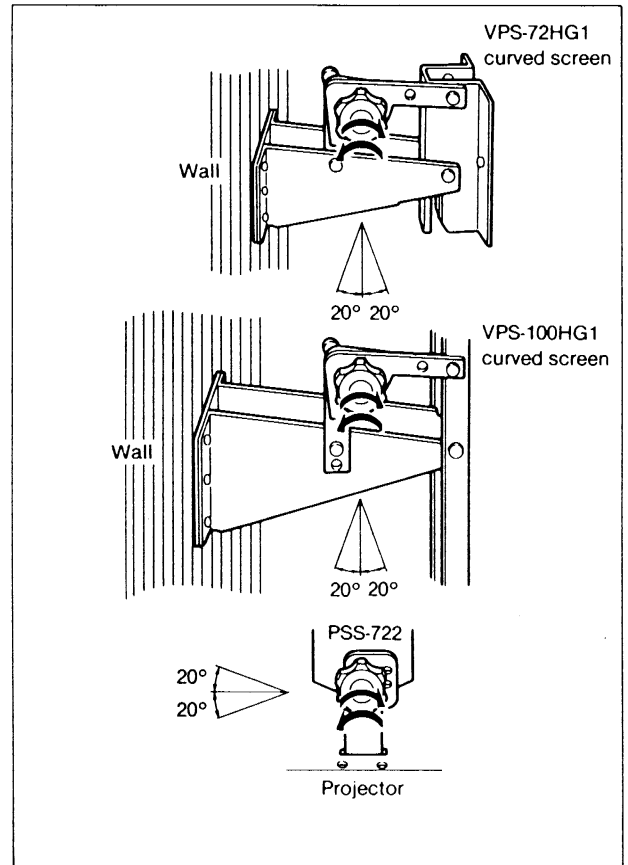


Raise the brackets when installing the projector on the ceiling or floor.



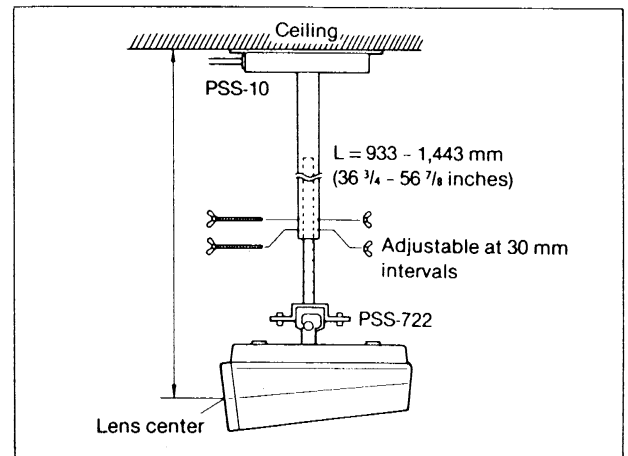
To Adjust the Angle of the Screen/Projector

Loosen the knobs, adjust the angle, then tighten the knobs down firmly.



When the PSS-10 projector suspension support (optional) is used in combination with the PSS-722

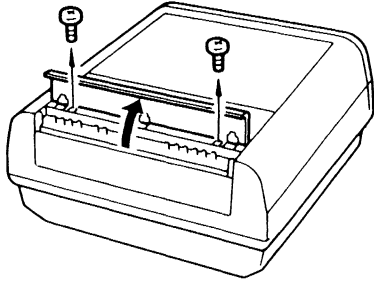
The PSS-10 allows you to adjust the distance between the ceiling and the projector.



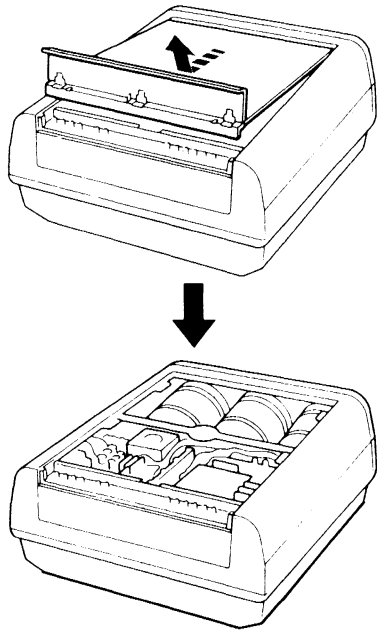
To Open the Top Panel

You will need a medium size Phillips head screwdriver.

- 1 Open the control panel cover.
- 2 Remove the two screws.



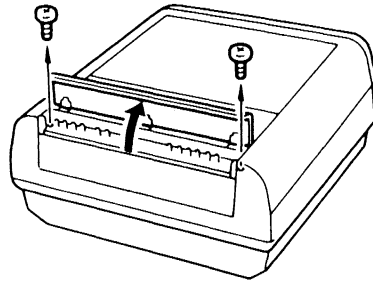
- 3 Pull the top panel slightly toward you and remove it.



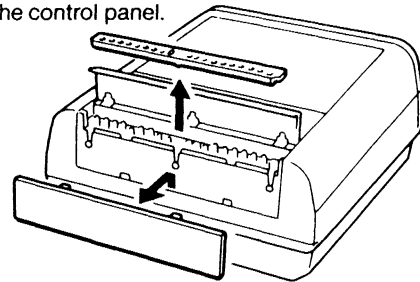
To Open the Cabinet

Open the cabinet when changing the voltage selector setting and when converting the unit for 200' projection.

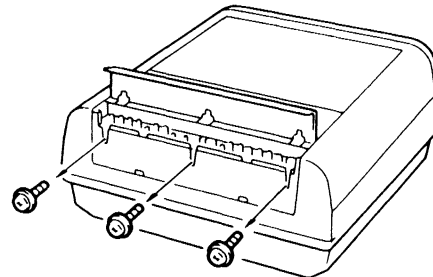
- 1 Open the control panel cover.
- 2 Remove the two screws on the control panel.



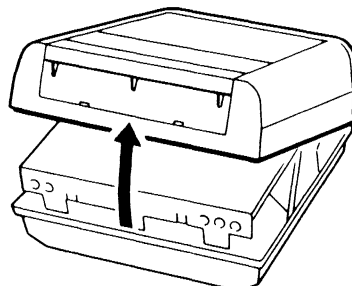
- 3 Slide the nameplate upward and pull it toward you to remove.
- 4 Remove the control panel.



- 5 Remove the three screws.



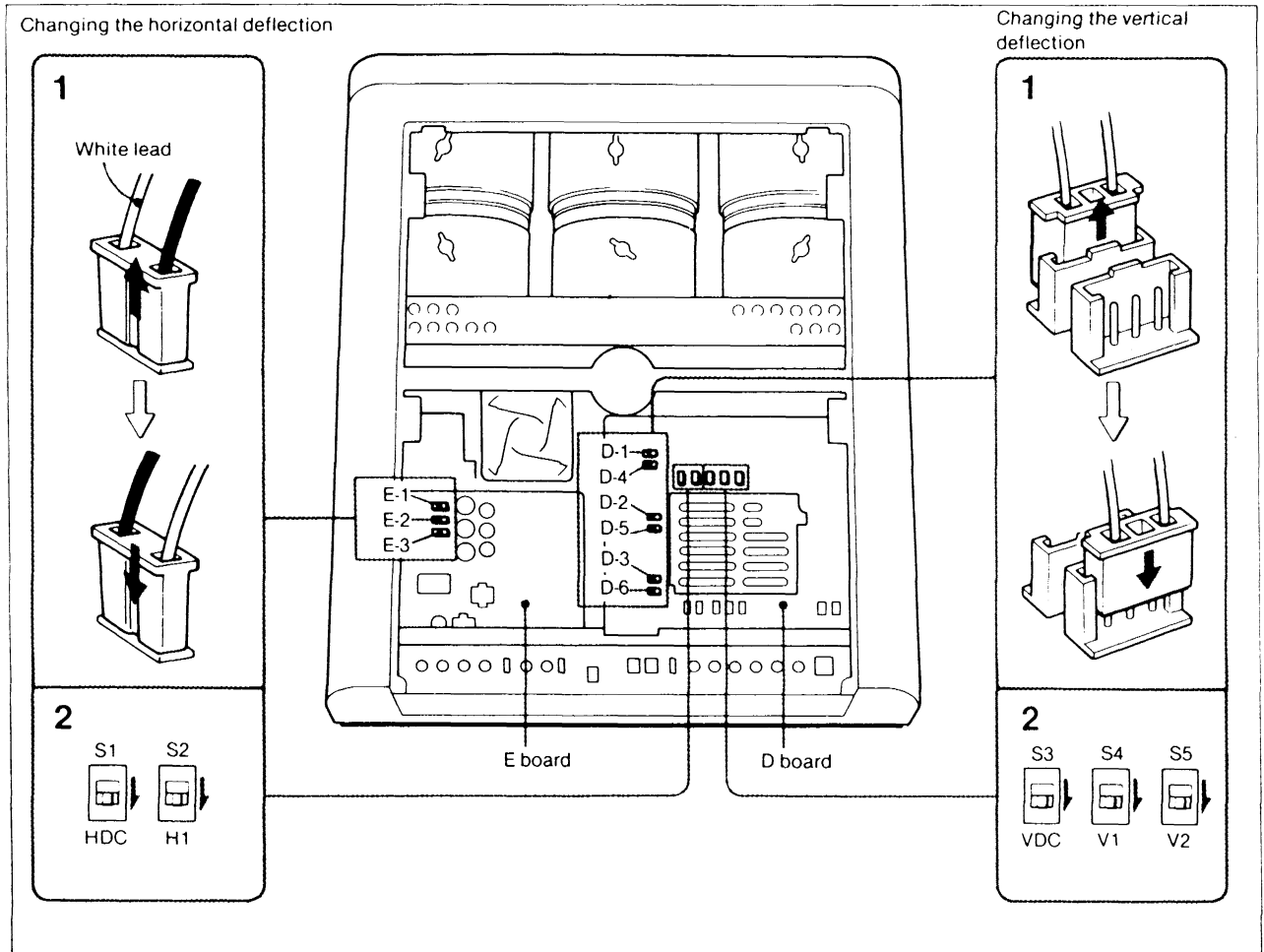
- 6 Raise the cabinet to remove.



1-8. POLARITY CHANGE

The projector is preadjusted at the factory for the front projection facing the screen, on desk or floor. When the projector is installed on the ceiling with the bracket side up or used for the rear projection, the polarity should be changed. Horizontal and/or vertical deflection should be changed depending on the type of projection and installation location.

Projection type	Installation location	Type of installation	Horizontal deflection change	Vertical deflection change
Front projection	Ceiling	3 4 7 8 14	Necessary	Necessary
Rear projection	Desk, floor or level projection	9 11	Necessary	Unnecessary
	Ceiling or upturned level projection	10 12	Unnecessary	Necessary



Preparations

- Make sure that power is not connected.
- Open the top panel.

To change the horizontal deflection

- 1 Reverse the polarity of connectors E-1, E-2 and E-3 on E board.
- 2 Set switches S1 and S2 on D board to the control panel side position.

To change the vertical deflection

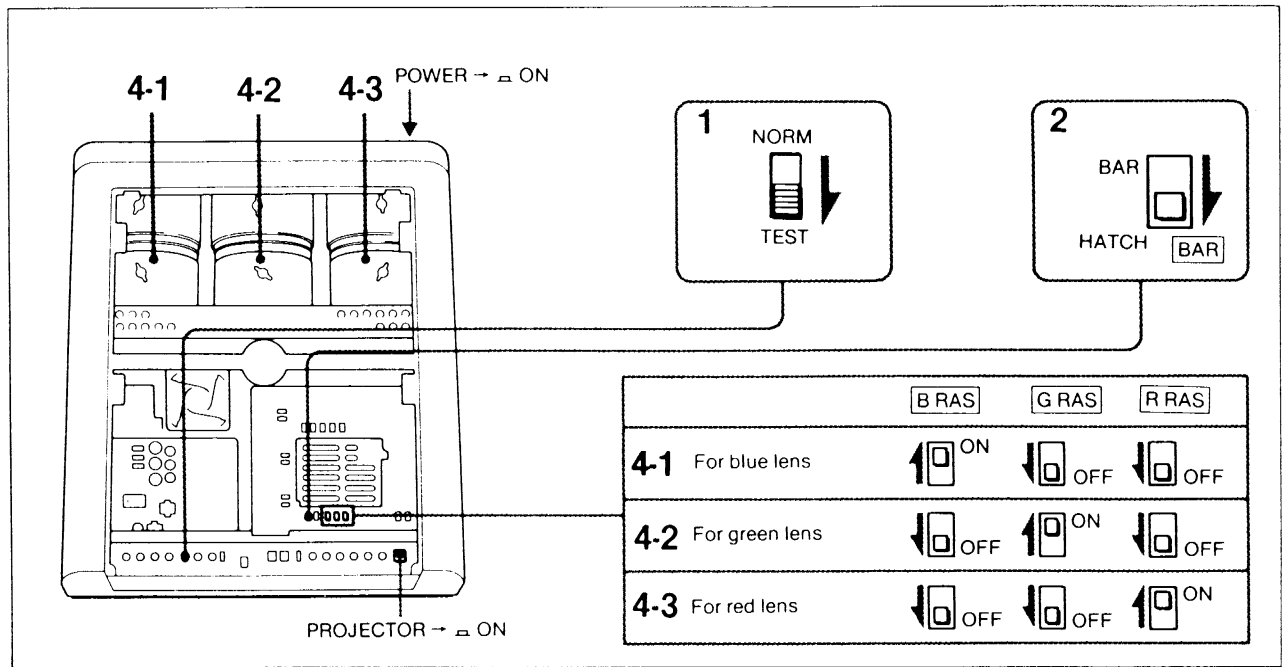
- 1 Move the connectors on D board from receptacles D-1, D-2 and D-3 to receptacles D-4, D-5 and D-6, respectively.
- 2 Set switches S3, S4 and S5 on D board to the control panel side position.

Note

Check that the connectors are inserted firmly, then proceed to lens focus adjustment with the projector's top panel removed.

1-9. LENS FOCUS ADJUSTMENT

The lens focus is preadjusted at the factory for 100" flat screen. For other type screens, the lens focus should be adjusted.

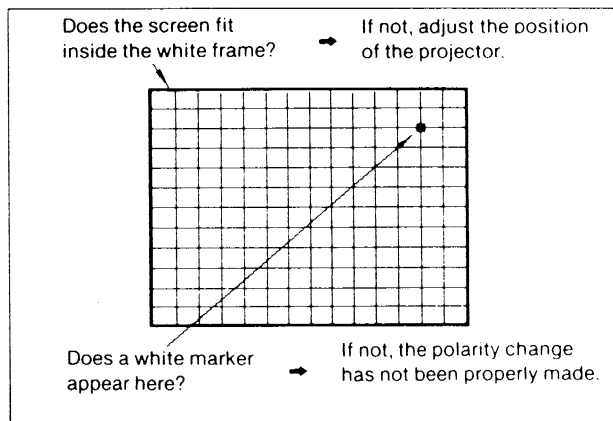


Preparations

- Install the projector in the correct position on the floor or ceiling.
- Connect the supplied power cord to the AC IN socket and to an AC outlet, depress the POWER switch on the connector panel and the PROJECTOR switch. The green POWER lamp will light.
- Open the top panel.

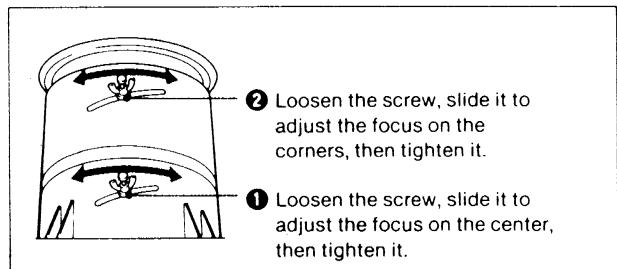
Adjustment

- 1 Set the NORM/TEST switch to TEST.
- 2 Set the BAR switch to HATCH.
- 3 A cross hatch pattern will be displayed. Check the following.



4 Adjust the lens focus.

For adjusting each lens, first set the B RAS, G RAS and R RAS switches as illustrated above, then adjust the lens as illustrated below.



Proceed to registration adjustment.

1-10. REGISTRATION ADJUSTMENT

Use a small screwdriver to adjust the controls through the holes.

Screen size	MODEL SELECT	SIZE SELECT
72" (70" - 85")	100	
100" (85" - 125")	100	
150" (125" - 175")	200	
200" (175" - 250")	200	

For registration of:	B RAS	G RAS	R RAS
red and green			
blue and green			

Controls for registration adjustment
The circled numbers refer to the sequence of adjustment.

GV

GH

These controls are used for the reference green picture readjustment. If readjustment is necessary, consult the qualified Sony personnel.

RV

RH

BV

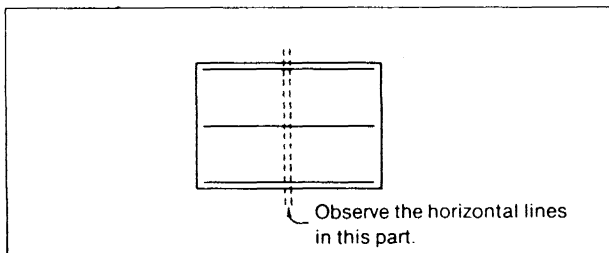
BH

Preparations

- Keep the G RAS switch at ON and set the B RAS and R RAS switches to OFF. A green cross hatch pattern will be displayed.
- Check the position of the projector, polarity and lens focus referring to page 23-24.
- Set the MODEL SELECT and SIZE SELECT switches according to the screen size.
Set the MODEL SELECT switch to 100 for 70" - 125" projection, and to 200 for 125" - 250" projection.
Set the SIZE SELECT switch to NORMAL for 85" - 125" and 175" - 250" projection, and to 150/72 for 70" - 85" and 125" - 175" projection.

Vertical registration of the red and green pictures

- 1 Set the B RAS switch to OFF and the G RAS and R RAS switches to ON.
- 2 Adjust the RV CENT control so that the red horizontal lines and the green horizontal lines converge in the middle of the screen.
- 3 Adjust the RV SIZE control (and the RV LIN control, if necessary) so that the red horizontal lines and the green horizontal lines converge at the upper and lower sides of the screen.

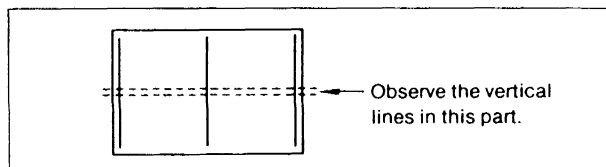


(Repeat steps 2 and 3 as necessary.)

- 4 Adjust the RV SKEW and RV BOW controls if the red horizontal lines and the green horizontal lines do not converge in the middle of the screen.
- 5 Adjust the RV TILT-1 through TILT-4 controls so that the red horizontal lines and the green horizontal lines converge in the corners of the screen.

Horizontal registration of the red and green pictures

- 6 Adjust the RH CENT control so that the red vertical lines and the green vertical lines converge in the middle of the screen.
- 7 Adjust the RH SIZE control (and the RH LIN control, if necessary) so that the red vertical lines and the green vertical lines converge at the right and left sides of the screen.



(Repeat steps 6 and 7 as necessary.)

- 8 Adjust the RH SKEW and RH BOW controls so that the red vertical lines and the green vertical lines converge in the middle of the screen.
- 9 Adjust the RH TILT-1 through TILT-4 controls so that the red vertical lines and the green vertical lines converge at the corners of the screen.

Proceed to the following adjustments in the same manner as with red and green registration, setting the R RAS switch to OFF and the B RAS and G RAS switches to ON.

Vertical registration of the blue and green pictures

- 10 Adjust the BV CENT control.
- 11 Adjust the BV SIZE control, and BV LIN if necessary.
- 12 Adjust the BV SKEW and BV BOW controls, if necessary.
- 13 Adjust the TILT-1 through TILT-4 controls.

Horizontal registration of the blue and green pictures

- 14 Adjust the BH CENT control.
- 15 Adjust the BH SIZE control, and BH LIN if necessary.
- 16 Adjust the BH SKEW and BH BOW controls.
- 17 Adjust the BH TILT-1 through TILT-4 controls.

When registration is complete

Set the switches to the following positions.

R, G, B RAS switches →ON position

BAR switch →BAR

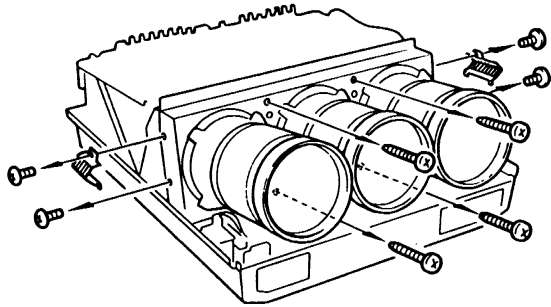
NORM/TEST switch →NORM

Replace the top panel.

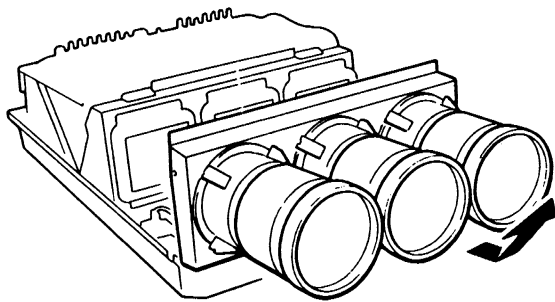
1-11. CONVERSION FOR 200"(150" – 250") PROJECTION

1 Separate the lens block from the main body.

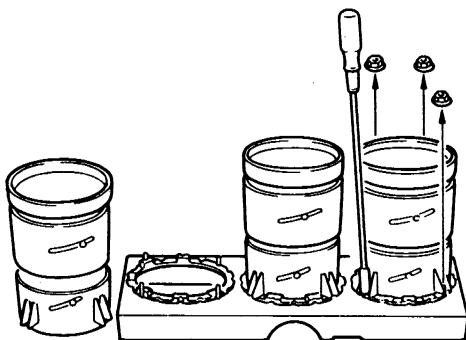
- ① Open the cabinet.
- ② Remove the 4 screws from the sides of the projector.
- ③ Remove the 4 screws from the lens base.



- ④ Pull the lens block out.

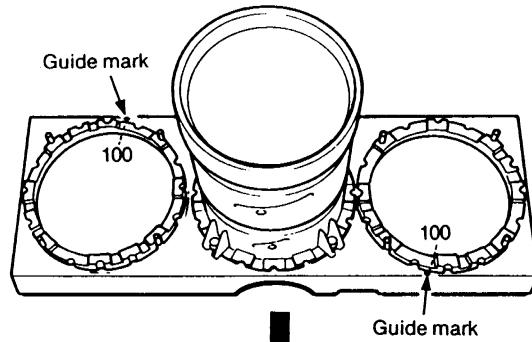


- ⑤ Remove the 4 nuts and detach the red and blue lenses from the lens base. Use an 8 mm nutdriver.

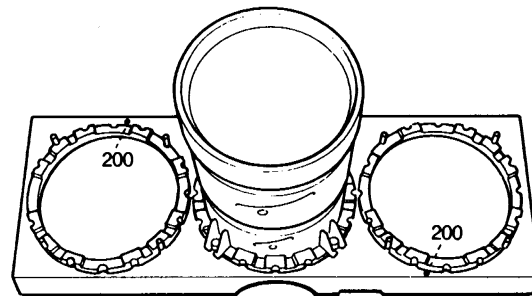
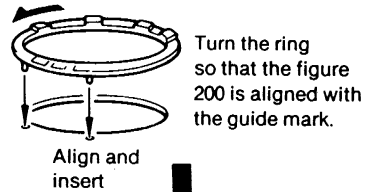


2 Change the positions of the lens rings.

For 100' (and 72') projection



For 200" projection



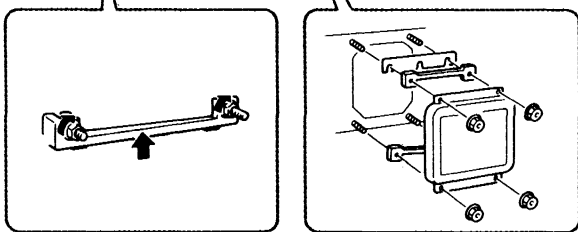
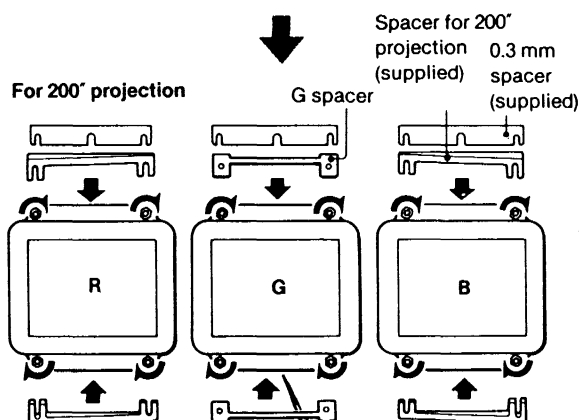
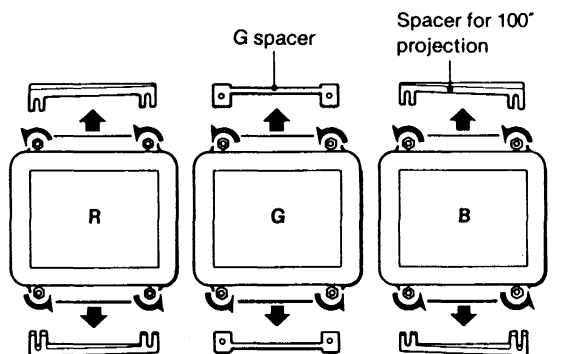
3 Adjust the mounting angles of the CRTs.

Use an 8 mm nutdriver.

- ❶ Loosen the nuts and remove all the spacers from the top and bottom of each lens.
- ❷ Insert the supplied spacers for 200" projection, 0.3 mm spacers and G spacers as follows:
R and B lenses: A spacer for 200" and a 0.3 mm spacer for the top; a spacer for 200" for the bottom
G lens: A G spacer removed in step ❶ and a 0.3 mm spacer for the top; a G spacer removed in step ❶ for the bottom
 Insert the spacers for 200" with the thinner end toward the center CRT.
- ❸ Tighten, all the nuts completely for accurate angles of the lenses.

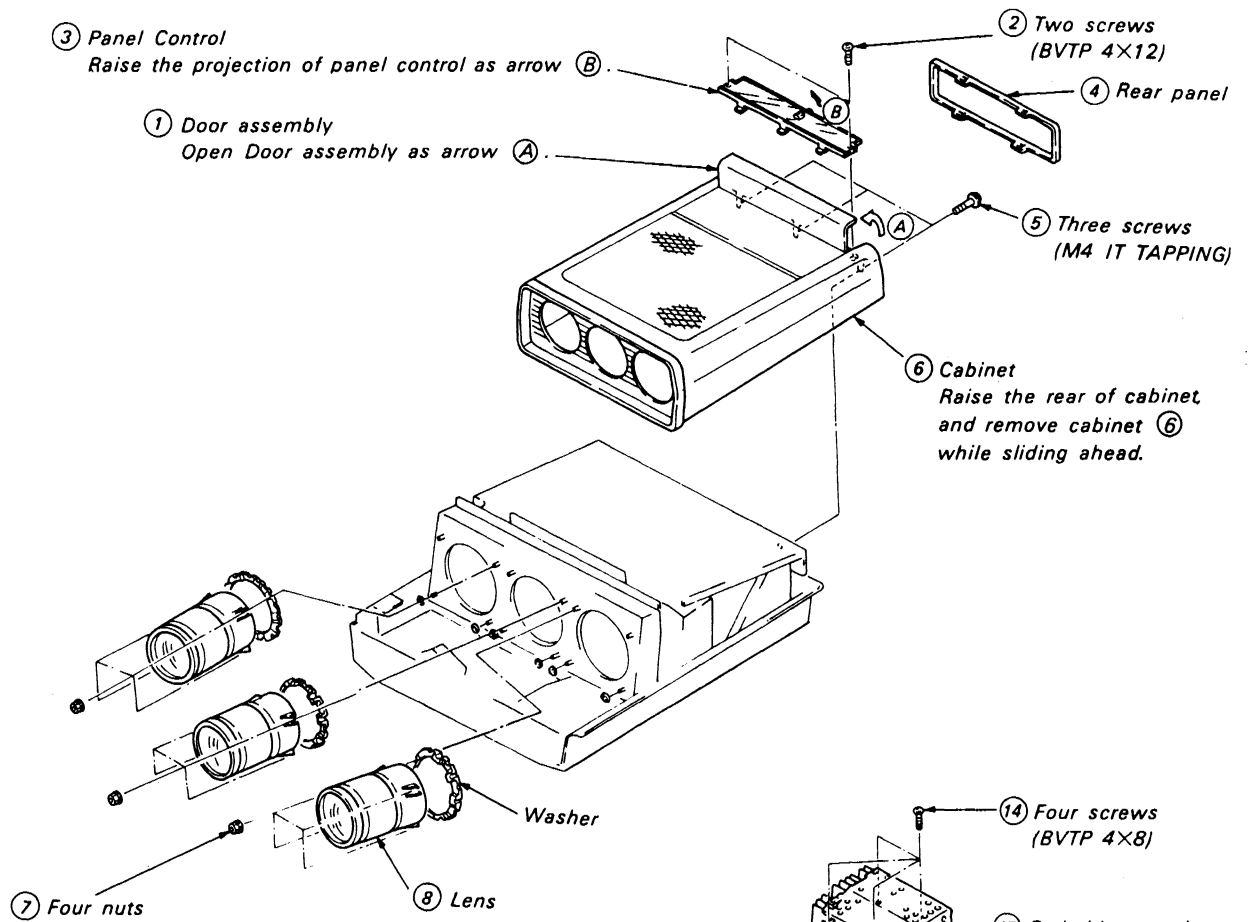
After adjustment is complete, replace the lens block in the main body and close the cabinet.

For 100" (and 72") projection

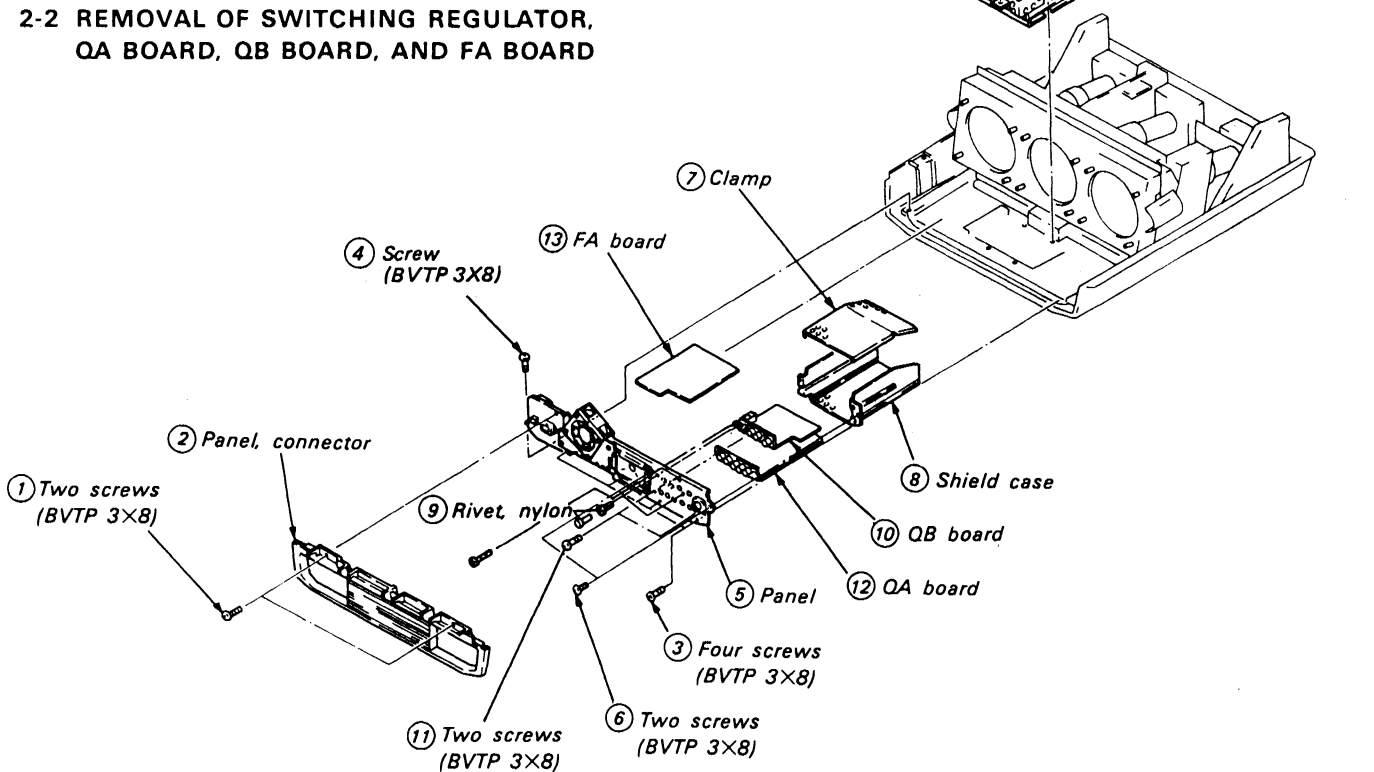


SECTION 2 DISASSEMBLY

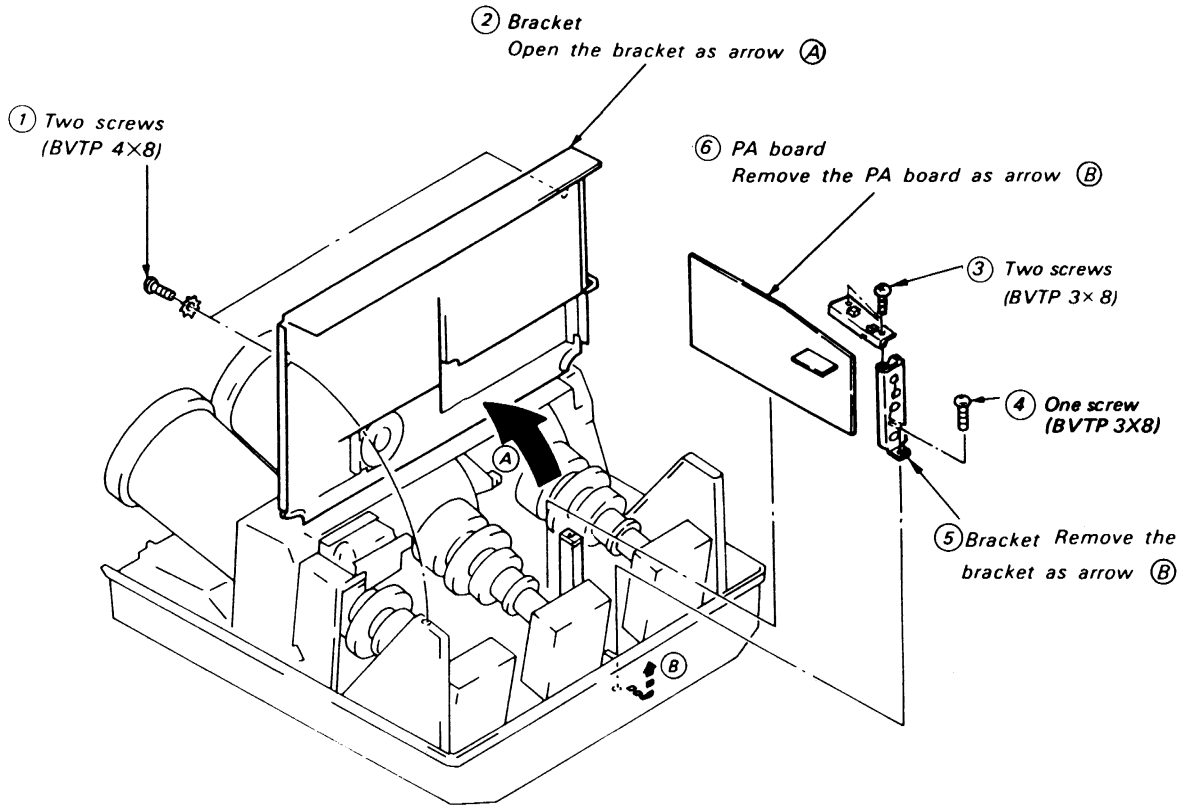
2-1. REMOVAL OF CABINET AND LENS



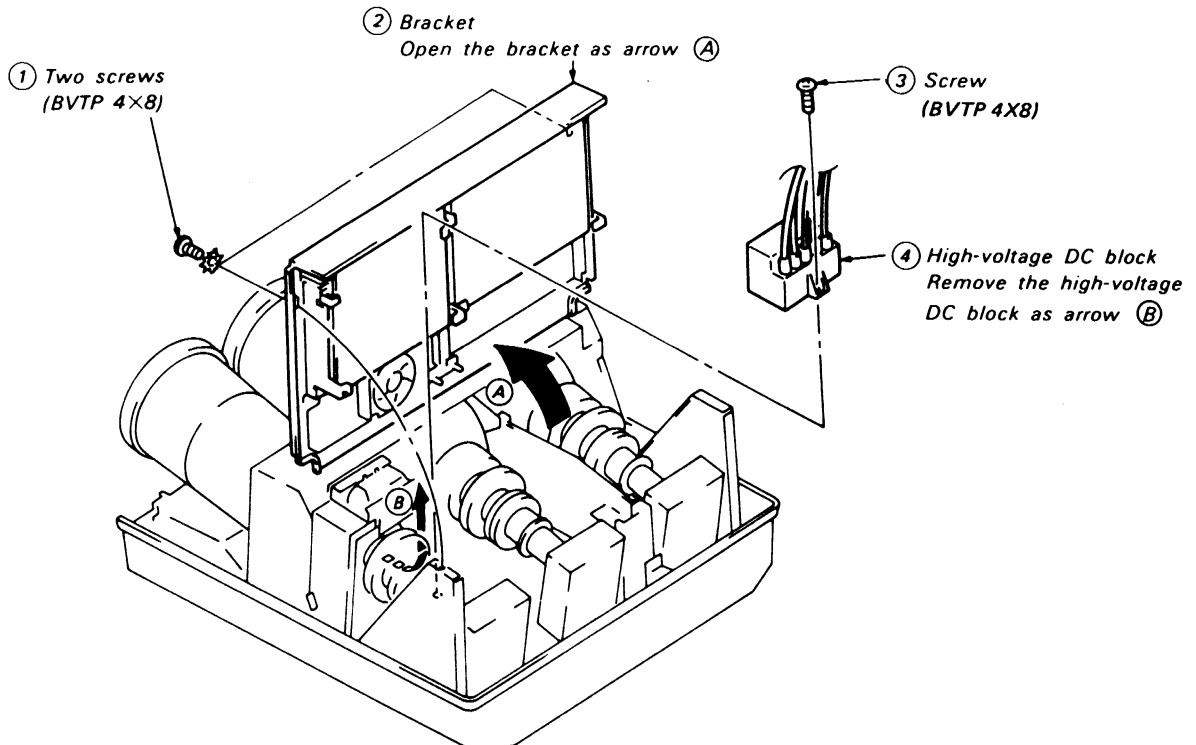
2-2 REMOVAL OF SWITCHING REGULATOR, QA BOARD, QB BOARD, AND FA BOARD



2-3 REMOVAL OF PA BOARD



2-4 REMOVAL OF HIGH-VOLTAGE DC BLOCK

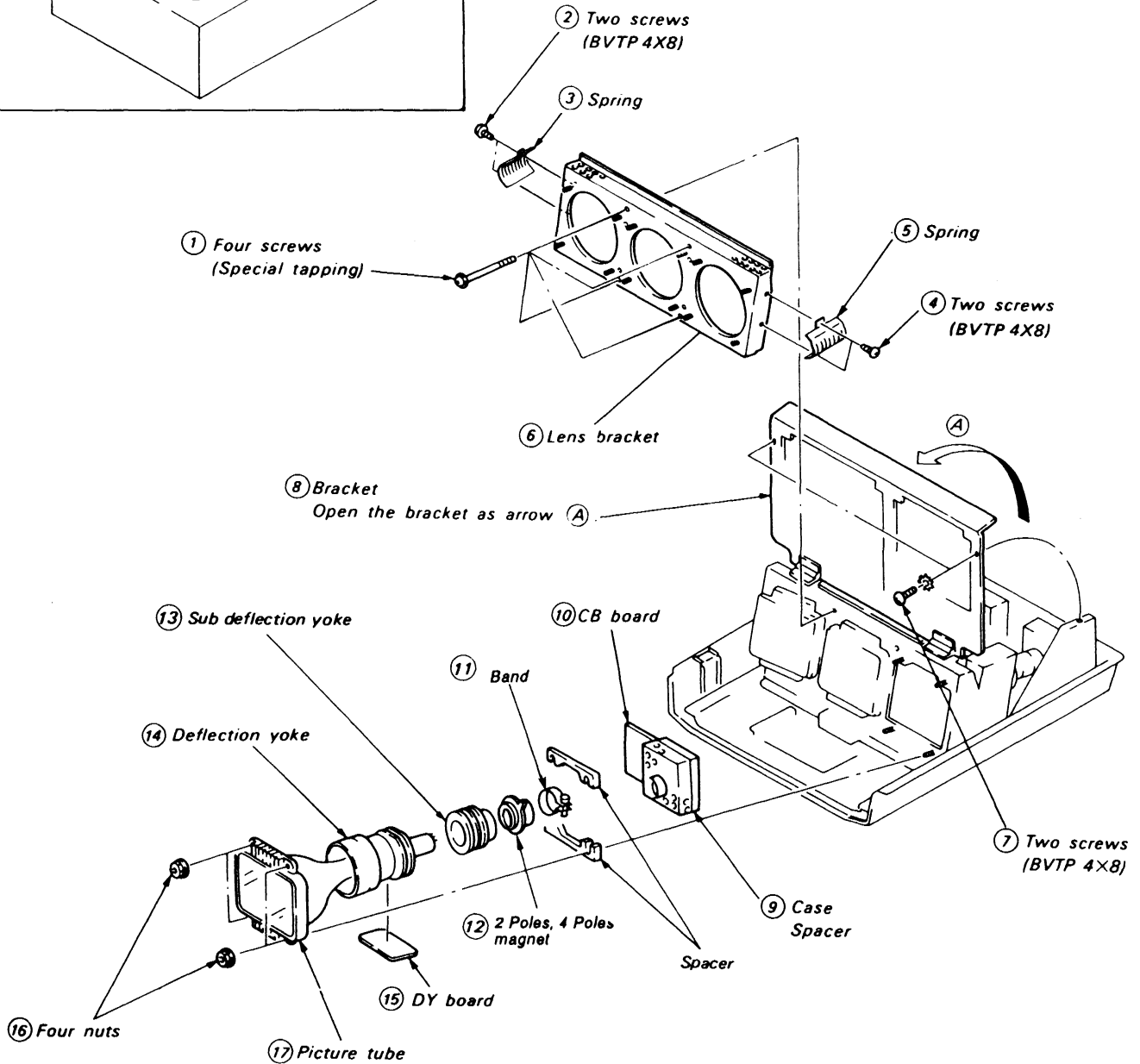
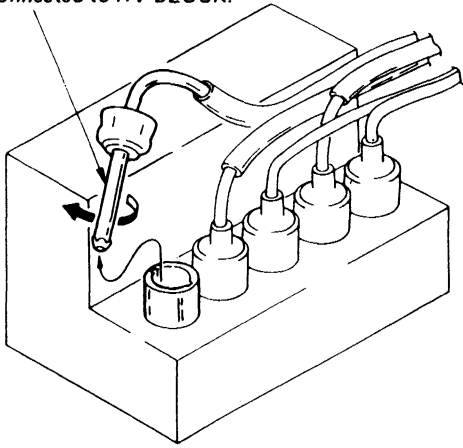


2-5 REMOVAL OF PICTURE TUBE

HIGH VOLTAGE CABLE REMOVAL

Pressing cable, turn 90°

- ② Pull out a high-tension lead wire connected to HV BLOCK.



SECTION 3 CIRCUIT DESCRIPTIONS

3-1. HV REGULATION CIRCUIT

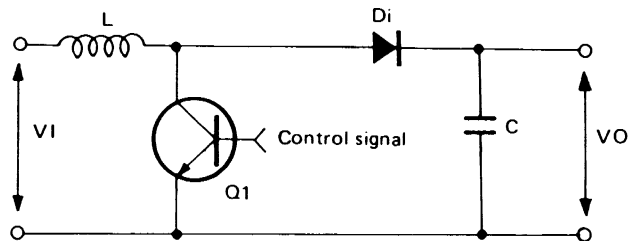
Outline

Basic operation of the circuit is amplification of the high voltage output.

Corresponding to power-up of HV components, design of high efficiency circuit is adopted in the HV regulator section. With employing B+ chopper type HV regulator, the circuit efficiency was raised approx. 8% compared with conventional series-regulation circuit.

In result, as the efficiency of HV circuit, reducing 15 watts of power consumption was obtained.

3-1-1. HV REGULATION SECTION



$$V_O = \frac{T_{ON} + T_{OFF}}{T_{OFF}} \times V_I$$

Fig. 2

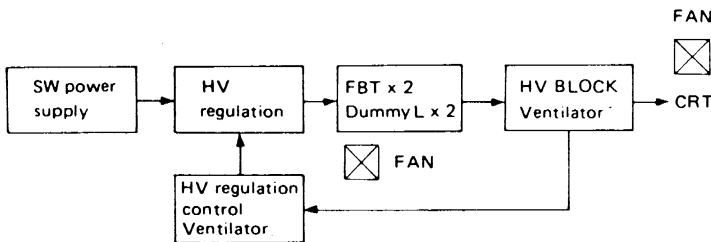


Fig. 1

Basic circuit is a voltage-boost type switching regulation circuit as shown in Fig. 2.

Energy stored in L during Q1 is ON, is added to the power supply input to deliver to the load during Q1 is OFF.

HV regulation is operated by controlling ON-period of Q1.

3-1-2. HV REGULATION CONTROL SECTION

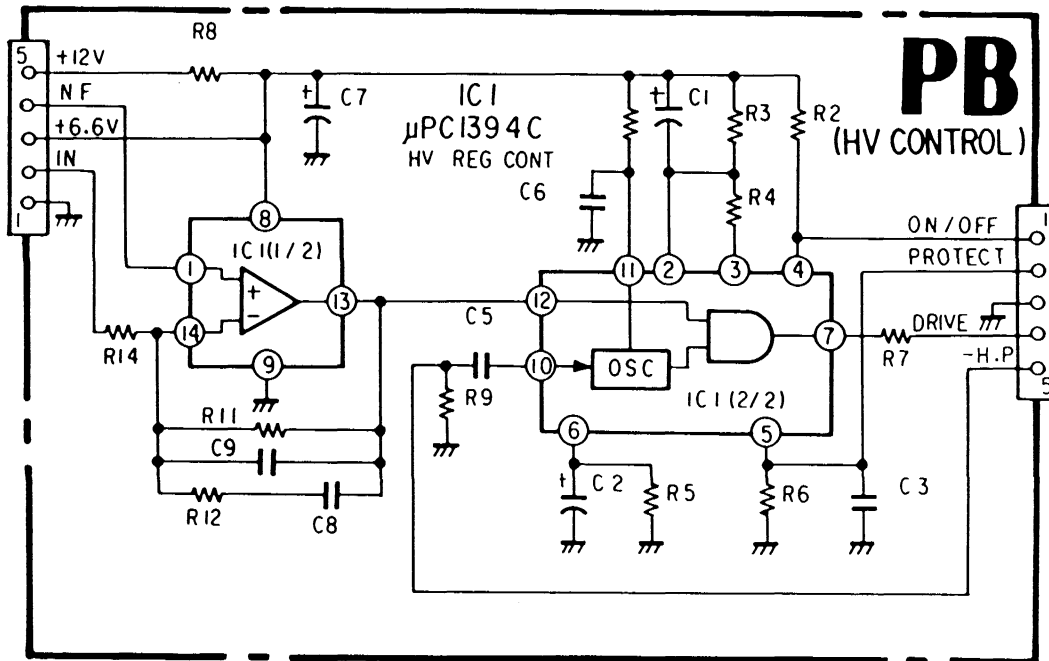


Fig. 3

Detected voltage from HV regulator is applied to pin ① of IC1 ($\mu\text{PC1394C}$), and reference voltage is input to pin ⑭.

If voltage of pin ① is lowered than that of pin ⑭ (decrease of HV), voltage of pin ⑬ is decreased. The output of pin ⑬ and sawtooth generated by pins ⑩ and ⑪ are voltage compared, and an output having pulse width corresponding to the voltage is delivered from pin ⑦.

In this case, the pulse width at pin ⑦ is widened. Pin ⑤ and ⑥ are cut-off circuit section which locks voltage of pin ⑦ in high level in case trouble is occurred in load.

Maximum duty time (period of ON) of output transistor is decided in pin ②.

SECTION 4

SET-UP ADJUSTMENT

Note for adjustments

For set-up adjustments, circuit adjustments, and CRT replacement, adjust with the direction yoke stuck attached the CRT.

4-1. BASIC ADJUSTMENTS

Basic Adjustments

<Registration>

- 1) Degauss the entire chassis.
- 2) Set the variable resistor on the D board to mechanical center. Also, set the D board H CENT and V CENT to mechanical center.
- 3) Adjust the knobs and switches on the set as follows
 BRIGHT: fully clockwise (maximum)
 PICTURE: maximum

4-2. GREEN FOCUS Adjustment

- 1) Receive a monoscope signal.
- 2) Turn off the S12 (R RAS) and S10 (B RAS) on the D board.
- 3) Set the GREEN lens SUB lens fully forward.
- 4) Rotate the MAIN lens and set for optimum focus on the screen.
- 5) Turn the GREEN focus VR on the focus pack and set for optimum conditions.
- 6) Rotate the MAIN lens for best focus in the center of the screen and temporarily tighten the lens screw.
- 7) Rotate the SUB lens for best focus in the center of the screen and tighten the lens screw.
- 8) Loosen the MAIN lens screw, fine adjust the focus, then tighten the MAIN lens screw.
- 9) Input a dot pattern.
- 10) Turn GREEN FOCUS VR (FOCUS PACK) slightly to clockwise so that focus will be off side.
- 11) Observe the center of screen and if dots are crooked spot, adjust the above 4 Poles magnet (see page 31) for the round spot as Fig. 1-3.
- 12) Adjust GREEN FOCUS VR (FOCUS PACK) to the best focus.
- 13) Turn GREEN FOCUS VR (FOCUS PACK) slightly counterclockwise so as to make out of focus a little bit.
- 14) Adjust the luminous point to be the center of the dot by 2 Poles magnet (see page 31) as Fig. 1-4.
- 15) Confirm the items 11) and 14) by turning GREEN FOCUS VR (FOCUS PACK) clockwise and counterclockwise centering around the best point. When the dot moves, adjust the tracking by repeating items 10) to 14).

- 16) Set GREEN FOCUS VR (FOCUS PACK) to the best point.

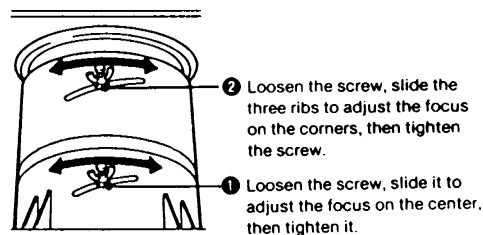


Figure 1-1

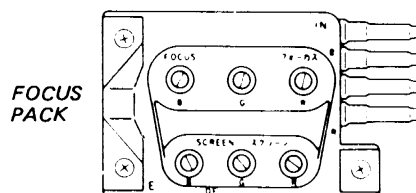


Figure 1-2

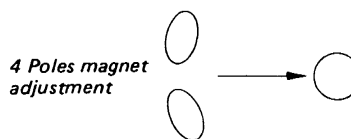


Figure 1-3

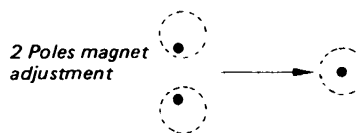


Figure 1-4

4-3. RED FOCUS Adjustment

- 1) Turn off the S10 (B RAS) and S11 (G RAS) on the D board.
- 2) Adjust in the same way as for GREEN FOCUS adjustment, steps 3) to 16).

4-4. BLUE FOCUS Adjustment

- 1) Turn off the S11 (G RAS) and S12 (R RAS) on the D board.
- 2) Adjust in the same way as for GREEN FOCUS adjustment, steps 3) to 16).
- 3) Receive the monoscope signal.
- 4) Turn BLUE VR slightly clockwise to make the upper one grid dark equally.

4-5. GREEN Picture Adjustment

- 1) Input a PAL monoscope signal.
- 2) Loosen the DY screw and adjust so that the center monoscope line is parallel to those at the left and right, then temporarily tighten the screw.
- 3) Loosen the SUB DY screw and adjust so that the signal moves parallel, to the left and right, when the D board GREEN H.CENT VR (RV10) is moved, then temporarily tighten the screw.
- 4) Adjust D board GREEN H.CENT VR (RV10) and GREEN V.CENT VR (RV5) so that the center of the monoscope signal is lined up to the screen center mark.

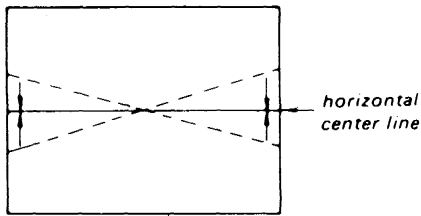


Figure 2

- 5) Tighten the screws after positioning the DY and SUB DY correctly.
- 6) Adjust D board MAIN H.SIZE VR (RV11) GREEN V.SIZE VR (RV6) and GREEN V.LIN (RV7) and perform rough size adjustment.

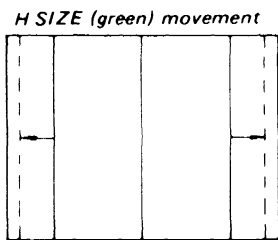


Figure 3

- 7) Adjust D board MIAN V.PIN VR (RV9) so that the lines at the top and bottom of the signal are almost parallel with the screen.

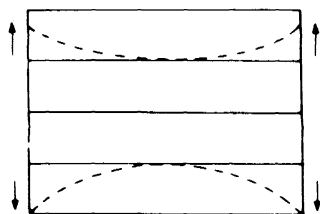


Figure 4

- 8) Receive an NTSC monoscope signal.
- 9) Adjust D board GREEN V.BOW (RV8) so that the monoscope signal horizontal center line is parallel with the screen horizontal center line, then adjust GREEN V.CENT VR (RV5) again to match up to the center line.

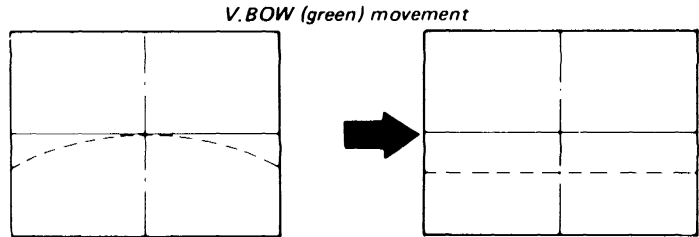


Figure 5

- 10) Receive a PAL monoscope signal.
- 11) Adjust D board GREEN V.LIN (RV7) so that the number of grids at the top and bottom of the signal are the same.

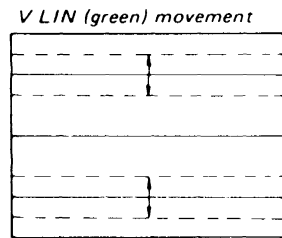


Figure 6

- 12) Adjust D board GREEN V.SIZE (RV6) so that there are about 11.0 grids at the top and bottom of the monoscope signal.

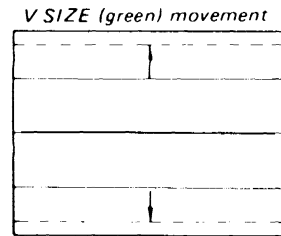
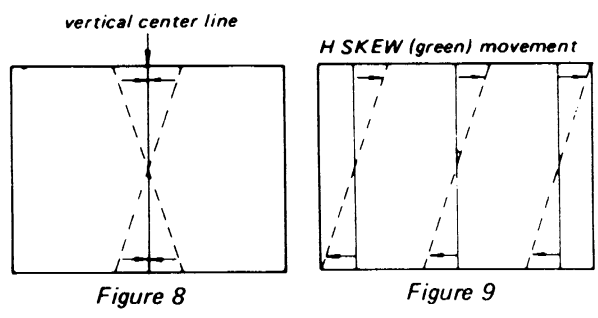


Figure 7

- 13) Adjust D board MAIN V.PIN (RV9) so that the top and bottom monoscope signal lines are parallel with the screen frame.

When the horizontal center line moves on turning RV9 from 0 to 100%, adjust again with PIN CENT (RV4) so as to fix the horizontal center line.

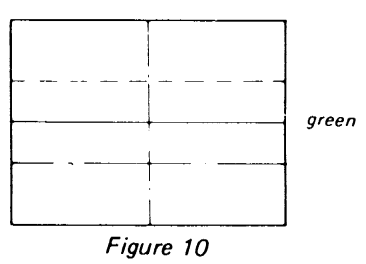
- 14) Line up the monoscope signal center vertical line to the screen center vertical line by adjusting D board GREEN H.SKEW (RV13) and GREEN H.CENT (RV10).



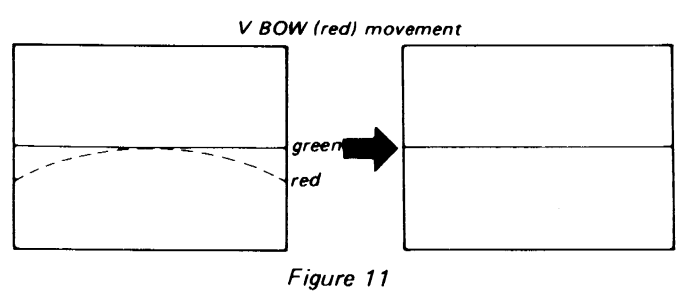
- 15) Adjust D board MAIN H.KES (RV15) and MAIN H.PIN (RV14) so that the monoscope signal left and right vertical lines are parallel with the screen.
- 16) Adjust D board MAIN H.SIZE (RV11) so that the number of grids to the left and right of the monoscope signal center vertical line is about 7.4 on each side.

4-6. RED DY Adjustment

- 1) Turn D board blue RAS SW (S10) off and project green and red.
- 2) Adjust D board RED V.CENT (RV16), RED V.LIN (RV18), RED H.CENT (RV25) and RED H.LIN (RV27) to line up the red and green monoscope centers.



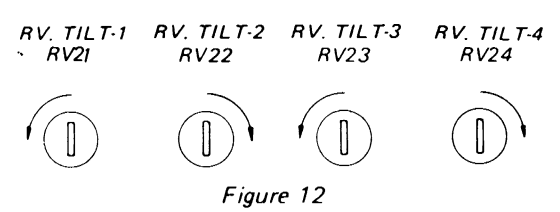
- 3) Loosen the RED DY screw.
- 4) Set NOR/TEST SW (S451) on the HA board to TEST, HATCH SW (S8) on the D board to HATCH.
- 5) Adjust D board RED V.BOW (RV20) so that the horizontal center line is straight.



- 6) Rotate the RED DY until the horizontal center line is parallel with green, then tighten the screw.
- 7) Loosen the SUB DY screw, rotate the DY, and adjust so that the hatch moves parallel to the right and left when the D board RED H.CENT VR (RV25) is moved, then tighten the screw.

4-7. TILT Adjustment

- 1) Set NOR/TEST SW (S451) on the HA board to TEST, HATCH SW (S8) on the D board to HATCH.
- 2) Line up the red horizontal center line center with the center of the green horizontal center line by adjusting D board RED V.CENT (RV16), RED V.BOW (RV20) and RED V.SKEW (RV19).
- 3) Line up the red top and bottom horizontal lines with the green top and bottom horizontal lines by adjusting D board RED V.SIZE (RV17) RED V.LIN (RV18) and RED V.SKEW (RV19).
- 4) Set the RED V.TILT VR's 1-4 as shown below.



