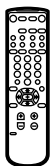
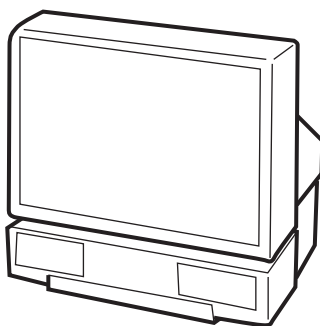


# SERVICE MANUAL RA-2A CHASSIS

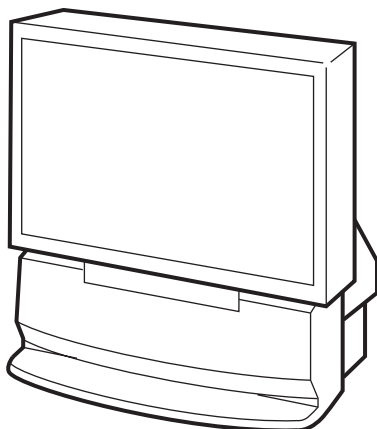
<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KP-41T65C	RM-Y136A	Chile	SCC-N88A-A				
KP-53S65C	RM-Y136A	Chile	SCC-N88B-A				
KP-61S65C	RM-Y136A	Chile	SCC-N88C-A				



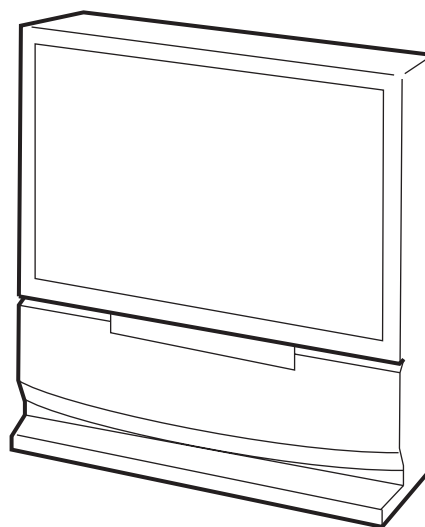
RM-Y136A



KP-41T65C



KP-53S65C



KP-61S65C



\* Please file according to model size. ....■

41 53 61

PROJECTION TV  
**SONY**®

## SPECIFICATIONS

Projection system 3 picture tubes, 3 lenses, horizontal in-line system

Picture tube 7 inch high-brightness monochrome tubes (6.3 raster size), with optical coupling and liquid cooling system

Projection lenses High performance, large-diameter hybrid lens F1.1

Screen size (measured diagonally)

KP-41T65C	41 inches
KP-53S65C	53 inches
KP-61S65C	61 inches

Television system American TV standards

Channel coverage VHF: 2 – 13 / UHF: 14 – 69 / CATV: 1 – 125

Antenna 75 ohm external antenna terminal for VHF/UHF

Inputs/output

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

VIDEO IN 3  
VIDEO (phono jacks): 1 Vp-p, 75-ohms unbalanced, sync negative  
AUDIO (phono jacks): 500 mVrms (100% modulation) Impedance: 47 kilohms

MONITOR OUT  
VIDEO (phono jack): 1 Vp-p, 75-ohms unbalanced, sync negative  
AUDIO (phono jacks): 500 mVrms (100% modulation), Impedance: 10 kilohms  
AUDIO OUT (phono jacks): 900 mVrms (100% modulation) Impedance: 5 kilohms

Speaker Full range speaker 100 mm (3.9 inches) diameter

Speaker output 15 W x 2

Power requirement 220 V, 50 Hz

Power consumption 165 W  
Standby mode: 3 W

	Dimensions (W/H/D)	Mass
KP-41T65C	951 x 1,022 x 602 mm (37 1/2 x 40 1/4 x 23 3/4 inches)	55 kg (121 lbs 4 oz)
KP-53S65C	1,218 x 1,413 x 614 mm (48 x 55 5/8 x 24 1/4 inches)	69 kg (152 lbs 1 oz)
KP-61S65C	1,338 x 1,506 x 642 mm (52 3/4 x 59 3/8 x 25 3/8 inches)	122 kg (268 lbs 15 oz)

Supplied accessories Remote control RM-Y136A (1)  
Size AA (R6) battery (2)

Optional accessories U/V mixer EAC-66  
Connecting cables RK-74A, VMC-810S/820S, YC-15V/30V, VMC-720M  
Stand SU-41T2 (For KP-41T65C)  
High-contrast protective screen  
SCN-53X2 (For KP-53S65C)  
SCN-61X2 (For KP-61S65C)

Design and specifications are subject to change without notice.

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**(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.**

# SECTION 1 GENERAL

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

## Welcome!

Thank you for purchasing the Sony Color Rear Video Projection TV. Here are some of the features you will enjoy with your projection TV:

- On-screen menus that let you set the picture quality, sound, and other settings.
- Two tuner Picture-in-Picture (PIP) that allows you to watch another TV channel, video or cable image as a window picture.
- Surround system that simulates the sound quality of a concert hall or movie theater.
- SAVA SPEAKER option of the AUDIO menu that lets you take advantage of the Sony SAVA series speaker system's surround sound and super woofer mode when you connect it to the projection TV.

### About this manual

The instructions in this manual are for models KP-41T65, KP-46C65, KP-48S65, KP-53S65, and KP-61S65. Before you start reading this manual, please check your model number, located at the rear of the projection TV. Model KP-53S65 is used for illustration purposes in this manual. Any differences in operation are clearly indicated in the text, for example "KP-61T65 only." The differences in specifications are indicated in the text.

Instructions in this manual are based on use of the remote control. You can also use the controls on the projection TV if they have the same name as those on the remote control.

## Precautions

This projection TV operates on extremely high voltage. To prevent fire or electric shock, please follow the precautions below.

### Safety

- Operate the projection TV only on 120 V AC.
- One blade of the plug is wider than the other for safety purposes and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the projection TV and have it checked by qualified personnel before operating it further.
- Unplug the projection TV from the wall outlet if you are not going to use it for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

For details concerning safety precautions, see the supplied leaflet "IMPORTANT SAFEGUARDS."

### Note on cleaning

Clean the cabinet of the projection TV with a dry soft cloth. To remove dust from the screen, wipe it gently with a soft cloth using vertical strokes only. Stubborn stains may be removed with a cloth slightly dampened with solution of mild soap and warm water. Never use strong solvents such as thinner or benzene for cleaning. If the picture becomes dark after using the projection TV for a long period of time, it may be necessary to clean the inside of the projection TV. Consult qualified service personnel.

### Installing

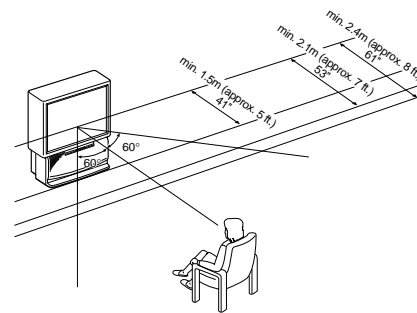
- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the projection TV in a hot or humid place, or in a place subject to excessive dust or mechanical vibration.
- Avoid operating the projection TV at temperatures below 5°C (41°F).
- If the projection TV is transported directly from a cold to a warm location, or if the room temperature has changed suddenly, the picture may be blurred or show poor color. This is because moisture has condensed on the mirror or lenses inside. If this happens, let the moisture evaporate before using the projection TV.
- To obtain the best picture, do not expose the screen to direct illumination or direct sunlight. It is recommended to use spot lighting directed down from the ceiling or to cover the windows that face the screen with opaque drapery. It is desirable to install the projection TV in a room where the floor and walls are not of reflecting material. If necessary, cover them with dark carpeting or wall paper.

## Getting Started

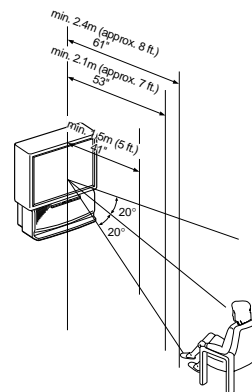
### Step 1: Installing the projection TV

For the best picture quality, install the projection TV within the areas shown below.

#### Optimum viewing area (Horizontal)



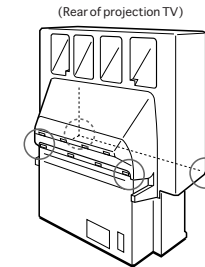
#### Optimum viewing area (Vertical)



### Carrying your projection TV

#### ■ KP-41T65C/53S65C only

Be sure to grasp the areas indicated when carrying the projection TV, and to use more than two people.



#### ■ KP-61S65C only

Carry your projection TV by the casters.

EN

### Preparing for your projection TV

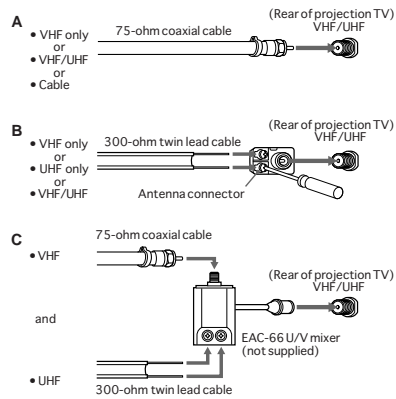
Before you use your projection TV, adjust convergence. For the procedure, see Step 4: Setting up the projection TV automatically (AUTO SET UP) on page 14.

## Step 2: Hookup

Although you can use either an indoor or outdoor antenna with your projection TV, we recommend that you connect an outdoor antenna or a cable TV system to get better picture quality.

### Connecting an antenna

Connect your antenna cable to the VHF/UHF antenna terminal. If you cannot connect your antenna cable directly to the terminal, follow one of the instructions below depending on your cable type.

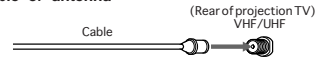


#### Notes

- Most VHF/UHF combination antennas have a signal splitter. Remove the splitter before attaching the appropriate connector.
- If you use the U/V mixer, snow and noise may appear in the picture when viewing cable TV channels over 37.

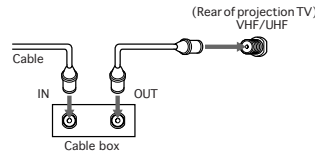
### Connecting an antenna/cable TV system without a VCR

#### To cable or antenna

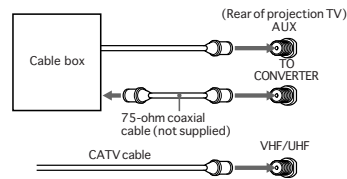


#### To cable box

If your cable company requires you to connect a cable box, make the connection as follows:



#### To cable box and cable



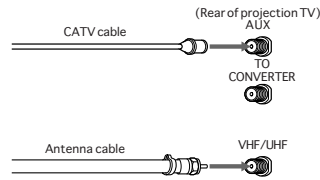
Pay cable TV systems use scrambled or encoded signals requiring a cable box\* in addition to the normal cable connection.

\* The cable box will be supplied by the cable company.

#### Note

- You cannot watch the signal through an AUX connector as a window picture.

#### To cable and antenna



#### Note

- Do not connect anything to the TO CONVERTER connector in this case.

### Connecting an antenna/cable TV system with a VCR

For details on connection, see your VCR instruction manual.

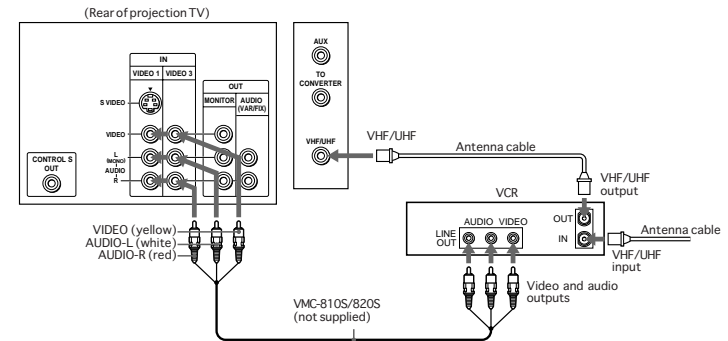
Before making the connection, disconnect the AC power cords of the equipment to be connected.

#### To a conventional VCR

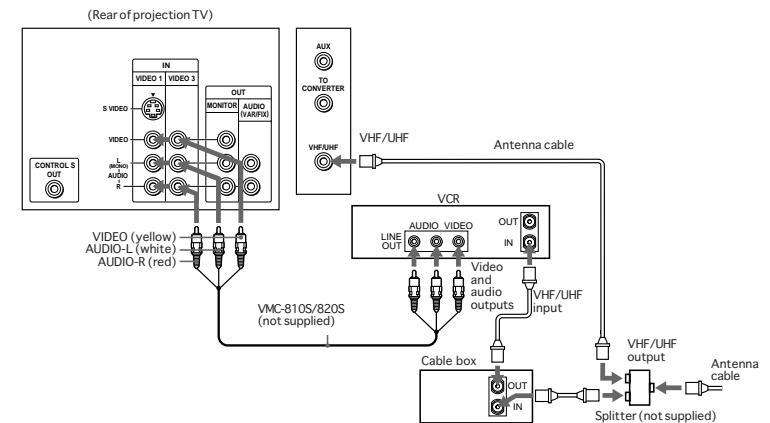
##### Notes

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (MONO) of VIDEO 1/2/3 IN on the projection TV.

#### Without a cable box



#### With a cable box

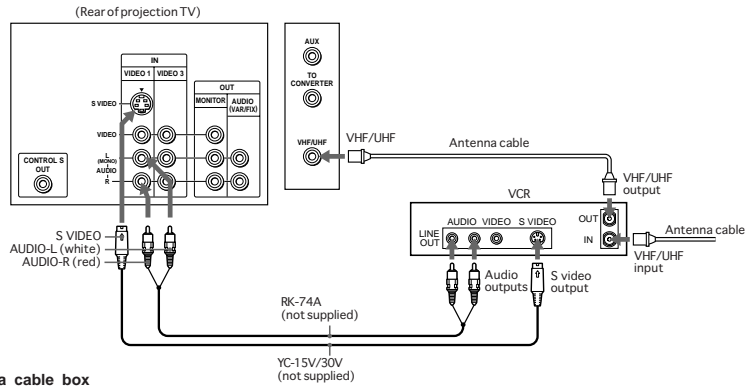


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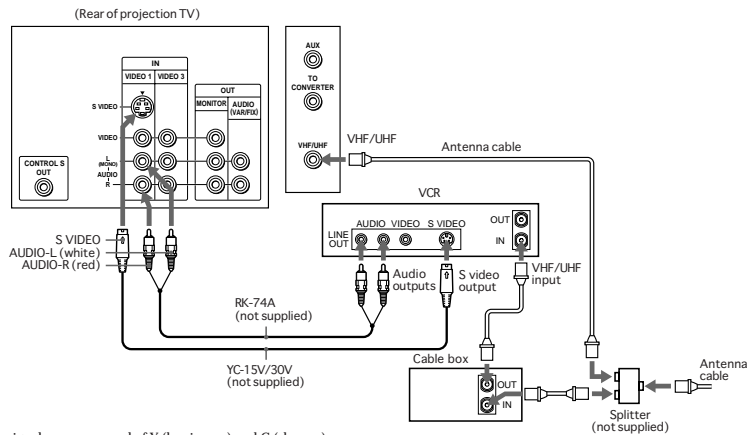
## To an S video equipped VCR

If your VCR has an S VIDEO output connector, make the following connections.  
Whenever you connect the cable to the S VIDEO input connector, the projection TV automatically receives S video signals.

### Without a cable box



### With a cable box

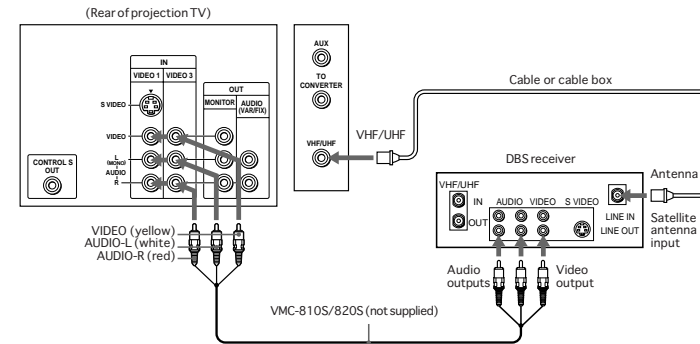


**Note**  
• Video signals are composed of Y (luminance) and C (chroma) signals. The S connection sends the two signals separately preventing degradation, and gives better picture quality compared to conventional connections.

## Connecting a DBS receiver

For details on connection, see the instruction manual of the DBS (Digital Broadcasting Satellites) receiver.

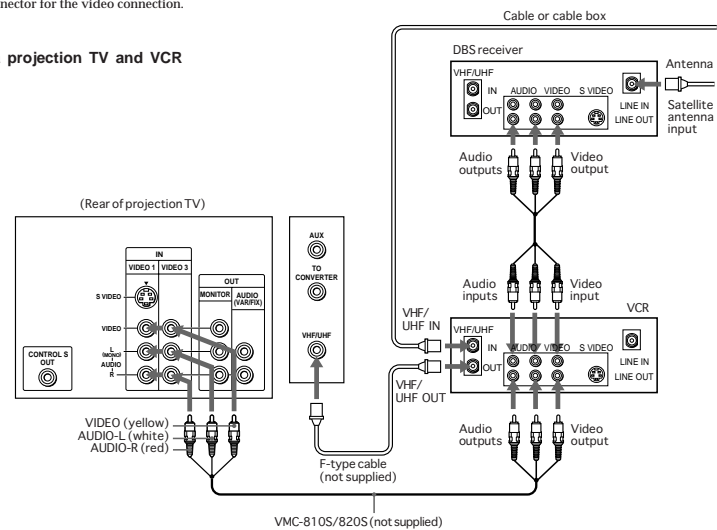
### To a projection TV



### Note

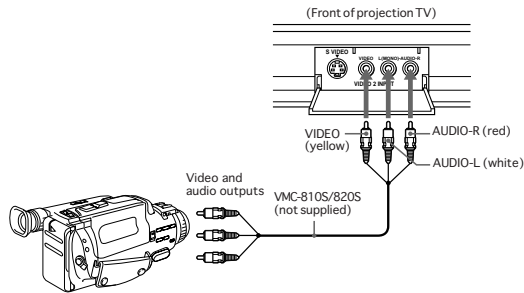
• You can use the S VIDEO connector or the composite video connector for the video connection.

### To a projection TV and VCR



## Connecting a camcorder

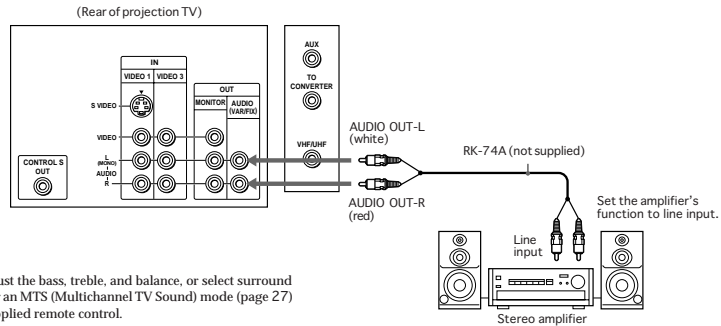
Use this connection to view a camcorder picture.



- Note**
- To connect a monaural camcorder, connect the audio output of the camcorder to AUDIO-L (MONO) of VIDEO 2 INPUT on the projection TV.

## Connecting an audio system

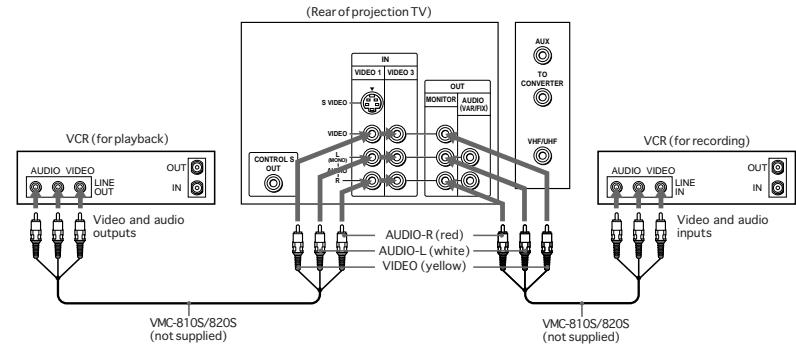
When connecting audio equipment, see page 28 for more information.



- Note**
- You can adjust the bass, treble, and balance, or select surround (page 26) or an MTS (Multichannel TV Sound) mode (page 27) with the supplied remote control.

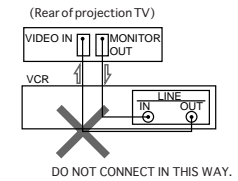
## Connecting two VCRs for tape editing using MONITOR OUT

You can record input images displayed on the screen. This type of connection should be used only when you connect from the line input of one VCR, and from the line output of a second VCR.




- Notes**
- Do not change the input signal while editing through MONITOR OUT, or the output signal will also change.
  - You can use the S video jack to connect a VCR for playback and the composite video connector to connect a VCR for recording.

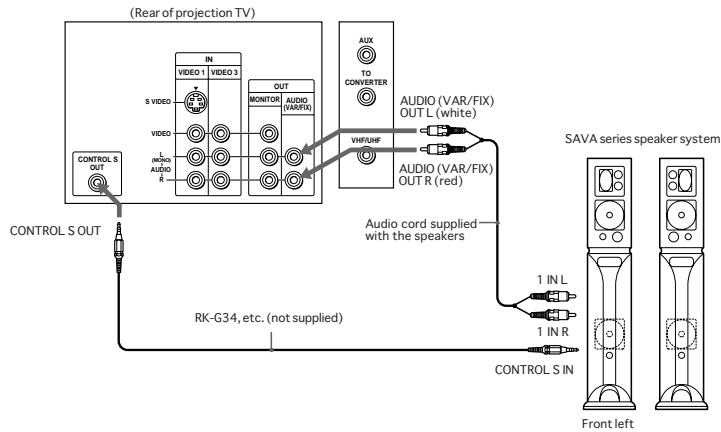
- When connecting a single VCR to the projection TV, do not connect the MONITOR OUT to the VCR's line input, while at the same time connecting from the projection TV's VIDEO IN connectors to the VCR's line output, as shown below.



## Connecting a Sony SAVA series speaker system

If you have a Sony SAVA series speaker system, connect your speakers to the AUDIO (VAR/FIX) OUT jacks on the rear of the projection TV with the audio cable supplied with the speakers. You can take advantage of the speakers' Dolby Pro Logic® surround system and super woofer mode, and control them with the supplied remote control. When connecting a Sony SAVA series speaker system, see page 27 for more information.

\* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under Canadian patent number 1,037,877. "Dolby," the double-D symbol  and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.



## Step 3: Setting up the remote control

### Inserting batteries

Insert two size AA (R6) batteries (supplied) by matching the + and - on the battery to the diagram inside the battery compartment.



### Notes

- Under normal conditions, batteries will last up to six months. If the remote control does not operate properly or the indicators of the buttons on the remote control do not light up, the batteries may be worn out. When replacing batteries, replace both of them with new ones.
- Do not mix old batteries with new ones or mix different types of batteries together.
- If the electrolyte inside the battery should leak, wipe the contaminated area of the battery compartment with a cloth and replace the old batteries with new ones. To prevent the electrolyte from leaking, remove the batteries when you don't plan to use the remote control for a long period of time.
- Do not handle the remote control roughly. Do not drop it, step on it, or let it get wet.
- Do not place the remote control in direct sunlight, near a heater, or where the humidity is high.

### Getting to know buttons on the remote control

Names of buttons on the remote control are indicated in different colors to represent the available functions.

#### Button color

Transparent ..... TV/VCR/DBS/Cable box function buttons. Press the appropriate function button first to change the remote control's function.

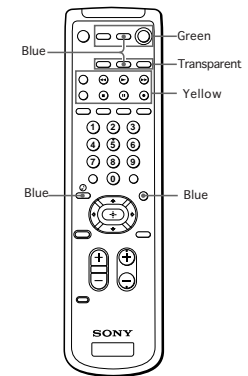
Green ..... Buttons relevant to power operations.

#### Label color

White ..... TV/VCR/DBS/Cable box operation buttons.

Yellow ..... PIP operation buttons.

Blue ..... DBS operation buttons.

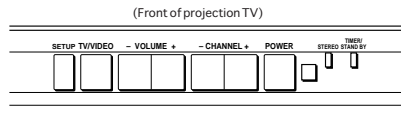


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## Step 4: Setting up the projection TV automatically (AUTO SET UP)

You can set up your projection TV easily by using the AUTO SET UP feature. It presets all the receivable channels, adjusts the convergence and changes the on-screen menu language. To set up the projection TV manually, see "Adjusting convergence" (page 16), "Setting cable TV on or off" (page 17), "Presetting channels" (page 18) and "Changing the menu language" (page 18). If the projection TV is set to a video input, you cannot perform AUTO SET UP. Press TV/VIDEO so that a channel number appears.



Before you start using AUTO SET UP, be sure to connect the antenna or cable to the projection TV (see page 6).

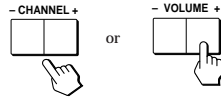
### 1 Press POWER to turn the projection TV on.



### 2 Press SETUP on the front of the projection TV. AUTO SET UP screen appears.

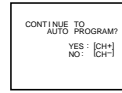


### 3 Press CHANNEL +/- or VOLUME + to select the on-screen menu language. If you prefer Spanish or French to English, you can change the on-screen menu language.



All of the menus will be set to the factory preset condition in the selected language.

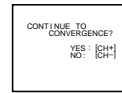
### 4 Press VOLUME - to start AUTO SET UP.



### 5 Press CHANNEL + to preset channels.



"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the following menu appears. If the projection TV receives cable TV channels, CABLE is set to ON automatically.

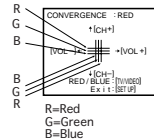


To exit AUTO PROGRAM Press any button.

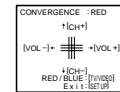
### 6 Adjust convergence.

#### (1) Press CHANNEL +.

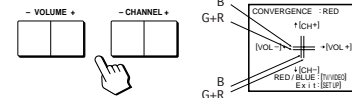
The CONVERGENCE adjustment screen appears.



#### (2) Press TV/VIDEO to select RED or BLUE.



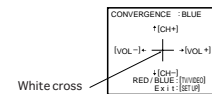
#### (3) Using CHANNEL +/- or VOLUME +/-, move the line until it converges with the center green line.



To move horizontal line up/down, press CHANNEL +/-.

To move vertical line right/left, press VOLUME +/-.

#### (4) Repeat steps (2) and (3) to adjust the other lines until all three lines converge and are seen as a white cross.



#### Note

- Using the AUX connector, press TV (black button) first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow the steps 2 to 6 above to perform AUTO SET UP.

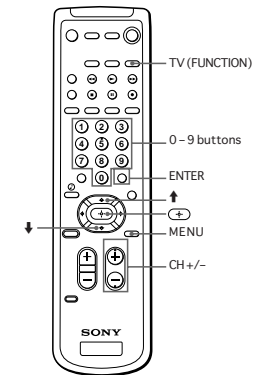
#### To preview the main functions (DEMO)

Press TV/VIDEO on the projection TV in step 4. The functions and menus are displayed one by one.

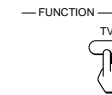
To exit DEMO Press any button.

## Erasing or adding channels

After AUTO SET UP, you can erase unnecessary channels or add the channels you want. Preset channels during the day rather than late at night, when some channels may not be broadcasting.



### 1 Press TV (FUNCTION).



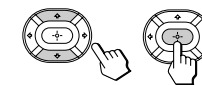
### 2 Press MENU.

The main menu appears.

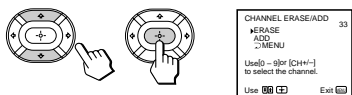


### 3 Press + or - to select, and press ENTER.

The SET UP menu appears.



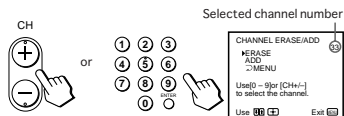
- 4** Press  $\uparrow$  or  $\downarrow$  to select CHANNEL ERASE/ADD, and press  $\text{ENTER}$ .  
The CHANNEL ERASE/ADD menu appears.



**5 Erase and/or add channels:**

*To erase an unwanted channel*

- (1) Make sure the cursor (▶) is beside ERASE.
- (2) Press CH +/- or the 0-9 buttons to select the channel you want to erase, and press ENTER.



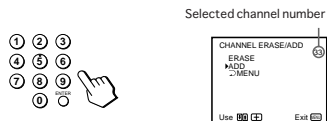
- (3) Press  $\text{ENTER}$ .

The "-" indication appears beside the channel number, showing that the channel is erased from the preset memory.



*To add a channel that you want*

- (1) Press  $\uparrow$  or  $\downarrow$  to move the cursor (▶) to ADD.
- (2) Press the 0-9 buttons to select the channel you want to add, and press ENTER.



- (3) Press  $\text{ENTER}$ .

The "+" indication appears beside the channel number, showing that the channel is added to the preset memory.



- 6** To erase and/or add other channels, repeat step 5.

**7 Press MENU to return to the original screen.**



**Notes**

- If you erase or add a VHF or UHF channel, the cable TV channel with the same number is also erased or added, and vice versa.
- Erasing and adding channels is also available for the AUX input.

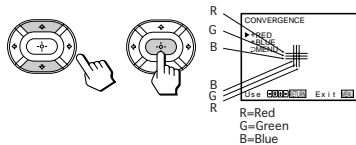
**Adjusting convergence (CONVERGENCE)**

The projection tube image appears on the screen in three layers (red, green and blue). If they do not converge, the color is poor and the picture blurs. To correct this, adjust convergence. You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to adjust it manually.

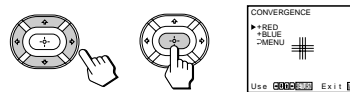
**1 Press MENU.**

**2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{CONV}$ , and press  $\text{ENTER}$ .**

- 3 Press  $\uparrow$  or  $\downarrow$  to select CONVERGENCE, and press  $\text{ENTER}$ .**  
The CONVERGENCE adjustment screen appears.

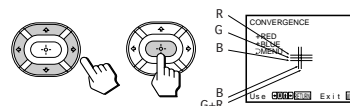


- 4** Press  $\uparrow$ ,  $\leftarrow$ ,  $\rightarrow$ , or  $\downarrow$  to move the cursor (▶) to the symbol showing the line you want to adjust, and press  $\text{ENTER}$ .



+RED: Red vertical and horizontal line (left/right/up/down adjustment)  
+BLUE: Blue vertical and horizontal line (left/right/up/down adjustment)

- 5** Press  $\uparrow$ ,  $\leftarrow$ ,  $\rightarrow$ , or  $\downarrow$  to move the line until it converges with the center green line, and press  $\text{ENTER}$ .



To move	Press
Up	$\uparrow$
Down	$\downarrow$
Right	$\rightarrow$
Left	$\leftarrow$

- 6** Repeat steps 4 and 5 to adjust the other lines until all three lines converge and are seen as a white cross.

- 7** Press MENU to return to the original screen.

**Setting cable TV on or off**

If you have connected the projection TV to a cable TV system, set CABLE to ON (the factory setting). If not, set CABLE to OFF.

You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to set it manually.

**1 Press MENU.**

**2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{CABLE}$ , and press  $\text{ENTER}$ .**

**3 Set CABLE to ON or OFF:**

- (1) Press  $\uparrow$  or  $\downarrow$  to move the cursor (▶) to CABLE, and press  $\text{ENTER}$ .
- (2) Press  $\uparrow$  or  $\downarrow$  to select ON or OFF, and press  $\text{ENTER}$ .



**4 Press MENU to return to the original screen.**

**Note**


- If CABLE appears in gray, the projection TV is set to a video input and you cannot select CABLE. Press TV (black button) so that a channel number appears.

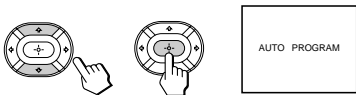
EN

## Presetting channels

You can preset TV channels easily by using the AUTO PROGRAM feature.

You do not have to do this procedure if you perform AUTO SET UP (page 14). Do this procedure only when you want to set it manually.

- 1 Press **MENU**.
- 2 Press **↑** or **↓** to select , and press **↵**.
- 3 Press **↑** or **↓** to select **AUTO PROGRAM**, and press **↵**.



"AUTO PROGRAM" appears on the screen and the projection TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed.

- 4 Press **MENU** to return to the original screen.


To exit **AUTO PROGRAM**  
Press any button.

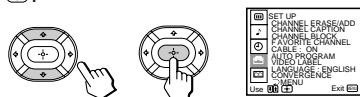
### Notes

- If the **AUTO PROGRAM** menu appears in gray, the projection TV is set to a video input and you cannot select **AUTO PROGRAM**. Press **ANT** button so that a channel number appears.
- Presetting channels is also available for the **AUX** input.

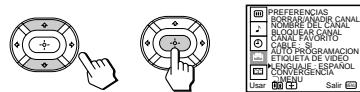
## Changing the menu language

If you prefer Spanish or French to English, you can change the menu language.  
You do not have to do this procedure if you select the language during **AUTO SET UP** (page 14). Do this procedure only when you want to set it manually.

- 1 Press **MENU**.
- 2 Press **↑** or **↓** to select , and press **↵**.
- 3 Press **↑** or **↓** to select **LANGUAGE**, and press **↵**.



- 4 Press **↑** or **↓** to select your favorite language, "ENGLISH", "ESPAÑOL," or "FRANÇAIS" and press **↵**.



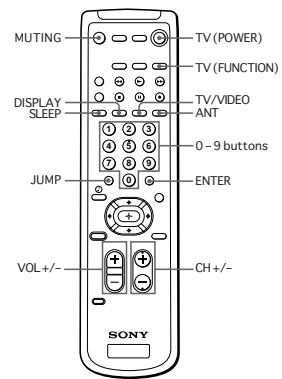
- 5 Press **MENU** to return to the original screen.

### Note

- Certain parts of the Spanish or French menus remain in English.

## Operations

### Watching the TV

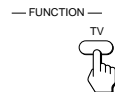


- 1 Press **TV (POWER)** to turn on the projection TV.  
The **TIMER/STANDBY** indicator flashes until the picture appears.



If "VIDEO" appears on the screen, press **ANT** so that a channel number appears.

- 2 Press **TV (FUNCTION)**.



Once you press **TV (FUNCTION)**, the projection TV function is set unless another function button is pressed.

- 3 Select the channel you want:

To select a channel directly

Press the 0 - 9 buttons, and press **ENTER**.

For example, to select channel 10, press 1, 0 and **ENTER**.



To scan through channels

Press **CH +/-** until the channel you want appears.



The channel can also be selected without pressing **ENTER**.

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



EN

### Switching quickly between two channels

You can use the **JUMP** button to switch or "jump" back and forth between two channels.

Press **JUMP**.



Pressing **JUMP** again switches the channel back to the one you selected last.

### Note

- You cannot jump to channels you scanned through using the **CH +/-** buttons.

### Muting the sound

Press **MUTING**.

"MUTING" appears on the screen.



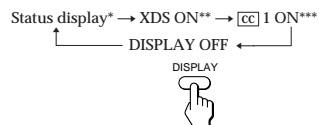
To restore the sound, press **MUTING** again, or press **VOL +**.

Operations | 19-EN

## Displaying on-screen information

Press **DISPLAY** repeatedly until the desired display appears.

Each time you press **DISPLAY**, the display changes as follows:



\* Channel number, the current time, channel caption (if set), and MTS mode (if SAP is selected) are displayed. SAP indication disappears after three seconds.

\*\* Some programs are broadcast with XDS (Extended Data Service) which shows a network name, program name, program type, program length, call letters, and time of the show. When you select XDS with the **DISPLAY** button, this information will be displayed on the screen if the broadcaster offers this service.

\*\*\* Some programs are broadcast with Caption Vision. When you select Caption Vision with the **DISPLAY** button, Caption Vision will be displayed on the screen if the broadcaster offers this service. (See page 34 for selecting Caption Vision.)

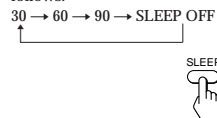
To cancel the display, press **DISPLAY** repeatedly until "DISPLAY OFF" appears. "DISPLAY OFF" goes off after three seconds.

## Setting the Sleep Timer

The projection TV stays on for the length of time you specify and then shuts off automatically.

Press **SLEEP** repeatedly until the time (minutes) you want appears.

Each time you press **SLEEP**, the time changes as follows:



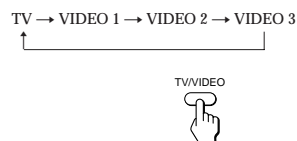
To cancel the Sleep Timer, press **SLEEP** repeatedly until "SLEEP OFF" appears, or turn off the projection TV.

20-EN | Operations

## Watching a video input picture

Press **TV/VIDEO** repeatedly until the desired video input appears.

Each time you press **TV/VIDEO**, the display changes as follows:



To return to the TV picture, press **ANT** so that a channel number appears.

## Changing the VHF/UHF input to the AUX input

Press **ANT**.

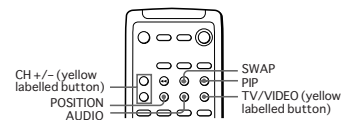
"AUX" appears beside the channel number.



Pressing **ANT** again switches back to the VHF/UHF input.

## Watching two programs at one time — PIP

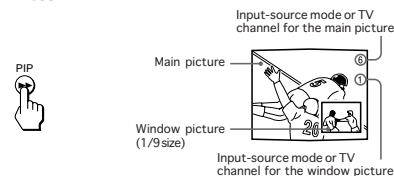
The Picture-in-Picture (PIP) feature allows you to watch both the main picture and a window picture simultaneously.



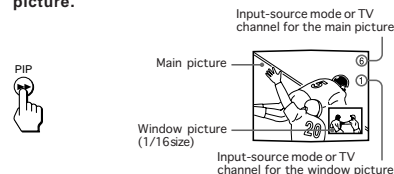
Use the yellow labelled buttons for PIP operations.

### Displaying a window picture

Press **PIP**.



Press **PIP** again to display a smaller window picture.



To remove the window picture, press **PIP** again.

**Note**

- The window picture may be affected by the condition of the main picture.

## Changing the window picture input mode

Press **TV/VIDEO** (yellow labelled button) to select the input mode.

Each time you press **TV/VIDEO** (yellow labelled button), "TV", "VIDEO 1", "VIDEO 2", and "VIDEO 3" appear in sequence.



A window picture will appear in the same input mode as the last time you used PIP.

**Note**

- If you connect your VCR without a cable box, your PIP input source is a VCR. If you connect your VCR with a cable box, your PIP input source is a VCR or cable box.

## Listening to the sound of the window picture

Press **AUDIO**.

The display appears next to the PIP channel number for a few seconds, indicating that the window picture sound is being received.

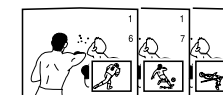
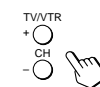


The sound of the window picture is received.

To restore the main picture sound, press **AUDIO** again. The display moves to the main picture channel number.

## Changing TV channels in the window picture

Press **CH +/-** (yellow labelled button).



Operations | 21-EN

### Changing the position of the window picture

**Press POSITION.**

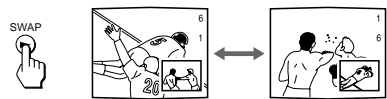
Each time you press POSITION, the window picture will move counterclockwise on the screen.



### Swapping the main and window pictures

**Press SWAP.**

Each time you press SWAP, the images and sound from the main and window pictures switch places with another.



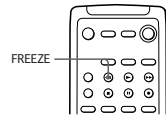
**Note**

- The channels being received through the AUX connector cannot be displayed as a window picture.

## Freezing the picture (FREEZE)

(FREEZE)

The FREEZE feature is useful when you want to write down an information such as a recipe from a cooking program, a displayed address, or a phone number. The frozen picture changes as follows depending on whether the PIP function is used or not.



Press FREEZE.



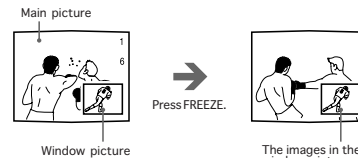
**When the PIP function is not being used**



The frozen picture appears in the window picture.

To remove the frozen window picture, press FREEZE again.

**When the PIP function is being used**

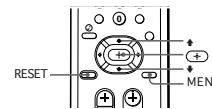


The images in the window picture freeze.

To cancel the frozen window picture, press FREEZE again.

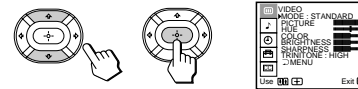
## Adjusting the picture (VIDEO)

When watching TV programs, you can adjust the picture to suit your taste. You can adjust the picture of video input(s) as well.



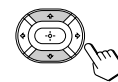
**1 Press MENU.**

**2 Press ↑ or ↓ to select [MENU], and press +.**



**3 Select the item you want to adjust.**

(1) To adjust the brightness, press ↑ or ↓ to move the cursor (▶) to BRIGHTNESS.

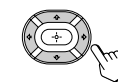


(2) Press +.



**4 Adjust the selected item:**

(1) Press ↑, ↓, ←, or → to adjust the item.



(2) Press +.

The new setting appears in the VIDEO menu.



For details on each item, see "Description of adjustable items" below.

**5 To adjust other items, repeat steps 3 and 4.**

**6 Press MENU to return to the original screen.**

EN

#### Description of adjustable items

Item	Press ↓ or ← to	Press ↑ or → to
PICTURE	Decrease picture contrast and give soft color.	Increase picture contrast and give vivid color.
HUE	Make picture tones become purplish.	Make picture tones become greenish.
COLOR	Decrease color intensity.	Increase color intensity.
BRIGHTNESS	Darken the picture.	Brighten the picture.
SHARPNESS	Soften the picture.	Sharpen the picture.

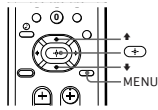
#### To restore the factory settings

Press RESET after displaying and selecting the VIDEO menu.

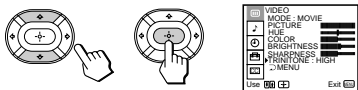
All of the settings are restored to the factory settings.

## Adjusting the color temperature (TRINITONE)

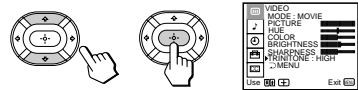
The TRINITONE feature controls the color temperature, permitting white balance preference adjustment without affecting skin tones.



- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{[ ]}$  and press  $\text{[ ]}$ .
- 3 Press  $\uparrow$  or  $\downarrow$  to select TRINITONE and press  $\text{[ ]}$ .



- 4 Press  $\uparrow$  or  $\downarrow$  to select NTSC STD, MEDIUM, or HIGH and press  $\text{[ ]}$ .

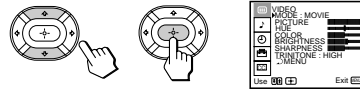


Choose	To
HIGH	a cool (bluish) white.
MEDIUM	a neutral white.
NTSC STD	a warm (reddish) white.

## Selecting the video mode (VIDEO)

The video mode feature allows you to choose three different modes of picture settings. Choose the one that best suits the type of program that you want to watch.

- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{[ ]}$ , and press  $\text{[ ]}$ .
- 3 Press  $\uparrow$  or  $\downarrow$  to select MODE, and press  $\text{[ ]}$ .
- 4 Press  $\uparrow$  or  $\downarrow$  to select STANDARD, MOVIE, or SPORTS mode, and press  $\text{[ ]}$ .



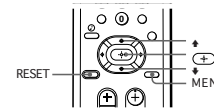
Choose	To
STANDARD	Receive a standard picture.
MOVIE	Receive a finely detailed picture.
SPORTS	Receive a vivid, bright picture.

- 5 Press MENU to return to the original screen.

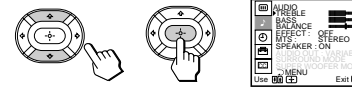
**Note**  
• The settings for these modes can be adjusted in the VIDEO menu.

## Adjusting the sound (AUDIO)

You can adjust the quality of the TV sound to suit your taste. You can adjust the sound of the video input(s) as well.



- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{[ ]}$ , and press  $\text{[ ]}$ .



- 3 Select the item you want to adjust.

**For example:**

- (1) To adjust bass, press  $\uparrow$  or  $\downarrow$  to move the cursor ( $\blacktriangleright$ ) to BASS.



- (2) Press  $\text{[ ]}$ .



- 4 Adjust the selected item:  
(1) Press  $\uparrow$ ,  $\downarrow$ ,  $\leftarrow$ , or  $\rightarrow$  to adjust the item.



- (2) Press  $\text{[ ]}$ .  
The new setting appears in the AUDIO menu.



For details on each item, see "Description of adjustable items" below.

- 5 To adjust other items, repeat steps 3 and 4.
- 6 Press MENU to return to the original screen.

EN

### Description of adjustable items

Item	Press $\uparrow$ or $\downarrow$ to	Press $\leftarrow$ or $\rightarrow$ to
TREBLE	Decrease the treble response.	Increase the treble response.
BASS	Decrease the bass response.	Increase the bass response.
BALANCE	Emphasize the left speaker's volume.	Emphasize the right speaker's volume.

### To restore the factory settings

Press RESET after displaying and selecting the AUDIO menu.

All of the settings are restored to the factory settings.

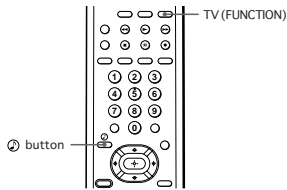
### Note



- When SPEAKER (page 27) is OFF and AUDIO OUT (page 28) is in the FIXED condition, the volume, TREBLE, BASS, and BALANCE cannot be adjusted.

## Using audio effect (SURROUND)

The audio effect (SURROUND) feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Audio effect is only effective for stereo programs.

### Using the (audio effect) button

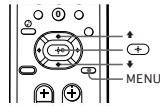









- 1 Press TV (FUNCTION).
- 2 Press . Each time you press the  button, the display changes as follows:

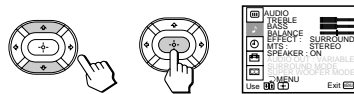
SURROUND → SURROUND OFF






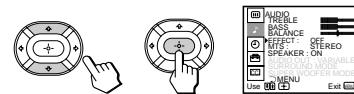
### Using the menu to set audio effect



- 1 Press MENU.
- 2 Press  or  to select , and press .
- 3 Press  or  to select EFFECT, and press .



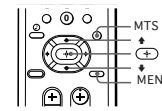
- 4 Press  or  to select the audio effect mode, and press .



- 5 Press MENU to return to the original screen.

## Selecting stereo or bilingual programs (MTS)

The Multichannel TV Sound (MTS) feature allows you to enjoy stereo sound or Second Audio Programs (SAP) of your choice. The initial setting is stereo sound (STEREO).












Press MTS repeatedly to select STEREO, SAP, or MONO.

STEREO → SAP → MONO

Choose	To
STEREO	Listen to stereo sound. The STEREO indicator on the projection TV lights up when a stereo broadcast is received.
SAP	Listen to bilingual programs. There is no sound when the SAP signal is not broadcasting.
MONO	Listen to monaural sound. Reduce noise during stereo broadcasts.

**Note**  
• Stereo and SAP sounds are subject to program sources.

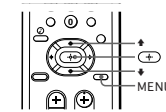
### To set MTS using the menu

- 1 Press MENU.
- 2 Press  or  to select , and press .
- 3 Press  or  to select MTS, and press .
- 4 Press  or  to select STEREO, SAP, or MONO.
- 5 Press MENU to return to the original screen.








## Setting the speaker switch (SPEAKER)

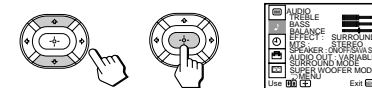
You may switch off the projection TV speakers when, for example, you want to listen to the sound through a stereo system.

If you connect the Sony SAVA series speaker system to the AUDIO (VAR/FIX) OUT connectors, you can take advantage of the speakers' surround sound and super woofer mode. After making the connections (page 12), set SPEAKER to SAVA SPEAKER, then adjust SURROUND MODE or SUPER WOOFER MODE.

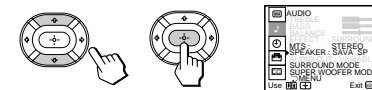


EN

- 1 Press MENU.
- 2 Press  or  to select , and press .
- 3 Press  or  to select SPEAKER, and press .



- 4 Press  or  to select ON, OFF, or SAVA SP, and press .



- 5 Press MENU to return to the original screen.



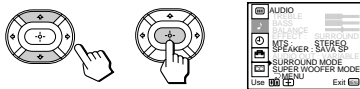
Choose	To
ON	Listen to the sound from the projection TV.
OFF	Turn off the projection TV speaker sound and listen to the projection TV's sound solely through the audio system speakers.
SAVA SP	Turn off the projection TV speaker sound and listen to the projection TV's sound through the Sony SAVA series speaker system. You can adjust volume, muting, surround modes, and super woofer mode with the remote control supplied with the projection TV.

### To select surround sound or super woofer mode of the SAVA speaker system

After setting SPEAKER to SAVA SP, follow the procedure below.

Press **+** or **-** to select **SURROUND MODE** or **SUPER WOOFER MODE**, and press **+**.

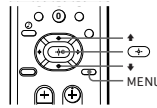
For details on each option, refer to the operating instructions of the speaker system.



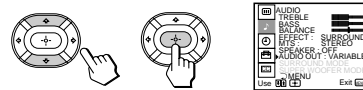
**Note**  
 • This feature is only for Sony SAVA speaker system with an operation capability for KP-41T65C, KP-53S65C, and KP-61S65C.

## Setting audio out (AUDIO OUT)

You can change AUDIO OUT to VARIABLE or FIXED when SPEAKER is set to OFF. AUDIO OUT is variable when SPEAKER is set to ON.



- 1 Press **MENU**.
- 2 Press **+** or **-** to select **⌂**, and press **+**.
- 3 Press **+** or **-** to select **AUDIO OUT**, and press **+**.
- 4 Press **+** or **-** to select **VARIABLE** or **FIXED**, and press **+**.



**VARIABLE:** Sound output varied according to the projection TV settings. You can adjust the volume, bass, treble, and balance.

**FIXED:** Sound output is always fixed to a certain level. The volume, bass, treble, and balance are also fixed to the factory settings.

- 5 Press **MENU** to return to the original screen.

**Note**  
 ¥ If AUDIO OUT appears in gray, set SPEAKER to OFF.

## Setting daylight saving time (DAYLIGHT SAVING)

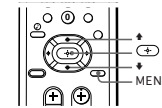
If your area uses daylight saving time, change DAYLIGHT SAVING setting depending on the season, before setting the current time.

### Daylight saving start

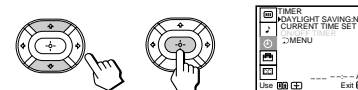
- After the first Sunday in April, set DAYLIGHT SAVING to YES. Current time setting (right column) automatically moves one hour ahead.

### Daylight saving end

- After the last Sunday in October, set DAYLIGHT SAVING to NO. Current time setting automatically moves one hour back.



- 1 Press **MENU**.
- 2 Press **+** or **-** to select **⌂**, and press **+**.
- 3 Press **+** or **-** to select **DAYLIGHT SAVING**, and press **+**.
- 4 Press **+** or **-** to select **YES** or **NO**, and press **+**.

