

SERVICE MANUAL

AA - 1A 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>
KV-27XBR45	RM-Y127	US	SCC-H81A-A	KV-32XBR45	RM-Y127	US	SCC-H81B-A
KV-27XBR45	RM-Y127	Canadian	SCC-H82A-A	KV-32XBR45	RM-Y127	Canadian	SCC-H82B-A
KV-27XBR45M	RM-Y127	E	SCC-H83A-A	KV-32XBR85	RM-Y127	US	SCC-H81C-A

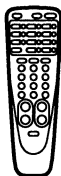
Note :

- Adjustment Manual for this model and Service Manual of MDR-IF210 are separately published.

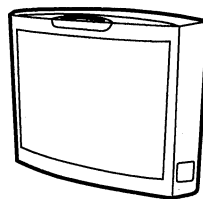
	Adjustment Manual	MDR-IF210 Service Manual
Part No.	9-965-064-01	9-959-113-11



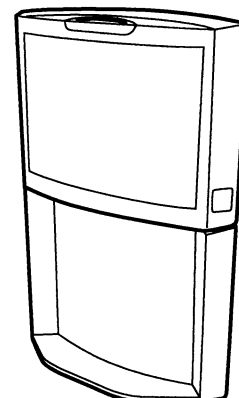
MDR-IF210



RM-Y127



KV-27XBR45
KV-27XBR45M
KV-32XBR45



KV-32XBR85



TRINITRON® COLOR TV
SONY®

※ Please file according to model size... ■

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SPECIFICATIONS

Television system	American TV standards	Power consumption	When in use :
Channel coverage	VHF : 2 - 13 UHF : 14 - 69 CATV : 1 - 125		185 W (KV-27XBR45/27XBR45M) 195 W (KV-32XBR45) *195 W (KV-32XBR85)
Picture tube	Hi-Black™ Trinitron® tube 27-inch picture measured diagonally Trinitron® tube 32-inch picture measured diagonally		In standby : 5 W Active Super Woofer : 11 W (KV-32XBR85)
Antenna	75-ohm external antenna terminal for VHF/UHF	Dimensions (W/H/D)	KV-27XBR45/27XBR45M : 751.2 x 570.7 x 571.5 mm (49.3 x 22.3 x 22.3 in) KV-32XBR45 : 570.7 x 645.8 x 617.5 mm (22.3 x 25.2 x 24.1 in) KV-32XBR85 : 850.4 x 1144.6 x 696.4 mm (33.2 x 44.6 x 27.2 in)
Input/output	VIDEO (3) 1 Vp-p, 75-ohms unbalanced, sync negative S VIDEO (1) Y : 1 Vp-p, 75-ohms unbalanced, sync negative C : 0.286 Vp-p (Burst signal), 75-ohms AUDIO (3) 500 m Vrms (100% modulation), Impedance : 47 kilohms AUDIO OUT (1) More than 900 m Vrms at the maximun volume setting (variable) More than 500 m Vrms (fix) Impedance : 5 kilohms Monitor out (1) Video (phone jack) : 1 Vp-p, 75-ohms unbalanced, sync negative Audio (phone jack) : 500 m Vrms (100% modulation) Impedance : 10 kilohms Loop out (1)	Mass	KV-27XBR45/27XBR45M : 53.7 kg (118.4 lbs) KV-32XBR45 : 71.1 kg (156.7 lbs) KV-32XBR85 : 90.6 kg (199.7 lbs)
Control S (IN/OUT)	mini jack (1)	Supplied accessories	Remote Commander RM-Y127 (1) Size AA (R6) batteries (3) Cordless stereo headphones MDR-IF210 (1) RCA audio cable (KV-32XBR85)
Speaker output	15W x 2, 7.5 ohms)	Optional accessories	U/V mixer EAC-66 Connecting cable VMC-810S/820S, VMC-720M, YC-15V/30V, RK-74A TV stand SU-27XBR4 (KV-27XBR45 and 27XBR45M) TV stand SU-32XBR4 (KV-32XBR45)
Center Speaker	16 W (NOR), 16 ohms, 30 W (MAX)		
Power requirements	120 V AC, 60 Hz		

* Not including super woofer

Design and specifications are subject to change without notice.

(CAUTION)

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

WARNING!!

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

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

(ATTENTION)

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

ATTENTION!!

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

ATTENTION AUX COMPOSANTS RELATIFS Á LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET PAR UNE MAPQUE Δ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIÉCES CONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIÉS DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT (US model only)

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

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

LEAKAGE TEST

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

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

HOW TO FIND A GOOD EARTH GROUND

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

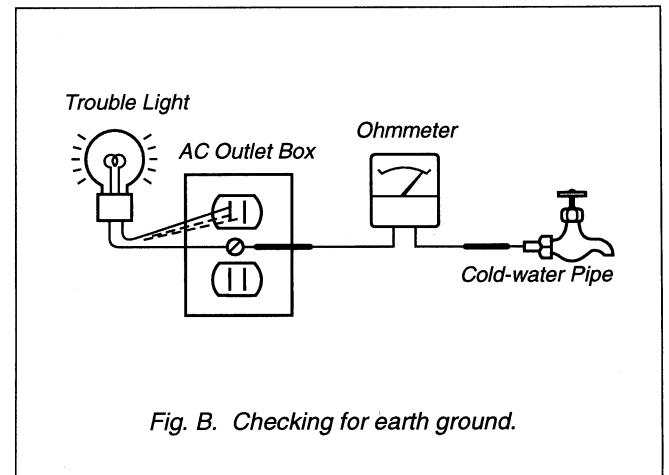
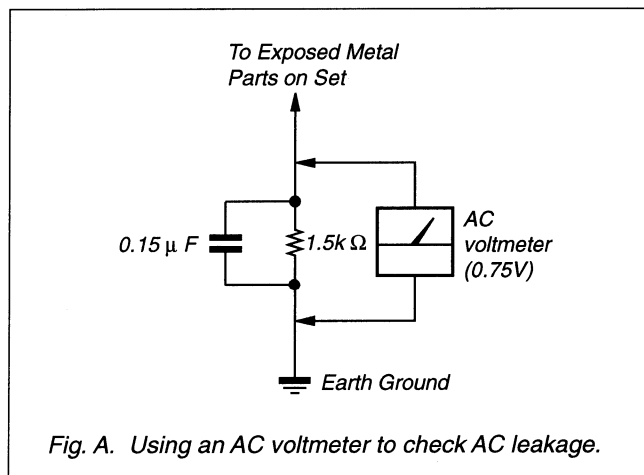


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SECTION 1 GENERAL

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

Getting Started

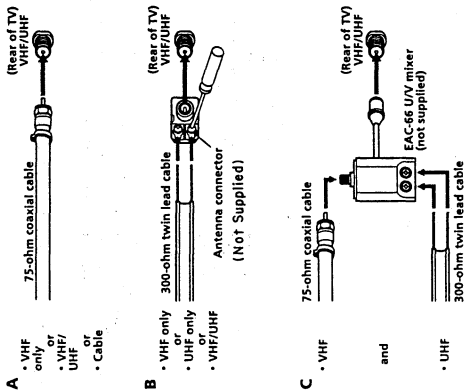
Step 1: Connections

Either an indoor antenna or outdoor antenna should be used with your TV. However, we recommend that you connect an outdoor antenna or a cable TV system to get better picture quality.

To access AUDIO/VIDEO jacks and AC cord on KV-32XBR85, remove the back panel (see page 9).

How to connect different types of cables

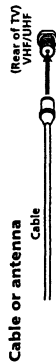
The illustrations below show the examples of connecting different types of cables to the TV directly.



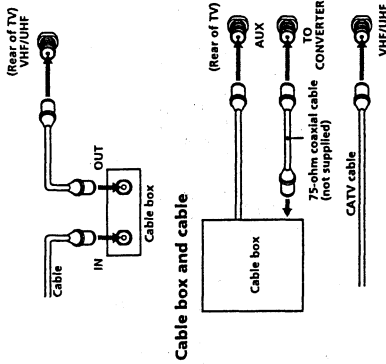
Notes

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

Connecting an antenna/cable TV system without a VCR



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

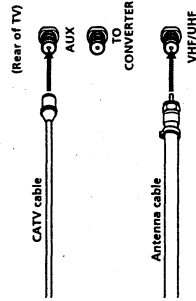


Pay cable TV systems use scrambled or encoded signals requiring a cable box* in addition to the normal cable connection.

Note

- The cable box will be supplied by the cable company.
- You cannot watch the signal through AUX connector as a window picture.

Cable and antenna



Note

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

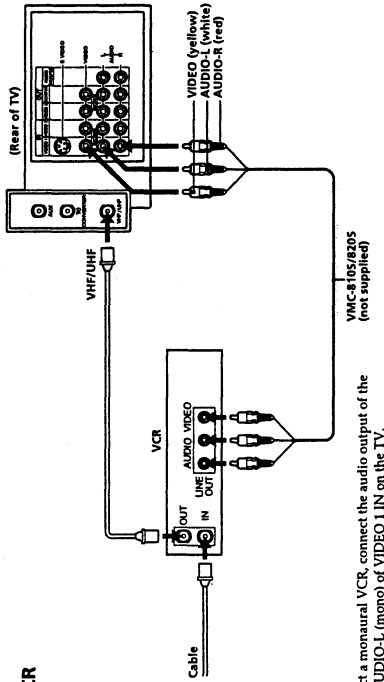
Connecting an antenna/cable TV system with a VCR

For connection details, see the instruction manual of your VCR. Before making connection, disconnect the AC power cords of the equipment to be connected.

- View the playback of video tapes
- Record one TV program while viewing another program
- Watch two TV programs simultaneously by using the PIP and P&P features.

Without a cable box

To a VCR

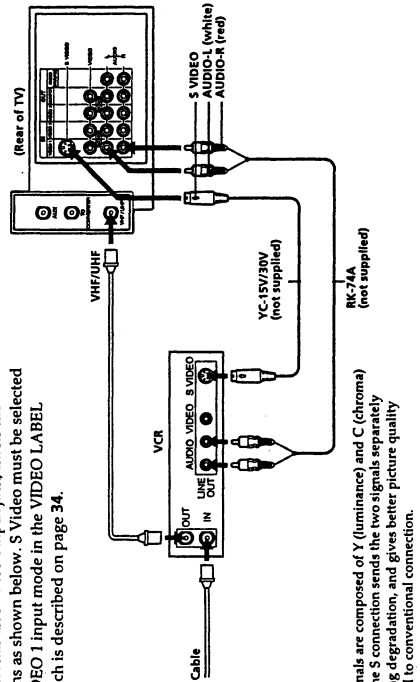


Note

- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.

To an S video equipped VCR

If your VCR has an S video output jack, make the connections as shown below. S Video must be selected as the VIDEO 1 input mode in the VIDEO LABEL menu which is described on page 34.

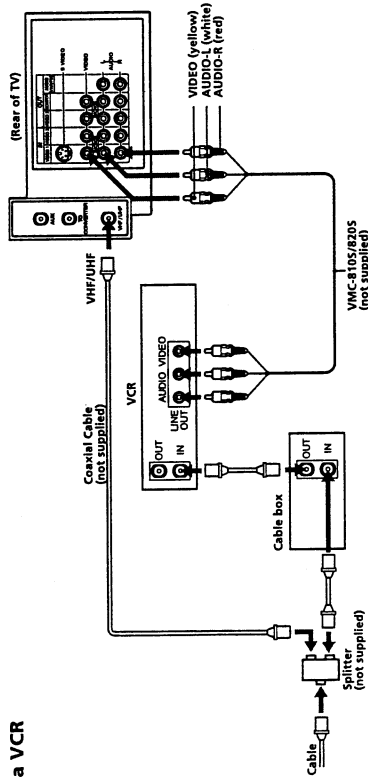


Note

- 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 connection.

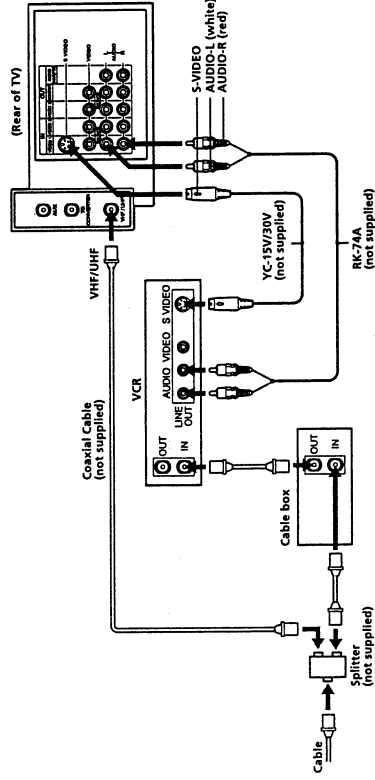
With a cable box

To a VCR



- Notes**
- To connect a monaural VCR, connect the audio output of the VCR to AUDIO-L (mono) of VIDEO 1 IN on the TV.
 - The VHF/UHF connection provides an audio and video signal when the VCR and cable box are turned off.

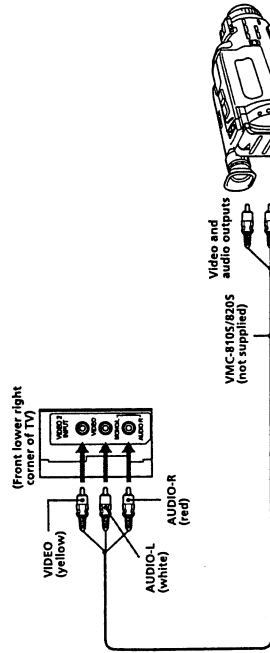
To an S video equipped VCR with a cable box



- Note**
- The VHF/UHF connection provides an audio and video signal when the VCR and cable box are turned off.

Connecting a camcorder

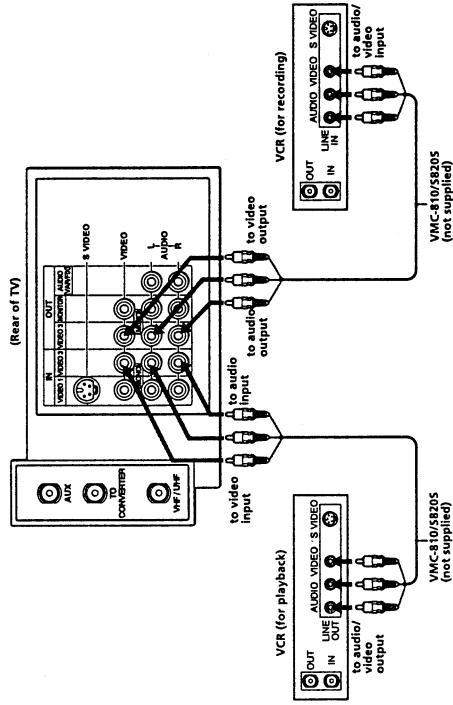
This connection is convenient for viewing a tape played by a camcorder.



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

Connecting two VCRs for tape editing using VIDEO 3 IN and OUT

Please note that VIDEO 3 OUT can only output a program from VIDEO 3 IN. During the above recording process you can view video sources from either antenna, cable, VIDEO 2 IN or VIDEO 1 IN jacks as well.



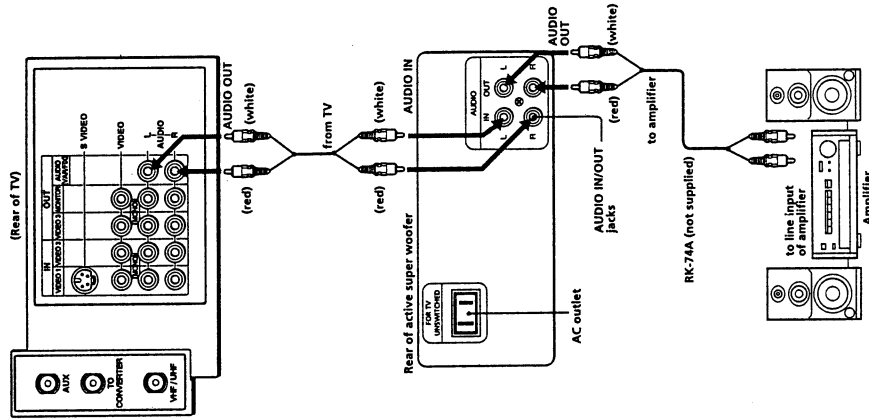
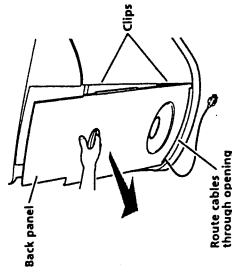
Connecting active super woofer

■ KV-32XBR85 only

This connection allows you to enjoy the sound of the active super woofer. If you connect an audio system to the active super woofer, you can enjoy the sound of the audio system and the active super woofer simultaneously.

The woofer volume varies according to the TV volume. Use the woofer control located in the front of the active super woofer to adjust the intensity of the bass.

Remove the back panel to access AUDIO/VIDEO jacks and AC cord. Replace the back panel when finished.

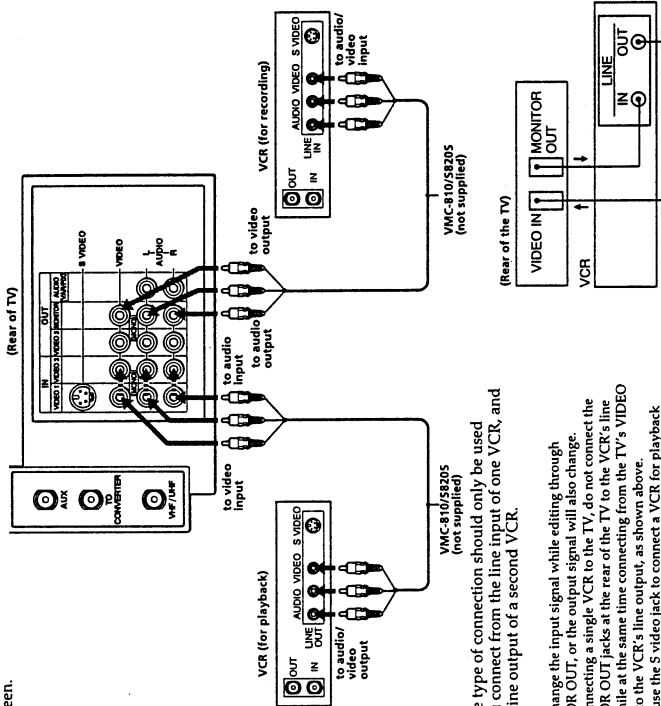


Notes

- If you do not use the TV for more than 20 seconds, the active super woofer is turned off automatically to save on power and consumption.
- When you release MUTE, the sound of the woofer is heard before that of the TV. This is normal.
- If you set SPEAKER to OFF in the AUDIO menu and select FIXED in the AUDIO OUT menu (page 25), the volume of the woofer may be excessive. We recommend that you set SPEAKER to ON when you use the active super woofer.
- You should only connect KV-32XBR85 to the AC outlet on the active super woofer.
- If you connect an audio system to the active super woofer, set the amplifier's function to INPUT.

Connecting two VCRs for tape editing using MONITOR OUT

MONITOR OUT allows you to record a program that is on the screen.



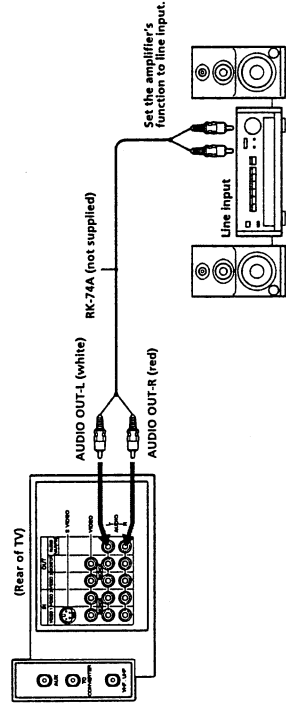
The above type of connection should only be used when you connect from the line input of one VCR, and from the line output of a second VCR.

