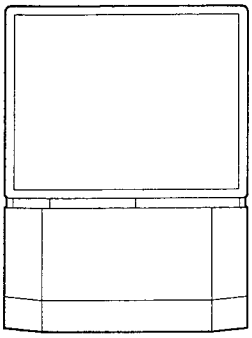
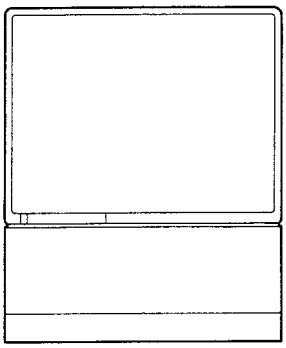
MITSUBISHI Service Manual

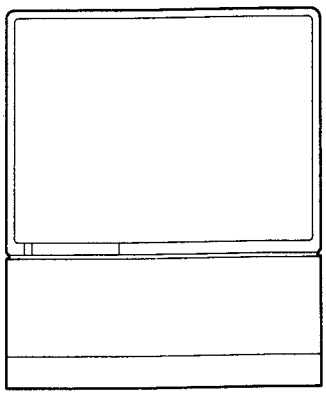
PROJECTION TELEVISION
VZ1 Chassis



MODEL
VS-40VA2



MODEL
VS-45VA1/VA2/VA2CA
VS-50VA1/VA2/VA2CA



MODEL
VS-60VA2/VA2CA

CAUTION

Before servicing this chassis, it is important that the serviceman reads the "SAFETY PRECAUTIONS" and "PRODUCT SAFETY NOTICE" in this service manual.

SPECIFICATIONS

- **Power Input** AC 120V 60Hz
- **Power Consumption** 260W
- **Reception Frequency** VHF 54~168, 174~468MHz
  UHF 470~806MHz
- **Antenna Input** VHF 75 ohm unbalanced
  UHF 75 ohm unbalanced
- **CRT** VT07M72JB22(R.G.B)
  Hybrid (Magnetic + Static) Focus
- **Intermediate Frequency**
  Video IF Carrier 45.75MHz
  Sound IF Carrier 41.25MHz
  Color IF Carrier 42.17MHz
- **High Voltage** 32.0kV (at 0μA)
- **Speaker** 4.7"x7.1"oval 2pcs
  2.0"round 2cps
- **Cabinet Dimensions**
  34.5"(W) x 45.9"(H) x 27.0" (VS-40VA2)
  39.8"(W) x 49.9"(H) x 21.5" (VS-45VA1/VA2/VA2CA)
  44.3"(W) x 52.4"(H) x 23.0" (VS-50VA1/VA2/VA2CA)
  49.4"(W) x 56.7"(H) x 26.3" (VS-60VA2/VA2CA)
- **Weight**
  193.8lbs(VS-40VA2)
  207.0lbs(VS-45VA1/VA2/VA2CA)
  207.0lbs(VS-50VA1/VA2/VA2CA)
  262.1lbs(VS-60VA2/VA2CA)
- **Input**
  2 -Video inputs
  1.0Vp-p 75 ohm (RCA JACK)
  2-Audio inputs (L/R)
  over 10k ohm –7dB (RCA JACK)
  S-input (Y/C Separate input)
  75 ohm
  Y: 1.0Vp-p C: 0.286Vp-p (Burst)
- **Output**
  2-Video output
  1.0Vp-p 75 ohm (RCA JACK)
  2-Audio output (L/R)
  (RCA JACK)
  2-Speaker outputs (L/R)
  8 ohm
- **Effective picture size**
  40" diagonal (VS-40VA2)
  45" diagonal (VS-45VA1/VA2/VA2CA)
  50" diagonal (VS-50VA1/VA2/VA2CA)
  60" diagonal (VS-60VA2/VA2CA)

MITSUBISHI ELECTRIC

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Printed in U.S.A.

SAFETY PRECAUTIONS

NOTICE : Observe all cautions and safety notes located inside the receiver cabinet and on the receiver chassis.

WARNING

1. Operation of this receiver outside the cabinet or with the cover removed presents a shock hazard from the receiver power supplies. Work on the receiver should not be attempted by anyone who is not thoroughly familiar with the precautions necessary when working on high-voltage equipment.
2. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while the picture tube is being handled. Keep the picture tube away from the body while handling.

X-RADIATION WARNING

The surface of the picture tube may generate X-Radiation. Precaution during service and, if possible, the use of a lead apron is recommended for shielding while handling.

When replacing the picture tube, use only the designated replacement part since it is a critical component with regard to X-Radiation as noted above. (No high-voltage adjustments are provided.) The high-voltage specification is described on cover page.

LEAKAGE CURRENT CHECK

Before returning the receiver to the customer, it is recommended that leakage current be measured according to the following methods.

1. Cold Check

With the AC plug removed from the 120V AC source, place a jumper across the two AC plug prongs. Turn the receiver AC switch on. Using an ohm-meter, connect one lead to the AC plug and touch the other lead to each exposed metal part (antennas, handle bracket, metal cabinet, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistance reading of 1 meg ohm. Any resistance below this value indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

2. Hot Check

Use the circuit in Fig. 1 to perform this test.

(1) With switch S1 open, connect the receiver to the measuring circuit. Immediately after connection, measure the leakage current using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions.

(2) Switch S1 is then closed, energizing the receiver. Immediately after closing the switch, measure the leakage current using both positions of switch S2, and with the switching devices in the receiver in all of their operating positions. Current measurements of items (1) and (2) are to be repeated after the receiver has reached thermal stabilization.

The leakage current shall not be more than 0.5 miliampere.

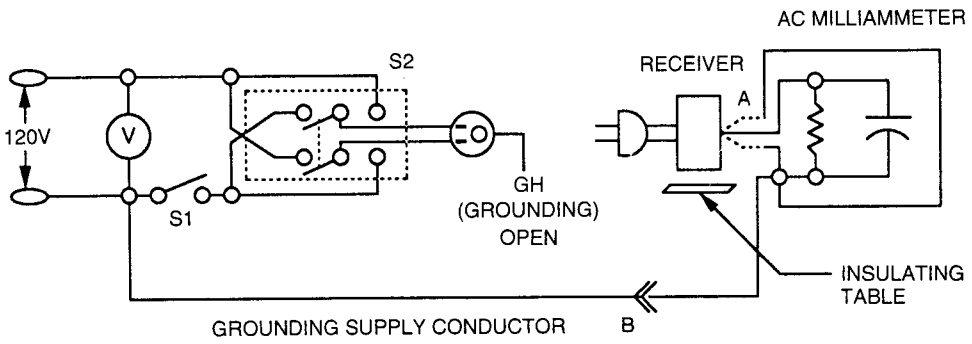


Fig. 1

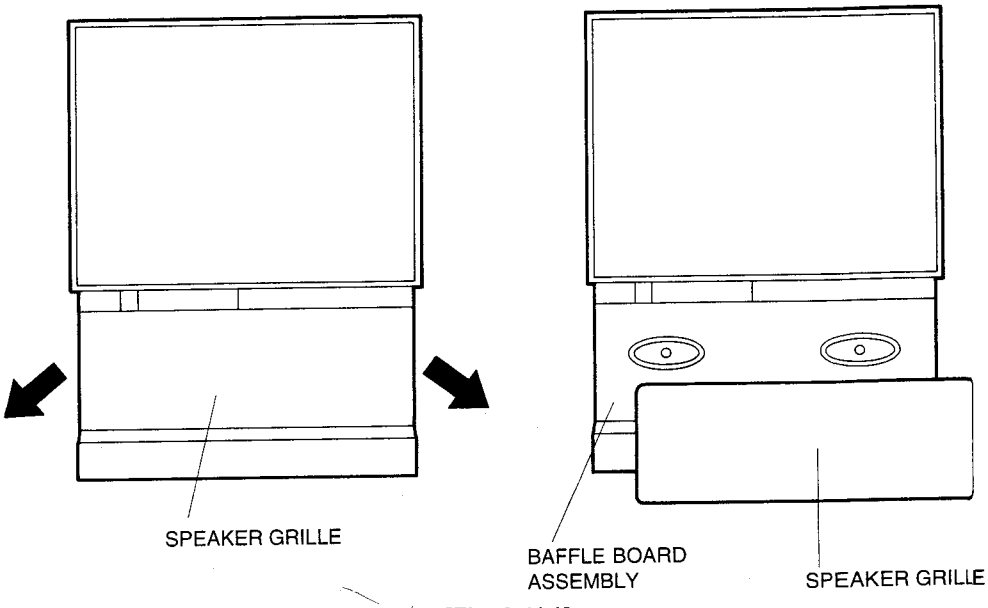
PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the VSS have special safety related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this service manual. Electrical components having such features are identified by shading on the schematic diagram and the parts list of this service manual and by marking of the supplementary sheet for this chassis to be issued subsequently.

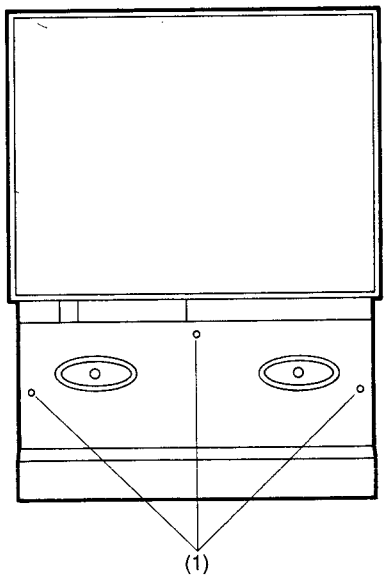
SERVICING

REMOVAL OF BAFFLE BOARD ASSEMBLY 40" Models

1. Pull the SPEAKER GRILLE forward to remove. [Fig. 2-1(a)]
2. Remove 3 screws (1) retaining BAFFLE BOARD ASSEMBLY. [Fig. 2-1(b)]



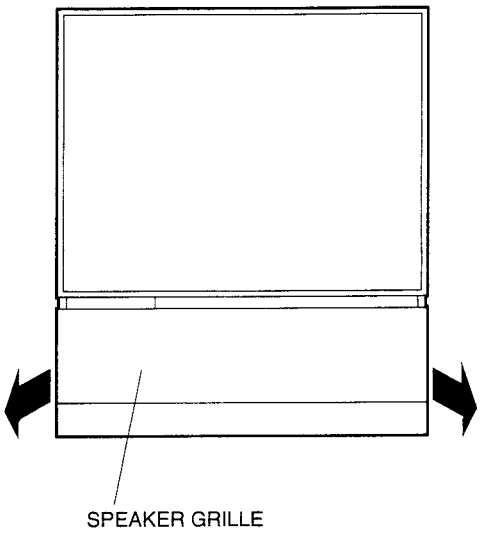
[Fig. 2-1(a)]



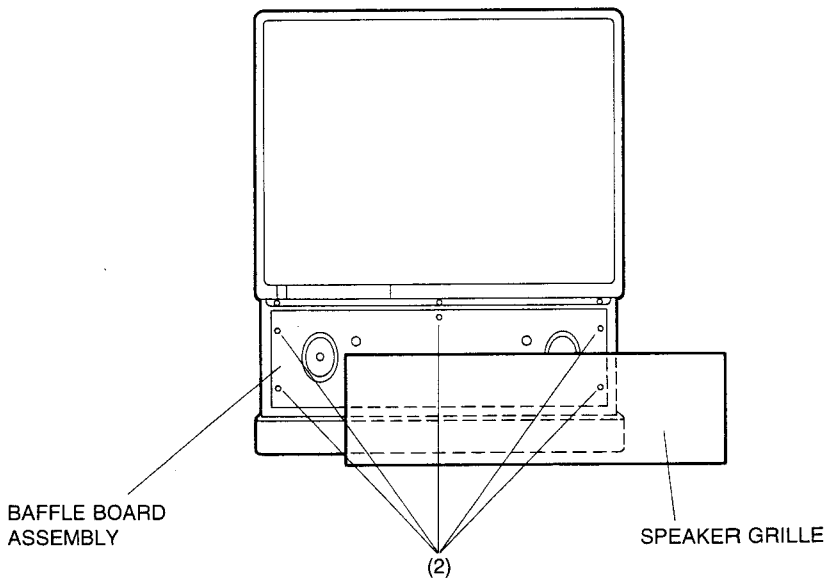
[Fig. 2-1(b)]

REMOVAL OF BAFFLE BOARD ASSEMBLY
45", 50" and 60" Models

1. Pull the SPEAKER GRILLE forward to remove. [Fig. 2-1(c)]
2. Remove 5 screws (2) retaining BAFFLE BOARD ASSEMBLY. [Fig. 2-1(d)]



[Fig. 2-1(c)]



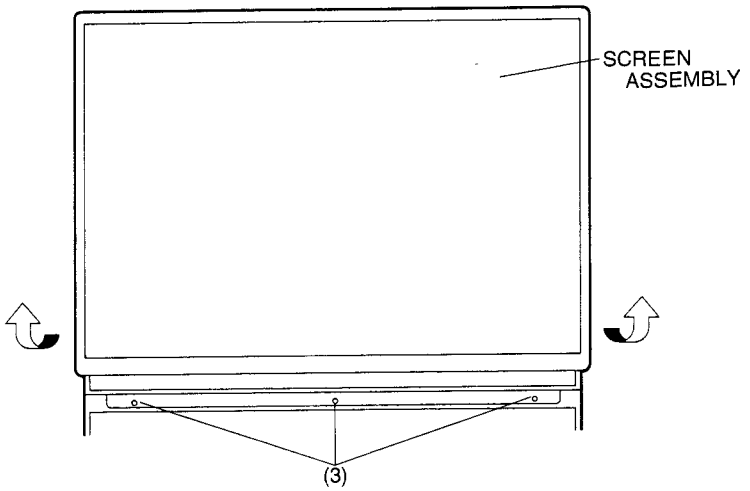
[Fig. 2-1(d)]

SERVICING

REMOVAL OF SCREEN ASSEMBLY

·40", 45" and 50" Models

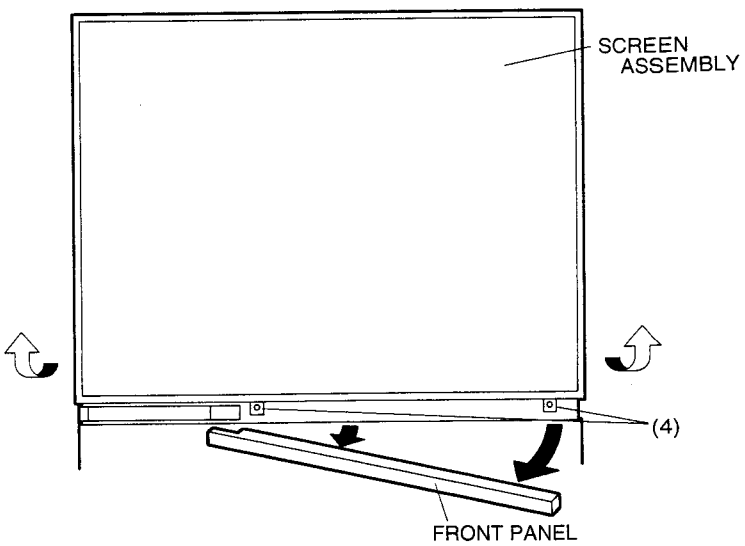
1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove Connectors ZD , ZE and ZF .
4. Remove 3 screws (3) retaining the SCREEN ASSEMBLY. [Fig. 2-2(a)]
5. Remove the SCREEN ASSEMBLY in arrow direction. [Fig. 2-2(a)]



[Fig. 2-2(a)]

60" Models

1. Pull the FRONT PANEL forward to remove. [Fig. 2-2(b)]
2. Remove 2 screws (4) retaining the SCREEN ASSEMBLY. [Fig. 2-2(b)]
3. Remove the SCREEN ASSEMBLY in arrow direction. [Fig. 2-2(b)]

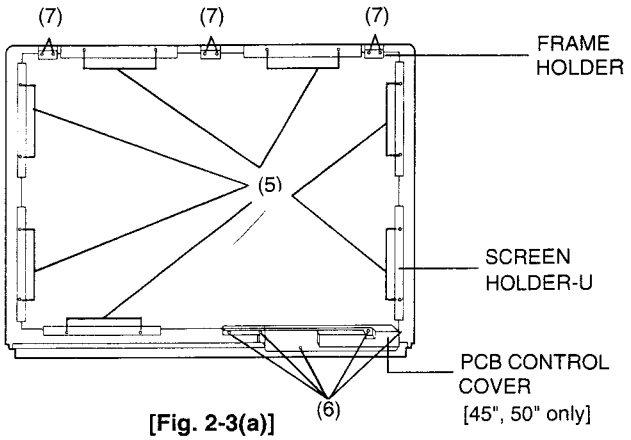


[Fig. 2-2(b)]

REMOVAL OF LENTICULAR SCREEN AND FLESNEL LENS

40", 45" and 50" Models

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
4. Remove 14 screws (5) retaining the SCREEN HOLDER-U. [Fig. 2-3(a)]
5. Remove 5 screws (6) retaining the PCB-CONTROL COVER. [Fig. 2-3(a)][45", 50"]
6. Remove 6 screws (7) retaining the FRAME HOLDER. [Fig. 2-3(a)]



[Fig. 2-3(a)]

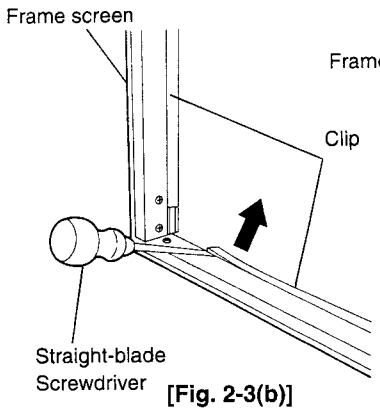
Notes regarding handling of the SCREEN.

1. Wear gloves during handling to prevent scratches and/or fingerprints.
2. Do not handle the fresnel lens outdoors or in direct sunlight.
   Never leave it unattended; doing so might result in fire or in someone getting burned.
3. Store in a dry place; absorbed humidity could cause deformation.
4. When the fresnel lens or the lenticular screen are removed, never lean them against a wall or anything else; this might cause warping or bending of the lens or screen.
5. Always handle carefully to prevent scratches or other damage.

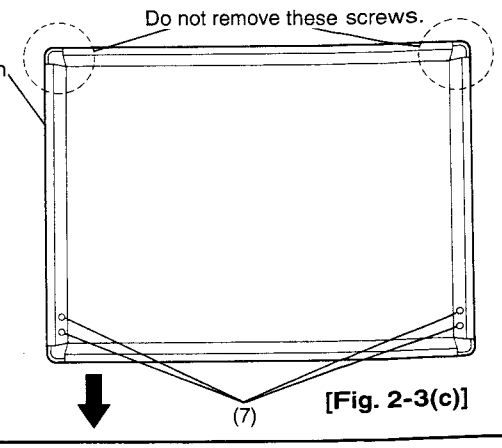
60" Models

1. Perform Steps 1 through 3 above.
2. Insert a straight driver under the end of clip at the bottom of the Frame screen. Move up the clip with the driver slightly to remove it. [Fig. 2-3(b)]
3. Remove 4 screws, (7) in Fig. 2-3(c), and the Frame at the bottom in the direction of the arrow. [Fig. 2-3(c)]
4. Remove the Lenticular screen and the Flesnel lens.

NOTE: Strip off pressure sensitive adhesive double coated tape carefully, warming the joint of the Lenticular screen and the Flesnel lens with a heat gun.



[Fig. 2-3(b)]

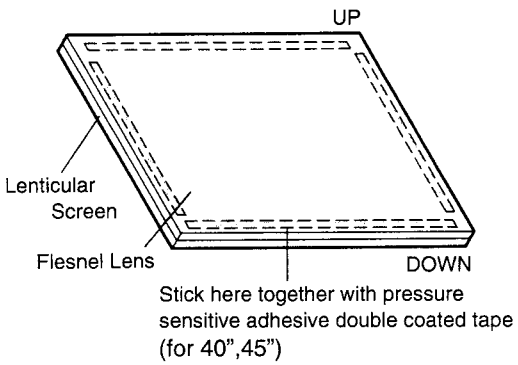


[Fig. 2-3(c)]

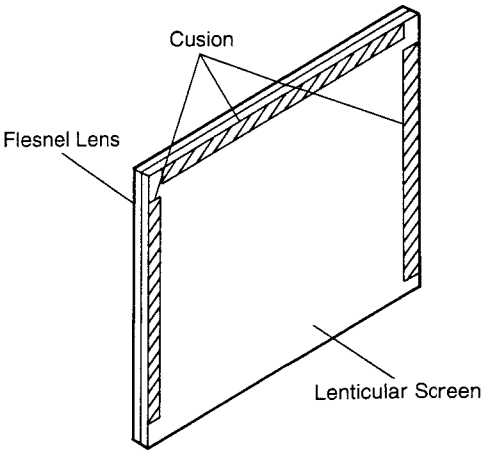
ATTACHMENT OF LENTICULAR SCREEN AND FLESNEL LENS

40", 45" and 50" Models

1. Stick the Lenticular screen and the Flesnel lens together with pressure sensitive adhesive double coated tape. [Fig. 2-4(a)]
2. Stick some cushion at the side of the Lenticular screen. This prevents dusting from vibration between the Frame and the Lenticular screen.
3. Fit the Lenticular screen and the Flesnel lens into the Frame screen.
4. Attach the FRAME HOLDER. [Refer to Fig. 2-3(a)]
5. Attach the SCREEN HOLDER-U. [Refer to Fig. 2-3(a)]
6. Attach the PCB-CONTROL COVER. [Refer to Fig. 2-3(a)][45", 50"]



[Fig. 2-4(a)]



[Fig. 2-4(b)]

60" Models

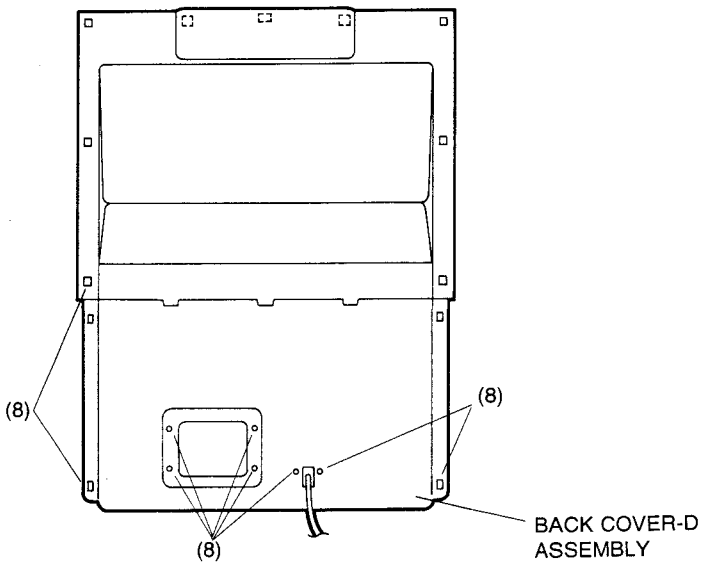
1. Stick the Lenticular screen and the Flesnel lens together with pressure sensitive adhesive double coated tape. [Fig. 2-4(a)]
2. Stick some cushion at the side of the Lenticular screen. This prevents dusting from vibration between the Frame and the Lenticular screen.
3. Fit the Lenticular screen and the Flesnel lens into the Frame screen.
4. Tighten 4 screws of the Frame screen, (7) in Fig. 2-3(c).
5. Insert the clip onto the Frame screen to fix the Lenticular screen and the Flesnel lens.

CAUTIONS IN HANDLING LENTICULAR SCREEN AND FLESNEL LENS

1. Wear gloves in handling the Lenticular screen and the Flensnel lens. This prevents cut and finger print fouling.
2. Do not face the Flesnel lens to the sun. This prevents fire and heat injury to persons.
3. Store in a dry place. High humidity causes deformation of Lenticular screen and Flesnel lens.

REMOVAL OF BACK-COVER-D ASSEMBLY 40", 45" and 50" Models

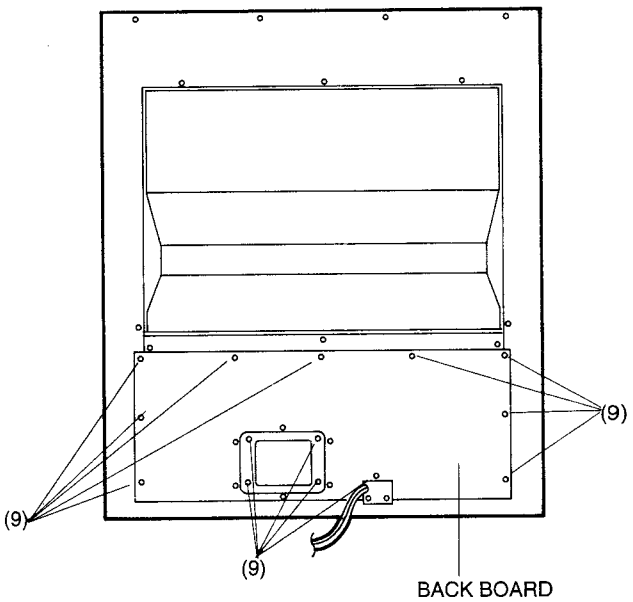
1. Remove 10 screws (8) retaining the BACK COVER-D ASSEMBLY. [Fig. 2-5]



[Fig. 2-5]

REMOVAL OF BACK BOARD 60" Models

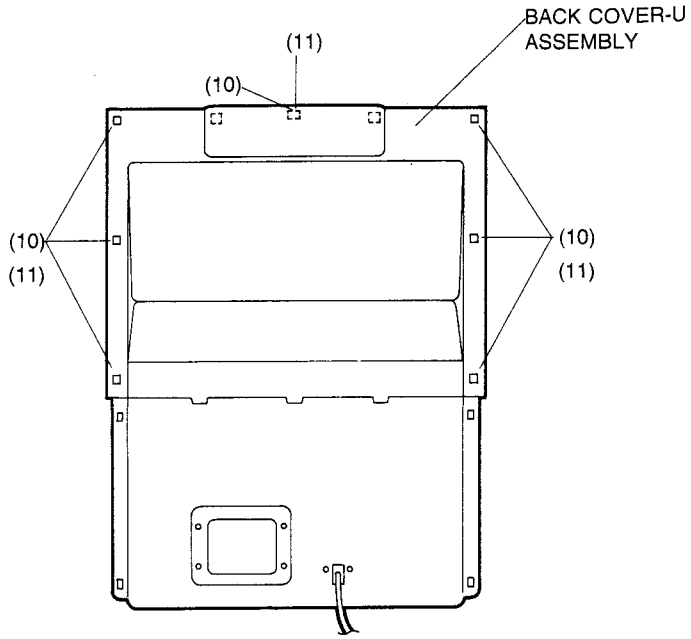
1. Remove 14 screws (9) retaining the BACK BOARD. [Fig. 2-6]



[Fig. 2-6]

REMOVAL OF BACK-COVER-U ASSEMBLY
40", 45" and 50" Models

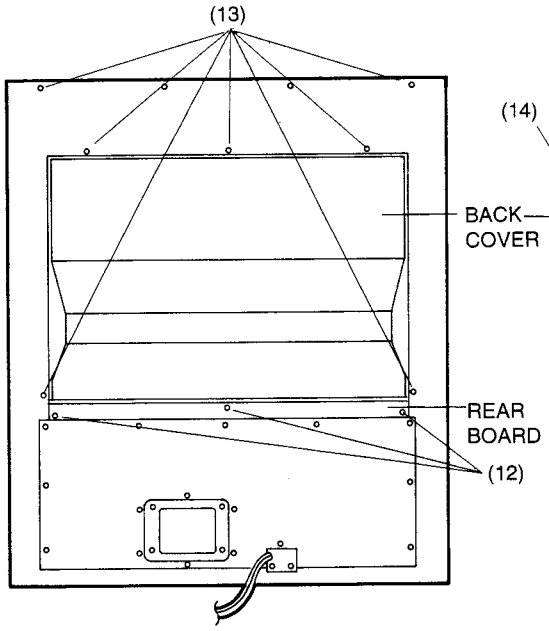
1. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5]
2. Remove 7 screws (10) retaining the BACK COVER-U ASSEMBLY. [Fig. 2-7][40"]
   Remove 9 screws (11) retaining the BACK COVER-U ASSEMBLY. [Fig. 2-7][45", 50"]



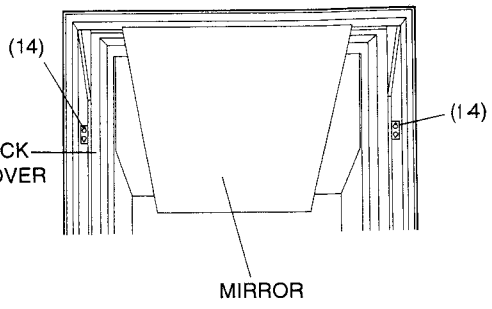
[Fig. 2-7]

REMOVAL OF BACK COVER
60" Models

1. Remove the BACK BOARD. [Refer to Fig. 2-6]
2. Remove 3 screws (12) retaining the REAR BOARD. [Fig. 2-8(a)]
3. Remove 9 screws (13) retaining the BACK COVER. [Fig. 2-8(a)]
4. Remove 2 screws (14) retaining the BACK COVER. [Fig. 2-8(b)]



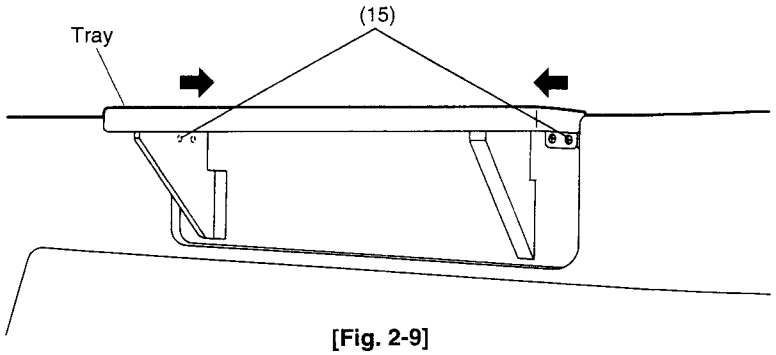
[Fig. 2-8(a)]



[Fig. 2-8(b)]

REMOVAL OF TRAY
45" and 50" Models ONLY

1. Remove 2 screws of the Tray, (15) in Fig. 2-9.
2. Remove fittings of the tray in the direction of the arrow.



[Fig. 2-9]

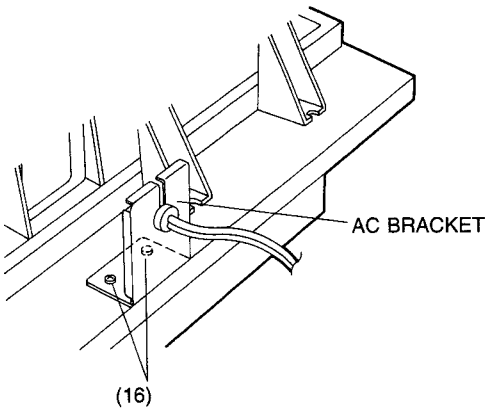
SERVICING

General note for PCB removal: When servicing the PCB, unclamp the lead wires and pull out the PCB for servicing. After servicing is completed, reclamp the lead wires in their original position.

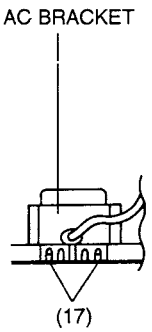
REMOVAL OF PCB-MAIN, PCB-SIGNAL, PCB-TERMINAL and PCB-POWER-SUB.

※ When servicing PCB-PIP, PCB-FS, PCB-PCC and PCB-TERMINAL use the service JIG (Part No. 859C432O10) for easier access.

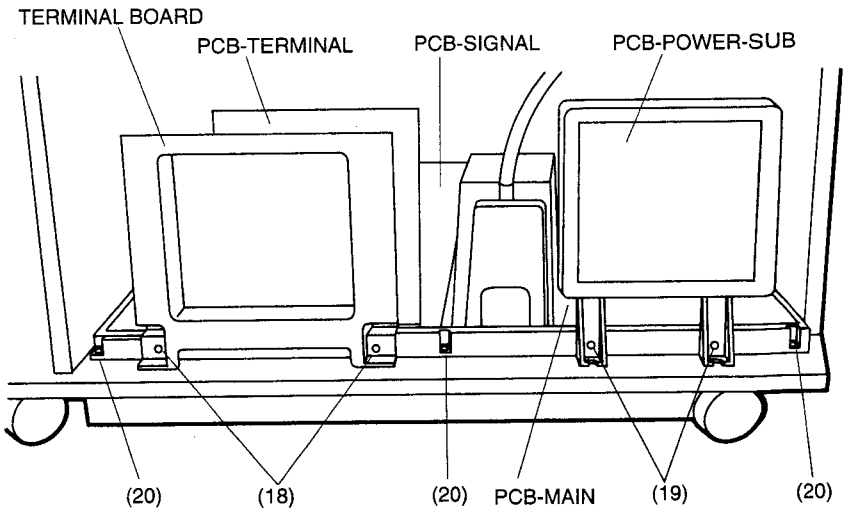
1. Remove the BACK-COVER-D ASSEMBLY. [Refer to Fig. 2-5][40", 45", 50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
2. Remove 2 screws (16) retaining the AC BRACKET. [Fig. 2-10(a)][40", 45", 50"]
   Remove 2 screws (17) retaining the AC BRACKET. [Fig. 2-10(b)][60"]
3. Remove 2 screws (18) retaining the TERMINAL BOARD. [Fig. 2-10(c)]
4. Remove 2 screws (19) retaining the PCB-POWER-SUB. [Fig. 2-10(c)]
5. Remove 3 screws (20) retaining the PCB-MAIN and PCB-SIGNAL. [Fig. 2-10(c)]



[Fig. 2-10(a)]



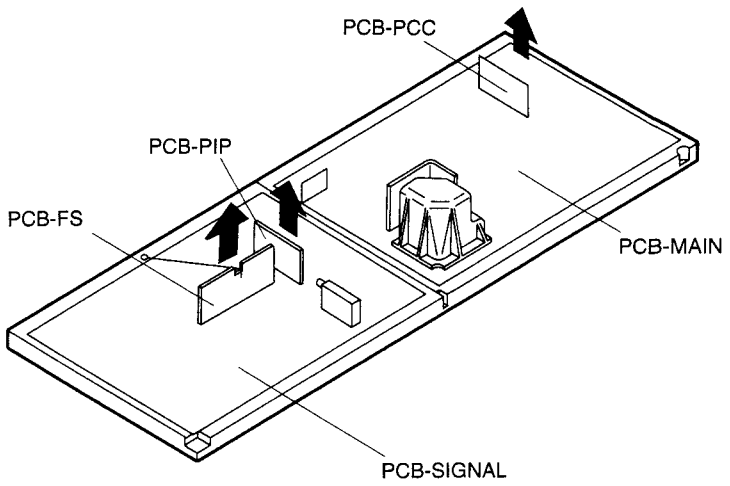
[Fig. 2-10(b)]



[Fig. 2-10(c)]

REMOVAL OF PCB-FS, PCB-PIP and PCB-PCC

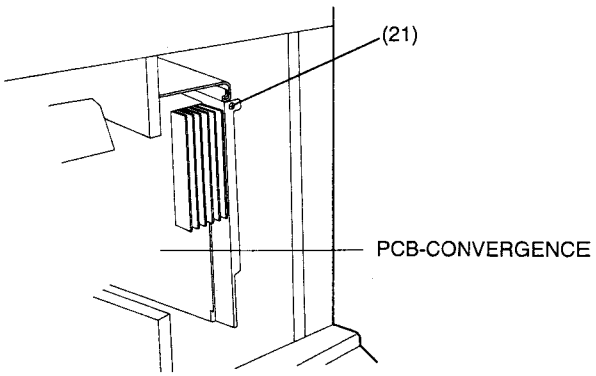
1. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5][40", 45", 50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
2. Remove the AC BRACKET. [Refer to Fig. 2-10(a), (b)]
3. Remove the PCB-MAIN and PCB-SIGNAL. [Refer to Fig. 2-10(c)]
4. Remove the PCB-FS, PCB-PIP and PCB-PCC to arrow direction. [Fig. 2-11]



[Fig. 2-11]

REMOVAL OF PCB-CONVERGENCE

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove 1 screw (21) retaining PCB-CONVERGENCE. [Fig. 2-12]
4. Side the front of PCB-CONVERGENCE to the right to remove.

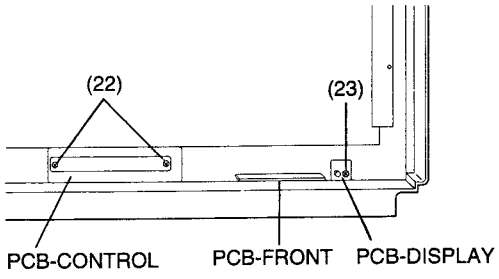


[Fig. 2-12]

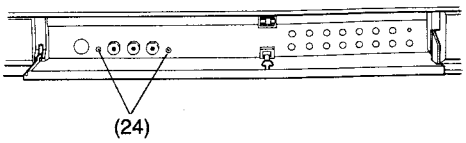
REMOVAL OF PCB-CONTROL, PCB-FRONT and PCB-DISPLAY

40", 45"and 50" Models

1. Remove the SPEAKER GRILLE and BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1]
2. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
3. Remove the PCB-CONTROL COVER. [Refer to Fig. 2-3(a)][45", 50"]
4. Remove 2 screws (22) retaining the PCB-CONTROL. [Fig. 2-13(a)]
5. Remove 1 screw (23) retaining the PCB-DISPLAY. [Fig. 2-13(a)]
6. Remove 2 screws (24) retaining the PCB-FRONT. [Fig. 2-13(b)]



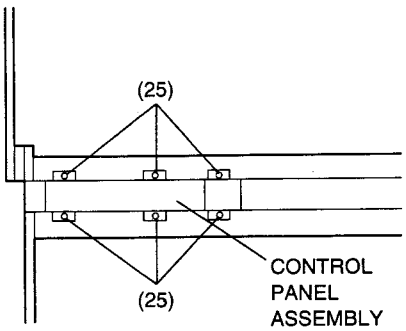
[Fig. 2-13(a)]



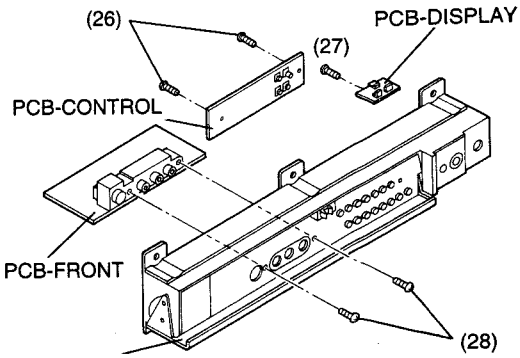
[Fig. 2-13(b)]

60" Models

1. Remove the SPEAKER GRILLE and BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(c), (d)]
2. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(b)]
3. Remove connectors ZD , ZE and ZF .
4. Remove 6 screws (25) retaining the CONTROL PANEL ASSEMBLY. [Fig. 2-14(a)]
5. Remove 2 screws (26) retaining the PCB-CONTROL. [Fig. 2-14(b)]
6. Remove 1 screw (27) retaining the PCB-DISPLAY. [Fig. 2-14(b)]
7. Remove 2 screws (28) retaining the PCB-FRONT. [Fig. 2-14(b)]



[Fig. 2-14(a)]

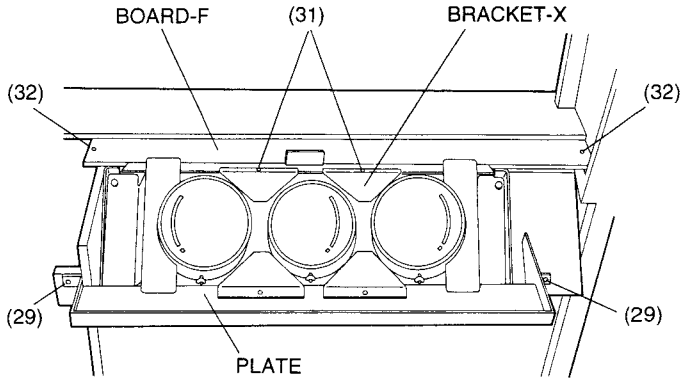


[Fig. 2-14(b)]

REMOVAL OF CRT
40" and 45"
Models

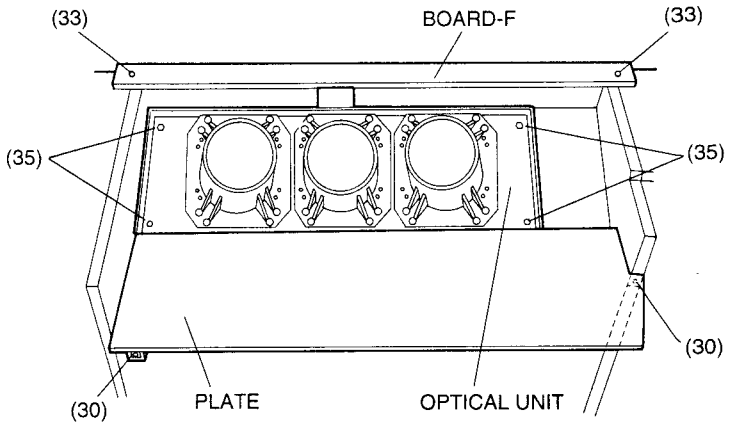
1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(a), (c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(b), (d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a)]
4. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5]
5. Remove the BACK COVER-U ASSEMBLY. [Refer to Fig. 2-7]
6. Remove 2 screws (29) retaining the PLATE. [Fig. 2-15(a)][40"]
   Remove 2 screws (30) retaining the PLATE. [Fig. 2-15(b)][45"]
7. Remove 2 screws (31) retaining the BRACKET-X. [Fig. 2-15(a)][40"]
8. Remove the 3 PCB-CRT.
9. Remove 2 screws (32) retaining the BOARD-F. [Fig. 2-15(a)][40"]
   Remove 2 screws (33) retaining the BOARD-F. [Fig. 2-15(b)][45"]
10. Remove 4 hex-nuts (34) retaining the OPTICAL UNIT. [Fig. 2-15(c)][40"]
    Remove 4 hex-nuts (35) retaining the OPTICAL UNIT. [Fig. 2-15(b)][45"]

40" Models



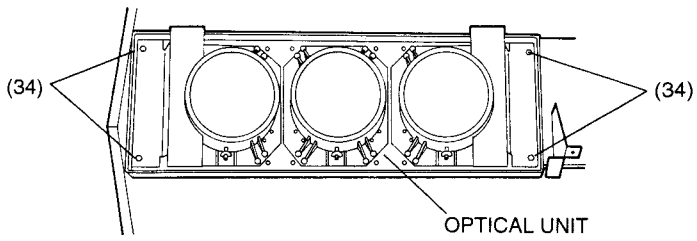
[Fig. 2-15(a)]

45" Models



[Fig. 2-15(b)]

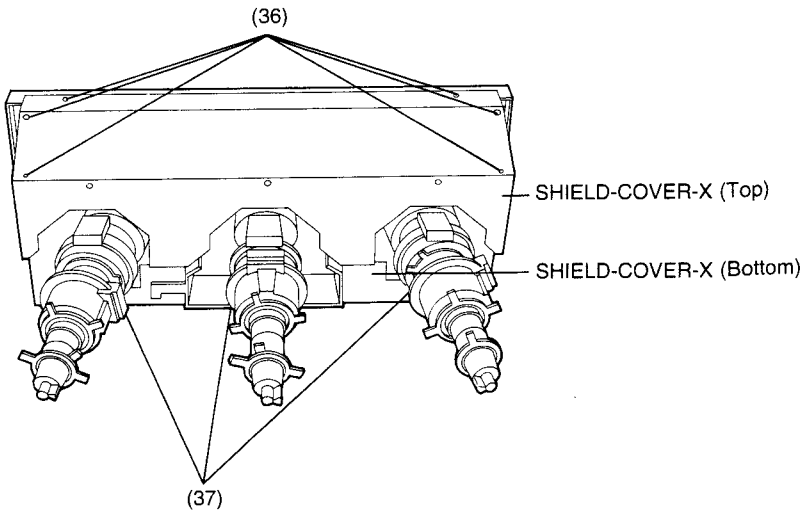
40" Models



[Fig. 2-15(c)]

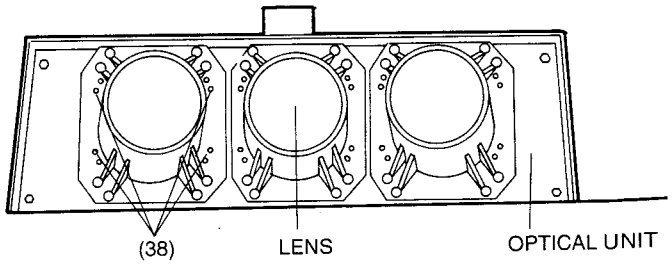
REMOVAL OF CRT 40" and 45" Models

11. Remove 6 screws (36) retaining the SHIELD COVER-X (Top). [Fig. 2-15(d)]
12. Remove 3 screws (37) retaining the SHIELD COVER-X (Bottom). [Fig. 2-15(d)]

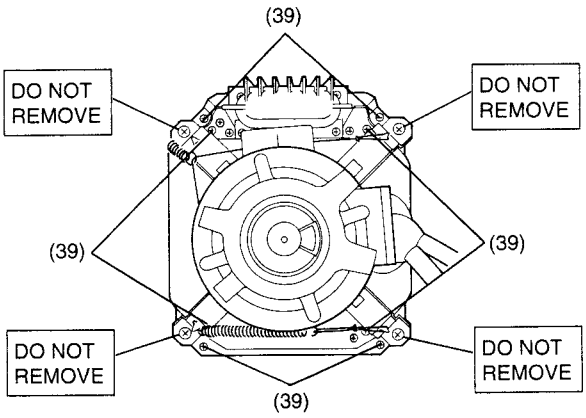


[Fig. 2-15(d)]

13. Remove 4 screws (38) retaining the INNER LENS of the CRT to be replaced. [Fig. 2-15(e), Fig. 2-17(a)]
14. To remove the CRT mounted as shown in Fig. 2-16(f), remove 8 screws (39).
    NOTE: DO NOT remove RED screws.



[Fig. 2-15(e)]



[Fig. 2-15(f)]

REMOVAL OF CRT 40" and 45" Models

15. Remove the deflection yoke assembly, focus magnet and alignment magnet assembly from the neck of tube.
16. Disconnect the Anode Cap.
    Anode caps are secured to the CRT and sealed with a rubbery, solicone based compound. The seal must be broken and excess compound stripped from the anode area before the anode cap can be successfully removed.

CAUTION !

High voltage should be completely discharged prior to anode cap removal. Since all three CRT receive high voltage from a single cable, discharge simultaneously by shorting the open end of the high voltage cable to chassis ground. The anode cap seal can now be safely broken by inserting a thin-bladed tool between the edge of the anode cap and the CRT rotating the tool around the outer edge of the anode cap.

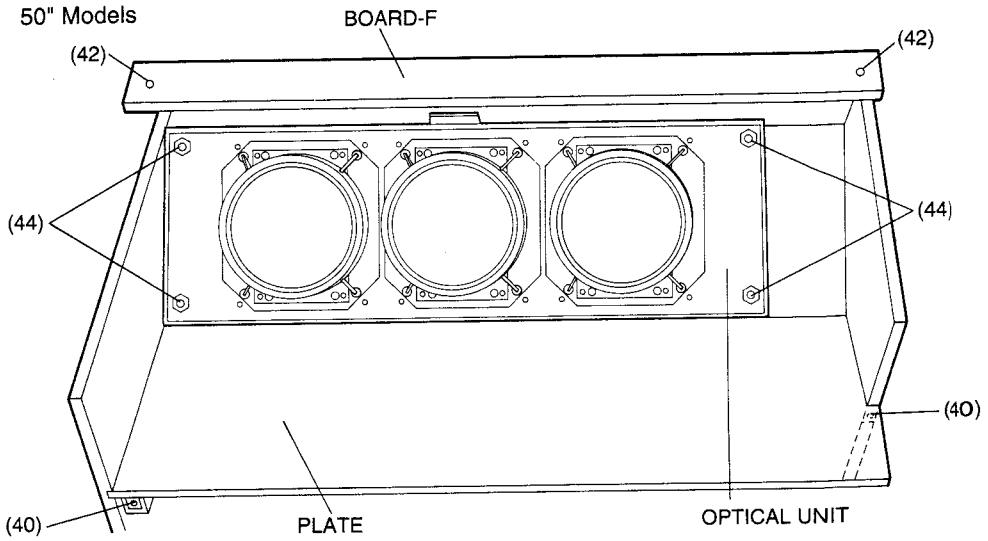
NOTE:

Do NOT damage the Anode cap during removal! Due to safety regulations, the length of the original H.V. cable is not long enough to permit the installation of a replacement anode cap. Consequently, a replacement anode cap is NOT packaged with the replacement CRT.

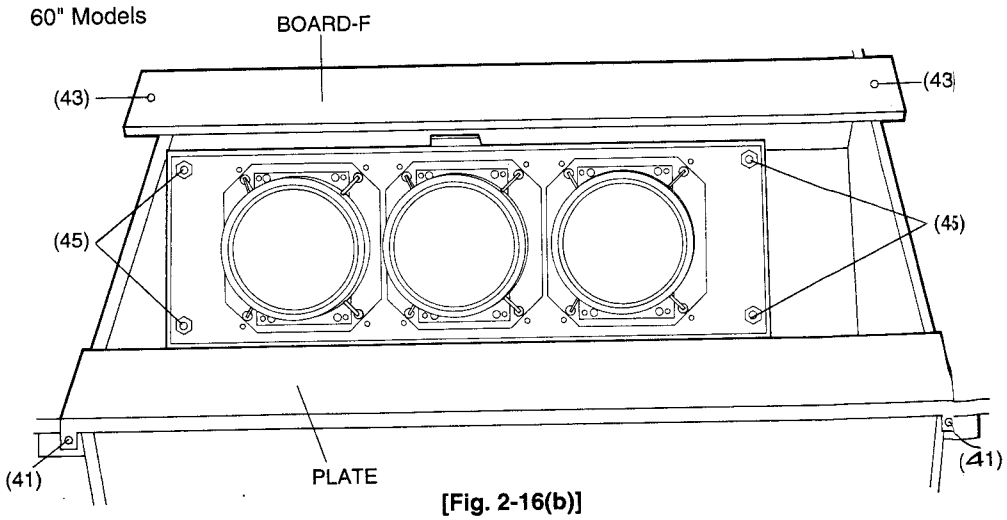
If the Anode Cap is damaged during removal, a new H.V. cable and Anode Cap Harness Assembly must be installed. This assembly includes the H.V. leads and Anode Caps for ALL THREE CRTs.

REMOVAL OF CRT
50" and 60"
Models

1. Remove the SPEAKER GRILLE. [Refer to Fig. 2-1(c)]
2. Remove the BAFFLE BOARD ASSEMBLY. [Refer to Fig. 2-1(d)]
3. Remove the SCREEN ASSEMBLY. [Refer to Fig. 2-2(a), (b)]
4. Remove the BACK COVER-D ASSEMBLY. [Refer to Fig. 2-5][50"]
   Remove the BACK BOARD. [Refer to Fig. 2-6][60"]
5. Remove the BACK COVER-U ASSEMBLY. [Refer to Fig. 2-7][50"]
   Remove the BACK COVER. [Refer to Fig. 2-8][60"]
6. Remove 2 screws (40) retaining the PLATE. [Fig. 2-16(a)][50"]
   Remove 2 screws (41) retaining the PLATE. [Fig. 2-16(b)][60"]
7. Remove the 3 PCB-CRT.
8. Remove 2 screws (42) retaining the BOARD-F. [Fig. 2-16(a)][50"]
   Remove 2 screws (43) retaining the BOARD-F. [Fig. 2-16(b)][60"]
9. Remove 4 hex-nuts (44) retaining the OPTICAL UNIT. [Fig. 2-16(a)][50"]
   Remove 4 hex-nuts (45) retaining the OPTICAL UNIT. [Fig. 2-16(b)][60"]



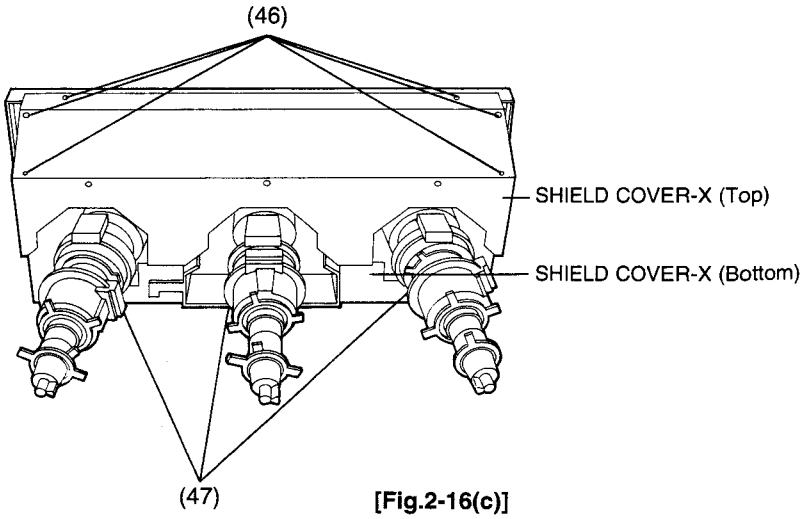
[Fig. 2-16(a)]



[Fig. 2-16(b)]

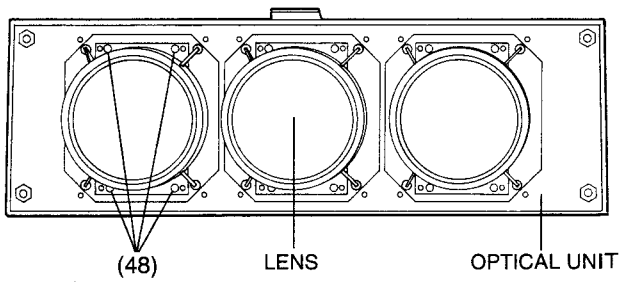
REMOVAL OF CRT
50" and 60"
Models

10. Remove 6 screws (46) retaining the SHIELD COVER-X (Top). [Fig.2-16(c)]
11. Remove 3 screws (47) retaining the SHIELD COVER-X (Bottom). [Fig.2-16(c)]

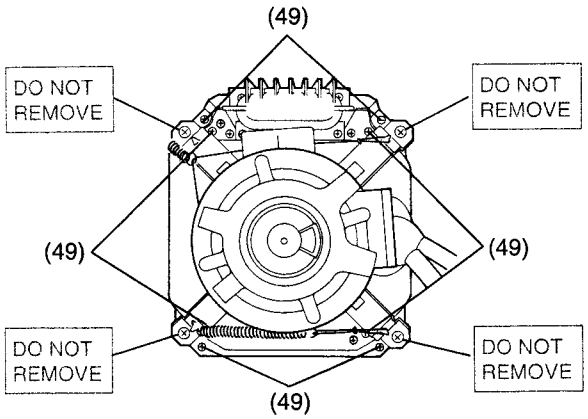


[Fig.2-16(c)]

12. Remove 4 screws (48) retaining the INNER LENS of the CRT to be replaced. [Fig.2-16(d), Fig.2-17(a)]
13. To remove the CRT mounted as shown in Fig. 2-16(e), remove 8 screws (49).
NOTE: DO NOT remove RED screws.



[Fig.2-16(d)]



[Fig.2-16(e)]

REMOVAL OF CRT 50" and 60" Models

14. Remove the deflection yoke assembly, focus magnet and alignment magnet assembly from the neck of tube.
15. Disconnect the Anode Cap.
    Anode caps are secured to the CRT and sealed with a rubbery, silicone based compound. The seal must be broken and excess compound stripped from the anode area before the anode cap can be successfully removed.

CAUTION !

High voltage should be completely discharged prior to anode cap removal. Since all three CRT receive high voltage from a single cable, discharge simultaneously by shorting the open end of the high voltage cable to chassis ground. The anode cap seal can now be safely broken by inserting a thin-bladed tool between the edge of the anode cap and the CRT rotating the tool around the outer edge of the anode cap.

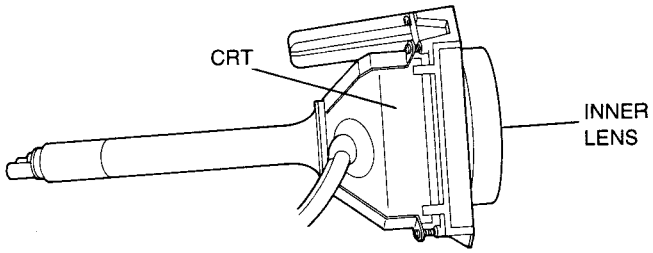
NOTE:

Do NOT damage the Anode cap during removal! Due to safety regulations, the length of the original H.V. cable is not long enough to permit the installation of a replacement anode cap. Consequently, a replacement anode cap is NOT packaged with the replacement CRT.

If the Anode Cap is damaged during removal, a new H.V. cable and Anode Cap Harness Assembly must be installed. This assembly includes the H.V. leads and Anode Caps for ALL THREE CRTs.

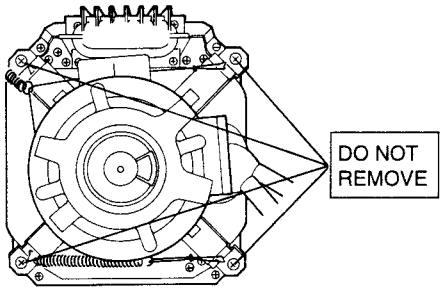
INSTALLATION OF CRT

The service replacement CRT is supplied as an assembly, comprised of the CRT and the inner lens, with the space between them filled with ethylene glycol. Care should be taken during handling and installation to prevent shock from disrupting the seal or alignment between the CRT and inner lens. [Fig.2-17(a)]



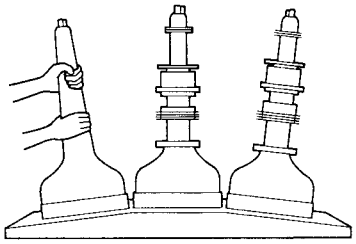
[Fig.2-17(a)]

* The CRT fixing screws should not be allowed to loosen nor should they be removed. [Fig.2-17(b)]

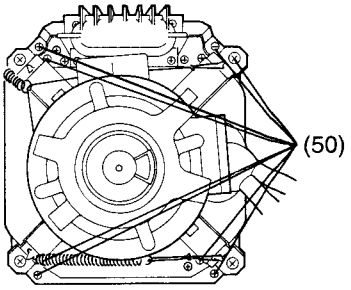


[Fig.2-17(b)]

1. Carefully position replacement CRT fully toward the front, and fasten into place, using 8 screws (50) as shown in Fig. 2-17(c) or Fig. 2-17(d).



[Fig.2-17(c)]

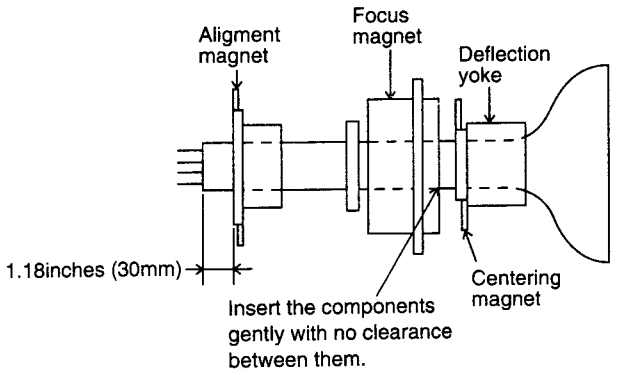


[Fig.2-17(d)]

2. Mount deflection yoke, focus magnet assembly and alignment magnet assembly on the CRT neck.
3. Strip the old silicone glue from the inner surface of the anode cap with a knife, taking care not to scratch it.

INSTALLATION OF CRT

4. Prior to connecting the anode cap, apply an even coat of the sealant compound to the anode area of the CRT and the inside edges of the anode cap. Make sure the anode and the metal connector of the anode cap are not contaminated by the sealant when the anode cap is installed.
5. Insert the clip of the anode cap into the top of the anode terminal on the new CRT, and fix the cap in place. Following the connection of the anode cap, apply another thin coat of sealant around the outside edges of the anode cap assuring a positive seal.
6. Reinstall the screws on inner lens removed in step 13, removal of CRT. [40", 45"]
   Reinstall the screws on inner lens removed in step 12, removal of CRT. [50", 60"]
7. Assemble the shield cover removed in steps 11 and 12, removal of CRT. [40", 45"]
   Assemble the shield cover removed in steps 10 and 11, removal of CRT. [50", 60"]
8. Insert the OPTICAL UNIT in the cabinet.
9. Insert the BOARD-F removed in step 9, removal of CRT. [40", 45"]
   Insert the BOARD-F removed in step 8, removal of CRT. [50", 60"]
10. Insert the BRACKET-X removed in step 7, removal of CRT. [40"]
11. Insert the PLATE removed in step 6, removal of CRT.
12. Insert the BACK COVER-U ASSEMBLY removed in step 5, removal of CRT. [40", 45", 50"]
    Insert the BACK COVER removed in step 5, removal of CRT. [60"]
13. Insert the BACK COVER-D ASSEMBLY removed in step 4, removal of CRT. [40", 45", 50"]
    Insert the BACK BOARD removed in step 4, removal of CRT. [60"]
14. Insert the high voltage wire into HV-BLOCK.
15. Install the PCB-CRT.
16. Position deflection yoke, focus magnet assembly, and centering magnet together so that there is no space between these parts. [Fig. 2-17(e)]
17. Position the Alignment assembly on the neck of the CRT so that the distance between the alignment magnet and the base of the tube is 1.18 inches (30mm). [Fig. 2-17(e)]



[Fig. 2-17(e)]

18. Reclamp the lead wires in their original position.

Ajustment of after replacing the CRT

When replacing the CRT, perform following adjustments.

- CRT Circuit adjustment.
  (1) CRT cut off (No.18 on Page 33)
  (2) White Balance (No.19 on Page 34)
- Static convergence adjustment (No.28 on Page 39)
- Focus adjustment (No.25 on Page 37)
- DYNAMIC CONVERGENCE adjustment (No.29 on Page 40)

Electrical Adjustment

Perform only the alignment. If proper equipment is not available, do not attempt an alignment.

■ Measuring equipment and Jigs

- Oscilloscope (Unless otherwise specified in particular, use 10:1 probes.)
- Signal generator
- Frequency counter
- Sweep signal generator
- Direct current voltmeter
- Electrical tools

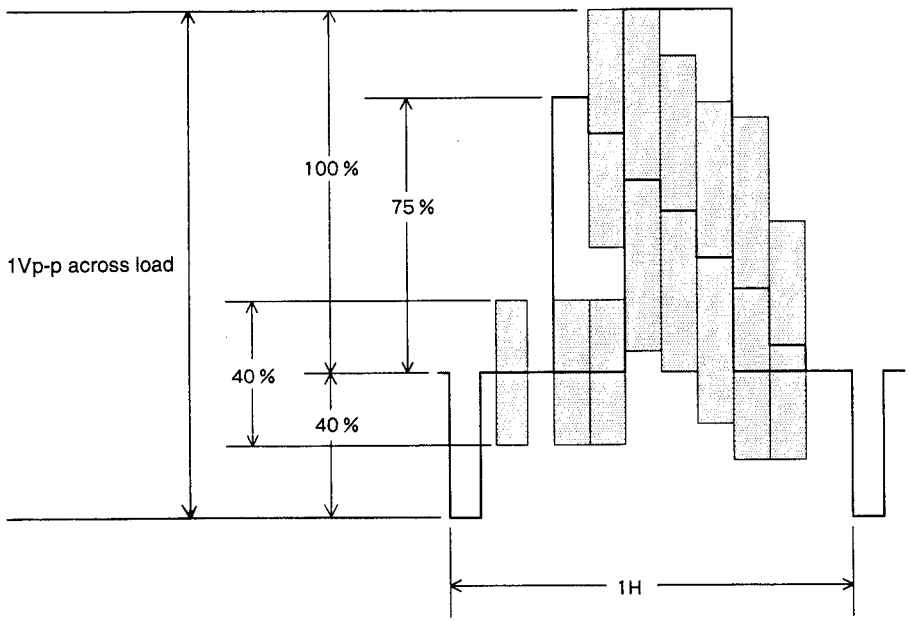
■ Test Signal

1). Monoscope signal

When you have no monoscope signal source for adjustment, connect the unit to a VCR and play an alignment tape (Monoscope).

2). Color bar signal

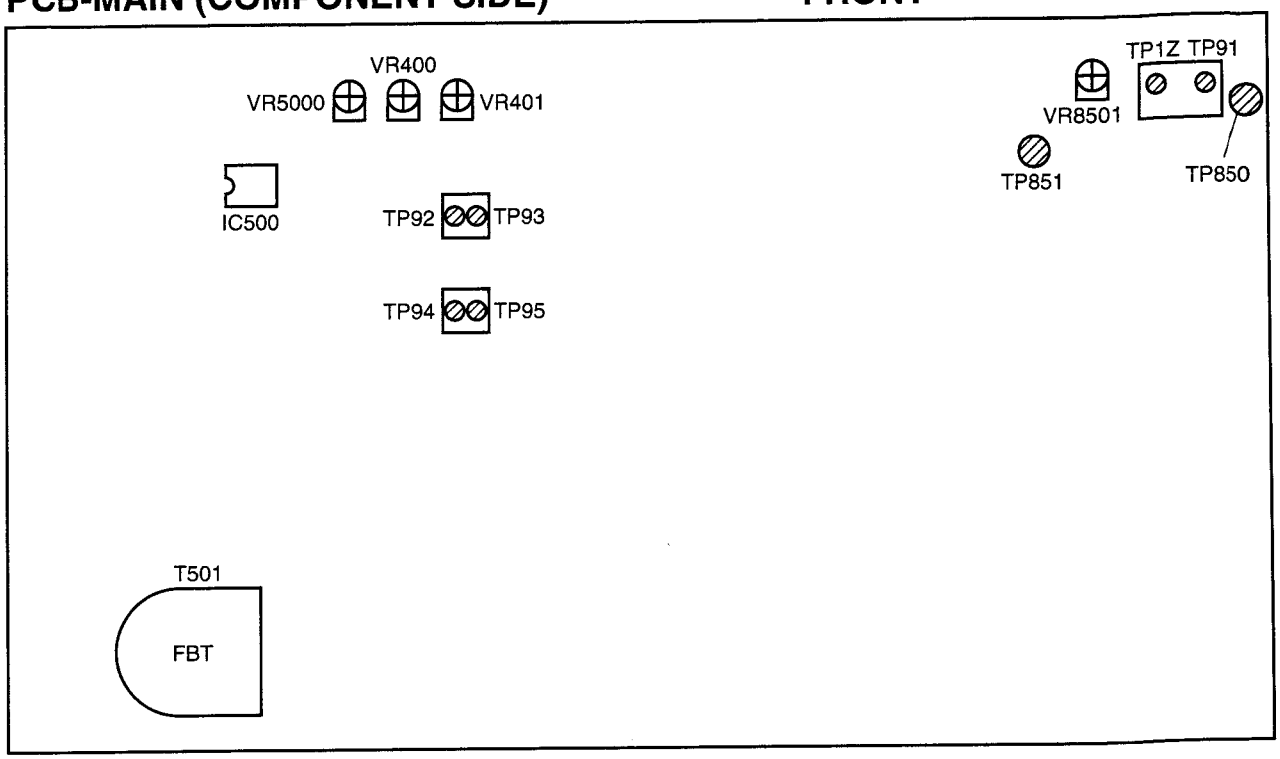
In this manual, unless otherwise specified in particular, use color bar signal in specifications below.



