

# KV-27XBR95S / 32XBR95S

## RM-Y114

## SERVICE MANUAL



(Photo : KV-32XBR95S)

### US Model

KV-27XBR95S

Chassis No. SCC-F16G-A

KV-32XBR95S

Chassis No. SCC-F16C-A

### Canadian Model

KV-27XBR95S

Chassis No. SCC-F17F-A

KV-32XBR95S

Chassis No. SCC-F17B-A

## FN CHASSIS

### MODELS OF THE SAME SERIES

KV-27XBR95S/32XBR95S	
KV-27XBR25/32XBR25	
KV-27XBR35/32XBR35	

### SPECIFICATIONS

Television system American TV standards  
 Channel coverage VHF: 2-13  
 UHF: 14-69  
 CABLE TV: 1-125

Picture tube Microblack™ Trinitron® tube  
 27-inch picture measured diagonally  
 29-inch picture tube measured diagonally  
 (KV-27XBR95S)  
 32-inch picture measured diagonally  
 34-inch picture tube measured diagonally  
 (KV-32XBR95S)

Antenna 75 ohm external antenna  
 terminal for VHF/UHF

Input jacks VIDEO IN 1, 2 and 3  
 S VIDEO IN (4-pin mini DIN)  
 Y: 1 Vp-p, 75-ohms unbalanced,  
 sync negative  
 C: 0.286 Vp-p (Burst signal)  
 75-ohms  
 Video (phono jacks): 1 Vp-p, 75-ohms  
 unbalanced, sync negative  
 Audio (phono jacks):  
 500 mVrms (100% modulation)  
 Impedance: 47 kilohms  
 SIRCS (mini jack) 5 Vp-p

#### Output jacks

#### MONITOR OUT

##### S VIDEO MONITOR OUT

(4-pin mini DIN)

Y: 1 Vp-p, 75-ohms

unbalanced, sync negative

Video (phono jacks): 1 Vp-p, 75-ohms

unbalanced, sync negative

Audio (phono jacks): 500 mVrms

(100% modulation)

Impedance: 10 kilohms

SIRCS (mini jack) 5 Vp-p

##### AUDIO OUT (VARIABLE)

(phono jacks)

More than 900 mVrms (100% modulation) at the maximum volume setting (variable)

Impedance: 5 kilohms

##### AUDIO OUT

(phono jacks)

900 mVrms (100% modulation)

Impedance: 5 kilohms

- Continued on next page -

TRINITRON® COLOR TV  
**SONY®**



Speaker output FRONT : 13W×2 (8 ohms)  
REAR : 6.5W×2 (8 ohms)

Speaker size Tweeter 57 mm (2<sup>1</sup>/<sub>4</sub> in.)×2 units (FRONT)  
Tweeter 57 mm (2<sup>1</sup>/<sub>4</sub> in.)×2 units (SIDE)  
Woofer 130 mm (5<sup>1</sup>/<sub>8</sub> in.)×2 units

Audio frequency response Tweeter 250Hz-20kHz  
Woofer 40Hz-250Hz

Power requirements 120 V AC, 60 Hz

Power consumption 270W

Dimensions (w/h/d) (KV-27XBR95S)  
w/speakers: 894×560×532 mm  
(35<sup>1</sup>/<sub>4</sub>×22<sup>1</sup>/<sub>8</sub>×21 inches)  
w/o speakers: 684×560×532 mm  
(26<sup>7</sup>/<sub>8</sub>×22<sup>1</sup>/<sub>8</sub>×21 inches)  
(KV-32XBR95S)  
w/speakers: 1000×663.5×586 mm  
(39<sup>3</sup>/<sub>8</sub>×26<sup>1</sup>/<sub>8</sub>×23<sup>1</sup>/<sub>8</sub> inches)  
w/o speakers: 794×663.5×586 mm  
(31<sup>3</sup>/<sub>8</sub>×26<sup>1</sup>/<sub>8</sub>×23<sup>1</sup>/<sub>8</sub> inches)  
Speaker (1): 100×480×305 mm  
(4×19×12<sup>1</sup>/<sub>8</sub> inches)

Weight (KV-27XBR95S)  
w/speakers: 62.6 kg (138 lb 1/8 oz)  
w/o speakers: 52 kg (114 lb 11 oz)  
(KV-32XBR95S)  
w/speakers: 86.2 kg (190 lb 1 oz)  
w/o speakers: 75.6 kg (166 lb 11 oz)  
Speaker (1): 5 kg (11 lb 1 oz)

Supplied accessories Remote Commander RM-Y114 (1)  
with 2 size AA (R6)  
EVEREADY batteries  
Detachable speaker parts  
— Speaker boxes (L/R)  
— Speaker box brackets (L/R)  
— Protective pads (8)  
— Bolts (8)  
— Speaker cords (2)

Optional accessories U/V mixer EAC-66  
Connecting cable  
RK-74A  
VMC-810S/820S  
YC-15V/30V  
TV stand SU-27XBR3  
(KV-27XBR95S)  
TV stand SU-32XBR3  
(KV-32XBR95S)

Design and specifications are subject to change without notice.

**(CAUTION)**

SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR CARBON PAINTED ON THE CRT, AFTER REMOVING THE ANODE.

**WARNING!!**

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

**SAFETY-RELATED COMPONENT WARNING !!**

COMPONENTS IDENTIFIED BY SHADING AND MARK  $\Delta$  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

**(ATTENTION)**

APRES AVOIR DECONNECTE LE CAP DE L'ANODE, COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE L'APPAREIL, OU AU COUCHE DE CARBONE PEINTE SUR LE TUBE CATHODIQUE OU AU BLINDAGE DU TUBE CATHODIQUE.

**ATTENTION!!**

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHASSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS DE TOUT DEPANNAGE. LE CHASSIS DE CE RECEPTEUR EST DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.

**ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!**

LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE MAPQUE  $\Delta$  SUR LES SCHEMAS DE PRINCIPE, LES VUES EXPLOSEES ET LES LISTES DE PIECES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY. LES REGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRESENT MANUEL. SUIVRE CES PROCEDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTE.

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## SAFETY CHECK-OUT

(US Model only)

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

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any). Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

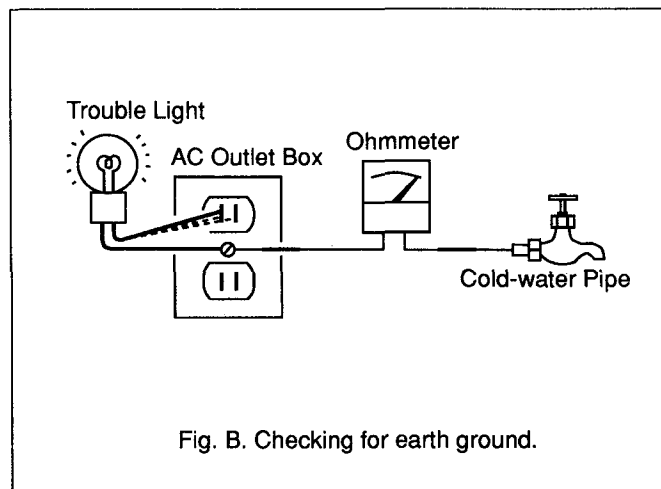
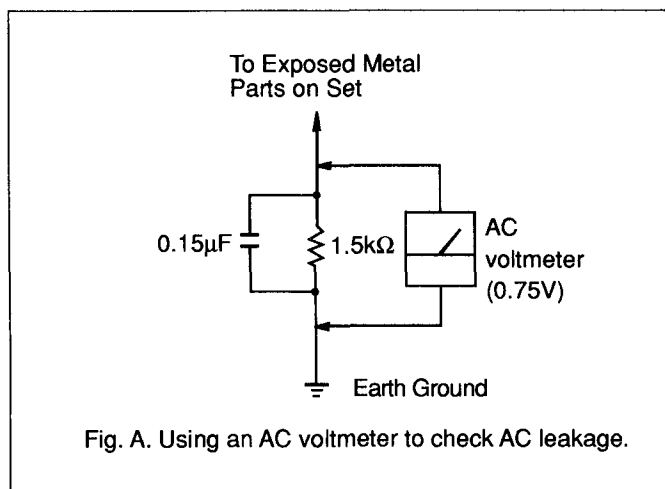
### LEAKAGE

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

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

### HOW TO FIND A GOOD EARTH GROUND

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





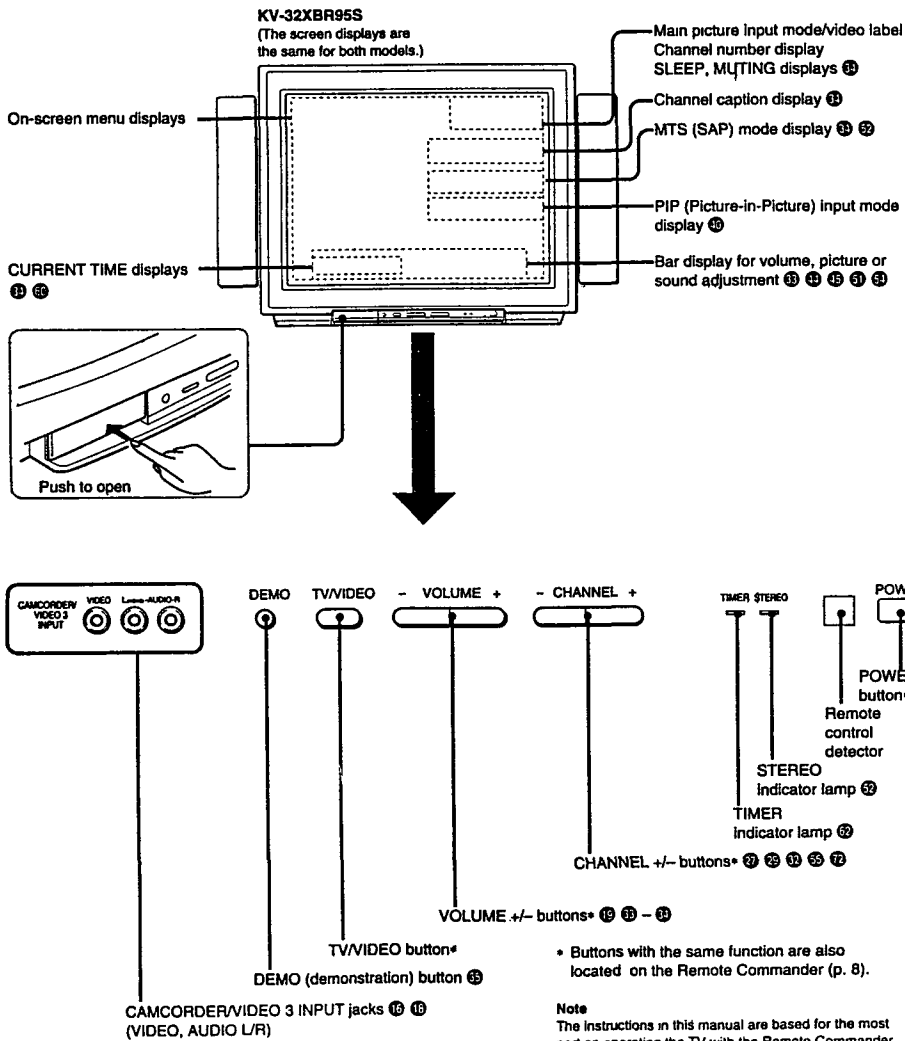
# SECTION 1 GENERAL

This section is extracted from instruction manual.

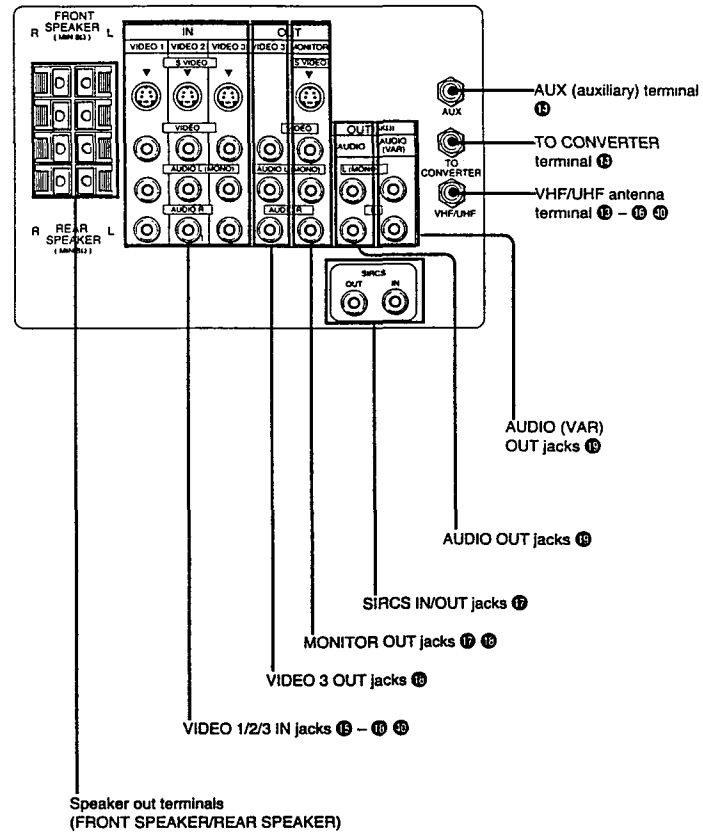
## 1-1. LOCATING CONTROLS AND CONNECTORS

For details, see the pages indicated by the numbered black circles ●.

Front

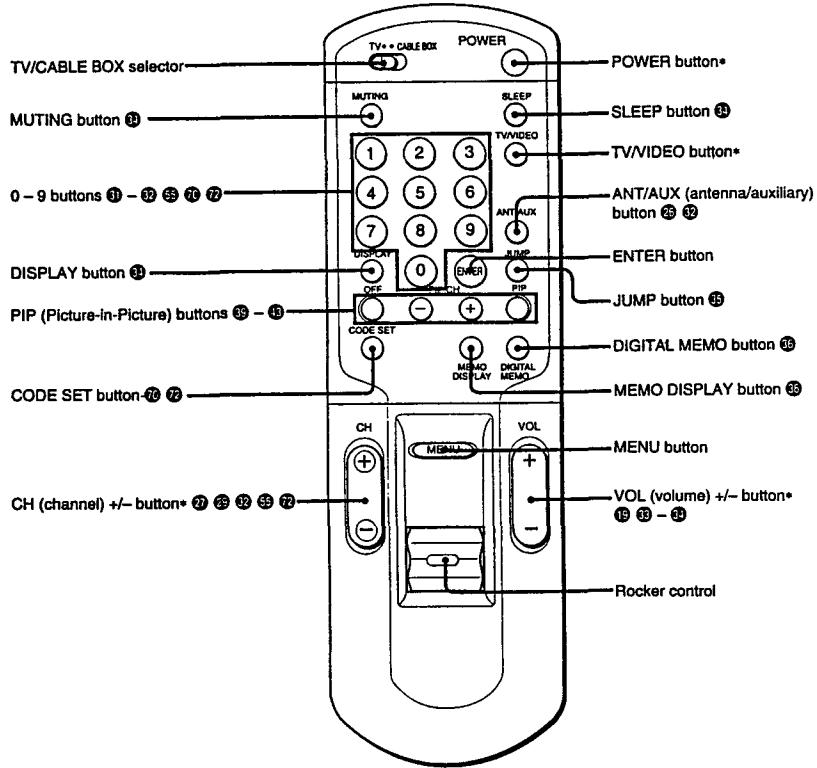


Rear

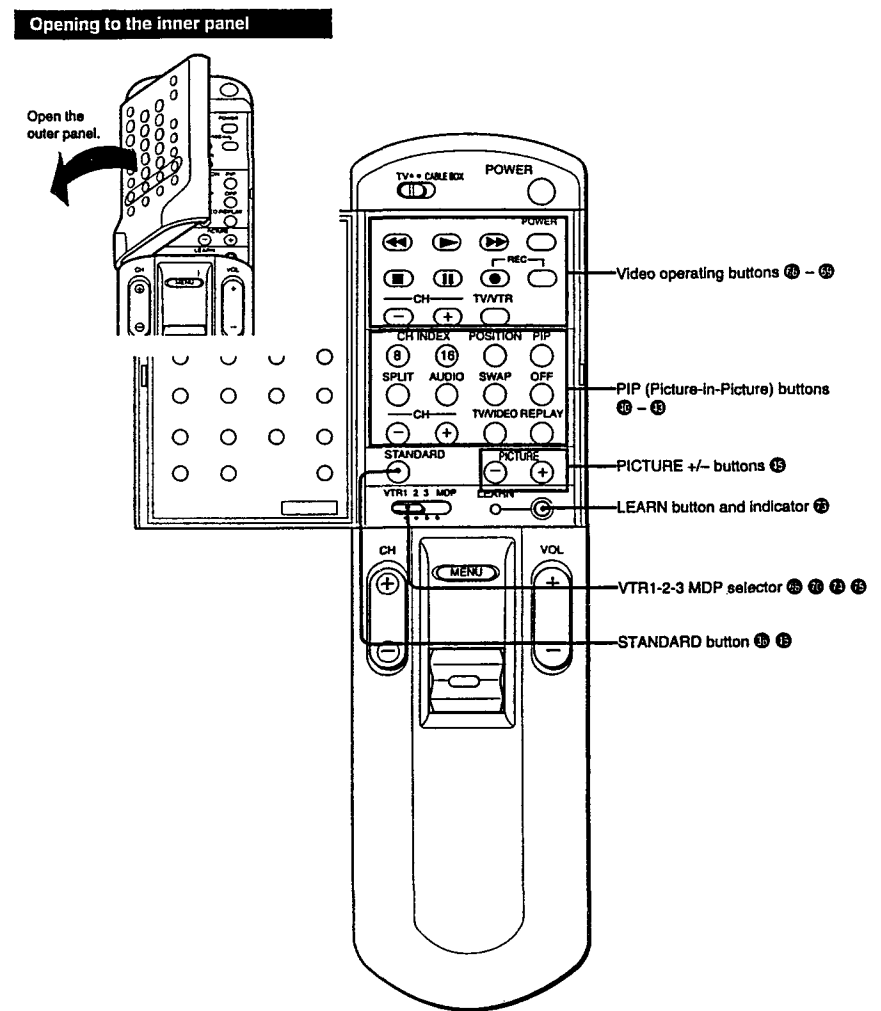


Locating Controls and Connectors

**Remote Commander RM-Y114 (Outer panel controls)**



**Remote Commander (Inner panel controls)**

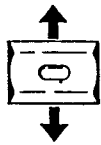


Launching Controls and Connectors

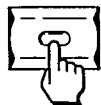
**Using the rocker control**

Use the rocker control to make on-screen menu selections (see p. 22).

Press the control up or down to make a selection.



Click the control to execute the selection.

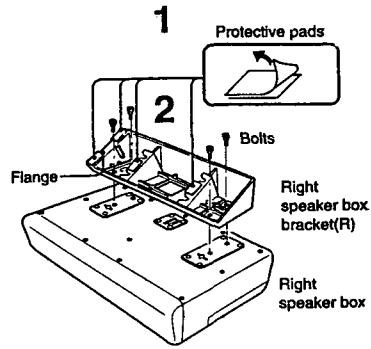


\* Buttons with the same function are also located on the TV (p. 6).

**Note**  
If the TV/CABLE BOX selector is set to CABLE BOX, the Remote Commander is able to control a connected cable box, not the TV (p. 72). Set the selector to TV to control the TV with the Remote Commander.

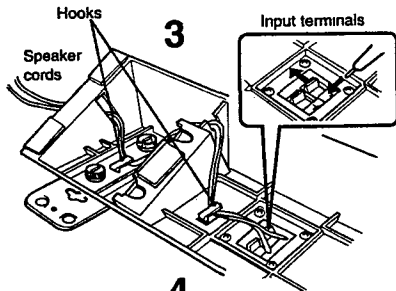
## 1-2. INSTALLING THE DETACHABLE SPEAKERS

Follow these instructions to assemble and install the detachable speakers (left and right sides) to the TV. Other installation examples appear on the next page. After installing the speakers, make sure **SPEAKER** is set to "ON" (p. 53).

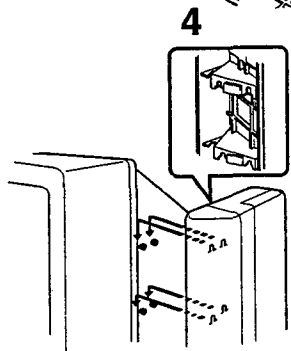


- 1 To install the right speaker box, remove the backing from four protective pads, and attach the pads to the right speaker box bracket (R) as shown.

- 2 Place the right speaker box bracket on the right speaker box as shown, with the bracket flange on the bottom, and the four holes aligned; then insert and tighten the four bolts.



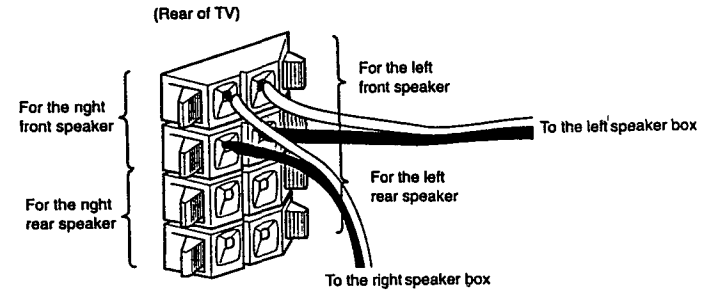
- 3 Attach the speaker cords to the input terminals on the speaker box, matching the cord and terminal colors. Then insert the cords under the hooks.



- 4 Install the speaker box to the right side of the TV.

- 5 Repeat steps 1 – 4 to assemble and install the left speaker box; then follow the instructions on the next page to connect the speaker cords to the TV.

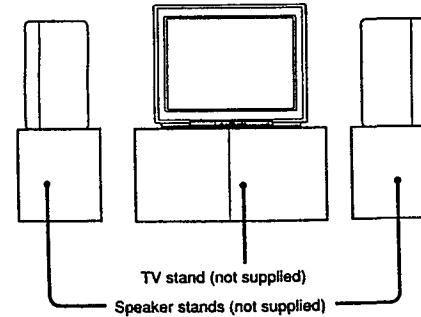
### Connecting the speaker cords to the TV



**Caution**  
Always match the speaker cord and terminal colors when making the connection.

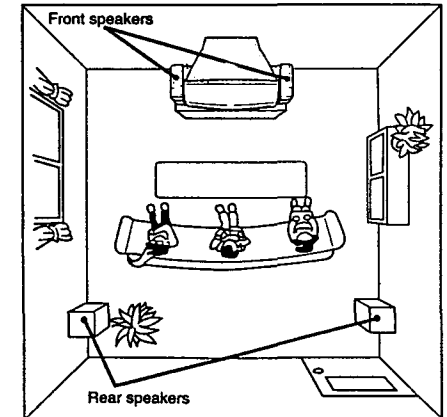
### Using the speakers detached from the TV

You can place the speakers on speaker stands (not supplied) rather than attaching them to the TV. Be sure to position the speaker boxes as shown.



### Connecting optional speakers

You can connect optional speakers mounted to a rear wall to create a surround effect. After connecting the rear speakers, set **REAR SPEAKER** to "YES" (p. 54).

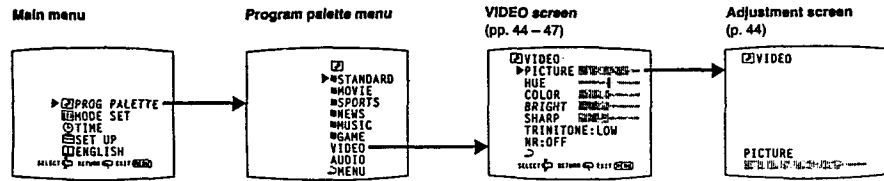


Installing the Detachable Speakers

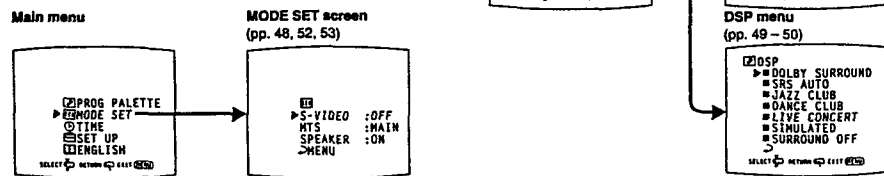
# 1-3. USING THE ON-SCREEN MENUS

The following flow chart shows the different levels of on-screen menus that you can use to make various adjustments and settings. See the indicated pages for instructions on using each feature.

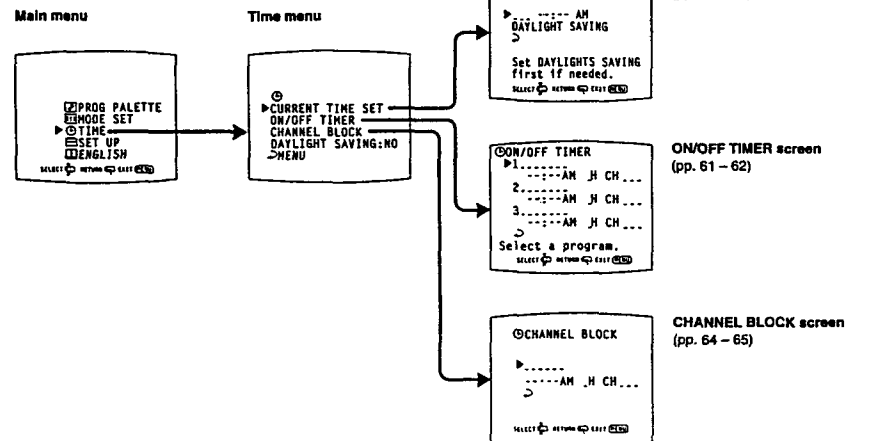
## For picture and sound quality adjustment



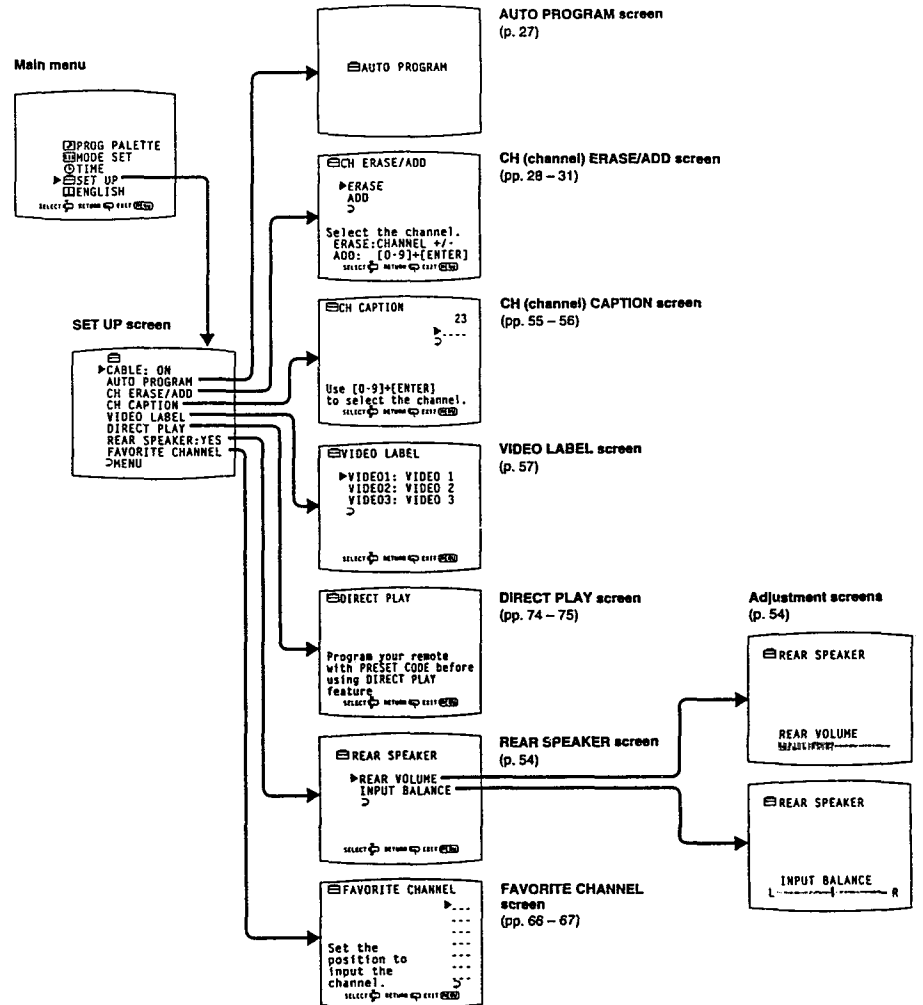
## For mode adjustment



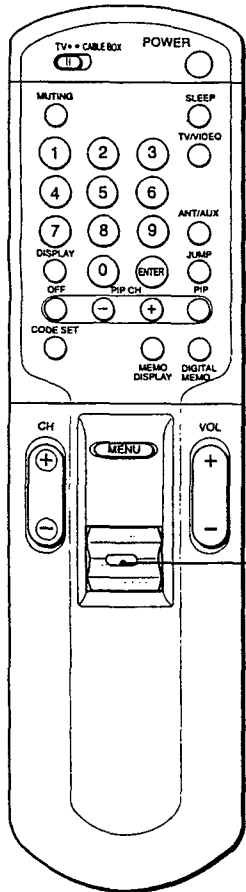
## For time-related settings



## For presetting and other functions



Using the On-Screen Menus



Rocker control

### Navigating through the menus

**To display the main menu**  
Press MENU.

**To return to the previous menu**

Press the rocker control up or down until the cursor points to "➔ MENU." Then click the rocker control.

**To return to the main menu**

Repeat the above, until you reach the main menu.

**To return to the normal screen**

Press MENU on the Remote Commander.

### Changing the menu language

The menu language is factory-set to ENGLISH. Follow these instructions to change the menu language to Spanish or French, or back to English.

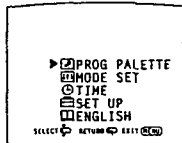
**1** Press POWER to turn on the TV.

POWER



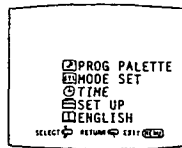
**2** Press MENU.

The main menu appears.



**3** Press the rocker control up or down until the cursor points to "ENGLISH."

Then click the rocker control.  
The language display turns red.

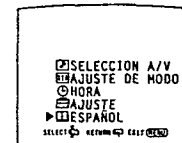


**4** Press the rocker control up or down to select the language.  
Each time you press the rocker control up or down, the "ESPAÑOL," "FRANÇAIS" and "ENGLISH" menus appear.



**Note**  
Certain parts of the "ESPAÑOL" and "FRANÇAIS" menus remain in English.

**5** Click the rocker control.  
The language is selected.



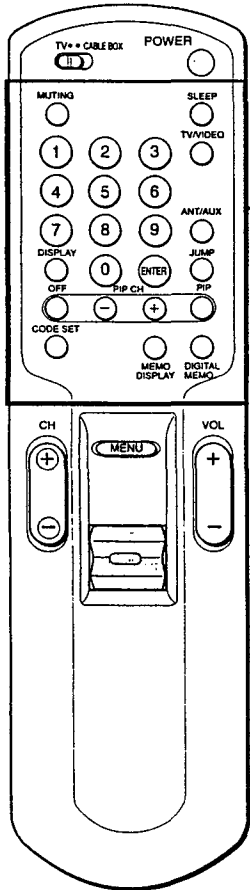
Spanish menu

**To return to the normal screen.**  
Press MENU on the Remote Commander.

#### Notes concerning menus

- During PIP (Picture-in-Picture) mode, the on-screen menus may overlap the window picture.
- Screen displays (VOLUME, MUTING, CHANNEL, etc.) may overlap the on-screen menus.
- The menus disappear automatically, if you do not press a button within 90 seconds.

# 1-4. SETTING CABLE ON OR OFF

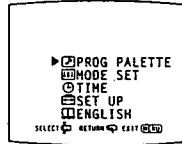


Outer panel

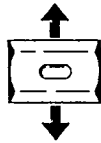
If you have cable connected to the TV, follow the steps below to set the cable connection on or off. Set CABLE OFF to preset or watch VHF or UHF channels, and set CABLE ON to preset or watch cable TV channels.

**Note**  
If the TV is in video mode, the "CABLE" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.

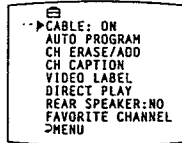
**1** Press MENU.  
*The main menu appears.*



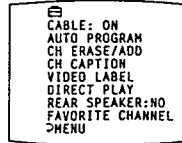
**2** Press the rocker control up or down until the cursor points to "SET UP"



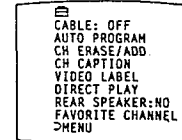
**3** Click the rocker control.  
*The set up menu appears and the cursor points to "CABLE."*



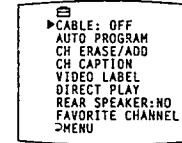
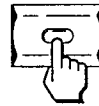
**4** Click the rocker control again.  
*The mode display turns red.*



**5** Press the rocker control up or down to select "ON" or "OFF"



**6** Click the rocker control.  
*The setting is complete.*



**To return to the previous menu**

Press the rocker control up or down until the cursor points to " > MENU." Then click the rocker control.

**To return to the main menu**

Repeat the above, until you reach the main menu.

**To return to the normal screen.**

Press MENU on the Remote Commander.

### Cable TV channel chart\*

Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

Number on this TV	Corresponding CATV channel
1	A-8
5	A-7
6	A-6
14	A
15	B
16	C
17	D
18	E
19	F
20	G
21	H
22	I
23	J
24	K
25	L
26	M
27	N
28	O
29	P
30	Q
31	R
32	S
33	T
34	U
35	V
36	W
37	W+1
38	W+2
39	W+3
...	...
93	W+57
94	W+58
95	A-5
96	A-4
97	A-3
98	A-2
99	A-1
100	W+59
101	W+60
102	W+61
...	...
123	W+82
124	W+83
125	W+84

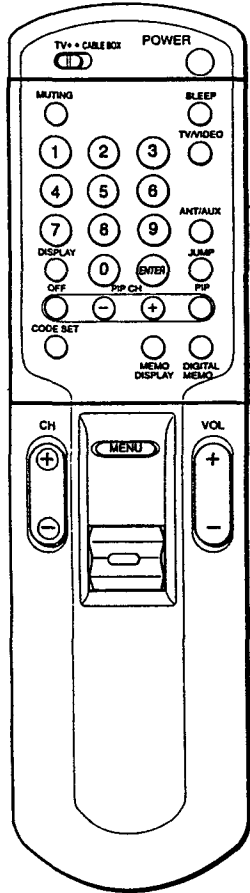
Check with your local cable TV company for more complete information on the available channels.

\* The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Setting CABLE ON or OFF

# 1-5. PRESETTING TV CHANNELS

By presetting TV channels to the TV, you can select channels by pressing CH (CHANNEL) +/-.



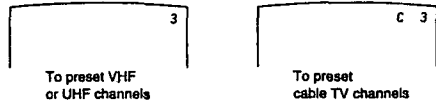
Outer panel

## Presetting all receivable channels automatically

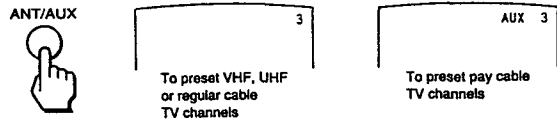
Follow these instructions to preset all the receivable VHF, UHF or cable TV channels to the TV.

- Notes**
- If the TV is in video mode, the "AUTO PROGRAM" display is shaded and cannot be selected. Press TV/VIDEO to change to TV mode.
  - Perform auto programming during the day rather than late at night, when some channels may not be broadcasting.

**1** Set the cable connection on or off (pp. 24 – 25) to select the type of channel you want to preset, VHF/UHF or cable TV.



Press ANT/AUX to select the type of channel you want to preset, VHF/UHF/regular cable TV or pay cable TV.



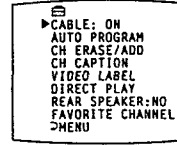
**2** Press MENU.  
The main menu appears.



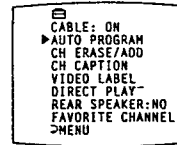
**3** Press the rocker control up or down until the cursor points to "SET UP."



**4** Click the rocker control.  
The set up menu appears.



**5** Press the rocker control up or down until the cursor points to "AUTO PROGRAM."



**6** Click the rocker control.



"AUTO PROGRAM" appears on the screen and receivable channels (other than the channels already preset) are preset in numerical sequence. The channels previously preset will not remain in the TV's memory. When no more channels are found, auto programming stops and the screen returns automatically to the set up menu.

**7** Press CH +/- to check or view the preset channels.



### Receivable channels for this TV

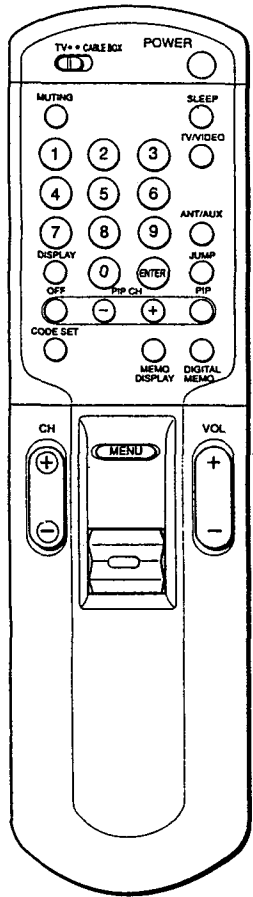
- VHF: 2 – 13
- UHF: 14 – 62
- Cable: 1 – 125

To select TV channels without presetting  
Press the 0 – 9 buttons and ENTER.

To return to the previous menu  
Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen.  
Press MENU on the Remote Commander.



### Erasing TV channels

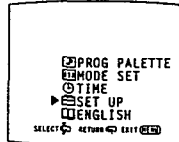
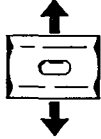
Follow these instructions to erase unnecessary TV channels, so that when you press CH +/-, the channel(s) are skipped.

#### 1 Press MENU.

The main menu appears.

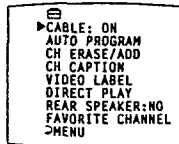


#### 2 Press the rocker control up or down until the cursor points to "SET UP"

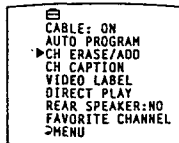
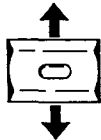


#### 3 Click the rocker control.

The set up menu appears.

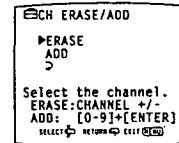
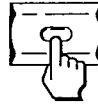


#### 4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."



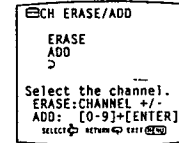
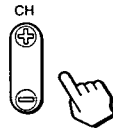
#### 5 Click the rocker control.

The CH ERASE/ADD screen appears, and the cursor points to "ERASE."



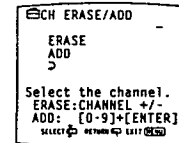
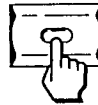
#### 6 Press CH +/- to select the channel you want to erase.

The channel display appears.



#### 7 Click the rocker control.

A "-" sign appears in front of the channel number display, indicating that the channel is erased; then the CH ERASE/ADD screen automatically reappears.



To erase another channel  
Repeat steps 6 – 7.

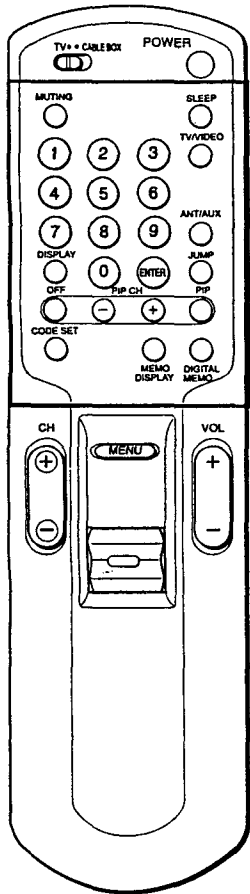
To return to the previous menu  
Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU on the Remote Commander.

Note  
If you erase a VHF or UHF channel, the same number cable TV channel is also erased (and vice versa).





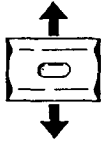
### Adding TV channels

Follow these instructions to add TV channels one by one to the selection memory, or to replace a TV channel you previously erased (pp. 28 – 29).

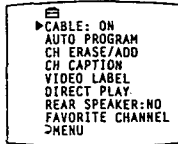
- 1 Press MENU.  
The main menu appears.



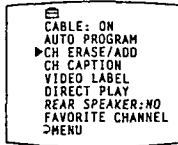
- 2 Press the rocker control up or down until the cursor points to "SET UP".



- 3 Click the rocker control.  
The set up menu appears.



- 4 Press the rocker control up or down until the cursor points to "CH ERASE/ADD."



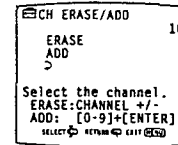
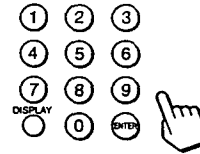
- 5 Click the rocker control.  
The CH ERASE/ADD screen appears.



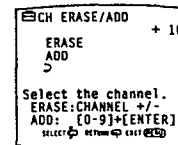
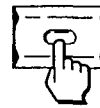
- 6 Press the rocker control down until the cursor points to "ADD."



- 7 Press 0 – 9 and ENTER on the Remote Commander to select the channel you want to add.  
The channel display appears.



- 8 Click the rocker control.  
A "\*" sign appears in front of the channel number display, indicating that the channel is added; then the CH ERASE/ADD screen automatically reappears.



To add another channel  
Repeat steps 7 – 8.

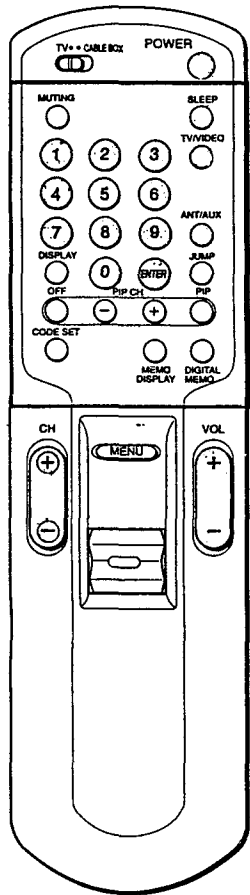
To return to the previous menu  
Press the rocker control up or down until the cursor points to " > MENU." Then click the rocker control.

To return to the main menu  
Repeat the above, until you reach the main menu.

To return to the normal screen  
Press MENU on the Remote Commander.

Note  
If you add a VHF or UHF channel, the same number cable TV channel is also added (and vice versa).

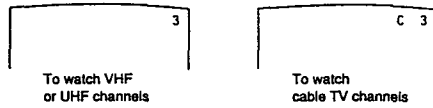
## 1-6. WATCHING TV PROGRAMS



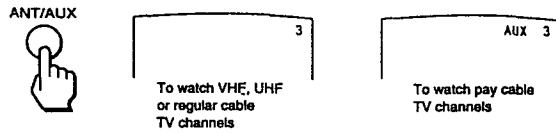
Outer panel

Make sure that the TV/CABLE BOX selector on the Remote Commander is set to TV, in order to control the TV with the Remote Commander.

**1** Set the cable connection on or off (pp. 24 – 25) to select the type of channel you want to watch, VHF/UHF or cable TV.



Press ANT/AUX to select the type of channel you want to watch, VHF/UHF/regular cable TV or pay cable TV.

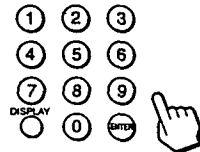


**2** Select a channel in one of the following two ways:

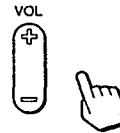
To scan the preset channels in numerical sequence, press CH +/-.



To select a channel directly, press 0 – 9 and then ENTER.  
For example, to select channel 10, press 1, 0 and ENTER.



**3** Press VOL +/- to adjust the volume.



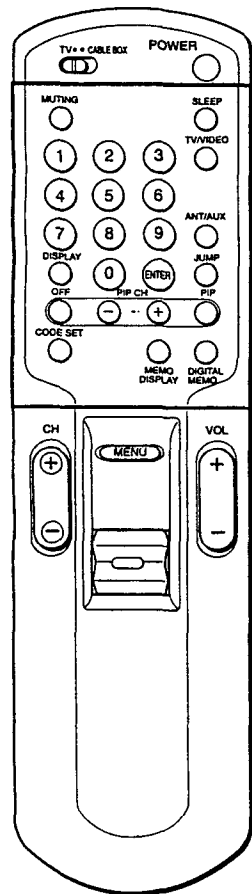
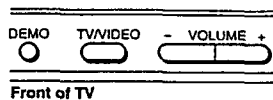
Press + to increase the volume.  
Press - to decrease the volume.

If VIDEO 1, VIDEO 2, VIDEO 3, S VIDEO, LD or VTR appears on the screen Press TV/VIDEO until a TV channel number appears.

To select channels more easily Set FAVORITE CHANNEL (pp. 68 – 69).

To turn off the TV Press POWER.

## 1-7. USING CONVENIENT FEATURES



### Muting the sound — MUTING

Press **MUTING**.  
*"MUTING" appears on the screen.*

**To restore the sound**  
 Press **MUTING** again, or press **VOL +**.



### Keeping the displays on-screen — DISPLAY

Press **DISPLAY**.  
*All the existing displays appear: channel number, channel caption (if set), MTS mode ("SAP" only), window picture input mode, and the current time ("AM" or "PM" disappears after about three seconds).*

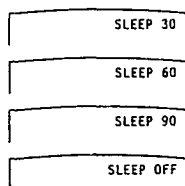
**To turn off the displays**  
 Press **DISPLAY** again.



### Setting the sleep timer — SLEEP

The sleep timer turns off the TV automatically after the amount of time you select.

Press **SLEEP**.  
*Each time you press SLEEP, the time increments "30," "60," "90" and "OFF" mode appear in sequence.*



*A red "SLEEP" display appears about one minute before the TV goes off.*

**To cancel the setting.**  
 Press **SLEEP** until **OFF** mode appears.  
*A green "SLEEP OFF" display appears for about three seconds.*  
 OR  
 Turn the TV off.  
*The sleep timer setting is cancelled.*

### Switching quickly between two channels — JUMP

Use this function to keep track of two programs alternately.

**To recall the channel you were watching previously**  
 Press **JUMP**

**To switch back to the first channel**  
 Press **JUMP** again.



### Previewing the features — DEMO

Press **DEMO**.  
*Functions and menus are displayed one by one.*

**To restart DEMO from the beginning**  
 Press **DEMO** again.

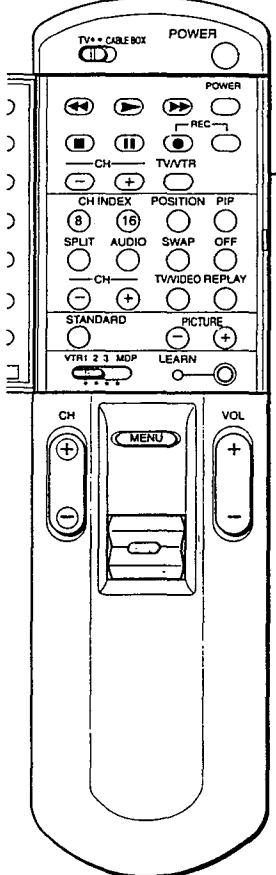
**To stop DEMO**  
 Press any button.




## 1-8. SELECTING A PICTURE AND SOUND MODE

This TV features six modes (STANDARD, MOVIE, SPORTS, NEWS, MUSIC, GAME) that offer different picture and sound qualities. Choose the one that best suits the type of program that you want to watch.


**Example:** Select MOVIE mode for picture and sound that gives you the sense of being in a movie theater.




**1** Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."




**2** Click the rocker control.  
The program palette menu appears.



**3** Press the rocker control up or down until the cursor points to "MOVIE."

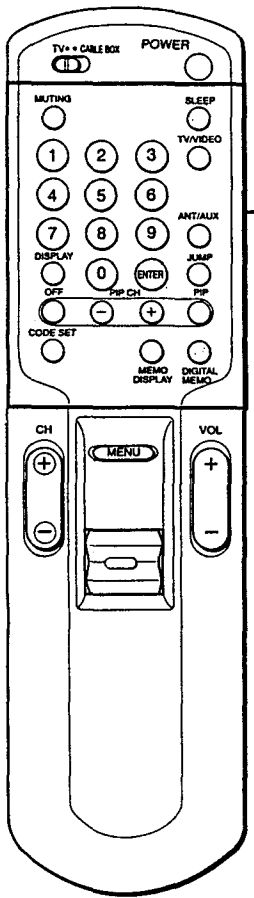


**4** Click the rocker control.  
The "MOVIE" display turns green, indicating that MOVIE mode is selected.



**To select a different mode**  
Repeat steps 3 - 4.

Using Universal Remotes  
Selecting a Picture and Sound Mode



Outer panel

### Storing an image in memory — DIGITAL MEMO

Use this feature to store and recall a recipe from a cooking program, a displayed address or phone number and so on.

**1** Press DIGITAL MEMO.  
The displayed image is stored in memory, and the image remains still on the screen.



**2** Press MEMO DISPLAY.  
The TV returns to normal viewing mode.



**To recall the stored image**  
Press MEMO DISPLAY.



The stored picture is retained in memory until:  
 - you turn off the TV.  
 - you press OFF (in the PIP section) twice.  
 - you store a different image.

**To return to the normal screen**  
Press MEMO DISPLAY again.

**Note**  
You cannot display a window picture (pp. 39 - 43) while viewing a DIGITAL MEMO screen.

### Selecting standard mode (without using the menus)

Follow these instructions to select standard mode without using the on-screen menus.

Press STANDARD.



#### When you select STANDARD mode

You receive standard picture and sound quality. Any video or audio adjustments you made ("Adjusting the Picture" pp. 44 – 48; "Adjusting the Sound" pp. 49 – 54) are cancelled and the original factory settings are restored.

#### When you select MOVIE mode

You receive a finely detailed picture, and a theatrical audio effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 48 and pp. 49 – 54, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 49 – 50).

#### When you select SPORTS mode

You receive a vivid, bright picture, and sound with a sports stadium effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 48 and pp. 49 – 54, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 49 – 50).

#### When you select NEWS mode

Picture noise is reduced, and you receive clear voice reproduction. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 48 and pp. 49 – 54, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 49 – 50).

#### When you select MUSIC mode

You receive a warmer picture, and live concert effect sound. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 48 and pp. 49 – 54, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 49 – 50).

#### When you select GAME mode

The picture is easier on your eyes, and sound has a surround effect. To further adjust picture and sound qualities, follow the instructions on pp. 44 – 48 and pp. 49 – 54, or select different sound modes from the DSP (Digital Sound Processor) menu (pp. 49 – 50).

#### To return to the previous menu

Press the rocker control up or down until the cursor points to "➤ MENU." Then click the rocker control.

#### To return to the main menu

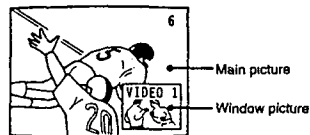
Repeat the above, until you reach the main menu.

#### To return to the normal screen.

Press MENU on the Remote Commander.

## 1-9. WATCHING TWO OR MORE PICTURES AT ONCE (PIP)

You can watch both the main picture and one or more window pictures simultaneously, using the Picture-in-Picture (PIP) function.



#### Picture-in-Picture special features

When watching the main picture and a window picture, you can:

- Choose the sound from the main or window picture (AUDIO).
- Change the position of the window picture (POSITION).
- Swap the main and window pictures (SWAP).
- Replay the main picture as a window picture (REPLAY).
- Split the screen, with the main picture on one side and the window picture on the other side (SPLIT).
- Display 8 or 16 TV channels simultaneously (CH INDEX 8/16).

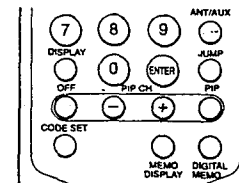
#### Notes

- You can also use the CH +/- buttons on the Remote Commander's inner panel.
- The video label and channel caption will not appear with the window picture even if you have set them.
- If you select a blocked channel in the window picture, the display "BLOCKED" appears with the window picture. (See "Setting CHANNEL BLOCK," pp. 64 – 65.)
- If you display a DIGITAL MEMO screen (p. 36), the window picture disappears.

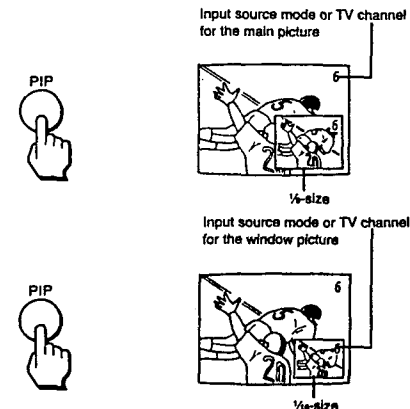
### Displaying a window picture

To turn PIP mode on or off, or to change TV channels, you can use the PIP buttons on the Remote Commander's outer panel. For other PIP functions, use the inner panel controls, which also include the PIP, OFF and CH +/- buttons.

#### Remote Commander (Outer panel)



Press PIP to display a window picture



A window picture appears in the last mode you watched. Each time you press PIP, a 1/9 or 1/16 size window picture appears alternately.

#### To turn PIP function off

Press OFF.  
The window picture disappears.

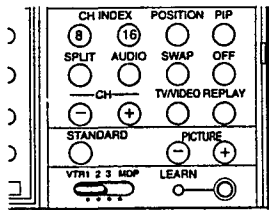
#### To change TV channels in the window picture

Press TV/VIDEO to select TV mode; then press CH +/- in the PIP control area.

### Changing the window picture input mode

Follow these instructions to select the input mode (TV/ VIDEO 1, VIDEO 2, VIDEO 3) for the window picture.

Remote Commander (Inner panel)



- 1 Press PIP to display a window picture.



- 2 Press TV/VIDEO to select the input mode. Each time you press TV/VIDEO, "TV," "VIDEO 1," "VIDEO 2" and "VIDEO 3" appear in sequence.



To receive the window picture sound  
Press AUDIO.

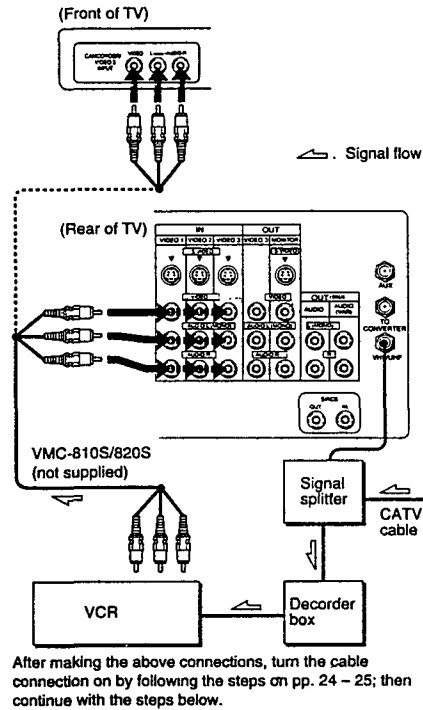
The display appears for a few seconds, indicating that the window picture sound is being received.

To restore the main picture sound  
Press AUDIO again.

**Note**  
The window picture sound is also output from the AUDIO (VAR) OUT jacks. The AUDIO OUT and MONITOR OUT jacks output the main picture sound only.

### Displaying CATV input as a window picture

To use Picture-in-Picture with pay cable TV input, make the connections to your cable converter box as shown below.



- 1-2 Follow steps 1 - 2 in "Changing the window picture input mode" on this page to select the video input mode for your connected VCR.

- 3 Put your VCR on an inactive channel (channel 3 or 4).

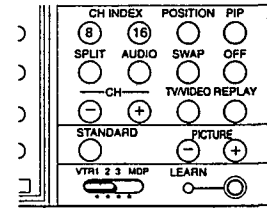
- 4 Change pay cable TV channels with the decoder box.

To control your cable converter box with the supplied Remote Commander  
See p. 72.

### Changing the position of the window picture

Follow these instructions to change the position of the window picture on the screen.

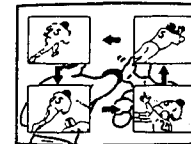
Remote Commander (Inner panel)



- 1 Press PIP to display a window picture.



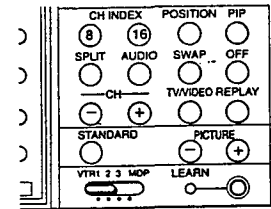
- 2 Press POSITION. Each time you press POSITION, the window picture moves as illustrated.



### Swapping the main and window pictures

Follow these instructions to swap the input signals of the main and window pictures.

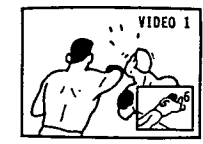
Remote Commander (Inner panel)



- 1 Press PIP to display a window picture.



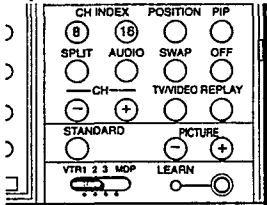
- 2 Press SWAP. Each time you press SWAP, the images from the main and window pictures switch places.



### Displaying 8 TV channels at once – CH INDEX 8

Follow these instructions to display the main picture and 7 window pictures at once.

Remote Commander (Inner panel)



**1** Press PIP to display a window picture.



**2** Press CH INDEX 8 to display seven window pictures. Seven TV channels appear in numerical sequence, as window pictures.



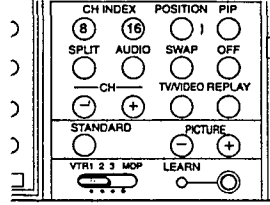
Each time you press CH INDEX 8, the next seven sequential channels appear (the main picture does not change).

To return to the normal screen  
Press OFF.

### Displaying 16 TV channels at once – CH INDEX 16

Follow these instructions to display 16 window pictures at once.

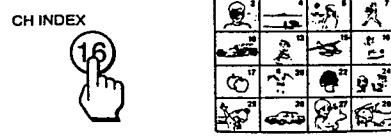
Remote Commander (Inner panel)



**1** Press PIP to display a window picture.



**2** Press CH INDEX 16 to display 16 window pictures. 16 TV channels appear in numerical sequence, as window pictures.



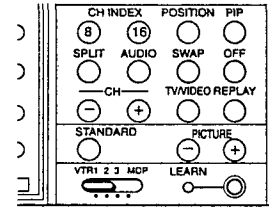
Each time you press CH INDEX 16, the next 16 sequential channels appear (the main picture does not change).

To return to the normal screen  
Press OFF.

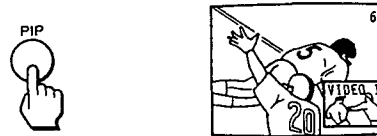
### Replaying the main picture as a window picture

Follow these instructions to replay the image that appeared in the main picture two seconds before, as a window picture.

Remote Commander (Inner panel)



**1** Press PIP to display a window picture.



**2** Press REPLAY.

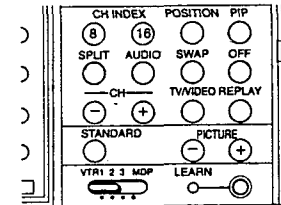


To return to the normal screen  
Press OFF.

### Splitting the screen

Follow these instructions to split the screen, with the window picture on the left, and the main picture on the right.

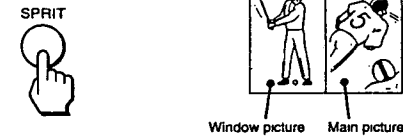
Remote Commander (Inner panel)



**1** Press PIP to display a window picture.



**2** Press SPLIT.



To return to the normal screen  
Press OFF.

Note  
When using SPLIT, vertical lines may appear elongated.

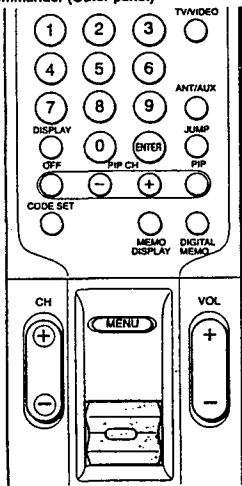
# 1-10. ADJUSTING THE PICTURE

You can adjust the picture (and sound, pp. 51 – 54) for each input mode (TV, VIDEO 1, VIDEO 2, VIDEO 3) by pressing TV/VIDEO on the TV or on the Remote Commander to select the input mode, before making the adjustments. These adjustments are retained in memory even when you turn off the TV, but are cancelled after you change the adjustments, or select a picture and sound mode (pp. 37 – 38).

## Adjusting picture quality

Follow these instructions to adjust PICTURE, HUE, COLOR, BRIGHT (brightness) and SHARP (sharpness).

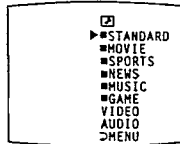
Remote Commander (Outer panel)



- 1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

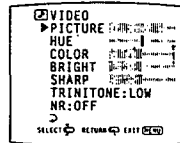


- 2 Click the rocker control.  
The program palette menu appears.



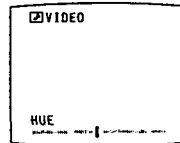
- 3 Press the rocker control up or down until the cursor points to "VIDEO."

- 4 Click the rocker control.  
The VIDEO screen appears.



- 5 Press the rocker control up or down until the cursor points to the item you want to adjust.

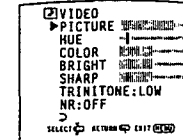
- 6 Click the rocker control.  
The adjustment screen appears.



- 7 Press the rocker control up or down to make the adjustment.

Picture quality	Press the rocker control down	Press the rocker control up
PICTURE	For decreased picture contrast with soft color	For increased picture with vivid color
HUE	Skin tones become purplish	Skin tones become greenish
COLOR	For less color intensity	For more color intensity
BRIGHT	For less brightness	For more brightness
SHARP	For less sharpness	For more sharpness

- 8 Click the rocker control.  
The adjustment is complete, and the VIDEO screen automatically reappears.

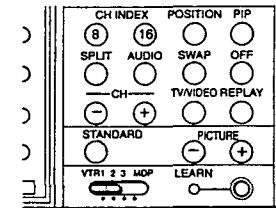


To adjust other items  
Repeat steps 5 – 8.

To restore the factory settings for all the items  
Select "STANDARD" on the program palette menu, and click the rocker control;  
or, press STANDARD on the Remote Commander.  
All the items, including TRINITONE (p. 46) and NR (p. 47) return to their original factory settings.

To adjust picture contrast  
You can also adjust picture contrast with the PICTURE +/- buttons on the Remote Commander.

(Inner panel)



- 1 Press + to increase picture contrast with vivid color.  
Press – to decrease picture contrast with soft color.  
The picture adjustment screen appears.

- 2 Click the rocker control twice.  
The adjustment is set, and the VIDEO screen automatically reappears.

To return to the previous menu  
Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

To return to the main menu  
Repeat the above, until you reach the main menu.

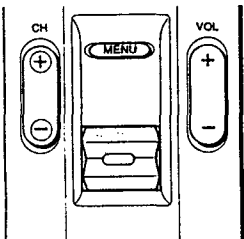
To return to the normal screen  
Press MENU on the Remote Commander.



## Setting the TRINITONE mode

Color picture tubes are usually manufactured with a fixed color temperature (tint) that determines the "warmth" (red tint) or "coolness" (blue tint) of the picture. Use the Sony Trinitone feature to adjust the picture color to your preference.

### Remote Commander



- 1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

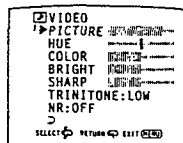


- 2 Click the rocker control.  
The program palette menu appears.



- 3 Press the rocker control up or down until the cursor points to "VIDEO."

- 4 Click the rocker control.  
The VIDEO screen appears.



- 5 Press the rocker control up or down until the cursor points to "TRINITONE."

- 6 Click the rocker control.  
The mode display turns red.

- 7 Press the rocker control up or down to select "HIGH" or "LOW."

Select "HIGH" to make the picture cool (bluish).  
Select "LOW" to make the picture warm (reddish).

- 8 Click the rocker control.  
The setting is complete.

### To return to the previous menu

Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

### To return to the main menu

Repeat the above, until you reach the main menu.

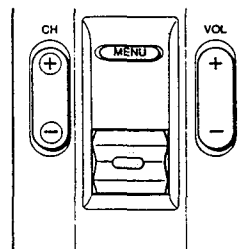
### To return to the normal screen

Press MENU on the Remote Commander.

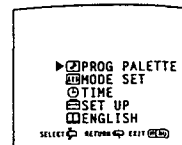
## Setting NR (picture noise reduction) ON or OFF

Follow these instructions to reduce picture noise.

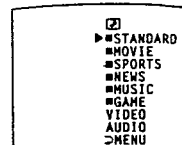
### Remote Commander



- 1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

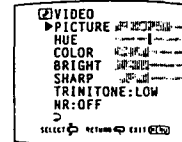


- 2 Click the rocker control.  
The program palette menu appears.

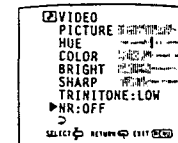


- 3 Press the rocker control up or down until the cursor points to "VIDEO."

- 4 Click the rocker control.  
The VIDEO screen appears.



- 5 Press the rocker control up or down until the cursor points to "NR."



- 6 Click the rocker control.  
The mode display turns red.

- 7 Press the rocker control up or down to select "ON" or "OFF"

Select "ON" to reduce picture noise.  
Select "OFF" to restore the normal picture.

- 8 Click the rocker control.  
The setting is complete.

### To return to the previous menu

Press the rocker control up or down until the cursor points to "MENU."

Then click the rocker control.

### To return to the main menu

Repeat the above, until you reach the main menu.

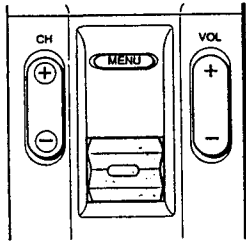
### To return to the normal screen

Press MENU on the Remote Commander.

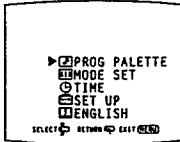
### Setting S-VIDEO ON or OFF

Follow these instructions to set S-VIDEO on or off, depending on the kind of video equipment you have connected to the TV. For instructions on connecting video equipment, see pp. 15 – 18.

Remote Commander (Outer panel)

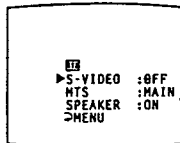


- 1 Press MENU.  
The main menu appears.



- 2 Press the rocker control up or down until the cursor points to "MODE SET."

- 3 Click the rocker control.  
The mode set menu appears, with the cursor pointing to "S-VIDEO."



- 4 Click the rocker control.  
The mode display turns red.

- 5 Press the rocker control up or down to select "ON" or "OFF."

- 6 Click the rocker control.  
The setting is complete.

**To return to the previous menu.**  
Press the rocker control up or down until the cursor points to " > MENU."  
Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU on the Remote Commander.

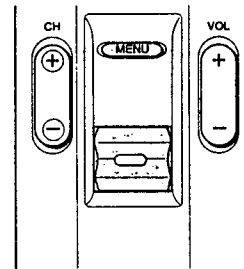
## 1-11. ADJUSTING THE SOUND

### Selecting a sound mode

Use the DSP (Digital Sound Processor) menu to select the sound mode that best suits the type of sound you are listening to.

**Example:** Select JAZZ CLUB mode to enhance the effect when viewing a musical performance.

Remote Commander

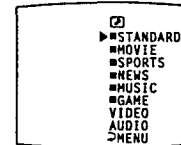


- 1 Press MENU.  
The main menu appears



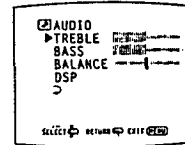
- 2 Press the rocker control up or down until the cursor points to "PROG PALETTE."

- 3 Click the rocker control.  
The program palette menu appears.



- 4 Press the rocker control up or down until the cursor points to "AUDIO."

- 5 Click the rocker control.  
The AUDIO screen appears.



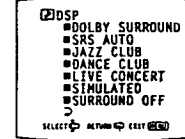
- 6 Press the rocker control up or down until the cursor points to "DSP."

- 7 Click the rocker control.  
The DSP menu appears.



- 8 Press the rocker control up or down until the cursor points to "JAZZ CLUB."

- 9 Click the rocker control.  
JAZZ CLUB mode is selected.



**To select a different mode**  
Repeat steps 8 – 9. (See the next page for the different modes you can choose.)

**To further adjust the sound**  
Follow the instructions on pp. 51 – 52.

**To return to the previous menu**  
Press A/V WINDOW +/- until the cursor points to " > MENU."  
Then press RETURN.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen.**  
Press MENU on the Remote Commander.

#### When you select DOLBY SURROUND mode

You receive wraparound sound with three-dimensional audio depth and presence when you connect main speakers and optional rear speakers.

#### Note

You must set REAR SPEAKER to "YES" (p. 54), or the display is blacked out and cannot be selected.

When using rear speakers, control the volume with the REAR VOLUME adjustment screen.

#### When you select SRS AUDIO mode

You receive powerfully realistic sound that recaptures audio "clues" originally present but masked in the recording process, so that the action seems to happen all around you.

#### When you select JAZZ CLUB mode

You receive sound that gives a sense of space, with a touch of echo added.

#### When you select DANCE CLUB mode

You receive the sound effect of the hard floor and wall environment of a dance club.

#### When you select LIVE CONCERT mode

You receive sound that simulates the effect of being present at a live concert.

#### When you select SIMULATED mode


You receive monaural sound with a surround-like effect.

#### When you select SURROUND OFF mode

You receive sound without a surround effect.

#### To further adjust sound qualities

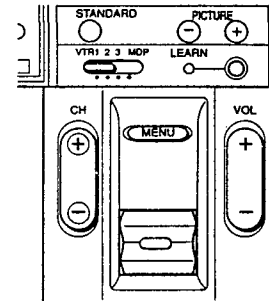
Follow the instructions on pp. 51 – 52.

- Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canadian numbers 1,004,603 and 1,037,877. "Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

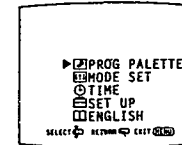
## Adjusting sound quality

Follow these instructions to adjust the TREBLE, BASS and BALANCE.

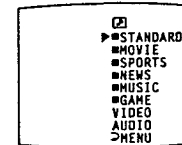
Remote Commander (Inner panel)



- 1 Press MENU.  
The main menu appears, and the cursor points to "PROG PALETTE."

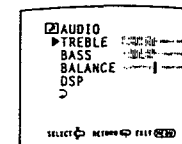


- 2 Click the rocker control.  
The program palette menu appears.



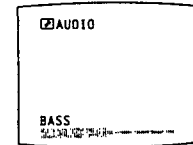
- 3 Press the rocker control up or down until the cursor points to "AUDIO."

- 4 Click the rocker control.  
The AUDIO screen appears.



- 5 Press the rocker control up or down until the cursor points to the item you want to adjust.

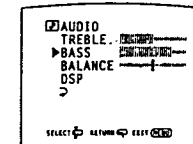
- 6 Click the rocker control.  
The adjustment screen appears.



- 7 Press the rocker control up or down to make the adjustment.

Sound quality.	Press the rocker control down	Press the rocker control up
TREBLE	To decrease the treble response	To increase the treble response
BASS	To decrease the bass response	To increase the bass response
BALANCE	To emphasize the left speaker's volume	To emphasize the right speaker's volume

- 8 Click the rocker control.  
The adjustment is complete, and the AUDIO screen automatically reappears.



**To adjust other items**  
Repeat steps 5 – 9.

**To restore the factory settings for all the items**  
Select "STANDARD" on the program palette menu, and click the rocker control; or, press STANDARD on the Remote Commander.  
All the items return to their original factory settings.

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to " > MENU." Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU on the Remote Commander.

### Selecting an MTS (Multichannel TV Sound) mode

Follow these instructions to select an MTS mode.

Select MAIN mode to listen to stereo sound.

The STEREO lamp on the TV lights up whenever a stereo broadcast is received.

Select SAP mode to listen to Second Audio Programs.

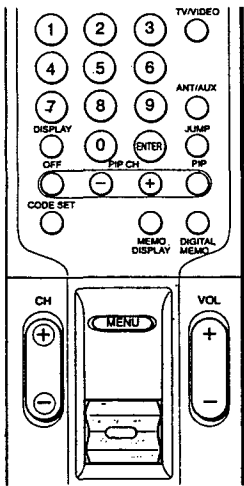
Select MONO mode to eliminate excessive noise during stereo broadcasts, caused by a weak incoming signal.

#### Note

If the TV is in video mode, the "MTS" display is shaded and cannot be selected.

Press TV/VIDEO on the TV or on the Remote Commander to change to TV mode.

#### Remote Commander (Outer panel)

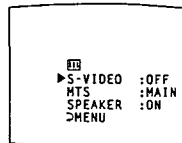


- 1 Press MENU.  
The main menu appears.



- 2 Press the rocker control up or down until the cursor points to "MODE SET."

- 3 Click the rocker control.  
The mode set menu appears.



- 4 Press the rocker control up or down until the cursor points to "MTS."

- 5 Click the rocker control.  
The mode display turns red.

- 6 Press the rocker control up or down to select the mode you want.  
Each time you press the rocker control up or down, "MAIN," "SAP" and "MONO" appear in sequence.

- 7 Click the rocker control.  
The mode is selected.

#### To return to the previous menu

Press the rocker control up or down until the cursor points to "MENU." Then click the rocker control.

#### To return to the main menu

Repeat the above, until you reach the main menu.

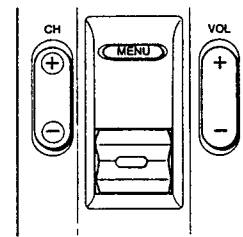
#### To return to the normal screen

Press MENU on the Remote Commander.

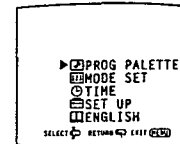
### Setting SPEAKER ON or OFF

Follow these instructions to turn the TV speakers off when you connect an audio system (p.19), and on when you want to listen to the sound from the TV speakers.

#### Remote Commander

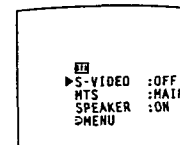


- 1 Press MENU.  
The main menu appears.



- 2 Press the rocker control up or down until the cursor points to "MODE SET."

- 3 Click the rocker control.  
The mode set menu appears.



- 4 Press the rocker control up or down until the cursor points to "SPEAKER."

- 5 Click the rocker control.  
The mode display turns red.

- 6 Press the rocker control up or down to select "ON" or "OFF."

- 7 Click the rocker control.  
The setting is complete.

#### To return to the previous menu

Press the rocker control up or down until the cursor points to "MENU." Then click the rocker control.

#### To return to the main menu

Repeat the above, until you reach the main menu.

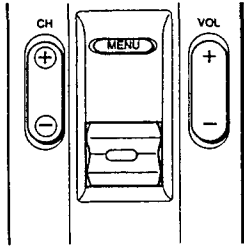
#### To return to the normal screen

Press MENU on the Remote Commander.

### Setting REAR SPEAKER

Set REAR SPEAKER to "YES" to use the detachable or optional speakers as rear speakers (pp. 11 – 12).