Notes

- Do not change the input signal while editing through MONITOR OUT, or the output signal will also change.
- When connecting a single VCR to the TV, do not connect the MONITOR OUT jacks at the rear of the TV to the VCR's line input, while at the same time connecting from the TV's VIDEO IN jacks to the VCR's line output, as shown above.
- You can use the 5 video jack to connect a VCR for playback and the AUDIO/VIDEO jack to connect a VCR for recording.

Connecting an audio system

When connecting audio equipment, see page 24 and 25 for more information.

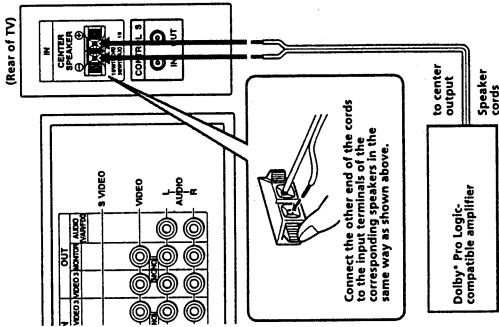


Using the TV speakers as center speakers

This feature allows you to enjoy the benefits of Dolby Pro Logic by using the speakers of the TV as the center speaker. To utilize this system you must have an amplifier that is Dolby Pro Logic compatible. Connect the speaker wires from the amplifier's center channel output terminals to the TV's CENTER SPEAKER IN terminals. Both right and left terminals must be connected to receive an audio signal. After making the above connections select "SPEAKER : CENTER" from the AUDIO menu (page 22). The left and right audio channels can be heard through your audio system speakers. Please note that in this set up the volume can only be adjusted by your amplifier.

Notes

- Always match the speaker cord and terminal colors when making the connections.
- Unplug the TV when making the connections. If the exposed speaker cord wires touch while the TV is plugged in, the TV may short-circuit and be damaged.
- Do not pull on the speaker cords.
- Always turn off the amplifier power before connecting to CENTER SPEAKER IN.
- Always match the speaker cord and terminal colors when making the connection.

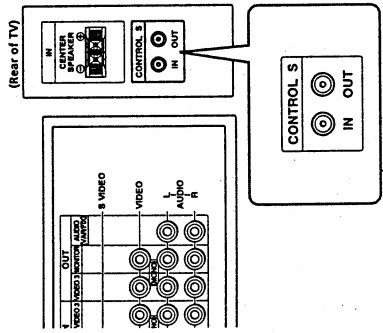


• Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents, U.S. numbers 3,632,886, 3,746,792 and 3,959,590. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Connecting other Sony equipment with CONTROL S jack

This feature allows you to control your TV and other Sony components with one remote control. You can either control the TV with a remote control from a Sony component or control the Sony component with the TV's remote control. The connections for the above options are described below.

- To control other Sony equipment with the TV's remote commander, connect the input of the equipment to CONTROL S OUT jack on the TV.
- To control the TV with the remote commander of other Sony equipment, connect the output of the equipment to CONTROL S IN jack on the TV.



Step 3: Installing the glass door and adjusting the shelf

■ KV-32XR85 only

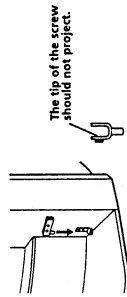
Follow these instructions to install the glass door and adjust the shelf.

Installing the glass

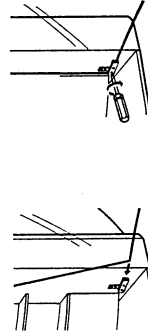
- 1 Attach the top hinge to the right side of the glass door, tighten the screws snugly, but do not overtighten. Attach the plate pad to the left side and push the plate over the plate pad.



- 2 Insert the bottom hinge into the bushing located at the bottom, right side of the cabinet.



- 3 Push the top, glass door hinge into the top, right bushing and gently slide the glass door into the bottom hinge. Adjust the glass door until level, and tighten the hinge screws.

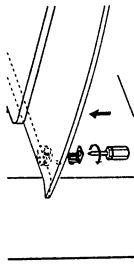


Note

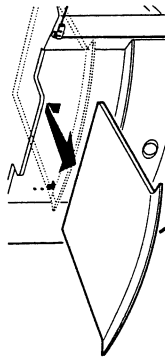
- The glass door in this stand is made of tempered glass. Although it is more shock-resistant than ordinary glass, tempered glass may shatter if it is dropped or receives a sudden shock.

Adjusting the shelf

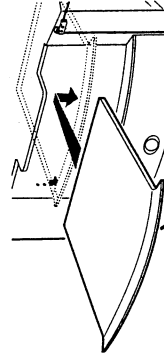
- 1 Unlock the four shelf supports with a medium Phillips head screwdriver.



- 2 Gently slide the shelf up and out.

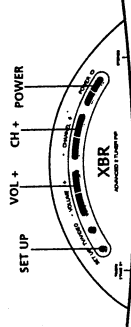


- 3 Insert shelf supports in the appropriate holes. Slide shelf in, align the shelf grooves with the shelf supports, and slide the shelf down.



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

You can set up your TV easily by using AUTO SET UP feature. It presets all the receivable channels. To set up the TV manually, see "Setting cable TV on or off" and "Presetting channels" (page 15, 16).
AUTO SET UP. Press TV/VIDEO so that a channel number appears.



1 Press POWER (TV) to turn the TV on.



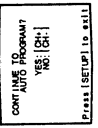
2 Press SET UP on the top of the TV.

The menu appears.



3 Press CHANNEL + to select AUTO SET UP.

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



The picture and sound settings will be set to the factory preset condition in the selected language.

4 Press CHANNEL +.



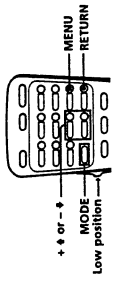
"AUTO PROGRAM" appears on the screen and the TV starts scanning and presetting channels automatically. When all the receivable channels are stored, "AUTO PROGRAM" disappears and the lowest numbered channel is displayed. If the TV receives cable TV channels, CATV is set to ON automatically.

Notes

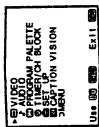
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.
- In case of using the AUX connector, press the TV button on the remote control first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow steps 2 and 3 above to perform AUTO SET UP.

DEMO: To browse the main functions, press VOL - in step 2. The functions and menus are displayed one by one.

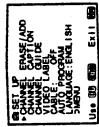
Erasing or adding channels



1 Press MENU.

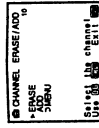


2 Press + or - to move the cursor (P) to SET UP and press RETURN.



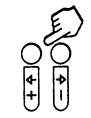
(continued)

3 Press + or - to move the cursor (P) to CHANNEL ERASE/ADD and press RETURN.

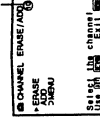


4 Erase and/or add the channel you want:

- (1) Press + or - and press RETURN to select ERASE or ADD.



(2) Press CH +/- or 0-9 buttons to select the channel you want to erase or add.



(3) Press RETURN.

- If you selected ERASE in step (1), "-" appears beside the channel number, showing that channel is erased from the preset memory.
- If you selected ADD in step (1), "+" appears beside the channel number, showing that channel is added to the preset memory.

5 To erase and/or add other channels, repeat step 4.

6 When you finish, press MENU.

Notes

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

Setting cable TV on or off

This setting allows you to view either broadcast or cable signals. The factory setting for cable TV is ON. If you do not desire to view cable TV, you must turn it off as shown below.

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

1 Press MENU.

2 Press + or - to move the cursor (P) to SET UP and press RETURN.



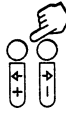
If you are in one of the video modes, the CABLE lettering will be black on the menu. To display the CABLE lettering you must press TV on the remote control until a channel number appears on the screen.

3 Set CABLE to ON or OFF:

- (1) Make sure the cursor (P) is beside CABLE and press RETURN.



- (2) Press + or - to select ON or OFF and,



- (3) press RETURN.



4 Press MENU to return to the normal screen.



Presetting channels

You can preset TV channels easily by using the AUTO PROGRAM feature. Preset channels during the day rather than late at night, since some channels go off the air and will not be preset.

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

1 Press MENU.

2 Press + or - to move the cursor (▶) to SET UP and press RETURN.



3 Press + or - to move the cursor (▶) to AUTO PROGRAM and press RETURN.



"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 lowest numbered channel is displayed.

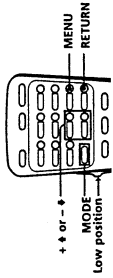
4 Press MENU to return to the original screen.

Notes

- If you are in one of the video modes, the AUTO PROGRAM lettering will be black on the menu. To display the AUTO PROGRAM lettering you must press the TV/VIDEO or TV button until a channel number appears.
- In case of using the AUX connector, AUTO PROGRAM is also available for the AUX input. Press the TV button on the remote commander first and make sure that "AUX" is displayed beside the channel number on the screen. Then follow steps 1 to 3 above.

Step 5: Changing the menu language

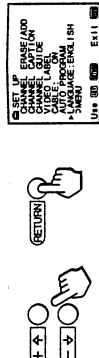
If you prefer Spanish or French to English, you can change the menu language. You do not have to do this procedure if you execute AUTO SET UP (page 14). Do this procedure only when you want to set it manually.



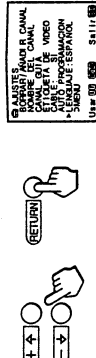
1 Press MENU.

2 Press + or - to move the cursor (▶) to SET UP and press RETURN.

3 Press + or - to move the cursor (▶) to LANGUAGE and press RETURN.



4 Press + or - to select ESPAÑOL or FRANCAIS and press RETURN.



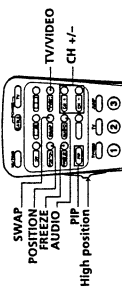
5 Press MENU to return to the original screen.

Note

- Certain parts of the ESPAÑOL and FRANCAIS menus remain in English.

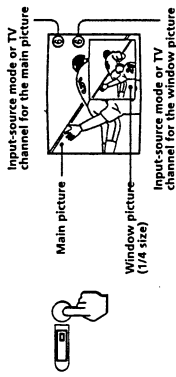
Watching two programs at the same time - PIP and P&P

You can watch the main/right picture and a window/left picture simultaneously using the Picture-in-Picture or the Picture-and-Picture (Twin View™) feature



Displaying a window picture - PIP

Press (PIP)



Each time you press (PIP), the size of the window picture changes as follows: 1/4 size → 1/9 size → 1/16 size.

To remove the window picture, press OFF.

Notes

- If the main picture is not receiving an image, the right picture may be in black and white.
- The window picture may be affected by the condition of the left picture.
- You can listen to the window picture's sound through the AUDIO OUT (VAR/FIX) jacks.

Displaying a left picture - P&P

Press (P&P)



To restore the normal picture, press OFF.

Notes

- If one of the pictures is not receiving an image, the other picture may appear in black and white.
- One picture may be affected by the condition of the other picture.

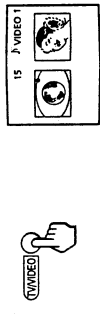
Changing the input mode

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

PIP function



P&P function



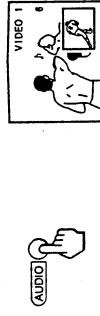
The PIP or P&P picture will appear in the same input mode as the last time you used PIP or P&P.

Listening to the sound of the main/right or window/left picture.

Press AUDIO.

The P display appears for a few seconds, indicating that the main/right or window/left picture sound is being received.

PIP function



To restore the main picture sound, press AUDIO again.

P&P function

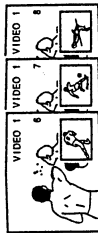


To restore the other screen picture sound, press AUDIO again.

Changing TV channels in the main/right or window/left picture.

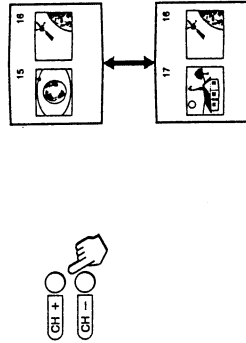
Press CH +/- in the PIP remote control area.

PIP feature



P&P feature

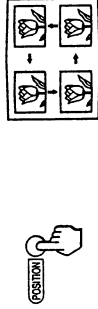
CH +/- in the PIP remote control area only controls the left screen picture.



Changing the position of the PIP window picture.

Press POSITION.

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



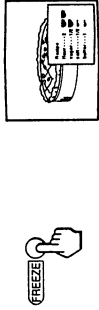
Note

- POSITION is not a P&P feature.

Freezing the TV screen

This feature is useful when you want to write down a recipe from a cooking program, a displayed address or a phone number and so on.

Press FREEZE.



To restore the normal screen, press FREEZE again.

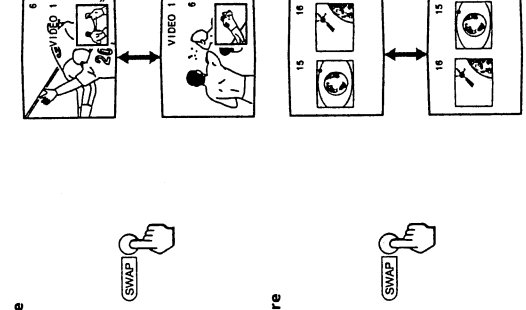
Notes

- If using PIP, the frozen TV screen window will appear opposite the PIP window picture.
- If using P&P, both screens will freeze when you press FREEZE.

Swapping the window/left pictures (PIP) or the main/right pictures (P&P)

Press SWAP.

Each time you press SWAP, the picture screens and sound will switch places.

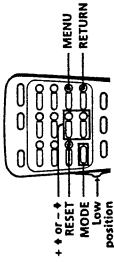


PIP feature

P&P feature

Adjusting the picture (VIDEO)

You can adjust the picture setting of TV programs to your preferences by following the instructions below. These adjustments can also be made for your video input programs. The TV program settings and video program settings are stored separately.



1 Press MENU.

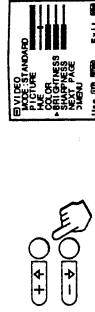
2 Make sure the cursor (P) is beside VIDEO and press RETURN.



3 Select the item you want to adjust.

For example:

(1) To adjust brightness, press + or - to select BRIGHTNESS and,



(2) press RETURN.



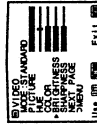
4 Adjust the selected item:

(1) Press + or - to adjust the item and,



(2) press RETURN.

The new setting appears in the VIDEO menu.



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

Description of adjustable items

Item	Press + to	Press - to
PICTURE	Increase picture contrast for vivid color	Decrease picture contrast for soft color
HUE	Make overall picture become greenish	Make overall picture become purplish
COLOR	Increase color intensity	Decrease color intensity
BRIGHTNESS	Brighten the picture	Darken the picture
SHARPNESS	Sharpen the picture	Soften the picture

To restore the factory settings

Press RESET while the VIDEO menu is displayed. All the settings of the video mode you are currently in (STANDARD, MOVIE, or SPORTS) are restored to the factory settings.

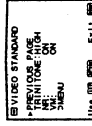
Selecting the TRINITONE mode

This feature allows you to adjust the color temperature setting (tint) that determines the red and blue tint of a picture. Select the setting that suits your taste.

1 Press MENU.

Press + or - to select VIDEO and press RETURN.

Press + or - to select NEXT PAGE and press RETURN.



4 Press + or - to select TRINITONE and press RETURN.



5 Press + or - to select HIGH, MEDIUM, or NTSC STD and press RETURN.



Choose	To
HIGH	Make the picture "cool" or increase bluish tint.
MEDIUM	Make the picture "warm" or increase reddish tint.
NTSC STD	Match the broadcast standard for NTSC color temperature.

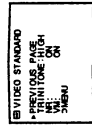
Setting NR (picture noise reduction) ON or OFF

This setting allows you to filter out screen picture noise. ON reduces the picture noise and OFF restores the normal picture.

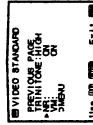
1 Press MENU.

Press + or - to select VIDEO and press RETURN.

Press + or - to select NEXT PAGE and press RETURN.



Press + or - to select NR and press RETURN.



5 Press + or - to select YES or NO, and press RETURN.



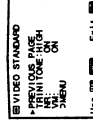
Setting VM (velocity modulation) ON or OFF

Velocity modulation improves picture definition and contrast ratio for an overall sharper picture. The factory setting for VM is ON. Select OFF to restore the normal picture setting.

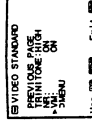
1 Press MENU.

Press + or - to select VIDEO and press RETURN.

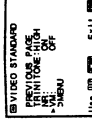
Press + or - to select NEXT PAGE and press RETURN.



Press + or - to select VM and press RETURN.

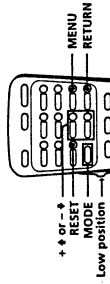


Press + or - to select YES, or NO and press RETURN.



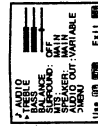
Adjusting the sound (AUDIO)

You can adjust the audio setting of the TV programs to your preferences by following the instructions below. These adjustments can also be made for your video input programs. The TV program settings and video program setting are stored separately.



1 Press MENU.

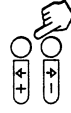
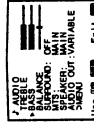
Press + or - to select AUDIO and press RETURN.



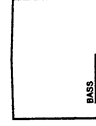
3 Select the item you want to adjust.

For example:

(1) To adjust bass, press + or - to select BASS and



(2) press RETURN.



(continued)

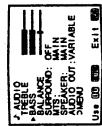
4 Adjust the selected item:

- (1) Press **+** or **-** to adjust the item and,



- (2) press RETURN.

The new setting appears in the AUDIO menu.



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

Description of adjustable items

Item	Press + to	Press - to
TREBLE	Increase the treble response	Decrease the treble response
BASS	Increase the bass response	Decrease the bass response
BALANCE	Emphasize the right speaker's volume	Emphasize the left speaker's volume

To restore the factory settings

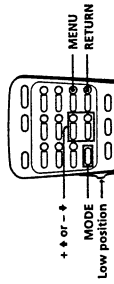
Press **RESET** while the AUDIO menu is displayed.

Note

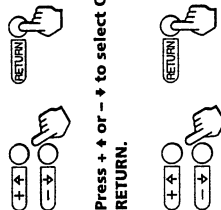
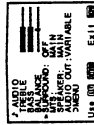
- When **SPEAKER** (page 24) is **CENTER** and **AUDIO OUT** (page 25) is in **FIXED** condition, the sound is set to mid-level and it cannot be adjusted through your TV set.

Listening to surround sound (SURROUND)

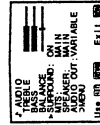
SURROUND feature simulates sound reproduction with the atmosphere of a movie theater or a concert hall. Surround sound only works with stereo programs.



- 1 Press **MODE**.
- 2 Press **+** or **-** to select **AUDIO** and press **RETURN**.
- 3 Press **+** or **-** to select **SURROUND** and press **RETURN**.

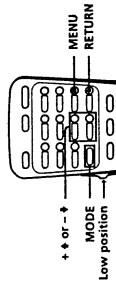


- 4 Press **+** or **-** to select **ON** and press **RETURN**.

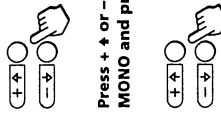
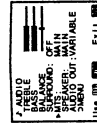


Selecting stereo or bilingual programs (MTS)

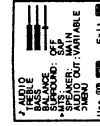
The Multichannel TV Sound (MTS) feature gives you the choice to enjoy stereo sound or Second Audio Programs (SAP) when available. The factory setting is stereo sound (MAIN).



- 1 Press **MODE**.
- 2 Press **+** or **-** to select **AUDIO** and press **RETURN**.
- 3 Press **+** or **-** to select **MTS** and press **RETURN**.



- 4 Press **+** or **-** to select **MAIN**, **SAP**, or **MONO** and press **RETURN**.



Choose

To

MAIN Listen to stereo sound.

The **STEREO** indicator on the TV lights up while a stereo broadcast is received.

SAP Listen to bilingual programs.

The sound of non-SAP programs will be muted when SAP is selected.

MONO Reduce noise during stereo broadcasts.

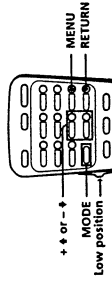
Note

- Stereo and SAP sounds are subject to program sources. Refer to your local TV program listings.