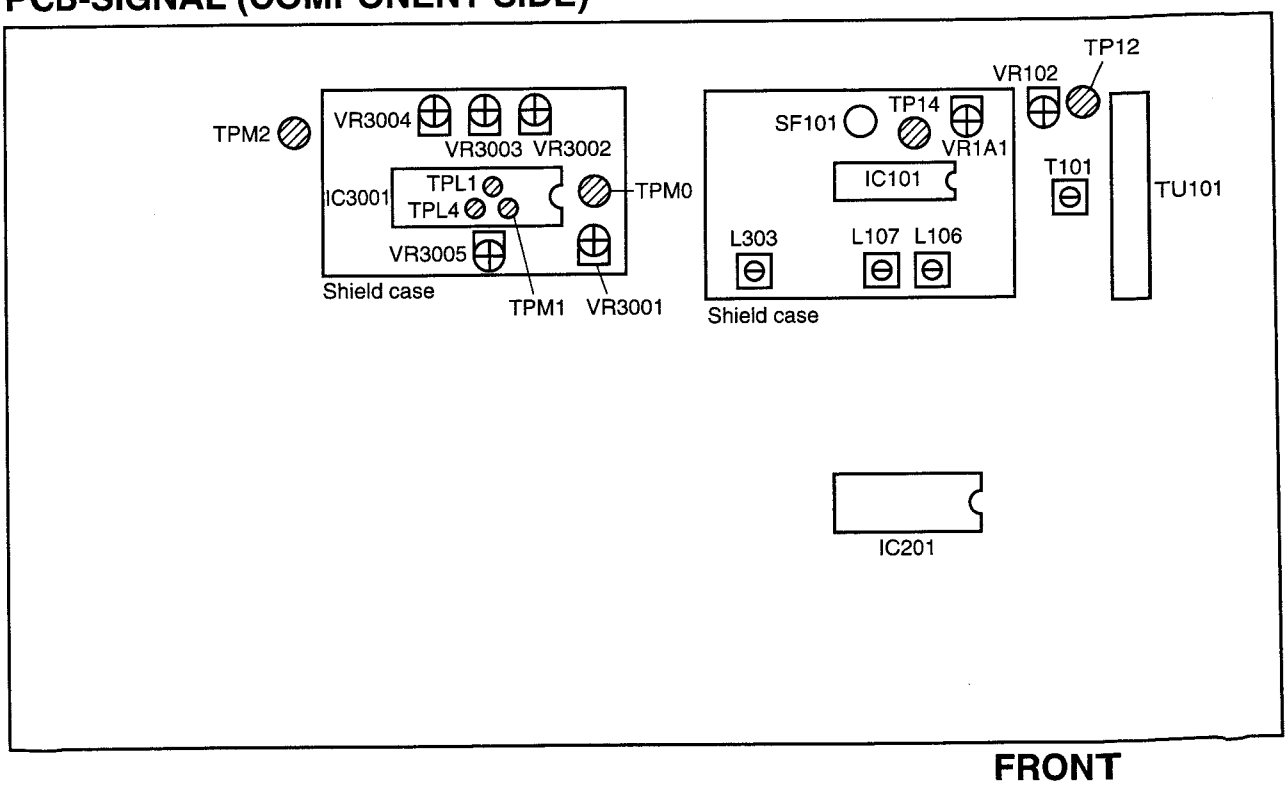
NTSC Split-field color bars with 100% window

LOCATION OF TEST POINTS AND ADJUSTMENTS

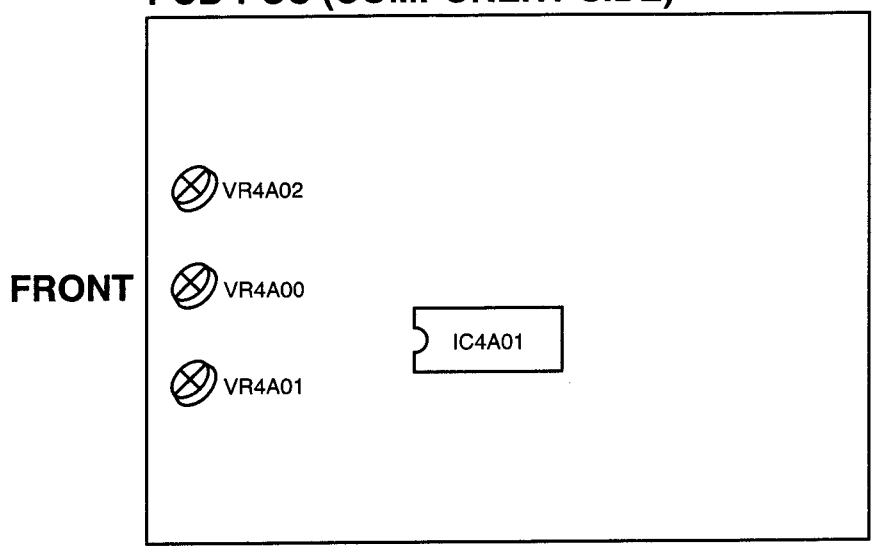
PCB-MAIN (COMPONENT SIDE)



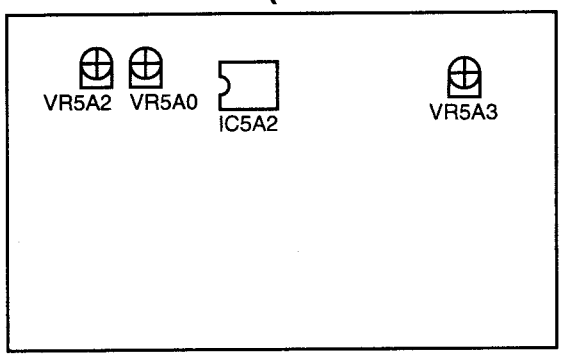
PCB-SIGNAL (COMPONENT SIDE)



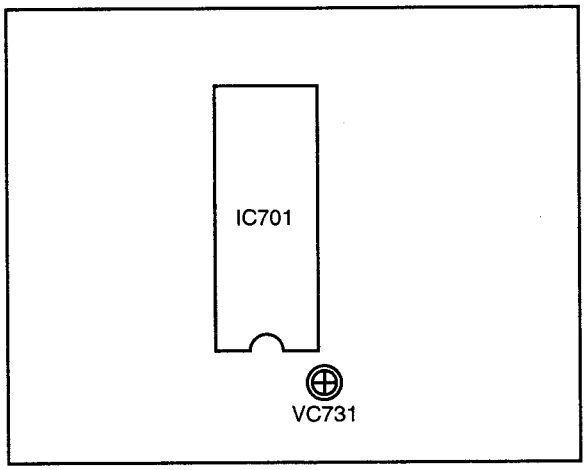
PCB-PCC (COMPONENT SIDE)



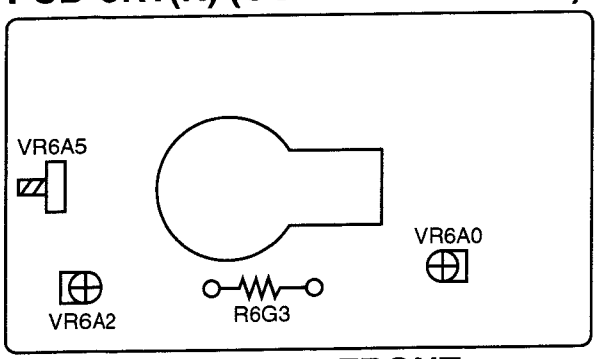
PCB-SIDE-PIN (COMPONENT SIDE)



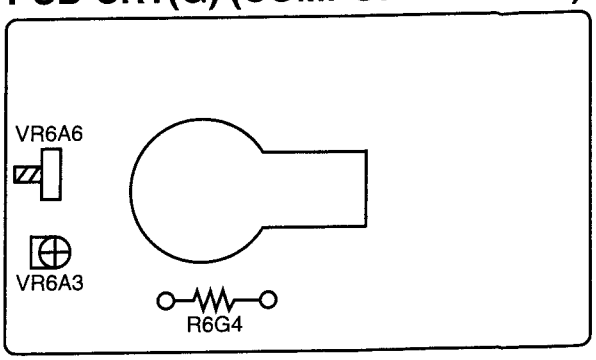
PCB-FS (COMPONENT SIDE) ⇧UP SIDE



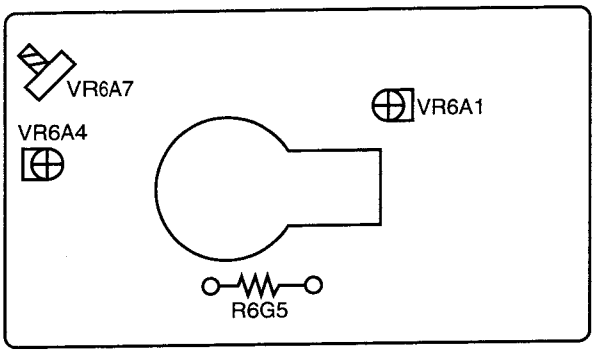
PCB-CRT(R) (COMPONENT SIDE)



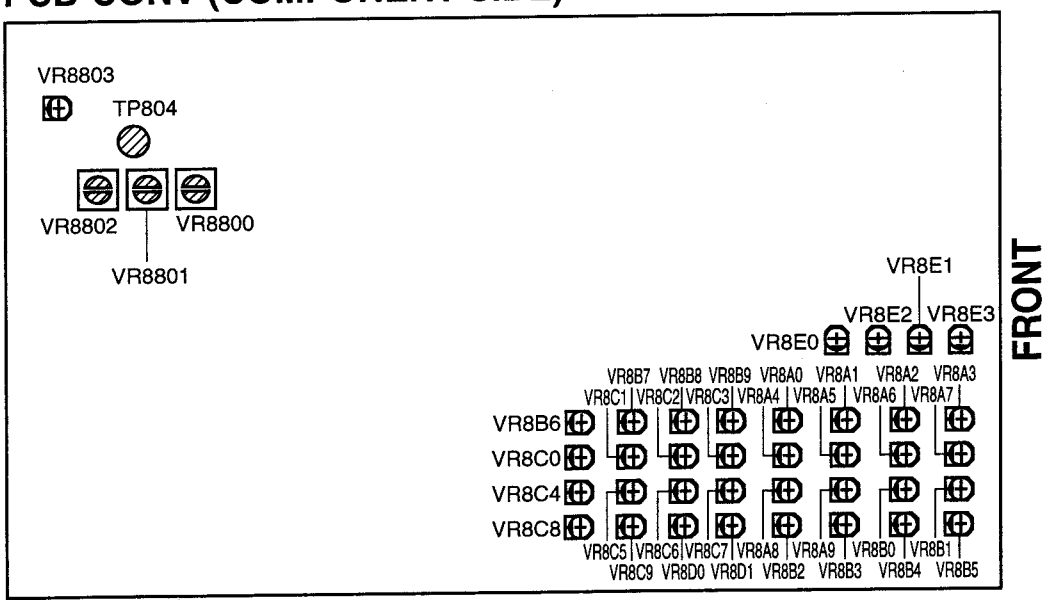
PCB-CRT(G) (COMPONENT SIDE)



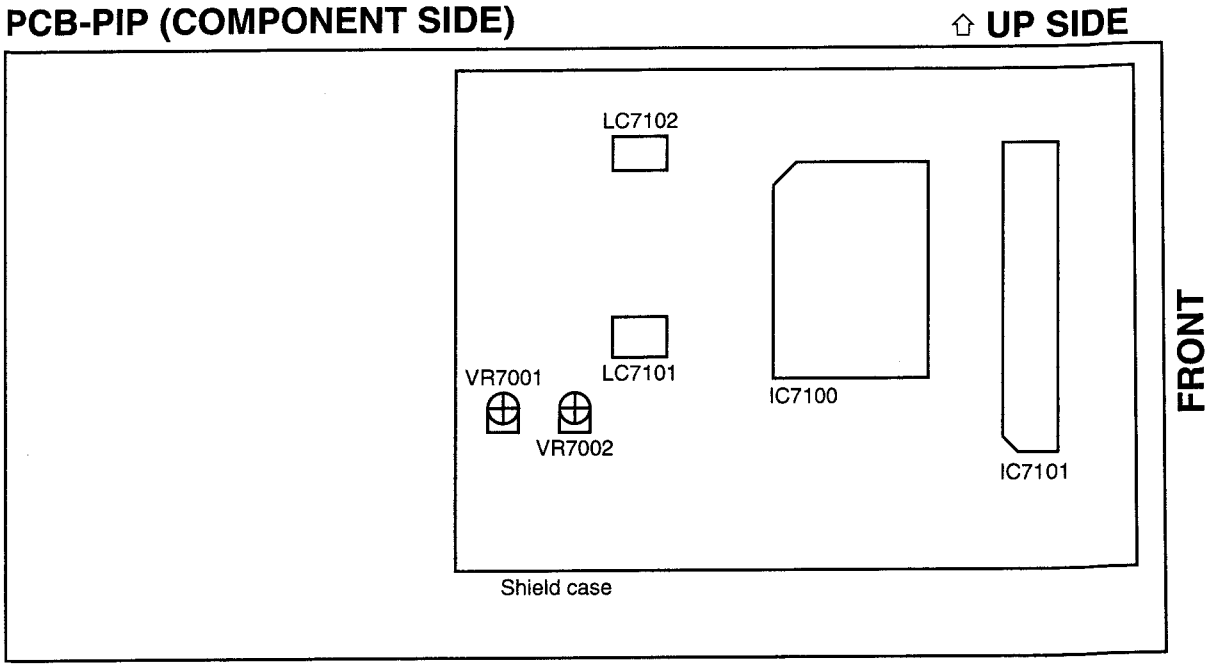
PCB-CRT(B) (COMPONENT SIDE)



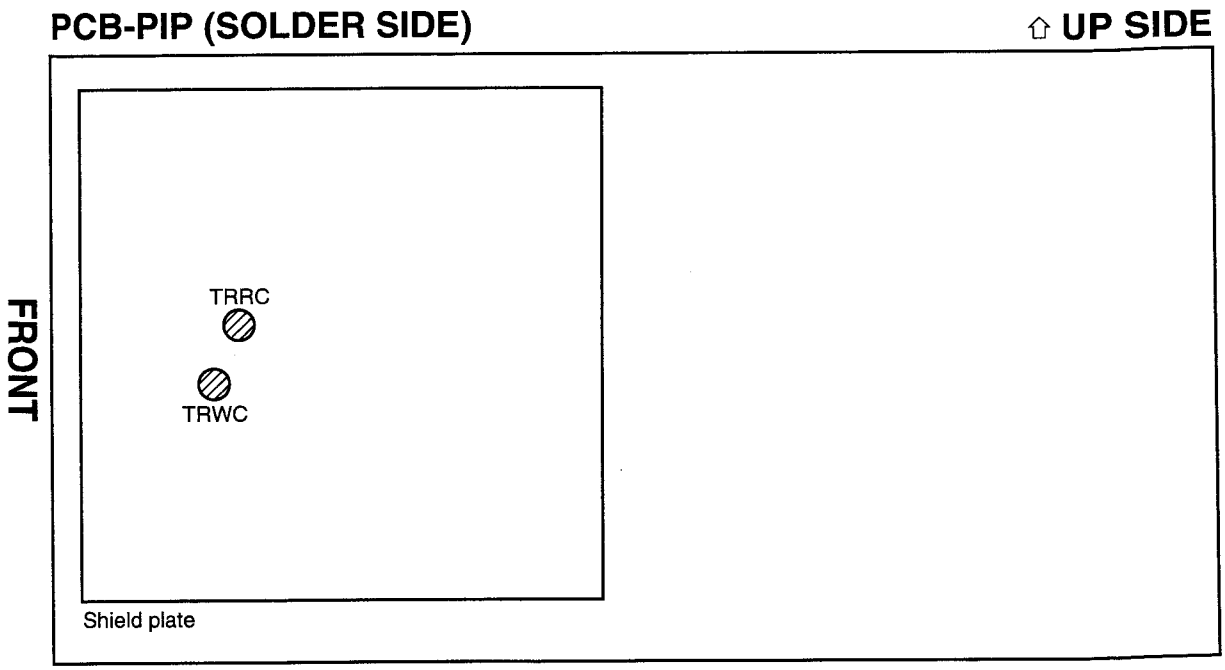
PCB-CONV (COMPONENT SIDE)



PCB-PIP (COMPONENT SIDE)



PCB-PIP (SOLDER SIDE)



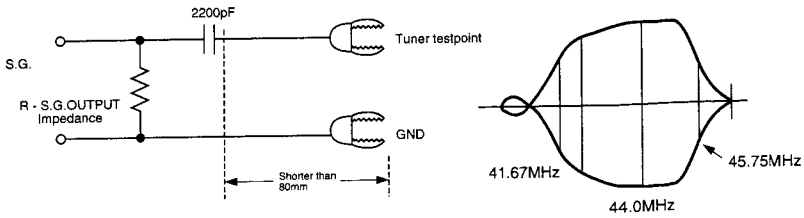
[IF Circuit]
1. VCO Free run frequency

Adjustment purpose Setting VCO free run frequency to IF of picture.

Symptom when incorrectly adjusted Impossible setting to the normal frequency when tuning.

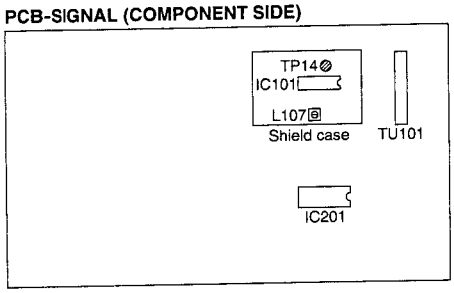
Measuring instrument	Oscilloscope
Test point	IC101 pin (28)
EXT trigger	···
Measurement range	DIV 20mV TIM 2ms
Input signal	Sweep signal (90±2dBμ/load)
Input terminal	Tuner testpoint

1. Select VHF-High band.
2. Connect IC101 pin (25) to the ground via a capacitor (22μF, 16V or more).
3. Connect a sweep generator to the Tuner testpoint using a High pass filter, as shown in Figure. (Use the shield case of Tuner Unit for the ground.)
4. Connect a DC Power supply to TP14.
5. Adjust the voltage of TP14 so that the amplitude of the waveform on the oscilloscope is 1.2Vp-p.
6. Adjust L107 so that the zero beat point is aligned with 45.75MHz marker on the oscilloscope.



High pass filter

PCB-SIGNAL (COMPONENT SIDE)



7. Remove the Power supply from TP14 and connect TP14 to the ground.
8. Remove the Capacitor from IC101 pin (25).
9. Measure the voltage on IC101 pin (25).
10. Open TP14.
11. Set the output of a generator to 45.75MHz sine wave and connect to the tuner testpoint using the circuit, as shown in Figure.
12. Adjust L107 so that the voltage reading on IC101 pin (25) is the value within ±30mV the reading measured in Item 2 (VIF over all response).

2. VIF over all response

Adjustment purpose Frequency characteristics of VIF detection circuit.

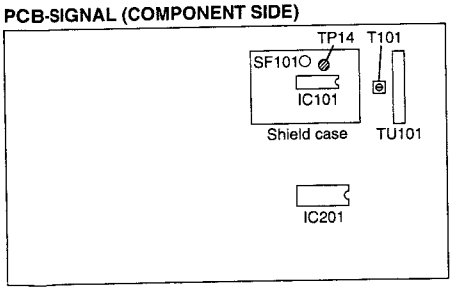
Symptom when incorrectly adjusted Too sharp or too soft picture.

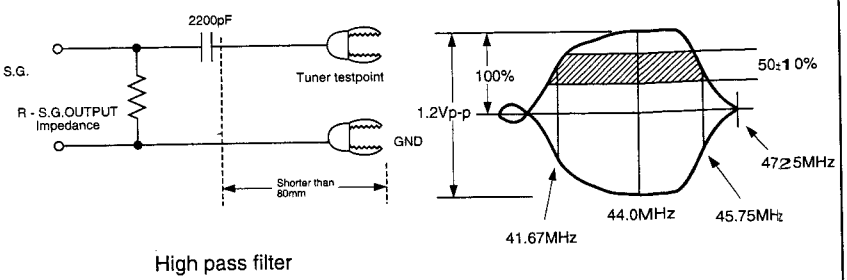
Measuring instrument	Oscilloscope
Test point	IC101 pin (28)
EXT trigger	···
Measurement range	DIV 20mV TIM 2ms
Input signal	Sweep signal (90±2dBμ/load)
Input terminal	Tuner testpoint

1. Select VHF-High band.
2. Connect a capacitor (50V, 2200pF) across SF101 pins 1 and 4.
3. Connect a sweep generator to the Tuner testpoint using a High pass filter, as shown in Figure. (Use the shield case of Tuner Unit for the ground.)
4. Connect a DC Power supply to TP14.
5. Observe the waveform at IC101 pin (28).
6. Adjust the voltage of TP14 so that the amplitude of the waveform on the oscilloscope is 1.2Vp-p.
7. Adjust T101 to tune the trap frequency to 45.75MHz.
8. Remove a capacitor from SF101 pins (1) and (4).
9. Adjust the IF coil in the tuner unit so that the peak amplitude of the waveform on the oscilloscope is around 44.0MHz.
   Make sure that the amplitude at 41.67MHz and 45.75MHz are almost the same as shown the illustration.

Note: Make sure that there is no dip at 44.0MHz.

PCB-SIGNAL (COMPONENT SIDE)





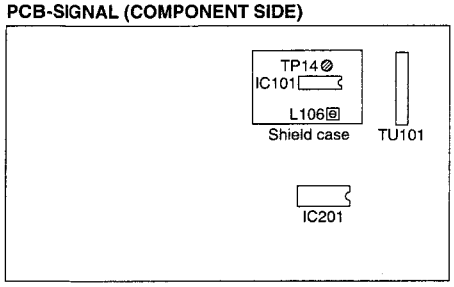
High pass filter

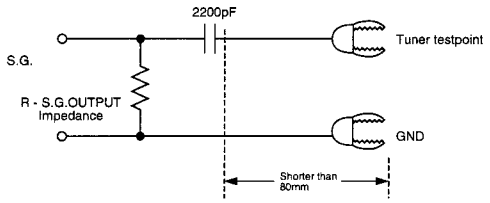
3. AFT	**Adjustment purpose** Setting frequency to the specified point of AFT circuit. **Symptom when incorrectly adjusted** Too sharp or too soft picture.

Measuring instrument	DC Voltmeter
Test point	IC101 pin (16)
EXT trigger	···
Measurement range	···
Input signal	Sinewave signal (45.75MHz, 90dBμ)
Input terminal	Tuner testpoint

* This adjustment must follow Item 1 (VCO Free run frequency).
1. Make sure that TP14 and IC101 pin (25) are opened.
2. Connect the generator to the tuner testpoint using a High pass filter, as shown in Figure.
3. Observe the DC voltage at IC101 pin (16).
4. Adjust L106 so that the DC voltmeter reads DC 4.5±0.1V.

PCB-SIGNAL (COMPONENT SIDE)





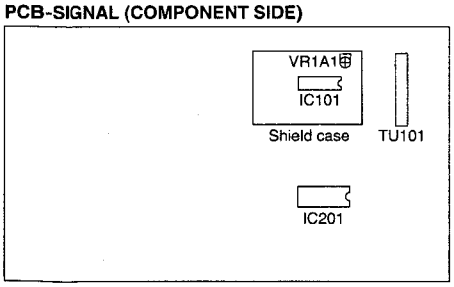
High pass filter

[AGC circuit] 4. RF AGC	**Adjustment purpose** Setting RF AGC to optimum point for RF reception. **Symptom when incorrectly adjusted** Poor S/N ratio or cross modulation.

Measuring instrument	···
Test point	···
EXT trigger	···
Measurement range	···
Input signal	RF signal (program)
Input terminal	RF IN terminal

* This adjustment should be done when there is cross modulation or the picture tears horizontally.
* This adjustment must follow Item 3 (AFT).
1. Supply an RF signal (program).
2. Turn on AFT.
3. Adjust VR1A1 until the symptom disappears.

PCB-SIGNAL (COMPONENT SIDE)

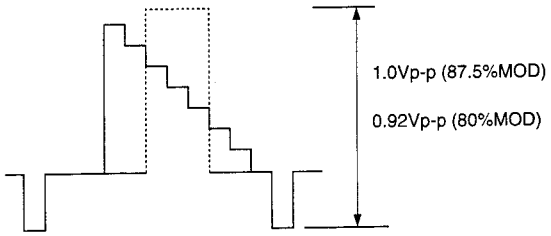


5. Video level	**Adjustment purpose** Setting tuner video level. **Symptom when incorrectly adjusted** Too bright or too dark picture when receiving broadcast programs.

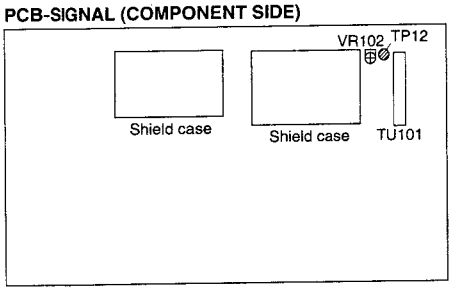
Measuring instrument	Oscilloscope
Test point	T P 1 2
EXT trigger	···
Measurement range	DIV 20mV TIM 10μs
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

* This adjustment must follow Item 3 (AFT).

1. Supply an RF signal (color bar).
2. Observe the waveform at TP12.
3. Adjust VR102 so that the amplitude of the waveform is 1.0Vp-p. (87.5%MOD) or 0.92Vp-p (80.0%MOD)



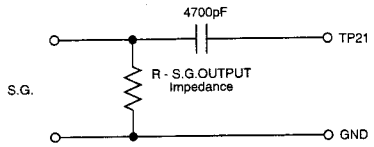
PCB-SIGNAL (COMPONENT SIDE)



[Audio Circuit] 6. FM Multiplex audio detect	**Adjustment purpose** The best demodulation of the FM signal. **Symptom when incorrectly adjusted** Sound distortion or impossible SAP mode detection.

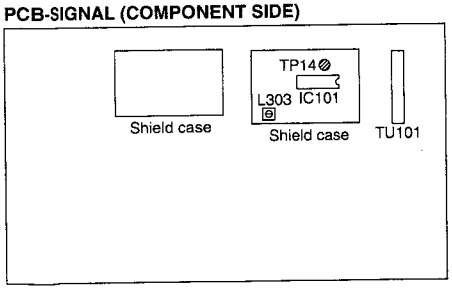
Measuring instrument	DC Voltmeter
Test point	T P 2 2
EXT trigger	···
Measurement range	...
Input signal	Sinewave signal (4.5MHz, 90dBμ)
Input terminal	IC101 pin ⑮

1. Supply a DC 3±0.3V to TP14.
2. Connect a signal generator (0% MOD.) to IC101 pin ⑮ using a High pass filter, as shown in Figure.
3. Observe the DC voltage at TP22.
4. Adjust L303 so that a DC voltmeter reads DC 4.5±0.1V.



High pass filter

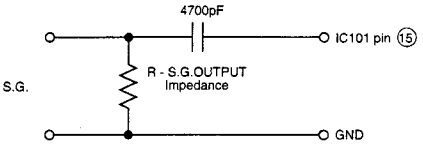
PCB-SIGNAL (COMPONENT SIDE)



7. Composite level	**Adjustment purpose** Setting input level of audio detection signal to normal. **Symptom when incorrectly adjusted** Variable output level or mulfunction of STEREO mode display.

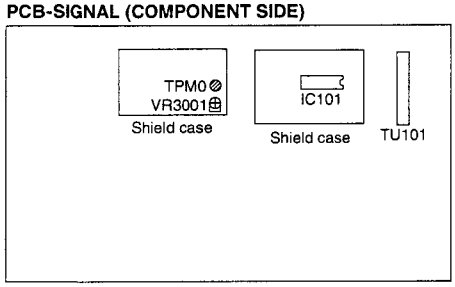
Measuring instrument	Oscilloscope
Test point	T P M 0
EXT trigger	···
Measurement range	DIV 20mV TIM 1ms
Input signal	FM signal (4.5MHz, 90dBμ)
Input terminal	IC101 pin (15)

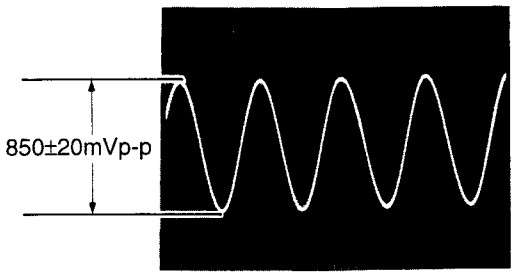
1. Supply an FM modulated signal (400Hz, 100%MOD.) to IC101 pin (15) using a High pass filter, as shown in Figure.
2. Observe the waveform at TPM0.
3. Adjust VR3001 so that the amplitude of the waveform on the oscilloscope is 850±20mVp-p.



High pass filter

PCB-SIGNAL (COMPONENT SIDE)



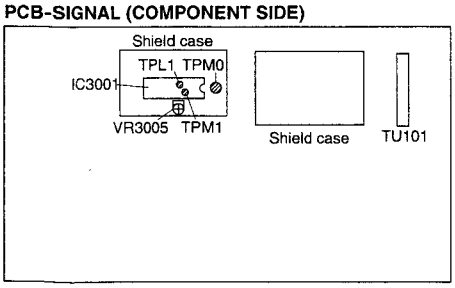


8. Stereo VCO	**Adjustment purpose** Setting oscillator of multiplex IC to the reference frequency. **Symptom when incorrectly adjusted** Impossible STEREO mode detection.

Measuring instrument	Frequency counter
Test point	T P M 1
EXT trigger	···
Measurement range	···
Input signal	···
Input terminal	···

1. Connect TPL1 to IC3001 pin (12) via a resistor (1/4W 100kΩ).
2. Connect the TPM0 to the ground via a capacitor (2200μF, 16V or more).
3. Observe the frequency at TPM1.
4. Adjust VR3005 for 15.73±0.05kHz reading on the frequency counter.
5. Open TPL1 and IC3001 pin (12), and remove the capacitor.

PCB-SIGNAL (COMPONENT SIDE)

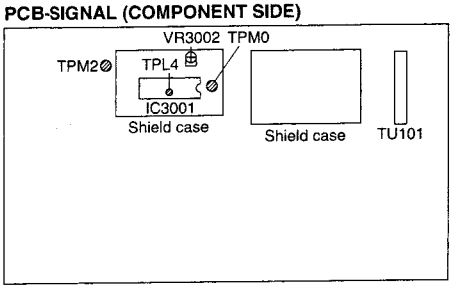


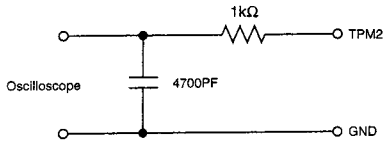
9. Filter	**Adjustment purpose** Filter for pilot signal. **Symptom when incorrectly adjusted** Poor S/N ratio of signal for STEREO or SAP mode.

Measuring instrument	Oscilloscope
Test point	T P M 2
EXT trigger	···
Measurement range	DIV 20mV TIM 50μs
Input signal	Sinewave signal (15.73kHz, 100mVrms)
Input terminal	TPL4

1. Connector TPM0 to the ground via a capacitor (2200μF, 16V or more).
2. Short-circuit ground and pin (27) of IC3001.
3. Set the signal generator output to 15.73kHz, 100mVrms sine wave and connect to TPL4.
4. Observe the waveform at TPM2 using a Low pass filter as shown in Figure.
5. Adjust VR3002 so that the amplitude of the waveform on the oscilloscope is minimum.
6. Open TPL4.

PCB-SIGNAL (COMPONENT SIDE)





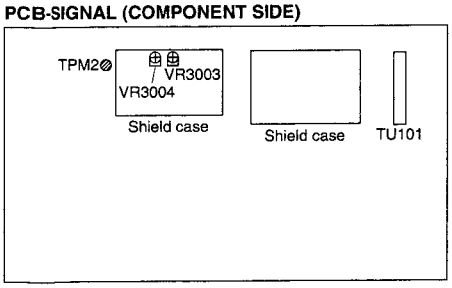
Low pass filter

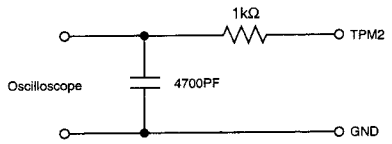
10. Separation and Spectral	**Adjustment purpose** Separating left and right audio signal. **Symptom when incorrectly adjusted** One signal will be mixed with the other.

Measuring instrument	Oscilloscope
Test point	T P M 2
EXT trigger	···
Measurement range	DIV 10mV TIM 2ms
Input signal	RF signal (multiplex audio)
Input terminal	RF IN terminal

1. Set a multiplex audio signal generator to L-CH only, NR ON, PILOT ON, SAP OUT OFF, TELEMETRY OUT OFF with mudulation at 300Hz, −11dBm.
2. Set an RF modulator to MONO, NR OFF, PILOT OFF, SAP OUT OFF, TELEMETRY OUT OFF, and set to AUDIO mode with 25kHz deviation.
3. Set the output level of an RF modulator to 0dBm.
4. Observe the waveform at TPM2 using a Low pass filter, as shown in Figure.
5. Adjust VR3003 so that an amplitude of the waveform (300Hz) on an oscilloscope is minimum.
6. Change the modulating signal from 300Hz to 3kHz.
7. Adjust VR3004 so that an amplitude of the waveform (3kHz) on an oscilloscope is minimum.
8. Repeat the above steps once more.

PCB-SIGNAL (COMPONENT SIDE)





Low pass filter

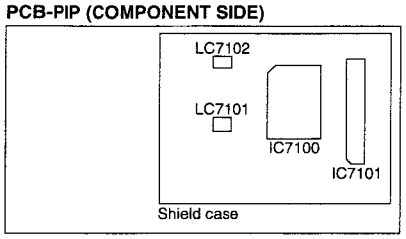
[PIP Circuit] 11. Write clock and Read clock	**Adjustment purpose** Clock frequency when writing or reading sub picture. **Symptom when incorrectly adjusted** Shifted sub picture, or sub picture does not appear.

Measuring instrument	Frequency counter
Test point	T R W C T R R C
EXT trigger	···
Measurement range	...
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

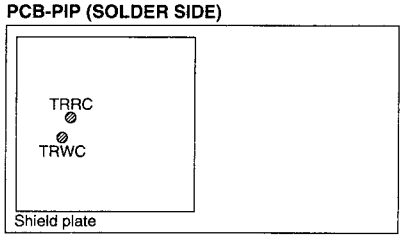
* Preheat the set for two minutes or more.

1. Display the same picture for main and sub picture with PIP button on the remote hand unit.
2. Press the VIDEO DOWN button.
3. Observe the frequency at TRWC. (Use the shield plate for ground.)
4. Adjust LC7102 so that the frequency is 13.81±0.01MHz.
5. Observe the frequency at TRRC. (Use the shield plate for ground.)
6. Adjust LC7101 so that the frequency is 31.3±0.1MHz.
7. Press the VIDEO UP button.

PCB-PIP (COMPONENT SIDE)



PCB-PIP (SOLDER SIDE)

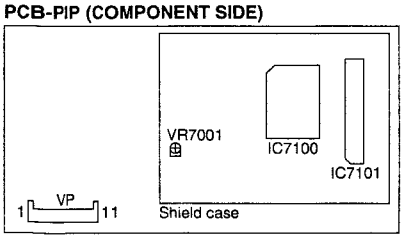


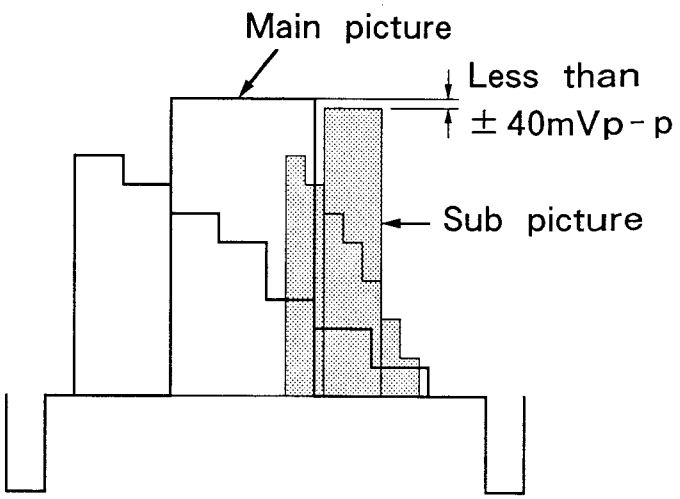
12. Y-Level	**Adjustment purpose** Y-level of main and sub picture. **Symptom when incorrectly adjusted** Different brightness between main and sub picture.

Measuring instrument	Oscilloscope
Test point	Pin (11) of connector VP
EXT trigger	···
Measurement range	DIV 10mV TIM 10μs
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

1. Display the same color bar for main and sub picture with PIP button on the remote hand unit.
2. Observe the waveform at pin (11) of connector VP.
3. Adjust VR7001 so that the amplitude of main and sub pictures level differs less than 40mVp-p.

PCB-PIP (COMPONENT SIDE)





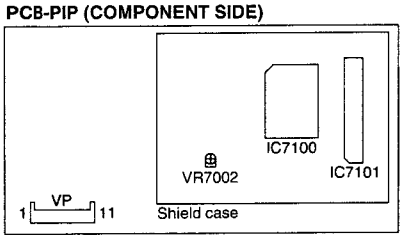
13. Sub chroma gain	**Adjustment purpose** Color level between main and sub picture. **Symptom when incorrectly adjusted** Different color level between main and sub picture.

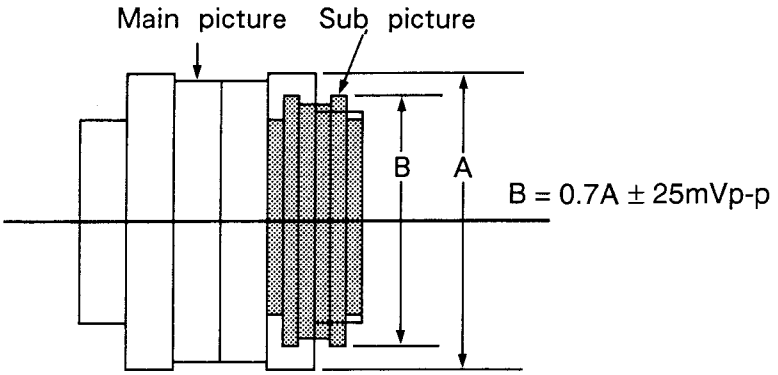
Measuring instrument	Oscilloscope
Test point	Pin ⑨ of connector VP
EXT trigger	···
Measurement range	DIV 5mV TIM 10μs
Input signal	Video signal (color bar)
Input terminal	VIDEO IN terminal

1. Display the same color bar for main and sub picture with PIP button on the remote hand unit.
2. Set VR7002 to the center position.
3. Observe the waveform at pin 9 of connector VP.
4. Adjust VR7002 so that the chroma amplitude of main and sub pictures differ less than 25mVp-p.

Note: Adjustment Item 14 (Sub TINT, Y-DELAY-WRITE) must be performed immediately after this one.

PCB-PIP (COMPONENT SIDE)





14. Sub TINT, Y-DELAY-WRITE	**Adjustment purpose** Hue between main and sub picture. **Symptom when incorrectly adjusted** Different hue between main and sub picture and color smear in contour.

Measuring instrument	···
Test point	···
EXT trigger	···
Measurement range	···
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

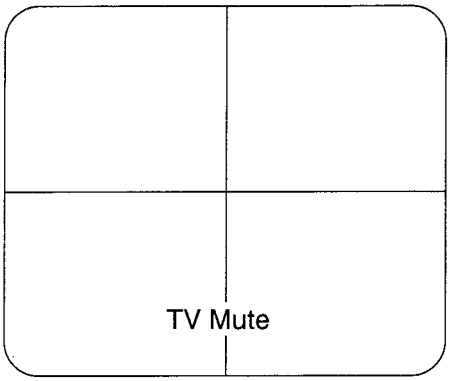
* Preheat the set for a minute or more.

1. Press the MENU button on the remote control.
2. Press the "0", "0" and "7" buttons.
3. Press the PIP button.
4. Press the ADJUST buttons on the remote control to set both hue of the background image and the reduced image in PIP mode to the same.
5. Press the VIDEO UP button four times.
6. Press the ADJUST UP button and keep it until "OF" mark appears.
7. Press the MENU button twice.

15. Character position	**Adjustment purpose** Character positions on screen. **Symptom when incorrectly adjusted** Characters shifted to the left, or the right

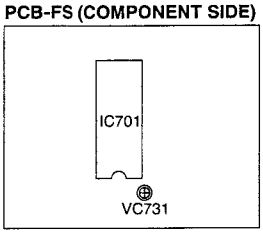
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (center cross)
Input terminal	VIDEO IN terminal

1. Press Mute button on the remote hand unit, and display "TV Mute".
2. Adjust VC731 so that the left side of the "U" is at the center of the screen width. (See Figure below)



Figure

PCB-FS (COMPONENT SIDE)

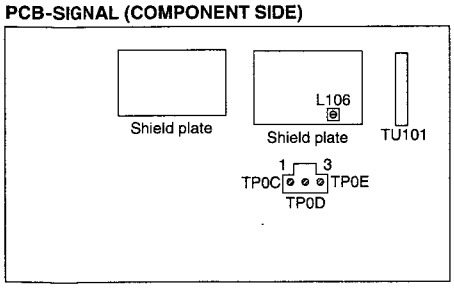


16. AFT2	**Adjustment purpose** Setting frequency to the specified point of AFT circuit. **Symptom when incorrectly adjusted** Too sharp or too soft picture, or beats in picture.

Measuring instrument	DC Voltmeter
Test point	T P O C
EXT trigger	...
Measurement range	...
Input signal	RF signal (color bar)
Input terminal	RF IN terminal

1. Supply an RF signal (color bar).
2. Short-circuit TPOE and TPOD.
3. Observe the DC voltage at TPOC.
4. Adjust L106 so that the DC voltmeter reads 2.2±0.1V.

PCB-SIGNAL (COMPONENT SIDE)



17. High voltage rectifying

Adjustment purpose CRT anode voltage.

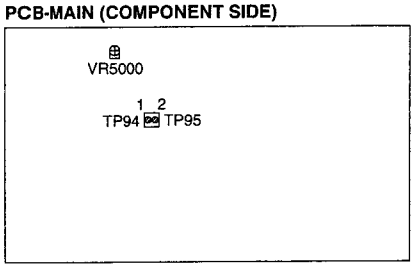
Symptom when incorrectly adjusted Too dark picture or X-ray protector operating.

Measuring instrument	DC Voltmeter
Test point	(+) lead: TP94 (–) lead: TP95
EXT trigger	···
Measurement range	···
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

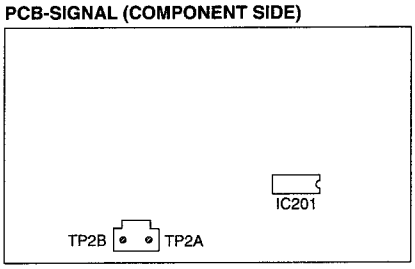
1. VIDEO FUNCTION are RESET.
2. Supply a video signal (mono scope).
3. Observe the DC voltage at TP94 and TP95 (Plus lead to TP94).
4. Short-circuit TP2A and TP2B.
5. Adjust VR5000 so that the voltage is 0.25±0.03V.
6. Open-circuit TP2A and TP2B.

Note: Adjustment 18 (CRT cut off) must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)



18. CRT cut off

Adjustment purpose Point of electron beam cut off for each electron gun.

Symptom when incorrectly adjusted Colored monochrome picture. Too bright or too dark picture.

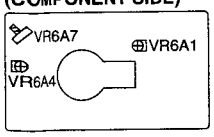
Measuring instrument	Oscilloscope
Test point	T P 6 A
EXT trigger	···
Measurement range	DIV 5V TIM 10µs
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 17 (High voltage rectifying).

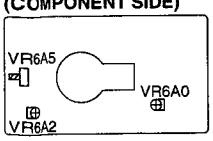
1. Short-circuit TP2A and TP2B.
2. Supply a video signal (monoscope).
3. Set BRIGHT to reset position +11 and CONTRAST to reset position by ADJUST KEY.
4. Turn VR6A5, VR6A6, VR6A7 fully counter-clockwise.
5. Set VR6A2, VR6A3 and VR6A4 to the center position.
6. Set VR6A0, VR6A1 and VR205 to the center position.
7. Observe the waveform at TP6A.
8. Adjust VR205 so that the collector voltage is 200V as shown below.
9. Set VR6A5, VR6A6 and VR6A7 to a point where one RED, GREEN or BLUE line becomes just visible.
10. Open-cicuit TP2A and TP2B.
11. Return BRIGHT and CONTRAST to the reset position.
12. Adjust VR205 so that the black level is optimum.

Note: Adjustment 19 (white balance) must be performed immediately after this adjustment.

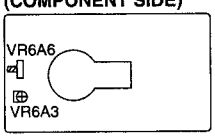
PCB-CRT(B) (COMPONENT SIDE)



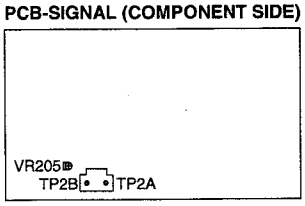
PCB-CRT(R) (COMPONENT SIDE)

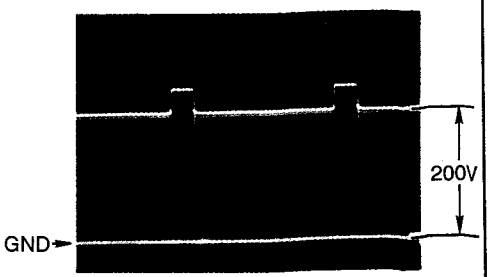


PCB-CRT(G) (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)





19. White balance	**Adjustment purpose** Point of electron beam cut off for each electron gun. **Symptom when incorrectly adjusted** Colored monochrome picture.

Measuring instrument	DC miliammeter
Test point	R6G3, R6G4, R6G5
EXT trigger	···
Measurement range	···
Input signal	Video signal (white raster)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 18 (CRT cut off).
* This adjustment must be performed only when focus is good.
If focus is not good, set the focus to good, and then perform this adjustment.

1. Supply a video signal (white raster).
2. VIDEO FUNCTION are RESET.
3. Adjust VR6A0 and VR6A1 so that the current ratios of light tubes are according to the following table.

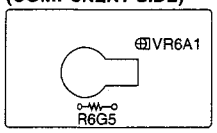
CRT	Ratio	Current
R	0.42	250μA
G	1.00	595μA
B	0.85	505μA

4. Confirm that the current of Green and blue should not over following table.

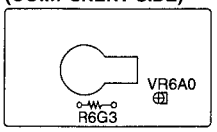
Max Current

	Current
GREEN	630μA
BLUE	580μA

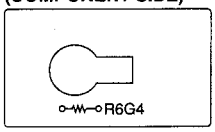
PCB-CRT(B) (COMPONENT SIDE)



PCB-CRT(R) (COMPONENT SIDE)



PCB-CRT(G) (COMPONENT SIDE)



Note: Connecting point (step 2 and 3)
RED : (+) R6G3 (Cathode side), (–) R6G3 (Tr side)
GREEN : (+) R6G4 (Cathode side), (–) R6G4 (Tr side)
BLUE : (+) R6G5 (Cathode side), (–) R6G5 (Tr side)
Note: Adjustment 20 (Video) must be performed immediately after this adjustment.

20. Video	**Adjustment purpose** The best value of beam current. **Symptom when incorrectly adjusted** Too bright or too dark picture.

Measuring instrument	DC miliammeter
Test point	(+) lead: TP91 (–) lead: TP1Z
EXT trigger	···
Measurement range	···
Input signal	Video signal (gray scale)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 19 (white balance).

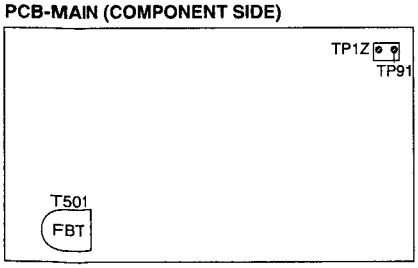
1. Supply a video signal (gray scale).
2. VIDEO FUNCTION are RESET.
3. Short-circuit TP2C and TP2D.
4. Turn VR204 to fully counter clockwise from component side.
5. Observe the DC current at TP91 and TP1Z. (Plus lead to TP91)
6. Adjust VR204 so that a DC miliammeter reads the value shown in the table below.

MODULATION	ADJUST CURRENT
	ALL MODEL
87.5%	500μA

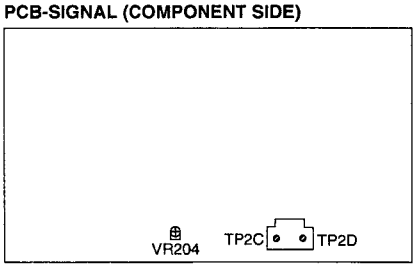
7. Open-circuit TP2C and TP2D.

Note: Adjustment 21 must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



PCB-SIGNAL (COMPONENT SIDE)



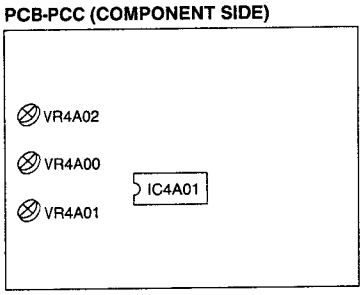
21. Top bottom PCC	**Adjustment purpose** Minimize top and bottom Pincushion distortion. **Symptom when incorrectly adjusted** Top or bottom of the picture is bowed.

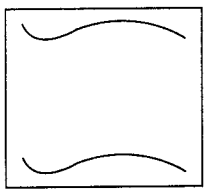
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (crosshatch)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 20 (Video).
1. Supply a video signal (crosshatch).
2. Cover the RED and BLUE lenses, producing a green monochrome picture on the screen.
3. Make sure that the horizontal center line on screen is horizontal. If it is not, turn DEFL-YOKE so that the horizontal center line on screen is horizontal.
4. Observe the top and bottom lines.
5. Adjust VR4A00 so that the horizontal top line is straight.
6. Adjust VR4A01 so that the horizontal bottom line is straight.
7. Adjust VR4A02 so that the top and bottom lines are horizontal.

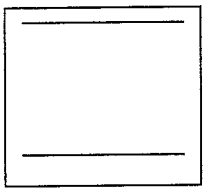
Note: Adjustment 22 (Vertical height, linearity) must be performed immediately after this adjustment.

PCB-PCC (COMPONENT SIDE)





INCORRECT



CORRECT

22. Vertical height, linearity	**Adjustment purpose** Vertical height, linearity and picture position. **Symptom when incorrectly adjusted** Vertically improper picture position.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (mono scope)
Input terminal	VIDEO IN terminal

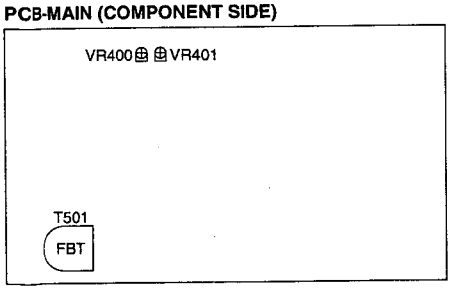
* This adjustment must follow Item 21 (Top bottom PCC).
1. VIDEO FUNCTION are RESET.
2. Supply a video signal (monoscope).
3. Cover the RED and BLUE lenses, producing a green monochrome picture on the screen.
4. Adjust VR400 so that the amplitude is 92.6% of the total height of the screen.
5. Adjust VR401 to get a linearity in which picture is symmetric about the horizontal center line.
6. Adjust VR400 so that the markers of the large circle on the monoscope, sum to '4".

Note: Bottom side marker value must be 1.5 or more.

7. If necessary, fine adjust each VR by repeating the above steps.

Note: Adjustment 23 (Horizontal width) must be performed immediately after this adjustment.

PCB-MAIN (COMPONENT SIDE)



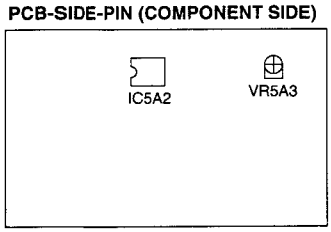
23. Horizontal width	**Adjustment purpose** Horizontal width of picture. **Symptom when incorrectly adjusted** Picture compressed or expanded horizontally.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (monoscope)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 22 (Vertical height, linearity).
* Repeatedly this adjustment and adjustment Item 24 (Horizontal raster deflection correction).

1. Supply a video signal (monoscope).
2. Cover the RED and BLUE lenses, producing a green monochrome on the screen.
3. Adjust horizontal width with VR5A3 so that the sum of markers is 6.

PCB-SIDE-PIN (COMPONENT SIDE)



24. Horizontal raster deflection correction	**Adjustment purpose** Horizontal linearity of picture. **Symptom when incorrectly adjusted** Horizontal deflection of picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

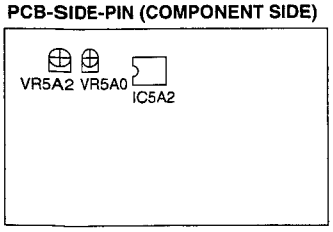
* Repeat this adjustment and item #23 (Horizontal width) until an optional raster is produced.

1. Supply a video signal (crosshatch).
2. Cover the RED and BLUE lenses, producing a green monochrome on the screen.
3. Adjust VR5A2 so that the keystone on the screen is minimum.
4. Adjust VR5A0 so that the vertical lines of both sides is linear.

Note: Make sure that the keystone is minimum after step 4. If it is not, repeat the adjustment of step 3.

Note: Adjustment 25 (FOCUS) must be performed immediately after this adjustment.

PCB-SIDE-PIN (COMPONENT SIDE)



25. FOCUS	**Adjustment purpose** Sharpness of picture. **Symptom when incorrectly adjusted** Poor sharpness of picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (center cross)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 24 (Horizontal raster deflection correction).
* This adjustment should be performed only when CRT is replaced or reinstalled. You must not adjust the alignment magnet and the focus magnet except when replacing or reinstalling the CRT.
* To each CRT, red, green and blue, make sure that the deflection yoke, the focus magnet and the alignment magnet on the CRT neck are assembled to the specified positions. (See Fig. A)
* When adjusting one of the CRTs, the others should be shielded.

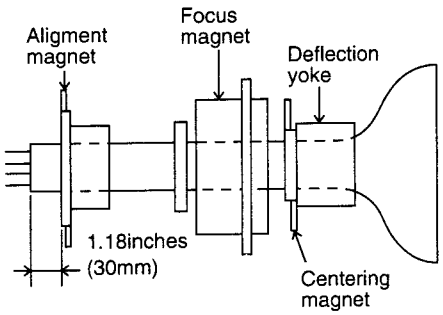


Fig. A

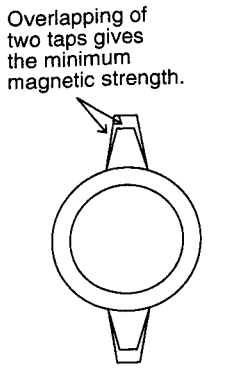


Fig. B

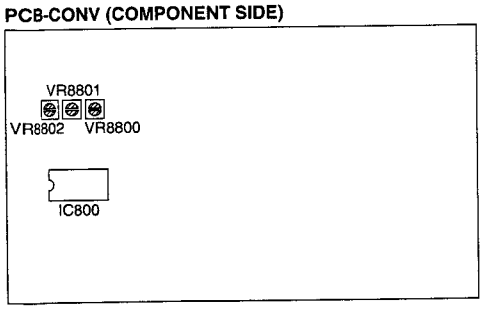
Note: Position deflection yoke and focus magnet assembly together so that there is no space between these parts.

1. Supply a video signal (center cross signal).
2. Rotate or open a centering magnet so that picture is located at the center on the screen.

Note: If adjusting a red or a blue CRT, adjust a green CRT at first, and the red or the blue so that the red or the blue picture lies on the green.

3. Minimize the magnetic strength of the alignment magnet. (See Fig. B)
4. Turn a focus control of a color required, VR8800(R), VR8801(G) or VR8802(B) full counterclockwise to produce halo on the screen. (See Fig. C. Contrary to blooming, a picture with the "wicks" at the center.)
5. Check where the center position of the intersection of the center cross line is on the screen (See Fig. C)
6. Turn a focus control of a color required, VR8800(R), VR8801(G) or VR8802(B) full clockwise to produce blooming on the screen. (See Fig. C, a picture without with "wicks" at the center.)
7. Check where the center position of the intersection of the center cross line is on the screen (See Fig. D)

PCB-CONV (COMPONENT SIDE)



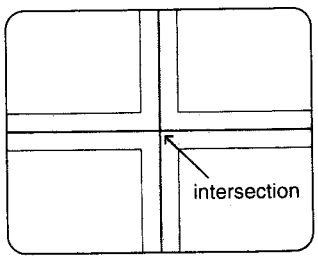


Fig. C
Halo

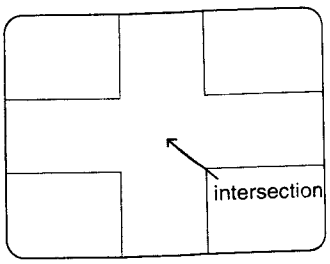


Fig. D
Blooming

8. Rotate the focus magnet and turn or open the alignment magnet to locate both intersections under halo and blooming conditions to the same position.
9. Adjust a focus control required so that the focus is the best.

Note: Adjustment 26 (Electrical magnetic focus) must be performed immediately after this one.

26. Electrical magnetic focus	**Adjustment purpose** The best resolution of picture. **Symptom when incorrectly adjusted** Out of focus picture.

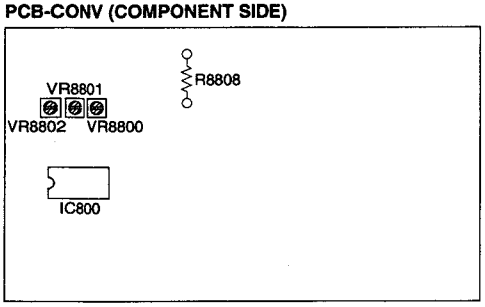
Measuring instrument	DC Voltmeter
Test point	R8808
EXT trigger	···
Measurement range	...
Input signal	Video signal (monoscope, cross hatch)
Input terminal	VIDEO IN terminal

* This adjustment must follow Item 25 (FOCUS).

1. Supply a video signal (monoscope).
2. VIDEO FUNCTION are RESET.
3. Adjust VR8800, VR8801 and VR8802 so that the sharpness of the Top area on screen is optimum.
4. Adjust VR8802 so that the voltage across R8808 is decreased 3.2V.
5. Supply a video signal (crosshatch).
6. Make sure that the red width is equal to the green width. If it is not, adjust VR8800 so that the red width is equal to the green width.

Note: Adjustment 27 (Dynamic focus phase) must be performed immediately after this one.

PCB-CONV (COMPONENT SIDE)



27. Dynamic focus phase	**Adjustment purpose** The best ambient resolution of picture. **Symptom when incorrectly adjusted** Dull ambient picture.

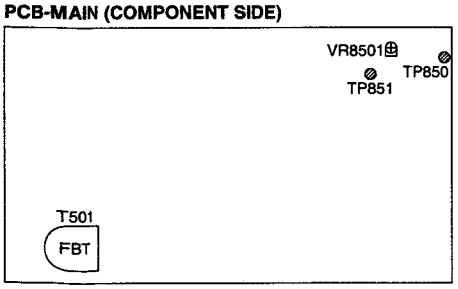
Measuring instrument	Oscilloscope
Test point	TP851, TP850
EXT trigger	···
Measurement range	DIV 2V TIM 20µs
Input signal	Video signal (monoscope)
Input terminal	VIDEO IN terminal

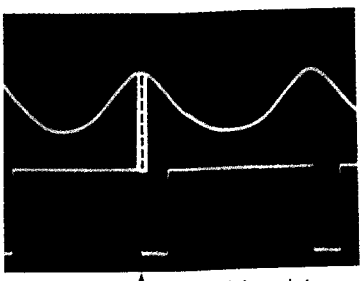
* This adjustment must follow Item 26 (Electrical magnetic focus).

1. Supply a video signal (monoscope).
2. Observe the waveform at TP851 and TP850. (CH-1 to TP851)
3. Adjust VR8501 so that a discontinuous point of the waveform on CH-1 coincide with a falling edge of the waveform on CH-2 as below.

Note: Adjustment 28 (Static convergence) must be performed immediately after this one.

PCB-MAIN (COMPONENT SIDE)



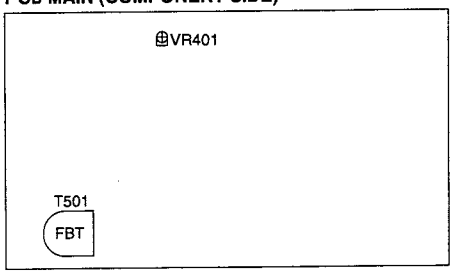


Adjust to match this point.

28. Static convergence	**Adjustment purpose** Correcting color impurity by installed direction. **Symptom when incorrectly adjusted** Color edging around objects in the picture.

Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

PCB-MAIN (COMPONENT SIDE)

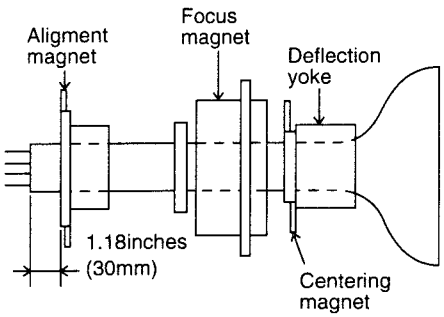


* This adjustment must follow Item 27 (Dynamic focus phase).

1. Supply a VIDEO signal. (cross hatch)
2. VIDEO FUNCTION are RESET.
3. Degauss the metal around the CRT. Be sure not to DE-magnetize the focus magnet.
4. Adjust VR401 for rough vertical linearity.
5. Feed an external cross-hatch generator signal.
6. Adjust green centering magnet to center the green cross-hatch in the center of the screen.
7. Adjust red and blue centering magnets to converge red and blue cross-hatch to the green cross-hatch at the center of the screen.

Note:
Do not use the internally generated crossbar pattern for this adjustment procedure, since the center of the internal crossbar pattern will not necessarily be located in the center of the screen.

Note: Adjustment 29 (Dynamic convergence) must be performed immediately after this adjustment.



29. Dynamic convergence	**Adjustment purpose** To converge the edges of the picture. **Symptom when incorrectly adjusted** Color fringing at the edges of the picture.

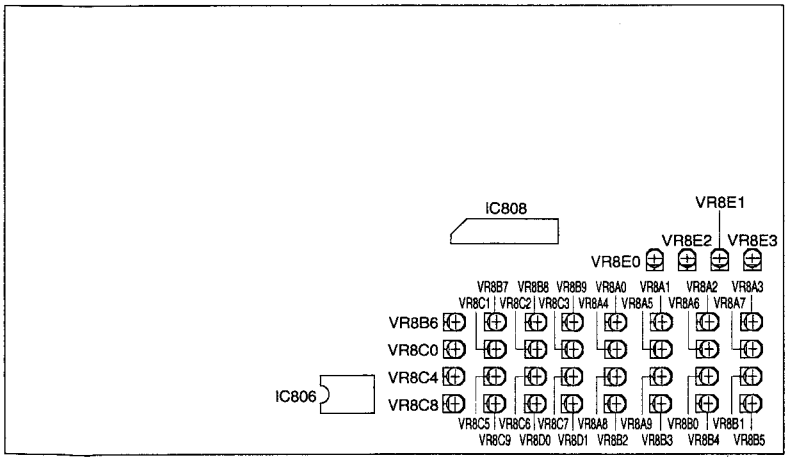
Measuring instrument	...
Test point	...
EXT trigger	...
Measurement range	...
Input signal	Video signal (cross hatch)
Input terminal	VIDEO IN terminal

* This adjustment must follow the adjustment in Item 28.
* Dynamic Convergence should not be attempted until the Static Convergence has been properly adjusted (including centering adjustments, if required).

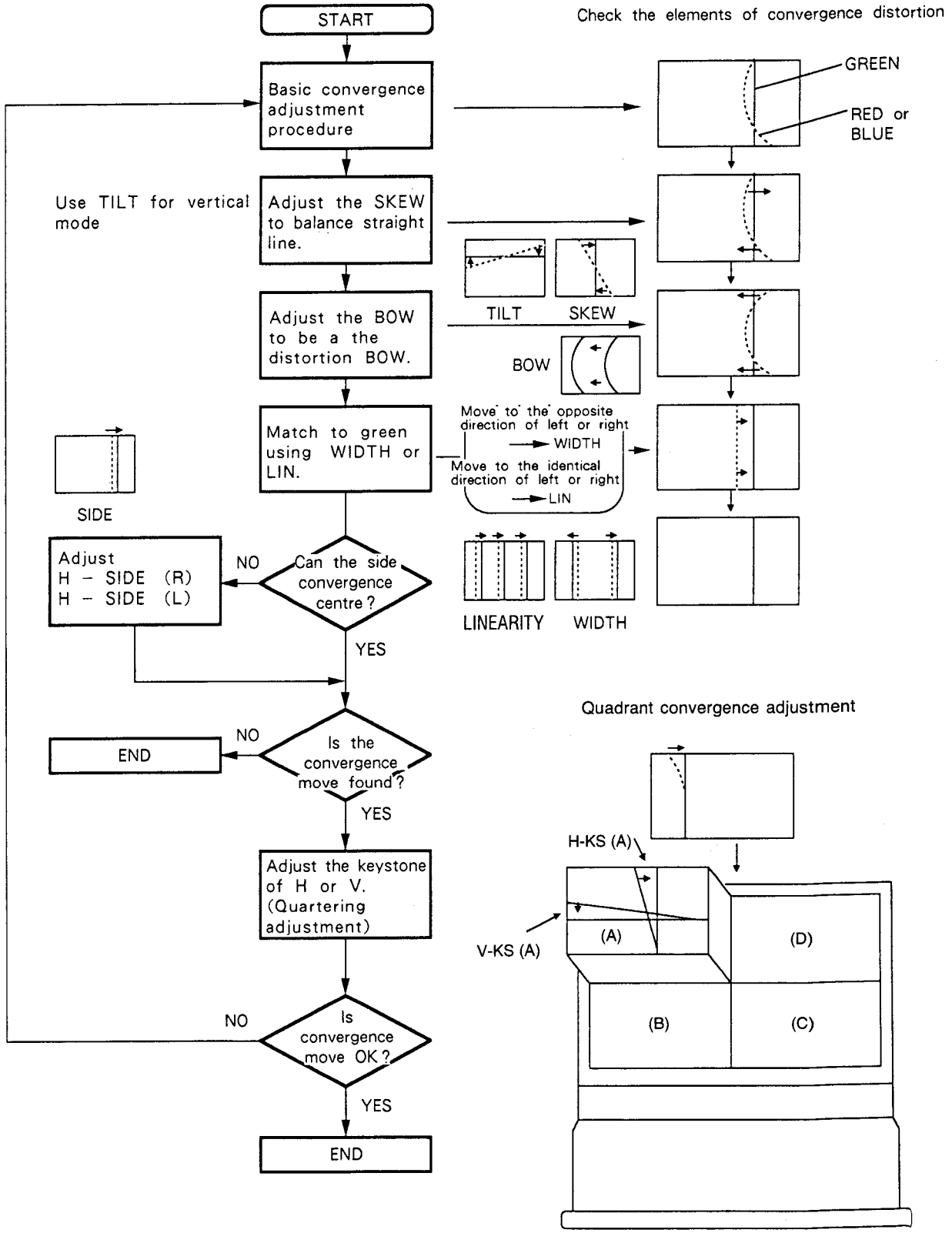
In this adjustment, green is stationary, and only red and blue are adjustable. Accordingly, the red and blue lines are converged to the green line with a convergence adjustment flowchart on the following page. Convergence is simplified when working with only two colors. First, adjust the red controls to converge the red lines to the green lines, then adjust the blue controls to converge the blue lines to the green lines.