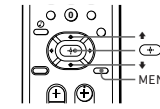


Choose	To
YES	Set for daylight saving start.
NO	Set for daylight saving end.

- 5 Press **MENU** to return to the original screen.

## Setting the clock (CURRENT TIME SET)

Setting the clock enables you to turn the projection TV on and off with the timer. Make sure to set daylight saving time first.



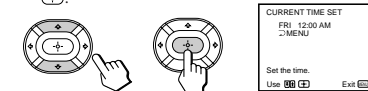
- 1 Press **MENU**.
- 2 Press **+** or **-** to select **⌂**, and press **+**.
- 3 Press **+** or **-** to select **CURRENT TIME SET**, and press **+**.



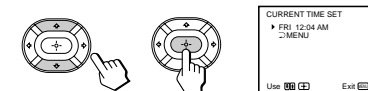
- 4 Make sure the cursor (▶) is to the left of "--:-- AM," and press **+**.



- 5 Set the current day of the week and time.
  - (1) Press **+** or **-** to set the day of the week, and press **+**.



- (2) Set the hour and minutes in the same way as in step (1). When you press **+** after setting the minutes, the clock starts.



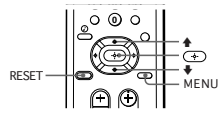
- 6 Press **MENU** to return to the original screen.

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## Setting the timer to turn the projection TV on and off (ON/OFF TIMER)

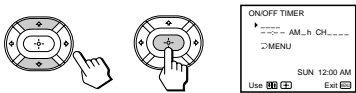
You can set the projection TV to turn on and off at the times you specify. Make sure the clock is set correctly. If it is not, set the clock first (page 29).



1 Press MENU.

2 Press  $\uparrow$  or  $\downarrow$  to select  $\odot$ , and press  $\rightarrow$ .

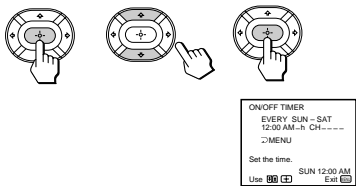
3 Press  $\uparrow$  or  $\downarrow$  to select ON/OFF TIMER, and press  $\rightarrow$ .



4 Press  $\rightarrow$  and enter the ON/OFF TIMER setting.

(1) Press  $\uparrow$  or  $\downarrow$  to set the day(s), and press  $\rightarrow$ .

Each time you press  $\uparrow$  or  $\downarrow$ , the days cycle as follows:  
 EVERY SUN-SAT → EVERY MON-FRI → SUNDAY → ... → SATURDAY → EVERY SUNDAY → ... → EVERY SATURDAY

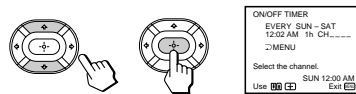


(2) Press  $\uparrow$  or  $\downarrow$  to set the time (hour then minutes) that you want to turn on the projection TV, and press  $\rightarrow$ .

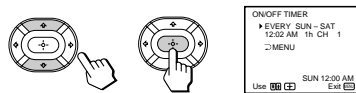


(3) Press  $\uparrow$  or  $\downarrow$  to set the time duration, and press  $\rightarrow$ .

Each time you press  $\uparrow$ , the time duration increases by one hour up to a maximum of six hours.



(4) Press  $\uparrow$  or  $\downarrow$  to select the channel, and press  $\rightarrow$ .



The TIMER indicator on the projection TV lights up.

5 To set the other program, press  $\leftarrow$ , and repeat step 4.

6 Press MENU to return to the original screen.

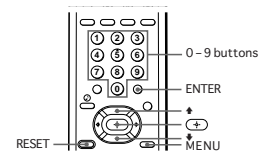
One minute before the projection TV turns off, the message "TV will turn off soon." is displayed on the screen.

To cancel the timer  
 In step 3 or 4, press RESET.

Note  
 • If you unplug the projection TV or a power interruption occurs, the ON/OFF TIMER setting will be erased. Reset the current time, then set the timer.

## Customizing the channel names (CHANNEL CAPTION)

You can add a caption for up to 12 channels. This feature allows you to easily identify which channel you are watching. You can make your own caption.

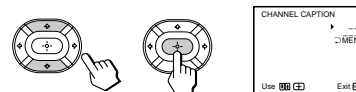


1 Press MENU.

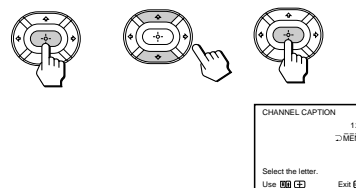
2 Press  $\uparrow$  or  $\downarrow$  to select  $\text{TV}$ , and press  $\rightarrow$ .



3 Press  $\uparrow$  or  $\downarrow$  to select CHANNEL CAPTION, and press  $\rightarrow$ .



4 Press  $\rightarrow$  and press  $\uparrow$  or  $\downarrow$  to select the channel that you want to caption, and press  $\rightarrow$ .

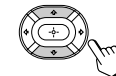


5 Enter the letters (up to four) to caption the channel:

(1) Press  $\uparrow$  or  $\downarrow$  to select the first letter.

Each time you press  $\uparrow$  or  $\downarrow$ , the letter changes as follows:

0...9 → A...Z → & / \_ (blank space)



(2) Press  $\rightarrow$ .



(3) Repeat steps (1) and (2) to select the remaining letters, and press  $\rightarrow$ .

6 Repeat steps 4 and 5 to caption other channels.

7 Press MENU to return to the original screen.

After you customize the channel, the channel caption appears green.

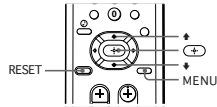
To erase a caption  
 In step 5, press RESET.


### Notes

- If the CHANNEL CAPTION menu appears in gray, the projection TV is set to a video input, and you cannot select CHANNEL CAPTION. Press TV (black button) so that a channel number appears.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.
- The channel caption feature is not available for the AUX input.

## Blocking out a channel (CHANNEL BLOCK)

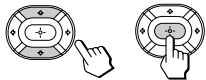
The channel block feature allows you to prevent children from watching unsuitable programs. You can block out two channels.



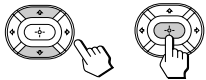
- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select , and press  $\leftarrow$ .
- 3 Press  $\uparrow$  or  $\downarrow$  to select CHANNEL BLOCK, and press  $\leftarrow$ .



- 4 Press  $\uparrow$  or  $\downarrow$  to select program 1 or 2, and press  $\leftarrow$ .



- 5 Press  $\uparrow$  or  $\downarrow$  to select the channel which you want to block out, and press  $\leftarrow$ .



- 6 Press MENU to return to the original screen. When you select the blocked channel, the message "BLOCKED" appears on the screen.



**To cancel a CHANNEL BLOCK setting**  
In step 4 or 5, press RESET.

**Note**

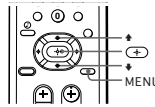
- Once you use CHANNEL BLOCK, Caption Vision and XDS of the blocked channel and the selected channel output from MONITOR OUT are also blocked out.


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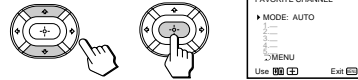
## Setting your favorite channels (FAVORITE CHANNEL)

The favorite channel feature allows your projection TV to memorize your favorite channels easily. If you set to AUTO, the last five channels you selected with the 0 - 9 buttons are automatically set as your favorite channels. If you want to input your own selection of channels, set to MANUAL.

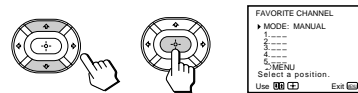
### Setting your favorite channels



- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select , and press  $\leftarrow$ .
- 3 Press  $\uparrow$  or  $\downarrow$  to select FAVORITE CHANNEL, and press  $\leftarrow$ .



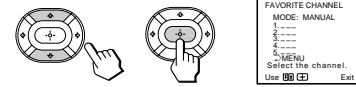
- 4 Press  $\leftarrow$  and press  $\uparrow$  or  $\downarrow$  to select AUTO or MANUAL, and press  $\leftarrow$ .



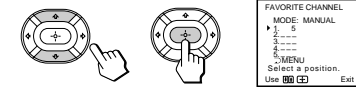
If you select AUTO, skip steps 5 and 6. The last five channels you selected with the 0 - 9 buttons are automatically set as your favorite channels.

If you select MANUAL, the favorite channel numbers become white, indicating that favorite channels can be entered.

- 5 Press  $\uparrow$  or  $\downarrow$  to select a favorite channel number, and press  $\leftarrow$ .



- 6 Press  $\uparrow$  or  $\downarrow$  to select the channel that you want to set as your favorite channel, and press  $\leftarrow$ .

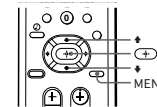


- 7 Press MENU to return to the original screen.

#### Notes

- If the FAVORITE CHANNEL menu appears in gray, the projection TV is set to a video input and you cannot select FAVORITE CHANNEL.
- If more than 90 seconds elapse after you press another button, the menu disappears automatically.
- The favorite channel feature is not available for the AUX input.

### Selecting your favorite channel



- 1 Press  $\leftarrow$ . The FAVORITE CHANNEL menu appears.



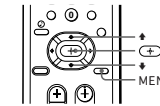
- 2 Press  $\uparrow$  or  $\downarrow$  to select the favorite channel you want to watch, and press  $\leftarrow$ . The selected channel appears on the screen.




**To cancel the FAVORITE CHANNEL menu**  
Press  $\uparrow$  or  $\downarrow$  to select "Exit," and press  $\leftarrow$ .

## Setting video labels (VIDEO LABEL)

The video label feature allows you to label each input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 as VHS.



- 1 Press MENU.
- 2 Press  $\uparrow$  or  $\downarrow$  to select , and press  $\leftarrow$ .
- 3 Press  $\uparrow$  or  $\downarrow$  to select VIDEO LABEL, and press  $\leftarrow$ .



- 4 Press  $\uparrow$  or  $\downarrow$  to select the input mode you want to label, and press  $\leftarrow$ .

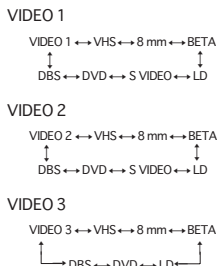


- 5 Press  $\uparrow$  or  $\downarrow$  to select the label, and press  $\leftarrow$ .



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Each time you press  $\blacktriangle$  or  $\blacktriangledown$ , the label changes as follows:



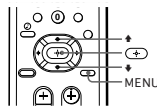
**6 Repeat steps 4 and 5 to label other input modes.**

**Note**

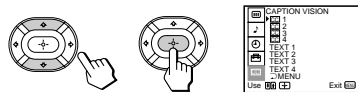
- If more than 90 seconds elapse before you press another button, the menu disappears automatically.

## Setting Caption Vision (CAPTION VISION)

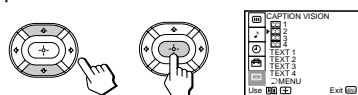
Some programs are broadcast with Caption Vision. To display Caption Vision, select either CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3, or TEXT4 from the menu. CC1, CC2, CC3, or CC4 shows you on-screen version of the dialogue or sound effects of a program. (The mode should be set to CC1 for most programs.) TEXT1, TEXT2, TEXT3, or TEXT4 shows you on-screen information presented using either half or the whole screen. It is not usually related to the program.



- 1 Press MENU.
- 2 Press  $\blacktriangle$  or  $\blacktriangledown$  to select  $\text{CC}$ , and press  $\blacktriangle$ .



- 3 Press  $\blacktriangle$  or  $\blacktriangledown$  to select the caption type, and press  $\blacktriangle$ .



- 4 Press MENU to return to the original screen.

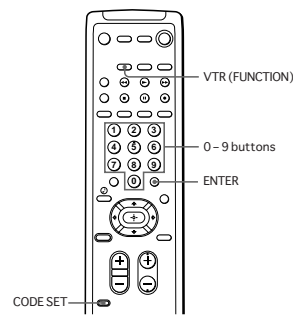
**To display Caption Vision**  
Press DISPLAY. (See page 20 for details.)

- Notes**
- Poor reception of TV programs can cause errors in Caption Vision and XDS. Captions may appear with a white box or other errors instead of a certain word.
  - XDS, Caption Vision, and the status display cannot be used at the same time.
  - For details on XDS, see page 20.

## Operating video equipment

You can use the supplied remote control to operate Sony or non-Sony video equipment that has an infrared remote sensor. For this operation, set the manufacturer's code number.

### Setting the manufacturer's code



Press the CODE SET, VTR (FUNCTION), and 0-9 buttons to enter the manufacturer's code number (see the chart on page 35-36), then press ENTER.  
For example, to operate a Sony 8 mm VCR, press CODE SET, VTR (FUNCTION), 3, 0, 2, and ENTER.



### VCR manufacturer code numbers

Manufacturer	Code number
Sony	301, 302, 303
Aiwa	338
Audio Dynamic	314, 337
Bell & Howell (M. Wards)	330, 343
Brocsonic	319
Canon	309, 308
Citizen	332
Craig	315, 302, 332
Curtis Mathis	304, 338, 309
Daewoo	341, 312, 309
DBX	314, 336, 337
Dimensia	304
Emerson	319, 320, 316, 317, 318
Fisher	330, 334, 335, 333
Funai	338
General Electric	329, 304, 309
Goldstar	332
Hitachi	306, 304, 305
Instant Replay	309, 308
JC Penny	309, 305, 304, 330, 314, 336, 337
JVC	314, 336, 337
Kenwood	314, 336, 332, 337
LXI (Sears)	332, 305, 333, 334, 330, 335
Magnavox	308, 309
Marantz	314, 336, 337
Marta	332
Memorex	309, 335
Minolta	305, 304
Mitsubishi/MGA	323, 324, 325, 326
Multitech	325, 338, 321
NEC	314, 336, 337
Olympic	309, 308
Panasonic	308, 309, 306, 307
Pentax	305, 304
Philco	308, 309
Philips	308, 309
Pioneer	308
Quasar	308, 309
RCA/PROSCAN	304, 305, 308, 309, 311, 312, 313
Realistic	309, 330, 328, 335, 324, 338
Sansui	314
Singer	315
Samsung	322, 313, 321
Sanyo	330, 335
Scott	312, 313, 321, 335, 323, 324, 325, 326
Sharp	327, 328
Shintom	315
Signature 2000 (M. Wards)	338, 327
Sylvania	308, 309, 338
Symphonic	338
Tashiro	332
Tatung	314, 336, 337
Teac	314, 336, 338, 337
Technics	309, 308
Toshiba	312, 311
Wards	327, 328, 335, 331, 332
Yamaha	330, 314, 336, 337
Zenith	331

EN

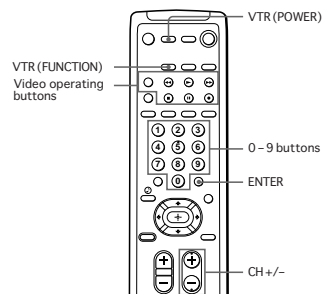
### MDP manufacturer code numbers

Manufacturer	Code number
Sony	701
Kenwood	707
Magnavox	703
Marantz	702
Mitsubishi	702
Panasonic	704
Philips	703
Pioneer	702
RCA	702
Sanyo	706
Sharp	705
Yamaha	703

#### 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.
- In some rare cases, you may not be able to operate your non-Sony video equipment with the supplied remote control. This is because your equipment may use a code that is not included with this remote control. In this case, please use the equipment's own remote control unit.
- The code numbers for Sony equipment are assigned at the factory as follows:  
VHS VCR 301 (preset code for the supplied remote control)  
8 mm VCR 302  
Beta, ED Beta VCRs 303
- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code number may revert to the factory setting and must be reset.

### Operating video equipment



Use the video operating buttons on the remote control to operate the video equipment. Press VTR (FUNCTION) before operating the video equipment.

Operating a VCR	Buttons on the remote control
To turn on or off	Press VTR (POWER).
To select a channel directly	Press the 0 - 9 buttons.
To change channels	Press CH +/-.
To record	Press <b>▶</b> while pressing <b>●</b> . First release <b>▶</b> , then release <b>●</b> .
To play	Press <b>▶</b> .
To stop	Press <b>■</b> .
To fast forward	Press <b>▶▶</b> .
To rewind the tape	Press <b>◀◀</b> .
To pause	Press <b>  </b> . To resume normal playback, press again.
To search the picture forward or backward	Press <b>▶▶</b> or <b>◀◀</b> during playback. To resume normal playback, release the button.
To change input mode	Press TV/VTR.

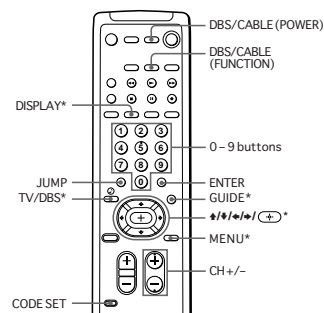
Operating an MDP	Buttons on the remote control
To turn on or off	Press VTR (POWER).
To play	Press <b>▶</b> .
To stop	Press <b>■</b> .
To pause	Press <b>  </b> . To resume normal playback, press again.
To search the picture forward or backward	Keep pressing <b>▶▶</b> or <b>◀◀</b> during playback. To resume normal playback, release the button.
To search the chapter forward and backward	Press CH +/-.

#### Note

- If the video equipment does not have a certain function, the corresponding button on this remote control will not operate.

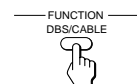
### Operating a cable box or DBS receiver

You can program the supplied remote control to operate a cable box or DBS receiver. Follow the procedures below to set the manufacturer's code number in the remote control.

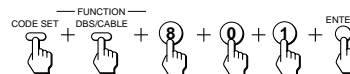


\* The TV/DBS, GUIDE, DISPLAY, **▶▶**/**◀◀**/**▶**/**◀**, and MENU buttons can be used only with a DBS receiver.

#### 1 Turn off the equipment you want to set up, and press DBS/CABLE (FUNCTION).



#### 2 Press the CODE SET, DBS/CABLE (FUNCTION), and 0 - 9 buttons to enter the manufacturer's code number (see the chart on the right column), then press ENTER. For example, to program your remote control to operate a Sony DBS receiver, press CODE SET, DBS/CABLE (FUNCTION), 8, 0, 1, and ENTER.



#### 3 Press DBS/CABLE (POWER) to turn on the cable box or DBS receiver.



#### 4 Use the cable box/DBS control buttons to check if the code number works.

For example, to operate a cable box or DBS receiver, you can use the DBS/CABLE (POWER), JUMP, CH +/-, 0 - 9 and ENTER buttons.

#### Note

- If the cable box or DBS receiver does not have a certain function, the corresponding button on this remote control will not operate.

#### To operate the projection TV

Press TV (FUNCTION). Then use the projection TV control buttons to control the projection TV.

#### For more details on operating the cable box or DBS receiver

Refer to the operating instructions that come with the equipment.

#### If the remote control doesn't work

- First, try repeating the setup procedures using the other codes listed for your equipment.

#### Manufacturer code numbers (cable box)

Manufacturer	Code number
Hamlin/Regal	222, 223, 224, 225, 226
Jerrold/G. I.	201, 202, 203, 204, 205, 206, 207, 208, 218
Oak	227, 228, 229
Panasonic	219, 220, 221
Pioneer	214, 215
Scientific Atlanta	209, 210, 211
Tocom	216, 217
Zenith	212, 213

#### Manufacturer code numbers (DBS receiver)

Manufacturer	Code number
Sony	801 (preset code for the supplied remote control)
RCA	802

#### 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 control and you may not be able to operate your equipment with the supplied remote control. In this case, use the equipment's own remote control unit.
- Whenever you remove the batteries — to replace them, for example — if too much time is taken, the code numbers may revert to the factory setting and must be reset.

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## Troubleshooting

If the problem persists after trying the methods below, contact your nearest Sony dealer.

### No picture (screen not lit), no sound

- Make sure the power cord is connected securely.
- Operate with the buttons on the projection TV.
- Insert the batteries in the remote control with the correct polarity.
- Replace the batteries with new ones if they are weak.
- Check to see if the TV/VIDEO setting is correct: when watching TV, set to TV, and when watching video tapes, set to VIDEO1, 2, or 3.
- Try another channel. It could be station trouble.
- Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

### Poor or no picture (screen lit), good sound

- Adjust PICTURE in the VIDEO menu. (page 23)
- Adjust BRIGHTNESS in the VIDEO menu. (page 23)
- Adjust convergence. (page 16)
- Check antenna/cable connections. (page 6)
- Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)
- Remove objects from the front of the projection TV.

### Good picture, no sound

- Press MUTING so that "MUTING" disappears from the screen. (page 19)
- Check the MTS setting in the AUDIO menu. (page 27)
- Make sure SPEAKER is set to ON in the AUDIO menu. (page 27)
- Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

### No color

- Adjust the COLOR in the VIDEO menu. (page 23)
- Confirm that black and white program is not being broadcast.
- Perform AUTO SET UP again using the SETUP button to return to the factory preset condition. (page 14)

### Only snow and noise appear on the screen

- Check the CABLE setting in the SET UP menu. (page 17)
- Check the antenna/cable connections. (page 6)
- Make sure the channel is broadcasting programs.
- Press ANT to change the input mode. (page 20)

### Dotted lines or stripes

- Adjust the antenna.
- Move the projection TV away from noise sources such as cars, neon signs, and hair-dryers.

### Double images or ghosts

- Use a highly directional outdoor antenna or a cable (when the problem is caused by reflections from nearby mountains or tall buildings).

### Cannot operate menu

- If the item you want to choose appears in gray, you cannot select it. Press TV/VIDEO correctly.
- Check the CABLE setting in the SET UP menu. (page 17)

### Cannot receive upper channels (UHF) when using an antenna

- Make sure CABLE is OFF in the SET UP menu. (page 17)
- Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages 14, 18)

### Cannot receive any channels when using cable TV

- Make sure CABLE is ON in the SET UP menu. (page 17)
- Use AUTO PROGRAM to add receivable channels that are not presently in projection TV memory. (pages 14, 18)

### Remote control does not operate

- Batteries could be weak. Replace the batteries. (page 13)
- Make sure the projection TV's power cord is connected securely to the wall outlet.
- Press TV (FUNCTION) when operating your projection TV.
- Are fluorescent lights too close to the projection TV? Move them at least 3-4 feet away from the projection TV.

### Cannot gain enough volume when using a cable box

- Increase the volume at the cable box. Then press TV (FUNCTION) and adjust the projection TV's volume.

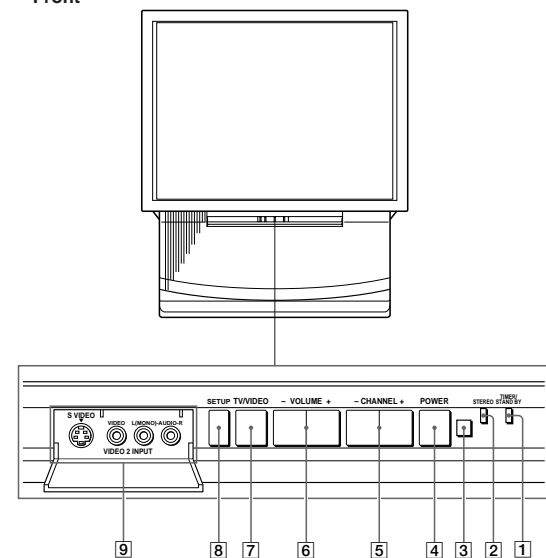
### The projection TV needs to be cleaned

- Clean the projection TV with a soft dry cloth. Never use strong solvents such as thinner or benzine, which might damage the finish of the cabinet.

## Index to parts and controls

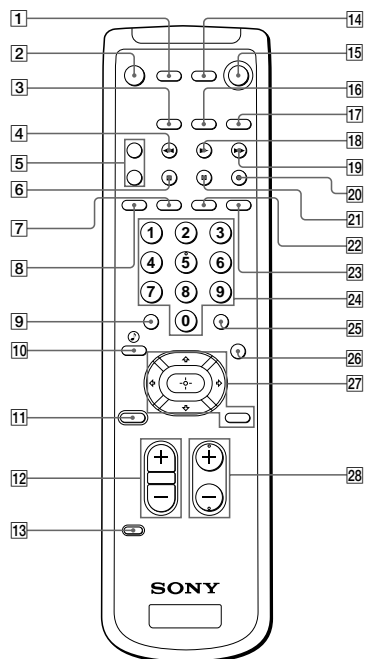
This section briefly describes the buttons and controls on the projection TV and on the Remote control. For more information, refer to the pages next to each description.

### Projection TV — Front



- |   |  |   |   |
|---|--|---|---|
| 1 | TIMER/STANDBY indicator (pages 19, 30) | 6 | VOLUME +/- buttons (page 14)                                  |
| 2 | STEREO indicator (page 27)             | 7 | TV/VIDEO button (page 14, 15)                                 |
| 3 | Remote sensor                          | 8 | SETUP button (page 14)  |
| 4 | POWER switch (page 14)                 | 9 | S VIDEO/VIDEO 2 INPUT (VIDEO/AUDIO L(MONO)/R) jacks (page 10) |
| 5 | CHANNEL +/- buttons (page 14)          |   |   |

## Remote control



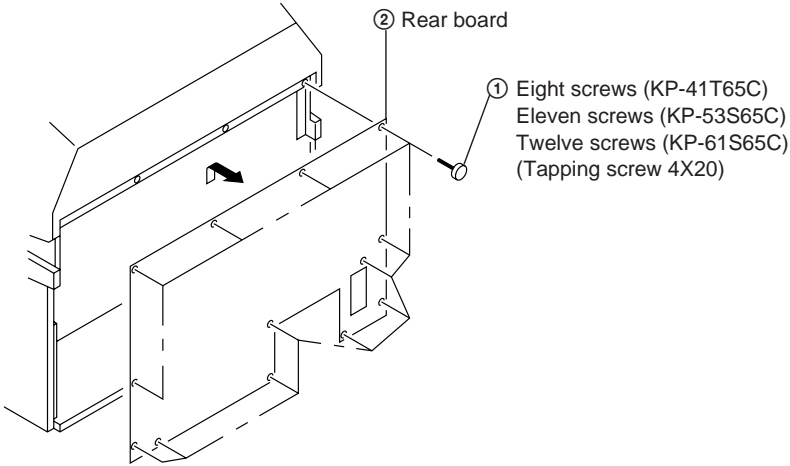
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- |  |   |
|--|---|
| 1 VTR (POWER) switch (page 36)                             | 17 TV (FUNCTION) button (pages 15, 19)  |
| 2 MUTING button (page 19)                                  | 18 SWAP button (page 22)  |
| 3 VTR (FUNCTION) button (page 35)                          | 19 PIP button (page 21)   |
| 4 FREEZE button (page 22)                                  | 20 TV/VIDEO button (yellow labelled button) (page 21)                         |
| 5 TV/VTR CH +/- buttons (Yellow labelled button) (page 21) | 21 AUDIO button (page 21)   |
| 6 POSITION button (page 22)                                | 22 TV/VIDEO button (page 20)  |
| 7 DISPLAY button (page 20)                                 | 23 ANT button (page 20)   |
| 8 SLEEP button (page 20)                                   | 24 0 - 9 buttons (page 16)  |
| 9 JUMP button (page 19)                                    | 25 ENTER button (page 16)   |
| 10 TV/DBS $\odot$ button (page 26, 37)                     | 26 MTS/GUIDE button (page 27, 37)   |
| 11 RESET button (page 23)                                  | 27 Menu operation buttons (page 15)   |
| 12 VOL (volume) +/- buttons (page 19)                      | MENU button   |
| 13 CODESET button (page 35)                                | $\blacktriangle/\blacklozenge/\blacktriangledown/\blacktriangleright$ buttons |
| 14 DBS/CABLE (POWER) switch (page 37)                      | $\text{Ⓢ}$ button   |
| 15 TV (POWER) switch (page 19)                             | 28 CH (channel) +/- buttons (pages 16, 19)                                    |
| 16 DBS/CABLE (FUNCTION) button (page 37)                   |   |

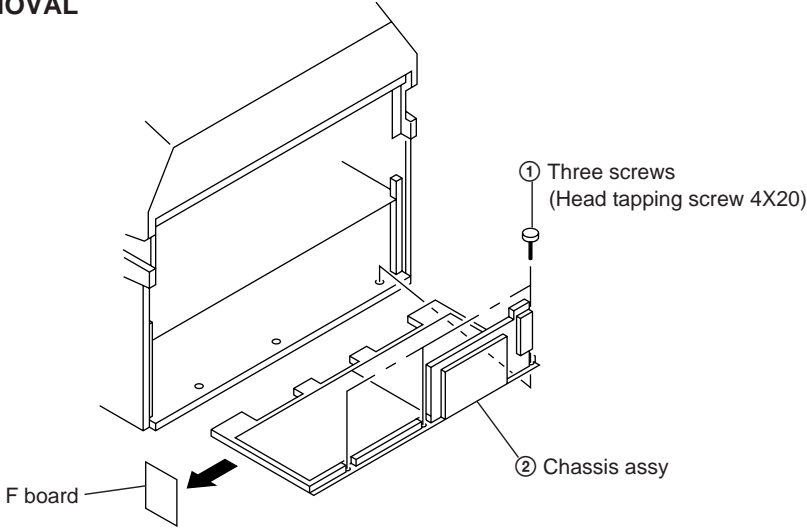
Additional Information | 41 -EN

# SECTION 2 DISASSEMBLY

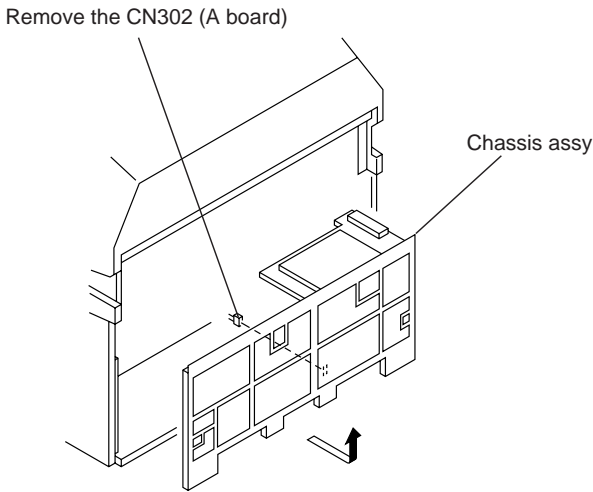
## 2-1. REAR BOARD REMOVAL



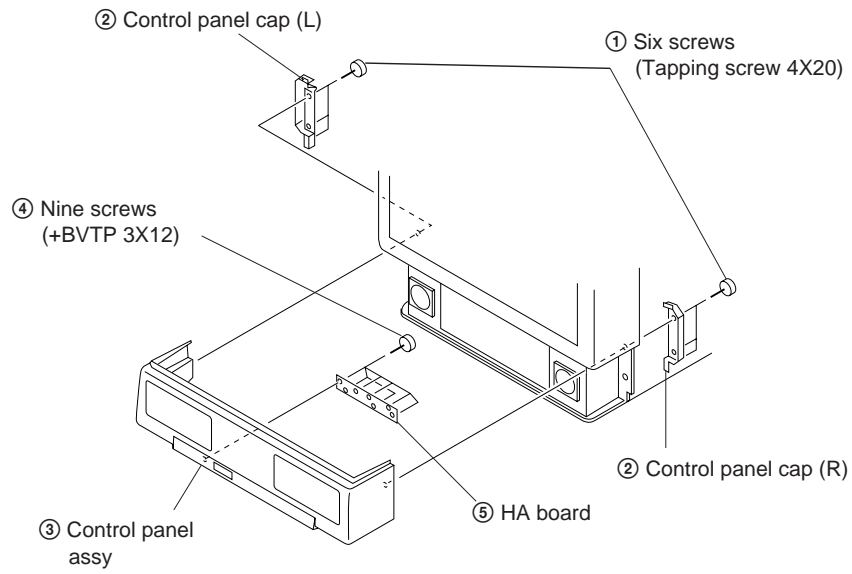
## 2-2. CHASSIS ASSY REMOVAL



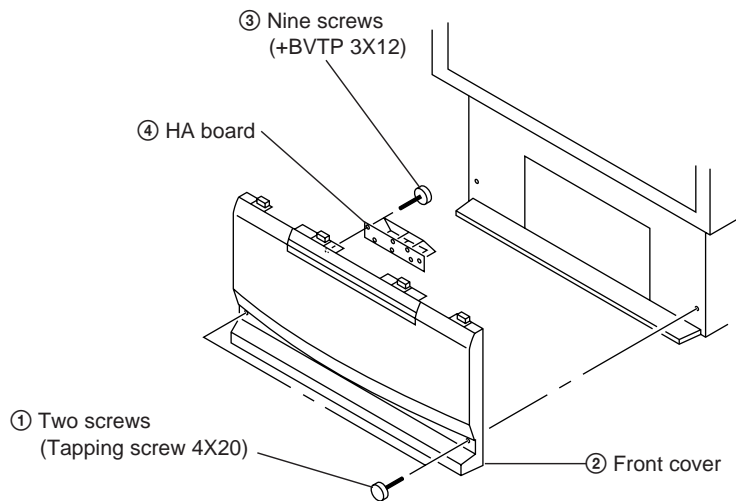
## 2-3. SERVICE POSITION



### 2-4-1. HA BOARD REMOVAL (KP-41T65C)

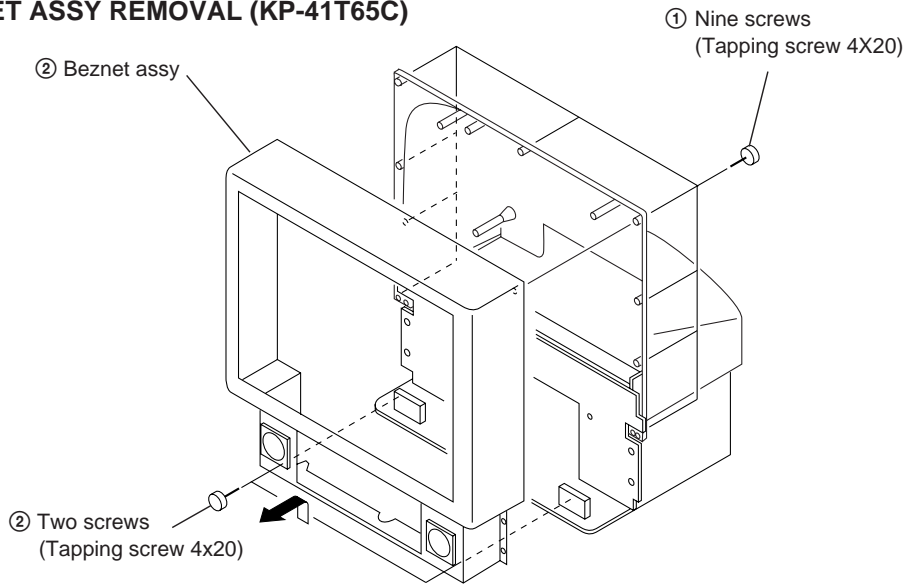


### 2-4-2. HA BOARD REMOVAL (KP-53S65C/61S65C)

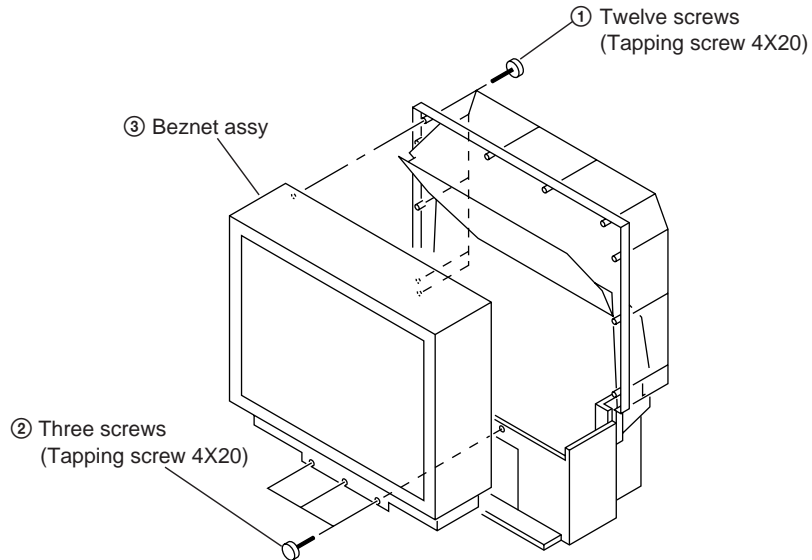




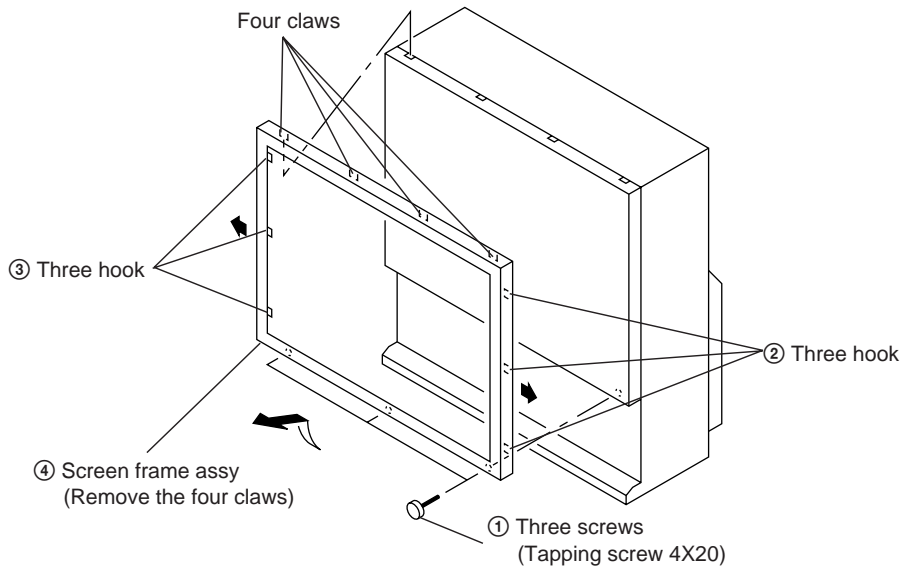
### 2-5-1. BEZNET ASSY REMOVAL (KP-41T65C)



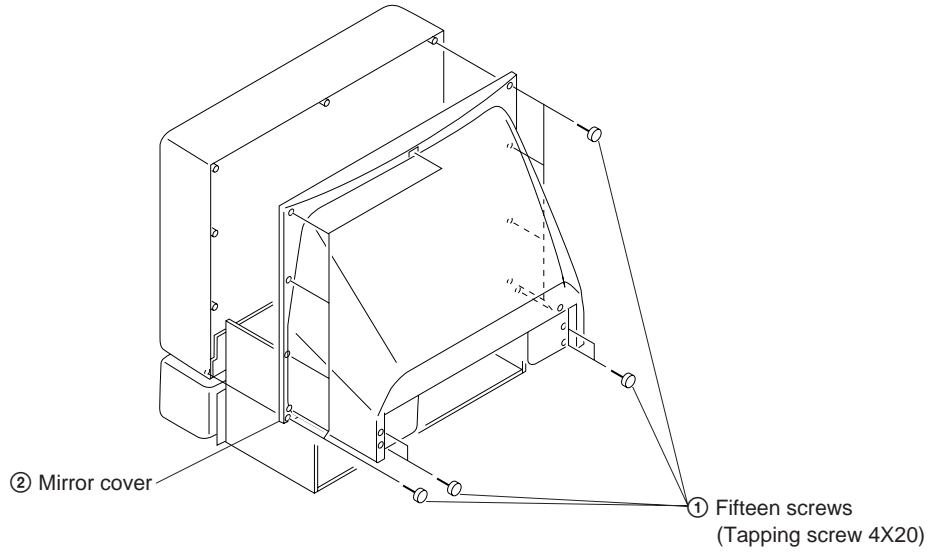
### 2-5-2. BEZNET ASSY REMOVAL (KP-53S65C)



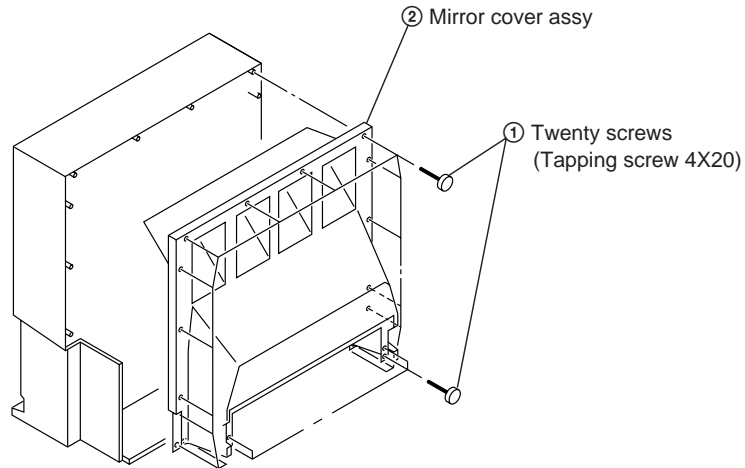
### 2-5-3. SCREEN FRAME ASSY REMOVAL (KP-61S65C)



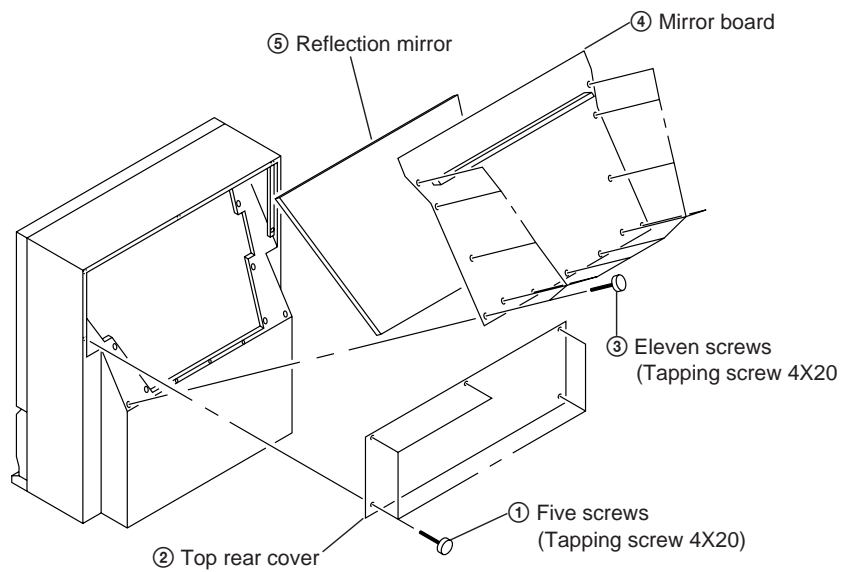
### 2-6-1. MIRROR COVER ASSY REMOVAL (KP-41T65C)



### 2-6-2. MIRROR COVER ASSY REMOVAL (KP-53S65C)

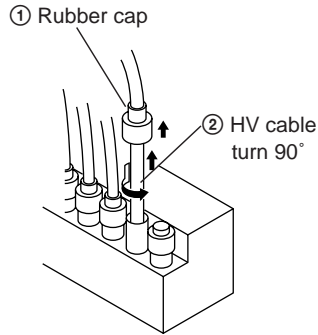


### 2-6-3. REFLECTION MIRROR REMOVAL (KP-61S65C)

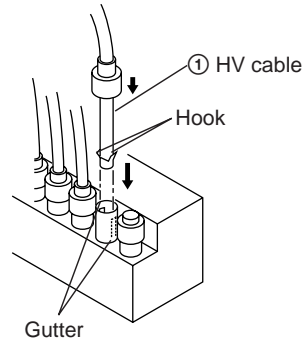


## 2-7. HIGH-VOLTAGE CABLE INSTALLATION AND REMOVAL

(1) Remover

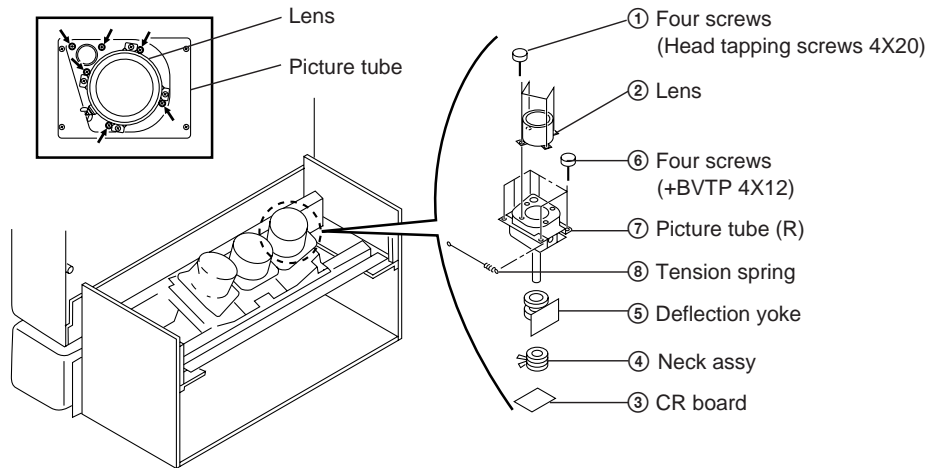


(2) Installation



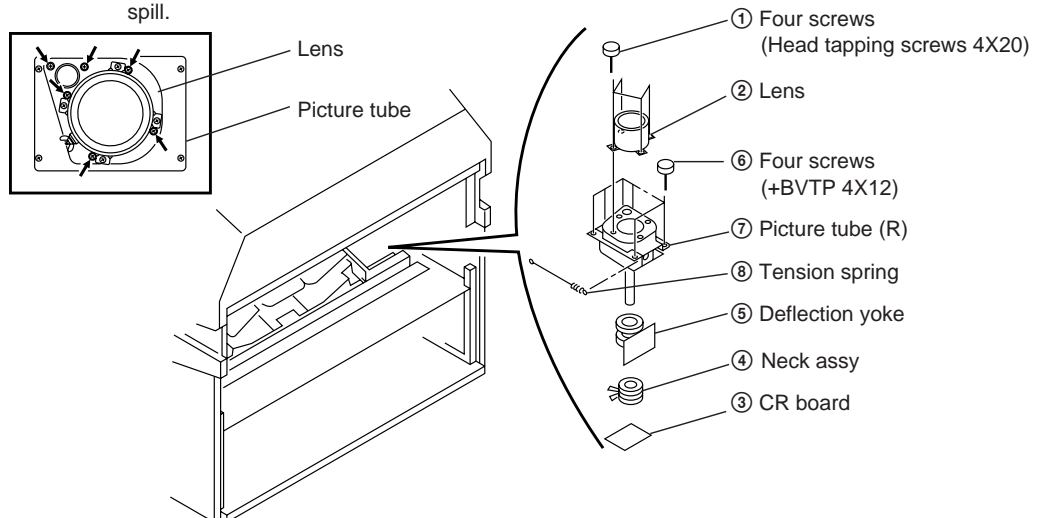
### 2-8-1. PICTURE TUBE REMOVAL (KP-41T65C)

**CAUTION:** Removing the arrow-marked screws is strictly prohibited.  
If removed, it may cause liquid spill.



### 2-8-2. PICTURE TUBE REMOVAL (KP-53S65C/61S65C)

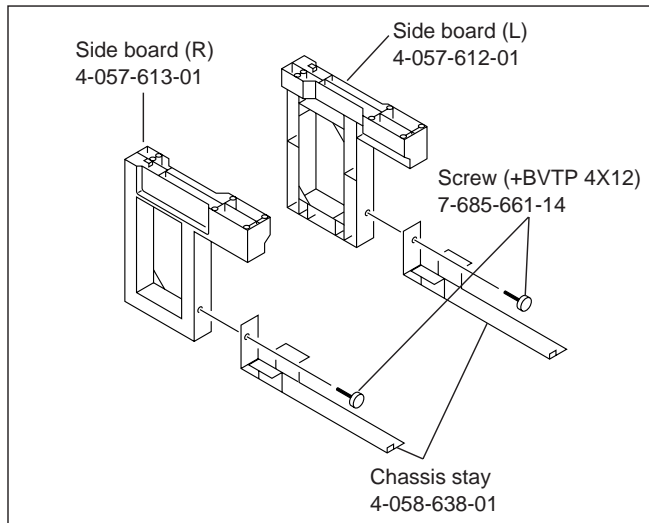
**CAUTION:** Removing the arrow-marked screws is strictly inhibited.  
If removed, it may cause liquid spill.



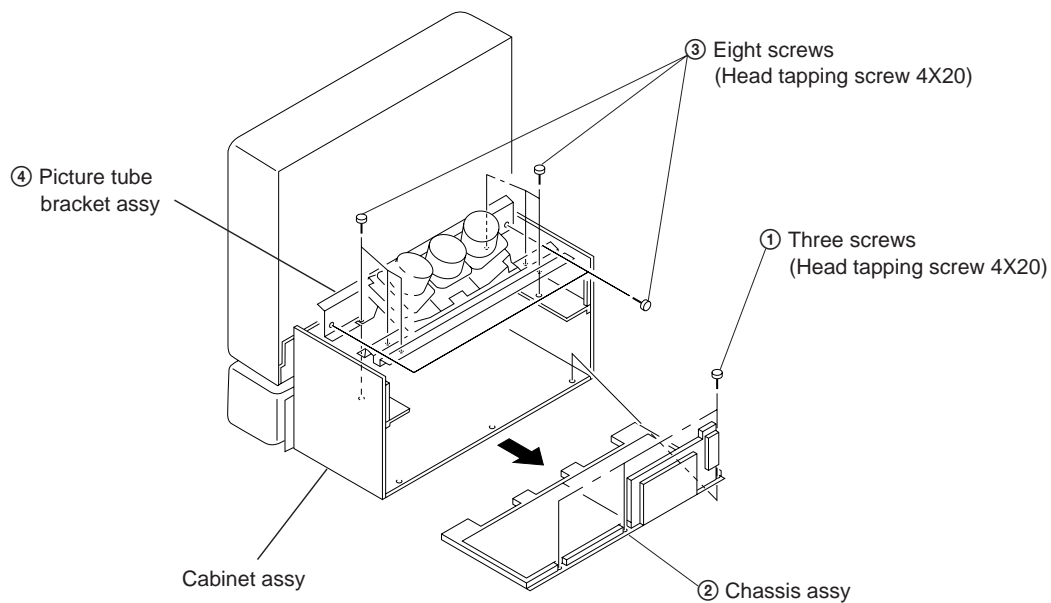
## 2-9-1. SERVICE STAY ASSY HOW TO USE AND CARRY BACK SERVICE STAY ASSY.