- 5) Set HA board NOR/TEST SW (S451) to NORMAL.
- 6) Receive an all-white signal.
- 7) Check that the red or green luminescent line can not be seen on the screen horizontal center line. If it is visible, adjust D board KEYS CENT VR (RV3) until it disappears.
- 8) Set the RED V.TILT VR's 1-4 to mechanical center.
- 9) Set NOR/TEST SW (S451) on the HA board to TEST, HATCH SW (S8) on the D board to HATCH.
- 10) Adjust RED and BLUE V.SKEW (RV19, RV37) until the top and bottom horizontal green and red lines match (minimum distortion balanced evenly at all four corners).

4-8. G-R H. REGISTRATION Adjustment

- 1) Adjust D board RED H.BOW (RV29) so that the RED vertical center line is straight.

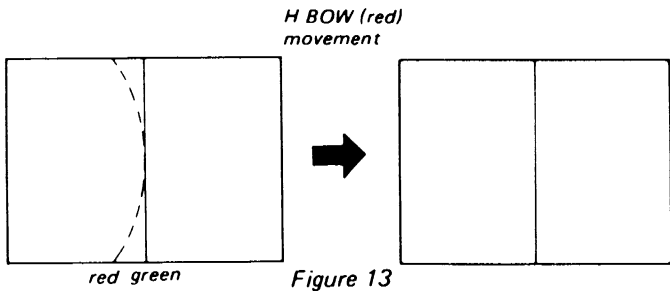


Figure 13

- 2) Adjust D board RED H.SKEW (RV28) so that the RED vertical center line is parallel to the green vertical center line.

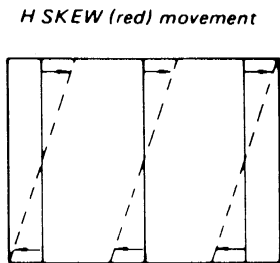


Figure 14

- 3) Adjust D board RED H.CENT (RV25) so that the RED and GREEN vertical center lines match up.

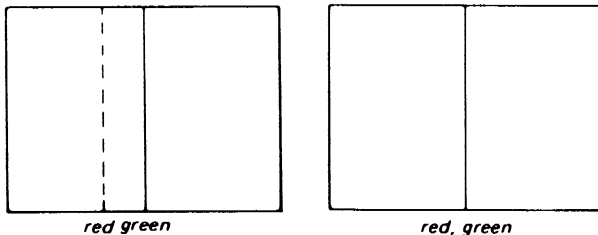


Figure 15

- 4) Adjust E board RED H.SIZE (L6) and D board RED H.LIN (RV27) so that the centers of the RED left and right vertical lines match up to the centers of the green left and right vertical lines.

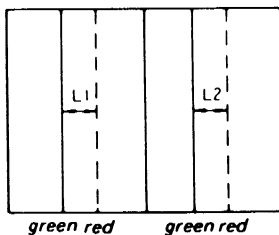


Figure 16

(1) Adjust L6 (H SIZE (R)) on E board so that the red and green vertical lines overlap at the left and right sides on the screen, or so that L1 and L2 are the same distances, and adjust RV27 (RED H LIN) so that the red and green vertical lines overlap at the left and right sides of the screen.

Note: Make the RV26 (H.SIZE) and RV44 (BLUE H.SIZE) to the mechanical center. Don't turn these volumes except for the actual installation.

4-9. G-R TILT Adjustment

- 1) Set D board HATCH SW (S8) to HATCH.
- 2) Adjust D board RED V.TILT-1 (RV21) and line up the RED upper left horizontal line to green.
- 3) Adjust D board RED V.TILT-2 (RV22) and line up the RED upper right horizontal line to green.
- 4) Adjust D board RED V.TILT-3 (RV23) and line up the RED lower left horizontal line to green.
- 5) Adjust D board RED V.TILT-4 (RV24) and line up the RED lower right horizontal line to green.
- 6) Adjust D board RED H.TILT-1 (RV30) and line up the RED upper left vertical line to green.
- 7) Adjust D board RED H.TILT-2 (RV31) and line up the RED upper right vertical line to green.
- 8) Adjust D board RED H.TILT-3 (RV32) and line up the RED lower left vertical line to green.
- 9) Adjust D board RED H.TILT-4 (RV33) and line up the RED lower right vertical line to green.

4-10. BLUE DY Adjustment

- 1) Set the HA board NOR/TEST SW (S451) to NORMAL and receive a monoscope signal.
- 2) Turn the D board RED RAS SW (S12) off and turn the BLUE RAS SW (S10) on.
- 3) Line up the BLUE monoscope signal center to green center by adjusting D board BLUE V.CENT (RV34), BLUE V.LIN (RV36), BLUE H.CENT (RV43) and BLUE H.LIN (RV45).
- 4) Loosen BLUE DY screw.
- 5) Set D board HATCH SW (S8) to HATCH.
- 6) Adjust D board BLUE V.BOW (RV38) so that the center horizontal line is straight.
- 7) Adjust BLUE DY so that the horizontal center line is parallel to green, then tighten the DY screw.
- 8) Loosen the SUB DY screw and rotate to adjust so that the hatch moves parallel to the left and right when D board BLUE H.CENT VR (RV43) is moved, then tighten the screw.

4-11. G-B V. REGISTRATION Adjustment

- 1) Line up the blue horizontal center line to the green horizontal center line by adjusting D board BLUE V.CENT (RV34), BLUE V.BOW (RV38) and BLUE V.SKEW (RV37).
- 2) Adjust D board BLUE V.SIZE (RV35) and BLUE V.LIN (RV36) so that the centers of the blue top and bottom horizontal lines match up to the centers of the green top and bottom horizontal lines.

4-12. G-B H. REGISTRATION Adjustment

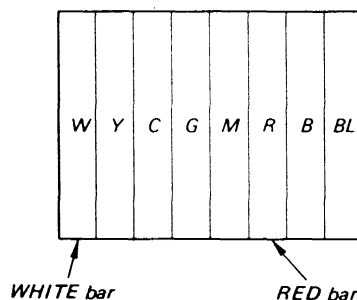
- 1) Adjust D board BLUE H.BOW (RV47) so that the blue vertical center line is straight.
- 2) Adjust D board BLUE H.SKEW (RV46) so that the blue vertical center line is parallel to the green vertical center line.
- 3) Adjust D board BLUE H.CENT (RV43) so that the blue vertical center line matches up to the green vertical center line.
- 4) Adjust E board BLUE H.SIZE (L8) and D board BLUE H.LIN (RV45) so that the centers of left and right blue vertical lines match up to the centers of the green left and right vertical lines.

4-13. G-B TILT Adjustment

- 1) Line up the top left BLUE horizontal line to green by adjusting D board BLUE V.TILT-1 (RV39).
- 2) Line up top right BLUE horizontal line to green by adjusting D board BLUE V.TILT-2 (RV40).
- 3) Line up bottom left BLUE horizontal line to green by adjusting D board BLUE V.TILT-3 (RV41).
- 4) Line up bottom right BLUE horizontal line to green by adjusting D board BLUE V.TILT-4 (RV42).
- 5) Line up top left BLUE vertical line to green by adjusting D board BLUE H.TILT-1 (RV48).
- 6) Line up to right BLUE vertical line to green with D board BLUE H.TILT-2 (RV49).
- 7) Line up bottom left BLUE vertical line to green with D board BLUE H.TILT-3 (RV50).
- 8) Line up bottom right BLUE vertical line to green with D board BLUE H.TILT-4 (RV51).

4-14. White Balance Adjustment

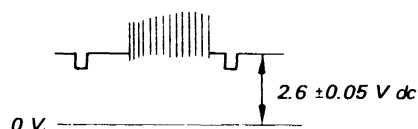
- 1) Receive the color bar signal from the pattern generator, and make the black and white screen by putting off the chroma off switch on the pattern generator.
- 2) ● R. DRIVE VR 80%
● G. DRIVE VR MAX
● B. DRIVE VR MAX
- 3) Turn the focus pack RED, GREEN and BLUE G2 (SCREEN) VR to minimum.
- 4) ● PICTURE VR MIN
● BRIGHTNESS VR mechanical center
- 5) Adjust the focus pack GREEN G2 (SCREEN) VR so that RED bar is bright dimly,
- 6) Set the BRIGHTNESS VR to minimum.
- 7) Adjust the white balance with the RED and BLUE G2 (SCREEN) VR.
* Adjust WHITE bar position
- 8) Set the PICTURE VR and BRIGHTNESS VR to maximum.
- 9) Adjust the white balance by turning the RED DRIVE VR on the BB board.
* Adjust WHITE bar position



- 10) Repeat items 3) to 9) when the white is not balanced.

4-15. SUB-BRIGHT Adjustment

- 1) Receive the cross hatch signal from the pattern generator.
- 2) Make the BRIGHT VR to the mechanical center.
- 3) Connect an oscilloscope to TP8 on BB board. (GND: Shield case.)
- 4) Adjust with RV4 (SUB BRIGHT) so that the black dc level becomes 2.6 ± 0.05 V dc.



SECTION 5 SAFETY RELATED ADJUSTMENTS

5-1. PA AND PC BOARD ADJUSTMENTS

- When replacing the following components, make the HV HOLD DOWN adjustment. (R38, R39)
PA board complete
R15, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44, C30, D16, D22, Q10, IC2 } PA board
- When replacing the following components, make the HV REG adjustment. (R48, R49)
PA board complete
R31, R32, R33, R34, R46, R47, R48, R49, R82, R83, R84, C3, C39, C56, L2, D17, Q14, IC1 } PA board
PB board mount
R3, R4, R7, R14, IC1 } PB board
- When replacing the following components, make the BEAM CURRENT PROTECTOR adjustment. (R23)
PA board complete
R16, R18, R19, R20, R21, R22, R23, R50, R51, R52, R53, R54, R69, D15, D20, Q9, Q11, Q12, IC3 } PA board
- When replacing the following components, make the OVER VOLTAGE PROTECTOR adjustment. (R88, R89)
PA board complete
R18, R85, R86, R87, R88, R89, D18, IC1 . . . PA board.

(OTHER)

HVR, FBT1, FBT2, L1, L2, C1, C2

R38, R39 HV HOLD DOWN ADJUSTMENT

1. Confirm that the power switch is in OFF position.
2. Disconnect RED anode-lead-wire from HV-DC block and instead connect the positive lead of the electrostatic voltmeter, and the negative lead to the ground lug of RED CRT.

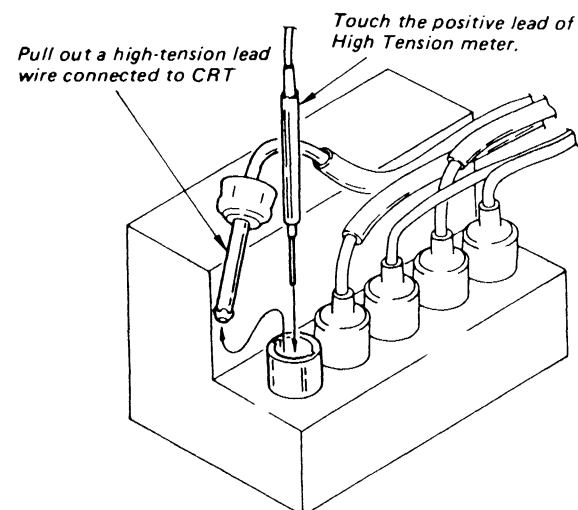


Fig. 1

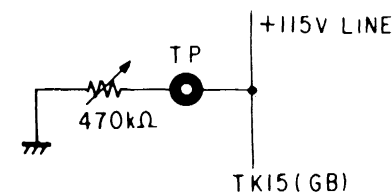
3. Feed in a monoscope pattern from a signal generator, and maximize PICTURE and BRIGHT.
4. Confirm AC power supply voltage to be 120V.
5. Confirm that HV HOLD DOWN circuit operates and raster disappears when reading of the electrostatic voltmeter is less than 34.30 kV.

R48, R49, HV REG ADJUSTMENT

1. Confirm that the power switch is in OFF position.
2. Disconnect RED anode-lead-wire from HV-DC block and instead connect the positive lead of the electrostatic voltmeter, and the negative lead to the ground lug of RED CRT.
3. Feed in a monoscope pattern from a signal generator, and power supply voltage AC120V.
4. Set the user's control R.G.B. RASTER SW to OFF and R.G.B G2 VR (Focus Pack) to minimum.
5. Confirm that reading of the high-tension meter is less than 33.30 kV when the power switch is turned on.

R88, R89 O.V.P ADJUSTMENT

1. Receive a monoscope signal and turn the BRIGHT and PICTURE controls for maximum.
2. Supply 120V ac to with variable auto-transformer.
3. Connect a 470 kΩ variable VR to one side of GB board TP and one side of ground.



4. Adjust VR (470kΩ) for B+ Line is less than 125V DC, the O.V.P circuit operates and the raster disappears.
5. If the specification is not met, adjust R88, R89 and repeat steps 4 until satisfied.

R23 BEAM CURRENT PROTECTOR ADJUSTMENT

1. Confirm that the power switch is in OFF position.
2. Disconnect RED anode-lead-wire from HV-DC Block and instead connect the positive lead of the electrostatic voltmeter, and the negative lead to the ground lug of RED CRT.
3. Install the tool to the PC-1 connector on the PC board and connect an ammeter.
4. Short-circuit between emitter and collector of Q12 on PA board.
5. Turn PICTURE, BRIGHT and R.G.B. G2 VRs (Focus Pack), and then confirm that protector circuit operates and raster disappears when ABL current is less than 3500 μA.
6. Remove the short-circuit between emitter and collector of Q12 on PA board and instead short-circuit between emitter and collector of Q11 and make the adjustment of 5.
7. Remove the short-circuit between emitter and collector of Q11 on PA board.

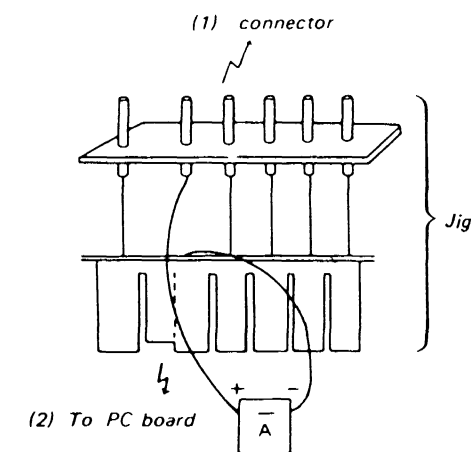
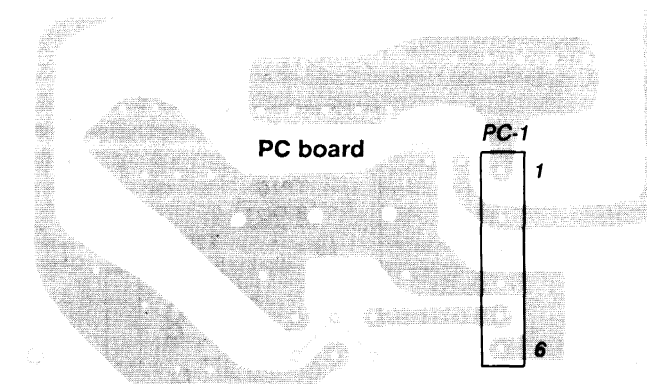
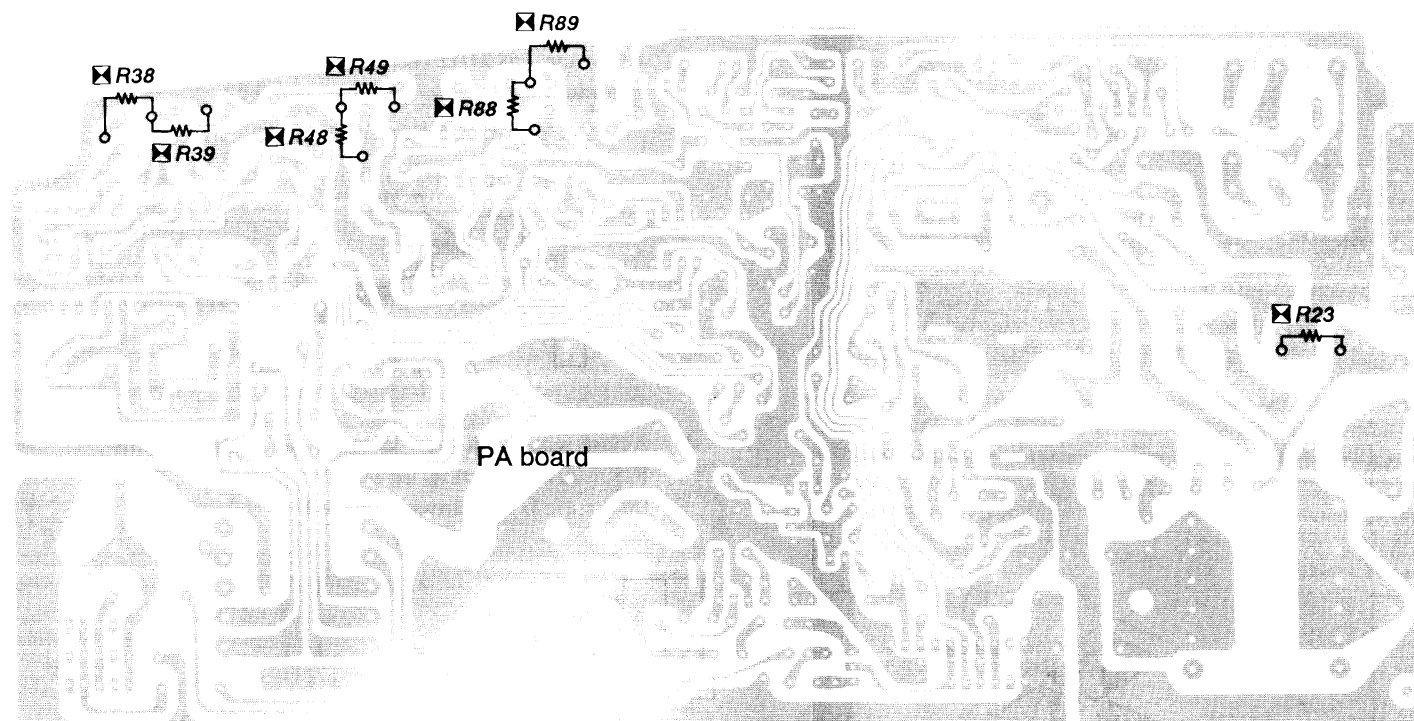


Fig. 2



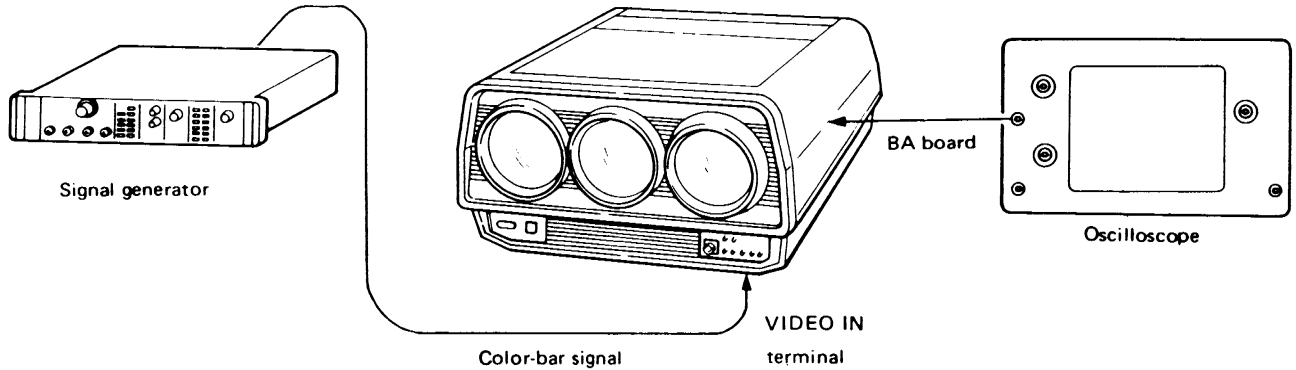
SECTION 6 CIRCUIT ADJUSTMENTS

6-1. BA BOARD ADJUSTMENTS

• CONNECTION

Note for adjustments

For set-up adjustments, circuit adjustments, and CRT replacement, adjust with the direction yoke stuck attached the CRT.



Y. TRAP (T102, T103)

1. Input a PAL color bar.
2. Observe TP5 (TRAP) on the oscilloscope.
3. Turn T103 (4.43 MHz TRAP) core and adjust so that the 4.43 MHz carrier component is minimum.
4. Input a SECAM color bar.
5. Turn T102 (4.25 MHz TRAP) core and adjust so that the 4.25 MHz carrier component is minimum.

SECAM COLOR (T201, T204)

1. Receive a SECAM color bar signal.
2. Turn T204 (ID) core so that IC201 pin 25 DC level is maximum.
3. While observing the blue output TP10 (B.OUT) waveform, adjust T201 (BELL FILTER) so that the output waveform peak portions are flat. (Figure 2)

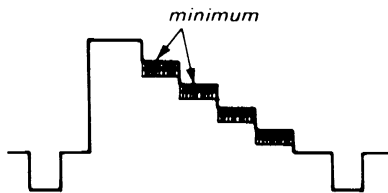
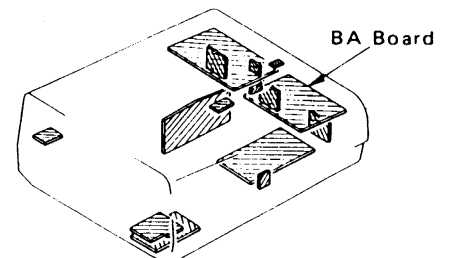
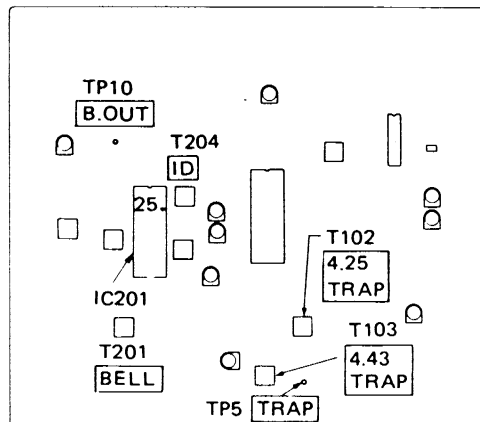


Figure 1

BA BOARD

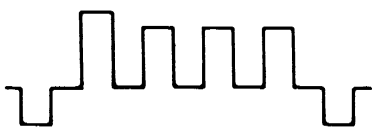


DISCRI ADJUSTMENT (T202, T203)

1. Adjust T203 (B-Y DISCRI) so that the blue output TP10 waveform valleys are the same level.
2. Adjust T202 (R-Y DISCRI) so that red output TP8 (R.OUT) waveform valleys are the same level. (Figure 2)
3. After completing 1 and 2, fine adjust so that color components do not appear in the color bar black portion and white portion.



Figure 2



NTSC 3.58 1H COMB AND Y LEVEL ADJUSTMENTS (T401, RV403)

1. Input an NTSC 3.58 color bar.
2. Observe TP5 (TRAP) on the oscilloscope.
3. White tracking with BA board T401 and RV403. adjust the 3.58 MHz carrier component so that it is minimum.

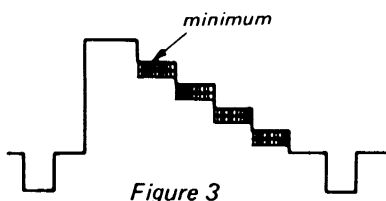
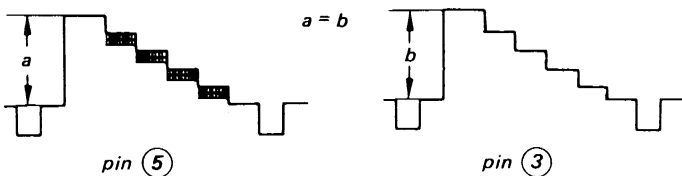


Figure 3

4. Adjust with RV404 so to make the levels on pins IC501 ③ and IC501 ⑤ the same. (Make a = b as following figure.)



COLOR ADJUSTMENT (RV108, RV111)

1. Input a SECAM color bar.
2. Set the COLOR VR to center.
3. Adjust RV111 (SECAM SUB COLOR) so that blue output TP10 (B.OUT) is as shown in Figure 4.
4. Input a PAL color bar and adjust RV108 (PAL SUB COLOR) so that blue output is as shown in Figure 4. COLOR VR center=6V DC

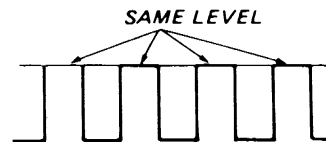
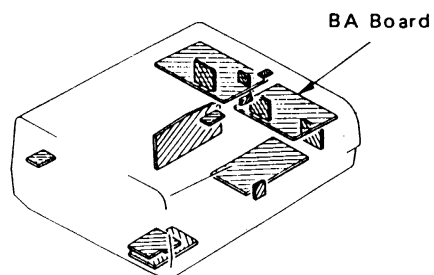
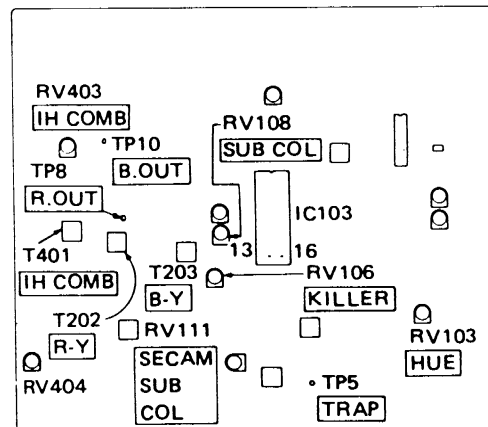


Figure 4

HUE CENTER (RV103)

1. Input a Color Pattern (SPCB).
2. Set COLOR VR to center.
3. Turn RV103 (HUE CENT) so that blue output and red output ANTI-PAL signals stop. At this time, confirm th that there is almost no color in the picture ANTI-PAL signal portion.
4. Input an NTSC color bar. turn the HUE VR and confirm HUE optimum position and that there is sufficient HUE variable range.

BA BOARD



KILLER ADJUSTMENT (RV106)

1. Receive the NTSC black and white signal.
2. Cut the burst signal off by connecting the electrolytic capacitor 10 μ F/16 V between pin (16) of IC103 and GND.
3. Adjust with RV106 (KILLER) so that the voltage on pin (13) of IC103 becomes 8.0 \pm 0.1 V dc.

PAL COLOR SYNC ADJUSTMENT (RV104, RV105)

1. Input a PAL color bar.
2. Connect 100 k Ω resistor between IC103 pin (13) and ground and release killer.
3. Connect 10 μ F/16V electrolytic capacitor between IC103 pin(16)and ground and cut the burst signal.
4. Connect IC104 pin (2) to the +12V line via a 2.2 k Ω resistor and get 4.43 MHz mode.
5. Adjust RV104 (APC-2 4.43 MHz) to get color sync. And adjust B.OUT. (Figure 5)
6. Remove the 2.2 k Ω resistor in step 4.
7. Input an NTSC color bar.
8. Ground Q144 base momentarily and get 3.58 MHz mode.
(Repeat two or three times if it does not change the first time.)
9. Adjust RV105 (APC-1 3.58 MHz) to get color sync. And adjust B.OUT. (Figure 6)

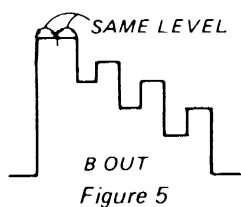


Figure 5

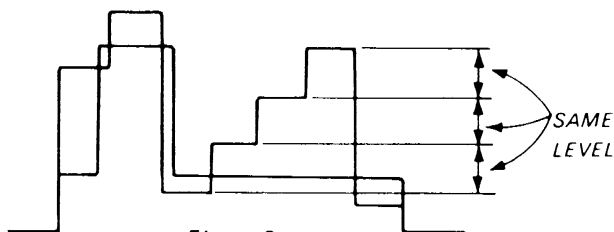


Figure 6

SUB PIC ADJUSTMENT (RV107)

1. Input a PAL color bar.
2. Set COLOR VR to minimum.
3. Adjust RV107 (SUB PIC) so that the blue output TP10 (B.OUT) is 0.85 \pm 0.05V_{p-p}. from the

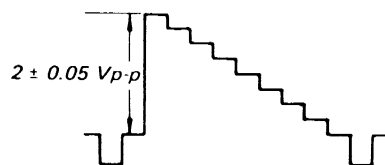


Figure 7

PAL MATRIX (T104, RV110)

1. Input a PAL color bar.
2. Observe blue output TP10 (B.OUT) and red output TP8 (R.OUT) waveforms.
3. Set COLOR VR to center.
4. While tracking with T104 (DAT) and RV110 (DELAY ADJ VR), adjust so that blue output TP10 (B.OUT) and red output TP8 (R.OUT) waveforms are both as shown in Figure 8.
5. Fine adjust 6. HUE CENTER after completing the adjustment.

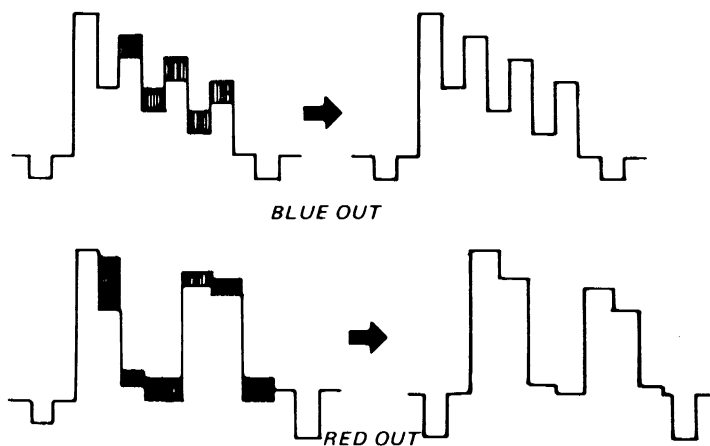
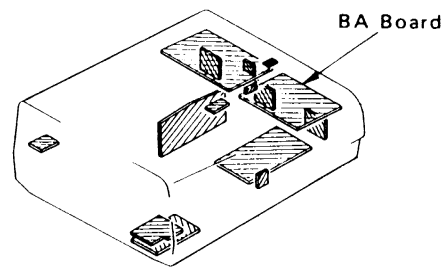
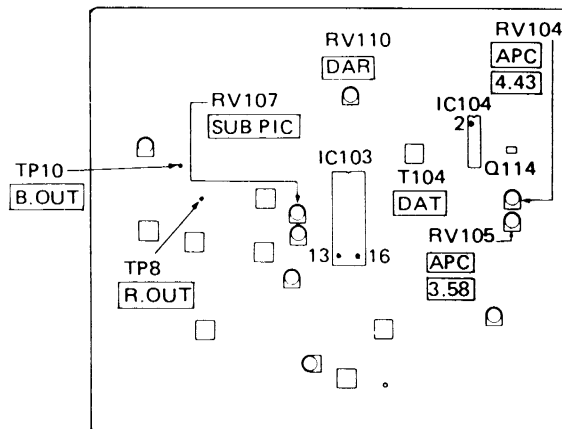


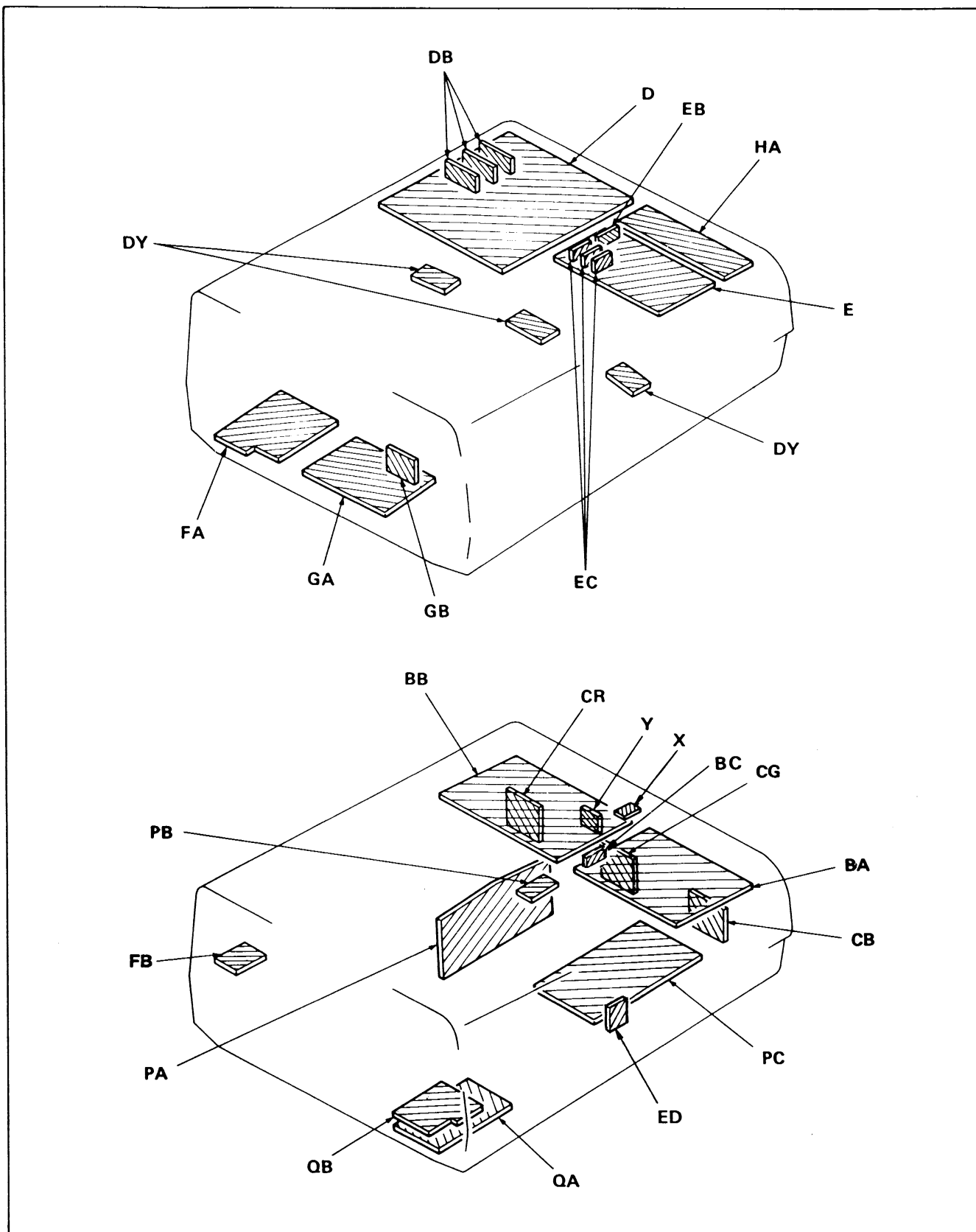
Figure 8

BA BOARD



SECTION 7 DIAGRAMS

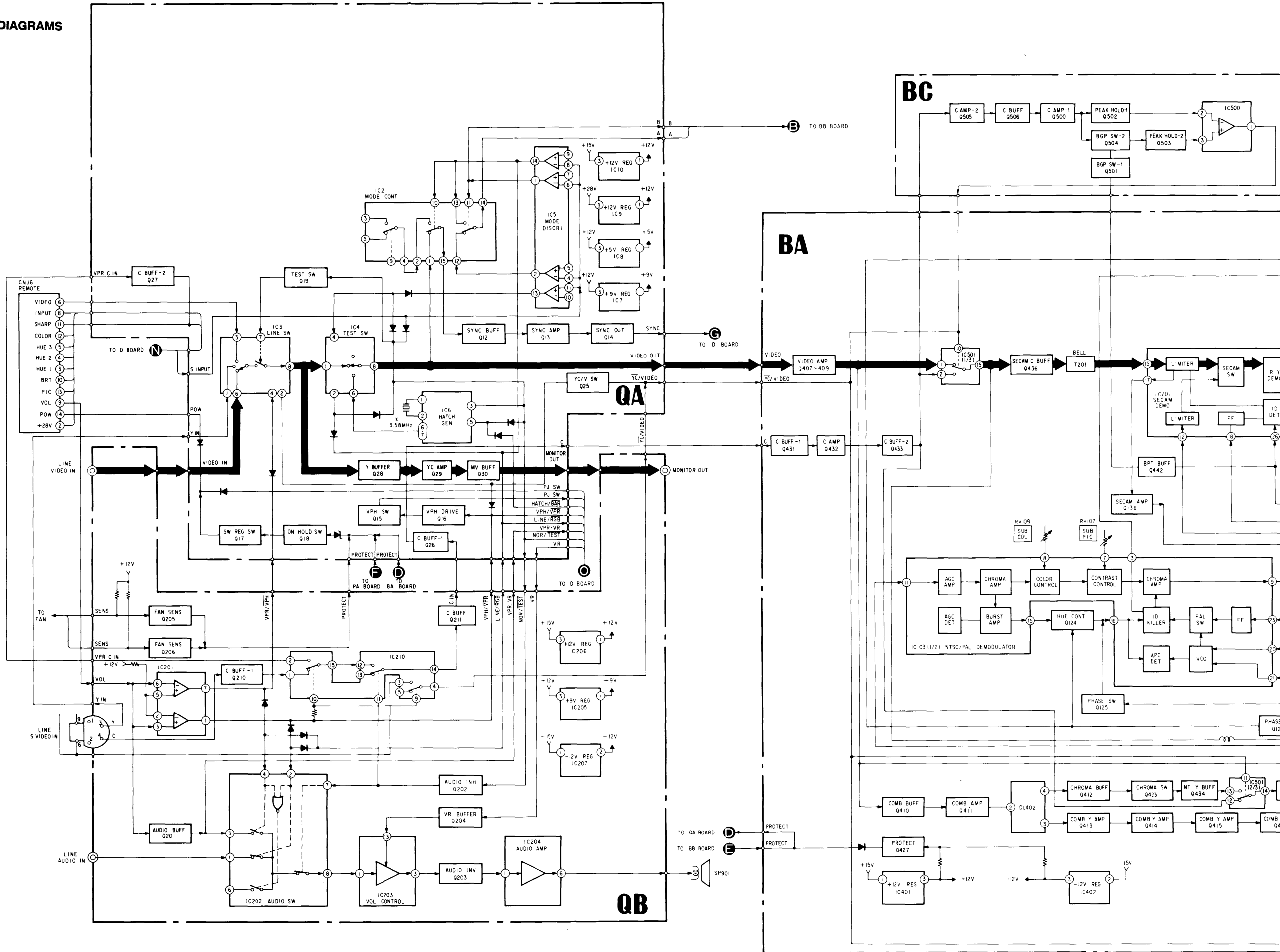
7-1. CIRCUIT BOARDS LOCATION

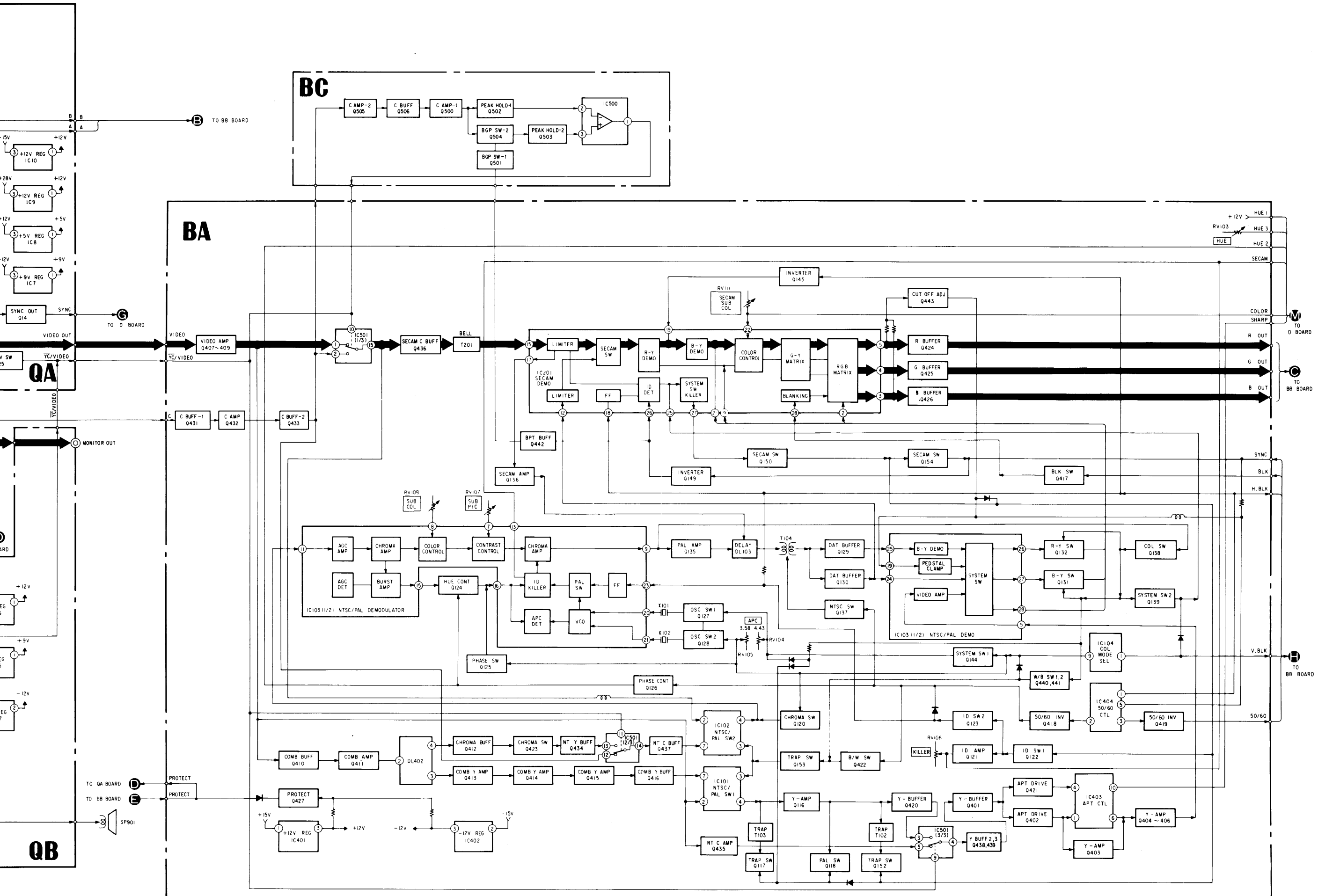


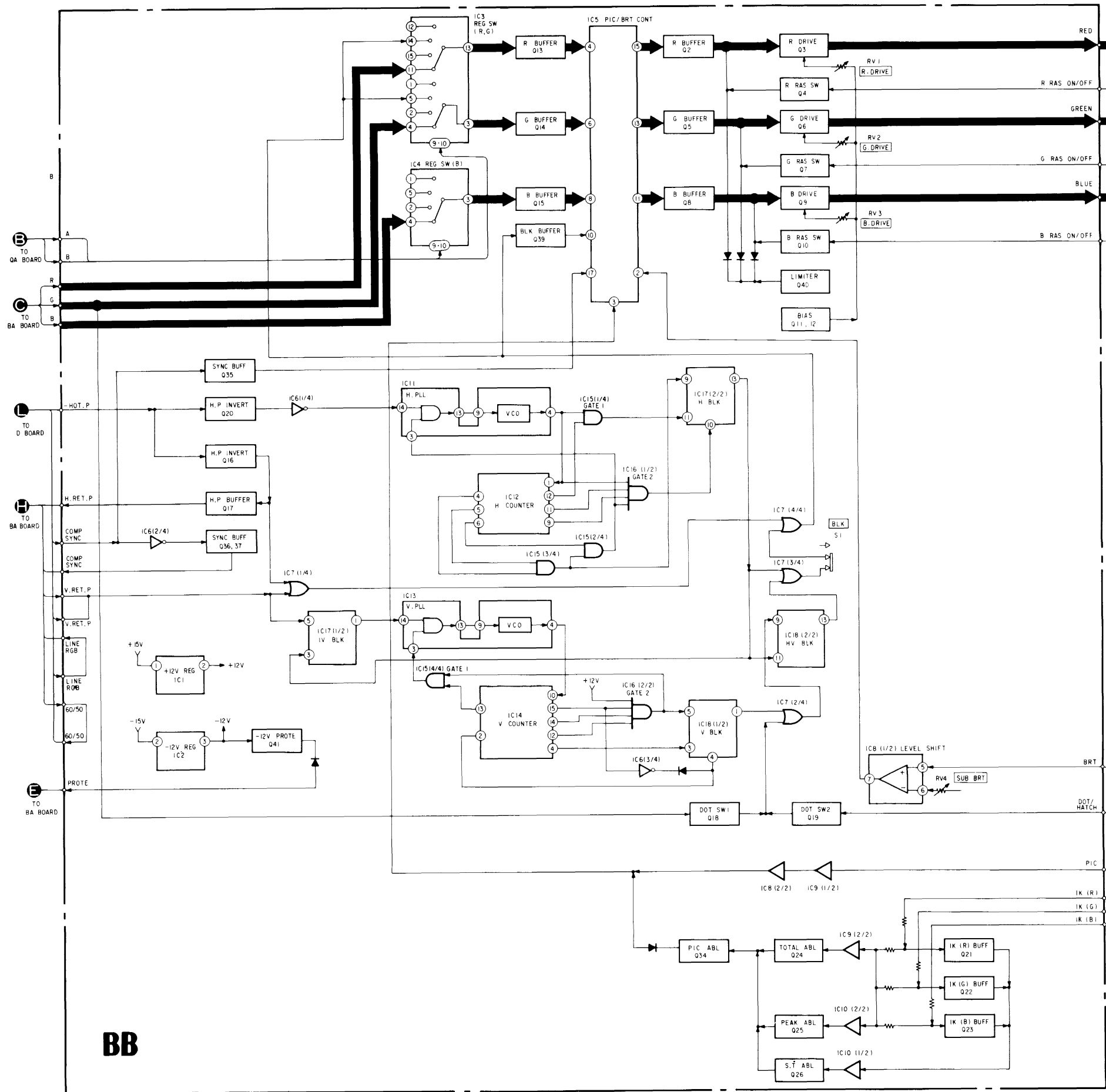
7-2. QUICK REFERENCE

BOARD SECTION	BA	BB	BC	CB	CG	CR	D	DB	DY	E	EB
CIRCUIT DESCRIPTION	—	—	—	—	—	—	—	—	—	—	—
ADJUSTMENTS	41	38	—	—	—	—	34	—	—	—	—
BLOCK DIAGRAM	47	49	47	51	51	51	54	56	51	53	53
MOUNTING DIAGRAM	93	101	94	104	103	103	68	69	83	81	81
SCHEMATIC DIAGRAM	86	96	86	99	99	99	71	74	80	76	76
ELECTRICAL PARTS LIST	117	115	123	131	130	130	133	138	131	132	133
BOARD SECTION	EC	ED	FA	FB	GA	GB	HA	PA	PB	PC	QA
CIRCUIT DESCRIPTION	—	—	—	—	—	—	—	—	33	—	—
ADJUSTMENTS	—	—	—	—	—	—	—	39	—	39	—
BLOCK DIAGRAM	53	53	53	53	53	53	54	50	50	51	46
MOUNTING DIAGRAM	81	82	108	108	—	—	84	82	82	84	65
SCHEMATIC DIAGRAM	77	77	105	105	106	106	80	78	78	78	62
ELECTRICAL PARTS LIST	133	133	126	126	—	—	138	123	125	125	127
BOARD SECTION	QB	X	Y								
CIRCUIT DESCRIPTION	—	—	—								
ADJUSTMENTS	—	—	—								
BLOCK DIAGRAM	46	55	51								
MOUNTING DIAGRAM	67	85	85								
SCHEMATIC DIAGRAM	61	80	80								
ELECTRICAL PARTS LIST	126	139	139								

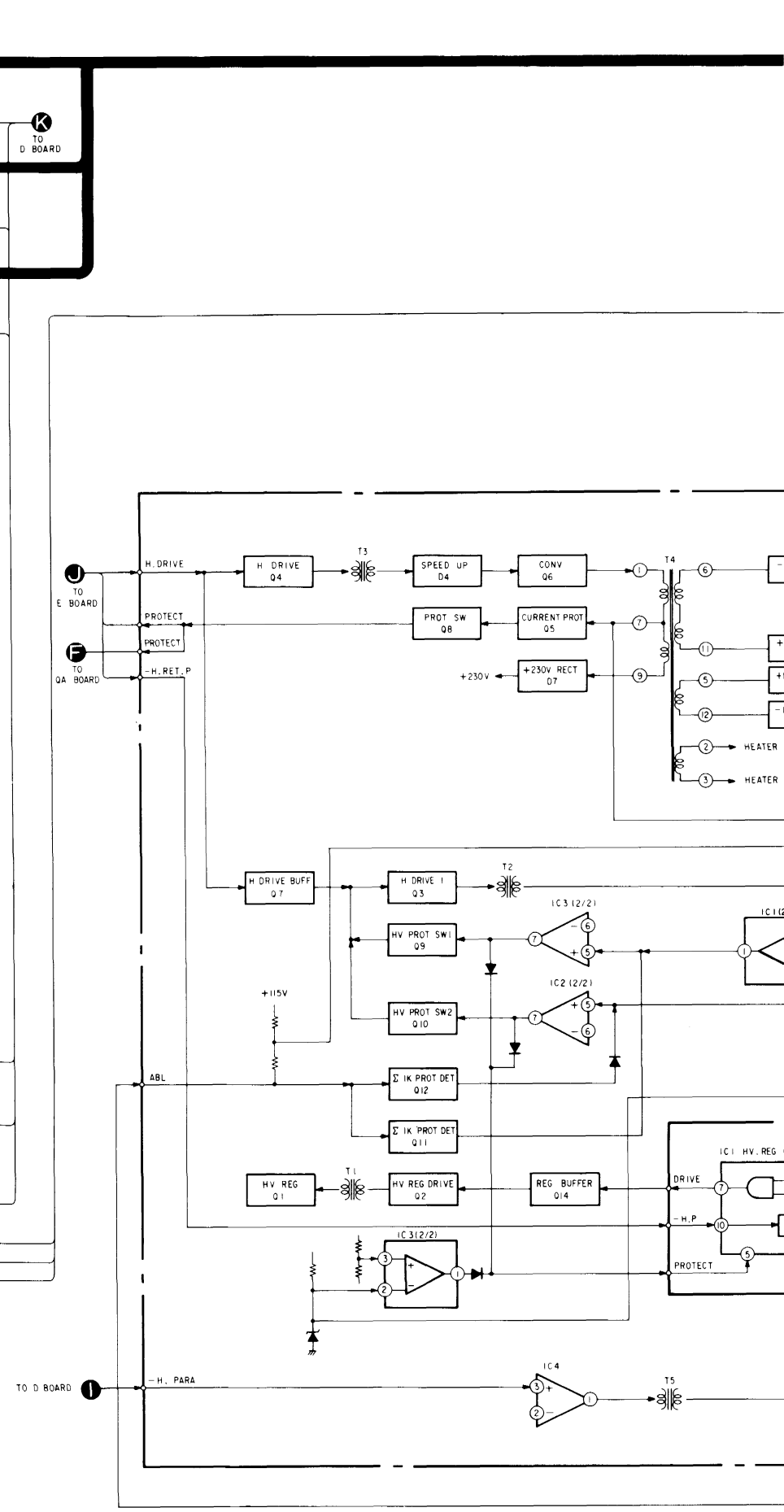
7-3. BLOCK DIAGRAMS

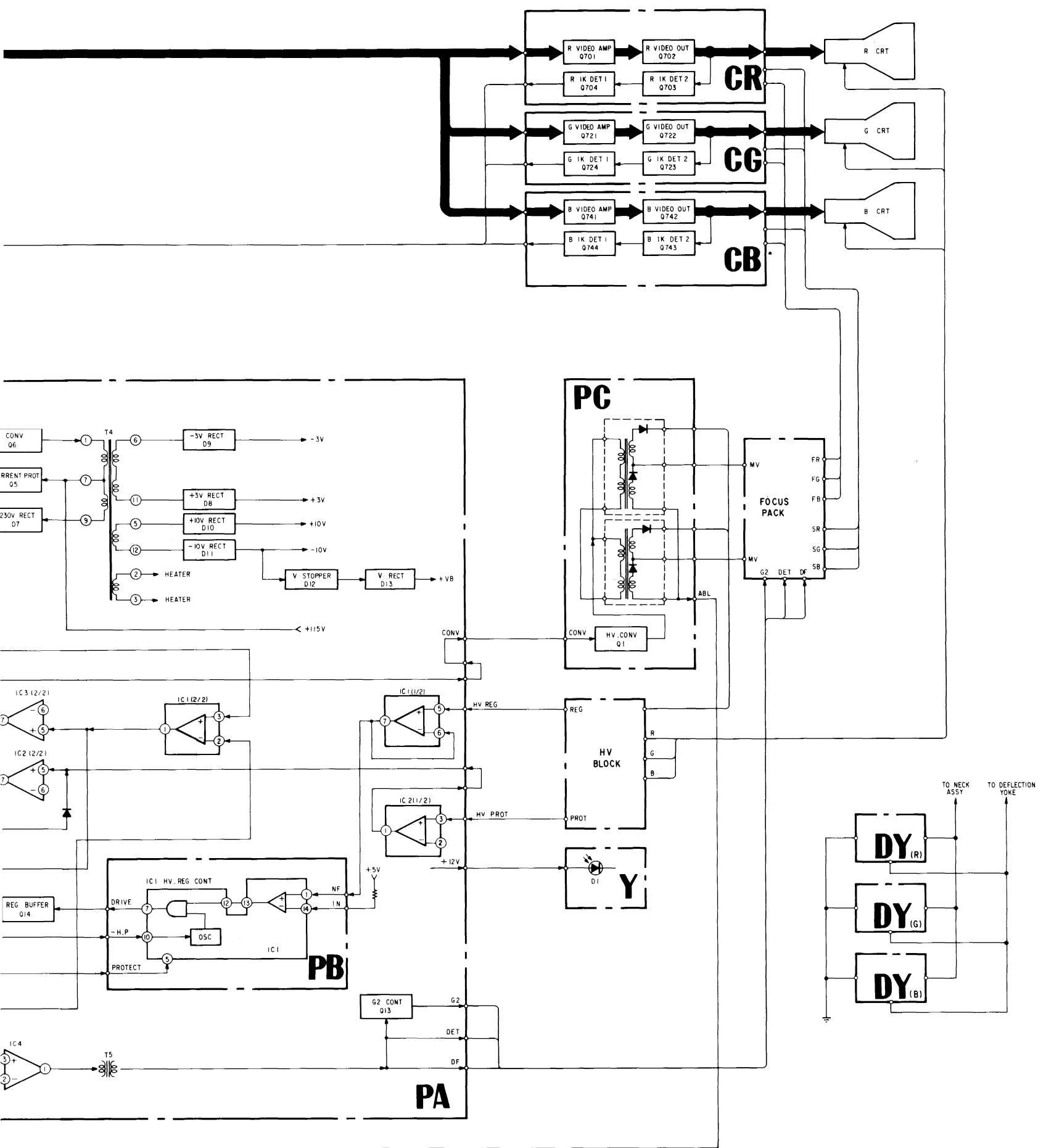


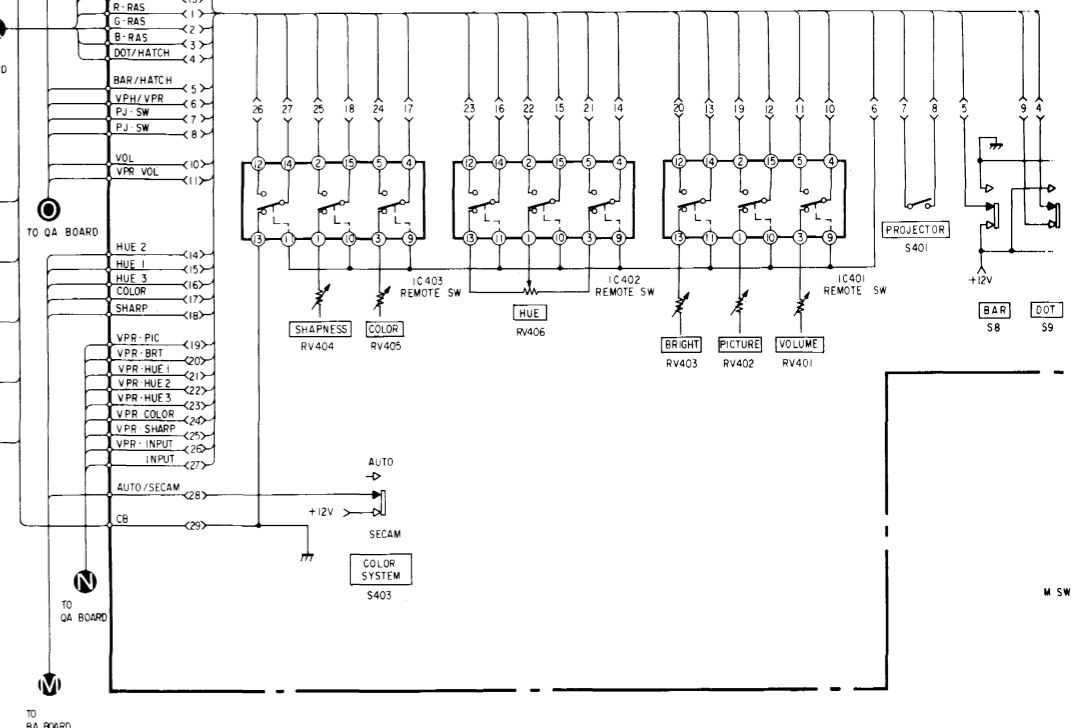
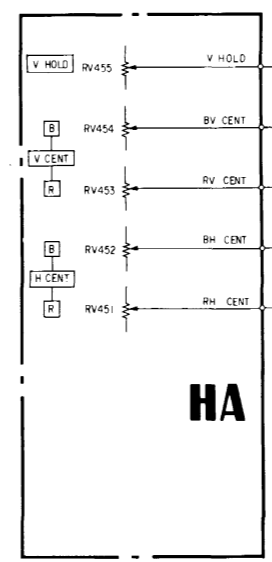
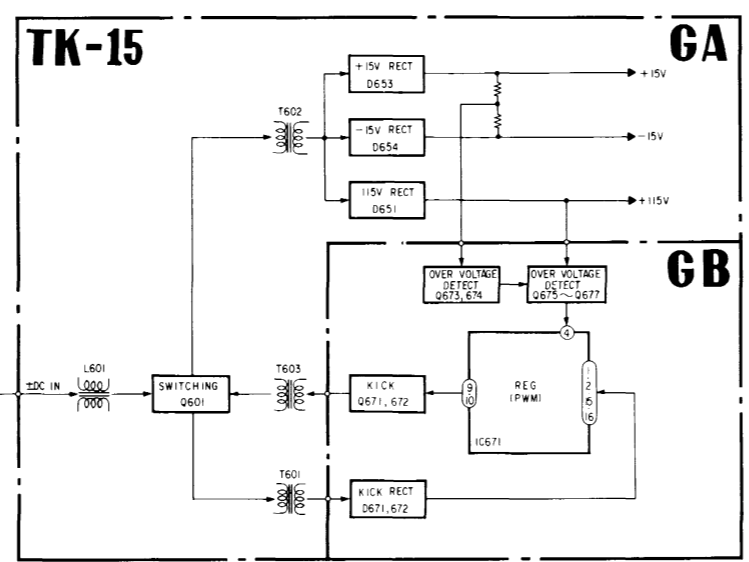
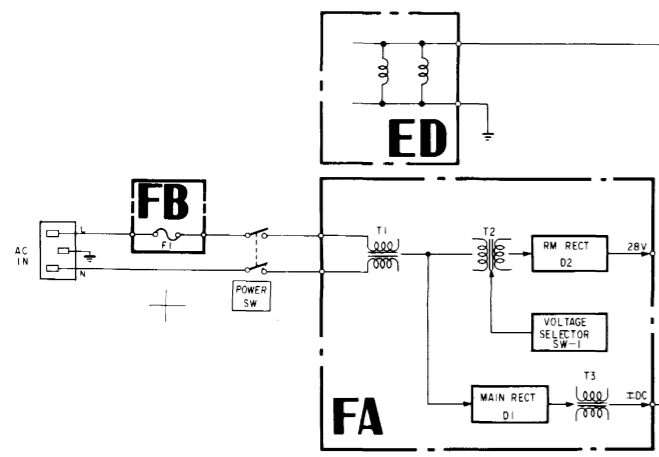
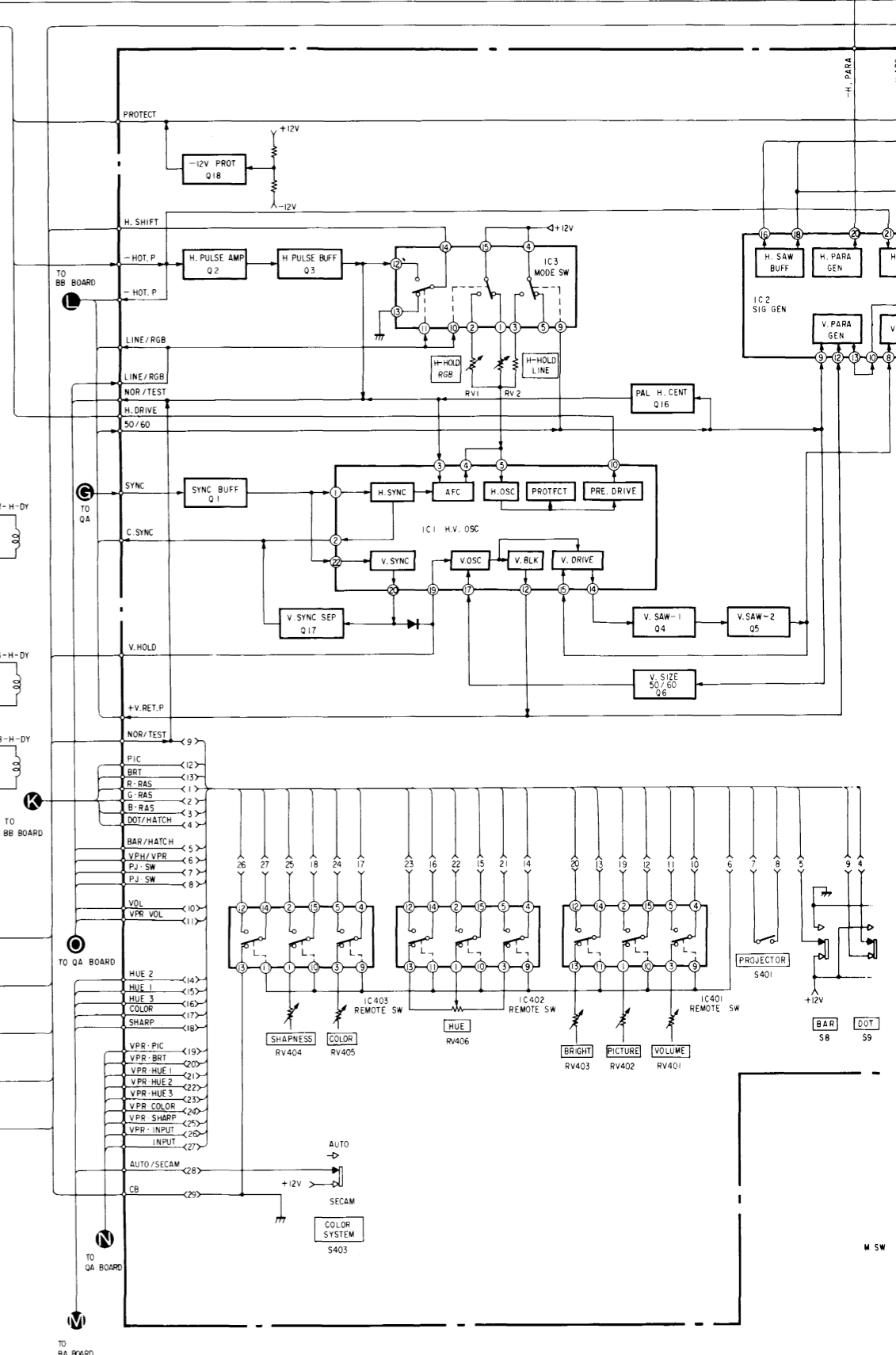
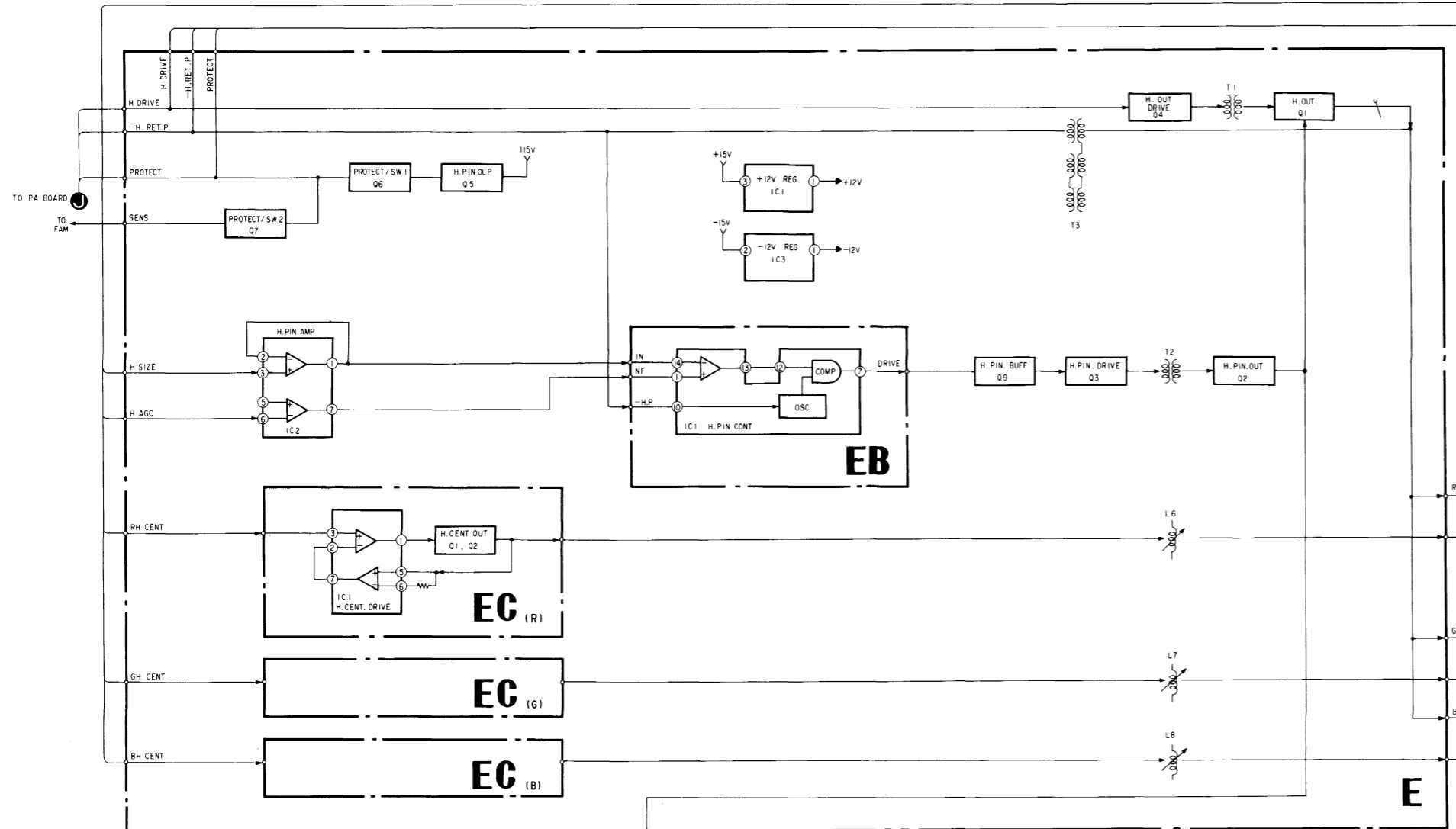