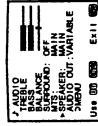
Setting the speakers (SPEAKER)

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

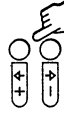
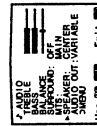
If you use the TV speakers as center speakers and connect a Dolby Pro Logic-compatible amplifier to **CENTER SPEAKER IN**, after making the connections display the mode set menu and set **SPEAKER** to "CENTER."



- 1 Press **MODE**.
- 2 Press **+** or **-** to select **AUDIO** and press **RETURN**.
- 3 Press **+** or **-** to select **SPEAKER** and press **RETURN**.



- 4 Press **+** or **-** to select **CENTER** or **OFF**.



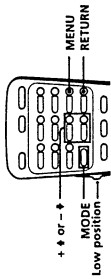
If you select **CENTER** or **OFF** and press **RETURN**, **AUDIO OUT** appears at the bottom of the menu. To adjust **AUDIO OUT**, press **RETURN** and see **AUDIO OUT** (page 25).

To turn the speakers off, change **SPEAKER** from **ON** to **OFF** in the **AUDIO** menu.

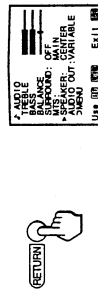
Setting audio out (AUDIO OUT)

This setting allows you to select either a fixed or variable audio output. Fixed audio output means that you cannot adjust the volume and sound characteristics through your TV set. Variable output means that you can adjust the volume, bass, treble and balance through your TV set.

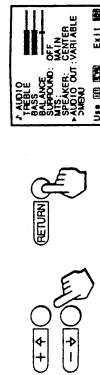
If SPEAKER is CENTER or OFF, AUDIO OUT can either be fixed or variable; however, if the SPEAKER is ON, AUDIO OUT is variable.



1 Follow steps 1-4 in "Setting the speakers" on page 24 to set the speakers to CENTER and press RETURN.



2 Press + or - to select AUDIO OUT and press RETURN.



3 Press + or - to select VARIABLE or FIXED and press RETURN.

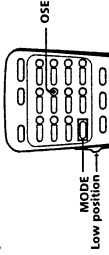


Note

- If SPEAKER is ON, AUDIO OUT will appear in black and you will be unable to adjust AUDIO OUT.

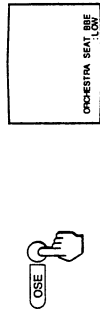
Listening to orchestra seat effect sound—OSE

Orchestra Seat Effect* (OSE) feature restores the harmonic balance of the sound to dramatically improve the overall reproduction of programs. It gives the sound more clarity, depth, and definition, making the sound more dynamic.



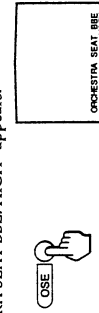
Press OSE.

"ORCHESTRA SEAT BBE: LOW" appears on the screen.



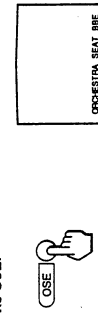
Press OSE again.

"ORCHESTRA SEAT BBE: HIGH" appears.



Press OSE again.

To turn off the OSE.



We recommend LOW setting for news programs and HIGH setting for music, sports, video games and movies. For the best sound quality, we recommend that AUDIO to be set at factory setting when OSE is set to ON.

- Orchestra Seat™ Effect* (OSE) feature restores the harmonic balance of the sound to dramatically improve the overall reproduction of programs.
- Orchestra Seat™ Effect is using BBE technology under license from BBE sound Inc.

Note

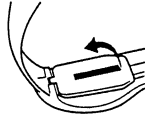
- OSE may also be output through audio out.

Listening with the cordless stereo headphones

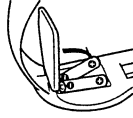
Setting up the headphones

Install the supplied batteries into the headphones.

- Open the battery compartment lid by pressing on the lid as illustrated.



- Insert two size AA (R6) batteries into the compartment with correct polarity and close the lid.



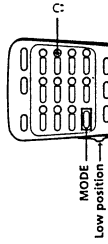
Battery life

When used continuously, the batteries will last:

- up to 80 hours with size AA (R6) alkaline batteries or
- up to 40 hours with size AA (R6) manganese batteries.

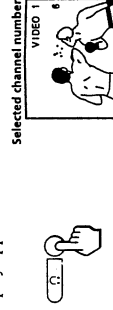
 Replace both batteries with new ones when the sound deteriorates.

Using the headphones



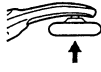
1 Press (headphones).

The (headphones) display appears for about three seconds.



2 Turn on the headphones.

The power turns on automatically when you put the headphones on (when the right housing is pushed).



3 Adjust the headphones' volume.



If you want to only listen to the sound from the cordless headphones, turn down the TV speaker volume or press MUTEING.

To turn off the sound from the TV's speaker Press VOL - until the sound disappears, or set SPEAKER to CENTER (see "Setting the speakers," page 24).

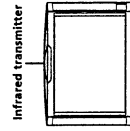
To turn off the headphones

Remove the headphones from your head (the power turns off automatically), then press (headphones).



To improve sound reception

- Do not cover the infrared transmitter on the TV.
- Do not cover the infrared sensors on the headphones.

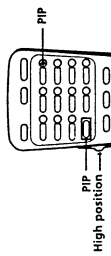


Notes

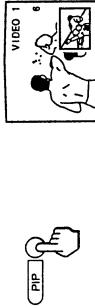
- The sound characteristics heard through the headphones cannot be modified in the same manner as the sound characteristics heard through the TV's speakers. Treble, bass and balance settings are fixed. Surround, OSE and muting features are not available.
- After you have finished listening with the headphones, it is recommended that you remove the headphones from your head before pressing (headphones). Otherwise noise will be heard through the headphones.
- To prevent hearing damage due to sudden or prolonged excessive volume, do not raise the headphones' volume too high while listening.

Listening to sound from a main/right (PIP) and window/left (P&P) picture

Follow these instructions to select the audio source that you want to receive through the cordless headphones (main or window picture). If you want to listen to sound from the window picture, make sure that the sound from the window picture is being received.

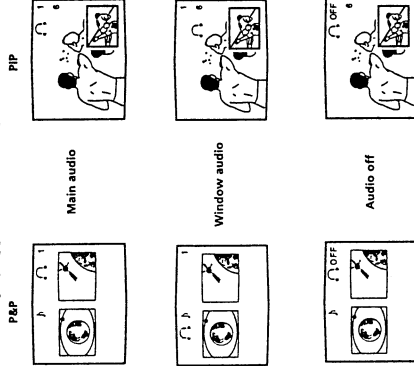


- 1 Press **PIP** or **P&P** to display a main/right or window/left picture.



- 2 Press **⏮** (headphones), the audio source changes to main picture, window picture and "OFF" in sequence.

The **⏮** display appears with the input mode.



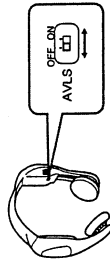
Notes

- If you turn the PIP or P&P function off, the sound from the cordless headphones changes to the main picture sound.
- If you turn the TV off, the next time you turn the TV on the headphones will be off.

AVLS (Automatic Volume Limiter System) Function

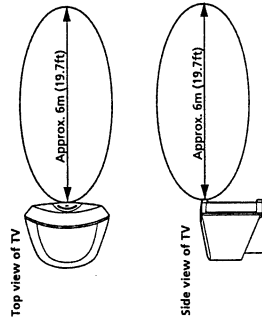
The AVLS switch on the headphones' headband allows you to limit the maximum volume of your headphones.

- When the AVLS switch is set to the ON position, the volume will be kept at a moderate level.
- When the AVLS switch is set to the OFF position, you will be able to enjoy the full volume capability of your headphones.



Coverage area of the infrared rays

The diagrams illustrate the approximate area covered by the infrared rays emitted from the transmitter.



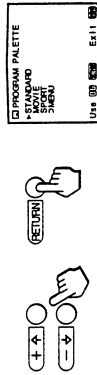
Note

- If you use the headphones at too great a distance from the transmitter, you may hear a hissing noise, and if there is an object between the headphones and the transmitter, the sound may be interrupted. These phenomena are inherent to infrared ray communication. They do not indicate a problem with the unit, itself.

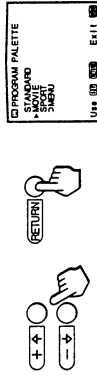
Selecting the program palette mode (PROGRAM PALETTE)

The PROGRAM PALETTE 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 **+** or **-** to select **PROGRAM PALETTE** and press **RETURN**.



- 3 Press **+** or **-** to select **STANDARD**, **MOVIE**, or **SPORTS** mode and press **RETURN**.



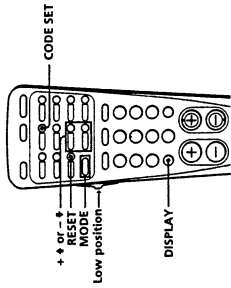
Choose	To
STANDARD	Receive a standard picture.
MOVIE	Receive a finely detailed picture.
SPORTS	Receive a vivid, bright picture.

Note

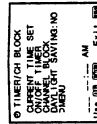
- The settings for these modes can be adjusted in the VIDEO menu. They will remain set unless the RESET button is pressed.

Setting daylight savings (DAYLIGHT SAVING)

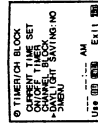
Activate DAYLIGHT SAVING if you are currently using Daylight Saving Time, or deactivate if you are using Standard Time. Using the DAYLIGHT SAVING feature will automatically adjust all time-related settings (CURRENT TIME, ON/OFF TIMER and CHANNEL BLOCK). DAYLIGHT SAVING should be set before using the CURRENT TIME SET functions (page 29).



- 1 Press **MENU**.
- 2 Press **+** or **-** to select **TIMER/CH BLOCK** and press **RETURN**.



- 3 Press **+** or **-** to select **DAYLIGHT SAVING** and press **RETURN**.



4 Press + or - to select YES or NO and press RETURN.



After the first Sunday in April:

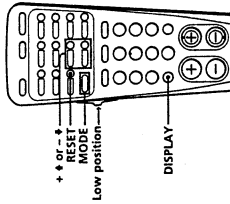
Set to YES. Then, on the last Sunday in October, set to NO. All the time-related settings automatically move one hour back.

After the last Sunday in October:

Set to NO. Then, on the last Sunday in April, set to YES. All the time-related settings automatically move 1 hour ahead.

Setting the clock (CURRENT TIME SET)

Setting the clock enables you to turn the TV on and off with the timer, or to block a TV channel from being watched at a certain time.



1 Press MENU.

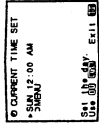
2 Press + or - to select TIMER/CH BLOCK and press RETURN.



3 Make sure the cursor (▶) is beside CURRENT TIME SET and press RETURN.

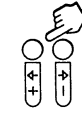


4 Press RETURN again to display default day and time.



5 Set the day:

(1) Press + or - to set the day and,



(2) press RETURN.



6 Set the time, hour and minutes in the same way you set the day.

When you press RETURN to set the minutes, the clock starts.



If you make a mistake while setting the time

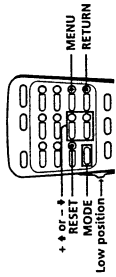
Press RESET while the CURRENT TIME SET menu is displayed, then start again from step 4.

To display the time

Press DISPLAY.

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

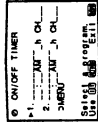
You can set the TV to turn on and off at the time you specify. Make sure the clock is set correctly. If it is not, set the clock first (see page 29).



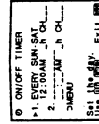
1 Press MENU.

2 Press + or - to select TIMER/CH BLOCK and press RETURN.

3 Press + or - to select ON/OFF TIMER and press RETURN.



4 Press RETURN to display "EVERY SUN - SAT" default setting.



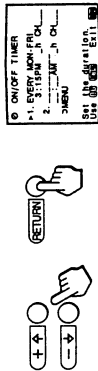
5 Press + or - to select the days you want and press RETURN.

Each time you press + or - , the days cycle as shown in "Setting the day."



(continued)

- 6** Press **+ + or - -** to set the start time and press **RETURN**.

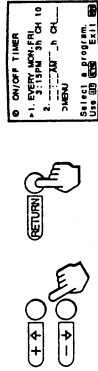


- 7** Press **+ + or - -** to set the length of the program (1 to 6 hours) and press **RETURN**. For example, to have the TV turn off after 3 hours, set the duration to "3."



- 8** Press **+ + or - -** to set the channel that you want to watch and press **RETURN**.

When you press **RETURN**, the timer is set and the **TIMER** indicator on the front of the TV lights up.

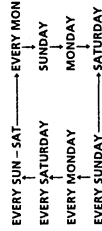


Repeat steps 4 - 7 to set the second timer.

When the time you set comes, the TV will turn on. (If the TV is already turned on, the TV screen changes to the channel you set.) Before the timer goes off, the message "TV will turn off" appears for one minute and then the TV turns off.

Setting the day

Each time you press **+ +**, the days cycle as shown below. If you press **- -**, the days cycle in reverse order.



To change the timer setting

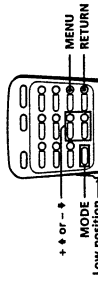
Set the new day and time following the procedure on the previous page. The previous setting is erased.

To cancel the timer

Press **RESET** while the **ON/OFF TIMER** menu is displayed. The **TIMER** indicator on the front of the TV goes out.

Blocking out a channel (CHANNEL BLOCK)

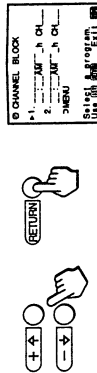
You can lockout a channel that you don't want your children to watch. Make sure the clock is set correctly. If it is not, set the clock first (see page 29).



- 1** Press **MENU**.

- 2** Press **+ + or - -** to select **TIMER/CH BLOCK** and press **RETURN**.

- 3** Press **+ + or - -** to select **CHANNEL BLOCK** and press **RETURN**.

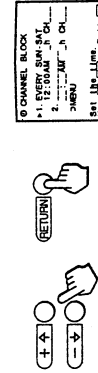


- 4** Press **RETURN** to display default setting "EVERY SUN - SAT".



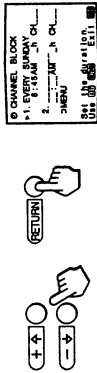
- 5** Press **+ + or - -** to select the days you want to block the channel and press **RETURN**.

Each time you press **+ + or - -**, the days cycle as shown in "Setting the day" on the previous page.



(continued)

- 6** Set the time that you want to start blocking the channel as you did the day.



- 7** Press **+ + or - -** to set the length of the program (1 to 12 hours) and press **RETURN**. For example, to block a channel for 2 hours, set the duration to "2."



- 8** Press **+ + or - -** to set the channel that you want to block and press **RETURN**.

When you press **RETURN**, the Channel Block setting is complete.



Repeat steps 4 - 7 to lockout a second channel.

If you select the blocked channel during the time you set, the message "BLOCKED" appears.

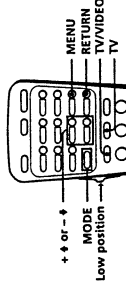
To cancel the Channel Block

Press **RESET** while the **CHANNEL BLOCK** menu is displayed.

Setting up favorite channels (CHANNEL GUIDE)

You can choose up to 9 channels and assign a channel button 1-9 to each channel in the **CHANNEL GUIDE**. This feature allows you to select your favorite channels easily.

Setting up your favorite channels in the CHANNEL GUIDE

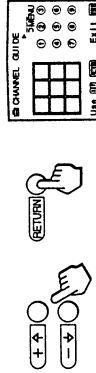


- 1** Press **TV/VIDEO** or **TV** to select **TV mode**.

- 2** Press **MENU**.

- 3** Press **+ + or - -** to select **SET UP** and press **RETURN**.

- 4** Press **+ + or - -** to select **CHANNEL GUIDE** and press **RETURN**.

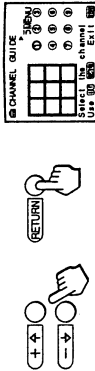


- Press **+ + or - -** to select the channel you want to set.

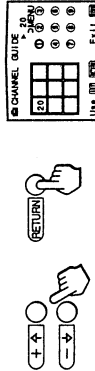


- 5** Press **RETURN** again to enter channel position mode.

6 Press **+** **+** **or** **-** **-** to select a channel position and press RETURN.



7 Press **+** **+** **or** **-** **-** to select the channel and press RETURN.

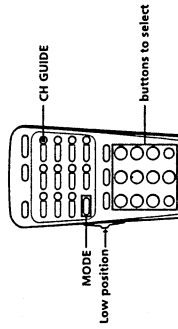


8 Repeat step 3 to 6 to select other channels.

Notes

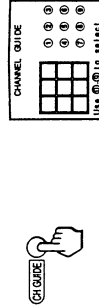
- If the CHANNEL GUIDE menu appears in black, the TV is set to a video input and you cannot select CHANNEL GUIDE.
- If more than 90 seconds elapse after you press a button, the menu disappears automatically.
- The CHANNEL GUIDE feature is not available for the AUX input.

Selecting a favorite channel



1 Press CH GUIDE.

The CHANNEL GUIDE menu appears showing channel screens and the corresponding channel number buttons.

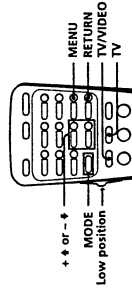


2 Press 1-9 buttons to select the channel you want.

To cancel the CHANNEL GUIDE menu Press CH GUIDE again.

Setting captions to channels (CHANNEL CAPTION)

You can add a caption to a channel. For example, you can name channel 20 "ESPN".



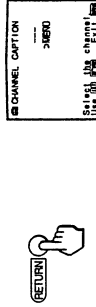
1 Press MENU.

2 Press **+** **+** **or** **-** **-** to select SETUP and press RETURN.

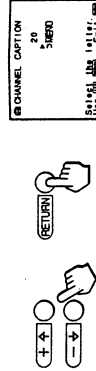
3 Press **+** **+** **or** **-** **-** to select CHANNEL CAPTION and press RETURN.



4 Press RETURN again.



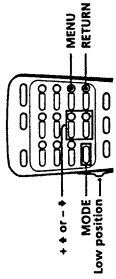
5 Press **+** **+** **or** **-** **-** to select the channel and press RETURN.



(continued)

Setting video labels (VIDEO LABEL)

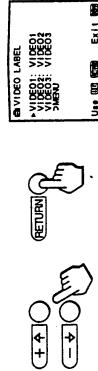
This feature allows you to label each video input mode so that you can easily identify the connected equipment. For example, you can label VIDEO 1 IN as VHS.



1 Press MENU.

2 Press **+** **+** **or** **-** **-** to select SET UP and press RETURN.

3 Press **+** **+** **or** **-** **-** to select VIDEO LABEL and press RETURN.

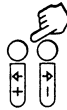


4 Press **+** **+** **or** **-** **-** to select the input mode you want to label and press RETURN.

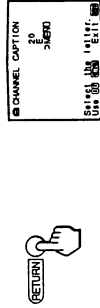


6 Enter the letters (up to four) to caption the channel:

- (1) Press **+** **+** **or** **-** **-** to display the first letter. Each time you press **+** **+** **or** **-** **-**, the letter changes as shown below and,



(2) press RETURN to select.



(3) Repeat steps (1) and (2) to select the remaining letters and press RETURN.



7 Repeat steps 4 to 6 to caption other channels.

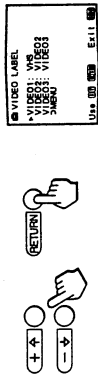
To erase a caption

Press RESET after step 5.

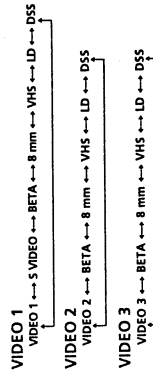
Notes

- If the CHANNEL CAPTION menu appears in black, the TV is set to a video input and you cannot select CHANNEL CAPTION.
- 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.

5 Press **+** or **-** to select the label and press RETURN.



Each time you press **+** or **-**, the label changes as shown below.