SERVICE STAY ASSY

X-3702-036-1



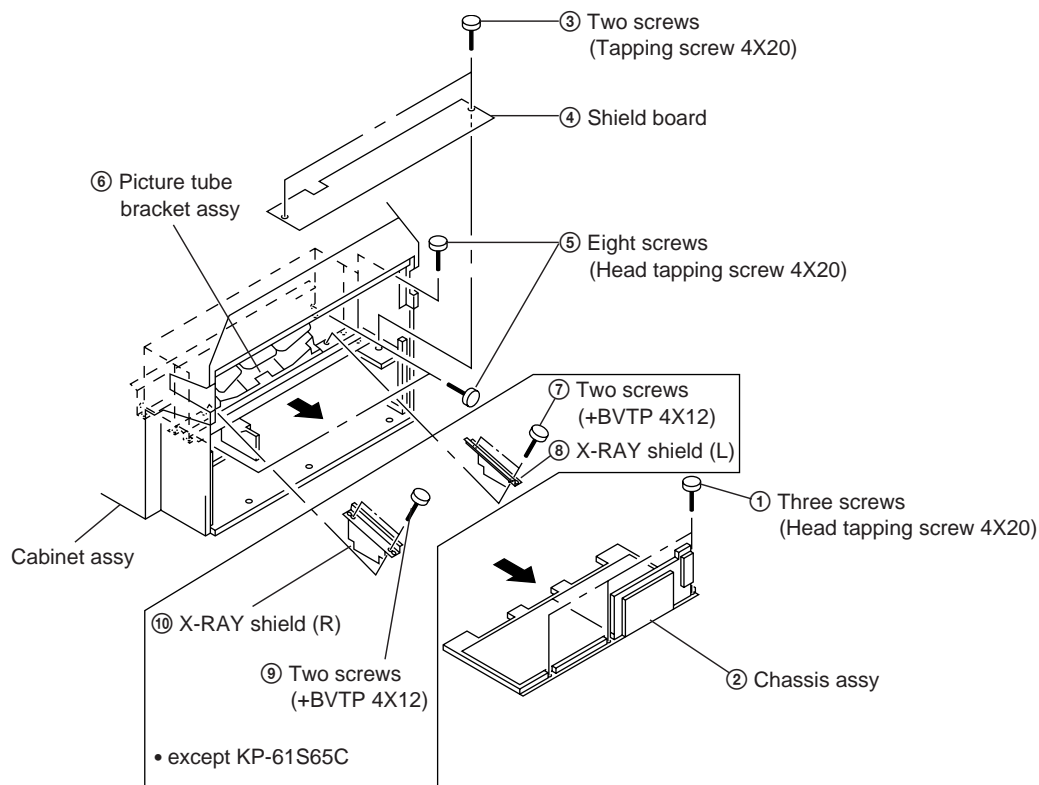
## 2-9-2. PICTURE TUBE BRACKET ASSY REMOVAL (KP-41T65C)



- 1) Remove ① three screws (head tapping screw 4X20) and pull out ② chassis assy from cabinet assy.
- 2) Remove ③ eight screws (head tapping screw 4X20) and release ④ picture tube bracket assy from cabinet assy.

### 2-9-3. PICTURE TUBE BRACKET ASSY REMOVAL (KP-53S65C/61S65C)

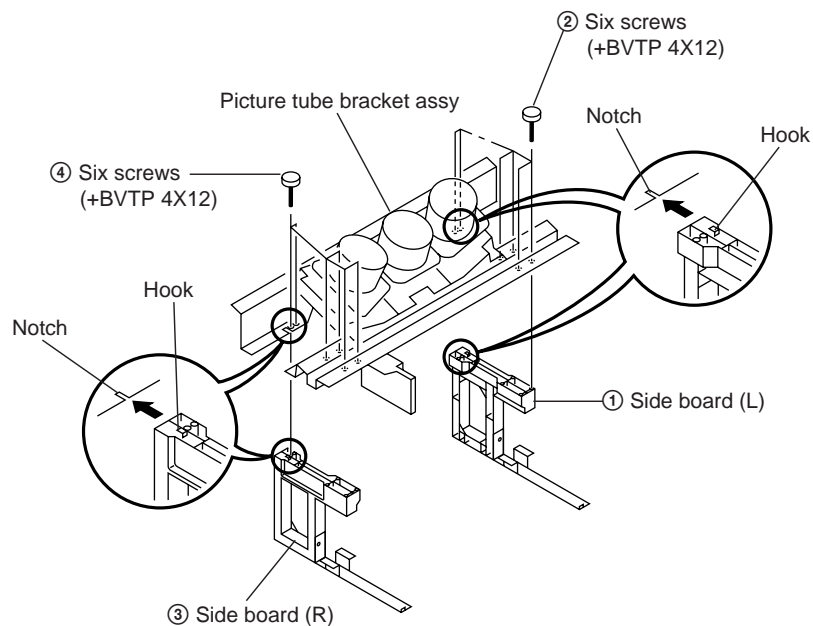
- Disassemble HA board and speaker cord.
- Disassemble all the harness from purse lock.



- 1) Remove ① three screws (head tapping screw 4X20) and pull out ② chassis assy from cabinet assy.
- 2) Remove ③ two screws (tapping screw 4X20) and remove ④ shield board.
- 3) Remove ⑤ eight screws (head tapping screw 4X20) and release ⑥ picture tube bracket assy from cabinet assy.

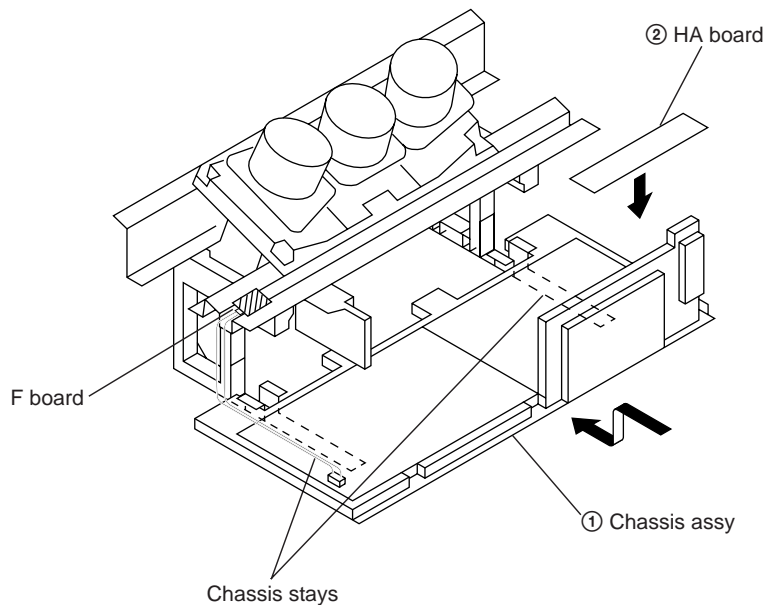
- 4) Remove ⑦ two screws (+BVTP 4X12) and remove ⑧ X-RAY shield (L).
  - 5) Remove ⑨ two screws (+BVTP 4X12) and remove ⑩ X-RAY shield (R).
- except KP-61S65C

#### 2-9-4. SETTING OF SERVICE STAY ASSY. (KP-41T65C/53S65C)



- 1) Lift up picture tube bracket assy and fit the hook of ① side board (L) to the notch on the assy. Then fix then with ② six screws (+BVTP 4X12).
- 2) Lift up picture tube bracket assy and fit the hook of ③ side board (R) to the notch on the assy. Then fix then with ④ six screws (+BVTP 4X12).

#### 2-9-5. INSTALL A CHASSIS ASSY



- 1) Put ① chassis assy on chassis stays.
- 2) Put ② HA board on ① chassis assy.
- 3) Put HV bracket on ① chassis assy. (KP-41T65C only)
- 4) Temporarily install the F Board on the CRT bracket.
- 5) You can carry the chassis assy in this condition.

## SECTION 3

### SET-UP ADJUSTMENTS

#### 3-1. SCREEN VOLTAGE ADJUSTMENT (ROUGH ALIGNMENT)

1. Receive the Monoscope signal.
2. Set 50% BRIGHTNESS and minimum PICTURE.
3. Turn the red VR on the FOCUS block all the way to the left and then gradually turn it to the right until the point where you can see the retrace line.
4. Next gradually turn it to the left to the position where the retrace line disappears.

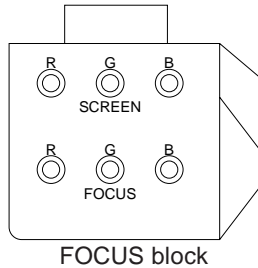


Fig. 3-1

#### 3-2. FOCUS LENS ADJUSTMENT

1. Loose the lens screw.
2. Set in service mode.
3. Use VP on the service mode menu to shown only the green color.
4. Press the Commander Menu button and select FEATURES and CONVERGENCE to display the test signal (crosshatch) on the screen.
5. Rotate the green lens and align with the optimal focus point from the test signal.
6. Use RG-RH from the service mode menu to set to green and red.
7. Output the test signal and rotate the red lens to obtain the optimum focus at the point where the red and green spots overlap.
8. Use RG-BH from the service mode menu to set to red and blue.
9. Output the test signal and rotate the blue lens to obtain the optimum focus at the point where the blue and red spots overlap.
10. Tighten the lens screw.

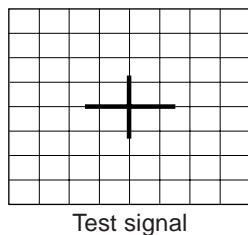


Fig. 3-2

#### 3-3. SCREEN (G2) ADJUSTMENT

1. Select VIDEO mode without signals.
2. Connect an oscilloscope to the TP701(KR), TP731(KG) and TP761(KB) of CR board, CG board and CB board.
3. Adjust R, G and B screen voltage to 170 – 173V with screen VR on the focusblock.

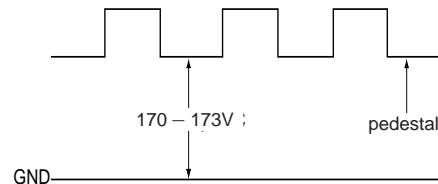


Fig. 3-3

#### 3-4. FOCUS VR ADJUSTMENT

1. Set in service mode.
2. Use VP on the service mode menu to shown only the green color.
3. Press the Commander Menu button (convergence) and output the test signal (crosshach).
4. Rotate the green VR on the FOCUS block and align to obtain the optimal focus point.
5. Use RG-RH from the service mode menu to set to green and red.
6. Output the test signal and rotate the red VR to obtain the optimum focus at the point where the red and green spots overlap.
7. Use RG-BH from the service mode menu to set to red and blue.
8. Output the test signal and rotate the blue VR aligning to obtain the optimum focus at the point where the blue and green spots overlap.

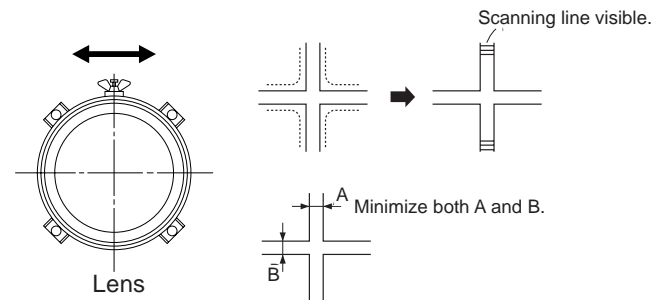


Fig. 3-4

Fig. 3-5

### 3-5. DEFLECTION YOKE TILT ADJUSTMENT

1. Set to receive the Monoscope signal.
2. Set in service mode.
3. Use VP on the service mode menu to show only the green color.
4. Loosen the deflection yoke set screw and align the tilt of the Deflection Yoke so that the bars at the center of the monoscope pattern are horizontal.
5. After aligning the deflection yoke, fasten it securely to the funnel-shaped portion (neck) of the CRT.
6. The tilt of the deflection yoke for red is aligned with RG-RH on the service mode menu, and the tilt on the deflection yoke for blue is aligned with RG-BH on the service menu, is aligned the same as was done for green.

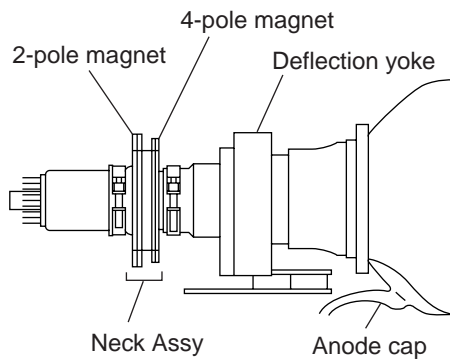


Fig. 3-6

### 3-6. 2-POLE MAGNET ADJUSTMENT

1. Set in service mode.
2. Set to receive the Dot signal.
3. Place the caps on the red and blue lenses so that only the green color is shown.
4. Turn the green VR on the focus block to the right and set to overfocus to enlarge the spot.
5. Now align the 2-Pole Magnet so that the enlarged spot is in the center of the Just Focus spot.
6. Align the green focus VR and set for just (precise) focus.
7. Perform the same alignment for red and blue.

Use the center dot

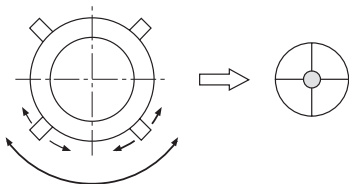


Fig. 3-7

### 3-7. 4-POLE MAGNET ADJUSTMENT

1. Set in service mode.
2. Set to receive the Dot signal.
3. Remove CN302 connector for A board
4. Place the caps on the red and blue lens so that only the green color is shown.
5. Turn the green VR on the focus block to the left and set to underfocus to enlarge the spot.
6. Now align the 4-Pole Magnet so that the enlarged spot becomes a perfect circle.
7. Perform the same alignment for red and blue.

Use the center dot

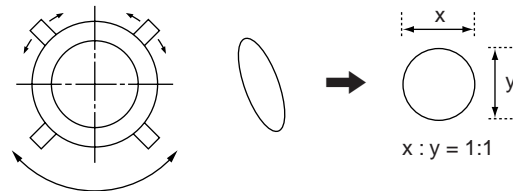


Fig. 3-8

### 3-8. DEFOCUS ADJUSTMENT (Blue)

1. Receive the crosshatch signal
2. Adjust the FOCUS knob so that the crosshatch pattern vertical line width is as in the figure on the right.
3. Blue only defocus Adjustment.

[Focus adjustment point]

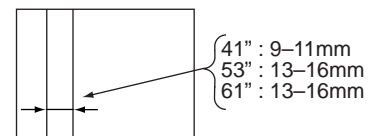


Fig. 3-9



### 3-9. ELECTRICAL ADJUSTMENT BY REMOTE COMMANDER

### 2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, remove the plug from AC outlet, and then replace the plug in AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again and confirm they were adjusted.



By using Remote Commander (RM-Y136A), all circuit adjustments can be made.

#### NOTE : Test Equipment Required.

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

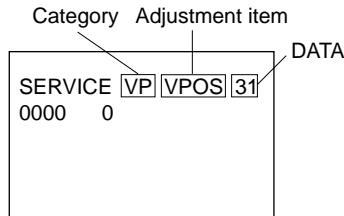
### 1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

#### SERVICE MODE PROCEDURE

1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **TV POWER**  
 ( **+** → **5** →  →  )

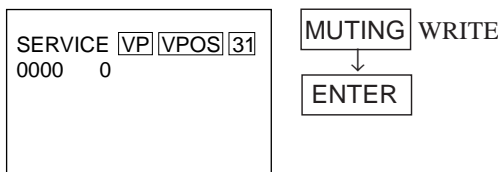
on the Remote Commander.  
 (Press each button within a second.)

### SERVICE MODE ADJUSTMENT



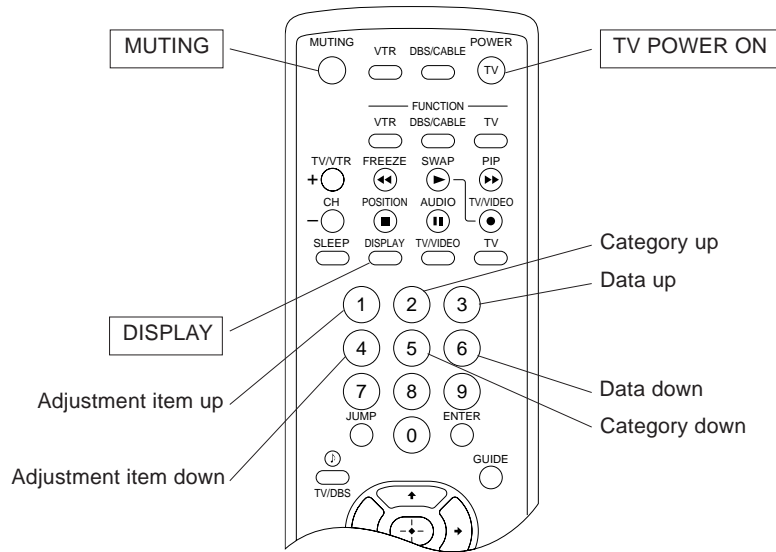
3. The CRT displays the item being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. Press **2** or **5** on the Remote Commander to select the category.
7. If you want to recover the latest values press **7** then **ENTER** to read the memory.
8. Press **MUTING** then **ENTER** to write into memory.

### SERVICE MODE ADJUSTMENT



8. Press **8** then **ENTER** on the Remote Commander to initialize.
9. Turn set off and on to exit.

### 3. ADJUST BUTTONS AND INDICATOR



RM-Y136A

### 4. SERVICE MODE LIST

#### VP

Category	Adjustment item	Standard data	Data range	Note
VP	VPOS		0-63	V SHIFT
	VSIZ		0-63	V SIZE
	VCOM	0	0-3	HV-COMP-V
	VLIN	7	0-15	V LIN
	VSCO	7	0-15	S CORRECTION
	HPOS	7	0-15	H SHIFT
	HSIZ		0-63	H SIZE
	PAMP		0-63	PIN AMP
	UPIN	7	0-15	UPPER CORNER PIN
	LPIN	7	0-15	LOWER CORNER PIN
	PPHA	7	0-15	H TRAPEZOID
	AFC	2	0-3	AFC LOOP GAIN
	VBOW	7	0-15	V BOW
	VANG	7	0-15	V ANGLE
	REF	3	0-3	AKB REFERENCE
	GDRV		0-63	GREEN DRIVE
	BDRV		0-63	BLUE DRIVE
	GCUT		0-15	GREEN CUT OFF
	BCUT		0-15	BLUE CUT OFF
	SCON		0-15	SUB CONTRAST
	SHUE		0-15	SUB HUE
	SCOL		0-15	SUB COLOR
	SBRT		0-63	SUB BRIGHTNESS
	SSHP	7	0-15	SUB SHARPNESS
	GMMA	0	0-3	GAMMA LEVEL
	CDM2	0	0,1	COUNT DOWN MODE 2
	DPIX	1	0,1	DYNAMIC PICTURE
	Y-DC	1	0,1	DC TRANSMISSION RATIO
	ABLM	1	0,1	ABL MODE
	AXIS	0	0,1	R-Y, G-Y AXIS
	NOTC	0	0,1	C TRAP
	CROM	7	0-15	C TRAP F0
	TOT	0	0,1	C TOT FILTER
	PREL	3	0-3	PRE/OVER LEVEL
	SHPF	2	0-3	SHARPNESS F0
	RON		0,1	RED ON/OFF
	GON		0,1	GREEN ON/OFF
	BON		0,1	BLUE ON/OFF
	DCOL		0,1	DYNAMIC COLOR
	CDMD	0	0,1	V COUNT DOWN
LBLK	13	0-15	H BLK WIDTH LEFT SIDE	
RBLK	13	0-15	H BLK WIDTH RIGHT SIDE	

**AP**

Category	Adjustment item	Standard data		Data range	Note
		4IT	V		
AP	SVOL	0	0	0-15	SUB VOLUME
	SBAL	7	7	0-15	SUB BLANCE
	SBAS	9	7	0-15	SUB BASS
	STRE	6	7	0-15	SUB TREBLE

**RG**

Category	Adjustment item	Standard data	Data range	Note
RG	GH CENT		-127- +127	GREEN H SENT
	GH SKEW		-127-+127	GREEN H SKEW
	GH BOW		-127-+127	GREEN H BOW
	GH 4BOW		-127-+127	GREEN H 4TH BOW
	GH SIZE		-127-+127	GREEN H SIZE
	GH LIN		-127-+127	GREEN H LINEARITY
	GH MSIZ		-127-+127	GREEN H MID SIZE
	GH MLIN		-127-+127	GREEN H MID LINEARITY
	GH KEY		-127-+127	GREEN H KEY
	GH SSKW		-127-+127	GREEN H SUB SKEW
	GH MPIN		-127-+127	GREEN H MID PIN
	GH PIN		-127-+127	GREEN H PIN
	GH SBOW		-127-+127	GREEN H SUB BOW
	GH MBOW		-127-+127	GREEN H MID BOW
	GH 4PIN		-127-+127	GREEN H 4TH PIN
	GH 4SBO		-127-+127	GREEN H 4TH SUB BOW
	GV CENT		-127-+127	GREEN V CENT
	GV SKEW		-127-+127	GREEN V SKEW
	GV BOW		-127-+127	GREEN V BOW
	GV SIZE		-127-+127	GREEN V SIZE
	GV LIN		-127-+127	GREEN V LINEARITY
	GV MSIZ		-127-+127	GREEN V MID SIZE
	GV MKEY		-127-+127	GREEN V MID KEY
	GV KEY		-127-+127	GREEN V KEY
	GV SSKW		-127-+127	GREEN V SUB SKEW
	GV MPIN		-127-+127	GREEN V MID PIN
	GV PIN		-127-+127	GREEN V PIN
	GV SBOW		-127-+127	GREEN V SUB BOW
	GV WAVE		-127-+127	GREEN V WAVE
	GV 4PIN		-127-+127	GREEN V 4TH PIN
	RH CENT		-95-+96	RED H CENT
	RH SKEW		-127-+127	RED H SKEW
	RH BOW		-127-+127	RED H BOW

Category	Adjustment item	Standard data	Data range	Note
RG	RH 4BOW		-127-+127	RED H 4TH BOW
	RH SIZE		-127-+127	RED H SIZE
	RH LIN		-127-+127	RED H LINEARITY
	RH MSIZ		-127-+127	RED H MID SIZE
	RH MLIN		-127-+127	RED H MID LINEARITY
	RH KEY		-127-+127	RED H KEY
	RH SSKW		-127-+127	RED H SUB SKEW
	RH MPIN		-127-+127	RED H MID PIN
	RH PIN		-127-+127	RED H PIN
	RH SBOW		-127-+127	RED H SUB BOW
	RH MBOW		-127-+127	RED H MID BOW
	RH 4PIN		-127-+127	RED H 4TH PIN
	RH 4SBO		-127-+127	RED H 4TH SUB BOW
	RV CENT		-95-+96	RED V CEVT
	RV SKEW		-127-+127	RED V SKEW
	RV BOW		-127-+127	RED V BOW
	RV SIZE		-127-+127	RED V SIZE
	RV LIN		-127-+127	RED V LINEARITY
	RV MSIZ		-127-+127	RED V MID SIZE
	RV MKEY		-127-+127	RED V MID KEY
	RV KEY		-127-+127	RED V KEY
	RV SSKW		-127-+127	RED V SUB SKEW
	RV MPIN		-127-+127	RED V MID PIN
	RV PIN		-127-+127	RED V PIN
	RV SBOW		-127-+127	RED V SUB BOW
	RV WAVE		-127-+127	RED V WAVE
	RV 4PIN		-127-+127	RED V 4TH PIN
	RV WING		-31-+32	RED V WING
	BH CENT		-95-+96	BLUE H CENT
	BH SKEW		-127-+127	BLUE H SKEW
	BH BOW		-127-+127	BLUE H BOW
	BH 4BOW		-127-+127	BLUE H 4TH BOW
	BH SIZE		-127-+127	BLUE H SIZE
	BH LIN		-127-+127	BLUE H LINEARITY
	BH MSIZ		-127-+127	BLUE H MID SIZE
	BH MLIN		-127-+127	BLUE H MID LINEARITY
	BH KEY		-127-+127	BLUE H KEY
	BH SSKW		-127-+127	BLUE H SUB SKEW
	BH MPIN		-127-+127	BLUE H MID PIN
	BH PIN		-127-+127	BLUE H PIN
	BH SBOW		-127-+127	BLUE H SUB BOW
BH MBOW		-127-+127	BLUE H MID BOW	

Category	Adjustment item	Standard data	Data range	Note
RG	BH 4PIN		-127-+127	BLUE H 4TH PIN
	BH 4SBO		-127-+127	BLUE H 4TH SUB BOW
	BV CENT		-95-+96	BLUE V CENT
	BV SKEW		-127-+127	BLUE V SKEW
	BV BOW		-127-+127	BLUE V BOW
	BV SIZE		-127-+127	BLUE V SIZE
	BV LIN		-127-+127	BLUE V LINEARITY
	BV MSIZ		-127-+127	BLUE V MID SIZE
	BV MKEY		-127-+127	BLUE V MID KEY
	BV KEY		-127-+127	BLUE V KEY
	BV SSKW		-127-+127	BLUE V SUB SKEW
	BV MPIN		-127-+127	BLUE V MID PIN
	BV PIN		-127-+127	BLUE V PIN
	BV SBOW		-127-+127	BLUE V SUB BOW
	BV WAVE		-127-+127	BLUE V WAVE
	BV 4PIN		-127-+127	BLUE V 4TH PIN
	BV WING		-31-+32	BLUE V WING

### CC

Category	Adjustment item	Standard data	Data range	Note
CC	CRIH	9	0-15	CRI COUNT HIGH
	CRIL	2	0-15	CRI COUNT LOW
	CFLD	5	0-15	FIXED FIELD COUNT
	CCDI	3	0-7	NO CCD INT COMPARE
	CRIP	4	0-7	CRI & PARITY ERROR
	CRIT	2	0-3	CRI TIME CONSTANT
	CSB1	3	0-3	SYNC SLICE BIAS 1
	CSB2	4	0-7	SYNC SLICE BIAS 2
	CCBD	4	0-15	C SYNC BACKPORCH DET
	CCFD	7	0-15	C SYNC FRONTPORCH DET
	CREP	142	0-255	CRI SIGNAL END POSITION
	CSEP	186	0-255	START BIT END POSITION
	CRBD	8	0-15	CRI BACKPORCH DET
	CRFD	9	0-15	CRI FRONTPORCH DET
	CSSD	3	0-15	STROBE WINDOW ST DLY
	CSED	9	0-15	STROBE WINDOW ED DLY
	CSBS	12	0-31	START BIT THRESHOLD
	CSDS	8	0-31	DATA START DELAY
	CCDS	9	0-31	CAPTION DT THRESHOLD
	CHMK	42	0-63	H SYNC MASK WIDTH
CHSY	136	0-255	H SYNC VCO COUNT	

### OP

Category	Adjustment item	Standard data	Data range	Note
OP	DISP		0-63	OSD POSITION
	PDPS		0-255	FAV/IDX CH POSITION
	PDPO		0-7	CH POSITION (OFF SET)

### ID

Category	Adjustment item	Standard data	Data range	Note
ID	ID0	25	0-255	MODEL ID#0
	ID1	55	0-255	MODEL ID#1
	ID2	31	0-255	MODEL ID#2
	ID3	1	0-255	MODEL ID#3
	ID4	155	0-255	MODEL ID#4
	ID5	177	0-255	MODEL ID#5
	ID6	198	0-255	MODEL ID#6
	ID7	66	0-255	MODEL ID#7

### PP

Category	Adjustment item	Standard data	Data range	Note
PP	BGHP	-	0-15	PIP H POSITION
	BGVP	-	0-15	PIP V POSITION
	MAHP	-	0-15	P&P MAIN H AQUISITION
	MAVP	-	0-255	P&P MAIN V AQUISITION
	SAHP	-	0-15	P&P SUB H AQUISITION
	SAVP	-	0-255	P&P SUB V AQUISITION
	DECS	-	0-31	S DECODER REGISTERS
	DECM	-	0-31	M DECODER REGISTERS
	DIS	-	0-127	DISPLAY SETTING
	BSIZ	-	0-15	BORDER SIZE
	6BIT	-	0-3	6bit (SMART6/SKIP6)
	VPED	-	0-15	V OFFSET
	UPED	-	0-15	U OFFSET

### PS

Category	Adjustment item	Standard data	Data range	Note
PS	PIPH		0-127	PIP H POSITION
	PIPV		0-63	PIP V POSITION
	PMVD	26	0-31	PIP V PULSE DELAY(M)
	PIVD	22	0-31	PIP V PULSE DELAY(I)
	PCON		0-15	PIP CONTRAST(I)

Category	Adjustment item	Standard data	Data range	Note
PS	FRMY	7	0-15	PIP FRAME Y LEVEL
	IPEP	0	0-15	PIP PEDESTAL R-Y(I)
	IPEB	0	0-15	PIP PEDESTAL B-Y(I)
	IHUE		0-15	PIP SUB HUE
	ICOL		0-15	PIP SUB COLOR
	PHDL	1	0-15	PIP H PULSE DELAY
	PYSD	1	0-15	PIP SELECT DELAY
	PYDL	0	0-7	PIP Y DELAY
	PCPS	0	0,1	PIP CLP
	PCPF	0	0,1	PIP CLP CYCLES
	PSEL	0	0,1	PIP SELDOWN
	PPLL	0	0-3	PIP PLL
	CHRI	0	0,1	PIP INPUT POLARITY
	CHRO	0	0,1	PIP OUTPUT POLARITY

Category	Adjustment item	Standard data	Data range	Note
IC	PSHP	1	0,1	PIP SHARPNESS F0
	PDPI	0	0,1	PIP DYNAMIC PICTURE
	PSYS	0	0-3	PIP COLOR SYSTEM
	PXTL	0	0-3	PIP X' TAL
	PLOP	0	0-3	PIP COLOR LOOP

### MC

Category	Adjustment item	Standard data	Data range	Note
MC	MSCN	-	0-15	P&P MAIN SUB CONTRAST
	MSHU	-	0-15	P&P MAIN SUB HUE
	MSCL	-	0-15	P&P MAIN SUB COLOR
	MUPD	-	0-15	P&P MAIN U OFFSET
	MVPD	-	0-15	P&P MAIN V OFFSET
	MDLY	-	0-3	P&P MAIN Y DELAY
	MBGR	-	0-3	P&P MAIN SCP CONTROL(1)
	MBGF	-	0-3	P&P MAIN SCP CONTROL(2)

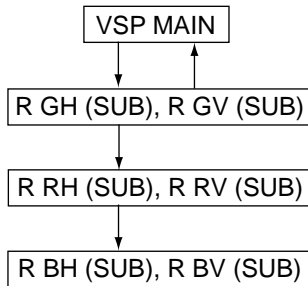
### IC

Category	Adjustment item	Standard data	Data range	Note
IC	SSCN	6	0-15	P&P SUB SUB CONTRAST
	SSHU	-	0-15	P&P SUB SUB HUE
	SSCL	-	0-15	P&P SUB SUB COLOR
	SUPD	-	0-15	P&P SUB U OFFSET
	SVPD	-	0-15	P&P SUB V OFFSET
	SDLY	0	0-3	P&P SUB Y DELAY
	SBGR	3	0-3	P&P SUB SCP CONTROL(1)
	SBGF	3	0-3	P&P SUB SCP CONTROL(2)
	PAFC	2	0-3	PIP AFC LOOP GAIN
	PTOT	0	0,1	PIP CHROMA TOT FILTER
	PYDR	10	0-31	PIP Y DRIVE
	PYDC	3	0-7	PIP DC TRAN

### 3-10. CONVERGENCE ADJUSTMENT

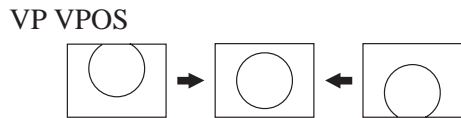
- When replacing the deflection yoke, always perform "DEFLECTION YOKE TILT ADJUSTMENT" before adjusting the convergence.

#### Adjustment procedure



#### [ GREEN REGISTRATION ADJUSTMENT ]

##### • V-SHIFT adjustment

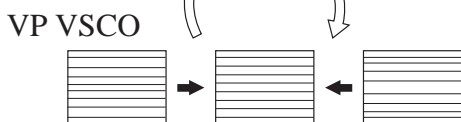
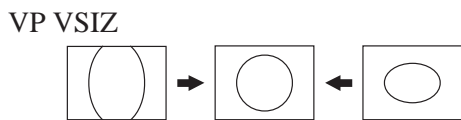


##### • V-LINEARITY adjustment

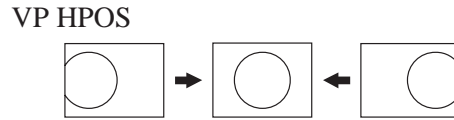


##### • V-SIZE, V-CORRECTION adjustment

While tracking, adjust so that the lattice intervals for VSIZ and VSCO are equal.

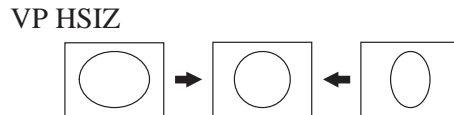


##### • H-SHIFT adjustment



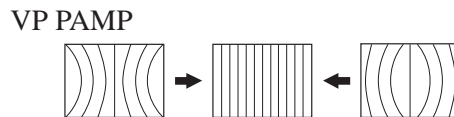
##### • H-SIZE adjustment

Finely adjust with SUB MSIZ.



##### • PIN-AMP adjustment

Finely adjust with SUB MPIN.

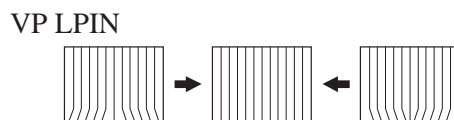
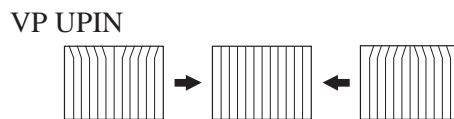


##### • UPPER/LOWER-CORNER PIN adjustment

Correct the screens top and bottom bow line.

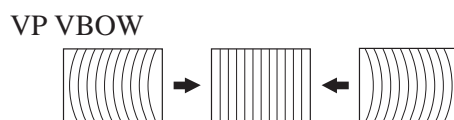
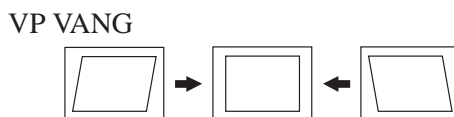
However, if this adjustment is overdone, distortion may occur with the PIN-AMP adjustment that can not be re-adjusted.

Note : The PIN-AMP adjusts the overall screen from top to bottom, but the UPPER/LOWER-CORNER PIN adjustments have large movement in the top and bottom sections, so be careful.



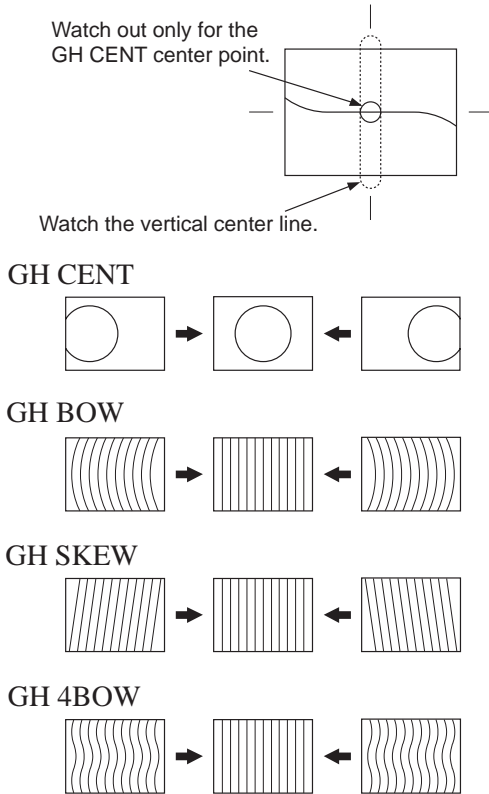
##### • V-ANGLE, V-BOW adjustment

Correct the tilt and bow of the vertical line at the center of the screen.



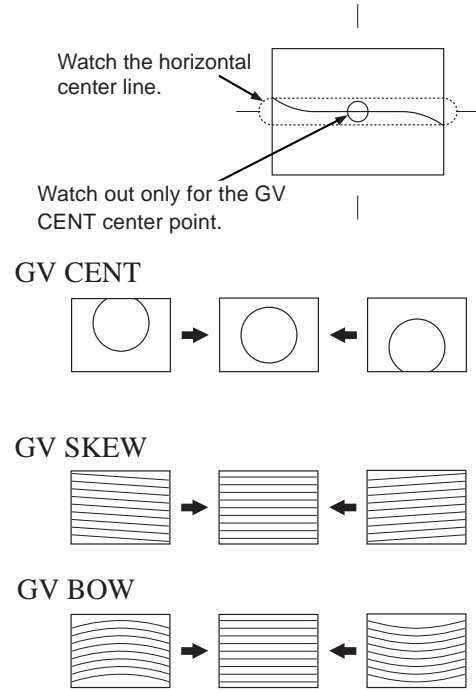
**[GREEN SUB ADJUSTMENT]**  
**SCREEN CENTER SECTION GREEN VERTICAL LINE**  
**ADJUSTMENT**

1. Finely adjust with GH CENT, GH BOW, GH SKEW.  
 Adjust by watching out for the GH CENT screen center section.
2. RGH 4TH BOW adjustment  
 Correct the corner distortion that could not be adjusted away with the GH 4BOW adjustment.



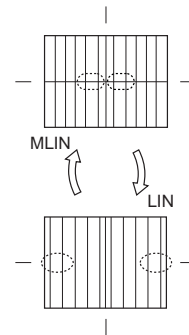
**SCREEN CENTER SECTION GREEN HORIZONTAL LINE**  
**ADJUSTMENT**

1. Finely adjust the center position of the vertical line at the center of the screen with GV CENT.
2. Correct the tilt and bow of the horizontal line at the center of the screen with GV SKEW and GV BOW.



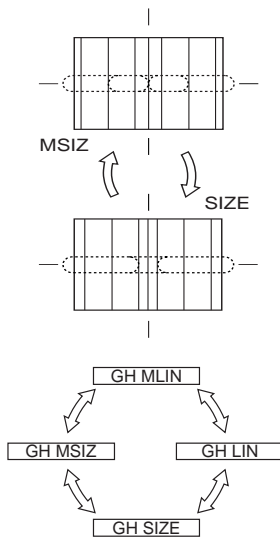
**GREEN SIZE AND LINEARITY ADJUSTMENT**

1. Balance the sizes at both sides of the center section of the screen with RGH MLIN.
2. Balance the sizes on both end sections of the screen with RGH LIN.
3. While tracking, adjust with RGH MLIN and RGH LIN so that the sizes of the horizontal line at the center of the screen are symmetrical left and right.



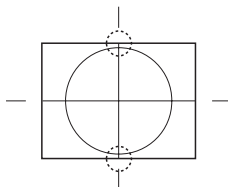
### GREEN HORIZONTAL SIZE ADJUSTMENT

1. Adjust with RGH MSIZE so that the sizes of both ends and of both sides of the center section of the screen are equal.
  2. Adjust with GH SIZE so that the horizontal sizes of both ends and of both sides of the center section of the screen are equal.
  3. While tracking, adjust with GH MSIZ and GH SIZE so that the lattice intervals for the horizontal line section of the center section of the screen are equal and so that the horizontal size is the prescribed value.
  4. If M LIN is changed when the GH MSIZ and GH SIZE adjustment is complete, adjust again while tracking.
- With just the H SIZE adjustment in MAIN, if there is no need to adjust RGH SIZE in SUB this can save power.



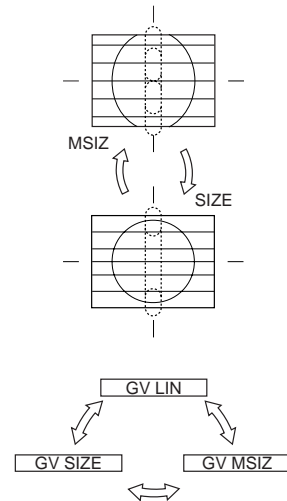
### GREEN VERTICAL LINEARITY ADJUSTMENT

1. Adjust GV LIN so that the vertical lines at the top and bottom of the screen are symmetrical.



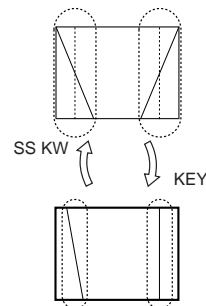
### GREEN VERTICAL SIZE ADJUSTMENT

1. Adjust with GV MSIZE so that the sizes for the top and bottom sections of the screen and for both sides of the center section of the screen are equal.
  2. Set the vertical size to the prescribed value with GV SIZE.
  3. Adjust GV MSIZ and GV SIZE watching the vertical line at the center section of the screen.
  4. While tracking, adjust with GV MSIZ and GV SIZE so that the lattice intervals for the vertical line section of the center section of the screen are equal and so that the vertical size is the regulation value.
  5. If GV LIN is out of place when the GV MSIZ and GV SIZE adjustment is complete, adjust again while tracking.
- If there is no need to adjust GV SIZE in SUB with just the V SIZE adjustment in MAIN, this can save power.



### GREEN HORIZONTAL TRAPEZOIDAL DISTORTION ADJUSTMENT

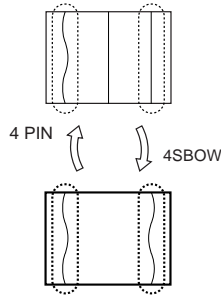
1. Adjust with GH SSKW so that the tilt of the vertical lines at both ends of the screen is symmetrical left and right.
2. Adjust with GH KEY so that there is no tilt in the vertical lines at both ends of the screen.
3. If there is a tilt on either the left or right after the GH KEY adjustment, adjust while tracking.





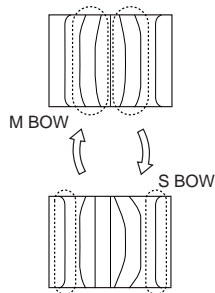
### GREEN HORIZONTAL QUATERNARY ADJUSTMENT

1. Correct the quaternary distortion with GH 4PIN.
2. While balancing, correct the quaternary distortion of both end sections of the screen with GH 4SBOW.
3. While tracking, adjust with GH 4PIN and RGH 4SBOW.



### GREEN HORIZONTAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT

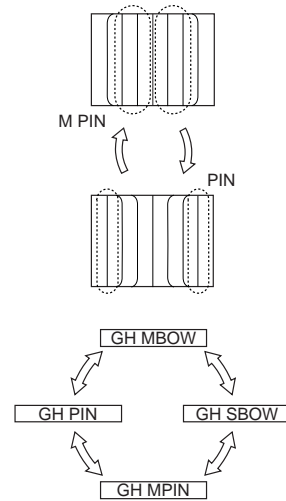
1. Adjust with GH MBOW so that the pin asymmetry at both sides of the center section of screen is symmetrical.
2. Adjust with GH SBOW so that the bow at both end sections of the screen is symmetrical left and right.
3. While tracking, adjust with GH MBOW and GH SBOW so that the bow of vertical lines on the entire screen is symmetrical left and right.



### GREEN HORIZONTAL SYMMETRICAL PIN DISTORTION ADJUSTMENT

1. Adjust the pin distortion at both sides of the center section of the screen with GH MPIN.
2. Adjust the pin distortion at both end sections of the screen with GH PIN.
3. While tracking, adjust with GH MPIN and GH PIN so that the PIN of vertical lines on the entire screen have no bowing.
4. If there is asymmetrical pin distortion after the GH MPIN and GH PIN adjustments, adjust with GH MBOW and GH SBOW while tracking.

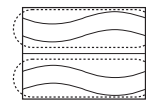
- With just the PIN AMP adjustment in MAIN, if there is no need to adjust GV PIN in SUB, this can save power.



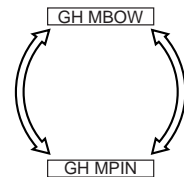
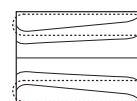
### GREEN VERTICAL WAVE (TERTIARY DISTORTION) ADJUSTMENT

1. Take the screen top and bottom horizontal lines with GV WAVE and find the secondary and quaternary waveform.
2. There is KEY distortion after the GV WAVE adjustment, so adjust with RGV WAVE and RGV KEY while tracking.

#### GV WAVE



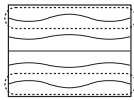
#### GV KEY



**GREEN VERTICAL QUATERNARY DISTORTION ADJUSTMENT**

1. Correct the quaternary distortion of the horizontal lines at the top and bottom sections of the screen with GV 4PIN.
- 1) Since there is no 4SBOW for vertical correction, there will be a slight imbalance, but adjust to eliminate the distortion from the horizontal line at either the top or the bottom of the screen.
- 2) In many cases, the horizontal lines at the top and bottom sections of the screen are not straight lines after the adjustment. As long as the secondary distortion is mild enough that it can be corrected with the PIN adjustment, this is OK.

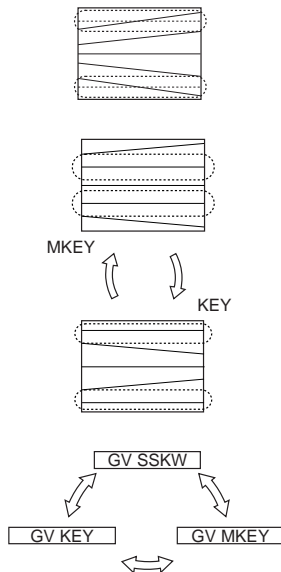
GV 4PIN



**GREEN VERTICAL TRAPEZOIDAL DISTORTION ADJUSTMENT**

1. Adjust with GV SSKW so that the tilt of the horizontal lines at the top and bottom sections of the screen is symmetrical about the center position horizontal line.
2. Adjust with GV MKEY so that there is no tilt for the line sections at both sides of the horizontal lines at the center section of the stream.
3. Adjust with GV KEY so that there is no tilt for the horizontal lines at the top and bottom sections of the screen.
4. While tracking, adjust with GV MKEY and GV KEY so that there is no tilt for the horizontal lines on the entire screen.
5. If the tilt is unbalanced after the GV MKEY and GV KEY adjustment, adjust again with GV SSKW.

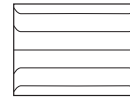
GV SSKW



**GREEN VERTICAL ASYMMETRICAL PIN DISTORTION (SECONDARY DISTORTION) ADJUSTMENT**

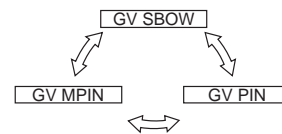
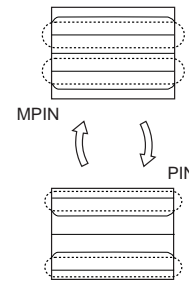
1. Correct the asymmetrical pin distortion at the top and bottom sections of the screen with RGV SBOW.

GV SBOW



**GREEN VERTICAL ASYMMETRICAL PIN DISTORTION ADJUSTMENT**

1. Adjust the pin distortion for both side sections and the center of the screen with GV MPIN.
2. Adjust with GV PIN so that the horizontal lines at the top and bottom sections of the screen are straight lines.
3. Adjust with GV MPIN and GV PIN so that there is no curve in the horizontal lines on the entire screen.
4. After the adjustments in Items 1-3, adjust the tracking with GV SBOW, GV MPIN, and GV PIN.



### **GREEN AND RED REGISTRATION ADJUSTMENT (RRH, RRV)**

1. Receive a cross-hatch signal.
2. Adjust so that the red lines lay on the green lines.  
Adjust with the same procedure as the GREEN SUB adjustment.

- Notes:
1. The main correction is not carried out during red registration adjustment.
  2. Beware. The green adjustment items can be changed by mistake.
  3. Unlike for green, adjust within the range -127 ~ +128.

### **GREEN AND BLUE REGISTRATION ADJUSTMENT (RBH, RBV)**

1. Receive a cross-hatch signal.
2. Adjust so that the blue and green lines are on top of each other.

- Notes :
1. The main correction is not carried out during RED registration adjustment.
  2. Beware. The GREEN and RED adjustment items can be changed by mistake.

### **3-11. AGC ADJUSTMENT**

1. Receive an off-air signal.
2. Adjust the AGC VR ( TU 1001 ) so that there is no snow noise and cross-modulation.

### **3-12. WHITE BALANCE ADJUSTMENT**

1. Receive the monoscope pattern signal and adjust the picture quality with the menu.
2. Adjust service mode SBRT so that the signal 10 IRE section barely glows.
3. Receive the all-white pattern signal.
4. Adjust the white balance with service mode GCUT and BCUT.
5. Adjust service mode SBRT so that the signal 100 IRE section barely glows.
6. Adjust the white balance with service mode GAMP and BAMP.
7. Repeatedly adjust the white balance for the minimum and maximum picture settings.

## SECTION 4

### SAFETY RELATED ADJUSTMENTS

#### [ G BOARD]

#### 4-1. HV REGULATION CIRCUIT CHECK AND ADJUSTMENT

When replacing the following components marked with  $\blacksquare$  on the schematic diagram always check HV regulation, and if necessary re-adjust.

- $\blacksquare$ : C514
- $\blacksquare$ : C514, C515, C516  
IC651  
T502, T503, T504 (FBT)  
D.Y

#### OPERATION CHECK

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block. **(Fig.4-1)**
2. Power on the set.
3. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
4. Check that the HV static voltmeter is reading  $31.00 \pm 1.0kVdc$ .

#### HV Regulation adjustment

1. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
2. Power on the set.
3. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
4. If anode voltage is 32kV or higher, replace C514 of 390PF/2kV with that of 680PF/2kV, and check if the voltage is within the standard range.
5. If anode voltage is 30kV or lower, replace C514 of 390PF/2kV with that of 100PF/2kV, and check if the voltage is within the standard range. **(Fig.4-2)**

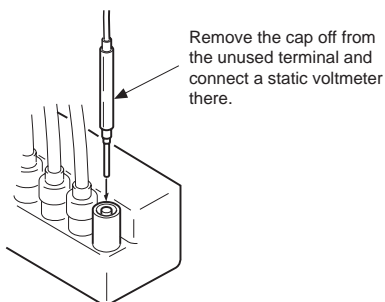


Fig. 4-1

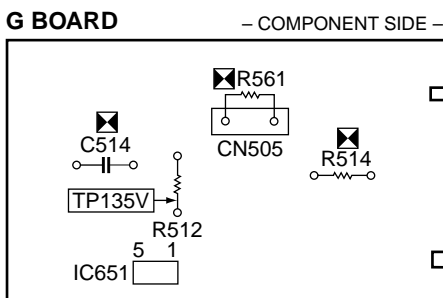


Fig. 4-2

#### 4-2. HV HOLD DOWN CIRCUIT OPERATION CHECK AND ADJUSTMENT

When replacing the following components marked with  $\blacksquare$  on the schematic diagram always check hold-down voltage and if necessary re-adjust.

- $\blacksquare$ : R514, R561
- $\blacksquare$ : C507, C513  
D501, D504, D507  
IC301, IC501, IC651  
R502, R514, R516, R517, R539, R560, R561  
T502, T503, T504 (FBT)  
D.Y

#### OPERATION CHECK

1. Remove CN651 connector.
2. Short-circuit across TP-PROT (R692) and ground.
3. Connect a HV static voltmeter to the unconnected plug of the high-voltage block.
4. Connect a 220k variable resistor, across pin ③ and pin ⑤ of IC651 set to maximum value.
5. Power on the set.
6. Receive the dot signal. (PICTURE and BRIGHTNESS to minimum)
7. Gradually lower the value of the variable resistor and check that the hold-down circuit operates at a static voltmeter reading of  $33.5 \pm 1.0kVdc$  when the raster disappears.