Red	Blue	Item	Adjusting Method
VR8A2	VR8A0	Vertical tilt	Merge horizontal centre line with green line
VR8B0	VR8A8	Vertical height	Merge horizontal line with green line
VR8B4	VR8B2	Vertical linearity	Merge horizontal line with green line
VR8A6	VR8A4	Vertical bow	Merge horizontal centre line with green line
VR8B1	VR8A9	Skew	Merge vertical centre line with green line
VR8B5	VR8B3	Horizontal bow	Merge vertical centre line with green line
VR8A3	VR8A1	Horizontal width	Merge vertical centre line with green line
VR8A7	VR8A5	Horizontal linearity	Merge vertical centre line with green line
VR8B9	VR8B7	Horizontal keystone	Merge upper left vertical line with green line (A)
VR8C3	VR8C1	Horizontal keystone	Merge lower left vertical line with green line (B)
VR8C7	VR8C5	Horizontal keystone	Merge lower right vertical line with green line (C)
VR8D1	VR8C9	Horizontal keystone	Merge upper right vertical line with green line (D)
VR8B8	VR8B6	Vertical keystone	Merge upper left horizontal line with green line (A)
VR8C2	VR8C0	Vertical keystone	Merge lower left horizontal line with green line (B)
VR8C6	VR8C4	Vertical keystone	Merge lower right horizontal line with green line (C)
VR8D0	VR8C8	Vertical keystone	Merge upper right horizontal line with green line (D)
VR8E2	VR8E3	Horizontal side linearity	Merge left vertical line with green line
VR8E1	VR8E0	Horizontal side	Merge right vertical line with green line

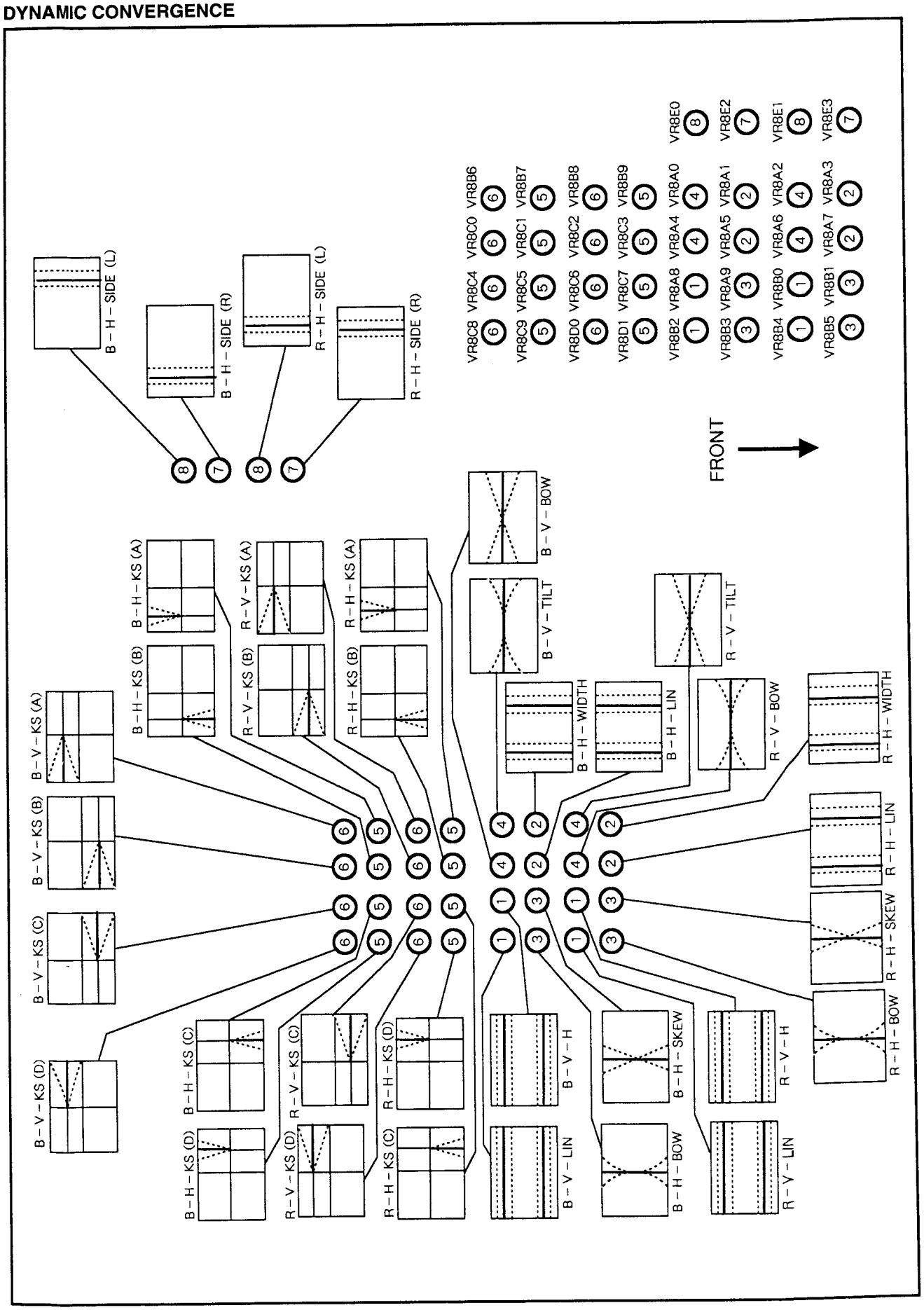
PCB-CONV (COMPONENT SIDE)



Convergence adjustment flowchart

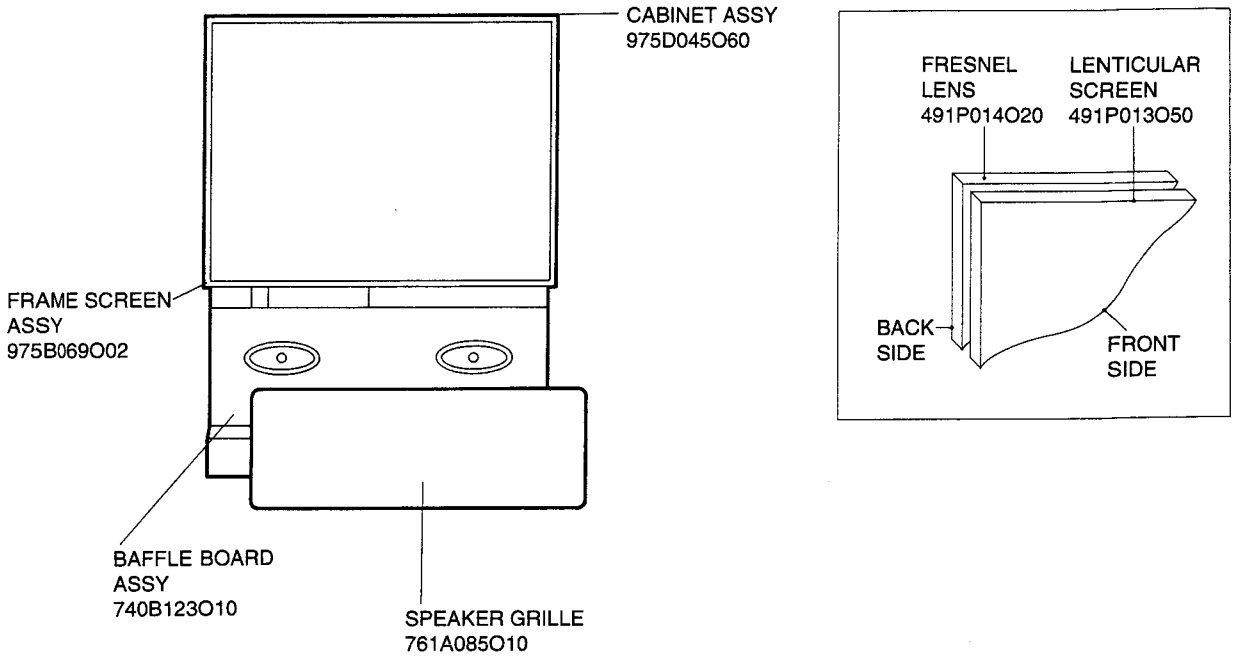


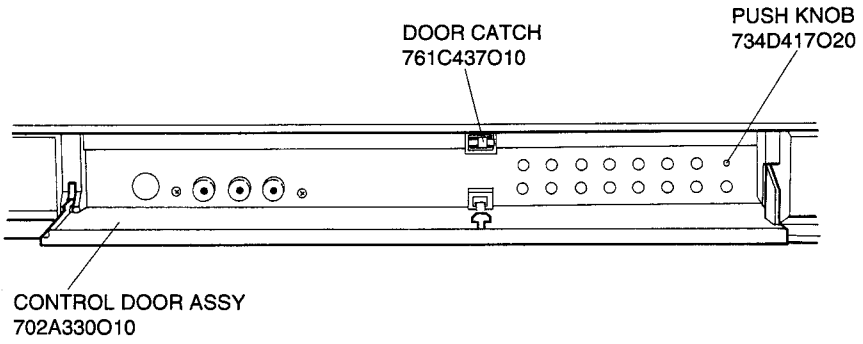
DYNAMIC CONVERGENCE

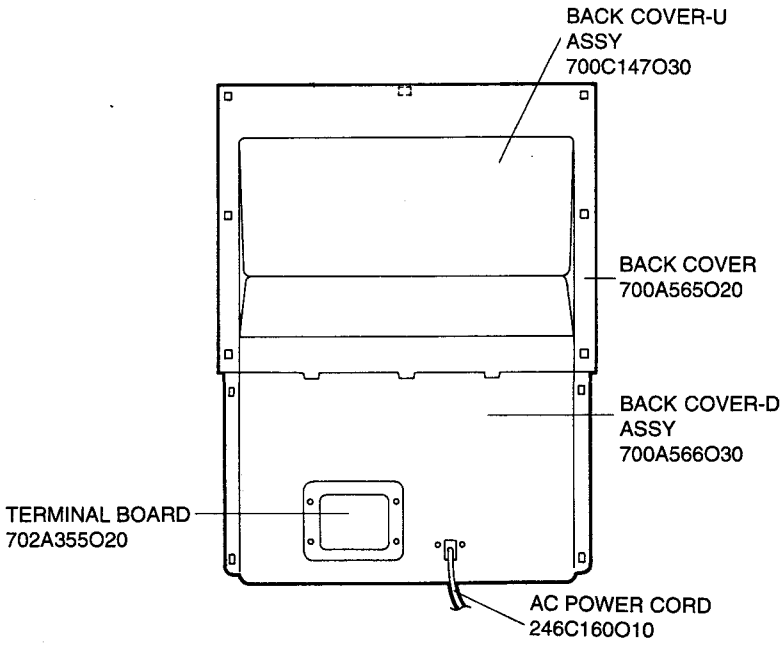


CABINET AND SCREEN PARTS

[40"]

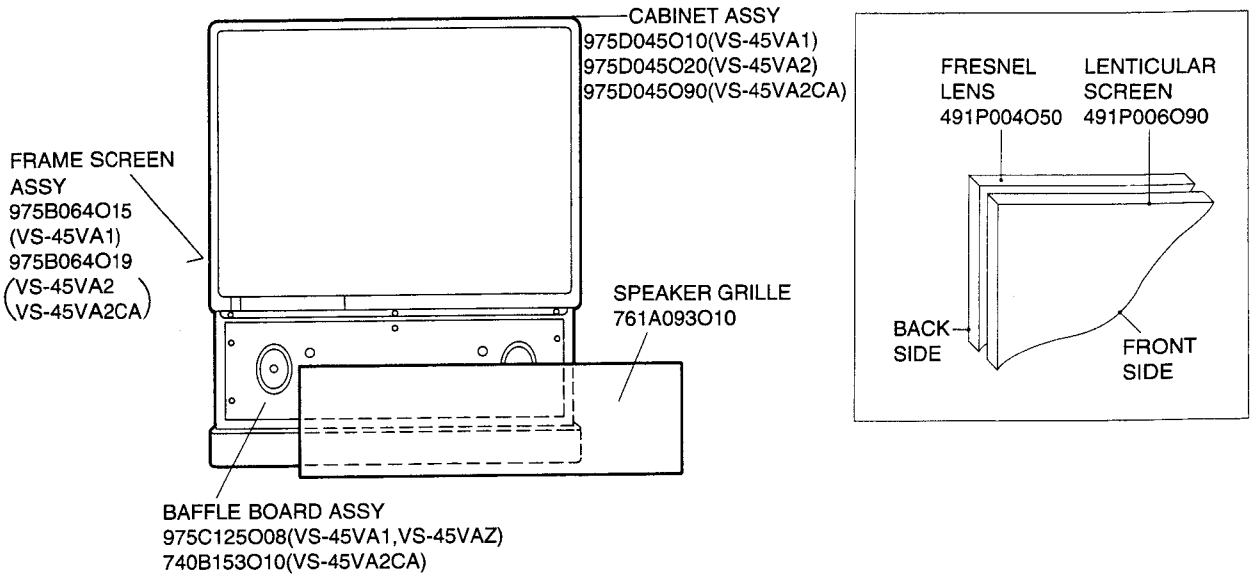


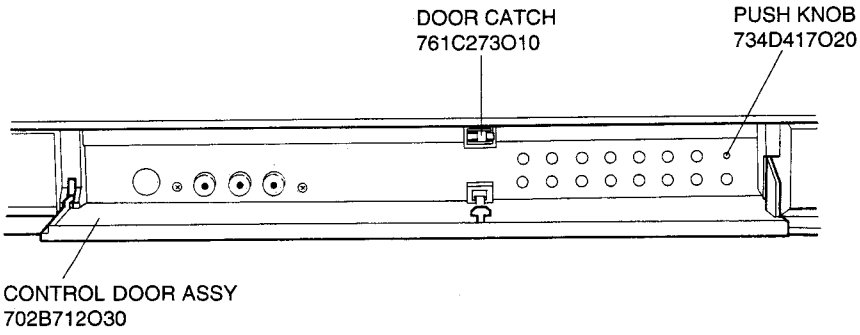


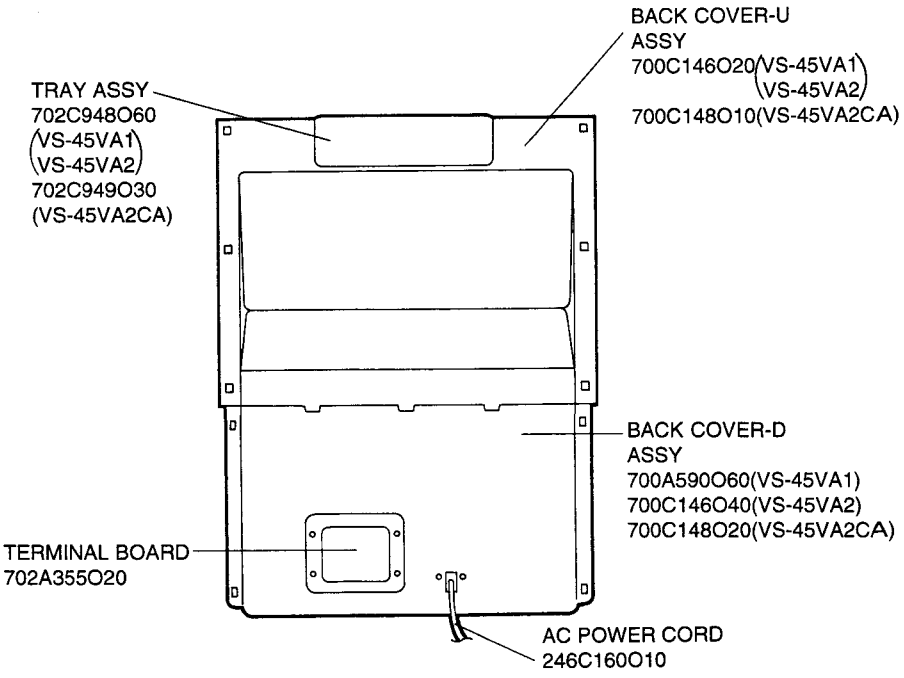


CABINET AND SCREEN PARTS

[45"]

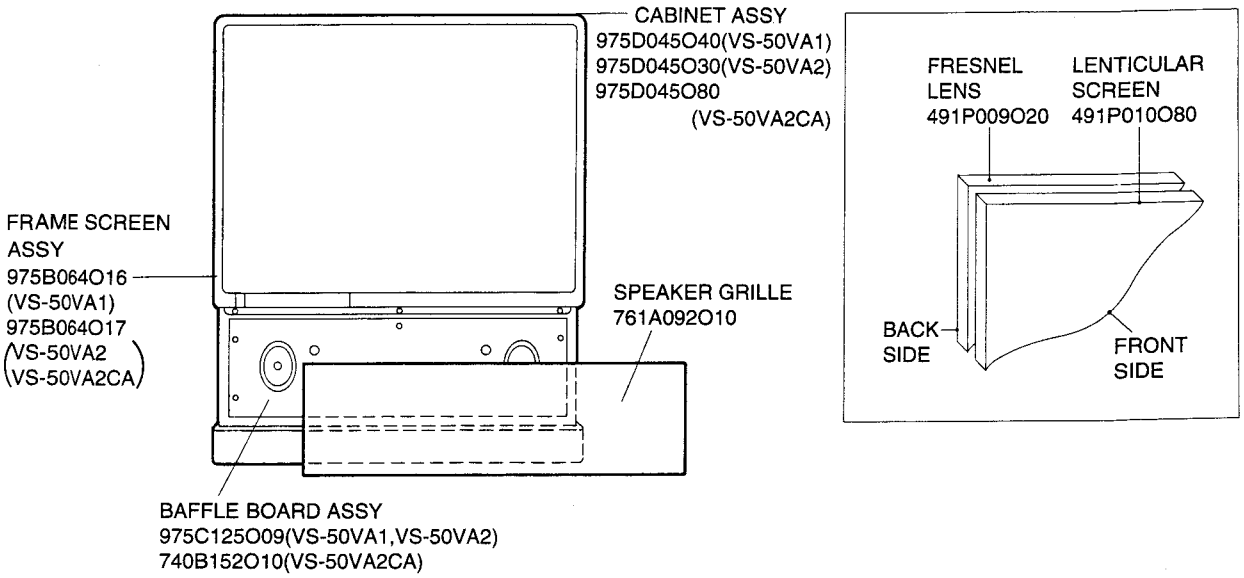


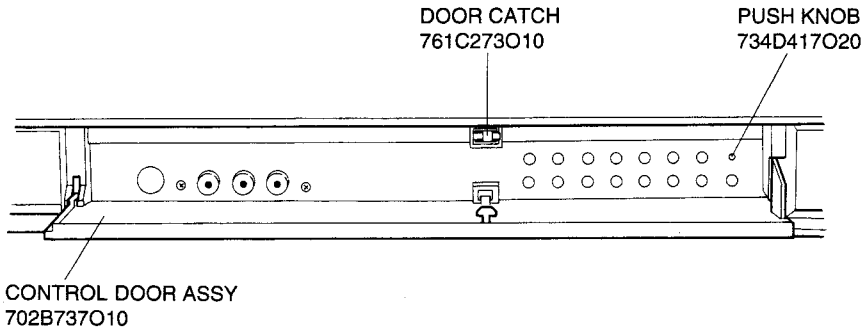


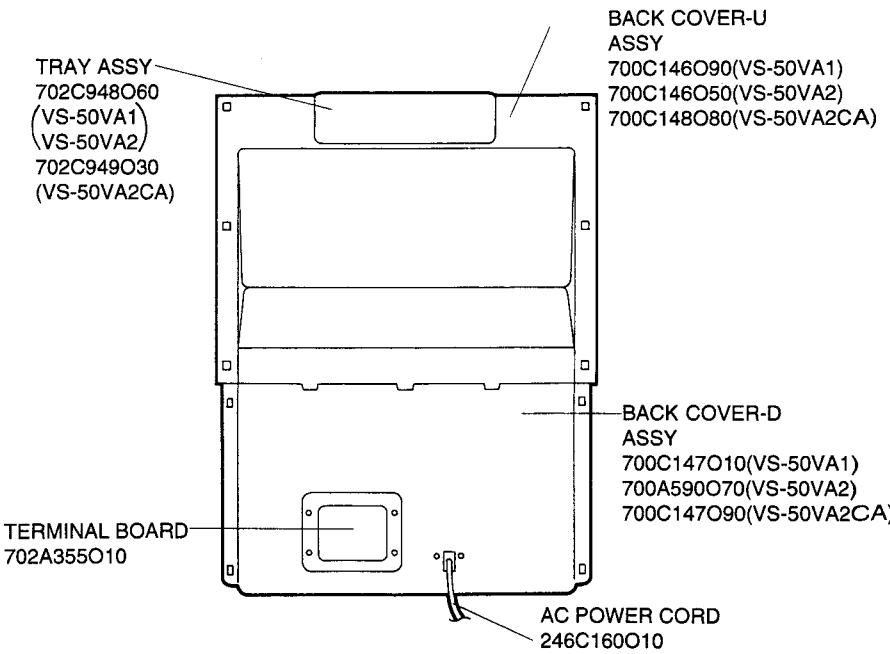


CABINET AND SCREEN PARTS

[50"]

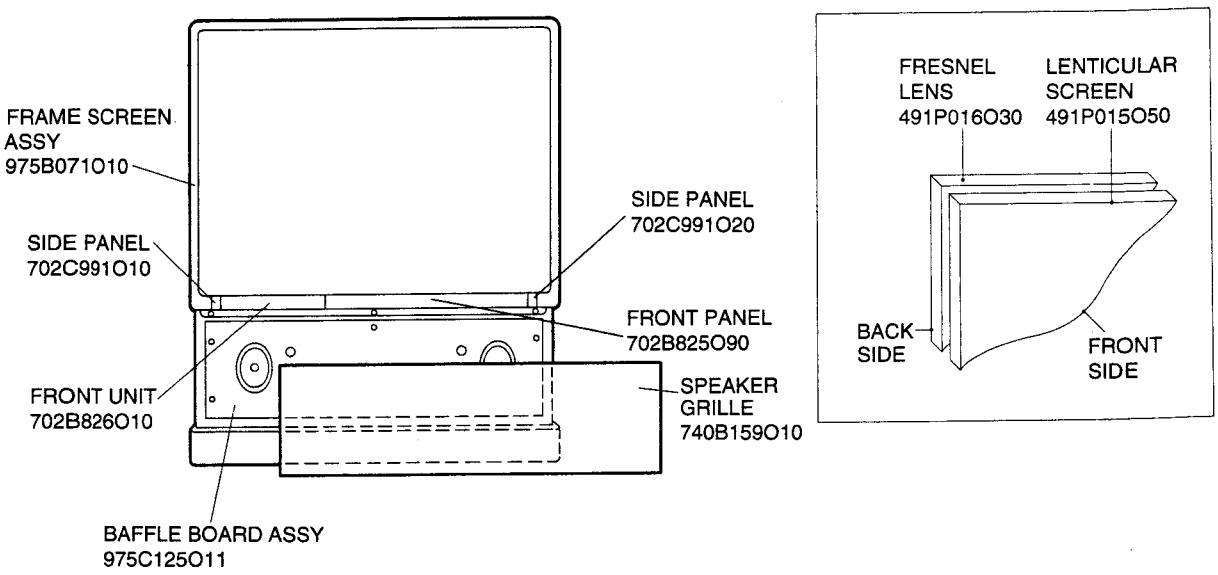


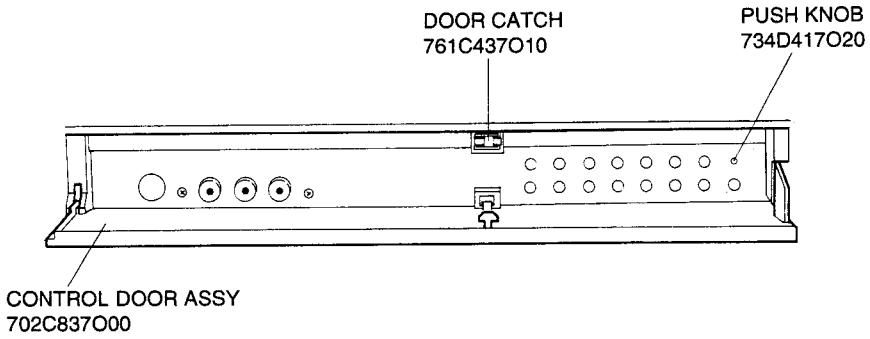


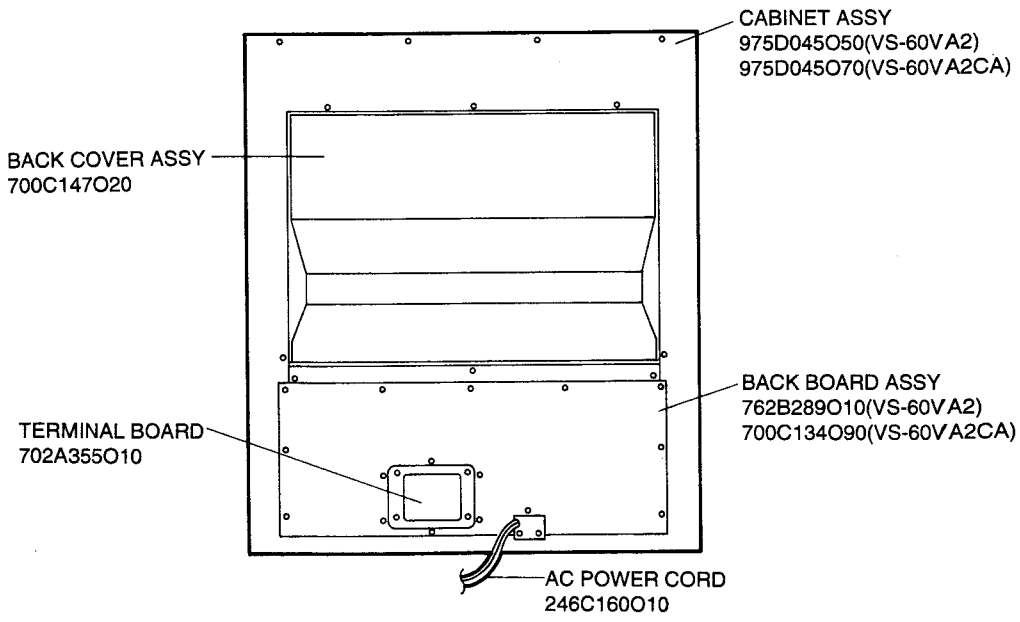


CABINET AND SCREEN PARTS

[60"]







PARTS LIST

MODEL : VS－45VA1／VS－50VA1

In order to expedite delivery of replacement part orders.

Specify : 1. Model number／Serial number
2. Part number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result.

＊ : Warranty return items

▨ : Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 − 10	+ 40 − 20	+ 80 − 20	+ 100 − 0	+ 30 − 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[45] : VS－45VA1

[50] : VS－50VA1

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		TUBES		
	251C037040	CRT ASSY	RED-MONOCHROME	[45]
	251C037050	CRT ASSY	GREEN-MONOCHROME	[45]
	251C037060	CRT ASSY	BLUE-MONOCHROME	[45]
	251C039040	CRT ASSY	RED-MONOCHROME	[50]
	251C039050	CRT ASSY	GREEN-MONOCHROME	[50]
	251C039060	CRT ASSY	BLUE-MONOCHROME	[50]
		INTEGRATED CIRCUITS		
IC101	272P026010	IC	M51366SP	
IC201	272P467010	IC	M52023SP	
IC202	272P181010	IC	CX20125	
IC203	266P064010	IC	M51320P	
IC204	272P302010	IC	PA0030	
IC205	272P865010	IC	HA11561	
IC206	272P631010	IC	AN91A14K	
IC209	266P686010	IC	MSM5258RS	
IC2001	267P076010	IC	SI-3120C	
IC2002	267P076020	IC	SI-3090C	
IC2003	267P076030	IC	SI-3050C	
IC2004	263P560010	IC	M62359P	
IC300	272P440010	IC	LA4282	
IC3001	272P351020	IC	μPC1871CU	
IC3301	266P419030	IC	M5223L	
IC3302	272P139020	IC	LA7953-N	
IC3303	266P172010	IC	M5218L	
IC3304	272P373020	IC	5222P	
IC3305	266P172010	IC	M5218L	
IC3306	266P419030	IC	M5223L	
IC3307	272P184010	IC	LA7222	
IC3308	272P184010	IC	LA7222	[50]
IC401	272P239050	IC	LA7838-S	
IC4A00	263P306010	IC	TC74HC123AP	
IC4A01	272P263010	IC	CXA 1268-P	
IC4A02	272P106020	IC	μPC4574C	
IC4A03	263P053020	IC	TC4053BP	
IC4B04	272P106010	IC	μPC-4570C	
IC500	266P154010	IC	μPC393C	
IC5A0	272P132010	IC	AN 5551	
IC5A1	272P106030	IC	μPC4570HA	
IC5000	272P240010	IC	M5237L	
IC701	274P200010	IC	M37204M8-561SP	
IC702	263P170030	IC	CAT35C102HP	
IC703	272P758010	IC	M62358P	
IC704	274P008020	IC	MN1380-L	
IC706	267P076030	IC	SI-3050C	
IC7000	272P860010	IC	HA11574	
IC7100	274P177010	IC	HD49416FS	
IC7101	263P548010	IC	M5M4C264L-12	
IC7601	272P184010	IC	LA7222	
IC7602	272P394010	IC	LA7956	
IC7603	272P394010	IC	LA7956	
IC7604	272P164010	IC	LA7220	
IC7605	266P064010	IC	M51320P	
IC7606	263P546010	IC	M66320P	
IC800	272P690010	IC	PA0036	
IC801	272P106020	IC	μPC4574C	
IC802	272P106020	IC	μPC4574C	
IC803	263P053020	IC	TC4053BP	
IC804	272P106020	IC	μPC4574C	
IC805	272P106020	IC	μPC4574C	
IC806	272P106020	IC	μPC4574C	
IC807	272P106030	IC	μPC4570HA	
IC808	272P106030	IC	μPC4570HA	
IC809	266P727010	IC	μPC339C/MC3302P	
IC811	266P934020	IC	μPC7812H	
IC812	266P919010	IC	μPC7912H	
IC8A0	267P077020	IC	STK391-020	
IC8A1	267P077020	IC	STK391-020	
IC8501	263P306010	IC	TC74HC123AP	
IC8551	267P108010	IC	STK396-010	
IC8801	267P825020	IC	STK4275MB	
IC9A0	267P112010	IC	STR-M6511	
IC9A1	267P062010	IC	SE130N	
		TRANSISTORS		
Q 101	260P356010	TRANSISTOR	2SC1906	
Q 102	260P559030	TRANSISTOR	2SC1740S-S	
Q 103	260P560040	TRANSISTOR	2SA933S-S	
Q 104	260P559030	TRANSISTOR	2SC1740S-S	
Q 105	260P356010	TRANSISTOR	2SC1906	
Q 201	260P559030	TRANSISTOR	2SC1740S-S	
Q 221	260P559030	TRANSISTOR	2SC1740S-S	
Q 222	260P559030	TRANSISTOR	2SC1740S-S	
Q 223	260P559030	TRANSISTOR	2SC1740S-S	
Q 224	260P559030	TRANSISTOR	2SC1740S-S	
Q 240	260P559030	TRANSISTOR	2SC1740S-S	
Q 263	260P559030	TRANSISTOR	2SC1740S-S	
Q 264	260P560040	TRANSISTOR	2SA933S-S	
Q 280	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S	
Q 2L1	260P560040	TRANSISTOR	2SA933S-S	
Q 2L2	260P560040	TRANSISTOR	2SA933S-S	
Q 2L3	260P560040	TRANSISTOR	2SA933S-S	
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S	

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S
Q 2001	260P559030	TRANSISTOR	2SC1740S-S
Q 2004	260P559030	TRANSISTOR	2SC1740S-S
Q 2005	260P560040	TRANSISTOR	2SA933S-S
Q 2007	260P559030	TRANSISTOR	2SC1740S-S
Q 2008	260P559030	TRANSISTOR	2SC1740S-S
Q 303	260P559030	TRANSISTOR	2SC1740S-S
Q 311	260P560040	TRANSISTOR	2SA933S-S
Q 312	260P559030	TRANSISTOR	2SC1740S-S
Q 313	260P559030	TRANSISTOR	2SC1740S-S
Q 318	260P559030	TRANSISTOR	2SC1740S-S
Q 3A1	260P356010	TRANSISTOR	2SC1906
Q 3301	260P559030	TRANSISTOR	2SC1740S-S
Q 3302	260P559030	TRANSISTOR	2SC1740S-S
Q 3303	260P559030	TRANSISTOR	2SC1740S-S
Q 3304	260P559030	TRANSISTOR	2SC1740S-S
Q 3305	260P559030	TRANSISTOR	2SC1740S-S
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P
Q 4B04	260P573020	TRANSISTOR	2SB940A-P
Q 500	260P422010	TRANSISTOR	2SC2482
Q 501	260P572010	TRANSISTOR	2SD1556
Q 502	260P559050	TRANSISTOR	2SC1740S-E
Q 503	260P559050	TRANSISTOR	2SC1740S-E
Q 504	260P559030	TRANSISTOR	2SC1740S-S
Q 506	260P559030	TRANSISTOR	2SC1740S-S
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C
Q 5000	260P559030	TRANSISTOR	2SC1740S-S
Q 5001	260P167040	TRANSISTOR	2SA673A-D
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E
Q 701	260P559030	TRANSISTOR	2SC1740S-S
Q 705	260P559030	TRANSISTOR	2SC1740S-S
Q 707	260P559030	TRANSISTOR	2SC1740S-S
Q 711	260P559030	TRANSISTOR	2SC1740S-S
Q 715	260P559030	TRANSISTOR	2SC1740S-S
Q 716	260P560040	TRANSISTOR	2SA933S-S
Q 717	260P559030	TRANSISTOR	2SC1740S-S
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482
		DIODES	
D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471
D 226	264P045040	DIODE	1S2471
D 228	264P483080	DIODE	RD5. 1FB2

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 229	264P045040	DIODE	1S2471
D 231	264P045040	DIODE	1S2471
D 232	264P464040	DIODE	EQA02-10B
D 2001	264P045040	DIODE	1S2471
D 2002	264P285010	DIODE	S5500D
D 2003	264P045040	DIODE	1S2471
D 301	264P285010	DIODE	S5500D
D 302	264P045040	DIODE	1S2471
D 303	264P045040	DIODE	1S2471
D 304	264P502020	DIODE	HZ5BLL
D 305	264P501040	DIODE	HZ3ALL
D 307	264P285010	DIODE	S5500D
D 309	264P045040	DIODE	1S2471
D 3301	264P045040	DIODE	1S2471
D 3302	264P501050	DIODE	HZ3BLL
D 400	264P464050	DIODE	EQA02-10C
D 401	264P285010	DIODE	S5500D
D 4A00	264P045040	DIODE	1S2471
D 4B01	264P045040	DIODE	1S2471
D 4B02	264P483080	DIODE	RD5.1FB2
D 4B03	264P483080	DIODE	RD5.1FB2
D 4B04	264P045040	DIODE	1S2471
D 500	264P533010	DIODE	RS 4FS
D 501	264P358070	DIODE	RU 4AM
D 502	264P146010	DIODE	RC 2
D 503	264P045040	DIODE	1S2471
D 504	264P045040	DIODE	1S2471
D 505	264P102020	DIODE	RU 3B
D 506	264P045040	DIODE	1S2471
D 507	264P244030	DIODE	HZT22-02
D 508	264P045040	DIODE	1S2471
D 509	264P457050	DIODE	RD3.0EB1
D 510	264P045040	DIODE	1S2471
D 511	264P045040	DIODE	1S2471
D 512	264P101050	DIODE	RM 1B
D 515	264P045040	DIODE	1S2471
D 518	264P489010	DIODE	RD16FB1
D 5A1	264P045040	DIODE	1S2471
D 5000	264P285010	DIODE	S5500D
D 6A5	264P501020	DIODE	HZ2BLL
D 6A6	264P045040	DIODE	1S2471
D 6A7	264P045040	DIODE	1S2471
D 701	264P045040	DIODE	1S2471
D 704	264P045040	DIODE	1S2471
D 705	264P045040	DIODE	1S2471
D 706	264P486020	DIODE	RD8.2FB3
D 711	264P045040	DIODE	1S2471
D 712	264P045040	DIODE	1S2471
D 713	264P045040	DIODE	1S2471
D 714	264P502020	DIODE	HZ5BLL
D 715	264P502020	DIODE	HZ5BLL
D 7001	264P821010	CHIP DIODE	HSM2836
D 7601	264P463040	DIODE	EQA02-09AB/RD9.1EB1
D 7602	264P463040	DIODE	EQA02-09AB/RD9.1EB1
D 7603	264P463040	DIODE	EQA02-09AB/RD9.1EB1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124
D 803	264P045040	DIODE	1S2471
D 804	264P045040	DIODE	1S2471
D 810	264P045040	DIODE	1S2471
D 811	264P045040	DIODE	1S2471
D 820	264P045040	DIODE	1S2471
D 821	264P045040	DIODE	1S2471
D 826	264P483080	DIODE	RD5.1FB2
D 827	264P483080	DIODE	RD5.1FB2
D 830	264P045040	DIODE	1S2471
D 831	264P045040	DIODE	1S2471
D 832	264P045040	DIODE	1S2471
D 833	264P045040	DIODE	1S2471
D 834	264P045040	DIODE	1S2471
D 835	264P045040	DIODE	1S2471
D 836	264P045040	DIODE	1S2471
D 837	264P045040	DIODE	1S2471
D 8A0	264P045040	DIODE	1S2471
D 8A1	264P045040	DIODE	1S2471
D 8B0	264P045040	DIODE	1S2471
D 8B1	264P045040	DIODE	1S2471
D 8501	264P045040	DIODE	1S2471
D 8502	264P045040	DIODE	1S2471
D 900	264P535010	DIODE	RBV-608
D 920	264P512020	DIODE	RBV-40C
D 921	264P512020	DIODE	RBV-40C
D 951	264P487080	DIODE	RD12FB2
D 952	264P487080	DIODE	RD12FB2
D 953	264P045040	DIODE	1S2471
D 954	264P045040	DIODE	1S2471
D 960	264P358090	DIODE	RU 4YX
D 962	264P102020	DIODE	RU 3B
D 963	264P102020	DIODE	RU 3B
D 964	264P102020	DIODE	RU 3B
D 9A01	264P578010	DIODE	RG 2A
D 9A02	264P588010	DIODE	FML-G16S
D 9A03	264P358090	DIODE	RU 4YX
D 9A04	264P102040	DIODE	RU 3M
D 9A05	264P102040	DIODE	RU 3M
D 9A06	264P358090	DIODE	RU 4YX
D 9A10	264P521040	DIODE	EU 1A
D 9A11	264P622010	DIODE	ALO1Z
D 9A13	264P622010	DIODE	ALO1Z
D 9A42	264P102020	DIODE	RU 3B
		FILTERS	
CF101	296P024020	CERAMIC TRAP	TPS4.5MB7
CF201	299P051050	CERAMIC RESONATOR	CSB500F9
CF301	296P067010	CERAMIC FILTER	SFS4.5MB2
DL205	296P113010	COMB FILTER	
LC7101	409P771010	LOW PASS FILTER	A285TC1S-13505
SF101	296P096020	SAW FILTER	SAF45MVK56Z
SF301	296P092010	SAW FILTER	SAF41MC70Z
X 701	296P064010	CERAMIC RESONATOR	CSA-4.00MG

[45] : VS – 45VA1　　[50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		DELAY LINES		
DL200	337P147020	DELAY LINE		
DL201	337P147010	DELAY LINE		
DL202	337P113020	DELAY LINE	100NS	
DL203	337P134010	DELAY LINE	SDL-4256	
		COILS		
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT	
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT	
L 101	325C124030	PEAKING COIL	0.22 μH-M	
L 102	325C124090	PEAKING COIL	0.68 μH-M	
L 103	325C120010	PEAKING COIL	1.0 μH-M	
L 104	325C121030	PEAKING COIL	10 μH-K	
L 105	325C122030	PEAKING COIL	68 μH-K	
L 106	323P171010	VIF COIL	45.75MHz	
L 107	323P111020	VIF COIL	45MHz	
L 108	325C122030	PEAKING COIL	68 μH-K	
L 109	325C120020	PEAKING COIL	1.2 μH-M	
L 111	325C121030	PEAKING COIL	10 μH-K	
L 117	325C121030	PEAKING COIL	10 μH-K	
L 201	325C121030	PEAKING COIL	10 μH-K	
L 202	325C101030	PEAKING COIL	10 μH-K	
L 203	325C121090	PEAKING COIL	33 μH-K	
L 204	325C121030	PEAKING COIL	10 μH-K	
L 205	325C121030	PEAKING COIL	10 μH-K	
L 207	325C121000	PEAKING COIL	5.6 μH-K	
L 212	325C121030	PEAKING COIL	10 μH-K	
L 213	325C161000	PEAKING COIL	5.6 μH-K	
L 220	325C122040	PEAKING COIL	82 μH-K	
L 2N0	325C162090	PEAKING COIL	220 μH-K	
L 2N1	325C162090	PEAKING COIL	220 μH-K	
L 2002	325C121030	PEAKING COIL	10 μH-K	
L 2003	325C121030	PEAKING COIL	10 μH-K	
L 2004	325C163070	PEAKING COIL	1000 μH-K	
L 2006	325C121030	PEAKING COIL	10 μH-K	
L 2007	325C121030	PEAKING COIL	10 μH-K	
L 2009	321C031040	RF COIL	10 μH-K	
L 303	327P072010	SIF COIL	TKACS-27071BY	
L 3A1	325C122030	PEAKING COIL	68 μH-K	
L 3301	325C121030	PEAKING COIL	10 μH-K	[50]
L 3A01	325C121030	PEAKING COIL	10 μH-K	
L 4A1	321C031090	RF COIL	33 μH-K	
L 4A2	321C031090	RF COIL	33 μH-K	
L 4B10	351P068010	PEAKING COIL	SB4-680-122	
L 500	321C030070	RF COIL	3.3 μH-K	
L 501	411P001010	FERRITE LEAD		
L 502	411P001010	FERRITE LEAD		
L 503	333P025040	H-LIN. COIL		
L 505	409P565020	FILTER COIL		
L 506	409P691010	FILTER COIL		
L 6A0	325C107020	PEAKING COIL	56 μH-J	
L 6A1	325C107020	PEAKING COIL	56 μH-J	
L 6A2	325C107020	PEAKING COIL	56 μH-J	
L 6A3	325C161060	PEAKING COIL	18 μH-K	
L 6A4	325C161060	PEAKING COIL	18 μH-K	
L 6A5	325C161060	PEAKING COIL	18 μH-K	
L 701	325C121030	PEAKING COIL	10 μH-K	
L 702	325C121030	PEAKING COIL	10 μH-K	
L 703	325C121060	PEAKING COIL	18 μH-K	
L 704	325C121030	PEAKING COIL	10 μH-K	
L 707	325C121030	PEAKING COIL	10 μH-K	
L 708	321C010040	RF COIL	1000 μH-J	
L 710	325C121030	PEAKING COIL	10 μH-K	
L 711	325C121030	PEAKING COIL	10 μH-K	
L 712	325C121030	PEAKING COIL	10 μH-K	
L 7000	321C031040	RF COIL	10 μH-K	
L 7001	325C107050	PEAKING COIL	100 μH-J	
L 7002	325C141030	CHIP COIL	10 μH-K	
L 7003	325C141030	CHIP COIL	10 μH-K	
L 7004	325C141030	CHIP COIL	10 μH-K	[45]
L 7005	321C031040	RF COIL	10 μH-K	[45]
L 7101	325C141030	CHIP COIL	10 μH-K	[45]
L 7102	325C141030	CHIP COIL	10 μH-K	
L 7103	325C141030	CHIP COIL	10 μH-K	
L 7601	325C121030	PEAKING COIL	10 μH-K	
L 7602	325C121030	PEAKING COIL	10 μH-K	
L 7603	325C121030	PEAKING COIL	10 μH-K	
L 77A1	325C121030	PEAKING COIL	10 μH-K	
L 7800	325C121030	PEAKING COIL	10 μH-K	
L 801	321C031040	RF COIL	10 μH-K	
L 805	321C031040	RF COIL	10 μH-K	
L 807	351P068030	PEAKING COIL	SBC-03	
L 808	351P068030	PEAKING COIL	SBC-03	
L 809	351P068030	PEAKING COIL	SBC-03	
L 810	351P068030	PEAKING COIL	SBC-03	
L 811	321C031040	RF COIL	10 μH-K	
L 812	321C031040	RF COIL	10 μH-K	
L 814	321C031090	RF COIL	33 μH-K	
L 815	321C031090	RF COIL	33 μH-K	
L 900	351P064030	LINE FILTER	SE26TL-40030A	
L 9A01	411D009020	FERRITE CORE FILTER		
L 9A02	411P001010	FERRITE LEAD		
L 9A03	351P070010	FILTER COIL	560 μH-K	
L 9A10	411P001010	FERRITE LEAD		
L 9A12	411P001010	FERRITE LEAD		
LC7102	409P736010	COIL	CLOCK-ADJ 11614	
LF7000	409P696020	EMI FILTER	BLM41A01	
LF7001	409P402030	EMI FILTER	DSS306-55[illegible]Z103N100	
LF7002	409P402020	EMI FILTER	DSS306-55[illegible]1 02M100	
LF7003	409P402020	EMI FILTER	DSS306-55[illegible]1 02M100	
T 101	320P026030	TRAP COIL		
		TRANSFORMERS		
	350P581010	POWER		
T 201	349P159020	CHROMA-BP		
T 4B00	349P192010	PCC	TOP-BOTTOM	
T 500	336P009030	H. DRIVE		
T 501	334P191010	FLYBACK		
T 5000	349P122080	PCC		

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
T 9A0	350P580010	POWER	
		VARIABLE RESISTORS	
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A5	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A6	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A7	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N
		RESISTORS	
R 2F1	103P532070	NETWORK	1/8W 1.5KΩ-JX3
R 2Z9	103P553010	NETWORK	1/8W 3.3KΩ-JX5
R 311	103P378040	FUSE	1/4W 2.2Ω-J
R 312	103P378040	FUSE	1/4W 2.2Ω-J
R 4B52	103P397090	FUSE	1/2W 0.82Ω-J
R 4B53	103P397090	FUSE	1/2W 0.82Ω-J
R 503	109D074030	CEMENT METAL	5W 3.9KΩ-K/J
R 508	103P438050	FUSE METAL	2W 2.7Ω-K/J
R 509	103P391030	FUSE	1/2W 100Ω-J
R 510	103P398010	FUSE	1/2W 1.2Ω-J
R 5008	103P398000	FUSE	1/2W 1.0Ω-J
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3
R 7001	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7003	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F
R 7009	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7010	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7011	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7012	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7013	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7014	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7015	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7016	103P473000	CHIP RESISTOR	1/10W 1.6KΩ-F
R 7019	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7022	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7023	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7024	103P401050	CHIP RESISTOR	1/10W 150Ω-J [45]
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J [50]
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J

[45] : VS – 45VA1　　[50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J	
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J	
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7032	103P409050	CHIP RESISTOR	1/10W 0Ω	[45]
R 7033	103P409050	CHIP RESISTOR	1/10W 0Ω	[45]
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F	
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F	
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J	
R 7050	103P402020	CHIP RESISTOR	1/10W 560Ω-J	[50]
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F	
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F	
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F	
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J	
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F	
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F	
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F	
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F	
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7101	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	[45]
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J	
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J	
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7150	103P479000	CHIP METAL	1/10W 510KΩ-F	
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K	
R 9A15	102P106080	WIRE	2W 0.1Ω-J	
R 9A16	102P106080	WIRE	2W 0.1Ω-J	
		CAPACITORS AND TRIMMERS		
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J	
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J	
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J	
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K	
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J	
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4	
C 731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7006	141P133090	CHIP CAPACITOR	F50V0.022μF-Z	
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7008	154P323000	CHIP CAPACITOR	SL50V 56pF-J	[45]
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J	
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K	
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M	
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M	
C 7015	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	[45]
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M	[50]
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M	[50]
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M	[50]
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M	
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J	
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7027	181P506020	CHIP CAPACITOR	50V 2.2μF-M	
C 7028	181P506000	CHIP CAPACITOR	50V 0.47μF-M	
C 7029	181P506000	CHIP CAPACITOR	50V 0.47μF-M	
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K	
C 7031	181P528030	CHIP ELECTROLYTIC-C		[50]
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M	
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7034	181P528030	CHIP ELECTROLYTIC-C		[50]

[45] : VS – 45VA1 [50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 7036	181P524090	CHIP CAPACITOR	35V 4.7μF-M	[50]
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7038	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J	
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7045	154P333030	CHIP CAPACITOR	CH50V 82pF-J	[45]
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J	
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J	
C 7103	181P502030	CHIP CAPACITOR	16V 10μF-M	
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7108	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7109	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022μF-K	
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022μF-K	
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7120	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7122	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7123	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	
C 7124	181P500010	CHIP CAPACITOR	6.3V 22μF-M	
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1μF-K	
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M	
C 909	185D063080	ELECTROLYTIC-C	H200V 820μF-M 105C	
C 923	185D057020	ELECTROLYTIC-C	H50V 6800μF-M	
C 927	185D054060	ELECTROLYTIC-C	H35V 4700μF-M	
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470μF-M 105C	
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820μF-M 105C	
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
		SWITCHES		
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7	
		MISCELLANEOUS		
	462P004020	A-MAGNET ASSY		
	462P035010	MAGNET ASSY	RED/BLUE-CRT	
	462P035020	MAGNET ASSY	GREEN-CRT	
	453B011040	ANODE CAP		
	767D038020	MIRROR		[45]
	767D028070	MIRROR		[50]
	449C026020	CRT SOCKET		
AG6A0	224D019090	AIR GAP	1.5KV	
AG6A1	224D019090	AIR GAP	1.5KV	
AG6A2	224D019090	AIR GAP	1.5KV	
AG6A3	224D019090	AIR GAP	1.5KV	
AG6A4	224D019090	AIR GAP	1.5KV	
AG6A5	224D019090	AIR GAP	1.5KV	
AG6A6	224D019040	AIR GAP	2KV	
AG6A7	224D019040	AIR GAP	2KV	
AG6A8	224D019040	AIR GAP	2KV	
F 900	283D060020	FUSE	S5A	
F 901	283D038070	FUSE	S4A	
F 920	283D038060	FUSE	S2A	
F 9A0	283D038070	FUSE	S4A	
K 3Z1	287P073010	POWER RELAY	VB-12TKU-526-UL3	
K 3Z2	287P060010	POWER RELAY	DH12D2-OS(M)	
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L	
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L	
PC9A0	268P033010	PHOTO COUPLER	ON3161-R	
PJ3A01	440B095010	TERMINAL JACK		[45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN	[50]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2	
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1	
RT500	265P090050	THERMISTOR	NTH5D102KA	
RT501	265P090050	THERMISTOR	NTH5D102KA	
RT502	265P090050	THERMISTOR	NTH5D102KA	
RT5D0	265P090050	THERMISTOR	NTH5D102KA	
RV900	265P086010	VARISTOR	SNR-271KD10	
SP391	480P655010	SPEAKER	181P05M6910	
SP392	480P233010	SPEAKER	E040PX474M69	
SP393	480P655010	SPEAKER	181P05M6910	
SP394	480P233010	SPEAKER	E040PX474M69	
*TU101	295P266030	TUNER	ENV568D5G3	

[45] : VS – 45VA1　　[50] : VS – 50VA1

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
X 201	285P029050	CRYSTAL RESONATOR	3.5795MHz	
X 202	285P015010	CRYSTAL RESONATOR	3.57955MHz	
X 7001	285P066010	CRYSTAL RESONATOR	3.5795MHz	
Z 7706	939P296090	PREAMP UNIT	HC-437M	
Z 9A01	283P030090	FUSE	SSFR 4A	
Z 9A02	283P030090	FUSE	SSFR 4A	
		PRINTED CIRCUIT BOARD ASSY'S		
*	935D156001	CONTROL PCB ASSY		
*	935C438002	CONV PCB ASSY		[45]
*	935C438001	CONV PCB ASSY		[50]
*	935C440001	CRT PCB ASSY		
*	935D157001	DISPLAY PCB ASSY		
*	935D154001	FRONT PCB ASSY		
*	935D153001	FS PCB ASSY		
*	935C437002	MAIN PCB ASSY		[45]
*	935C437001	MAIN PCB ASSY		[50]
*	935C442002	PCC PCB ASSY		[45]
*	935C442001	PCC PCB ASSY		[50]
*	930B552001	PIP PCB ASSY		
*	935C439001	POWER SUB PCB ASSY		
*	935D155001	PREAMP PCB ASSY		
*	935D162002	SIDE PCC PCB ASSY		[45]
*	935D162001	SIDE PCC PCB ASSY		[50]
*	935C441002	SIGNAL PCB ASSY		[45]
*	935C441001	SIGNAL PCB ASSY		[50]
*	935D152002	TERMINAL PCB ASSY		[45]
*	935D152001	TERMINAL PCB ASSY		[50]
		MECHANICAL PARTS		
	669D171080	SCREW	M4X25 0.7	
	669D204060	SCREW	M4X16	[45]
	669D130050	SCREW	4X20 BLACK	
	669D220030	SCREW	3X10 46LA005	
	669D220040	SCREW	3X12 46LA005	
	669D220060	SCREW	3X16 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D221080	SCREW	4X25 46LA005	
	669D220020	SCREW	3X8 46LA005	[50]
	669D212010	SCREW	3X12	
	669D222040	SCREW	3X12	
	683D010050	WASHER	104512	
		COSMETIC PARTS		
	246C160010	AC POWER CORD		
	975C125008	BAFFLE BOARD ASSY		[45]
	975C125009	BAFFLE BOARD ASSY		[50]
	975D045010	CABINET ASSY		[45]
	975D045040	CABINET ASSY		[50]
	975B064015	FRAME SCREEN ASSY		[45]
	975B064016	FRAME SCREEN ASSY		[50]
	702C948060	TRAY ASSY		
	700A590060	BACK COVER		[45]
	700C147010	BACK COVER		[50]
	700C146020	BACK COVER		[45]
	700C146090	BACK COVER		[50]
	702A355020	TERMINAL BOARD		[45]
	702A355010	TERMINAL BOARD		[50]
	589D042030	CASTER		
	540C015010	LEAD CLAMPER		
	641D173010	CLIP	AC-POWER-CORDE	
	761C273010	DOOR CATCH		
	702B712030	CONTROL DOOR ASSY		[45]
	702B737010	CONTROL DOOR ASSY		[50]
	771D090010	FOOT	(S)	
*	491P004050	FRESNEL LENS		[45]
*	491P009020	FRESNEL LENS		[50]
	761A093010	SPEAKER GRILLE		[45]
	761A092010	SPEAKER GRILLE		[50]
	734D417020	PUSH KNOB		
*	491P006090	LENTICULAR SCREEN		[45]
*	491P010080	LENTICULAR SCREEN		[50]
	440C176080	TERMINAL BOARD	ANTENNA	
		PACKING PARTS AND ACCESSORY		
1	802B392010	PACKING CASE	SLEEVE	[45]
1	802B390010	PACKING CASE	SLEEVE	[50]
2	803B692010	CUSHION TOP		
3	802B392030	PACKING CASE	REAR-CORNER	[45]
3	802B390030	PACKING CASE	REAR-CORNER	[50]
4	802B392020	PACKING CASE	BOTTOM	[45]
4	802B390020	PACKING CASE	BOTTOM	[50]
5	831C060040	PACKING BAG	1900X2200X2.0	
6	829C045020	PACKING SHEET		
7	829D126090	PACKING SHEET	2600X600X.5	
8	802B390040	PACKING CASE	FRONT-CORNER	[50]
	871D174030	INSTRUCTION BOOK		
	871D174020	INSTRUCTION BOOK		[45]
*	939P434030	REMOTE HAND UNIT		
		OTHER CRITICAL COMPONENTS		
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J	
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J	
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J	
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J	
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M	
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M	
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K	

PARTS LIST

MODEL : VS – 40VA2/VS – 45VA2/VS – 50VA2/VS – 60VA2

In order to expedite delivery of replacement part orders.

Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity

Unless full information is supplied, delay in execution of orders will result.

* : Warranty return items

: Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[40] : VS – 40VA2

[45] : VS – 45VA2

[50] : VS – 50VA2

[60] : VS – 60VA2

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		TUBES		
	251C037070	CRT ASSY	RED-MONOCHROME	[40]
	251C037080	CRT ASSY	GREEN-MONOCHROME	[40]
	251C037090	CRT ASSY	BLUE-MONOCHROME	[40]
	251C037040	CRT ASSY	RED-MONOCHROME	[45]
	251C037050	CRT ASSY	GREEN-MONOCHROME	[45]
	251C037060	CRT ASSY	BLUE-MONOCHROME	[45]
	251C039040	CRT ASSY	RED-MONOCHROME	[50]
	251C039050	CRT ASSY	GREEN-MONOCHROME	[50]
	251C039060	CRT ASSY	BLUE-MONOCHROME	[50]
	251C040070	CRT ASSY	RED-MONOCHROME	[60]
	251C040080	CRT ASSY	GREEN-MONOCHROME	[60]
	251C040090	CRT ASSY	BLUE-MONOCHROME	[60]
		INTEGRATED CIRCUITS		
IC101	272P026010	IC	M51366SP	
IC201	272P467010	IC	M52023SP	
IC202	272P181010	IC	CX20125	
IC203	266P064010	IC	M51320P	
IC204	272P302010	IC	PA0030	
IC205	272P865010	IC	HA11561	
IC206	272P631010	IC	AN91A14K	
IC209	266P686010	IC	MSM5258RS	
IC2001	267P076010	IC	SI-3120C	
IC2002	267P076020	IC	SI-3090C	
IC2003	267P076030	IC	SI-3050C	
IC2004	263P560010	IC	M62359P	
IC300	272P440010	IC	LA4282	
IC3001	272P351020	IC	μPC1871CU	
IC3301	266P419030	IC	M5223L	
IC3302	272P139020	IC	LA7953-N	
IC3303	266P172010	IC	M5218L	
IC3304	272P373020	IC	5222P	
IC3305	266P172010	IC	M5218L	
IC3306	266P419030	IC	M5223L	
IC3307	272P184010	IC	LA7222	
IC3308	272P184010	IC	LA7222	[50, 60]
IC401	272P239050	IC	LA7838-S	
IC4A00	263P306010	IC	TC74HC123AP	
IC4A01	272P263010	IC	CXA 1268-P	
IC4A02	272P106020	IC	μPC4574C	
IC4A03	263P053020	IC	TC4053BP	
IC4B04	272P106010	IC	μPC-4570C	
IC500	266P154010	IC	μPC393C	
IC5A0	272P132010	IC	AN 5551	
IC5A1	272P106030	IC	μPC4570HA	
IC5000	272P240010	IC	M5237L	
IC701	274P200010	IC	M37204M8-561SP	
IC702	263P170030	IC	CAT35C102HP	
IC703	272P758010	IC	M62358P	
IC704	274P008020	IC	MN1380-L	
IC706	267P076030	IC	SI-3050C	
IC7000	272P860010	IC	HA11574	
IC7100	274P177010	IC	HD49416FS	
IC7101	263P548010	IC	M5M4C264L-12	
IC7601	272P184010	IC	LA7222	
IC7602	272P394010	IC	LA7956	
IC7603	272P394010	IC	LA7956	
IC7604	272P164010	IC	LA7220	
IC7605	266P064010	IC	M51320P	
IC7606	263P546010	IC	M66320P	
IC800	272P690010	IC	PA0036	
IC801	272P106020	IC	μPC4574C	
IC802	272P106020	IC	μPC4574C	
IC803	263P053020	IC	TC4053BP	
IC804	272P106020	IC	μPC4574C	
IC805	272P106020	IC	μPC4574C	
IC806	272P106020	IC	μPC4574C	
IC807	272P106030	IC	μPC4570HA	
IC808	272P106030	IC	μPC4570HA	
IC809	266P727010	IC	μPC339C/MC3302P	
IC811	266P934020	IC	μPC7812H	
IC812	266P919010	IC	μPC7912H	
IC8A0	267P077020	IC	STK391-020	
IC8A1	267P077020	IC	STK391-020	
IC8501	263P306010	IC	TC74HC123AP	
IC8551	267P108010	IC	STK396-010	
IC8801	267P825020	IC	STK4275MB	
IC9A0	267P112010	IC	STR-M6511	
IC9A1	267P062010	IC	SE130N	
		TRANSISTORS		
Q 101	260P356010	TRANSISTOR	2SC1906	
Q 102	260P559030	TRANSISTOR	2SC1740S-S	
Q 103	260P560040	TRANSISTOR	2SA933S-S	
Q 104	260P559030	TRANSISTOR	2SC1740S-S	
Q 105	260P356010	TRANSISTOR	2SC1906	
Q 201	260P559030	TRANSISTOR	2SC1740S-S	
Q 221	260P559030	TRANSISTOR	2SC1740S-S	
Q 222	260P559030	TRANSISTOR	2SC1740S-S	
Q 223	260P559030	TRANSISTOR	2SC1740S-S	
Q 224	260P559030	TRANSISTOR	2SC1740S-S	
Q 240	260P559030	TRANSISTOR	2SC1740S-S	
Q 263	260P559030	TRANSISTOR	2SC1740S-S	
Q 264	260P560040	TRANSISTOR	2SA933S-S	
Q 280	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S	
Q 2L1	260P560040	TRANSISTOR	2SA933S-S	

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 2L2	260P560040	TRANSISTOR	2SA933S-S
Q 2L3	260P560040	TRANSISTOR	2SA933S-S
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S
Q 2001	260P559030	TRANSISTOR	2SC1740S-S
Q 2004	260P559030	TRANSISTOR	2SC1740S-S
Q 2005	260P560040	TRANSISTOR	2SA933S-S
Q 2007	260P559030	TRANSISTOR	2SC1740S-S
Q 2008	260P559030	TRANSISTOR	2SC1740S-S
Q 303	260P559030	TRANSISTOR	2SC1740S-S
Q 311	260P560040	TRANSISTOR	2SA933S-S
Q 312	260P559030	TRANSISTOR	2SC1740S-S
Q 313	260P559030	TRANSISTOR	2SC1740S-S
Q 318	260P559030	TRANSISTOR	2SC1740S-S
Q 3A1	260P356010	TRANSISTOR	2SC1906
Q 3301	260P559030	TRANSISTOR	2SC1740S-S
Q 3302	260P559030	TRANSISTOR	2SC1740S-S
Q 3303	260P559030	TRANSISTOR	2SC1740S-S
Q 3304	260P559030	TRANSISTOR	2SC1740S-S
Q 3305	260P559030	TRANSISTOR	2SC1740S-S
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P
Q 4B04	260P573020	TRANSISTOR	2SB940A-P
Q 500	260P422010	TRANSISTOR	2SC2482
Q 501	260P572010	TRANSISTOR	2SD1556
Q 502	260P559050	TRANSISTOR	2SC1740S-E
Q 503	260P559050	TRANSISTOR	2SC1740S-E
Q 504	260P559030	TRANSISTOR	2SC1740S-S
Q 506	260P559030	TRANSISTOR	2SC1740S-S
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C
Q 5000	260P559030	TRANSISTOR	2SC1740S-S
Q 5001	260P167040	TRANSISTOR	2SA673A-D
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E
Q 701	260P559030	TRANSISTOR	2SC1740S-S
Q 705	260P559030	TRANSISTOR	2SC1740S-S
Q 707	260P559030	TRANSISTOR	2SC1740S-S
Q 711	260P559030	TRANSISTOR	2SC1740S-S
Q 715	260P559030	TRANSISTOR	2SC1740S-S
Q 716	260P560040	TRANSISTOR	2SA933S-S
Q 717	260P559030	TRANSISTOR	2SC1740S-S
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482

DIODES

D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471
D 226	264P045040	DIODE	1S2471
D 228	264P483080	DIODE	RD5. 1FB2
D 229	264P045040	DIODE	1S2471
D 231	264P045040	DIODE	1S2471
D 232	264P464040	DIODE	EQA02-10B
D 2001	264P045040	DIODE	1S2471
D 2002	264P285010	DIODE	S5500D
D 2003	264P045040	DIODE	1S2471
D 301	264P285010	DIODE	S5500D
D 302	264P045040	DIODE	1S2471
D 303	264P045040	DIODE	1S2471
D 304	264P502020	DIODE	HZ5BLL
D 305	264P501040	DIODE	HZ3ALL
D 307	264P285010	DIODE	S5500D
D 309	264P045040	DIODE	1S2471
D 3301	264P045040	DIODE	1S2471
D 3302	264P501050	DIODE	HZ3BLL
D 400	264P464050	DIODE	EQA02-10C
D 401	264P285010	DIODE	S5500D
D 4A00	264P045040	DIODE	1S2471
D 4B01	264P045040	DIODE	1S2471
D 4B02	264P483080	DIODE	RD5. 1FB2
D 4B03	264P483080	DIODE	RD5. 1FB2
D 4B04	264P045040	DIODE	1S2471
D 500	264P533010	DIODE	RS 4FS
D 501	264P358070	DIODE	RU 4AM
D 502	264P146010	DIODE	RC 2
D 503	264P045040	DIODE	1S2471
D 504	264P045040	DIODE	1S2471
D 505	264P102020	DIODE	RU 3B
D 506	264P045040	DIODE	1S2471
D 507	264P244030	DIODE	HZT22-02
D 508	264P045040	DIODE	1S2471
D 509	264P457050	DIODE	RD3. 0EB1
D 510	264P045040	DIODE	1S2471
D 511	264P045040	DIODE	1S2471
D 512	264P101050	DIODE	RM 1B
D 515	264P045040	DIODE	1S2471
D 518	264P489010	DIODE	RD16FB1
D 5A1	264P045040	DIODE	1S2471
D 5000	264P285010	DIODE	S5500D
D 6A5	264P501020	DIODE	HZ2BLL
D 6A6	264P045040	DIODE	1S2471
D 6A7	264P045040	DIODE	1S2471
D 701	264P045040	DIODE	1S2471
D 704	264P045040	DIODE	1S2471
D 705	264P045040	DIODE	1S2471
D 706	264P486020	DIODE	RD8. 2FB3
D 711	264P045040	DIODE	1S2471
D 712	264P045040	DIODE	1S2471
D 713	264P045040	DIODE	1S2471

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
D 714	264P502020	DIODE	HZ5BLL
D 715	264P502020	DIODE	HZ5BLL [45, 50]
D 7001	264P821010	CHIP DIODE	HSM2836
D 7601	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7602	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 7603	264P463040	DIODE	EQA02-09AB/RD9. 1EB1
D 78A0	264P225010	LIGHT EMITTING DIODE	LN25RP [60]
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124 [40, 45, 50]
D 803	264P045040	DIODE	1S2471
D 804	264P045040	DIODE	1S2471
D 810	264P045040	DIODE	1S2471
D 811	264P045040	DIODE	1S2471
D 820	264P045040	DIODE	1S2471
D 821	264P045040	DIODE	1S2471
D 826	264P483080	DIODE	RD5. 1FB2
D 827	264P483080	DIODE	RD5. 1FB2
D 830	264P045040	DIODE	1S2471
D 831	264P045040	DIODE	1S2471
D 832	264P045040	DIODE	1S2471
D 833	264P045040	DIODE	1S2471
D 834	264P045040	DIODE	1S2471
D 835	264P045040	DIODE	1S2471
D 836	264P045040	DIODE	1S2471
D 837	264P045040	DIODE	1S2471
D 8A0	264P045040	DIODE	1S2471
D 8A1	264P045040	DIODE	1S2471
D 8B0	264P045040	DIODE	1S2471
D 8B1	264P045040	DIODE	1S2471
D 8501	264P045040	DIODE	1S2471
D 8502	264P045040	DIODE	1S2471
D 900	264P535010	DIODE	RBV-608
D 920	264P512020	DIODE	RBV-40C
D 921	264P512020	DIODE	RBV-40C
D 951	264P487080	DIODE	RD12FB2
D 952	264P487080	DIODE	RD12FB2
D 953	264P045040	DIODE	1S2471
D 954	264P045040	DIODE	1S2471
D 960	264P358090	DIODE	RU 4YX
D 962	264P102020	DIODE	RU 3B
D 963	264P102020	DIODE	RU 3B
D 964	264P102020	DIODE	RU 3B
D 9A01	264P578010	DIODE	RG 2A
D 9A02	264P588010	DIODE	FML-G16S
D 9A03	264P358090	DIODE	RU 4YX
D 9A04	264P102040	DIODE	RU 3M
D 9A05	264P102040	DIODE	RU 3M
D 9A06	264P358090	DIODE	RU 4YX
D 9A10	264P521040	DIODE	EU 1A
D 9A11	264P622010	DIODE	AL01Z
D 9A13	264P622010	DIODE	AL01Z
D 9A42	264P102020	DIODE	RU 3B
		FILTERS	
CF101	296P024020	CERAMIC TRAP	TPS4. 5MB7
CF201	299P051050	CERAMIC RESONATOR	CSB500F9

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
CF301	296P067010	CERAMIC FILTER	SFS4.5MB2	
DL205	296P113010	COMB FILTER		
LC7101	409P771010	LOW PASS FILTER	A285TCIS-13505	
SF101	296P096020	SAW FILTER	SAF45MVK56Z	
SF301	296P092010	SAW FILTER	SAF41MC70Z	
X 701	296P064010	CERAMIC RESONATOR	CSA-4.00MG	
		DELAY LINES		
DL200	337P147020	DELAY LINE		
DL201	337P147010	DELAY LINE		
DL202	337P113020	DELAY LINE	100NS	
DL203	337P134010	DELAY LINE	SDL-4256	
		COILS		
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT	
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT	
L 101	325C124030	PEAKING COIL	0.22μH-M	
L 102	325C124090	PEAKING COIL	0.68μH-M	
L 103	325C120010	PEAKING COIL	1.0μH-M	
L 104	325C121030	PEAKING COIL	10μH-K	
L 105	325C122030	PEAKING COIL	68μH-K	
L 106	323P171010	VIF COIL	45.75MHz	
L 107	323P111020	VIF COIL	45MHz	
L 108	325C122030	PEAKING COIL	68μH-K	
L 109	325C120020	PEAKING COIL	1.2μH-M	
L 111	325C121030	PEAKING COIL	10μH-K	
L 117	325C121030	PEAKING COIL	10μH-K	
L 201	325C121030	PEAKING COIL	10μH-K	
L 202	325C101030	PEAKING COIL	10μH-K	
L 203	325C121090	PEAKING COIL	33μH-K	
L 204	325C121030	PEAKING COIL	10μH-K	
L 205	325C121030	PEAKING COIL	10μH-K	
L 207	325C121000	PEAKING COIL	5.6μH-K	
L 212	325C121030	PEAKING COIL	10μH-K	
L 213	325C161000	PEAKING COIL	5.6μH-K	
L 220	325C122040	PEAKING COIL	82μH-K	
L 2N0	325C162090	PEAKING COIL	220μH-K	
L 2N1	325C162090	PEAKING COIL	220μH-K	
L 2002	325C121030	PEAKING COIL	10μH-K	
L 2003	325C121030	PEAKING COIL	10μH-K	
L 2004	325C163070	PEAKING COIL	1000μH-K	
L 2006	325C121030	PEAKING COIL	10μH-K	
L 2007	325C121030	PEAKING COIL	10μH-K	
L 2009	321C031040	RF COIL	10μH-K	
L 303	327P072010	SIF COIL	TKACS-27071BY	
L 3A1	325C122030	PEAKING COIL	68μH-K	
L 3301	325C121030	PEAKING COIL	10μH-K	[50, 60]
L 3A01	325C121030	PEAKING COIL	10μH-K	
L 4A1	321C031090	RF COIL	33μH-K	
L 4A2	321C031090	RF COIL	33μH-K	
L 4B10	351P068010	PEAKING COIL	SB4-680-122	
L 500	321C030070	RF COIL	3.3μH-K	
L 501	411P001010	FERRITE LEAD		
L 502	411P001010	FERRITE LEAD		
L 503	333P025040	H-LIN. COIL		

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
L 505	409P565020	FILTER COIL		
L 506	409P691010	FILTER COIL		
L 6A0	325C107020	PEAKING COIL	56μH-J	
L 6A1	325C107020	PEAKING COIL	56μH-J	
L 6A2	325C107020	PEAKING COIL	56μH-J	
L 6A3	325C161060	PEAKING COIL	18μH-K	
L 6A4	325C161060	PEAKING COIL	18μH-K	
L 6A5	325C161060	PEAKING COIL	18μH-K	
L 701	325C121030	PEAKING COIL	10μH-K	
L 702	325C121030	PEAKING COIL	10μH-K	
L 703	325C121060	PEAKING COIL	18μH-K	
L 704	325C121030	PEAKING COIL	10μH-K	
L 707	325C121030	PEAKING COIL	10μH-K	
L 708	321C010040	RF COIL	1000μH-J	
L 710	325C121030	PEAKING COIL	10μH-K	
L 711	325C121030	PEAKING COIL	10μH-K	
L 712	325C121030	PEAKING COIL	10μH-K	
L 7000	321C031040	RF COIL	10μH-K	
L 7001	325C107050	PEAKING COIL	100μH-J	
L 7002	325C141030	CHIP COIL	10μH-K	
L 7003	325C141030	CHIP COIL	10μH-K	
L 7004	325C141030	CHIP COIL	10μH-K	[45, 50]
L 7005	321C031040	RF COIL	10μH-K	[45, 50]
L 7101	325C141030	CHIP COIL	10μH-K	[45, 50]
L 7102	325C141030	CHIP COIL	10μH-K	
L 7103	325C141030	CHIP COIL	10μH-K	
L 7601	325C121030	PEAKING COIL	10μH-K	
L 7602	325C121030	PEAKING COIL	10μH-K	
L 7603	325C121030	PEAKING COIL	10μH-K	
L 77A1	325C121030	PEAKING COIL	10μH-K	
L 7800	325C121030	PEAKING COIL	10μH-K	
L 801	321C031040	RF COIL	10μH-K	
L 805	321C031040	RF COIL	10μH-K	
L 807	351P068030	PEAKING COIL	SBC-03	
L 808	351P068030	PEAKING COIL	SBC-03	
L 809	351P068030	PEAKING COIL	SBC-03	
L 810	351P068030	PEAKING COIL	SBC-03	
L 811	321C031040	RF COIL	10μH-K	
L 812	321C031040	RF COIL	10μH-K	
L 814	321C031090	RF COIL	33μH-K	
L 815	321C031090	RF COIL	33μH-K	
L 900	351P064030	LINE FILTER	SE26TL-40030A	
L 9A01	411D009020	FERRITE CORE FILTER		
L 9A02	411P001010	FERRITE LEAD		
L 9A03	351P070010	FILTER COIL	560μH-K	
L 9A10	411P001010	FERRITE LEAD		
L 9A12	411P001010	FERRITE LEAD		
LC7102	409P736010	COIL	CLOCK-ADJ 11614	
LF7000	409P696020	EMI FILTER	BLM41A01	
LF7001	409P402030	EMI FILTER	DSS306-55FZ103N100	
LF7002	409P402020	EMI FILTER	DSS306-55B102M100	
LF7003	409P402020	EMI FILTER	DSS306-55B102M100	
T 101	320P026030	TRAP COIL		

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		TRANSFORMERS	
	350P581010	POWER	
T 201	349P159020	CHROMA-BP	
T 4B00	349P192010	PCC	TOP-BOTTOM
T 500	336P009030	H. DRIVE	
T 501	334P191010	FLYBACK	
T 5000	349P122080	PCC	
T 9A0	350P580010	POWER	
		VARIABLE RESISTORS	
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A5	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A6	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A7	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N
		RESISTORS	
R 2F1	103P532070	NETWORK	1/8W 1.5KΩ-JX3
R 2Z9	103P553010	NETWORK	1/8W 3.3KΩ-JX5
R 311	103P378040	FUSE	1/4W 2.2Ω-J
R 312	103P378040	FUSE	1/4W 2.2Ω-J
R 4B52	103P397090	FUSE	1/2W 0.82Ω-J
R 4B53	103P397090	FUSE	1/2W 0.82Ω-J
R 503	109D074030	CEMENT METAL	5W 3.9KΩ-K/J
R 508	103P438050	FUSE METAL	2W 2.7Ω-K/J
R 509	103P391030	FUSE	1/2W 100Ω-J
R 510	103P398010	FUSE	1/2W 1.2Ω-J
R 5008	103P398000	FUSE	1/2W 1.0Ω-J
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3
R 7001	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7003	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F
R 7009	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7010	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7011	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7012	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7013	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7014	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7015	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7016	103P473000	CHIP RESISTOR	1/10W 1.6KΩ-F
R 7019	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J	
R 7022	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J	
R 7023	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J	
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J	[40, 60]
R 7024	103P401050	CHIP RESISTOR	1/10W 150Ω-J	[45, 50]
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J	
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J	
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J	
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J	
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J	
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7032	103P409050	CHIP RESISTOR	1/10W 0Ω	[45, 50]
R 7033	103P409050	CHIP RESISTOR	1/10W 0Ω	[45, 50]
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F	
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F	
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F	
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J	
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F	
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F	
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F	
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J	
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J	
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F	
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J	
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F	
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F	
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F	
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F	
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J	
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7101	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	[45, 50]
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J	
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J	
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J	
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J	
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J	
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J	
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω	
R 7150	103P479000	CHIP METAL	1/10W 510KΩ-F	
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K	
R 9A15	102P106080	WIRE	2W 0.1Ω-J	
R 9A16	102P106080	WIRE	2W 0.1Ω-J	
		CAPACITORS AND TRIMMERS		
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J	
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J	
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J	
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J	
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K	
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J	
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J	
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4	
C 731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M	
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7006	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7008	154P323000	CHIP CAPACITOR	SL50V 56pF-J	[45, 50]
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J	
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K	
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M	
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M	
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M	[40, 60]
C 7015	181P506010	CHIP CAPACITOR	04W 50V 1μF-M	[45, 50]
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M	[40, 60]
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M	[40, 60]
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M	
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z	
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M	
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z	
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J	
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M	

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 7027	181P506020	CHIP CAPACITOR	50V 2.2 μF-M	
C 7028	181P506000	CHIP CAPACITOR	50V 0.47 μF-M	
C 7029	181P506000	CHIP CAPACITOR	50V 0.47 μF-M	
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K	
C 7031	181P528030	CHIP ELECTROLYTIC-C		[40, 60]
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100 μF-M	
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z	
C 7034	181P528030	CHIP ELECTROLYTIC-C		[40, 60]
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K	
C 7036	181P524090	CHIP CAPACITOR	35V 4.7 μF-M	[40, 60]
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z	
C 7038	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J	
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7045	154P333030	CHIP CAPACITOR	CH50V 82pF-J	[45, 50]
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J	
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1 μF-M	
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J	
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z	
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J	
C 7103	181P502030	CHIP CAPACITOR	16V 10 μF-M	
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7108	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	
C 7109	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022 μF-K	
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022 μF-K	
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z	
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z	
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z	
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7120	181P504090	CHIP CAPACITOR	35V 4.7 μF-M	
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7122	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	
C 7123	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	[40]
C 7123	181P506010	CHIP CAPACITOR	04W 50V 1 μF-M	[45, 50, 60]
C 7124	181P500010	CHIP CAPACITOR	6.3V 22 μF-M	
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K	
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100 μF-M	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
C 909	185D063080	ELECTROLYTIC-C	H200V 820 μF-M 105C	
C 923	185D057020	ELECTROLYTIC-C	H50V 6800 μF-M	
C 927	185D054060	ELECTROLYTIC-C	H35V 4700 μF-M	
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470 μF-M 105C	
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820 μF-M 105C	
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF	
		SWITCHES		
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3	
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7	
		MISCELLANEOUS		
	462P004020	A-MAGNET ASSY		
	462P016070	F-A MAGNET ASSY		[40]
	462P020090	F-A MAGNET ASSY		[40]
	462P022020	F-A MAGNET ASSY		[40]
	462P035010	MAGNET ASSY	RED/BLUE-CRT	[45, 50, 60]
	462P035020	MAGNET ASSY	GREEN-CRT	[45, 50, 60]
	453B011040	ANODE CAP		
	767D027020	MIRROR		[40]
	767D038020	MIRROR		[45]
	767D028070	MIRROR		[50]
	767D039010	MIRROR		[60]
	449C026020	CRT SOCKET		
AG6A0	224D019090	AIR GAP	1.5KV	
AG6A1	224D019090	AIR GAP	1.5KV	
AG6A2	224D019090	AIR GAP	1.5KV	
AG6A3	224D019090	AIR GAP	1.5KV	
AG6A4	224D019090	AIR GAP	1.5KV	
AG6A5	224D019090	AIR GAP	1.5KV	
AG6A6	224D019040	AIR GAP	2KV	
AG6A7	224D019040	AIR GAP	2KV	
AG6A8	224D019040	AIR GAP	2KV	
F 900	283D060020	FUSE	S5A	
F 901	283D038070	FUSE	S4A	
F 920	283D038060	FUSE	S2A	
F 9A0	283D038070	FUSE	S4A	
K 3Z1	287P073010	POWER RELAY	VB-12TKU-5[illegible]6-UL3	
K 3Z2	287P060010	POWER RELAY	DH12D2-0S(L)	
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L	
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L	

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
PC9A0	268P033010	PHOTO COUPLER	ON3161-R	
PJ3A01	440B095010	TERMINAL JACK		[40, 45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN	[50, 60]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2	
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1	
RT500	265P090050	THERMISTOR	NTH5D102KA	
RT501	265P090050	THERMISTOR	NTH5D102KA	
RT502	265P090050	THERMISTOR	NTH5D102KA	
RT5D0	265P090050	THERMISTOR	NTH5D102KA	
RV900	265P086010	VARISTOR	SNR-271KD10	
SP391	480P655010	SPEAKER	181P05M6910	
SP392	480P233010	SPEAKER	E040PX474M69	[45, 50, 60]
SP393	480P655010	SPEAKER	181P05M6910	
SP394	480P233010	SPEAKER	E040PX474M69	[45, 50, 60]
*TU101	295P266030	TUNER	ENV568D5G3	
X 201	285P029050	CRYSTAL RESONATOR	3.5795MHz	
X 202	285P015010	CRYSTAL RESONATOR	3.57955MHz	
X 7001	285P066010	CRYSTAL RESONATOR	3.5795MHz	
Z 7706	939P296090	PREAMP UNIT	HC-437M	
Z 9A01	283P030090	FUSE	SSFR 4A	
Z 9A02	283P030090	FUSE	SSFR 4A	
		PRINTED CIRCUIT BOARD ASSY'S		
*	935D156001	CONTROL PCB ASSY		
*	935C438003	CONV PCB ASSY		[40]
*	935C438002	CONV PCB ASSY		[45]
*	935C438001	CONV PCB ASSY		[50]
*	935C438004	CONV PCB ASSY		[60]
*	935C440001	CRT PCB ASSY		
*	935D157001	DISPLAY PCB ASSY		[40, 45, 50]
*	935D167001	DISPLAY PCB ASSY		[60]
*	935D154001	FRONT PCB ASSY		
*	935D153001	FS PCB ASSY		
*	935C437006	MAIN PCB ASSY		[40]
*	935C437002	MAIN PCB ASSY		[45]
*	935C437001	MAIN PCB ASSY		[50]
*	935C437005	MAIN PCB ASSY		[60]
*	935C442003	PCC PCB ASSY		[40]
*	935C442002	PCC PCB ASSY		[45]
*	935C442001	PCC PCB ASSY		[50]
*	935C442004	PCC PCB ASSY		[60]
*	930B552003	PIP PCB ASSY		[40, 60]
*	930B552001	PIP PCB ASSY		[45, 50]
*	935C439001	POWER SUB PCB ASSY		
*	935D155001	PREAMP PCB ASSY		
*	935D162003	SIDE PCC PCB ASSY		[40]
*	935D162002	SIDE PCC PCB ASSY		[45]
*	935D162001	SIDE PCC PCB ASSY		[50]
*	935D162004	SIDE PCC PCB ASSY		[60]
*	935C441002	SIGNAL PCB ASSY		[40, 45]
*	935C441001	SIGNAL PCB ASSY		[50, 60]
*	935D152002	TERMINAL PCB ASSY		[40, 45]
*	935D152001	TERMINAL PCB ASSY		[50, 60]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		MECHANICAL PARTS		
	669D171080	SCREW	M4X25 0.7	
	669D204070	SCREW	M4X20	[40]
	669D204060	SCREW	M4X16	[45, 60]
	669D130050	SCREW	4X20 BLACK	[40, 45, 50]
	669D140070	SCREW	4X16	[60]
	669D220030	SCREW	3X10 46LA005	
	669D220040	SCREW	3X12 46LA005	
	669D220060	SCREW	3X16 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D220020	SCREW	3X8 46LA005	[40, 50, 60]
	669D221080	SCREW	4X25 46LA005	[45, 50, 60]
	669D221060	SCREW	4X16 46LA005	[60]
	669D212010	SCREW	3X12	
	669D222060	SCREW	3X16-12	[40]
	669D222040	SCREW	3X12	[45, 50, 60]
	683D010050	WASHER	104512	
		COSMETIC PARTS		
	246C160010	AC POWER CORD		
	762B289010	BACK BOARD ASSY		[60]
	740B123010	BAFFLE BOARD ASSY		[40]
	975C125008	BAFFLE BOARD ASSY		[45]
	975C125009	BAFFLE BOARD ASSY		[50]
	975C125011	BAFFLE BOARD ASSY		[60]
	975D045060	CABINET ASSY		[40]
	975D045020	CABINET ASSY		[45]
	975D045030	CABINET ASSY		[50]
	975D045050	CABINET ASSY		[60]
	975B069002	FRAME SCREEN ASSY		[40]
	975B064019	FRAME SCREEN ASSY		[45]
	975B064017	FRAME SCREEN ASSY		[50]
	975B071010	FRAME SCREEN ASSY		[60]
	702C948060	TRAY ASSY		[45, 50]
	700C147030	BACK COVER		[40]
	700A565020	BACK COVER	(F)	[40]
	700A566030	BACK COVER		[40]
	700C146040	BACK COVER		[45]
	700C146020	BACK COVER		[45]
	700A590070	BACK COVER		[50]
	700C146050	BACK COVER		[50]
	700C147020	BACK COVER		[60]
	702C991010	SIDE PANEL		[60]
	702C991020	SIDE PANEL		[60]
	702A355020	TERMINAL BOARD		[40, 45]
	702A355010	TERMINAL BOARD		[50, 60]
	589D042030	CASTER		[40, 45, 50]
	589C017010	CASTER		[60]
	540C015010	LEAD CLAMPER		
	641D173010	CLIP	AC-POWER-CORD	
	621D840010	SCREEN CLIP	UP/DOWN	[60]
	621D840070	SCREEN CLIP	SIDE-L/R	[60]
	761C437010	DOOR CATCH		[40, 60]
	761C273010	DOOR CATCH		[45, 50]

[40] : VS – 40VA2 [45] : VS – 45VA2 [50] : VS – 50VA2 [60] : VS – 60VA2

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
	702A330010	CONTROL DOOR ASSY		[40]
	702B712030	CONTROL DOOR ASSY		[45]
	702B737010	CONTROL DOOR ASSY		[50]
	702C837000	CONTROL DOOR ASSY		[60]
	771D091010	FOOT	(L)	[40]
	771D090010	FOOT	(S)	[40, 45, 50]
*	491P014020	FRESNEL LENS		[40]
*	491P004050	FRESNEL LENS		[45]
*	491P009020	FRESNEL LENS		[50]
*	491P016030	FRESNEL LENS		[60]
	702B826010	FRONT UNIT		[60]
	702B825090	FRONT PANEL		[60]
	761A085010	SPEAKER GRILLE		[40]
	761A093010	SPEAKER GRILLE		[45]
	761A092010	SPEAKER GRILLE		[50]
	740B159010	SPEAKER GRILLE		[60]
	734D417020	PUSH KNOB		
*	491P013050	LENTICULAR SCREEN		[40]
*	491P006090	LENTICULAR SCREEN		[45]
*	491P010080	LENTICULAR SCREEN		[50]
*	491P015050	LENTICULAR SCREEN		[60]
	440C176080	TERMINAL BOARD	ANTENNA	
		PACKING PARTS AND ACCESSORY		
1	803B684010	CUSHION TOP		[40]
1	802B392040	PACKING CASE	SLEEVE	[45]
1	802B390050	PACKING CASE	SLEEVE	[50]
1	803B695010	CUSHION TOP		[60]
2	802B311030	PACKING CASE	REAR-CUSHION	[40]
2	803B692010	CUSHION TOP		[45, 50]
2	802B315020	PACKING CASE		[60]
3	802B311040	PACKING CASE	SLEEVE	[40]
3	802B392030	PACKING CASE	REAR-CORNER	[45]
3	802B390030	PACKING CASE	REAR-CORNER	[50]
3	802B315050	PACKING CASE	SLEEVE	[60]
4	802B311020	PACKING CASE	BOTTOM	[40]
4	802B392020	PACKING CASE	BOTTOM	[45]
4	802B390020	PACKING CASE	BOTTOM	[50]
4	802B315070	PACKING CASE	SIDE-LEFT	[60]
5	831C060040	PACKING BAG	1900X2200X2.0	[40, 45, 50]
5	802B315060	PACKING CASE	SIDE-RIGHT	[60]
6	829C045020	PACKING SHEET		[40, 45, 50]
6	831C060060	PACKING BAG	2500X2300X2.0	[60]
7	829D084010	PACKING SHEET		[40]
7	829D126090	PACKING SHEET	2600X600X.5	[45, 50]
7	829C047010	PACKING SHEET	TOP	[60]
8	802B390040	PACKING CASE	FRONT-CORNER	[50]
8	829D126030	PACKING SHEET	BOTTOM	[60]
	871D178020	INSTRUCTION BOOK		[40]
	871D174020	INSTRUCTION BOOK		[45]
	871D174030	INSTRUCTION BOOK		[45, 50, 60]
	871D178030	INSTRUCTION BOOK		[60]
*	939P347050	REMOTE HAND UNIT		[40]
*	939P434030	REMOTE HAND UNIT		[45, 50, 60]

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		OTHER CRITICAL COMPONENTS	
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K

PARTS LIST

MODEL : VS – 45VA2CA/VS – 50VA2CA/VS – 60VA2CA

In order to expedite delivery of replacement part orders.
Specify : 1. Model number/Serial number
2. Part number and Description
3. Quantity
Unless full information is supplied, delay in execution of orders will result.