Remote Commander

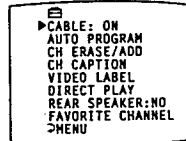


**1** Press MENU.  
The main menu appears.



**2** Press the rocker control up or down until the cursor points to "SET UP."

**3** Click the rocker control.  
The set up menu appears.



**4** Press the rocker control up or down until the cursor points to "REAR SPEAKER."

**5** Click the rocker control.  
The mode display turns red.

**6** Press the rocker control up to select "YES."

**7** Click the rocker control.  
The REAR SPEAKER screen appears.



**8** Press the rocker control up or down until the cursor points to the item you want to adjust.

**9** Click the rocker control.  
The adjustment screen appears.



**10** Use the rocker control to make the adjustment.

**REAR VOLUME**  
Press the rocker control down to decrease the rear speaker volume.  
Press the rocker control up to increase the rear speaker volume.

**INPUT BALANCE**  
Press the rocker control down to improve the input balance. (Set to the lowest point for best input balance.)

**Notes**

- Setting REAR SPEAKER to "NO" does not turn off the rear speaker sound. Control the rear speaker volume with the REAR VOLUME adjustment.
- While the INPUT BALANCE adjustment screen is displayed, the sound from the front speakers is cut off.

**11** Click the rocker control.  
The setting is complete.

**To set REAR SPEAKER to "NO"**  
Repeat steps 1 – 11, and select "NO" in step 6.

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to " > MENU." Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU on the Remote Commander.

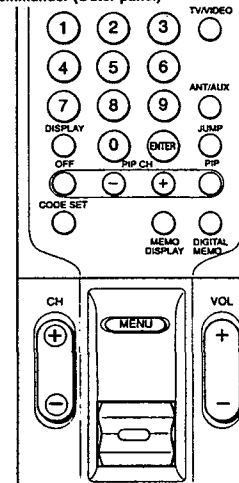
## 1-12. CUSTOMIZING THE SCREEN DISPLAY

### Setting channel captions — CH CAPTION

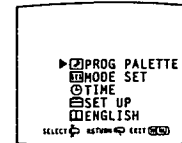
Follow these instructions to caption each channel number display with a name, for instance, the television station call letters. (You can set up to four letters or numbers).

Example: Caption channel 15 as "NBC."

Remote Commander (Outer panel)

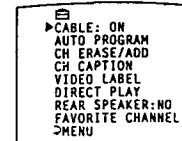


**1** Press MENU.  
The main menu appears.



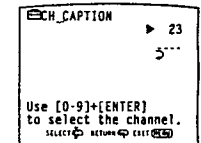
**2** Press the rocker control up or down until the cursor points to "SET UP"

**3** Click the rocker control.  
The set up menu appears.

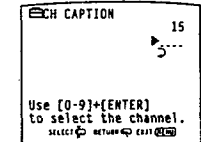


**4** Press the rocker control up or down until the cursor points to "CH CAPTION."

**5** Click the rocker control.  
The CH CAPTION screen appears.

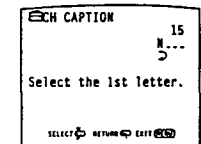


**6** Press CH +/-, or press 1, 5 and ENTER to set channel "15."



**7** Click the rocker control.  
The first caption space turns red.

**8** Press the rocker control up or down to select "N."  
Each time you press the rocker control up or down, "0" – "9," "A" – "Z," "x," "y," "z," and "." (blank space) appear in sequence.



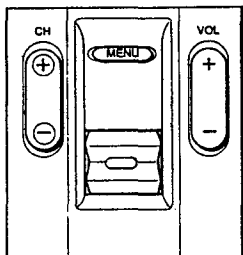
**9** Click the rocker control.  
The second caption space turns red.

(Continued)

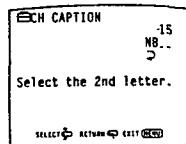
## Setting channel captions – CH CAPTION

(Cont'd. from prev. page)

Remote Commander

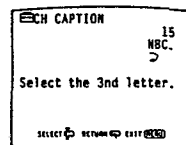


- 10** Press the rocker control up or down to select "B."



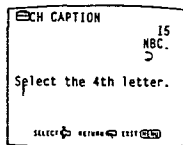
- 11** Click the rocker control.  
The third caption space turns red.

- 12** Press the rocker control up or down to select "C."



- 13** Click the rocker control.  
The fourth caption space turns red.

- 14** Press the rocker control up or down to select a blank space.



- 15** Click the rocker control.  
The setting is complete.  
When you select or display the channel number, the channel caption also appears.

**To caption more channels**  
Repeat steps 6 – 15.

**To erase unnecessary captions**  
Display the CH CAPTION screen, select the channel with the caption you want to erase, and select blank spaces for the channel caption; then click the rocker control.  
The caption for that channel is erased.

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to "➤ MENU."  
Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU on the Remote Commander.

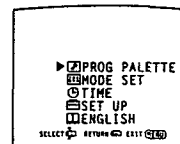
**Note**  
You can set up to 32 channel captions. If the memory is full, "The memory is full, sorry" appears on the screen. Erase any unnecessary captions, and begin again.

## Setting VIDEO LABEL

Follow these instructions to label each input mode, in order to identify the equipment connected to each input terminal.

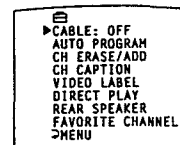
**Example:** Label VIDEO 1 IN as "VHS."

- 1** Press MENU.  
The main menu appears.



- 2** Press the rocker control up or down until the cursor points to "SET UP."

- 3** Click the rocker control.  
The set up menu appears.



- 4** Press the rocker control up or down until the cursor points to "VIDEO LABEL."

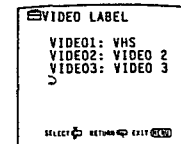
- 5** Click the rocker control.  
The VIDEO LABEL screen appears.



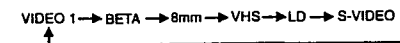
- 6** Press the rocker control up or down until the cursor points to the input mode you want to label. (In this case, the cursor is already pointing to "VIDEO 1.")

- 7** Click the rocker control.  
The label display turns red.

- 8** Press the rocker control up or down to select "VHS."



Each time you press the rocker control up or down, the label changes:



- 9** Click the rocker control.  
The setting is complete.  
When you select or display the video mode, the video label appears.

**To label other input modes**  
Repeat steps 6 – 9.

**To change a label**  
Same as above.

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to "➤ MENU." Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen**  
Press MENU on the Remote Commander.

## 1-13. USING TIMER-ACTIVATED FUNCTIONS

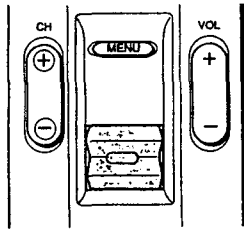
### Setting DAYLIGHT SAVING

If you live in an area that uses daylight savings time, set DAYLIGHT SAVING to "YES" or "NO" depending on the season, before setting the current time. At the next daylight savings date, you will be able to automatically adjust all the time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK) simply by changing the DAYLIGHT SAVING setting.

#### When setting DAYLIGHT SAVING:

- **After the first Sunday in April (spring daylight savings)**  
Set to "YES" before setting the current time.  
Then, on the last Sunday in October (fall daylight savings), set to "NO."  
*All the time-related settings automatically move one hour back.*
- **After the last Sunday in October (fall daylight savings)**  
Set to "NO" before setting the current time.  
Then, on the first Sunday in April (spring daylight savings), set to "YES."  
*All the time-related settings automatically move one hour ahead.*

#### Remote Commander



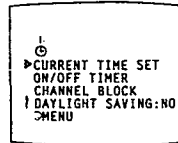
Follow these instructions to set DAYLIGHT SAVING to "YES" or "NO."

- 1 Press MENU.  
*The main menu appears.*



- 2 Press the rocker control up or down until the cursor points to "TIME."

- 3 Click the rocker control.  
*The time menu appears.*



- 4 Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."

- 5 Click the rocker control.  
*The mode display turns red.*

- 6 Press the rocker control up or down to select "YES" or "NO."  
*The setting is complete.*

- 7 Click the rocker control.

#### To return to the previous menu

Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

#### To return to the main menu

Repeat the above, until you reach the main menu.

#### To return to the normal screen.

Press MENU on the Remote Commander.

### Setting the clock — CURRENT TIME SET

Follow these instructions to set the current time. The correct current time must be set in order to use the other time-related functions (DAYLIGHT SAVING, ON/OFF TIMER, CHANNEL BLOCK).

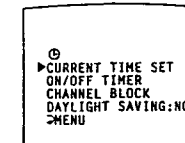
Example: Set the time to 3:15 PM, Monday.

- 1 Press MENU.  
*The main menu appears.*



- 2 Press the rocker control up or down until the cursor points to "TIME."

- 3 Click the rocker control.  
*The time menu appears, and the cursor points to "CURRENT TIME SET."*



- 4 Click the rocker control again.  
*The CURRENT TIME SET screen appears, with a reminder to set DAYLIGHT SAVING.*



If you do not need to set DAYLIGHT SAVING, click the rocker control and continue from step 5.

### To set daylight saving

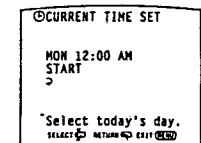
- a Press the rocker control up or down until the cursor points to "DAYLIGHT SAVING."
- b Click the rocker control.  
*The time menu appears, and the cursor points to "DAYLIGHT SAVING."*
- c Click the rocker control.
- d Press the rocker control up or down to select "YES" or "NO."
- e Click the rocker control.  
*The setting is complete.*

#### To set the time

Press the rocker control up or down until the cursor points to "CURRENT TIME SET"; click the rocker control, then continue from step 5.

- 5 Click the rocker control.  
*The CURRENT TIME SET screen appears, and the "SUN" display appears (red).*

- 6 Press the rocker control up or down to select "MON."  
*Each time you press the rocker control up or down, the day changes consecutively.*

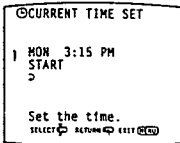
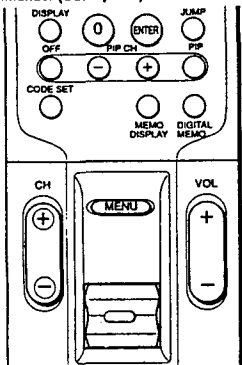


(Continued)

**Setting the clock — CURRENT TIME SET**

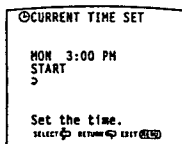
(Cont'd. from prev. page)

Remote Commander (Outer panel)



**7** Click the rocker control.  
The hour and am/pm displays turn red.

**8** Press the rocker control up or down to set "3:00PM."  
Each time you press the rocker control up or down, the hour changes in sequence beginning with "12:00AM."



**9** Click the rocker control.  
The minute display turns red.

**10** Press the rocker control up or down to select "15" (minutes).  
Each time you press the rocker control up or down, the minutes change in sequence.

**11** Click the rocker control.  
The cursor points to "START."

**12** Check the actual time, and click the rocker control to start the clock.  
The setting is complete.

**To reset the time**  
Display the CURRENT TIME SET screen and repeat steps 5 – 12.

**To display the current time**  
Press DISPLAY.

**To return to the previous menu**  
Press the rocker control-up or down until the cursor points to " > MENU." Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

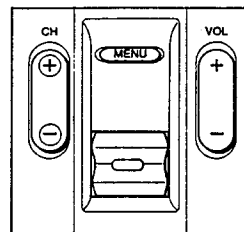
**To return to the normal screen.**  
Press MENU on the Remote Commander.

**Setting the ON/OFF TIMER**

Follow these instructions to make the program of your choice appear on the screen at a specified time.

**Example:** Set the timer to turn on the TV every Monday through Friday at 1:30 AM for 3 hours, on channel 8, as PROGRAM 1. (You can set up to three programs.)

Remote Commander

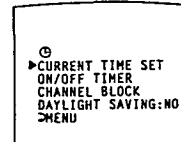


**1** Press MENU.  
The main menu appears.



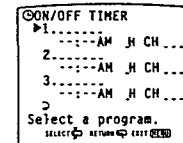
**2** Press the rocker control up or down until the cursor points to "TIME."

**3** Click the rocker control.  
The time menu appears.



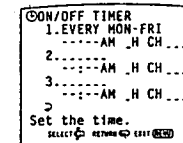
**4** Press the rocker control up or down until the cursor points to "ON/OFF TIMER."

**5** Click the rocker control.  
The ON/OFF TIMER screen appears, and the cursor points to "1."

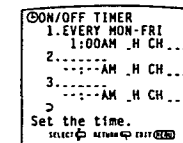


**6** To set program 1; click the rocker control.  
(To set program 2 or 3, press the rocker control up or down until the cursor points to that program; then click the rocker control.)  
The day input space turns red.

**7** Press the rocker control up or down to select "EVERY MON-FRI"; then click the rocker control.  
Each time you press the rocker control up, the days of the week change as shown in Fig. 1 (p. 63).



**8** Press the rocker control up or down to select "1:00AM"; then click the rocker control.  
Each time you press the rocker control up or down, the hour changes in sequence.

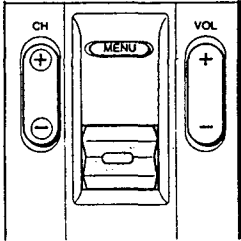


(Continued)

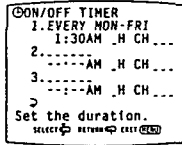


**Setting the ON-OFF TIMER** (Cont'd from prev. page)

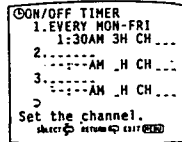
Remote Commander



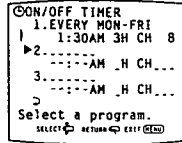
**9** Press the rocker control up or down to select "30" (minutes); Then click the rocker control. Each time you press the rocker control up or down, the minutes change in sequence.



**10** Press the rocker control up or down to select "3" (hour duration); then click the rocker control. Each time you press the rocker control up or down, the duration changes from "1" - "6" in sequence.



**11** Press the rocker control up or down to select "8" (channel); then click the rocker control. The **TIMER** indicator lights, indicating that the setting is complete. Each time you press the rocker control up or down, the channel number changes from 1 - 125 in sequence.



The display "TIMER WILL BE OFF" appears on the screen, one minute before the timer duration ends.

**To set program 2 or 3.**  
Click the rocker control and repeat steps 6 - 11.

**To erase an ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen, select the setting you want to erase, and select the underlined spaces for the day setting. The ON/OFF TIMER setting is erased.

**To enter a new ON/OFF TIMER setting**  
Display the ON/OFF TIMER screen and repeat steps 6 - 11.

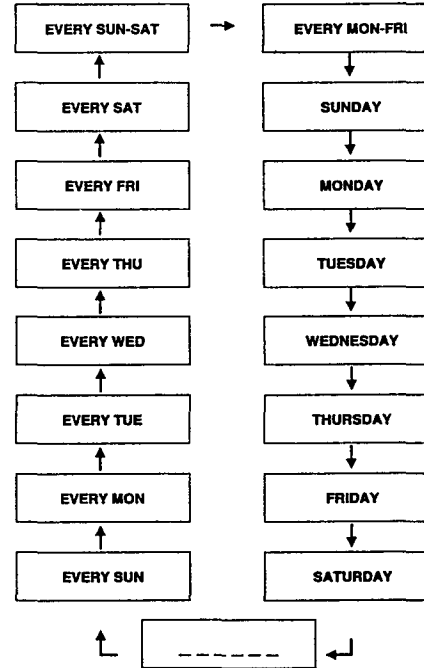
**To return to the previous menu**  
Press the rocker control up or down until the cursor points to "MENU". Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen.**  
Press MENU on the Remote Commander.

**Note**  
If you unplug the TV or a power failure occurs, both the clock and timer settings will be erased. Reset the current time; then set the timer.

**Fig. 1**  
**Selecting the day(s) of the week**  
When you press the rocker control up, the days of the week appear in the following order:

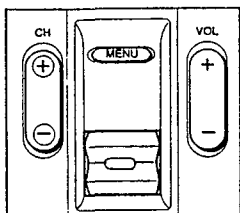


## Setting CHANNEL BLOCK

Follow these instructions to prevent a channel from appearing on the screen during the time that you specify. You can use this function to prevent children from watching unsuitable programs.

**Example:** Set CHANNEL BLOCK every Saturday at 4:30 PM for 1 hour, on Channel 12.

### Remote Commander



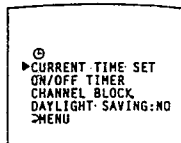
**Note**  
If you have not set the current time, the "CHANNEL BLOCK" display is shaded and cannot be selected.

- 1 Press MENU.  
The main menu appears.



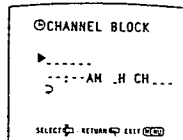
- 2 Press the rocker control up or down until the cursor points to "TIME."

- 3 Click the rocker control.  
The time menu appears.



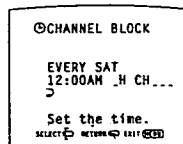
- 4 Press the rocker control up or down until the cursor points to "CHANNEL BLOCK."

- 5 Click the rocker control.  
The CHANNEL BLOCK screen appears, and the cursor points to the day input space.

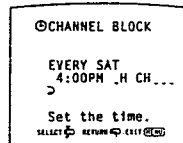


- 6 Click the rocker control.  
The day input space turns red.

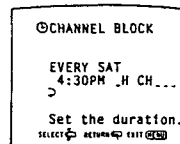
- 7 Press the rocker control up or down to select "EVERY SAT"; then click the rocker control.  
Each time you press the rocker control up or down, the days of the week change as shown in Fig. 1 (p. 63).



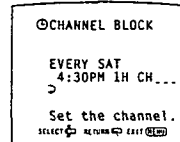
- 8 Press the rocker control up or down to select "4:00PM"; then click the rocker control.  
Each time you press the rocker control up or down, the hour changes in sequence.



- 9 Press the rocker control up or down to select ":30" (minutes); then click the rocker control.  
Each time you press the rocker control up or down, the minutes change in sequence.



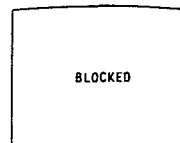
- 10 Press the rocker control up or down to select "1" (hour duration); then click the rocker control.  
Each time you press the rocker control up or down, the duration changes from "1" - "6" in sequence.



- 11 Press the rocker control up or down to select "12" (channel); then click the rocker control.  
The setting is complete.  
Each time you press the rocker control up or down, the channel number changes from "1" - "125" in sequence.



At the specified time, "BLOCKED" appears in red on the screen, and the picture of the specified channel is blocked and the sound is muted.



**To erase a CHANNEL BLOCK setting**  
Display the CHANNEL BLOCK screen and select the underlined spaces for the day setting.  
The CHANNEL BLOCK setting is erased.

**To enter a new CHANNEL BLOCK setting**  
Display the CHANNEL BLOCK screen and repeat steps 4 - 10. (You can only set one CHANNEL BLOCK at a time.)

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to "MENU."  
Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

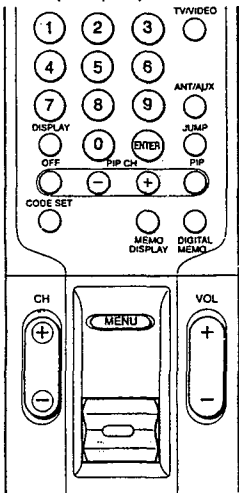
**To return to the normal screen.**  
Press MENU on the Remote Commander.

**Note**  
If the ON/OFF TIMER is set for an overlapping time (pp. 63 - 64), the later time setting takes precedence. For example, if CHANNEL BLOCK is set for 2:00 PM and ON/OFF TIMER is set for 3:00 PM, ON/OFF TIMER will take effect at 3:00 PM.

# 1-14. SETTING FAVORITE CHANNEL

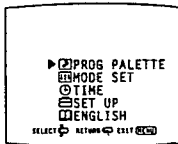
By setting FAVORITE CHANNEL, you can select the channels you use most frequently (up to seven channels) simply by clicking the rocker control on the Remote Commander.

### Remote Commander (Outer panel)



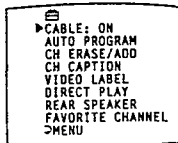
Follow these instructions to set the channels.

- 1 Press MENU.  
The main menu appears.



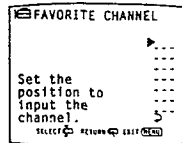
- 2 Press the rocker control up or down until the cursor points to "SET UP"

- 3 Click the rocker control.  
The set up menu appears.



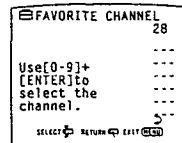
- 4 Press the rocker control up or down until the cursor points to "FAVORITE CHANNEL."

- 5 Click the rocker control.  
The FAVORITE CHANNEL screen appears, and the cursor points to the first channel position.



- 6 Press the rocker control up or down to select the channel position; then click the rocker control.

- 7 Press 0 - 9 and ENTER to set the channel number.



- 8 Click the rocker control.  
The setting is complete.

**To set other channels**  
Repeat steps 6 - 8.

**To erase a favorite channel setting**  
Press the rocker control up or down until the cursor points to the channel number you want to erase; then click the rocker control then press 0 and ENTER.

**To reset a favorite channel setting**  
Display the FAVORITE CHANNEL screen and repeat steps 6 - 8.

**To return to the previous menu**  
Press the rocker control up or down until the cursor points to " > MENU." Then click the rocker control.

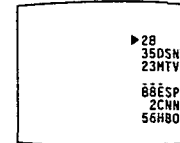
**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen.**  
Press MENU on the Remote Commander.

### Selecting a favorite channel

After setting the channels, follow these instructions to select the channel you want to watch.

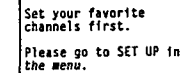
- 1 Click the rocker control.  
The FAVORITE CHANNEL display appears.



**Note**  
If you have set channel captions (pp. 55 - 56), the captions appear with the channel numbers.

- 2 Press the rocker control up or down to select the channel you want to watch; then click the rocker control.  
The channel is selected.

If you click the rocker control on the Remote Commander before setting FAVORITE CHANNEL, this screen appears.



Follow steps 1 - 8 to set your favorite channels, and then make the selection.

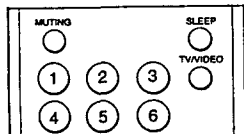
# 1-15. USING THE PROGRAMMABLE REMOTE COMMANDER

You can operate other video equipment (such as VCRs, video disc players and cable boxes) that have an infrared remote detector with this supplied Remote Commander.

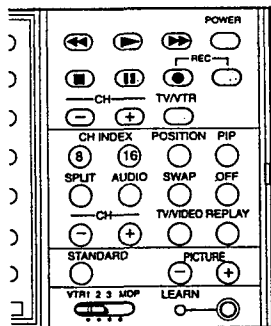
## Operating Sony video equipment

Follow these instructions to operate Sony video cassette recorders (Beta, 8 mm and VHS) and video disc players (including multi-disc players).

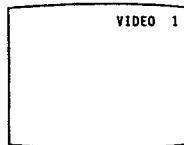
Remote Commander  
(Outer panel)



(Inner panel)



- 1 Press TV/VIDEO to select the input mode of your connected equipment (VIDEO 1, VIDEO 2 or VIDEO 3).



You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp. 74 - 75).

- 2 Set the VTR1-2-3 MDP selector according to the video equipment you want to operate.

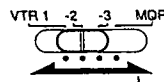


Fig. 2: Video equipment settings

If you want to operate a:	set to:
Beta, ED Beta VCR	VTR 1
8 mm VCR	VTR 2
VHS VCR	VTR 3
Video disc player	MDP

- 3 Use the video operating buttons to control the connected equipment.

**Fig. 3: Operating a VCR (VTR1, 2, 3)**

To turn on or off	Press POWER.
To change channels (when watching TV programs through the VCR's tuner)	Press CH +/-
To record	Press ● and REC simultaneously.
To play	Press ►.
To stop	Press ■.
To fast forward	Press ►►.
To rewind the tape	Press ◄◄.
To pause	Press   . To resume normal playback, press again.
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, press again.
To change input mode	Press TV/VTR.

**Fig. 4: Operating a Video Disc Player (MDP)**

To turn on or off	Press POWER.
To play	Press ►.
To stop	Press ■.
To pause	Press   . To resume normal playback, press again. <b>Note</b> This function is effective only for CAV (standard-play disc). With CLV (extended-play disc), the TV goes off (standby mode) if you press   .
To search the picture forward and backward	Keep pressing ►► or ◄◄ during playback. To resume normal playback, release the button.

### Notes

- If the video equipment does not have a certain function, the corresponding button on this Remote Commander will not operate.
- If you set another manufacturer's code to a VTR1-2-3 MDP selector position (pp. 70 - 71), you must also set the Sony code to operate Sony equipment.

### Caution

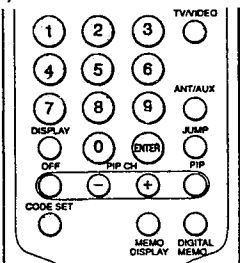
When you replace the batteries, do it within approximately 30 minutes. Otherwise Sony equipment settings and the settings you made under the Pre-Programmed function (pp. 70 - 72) and Learning function (p. 73) may be erased.

## Operating non-Sony or Sony video equipment

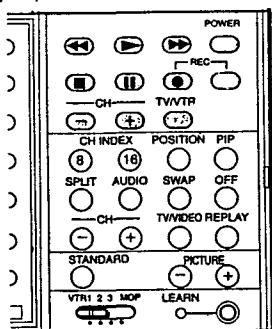
Follow these instructions to set the manufacturer's code, which will enable you to operate non-Sony and Sony video equipment with the pre-programmed Remote Commander.

**Example:** Operate an RCA video cassette recorder connected to the VIDEO 2 IN jacks.

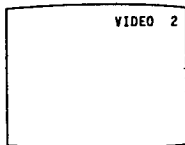
**Remote Commander**  
(Outer panel)



(Inner panel)

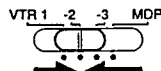


**1** Press TV/VIDEO to select VIDEO 2.



You can skip this step and go directly to video mode with the VTR1-2-3 MDP selector, by using the DIRECT PLAY function (pp. 74 - 75).

**2** Set the VTR1-2-3 MDP selector to VTR2.

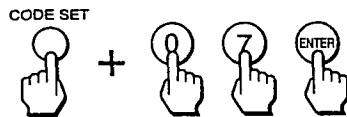


**Note**

You can use the VTR1-2-3 settings, but not MDP. By using these settings, you can use the Remote Commander to operate up to three pieces of equipment. To use another manufacturer's equipment besides a Sony VCR, set the selector to a position not being used for your Sony video equipment.

• Set the selector to MDP only to use your Sony multi-disc player (pp. 68 - 69).

**3** While pressing CODE SET, press 0, 7 and ENTER to set RCA's code number. (For manufacturer code numbers, see Figs. 5, 6 and 7 on p. 71.)



A long beep sounds, indicating that the code has been set.

**Note**

If you press a wrong code, or if the code has not been set, four short beeps sound. Repeat step 3 to set the code.

**4** Use the video operating buttons to operate the connected equipment. (see Fig. 3 on p. 68 and Fig. 4 on p. 69.)

Fig. 5: VCR manufacturer code numbers

MANUFACTURER	CODE
SONY	01, 02, 03
CANON	05
EMERSON	22, 30, 33
FISHER	10, 11, 12, 15
FUNAI	29
GENERAL ELECTRIC	05, 08
GOLDSTAR	25
HITACHI	07, 08, 36
JVC	16, 35
MAGNAVOX	05, 06, 09
MITSUBISHI	18, 19, 26, 27
MULTITECH	29
NEC	16, 23, 31
PANASONIC	05, 06
PHILCO	05, 06
PHILIPS	05, 06, 09
QUASAR	05, 06
RCA	07, 08
SAMSUNG	24, 32
SANYO	11, 15
SCOTT	21
SHARP	13, 14
SHINTOM	34
SYLVANIA	05, 06, 09
SYMPHONIC	29
TEKNIKA	28, 29
TOSHIBA	20, 21
TOTE VISION	25
ZENITH	17

Fig. 6: MDP manufacturer code numbers

MANUFACTURER	CODE
SONY	04
KENWOOD	58
MAGNAVOX	52
MARANZ	54
MITSUBISHI	51
PANASONIC	55
PHILIPS	52
PIONEER	51
RCA	51
SANYO	57
SHARP	56
YAMAHA	53

Fig. 7: Sony Equipment and Code Numbers

SONY EQUIPMENT	CODE
Beta, ED Beta VCR	01
8 mm VCR	02
VHS VCR	03
Video disc player	04

**Note**

In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied Remote Commander. This is because your equipment may use a code that is not provided with this Remote Commander. In this case, please use the equipment's own remote control unit.

For your convenience

Write the manufacturer name and code number for your equipment onto one of the supplied self-adhesive labels and affix the label to the Remote Commander for easy reference.

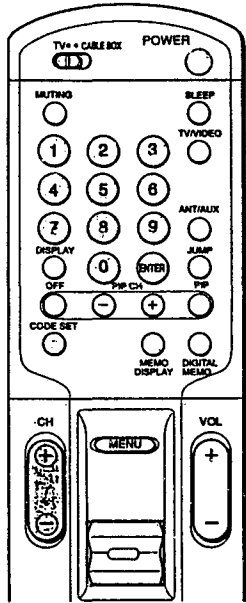
	BRAND	CODE
1		
2		
3		

## Operating a cable converter box

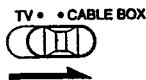
Follow these instructions to set the manufacturer's code, which will enable you to operate a connected cable converter box with the pre-programmed Remote Commander.

**Example:** Operate a connected Zenith cable converter box.

Remote Commander (Outer panel)



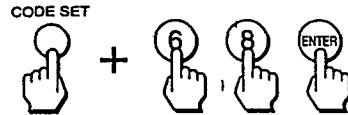
**1** Set the TV/CABLE BOX selector to CABLE BOX.



### Notes

- If more than one code number is listed, try entering them one by one, until you come to the correct code for your equipment.
- If you enter a new code number, the code number you previously entered at that setting is erased.
- In some rare cases, your equipment may use a code that is not provided with this Remote Commander and you may not be able to operate your cable converter box with the supplied Remote Commander. In this case, use the equipment's own remote control unit.

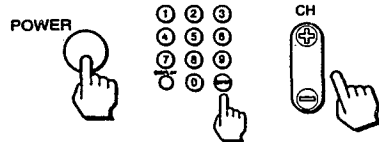
**2** While pressing CODE SET, press 6 and 8 (Zenith's code number — see Fig. 5) and ENTER.



A long beep sounds, indicating that the code has been set.

**Note**  
If you press a wrong code, or if the code has not been set, four short beeps sound. Repeat step 2 to set the code.

**3** Use the TV control buttons (POWER, 0-9, ENTER and CH.+/-) to operate the cable converter box.



**To return to the normal screen**  
Set the TV/CABLE BOX selector to TV; then use the TV control buttons to control the TV.

**For more details on operating the cable box**  
Refer to the operating instructions that come with the cable box.

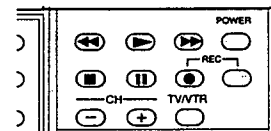
Fig. 8: Cable box manufacturer code numbers

MANUFACTURER	CODE
JERROLD	60, 61, 62, 63, 64, 65
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

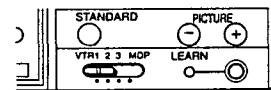
## Operating non-Sony or Sony audio and video equipment (Learning function)

Follow these instructions to "teach" any of the programmable buttons to operate the function of another Remote Commander. Use Learning in order to operate non-Sony and Sony audio equipment, and a remote controlled cable converter box or video equipment whose manufacturer code is not listed (Fig. 5, Fig. 6 - p. 71; Fig. 8 - p. 72).

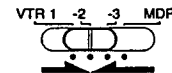
Remote Commander (Inner panel)  
Programmable buttons



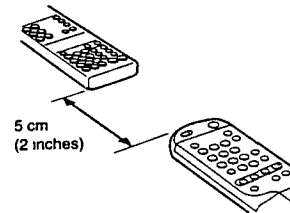
LEARN button and indicator lamp



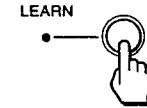
**1** Set the VTR1-2-3 MDP selector to VTR3 or MDP (Learning will not work in VTR1 or VTR2 settings.)



**2** Place the supplied Remote Commander head to head with equipment's remote commander, approximately 5 cm (2 inches) apart.



**3** Press LEARN.  
The LEARN indicator lights up (red).



**4** Momentarily press the button of the supplied Remote Commander that you want to learn a function.  
The LEARN indicator goes off and lights up again, and a short beep sounds, indicating that the Remote Commander is ready for learning.

The Remote Commander beeps repeatedly if an error has occurred. Repeat this step.

**5** Press and hold down the button of the other remote commander, whose function you want to "teach," until the LEARN indicator turns red.  
A long beep sounds and the LEARN indicator goes off and lights up again, indicating that learning is complete. If not, repeat steps 4 and 5.

**6** Repeat steps 4 and 5 to teach functions to other buttons.

**7** Press LEARN.  
The LEARN indicator lamp lights up (red), then goes off, indicating that learning is complete.

**For accurate learning**  
Do not move the remote commanders during the learning process.

### Notes

- If the memory is full, three short beeps sound and the LEARN indicator flashes off and on. Use learning to re-program a button whose learned function you do not use often; the previously learned function is erased.
- If the other remote commander's signal cannot be learned, a short beep sounds and the LEARN indicator flashes once.
- If you press a button that cannot be used for learning, four short beeps sound and the LEARN indicator flashes four times.

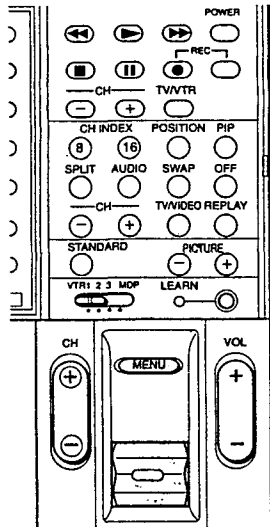
### Selecting a VCR mode directly — DIRECT PLAY

Follow these instructions to switch from TV to VCR mode by simply pressing the ► (playback) button on the supplied Remote Commander.

**Example:** Connect your VCR to the VIDEO 1 IN jacks, and set the VTR1-2-3 MDP selector to VTR2. When you press ►, the input mode changes to the VCR connected to the VIDEO 1 IN jacks.

After completing the steps below, the VTR selector position is retained in the TV's memory.

Remote Commander (Inner panel)



**1** Press MENU.  
The main menu appears.



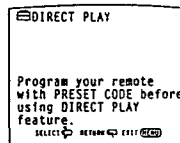
**2** Press the rocker control up or down until the cursor points to "SET UP"

**3** Click the rocker control.  
The set up menu appears.



**4** Press the rocker control up or down until the cursor points to "DIRECT PLAY."

**5** Click the rocker control.  
A message screen appears.



**Note**  
This screen reminds you to set the manufacturer's code, if you have not already done so (pp. 70 – 71).

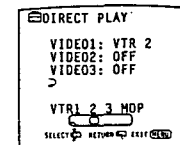
**6** Click the rocker control again.  
The DIRECT PLAY screen appears.



**7** Press the rocker control up or down until the cursor points to the video input mode. (When the video equipment is connected to VIDEO 1 IN, select "VIDEO1.")

**8** Click the rocker control.  
The mode display turns red.

**9** Press the rocker control up or down to select the VTR selector mode you have set on the Remote Commander. (When the VTR1-2-3 MDP selector is set to VTR2, select "VTR 2.")  
Each time you press the rocker control up or down, "VTR 1," "VTR 2," "VTR 3," "MDP" and "OFF" appear in sequence.



**10** Click the rocker control.  
The direct play setting is complete.

**To set direct play for other connected video equipment**  
Repeat steps 7 – 10.



**To return to the previous menu**  
Press the rocker control up or down until the cursor points to " ► MENU."  
Then click the rocker control.

**To return to the main menu**  
Repeat the above, until you reach the main menu.

**To return to the normal screen.**  
Press MENU on the Remote Commander.

## 1-16. TROUBLESHOOTING

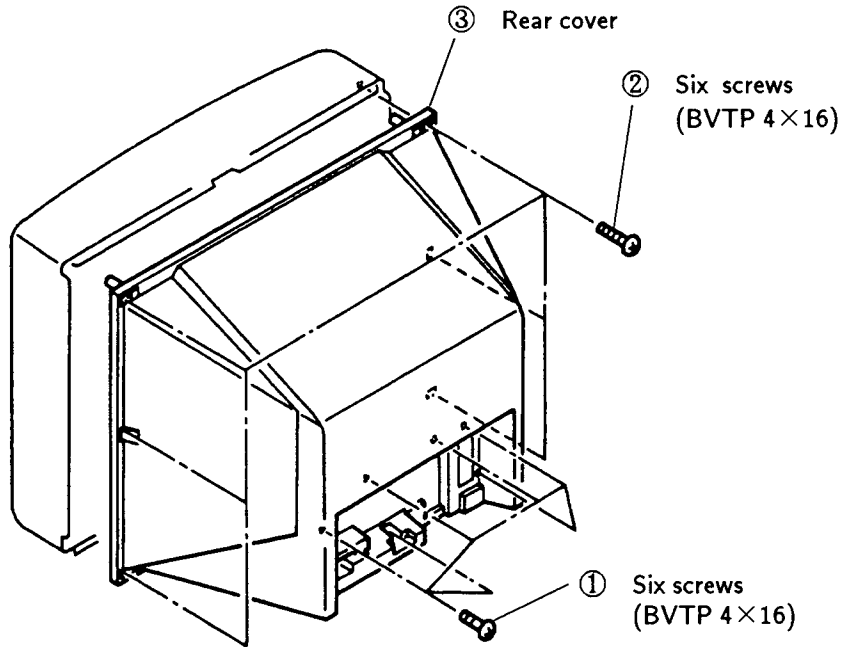
Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed here. If the problem still cannot be solved, contact your nearest service facility.

Symptom	Possible causes and remedies
No picture (screen not lit), no sound	<ul style="list-style-type: none"> <li>• Make sure POWER is switched on.</li> <li>• Check the power cord connection.</li> <li>• Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>• Make sure that the TV/CABLE BOX selector is set to TV.</li> </ul>
Poor or no picture (screen not lit), good sound	<ul style="list-style-type: none"> <li>• Adjust the picture using the VIDEO screen (pp. 44 – 47).</li> <li>• Check the antenna/cable connections.</li> </ul>
Good picture, no sound	<ul style="list-style-type: none"> <li>• Press VOLUME + on the TV or VOL + on the Remote Commander.</li> <li>• Press MUTING on the Remote Commander.</li> <li>• Check the MTS setting (p. 52).</li> <li>• Check that the TV/VIDEO and VTR1-2-3 MDP controls are set correctly.</li> <li>• Make sure SPEAKER is set to ON (p. 53).</li> </ul>
No color for color programs	<ul style="list-style-type: none"> <li>• Check the HUE and COLOR settings (pp. 44 – 45).</li> </ul>
Snow and noise only	<ul style="list-style-type: none"> <li>• Check that it is an active or correct channel.</li> <li>• Check the cable setting.</li> <li>• Check the ANT/AUX button setting.</li> <li>• Check antenna/cable connections.</li> </ul>
 Dotted lines or stripes	This is often caused by local interference (for example, cars, neon signs and hairdryers). Adjust the telescopic aerial for minimum interference.
 Double images or ghosts	Reflections from nearby mountains or buildings often cause this problem. Connecting a highly directional outdoor antenna or a CATV cable may improve the picture.
<b>Try another channel. It could be station trouble.</b>	

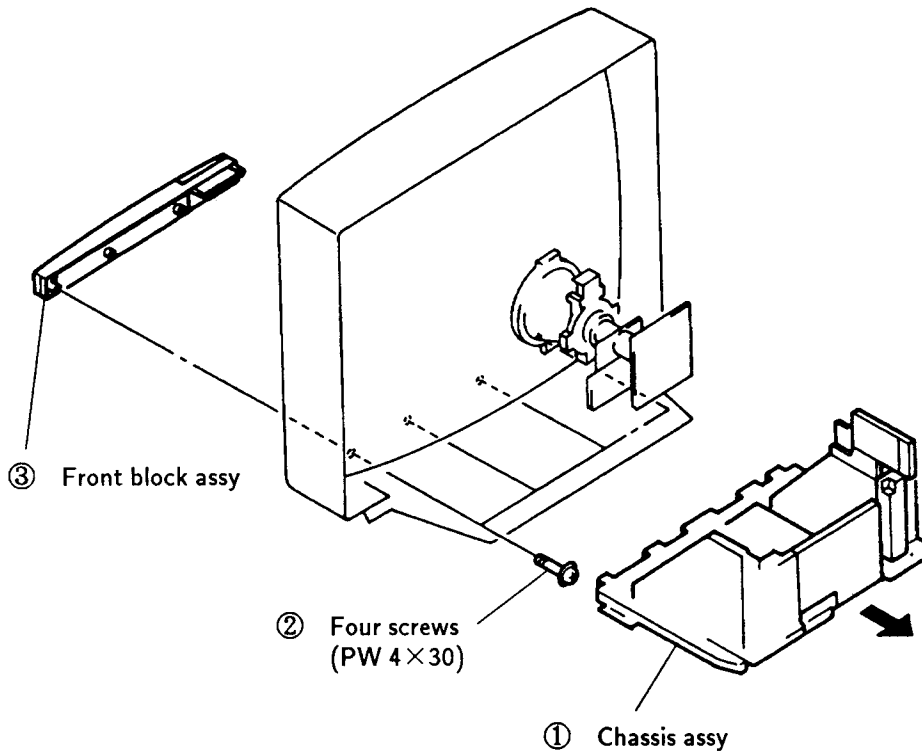


## SECTION 2 DISASSEMBLY

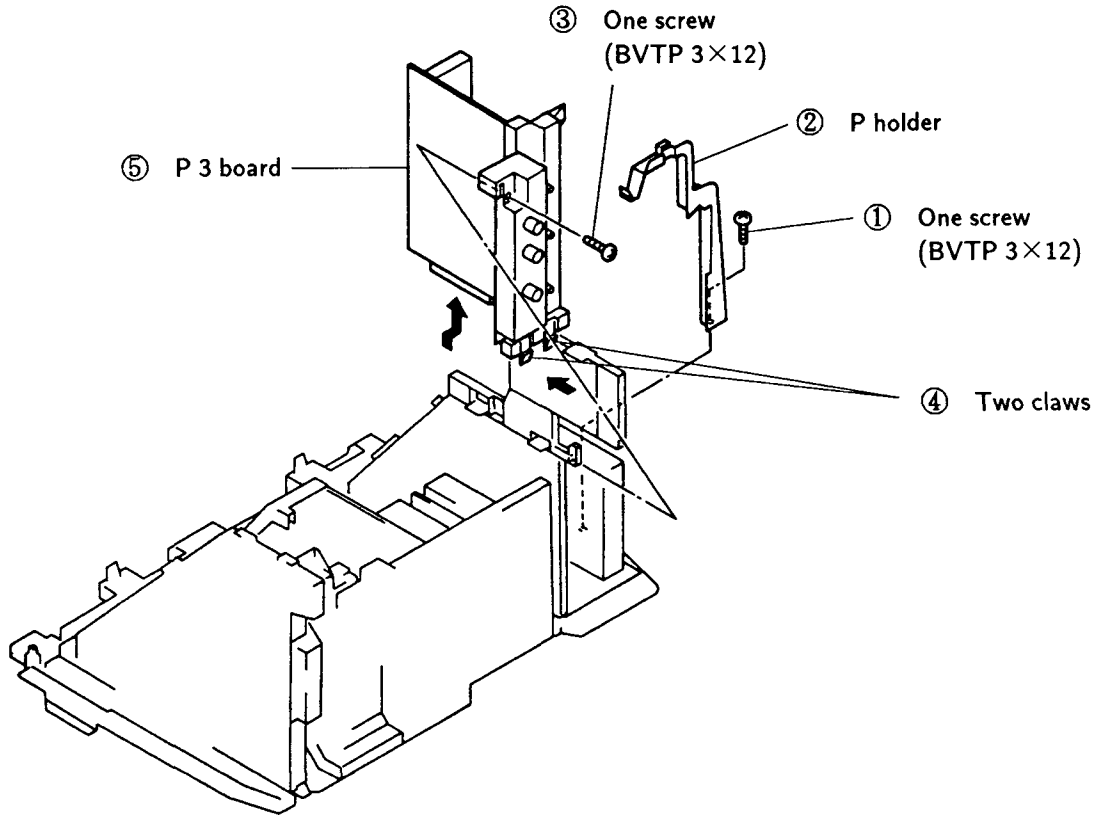
### 2-1. REAR COVER REMOVAL



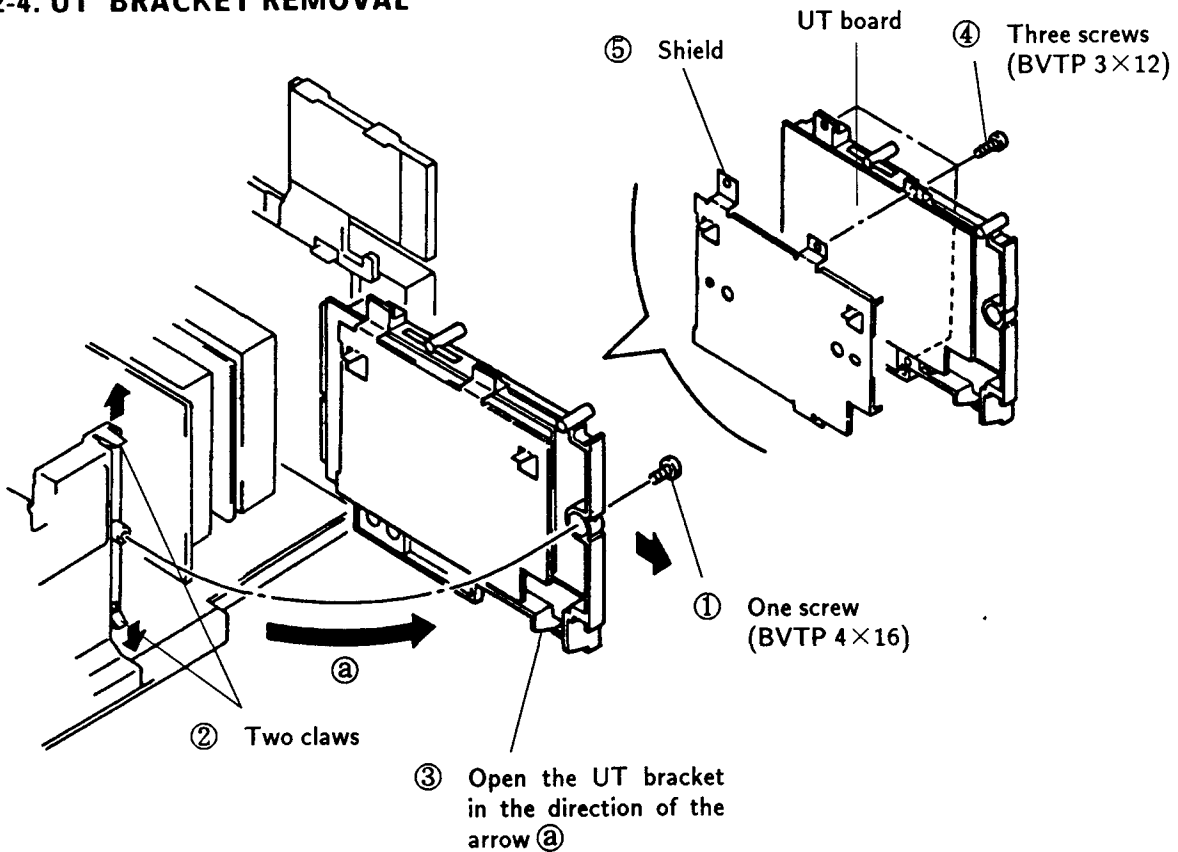
### 2-2. CHASSIS ASSY AND FRONT BLOCK ASSY REMOVAL



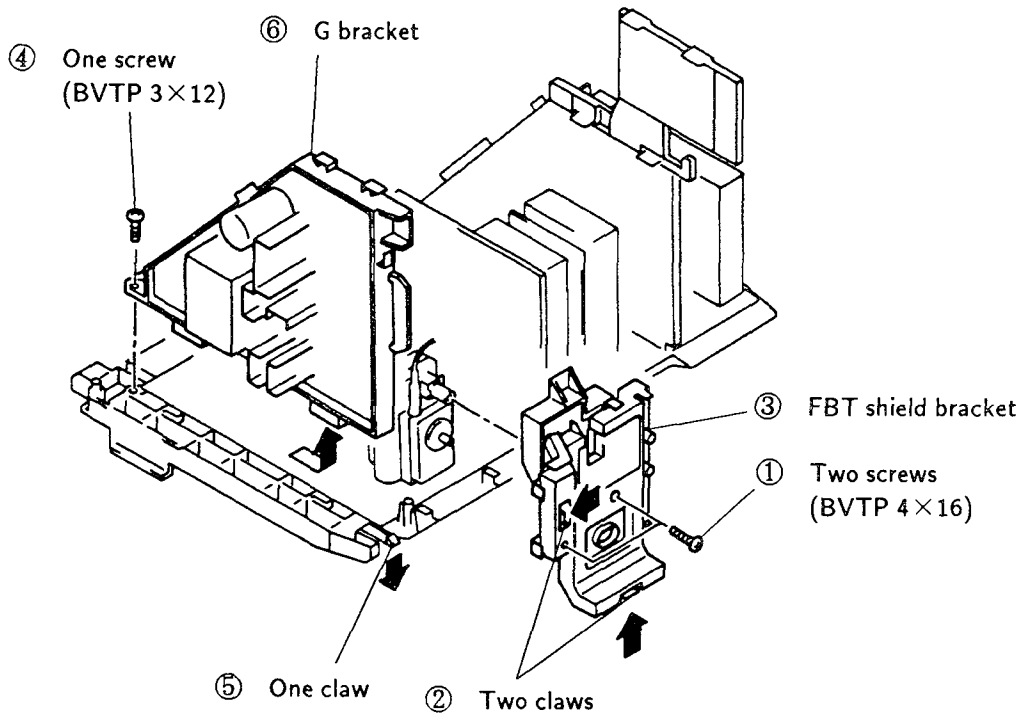
### 2-3. P3 BOARD REMOVAL



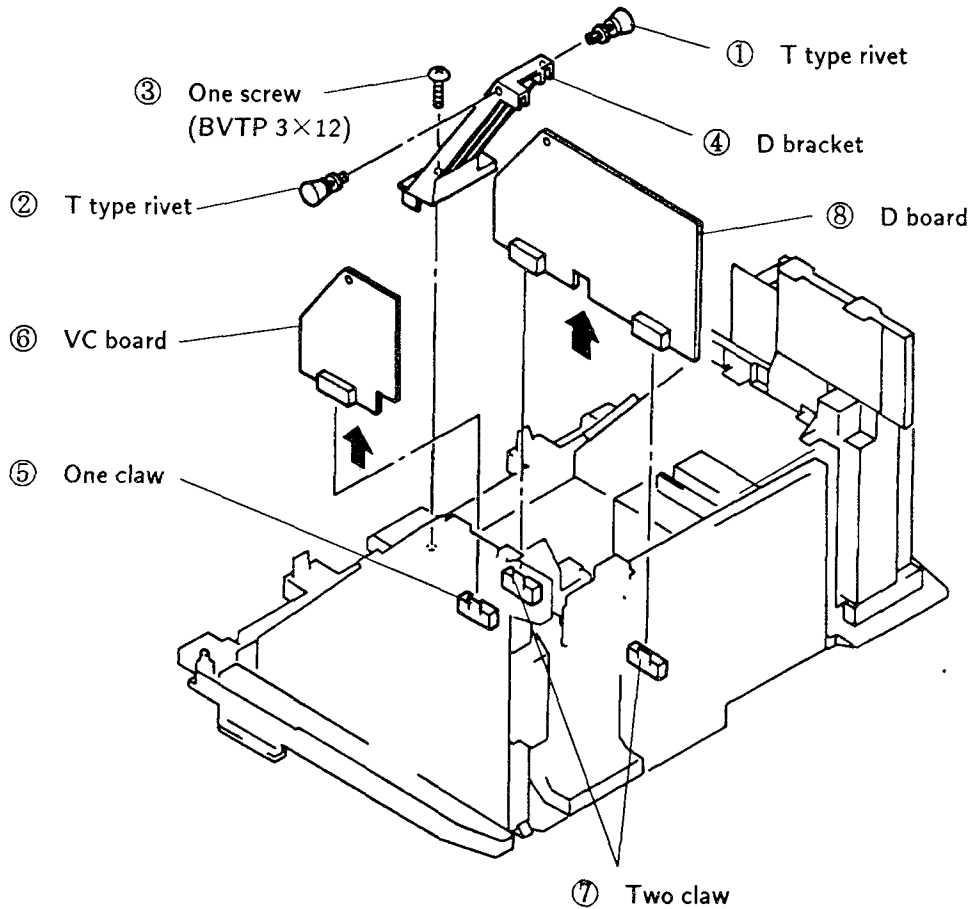
### 2-4. UT BRACKET REMOVAL



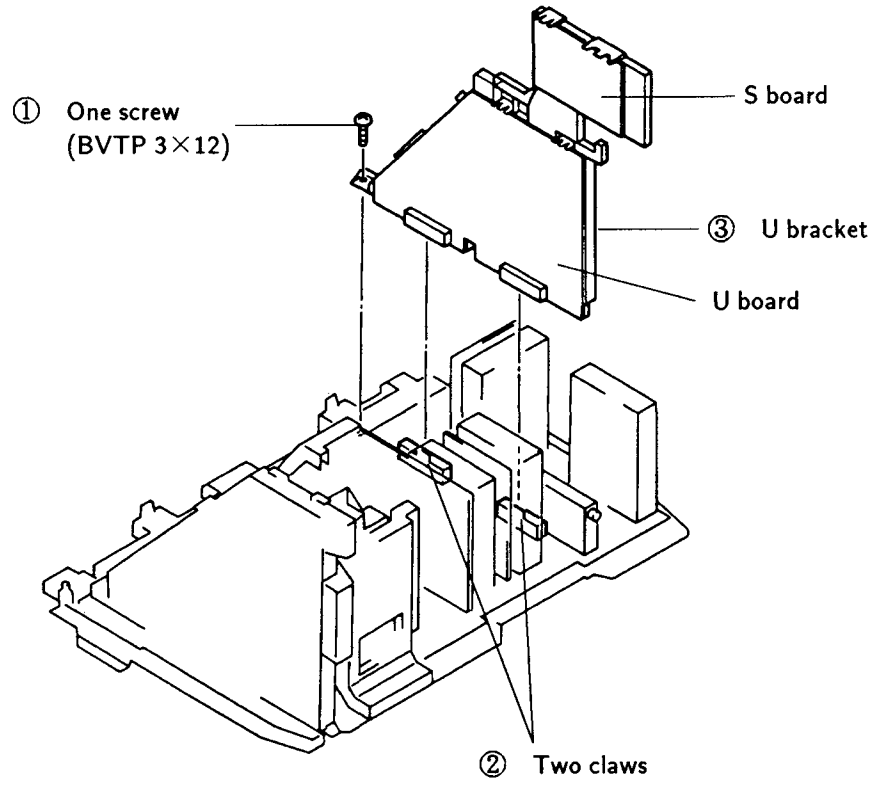
## 2-5. G BRACKET REMOVAL



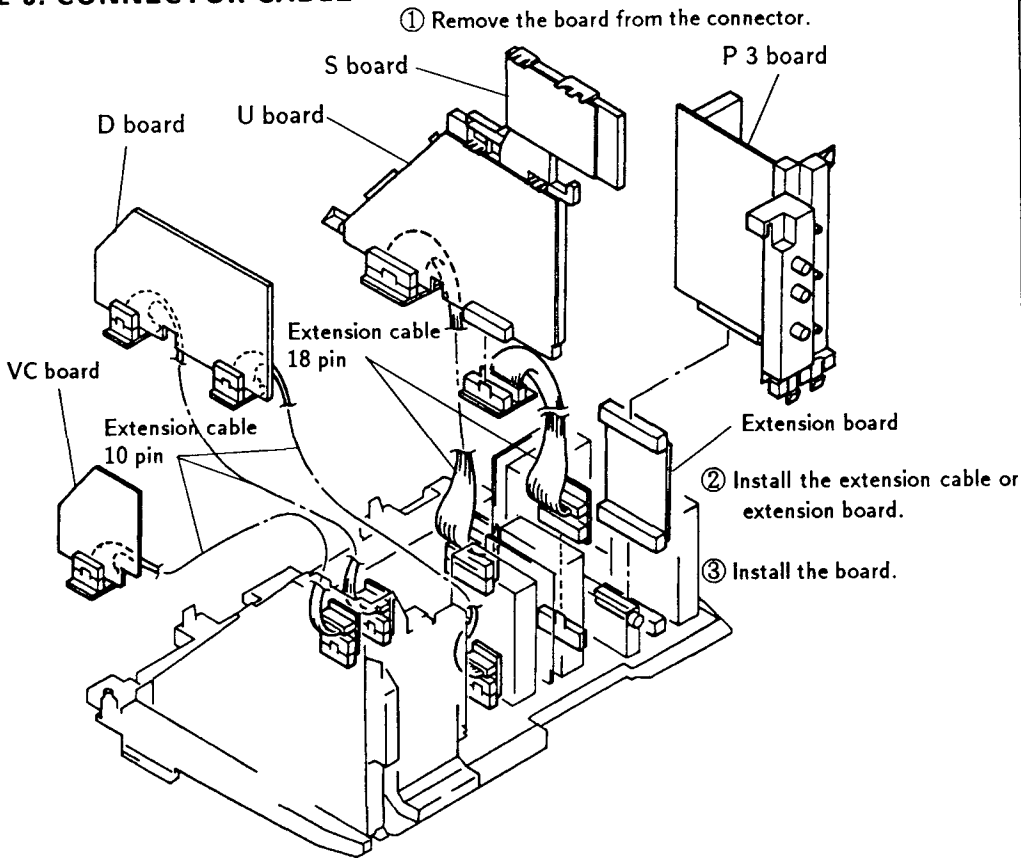
## 2-6. D BOARD REMOVAL



## 2-7. U BRACKET REMOVAL

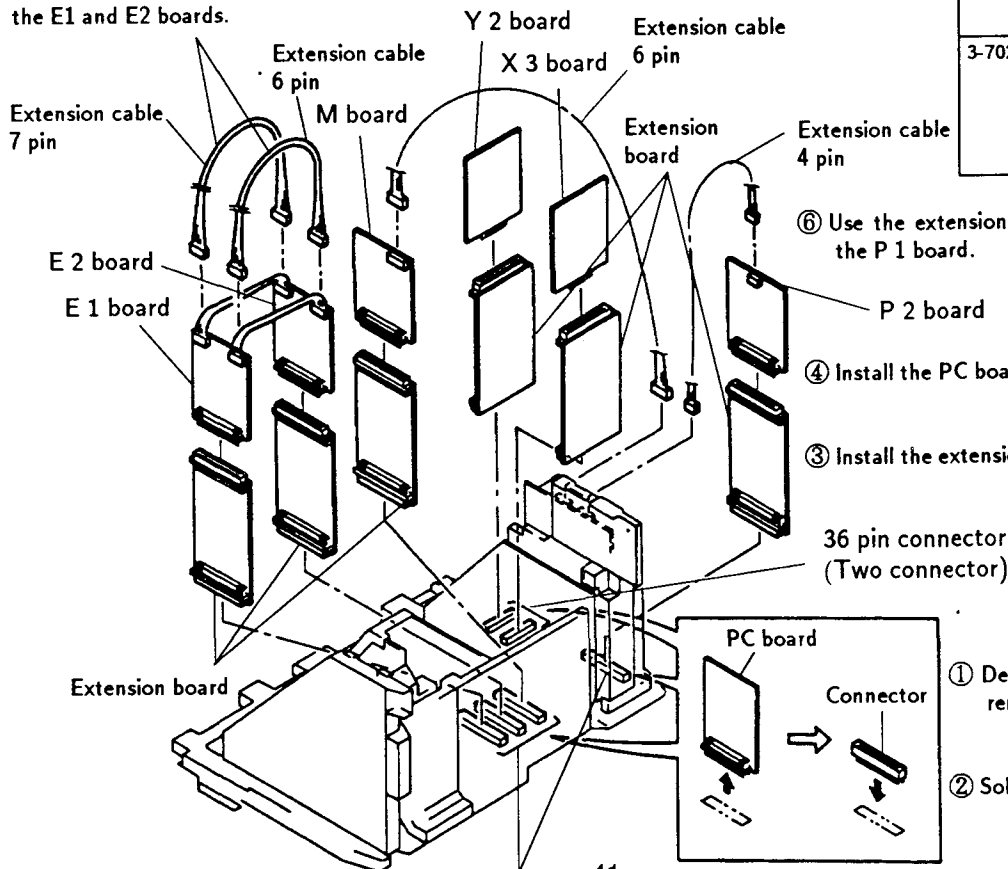


## 2-8. CONNECTOR CABLE



Exterior	
Extension cable	
	4 pin
1-941-891-33	
	6 pin
1-941-891-31	
	7 pin
1-941-891-32	
	18 pin
3-702-558-01	
	10 pin
3-702-557-01	
3-702-561-01	
	36 pin connector
3-702-560-01	
	50 pin connector
3-702-559-01	
	Extension board

⑤ Use the extension cable when checking the E1 and E2 boards.



⑥ Use the extension cable when checking the P 1 board.

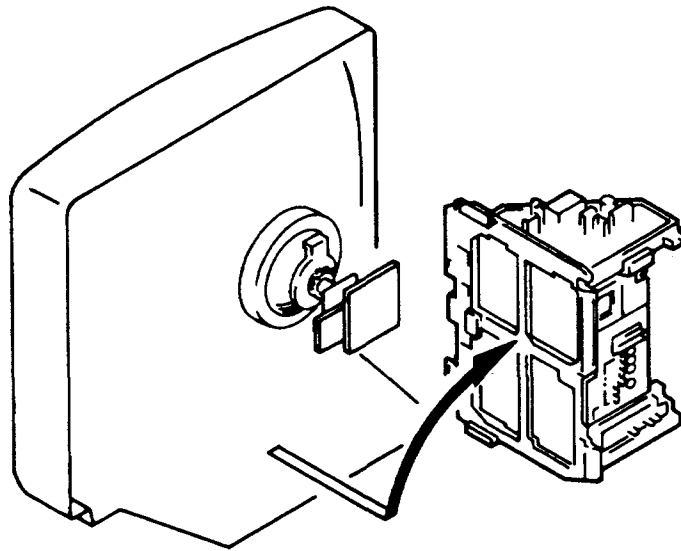
④ Install the PC board removed.

③ Install the extension board.

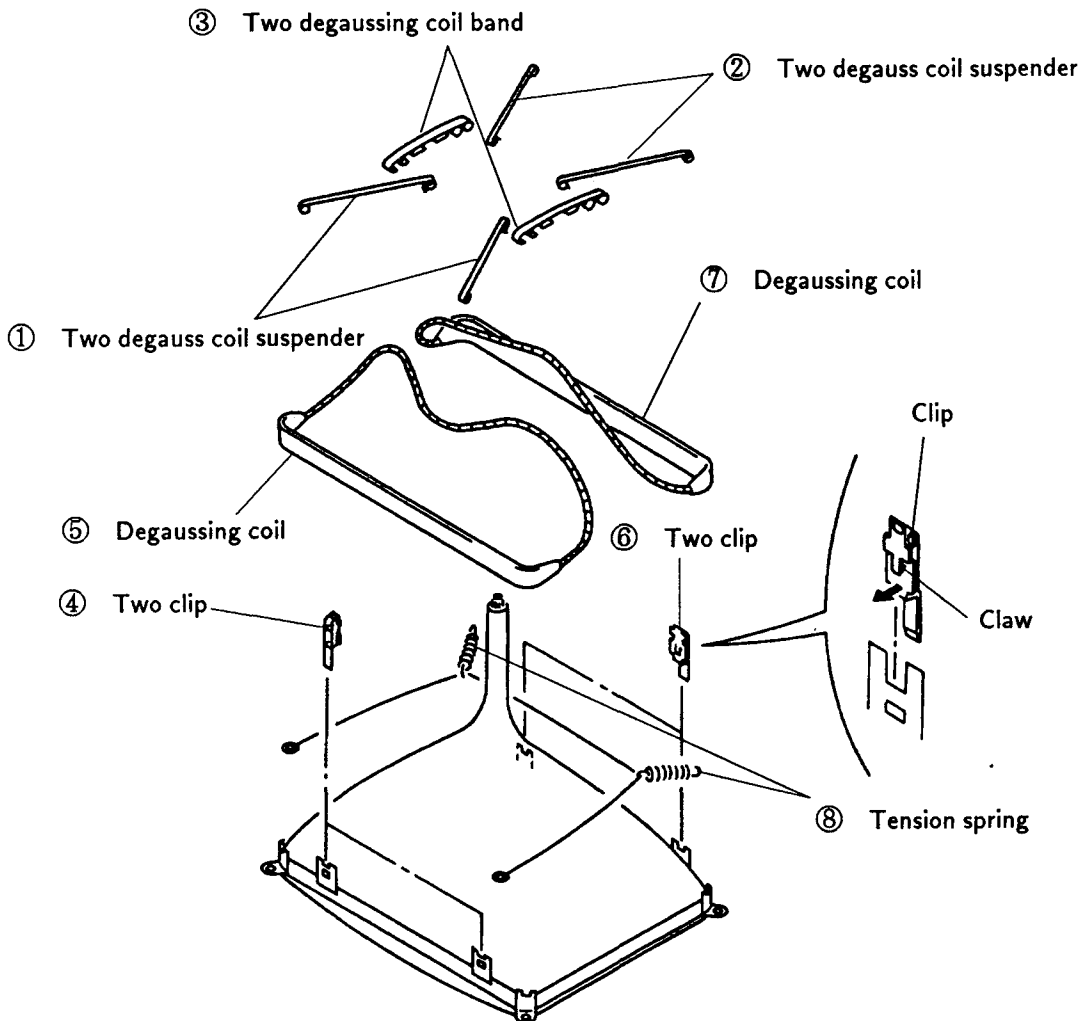
① De-solder the PC board and remove it.

② Solder the connector.

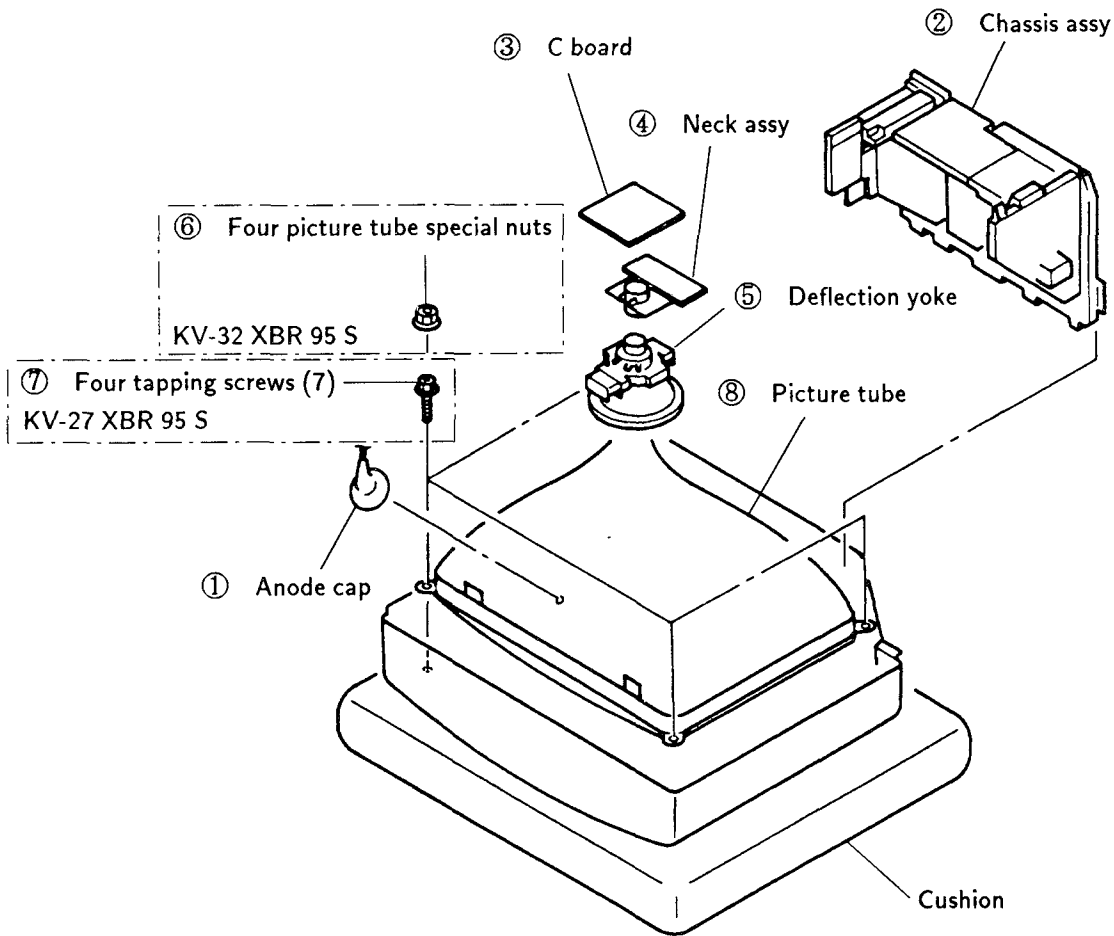
## 2-9. SERVICE POSITION



## 2-10. DEGAUSSING COIL REMOVAL



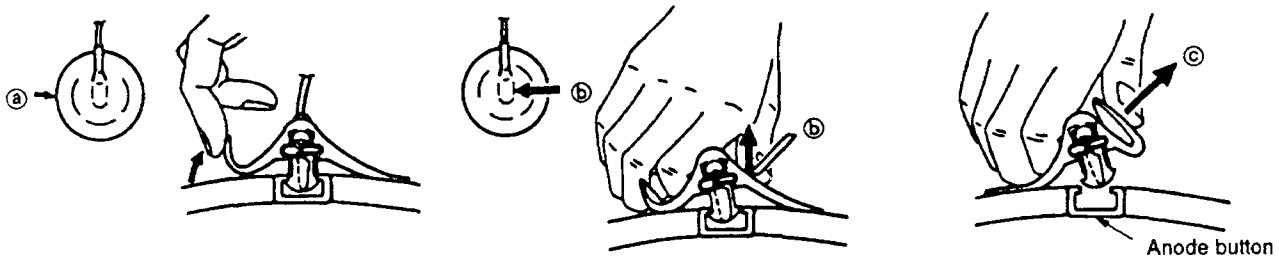
## 2-11. PICTURE TUBE REMOVAL



### • REMOVAL OF ANODE-CAP

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

### • REMOVING PROCEDURES



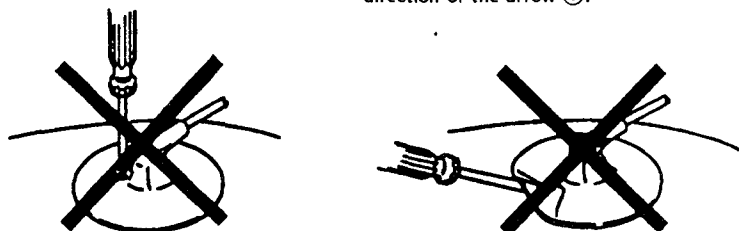
① Turn up one side of the rubber cap in the direction indicated by the arrow ①.

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ②.

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow ③.

### • HOW TO HANDLE AN ANODE-CAP

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



## 2-12. REPAIR OF CHIP COMPONENT CIRCUIT BOARD

### 2-12-1. POINTS OF COMPONENT REMOVAL

#### Handling of blower type soldering iron

If hot blast is too strong or applied from a slanting direction, small components and solder near the component being removed can be blown off. Do not use blower type without temperature control.

### 2-12-2. NOTES ON SOLDERING FOR CHIP COMPONENTS

- 1) During soldering a chip component, if a soldering iron is applied for a long time, the heat may damage the component or cause pattern peeling.
- 2) Do not reuse a removed component. The characteristics of such a component may deteriorate.
- 3) Use wire solder containing silver ( $\varnothing 0.3$  or  $\varnothing 0.6$ ).  
(The pin electrodes of the laminated chip capacitor are silver +palladium, so if wire solder which does not contain silver is used, the silver of the pin electrode will be sucked into the solder.)

### 2-12-3. REMOVAL AND MOUNTING OF COMPONENTS

#### Chip resistor and chip capacitor

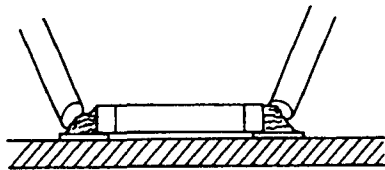
#### REMOVAL

- Using two soldering irons

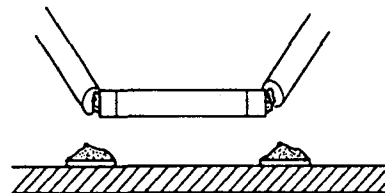
#### 1) Mounted state



#### 2) Melt the solder.

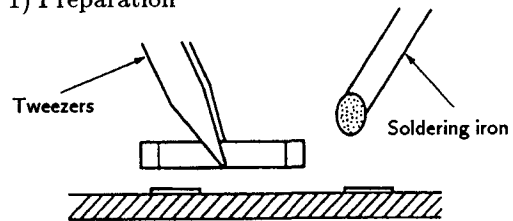


#### 3) Remove the component.



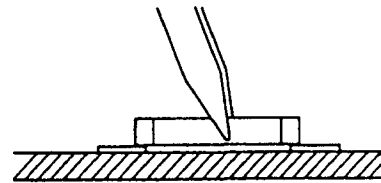
#### SOLDERING

#### 1) Preparation

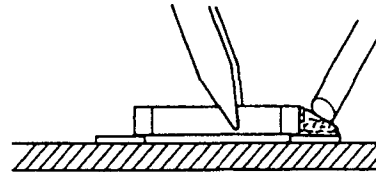


#### 2) Location

Be careful not to misposition.

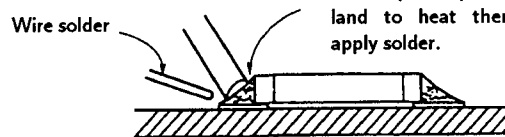


#### 3) Tack soldering and flux application

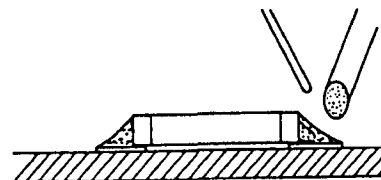


#### 4) Soldering

Apply the soldering iron to the chip component and land to heat them and apply solder.