#### HV HOLD-DOWN ADJUSTMENT

1. Repeat steps ① ~ ⑦ as above.
2. If hold down voltage is 34.5kV or higher, remove R514, mount a resistor (390k $\Omega$ , 1/4W : RN) onto R561 instead, and check again if the hold-down voltage is within the standard range.
3. If hold down voltage is 32.5kV or lower, mount a resistor (220k $\Omega$ , 1/4W : RN) onto R561 and check again if the hold-down voltage is within the standard range. **(Fig.4-2)**

**NOTE :** Please finish the adjustment as soon as possible

#### 4-3. +B MAX VOLTAGE CONFIRMATION

The following adjustments should always be performed when replacing IC651.

1. Supply 230VAC to with variable autotransformer.
2. Input a dot signal.
3. Set the PICTURE control and the BRIGHTNESS controls to minimum.
4. Confirm the voltage of G BOARD TP135V is less than 137.0Vdc.
5. If step 4 is not satisfied, replace IC651 and repeat above steps. **(Fig.4-2)**

#### 4-4. +B OVP CONFIRMATION

1. Remove CN651 connector.
2. Connect a voltmeter to TP135V, and TP (PROT) and ground.
3. Connect a 220k $\Omega$  variable resistor, across pin ③ and pin ⑤ of IC651 set to maximum value.
4. Supply 220VAC to variable autotransformer.
5. Set PICTURE and the BRIGHTNESS controls to minimum.
6. Gradually turn the 220k $\Omega$  variable resistor, and check if OVP works properly when the voltage of TP135V is between 139.0 ~ 151.5V. **(Fig.4-2)**

## SECTION 5 CIRCUIT ADJUSTMENTS

### 5-1. RF AGC

1. Input a color-bar signal.
2. Adjust AGC VR of TU1101 so that snow noise, and crossmodulation disappear from the picture.
3. Verify picture quality on each channel.

### 5-2. BER DISPLAY ADJUSTMENT (DISP)

1. Receive the cross-hatch signal.
2. Set to Service mode.
3. Select " DISP ", and adjust so that the blank spaces on the both sides of picture bar become equal.
4. Write the data into memory.

MUTING → ENTER

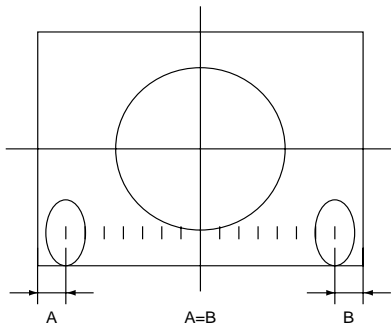


Fig. 5-1

### 5-3. SUB CONTRAST ADJUSTMENT (SCON)

1. Receive the color-bar signal.
2. PICTURE : maximum  
COLOR : minimum  
BRIGHTNESS : minimum  
RON---1 GON---0 BON---0
3. Set to service mode.
4. Connect an oscilloscope between ⑥ pin of CN004 (A board) and ground.
5. Select " SCON ", and adjust so that the wave from level is  $1.65 \pm 0.05V_{p-p}$ .
6. Write the data into memory.

MUTING → ENTER

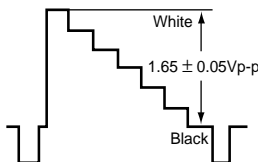


Fig. 5-2

### 5-4. SUB-HUE AND SUB-COLOR ADJUSTMENT (SHUE, SCOL)

1. Receive the color-bar signal.
2. PICTURE : maximum  
COLOR : minimum  
BRIGHTNESS : minimum
3. Set to service mode.
4. Connect an oscilloscope between ⑦ pin of CN004 (A Board) connector and ground.
5. Select " SHUE " and " SCOL ", and adjust them to have  $VB1 = VB4$  and  $VB2 = VB3$  in the waveform levels.
6. Raise SCOL data 1 steps higher.
7. Write the data into memory.

MUTING → ENTER

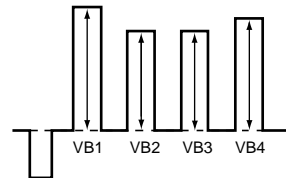


Fig. 5-3

### 5-5. P IN P POSITION ADJUSTMENT (PIPH, PIPV)

1. Receive the monoscope signal.
2. Set to P IN P (PI) mode, and to Service mode.
3. Check the SUB PICTURE position.
4. Select " PIPH " and " PIPV " and adjust H/V position to the center level.
5. Write the data into memory.

MUTING → ENTER

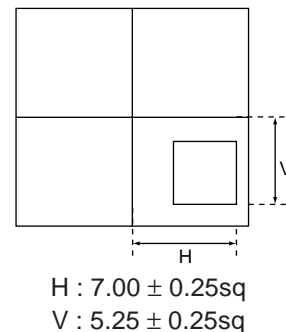


Fig. 5-4

### 5-6. P IN P SUB CONTRAST ADJUSTMENT (PCON)

1. Receive the color-bar signal.
2. PICTURE : maximum  
COLOR : minimum  
BRIGHTNESS : minimum
3. Set to service mode.
4. Connect an oscilloscope between ⑨ pin of CN303 (A Board) and ground.
5. Select “PCON” and adjust so that waveform level is  $1.55 \pm 0.1$  Vp-p.
6. Write the data into memory.

**MUTING** → **ENTER**

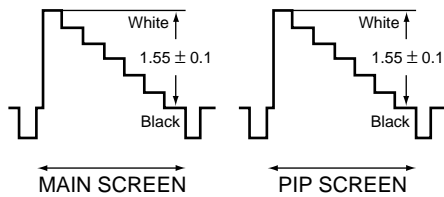


Fig. 5-5

### 5-7. P IN P SUB HUE, SUB COLOR ADJUSTMENT (IHUE, ICOL)

1. Receive the color-bar signal.
2. PICTURE : maximum  
COLOR : center  
BRIGHTNESS : center
3. Set to service mode.
4. Connect an oscilloscope between ⑤ pin of CN303 (A Board) and ground.
5. Select “IHUE” and “ICOL”, adjust them to have  $VB1 = VB4$  and  $VB2 = VB3$  in the waveform levels.
6. Raise “ICOL” data 1 steps higher.
7. Write the data into memory.

**MUTING** → **ENTER**

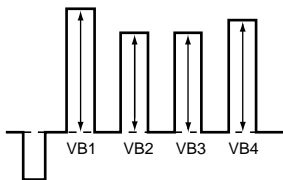


Fig. 5-6

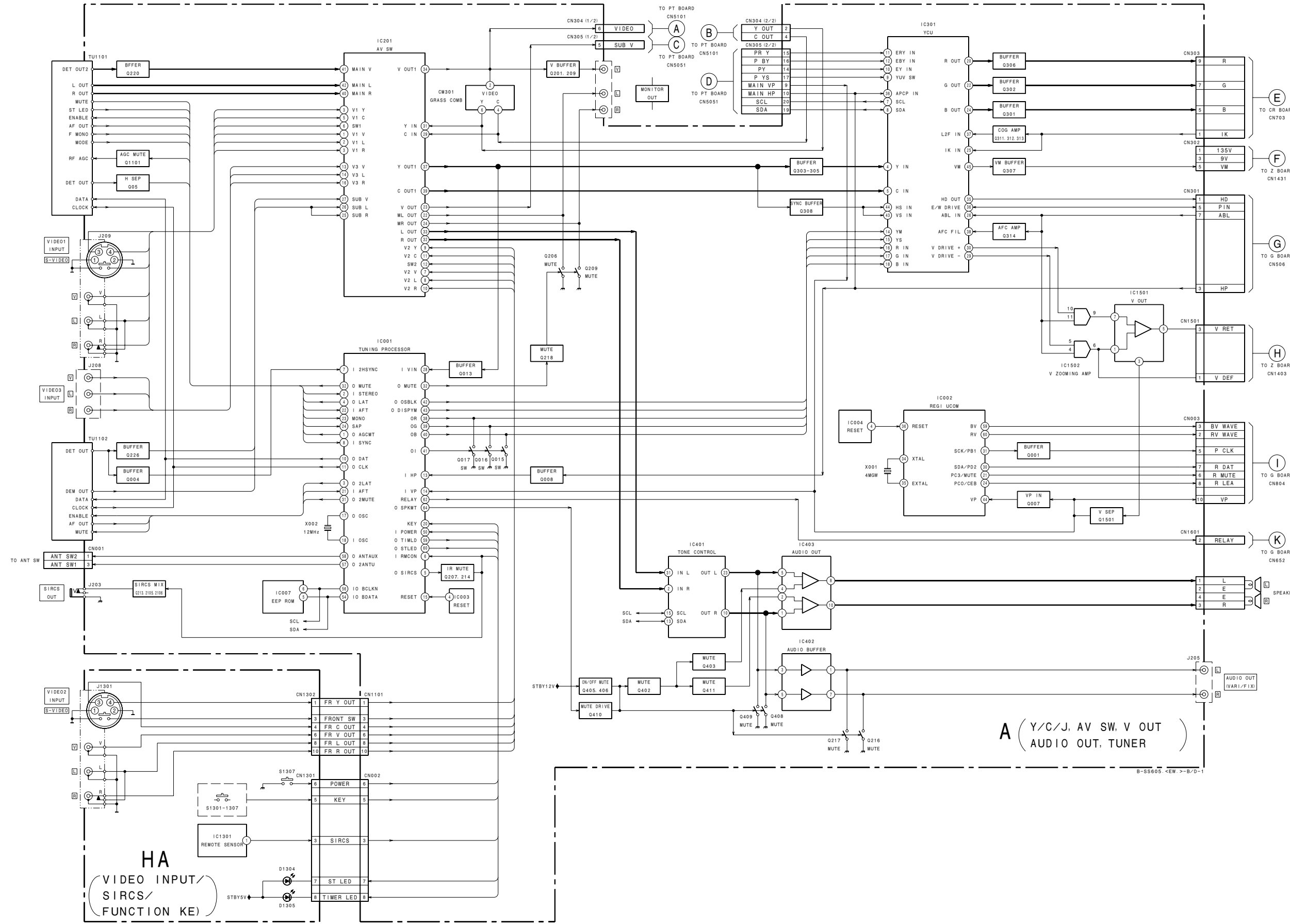
# MEMO

A series of horizontal dashed lines for writing.

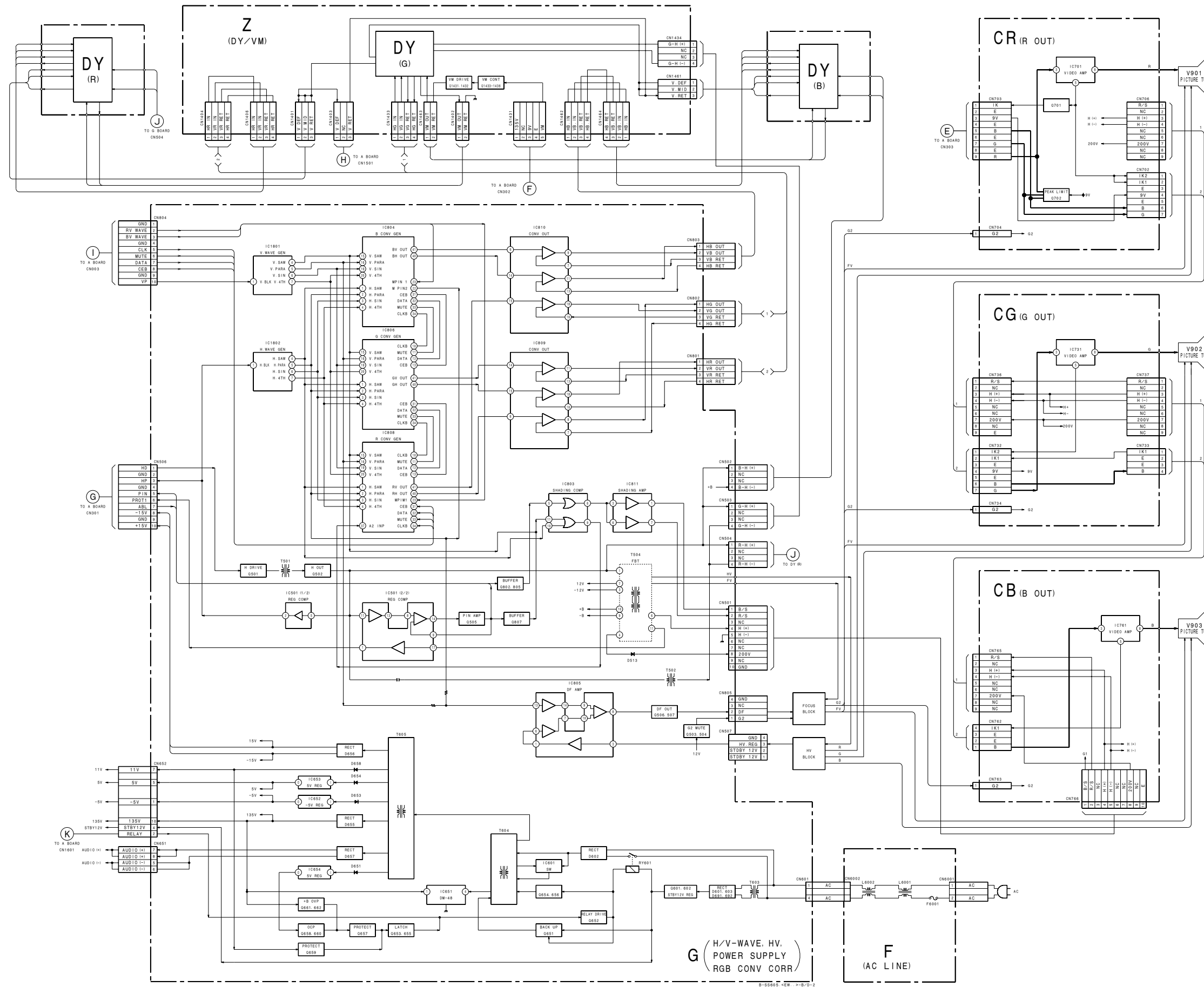


SECTION 6  
DIAGRAMS

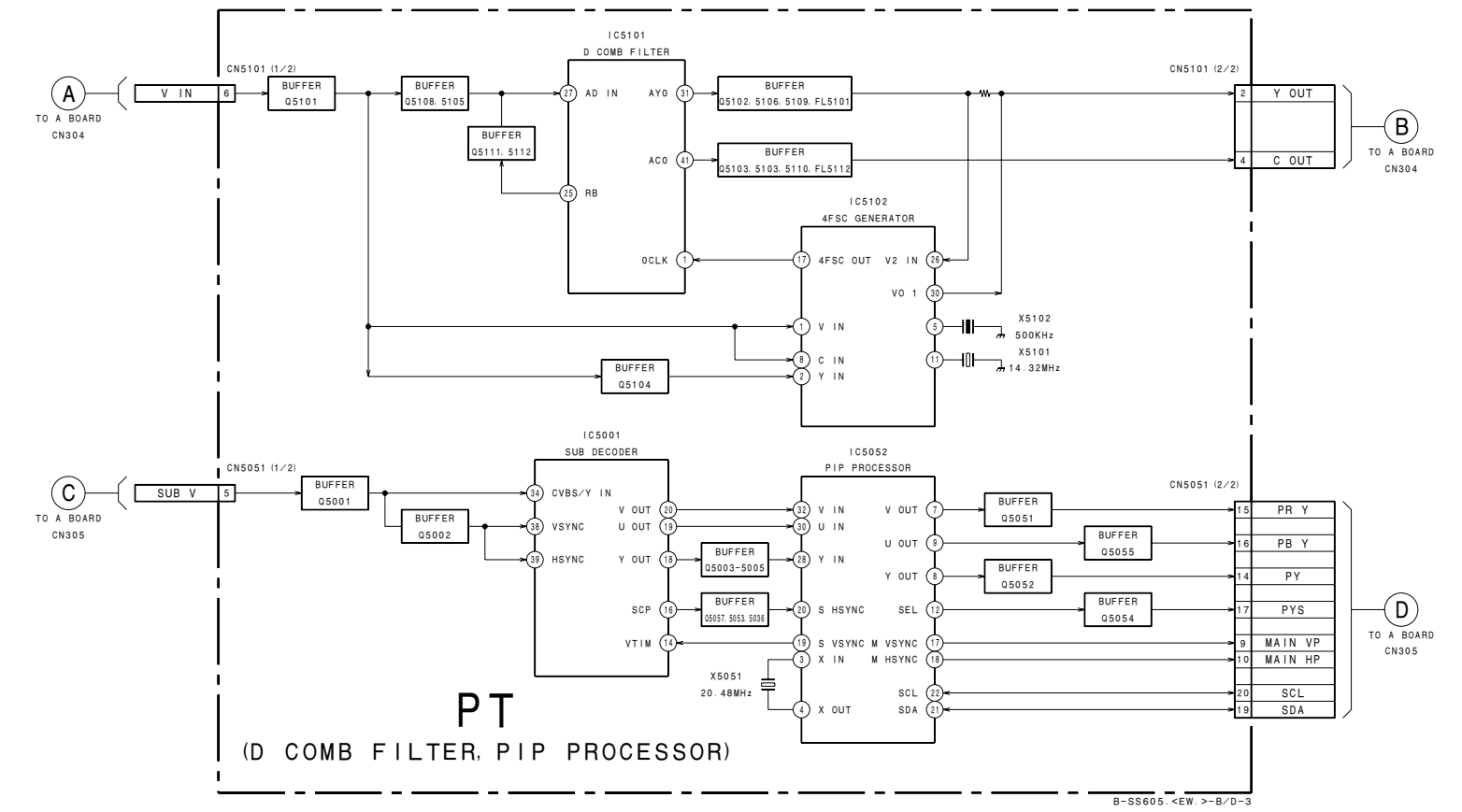
6-1. BLOCK DIAGRAM (1)

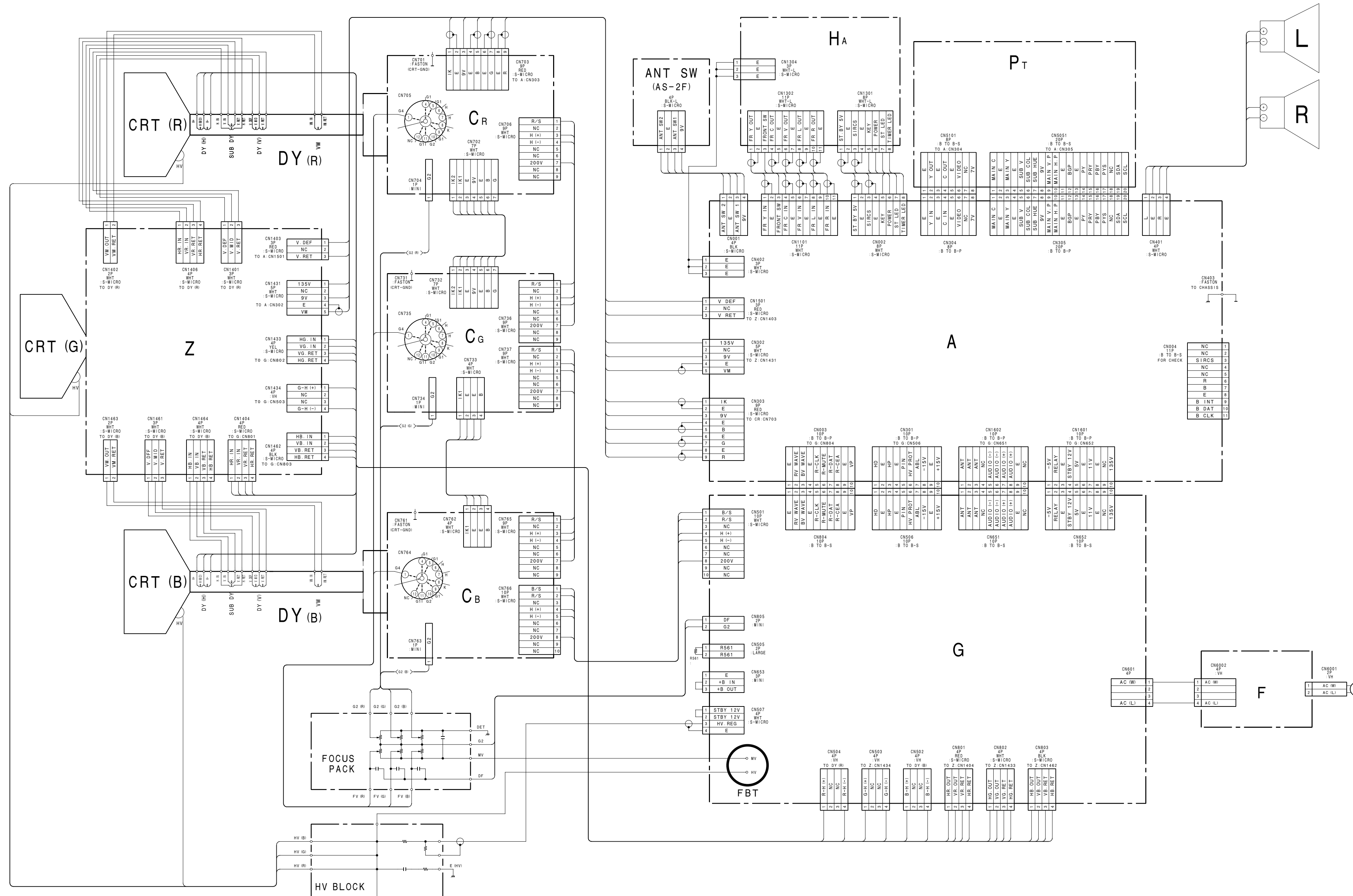


BLOCK DIAGRAM (2)

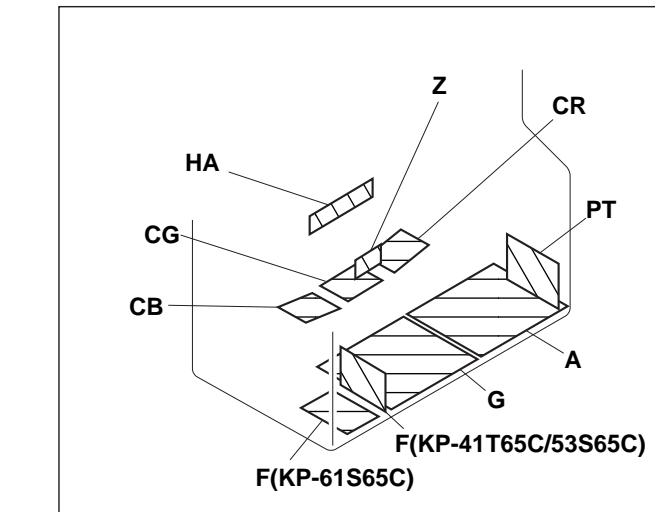


BLOCK DIAGRAM (3)





6-3. CIRCUIT BOARDS LOCATION



6-4. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

- Note:
- Capacitors without voltage indication are all 50V.
  - All resistors are in ohms.
  - kΩ=1000Ω, MΩ=1000kΩ
  - Indication of resistance, which does not have one for rating electrical power, is as follows.
  - Pitch: 5mm
  - Rating electrical power: 1/4W
  - nonflammable resistor.
  - fusible resistor.
  - internal component.
  - panel designation and adjustment for repair.
  - All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
  - earth-chassis.
  - The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
  - Should replacement be required, replace only with the value originally used.
  - When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved. (Refer to R514, R561 and C514 adjustment on Page 44 - 45.)
  - When replacing the part in below table, be sure to perform the related adjustment.

Part replaced (  )	Adjustment (  )
C514, C515, C516, IC651, T502, T503, T504, DY	HV Regulator (C514)
C507, C513, D501, D504, D507, IC301, IC501, IC651, R502, R514, R516, R517, R539, R560, R561, T502, T503, T504, DY	HV HOLD-DOWN (R514, R561)

- As to the voltage value shown by the semiconductors on the Schematic Diagram, see the another list.
- Readings are taken with a color-bar signal input.
- Readings are taken with a 10MΩ digital multimeter.
- Voltages are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages are in V.
- Measurement impossibility.
- Circled numbers are waveform references.
- : B+ bus.
- : B- bus.
- : signal path.(RF)

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

Note: The symbol display is on the component slide.

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

The symbol indicate fast operating fuse. Replace only with fuse of same rating as made.

Terminal name of semiconductors in silk screen printed circuit (※)

Device	Printed symbol	Terminal name	Circuit
① Transistor		Collector Base Emitter	
② Transistor		Collector Base Emitter	
③ Diode		Cathode Anode (NC)	
④ Diode		Cathode Anode (NC)	
⑤ Diode		Common Anode Cathode	
⑥ Diode		Common Anode Cathode	
⑦ Diode		Common Anode Cathode	
⑧ Diode		Common Anode Cathode	
⑨ Diode		Common Anode Cathode	
⑩ Diode		Common Anode Cathode	
⑪ Diode		Common Anode Cathode	
⑫ Diode		Common Anode Cathode	
⑬ Transistor (FET)		Drain Source Gate	
⑭ Transistor (FET)		Drain Source Gate	
⑮ Transistor (FET)		Drain Source Gate	
—		Discrete semiconductor	

(Chip semiconductors that are not actually used are included.)



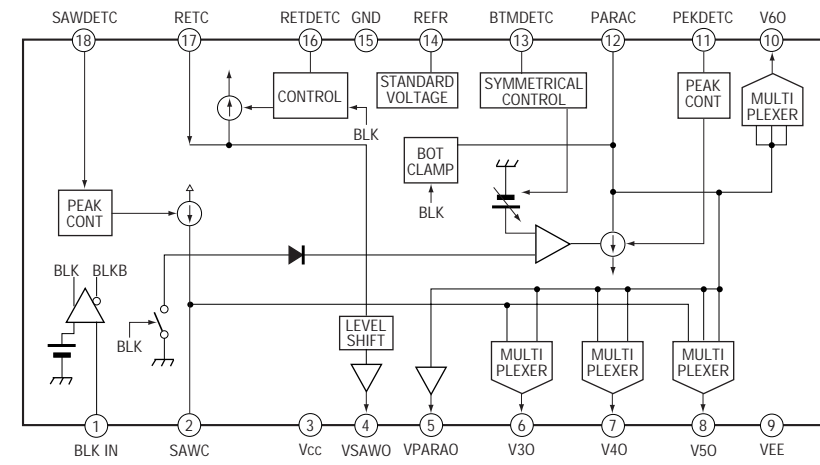




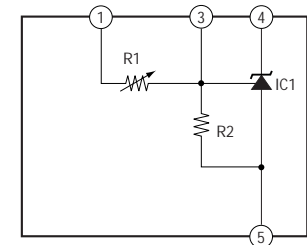




G BOARD : IC801, 802 PA0053B



G BOARD : IC651 DM-58



G BOARD

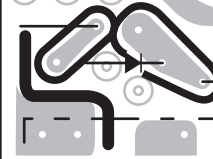
DIODE		*
D501	F-10	-
D502	F-9	-
D503	H-7	-
D504	F-10	-
D507	G-10	-
D508	G-6	-
D509	G-5	-
D510	G-4	-
D511	F-8	-
D513	H-3	-
D514	F-1	-
D515	I-1	-
D517	H-7	-
D519	H-10	-
D520	I-2	-
D521	H-4	-
D524	H-11	-
D527	F-9	-
D528	F-9	-
D601	E-1	-
D602	B-3	-
D603	E-1	-
D604	D-3	-
D605	D-3	-
D651	D-4	-
D652	D-4	-
D653	C-8	-
D654	C-7	-
D655	D-5	-
D656	C-6	-
D657	B-6	-
D658	B-6	-
D660	C-4	-
D661	E-6	-
D662	A-6	-
D664	A-7	-
D669	D-4	-
D670	A-7	-
D691	E-2	-
D692	E-2	-
D801	G-14	-
D802	G-14	-
D803	G-14	-
D804	G-14	-
D809	B-12	-
D810	B-9	-
D820	F-14	-
D828	H-14	-
D829	I-13	-
D835	D-11	-
D840	I-13	-
D842	I-13	-
D845	I-13	-
D846	I-13	-
D847	H-11	-

TRANSISTOR		*
Q501	G-5	-
Q502	F-5	-
Q503	H-10	-
Q504	I-11	-
Q505	F-9	-
Q506	H-10	-
Q507	H-9	-
Q601	D-3	-
Q602	D-3	-
Q651	D-4	-
Q652	A-7	-
Q653	A-7	-
Q654	A-6	-
Q655	A-7	-
Q656	A-6	-
Q657	D-5	-
Q658	E-5	-
Q659	A-7	-
Q660	D-5	-
Q661	E-4	-
Q662	D-5	-
Q802	H-13	-
Q803	G-13	-
Q804	G-13	-
Q805	I-14	-
Q809	B-12	-
Q810	B-9	-

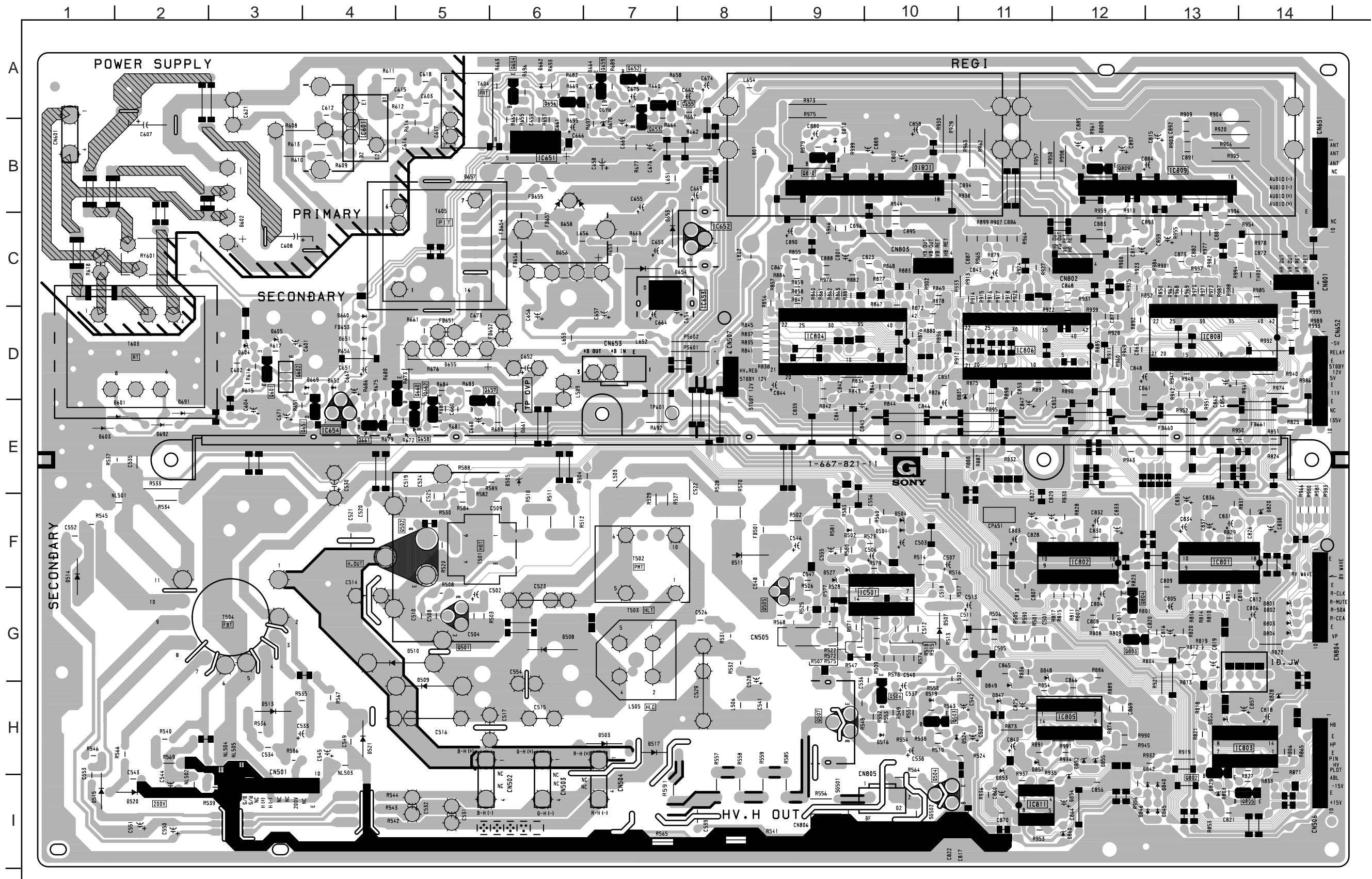
  

IC		*
IC501	F-10	-
IC601	A-4	-
IC651	B-6	-
IC652	C-8	-
IC653	C-7	-
IC654	E-4	-
IC801	F-14	-
IC802	F-12	-
IC803	H-14	-
IC804	D-9	-
IC805	H-12	-
IC806	D-11	-
IC808	D-13	-
IC809	B-13	-
IC810	B-10	-
IC811	I-11	-

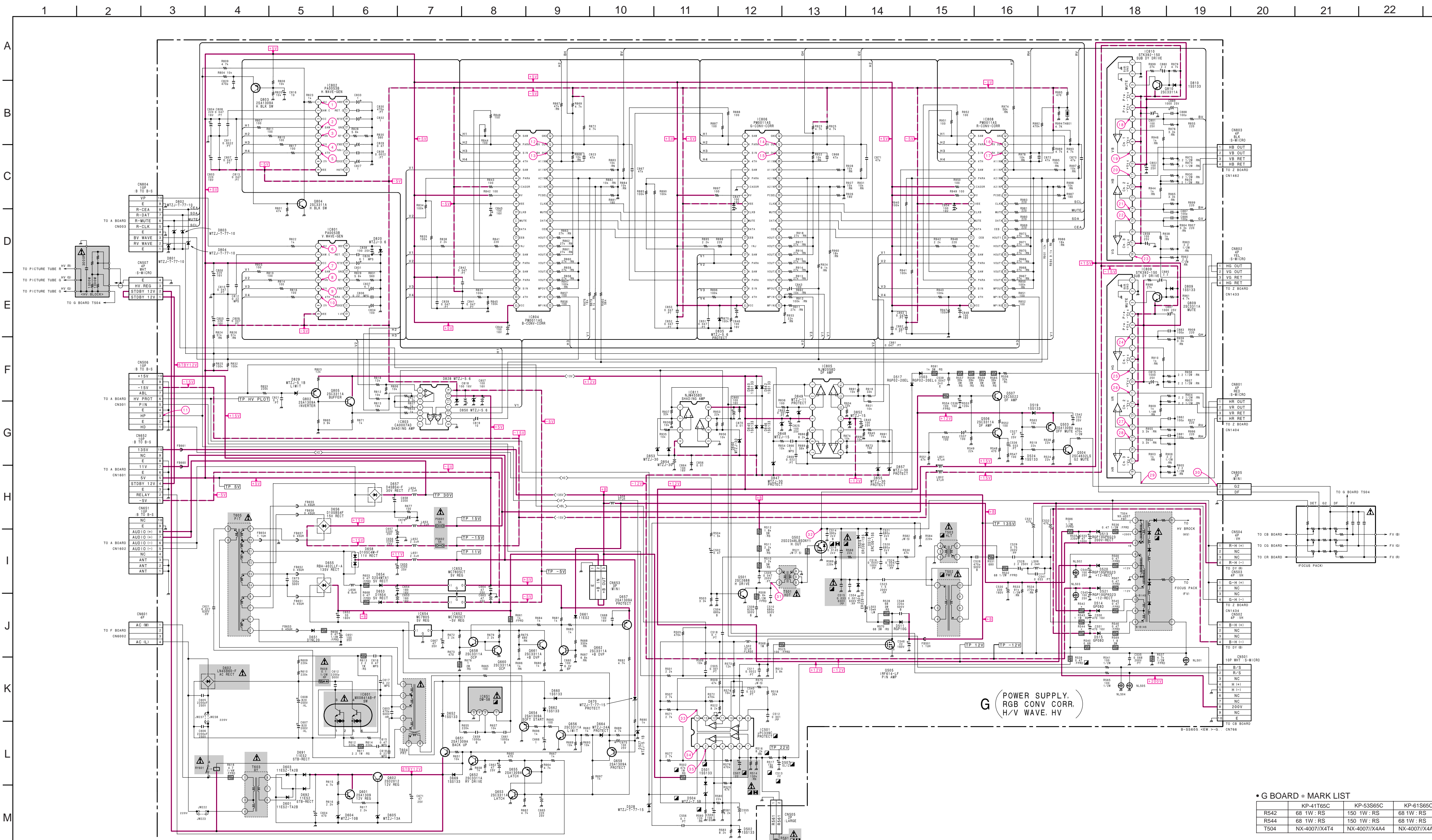
**NOTE :**  

 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.

**G** [POWER SUPPLY, HV, RGB CONV, H/V WAVE GNE]

- G Board -







### G BOARD IC VOLTAGE LIST

REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
IC501	1	3.4	IC802	1	0	IC804	1	0	IC809	1	0
IC501	2	0.7	IC802	2	-0.9	IC804	2	4.9	IC809	2	0
IC501	3	12.1	IC802	3	0	IC804	3	4.8	IC809	3	-0.2
IC501	4	3.3	IC802	4	-1.0	IC804	4	4.7	IC809	4	0.4
IC501	5	1.8	IC802	5	-5.1	IC804	5	0	IC809	5	0.1
IC501	6	7.9	IC802	6	0	IC804	6	4.9	IC809	6	4.9
IC501	7	8.1	IC802	7	-0.9	IC804	7	4.8	IC809	7	4.8
IC501	8	1.4	IC802	8	0.3	IC804	8	0	IC809	8	-14.3
IC501	9	2.2	IC802	9	1.2	IC804	9	0	IC809	9	-15.3
IC501	10	5.5	IC802	10	GND	IC804	10	0.2	IC809	10	14.5
IC501	11	1.8	IC802	11	-1.9	IC804	11	GND	IC809	11	0
IC501	12	GND	IC802	12	1.2	IC804	12	7.2	IC809	12	-0.1
IC501	13	1.4	IC802	13	-1.1	IC804	13	0	IC809	13	-15.3
IC501	14	9.9	IC802	14	-0.4	IC804	14	7.0	IC809	14	-0.2
IC501	15	GND	IC802	15	-0.4	IC804	15	12.1	IC809	15	GND
IC501	16	-1.9	IC802	16	-0.3	IC804	16	0	IC809	16	0.5
IC501	17	136.0	IC802	17	-0.3	IC804	17	0	IC809	17	-15.3
IC501	18	274.0	IC802	18	1.6	IC804	18	0	IC809	18	0.4
IC501	19	1.4	IC802	19	0	IC804	19	7.2	IC809	19	-0.2
IC501	20	9.9	IC802	20	-0.4	IC804	20	0.1	IC809	20	0.1
IC501	21	GND	IC802	21	-0.4	IC804	21	GND	IC809	21	14.5
IC501	22	-1.9	IC802	22	-0.3	IC804	22	0	IC809	22	0.5
IC501	23	136.0	IC802	23	-0.3	IC804	23	0	IC809	23	-15.3
IC501	24	GND	IC802	24	1.6	IC804	24	0	IC809	24	0.4
IC501	25	1.4	IC802	25	0	IC804	25	7.0	IC809	25	-0.2
IC501	26	9.9	IC802	26	-0.4	IC804	26	0.1	IC809	26	0.1
IC501	27	GND	IC802	27	-0.4	IC804	27	GND	IC809	27	14.5
IC501	28	-1.9	IC802	28	-0.3	IC804	28	0	IC809	28	0.5
IC501	29	136.0	IC802	29	-0.3	IC804	29	0	IC809	29	-15.3
IC501	30	274.0	IC802	30	1.6	IC804	30	0	IC809	30	0.4
IC501	31	1.4	IC802	31	0	IC804	31	7.2	IC809	31	-0.2
IC501	32	9.9	IC802	32	-0.4	IC804	32	0.1	IC809	32	0.1
IC501	33	GND	IC802	33	-0.4	IC804	33	GND	IC809	33	14.5
IC501	34	-1.9	IC802	34	-0.3	IC804	34	0	IC809	34	0.5
IC501	35	136.0	IC802	35	-0.3	IC804	35	0	IC809	35	-15.3
IC501	36	274.0	IC802	36	1.6	IC804	36	0	IC809	36	0.4
IC501	37	1.4	IC802	37	0	IC804	37	7.0	IC809	37	-0.2
IC501	38	9.9	IC802	38	-0.4	IC804	38	0.1	IC809	38	0.1
IC501	39	GND	IC802	39	-0.4	IC804	39	GND	IC809	39	14.5
IC501	40	-1.9	IC802	40	-0.3	IC804	40	0	IC809	40	0.5
IC501	41	136.0	IC802	41	-0.3	IC804	41	0	IC809	41	-15.3
IC501	42	274.0	IC802	42	1.6	IC804	42	0	IC809	42	0.4
IC501	43	1.4	IC802	43	0	IC804	43	7.2	IC809	43	-0.2
IC501	44	9.9	IC802	44	-0.4	IC804	44	0.1	IC809	44	0.1
IC501	45	GND	IC802	45	-0.4	IC804	45	GND	IC809	45	14.5
IC501	46	-1.9	IC802	46	-0.3	IC804	46	0	IC809	46	0.5
IC501	47	136.0	IC802	47	-0.3	IC804	47	0	IC809	47	-15.3
IC501	48	274.0	IC802	48	1.6	IC804	48	0	IC809	48	0.4
IC501	49	1.4	IC802	49	0	IC804	49	7.0	IC809	49	-0.2
IC501	50	9.9	IC802	50	-0.4	IC804	50	0.1	IC809	50	0.1
IC501	51	GND	IC802	51	-0.4	IC804	51	GND	IC809	51	14.5
IC501	52	-1.9	IC802	52	-0.3	IC804	52	0	IC809	52	0.5
IC501	53	136.0	IC802	53	-0.3	IC804	53	0	IC809	53	-15.3
IC501	54	274.0	IC802	54	1.6	IC804	54	0	IC809	54	0.4
IC501	55	1.4	IC802	55	0	IC804	55	7.2	IC809	55	-0.2
IC501	56	9.9	IC802	56	-0.4	IC804	56	0.1	IC809	56	0.1
IC501	57	GND	IC802	57	-0.4	IC804	57	GND	IC809	57	14.5
IC501	58	-1.9	IC802	58	-0.3	IC804	58	0	IC809	58	0.5
IC501	59	136.0	IC802	59	-0.3	IC804	59	0	IC809	59	-15.3
IC501	60	274.0	IC802	60	1.6	IC804	60	0	IC809	60	0.4
IC501	61	1.4	IC802	61	0	IC804	61	7.2	IC809	61	-0.2
IC501	62	9.9	IC802	62	-0.4	IC804	62	0.1	IC809	62	0.1
IC501	63	GND	IC802	63	-0.4	IC804	63	GND	IC809	63	14.5
IC501	64	-1.9	IC802	64	-0.3	IC804	64	0	IC809	64	0.5
IC501	65	136.0	IC802	65	-0.3	IC804	65	0	IC809	65	-15.3
IC501	66	274.0	IC802	66	1.6	IC804	66	0	IC809	66	0.4
IC501	67	1.4	IC802	67	0	IC804	67	7.2	IC809	67	-0.2
IC501	68	9.9	IC802	68	-0.4	IC804	68	0.1	IC809	68	0.1
IC501	69	GND	IC802	69	-0.4	IC804	69	GND	IC809	69	14.5
IC501	70	-1.9	IC802	70	-0.3	IC804	70	0	IC809	70	0.5
IC501	71	136.0	IC802	71	-0.3	IC804	71	0	IC809	71	-15.3
IC501	72	274.0	IC802	72	1.6	IC804	72	0	IC809	72	0.4
IC501	73	1.4	IC802	73	0	IC804	73	7.2	IC809	73	-0.2
IC501	74	9.9	IC802	74	-0.4	IC804	74	0.1	IC809	74	0.1
IC501	75	GND	IC802	75	-0.4	IC804	75	GND	IC809	75	14.5
IC501	76	-1.9	IC802	76	-0.3	IC804	76	0	IC809	76	0.5
IC501	77	136.0	IC802	77	-0.3	IC804	77	0	IC809	77	-15.3
IC501	78	274.0	IC802	78	1.6	IC804	78	0	IC809	78	0.4
IC501	79	1.4	IC802	79	0	IC804	79	7.2	IC809	79	-0.2
IC501	80	9.9	IC802	80	-0.4	IC804	80	0.1	IC809	80	0.1
IC501	81	GND	IC802	81	-0.4	IC804	81	GND	IC809	81	14.5
IC501	82	-1.9	IC802	82	-0.3	IC804	82	0	IC809	82	0.5
IC501	83	136.0	IC802	83	-0.3	IC804	83	0	IC809	83	-15.3
IC501	84	274.0	IC802	84	1.6	IC804	84	0	IC809	84	0.4
IC501	85	1.4	IC802	85	0	IC804	85	7.2	IC809	85	-0.2
IC501	86	9.9	IC802	86	-0.4	IC804	86	0.1	IC809	86	0.1
IC501	87	GND	IC802	87	-0.4	IC804	87	GND	IC809	87	14.5
IC501	88	-1.9	IC802	88	-0.3	IC804	88	0	IC809	88	0.5
IC501	89	136.0	IC802	89	-0.3	IC804	89	0	IC809	89	-15.3
IC501	90	274.0	IC802	90	1.6	IC804	90	0	IC809	90	0.4
IC501	91	1.4	IC802	91	0	IC804	91	7.2	IC809	91	-0.2
IC501	92	9.9	IC802	92	-0.4	IC804	92	0.1	IC809	92	0.1
IC501	93	GND	IC802	93	-0.4	IC804	93	GND	IC809	93	14.5
IC501	94	-1.9	IC802	94	-0.3	IC804	94	0	IC809	94	0.5
IC501	95	136.0	IC802	95	-0.3	IC804	95	0	IC809	95	-15.3
IC501	96	274.0	IC802	96	1.6	IC804	96	0	IC809	96	0.4
IC501	97	1.4	IC802	97	0	IC804	97	7.2	IC809	97	-0.2
IC501	98	9.9	IC802	98	-0.4	IC804	98	0.1	IC809	98	0.1
IC501	99	GND	IC802	99	-0.4	IC804	99	GND	IC809	99	14.5
IC501	100	-1.9	IC802	100	-0.3	IC804	100	0	IC809	100	0.5

\*All voltage are in V.  
 \*Pin number which are not described are not used.  
 \*The figures in the parenthesis are the voltage difference from primary side ground.

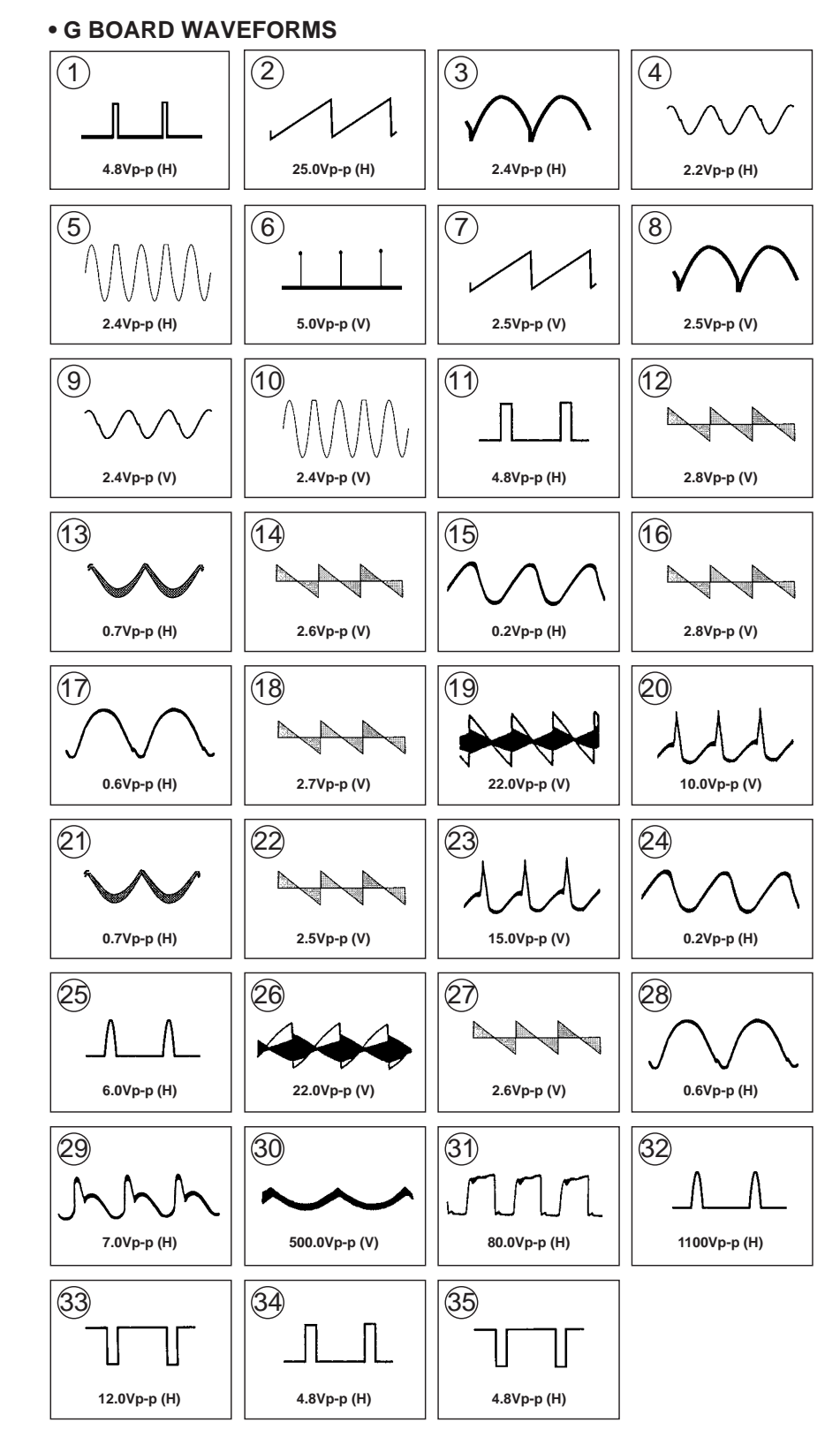
### G BOARD TRANSISTOR VOLTAGE LIST

REF.	VOL.	REF.	VOL.
Q501	B -0.4	Q656	B 0
Q501	E GND	Q656	E GND
Q501	C 47.0	Q656	C 13.8
Q502	B 0	Q657	B 4.9
Q502	C 140.0	Q657	C 0
Q503	B 11.9	Q658	B 0.6
Q503	E 11.4	Q658	E 0.4
Q503	C 0	Q658	C 4.9
Q504	B 0	Q659	B 17.6
Q504	C 0.5	Q659	C 0
Q505	D 21.9	Q660	E GND
Q505	S GND	Q660	C 0.6
Q506	E 1.1	Q661	B 3.1
Q506	C 11.3	Q661	C 5.2
Q507	B 12.1	Q662	B 2.7
Q507	E 11.5	Q662	E 2.4
Q507	C 780.0	Q662	C 4.9
Q601	B 11.8	Q802	B 4.0
Q601	E 12.1	Q802	E 4.9
Q601	C 15.7	Q802	C 2.3
Q602	B 12.6	Q803	B 2.3
Q602	E 11.9	Q803	E 0
Q602	C 15.7	Q803	C 0
Q651	B 11.2	Q804	B 0
Q651	E 11.9	Q804	E GND
Q651	C 11.9	Q804	C 0.5
Q652	B 0.7	Q805	B 2.3
Q652	E GND	Q805	E 1.7
Q652	C 0	Q805	C 12.1
Q653	B 0	Q809	B -15.3
Q653	E GND	Q809	E -15.3
Q653	C 1.7	Q809	C -14.3
Q654	B 13.6	Q810	B -15.3
Q654	E 14.0	Q810	E -15.3
Q654	C 1.7	Q810	C -14.5
Q655	B 0		
Q655	C 0		

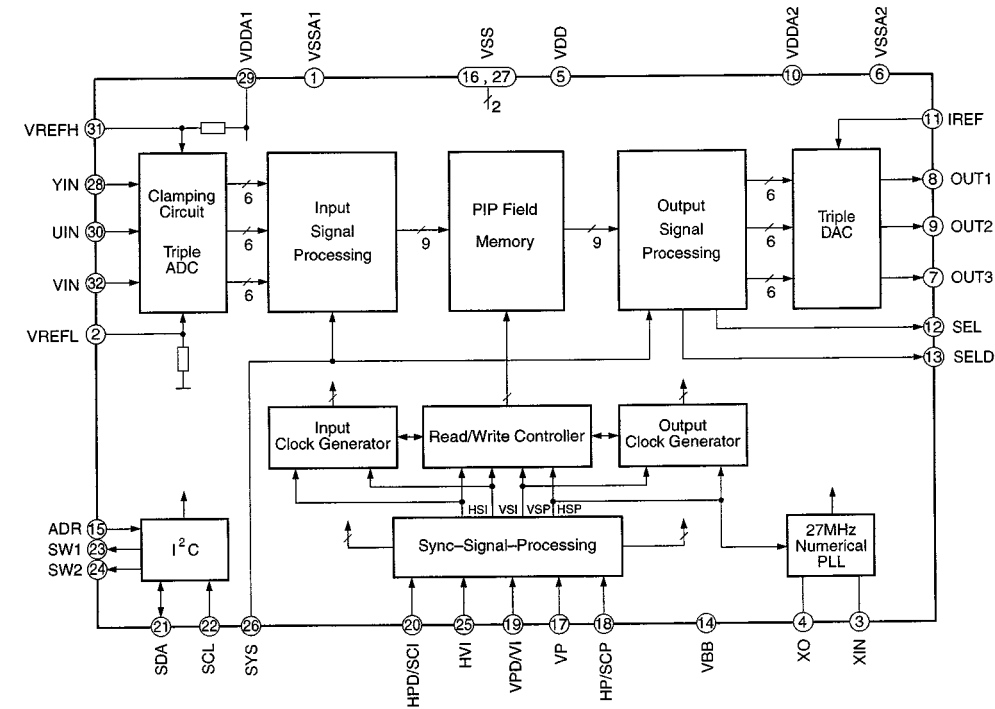
All voltages are in V.