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

Note

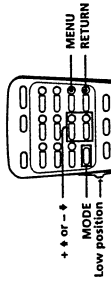
If more than 90 seconds elapse after you press a button, the menu disappears automatically.

Selecting Caption Vision (CAPTION VISION)

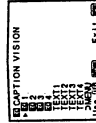
Some programs are broadcast with Caption Vision. To set Caption Vision, select either CC1, CC2, CC3, CC4, TEXT1, TEXT2, TEXT3, or TEXT4 from the menu.

CC1, CC2, CC3, or CC4 shows you a caption, that is a printed version of the dialog or sound effects of a program. (The mode should be set to CC1 for most programs.)

TEXT1, TEXT2, TEXT3, or TEXT4 shows you text, that is information presented using half of the screen. It is not usually related to the program.



- 1 Press MENU.
- 2 Press **+** or **-** to select CAPTION VISION and press RETURN.
- 3 Press **+** or **-** to select the caption type and press RETURN.



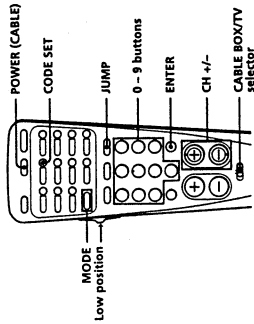
Note

To display captions, press DISPLAY button. Refer to page 17. Captions may appear with a white box or another error instead of a certain word. Poor reception of TV programs can also cause errors in Caption Vision.

Operating a cable box

Setting the manufacturer's code

Follow these instructions to set the manufacturer's code which will enable you to operate a connected cable box with the pre-programmed remote control. For example, you can set the remote control to operate a connected Zenith cable box as follows:



- 1 Set the CABLE BOX/TV selector to CABLE BOX.
- 2 While pressing CODE SET, press 6 and 8 (Zenith's code number—see chart on right) and ENTER.



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



To operate the TV
Set the CABLE BOX/TV selector to TV. Then use the TV control buttons to control the TV.

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

Manufacturer	Code number
JERROLD	60, 61, 62, 63, 64, 65, 73
PIONEER	69, 70
SCIENTIFIC ATLANTA	66, 67
TOCOM	71, 72
ZENITH	68

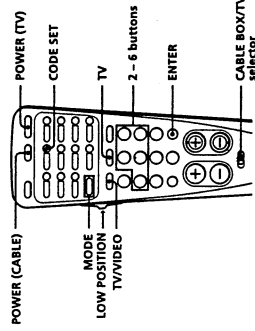
Notes

- If more than one code number is listed, try entering them one by one until you come up with 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 cases, your equipment may use a code that is not provided with this remote control and you may not be able to operate your cable box with the supplied remote control. In this case, use the equipment's own remote control unit.
- When you remove a battery from the remote control, the code may be erased. Reset the code each time you replace the battery, if necessary.
- The JUMP button may not work or cause another function in some cable boxes.

Auto cable input select function

This remote control also features a function that will switch automatically to your cable box TV input channel when you turn on the TV or cable box.

You can select 2-6 channels or VIDEO 1 depending on your cable box. For example, you can set the TV's channel to 3 whenever you turn the cable box on as follows:



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



2 While pressing **CODE SET**, press **POWER (CABLE)**, **TV**, **3** and **ENTER**.



If you are viewing VIDEO 1 for cable TV, you can set as follows:

While pressing **CODE SET**, press **POWER (CABLE)**, **TV/VIDEO** and **ENTER**.



To reset the auto cable input select setting

While pressing **CODE SET**, press **POWER (CABLE)** and **ENTER**.

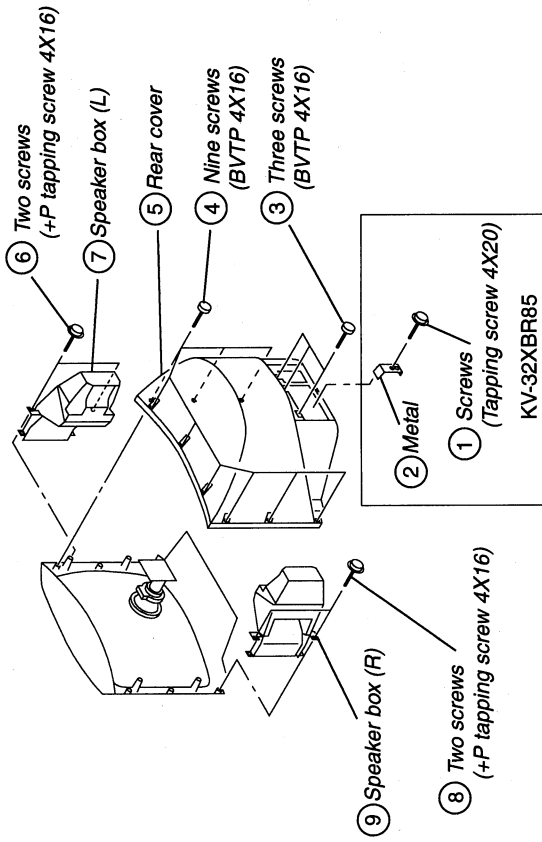


Notes

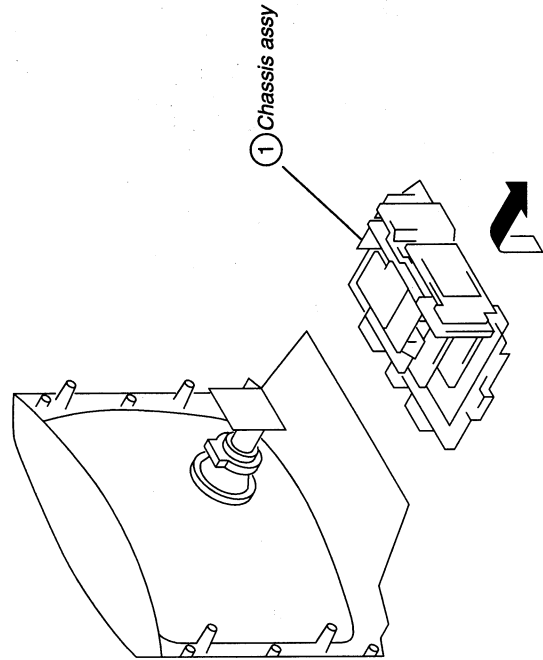
- In some cases, your cable box may use a code that is not provided with this remote control and you may not be able to operate your cable box with the supplied remote control.
- When you remove the battery from the remote control, the setting may be erased. Make the setting again each time you replace the battery, if necessary.
- If your TV's AC cord is plugged in to the cable box's switch outlet, it may affect the proper operation of this function.

SECTION 2 DISASSEMBLY

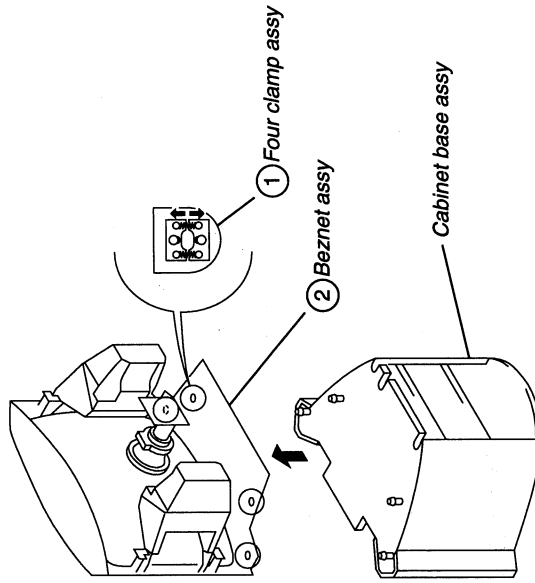
2-1-1. REAR COVER AND SPEAKER BOX REMOVAL



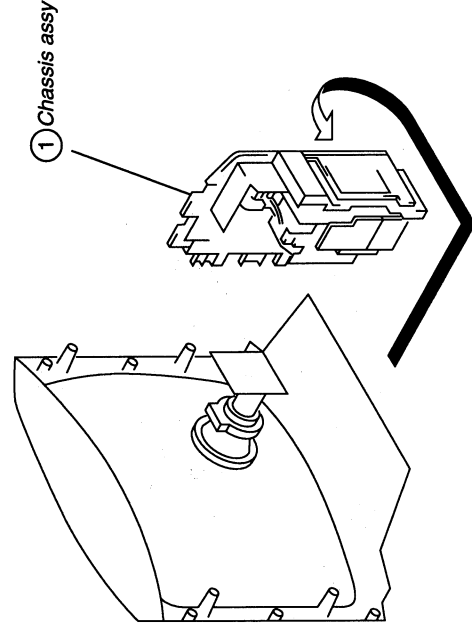
2-2. CHASSIS ASSY REMOVAL



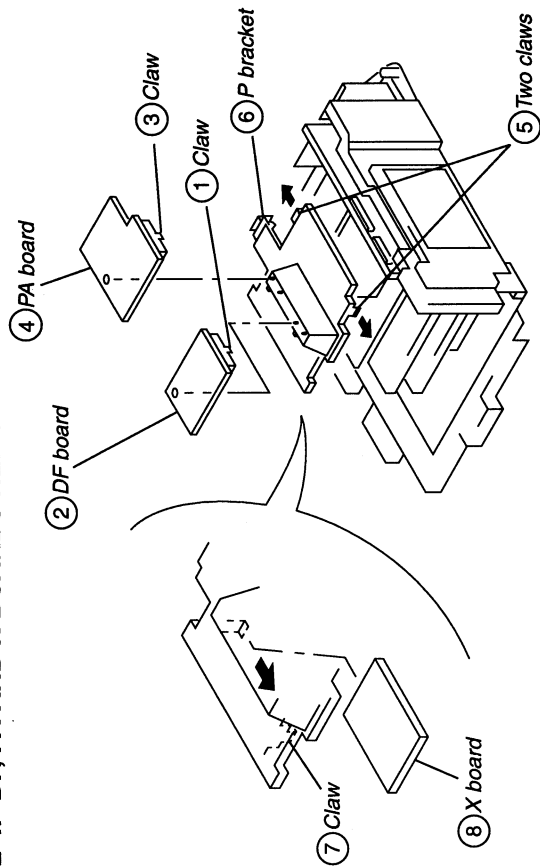
2-1-2. CABINET BASE ASSY REMOVAL (KV-32XBR85)



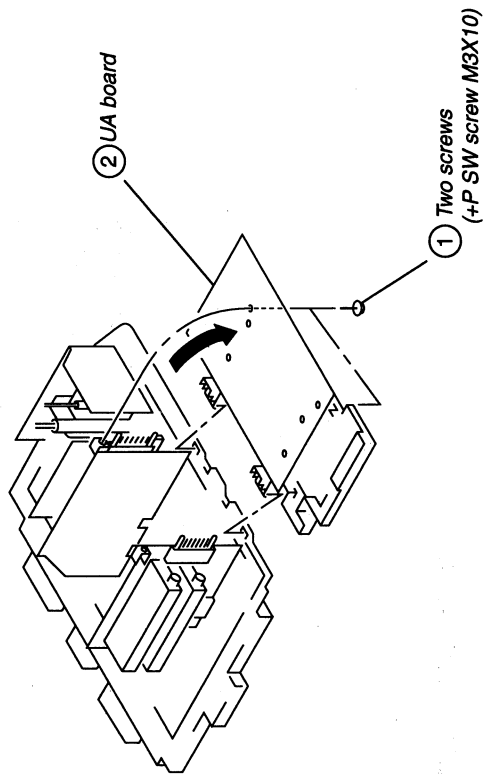
2-3. SERVICE POSITION



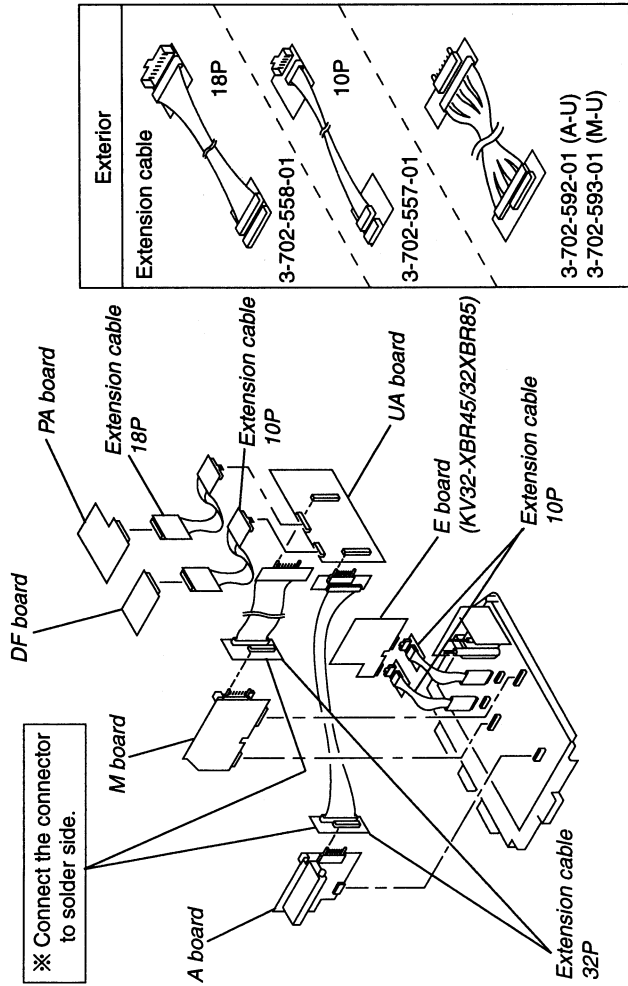
2-4. DF, PA AND X BOARDS REMOVAL



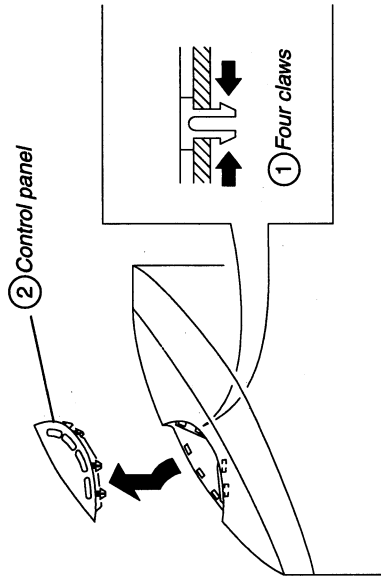
2-5. UA BOARD REMOVAL



2-6. EXTENSION CABLE



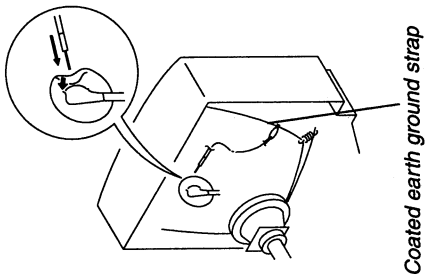
2-7. CONTROL PANEL REMOVAL



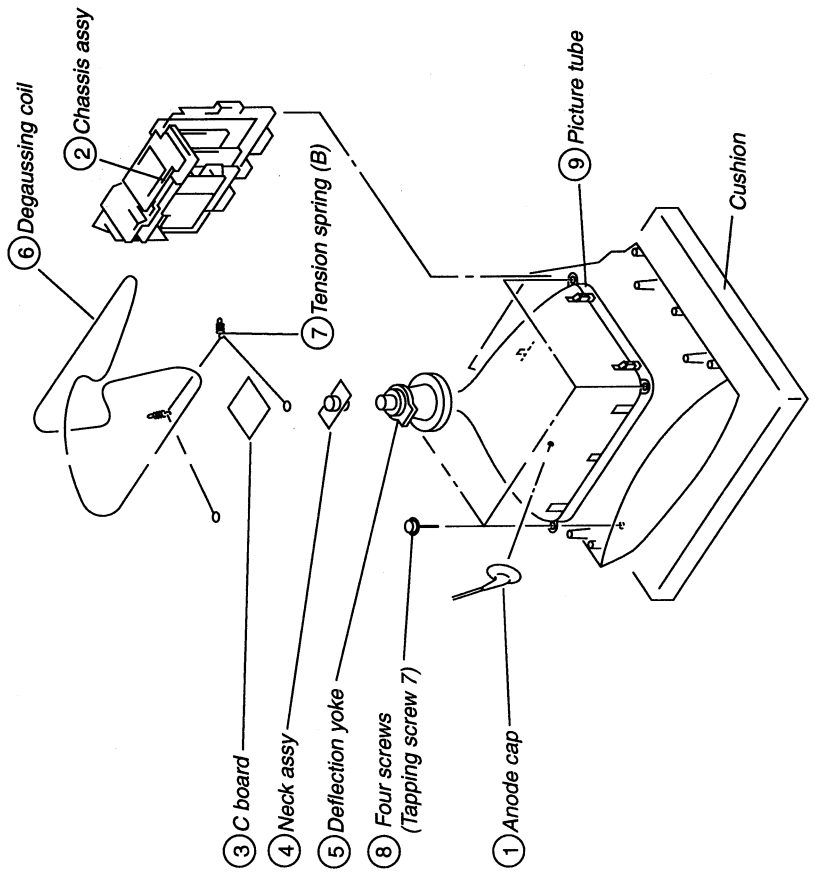
2-8. PICTURE TUBE REMOVAL

WARNING : Before removing anode cap H. V. remains in the CRT even after the power is disconnected.

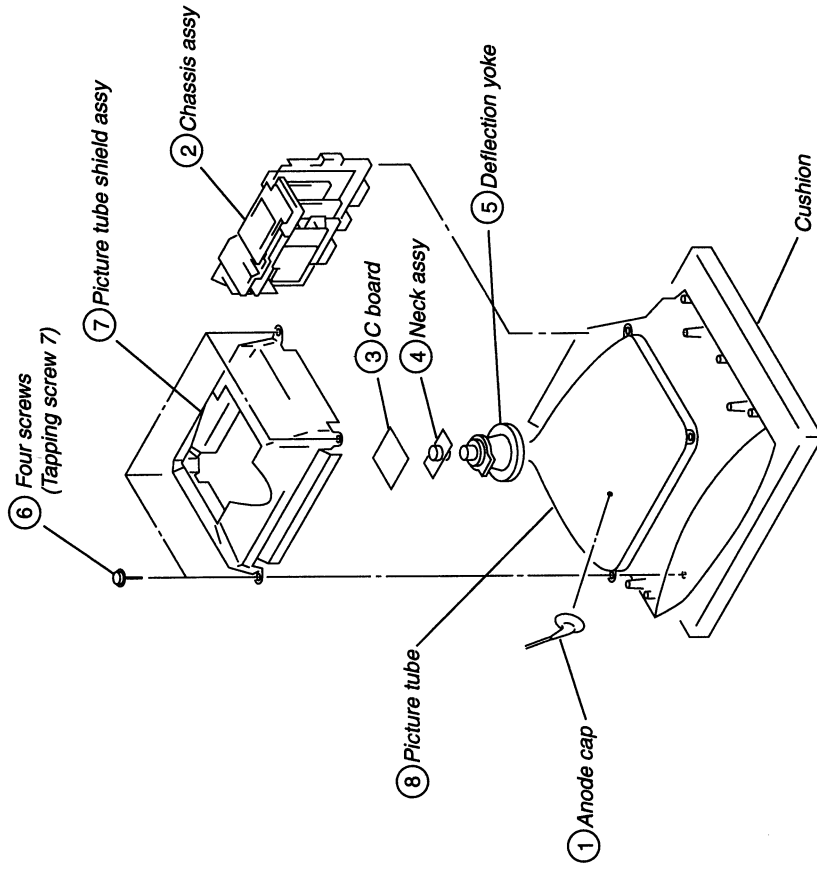
To avoid electrical shock, before attempting to remove the anode cap, discharge CRT : Short between anode and CRT coated earth ground strap.