#### 5) Soldering (Fix the fillet.)



#### 6) Visual inspection

Check for the following defects :

- No-soldered part
- Bridge (to other components or lands)
- Mispositioning
- Other defects

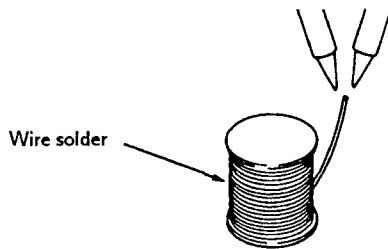


## 2-12-4. MINI-TRANSISTOR

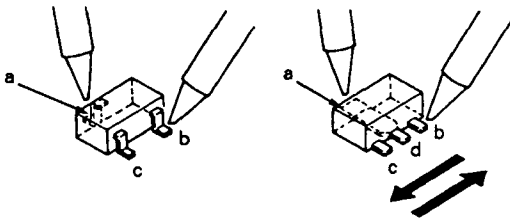
### REMOVAL

- Using two soldering irons

1) Put a little solder on the tip of two soldering irons.



2) Apply the tip of one soldering iron to the point “a” and the other to the points “b” → “c” (or “b” → “d” → “c”) and move the component in the directions indicated by arrows in the figure to remove it.

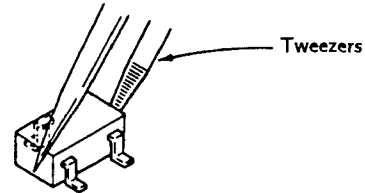


### MOUNTING

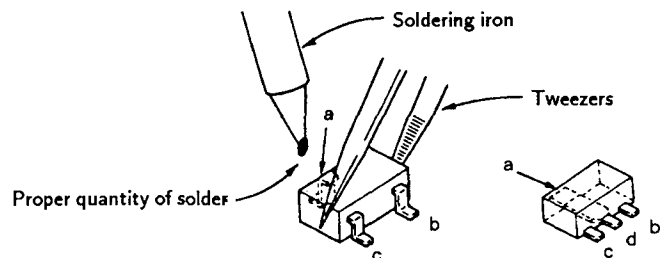
1) Apply a little flux to the land with a brush.



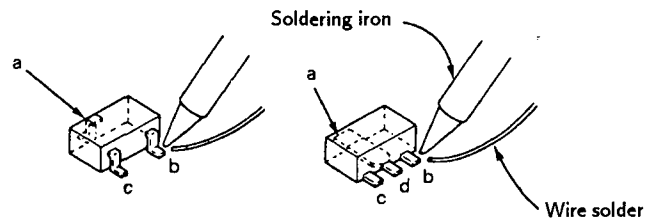
2) Place the component in position using tweezers.



3) Put a little solder on the tip of the soldering iron and solder the point “a” to fix the component.

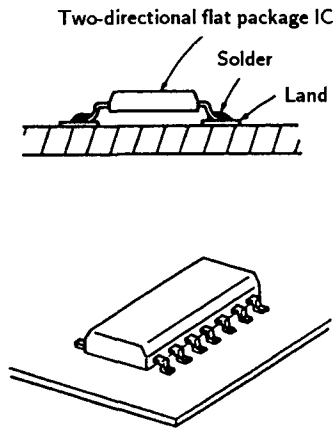


4) Bring the tip of the soldering iron and the wire solder close to the point to be soldered. Solder the points “b” → “c” (or “b” → “d” → “c”) in order.

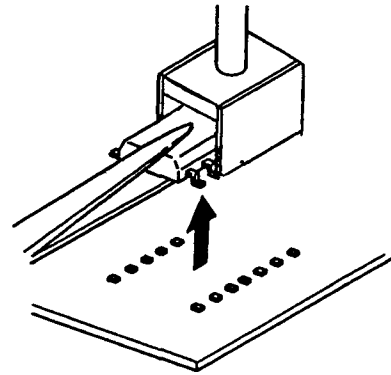


### 2-12-5. TWO-DIRECTIONAL FLAT PACKAGE IC

#### MOUNT CONDITION

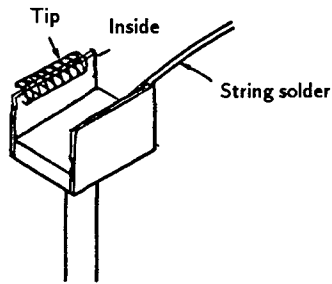


- 3) When the solder melts, lift the IC with a pair of tweezers and remove.



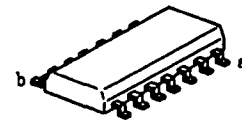
#### REMOVAL

- 1) Apply some solder on the inside and the tip of the iron tip jig.

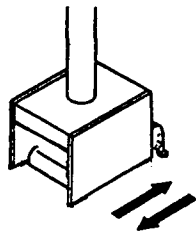


#### INSTALLATION

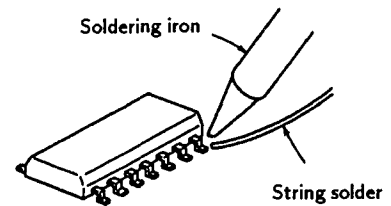
- 1) Place the two-directional flat package IC at the appointed position, solder pins a and b on the diagonal, and fasten it.



- 2) Place the iron tip jig over the IC, and move the jig to and fro as shown in the figure.

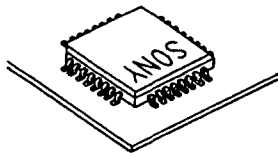
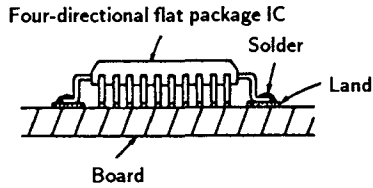


- 2) Solder the remaining pins with the soldering iron.



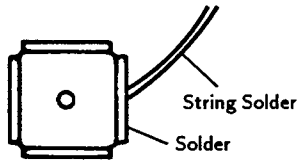
2-12-6. FOUR-DIRECTIONAL FLAT PACKAGE IC

**MOUNT CONDITION**

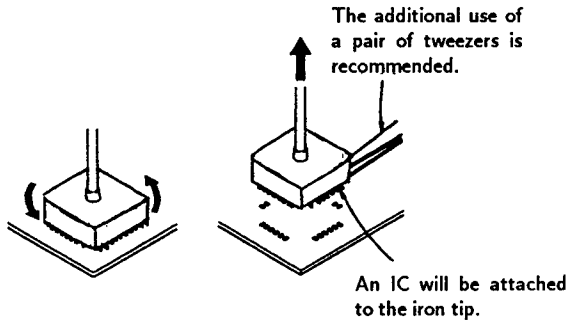


**REMOVAL**

1) Apply solder on the tip of the iron tip jig.



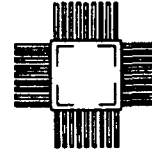
2) Place the iron tip jig over the IC, wait about two to three seconds, rotate the iron slightly and lift it up.



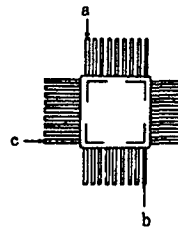
Note: For flat ICs of above 52 P, the IC may not be completely attracted when the iron tip jig is lifted up. In these cases, use a pair of tweezers to remove.

**INSTALLATION**

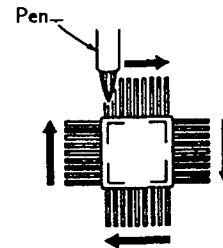
1) Place the four-directional flat package IC at the appointed position.



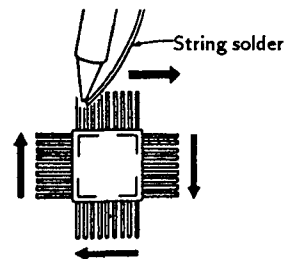
2) Apply a slight amount of solder on the iron tip, and solder the three sections in the order of a → b → c, and fix.



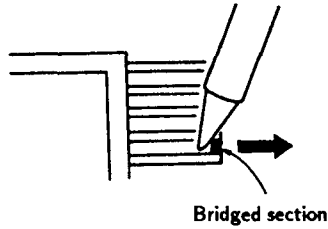
3) Apply a slight amount of flux with a pen on all four directions.



4) Apply solder on the iron tip and the string solder, and slide and solder in the directions of the arrows.

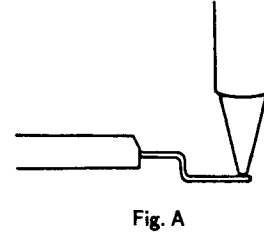


Note: 1) After soldering, if there are bridged sections, correct by sliding the soldering iron in the direction of the arrow.

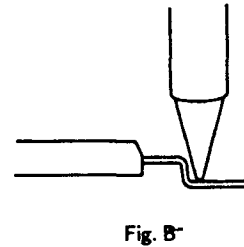


If the bridges cannot be corrected using the above method, apply some flux with a pen and try again.

2) Soldering can be carried out more easily by sliding the iron tip near the tip of the IC leg. (Fig. A)



Be careful not to slide the bent sections of the leg as shown in Fig. B as soldering bridges will be formed.



Exterior	Description	Part No.	Measure (mm)			
			A	B	C	D
	jig for removing 4-sided flat package IC	3-702-554-01	12.5	9.5	12.5	9.5
		" 11	15.5	12.5	15.5	12.5
		" 21	16.3	13.3	16.3	13.3
		" 31	17.0	14.0	17.0	14.0
		" 41	23.0	20.0	17.0	14.0
		" 51	20.0	17.0	20.0	17.0
	jig for removing 2-sided flat package IC	3-702-555-01	6.0	5.0	/	
		" 11	6.0	10.0		
		" 21	7.0	12.5		
		" 31	9.0	15.2		
		" 41	9.0	18.0		
	soldering iron	3-702-552-01	55 W 60 g length 210 mm			
	soldering holder	3-702-553-01	/			

## SECTION 3 SET-UP ADJUSTMENTS

- The following adjustments should be made when a complete realignment is required or a new picture tube is installed.
- These adjustments should be performed with rated power supply voltage unless otherwise noted.

Controls and switch should be set as follows unless otherwise noted :

PICTURE control . . . . . RESET  
BRIGHTNESS control . . . . . center

**Preparations :**

- In order to reduce the influence of geomagnetism on the set's picture tube face it east or west.
- Switch on the set's power and degauss with the degausser.

**3-1. BEAM LANDING**

1. Input the white signal with the pattern generator.  
 Contrast } normal  
 Brightness } normal
2. Position neck ass'y as shown in Fig 3-2.
3. Set the pattern generator raster signal to red.
4. Move the deflection yoke to the rear and adjust with the purity control so that the red is at the center and the blue and the green take up equally sized areas on each side.  
 (See Figures 3-1 through 3-3.)
5. Move the deflection yoke forward and adjust so that entire screen is red. (See Figure 3-1.)
6. Switch the raster signal to blue, then to green and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.  
 (See Figure 3-4.)

Perform the adjustments in order as follows :

1. Beam Landing
2. Convergence
3. Focus
4. White Balance

**Note :** Test Equipment Required.

1. Color-bar/Pattern Generator
2. Degausser
3. Oscilloscope

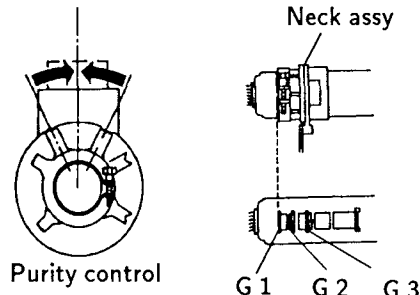


Fig.3-2

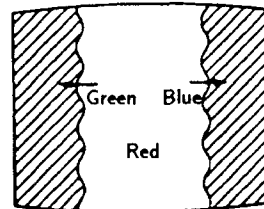


Fig.3-3

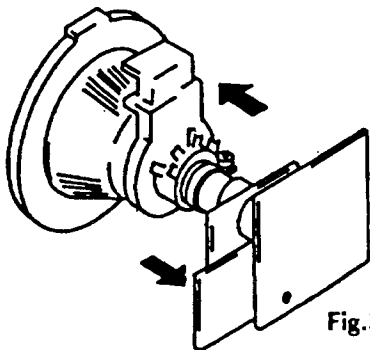


Fig.3-1

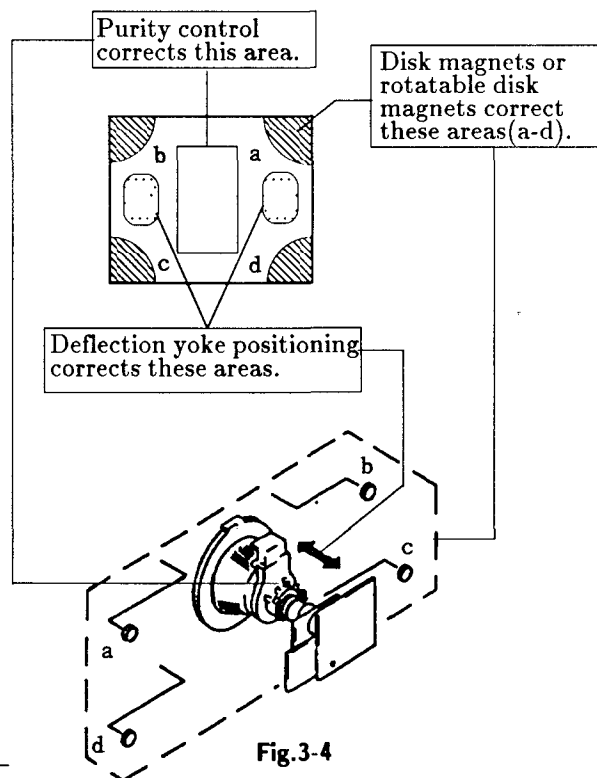


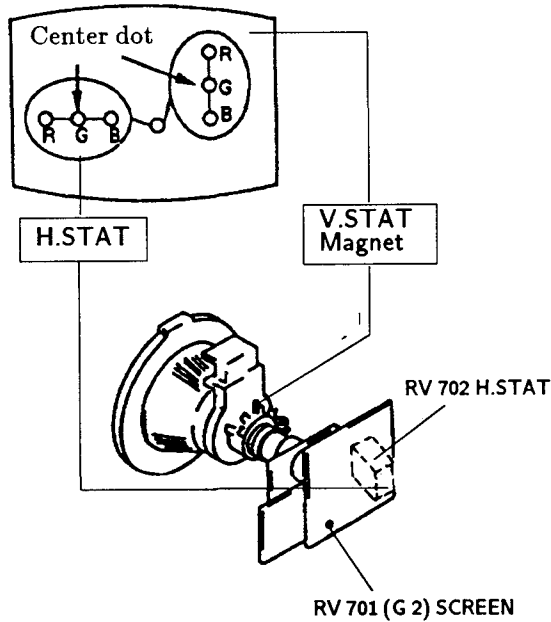
Fig.3-4

### 3-2. CONVERGENCE

**Preparation :**

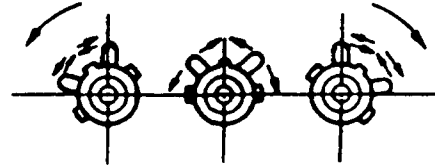
- Before starting this adjustment, adjust the focus, horizontal size, and vertical size.
- Minimize the brightness setting.
- Provide dot pattern.

**(1) Horizontal and Vertical Static Convergence**

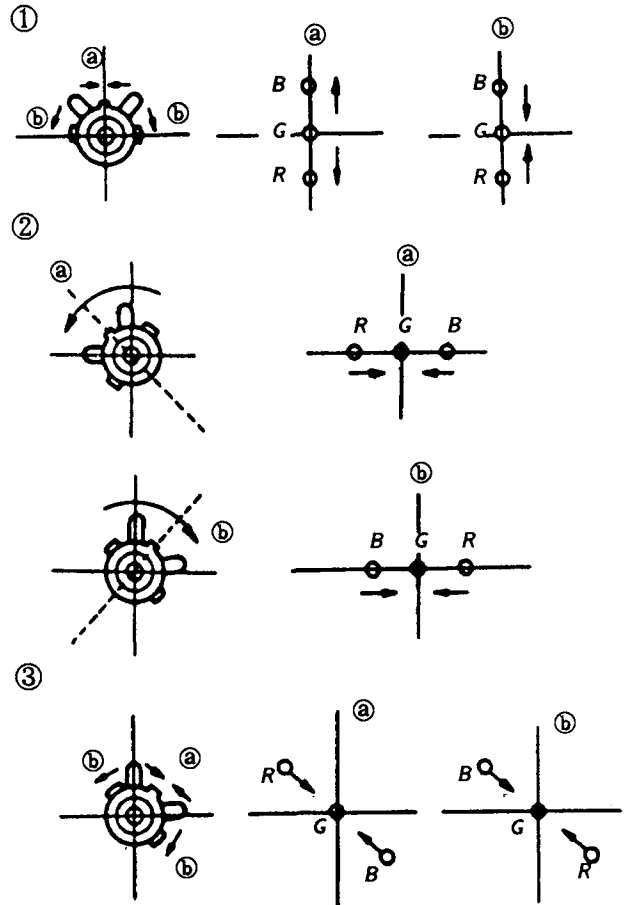


1. (Moving horizontally), adjust the H.STAT control so that the red, green, and blue points are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green, and blue points are on top of each other at the center of the screen.
3. If the H.STAT variable resistor cannot bring the red, green, and blue points together at the center of the screen, adjust the horizontal convergence with the H.STAT variable resistor and the V.STAT magnet in the manner given below.  
(In this case, the H.STAT variable resistor and the V.STAT magnet influence each other)

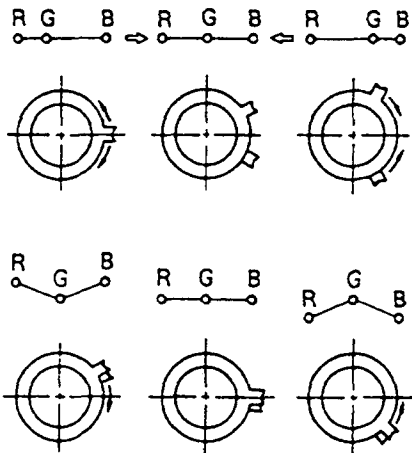
- Tilt the V.STAT magnet and adjust the static convergence by opening or closing the V.STAT magnet.



4. If the V.STAT magnet is moved in the direction of the (a) and (b) arrows, the red, green, and blue points move as shown below.



● Operation of BMC (Hexapole) Magnet

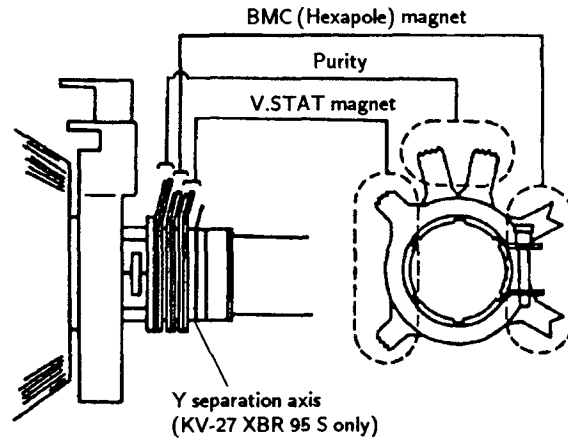


- The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the H.STAT VR to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction).

(2) Dynamic Convergence Adjustment

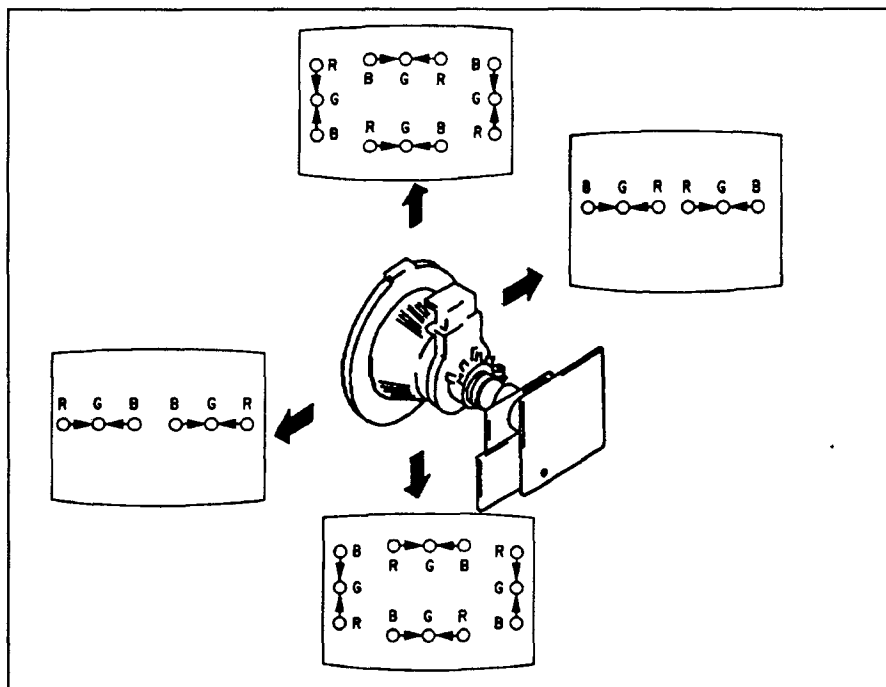
Preparations :

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence.
1. Slightly loosen the deflection yoke screws.
  2. Remove the deflection yoke spacer.



• Y separation axis correction magnet adjustment

1. Receive the cross-hatch signal, and adjust [PIX] to "MIN" and [BRT] to "standard".
  2. Adjust the deflection yoke to the upright condition when it hits the CRT.
  3. Adjust so that the Y separation axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state).
  4. Return the deflection yoke to its original position.
3. Move the deflection yoke as shown in the figure below and optimize the convergence.
  4. Tighten the deflection yoke screws.
  5. Install the deflection yoke spacer.



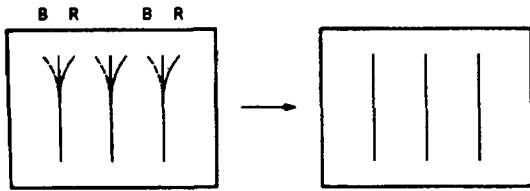
**(3) Dynamic Convergence Circuit Adjustment**

- Set to Service Mode.
- Input a cross-hatch signal.
- Press **1** and **4** select an item of adjustments.
- Adjust **3** and **6** to the best picture.

ITEM	REFERENCE DATA	NAME REGISTER	
UYBO	39	VP	U. Y. BOW
LYBO	39	VP	L. Y. BOW
HAMP	26	VP	H. AMP
HTILT	36	VP	H. TILT
UCBO	20	VP	U. C. BOW
UTIL	44	VP	U. TILT
LCBO	31	VP	L. C. BOW
LTIL	63	VP	L. TILT
DCSH	19	VP	DC. SHIFT

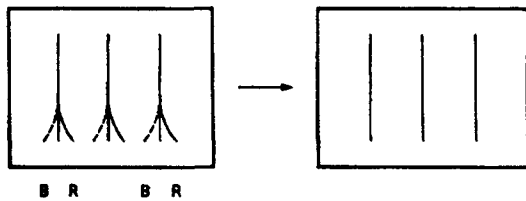
**U. YBOW**

Select UYBO with **1** and **4**



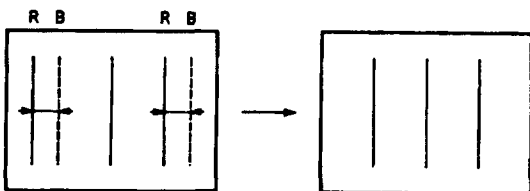
**L. YBOW**

Select LYBO with **1** and **4**



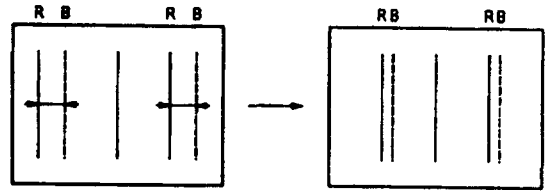
**H. AMP**

Select HAMP with **1** and **4**



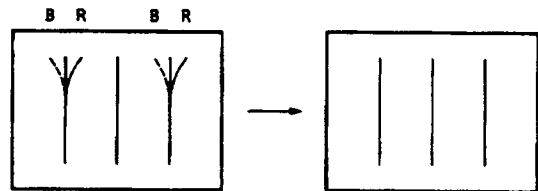
**H. TILT**

Select HTILT with **1** and **4**



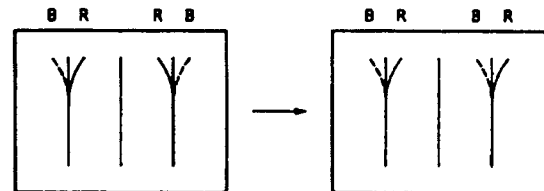
**U. CBOW**

Select UCBO with **1** and **4**



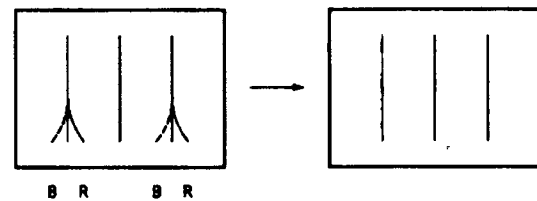
**U. TILT**

Select UTIL with **1** and **4**



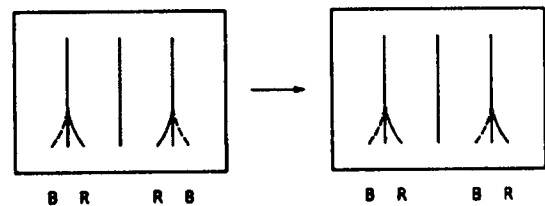
**L. CBOW**

Select LCBO with **1** and **4**



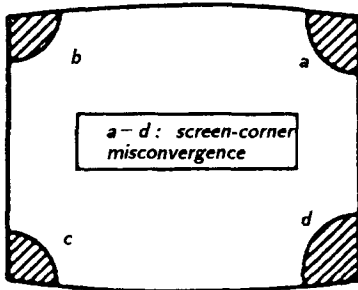
**L. TILT**

Select L. TIL with **1** and **4**



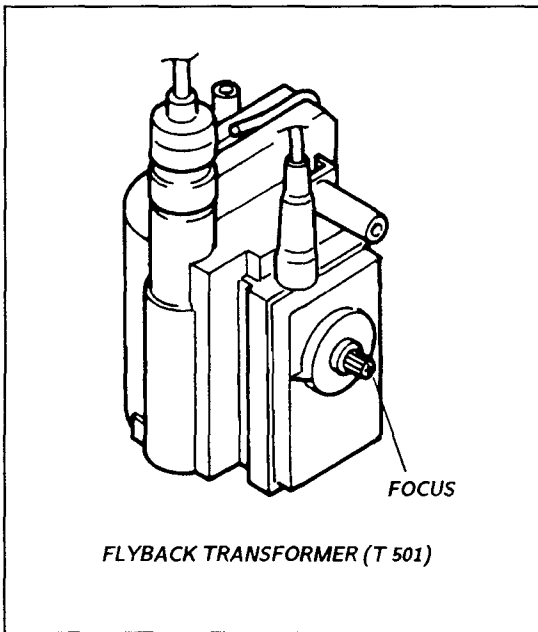
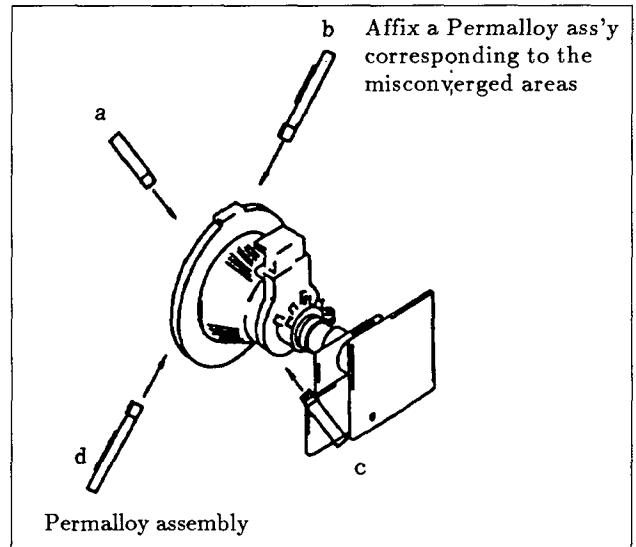


(4) Screen-corner Convergence



**3-3. FOCUS ADJUSTMENT**

Adjust FOCUS control on the flyback transformer for a best focus.



a . AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA	NAME REGISTER	
GAMP	19	VP	GREEN AMP.
BAMP	9	VP	BLUE AMP.
GCUT	8	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SBRT	40	VP	BRIGHT

b . METHOD OF CANCELLATION FROM SERVICE MODE

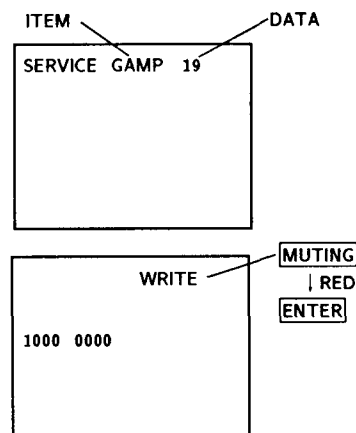
Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

c . METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

d . MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.



3-4. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G 2 (SCREEN) ADJUSTMENT(RV 701)

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Confirm G 1 voltage is within  $30.0 \pm 5$  V.
- 3) Apply DC voltage of 180 V to the cathodes of R,G and B from DC stabilized power source.
- 4) While watching the picture, adjust the G2 control (RV 701) to the just the retrace line disappears.

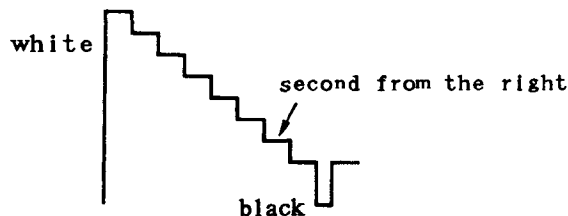
(Using the Remote Commander)

2. WHITE BALANCE ADJUSTMENTS

- 1) Set to service mode.
- 2) Press **STANDARD** to normal and if necessary "TRINITONE" set to "LOW" by **+** or **-**.
- 3) Input an entire white signal.
- 4) Set the PICTURE to minimum.
- 5) Select S BRT with **1** and **4**, and then set the level to minimum with **3** and **6**.
- 6) Select G CUT and B CUT with **1** and **4**. And adjust the level with **3** and **6** for the best white balance.
- 7) Set the PICTURE to maximum.
- 8) Select G AMP and B AMP with **1** and **4**, and adjust the level with **3** and **6** for the best white balance.
- 9) Write into the memory by pressing **MUTING** → then **ENTER**.

3. SUB BRIGHT ADJUSTMENT

- 1) Set to service mode.
- 2) Input a staircase signal of black and white from the pattern generator.
- 3) BRIGHTNESS ... RESET  
PICTURE ..... minimum
- 4) Select SBRT with **1** and **4**, and adjust SUB BRIGHT level with **3** and **6** so that the stripe second from the right is dimly lit.



## SECTION 4 SAFETY RELATED ADJUSTMENTS

### A BOARD

#### ☒ R565 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).  
IC502, Q509, Q510, R565, R567, R568, R569

①

#### 1. Preparation before confirmation

- 1) Remove R651 on the G board and connect a variable resistor (RV1: about  $10k\Omega$ ) between pin ① of IC651 and B+ line.
- 2) Supply  $120 \pm 2.0V$  AC to with variable auto-transformer.

#### 2. Hold-down operation confirmation

- 1) Turn the POWER switch ON, and input an entirely white signals and adjust ABL current to  $1910 \pm 50\mu A$  (27 in.)  $1910 \pm 50\mu A$  (32 in.) with PICTURE and BRIGHT etc controls.
- 2) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is less than  $147.0V$  DC (27 in.)  $147.0V$  DC (32 in.) whereby the raster disappears during operation of hold-down circuit.

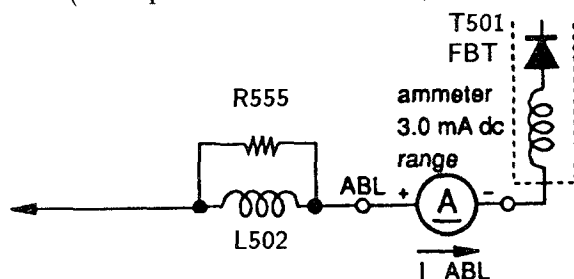
**NOTE:** When the hold-down circuit starts operating, switch OFF the POWER of the set immediately.

- 3) Turn the POWER switch ON, and input a dot signals and adjust ABL current to  $110 \pm 30\mu A$  (27 in.)  $110 \pm 30\mu A$  (32 in.) with PICTURE and BRIGHT etc controls.
- 4) Increase B+ line voltage gradually by adjusting the resistor of RV1. Confirm that the minimum voltage is lower than  $148.5V$  DC (27 in.)  $148.5V$  DC (32 in.) whereby the raster disappears during operation of hold-down circuit.

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

#### 3. Hold-down readjustment

When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R565 (a component marked with ☒).



### A BOARD

#### ☒ R566 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components (marked with ☒ on the schematic diagram).  
IC502, IC651, Q509, Q510, D502, C531, R554, R566, R567, R568, R569, R651, R1506, T501

②

#### 1. Preparation before confirmation

- 1) Turn the POWER switch ON, and input an entirely white signals and set the PICTURE and BRIGHT controls to maximum.
- 2) Confirm that voltage of the check terminal of pin ② of A-0 connector is more than  $127.0V$  DC (27 in.)  $127.0V$  DC (32 in.) when the set is operating normally with  $120.0 \pm 2.0V$  AC supply.

#### 2. Hold-down operation confirmation

- 1) Turn the POWER switch ON, and input an entirely white signals and set the PICTURE and BRIGHT controls to maximum.
- 2) Apply DC voltage of over  $130 \pm 2.0V$  DC gradually to the check terminal of pin ② of A-0 connector via 1SS119 from the DC stabilized power source.

Confirm that the minimum voltage is lower than  $149.0V$  DC (27 in.)  $149.0V$  DC (32 in.) whereby the raster disappears during operation of hold-down circuit.

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

#### 3. Hold-down readjustment

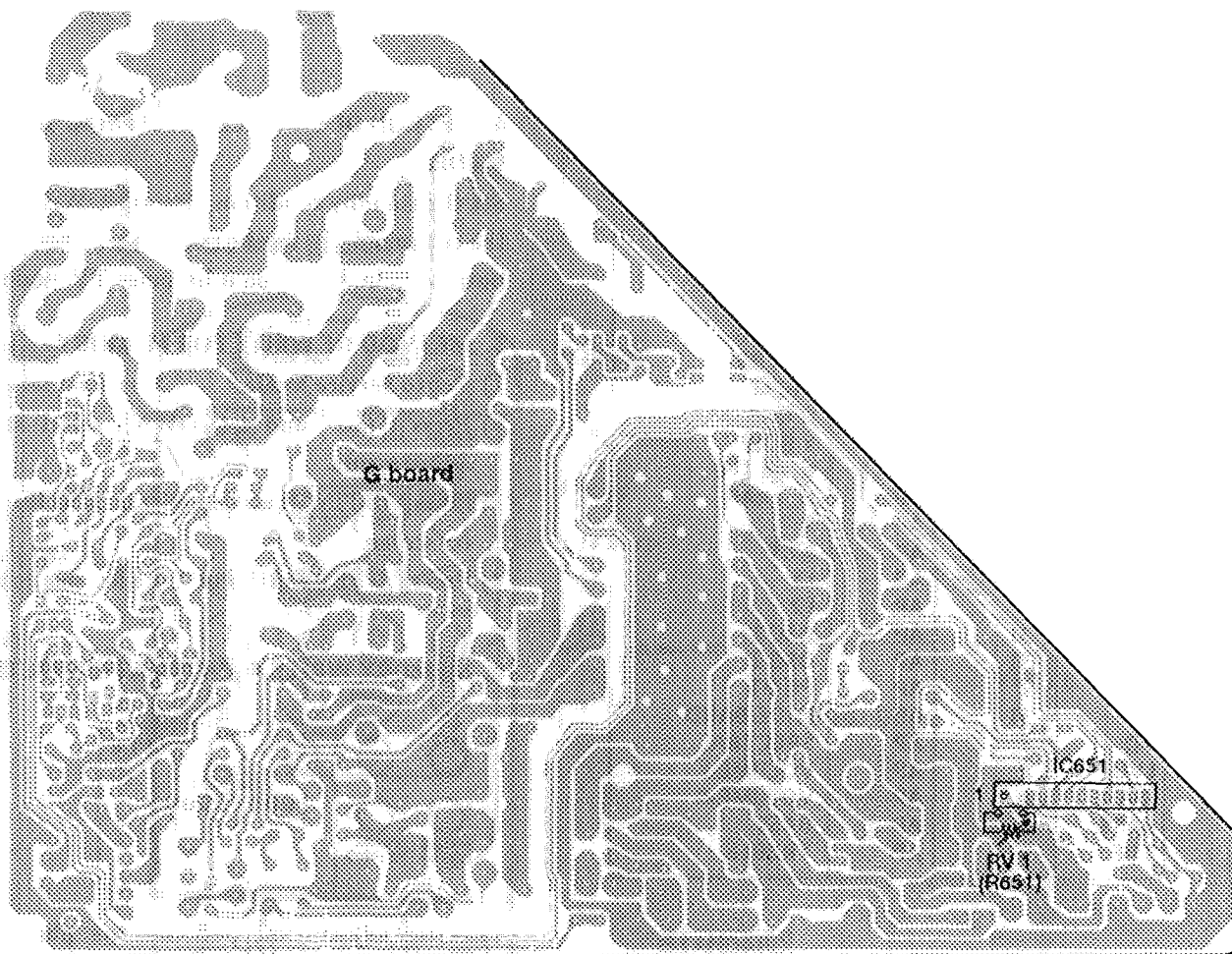
When step 2 is not satisfied, readjustment should be performed by altering the resistance value of R566 CARBON 1/4W (a component marked with ☒).

## G BOARD

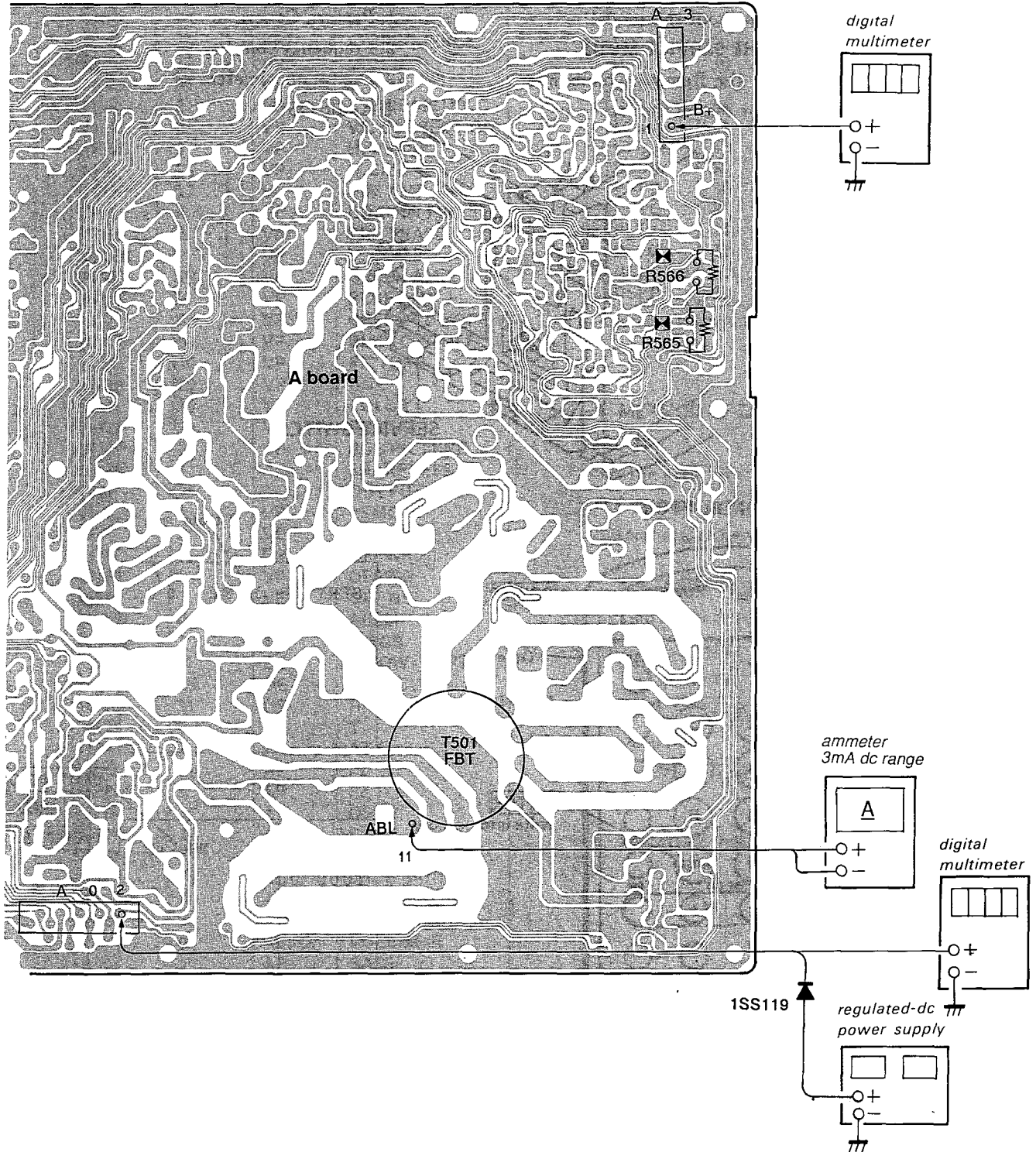
### **B+ VOLTAGE CONFIRMATION**

The following adjustments should always be performed when replacing IC651 and R651.

- 1) Supply  $130 \pm 3\%$  V AC to with variable autotransformer.
- 2) Input an entirely monoscope signal.
- 3) Set the PICTURE control and the BRIGHT controls in to initial reset.
- 4) Confirm the voltage of A BOARD ① pin A-3 connector is less than 136.5V DC.
- 5) If step 4) is not satisfied, replace IC651 and R651 repeat above steps.



(KV-27XBR95S)



## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

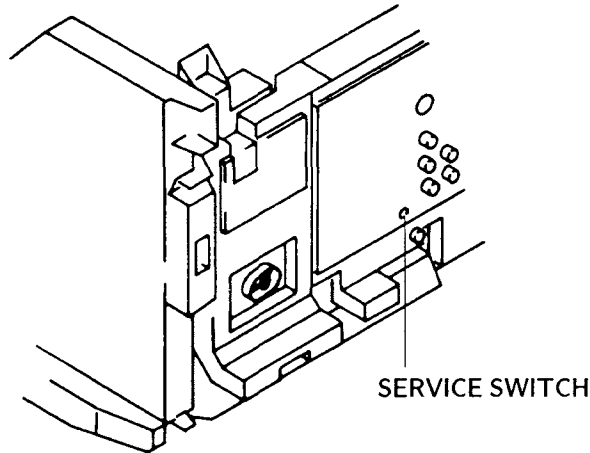
Use of Remote Commander (RM-Y114) can be performed circuit adjustments about this model.

#### 1. METHOD OF SETTING THE SERVICE MODE

- 1) Press **POWER** button on the Remote Commander while pressing switch on the rear of the set.

NOTE : Test Equipment Required.

1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC



#### 2. ADJUST BUTTONS AND INDICATOR

**MUTING** write the memory

item up

item down

RESET

TV • CABLE BOX POWER

**POWER**

Outer panel

SLEEP

TV/VIDEO

data up

data down

ANT/ALIX

**ENTER** write into memory

JUMP

PIP

PIP CH

CODE SET

MEMO DISPLAY

DIGITAL MEMO

item data

SERVICE HFRE 00

**MUTING** ↓ RED

**ENTER**

WRITE

1000 0000

**STANDARD**

Inner panel

STANDARD

PICTURE

VTR 1 2 3 MDP

LEARN

CH

MENU

VOL

### 3. AN ITEM OF ADJUSTMENT

ITEM	REFERENCE DATA		NAME REGIST
AFC	1	VP	AFC 1 0
HFRE	93	VP	H. FREQUENCE
VFRE	15	VP	V FREQUENCE
VPOS	19	VP	V. SHIFT
VSIZ	32	VP	V. SIZE
VLIN	2	VP	V. LINEARITY
VSCO	3	VP	VS CORRECTION
HPOS	9	VP	H PHASE
HSIZ	25	VP	H. SIZE
PAMP	17	VP	PIN. AMP.
CPIN	4	VP	CORNER PIN
PPHA	8	VP	PIN. PHASE
VCOM	2	VP	V. COMP
GAMP	19	VP	GREEN AMP
BAMP	9	VP	BLUE AMP.
GCUT	8	VP	GREEN CUT OFF.
BCUT	6	VP	BLUE CUT OFF
SPIX	40	VP	PICTURE
SHUE	29	VP	HUE
SCOL	30	VP	COLOR
SBRT	40	VP	BRIGHT
RGBP	28	VP	RGB PICTURE
SHAP	7		SHARPNESS
DISP	35		OUTPUT
VSMO	0	VP	VSMO
REF	2	VP	REF 1 0
ROFF	1	VP	OFF NR
GOFF	1	VP	OFF NG
BOFF	1	VP	OFF NB
ABLM	0	VP	ABLM
DRGB	1	VP	D RGB
YBOW	31	DE	Y BOW
VANG	35	DE	V ANGLE
HTAP	31	DE	H. TRAP
TEST	0	AP	T
MPX	7	AP	ATT
FILO	31	AP	I 1
DEEM	7	AP	I 2
STEV	31	AP	OSC 1
SAPV	31	AP	OSC 2
PILO	7	AP	PILOT
SEP	31	AP	WIDE BAND
VD	7	AP	SPECTRAL
LVOL	0	AP	VOLUME-L
RVOL	0	AP	VOLUME-R
BASS	7	AP	BASS
TRE	7	AP	TREBLE

UYBO	39	DC	U Y. BOW
LYBO	39	DC	L.Y. BOW
HAMP	26	DC	H.AMP
HTIL	36	DC	H TILT
UCBO	20	DC	U.C BOW
UTIL	44	DC	U.TILT
LCBO	31	DC	L C. BOW
LTIL	63	DC	L TILT
DCSH	19	DC	DC SHIFT
PHPO	34	PI	READ DELAY H
PVPO	8	PI	READ DELAY V
PLEV	14	PI	PICTURE LEVEL
PFCO	11	PI	FRAME COLOR
NRLE	30		NR LEVEL
DSPP	31		

Nothing change for KV-27XBR95S/ 32XBR95S

### 4. METHOD OF CANCELLATION FROM SERVICE MODE

Set the standby condition (Press **POWER** button on the commander) in the next place, press **POWER** button again, hereupon it becomes TV mode.

### 5. METHOD OF WRITE FOR MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), select an item of adjustments.
- 3) Press **MUTING** button indicate WRITE (RED) on screen.
- 4) Press **ENTER** button to write for memory.

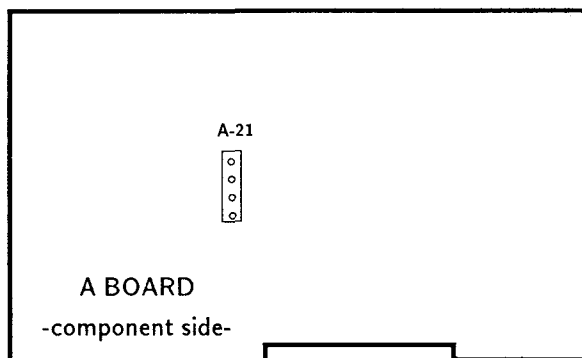
### 6. MEMORY WRITE CONFIRMATION METHOD

WRITE

1000 0000

- 1) After adjustment, pull out the plug from AC outlet, and next place, plug in AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again, confirm they were adjusted.

## 5-2. A BOARD ADJUSTMENTS



### RF AGC ADJUSTMENT (IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Adjust AGC VR of TU 101 so that snow noise and cross-modulation disappear from the picture.
- 3) Confirm them at every channel.

### H.FREQUENCY ADJUSTMENT (HFRE)

- 1) Set to Service Mode.
- 2) Input a color-bar signal.
- 3) Connect a frequency counter to base of Q 507.
- 4) Call the item of AFC, set to 3 level (free run).
- 5) Select HFRE with **[1]** and **[4]**.
- 6) Adjust **[3]** and **[6]** to the  $15735 \pm 60$  Hz level.
- 7) Call the item of AFC again, adjust the level "01".
- 8) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

### V.FREQUENCY ADJUSTMENT (VFRE)

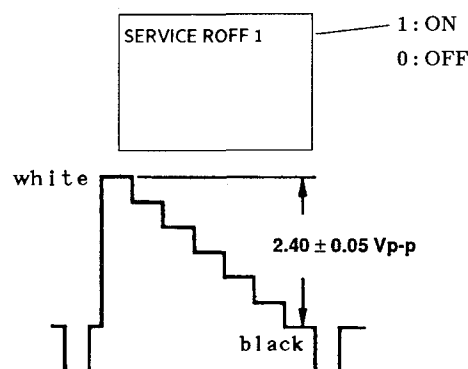
- 1) Set the Service Mode.
- 2) Input an off-air signal (VIDEO IN → no signal).
- 3) Connect the frequency counter across connector VDY - ⊕ of DY-1 connector and ground.
- 4) Select VFRE with **[1]** and **[4]**.
- 5) Adjust **[3]** and **[6]** to the  $55 \pm 0.5$  Hz.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.

### SUB CONTRAST ADJUSTMENT (SPIX)

- 1) Set to Service Mode.
- 2) Input a color-bar signal. (75 IRE)
- 3) Set the conditions as follows.

PICTURE ..... MAX  
 COLOR ..... MIN  
 BRIGHT ..... MIN  
 R OFF ..... ON  
 G OFF ..... OFF  
 B OFF ..... OFF

Press **[MENU]** and select VIDEO MENU → **[ ]** (L)  
 (It becomes minimum).  
 Select **[3]** (ON) and **[6]** (OFF) with **[1]** and **[4]**.



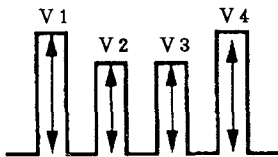
- 4) Connect an oscilloscope to TP 49 B of C board and ground.
- 5) Adjust **[3]** and **[6]** to the  $2.40 \pm 0.05$  Vp-p level by select-ing SPIX with **[1]** and **[4]**.
- 6) Write the memory by pressing **[MUTING]** → then **[ENTER]**.
- 7) Return the following back to normal after adjustment.

G OFF ..... ON  
 B OFF ..... ON  
 COLOR ..... CENTER  
 BRIGHT ..... CENTER  
 PICTURE ..... 80%



**SUB HUE, SUB COLOR ADJUSTMENT (SHUE, SCOL)**

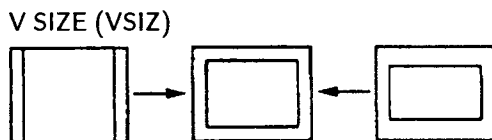
- 1) Input a color-bar signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Connect an oscilloscope to TR 49 R of C board and ground.
- 5) Adjust **3** and **4** to the V1=V4 and V2=V3 by select to SHUE and SCOL with **1** and **4**.



- 6) Write into the memory by pressing **MUTING** → then **ENTER**.

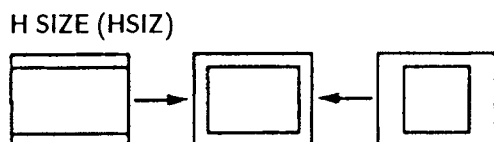
**V.SIZE ADJUSTMENT (VSIZ)**

- 1) Set to Service Mode.
- 2) Press **STANDARD** to normal.
- 3) Input a cross-hatch signal.
- 4) Adjust **3** and **6** to the best vertical size by selecting VSIZ with **1** and **4**.
- 5) Write into the memory by pressing **MUTING** → then **ENTER**.



**H.SIZE ADJUSTMENT (HSIZ)**

- 1) Input a cross-hatch signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Adjust **3** and **6** to best horizontal size by selecting HSIZ with **1** and **4**.
- 5) Write into the memory by pressing **MUTING** → then **ENTER**.



**H.CENTER ADJUSTMENT (H POS)**

Note: Perform this adjustment after H.FREQUENCY ADJUSTMENT (HFRE).

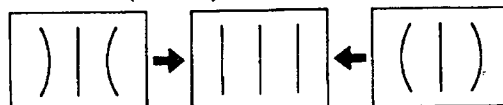
- 1) Input a color bar signal.
- 2) Set the Service mode.
- 3) Select HSIZ with **1** and **4**.
- 4) Press **6** so that the Horizontal size set to min.
- 5) Adjust A-21 conector position so that both-size blanking width of the Raster should be same on the Scrnne.
- 6) Unplug Set then plug in Set.
- 7) Set to Service mode.
- 8) Select HPOS with **1** and **4**.
- 9) Adjust **3** and **6** so that the color bars center should be set to the CRT Screen center position.
- 10) White into the memory by the pressing **MUTING** → then **ENTER**.



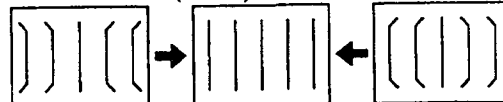
**PIN AMP (PAMP), CORNER PIN (CPIN) PIN PHASE (PPHA), H TRAPIZOID (HTRA) V LINEARITY (VLIN), V ANGLE (VANG), VS CORRECTION (VSCO), Y BOW (YBOW), V SHIFT (VPOS), AND V COMP (VCOM) ADJUSTMENTS**

- 1) Input a cross-hatch signal.
- 2) Press **STANDARD** to normal.
- 3) Set to Service Mode.
- 4) Select PAMP, CPIN, PPHA, H TRA, VPOS, VCOM, LVIN, VANG, VSCO and YBOW with **1** and **4**.
- 5) Adjust **3** and **6** to the best picture.
- 6) Write the memory by **MUTING** → **ENTER**.

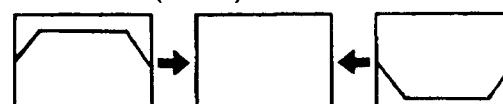
**PIN AMP (PAMP)**



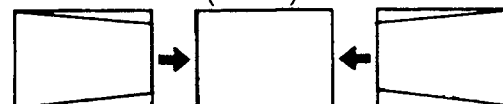
**CORNER PIN (CPIN)**



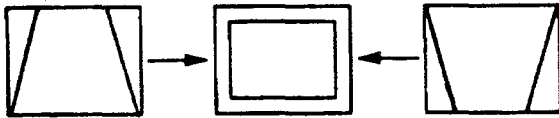
**PIN PHASE (PPHA)**



**H TRAPIZOIDO (HTRA)**



V-SHIFT (VPOS)



V COMP (VCOM)



V LINEARITY (VLIN)



V ANGLE (VANG)



VS CORRECTION (VSCO)

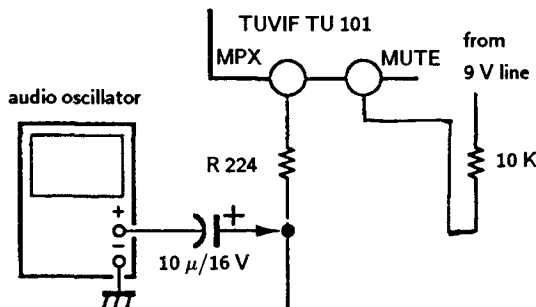


Y BOW (Y BOW)



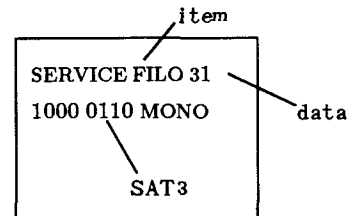
**FILTER ADJUSTMENT (MPX, FILO)**

- 1) Set to Service Mode.
- 2) Select to **TEST** with **[1]** and **[4]**, set the data to "1".  
Then select MPX and change data to "08".
- 3) Connect an audio oscillator to R224 using a capacitor (10μ F/16V), set frequency to 62.936 kHz ± 0.1 kHz.  
And then, through the 10kΩ resistor, feed 9.0V into the mute of TUVIF TU 101.



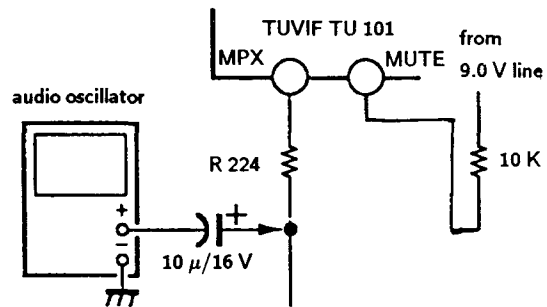
V 4 fh : SINE-WAVE 62.936 KHz ± 0.1 KHz  
LEVEL 3.0 Vp-p

- 4) Make the data "00" by selecting FILO with **[1]** and **[4]** And then, send up the data gradually by pressing **[6]**. Set the data to D1 before SAT3 changing to 1 from 0.
- 5) Send up the data gradually. Set data D2 when SAT3 changes 0 from 1.
- 6) Adjust the data of FILO to  $\frac{D1 + D2}{2}$ .
- 7) Write into the memory by pressing **MUTING** → then **ENTER**.



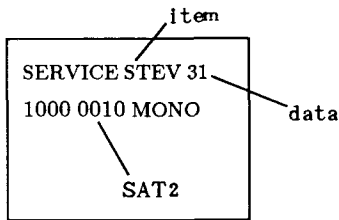
**ST VCO ADJUSTMENT (MPX, STEV)**

- 1) Set to Service Mode.
- 2) Select TEST with **[1]** and **[4]**, set the data to "1".  
And then press **MTS** to MONO.
- 3) Select MPX, set the data "8".
- 4) Connect an audio oscillator to R 224 using electrolytic capacitor (10μ F/16V) and apply the frequency Vst. Then, apply DC voltage to mute of TUVIF TU 101 using 10kΩ connect to 9.0 V line.



Vfh : SINE-WAVE 15.734 KHz ± 0.1 KHz  
LEVEL 0.28 Vp-p

- 5) Select STEV with **[1]** and **[4]**, set the data to "00" with **[6]**. And then, send up the data gradually. Set the data to D1 before SAT2 changes from 0 to 1.
- 6) Send up data gradually, set the data to D2 when SAT2 changes 1 from 0.
- 7) Adjust the data of STEV to .
- 8) Write into the memory by pressing **MUTING** → then **ENTER**.

**MPX IN LEVEL ADJUSTMENT (MPX)**

- 1) Set to Service Mode.
- 2) Select TEST with **[1]** and **[4]**, set the data to "0" with **[6]**. And then press **[MTS]** to MONO.
- 3) Select MPX with **[1]** and **[4]**, set the data to "08" with **[3]** and **[6]**.
- 4) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

**PILOT CANCEL ADJUSTMENT (PILO)**

- 1) Set to the Service Mode.
- 2) Select PILO with **[1]** and **[4]**, set the data to "08" with **[3]** and **[6]**.
- 3) Write into the memory by pressing **[MUTING]** → then **[ENTER]**.

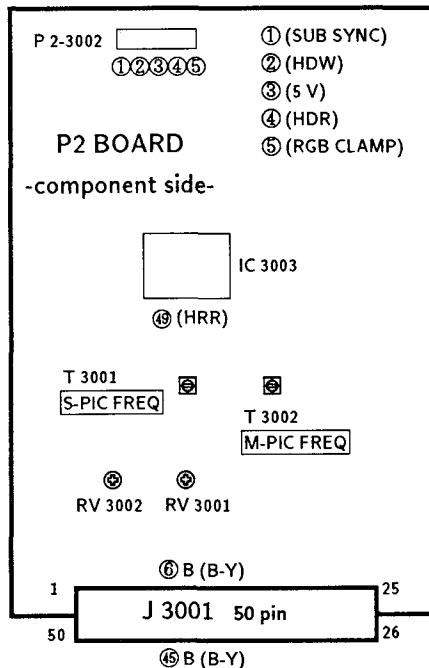
**SAP VCO f<sub>s</sub> ADJUSTMENT (SAPV)**

- 1) Set to Service Mode.
- 2) Input a stereo broadcast signal with SAP.
- 3) Select TEST with **[1]** and **[4]**, set the data to "0". And then, press **[MTS]** to MAIN.
- 4) Connect a digital multimeter to TP-1(DBX). This voltage reading will equal V 1.
- 5) Press MTS to SAP and this voltage will equal V 2.
- 6) Select SAPV with **[1]** and **[4]**, adjust **[3]** and **[6]** so that  $V 2 = V 1 \pm 0.03 \text{ VDC}$ .
- 7) Write the memory by **[MUTING]** → **[ENTER]**.

**SEPARATION ADJUSTMENT (SEP)**

- 1) Set to Service Mode.
- 2) Press **[MTS]** to MAIN and receive a monoral broadcast signal.  
In the next step, receive a stereo broadcast signal.
- 3) Select SEP and VD with **[1]** and **[4]**, adjust **[3]** and **[6]** so that a clear stereo sound is effected.

### 5-3. P2 BOARD ADJUSTMENTS



#### MAIN-PICTURE FREQUENCY (T 3002)

- 1) Set PIP mode.
- 2) Connect a frequency counter to Pin ① (HDW) of J 3001.
- 3) Connect a frequency counter to Pin ④⑨ or ⑤⑩ (HRR) of IC 3003 or Pin ⑤ (RGB CLAMP) of P 2-3002.
- 4) Short the circuit between Pin ④ (HDR) of P 2-3002 and Pin ③ (5 V) of P 2-3002.
- 5) Turn T 3002 CLK (P) for the following frequency at Pin ④⑨ or ⑤⑩ (HRR) of IC 3003 or at Pin ⑤ (RGB CLAMP) of P 2-3002.

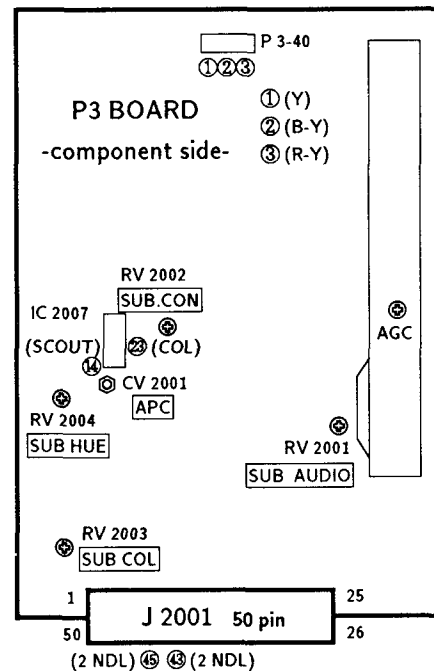
15.734 kHz ± 10 Hz

#### SUB-PICTURE FREQUENCY (T 3001)

- 1) Set PIP mode.
- 2) Connect a frequency counter to Pin ① (HDW) of J 3001.
- 3) Connect a frequency counter to Pin ④⑨ or ⑤⑩ (HRR) of IC 3003 or Pin ⑤ (RGB CLAMP) of P 2-3002.
- 4) Short the circuit between Pin ① (SUB SYNC) of P 2-3002 and Pin ③ (5 V) of P 2-3002.
- 5) Turn T 3001 CLK (C) for the following frequency at Pin ② (HDW) of P 2-3002.

15.734 kHz ± 10 Hz

### 5-4. P3 BOARD ADJUSTMENTS



#### RF AGC ADJUSTMENT (IF BLOCK VR)

- 1) Input a color-bar signal.
- 2) Set to PICTURE IN PICTURE mode.
- 3) Adjust AGC VR of TU 2001 so that snow noise and cross-modulation disappear from the picture.
- 4) Confirm them at every channel.

#### SUB PICTURE SOUND VOLUME LEVEL (SUB AUDIO) ADJUSTMENT (RV2001)

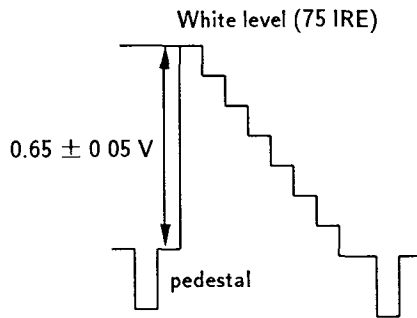
- 1) Receive an audio signal of 400 Hz. (100% mod.)
- 2) Adjust RV 2001 for the following level at Pin ④⑩ (2 NDR) or Pin ④⑤ (2 NDL) of J 2001.

500 mVrms ± 2 dB

**SUB CONT ADJUSTMENT (RV 2002)**

- 1) Obtain the color bar signal on the sub-screen.
  - 2) Observe at Pin ① (Y OUT) of P 3-42 on an oscilloscope.
- Adjust RV 2002 for the following level between the white level and pedestal one.

$0.65 \pm 0.05 V_{p-p}$



**SUB COLOR ADJUSTMENT (RV 2003)**

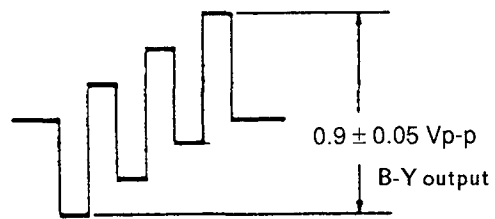
- 1) Obtain the color bar signal on the sub-screen in the mode of PIP size 1/4.
- 2) Reset color.
- 3) Adjust RV 2003 for the following level, observing an oscilloscope connected to Pin ② (B-Y) of P3-40 (Fig. 1)

$0.9 \pm 0.05 V_{p-p} (B-Y)$

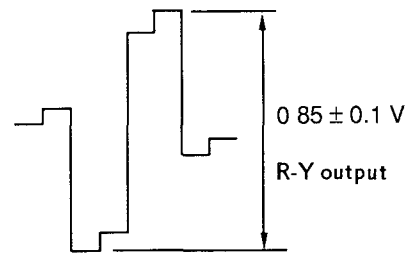
- 4) Adjust RV 2003 for the following level, observing an oscilloscope connected to Pin ③ (R-Y) of P3-40 (Fig. 2)

$0.85 \pm 0.1 V_{p-p} (R-Y)$

- 5) Adjust tracking between sub color and sub hue.



(Fig. 1)

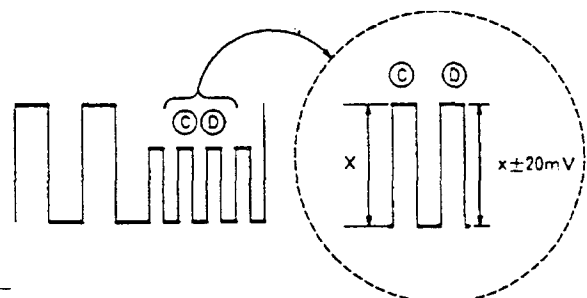


(Fig 2)

**SUB HUE ADJUSTMENT (RV 2004)**

- 1) Obtain the color bar signal on the sub-screen in the mode of PIP size 1/4.
- 2) Reset hue.
- 3) Observe the signal at Pin ⑥ or Pin ④⑤ of J 3001 on P 2 board on an oscilloscope and make adjustment to obtain the following level.

$D : X \pm 20 mV$

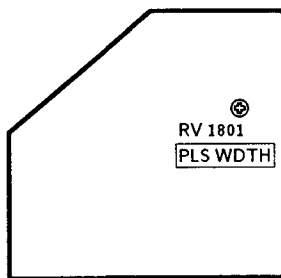


**APC ADJUSTMENT(CV 2001)**

Connect Pin ② (COL) of IC 2007 to ground and connect a frequency counter to Pin ⑭ (SCOUT) to obtain the following level.

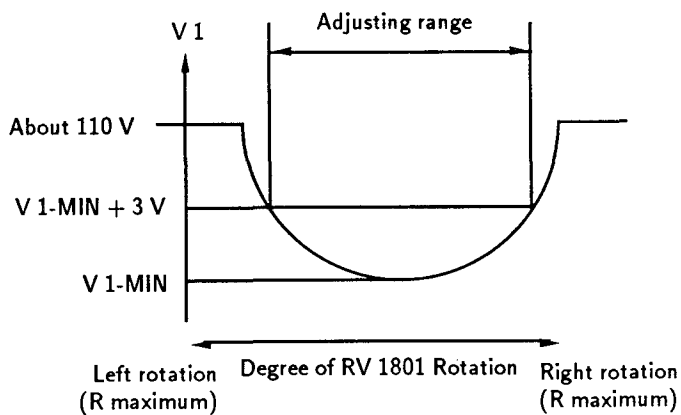
$$3579545 \pm 40 \text{ Hz}$$

**5-5. VC BOARD ADJUSTMENT**



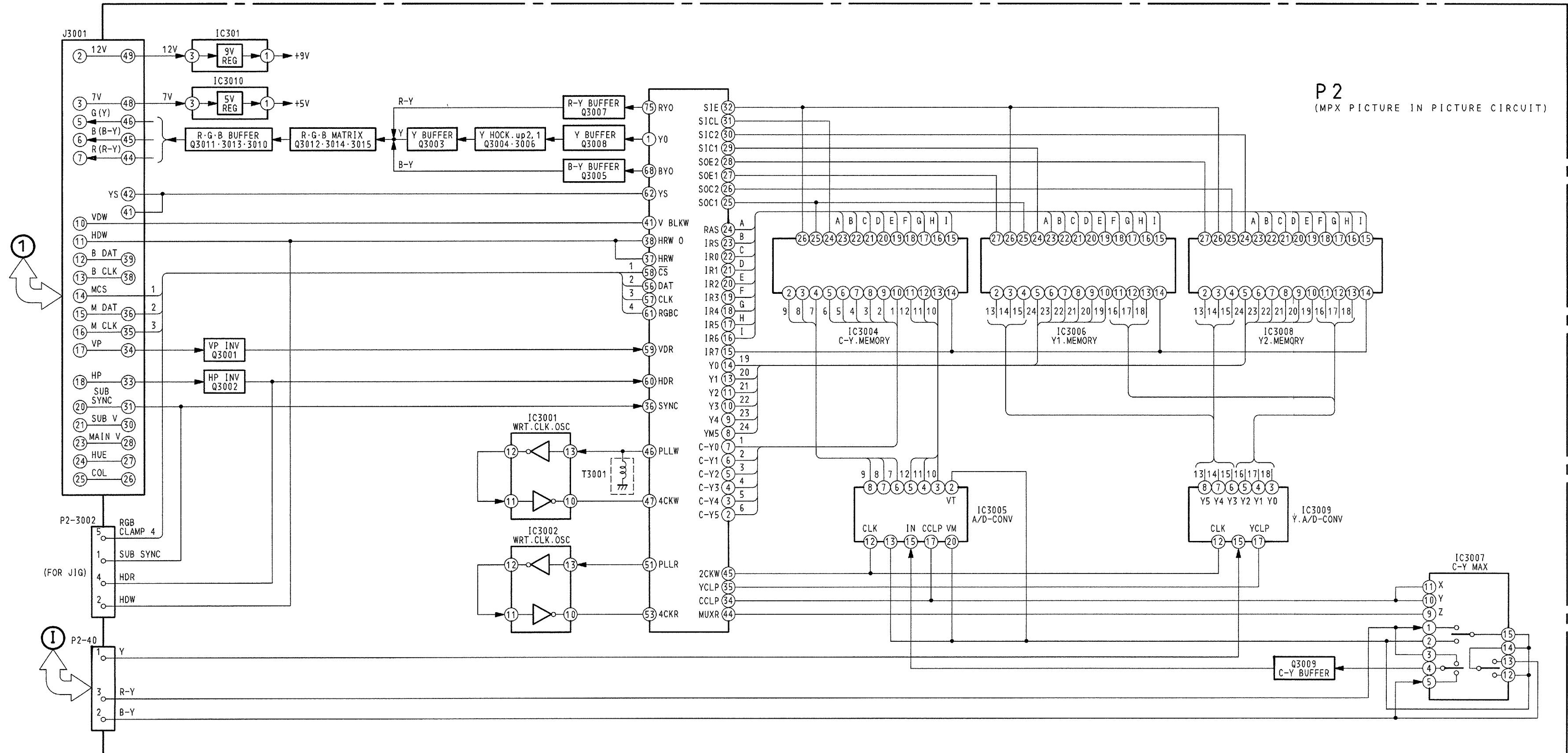
**DRIVE PULSE PHASE ADJUSTMENT(RV 1801)**

- 1) While measuring the voltage V 1 at both edges of C 1809, rotate RV 1801 so that it becomes minimum. The adjusting range is from (the voltage at which V 1 becomes minimum) V 1 MIN to 3 V, which means, adjust to between V 1 MIN to V 1 MIN + 3 V.