### G BOARD MARK LIST

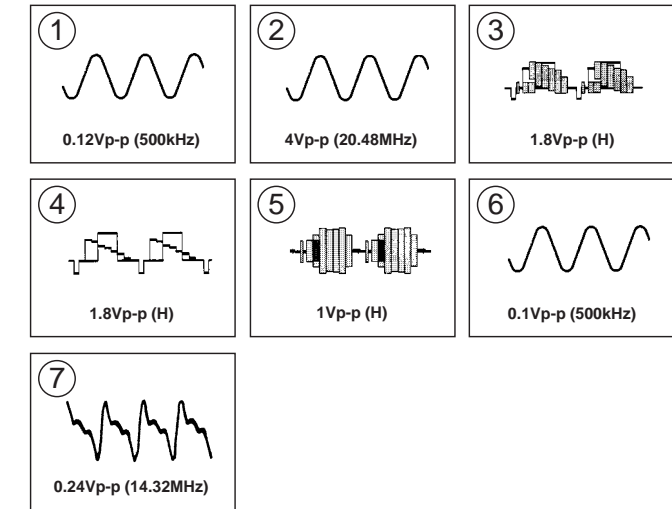
REF.	MARK	REF.	MARK
R542	KP-41T65C	KP-53S65C	KP-61S65C
R544	68 1W : RS	150 1W : RS	68 1W : RS
T504	NX-4007/X4T4	NX-4007/X4A4	NX-4007/X4A4







PT BOARD WAVEFORMS



PT BOARD IC VOLTAGE LIST

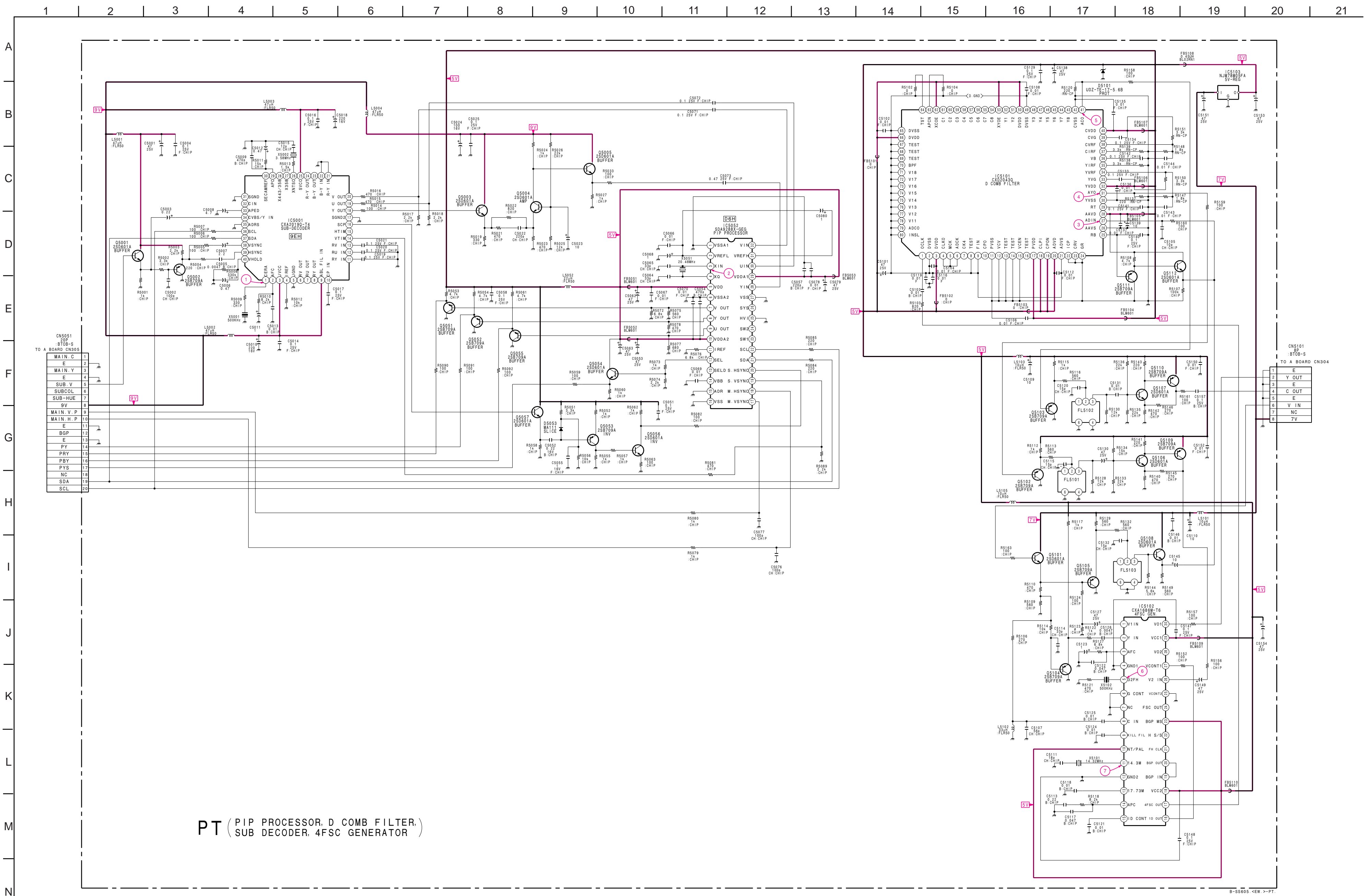
REF.	Pin NO.	VOL.	REF.	Pin NO.	VOL.
IC5001	1	2.3	1	4.9	
	2	4.1	2	GND	
	3	9.0	3	GND	
	4	0	4	GND	
	5	1.0	5	GND	
	6	3.8	6	1.5	
	7	4.5	7	4.9	
	8	4.6	8	2.6	
	9	0.1	9	GND	
	10	0.7	10	0.9	
IC5101	1	GND	1	4.9	
	2	2.9	2	1.8	
	3	2.9	3	1.8	
	4	GND	4	0.9	
	5	GND	5	0	
	6	9.0	6	0	
	7	2.4	7	0	
	8	4.5	8	4.9	
	9	GND	9	0.9	
	10	3.3	10	GND	
IC5052	1	3.6	1	4.9	
	2	GND	2	4.9	
	3	4.8	3	GND	
	4	4.8	4	4.9	
	5	4.1	5	5.0	
	6	3.3	6	GND	
	7	0.7	7	GND	
	8	GND	8	4.9	
	9	2.9	9	GND	
	10	2.4	10	GND	
IC5102	1	2.2	1	3.1	
	2	3.9	2	GND	
	3	2.2	3	4.4	
	4	2.4	4	2.6	
	5	GND	5	2.5	
	6	4.9	6	4.0	
	7	2.3	7	3.2	
	8	2.3	8	4.9	
	9	GND	9	3.9	
	10	GND	10	4.9	
IC5101	1	GND	1	GND	
	2	GND	2	2.1	
	3	GND	3	0	
	4	GND	4	4.9	
	5	GND	5	2.2	
	6	4.9	6	5.0	
	7	4.9	7	GND	
	8	4.9	8	GND	
	9	4.9	9	GND	
	10	4.9	10	4.9	

All voltages are in V.  
\*Pin numbers which are not described are not used.

PT BOARD TRANSISTOR VOLTAGE LIST

REF.	VOL.	REF.	VOL.
Q5001	B 6.5	Q5101	B 2.5
	E 5.8	E 1.9	
	C 8.8	C 5.0	
Q5002	E 6.5	Q5102	E 1.8
	C GND	C GND	
	B 2.8	B 0.9	
Q5003	E 2.2	Q5103	E 1.6
	C 8.5	C GND	
	B 2.9	B 0.8	
Q5004	E 2.2	Q5104	E 1.5
	C 4.1	C GND	
	B 4.1	B 1.9	
Q5005	E 3.5	Q5105	E 2.6
	C 8.5	C GND	
	B 0.4	B 2.4	
Q5051	E 1.0	Q5106	E 1.7
	C GND	C 4.4	
	B 0	B 2.4	
Q5052	E 0.5	Q5107	E 1.7
	C GND	C 4.4	
	B *	B 2.3	
Q5053	E *	Q5108	E 1.7
	C *	C 5.0	
	B 0	B 4.4	
Q5054	E 0	Q5109	E 5.0
	C 4.9	C 2.0	
	B 0.5	B 4.4	
Q5055	E 1.1	Q5110	E 5.0
	C GND	C 2.0	
	B *	B 1.5	
Q5056	E *	Q5111	E 2.1
	C *	C GND	
	B 0	B 2.1	
Q5057	E 0	Q5112	E 1.5
	C 4.9	C 4.9	

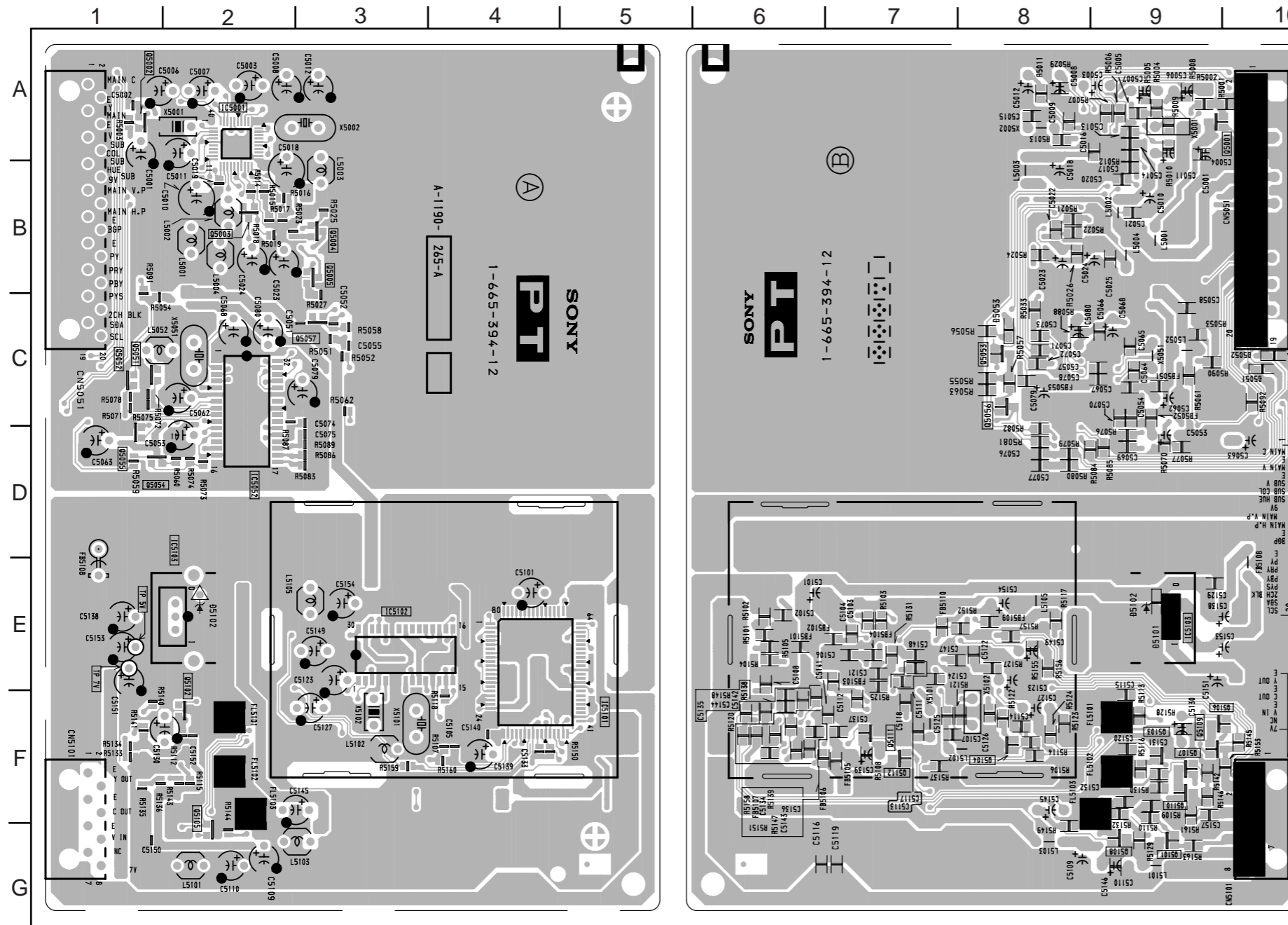
All voltages are in V.



PT (PIP PROCESSOR, D COMB FILTER, SUB DECODER, 4FSC GENERATOR)



- PT Board -



< Component Side >

< Conductor Side >

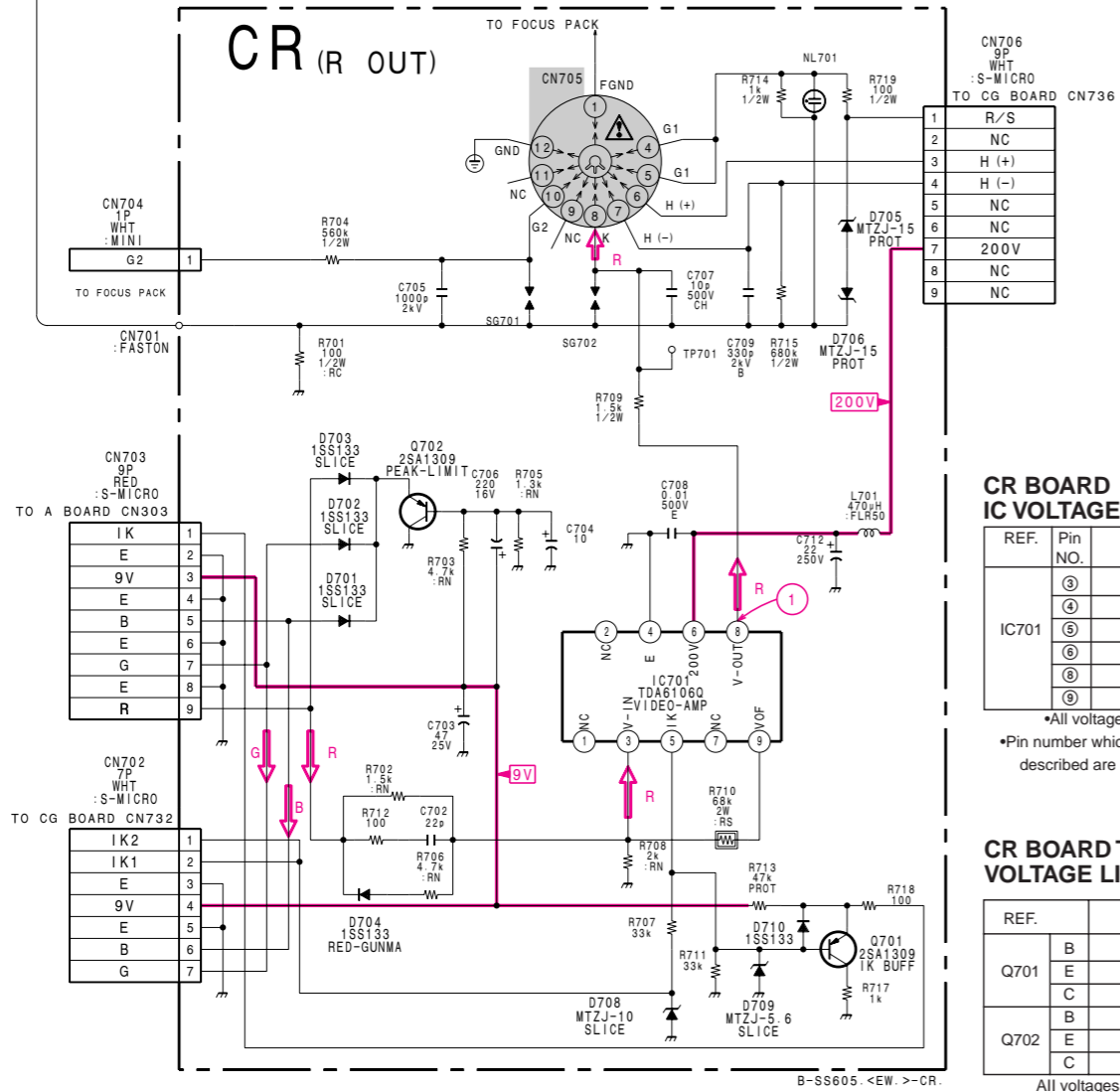
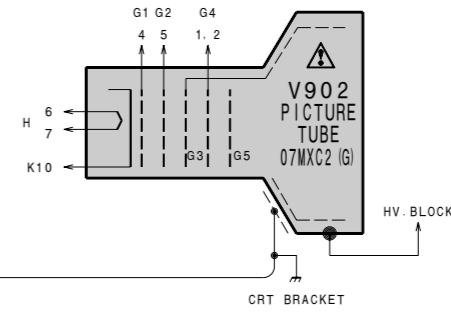
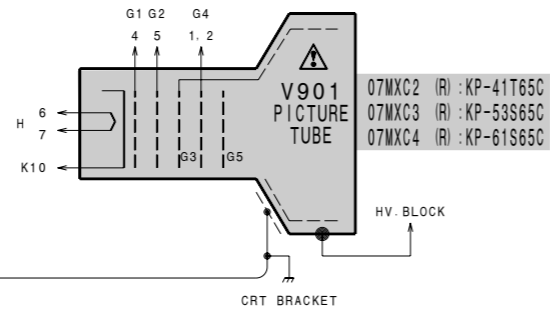
**PT BOARD**

DIODE			*
D5053	C-8	⑨	
D5101	E-9	⑨	
TRANSISTOR			*
Q5001	A-10	①	
Q5002	A-1	②	
Q5003	B-2	②	
Q5004	B-3	②	
Q5005	B-3	②	
Q5051	C-1	②	
Q5052	C-1	①	
Q5053	C-8	①	
Q5054	D-1	②	
Q5055	D-1	②	
Q5056	C-8	①	
Q5057	C-3	②	
Q5101	G-9	①	
Q5102	F-2	②	
Q5103	F-9	①	
Q5104	F-8	①	
Q5105	G-2	②	
Q5106	F-10	①	
Q5107	F-10	①	
Q5108	G-9	①	
Q5109	F-9	①	
Q5110	F-9	①	
Q5111	H-7	①	
Q5112	H-7	①	
IC			
IC5001	A-2		
IC5052	C-2		
IC5101	E-4		
IC5102	E-3		
IC5103	E-2, E-9		

**NOTE:**

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

A  
B  
C  
D  
E  
F  
G  
H



**CR BOARD IC VOLTAGE LIST**

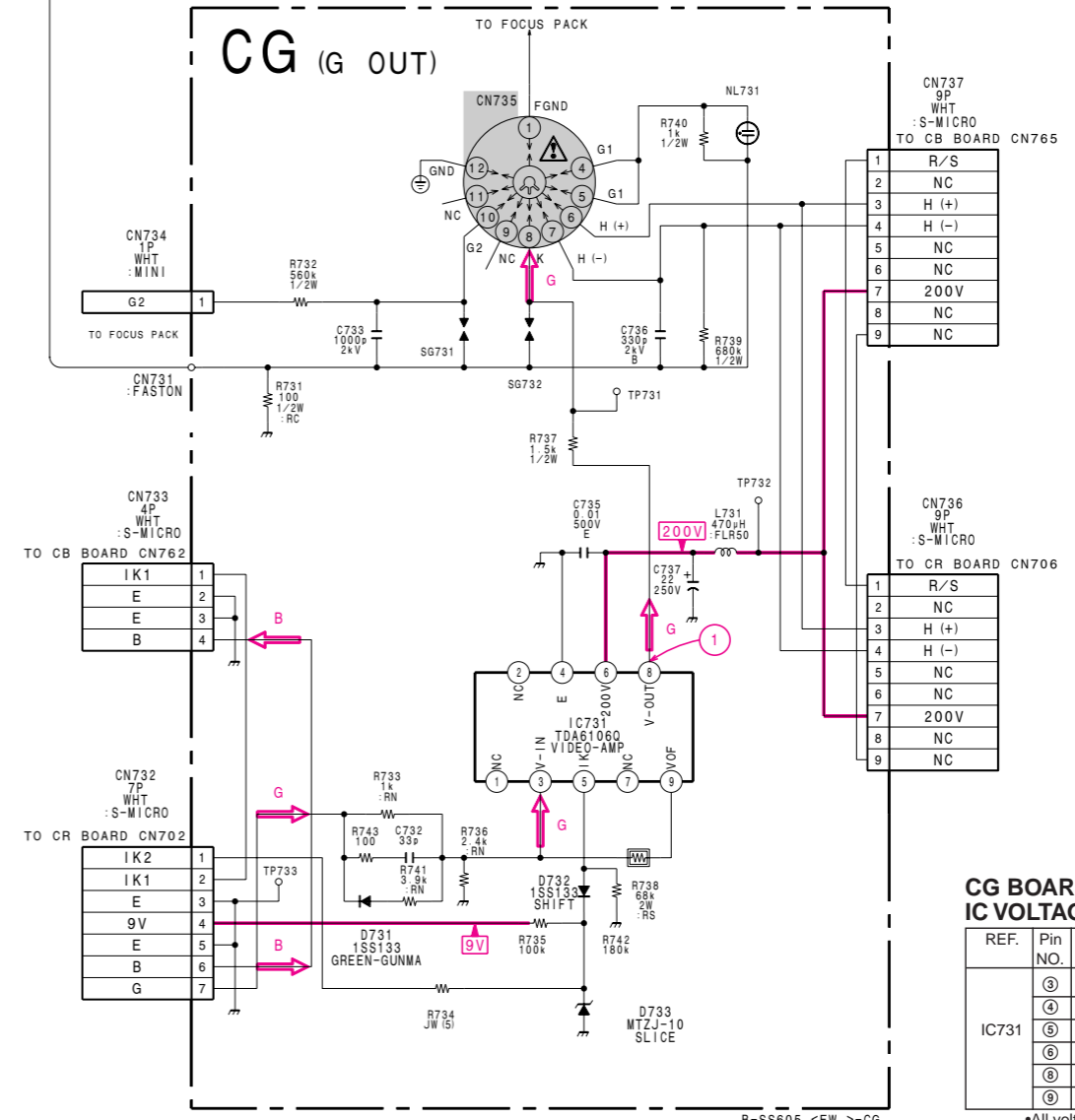
REF.	Pin NO.	VOL.
IC701	③	2.6
	④	GND
	⑤	4.1
	⑥	196.5
	⑧	137.1
	⑨	135.0

•All voltage are in V.  
•Pin number which are not described are not used.

**CR BOARD TRANSISTOR VOLTAGE LIST**

REF.	VOL.
Q701	B 4.1
	E 4.4
	C 0
Q702	B 1.9
	E 2.2
	C GND

All voltages are in V.

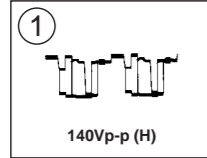


**CG BOARD IC VOLTAGE LIST**

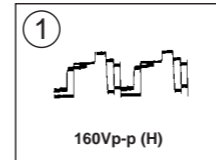
REF.	Pin NO.	VOL.
IC731	③	2.5
	④	GND
	⑤	3.5
	⑥	199.6
	⑧	145.0
	⑨	144.6

•All voltage are in V.  
•Pin number which are not described are not used.

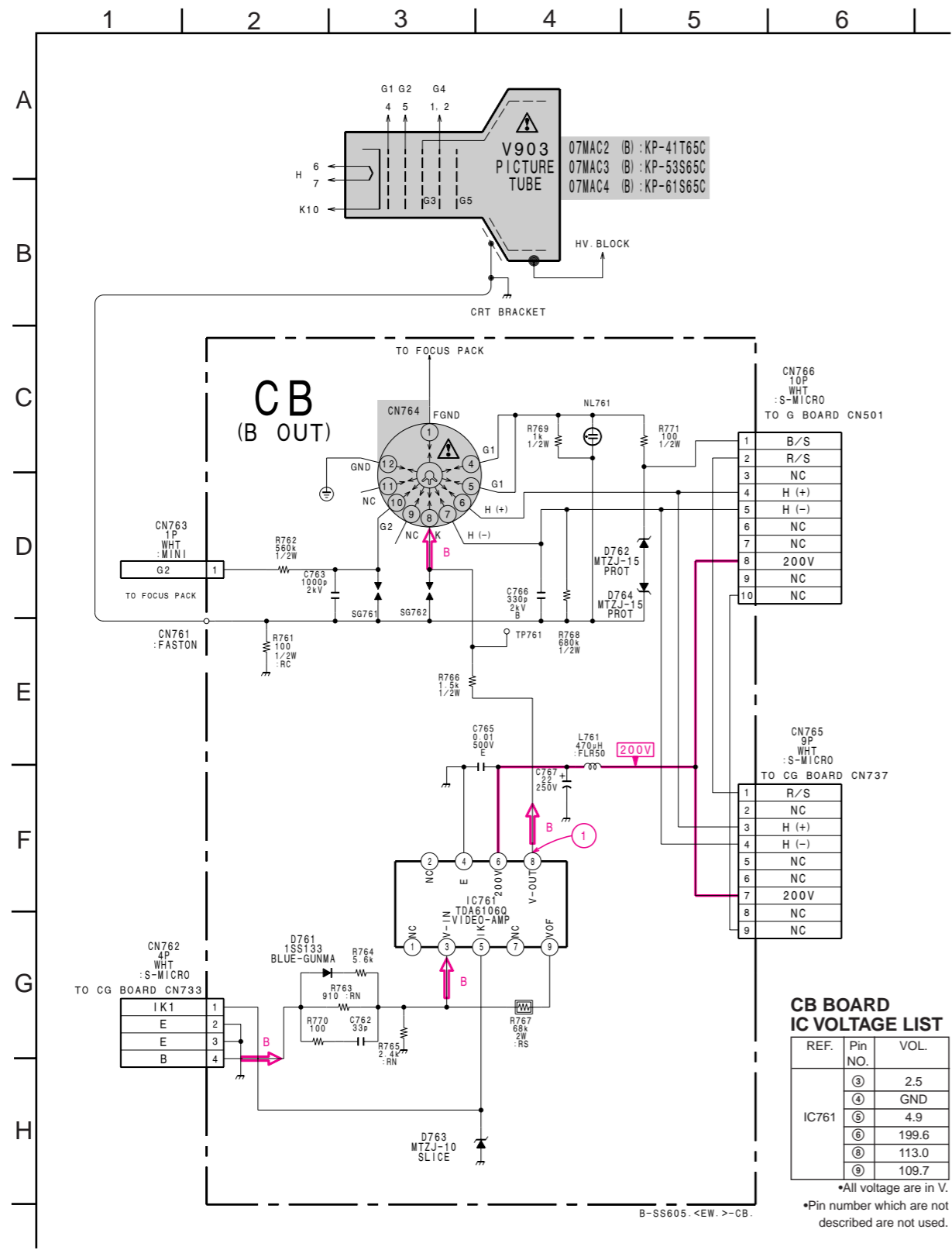
**• CR BOARD WAVEFORM**



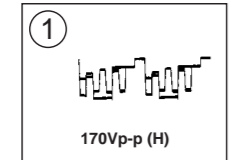
**• CG BOARD WAVEFORM**



Schematic diagram  
CR CG board →

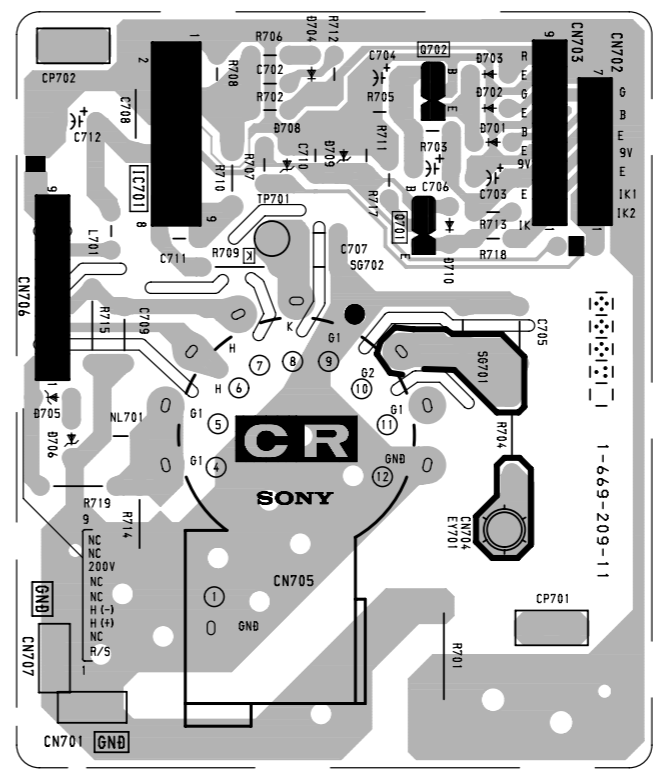


• CB BOARD WAVEFORM

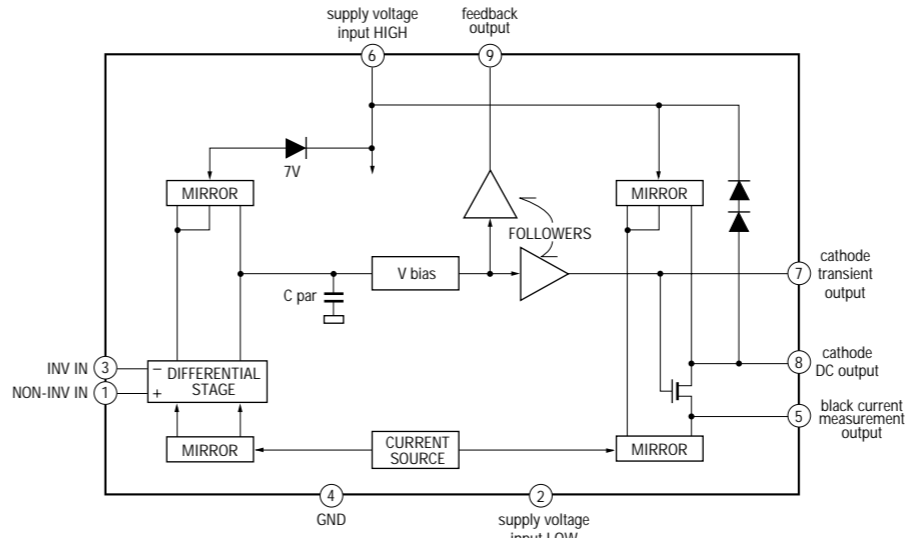


**CR** [R OUT] **CG** [G OUT] **CB** [B OUT]

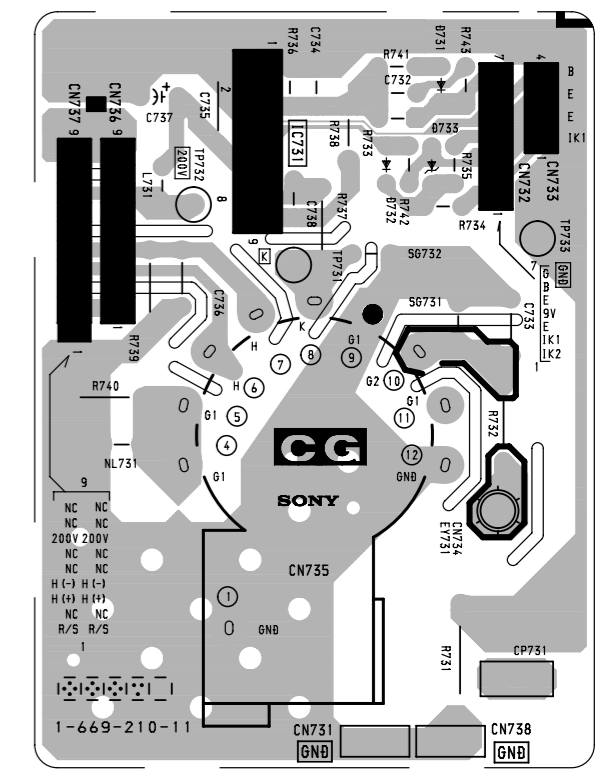
- CR Board -



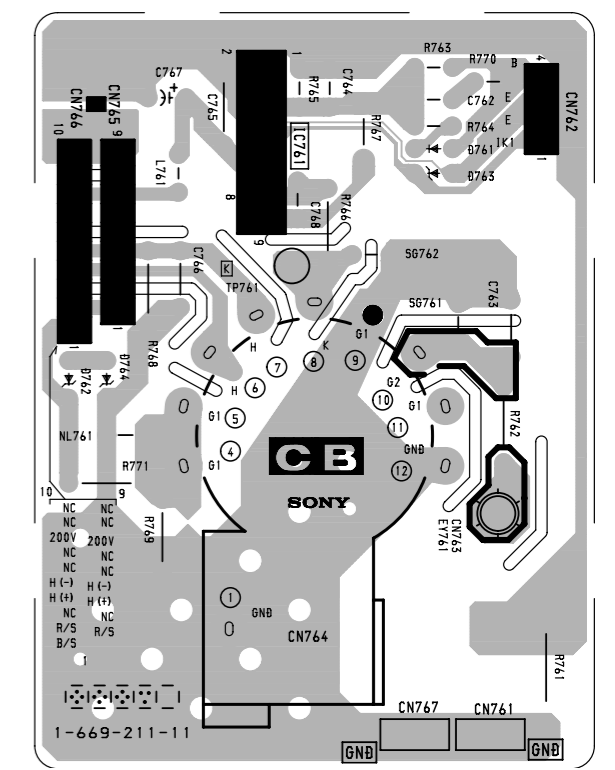
CR BOARD : IC701 TDA6106Q  
 CG BOARD : IC701 TDA6106Q  
 CB BOARD : IC701 TDA6106Q



- CG Board -



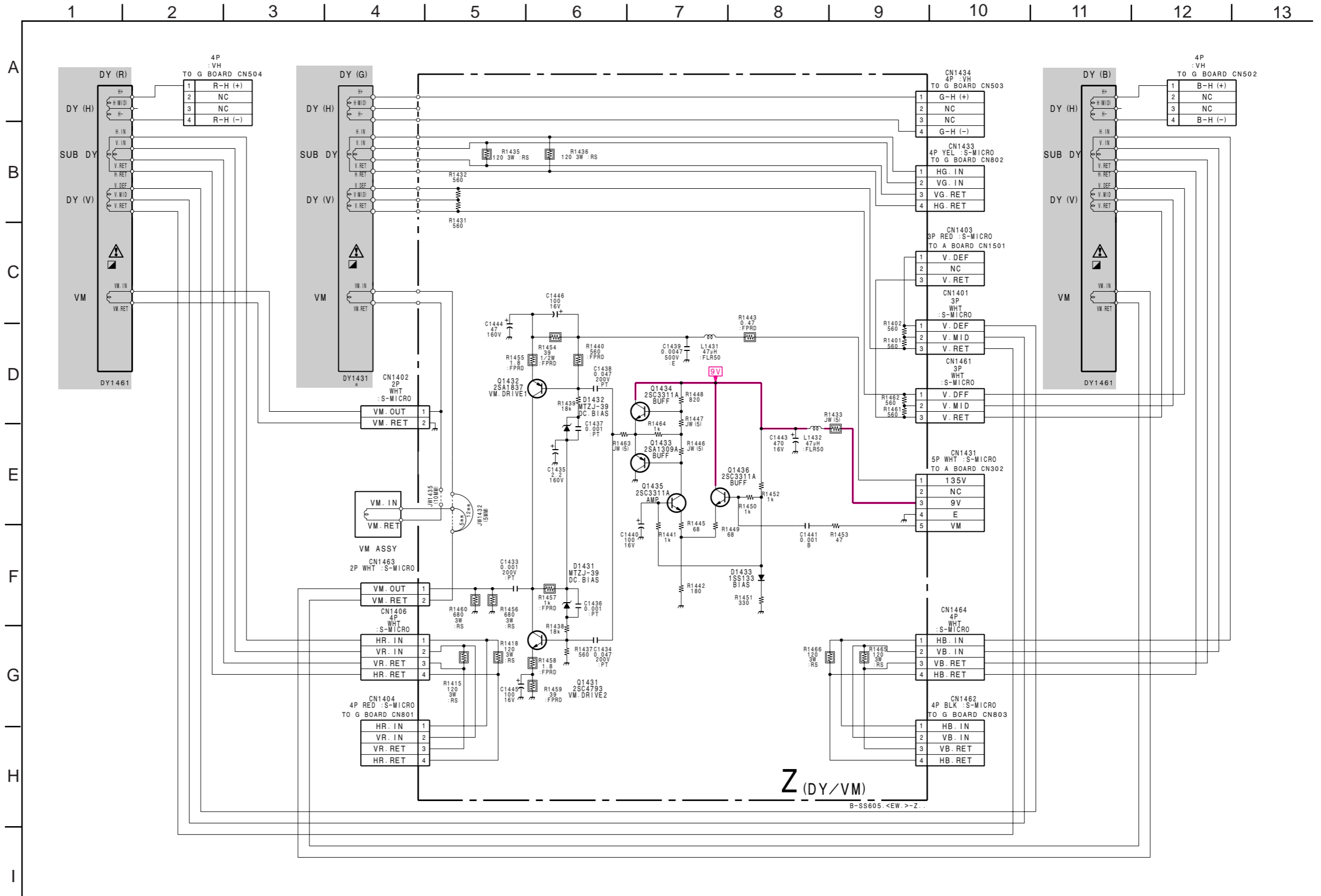
- CB Board -



**Z BOARD TRANSISTOR VOLTAGE LIST**

REF.		VOL.
Q1431	B	0.9
	E	0.5
	C	67.2
Q1432	B	134.4
	E	138.4
Q1433	C	67.2
	B	5.7
	E	5.8
Q1434	B	5.7
	E	5.8
	C	9.0
Q1435	B	2.7
	E	2.1
	C	5.7
Q1436	B	2.7
	E	2.1
	C	9.0

All voltages are in V.



**• Z BOARD \* MARK LIST**

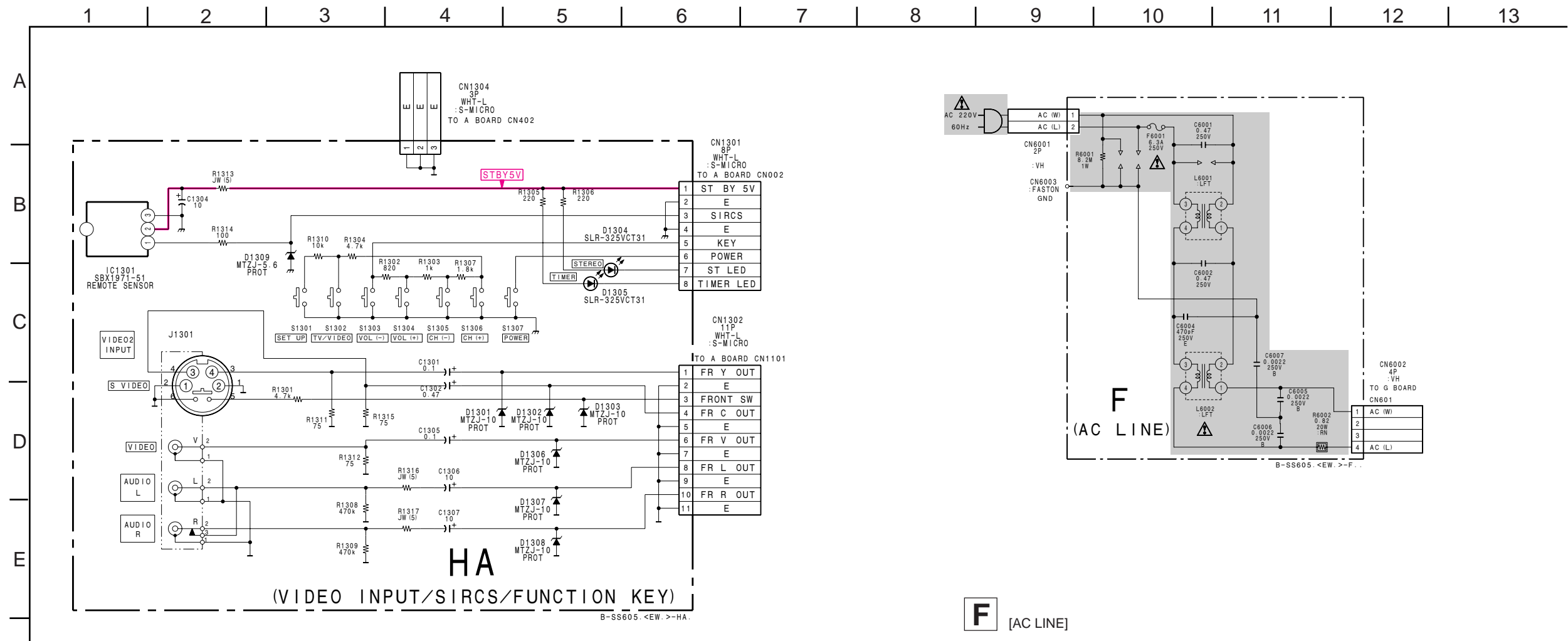
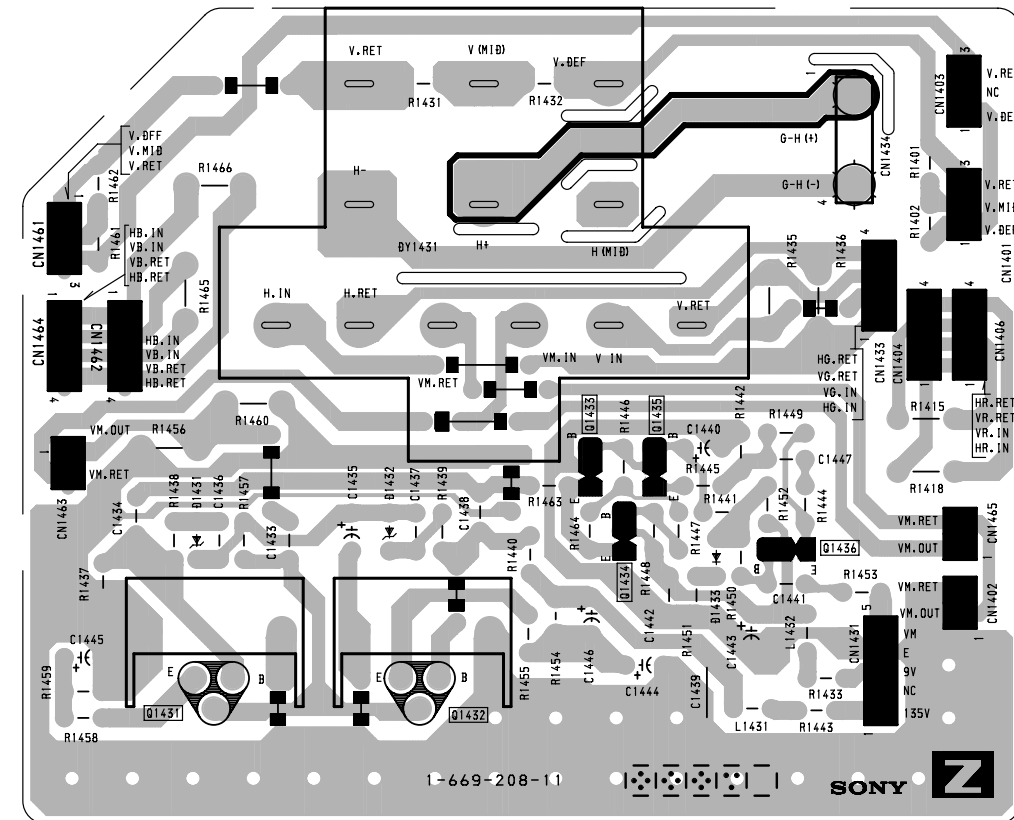
	KP-41T65C	KP-53S65C/61S65C
DY1431	1-451-454-11	1-451-455-11
JW1432	5MM	5MM
JW1435	10MM	10MM

Schematic diagram  
← CB board

Schematic diagram  
Z board →

**Z** [VM, DY] **HA** [IN / OUT SELECT]

- Z Board -

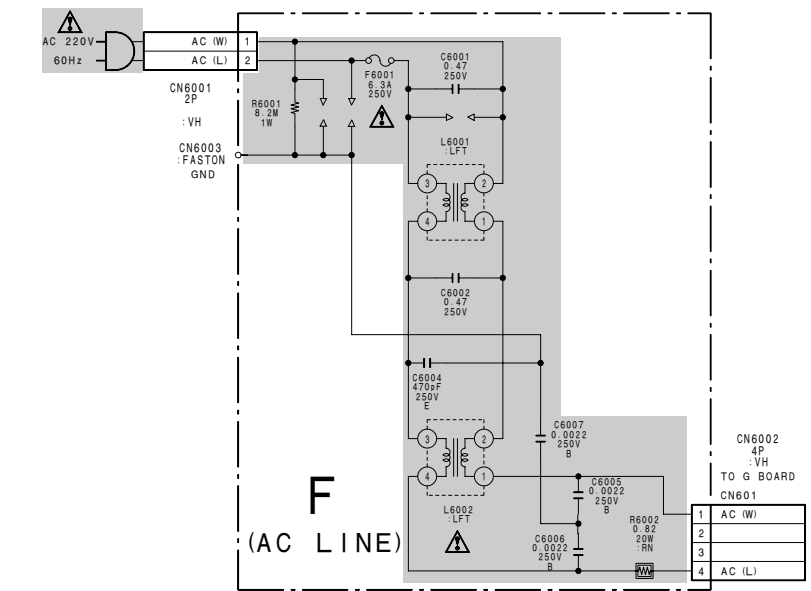
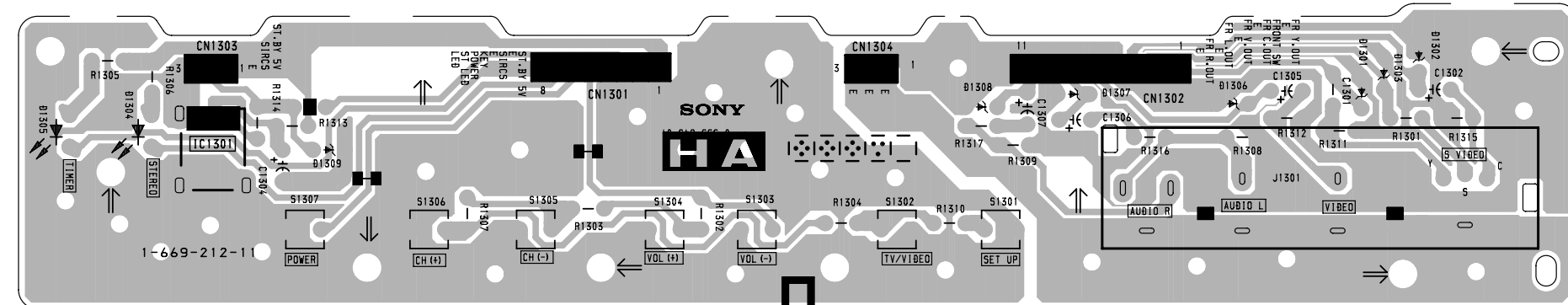


**HA BOARD IC VOLTAGE LIST**

REF.	Pin NO.	VOL.
IC1301	①	5.0
	②	5.0
	③	GND

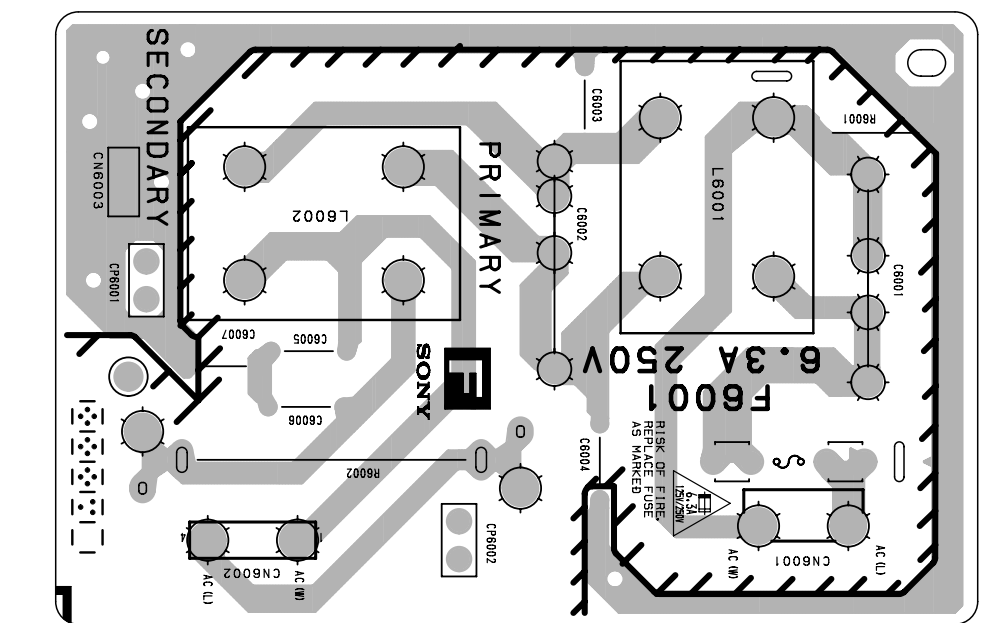
\*All voltage are in V.