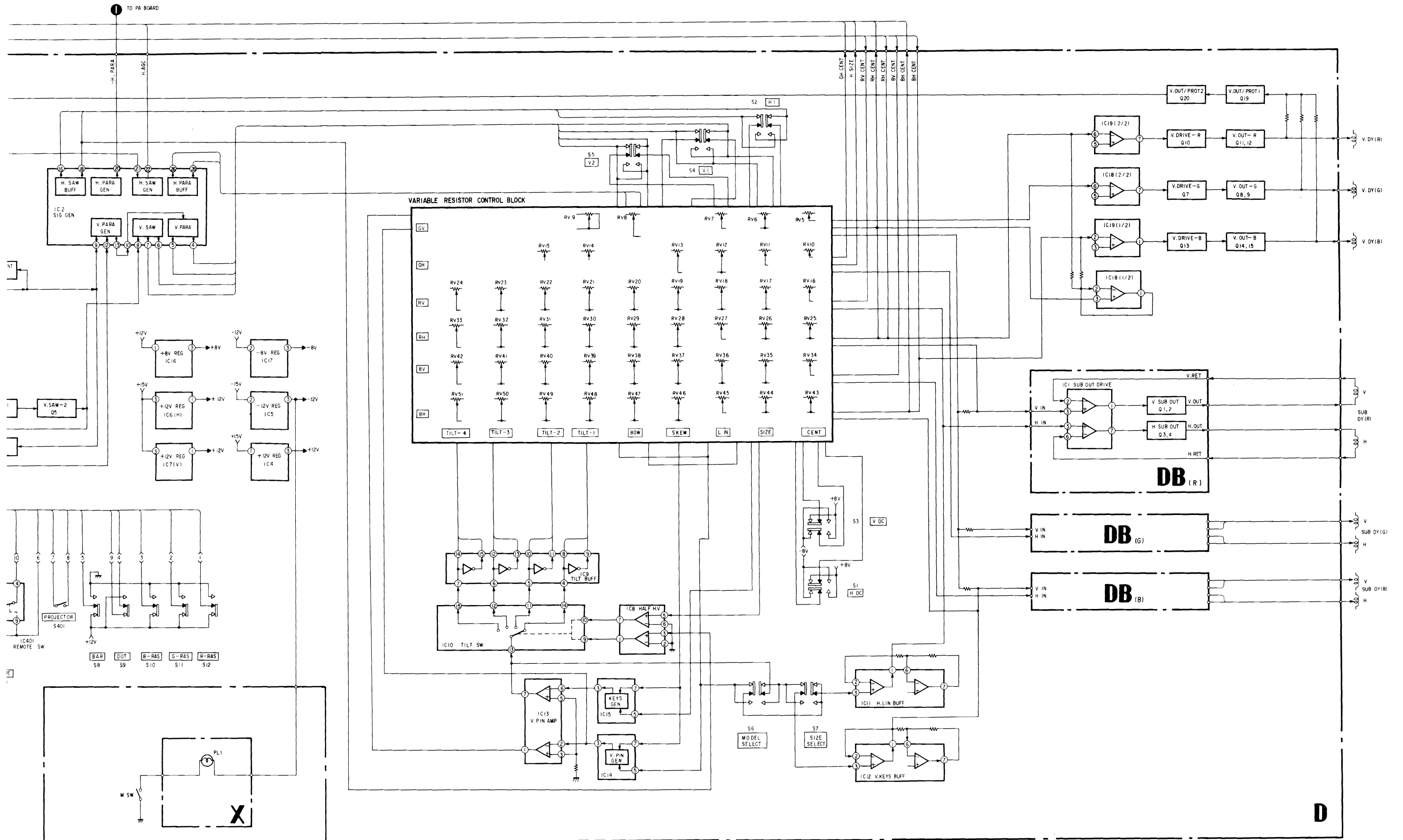


BB

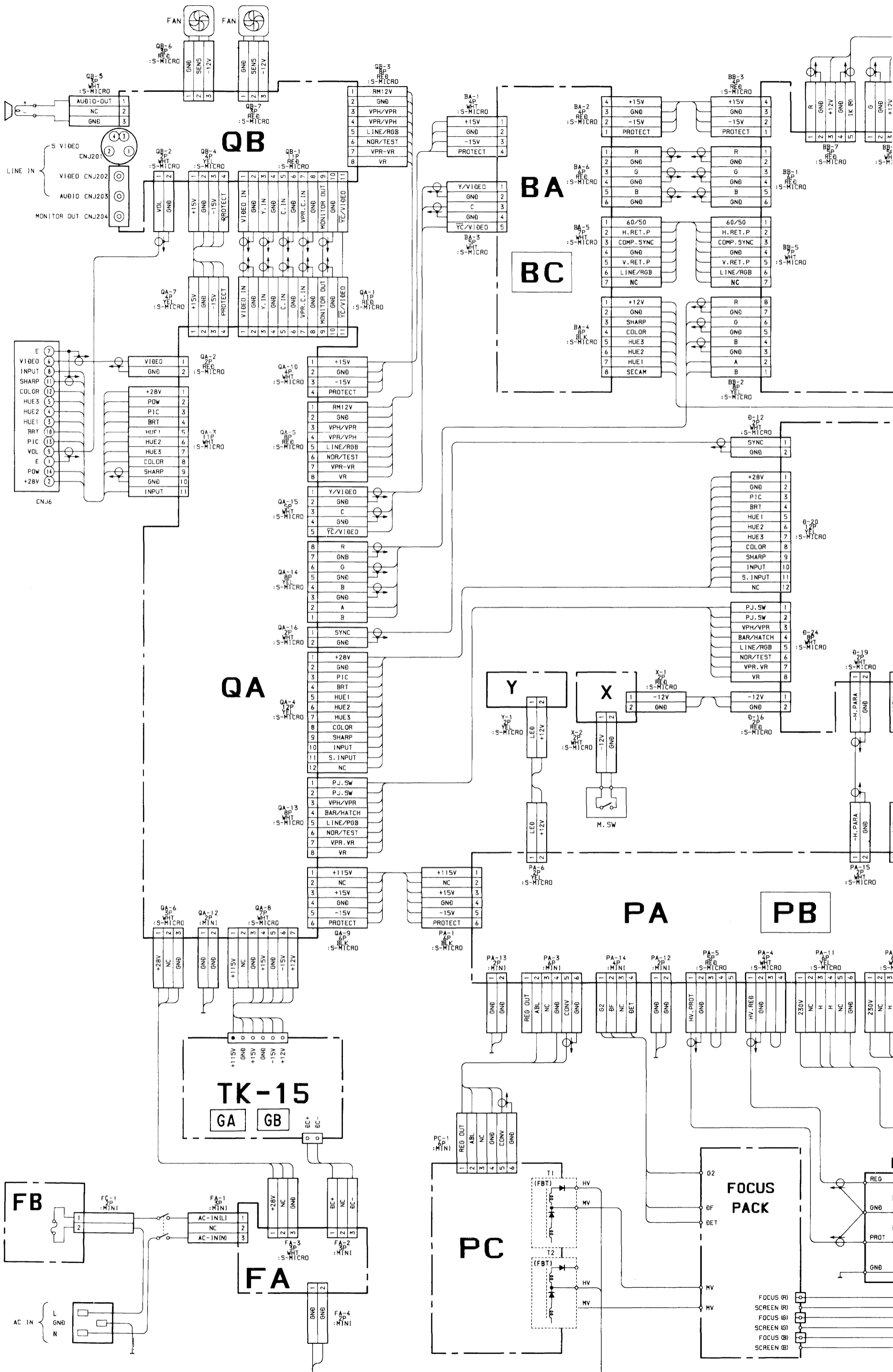


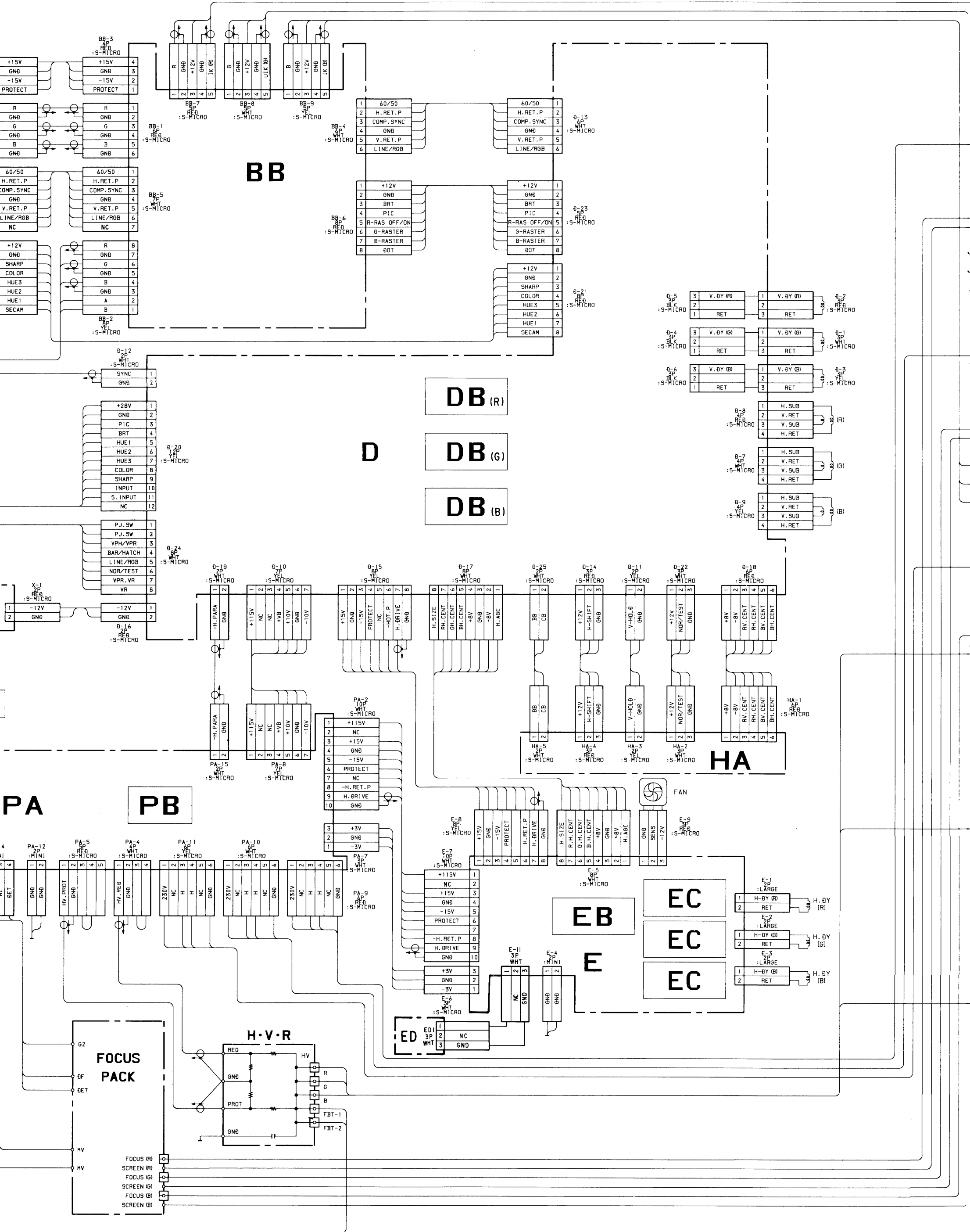


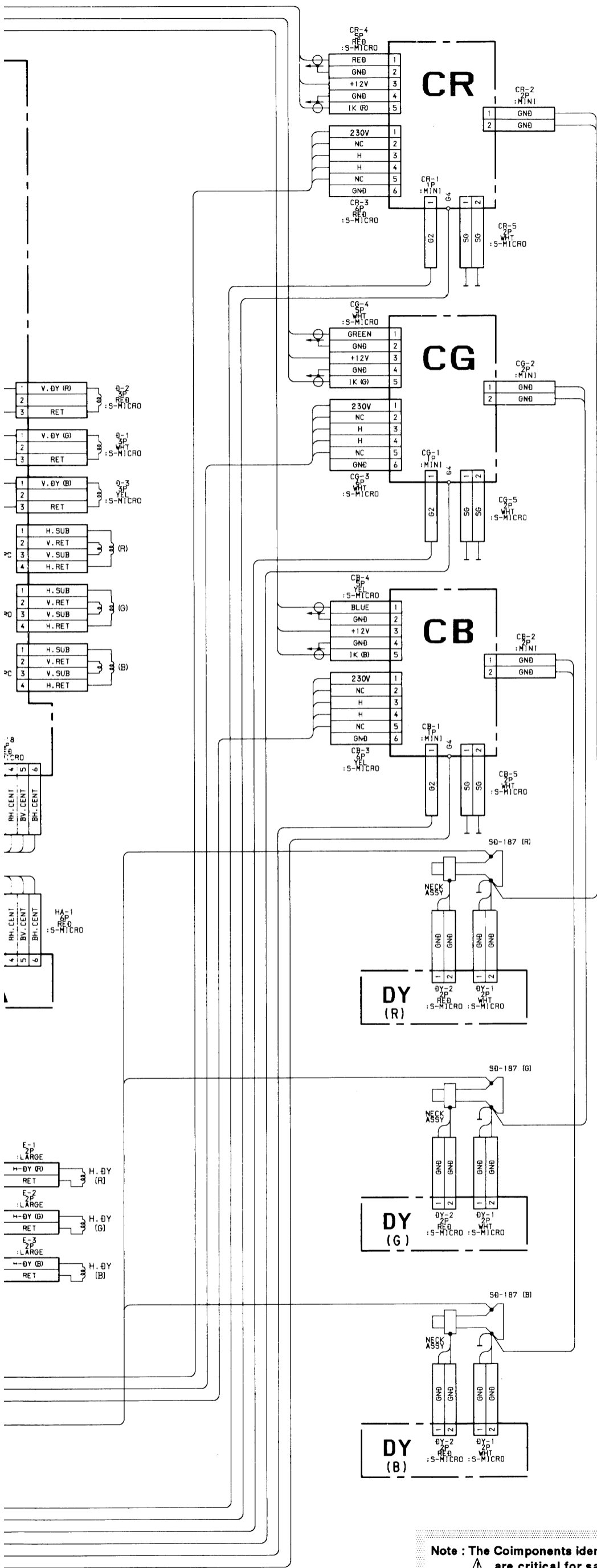




7-4. FRAME SCHEMATIC DIAGRAM







- All capacitors are in uF unless otherwise noted. pF: uuF .50 WV or less are not indicated except for electrolytics and tantalums.
- Unless otherwise noted is 1/4W resistor and 1/10W chip resistor.
k Ω :1000 Ω , M Ω 1000k Ω .
- All resistors are in ohms.
- : fusible resistor
- : nonflammable resistor.
- : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

※ Adjustment resistor measurement impossibility.
(GA BOARD R684)

- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy 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 R38, 39, 48, 49, 23, 88, 89 adjustment on page 39, 40)

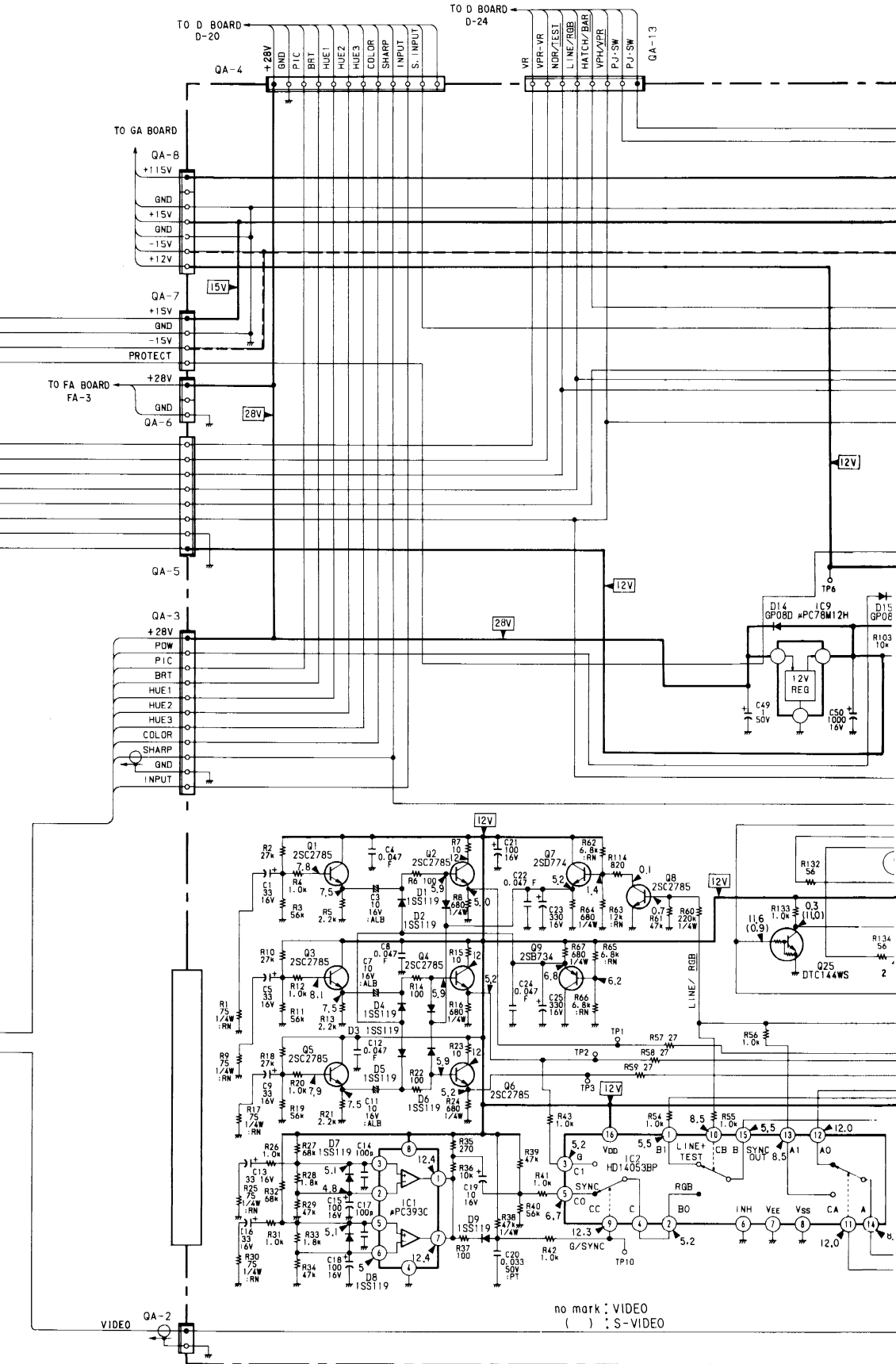
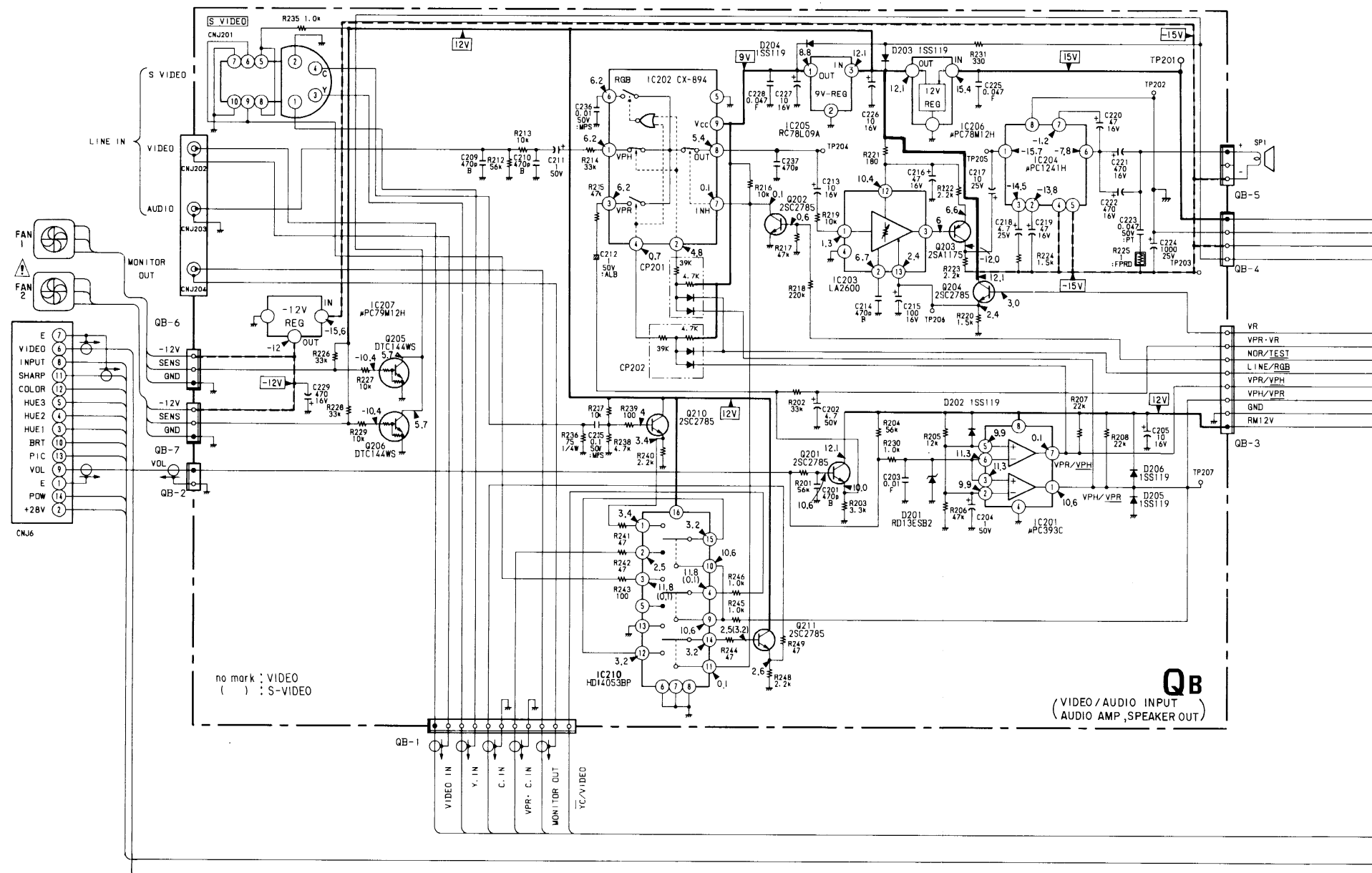
Part replaced ()	Adjustment()
C30, D16, D22, IC2, Q10, R15, R35, R36, R37, R38, R39, R40, R41, R42, R43, R44PA BOARD	HV HOLD-DOWN (R38, R39)
C3, C39, C56, D17, IC1, L2, Q14, R31, R32, R33, R34, R46, R47, R48, R49, R82, R83, R84.....PA BOARD IC1, R3, R4, R7, R14 ...PB BOARD	HV REGULATION (R48, R49)
D15, D20, IC3, Q9, Q11, Q12, R16, R18, R19, R20, R21, R22, R23, R50, R51, R52, R53, R54, R69.....PA BOARD	BEAM CURRENT PROTECTOR (R23)
D18, IC1, R18, R85, R86, R87, R88, R89.....PA BOARD	OVER VOLTAGE PROTECTOR (R88, R89)

- : adjustment for repair.
- Circled numbers refer to waveforms.
- Voltage are dc with respect to ground unless otherwise noted.
- All voltages are in V.
- Voltage variations may be noted due to normal production tolerance.
- Readings are taken with a 10M Ω digital multimeter.
- ✕ Can not be measured.
- no mark: PAL mode
- () : SECAM mode
- () : NTSC 3.58 mode
- () : NTSC 4.43 mode
- : B + line
- : B - line
- Circled numbers refer to waveforms.

Reference information

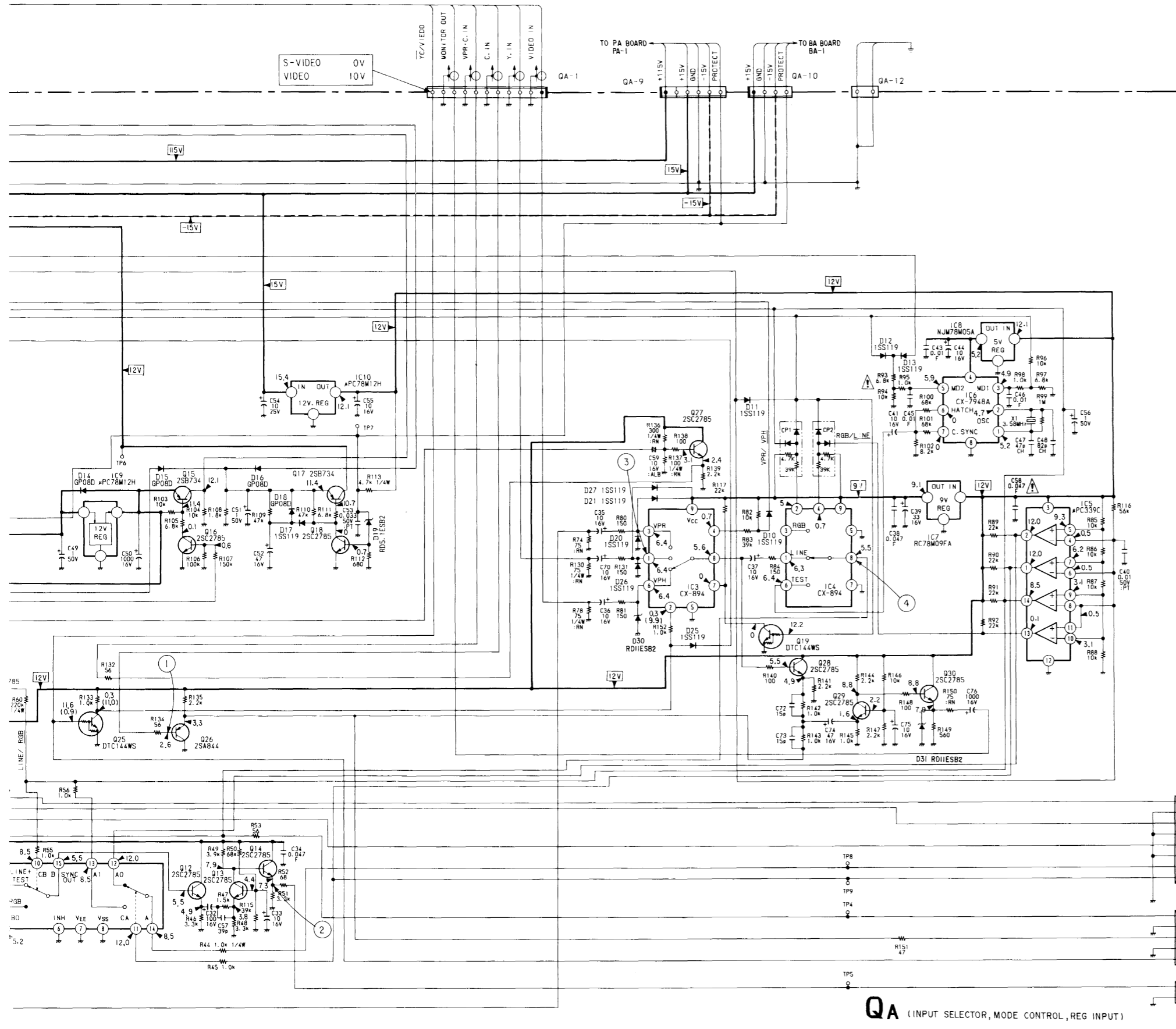
- RESISTOR
 - : RN METAL FILM
 - : RC SOLID
 - : FPRD NONFLAMMABLE CARBON
 - : FUSE NONFLAMMABLE FUSIBLE
 - : RW NONFLAMMABLE WIREWOUND
 - : RS NONFLAMMABLE METAL OXIDE
 - : RB NONFLAMMABLE CEMENT
 - ※ AJUSTMENT RESISTOR
- COIL
 - : LF-8L MICRO INDUCTOR
- CAPACITOR
 - : TA TANTALUM
 - : PS STYROL
 - : PP POLYPROPYLENE
 - : PT MYLAR
 - : MPS METALIZED POLYESTER
 - : MPP METALIZED POLYPROPYLENE
 - : ALB BIPOLAR
 - : ALT HIGH TEMPERATURE
 - : ALR HIGHRIPPLE

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



QA BOARD

①	②	②	②	③	④	④	④
S IN 0.65V _{p-p} (H)	PAL 2.3V _{p-p} (H)	SECAM 1.8V _{p-p} (H)	NTSC3.58/NTSC4.43 2.3V _{p-p} (H)	S IN 1.0V _{p-p} (H)	PAL 0.9V _{p-p} (H)	SECAM 0.7V _{p-p} (H)	NTSC3.58/NTSC4.43 0.9V _{p-p} (H)



QB

IC201	μPC393C	VPR DISCRI
202	CX-894	AUDIO SW
203	LA2600	AUDIO CONT
204	μPC1241H	AUDIO AMP
205	RC78L09A	9V REG
206	μPC78M12H	12V REG
207	μPC78M12H	-12V REG
210	HD14053BP	VPR SW
Q201	2SC2785	AUDIO BUFF
202	2SC2785	AUDIO INH
203	2SA1175	AUDIO INV
204	2SC2785	VR BUFF
205	DTC144WS	FAN SENS-1
206	DTC144WS	FAN SENS-2
210	2SC2785	C BUFF-1
211	2SC2785	C BUFF-2
D201	RD13ESB2	PROTECT-1
202	1SS119	PROTECT-2
203	1SS119	PROTECT-3
204	1SS119	PROTECT-4
205	1SS119	PROTECT-5
206	1SS119	PROTECT-6

QA

IC1	μPC393C	SYNC MIX
2	HD14053BP	MODE CONT.
3	CX-894	LINE SW
4	CX-894	TEST SW
5	μPC393C	MODE DISCRI
6	CX-7948A	HATCH GEN
7	RC78M09FA	9V REG
8	NJM78M05A	5V REG
9	μPC78M12H	RM 12V REG
10	μPC78M12H	12V REG
Q1	2SC2785	R BUFF
2	2SC2785	R OUT
3	2SC2785	G BUFF
4	2SC2785	G OUT
5	2SC2785	B BUFF
6	2SC2785	B OUT
7	2SD774	LIMIT BUFF
8	2SC2785	RGB BLK
9	2SB734	CLAMP BUFF
12	2SC2785	SYNC BUFF
13	2SC2785	SYNC AMP
14	2SC2785	SYNC OUT
15	2SB734	VPH SW
16	2SC2785	VPH DRIVE
17	2SB734	SW REG SW
18	2SC2785	ON HOLD SW
19	DTC144WS	TEST SW
25	DTC144WS	YC/V SW
26	2SA844	CROMA BUFF-1
27	2SC2785	CROMA BUFF-2
28	2SC2785	Y BUFF
29	2SC2785	YC AMP
30	2SC2785	M VIDEO BUFF
D1	1SS119	R CLAMP
2	1SS119	R LIMIT
3	1SS119	G CLAMP
4	1SS119	G LIMIT
5	1SS119	B CLAMP
6	1SS119	B LIMIT
7	1SS119	HD CLAMP
8	1SS119	VD CLAMP
9	1SS119	SYNC DISCRI
10	1SS119	VIDEO SW
11	1SS119	TEST SW
12	1SS119	HATCH SW
13	1SS119	BAR SW
14	GP08D	REG PROTECT
15	GP08D	VPR POWER
16	GP08D	VPH POWER
17	1SS119	KICK
18	GP08D	SET UP
19	RD5.1ESB2	PROTECT BIAS
20	1SS119	PROT-1
21	1SS119	PROT-2
25	1SS119	VPR SW
26	1SS119	PROT-3
27	1SS119	PROT-4
30	RD11ESB2	PROT
31	RD11ESB2	PROT

QA (INPUT SELECTOR, MODE CONTROL, REG INPUT)

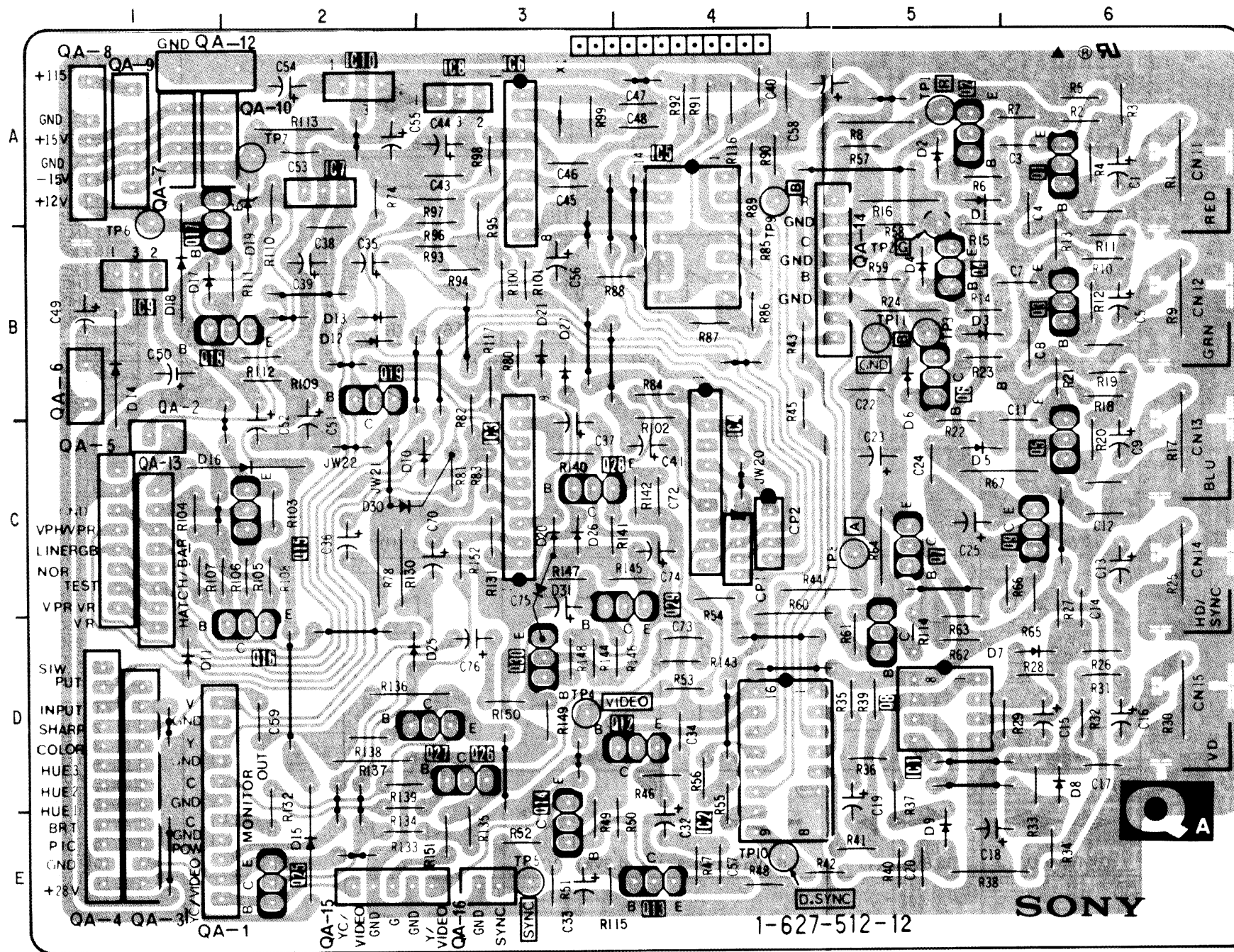
QA

[INPUT SELECTOR, MODE CONTROL, REG INPUT]

QB

[VIDEO/AUDIO INPUT, AUDIO AMP, SPEAKER OUT]

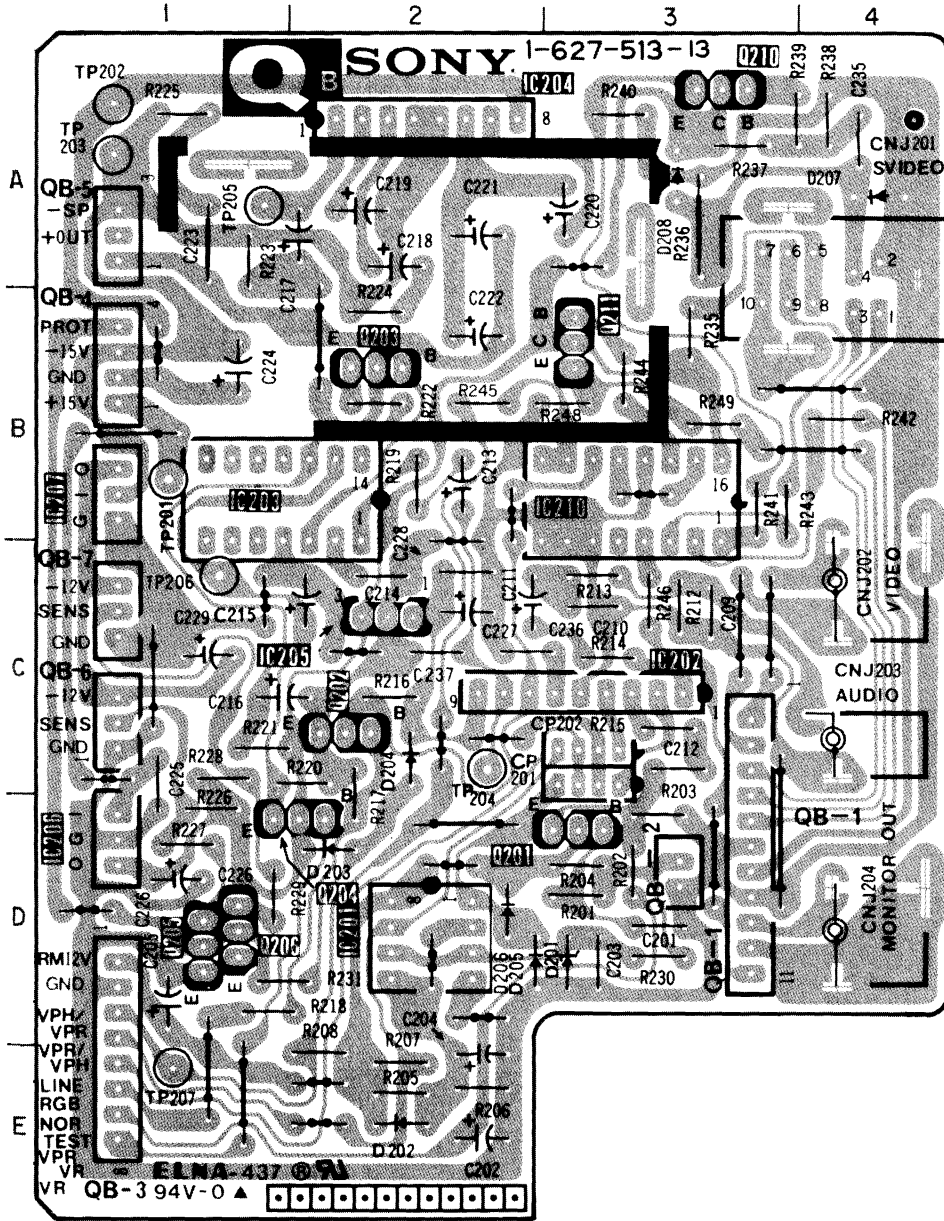
- QA BOARD -



QA BOARD

IC		DIODE	
IC1	D-5	D1	A-5
IC2	D-4	D2	A-5
IC3	C-3	D3	B-5
IC4	C-4	D4	B-5
IC5	A-4	D5	C-5
IC6	A-3	D6	B-5
IC7	A-2	D7	D-6
IC8	A-3	D8	D-6
IC9	B-1	D9	E-5
IC10	A-2	D10	B-2
TRANSISTOR		D11	D-1
		D12	B-2
Q1	A-6	D13	B-2
Q2	A-5	D14	B-1
Q3	B-6	D15	E-2
Q4	B-5	D16	C-2
Q5	C-6	D17	B-1
Q6	B-5	D18	B-1
Q7	C-5	D19	A-2
Q8	D-5	D20	C-3
Q9	C-6	D21	B-3
Q12	D-4	D25	D-2
Q13	E-4	D26	C-3
Q14	E-3	D27	B-3
Q15	C-2	D30	C-2
Q16	D-2	D31	C-3
Q17	B-1		
Q18	B-1		
Q19	B-2		
Q25	D-2		
Q26	D-3		
Q27	D-2		
Q28	C-3		
Q29	C-4		
Q30	D-3		

- QB BOARD -





QB BOARD

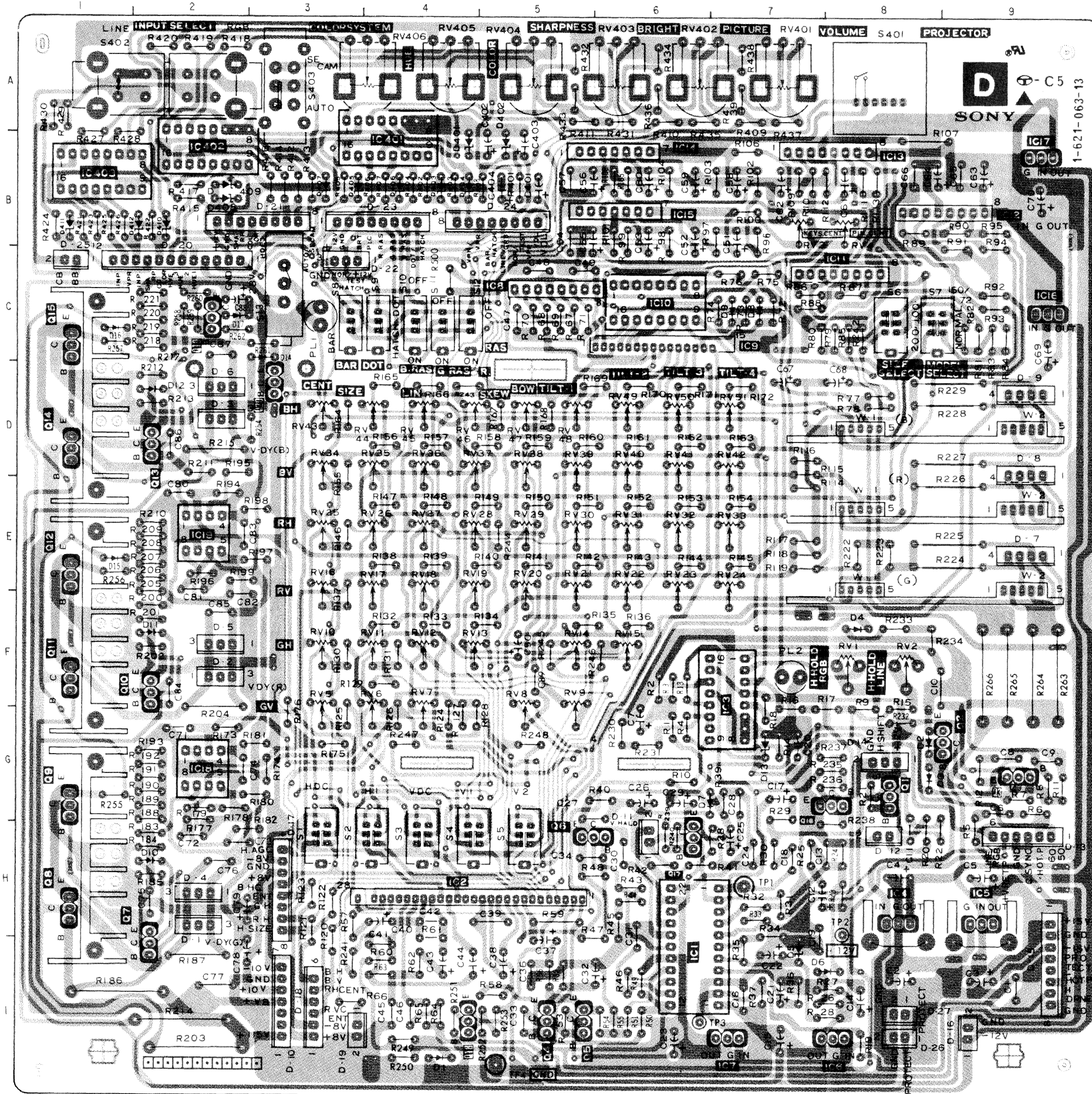
IC	
IC201	D-2
IC202	C-3
IC203	B-1
IC204	A-2
IC205	C-2
IC206	D-1
IC207	B-1
IC210	B-3
TRANSISTOR	
Q201	D-3
Q202	C-2
Q203	B-2
Q204	D-2
Q205	D-1
Q206	D-2
Q210	A-3
Q211	B-3
DIODE	
D201	D-3
D202	E-2
D203	D-2
D204	C-2
D205	D-2
D206	D-2

D

[RGB PROCESSOR, H. V BLK, ABL]

-  : Pattern from the side which enables seeing.
-  : Pattern of the rear side.