SECTION 6  
DIAGRAMS

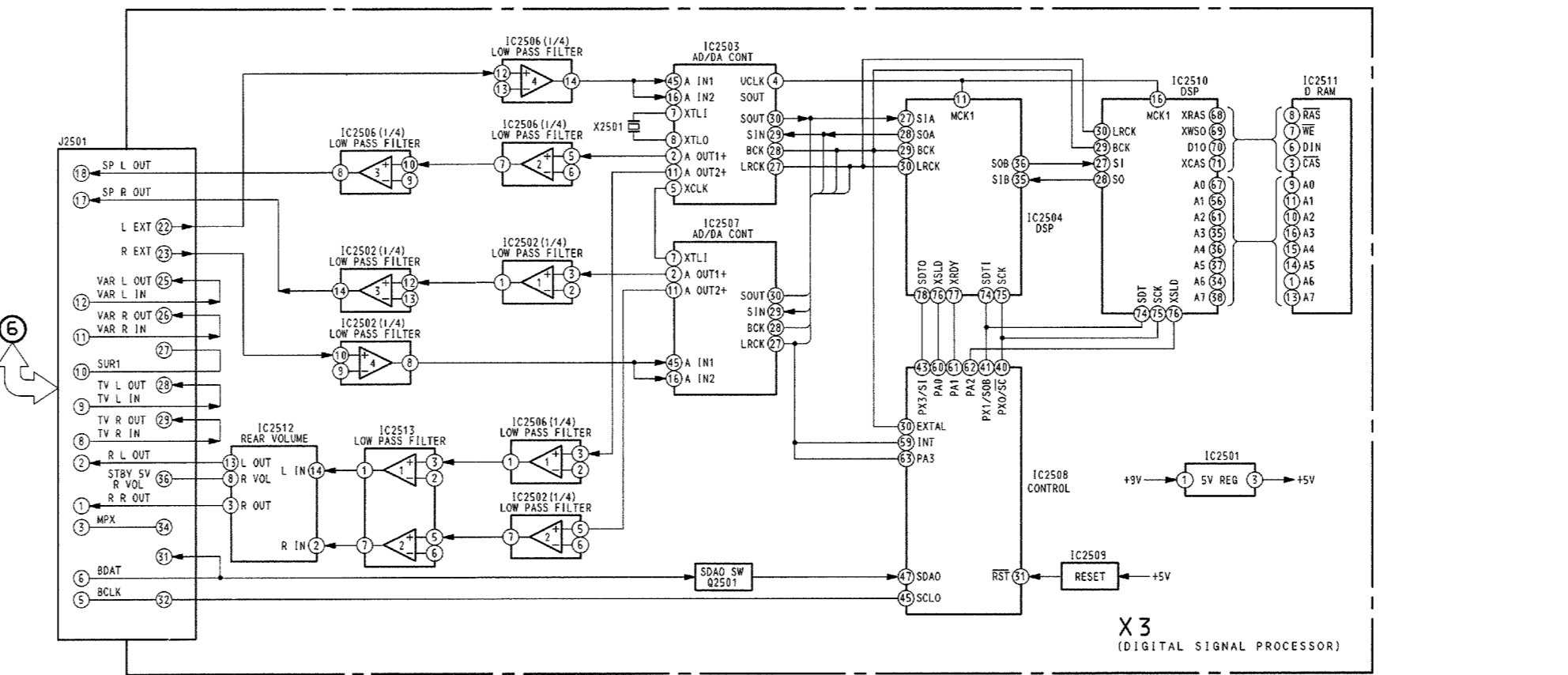
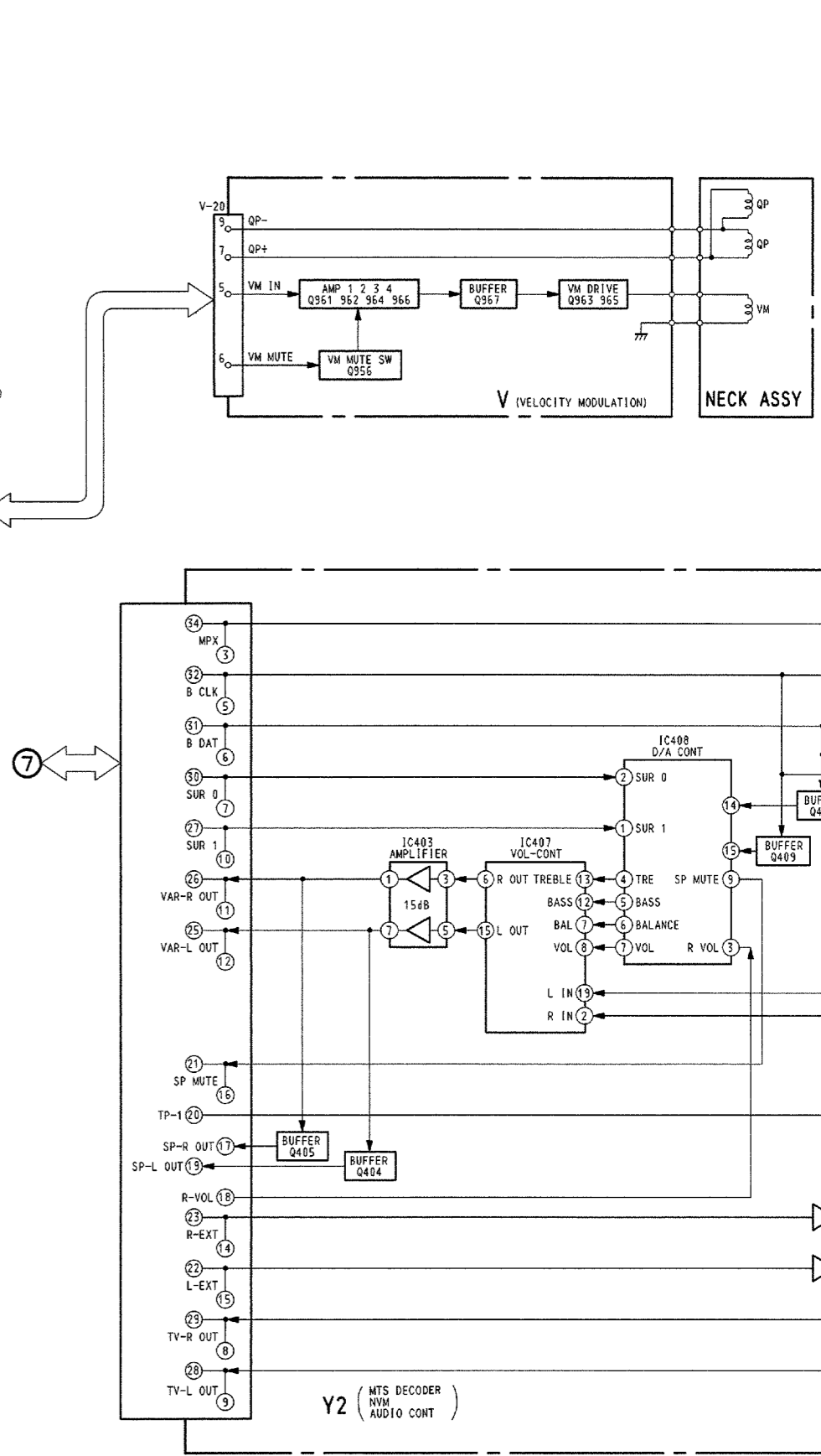
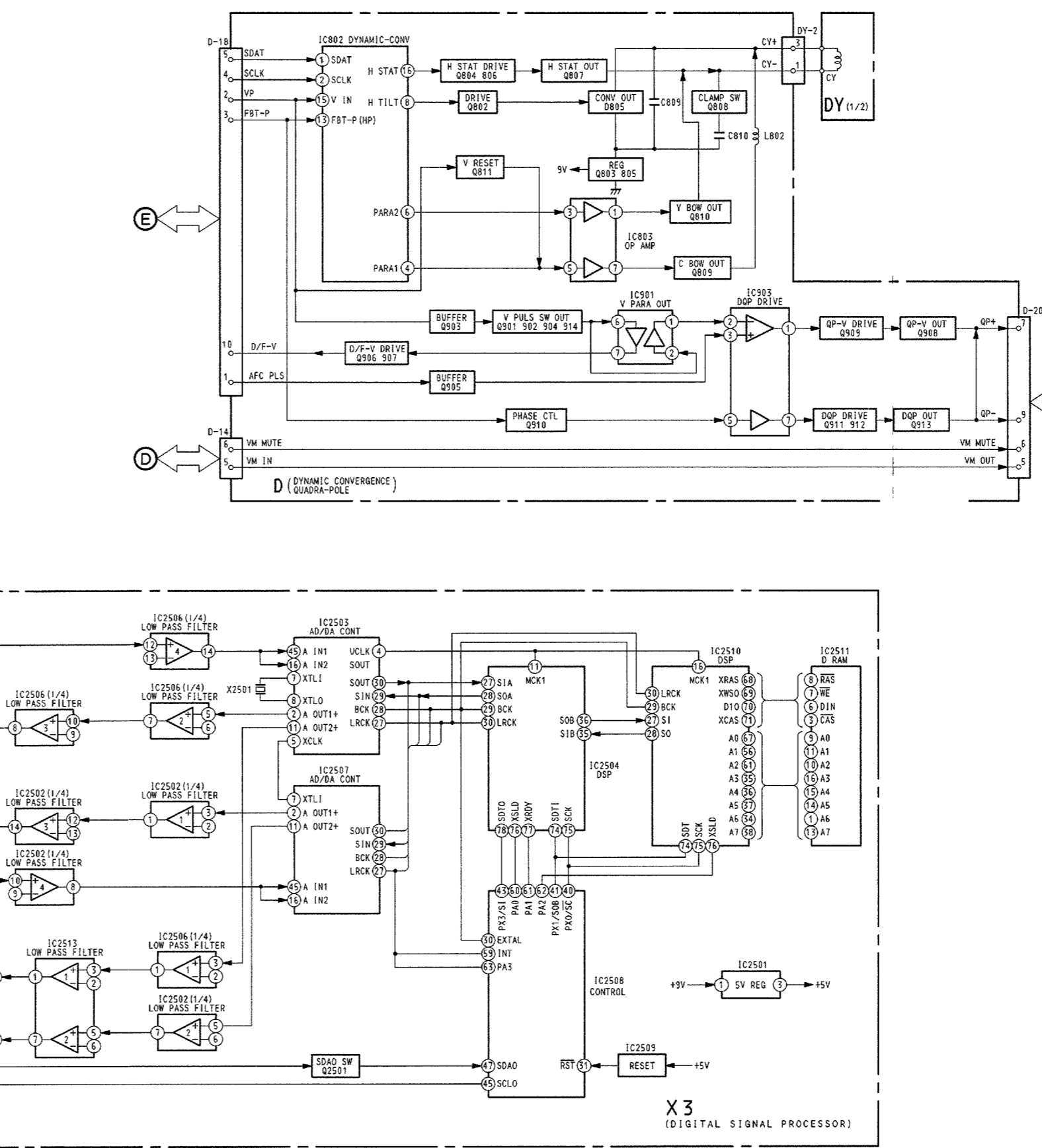
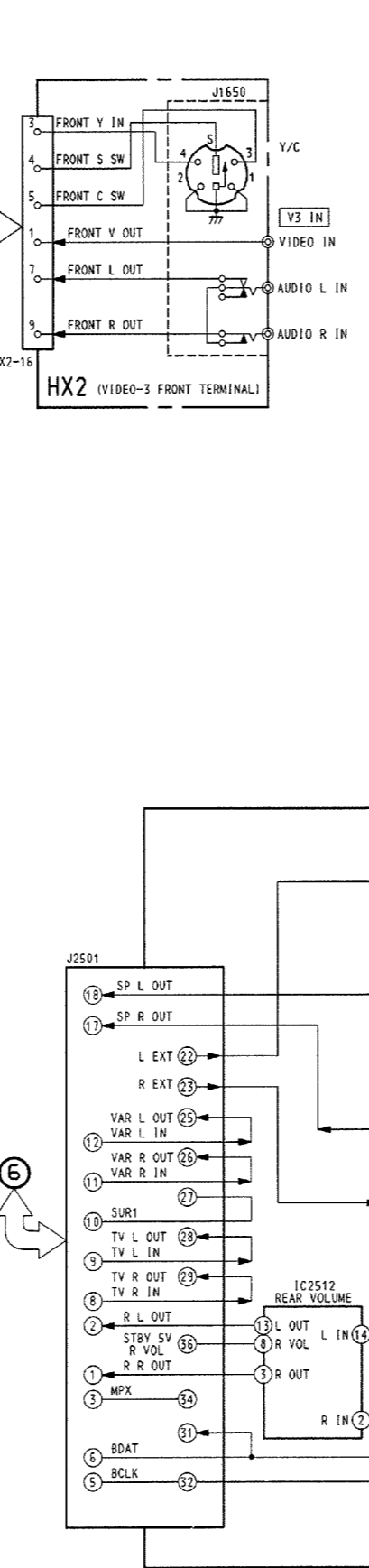
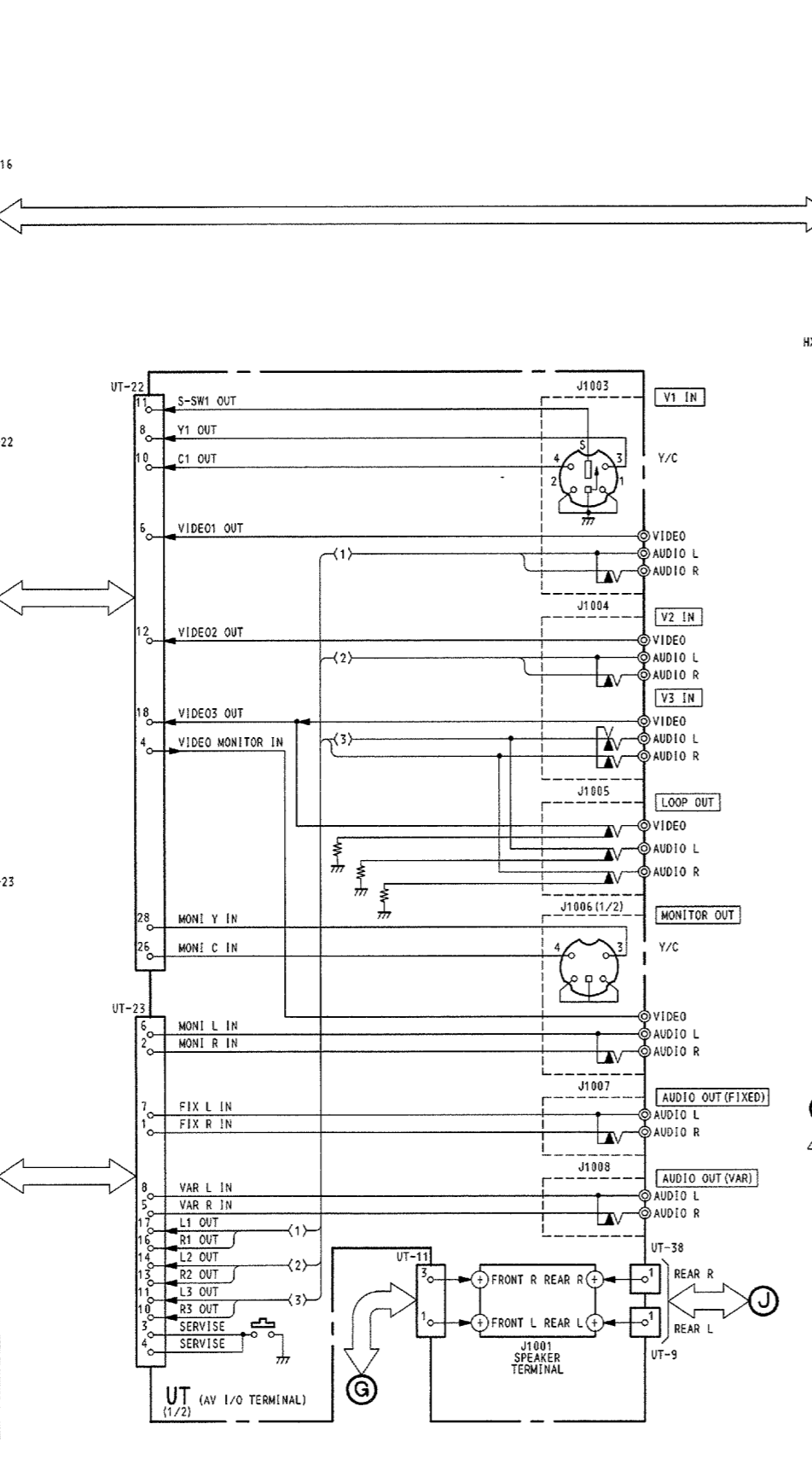
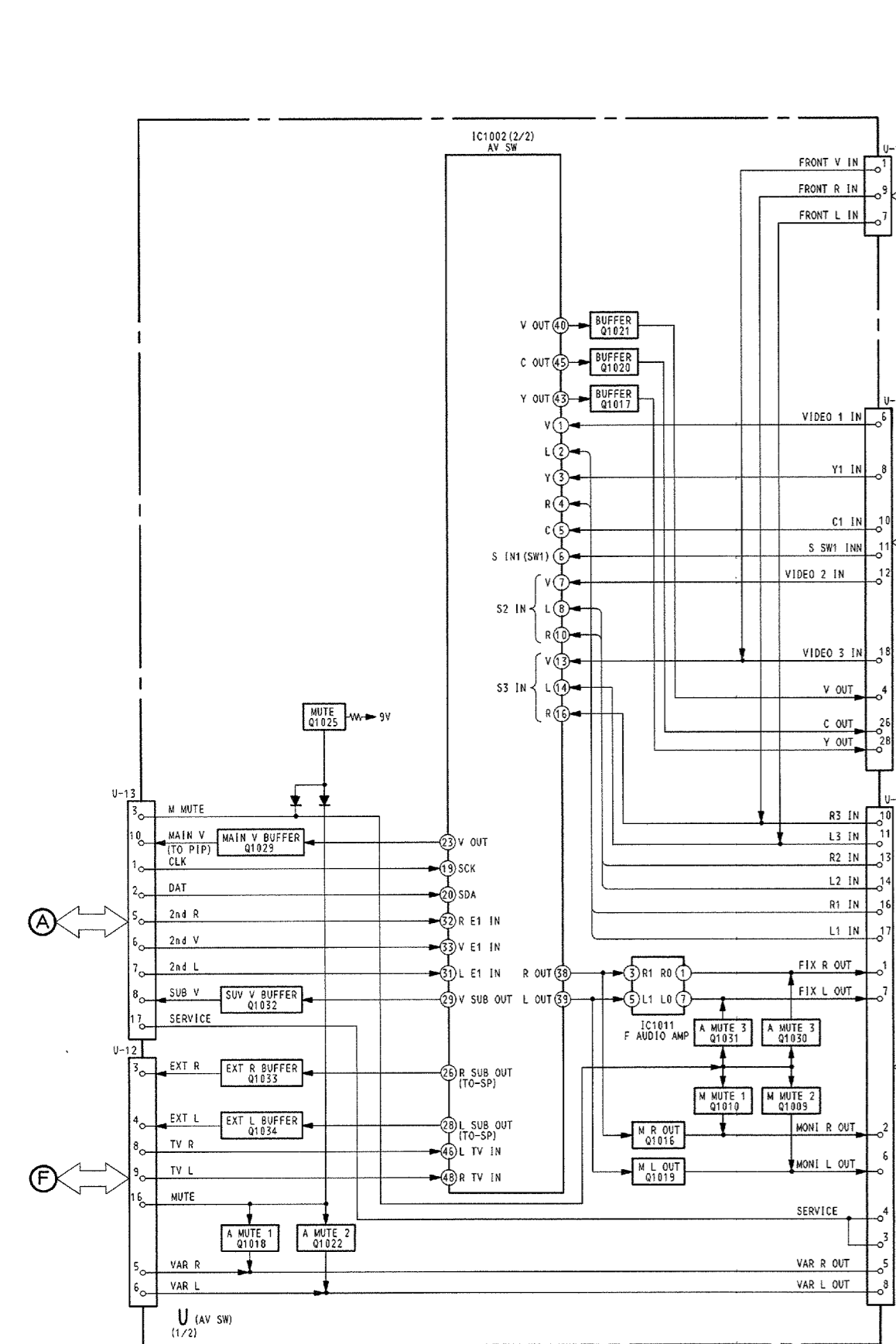
6-1. BLOCK DIAGRAMS (1)



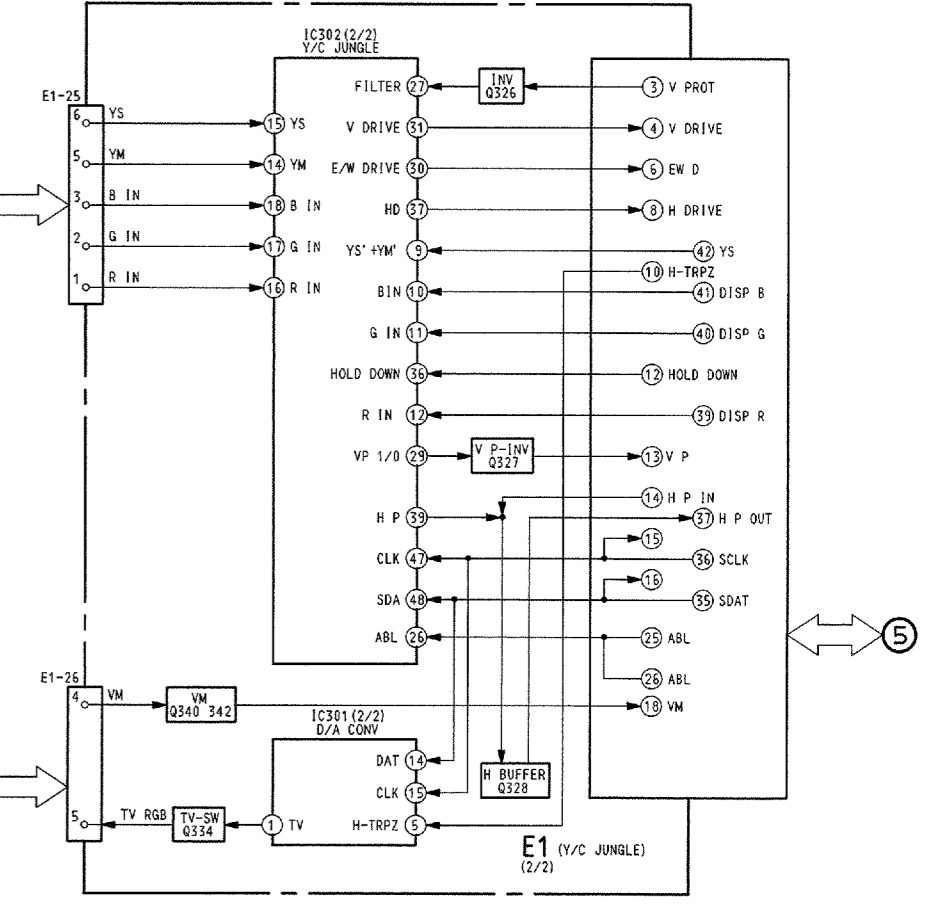
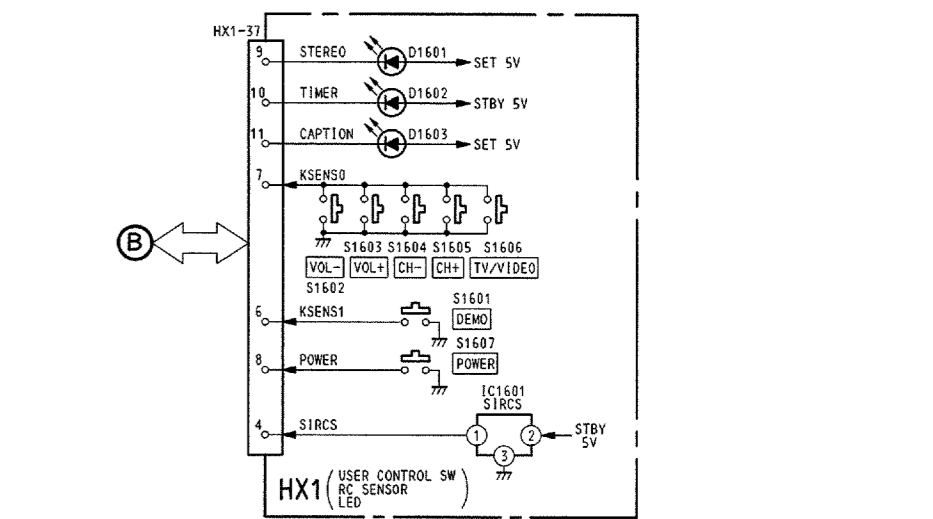
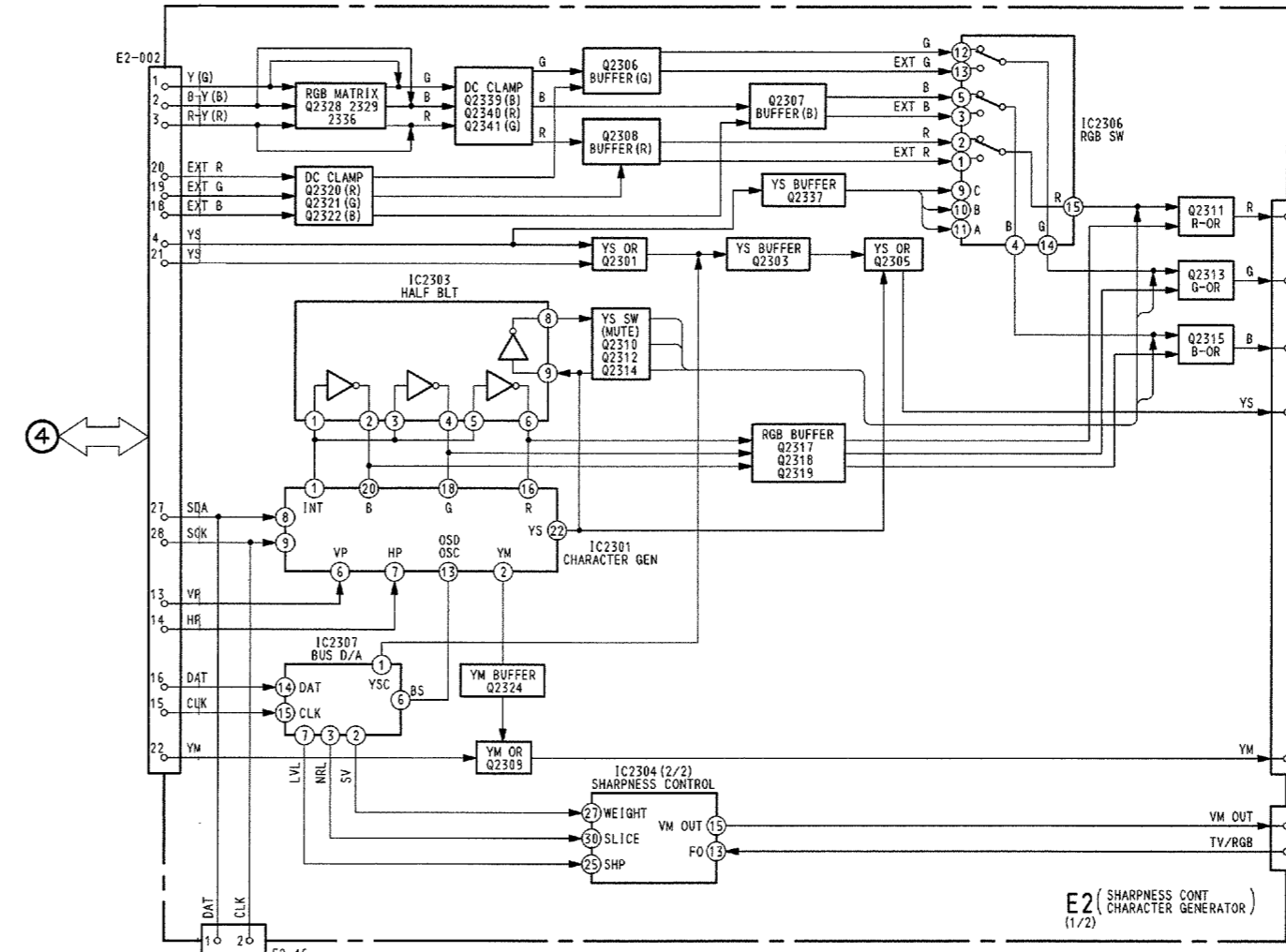
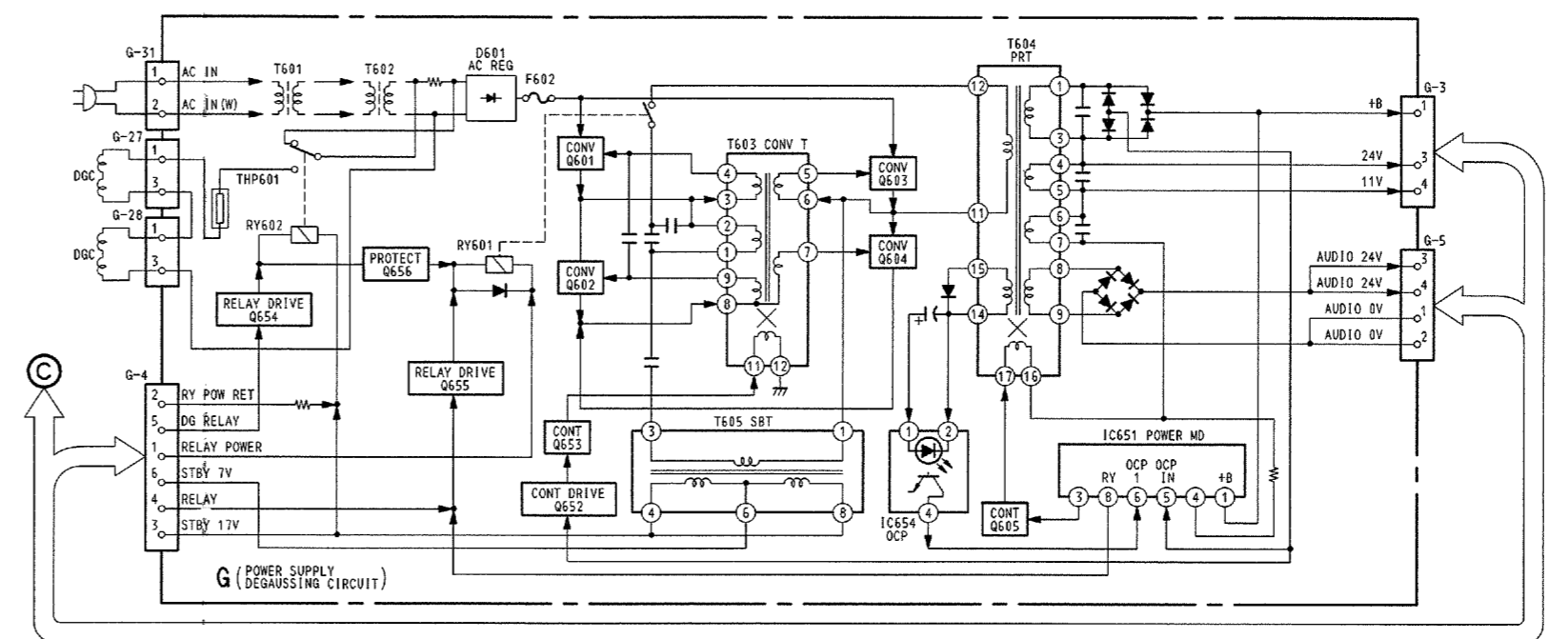
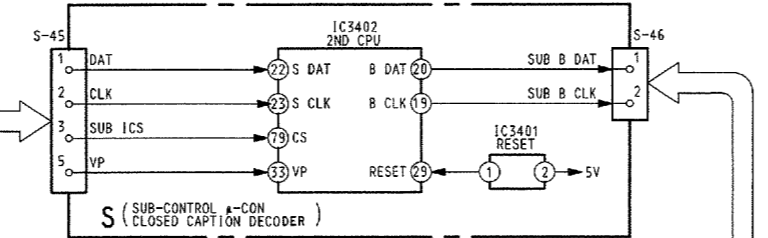
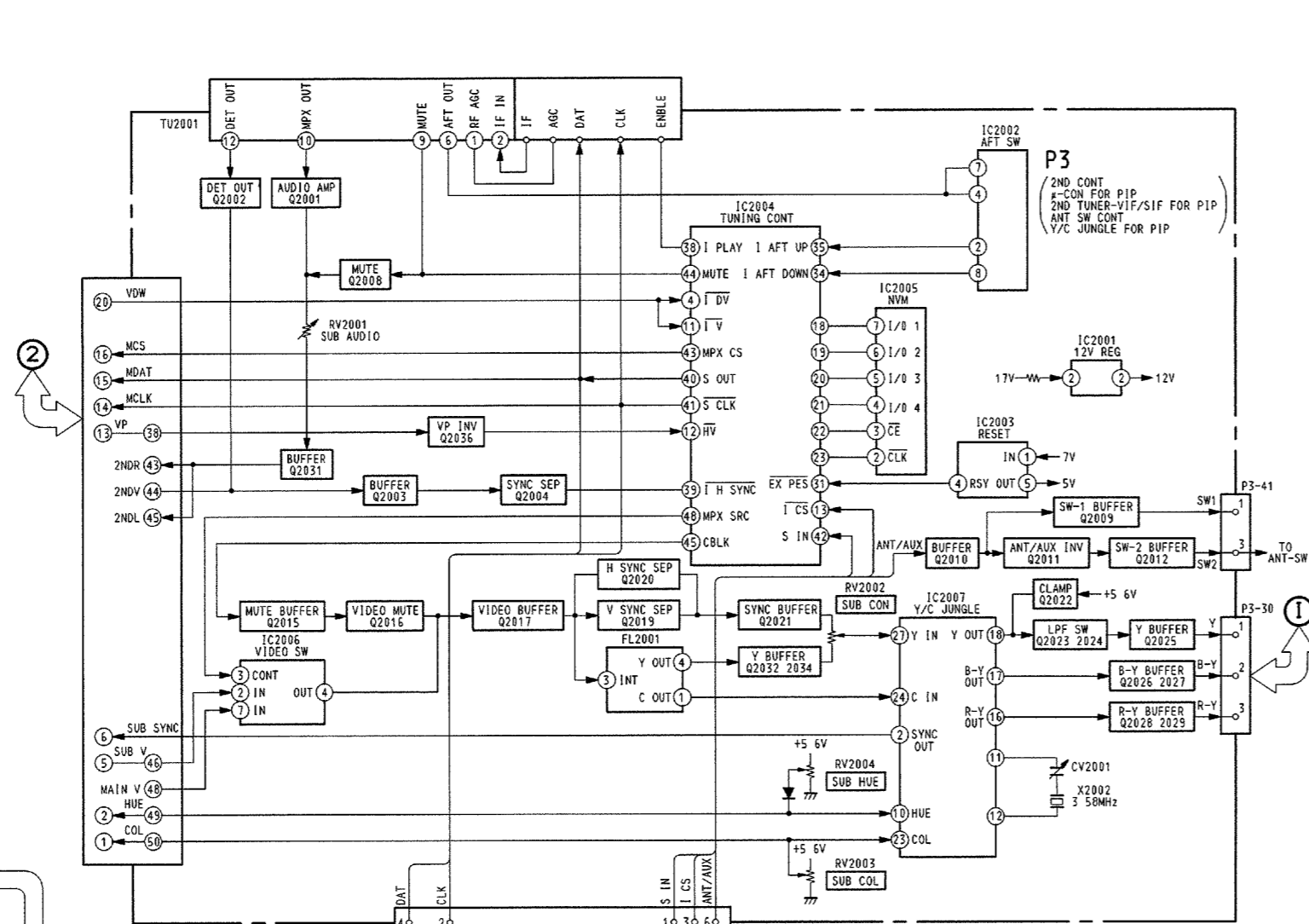
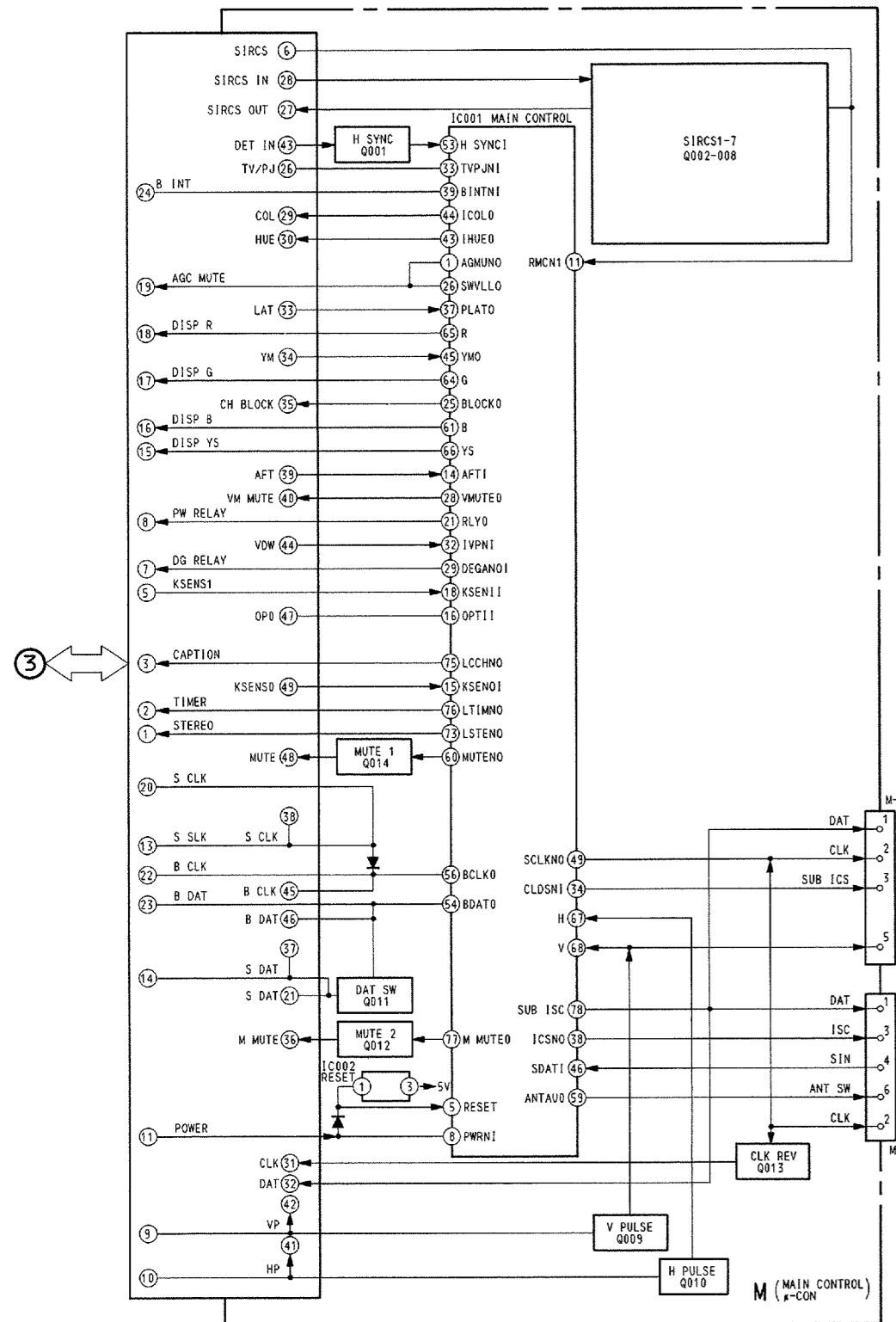




6-2. BLOCK DIAGRAMS (2)



6-3. BLOCK DIAGRAMS (3)



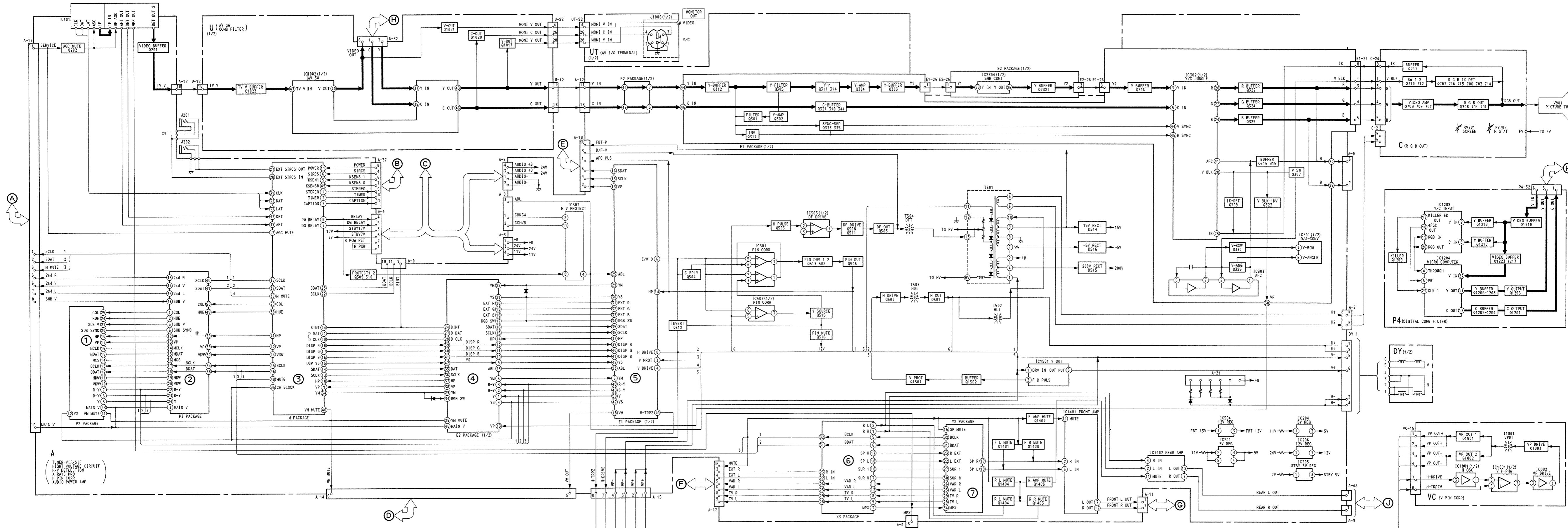
6-4. BLOCK DIAGRAMS (4)

KV-27XBR95S/32XBR95S  
RM-Y114

KV-27XBR95S/32XBR95S  
RM-Y114

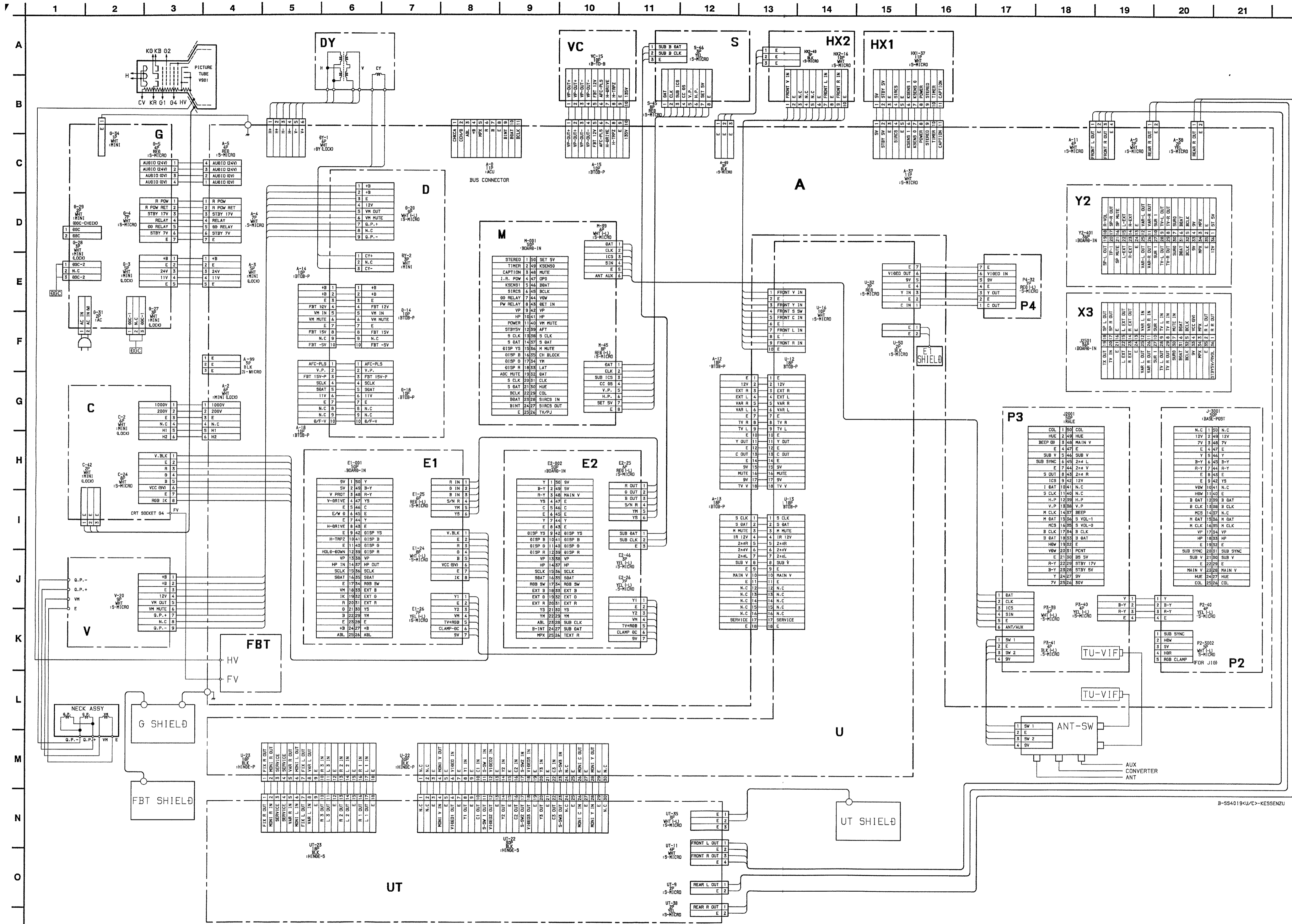
KV-27XBR95S/32XBR95S  
RM-Y114

KV-27XBR95S/32XBR95S  
RM-Y114

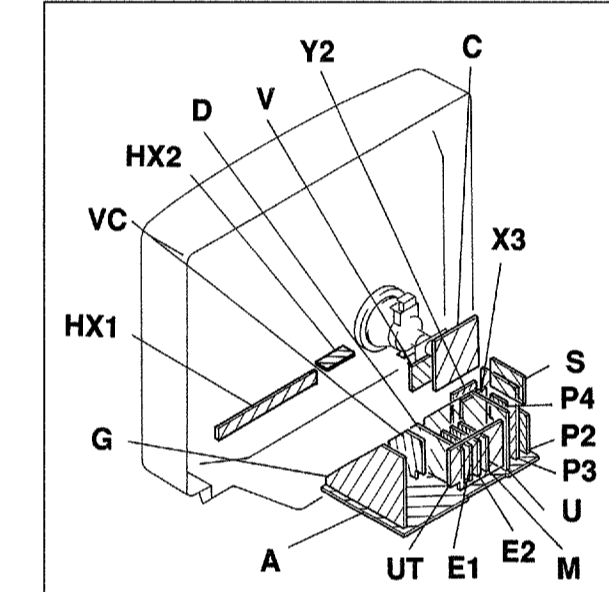




6-5. FRAME SCHEMATIC DIAGRAM



6-6. CIRCUIT BOARDS LOCATION

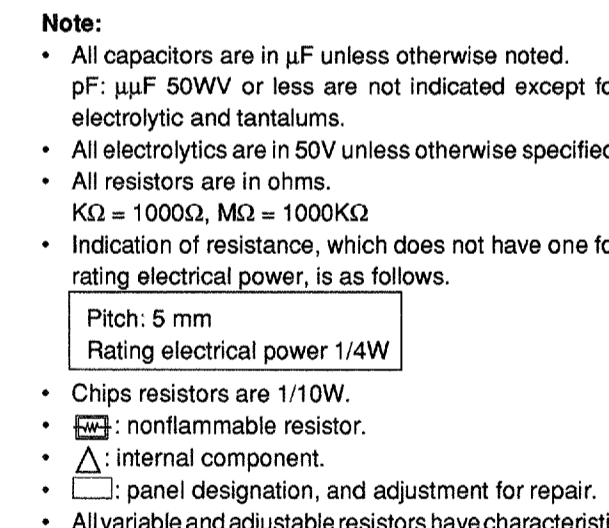


Part replaced (▣)	Adjustment (▢)
IC502, Q509, Q510, R565, R567, R568, R569	R565 (HOLD-DOWN)
IC502, IC651, Q509, Q510, D502, C531, R554, R566, R567, R568, R569, R651, R1506, T501	R566 (HOLD-DOWN)

- Readings are taken with a color-bar signal input.
- Readings are taken with a 10 MΩ digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerance.
- All voltages are in V.
- **▣** : B+ bus.
- **▢** : signal path.

6-7. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- Conductor Side -



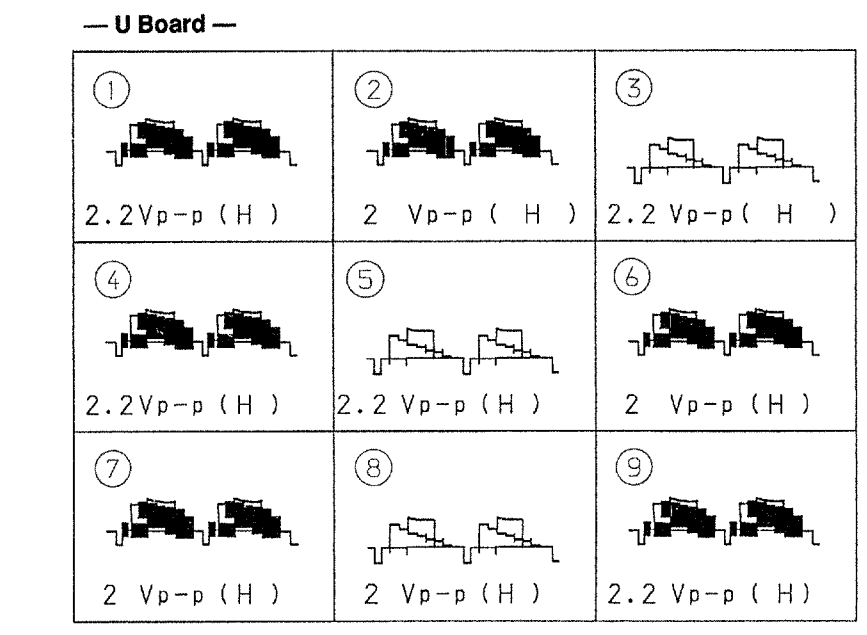
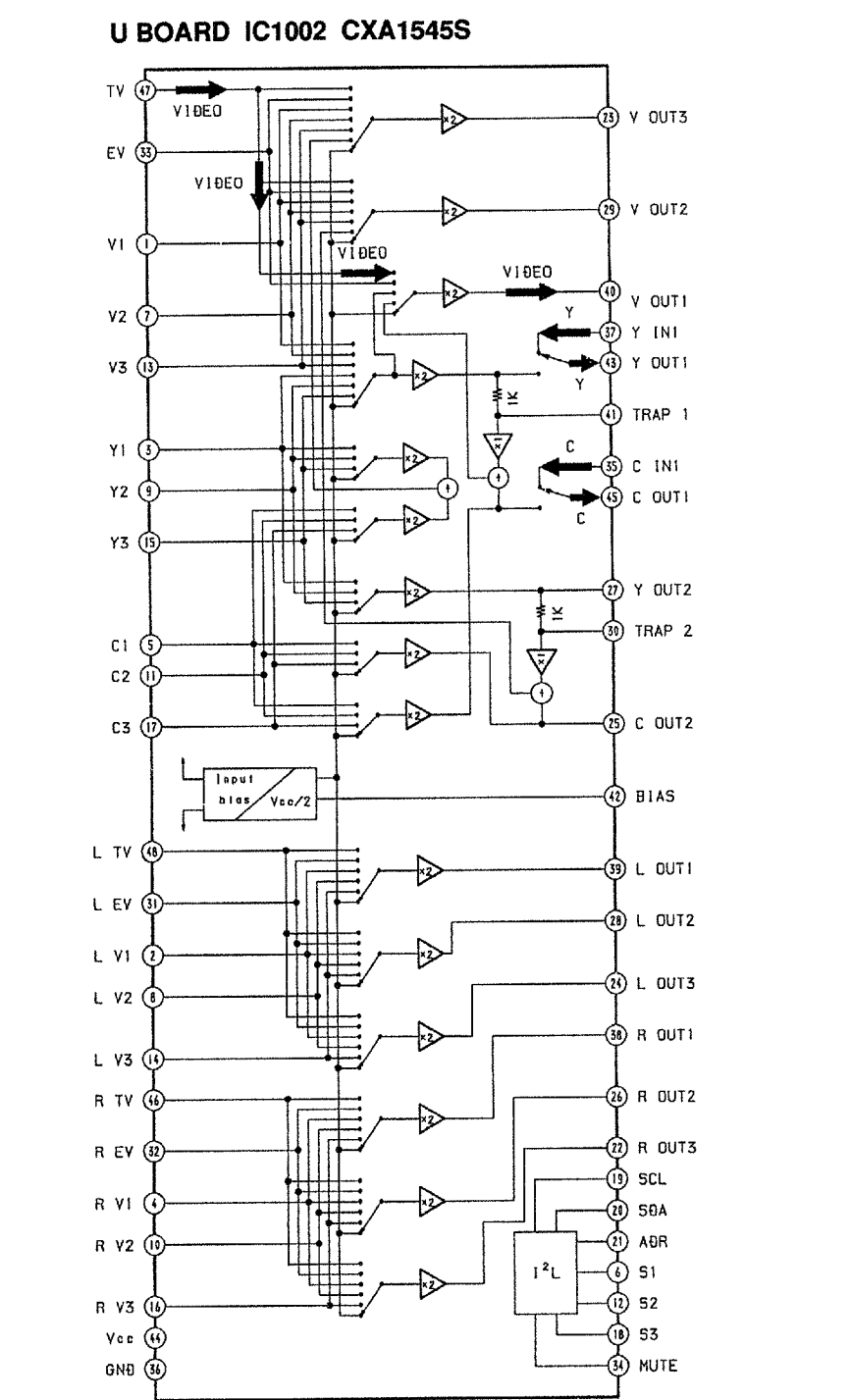
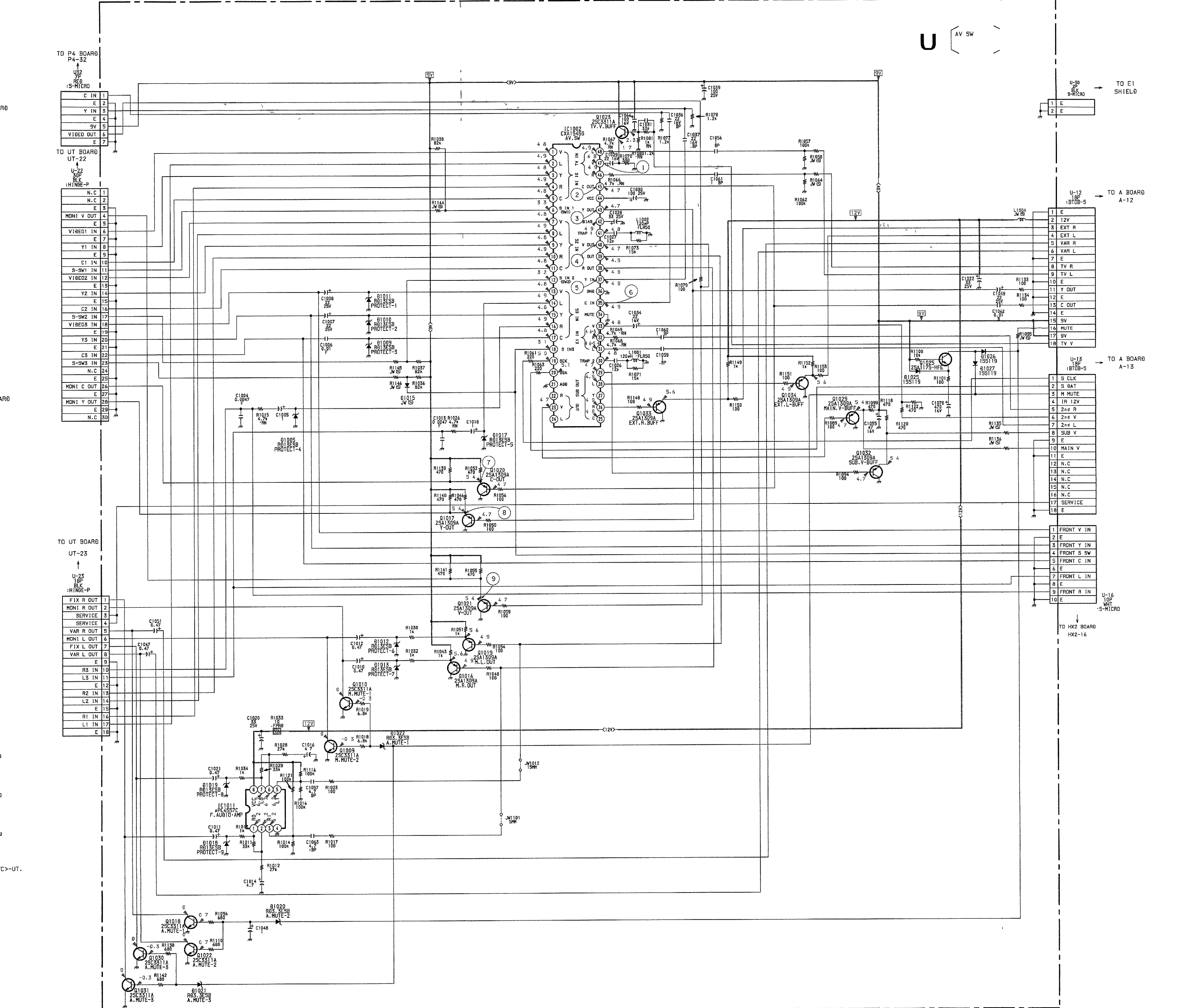
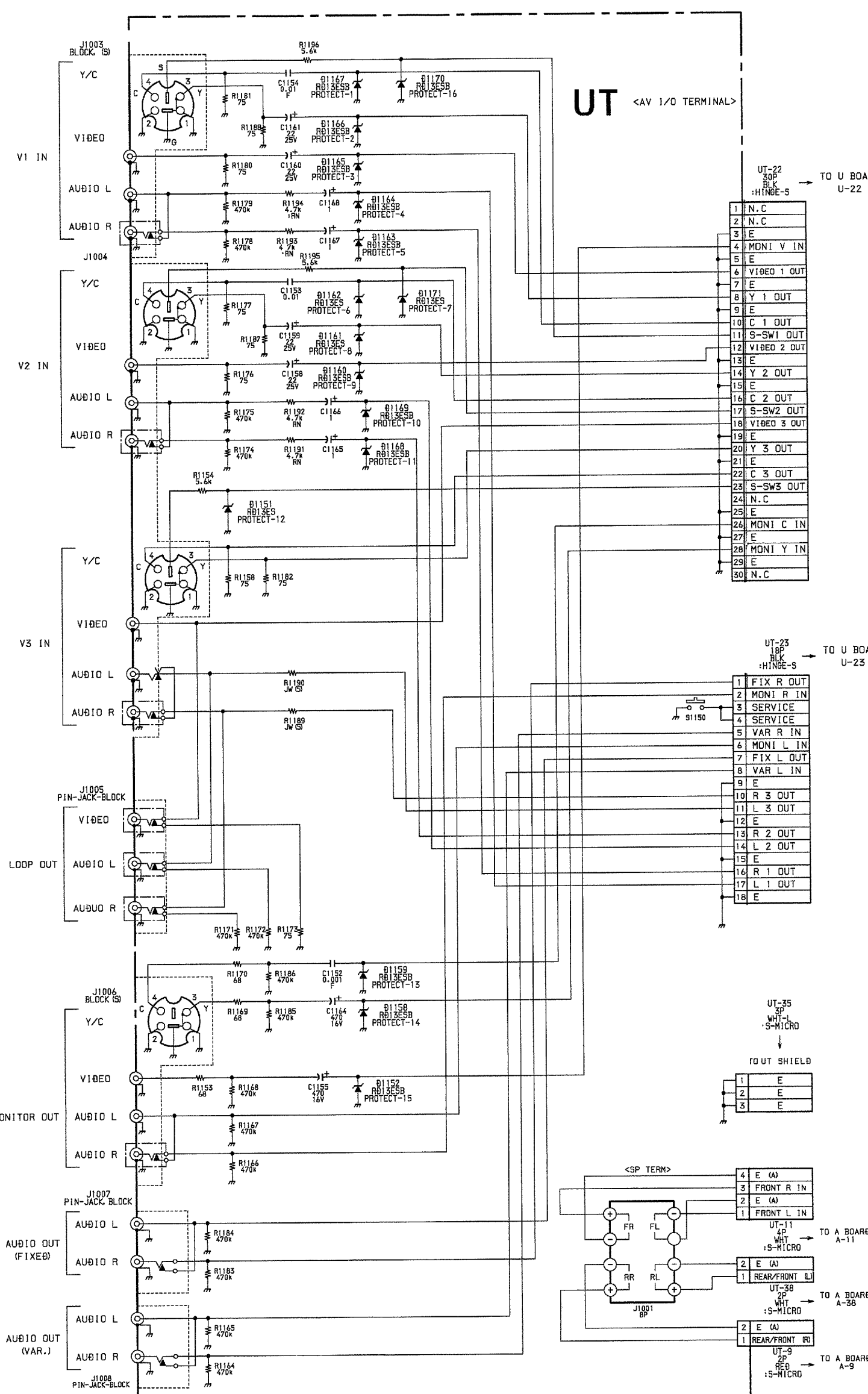
Reference information

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

- Note:
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytic and tantalums.
  - All electrolytics are in 50V unless otherwise specified.
  - All resistors are in ohms.
  - Indication of resistance, which does not have one for rating electrical power, is as follows.
- Pitch: 5 mm  
Rating electrical power 1/4W
- Chips resistors are 1/10W.
  - **▣**: nonflammable resistor.
  - **▢**: internal component.
  - **▣**: panel designation, and adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - **⊥**: earth-ground.
  - **⊥**: earth-chassis.
  - The components identified by **▣** in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
  - When replacing components identified by **▣** mark the necessary adjustments indicated. If results do not meet the specified value, change the component identified by **▣** and repeat the adjustment until the specified value is achieved. (Refer to R565 and R566 on page 55-57 in the Service Manual.)
  - When replacing the part in below table be sure to perform the related adjustment.

Note:  
The components identified by **▣** and **▢** are critical for safety. Replace only with part number specified.

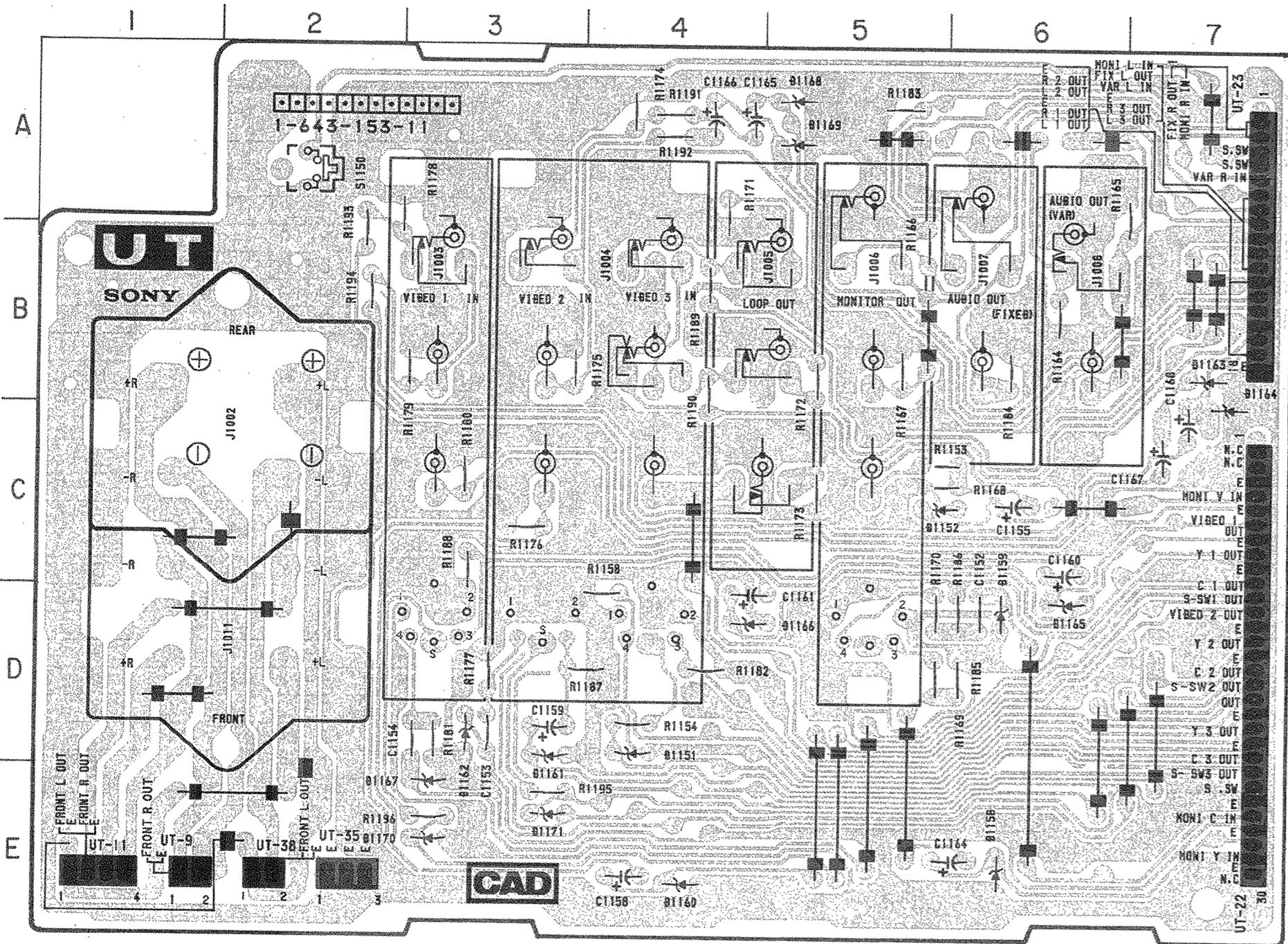
Note:  
Les composants identifiés par un tréma et une marque **▣** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.