: Critical components

MARK	B	C	D	F	G	J	K
TOLERANCE (%)	± 0.1	± 0.25	± 0.5	± 1	± 2	± 5	± 10

MARK	M	N	V	X	Z	P	Q
TOLERANCE (%)	± 20	± 30	+ 10 – 10	+ 40 – 20	+ 80 – 20	+ 100 – 0	+ 30 – 10

MARK	B	C	D	F	G
TOLERANCE (pF)	± 0.1	± 0.25	± 0.5	± 1	± 2

ABBREVIATION

[45] : VS – 45VA2CA
[50] : VS – 50VA2CA
[60] : VS – 60VA2CA

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
		TUBES		
	251C037040	CRT ASSY	RED-MONOCHROME	[45]
	251C037050	CRT ASSY	GREEN-MONOCHROME	[45]
	251C037060	CRT ASSY	BLUE-MONOCHROME	[45]
	251C039040	CRT ASSY	RED-MONOCHROME	[50]
	251C039050	CRT ASSY	GREEN-MONOCHROME	[50]
	251C039060	CRT ASSY	BLUE-MONOCHROME	[50]
	251C040070	CRT ASSY	RED-MONOCHROME	[60]
	251C040080	CRT ASSY	GREEN-MONOCHROME	[60]
	251C040090	CRT ASSY	BLUE-MONOCHROME	[60]
		INTEGRATED CIRCUITS		
IC101	272P026010	IC	M51366SP	
IC201	272P467010	IC	M52023SP	
IC202	272P181010	IC	CX20125	
IC203	266P064010	IC	M51320P	
IC204	272P302010	IC	PA0030	
IC205	272P865010	IC	HA11561	
IC206	272P631010	IC	AN91A14K	
IC209	266P686010	IC	MSM5258RS	
IC2001	267P076010	IC	SI-3120C	
IC2002	267P076020	IC	SI-3090C	
IC2003	267P076030	IC	SI-3050C	
IC2004	263P560010	IC	M62359P	
IC300	272P440010	IC	LA4282	
IC3001	272P351020	IC	μPC1871CU	
IC3301	266P419030	IC	M5223L	
IC3302	272P139020	IC	LA7953-N	
IC3303	266P172010	IC	M5218L	
IC3304	272P373020	IC	5222P	
IC3305	266P172010	IC	M5218L	
IC3306	266P419030	IC	M5223L	
IC3307	272P184010	IC	LA7222	
IC3308	272P184010	IC	LA7222	[50, 60]
IC401	272P239050	IC	LA7838-S	
IC4A00	263P306010	IC	TC74HC123AP	
IC4A01	272P263010	IC	CXA 1268-P	
IC4A02	272P106020	IC	μPC4574C	
IC4A03	263P053020	IC	TC4053BP	
IC4B04	272P106010	IC	μPC-4570C	
IC500	266P154010	IC	μPC393C	
IC5A0	272P132010	IC	AN 5551	
IC5A1	272P106030	IC	μPC4570HA	
IC5000	272P240010	IC	M5237L	
IC701	274P200010	IC	M37204M8-561SP	
IC702	263P170030	IC	CAT35C102HP	
IC703	272P758010	IC	M62358P	
IC704	274P008020	IC	MN1380-L	
IC706	267P076030	IC	SI-3050C	
IC7000	272P860010	IC	HA11574	
IC7100	274P177010	IC	HD49416FS	
IC7101	263P548010	IC	M5M4C264L-12	
IC7601	272P184010	IC	LA7222	
IC7602	272P394010	IC	LA7956	
IC7603	272P394010	IC	LA7956	
IC7604	272P164010	IC	LA7220	
IC7605	266P064010	IC	M51320P	
IC7606	263P546010	IC	M66320P	
IC800	272P690010	IC	PA0036	
IC801	272P106020	IC	μPC4574C	
IC802	272P106020	IC	μPC4574C	
IC803	263P053020	IC	TC4053BP	
IC804	272P106020	IC	μPC4574C	
IC805	272P106020	IC	μPC4574C	
IC806	272P106020	IC	μPC4574C	
IC807	272P106030	IC	μPC4570HA	
IC808	272P106030	IC	μPC4570HA	
IC809	266P727010	IC	μPC339C/MC3302P	
IC811	266P934020	IC	μPC7812H	
IC812	266P919010	IC	μPC7912H	
IC8A0	267P077020	IC	STK391-020	
IC8A1	267P077020	IC	STK391-020	
IC8501	263P306010	IC	TC74HC123AP	
IC8551	267P108010	IC	STK396-010	
IC8801	267P825020	IC	STK4275MB	
IC9A0	267P112010	IC	STR-M6511	
IC9A1	267P062010	IC	SE130N	
		TRANSISTORS		
Q 101	260P356010	TRANSISTOR	2SC1906	
Q 102	260P559030	TRANSISTOR	2SC1740S-S	
Q 103	260P560040	TRANSISTOR	2SA933S-S	
Q 104	260P559030	TRANSISTOR	2SC1740S-S	
Q 105	260P356010	TRANSISTOR	2SC1906	
Q 201	260P559030	TRANSISTOR	2SC1740S-S	
Q 221	260P559030	TRANSISTOR	2SC1740S-S	
Q 222	260P559030	TRANSISTOR	2SC1740S-S	
Q 223	260P559030	TRANSISTOR	2SC1740S-S	
Q 224	260P559030	TRANSISTOR	2SC1740S-S	
Q 240	260P559030	TRANSISTOR	2SC1740S-S	
Q 263	260P559030	TRANSISTOR	2SC1740S-S	
Q 264	260P560040	TRANSISTOR	2SA933S-S	
Q 280	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2B2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2D0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2H1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K1	260P560040	TRANSISTOR	2SA933S-S	
Q 2K2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K3	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K4	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K5	260P559030	TRANSISTOR	2SC1740S-S	
Q 2K6	260P559030	TRANSISTOR	2SC1740S-S	
Q 2L1	260P560040	TRANSISTOR	2SA933S-S	
Q 2L2	260P560040	TRANSISTOR	2SA933S-S	
Q 2L3	260P560040	TRANSISTOR	2SA933S-S	
Q 2M0	260P559030	TRANSISTOR	2SC1740S-S	

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
Q 2M1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N0	260P559030	TRANSISTOR	2SC1740S-S	
Q 2N1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2P1	260P559030	TRANSISTOR	2SC1740S-S	
Q 2P2	260P559030	TRANSISTOR	2SC1740S-S	
Q 2001	260P559030	TRANSISTOR	2SC1740S-S	
Q 2004	260P559030	TRANSISTOR	2SC1740S-S	
Q 2005	260P560040	TRANSISTOR	2SA933S-S	
Q 303	260P559030	TRANSISTOR	2SC1740S-S	
Q 311	260P560040	TRANSISTOR	2SA933S-S	
Q 312	260P559030	TRANSISTOR	2SC1740S-S	
Q 313	260P559030	TRANSISTOR	2SC1740S-S	
Q 318	260P559030	TRANSISTOR	2SC1740S-S	
Q 3A1	260P356010	TRANSISTOR	2SC1906	
Q 3301	260P559030	TRANSISTOR	2SC1740S-S	
Q 3302	260P559030	TRANSISTOR	2SC1740S-S	
Q 3303	260P559030	TRANSISTOR	2SC1740S-S	
Q 3304	260P559030	TRANSISTOR	2SC1740S-S	
Q 3305	260P559030	TRANSISTOR	2SC1740S-S	
Q 4A00	260P559030	TRANSISTOR	2SC1740S-S	
Q 4A01	260P559030	TRANSISTOR	2SC1740S-S	
Q 4B02	260P574030	TRANSISTOR	2SD1264A-P	[45, 50]
Q 4B02	260P574020	TRANSISTOR	2SD1264A-P	[60]
Q 4B03	260P574030	TRANSISTOR	2SD1264A-P	[45, 50]
Q 4B03	260P574020	TRANSISTOR	2SD1264A-P	[60]
Q 4B04	260P573020	TRANSISTOR	2SB940A-P	
Q 500	260P422010	TRANSISTOR	2SC2482	
Q 501	260P572010	TRANSISTOR	2SD1556	
Q 502	260P559050	TRANSISTOR	2SC1740S-E	
Q 503	260P559050	TRANSISTOR	2SC1740S-E	
Q 504	260P559030	TRANSISTOR	2SC1740S-S	
Q 506	260P559030	TRANSISTOR	2SC1740S-S	
Q 5A0	260P420020	TRANSISTOR	2SC2073-B, C	
Q 5000	260P559030	TRANSISTOR	2SC1740S-S	
Q 5001	260P167040	TRANSISTOR	2SA673A-D	
Q 6A1	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A2	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A3	260P385020	TRANSISTOR	2SC2229-Y	
Q 6A4	260P571010	TRANSISTOR	2SC3789-D, E	
Q 6A5	260P571010	TRANSISTOR	2SC3789-D, E	
Q 6A6	260P571010	TRANSISTOR	2SC3789-D, E	
Q 701	260P559030	TRANSISTOR	2SC1740S-S	
Q 705	260P559030	TRANSISTOR	2SC1740S-S	
Q 707	260P559030	TRANSISTOR	2SC1740S-S	
Q 711	260P559030	TRANSISTOR	2SC1740S-S	
Q 715	260P559030	TRANSISTOR	2SC1740S-S	
Q 716	260P560040	TRANSISTOR	2SA933S-S	
Q 717	260P559030	TRANSISTOR	2SC1740S-S	
Q 7001	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7002	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7003	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7004	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7005	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7006	260P817030	CHIP TRANSISTOR	2SA1037K	
Q 7007	260P818080	CHIP TRANSISTOR	2SC2412K-R	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
Q 7040	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7041	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7042	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7043	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7050	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7051	260P818020	CHIP TRANSISTOR	2SC2412K-R
Q 7052	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7053	260P817020	CHIP TRANSISTOR	2SA1037K-R
Q 7054	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7055	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7056	260P817030	CHIP TRANSISTOR	2SA1037K
Q 7057	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7058	260P818080	CHIP TRANSISTOR	2SC2412K-R
Q 7602	260P559030	TRANSISTOR	2SC1740S-S
Q 7603	260P559030	TRANSISTOR	2SC1740S-S
Q 7800	260P559030	TRANSISTOR	2SC1740S-S
Q 808	260P305010	TRANSISTOR	2SC2901
Q 809	260P459020	TRANSISTOR	2SK381-B
Q 810	260P459020	TRANSISTOR	2SK381-B
Q 811	260P459020	TRANSISTOR	2SK381-B
Q 812	260P459020	TRANSISTOR	2SK381-B
Q 830	260P693010	TRANSISTOR	2SC3064-F
Q 838	260P690010	TRANSISTOR	2SA1237-F
Q 8501	260P559030	TRANSISTOR	2SC1740S-S
Q 8521	260P559030	TRANSISTOR	2SC1740S-S
Q 8522	260P559030	TRANSISTOR	2SC1740S-S
Q 8523	260P559030	TRANSISTOR	2SC1740S-S
Q 8800	260P559030	TRANSISTOR	2SC1740S-S
Q 950	260P559050	TRANSISTOR	2SC1740S-E
Q 951	260P559050	TRANSISTOR	2SC1740S-E
Q 9A0	260P325030	TRANSISTOR	2SC2655-Y
Q 9A40	260P587020	TRANSISTOR	2SC 2333-M
Q 9A41	260P422010	TRANSISTOR	2SC2482
Q 9A42	260P422010	TRANSISTOR	2SC2482
Q 9A43	260P422010	TRANSISTOR	2SC2482
		DIODES	
D 101	264P502010	DIODE	HZ5ALL
D 102	264P470040	DIODE	EQA02-30C/RD33EB1
D 201	264P045040	DIODE	1S2471
D 202	264P045040	DIODE	1S2471
D 203	264P045040	DIODE	1S2471
D 204	264P045040	DIODE	1S2471
D 205	264P045040	DIODE	1S2471
D 206	264P045040	DIODE	1S2471
D 208	264P045040	DIODE	1S2471
D 209	264P045040	DIODE	1S2471
D 210	264P045040	DIODE	1S2471
D 212	264P045040	DIODE	1S2471
D 213	264P045040	DIODE	1S2471
D 216	264P045040	DIODE	1S2471
D 220	264P484070	DIODE	RD6. 2FB2
D 222	264P045040	DIODE	1S2471
D 223	264P045040	DIODE	1S2471
D 224	264P045040	DIODE	1S2471
D 225	264P045040	DIODE	1S2471

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
D 226	264P045040	DIODE	1S2471	
D 228	264P483080	DIODE	RD5.1FB2	
D 229	264P045040	DIODE	1S2471	
D 231	264P045040	DIODE	1S2471	
D 232	264P464040	DIODE	EQA02-10B	
D 2001	264P045040	DIODE	1S2471	
D 2002	264P285010	DIODE	S5500D	
D 2003	264P045040	DIODE	1S2471	
D 301	264P285010	DIODE	S5500D	
D 302	264P045040	DIODE	1S2471	
D 303	264P045040	DIODE	1S2471	
D 304	264P502020	DIODE	HZ5BLL	
D 305	264P501040	DIODE	HZ3ALL	
D 307	264P285010	DIODE	S5500D	
D 308	264P501060	DIODE	HZ3CLL	[60]
D 309	264P045040	DIODE	1S2471	
D 3301	264P045040	DIODE	1S2471	
D 3302	264P501050	DIODE	HZ3BLL	
D 400	264P464050	DIODE	EQA02-10C	
D 401	264P285010	DIODE	S5500D	
D 4A00	264P045040	DIODE	1S2471	
D 4B01	264P045040	DIODE	1S2471	
D 4B02	264P483080	DIODE	RD5.1FB2	
D 4B03	264P483080	DIODE	RD5.1FB2	
D 4B04	264P045040	DIODE	1S2471	
D 500	264P533010	DIODE	RS 4FS	
D 501	264P358070	DIODE	RU 4AM	
D 502	264P146010	DIODE	RC 2	
D 503	264P045040	DIODE	1S2471	
D 504	264P045040	DIODE	1S2471	
D 505	264P102020	DIODE	RU 3B	
D 506	264P045040	DIODE	1S2471	
D 507	264P244030	DIODE	HZT22-02	
D 508	264P045040	DIODE	1S2471	
D 509	264P457050	DIODE	RD3.0EB1	
D 510	264P045040	DIODE	1S2471	
D 511	264P045040	DIODE	1S2471	
D 512	264P101050	DIODE	RM 1B	
D 515	264P045040	DIODE	1S2471	
D 518	264P489010	DIODE	RD16FB1	
D 5A1	264P045040	DIODE	1S2471	
D 5000	264P285010	DIODE	S5500D	
D 6A5	264P501020	DIODE	HZ2BLL	
D 6A6	264P045040	DIODE	1S2471	
D 6A7	264P045040	DIODE	1S2471	
D 701	264P045040	DIODE	1S2471	
D 704	264P045040	DIODE	1S2471	
D 705	264P045040	DIODE	1S2471	
D 706	264P486020	DIODE	RD8.2FB3	
D 711	264P045040	DIODE	1S2471	
D 712	264P045040	DIODE	1S2471	
D 713	264P045040	DIODE	1S2471	
D 714	264P502020	DIODE	HZ5BLL	
D 715	264P502020	DIODE	HZ5BLL	[45]
D 7001	264P821010	CHIP DIODE	HSM2836	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
D 7601	264P463040	DIODE	EQA02-09AB/RD9.1EB1	
D 7602	264P463040	DIODE	EQA02-09AB/RD9.1EB1	
D 7603	264P463040	DIODE	EQA02-09AB/RD9.1EB1	
D 78A0	264P225010	LIGHT EMITTING DIODE	LN25RP	[60]
D 78B0	264P189010	LIGHT EMITTING DIODE	TLR124	[45, 50]
D 803	264P045040	DIODE	1S2471	
D 804	264P045040	DIODE	1S2471	
D 810	264P045040	DIODE	1S2471	
D 811	264P045040	DIODE	1S2471	
D 820	264P045040	DIODE	1S2471	
D 821	264P045040	DIODE	1S2471	
D 826	264P483080	DIODE	RD5.1FB2	
D 827	264P483080	DIODE	RD5.1FB2	
D 830	264P045040	DIODE	1S2471	
D 831	264P045040	DIODE	1S2471	
D 832	264P045040	DIODE	1S2471	
D 833	264P045040	DIODE	1S2471	
D 834	264P045040	DIODE	1S2471	
D 835	264P045040	DIODE	1S2471	
D 836	264P045040	DIODE	1S2471	
D 837	264P045040	DIODE	1S2471	
D 8A0	264P045040	DIODE	1S2471	
D 8A1	264P045040	DIODE	1S2471	
D 8B0	264P045040	DIODE	1S2471	
D 8B1	264P045040	DIODE	1S2471	
D 8501	264P045040	DIODE	1S2471	
D 8502	264P045040	DIODE	1S2471	
D 900	264P535010	DIODE	RBV-608	
D 920	264P512020	DIODE	RBV-40C	
D 921	264P512020	DIODE	RBV-40C	
D 951	264P487080	DIODE	RD12FB2	
D 952	264P487080	DIODE	RD12FB2	
D 953	264P045040	DIODE	1S2471	
D 954	264P045040	DIODE	1S2471	
D 960	264P358090	DIODE	RU 4YX	
D 962	264P102020	DIODE	RU 3B	
D 963	264P102020	DIODE	RU 3B	
D 964	264P102020	DIODE	RU 3B	
D 9A01	264P578010	DIODE	RG 2A	
D 9A02	264P588010	DIODE	FML-G16S	
D 9A03	264P358090	DIODE	RU 4YX	
D 9A04	264P102040	DIODE	RU 3M	
D 9A05	264P102040	DIODE	RU 3M	
D 9A06	264P358090	DIODE	RU 4YX	
D 9A10	264P521040	DIODE	EU 1A	
D 9A11	264P622010	DIODE	AL01Z	
D 9A13	264P622010	DIODE	AL01Z	
D 9A42	264P102020	DIODE	RU 3B	
		FILTERS		
CF101	296P024020	CERAMIC TRAP	TPS4.5MB7	
CF201	299P051050	CERAMIC RESONATOR	CSB500F9	
CF301	296P067010	CERAMIC FILTER	SFS4.5MB2	
DL205	296P113010	COMB FILTER		
LC7101	409P771010	LOW PASS FILTER	A285TC1S-1310 5	

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
SF101	296P096020	SAW FILTER	SAF45MVK56Z
SF301	296P092010	SAW FILTER	SAF41MC70Z
X 701	296P064010	CERAMIC RESONATOR	CSA-4.00MG
		DELAY LINES	
DL200	337P147020	DELAY LINE	
DL201	337P147010	DELAY LINE	
DL202	337P113020	DELAY LINE	100NS
DL203	337P134010	DELAY LINE	SDL-4256
		COILS	
	330P164010	DEFLECTION YOKE COIL	RED/BLUE-CRT
	330P164020	DEFLECTION YOKE COIL	GREEN-CRT
L 101	325C124030	PEAKING COIL	0.22μH-M
L 102	325C124090	PEAKING COIL	0.68μH-M
L 103	325C120010	PEAKING COIL	1.0μH-M
L 104	325C121030	PEAKING COIL	10μH-K
L 105	325C122030	PEAKING COIL	68μH-K
L 106	323P171010	VIF COIL	45.75MHz
L 107	323P111020	VIF COIL	45MHz
L 108	325C122030	PEAKING COIL	68μH-K
L 109	325C120020	PEAKING COIL	1.2μH-M
L 111	325C121030	PEAKING COIL	10μH-K
L 117	325C121030	PEAKING COIL	10μH-K
L 202	325C101030	PEAKING COIL	10μH-K
L 203	325C121090	PEAKING COIL	33μH-K
L 204	325C121030	PEAKING COIL	10μH-K
L 205	325C121030	PEAKING COIL	10μH-K
L 207	325C121000	PEAKING COIL	5.6μH-K
L 212	325C121030	PEAKING COIL	10μH-K
L 213	325C161000	PEAKING COIL	5.6μH-K
L 220	325C122040	PEAKING COIL	82μH-K
L 2N0	325C162090	PEAKING COIL	220μH-K
L 2N1	325C162090	PEAKING COIL	220μH-K
L 2002	325C121030	PEAKING COIL	10μH-K
L 2003	325C121030	PEAKING COIL	10μH-K
L 2004	325C163070	PEAKING COIL	1000μH-K
L 2006	325C121030	PEAKING COIL	10μH-K
L 2007	325C121030	PEAKING COIL	10μH-K
L 2009	321C031040	RF COIL	10μH-K
L 303	327P072010	SIF COIL	TKACS-27071BY
L 3A1	325C122030	PEAKING COIL	68μH-K
L 3A01	325C121030	PEAKING COIL	10μH-K
L 4A1	321C031090	RF COIL	33μH-K
L 4A2	321C031090	RF COIL	33μH-K
L 4B10	351P068010	PEAKING COIL	SB4-680-122
L 500	321C030070	RF COIL	3.3μH-K
L 501	411P001010	FERRITE LEAD	
L 502	411P001010	FERRITE LEAD	
L 503	333P025040	H-LIN. COIL	
L 505	409P565020	FILTER COIL	
L 506	409P691010	FILTER COIL	
L 6A0	325C107020	PEAKING COIL	56μH-J
L 6A1	325C107020	PEAKING COIL	56μH-J
L 6A2	325C107020	PEAKING COIL	56μH-J
L 6A3	325C161060	PEAKING COIL	18μH-K
L 6A4	325C161060	PEAKING COIL	18μH-K
L 6A5	325C161060	PEAKING COIL	18μH-K
L 701	325C121030	PEAKING COIL	10μH-K
L 702	325C121030	PEAKING COIL	10μH-K
L 703	325C121060	PEAKING COIL	18μH-K
L 707	325C121030	PEAKING COIL	10μH-K
L 708	321C010040	RF COIL	1000μH-J
L 711	325C121030	PEAKING COIL	10μH-K
L 712	325C121030	PEAKING COIL	10μH-K
L 7000	321C031040	RF COIL	10μH-K
L 7001	325C107050	PEAKING COIL	100μH-J
L 7002	325C141030	CHIP COIL	10μH-K
L 7003	325C141030	CHIP COIL	10μH-K
L 7102	325C141030	CHIP COIL	10μH-K
L 7103	325C141030	CHIP COIL	10μH-K
L 7601	325C121030	PEAKING COIL	10μH-K
L 7602	325C121030	PEAKING COIL	10μH-K
L 7603	325C121030	PEAKING COIL	10μH-K
L 77A1	325C121030	PEAKING COIL	10μH-K
L 7800	325C121030	PEAKING COIL	10μH-K
L 801	321C031040	RF COIL	10μH-K
L 805	321C031040	RF COIL	10μH-K
L 807	351P068030	PEAKING COIL	SBC-03
L 808	351P068030	PEAKING COIL	SBC-03
L 809	351P068030	PEAKING COIL	SBC-03
L 810	351P068030	PEAKING COIL	SBC-03
L 811	321C031040	RF COIL	10μH-K
L 812	321C031040	RF COIL	10μH-K
L 814	321C031090	RF COIL	33μH-K
L 815	321C031090	RF COIL	33μH-K
L 900	351P064030	LINE FILTER	SE26TL-40030A
L 9A01	411D009020	FERRITE CORE FILTER	
L 9A02	411P001010	FERRITE LEAD	
L 9A03	351P070010	FILTER COIL	560μH-K
L 9A10	411P001010	FERRITE LEAD	
L 9A12	411P001010	FERRITE LEAD	
LC7102	409P736010	COIL	CLOCK-ADJ 11614
LF7000	409P696020	EMI FILTER	BLM41A01
LF7001	409P402030	EMI FILTER	DSS306-55FZ103N100
LF7002	409P402020	EMI FILTER	DSS306-55B102M100
LF7003	409P402020	EMI FILTER	DSS306-55B102M100
T 101	320P026030	TRAP COIL	
		TRANSFORMERS	
	350P581010	POWER	
T 201	349P159020	CHROMA-BP	
T 4B00	349P192010	PCC	TOP-BOTTOM
T 500	336P009030	H. DRIVE	
T 501	334P191010	FLYBACK	
T 5000	349P122080	PCC	
T 9A0	350P580010	POWER	

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
		VARIABLE RESISTORS	
VR102	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR1A1	127C080060	VR-SEMIFIXED	1/5W B3KΩ-M
VR204	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR205	127C080040	VR-SEMIFIXED	1/5W B1KΩ-M
VR3001	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3002	127C080090	VR-SEMIFIXED	1/5W B20KΩ-M
VR3003	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3004	127C080070	VR-SEMIFIXED	1/5W B5KΩ-M
VR3005	127C081010	VR-SEMIFIXED	1/5W B50KΩ-M
VR400	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR401	127C090090	VR-SEMIFIXED	1/5W B20KΩ-M
VR4A00	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A01	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR4A02	127C190080	VR-SEMIFIXED	1/5W B10KΩ-M
VR5A0	127C280030	VR-SEMIFIXED	1/10W B500Ω-N
VR5A2	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5A3	127C280060	VR-SEMIFIXED	1/10W B3KΩ-N
VR5000	127C280040	VR-SEMIFIXED	1/10W B1KΩ-N
VR6A0	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A1	127C080010	VR-SEMIFIXED	1/5W B200Ω-M
VR6A2	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A3	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A4	127C091040	VR-SEMIFIXED	1/5W B300KΩ-M
VR6A5	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A6	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR6A7	129D074010	VR-SEMIFIXED	0.6W-B4M-8S-M
VR7001	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR7002	127C090030	VR-SEMIFIXED	1/5W B500Ω-M
VR8A0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A6	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A7	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A8	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8A9	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B0	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B1	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B2	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B3	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B4	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B5	127C091000	VR-SEMIFIXED	1/5W B30KΩ-M
VR8B6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8B9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C2	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C3	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C4	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C5	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C6	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C7	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C8	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8C9	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D0	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8D1	127C080080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8E0	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E1	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E2	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8E3	127C091010	VR-SEMIFIXED	1/5W B50KΩ-M
VR8501	127C090080	VR-SEMIFIXED	1/5W B10KΩ-M
VR8800	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8801	120C330090	VR-PCB	1/20W B5KΩ-20N
VR8802	120C330090	VR-PCB	1/20W B5KΩ-20N
		RESISTORS	
R 2F1	103P532070	NETWORK	1/8W 1.5KΩ-JX3
R 2Z9	103P553010	NETWORK	1/8W 3.3KΩ-JX5
R 311	103P378040	FUSE	1/4W 2.2Ω-J
R 312	103P378040	FUSE	1/4W 2.2Ω-J
R 4B52	103P397090	FUSE	1/2W 0.82Ω-J
R 4B53	103P397090	FUSE	1/2W 0.82Ω-J
R 503	109D074030	CEMENT METAL	5W 3.9KΩ-K/J
R 508	103P438050	FUSE METAL	2W 2.7Ω-K/J
R 509	103P391030	FUSE	1/2W 100Ω-J
R 510	103P398010	FUSE	1/2W 1.2Ω-J
R 5008	103P398000	FUSE	1/2W 1.0Ω-J
R 754	103P603070	NETWORK	1/8W 10KΩ-JX10
R 7C0	103P532050	NETWORK	1/8W 1KΩ-JX3
R 7001	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7002	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7003	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7004	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7007	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7008	103P473060	CHIP RESISTOR	1/10W 3KΩ-F
R 7009	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7010	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7011	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7012	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7013	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7014	103P402060	CHIP RESISTOR	1/10W 1.2KΩ-J
R 7015	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7016	103P473000	CHIP RESISTOR	1/10W 1.6KΩ-F
R 7019	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7020	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7021	103P403090	CHIP RESISTOR	1/10W 15KΩ-J
R 7022	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7023	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7024	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7025	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7026	103P404020	CHIP RESISTOR	1/10W 27KΩ-J
R 7027	103P401050	CHIP RESISTOR	1/10W 150Ω-J
R 7028	103P402090	CHIP RESISTOR	1/10W 2.2KΩ-J
R 7029	103P405070	CHIP RESISTOR	1/10W 470KΩ-J

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
R 7031	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7034	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7041	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7042	103P473090	CHIP RESISTOR	1/10W 3.9KΩ-F
R 7043	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7044	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7045	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7046	103P474090	CHIP RESISTOR	1/10W 10KΩ-F
R 7047	103P473030	CHIP RESISTOR	1/10W 2.2KΩ-F
R 7048	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7049	103P403030	CHIP RESISTOR	1/10W 4.7KΩ-J
R 7060	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7061	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7062	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7063	103P475090	CHIP RESISTOR	1/10W 27KΩ-F
R 7064	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7065	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7066	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7067	103P475040	CHIP RESISTOR	1/10W 16KΩ-F
R 7068	103P471060	CHIP RESISTOR	1/10W 430Ω-F
R 7070	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7071	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7072	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7073	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7074	103P402050	CHIP RESISTOR	1/10W 1KΩ-J
R 7075	103P402010	CHIP RESISTOR	1/10W 470Ω-J
R 7080	103P472060	CHIP RESISTOR	1/10W 1.1KΩ-F
R 7081	103P401030	CHIP RESISTOR	1/10W 100Ω-J
R 7082	103P474030	CHIP RESISTOR	1/10W 5.6KΩ-F
R 7083	103P472000	CHIP RESISTOR	1/10W 620Ω-F
R 7084	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7085	103P476010	CHIP RESISTOR	1/10W 33KΩ-F
R 7086	103P476060	CHIP METAL	1/10W 51KΩ-F
R 7087	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7088	103P401070	CHIP RESISTOR	1/10W 220Ω-J
R 7100	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7102	103P403070	CHIP RESISTOR	1/10W 10KΩ-J
R 7103	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7104	103P402070	CHIP RESISTOR	1/10W 1.5KΩ-J
R 7105	103P403050	CHIP RESISTOR	1/10W 6.8KΩ-J
R 7106	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7107	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7108	103P403020	CHIP RESISTOR	1/10W 3.9KΩ-J
R 7109	103P402020	CHIP RESISTOR	1/10W 560Ω-J
R 7111	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7112	103P406010	CHIP RESISTOR	1/10W 1MΩ-J
R 7123	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7124	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7125	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7126	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7127	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7128	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7129	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7130	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7131	103P409050	CHIP RESISTOR	1/10W 0Ω
R 7134	103P409050	CHIP RESISTOR	1/10W 0Ω [50, 60]
R 7150	103P479000	CHIP METAL	1/10W 5.10KΩ-F
R 901	109D071020	CEMENT WIRE	15W 2.2Ω-K
R 9A15	102P106080	WIRE	2W 0.1Ω-J
R 9A16	102P106080	WIRE	2W 0.1Ω-J
		CAPACITORS AND TRIMMERS	
C 408	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 4B30	189P071090	C-M-PLASTIC-PP	200V 0.27μF-J
C 510	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 511	189P071070	C-M-PLASTIC-PP	200V 0.39μF-J
C 512	189P071080	C-M-PLASTIC-PP	200V 0.47μF-J
C 513	189P071010	C-M-PLASTIC-PP	200V 0.56μF-J
C 515	189P072020	C-M-POLYESTER	1600V 0.1μF-K
C 520	189P071040	C-M-PLASTIC-PP	200V 0.12μF-J
C 532	189P071050	C-M-PLASTIC-PP	200V 0.33μF-J
C 716	149D811030	CR-MULTIPLE	50V 10000PFX4
C 7001	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7002	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7003	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7004	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7006	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7007	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7009	154P324000	CHIP CAPACITOR	SL50V 150pF-J
C 7010	141P137060	CHIP CAPACITOR	B50V 0.033μF-K
C 7011	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7012	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7014	181P522060	CHIP ELECTROLYTIC-C	16V 47μF-M
C 7015	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7016	181P526010	CHIP CAPACITOR	50V 1μF-M
C 7017	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7018	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7020	181P526020	CHIP ELECTROLYTIC-C	04W 50V 2.2μF-M
C 7021	181P522030	CHIP ELECTROLYTIC-C	16V 10μF-M
C 7022	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7023	181P502030	CHIP CAPACITOR	16V 10μF-M
C 7024	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7025	154P322000	CHIP CAPACITOR	SL50V 22pF-J
C 7026	181P504090	CHIP CAPACITOR	35V 4.7μF-M
C 7027	181P506020	CHIP CAPACITOR	50V 2.2μF-M
C 7028	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7029	181P506000	CHIP CAPACITOR	50V 0.47μF-M
C 7030	141P131010	CHIP CAPACITOR	B50V 1500pF-K
C 7031	181P528030	CHIP ELECTROLYTIC-C	50V 0.22μF-M
C 7032	181P520040	CHIP ELECTROLYTIC-C	6.3V 100μF-M
C 7033	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7034	181P528030	CHIP ELECTROLYTIC-C	50V 0.22μF-M
C 7035	141P130090	CHIP CAPACITOR	B50V 1000pF-K
C 7036	181P524090	CHIP CAPACITOR	35V 4.7μF-M
C 7037	141P133090	CHIP CAPACITOR	F50V 0.022μF-Z
C 7038	181P500010	CHIP CAPACITOR	6.3V 22μF-M
C 7039	154P322020	CHIP CAPACITOR	SL50V 27pF-J
C 7041	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7042	141P133080	CHIP CAPACITOR	F50V 0.01μF-Z
C 7046	154P332090	CHIP CAPACITOR	CH50V 56pF-J

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION
C 7047	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 7050	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 7051	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 7052	181P506010	CHIP CAPACITOR	04W 50V 1 μF-M
C 7053	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 7054	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7055	154P324080	CHIP CAPACITOR	SL50V 330pF-J
C 7060	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z
C 7101	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7102	154P323060	CHIP CAPACITOR	SL50V 100pF-J
C 7103	181P502030	CHIP CAPACITOR	16V 10 μF-M
C 7104	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7105	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7106	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7107	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7108	181P500010	CHIP CAPACITOR	6.3V 22 μF-M
C 7109	181P500010	CHIP CAPACITOR	6.3V 22 μF-M
C 7110	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7111	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7112	141P137040	CHIP CAPACITOR	B25V 0.022 μF-K
C 7113	141P137040	CHIP CAPACITOR	B25V 0.022 μF-K
C 7114	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7115	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z
C 7116	141P133090	CHIP CAPACITOR	F50V 0.022 μF-Z
C 7117	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7118	141P133080	CHIP CAPACITOR	F50V 0.01 μF-Z
C 7119	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7120	181P504090	CHIP CAPACITOR	35V 4.7 μF-M
C 7121	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7122	181P500010	CHIP CAPACITOR	6.3V 22 μF-M
C 7123	181P500010	CHIP CAPACITOR	6.3V 22 μF-M
C 7124	181P500010	CHIP CAPACITOR	6.3V 22 μF-M
C 7126	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7127	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7128	141P139030	CHIP CAPACITOR	B25V 0.1 μF-K
C 7129	181P520040	CHIP ELECTROLYTIC-C	6.3V 100 μF-M
C 7131	154P324020	CHIP CAPACITOR	SL50V 180pF-J [50, 60]
C 909	185D063080	ELECTROLYTIC-C	H200V 820 μF-M 105C
C 923	185D057020	ELECTROLYTIC-C	H50V 6800 μF-M
C 927	185D054060	ELECTROLYTIC-C	H35V 4700 μF-M
C 9A08	185D063020	ELECTROLYTIC-C	H180V 470 μF-M 105C
C 9A20	185D063030	ELECTROLYTIC-C	H180V 820 μF-M 105C
VC731	202P109040	TRIMMER CAPACITOR	7.3pF-45pF
		SWITCHES	
S 7800	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7801	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7802	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7803	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7804	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7805	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7806	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7807	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7808	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7809	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7810	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7811	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7812	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7813	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7814	432P100010	KEY BOARD SWITCH	1-1 H=4.3
S 7815	432P100030	KEY BOARD SWITCH	1-1 H=7
		MISCELLANEOUS	
	462P004020	A-MAGNET ASSY	
	462P035010	MAGNET ASSY	RED/BLUE-CRT
	462P035020	MAGNET ASSY	GREEN-CRT
	462P035030	MAGNET ASSY	
	453B011040	ANODE CAP	
	767D038020	MIRROR	[45]
	767D028070	MIRROR	[50]
	767D039010	MIRROR	[60]
	449C026020	CRT SOCKET	
AG6A0	224D019090	AIR GAP	1.5KV
AG6A1	224D019090	AIR GAP	1.5KV
AG6A2	224D019090	AIR GAP	1.5KV
AG6A3	224D019090	AIR GAP	1.5KV
AG6A4	224D019090	AIR GAP	1.5KV
AG6A5	224D019090	AIR GAP	1.5KV
AG6A6	224D019040	AIR GAP	2KV
AG6A7	224D019040	AIR GAP	2KV
AG6A8	224D019040	AIR GAP	2KV
F 900	283D060020	FUSE	S5A
F 901	283D038070	FUSE	S4A
F 920	283D038060	FUSE	S2A
F 9A0	283D038070	FUSE	S4A
K 3Z1	287P073010	POWER RELAY	VB-12TKU-526-UL3
K 3Z2	287P060010	POWER RELAY	DH12D2-0S(M)
K 900	287P049020	POWER RELAY	DG12D1-0(M)-L
K 901	287P049020	POWER RELAY	DG12D1-0(M)-L
PC9A0	268P033010	PHOTO COUPLER	ON3161-R
PJ3A01	440B095010	TERMINAL JACK	[45]
PJ3A01	440B095030	TERMINAL BOARD	PINX13+DIN [50, 60]
PJ3A02	440C189010	SPEAKER TERMINAL	(+)X2&(-)X2
PJ79A0	440C181010	JACK BOARD	PINX3 & DINX1
RT500	265P090050	THERMISTOR	NTH5D102KA
RT501	265P090050	THERMISTOR	NTH5D102KA
RT502	265P090050	THERMISTOR	NTH5D102KA
RT5D0	265P090050	THERMISTOR	NTH5D102KA
RV900	265P086010	VARISTOR	SNR-271KD10
SP391	480P655010	SPEAKER	181P05M6910
SP392	480P233010	SPEAKER	E040PX474M69
SP393	480P655010	SPEAKER	181P05M6910
SP394	480P233010	SPEAKER	E040PX474M69
TU101	295P266040	TUNER	ENV568D6G3
X 201	285P029050	CRYSTAL RESONATOR	3.5795MHz
X 202	285P015010	CRYSTAL RESONATOR	3.57955MHz
X 7001	285P066010	CRYSTAL RESONATOR	3.5795MHz
Z 7706	939P296090	PREAMP UNIT	HC-437M
Z 9A01	283P030090	FUSE	SSFR 4A

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

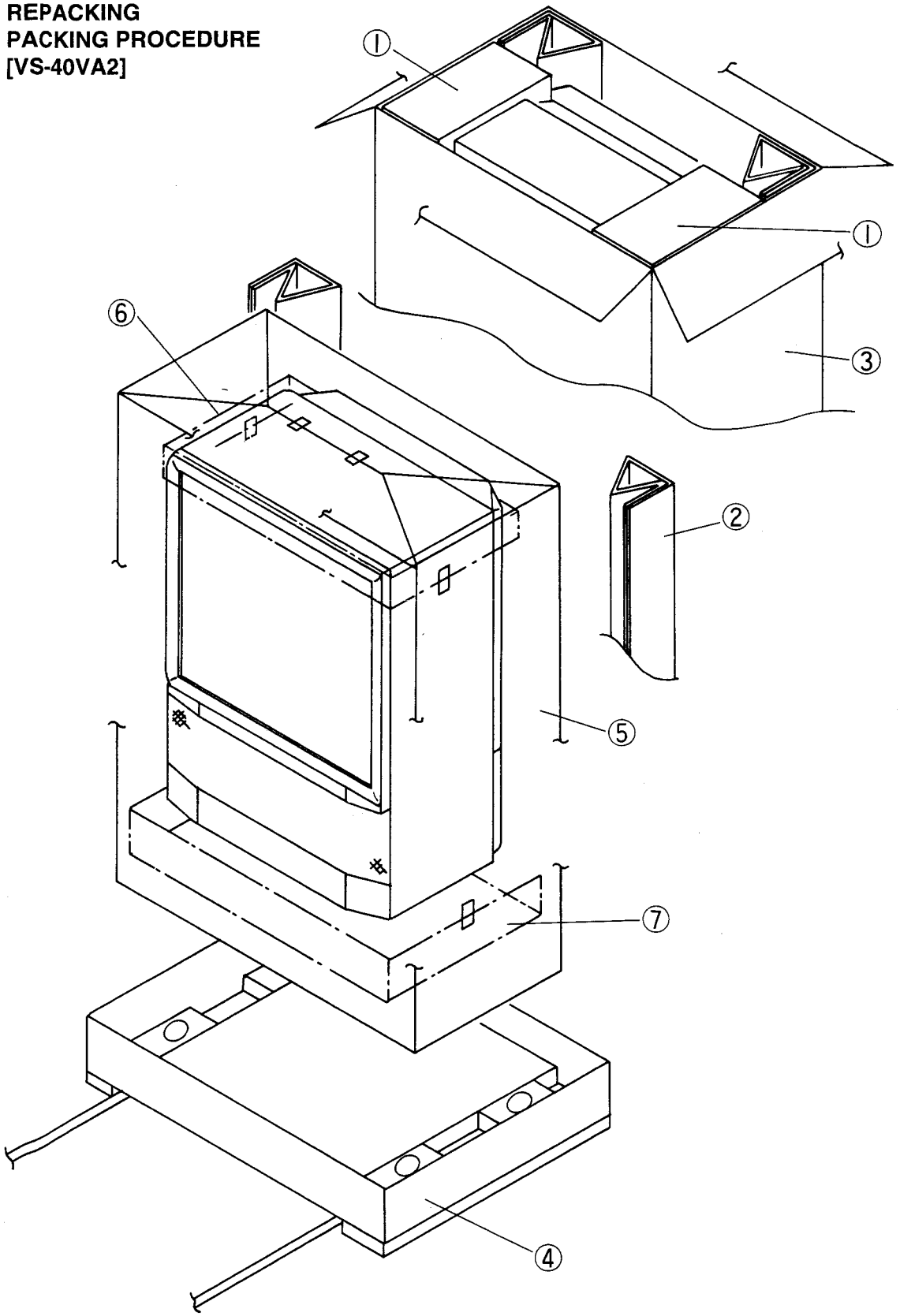
SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
Z 9A02	283P030090	FUSE	SSFR 4A	
		PRINTED CIRCUIT BOARD ASSY'S		
	935D156001	CONTROL PCB ASSY		
	935C438002	CONV PCB ASSY		[45]
	935C438001	CONV PCB ASSY		[50]
	935C438004	CONV PCB ASSY		[60]
	935C440001	CRT PCB ASSY		
	935D157001	DISPLAY PCB ASSY		[45, 50]
	935D167001	DISPLAY PCB ASSY		[60]
	935D154001	FRONT PCB ASSY		
	935D153001	FS PCB ASSY		
	935C437004	MAIN PCB ASSY		[45]
	935C437003	MAIN PCB ASSY		[50]
	935C437007	MAIN PCB ASSY		[60]
	935C442002	PCC PCB ASSY		[45]
	935C442001	PCC PCB ASSY		[50]
	935C442004	PCC PCB ASSY		[60]
	930B552003	PIP PCB ASSY		
	935C439002	POWER SUB PCB ASSY		
	935D155001	PREAMP PCB ASSY		
	935D162002	SIDE PCC PCB ASSY		[45]
	935D162001	SIDE PCC PCB ASSY		[50]
	935D162004	SIDE PCC PCB ASSY		[60]
	935C441004	SIGNAL PCB ASSY		[45]
	935C441003	SIGNAL PCB ASSY		[50, 60]
	935D152002	TERMINAL PCB ASSY		[45]
	935D152001	TERMINAL PCB ASSY		[50, 60]
		MECHANICAL PARTS		
	669D171080	SCREW	M4X25 0.7	[45, 50]
	669D204060	SCREW	M4X16	[45, 60]
	669D130050	SCREW	4X20 BLACK	[45, 50]
	669D140070	SCREW	4X16	[60]
	669D220030	SCREW	3X10 46LA005	
	669D220040	SCREW	3X12 46LA005	
	669D220060	SCREW	3X16 46LA005	
	669D221040	SCREW	4X12 46LA005	
	669D221080	SCREW	4X25 46LA005	
	669D220020	SCREW	3X8 46LA005	[50, 60]
	669D221060	SCREW	4X16 46LA005	[60]
	669D212010	SCREW	3X12	
	669D222040	SCREW	3X12	
	683D010050	WASHER	104512	
		COSMETIC PARTS		
	246C160010	AC POWER CORD		
	975D045090	CABINET ASSY		[45]
	975D045080	CABINET ASSY		[50]
	975D045070	CABINET ASSY		[60]
	702B825090	FRONT PANEL		[60]
	975B064019	FRAME SCREEN ASSY		[45]
	975B064017	FRAME SCREEN ASSY		[50]
	975B071010	FRAME SCREEN ASSY		[60]
	702C949030	TRAY ASSY		[45, 50]
	700C148020	BACK COVER		[45]
	700C147090	BACK COVER		[50]
	700C148010	BACK COVER		[45]
	700C147080	BACK COVER		[50]
	700C147020	BACK COVER		[60]
	702C991010	SIDE PANEL		[60]
	702C991020	SIDE PANEL		[60]
	700C134090	BACK BOARD		[60]
	740B153010	BAFFLE BOARD ASSY		[45]
	740B152010	BAFFLE BOARD ASSY		[50]
	975C125011	BAFFLE BOARD ASSY		[60]
	702A355020	TERMINAL BOARD		[45]
	702A355010	TERMINAL BOARD		[50, 60]
	589D042030	CASTER		[45, 50]
	589C017010	CASTER		[60]
	540C015010	LEAD CLAMPER		
	641D173010	CLIP	AC-POWER-CORDE	
	621D840010	SCREEN CLIP	UP/DOWN	[60]
	621D840070	SCREEN CLIP	SIDE-L/R	[60]
	761C273010	DOOR CATCH		[45, 50]
	761C437010	DOOR CATCH		[60]
	702B712030	CONTROL DOOR ASSY		[45]
	702B737010	CONTROL DOOR ASSY		[50]
	702C837000	CONTROL DOOR ASSY		[60]
	771D090010	FOOT	(S)	[45, 50]
	491P004050	FRESNEL LENS		[45]
	491P009020	FRESNEL LENS		[50]
	491P016030	FRESNEL LENS		[60]
	702B826010	FRONT UNIT		[60]
	761A093010	SPEAKER GRILLE		[45]
	761A092010	SPEAKER GRILLE		[50]
	740B159010	SPEAKER GRILLE		[60]
	734D417020	PUSH KNOB		
	491P006090	LENTICULAR SCREEN		[45]
	491P010080	LENTICULAR SCREEN		[50]
	491P015050	LENTICULAR SCREEN		[60]
	440C176080	TERMINAL BOARD	ANTENNA	
		PACKING PARTS AND ACCESSORY		
1	802B392050	PACKING CASE	SLEEVE	[45]
1	802B390060	PACKING CASE	SLEEVE	[50]
1	803B695010	CUSHION TOP	L+R	[60]
2	803B692010	CUSHION TOP		[45, 50]
2	802B315020	PACKING CASE	BOTTOM	[60]
3	802B392030	PACKING CASE	REAR-CORNER	[45]
3	802B390030	PACKING CASE	REAR-CORNER	[50]
3	802B315080	PACKING CASE	SLEEVE	[60]
4	802B392020	PACKING CASE	BOTTOM	[45]
4	802B390020	PACKING CASE	BOTTOM	[50]
4	802B315070	PACKING CASE	SIDE-L	[60]
5	831C060040	PACKING BAG	1900X2200X2.0	[45, 50]
5	802B315060	PACKING CASE	SIDE-R	[60]
6	829C045020	PACKING SHEET		[45, 50]
6	831C060060	PACKING BAG	2500X2300X2.0	[60]
7	829D126090	PACKING SHEET	2600X600X.5	[45, 50]

[45] : VS – 45VA2CA [50] : VS – 50VA2CA [60] : VS – 60VA2CA

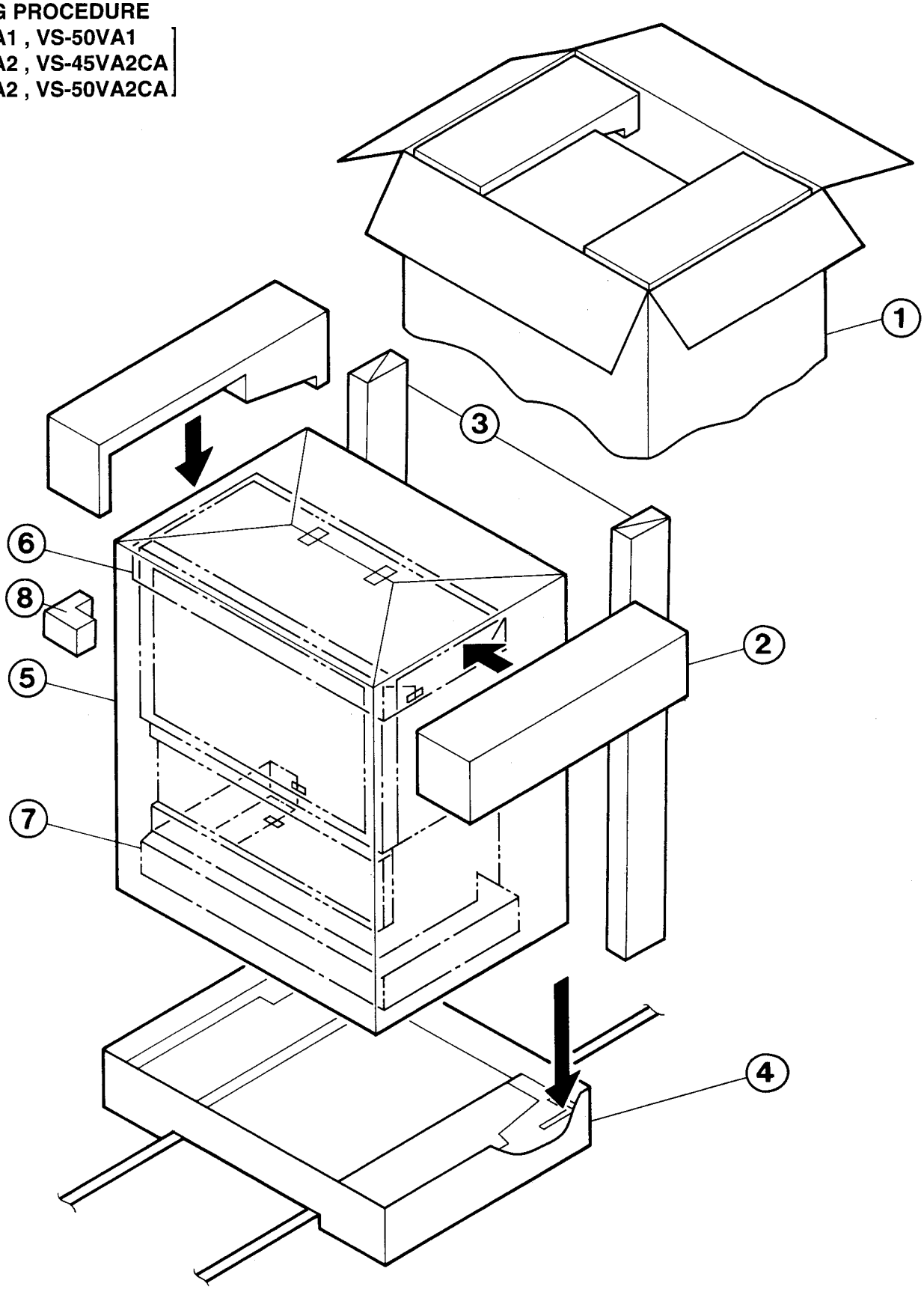
SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION	
7	829C047010	PACKING SHEET	TOP	[60]
8	802B390040	PACKING CASE	FRONT-CORNER	[50]
8	829D126030	PACKING SHEET	BOTTOM	[60]
	871D159030	INSTRUCTION BOOK		
	871D159040	INSTRUCTION BOOK		[45]
	871D159050	INSTRUCTION BOOK		[60]
	939P434030	REMOTE HAND UNIT		
		OTHER CRITICAL COMPONENTS		
C 506	172P170090	C-M-PLASTIC-PP	1600V 4700pF-J	
C 507	172P171000	C-M-PLASTIC-PP	1600V 5600pF-J	
C 508	172P085060	C-PLASTIC-PP	400V 0.033μF-J	
C 509	189P177020	C-M-PLASTIC-PP	400V 0.015μF-J	
C 900	189P033050	C-M-MF/PP-AC	AC125V/250V 0.1μF-M	
C 901	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 902	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 903	189P033040	C-M-MF/PP-AC	AC125V/250V 0.047μF-M	
C 904	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 905	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 906	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 907	189P136080	C-CERAMIC-AC	B VA1 2200pF-M	
C 9A30	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
C 9A31	189P033070	C-M-MF/PP-AC	AC125V/250V 4700pF-M	
R 900	109D031080	R-COMPOSITION	1/2W 820KΩ-K	

SYMBOL NO.	PARTS NO.	PARTS NAME	DESCRIPTION

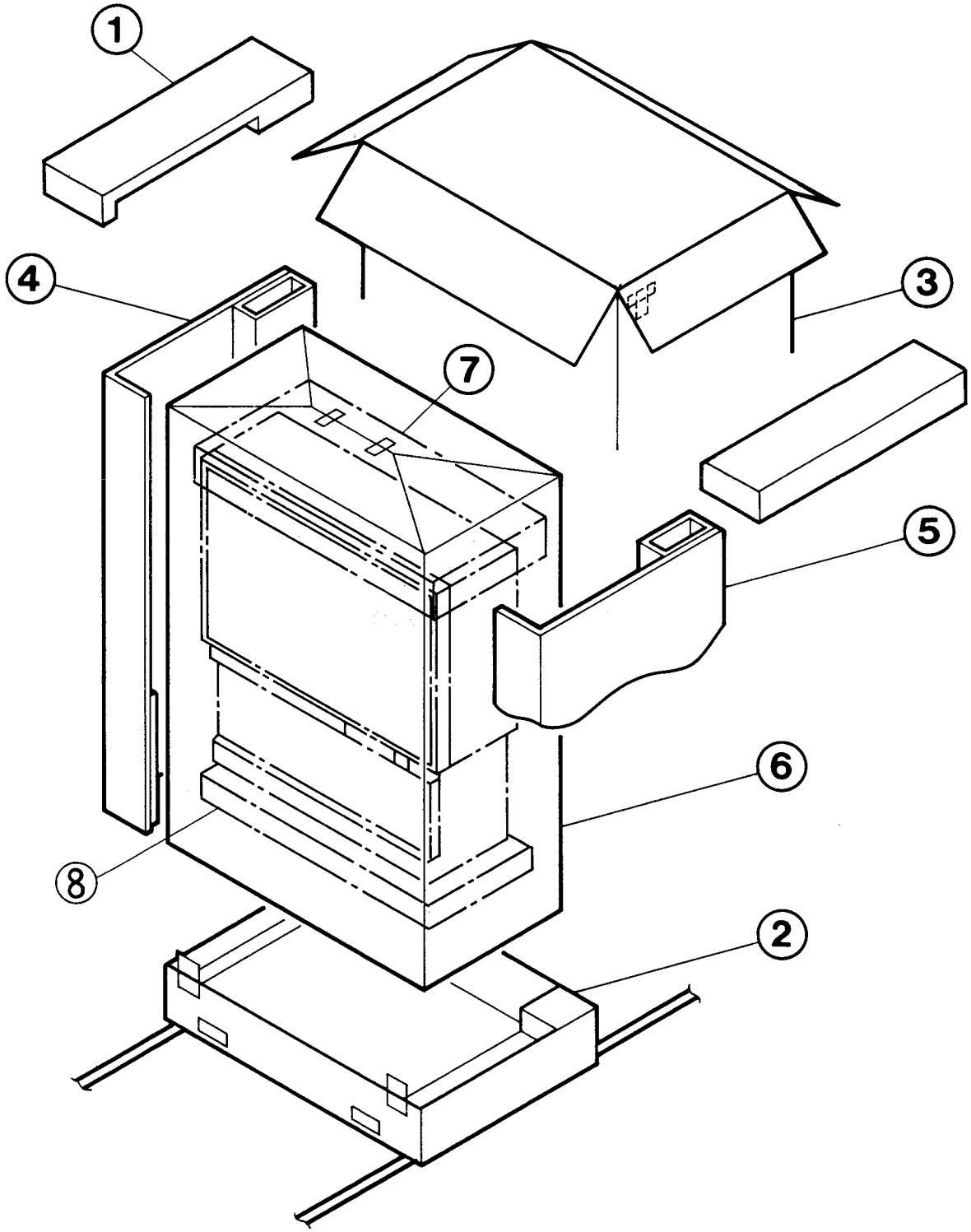
REPACKING
PACKING PROCEDURE
[VS-40VA2]



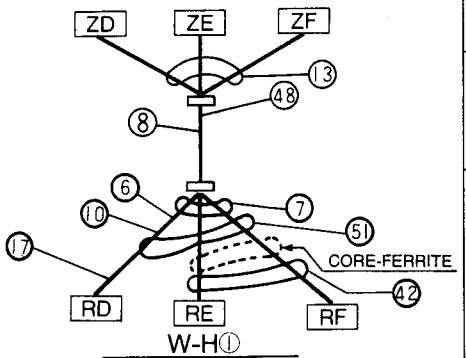
REPACKING
PACKING PROCEDURE
[VS-40VA1 , VS-50VA1
VS-45VA2 , VS-45VA2CA
VS-50VA2 , VS-50VA2CA]



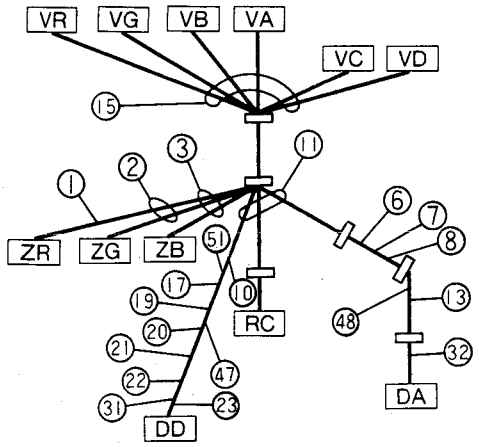
REPACKING
PACKING PROCEDURE
[VS-60VA2
VS-60VA2CA]



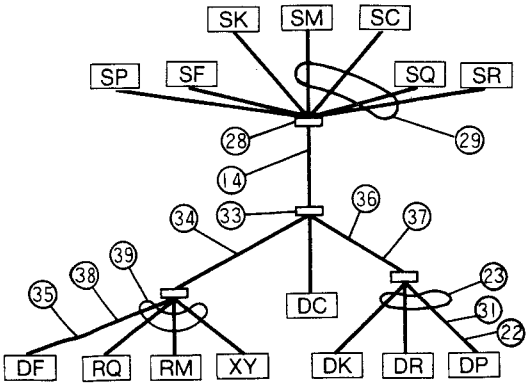
[MEMO]



W-H①
WIRE HARNESS



W-H②
WIRE HARNESS

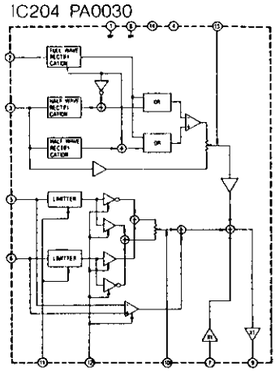


W-H③
WIRE HARNESS

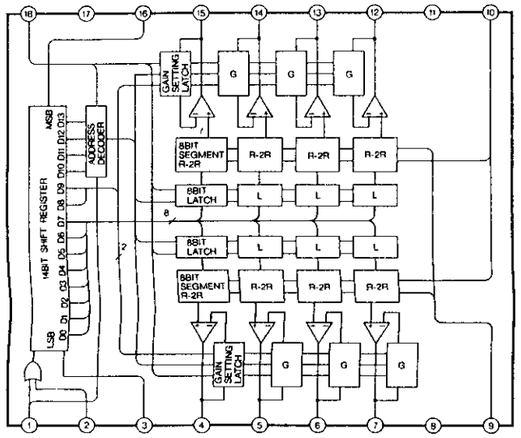
CLAMPER LIST FOR CONNECTOR LEAD

CONNECTOR LEAD		CLAMPER No.	CONNECTOR LEAD
W-H ①	RD	17-51-10-6-7-8-48-13	ZE (to FD)
	RE	42-CORE-FERRITE-51-7-8-48-13	ZE (to FE)
	RF	42-CORE-FERRITE-51-7-8-48-13	ZF (to CF)
W-H ②	VA	15-11-6-7-8-48-13-32	DA
	VB	15-3	ZB (to F-Mg(B))
	VC	15-11	RC
	VD	15-11-10-51-17-19-47-20-21-22-31-23	DD
	VG	15-3-2	ZG (to F-Mg(G))
	VR	15-3-2-1	ZR (to F-Mg(R))
W-H ③	DC	33-14-28-29	SC
	DF	35-38-39-34-33-14-28	SF
		35-38-39	XY
	DK	23-37-36-33-14-28	SK
	DP	22-31-23-37-36-33-14-28	SP
	DR	23-37-36-33-14-28-29	SR
	RM	39-34-33-14-28-29	SM
	RQ	39-34-33-14-28-29	SQ
ANODE LEAD		4-9 (45",50",60")	F.B.T.
		4-53-9 (40")	
AN		13-48-8-7-51-CORE-FERRITE-42	RN
DJ		31-22-21-20-47-19-17-18	RJ
PA		25-24-24-25-25	TRANS
PB		25-24-30	DB
PC		27-26-26-27	TRANS
PG		21-41	RG
PK		21-20-47-19-17-18	RK
		21-20-21-41	RL
PZ		21-22-31-23	DZ
RA		17-18	PCB-SIGNAL
RH		40-38 (40") 50-40-38 (45",50",60")	DH
RP		12	EP
SA		28	CRT(R)
		43	CRT(G)
		44	CRT(B)
VU		16-15-3-2-1	SUB-DY(R)
VY		16-15-3	SUB-DY(B)
R-DY		38-50-45-5 (45",50",60")	CRT(R)
		38-54-53-52-54-38-54-52 (40")	
G-DY		38-50-45-5 (45",50",60")	CRT(G)
		38-54-53-52-54-52 (40")	
B-DY		38-50-45-50-38-50-45-5 (45",50",60")	CRT(B)
		38-54-53-52-54-52-5 (40")	