- HA Board -



**F** [AC LINE]

- F Board -

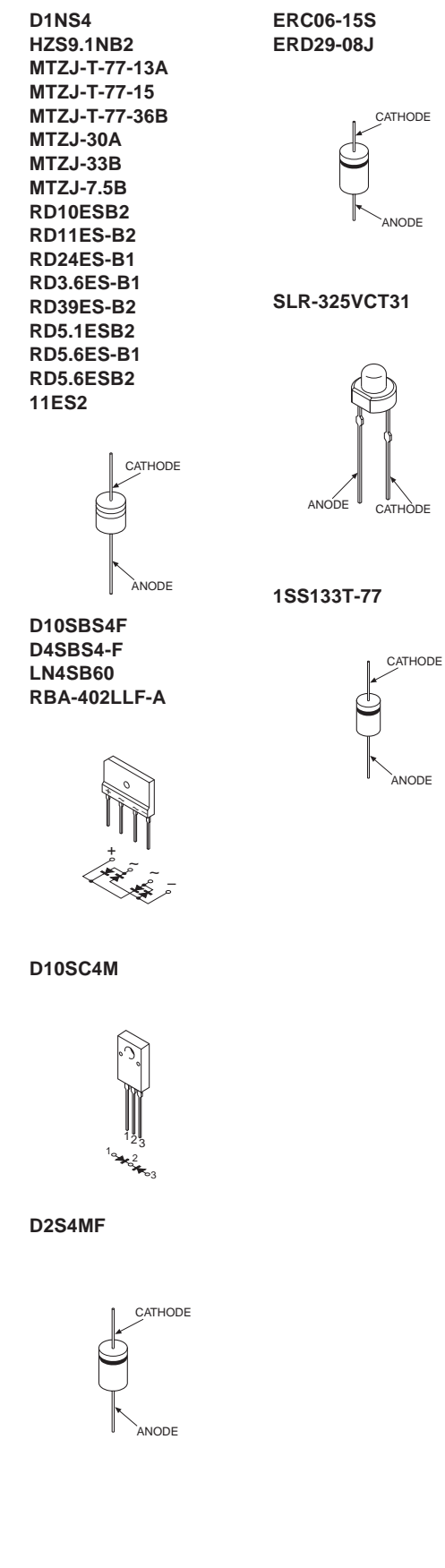
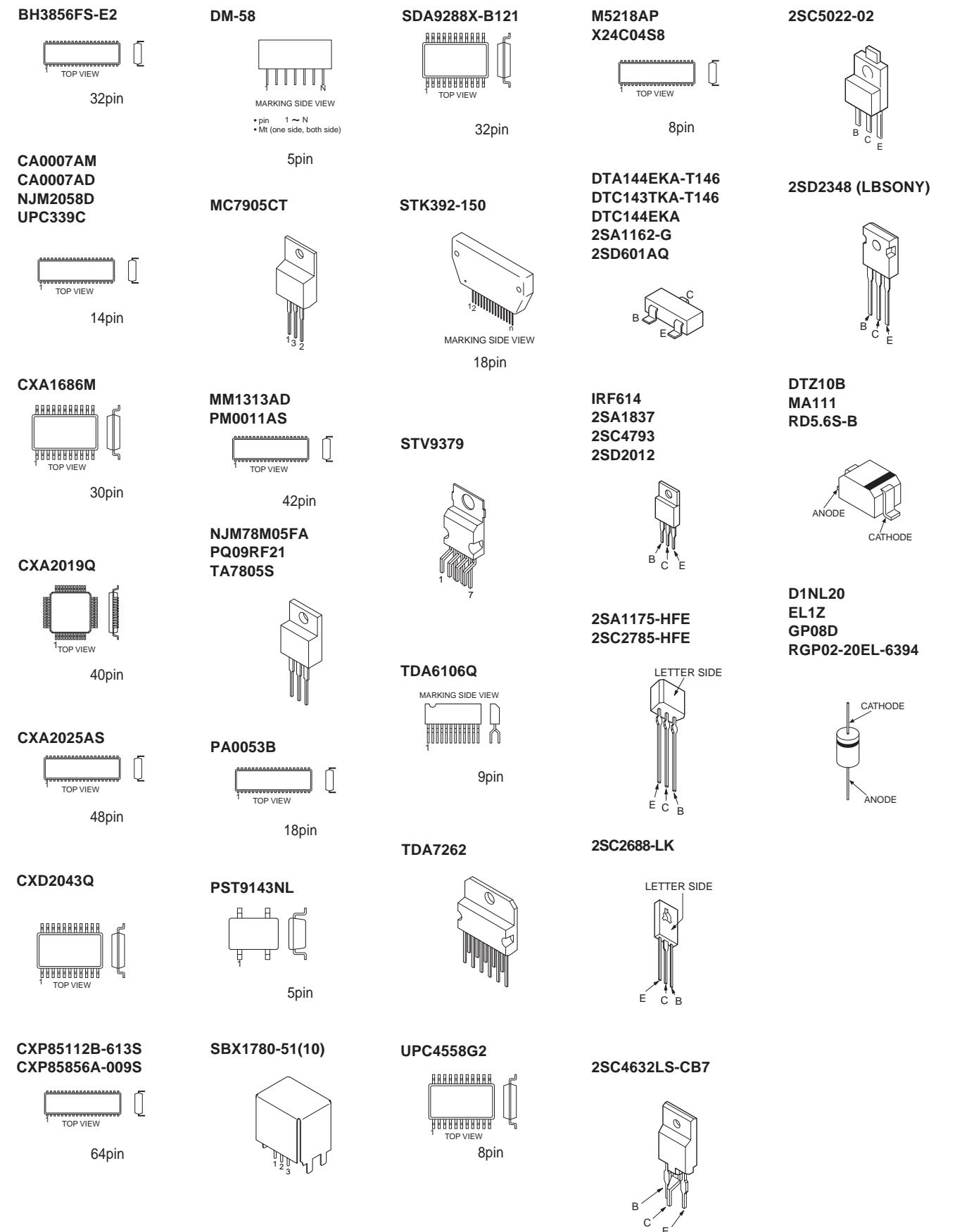


Schematic diagram  
 ← HA F board



SECTION 7  
EXPLODED VIEWS

6-5. SEMICONDUCTORS



NOTE:

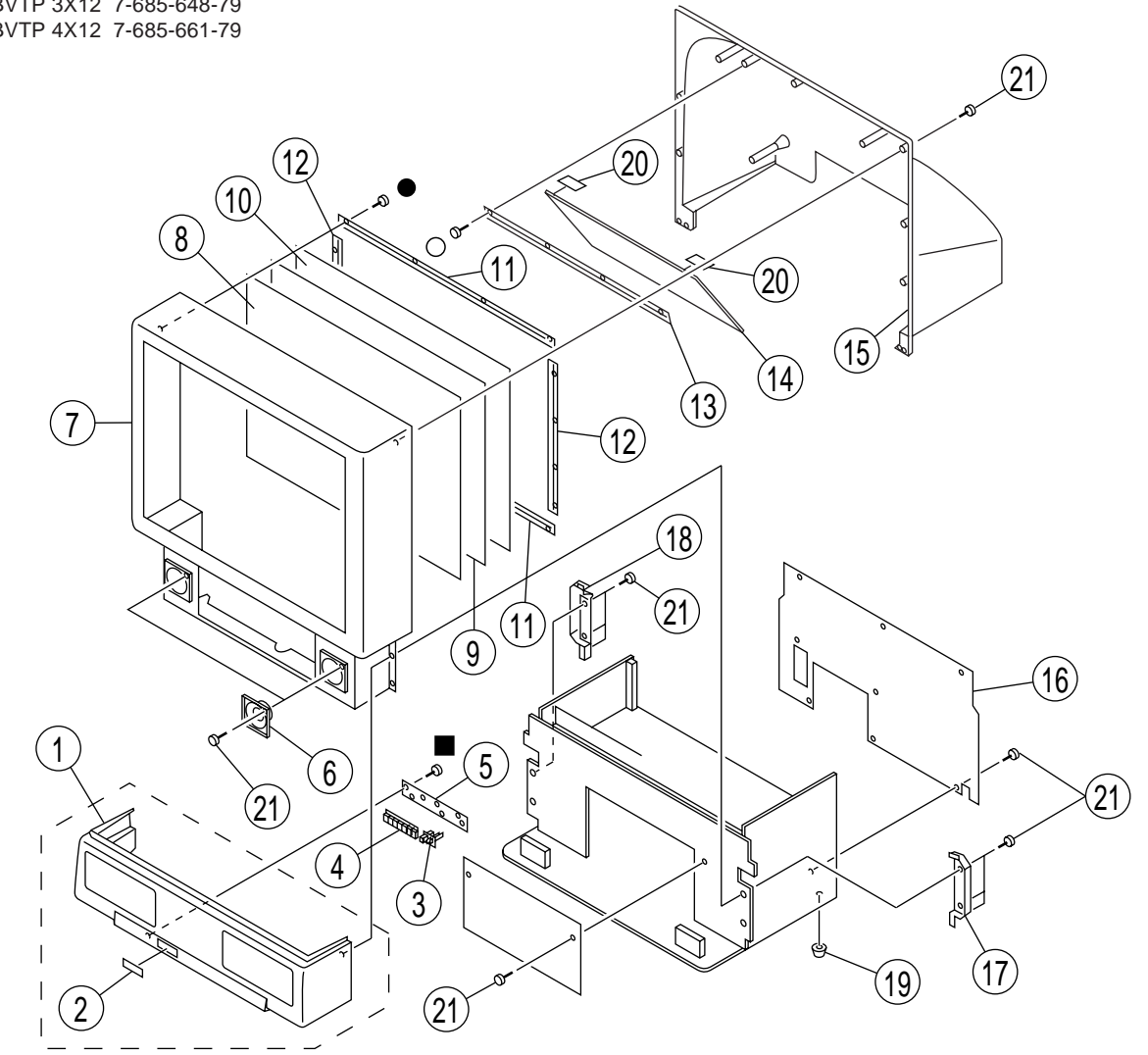
• Items with no part number and no description are not stocked because they are seldom required for routine service.

• 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  $\Delta$  are critical for safety. Replace only with part number specified.

7-1. COVER (KP-41T65C)

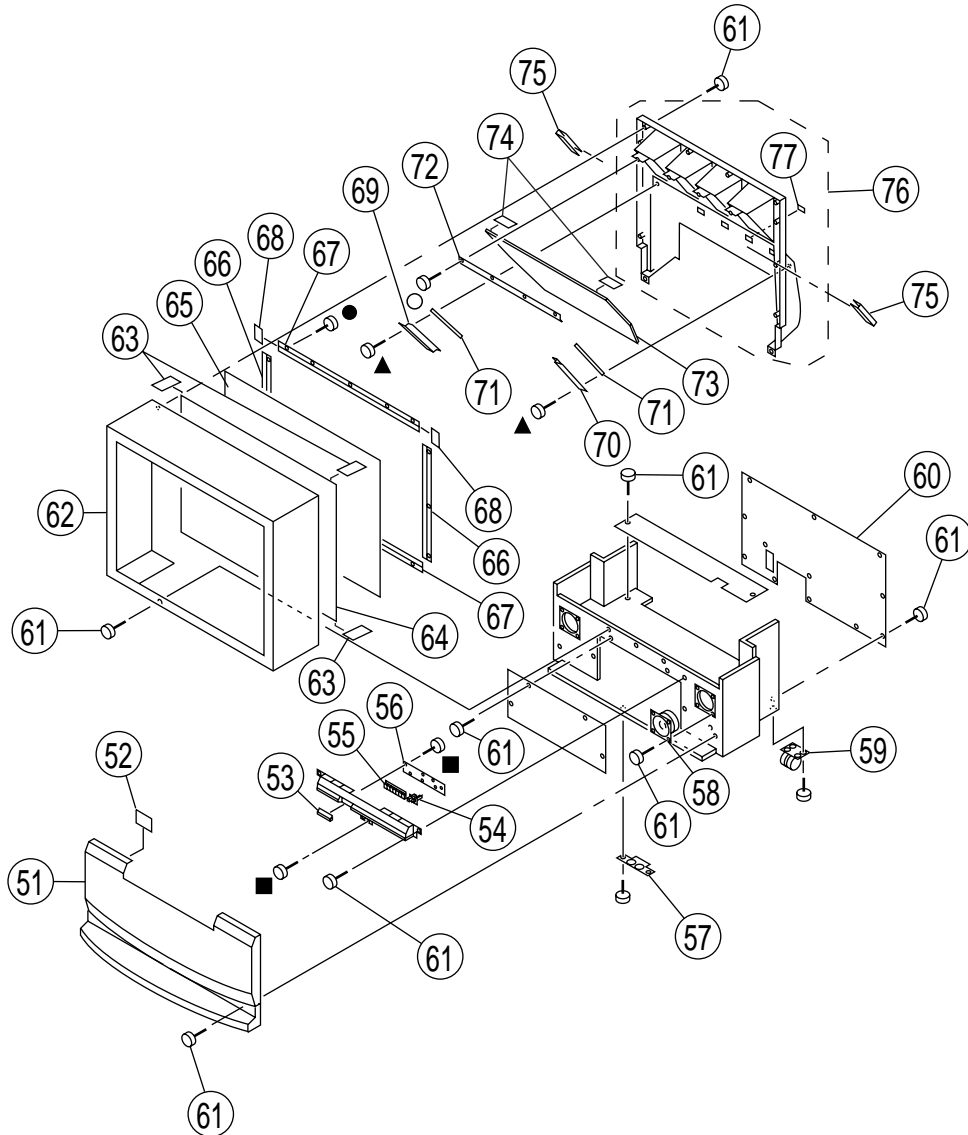
- : +BVTP 4X12 7-685-661-14
- : +BVTP 3X12 7-685-648-79
- : +BVTP 4X12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4034-531-1	CONTROL PANEL ASSY (PTG) (41)	2	12	* 4-059-011-01	HOLDER, SCREEN	
2	4-057-605-01	DOOR, CONTROL PANEL		13	* 4-037-351-01	HOLDER, MIRROR	
3	4-057-604-01	GUIDE, LED/IR		14	4-047-861-01	MIRROR (41), REFLECTION	
4	4-057-603-01	BUTTON, MULTI		15	X-4032-607-1	COVER, MIRROR	
5	* A-1372-474-A	HA BOARD, COMPLETE		16	* 4-059-014-01	BOARD (41), REAR	
6	1-505-748-11	SPEAKER (10CM)		17	4-057-601-01	CAP (RIGHT) (41), CONTROL PANEL	
7	X-4035-742-1	BEZNET ASSY (41)		18	4-057-600-01	CAP (LEFT) (41), CONTROL PANEL	
8	4-064-340-01	SCREEN (41), CONTRAST		19	4-057-611-01	FOOT	
9	4-064-338-01	PLATE (L), DIFFUSION		20	7-600-003-52	BLACK ACETATE (2142) 46x50M	
10	4-064-339-01	PLATE (F), DIFFUSION		21	4-378-522-31	SCREW (4X20), TAPPING	
11	* 4-059-007-01	HOLDER, SCREEN					

7-2. COVER (KP-53S65C)

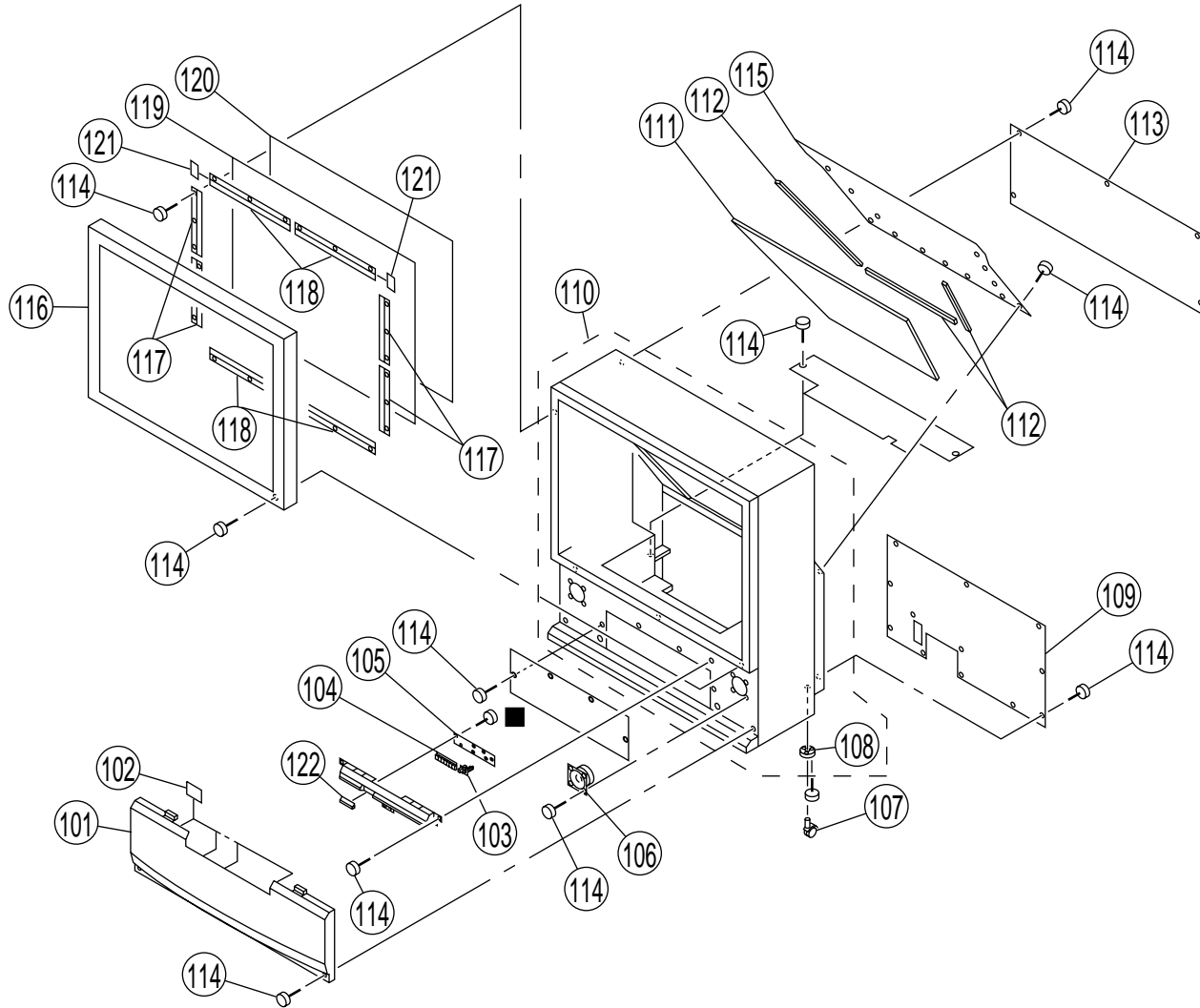
- : +BVTP 4X12 7-685-661-14
- : +BVTP 3X12 7-685-648-79
- ▲ : +BVTP 4X16 7-685-663-71
- : +BVTP 4X12 7-685-661-79



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
51	X-4035-410-1	GRILLE ASSY, SPEAKER		66	* 4-048-152-11	HOLDER (S), SCREEN	
52	4-059-346-01	CUSHION, GRILLE		67	* 4-048-159-11	HOLDER (L), SCREEN	
53	4-057-605-01	DOOR, CONTROL PANEL		68	7-600-004-57	TAPE, SCREEN (12X50M) NTR	
54	4-057-604-01	GUIDE, LED/IR		69	* 4-051-790-02	HOLDER, MIRSD (L)	
55	4-057-603-11	BUTTON, MULTI		70	* 4-051-789-02	HOLDER, MIRSD (R)	
56	* A-1372-474-A	HA BOARD, COMPLETE		71	* 4-049-098-01	CUSHION	
57	4-048-175-01	FOOT, PLASTIC		72	* 4-037-351-01	HOLDER, MIRROR	
58	1-505-378-11	SPEAKER (10CM)		73	4-048-181-01	MIRROR (53), REFLECTION	
59	4-040-755-01	CASTER (DIA.30)		74	7-600-003-52	BLACK ACETATE (2142) 23X50M	
60	* 4-057-844-01	BOARD (53), REAR		75	4-033-775-41	PROTECTOR, MIRROR	
61	4-378-522-31	SCREW (4X20), TAPPING		76	* X-4032-620-1	COVER ASSY, MIRROR	77
62	X-4035-743-1	BEZNET ASSY (53V)		77	4-048-150-01	CAP, HOLE	
63	7-632-661-51	BLACK ACETATE (2142) 23X50M					
64	4-063-555-01	PLATE (L), DIFFUSION					
65	4-059-221-11	PLATE (F), DIFFUSION					

**7-3. COVER (KP-61S65C)**

■ : +BVTP 3X12 7-685-648-79



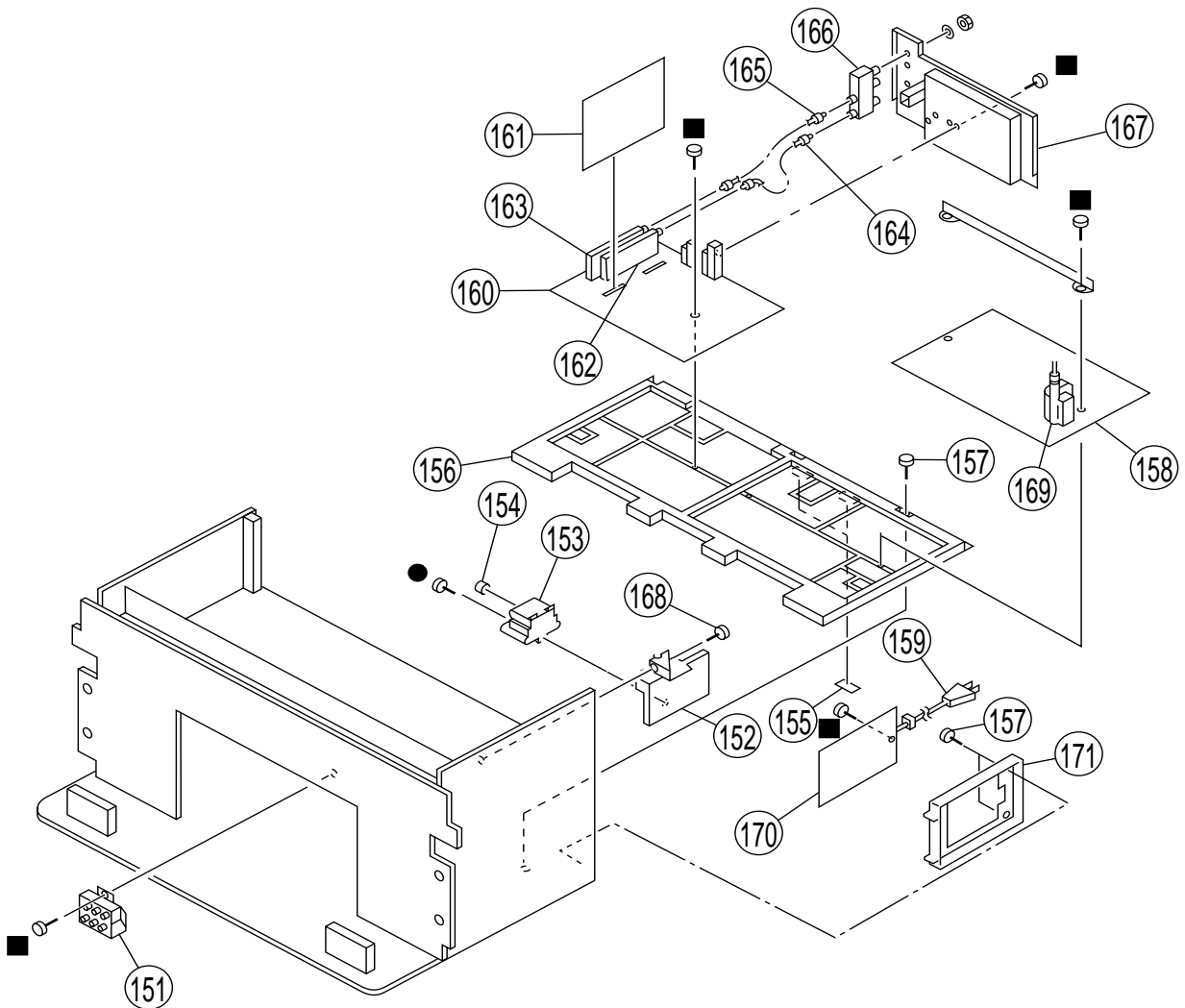
REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	X-4035-408-1	GRILLE ASSY, SPEAKER		113	* 4-058-641-01	COVER, TOP REAR	
102	4-060-556-01	CUSHION GRILLE		114	4-378-522-31	SCREW (4X20), TAPPING	
103	4-057-604-01	GUIDE, LED/IR		115	* 4-058-642-01	BOARD, MIRROR	
104	4-057-603-01	BUTTON, MULTI		116	X-4032-762-1	FRAME ASSY, SCREEN	
105	* A-1372-474-A	HA BOARD, COMPLETE		117	4-040-122-01	HOLDER (S), SCREEN	
106	1-505-378-11	SPEAKER (10CM)		118	4-040-120-01	HOLDER (L), SCREEN	
107	4-040-508-01	CASTER		119	4-063-551-01	PLATE (L), DIFFUSION	
108	4-030-850-01	SOCKET, CASTER		120	4-064-092-01	PLATE (F), DIFFUSION	
109	* 4-058-640-01	BOARD, REAR		121	7-600-004-57	TAPE, SCREEN (12X50M) NTR	
110	X-4035-418-1	CABINET ASSY	108	122	4-057-605-01	DOOR, CONTROL PANEL	
111	4-058-643-01	MIRROR, REFLECTION					
112	4-059-099-01	FORM, SPACER					



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

### 7-4. CHASSIS (KP-41T65C)

- : +BVTP 4X12 7-685-661-14
- : +BVTP 3X12 7-685-648-79

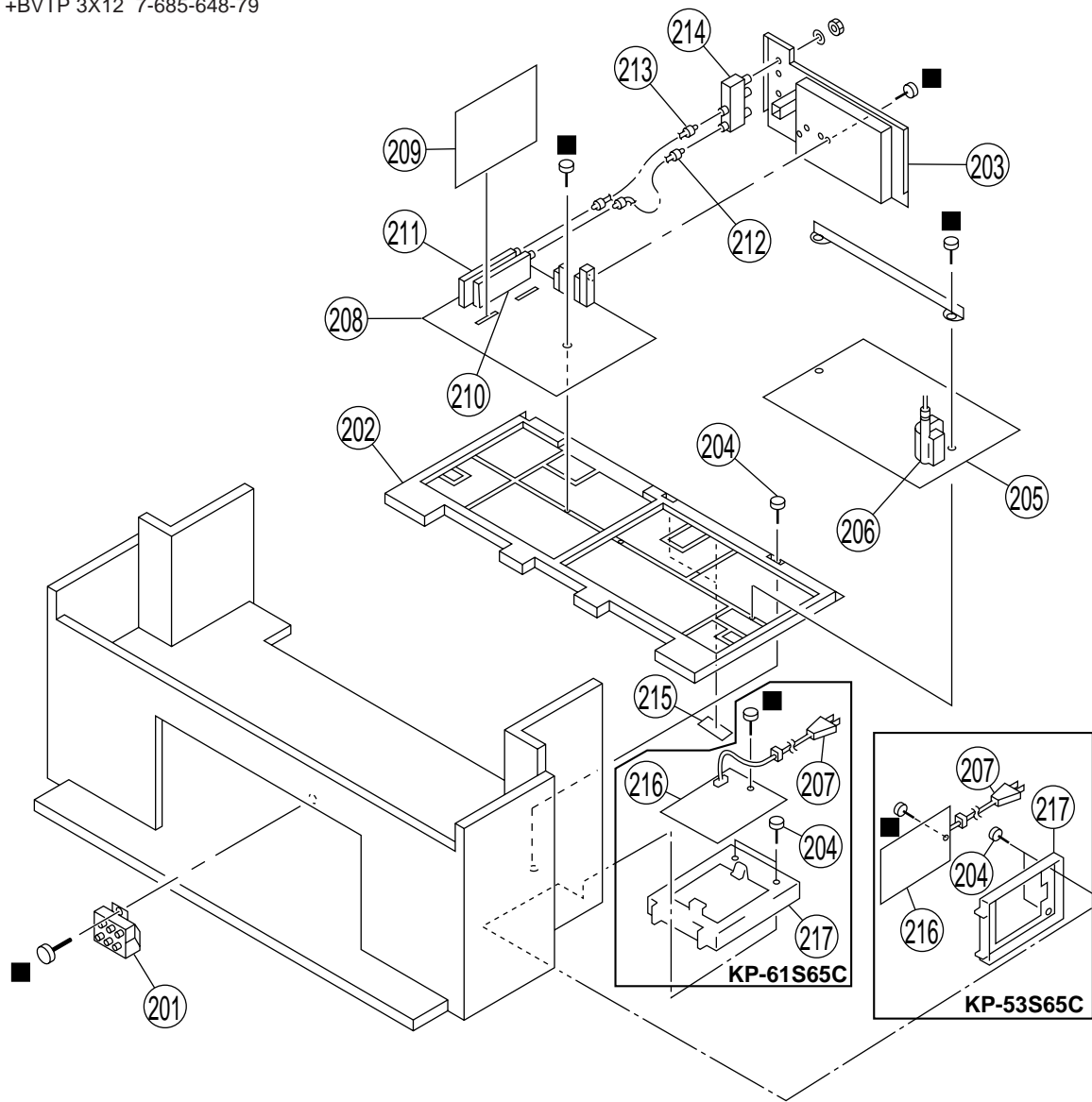


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	$\triangle$ 1-223-925-12	RESISTOR ASSY (HIGH-VOLTAGE)		162	8-598-339-00	TUNER, FSS BTF-LA402	
152	* 4-057-596-01	BRACKET, HV		163	8-598-340-00	TUNER, FSS BTF-WA404	
153	$\triangle$ 8-598-955-30	BLOCK ASSY, HIGH-VOLTAGE		164	1-551-448-61	CABLE, P-P	
154	4-373-137-01	CAP (Z), RUBBER		165	* 1-557-056-41	CABLE, P-P	
155	3-551-305-21	CUSHION, PANEL		166	8-598-414-00	ANTENNA SWITCH AS-2F	
156	* 4-057-594-01	BRACKET, MAIN		167	4-057-595-21	TERMINAL BOARD	
157	4-052-894-01	SCREW (4X20), HEAD TAPPING		168	4-378-522-31	SCREW (4X20), TAPPING	
158	* A-1316-392-A	G BOARD, COMPLETE		169	$\triangle$ 1-453-248-11	TRANSFORMER ASSY, FLYBACK	(NX-4007//X4T4)
159	$\triangle$ 1-769-796-11	CORD, POWER (WITH NOISE FILTER)		170	* A-1241-309-A	F BOARD, COMPLETE	
160	* A-1298-448-A	A BOARD, COMPLETE		171	* 4-060-974-01	BRACKET, F	
161	* A-1190-265-A	PT BOARD, COMPLETE					

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

**7-5. CHASSIS (KP-53S65C/61S65C)**

■ : +BVTP 3X12 7-685-648-79



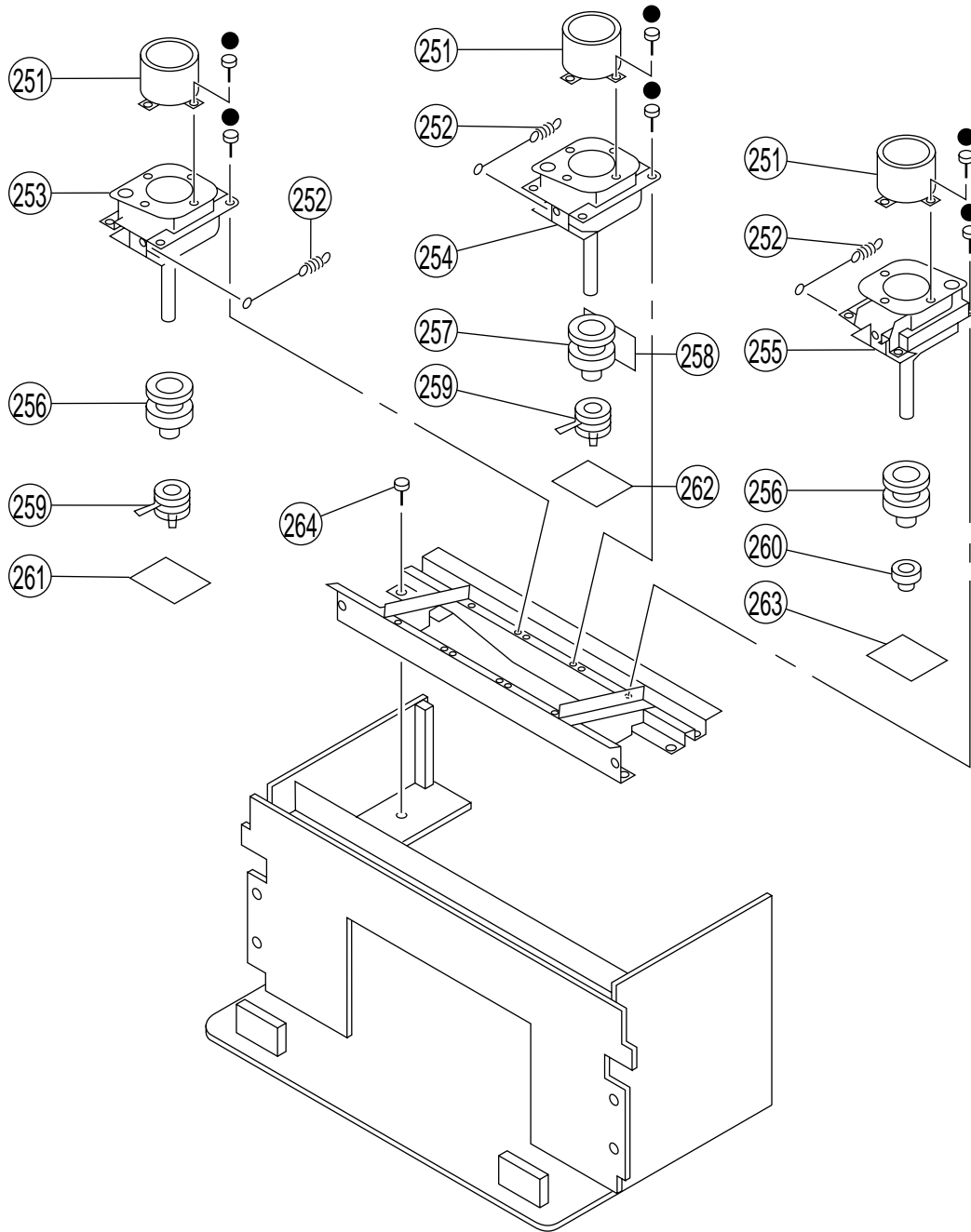
REF. NO.	PART NO.	DESCRIPTION	REMARK
201	$\Delta$ 1-223-925-12	RESISTOR ASSY (HIGH-VOLTAGE)	
202	* 4-057-594-01	BRACKET, MAIN	
203	4-057-595-21	TERMINAL BOARD	
204	4-052-894-01	SCREW (4X20), HEAD TAPPING	
205	* A-1316-392-A	G BOARD, COMPLETE (KP-61S65C)	
	* A-1316-393-A	G BOARD, COMPLETE (KP-53S65C)	
206	$\Delta$ 1-453-238-11	TRANSFORMER ASSY, FLYBACK (NX/4007//X4A4)	
207	$\Delta$ 1-769-796-11	CORD, POWER (WITH NOISE FILTER)	
208	* A-1298-448-A	A BOARD, COMPLETE	

REF. NO.	PART NO.	DESCRIPTION	REMARK
209	* A-1190-265-A	PT BOARD, COMPLETE	
210	8-598-339-00	TUNER, FSS BTF-LA402	
211	8-598-340-00	TUNER, FSS BTF-WA404	
212	* 1-557-056-41	CABLE, P-P	
213	1-551-448-61	CABLE, P-P	
214	8-598-414-00	ANTENNA SWITCH AS-2F	
215	3-551-305-21	CUSHION PANEL	
216	* A-1241-309-A	F BOARD, COMPLETE	
217	* 4-060-974-01	BRACKET, F	

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

7-6. PICTURE TUBE (KP-41T65C)

● : +BVTP 4X12 7-685-661-14

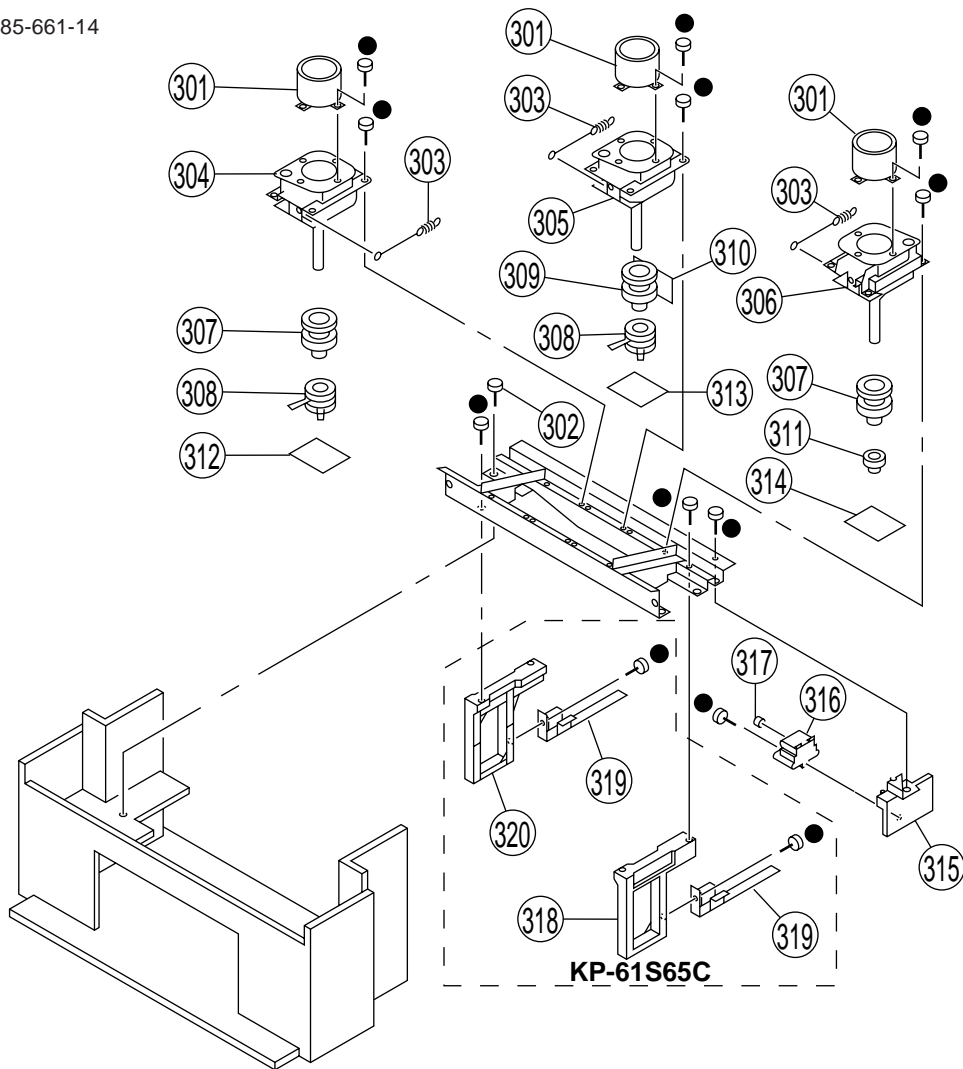


REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
251	4-056-258-01	LENS (DELTA 78)		258	* A-1390-867-A	Z BOARD, COMPLETE	
252	4-048-142-01	SPRING, TENSION		259	$\triangle$ 1-452-790-21	NECK ASSY	
253	$\triangle$ 8-733-539-05	PICTURE TUBE 07MXC2 (R)		260	1-452-909-31	MAGNET ASSY, 4 POLE	
254	$\triangle$ 8-733-537-05	PICTURE TUBE 07MXC2 (G)		261	* A-1331-777-A	CR BOARD, COMPLETE	
255	$\triangle$ 8-733-519-05	PICTURE TUBE 07MAC2 (B) (GROUND SPRING)		262	* A-1331-778-A	CG BOARD, COMPLETE	
256	$\triangle$ 1-451-454-31	DEFLECTION YOKE (R) (B)		263	* A-1331-779-A	CB BOARD, COMPLETE	
257	$\triangle$ 1-451-454-11	DEFLECTION YOKE (G)		264	4-052-894-01	SCREW (4X20), HEAD TAPPING	

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

**7-7. PICTURE TUBE (KP-53S65C/61S65C)**

● : +BVTP 4X12 7-685-661-14



REF. NO.	PART NO.	DESCRIPTION	REMARK
301	4-040-131-21	LENS (LINNIT POINT 6) (KP-61S65C)	
	4-056-258-01	LENS (DELTA 78) (KP-53S65C)	
302	4-052-894-01	SCREW (4X20), HEAD TAPPING	
303	4-048-142-01	SPRING, TENSION	
304	$\Delta$ 8-733-553-05	PICTURE TUBE 07MXC3 (R) (KP-53S65C)	
	$\Delta$ 8-733-555-05	PICTURE TUBE 07MXC4 (R) (KP-61S65C)	
305	$\Delta$ 8-733-537-05	PICTURE TUBE 07MXC2 (G)	
306	$\Delta$ 8-733-528-05	PICTURE TUBE 07MAC3 (B) (GROUND SPRING) (KP-53S65C)	
	$\Delta$ 8-733-529-05	PICTURE TUBE 07MAC4 (B) (GROUND SPRING) (KP-61S65C)	
307	$\Delta$ 1-451-455-31	DEFLECTION YOKE (R) (B)	
308	$\Delta$ 1-452-790-21	NECK ASSY	

REF. NO.	PART NO.	DESCRIPTION	REMARK
309	$\Delta$ 1-451-455-11	DEFLECTION YOKE (G)	
310	* A-1390-843-A	Z BOARD, COMPLETE	
311	1-452-909-31	MAGNET ASSY, 4 POLE	
312	* A-1331-777-A	CR BOARD, COMPLETE	
313	* A-1331-778-A	CG BOARD, COMPLETE	
314	* A-1331-779-A	CB BOARD, COMPLETE	
315	* 4-057-596-01	BRACKET, HV	
316	$\Delta$ 8-598-955-30	BROCK ASSY, HIGH-VOLTAGE	
317	4-373-137-01	CAP (Z), RUBBER	
318	4-057-613-01	BOARD (R), SIDE (KP-61S65C)	
319	4-058-638-01	STAY, CHASSIS (KP-61S65C)	
320	4-057-612-01	BOARD (L), SIDE (KP-61S65C)	

## SECTION 8 ELECTRICAL PARTS LIST

**NOTE:**

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

- The components identified by  $\blacktriangle$  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.
- 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.