(1) KV-27XBR45/27XBR45M



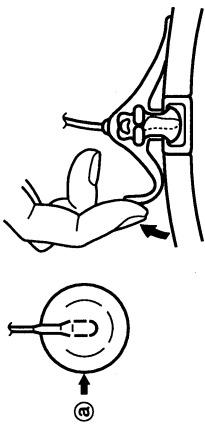
(2) KV-32XBR45/XBR85



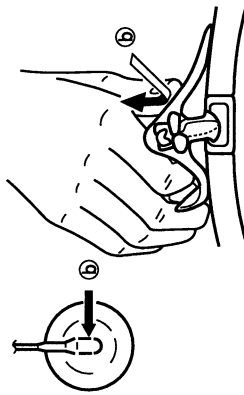
• REMOVAL OF ANODE-CAP

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

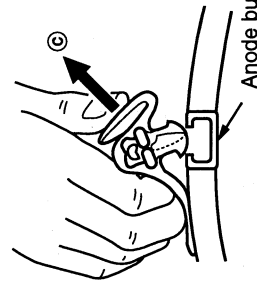
• REMOVING PROCEDURES



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



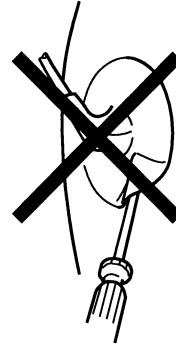
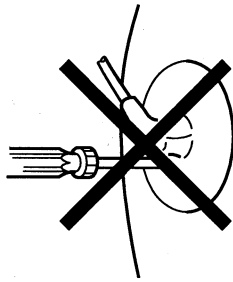
② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b).



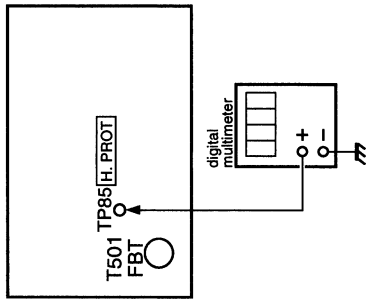
③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling up it in the direction of the arrow (c).

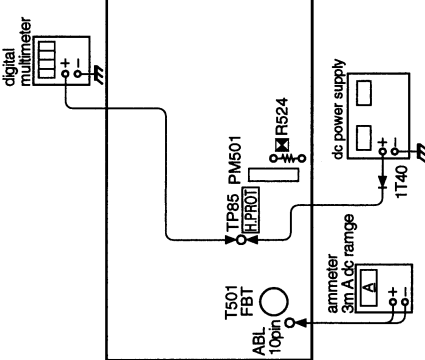
• HOW TO HANDLE AN ANODE-CAP

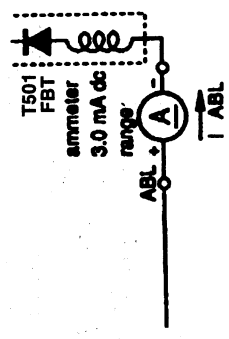
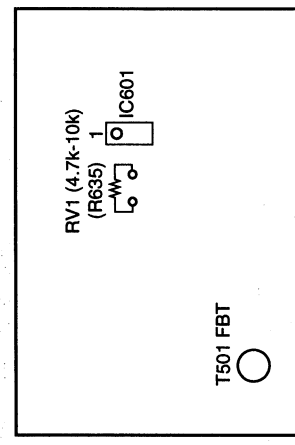
- ① Don't hurt the surface of anode-caps with sharp shaped material!
- ② Don't press the rubber hardly not to hurt inside of anode-caps! A material fitting called as shatter-hook terminal is built in the rubber.
- ③ Don't turn the foot of rubber over hardly! The shatter-hook terminal will stick out or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



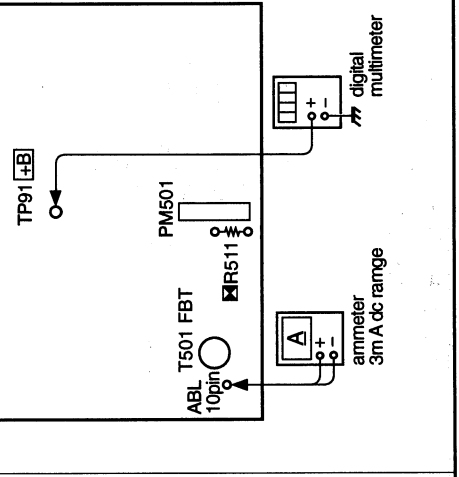


SECTION 3 SAFETY RELATED ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>D BOARD</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>*RESISTOR CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS</p> </div> <p>The following adjustments should always be performed when replacing the following components (*marked with <input checked="" type="checkbox"/> on the schematic diagram).</p>		<p><input checked="" type="checkbox"/> marked parts IC601, PM501, D504, C598, R338, R509, R524, R632, R635, R645, T501</p>	<p><input checked="" type="checkbox"/> R524</p>	
<p>1. Preparation before confirmation</p> <p>1) Turn the POWER switch ON, and receive *signal and set the *PICTURE and BRIGHTNESS controls to adjustment.</p> <p>2) Confirm that the voltage of the check terminal of *TP is more than *voltage when the set is operating normally with *Power supply.</p>	<p>*Entirely white</p> <p>*Digital multimeter</p>	<p>*TP85 (H. PROT)</p>	<p>*PICTURE BRIGHTNESS } maximum</p>	<p>*114.0V DC 27 inch 122.3V DC 32 inch *120 ± 2.0 VAC (Power Supply)</p> <p>D BOARD - CONDUCTOR SIDE -</p> 

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>2. Hold-down operation confirmation (HV)</p> <ol style="list-style-type: none"> 1) Connect the *connection between the pin of FBT and the land of it with correct polarity. 2) Receive *Signal and adjust the *ABL current to follows with the PICTURE and the BRIGHTNESS controls. 3) Connect the Digital Voltmeter and *DC power Supply via *DIODE to TP. 4) Increase the DC power voltage gradually until the Picture just blanks out. 5) Read the digital voltmeter indication. 6) Turn DC power Source off immediately. *STANDARD <p>7) Input the *dot signal. Adjust the PICTURE and BRIGHTNESS controls from max to min and observe that ABL current spec is not exceeded.</p> <p>8) Repeat steps from (3) to (7). *STANDARD</p>	<p>* Currentmeter * Entirely white * DC Power Supply</p> <p>* Dot Signal</p>	<p>* FBT (T501) Pin ⑩ * Via 1T40 to TP-85</p>		<p>* 1760 ± 50µA 27 inch * 2080 ± 50µA 32 inch</p> <p>* Less than 137.5 VDC 27 inch * Less than 143.5 VDC 32 inch</p> <p>* 160 ± 50µA</p> <p>* Less than 138.0 VDC 27 inch * Less than 144.1 VDC 32 inch</p>
				

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>3. Hold -down readjustment</p> <p>When step 2 is not satisfied, readjustment should be performed by altering the resistance value of *Resistor (a component marked with <input checked="" type="checkbox"/>).</p>			<p>* <input checked="" type="checkbox"/> R524</p>	 <p>T501 FBT ammeter 3.0 mA dc range</p> <p>ABL</p> <p>I ABL</p>
<p><input checked="" type="checkbox"/> *RESISTOR CONFIRMATION METHOD (B+ HOLD-DOWN CONFIRMATION) AND READJUSTMENTS</p> <p>The following adjustments should always be performed when replacing the following components (*marked with <input checked="" type="checkbox"/> on the schematic diagram).</p>		<p>* <input checked="" type="checkbox"/> marked parts PM501, R338, R511, R632, R645, R650</p>	<p>* <input checked="" type="checkbox"/> R511</p>	<p>* R635 * RV1 : about 4.7 kΩ - 10kΩ * 130 ± 2.0 VAC</p>
<p>1. Preparation before confirmation</p> <ol style="list-style-type: none"> 1) Remove the *resistor on the D board and connect a *variable resistor between pin① of IC601 and B+ line. 2) Supply *AC voltage to with *variable auto-transformer. 	<p>* Variable auto-transformer.</p>			 <p>RV1 (4.7k-10k) (R635)</p> <p>IC601</p> <p>T501 FBT</p>

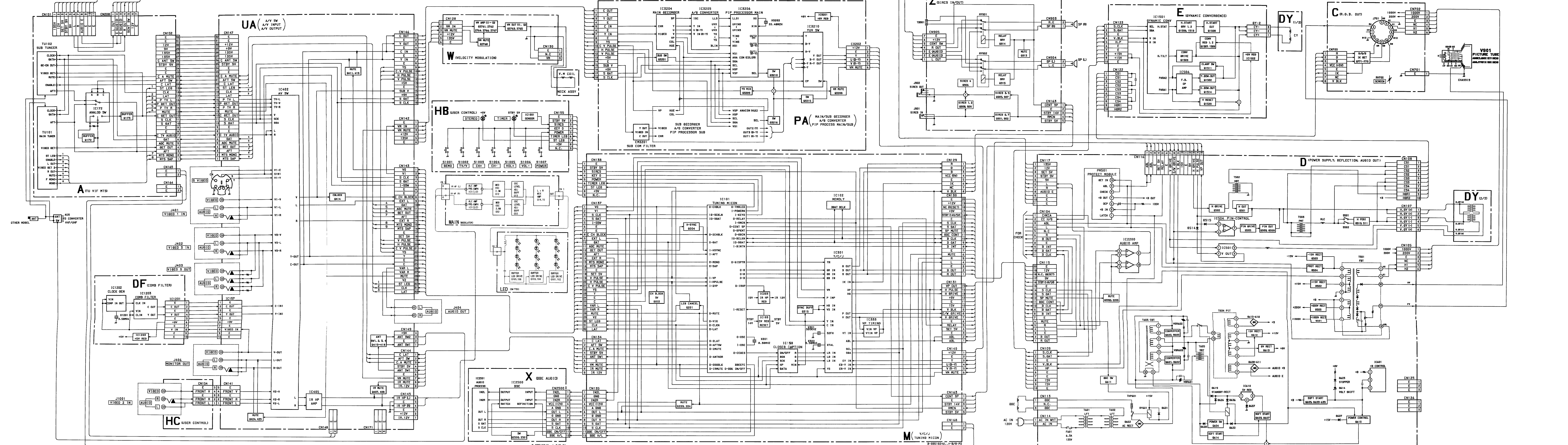
ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>2. Hold-down operation voltage (B+)</p> <ol style="list-style-type: none"> 1) Connect the *connection between the pin of FBT and the land of it with correct polarity. 2) Receive *Signal and adjust the *ABL current to follows with the PICTURE and the BRIGHTNESS controls. 3) Connect the *Digital Multimeter to *TP. 4) Increase the DC power voltage gradually by adjusting the resistor of RV1 until the Picture just blanks out. 5) Read the digital voltmeter indication. 6) Turn DC power Source off immediately. <p style="text-align: center;"><u>*STANDARD</u></p>	<p>* Currentmeter</p> <p>* Entirely white</p> <p>* Digital Multimeter</p>	<p>* FBT (T501) Pin ⑩</p> <p>* TP91 (+B)</p>		<p>* 1760 ± 50µA 27 inch 2080 ± 50µA 32 inch</p> <p>* Less than 142.5 VDC 27 inch * Less than 140.0 VDC 32 inch</p> <p>* 160 ± 50µA</p>
<ol style="list-style-type: none"> 7) Input the *dot signal. Adjust the PICTURE and BRIGHTNESS controls from max to min and observe that ABL current spec is not exceeded. 8) Repeat steps from 4) to 6). <p style="text-align: center;"><u>*STANDARD</u></p>	<p>* Dot signal</p>			<p>* Less than 145.0 VDC 27 inch * Less than 143.5 VDC 32 inch</p>
<ol style="list-style-type: none"> 3. Hold-down readjustment When step 2 is not satisfied, readjustment should be performed by altering the resistance value of *resistor (a component marked with ) 		<p>*  R511</p>		

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>B+ VOLTAGE CONFIRMATION</p> <p>The following adjustments should always be performed when replacing the following *components.</p> <ol style="list-style-type: none"> 1) Supply *Voltage AC to with *variable auto-transformer. 2) Input an entirely *signal. 3) Set the PICTURE control and the BRIGHTNESS control to adjustment. 4) Confirm the voltage of *TP is less than *Voltage DC. 5) If step 4) is not satisfied, replace the *components repeat above steps. 	<p>* Variable auto-transformer * Monoscope</p>	<p>*IC601, R635</p> <p>*TP91 (+B)</p>	<p>*PICTURE, BRIGHTNESS initial reset</p> <p>*IC602, R635</p>	<p>*130 $^{+2.0}_{-0}$ V AC</p> <p>* Less than 137.0 VDC</p>

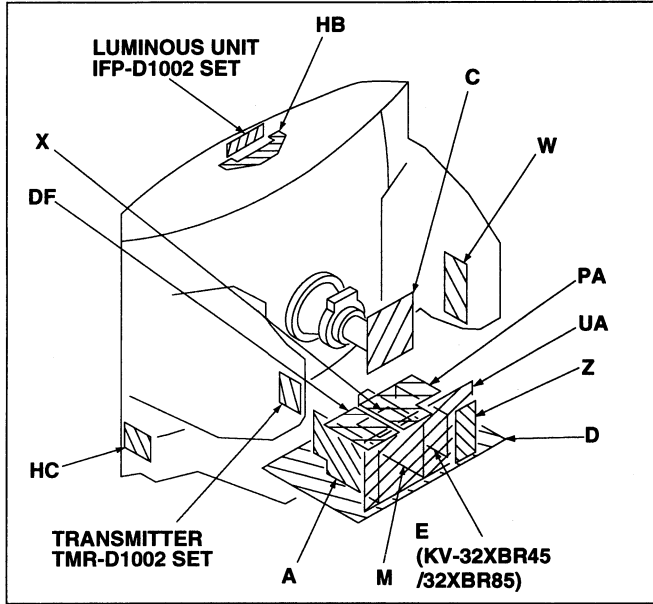
MEMO

A series of horizontal dotted lines for writing.

SECTION 4
DIAGRAMS
4-1. BLOCK DIAGRAMS



4-2. CIRCUIT BOARDS LOCATION



4-3. PRINTED WRING BOARDS AND SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms.
 $\text{k}\Omega=1000\Omega$, $\text{M}\Omega=1000\text{k}\Omega$
- Indication of resistance, which dose not have one for rating electrical power, is as follows.

Pitch : 5mm
Rating electrical power : 1/4 W

- : nonflammable resistor.
- : fusible resistor.
- Δ : internal component.
- : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation.
Should replacement be required, replace only with the value originally used.
- When replacing components identified by , make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by and repeat the adjustment until the specified value is achieved.
(Refer to R511 and R524 adjustment on Page 25 – 29.)
- When replacing the part in below table, be sure to perform the related adjustment.

Part replaced ()	Adjustment ()
PM501, R511, R632, R645, R650 R338	D BOARD M BOARD HOLD-DOWN (R511)
IC601, PM501, D504, C598, R509, R524, R632, R635, R645, T501, R338	D BOARD M BOARD HOLD-DOWN (R524)

- 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 $10\text{M}\Omega$ 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.

: B+line.

: B-line.

(Actual measured value may be different).

: signal path. (RF)

Circled numbers are waveform references.

Reference information

RESISTOR : RN METAL FILM
: RC SOLID
: FPRD NONFLAMMABLE CARBON
: FUSE NONFLAMMABLE FUSIBLE
: RW NONFLAMMABLE WIREWOUND
: RS NONFLAMMABLE METAL OXIDE
: RB NONFLAMMABLE CEMENT
: ※ ADJUSTMENT RESISTOR

COIL : LF-8L MICRO INDUCTOR

CAPACITOR : TA TANTALUM

: PS STYROL

: PP POLYPROPYLENE

: PT MYLAR

: MPS METALIZED POLYESTER

: MPP METALIZED POLYPROPYLENE

: ALB BIPOLAR

: ALT HIGH TEMPERATURE

: ALR HIGH RIPPLE

Note: The symbol display is on the component side.

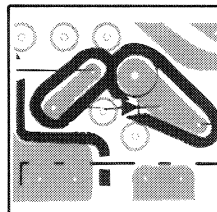
The components identified by shading and mark are critical for safety. Replace only with part number specified.

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

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

Le symbole indique une fusible a action rapide. Doit etre remplacee par une fusible de meme yaleur, comme maque.

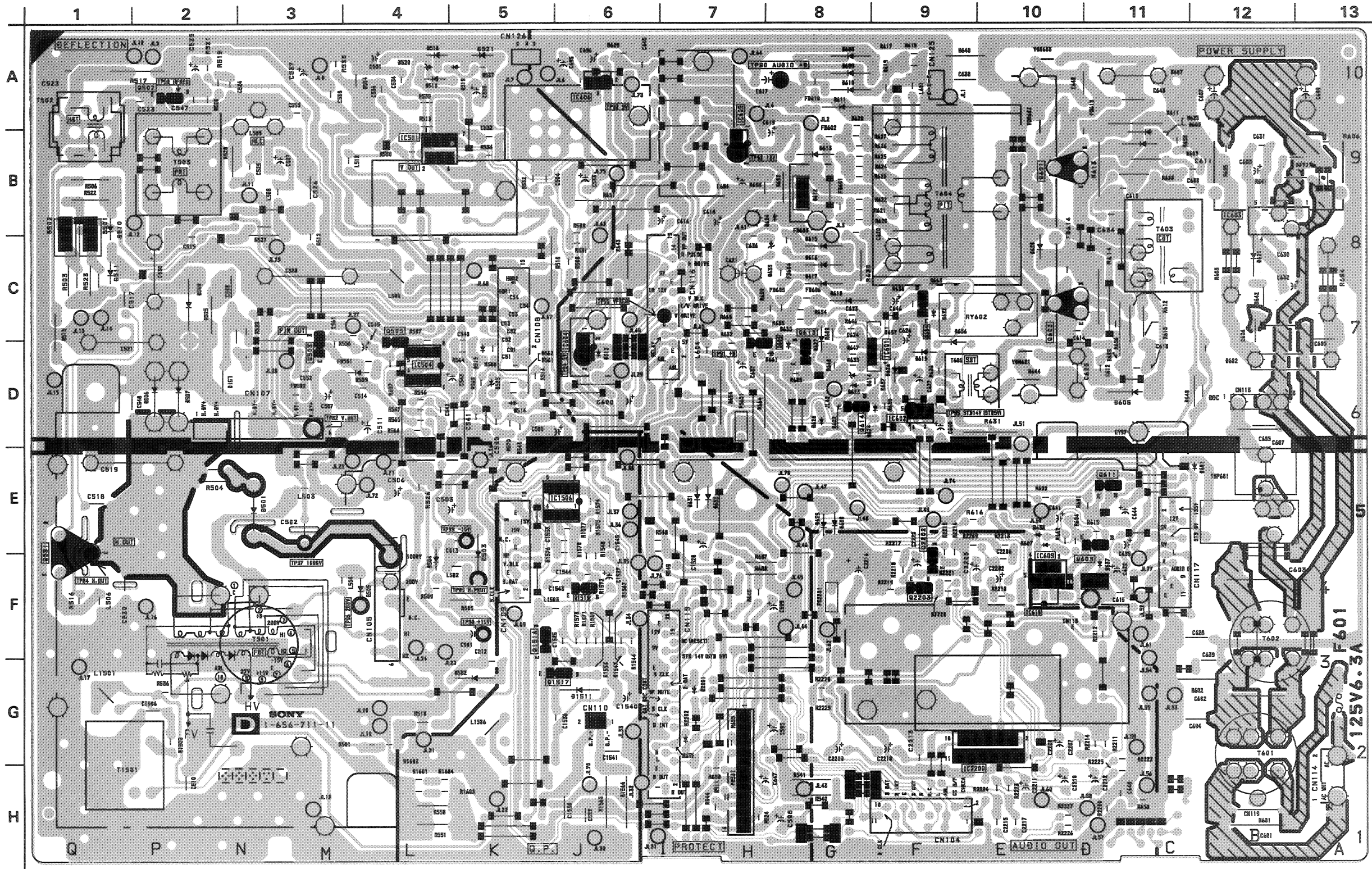
IC	D512	D-6	
IC501	B-4	D514	D-5
IC504	D-4	D515	D-5
IC601	D-9	D601	E-12
IC604	D-6	D602	D-12
IC605	B-7	D603	B-11
IC606	A-6	D605	D-11
IC610	F-10	D607	E-10
IC2200	G-10	D608	A-8
TRANSISTOR			
Q502	A-2	D610	A-8
Q503	D-3	D611	A-8
Q505	C-4	D612	B-8
Q591	E-1	D613	B-8
Q601	B-10	D614	D-8
Q602	C-10	D615	C-8
Q603	E-11	D616	C-8
Q604	C-9	D617	C-8
Q605	D-7	D618	C-8
Q611	E-11	D619	D-9
Q613	D-8	D622	C-9
Q614	D-8	D623	D-8
Q2202	F-9	D624	D-9
Q2203	F-9	D626	D-9
DIODE			
D501	E-3	D628	D-8
D502	G-5	D629	E-8
D503	F-5	D630	E-8
D504	F-4	D631	E-7
D505	F-4	D632	E-7
D506	D-2	D633	C-8
D507	D-2	D634	B-8
D508	C-2	D635	D-8
D509	D-4	D636	D-9
D510	B-1	D637	F-11
D511	C-1	D638	E-10