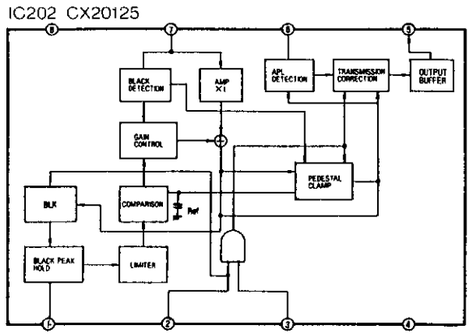
IC204 PA0030

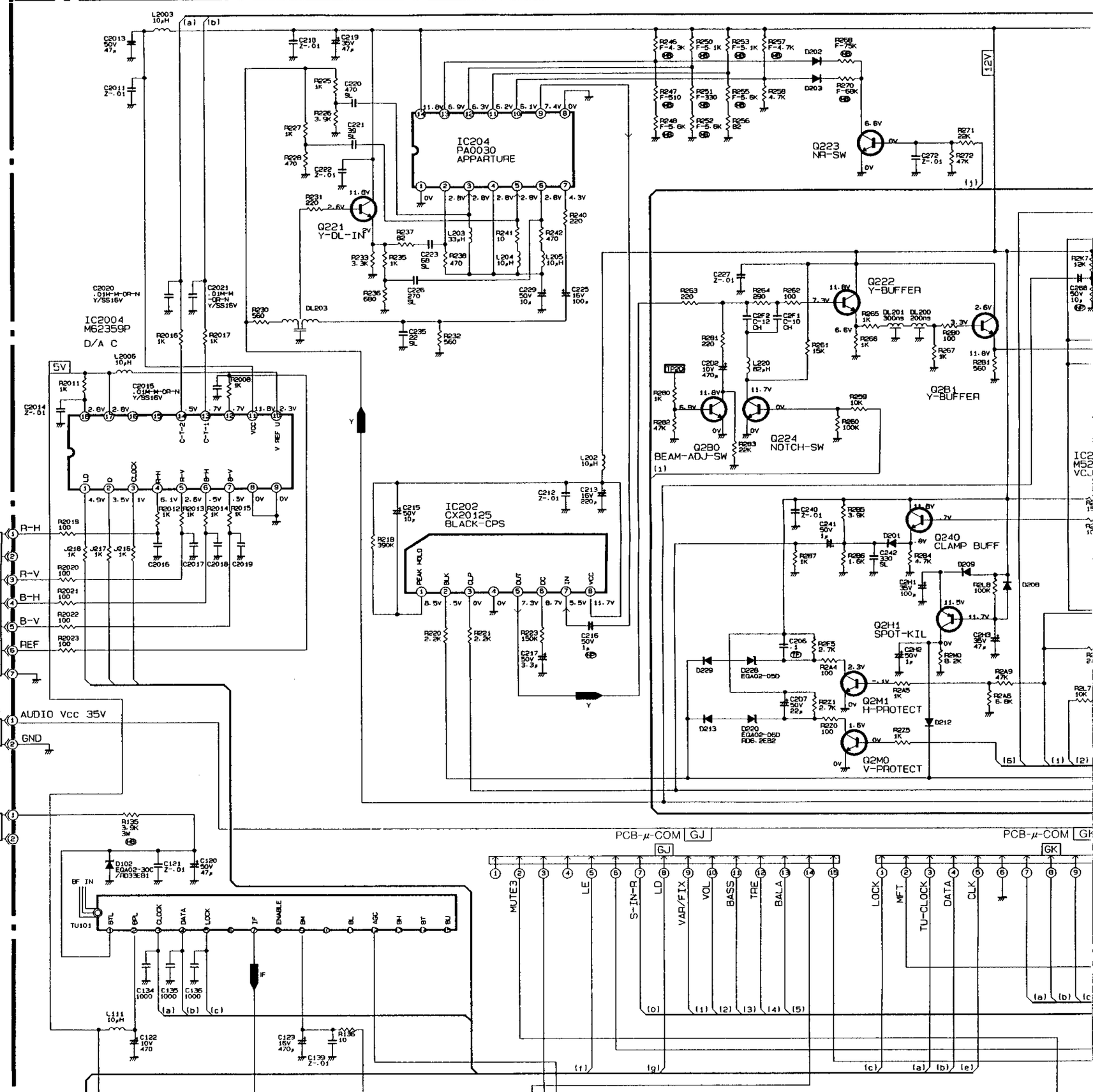


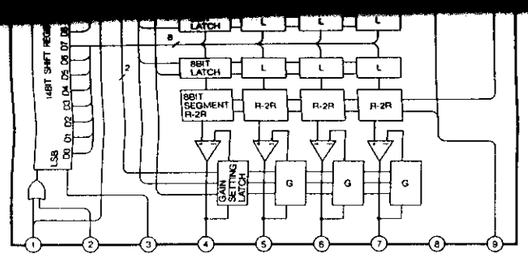
IC2004 M62359P

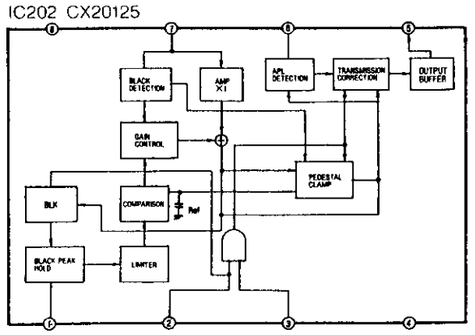


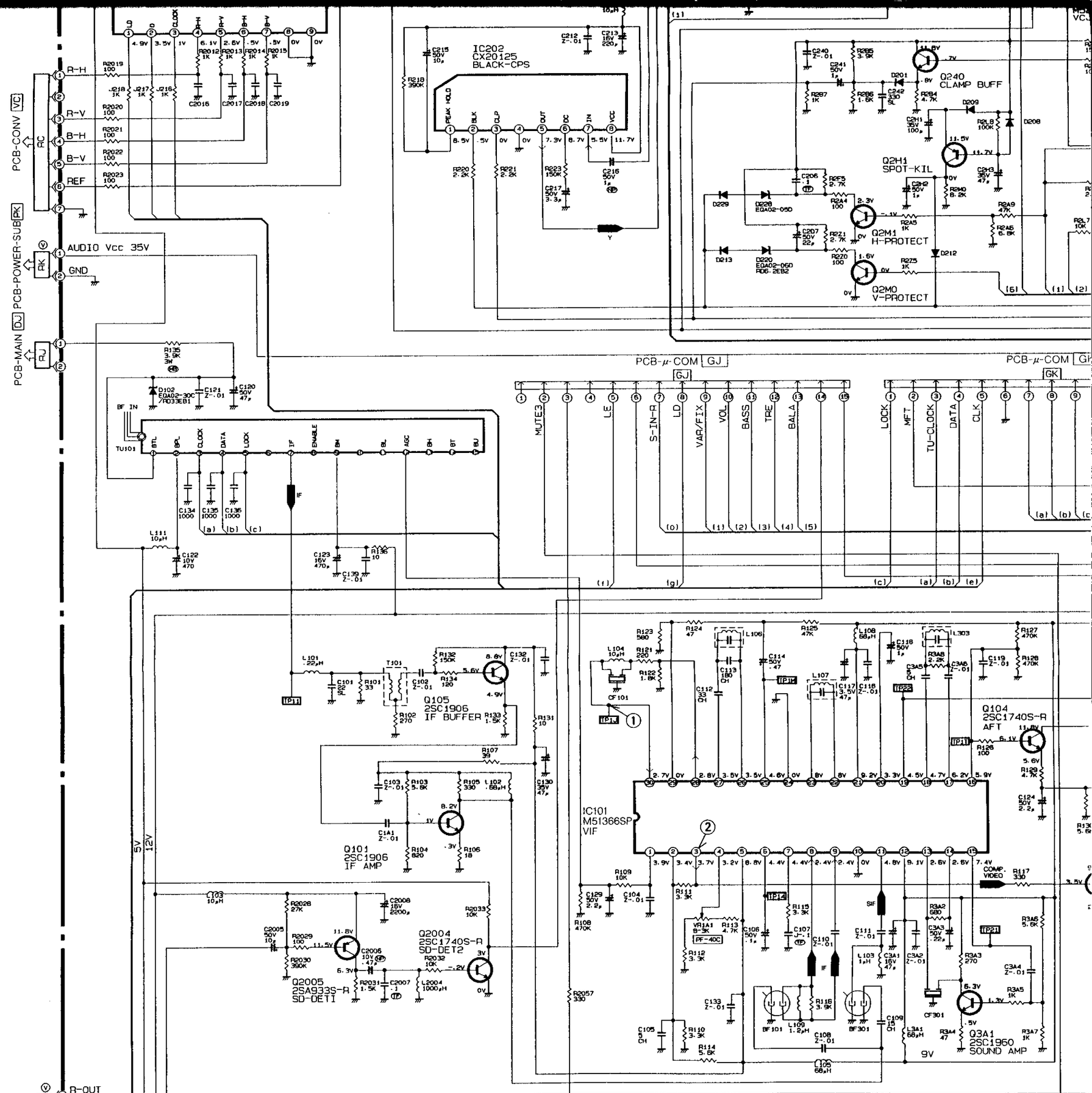
IC202 CX20125

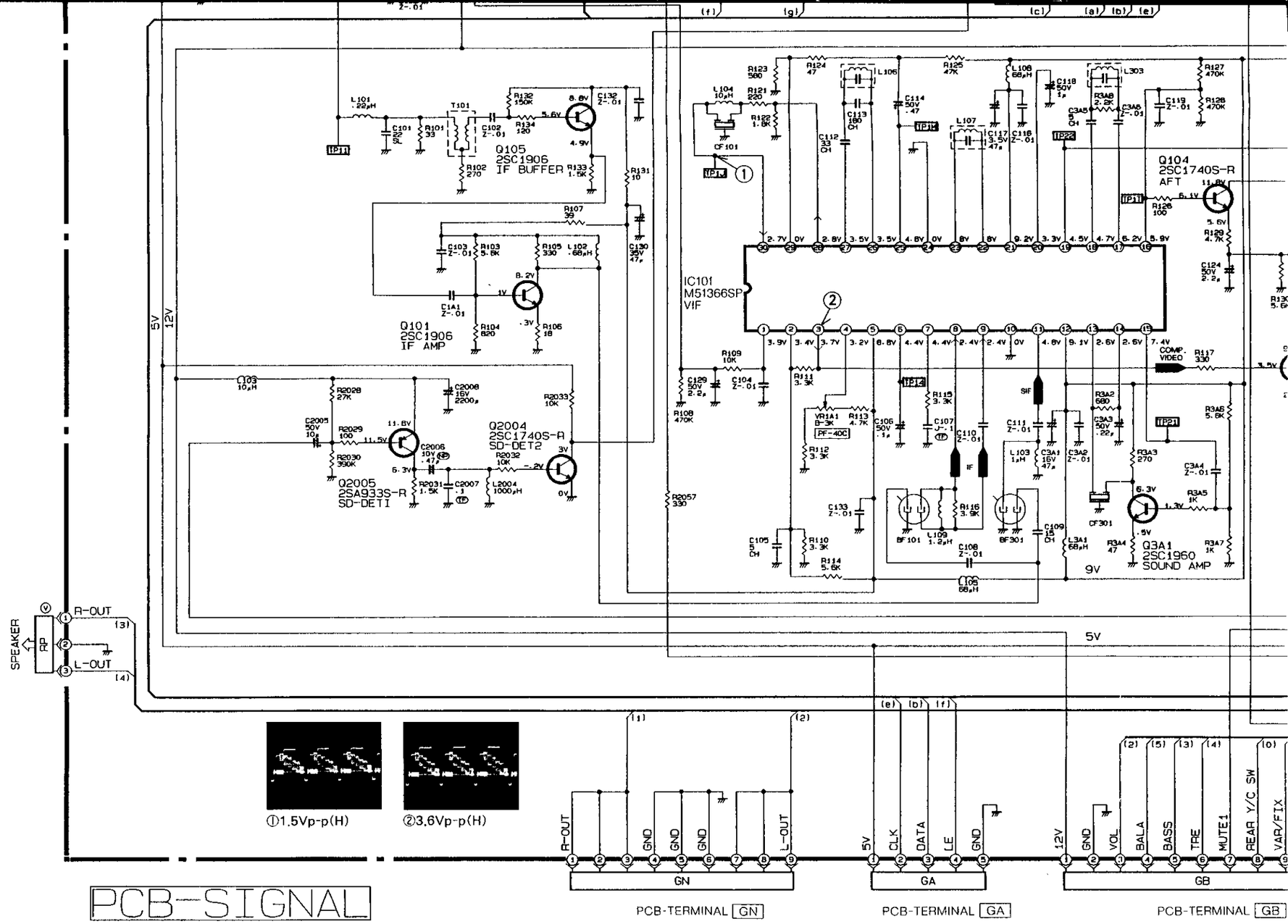





LATCH
8BIT LATCH
8BIT SEGMENT R-2R
R-2R
GAIN SETTING LATCH
G


IC202 CX20125
BLACK DETECTION
AMP X1
APL DETECTION
TRANSMISSION CORRECTION
OUTPUT BUFFER
GAIN CONTROL
PEDESTAL CLAMP
BLK
COMPARISON
BLACK PEAK HOLD
LIMITER


PCB-CONV VC
PCB-POWER-SUB PK
PCB-MAIN DJ
R-H
R-V
B-H
B-V
REF
AUDIO Vcc 35V
GND
IC202 CX20125 BLACK-CPS
Q240 CLAMP BUFF
Q2H1 SPOT-KIL
Q2M1 H-PROTECT
Q2M0 V-PROTECT
PCB-μ-COM GJ
PCB-μ-COM GK
MUTE3
LE
S-IN-R
LD
VAR/FIX
VOL
BASS
TRE
BALA
LOCK
MFT
TU-CLOCK
DATA
CLK
TU101
BF IN
IF
Q105 2SC1906 IF BUFFER
Q101 2SC1906 IF AMP
Q2004 2SC1740S-R SD-DET2
Q2005 2SA933S-R SD-DET1
IC101 M51366SP VIF
Q104 2SC1740S-R AFT
Q3A1 2SC1960 SOUND AMP
R-OUT
5V
12V
9V



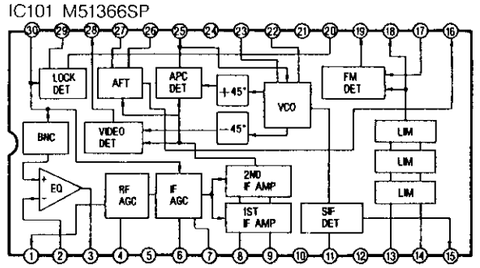
PCB-TERMINAL GN

PCB-TERMINAL GA

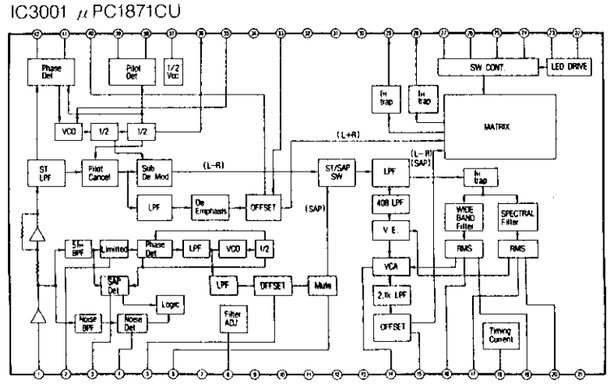
PCB-TERMINAL GB

PCB-SIGNAL

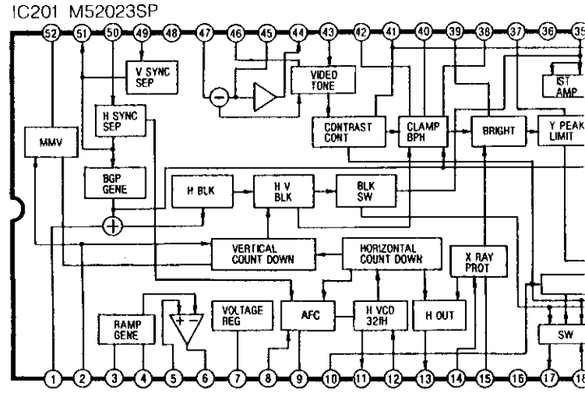
IC101 M51366SP

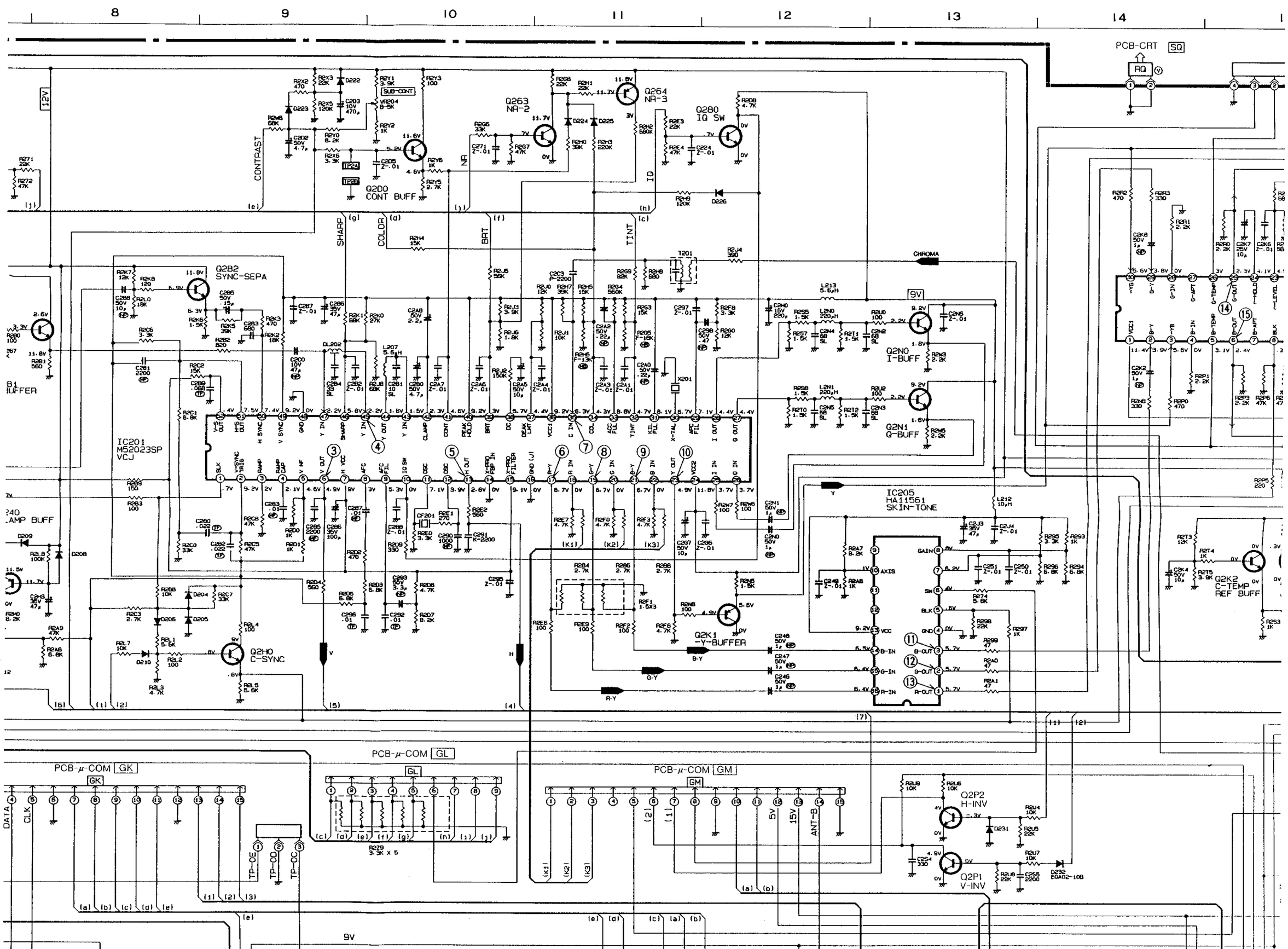


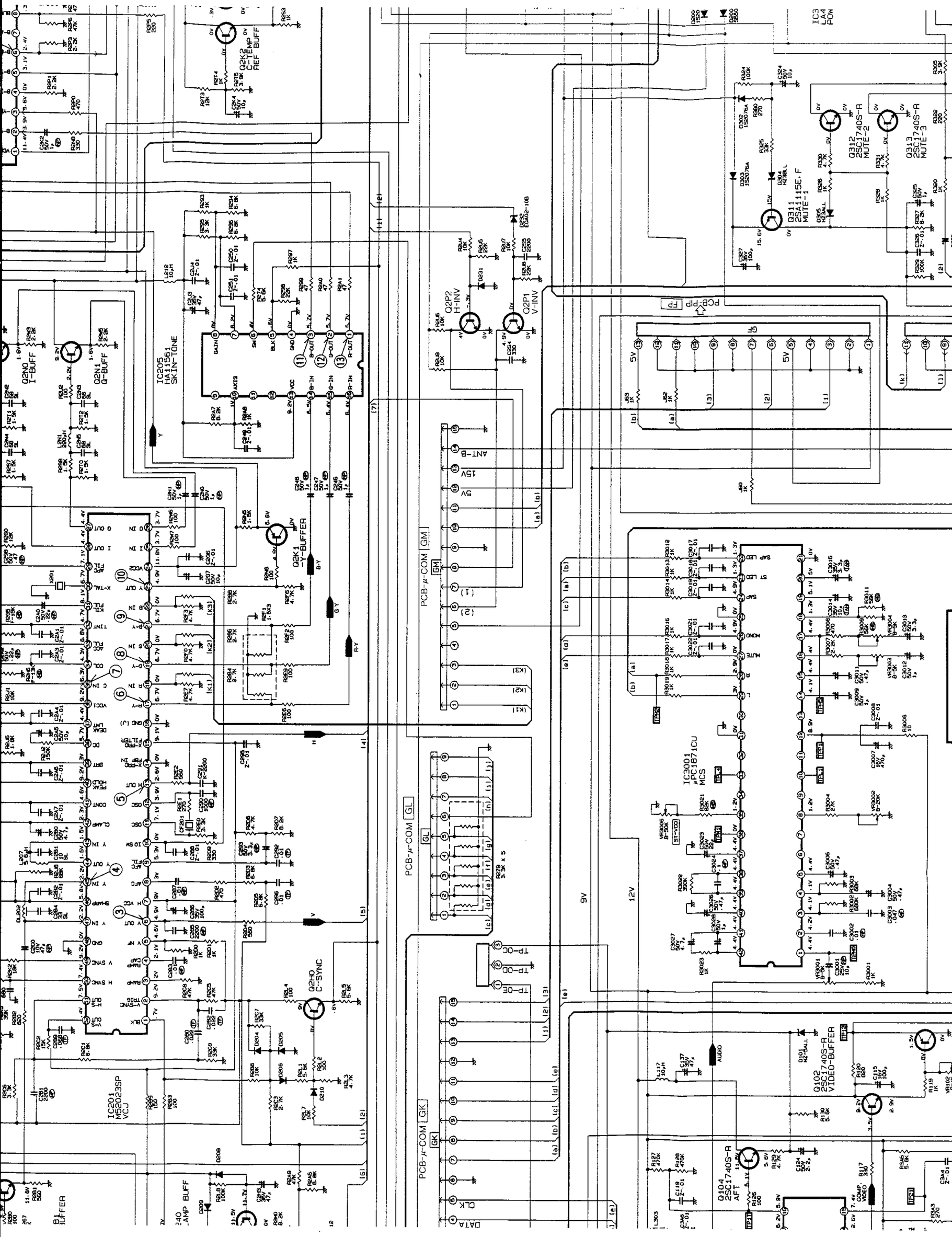
IC3001 μPC1871CU



IC201 M52023SP




8
9
10
11
12
13
14
12V
CONTRAST
SUB-CONT
Q200
CONT BUFF
Q263
NA-2
Q264
NA-3
Q280
IQ SW
NA
IQ
SHARP
COLOR
BRT
TINT
CHROMA
T201
Q2B2
SYNC-SEPA
Q2H0
C-SYNC
IC201
M52023SP
VCJ
IC205
HA11561
SKIN-TONE
Q2K1
-Y-BUFFER
Q2K2
C-TEMP
REF BUFF
Q2N0
I-BUFF
Q2N1
G-BUFF
Q2P2
H-INV
Q2P1
V-INV
9V
5V
15V
ANT-B
PCB-CRT
SQ
RQ
PCB-μ-COM
GK
GL
GM
DATA
CLK
TP-OE
TP-OD
TP-OC
B-Y
G-Y
R-Y


IC205
HA11561
SKIN-TONE
IC201
M52023SP
VCJ
IC3001
μPC1871CU
MCS
Q2N0
I-BUFF
Q2N1
Q-BUFF
Q2K1
-Y-BUFFER
Q2K2
CTEMP
REF BUFF
Q2P2
H-INV
Q2P1
V-INV
Q2H0
C-SYNC
Q311
2SA1115E,F
MUTE-1
Q312
2SC1740S-R
MUTE-2
Q313
2SC1740S-R
MUTE-3
Q102
2SC1740S-R
VIDEO-BUFFER
Q104
2SC1740S-R
AFT
IC3
LA4
POW
PCB-μ-COM GM
PCB-μ-COM GL
PCB-μ-COM GK
PCB-pip
AUDIO
9V
12V
5V
15V

9V

12V

Q104
2SC1740S-R
AFT

Q102
2SC1740S-R
VIDEO-BUFFER

Q103
2SA933S-R
VIDEO-BUFFER

Q3A1
2SC1960
SOUND AMP

IC3001
μPC1871CU
MCS

DL205
UNIT-COMB-FILTER

Q311
2SA1115E, F
MUTE-1

Q312
2SC1740S-R
MUTE-2

Q313
2SC1740S-R
MUTE-3

Q303
2SC1740S-R
SP INT/EXT

Q2001
2SC1740S-R
ANT-SW

PCB-PIP FP

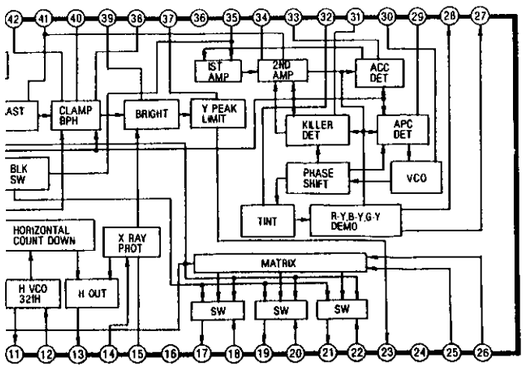
PCB-PIP VP

PCB-TERMINAL GB

PCB-TERMINAL GC

PCB-TERMINAL GD

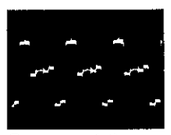
ANT-TERMINAL



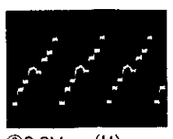

③5.0Vp-p(V)


④0.4Vp-p(H)

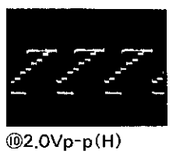

⑤6.7Vp-p(H)

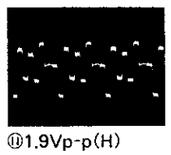

⑥4.5Vp-p(H)

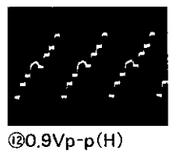

⑦0.3Vp-p(H)

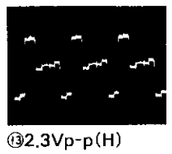

⑧0.9Vp-p(H)


⑨2.0Vp-p(H)

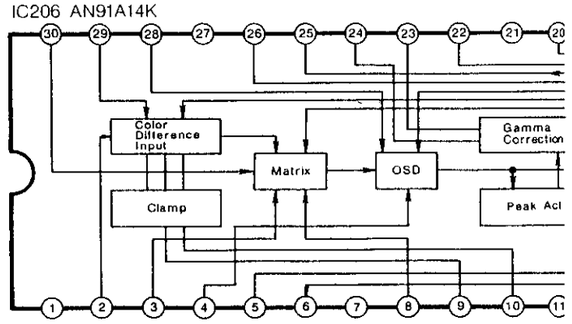

⑩2.0Vp-p(H)


⑪1.9Vp-p(H)


⑫0.9Vp-p(H)


⑬2.3Vp-p(H)

IC206 AN91A14K



12 13 14 15 16 17 18

PCB-CRT SQ

IC205 HA11561 SKIN-TONE

IC206 AN91A14K VIDEO AMP

Q2K1 -Y-BUFFER

Q2N0 I-BUFF

Q2N1 Q-BUFF

Q2P2 H-INV

Q2P1 V-INV

Q2K2 C-TEMP REF BUFF

Q2K3 B-C-TEMP-1

Q2K4 B-C-TEMP-2

Q2K5 B-C-TEMP INV

Q2K6 R-C-TEMP

Q2L1 R-OUT

Q2L2 G-OUT

Q2L3 B-OUT

IC2001 SI-3120C 12V Reg

IC2002 SI-3090C 9V Reg

IC203 M51320P SG-SW

IC209 MSM5258RS SYNC-GENERATOR

⑭4.0Vp-p(H)

⑮4.0Vp-p(H)

⑯3.8Vp-p(H)

PCB-CRT SM

PCB-MAIN DH

PCB-μ-COM GM

⑮4.0Vp-p(H)

⑯3.8Vp-p(H)

IC205
HA11561
SKIN-TONE

Q2K1
-Y-BUFFER

Q2K2
C-TEMP
REF BUFF

Q2K3
B-C-TEMP-1

Q2K4
B-C-TEMP-2

Q2K5
B-C-TEMP
INV

Q2K6
R-C-TEMP

Q2N1
Q-BUFF

(1) H-PULSE
(2) V-PULSE
GND
(3) ACL
(4) H-OUT
(5) V-OUT
(6) V-SAW
(7) X-RAY
DH
PCB-MAIN

PCB-μ-COM GM

Q2P2
H-INV

Q2P1
V-INV

CHROMA

IC2001
SI-3120C
12V Reg

IC2002
SI-3090C
9V Reg

IC203
M51320P
SG-SW

IC209 MSM5258RS
SYNC-GENERATOR

Q201
SYNC-GENE-OUT

IC2003
SI-3050C
5V Reg

PCB-POWER-SUB PK
15V
GND

Q311
2SA1115E.F
MUTE-1

Q312
2SC1740S-R
MUTE-2

Q313
2SC1740S-R
MUTE-3

IC300
LA4282
POWER-AMP

35V

PCB-POWER-SUB PG
(b) POWER
(a) P-ON-T

PCB-PIP FP
PCB-PIP VP
DL209
UNIT-COMB-FILTER

IC2002
SI-3090C
9V Reg
9V
R2043 10 3W
R2044 100
C2026 16V 100μ
C2025 .1 50V C- (TF)
R215 10
C227 35V 47μ
R212 470
R213 1K
C228 Z-.01
C225 35V 10μ (NP)
C230 Z-.01 F25V (k)
R209 10K
R207 1.5K
C292 Z-.01
C226 35V 47μ
R210 2.2K
R208 10
Q201
SYNC-GENE-OUT
IC2003
SI-3050C
5V Reg
5V
D2003 1S2076A
D2002 S5500-D
C2028 16V 100μ
R2045 6.8 3W
R2048 6.8 3W
C2027 .1 50V C- (TF)
D2001 1S2076A
R2047 470 2W
15V
GND
PCB-POWER-SUB PK
RL
IC300
LA4282
POWER-AMP
35V
C304 25V 100μ
C305 50V 4.7μ
C307 50V 4.7μ
C308 25V 100μ
C309 50V 100μ
C311 .1 (TF)
C312 .1 (TF)
R312 2.2
R311 2.2
R306 1K
R308 1K
C314 35V 1000μ
C313 35V 1000μ
POWER
P-ON-T
RG
PCB-POWER-SUB PG
K321
K322
R314 1.2K 1/2W
R313 1.2K 1/2W
D301 S5500-D
D307 S5500-D
R304 270 3W
R316 270 3W
R317 56 3W
C327 35V 100μ
D303 1S2076A
D302 1S2076A
R324 100K
R325 33K
R360 270
D304 HZ36LL
C324 50V 10μ
Q311
2SA1115E.F
MUTE-1
D305 HZ3ALL
R326 1K
R330 4.7K
Q312
2SC1740S-R
MUTE-2
R328 1K
R331 4.7K
Q313
2SC1740S-R
MUTE-3
R329 100K
C326 Z-.01
R327 8.2K
C325 50V 1μ
R320 1K
R322 220
R305 3.9K
C320 35V 47μ
C322 2200
R321 1K
R323 220
R307 3.9K
C321 35V 47μ
C323 2200
PCB-PIP FP
PCB-PIP VP
J63 1K
J62 1K
J60 1K
5V
GF
GE
R3014 1K
R3013 1K
R3012 1K
C3019 Z-.01
C3018 Z-.01
C3017 Z-.01
SAP
ST LED
SAP LED
C3014 35V 10μ (TAN)
C3015 35V 3.3μ (TAN)
R3011 56K (MB)
DL205
UNIT-COMB-FILTER
VCC
R302 10K
R309 82K
C302 16V 100μ
Q303
2SC1740S-R
SP INT/EXT
L2002 10μH
C2003 50V 47μ
R2001 100
R2003 12
C2001 5600P-H-OR-N X/5R16V
R2002 22K
C2002 5600P-H-OR-N X/5R16V
Q2001
2SC1740S-R
ANT-SW
ANT-B
15V
RA
ANT-TERMINAL
D309 1S2076A
D308 HZ30LL
R339 5.6K
R340 5.6K
C331 16V 470μ
Q318
2SC1740S-R
RELAY-DRIVE
L-IN
COMP-IN
Y-OUT
C-OUT
GD
PCB-TERMINAL
GD

If not specified TRANSISTORS are 2SC2603-E,F/2SC1740S-R,S — NPN TYPE

2SA1115-E,F/2SA933S-R,S — PNP TYPE

If not specified DIODES are 1S2076A/1S2471

⑥4.5Vp-p(H)

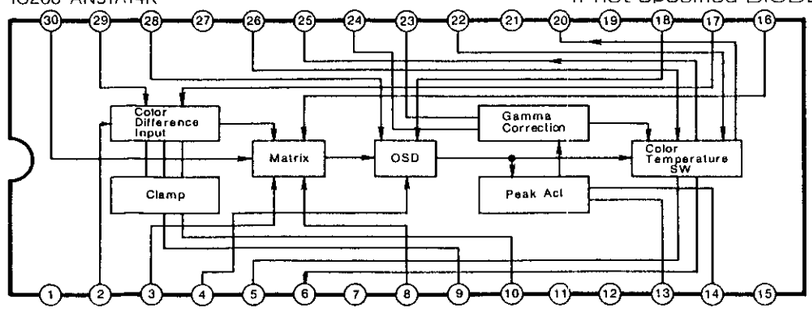
⑦0.3Vp-p(H)

⑪1.9Vp-p(H)

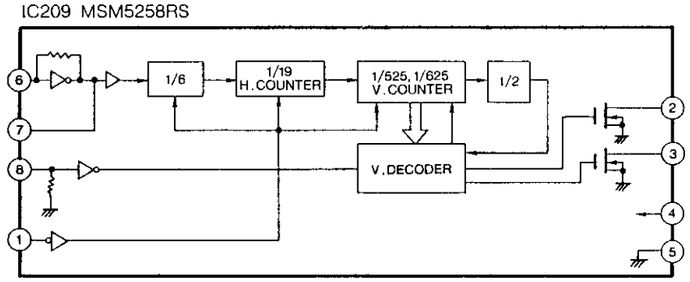
⑫0.9Vp-p(H)

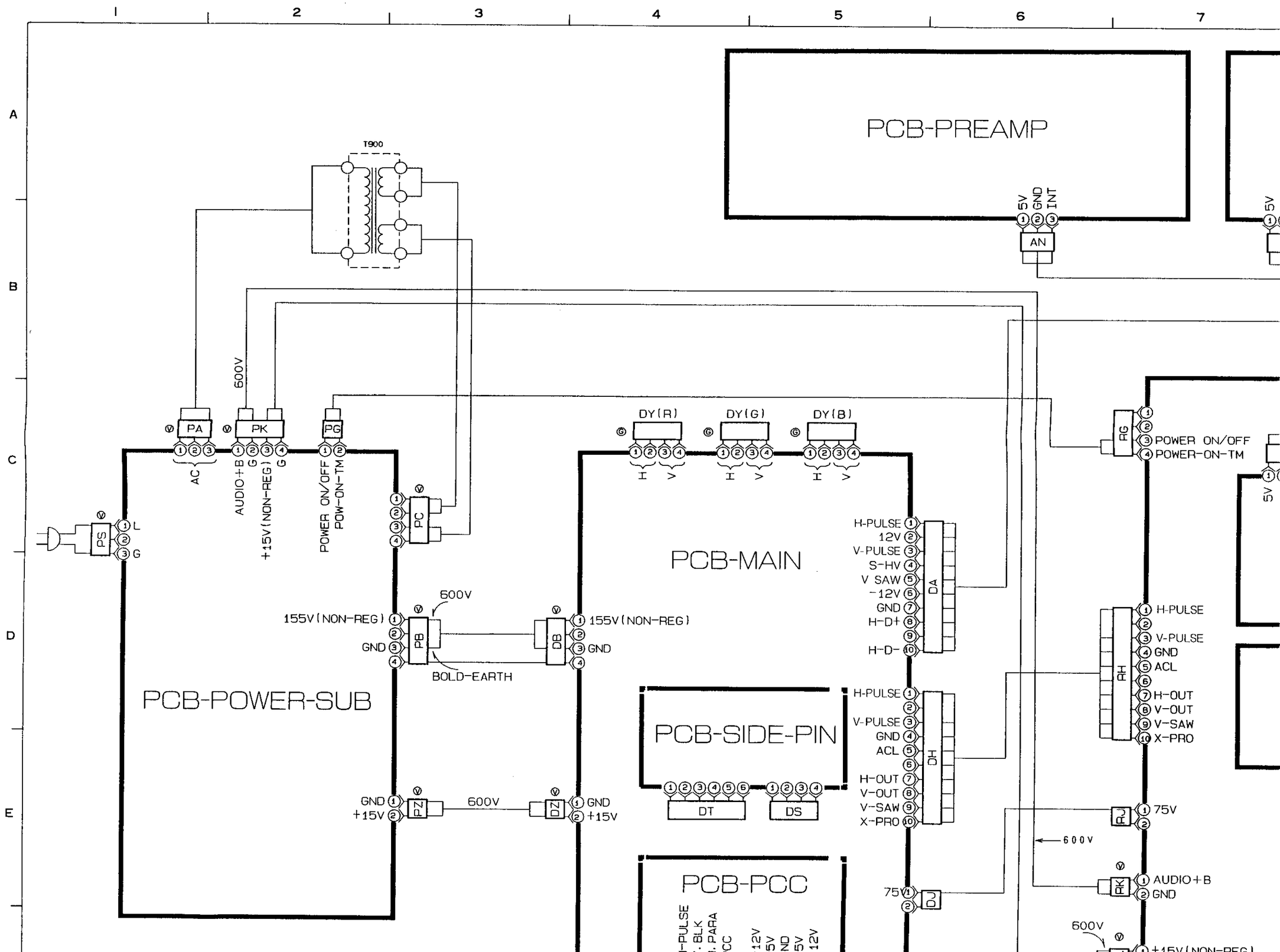
⑬2.3Vp-p(H)

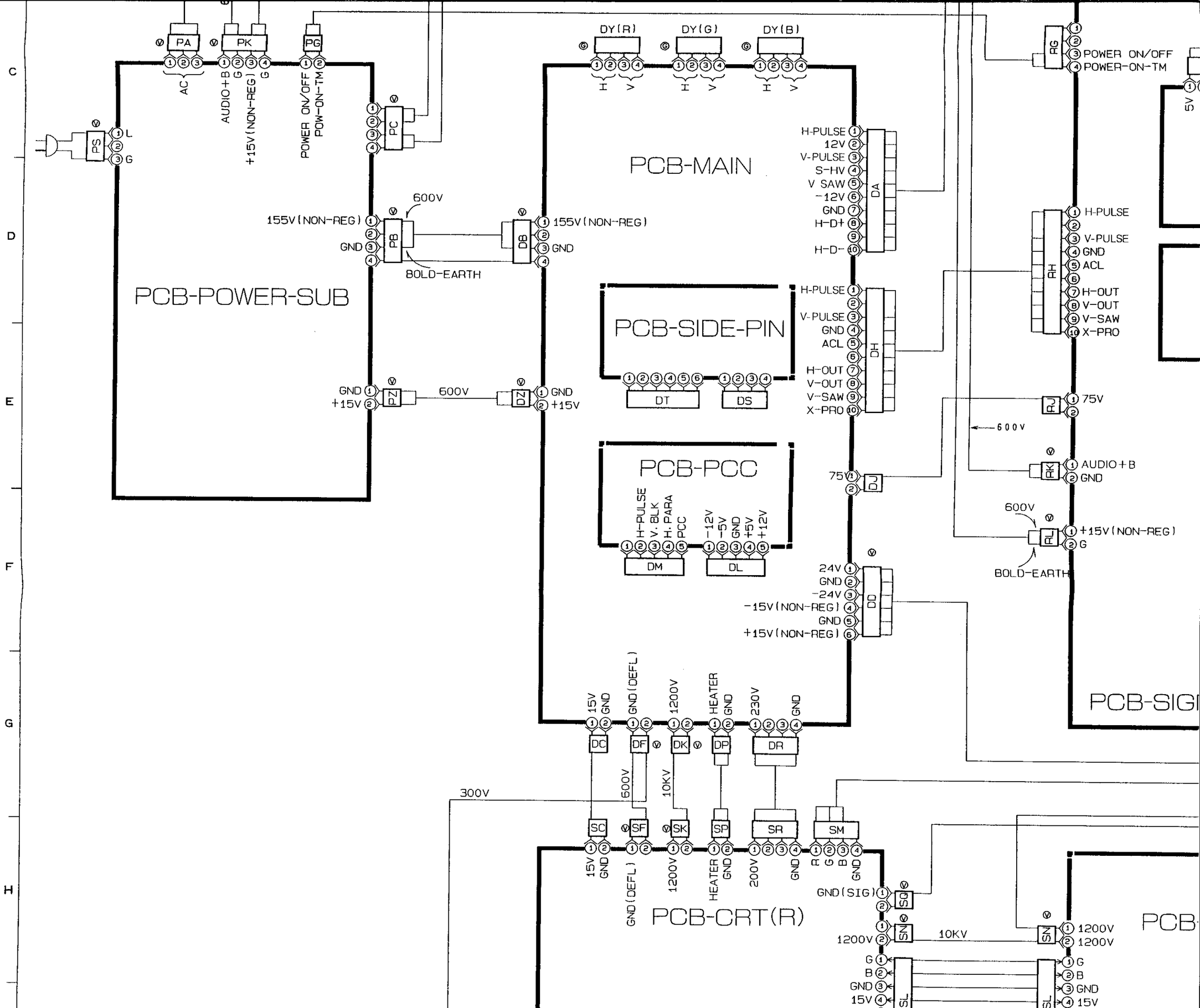
IC206 AN91A14K



IC209 MSM5258RS




1
2
3
4
5
6
7
A
B
C
D
E
PCB-PREAMP
5V
GND
INT
AN
T900
600V
PA
PK
PG
AC
AUDIO+B
G
G
+15V(NON-REG)
POWER ON/OFF
POW-ON-TM
PC
PS
L
G
DY(R)
DY(G)
DY(B)
H
V
PCB-MAIN
H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-
DA
155V(NON-REG)
GND
PB
DB
BOLD-EARTH
PCB-POWER-SUB
PCB-SIDE-PIN
DT
DS
DH
ACL
H-OUT
V-OUT
V-SAW
X-PRO
GND
+15V
PZ
DZ
RG
POWER ON/OFF
POWER-ON-TM
RH
RJ
75V
RK
AUDIO+B
PCB-PCC


PCB-POWER-SUB
PCB-MAIN
PCB-SIDE-PIN
PCB-PCC
PCB-CRT(R)
PCB-SIGI
PA
PK
PG
PS
PC
PB
PZ
DB
DZ
DY(R)
DY(G)
DY(B)
RG
RH
RJ
RK
RL
DA
DH
DJ
DD
DT
DS
DM
DL
DC
DF
DK
DP
DR
SC
SF
SK
SP
SR
SM
SQ
SN
SL
AC
AUDIO+B
G
+15V(NON-REG)
POWER ON/OFF
POW-ON-TM
L
G
155V(NON-REG)
600V
GND
BOLD-EARTH
+15V
H
V
POWER ON/OFF
POWER-ON-TM
5V
H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-
ACL
H-OUT
V-OUT
V-SAW
X-PRO
75V
AUDIO+B
24V
-24V
-15V(NON-REG)
GND(DEFL)
1200V
HEATER
230V
200V
10KV
300V
GND(SIG)
R
G
B
-12V
-5V
+5V
+12V
H.PARA
V.BLK
PCC

F
G
H
I
J
K

H-PUL
V. BLK
H. PAR
PCC
-12V
-5V
GND
+5V
+12V
DM
DL
24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)
DD
600V
RJ
+15V(NON-REG)
G
BOLD-EARTH
PCB-SIG
15V
GND
GND(DEFL)
1200V
HEATER
GND
230V
GND
DC
DF
DK
DP
DR
600V
10KV
300V
SC
SF
SK
SP
SR
SM
15V
GND
GND(DEFL)
1200V
HEATER
GND
200V
GND
R
G
B
GND
PCB-CRT(R)
GND(SIG)
SG
SN
1200V
10KV
SN
1200V
1200V
G
B
GND
15V
SL
230V
SL
G
B
GND
15V
230V
HEATER
GND
SH
SU
BOLD EARTH
SH
HEATER
GND
SU
XY
G2
G1
HEATER
KATHODE
GND
SA
G2
G1
F-Mg
DY
SUB-DY
H. V
R
F-Mg
DY
H. V
G

4 5 6 7 8 9 10 11

PCB-PREAMP

5V GND INT
1 2 3
AN

PCB-CONTROL

5V GND KSCAN-1 KSCAN-2 KSCAN-3 LED RESET
1 2 3 4 5 6 7 8
CF

LED 1
5V 2
CB

DY(R) DY(G) DY(B)
1 2 3 4
H V

H-PULSE 1
12V 2
V-PULSE 3
S-HV 4
V SAW 5
-12V 6
GND 7
H-D+ 8
9
H-D- 10
DA

PCB-MAIN

55V(NON-REG)

ND

H-PULSE 1
2
V-PULSE 3
GND 4
ACL 5
6
H-OUT 7
V-OUT 8
V-SAW 9
X-PRO 10
DH

PCB-SIDE-PIN

DT DS

ND
15V

PCB-PCC

H-PULSE
V. BLK
H. PARA
PCC
-12V
-5V
GND
-5V
-12V

75V 1 2
DJ

RG
1
2
3 POWER ON/OFF
4 POWER-ON-TM

RH
1 H-PULSE
2
3 V-PULSE
4 GND
5 ACL
6
7 H-OUT
8 V-OUT
9 V-SAW
10 X-PRO

RJ 1 2 75V

600V

RK 1 AUDIO+B
2 GND

600V
+15V(NON-REG)

RF
5V GND KSCAN-1 KSCAN-2 KSCAN-3 LED RESET
1 2 3 4 5 6 7 8

RN
5V GND INT
1 2 3

RE
Y/C-SW COMP-SW
1 2

PCB-μ-COM

RD
Y-IN GND C-IN GND COMP-IN R-IN L-IN
1 2 3 4 5 6 7

PCB-TERMINAL

PCB-PIP

R-H 1
2
R-V 3
B-H 4
B-V 5
Vref 6
GND 7
RC

EXT-1
Y/C V
CENTER-CH IN L

EXT-2 V L

TUNER OUT V L

MONITER OUT V L

PCB-MAIN

DY(R) DY(G) DY(B)

H V

H-PULSE
12V
V-PULSE
S-HV
V SAW
-12V
GND
H-D+
H-D-

DA

55V(NON-REG)

ND

PCB-SIDE-PIN

DT DS

H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO

DH

ND
15V

PCB-PCC

H-PULSE V. BLK H. PARA PCC -12V -5V GND +5V +12V

DM DL

75V

DJ

600V

RG

POWER ON/OFF
POWER-ON-TM

RH

H-PULSE
V-PULSE
GND
ACL
H-OUT
V-OUT
V-SAW
X-PRO

RJ

75V

RK

AUDIO+B
GND

600V

RL

+15V(NON-REG)
G

BOLD-EARTH

24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)

DD

PCB-SIGNAL

RF

5V GND KSCAN-1 KSCAN-2 KSCAN-3 LED RESET

RN

5V GND INT

RE

Y/C-SW COMP-SW

PCB-μ-COM

RD

Y-IN GND C-IN GND COMP-IN R-IN L-IN

PCB-TERMINAL

PCB-PIP

EXT-1

EXT-2 TUNER OUT MONITER OUT

Y/C V V V V

CENTER-CH IN L L L L

SUB-WOOFER OUT R R R R

EXT-SP

(L) (R)

R-H
R-V
B-H
B-V
Vref
GND

RC

ANT B
+15V

RA

R-OUT
GND
L-OUT

RP

R G B GND

RM

GND

RQ

BOLD EARTH

15V GND GND(DEFL) 1200V HEATER GND 230V GND

DC DF DK DP DR

600V 10KV

SC SF SK SP SR SM

15V GND GND(DEFL) 1200V HEATER GND 200V GND R G B GND

GND(SIG)

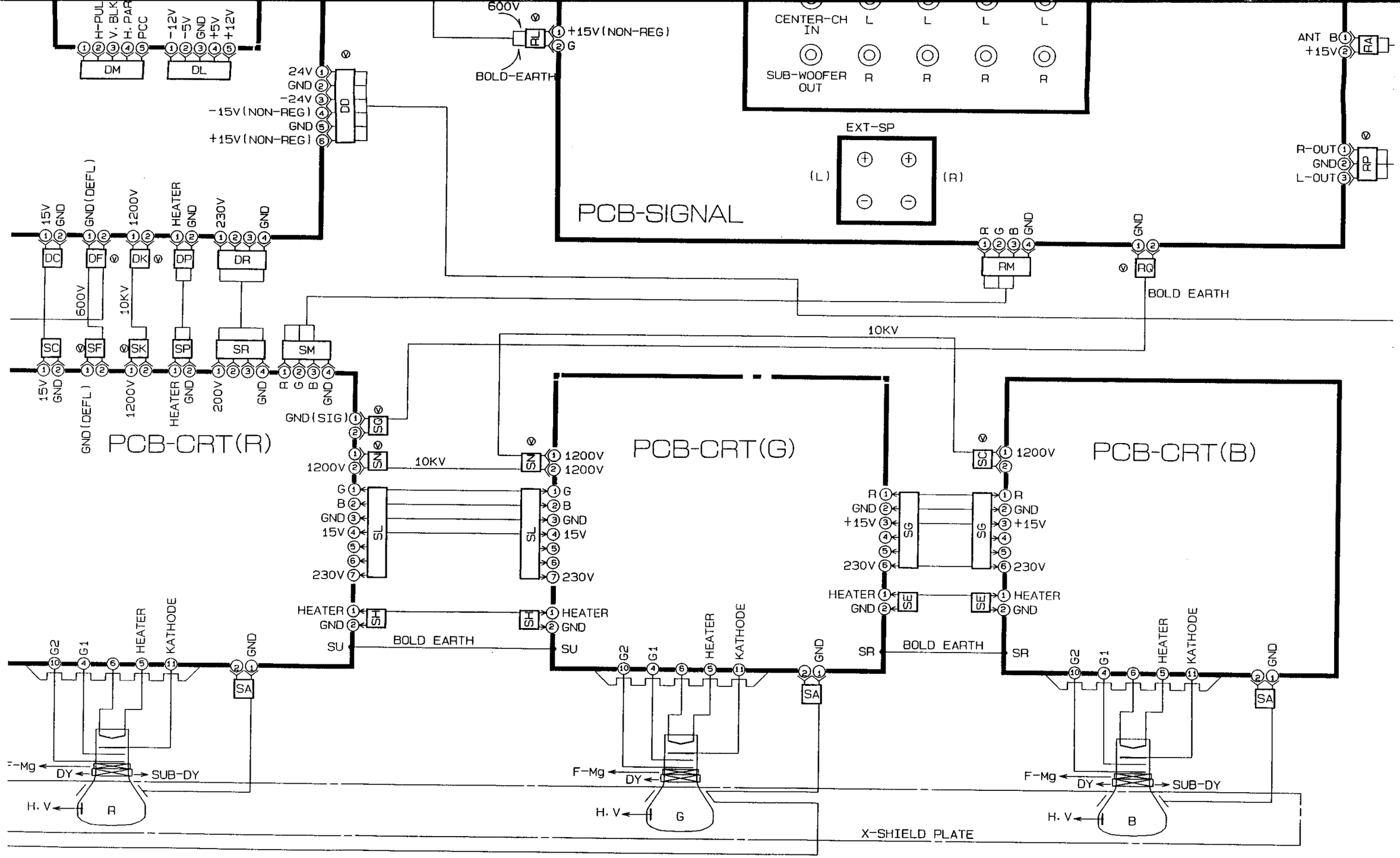
SG

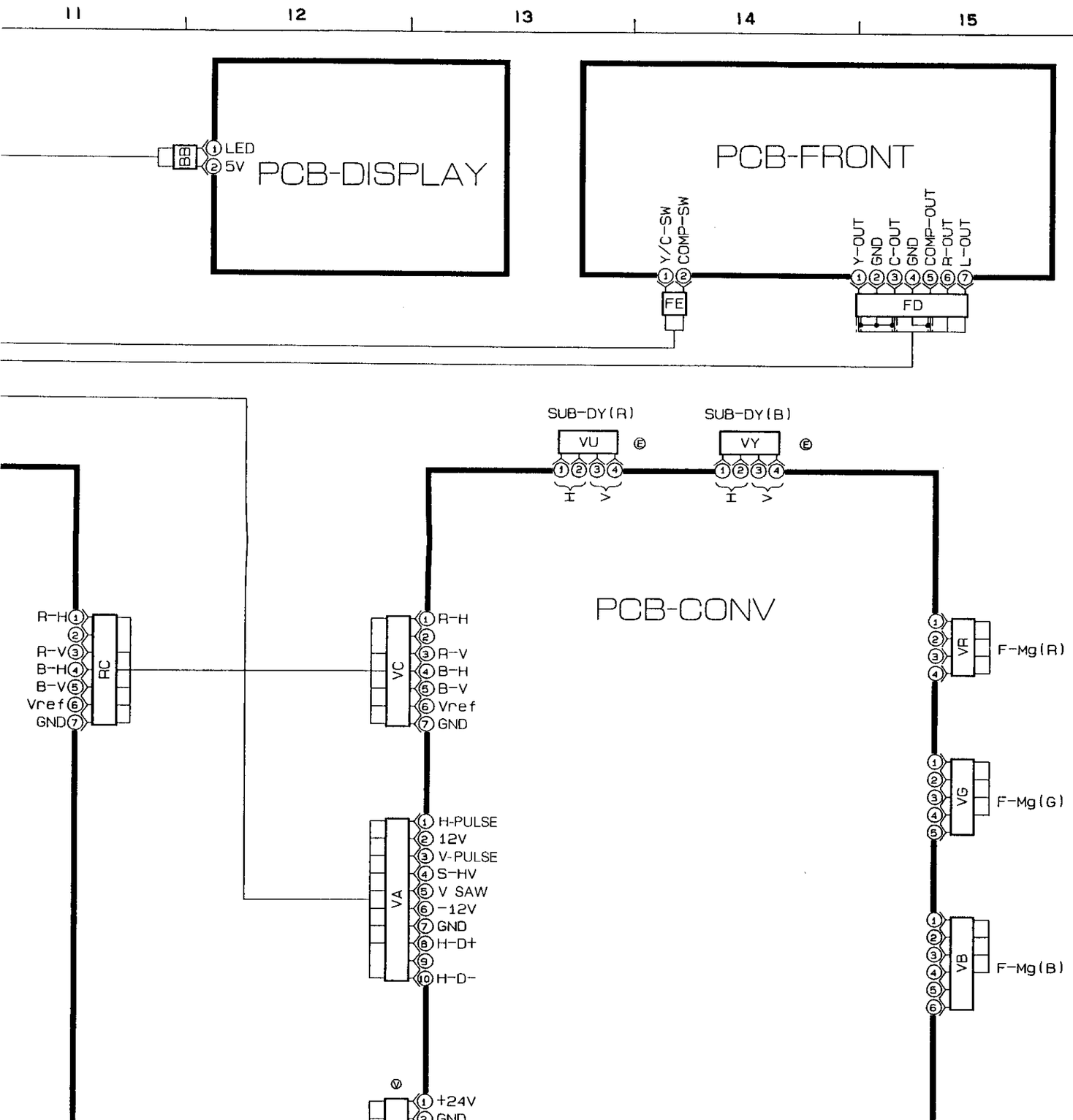
10KV

PCB-CRT(R)

PCB-CRT(G)

PCB-CRT(B)


H-PULSE
V. BLK
H. PAR
PCC
-12V
-5V
GND
+5V
+12V
DM
DL
600V
RL
+15V(NON-REG)
G
BOLD-EARTH
CENTER-CH IN
SUB-WOOFER OUT
L
R
ANT B
+15V
RA
R-OUT
GND
L-OUT
RP
EXT-SP
(L)
(R)
24V
GND
-24V
-15V(NON-REG)
GND
+15V(NON-REG)
DD
PCB-SIGNAL
R G B GND
RM
GND
RQ
BOLD EARTH
15V GND
GND(DEFL)
1200V
HEATER GND
230V GND
DC DF DK DP DR
600V
10KV
SC SF SK SP SR SM
15V GND
GND(DEFL)
1200V
HEATER GND
200V GND
R G B GND
PCB-CRT(R)
GND(SIG)
SG
SN
1200V
10KV
G B GND 15V SL
230V
HEATER GND SH
SU
BOLD EARTH
PCB-CRT(G)
SC
1200V
PCB-CRT(B)
R GND +15V SG
230V
HEATER GND SE
SR
BOLD EARTH
G2 G1 HEATER KATHODE GND
SA
F-Mg
DY
SUB-DY
H. V
R
G
B
X-SHIELD PLATE



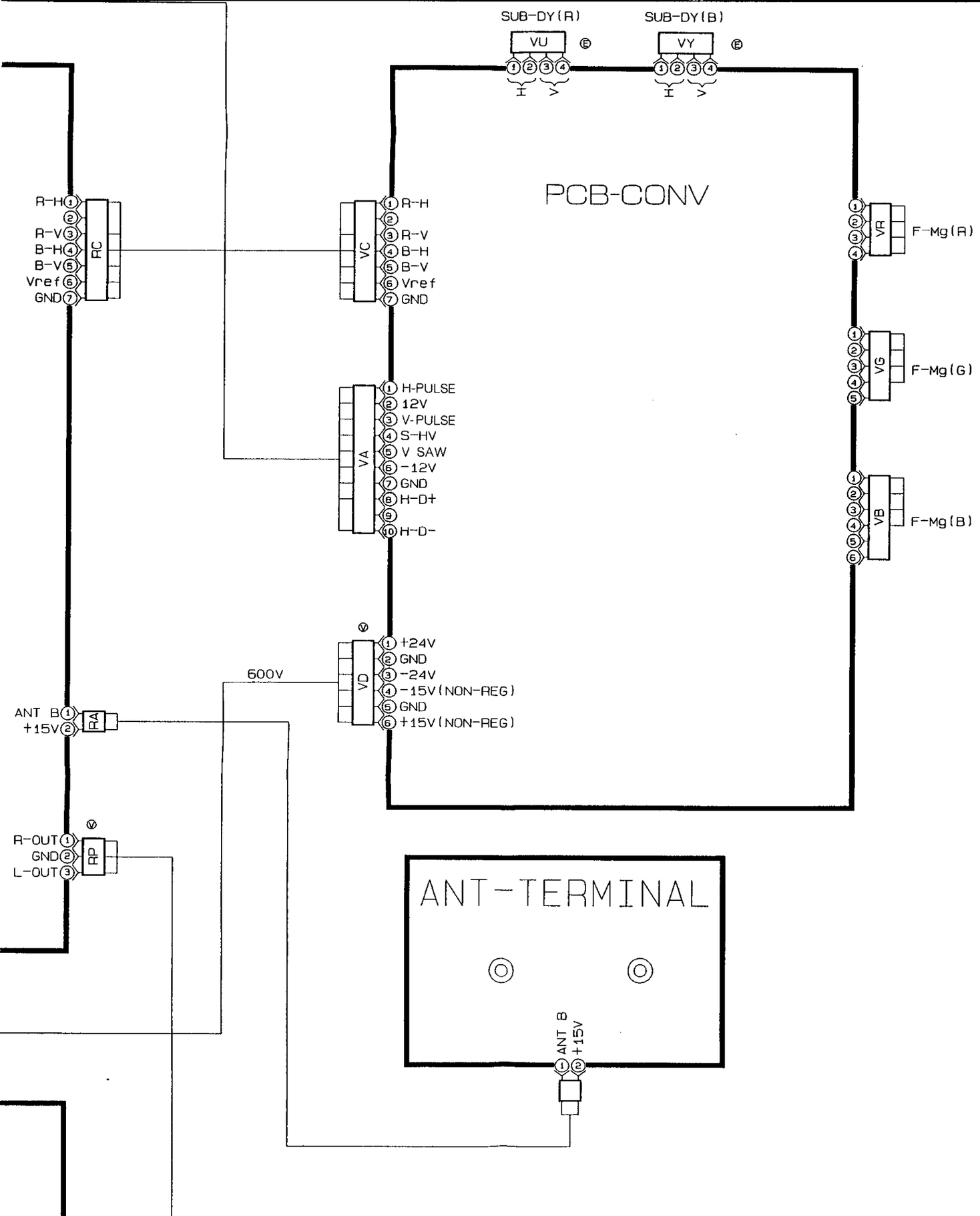
SCHEMATIC DIAGRAM

MODELS : VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA

NOTE 1:

1. The unit of resistance is "ohm" with no symbol.
   Accordingly, **K = 1000 ohms**
   M = 1000K ohms.
2. The wattage of resistors, if not specifically designated, is 1/4 watt.
3. **Resistors, if not specifically designated, are carbon resistors.**
4. **The marks of resistors are as follows:**
   - (CE) : Cemented resistor
   - (MB) : Metal oxide film resistor (type B)
   - (MPC) : Metal plate cement resistor.
   - (CM) : Cement metal oxide film resistor.
   - (S) : Fixed composition resistor
   - (W) : Wire wound resistor
   - (M) : Metal film resistor
5. The tolerance of resistor value is:
   Not specified=±5%, K=±10% M=±20%
6. **The unit of capacitance, if not specifically designated, is:**
   a) μF, for numbers less than 1
   b) PF, for numbers more than 1
7. **Capacitors, if not specifically designated are Ceramic capacitors except electrolytic capacitors.**
8. **The marks of capacitors are as follows:**
   - (ALM) : Aluminus electrolytic capacitor
   - (MF) : Polyester capacitor
   - (PP) : Polypropylene film capacitor
   - (TANT) : Tantalum capacitor
   - (TF) : Twin film capacitor.
   - (MF.PP) : Polyester polypropylene film capacitor.
   - (MPP) : Metallize plastic film capacitor.
   - (NP) : Non polarized electrolytic capacitor.
   - (SC) : Semi conductor capacitor.
   - (PS) : Styrol capacitor.
   - : Electrolytic capacitor
9. **The DC working voltage of capacitor, if not specifically designated is: 50V**
10. **The tolerance of capacitor value, if not specifically designated is: ±10% for polyester capacitor**
    ±5% for ceramic capacitor
    and J =±5% K =±10% M =±20% P = $^{+100\%}_{-\ 0\%}$
    C =±0.25PF D = ±0.5PF F =±1PF Z = $^{+80\%}_{-20\%}$ N=±30%

SPECIFIC SYMBOL	
Zener Diode	Varistor
Varicap	Crystal unit
Posistor	Air Gap
	Part (resistor) attached



watt.

3. Resistors, if not specifically designated, are carbon resistors.
4. The marks of resistors are as follows:

CE	:	Cemented resistor
MB	:	Metal oxide film resistor (type B)
MPC	:	Metal plate cement resistor.
CM	:	Cement metal oxide film resistor.
Ⓢ	:	Fixed composition resistor
Ⓦ	:	Wire wound resistor
Ⓜ	:	Metal film resistor

5. The tolerance of resistor value is:
   Not specified=±5%, K=±10% M=±20%
6. The unit of capacitance, if not specifically designated, is:
   a) μF, for numbers less than 1
   b) PF, for numbers more than 1
7. Capacitors, if not specifically designated are Ceramic capacitors except electrolytic capacitors.
8. The marks of capacitors are as follows:

ALM	:	Aluminus electrolytic capacitor
MF	:	Polyester capacitor
PP	:	Polypropylene film capacitor
TANT	:	Tantalum capacitor
TF	:	Twin film capacitor.
MF.PP	:	Polyester polypropylene film capacitor.
MPP	:	Metallize plastic film capacitor.
NP	:	Non polarized electrolytic capacitor.
SC	:	Semi conductor capacitor.
PS	:	Styrol capacitor.
✱	:	Electrolytic capacitor

9. The DC working voltage of capacitor, if not specifically designated is: 50V
10. The tolerance of capacitor value, if not specifically designated is: ±10% for polyester capacitor
    ±5% for ceramic capacitor
    and J =±5% K =±10% M =±20% P = $^{+100\%}_{-\ 0\%}$
    C =±0.25PF D = ±0.5PF F =±1PF Z = $^{+80\%}_{-20\%}$ N=±30%

SPECIFIC SYMBOL

Zener Diode	Varistor
Varicap	Crystal unit
Posistor	Air Gap
Thermistor	Part (resistor) attached on the copper-foil side of PCB
Fusible Resistor	Ceramic filter

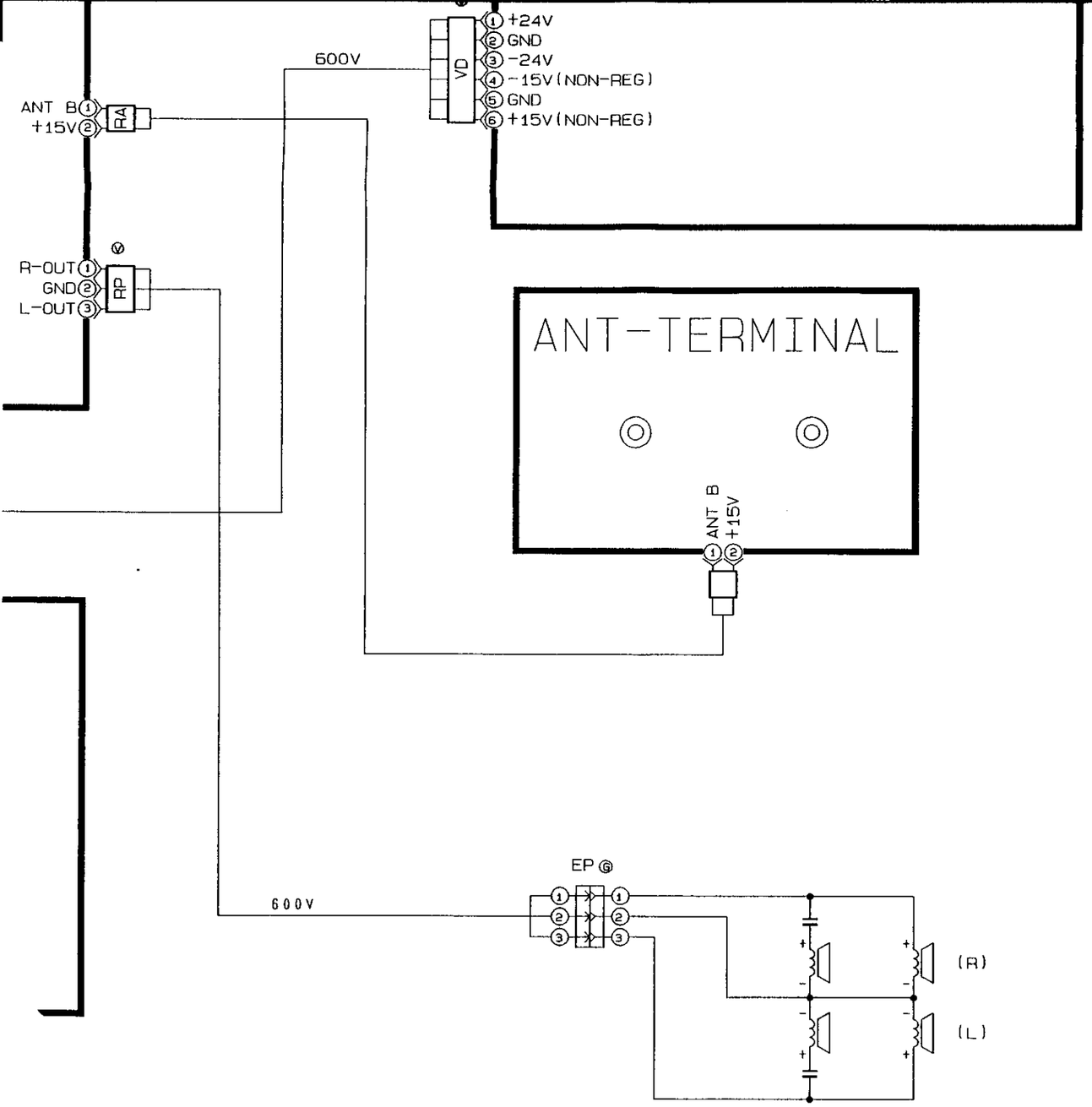
NOTE 2:

1. DC voltages were measured from points indicated to the circuit ground with a digital voltmeter.
   Line voltage at 120V AC on signal applied.
2. Waveforms were taken with NTSC color bar signal.
3. This is a basic schematic diagram. Some sets may be subject to modification according to engineering improvement.

THESE COMPONENTS HAVE SPECIAL CHARACTERISTICS IMPORTANT TO SAFETY. BEFORE REPLACING ANY OF THESE COMPONENTS READ CAREFULLY THE PRODUCT SAFETY NOTICE IN THE SERVICE MANUAL. DON'T DEGRADE THE SAFETY OF THE RECEIVERS THROUGH IMPROPER SERVICING.

SERVICE MAN WARNING
X-RADIATION PRECAUTION
THIS PRODUCT INCLUDES CRITICAL ELECTRICAL AND MECHANICAL PARTS ESSENTIAL FOR X-RADIATION PROTECTION.
TO AVOID POSSIBLE EXPOSURE TO X-RADIATION TAKE X-RADIATION PROTECTIVE MEASURES FOR PERSONNEL DURING SERVICING.
SEE SERVICE INSTRUCTIONS FOR SPECIFIED REPLACEMENT PARTS AND SERVICE ADJUSTMENTS.

LES ELEMENTS CONSTITUTIFS HACHURES ONT DES CARACTERISTIQUES SPECIALES IMPORTANTES A LA SECURITE. AVANT DE REMPLACER L'UN OU L'AUTRE DE CES ELEMENTS, LIRE ATTENTIVEMENT LA NOTICE



	Posistor		Air gap
	Thermistor		Part (resistor) attached on the copper-foil side of PCB
	Fusible Resistor		Ceramic filter

NOTE 2:

1. DC voltages were measured from points indicated to the circuir ground with a digital voltmeter.
   Line voltage at 120V AC on signal applied.
2. Waveforms were taken with NTSC color bar signal.
3. This is a basic schematic diagram. Some sets may be subject to modification according to enginearing improvement.