— UT Board —

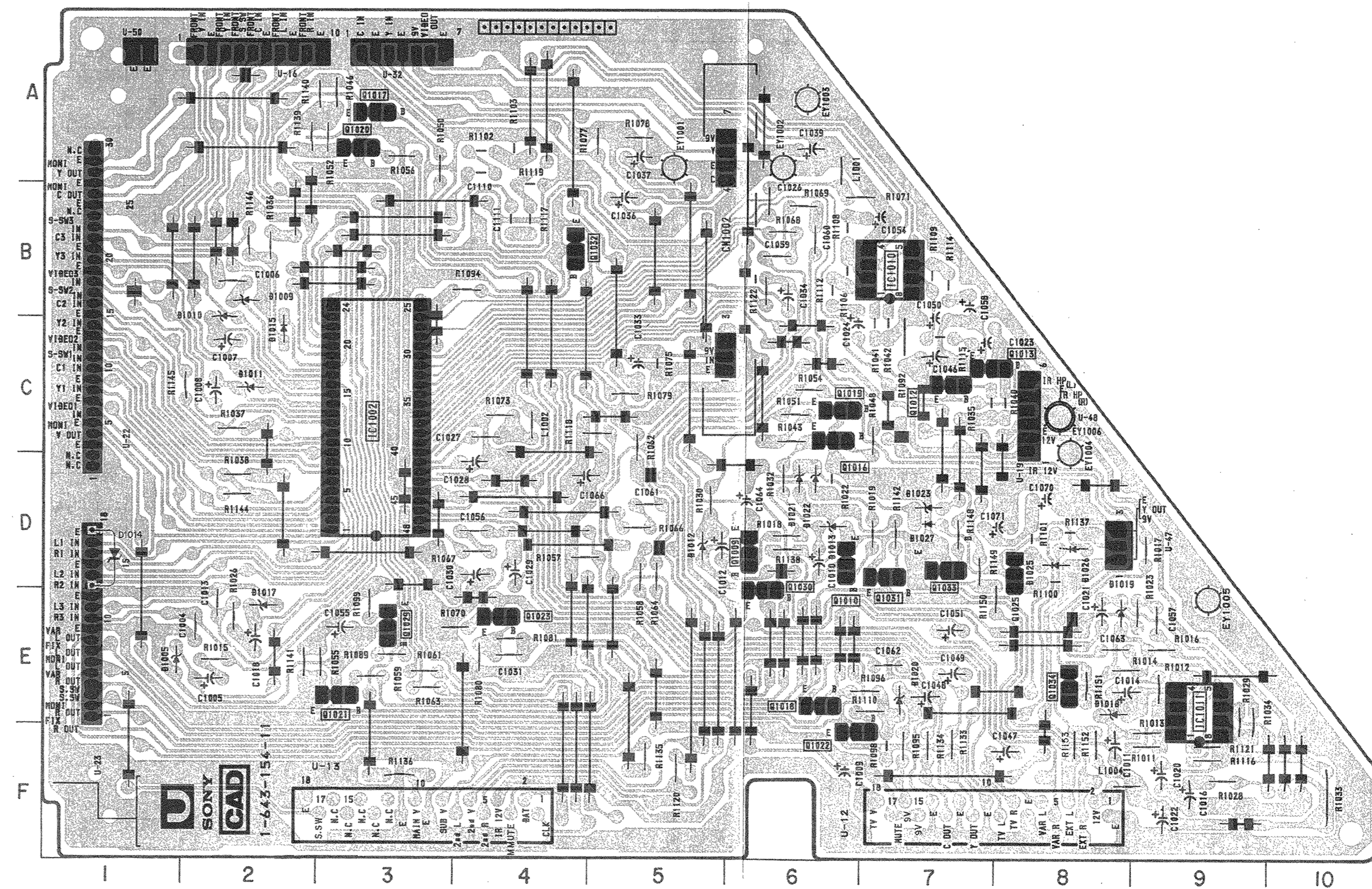


— UT Board —

DIODE	
Ø1151	Ø-4
1152	C-5
1158	E-6
1159	Ø-6
1160	E-4
1161	Ø-3
1162	Ø-3
1163	B-7
1164	B-7
1165	Ø-6
1166	Ø-4
1167	E-3
1168	A-5
1169	A-5
1170	E-3
1171	E-3
1172	
1173	
1174	
1175	
1176	
1177	
1178	
1179	



— U Board —



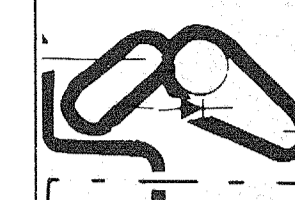
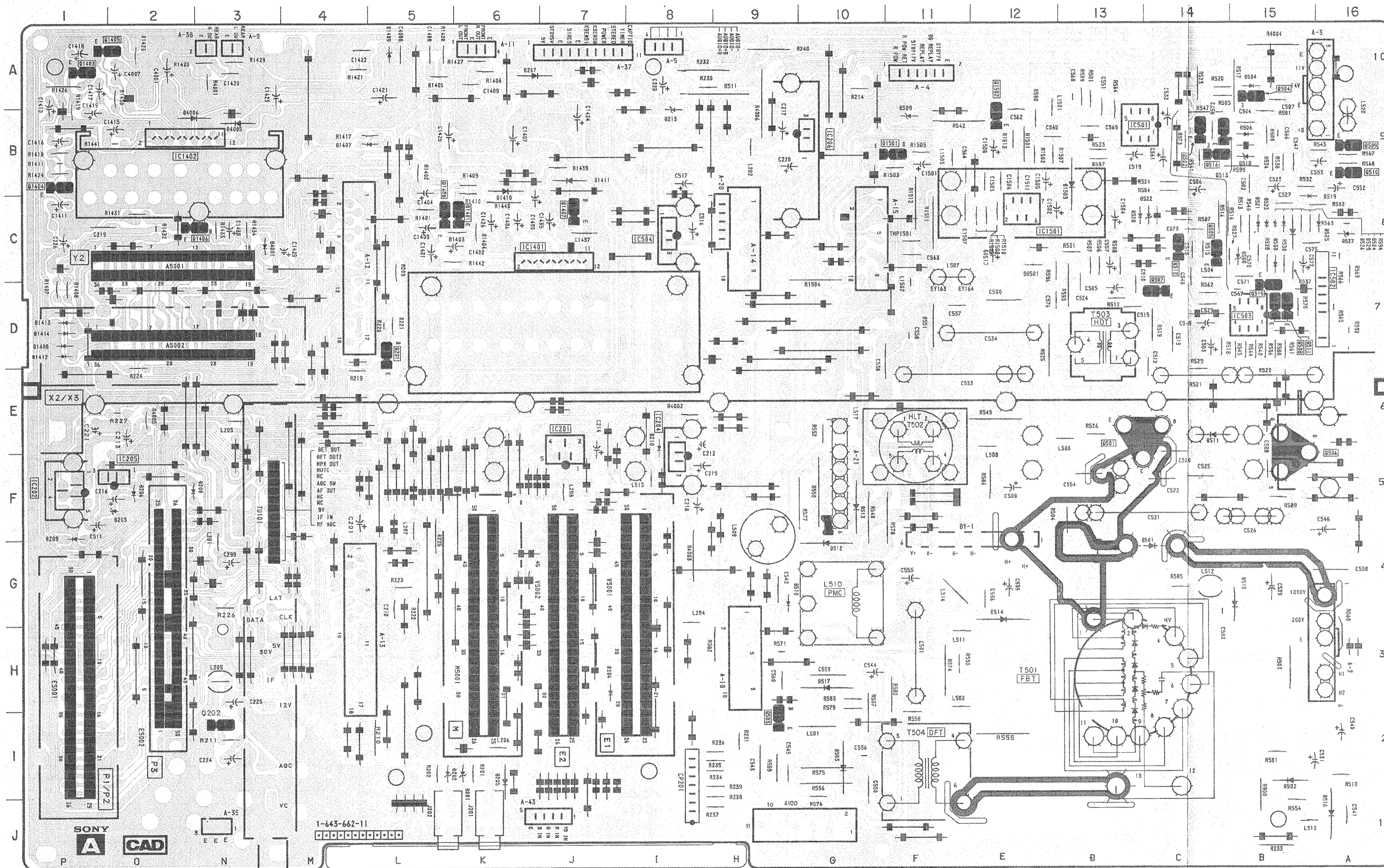
— U Board —

IC	
IC1002	C-3
1011	E-9
TRANSISTOR	
Q1009	D-6
1010	D-6
1016	C-6
1017	A-3
1018	E-6
1019	C-6
1020	A-3
1021	E-3
1022	F-6
1023	E-4
1025	D-8
1029	E-3
1030	D-6
1031	D-7
1032	B-4
1033	D-7
1034	D-7
DIODE	
Ø1005	E-1
1009	B-2
1010	B-2
1011	C-2
1012	D-5
1013	D-6
1014	D-1
1017	E-2
1018	E-8
1019	E-8
1020	E-7
1021	D-6
1022	D-6
1025	D-8
1026	D-8
1027	D-7



**A** TUNER-VIF/SIF, HIGH VOLTAGE CIRCUIT  
H/V DEFLECTION, X-RAYS.PROT  
H.PIN CORR, AUDIO POWER AMP

— A Board —

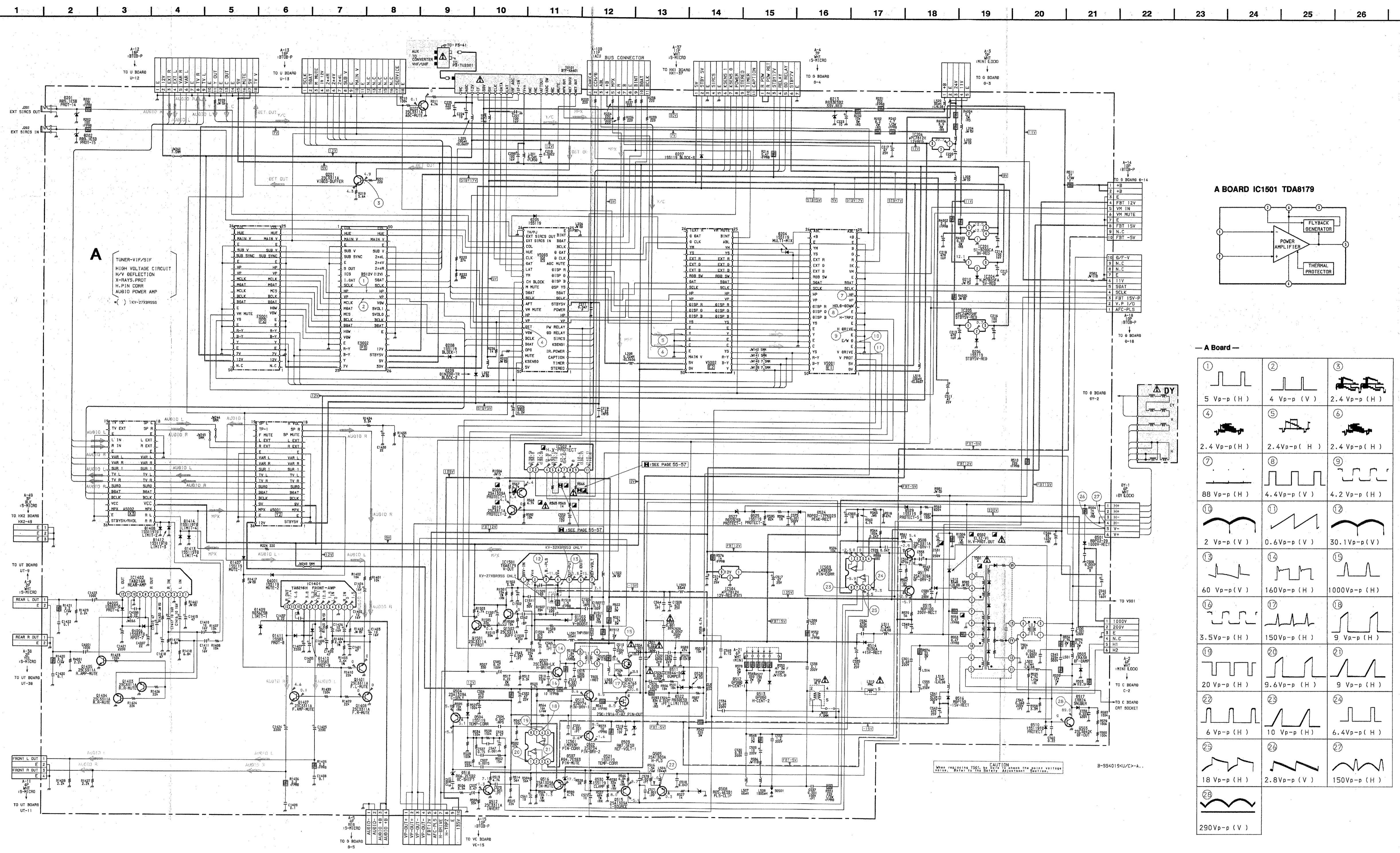


**NOTE:**  
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

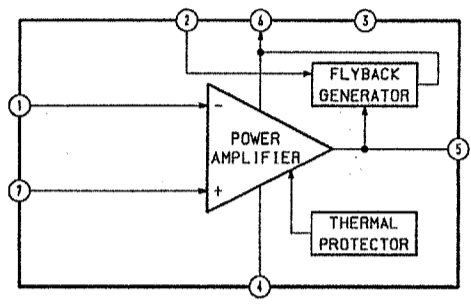
— A Board —

IC		0506	B-15
IC201	E-7	508	C-15
204	F-8	509	B-11
205	F-2	510	G-9
206	B-10	511	E-14
501	B-13	512	G-10
502	0-16	513	F-10
503	0-15	514	G-12
504	C-8	515	G-15
1401	C-7	516	J-16
1402	B-2	517	H-10
1501	C-12	518	B-15
		521	C-15
		522	C-14
		524	C-15
Q201	0-5	525	C-16
202	I-3	527	C-16
501	E-13	529	C-15
502	B-14	530	C-15
503	I-9	1407	B-5
504	A-15	1408	0-1
505	C-14	1409	A-5
506	E-15	1410	B-6
507	0-14	1411	B-7
508	0-15	1412	0-1
509	B-16	1413	0-1
510	B-16	1414	0-1
511	0-15	1503	B-13
512	C-14	4001	C-3
513	B-14	4005	B-3
515	0-15	4006	B-2
516	B-14		
1401	C-6		
1403	A-1		
1404	B-1		
1405	A-2		
1407	C-7		
1408	C-5		
1501	B-11		
1502	B-12		
<b>DIODE</b>			
0201	I-6		
202	I-5		
204	H-7		
205	I-6		
206	A-2		
207	F-6		
208	F-2		
209	F-1		
213	A-8		
501	G-14		
502	I-5		
503	I-10		
504	A-15		





A BOARD IC1501 TDA8179S



- A Board -

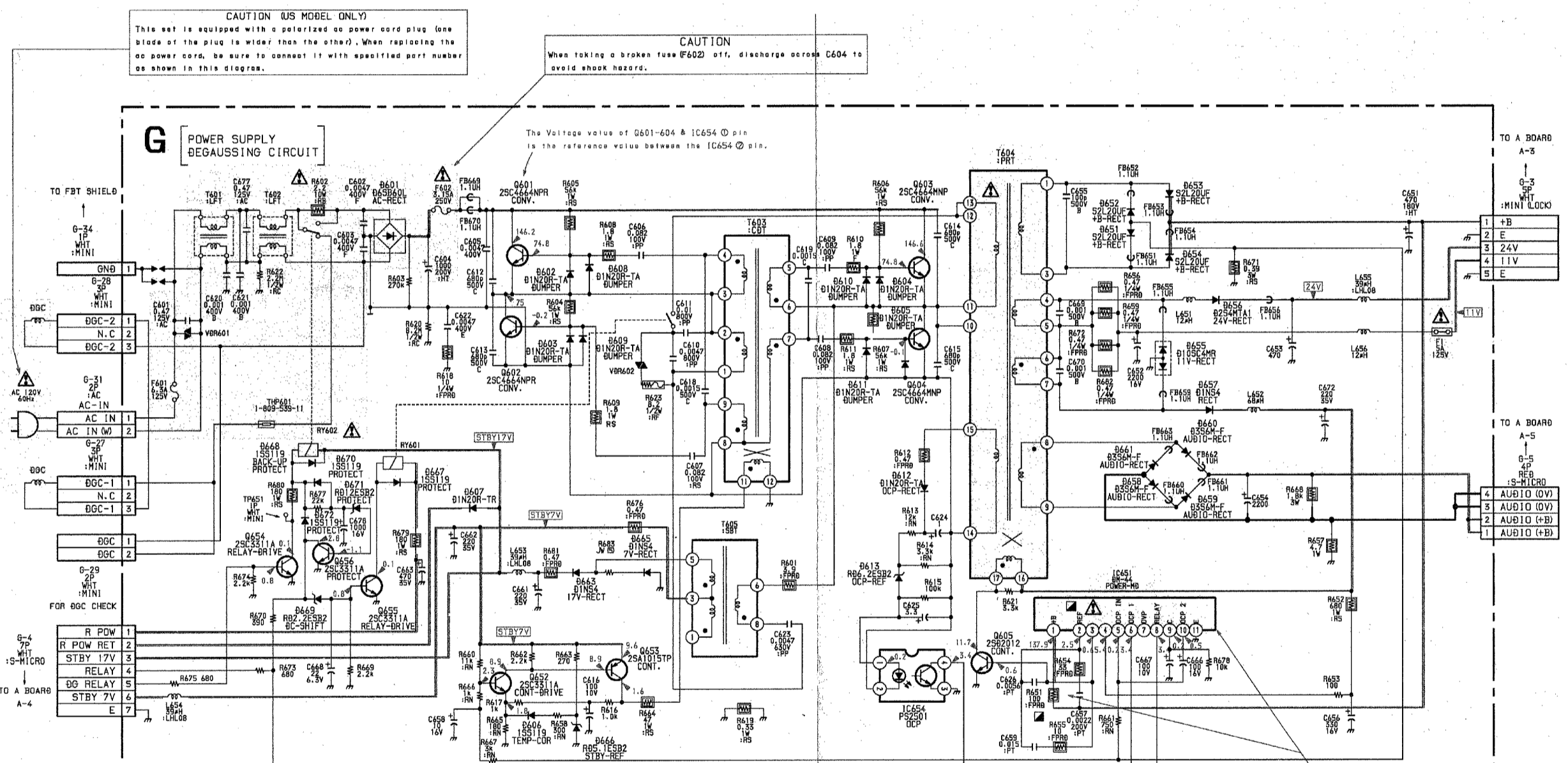
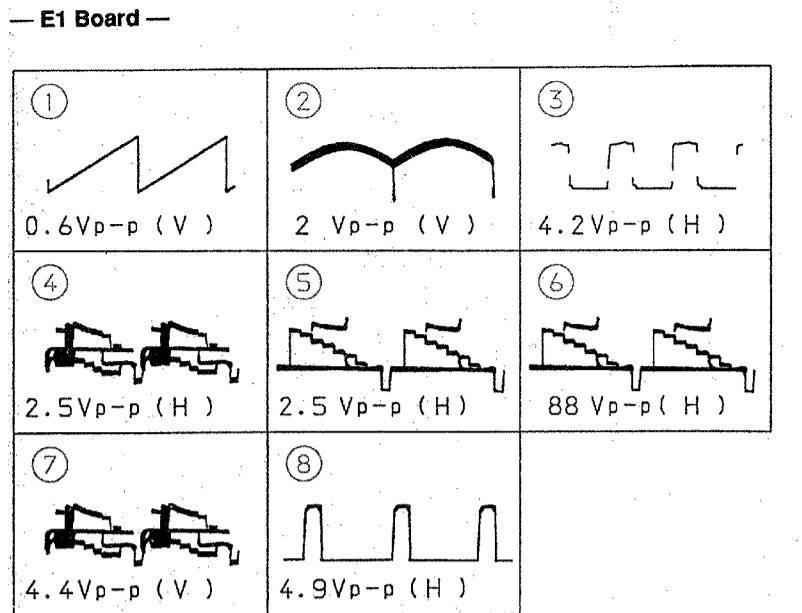
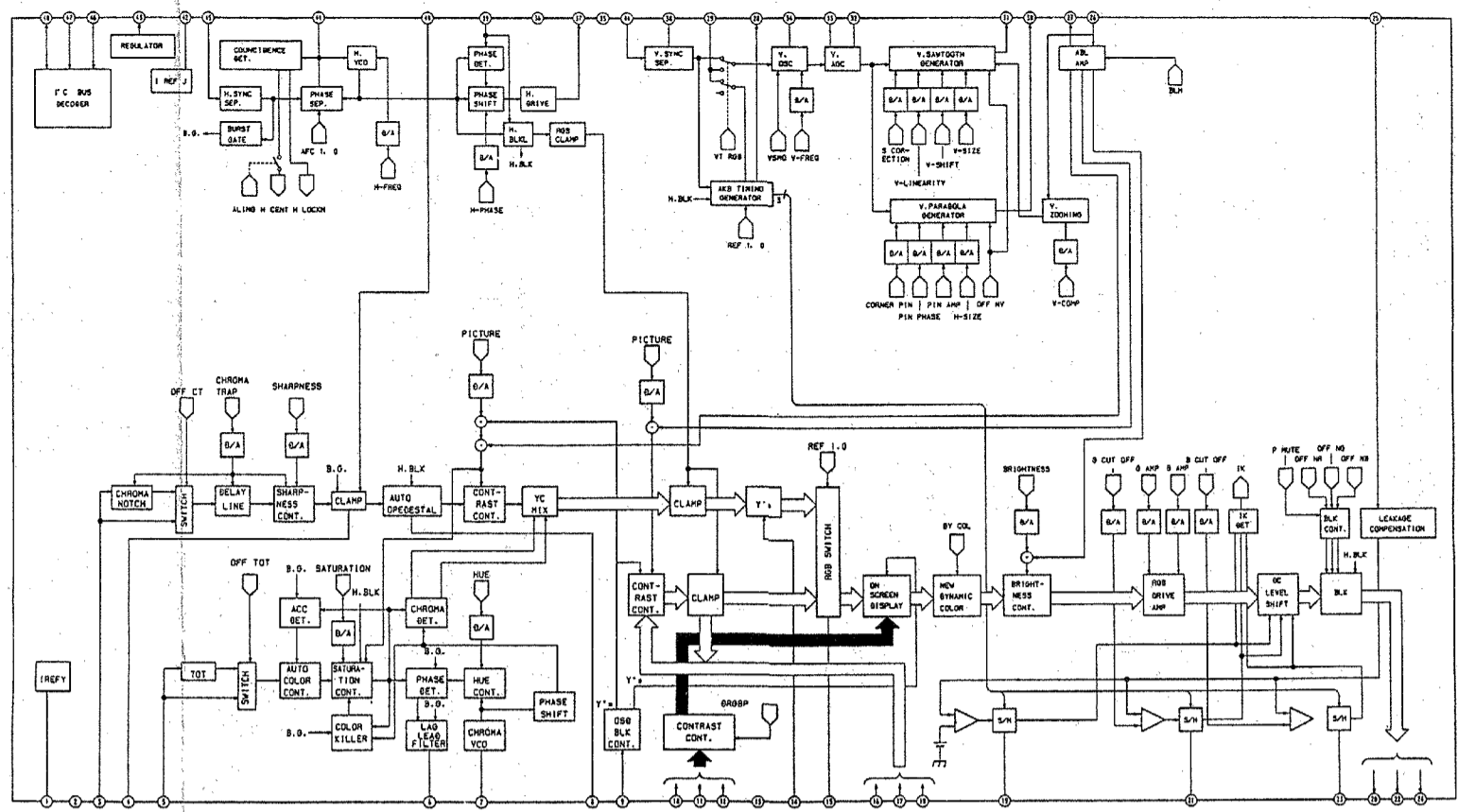
①	②	③
5 Vp-p (H)	4 Vp-p (V)	2.4 Vp-p (H)
④	⑤	⑥
2.4 Vp-p (H)	2.4 Vp-p (H)	2.4 Vp-p (H)
⑦	⑧	⑨
88 Vp-p (H)	4.4 Vp-p (V)	4.2 Vp-p (H)
⑩	⑪	⑫
2 Vp-p (V)	0.6 Vp-p (V)	30.1 Vp-p (V)
⑬	⑭	⑮
60 Vp-p (V)	160 Vp-p (H)	1000 Vp-p (H)
⑯	⑰	⑱
3.5 Vp-p (H)	150 Vp-p (H)	9 Vp-p (H)
⑲	⑳	㉑
20 Vp-p (H)	9.6 Vp-p (H)	9 Vp-p (H)
㉒	㉓	㉔
6 Vp-p (H)	10 Vp-p (H)	6.4 Vp-p (H)
㉕	㉖	㉗
18 Vp-p (H)	2.8 Vp-p (V)	150 Vp-p (H)
㉘		
290 Vp-p (V)		

A BOARD \* MARK NOTE # : NOT MOUNTED

	KV-27XBR95S	KV-32XBR95S
△ T501	NX-3000A2	NX-3000A3



E1 BOARD IC302 CXA1465AS



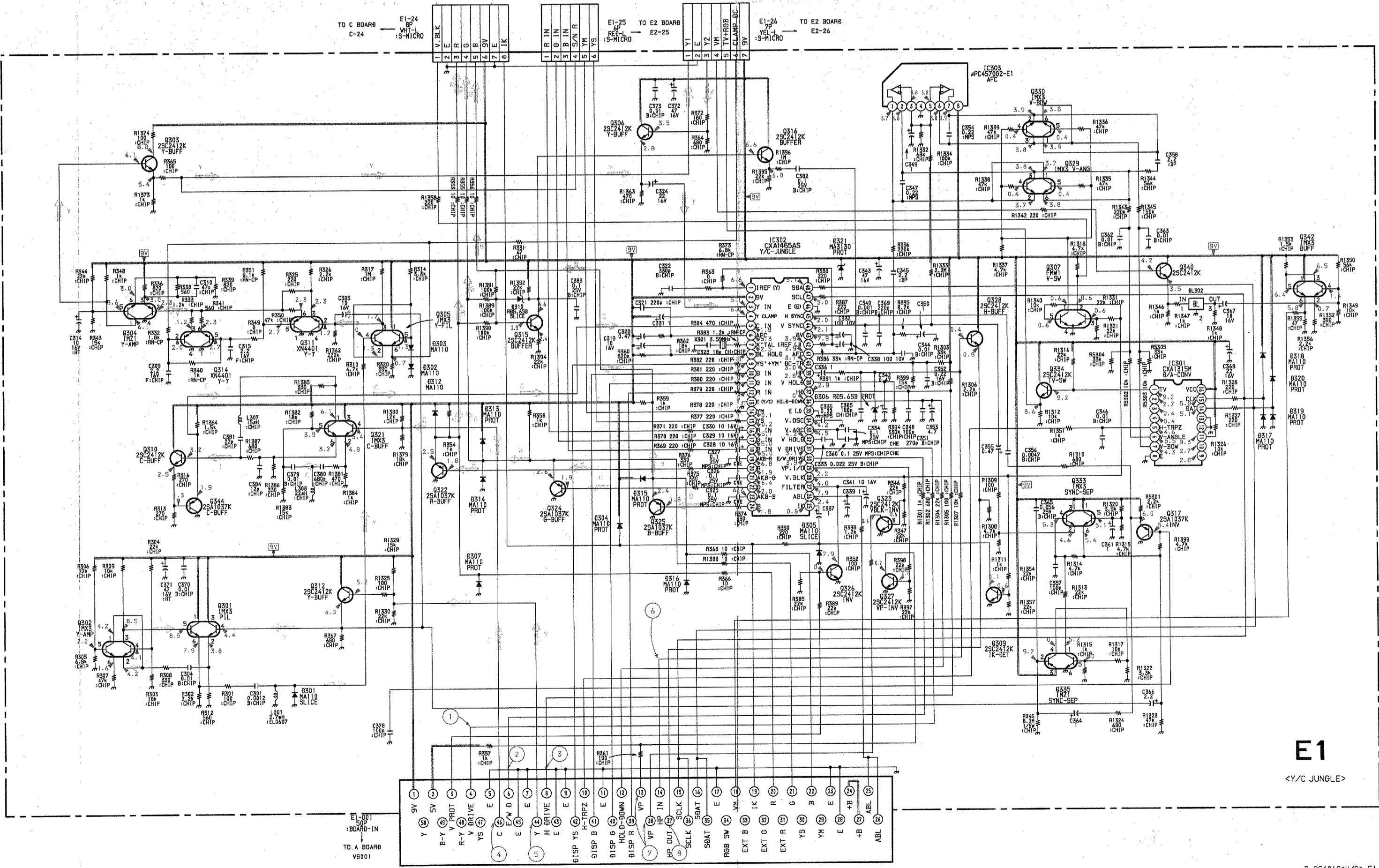
CAUTION (US MODEL ONLY) This set is equipped with a polarized power cord plug. See inside of the plug to identify the ground. When replacing the power cord, be sure to connect it with electrical polarity as shown in this diagram.

CAUTION When taking a broken tube #602 out, disconnect before C604 to avoid shock hazard.

The Voltage value of 0601-604 & IC654 @ pin is the reference value between the IC654 @ pin.

CAUTION As there are two kinds of ground on this board, be careful when measuring the voltages.

B-9S4019CU/C>-6. CAUTION When replacing IC651 and RES1, be sure to check the B+ line voltage values. Refer to the Safety Adjustment Section. SEE PAGE 55-57.

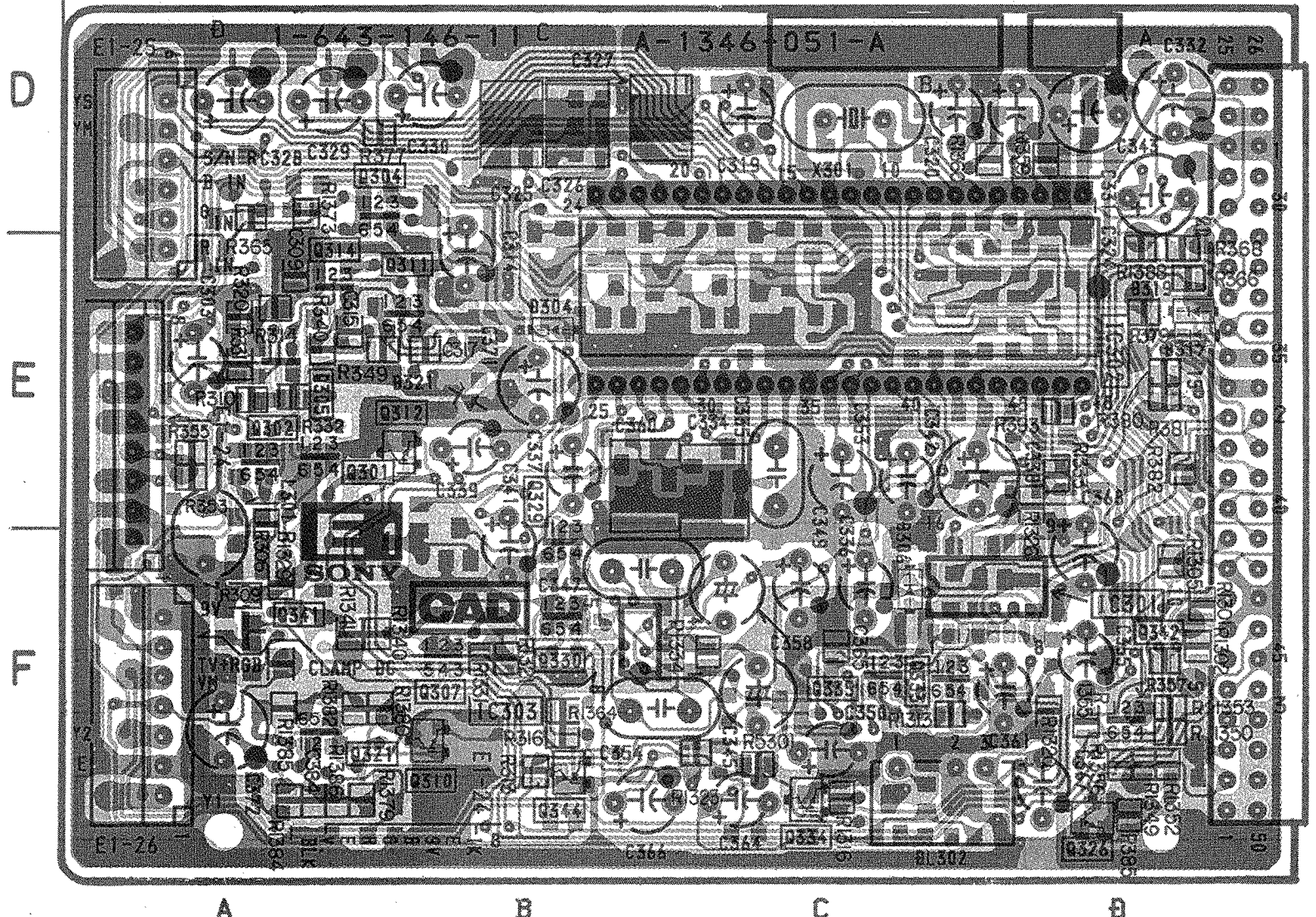
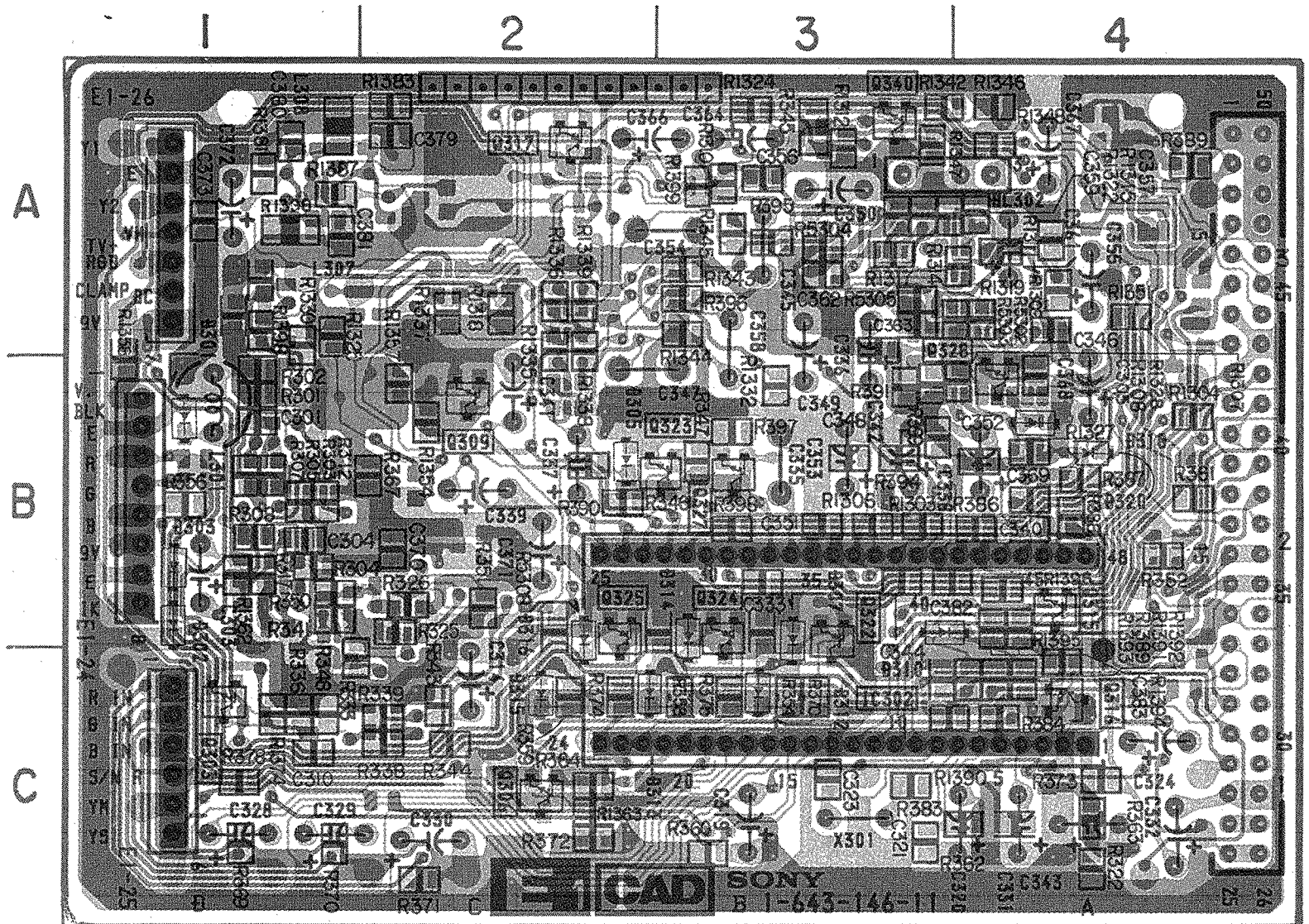


E1 <Y/C JUNGLE>



**E1** [Y/C JUNGLE]

— E1 Board —



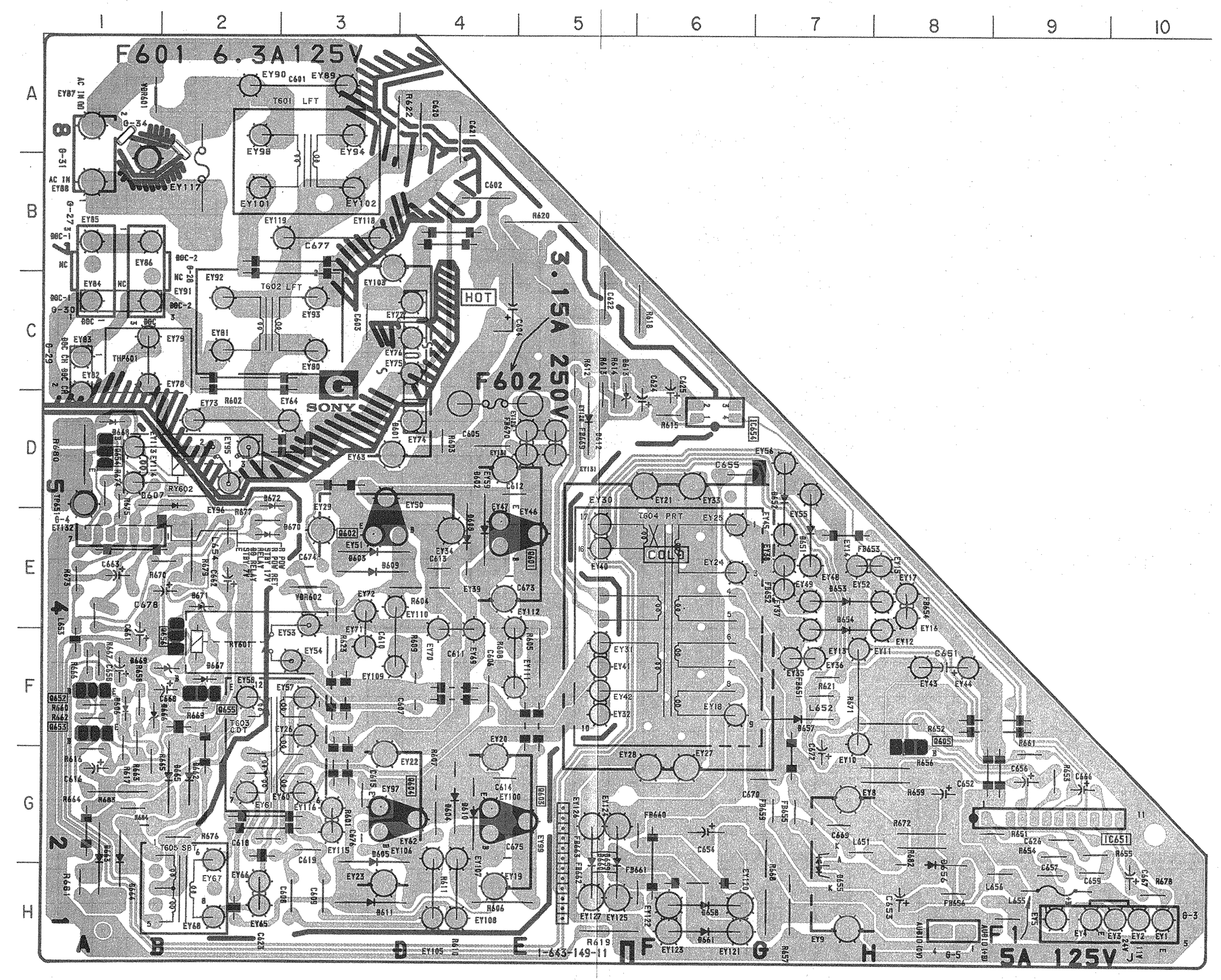
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.

— E1 Board —

IC		Ø319	E-4
IC301	F-4	320	B-4
302	B-3	321	E-2
303	F-2		
<b>TRANSISTOR</b>			
Q301	E-2		
302	E-1		
303	C-1		
304	D-2		
305	E-1		
306	C-2		
307	F-2		
309	B-2		
310	F-2		
311	E-2		
312	E-2		
314	E-1		
315	B-4		
316	C-4		
317	A-2		
321	F-1		
322	B-3		
323	B-3		
324	B-3		
325	B-2		
326	F-4		
327	B-3		
328	B-4		
329	F-2		
330	F-2		
333	F-4		
334	F-3		
335	F-3		
340	A-3		
342	F-4		
344	F-2		
<b>DIODE</b>			
Ø301	B-1		
302	B-1		
303	B-1		
304	E-2		
305	B-2		
306	F-3		
307	B-3		
310	B-3		
312	C-3		
313	C-2		
314	B-3		
315	C-2		
316	B-2		
317	E-4		
318	B-4		

**G** [POWER SUPPLY, DEGAUSSING CIRCUIT]

— G Board —



— G Board —

IC	
IC651	G-9
654	D-6
<b>TRANSISTOR</b>	
Q601	E-4
602	E-3
603	G-4
604	G-3
605	F-8
652	F-1
653	F-1
654	D-1
655	F-2
656	F-2
<b>DIODE</b>	
Ø601	C-4
602	E-4
603	E-3
604	G-4
605	G-3
606	F-1
607	D-2
608	E-4
609	E-3
610	G-4
611	H-3
612	D-5
613	D-5
651	E-7
652	D-7
653	E-7
654	E-7
655	G-7
656	G-8
657	F-7
658	H-6
659	G-5
660	G-5
661	H-6
663	G-1
665	G-2
666	F-1
667	F-2
668	D-1
669	F-2
670	E-2
671	E-2
672	D-2
<b>TEST POINT</b>	
TP651	D-1



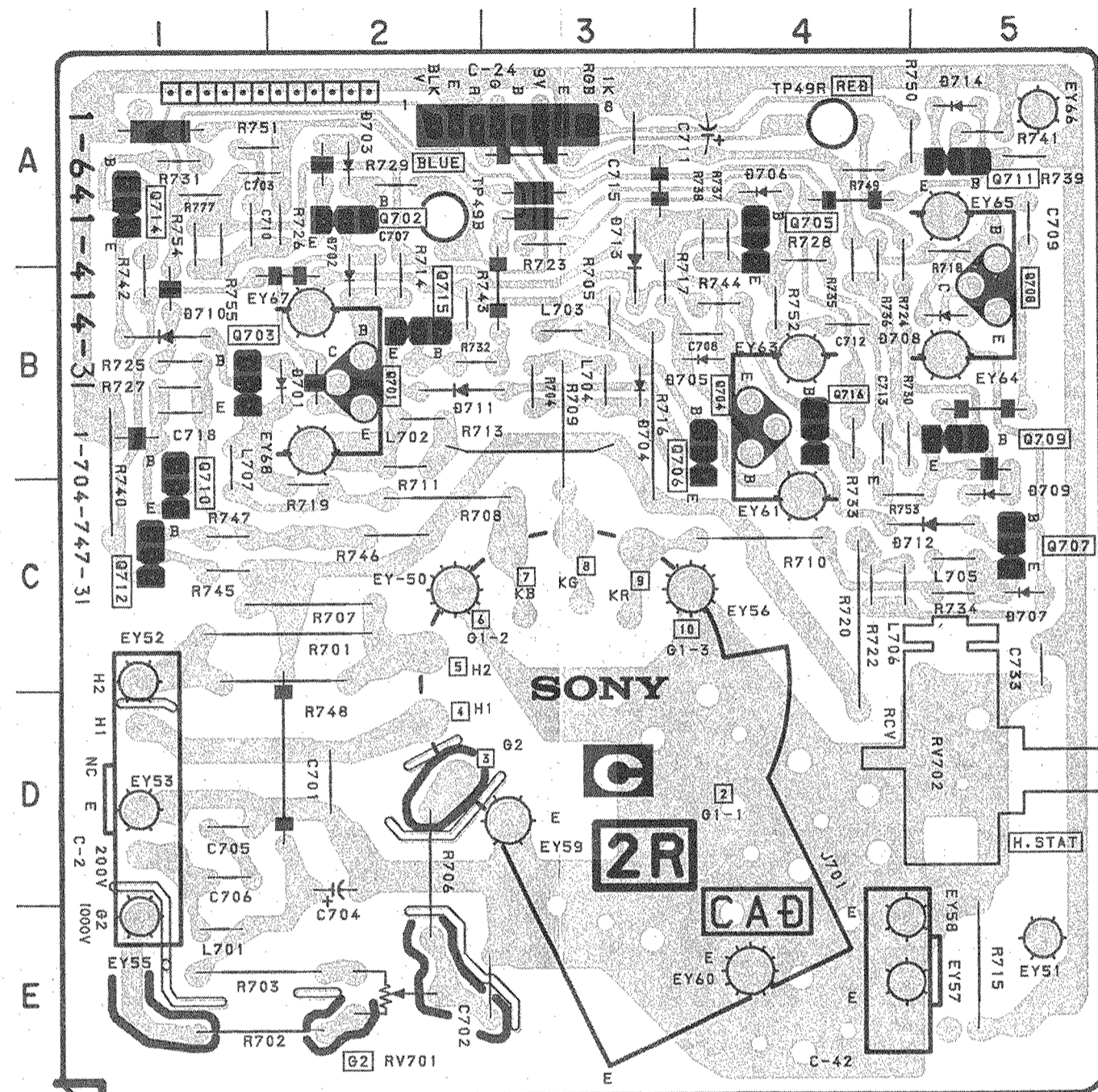
HX1

[USER CONT. SW, RC SENSOR, LED]

C

[R.G.B. OUT]

— C Board —



— C Board —

TRANSISTOR	VALIABLE RESISTOR
Q701	B-2
702	A-2
703	B-1
704	B-4
705	A-4
706	B-4
707	C-5
708	B-5
709	B-5
710	C-1
711	A-5
712	C-1
714	A-1
715	B-3
716	B-4

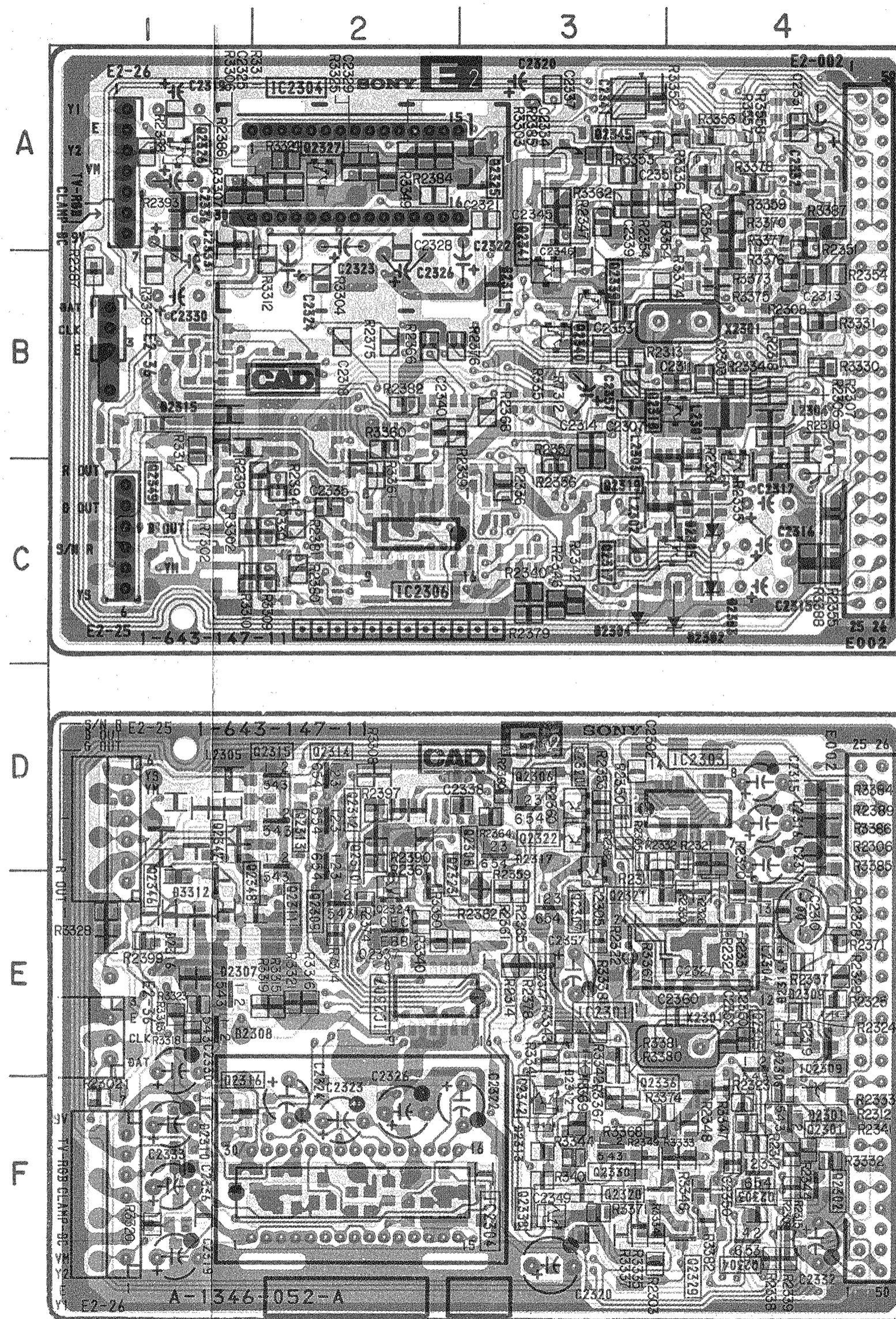
  

DIODE	TEST POINT
D701	B-2
702	B-2
703	A-2
704	B-3
705	B-4
706	A-4
707	C-5
708	B-5
709	B-5
710	B-1
711	B-3
712	C-5
713	B-3
714	A-5

E2

[SHARPNESS CONT., CHARACTOR GENERATOR]

— E2 Board —



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

— E2 Board —

IC	
IC2301	E-4
2303	D-4
2304	A-2
2306	C-2
2307	E-2

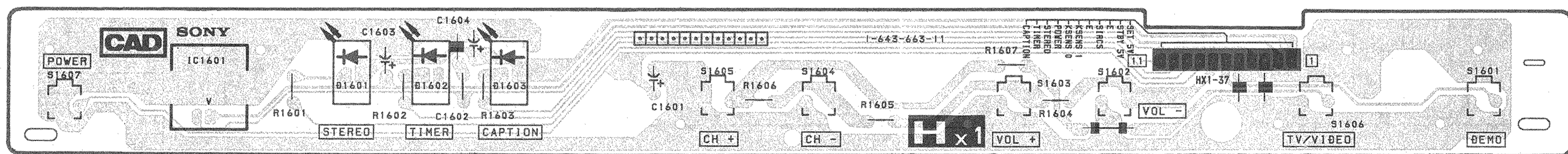
  

TRANSISTOR	
Q2301	F-4
2303	F-4
2304	F-4
2305	E-4
2306	D-3
2307	E-3
2308	D-3
2309	E-2
2310	D-2
2311	D-2
2312	D-2
2314	D-2
2315	D-2
2317	C-4
2318	B-4
2319	C-4
2320	D-3
2321	D-3
2322	D-3
2324	E-2
2326	A-1
2327	A-2
2330	F-3
2337	E-2
2338	F-3
2339	B-3
2340	B-3
2341	B-3
2342	F-3
2345	A-3

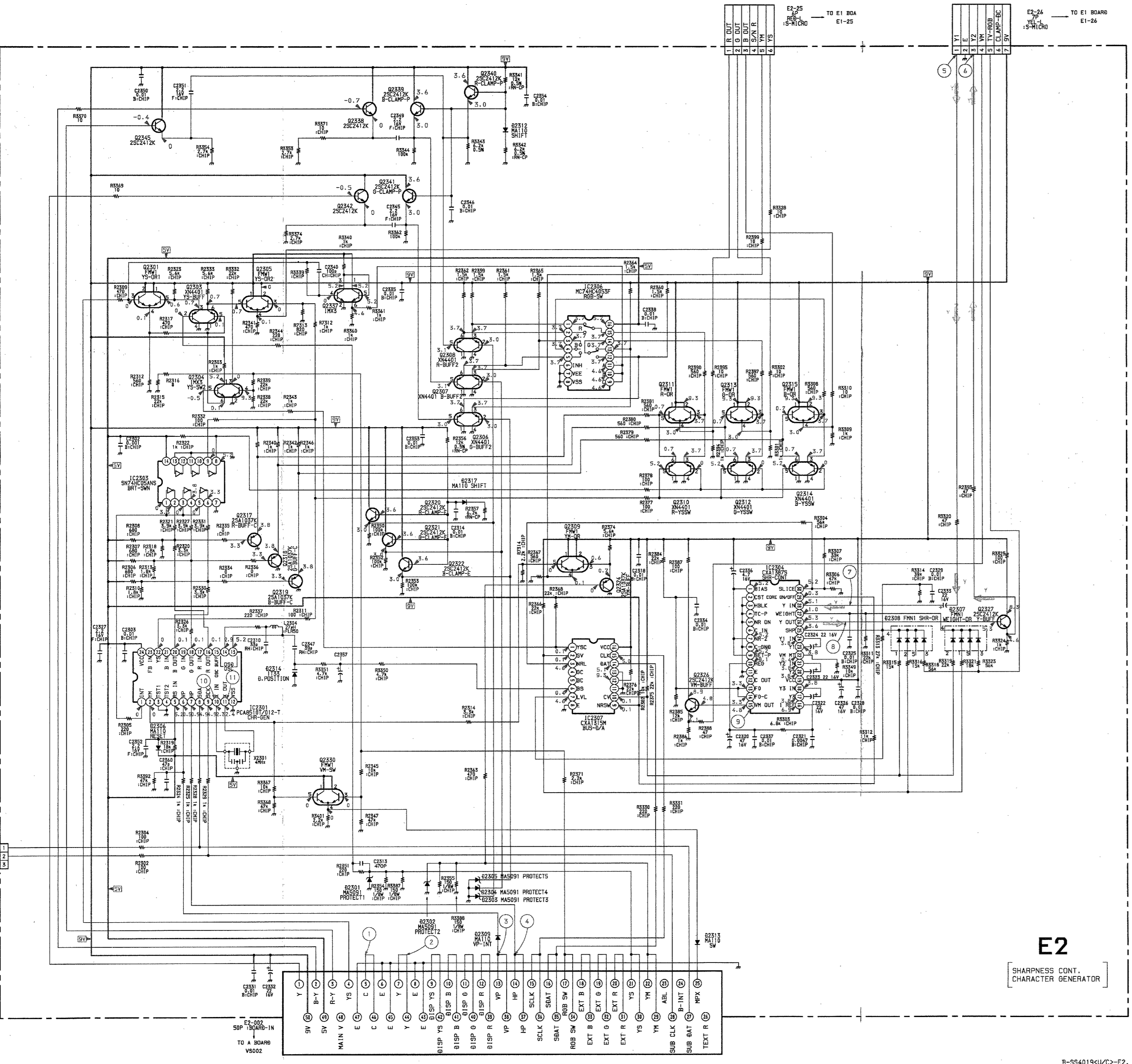
  

DIODE	
D2301	F-4
2302	C-4
2303	C-4
2304	C-3
2305	C-4
2306	F-4
2307	E-1
2308	E-1
2309	E-4
2312	E-3
2313	F-3
2314	E-4
2317	D-3

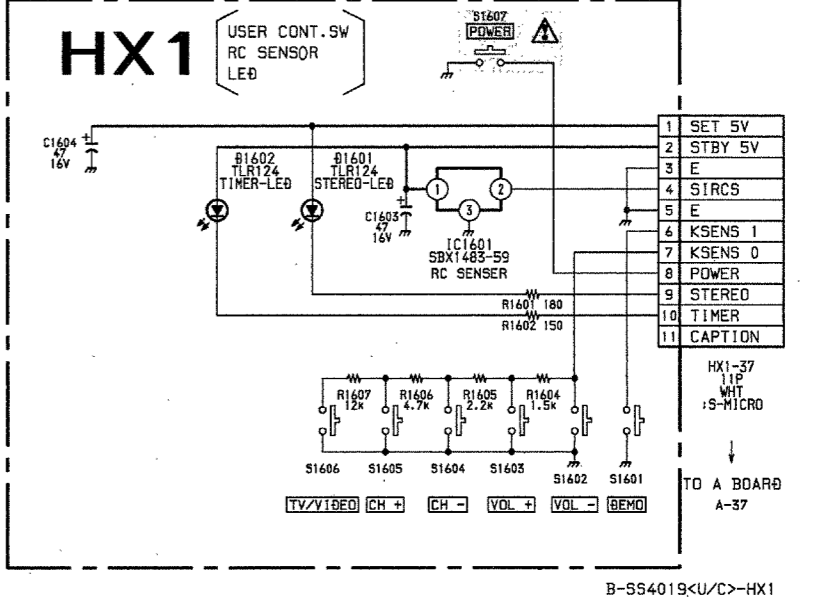
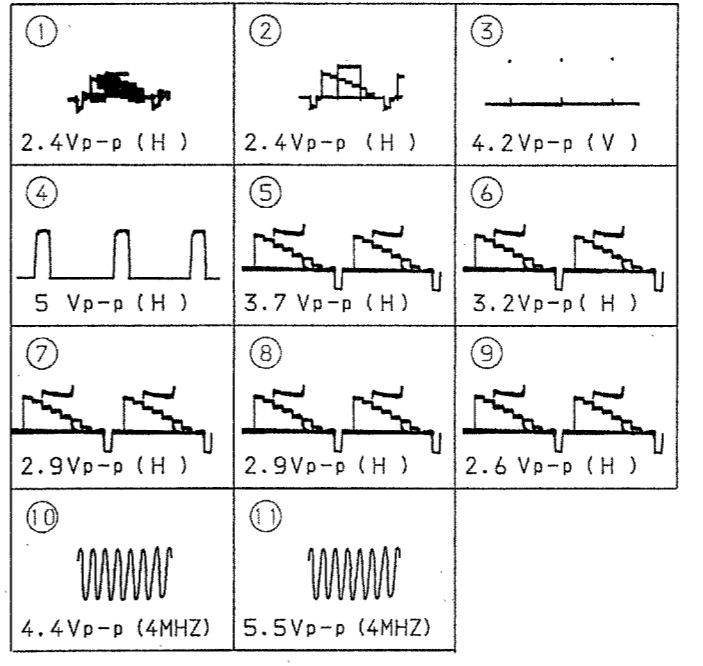
— HX1 Board —



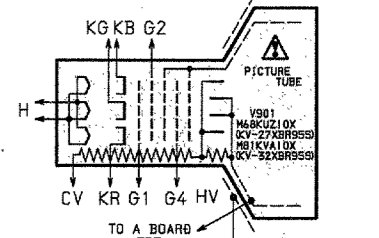
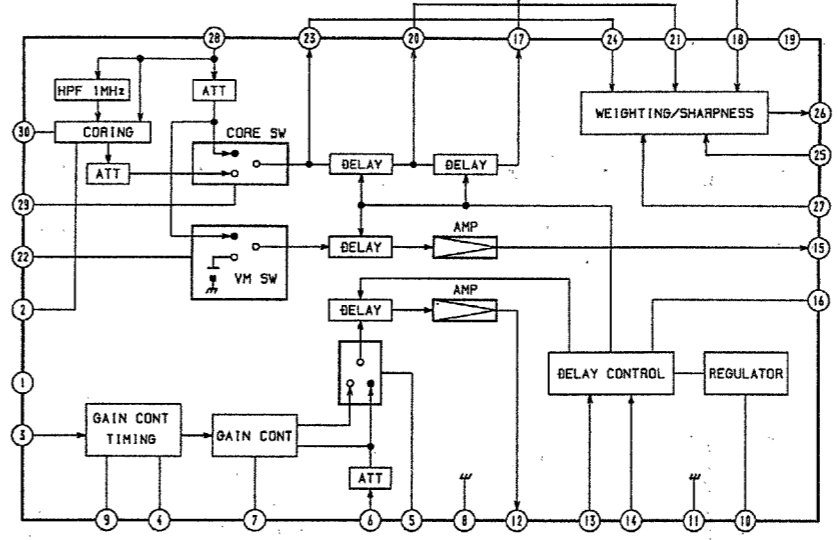




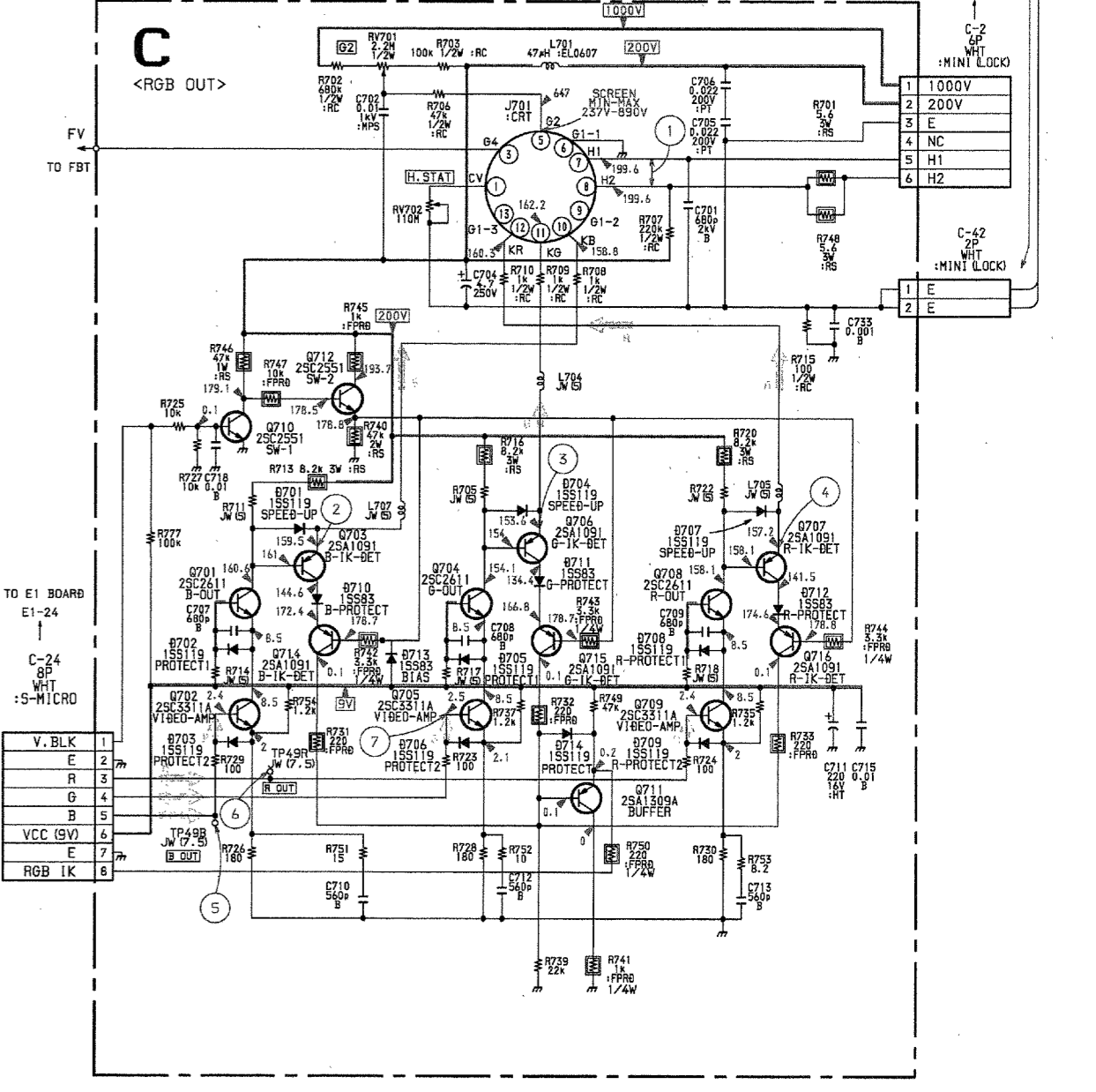
- E2 Board -



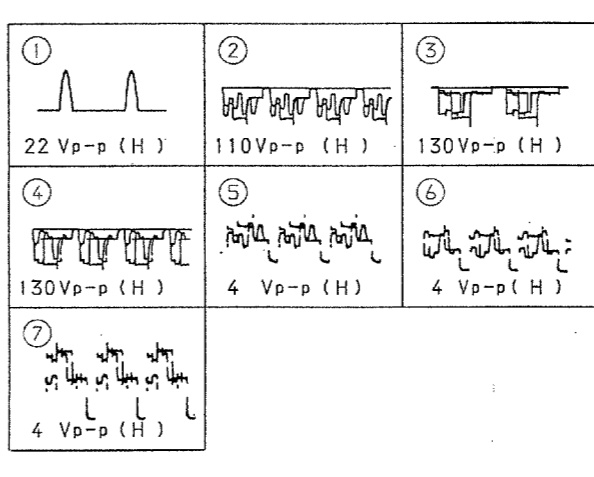
E2 BOARD IC2304 CXA1387S



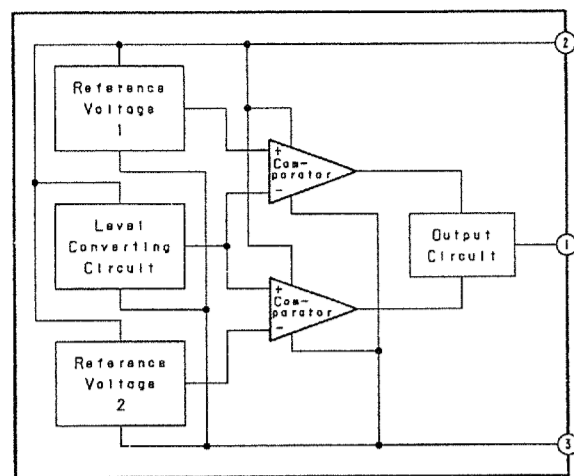
CAUTION  
BE SURE TO CONNECT THE CONNECTOR C-42 FOR SAFETY.



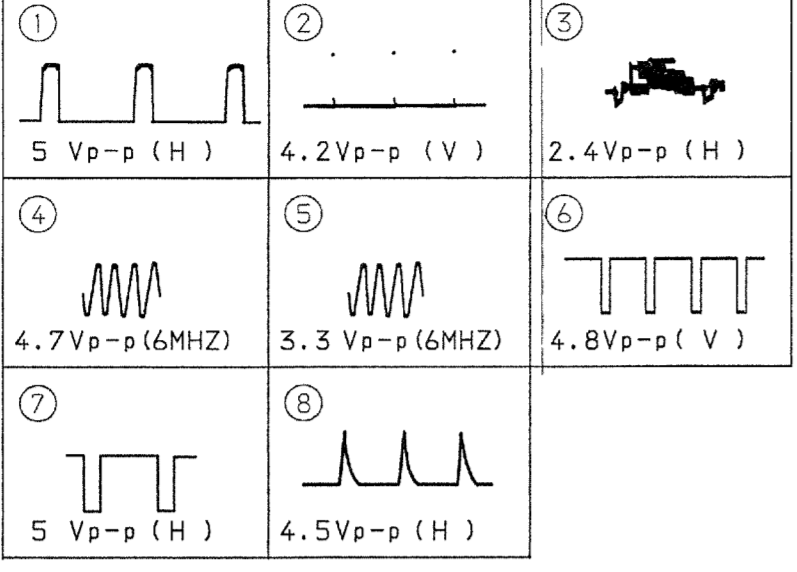
- C Board -



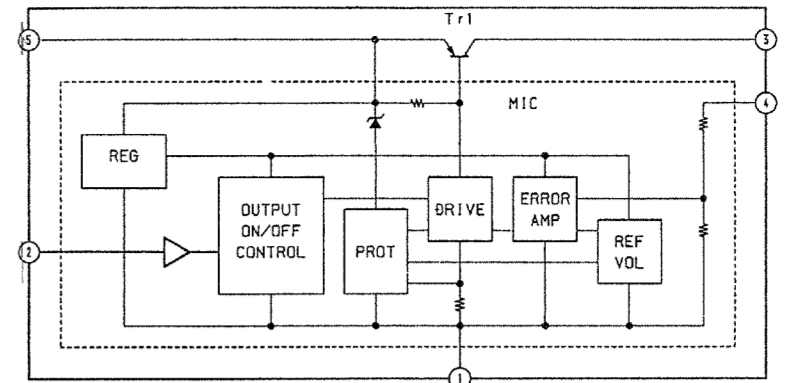
M BOARD IC002 MN1280-S



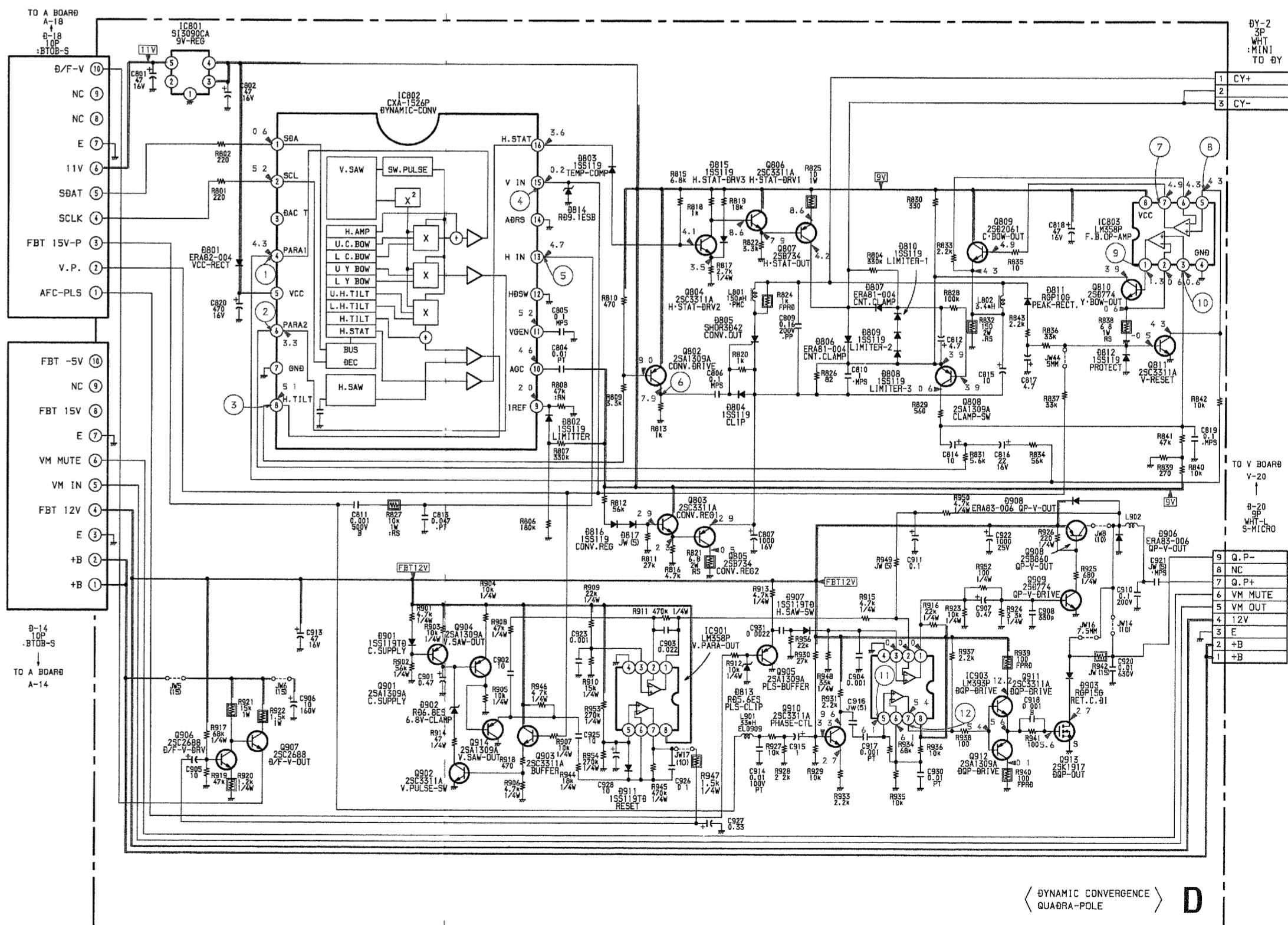
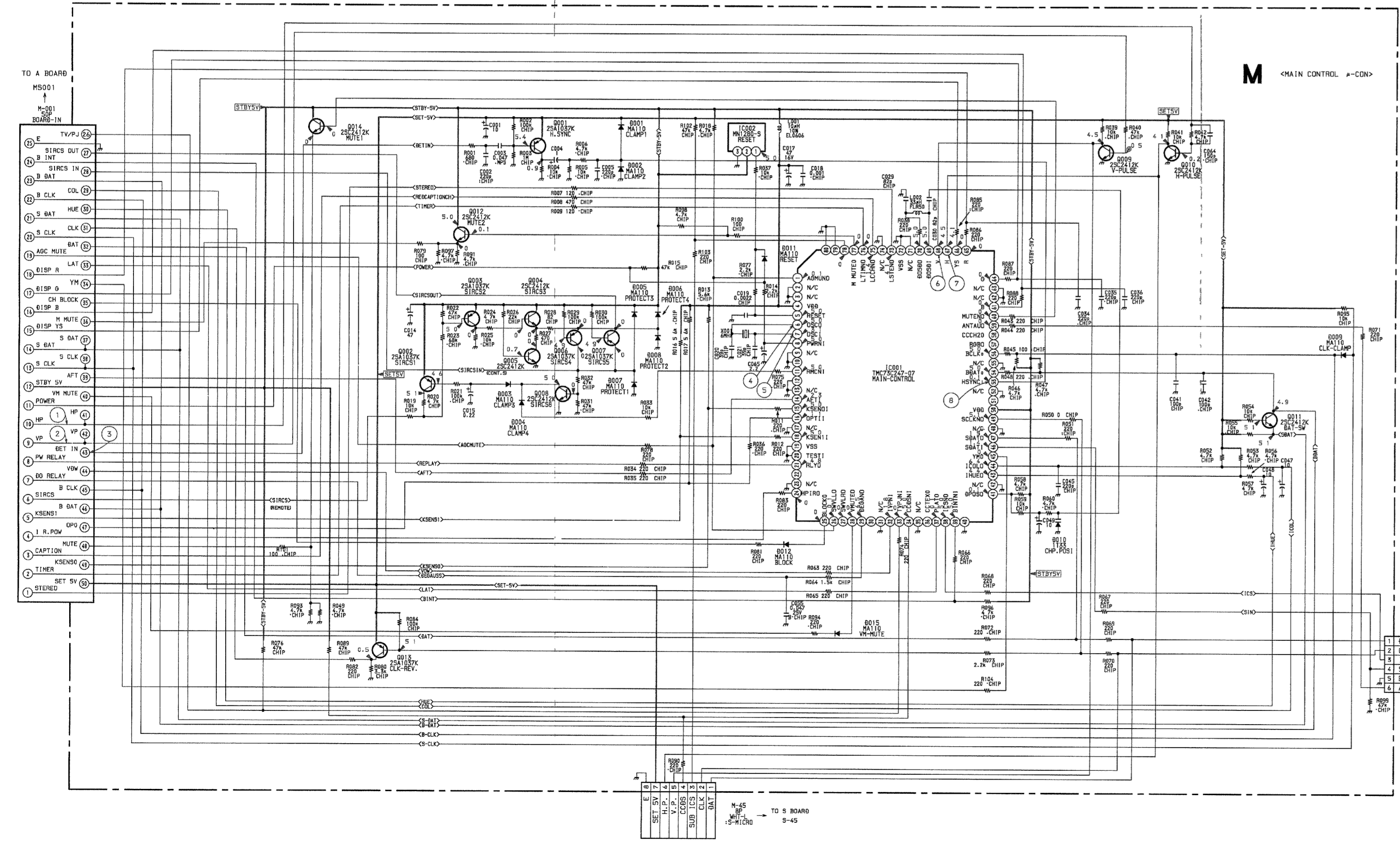
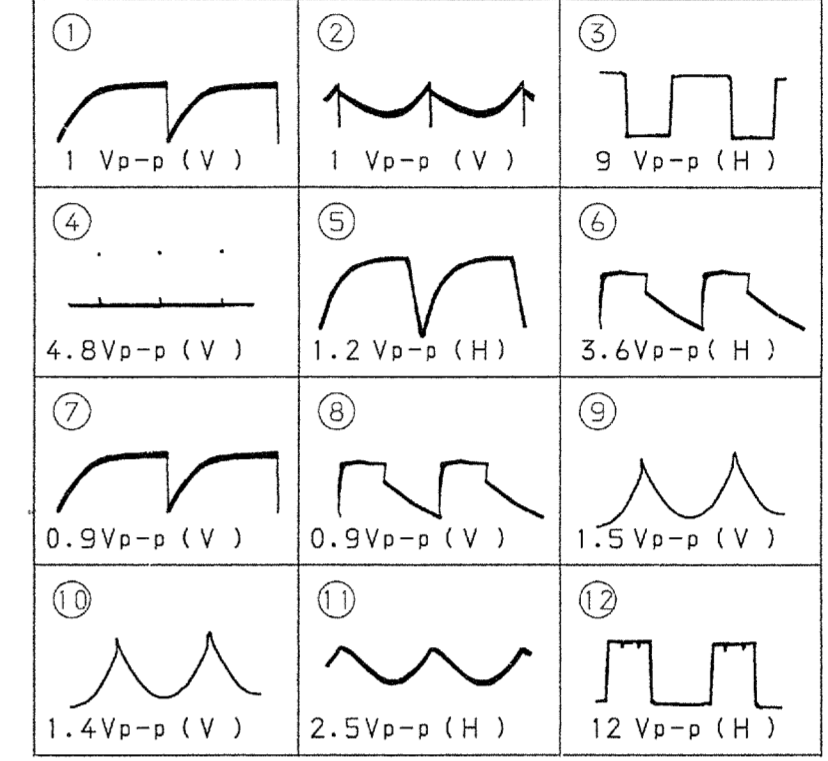
- M Board -



D BOARD IC801 SI-3090CA



- D Board -

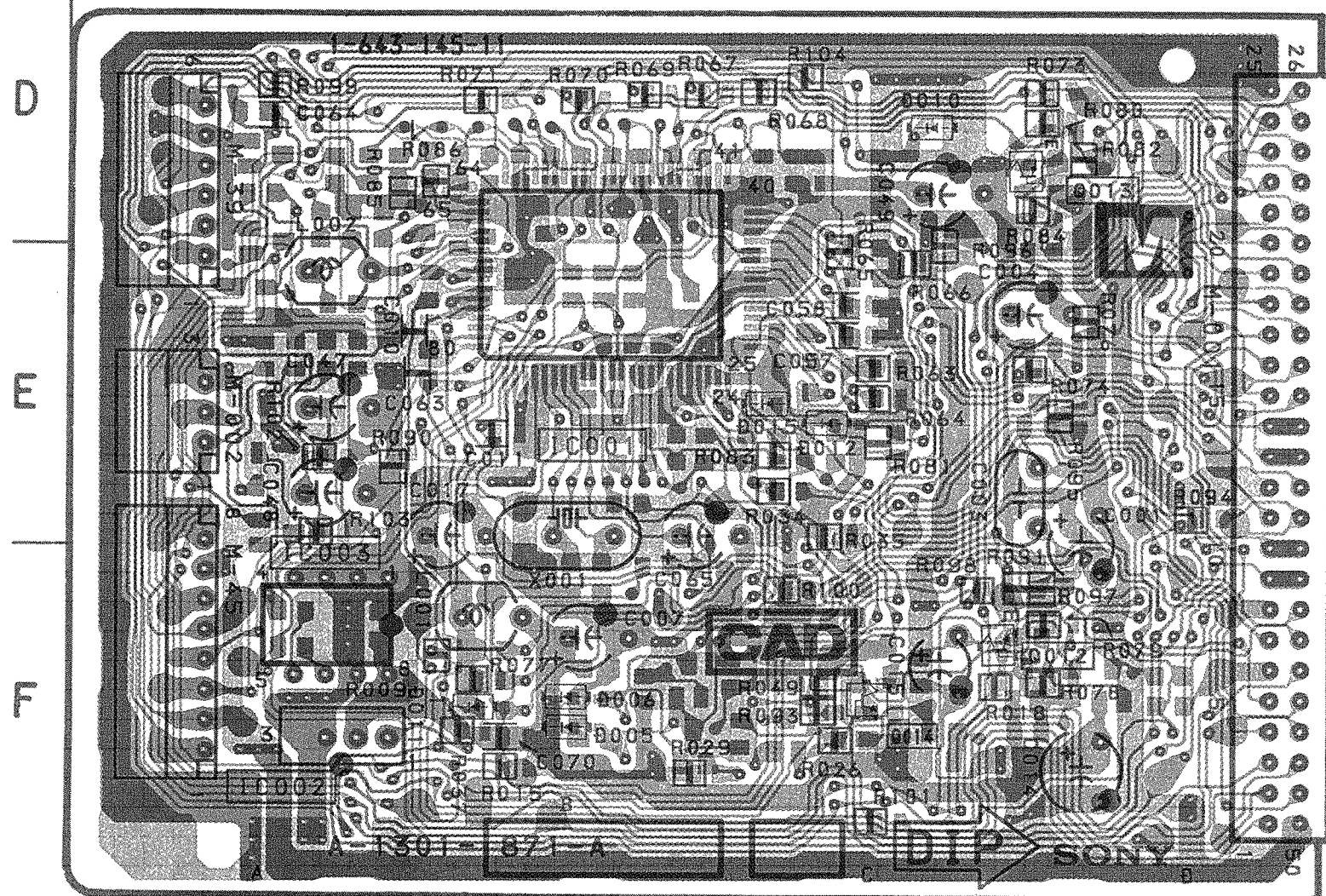
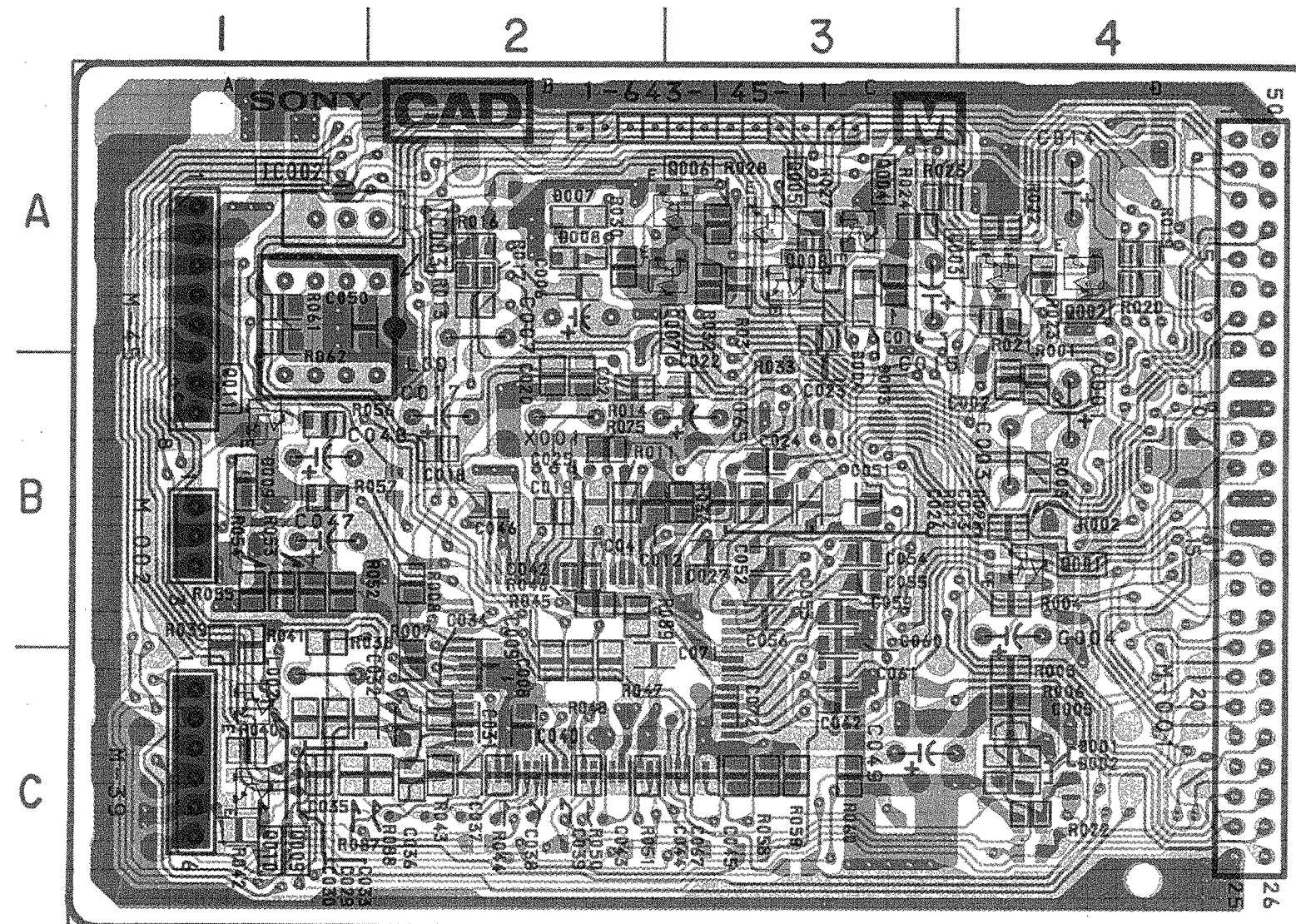




**M** [MAIN CONTROL μ-CON]

— M Board —

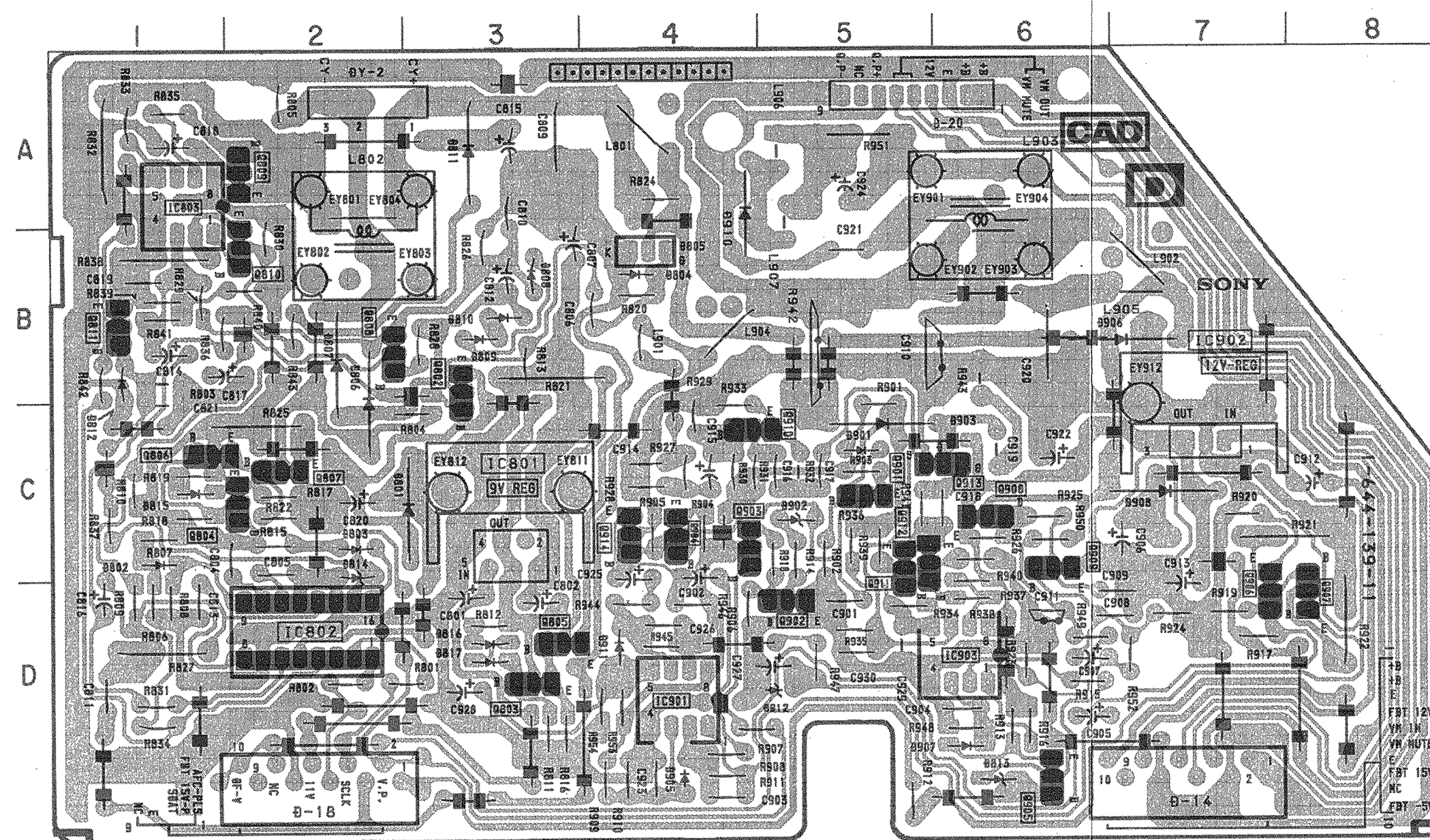
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.