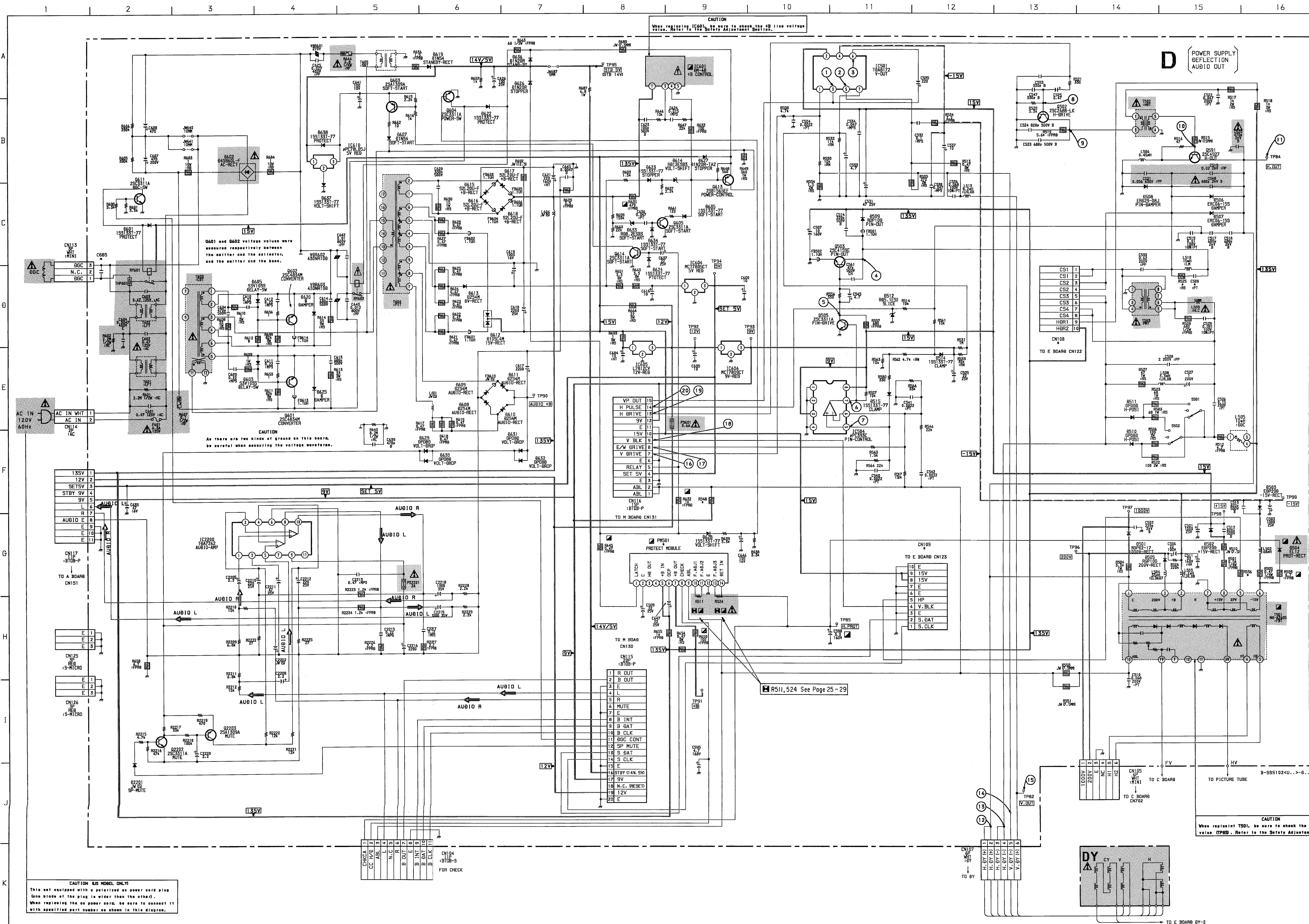


NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

D POWER SUPPLY,
DEFLECTION,
AUDIO OUT

- D BOARD -





D BOARD IC VOLTAGE LIST

IC501	① 2.1	② -13.8	③ -0.2	④ 2.1
	⑤ 12.0	⑥ -15.9	⑦ 13.0	
IC504	① GND	② 12.0	③ 2.3	④ 0.2
	⑤ GND	⑥ GND	⑦ 3.5	⑧ 12.0
IC601	① 138	② 2.5	③ 14.8	④ GND
IC604	① 8.3	② 5.2	③ GND	
IC605	① 15.4	② 12.5	③ GND	
IC606	① 12.5	② 9.1	③ GND	
IC610	① 12.7	② 0.7	③ 6.0	
IC2200	① 1.5	② 6.5	③ NC	④ 0.2
	⑤ 6.5	⑥ 1.5	⑦ 0.2	⑧ NC
	⑨ 17.9	⑩ 0	⑪ 33.2	
PM501	① 3.9	② NC	③ 138	④ 122
	⑤ 0.3	⑥ 138	⑦ 137	⑧ 45.5
	⑨ NC	⑩ 137	⑪ 2.3	⑫ 133

D BOARD TRANSISTOR VOLTAGE LIST

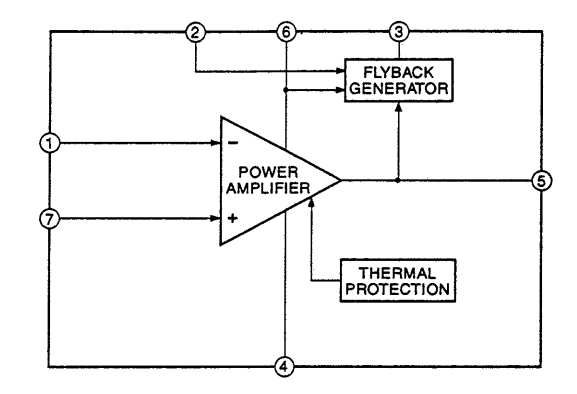
	E	C	B
Q502	GND	105	-1.2
Q503	0	17.3	0.4
Q505	GND	3.5	0.2
Q581	0	139	-0.2
Q601	32.0	154	31.9
Q602	103	32.0	-104
Q603	8.0	-0.5	6.0
Q604	GND	0.2	0.8
Q605	GND	14.9	0.2
Q611	GND	16.3	0
Q613	15.5	4.7	15.0
Q614	GND	6.0	0.4
Q2202	GND	0	0.8
Q2203	31.1	31.1	30.4

D BOARD TABLE OF DIFFERENCES BETWEEN MODELS

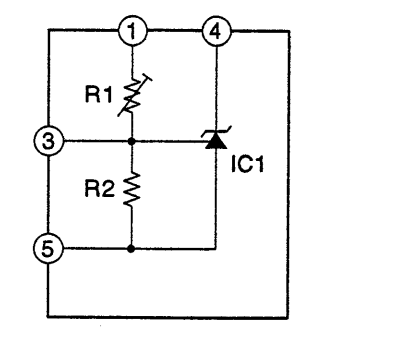
Ref.No.	27inch	32inch
C508	0.0022M 630V	-
C685	0.22M 125V	-
CN108	-	○
CN109	-	○
PM501	PM-38	PM-39
R525	47 2W	-
R536	-	4.7 1/4W
R548	-	22k

○: To be mount
-: Not mount

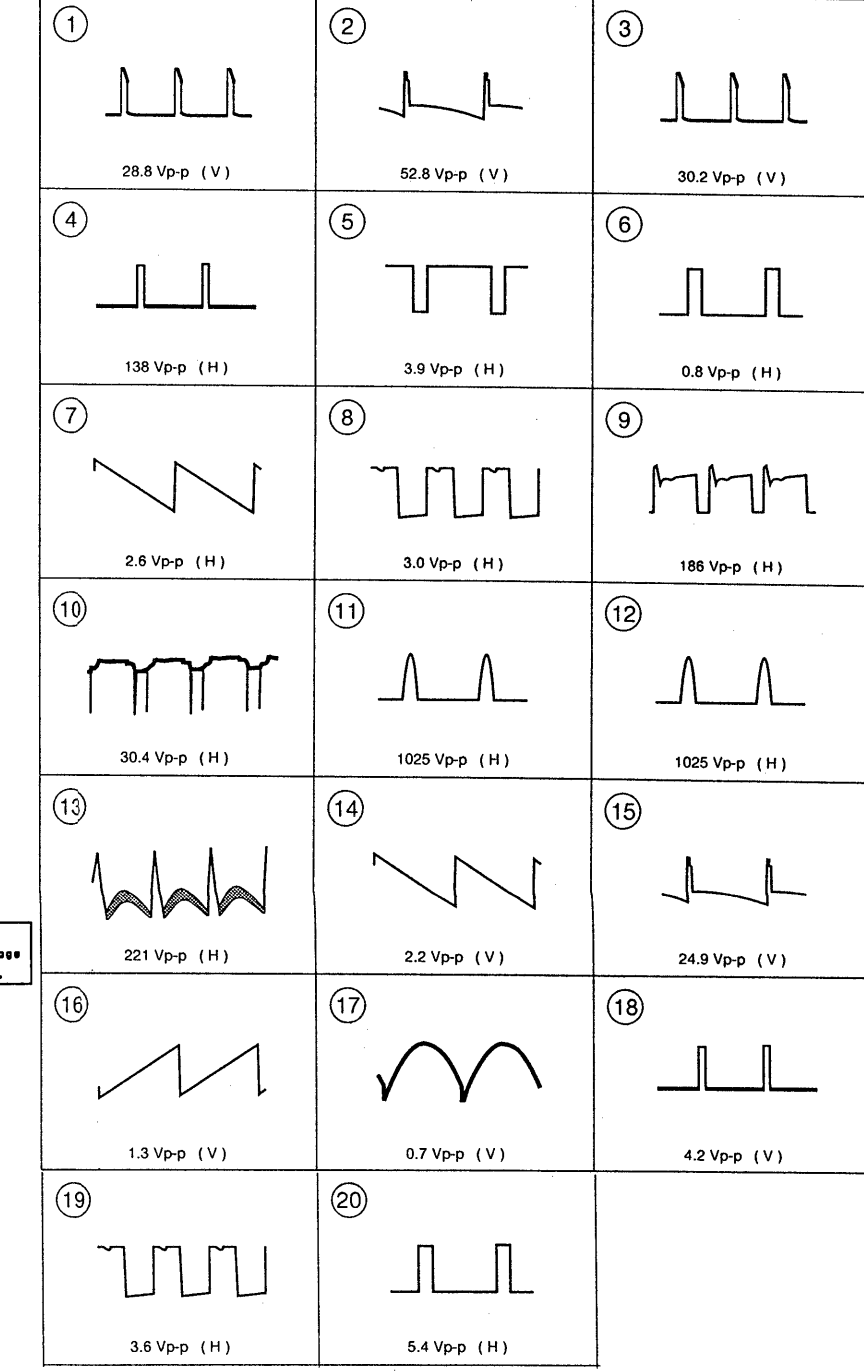
D BOARD IC501 TDA8172



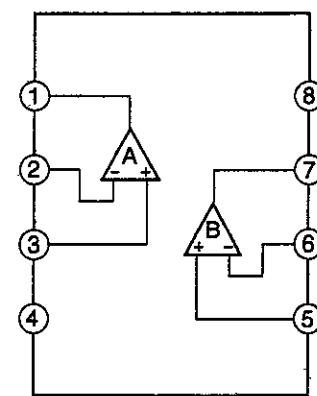
D BOARD IC601 DM-48



D BOARD WAVEFORMS



UA BOARD IC405 NJM2904M



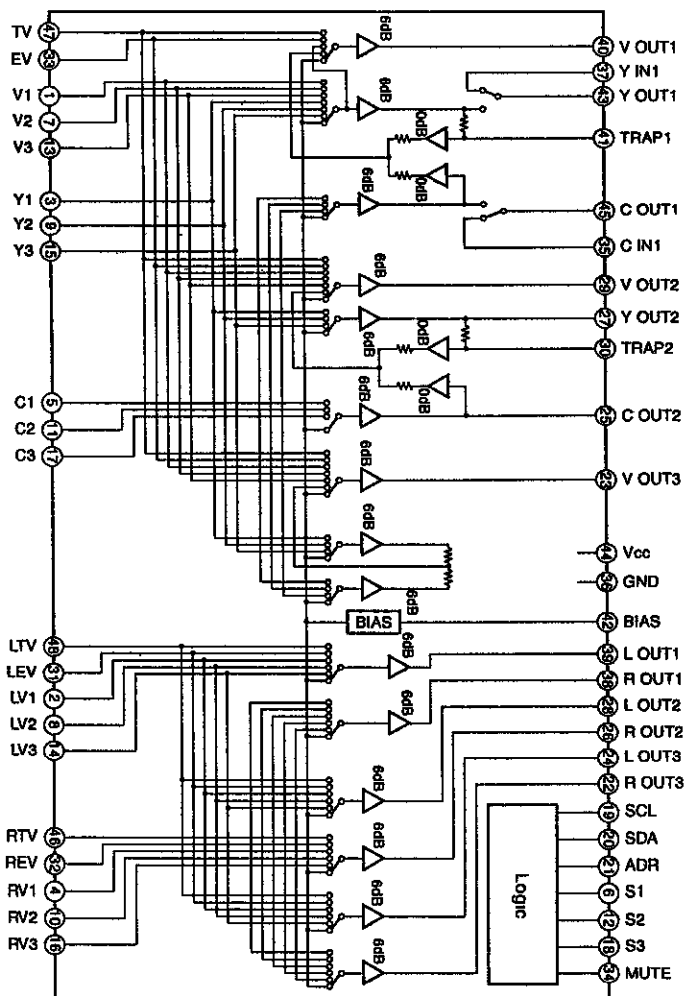
UA BOARD IC VOLTAGE LIST

IC402	① 4.7	⑩ NC	⑲ NC	⑳ 4.8	㉑ 4.7
	② 4.8	⑪ 8.2	⑳ 4.8	㉒ 4.8	㉓ 4.8
	③ 4.7	⑫ 4.7	㉑ NC	㉓ 4.7	㉔ 4.6
	④ 4.8	⑬ 4.8	㉒ 4.8	㉔ NC	㉕ 8.9
	⑤ 4.7	⑭ 4.7	㉓ NC	㉕ 4.7	㉖ 4.6
	⑥ 5.2	⑮ 4.8	㉔ 4.8	㉖ GND	㉗ 4.8
	⑦ 4.8	⑯ 4.7	㉕ NC	㉗ 4.7	㉘ 4.7
	⑧ 4.6	⑰ 8.2	㉖ 4.8	㉘ 4.8	㉙ 4.7
	⑨ NC	⑱ 5.0	㉗ 4.7	㉙ 4.8	㉚ 4.7
	⑩ 4.7	⑳ 0	㉘ 4.7	㉚ 4.7	㉛ 4.8
IC405	① 6.1	③ 6.1	⑤ 6.1	⑦ 6.1	
	② 6.1	④ GND	⑥ 6.1	⑧ 12.2	

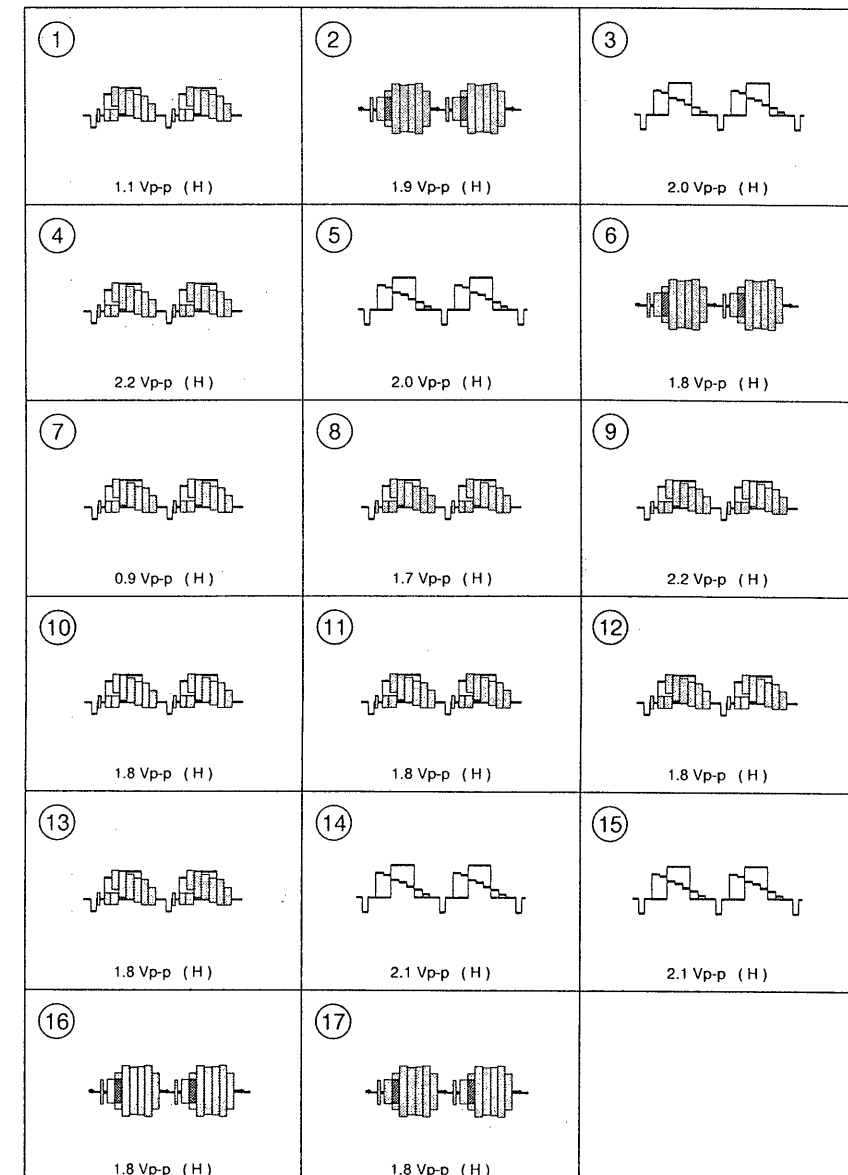
UA BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q401	4.2	9.0	4.9
Q405	5.3	GND	4.6
Q406	5.3	GND	4.6
Q407	GND	0	0
Q408	GND	0	0
Q410	3.9	9.0	4.6
Q411	GND	5.1	0
Q414	GND	4.7	0
Q415	GND	0.2	0.8
Q416	5.2	5.1	4.5
Q417	5.2	5.2	4.3
Q418	5.2	0	5.2
Q419	GND	5.1	0
Q421	5.3	GND	4.7
Q422	5.4	GND	4.8
Q423	5.3	GND	4.8
Q424	GND	0	0
Q425	GND	0	0