- D BOARD -



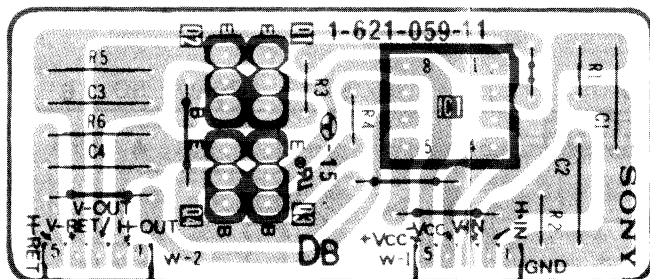
D BOARD

IC		D405	B-3
IC1	I-6	D406	B-4
IC2	H-4	D407	B-3
IC3	F-7	D408	B-2
IC4	H-8	D409	B-2
IC5	H-9	D410	B-2
IC6	I-8	D411	B-1
IC7	I-7	D412	B-2
IC8	C-5	VARIABLE RESISTOR	
IC9	C-7		
IC10	C-6	RV1	F-8
IC11	C-8	RV2	F-8
IC12	B-9	RV3	B-7
IC13	B-8	RV4	B-8
IC14	B-6	RV5	F-3
IC15	B-6	RV6	F-4
IC16	B-9	RV7	F-4
IC17	B-9	RV8	F-5
IC18	G-2	RV9	F-5
IC19	E-2	RV10	F-3
IC401	B-4	RV11	F-4
IC402	B-2	RV12	F-4
IC403	B-1	RV13	F-4
TRANSISTOR		RV14	F-5
Q1	G-8	RV15	F-6
Q2	G-7	RV16	E-3
Q3	G-9	RV17	E-4
Q4	I-5	RV18	E-4
Q5	I-5	RV19	E-4
Q6	H-5	RV20	E-5
Q7	I-2	RV21	E-5
Q8	J-1	RV22	E-6
Q9	G-1	RV23	E-6
Q10	F-2	RV24	E-7
Q11	F-1	RV25	E-3
Q12	E-1	RV26	E-4
Q13	D-2	RV27	E-4
Q14	D-1	RV28	E-4
Q15	C-1	RV29	E-5
Q16	G-8	RV30	E-5
Q17	H-6	RV31	E-6
Q18	I-4	RV32	E-6
Q19	C-2	RV33	E-7
Q20	D-3	RV34	D-3
DIODE		RV35	D-4
D1	I-4	RV36	D-4
D2	G-8	RV37	D-4
D3	G-8	RV38	D-5
D4	F-8	RV39	D-5
D5	I-7	RV40	D-6
D6	I-8	RV41	D-6
D7	G-6	RV42	D-7
D8	C-7	RV43	D-3
D9	C-7	RV44	D-4
D10	H-2	RV45	D-4
D11	F-2	RV46	D-4
D12	D-2	RV47	D-5
D13	G-7	RV48	D-5
D14	C-3	RV49	D-6
D15	E-1	RV50	D-6
D16	C-1	RV51	D-7
D17	C-2	RV401	A-7
D401	B-4	RV402	A-6
D402	B-5	RV403	A-6
D403	B-4	RV404	A-5
D404	B-4	RV405	A-4
		RV406	A-4

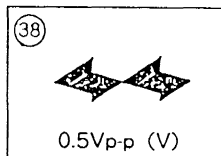
DB

[SUB OUT]

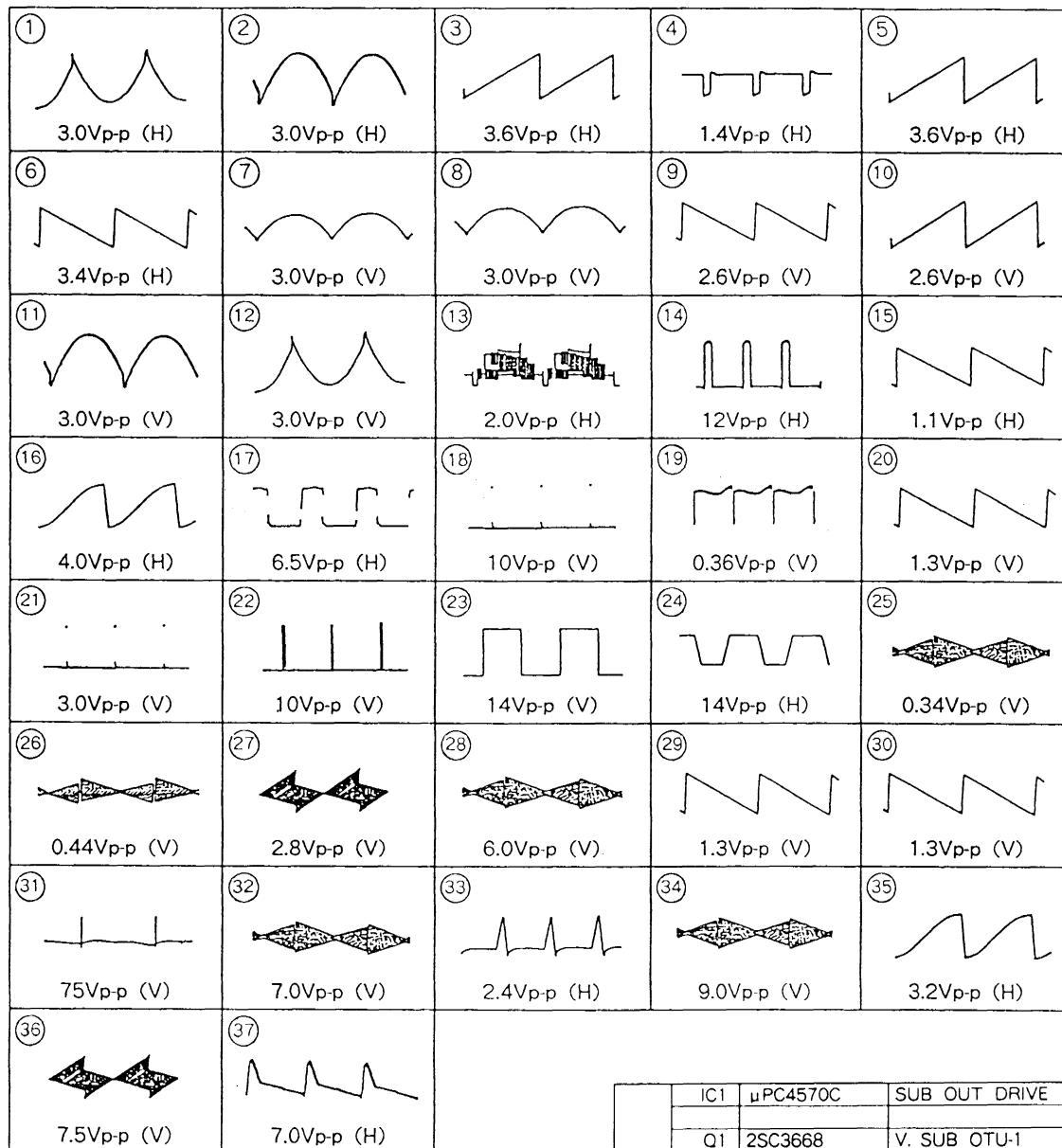
- DB BOARD -



DB BOARD



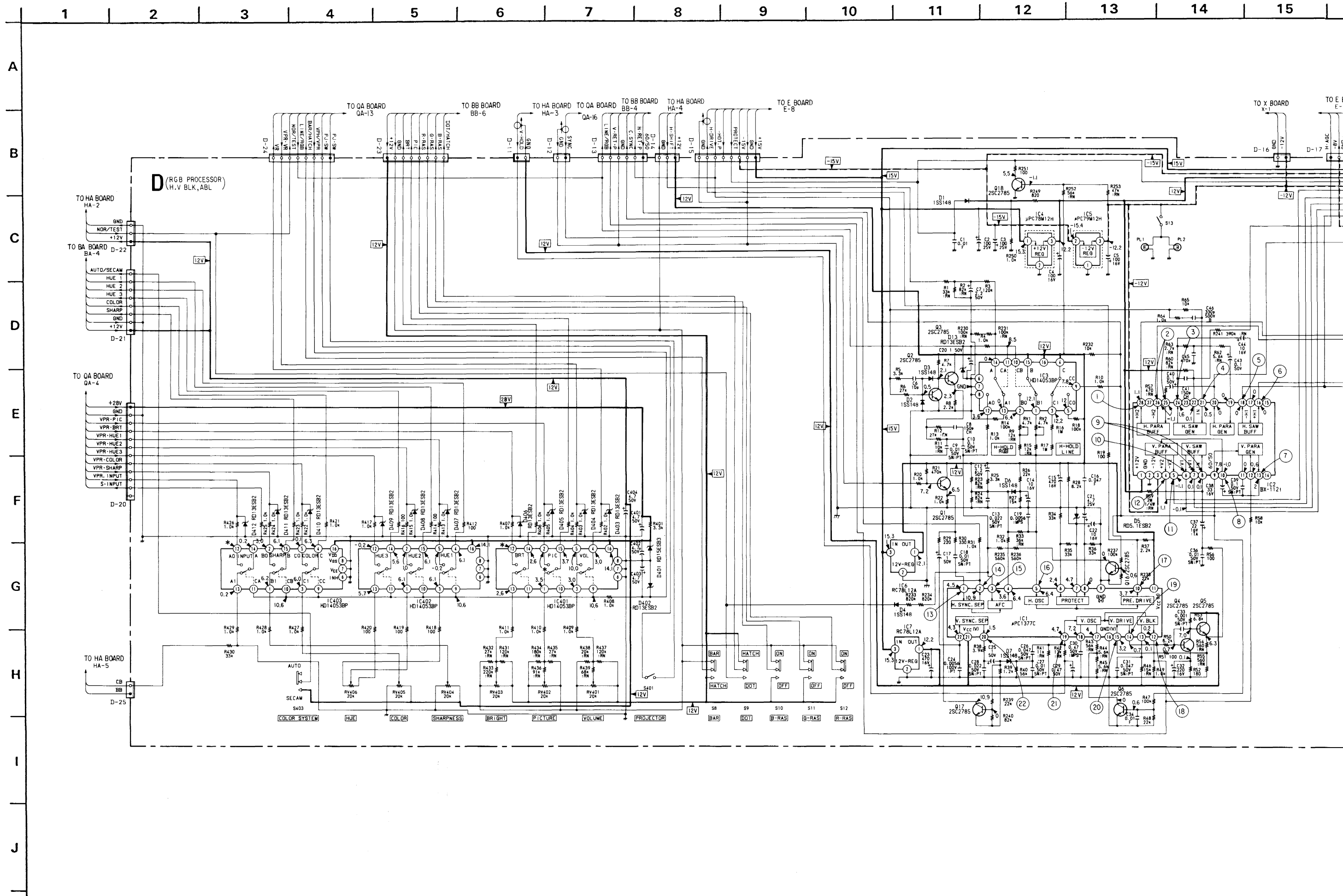
D BOARD



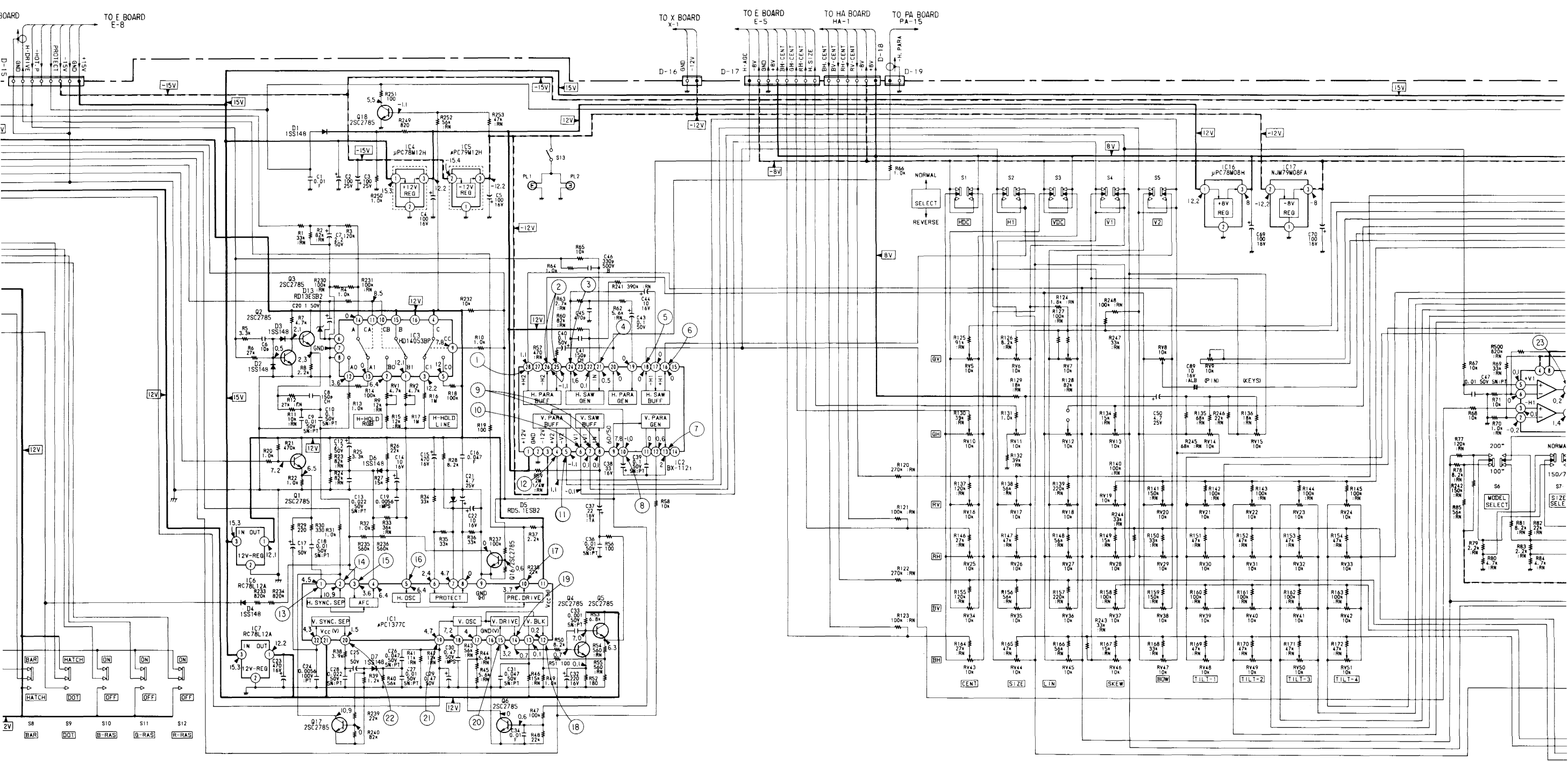
DB	IC1	μPC4570C	SUB OUT DRIVE
	Q1	2SC3668	V. SUB OTU-1
	2	2SA1428	V. SUB OTU-2
	3	2SC3668	H. SUB OTU-1
	4	2SA1428	H. SUB OTU-2

IC1	μPC1377C	H. V. OSC
2	BX-1121	SIG GEN
3	HD14053BP	MODE SW
4	μPC78M12H	+ 12V REG
5	μPC79M12H	- 12V REG
6	RC78L12A	12V REG (H)
7	RC78L12A	12V REG (V)
8	M5218L	HALF H. V.
9	BX-1122	TILT BUFF
10	MC14052BCP	TILT SW
11	M5218L	H. LIN BUFF
12	M5218L	V. KEYS BUFF
13	M5218L	V. PIN AMP
14	μPC1037HA	V. PIN GEN
15	μPC1037HA	KEYS GEN
16	μPC78M08H	+ 8V REG
17	NJM79M08FA	- 8V REG
18	μPC4558C	V. AMP MAIN
19	μPC4558C	V. AMP R/B
401	HD14053BP	REMOTE SW-1
402	HD14053BP	REMOTE SW-2
403	HD14053BP	REMOTE SW-3
Q1	2SC2785	SYNC BUFF
2	2SC2785	H. PULSE AMP
3	2SC2785	H. PULSE BUFF
4	2SC2785	V. SAW-1
5	2SC2785	V. SAW-2
6	2SC2785	V. SIZE 50-60
7	2SC2383	V. DRIVE-G
8	2SD1406	V. OUT (G)-1
9	2SB1015	V. OUT (G)-2
10	2SC2383	V. DRIVE-R
11	2SD1406	V. OUT (R)-1
12	2SB1015	V. OUT (R)-2
13	2SC2383	V. DRIVE-B
14	2SD1406	V. OUT (B)-1
15	2SB1015	V. OUT (B)-2
16	2SC2785	PAL H. SENT
17	2SC2785	V. SYNC. SEP
18	2SC2785	- 12V* PROT
19	2SC2785	V. OUT PROT-1
20	2SA1175	V. OUT PROT-2
D1	1SS148	PROTECT
2	1SS148	H. PULSE CLIP
3	1SS148	SPEED UP
4	1SS148	TEST H. CENT
5	RD5.1ESB2	HOLD DOWN REG
6	1SS148	H. OSC. LIMIT
7	1SS148	VD-SW
8	1SS148	HALF. V-SW
9	1SS148	HALF. H-SW
10	1SS148	V. BIAS (G)
11	1SS148	V. BIAS (R)
12	1SS148	V. BIAS (B)
13	RD13ESB2	SW PROT-13
14	1SS148	V. OUT PROT-1
15	1SS148	V. OUT PROT-2
16	1SS148	V. OUT PROT-3
17	1SS148	V. OUT PROT-4
401	RD15ESB3	SW PROT-1
402	RD13ESB2	SW PROT-2
403	RD13ESB2	SW PROT-3
404	RD13ESB2	SW PROT-4
405	RD13ESB2	SW PROT-5
406	RD13ESB2	SW PROT-6
407	RD13ESB2	SW PROT-7
408	RD13ESB2	SW PROT-8
409	RD13ESB2	SW PROT-9
410	RD13ESB2	SW PROT-10
411	RD13ESB2	SW PROT-11
412	RD13ESB2	SW PROT-12

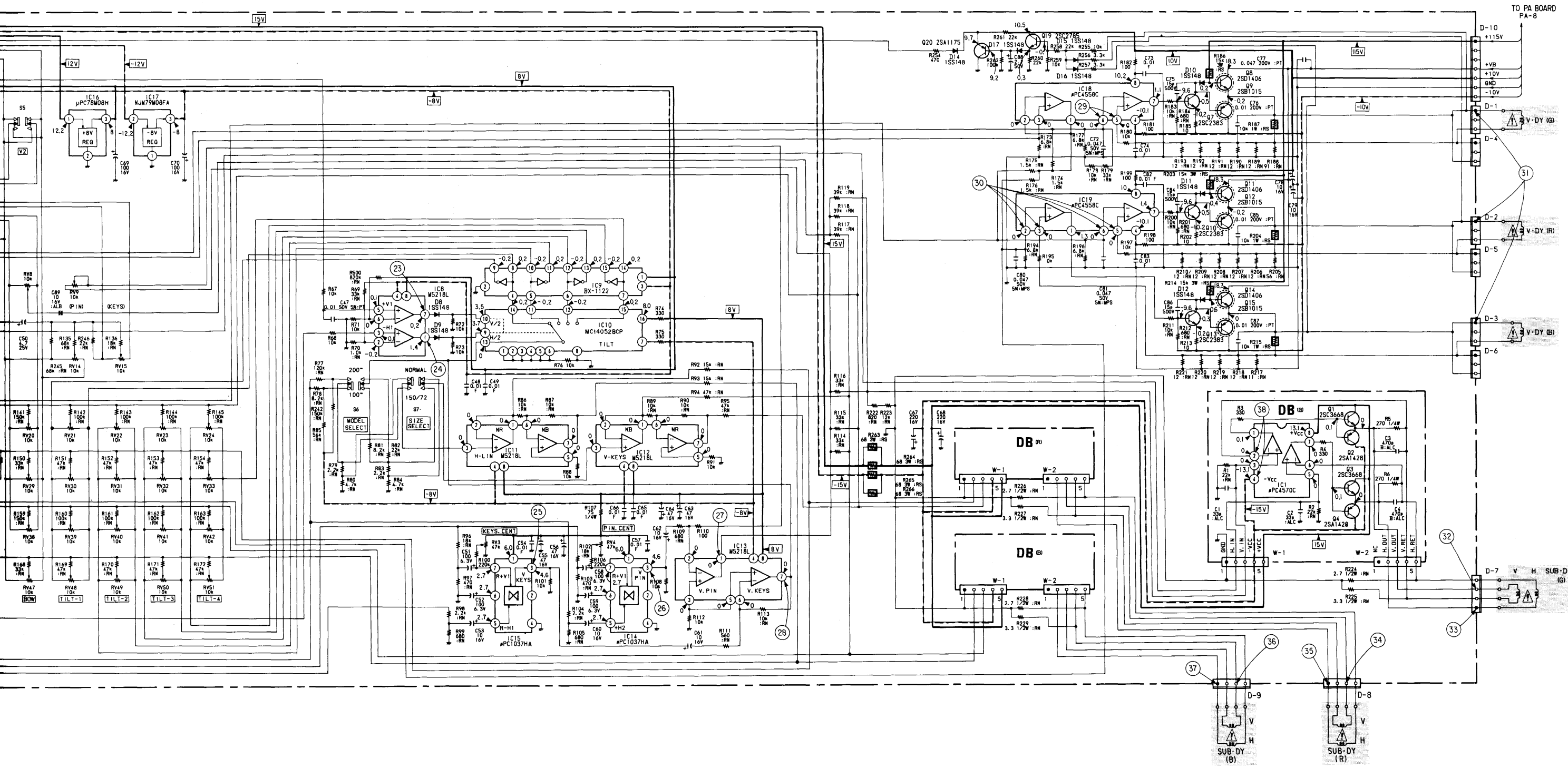
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

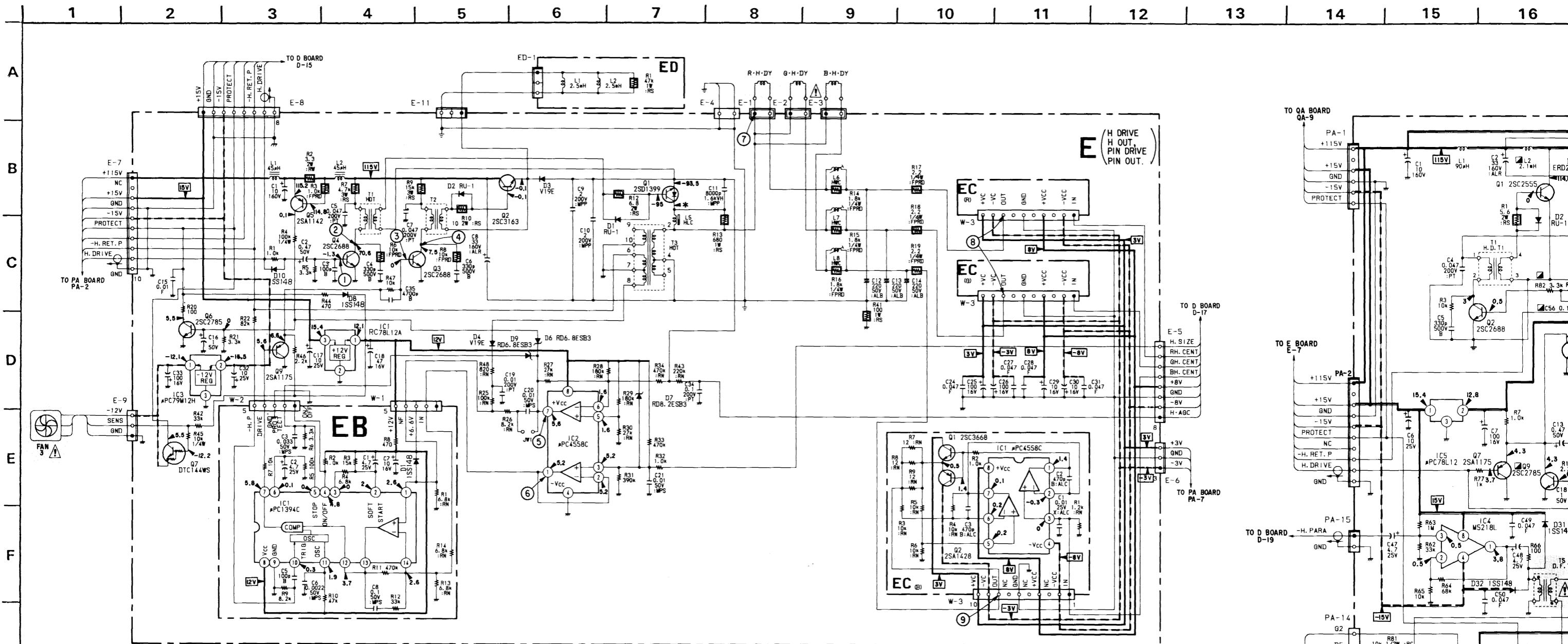


9 10 11 12 13 14 15 16 17 18 19 20 21 22 23



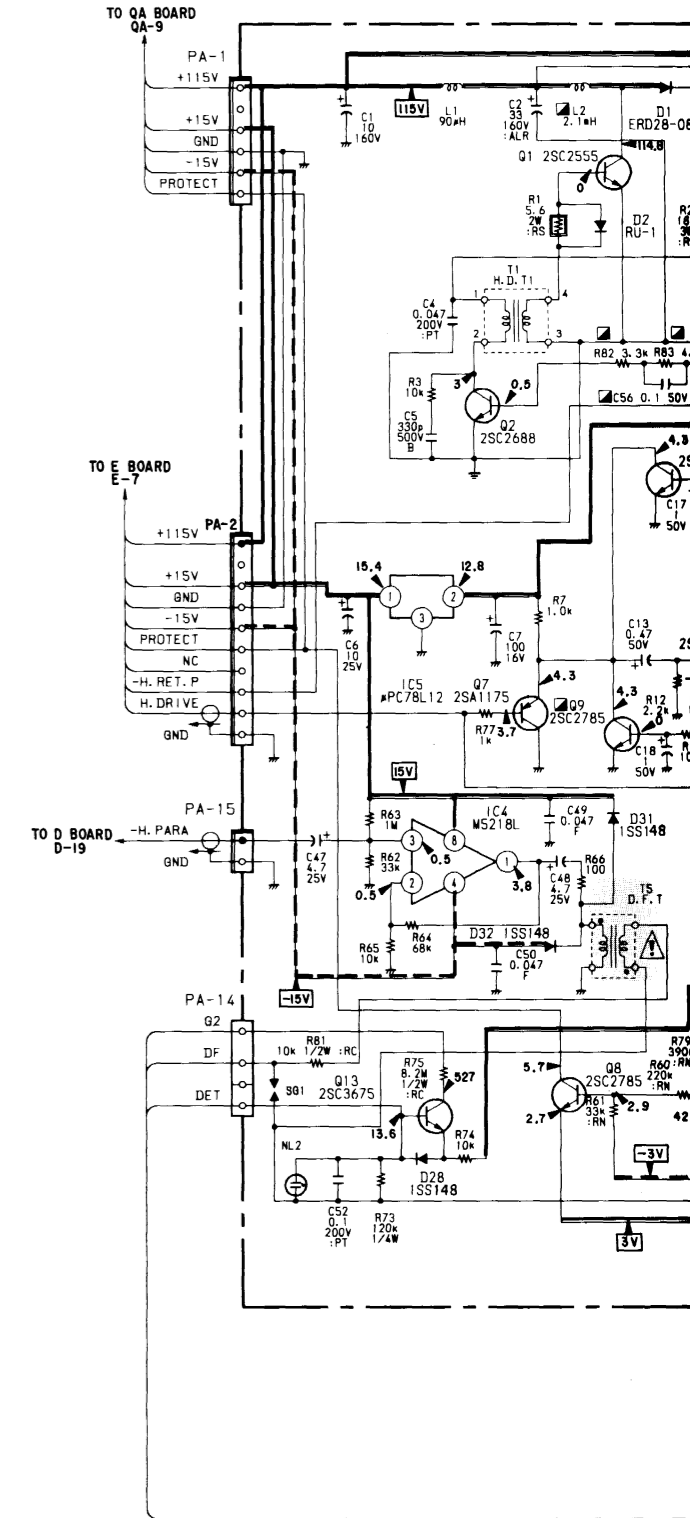
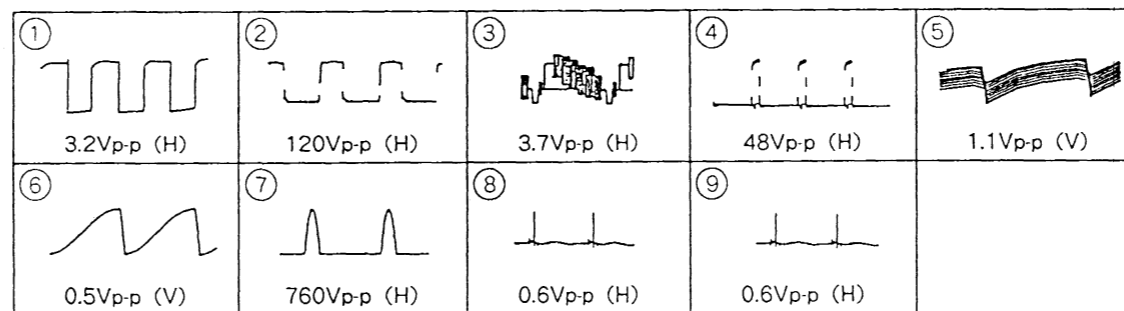
20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35





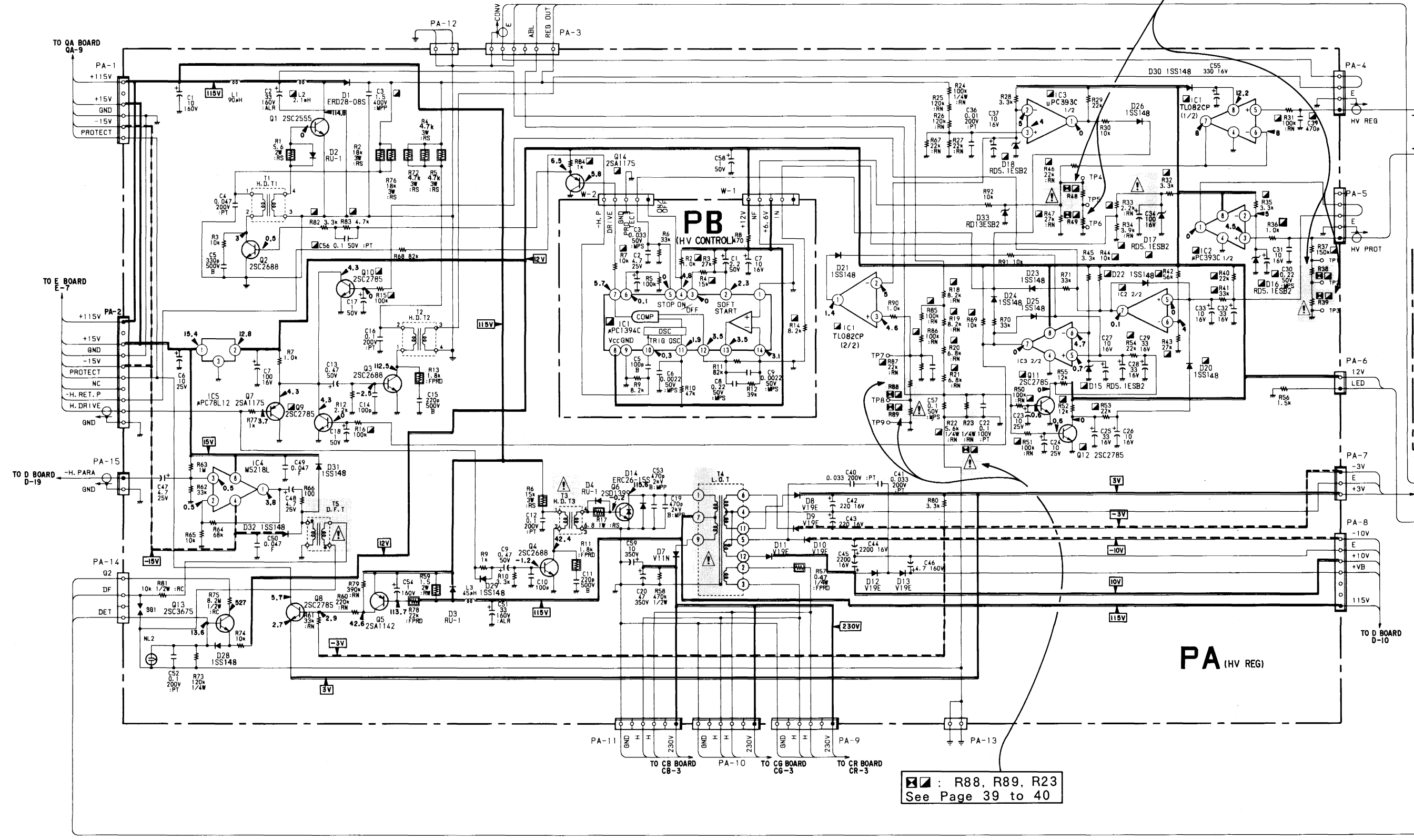
E	IC1	RC78L12A	12V REG
	2	μPC4558C	H. PIN AMP
	3	μPC79M12H	-12V REG
	Q1	2SD1399	H. OUT
	2	2SC3163	H. PIN OUT
	3	2SC2688	H. PIN DRIVE
	4	2SC2688	H. OUT DRIVE
	5	2SA1142	H. PIN OLP
	6	2SC2785	PROTECT SW-1
	7	DTC144WS	PROTECT SW-2
9	2SA1175	H. PIN BUFF	
EB	IC1	μPC1394C	H. PIN CONT.
	D1	1SS148	PROTECT
EC	IC1	μPC4558C	H. CENT. DRIVE
	Q1	2SC3668	H. CENT. OUT-1
	2	2SA1428	H. CENT. OUT-2

E BOARD



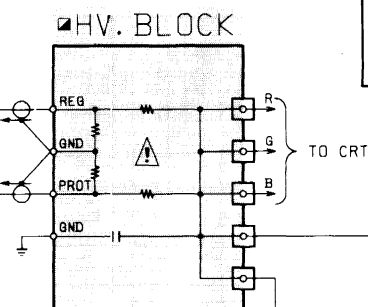
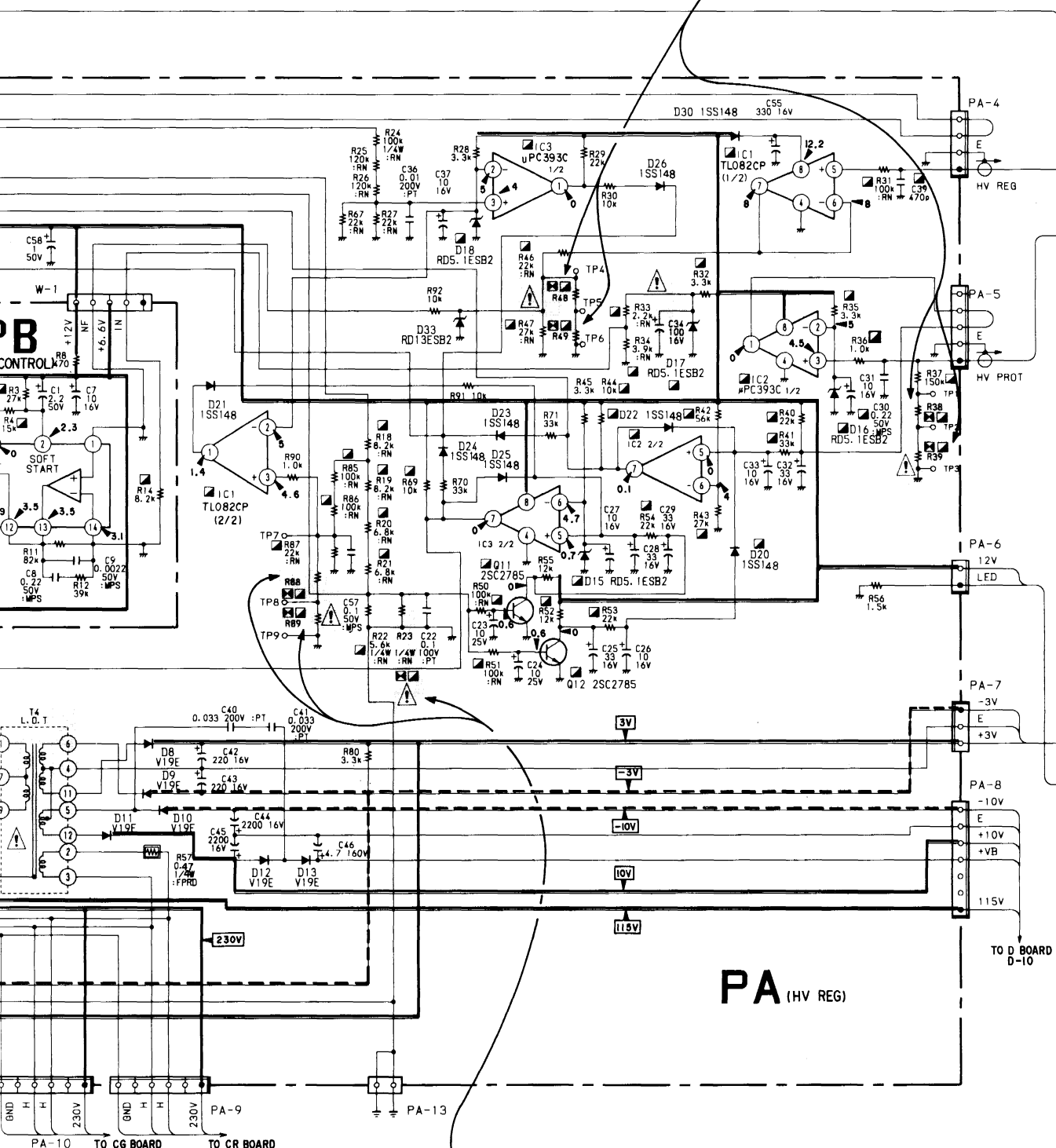
13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

▣ : R38, R39, R48, R49, See Page 39 to 40

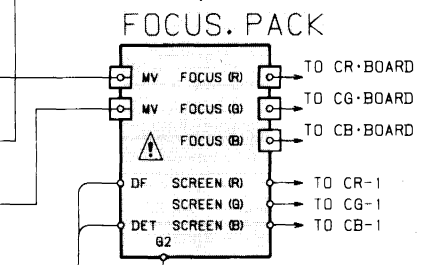
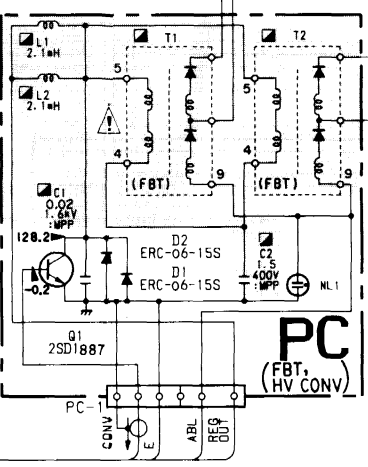


▣ : R88, R89, R23 See Page 39 to 40

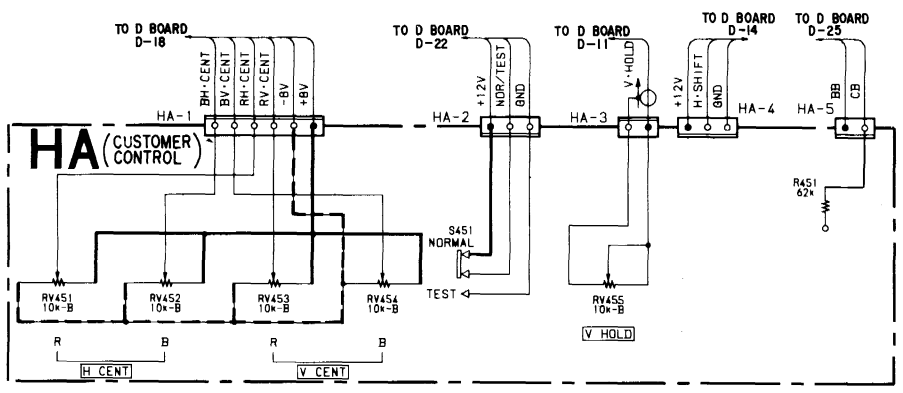
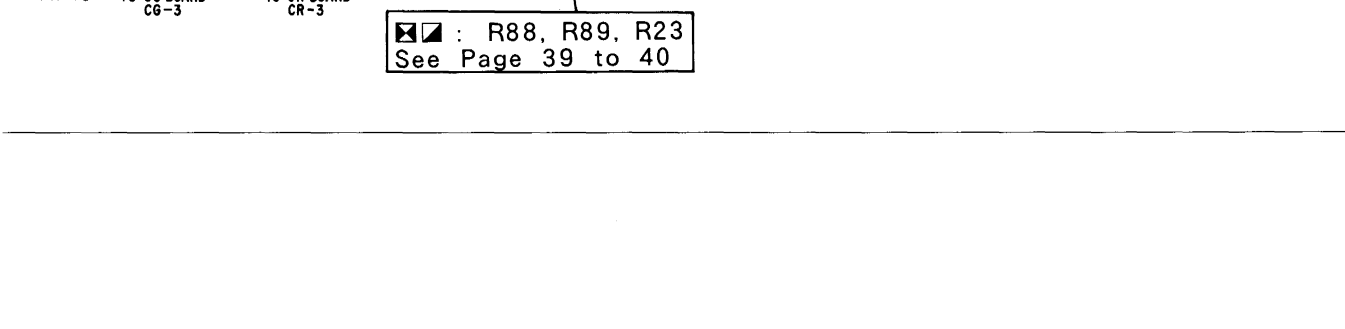
■ : R38, R39, R48, R49.
See Page 39 to 40



CAUTION
Should replacement be required, replace only with the value originally used.



■ : R88, R89, R23
See Page 39 to 40



IC1	TL082CP	HV. REG DET
2	uPC393C	HV. DET
3	uPC393C	Σ IK DET
4	M5218L	D FOCUS AMP
5	uPC78L12	12V REG
Q1	2SC2555	HV. REG
2	2SC2688	HV. REG DRIVE
3	2SC2688	H. DRIVE-1
4	2SC2688	H. DRIVE-2
5	2SD1399	CURRENT PROT
6	2SA1175	CONV
7	2SC2785	H. DRIVE BUFF
8	2SC2785	PROT SW
9	2SC2785	HV. PROT SW-1
10	2SC2785	HV. PROT SW-2
11	2SC2785	Σ IK PROT DET-1
12	2SC2785	Σ IK PROT DET-2
13	2SC3675	G2 CONT
14	2SA1175	REG BUFF
D1	ERD28-08S	HV. REG CLAMP
2	RU-1	SPEED UP-1
3	RU-1	PROTECT-1
4	RU-1	SPEED UP-2
7	V11N	+230V RECT
8	V19E	+3V RECT
9	V19E	-3V RECT
10	V19E	-10V RECT
11	V19E	+10V RECT
12	V19E	V. STOPPER
13	V19E	V. RECT
14	ERC26-15S	DAMP-1
15	RD5.1ESB2	Σ IK ZENER
16	RD5.1ESB2	HV. PROT ZENER
17	RD5.1ESB2	HV. REG ZENER
18	RD5.1ESB2	REG OUT ZENER
20	1SS148	SW-1
21	1SS148	SW-5
22	1SS148	PROT HOLD
23	1SS148	SW-2
24	1SS148	SW-3
25	1SS148	Σ IK HOLD
26	1SS148	SW-4
28	1SS148	PROTECT-2
29	1SS148	SPEED UP-3
30	1SS148	
31	1SS148	D. F. PROT-1
32	1SS148	D. F. PROT-2
33	RD13EB2	
PC1	uPC1394C	HV. REG CONT
Q1	2SD1887	HV. CONV
D1	ERC06-15S	DAMP-1
2	ERC06-15S	DAMP-2
Y	GL-9NG2	POWER IND

E

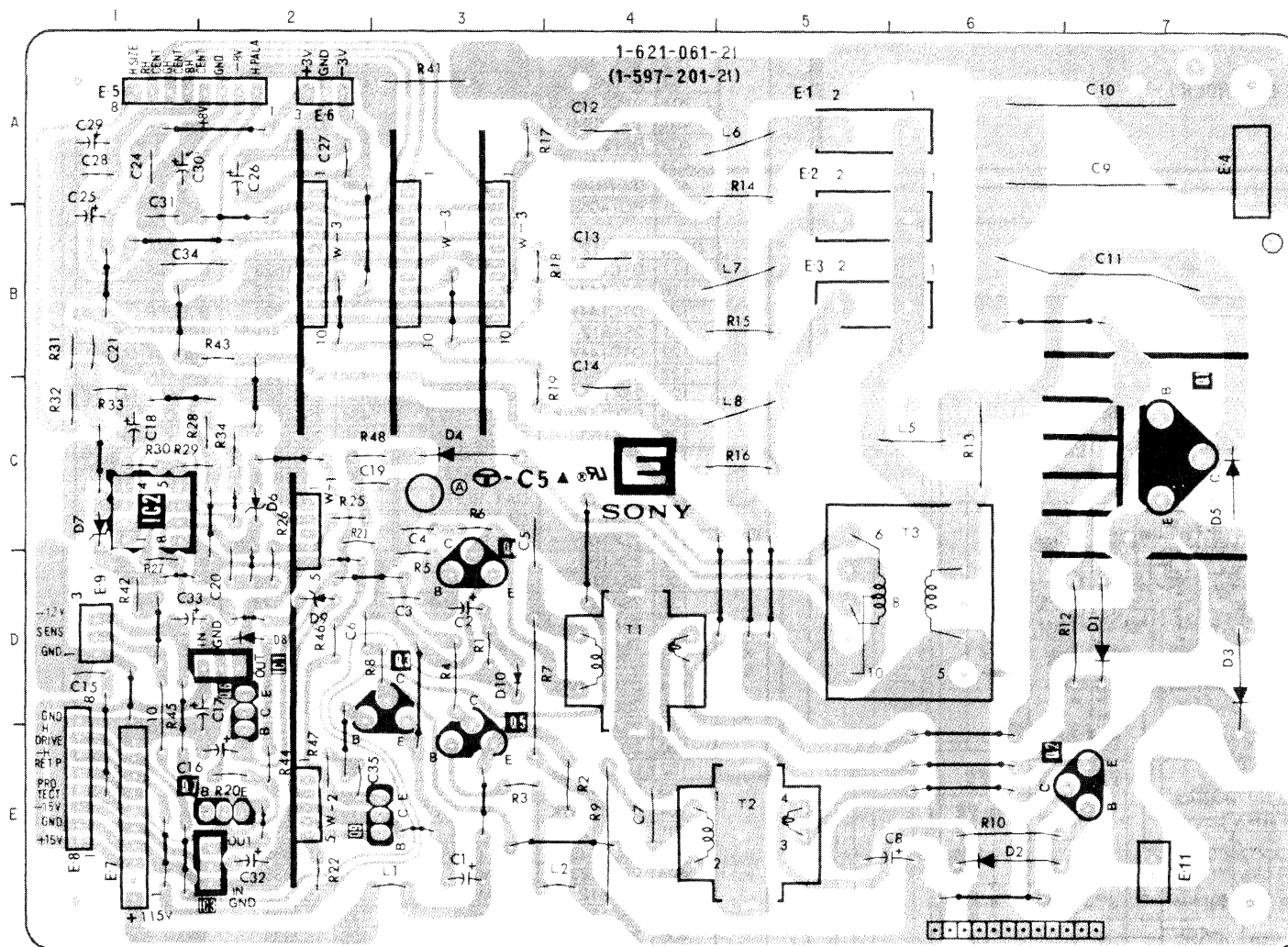
[H DRIVE, H OUT, PIN DRIVE, PIN OUT]

EB

[PIN MODE CONTROL]

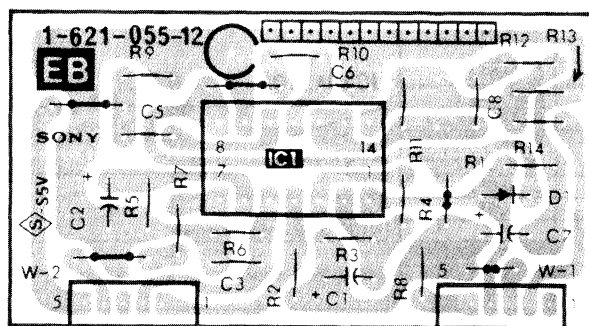
- E BOARD -

E BOARD

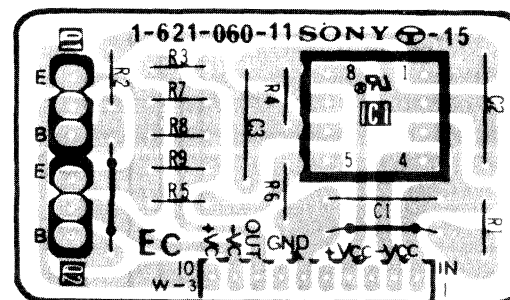


IC	
IC1	D-2
IC2	C-1
IC3	E-2
TRANSISTOR	
Q1	C-7
Q2	E-7
Q3	D-3
Q4	C-3
Q6	D-2
Q7	E-2
Q9	E-3
DIODE	
D1	D-7
D2	E-6
D3	D-7
D4	C-3
D6	C-2
D7	C-1
D8	D-2
D9	D-2
D10	D-3

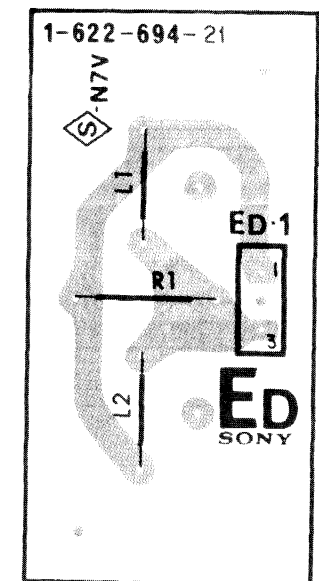
- EB BOARD -



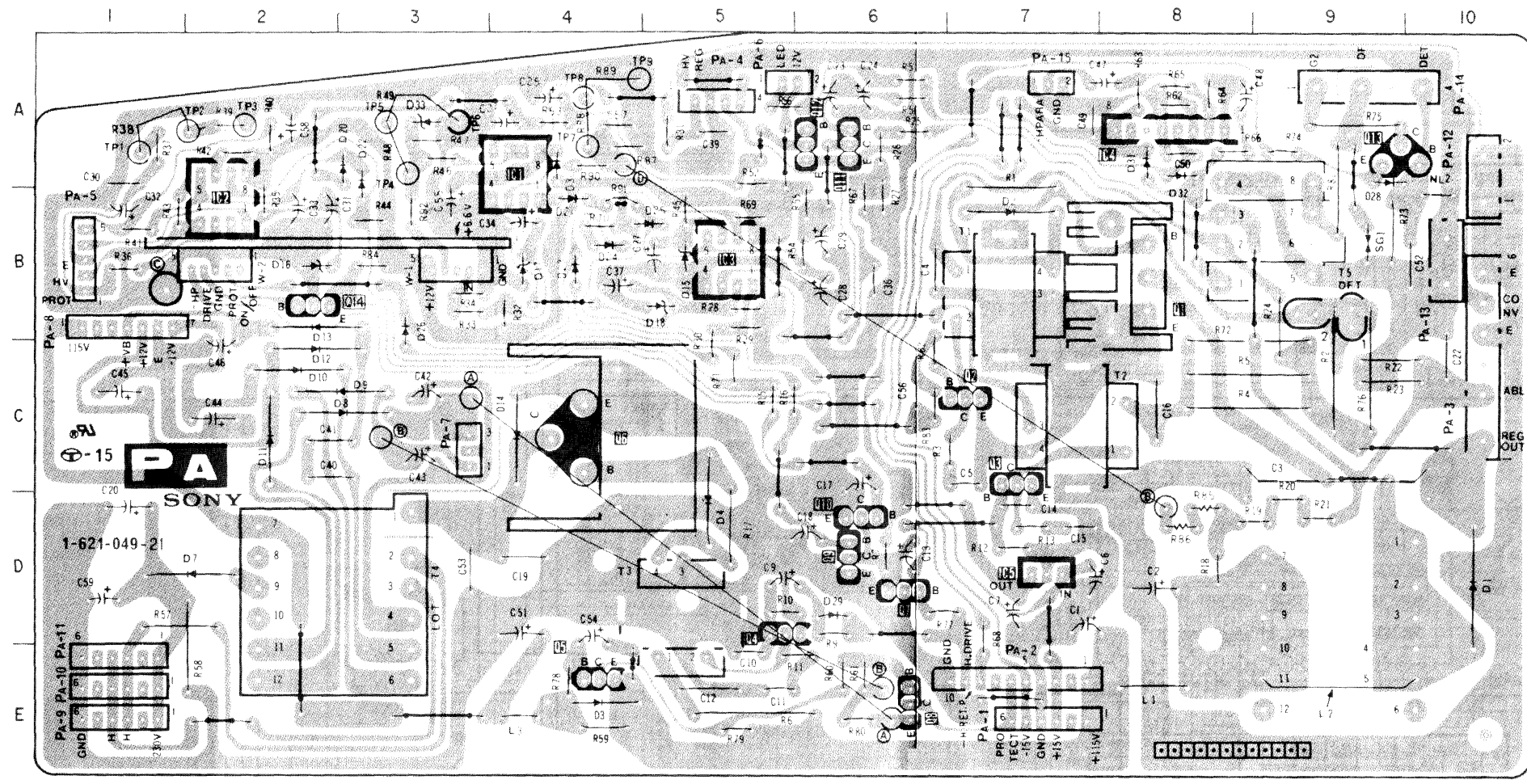
- EC BOARD -



- ED BOARD -



- PA BOARD -

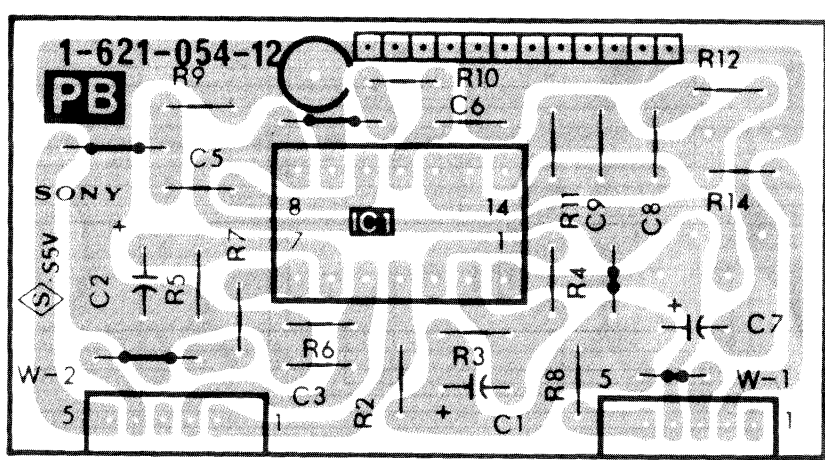


IC	
IC1	A-4
IC2	B-2
IC3	B-5
IC4	A-8
IC5	D-7

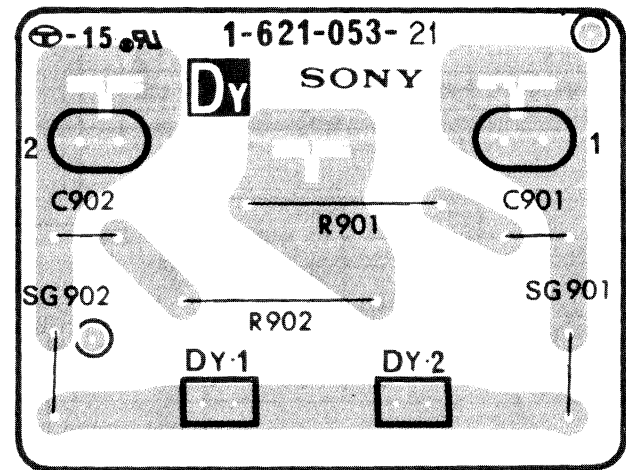
TRANSISTOR	
Q1	B-8
Q2	C-7
Q3	C-7
Q4	E-5
Q5	E-4
Q6	C-4
Q7	D-6
Q8	E-6
Q9	D-6
Q10	D-8
Q11	A-6
Q12	A-6
Q13	A-10
Q14	B-2

DIODE	
D1	D-10
D2	B-7
D3	E-4
D4	D-5
D7	D-2
D8	C-3
D9	C-3
D10	C-2
D11	C-2
D12	C-2
D13	B-2
D14	C-4
D15	B-5
D16	B-2
D17	B-4
D18	B-5
D20	A-3
D21	B-4
D22	B-3
D23	B-4
D24	B-4
D25	B-5
D26	B-3
D28	B-9
D29	D-6
D30	A-4
D31	A-8
D32	A-8
D33	A-3

- PB BOARD -



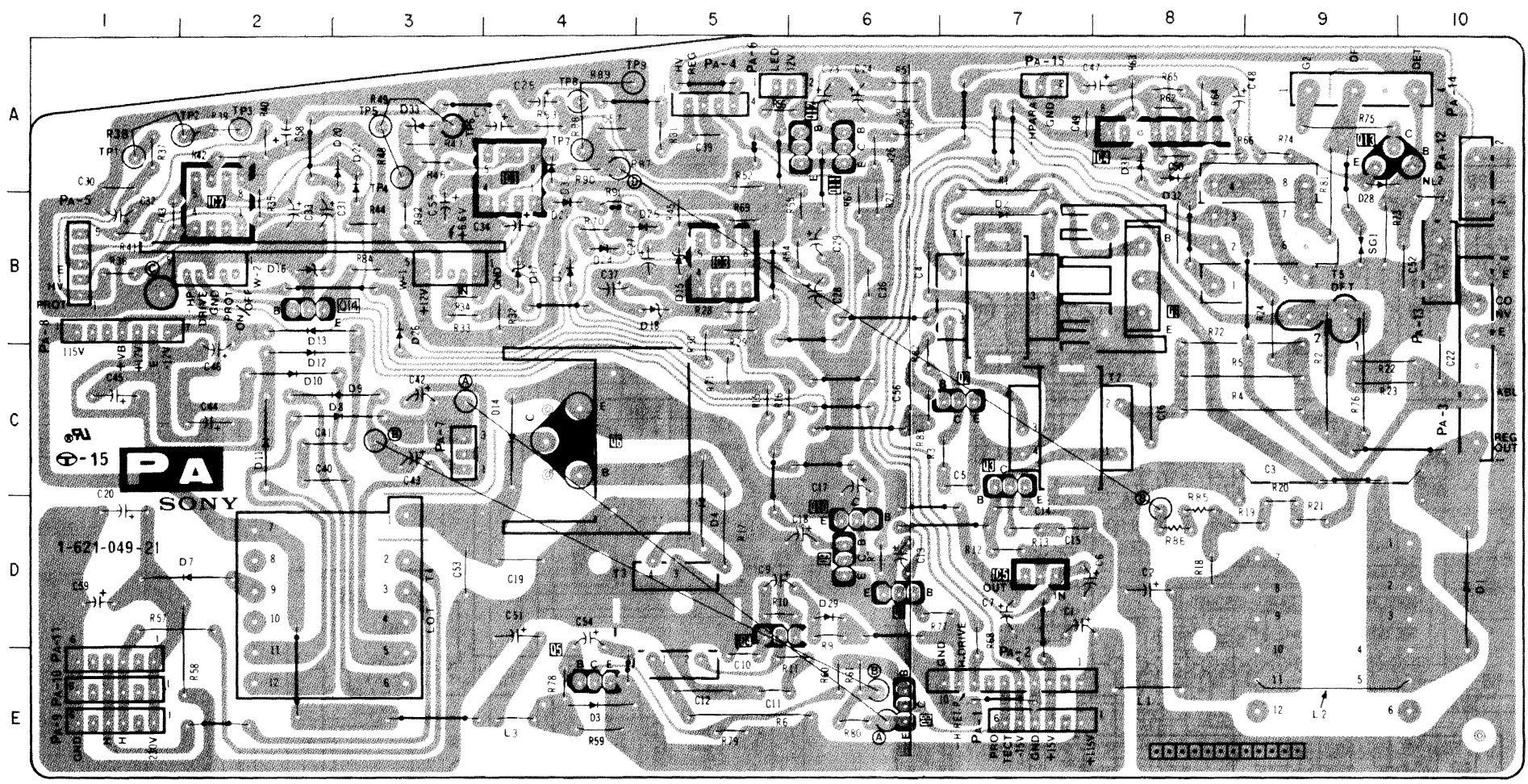
- DY BOARD -



TP	
TP1	A-1
TP2	A-2
TP3	A-2
TP4	A-3
TP5	A-3
TP6	A-3
TP7	A-4
TP8	A-4
TP9	A-5

EC [V OUT] **ED** [NOISE FILTER] **PA** [HV REG] **PB** [HV CONTROL] **DY** [HV COMBINATION]

— PA BOARD —



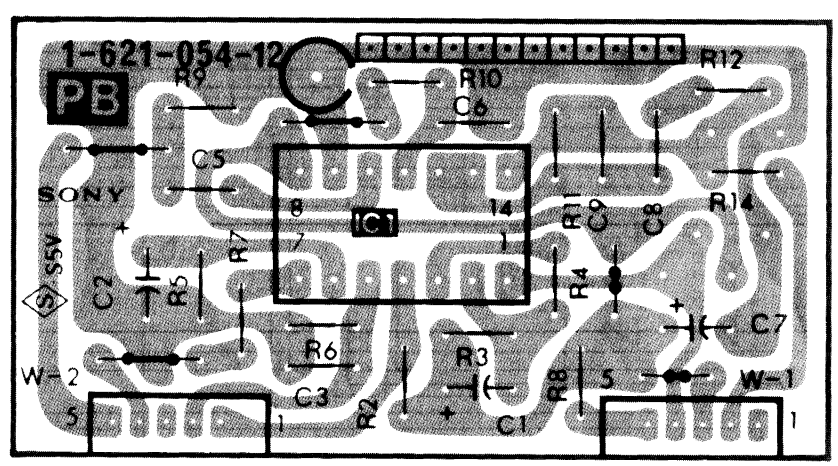
PA BOARD

IC	
IC1	A-4
IC2	B-2
IC3	B-5
IC4	A-8
IC5	D-7

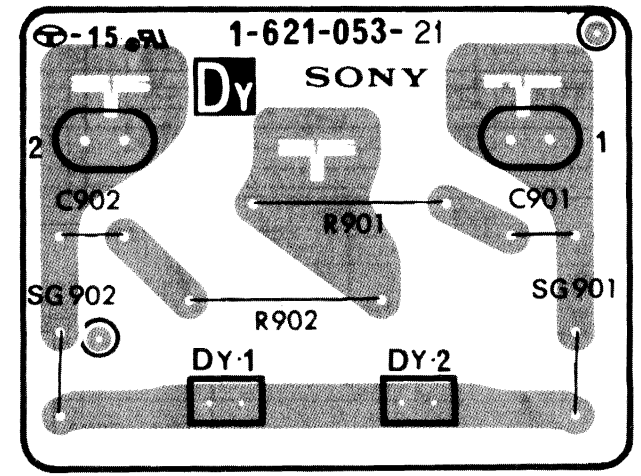
TRANSISTOR	
Q1	B-8
Q2	C-7
Q3	C-7
Q4	E-5
Q5	E-4
Q6	C-4
Q7	D-6
Q8	E-6
Q9	D-6
Q10	D-6
Q11	A-6
Q12	A-6
Q13	A-10
Q14	B-2

DIODE	
D1	D-10
D2	B-7
D3	E-4
D4	D-5
D7	D-2
D8	C-3
D9	C-3
D10	C-2
D11	C-2
D12	C-2
D13	B-2
D14	C-4
D15	B-5
D16	B-2
D17	B-4
D18	B-5
D20	A-3
D21	B-4
D22	B-3
D23	B-4
D24	B-4
D25	B-5
D26	B-3
D28	B-9
D29	D-6
D30	A-4
D31	A-8
D32	A-8
D33	A-3

— PB BOARD —



— DY BOARD —



TP	
TP1	A-1
TP2	A-2
TP3	A-2
TP4	A-3
TP6	A-3
TP7	A-4
TP8	A-4
TP9	A-5

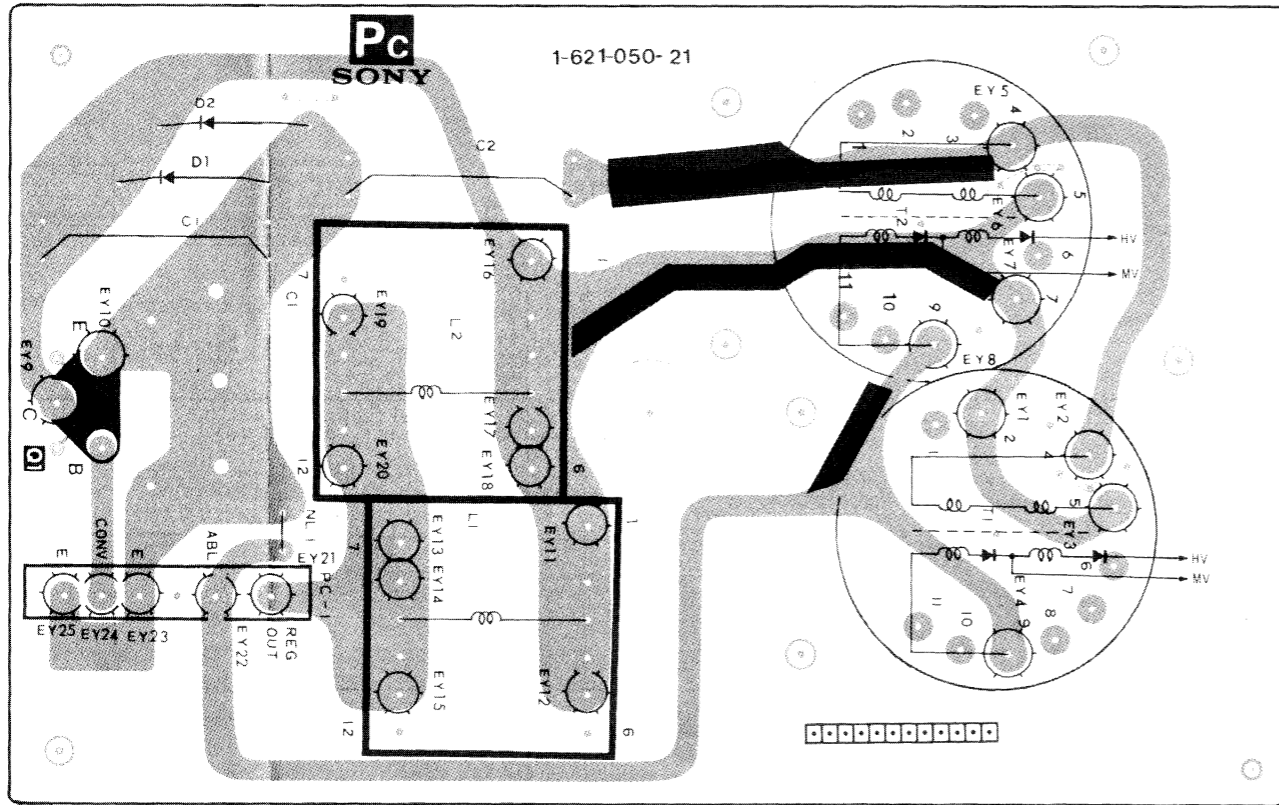
PC [FBT, HV CONV.]