- CAPACITORS  
PF :  $\mu\mu$  F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

**RESISTORS**

- All resistors are in ohms
- F : nonflammable

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1241-309-A F BOARD, COMPLETE *****				C5005	1-163-017-00	CERAMIC CHIP 0.0047 $\mu$ F 10%	50V
<CAPACITOR>				C5006	1-126-959-11	ELECT 0.47 $\mu$ F 20%	50V
C6001	$\Delta$ 1-104-708-11	FILM 0.47MF 20%	250V	C5007	1-126-961-11	ELECT 2.2 $\mu$ F 20%	50V
C6002	$\Delta$ 1-104-708-11	FILM 0.47MF 20%	250V	C5008	1-126-963-11	ELECT 4.7 $\mu$ F 20%	50V
C6004	$\Delta$ 1-113-900-11	CERAMIC 470PF 10%	250V	C5009	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
C6005	$\Delta$ 1-113-907-51	CERAMIC 0.0022MF 20%	250V	C5010	1-126-934-11	ELECT 220 $\mu$ F 20%	16V
C6006	$\Delta$ 1-113-907-51	CERAMIC 0.0022MF 20%	250V	C5011	1-126-960-11	ELECT 1 $\mu$ F 20%	50V
C6007	$\Delta$ 1-113-907-51	CERAMIC 0.0022MF 20%	250V	C5012	1-126-959-11	ELECT 0.47 $\mu$ F 20%	50V
<CONNECTOR>				C5013	1-164-232-11	CERAMIC CHIP 0.01 $\mu$ F 10%	50V
CN6001	$\Delta$ 1-580-843-11	PIN, CONNECTOR (POWER)		C5014	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
CN6002	$\Delta$ 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		C5015	1-163-229-11	CERAMIC CHIP 12PF 5%	50V
CN6003	$\Delta$ 1-695-915-11	TAB (CONTACT)		C5016	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
<FUSE>				C5017	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
F6001	$\Delta$ 1-532-506-51	FUSE 6.3A/250V		C5018	1-126-934-11	ELECT 220 $\mu$ F 20%	16V
	1-533-223-11	CLIP, FUSE ; F6001		C5019	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
<COIL>				C5020	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
L6001	$\Delta$ 1-424-248-11	TRANSFORMER, LINE FILTER		C5021	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
L6002	$\Delta$ 1-424-248-11	TRANSFORMER, LINE FILTER		C5022	1-163-259-91	CERAMIC CHIP 220PF 5%	50V
<RESISTOR>				C5023	1-126-964-11	ELECT 10 $\mu$ F 20%	50V
R6001	$\Delta$ 1-218-265-11	METAL 8.2M 5% 1W		C5024	1-126-933-11	ELECT 100 $\mu$ F 20%	16V
R6002	$\Delta$ 1-202-981-11	CEMENTED 0.82 5% 20W		C5025	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
*****				C5051	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
* A-1190-265-A PT BOARD, COMPLETE *****				C5052	1-164-489-11	CERAMIC CHIP 0.22 $\mu$ F 10%	16V
<CAPACITOR>				C5053	1-104-664-11	ELECT 47 $\mu$ F 20%	25V
C5001	1-104-664-11	ELECT 47 $\mu$ F 20%	25V	C5054	1-163-005-11	CERAMIC CHIP 470PF 10%	50V
C5002	1-163-251-11	CERAMIC CHIP 100PF 5%	50V	C5055	1-164-346-11	CERAMIC CHIP 1 $\mu$ F 16V	
C5003	1-126-957-11	ELECT 0.22 $\mu$ F 20%	50V	C5057	1-163-001-11	CERAMIC CHIP 220PF 10%	50V
C5004	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V		C5058	1-163-038-11	CERAMIC CHIP 0.1 $\mu$ F 25V	
				C5062	1-104-664-11	ELECT 47 $\mu$ F 20%	25V
				C5063	1-104-664-11	ELECT 47 $\mu$ F 20%	25V
				C5064	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
				C5065	1-163-239-11	CERAMIC CHIP 33PF 5%	50V
				C5066	1-163-031-11	CERAMIC CHIP 0.01 $\mu$ F 50V	
				C5067	1-163-031-11	CERAMIC CHIP 0.01 $\mu$ F 50V	
				C5068	1-126-960-11	ELECT 1 $\mu$ F 20%	50V
				C5069	1-163-031-11	CERAMIC CHIP 0.01 $\mu$ F 50V	
				C5070	1-163-031-11	CERAMIC CHIP 0.01 $\mu$ F 50V	
				C5071	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
				C5072	1-163-038-91	CERAMIC CHIP 0.1 $\mu$ F 25V	
				C5073	1-164-005-11	CERAMIC CHIP 0.47 $\mu$ F 25V	
				C5076	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
				C5077	1-163-251-11	CERAMIC CHIP 100PF 5%	50V
				C5078	1-163-031-11	CERAMIC CHIP 0.01 $\mu$ F 50V	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C5079	1-104-664-11	ELECT	47µF 20% 25V			<CONNECTOR>	
C5080	1-126-960-11	ELECT	1µF 20% 50V				
C5101	1-104-664-11	ELECT	47µF 20% 25V	CN5051	1-573-301-21	CONNECTOR, BOARD TO BOARD 20P	
				CN5101	1-770-156-21	CONNECTOR, BOARD TO BOARD 8P	
C5102	1-163-031-11	CERAMIC CHIP	0.01µF 50V			<DIODE>	
C5103	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V				
C5104	1-163-031-11	CERAMIC CHIP	0.01µF 50V				
C5105	1-163-227-11	CERAMIC CHIP	10PF 0.5PF 50V				
C5106	1-163-031-11	CERAMIC CHIP	0.01µF 50V	D5053	8-719-404-49	DIODE MA111	
				D5101	8-719-158-15	DIODE RD5.6SB	
C5107	1-163-245-11	CERAMIC CHIP	56PF 5% 50V			<FERRITE BEAD>	
C5108	1-163-031-11	CERAMIC CHIP	0.01µF 50V				
C5109	1-126-964-11	ELECT	10µF 20% 50V				
C5110	1-126-964-11	ELECT	10µF 20% 50V				
C5111	1-163-099-00	CERAMIC CHIP	18PF 5% 50V	FB5051	1-414-135-11	FERRITE 0µH	
				FB5052	1-414-135-11	FERRITE 0µH	
C5112	1-163-031-11	CERAMIC CHIP	0.01µF 50V	FB5053	1-414-135-11	FERRITE 0µH	
C5113	1-164-489-11	CERAMIC CHIP	0.22µF 10% 16V	FB5101	1-216-295-91	CONDUCTOR, CHIP	
C5114	1-163-239-11	CERAMIC CHIP	33PF 5% 50V	FB5102	1-216-295-91	CONDUCTOR, CHIP	
C5115	1-163-231-11	CERAMIC CHIP	15PF 5% 50V				
C5116	1-164-096-11	CERAMIC	0.01µF 50V	FB5103	1-216-295-91	CONDUCTOR, CHIP	
				FB5104	1-414-135-11	FERRITE 0µH	
C5117	1-163-809-11	CERAMIC CHIP	0.047µF 10% 25V	FB5105	1-414-135-11	FERRITE 0µH	
C5118	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	FB5106	1-414-135-11	FERRITE 0µH	
C5119	1-164-096-11	CERAMIC	0.01µF 50V	FB5107	1-414-135-11	FERRITE 0µH	
C5120	1-163-231-11	CERAMIC CHIP	15PF 5% 50V				
C5121	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	FB5108	1-410-396-41	FERRITE 0.45µH	
				FB5109	1-414-135-11	FERRITE 0µH	
C5122	1-163-809-11	CERAMIC CHIP	0.047µF 10% 25V	FB5110	1-414-135-11	FERRITE 0µH	
C5123	1-126-960-11	ELECT	1µF 20% 50V			<FILTER>	
C5124	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	FL5101	1-239-847-11	FILTER, LOW PASS	
C5125	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	FL5102	1-239-847-11	FILTER, LOW PASS	
C5126	1-163-017-00	CERAMIC CHIP	0.0047µF 10% 50V	FL5103	1-239-847-11	FILTER, LOW PASS	
C5127	1-104-664-11	ELECT	47µF 20% 25V			<IC>	
C5129	1-163-038-91	CERAMIC CHIP	0.1µF 25V	IC5001	8-752-078-83	IC CXA2019Q	
C5130	1-104-664-11	ELECT	47µF 20% 25V	IC5052	8-759-487-47	IC SDA9288X-B121	
C5131	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	IC5101	8-752-375-30	IC CXD2043Q	
C5132	1-163-231-11	CERAMIC CHIP	15PF 5% 50V	IC5102	8-752-062-80	IC CXA1686M	
				IC5103	8-759-701-56	IC NJM78M05FA	
C5133	1-163-038-91	CERAMIC CHIP	0.1µF 25V			<COIL>	
C5134	1-163-038-91	CERAMIC CHIP	0.1µF 25V				
C5135	1-163-031-11	CERAMIC CHIP	0.01µF 50V	L5001	1-410-478-11	INDUCTOR 47µH	
C5136	1-163-031-11	CERAMIC CHIP	0.01µF 50V	L5002	1-410-478-11	INDUCTOR 47µH	
C5137	1-163-031-11	CERAMIC CHIP	0.01µF 50V	L5003	1-410-478-11	INDUCTOR 47µH	
				L5004	1-410-478-11	INDUCTOR 47µH	
C5138	1-104-664-11	ELECT	47µF 20% 25V	L5052	1-408-607-31	INDUCTOR 22µH	
C5139	1-126-964-11	ELECT	10µF 20% 50V				
C5140	1-163-038-91	CERAMIC CHIP	0.1µF 25V	L5101	1-410-470-11	INDUCTOR 10µH	
C5141	1-163-038-91	CERAMIC CHIP	0.1µF 25V	L5102	1-410-476-11	INDUCTOR 33µH	
C5142	1-163-038-91	CERAMIC CHIP	0.1µF 25V	L5103	1-410-470-11	INDUCTOR 10µH	
				L5105	1-410-470-11	INDUCTOR 10µH	
C5143	1-163-031-11	CERAMIC CHIP	0.01µF 50V			<TRANSISTOR>	
C5144	1-163-031-11	CERAMIC CHIP	0.01µF 50V	Q5001	8-729-422-27	TRANSISTOR 2SD601A-Q	
C5145	1-126-964-11	ELECT	10µF 20% 50V	Q5002	8-729-216-22	TRANSISTOR 2SA1162-G	
C5146	1-164-232-11	CERAMIC CHIP	0.01µF 10% 50V	Q5003	8-729-422-27	TRANSISTOR 2SD601A-Q	
C5147	1-163-038-91	CERAMIC CHIP	0.1µF 25V	Q5004	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q5005	8-729-422-27	TRANSISTOR 2SD601A-Q	
C5148	1-163-038-91	CERAMIC CHIP	0.1µF 25V				
C5149	1-104-664-11	ELECT	47µF 20% 25V				
C5150	1-163-031-11	CERAMIC CHIP	0.01µF 50V				
C5151	1-104-664-11	ELECT	47µF 20% 25V				
C5152	1-163-031-11	CERAMIC CHIP	0.01µF 50V				
C5153	1-104-664-11	ELECT	47µF 20% 25V				
C5154	1-104-664-11	ELECT	47µF 20% 25V				
C5157	1-164-004-11	CERAMIC CHIP	0.1µF 10% 25V				





REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q5051	8-729-216-22	TRANSISTOR 2SA1162-G		R5059	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q5052	8-729-216-22	TRANSISTOR 2SA1162-G		R5060	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q5053	8-729-216-22	TRANSISTOR 2SA1162-G		R5061	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
Q5054	8-729-422-27	TRANSISTOR 2SD601A-Q		R5062	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q5055	8-729-216-22	TRANSISTOR 2SA1162-G		R5063	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q5056	8-729-422-27	TRANSISTOR 2SD601A-Q		R5072	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
Q5057	8-729-422-27	TRANSISTOR 2SD601A-Q		R5073	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q5101	8-729-422-27	TRANSISTOR 2SD601A-Q		R5074	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
Q5102	8-729-216-22	TRANSISTOR 2SA1162-G		R5075	1-216-043-91	METAL GLAZE 560	5% 1/10W
Q5103	8-729-216-22	TRANSISTOR 2SA1162-G		R5076	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
Q5104	8-729-216-22	TRANSISTOR 2SA1162-G		R5077	1-216-045-00	METAL GLAZE 680	5% 1/10W
Q5105	8-729-216-22	TRANSISTOR 2SA1162-G		R5078	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q5106	8-729-422-27	TRANSISTOR 2SD601A-Q		R5079	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q5107	8-729-422-27	TRANSISTOR 2SD601A-Q		R5080	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q5108	8-729-422-27	TRANSISTOR 2SD601A-Q		R5081	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q5109	8-729-216-22	TRANSISTOR 2SA1162-G		R5082	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q5110	8-729-216-22	TRANSISTOR 2SA1162-G		R5084	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q5111	8-729-216-22	TRANSISTOR 2SA1162-G		R5085	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q5112	8-729-422-27	TRANSISTOR 2SD601A-Q		R5089	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
		<RESISTOR>		R5090	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5001	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5091	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5002	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5092	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5003	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5102	1-216-295-91	CONDUCTOR, CHIP	
R5004	1-216-033-00	METAL GLAZE 220	5% 1/10W	R5103	1-216-047-91	METAL GLAZE 820	5% 1/10W
R5005	1-216-025-91	METAL GLAZE 100	5% 1/10W	R5104	1-216-295-91	CONDUCTOR, CHIP	
R5006	1-216-025-91	METAL GLAZE 100	5% 1/10W	R5106	1-216-035-00	METAL GLAZE 270	5% 1/10W
R5007	1-216-025-91	METAL GLAZE 100	5% 1/10W	R5107	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R5008	1-216-109-00	METAL GLAZE 330K	5% 1/10W	R5108	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
R5009	1-216-041-00	METAL GLAZE 470	5% 1/10W	R5109	1-208-776-11	METAL CHIP 560	0.50% 1/10W
R5010	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W	R5110	1-208-774-11	METAL CHIP 470	0.50% 1/10W
R5011	1-216-077-00	METAL GLAZE 15K	5% 1/10W	R5112	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R5012	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5113	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5013	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W	R5114	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R5014	1-216-025-91	METAL GLAZE 100	5% 1/10W	R5115	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R5015	1-216-041-00	METAL GLAZE 470	5% 1/10W	R5116	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5016	1-216-041-00	METAL GLAZE 470	5% 1/10W	R5117	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R5017	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5118	1-216-071-00	METAL GLAZE 8.2K	5% 1/10W
R5018	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R5120	1-208-766-11	METAL CHIP 220	0.50% 1/10W
R5019	1-216-037-00	METAL GLAZE 330	5% 1/10W	R5121	1-216-041-00	METAL GLAZE 470	5% 1/10W
R5021	1-216-041-00	METAL GLAZE 470	5% 1/10W	R5122	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R5022	1-216-047-91	METAL GLAZE 820	5% 1/10W	R5124	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5023	1-216-041-00	METAL GLAZE 470	5% 1/10W	R5127	1-216-069-00	METAL CHIP 6.8K	5% 1/10W
R5024	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5128	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R5025	1-216-075-00	METAL GLAZE 12K	5% 1/10W	R5129	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5026	1-216-081-00	METAL GLAZE 22K	5% 1/10W	R5130	1-216-075-00	METAL GLAZE 12K	5% 1/10W
R5027	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5132	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5033	1-216-025-91	METAL GLAZE 100	5% 1/10W	R5133	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R5051	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W	R5134	1-216-077-00	METAL GLAZE 15K	5% 1/10W
R5052	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5135	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R5053	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R5136	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R5054	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R5137	1-208-766-11	METAL CHIP 220	0.50% 1/10W
R5055	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5138	1-208-794-11	METAL CHIP 3.3K	0.50% 1/10W
R5056	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R5139	1-208-794-11	METAL CHIP 3.3K	0.50% 1/10W
R5057	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5140	1-216-041-00	METAL GLAZE 470	5% 1/10W
R5058	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R5141	1-216-033-00	METAL GLAZE 220	5% 1/10W
				R5142	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R5143	1-216-033-00	METAL GLAZE 220	5% 1/10W

# KP-41T65C/53S65C/61S65C

RM-Y136A RM-Y136A RM-Y136A



REF. NO.	PART NO.	DESCRIPTION	REMARK
R5144	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R5145	1-216-035-00	METAL GLAZE 270	5% 1/10W
R5146	1-216-035-00	METAL GLAZE 270	5% 1/10W
R5147	1-208-788-11	METAL CHIP 1.8K	0.50% 1/10W
R5148	1-208-788-11	METAL CHIP 1.8K	0.50% 1/10W
R5149	1-216-043-91	METAL GLAZE 560	5% 1/10W
R5150	1-208-794-11	METAL CHIP 3.3K	0.50% 1/10W
R5151	1-208-794-11	METAL CHIP 3.3K	0.50% 1/10W
R5152	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5156	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5157	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5158	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5159	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5160	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5161	1-216-025-91	METAL GLAZE 100	5% 1/10W
R5163	1-216-025-91	METAL GLAZE 100	5% 1/10W
<CRYSTAL>			
X5001	1-577-611-11	OSCILALTOR, CERAMIC	
X5002	1-567-505-11	OSCILLATOR, CRYSTAL	
X5051	1-760-095-21	VIBRATOR, CRYSTAL	
X5101	1-567-878-11	VIBRATOR, CRYSTAL	
X5102	1-577-611-11	OSCILALTOR, CERAMIC	

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\* A-1298-448-A A BOARD, COMPLETE  
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\* 4-051-927-01 CASE, SHIELD  
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

C001	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C004	1-126-933-11	ELECT 100μF	20% 16V
C005	1-126-964-11	ELECT 10μF	20% 50V
C006	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C017	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C018	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C019	1-126-960-11	ELECT 1μF	20% 50V
C021	1-163-243-11	CERAMIC CHIP 47PF	5% 50V
C024	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C025	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C026	1-107-714-11	ELECT 10μF	20% 16V
C027	1-126-935-11	ELECT 470μF	20% 16V
C028	1-107-714-11	ELECT 10μF	20% 16V
C032	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C033	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C034	1-163-809-11	CERAMIC CHIP 0.047μF	10% 25V
C035	1-104-664-11	ELECT 47μF	20% 25V
C036	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C037	1-163-237-11	CERAMIC CHIP 27PF	5% 50V
C038	1-126-960-11	ELECT 1μF	20% 50V
C045	1-163-017-00	CERAMIC CHIP 0.0047μF	10% 50V
C046	1-163-031-11	CERAMIC CHIP 0.01μF	50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C047	1-163-010-11	CERAMIC CHIP 0.0012μF	10% 50V
C048	1-164-005-11	CERAMIC CHIP 0.47μF	25V
C054	1-163-033-91	CERAMIC CHIP 0.022μF	50V
C057	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C092	1-163-259-91	CERAMIC CHIP 220PF	5% 50V
C107	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C108	1-104-664-11	ELECT 47μF	20% 25V
C109	1-126-916-11	ELECT 1000μF	20% 6.3V
C110	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C111	1-163-229-11	CERAMIC CHIP 12PF	5% 50V
C119	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C120	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C121	1-163-227-11	CERAMIC CHIP 10PF	0.5PF 50V
C124	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C201	1-126-960-11	ELECT 1μF	20% 50V
C203	1-126-935-11	ELECT 470μF	20% 16V
C204	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C206	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C207	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C208	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C209	1-126-964-11	ELECT 10μF	20% 50V
C210	1-126-964-11	ELECT 10μF	20% 50V
C211	1-126-964-11	ELECT 10μF	20% 50V
C212	1-126-964-11	ELECT 10μF	20% 50V
C213	1-126-964-11	ELECT 10μF	20% 50V
C216	1-126-964-11	ELECT 10μF	20% 50V
C218	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C219	1-126-964-11	ELECT 10μF	20% 50V
C220	1-126-964-11	ELECT 10μF	20% 50V
C221	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C224	1-104-664-11	ELECT 47μF	20% 25V
C226	1-126-964-11	ELECT 10μF	20% 50V
C227	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C229	1-126-964-11	ELECT 10μF	20% 50V
C230	1-126-964-11	ELECT 10μF	20% 50V
C231	1-126-933-11	ELECT 100μF	20% 16V
C232	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C302	1-126-959-11	ELECT 0.47μF	20% 50V
C303	1-163-031-11	CERAMIC CHIP 0.01μF	50V
C304	1-126-964-11	ELECT 10μF	20% 50V
C305	1-163-231-11	CERAMIC CHIP 15PF	5% 50V
C308	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C309	1-126-933-11	ELECT 100μF	20% 16V
C310	1-163-133-00	CERAMIC CHIP 470PF	5% 50V
C311	1-115-419-11	CERAMIC CHIP 3300PF	5% 25V
C312	1-126-959-11	ELECT 0.47μF	20% 50V
C313	1-130-495-00	FILM 0.1μF	5% 50V
C314	1-130-495-00	FILM 0.1μF	5% 50V
C315	1-130-495-00	FILM 0.1μF	5% 50V
C316	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C317	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C318	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C319	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C320	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C321	1-126-963-11	ELECT 4.7μF	20% 50V
C322	1-130-495-00	MYLAR 0.1μF	5% 50V
C323	1-137-581-11	FILM 0.1μF	5% 100V





REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C324	1-164-182-11	CERAMIC CHIP	0.0033μF 10% 50V	C1103	1-126-933-11	ELECT	100μF 20% 16V
C325	1-126-959-11	ELECT	0.47μF 20% 50V	C1104	1-164-161-11	CERAMIC CHIP	0.0022μF 10% 50V
C326	1-126-964-11	ELECT	10μF 20% 50V	C1105	1-126-960-11	ELECT	1μF 20% 50V
C329	1-163-017-00	CERAMIC CHIP	0.0047μF 10% 50V	C1106	1-126-933-11	ELECT	100μF 20% 16V
C330	1-163-263-11	CERAMIC CHIP	330PF 5% 50V	C1107	1-104-664-11	ELECT	47μF 20% 25V
C331	1-126-959-11	ELECT	0.47μF 20% 50V	C1108	1-126-964-11	ELECT	10μF 20% 50V
C332	1-164-232-11	CERAMIC CHIP	0.01μF 10% 50V	C1109	1-126-933-11	ELECT	100μF 20% 16V
C333	1-164-232-11	CERAMIC CHIP	0.01μF 10% 50V	C1110	1-164-161-11	CERAMIC CHIP	0.0022μF 10% 50V
C334	1-163-275-11	CERAMIC CHIP	0.001μF 5% 50V	C1111	1-126-960-11	ELECT	1μF 20% 50V
C335	1-126-935-11	ELECT	470μF 20% 16V	C1112	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C337	1-126-960-11	ELECT	1μF 20% 50V	C1113	1-126-964-11	ELECT	10μF 20% 50V
C338	1-126-961-11	ELECT	2.2μF 20% 50V	C1114	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C339	1-126-959-11	ELECT	0.47μF 20% 50V	C1115	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C342	1-130-495-00	FILM	0.1μF 5% 50V	C1116	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C344	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C1117	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C345	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	C1118	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C349	1-163-245-11	CERAMIC CHIP	56PF 5% 50V	C1119	1-126-968-11	ELECT	100μF 20% 50V
C351	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V	C1120	1-126-933-11	ELECT	100μF 20% 16V
C401	1-126-964-11	ELECT	10μF 20% 50V	C1122	1-104-664-11	ELECT	47μF 20% 25V
C402	1-126-964-11	ELECT	10μF 20% 50V	C1501	1-163-009-11	CERAMIC CHIP	0.001μF 10% 50V
C403	1-137-367-11	FILM	0.0033μF 5% 50V	C1502	1-107-504-11	CERAMIC	10PF 0.5PF 500V
C404	1-137-367-11	FILM	0.0033μF 5% 50V	C1503	1-136-177-00	FILM	1μF 5% 50V
C405	1-137-372-11	FILM	0.022μF 5% 50V	C1506	1-126-969-11	ELECT	220μF 20% 50V
C406	1-130-495-00	FILM	0.1μF 5% 50V	C1507	1-163-243-11	CERAMIC CHIP	47PF 5% 50V
C407	1-126-960-11	ELECT	1μF 20% 50V	C1508	1-137-401-11	FILM	0.22μF 10% 100V
C408	1-137-367-11	FILM	0.0033μF 5% 50V	C1509	1-163-251-11	CERAMIC CHIP	100PF 5% 50V
C409	1-137-367-11	FILM	0.0033μF 5% 50V	C1510	1-126-942-61	ELECT	1000μF 20% 25V
C410	1-137-372-11	FILM	0.022μF 5% 50V	C1511	1-126-942-61	ELECT	1000μF 20% 25V
C411	1-130-495-00	FILM	0.1μF 5% 50V	C1513	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C412	1-126-933-11	ELECT	100μF 20% 16V	C1514	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C413	1-128-551-11	ELECT	22μF 20% 25V	C1517	1-126-964-11	ELECT	10μF 20% 50V
C414	1-163-038-11	CERAMIC CHIP	0.1μF 25V	C1518	1-126-933-11	ELECT	100μF 20% 16V
C415	1-126-964-11	ELECT	10μF 20% 50V	C1519	1-126-933-11	ELECT	100μF 20% 16V
C416	1-126-964-11	ELECT	10μF 20% 50V	C1520	1-126-964-11	ELECT	10μF 20% 50V
C417	1-126-964-11	ELECT	10μF 20% 50V	C1521	1-164-161-11	CERAMIC CHIP	0.0022μF 10% 50V
C418	1-104-664-11	ELECT	47μF 20% 25V	C1522	1-164-004-11	CERAMIC CHIP	0.1μF 10% 25V
C419	1-128-551-11	ELECT	22μF 20% 25V	C1523	1-163-005-11	CERAMIC CHIP	470PF 10% 50V
C422	1-104-664-11	ELECT	47μF 20% 25V	C1524	1-137-150-11	MYLAR	0.01μF 10% 100V
C424	1-126-961-11	ELECT	2.2μF 20% 50V	C1525	1-106-220-00	MYLAR	0.1μF 10% 100V
C425	1-126-935-11	ELECT	470μF 20% 16V	C1601	1-126-935-11	ELECT	470μF 20% 16V
C426	1-126-964-11	ELECT	10μF 20% 50V	C1602	1-126-767-11	ELECT	1000μF 20% 16V
C427	1-126-933-11	ELECT	100μF 20% 16V	C1603	1-126-916-11	ELECT	1000μF 20% 6.3V
C428	1-126-969-11	ELECT	220μF 20% 50V	C1604	1-126-934-11	ELECT	220μF 20% 16V
C429	1-126-967-11	ELECT	47μF 20% 50V	C1605	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C430	1-126-964-11	ELECT	10μF 20% 50V	C1606	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C431	1-126-969-11	ELECT	220μF 20% 50V	C1607	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C432	1-136-173-00	FILM	0.47μF 5% 50V	C1608	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C433	1-130-495-00	FILM	0.1μF 5% 50V	C1609	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C434	1-128-550-11	ELECT	2200μF 20% 50V	C1610	1-126-933-11	ELECT	100μF 20% 16V
C435	1-130-495-00	FILM	0.1μF 5% 50V	C1611	1-163-031-11	CERAMIC CHIP	0.01μF 50V
C436	1-128-548-11	ELECT	4700μF 20% 25V			<CONNECTOR>	
C437	1-128-548-11	ELECT	4700μF 20% 25V	CN001	* 1-564-507-11	PLUG, CONNECTOR 4P	
C440	1-126-964-11	ELECT	10μF 20% 50V	CN002	* 1-564-511-11	PLUG, CONNECTOR 8P	
C441	1-126-964-11	ELECT	10μF 20% 50V	CN003	* 1-774-183-11	CONNECTOR, BOARD TOBOARD10P	
C1101	1-163-031-11	CERAMIC CHIP	0.01μF 50V	CN004	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
C1102	1-163-031-11	CERAMIC CHIP	0.01μF 50V	CN301	* 1-774-183-11	CONNECTOR, BOARD TOBOARD10P	



REF. NO.	PART NO.	DESCRIPTION	REMARK
CN302	* 1-564-508-11	PLUG, CONNECTOR 5P	
CN303	* 1-564-512-11	PLUG, CONNECTOR 9P	
CN304	1-770-155-21	CONNECTOR, BOARD TO BOARD 8P	
CN305	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN401	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN402	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN403	1-695-915-11	TAB (CONTACT)	
CN1101	* 1-564-514-11	PLUG, CONNECTOR 11P	
CN1501	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN1601	* 1-774-183-11	CONNECTOR, BOARD TOBOARD10P	
CN1602	* 1-774-183-11	CONNECTOR, BOARD TOBOARD10P	
		<DIODE>	
D001	8-719-991-33	DIODE 1SS133T-77	
D002	8-719-991-33	DIODE 1SS133T-77	
D003	8-719-991-33	DIODE 1SS133T-77	
D004	8-719-991-33	DIODE 1SS133T-77	
D007	8-719-109-89	DIODE RD5.6ESB2	
D010	8-719-109-89	DIODE RD5.6ESB2	
D011	8-719-109-89	DIODE RD5.6ESB2	
D202	8-719-110-17	DIODE RD10ESB2	
D203	8-719-109-89	DIODE RD5.6ESB2	
D206	8-719-977-28	DIODE DTZ10B	
D207	8-719-977-28	DIODE DTZ10B	
D208	8-719-977-28	DIODE DTZ10B	
D209	8-719-977-28	DIODE DTZ10B	
D210	8-719-977-28	DIODE DTZ10B	
D211	8-719-977-28	DIODE DTZ10B	
D212	8-719-977-28	DIODE DTZ10B	
D213	8-719-977-28	DIODE DTZ10B	
D214	8-719-110-17	DIODE RD10ESB2	
D215	8-719-110-17	DIODE RD10ESB2	
D216	8-719-110-17	DIODE RD10ESB2	
D217	8-719-110-17	DIODE RD10ESB2	
D218	8-719-110-17	DIODE RD10ESB2	
D219	8-719-110-17	DIODE RD10ESB2	
D220	8-719-110-17	DIODE RD10ESB2	
D221	8-719-110-17	DIODE RD10ESB2	
D222	8-719-110-17	DIODE RD10ESB2	
D225	8-719-110-17	DIODE RD10ESB2	
D226	8-719-110-17	DIODE RD10ESB2	
D232	8-719-983-38	DIODE MTZI-T-77-36B	
D236	8-719-110-17	DIODE RD10ESB2	
D237	8-719-110-17	DIODE RD10ESB2	
D238	8-719-110-17	DIODE RD10ESB2	
D239	8-719-991-33	DIODE 1SS133T-77	
D240	8-719-991-33	DIODE 1SS133T-77	
D241	8-719-991-33	DIODE 1SS133T-77	
D305	8-719-110-17	DIODE RD10ESB2	
D401	8-719-991-33	DIODE 1SS133T-77	
D403	8-719-983-38	DIODE MTZI-T-77-36B	
D405	8-719-991-33	DIODE 1SS133T-77	
D406	8-719-991-33	DIODE 1SS133T-77	
D408	8-719-991-33	DIODE 1SS133T-77	
D410	8-719-983-38	DIODE MTZI-T-77-36B	
D411	8-719-929-15	DIODE HZS9.1NB2	
D1101	8-719-982-26	DIODE MTZI-33B	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D1102	8-719-977-28	DIODE DTZ10B	
D1103	8-719-977-28	DIODE DTZ10B	
D1104	8-719-977-28	DIODE DTZ10B	
D1105	8-719-977-28	DIODE DTZ10B	
D1106	8-719-977-28	DIODE DTZ10B	
D1107	8-719-977-28	DIODE DTZ10B	
D1501	8-719-109-89	DIODE RD5.6ESB2	
D1502	8-719-908-03	DIODE GP08D	
		<FERRITE BEAD>	
FB1102	1-414-135-11	FERRITE	0μH
		<IC>	
IC001	8-752-894-96	IC CXP85856A-009S	
IC002	8-752-861-57	IC CXP85112B-613S	
IC003	8-759-352-91	IC PST9143NL	
IC004	8-759-352-91	IC PST9143NL	
IC007	8-759-518-23	IC X24C04S8	
IC201	8-759-534-81	IC MM1313AD/	
IC301	8-752-076-76	IC CXA2025AS	
IC401	8-759-369-39	IC BH3856FS-E2	
IC402	8-759-100-96	IC UPC4558G2	
IC403	8-759-089-13	IC TDA7262	
IC1101	8-759-231-53	IC TA7805S	
IC1501	8-759-192-71	IC STV9379	
IC1502	8-759-251-31	IC CA0007AM	
IC1601	8-759-198-03	IC PQ09RF21	
IC1602	8-759-231-53	IC TA7805S	
		<JACK>	
J203	1-507-667-00	JACK, MIC	
J205	1-774-750-11	JACK BLOCK, PIN	
J206	1-774-749-11	JACK BLOCK, PIN	
J208	1-774-749-11	JACK BLOCK, PIN	
J209	1-774-751-11	TERMINAL BLOCK, S	
		<CHIP CONDUCTOR>	
JR003	1-216-295-91	CONDUCTOR, CHIP	
JR201	1-216-295-91	CONDUCTOR, CHIP	
JR202	1-216-295-91	CONDUCTOR, CHIP	
JR1501	1-216-295-91	CONDUCTOR, CHIP	
JR1502	1-216-295-91	CONDUCTOR, CHIP	
JR1601	1-216-295-91	CONDUCTOR, CHIP	
JR1602	1-216-295-91	CONDUCTOR, CHIP	
JR1603	1-216-295-91	CONDUCTOR, CHIP	
JR1604	1-216-295-91	CONDUCTOR, CHIP	
JR1605	1-216-295-91	CONDUCTOR, CHIP	
JR1607	1-216-295-91	CONDUCTOR, CHIP	
JR1609	1-216-295-91	CONDUCTOR, CHIP	
JR1610	1-216-295-91	CONDUCTOR, CHIP	
JR1611	1-216-295-91	CONDUCTOR, CHIP	
JR1612	1-216-295-91	CONDUCTOR, CHIP	
JR1613	1-216-295-91	CONDUCTOR, CHIP	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
JR1614	1-216-295-91	CONDUCTOR, CHIP		Q209	8-729-027-56	TRANSISTOR DTC143TKA-T146	
JR1615	1-216-295-91	CONDUCTOR, CHIP		Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
JR1617	1-216-295-91	CONDUCTOR, CHIP		Q214	8-729-216-22	TRANSISTOR 2SA1162-G	
JR1619	1-216-295-91	CONDUCTOR, CHIP		Q216	8-729-027-56	TRANSISTOR DTC143TKA-T146	
JR1620	1-216-295-91	CONDUCTOR, CHIP		Q217	8-729-027-56	TRANSISTOR DTC143TKA-T146	
JR1621	1-216-295-91	CONDUCTOR, CHIP		Q218	8-729-422-27	TRANSISTOR 2SD601A-Q	
JR1622	1-216-295-91	CONDUCTOR, CHIP		Q219	8-729-422-27	TRANSISTOR 2SD601A-Q	
JR1623	1-216-295-91	CONDUCTOR, CHIP		Q220	8-729-422-27	TRANSISTOR 2SD601A-Q	
JR1624	1-216-295-91	CONDUCTOR, CHIP		Q226	8-729-422-27	TRANSISTOR 2SD601A-Q	
JR1625	1-216-295-91	CONDUCTOR, CHIP		Q301	8-729-216-22	TRANSISTOR 2SA1162-G	
JR1627	1-216-295-91	CONDUCTOR, CHIP		Q302	8-729-216-22	TRANSISTOR 2SA1162-G	
JR1629	1-216-295-91	CONDUCTOR, CHIP		Q303	8-729-422-27	TRANSISTOR 2SD601A-Q	
		<COIL>		Q304	8-729-422-27	TRANSISTOR 2SD601A-Q	
				Q305	8-729-422-27	TRANSISTOR 2SD601A-Q	
L002	1-410-482-31	INDUCTOR 100μH		Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
L003	1-410-482-31	INDUCTOR 100μH		Q307	8-729-422-27	TRANSISTOR 2SD601A-Q	
L004	1-216-295-91	CONDUCTOR, CHIP		Q308	8-729-216-22	TRANSISTOR 2SA1162-G	
L005	1-216-295-91	CONDUCTOR, CHIP		Q311	8-729-422-27	TRANSISTOR 2SD601A-Q	
L006	1-410-470-11	INDUCTOR 10μH		Q312	8-729-422-27	TRANSISTOR 2SD601A-Q	
L007	1-410-482-31	INDUCTOR 100μH		Q313	8-729-422-27	TRANSISTOR 2SD601A-Q	
L201	1-410-478-11	INDUCTOR 47μH		Q314	8-729-422-27	TRANSISTOR 2SD601A-Q	
L302	1-410-482-31	INDUCTOR 100μH		Q402	1-801-806-11	TRANSISTOR DTC144EKA-T146	
L303	1-410-470-11	INDUCTOR 10μH		Q403	8-729-027-38	TRANSISTOR DTA144EKA-T146	
L1101	1-410-478-11	INDUCTOR 47μH		Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
L1103	1-410-478-11	INDUCTOR 47μH		Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
L1104	1-410-478-11	INDUCTOR 47μH		Q408	8-729-422-27	TRANSISTOR 2SD601A-Q	
L1105	1-410-470-11	INDUCTOR 10μH		Q409	8-729-422-27	TRANSISTOR 2SD601A-Q	
L1106	1-410-478-11	INDUCTOR 47μH		Q410	8-729-422-27	TRANSISTOR 2SD601A-Q	
L1501	1-406-663-21	INDUCTOR 0μH		Q411	8-729-027-38	TRANSISTOR DTA144EKA-T146	
L1502	1-412-533-21	INDUCTOR 47μH		Q1101	1-801-806-11	TRANSISTOR DTC144EKA-T146	
L1503	1-412-533-21	INDUCTOR 47μH		Q1501	8-729-422-27	TRANSISTOR 2SD601A-Q	
L1601	1-406-975-21	INDUCTOR 0μH		Q2105	8-729-422-27	TRANSISTOR 2SD601A-Q	
		<IC LINK>		Q2106	8-729-422-27	TRANSISTOR 2SD601A-Q	
PS401	1-532-984-11	LINK, IC 2A/90V				<RESISTOR>	
		<TRANSISTOR>		R003	1-216-295-91	CONDUCTOR, CHIP	
Q001	8-729-422-27	TRANSISTOR 2SD601A-Q		R004	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q002	8-729-027-38	TRANSISTOR DTA144EKA-T146		R005	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q003	8-729-027-38	TRANSISTOR DTA144EKA-T146		R006	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q004	8-729-216-22	TRANSISTOR 2SA1162-G		R007	1-216-081-00	METAL GLAZE 22K	5% 1/10W
Q005	8-729-216-22	TRANSISTOR 2SA1162-G		R008	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q006	8-729-027-38	TRANSISTOR DTA144EKA-T146		R009	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q007	1-801-806-11	TRANSISTOR DTC144EKA-T146		R010	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q008	8-729-422-27	TRANSISTOR 2SD601A-Q		R011	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q009	8-729-027-38	TRANSISTOR DTA144EKA-T146		R012	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q013	8-729-422-27	TRANSISTOR 2SD601A-Q		R013	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q015	8-729-422-27	TRANSISTOR 2SD601A-Q		R014	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q016	8-729-422-27	TRANSISTOR 2SD601A-Q		R015	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q017	8-729-422-27	TRANSISTOR 2SD601A-Q		R016	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q201	8-729-422-27	TRANSISTOR 2SD601A-Q		R017	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
Q206	8-729-027-56	TRANSISTOR DTC143TKA-T146		R018	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
Q207	1-801-806-11	TRANSISTOR DTC144EKA-T146		R019	1-216-097-91	METAL GLAZE 100K	5% 1/10W
				R020	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R021	1-216-089-91	METAL GLAZE 47K	5% 1/10W
				R023	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
				R024	1-216-121-91	METAL GLAZE 1M	5% 1/10W
				R025	1-216-097-91	METAL GLAZE 100K	5% 1/10W

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RM-Y136A RM-Y136A RM-Y136A



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R026	1-216-033-00	METAL GLAZE 220	5% 1/10W	R117	1-216-033-00	METAL GLAZE 220	5% 1/10W
R027	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R118	1-216-033-00	METAL GLAZE 220	5% 1/10W
R030	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R119	1-216-033-00	METAL GLAZE 220	5% 1/10W
R033	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R120	1-216-033-00	METAL GLAZE 220	5% 1/10W
R034	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R121	1-216-033-00	METAL GLAZE 220	5% 1/10W
R035	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R122	1-216-033-00	METAL GLAZE 220	5% 1/10W
R036	1-216-033-00	METAL GLAZE 220	5% 1/10W	R123	1-216-033-00	METAL GLAZE 220	5% 1/10W
R037	1-216-033-00	METAL GLAZE 220	5% 1/10W	R124	1-216-033-00	METAL GLAZE 220	5% 1/10W
R038	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R125	1-216-033-00	METAL GLAZE 220	5% 1/10W
R039	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R127	1-216-033-00	METAL GLAZE 220	5% 1/10W
R040	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R128	1-216-033-00	METAL GLAZE 220	5% 1/10W
R041	1-216-025-91	METAL GLAZE 100	5% 1/10W	R131	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
R042	1-216-089-91	METAL GLAZE 47K	5% 1/10W	R132	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
R043	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R133	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W
R045	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R147	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R046	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R148	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R047	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R149	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R048	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R154	1-216-025-91	METAL GLAZE 100	5% 1/10W
R050	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R155	1-216-025-91	METAL GLAZE 100	5% 1/10W
R053	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R156	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R054	1-216-033-00	METAL GLAZE 220	5% 1/10W	R157	1-216-017-91	METAL GLAZE 47	5% 1/10W
R056	1-216-121-91	METAL GLAZE 1M	5% 1/10W	R158	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R057	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R159	1-216-017-91	METAL GLAZE 47	5% 1/10W
R058	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R160	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R059	1-216-033-00	METAL GLAZE 220	5% 1/10W	R161	1-216-017-91	METAL GLAZE 47	5% 1/10W
R060	1-216-033-00	METAL GLAZE 220	5% 1/10W	R163	1-216-033-00	METAL GLAZE 220	5% 1/10W
R061	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R164	1-216-033-00	METAL GLAZE 220	5% 1/10W
R063	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R165	1-216-033-00	METAL GLAZE 220	5% 1/10W
R064	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R171	1-216-035-00	METAL GLAZE 270	5% 1/10W
R065	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R172	1-216-035-00	METAL GLAZE 270	5% 1/10W
R066	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R173	1-216-035-00	METAL GLAZE 270	5% 1/10W
R067	1-216-033-00	METAL GLAZE 220	5% 1/10W	R204	1-249-377-11	CARBON 0.47	5% 1/4W F
R068	1-216-033-00	METAL GLAZE 220	5% 1/10W	R206	1-216-022-00	METAL GLAZE 75	5% 1/10W
R070	1-216-033-00	METAL GLAZE 220	5% 1/10W	R213	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R071	1-216-033-00	METAL GLAZE 220	5% 1/10W	R214	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R072	1-216-033-00	METAL GLAZE 220	5% 1/10W	R215	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R073	1-216-033-00	METAL GLAZE 220	5% 1/10W	R216	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R074	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R217	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R075	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R218	1-216-022-00	METAL GLAZE 75	5% 1/10W
R076	1-216-033-00	METAL GLAZE 220	5% 1/10W	R219	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R077	1-216-121-91	METAL GLAZE 1M	5% 1/10W	R220	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R078	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R221	1-216-022-00	METAL GLAZE 75	5% 1/10W
R080	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R222	1-216-022-00	METAL GLAZE 75	5% 1/10W
R081	1-216-033-00	METAL GLAZE 220	5% 1/10W	R223	1-216-022-00	METAL GLAZE 75	5% 1/10W
R084	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R224	1-216-017-91	METAL GLAZE 47	5% 1/10W
R085	1-216-097-91	METAL GLAZE 100K	5% 1/10W	R225	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R086	1-216-033-00	METAL GLAZE 220	5% 1/10W	R227	1-216-019-00	METAL GLAZE 56	5% 1/10W
R087	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R229	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R088	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R230	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R090	1-216-065-91	METAL GLAZE 4.7K	5% 1/10W	R231	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R091	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R235	1-216-041-00	METAL GLAZE 470	5% 1/10W
R092	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	R236	1-216-041-00	METAL GLAZE 470	5% 1/10W
R099	1-216-037-00	METAL GLAZE 330	5% 1/10W	R241	1-216-041-00	METAL GLAZE 470	5% 1/10W
R111	1-216-033-00	METAL GLAZE 220	5% 1/10W	R245	1-216-041-00	METAL GLAZE 470	5% 1/10W
R112	1-216-033-00	METAL GLAZE 220	5% 1/10W	R255	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R113	1-216-033-00	METAL GLAZE 220	5% 1/10W	R258	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R115	1-216-033-00	METAL GLAZE 220	5% 1/10W				





REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R260	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R337	1-216-033-00	METAL GLAZE	220 5% 1/10W
R261	1-216-065-91	METAL GLAZE	4.7K 5% 1/10W	R338	1-216-033-00	METAL GLAZE	220 5% 1/10W
R262	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R339	1-216-033-00	METAL GLAZE	220 5% 1/10W
R263	1-216-095-00	METAL GLAZE	82K 5% 1/10W	R340	1-216-025-91	METAL GLAZE	100 5% 1/10W
R264	1-216-089-91	METAL GLAZE	47K 5% 1/10W	R342	1-216-025-91	METAL GLAZE	100 5% 1/10W
R265	1-216-097-91	METAL GLAZE	100K 5% 1/10W	R343	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R266	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W	R344	1-216-067-00	METAL GLAZE	5.6K 5% 1/10W
R268	1-216-105-91	METAL GLAZE	220K 5% 1/10W	R345	1-216-109-00	METAL GLAZE	330K 5% 1/10W
R275	1-216-033-00	METAL GLAZE	220 5% 1/10W	R346	1-216-053-00	METAL GLAZE	1.5K 5% 1/10W
R276	1-216-033-00	METAL GLAZE	220 5% 1/10W	R347	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R277	1-216-025-91	METAL GLAZE	100 5% 1/10W	R348	1-216-133-00	METAL GLAZE	3.3M 5% 1/10W
R278	1-216-025-91	METAL GLAZE	100 5% 1/10W	R349	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R279	1-216-025-91	METAL GLAZE	100 5% 1/10W	R350	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R280	1-216-041-00	METAL GLAZE	470 5% 1/10W	R351	1-216-061-00	METAL GLAZE	3.3K 5% 1/10W
R281	1-216-041-00	METAL GLAZE	470 5% 1/10W	R352	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R282	1-216-041-00	METAL GLAZE	470 5% 1/10W	R353	1-216-059-00	METAL GLAZE	2.7K 5% 1/10W
R283	1-216-041-00	METAL GLAZE	470 5% 1/10W	R354	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R284	1-216-041-00	METAL GLAZE	470 5% 1/10W	R355	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R285	1-216-041-00	METAL GLAZE	470 5% 1/10W	R356	1-216-025-91	METAL GLAZE	100 5% 1/10W
R286	1-216-025-91	METAL GLAZE	100 5% 1/10W	R357	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R287	1-216-025-91	METAL GLAZE	100 5% 1/10W	R361	1-216-041-00	METAL GLAZE	470 5% 1/10W
R288	1-216-025-91	METAL GLAZE	100 5% 1/10W	R362	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R289	1-216-025-91	METAL GLAZE	100 5% 1/10W	R363	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R290	1-216-025-91	METAL GLAZE	100 5% 1/10W	R364	1-208-783-11	METAL GLAZE	1.1K 0.50% 1/10W
R291	1-216-025-91	METAL GLAZE	100 5% 1/10W	R365	1-216-081-00	METAL GLAZE	22K 5% 1/10W
R294	1-216-043-91	METAL GLAZE	560 5% 1/10W	R366	1-216-017-91	METAL GLAZE	47 5% 1/10W
R295	1-216-073-00	METAL GLAZE	10K 5% 1/10W	R367	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R296	1-216-025-91	METAL GLAZE	100 5% 1/10W	R368	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R297	1-216-093-00	METAL GLAZE	68K 5% 1/10W	R369	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R299	1-216-041-00	METAL GLAZE	470 5% 1/10W	R370	1-216-083-00	METAL GLAZE	27K 5% 1/10W
R301	1-216-041-00	METAL GLAZE	470 5% 1/10W	R371	1-216-077-00	METAL GLAZE	15K 5% 1/10W
R302	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R372	1-216-065-91	METAL GLAZE	4.7K 5% 1/10W
R303	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R373	1-216-079-00	METAL GLAZE	18K 5% 1/10W
R304	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R374	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R305	1-216-033-00	METAL GLAZE	220 5% 1/10W	R375	1-216-113-00	METAL GLAZE	470K 5% 1/10W
R306	1-216-025-91	METAL GLAZE	100 5% 1/10W	R376	1-216-129-00	METAL GLAZE	2.2M 5% 1/10W
R307	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R377	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R308	1-216-017-91	METAL GLAZE	47 5% 1/10W	R378	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R309	1-216-017-91	METAL GLAZE	47 5% 1/10W	R379	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R310	1-216-017-91	METAL GLAZE	47 5% 1/10W	R380	1-216-089-91	METAL GLAZE	47K 5% 1/10W
R314	1-216-033-00	METAL GLAZE	220 5% 1/10W	R381	1-216-097-91	METAL GLAZE	100K 5% 1/10W
R315	1-216-033-00	METAL GLAZE	220 5% 1/10W	R384	1-249-377-11	CARBON	0.47 5% 1/4W F
R319	1-216-033-00	METAL GLAZE	220 5% 1/10W	R401	1-249-377-11	CARBON	0.47 5% 1/4W F
R320	1-216-033-00	METAL GLAZE	220 5% 1/10W	R402	1-249-377-11	CARBON	0.47 5% 1/4W F
R322	1-216-077-00	METAL GLAZE	15K 5% 1/10W	R403	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R323	1-216-025-91	METAL GLAZE	100 5% 1/10W	R404	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R324	1-216-025-91	METAL GLAZE	100 5% 1/10W	R406	1-216-073-00	METAL GLAZE	10K 5% 1/10W
R325	1-216-025-91	METAL GLAZE	100 5% 1/10W	R407	1-216-025-91	METAL GLAZE	100 5% 1/10W
R326	1-208-786-11	METAL GLAZE	1.5K 0.50% 1/10W	R408	1-216-025-91	METAL GLAZE	100 5% 1/10W
R327	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R412	1-216-025-91	METAL GLAZE	100 5% 1/10W
R328	1-216-049-91	METAL GLAZE	1K 5% 1/10W	R413	1-216-025-91	METAL GLAZE	100 5% 1/10W
R330	1-216-025-91	METAL GLAZE	100 5% 1/10W	R414	1-216-049-91	METAL GLAZE	1K 5% 1/10W
R331	1-216-025-91	METAL GLAZE	100 5% 1/10W	R415	1-216-041-00	METAL GLAZE	470 5% 1/10W
R332	1-216-035-00	METAL GLAZE	270 5% 1/10W	R416	1-216-041-00	METAL GLAZE	470 5% 1/10W
R333	1-208-810-11	METAL GLAZE	15K 0.50% 1/10W	R418	1-216-025-91	METAL GLAZE	100 5% 1/10W
R334	1-216-043-91	METAL GLAZE	560 5% 1/10W	R422	1-216-057-00	METAL GLAZE	2.2K 5% 1/10W
R335	1-216-033-00	METAL GLAZE	220 5% 1/10W	R423	1-216-025-91	METAL GLAZE	100 5% 1/10W





REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C531	1-126-971-11	ELECT	470µF 20% 50V	C804	1-126-934-11	ELECT	220µF 20% 16V
C532	1-126-971-11	ELECT	470µF 20% 50V	C805	1-126-934-11	ELECT	220µF 20% 16V
C533	1-128-562-11	ELECT	47µF 20% 100V	C806	1-126-934-11	ELECT	220µF 20% 16V
C535	1-106-387-00	MYLAR	0.068µF 5% 200V	C807	1-137-374-11	FILM	0.047µF 5% 50V
C536	1-137-374-11	FILM	0.0047µF 5% 50V	C808	1-137-374-11	FILM	0.047µF 5% 50V
C537	1-104-665-11	ELECT	100µF 20% 25V	C809	1-137-374-11	FILM	0.047µF 5% 50V
C538	1-104-665-11	ELECT	100µF 20% 25V	C810	1-137-374-11	FILM	0.047µF 5% 50V
C539	1-162-114-00	CERAMIC	0.0047µF 2KV	C811	1-137-366-11	FILM	0.0022µF 5% 50V
C540	1-130-487-00	MYLAR	0.022µF 5% 50V	C812	1-136-169-00	FILM	0.22µF 5% 50V
C541	1-130-489-00	MYLAR	0.033µF 5% 50V	C813	1-137-374-11	FILM	0.047µF 5% 50V
C542	1-104-666-11	ELECT	220µF 20% 25V	C815	1-126-941-11	ELECT	470µF 20% 25V
C544	1-104-665-11	ELECT	100µF 20% 25V	C816	1-126-964-11	ELECT	10µF 20% 50V
C545	1-104-665-11	ELECT	100µF 20% 25V	C818	1-126-933-11	ELECT	100µF 20% 16V
C546	1-107-637-11	ELECT	22µF 20% 160V	C819	1-126-964-11	ELECT	10µF 20% 50V
C548	1-102-244-00	CERAMIC	220PF 10% 500V	C820	1-102-114-00	CERAMIC	470PF 10% 50V
C550	1-126-935-11	ELECT	470µF 20% 16V	C821	1-130-495-00	MYLAR	0.1µF 5% 50V
C551	1-126-935-11	ELECT	470µF 20% 16V	C823	1-101-880-00	CERAMIC	47PF 5% 50V
C554	1-129-702-00	FILM	0.001µF 5% 630V	C825	1-104-665-11	ELECT	100µF 20% 25V
C555	1-126-960-11	ELECT	1µF 20% 50V	C826	1-136-165-00	FILM	0.1µF 5% 50V
C556	1-130-495-00	MYLAR	0.1µF 5% 50V	C827	1-126-960-11	ELECT	1µF 20% 50V
C603	1-102-228-00	CERAMIC	470PF 10% 500V	C828	1-137-366-11	FILM	0.0022µF 5% 50V
C604	1-126-971-11	ELECT	470µF 20% 50V	C829	1-126-959-11	ELECT	0.47µF 20% 50V
C605	1-113-907-51	CERAMIC	0.0022µF 20% 250V	C830	1-136-356-11	FILM	470PF 5% 50V
C606	1-113-907-51	CERAMIC	0.0022µF 20% 250V	C831	1-126-960-11	ELECT	1µF 20% 50V
C607	1-125-692-11	ELECT(BLOCK)	820µF 20% 200V	C832	1-126-960-11	ELECT	1µF 20% 50V
C608	1-125-692-11	ELECT(BLOCK)	820µF 20% 200V	C833	1-126-960-11	ELECT	1µF 20% 50V
C612	1-164-646-11	CERAMIC	2200PF 10% 500V	C834	1-104-665-11	ELECT	100µF 20% 25V
C615	1-136-173-00	FILM	0.47µF 5% 50V	C836	1-136-169-00	FILM	0.22µF 5% 50V
C616	1-136-173-00	FILM	0.47µF 5% 50V	C837	1-126-963-11	ELECT	4.7µF 20% 50V
C617	1-136-169-00	FILM	0.22µF 5% 50V	C838	1-104-665-11	ELECT	100µF 20% 25V
C618	1-136-169-00	FILM	0.22µF 5% 50V	C839	1-137-374-11	FILM	0.047µF 5% 50V
C621	1-129-719-00	FILM	0.027µF 5% 630V	C840	1-104-665-11	ELECT	100µF 20% 25V
C651	1-107-910-11	ELECT	100µF 20% 35V	C841	1-137-374-11	FILM	0.047µF 5% 50V
C652	1-123-024-21	ELECT	33µF 160V	C842	1-137-374-11	FILM	0.047µF 5% 50V
C653	1-115-755-11	ELECT	180µF 20% 16V	C843	1-104-665-11	ELECT	100µF 20% 25V
C654	1-115-755-11	ELECT	180µF 20% 16V	C844	1-126-933-11	ELECT	100µF 20% 16V
C655	1-126-943-11	ELECT	2200µF 20% 25V	C845	1-126-933-11	ELECT	100µF 20% 16V
C656	1-126-943-11	ELECT	2200µF 20% 25V	C846	1-126-933-11	ELECT	100µF 20% 16V
C657	1-126-943-11	ELECT	2200µF 20% 25V	C847	1-126-933-11	ELECT	100µF 20% 16V
C658	1-128-550-11	ELECT	2200µF 20% 50V	C848	1-126-933-11	ELECT	100µF 20% 16V
C659	1-102-074-00	CERAMIC	0.001µF 10% 50V	C851	1-137-374-11	FILM	0.047µF 5% 50V
C660	1-126-235-11	ELECT	100µF 20% 6.3V	C852	1-137-374-11	FILM	0.047µF 5% 50V
C661	1-102-074-00	CERAMIC	0.001µF 10% 50V	C853	1-137-374-11	FILM	0.047µF 5% 50V
C662	1-104-664-11	ELECT	47µF 20% 25V	C854	1-126-933-11	ELECT	100µF 20% 16V
C663	1-104-664-11	ELECT	47µF 20% 25V	C856	1-164-096-11	CERAMIC	0.01µF 50V
C664	1-104-664-11	ELECT	47µF 20% 25V	C857	1-126-933-11	ELECT	100µF 20% 16V
C665	1-104-666-11	ELECT	220µF 20% 25V	C858	1-126-941-11	ELECT	470µF 20% 25V
C666	1-126-960-11	ELECT	1µF 20% 50V	C860	1-126-933-11	ELECT	100µF 20% 16V
C667	1-104-664-11	ELECT	47µF 20% 25V	C861	1-137-374-11	FILM	0.047µF 5% 50V
C668	1-126-933-11	ELECT	100µF 20% 16V	C862	1-137-374-11	FILM	0.047µF 5% 50V
C671	1-126-935-11	ELECT	470µF 20% 16V	C863	1-137-374-11	FILM	0.047µF 5% 50V
C673	1-164-644-11	CERAMIC	330PF 10% 500V	C864	1-126-933-11	ELECT	100µF 20% 16V
C675	1-104-665-11	ELECT	100µF 20% 25V	C865	1-130-471-00	MYLAR	0.001µF 5% 50V
C676	1-126-960-11	ELECT	1µF 20% 50V	C866	1-136-177-00	FILM	1µF 5% 50V
C801	1-104-665-11	ELECT	100µF 20% 25V	C867	1-101-880-00	CERAMIC	47PF 5% 50V
C802	1-104-665-11	ELECT	100µF 20% 25V	C868	1-101-880-00	CERAMIC	47PF 5% 50V
C803	1-126-934-11	ELECT	220µF 20% 16V	C869	1-130-489-00	MYLAR	0.033µF 5% 50V