IC	
IC001	E-2
002	A-1
TRANSISTOR	
Q001	B-4
002	A-4
003	A-4
004	A-3
005	A-3
006	A-3
007	A-3
008	A-3
009	C-1
010	C-1
011	B-1
012	F-4
013	D-4
014	F-3
DIODE	
D001	C-4
002	C-4
003	A-3
004	A-3
005	F-2
006	F-2
007	A-2
008	A-2
009	B-1
010	D-3
011	F-2
012	E-3
015	E-3

**D** [DYNAMIC CONVERGENCE, QUADRA-POLE]

— D Board —

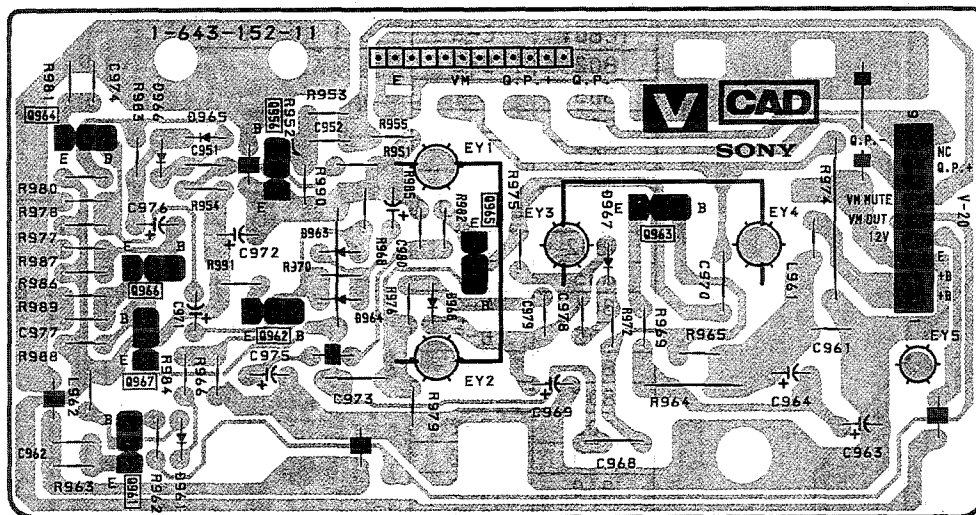


IC		D907	D-6
IC801	C-3	908	C-7
802	D-2	911	D-4
803	A-1		
901	D-4		
903	D-6		
TRANSISTOR			
Q802	B-3		
803	D-3		
804	C-2		
805	D-3		
806	C-1		
807	C-2		
808	B-2		
809	A-2		
810	B-2		
811	B-1		
901	C-5		
902	D-5		
903	C-4		
904	C-4		
905	D-6		
906	D-7		
907	D-8		
908	C-6		
909	C-6		
910	C-4		
911	C-5		
912	C-5		
913	C-6		
914	C-4		
DIODE			
D801	C-3		
802	C-1		
803	C-2		
804	B-4		
805	B-4		
806	B-2		
807	B-2		
808	B-3		
809	B-3		
810	B-3		
811	A-3		
812	B-1		
813	D-6		
814	C-2		
815	C-1		
816	D-3		
901	C-5		
902	C-5		
903	C-5		
906	B-7		





— V Board —

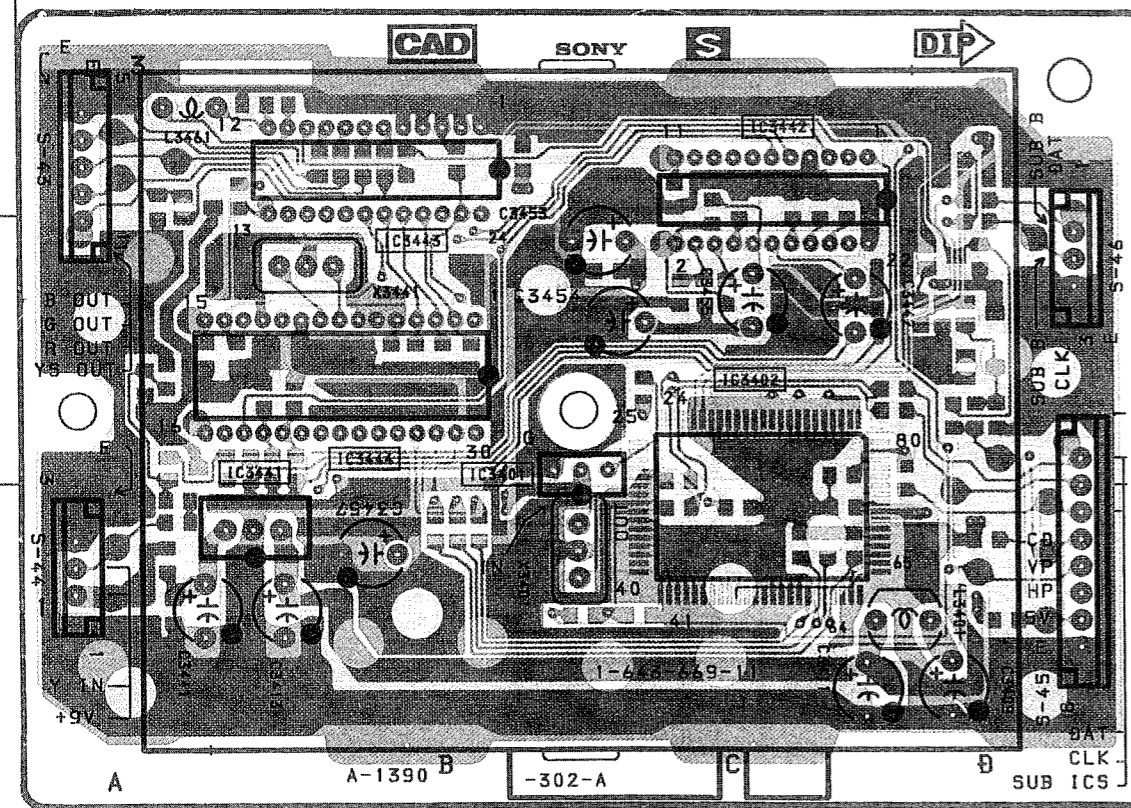
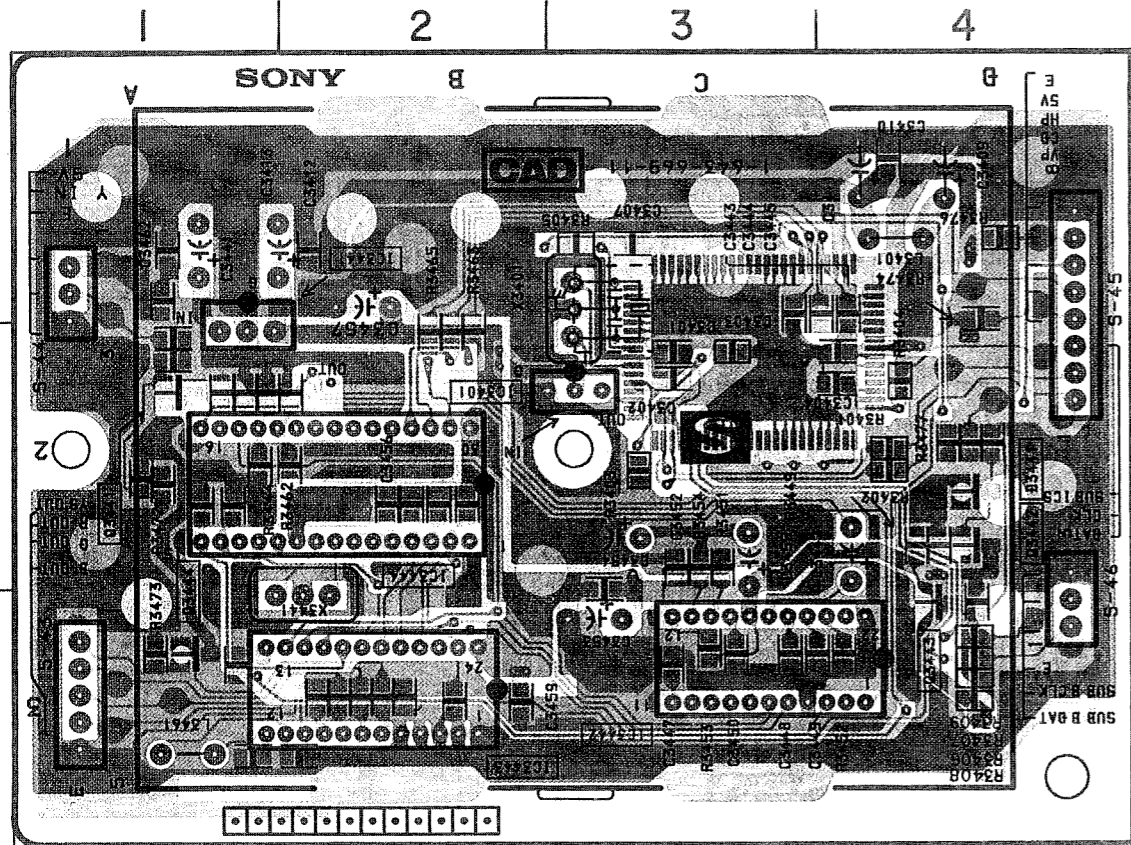


**S**

[SUB-CONTROL u-CON, CLOSED CAPTION DECODER]

- [Pattern from the side which enables seeing.]
- [Pattern of the rear side.]

— S Board —

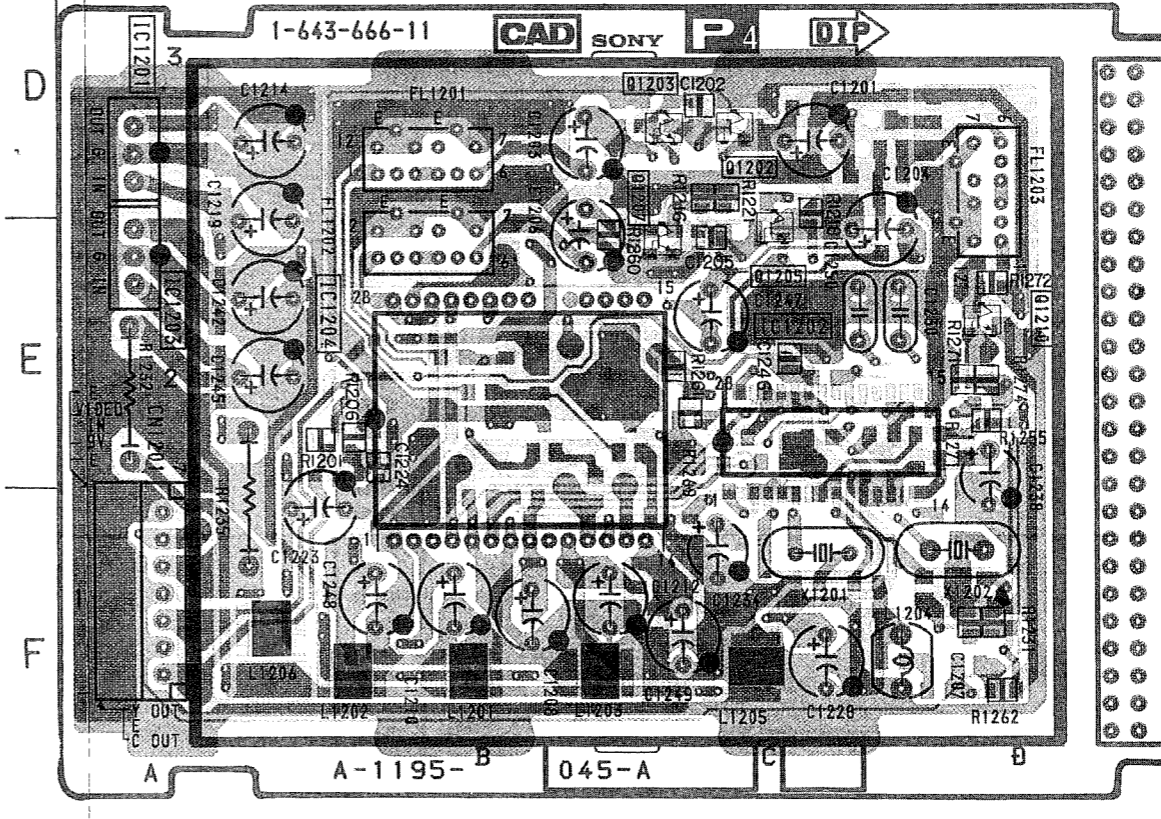
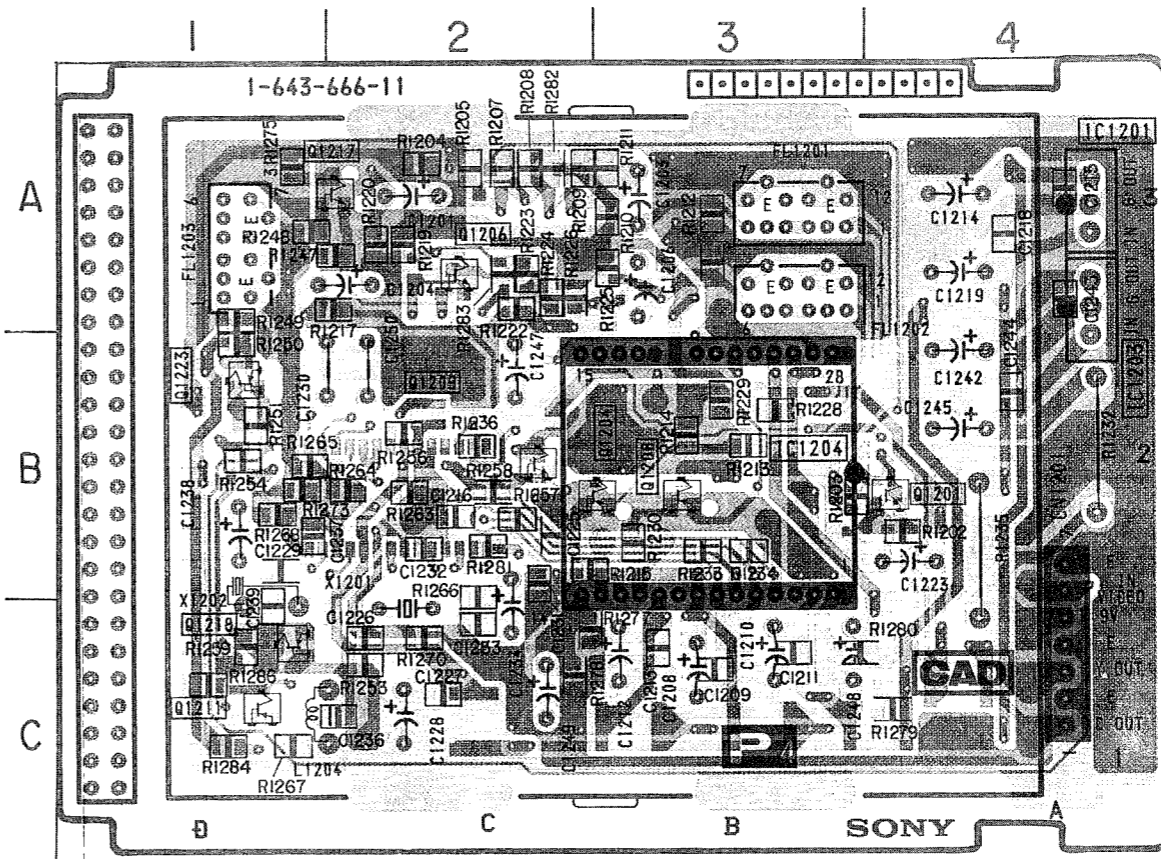


**P4**

[DIGITAL COMB FILTER]

- [Pattern from the side which enables seeing.]
- [Pattern of the rear side.]

— P4 Board —

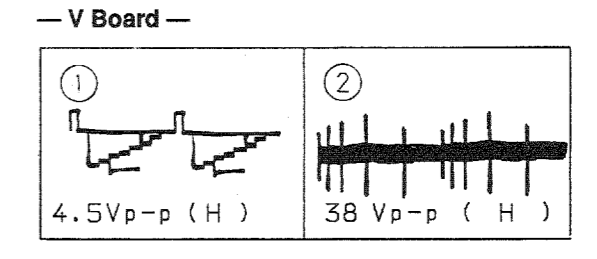
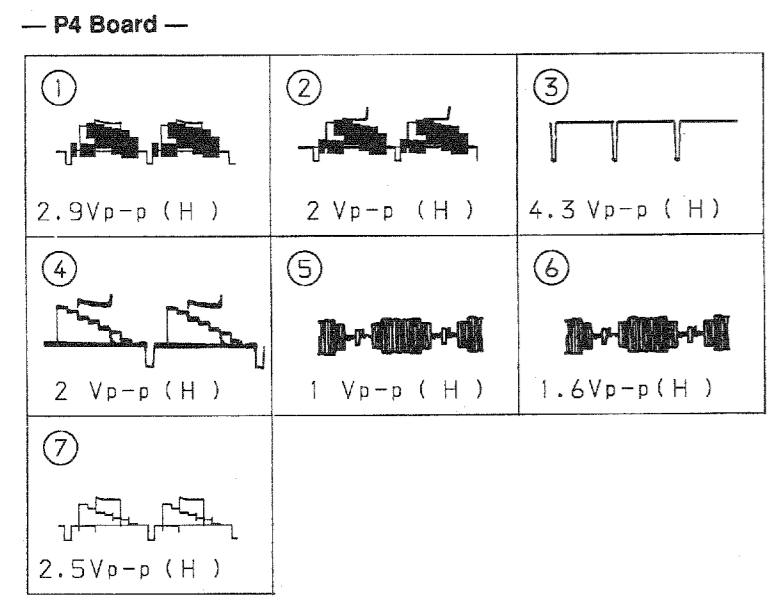


— P4 Board —

IC	
IC1201	A-4
1202	E-3
1203	A-4
1204	B-3
TRANSISTOR	
Q1201	B-4
1202	D-3
1203	D-3
1204	B-3
1205	E-3
1206	A-2
1207	E-3
1208	B-8
1209	B-2
1210	E-4
1211	C-1
1217	A-2
1218	C-1
1223	B-1

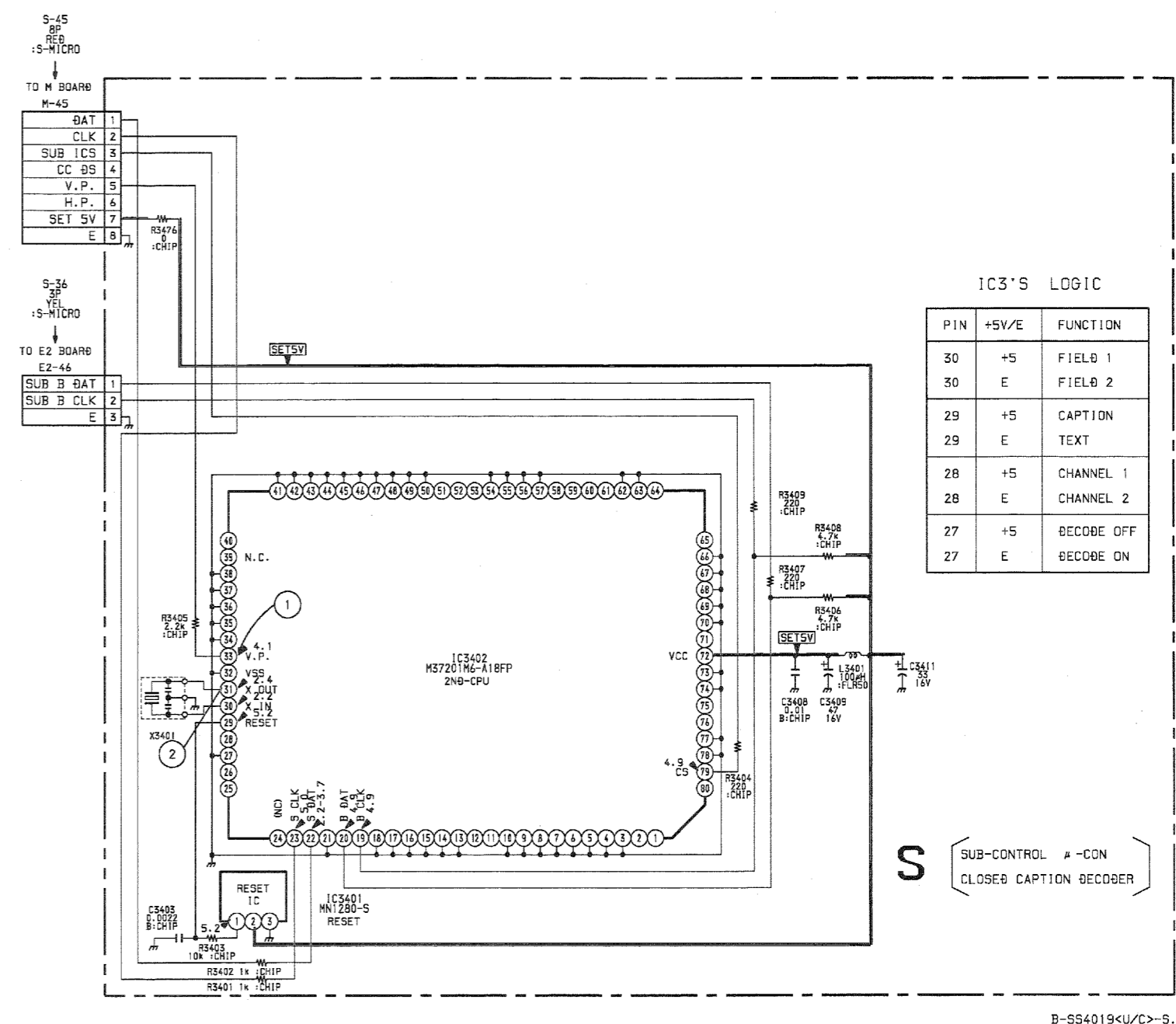
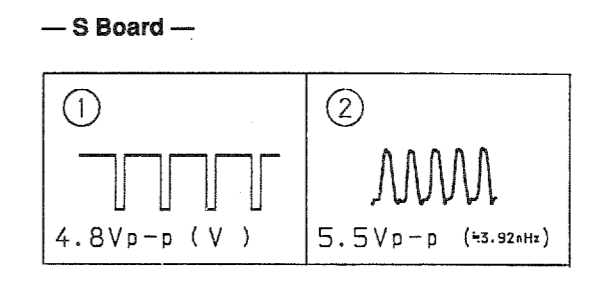
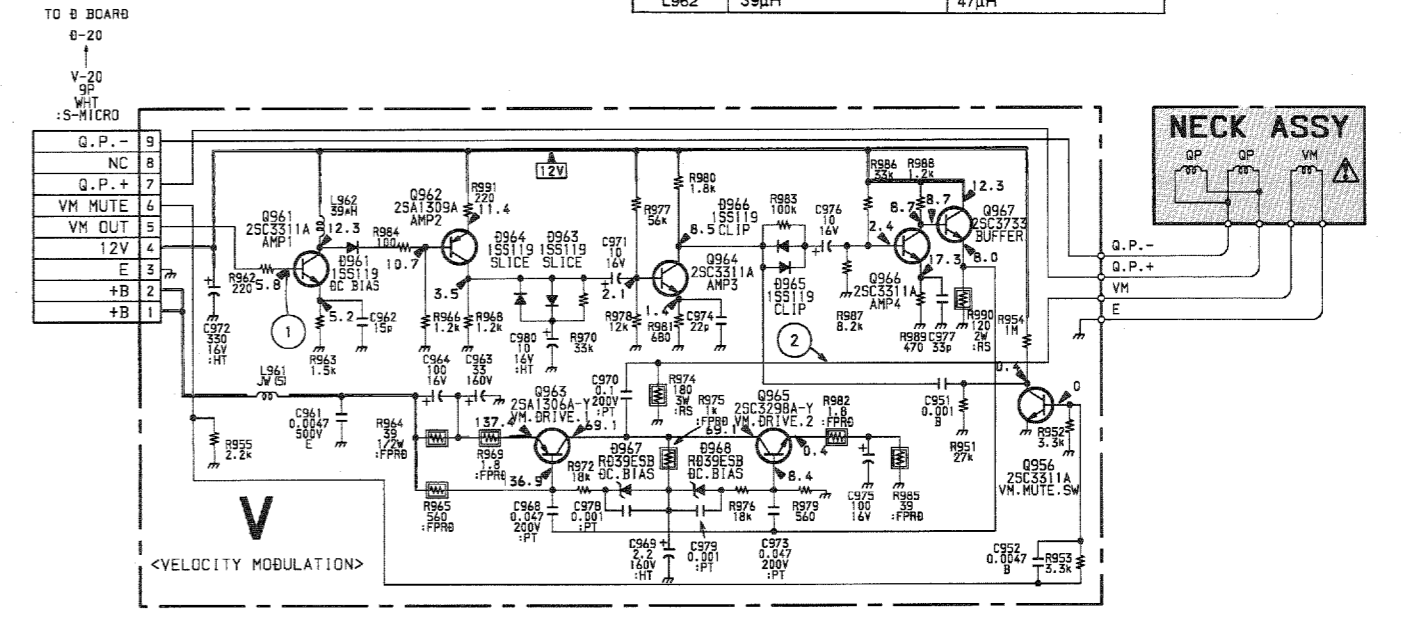
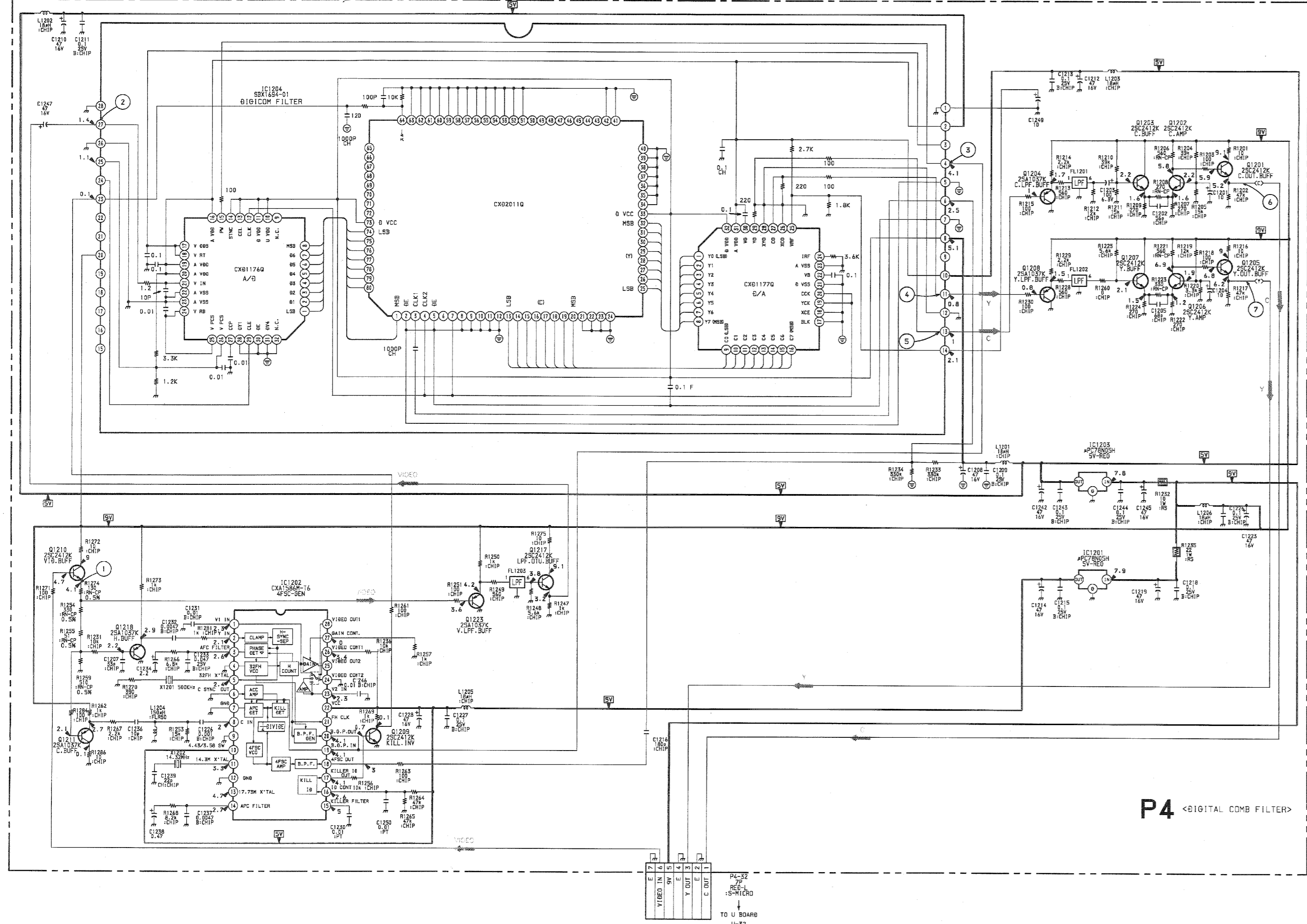


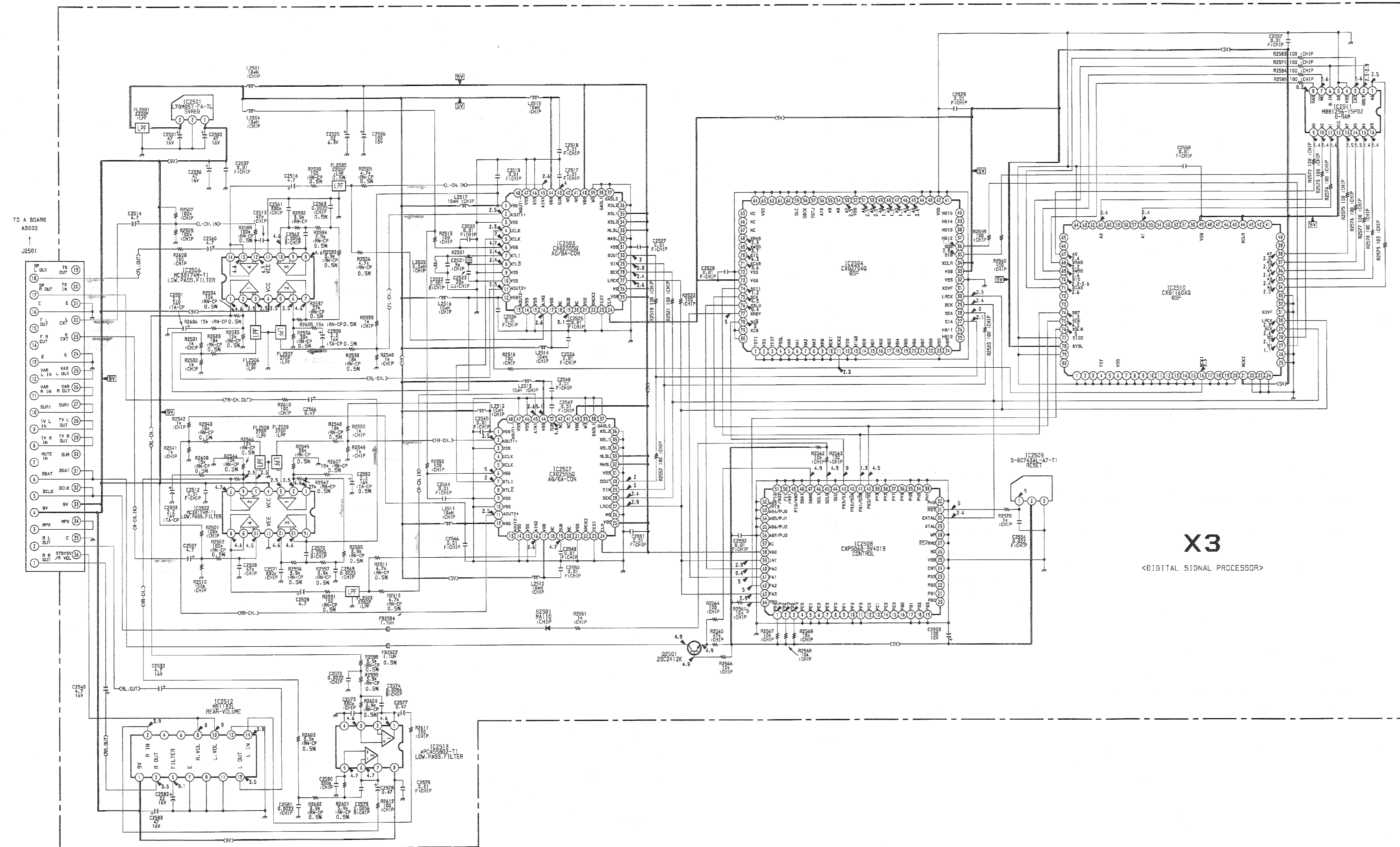
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P



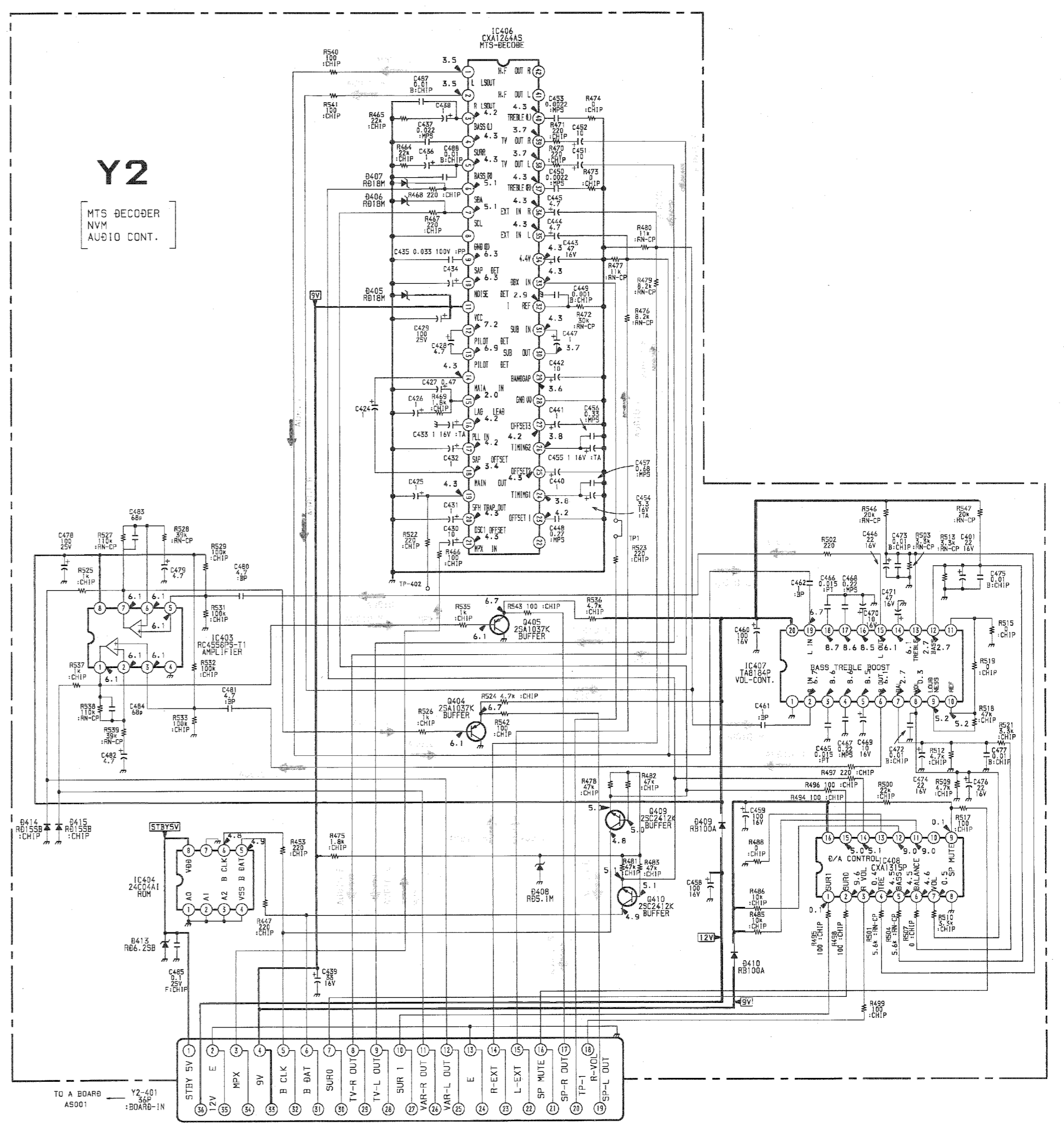
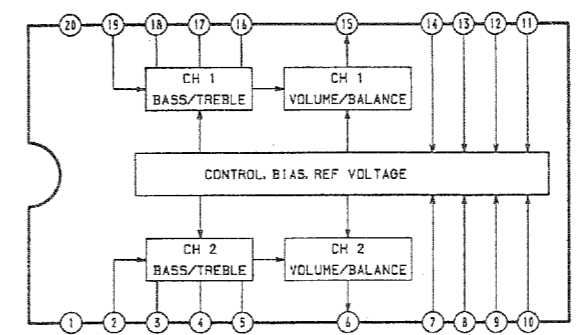
V BOARD \* MARK NOTE

	KV-27XBR95S	KV-32XBR95S
L962	35uH	47uH





Y2 BOARD IC404 24C04A/P







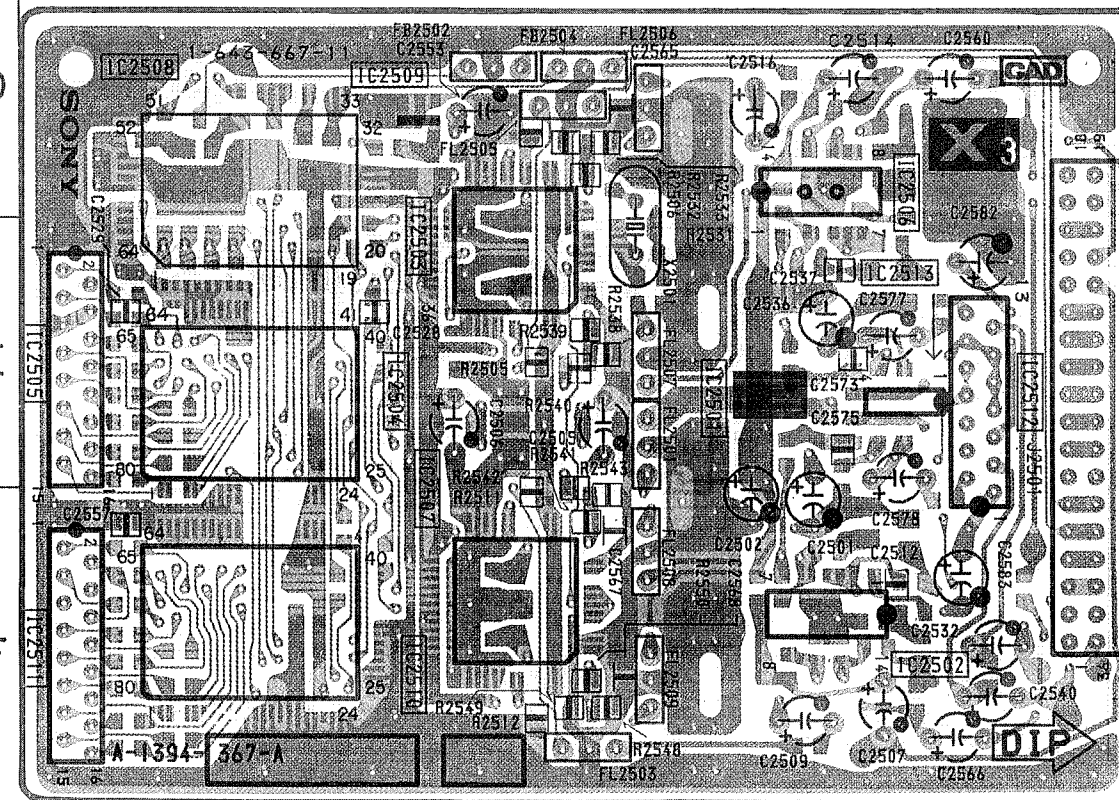
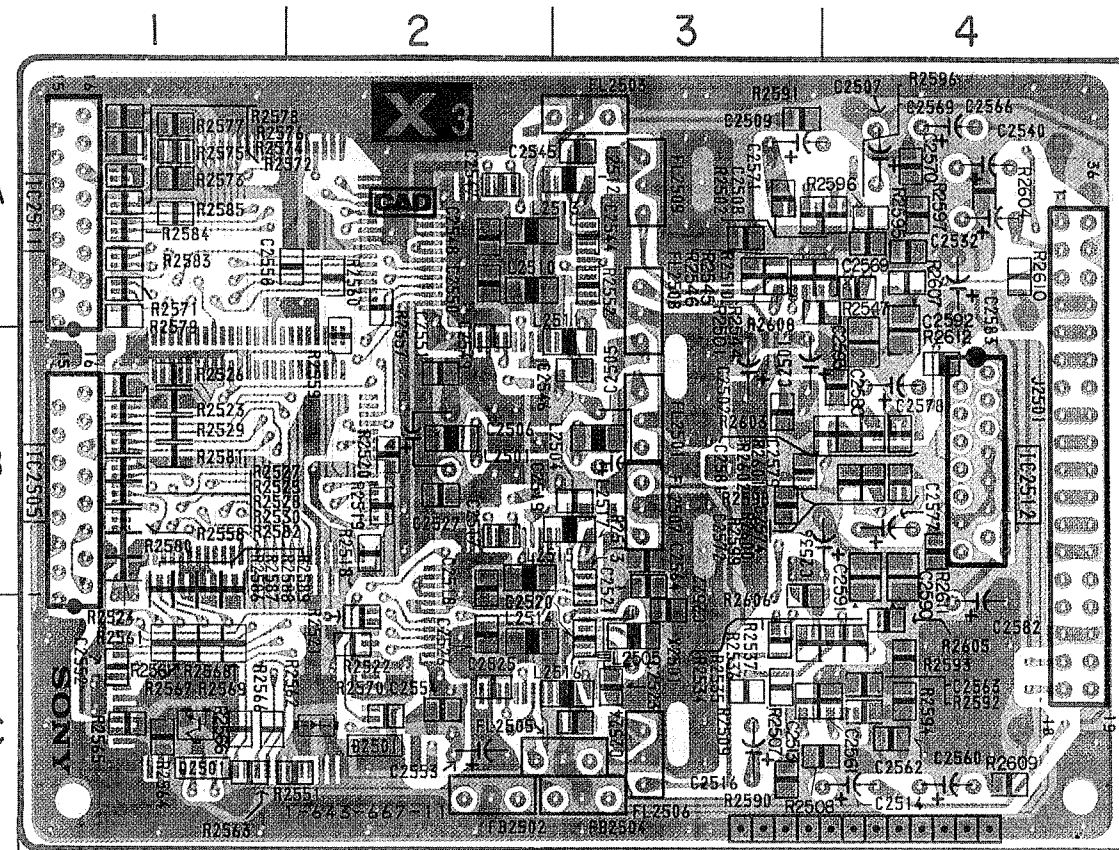
**X3**

[DIGITAL SIGNAL PROCESSOR]

— X3 Board —



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

— X3 Board —

KV-27XBR95S/32XBR95S  
RM-Y114KV-27XBR95S/32XBR95S  
RM-Y114**Y2**

[MTS DECORDER, NVM, AUDIO CONT.]

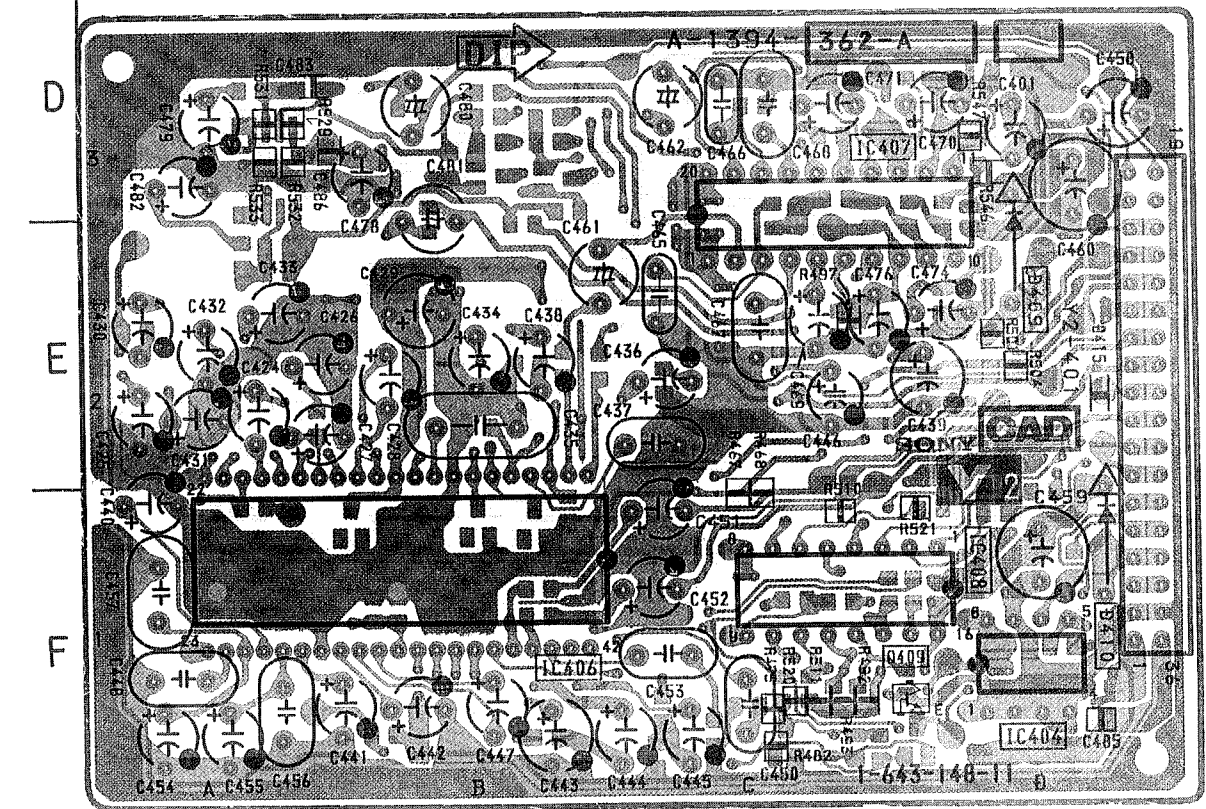
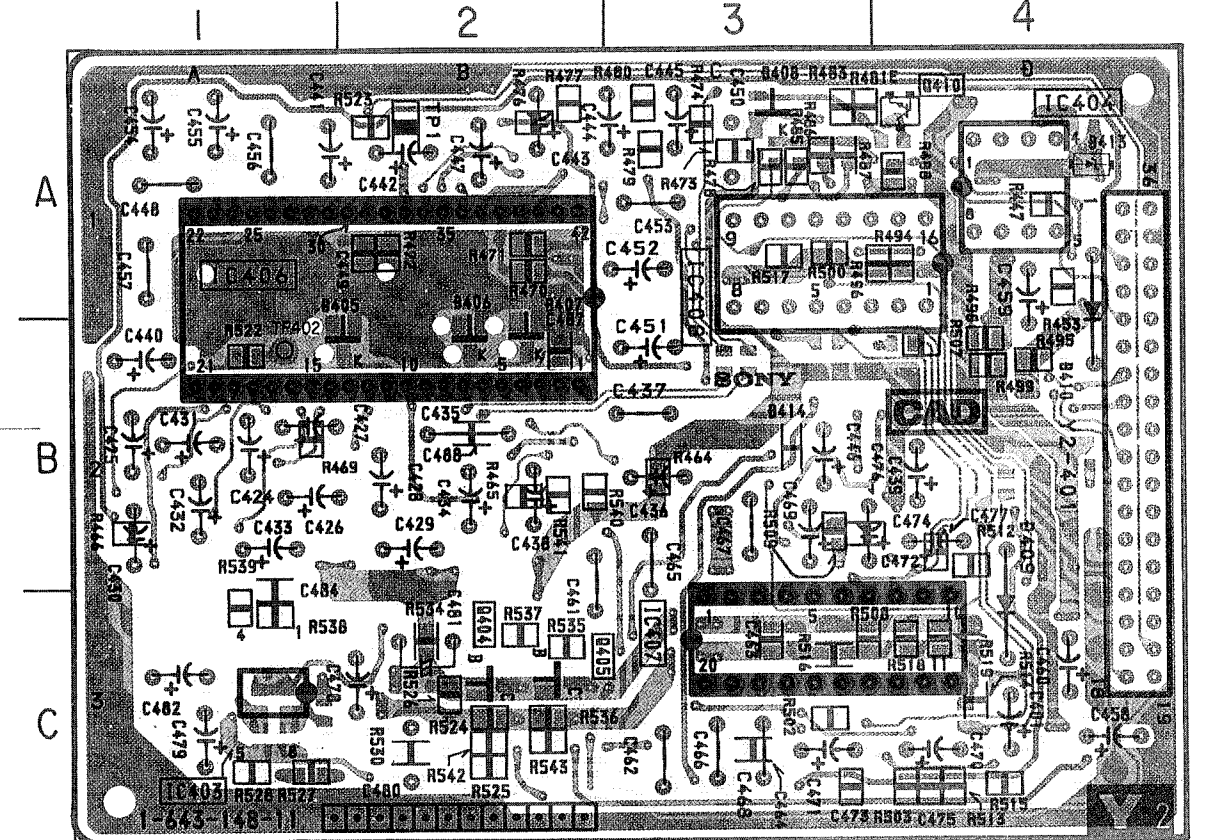
— Y2 Board —

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

IC	
IC2501	E-3
2502	F-4
2503	E-2
2504	E-1
2505	D-3
2506	F-2
2507	D-1
2508	D-2
2509	F-1
2510	A-1
2511	B-4
2512	F-4
2513	E-4
TRANSISTOR	
Q2501	C-1
DIODE	
D2501	C-2

— Y2 Board —

IC	
IC403	C-1
404	A-4
406	A-2
407	C-3
408	A-3
TRANSISTOR	
Q404	C-2
405	C-2
409	F-4
410	A-4
DIODE	
D405	B-2
406	B-2
407	B-2
408	A-3
409	C-4
410	A-4
413	A-4
414	B-3
415	E-4
TEST POINT	
TP1	A-2







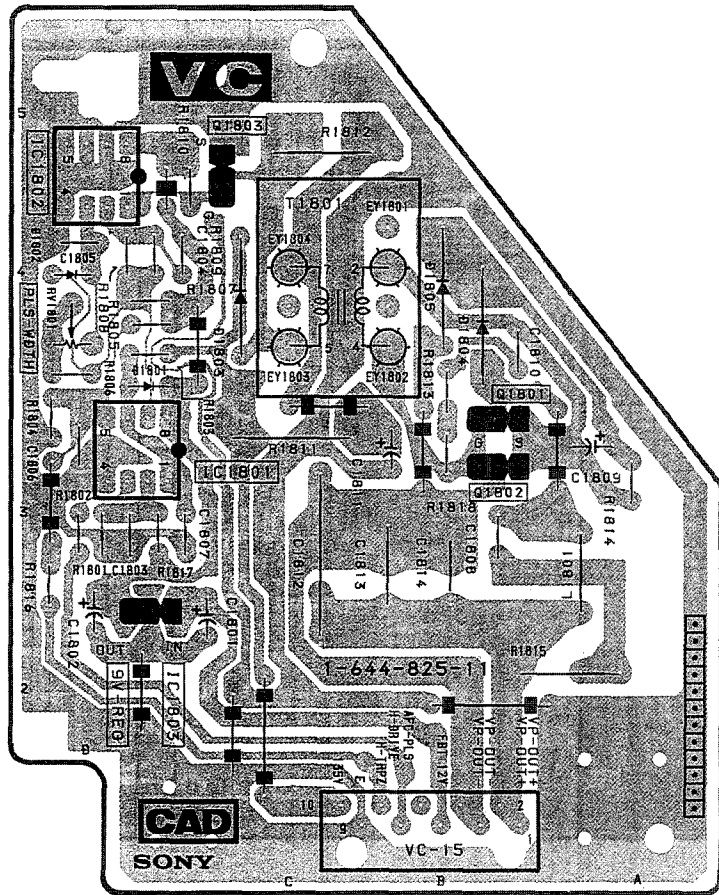
**VC** [V.PIN CORR.]

**HX2** [VIDEO-3 FRONT TERMINAL]

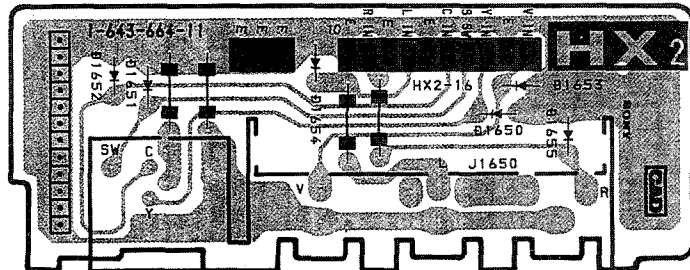
— P3 Board —

IC		TESTPOINT	
IC2001	F-1	TP1	C-2
2002	C-2	TP2	F-1
2003	D-3		
2004	B-3		
2005	C-3		
2006	F-4		
2007	E-4		
TRANSISTOR			
Q2001	E-2		
2002	F-2		
2003	E-2		
2004	D-2		
2005	B-4		
2006	A-3		
2007	A-3		
2008	E-2		
2009	B-4		
2010	B-4		
2011	B-5		
2012	A-5		
2015	E-3		
2016	E-3		
2017	F-3		
2018	F-3		
2019	F-3		
2020	F-3		
2021	E-3		
2022	D-4		
2023	D-4		
2024	C-4		
2025	B-4		
2026	C-4		
2027	C-4		
2028	C-4		
2029	C-4		
2030	D-1		
2031	F-2		
2032	E-3		
2034	E-3		
2036	C-4		
DIODE			
D2003	F-2		
2004	C-4		
2005	E-4		
VALIABLE RESISTOR			
RV2001	F-2		
2002	D-3		
2003	G-4		
2004	F-4		

— VC Board —



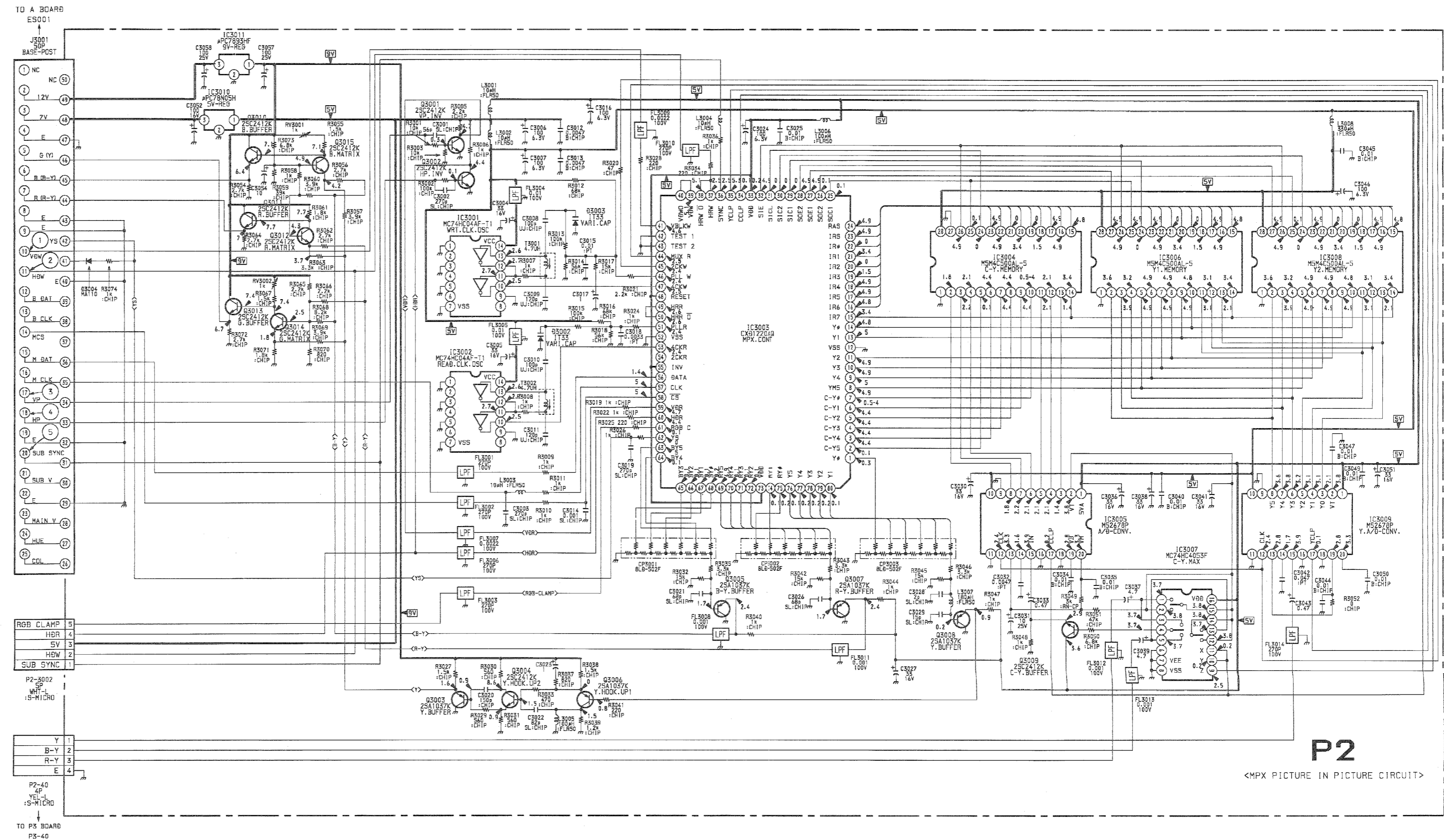
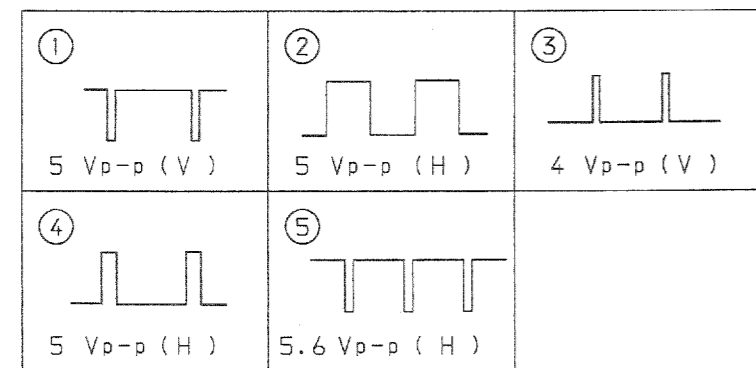
— HX2 Board —





A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

- P2 Board -

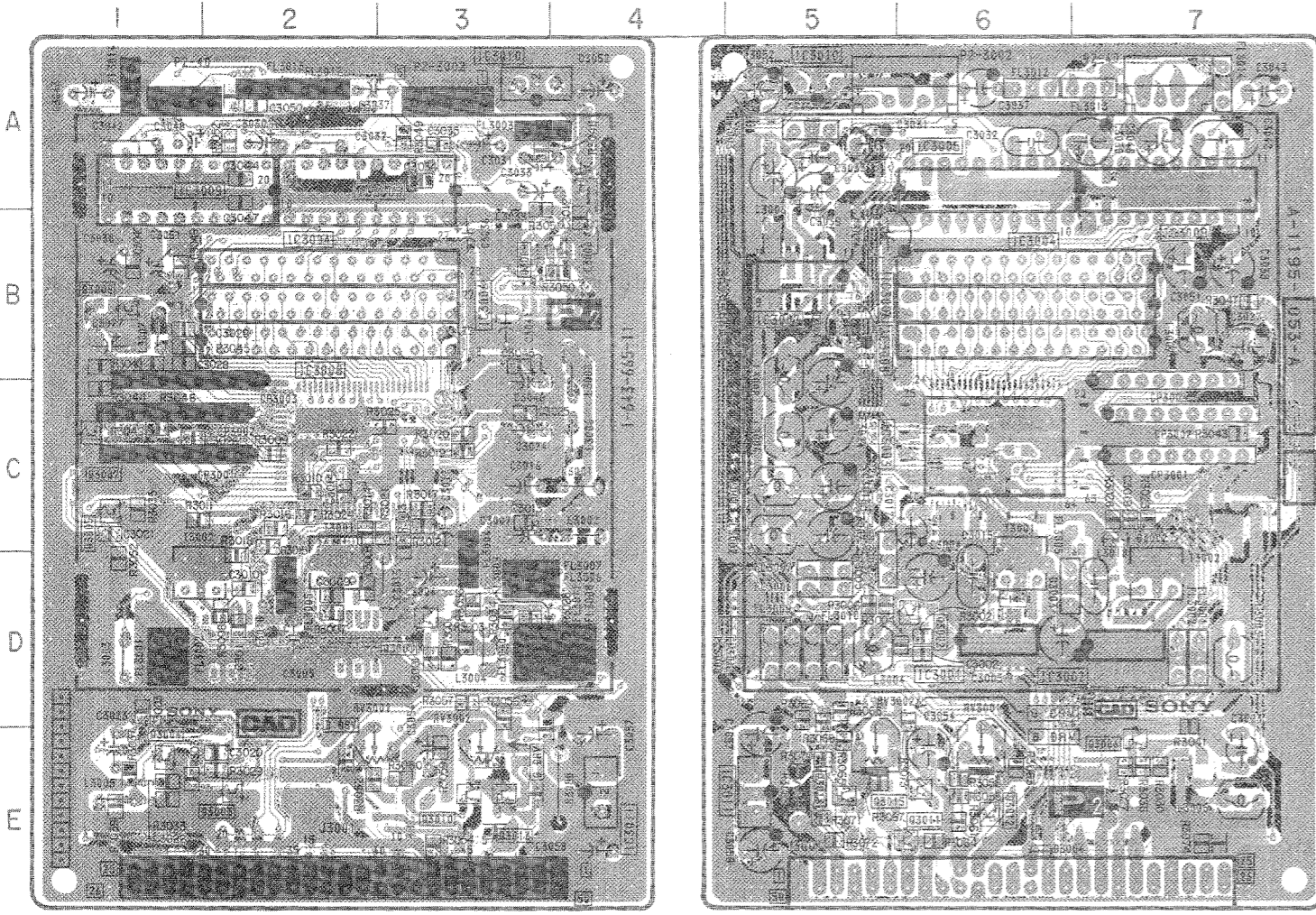


**P2**  
MPX PICTURE IN PICTURE CIRCUIT



**P2** [MPX PICTURE IN PICTURE CIRCUIT]

— P2 Board —



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

— P2 Board —

IC		TRANSISTOR		DIODE	
IC3001	D-6	Q3001	D-3	D3002	C-7
3002	D-7	3002	D-6	3003	D-6
3003	C-6	3003	E-2	3004	E-6
3004	B-2	3004	E-1	VARIABLE RESISTOR	
3005	A-2	3005	C-1		
3006	B-2	3006	E-7	RV3001	E-2
3007	B-5	3007	C-1	3002	E-3
3008	B-2	3008	B-1		
3009	A-1	3009	B-4		
3010	A-3	3010	E-3		
3011	E-4	3011	E-6		
		3012	E-6		
		3013	E-3		
		3014	E-5		
		3015	E-6		

**6-8. SEMICONDUCTORS**

AN78N05A #PC78N05H  
 AN7812 L78M05T-FA M5F7805L NJM7805FA RC7805FA RC7812FA TA78012AP TA7805S #PC7812H #PC7893HF  
 CXA1228S SBX1694-01  
 CXA1264AS  
 CXA1315M MC33174M-T1 MC74HC4053F  
 CXA1315P CXA1526P RC78M05FA  
 CXA1387S  
 CXA1465AS CXA1545S  
 CXA1586M-T6  
 CX01160AQ CX01220AQ CX02704Q M37201M6-A18FP TMC73C247-1  
 CX02555Q  
 CXK1006L  
 CXP5068H-081Q  
 CX20061  
 DM44  
 L78LR050-MA  
 LM358P LM393P #PC358C #PC393C #PC4557C 24C04A1  
 MB81256-12PSZ MB81256-15PSZ  
 MB88733-143  
 MC74HC04AF SN74HC05ANS  
 MN1280-S  
 M52678P TA8184P  
 MSM4C500L-10 MSM4C500AL-5 M51132L  
 NJM2903S  
 NJM78L09A RC78L09A  
 MB88733-143  
 MC74HC04AF SN74HC05ANS  
 SBX1483-59  
 S-80743AL-A7  
 TA8216H  
 T0A8179S  
 #PC24M05HF  
 FMW1 XN1501  
 IMNT1US XN4401  
 SI-3090CA SI-3120CA  
 IMZ1 IMX3  
 IRF540Y IRF610 IRF614 2SK1916  
 2SA1306A-Y 2SC3298A-Y 2SC3298B-Y 2S02061  
 2SB734 2SC3733 2SB774  
 2SC2611 2SC2688 2SC3840K  
 2SC4664NPR  
 25A1037K 2SA1162 2SB709A 2SC2412K 2S0601A  
 2SA1175 2SA1309A 2SA9335 2SC2785 2SC3311A  
 2SB860 2SB1585-LK 2S02012  
 2SB874A  
 2SK1917  
 01NS4 01N20R 02S4M EGP20G ERA38-06 ERA82-004 RB-100A RD12ES-B2 RD13ES-B2 RD2.2ES-B2 RD30ES-B2 RD3.3ES-B2 RD33ES-B2 RD36ES-B RD39ES-B2 RD4.3ES-B2 RD4.7ES-B3 RD5.1ES-B3 RD5.6ES-B1 RD6.2ES-B2 RD6.8ES-B1 RD7.5ES-B2 RD9.1ES-B RD9.1ES-L RGP02-20EL 1SS119 1SV113 WG713A  
 010SC4MR  
 03S6M ERB24-06B RGP10GPKG23 RU3AM S2L20UF  
 06SB60L  
 EGP20G ERA81-004 ERB44-06 GP08B RGP02-17 RGP10G RGP15G RGP15GPKG23 RU30A 1SS83  
 FMN1  
 MA110 MA5091  
 MA3130 RD18M-B1 RD5.1M-B3  
 PC817 PS2501  
 RD15M-B1 RD18M-B1 RD5.1M-B3  
 PC817-B  
 PIN CONNECTION  
 RD5.6SB-T2 RD6.2B-T2 1SS352  
 ANODE CATHODE  
 RD9.1EW  
 SHOR3042  
 GATE ANODE CATHODE  
 TLR124  
 LONG SHORT ANODE CATHODE  
 U05G  
 CATHODE ANODE  
 1T33  
 ANODE



## SECTION 7 EXPLODED VIEWS

**NOTE:**

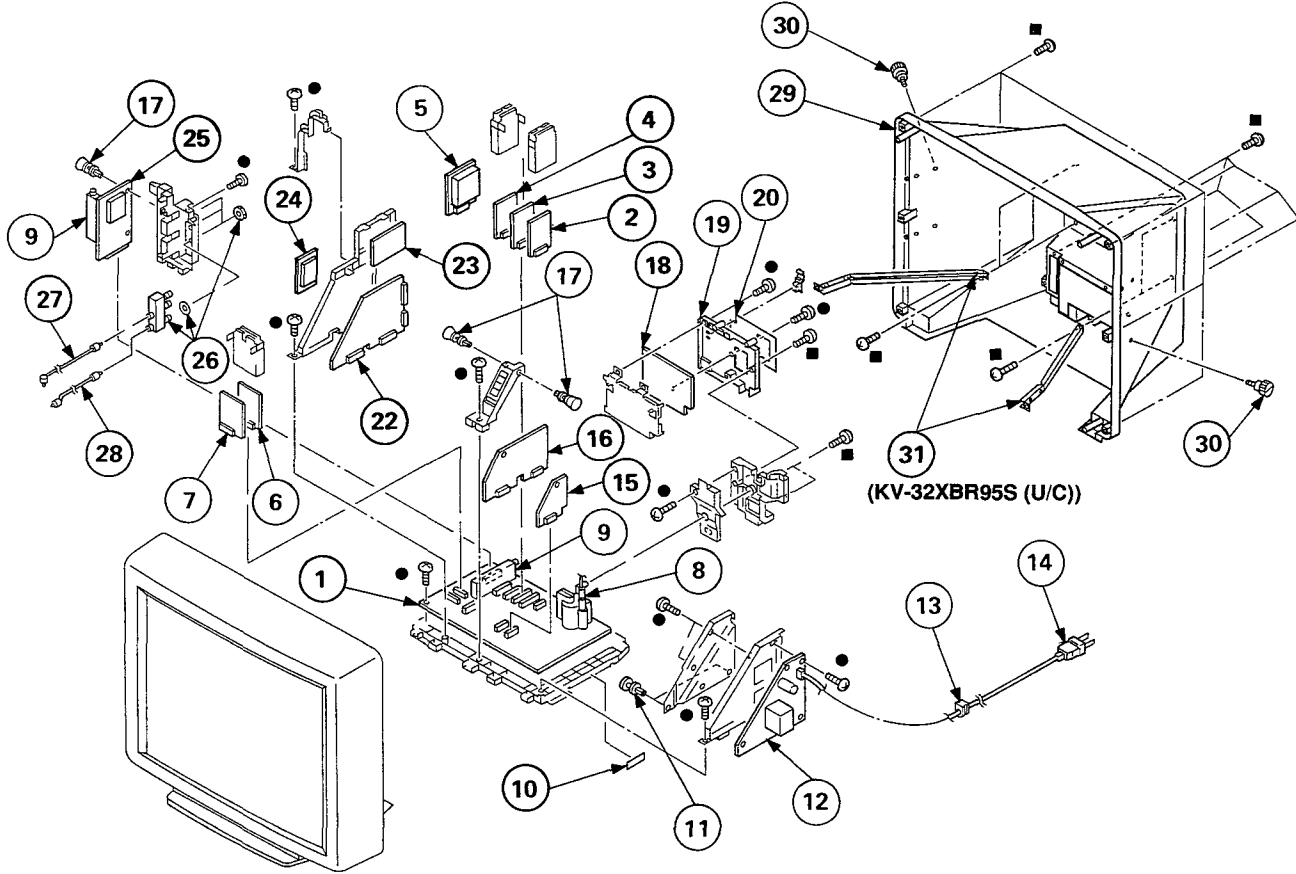
- Items with no part number and no description are not stocked because they are seldom required for routine service
- The construction parts of an assembled part are indicated with a collation number in the remark column
- Items marked "\*" are not stocked since they are seldom required for routine service.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