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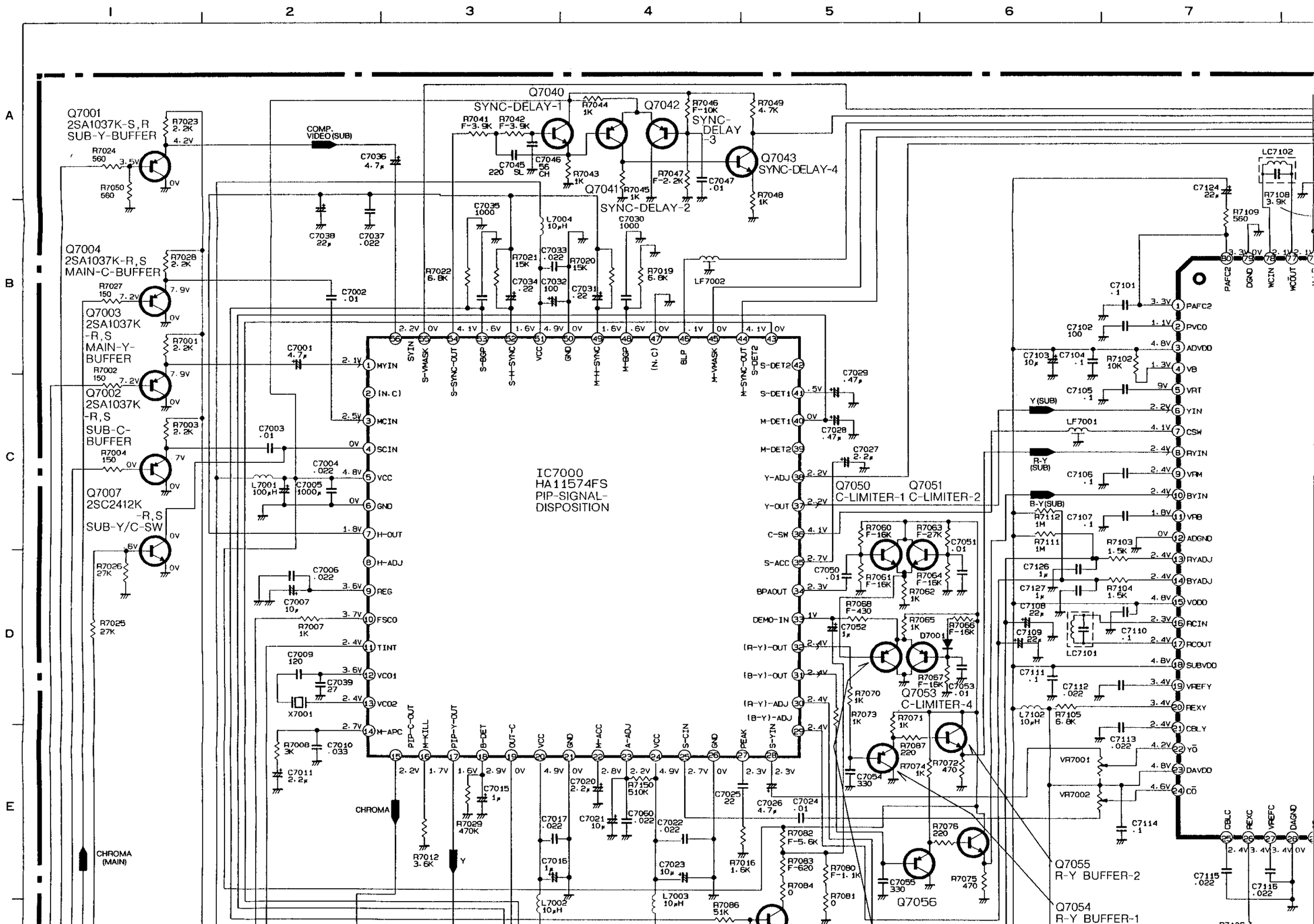
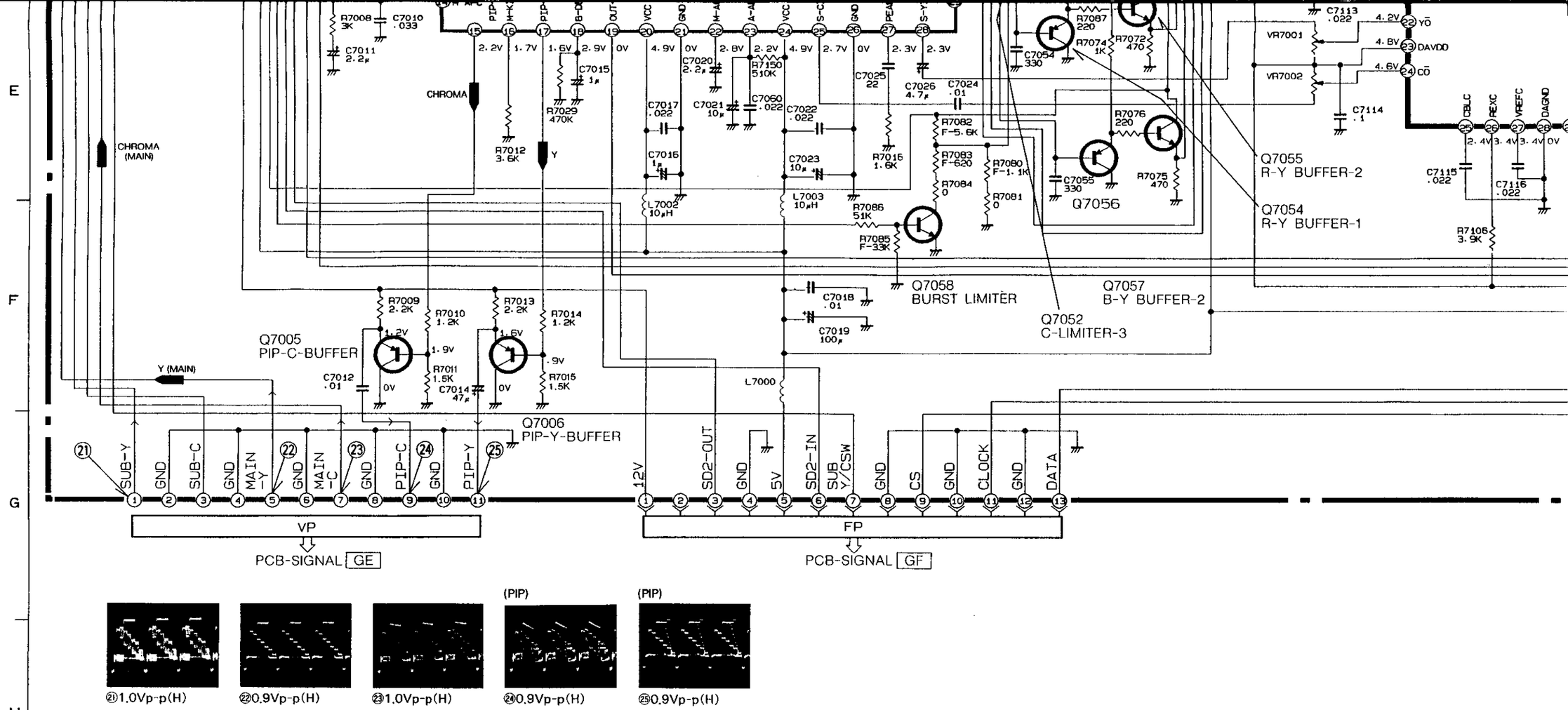
NE PAS NUIRE A LA SECURITE DES RECEPTEURS PAR SERVICE NON APPROPRIE.

AVERTISSEMENT AU DEPANNEUR
PRECAUTIONS CONTRE LA RADIATION AUX RAYONS X LE PRESENT APPAREIL COMPORTE DES PIECES IMPORTANTES ELECTROMECANIQUES POUR LA PROTECTION CONTRE LA RADIATION AUX RAYONS X. POUR EVITER TOUTE EXPOSITION EVENTUELLE A LA RADIATION AUX RAYONS X, PRENDRE LES MESURES DE PROTECTION AU COURS DU DEPANNAGE. VOIR LES INSTRUCTIONS D'ENTRETIEN POUR LES PIECES DE REMPLACEMENT SPECIFIEES ET LES REGLAGES D'ENTRETIEN.

Printed in U.S.A.

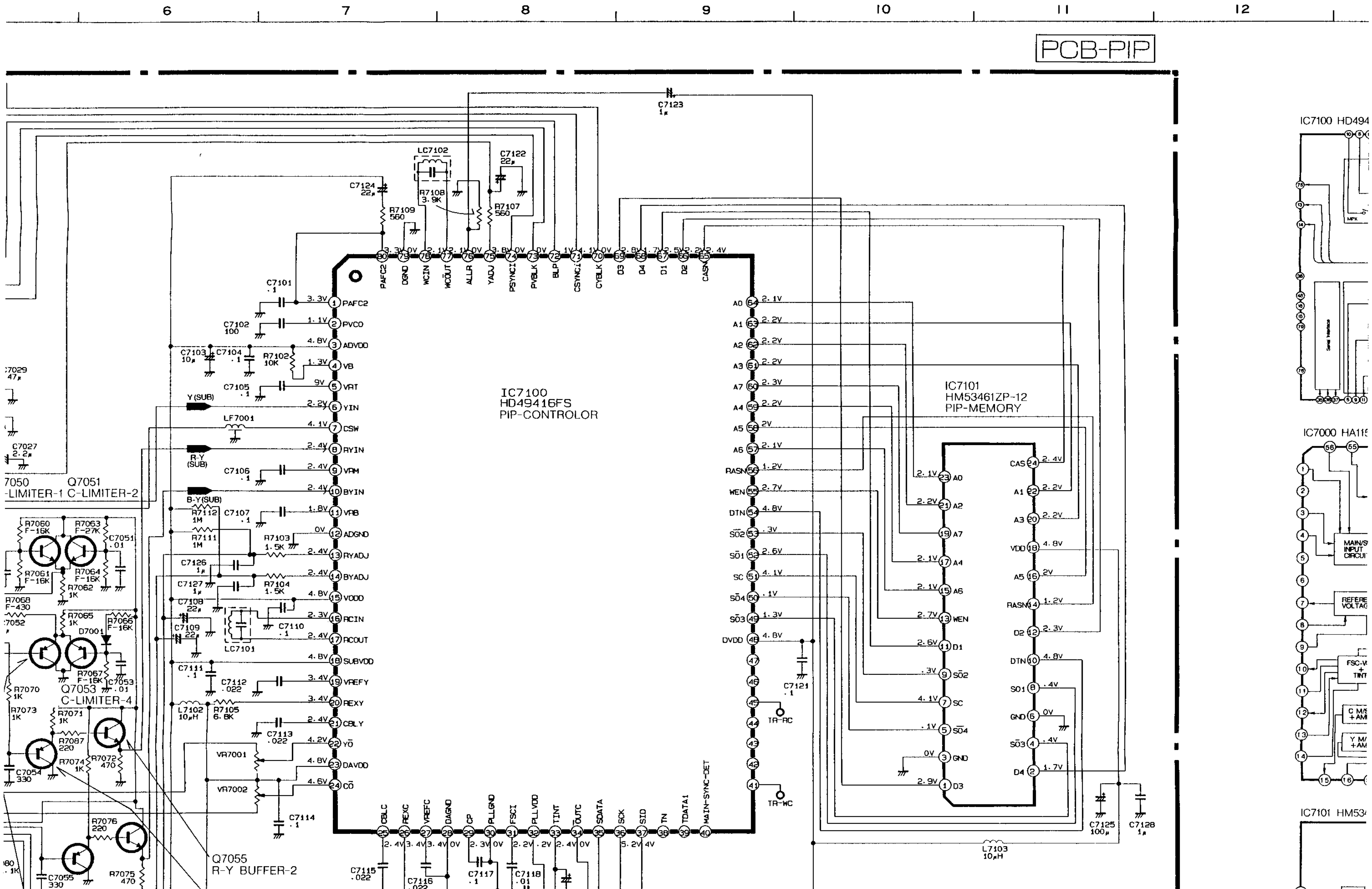
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(1/6)


Q7001
2SA1037K-S,R
SUB-Y-BUFFER
Q7004
2SA1037K-R,S
MAIN-C-BUFFER
Q7003
2SA1037K
-R,S
MAIN-Y-
BUFFER
Q7002
2SA1037K
-R,S
SUB-C-
BUFFER
Q7007
2SC2412K
-R,S
SUB-Y/C-SW
CHROMA
(MAIN)
COMP.
VIDEO(SUB)
Q7040
SYNC-DELAY-1
Q7042
SYNC-
DELAY
-3
Q7043
SYNC-DELAY-4
Q7041
SYNC-DELAY-2
LF7002
IC7000
HA11574FS
PIP-SIGNAL-
DISPOSITION
MYIN
(N.C)
MCIN
SCIN
VCC
GND
H-OUT
H-ADJ
REG
FSCO
TINT
VCO1
VCO2
M-APC
SYIN
S-VMASK
S-SYNC-OUT
S-BGP
S-H-SYNC
VCC
GND
M-H-SYNC
M-BGP
(N.C)
BLP
M-VMASK
M-SYNC-OUT
S-DET2
S-DET1
M-DET1
M-DET2
Y-ADJ
Y-OUT
C-SW
S-ACC
BPAOUT
DEMO-IN
(R-Y)-OUT
(B-Y)-OUT
(R-Y)-ADJ
(B-Y)-ADJ
PIP-C-OUT
H-KILL
PIP-Y-OUT
B-DET
OUT-C
VCC
GND
H-ACC
A-ADJ
VCC
S-CIN
GND
PEAK
S-YIN
CHROMA
Y
Q7050
C-LIMITER-1
Q7051
C-LIMITER-2
Q7053
C-LIMITER-4
Q7055
R-Y BUFFER-2
Q7056
Q7054
R-Y BUFFER-1
LC7102
LC7101
PAFC2
DGND
WCIN
WCOUT
PVCO
ADVDD
VB
VRT
YIN
CSW
RYIN
VRM
BYIN
VRB
ADGND
RYADJ
BYADJ
VODD
RCIN
RCOUT
SUBVDD
VREFY
REXY
CBLY
YO
DAVDD
CO
CBLC
REXC
VREFC
DAGND
Y(SUB)
R-Y
(SUB)
B-Y(SUB)
LF7001
VR7001
VR7002
D7001

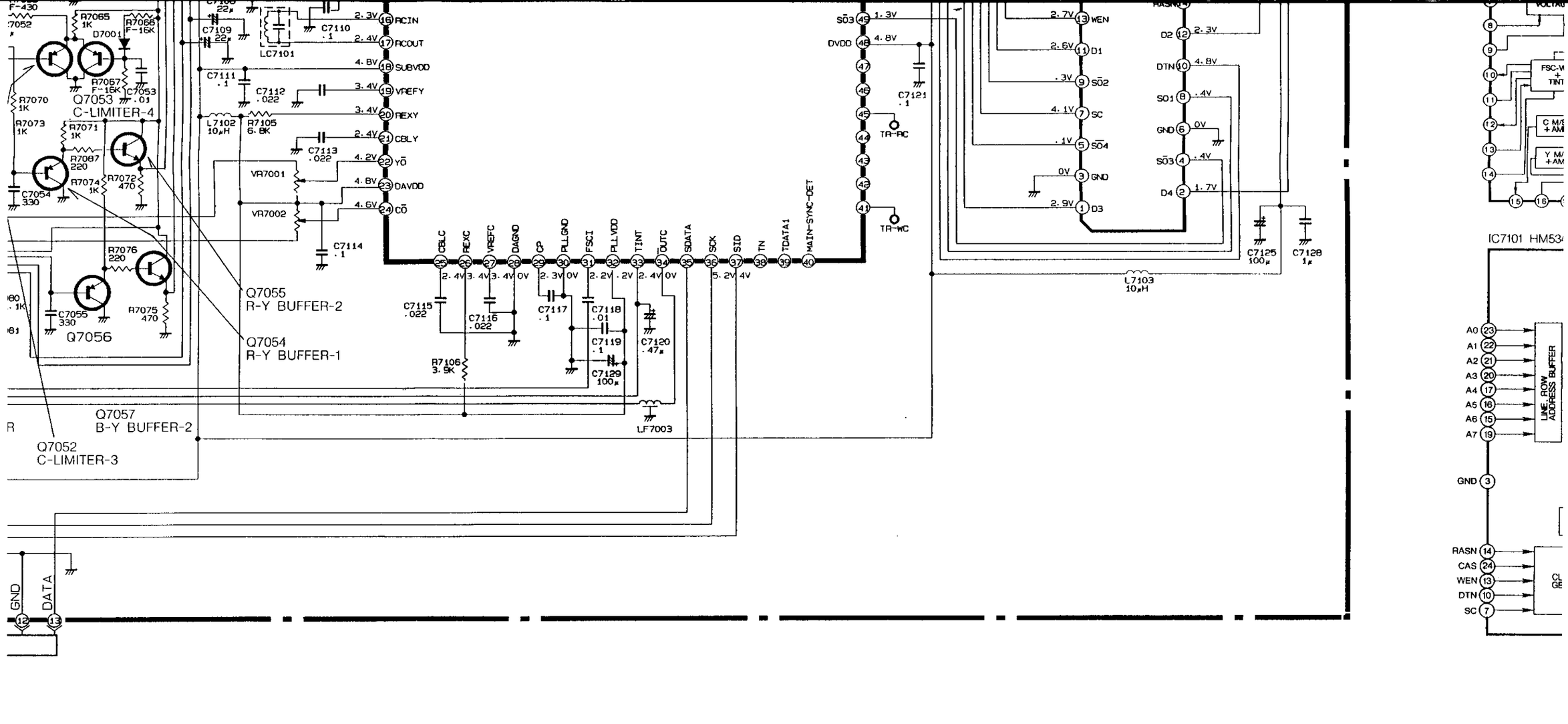


(PIP) (PIP)

㉑1.0Vp-p(H) ㉒0.9Vp-p(H) ㉓1.0Vp-p(H) ㉔0.9Vp-p(H) ㉕0.9Vp-p(H)



6
7
8
9
10
11
12
PCB-PIP
IC7100
HD49416FS
PIP-CONTROLOR
IC7101
HM53461ZP-12
PIP-MEMORY
IC7100 HD494
IC7000 HA11
IC7101 HM53
Q7051
C-LIMITER-2
C-LIMITER-1
Q7053
C-LIMITER-4
Q7055
R-Y BUFFER-2
Y(SUB)
R-Y (SUB)
B-Y(SUB)
LF7001
LC7101
LC7102
VR7001
VR7002
L7102 10µH
L7103 10µH
TR-RC
TR-WC
C7123 1µ
C7122 22µ
C7124 22µ
R7109 560
R7108 3.9K
R7107 560
C7101 .1
C7102 100
C7103 10µ
C7104 .1
R7102 10K
C7105 .1
C7106 .1
C7107 .1
R7112 1M
R7111 1M
R7103 1.5K
R7104 1.5K
C7126 1µ
C7127 1µ
C7108 22µ
C7109 22µ
C7110 .1
C7111 .1
C7112 .022
R7105 6.8K
C7113 .022
C7114 .1
C7115 .022
C7116 .022
C7117 .1
C7118 .01
C7121 .1
C7125 100µ
C7128 1µ
D7001
PAFC2
PVCO
ADVDD
VB
VRT
YIN
CSW
RYIN
VRM
BYIN
VRB
ADGND
RYADJ
BYADJ
VDDD
RCIN
RCOUT
SUBVDD
VREFY
REXY
CBLY
CBLC
REXC
VREFC
DAGND
CP
PLLGND
FSCI
PLLVDD
TINT
TOUTC
SDATA
SCK
SID
TN
TDATA1
MAIN-SYNC-DET
DGND
WCIN
WCOUT
ALLR
YADJ
PSYNCI
PVBLK
BLP
CSYNCI
CYBLK
D3
D4
D1
D2
CASN
A0
A1
A2
A3
A7
A4
A5
A6
RASN
WEN
DTN
DVDD
CAS
VDD
GND
SC

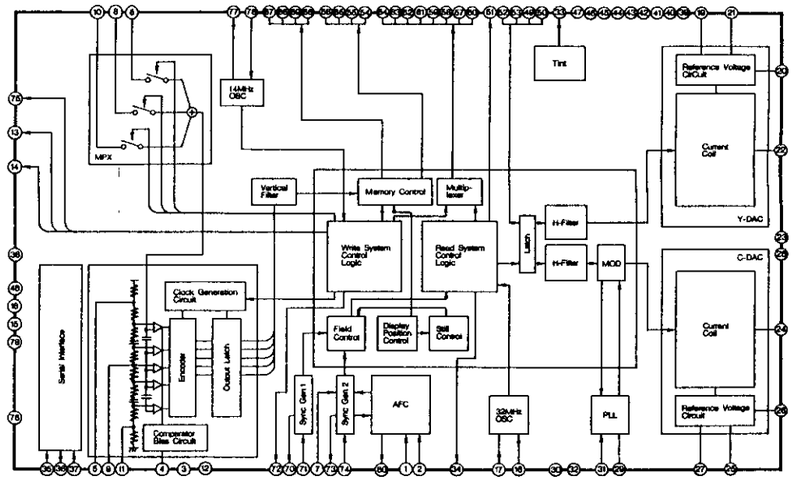

Q7053
C-LIMITER-4
Q7056
Q7055
R-Y BUFFER-2
Q7054
R-Y BUFFER-1
Q7057
B-Y BUFFER-2
Q7052
C-LIMITER-3
IC7101 HM53
LINE, ROW
ADDRESS BUFFER
TR-RC
TR-WC
LF7003
L7103
10μH
L7102
10μH
LC7101
VR7001
VR7002
GND
DATA
RASN
CAS
WEN
DTN
SC

9 10 11 12 13 14 15 16

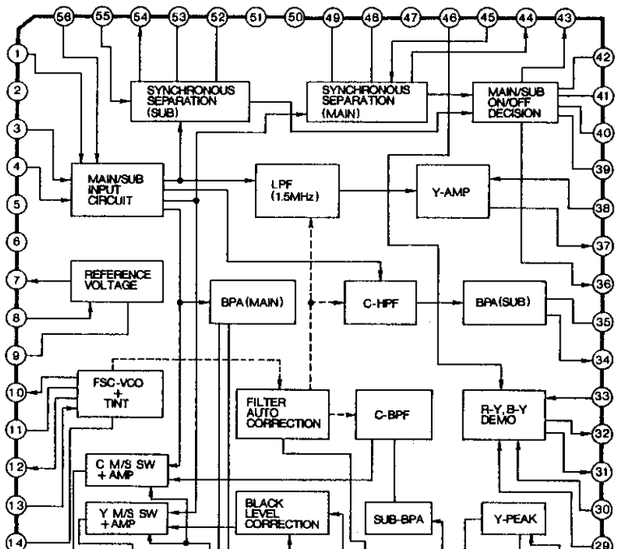
PCB-PIP

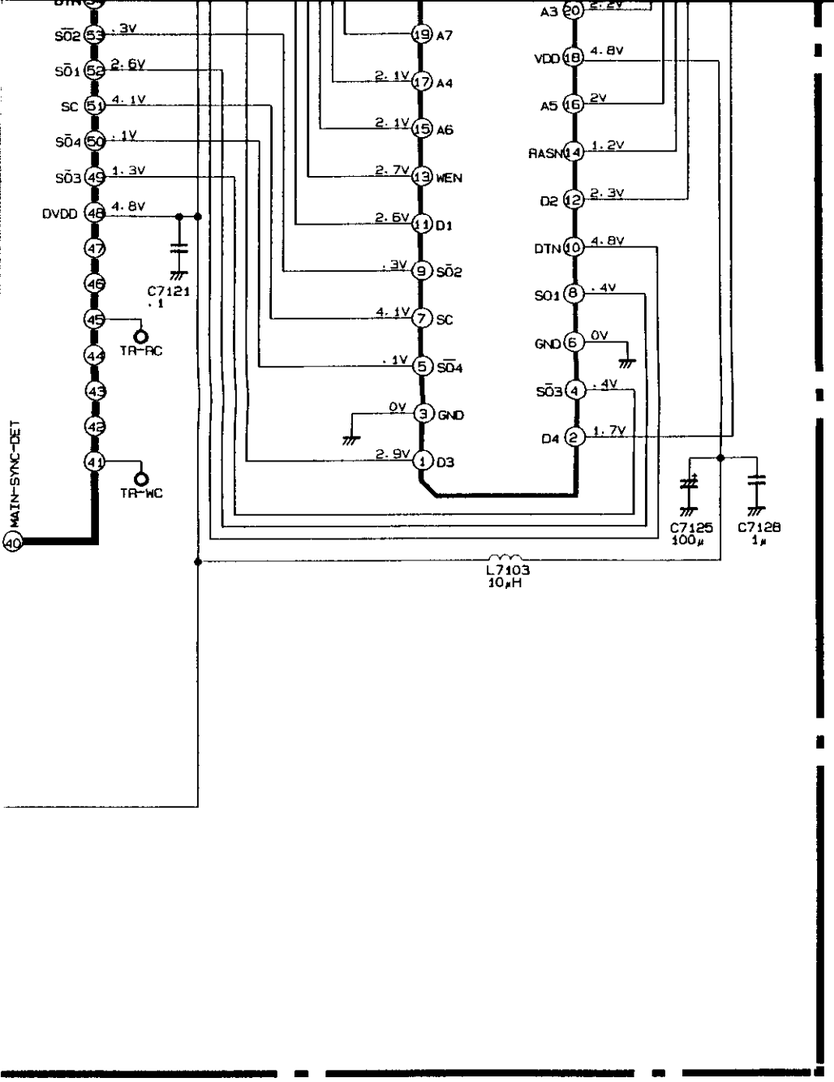
IC7101
HM53461ZP-12
PIP-MEMORY

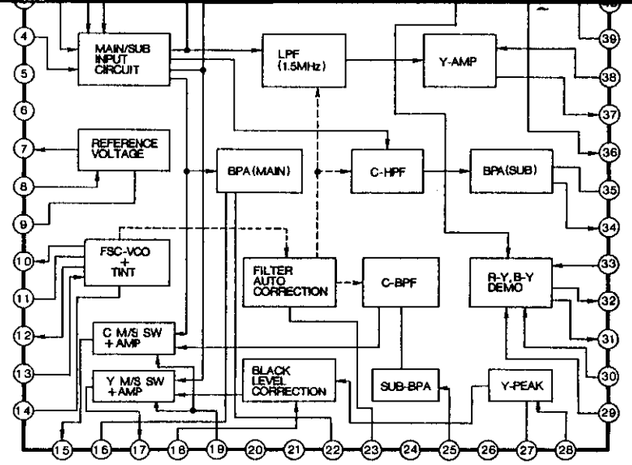
IC7100 HD49416FS



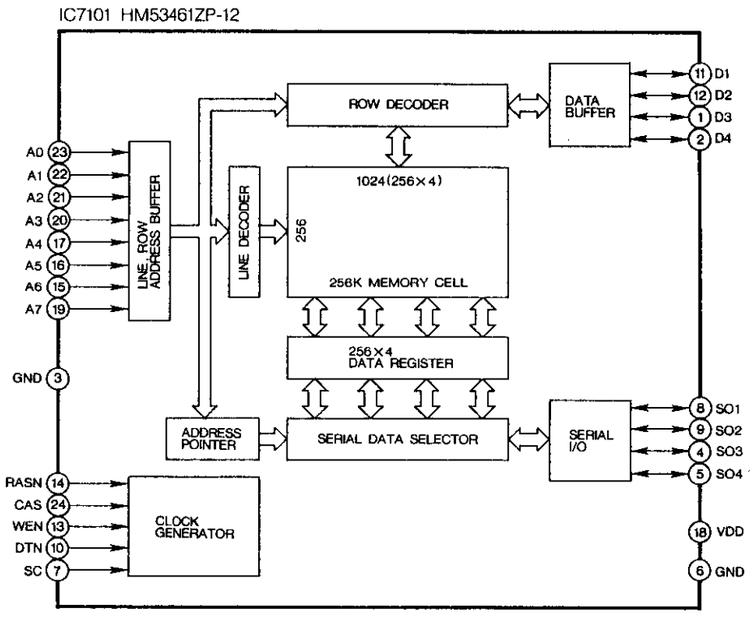
IC7000 HA11574FS

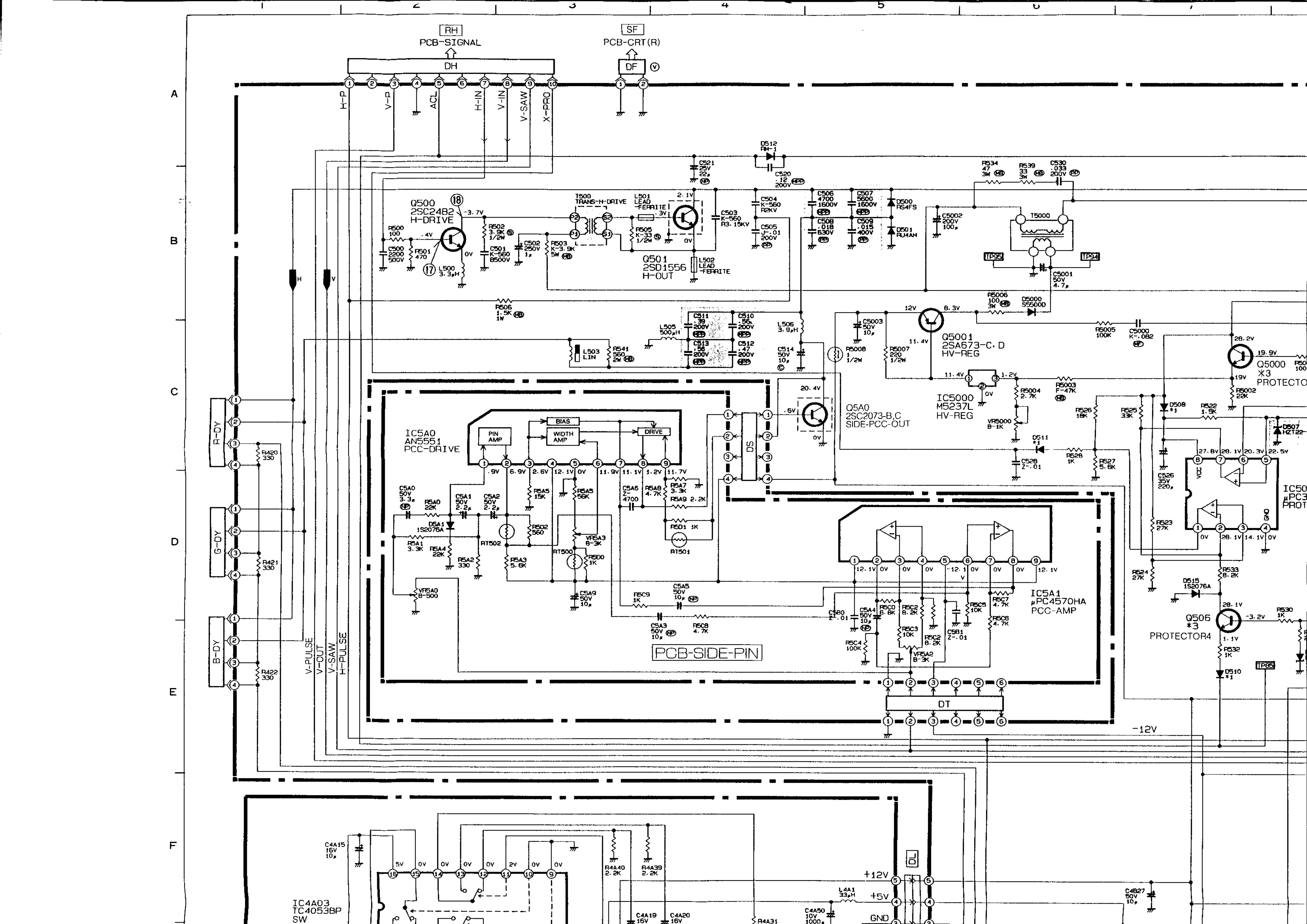






IC7101 HM53461ZP-12





RH
PCB-SIGNAL
SF
PCB-CRT(R)
DH
DF
H-P
V-P
ACL
H-IN
V-IN
V-SAW
X-PRO
Q500
2SC2482
H-DRIVE
T500
TRANS-H-DRIVE
Q501
2SD1556
H-OUT
L502
LEAD
-FERRITE
D512
RM-1
D500
RS4FS
D501
RU4AM
T5000
TP95
TP94
Q5001
2SA673-C,D
HV-REG
IC5000
M5237L
HV-REG
Q5000
※3
PROTECTOR
Q5A0
2SC2073-B,C
SIDE-PCC-OUT
IC5A0
AN5551
PCC-DRIVE
PIN AMP
BIAS
WIDTH AMP
DRIVE
DS
IC5A1
μPC4570HA
PCC-AMP
PCB-SIDE-PIN
DT
R-DY
G-DY
B-DY
V-PULSE
V-OUT
V-SAW
H-PULSE
Q506
※3
PROTECTOR4
-12V
+12V
+5V
GND
DL
IC4A03
TC4053BP
SW

PCC-DRIVE

R420 330
R421 330
R422 330
G-DY
B-DY
V-PULSE
V-OUT
V-SAW
H-PULSE

C5A0 50V 3.3μ (NP) R5A0 22K
C5A1 50V 2.2μ
C5A2 50V 2.2μ
R5A5 15K
R5A5 56K
C5A6 Z- 4700
R5A8 4.7K
R5A7 3.3K
R5A9 2.2K
R5D1 1K
RT501
D5A1 1S2076A
R5A1 3.3K
R5A4 22K
R5A2 330
RT502
R5D2 560
R5A3 5.6K
RT500
VR5A3 B-3K
R5D0 1K
VR5A0 B-500
C5A9 50V 10μ
R5C9 1K
C5A5 50V 10μ (NP)
C5A3 50V 10μ (NP)
R5C8 4.7K

PCB-SIDE-PIN

IC5A1
μPC4570HA
PCC-AMP
C5B0 Z-.01
C5A4 50V 10μ (NP)
R5C0 6.8K
R5C2 8.2K
R5C3 10K
R5C4 100K
VR5A2 B-3K
C5B1 Z-.01
R5C5 10K
R5C7 4.7K
R5C6 4.7K

C528 Z-.01
R528 1K
R527 5.6K
C526 35V 220μ
R523 27K
R524 27K
R533 8.2K
D515 1S2076A
Q506 *3 PROTECTOR4
R530 1K
R532 1K
D510 *1
TP55

DT

-12V

PCB-PCC

IC4A03
TC4053BP
SW
C4A15 16V 10μ
R4A40 2.2K
R4A39 2.2K
C4A16 16V 10μ

VR4A02 B-10K
PCC-BAL
R4A07 30K (NP)
C4A01 560
C4A02 390 (J)
C4A03 390 (J)
C4A00 16V 47μ
R4A06 330

IC4A00
TC74HC123AP
PHASE
R4A02 3.3K
C4A04 2200 (TP)
Q4A00
2SC1740S-R.S
H-PULSE
R4A01 4.7K
R4A00 1K
D4A00 1S2076A
R4A03 330
R4A04 1.2K
R4A05 4.7K

C4A19 16V 100μ (NP)
C4A20 16V 100μ (NP)
R4A31 2.7K
C4A50 10V 1000μ 105°C
L4A1 33μH
L4A2 33μH
+12V
+5V
GND
-5V
-12V
C4A51 10V 1000μ 105°C
DL
DM

R4A30 1K
R4A29 1.8K
R4A28 5.6K
R4A81 100
C4A41 50V 10μ
R4A33 5.6K
C4A21 33
R4A34 10K
R4A35 2.2K
IC4A02
μPD4574C
AMP1
C4A23 16V 33μ (NP)
R4A36 1K
R4A27 5.6K
R4A26 1.8K
C4A40 50V 10μ
R4A37
C4A22 56
R4A38 3.9K
R4A80 100
R4A25 1K
R4A24 1.8K
VR4A00 B-10K
TOP-PCC
VR4A01 B-10K
BOTTOM-PCC
R4A23 1K

PCC
H. PARA
V. BLK
H-PULSE

C4A12 4.7μ
R4A14 10K
C4A31 .01 (NP)
R4A12 10K
R4A15 39K
R4A13 27K
C4A32 .01 (NP)
C4A11 50V 1μ
C4A06 16V 330μ
C4A10 50V 1μ
C4A13 16V 33μ
Q4A01
2SC1740S-R.S

C4B27 50V 10μ
R4B42 120 2W (NP)
R4B41 100 3W (NP)
130V
C4B17 50V 22μ 105°C
D4B02 RD5.1FB2
C4B18 50V 22μ 105°C
D4B03 RD5.1FB2
R4B54 3.9K 3W (NP)
R4B80 180 3W (NP)
R4B70 150 3W (NP)
R4B55 2.7K 3W (NP)
126V
62.1V
R4B56 100
Q4B03
2SD1264A-P
PCC-OUT2
67V
R4B57 33
D4B04 1S2076A
66.7
70V
R4B58 100
Q4B04
2SB940A-P
PCC-OUT3
2.6V
66.4V
5.1V
Q4B02
2SD1264A-P
PCC-OUT1
.8V
R4B59 470

IC4B04
μPC4570C
AMP2
R4B43 10K
R4B44 10K
C4B28 50V 10μ
R4B45 1K
R4B46 10K
R4B47 27K
R4B50 22K
R4B51 39K
C4B24 3900 (NP)
C4B29 50V 1μ
T4B00
C4B30 .27 200V (NP)

IC4A03
TC4053BP
SW

PCB-PCC

PCC-BAL

IC4A00
TC74HC123AP
PHASE

Q4A00
2SC1740S-R, S
H-PULSE

IC4A01
CXA1268P
WAVE-GEN

Q4A01
2SC1740S-R,S
MULTIPLE

IC4A02
μPD4574C
AMP1

TOP-PCC

BOTTOM-PCC

IC4B04
μPC4570C
AMP2

Q4B03
2SD1264A-P
PCC-OUT2

Q4B04
2SB940A-P
PCC-OUT3

Q4B02
2SD1264A-P
PCC-OUT1

T4B00

130V

PCC

H. PARA

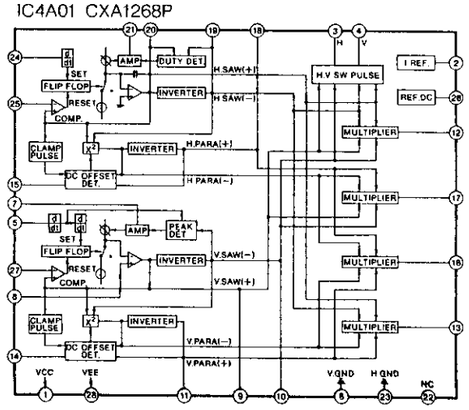
V. BLK

H-PULSE

⑰1.1Vp-p(H)

⑱130Vp-p(H)

IC4A01 CXA1268P



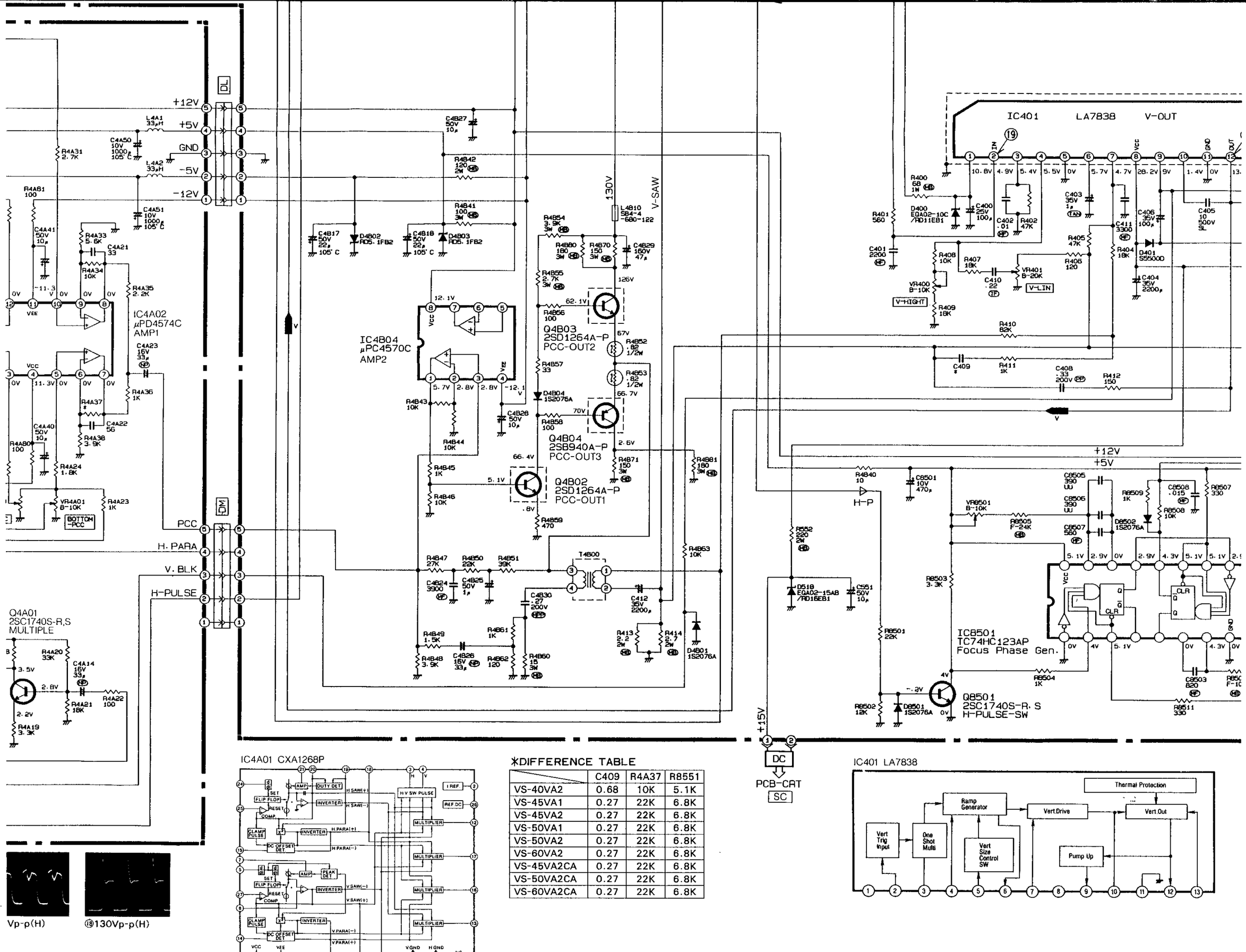
*DIFFERENCE TABLE

	C409	F
VS-40VA2	0.68	
VS-45VA1	0.27	
VS-45VA2	0.27	
VS-50VA1	0.27	
VS-50VA2	0.27	
VS-60VA2	0.27	
VS-45VA2CA	0.27	
VS-50VA2CA	0.27	
VS-60VA2CA	0.27	

4 5 6 7 8 9 10 11

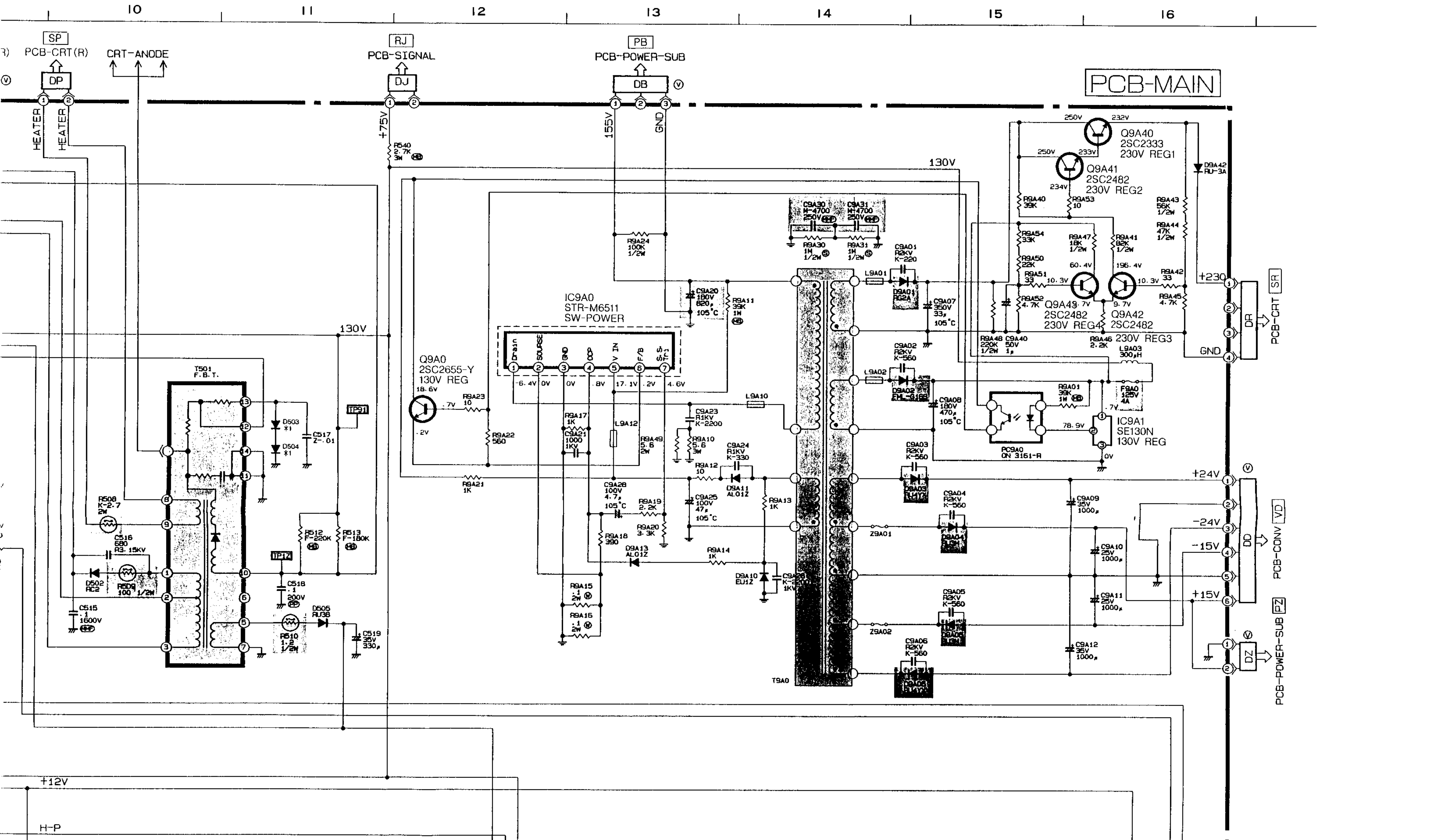
SK PCB-CRT(R)
SP PCB-CRT(R)
CRT-ANODE
PCB
DK
DP
+1200V
HEATER
HEATER
+75V
130V
+12V
-12V
H-P
V-P
DS
DT
DL
IDE-PIN

D512 RM-1
C520 .12 200V
C503 K-560 R3.15KV
C504 K-560 R2KV
C505 J-.01 200V
C506 4700 1600V
C507 5600 1600V
C508 .018 630V
C509 .015 400V
D500 RS4FS
D501 RU4AM
R534 47 3W
R539 47 3W
C530 .033 200V
C5002 200V 100μ
T5000
TP95
TP94
C5001 50V 4.7μ
R5006 100 3W
D5000 S5D00D
R5005 100K
C5000 K-.082
C510 .56 200V
C512 .47 200V
L506 3.9μH
C514 50V 10μ
C5003 50V 10μ
R5008 1 1/2W
R5007 220 1/2W
12V
8.3V
11.4V
Q5001 2SA673-C,D HV-REG
11.4V
1.2V
0V
IC5000 M5237L HV-REG
R5004 2.7K
VR5000 B-1K
R5003 F-47K
D511 *1
C528 Z-.01
R528 1K
R527 5.5K
20.4V
.6V
0V
Q5A0 2SC2073-B,C SIDE-PCC-OUT
R526 18K
R525 33K
D508 *1
R522 1.5K
28.2V
19.9V
19V
Q5000 *3 PROTECTOR3
R5001 100
R5002 22K
D507 HZT22-02
C525 50V 1μ
C524 50V 1μ
27.8V
28.1V
20.3V
22.5V
C526 35V 220μ
IC500 μPC393C PROTECTOR
0V
28.1V
14.1V
0V
R523 27K
R524 27K
D515 1S2076A
R533 8.2K
28.1V
-3.2V
Q506 *3 PROTECTOR4
1.1V
R532 1K
D510 *1
TP85
R530 1K
R529 4.7K
R531 22
D509 RD3.0EB1
R514 100
TP92
28V
20.9V
Q503 *2 PROTECTOR2
TP93
21.1V
R515 100
C523 3300
28V
20.9V
Q502 *2 PROTECTOR1
R5000 100K
20.3V
R521 10K
R516 6.8K
R518 150
R517 8.2K
D506 *1
28.2V
11.4V
Q504 *3 S-HV-OUT
10.8V
R520 1K
R519 6.8K
T501 F.B.T.
D503 *1
D504 *1
C517 Z-.01
TP91
R508 K-2.7 2W
C516 680 RD.15KV
D502 RC2
R509 100 1/2W
C515 .1 1600V
TP12
C518 .1 200V
D505 RU3B
R510 1.2 1/2W
C519 35V 330μ
R512 F-220K
R513 F-180K
R5C0 6.8K
R5C2 8.2K
R5C5 10K
R5C7 4.7K
R5C6 4.7K
R5C3 10K
R5C2 8.2K
R5C4 100K
VR5A2 B-3K
C5A4 50V 10μ
C5B0 Z-.01
C5B1 Z-.01
IC5A1 μPC4570HA PCC-AMP
12.1V 0V 0V 0V -12.1V 0V 0V 0V 12.1V



*DIFFERENCE TABLE

	C409	R4A37	R8551
VS-40VA2	0.68	10K	5.1K
VS-45VA1	0.27	22K	6.8K
VS-45VA2	0.27	22K	6.8K
VS-50VA1	0.27	22K	6.8K
VS-50VA2	0.27	22K	6.8K
VS-60VA2	0.27	22K	6.8K
VS-45VA2CA	0.27	22K	6.8K
VS-50VA2CA	0.27	22K	6.8K
VS-60VA2CA	0.27	22K	6.8K



*1	1S2076A/1S2471
*2	2SC2603-G/2SC1740S-E
*3	2SC2603-E.F/2SC170S-R.S
*4	2SA1115-E.F/2SA933S-R.S

130V

T501
F.B.T.

IC9A0
STR-M6511
SW-POWER

Q9A0
2SC2655-Y
130V REG

IC9A1
SE130N
130V REG

Q9A49
2SC2482
230V REG4

Q9A42
2SC2482
230V REG3

PC9A0
ON 3161-R

T9A0

+24V
-24V
-15V
+15V
GND

PCB-CRT
PCB-CONV VD
PCB-POWER-SUB PZ

+12V
H-P
V-P

IC401 LA7838 V-OUT

IC8551
STK396-010
H-DYNAMIC-OUT

V-HIGHT
V-LIN
V-SAW
28V

H-P
+12V
V-P
S-HV
V-SAW
-12V
GND
+D-F
-D-F

PCB-CONV VA

*1 1S2076A/1S2471
*2 2SC2603-G/2SC1740S-E
*3 2SC2603-E, F/2SC170S-R, S
*4 2SA1115-E, F/2SA933S-R, S

*3 2SC2603-E.F/2SC170S-R.S

*4 2SA1115-E.F/2SA933S-R.S

IC401 LA7838 V-OUT

IN VCC GND OUT

10.8V 4.9V 5.4V 5.5V 0V 5.7V 4.7V 28.2V 9V 1.4V 0V 13.1V 27V

R400 68 1W (HB)
D400 EQA02-10C /RD11EB1
C400 25V 100μ
C402 .01 (HF)
R402 47K
C403 35V 1μ (TAN)
C411 3300 (HF)
C406 35V 100μ
D401 S5500D
C405 10 500V SL
R403 2.2
C407 .1 100V (HF)
R419 10K
R415 10K
28V

R405 47K
R404 18K
R406 120
R408 10K
R407 18K
VR401 B-20K
C410 .22 (TF)
V-LIN
VR400 B-10K
V-HIGHT
R409 18K
R410 82K
V-SAW
C409 *
R411 1K
C408 .33 200V (PP)
R412 150
V

IC8551
STK396-010
H-DYNAMIC-OUT

VCC OUT GND IN

130.3V -3.7V 2.9V 0V 3.5V

130V
C8556 160V 47μ
R8556 6.8K 3W
C8552 100V 2.2μ
R8552 6.8K 1/2W
R8558 6.8K 1/2W
C8553 50V 22μ
C8554 160V 10μ
R8554 3.3K 2W (HB)
R8553 15K
C8555 1μ (TF)
R8555 12 2W (HB)
R8551 *

H-P
+12V
V-P
S-HV
V-SAW
-12V
GND
+D-F
-D-F

DA
PCB-CONV VA

+12V
+5V

C8501 10V 470μ
VR8501 B-10K
R8505 F-24K (HB)
C8505 390 UU
C8506 390 UU
C8507 560 (HF)
D8502 1S2076A
R8509 1K
C8508 .015 (HF)
R8508 10K
R8507 330
R8510 1K
R8503 3.3K
R8501 22K

IC8501
TC74HC123AP
Focus Phase Gen.

5.1V 2.9V 0V 2.9V 4.3V 5.1V 5.1V 2.9V
0V 4V 5.1V 0V 4.3V 0V

R8504 1K
C8503 820 (HF)
R8506 F-10K (HB)
R8511 330

Q8501
2SC1740S-R.S
H-PULSE-SW

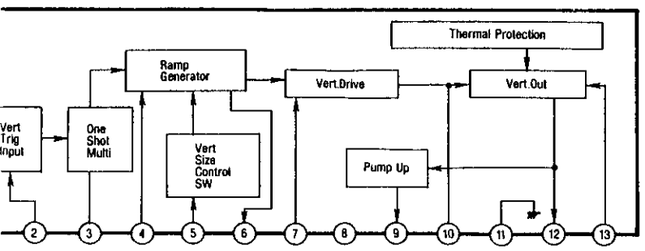
4V .2V 0V
D8501 1S2076A

12.1V 2.2V 1.5V
Q8521
2SC1740S-R.S
H-SAW-BUFFER
R8521 1K
C8521 50V 3.3μ (HF)
R8524 6.8K

R8523 68K
R8522 F-330 (HB)
C8523 2200 (HF)
7.5V 1V .4V
Q8522
2SC1740S-R.S
H-PARA-AMP
R8527 470
C8524 50V 10μ

R8525 1K
R8526 3.9K
C8522 25V 100μ
12.1V 7.5V 7V
Q8523
2SC1740S-R.S
H-PARA-BUFFER
R8528 1K
C8531 35V 10μ
C8551 16V 33μ (HF)
R8530 F-3.3K (HB)
R8531 F-1K (HB)

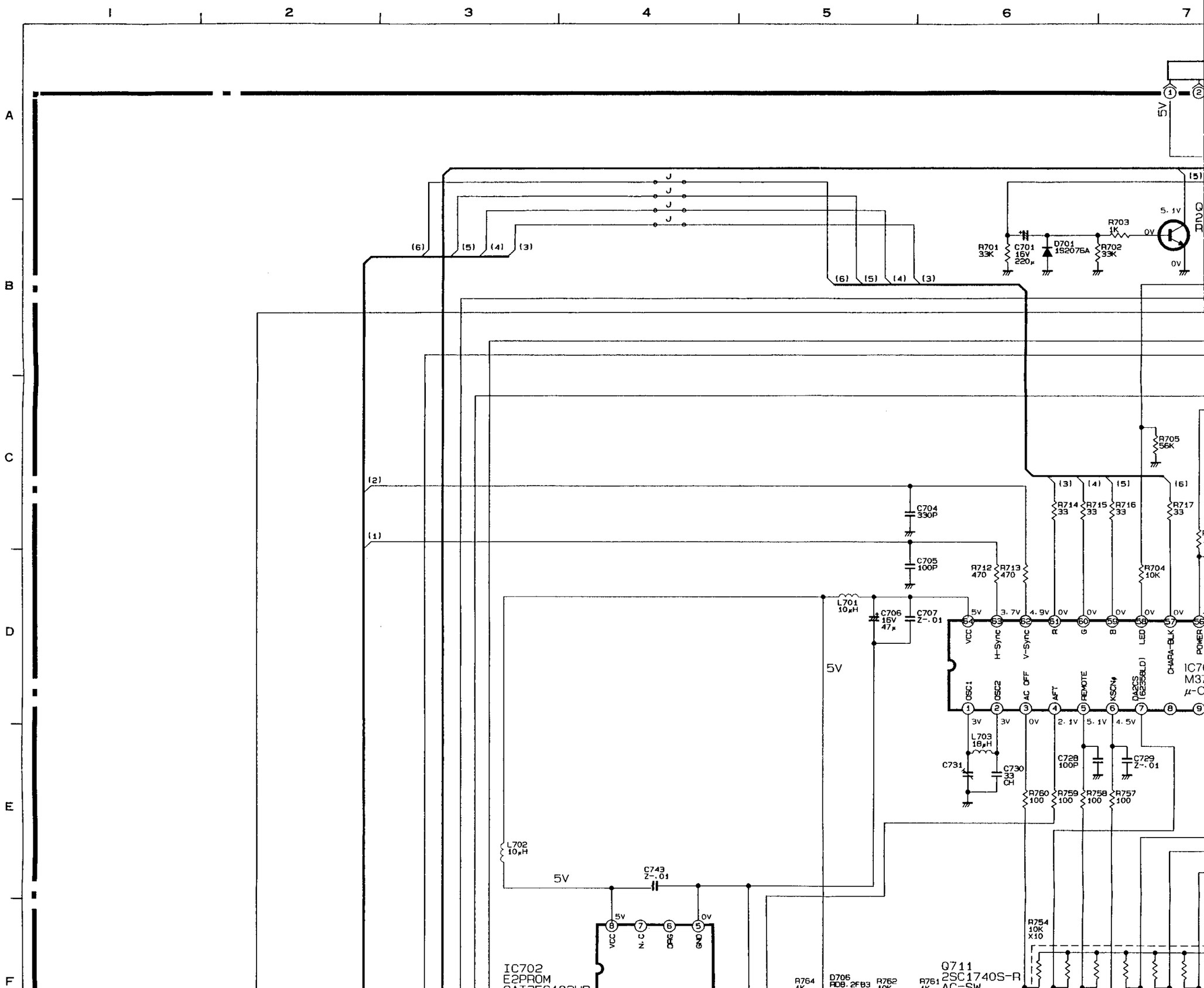
LA7838

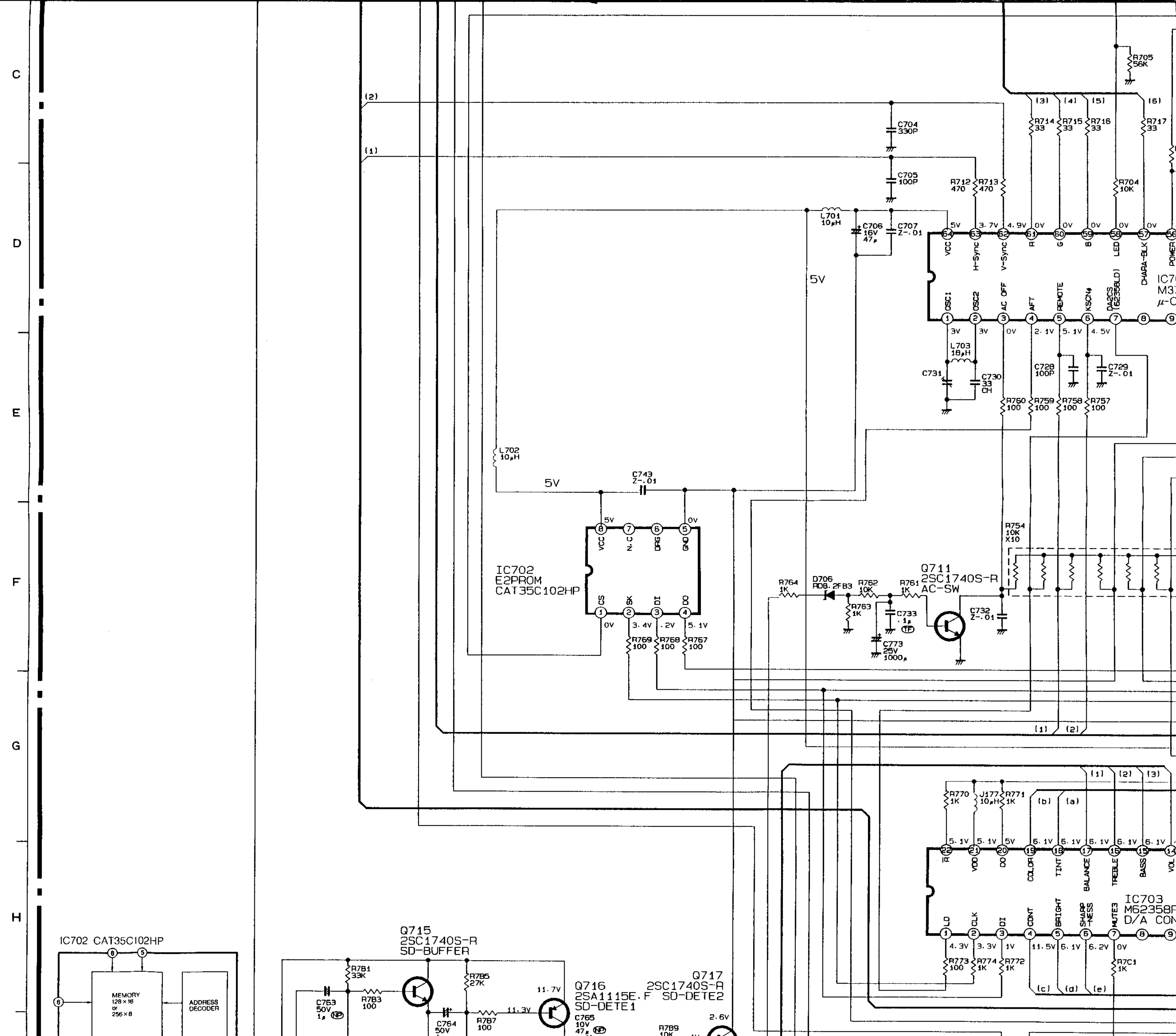



⑲5.0Vp-p(V)


⑳58Vp-p(V)

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(2/6)


1
2
3
4
5
6
7
A
B
C
D
E
F
5V
(1)
(2)
(3)
(4)
(5)
(6)
J
R701
33K
C701
16V
220μ
D701
1S2076A
R702
33K
R703
1K
5.1V
0V
GND
R705
56K
R714
33
R715
33
R716
33
R717
33
C704
330P
C705
100P
R712
470
R713
470
R704
10K
L701
10μH
C706
16V
47μ
C707
Z-.01
VCC
H-Sync
V-Sync
R
G
B
LED
CHARA-BLK
POWER
3.7V
4.9V
IC7
M37
μ-C
OSC1
OSC2
AC OFF
AFT
REMOTE
KSCN
DA2CS
(6235BLD)
3V
2.1V
5.1V
4.5V
L703
18μH
C731
C730
33
CH
C728
100P
C729
Z-.01
R760
100
R759
100
R758
100
R757
100
L702
10μH
C743
Z-.01
IC702
E2PROM
N.C
ORG
GND
R754
10K
X10
Q711
2SC1740S-R
AC-SW
D706
RD6.2FB3
R762
R764
R761



C
D
E
F
G
H
IC702 E2PROM CAT35C102HP
IC703 M62358P D/A CON
Q711 2SC1740S-R AC-SW
Q715 2SC1740S-R SD-BUFFER
Q716 2SA1115E.F SD-DETE1
Q717 2SC1740S-R SD-DETE2
IC702 CAT35C102HP
MEMORY 128×16 or 256×8
ADDRESS DECODER
VCC
H-Sync
V-Sync
LED
CHARA-BLK
OSC1
OSC2
AC OFF
AFT
REMOTE
KSCN4
L701 10μH
L702 10μH
L703 18μH
D706 RD8.2FB3
5V

IC702
E2PROM
CAT35C102HP

VCC N.C ORG GND
CS SK DI DO
5V 0V 0V
0V 3.4V .2V 5.1V

R769 100 R768 100 R767 100

Q711
2SC1740S-R
AC-SW

R764 1K D706 RD8.2FB3 R762 10K R761 1K R763 1K C733 .1μ (TF) C773 25V 1000μ C732 Z-.01

R754 10K X10

(1) (2)

(1) (2) (3)

R770 1K J177 10μH R771 1K (b) (a)

5.1V 5.1V 5V 6.1V 6.1V 6.1V 6.1V 6.1V

IC703
M62358F
D/A CON

LD CLK DI CONT BRIGHT SHARP -NESS MUTE3

4.3V 3.3V 1V 11.5V 6.1V 6.2V 0V

R773 100 R774 1K R772 1K R7C1 1K

(c) (d) (e)

IC702 CAT35C102HP

MEMORY 128×16 or 256×8
ADDRESS DECODER
DATA REGISTER
MODE DECODE LOGIC
CLOCK GENERATOR
BUFFER OUTPUT

Q715
2SC1740S-R
SD-BUFFER

R7B1 33K R7B3 100 C763 50V 1μ (NP) C764 50V 1μ R7B5 27K R7B7 100 R7B2 33K R7B4 2.2K R7B6 390K

11.7V 11.3V

Q716
2SA1115E.F
SD-DETE1

Q717
2SC1740S-R
SD-DETE2

C765 10V 47μ (NP) R7B8 1.5K C766 .1μ (TF) L708 1000μH R789 10K

5.5V 2.6V -1V 0V

C762 Z-.01 C761 35V 47μ L707 10μH

12V MUTE3 SD(Moni) LE SPKR SINR DA2 CS VAR/FIX VOL BASS TREBLE BALANCE SD(TUNER)

(4) (3) (2) (1)

R780 1K R781 1K R782 1K R783 1K

GJ

PCB-SIGNAL GJ

PCB-μ-COM

5 6 7 8 9 10 11 12

PCB-CONTROL CF
PCB-PREAMP AN
PCB-FRONT FE

RF: 1 5V, 2 GND, 3 KSCN0, 4 KSCN1, 5 KSCN2, 6 LED, 7 RESET, 8
RN: 1 5V, 2, 3 INT
RE: 1 SINF, 2 VINF

Q701
2SC1740S-R
RESET-SW

R701 33K
C701 16V 220μ
D701 1S2076A
R702 33K
R703 1K
R7C0 1KX3
R7D0 10K
R7D1 10K
R7C9 10K

R705 56K
R714 33
R715 33
R716 33
R717 33
R704 10K
R718 1K
R719 1K
R720 1K
R721 1K
R722 100
R723 100
R724 100
C751 Mon-N -.01M
R726 1K
R727 1K
R728 1K
R729 1K
R730 1K
R731 1K
R732 1K
R733 1K
R734 1K
R735 1K
R736 1K
R737 1K
C716 Z-.01 X4
C718 10P
C719 10P
C717 Z-.01
R738 100

L701 10μH
C704 330P
C705 100P
R712 470
R713 470
C706 16V 47μ
C707 Z-.01

IC701
M37204M8-561SP
μ-CON

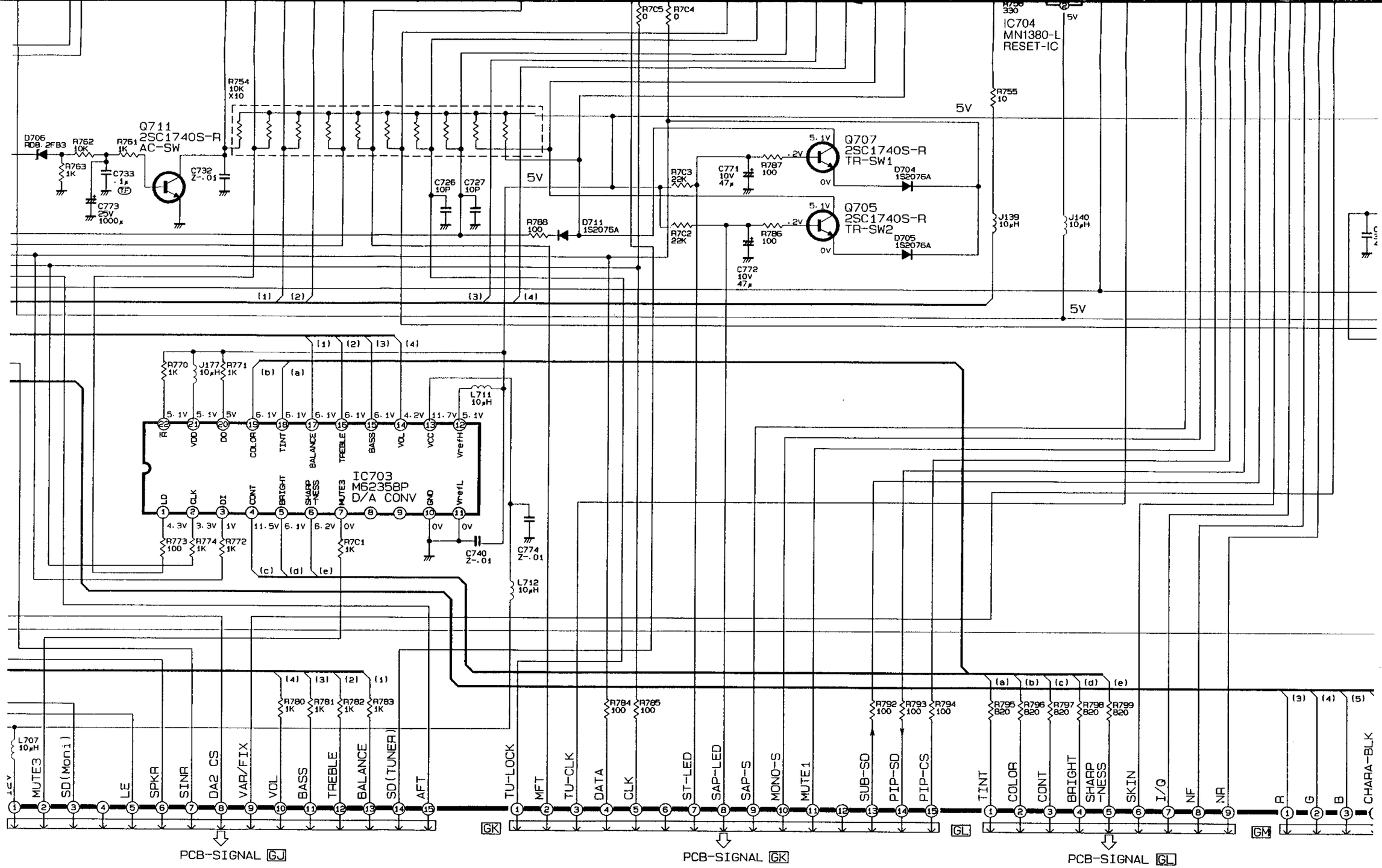
L703 18μH
C731
C730 33 CH
C728 100P
C729 Z-.01
R760 100
R759 100
R758 100
R757 100
R753 1K
R752 1K
D716 1S2076A
D717 1S2076A
R749 100
R748 100
C724 Z-.01
C725 Z-.01
R751 100
R750 100
C750 Mon-N -.01M
R747 100
R746 100
R745 100
R744 100
R743 100
R7C5 0
R7C4 0
C776 Z-.01
J143 560
X701 C5A-4M6
C722 50V 10μ
C720 33 CH
C721 33 CH
C723 .1μ (TF)
R756 330
IC704
MN1380-L
RESET-IC
R755 10

R754 10K X10

Q711
2SC1740S-R

Q707

D706 R763 R761


IC704
MN1380-L
RESET-IC
5V
Q711
2SC1740S-R
AC-SW
Q707
2SC1740S-R
TR-SW1
Q705
2SC1740S-R
TR-SW2
IC703
M62358P
D/A CONV
MUTE3
SD(Moni)
LE
SPKR
SINR
DA2 CS
VAR/FIX
VOL
BASS
TREBLE
BALANCE
SD(TUNER)
AFT
TU-LOCK
MFT
TU-CLK
DATA
CLK
ST-LED
SAP-LED
SAP-S
MONO-S
MUTE1
SUB-SD
PIP-SD
PIP-CS
TINT
COLOR
CONT
BRIGHT
SHARP-NESS
SKIN
I/Q
NF
NR
R
G
B
CHARA-BLK
PCB-SIGNAL GJ
PCB-SIGNAL GK
PCB-SIGNAL GL

9 10 11 12 13 14 15

REAMP AN

PCB-FRONT FE

RE

INT

SINF

VINF

J165 10μH

R7D0 10K

R7D1 10K

R7C9 10K

5V

R728 1K R729 1K R730 1K R731 1K R732 1K R733 1K R734 1K R735 1K R736 1K R737 1K

C716 Z-.01 X4

C718 10P

C719 10P

C717 Z-.01

R738 100

45	44	43	42	41	40	39	38	37	36	35	34	33
1.9V	0V	0V	0V	5V	5V	0V	5V	5V	5V	4.2V	.2V	4.2V	0V
NR	NF	VAR /FIX	I/O	SKIN	X-RAY	SINF	SINR	VINF	SUB-SD	PIP-SD	PIP-CS	TU-CLK