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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C870	1-164-096-11	CERAMIC	0.01μF 50V	D602	$\Delta$ 8-719-052-84	DIODE LN4SB60	
C871	1-101-880-00	CERAMIC	47PF 5% 50V	D603	8-719-200-82	DIODE 11ES2	
C872	1-101-880-00	CERAMIC	47PF 5% 50V	D604	8-719-110-22	DIODE RD11ESB2	
C873	1-101-880-00	CERAMIC	47PF 5% 50V	D605	8-719-923-83	DIODE MTZJ-T-77-13A	
C880	1-126-961-11	ELECT	2.2μF 20% 50V	D651	8-719-510-26	DIODE D1NL20-TA	
C881	1-102-973-00	CERAMIC	100PF 5% 50V	D652	8-719-991-33	DIODE 1SS133T-77	
C882	1-102-973-00	CERAMIC	100PF 5% 50V	D653	8-719-510-02	DIODE D1NS4	
C883	1-102-973-00	CERAMIC	100PF 5% 50V	D654	8-719-022-97	DIODE D2S4MF	
C885	1-126-961-11	ELECT	2.2μF 20% 50V	D655	8-719-061-56	DIODE RBA-402LLF-A	
C886	1-102-973-00	CERAMIC	100PF 5% 50V	D656	8-719-052-92	DIODE D10SBS4F	
C887	1-102-973-00	CERAMIC	100PF 5% 50V	D657	8-719-052-91	DIODE D4SBS4-F	
C888	1-102-973-00	CERAMIC	100PF 5% 50V	D658	8-719-510-12	DIODE D10SC4M	
C889	1-126-941-11	ELECT	470μF 20% 25V	D660	8-719-991-33	DIODE 1SS133T-77	
C897	1-126-941-11	ELECT	470μF 20% 25V	D661	8-719-200-82	DIODE 11ES2	
		<CONNECTOR>		D662	8-719-991-33	DIODE 1SS133T-77	
CN501	1-564-513-11	PLUG, CONNECTOR 10P		D664	8-719-110-61	DIODE RD24ESB1	
CN502	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		D669	8-719-991-33	DIODE 1SS133T-77	
CN503	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		D670	8-719-923-86	DIODE MTZJ-T-77-15	
CN504	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		D691	8-719-200-82	DIODE 11ES2	
CN505	* 1-506-371-00	PIN, CONNECTOR 2P		D692	8-719-200-82	DIODE 11ES2	
CN506	* 1-774-182-11	CONNECTOR, BOARD TO BOARD10P		D801	8-719-110-17	DIODE RD10ESB2	
CN507	* 1-564-507-11	PLUG, CONNECTOR 4P		D802	8-719-110-17	DIODE RD10ESB2	
CN601	* 1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		D803	8-719-110-17	DIODE RD10ESB2	
CN602	1-695-915-11	TAB (CONTACT)		D804	8-719-110-17	DIODE RD10ESB2	
CN651	* 1-774-182-11	CONNECTOR, BOARD TO BOARD10P		D809	8-719-991-33	DIODE 1SS133T-77	
CN652	* 1-774-182-11	CONNECTOR, BOARD TO BOARD10P		D810	8-719-991-33	DIODE 1SS133T-77	
CN653	* 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P		D820	8-719-109-68	DIODE RD3.6ESB1	
CN801	* 1-564-507-11	PLUG, CONNECTOR 4P		D828	8-719-109-89	DIODE RD5.6ESB2	
CN802	* 1-564-507-11	PLUG, CONNECTOR 4P		D829	8-719-109-85	DIODE RD5.1ESB2	
CN803	* 1-564-507-11	PLUG, CONNECTOR 4P		D835	8-719-109-89	DIODE RD5.6ESB2	
CN804	* 1-774-182-11	CONNECTOR, BOARD TO BOARD10P		D840	8-719-991-33	DIODE 1SS133T-77	
CN805	* 1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P		D842	8-719-991-33	DIODE 1SS133T-77	
		<DIODE>		D845	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-991-33	DIODE 1SS133T-77		D846	8-719-991-33	DIODE 1SS133T-77	
D502	8-719-991-33	DIODE 1SS133T-77		D847	8-719-982-19	DIODE MTZJ-30A	
D503	8-719-018-82	DIODE RGP02-20EL-6394		D848	8-719-923-86	DIODE MTZJ-T-77-15	
D504	8-719-921-63	DIODE MTZJ-7.5B		D849	8-719-110-22	DIODE RD11ESB2	
D507	8-719-302-43	DIODE ELIZ		D850	8-719-109-89	DIODE RD5.6ESB2	
D508	8-719-900-26	DIODE ERD29-08J		D852	8-719-923-86	DIODE MTZJ-T-77-15	
D509	8-719-945-80	DIODE ERC06-15S		D853	8-719-982-19	DIODE MTZJ-30A	
D510	8-719-945-80	DIODE ERC06-15S		D854	8-719-982-19	DIODE MTZJ-30A	
D511	8-719-302-43	DIODE ELIZ		D855	8-719-982-19	DIODE MTZJ-30A	
D513	8-719-302-43	DIODE ELIZ		D857	8-719-982-19	DIODE MTZJ-30A	
D514	8-719-908-03	DIODE GP08D		D860	8-719-982-19	DIODE MTZJ-30A	
D515	8-719-908-03	DIODE GP08D				<FERRITE BEAD>	
D517	8-719-018-82	DIODE RGP02-20EL-6394		FB501	1-410-397-21	FERRITE	1.1μH
D519	8-719-991-33	DIODE 1SS133T-77		FB651	1-410-396-41	FERRITE	0.45μH
D520	8-719-302-43	DIODE ELIZ		FB652	1-410-396-41	FERRITE	0.45μH
D521	8-719-302-43	DIODE ELIZ		FB653	1-410-396-41	FERRITE	0.45μH
D524	8-719-991-33	DIODE 1SS133T-77		FB654	1-410-397-21	FERRITE	1.1μH
D527	8-719-109-85	DIODE RD5.1ESB2		FB655	1-410-396-41	FERRITE	0.45μH
D528	8-719-923-86	DIODE MTZJ-T-77-15		FB656	1-410-396-41	FERRITE	0.45μH
D601	8-719-200-82	DIODE 11ES2		FB657	1-410-396-41	FERRITE	0.45μH



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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB660	1-412-761-11	FERRITE	0 $\mu$ H	Q507	8-729-032-61	TRANSISTOR 2SC5022-02	
FB661	1-412-761-11	FERRITE	0 $\mu$ H	Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE	
		<IC>		Q602	8-729-209-15	TRANSISTOR 2SD2012	
IC501	8-759-133-90	IC UPC339C		Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC601	$\Delta$ 8-729-041-12	TRANSISTOR MX0841AB-F		Q652	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC651	$\Delta$ 8-749-012-13	IC DM-58		Q653	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC652	8-759-012-67	IC MC7905CT		Q654	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC653	8-759-231-53	IC TA7805S		Q655	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC654	8-759-231-53	IC TA7805S		Q656	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC801	8-759-327-51	IC PA0053B		Q657	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC802	8-759-327-51	IC PA0053B		Q658	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC803	8-759-183-37	IC CA0007AD		Q659	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC804	8-759-464-79	IC PM0011AS		Q660	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC805	8-759-711-28	IC NJM2058D		Q661	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC806	8-759-464-79	IC PM0011AS		Q662	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC808	8-759-464-79	IC PM0011AS		Q802	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC809	8-749-014-37	IC STK392-150		Q803	8-729-119-76	TRANSISTOR 2SA1175-HFE	
IC810	8-749-014-37	IC STK392-150		Q804	8-729-119-78	TRANSISTOR 2SC2785-HFE	
IC811	8-759-634-51	IC M5218AP		Q805	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		<COIL>		Q809	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L502	1-410-478-11	INDUCTOR	47 $\mu$ H	Q810	8-729-119-78	TRANSISTOR 2SC2785-HFE	
L503	1-459-111-00	INDUCTOR	0 $\mu$ H			<RESISTOR>	
L506	1-412-552-11	INDUCTOR	2.2mmH	R501	1-249-421-11	CARBON	2.2K 5% 1/4W
L509	1-412-533-21	INDUCTOR	47 $\mu$ H	R502	1-215-879-11	METAL OXIDE	47K 5% 1W F
L651	1-414-158-11	INDUCTOR	2.2 $\mu$ H	R503	1-247-843-11	CARBON	3.3K 5% 1/4W
L652	1-414-158-11	INDUCTOR	2.2 $\mu$ H	R504	1-249-419-11	CARBON	1.5K 5% 1/4W
L653	1-414-158-11	INDUCTOR	2.2 $\mu$ H	R505	1-247-895-91	CARBON	470K 5% 1/4W
L654	1-414-158-11	INDUCTOR	2.2 $\mu$ H	R506	1-249-429-11	CARBON	10K 5% 1/4W
L656	1-412-523-11	INDUCTOR	6.8 $\mu$ H	R507	1-249-422-11	CARBON	2.7K 5% 1/4W
L801	1-406-975-21	INDUCTOR	0 $\mu$ H	R508	1-260-337-11	CARBON	5.6K 5% 1/2W
L802	1-406-975-21	INDUCTOR	0 $\mu$ H	R509	1-249-437-11	CARBON	47K 5% 1/4W
		<NEON LAMP>		R510	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
NL501	1-519-108-99	LAMP, NEON		R511	1-215-919-11	METAL OXIDE	2.2K 5% 3W F
NL502	1-519-108-99	LAMP, NEON		R512	1-216-482-11	METAL OXIDE	1.8K 5% 3W F
NL503	1-519-108-99	LAMP, NEON		R513	1-249-424-11	CARBON	3.9K 5% 1/4W
NL504	1-519-108-99	LAMP, NEON		$\blacktriangle$ R514	$\Delta$	METAL	1/4W
NL505	1-519-108-99	LAMP, NEON		R516	1-215-443-00	METAL	8.2K 1% 1/4W
		<IC LINK>		R517	1-215-449-00	METAL	15K 1% 1/4W
PS601	$\Delta$ 1-533-597-31	LINK, IC		R518	1-215-456-00	METAL	30K 1% 1/4W
PS602	$\Delta$ 1-533-597-31	LINK, IC		R519	1-247-863-91	CARBON	22K 5% 1/4W
		<TRANSISTOR>		R522	1-249-428-11	CARBON	8.2K 5% 1/4W
Q501	8-729-119-80	TRANSISTOR 2SC2688-LK		R523	1-249-437-11	CARBON	47K 5% 1/4W
Q502	8-729-024-05	TRANSISTOR 2SD2348(LBSONY-1)		R524	1-247-863-91	CARBON	22K 5% 1/4W
Q503	8-729-119-76	TRANSISTOR 2SA1175-HFE		R525	1-249-405-11	CARBON	100 5% 1/4W F
Q504	8-729-823-81	TRANSISTOR 2SC4632LS-CB7		R528	1-215-910-00	METAL OXIDE	68 5% 3W F
Q505	8-729-931-45	TRANSISTOR IRF614		R530	1-249-437-11	CARBON	47K 5% 1/4W
Q506	8-729-119-78	TRANSISTOR 2SC2785-HFE		R531	1-215-868-00	METAL OXIDE	680 5% 1W F
				R532	1-260-314-11	CARBON	68 5% 1/2W
				R533	1-214-912-00	METAL	91K 1% 1/2W
				R534	1-215-479-00	METAL	270K 1% 1/4W
				R535	1-247-887-00	CARBON	220K 5% 1/4W
				R536	1-260-288-11	CARBON	0.47 5% 1/2W
				R537	1-260-336-11	CARBON	4.7K 5% 1/2W
				R538	1-247-863-91	CARBON	22K 5% 1/4W
				R539	1-249-377-11	CARBON	0.47 5% 1/4W F

# KP-41T65C/53S65C/61S65C

RM-Y136A RM-Y136A RM-Y136A



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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
R540	1-249-379-11	CARBON	0.68 5% 1/4W F	R615	1-249-425-11	CARBON	4.7K 5% 1/4W
R541	1-260-087-11	CARBON	100 5% 1/2W	R616	1-249-421-11	CARBON	2.2K 5% 1/4W
R542	1-215-862-11	METAL OXIDE	68 5% 1W F (KP-41T65C/61S65C)	R617	1-249-421-11	CARBON	2.2K 5% 1/4W
R542	1-215-864-00	METAL OXIDE	150 5% 1W F (KP-53S65C)	R618	1-249-389-11	CARBON	4.7 5% 1/4W F
R543	1-216-349-00	METAL OXIDE	1 5% 1W F	R651	1-249-429-11	CARBON	10K 5% 1/4W
R544	1-215-862-11	METAL OXIDE	68 5% 1W F (KP-41T65C/61S65C)	R653	1-249-377-11	CARBON	0.47 5% 1/4W F
R544	1-215-864-00	METAL OXIDE	150 5% 1W F (KP-53S65C)	R655	1-247-887-00	CARBON	220K 5% 1/4W
R545	1-249-377-11	CARBON	0.47 5% 1/4W F	R656	1-260-288-11	CARBON	0.47 5% 1/2W
R546	1-249-377-11	CARBON	0.47 5% 1/4W F	R657	1-249-429-11	CARBON	10K 5% 1/4W
R547	1-247-807-31	CARBON	100 5% 1/4W	R658	1-249-417-11	CARBON	1K 5% 1/4W
R548	1-249-413-11	CARBON	470 5% 1/4W	R660	1-249-413-11	CARBON	470 5% 1/4W
R549	1-247-863-91	CARBON	22K 5% 1/4W	R661	1-249-417-11	CARBON	1K 5% 1/4W F
R550	1-247-807-31	CARBON	100 5% 1/4W	R662	1-249-425-11	CARBON	4.7K 5% 1/4W
R551	1-249-437-11	CARBON	47K 5% 1/4W	R664	1-249-425-11	CARBON	4.7K 5% 1/4W
R552	1-247-807-31	CARBON	100 5% 1/4W	R665	1-247-807-31	CARBON	100 5% 1/4W
R553	1-247-881-00	CARBON	120K 5% 1/4W	R667	1-249-417-11	CARBON	1K 5% 1/4W
R554	1-249-405-11	CARBON	100 5% 1/4W F	R668	1-249-377-11	CARBON	0.47 5% 1/4W F
R556	1-260-123-11	CARBON	100K 5% 1/2W	R669	1-249-429-11	CARBON	10K 5% 1/4W
R557	1-216-490-11	METAL OXIDE	39K 5% 3W F	R672	1-249-421-11	CARBON	2.2K 5% 1/4W
R558	1-216-490-11	METAL OXIDE	39K 5% 3W F	R673	1-249-413-11	CARBON	470 5% 1/4W
R559	1-216-490-11	METAL OXIDE	39K 5% 3W F	R675	1-215-417-00	METAL	680 1% 1/4W
R560	1-215-399-00	METAL	120 1% 1/4W	R676	1-216-369-00	METAL OXIDE	1 5% 2W F
■ R561 △		METAL	1/4W	R677	1-247-807-31	CARBON	100 5% 1/4W
R563	1-249-429-11	CARBON	10K 5% 1/4W	R679	1-249-421-11	CARBON	2.2K 5% 1/4W
R564	1-260-131-11	CARBON	470K 5% 1/2W	R680	1-249-417-11	CARBON	1K 5% 1/4W
R565	1-260-087-11	CARBON	100 5% 1/2W	R681	1-249-417-11	CARBON	1K 5% 1/4W
R566	1-249-377-11	CARBON	0.47 5% 1/4W F	R682	1-249-417-11	CARBON	1K 5% 1/4W
R567	1-249-377-11	CARBON	0.47 5% 1/4W F	R683	1-249-417-11	CARBON	1K 5% 1/4W
R568	1-247-903-00	CARBON	1M 5% 1/4W	R684	1-249-417-11	CARBON	1K 5% 1/4W
R569	1-216-392-11	METAL OXIDE	1.8 5% 3W F	R686	1-215-421-00	METAL	1K 1% 1/4W
R570	1-215-910-00	METAL OXIDE	68 5% 3W F	R687	1-215-441-00	METAL	6.8K 1% 1/4W
R571	1-249-422-11	CARBON	2.7K 5% 1/4W	R688	1-215-481-00	METAL	330K 1% 1/4W
R572	1-247-895-91	CARBON	470K 5% 1/4W	R689	1-249-425-11	CARBON	4.7K 5% 1/4W
R573	1-249-430-11	CARBON	12K 5% 1/4W	R690	1-249-417-11	CARBON	1K 5% 1/4W
R574	1-249-429-11	CARBON	10K 5% 1/4W	R692	1-249-425-11	CARBON	4.7K 5% 1/4W
R577	1-249-422-11	CARBON	2.7K 5% 1/4W	R693	1-249-429-11	CARBON	10K 5% 1/4W
R579	1-247-895-91	CARBON	470K 5% 1/4W	R695	1-247-807-31	CARBON	100 5% 1/4W
R580	1-247-863-91	CARBON	22K 5% 1/4W	R696	1-249-417-11	CARBON	1K 5% 1/4W
R581	1-249-428-11	CARBON	8.2K 5% 1/4W	R697	1-249-417-11	CARBON	1K 5% 1/4W
R583	1-249-428-11	CARBON	8.2K 5% 1/4W	R801	1-249-437-11	CARBON	47K 5% 1/4W
R584	1-247-887-00	CARBON	220K 5% 1/4W	R803	1-249-430-11	CARBON	12K 5% 1/4W
R585	1-216-490-11	METAL OXIDE	39K 5% 3W F	R804	1-249-429-11	CARBON	10K 5% 1/4W
R586	1-260-292-11	CARBON	1 5% 1/2W	R805	1-247-807-31	CARBON	100 5% 1/4W
R588	1-247-863-91	CARBON	22K 5% 1/4W	R806	1-249-429-11	CARBON	10K 5% 1/4W
R589	1-247-887-00	CARBON	220K 5% 1/4W	R807	1-247-807-31	CARBON	100 5% 1/4W
R591	1-215-917-11	METAL OXIDE	1K 5% 3W F	R808	1-249-429-11	CARBON	10K 5% 1/4W
R608 △	1-202-933-61	FUSIBLE	0.1 10% 1/2W F	R809	1-249-425-11	CARBON	4.7K 5% 1/4W
R609	1-247-887-00	CARBON	220K 5% 1/4W	R810	1-247-807-31	CARBON	100 5% 1/4W
R610	1-247-887-00	CARBON	220K 5% 1/4W	R811	1-247-807-31	CARBON	100 5% 1/4W
R611	1-216-353-00	METAL OXIDE	2.2 5% 1W F	R812	1-249-429-11	CARBON	10K 5% 1/4W
R612	1-247-887-00	CARBON	220K 5% 1/4W	R813	1-249-429-11	CARBON	10K 5% 1/4W
R613	1-216-353-00	METAL OXIDE	2.2 5% 1W F	R814	1-247-807-31	CARBON	100 5% 1/4W
R614	1-247-887-00	CARBON	220K 5% 1/4W	R815	1-247-807-31	CARBON	100 5% 1/4W
				R816	1-247-807-31	CARBON	100 5% 1/4W
				R817	1-247-807-31	CARBON	100 5% 1/4W
				R818	1-249-430-11	CARBON	12K 5% 1/4W
				R820	1-249-429-11	CARBON	10K 5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R821	1-249-428-11	CARBON	8.2K 5% 1/4W	R888	1-247-807-31	CARBON	100 5% 1/4W
R822	1-249-417-11	CARBON	1K 5% 1/4W	R889	1-249-438-11	CARBON	56K 5% 1/4W
R823	1-249-417-11	CARBON	1K 5% 1/4W	R890	1-249-441-11	CARBON	100K 5% 1/4W
R824	1-215-462-00	METAL	51K 1% 1/4W	R891	1-249-429-11	CARBON	10K 5% 1/4W
R825	1-249-441-11	CARBON	100K 5% 1/4W	R892	1-215-445-00	METAL	10K 1% 1/4W
R826	1-215-462-00	METAL	51K 1% 1/4W	R895	1-249-421-11	CARBON	2.2K 5% 1/4W
R827	1-249-417-11	CARBON	1K 5% 1/4W	R896	1-249-441-11	CARBON	100K 5% 1/4W
R828	1-249-426-11	CARBON	5.6K 5% 1/4W	R897	1-247-807-31	CARBON	100 5% 1/4W
R829	1-249-426-11	CARBON	5.6K 5% 1/4W	R898	1-247-815-91	CARBON	220 5% 1/4W
R830	1-249-414-11	CARBON	560 5% 1/4W	R899	1-247-815-91	CARBON	220 5% 1/4W
R831	1-249-414-11	CARBON	560 5% 1/4W	R901	1-249-430-11	CARBON	12K 5% 1/4W
R832	1-249-441-11	CARBON	100K 5% 1/4W	R902	1-249-438-11	CARBON	56K 5% 1/4W
R833	1-249-417-11	CARBON	1K 5% 1/4W	R903	1-215-421-00	METAL	1K 1% 1/4W
R834	1-249-441-11	CARBON	100K 5% 1/4W	R904	1-214-800-11	METAL	2.2 1% 1/2W
R835	1-249-441-11	CARBON	100K 5% 1/4W	R905	1-214-800-11	METAL	2.2 1% 1/2W
R836	1-247-807-31	CARBON	100 5% 1/4W	R906	1-214-800-11	METAL	2.2 1% 1/2W
R837	1-249-441-11	CARBON	100K 5% 1/4W	R907	1-247-815-91	CARBON	220 5% 1/4W
R838	1-249-421-11	CARBON	2.2K 5% 1/4W	R908	1-247-815-91	CARBON	220 5% 1/4W
R841	1-247-815-91	CARBON	220 5% 1/4W	R909	1-215-421-00	METAL	1K 1% 1/4W
R842	1-247-807-31	CARBON	100 5% 1/4W	R910	1-215-421-00	METAL	1K 1% 1/4W
R843	1-247-807-31	CARBON	100 5% 1/4W	R911	1-215-455-00	METAL	27K 1% 1/4W
R844	1-247-807-31	CARBON	100 5% 1/4W	R912	1-215-469-00	METAL	100K 1% 1/4W
R845	1-249-441-11	CARBON	100K 5% 1/4W	R913	1-215-455-00	METAL	27K 1% 1/4W
R846	1-247-807-31	CARBON	100 5% 1/4W	R914	1-215-455-00	METAL	27K 1% 1/4W
R847	1-215-469-00	METAL	100K 1% 1/4W	R915	1-215-455-00	METAL	27K 1% 1/4W
R850	1-215-469-00	METAL	100K 1% 1/4W	R916	1-215-455-00	METAL	27K 1% 1/4W
R851	1-247-807-31	CARBON	100 5% 1/4W	R917	1-215-455-00	METAL	27K 1% 1/4W
R852	1-247-807-31	CARBON	100 5% 1/4W	R918	1-215-455-00	METAL	27K 1% 1/4W
R853	1-247-887-00	CARBON	220K 5% 1/4W	R919	1-249-435-11	CARBON	33K 5% 1/4W
R854	1-249-429-11	CARBON	10K 5% 1/4W	R920	1-214-800-11	METAL	2.2 1% 1/2W
R855	1-247-815-91	CARBON	220 5% 1/4W	R921	1-249-431-11	CARBON	15K 5% 1/4W
R856	1-247-807-31	CARBON	100 5% 1/4W	R922	1-215-445-00	METAL	10K 1% 1/4W
R857	1-247-807-31	CARBON	100 5% 1/4W	R923	1-249-425-11	CARBON	4.7K 5% 1/4W
R858	1-215-455-00	METAL	27K 1% 1/4W	R924	1-215-444-00	METAL	9.1K 1% 1/4W
R859	1-215-455-00	METAL	27K 1% 1/4W	R925	1-249-425-11	CARBON	4.7K 5% 1/4W
R860	1-215-455-00	METAL	27K 1% 1/4W	R926	1-249-408-11	CARBON	180 5% 1/4W
R861	1-215-455-00	METAL	27K 1% 1/4W	R927	1-215-445-00	METAL	10K 1% 1/4W
R862	1-215-455-00	METAL	27K 1% 1/4W	R928	1-215-445-00	METAL	10K 1% 1/4W
R863	1-215-455-00	METAL	27K 1% 1/4W	R929	1-214-800-11	METAL	2.2 1% 1/2W
R865	1-249-424-11	CARBON	3.9K 5% 1/4W	R930	1-214-800-11	METAL	2.2 1% 1/2W
R867	1-215-461-00	METAL	47K 1% 1/4W	R931	1-215-445-00	METAL	10K 1% 1/4W
R868	1-215-445-00	METAL	10K 1% 1/4W	R933	1-215-453-00	METAL	22K 1% 1/4W
R869	1-249-425-11	CARBON	4.7K 5% 1/4W	R934	1-249-429-11	CARBON	10K 5% 1/4W
R871	1-249-417-11	CARBON	1K 5% 1/4W	R935	1-249-429-11	CARBON	10K 5% 1/4W
R872	1-249-425-11	CARBON	4.7K 5% 1/4W	R936	1-249-429-11	CARBON	10K 5% 1/4W
R873	1-247-807-31	CARBON	100 5% 1/4W	R937	1-249-435-11	CARBON	33K 5% 1/4W
R874	1-249-429-11	CARBON	10K 5% 1/4W	R938	1-215-421-00	METAL	1K 1% 1/4W
R875	1-249-441-11	CARBON	100K 5% 1/4W	R940	1-249-441-11	CARBON	100K 5% 1/4W
R876	1-215-451-00	METAL	18K 1% 1/4W	R941	1-249-441-11	CARBON	100K 5% 1/4W
R879	1-215-444-00	METAL	9.1K 1% 1/4W	R942	1-249-421-11	CARBON	2.2K 5% 1/4W
R881	1-249-408-11	CARBON	180 5% 1/4W	R943	1-249-441-11	CARBON	100K 5% 1/4W
R882	1-215-445-00	METAL	10K 1% 1/4W	R944	1-215-421-00	METAL	1K 1% 1/4W
R883	1-215-445-00	METAL	10K 1% 1/4W	R945	1-249-429-11	CARBON	10K 5% 1/4W
R884	1-215-445-00	METAL	10K 1% 1/4W	R946	1-215-421-00	METAL	1K 1% 1/4W
R885	1-249-441-11	CARBON	100K 5% 1/4W	R947	1-249-441-11	CARBON	100K 5% 1/4W
R886	1-249-428-11	CARBON	8.2K 5% 1/4W	R948	1-247-815-91	CARBON	220 5% 1/4W
R887	1-247-807-31	CARBON	100 5% 1/4W				

# KP-41T65C/53S65C/61S65C

RM-Y136A RM-Y136A RM-Y136A



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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R949	1-247-807-31	CARBON	100 5% 1/4W
R950	1-247-807-31	CARBON	100 5% 1/4W
R951	1-247-807-31	CARBON	100 5% 1/4W
R952	1-247-807-31	CARBON	100 5% 1/4W
R953	1-247-863-91	CARBON	22K 5% 1/4W
R954	1-215-433-00	METAL	3.3K 1% 1/4W
R955	1-215-433-00	METAL	3.3K 1% 1/4W
R956	1-249-429-11	CARBON	10K 5% 1/4W
R957	1-214-800-11	METAL	2.2 1% 1/2W
R958	1-214-800-11	METAL	2.2 1% 1/2W
R959	1-215-433-00	METAL	3.3K 1% 1/4W
R960	1-215-451-00	METAL	18K 1% 1/4W
R961	1-249-425-11	CARBON	4.7K 5% 1/4W
R962	1-214-800-11	METAL	2.2 1% 1/2W
R963	1-214-800-11	METAL	2.2 1% 1/2W
R964	1-215-433-00	METAL	3.3K 1% 1/4W
R965	1-215-433-00	METAL	3.3K 1% 1/4W
R966	1-247-815-91	CARBON	220 5% 1/4W
R967	1-215-455-00	METAL	27K 1% 1/4W
R968	1-215-455-00	METAL	27K 1% 1/4W
R969	1-215-455-00	METAL	27K 1% 1/4W
R970	1-215-455-00	METAL	27K 1% 1/4W
R971	1-215-455-00	METAL	27K 1% 1/4W
R972	1-215-455-00	METAL	27K 1% 1/4W
R973	1-214-800-11	METAL	2.2 1% 1/2W
R974	1-215-463-00	METAL	56K 1% 1/4W
R975	1-214-800-11	METAL	2.2 1% 1/2W
R976	1-215-433-00	METAL	3.3K 1% 1/4W
R977	1-247-815-91	CARBON	220 5% 1/4W
R978	1-215-445-00	METAL	10K 1% 1/4W
R979	1-249-425-11	CARBON	4.7K 5% 1/4W
R980	1-247-815-91	CARBON	220 5% 1/4W
R981	1-247-815-91	CARBON	220 5% 1/4W
R982	1-247-895-91	CARBON	470K 5% 1/4W
R983	1-247-815-91	CARBON	220 5% 1/4W
R984	1-215-444-00	METAL	9.1K 1% 1/4W
R985	1-215-445-00	METAL	10K 1% 1/4W
R986	1-215-451-00	METAL	18K 1% 1/4W
R987	1-249-408-11	CARBON	180 5% 1/4W
R988	1-215-445-00	METAL	10K 1% 1/4W
R989	1-249-425-11	CARBON	4.7K 5% 1/4W
R990	1-249-429-11	CARBON	10K 5% 1/4W
R991	1-249-429-11	CARBON	10K 5% 1/4W
R993	1-249-425-11	CARBON	4.7K 5% 1/4W
R994	1-249-425-11	CARBON	4.7K 5% 1/4W
R995	1-249-413-11	CARBON	470 5% 1/4W
R996	1-247-815-91	CARBON	220 5% 1/4W
R997	1-215-445-00	METAL	10K 1% 1/4W
R998	1-249-434-11	CARBON	27K 5% 1/4W
R999	1-249-434-11	CARBON	27K 5% 1/4W
<RELAY>			
RY601	$\Delta$ 1-755-018-11	RELAY	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSFORMER>			
T501	$\Delta$ 1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T502	$\Delta$ 1-431-896-11	TRANSFORMER, FERRITE (PMT)	
T503	$\Delta$ 1-431-212-11	TRANSFORMER, HORIZONTAL LINEAR	
T504	$\Delta$ 1-453-238-11	TRANSFORMER ASSY, FLYBACK (NX-4007//X4A4))(KP-53S65C/61S65C)	
T504	$\Delta$ 1-453-248-11	TRANSFORMER ASSY, FLYBACK (NX-4007//X4T4))(KP-41T65C)	
T603	$\Delta$ 1-448-374-11	TRANSFORMER, POWER	
T604	$\Delta$ 1-429-992-11	TRANSFORMER, CONVERTER (PRT)	
T605	$\Delta$ 1-429-986-11	TRANSFORMER, CONVERTER (PIT)	
<THERMISTOR>			
TH801	1-808-269-11	THERMISTOR	
*****			
* A-1331-777-A CR BOARD, COMPLETE *****			
<CAPACITOR>			
C702	1-102-959-00	CERAMIC	22PF 5% 50V
C703	1-104-664-11	ELECT	47 $\mu$ F 20% 25V
C704	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C705	1-161-754-00	CERAMIC	0.001 $\mu$ F 10% 2KV
C706	1-126-934-11	ELECT	220 $\mu$ F 20% 16V
C707	1-107-504-11	CERAMIC	10PF 0.5PF 500V
C708	1-102-050-00	CERAMIC	0.01 $\mu$ F 99% 500V
C709	1-162-115-00	CERAMIC	330PF 10% 2KV
C712	1-107-662-11	ELECT	22 $\mu$ F 20% 250V
<CONNECTOR>			
CN701	1-695-915-11	TAB (CONTACT)	
CN702	* 1-564-510-11	PLUG, CONNECTOR 7P	
CN703	* 1-564-512-11	PLUG, CONNECTOR 9P	
CN704	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN705	$\Delta$ 1-251-182-11	SOCKET, CRT	
CN706	* 1-564-512-11	PLUG, CONNECTOR 9P	
<DIODE>			
D701	8-719-991-33	DIODE 1SS133T-77	
D702	8-719-991-33	DIODE 1SS133T-77	
D703	8-719-991-33	DIODE 1SS133T-77	
D704	8-719-991-33	DIODE 1SS133T-77	
D705	8-719-923-86	DIODE MTZJ-T-77-15	
D706	8-719-923-86	DIODE MTZJ-T-77-15	
D708	8-719-110-17	DIODE RD10ESB2	
D709	8-719-109-88	DIODE RD5.6ESB1	
D710	8-719-991-33	DIODE 1SS133T-77	

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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<IC>					
IC701	8-759-434-39	IC TDA6106Q		CN732 *	1-564-510-11	PLUG, CONNECTOR 7P	
		<COIL>		CN733 *	1-564-507-11	PLUG, CONNECTOR 4P	
L701	1-410-682-31	INDUCTOR 470μH		CN734 *	1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
		<TRANSISTOR>		CN735 $\Delta$	1-251-182-11	SOCKET, CRT	
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE		CN736 *	1-564-512-11	PLUG, CONNECTOR 9P	
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE		CN737 *	1-564-512-11	PLUG, CONNECTOR 9P	
		<RESISTOR>				<DIODE>	
R701	1-219-743-11	CARBON 100 5% 1/2W		D731	8-719-991-33	DIODE 1SS133T-77	
R702	1-215-425-00	METAL 1.5K 1% 1/4W		D732	8-719-991-33	DIODE 1SS133T-77	
R703	1-215-437-00	METAL 4.7K 1% 1/4W		D733	8-719-110-17	DIODE RD10ESB2	
R704	1-260-132-11	CARBON 560K 5% 1/2W				<IC>	
R705	1-215-424-00	METAL 1.3K 1% 1/4W		IC731	8-759-434-39	IC TDA6106Q	
R706	1-215-437-00	METAL 4.7K 1% 1/4W				<COIL>	
R707	1-249-435-11	CARBON 33K 5% 1/4W		L731	1-410-682-31	INDUCTOR 470μH	
R708	1-215-428-00	METAL 2K 1% 1/4W				<RESISTOR>	
R709	1-260-101-11	CARBON 1.5K 5% 1/2W		R731	1-219-743-11	CARBON 100 5% 1/2W	
R710	1-215-903-11	METAL OXIDE 68K 5% 2W F		R732	1-260-132-11	CARBON 560K 5% 1/2W	
R711	1-249-435-11	CARBON 33K 5% 1/4W		R733	1-215-421-00	METAL 1K 1% 1/4W	
R712	1-247-807-31	CARBON 100 5% 1/4W		R735	1-249-441-11	CARBON 100K 5% 1/4W	
R713	1-249-437-11	CARBON 47K 5% 1/4W		R736	1-215-430-00	METAL 2.4K 1% 1/4W	
R714	1-260-099-11	CARBON 1K 5% 1/2W		R737	1-260-101-11	CARBON 1.5K 5% 1/2W	
R715	1-260-133-11	CARBON 680K 5% 1/2W		R738	1-215-903-11	METAL OXIDE 68K 5% 2W F	
R717	1-249-417-11	CARBON 1K 5% 1/4W		R739	1-260-133-11	CARBON 680K 5% 1/2W	
R718	1-247-807-31	CARBON 100 5% 1/4W		R740	1-260-099-11	CARBON 1K 5% 1/2W	
R719	1-260-087-11	CARBON 100 5% 1/2W		R741	1-215-435-00	METAL 3.9K 1% 1/4W	
		<SPARK GAP>		R742	1-247-885-00	CARBON 180K 5% 1/4W	
SG701	1-519-422-11	GAP, SPARK		R743	1-247-807-31	CARBON 100 5% 1/4W	
SG702	1-519-422-11	GAP, SPARK				<SPARK GAP>	
*****				SG731	1-519-422-11	GAP, SPARK	
* A-1331-778-A CG BOARD, COMPLETE				SG732	1-519-422-11	GAP, SPARK	
*****				*****			
* A-1331-779-A CB BOARD, COMPLETE				*****			
*****						<CAPACITOR>	
		<CAPACITOR>		C732	1-102-963-00	CERAMIC 33PF 5% 50V	
C732	1-102-963-00	CERAMIC 33PF 5% 50V		C733	1-161-754-00	CERAMIC 0.001μF 10% 2KV	
C733	1-161-754-00	CERAMIC 0.001μF 10% 2KV		C735	1-102-050-00	CERAMIC 0.01μF 99% 500V	
C735	1-102-050-00	CERAMIC 0.01μF 99% 500V		C736	1-162-115-00	CERAMIC 330PF 10% 2KV	
C736	1-162-115-00	CERAMIC 330PF 10% 2KV		C737	1-107-662-11	ELECT 22μF 20% 250V	
C737	1-107-662-11	ELECT 22μF 20% 250V				<CONNECTOR>	
		<CONNECTOR>		CN731	1-695-915-11	TAB (CONTACT)	



# KP-41T65C/53S65C/61S65C

RM-Y136A RM-Y136A RM-Y136A



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

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN761	1-695-915-11	TAB (CONTACT)	
CN762	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN763	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
CN764	$\Delta$ 1-251-182-11	SOCKET, CRT	
CN765	* 1-564-512-11	PLUG, CONNECTOR 9P	
CN766	1-564-513-11	PLUG, CONNECTOR 10P	
		<DIODE>	
D761	8-719-991-33	DIODE 1SS133T-77	
D762	8-719-923-86	DIODE MTZJ-T-77-15	
D763	8-719-110-17	DIODE RD10ESB2	
D764	8-719-923-86	DIODE MTZJ-T-77-15	
		<IC>	
IC761	8-759-434-39	IC TDA6106Q	
		<COIL>	
L761	1-410-682-31	INDUCTOR	470 $\mu$ H
		<RESISTOR>	
R761	1-219-743-11	CARBON	100 5% 1/2W
R762	1-260-132-11	CARBON	560K 5% 1/2W
R763	1-215-420-00	METAL	910 1% 1/4W
R764	1-249-426-11	CARBON	5.6K 5% 1/4W
R765	1-215-430-00	METAL	2.4K 1% 1/4W
R766	1-260-101-11	CARBON	1.5K 5% 1/2W
R767	1-215-903-11	METAL OXIDE	68K 5% 2W F
R768	1-260-133-11	CARBON	680K 5% 1/2W
R769	1-260-099-11	CARBON	1K 5% 1/2W
R770	1-247-807-31	CARBON	100 5% 1/4W
R771	1-260-087-11	CARBON	100 5% 1/2W
		<SPARK GAP>	
SG761	1-519-422-11	GAP, SPARK	
SG762	1-519-422-11	GAP, SPARK	
*****			
	* A-1372-441-A	HA BOARD, COMPLETE	*****
		<CAPACITOR>	
C1301	1-130-495-00	FILM	0.1 $\mu$ F 5% 50V
C1302	1-126-959-11	ELECT	0.47 $\mu$ F 20% 50V
C1304	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
C1305	1-130-495-00	FILM	0.1 $\mu$ F 5% 50V
C1306	1-126-964-11	ELECT	10 $\mu$ F 20% 50V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1307	1-126-964-11	ELECT	10 $\mu$ F 20% 50V
		<CONNECTOR>	
CN1301	1-564-523-11	PLUG, CONNECTOR 8P	
CN1302	* 1-564-526-11	PLUG, CONNECTOR 11P	
CN1304	* 1-564-518-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D1301	8-719-110-17	DIODE RD10ESB2	
D1302	8-719-110-17	DIODE RD10ESB2	
D1303	8-719-110-17	DIODE RD10ESB2	
D1304	8-719-053-43	DIODE SLR-325VCT31	
D1305	8-719-053-43	DIODE SLR-325VCT31	
D1306	8-719-110-17	DIODE RD10ESB2	
D1307	8-719-110-17	DIODE RD10ESB2	
D1308	8-719-110-17	DIODE RD10ESB2	
D1309	8-719-109-89	DIODE RD5.6ESB2	
		<IC>	
IC1301	8-742-088-10	HYB IC SBX1780-51(10)	
		<JACK>	
J1301	1-770-361-11	TERMINAL BLOCK, S	
		<RESISTOR>	
R1301	1-249-425-11	CARBON	4.7K 5% 1/4W
R1302	1-249-416-11	CARBON	820 5% 1/4W
R1303	1-249-417-11	CARBON	1K 5% 1/4W
R1304	1-249-425-11	CARBON	4.7K 5% 1/4W
R1305	1-247-815-91	CARBON	220 5% 1/4W
R1306	1-247-815-91	CARBON	220 5% 1/4W
R1307	1-249-420-11	CARBON	1.8K 5% 1/4W
R1308	1-247-895-91	CARBON	470K 5% 1/4W
R1309	1-247-895-91	CARBON	470K 5% 1/4W
R1310	1-249-429-11	CARBON	10K 5% 1/4W
R1311	1-247-804-11	CARBON	75 5% 1/4W
R1312	1-247-804-11	CARBON	75 5% 1/4W
R1314	1-247-807-31	CARBON	100 5% 1/4W
R1315	1-247-804-11	CARBON	75 5% 1/4W
		<SWITCH>	
S1301	1-572-198-11	SWITCH, KEYBOARD	
S1302	1-572-198-11	SWITCH, KEYBOARD	
S1303	1-572-198-11	SWITCH, KEYBOARD	
S1304	1-572-198-11	SWITCH, KEYBOARD	
S1305	1-572-198-11	SWITCH, KEYBOARD	
S1306	1-572-198-11	SWITCH, KEYBOARD	
S1307	1-572-198-11	SWITCH, KEYBOARD	
*****			

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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1390-826-A	Z BOARD, COMPLETE	*****		Q1434	8-729-119-78	TRANSISTOR 2SC2785-HFE	
				Q1435	8-729-119-78	TRANSISTOR 2SC2785-HFE	
4-382-854-11	SCREW (M3X10), P, SW (+)			Q1436	8-729-119-78	TRANSISTOR 2SC2785-HFE	
	<CAPACITOR>				<RESISTOR>		
C1433	1-106-343-00	MYLAR 0.001 $\mu$ F 10% 200V		R1401	1-249-414-11	CARBON 560 5% 1/4W	
C1434	1-106-383-00	MYLAR 0.047 $\mu$ F 10% 200V		R1402	1-249-414-11	CARBON 560 5% 1/4W	
C1435	1-107-667-11	ELECT 2.2 $\mu$ F 20% 160V		R1415	1-216-475-11	METAL OXIDE 120 5% 3W F	
C1436	1-137-364-11	FILM 0.001 $\mu$ F 5% 50V		R1418	1-216-475-11	METAL OXIDE 120 5% 3W F	
C1437	1-137-364-11	FILM 0.001 $\mu$ F 5% 50V		R1431	1-249-414-11	CARBON 560 5% 1/4W	
C1438	1-106-383-00	MYLAR 0.047 $\mu$ F 10% 200V		R1432	1-249-414-11	CARBON 560 5% 1/4W	
C1439	1-161-830-00	CERAMIC 0.0047 $\mu$ F 500V		R1435	1-216-475-11	METAL OXIDE 120 5% 3W F	
C1440	1-126-933-11	ELECT 100 $\mu$ F 20% 16V		R1436	1-216-475-11	METAL OXIDE 120 5% 3W F	
C1441	1-102-074-00	CERAMIC 0.001 $\mu$ F 10% 50V		R1437	1-249-414-11	CARBON 560 5% 1/4W	
C1443	1-126-935-11	ELECT 470 $\mu$ F 20% 16V		R1438	1-249-432-11	CARBON 18K 5% 1/4W	
C1444	1-107-639-11	ELECT 47 $\mu$ F 20% 160V		R1439	1-249-432-11	CARBON 18K 5% 1/4W	
C1445	1-126-933-11	ELECT 100 $\mu$ F 20% 16V		R1440	1-249-414-11	CARBON 560 5% 1/4W F	
C1446	1-126-933-11	ELECT 100 $\mu$ F 20% 16V		R1441	1-249-417-11	CARBON 1K 5% 1/4W	
	<CONNECTOR>			R1442	1-249-408-11	CARBON 180 5% 1/4W	
CN1401 *	1-564-506-11	PLUG, CONNECTOR 3P		R1443	1-249-377-11	CARBON 0.47 5% 1/4W F	
CN1402	1-564-505-11	PLUG, CONNECTOR 2P		R1445	1-249-403-11	CARBON 68 5% 1/4W	
CN1403 *	1-564-506-11	PLUG, CONNECTOR 3P		R1448	1-249-416-11	CARBON 820 5% 1/4W	
CN1404 *	1-564-507-11	PLUG, CONNECTOR 4P		R1449	1-249-403-11	CARBON 68 5% 1/4W	
CN1406 *	1-564-507-11	PLUG, CONNECTOR 4P		R1450	1-249-417-11	CARBON 1K 5% 1/4W	
CN1431 *	1-564-508-11	PLUG, CONNECTOR 5P		R1451	1-249-411-11	CARBON 330 5% 1/4W	
CN1433 *	1-564-507-11	PLUG, CONNECTOR 4P		R1452	1-249-417-11	CARBON 1K 5% 1/4W	
CN1434 *	1-580-689-11	PIN, CONNECTOR (PC BOARD) 4P		R1453	1-249-401-11	CARBON 47 5% 1/4W	
CN1461 *	1-564-506-11	PLUG, CONNECTOR 3P		R1454	1-260-311-11	CARBON 39 5% 1/2W	
CN1462 *	1-564-507-11	PLUG, CONNECTOR 4P		R1455	1-249-384-11	CARBON 1.8 5% 1/4W F	
CN1463	1-564-505-11	PLUG, CONNECTOR 2P		R1456	1-215-916-00	METAL OXIDE 680 5% 3W F	
CN1464 *	1-564-507-11	PLUG, CONNECTOR 4P		R1457	1-249-417-11	CARBON 1K 5% 1/4W F	
	<DIODE>			R1458	1-249-384-11	CARBON 1.8 5% 1/4W F	
D1431	8-719-110-88	DIODE RD39ESB2		R1459	1-249-400-11	CARBON 39 5% 1/4W F	
D1432	8-719-110-88	DIODE RD39ESB2		R1460	1-215-916-00	METAL OXIDE 680 5% 3W F	
D1433	8-719-991-33	DIODE 1SS133T-77		R1461	1-249-414-11	CARBON 560 5% 1/4W	
	<CONNECTOR>			R1462	1-249-414-11	CARBON 560 5% 1/4W	
DY1431	1-451-454-11	DEFLECTION YOKE (KP-41T65C)		R1464	1-249-417-11	CARBON 1K 5% 1/4W	
DY1431	1-451-455-11	DEFLECTION YOKE (KP-53S65C/61S65C)		R1465	1-216-475-11	METAL OXIDE 120 5% 3W F	
	<COIL>			R1466	1-216-475-11	METAL OXIDE 120 5% 3W F	
L1431	1-410-478-11	INDUCTOR 47 $\mu$ H		*****			
L1432	1-410-478-11	INDUCTOR 47 $\mu$ H		MISCELLANEOUS			
	<TRANSISTOR>			*****			
Q1431	8-729-017-06	TRANSISTOR 2SC4793		$\Delta$ 1-223-925-12 RESISTOR ASSY (HIGH-VOLTAGE)			
Q1432	8-729-017-05	TRANSISTOR 2SA1837		$\Delta$ 1-451-454-11 DEFLECTION YOKE (G) (KP-41T65C)			
Q1433	8-729-119-76	TRANSISTOR 2SA1175-HFE		$\Delta$ 1-451-454-31 DEFLECTION YOKE (R) (B) (KP-41T65C)			
				$\Delta$ 1-451-455-11 DEFLECTION YOKE (G) (KP-53S65C/61S65C)			
				$\Delta$ 1-451-455-31 DEFLECTION YOKE (R) (B) (KP-53S65C/61S65C)			
				$\Delta$ 1-452-790-21 NECK ASSY			
				1-452-909-11 MAGNET ASSY, 4 POLE			
				1-505-378-11 SPEAKER (10CM) (KP-53S65C/61S65C)			



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REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-505-748-11	SPEAKER (10CM) (KP-41T65C)	
	1-551-448-61	CABLE, P-P	
	* 1-557-056-41	CABLE, P-P	
	$\Delta$ 1-769-796-11	CORD, POWER (WITH NOISE FILTER)	
	8-598-414-00	ANTENNA SWITCH AS-2F	
	$\Delta$ 8-733-519-05	PICTURE TUBE 07MAC2 (B) (GROUND SPRING) (KP-41T65C)	
	$\Delta$ 8-733-528-05	PICTURE TUBE 07MAC3 (B) (GROUND SPRING) (KP-53S65C)	
	$\Delta$ 8-733-529-05	PICTURE TUBE 07MAC4 (B) (GROUND SPRING) (KP-61S65C)	
	$\Delta$ 8-733-537-05	PICTURE TUBE 07MXC2 (G)	
	$\Delta$ 8-733-539-05	PICTURE TUBE 07MXC2 (R) (KP-41T65C)	
	$\Delta$ 8-733-553-05	PICTURE TUBE 07MXC3 (R) (KP-53S65C)	
	$\Delta$ 8-733-555-05	PICTURE TUBE 07MXC4 (R) (KP-61S65C)	

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ACCESSORIES AND PACKING MATERIALS

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- 3-862-541-11 MANUAL, INSTRUCTION
- \* 4-041-423-01 SHEET, PROTECTION (KP-41T65C)
- \* 4-041-426-01 BAG, PROTECTION (KP-53S65C)
- \* 4-041-428-01 BAG, POLYETHYLENE (KP-61S65C)
- \* 4-042-463-01 SHEET, PROTECTION (KP-53S65C/61S65C)
- \* 4-047-555-01 PLATE, TOP (KP-61S65C)
- \* 4-047-774-01 PLATE, TOP (KP-53S65C)
- \* 4-049-155-01 BAG, PROTECTION (KP-41T65C)
- \* 4-056-291-01 INDIVIDUAL CARTON (KP-53S65C)
- \* 4-056-292-01 CUSHION (UPPER) (ASSY) (KP-53S65C)
- \* 4-056-293-01 CUSHION (LOWER) (ASSY) (KP-53S65C)
- \* 4-056-298-01 BOARD, BOTTOM (KP-53S65C)
- \* 4-056-300-01 TRAY (KP-53S65C)
- \* 4-057-558-01 INDIVIDUAL CARTON (KP-41T65C)
- \* 4-057-559-01 TRAY (KP-41T65C)
- \* 4-057-560-01 CUSHION (UPPER) (ASSY) (KP-41T65C)
- \* 4-057-561-01 CUSHION (LOWER) (ASSY) (KP-41T65C)
- \* 4-057-642-01 CUSHION (UPPER) (ASSY) (KP-61S65C)
- \* 4-057-643-01 CUSHION (LOWER) (ASSY) (KP-61S65C)
- \* 4-057-648-01 INDIVIDUAL CARTON (KP-61S65C)
- \* 4-057-649-01 TRAY (KP-61S65C)
- \* 4-057-650-01 BOARD, BOTTOM (KP-61S65C)

REMOTE COMMANDER

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- 1-473-749-31 REMOTE COMMANDER (RM-Y136A)
- 4-978-977-01 POCKET, COVER (FOR RM-Y136A)

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