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

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

### 7-1. CHASSIS

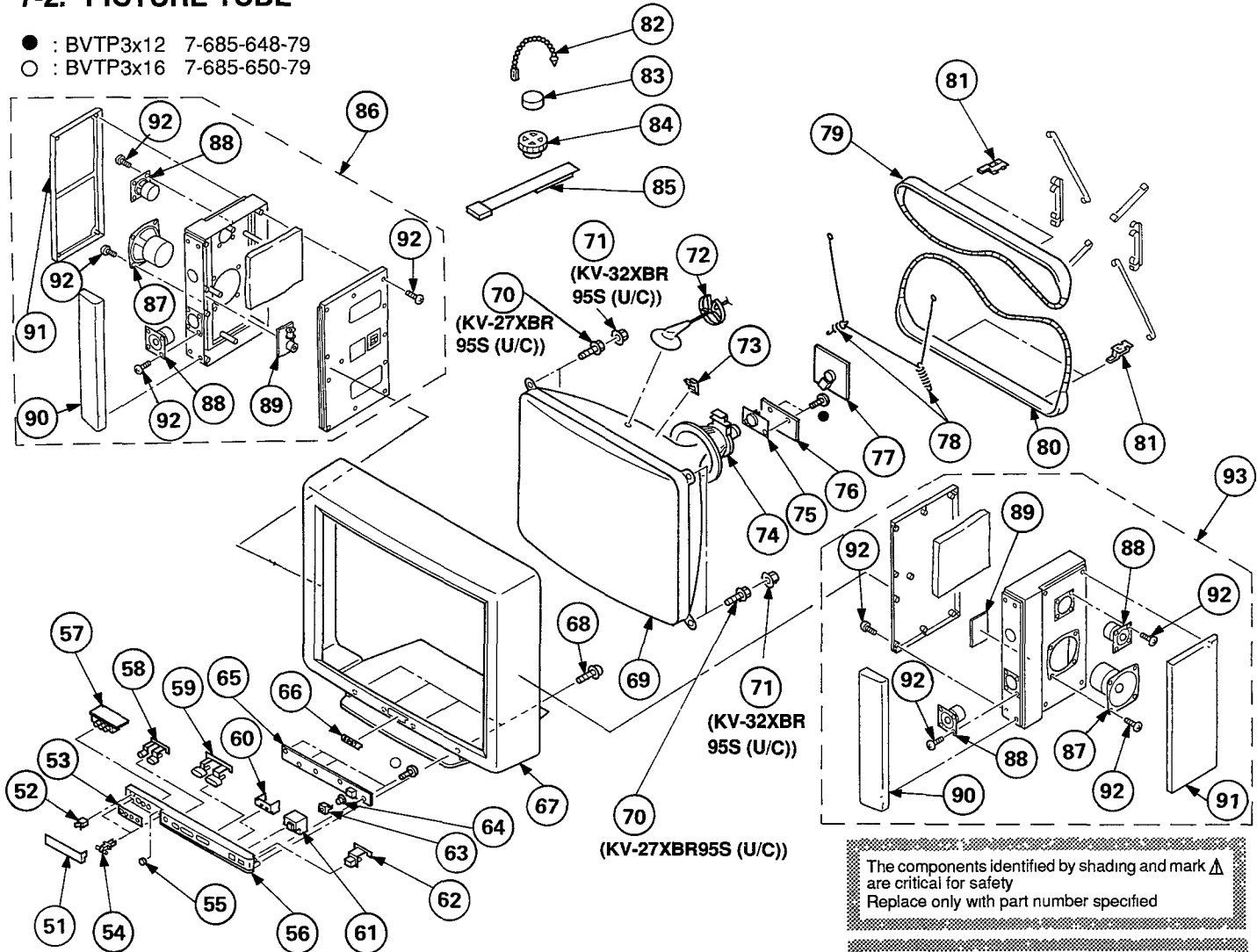
- : BVTP3x12 7-685-648-79
- : BVTP4x16 7-685-663-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	*A-1296-951-A	A BOARD, COMPLETE	2~7	16	*A-1341-545-A	D BOARD, COMPLETE (KV-27XBR95S(U/C))	
2	*A-1346-059-A	E1 BOARD, COMPLETE		17	*A-1341-550-A	D BOARD, COMPLETE (KV-32XBR95S(U/C))	
3	*A-1346-060-A	E2 BOARD, COMPLETE		18	*4-397-418-01	RIVET, T TYPE	
4	*A-1306-417-A	M BOARD, COMPLETE		19	*A-1373-328-A	UT BOARD, COMPLETE	
5	*A-1195-053-A	P2 BOARD, COMPLETE		20	4-035-204-11	BRACKET, UT	
6	*A-1394-367-A	X3 BOARD, COMPLETE		21	4-035-982-11	LABEL, UT	
7	*A-1394-366-A	Y2 BOARD, COMPLETE		22	*A-1373-329-A	U BOARD, COMPLETE	
8	▲.1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2) (KV-27XBR95S(U/C))		23	*1-643-669-11	S BOARD	
	▲.1-453-126-11	TRANSFORMER ASSY, FLYBACK (NX-3000A3) (KV-32XBR95S(U/C))		24	*A-1195-054-A	P4 BOARD, COMPLETE	
9	▲.1-693-102-21	TUNER (BTF-XA401)		25	*A-1195-058-A	P3 BOARD, COMPLETE	
10	*3-703-044-26	LABEL, CAUTION		26	▲.1-417-178-11	SELECTOR, ANTENNA (AS-2)	
11	4-374-303-01	RIVET, NYLON		27	*1-555-400-00	CABLE, PIN	
12	*A-1316-128-A	G BOARD, COMPLETE		28	*1-557-056-31	CABLE, P-P	
13	▲.4-334-223-03	GROMMET, AC CORD		29	4-037-303-01	COVER, REAR (KV-27XBR95S(U/C))	
14	▲.1-696-002-12	CORD, POWER (WITH NOISE FILTER)			4-035-007-01	COVER, REAR (KV-32XBR95S(U/C))	
15	*A-1347-068-A	VC BOARD, COMPLETE (KV-27XBR95S(U/C))		30	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
	*A-1347-067-A	VC BOARD, COMPLETE (KV-32XBR95S(U/C))		31	*4-036-731-01	BRACKET, REAR COVER (KV-32XBR95S(U/C))	

## 7-2. PICTURE TUBE

- : BVTP3x12 7-685-648-79
- : BVTP3x16 7-685-650-79



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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-035-199-01	DOOR, FRONT PANEL		72	*3-704-372-01	HOLDER, HV CABLE	
52	4-392-036-01	CATCHER, PUSH		73	3-704-495-01	SPACER, DY	
53	4-036-727-01	LABEL, JACK		74	.1-451-394-11	DEFLECTION YOKE (Y29EXA)	(KV-27XBR95S(U/C))
54	3-703-035-11	SHAFT, LID			$\Delta$ .1-451-393-11	DEFLECTION YOKE (Y34EXA)	(KV-32XBR95S(U/C))
55	4-314-871-00	CUSHION		75	$\Delta$ .1-452-616-12	NECK ASSY, PICTURE TUBE (NA323)	
56	4-035-057-01	PANEL, FRONT		76	*A-1342-182-A	V BOARD, COMPLETE	
57	*1-643-664-11	HX2 BOARD		77	*A-1331-209-A	C BOARD, COMPLETE (KV-27XBR95S(U/C))	
58	4-035-179-01	BUTTON (A), MULTI			*A-1331-244-A	C BOARD, COMPLETE (KV-32XBR95S(U/C))	
59	4-035-154-01	BUTTON (B), MULTI		78	4-036-329-01	SPRING (B), TENSION	
60	4-035-120-01	GUIDE, LIGHT, LED		79	$\Delta$ .1-426-573-11	COIL, DEGAUSSING (KV-27XBR95S(U/C))	
61	4-035-119-01	FILTER (REMOTE CONTROL)			$\Delta$ .1-426-575-11	COIL, DEGAUSSING (KV-32XBR95S(U/C))	
62	4-035-153-01	BUTTON, POWER		80	$\Delta$ .1-426-574-11	COIL, DEGAUSSING (KV-27XBR95S(U/C))	
63	*4-381-686-01	BRACKET (B), LIGHT GUIDE			$\Delta$ .1-426-576-11	COIL, DEGAUSSING (KV-32XBR95S(U/C))	
64	*4-388-603-01	GUIDE, LIGHT		81	4-033-545-01	CLIP (KV-27XBR95S(U/C))	
65	*1-643-663-11	HX1 BOARD			4-033-744-01	CLIP (KV-32XBR95S(U/C))	
66	3-704-179-01	EMBLEM (NO.9), SONY		82	4-308-870-00	CLIP, LEAD WIRE	
67	4-037-302-01	CABINET (WITH BEZEL) (KV-27XBR95S(U/C))		83	1-452-032-00	MAGNET, DISK; 10MM $\phi$	
	4-035-034-01	CABINET (WITH BEZEL) (KV-32XBR95S(U/C))		84	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM $\phi$	
68	4-319-520-11	SCREW, SPECIAL (+PW4X30)		85	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	
69	$\Delta$ .8-733-829-05	PICTURE TUBE (M68KUZ10X)		86	1-504-181-11	SPEAKER BOX (L)	87~92
		(KV-27XBR95S(U/C))		87	9-903-495-01	WOOPER UNIT	
	$\Delta$ .8-733-728-05	PICTURE TUBE (M81KVA10X)		88	9-903-496-01	TWEETER UNIT	
		(KV-32XBR95S(U/C))		89	9-903-497-01	NETWORK	
70	4-390-505-01	SCREW (7), TAPPING (KV-27XBR95S(U/C))		90	9-903-498-01	NET (SMALL)	
71	4-387-204-01	NUT, SPECIAL, PICTURE TUBE (KV-32XBR95S(U/C))		91	9-903-499-01	NET (LARGE)	
				92	9-903-500-01	SCREW	
				93	1-504-182-11	SPEAKER BOX (R)	87~92

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**SECTION 8  
ELECTRICAL PARTS LIST**

NOTE:

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

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

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

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

- RESISTORS**
- All resistors are in ohms
  - F: nonflammable

- CAPACITORS**
- MF:  $\mu$ F, PF:  $\mu$  $\mu$ F
- COILS**
- MMH: mH, UH:  $\mu$ H
- The components identified by  $\square$  in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

REF. NO	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
*A-1195-054-A	P4 BOARD, COMPLETE	*****					
		<CAPACITOR>					
C1201	1-124-261-00	ELECT 10MF	20% 50V				
C1202	1-163-111-00	CERAMIC CHIP 56PF	5% 50V				
C1203	1-126-177-11	ELECT 100MF	20% 6.3V				
C1204	1-124-261-00	ELECT 10MF	20% 50V				
C1205	1-163-113-00	CERAMIC CHIP 68PF	5% 50V				
C1207	1-163-105-00	CERAMIC CHIP 33PF	5% 50V				
C1208	1-124-589-11	ELECT 47MF	20% 16V				
C1209	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1210	1-124-589-11	ELECT 47MF	20% 16V				
C1211	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1212	1-124-589-11	ELECT 47MF	20% 16V				
C1213	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1214	1-124-589-11	ELECT 47MF	20% 16V				
C1215	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1216	1-163-123-00	CERAMIC CHIP 180PF	5% 50V				
C1218	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1219	1-124-589-11	ELECT 47MF	20% 16V				
C1223	1-124-589-11	ELECT 47MF	20% 16V				
C1224	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1226	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V				
C1227	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1228	1-124-589-11	ELECT 47MF	20% 16V				
C1230	1-130-483-00	MYLAR 0.01MF	5% 50V				
C1231	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C1232	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V				
C1233	1-163-809-11	CERAMIC CHIP 0.047MF	10% 25V				
C1234	1-124-257-00	ELECT 2.2MF	20% 50V				
C1236	1-163-093-00	CERAMIC CHIP 10PF	5% 50V				
C1237	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V				
C1238	1-124-465-00	ELECT 0.47MF	20% 50V				
C1239	1-163-235-11	CERAMIC CHIP 22PF	5% 50V				
C1242	1-124-589-11	ELECT 47MF	20% 16V				
C1243	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1244	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V				
C1245	1-124-589-11	ELECT 47MF	20% 16V				
C1246	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V				
C1247	1-124-589-11	ELECT 47MF	20% 16V				
C1249	1-124-261-00	ELECT 10MF	20% 50V				
C1250	1-130-483-00	MYLAR 0.01MF	5% 50V				
		<FILTER>					
FL1201	1-236-620-11	FILTER, LOW PASS					
FL1202	1-236-620-11	FILTER, LOW PASS					
FL1203	1-236-620-11	FILTER, LOW PASS					
		<IC>					
IC1201	8-759-420-43	IC AN78N05A					
IC1202	8-752-055-90	IC CXA1586M					
IC1203	8-759-420-43	IC AN78N05A					
IC1204	8-741-694-01	IC SX1694-01					
		<COIL>					
L1201	1-414-042-21	INDUCTOR	18UH				
L1202	1-414-042-21	INDUCTOR	18UH				
L1203	1-414-042-21	INDUCTOR	18UH				
L1204	1-410-484-11	INDUCTOR	150UH				
L1205	1-414-042-21	INDUCTOR	18UH				
L1206	1-414-042-21	INDUCTOR	18UH				
		<CONNECTOR>					
P432	*1-564-522-11	PLUG, CONNECTOR 7P					
		<TRANSISTOR>					
Q1201	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1202	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1203	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1204	8-729-216-22	TRANSISTOR 2SA1162-G					
Q1205	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1206	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1207	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1208	8-729-216-22	TRANSISTOR 2SA1162-G					
Q1209	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1210	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1211	8-729-216-22	TRANSISTOR 2SA1162-G					
Q1217	8-729-920-74	TRANSISTOR 2SC2412K-QR					
Q1218	8-729-216-22	TRANSISTOR 2SA1162-G					
Q1223	8-729-216-22	TRANSISTOR 2SA1162-G					
		<RESISTOR>					
R1201	1-216-001-00	METAL GLAZE	10 5% 1/10W				
R1202	1-216-089-00	METAL GLAZE	47K 5% 1/10W				
R1203	1-216-025-00	METAL GLAZE	100 5% 1/10W				
R1204	1-216-689-11	METAL GLAZE	39K 5% 1/10W				
R1205	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R1206	1-216-645-11	METAL CHIP	560 0.50% 1/10W				
R1207	1-216-035-00	METAL GLAZE	270 5% 1/10W				
R1208	1-216-637-11	METAL CHIP	270 0.50% 1/10W				
R1209	1-216-035-00	METAL GLAZE	270 5% 1/10W				
R1210	1-216-689-11	METAL GLAZE	39K 5% 1/10W				
R1211	1-216-077-00	METAL GLAZE	15K 5% 1/10W				
R1212	1-216-075-00	METAL GLAZE	12K 5% 1/10W				
R1213	1-216-043-00	METAL GLAZE	560 5% 1/10W				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1214	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		C2001	1-124-910-11	ELECT 47MF 20% 50V	
R1215	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2002	1-124-910-11	ELECT 47MF 20% 50V	
R1216	1-216-001-00	METAL GLAZE 10 5% 1/10W		C2003	1-124-119-00	ELECT 330MF 20% 16V	
R1217	1-216-089-00	METAL GLAZE 47K 5% 1/10W		C2004	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R1218	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2005	1-124-261-00	ELECT 10MF 20% 50V	
R1219	1-216-075-00	METAL GLAZE 12K 5% 1/10W		C2006	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R1220	1-216-061-00	METAL GLAZE 3.3K 5% 1/10W		C2007	1-126-157-11	ELECT 10MF 20% 16V	
R1221	1-216-645-11	METAL CHIP 560 0.50% 1/10W		C2008	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
R1222	1-216-035-00	METAL GLAZE 270 5% 1/10W		C2009	1-163-157-00	FILM 0.022MF 5% 50V	
R1223	1-216-639-11	METAL CHIP 330 0.50% 1/10W		C2010	1-164-161-11	CERAMIC CHIP 0.0022MF 50V	
R1224	1-216-035-00	METAL GLAZE 270 5% 1/10W		C2011	1-126-157-11	ELECT 10MF 20% 16V	
R1225	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W		C2013	1-126-301-11	ELECT 1MF 20% 50V	
R1228	1-216-043-00	METAL GLAZE 560 5% 1/10W		C2014	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
R1229	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		C2015	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
R1230	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2016	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
R1231	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C2017	1-163-109-00	CERAMIC CHIP 47PF 5% 50V	
R1232	1-215-857-11	METAL OXIDE 10 5% 1W F		C2018	1-124-465-00	ELECT 0.47MF 20% 50V	
R1233	1-216-109-00	METAL GLAZE 330K 5% 1/10W		C2019	1-126-103-11	ELECT 470MF 20% 16V	
R1234	1-216-109-00	METAL GLAZE 330K 5% 1/10W		C2020	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
R1235	1-215-859-00	METAL OXIDE 22 5% 1W F		C2021	1-126-157-11	ELECT 10MF 20% 16V	
R1236	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C2022	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R1247	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2023	1-163-119-00	CERAMIC CHIP 120PF 5% 50V	
R1248	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W		C2024	1-124-465-00	ELECT 0.47MF 20% 50V	
R1249	1-216-043-00	METAL GLAZE 560 5% 1/10W		C2025	1-126-157-11	ELECT 10MF 20% 16V	
R1250	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2026	1-163-101-00	CERAMIC CHIP 22PF 5% 50V	
R1251	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2027	1-163-103-00	CERAMIC CHIP 27PF 5% 50V	
R1253	1-216-077-00	METAL GLAZE 15K 5% 1/10W		C2028	1-163-107-00	CERAMIC CHIP 39PF 5% 50V	
R1254	1-216-639-11	METAL CHIP 330 0.50% 1/10W		C2029	1-124-477-11	ELECT 47MF 20% 16V	
R1255	1-216-620-11	METAL CHIP 51 0.50% 1/10W		C2031	1-124-910-11	ELECT 47MF 20% 50V	
R1256	1-216-073-00	METAL GLAZE 10K 5% 1/10W		C2032	1-164-232-11	CERAMIC CHIP 0.01MF 10% 50V	
R1257	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2034	1-126-157-11	ELECT 10MF 20% 16V	
R1259	1-216-644-11	METAL CHIP 510 0.50% 1/10W		C2035	1-126-157-11	ELECT 10MF 20% 16V	
R1260	1-216-295-00	METAL GLAZE 0 5% 1/10W		C2036	1-163-025-11	CERAMIC CHIP 0.001MF 50V	
R1261	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2037	1-124-477-11	ELECT 47MF 20% 16V	
R1262	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2038	1-164-161-11	CERAMIC CHIP 0.0022MF 10% 50V	
R1263	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2039	1-124-477-11	ELECT 47MF 20% 16V	
R1264	1-216-089-00	METAL GLAZE 47K 5% 1/10W		C2040	1-124-903-11	ELECT 1MF 20% 50V	
R1265	1-216-089-00	METAL GLAZE 47K 5% 1/10W		C2041	1-130-475-00	MYLAR 0.0022MF 5% 50V	
R1266	1-216-069-00	METAL GLAZE 6.8K 5% 1/10W		C2042	1-124-902-00	ELECT 0.47MF 20% 50V	
R1267	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W		C2043	1-136-493--B	FILM 0.047MF 5% 50V	
R1268	1-216-071-00	METAL GLAZE 8.2K 5% 1/10W		C2044	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
R1269	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2045	1-126-157-11	ELECT 10MF 20% 16V	
R1270	1-216-039-00	METAL GLAZE 390 5% 1/10W		C2046	1-136-169-00	FILM 0.22MF 5% 50V	
R1271	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2047	1-124-463-00	ELECT 0.1MF 20% 50V	
R1272	1-216-001-00	METAL GLAZE 10 5% 1/10W		C2048	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
R1273	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2049	1-136-497--B	FILM 0.1MF 5% 50V	
R1274	1-216-630-11	METAL CHIP 130 0.50% 1/10W		C2050	1-124-902-00	ELECT 0.47MF 20% 50V	
R1275	1-216-001-00	METAL GLAZE 10 5% 1/10W		C2051	1-126-157-11	ELECT 10MF 20% 16V	
R1281	1-216-049-00	METAL GLAZE 1K 5% 1/10W		C2052	1-163-129-00	CERAMIC CHIP 330PF 5% 50V	
R1284	1-216-025-00	METAL GLAZE 100 5% 1/10W		C2053	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
R1286	1-216-001-00	METAL GLAZE 10 5% 1/10W		C2054	1-163-093-00	CERAMIC CHIP 10PF 5% 50V	
		<CRYSTAL>		C2055	1-163-117-00	CERAMIC CHIP 100PF 5% 50V	
X1201	1-577-611-11	OSCILLATOR, CERAMIC		C2056	1-136-493--B	FILM 0.047MF 5% 50V	
X1202	1-567-878-11	VIBRATOR, CRYSTAL		C2057	1-124-477-11	ELECT 47MF 20% 16V	
		*****		C2058	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
	*A-1195-058-A	P3 BOARD, COMPLETE		C2059	1-124-903-11	ELECT 1MF 20% 50V	
		*****		C2060	1-136-485-81	FILM 0.01MF 5% 50V	
		<CAPACITOR>		C2061	1-163-031-11	CERAMIC CHIP 0.01MF 50V	
				C2062	1-163-095-00	CERAMIC CHIP 12PF 5% 50V	
				C2063	1-102-959-00	CERAMIC 22PF 5% 50V	
				C2064	1-102-121-00	CERAMIC 0.0022MF 10% 50V	
				C2065	1-126-157-11	ELECT 10MF 20% 16V	
				C2066	1-126-157-11	ELECT 10MF 20% 16V	
				C2067	1-126-157-11	ELECT 10MF 20% 16V	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C2068	1-126-233-11	ELECT 22MF	20% 50V	Q2010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2070	1-163-123-00	CERAMIC CHIP 180PF	5% 50V	Q2011	8-729-216-22	TRANSISTOR 2SA1162-G	
C2071	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	Q2012	8-729-216-22	TRANSISTOR 2SA1162-G	
C2073	1-124-477-11	ELECT 47MF	20% 16V	Q2015	8-729-216-22	TRANSISTOR 2SA1162-G	
C2075	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	Q2016	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<NETWORK>		Q2017	8-729-920-74	TRANSISTOR 2SC2412K-QR	
CP2001	1-236-472-11	NETWORK, RES. THICK FILM		Q2018	8-729-420-81	TRANSISTOR 2SD874A-R	
		<TRIMMER>		Q2019	8-729-216-22	TRANSISTOR 2SA1162-G	
CV2001	1-141-245-00	CAP, TRIMMER		Q2020	8-729-216-22	TRANSISTOR 2SA1162-G	
		<DIODE>		Q2021	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2003	8-719-106-16	DIODE RD6.8M-B1		Q2022	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2004	8-719-404-46	DIODE MA110		Q2023	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D2005	8-719-404-46	DIODE MA110		Q2024	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<FILTER>		Q2025	8-729-216-22	TRANSISTOR 2SA1162-G	
FL2001	1-235-941-11	YC MODULE		Q2026	8-729-216-22	TRANSISTOR 2SA1162-G	
		<IC>		Q2027	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2001	8-759-982-13	IC RC7812FA		Q2028	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2002	8-759-700-48	IC NJM2903S		Q2029	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2003	8-759-805-37	IC L78LR05D-MA		Q2030	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2004	8-759-066-51	IC MB88733-143		Q2031	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2005	8-759-803-25	IC CXK1006L		Q2032	8-729-920-74	TRANSISTOR 2SC2412K-QR	
IC2006	8-752-006-12	IC CX20061		Q2034	8-729-216-22	TRANSISTOR 2SA1162-G	
IC2007	8-752-033-32	IC CXA1228S		Q2036	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<JACK>				<RESISTOR>	
J2001	*1-573-962-11	CONNECTOR (MALE) 50P		R2002	1-216-357-00	METAL OXIDE 4.7 5%	1W F
		<COIL>		R2003	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
L2002	1-410-663-31	INDUCTOR 10UH		R2004	1-216-049-00	METAL GLAZE 1K 5%	1/10W
L2003	1-410-667-31	INDUCTOR 22UH		R2006	1-216-689-11	METAL GLAZE 39K 5%	1/10W
L2004	1-410-663-31	INDUCTOR 10UH		R2007	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
L2009	1-410-663-31	INDUCTOR 10UH		R2008	1-216-081-00	METAL GLAZE 22K 5%	1/10W
L2010	1-410-677-31	INDUCTOR 180UH		R2009	1-216-081-00	METAL GLAZE 22K 5%	1/10W
L2011	1-410-677-31	INDUCTOR 180UH		R2010	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
		<CONNECTOR>		R2011	1-216-079-00	METAL GLAZE 18K 5%	1/10W
P3-39	*1-564-521-11	PLUG, CONNECTOR 6P		R2012	1-216-089-00	METAL GLAZE 47K 5%	1/10W
P3-40	*1-564-519-11	PLUG, CONNECTOR 4P		R2013	1-216-079-00	METAL GLAZE 18K 5%	1/10W
P3-41	*1-564-519-11	PLUG, CONNECTOR 4P		R2014	1-216-089-00	METAL GLAZE 47K 5%	1/10W
		<TRANSISTOR>		R2015	1-216-033-00	METAL GLAZE 220 5%	1/10W
Q2001	8-729-216-22	TRANSISTOR 2SA1162-G		R2016	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q2002	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2017	1-216-047-00	METAL GLAZE 820 5%	1/10W
Q2003	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2018	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2004	8-729-216-22	TRANSISTOR 2SA1162-G		R2019	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q2005	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2020	1-216-037-00	METAL GLAZE 330 5%	1/10W
Q2006	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2021	1-216-095-00	METAL GLAZE 82K 5%	1/10W
Q2007	8-729-216-22	TRANSISTOR 2SA1162-G		R2022	1-216-109-00	METAL GLAZE 330K 5%	1/10W
Q2008	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2023	1-216-073-00	METAL GLAZE 10K 5%	1/10W
Q2009	8-729-216-22	TRANSISTOR 2SA1162-G		R2024	1-216-047-00	METAL GLAZE 820 5%	1/10W
				R2025	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R2026	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R2027	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2028	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R2029	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2030	1-216-009-00	METAL GLAZE 22 5%	1/10W
				R2031	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R2032	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2033	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2034	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2035	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R2036	1-216-081-00	METAL GLAZE 22K 5%	1/10W
				R2037	1-216-089-00	METAL GLAZE 47K 5%	1/10W
				R2038	1-216-097-00	METAL GLAZE 100K 5%	1/10W
				R2039	1-216-097-00	METAL GLAZE 100K 5%	1/10W

**P3** **A**

The components identified by shading and mark **Δ** are critical for safety  
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK	
R2040	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2117	1-216-081-00	METAL GLAZE 22K 5%	1/10W	
R2041	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2118	1-216-077-00	METAL GLAZE 15K 5%	1/10W	
R2042	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W	R2119	1-249-431-11	CARBON 15K 5%	1/4W	
R2043	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2122	1-216-295-00	METAL GLAZE 0 5%	1/10W	
R2044	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R2124	1-216-049-00	METAL GLAZE 1K 5%	1/10W	
R2045	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2125	1-216-089-00	METAL GLAZE 47K 5%	1/10W	
R2046	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2127	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W	
R2047	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2128	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W	
R2048	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R2129	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	
R2049	1-216-065-00	METAL GLAZE 4 7K 5%	1/10W	R2130	1-216-067-00	METAL GLAZE 5 6K 5%	1/10W	
R2050	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W	R2131	1-216-065-00	METAL GLAZE 4 7K 5%	1/10W	
R2051	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2132	1-216-075-00	METAL GLAZE 12K 5%	1/10W	
R2052	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R2133	1-216-025-00	METAL GLAZE 100 5%	1/10W	
R2053	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2134	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	
R2054	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2135	1-216-041-00	METAL GLAZE 470 5%	1/10W	
R2055	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2136	1-216-295-00	METAL GLAZE 0 5%	1/10W	
R2056	1-216-295-00	METAL GLAZE 0 5%	1/10W	R2138	1-216-295-00	METAL GLAZE 0 5%	1/10W	
R2057	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2139	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	
R2058	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2140	1-216-049-00	METAL GLAZE 1K 5%	1/10W	
R2059	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2141	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	
R2060	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2142	1-216-049-00	METAL GLAZE 1K 5%	1/10W	
R2061	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2143	1-216-049-00	METAL GLAZE 1K 5%	1/10W	
R2062	1-216-295-00	METAL GLAZE 0 5%	1/10W	R2144	1-216-025-00	METAL GLAZE 100 5%	1/10W	
R2063	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2147	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	
R2064	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2148	1-216-081-00	METAL GLAZE 22K 5%	1/10W	
R2074	1-216-033-00	METAL GLAZE 220 5%	1/10W	R2149	1-249-441-11	CARBON 100K 5%	1/4W	
R2075	1-216-049-00	METAL GLAZE 1K 5%	1/10W	<VARIABLE RESISTOR>				
R2076	1-216-081-00	METAL GLAZE 22K 5%	1/10W	RV2001	1-238-015-11	RES, ADJ, CARBON 4.7K		
R2077	1-216-093-00	METAL GLAZE 68K 5%	1/10W	RV2002	1-238-019-11	RES, ADJ, CARBON 47K		
R2078	1-216-073-00	METAL GLAZE 10K 5%	1/10W	RV2003	1-238-017-11	RES, ADJ, CARBON 22K		
R2079	1-216-063-00	METAL GLAZE 3 9K 5%	1/10W	RV2004	1-238-017-11	RES, ADJ, CARBON 22K		
R2080	1-216-073-00	METAL GLAZE 10K 5%	1/10W	<TUNER>				
R2081	1-216-041-00	METAL GLAZE 470 5%	1/10W	TU2001	1-688-102-21	TUNER (BTF XA401)		
R2082	1-216-049-00	METAL GLAZE 1K 5%	1/10W	<CRYSTAL>				
R2083	1-216-037-00	METAL GLAZE 330 5%	1/10W	X2001	1-567-192-11	OSCILLATOR, CERAMIC		
R2084	1-216-045-00	METAL GLAZE 680 5%	1/10W	X2002	1-567-505-11	OSCILLATOR, CRYSTAL		
R2085	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	*****				
R2086	1-216-133-00	METAL GLAZE 3.3M 5%	1/10W	*A-1296-951-A	A BOARD, COMPLETE			
R2087	1-216-085-00	METAL GLAZE 33K 5%	1/10W	*****				
R2088	1-216-107-00	METAL GLAZE 270K 5%	1/10W	*4-341-751-01	EYELET (EY101-EY169,EY171,EY172)			
R2089	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	*4-341-752-01	EYELET (EY2-EY55,			
R2090	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W	4-382-854-11	SCREW (M3X10), P, SW (+)			
R2091	1-216-049-00	METAL GLAZE 1K 5%	1/10W	<CONNECTOR>				
R2093	1-249-441-11	CARBON 100K 5%	1/4W	A2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P		
R2094	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	A3	*1-573-986-11	PIN, CONNECTOR (PC BOARD) 5P		
R2095	1-216-107-00	METAL GLAZE 270K 5%	1/10W	A4	*1-564-510-11	PLUG, CONNECTOR 7P		
R2096	1-216-105-00	METAL GLAZE 220K 5%	1/10W	A5	*1-564-507-11	PLUG, CONNECTOR 4P		
R2097	1-216-295-00	METAL GLAZE 0 5%	1/10W	A9	*1-564-505-11	PLUG, CONNECTOR 2P		
R2100	1-216-295-00	METAL GLAZE 0 5%	1/10W	A11	*1-564-507-11	PLUG, CONNECTOR 4P		
R2101	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W	A12	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		
R2102	1-216-073-00	METAL GLAZE 10K 5%	1/10W	A13	1-573-297-11	CONNECTOR, BOARD TO BOARD 18P		
R2104	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	A14	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P		
R2105	1-216-043-00	METAL GLAZE 560 5%	1/10W	A15	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P		
R2106	1-216-049-00	METAL GLAZE 1K 5%	1/10W	A18	1-573-296-11	CONNECTOR, BOARD TO BOARD 10P		
R2107	1-216-037-00	METAL GLAZE 330 5%	1/10W					
R2108	1-216-049-00	METAL GLAZE 1K 5%	1/10W					
R2109	1-216-049-00	METAL GLAZE 1K 5%	1/10W					
R2110	1-216-049-00	METAL GLAZE 1K 5%	1/10W					
R2111	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W					
R2112	1-216-073-00	METAL GLAZE 10K 5%	1/10W					
R2113	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W					
R2114	1-216-085-00	METAL GLAZE 33K 5%	1/10W					
R2115	1-216-049-00	METAL GLAZE 1K 5%	1/10W					
R2116	1-216-119-00	METAL GLAZE 820K 5%	1/10W					

**A**

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REF. NO	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
A21	*1-508-768-00	PIN, CONNECTOR (5MM PITCH) 6P		C541	1-102-228-00	CERAMIC	470PF 10% 500V
A37	*1-564-514-11	PLUG, CONNECTOR 11P		C542	1-106-387-00	MYLAR	0.068MF 10% 200V
A38	*1-564-505-11	PLUG, CONNECTOR 2P		C543	1-129-898-00	FILM	0.0022MF 5% 630V
A49	*1-564-506-11	PLUG, CONNECTOR 3P		C544	1-124-797-11	ELECT	0.47MF 20% 160V
A100	*1-573-979-11	CONNECTOR, BORD TO BOARD 11P		C545	1-102-244-00	CERAMIC	220PF 10% 500V
DY1	*1-580-798-11	CONNECTOR PIN (DY) 6P		C546	1-123-024-21	ELECT	33MF 160V
ES002	*1-573-960-11	CONNECTOR (FEMALE) 50P		C547	1-130-471-00	MYLAR	0.001MF 5% 50V
		<CAPACITOR>		C548	1-130-467-00	MYLAR	470PF 5% 50V
C201	1-126-101-11	ELECT 100MF 20%	16V	C549	1-124-261-00	ELECT	10MF 20% 50V
C210	1-102-121-00	CERAMIC 0.0022MF 10%	50V	C550	1-129-702-00	FILM	0.001MF 10% 630V
C211	1-101-006-00	CERAMIC 0.047MF	50V	C551	1-130-471-00	MYLAR	0.001MF 5% 50V
C213	1-126-103-11	ELECT 470MF 20%	16V	C552	1-126-176-11	ELECT	220MF 20% 10V
C214	1-126-101-11	ELECT 100MF 20%	16V	C553	1-124-261-00	ELECT	10MF 20% 50V
C215	1-124-910-11	ELECT 47MF 20%	50V	<del>C554</del>	<del>1-161-731-81</del>	<del>CERAMIC</del>	<del>0.001MF</del> <del>10%</del> <del>2KV</del>
C216	1-126-101-11	ELECT 100MF 20%	16V	<del>C555</del>	<del>1-123-947-00</del>	<del>ELECT</del>	<del>10MF</del> <del>20%</del> <del>250V</del>
C217	1-124-126-00	ELECT 47MF 20%	25V	C557	1-124-465-00	ELECT	0.47MF 20% 50V
C218	1-126-103-11	ELECT 470MF 20%	16V	C559	1-129-718-00	FILM	0.022MF 5% 630V
C219	1-136-169-00	FILM 0.22MF 5%	50V	C560	1-136-169-00	FILM	0.22MF 5% 50V
C220	1-124-910-11	ELECT 47MF 20%	50V	C561	1-124-261-00	ELECT	10MF 20% 50V
C223	1-123-875-11	ELECT 10MF 20%	50V	C562	1-124-499-11	ELECT	1MF 20% 50V
C224	1-124-261-00	ELECT 10MF 20%	50V	C563	1-130-491-00	MYLAR	0.047MF 5% 50V
C225	1-124-120-11	ELECT 220MF 20%	16V	C564	1-130-495-00	MYLAR	0.1MF 5% 50V
C226	1-124-621-11	ELECT 3300MF 20%	6.3V	C565	1-130-495-00	MYLAR	0.1MF 5% 50V
C299	1-126-101-11	ELECT 100MF 20%	16V	C569	1-130-497-00	MYLAR	0.15MF 5% 50V
C501	1-137-114-11	FILM 0.68MF 5%	200V	C570	1-130-471-00	MYLAR	0.001MF 5% 50V
C502	1-130-471-00	FILM 0.001MF 5%	50V	C571	1-130-651-00	FILM	0.001MF 2% 100V
C503	1-124-261-00	ELECT 10MF 20%	50V	C572	1-124-907-11	ELECT	10MF 20% 50V
C504	1-136-161-00	FILM 0.047MF 5%	50V	C573	1-130-471-00	MYLAR	0.001MF 5% 50V
C505	1-124-790-11	ELECT 0.47MF 20%	100V	C575	1-102-038-00	CERAMIC	0.001MF 500V
C506	1-124-480-11	ELECT 470MF 20%	25V	C576	1-106-355-12	MYLAR	0.0033MF 200V
C507	1-130-473-00	MYLAR 0.0015MF 5%	50V	C1401	1-124-910-11	ELECT	47MF 20% 50V
C508	1-162-114-00	CERAMIC 0.0047MF	2KV	C1402	1-126-157-11	ELECT	10MF 20% 16V
C509	1-124-808-51	ELECT 10MF 20%	200V	C1403	1-126-157-11	ELECT	10MF 20% 16V
C510	1-102-110-00	CERAMIC 220PF 10%	50V	C1404	1-126-157-11	ELECT	10MF 20% 16V
C511	1-124-477-11	ELECT 47MF 20%	25V	C1405	1-124-910-11	ELECT	47MF 20% 50V
C512	1-162-318-11	CERAMIC 0.001MF 10%	500V	C1406	1-124-910-11	ELECT	47MF 20% 50V
C513	1-106-391-12	MYLAR 0.1MF 10%	200V	C1407	1-124-607-11	ELECT	2200MF 20% 50V
C514	1-124-477-11	ELECT 47MF 20%	25V	C1408	1-136-165-00	FILM	0.1MF 5% 50V
C515	1-162-117-00	CERAMIC 100PF 10%	500V	C1409	1-136-165-00	FILM	0.1MF 5% 50V
C517	1-124-477-11	ELECT 47MF 20%	25V	C1410	1-126-157-11	ELECT	10MF 20% 16V
C518	1-136-161-00	FILM 0.047MF 5%	50V	C1411	1-126-157-11	ELECT	10MF 20% 16V
C519	1-124-472-11	ELECT 470MF 20%	10V	C1415	1-124-910-11	ELECT	47MF 20% 50V
<del>C520</del>	<del>1-161-731-81</del>	<del>CERAMIC</del>	<del>0.001MF</del> <del>10%</del> <del>2KV</del>	C1416	1-126-157-11	ELECT	10MF 20% 16V
<del>C521</del>	<del>1-137-604-21</del>	<del>FILM</del>	<del>0.022MF</del> <del>2%</del> <del>300V</del>	C1417	1-126-157-11	ELECT	10MF 20% 16V
C522	1-162-116-00	CERAMIC 680PF 10%	2KV	C1418	1-124-910-11	ELECT	47MF 20% 50V
C523	1-124-465-00	ELECT 0.47MF 20%	50V	C1419	1-124-910-11	ELECT	47MF 20% 50V
C524	1-130-487-00	MYLAR 0.022MF 5%	50V	C1420	1-136-165-00	FILM	0.1MF 5% 50V
C525	1-162-116-00	CERAMIC 680PF 10%	2KV	C1421	1-124-607-11	ELECT	2200MF 20% 50V
<del>C526</del>	<del>1-137-515-91</del>	<del>FILM</del>	<del>0.056MF</del> <del>3%</del> <del>300V</del>	C1422	1-136-165-00	FILM	0.1MF 5% 50V
C527	1-136-167-00	FILM 0.15MF 5%	50V	C1423	1-124-922-11	ELECT	1000MF 20% 50V
C528	1-106-359-00	MYLAR 0.0047MF 10%	200V	C1424	1-124-607-11	ELECT	2200MF 20% 50V
C529	1-136-161-00	FILM 0.047MF 5%	50V	C1425	1-124-607-11	ELECT	2200MF 20% 50V
C530	1-136-105-00	FILM 0.33MF 5%	200V	C1426	1-126-157-11	ELECT	10MF 20% 16V
C531	1-124-634-11	ELECT 1MF 20%	250V	C1430	1-126-233-11	ELECT	22MF 20% 50V
C532	1-124-477-11	ELECT 47MF 20%	25V	C1435	1-126-233-11	ELECT	22MF 20% 50V
C533	1-137-516-11	FILM 1.2MF 5%	200V	C1437	1-130-499-00	MYLAR	0.22MF 5% 50V
C534	1-137-114-11	FILM 0.68MF 5%	200V	C1501	1-126-233-11	ELECT	22MF 20% 50V
C535	1-124-480-11	ELECT 470MF 20%	25V	C1502	1-126-301-11	ELECT	1MF 20% 50V
C536	1-102-228-00	CERAMIC 470PF 10%	500V	C1503	1-102-114-00	CERAMIC	470PF 10% 50V
C537	1-106-343-00	MYLAR 0.001MF 10%	100V	C1504	1-124-480-11	ELECT	470MF 20% 25V
C538	1-106-391-12	MYLAR 0.1MF 10%	200V	C1505	1-124-911-11	ELECT	220MF 20% 50V
C539	1-123-950-00	ELECT 47MF 20%	250V	C1506	1-136-171-00	FILM	0.33MF 5% 50V
C540	1-124-480-11	ELECT 470MF 20%	25V	C1507	1-106-222-00	MYLAR	0.12MF 10% 100V

A

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1508	1-124-480-11	ELECT	470MF 20% 25V	IC1401	8-759-246-70	IC TA8216H	
C1509	1-124-122-11	ELECT	100MF 20% 50V	IC1402	8-759-246-70	IC TA8216H	
C1511	1-164-014-11	CERAMIC	5PF 0.25PF 50V	IC1501	8-759-506-46	IC TDA8179S	
C4001	1-124-922-11	ELECT	1000MF 20% 50V				
C4007	1-126-233-11	ELECT	22MF 20% 50V				
C4008	1-130-499-00	MYLAR	0.22MF 5% 50V				
		<DIODE>					
D201	8-719-110-13	DIODE RD9.1ES-B2					
D202	8-719-110-13	DIODE RD9.1ES-B2					
D204	8-719-911-19	DIODE 1SS119					
D205	8-719-911-19	DIODE 1SS119					
D206	8-719-911-19	DIODE 1SS119					
D207	8-719-911-19	DIODE 1SS119					
D208	8-719-911-19	DIODE 1SS119					
D209	8-719-510-48	DIODE D1N20R					
D213	8-719-110-78	DIODE RD33ES-B2					
D501	8-719-018-82	DIODE RGP02-20EL-6394					
D502 $\Delta$	8-719-302-43	DIODE EL1Z					
D503	8-719-970-87	DIODE ERA38-06					
D504	8-719-911-19	DIODE 1SS119					
D506	8-719-109-90	DIODE RD5.6ES-B3					
D508	8-719-109-88	DIODE RD5.6ES-B1					
D509	8-719-110-03	DIODE RD7.5ES-B2					
D510	8-719-911-19	DIODE 1SS119					
D511	8-719-300-33	DIODE RU-3AM					
D512	8-719-911-55	DIODE U05G					
D513	8-719-911-55	DIODE U05G					
D514	8-719-312-72	DIODE RU30A					
D515	8-719-300-33	DIODE RU-3AM					
D516	8-719-979-85	DIODE EGP20G					
D517	8-719-943-06	DIODE ERB24-06D					
D518	8-719-109-93	DIODE RD6.2ES-B2					
D521	8-719-911-19	DIODE 1SS119					
D522	8-719-110-72	DIODE RD30ES-B2					
D524	8-719-976-64	DIODE RGP02-17					
D525	8-719-911-19	DIODE 1SS119					
D527	8-719-110-78	DIODE RD33ES-B2					
D529	8-719-911-19	DIODE 1SS119					
D530	8-719-911-19	DIODE 1SS119					
D1407	8-719-911-19	DIODE 1SS119					
D1408	8-719-911-19	DIODE 1SS119					
D1409	8-719-110-90	DIODE RD39ES-B4					
D1410	8-719-901-83	DIODE 1SS83					
D1411	8-719-901-83	DIODE 1SS83					
D1412	8-719-911-19	DIODE 1SS119					
D1413	8-719-911-19	DIODE 1SS119					
D1414	8-719-911-19	DIODE 1SS119					
D1503	8-719-911-55	DIODE U05G					
D4001	8-719-911-19	DIODE 1SS119					
D4005	8-719-901-83	DIODE 1SS83					
D4006	8-719-901-83	DIODE 1SS83					
		<IC>					
IC201	8-749-920-58	IC SI-3090CA					
IC204	8-759-231-53	IC TA7805S					
IC205	8-759-144-84	IC UPC24M05HF					
IC206	8-759-982-13	IC RC7812FA					
IC501	8-759-987-16	IC LM393P					
IC502	1-809-845-11	MODULE, PROTECTOR PM-30					
IC503	8-759-987-16	IC LM393P					
IC504	8-759-982-13	IC RC7812FA					
		<JACK>					
J201	1-507-562-00	JACK					
J202	1-507-562-00	JACK					
		<COIL>					
L201	1-408-408-00	INDUCTOR 8.2UH					
L205	1-408-421-00	INDUCTOR 100UH					
L208	1-410-785-31	INDUCTOR 0.22UH					
L210	1-408-408-00	INDUCTOR 8.2UH					
L501	1-459-104-00	COIL, WITH CORE					
L502	1-412-552-31	INDUCTOR 2.2MMH					
L504	1-410-455-11	INDUCTOR 10MMH					
L507	1-459-483-00	COIL (WITH CORE)					
L508	1-421-541-00	COIL, CHOKE 1000UH					
L509	1-459-104-00	COIL, WITH CORE					
L510 $\Delta$	1-460-197-11	COIL, FERRITE (PMC)					
L511	1-412-519-11	INDUCTOR 3.3UH					
L512	1-412-531-31	INDUCTOR 33UH					
L513	1-412-519-11	INDUCTOR 3.3UH					
L514	1-459-123-00	COIL, DUST CORE (PAC)					
L515	1-410-645-31	INDUCTOR 100UH					
L520	1-412-531-31	INDUCTOR 33UH					
L1501	1-412-531-31	INDUCTOR 33UH					
L1503	1-412-531-31	INDUCTOR 33UH					
		<TRANSISTOR>					
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q501	8-729-011-07	TRANSISTOR 2SC4763(LBSONY)					
Q502	8-729-140-97	TRANSISTOR 2SB734-34					
Q503	8-729-011-06	TRANSISTOR 2SC3840K					
Q504	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q505	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q506	8-729-011-00	TRANSISTOR 2SK1916-Q2F87					
Q507	8-729-119-80	TRANSISTOR 2SC2688-LK					
Q508	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q509	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q510	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q511	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q512	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q513	8-729-140-96	TRANSISTOR 2SD774-34					
Q515	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q516	8-729-119-76	TRANSISTOR 2SA1175-HFE					
Q1401	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1403	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1404	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1405	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1407	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1408	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE					
Q1502	8-729-119-78	TRANSISTOR 2SC2785-HFE					
		<RESISTOR>					
R201	1-249-405-11	CARBON 100 5% 1/4W F					
R202	1-249-405-11	CARBON 100 5% 1/4W F					
R210	1-249-441-11	CARBON 100K 5% 1/4W					



**A**

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

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R211	1-249-425-11	CARBON	4.7K 5% 1/4W	R550	1-215-909-11	METAL OXIDE	47 5% 3W F
R214	1-249-377-11	CARBON	0.47 5% 1/4W	F			
R219	1-249-426-11	CARBON	5.6K 5% 1/4W	R551	1-247-743-11	CARBON	220 5% 1/2W F
R221	1-249-409-11	CARBON	220 5% 1/4W	R552	1-249-389-11	CARBON	4.7 5% 1/4W F
R222	1-249-434-11	CARBON	27K 5% 1/4W	R553	1-249-377-11	CARBON	0.47 5% 1/4W F
R223	1-249-433-11	CARBON	22K 5% 1/4W	R554	1-249-377-11	CARBON	0.47 5% 1/4W F
R224	1-249-409-11	CARBON	220 5% 1/4W	R556	1-216-459-00	METAL OXIDE	2.7K 5% 2W F
R226	1-249-417-11	CARBON	1K 5% 1/4W	R558	1-259-882-11	CARBON	3.3M 5% 1/4W
R230	1-215-923-00	METAL OXIDE	10K 5% 3W	F			
R231	1-249-409-11	CARBON	220 5% 1/4W	R559	1-216-439-00	METAL OXIDE	12K 5% 1W F
R232	1-216-380-11	METAL OXIDE	8.2 5% 2W	F			
R233	1-249-409-11	CARBON	220 5% 1/4W	R560	1-247-901-11	CARBON	820K 5% 1/4W
R234	1-249-409-11	CARBON	220 5% 1/4W	R561	1-249-410-11	CARBON	270 5% 1/4W
R235	1-249-409-11	CARBON	220 5% 1/4W	R562	1-215-450-00	METAL	16K 1% 1/4W
R236	1-249-409-11	CARBON	220 5% 1/4W	R564	1-215-475-00	METAL	180K 1% 1/4W
R237	1-249-409-11	CARBON	220 5% 1/4W	■R565 ▲		CARBON	1/4W
R238	1-249-409-11	CARBON	220 5% 1/4W	■R566 ▲		CARBON	1/4W
R239	1-249-409-11	CARBON	220 5% 1/4W	R567	1-249-425-11	CARBON	4.7K 5% 1/4W
R240	1-249-482-11	CARBON	4.7 5% 1/2W	F			
R501	1-249-431-11	CARBON	15K 5% 1/4W	R568	1-249-425-11	CARBON	4.7K 5% 1/4W
R502	1-249-431-11	CARBON	15K 5% 1/4W	R569	1-249-417-11	CARBON	1K 5% 1/4W
R504	1-215-869-11	METAL OXIDE	1K 5% 1W	F			
R505	1-215-449-00	METAL	15K 1% 1/4W	R570	1-249-402-11	CARBON	56 5% 1/4W
R506	1-249-423-11	CARBON	3.3K 5% 1/4W	R572	1-249-393-11	CARBON	10 5% 1/4W F
R507	1-249-411-11	CARBON	330 5% 1/4W	R573	1-249-393-11	CARBON	10 5% 1/4W F
R508	1-249-435-11	CARBON	33K 5% 1/4W	R574	1-215-882-00	METAL OXIDE	22 5% 2W F
R509	1-249-441-11	CARBON	100K 5% 1/4W	R575	1-216-459-00	METAL OXIDE	2.7K 5% 2W F
R510	1-249-409-11	CARBON	220 5% 1/4W	R576	1-249-417-11	CARBON	1K 5% 1/4W F
R511	1-249-398-11	CARBON	27 5% 1/4W	R577	1-215-887-00	METAL OXIDE	150 5% 2W F
R512	1-249-423-11	CARBON	3.3K 5% 1/4W	R578	1-216-449-11	METAL OXIDE	56 5% 2W F
R513	1-249-425-11	CARBON	4.7K 5% 1/4W	R579	1-249-441-11	CARBON	100K 5% 1/4W
R514	1-249-438-11	CARBON	56K 5% 1/4W	R580	1-249-441-11	CARBON	100K 5% 1/4W
R515	1-249-433-11	CARBON	22K 5% 1/4W	R583	1-249-441-11	CARBON	100K 5% 1/4W
R516	1-249-419-11	CARBON	1.5K 5% 1/4W	R584	1-215-463-00	METAL	56K 1% 1/4W
R517	1-216-361-00	METAL OXIDE	0.22 5% 2W	F			
R518	1-249-437-11	CARBON	47K 5% 1/4W	R587	1-249-441-11	CARBON	100K 5% 1/4W
R519	1-247-755-11	CARBON	1.8K 5% 1/2W	F			
R520	1-249-441-11	CARBON	100K 5% 1/4W	R588	1-249-415-11	CARBON	680 5% 1/4W
R521	1-216-481-11	METAL OXIDE	1.2K 5% 3W	F			
R522	1-215-917-11	METAL OXIDE	1K 5% 3W	F			
R523	1-249-425-11	CARBON	4.7K 5% 1/4W	R589	1-249-437-11	CARBON	47K 5% 1/4W
R524	1-215-445-00	METAL	10K 1% 1/4W	R590	1-249-431-11	CARBON	15K 5% 1/4W
R526	1-249-401-11	CARBON	47 5% 1/4W	R591	1-247-887-00	CARBON	220K 5% 1/4W
R527	1-249-417-11	CARBON	1K 5% 1/4W	R592	1-249-429-11	CARBON	10K 5% 1/4W
R528	1-247-903-00	CARBON	1M 5% 1/4W	R593	1-215-878-00	METAL OXIDE	33K 5% 1W F
R529	1-249-429-11	CARBON	10K 5% 1/4W	R594	1-247-903-00	CARBON	1M 5% 1/4W
R530	1-215-457-00	METAL	33K 1% 1/4W	R595	1-249-440-11	CARBON	82K 5% 1/4W
R531	1-249-432-11	CARBON	18K 5% 1/4W	R596	1-249-432-11	CARBON	18K 5% 1/4W
R532	1-249-437-11	CARBON	47K 5% 1/4W	R597	1-249-437-11	CARBON	47K 5% 1/4W
R533	1-247-887-00	CARBON	220K 5% 1/4W	R599	1-249-425-11	CARBON	4.7K 5% 1/4W
R534	1-215-472-00	METAL	130K 1% 1/4W	R1401	1-215-445-00	METAL	10K 1% 1/4W
R536	1-249-429-11	CARBON	10K 5% 1/4W	R1402	1-215-445-00	METAL	10K 1% 1/4W
R537	1-215-465-00	METAL	68K 1% 1/4W	R1403	1-215-430-00	METAL	2.4K 1% 1/4W
R538	1-247-883-00	CARBON	150K 5% 1/4W	R1404	1-215-430-00	METAL	2.4K 1% 1/4W
R539	1-249-425-11	CARBON	4.7K 5% 1/4W	R1405	1-249-385-11	CARBON	2.2 5% 1/4W F
R540	1-249-437-11	CARBON	47K 5% 1/4W	R1406	1-249-385-11	CARBON	2.2 5% 1/4W F
R541	1-249-397-11	CARBON	22 5% 1/4W	F			
R542	1-215-888-00	METAL OXIDE	220 5% 2W	R1407	1-215-448-00	METAL	13K 1% 1/4W
R543	1-249-411-11	CARBON	330 5% 1/4W	R1408	1-215-448-00	METAL	13K 1% 1/4W
R544	1-249-441-11	CARBON	100K 5% 1/4W	R1409	1-249-433-11	CARBON	22K 5% 1/4W
R546	1-215-441-00	METAL	6.8K 1% 1/4W	R1410	1-249-433-11	CARBON	22K 5% 1/4W
R547	1-249-441-11	CARBON	100K 5% 1/4W	R1418	1-249-427-11	CARBON	6.8K 5% 1/4W
R548	1-215-889-00	METAL OXIDE	330 5% 2W	F			
R549	1-215-881-11	METAL OXIDE	15 5% 2W	F			
				R1419	1-249-427-11	CARBON	6.8K 5% 1/4W
				R1420	1-249-385-11	CARBON	2.2 5% 1/4W F
				R1421	1-249-385-11	CARBON	2.2 5% 1/4W F
				R1423	1-247-883-00	CARBON	150K 5% 1/4W
				R1424	1-249-433-11	CARBON	22K 5% 1/4W
				R1426	1-249-433-11	CARBON	22K 5% 1/4W
				R1427	1-249-421-11	CARBON	2.2K 5% 1/4W
				R1428	1-249-421-11	CARBON	2.2K 5% 1/4W
				R1429	1-249-421-11	CARBON	2.2K 5% 1/4W
				R1431	1-249-405-11	CARBON	100 5% 1/4W
				R1433	1-249-425-11	CARBON	4.7K 5% 1/4W

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

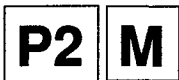
Les composants identifiés par une trame et une marque **Δ** sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**A P2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1434	1-249-423-11	CARBON	3.3K 5% 1/4W	C3015	1-130-483-00	MYLAR	0.01MF 5% 50V
R1439	1-247-883-00	CARBON	150K 5% 1/4W	C3016	1-126-177-11	ELECT	100MF 20% 6.3V
R1501	1-215-449-00	METAL	15K 1% 1/4W	C3017	1-126-301-11	ELECT	1MF 20% 50V
R1502	1-215-433-00	METAL	3.3K 1% 1/4W	C3018	1-130-477-00	MYLAR	0.0033MF 5% 50V
R1503	1-249-425-11	CARBON	4.7K 5% 1/4W	C3019	1-163-127-00	CERAMIC CHIP	270PF 5% 50V
R1505	1-249-433-11	CARBON	22K 5% 1/4W	C3020	1-163-121-00	CERAMIC CHIP	150PF 5% 50V
R1506	1-218-642-91	METAL OXIDE	100K 5% 1W F	C3021	1-163-101-00	CERAMIC CHIP	22PF 5% 50V
R1507	1-249-436-11	CARBON	39K 5% 1/4W	C3022	1-163-115-00	CERAMIC CHIP	82PF 5% 50V
R1508	1-215-453-00	METAL	22K 1% 1/4W	C3023	1-126-301-11	ELECT	1MF 20% 50V
R1509	1-215-455-00	METAL	27K 1% 1/4W	C3024	1-126-177-11	ELECT	100MF 20% 6.3V
R1510	1-249-383-11	CARBON	1.5 5% 1/4W F	C3025	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
R1511	1-215-888-00	METAL OXIDE	220 5% 2W F	C3026	1-163-101-00	CERAMIC CHIP	22PF 5% 50V
R1512	1-216-369-00	METAL OXIDE	1 5% 2W F	C3027	1-124-034-51	ELECT	33MF 20% 16V
R1513	1-249-436-11	CARBON	39K 5% 1/4W	C3028	1-163-085-00	CERAMIC CHIP	2PF 0.25PF 50V
R4001	1-249-421-11	CARBON	2.2K 5% 1/4W	C3029	1-163-097-00	CERAMIC CHIP	15PF 5% 50V
R4002	1-249-385-11	CARBON	2.2 5% 1/4W F	C3030	1-124-034-51	ELECT	33MF 20% 16V
R4003	1-216-361-00	METAL OXIDE	0.22 5% 2W F	C3031	1-126-096-11	ELECT	10MF 20% 25V
R4004	1-216-374-00	METAL OXIDE	2.7 5% 2W F	C3032	1-130-479-00	MYLAR	0.0047MF 5% 50V
R4006	1-216-396-11	METAL OXIDE	3.9 5% 3W F	C3033	1-124-465-00	ELECT	0.47MF 20% 50V
<SPARK GAP>				C3034	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
SG501	1-519-422-11	GAP, SPARK		C3035	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
<TRANSFORMER>				C3036	1-124-034-51	ELECT	33MF 20% 16V
T501 Δ	1-439-524-11	TRANSFORMER ASSY, FLYBACK (NX-3000A2)	(KV-27XBR95S(U/C))	C3037	1-126-163-11	ELECT	4.7MF 20% 50V
Δ	1-453-126-11	TRANSFORMER ASSY, FLYBACK (NX-3000A3)	(KV-32XBR95S(U/C))	C3038	1-124-034-51	ELECT	33MF 20% 16V
T502 Δ	1-460-199-11	TRANSFORMER (HLT)		C3039	1-126-163-11	ELECT	4.7MF 20% 50V
T503	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE		C3040	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
T504	1-424-584-11	TRANSFORMER, DYNAMIC FOCUS		C3041	1-124-034-51	ELECT	33MF 20% 16V
<THERMISTOR>				C3042	1-130-491-00	MYLAR	0.047MF 5% 50V
THP150	1-807-925-11	THERMISTOR		C3043	1-124-465-00	ELECT	0.47MF 20% 50V
<TUNER>				C3044	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
TU101A Δ	1-693-102-21	TUNER (BTF-XA401)		C3045	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
*****				C3046	1-126-177-11	ELECT	100MF 20% 6.3V
*A-1195-053-A	P2 BOARD, COMPLETE			C3047	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
*1-564-520-11	PLUG, CONNECTOR 5P			C3049	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
<CAPACITOR>				C3050	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V
C3001	1-163-111-00	CERAMIC CHIP	56PF 5% 50V	C3051	1-124-034-51	ELECT	33MF 20% 16V
C3002	1-163-127-00	CERAMIC CHIP	270PF 5% 50V	C3052	1-126-101-11	ELECT	100MF 20% 16V
C3003	1-163-127-00	CERAMIC CHIP	270PF 5% 50V	C3054	1-124-261-00	ELECT	10MF 20% 50V
C3004	1-124-034-51	ELECT	33MF 20% 16V	C3057	1-124-478-11	ELECT	100MF 20% 25V
C3005	1-124-034-51	ELECT	33MF 20% 16V	C3058	1-124-478-11	ELECT	100MF 20% 25V
C3006	1-126-177-11	ELECT	100MF 20% 6.3V	<NETWORK>			
C3007	1-126-177-11	ELECT	100MF 20% 6.3V	CP3001	1-236-176-11	NETWORK, RES, THICK FILM	
C3008	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	CP3002	1-236-176-11	NETWORK, RES, THICK FILM	
C3009	1-163-119-00	CERAMIC CHIP	120PF 5% 50V	CP3003	1-236-176-11	NETWORK, RES, THICK FILM	
C3010	1-163-117-00	CERAMIC CHIP	100PF 5% 50V	<DIODE>			
C3011	1-163-119-00	CERAMIC CHIP	120PF 5% 50V	D3002	8-713-300-57	DIODE 1T33	
C3012	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	D3003	8-713-300-57	DIODE 1T33	
C3013	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	D3004	8-719-404-46	DIODE MA110	
C3014	1-163-141-00	CERAMIC CHIP	0.001MF 5% 50V	<FILTER>			
				FL3001	1-236-129-11	ENCAPSULATED COMPONENT	
				FL3002	1-236-129-11	ENCAPSULATED COMPONENT	
				FL3003	1-236-129-11	ENCAPSULATED COMPONENT	
				FL3004	1-236-071-11	ENCAPSULATED COMPONENT	
				FL3005	1-236-071-11	ENCAPSULATED COMPONENT	
				FL3006	1-236-129-11	ENCAPSULATED COMPONENT	
				FL3007	1-236-164-11	ENCAPSULATED COMPONENT	
				FL3008	1-236-163-11	ENCAPSULATED COMPONENT	
				FL3009	1-236-164-11	ENCAPSULATED COMPONENT	

P2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FL3010	1-236-129-11	ENCAPSULATED COMPONENT		R3007	1-216-049-00	METAL GLAZE 1K 5%	1/10W
FL3011	1-236-163-11	ENCAPSULATED COMPONENT		R3008	1-216-049-00	METAL GLAZE 1K 5%	1/10W
FL3012	1-236-163-11	ENCAPSULATED COMPONENT		R3009	1-216-049-00	METAL GLAZE 1K 5%	1/10W
FL3013	1-236-163-11	ENCAPSULATED COMPONENT		R3010	1-216-049-00	METAL GLAZE 1K 5%	1/10W
FL3014	1-236-129-11	ENCAPSULATED COMPONENT		R3011	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<IC>				R3012	1-216-093-00	METAL GLAZE 68K 5%	1/10W
IC3001	8-759-032-11	IC MC74HC04AF		R3013	1-216-097-00	METAL GLAZE 100K 5%	1/10W
IC3002	8-759-032-11	IC MC74HC04AF		R3014	1-216-091-00	METAL GLAZE 56K 5%	1/10W
IC3003	8-752-332-83	IC CXD1220AQ		R3015	1-216-097-00	METAL GLAZE 100K 5%	1/10W
IC3004	8-759-637-41	IC M5M4C500AL-5		R3016	1-216-093-00	METAL GLAZE 68K 5%	1/10W
IC3005	8-759-605-14	IC M52678P		R3017	1-216-077-00	METAL GLAZE 15K 5%	1/10W
IC3006	8-759-637-41	IC M5M4C500AL-5		R3018	1-216-091-00	METAL GLAZE 56K 5%	1/10W
IC3007	8-759-011-65	IC MC74HC4053F		R3019	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC3008	8-759-637-41	IC M5M4C500AL-5		R3020	1-216-017-00	METAL GLAZE 47 5%	1/10W
IC3009	8-759-605-14	IC M52678P		R3021	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
IC3010	8-759-112-06	IC UPC78NO5H		R3022	1-216-049-00	METAL GLAZE 1K 5%	1/10W
IC3011	8-759-049-49	IC UPC7893AHF		R3024	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<JACK>				R3025	1-216-033-00	METAL GLAZE 220 5%	1/10W
J3001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P		R3026	1-216-049-00	METAL GLAZE 1K 5%	1/10W
<COIL>				R3027	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
L3001	1-410-470-11	INDUCTOR 10UH		R3028	1-216-033-00	METAL GLAZE 220 5%	1/10W
L3002	1-410-470-11	INDUCTOR 10UH		R3029	1-216-043-00	METAL GLAZE 560 5%	1/10W
L3003	1-410-470-11	INDUCTOR 10UH		R3030	1-216-043-00	METAL GLAZE 560 5%	1/10W
L3004	1-410-470-11	INDUCTOR 10UH		R3031	1-216-043-00	METAL GLAZE 560 5%	1/10W
L3005	1-408-421-00	INDUCTOR 100UH		R3032	1-216-077-00	METAL GLAZE 15K 5%	1/10W
L3006	1-408-421-00	INDUCTOR 100UH		R3033	1-216-041-00	METAL GLAZE 470 5%	1/10W
L3007	1-408-424-00	INDUCTOR 180UH		R3034	1-216-033-00	METAL GLAZE 220 5%	1/10W
L3008	1-408-427-00	INDUCTOR 330UH		R3035	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
<CONNECTOR>				R3036	1-216-049-00	METAL GLAZE 1K 5%	1/10W
P240	*1-564-519-11	PLUG, CONNECTOR 4P		R3037	1-216-047-00	METAL GLAZE 820 5%	1/10W
<TRANSISTOR>				R3038	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
Q3001	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3039	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
Q3002	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3040	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3003	8-729-216-22	TRANSISTOR 2SA1162-G		R3041	1-216-033-00	METAL GLAZE 220 5%	1/10W
Q3004	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3042	1-216-077-00	METAL GLAZE 15K 5%	1/10W
Q3005	8-729-216-22	TRANSISTOR 2SA1162-G		R3043	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q3006	8-729-216-22	TRANSISTOR 2SA1162-G		R3044	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3007	8-729-216-22	TRANSISTOR 2SA1162-G		R3045	1-216-077-00	METAL GLAZE 15K 5%	1/10W
Q3008	8-729-216-22	TRANSISTOR 2SA1162-G		R3046	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
Q3009	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3047	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3010	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3048	1-216-049-00	METAL GLAZE 1K 5%	1/10W
Q3011	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3049	1-216-662-11	METAL CHIP 3K 0.50%	1/10W
Q3012	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3050	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
Q3013	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3051	1-216-089-00	METAL GLAZE 47K 5%	1/10W
Q3014	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3052	1-216-295-00	METAL GLAZE 0 5%	1/10W
Q3015	8-729-920-74	TRANSISTOR 2SC2412K-QR		R3054	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
<RESISTOR>				R3055	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
R3001	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3056	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3002	1-216-097-00	METAL GLAZE 100K 5%	1/10W	R3057	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
R3003	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3058	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3005	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W	R3059	1-216-689-11	METAL GLAZE 39K 5%	1/10W
R3006	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3060	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
				R3061	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
				R3062	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
				R3063	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
				R3064	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
				R3065	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R3066	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R3067	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
				R3068	1-216-071-00	METAL GLAZE 8.2K 5%	1/10W
				R3069	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W
				R3070	1-216-047-00	METAL GLAZE 820 5%	1/10W
				R3071	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W
				R3072	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK
R3073	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R3074	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3080	1-216-358-11	METAL OXIDE 5.6 5%	1W F
<VARIABLE RESISTOR>			
RV3001	1-238-012-11	RES. ADJ. CARBON 1K	
RV3002	1-238-012-11	RES. ADJ. CARBON 1K	
<TRANSFORMER>			
T3001	1-404-607-11	COIL	
T3002	1-404-607-11	COIL	
*****			
*A-1306-417-A M BOARD, COMPLETE			
*****			
<CAPACITOR>			
C001	1-124-261-00	ELECT 10MF 20%	50V
C002	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C003	1-136-161-00	FILM 0.047MF 5%	50V
C004	1-126-301-11	ELECT 1MF 20%	50V
C005	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C014	1-124-910-11	ELECT 47MF 20%	50V
C015	1-124-464-11	ELECT 0.22MF 20%	50V
C017	1-124-589-11	ELECT 47MF 20%	16V
C018	1-163-141-00	CERAMIC CHIP 0.001MF 5%	50V
C019	1-164-695-11	CERAMIC CHIP 0.0022MF 5%	50V
C020	1-163-241-11	CERAMIC CHIP 39PF 5%	50V
C021	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
C029	1-163-115-00	CERAMIC CHIP 82PF 5%	50V
C030	1-163-115-00	CERAMIC CHIP 82PF 5%	50V
C034	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C035	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C036	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C041	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C042	1-163-117-00	CERAMIC CHIP 100PF 5%	50V
C045	1-163-125-00	CERAMIC CHIP 220PF 5%	50V
C047	1-124-261-00	ELECT 10MF 20%	50V
C048	1-124-261-00	ELECT 10MF 20%	50V
C049	1-124-261-00	ELECT 10MF 20%	50V
C055	1-163-809-11	CERAMIC CHIP 0.047MF 10%	25V
C064	1-163-121-00	CERAMIC CHIP 150PF 5%	50V
C065	1-124-257-00	ELECT 2.2MF 20%	50V
<DIODE>			
D001	8-719-404-46	DIODE MA110	
D002	8-719-404-46	DIODE MA110	
D003	8-719-404-46	DIODE MA110	
D004	8-719-404-46	DIODE MA110	
D005	8-719-404-46	DIODE MA110	
D006	8-719-404-46	DIODE MA110	
D007	8-719-404-46	DIODE MA110	
D008	8-719-404-46	DIODE MA110	
D009	8-719-404-46	DIODE MA110	
D010	8-713-300-57	DIODE 1T33	
D011	8-719-404-46	DIODE MA110	
D012	8-719-404-46	DIODE MA110	
D015	8-719-404-46	DIODE MA110	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<IC>			
IC001	8-759-095-47	IC TMC73C247-08	
IC002	8-759-403-44	IC MN1280-S	
<COIL>			
L001	1-408-409-00	INDUCTOR 10UH	
L002	1-410-476-11	INDUCTOR 33UH	
<CONNECTOR>			
M001	*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P	
M39	*1-564-521-11	PLUG, CONNECTOR 6P	
M45	*1-564-523-11	PLUG, CONNECTOR 8P	
<TRANSISTOR>			
Q001	8-729-216-22	TRANSISTOR 2SA1162-G	
Q002	8-729-216-22	TRANSISTOR 2SA1162-G	
Q003	8-729-216-22	TRANSISTOR 2SA1162-G	
Q004	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q005	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q006	8-729-216-22	TRANSISTOR 2SA1162-G	
Q007	8-729-216-22	TRANSISTOR 2SA1162-G	
Q008	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q009	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q010	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q011	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q012	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q013	8-729-216-22	TRANSISTOR 2SA1162-G	
Q014	8-729-920-74	TRANSISTOR 2SC2412K-QR	
<RESISTOR>			
R001	1-216-045-00	METAL GLAZE 680 5%	1/10W
R002	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R003	1-216-121-00	METAL GLAZE 1M 5%	1/10W
R004	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R005	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R006	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R007	1-216-027-00	METAL GLAZE 120 5%	1/10W
R008	1-216-041-00	METAL GLAZE 470 5%	1/10W
R009	1-216-027-00	METAL GLAZE 120 5%	1/10W
R011	1-216-033-00	METAL GLAZE 220 5%	1/10W
R012	1-216-033-00	METAL GLAZE 220 5%	1/10W
R013	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R014	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R015	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R016	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R017	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R018	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R019	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R020	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R021	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R022	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R023	1-216-093-00	METAL GLAZE 68K 5%	1/10W
R024	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R025	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R026	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R027	1-216-041-00	METAL GLAZE 470 5%	1/10W
R028	1-216-023-00	METAL GLAZE 82 5%	1/10W
R029	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R030	1-216-097-00	METAL GLAZE 100K 5%	1/10W
R031	1-216-089-00	METAL GLAZE 47K 5%	1/10W



E1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C356	1-163-017-00	CERAMIC CHIP 0.0047MF	10% 50V				
C357	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	L301	1-410-064-11	INDUCTOR 2.7MMH	
C358	1-124-767-00	ELECT 2.2MF	20% 50V	L307	1-410-944-31	INDUCTOR CHIP 15UH	
C360	1-137-491-11	FILM CHIP 0.1MF	5% 25V	L308	1-410-946-31	INDUCTOR CHIP 22UH	
C361	1-126-301-11	ELECT 1MF	20% 50V				
C362	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V			<TRANSISTOR>	
C363	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q301	8-729-925-79	TRANSISTOR 1MX3	
C364	1-126-301-11	ELECT 1MF	20% 50V	Q302	8-729-925-79	TRANSISTOR 1MX3	
C365	1-164-343-11	CERAMIC CHIP 0.056MF	10% 25V	Q303	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C366	1-124-257-00	ELECT 2.2MF	20% 50V	Q304	8-729-907-46	TRANSISTOR 1MZ1	
C367	1-126-157-11	ELECT 10MF	20% 16V	Q305	8-729-925-79	TRANSISTOR 1MX3	
C368	1-124-234-00	ELECT 22MF	20% 16V	Q306	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C369	1-163-001-11	CERAMIC CHIP 220PF	10% 50V	Q307	8-729-903-10	TRANSISTOR FMW1	
C370	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q309	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C371	1-124-126-00	ELECT 47MF	20% 16V	Q310	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C372	1-124-589-11	ELECT 47MF	20% 16V	Q311	8-729-920-39	TRANSISTOR 1MT1US	
C373	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q312	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C378	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	Q314	8-729-920-39	TRANSISTOR 1MT1US	
C379	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V	Q315	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C380	1-163-137-00	CERAMIC CHIP 680PF	5% 50V	Q316	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C381	1-163-101-00	CERAMIC CHIP 22PF	5% 50V	Q317	8-729-216-22	TRANSISTOR 2SA1162-G	
C382	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	Q321	8-729-925-79	TRANSISTOR 1MX3	
C383	1-164-004-11	CERAMIC CHIP 0.1MF	10% 25V	Q322	8-729-216-22	TRANSISTOR 2SA1162-G	
C384	1-163-095-00	CERAMIC CHIP 12PF	5% 50V	Q323	8-729-920-74	TRANSISTOR 2SC2412K-QR	
		<DIODE>		Q324	8-729-216-22	TRANSISTOR 2SA1162-G	
D301	8-719-404-46	DIODE MA110		Q325	8-729-216-22	TRANSISTOR 2SA1162-G	
D302	8-719-404-46	DIODE MA110		Q326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D303	8-719-404-46	DIODE MA110		Q327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D304	8-719-404-46	DIODE MA110		Q328	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D305	8-719-404-46	DIODE MA110		Q329	8-729-925-79	TRANSISTOR 1MX3	
D306	8-719-158-15	DIODE RD5.6S-B		Q330	8-729-925-79	TRANSISTOR 1MX3	
D307	8-719-404-46	DIODE MA110		Q333	8-729-925-79	TRANSISTOR 1MX3	
D310	8-719-158-15	DIODE RD5.6S-B		Q334	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D312	8-719-404-46	DIODE MA110		Q335	8-729-907-46	TRANSISTOR 1MZ1	
D313	8-719-404-46	DIODE MA110		Q340	8-729-920-74	TRANSISTOR 2SC2412K-QR	
D314	8-719-404-46	DIODE MA110		Q342	8-729-925-79	TRANSISTOR 1MX3	
D315	8-719-404-46	DIODE MA110		Q344	8-729-216-22	TRANSISTOR 2SA1162-G	
D316	8-719-404-46	DIODE MA110				<RESISTOR>	
D317	8-719-404-46	DIODE MA110		R301	1-216-025-00	METAL GLAZE 100 5%	1/10W
D318	8-719-404-46	DIODE MA110		R302	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
D319	8-719-404-46	DIODE MA110		R303	1-216-079-00	METAL GLAZE 18K 5%	1/10W
D320	8-719-404-46	DIODE MA110		R304	1-216-081-00	METAL GLAZE 22K 5%	1/10W
D321	8-719-400-94	DIODE MA3130		R305	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
		<DELAY LINE>		R306	1-216-081-00	METAL GLAZE 22K 5%	1/10W
DL302	1-415-817-11	DELAY LINE		R307	1-216-089-00	METAL GLAZE 47K 5%	1/10W
		<CONNECTOR>		R308	1-216-037-00	METAL GLAZE 330 5%	1/10W
E1-001*1-573-965-11		PIN, CONNECTOR (PC BOARD) 50P		R309	1-216-073-00	METAL GLAZE 10K 5%	1/10W
E1-24 *1-564-523-11		PLUG, CONNECTOR 8P		R310	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
E1-25 *1-564-521-11		PLUG, CONNECTOR 6P		R312	1-216-043-00	METAL GLAZE 560 5%	1/10W
E1-26 *1-564-522-11		PLUG, CONNECTOR 7P		R313	1-216-035-00	METAL GLAZE 270 5%	1/10W
		<IC>		R314	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W
IC301	8-752-058-68	IC CXA1315M		R316	1-216-035-00	METAL GLAZE 270 5%	1/10W
IC302	8-752-059-67	IC CXA1465AS		R317	1-216-121-00	METAL GLAZE 1M 5%	1/10W
IC303	8-759-106-02	IC UPC4570G2		R320	1-216-039-00	METAL GLAZE 390 5%	1/10W
		<COIL>		R325	1-216-033-00	METAL GLAZE 220 5%	1/10W
				R326	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
				R331	1-216-017-00	METAL GLAZE 47 5%	1/10W
				R332	1-216-657-11	METAL CHIP 1.8K 0.50%	1/10W
				R333	1-216-051-00	METAL GLAZE 1.2K 5%	1/10W
				R336	1-216-047-00	METAL GLAZE 820 5%	1/10W
				R338	1-216-043-00	METAL GLAZE 560 5%	1/10W