UA BOARD IC402 CXA1855S

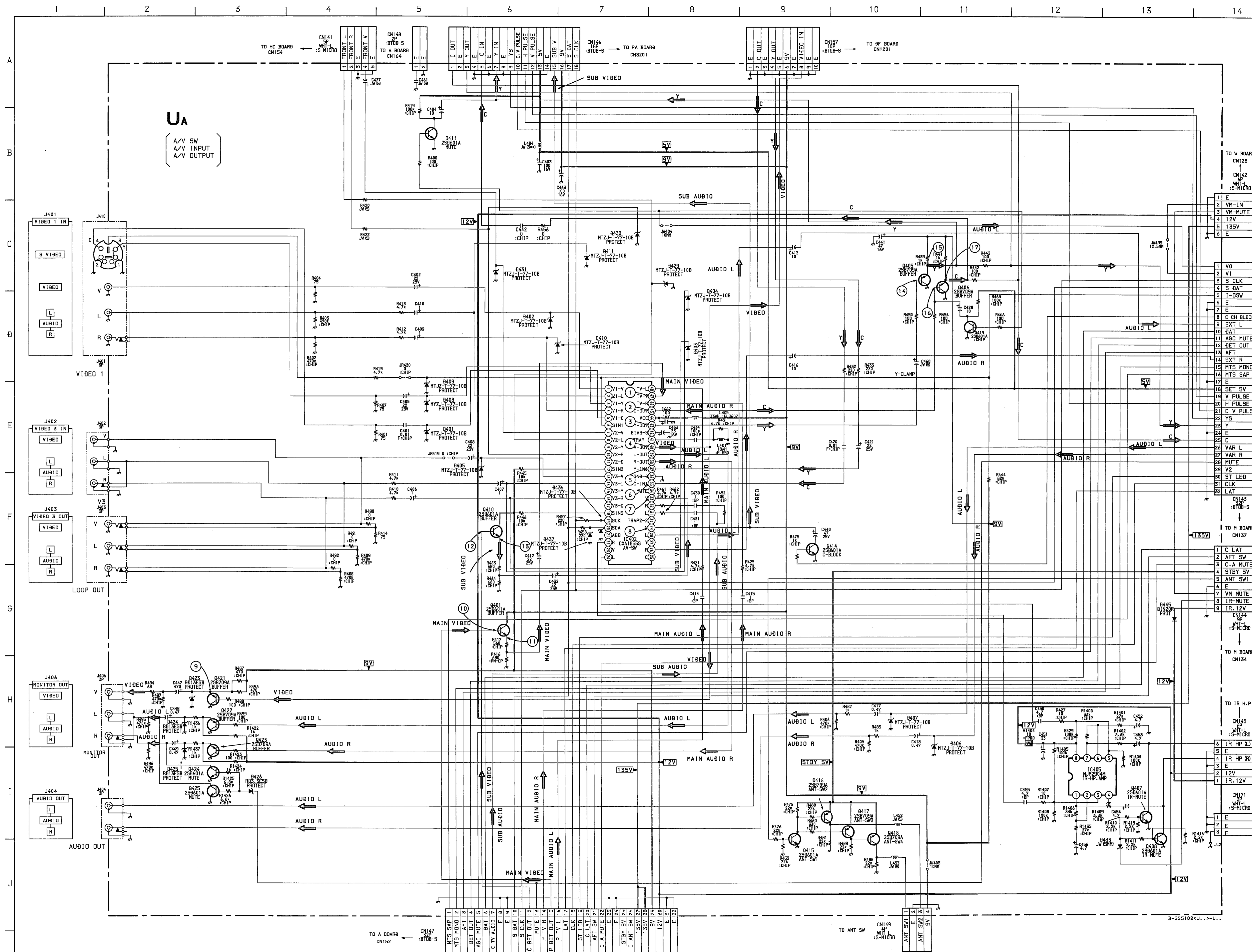


UA BOARD WAVEFORMS

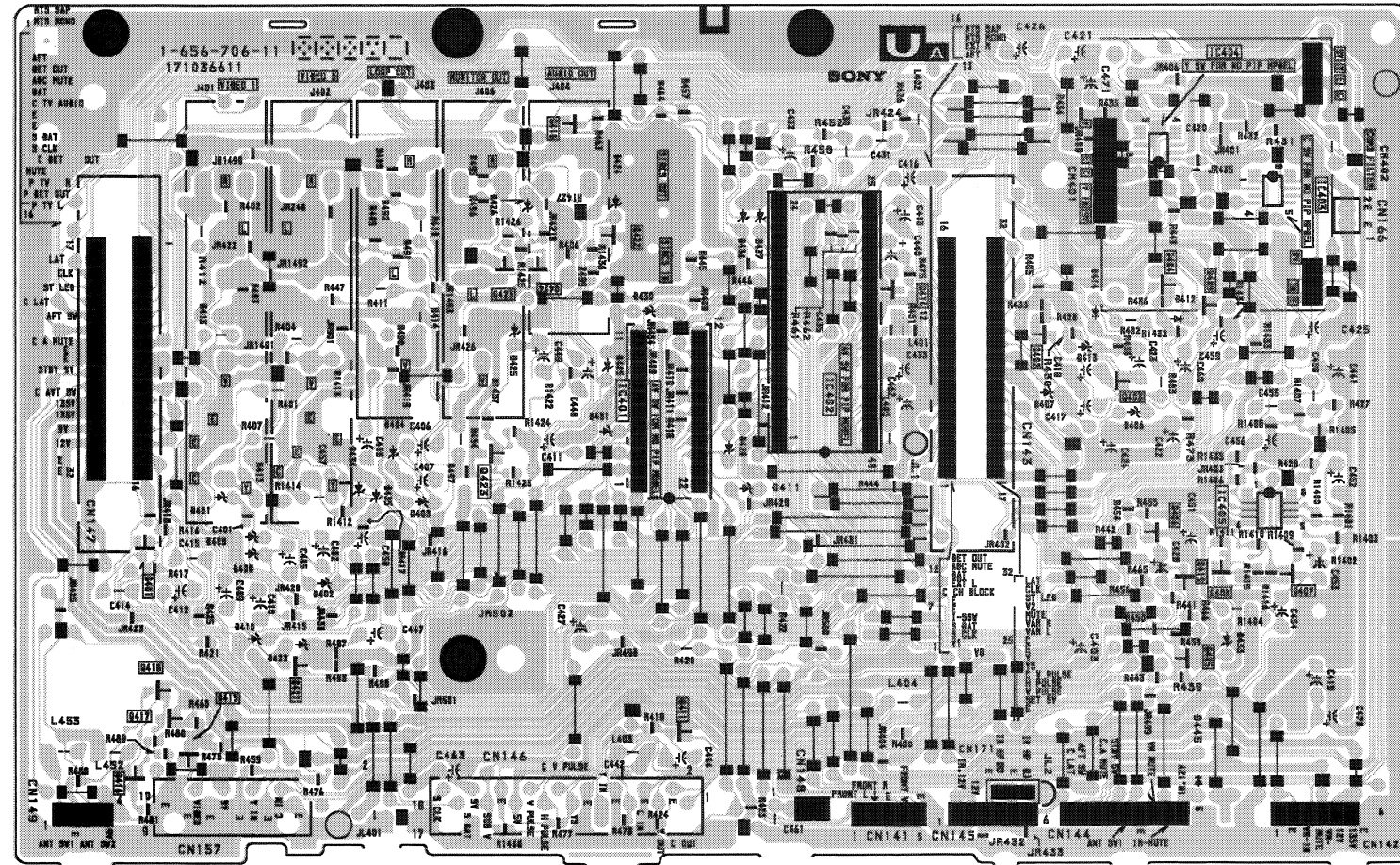


Schematic diagrams

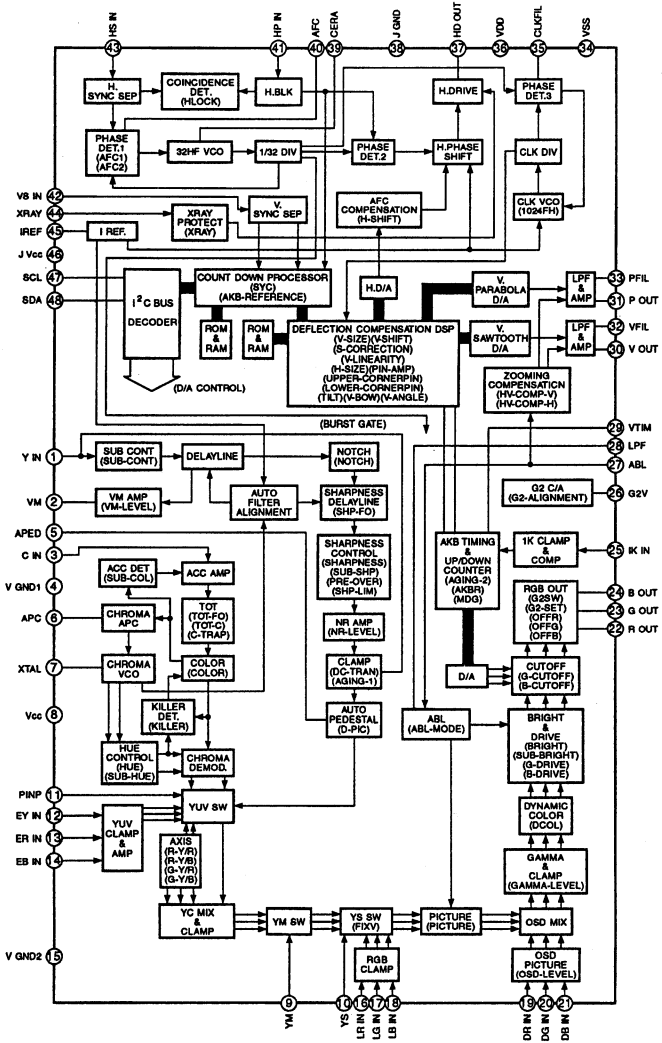
Schematic diagrams



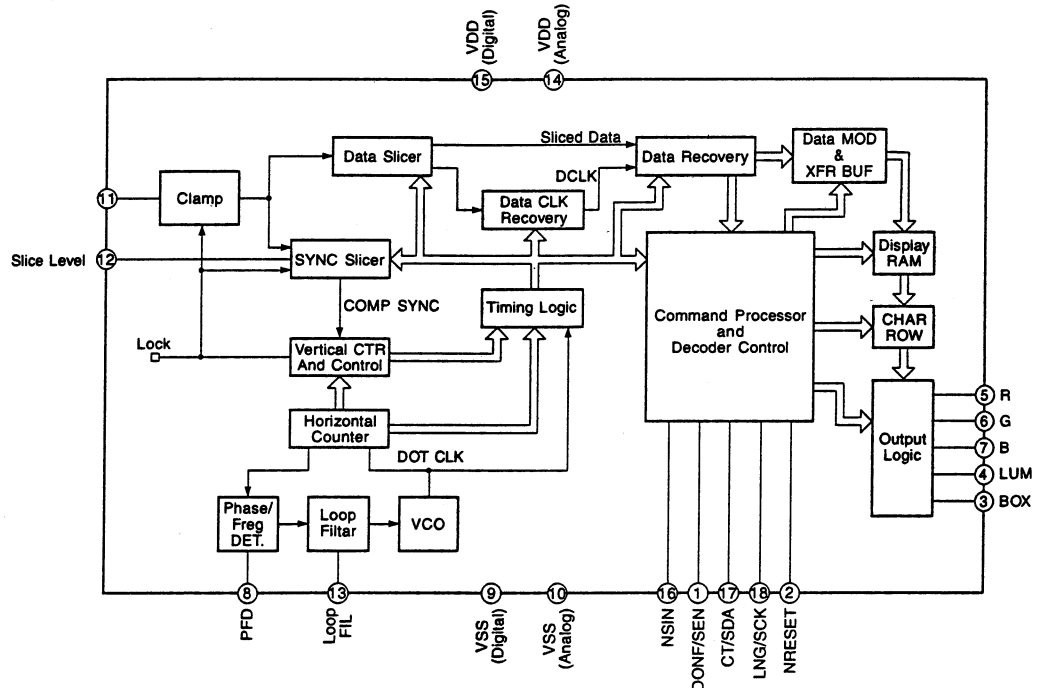
- UA BOARD -



M BOARD IC301 CXA1477AS



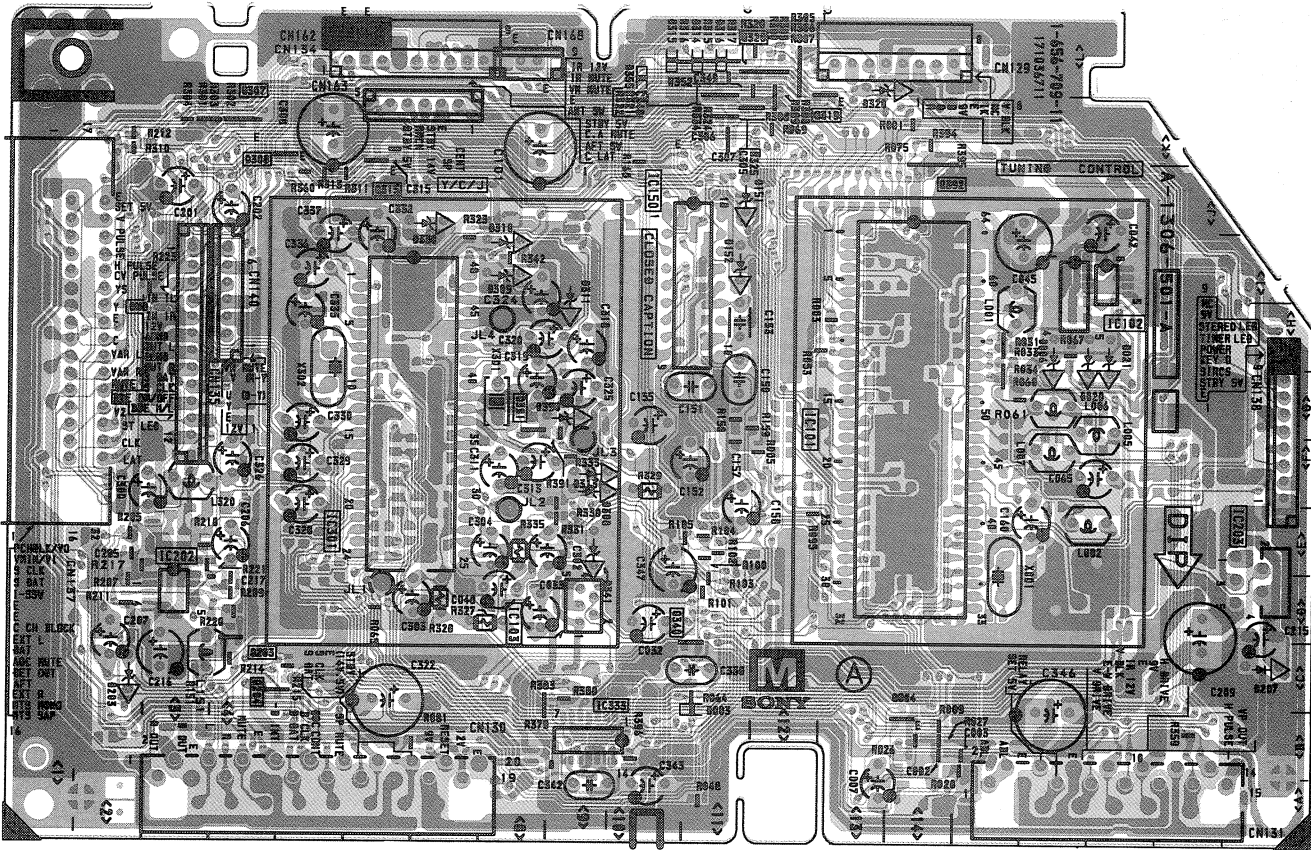
M BOARD IC150 Z8622812PSC



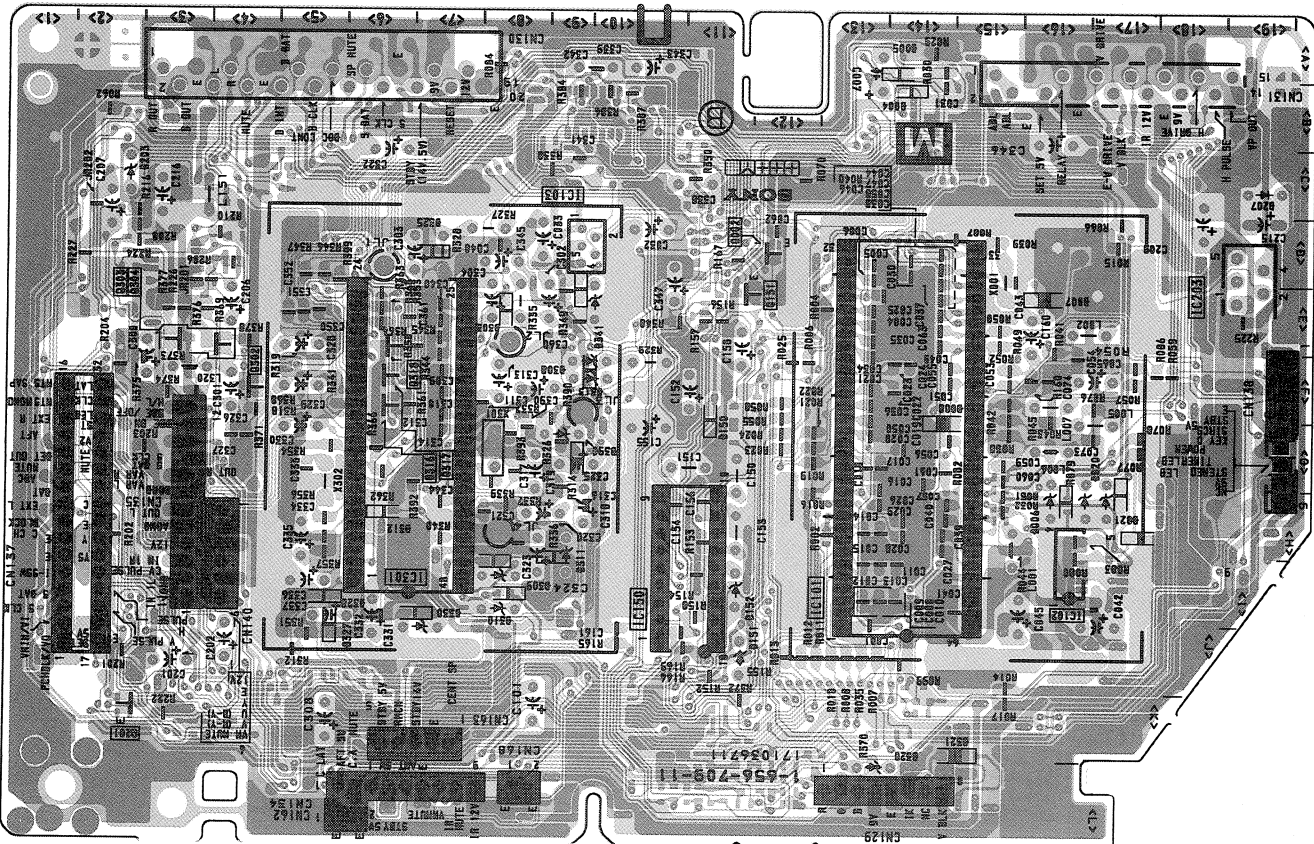
Note :