HA [CUSTOMER CONTROL]

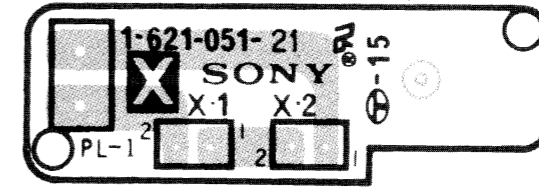
X [LAMP]

Y [POWER IND]

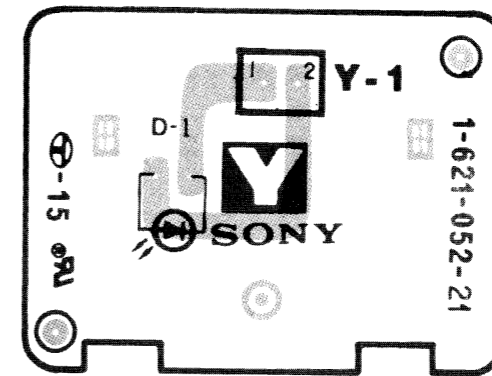
- PC BOARD -



- X BOARD -

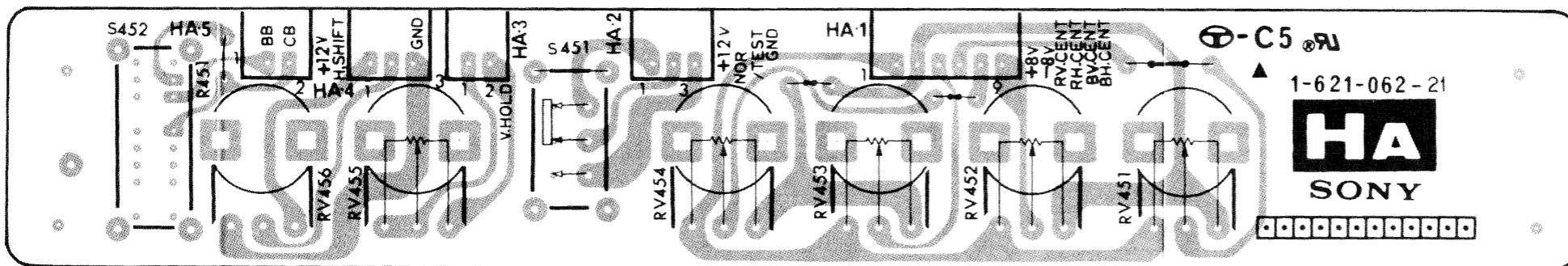


- Y BOARD -



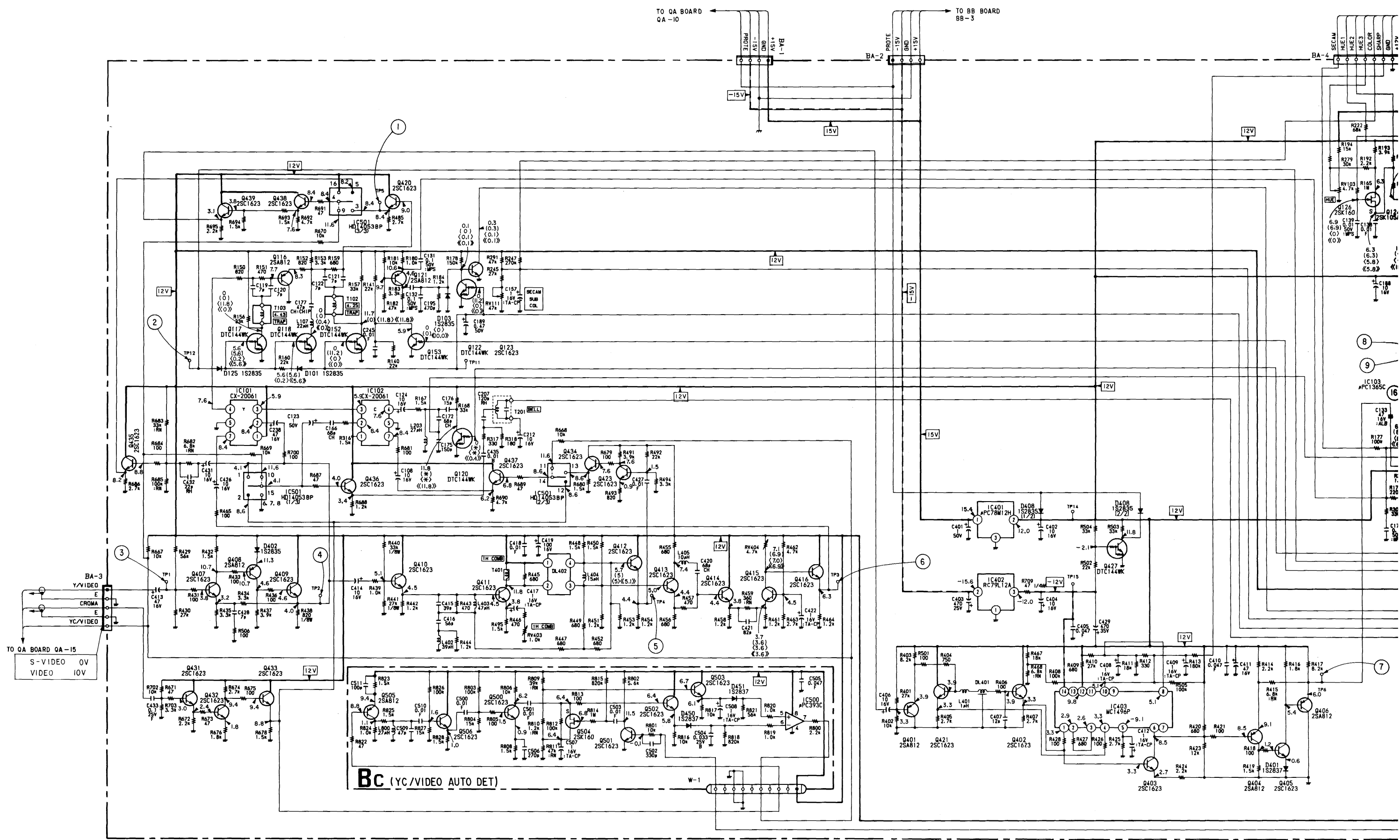
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

- HA BOARD -



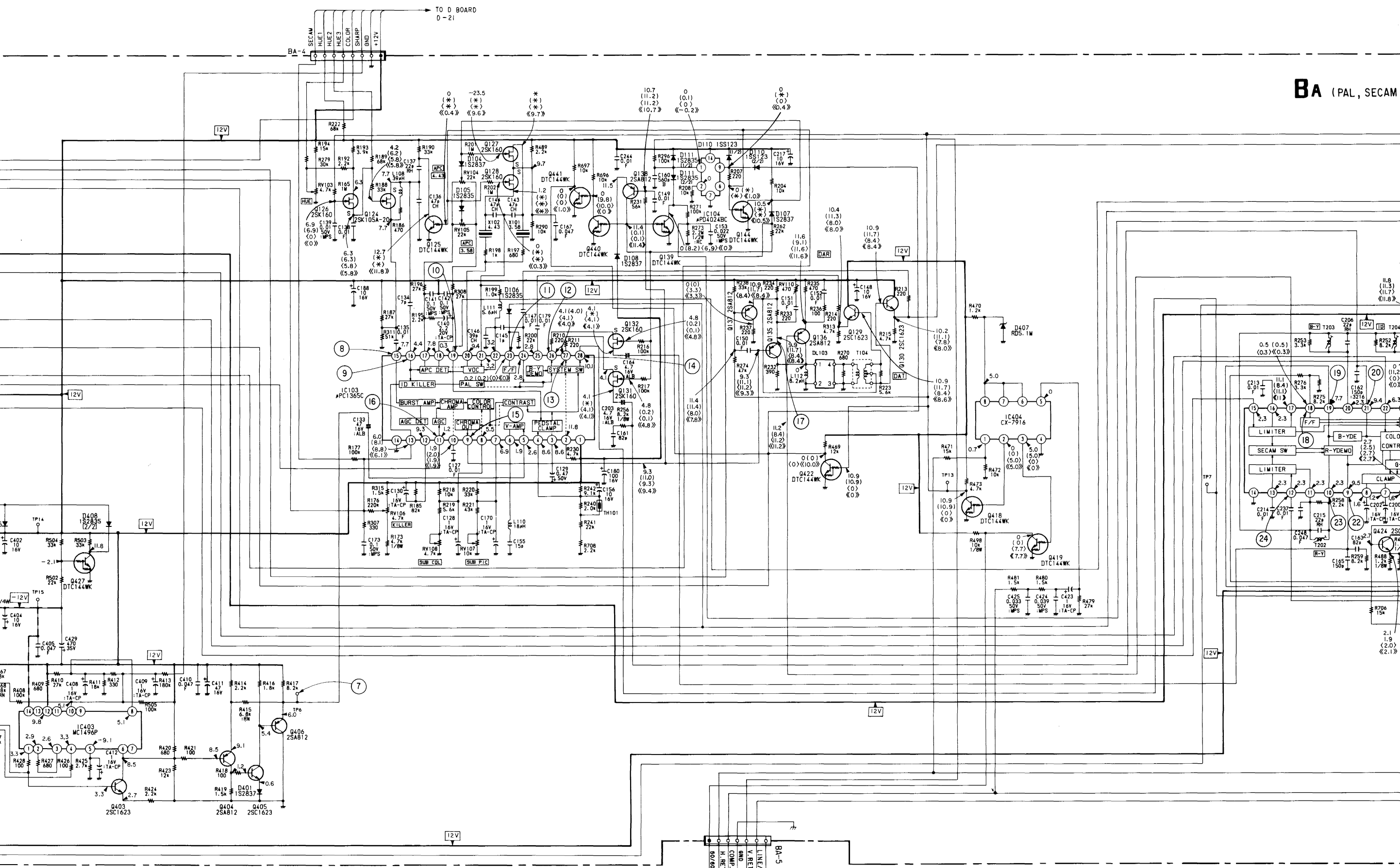
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

A
B
C
D
E
F
G
H
I
J

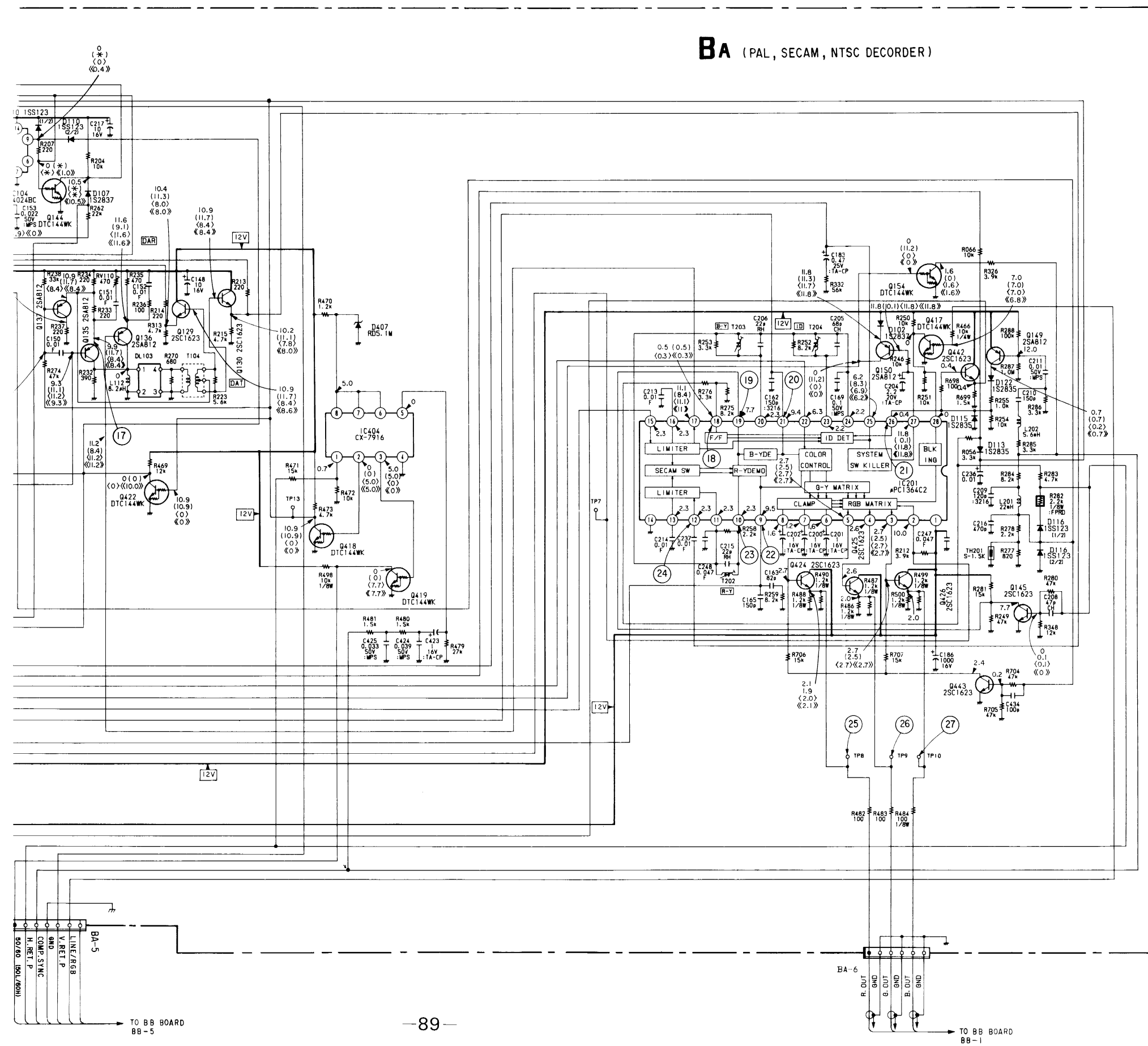


13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

BA (PAL, SECAM, ...)



BA (PAL, SECAM, NTSC DECORDER)



IC101	CX-20061	NT PAL SW1	Q412	2SC1623	CHROMA BUFF
102	CX-20061	NT PAL SW2	413	2SC1623	COMB Y AMP-1
103	μPC1365C	NT PAL DEM	414	2SC1623	COMB Y AMP-2
104	μPD4024BC	COL MODE SEL	415	2SC1623	COMB Y AMP-3
201	μPC1364C2	SECAM DEM	416	2SC1623	COMB Y BUFF
401	μPC78M12H	+ 12V REG	417	DTC144WK	BLK SW
402	RC79L12A	- 12V REG	418	DTC144WK	50/60 INV
403	MC1496P	APT CTL	419	DTC144WK	60/50 INV
404	CX-7916	50/60 CTL	420	2SC1623	Y BUFF-1
501	HD14053BP	S/W SW	421	2SC1623	APT DRIVE-1
			422	DTC144WK	B/W SW
Q116	2SA812	Y-AMP-5	423	2SC1623	CHROMA SW
117	DTC144WK	TRAP SW-1	424	2SC1623	R BUFF
118	DTC144WK	PAL SW-1	425	2SC1623	G BUFF
120	DTC144WK	CHROMA SW	426	2SC1623	B BUFF
121	2SA812	ID AMP	427	DTC144WK	PROTECTOR
122	DTC144WK	ID SW-1	431	2SC1623	CROMA BUFF-1
123	2SC1623	ID SW-2	432	2SC1623	CROMA AMP
124	2SK105-20	HUE CONT	433	2SC1623	CROMA BUFF-2
125	DTC144WK	PHASE SW-2	434	2SC1623	NT C BUFF
126	2SK160	PHASE CONT-1	435	2SC1623	NT Y AMP
127	2SK160	OSC SW-1	436	2SC1623	SECAM C BUFF
128	2SK160	OSC SW-2	437	2SC1623	NT C BUFF
129	2SC1623	DAT BUFF-1	438	2SC1623	Y-BUFF-2
130	2SC1623	DAT BUFF-2	439	2SC1623	Y-BUFF-3
131	2SA812	B-Y SW	440	DTC144WK	W/B SW-1
132	2SK160	R-Y SW	441	DTC144WK	W/B SW-2
135	2SA812	PAL AMP	442	2SC1623	BPT BUFF
136	2SA812	SECAM AMP	443	2SC1623	CUT OFF ADJ
137	2SA812	NTSC SW			
138	2SA812	COL SW	D101	1S2835	SW-2
139	DTC144WK	SYSTEM SW-2	102	1S2837	LEVEL SHIFT-1
144	DTC144WK	SYSTEM SW-1	103	1S2835	SLICE
145	2SC1623	INV-1	104	1S2837	APC SW-1
149	2SA812	INV-2	105	1S2835	APC SW-2
150	2SA812	SECAM SW-1	106	1S2835	PROT-3
152	DTC144WK	TRAP SW-2	107	1S2837	TRAP SW-2
153	DTC144WK	TRAP SW-3	108	1S2837	LEVEL SHIFT-2
154	DTC144WK	SECAM SW-2	110	1SS123	PROT-1
401	2SA812	Y BUFF-4	111	1S2835	SYSTEM SW
402	2SC1623	APT DRIVE-1	113	1S2835	SW-1
403	2SC1623	Y AMP-1	115	1S2835	GGATE-1
404	2SA812	Y AMP-2	116	1SS123	GATE-3/CL
405	2SC1623	Y AMP-3	122	1S2835	GATE-2
406	2SA812	Y AMP-4	125	1S2835	TRAP SW-1
407	2SC1623	VIDEO AMP-1	401	1S2837	LEVEL SHIFT-3
408	2SA812	VIDEO AMP-2	402	1S2835	LEVEL SHIFT-4
409	2SC1623	VIDEO BUFF	407	RD5.1M	50/60 VCC
410	2SC1623	COMB BUFF	408	1S2835	PROTE
411	2SC1623	COMB AMP			

BA

IC500	μPC393C	S/V SW
Q500	2SC1623	C AMP-1
501	2SC1623	BGP SW-1
502	2SC1623	PEAK HOLD-1
503	2SC1623	PEAK HOLD-2
504	2SC1623	BGP SW-2
505	2SA812	C AMP-2
506	2SC1623	C BUFF
D450	1S2837	PEAK HOLD-1
451	1S2837	PEAK HOLD-2

IC101, 102

INPUT SIGNAL	CONTROL		SW ON	
	ⓐ	ⓑ	①-④	⑤-⑧
PAL		H	②-④	
SECAM				
NTSC 4.43				
NTSC 3.58 mono-chrome				
NTSC 3.58 color		L	⑦-⑧	

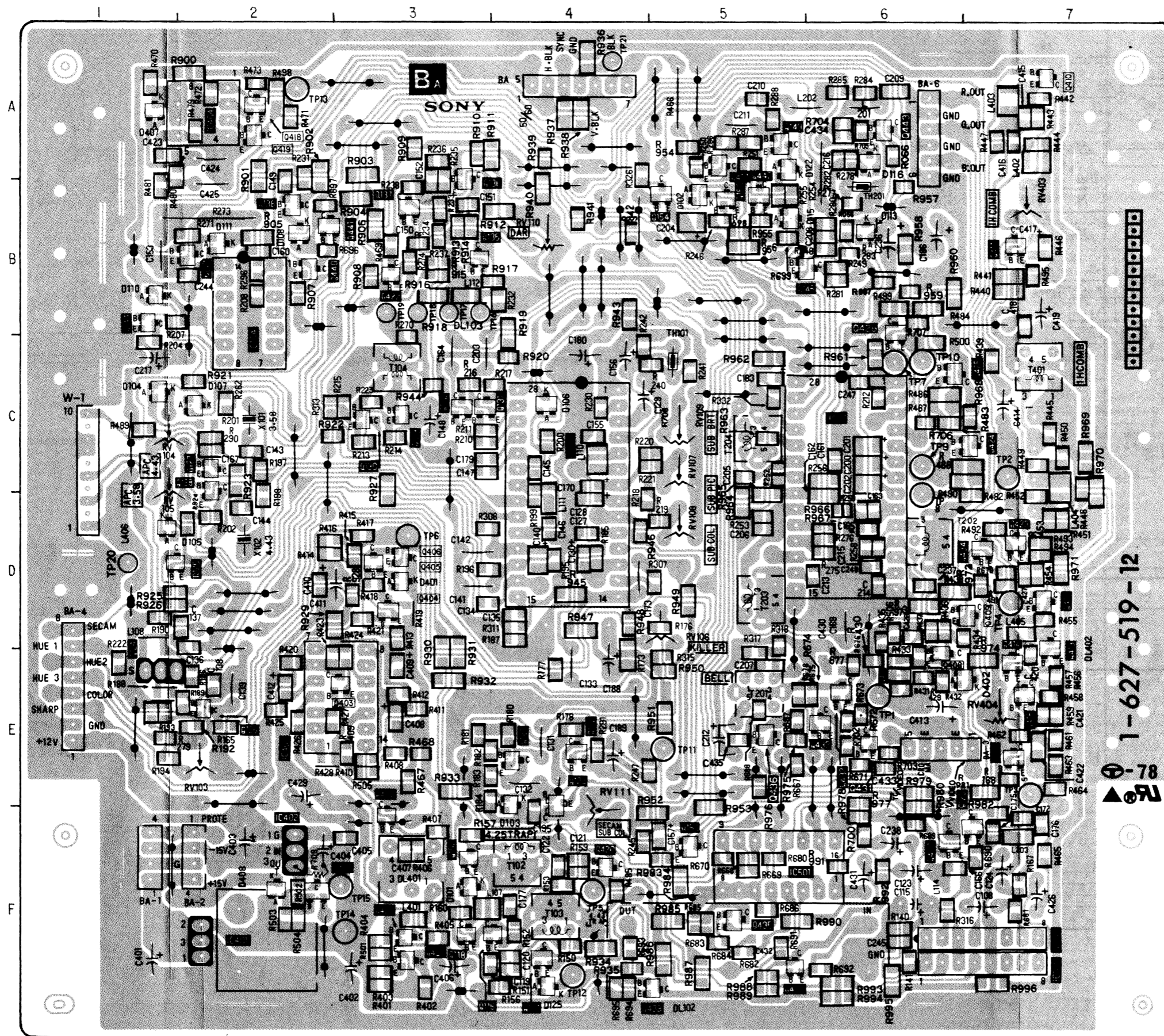
IC501

INPUT SIGNAL	CONTROL			SW ON			
	ⓐ	ⓑ	ⓒ	①-④	⑤-⑧	⑨-⑫	⑬-⑭
VIDEO IN	H	H	H	①-④	⑤-⑧	⑨-⑫	⑬-⑭
S-VIDEO IN	L	L	L	⑤-⑧	②-⑤	⑩-⑫	⑬-⑭

BA BOARD

① PAL 1.3Vp-p (H)	① SECAM 0.8Vp-p (H)	① NTSC3.58 1.25Vp-p (H)	① NTSC4.43 1.4Vp-p (H)	② PAL 0.05Vp-p (H)
③ PAL 0.9Vp-p (H)	③ SECAM 0.6Vp-p (H)	③ NTSC3.58 0.9Vp-p (H)	③ NTSC4.43 1.0Vp-p (H)	④ PAL 1.8Vp-p (H)
④ SECAM 1.2Vp-p (H)	④ NTSC3.58 1.8Vp-p (H)	④ NTSC4.43 2.0Vp-p (H)	⑤ PAL 0.4Vp-p (H)	⑤ SECAM 0.27Vp-p (H)
⑤ NTSC3.58/NTSC4.43 0.4Vp-p (H)	⑥ PAL 1.75Vp-p (H)	⑥ SECAM 1.1Vp-p (H)	⑥ NTSC3.58 1.6Vp-p (H)	⑥ NTSC4.43 1.8Vp-p (H)
⑦ PAL 0.7Vp-p (H)	⑦ SECAM 0.4Vp-p (H)	⑦ NTSC3.58 0.65Vp-p (H)	⑦ NTSC4.43 0.75Vp-p (H)	⑧ NTSC3.58/NTSC4.43 1.8Vp-p (H)
⑧ SECAM 1.2Vp-p (H)	⑨ PAL/NTSC3.58 0.36Vp-p (H)	⑨ SECAM 0.28Vp-p (H)	⑨ NTSC4.43 0.28Vp-p (H)	⑩ PAL/SECAM 1.9Vp-p (H)
⑩ NTSC3.58 2.0Vp-p (H)	⑩ NTSC4.43 1.8Vp-p (H)	⑪ PAL 1.4Vp-p (H)	⑪ SECAM 1.3Vp-p (H)	⑪ NTSC3.58/NTSC4.43 0.2Vp-p (H)
⑫ PAL 0.66Vp-p (H)	⑫ SECAM 0.5Vp-p (H)	⑫ NTSC3.58/NTSC4.43 0.58Vp-p (H)	⑬ PAL 0.9Vp-p (H)	⑬ SECAM 0.8Vp-p (H)
⑬ NTSC3.58 0.85Vp-p (H)	⑬ NTSC4.43 0.8Vp-p (H)	⑭ PAL 0.28Vp-p (H)	⑭ SECAM 0.32Vp-p (H)	⑭ NTSC3.58 0.24Vp-p (H)

⑭ NTSC4.43 2.8Vp-p (H)	⑮ PAL 0.5Vp-p (H)	⑮ NTSC3.58/NTSC4.43 0.26Vp-p (H)	⑯ PAL/NTSC3.58 0.2Vp-p (H)	⑯ SECAM 0.07Vp-p (H)
⑯ NTSC4.43 0.18Vp-p (H)	⑰ PAL 0.3Vp-p (H)	⑰ NTSC3.58/NTSC4.43 0.12Vp-p (H)	⑱ PAL/SECAM 2.5Vp-p (H)	⑱ NTSC3.58 1.7Vp-p (H)
⑱ NTSC4.43 1.8Vp-p (H)	⑲ 9.2Vp-p (H)	⑳ PAL 0.8Vp-p (H)	⑳ SECAM 1.1Vp-p (H)	⑳ NTSC3.58 0.8Vp-p (H)
⑳ NTSC4.43 0.7Vp-p (H)	㉑ 8.0Vp-p (H)	㉒ PAL 0.6Vp-p (H)	㉒ SECAM 0.8Vp-p (H)	㉒ NTSC3.58 0.52Vp-p (H)
㉒ NTSC4.43 0.5Vp-p (H)	㉓ PAL 0.7Vp-p (H)	㉓ SECAM 0.75Vp-p (H)	㉓ NTSC3.58 0.7Vp-p (H)	㉓ NTSC4.43 0.65Vp-p (H)
㉔ PAL 0.28Vp-p (H)	㉔ SECAM 0.18Vp-p (H)	㉔ NTSC3.58 0.24Vp-p (H)	㉔ NTSC4.43 0.28Vp-p (H)	㉕ PAL 1.4Vp-p (H)
㉕ SECAM 1.0Vp-p (H)	㉕ NTSC3.58 1.2Vp-p (H)	㉕ NTSC4.43 1.4Vp-p (H)	㉖ PAL 1.4Vp-p (H)	㉖ SECAM 1.0Vp-p (H)
㉖ NTSC3.58 1.2Vp-p (H)	㉖ NTSC4.43 1.4Vp-p (H)	㉗ PAL 1.4Vp-p (H)	㉗ SECAM 1.1Vp-p (H)	㉗ NTSC3.58 1.2Vp-p (H)
㉗ NTSC4.43 1.4Vp-p (H)				



BA BOARD

IC		Q417	B-5
IC101	F-7	Q418	A-2
IC102	F-7	Q419	A-2
IC103	C-4	Q420	F-4
IC104	B-2	Q421	F-3
IC201	C-6	Q422	B-3
IC401	F-2	Q423	D-7
IC402	F-2	Q424	C-7
IC403	E-2	Q425	C-6
IC404	A-2	Q426	B-6
IC501	F-5	Q427	F-2
		Q431	E-6
		Q432	E-6
		Q433	E-6
		Q434	D-7
		Q435	F-5
		Q436	E-5
		Q437	F-6
		Q438	F-5
		Q439	F-4
		Q440	B-2
		Q441	B-2
		Q442	B-5
		Q443	A-6
TRANSISTOR		DIODE	
Q116	F-4	D101	F-3
Q117	F-4	D102	B-5
Q118	F-3	D103	E-4
Q120	F-7	D104	C-1
Q121	E-4	D105	D-1
Q122	E-4	D106	C-4
Q123	E-4	D107	C-2
Q124	E-1	D108	B-2
Q125	D-1	D110	B-1
Q126	E-2	D111	B-2
Q127	C-2	D113	B-6
Q128	C-2	D115	B-5
Q129	C-3	D116	A-6
Q130	C-3	D122	A-5
Q131	C-3	D125	F-4
Q132	C-3	D125	F-4
Q135	B-3	D401	D-3
Q136	B-3	D402	E-7
Q137	B-3	D407	A-1
Q138	B-2	D408	F-2
Q139	B-2		
Q144	B-1	VARIABLE RESISTOR	
Q145	B-6	RV103	E-2
Q149	A-5	RV104	C-1
Q150	B-5	RV105	D-1
Q152	F-3	RV106	D-5
Q153	F-5	RV107	C-5
Q154	B-5	RV108	D-5
Q401	F-3	RV110	B-4
Q402	F-3	RV111	F-4
Q403	E-3	RV403	B-7
Q404	D-3	RV404	E-7
Q405	D-3		
Q406	D-3		
Q407	E-6		
Q408	E-6		
Q409	D-7		
Q410	A-7		
Q411	B-7		
Q412	D-7		
Q413	E-7		
Q414	E-7		
Q415	E-7		
Q416	E-7		

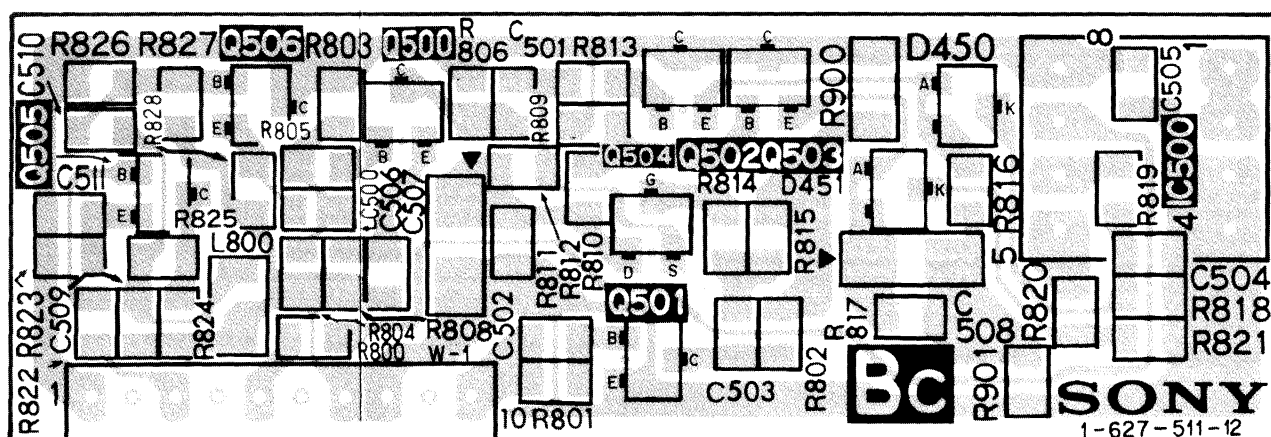
BC

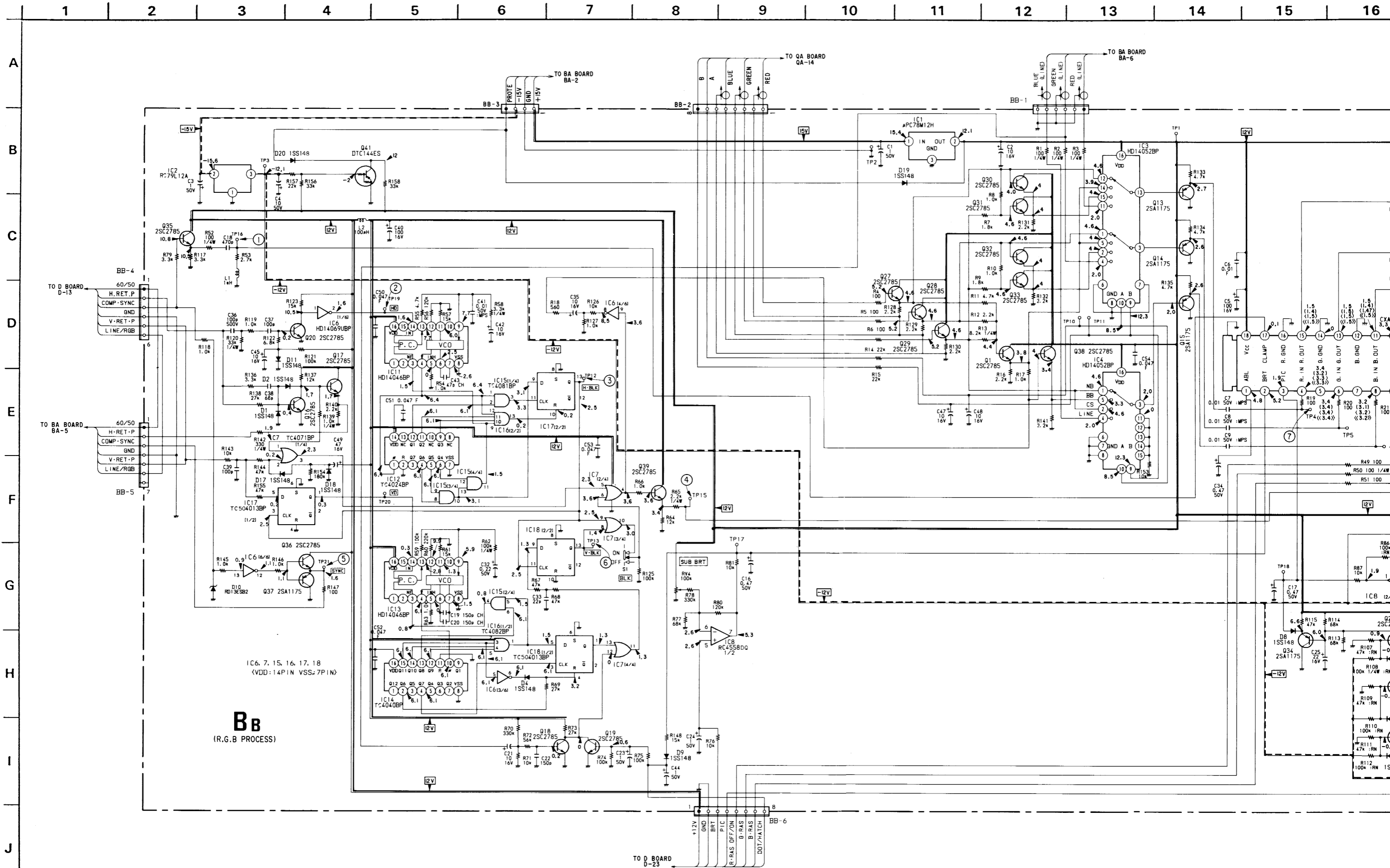
[YC/VIDEO AUTO DET]

- BC BOARD -

BA BOARD

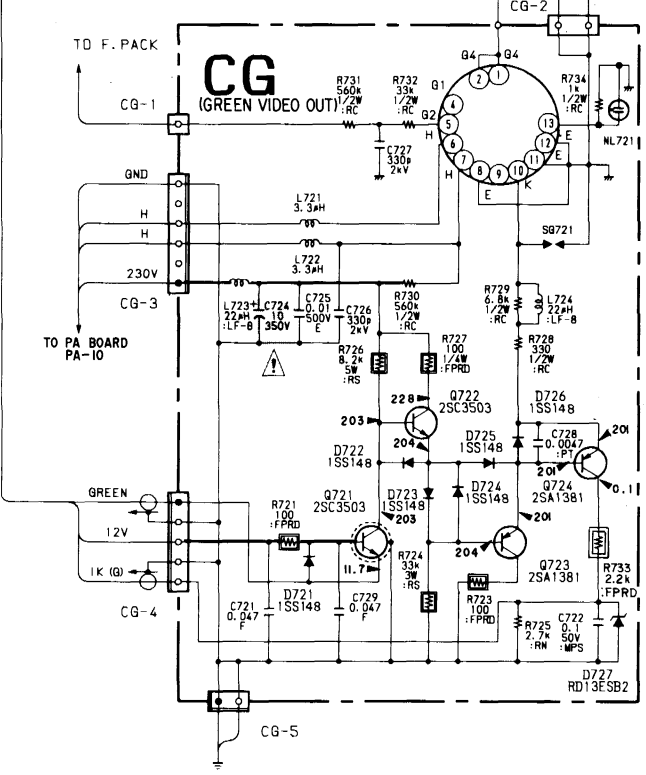
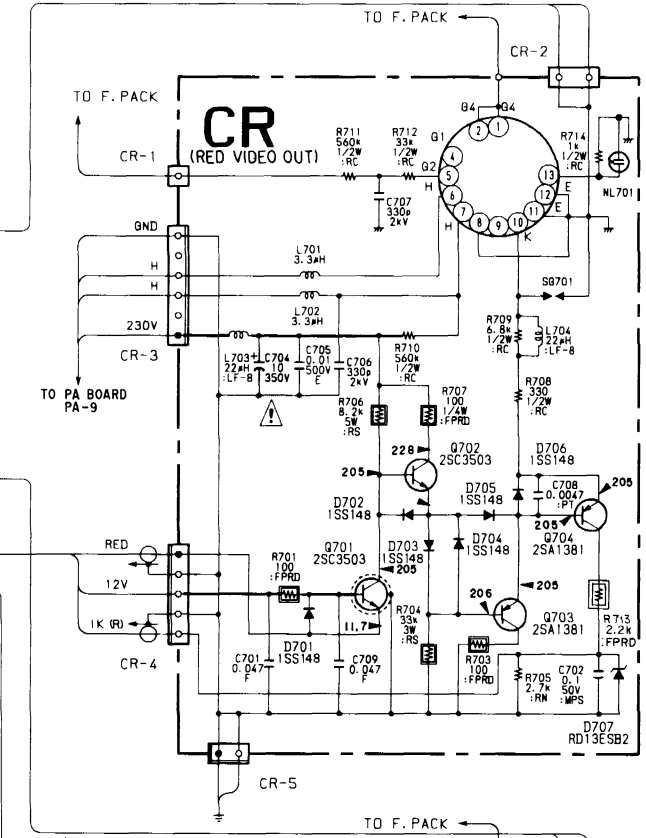
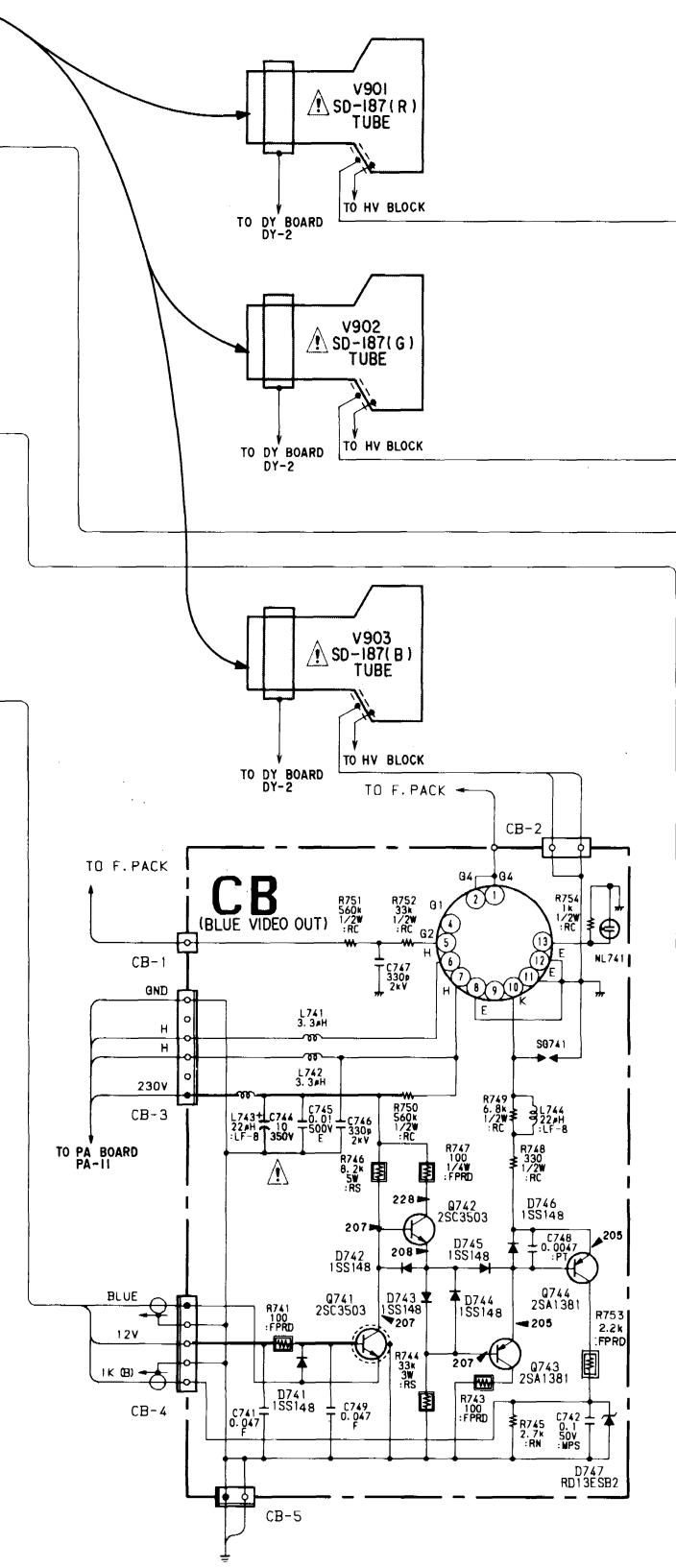
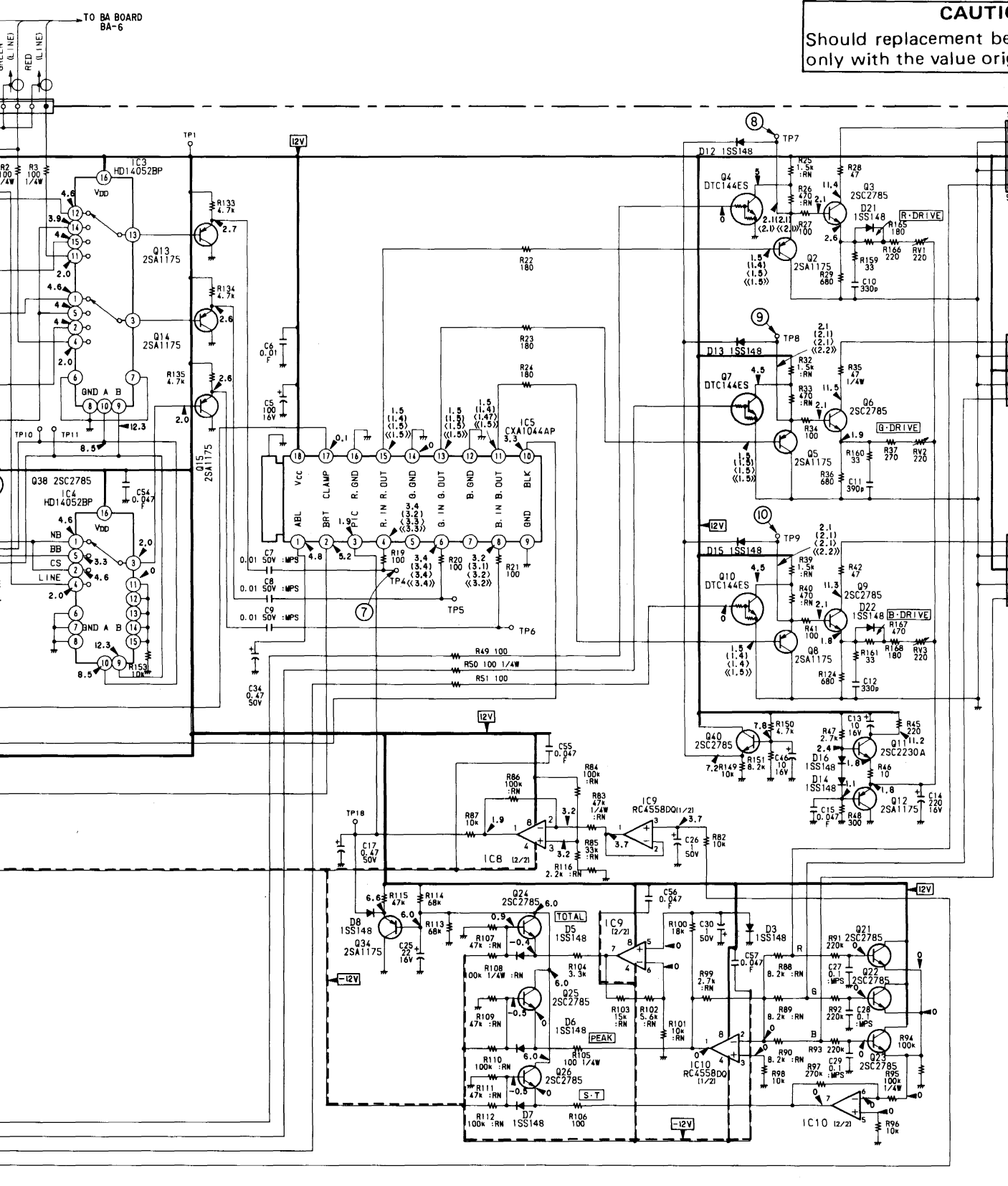
IC		Q417	B-5
		Q418	A-2
IC101	F-7	Q419	A-2
IC102	F-7	Q420	F-4
IC103	C-4	Q421	F-3
IC104	B-2	Q422	B-3
IC201	C-6	Q423	D-7
IC401	F-2	Q424	C-7
IC402	F-2	Q425	C-6
IC403	E-2	Q426	B-6
IC404	A-2	Q427	F-2
IC501	F-5	Q431	E-6
		Q432	E-6
TRANSISTOR		Q433	E-6
		Q434	D-7
Q116	F-4	Q435	F-5
Q117	F-4	Q436	E-5
Q118	F-3	Q437	F-6
Q120	F-7	Q438	F-5
Q121	E-4	Q439	F-4
Q122	E-4	Q440	B-2
Q123	E-4	Q441	B-2
Q124	E-1	Q442	B-5
Q125	D-1	Q443	A-6
Q126	E-2	DIODE	
Q127	C-2	D101	F-3
Q128	C-2	D102	B-5
Q129	C-3	D103	E-4
Q130	C-3	D104	C-1
Q131	C-3	D105	D-1
Q132	C-3	D106	C-4
Q135	B-3	D107	C-2
Q136	B-3	D108	B-2
Q137	B-3	D110	B-1
Q138	B-2	D111	B-2
Q139	B-2	D113	B-6
Q144	B-1	D115	B-5
Q145	B-6	D116	A-6
Q149	A-5	D122	A-5
Q150	B-5	D125	F-4
Q152	F-3	D401	D-3
Q153	F-5	D402	E-7
Q154	B-5	D407	A-1
Q401	F-3	D408	F-2
Q402	F-3	VARIABLE RESISTOR	
Q403	E-3	RV103	E-2
Q404	D-3	RV104	C-1
Q405	D-3	RV105	D-1
Q406	D-3	RV106	D-5
Q407	E-6	RV107	C-5
Q408	E-6	RV108	D-5
Q409	D-7	RV110	B-4
Q410	A-7	RV111	F-4
Q411	B-7	RV403	B-7
Q412	D-7	RV404	E-7
Q413	E-7		
Q414	E-7		
Q415	E-7		
Q416	E-7		



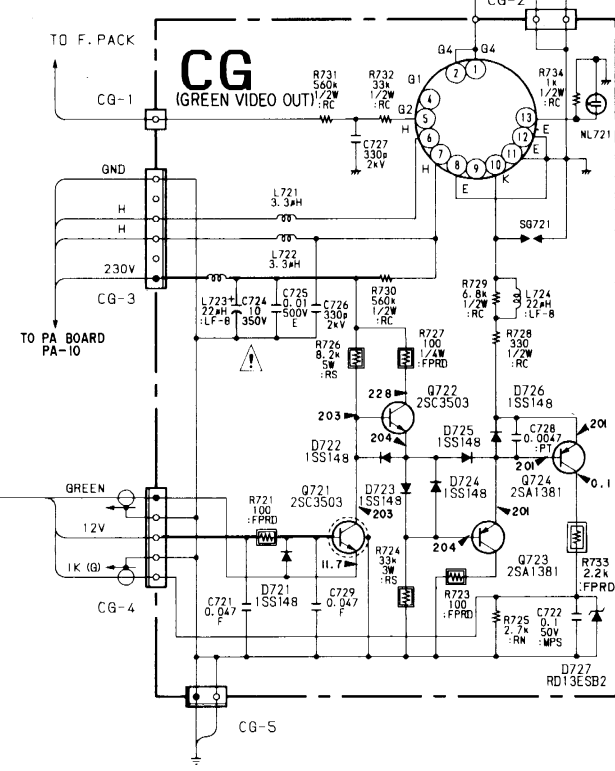
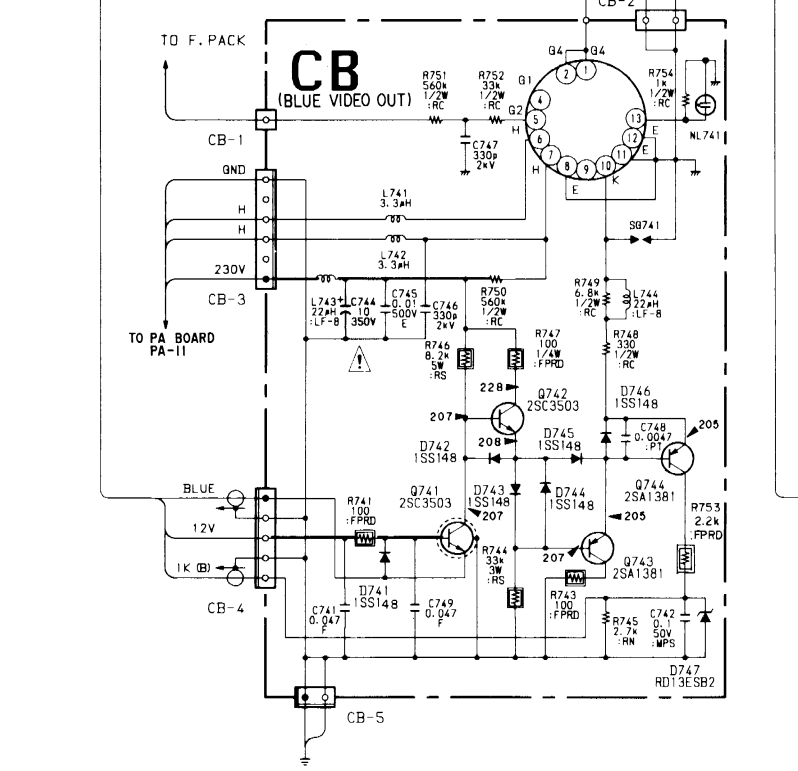
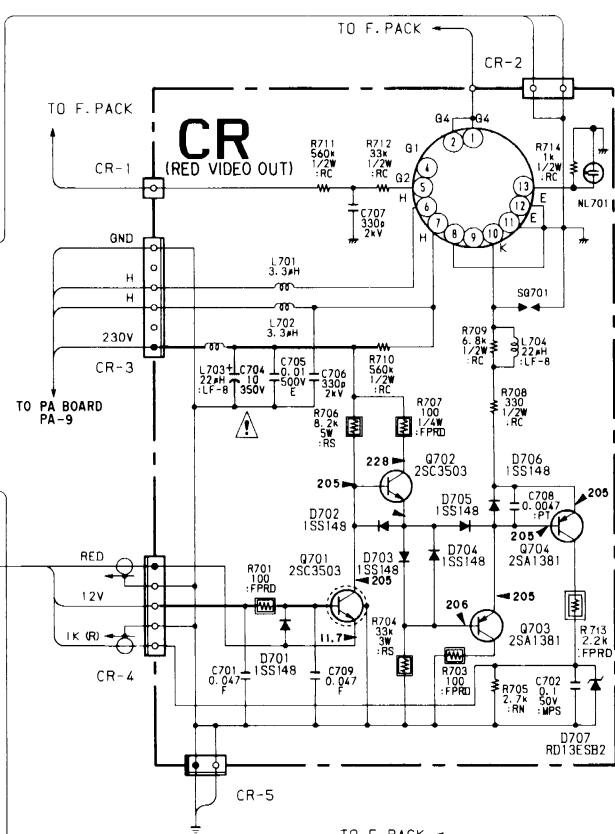
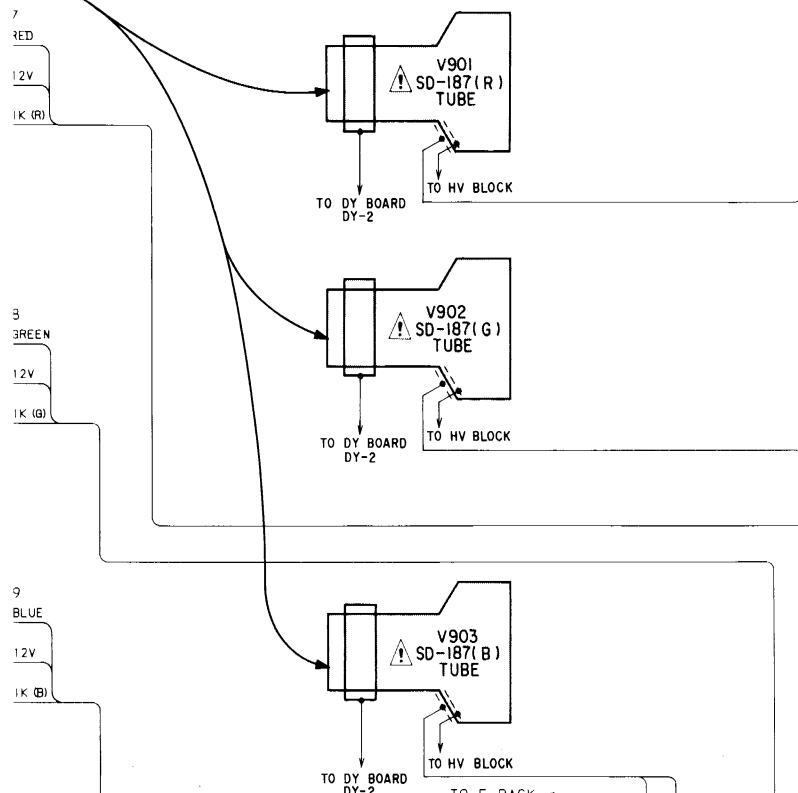


13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

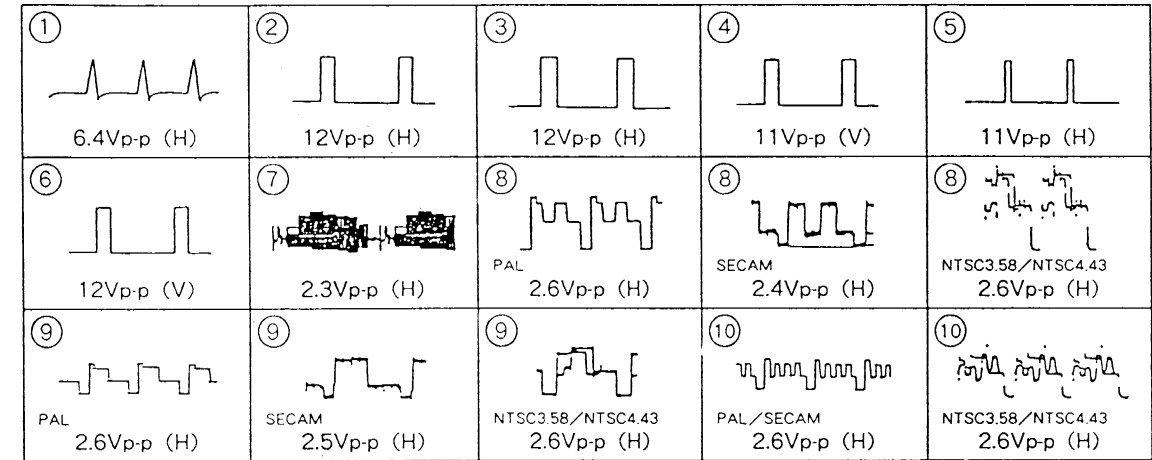
CAUTION
Should replacement be required, replace only with the value originally used.



Wired, replace
by used.