**E1**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R339	1-216-047-00	METAL GLAZE	820 5% 1/10W	R1306	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R340	1-216-651-11	METAL CHIP	1K 0.50% 1/10W	R1307	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R341	1-216-043-00	METAL GLAZE	560 5% 1/10W	R1308	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R343	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1309	1-216-025-00	METAL GLAZE	100 5% 1/10W
R344	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1310	1-216-045-00	METAL GLAZE	680 5% 1/10W
R345	1-216-292-11	METAL GLAZE	8.2M 5% 1/8W	R1311	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R346	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1312	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R347	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1313	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R348	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1314	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R349	1-216-295-00	METAL GLAZE	0 5% 1/10W	R1315	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R350	1-216-089-00	METAL GLAZE	47K 5% 1/10W	R1316	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R351	1-216-674-11	METAL CHIP	9.1K 0.50% 1/10W	R1317	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R352	1-216-011-00	METAL GLAZE	27 5% 1/10W	R1318	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R353	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1319	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R354	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1320	1-216-063-00	METAL GLAZE	3.9K 5% 1/10W
R355	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1321	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R356	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1322	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R357	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1323	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R358	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1324	1-216-045-00	METAL GLAZE	680 5% 1/10W
R359	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1325	1-216-025-00	METAL GLAZE	100 5% 1/10W
R360	1-216-119-00	METAL GLAZE	820K 5% 1/10W	R1326	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R361	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1327	1-216-033-00	METAL GLAZE	220 5% 1/10W
R362	1-216-079-00	METAL GLAZE	18K 5% 1/10W	R1328	1-216-033-00	METAL GLAZE	220 5% 1/10W
R363	1-216-295-00	METAL GLAZE	0 5% 1/10W	R1329	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R364	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1330	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R365	1-216-025-00	METAL GLAZE	100 5% 1/10W	R1331	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R366	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1332	1-216-093-00	METAL GLAZE	68K 5% 1/10W
R367	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1333	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R368	1-216-001-00	METAL GLAZE	10 5% 1/10W	R1334	1-216-097-00	METAL GLAZE	100K 5% 1/10W
R369	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1335	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R370	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1336	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R371	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1337	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W
R372	1-216-031-00	METAL GLAZE	180 5% 1/10W	R1338	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R373	1-216-671-11	METAL CHIP	6.8K 0.50% 1/10W	R1339	1-216-089-00	METAL GLAZE	47K 5% 1/10W
R374	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1340	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R375	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1342	1-216-033-00	METAL GLAZE	220 5% 1/10W
R376	1-216-037-00	METAL GLAZE	330 5% 1/10W	R1343	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R377	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1344	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R378	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1345	1-216-101-00	METAL GLAZE	150K 5% 1/10W
R379	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1346	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R380	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1347	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R381	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1348	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R382	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1349	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R383	1-216-653-11	METAL CHIP	1.2K 0.50% 1/10W	R1350	1-216-091-00	METAL GLAZE	56K 5% 1/10W
R384	1-216-041-00	METAL GLAZE	470 5% 1/10W	R1351	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R385	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1352	1-216-039-00	METAL GLAZE	390 5% 1/10W
R386	1-216-687-11	METAL CHIP	33K 0.50% 1/10W	R1353	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R387	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1354	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R388	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1355	1-216-017-00	METAL GLAZE	47 5% 1/10W
R389	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1356	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R390	1-216-033-00	METAL GLAZE	220 5% 1/10W	R1357	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R391	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1358	1-216-033-00	METAL GLAZE	220 5% 1/10W
R393	1-216-051-00	METAL GLAZE	1.2K 5% 1/10W	R1362	1-216-105-00	METAL GLAZE	220K 5% 1/10W
R394	1-216-109-00	METAL GLAZE	330K 5% 1/10W	R1363	1-216-041-00	METAL GLAZE	470 5% 1/10W
R395	1-216-071-00	METAL GLAZE	8.2K 5% 1/10W	R1364	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R396	1-216-105-00	METAL GLAZE	220K 5% 1/10W	R1373	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R397	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1374	1-216-025-00	METAL GLAZE	100 5% 1/10W
R398	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1379	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R399	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R1380	1-216-075-00	METAL GLAZE	12K 5% 1/10W
R1301	1-216-049-00	METAL GLAZE	1K 5% 1/10W	R1381	1-216-041-00	METAL GLAZE	470 5% 1/10W
R1302	1-216-045-00	METAL GLAZE	680 5% 1/10W	R1382	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R1303	1-216-085-00	METAL GLAZE	33K 5% 1/10W	R1383	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R1304	1-216-081-00	METAL GLAZE	22K 5% 1/10W	R1384	1-216-049-00	METAL GLAZE	1K 5% 1/10W
R1305	1-216-025-00	METAL GLAZE	100 5% 1/10W				

E1 E2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1385	1-216-037-00	METAL GLAZE	330 5% 1/10W	C2360	1-163-109-00	CERAMIC CHIP 47PF	5% 50V
R1386	1-216-037-00	METAL GLAZE	330 5% 1/10W			<DIODE>	
R1387	1-216-045-00	METAL GLAZE	680 5% 1/10W	D2301	8-719-018-27	DIODE MA5091	
R1388	1-216-001-00	METAL GLAZE	10 5% 1/10W	D2302	8-719-018-27	DIODE MA5091	
R1389	1-216-097-00	METAL GLAZE	100K 5% 1/10W	D2303	8-719-018-27	DIODE MA5091	
R1390	1-216-097-00	METAL GLAZE	100K 5% 1/10W	D2304	8-719-018-27	DIODE MA5091	
R1391	1-216-097-00	METAL GLAZE	100K 5% 1/10W	D2305	8-719-018-27	DIODE MA5091	
R1392	1-216-081-00	METAL GLAZE	22K 5% 1/10W	D2306	8-719-404-46	DIODE MA110	
R1394	1-216-081-00	METAL GLAZE	22K 5% 1/10W	D2307	8-719-946-98	DIODE FMN1	
R1395	1-216-081-00	METAL GLAZE	22K 5% 1/10W	D2308	8-719-946-98	DIODE FMN1	
R1396	1-216-121-00	METAL GLAZE	1M 5% 1/10W	D2309	8-719-404-46	DIODE MA110	
R1399	1-216-065-00	METAL GLAZE	4.7K 5% 1/10W	D2312	8-719-404-46	DIODE MA110	
R5301	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	D2313	8-719-404-46	DIODE MA110	
R5302	1-216-073-00	METAL GLAZE	10K 5% 1/10W	D2314	8-713-300-57	DIODE 1T33	
R5303	1-216-073-00	METAL GLAZE	10K 5% 1/10W	D2317	8-719-404-46	DIODE MA110	
R5304	1-216-085-00	METAL GLAZE	33K 5% 1/10W			<CONNECTOR>	
R5305	1-216-085-00	METAL GLAZE	33K 5% 1/10W	E2-002*1-573-965-11	PIN, CONNECTOR (PC BOARD) 50P		
		<CRYSTAL>		E2-25 *1-564-521-11	PLUG, CONNECTOR 6P		
X301	1-567-505-11	OSCILLATOR, CRYSTAL		E2-26 *1-564-522-11	PLUG, CONNECTOR 7P		
		*****		E2-46 *1-564-518-11	PLUG, CONNECTOR 3P		
	*A-1346-060-A	E2 BOARD, COMPLETE	*****			<IC>	
		<CAPACITOR>		IC2301	8-759-066-52	IC PCA8510T/012-T	
C2302	1-163-009-11	CERAMIC CHIP	0.001MF 10% 50V	IC2303	8-759-925-75	IC SN74HC05ANS	
C2303	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	IC2304	8-752-037-15	IC CXA1387S	
C2310	1-163-105-00	CERAMIC CHIP	33PF 5% 50V	IC2306	8-759-011-65	IC MC74HC4053F	
C2313	1-163-133-00	CERAMIC CHIP	470PF 5% 50V	IC2307	8-752-058-68	IC CXA1315M	
C2314	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V			<COIL>	
C2318	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	L2304	1-408-414-00	INDUCTOR 27UH	
C2320	1-124-589-11	ELECT	47MF 20% 16V			<TRANSISTOR>	
C2321	1-163-017-00	CERAMIC CHIP	0.0047MF 10% 50V	Q2301	8-729-903-10	TRANSISTOR FMW1	
C2322	1-124-234-00	ELECT	22MF 20% 16V	Q2303	8-729-920-39	TRANSISTOR IMT1US	
C2323	1-124-234-00	ELECT	22MF 20% 16V	Q2304	8-729-925-79	TRANSISTOR IMX3	
C2324	1-124-234-00	ELECT	22MF 20% 16V	Q2305	8-729-903-10	TRANSISTOR FMW1	
C2325	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2306	8-729-920-39	TRANSISTOR IMT1US	
C2326	1-124-589-11	ELECT	47MF 20% 16V	Q2307	8-729-920-39	TRANSISTOR IMT1US	
C2327	1-164-505-11	CERAMIC CHIP	2.2MF 16V	Q2308	8-729-920-39	TRANSISTOR IMT1US	
C2328	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2309	8-729-903-10	TRANSISTOR FMW1	
C2329	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2310	8-729-920-39	TRANSISTOR IMT1US	
C2331	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2311	8-729-903-10	TRANSISTOR FMW1	
C2332	1-124-234-00	ELECT	22MF 20% 16V	Q2312	8-729-920-39	TRANSISTOR IMT1US	
C2333	1-124-234-00	ELECT	22MF 20% 16V	Q2313	8-729-903-10	TRANSISTOR FMW1	
C2334	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2314	8-729-920-39	TRANSISTOR IMT1US	
C2335	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2315	8-729-903-10	TRANSISTOR FMW1	
C2336	1-126-163-11	ELECT	4.7MF 20% 16V	Q2317	8-729-216-22	TRANSISTOR 2SA1162-G	
C2337	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2318	8-729-216-22	TRANSISTOR 2SA1162-G	
C2338	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2319	8-729-216-22	TRANSISTOR 2SA1162-G	
C2340	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	Q2320	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2345	1-164-505-11	CERAMIC CHIP	2.2MF 16V	Q2321	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2346	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2322	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2347	1-163-367-11	CERAMIC CHIP	39PF 5% 50V	Q2324	8-729-216-22	TRANSISTOR 2SA1162-G	
C2349	1-164-505-11	CERAMIC CHIP	2.2MF 16V	Q2326	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2350	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V	Q2327	8-729-920-74	TRANSISTOR 2SC2412K-QR	
C2351	1-164-505-11	CERAMIC CHIP	2.2MF 16V	Q2330	8-729-903-10	TRANSISTOR FMW1	
C2352	1-164-505-11	CERAMIC CHIP	2.2MF 16V	Q2337	8-729-925-79	TRANSISTOR IMX3	
C2353	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C2354	1-164-232-11	CERAMIC CHIP	0.01MF 10% 50V				
C2357	1-126-301-11	ELECT	1MF 20% 50V				



**E2**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q2338	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2361	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
Q2339	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2362	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
Q2340	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2363	1-216-041-00	METAL GLAZE 470 5%	1/10W
Q2341	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2364	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
Q2342	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2365	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W
Q2345	8-729-920-74	TRANSISTOR 2SC2412K-QR		R2366	1-216-081-00	METAL GLAZE 22K 5%	1/10W
		<RESISTOR>		R2367	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2302	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2368	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2303	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2371	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R2304	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2374	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W
R2305	1-216-033-00	METAL GLAZE 220 5%	1/10W	R2375	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2306	1-216-045-00	METAL GLAZE 680 5%	1/10W	R2376	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2307	1-216-045-00	METAL GLAZE 680 5%	1/10W	R2377	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2308	1-216-045-00	METAL GLAZE 680 5%	1/10W	R2378	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2309	1-216-041-00	METAL GLAZE 470 5%	1/10W	R2379	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2310	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2380	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2311	1-216-025-00	METAL GLAZE 100 5%	1/10W	R2381	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2312	1-216-043-00	METAL GLAZE 560 5%	1/10W	R2382	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2313	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2384	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2314	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R2385	1-216-075-00	METAL GLAZE 12K 5%	1/10W
R2315	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R2386	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2317	1-216-041-00	METAL GLAZE 470 5%	1/10W	R2387	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2318	1-216-055-00	METAL GLAZE 1.8K 5%	1/10W	R2388	1-216-017-00	METAL GLAZE 47 5%	1/10W
R2319	1-216-079-00	METAL GLAZE 18K 5%	1/10W	R2390	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2320	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R2393	1-216-017-00	METAL GLAZE 47 5%	1/10W
R2321	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W	R2394	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2322	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2395	1-216-001-00	METAL GLAZE 10 5%	1/10W
R2323	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	R2397	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2324	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R2399	1-216-001-00	METAL GLAZE 10 5%	1/10W
R2325	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3301	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2326	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R3302	1-216-001-00	METAL GLAZE 10 5%	1/10W
R2327	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W	R3303	1-216-069-00	METAL GLAZE 6.8K 5%	1/10W
R2328	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3304	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R2329	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3306	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R2330	1-216-061-00	METAL GLAZE 3.3K 5%	1/10W	R3307	1-216-085-00	METAL GLAZE 33K 5%	1/10W
R2331	1-216-063-00	METAL GLAZE 3.9K 5%	1/10W	R3308	1-216-043-00	METAL GLAZE 560 5%	1/10W
R2332	1-216-025-00	METAL GLAZE 100 5%	1/10W	R3309	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2333	1-216-067-00	METAL GLAZE 5.6K 5%	1/10W	R3310	1-216-001-00	METAL GLAZE 10 5%	1/10W
R2334	1-216-295-00	METAL GLAZE 0 5%	1/10W	R3311	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2335	1-216-295-00	METAL GLAZE 0 5%	1/10W	R3312	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2336	1-216-295-00	METAL GLAZE 0 5%	1/10W	R3313	1-216-083-00	METAL GLAZE 27K 5%	1/10W
R2337	1-216-033-00	METAL GLAZE 220 5%	1/10W	R3314	1-216-689-11	METAL GLAZE 39K 5%	1/10W
R2338	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R3315	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R2339	1-216-081-00	METAL GLAZE 22K 5%	1/10W	R3316	1-216-077-00	METAL GLAZE 15K 5%	1/10W
R2340	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3318	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R2341	1-216-041-00	METAL GLAZE 470 5%	1/10W	R3319	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2342	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3320	1-216-017-00	METAL GLAZE 47 5%	1/10W
R2343	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3321	1-216-079-00	METAL GLAZE 18K 5%	1/10W
R2344	1-216-033-00	METAL GLAZE 220 5%	1/10W	R3322	1-216-091-00	METAL GLAZE 56K 5%	1/10W
R2345	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3324	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2346	1-216-049-00	METAL GLAZE 1K 5%	1/10W	R3325	1-216-025-00	METAL GLAZE 100 5%	1/10W
R2347	1-216-089-00	METAL GLAZE 47K 5%	1/10W	R3328	1-216-001-00	METAL GLAZE 10 5%	1/10W
R2350	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3330	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2351	1-216-033-00	METAL GLAZE 220 5%	1/10W	R3331	1-216-033-00	METAL GLAZE 220 5%	1/10W
R2352	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3332	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2353	1-216-073-00	METAL GLAZE 10K 5%	1/10W	R3339	1-216-081-00	METAL GLAZE 22K 5%	1/10W
R2354	1-216-178-00	METAL GLAZE 150 5%	1/8W	R3340	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R2355	1-216-178-00	METAL GLAZE 150 5%	1/8W	R3341	1-216-677-11	METAL CHIP 12K 0.50%	1/10W
R2356	1-216-677-11	METAL CHIP 12K 0.50%	1/10W	R3342	1-216-670-11	METAL CHIP 6.2K 0.50%	1/10W
R2357	1-216-670-11	METAL CHIP 6.2K 0.50%	1/10W	R3343	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2359	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	R3344	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R2360	1-216-053-00	METAL GLAZE 1.5K 5%	1/10W	R3349	1-216-073-00	METAL GLAZE 10K 5%	1/10W
				R3350	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W

E2 Y2

REF. NO.	PART NO.	DESCRIPTION	REMARK
R3351	1-216-065-00	METAL GLAZE 4.7K 5%	1/10W
R3353	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3354	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3360	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3361	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R3362	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3367	1-216-073-00	METAL GLAZE 10K 5%	1/10W
R3368	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R3369	1-216-001-00	METAL GLAZE 10 5%	1/10W
R3370	1-216-001-00	METAL GLAZE 10 5%	1/10W
R3371	1-216-001-00	METAL GLAZE 10 5%	1/10W
R3374	1-216-059-00	METAL GLAZE 2.7K 5%	1/10W
R3387	1-216-178-00	METAL GLAZE 150 5%	1/8W
R3388	1-216-178-00	METAL GLAZE 150 5%	1/8W
R3392	1-216-089-00	METAL GLAZE 47K 5%	1/10W
R3401	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
R7312	1-216-049-00	METAL GLAZE 1K 5%	1/10W
R7313	1-216-047-00	METAL GLAZE 820 5%	1/10W
R7314	1-216-057-00	METAL GLAZE 2.2K 5%	1/10W
<CRYSTAL>			
X2301	1-577-071-11	VIBRATOR, CERAMIC	
*****			
*A-1394-366-A Y2 BOARD, COMPLETE			
*****			
<CAPACITOR>			
C401	1-124-234-00	ELECT 22MF	20% 16V
C424	1-126-301-11	ELECT 1MF	20% 50V
C425	1-126-301-11	ELECT 1MF	20% 50V
C426	1-126-301-11	ELECT 1MF	20% 50V
C427	1-124-465-00	ELECT 0.47MF	20% 50V
C428	1-126-163-11	ELECT 4.7MF	20% 50V
C429	1-124-478-11	ELECT 100MF	20% 25V
C430	1-124-261-00	ELECT 10MF	20% 50V
C431	1-126-301-11	ELECT 1MF	20% 50V
C432	1-126-301-11	ELECT 1MF	20% 50V
C433	1-131-347-00	TANTALUM 1MF	20% 16V
C434	1-126-301-11	ELECT 1MF	20% 50V
C435	1-130-309-00	FILM 0.033MF	5% 100V
C436	1-126-301-11	ELECT 1MF	20% 50V
C437	1-130-487-00	MYLAR 0.022MF	5% 50V
C438	1-126-301-11	ELECT 1MF	20% 50V
C439	1-124-034-51	ELECT 33MF	20% 16V
C440	1-126-301-11	ELECT 1MF	20% 50V
C441	1-126-301-11	ELECT 1MF	20% 50V
C442	1-124-261-00	ELECT 10MF	20% 50V
C443	1-124-589-11	ELECT 47MF	20% 16V
C444	1-126-163-11	ELECT 4.7MF	20% 50V
C445	1-126-163-11	ELECT 4.7MF	20% 50V
C446	1-124-234-00	ELECT 22MF	20% 16V
C447	1-126-301-11	ELECT 1MF	20% 50V
C448	1-136-170-00	FILM 0.27MF	5% 50V
C449	1-163-009-11	CERAMIC CHIP 0.001MF	10% 50V
C450	1-130-475-00	MYLAR 0.0022MF	5% 50V
C451	1-124-261-00	ELECT 10MF	20% 50V
C452	1-124-261-00	ELECT 10MF	20% 50V
C453	1-130-475-00	MYLAR 0.0022MF	5% 50V
C454	1-131-368-00	TANTALUM 3.3MF	10% 16V
C455	1-131-347-00	TANTALUM 1MF	20% 16V
C456	1-136-171-00	FILM 0.33MF	5% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C457	1-136-175-00	FILM 0.68MF	5% 50V
C458	1-126-101-11	ELECT 100MF	20% 16V
C459	1-126-101-11	ELECT 100MF	20% 16V
C460	1-126-101-11	ELECT 100MF	20% 16V
C461	1-124-499-11	ELECT 1MF	20% 50V
C462	1-124-499-11	ELECT 1MF	20% 50V
C465	1-130-485-00	MYLAR 0.015MF	5% 50V
C466	1-130-485-00	MYLAR 0.015MF	5% 50V
C467	1-136-169-00	FILM 0.22MF	5% 50V
C468	1-136-169-00	FILM 0.22MF	5% 50V
C469	1-126-157-11	ELECT 10MF	20% 16V
C470	1-126-157-11	ELECT 10MF	20% 16V
C471	1-124-589-11	ELECT 47MF	20% 16V
C472	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C473	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C474	1-124-234-00	ELECT 22MF	20% 16V
C475	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C476	1-124-234-00	ELECT 22MF	20% 16V
C477	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C478	1-124-478-11	ELECT 100MF	20% 25V
C479	1-126-163-11	ELECT 4.7MF	20% 50V
C480	1-124-768-11	ELECT 4.7MF	20% 50V
C481	1-124-768-11	ELECT 4.7MF	20% 50V
C482	1-126-163-11	ELECT 4.7MF	20% 50V
C483	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C484	1-163-113-00	CERAMIC CHIP 68PF	5% 50V
C485	1-163-038-00	CERAMIC CHIP 0.1MF	25V
C487	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C488	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
<DIODE>			
D405	8-719-107-13	DIODE RD18M-B1	
D406	8-719-107-13	DIODE RD18M-B1	
D407	8-719-107-13	DIODE RD18M-B1	
D408	8-719-105-83	DIODE RD5.1M-B3	
D409	8-719-981-50	DIODE RB-100A	
D410	8-719-981-50	DIODE RB-100A	
D413	8-719-158-19	DIODE RD6.2S-B	
D414	8-719-158-55	DIODE RD15S-B	
D415	8-719-158-55	DIODE RD15S-B	
<IC>			
IC403	8-759-996-43	IC RC4558PS	
IC404	8-759-067-24	IC 24C04A1/P	
IC406	8-752-037-24	IC CXA1264AS	
IC407	8-759-245-75	IC TA8184P	
IC408	8-752-057-18	IC CXA1315P	
<TRANSISTOR>			
Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q409	8-729-920-74	TRANSISTOR 2SC2412K-QR	
Q410	8-729-920-74	TRANSISTOR 2SC2412K-QR	
<RESISTOR>			
R447	1-216-033-00	METAL GLAZE 220	5% 1/10W
R453	1-216-033-00	METAL GLAZE 220	5% 1/10W
R464	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R465	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R466	1-216-025-00	METAL GLAZE 100	5% 1/10W





**X3 G**

Les composants identifiés par une trame et une marque **Δ** sont critiques pour la sécurité.  
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The components identified by shading and mark **Δ** are critical for safety  
Replace only with part number specified

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2576	1-216-025-00	METAL GLAZE	100 5% 1/10W	C616	1-124-443-00	ELECT	100MF 20% 10V
R2577	1-216-025-00	METAL GLAZE	100 5% 1/10W	C618	1-164-735-11	CAP. CERAMIC	1500PF
R2578	1-216-025-00	METAL GLAZE	100 5% 1/10W	C619	1-164-735-11	CAP. CERAMIC	1500PF
R2579	1-216-025-00	METAL GLAZE	100 5% 1/10W	C620 Δ	1-161-741-51	CERAMIC	0.001MF 10% 400V
R2583	1-216-025-00	METAL GLAZE	100 5% 1/10W	C621 Δ	1-161-741-51	CERAMIC	0.001MF 10% 400V
R2584	1-216-025-00	METAL GLAZE	100 5% 1/10W	C622	1-162-599-12	CERAMIC	0.0047MF 20% 400V
R2585	1-216-025-00	METAL GLAZE	100 5% 1/10W	C623	1-137-493-11	FILM	0.0047MF 5% 630V
R2590	1-216-631-11	METAL CHIP	150 0.50% 1/10W	C624	1-126-301-11	ELECT	1MF 20% 50V
R2591	1-216-631-11	METAL CHIP	150 0.50% 1/10W	C625	1-126-162-11	ELECT	3.3MF 20% 50V
R2592	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C626	1-130-480-00	MYLAR	0.0056MF 5% 50V
R2593	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C651	1-124-960-11	ELECT	470MF 20% 180V
R2594	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C652	1-124-556-11	ELECT	2200MF 20% 16V
R2595	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C653	1-124-913-11	ELECT	470MF 20% 50V
R2596	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C654	1-124-607-11	ELECT	2200MF 20% 50V
R2597	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C655	1-162-117-00	CERAMIC	100PF 10% 500V
R2598	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C656	1-124-119-00	ELECT	330MF 20% 16V
R2599	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C657	1-106-351-00	MYLAR	0.0022MF 200V
R2600	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C658	1-126-157-11	ELECT	10MF 20% 16V
R2601	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C659	1-130-485-00	MYLAR	0.015MF 5% 50V
R2602	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C661	1-124-484-11	ELECT	220MF 20% 35V
R2603	1-216-665-11	METAL CHIP	3.9K 0.50% 1/10W	C662	1-124-484-11	ELECT	220MF 20% 35V
R2605	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	C663	1-126-104-11	ELECT	470MF 20% 35V
R2606	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	C666	1-126-101-11	ELECT	100MF 20% 16V
R2607	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	C667	1-124-443-00	ELECT	100MF 20% 10V
R2608	1-216-679-11	METAL CHIP	15K 0.50% 1/10W	C668	1-124-638-11	ELECT	22MF 20% 6.3V
R2609	1-216-025-00	METAL GLAZE	100 5% 1/10W	C669	1-162-318-11	CERAMIC	0.001MF 10% 500V
R2610	1-216-025-00	METAL GLAZE	100 5% 1/10W	C670	1-162-318-11	CERAMIC	0.001MF 10% 500V
R2611	1-216-025-00	METAL GLAZE	100 5% 1/10W	C672	1-124-484-11	ELECT	220MF 20% 35V
R2612	1-216-025-00	METAL GLAZE	100 5% 1/10W	C677 Δ	1-136-311-51	FILM	0.47MF 20% 125V
				C678	1-124-360-00	ELECT	1000MF 20% 16V
<CRYSTAL>				<DIODE>			
X2501	1-579-692-31	VIBRATOR, CRYSTAL		D601 Δ	8-719-022-99	DIODE D6SB60L	
*****				D602	8-719-510-48	DIODE D1N20R	
*A-1316-128-A	G BOARD, COMPLETE			D603	8-719-510-48	DIODE D1N20R	
*****				D604	8-719-510-48	DIODE D1N20R	
*4-341-751-01	EYELET (EY1~EY5, EY10~EY18, EY24~EY26, EY30~EY32, EY35~EY38, EY40~EY58, EY60~EY62, EY64~EY86, EY89~EY102, EY105~EY116, EY118, EY119, EY128~EY131)			D605	8-719-510-48	DIODE D1N20R	
*4-341-752-01	EYELET (EY8, EY9, EY19~EY23, EY27~EY29, EY33, EY34, EY39, EY59, EY63, EY87, EY88, EY103, EY117, EY120~EY127, EY132)			D606	8-719-911-19	DIODE 1SS119	
4-382-854-11	SCREW (M3X10), P, SW (+)			D607	8-719-510-48	DIODE D1N20R	
<CAPACITOR>				D608	8-719-510-48	DIODE D1N20R	
C601 Δ	1-136-311-51	FILM	0.47MF 20% 125V	D609	8-719-510-48	DIODE D1N20R	
C602 Δ	1-162-599-81	CERAMIC	0.0047MF 20% 400V	D610	8-719-510-48	DIODE D1N20R	
C603 Δ	1-162-599-81	CERAMIC	0.0047MF 20% 400V	D611	8-719-510-48	DIODE D1N20R	
C604 Δ	1-104-346-11	ELECT	1000MF 200V	D612	8-719-510-48	DIODE D1N20R	
C605	1-162-599-12	CERAMIC	0.0047MF 20% 400V	D613	8-719-109-93	DIODE RD6.2ES-B2	
C606	1-137-580-11	FILM	0.082MF 5% 100V	D651	8-719-027-43	DIODE S2L20UF	
C607	1-137-580-11	FILM	0.082MF 5% 100V	D652	8-719-027-43	DIODE S2L20UF	
C608	1-137-580-11	FILM	0.082MF 5% 100V	D653	8-719-027-43	DIODE S2L20UF	
C609	1-137-580-11	FILM	0.082MF 5% 100V	D654	8-719-027-43	DIODE S2L20UF	
C610	1-137-588-11	FILM	0.0047MF 5% 800V	D655	8-719-510-13	DIODE D1OSC4MR	
C611	1-137-592-11	FILM	0.01MF 5% 800V	D656	8-719-022-97	DIODE D2S4MF	
C612	1-164-625-11	CERAMIC	680PF 10% 500V	D657	8-719-510-02	DIODE D1NS4	
C613	1-164-625-11	CERAMIC	680PF 10% 500V	D658	8-719-027-22	DIODE D3S6M-F	
C614	1-164-625-11	CERAMIC	680PF 10% 500V	D659	8-719-027-22	DIODE D3S6M-F	
C615	1-164-625-11	CERAMIC	680PF 10% 500V	D660	8-719-027-22	DIODE D3S6M-F	
				D661	8-719-027-22	DIODE D3S6M-F	
				D663	8-719-510-02	DIODE D1NS4	
				D665	8-719-510-02	DIODE D1NS4	
				D666	8-719-109-85	DIODE RD5.1ES-B2	
				D667	8-719-911-19	DIODE 1SS119	
				D668	8-719-911-19	DIODE 1SS119	
				D669	8-719-109-54	DIODE RD2.2ES-B2	
				D670	8-719-911-19	DIODE 1SS119	





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specified

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSFORMER>				D714	8-719-911-19	DIODE 1SS119	
T601	Δ 1-424-585-11	TRANSFORMER, LINE FILTER		<JACK>			
T602	Δ 1-424-585-11	TRANSFORMER, LINE FILTER		J701	1-540-223-11	SOCKET, PICTURE TUBE	
T603	1-450-300-31	TRANSFORMER, CONVERTER DRIVE		<COIL>			
T604	Δ 1-450-958-11	TRANSFORMER, CONVERTER (PRT)		L701	1-410-671-31	INDUCTOR 47UH	
T605	1-424-663-11	TRANSFORMER, FERRITE (SBT)		L702	1-410-645-31	INDUCTOR 100UH	
<THERMISTOR>				L703	1-410-677-31	INDUCTOR 180UH	
THP601	Δ 1-809-539-11	THERMISTOR, POSITIVE		L706	1-410-677-31	INDUCTOR 180UH	
<VARISTOR>				<TRANSISTOR>			
VDR601	Δ 1-809-786-11	VARISTOR		Q701	8-729-326-11	TRANSISTOR 2SC2611	
VDR602	1-809-264-81	VARISTOR		Q702	8-729-119-78	TRANSISTOR 2SC2785-HFE	
*****				Q703	8-729-200-17	TRANSISTOR 2SA1091-0	
*A-1331-209-A		C BOARD, COMPLETE (KV-27XBR95S(U/C))		Q704	8-729-326-11	TRANSISTOR 2SC2611	
		*****		Q705	8-729-119-78	TRANSISTOR 2SC2785-HFE	
*A-1331-244-A		C BOARD, COMPLETE (KV-32XBR95S(U/C))		Q706	8-729-200-17	TRANSISTOR 2SA1091-0	
		*****		Q707	8-729-200-17	TRANSISTOR 2SA1091-0	
*4-341-751-01		EYELET (EY51~EY53, EY55, EY57, EY58, EY66)		Q708	8-729-326-11	TRANSISTOR 2SC2611	
*4-341-752-01		EYELET (EY50, EY56, EY59~EY61, EY63~EY65, EY67, EY68)		Q709	8-729-119-78	TRANSISTOR 2SC2785-HFE	
<CONNECTOR>				Q710	8-729-255-12	TRANSISTOR 2SC2551-0	
C2	*1-573-964-11	PIN, CONNECTOR (PC BOARD) 6P		Q711	8-729-119-76	TRANSISTOR 2SA1175-HFE	
C24	*1-564-511-51	PLUG, CONNECTOR 8P		Q712	8-729-255-12	TRANSISTOR 2SC2551-0	
C42	*1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P		Q714	8-729-200-17	TRANSISTOR 2SA1091-0	
<CAPACITOR>				Q715	8-729-200-17	TRANSISTOR 2SA1091-0	
C701	1-162-116-00	CERAMIC 680PF 10% 2KV		Q716	8-729-200-17	TRANSISTOR 2SA1091-0	
C702	1-137-490-11	FILM 0.01MF 10% 1KV		<RESISTOR>			
C704	1-123-946-00	ELECT 4.7MF 20% 250V		R702	1-202-883-11	SOLID 680K 20% 1/2W	
C705	1-106-375-12	MYLAR 0.022MF 200V		R703	1-202-838-00	SOLID 100K 20% 1/2W	
C706	1-106-375-12	MYLAR 0.022MF 200V		R705	1-249-433-11	CARBON 22K 5% 1/4W	
C707	1-164-083-11	CERAMIC 680PF 10% 50V		R706	1-202-815-11	SOLID 47K 20% 1/2W	
C708	1-164-083-11	CERAMIC 680PF 10% 50V		R707	1-202-842-11	SOLID 220K 20% 1/2W	
C709	1-164-083-11	CERAMIC 680PF 10% 50V		R708	1-202-818-00	SOLID 1K 20% 1/2W	
C710	1-164-083-11	CERAMIC 680PF 10% 50V		R709	1-202-818-00	SOLID 1K 20% 1/2W	
C711	1-124-120-11	ELECT 220MF 20% 16V		R710	1-202-818-00	SOLID 1K 20% 1/2W	
C712	1-164-082-11	CERAMIC 560PF 10% 50V		R711	1-249-433-11	CARBON 22K 5% 1/4W	
C713	1-164-083-11	CERAMIC 680PF 10% 50V		R713	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
C715	1-102-129-00	CERAMIC 0.01MF 10% 50V		R715	1-202-549-00	SOLID 100 10% 1/2W	
C718	1-102-129-00	CERAMIC 0.01MF 10% 50V		R716	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
C733	1-102-074-00	CERAMIC 0.001MF 10% 50V		R720	1-216-486-00	METAL OXIDE 8.2K 5% 3W F	
<DIODE>				R722	1-249-433-11	CARBON 22K 5% 1/4W	
D701	8-719-911-19	DIODE 1SS119		R723	1-249-405-11	CARBON 100 5% 1/4W	
D702	8-719-911-19	DIODE 1SS119		R724	1-249-405-11	CARBON 100 5% 1/4W	
D703	8-719-911-19	DIODE 1SS119		R725	1-249-429-11	CARBON 10K 5% 1/4W	
D704	8-719-911-19	DIODE 1SS119		R726	1-249-408-11	CARBON 180 5% 1/4W	
D705	8-719-911-19	DIODE 1SS119		R727	1-249-429-11	CARBON 10K 5% 1/4W	
D706	8-719-911-19	DIODE 1SS119		R728	1-249-408-11	CARBON 180 5% 1/4W	
D707	8-719-911-19	DIODE 1SS119		R729	1-249-405-11	CARBON 100 5% 1/4W	
D708	8-719-911-19	DIODE 1SS119		R730	1-249-408-11	CARBON 180 5% 1/4W	
D709	8-719-911-19	DIODE 1SS119		R731	1-249-409-11	CARBON 220 5% 1/4W F	
D710	8-719-901-83	DIODE 1SS83		R732	1-249-409-11	CARBON 220 5% 1/4W F	
D711	8-719-901-83	DIODE 1SS83		R733	1-249-409-11	CARBON 220 5% 1/4W F	
D712	8-719-901-83	DIODE 1SS83		R735	1-249-418-11	CARBON 1.2K 5% 1/4W	
D713	8-719-901-83	DIODE 1SS83		R737	1-249-418-11	CARBON 1.2K 5% 1/4W	
				R739	1-249-433-11	CARBON 22K 5% 1/4W	
				R740	1-215-902-11	METAL OXIDE 47K 5% 2W F	
				R741	1-249-417-11	CARBON 1K 5% 1/4W F	
				R742	1-249-423-11	CARBON 3.3K 5% 1/4W F	



REF. NO.	PART NO.	DESCRIPTION	REMARK
R743	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R744	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R745	1-249-417-11	CARBON 1K 5% 1/4W F	
R746	1-215-902-11	METAL OXIDE 47K 5% 1W F	
R747	1-249-429-11	CARBON 10K 5% 1/4W F	
R748	1-216-365-00	METAL OXIDE 0.47 5% 2W F	
R749	1-249-437-11	CARBON 47K 5% 1/4W F	
R750	1-249-409-11	CARBON 220 5% 1/4W F	
R751	1-249-395-11	CARBON 15 5% 1/4W	
R752	1-249-393-11	CARBON 10 5% 1/4W	
R753	1-249-390-11	CARBON 5.6 5% 1/4W	
R754	1-249-418-11	CARBON 1.2K 5% 1/4W	
R777	1-249-441-11	CARBON 100K 5% 1/4W	
<VARIABLE RESISTOR>			
RV701	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	
RV702	1-241-714-11	RES, ADJ, METAL FILM 110M (KV-27XBR95S(U/C))	
	1-223-228-11	RES, ADJ, METAL FILM 110M (KV-32XBR95S(U/C))	
*****			
*A-1341-545-A	D BOARD, COMPLETE (KV-27XBR95S(U/C))	*****	
*A-1341-550-A	D BOARD, COMPLETE (KV-32XBR95S(U/C))	*****	
*4-341-751-01	EYELET (EY801~EY804,EY901~EY904)		
*4-341-752-01	EYELET (EY811,EY812)		
4-382-854-11	SCREW (M3X10), P, SW (+)		
<CAPACITOR>			
C801	1-124-589-11	ELECT 47MF 20% 16V	
C802	1-124-589-11	ELECT 47MF 20% 16V	
C804	1-130-483-00	MYLAR 0.01MF 5% 50V	
C805	1-136-165-00	FILM 0.1MF 5% 50V	
C806	1-136-165-00	FILM 0.1MF 5% 50V	
C807	1-124-360-00	ELECT 1000MF 20% 16V	
C809	1-136-104-00	FILM 0.16MF 5% 200V	
C810	1-136-177-00	FILM 1MF 5% 50V	
C811	1-162-318-11	CERAMIC 0.001MF 10% 500V	
C812	1-126-163-11	ELECT 4.7MF 20% 50V	
C813	1-130-491-00	MYLAR 0.047MF 5% 50V	
C814	1-124-261-00	ELECT 10MF 20% 50V	
C815	1-124-261-00	ELECT 10MF 20% 50V	
C816	1-124-234-00	ELECT 22MF 20% 16V	
C817	1-126-163-11	ELECT 4.7MF 20% 50V	
C818	1-124-589-11	ELECT 47MF 20% 16V	
C819	1-136-165-00	FILM 0.1MF 5% 50V	
C820	1-126-103-11	ELECT 470MF 20% 16V	
C901	1-136-173-00	FILM 0.47MF 5% 50V	
C902	1-124-261-00	ELECT 10MF 20% 50V	
C903	1-136-169-00	FILM 0.22MF 5% 50V	
C904	1-130-471-00	MYLAR 0.001MF 5% 50V	
C905	1-124-261-00	ELECT 10MF 20% 50V	
C906	1-124-046-00	ELECT 10MF 20% 160V	
C907	1-124-465-00	ELECT 0.47MF 20% 50V	
C908	1-102-112-00	CERAMIC 330PF 10% 50V	
C910	1-136-103-91	FILM 0.1MF 5% 200V	
C911	1-136-165-00	FILM 0.1MF 5% 50V	
C913	1-124-589-11	ELECT 47MF 20% 16V	
C914	1-106-367-00	MYLAR 0.01MF 10% 100V	
C915	1-126-301-11	ELECT 1MF 20% 50V	

REF. NO.	PART NO.	DESCRIPTION	REMARK
C917	1-130-471-00	MYLAR 0.001MF 5% 50V	
C918	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C920	1-136-601-11	FILM 0.01MF 5% 630V	
C922	1-124-557-11	ELECT 1000MF 20% 25V	
C923	1-130-471-00	MYLAR 0.001MF 5% 50V	
C925	1-124-261-00	ELECT 10MF 20% 50V	
C926	1-136-165-00	FILM 0.1MF 5% 50V	
C927	1-136-171-00	FILM 0.33MF 5% 50V	
C928	1-124-261-00	ELECT 10MF 20% 50V	
C930	1-130-483-00	MYLAR 0.01MF 5% 50V	
C931	1-130-475-00	MYLAR 0.0022MF 10% 50V	
<CONNECTOR>			
D14	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D18	*1-573-299-11	CONNECTOR, BOARD TO BOARD 10P	
D20	*1-564-524-11	PLUG, CONNECTOR 9P	
DY2	*1-508-765-00	PIN, CONNECTOR (5MM PITCH) 3P	
<DIODE>			
D801	8-719-913-44	DIODE ERA82-004	
D802	8-719-911-19	DIODE 1SS119	
D803	8-719-911-19	DIODE 1SS119	
D804	8-719-911-19	DIODE 1SS119	
D805	8-719-801-35	THYRISTOR SHOR3D42	
D806	8-719-980-78	DIODE ERA83-006	
D807	8-719-980-78	DIODE ERA83-006	
D808	8-719-911-19	DIODE 1SS119	
D809	8-719-911-19	DIODE 1SS119	
D810	8-719-911-19	DIODE 1SS119	
D811	8-719-300-33	DIODE RU-3AM	
D812	8-719-911-19	DIODE 1SS119	
D813	8-719-109-88	DIODE RD5.6ES-B1	
D814	8-719-110-13	DIODE RD9.1ES-B2	
D815	8-719-911-19	DIODE 1SS119	
D816	8-719-911-19	DIODE 1SS119	
D901	8-719-911-19	DIODE 1SS119	
D902	8-719-109-96	DIODE RD6.8ES-B1	
D903	8-719-979-85	DIODE EGP20G	
D906	8-719-980-78	DIODE ERA83-006	
D907	8-719-911-19	DIODE 1SS119	
D908	8-719-980-78	DIODE ERA83-006	
D911	8-719-911-19	DIODE 1SS119	
<IC>			
IC801	8-749-920-58	IC SI-3090CA	
IC802	8-752-052-88	IC CXA1526P	
IC803	8-759-135-80	IC UPC358C	
IC901	8-759-135-80	IC UPC358C	
IC903	8-759-987-16	IC LM393P	
<COIL>			
L801	1-459-592-11	COIL (WITH CORE) (PMC)	
L802	1-459-941-12	COIL, CHOKE 3.4MMH	
L901	1-410-093-11	INDUCTOR 33MMH	
L902	1-459-075-00	COIL,DYNAMIC CONVERSION CHOKE	
<TRANSISTOR>			
Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q803	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	







REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C963	1-123-935-00	ELECT	33MF	20%	160V		
C964	1-126-101-11	ELECT	100MF	20%	16V		
C968	1-106-383-00	MYLAR	0.047MF		200V		
C969	1-124-799-11	ELECT	2.2MF	20%	160V		
C970	1-106-391-12	MYLAR	0.1MF	10%	200V		
C971	1-126-157-11	ELECT	10MF	20%	16V		
C972	1-126-541-11	ELECT	330MF	20%	16V		
C973	1-106-383-00	MYLAR	0.047MF		200V		
C974	1-102-959-00	CERAMIC	22PF	5%	50V		
C975	1-126-101-11	ELECT	100MF	20%	16V		
C976	1-126-157-11	ELECT	10MF	20%	16V		
C977	1-102-963-00	CERAMIC	33PF	5%	50V		
C978	1-130-471-00	MYLAR	0.001MF	5%	50V		
C979	1-130-471-00	MYLAR	0.001MF	5%	50V		
C980	1-124-915-11	ELECT	10MF	20%	16V		
<DIODE>							
D961	8-719-911-19	DIODE	1SS119				
D963	8-719-911-19	DIODE	1SS119				
D964	8-719-911-19	DIODE	1SS119				
D965	8-719-911-19	DIODE	1SS119				
D966	8-719-911-19	DIODE	1SS119				
D967	8-719-110-88	DIODE	RD39ES-B2				
D968	8-719-110-88	DIODE	RD39ES-B2				
<COIL>							
L962	1-408-416-00	INDUCTOR	39UH				
<TRANSISTOR>							
Q956	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q961	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q962	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q963	8-729-208-39	TRANSISTOR	2SA1306A-Y				
Q964	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q965	8-729-208-72	TRANSISTOR	2SC3298B-Y				
Q966	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q967	8-729-142-86	TRANSISTOR	2SC3733				
<RESISTOR>							
R951	1-249-434-11	CARBON	27K	5%	1/4W		
R952	1-249-423-11	CARBON	3.3K	5%	1/4W		
R953	1-249-423-11	CARBON	3.3K	5%	1/4W		
R954	1-247-903-00	CARBON	1M	5%	1/4W		
R955	1-249-421-11	CARBON	2.2K	5%	1/4W		
R962	1-249-409-11	CARBON	220	5%	1/4W		
R963	1-249-419-11	CARBON	1.5K	5%	1/4W		
R964	1-247-734-11	CARBON	39	5%	1/2W	F	
R965	1-249-414-11	CARBON	560	5%	1/4W	F	
R966	1-249-418-11	CARBON	1.2K	5%	1/4W		
R968	1-249-418-11	CARBON	1.2K	5%	1/4W		
R969	1-249-384-11	CARBON	1.8	5%	1/4W	F	
R970	1-249-435-11	CARBON	33K	5%	1/4W		
R972	1-249-432-11	CARBON	18K	5%	1/4W		
R974	1-216-476-11	METAL OXIDE	180	5%	3W	F	
R975	1-249-417-11	CARBON	1K	5%	1/4W	F	
R976	1-249-432-11	CARBON	18K	5%	1/4W		
R977	1-249-438-11	CARBON	56K	5%	1/4W		
R978	1-249-430-11	CARBON	12K	5%	1/4W		
R979	1-249-414-11	CARBON	560	5%	1/4W		
R980	1-249-420-11	CARBON	1.8K	5%	1/4W		
R981	1-249-415-11	CARBON	680	5%	1/4W		
R982	1-249-384-11	CARBON	1.8	5%	1/4W	F	
R983	1-249-441-11	CARBON	100K	5%	1/4W		
R984	1-249-405-11	CARBON	100	5%	1/4W		
R985	1-249-400-11	CARBON	39	5%	1/4W	F	
R986	1-249-435-11	CARBON	33K	5%	1/4W		
R987	1-249-428-11	CARBON	8.2K	5%	1/4W		
R988	1-249-418-11	CARBON	1.2K	5%	1/4W		
R989	1-249-413-11	CARBON	470	5%	1/4W		
R990	1-216-451-11	METAL OXIDE	120	5%	2W	F	
R991	1-249-409-11	CARBON	220	5%	1/4W		
<CONNECTOR>							
V20	*1-564-512-11	PLUG, CONNECTOR	9P				
*****							
		*A-1347-068-A	VC BOARD, COMPLETE	(KV-27XBR95S(U/C))			
		*****					
		*A-1347-067-A	VC BOARD, COMPLETE	(KV-32XBR95S(U/C))			
		*****					
		*4-341-751-01	EYELET	(EY1801-EY1804)			
<CAPACITOR>							
C1801	1-124-478-11	ELECT	100MF	20%	25V		
C1802	1-124-478-11	ELECT	100MF	20%	25V		
C1803	1-130-487-00	MYLAR	0.022MF	5%	50V		
C1804	1-102-973-00	CERAMIC	100PF	5%	50V		
C1805	1-130-471-00	FILM	0.001MF	5%	50V		
C1806	1-130-487-00	MYLAR	0.022MF	5%	50V		
C1807	1-130-471-00	MYLAR	0.001MF	5%	50V		
C1808	1-102-228-00	CERAMIC	470PF	10%	500V		
C1809	1-124-798-11	ELECT	1MF	20%	160V		
C1810	1-130-495-00	MYLAR	0.1MF	5%	50V		
C1811	1-124-798-11	ELECT	1MF	20%	160V		
C1812	1-136-104-00	FILM	0.16MF	5%	200V		
	1-136-756-11	FILM	0.24MF	5%	200V	(KV-27XBR95S(U/C))	
						(KV-32XBR95S(U/C))	
C1813	1-129-765-00	FILM	0.047MF	10%	200V	(KV-27XBR95S(U/C))	
<DIODE>							
D1801	8-719-911-19	DIODE	1SS119				
D1802	8-719-911-19	DIODE	1SS119				
D1803	8-719-300-33	DIODE	RU-3AM				
D1804	8-719-300-33	DIODE	RU-3AM				
D1805	8-719-300-33	DIODE	RU-3AM				
<IC>							
IC1801	8-759-987-16	IC	LM393P				
IC1802	8-759-987-16	IC	LM393P				
IC1803	8-759-708-09	IC	NJM78LQ9A				
<COIL>							
L1801	1-460-200-11	COIL (WITH CORE)					

**VC HX2 HX1 UT**

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>				<JACK>			
Q1801	8-729-012-26	TRANSISTOR IRF540Y		J1650	1-695-307-11	TERMINAL BLOCK, S 3P	
Q1802	8-729-012-26	TRANSISTOR IRF540Y		*****			
Q1803	8-729-931-45	TRANSISTOR IRF614		*1-643-663-11	HX1 BOARD		
<RESISTOR>				<CAPACITOR>			
R1801	1-249-435-11	CARBON	33K 5% 1/4W	C1603	1-124-589-11	ELECT	47MF 20% 16V
R1802	1-249-417-11	CARBON	1K 5% 1/4W	C1604	1-124-589-11	ELECT	47MF 20% 16V
R1803	1-247-887-00	CARBON	220K 5% 1/4W	<DIODE>			
R1804	1-249-437-11	CARBON	47K 5% 1/4W	D1601	8-719-812-41	DIODE TLR124	
R1805	1-247-895-00	CARBON	470K 5% 1/4W	D1602	8-719-812-41	DIODE TLR124	
R1806	1-249-427-11	CARBON	6.8K 5% 1/4W	<CONNECTOR>			
	1-249-428-11	CARBON	8.2K 5% 1/4W	HX137	*1-564-514-11	PLUG, CONNECTOR 11P	
R1807	1-249-423-11	CARBON	3.3K 5% 1/4W	<IC>			
R1808	1-249-426-11	CARBON	5.6K 5% 1/4W	IC1601	8-741-148-33	IC SBX1483-59	
R1809	1-249-433-11	CARBON	22K 5% 1/4W	<RESISTOR>			
R1810	1-249-421-11	CARBON	2.2K 5% 1/4W	R1601	1-249-408-11	CARBON	180 5% 1/4W
R1811	1-216-463-00	METAL OXIDE	12K 5% 2W F	R1602	1-249-407-11	CARBON	150 5% 1/4W
R1812	1-215-875-11	METAL OXIDE	10K 5% 1W F	R1604	1-249-419-11	CARBON	1.5K 5% 1/4W
R1813	1-249-405-11	CARBON	100 5% 1/4W	R1605	1-249-421-11	CARBON	2.2K 5% 1/4W
R1814	1-249-441-11	CARBON	100K 5% 1/4W	R1606	1-249-425-11	CARBON	4.7K 5% 1/4W
R1815	1-215-869-11	METAL OXIDE	1K 5% 1W F	R1607	1-249-430-11	CARBON	12K 5% 1/4W
R1816	1-249-434-11	CARBON	27K 5% 1/4W	<SWITCH>			
	1-249-437-11	CARBON	47K 5% 1/4W	S1601	1-572-198-11	SWITCH, KEYBOARD	
R1817	1-249-441-11	CARBON	100K 5% 1/4W	S1602	1-572-198-11	SWITCH, KEYBOARD	
R1818	1-249-406-11	CARBON	120 5% 1/4W	S1603	1-572-198-11	SWITCH, KEYBOARD	
<VARIABLE RESISTOR>				S1604	1-572-198-11	SWITCH, KEYBOARD	
RV1801	1-228-993-00	RES, ADJ, METAL GLAZE	4.7K	S1605	1-572-198-11	SWITCH, KEYBOARD	
<TRANSFORMER>				S1606	1-572-198-11	SWITCH, KEYBOARD	
T1801	1-437-212-11	TRANSFORMER, FERRITE (VPDT)		S1607	Δ 1-572-198-11	SWITCH, KEYBOARD (POWER)	
<CONNECTOR>				*****			
VC15	*1-573-299-11	CONNECTOR, BOARD TO BOARD	10P	*A-1373-328-A	UT BOARD, COMPLETE		
*****				*****			
*1-643-664-11	HX2 BOARD			<CAPACITOR>			
	*****			C1152	1-102-074-00	CERAMIC	0.001MF 10% 50V
<DIODE>				C1153	1-164-096-11	CERAMIC	0.01MF 50V
D1650	8-719-108-12	DIODE RD9.1E-W		C1154	1-164-096-11	CERAMIC	0.01MF 50V
D1651	8-719-108-12	DIODE RD9.1E-W		C1155	1-126-103-11	ELECT	470MF 20% 16V
D1652	8-719-108-12	DIODE RD9.1E-W		C1158	1-124-598-11	ELECT	22MF 20% 25V
D1653	8-719-108-12	DIODE RD9.1E-W		C1159	1-124-598-11	ELECT	22MF 20% 25V
D1654	8-719-108-12	DIODE RD9.1E-W		C1160	1-124-598-11	ELECT	22MF 20% 25V
D1655	8-719-108-12	DIODE RD9.1E-W		C1161	1-124-598-11	ELECT	22MF 20% 25V
<CONNECTOR>				C1164	1-126-103-11	ELECT	470MF 20% 16V
HX2-49	*1-564-518-11	PLUG, CONNECTOR	3P	C1165	1-126-301-11	ELECT	1MF 20% 50V
HX216	*1-564-525-11	PLUG, CONNECTOR	10P	C1166	1-126-301-11	ELECT	1MF 20% 50V
				C1167	1-126-301-11	ELECT	1MF 20% 50V
				C1168	1-126-301-11	ELECT	1MF 20% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>							
D1151	8-719-110-36	DIODE RD13ES-B2		R1186	1-247-895-00	CARBON 470K 5%	1/4W
D1152	8-719-110-36	DIODE RD13ES-B2		R1187	1-247-804-11	CARBON 75 5%	1/4W
D1158	8-719-110-36	DIODE RD13ES-B2		R1188	1-247-804-11	CARBON 75 5%	1/4W
D1159	8-719-110-36	DIODE RD13ES-B2		R1191	1-215-437-00	METAL 4.7K 1%	1/4W
D1160	8-719-110-36	DIODE RD13ES-B2		R1192	1-215-437-00	METAL 4.7K 1%	1/4W
D1161	8-719-110-36	DIODE RD13ES-B2		R1193	1-215-437-00	METAL 4.7K 1%	1/4W
D1162	8-719-110-36	DIODE RD13ES-B2		R1194	1-215-437-00	METAL 4.7K 1%	1/4W
D1163	8-719-110-36	DIODE RD13ES-B2		R1195	1-249-426-11	CARBON 5.6K 5%	1/4W
D1164	8-719-110-36	DIODE RD13ES-B2		R1196	1-249-426-11	CARBON 5.6K 5%	1/4W
D1165	8-719-110-36	DIODE RD13ES-B2		<SWITCH>			
D1166	8-719-110-36	DIODE RD13ES-B2		S1150	1-572-198-11	SWITCH, KEYBOARD	
D1167	8-719-110-36	DIODE RD13ES-B2		<CONNECTOR>			
D1168	8-719-110-36	DIODE RD13ES-B2		UT9	*1-564-517-11	PLUG, CONNECTOR 2P	
D1169	8-719-110-36	DIODE RD13ES-B2		UT11	*1-564-519-11	PLUG, CONNECTOR 4P	
D1170	8-719-110-36	DIODE RD13ES-B2		UT22	*1-566-941-11	CONNECTOR, HINGE (TAB) 30P	
D1171	8-719-110-36	DIODE RD13ES-B2		UT23	*1-566-641-11	CONNECTOR, HINGE (TAB) 18P	
D1172	8-719-110-78	DIODE RD33ES-B2		UT35	*1-564-518-11	PLUG, CONNECTOR 3P	
D1173	8-719-110-78	DIODE RD33ES-B2		UT38	*1-564-517-11	PLUG, CONNECTOR 2P	
D1174	8-719-110-78	DIODE RD33ES-B2		*****			
D1175	8-719-110-78	DIODE RD33ES-B2		*A-1373-329-A	U BOARD, COMPLETE	*****	
D1176	8-719-110-78	DIODE RD33ES-B2		*4-341-751-01	EYELET (EY1003~EY1005)		
D1177	8-719-110-78	DIODE RD33ES-B2		*4-341-752-01	EYELET (EY1006)		
D1178	8-719-110-78	DIODE RD33ES-B2		<CAPACITOR>			
D1179	8-719-110-78	DIODE RD33ES-B2		C1004	1-102-125-00	CERAMIC 0.0047MF	10% 50V
<JACK>				C1005	1-126-301-11	ELECT 1MF	20% 50V
J1001	1-537-188-11	TERMINAL, PUSH (8P)		C1006	1-164-096-11	CERAMIC 0.01MF	50V
J1003	1-573-970-11	BLOCK, (S) TERMINAL		C1007	1-124-598-11	ELECT 22MF	20% 25V
J1004	1-695-304-11	TERMINAL BLOCK, S		C1008	1-124-598-11	ELECT 22MF	20% 25V
J1005	1-695-054-11	JACK BLOCK, PIN		C1010	1-124-465-00	ELECT 0.47MF	20% 50V
J1006	1-573-970-11	BLOCK, (S) TERMINAL		C1011	1-124-465-00	ELECT 0.47MF	20% 50V
J1007	1-573-969-11	JACK BLOCK, PIN		C1012	1-124-465-00	ELECT 0.47MF	20% 50V
J1008	1-573-969-11	JACK BLOCK, PIN		C1013	1-102-125-00	CERAMIC 0.0047MF	10% 50V
<RESISTOR>				C1014	1-126-163-11	ELECT 4.7MF	20% 50V
R1153	1-249-403-11	CARBON 68 5%	1/4W	C1016	1-126-163-11	ELECT 4.7MF	20% 50V
R1154	1-249-426-11	CARBON 5.6K 5%	1/4W	C1018	1-126-301-11	ELECT 1MF	20% 50V
R1158	1-247-804-11	CARBON 75 5%	1/4W	C1020	1-124-242-00	ELECT 33MF	20% 25V
R1164	1-247-895-00	CARBON 470K 5%	1/4W	C1021	1-124-465-00	ELECT 0.47MF	20% 50V
R1165	1-247-895-00	CARBON 470K 5%	1/4W	C1022	1-124-242-00	ELECT 33MF	20% 25V
R1166	1-247-895-00	CARBON 470K 5%	1/4W	C1026	1-164-048-11	CERAMIC 12PF	5% 50V
R1167	1-247-895-00	CARBON 470K 5%	1/4W	C1027	1-164-048-11	CERAMIC 12PF	5% 50V
R1168	1-247-895-00	CARBON 470K 5%	1/4W	C1028	1-124-242-00	ELECT 33MF	20% 25V
R1169	1-249-403-11	CARBON 68 5%	1/4W	C1029	1-124-282-00	ELECT 22MF	20% 16V
R1170	1-249-403-11	CARBON 68 5%	1/4W	C1030	1-124-478-11	ELECT 100MF	20% 25V
R1171	1-247-895-00	CARBON 470K 5%	1/4W	C1031	1-102-963-00	CERAMIC 33PF	5% 50V
R1172	1-247-895-00	CARBON 470K 5%	1/4W	C1034	1-124-282-00	ELECT 22MF	20% 16V
R1173	1-247-804-11	CARBON 75 5%	1/4W	C1036	1-124-282-00	ELECT 22MF	20% 16V
R1174	1-247-895-00	CARBON 470K 5%	1/4W	C1037	1-124-282-00	ELECT 22MF	20% 16V
R1175	1-247-895-00	CARBON 470K 5%	1/4W	C1039	1-124-478-11	ELECT 100MF	20% 25V
R1176	1-247-804-11	CARBON 75 5%	1/4W	C1047	1-124-465-00	ELECT 0.47MF	20% 50V
R1177	1-247-804-11	CARBON 75 5%	1/4W	C1048	1-126-301-11	ELECT 1MF	20% 50V
R1178	1-247-895-00	CARBON 470K 5%	1/4W	C1049	1-124-598-11	ELECT 22MF	20% 25V
R1179	1-247-895-00	CARBON 470K 5%	1/4W	C1051	1-124-465-00	ELECT 0.47MF	20% 50V
R1180	1-247-804-11	CARBON 75 5%	1/4W	C1055	1-124-589-11	ELECT 47MF	20% 16V
R1181	1-247-804-11	CARBON 75 5%	1/4W	C1056	1-124-499-11	ELECT 1MF	20% 50V
R1182	1-247-804-11	CARBON 75 5%	1/4W	C1057	1-124-768-11	ELECT 4.7MF	20% 50V
R1183	1-247-895-00	CARBON 470K 5%	1/4W				
R1184	1-247-895-00	CARBON 470K 5%	1/4W				
R1185	1-247-895-00	CARBON 470K 5%	1/4W				

**U**

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1059	1-124-499-11	ELECT	1MF 20%				
C1060	1-124-499-11	ELECT	1MF 20%				
C1061	1-124-499-11	ELECT	1MF 20%				
C1062	1-102-129-00	CERAMIC	0.01MF 10%				
C1063	1-124-768-11	ELECT	4.7MF 20%				
C1066	1-126-101-11	ELECT	100MF 20%				
C1070	1-126-103-11	ELECT	470MF 20%				
<DIODE>							
D1005	8-719-110-36	DIODE RD13ES-B2					
D1009	8-719-110-36	DIODE RD13ES-B2					
D1010	8-719-110-36	DIODE RD13ES-B2					
D1011	8-719-110-36	DIODE RD13ES-B2					
D1012	8-719-110-36	DIODE RD13ES-B2					
D1013	8-719-110-36	DIODE RD13ES-B2					
D1014	8-719-110-36	DIODE RD13ES-B2					
D1017	8-719-110-36	DIODE RD13ES-B2					
D1018	8-719-110-36	DIODE RD13ES-B2					
D1019	8-719-110-36	DIODE RD13ES-B2					
D1020	8-719-109-66	DIODE RD3.3ES-B2					
D1021	8-719-109-66	DIODE RD3.3ES-B2					
D1022	8-719-109-66	DIODE RD3.3ES-B2					
D1025	8-719-911-19	DIODE 1SS119					
D1026	8-719-911-19	DIODE 1SS119					
D1027	8-719-911-19	DIODE 1SS119					
<IC>							
IC1002	8-752-056-50	IC CX41545S					
IC1011	8-759-145-57	IC UPC4557C					
<COIL>							
L1001	1-408-422-00	INDUCTOR	120UH				
L1002	1-408-422-00	INDUCTOR	120UH				
<TRANSISTOR>							
Q1009	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1010	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1016	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1017	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1018	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1019	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1020	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1021	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1022	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1023	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1025	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1029	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1030	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1031	8-729-119-78	TRANSISTOR	2SC2785-HFE				
Q1032	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1033	8-729-119-76	TRANSISTOR	2SA1175-HFE				
Q1034	8-729-119-76	TRANSISTOR	2SA1175-HFE				
<RESISTOR>							
R1011	1-249-435-11	CARBON	33K 5%				
R1012	1-249-434-11	CARBON	27K 5%				
R1013	1-249-417-11	CARBON	1K 5%				
R1014	1-249-441-11	CARBON	100K 5%				
R1015	1-215-437-00	METAL	4.7K 1%				
R1016	1-249-441-11	CARBON	100K 5%				
R1017	1-249-405-11	CARBON	100 5%				
R1018	1-249-427-11	CARBON	6.8K 5%				
R1019	1-249-427-11	CARBON	6.8K 5%				
R1023	1-249-405-11	CARBON	100 5%				
R1026	1-215-437-00	METAL	4.7K 1%				
R1028	1-249-434-11	CARBON	27K 5%				
R1029	1-249-435-11	CARBON	33K 5%				
R1030	1-249-417-11	CARBON	1K 5%				
R1032	1-249-417-11	CARBON	1K 5%				
R1033	1-249-393-11	CARBON	10 5%				
R1034	1-249-417-11	CARBON	1K 5%				
R1036	1-249-440-11	CARBON	82K 5%				
R1037	1-249-440-11	CARBON	82K 5%				
R1038	1-249-440-11	CARBON	82K 5%				
R1043	1-249-417-11	CARBON	1K 5%				
R1046	1-249-413-11	CARBON	470 5%				
R1048	1-249-405-11	CARBON	100 5%				
R1050	1-249-405-11	CARBON	100 5%				
R1051	1-249-417-11	CARBON	1K 5%				
R1052	1-249-413-11	CARBON	470 5%				
R1054	1-249-405-11	CARBON	100 5%				
R1055	1-249-413-11	CARBON	470 5%				
R1056	1-249-405-11	CARBON	100 5%				
R1057	1-249-441-11	CARBON	100K 5%				
R1059	1-249-405-11	CARBON	100 5%				
R1061	1-249-409-11	CARBON	220 5%				
R1062	1-249-441-11	CARBON	100K 5%				
R1063	1-249-409-11	CARBON	220 5%				
R1066	1-215-437-00	METAL	4.7K 1%				
R1067	1-215-437-00	METAL	4.7K 1%				
R1068	1-215-437-00	METAL	4.7K 1%				
R1069	1-215-437-00	METAL	4.7K 1%				
R1070	1-249-411-11	CARBON	330 5%				
R1071	1-249-431-11	CARBON	15K 5%				
R1073	1-249-431-11	CARBON	15K 5%				
R1077	1-249-418-11	CARBON	1.2K 5%				
R1078	1-249-418-11	CARBON	1.2K 5%				
R1079	1-249-405-11	CARBON	100 5%				
R1080	1-215-423-00	METAL	1.2K 1%				
R1081	1-215-421-00	METAL	1K 1%				
R1089	1-249-405-11	CARBON	100 5%				
R1094	1-249-405-11	CARBON	100 5%				
R1096	1-249-415-11	CARBON	680 5%				
R1099	1-249-413-11	CARBON	470 5%				
R1100	1-249-429-11	CARBON	10K 5%				
R1101	1-249-405-11	CARBON	100 5%				
R1110	1-249-415-11	CARBON	680 5%				
R1116	1-249-441-11	CARBON	100K 5%				
R1118	1-249-413-11	CARBON	470 5%				
R1120	1-249-413-11	CARBON	470 5%				
R1121	1-249-441-11	CARBON	100K 5%				
R1122	1-249-413-11	CARBON	470 5%				
R1133	1-249-405-11	CARBON	100 5%				
R1134	1-249-405-11	CARBON	100 5%				
R1138	1-249-415-11	CARBON	680 5%				
R1139	1-249-413-11	CARBON	470 5%				
R1140	1-249-413-11	CARBON	470 5%				
R1141	1-249-413-11	CARBON	470 5%				
R1142	1-249-415-11	CARBON	680 5%				
R1147	1-249-405-11	CARBON	100 5%				
R1148	1-249-405-11	CARBON	100 5%				
R1149	1-249-417-11	CARBON	1K 5%				

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

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
R1150	1-249-405-11	CARBON	100 5% 1/4W
R1151	1-249-405-11	CARBON	100 5% 1/4W
R1152	1-249-417-11	CARBON	1K 5% 1/4W
<CONNECTOR>			
U12	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U13	1-573-300-11	CONNECTOR, BOARD TO BOARD 18P	
U16	*1-564-513-11	PLUG, CONNECTOR 10P	
U22	1-566-942-11	CONNECTOR, HINGE (RECEPTACLE) 30P	
U23	*1-566-367-11	CONNECTOR, HINGE (RECEPTACLE)	
U32	*1-564-510-11	PLUG, CONNECTOR 7P	
U50	*1-564-505-11	PLUG, CONNECTOR 2P	
*****			
	*1-643-669-11	S BOARD	*****
<CAPACITOR>			
C3403	1-164-161-11	CERAMIC CHIP 0.0022MF	10% 50V
C3408	1-164-232-11	CERAMIC CHIP 0.01MF	10% 50V
C3409	1-124-477-11	ELECT 47MF	20% 16V
C3411	1-124-034-51	ELECT 33MF	20% 16V
<IC>			
IC3401	8-759-403-44	IC MN1280-S	
IC3402	8-759-070-42	IC M37201MG-A18FP	
<COIL>			
L3401	1-408-421-00	INDUCTOR	100UH
<RESISTOR>			
R3401	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3402	1-216-049-00	METAL GLAZE 1K	5% 1/10W
R3403	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R3404	1-216-033-00	METAL GLAZE 220	5% 1/10W
R3405	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R3406	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R3407	1-216-033-00	METAL GLAZE 220	5% 1/10W
R3408	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R3409	1-216-033-00	METAL GLAZE 220	5% 1/10W
R3476	1-216-295-00	METAL GLAZE 0	5% 1/10W
<SWITCH>			
S45	*1-564-511-71	PLUG, CONNECTOR 8P	
S46	*1-564-506-11	PLUG, CONNECTOR 3P	
<CRYSTAL>			
X3401	1-577-082-11	VIBRATOR, CERAMIC	

MISCELLANEOUS  
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Δ 1-417-178-11	SELECTOR, ANTENNA (AS-2)
Δ 1-426-573-11	COIL, DEGAUSSING (KV-27XBR95S(U/C))
Δ 1-426-574-11	COIL, DEGAUSSING (KV-27XBR95S(U/C))
Δ 1-426-575-11	COIL, DEGAUSSING (KV-32XBR95S(U/C))
Δ 1-426-576-11	COIL, DEGAUSSING (KV-32XBR95S(U/C))

REF. NO.	PART NO.	DESCRIPTION	REMARK
Δ 1-451-394-11	DEFLECTION YOKE (Y29EXA)	(KV-27XBR95S(U/C))	
Δ 1-451-393-11	DEFLECTION YOKE (Y34EXA)	(KV-32XBR95S(U/C))	
1-452-032-00	MAGNET, DISK; 10MM φ		
1-452-094-00	MAGNET, ROTATABLE DISK; 15MM φ		
Δ 1-452-616-12	NECK ASSY, PICTURE TUBE (NA323)		
*1-555-400-00	CABLE, PIN		
*1-557-056-31	CABLE, P-P		
Δ 1-696-002-12	CORD, POWER (WITH NOISE FILTER)		
V901 Δ 8-733-829-05	PICTURE TUBE (M68KU210X)	(KV-27XBR95S(U/C))	
Δ 8-733-728-05	PICTURE TUBE (M81KVA10X)	(KV-32XBR95S(U/C))	

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ACCESSORIES AND PACKING MATERIALS  
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1-504-181-11	SPEAKER BOX (L)
1-504-182-11	SPEAKER BOX (R)
1-559-238-11	CORD, SPEAKER CONNECTION
1-559-913-11	CABLE, ANTENNA CONNECTION
3-755-410-21	MANUAL, INSTRUCTION (ENGLISH)
3-755-410-31	MANUAL, INSTRUCTION (FRENCH)
	(KV-27XBR95S(C), 32XBR95S(C))
3-755-410-41	MANUAL, INSTRUCTION (SPANISH)
	(KV-27XBR95S(U), 32XBR95S(U))
4-036-347-01	BOX, SPEAKER (KV-32XBR95S(U/C))
4-036-806-01	SCREW, ORNAMENT
4-036-809-01	CUSHION, RUBBER
4-037-304-01	BRACKET (L), SPEAKER (KV-27XBR95S(U/C))
4-037-305-01	BRACKET (R), SPEAKER (KV-27XBR95S(U/C))
4-036-807-01	BRACKET (L), SPEAKER (KV-32XBR95S(U/C))
4-036-808-01	BRACKET (R), SPEAKER (KV-32XBR95S(U/C))
9-910-999-32	BAG, POLYETHYLENE (KV-27XBR95S(U/C))
*4-037-680-01	CUSHION (LOWER) (ASSY) (KV-27XBR95S(U/C))
*4-037-681-01	CUSHION (UPPER) (ASSY) (KV-27XBR95S(U/C))
*4-037-684-01	INDIVIDUAL CARTON (KV-27XBR95S(U/C))
*4-037-685-01	PLATE, TOP (KV-27XBR95S(U/C))
*4-384-027-01	BAG, PROTECTION (KV-27XBR95S(U/C))
*4-031-871-01	BAG, PROTECTION (KV-32XBR95S(U/C))
*4-036-702-01	PLATE, TOP (KV-32XBR95S(U/C))
*4-036-704-01	CUSHION (UPPER) (ASSY) (KV-32XBR95S(U/C))
*4-036-706-01	CUSHION (LOWER) (ASSY) (KV-32XBR95S(U/C))
*4-036-711-01	INDIVIDUAL CARTON (KV-32XBR95S(U/C))

REMOTE COMMANDER

1-693-156-11	REMOTE COMMANDER (RM-Y114)
9-902-623-01	COVER, BATTERY (FOR RM-Y114)
9-902-624-01	COVER (FOR RM-Y114)