20	21	22	23	24	25	26	27	28	29	30	31	32
P-ON-TIMER	TU-LOCK	DATA IN	KSCN1	KSCN2	KIN1 (SAP-R)	KIN4 (ST-R)			RESET	Xin	Xout	VSS
2V	1V	5.1V	5.1V	5.1V	1.5V	1.5V			5V	2.2V	2.2V	0V

C776 Z-.01

J143 560

X701 C5A-4MG

C722 50V 10μ

C720 33 CH

C721 33 CH

C723 .1μ (TF)

R756 330

5V 0V 5V

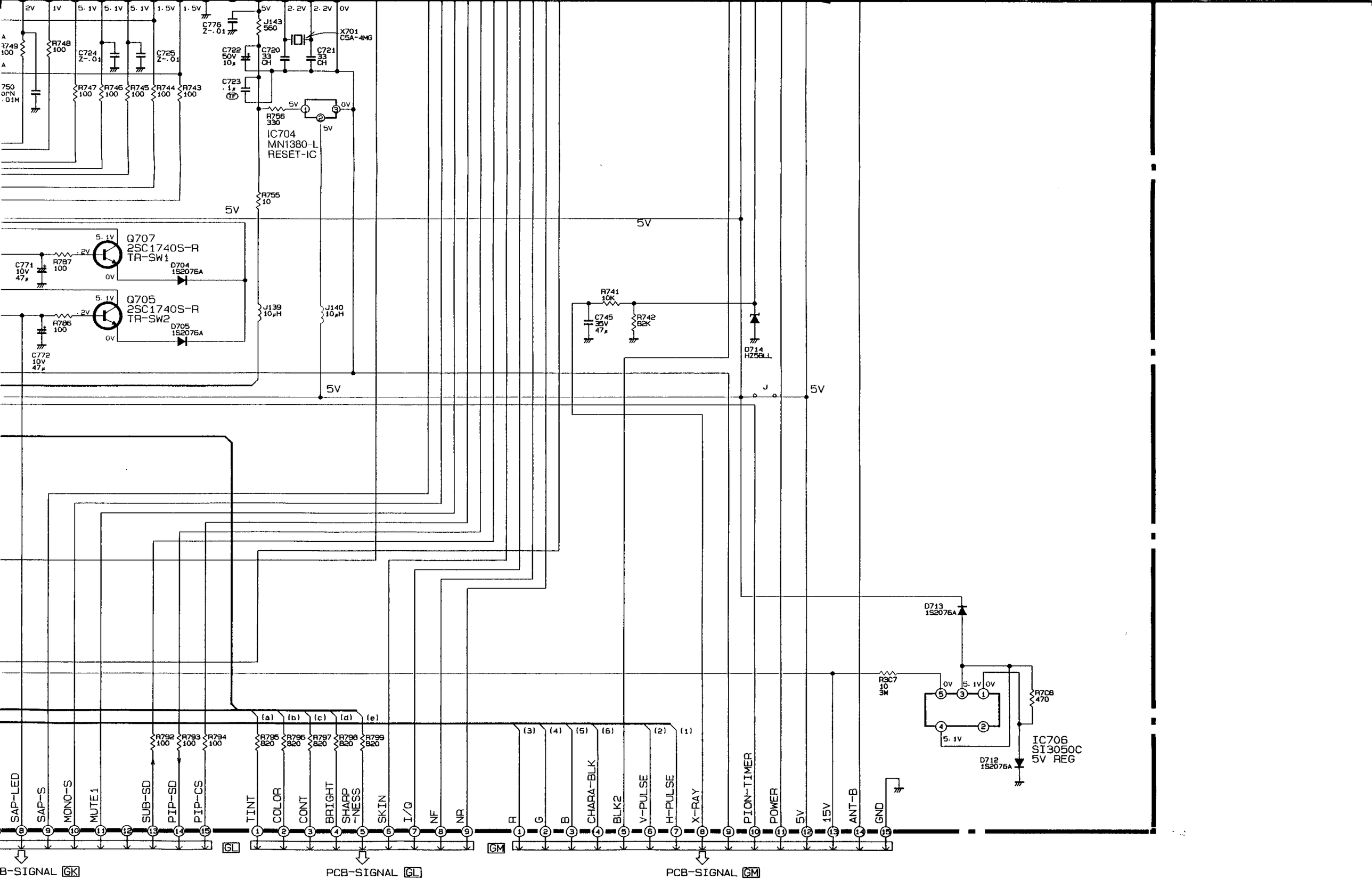
IC704

R748 100

C724 Z-.01

C725 Z-.01

R747 100 R746 100 R745 100 R744 100 R743 100


2V
1V
5.1V
5.1V
5.1V
1.5V
1.5V
5V
2.2V
2.2V
0V
C776 Z-.01
J143 560
X701 C5A-4MG
C722 50V 10μ
C720 33 CH
C721 33 CH
C723 .1μ (TF)
R748 100
C724 Z-.01
C725 Z-.01
R747 100
R746 100
R745 100
R744 100
R743 100
R756 330
IC704
MN1380-L
RESET-IC
R755 10
5V
Q707
2SC1740S-R
TR-SW1
C771 10V 47μ
R787 100
D704 1S2076A
Q705
2SC1740S-R
TR-SW2
R786 100
D705 1S2076A
C772 10V 47μ
J139 10μH
J140 10μH
R741 10K
C745 35V 47μ
R742 82K
D714 HZ5BLL
R792 100
R793 100
R794 100
R795 820
R796 820
R797 820
R798 820
R799 820
(a)
(b)
(c)
(d)
(e)
(3)
(4)
(5)
(6)
(2)
(1)
SAP-LED
SAP-S
MONO-S
MUTE1
SUB-SD
PIP-SD
PIP-CS
TINT
COLOR
CONT
BRIGHT
SHARP -NESS
SKIN
I/Q
NF
NR
R
G
B
CHARA-BLK
BLK2
V-PULSE
H-PULSE
X-RAY
PION-TIMER
POWER
5V
15V
ANT-B
GND
GL
GM
PCB-SIGNAL GK
PCB-SIGNAL GL
PCB-SIGNAL GM
D713 1S2076A
D712 1S2076A
R3C7 10 3W
R7C8 470
IC706
SI3050C
5V REG

PCB-FRONT FD

RD

F/Y-IN GND F/C-IN GND F/COMP-IN F/R-IN F/L-IN

C3302 16V 10μ
C3301 16V 10μ
R3304 1K
R3303 1K
R7603 75
R7602 75
C7603 Z-.01
R3301 120K
R3302 120K
C7605 35V 47μ
C7606 Z-.01
1Vp-p

C7601 35V 47μ
C7602 Z-.01
R7601 75
D7601 EQA02-09AB /RD9.1EB1.B2
D7602 EQA02-09AB /RD9.1EB1.B2
D7603 EQA02-09AB /RD9.1EB1.B2

R7604 100
R7607 100

IC7601

	REAR	FRONT
②	L	H
④	L	H

IC7601
LA7222
REAR/FRONT
S-VIDEO-SW

F-Y-IN F-C-IN R-Y-IN Y-OUT VCC R-C-IN C-OUT R-C-IN

0V 0V 0V 0V 7.5V 8.8V 8.3V 11.3V .7V .7V 7.4V

R7605 10K
R7606 10K

C7611 Z-.01
C7612 35V 47μ
R7608 27
R7610 10 R-C-25
R7609 27

(e)

R7611 100
R7612 100

C7607 35V 47μ
C7608 Z-.01
C7609 Z-.01

R7613 75
R7614 75

C3361 16V 10μ (NP)
R33A5 56K
R33A6 68K

IC7602, IC7603

	TV	FRONT	EXT-1	EXT-2
②	H	L	H	L
③	H	H	L	L

IC7602
LA7956
MAIN-VIDEO-SW

6dB AMP
MAIN-OUT TV EXT-1(F) EXT-1(R) VCC EXT-2

6.4V 5V 5V 4.2V 0V 3.9V 11.2V 3.9V 3.9V

2Vp-p

R7618 820K
R7619 820K
R7620 820K
R7621 820K
C7613 16V 10μ
C7614 16V 10μ
C7617 35V 47μ
C7618 Z-.01
(a) (b)

R7622 10 R-C-25
C7615 16V 10μ
C7616 16V 10μ

R7623 22
R7624 22
R7617 22

2Vp-p

COMP. VIDEO(MAIN)

S-EXT-1
Y C
PJ3A01
CENTER -CH
SUB -WOOFER-OUT

EXT-1 EXT-2 TUNER-OUT MONITOR-OUT
V L R

R7625 75
R7626 75
R7669 68
R7675 10K
R7673 68
R7672 10K

R3367 120K R3368 120K
R3369 120K R3370 120K
R3375 2.2K R3378 2.2K
R3376 10K R3377 10K
R3379 2.2K R3382 2.2K
R3380 10K R3381 10K
C3354 C3355 C3352 C3353 C3350 C3351 C3348 C3349

C7646 10V 220μ

④	L	H

R7605 10K
R7606 10K
0V 0V 0V 0V 7.5V 8.8V 8.3V 11.3V .7V .7V 7.4V
R7608 27
R7610 10 A-C-25
R7609 27
C7611 Z-.01
C7612 35V 47μ
(e)
6.4V 5V 5V 4.2V 0V 3.9V 11.2V 3.9V 3.9V
2Vp-p
2Vp-p
R7618 820K
R7619 820K
R7620 820K
R7621 820K
C7613 16V 10μ
C7614 16V 10μ
C7617 35V 47μ
C7618 Z-.01
(a) (b)
R7622 10 A-C-25
C7615 16V 10μ
C7616 16V 10μ
R7623 22
R7624 22
R7611 100
R7612 100
C7607 35V 47μ
C7608 Z-.01
C7609 Z-.01
COMP VIDEO (MAIN)
PJ3A01
S-EXT-1
Y
C
CENTER -CH
SUB -WOOFER-OUT
EXT-1
EXT-2
TUNER-OUT
MONITOR-OUT
V
L
R
R7613 75
R7614 75
C3361 16V 10μ NP
R33A5 56K
R33A6 68K
R7669 68
R7673 68
R7625 75
R7626 75
R7675 10K
R7672 10K
C7646 10V 220μ
NP
R3375 2.2K
R3378 2.2K
R3379 2.2K
R3382 2.2K
R3367 120K
R3368 120K
R3369 120K
R3370 120K
R3376 10K
R3377 10K
R3380 10K
R3381 10K
C3354 16V 10μ
C3355 16V 10μ
C3352 16V 10μ
C3353 16V 10μ
C3350 10V 47μ NP
C3351 10V 47μ NP
C3348 10V 47μ NP
C3349 10V 47μ NP
R3371 1K
R3372 1K
R3373 1K
R3374 1K
(1) (2) (3) (4)
L3301 15
C3364 16V 470μ
C3365 Z-.01
IC3308
LA7222
C-CH-ON/OFF-SW
1 2 3 4 5 6 7 8 9 10 11 12
0V 10.5V 0V 10.5V 7.6V 7.6V 6.9V 11.5V 7.6V 6.9V 7.5V
C-CH
R-OUT
VCC
CLK
L-OUT
L-IN
R3383 10K
R3382 10K
C3363 50V 1μ NP
R3381 330
R3380 1K
R33A9 1K
R33A8 1K
R33A7 1K
C3362 50V 1μ NP
R3384 330
R33C3 330
R33C2 330
(1) (2)
(a) (b) (c) (d) (e) (f) (g) (h) (i)
R7651 1K
R7652 1K
R7653 1K
R7654 1K
R7659 1K
MAIN-A
MAIN-B
SUB-A
SUB-B
SI F/R
MAIN-Y/C
SUB-Y/C
BLANK1
BLANK3
MUTE2
CK
DATA
GND
VCC
LE
OE
EX-BASS
EXPAN
GND
IC7606
M66320P
CONTROL-
DAC
C7654 35V 47μ
C7655 Z-.01
L7601 10μH
R7661 1K
R7662 1K
R7660 1K
(7) (5) (6)
R3383 1K
.2V
0V
Q3304
2SC1740S-R
MUTE
R3385 10K
C3358 16V 10μ NP
R3384 1K
.5V
0V
R3386 10K
R33A1 100K
Q3303
2SC1740S-R
MUTE
IC3308
C-CH	ON	OFF
②	L	H
④	L	H
Y (MAIN)
CHROMA (MAIN)

IC3308
LA7222
C-CH-ON/OFF-SW

L3301 15
C3364 16V 470μ
C3365 Z-.01

R3383 10K
R3382 10K
C3363 50V 1μ NP
R3381 330
R3380 1K
R3379 1K
R3378 1K
C3362 50V 1μ NP
R3384 330
R3385 330
R3382 330

IC3308

C-CH	ON	OFF
②	L	H
④	L	H

R L PJ3A02
GND GND

R-IN L-IN
GN
PCB-SIGNAL GN

2Vp-p
R L
R-OUT L-OUT COMP-OUT Y-IN C-IN
C7644 16V 10μ NP
C7645 Z-.01
R7666 27
R7667 27
GD
PCB-SIGNAL GD

5V CLK DATA LE GND
R7663 1K
R7664 1K
R7665 1K
GA
PCB-SIGNAL GA

R7651 1K
R7652 1K
R7653 1K
R7654 1K
R7659 1K

MAIN-A MAIN-B SUB-A SUB-B SI F/R MAIN-Y/C SUB-Y/C BLANK1 BLANK3 MUTE2
CK DATA GND VCC LE OE EX-BASS EXPAN GND

IC7606
M66320P
CONTROL-
DAC

C7654 35V 47μ
C7655 Z-.01
L7601 10μH
R7661 1K
R7662 1K
R7660 1K

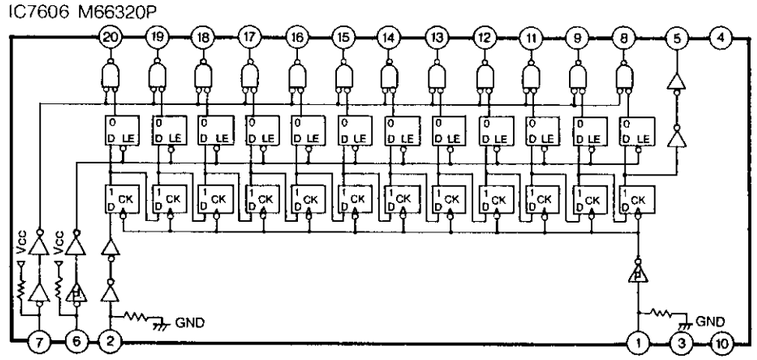
R3371 1K
R3372 1K
R3373 1K
R3374 1K
C3354 16V 10μ
C3355 16V 10μ
C3352 16V 10μ
C3353 16V 10μ
C3350 10V 47μ NP
C3351 10V 47μ NP
C3348 10V 47μ NP
C3349 10V 47μ NP
R33A6 68K

R3383 1K
R3385 10K
C3358 16V 10μ NP
Q3304
2SC1740S-R
MUTE
R3384 1K
R3386 10K
C3359 16V 10μ NP
R33A1 100K
Q3303
2SC1740S-R
MUTE

12V
GB

PCB-TERMINAL

IC7606 M66320P



4 5 6 7 8 9 10 11

F/L-IN

C3302 16V 10μ
C3301 16V 10μ
R3304 1K
R3303 1K
R3301 120K
R3302 120K
C7606 Z-.01
(2)
(1)
1Vp-p

IC7602, IC7603

	TV	FRONT	EXT-1	EXT-2
②	H	L	H	L
③	H	H	L	L

IC7602
LA7956 MAIN-VIDEO-SW

IC7603
LA7956 SUB-VIDEO-SW

IC7601
LA7222
REAR/FRONT
S-VIDEO-SW

IC7604
LA7220
SUB-S/
COMP-SW

R7617 22
R7618 820K
R7619 820K
R7620 820K
R7621 820K
R7622 10 A-C-25
R7623 22
R7624 22
R7625 75
R7626 75
R7627 820K
R7628 820K
R7629 820K
R7630 820K
R7631 820K
R7632 10 A-C-25
R7633 22
R7634 1K
R7635 10K
R7636 10K
R7637 10K
R7638 100
R7639 10 A-C-25
R7640 100
R7641 100
R7643 1K
R7668 100
R7669 68
R7670 100
R7671 180 1/2W
R7672 10K
R7673 68
R7674 180 1/2W
R7675 10K
C7612 35V 47μ
C7613 16V 10μ
C7614 16V 10μ
C7615 16V 10μ
C7616 16V 10μ
C7617 35V 47μ
C7618 Z-.01
C7623 16V 10μ
C7624 16V 10μ
C7625 35V 47μ
C7626 Z-.01
C7627 16V 10μ
C7628 16V 10μ
C7629 16V 10μ
C7630 Z-.01
C7631 16V 10μ
C7632 Z-.01
C7633 35V 47μ
C7634 16V 10μ
C7635 Z-.01
C7636 Z-.01
C7646 10V 220μ
C7647 10V 220μ
C7648 35V 47μ
C7649 Z-.01
C7656 16V 100μ
C7657 Z-.01
L7602 10μH
L7603 10μH
Q7602 2SC1740S-R BUFFER
Q7603 2SC1740S-R BUFFER
2Vp-p

COMP. VIDEO(MAIN)
COMP. VIDEO(SUB)

S-EXT-1
EXT-1
EXT-2
TUNER-OUT
MONITOR-OUT
CENTER CH
SUB-WOOFER-OUT

IC3306
M5223L
AUDIO AMP

R3375 2.4K
R3378 2.4K
R3379 2.4K
R3382 2.4K
R3360 3.3K
R3361 680
R3362 22K
R33C1 4.7K
C3343 2200
C3347 35V 47μ
C3360 16V 10μ
R3308 1K
C3A01 50V 2.2μ

IC3302
LA7953N
AUDIO-
CONTROL

IC3306
M5223L
AUDIO AMP

IC3302
LA7953N
AUDIO-
CONTROL

Q3305
2SC1740S-R
MUTE

Q3301
2SC1740S-R
MUTE

Q3302
2SC1740S-R
MUTE

Q3304
2SC1740S-R
MUTE

Q3303
2SC1740S-R
MUTE

IC7606
M66320P
CONTROL-
DAC

MAIN-A
MAIN-B
SUB-A
SUB-B
SI F/R
MAIN-Y/C
SUB-Y/C
BLANK1
BLANK3
MUTE2

CK
DATA
GND
VCC
LE
DE
EX-BASS
EXPAN
GND

COMP.
VIDEO

5V
CLK
DATA
LE
GND

PCB-SIGNAL
GA

PCB-TERMINAL

12V
GND
VOL
BALA
BASS
TRE
MUTE1
REAR-Y/C-SW
VAR/FIX
MUTE2
SUB-Y/C

PCB-SIGNAL
GB

1Vp-p
COMP.
VIDEO (SUB)

TV-VIDEO-IN
V-R-IN
TV-L-IN
MAIN-Y-OUT
MAIN-C-OUT
SUB-Y-OUT

PCB-SIGNAL
GC

IC7606 M66320P

IC3302 LA7953N

9 10 11 12 13 14 15 16

COMP. VIDEO(SUB)

IC7604
LA7220
SUB-S/
COMP-SW

IC7605
M51320P
VIDEO-SW

(1) Y (MAIN)

(2) CHROMA (MAIN)

2Vp-p

1Vp-p

2Vp-p

IC7606
M5740S-R
CLAMP

IC3301
M5223L
AUDIO AMP

IC3302
LA7953N
AUDIO-
CONTROL

L

R

IC3302

	TV	FRONT	EXT-1	EXT-2
④	H			
⑤		H		
⑥			H	
⑦				H

IC3302
LA7953N
AUDIO-
CONTROL

IC3302

	TV	FRONT	EXT-1	EXT-2
④	H	L	H	L
⑥	H	H	L	L

IC3304
M5222P EX-BASS-2

IC3303
M5218AL EX-BASS-1

IC3305
M5218AL EX-BASS-3

Q3301
2SC1740S-R
MUTE

Q3302
2SC1740S-R
MUTE

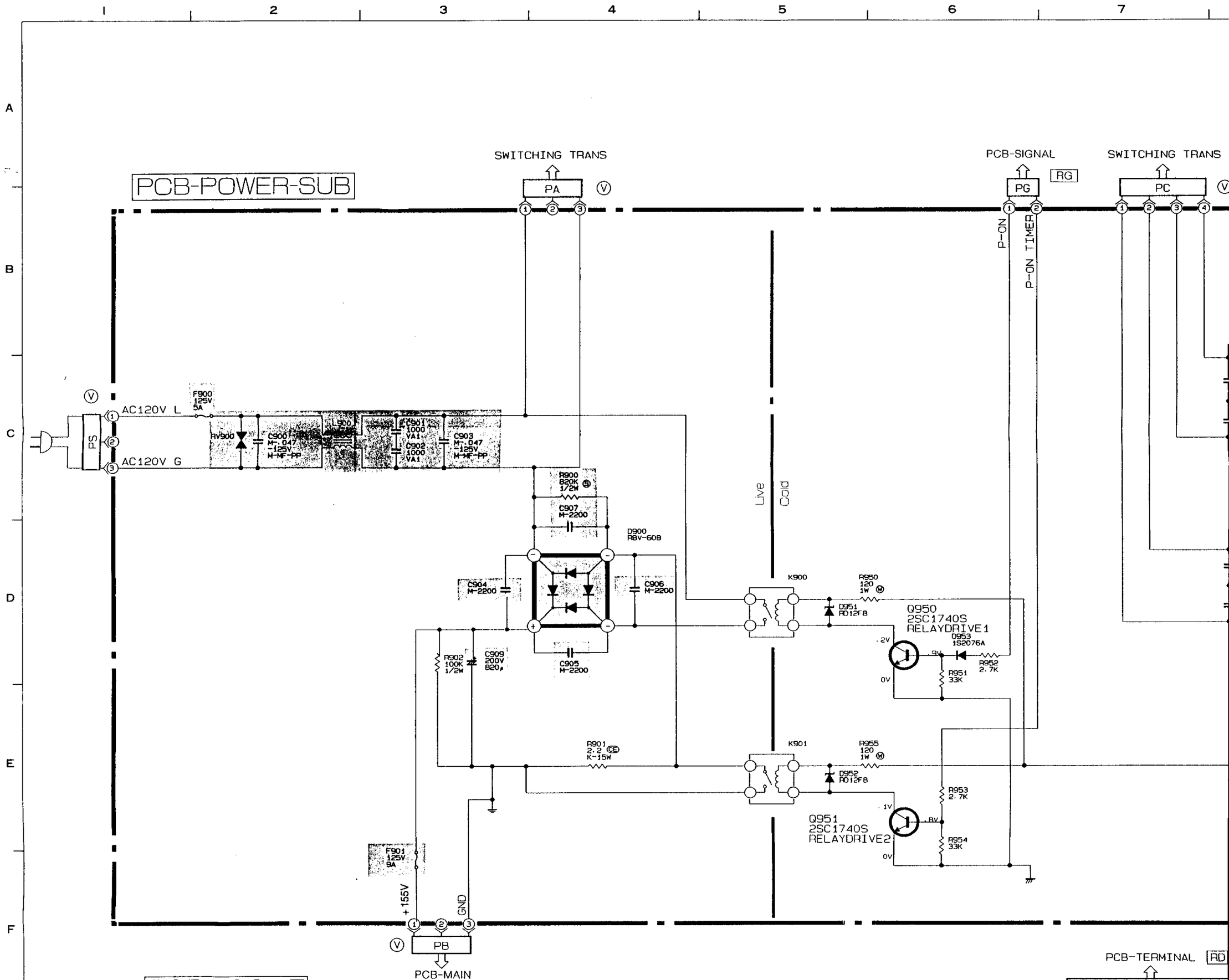
IC3307
LA7222
VAR/FIX-SW

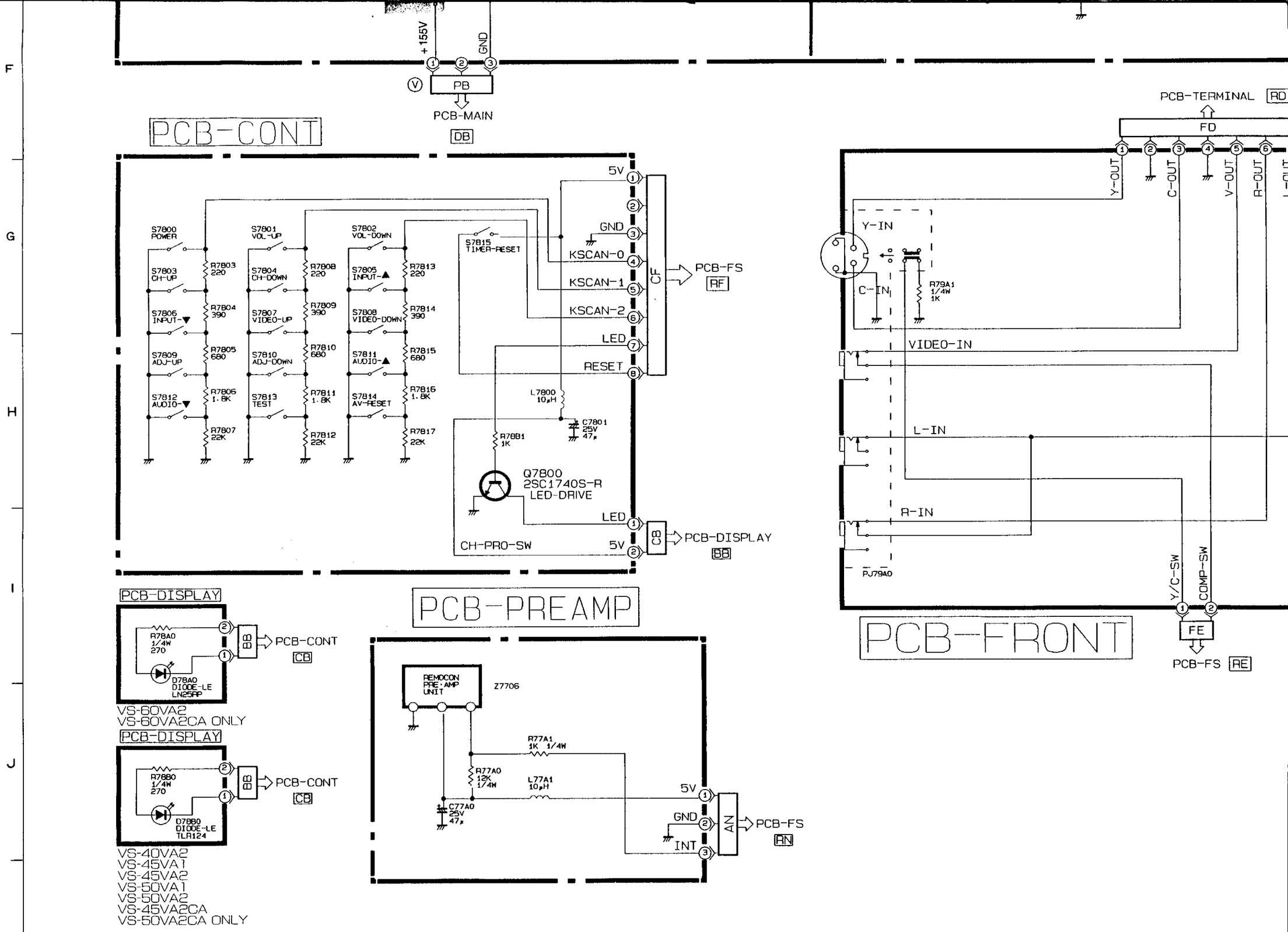
IC3307

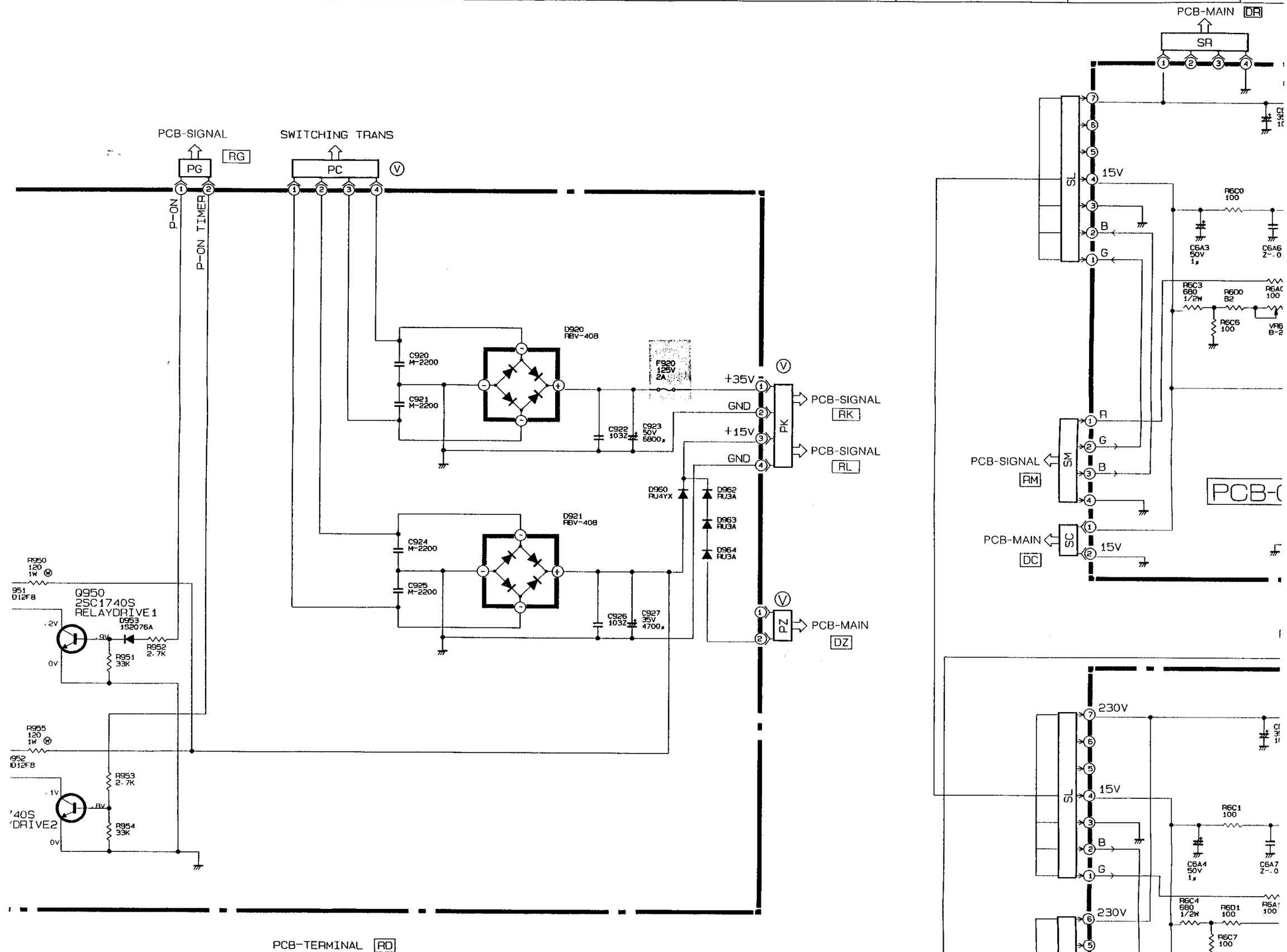
	VAR	FIX
②	L	H
④	L	H

IC3302 LA7953N

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(3/6)


PCB-POWER-SUB
SWITCHING TRANS
PA
PCB-SIGNAL
PG
RG
SWITCHING TRANS
PC
P-ON
P-ON TIMER
AC120V L
AC120V G
PS
F900 125V 5A
RV900
C900 M-.047 -125V M-MF-PP
L900
C901 1000 VA1
C902 1000 VA1
C903 M-.047 -125V M-MF-PP
R900 820K 1/2W
C907 M-2200
D900 RBV-608
C904 M-2200
C906 M-2200
C905 M-2200
R902 100K 1/2W
C909 200V 820
R901 2.2 K-15W
Live
Cold
K900
R950 120 1W
D951 RD12F8
Q950 2SC1740S RELAYDRIVE1
D953 1S2076A
R952 2.7K
R951 33K
2V
9V
0V
K901
R955 120 1W
D952 RD12F8
R953 2.7K
R954 33K
1V
8V
Q951 2SC1740S RELAYDRIVE2
F901 125V 9A
+155V
GND
PB
PCB-MAIN
PCB-TERMINAL
RD


+155V
GND
1
2
3
V
PB
PCB-MAIN
DB
PCB-CONT
5V
GND
KSCAN-0
KSCAN-1
KSCAN-2
LED
RESET
CF
PCB-FS
RF
S7800 POWER
S7803 CH-UP
S7806 INPUT-▼
S7809 ADJ-UP
S7812 AUDIO-▼
S7801 VOL-UP
S7804 CH-DOWN
S7807 VIDEO-UP
S7810 ADJ-DOWN
S7813 TEST
S7802 VOL-DOWN
S7805 INPUT-▲
S7808 VIDEO-DOWN
S7811 AUDIO-▲
S7814 AV-RESET
S7815 TIMER-RESET
R7803 220
R7804 390
R7805 680
R7806 1.8K
R7807 22K
R7808 220
R7809 390
R7810 680
R7811 1.8K
R7812 22K
R7813 220
R7814 390
R7815 680
R7816 1.8K
R7817 22K
L7800 10μH
C7801 25V 47μ
R78B1 1K
Q7800 2SC1740S-R LED-DRIVE
LED
CH-PRO-SW
5V
CB
PCB-DISPLAY
BB
PCB-CONT
CB
R78A0 1/4W 270
D78A0 DIODE-LE LN25AP
VS-60VA2
VS-60VA2CA ONLY
PCB-DISPLAY
R78B0 1/4W 270
D78B0 DIODE-LE TLR124
VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-45VA2CA
VS-50VA2CA ONLY
PCB-PREAMP
REMOCON PRE·AMP UNIT
Z7706
R77A1 1K 1/4W
R77A0 12K 1/4W
L77A1 10μH
C77A0 25V 47μ
5V
GND
INT
AN
PCB-FS
RN
PCB-TERMINAL
RD
FD
Y-OUT
C-OUT
V-OUT
R-OUT
Y-IN
C-IN
R79A1 1/4W 1K
VIDEO-IN
L-IN
R-IN
PJ79A0
Y/C-SW
COMP-SW
PCB-FRONT
FE
PCB-FS
RE


6
7
8
9
10
11
12
PCB-SIGNAL
SWITCHING TRANS
PG
RG
PC
V
P-ON
P-ON TIMER
D920
RBV-408
C920
M-2200
C921
M-2200
F920
125V
2A
C922
103Z
C923
50V
6800μ
+35V
GND
+15V
GND
PK
PCB-SIGNAL
RK
PCB-SIGNAL
RL
D960
RU4YX
D962
RU3A
D963
RU3A
D964
RU3A
D921
RBV-408
C924
M-2200
C925
M-2200
C926
103Z
C927
35V
4700μ
PZ
PCB-MAIN
DZ
R950
120
1W
Q950
2SC1740S
RELAYDRIVE1
D953
1S2076A
R952
2.7K
R951
33K
.2V
.9V
0V
R955
120
1W
R953
2.7K
R954
33K
.1V
.8V
0V
PCB-TERMINAL
RD
PCB-MAIN
DR
SR
SL
15V
B
G
R6C0
100
C6A3
50V
1μ
C6A6
R6C3
680
1/2W
R6D0
82
R6C6
100
VR6
B-2
R
G
B
SM
PCB-SIGNAL
RM
SC
PCB-MAIN
DC
15V
230V
R6C1
100
C6A4
50V
1μ
C6A7
R6C4
680
1/2W
R6D1
100
R6C7
100

0V

PCB-TERMINAL RD

FD

1 2 3 4 5 6 7

Y-OUT C-OUT V-OUT R-OUT L-OUT

N

R79A1 1/4W 1K

VIDEO-IN

L-IN

R-IN

Y/C-SW COMP-SW

1 2

FE

PCB-FS RE

PCB-FRONT

B

G

230V

R6C4 680 1/2W

R6D1 100

R6A 100

R6C7 100

SG

15V

B

C6A4 50V 1μ

C6A7 Z-.0

PCB-C

230V

SG

15V

R6C2 100

B

C6A5 50V 1μ

C6A8 Z-.0

R6A 100

R6C5 680 1/2W

R6D2 10

VR6 B-2

R6C8 100

D6A

R6E 6

PCB-CRT(B)

10 11 12 13 14 15 16

PCB-MAIN DA

SR

L6A0 J-56μH

C6A0 350V 10μ

R6B6 4.7K 3W MB

R6B3 3.3K 3W MB

26

L6A3 K-18μH

R6G3 K-1.5K 1/2W S

R

AG6A0

18.5V

Q6A4 2SC3789-D, E R-OUT

15.2V

R6C0 100

C6A3 50V 1μ

C6A5 Z-.01

C6B3 K-1000

14.7V

R6B0 150

13.7V

Q6A1 2SC2229-Y R-AMP

3V

R6C3 680 1/2W

R6D0 82

R6A0 100

R6C6 100

VR6A0 B-200

2.5V

R6A3 390

C6B0 K-220

R6A6 33

R6G0 2.2K

C6C6 50V 1μ

C6C0 YN-120 3.15KV

AG6A3

SL

15V

B

G

SA

K

H

G1

G2

R

HV

SP

PCB-MAIN DP

SM

R

G

B

PCB-SIGNAL RM

PCB-CRT(R)

SC

PCB-MAIN DC

15V

R6H0 1.2M 1/2W S

AG6A5

C6C3 YN-120 3.15KV

26 120Vp-p(H)

VR6A2 B-300K

VR6A5 B-4M

R6H3 K-2.2M 1/2W S

R6G6 6.8 3W

1200V

SF

PCB-MAIN DF

GND

SQ V

PCB-SIGNAL RQ

SN V

SK V

PCB-MAIN DK

SU

(Bold Earth)

SH

SH

GND

+35V V

GND

+15V

GND

PK

PCB-SIGNAL RK

PCB-SIGNAL RL

D962 RU3A

D963 RU3A

D964 RU3A

PZ

PCB-MAIN DZ

230V

L6A1 J-56μH

C6A1 350V 10μ

R6B7 4.7K 3W MB

R6B4 3.3K 3W MB

27

15.6V

L6A4 K-18μH

R6G4 K-1.5K 1/2W S

G

AG6A1

Q6A5 2SC3789-D, E G-OUT

15.2V

R6C1 100

C6A4 50V 1μ

C6A7 Z-.01

C6B4 K-1000

15V

R6B1 150

C6C1 YN-120 3.15KV

AG6A4

PCB-CRT(G)

PCB-CRT(B)

Q6A5
2SC3789-D, E
G-OUT

Q6A2
2SC2229-Y
G-AMP

Q6A6
2SC3789-D, E
B-OUT

Q6A3
2SC2229-Y
B-AMP

㉗130Vp-p(H)

㉘150Vp-p(H)

2 3 4 5 6 7

A B C D E F

ZR ZG ZB

VR VG VB

IC8801
STK4275MB
STATIC FOCUS
AMP

+24V GND -24V

Q8800
S-HV

IC811
μPC7812H
+12V REG

IC812
μPC7912H
-12V REG

IC800
PA0036
CONV. GEN

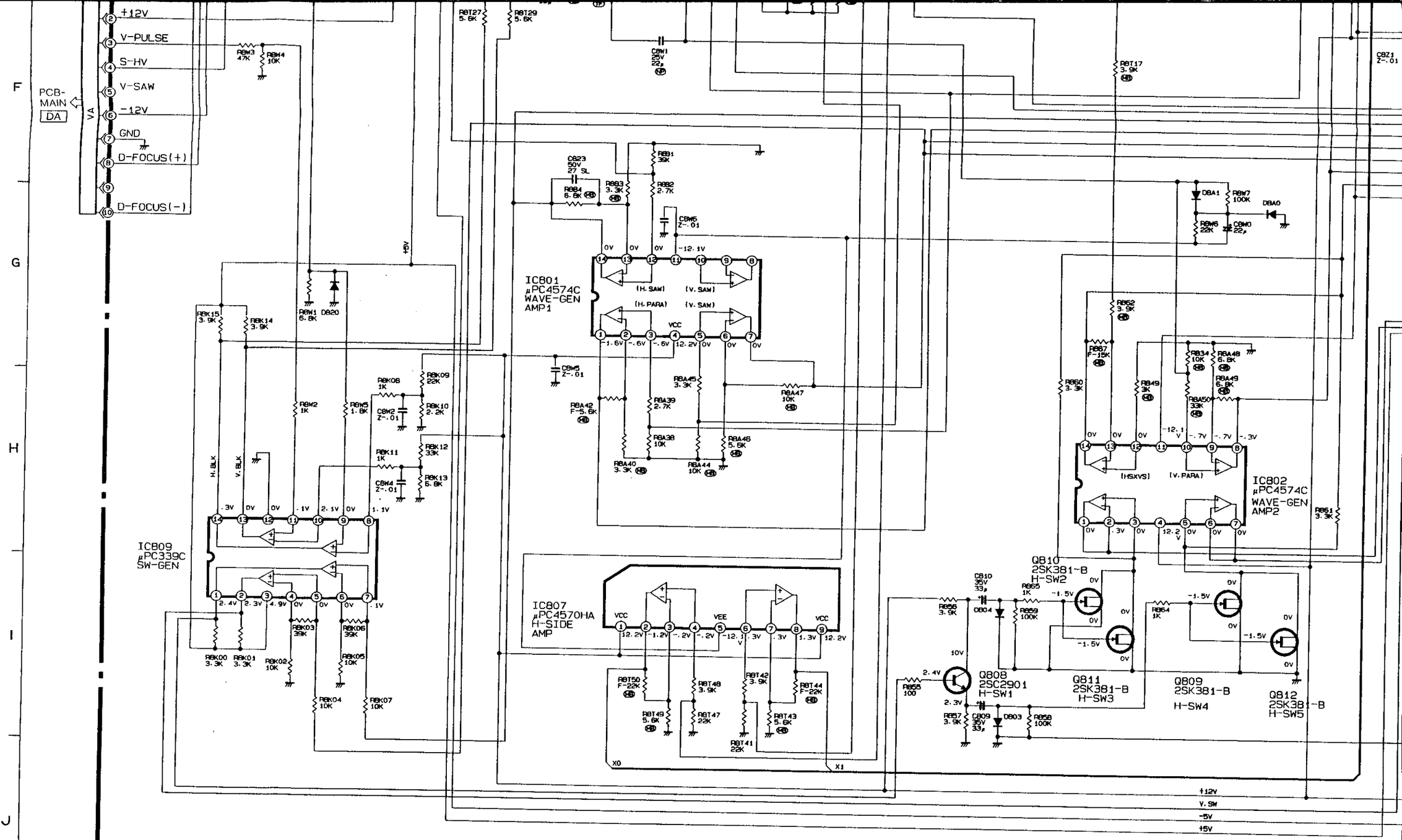
PCB-MAIN DA

H-PULSE
+12V
V-PULSE
S-HV
V-SAW
-12V
GND
D-FOCUS(+)

VA

+5V

X0 X1



PCB-CONV

If not specified TRANSISTORS are 2SC2603-E,F/2SC1740S-R,S

If not specified DIODES are 1S2076A/1S2471

4 5 6 7 8 9 10 11

ZB
VB
PCB-MAIN
DD
VD
+24V GND -24V -12V GND +12V
L808 SBC -03
L809 SBC -03
L810 SBC -03
L807 SBC -03
C8840 50V 100μ
C8844 50V 100μ

IC8801
STK4275MB
STATIC FOCUS AMP
-28V (OUT) (OUT) -28V (OUT) (OUT) GND
6.1V 6.1V 0V 6.9V 7V 0V 7.2V 7.2V -.4V -29.7V -29.7V -29.7V -29.7V 0V 29.7V

R8820 3.3K
29.6V
Q8800 S-HV
10.7V
10.1V
C8806 50V 3.3μ
R8821 10K
R8814 10K
R8813 10K
R8812 10K
R8805 2.2K
R8873 1K
R8804 2.2K
R8872 1K
R8803 2.2K
R8871 1K
VR8802 B-5K
VR8801 B-5K
VR8800 B-5K
R8802 3K
R8801 3K
R8800 3K
R8811 22K
R8810 22K
R8809 33K
R8808 2W 68
R8807 2W 68
R8806 2W 68
R8A8 2W 68
R8A7 2W 68
R8A5 2W 68

IC811
μPC7812H
+12V REG
12.2V
-17.7V
0V
C814 25V 47μ
C812 25V 47μ

IC812
μPC7912H
-12V REG
-12.1V
-17.7V
0V
C815 25V 47μ
C813 25V 47μ

(B-H)
VEE VCC
-.1V -.1V 0V -29.7V 0V -29.7V
C8A2 50V 100
D837
D836
R8N0 330
R8N1 18K
R8N2 3.3K
C864 50V 1μ
C844 50V 100μ 105°C
C886 50V 100μ 105°C
R8L2 330
C882 1000
R894 3.3K
L812 10μH
R896 560 1W
R8T38 F-10 1W
R895 F-10 1W
R853 F-10 1W
X3

R8T23 3W 100
C8E4 50V 47μ 105°C
D827 RD5.1FB2
R8T22 6.2K
C8D0 560
R8T21 91K
C8C8 50V 1μ
C860 470 UJ
C8C9 50V 2.2μ
C8D2 50V 2.2μ
C8G1 470 UJ
R8T18 5.1K
C8H4 50V 10μ
C8E6 25V 22μ
R8T19 1K
C8C7 50V 22μ
R8T20 18K
3V .3V 0V -1.6V 0V .1V 0V 0V 0V -1V 0V 0V
H.PARA H SAW HS XV3

IC800
PA0036
CONV. GEN
3.1V -.7V -.6V .2V 0V 0V 0V 0V .3V -.2V 0V
V.SAW V XP3 1/2H XP3 1/2H XP3 VS XP3 VP XP4 VP XP5 VS XP4
R8T36 1.3K
R8T37 13K

R8A17 22K
C839 50V 1μ
D811
R8A16 100K
D810
C824 .1μ TP

X0
X1
R8A02 6.8K
Q838 2SA1237-F SLICE1
-.3V -.5V -.6V -12.1V
C841 3.3μ NP
R8A00 470
R8A01 470
C833 .1 TP
D821
R824 15K
R807 22K
Q830 2SC3064-F SLICE2
-12.1V -.6V -.3V -.5V
C842 3.3μ NP
R8A05 470
R8A07 15K
R8D22 2.7K
R8A06 470
C834 .1μ TP
R8D23 22K
R8A08 6.8K

R8A11 10K
R8A13 10K
R8W11 1K
VRBE2 B-50K
R8W10 10K
R8W15 10K
VRBE0 B-50K
R8W14 1K
R8A12 10K
R8A10 10K
R8W17 1K
VRBE3 B-50K
R8W16 10K
R8W13 10K
VRBE1 B-50K
R8W12 1K

IC808 μPC4570HA H-SIDE BUFF
12.2V 3V 0V 0V -12.1V 0V 0V -.3V -12.3V
C8F0 50V 1μ
D880
R8D20 100K

Q8800
S-HV

IC811
μPC7812H
+12V REG

IC812
μPC7912H
-12V REG

Q838
2SA1237-F
SLICE1

Q830
2SC3064-F
SLICE2

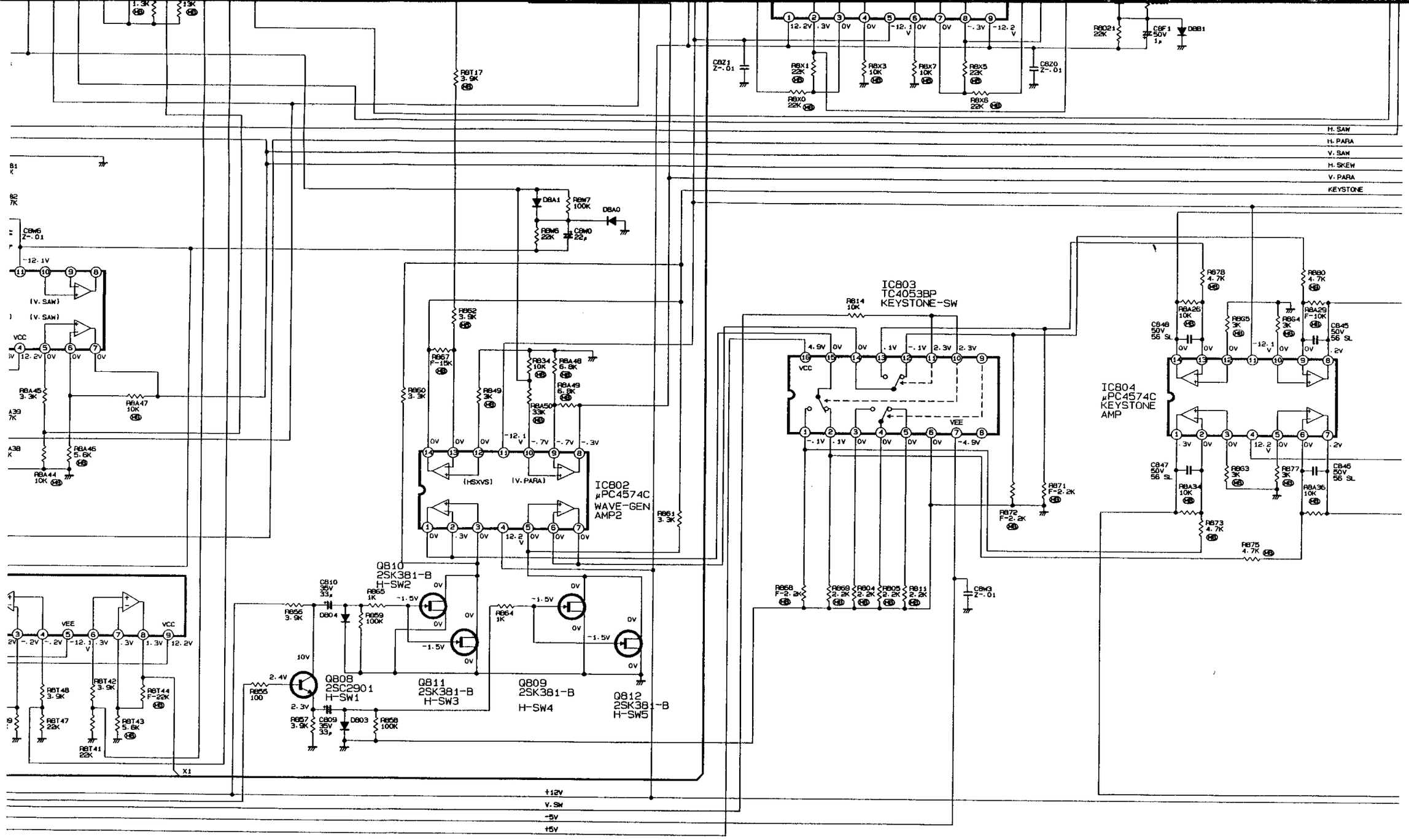
IC800
PA0036
CONV. GEN

IC808 μPC4570HA H-SIDE BUFF

IC803
TC4053BP
KEYSTONE-SW

IC804
μPC4574C
KEYSTONE
AMP

H. SAW
H. PARA
V. SAW
H. SKEW
V. PARA
KEYSTONE



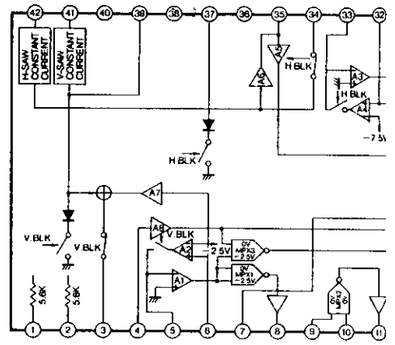
If not specified TRANSISTORS are 2SC2603-E,F/2SC1740S-R,S

If not specified DIODES are 1S2076A/1S2471

*DIFFERENCE TABLE

	R8H10	R8H11	R8H12	R8H13	R8H5
VS-40VA2	×	×	×	×	5.6K
VS-45VA1	27K	18K	27K	6.8K	10K
VS-45VA2	27K	18K	27K	6.8K	10K
VS-50VA1	39K	24K	39K	8.2K	10K
VS-50VA2	39K	24K	39K	8.2K	10K
VS-60VA2	×	27K	39K	8.2K	10K
VS-45VA2CA	27K	18K	27K	6.8K	10K
VS-50VA2CA	39K	24K	39K	8.2K	10K
VS-60VA2CA	×	27K	39K	8.2K	10K

IC800 PA0036



9 10 11 12 13 14 15 16

IC8A1
STK391-020
BLUE
CONV-OUT

IC8A0
STK391-020
RED
CONV-OUT

Q838
2SA1237-F
SLICE1

RED
BLUE
VU
VV

H. SAW
H. PARA
V. SAW
H. SKEW
V. PARA
KEYSTONE

IC804
μPC4574C
KEYSTONE
AMP

IC806
μPC4574C
KEYSTONE
BUFF

IC805
μPC4574C
S-CONV
BUFF

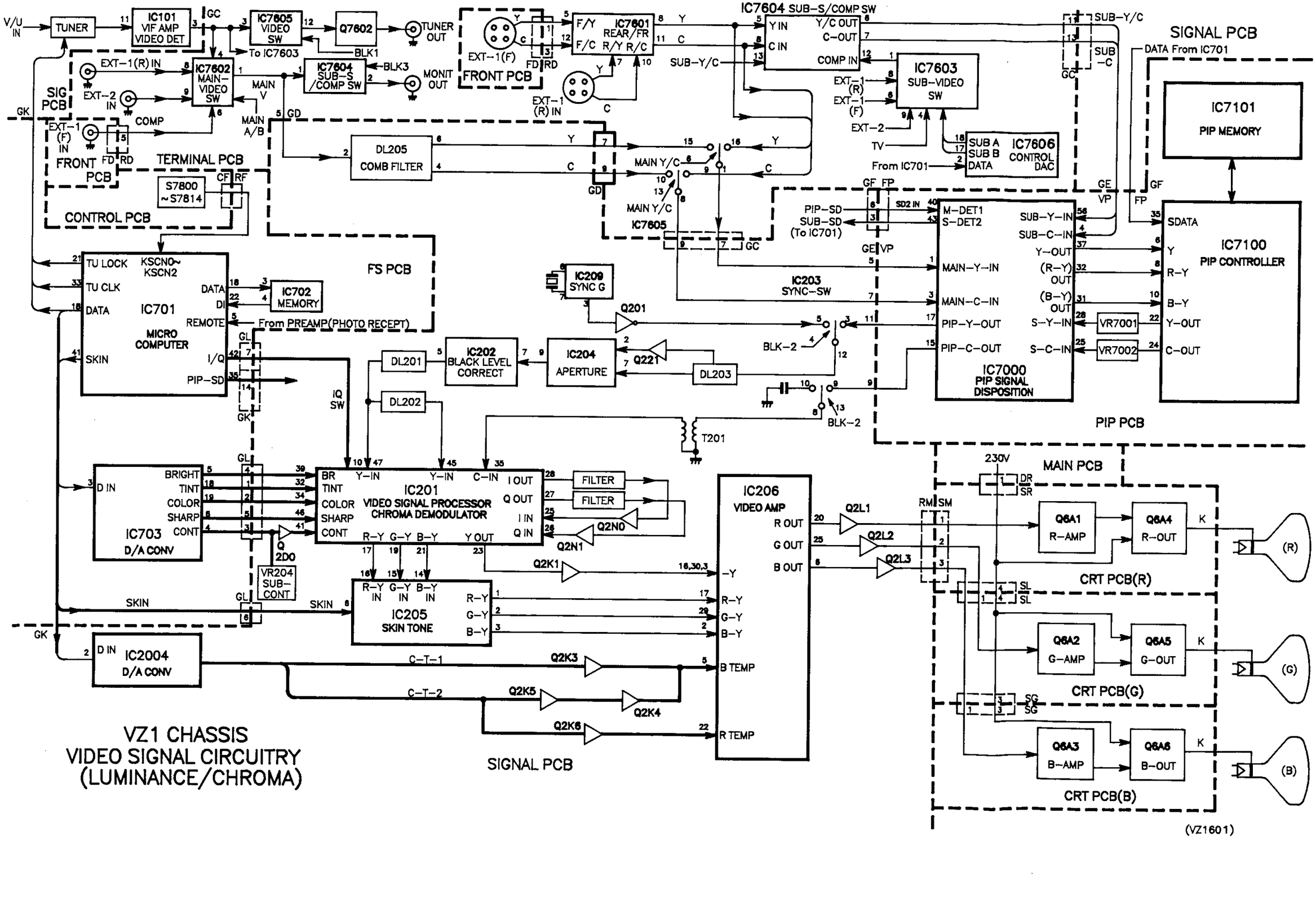
PCB-SIGNAL
RC

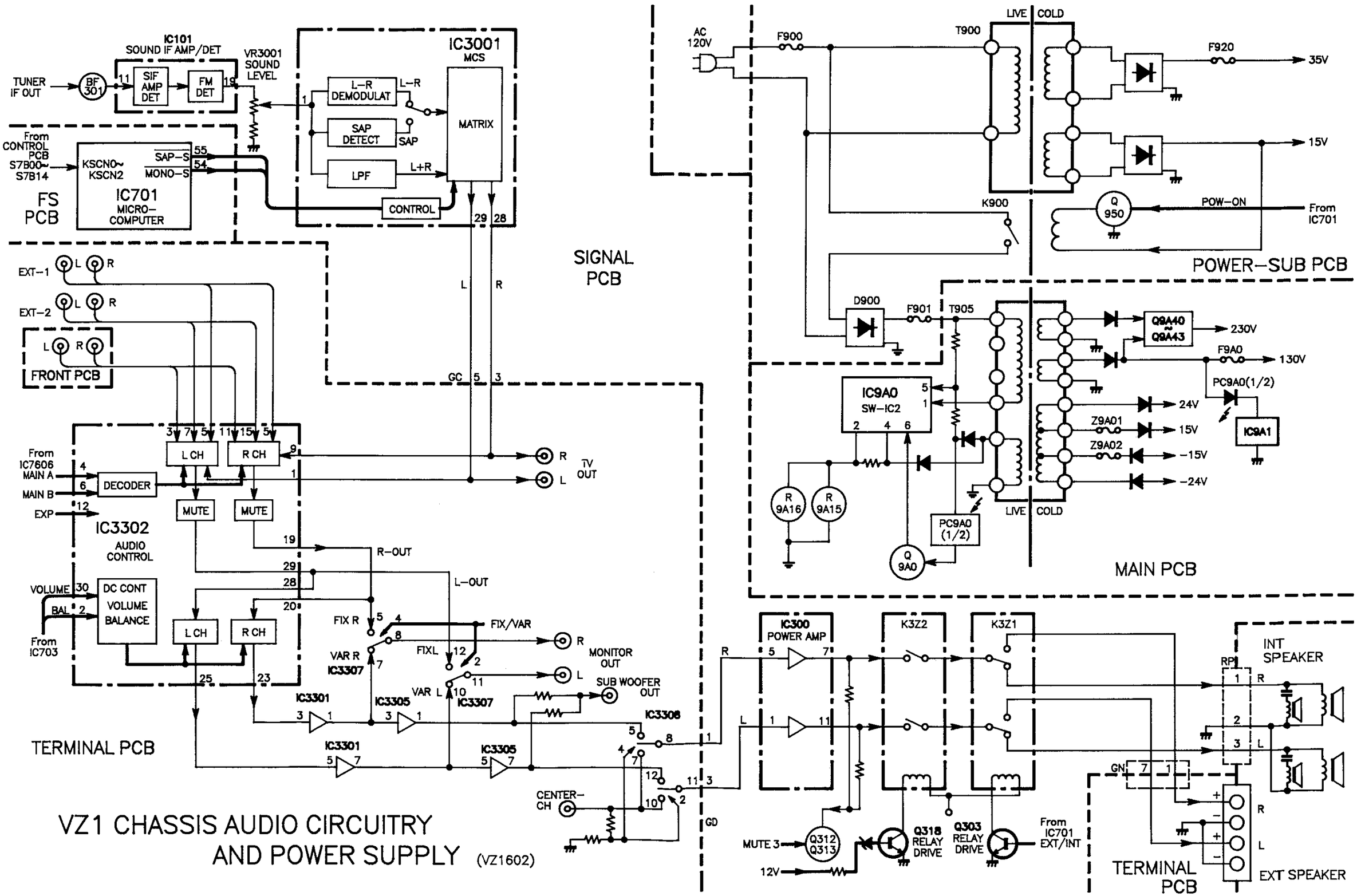
R8H12	R8H13	R8H5
×	×	5.6K
27K	6.8K	10K
27K	6.8K	10K
39K	8.2K	10K
39K	8.2K	10K
39K	8.2K	10K
27K	6.8K	10K
39K	8.2K	10K
39K	8.2K	10K

IC800 PA0036

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(4/6)

VZ1 CHASSIS
VIDEO SIGNAL CIRCUITRY
(LUMINANCE/CHROMA)





VZ1 CHASSIS AUDIO CIRCUITRY AND POWER SUPPLY (VZ1602)

VZ1 CHASSIS DEFLECTION, CONVERGENCE CIRCUITRY (VZ1603)

SIGNAL PCB
IC201 SYNC SEPA/ H.OSC/V.OSC
SYNC SEPA
AFC
32FH VCO
HORIZ COUNT DOWN
HORIZ OUT
MMV
VERTICAL COUNT DOWN
VERT OUT
Q221 Y–DL –IN
Q2B2 SYNC –SEPA
To IC204
From IC7000
PIP–Y
C209 SYNC G
IC203 SYNC–SW
S–SW
IC2004 D/A CONV
DATA (From IC701)
R–H R–V B–H B–V
RC
VC
H.P
RH DH
Q500 H–DRIVE
T500
Q501 H–OUT
HV–REG
T5000 Q500 IC5000
1200V (G2–SCREEN)
HV
130V
CRT HEATER
28V
Q502 Q503
T501 FBT
To Q2D0
ACL
Q506 BEAM–PROTECT
–12V
IC401 V–OUT
RAMP GENE
VERT DRIVE
VERT OUT
H.PULSE (From H.OUT)
V.PULSE (From V.OUT)
VR400 HEIGHT
VR401 LIN
V.P
IC809
DA VA
IC800 CONV GEN
H.BLK
V.BLK
H.SAW
H.PARA
V.SAW
V.PARA
IC801
IC802
IC805
B–V
B–H
R–V
R–H
IC803 4 DIVIDED WAVE FORM CONTROL
VR8C0 ~VR8C3
VR8C4 ~VR8C7
VR8B6 ~VR8B9
VR8C8 8C9,8D0 8D1
Q808
Q810 Q811
Q809 Q812
From IC4A02
DM
PCC
IC4B04 Q4B02~ Q4B04
PCC AMP
T4B00
PCC PCB
SIDE PIN PCB
DT
To IC5A0
V.SAW
VERT.D–Y
HORIZ.D–Y
L503 LIN
Q5A0
PCC OUT
DS
IC5A0(1/2) PCC DRIVE
VR5A3 WIDTH
IC5A1
SIDE PIN P
PCC PCB
V.BLK
V.SWA
Q4A00
IC4A00 H.BLK PULSE GENERAT
H.BLK
XV.S
IC4A01
H.P (To IC809)
Q8521~
Q8501
IC8501 FOCUS PHASE GEN
Q8523
IC8551 H–DYNAMIC OUT
H–PULSE SW
(From HV–OUT)
S–HV
Q8800
VR8800
VR8801
VR8802
IC8801
STATIC FOCUS AMP
+12V
IC8A1 BLUE CONV OUT
IC8A0 RED CONV OUT
VY
BLUE
RED
SUB D.Y
B–V
B–H
R–V
R–H
(V)
(H)
To IC809 Pin7
To IC809 Pin5
CONV PCB

VZ1 CHASSIS DEFLECTION, CONVERGENCE CIRCUITRY (VZ1603)

SIGNAL PCB
Q221 Y-DL -IN
To IC204
Q2B2 SYNC -SEPA
SYNC SEPA
AFC
32FH VCO
HORIZ COUNT DOWN
HORIZ OUT
MMV
VERTICAL COUNT DOWN
VERT OUT
IC201 SYNC SEPA/ H.OSC/V.OSC
H.P
RH DH
To Q2D0
ACL
Q500 H-DRIVE
T500
Q501 H-OUT
1200V (G2-SCREEN)
HV-REG
T5000 Q500 IC5000
130V
HV
HV-DET -BUFFER
Q502 Q503
MAIN PCB
CRT HEATER
28V
T501 FBT
IC500 X-RAY PROTECT
X-PRO (To IC701)
Q504 HV-FOCUS BUFFER
S-HV (To S.FOCUS)
Q506 BEAM-PROTECT
-12V
IC401 V-OUT
RAMP GENE
VERT DRIVE
VERT OUT
H.PULSE (From H.OUT)
V.PULSE (From V.OUT)
VR400 HEIGHT
VR401 LIN
V.P
IC809
DA VA
HORIZ.D-Y
VERT.D-Y
L503 LIN
Q5A0
PCC OUT
DS
IC5A0(1/2) PCC DRIVE
IC5A1
VR5A3 WIDTH
IC5A0 (1/2)
VR5A0
VR5A2
V.SAW From V.OUT
SIDE PIN PCB
PCC PCB
From IC4A02
PCC
IC4B04 Q4B02 ~ Q4B04
PCC AMP
T4B00
DM
DT
To IC5A0
V.SAW
V.BLK
V.SWAP
IC4A02
To IC4B04
Q4A00
IC4A00 H.BLK PULSE GENERAT
H.BLK
XV.S
IC4A01
VR4A01 BOTTOM PCC
VR4A00 TOP PCC
IC4A03
IC4A02
V.SWAP
H.P (To IC809)
Q8521~
Q8501
IC8501 FOCUS PHASE GEN
Q8523
IC8551 H-DYNAMIC OUT
H-PULSE SW
DA VA
VR ZR
F-MG
(R) D.FOCUS
S.FOCUS
VG ZG
(G) D.FOCUS
S.FOCUS
VB ZB
(B) D.FOCUS
S.FOCUS
(From HV-OUT) S-HV
Q8800
VR8800
VR8801
VR8802
+12V
IC8801
STATIC FOCUS AMP
IC805
IC803 4 DIVIDED WAVE FORM CONTROL
IC802
VR8C0 ~VR8C3
VR8C4 ~VR8C7
VR8B6 ~VR8B9
VR8C8 8C9,8D0 8D1
H.SAW
H.PARA
V.SAW
V.PARA
VR8A0
VR8A1
VR8A2
VR8A3
VR8A4
VR8A5
VR8A6
VR8A7
VR8A8
VR8A9
VR8B0
VR8B1
VR8B2
VR8B3
VR8B4
VR8B5
IC8A1 BLUE CONV OUT
IC8A0 RED CONV OUT
B-V
B-H
R-V
R-H
VY
VU
BLUE
RED
(V)
(H)
SUB D.Y
To IC809 Pin7
To IC809 Pin5
CONV PCB

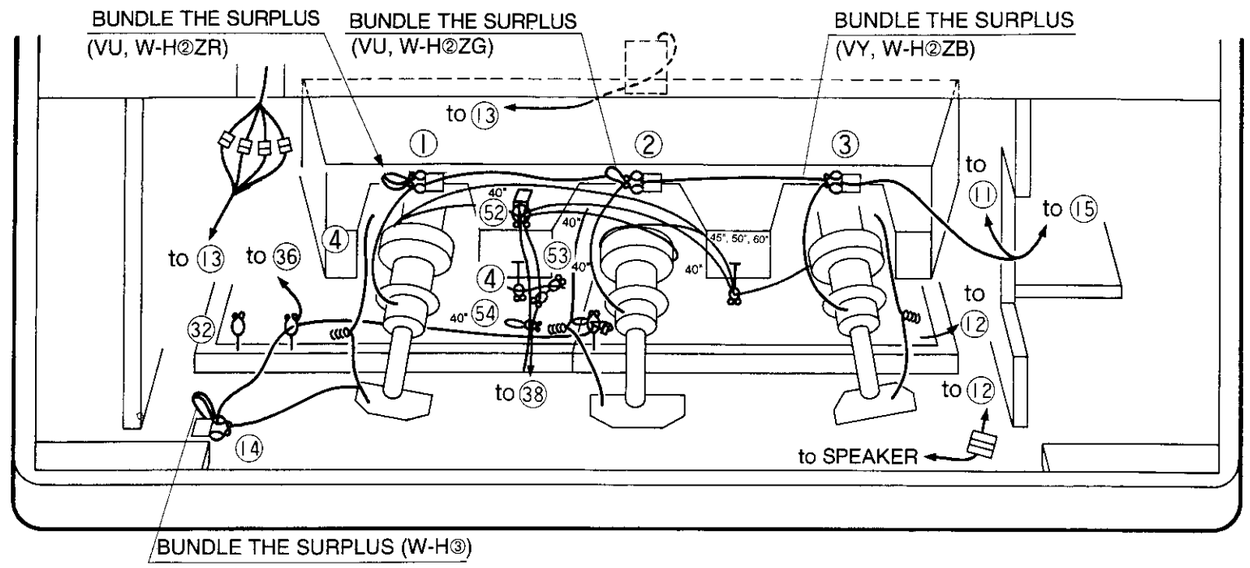
LEAD DRESSING

The lead wires clamped are listed in the table below.

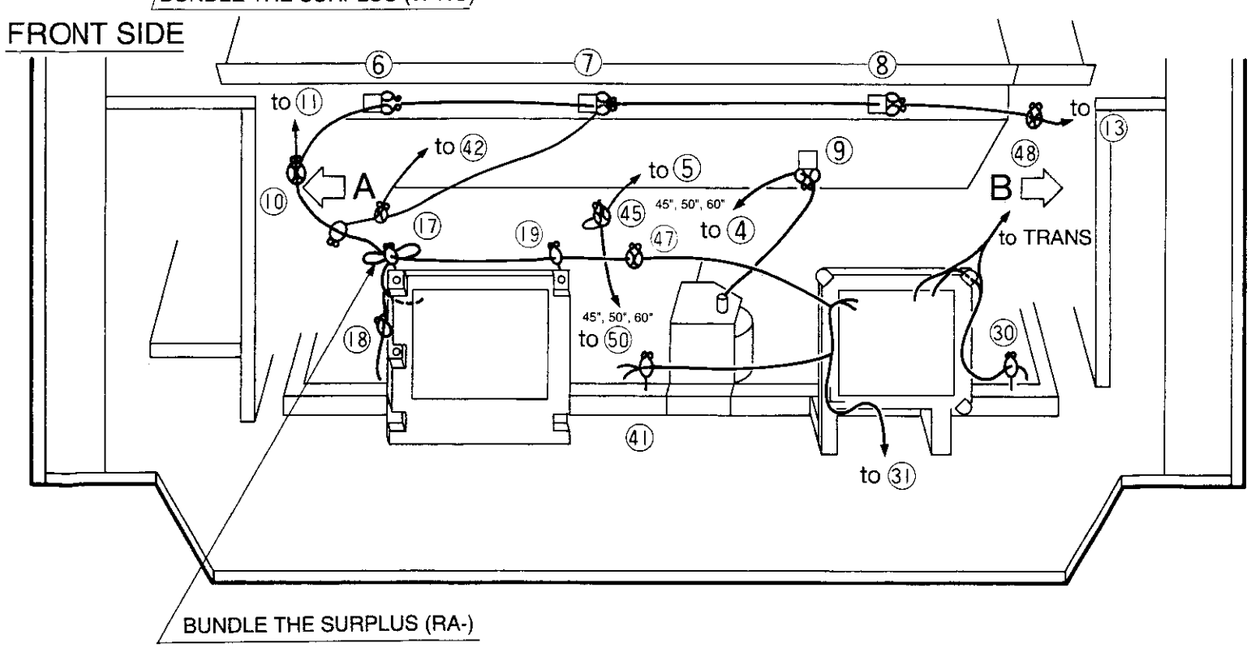
Note: The inner wires are clamped so that they do not come close to the heat generating or high-tension parts. After servicing route all wires in their original position.

The anode lead wires are routed so no tensile strength is applied to the anode cap. If the mounting angle of the anode cap and the route of the anode lead wires are changed return them to the initial angle and route.