BB BOARD



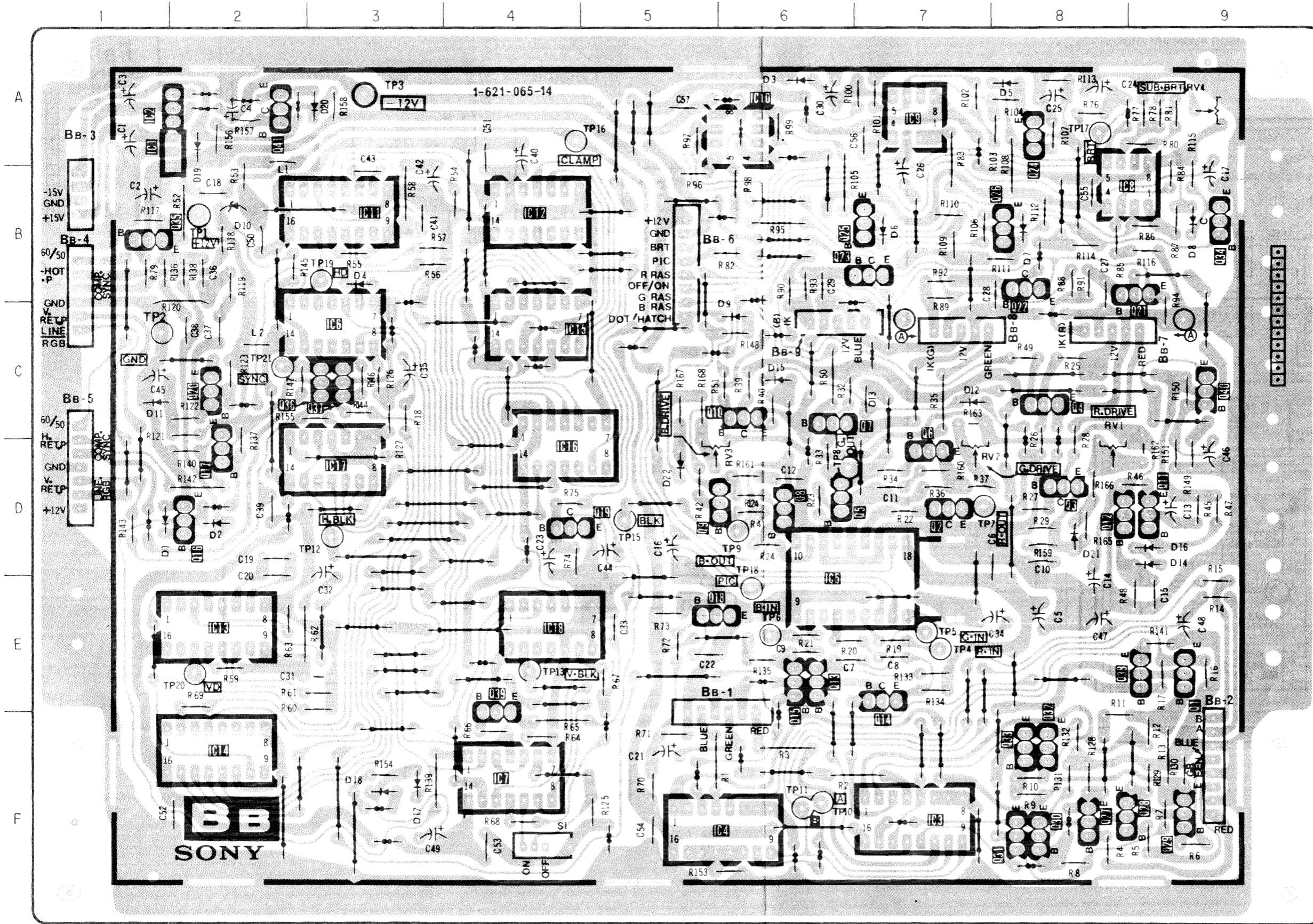
IC1	μPC78M12H	+ 12V REQ	Q10	DTC144ES	B. RAS SW	Q38	2SC2785	B. B BUFF-2
2	RC79L12A	- 12V REQ	11	2SC2230A	BAIAS-1	39	2SC2785	BLK BUFF
3	HD14052BP	REG SW (R. G)	12	2SA1175	BAIAS-2	40	2SC2785	LIMITER
4	HD14052BP	REG SW (B)	13	2SA1175	R. BUFF-2	41	DTC144ES	- 12V PROTE
5	CXA1044P	PIC/BRT CONT	14	2SA1175	G. BUFF-2			
6	HD14069UBP	INV	15	2SA1175	B. BUFF-2	D1	1SS148	H. P SUP-1
7	TC4071BP	V. BLK	16	2SC2785	H. P INV-1	2	1SS148	H. P SUP-2
8	RC4558DQ	LEVEL SHIFT	17	2SC2785	H. P BUFF	3	1SS148	CLAMP-1
9	RC4558DQ	PIC BUFF	18	2SC2785	DOT SW-1	4	1SS148	V. RESET SW
10	RC4558DQ	ABL	19	2SC2785	DOT SW-2	5	1SS148	TOTAL ABL
11	HD14046BP	H. PLL	20	2SC2785	H. P INV	6	1SS148	PEAK ABL
12	TC4024BP	H. COUNTER	21	2SC2785	IK (R) BUFF	7	1SS148	S. T ABL
13	HD14046BP	V. PLL	22	2SC2785	IK (G) BUFF	8	1SS148	PIC ABL
14	TC4040BP	V. COUNTER	23	2SC2785	IK (B) BUFF	9	1SS148	BRT SW
15	TC4081BP	GATE-1	24	2SC2785	TOTAL ABL	10	RD13ESB2	PROTECTOR
16	TC4082BP	GATE-2	25	2SC2785	PEAK ABL	11	1SS148	CLAMP-2
17	TC504013BP	H. V. BLK-1	26	2SC2785	S. T ABL	12	1SS148	R. LIMIT
18	TC504013BP	H. V. BLK-2	27	2SC2785	R. BUFF-1	13	1SS148	G. LIMIT
			28	2SC2785	G. BUFF-1	14	1SS148	BAIAS-1
Q1	2SC2785	B. B BUFF-1	29	2SC2785	B. BUFF-1	15	1SS148	B. LIMIT
2	2SA1175	R. BUFF-3	30	2SC2785	C. B (R) BUFF-1	16	1SS148	BAIAS-2
3	2SC2785	R. DRIVE	31	2SC2785	C. B (R) BUFF-2	17	1SS148	V. P DL-1
4	DTC144ES	R. RAS SW	32	2SC2785	C. B (G) BUFF-1	18	1SS148	V. P DL-2
5	2SA1175	G. BUFF-3	33	2SC2785	C. B (G) BUFF-2	19	1SS148	PROTE-1
6	2SC2785	G. DRIVE	34	2SA1175	PIC ABL	20	1SS148	PROTE-2
7	DTC144ES	G. RAS SW	35	2SC2785	SYNC BUFF-1	21	1SS148	
8	2SA1175	B. BUFF-3	36	2SC2785	SYNC BUFF-2	22	1SS148	
9	2SC2785	B. DRIVE	37	2SA1175	SYNC BUFF-3			

Q701	2SC3503	R-VIDEO AMP	Q721	2SC3503	G-VIDEO AMP	Q741	2SC3503	B-VIDEO AMP
702	2SC3503	R-VIDEO OUT	722	2SC3503	G-VIDEO OUT	742	2SC3503	B-VIDEO OUT
703	2SA1381	R-1K DET-1	723	2SA1381	G-1K DET-1	743	2SA1381	B-1K DET-1
704	2SA1381	R-1K DET-2	724	2SA1381	G-1K DET-2	744	2SA1381	B-1K DET-2
D701	1SS148	R-PROTECT-1	D721	1SS148	G-PROTECT-1	D741	1SS148	B-PROTECT-1
702	1SS148	R-PROTECT-2	722	1SS148	G-PROTECT-2	742	1SS148	B-PROTECT-2
703	1SS148	R-BIAS	723	1SS148	G-BIAS	743	1SS148	B-BIAS
704	1SS148	R-PROTECT-3	724	1SS148	G-PROTECT-3	744	1SS148	B-PROTECT-3
705	1SS148	R-PROTECT-4	725	1SS148	G-PROTECT-4	745	1SS148	B-PROTECT-4
706	1SS148	R-PROTECT-5	726	1SS148	G-PROTECT-5	746	1SS148	B-PROTECT-5
707	RD13ESB2	R-PROTECT-6	727	RD13ESB2	G-PROTECT-6	747	RD13ESB2	B-PROTECT-6

BB

[R. G. B PROCESS]

- BB BOARD -



BB BOARD

IC		Q26	B-8
IC1	A-1	Q27	F-8
IC2	A-1	Q28	F-9
IC3	F-7	Q30	F-8
IC4	F-5	Q31	F-8
IC5	D-5	Q32	F-8
IC6	C-3	Q33	F-8
IC7	F-4	Q34	B-9
IC8	B-8	Q35	B-1
IC9	A-7	Q36	C-3
IC10	A-6	Q37	C-3
IC11	A-3	Q38	E-9
IC12	B-4	Q39	E-4
IC13	E-2	Q40	C-
IC14	F-2	Q41	A-2
IC15	C-4	DIODE	
IC16	D-4	D1	D-1
IC17	D-3	D2	D-2
IC18	E-4	D3	A-6
TRANSISTOR		D4	B-3
Q1	E-9	D5	A-8
Q2	D-7	D6	B-7
Q3	D-8	D7	B-8
Q4	C-8	D8	B-9
Q5	D-6	D9	C-6
Q6	D-7	D10	B-2
Q7	C-6	D11	C-1
Q8	D-6	D12	C-7
Q9	D-6	D13	C-7
Q10	C-6	D14	D-9
Q11	D-9	D15	C-6
Q12	D-8	D16	D-9
Q13	E-6	D17	F-3
Q14	E-7	D18	F-3
Q15	E-6	D19	A-2
Q16	D-2	D20	A-3
Q17	D-2	D21	D-8
Q18	E-5	D22	D-5
Q19	D-4	VARIABLE RESISTOR	
Q20	C-2	RV1	D-8
Q21	B-9	RV2	D-7
Q22	B-8	RV3	D-5
Q23	B-7	RV4	A-9
Q24	A-8		
Q25	B-7		

CR

[RED VIDEO OUT]

CG

[GREEN VIDEO OUT]

CB

[BLUE VIDEO OUT]

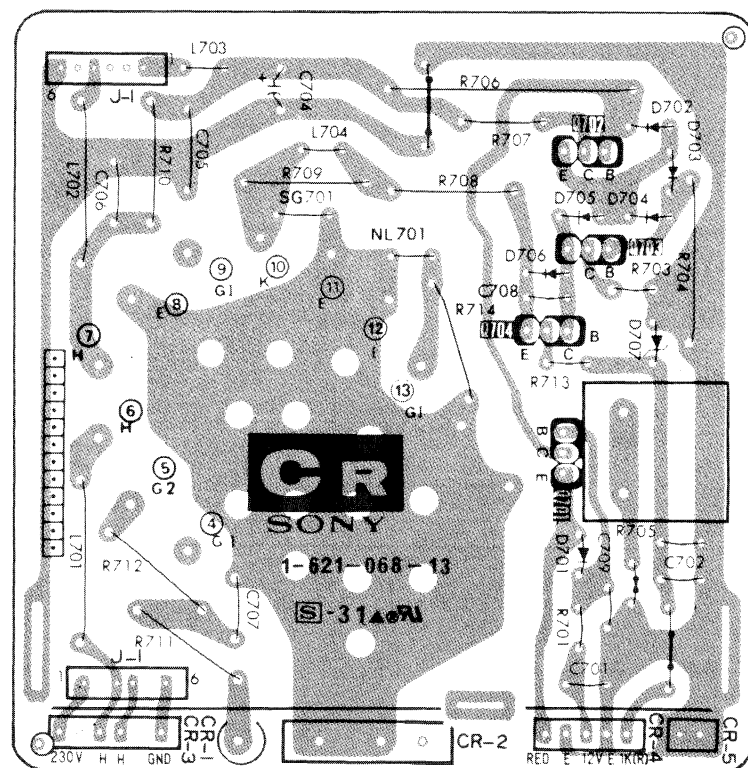
VPH-1000Q

VPH-1000Q

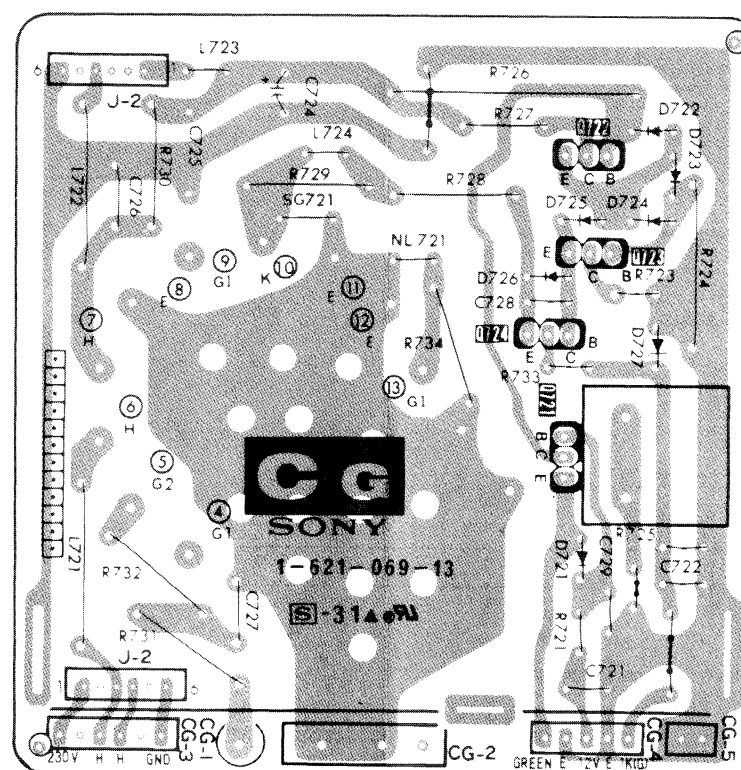
BB BOARD

IC		Q26	B-8
IC1	A-1	Q27	F-8
IC2	A-1	Q28	F-9
IC3	F-7	Q29	F-9
IC4	F-5	Q30	F-8
IC5	D-5	Q31	F-8
IC6	C-3	Q32	F-8
IC7	F-4	Q33	F-8
IC8	B-8	Q34	B-9
IC9	A-7	Q35	B-1
IC10	A-6	Q36	C-3
IC11	A-3	Q37	C-3
IC12	B-4	Q38	E-9
IC13	E-2	Q39	E-4
IC14	F-2	Q40	C-
IC15	C-4	Q41	A-2
IC16	D-4		
IC17	D-3		
IC18	E-4		
DIODE			
		D1	D-1
		D2	D-2
		D3	A-6
		D4	B-3
		D5	A-8
		D6	B-7
		D7	B-8
		D8	B-9
		D9	C-6
		D10	B-2
		D11	C-1
		D12	C-7
		D13	C-7
		D14	D-9
		D15	C-6
		D16	D-9
		D17	F-3
		D18	F-3
		D19	A-2
		D20	A-3
		D21	D-8
		D22	D-5
TRANSISTOR			
Q1	E-9		
Q2	D-7		
Q3	D-8		
Q4	C-8		
Q5	D-6		
Q6	D-7		
Q7	C-6		
Q8	D-6		
Q9	D-6		
Q10	C-6		
Q11	D-9		
Q12	D-8		
Q13	E-8		
Q14	E-7		
Q15	E-6		
Q16	D-2		
Q17	D-2		
Q18	E-5		
Q19	D-4		
Q20	C-2		
Q21	B-9		
Q22	B-8		
Q23	B-7		
Q24	A-8		
Q25	B-7		
VARIABLE RESISTOR			
		RV1	D-8
		RV2	D-7
		RV3	D-5
		RV4	A-9

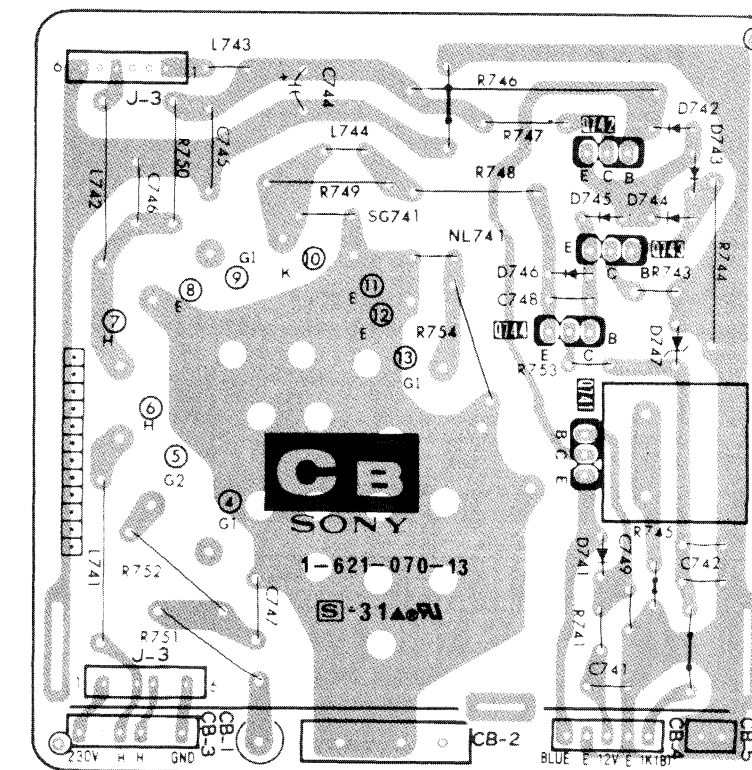
- CR BOARD -



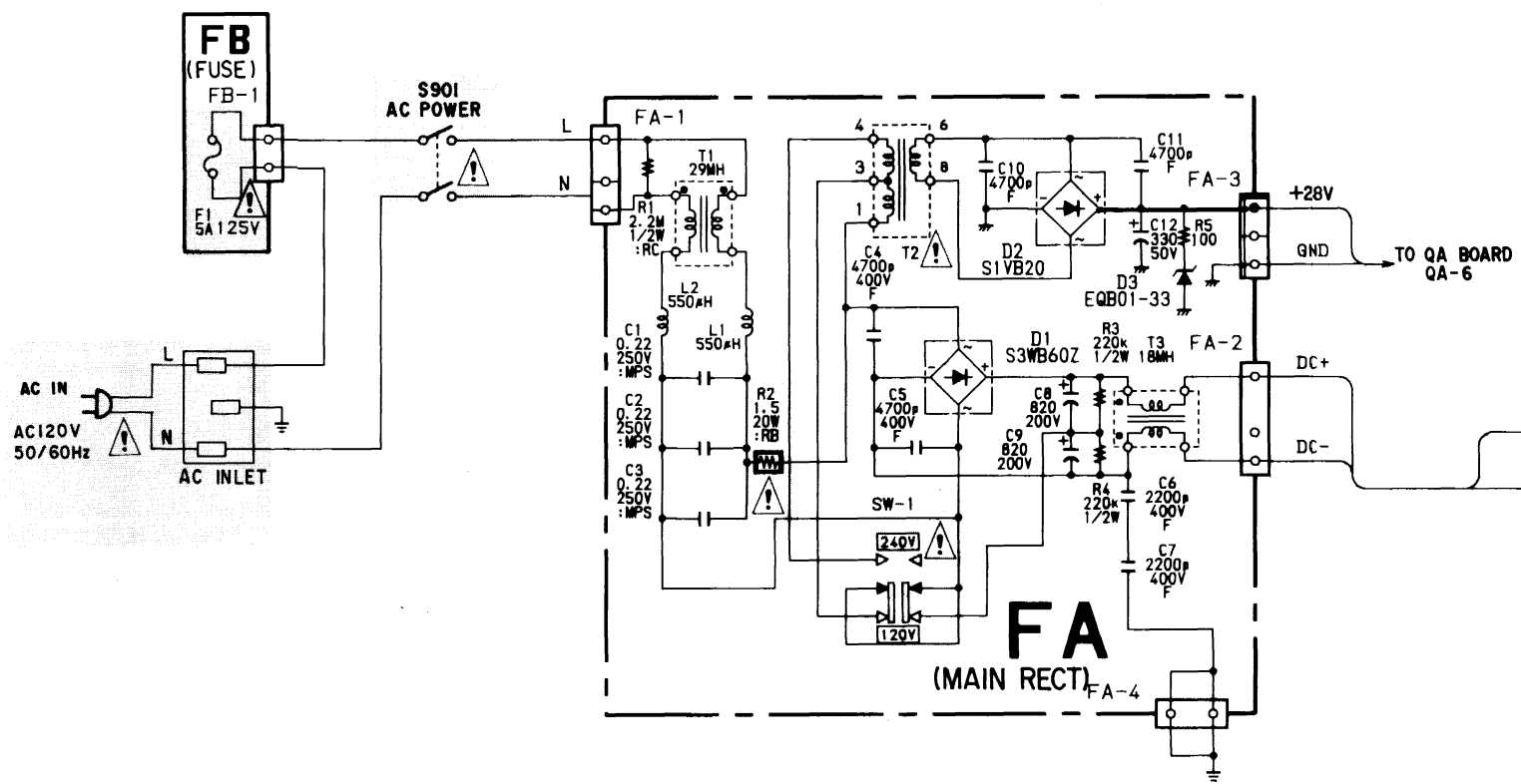
- CG BOARD -



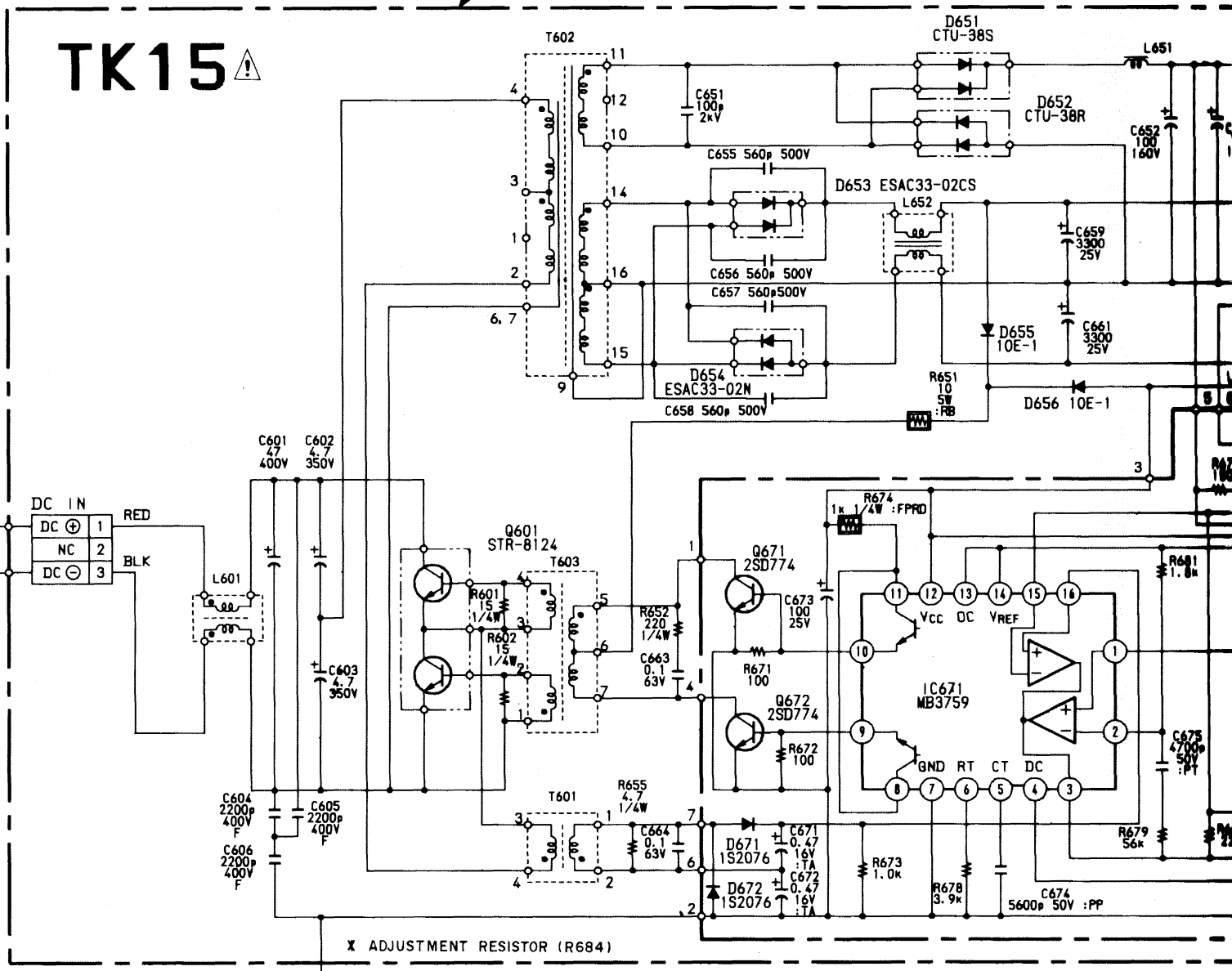
- CB BOARD -



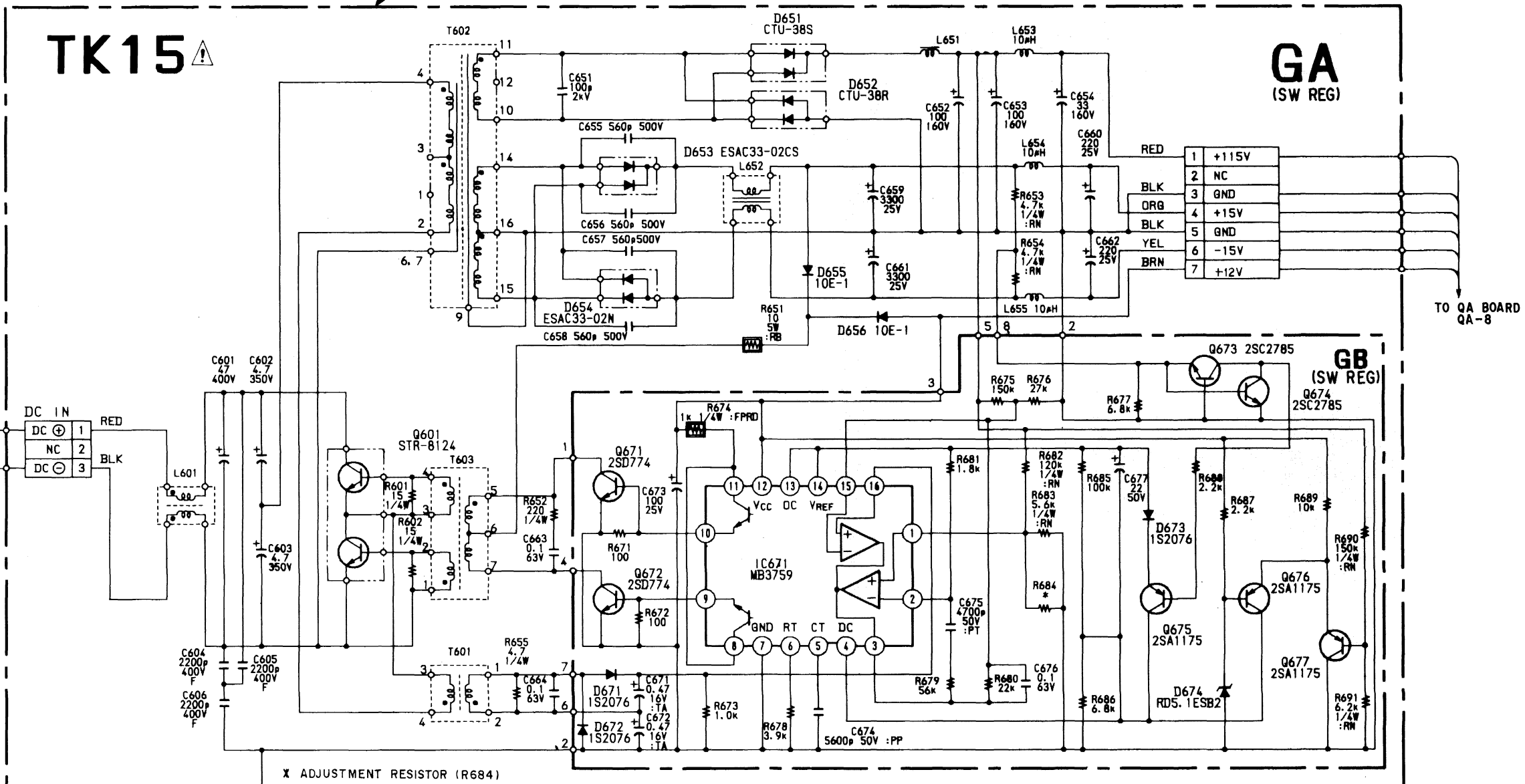
CAUTION
Should replacement be required, replace only with the value originally used.



D	1	S3WB60Z	MAIN RECT
FA	2	S1VB-20	RM RECT
	3	EQB01-33	33V ZENER



CAUTION
Should replacement be required, replace only with the value originally used.



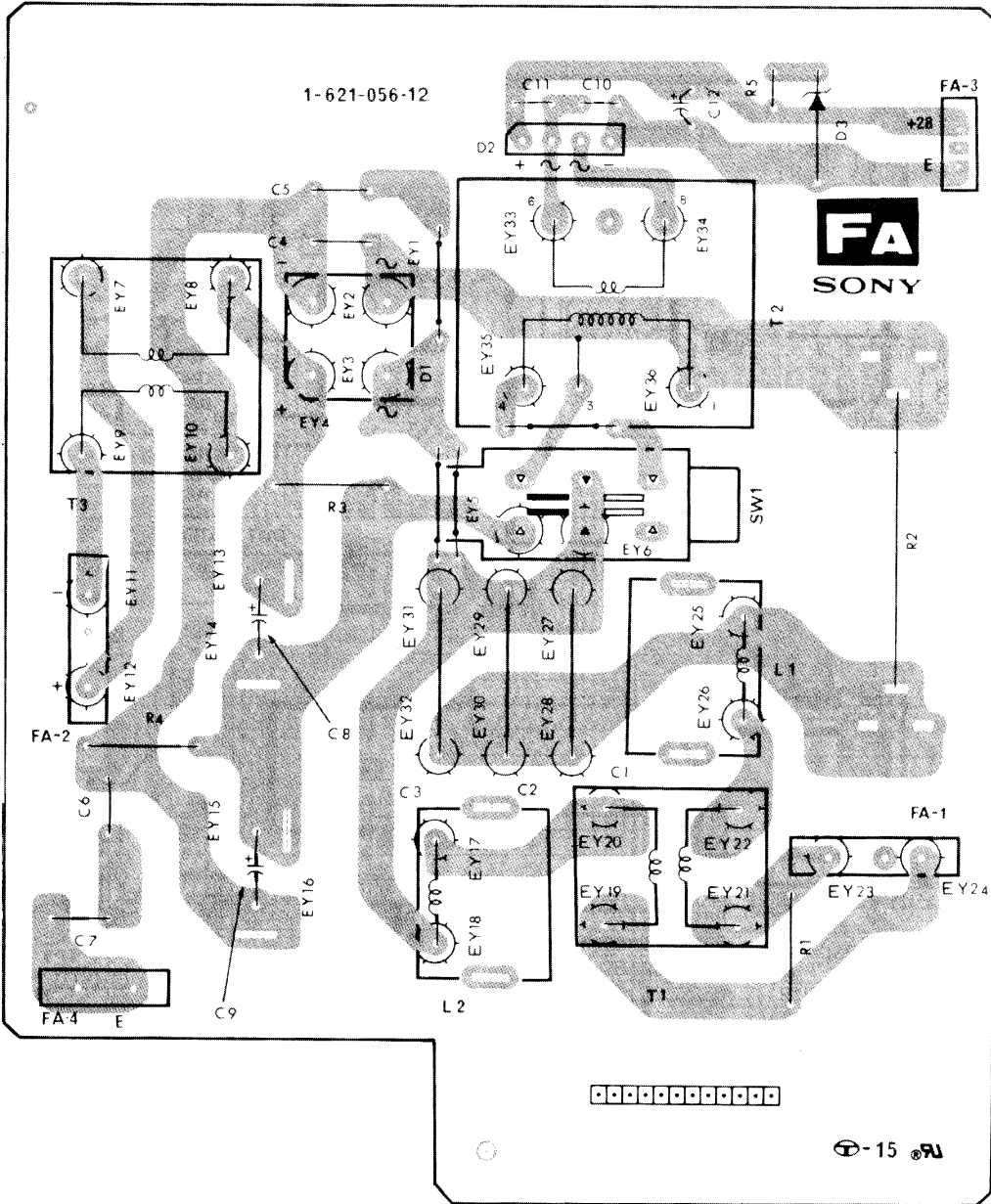
FA

[MAIN RECT]

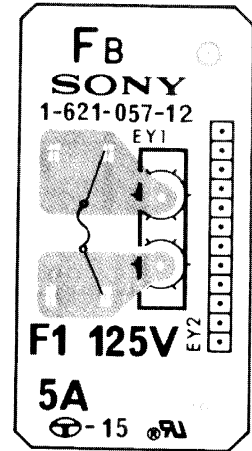
FB

[FUSE]

- FA BOARD -



- FB BOARD -



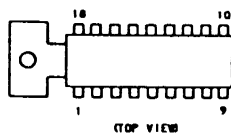
7-6. SEMICONDUCTORS

BX-1121
BX-1122



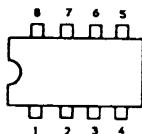
MARKING SIDE VIEW

CXA1044AP



TOP VIEW

CX-7916
LM393P
RC4558DQ
RC4558P
TL082CP
 μ PC393C
 μ PC4558C
 μ PC4570C

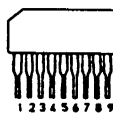


TOP VIEW

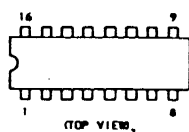
CX-7948A
CX20061
M5218L
M5218AL



CX-894

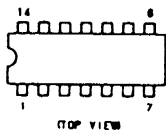


HD14046BP
HD14052BP
HD14053BP
MC14052BCP
MC14053BCP
TC4040BP



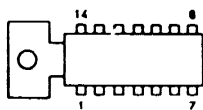
TOP VIEW

HD14069UBP
LM339N
MC1496P
MC14024BCP
MC14069UBCP
MC14071BCP
TC4024BP
TC4069UBP
TC4071BP
TC4081BP
TC4082BP
TC504013BP
 μ PC1394C
 μ PC339C
 μ PD4024BC



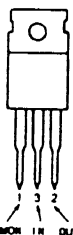
TOP VIEW

LA2600



TOP VIEW

LM7812CT
NJM79M08FA
 μ PC78M12H



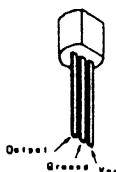
COMMON IN OUT

MC7805CT
M5F78M12L
NJM78M05A
RC78M09FA
 μ PC78M08H
 μ PC78M12H



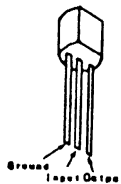
IN GND OUT

RC78L08A
RC78L09A
RC78L12A



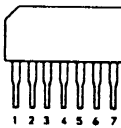
Output GND IN

RC79L12A



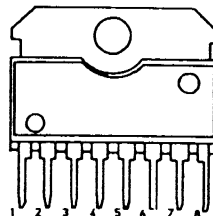
Ground Input Output

μ PC1037HA



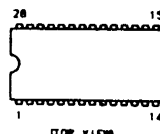
1 2 3 4 5 6 7

μ PC1241H



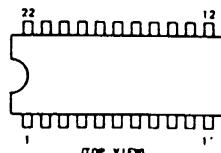
1 2 3 4 5 6 7 8

μ PC1364C2
 μ PC1365C



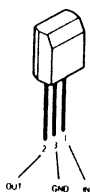
TOP VIEW

μ PC1377C



TOP VIEW

μ PC78L12



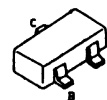
OUT GND IN

DTC144ES
DTC144WS
XDC144ES



E C B

2SA812
2SA1162
2SC1623
DTC144WK



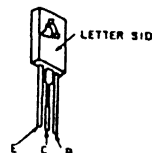
C B E

2SA844



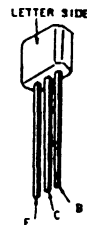
E C B

2SA1142
2SA1381
2SA1407
2SC2688
2SC3503



E C B

2SA1175
2SC2785



E C B

— Continued on next page —

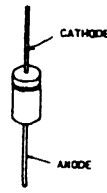
2SA1428-O
2SC3668



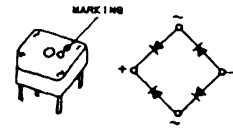
2SK105A-20



1S2837
ERD28-08S



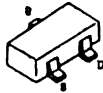
S3WB60Z



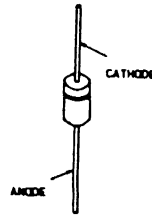
2SB734
2SD774



2SK160-K5
2SK160-K6



EQB01-33
ERC06-15S
RU-1
RU-1C



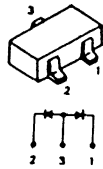
LN342GPH



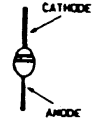
2SB1015
2SB1094
2SC3163
2SC3675
2SD1399-CA
2SD1406



1S2835
1S2836



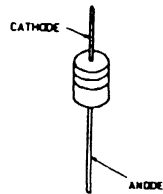
ERC26-15S
ERC38-06
GH3F
U05G
V11N
V19E



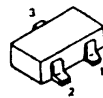
2SC2230A
2SC2383



1SS119
1SS148
RD5.1ES-B2
RD6.8ES-B3
RD11ES-B2
RD13ES-B2
RD15ES-B3
RD8.2ES-B3



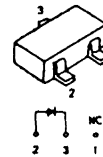
MA152WK



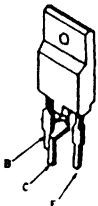
2SC2555



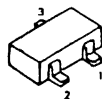
RD5.1M-B3



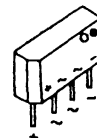
2SD1887-CA



1SS123



S1VB20
S1VB40



SECTION 8 EXPLODED VIEWS

NOTE:

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

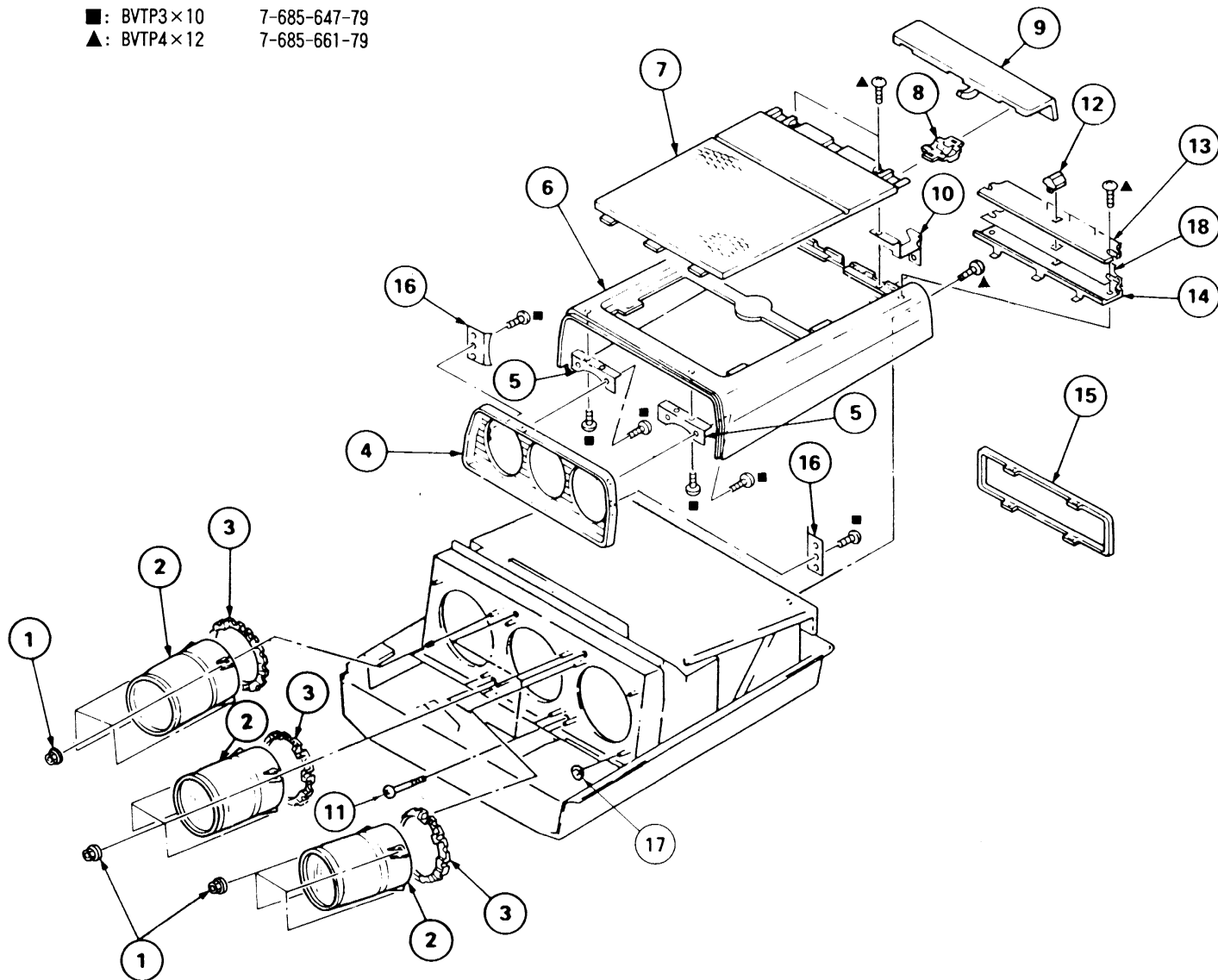
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by 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 spécifié.

8-1. LENS

- : BVTP3×10 7-685-647-79
- ▲: BVTP4×12 7-685-661-79



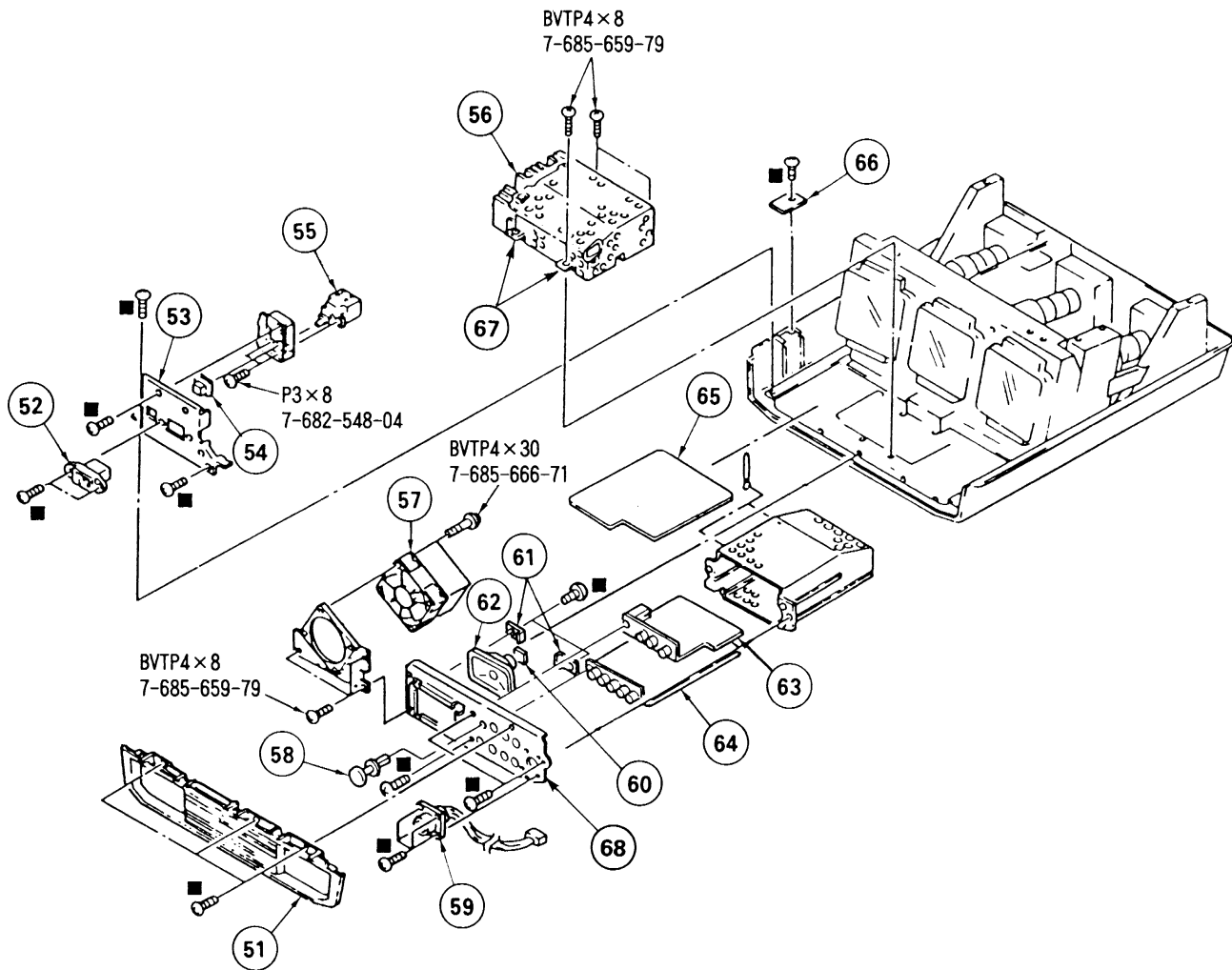
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-304-749-00	NUT, FLANGE		10	*4-378-670-01	BRACKET, MESH EARTH	
2	4-383-018-02	LENS (DELTA) (TAC-3)		11	4-383-072-01	SCREW (4X45) (G), TAPPING, + BV	
3	*4-378-642-01	WASHER, LENS		12	4-030-100-01	CAP, LAMP	
4	4-383-064-01	PANEL, LENS		13	4-030-384-01	PLATE, ORNAMENTAL, CONTROL	
5	*4-383-021-01	BRACKET, LENS PANEL		14	4-383-056-01	PANEL, CONTROL	
6	4-378-655-01	CABINET		15	4-033-269-01	PANEL, REAR	
7	X-4378-625-1	BOARD ASSY, TOP		16	*4-383-038-01	BRACKET (B), LENS PANEL	
8	3-659-618-00	HINGE, SPRING		17	3-639-647-00	WASHER	
9	X-4378-603-1	DOOR ASSY		18	4-030-385-01	SHEET, CONTROL	

8-2. PANEL

■: BVTP3×8 7-685-646-79

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 spécifié.



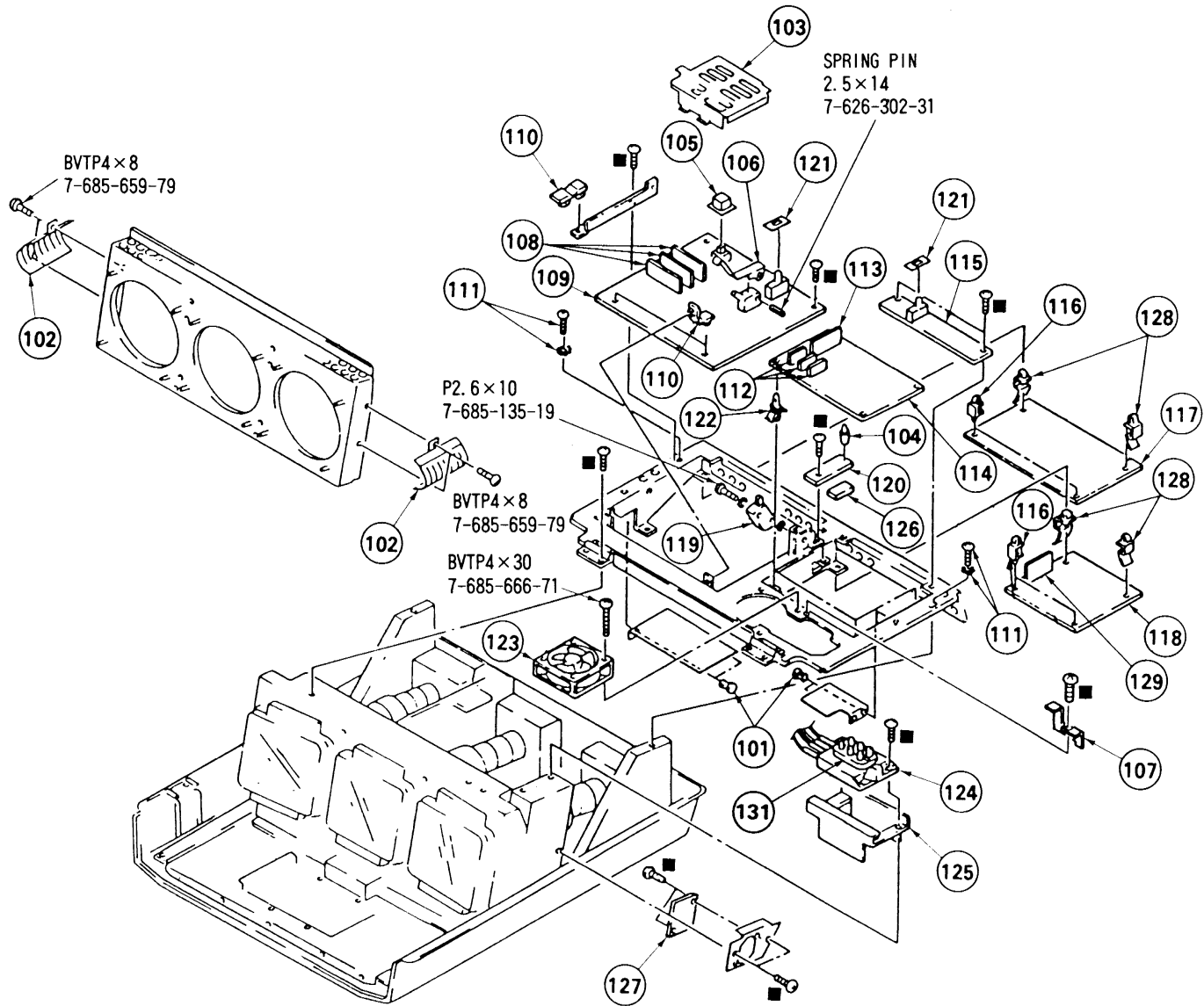
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-383-063-01	PANEL, CONNECTOR		60	4-383-088-01	CUSHION, RUBBER	
52	▲.1-580-375-21	INLET 3P		61	4-383-026-01	SPRING	
53	4-383-049-01	PANEL (F), CONNECTOR		62	1-503-255-11	SPEAKER	
54	4-362-811-00	BUTTON, MAIN POWER		63	*A-1270-238-A	MOUNTED PCB, QB	
55	▲.1-570-052-12	SWITCH, PUSH (AC POWER) (1 KEY)		64	*A-1270-292-A	MOUNTED PCB, QA	
56	▲.1-413-289-12	REGULATOR, SWITCHING (TK-15)		65	*1-621-056-11	FA BOARD	
57	▲.1-541-449-11	FAN, DC (WITH SENSOR)		66	*1-621-057-11	FB BOARD	
58	4-374-303-01	RIVET, NYLON		67	*2-277-426-01	CLAMP	
59	1-559-088-21	CONNECTOR ASSY, ROUND TYPE 14P		68	*4-032-826-01	CHASSIS (R), FRONT	

8-3. D BOARD

■: BVTP3×8 7-685-646-79

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 spécifié.



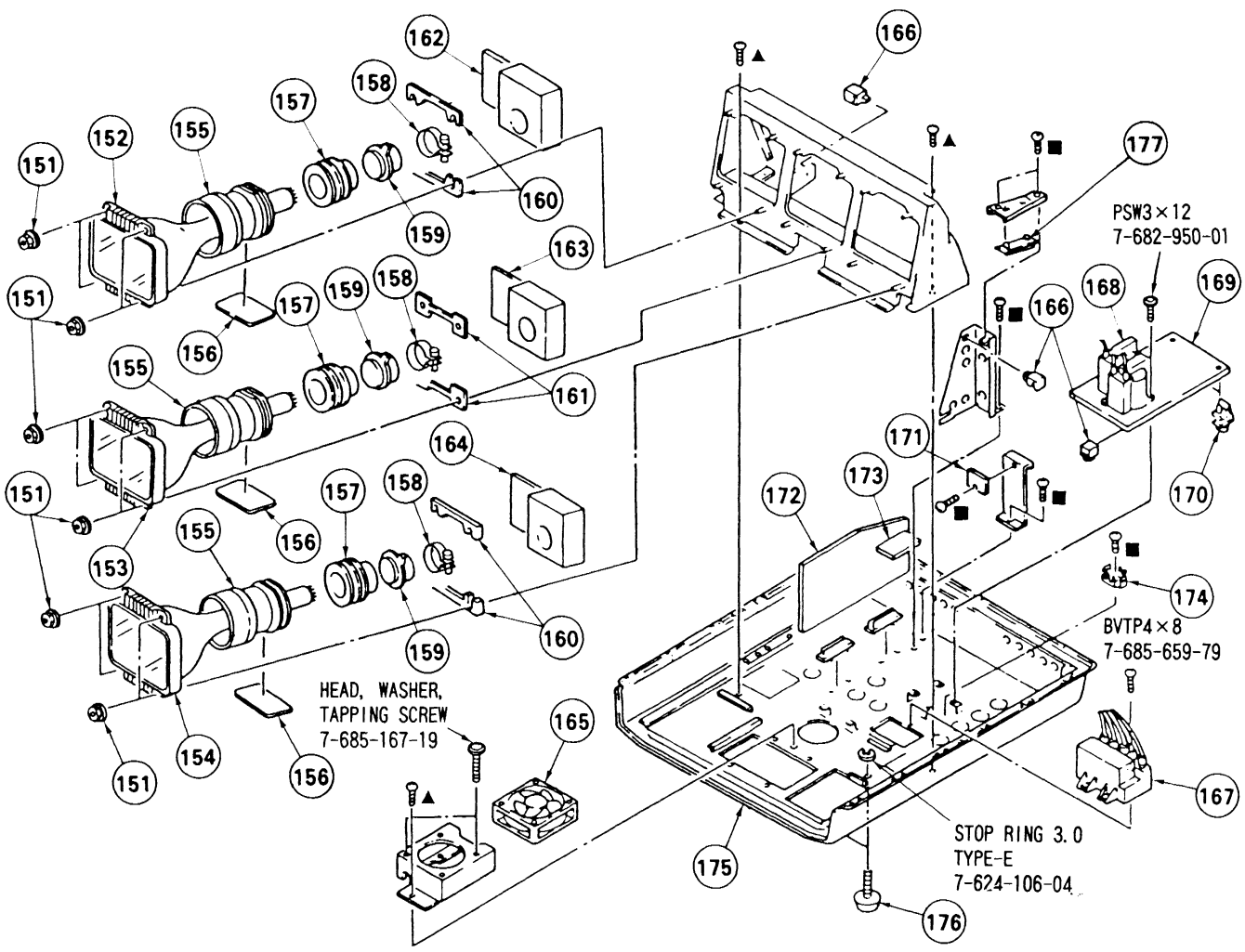
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	4-374-303-01	RIVET, NYLON		116	*4-353-620-02	HINGE, PC BOARD	
102	*4-378-671-01	SPRING		117	*A-1130-546-A	MOUNTED PCB, BB	
103	*4-383-047-01	COVER, REGISTRATION ADJUSTMENT		118	*A-1135-520-A	COMPLETE PCB, BA	
104	1-518-590-11	LAMP, PILOT (WITH HOLDER)		119	▲.1-552-437-11	SWITCH, LEVER	
105	4-362-808-00	BUTTON, POWER		120	*1-621-051-21	X BOARD	
106	*4-378-608-01	ACTUATOR		121	*4-337-847-00	INSULATOR, SLIDE SWITCH	
107	*4-387-737-02	HOLDER, E PC BOARD		122	*3-703-353-02	SUPPORT, PC BOARD	
108	*1-621-059-11	DB BOARD		123	▲.1-541-449-11	FAN, DC (WITH SENSOR)	
109	*A-1341-335-A	MOUNTED PCB, D		124	▲.1-237-582-11	RESISTOR ASSY, HIGH-VOLTAGE	
110	*4-313-732-00	CLIP, HINGE, CIRCUIT BOARD		125	*4-383-037-01	COVER, FOCUS PACK	
111	4-389-025-01	SCREW (M4X8) (EXT TOOTH WASHER)		126	9-911-840-XX	CUSHION	
112	*1-621-060-11	EC BOARD		127	*1-622-694-21	ED BOARD	
113	*1-621-055-11	EB BOARD		128	*3-703-141-00	HOLDER, PCB	
114	*A-1340-922-A	MOUNTED PCB, E		129	*A-1130-718-A	MOUNTED PCB, BC	
115	*1-621-062-21	HA BOARD		130	*X-4378-626-6	BRACKET ASSY, PC BOARD	
				131	*4-032-125-01	COVER (B), FOCUS PACK	

8-4. BASE ASSY

- ▲: BVTP4×12 7-685-661-14
- : BVTP3×8 7-685-646-79

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 spécifié.



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	4-304-749-00	NUT, FLANGE		164	*1-621-053-21	CB BOARD	
152	▲.8-733-023-05	PICTURE TUBE SD-187 (R)		165	▲.1-541-449-11	FAN, DC (WITH SENSOR)	
153	▲.8-733-021-05	PICTURE TUBE SD-187 (G)		166	*3-701-903-00	HOLDER, PC BOARD	
154	▲.8-733-022-05	PICTURE TUBE SD-187 (B)		167	▲.1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
155	▲.1-451-243-00	DEFLECTION YOKE (Y636PA)		168	▲.1-439-408-31	TRANSFORMER ASSY, FLYBACK (NX-2023)	
156	*1-621-053-21	DY BOARD		169	*1-621-050-21	PC BOARD	
157	▲.1-452-302-11	PICTURE TUBE NECK ASSEMBLY		170	3-680-721-00	HOLDER, CHASSIS	
158	X-4378-637-1	BAND ASSY		171	*1-621-052-21	Y BOARD	
159	▲.1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)		172	*A-1190-113-A	MOUNTED PCB, PA	173
160	4-378-603-01	SPACER (100"), PICTURE TUBE		173	*1-621-054-11	PB BOARD	
161	*4-383-025-01	SPACER (G), PICTURE TUBE		174	*4-309-624-00	TERMINAL, EARTH	
162	*1-621-068-11	CR BOARD		175	X-4378-628-3	BASE ASSY	176
163	*1-621-069-11	CG BOARD		176	4-378-622-01	ADJUSTOR	
				177	*3-680-613-01	SUPPORT, PC BOARD	

SECTION 9

ELECTRICAL PARTS LIST

BB

NOTE:

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 spécifié.

• 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

COILS

• MF : μ F, PF : μ μF • MMH : mH, UH : μ H

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

• The resistors of the reference number coded from 900 are used as jumper wires. Therefore, they are not mentioned on the schematic diagram.

• There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1130-546-A	BB BOARD, COMPLETE	*****		C35	1-124-915-11	ELECT 10MF	20% 16V
4-309-378-00	WASHER			C36	1-101-810-00	CERAMIC 100PF	5% 500V
	<CONNECTOR>			C37	1-102-973-00	CERAMIC 100PF	5% 50V
BB1	*1-566-058-11	PIN, CONNECTOR 6P		C38	1-101-888-00	CERAMIC 68PF	5% 50V
BB2	*1-566-060-11	PIN, CONNECTOR 8P		C39	1-102-973-00	CERAMIC 100PF	5% 50V
BB3	*1-566-056-11	PIN, CONNECTOR 4P		C40	1-124-122-11	ELECT 100MF	20% 16V
BB4	*1-566-058-11	PIN, CONNECTOR 6P		C41	1-136-153-00	FILM 0.01MF	5% 50V
BB5	*1-566-059-11	PIN, CONNECTOR 7P		C42	1-124-915-11	ELECT 10MF	20% 16V
BB6	*1-566-060-11	PIN, CONNECTOR 8P		C43	1-101-880-00	CERAMIC 47PF	5% 50V
BB7	*1-566-057-11	PIN, CONNECTOR 5P		C44	1-123-380-00	ELECT 1MF	20% 50V
BB8	*1-566-057-11	PIN, CONNECTOR 5P		C45	1-124-915-11	ELECT 10MF	20% 16V
BB9	*1-566-057-11	PIN, CONNECTOR 5P		C46	1-124-915-11	ELECT 10MF	20% 16V
	<CAPACITOR>			C47	1-124-915-11	ELECT 10MF	20% 16V
C1	1-123-380-00	ELECT 1MF	20% 50V	C48	1-124-915-11	ELECT 10MF	20% 16V
C2	1-124-915-11	ELECT 10MF	20% 16V	C49	1-124-910-11	ELECT 47MF	20% 16V
C3	1-123-380-00	ELECT 1MF	20% 50V	C50	1-101-006-00	CERAMIC 0.047MF	50V
C4	1-124-907-11	ELECT 10MF	20% 50V	C51	1-101-006-00	CERAMIC 0.047MF	50V
C5	1-124-122-11	ELECT 100MF	20% 16V	C52	1-101-006-00	CERAMIC 0.047MF	50V
C6	1-101-004-00	CERAMIC 0.01MF	50V	C53	1-101-006-00	CERAMIC 0.047MF	50V
C7	1-136-153-00	FILM 0.01MF	5% 50V	C54	1-101-006-00	CERAMIC 0.047MF	50V
C8	1-136-153-00	FILM 0.01MF	5% 50V	C55	1-101-006-00	CERAMIC 0.047MF	50V
C9	1-136-153-00	FILM 0.01MF	5% 50V	C56	1-101-006-00	CERAMIC 0.047MF	50V
C10	1-102-820-00	CERAMIC 330PF	5% 50V	C57	1-101-006-00	CERAMIC 0.047MF	50V
C11	1-102-822-00	CERAMIC 390PF	5% 50V		<DIODE>		
C12	1-102-820-00	CERAMIC 330PF	5% 50V	D1	8-719-911-19	DIODE 1SS119	
C13	1-124-915-11	ELECT 10MF	20% 16V	D2	8-719-911-19	DIODE 1SS119	
C14	1-124-120-11	ELECT 220MF	20% 16V	D3	8-719-911-19	DIODE 1SS119	
C15	1-101-006-00	CERAMIC 0.047MF	50V	D4	8-719-911-19	DIODE 1SS119	
C16	1-123-379-00	ELECT 0.47MF	20% 50V	D5	8-719-911-19	DIODE 1SS119	
C17	1-123-379-00	ELECT 0.47MF	20% 50V	D6	8-719-911-19	DIODE 1SS119	
C18	1-102-824-00	CERAMIC 470PF	5% 50V	D7	8-719-911-19	DIODE 1SS119	
C19	1-101-361-00	CERAMIC 150PF	5% 50V	D8	8-719-911-19	DIODE 1SS119	
C20	1-101-361-00	CERAMIC 150PF	5% 50V	D9	8-719-911-19	DIODE 1SS119	
C21	1-124-915-11	ELECT 10MF	20% 16V	D10	8-719-110-36	DIODE RD13ES-B2	
C22	1-101-361-00	CERAMIC 150PF	5% 50V	D11	8-719-911-19	DIODE 1SS119	
C23	1-123-380-00	ELECT 1MF	20% 50V	D12	8-719-911-19	DIODE 1SS119	
C24	1-123-380-00	ELECT 1MF	20% 50V	D13	8-719-911-19	DIODE 1SS119	
C25	1-123-330-00	ELECT 22MF	20% 16V	D14	8-719-911-19	DIODE 1SS119	
C26	1-123-380-00	ELECT 1MF	20% 50V	D15	8-719-911-19	DIODE 1SS119	
C27	1-136-165-00	FILM 0.1MF	5% 50V	D16	8-719-911-19	DIODE 1SS119	
C28	1-136-165-00	FILM 0.1MF	5% 50V	D17	8-719-911-19	DIODE 1SS119	
C29	1-136-165-00	FILM 0.1MF	5% 50V	D18	8-719-911-19	DIODE 1SS119	
C30	1-123-380-00	ELECT 1MF	20% 50V	D19	8-719-911-19	DIODE 1SS119	
C32	1-124-464-11	ELECT 0.22MF	20% 50V	D20	8-719-911-19	DIODE 1SS119	
C33	1-102-959-00	CERAMIC 22PF	5% 50V	D21	8-719-911-19	DIODE 1SS119	
C34	1-123-379-00	ELECT 0.47MF	20% 50V	D22	8-719-911-19	DIODE 1SS119	
					<IC>		

BB

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK
R62	1-249-469-11	CARBON	100K 5% 1/4W
R63	1-249-417-11	CARBON	1K 5% 1/4W
R64	1-249-430-11	CARBON	12K 5% 1/4W
R65	1-247-717-11	CARBON	2.2K 5% 1/4W
R66	1-249-417-11	CARBON	1K 5% 1/4W
R67	1-249-437-11	CARBON	47K 5% 1/4W
R68	1-249-437-11	CARBON	47K 5% 1/4W
R69	1-249-434-11	CARBON	27K 5% 1/4W
R70	1-247-891-00	CARBON	330K 5% 1/4W
R71	1-249-429-11	CARBON	10K 5% 1/4W
R72	1-249-438-11	CARBON	56K 5% 1/4W
R73	1-249-434-11	CARBON	27K 5% 1/4W
R74	1-249-441-11	CARBON	100K 5% 1/4W
R75	1-249-441-11	CARBON	100K 5% 1/4W
R76	1-249-429-11	CARBON	10K 5% 1/4W
R77	1-249-439-11	CARBON	68K 5% 1/4W
R78	1-247-891-00	CARBON	330K 5% 1/4W
R79	1-249-423-11	CARBON	3.3K 5% 1/4W
R80	1-247-881-00	CARBON	120K 5% 1/4W
R81	1-249-429-11	CARBON	10K 5% 1/4W
R82	1-249-429-11	CARBON	10K 5% 1/4W
R83	1-214-769-00	METAL	47K 1% 1/4W
R84	1-215-469-00	METAL	100K 1% 1/4W
R85	1-215-457-00	METAL	33K 1% 1/4W
R86	1-215-469-00	METAL	100K 1% 1/4W
R87	1-249-429-11	CARBON	10K 5% 1/4W
R88	1-215-443-00	METAL	8.2K 1% 1/4W
R89	1-215-443-00	METAL	8.2K 1% 1/4W
R90	1-215-443-00	METAL	8.2K 1% 1/4W
R91	1-247-887-00	CARBON	220K 5% 1/4W
R92	1-247-887-00	CARBON	220K 5% 1/4W
R93	1-247-887-00	CARBON	220K 5% 1/4W
R94	1-249-441-11	CARBON	100K 5% 1/4W
R95	1-249-469-11	CARBON	100K 5% 1/4W
R96	1-249-429-11	CARBON	10K 5% 1/4W
R97	1-247-889-00	CARBON	270K 5% 1/4W
R98	1-249-429-11	CARBON	10K 5% 1/4W
R99	1-215-431-00	METAL	2.7K 1% 1/4W
R100	1-249-432-11	CARBON	18K 5% 1/4W
R101	1-215-445-00	METAL	10K 1% 1/4W
R102	1-215-439-00	METAL	5.6K 1% 1/4W
R103	1-215-449-00	METAL	15K 1% 1/4W
R104	1-249-423-11	CARBON	3.3K 5% 1/4W
R105	1-247-700-11	CARBON	100 5% 1/4W
R106	1-249-405-11	CARBON	100 5% 1/4W
R107	1-215-461-00	METAL	47K 1% 1/4W
R108	1-214-777-00	METAL	100K 1% 1/4W
R109	1-215-461-00	METAL	47K 1% 1/4W
R110	1-215-469-00	METAL	100K 1% 1/4W
R111	1-215-461-00	METAL	47K 1% 1/4W
R112	1-215-469-00	METAL	100K 1% 1/4W
R113	1-249-439-11	CARBON	68K 5% 1/4W
R114	1-249-439-11	CARBON	68K 5% 1/4W
R115	1-249-437-11	CARBON	47K 5% 1/4W
R116	1-215-429-00	METAL	2.2K 1% 1/4W
R117	1-249-423-11	CARBON	3.3K 5% 1/4W
R118	1-249-417-11	CARBON	1K 5% 1/4W
R119	1-249-417-11	CARBON	1K 5% 1/4W
R120	1-247-726-11	CARBON	33K 5% 1/4W
R121	1-249-441-11	CARBON	100K 5% 1/4W
R122	1-249-427-11	CARBON	6.8K 5% 1/4W
R123	1-249-431-11	CARBON	15K 5% 1/4W
R124	1-249-415-11	CARBON	680 5% 1/4W
R125	1-249-441-11	CARBON	100K 5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R126	1-249-429-11	CARBON	10K 5% 1/4W
R127	1-249-417-11	CARBON	1K 5% 1/4W
R128	1-249-421-11	CARBON	2.2K 5% 1/4W
R129	1-249-421-11	CARBON	2.2K 5% 1/4W
R130	1-249-421-11	CARBON	2.2K 5% 1/4W
R131	1-249-421-11	CARBON	2.2K 5% 1/4W
R132	1-249-421-11	CARBON	2.2K 5% 1/4W
R133	1-249-425-11	CARBON	4.7K 5% 1/4W
R134	1-249-425-11	CARBON	4.7K 5% 1/4W
R135	1-249-425-11	CARBON	4.7K 5% 1/4W
R136	1-249-423-11	CARBON	3.3K 5% 1/4W
R137	1-249-430-11	CARBON	12K 5% 1/4W
R138	1-249-434-11	CARBON	27K 5% 1/4W
R139	1-247-713-11	CARBON	1K 5% 1/4W
R140	1-249-421-11	CARBON	2.2K 5% 1/4W
R141	1-249-421-11	CARBON	2.2K 5% 1/4W
R142	1-247-706-11	CARBON	330 5% 1/4W
R143	1-249-429-11	CARBON	10K 5% 1/4W
R144	1-249-437-11	CARBON	47K 5% 1/4W
R145	1-249-417-11	CARBON	1K 5% 1/4W
R146	1-249-417-11	CARBON	1K 5% 1/4W
R147	1-249-405-11	CARBON	100 5% 1/4W
R148	1-249-431-11	CARBON	15K 5% 1/4W
R149	1-249-429-11	CARBON	10K 5% 1/4W
R150	1-249-425-11	CARBON	4.7K 5% 1/4W
R151	1-249-428-11	CARBON	8.2K 5% 1/4W
R153	1-249-429-11	CARBON	10K 5% 1/4W
R154	1-247-885-00	CARBON	180K 5% 1/4W
R155	1-249-437-11	CARBON	47K 5% 1/4W
R156	1-249-435-11	CARBON	33K 5% 1/4W
R157	1-249-433-11	CARBON	22K 5% 1/4W
R158	1-249-435-11	CARBON	33K 5% 1/4W
R159	1-249-399-11	CARBON	33 5% 1/4W
R160	1-249-399-11	CARBON	33 5% 1/4W
R161	1-249-399-11	CARBON	33 5% 1/4W
R165	1-249-408-11	CARBON	180 5% 1/4W
R166	1-249-409-11	CARBON	220 5% 1/4W
R167	1-249-413-11	CARBON	470 5% 1/4W
R168	1-249-408-11	CARBON	180 5% 1/4W
<VARIABLE RESISTOR>			
RV1	1-230-504-11	RES, ADJ, CARBON 220	
RV2	1-230-504-11	RES, ADJ, CARBON 220	
RV3	1-230-504-11	RES, ADJ, CARBON 220	
RV4	1-228-997-00	RES, ADJ, CARBON 100K	
<SWITCH>			
S1	1-570-865-11	SWITCH, SLIDE	

*A-1135-520-A	BA BOARD, COMPLETE	(INCLUDING, BC BOARD)	*****
*3-710-578-01	COVER, VOLUME, 6 MOLD		
<CONNECTOR>			
BA1	*1-566-056-11	PIN, CONNECTOR 4P	
BA2	*1-566-056-11	PIN, CONNECTOR 4P	
BA3	*1-566-057-11	PIN, CONNECTOR 5P	
BA4	*1-566-060-11	PIN, CONNECTOR 8P	

BA

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
BA5	*1-566-059-11	PIN, CONNECTOR 7P					
BA6	*1-566-058-11	PIN, CONNECTOR 6P					
<CAPACITOR>							
C108	1-124-915-11	ELECT 10MF	20% 16V	C200	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C119	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V	C201	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C120	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V	C202	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C121	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V	C203	1-126-151-11	ELECT 4.7MF	20% 16V
C122	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V	C204	1-135-153-21	TANTAL. CHIP 2.2MF	10% 20V
C123	1-123-380-00	ELECT 1MF	20% 50V	C205	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C124	1-124-915-11	ELECT 10MF	20% 16V	C206	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C127	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C207	1-163-119-00	CERAMIC CHIP 120PF	5% 50V
C128	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	C208	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
C129	1-123-379-00	ELECT 0.47MF	20% 50V	C209	1-163-183-00	CERAMIC CHIP 120PF	5% 50V
C130	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	C210	1-163-121-00	CERAMIC CHIP 150PF	5% 50V
C131	1-136-165-00	FILM 0.1MF	5% 50V	C211	1-136-153-00	FILM 0.01MF	5% 50V
C132	1-136-165-00	FILM 0.1MF	5% 50V	C212	1-124-915-11	ELECT 10MF	20% 16V
C133	1-124-477-11	ELECT 47MF	20% 16V	C213	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C134	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V	C214	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C135	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C215	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C136	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C216	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C137	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	C217	1-124-915-11	ELECT 10MF	20% 16V
C138	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C236	1-136-153-00	FILM 0.01MF	5% 50V
C139	1-136-153-00	FILM 0.01MF	5% 50V	C237	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C140	1-135-153-21	TANTAL. CHIP 2.2MF	10% 20V	C238	1-124-477-11	ELECT 47MF	20% 16V
C141	1-136-165-00	FILM 0.1MF	5% 50V	C244	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C142	1-136-165-00	FILM 0.1MF	5% 50V	C245	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C143	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C247	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C144	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C248	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C145	1-163-083-00	CERAMIC CHIP 1PF	0.25PF 50V	C401	1-124-903-11	ELECT 1MF	20% 50V
C146	1-163-241-11	CERAMIC CHIP 39PF	5% 50V	C402	1-124-915-11	ELECT 10MF	20% 16V
C147	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C403	1-124-480-11	ELECT 470MF	20% 25V
C148	1-124-915-11	ELECT 10MF	20% 16V	C404	1-124-915-11	ELECT 10MF	20% 16V
C149	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C405	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C150	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C406	1-124-915-11	ELECT 10MF	20% 16V
C151	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C407	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C152	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C408	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C153	1-136-157-00	FILM 0.022MF	5% 50V	C409	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C155	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C410	1-163-035-00	CERAMIC CHIP 0.047MF	50V
C156	1-124-915-11	ELECT 10MF	20% 16V	C411	1-124-477-11	ELECT 47MF	20% 16V
C157	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	C412	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C160	1-163-006-11	CERAMIC CHIP 560PF	10% 50V	C413	1-124-477-11	ELECT 47MF	20% 16V
C161	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	C414	1-124-915-11	ELECT 10MF	20% 16V
C162	1-163-185-00	CERAMIC CHIP 150PF	5% 50V	C415	1-163-107-00	CERAMIC CHIP 39PF	5% 50V
C163	1-163-115-00	CERAMIC CHIP 82PF	5% 50V	C416	1-163-111-00	CERAMIC CHIP 56PF	5% 50V
C164	1-126-151-11	ELECT 4.7MF	20% 16V	C417	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C165	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C418	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C166	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C419	1-126-101-11	ELECT 100MF	20% 16V
C167	1-163-035-00	CERAMIC CHIP 0.047MF	50V	C420	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C169	1-136-165-00	FILM 0.1MF	5% 50V	C421	1-163-115-00	CERAMIC CHIP 82PF	5% 50V
C170	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	C422	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C172	1-163-113-00	CERAMIC CHIP 68PF	5% 50V	C423	1-135-091-00	TANTAL. CHIP 1MF	10% 16V
C173	1-136-165-00	FILM 0.1MF	5% 50V	C424	1-136-160-00	FILM 0.039MF	5% 50V
C175	1-163-121-00	CERAMIC CHIP 150PF	5% 50V	C425	1-136-159-00	FILM 0.033MF	5% 50V
C176	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C426	1-124-915-11	ELECT 10MF	20% 16V
C177	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	C427	1-164-232-11	CERAMIC CHIP 0.01MF	50V
C179	1-164-232-11	CERAMIC CHIP 0.01MF	50V	C428	1-163-090-00	CERAMIC CHIP 7PF	0.25PF 50V
C180	1-126-101-11	ELECT 100MF	20% 16V	C429	1-126-104-11	ELECT 470MF	20% 35V
C183	1-135-145-11	TANTAL. CHIP 0.47MF	10% 25V	C431	1-124-915-11	ELECT 10MF	20% 16V
C186	1-124-360-00	ELECT 1000MF	20% 16V	C432	1-163-101-00	CERAMIC CHIP 22PF	5% 50V
C188	1-124-915-11	ELECT 10MF	20% 16V	C433	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C189	1-123-379-00	ELECT 0.47MF	20% 50V	C434	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C195	1-163-133-00	CERAMIC CHIP 470PF	5% 50V	C435	1-164-232-11	CERAMIC CHIP 0.01MF	5% 50V
<DIODE>							
D101	8-719-104-34	DIODE 1S2836					

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D102	8-719-400-18	DIODE MA152WK		Q126	8-729-116-05	TRANSISTOR 2SK160-K5	
D103	8-719-104-34	DIODE 1S2836		Q127	8-729-116-05	TRANSISTOR 2SK160-K5	
D104	8-719-400-18	DIODE MA152WK		Q128	8-729-116-05	TRANSISTOR 2SK160-K5	
D105	8-719-104-34	DIODE 1S2836		Q129	8-729-100-66	TRANSISTOR 2SC1623-L6	
D106	8-719-104-34	DIODE 1S2836		Q130	8-729-100-66	TRANSISTOR 2SC1623-L6	
D107	8-719-400-18	DIODE MA152WK		Q131	8-729-116-05	TRANSISTOR 2SK160-K5	
D108	8-719-400-18	DIODE MA152WK		Q132	8-729-116-05	TRANSISTOR 2SK160-K5	
D110	8-719-800-76	DIODE 1SS226		Q135	8-729-216-22	TRANSISTOR 2SA1162-G	
D111	8-719-104-34	DIODE 1S2836		Q136	8-729-216-22	TRANSISTOR 2SA1162-G	
D113	8-719-104-34	DIODE 1S2836		Q137	8-729-216-22	TRANSISTOR 2SA1162-G	
D115	8-719-104-34	DIODE 1S2836		Q138	8-729-216-22	TRANSISTOR 2SA1162-G	
D116	8-719-800-76	DIODE 1SS226		Q139	8-729-901-03	TRANSISTOR DTC144WK	
D122	8-719-104-34	DIODE 1S2836		Q144	8-729-901-03	TRANSISTOR DTC144WK	
D125	8-719-104-34	DIODE 1S2836		Q145	8-729-100-66	TRANSISTOR 2SC1623-L6	
D401	8-719-400-18	DIODE MA152WK		Q149	8-729-216-22	TRANSISTOR 2SA1162-G	
D402	8-719-104-34	DIODE 1S2836		Q150	8-729-216-22	TRANSISTOR 2SA1162-G	
D407	8-719-105-83	DIODE RD5.1M-B3		Q152	8-729-901-03	TRANSISTOR DTC144WK	
D408	8-719-104-34	DIODE 1S2836		Q153	8-729-901-03	TRANSISTOR DTC144WK	
<DELAY LINE>				Q154	8-729-901-03	TRANSISTOR DTC144WK	
DL103	1-415-122-31	DELAY LINE, 1H (PAL)		Q401	8-729-216-22	TRANSISTOR 2SA1162-G	
DL401	1-415-494-11	DELAY LINE, Y		Q402	8-729-100-66	TRANSISTOR 2SC1623-L6	
DL402	1-415-356-11	DELAY LINE, 1H		Q403	8-729-100-66	TRANSISTOR 2SC1623-L6	
<IC>				Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
IC101	8-752-006-12	IC CX20061		Q405	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC102	8-752-006-12	IC CX20061		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
IC103	8-759-113-65	IC UPC1365C		Q407	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC104	8-759-000-33	IC MC14024BCP		Q408	8-729-216-22	TRANSISTOR 2SA1162-G	
IC201	8-759-100-15	IC UPC1364C2		Q409	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC401	8-759-604-39	IC M5F78M12L		Q410	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC402	8-759-982-48	IC RC79L12A		Q411	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC403	8-759-014-96	IC MC1496P		Q412	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC404	8-759-979-16	IC CX-7916		Q413	8-729-100-66	TRANSISTOR 2SC1623-L6	
IC501	8-759-040-53	IC MC14053BCP		Q414	8-729-100-66	TRANSISTOR 2SC1623-L6	
<COIL>				Q415	8-729-100-66	TRANSISTOR 2SC1623-L6	
L107	1-410-208-41	INDUCTOR CHIP 22UH		Q416	8-729-100-66	TRANSISTOR 2SC1623-L6	
L108	1-410-211-51	INDUCTOR CHIP 39UH		Q417	8-729-901-03	TRANSISTOR DTC144WK	
L110	1-410-207-51	INDUCTOR CHIP 18UH		Q418	8-729-901-03	TRANSISTOR DTC144WK	
L111	1-410-201-51	INDUCTOR CHIP 5.6UH		Q419	8-729-901-03	TRANSISTOR DTC144WK	
L112	1-410-203-51	INDUCTOR CHIP 8.2UH		Q420	8-729-100-66	TRANSISTOR 2SC1623-L6	
L201	1-410-091-31	INDUCTOR 22MMH		Q421	8-729-100-66	TRANSISTOR 2SC1623-L6	
L202	1-410-068-11	INDUCTOR 5.6MMH		Q422	8-729-901-03	TRANSISTOR DTC144WK	
L203	1-410-209-51	INDUCTOR CHIP 27UH		Q423	8-729-100-66	TRANSISTOR 2SC1623-L6	
L401	1-410-192-51	INDUCTOR CHIP 1UH		Q424	8-729-100-66	TRANSISTOR 2SC1623-L6	
L402	1-410-211-51	INDUCTOR CHIP 39UH		Q425	8-729-100-66	TRANSISTOR 2SC1623-L6	
L403	1-410-212-51	INDUCTOR CHIP 47UH		Q426	8-729-100-66	TRANSISTOR 2SC1623-L6	
L404	1-410-206-51	INDUCTOR CHIP 15UH		Q427	8-729-901-03	TRANSISTOR DTC144WK	
L405	1-410-204-31	INDUCTOR CHIP 10UH		Q431	8-729-100-66	TRANSISTOR 2SC1623-L6	
<TRANSISTOR>				Q432	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q116	8-729-216-22	TRANSISTOR 2SA1162-G		Q433	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q117	8-729-901-03	TRANSISTOR DTC144WK		Q434	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q118	8-729-901-03	TRANSISTOR DTC144WK		Q435	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q120	8-729-901-03	TRANSISTOR DTC144WK		Q436	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q121	8-729-216-22	TRANSISTOR 2SA1162-G		Q437	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q122	8-729-901-03	TRANSISTOR DTC144WK		Q438	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q123	8-729-100-66	TRANSISTOR 2SC1623-L6		Q439	8-729-100-66	TRANSISTOR 2SC1623-L6	
Q124	8-729-115-30	TRANSISTOR 2SK105A-20		Q440	8-729-901-03	TRANSISTOR DTC144WK	
Q125	8-729-901-03	TRANSISTOR DTC144WK		Q441	8-729-901-03	TRANSISTOR DTC144WK	
<RESISTOR>				Q442	8-729-100-66	TRANSISTOR 2SC1623-L6	
R056	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	Q443	8-729-100-66	TRANSISTOR 2SC1623-L6	

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R066	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R237	1-216-033-00	METAL GLAZE	220 5% 1/10W
R140	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R238	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R141	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R240	1-216-056-00	METAL GLAZE	2K 5% 1/10W
R150	1-216-047-00	METAL GLAZE	820 5% 1/10W	R241	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R151	1-216-041-00	METAL GLAZE	470 5% 1/10W	R242	1-216-072-00	METAL GLAZE	9.1K 5% 1/10W
R152	1-216-047-00	METAL GLAZE	820 5% 1/10W	R245	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R153	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R246	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R156	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R247	1-216-107-00	METAL GLAZE	270K 5% 1/10W
R157	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R249	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R159	1-216-045-00	METAL GLAZE	680 5% 1/10W	R250	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R160	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R251	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R165	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R252	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R167	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R253	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R168	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R254	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R173	1-216-214-00	METAL GLAZE	4.7K 5% 1/8W	R255	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R176	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R256	1-216-220-00	METAL GLAZE	8.2K 5% 1/8W
R177	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R258	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R178	1-216-101-00	METAL GLAZE	150K 5% 1/10W	R259	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R180	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R262	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R181	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R270	1-216-045-00	METAL GLAZE	680 5% 1/10W
R182	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R271	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R183	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R273	1-202-723-00	SOLID	2.2M 10% 1/2W
R184	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R274	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R185	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R275	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R186	1-216-041-00	METAL GLAZE	470 5% 1/10W	R276	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R187	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R277	1-216-047-00	METAL GLAZE	820 5% 1/10W
R188	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R278	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R189	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R279	1-216-084-00	METAL GLAZE	30K 5% 1/10W
R190	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R280	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R192	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R281	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R193	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R282	1-249-421-11	CARBON	2.2K 5% 1/8W F
R194	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R283	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R195	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R284	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R196	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R285	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R197	1-216-045-00	METAL GLAZE	680 5% 1/10W	R286	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R198	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R287	1-216-121-00	METAL GLAZE	1M 5% 1/10W
R199	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R288	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R200	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R290	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R201	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R291	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R202	1-216-121-00	METAL GLAZE	1M 5% 1/10W	R296	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R204	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R307	1-216-037-00	METAL GLAZE	330 5% 1/10W
R207	1-216-033-00	METAL GLAZE	220 5% 1/10W	R308	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R208	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R311	1-216-090-00	METAL GLAZE	51K 5% 1/10W
R210	1-216-033-00	METAL GLAZE	220 5% 1/10W	R313	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R211	1-216-033-00	METAL GLAZE	220 5% 1/10W	R315	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R212	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R316	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R213	1-216-033-00	METAL GLAZE	220 5% 1/10W	R317	1-216-037-00	METAL GLAZE	330 5% 1/10W
R214	1-216-033-00	METAL GLAZE	220 5% 1/10W	R318	1-216-031-00	METAL GLAZE	180 5% 1/10W
R215	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R326	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R216	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R332	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R217	1-216-097-00	METAL GLAZE	100K 5% 1/10W	R348	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R218	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R401	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R219	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R402	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R220	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R403	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W
R221	1-216-088-00	METAL GLAZE	43K 5% 1/10W	R404	1-216-046-00	METAL GLAZE	750 5% 1/10W
R222	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R405	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R223	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W	R406	1-216-025-00	METAL GLAZE	100 5% 1/10W
R230	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R407	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R231	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R408	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R232	1-216-039-00	METAL GLAZE	390 5% 1/10W	R409	1-216-045-00	METAL GLAZE	680 5% 1/10W
R233	1-216-033-00	METAL GLAZE	220 5% 1/10W	R410	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R234	1-216-033-00	METAL GLAZE	220 5% 1/10W	R411	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R235	1-216-041-00	METAL GLAZE	470 5% 1/10W	R412	1-216-037-00	METAL GLAZE	330 5% 1/10W
R236	1-216-025-00	METAL GLAZE	100 5% 1/10W				

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R413	1-216-103-00	METAL GLAZE	180K 5% 1/10W	R484	1-216-174-00	METAL GLAZE	100 5% 1/8W
R414	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R485	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R415	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R486	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R416	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W	R487	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R417	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R488	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R418	1-216-025-00	METAL GLAZE	100 5% 1/10W	R489	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R419	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R490	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R420	1-216-045-00	METAL GLAZE	680 5% 1/10W	R491	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R421	1-216-025-00	METAL GLAZE	100 5% 1/10W	R492	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R423	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R493	1-216-047-00	METAL GLAZE	820 5% 1/10W
R424	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R494	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R425	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R495	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R426	1-216-025-00	METAL GLAZE	100 5% 1/10W	R498	1-216-222-00	METAL GLAZE	10K 5% 1/8W
R427	1-216-045-00	METAL GLAZE	680 5% 1/10W	R499	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R428	1-216-025-00	METAL GLAZE	100 5% 1/10W	R500	1-216-200-00	METAL GLAZE	1.2K 5% 1/8W
R429	1-216-091-00	METAL GLAZE	56K 5% 1/10W	R501	1-216-025-00	METAL GLAZE	100 5% 1/10W
R430	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R502	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R431	1-216-025-00	METAL GLAZE	100 5% 1/10W	R503	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R432	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R504	1-216-085-00	METAL GLAZE	33K 5% 1/10W
R433	1-216-025-00	METAL GLAZE	100 5% 1/10W	R505	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R434	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R506	1-216-025-00	METAL GLAZE	100 5% 1/10W
R435	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W	R667	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R436	1-216-025-00	METAL GLAZE	100 5% 1/10W	R668	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R437	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W	R669	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R438	1-216-196-00	METAL GLAZE	820 5% 1/8W	R670	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R439	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R671	1-216-017-00	METAL GLAZE	47 5% 1/10W
R440	1-216-234-00	METAL GLAZE	33K 5% 1/8W	R672	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R441	1-216-232-00	METAL GLAZE	27K 5% 1/8W	R673	1-216-017-00	METAL GLAZE	47 5% 1/10W
R442	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R674	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R443	1-216-041-00	METAL GLAZE	470 5% 1/10W	R675	1-216-025-00	METAL GLAZE	100 5% 1/10W
R444	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R676	1-216-055-00	METAL GLAZE	1.8K 5% 1/10W
R445	1-216-045-00	METAL GLAZE	680 5% 1/10W	R678	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R446	1-216-041-00	METAL GLAZE	470 5% 1/10W	R679	1-216-025-00	METAL GLAZE	100 5% 1/10W
R447	1-216-045-00	METAL GLAZE	680 5% 1/10W	R680	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R448	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R681	1-216-025-00	METAL GLAZE	100 5% 1/10W
R449	1-216-045-00	METAL GLAZE	680 5% 1/10W	R682	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W
R450	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R683	1-216-687-11	METAL CHIP	33K 0.50% 1/10W
R451	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R684	1-216-025-00	METAL GLAZE	100 5% 1/10W
R452	1-216-045-00	METAL GLAZE	680 5% 1/10W	R685	1-216-699-11	METAL CHIP	100K 0.50% 1/10W
R453	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R686	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R454	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R687	1-216-017-00	METAL GLAZE	47 5% 1/10W
R455	1-216-045-00	METAL GLAZE	680 5% 1/10W	R688	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W
R456	1-216-045-00	METAL GLAZE	680 5% 1/10W	R689	1-216-017-00	METAL GLAZE	47 5% 1/10W
R457	1-216-041-00	METAL GLAZE	470 5% 1/10W	R690	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R458	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R691	1-216-017-00	METAL GLAZE	47 5% 1/10W
R459	1-216-640-11	METAL CHIP	360 0.50% 1/10W	R692	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R461	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R693	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R462	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R694	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R463	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W	R695	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R464	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R696	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R465	1-216-025-00	METAL GLAZE	100 5% 1/10W	R697	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R466	1-247-725-11	CARBON	10K 5% 1/4W	R698	1-216-025-00	METAL GLAZE	100 5% 1/10W
R467	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R699	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R468	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R700	1-216-025-00	METAL GLAZE	100 5% 1/10W
R469	1-216-075-00	METAL GLAZE	12K 5% 1/10W	R702	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R470	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R703	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R471	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R704	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R472	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R705	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R473	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	R706	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R479	1-216-083-00	METAL GLAZE	27K 5% 1/10W	R707	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R480	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R708	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R481	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W	R709	1-249-401-11	CARBON	47 5% 1/4W
R482	1-216-025-00	METAL GLAZE	100 5% 1/10W	R900	1-216-296-00	METAL GLAZE	0 5% 1/8W
R483	1-216-025-00	METAL GLAZE	100 5% 1/10W				

BA

REF. NO.	PART NO.	DESCRIPTION	REMARK
R901	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R902	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R903	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R904	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R905	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R906	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R907	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R908	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R909	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R910	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R911	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R912	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R913	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R914	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R915	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R916	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R917	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R918	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R919	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R920	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R921	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R922	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R923	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R924	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R925	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R926	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R927	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R928	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R929	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R930	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R931	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R932	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R933	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R934	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R935	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R936	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R937	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R938	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R939	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R940	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R941	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R942	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R943	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R944	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R945	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R946	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R947	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R948	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R949	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R950	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R951	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R952	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R953	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R954	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R955	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R956	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R957	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R958	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R959	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R960	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R961	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R962	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R963	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R964	1-216-296-00	METAL GLAZE 0 5% 1/8W	

REF. NO.	PART NO.	DESCRIPTION	REMARK
R965	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R966	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R967	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R968	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R969	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R970	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R971	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R972	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R973	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R974	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R975	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R976	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R977	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R978	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R979	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R980	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R981	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R982	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R983	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R984	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R985	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R986	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R987	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R988	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R989	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R990	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R991	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R992	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R993	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R994	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R995	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R996	1-216-296-00	METAL GLAZE 0 5% 1/8W	
R997	1-216-295-00	METAL GLAZE 0 5% 1/10W	
R998	1-216-295-00	METAL GLAZE 0 5% 1/10W	
<VARIABLE RESISTOR>			
RV103	1-228-993-00	RES, ADJ, CARBON 4.7K	
RV104	1-228-995-00	RES, ADJ, CARBON 22K	
RV105	1-228-995-00	RES, ADJ, CARBON 22K	
RV106	1-228-993-00	RES, ADJ, CARBON 4.7K	
RV107	1-228-994-00	RES, ADJ, CARBON 10K	
RV108	1-228-993-00	RES, ADJ, CARBON 4.7K	
RV110	1-228-989-00	RES, ADJ, CARBON 470	
RV111	1-228-996-00	RES, ADJ, CARBON 47K	
RV403	1-228-990-00	RES, ADJ, CARBON 1K	
RV404	1-228-993-00	RES, ADJ, CARBON 4.7K	
<COIL>			
T102	1-404-495-00	COIL	
T103	1-404-495-00	COIL	
T104	1-404-524-11	DAT	
T201	1-404-584-11	COIL	
T202	1-408-532-00	COIL, VARIABLE	
T203	1-408-532-00	COIL, VARIABLE	
T204	1-408-513-00	COIL (VARIABLE)	
T401	1-404-540-11	COIL	
<THERMISTER>			
TH101	1-800-071-XX	THERMISTER TH0.35K	
TH201	1-800-069-XX	THERMISTOR	

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

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 spécifié.

BA

BC

PA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<CRYSTAL>							
X101	1-567-505-11	OSCILLATOR, CRYSTAL		R816	1-216-073-00	METAL GLAZE 10K 5%	1/10W
X102	1-567-504-11	OSCILLATOR, CRYSTAL		R817	1-216-073-00	METAL GLAZE 10K 5%	1/10W
*****				R818	1-216-119-00	METAL GLAZE 820K 5%	1/10W
*A-1130-718-A	BC BOARD, COMPLETE	*****		R819	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<CAPACITOR>				R820	1-216-049-00	METAL GLAZE 1K 5%	1/10W
C500	1-164-232-11	CERAMIC CHIP 0.01MF	50V	R821	1-216-091-00	METAL GLAZE 56K 5%	1/10W
C501	1-164-232-11	CERAMIC CHIP 0.01MF	50V	R822	1-216-017-00	METAL GLAZE 47 5%	1/10W
C502	1-163-129-00	CERAMIC CHIP 330PF	5% 50V	R823	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
C503	1-164-232-11	CERAMIC CHIP 0.01MF	50V	R824	1-216-049-00	METAL GLAZE 1K 5%	1/10W
C504	1-163-989-11	CERAMIC CHIP 0.033MF	10% 25V	R825	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
C505	1-163-035-00	CERAMIC CHIP 0.047MF	50V	R826	1-216-097-00	METAL GLAZE 100K 5%	1/10W
C506	1-163-127-00	CERAMIC CHIP 270PF	5% 50V	R827	1-216-077-00	METAL GLAZE 15K 5%	1/10W
C507	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	R828	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
C508	1-135-091-00	TANTAL. CHIP 1MF	10% 16V	R900	1-216-296-00	METAL GLAZE 0 5%	1/8W
C509	1-163-109-00	CERAMIC CHIP 47PF	5% 50V	R901	1-216-295-00	METAL GLAZE 0 5%	1/10W
C510	1-164-232-11	CERAMIC CHIP 0.01MF	50V	<PLUG>			
C511	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	W1	*1-506-603-11	PLUG, L TYPE (2.0MM PITCH) 10P	
*****				*****			
<DIODE>				*A-1190-113-A	PA BOARD, COMPLETE	(INCLUDING, PB BOARD)	*****
D450	8-719-400-18	DIODE MA152WK		*4-363-146-00	HEAT SINK, V.OUT		
D451	8-719-400-18	DIODE MA152WK		4-383-022-01	SPACER, MICA		
*****				4-383-023-01	SPACER, MICA		
<IC>				<CAPACITOR>			
IC500	8-759-987-16	IC LM393P		C1	1-124-046-00	ELECT 10MF	20% 160V
*****				C2	1-123-024-21	ELECT 33MF	160V
<COIL>				C3	1-136-134-00	FILM 1.5MF	5% 400V
L800	1-410-209-51	INDUCTOR CHIP 27UH		C4	1-108-700-11	MYLAR 0.047MF	10% 200V
*****				C5	1-102-030-00	CERAMIC 330PF	10% 500V
<TRANSISTOR>				C6	1-124-915-11	ELECT 10MF	20% 25V
Q500	8-729-100-66	TRANSISTOR 2SC1623-L6		C7	1-124-122-11	ELECT 100MF	20% 16V
Q501	8-729-100-66	TRANSISTOR 2SC1623-L6		C9	1-123-379-00	ELECT 0.47MF	20% 50V
Q502	8-729-100-66	TRANSISTOR 2SC1623-L6		C10	1-102-973-00	CERAMIC 100PF	5% 50V
Q503	8-729-100-66	TRANSISTOR 2SC1623-L6		C11	1-102-244-00	CERAMIC 220PF	10% 500V
Q504	8-729-116-05	TRANSISTOR 2SK160-K5		C12	1-108-704-11	MYLAR 0.1MF	10% 200V
Q505	8-729-216-22	TRANSISTOR 2SA1162-G		C13	1-123-379-00	ELECT 0.47MF	20% 50V
Q506	8-729-100-66	TRANSISTOR 2SC1623-L6		C14	1-102-973-00	CERAMIC 100PF	5% 50V
*****				C15	1-102-244-00	CERAMIC 220PF	10% 500V
<RESISTOR>				C16	1-108-704-11	MYLAR 0.1MF	10% 200V
R800	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	C17	1-123-380-00	ELECT 1MF	20% 50V
R801	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C18	1-123-380-00	ELECT 1MF	20% 50V
R802	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	C19	1-162-134-11	CERAMIC 470PF	10% 2KV
R803	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C20	1-126-150-11	ELECT 47MF	20% 350V
R804	1-216-077-00	METAL GLAZE 15K 5%	1/10W	C22	1-108-638-11	MYLAR 0.1MF	10% 100V
R805	1-216-025-00	METAL GLAZE 100 5%	1/10W	C23	1-124-915-11	ELECT 10MF	20% 25V
R806	1-216-073-00	METAL GLAZE 10K 5%	1/10W	C24	1-124-915-11	ELECT 10MF	20% 25V
R808	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	C25	1-124-034-51	ELECT 33MF	20% 16V
R809	1-216-689-11	METAL CHIP 39K 0.50%	1/10W	C26	1-124-915-11	ELECT 10MF	20% 16V
R810	1-216-653-11	METAL CHIP 1.2K 0.50%	1/10W	C27	1-124-915-11	ELECT 10MF	20% 16V
R811	1-216-691-11	METAL CHIP 47K 0.50%	1/10W	C28	1-124-034-51	ELECT 33MF	20% 16V
R812	1-216-097-00	METAL GLAZE 100K 5%	1/10W	C29	1-124-034-51	ELECT 33MF	20% 16V
R813	1-216-025-00	METAL GLAZE 100 5%	1/10W	C30	1-136-169-00	FILM 0.22MF	5% 50V
R814	1-216-121-00	METAL GLAZE 1M 5%	1/10W	C31	1-124-915-11	ELECT 10MF	20% 16V
R815	1-216-119-00	METAL GLAZE 820K 5%	1/10W	C32	1-124-034-51	ELECT 33MF	20% 16V
*****				C33	1-124-915-11	ELECT 10MF	20% 16V
*****				C34	Δ 1-124-122-11	ELECT 100MF	20% 16V
*****				C36	1-108-692-11	MYLAR 0.01MF	10% 200V

PA

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C37	1-124-915-11	ELECT	10MF	20%	16V		
C39	1-102-824-00	CERAMIC	470PF	5%	50V	L1	1-459-614-11 COIL, CHOKE 90UH
C40	1-108-698-11	MYLAR	0.033MF	10%	200V	L2	1-459-700-11 COIL, CHOKE 2.1MMH
C41	1-108-698-11	MYLAR	0.033MF	10%	200V	L3	1-459-155-00 COIL (WITH CORE) 45UH
C42	1-124-120-11	ELECT	220MF	20%	16V		
C43	1-124-120-11	ELECT	220MF	20%	16V		<NEON LAMP>
C44	1-126-234-11	ELECT	2200MF	20%	16V	NL2	1-519-108-XX LAMP, NEON
C45	1-126-234-11	ELECT	2200MF	20%	16V		
C46	1-123-932-00	ELECT	4.7MF	20%	160V		<CONNECTOR>
C47	1-123-369-00	ELECT	4.7MF	20%	25V		
C48	1-123-369-00	ELECT	4.7MF	20%	25V	PA1	*1-566-058-11 PIN, CONNECTOR 6P
C49	1-101-006-00	CERAMIC	0.047MF		50V	PA2	*1-566-062-11 PIN, CONNECTOR 10P
C50	1-101-006-00	CERAMIC	0.047MF		50V	PA3	*1-508-768-00 PIN, CPNECTOR (5MM PITCH) 6P
C51	1-123-024-21	ELECT	33MF		160V	PA4	*1-566-056-11 PIN, CONNECTOR 4P
C52	1-108-704-11	MYLAR	0.1MF	10%	200V	PA5	*1-566-057-11 PIN, CONNECTOR 5P
C53	1-162-134-11	CERAMIC	470PF	10%	2KV	PA6	*1-566-054-11 PIN, CONNECTOR 2P
C54	1-124-798-11	ELECT	1MF	20%	160V	PA7	*1-566-055-11 PIN, CONNECTOR 3P
C55	1-126-541-11	ELECT	330MF	20%	16V	PA8	*1-566-059-11 PIN, CONNECTOR 7P
C56	1-136-165-00	FILM	0.1MF	5%	50V	PA9	*1-566-058-11 PIN, CONNECTOR 6P
C57	1-136-165-00	FILM	0.1MF	5%	50V	PA10	*1-566-058-11 PIN, CONNECTOR 6P
C58	1-123-380-00	ELECT	1MF	20%	50V	PA11	*1-566-058-11 PIN, CONNECTOR 6P
C59	1-126-174-51	ELECT	10MF	20%	350V	PA12	*1-508-786-00 PIN, CONNECTOR (5MM PITCH) 2P
		<DIODE>				PA13	*1-508-786-00 PIN, CONNECTOR (5MM PITCH) 2P
D1	8-719-928-08	DIODE	ERD28-08S			PA14	*1-508-766-00 PIN, CONNECTOR (5MM PITCH) 4P
D2	8-719-300-80	DIODE	RU-1C			PA15	*1-566-054-11 PIN, CONNECTOR 2P
D3	8-719-300-80	DIODE	RU-1C				<TRANSISTOR>
D4	8-719-300-80	DIODE	RU-1C			Q1	8-729-201-62 TRANSISTOR 2SC2555-2
D7	8-719-901-19	DIODE	V11N			Q2	8-729-119-80 TRANSISTOR 2SC2688-LK
D8	8-719-971-20	DIODE	ERC38-06			Q3	8-729-119-80 TRANSISTOR 2SC2688-LK
D9	8-719-971-20	DIODE	ERC38-06			Q4	8-729-119-80 TRANSISTOR 2SC2688-LK
D10	8-719-971-20	DIODE	ERC38-06			Q5	8-729-802-71 TRANSISTOR 2SA1407-D
D11	8-719-971-20	DIODE	ERC38-06			Q6	8-729-800-80 TRANSISTOR 2SD1399-CA
D12	8-719-971-20	DIODE	ERC38-06			Q7	8-729-119-76 TRANSISTOR 2SA1175-HFE
D13	8-719-971-20	DIODE	ERC38-06			Q8	8-729-119-78 TRANSISTOR 2SC2785-HFE
D14	8-719-305-15	DIODE	GH-3F			Q9	8-729-119-78 TRANSISTOR 2SC2785-HFE
D15	8-719-109-85	DIODE	RD5.1ES-B2			Q10	8-729-119-78 TRANSISTOR 2SC2785-HFE
D16	8-719-109-85	DIODE	RD5.1ES-B2			Q11	8-729-119-78 TRANSISTOR 2SC2785-HFE
D17	8-719-109-85	DIODE	RD5.1ES-B2			Q12	8-729-119-78 TRANSISTOR 2SC2785-HFE
D18	8-719-109-85	DIODE	RD5.1ES-B2			Q13	8-729-804-48 TRANSISTOR 2SC3675
D20	8-719-911-19	DIODE	1SS119			Q14	8-729-119-76 TRANSISTOR 2SA1175-HFE
D21	8-719-911-19	DIODE	1SS119				<RESISTOR>
D22	8-719-911-19	DIODE	1SS119			R1	1-216-378-11 METAL OXIDE 5.6 5% 2W F
D23	8-719-911-19	DIODE	1SS119			R2	1-216-488-11 METAL OXIDE 18K 5% 3W F
D24	8-719-911-19	DIODE	1SS119			R3	1-249-429-11 CARBON 10K 5% 1/4W
D25	8-719-911-19	DIODE	1SS119			R4	1-215-921-11 METAL OXIDE 4.7K 5% 3W F
D26	8-719-911-19	DIODE	1SS119			R5	1-215-921-11 METAL OXIDE 4.7K 5% 3W F
D28	8-719-911-19	DIODE	1SS119			R6	1-215-924-00 METAL OXIDE 15K 5% 3W F
D29	8-719-911-19	DIODE	1SS119			R7	1-249-417-11 CARBON 1K 5% 1/4W
D30	8-719-911-19	DIODE	1SS119			R9	1-249-417-11 CARBON 1K 5% 1/4W
D31	8-719-911-19	DIODE	1SS119			R10	1-249-423-11 CARBON 3.3K 5% 1/4W
D32	8-719-911-19	DIODE	1SS119			R11	1-249-420-11 CARBON 1.8K 5% 1/4W F
D33	8-719-110-36	DIODE	RD13ES-B2			R12	1-249-421-11 CARBON 2.2K 5% 1/4W
		<IC>				R13	1-249-420-11 CARBON 1.8K 5% 1/4W F
IC1	8-759-990-82	IC	TL082CP			R15	1-249-441-11 CARBON 100K 5% 1/4W
IC2	8-759-987-16	IC	LM393P			R16	1-249-441-11 CARBON 100K 5% 1/4W
IC3	8-759-987-16	IC	LM393P			R17	1-216-359-00 METAL OXIDE 6.8 5% 1W F
IC4	8-759-634-50	IC	M5218AL			R18	1-215-443-00 METAL 8.2K 1% 1/4W
IC5	8-759-982-26	IC	RC78L12A			R19	1-215-443-00 METAL 8.2K 1% 1/4W
		<COIL>				R20	1-215-441-00 METAL 6.8K 1% 1/4W
						R21	1-215-441-00 METAL 6.8K 1% 1/4W

PC

FA

FB

QB

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

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.

REF.NO.	PART NO.	DESCRIPTION	REMARK
	*4-341-752-01	EYELET	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CAPACITOR>	
C1	Δ.1-130-660-11	FILM 0.02MF	3% 1.6KV
C2	Δ.1-136-134-11	FILM 1.5MF	5% 400V
		<DIODE>	
D1	8-719-945-80	DIODE ERC06-15S	
D2	8-719-945-80	DIODE ERC06-15S	
		<COIL>	
L1	Δ.1-459-700-11	COIL, CHOKE 2.1MMH	
L2	Δ.1-459-700-11	COIL, CHOKE 2.1MMH	
		<NEON LAMP>	
NL1	1-519-108-XX	LAMP, NEON	
		<CONNECTOR>	
PC1	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P	
		<TRANSISTOR>	
Q1	8-729-805-07	TRANSISTOR 2SD1887-CA	
		<TRANSFORMER>	
T1	Δ.1-439-408-31	TRANSFORMER ASSY, FLYBACK (NX-2023)	
T2	Δ.1-439-408-31	TRANSFORMER ASSY, FLYBACK (NX-2023)	

	*1-621-056-11	FA BOARD	*****
	*4-341-751-01	EYELET	EY7-EY12, EY17-EY36
	*4-341-752-01	EYELET	EY1-EY6, EY13-EY16
		<CAPACITOR>	
C1	1-130-711-00	FILM 0.22MF	20% 250V
C2	1-130-711-00	FILM 0.22MF	20% 250V
C3	1-130-711-00	FILM 0.22MF	20% 250V
C4	1-162-599-12	CERAMIC 0.0047MF	20% 400V
C5	1-162-599-12	CERAMIC 0.0047MF	20% 400V
C6	1-161-742-00	CERAMIC 0.0022MF	20% 400V
C7	1-161-742-00	CERAMIC 0.0022MF	20% 400V
C8	1-125-469-11	ELECT (BLOCK) 820MF	20% 200V
C9	1-125-469-11	ELECT (BLOCK) 820MF	20% 200V
C10	1-101-003-00	CERAMIC 0.0047MF	50V
C11	1-101-003-00	CERAMIC 0.0047MF	50V
C12	1-124-912-11	ELECT 330MF	20% 50V
		<DIODE>	
D1	8-719-503-06	DIODE S3WB60Z	
D2	8-719-511-40	DIODE S1VB40	
D3	8-719-931-33	DIODE EQB01-33	

REF.NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
FA1	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
FA2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
FA3	*1-566-055-11	PIN, CONNECTOR 3P	
FA4	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
		<COIL>	
L1	1-459-595-11	COIL, CHOKE	
L2	1-459-595-11	COIL, CHOKE	
		<RESISTOR>	
R1	1-202-723-00	SOLID 2.2M 10%	1/2W
R2	Δ.1-205-798-11	WIREWOUND 1.5 5%	20W
R3	1-214-921-00	CARBON 220K 5%	1/2W
R4	1-214-921-00	CARBON 220K 5%	1/2W
R5	1-249-405-11	CARBON 100 5%	1/4W
		<SWITCH>	
SW1	Δ.1-570-971-11	SWITCH, SLIDE	
		<TRANSFORMER>	
T1	1-421-944-11	TRANSFORMER, LINE FILTER	
T2	Δ.1-448-374-11	TRANSFORMER, POWER	
T3	1-421-776-11	LFT	

	*1-621-057-11	FB BOARD	*****
	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
	*1-533-146-00	HOLDER, FUSE	
	*4-341-751-01	EYELET EY1, EY2	
		<FUSE>	
F1	Δ.1-532-747-11	FUSE, GLASS TUBE (5A/125V)	

	*A-1270-238-A	QB BOARD, COMPLETE	*****
	1-537-167-11	TERMINAL BOARD, INPUT/OUTPUT	
		<CAPACITOR>	
C201	1-102-114-00	CERAMIC 470PF	10% 50V
C202	1-124-927-11	ELECT 4.7MF	20% 50V
C203	1-101-004-00	CERAMIC 0.01MF	50V
C204	1-123-380-00	ELECT 1MF	20% 50V
C205	1-124-915-11	ELECT 10MF	20% 16V
C209	1-102-114-00	CERAMIC 470PF	10% 50V
C210	1-102-114-00	CERAMIC 470PF	10% 50V
C211	1-123-380-00	ELECT 1MF	20% 50V
C212	1-124-499-11	ELECT 1MF	20% 50V
C213	1-124-915-11	ELECT 10MF	20% 16V
C214	1-102-114-00	CERAMIC 470PF	10% 50V
C215	1-126-101-11	ELECT 100MF	20% 16V
C216	1-124-910-11	ELECT 47MF	20% 16V
C217	1-124-915-11	ELECT 10MF	20% 25V
C218	1-123-369-00	ELECT 4.7MF	20% 25V

QB

QA

REF.NO.	PART NO.	DESCRIPTION	REMARK	REF.NO.	PART NO.	DESCRIPTION	REMARK
C219	1-124-910-11	ELECT 47MF	20% 16V	R206	1-249-437-11	CARBON 47K	5% 1/4W
C220	1-124-910-11	ELECT 47MF	20% 16V	R207	1-249-433-11	CARBON 22K	5% 1/4W
C221	1-126-103-11	ELECT 470MF	20% 16V	R208	1-249-433-11	CARBON 22K	5% 1/4W
C222	1-126-103-11	ELECT 470MF	20% 16V	R212	1-249-438-11	CARBON 56K	5% 1/4W
C223	1-108-812-11	MYLAR 0.047MF	5% 50V	R213	1-249-429-11	CARBON 10K	5% 1/4W
C224	1-124-557-11	ELECT 1000MF	20% 25V	R214	1-249-435-11	CARBON 33K	5% 1/4W
C225	1-101-006-00	CERAMIC 0.047MF	50V	R215	1-249-437-11	CARBON 47K	5% 1/4W
C226	1-124-915-11	ELECT 10MF	20% 16V	R216	1-249-429-11	CARBON 10K	5% 1/4W
C227	1-124-915-11	ELECT 10MF	20% 16V	R217	1-249-437-11	CARBON 47K	5% 1/4W
C228	1-101-006-00	CERAMIC 0.047MF	50V	R218	1-247-887-00	CARBON 220K	5% 1/4W
C229	1-126-103-11	ELECT 470MF	20% 16V	R219	1-249-429-11	CARBON 10K	5% 1/4W
C235	1-136-165-00	FILM 0.1MF	5% 50V	R220	1-249-419-11	CARBON 1.5K	5% 1/4W
C236	1-136-153-00	FILM 0.01MF	5% 50V	R221	1-249-408-11	CARBON 180	5% 1/4W
C237	1-102-114-00	CERAMIC 470PF	10% 50V	R222	1-249-421-11	CARBON 2.2K	5% 1/4W
		<DIODE>		R223	1-249-421-11	CARBON 2.2K	5% 1/4W
D201	8-719-110-36	DIODE RD13ES-B2		R224	1-249-419-11	CARBON 1.5K	5% 1/4W
D202	8-719-911-19	DIODE 1SS119		R225	1-249-381-11	CARBON 1	5% 1/4W
D203	8-719-911-19	DIODE 1SS119		R226	1-249-435-11	CARBON 33K	5% 1/4W
D204	8-719-911-19	DIODE 1SS119		R227	1-249-429-11	CARBON 10K	5% 1/4W
D205	8-719-911-19	DIODE 1SS119		R228	1-249-435-11	CARBON 33K	5% 1/4W
D206	8-719-911-19	DIODE 1SS119		R229	1-249-429-11	CARBON 10K	5% 1/4W
		<IC>		R230	1-249-417-11	CARBON 1K	5% 1/4W
IC201	8-759-987-16	IC LM393P		R231	1-249-411-11	CARBON 330	5% 1/4W
IC202	8-759-208-94	IC CX-894		R233	1-249-417-11	CARBON 1K	5% 1/4W
IC203	8-759-800-59	IC LA2600		R235	1-249-417-11	CARBON 1K	5% 1/4W
IC204	8-759-101-77	IC UPC1241H		R236	1-247-104-00	CARBON 75	5% 1/4W
IC205	8-759-982-25	IC RC78L09A		R237	1-249-429-11	CARBON 10K	5% 1/4W
IC206	8-759-604-39	IC M5F78M12L		R238	1-249-425-11	CARBON 4.7K	5% 1/4W
IC207	8-759-929-65	IC LM7912CT		R239	1-249-405-11	CARBON 100	5% 1/4W
IC210	8-759-140-53	IC MC14053BCP		R240	1-249-421-11	CARBON 2.2K	5% 1/4W
		<TRANSISTOR>		R241	1-249-401-11	CARBON 47	5% 1/4W
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE		R242	1-249-401-11	CARBON 47	5% 1/4W
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R243	1-249-405-11	CARBON 100	5% 1/4W
Q203	8-729-119-76	TRANSISTOR 2SA1175-HFE		R244	1-249-401-11	CARBON 47	5% 1/4W
Q204	8-729-119-78	TRANSISTOR 2SC2785-HFE		R245	1-249-417-11	CARBON 1K	5% 1/4W
Q205	8-729-900-85	TRANSISTOR DTC144WS		R246	1-249-417-11	CARBON 1K	5% 1/4W
Q206	8-729-900-85	TRANSISTOR DTC144WS		R248	1-249-421-11	CARBON 2.2K	5% 1/4W
Q210	8-729-119-78	TRANSISTOR 2SC2785-HFE		R249	1-249-401-11	CARBON 47	5% 1/4W
Q211	8-729-119-78	TRANSISTOR 2SC2785-HFE					
		<CONNECTOR>					
CNJ201	1-566-980-21	CONNECTOR, ROUND TYPE 4P					
QB1	*1-566-063-11	PIN, CONNECTOR 11P					
QB2	*1-566-054-11	PIN, CONNECTOR 2P					
QB3	*1-566-060-11	PIN, CONNECTOR 8P					
QB4	*1-566-056-11	PIN, CONNECTOR 4P					
QB5	*1-566-055-11	PIN, CONNECTOR 3P					
QB6	*1-566-055-11	PIN, CONNECTOR 3P					
QB7	*1-566-055-11	PIN, CONNECTOR 3P					
		<RESISTOR>					
R201	1-249-438-11	CARBON 56K	5% 1/4W				
R202	1-249-435-11	CARBON 33K	5% 1/4W				
R203	1-249-423-11	CARBON 3.3K	5% 1/4W				
R204	1-249-438-11	CARBON 56K	5% 1/4W				
R205	1-249-430-11	CARBON 12K	5% 1/4W				
		<CAPACITOR>					
				C1	1-124-034-51	ELECT 33MF	20% 16V
				C3	1-126-320-11	ELECT 10MF	20% 16V
				C4	1-101-006-00	CERAMIC 0.047MF	50V
				C5	1-124-034-51	ELECT 33MF	20% 16V
				C7	1-126-320-11	ELECT 10MF	20% 16V
				C8	1-101-006-00	CERAMIC 0.047MF	50V
				C9	1-124-034-51	ELECT 33MF	20% 16V
				C11	1-126-320-11	ELECT 10MF	20% 16V
				C12	1-101-006-00	CERAMIC 0.047MF	50V
				C13	1-124-034-51	ELECT 33MF	20% 16V
				C14	1-102-973-00	CERAMIC 100PF	5% 50V
				C15	1-126-101-11	ELECT 100MF	20% 16V
				C16	1-124-034-51	ELECT 33MF	20% 16V
				C17	1-102-973-00	CERAMIC 100PF	5% 50V
				C18	1-126-101-11	ELECT 100MF	20% 16V
				C19	1-124-915-11	ELECT 10MF	20% 16V
				C20	1-130-489-00	MYLAR 0.033MF	5% 50V
				C21	1-126-101-11	ELECT 100MF	20% 16V