REAR SIDE

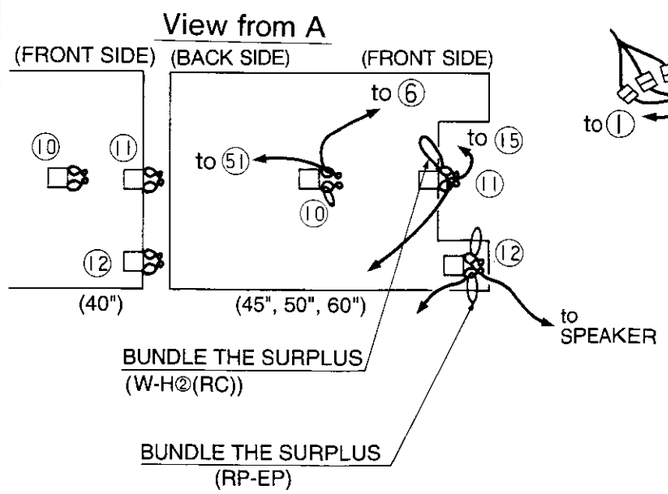


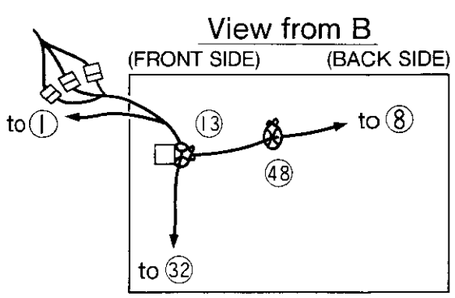
FRONT SIDE

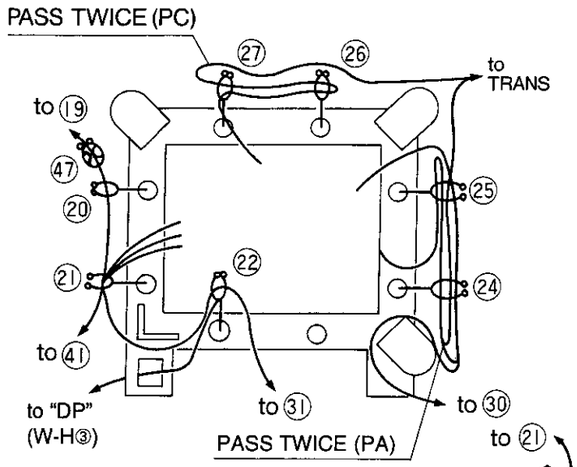


CONNECTOR LEAD and WIRE HARNESS LIST FOR CLAMPER

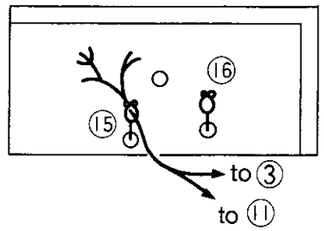
No.	ITEM	LEAD CONNECTOR or WIRE HARNESS (W-H)
1	OPTICAL UNIT	W-H②, VU-SUB-DY(R) (BUNDLE THE SURPLUS)
2	OPTICAL UNIT	W-H②, VU-SUB-DY(R)
3	OPTICAL UNIT	W-H②, VU-SUB-DY(R), VY-SUB-DY(B)
4	OPTICAL UNIT	ANODE-LEAD
5	OPTICAL UNIT	(B-DY,40") (R-DY,G-DY,B-DY, 40",45",50",60")
6	OPTICAL UNIT	W-H①, W-H②,
7	OPTICAL UNIT	W-H①, W-H②, AN-RN
8	OPTICAL UNIT	W-H①, W-H②, AN-RN
9	OPTICAL UNIT	ANODE-LEAD
10		W-H①, W-H②
11		W-H②
12		RP-EP (BUNDLE THE SURPLUS)
13		W-H①, W-H②, AN-RN
14		W-H③ (BUNDLE THE SURPLUS)
17	PCB-TERMINAL	W-H①, W-H②, RA- (BUNDLE THE SURPLUS), DJ-RJ, PK-RK
18	PCB-TERMINAL	DJ-RJ, PK-RK, RA
19	PCB-TERMINAL	W-H②, DJ-RJ, PK-RK
30	PCB-MAIN	PB-DB
32	PCB-MAIN	W-H②
41	PCB-SIGNAL	PG-RG, PK-RL
45		{R-DY, G-DY (BUNDLE THE SURPLUS)} {B-DY (PASS TWICE, BUNDLE THE SURPLUS)} 45", 50", 60"
46		
47		W-H②, DJ-RJ, PK-RK
48		W-H①, AN-RN
51		W-H①, W-H② , AN-RN
52	OPTICAL UNIT	{R-DY,G-DY,B-DY (PASS: TWICE)} 40"
53		(R-DY,G-DY,B-DY, ANODE-LEAD) 40"
54		R-DY(PATH THREE), {G-DY,B-DY(PATH TWICE,BUNDLE THE SURPLUS)} 40"



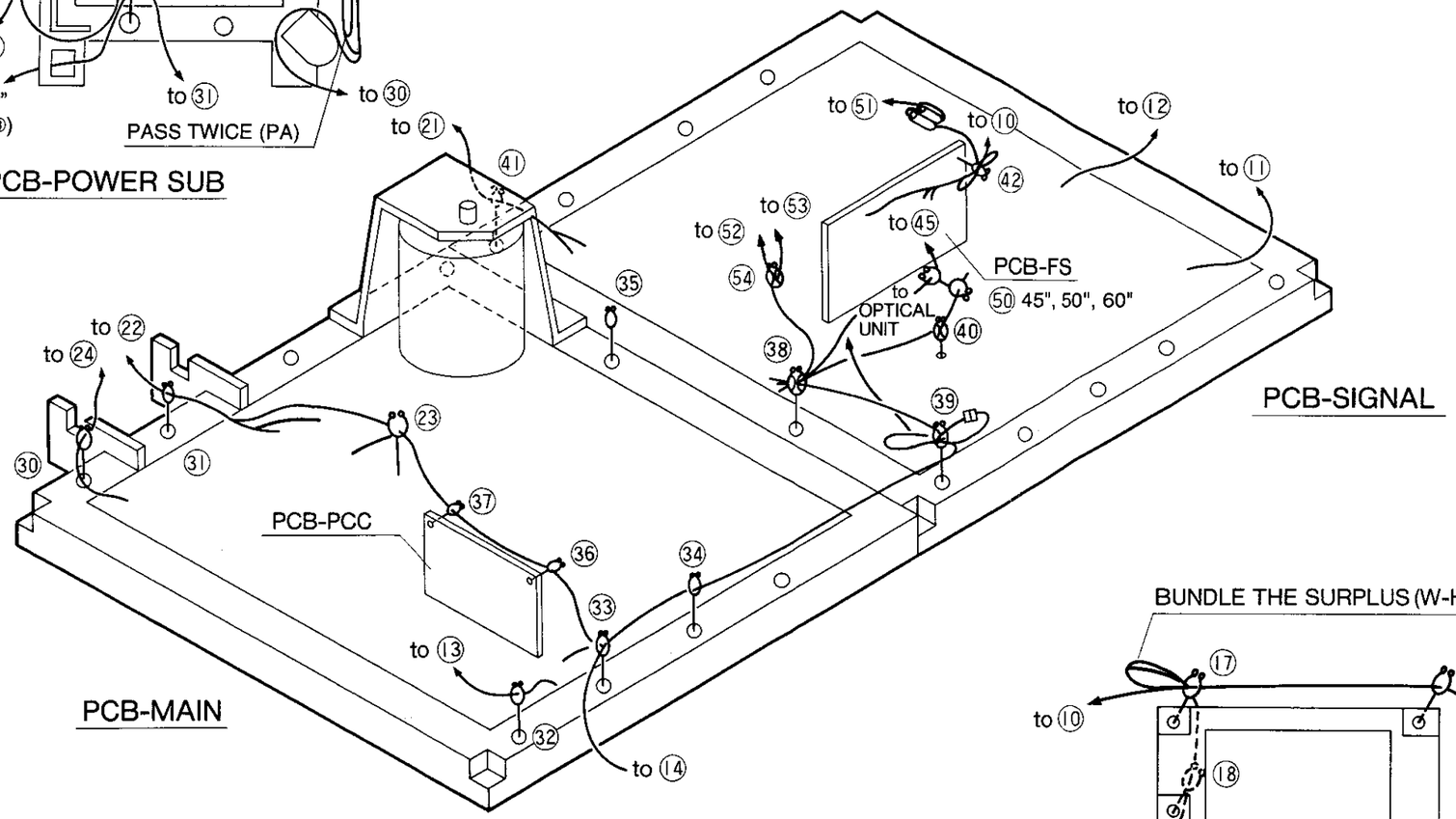




PCB-POWER SUB

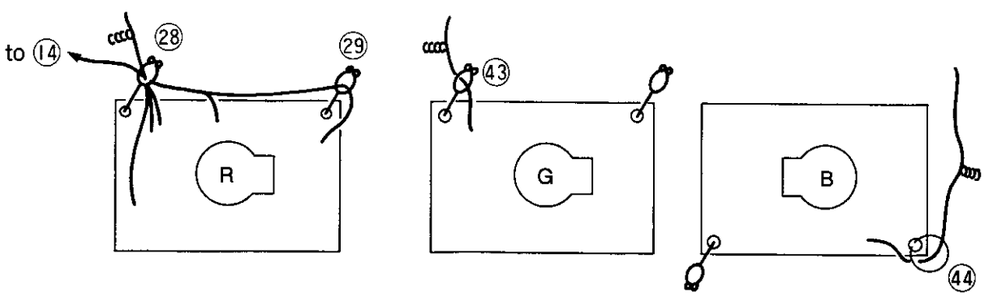


PCB-CONV.



PCB-MAIN

PCB-SIGNAL



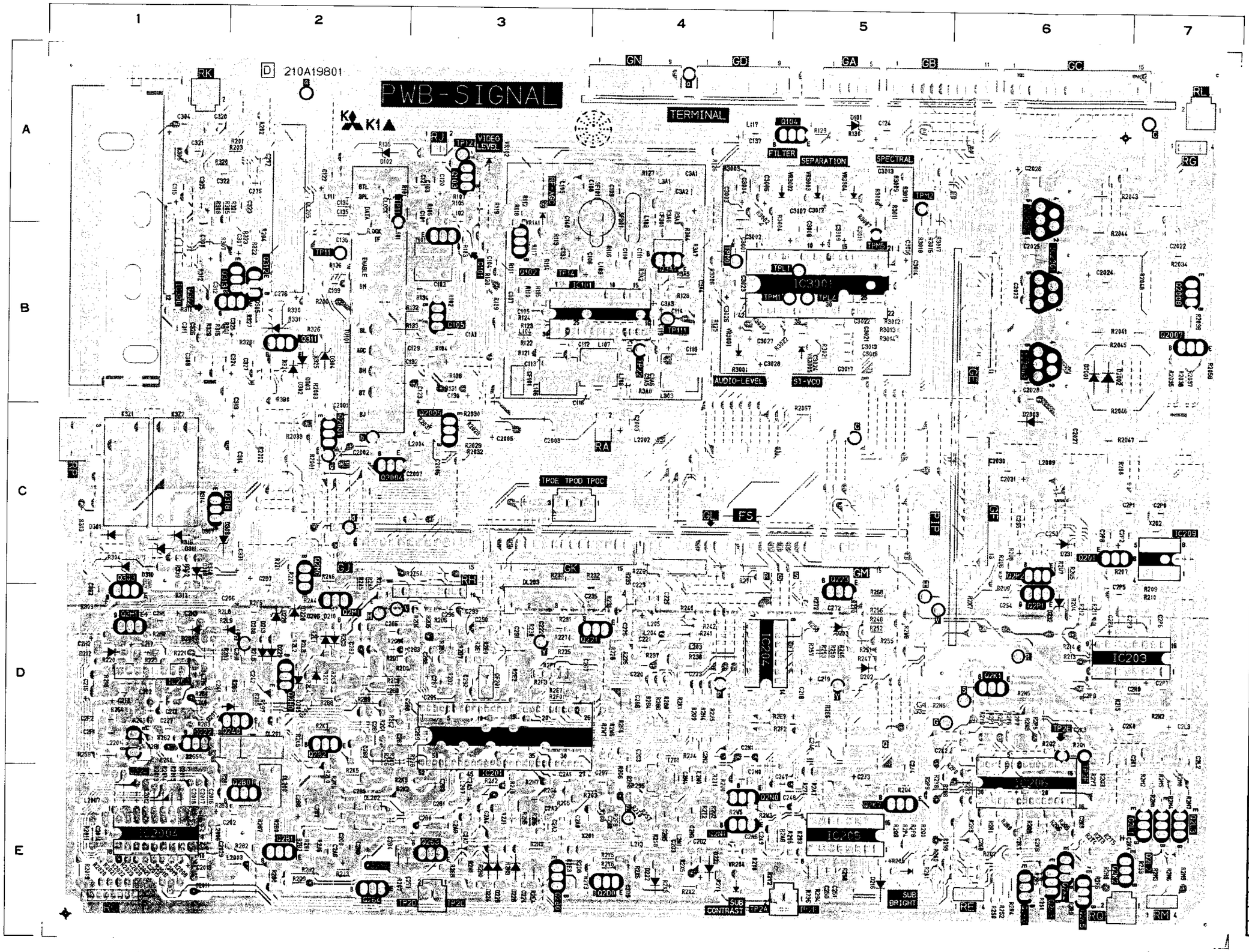
PCB-CRT

PCB-TERMINAL

CONNECTOR LEAD and WIRE HARNESS LIST FOR CLAMPER

No.	ITEM	LEAD CONNECTOR or WIRE HARNESS (W-H)
15	PCB-CONV	W-H② ,VU-SUB-DY(R), VY-SUB-DY(B)
16	PCB-CONV	VU-SUB-DY(R), VY-SUB-DY(B)
17	PCB-TERMINAL	W-H①, {W-H②, RA- [BUNDLE THE SURPLUS]} DJ-RJ, PK-RK
18	PCB-TERMINAL	DJ-RJ, PK-RK, RA
19	PCB-TERMINAL	W-H②, DJ-RJ, PK-RK
20	PCB-POWER-SUB	W-H②, DJ-RJ, PG-RG, PK-RK, RL (PASS TWICE)
21	PCB-POWER-SUB	W-H②, DJ-RJ, PG-RG, PK-RL(PASS THREE),PZ-DZ
22	PCB-POWER-SUB	W-H②, DJ-RJ, W-H③ , PZ-DZ
23	PCB-MAIN	W-H②, W-H③ , PZ-DZ
24	PCB-POWER-SUB	PB-DB, PA (PASS TWICE)
25	PCB-POWER-SUB	PB-DB, PA (PASS THREE TIMES)
26	PCB-POWER-SUB	PC (PASS TWICE)
27	PCB-POWER-SUB	PC (PASS TWICE)
28	PCB-CRT	W-H③, SA
29	PCB-CRT	W-H③
30	PCB-MAIN	PB-DB
31	PCB-MAIN	W-H②, DJ-RJ, PZ-DZ , W-H③
32	PCB-MAIN	W-H②
33	PCB-MAIN	W-H③
34	PCB-MAIN	W-H③
35	PCB-MAIN	W-H③
36	PCB-PCC	W-H③
37	PCB-PCC	W-H③
38	PCB-SIGNAL	W-H③, DH-RH, G-DY, B-DY (PASS TWICE 45",50", 6 R-DY (PASS TWICE 40")
39	PCB-SIGNAL	W-H③ (XY-BUNDLE THE SUR PLUS)
40	PCB-SIGNAL	DH-RH
41	PCB-SIGNAL	PG-RG, PK-RL
42	PCB-SIGNAL	W-H①, AN-RN
43	PCB-CRT	SA
44		SA
47		W-H②, DJ-RJ, PK-RK
50		R-GY,G-DY, B-DY(PASS THREE) DH-RH 45",50",60"

PCB-SIGNAL



PCB-SIGNAL

SYMBOL NO.	ADDRESS
CF101	B - 3
CF201	D - 3
CF301	B - 4
D101	A - 5
D102	A - 2
D201	D - 1
D202	D - 5
D203	D - 5
D204	D - 2
D205	D - 2
D206	D - 2
D208	D - 2
D209	D - 1
D210	D - 2
D212	D - 1
D213	D - 2
D216	E - 5
D220	D - 2
D222	E - 4
D223	E - 4
D224	E - 3
D225	E - 3
D226	E - 3
D228	D - 2
D229	D - 2
D231	C - 6
D232	D - 6
D301	C - 1
D302	B - 2
D303	B - 2
D304	B - 2
D305	B - 2
D307	C - 1
D308	C - 1
D309	C - 1
D310	C - 1
D311	C - 1
D2001	B - 6
D2002	B - 6
D2003	C - 6
DL200	E - 2
DL201	D - 2
DL202	E - 2
DL203	D - 3
DL205	A - 2
IC101	B - 3
IC201	D - 3
IC202	D - 1
IC203	D - 6
IC204	D - 4
IC205	E - 5
IC206	E - 5
IC209	C - 7
IC300	B - 1
IC2001	B - 6
IC2002	A - 6
IC2003	B - 6

3-SIGNAL

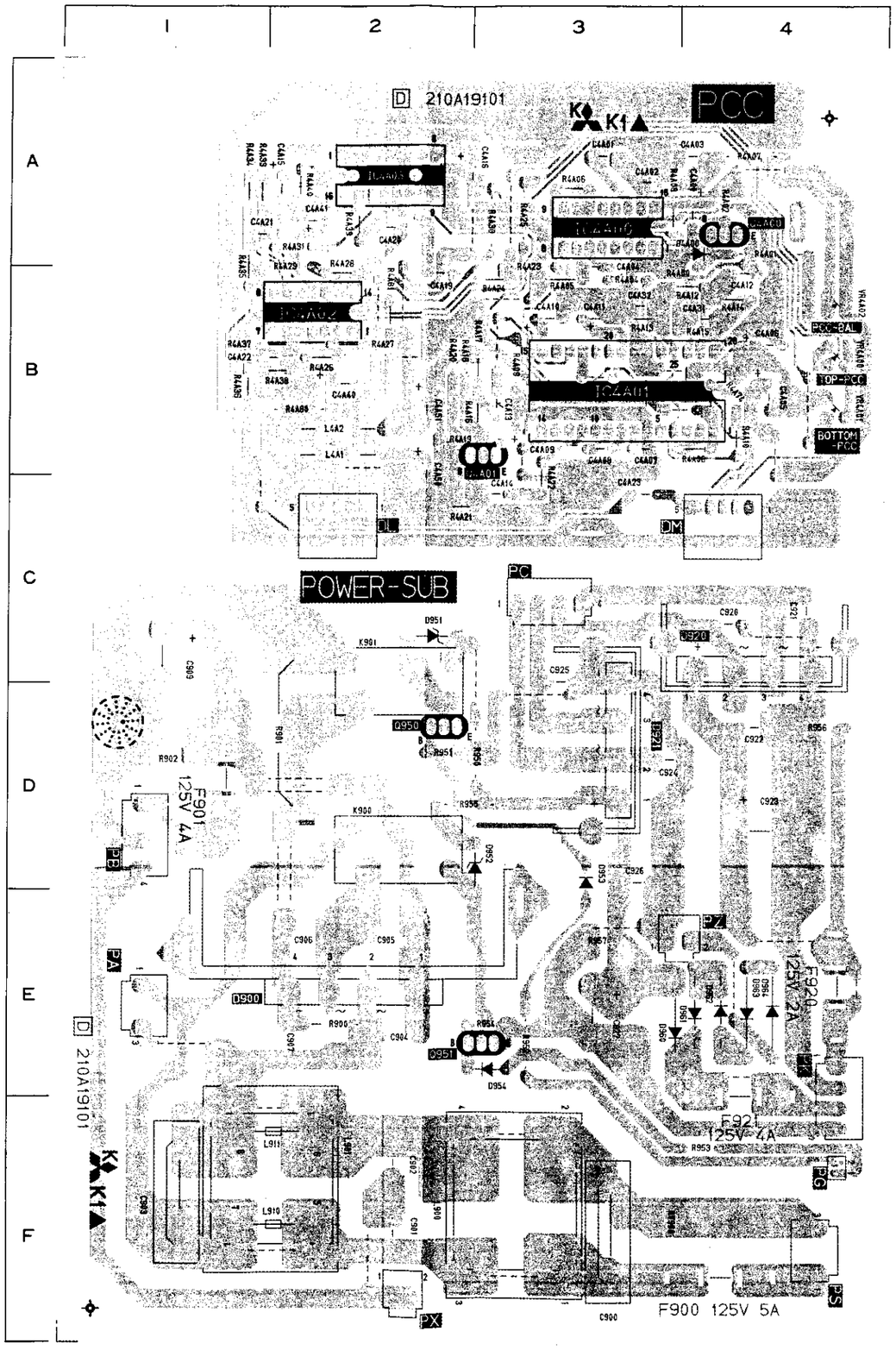
IBOL O.	ADDRESS
01	B – 3
01	D – 3
01	B – 4
1	A – 5
2	A – 2
1	D – 1
2	D – 5
3	D – 5
4	D – 2
5	D – 2
6	D – 2
8	D – 2
9	D – 1
0	D – 2
2	D – 1
3	D – 2
6	E – 5
0	D – 2
2	E – 4
3	E – 4
4	E – 3
5	E – 3
6	E – 3
8	D – 2
9	D – 2
1	C – 6
2	D – 6
1	C – 1
2	B – 2
3	B – 2
4	B – 2
5	B – 2
7	C – 1
8	C – 1
9	C – 1
0	C – 1
1	C – 1
01	B – 6
02	B – 6
03	C – 6
00	E – 2
01	D – 2
02	E – 2
03	D – 3
05	A – 2
1	B – 3
1	D – 3
2	D – 1
3	D – 6
4	D – 4
5	E – 5
6	E – 5
9	C – 7
0	B – 1
01	B – 6
02	A – 6
03	B – 6

SYMBOL NO.	ADDRESS
IC2004	E – 1
IC3001	B – 5
K3Z1	C – 1
K3Z2	C – 1
L101	A – 2
L102	A – 3
L103	A – 4
L104	B – 3
L105	A – 3
L106	B – 3
L107	B – 4
L108	B – 4
L109	B – 4
L111	A – 2
L117	A – 4
L202	D – 1
L203	D – 4
L204	D – 4
L205	D – 4
L207	E – 3
L212	D – 5
L213	E – 4
L220	D – 1
L2N0	E – 4
L2N1	E – 4
L303	B – 4
L3A1	A – 4
L2002	C – 4
L2003	E – 2
L2004	C – 3
L2006	E – 1
L2007	E – 1
L2009	C – 6
Q101	B – 3
Q102	B – 3
Q103	A – 3
Q104	A – 5
Q105	B – 3
Q201	C – 6
Q221	D – 4
Q222	D – 1
Q223	C – 5
Q224	D – 1
Q240	D – 2
Q263	E – 3
Q264	E – 2
Q280	E – 3
Q2B0	E – 2
Q2B1	E – 2
Q2B2	D – 2
Q2D0	E – 4
Q2H0	D – 2
Q2H1	D – 1
Q2K1	D – 6
Q2K2	E – 6
Q2K3	E – 6
Q2K4	E – 6

SYMBOL NO.	ADDRESS
Q2K5	E – 6
Q2K6	E – 6
Q2K7	E – 5
Q2L1	E – 7
Q2L2	E – 7
Q2L3	E – 7
Q2M0	C – 2
Q2M1	D – 2
Q2N0	E – 4
Q2N1	E – 4
Q2P1	C – 6
Q2P1	D – 6
Q302	B – 2
Q303	C – 1
Q311	B – 2
Q312	B – 2
Q313	B – 2
Q318	C – 1
Q3A1	B – 4
Q2001	C – 2
Q2004	C – 2
Q2005	C – 3
Q2007	B – 7
Q2008	B – 7
SF101	A – 4
SF301	A – 4
T101	B – 3
T201	E – 4
TP111	B – 4
TP11	A – 2
TP11	B – 2
TP12	A – 3
TP14	B – 3
TP22	B – 4
TP2A	E – 4
TP2B	E – 5
TP2C	E – 3
TP2D	E – 3
TP2E	D – 6
TP2F	D – 6
TPL1	B – 5
TPL4	B – 5
TPM0	B – 4
TPM1	B – 5
TPM2	A – 5
TPM5	B – 5
TU101	B – 2
VR102	A – 3
VR1A1	A – 3
VR204	E – 4
VR205	E – 5
VR3001	B – 4
VR3002	A – 5
VR3003	A – 5
VR3004	A – 5

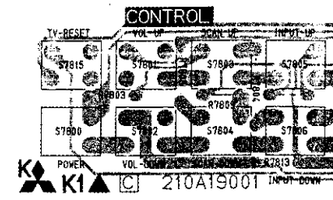
SYMBOL NO.	ADDRESS
VR3005	B – 5
X201	E – 3
X202	C – 7

PCB-PCC/POWER SUB



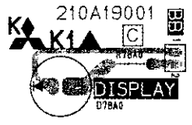
SYMBOL NO.	ADDRESS
D4A00	A – 4
D900	E – 1
D920	C – 4
D921	D – 3
D951	C – 2
D952	D – 3
D953	D – 3
D954	E – 3
D960	E – 3
D961	E – 4
D962	E – 4
D963	E – 4
D964	E – 4
F900	F – 3
F901	D – 1
F920	E – 4
F921	F – 4
IC4A00	A – 3
IC4A01	B – 3
IC4A02	B – 2
IC4A03	A – 2
K900	D – 2
K901	C – 2
L4A1	B – 2
L4A2	B – 2
L900	F – 2
L901	F – 2
L910	F – 2
L911	F – 2
Q4A00	A – 4
Q4A01	B – 2
Q950	D – 2
Q951	E – 3
VR4A00	B – 4
VR4A01	B – 4
VR4A02	B – 4

PCB-CONTROL



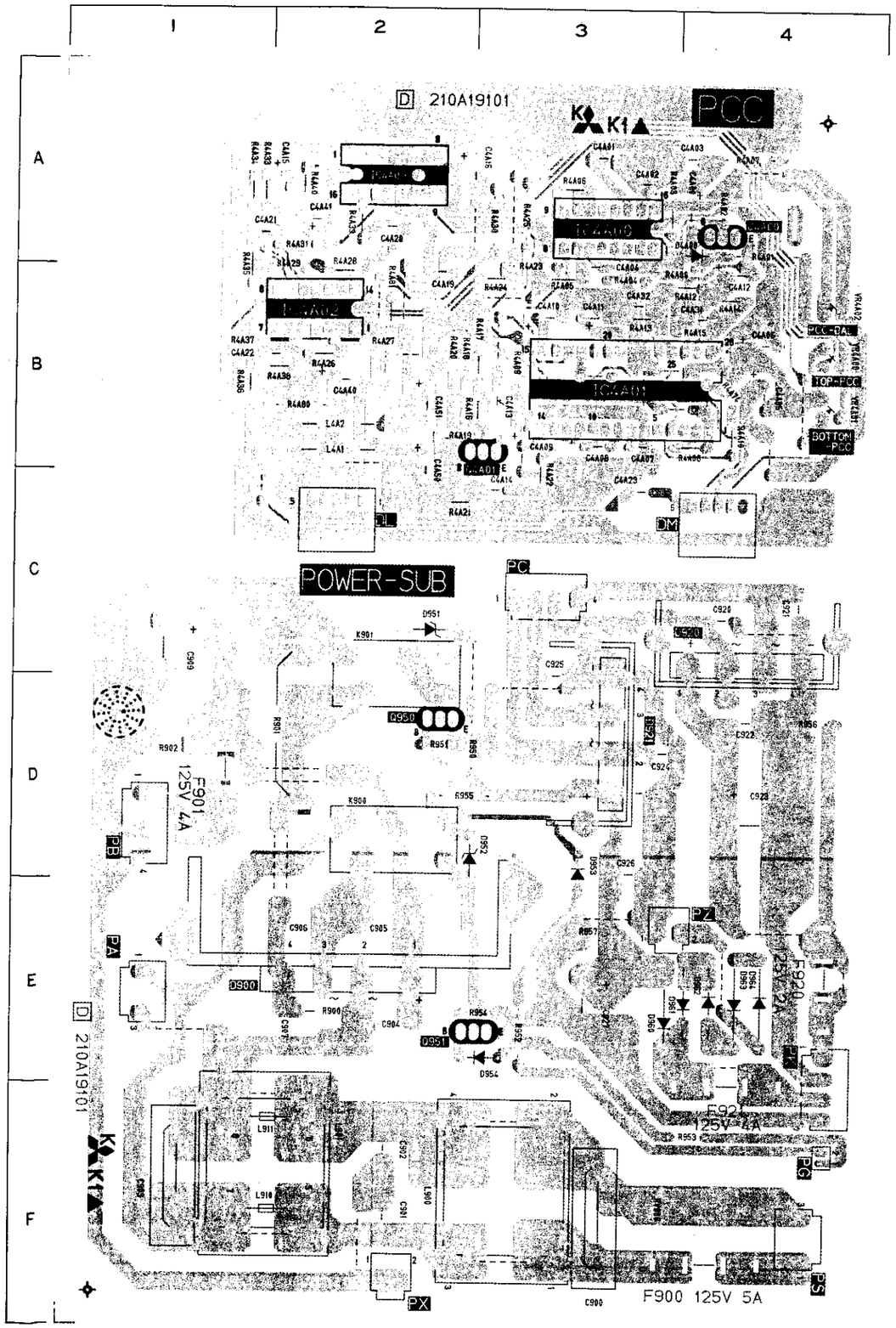
PCB-PREAMP

PCB-DISPLAY



	ADDRESS
5	B – 5
	E – 3
	C – 7

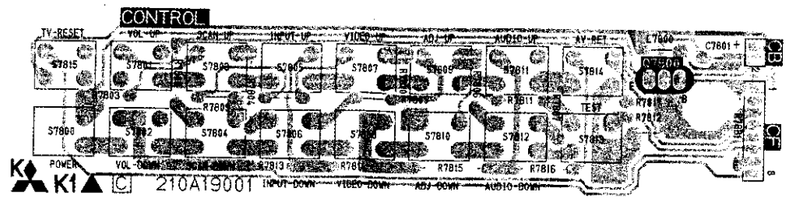
PCB-PCC/POWER SUB



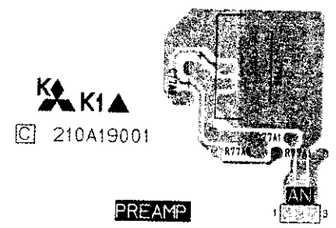
PCB-PCC/ POWER SUB

SYMBOL NO.	ADDRESS
D4A00	A – 4
D900	E – 1
D920	C – 4
D921	D – 3
D951	C – 2
D952	D – 3
D953	D – 3
D954	E – 3
D960	E – 3
D961	E – 4
D962	E – 4
D963	E – 4
D964	E – 4
F900	F – 3
F901	D – 1
F920	E – 4
F921	F – 4
IC4A00	A – 3
IC4A01	B – 3
IC4A02	B – 2
IC4A03	A – 2
K900	D – 2
K901	C – 2
L4A1	B – 2
L4A2	B – 2
L900	F – 2
L901	F – 2
L910	F – 2
L911	F – 2
Q4A00	A – 4
Q4A01	B – 2
Q950	D – 2
Q951	E – 3
VR4A00	B – 4
VR4A01	B – 4
VR4A02	B – 4

PCB-CONTROL



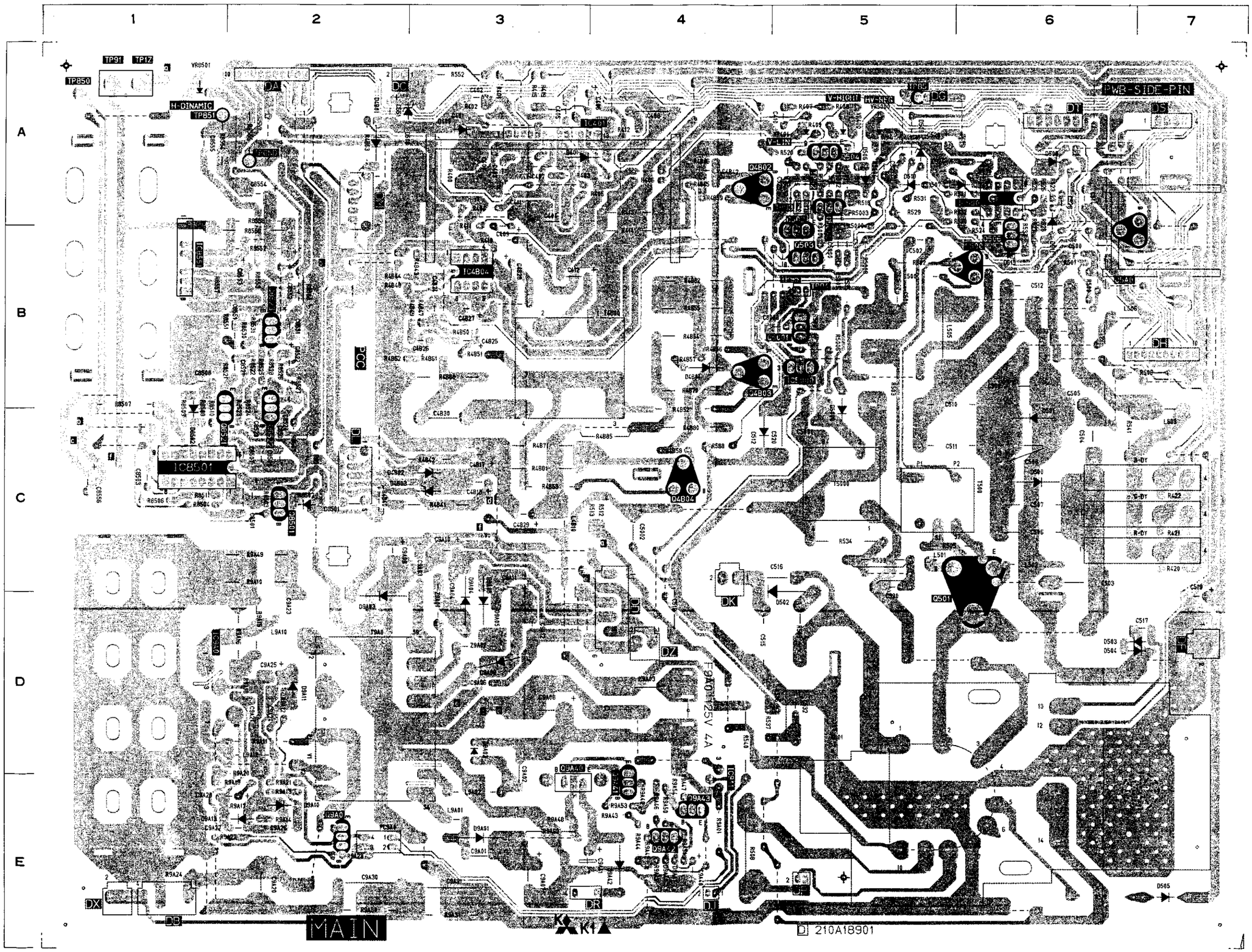
PCB-PREAMP



PCB-DISPLAY

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(5/6)

PCB-MAIN



PCB-MAIN

SYMBOL NO.	ADDRESS
D400	A – 3
D401	A – 3
D500	C – 6
D501	C – 6
D502	D – 4
D503	D – 6
D504	D – 6
D505	E – 7
D506	A – 5
D507	A – 6
D508	A – 6
D509	A – 5
D510	A – 5
D511	B – 6
D512	C – 4
D515	B – 6
D518	A – 2
D5000	B – 5
D8501	C – 2
D8502	C – 1
D4B01	A – 2
D4B02	C – 3
D4B03	C – 3
D4B04	B – 4
D9A01	E – 3
D9A02	D – 3
D9A03	D – 2
D9A04	D – 3
D9A05	D – 3
D9A06	D – 3
D9A10	E – 2
D9A11	D – 2
D9A13	E – 2
D9A40	E – 4
D9A41	E – 4
D9A42	E – 4
F9A0	D – 4
IC401	A – 3
IC5000	B – 5
IC500	A – 6
IC8501	C – 1
IC8551	B – 1
IC4B04	B – 3
IC9A0	D – 1
IC9A1	E – 4
L500	B – 6
L501	C – 5
L502	C – 6
L503	C – 7
L505	B – 6
L506	B – 7
L4B10	C – 3
L9A01	E – 3
L9A02	E – 3
L9A03	D – 4
L9A10	D – 2
L9A12	D – 2

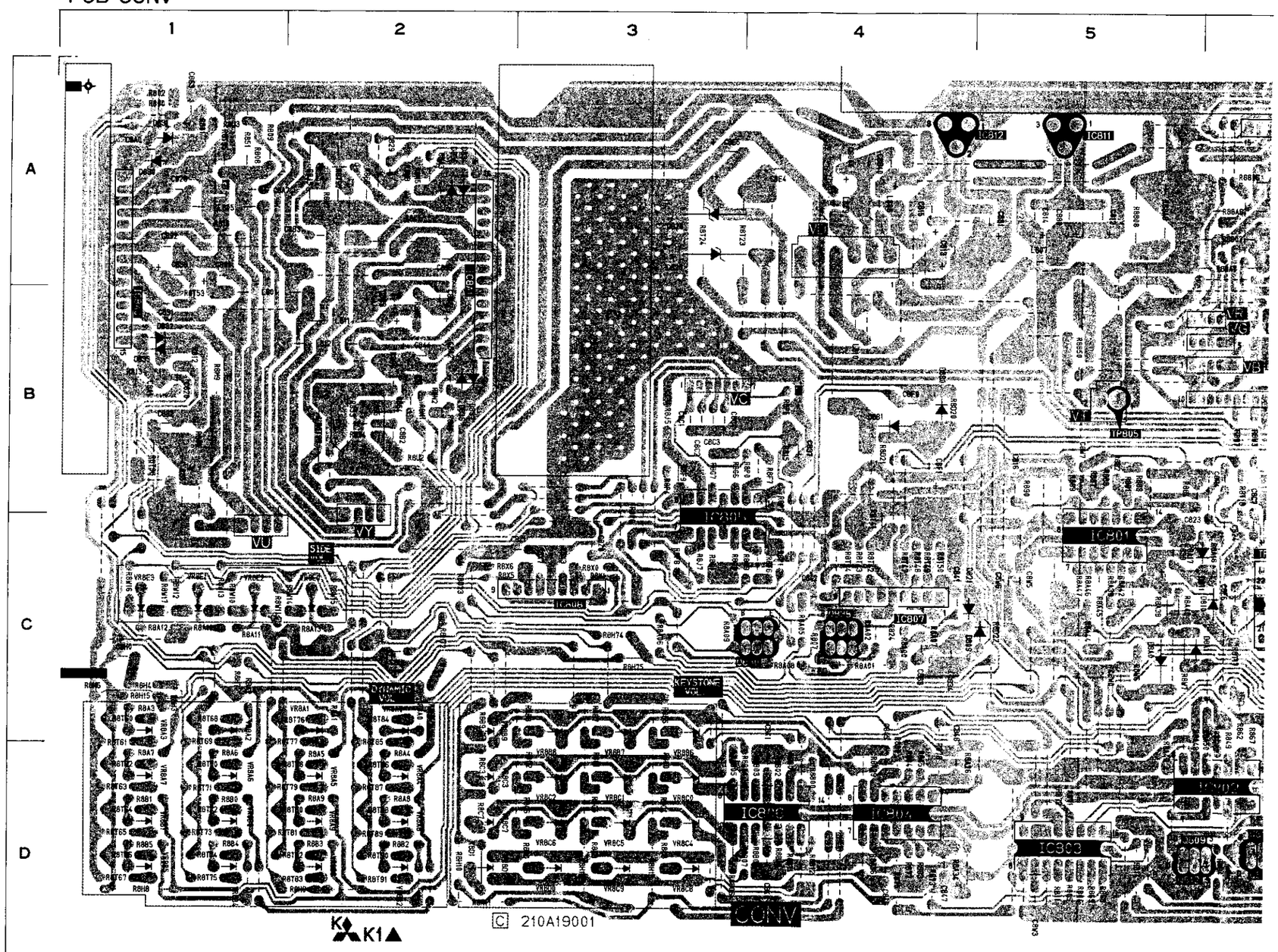
SYMBOL NO.	A
Q500	
Q501	
Q502	
Q503	
Q504	
Q506	
Q5000	
Q5001	
Q8501	
Q8521	
Q8522	
Q8523	
Q4B02	
Q4B03	
Q4B04	
Q5A0	
Q9A0	
Q9A40	
Q9A41	
Q9A42	
Q9A43	
T500	
T501	
T5000	
T4B00	
T9A0	
TP85	
TP91	
TP92	
TP93	
TP94	
TP95	
TP850	
TP851	
TP1Z	
TPGND	
VR400	
VR401	
VR5000	
VR8501	
Z9A01	
Z9A02	

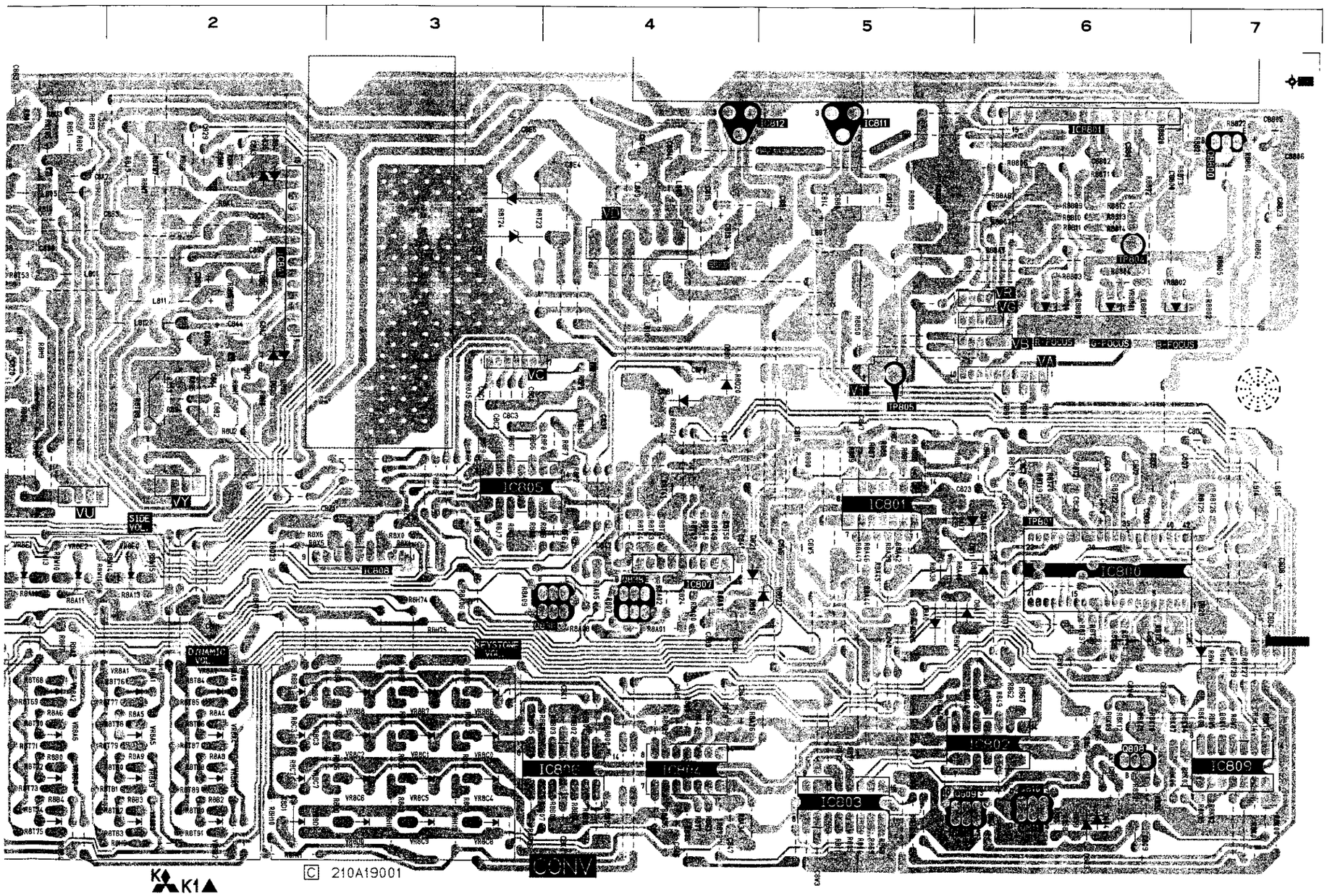
PCB-MAIN

SYMBOL NO.	ADDRESS
D400	A – 3
D401	A – 3
D500	C – 6
D501	C – 6
D502	D – 4
D503	D – 6
D504	D – 6
D505	E – 7
D506	A – 5
D507	A – 6
D508	A – 6
D509	A – 5
D510	A – 5
D511	B – 6
D512	C – 4
D515	B – 6
D518	A – 2
D5000	B – 5
D8501	C – 2
D8502	C – 1
D4B01	A – 2
D4B02	C – 3
D4B03	C – 3
D4B04	B – 4
D9A01	E – 3
D9A02	D – 3
D9A03	D – 2
D9A04	D – 3
D9A05	D – 3
D9A06	D – 3
D9A10	E – 2
D9A11	D – 2
D9A13	E – 2
D9A40	E – 4
D9A41	E – 4
D9A42	E – 4
F9A0	D – 4
IC401	A – 3
IC5000	B – 5
IC500	A – 6
IC8501	C – 1
IC8551	B – 1
IC4B04	B – 3
IC9A0	D – 1
IC9A1	E – 4
L500	B – 6
L501	C – 5
L502	C – 6
L503	C – 7
L505	B – 6
L506	B – 7
L4B10	C – 3
L9A01	E – 3
L9A02	E – 3
L9A03	D – 4
L9A10	D – 2
L9A12	D – 2

SYMBOL NO.	ADDRESS
Q500	B – 6
Q501	C – 6
Q502	A – 5
Q503	B – 5
Q504	A – 5
Q506	B – 6
Q5000	A – 5
Q5001	B – 5
Q8501	C – 2
Q8521	C – 2
Q8522	C – 2
Q8523	B – 2
Q4B02	A – 4
Q4B03	B – 4
Q4B04	C – 4
Q5A0	B – 7
Q9A0	E – 2
Q9A40	E – 3
Q9A41	E – 4
Q9A42	E – 4
Q9A43	E – 4
T500	C – 4
T501	D – 5
T5000	C – 4
T4B00	B – 3
T9A0	D – 2
TP85	A – 5
TP91	A – 1
TP92	A – 5
TP93	A – 5
TP94	B – 5
TP95	B – 5
TP850	A – 1
TP851	A – 1
TP1Z	A – 1
TPGND	A – 2
VR400	A – 5
VR401	A – 5
VR5000	A – 5
VR8501	A – 1
Z9A01	D – 3
Z9A02	D – 3

PCB-CONV



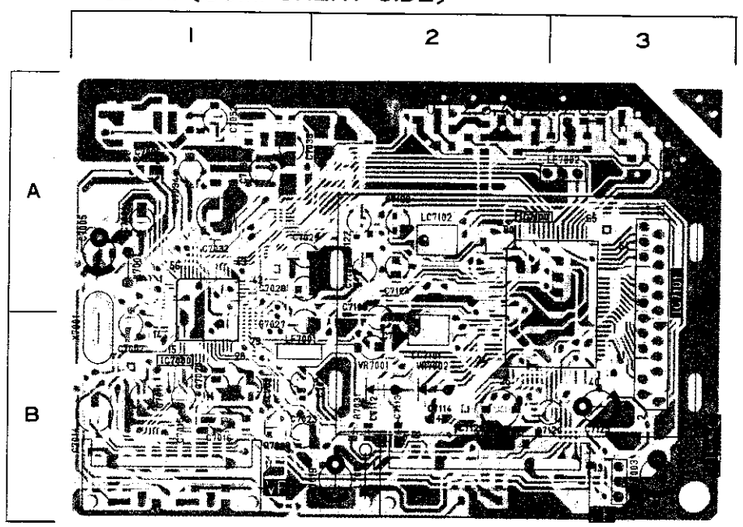


PCB-CONV

SYMBOL NO.	ADDRESS
D803	D – 6
D804	D – 6
D809	C – 5
D810	C – 5
D811	C – 5
D820	C – 7
D821	C – 4
D826	A – 3
D827	A – 3
D830	A – 1
D831	A – 1
D832	B – 1
D833	B – 1
D834	A – 2
D835	A – 2
D836	B – 2
D837	B – 2
D8A0	C – 5
D8A1	C – 5
D8B0	B – 4
D8B1	B – 4
IC800	C – 6
IC801	C – 5
IC802	D – 5
IC803	D – 5
IC804	D – 4
IC805	B – 3
IC806	D – 4
IC807	C – 4
IC808	C – 3
IC809	D – 6
IC811	A – 5
IC812	A – 4
IC8801	A – 6
IC8A0	A – 1
IC8A1	A – 2
L801	B – 1
L805	A – 1
L807	A – 5
L808	A – 4
L809	A – 4
L810	B – 4
L811	B – 2
L812	B – 2
L814	B – 7
L815	B – 7
Q808	D – 6
Q809	D – 6
Q810	D – 6
Q811	D – 6
Q812	D – 6
Q830	C – 4
Q838	C – 4
Q8800	A – 7
TP801	C – 6
TP804	A – 6

SYMBOL NO.	ADDRESS
TP805	B – 5
VR8A0	C – 2
VR8A1	C – 2
VR8A2	C – 1
VR8A3	C – 1
VR8A4	D – 2
VR8A5	D – 2
VR8A6	D – 1
VR8A7	D – 1
VR8A8	D – 2
VR8A9	D – 2
VR8B0	D – 1
VR8B1	D – 1
VR8B2	D – 2
VR8B3	D – 2
VR8B4	D – 1
VR8B5	D – 1
VR8B6	C – 3
VR8B7	C – 3
VR8B8	C – 3
VR8B9	C – 2
VR8C0	D – 3
VR8C1	D – 3
VR8C2	D – 3
VR8C3	D – 2
VR8C4	D – 3
VR8C5	D – 3
VR8C6	D – 3
VR8C7	D – 2
VR8C8	D – 3
VR8C9	D – 3
VR8D0	D – 3
VR8D1	D – 2
VR8E0	C – 2
VR8E1	C – 1
VR8E2	C – 1
VR8E3	C – 1
VR8800	B – 6
VR8801	B – 6
VR8802	B – 6

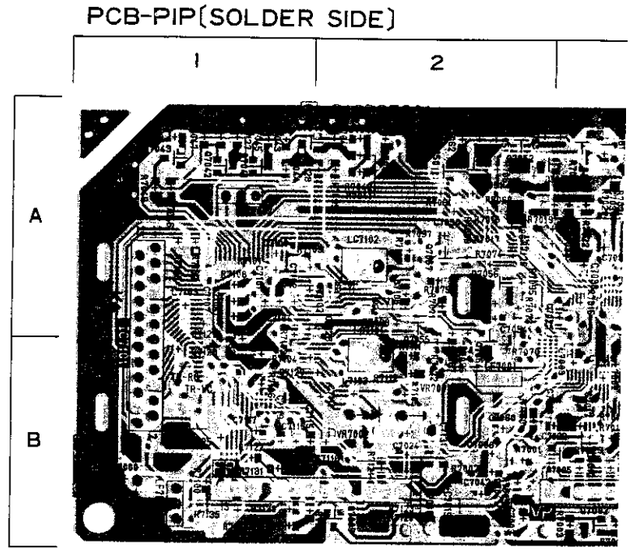
PCB-PIP(COMPONENT SIDE)



PCB-PIP(COMPONENT SIDE)

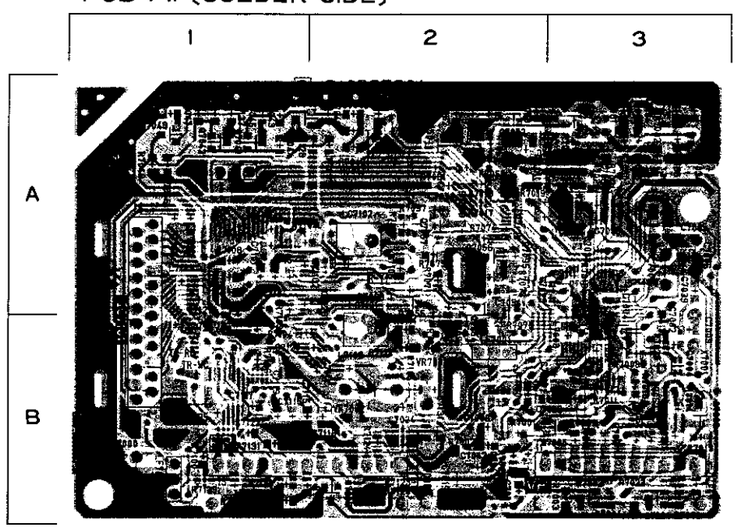
SYMBOL NO.	ADDRESS
C7001	A – 1
C7007	A – 1
C7011	B – 1
C7014	B – 1
C7015	B – 1
C7016	B – 1
C7020	A – 2
C7020	B – 1
C7021	B – 1
C7023	B – 2
C7026	B – 2
C7027	B – 2
C7029	A – 2
C7031	A – 1
C7032	A – 1
C7034	A – 1
C7036	A – 1
C7038	A – 1
C7052	A – 1
C7103	A – 2
C7108	B – 2
C7109	B – 2
C7112	B – 2
C7113	B – 2
C7114	B – 2
C7120	B – 2
C7122	A – 2
C7123	A – 2
C7124	A – 2
C7129	B – 2
IC7000	A – 1
IC7100	A – 3
IC7101	A – 3
L7000	B – 2
L7001	A – 1
LC7101	B – 2
LC7102	A – 2
LF7001	B – 2
LF7002	A – 3
LF7130	B – 3
Q7003	B – 1
R7031	B – 2
VR7001	B – 2
VR7002	B – 2
X7001	B – 1

PCB-PIP(SOLDER SIDE)



IENT SIDE]

PCB-PIP[SOLDER SIDE]



PCB-PIP[SOLDER SIDE]

SYMBOL NO.	ADDRESS
C7002	B – 3
C7003	B – 2
C7004	A – 3
C7005	A – 3
C7006	A – 3
C7008	B – 2
C7009	B – 3
C7010	B – 3
C7012	B – 3
C7018	B – 3
C7022	B – 3
C7024	B – 2
C7025	A – 3
C7030	A – 3
C7033	A – 3
C7035	A – 3
C7037	A – 3
C7039	A – 3
C7041	B – 2
C7042	B – 2
C7045	A – 2
C7046	A – 2
C7047	A – 1
C7050	A – 2
C7051	A – 2
C7053	A – 2
C7054	A – 2
C7055	A – 2
C7060	B – 2
C7100	A – 1
C7101	A – 1
C7102	A – 1
C7104	A – 1
C7105	A – 2
C7106	A – 1
C7107	A – 1
C7107	B – 3
C7110	B – 1
C7111	B – 1
C7115	B – 1
C7117	B – 1
C7118	B – 2
C7119	B – 1
C7121	A – 1
C7125	B – 1
C7126	A – 1
C7127	B – 1
C7128	B – 1
C7131	B – 2
D7001	A – 3
IC7101	A – 1
IC7116	B – 1
L7000	B – 2
L7001	A – 3
L7002	B – 3
L7003	B – 3
L7102	B – 2

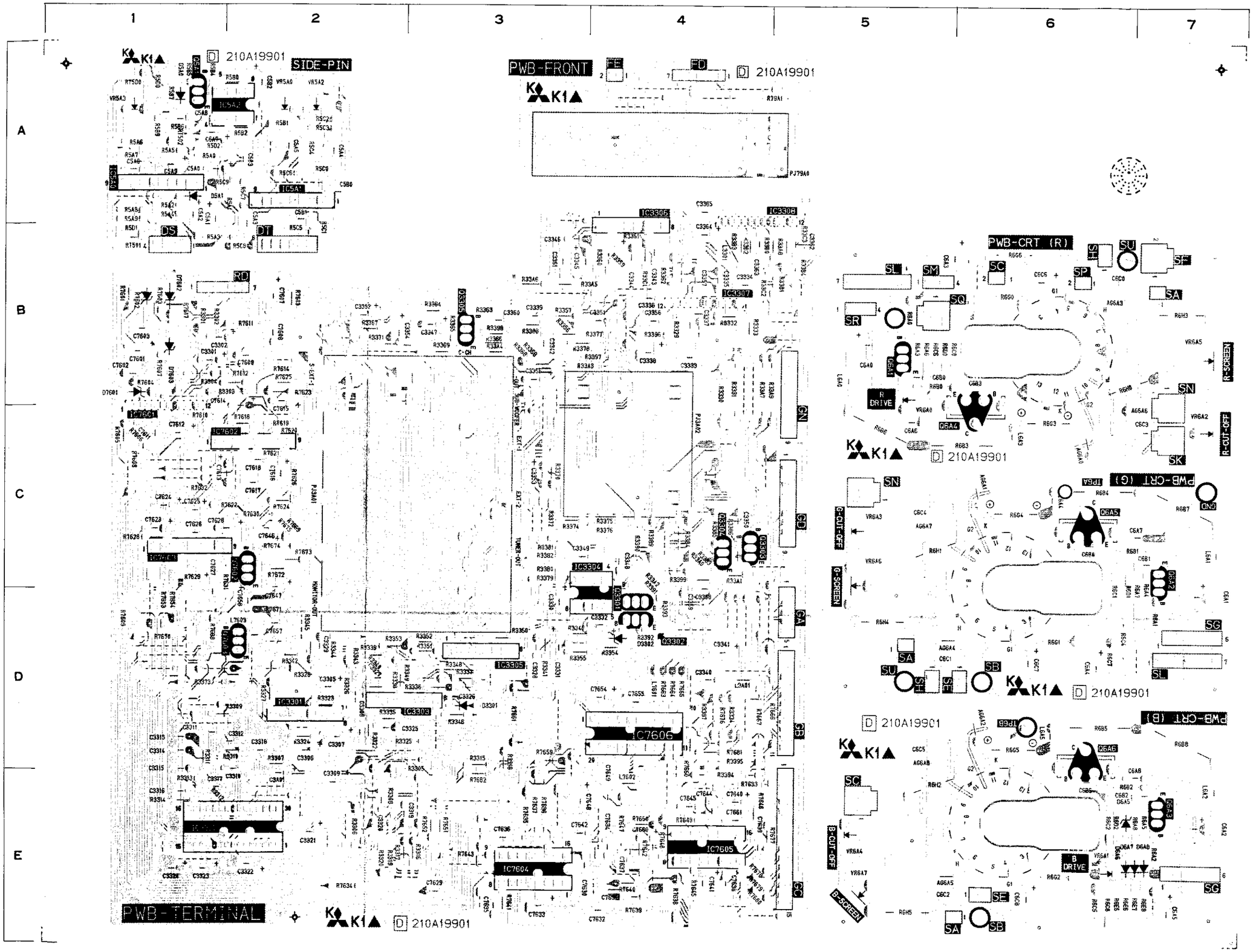
SYMBOL NO.	ADDRESS
L7103	A – 1
LC7101	B – 2
LC7102	A – 1
LF7000	B – 1
LF7001	B – 2
LF7002	A – 1
LF7003	B – 1
Q7001	B – 3
Q7002	B – 3
Q7004	B – 3
Q7005	B – 3
Q7006	B – 3
Q7007	B – 2
Q7040	A – 1
Q7041	A – 1
Q7042	A – 1
Q7043	A – 1
Q7050	A – 2
Q7051	A – 2
Q7052	A – 2
Q7053	A – 3
Q7054	A – 2
Q7055	A – 2
Q7056	A – 2
Q7057	A – 2
Q7058	A – 3
R7001	B – 2
R7002	B – 3
R7003	B – 3
R7004	B – 3
R7007	B – 2
R7008	B – 3
R7009	B – 2
R7010	B – 3
R7011	B – 3
R7012	B – 3
R7013	B – 3
R7014	B – 3
R7015	B – 3
R7016	A – 3
R7017	A – 2
R7018	A – 2
R7019	A – 3
R7020	A – 3
R7021	A – 3
R7022	A – 3
R7023	B – 3
R7024	B – 3
R7025	B – 2
R7026	B – 1
R7027	B – 3
R7028	B – 3
R7029	B – 3
R7034	A – 3
R7040	A – 2
R7041	A – 2

SYMBOL NO.	ADDRESS
R7042	A – 2
R7043	A – 1
R7044	A – 1
R7045	A – 1
R7046	A – 1
R7047	A – 1
R7048	A – 1
R7049	A – 1
R7050	B – 3
R7051	B – 3
R7052	B – 3
R7060	A – 2
R7061	A – 2
R7062	A – 2
R7063	A – 2
R7064	A – 2
R7065	A – 3
R7066	A – 2
R7067	A – 3
R7068	A – 3
R7070	B – 2
R7071	A – 2
R7072	B – 2
R7073	A – 2
R7074	A – 2
R7075	A – 2
R7080	A – 3
R7081	A – 3
R7082	A – 3
R7083	A – 3
R7084	A – 3
R7085	A – 3
R7086	A – 3
R7087	A – 2
R7088	A – 2
R7095	A – 2
R7096	A – 2
R7097	A – 2
R7098	A – 2
R7099	A – 2
R7100	B – 1
R7101	A – 1
R7102	A – 2
R7103	A – 1
R7104	B – 1
R7105	B – 2
R7106	B – 1
R7107	A – 2
R7108	A – 1
R7109	A – 1
R7111	B – 2
R7112	B – 2
R7121	B – 2
R7122	B – 1
R7123	B – 2
R7124	B – 2
R7125	A – 2
R7126	A – 2
R7127	A – 1
R7128	A – 1

SYMBOL NO.	ADDRESS
R7129	A – 1
R7130	B – 1
R7131	B – 1
R7132	A – 1
R7133	A – 1
R7134	B – 1
R7135	B – 1
R7150	B – 2
VR7001	B – 2
VR7002	B – 2
X7001	B – 3

VS-40VA2
VS-45VA1
VS-45VA2
VS-50VA1
VS-50VA2
VS-60VA2
VS-45VA2CA
VS-50VA2CA
VS-60VA2CA(6/6)

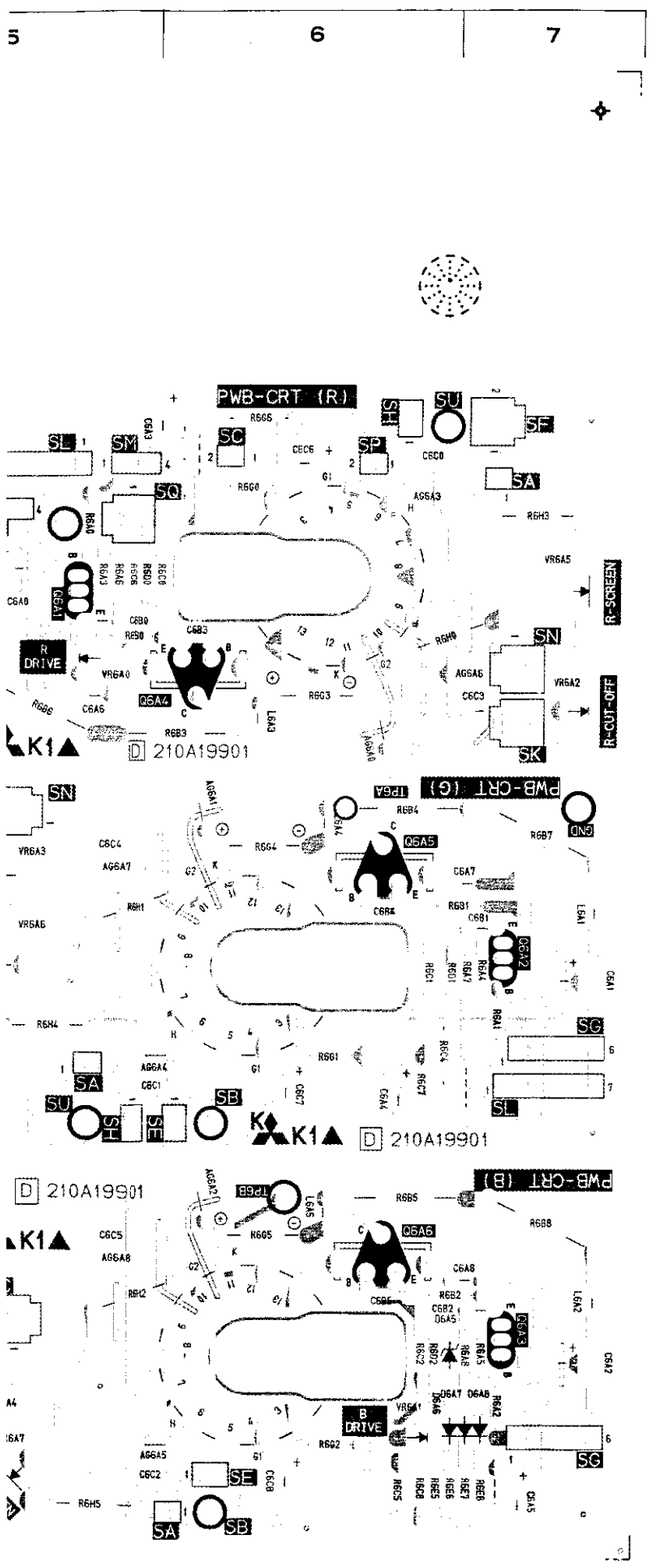
PCB-SIDE-PIN/TERMINAL/FRONT/FOR CRT



PCB-SIDE-PIN/TERMINAL

SYMBOL NO.	ADDRESS
D5A0	A – 1
D5A1	A – 1
D6A5	E – 6
D6A6	E – 6
D6A7	E – 7
D6A8	E – 7
D3301	D – 3
D3302	D – 4
D7601	B – 1
D7602	B – 1
D7603	B – 1
GND	C – 7
IC5A0	A – 1
IC5A1	A – 1
IC5A2	A – 1
IC3301	D – 2
IC3302	E – 1
IC3303	D – 2
IC3304	C – 4
IC3305	D – 3
IC3306	A – 4
IC3307	B – 4
IC3308	A – 4
IC7601	C – 1
IC7602	C – 2
IC7603	C – 1
IC7604	E – 3
IC7605	E – 4
IC7606	D – 4
L3A01	D – 4
L6A0	B – 5
L6A1	C – 7
L6A2	E – 7
L6A3	C – 6
L6A4	C – 6
L6A5	D – 6
L3301	B – 4
L7601	D – 4
L7602	E – 4
L7603	D – 2
Q5A1	A – 1
Q6A1	B – 5
Q6A2	C – 7
Q6A3	E – 7
Q6A4	C – 6
Q6A5	C – 6
Q6A6	D – 6
Q3301	D – 4
Q3302	D – 4
Q3303	C – 4
Q3304	C – 4
Q3305	B – 3
Q7602	C – 2
Q7603	D – 2
TP6A	C – 6

SYMBOL NO.	AD
TP6B	
VR5A0	
VR5A2	
VR5A3	
VR6A0	
VR6A1	
VR6A2	
VR6A3	
VR6A4	
VR6A5	
VR6A6	
VR6A7	

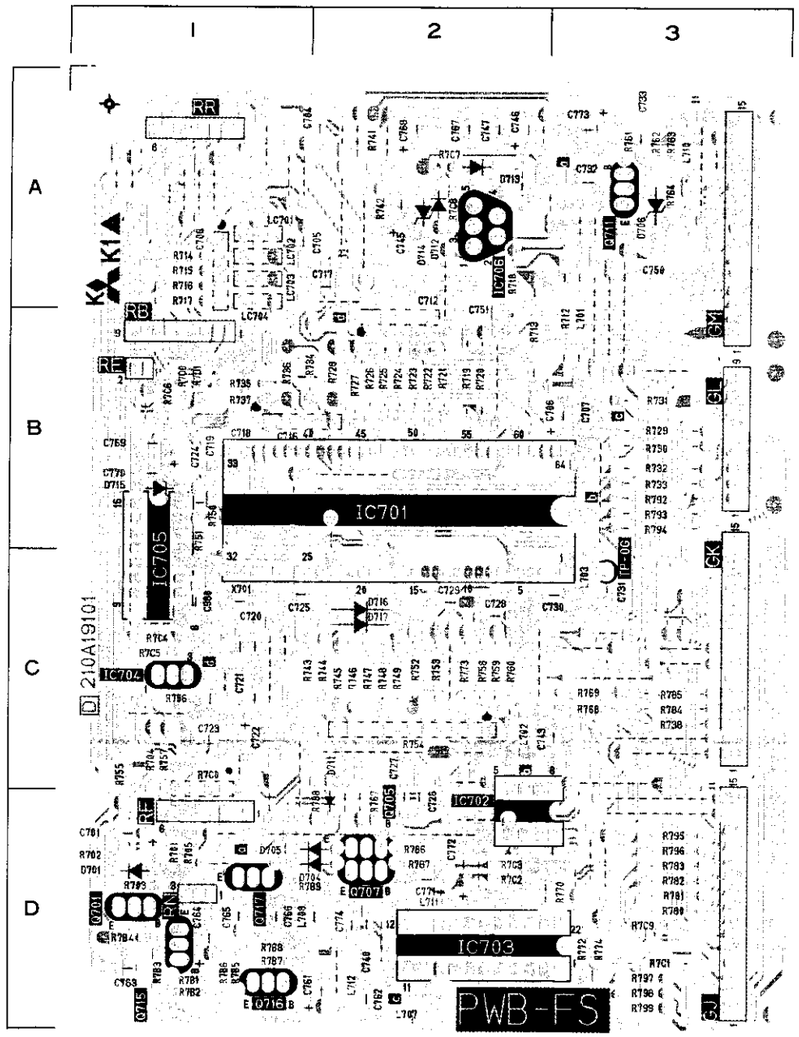


PCB-SIDE-PIN/TERMINAL/FRONT/FOR CRT

SYMBOL NO.	ADDRESS
D5A0	A – 1
D5A1	A – 1
D6A5	E – 6
D6A6	E – 6
D6A7	E – 7
D6A8	E – 7
D3301	D – 3
D3302	D – 4
D7601	B – 1
D7602	B – 1
D7603	B – 1
GND	C – 7
IC5A0	A – 1
IC5A1	A – 1
IC5A2	A – 1
IC3301	D – 2
IC3302	E – 1
IC3303	D – 2
IC3304	C – 4
IC3305	D – 3
IC3306	A – 4
IC3307	B – 4
IC3308	A – 4
IC7601	C – 1
IC7602	C – 2
IC7603	C – 1
IC7604	E – 3
IC7605	E – 4
IC7606	D – 4
L3A01	D – 4
L6A0	B – 5
L6A1	C – 7
L6A2	E – 7
L6A3	C – 6
L6A4	C – 6
L6A5	D – 6
L3301	B – 4
L7601	D – 4
L7602	E – 4
L7603	D – 2
Q5A1	A – 1
Q6A1	B – 5
Q6A2	C – 7
Q6A3	E – 7
Q6A4	C – 6
Q6A5	C – 6
Q6A6	D – 6
Q3301	D – 4
Q3302	D – 4
Q3303	C – 4
Q3304	C – 4
Q3305	B – 3
Q7602	C – 2
Q7603	D – 2
TP6A	C – 6

SYMBOL NO.	ADDRESS
TP6B	D – 6
VR5A0	A – 1
VR5A2	A – 1
VR5A3	A – 1
VR6A0	B – 5
VR6A1	E – 6
VR6A2	C – 7
VR6A3	C – 5
VR6A4	E – 5
VR6A5	B – 7
VR6A6	C – 5
VR6A7	E – 5

PCB-FS



PCB-FS

SYMBOL NO.	ADDRESS
D701	D – 1
D704	D – 1
D705	D – 1
D706	A – 3
D711	D – 2
D712	A – 2
D713	A – 2
D714	A – 2
D715	B – 1
D716	C – 2
D717	C – 2
IC701	B – 2
IC702	D – 2
IC703	D – 2
IC704	C – 1
IC705	B – 1
IC706	A – 2
L701	B – 3
L702	C – 2
L707	D – 2
L708	D – 1
L710	A – 3
L711	D – 2
L712	D – 2
LC701	A – 1
LC702	A – 1
LC703	A – 1
LC704	A – 1
Q701	D – 1
Q705	D – 2
Q707	D – 2
Q711	A – 3
Q715	D – 1
Q716	D – 1
Q717	D – 1
TP – 0G	C – 3
X701	C – 1