 *A-1270-292-A QA BOARD, COMPLETE

*3-683-631-01 CLAMP

QA

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

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 spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C22	1-101-006-00	CERAMIC	0.047MF	50V	D30	8-719-110-22	DIODE RD11ES-B2
C23	1-124-119-00	ELECT	330MF	20%	16V		
C24	1-101-006-00	CERAMIC	0.047MF	50V	D31	8-719-110-22	DIODE RD11ES-B2
C25	1-124-119-00	ELECT	330MF	20%	16V		
C32	1-126-101-11	ELECT	100MF	20%	16V		
C33	1-124-915-11	ELECT	10MF	20%	16V		
C34	1-101-006-00	CERAMIC	0.047MF	50V			
C35	1-124-915-11	ELECT	10MF	20%	16V		
C36	1-124-915-11	ELECT	10MF	20%	16V		
C37	1-124-915-11	ELECT	10MF	20%	16V		
C38	1-101-006-00	CERAMIC	0.047MF	50V			
C39	1-124-034-51	ELECT	33MF	20%	16V		
C40	1-130-483-00	MYLAR	0.01MF	5%	50V		
C41	1-124-915-11	ELECT	10MF	20%	16V		
C43	1-101-004-00	CERAMIC	0.01MF	50V			
C44	1-124-915-11	ELECT	10MF	20%	16V		
C45	1-101-004-00	CERAMIC	0.01MF	50V			
C46	1-101-004-00	CERAMIC	0.01MF	50V			
C47	1-101-880-00	CERAMIC	47PF	5%	50V		
C48	1-102-527-11	CERAMIC	82PF	5%	50V		
C49	1-123-380-00	ELECT	1MF	20%	50V		
C50	1-124-360-00	ELECT	1000MF	20%	16V		
C51	1-123-380-00	ELECT	1MF	20%	50V		
C52	1-124-477-11	ELECT	47MF	20%	16V		
C53	1-130-489-00	MYLAR	0.033MF	5%	50V		
C54	1-124-915-11	ELECT	10MF	20%	25V		
C55	1-124-915-11	ELECT	10MF	20%	16V		
C56	1-123-380-00	ELECT	1MF	20%	50V		
C57	1-102-965-00	CERAMIC	39PF	5%	50V		
C58	Δ 1-101-006-91	CERAMIC	0.047MF	50V			
C59	1-126-320-11	ELECT	10MF	20%	16V		
C70	1-124-915-11	ELECT	10MF	20%	16V		
C72	1-102-951-00	CERAMIC	15PF	5%	50V		
C73	1-102-951-00	CERAMIC	15PF	5%	50V		
C74	1-124-477-11	ELECT	47MF	20%	16V		
C75	1-124-915-11	ELECT	10MF	20%	16V		
C76	1-124-360-00	ELECT	1000MF	20%	16V		
<DIODE>							
D1	8-719-911-19	DIODE	1SS119				
D2	8-719-911-19	DIODE	1SS119				
D3	8-719-911-19	DIODE	1SS119				
D4	8-719-911-19	DIODE	1SS119				
D5	8-719-911-19	DIODE	1SS119				
D6	8-719-911-19	DIODE	1SS119				
D7	8-719-911-19	DIODE	1SS119				
D8	8-719-911-19	DIODE	1SS119				
D9	8-719-911-19	DIODE	1SS119				
D10	8-719-911-19	DIODE	1SS119				
D11	8-719-911-19	DIODE	1SS119				
D12	8-719-911-19	DIODE	1SS119				
D13	8-719-911-19	DIODE	1SS119				
D14	8-719-911-55	DIODE	U05G				
D15	8-719-911-55	DIODE	U05G				
D16	8-719-911-55	DIODE	U05G				
D17	8-719-911-19	DIODE	1SS119				
D18	8-719-911-55	DIODE	U05G				
D19	8-719-109-85	DIODE	RD5.1ES-B2				
D20	8-719-911-19	DIODE	1SS119				
D21	8-719-911-19	DIODE	1SS119				
D25	8-719-911-19	DIODE	1SS119				
D26	8-719-911-19	DIODE	1SS119				
D27	8-719-911-19	DIODE	1SS119				
<IC>							
IC1	8-759-987-16	IC	LM393P				
IC2	8-759-140-53	IC	MC14053BCP				
IC3	8-759-208-94	IC	CX-894				
IC4	8-759-208-94	IC	CX-894				
IC5	8-759-984-03	IC	LM339N				
IC6	8-752-037-04	IC	CX-7948A				
IC7	8-759-982-34	IC	RC78M09FA				
IC8	8-759-604-35	IC	NJM78M05A				
IC9	8-759-604-39	IC	M5F78M12L				
IC10	8-759-604-39	IC	M5F78M12L				
<TRANSISTOR>							
Q1	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q2	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q3	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q4	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q5	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q6	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q7	8-729-140-96	TRANSISTOR	2SD774-34				
Q8	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q9	8-729-140-97	TRANSISTOR	2SB734-34				
Q12	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q13	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q14	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q15	8-729-140-97	TRANSISTOR	2SB734-34				
Q16	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q17	8-729-140-97	TRANSISTOR	2SB734-34				
Q18	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q19	8-729-900-85	TRANSISTOR	DTC144WS				
Q25	8-729-900-85	TRANSISTOR	DTC144WS				
Q26	8-729-384-48	TRANSISTOR	2SA844-E				
Q27	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q28	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q29	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q30	8-729-119-78	TRANSISTOR	2SC2785-HFE				
<CONNECTOR>							
QA1	*1-566-063-11	PIN, CONNECTOR	11P				
QA2	*1-566-054-11	PIN, CONNECTOR	2P				
QA3	*1-566-063-11	PIN, CONNECTOR	11P				
QA4	*1-566-064-11	PIN, CONNECTOR	12P				
QA5	*1-566-060-11	PIN, CONNECTOR	8P				
QA6	*1-566-055-11	PIN, CONNECTOR	3P				
QA7	*1-566-056-11	PIN, CONNECTOR	4P				
QA8	*1-566-059-11	PIN, CONNECTOR	7P				
QA9	*1-566-058-11	PIN, CONNECTOR	6P				
QA10	*1-566-056-11	PIN, CONNECTOR	4P				
QA12	*1-508-786-00	PIN, CONNECTOR	(5MM PITCH) 2P				
QA13	*1-566-060-11	PIN, CONNECTOR	8P				
QA14	*1-566-060-11	PIN, CONNECTOR	8P				
QA15	*1-566-057-11	PIN, CONNECTOR	5P				
QA16	*1-566-054-11	PIN, CONNECTOR	2P				
<RESISTOR>							
R1	1-214-702-00	METAL	75	1%	1/4W		
R2	1-249-434-11	CARBON	27K	5%	1/4W		

QA

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

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.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R3	1-249-438-11	CARBON	56K 5% 1/4W	R67	1-247-711-11	CARBON	680 5% 1/4W
R4	1-249-417-11	CARBON	1K 5% 1/4W	R74	1-215-394-00	METAL	75 1% 1/4W
R5	1-249-421-11	CARBON	2.2K 5% 1/4W	R78	1-214-702-00	METAL	75 1% 1/4W
R6	1-249-405-11	CARBON	100 5% 1/4W	R80	1-249-407-11	CARBON	150 5% 1/4W
R7	1-249-393-11	CARBON	10 5% 1/4W	R81	1-249-407-11	CARBON	150 5% 1/4W
R8	1-247-711-11	CARBON	680 5% 1/4W	R82	1-249-429-11	CARBON	10K 5% 1/4W
R9	1-214-702-00	METAL	75 1% 1/4W	R83	1-249-436-11	CARBON	39K 5% 1/4W
R10	1-249-434-11	CARBON	27K 5% 1/4W	R84	1-249-407-11	CARBON	150 5% 1/4W
R11	1-249-438-11	CARBON	56K 5% 1/4W	R85	1-249-429-11	CARBON	10K 5% 1/4W
R12	1-249-417-11	CARBON	1K 5% 1/4W	R86	1-249-429-11	CARBON	10K 5% 1/4W
R13	1-249-421-11	CARBON	2.2K 5% 1/4W	R87	1-249-429-11	CARBON	10K 5% 1/4W
R14	1-249-405-11	CARBON	100 5% 1/4W	R88	1-249-429-11	CARBON	10K 5% 1/4W
R15	1-249-393-11	CARBON	10 5% 1/4W	R89	1-249-433-11	CARBON	22K 5% 1/4W
R16	1-247-711-11	CARBON	680 5% 1/4W	R90	1-249-433-11	CARBON	22K 5% 1/4W
R17	1-214-702-00	METAL	75 1% 1/4W	R91	1-249-433-11	CARBON	22K 5% 1/4W
R18	1-249-434-11	CARBON	27K 5% 1/4W	R92	1-249-433-11	CARBON	22K 5% 1/4W
R19	1-249-438-11	CARBON	56K 5% 1/4W	R93	Δ 1-247-851-91	CARBON	6.8K 5% 1/4W
R20	1-249-417-11	CARBON	1K 5% 1/4W	R94	Δ 1-247-855-91	CARBON	10K 5% 1/4W
R21	1-249-421-11	CARBON	2.2K 5% 1/4W	R95	1-249-417-11	CARBON	1K 5% 1/4W
R22	1-249-405-11	CARBON	100 5% 1/4W	R96	1-249-429-11	CARBON	10K 5% 1/4W
R23	1-249-393-11	CARBON	10 5% 1/4W	R97	1-249-427-11	CARBON	6.8K 5% 1/4W
R24	1-247-711-11	CARBON	680 5% 1/4W	R98	1-249-417-11	CARBON	1K 5% 1/4W
R25	1-214-702-00	METAL	75 1% 1/4W	R99	1-247-903-00	CARBON	1M 5% 1/4W
R26	1-249-417-11	CARBON	1K 5% 1/4W	R100	1-249-439-11	CARBON	68K 5% 1/4W
R27	1-249-439-11	CARBON	68K 5% 1/4W	R101	1-249-439-11	CARBON	68K 5% 1/4W
R28	1-249-420-11	CARBON	1.8K 5% 1/4W	R102	1-249-428-11	CARBON	8.2K 5% 1/4W
R29	1-249-437-11	CARBON	47K 5% 1/4W	R103	1-249-429-11	CARBON	10K 5% 1/4W
R30	1-214-702-00	METAL	75 1% 1/4W	R104	1-249-429-11	CARBON	10K 5% 1/4W
R31	1-249-417-11	CARBON	1K 5% 1/4W	R105	1-249-427-11	CARBON	6.8K 5% 1/4W
R32	1-249-439-11	CARBON	68K 5% 1/4W	R106	1-249-441-11	CARBON	100K 5% 1/4W
R33	1-249-420-11	CARBON	1.8K 5% 1/4W	R107	1-247-883-00	CARBON	150K 5% 1/4W
R34	1-249-437-11	CARBON	47K 5% 1/4W	R108	1-249-420-11	CARBON	1.8K 5% 1/4W
R35	1-249-410-11	CARBON	270 5% 1/4W	R109	1-249-437-11	CARBON	47K 5% 1/4W
R36	1-249-429-11	CARBON	10K 5% 1/4W	R110	1-249-437-11	CARBON	47K 5% 1/4W
R37	1-249-405-11	CARBON	100 5% 1/4W	R111	1-249-427-11	CARBON	6.8K 5% 1/4W
R38	1-249-465-11	CARBON	47K 5% 1/4W	R112	1-249-415-11	CARBON	680 5% 1/4W
R39	1-249-437-11	CARBON	47K 5% 1/4W	R113	1-247-721-11	CARBON	4.7K 5% 1/4W
R40	1-249-438-11	CARBON	56K 5% 1/4W	R114	1-249-416-11	CARBON	820 5% 1/4W
R41	1-249-417-11	CARBON	1K 5% 1/4W	R115	1-249-436-11	CARBON	39K 5% 1/4W
R42	1-249-417-11	CARBON	1K 5% 1/4W	R116	1-249-438-11	CARBON	56K 5% 1/4W
R43	1-249-417-11	CARBON	1K 5% 1/4W	R117	1-249-433-11	CARBON	22K 5% 1/4W
R44	1-247-713-11	CARBON	1K 5% 1/4W	R130	1-214-702-00	METAL	75 1% 1/4W
R45	1-249-417-11	CARBON	1K 5% 1/4W	R131	1-249-407-11	CARBON	150 5% 1/4W
R46	1-249-423-11	CARBON	3.3K 5% 1/4W	R132	1-249-402-11	CARBON	56 5% 1/4W
R47	1-249-419-11	CARBON	1.5K 5% 1/4W	R133	1-249-417-11	CARBON	1K 5% 1/4W
R48	1-249-423-11	CARBON	3.3K 5% 1/4W	R134	1-249-402-11	CARBON	56 5% 1/4W
R49	1-249-424-11	CARBON	3.9K 5% 1/4W	R135	1-249-421-11	CARBON	2.2K 5% 1/4W
R50	1-249-439-11	CARBON	68K 5% 1/4W	R136	1-214-716-00	METAL	300 1% 1/4W
R51	1-249-423-11	CARBON	3.3K 5% 1/4W	R137	1-214-705-00	METAL	100 1% 1/4W
R52	1-249-403-11	CARBON	68 5% 1/4W	R138	1-249-405-11	CARBON	100 5% 1/4W
R53	1-249-402-11	CARBON	56 5% 1/4W	R139	1-249-421-11	CARBON	2.2K 5% 1/4W
R54	1-249-417-11	CARBON	1K 5% 1/4W	R140	1-249-405-11	CARBON	100 5% 1/4W
R55	1-249-417-11	CARBON	1K 5% 1/4W	R141	1-249-421-11	CARBON	2.2K 5% 1/4W
R56	1-249-417-11	CARBON	1K 5% 1/4W	R142	1-249-417-11	CARBON	1K 5% 1/4W
R57	1-249-398-11	CARBON	27 5% 1/4W	R143	1-249-417-11	CARBON	1K 5% 1/4W
R58	1-249-398-11	CARBON	27 5% 1/4W	R144	1-249-421-11	CARBON	2.2K 5% 1/4W
R59	1-249-398-11	CARBON	27 5% 1/4W	R145	1-249-417-11	CARBON	1K 5% 1/4W
R60	1-247-887-00	CARBON	220K 5% 1/4W	R146	1-249-429-11	CARBON	10K 5% 1/4W
R61	1-249-437-11	CARBON	47K 5% 1/4W	R147	1-249-421-11	CARBON	2.2K 5% 1/4W
R62	1-215-441-00	METAL	6.8K 1% 1/4W	R148	1-249-405-11	CARBON	100 5% 1/4W
R63	1-215-447-00	METAL	12K 1% 1/4W	R149	1-249-414-11	CARBON	560 5% 1/4W
R64	1-247-711-11	CARBON	680 5% 1/4W	R150	1-215-394-00	METAL	75 1% 1/4W
R65	1-215-441-00	METAL	6.8K 1% 1/4W	R151	1-249-401-11	CARBON	47 5% 1/4W
R66	1-215-441-00	METAL	6.8K 1% 1/4W				

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

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 spécifié.

QA **CR** **CG**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R152	1-249-417-11	CARBON 1K 5% 1/4W		R703	1-249-405-11	CARBON 100 5% 1/4W	F
		<CRYSTAL>		R704	1-215-926-00	METAL OXIDE 33K 5% 3W	F
X1	1-567-505-11	OSCILLATOR, CRYSTAL		R705	1-215-431-00	METAL 2.7K 1% 1/4W	
*****				R706	1-216-510-11	METAL OXIDE 8.2K 5% 5W	F
	*1-621-068-11	CR BOARD		R707	1-247-700-11	CARBON 100 5% 1/4W	F
		*****		R708	1-202-561-00	SOLID 330 10% 1/2W	
	1-526-812-11	SOCKET, PICTURE TUBE		R709	1-202-828-11	SOLID 6.8K 10% 1/2W	
	1-556-880-81	LEAD ASSY, HIGH-VOLTAGE		R710	1-202-847-00	SOLID 560K 10% 1/2W	
	4-371-837-01	SPACER (TO-126), BN		R711	1-202-847-00	SOLID 560K 10% 1/2W	
	*4-383-071-01	BRACKET, TRANSISTOR		R712	1-202-814-11	SOLID 33K 10% 1/2W	
		<CAPACITOR>		R713	1-249-421-11	CARBON 2.2K 5% 1/4W	F
C701	1-101-006-00	CERAMIC 0.047MF	50V	R714	1-202-818-00	SOLID 1K 10% 1/2W	
C702	1-136-165-00	FILM 0.1MF	5% 50V	<SPARK GAP>			
C704 Δ	1-126-174-51	ELECT 10MF	20% 350V	SG701	1-519-063-XX	DISCHARGING GAP	
C705	1-102-050-00	CERAMIC 0.01MF	99% 500V	*****			
C706	1-162-115-00	CERAMIC 330PF	10% 2KV		*1-621-069-11	CG BOARD	
C707	1-162-115-00	CERAMIC 330PF	10% 2KV			*****	
C708	1-106-359-00	MYLAR 0.0047MF	5% 50V		1-526-812-11	SOCKET, PICTURE TUBE	
C709	1-101-006-00	CERAMIC 0.047MF	50V		1-556-880-81	LEAD ASSY, HIGH-VOLTAGE	
		<CONNECTOR>			4-371-837-01	SPACER (TO-126), BN	
CR1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P			*4-383-071-01	BRACKET, TRANSISTOR	
CR2	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		<CAPACITOR>			
CR3	*1-566-058-11	PIN, CONNECTOR 6P		C721	1-101-006-00	CERAMIC 0.047MF	50V
CR4	*1-566-057-11	PIN, CONNECTOR 5P		C722	1-136-165-00	FILM 0.1MF	5% 50V
CR5	*1-566-054-11	PIN, CONNECTOR 2P		C724 Δ	1-126-174-51	ELECT 10MF	20% 350V
		<DIODE>		C725	1-102-050-00	CERAMIC 0.01MF	99% 500V
D701	8-719-911-19	DIODE 1SS119		C726	1-162-115-00	CERAMIC 330PF	10% 2KV
D702	8-719-911-19	DIODE 1SS119		C727	1-162-115-00	CERAMIC 330PF	10% 2KV
D703	8-719-911-19	DIODE 1SS119		C728	1-106-359-00	MYLAR 0.0047MF	5% 50V
D704	8-719-911-19	DIODE 1SS119		C729	1-101-006-00	CERAMIC 0.047MF	50V
D705	8-719-911-19	DIODE 1SS119		<CONNECTOR>			
D706	8-719-911-19	DIODE 1SS119		CG1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
D707	8-719-110-36	DIODE RD13ES-B2		CG2	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P	
		<COIL>		CG3	*1-566-058-11	PIN, CONNECTOR 6P	
L701	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		CG4	*1-566-057-11	PIN, CONNECTOR 5P	
L702	1-408-159-00	COIL, SPOOK CHOKE 3.3UH		CG5	*1-566-054-11	PIN, CONNECTOR 2P	
L703	1-408-413-00	INDUCTOR 22UH		<DIODE>			
L704	1-408-413-00	INDUCTOR 22UH		D721	8-719-911-19	DIODE 1SS119	
		<NEON LAMP>		D722	8-719-911-19	DIODE 1SS119	
NL701	1-519-108-XX	LAMP, NEON		D723	8-719-911-19	DIODE 1SS119	
		<TRANSISTOR>		D724	8-719-911-19	DIODE 1SS119	
Q701	8-729-821-02	TRANSISTOR 2SC3503-DE		D725	8-719-911-19	DIODE 1SS119	
Q702	8-729-821-02	TRANSISTOR 2SC3503-DE		D726	8-719-911-19	DIODE 1SS119	
Q703	8-729-801-88	TRANSISTOR 2SA1381-D		D727	8-719-110-36	DIODE RD13ES-B2	
Q704	8-729-801-88	TRANSISTOR 2SA1381-D		<COIL>			
		<RESISTOR>		L721	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
R701	1-249-405-11	CARBON 100 5% 1/4W	F	L722	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
		<NEON LAMP>		L723	1-408-413-00	INDUCTOR 22UH	
				L724	1-408-413-00	INDUCTOR 22UH	
				NL721	1-519-108-XX	LAMP, NEON	

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

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.

CG

CB

DY

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>				<COIL>			
Q721	8-729-821-02	TRANSISTOR 2SC3503-DE		L741	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
Q722	8-729-821-02	TRANSISTOR 2SC3503-DE		L742	1-408-159-00	COIL, SPOOK CHOKE 3.3UH	
Q723	8-729-801-88	TRANSISTOR 2SA1381-D		L743	1-408-413-00	INDUCTOR 22UH	
Q724	8-729-801-88	TRANSISTOR 2SA1381-D		L744	1-408-413-00	INDUCTOR 22UH	
<RESISTOR>				<NEON LAMP>			
R721	1-249-405-11	CARBON 100 5% 1/4W	F	NL741	1-519-108-XX	LAMP, NEON	
R723	1-249-405-11	CARBON 100 5% 1/4W	F	<TRANSISTOR>			
R724	1-215-926-00	METAL OXIDE 33K 5% 3W	F	Q741	8-729-821-02	TRANSISTOR 2SC3503-DE	
R725	1-215-431-00	METAL 2.7K 1% 1/4W		Q742	8-729-821-02	TRANSISTOR 2SC3503-DE	
R726	1-216-510-11	METAL OXIDE 8.2K 5% 5W	F	Q743	8-729-801-88	TRANSISTOR 2SA1381-D	
R727	1-247-700-11	CARBON 100 5% 1/4W	F	Q744	8-729-801-88	TRANSISTOR 2SA1381-D	
R728	1-202-561-00	SOLID 330 10% 1/2W		<RESISTOR>			
R729	1-202-828-11	SOLID 6.8K 10% 1/2W		R741	1-249-405-11	CARBON 100 5% 1/4W	F
R730	1-202-847-00	SOLID 560K 10% 1/2W		R743	1-249-405-11	CARBON 100 5% 1/4W	F
R731	1-202-847-00	SOLID 560K 10% 1/2W		R744	1-215-926-00	METAL OXIDE 33K 5% 3W	F
R732	1-202-814-11	SOLID 33K 10% 1/2W		R745	1-215-431-00	METAL 2.7K 1% 1/4W	F
R733	1-249-421-11	CARBON 2.2K 5% 1/4W	F	R746	1-216-510-11	METAL OXIDE 8.2K 5% 5W	F
R734	1-202-818-00	SOLID 1K 10% 1/2W		R747	1-247-700-11	CARBON 100 5% 1/4W	F
<SPARK GAP>				R748	1-202-561-00	SOLID 330 10% 1/2W	
SG721	1-519-063-XX	DISCHARGING GAP		R749	1-202-828-11	SOLID 6.8K 10% 1/2W	
*****				R750	1-202-847-00	SOLID 560K 10% 1/2W	
*1-621-070-11	CB BOARD	*****		R751	1-202-847-00	SOLID 560K 10% 1/2W	
1-526-812-11	SOCKET, PICTURE TUBE			R752	1-202-814-11	SOLID 33K 10% 1/2W	
1-556-880-81	LEAD ASSY, HIGH-VOLTAGE			R753	1-249-421-11	CARBON 2.2K 5% 1/4W	F
4-371-837-01	SPACER (TO-126), BN			R754	1-202-818-00	SOLID 1K 10% 1/2W	
*4-383-071-01	BRACKET, TRANSISTOR			<SPARK GAP>			
<CAPACITOR>				SG741	1-519-063-XX	DISCHARGING GAP	
C741	1-101-006-00	CERAMIC 0.047MF	50V	*****			
C742	1-136-165-00	FILM 0.1MF 5%	50V	*1-621-053-21	DY BOARD	*****	
C744 Δ	1-126-174-51	ELECT 10MF 20%	350V	<CAPACITOR>			
C745	1-102-050-00	CERAMIC 0.01MF 99%	500V	C901	1-162-115-00	CERAMIC 330PF 15%	1.5KV
C746	1-162-115-00	CERAMIC 330PF 10%	2KV	C902	1-162-115-00	CERAMIC 330PF 15%	1.5KV
C747	1-162-115-00	CERAMIC 330PF 10%	2KV	<CONNECTOR>			
C748	1-106-359-00	MYLAR 0.0047MF 5%	50V	DY1	*1-566-041-11	PIN, CONNECTOR 2P	
C749	1-101-006-00	CERAMIC 0.047MF	50V	DY2	*1-566-041-11	PIN, CONNECTOR 2P	
<CONNECTOR>				<RESISTOR>			
CB1	*1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P		R901	1-202-822-00	SOLID 2.2K 10%	1/2W
CB2	*1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		R902	1-202-822-00	SOLID 2.2K 10%	1/2W
CB3	*1-566-058-11	PIN, CONNECTOR 6P		<SPARK GAP>			
CB4	*1-566-057-11	PIN, CONNECTOR 5P		SG901	1-519-063-XX	DISCHARGING GAP	
CB5	*1-566-054-11	PIN, CONNECTOR 2P		SG902	1-519-063-XX	DISCHARGING GAP	
<DIODE>				*****			
D741	8-719-911-19	DIODE ISS119					
D742	8-719-911-19	DIODE ISS119					
D743	8-719-911-19	DIODE ISS119					
D744	8-719-911-19	DIODE ISS119					
D745	8-719-911-19	DIODE ISS119					
D746	8-719-911-19	DIODE ISS119					
D747	8-719-110-36	DIODE RD13ES-82					

E
EB
EC
ED
D

REF. NO.	PART NO.	DESCRIPTION	REMARK
R44	1-249-413-11	CARBON	470 5% 1/4W
R45	1-247-725-11	CARBON	10K 5% 1/4W
R46	1-249-421-11	CARBON	2.2K 5% 1/4W
R47	1-249-429-11	CARBON	10K 5% 1/4W
R48	1-215-419-00	METAL	820 1% 1/4W
<TRANSFORMER>			
T1	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
T2	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE	
T3	1-439-320-00	TRANSFORMER, FERRITE (HOT)	

	*1-621-055-11	EB BOARD	*****
<CAPACITOR>			
C1	1-126-163-11	ELECT	4.7MF 20% 25V
C2	1-126-163-11	ELECT	4.7MF 20% 25V
C3	1-136-159-00	FILM	0.033MF 5% 50V
C5	1-102-106-00	CERAMIC	100PF 10% 50V
C6	1-130-475-00	MYLAR	0.0022MF 5% 50V
C7	1-126-157-11	ELECT	10MF 20% 16V
C8	1-136-165-00	FILM	0.1MF 5% 50V
<DIODE>			
D1	8-719-911-19	DIODE 1SS119	
<IC>			
IC1	8-759-100-75	IC UPC1394C	
<RESISTOR>			
R1	1-215-441-00	METAL	6.8K 1% 1/4W
R2	1-249-417-11	CARBON	1K 5% 1/4W
R3	1-249-431-11	CARBON	15K 5% 1/4W
R4	1-249-427-11	CARBON	6.8K 5% 1/4W
R5	1-249-441-11	CARBON	100K 5% 1/4W
R6	1-249-423-11	CARBON	3.3K 5% 1/4W
R7	1-249-429-11	CARBON	10K 5% 1/4W
R8	1-249-413-11	CARBON	470 5% 1/4W
R9	1-249-428-11	CARBON	8.2K 5% 1/4W
R10	1-249-437-11	CARBON	47K 5% 1/4W
R11	1-247-895-00	CARBON	470K 5% 1/4W
R12	1-249-435-11	CARBON	33K 5% 1/4W
R13	1-215-441-00	METAL	6.8K 1% 1/4W
R14	1-215-441-00	METAL	6.8K 1% 1/4W
<PLUG>			
W1	*1-506-602-11	PLUG, L TYPE (2.0MM PITCH) 5P	
W2	*1-506-602-11	PLUG, L TYPE (2.0MM PITCH) 5P	

	*1-621-060-11	EC BOARD	*****
<CAPACITOR>			
C1	1-161-379-00	CERAMIC	0.01MF 30% 25V
C2	1-162-290-31	CERAMIC	470PF 10% 50V
C3	1-162-290-31	CERAMIC	470PF 10% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
<IC>			
IC1	8-759-145-58	IC UPC4558C	
<TRANSISTOR>			
Q1	8-729-205-96	TRANSISTOR 2SC3668-0	
Q2	8-729-205-94	TRANSISTOR 2SA1428-0	
<RESISTOR>			
R1	1-215-423-00	METAL	1.2K 1% 1/4W
R2	1-249-417-11	CARBON	1K 5% 1/4W
R3	1-215-445-00	METAL	10K 1% 1/4W
R4	1-215-445-00	METAL	10K 1% 1/4W
R5	1-215-445-00	METAL	10K 1% 1/4W
R6	1-215-445-00	METAL	10K 1% 1/4W
R7	1-215-375-00	METAL	12 1% 1/4W
R8	1-215-375-00	METAL	12 1% 1/4W
R9	1-215-375-00	METAL	12 1% 1/4W
<PLUG>			
W3	*1-506-603-11	PLUG, L TYPE (2.0MM PITCH) 10P	

	*1-622-694-21	ED BOARD	*****
<CONNECTOR>			
ED1	*1-566-055-11	PIN, CONNECTOR 3P	
<COIL>			
L1	1-459-109-00	COIL, DUST CORE	
L2	1-459-109-00	COIL, DUST CORE	
<RESISTOR>			
R1	1-215-902-11	METAL OXIDE	47K 5% 1W F

	*A-1341-335-A	D BOARD, COMPLETE (INCLUDING, DB BOARD)	*****
	*1-535-615-11	TERMINAL (LAMP SOCKET)	
	*4-378-621-01	RETAINER, TR	
<CAPACITOR>			
C1	1-101-004-00	CERAMIC	0.01MF 50V
C2	1-124-122-11	ELECT	100MF 20% 25V
C3	1-124-122-11	ELECT	100MF 20% 25V
C4	1-124-122-11	ELECT	100MF 20% 16V
C5	1-124-122-11	ELECT	100MF 20% 16V
C6	1-102-947-00	CERAMIC	10PF 0.5PF 50V
C7	1-123-381-00	ELECT	2.2MF 20% 50V
C8	1-101-361-00	CERAMIC	150PF 5% 50V
C9	1-130-483-00	MYLAR	0.01MF 5% 50V
C10	1-108-816-11	MYLAR	0.1MF 5% 50V
C12	1-123-381-00	ELECT	2.2MF 20% 50V
C13	1-108-808-11	MYLAR	0.022MF 5% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D16	*1-566-054-11	PIN, CONNECTOR 2P				<RESISTOR>	
D17	*1-566-060-11	PIN, CONNECTOR 8P		R1	1-215-457-00	METAL 33K 1%	1/4W
D18	*1-566-058-11	PIN, CONNECTOR 6P		R2	1-215-467-00	METAL 82K 1%	1/4W
D19	*1-566-054-11	PIN, CONNECTOR 2P		R3	1-247-881-00	CARBON 120K 5%	1/4W
D20	*1-566-064-11	PIN, CONNECTOR 12P		R4	1-249-417-11	CARBON 1K 5%	1/4W
D21	*1-566-060-11	PIN, CONNECTOR 8P		R5	1-249-423-11	CARBON 3.3K 5%	1/4W
D22	*1-566-055-11	PIN, CONNECTOR 3P		R6	1-249-434-11	CARBON 27K 5%	1/4W
D23	*1-566-060-11	PIN, CONNECTOR 8P		R7	1-249-425-11	CARBON 4.7K 5%	1/4W
D24	*1-566-060-11	PIN, CONNECTOR 8P		R8	1-249-421-11	CARBON 2.2K 5%	1/4W
D25	*1-566-054-11	PIN, CONNECTOR 2P		R9	1-215-447-00	METAL 12K 1%	1/4W
		<IC>		R10	1-249-417-11	CARBON 1K 5%	1/4W
IC1	8-759-100-60	IC UPC1377C		R11	1-215-445-00	METAL 10K 1%	1/4W
IC2	8-749-911-21	IC BX-1121		R12	1-215-455-00	METAL 27K 1%	1/4W
IC3	8-759-140-53	IC MC14053BCP		R13	1-249-417-11	CARBON 1K 5%	1/4W
IC4	8-759-604-39	IC M5F78M12L		R14	1-249-441-11	CARBON 100K 5%	1/4W
IC5	8-759-929-65	IC LM7912CT		R15	1-215-447-00	METAL 12K 1%	1/4W
IC6	8-759-982-26	IC RC78L12A		R16	1-247-903-00	CARBON 1M 5%	1/4W
IC7	8-759-982-26	IC RC78L12A		R17	1-247-903-00	CARBON 1M 5%	1/4W
IC8	8-759-634-50	IC M5218AL		R18	1-249-441-11	CARBON 100K 5%	1/4W
IC9	8-741-112-20	IC BX-1122		R19	1-249-405-11	CARBON 100 5%	1/4W
IC10	8-759-000-48	IC MC14052BCP		R20	1-249-417-11	CARBON 1K 5%	1/4W
IC11	8-759-634-50	IC M5218AL		R21	1-247-895-00	CARBON 470K 5%	1/4W
IC12	8-759-634-50	IC M5218AL		R22	1-249-417-11	CARBON 1K 5%	1/4W
IC13	8-759-634-50	IC M5218AL		R23	1-215-467-00	METAL 82K 1%	1/4W
IC14	8-759-111-69	IC UPC1037HA		R24	1-215-467-00	METAL 82K 1%	1/4W
IC15	8-759-111-69	IC UPC1037HA		R25	1-249-423-11	CARBON 3.3K 5%	1/4W
IC16	8-759-982-23	IC RC78L08A		R26	1-249-433-11	CARBON 22K 5%	1/4W
IC17	8-759-701-67	IC NJM79M08FA		R27	1-249-431-11	CARBON 15K 5%	1/4W
IC18	8-759-945-58	IC RC4558P		R28	1-249-428-11	CARBON 8.2K 5%	1/4W
IC19	8-759-945-58	IC RC4558P		R29	1-249-409-11	CARBON 220 5%	1/4W
IC401	8-759-140-53	IC MC14053BCP		R30	1-249-411-11	CARBON 330 5%	1/4W
IC402	8-759-140-53	IC MC14053BCP		R31	1-249-417-11	CARBON 1K 5%	1/4W
IC403	8-759-140-53	IC MC14053BCP		R32	1-249-417-11	CARBON 1K 5%	1/4W
		<LAMP>		R33	1-215-458-00	METAL 36K 1%	1/4W
PL1	1-518-590-11	LAMP, PILOT (WITH HOLDER)		R34	1-249-435-11	CARBON 33K 5%	1/4W
PL2	1-518-590-11	LAMP, PILOT (WITH HOLDER)		R35	1-249-435-11	CARBON 33K 5%	1/4W
		<TRANSISTOR>		R36	1-249-435-11	CARBON 33K 5%	1/4W
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE		R37	1-249-421-11	CARBON 2.2K 5%	1/4W
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE		R38	1-249-424-11	CARBON 3.9K 5%	1/4W
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE		R39	1-249-418-11	CARBON 1.2K 5%	1/4W
Q4	8-729-119-78	TRANSISTOR 2SC2785-HFE		R40	1-249-438-11	CARBON 56K 5%	1/4W
Q5	8-729-119-78	TRANSISTOR 2SC2785-HFE		R41	1-215-446-00	METAL 11K 1%	1/4W
Q6	8-729-119-78	TRANSISTOR 2SC2785-HFE		R42	1-215-447-00	METAL 12K 1%	1/4W
Q7	8-729-238-32	TRANSISTOR 2SC2383-0		R43	1-215-463-00	METAL 56K 1%	1/4W
Q8	8-729-231-60	TRANSISTOR 2SD1406-YGR		R44	1-215-439-00	METAL 5.6K 1%	1/4W
Q9	8-729-111-67	TRANSISTOR 2SB1094-L		R45	1-215-439-00	METAL 5.6K 1%	1/4W
Q10	8-729-238-32	TRANSISTOR 2SC2383-0		R46	1-215-449-00	METAL 15K 1%	1/4W
Q11	8-729-231-60	TRANSISTOR 2SD1406-YGR		R47	1-249-441-11	CARBON 100K 5%	1/4W
Q12	8-729-111-67	TRANSISTOR 2SB1094-L		R48	1-249-433-11	CARBON 22K 5%	1/4W
Q13	8-729-238-32	TRANSISTOR 2SC2383-0		R49	1-249-417-11	CARBON 1K 5%	1/4W
Q14	8-729-231-60	TRANSISTOR 2SD1406-YGR		R50	1-249-428-11	CARBON 8.2K 5%	1/4W
Q15	8-729-111-67	TRANSISTOR 2SB1094-L		R51	1-249-405-11	CARBON 100 5%	1/4W
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE		R52	1-249-408-11	CARBON 180 5%	1/4W
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE		R53	1-249-427-11	CARBON 6.8K 5%	1/4W
Q18	8-729-119-78	TRANSISTOR 2SC2785-HFE		R54	1-215-415-00	METAL 560 1%	1/4W
Q19	8-729-119-78	TRANSISTOR 2SC2785-HFE		R55	1-215-415-00	METAL 560 1%	1/4W
Q20	8-729-119-76	TRANSISTOR 2SA1175-HFE		R56	1-249-405-11	CARBON 100 5%	1/4W
				R57	1-215-413-00	METAL 470 1%	1/4W
				R58	1-249-429-11	CARBON 10K 5%	1/4W
				R59	1-214-971-00	METAL 2M 1%	1/4W
				R60	1-215-467-00	METAL 82K 1%	1/4W
				R62	1-215-439-00	METAL 5.6K 1%	1/4W
				R63	1-215-431-00	METAL 2.7K 1%	1/4W

D

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R64	1-249-417-11	CARBON	1K 5% 1/4W	R128	1-215-467-00	METAL	82K 1% 1/4W
R65	1-249-429-11	CARBON	10K 5% 1/4W	R129	1-215-451-00	METAL	18K 1% 1/4W
R66	1-249-417-11	CARBON	1K 5% 1/4W	R130	1-215-459-00	METAL	39K 1% 1/4W
R67	1-249-429-11	CARBON	10K 5% 1/4W	R131	1-249-417-11	CARBON	1K 5% 1/4W
R68	1-249-429-11	CARBON	10K 5% 1/4W	R132	1-215-459-00	METAL	39K 1% 1/4W
R69	1-215-457-00	METAL	33K 1% 1/4W	R133	1-215-449-00	METAL	15K 1% 1/4W
R70	1-215-421-00	METAL	1K 1% 1/4W	R134	1-215-449-00	METAL	15K 1% 1/4W
R71	1-249-429-11	CARBON	10K 5% 1/4W	R135	1-215-465-00	METAL	68K 1% 1/4W
R72	1-249-429-11	CARBON	10K 5% 1/4W	R136	1-215-451-00	METAL	18K 1% 1/4W
R73	1-249-429-11	CARBON	10K 5% 1/4W	R137	1-215-471-00	METAL	120K 1% 1/4W
R74	1-249-411-11	CARBON	330 5% 1/4W	R138	1-215-463-00	METAL	56K 1% 1/4W
R75	1-249-411-11	CARBON	330 5% 1/4W	R139	1-215-477-00	METAL	220K 1% 1/4W
R76	1-249-429-11	CARBON	10K 5% 1/4W	R140	1-215-469-00	METAL	100K 1% 1/4W
R77	1-215-471-00	METAL	120K 1% 1/4W	R141	1-215-473-00	METAL	150K 1% 1/4W
R78	1-215-443-00	METAL	8.2K 1% 1/4W	R142	1-215-469-00	METAL	100K 1% 1/4W
R79	1-215-429-00	METAL	2.2K 1% 1/4W	R143	1-215-469-00	METAL	100K 1% 1/4W
R80	1-215-437-00	METAL	4.7K 1% 1/4W	R144	1-215-469-00	METAL	100K 1% 1/4W
R81	1-215-443-00	METAL	8.2K 1% 1/4W	R145	1-215-469-00	METAL	100K 1% 1/4W
R82	1-215-453-00	METAL	22K 1% 1/4W	R146	1-215-455-00	METAL	27K 1% 1/4W
R83	1-215-429-00	METAL	2.2K 1% 1/4W	R147	1-215-461-00	METAL	47K 1% 1/4W
R84	1-215-437-00	METAL	4.7K 1% 1/4W	R148	1-215-463-00	METAL	56K 1% 1/4W
R85	1-215-463-00	METAL	56K 1% 1/4W	R149	1-215-449-00	METAL	15K 1% 1/4W
R86	1-215-445-00	METAL	10K 1% 1/4W	R150	1-215-457-00	METAL	33K 1% 1/4W
R87	1-215-445-00	METAL	10K 1% 1/4W	R151	1-215-461-00	METAL	47K 1% 1/4W
R88	1-249-429-11	CARBON	10K 5% 1/4W	R152	1-215-461-00	METAL	47K 1% 1/4W
R89	1-215-445-00	METAL	10K 1% 1/4W	R153	1-215-461-00	METAL	47K 1% 1/4W
R90	1-215-445-00	METAL	10K 1% 1/4W	R154	1-215-461-00	METAL	47K 1% 1/4W
R91	1-249-429-11	CARBON	10K 5% 1/4W	R155	1-215-471-00	METAL	120K 1% 1/4W
R92	1-215-449-00	METAL	15K 1% 1/4W	R156	1-215-463-00	METAL	56K 1% 1/4W
R93	1-215-449-00	METAL	15K 1% 1/4W	R157	1-215-477-00	METAL	220K 1% 1/4W
R94	1-215-461-00	METAL	47K 1% 1/4W	R158	1-215-469-00	METAL	100K 1% 1/4W
R95	1-215-461-00	METAL	47K 1% 1/4W	R159	1-215-473-00	METAL	150K 1% 1/4W
R96	1-215-451-00	METAL	18K 1% 1/4W	R160	1-215-469-00	METAL	100K 1% 1/4W
R97	1-215-413-00	METAL	470 1% 1/4W	R161	1-215-469-00	METAL	100K 1% 1/4W
R98	1-215-429-00	METAL	2.2K 1% 1/4W	R162	1-215-469-00	METAL	100K 1% 1/4W
R99	1-215-417-00	METAL	680 1% 1/4W	R163	1-215-469-00	METAL	100K 1% 1/4W
R100	1-247-887-00	CARBON	220K 5% 1/4W	R164	1-215-455-00	METAL	27K 1% 1/4W
R101	1-249-429-11	CARBON	10K 5% 1/4W	R165	1-215-461-00	METAL	47K 1% 1/4W
R102	1-215-451-00	METAL	18K 1% 1/4W	R166	1-215-463-00	METAL	56K 1% 1/4W
R103	1-215-413-00	METAL	470 1% 1/4W	R167	1-215-449-00	METAL	15K 1% 1/4W
R104	1-215-429-00	METAL	2.2K 1% 1/4W	R168	1-215-457-00	METAL	33K 1% 1/4W
R105	1-215-417-00	METAL	680 1% 1/4W	R169	1-215-461-00	METAL	47K 1% 1/4W
R106	1-247-887-00	CARBON	220K 5% 1/4W	R170	1-215-461-00	METAL	47K 1% 1/4W
R107	1-247-104-00	CARBON	75 5% 1/4W	R171	1-215-461-00	METAL	47K 1% 1/4W
R108	1-249-429-11	CARBON	10K 5% 1/4W	R172	1-215-461-00	METAL	47K 1% 1/4W
R109	1-215-417-00	METAL	680 1% 1/4W	R173	1-215-441-00	METAL	6.8K 1% 1/4W
R110	1-249-405-11	CARBON	100 5% 1/4W	R174	1-215-425-00	METAL	1.5K 1% 1/4W
R111	1-215-415-00	METAL	560 1% 1/4W	R175	1-215-425-00	METAL	1.5K 1% 1/4W
R112	1-249-429-11	CARBON	10K 5% 1/4W	R176	1-215-425-00	METAL	1.5K 1% 1/4W
R113	1-215-445-00	METAL	10K 1% 1/4W	R177	1-215-441-00	METAL	6.8K 1% 1/4W
R114	1-215-457-00	METAL	33K 1% 1/4W	R178	1-215-445-00	METAL	10K 1% 1/4W
R115	1-215-457-00	METAL	33K 1% 1/4W	R179	1-215-457-00	METAL	33K 1% 1/4W
R116	1-215-457-00	METAL	33K 1% 1/4W	R180	1-249-429-11	CARBON	10K 5% 1/4W
R117	1-215-459-00	METAL	39K 1% 1/4W	R181	1-249-405-11	CARBON	100 5% 1/4W
R118	1-215-459-00	METAL	39K 1% 1/4W	R182	1-249-405-11	CARBON	100 5% 1/4W
R119	1-215-459-00	METAL	39K 1% 1/4W	R183	1-215-445-00	METAL	10K 1% 1/4W
R120	1-215-479-00	METAL	270K 1% 1/4W	R184	1-215-417-00	METAL	680 1% 1/4W
R121	1-215-469-00	METAL	100K 1% 1/4W	R185	1-249-393-11	CARBON	10 5% 1/4W
R122	1-215-479-00	METAL	270K 1% 1/4W	R186	1-215-924-00	METAL OXIDE	15K 5% 3W F
R123	1-215-469-00	METAL	100K 1% 1/4W	R187	1-215-875-11	METAL OXIDE	10K 5% 1W F
R124	1-215-427-00	METAL	1.8K 1% 1/4W	R188	1-215-396-00	METAL	91 1% 1/4W
R125	1-215-468-00	METAL	91K 1% 1/4W	R189	1-215-375-00	METAL	12 1% 1/4W
R126	1-215-443-00	METAL	8.2K 1% 1/4W	R190	1-215-375-00	METAL	12 1% 1/4W
R127	1-215-469-00	METAL	100K 1% 1/4W	R191	1-215-375-00	METAL	12 1% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R192	1-215-375-00	METAL	12 1% 1/4W	R257	1-249-423-11	CARBON	3.3K 5% 1/4W
R193	1-215-375-00	METAL	12 1% 1/4W	R258	1-249-433-11	CARBON	22K 5% 1/4W
R194	1-215-441-00	METAL	6.8K 1% 1/4W	R259	1-249-429-11	CARBON	10K 5% 1/4W
R195	1-249-429-11	CARBON	10K 5% 1/4W	R260	1-249-433-11	CARBON	22K 5% 1/4W
R196	1-215-441-00	METAL	6.8K 1% 1/4W	R261	1-249-433-11	CARBON	22K 5% 1/4W
R197	1-249-429-11	CARBON	10K 5% 1/4W	R262	1-249-441-11	CARBON	100K 5% 1/4W
R198	1-249-405-11	CARBON	100 5% 1/4W	R263	1-215-910-00	METAL OXIDE	68 5% 3W F
R199	1-249-405-11	CARBON	100 5% 1/4W	R264	1-215-910-00	METAL OXIDE	68 5% 3W F
R200	1-215-445-00	METAL	10K 1% 1/4W	R265	1-215-910-00	METAL OXIDE	68 5% 3W F
R201	1-215-417-00	METAL	680 1% 1/4W	R266	1-215-910-00	METAL OXIDE	68 5% 3W F
R202	1-249-393-11	CARBON	10 5% 1/4W	R401	1-249-423-11	CARBON	3.3K 5% 1/4W
R203	1-215-924-00	METAL OXIDE	15K 5% 3W F	R402	1-249-417-11	CARBON	1K 5% 1/4W
R204	1-215-875-11	METAL OXIDE	10K 5% 1W F	R403	1-249-417-11	CARBON	1K 5% 1/4W
R205	1-215-391-00	METAL	56 1% 1/4W	R404	1-249-417-11	CARBON	1K 5% 1/4W
R206	1-215-375-00	METAL	12 1% 1/4W	R405	1-249-417-11	CARBON	1K 5% 1/4W
R207	1-215-375-00	METAL	12 1% 1/4W	R406	1-249-417-11	CARBON	1K 5% 1/4W
R208	1-215-375-00	METAL	12 1% 1/4W	R407	1-249-417-11	CARBON	1K 5% 1/4W
R209	1-215-375-00	METAL	12 1% 1/4W	R408	1-249-417-11	CARBON	1K 5% 1/4W
R210	1-215-375-00	METAL	12 1% 1/4W	R409	1-249-417-11	CARBON	1K 5% 1/4W
R211	1-215-445-00	METAL	10K 1% 1/4W	R410	1-249-417-11	CARBON	1K 5% 1/4W
R212	1-215-417-00	METAL	680 1% 1/4W	R411	1-249-417-11	CARBON	1K 5% 1/4W
R213	1-249-393-11	CARBON	10 5% 1/4W	R412	1-249-405-11	CARBON	100 5% 1/4W
R214	1-215-924-00	METAL OXIDE	15K 5% 3W F	R413	1-249-417-11	CARBON	1K 5% 1/4W
R215	1-215-875-11	METAL OXIDE	10K 5% 1W F	R414	1-249-405-11	CARBON	100 5% 1/4W
R217	1-215-374-00	METAL	11 1% 1/4W	R415	1-249-417-11	CARBON	1K 5% 1/4W
R218	1-215-375-00	METAL	12 1% 1/4W	R416	1-249-405-11	CARBON	100 5% 1/4W
R219	1-215-375-00	METAL	12 1% 1/4W	R417	1-249-417-11	CARBON	1K 5% 1/4W
R220	1-215-375-00	METAL	12 1% 1/4W	R418	1-249-405-11	CARBON	100 5% 1/4W
R221	1-215-375-00	METAL	12 1% 1/4W	R419	1-249-405-11	CARBON	100 5% 1/4W
R222	1-215-419-00	METAL	820 1% 1/4W	R420	1-249-405-11	CARBON	100 5% 1/4W
R223	1-215-447-00	METAL	12K 1% 1/4W	R421	1-249-417-11	CARBON	1K 5% 1/4W
R224	1-214-802-00	METAL	2.7 1% 1/2W	R422	1-249-417-11	CARBON	1K 5% 1/4W
R225	1-214-804-11	METAL	3.3 1% 1/2W	R423	1-249-417-11	CARBON	1K 5% 1/4W
R226	1-214-802-00	METAL	2.7 1% 1/2W	R424	1-249-417-11	CARBON	1K 5% 1/4W
R227	1-214-804-11	METAL	3.3 1% 1/2W	R425	1-249-417-11	CARBON	1K 5% 1/4W
R228	1-214-802-00	METAL	2.7 1% 1/2W	R426	1-249-417-11	CARBON	1K 5% 1/4W
R229	1-214-804-11	METAL	3.3 1% 1/2W	R427	1-249-417-11	CARBON	1K 5% 1/4W
R230	1-215-469-00	METAL	100K 1% 1/4W	R428	1-249-417-11	CARBON	1K 5% 1/4W
R231	1-215-469-00	METAL	100K 1% 1/4W	R429	1-249-417-11	CARBON	1K 5% 1/4W
R232	1-249-429-11	CARBON	10K 5% 1/4W	R430	1-249-435-11	CARBON	33K 5% 1/4W
R233	1-247-901-11	CARBON	820K 5% 1/4W	R431	1-215-471-00	METAL	120K 1% 1/4W
R234	1-247-901-11	CARBON	820K 5% 1/4W	R432	1-215-455-00	METAL	27K 1% 1/4W
R235	1-247-897-11	CARBON	560K 5% 1/4W	R433	1-215-477-00	METAL	220K 1% 1/4W
R236	1-247-897-11	CARBON	560K 5% 1/4W	R434	1-215-475-00	METAL	180K 1% 1/4W
R237	1-249-441-11	CARBON	100K 5% 1/4W	R435	1-215-455-00	METAL	27K 1% 1/4W
R238	1-249-433-11	CARBON	22K 5% 1/4W	R436	1-215-468-00	METAL	91K 1% 1/4W
R239	1-249-433-11	CARBON	22K 5% 1/4W	R437	1-215-471-00	METAL	120K 1% 1/4W
R240	1-249-440-11	CARBON	82K 5% 1/4W	R438	1-215-452-00	METAL	20K 1% 1/4W
R241	1-215-483-00	METAL	390K 1% 1/4W	R439	1-215-465-00	METAL	68K 1% 1/4W
R242	1-215-473-00	METAL	150K 1% 1/4W	R500	1-215-491-00	METAL	820K 1% 1/4W
R243	1-215-457-00	METAL	33K 1% 1/4W	<VARIABLE RESISTOR>			
R244	1-215-457-00	METAL	33K 1% 1/4W	RV1	1-224-251-XX	RES, ADJ, METAL GLAZE	4.7K
R245	1-215-465-00	METAL	68K 1% 1/4W	RV2	1-224-251-XX	RES, ADJ, METAL GLAZE	4.7K
R246	1-215-453-00	METAL	22K 1% 1/4W	RV3	1-228-996-00	RES, ADJ, CARBON	47K
R247	1-215-457-00	METAL	33K 1% 1/4W	RV4	1-228-996-00	RES, ADJ, CARBON	47K
R248	1-215-469-00	METAL	100K 1% 1/4W	RV5	1-228-994-00	RES, ADJ, CARBON	10K
R249	1-249-416-11	CARBON	820 5% 1/4W	RV6	1-228-994-00	RES, ADJ, CARBON	10K
R250	1-249-417-11	CARBON	1K 5% 1/4W	RV7	1-228-994-00	RES, ADJ, CARBON	10K
R251	1-249-405-11	CARBON	100 5% 1/4W	RV8	1-228-994-00	RES, ADJ, CARBON	10K
R252	1-215-463-00	METAL	56K 1% 1/4W	RV9	1-228-994-00	RES, ADJ, CARBON	10K
R253	1-215-461-00	METAL	47K 1% 1/4W	RV10	1-228-994-00	RES, ADJ, CARBON	10K
R254	1-249-413-11	CARBON	470 5% 1/4W				
R255	1-249-429-11	CARBON	10K 5% 1/4W				
R256	1-249-423-11	CARBON	3.3K 5% 1/4W				

D

DB

HA

REF. NO.	PART NO.	DESCRIPTION
RV11	1-228-994-00	RES, ADJ, CARBON 10K
RV12	1-228-994-00	RES, ADJ, CARBON 10K
RV13	1-228-994-00	RES, ADJ, CARBON 10K
RV14	1-228-994-00	RES, ADJ, CARBON 10K
RV15	1-228-994-00	RES, ADJ, CARBON 10K
RV16	1-228-994-00	RES, ADJ, CARBON 10K
RV17	1-228-994-00	RES, ADJ, CARBON 10K
RV18	1-228-994-00	RES, ADJ, CARBON 10K
RV19	1-228-994-00	RES, ADJ, CARBON 10K
RV20	1-228-994-00	RES, ADJ, CARBON 10K
RV21	1-228-994-00	RES, ADJ, CARBON 10K
RV22	1-228-994-00	RES, ADJ, CARBON 10K
RV23	1-228-994-00	RES, ADJ, CARBON 10K
RV24	1-228-994-00	RES, ADJ, CARBON 10K
RV25	1-228-994-00	RES, ADJ, CARBON 10K
RV26	1-228-994-00	RES, ADJ, CARBON 10K
RV27	1-228-994-00	RES, ADJ, CARBON 10K
RV28	1-228-994-00	RES, ADJ, CARBON 10K
RV29	1-228-994-00	RES, ADJ, CARBON 10K
RV30	1-228-994-00	RES, ADJ, CARBON 10K
RV31	1-228-994-00	RES, ADJ, CARBON 10K
RV32	1-228-994-00	RES, ADJ, CARBON 10K
RV33	1-228-994-00	RES, ADJ, CARBON 10K
RV34	1-228-994-00	RES, ADJ, CARBON 10K
RV35	1-228-994-00	RES, ADJ, CARBON 10K
RV36	1-228-994-00	RES, ADJ, CARBON 10K
RV37	1-228-994-00	RES, ADJ, CARBON 10K
RV38	1-228-994-00	RES, ADJ, CARBON 10K
RV39	1-228-994-00	RES, ADJ, CARBON 10K
RV40	1-228-994-00	RES, ADJ, CARBON 10K
RV41	1-228-994-00	RES, ADJ, CARBON 10K
RV42	1-228-994-00	RES, ADJ, CARBON 10K
RV43	1-228-994-00	RES, ADJ, CARBON 10K
RV44	1-228-994-00	RES, ADJ, CARBON 10K
RV45	1-228-994-00	RES, ADJ, CARBON 10K
RV46	1-228-994-00	RES, ADJ, CARBON 10K
RV47	1-228-994-00	RES, ADJ, CARBON 10K
RV48	1-228-994-00	RES, ADJ, CARBON 10K
RV49	1-228-994-00	RES, ADJ, CARBON 10K
RV50	1-228-994-00	RES, ADJ, CARBON 10K
RV51	1-228-994-00	RES, ADJ, CARBON 10K
RV401	1-228-938-00	RES, VAR, CARBON 20K
RV402	1-228-938-00	RES, VAR, CARBON 20K
RV403	1-228-937-00	RES, VAR, CARBON 20K
RV404	1-228-937-00	RES, VAR, CARBON 20K
RV405	1-228-937-00	RES, VAR, CARBON 20K
RV406	1-228-938-00	RES, VAR, CARBON 20K
<SWITCH>		
S1	1-570-847-11	SWITCH, SLIDE
S2	1-570-847-11	SWITCH, SLIDE
S3	1-570-847-11	SWITCH, SLIDE
S4	1-570-847-11	SWITCH, SLIDE
S5	1-570-847-11	SWITCH, SLIDE
S6	1-570-847-11	SWITCH, SLIDE
S7	1-570-847-11	SWITCH, SLIDE
S8	1-570-865-11	SWITCH, SLIDE
S9	1-570-865-11	SWITCH, SLIDE
S10	1-570-865-11	SWITCH, SLIDE
S11	1-570-865-11	SWITCH, SLIDE
S12	1-570-865-11	SWITCH, SLIDE
S13	1-552-437-00	SWITCH, LEVER
S401	1-552-737-00	SWITCH, PUSH

REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	S403	1-516-779-XX	SWITCH, SLIDE	

		*1-621-059-11	DB BOARD	

<CAPACITOR>				
	C1	1-162-211-31	CERAMIC 33PF	5% 50V
	C2	1-162-211-31	CERAMIC 33PF	5% 50V
	C3	1-162-290-31	CERAMIC 470PF	10% 50V
	C4	1-162-290-31	CERAMIC 470PF	10% 50V
<IC>				
	IC1	8-759-106-41	IC UPC4570C	
<TRANSISTOR>				
	Q1	8-729-205-96	TRANSISTOR 2SC3668-0	
	Q2	8-729-205-94	TRANSISTOR 2SA1428-0	
	Q3	8-729-205-96	TRANSISTOR 2SC3668-0	
	Q4	8-729-205-94	TRANSISTOR 2SA1428-0	
<RESISTOR>				
	R1	1-215-453-00	METAL 22K	1% 1/4W
	R2	1-215-453-00	METAL 22K	1% 1/4W
	R3	1-249-411-11	CARBON 330	5% 1/4W
	R4	1-249-411-11	CARBON 330	5% 1/4W
	R5	1-247-705-11	CARBON 270	5% 1/4W
	R6	1-247-705-11	CARBON 270	5% 1/4W
<PLUG>				
	W1	*1-506-602-11	PLUG, L TYPE (2.0MM PITCH)	5P
	W2	*1-506-602-11	PLUG, L TYPE (2.0MM PITCH)	5P

		*1-621-062-21	HA BOARD	

<CONNECTOR>				
	HA1	*1-566-045-11	PIN, CONNECTOR 6P	
	HA2	*1-566-042-11	PIN, CONNECTOR 3P	
	HA3	*1-566-041-11	PIN, CONNECTOR 2P	
	HA4	*1-566-042-11	PIN, CONNECTOR 3P	
	HA5	*1-566-041-11	PIN, CONNECTOR 2P	
<RESISTOR>				
	R451	1-247-874-11	CARBON 62K	5% 1/4W
<VARIABLE RESISTOR>				
	RV451	1-228-936-00	RES, VAR, CARBON 10K	
	RV452	1-228-936-00	RES, VAR, CARBON 10K	
	RV453	1-228-936-00	RES, VAR, CARBON 10K	
	RV454	1-228-936-00	RES, VAR, CARBON 10K	
	RV455	1-228-936-00	RES, VAR, CARBON 10K	
<SWITCH>				
	S451	1-516-779-XX	SWITCH, SLIDE	

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

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 spécifié.



REF. NO.	PART NO.	DESCRIPTION	REMARK

	*1-621-051-21	X BOARD *****	
		<LAMP>	
PL1	*1-535-615-11	TERMINAL (LAMP SOCKET)	
		<CONNECTOR>	
X1	*1-566-041-11	PIN, CONNECTOR 2P	
X2	*1-566-041-11	PIN, CONNECTOR 2P	

	*1-621-052-21	Y BOARD *****	
	*4-365-850-00	HOLDER, LED	
		<DIODE>	
D1	8-719-420-94	DIODE LN342GPH	
		<CONNECTOR>	
Y1	*1-566-041-11	PIN, CONNECTOR 2P	

		MISCELLANEOUS *****	
	Δ .1-237-582-11	RESISTOR ASSY, HIGH-VOLTAGE	
	Δ .1-413-289-12	REGULATOR, SWITCHING (TK-15)	
	Δ .1-451-243-00	DEFLECTION YOKE (Y636PA)	
	Δ .1-452-302-11	PICTURE TUBE NECK ASSEMBLY	
	Δ .1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
	Δ .1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
	1-518-590-11	LAMP, PILOT (WITH HOLDER)	
	Δ .1-541-449-11	FAN, DC (WITH SENSOR)	
	Δ .1-552-437-11	SWITCH, LEVER	
	Δ .1-558-377-11	CORD, POWER	
	Δ .1-570-052-11	SWITCH, PUSH (AC POWER) (1 KEY)	
	Δ .1-580-375-21	INLET 3P	
CNJ6	1-559-088-21	CONNECTOR ASSY, ROUND TYPE 14P	
SP1	1-503-255-00	SPEAKER	
V901	Δ .8-733-023-05	PICTURE TUBE SD-187 (R)	
V902	Δ .8-733-021-05	PICTURE TUBE SD-187 (G)	
V903	Δ .8-733-022-05	PICTURE TUBE SD-187 (B)	

ACCESSORIE & PACKING MATERIALS *****			
REF. NO.	PART NO.	DESCRIPTION	REMARK
	Δ .1-558-377-11	CORD, POWER	
	3-753-799-11	MANUAL, INSTRUCTION	
	3-753-800-11	INSTRUCTION	
	*4-310-638-00	BAG, PROTECTION	
	*4-378-674-01	CUSHION (UPPER) (ASSY)	
	*4-378-681-01	CUSHION (LOWER) (ASSY)	
	4-378-685-01	SPACER, 200"	
	4-378-686-01	SPACER (200"), PICTURE TUBE	
	*4-383-076-02	SPACER	
	*4-383-085-01	CUSHION (A)	
	*4-033-234-01	CUSHION (B)	
	*4-033-195-01	INDIVIDUAL CARTON	