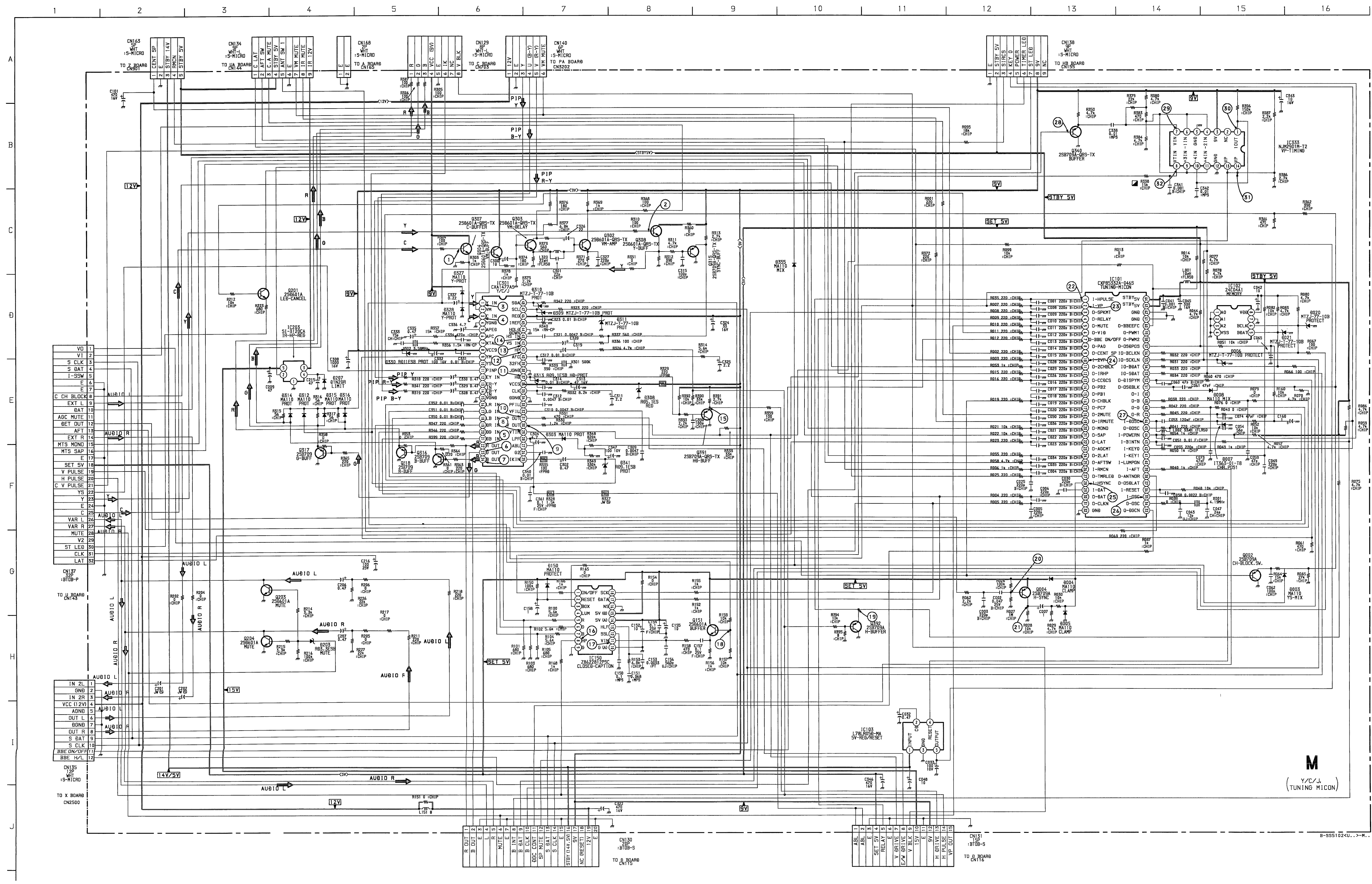
- [Pattern] : Pattern from the side which enables seeing.
- [Pattern] : Pattern of the rear side.

- M BOARD - (Component Side)



(Conductor Side)





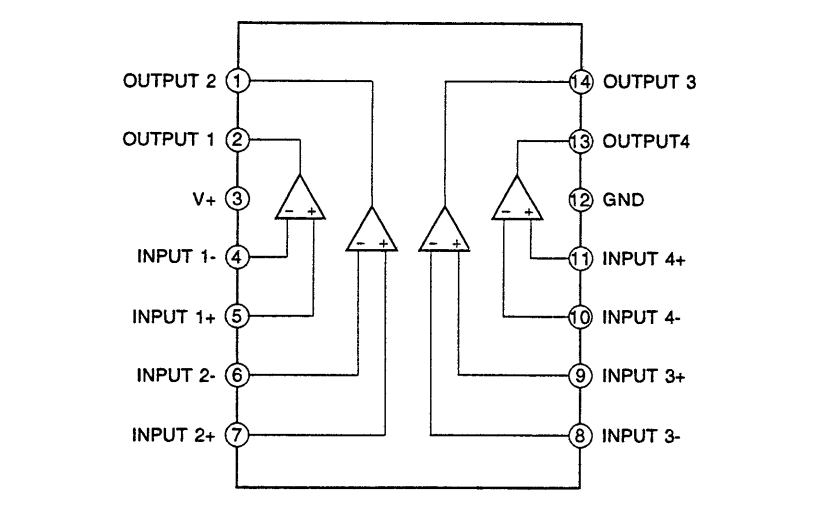
M BOARD IC VOLTAGE LIST

IC101	① 0.9	⑭ 0	⑲ 5.2	⑳ 0.2	㉑ 5.0
	② 0.6	⑮ 0	㉒ 0.2	㉓ 5.2	㉔ 5.0
	③ 4.9	⑯ 0	㉕ 0	㉖ 5.2	㉗ 5.0
	④ 5.0	⑰ 0	㉘ 5.1	㉙ 5.2	㉚ 5.0
	⑤ 0	⑱ 0.2	㉛ 5.1	㉜ 5.2	㉝ 2.8
	⑥ 5.2	⑲ 0	㉞ GND	㉟ 3.1	㊱ 0
	⑦ 5.2	⑳ 0	㊲ 0	㊳ 3.1	㊴ 0
	⑧ 0	㉑ 0.2	㊵ 2.7	㊶ 0	㊷ 0.2
	⑨ 0.5	㉒ 0.2	㊸ 5.2	㊹ 0	㊺ GND
	⑩ 0	㉓ 0.2	㊺ 0	㊻ 0	㊼ 5.2
⑪ 0	㉔ 2.8	㊻ 5.1	㊼ 0	㊽ 5.2	
⑫ 0.2	㉕ 4.9	㊼ 2.1	㊽ 0		
⑬					
IC102	① GND	③ GND	⑤ 5.0	⑦ GND	
	② GND	④ GND	⑥ 5.0	⑧ 5.2	
IC103	① 12.6	② 6.3	③ GND	④ 5.2	⑤ 5.2
IC150	① 0.2	⑤ 0	⑩ GND	⑮ 2.1	㉑ 5.1
	② 5.1	⑥ 0	⑪ GND	⑯ 5.1	㉒ 5.1
	③ 0	⑦ 0	⑫ 2.0	⑰ 5.1	
	④ NC	⑧ 0.4	⑬ 1.8	⑱ GND	
IC203	① GND	② 0	③ -0.7	④ 0	⑤ 16.4
IC301	① 4.6	⑩ 0	⑲ 0	㉑ 3.7	㉒ 3.5
	② 7.5	⑪ 5.6	⑳ 1.8	㉓ 3.1	㉔ 4.1
	③ 4.6	⑫ 6.3	㉑ 2.0	㉕ 3.7	㉖ 3.5
	④ GND	⑬ 6.3	㉒ 1.9	㉗ GND	㉘ GND
	⑤ 4.2	⑭ GND	㉓ 5.8	㉙ 4.8	㉚ 3.7
	⑥ 5.7	⑮ 6.1	㉔ 1.1	㉛ 6.4	㉜ 0.1
	⑦ 2.5	⑯ 6.1	㉕ 2.3	㉝ 4.1	㉞ 5.1
	⑧ 0.1	⑰ 6.0	㉖ 2.1	㉟ 4.1	㊱ 5.0
	⑨ 0	⑱ 0	㉗ 5.9	㊲ 2.6	
	⑩ 0	㉑ 0	㉘ 3.1	㉙ 4.3	
IC333	① 8.0	④ 4.4	⑦ 0	⑩ 8.0	⑬ 0.6
	② NC	⑤ GND	⑧ 5.9	⑪ 4.4	⑭ 0.6
	③ 0.1	⑥ 4.4	⑨ 4.4	⑫ GND	

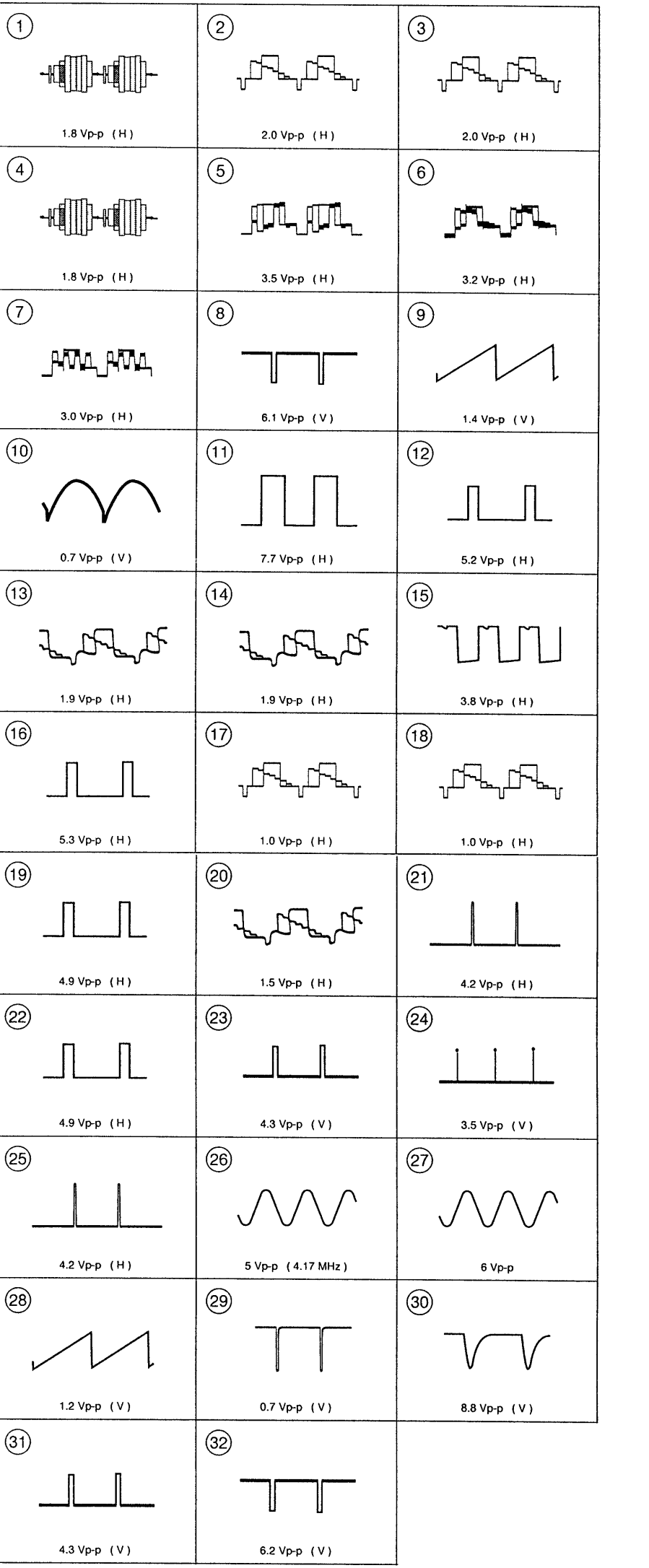
M BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q002	0	GND	0
Q004	5.2	1.2	5.2
Q151	1.7	5.2	2.3
Q201	4.2	7.2	5.0
Q203	GND	0	0
Q204	GND	0	0
Q302	0.9	6.2	1.5
Q303	1.5	7.7	2.2
Q304	6.9	9.1	7.5
Q307	4.6	0.1	5.3
Q308	4.6	9.1	5.3
Q315	5.3	GND	4.6
Q340	3.7	GND	4.1
Q391	3.2	GND	3.1
Q392	1.0	GND	0.4

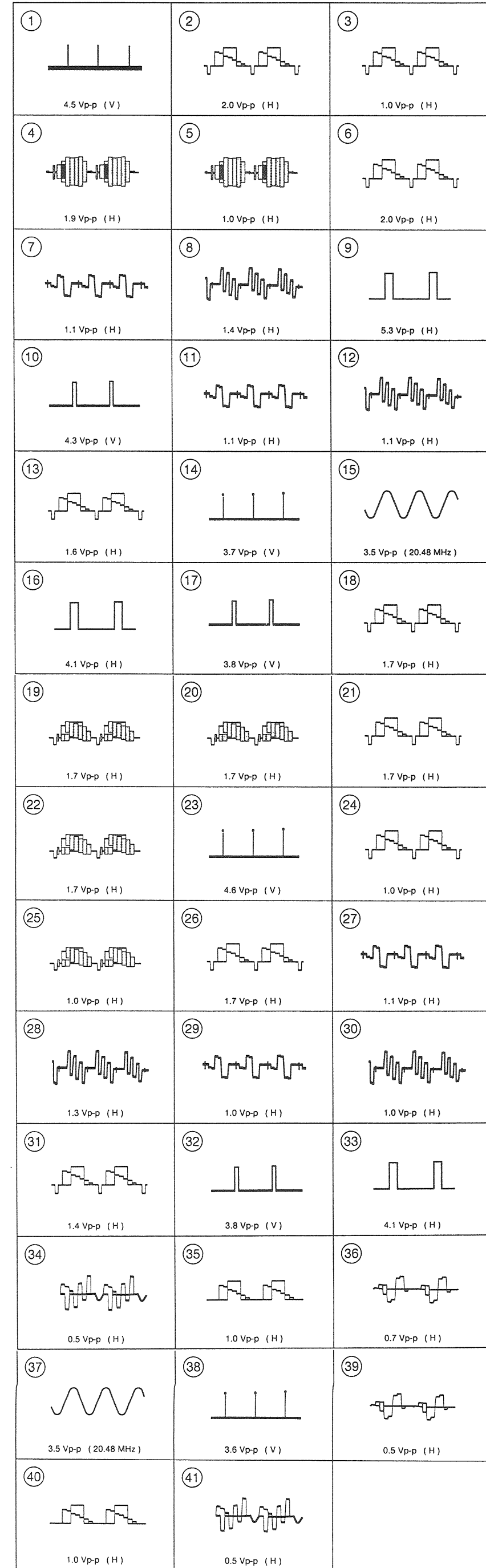
M BOARD IC333 NJM2901M-T2



M BOARD WAVEFORMS



• PA BOARD WAVEFORMS



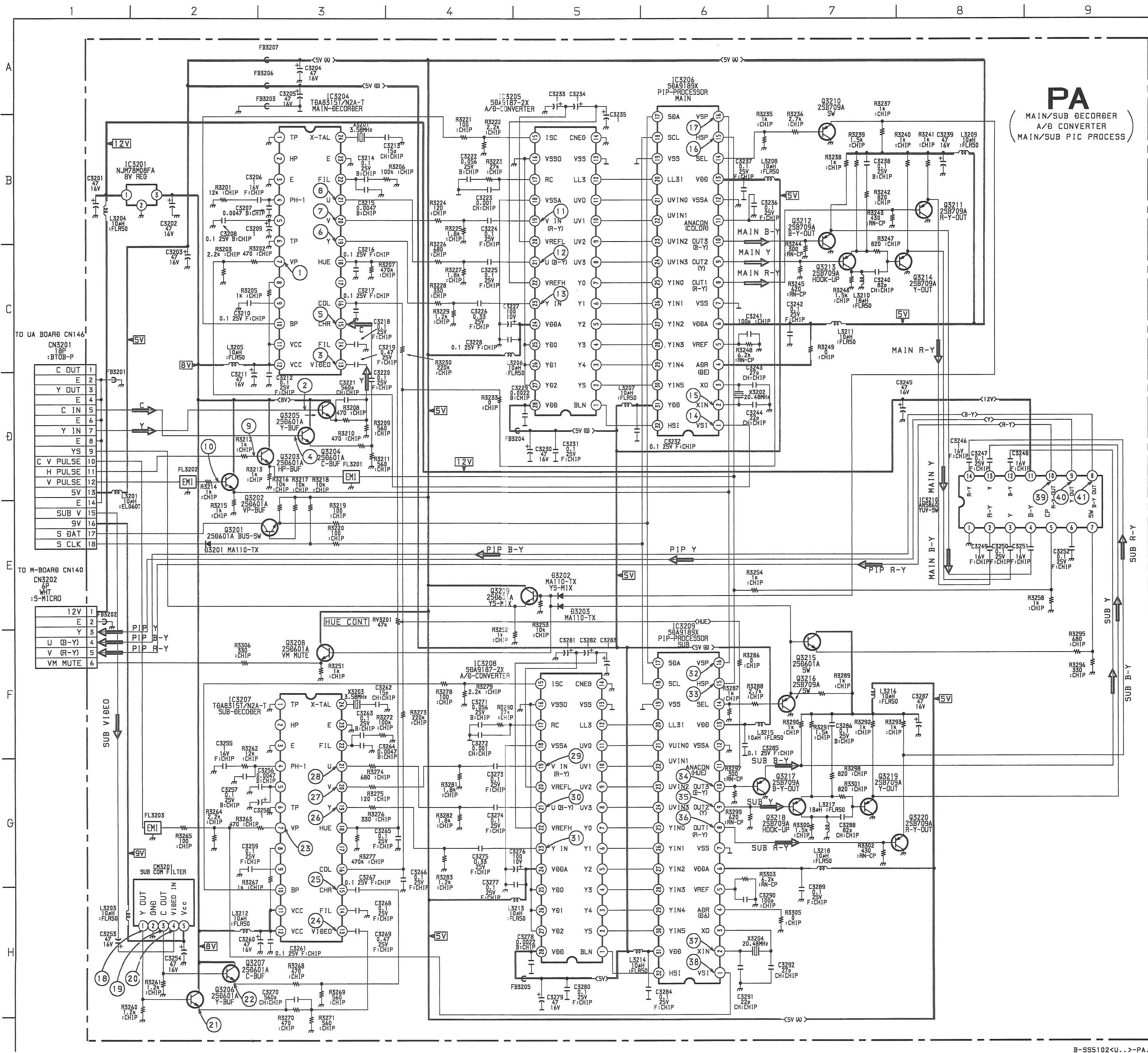
PA BOARD IC VOLTAGE LIST

CM3201	① 5.6	② GND	③ 5.6	④ 6.2	⑤ 9.0
IC3201	① 12.3	② GND	③ 8.5		
IC3204	① GND	② GND	③ 8.5	④ 2.6	⑤ 3.1
	⑥ NC	⑦ 0	⑧ 8.5	⑨ NC	⑩ 4.8
	⑪ GND	⑫ 8.5	⑬ 4.1	⑭ 2.7	⑮ GND
	⑯ 4.0	⑰ 1.9	⑱ 3.6	⑲ 3.7	⑳ 2.9
	㉑ 6.9	㉒ 0	㉓ 4.4	㉔ 3.0	
IC3205	① 4.2	② 2.2	③ GND	④ 2.7	⑤ GND
	⑥ 1.7	⑦ 2.5	⑧ GND	⑨ 1.1	⑩ GND
	⑪ 1.8	⑫ 2.5	⑬ 0.4	⑭ 2.7	⑮ GND
	⑯ 2.0	⑰ 1.2	⑱ GND	⑲ 2.1	⑳ 5.0
	㉑ 1.9	㉒ 1.2	㉓ 2.4	㉔ 2.5	㉕ 5.0
	㉖ 2.1	㉗ 2.7	㉘ 0	㉙ 2.5	
IC3206	① 0.3	② 0.6	③ 0.7	④ 1.2	⑤ 1.8
	⑥ 2.5	⑦ 0	⑧ 0.4	⑨ 2.5	⑩ 1.7
	⑪ 2.0	⑫ 0.5	⑬ 4.9	⑭ 2.5	⑮ 5.0
	⑯ 5.0	⑰ 2.6	⑱ 4.9	⑲ 2.2	⑳ 4.2
	㉑ 2.7	㉒ GND	㉓ GND	㉔ 2.1	㉕ 4.2
	㉖ 5.0	㉗ 0	㉘ 2.7	㉙ 1.9	
	㉚ GND	㉛ 0	㉜ 1.2	㉝ 2.0	
IC3207	① GND	② GND	③ 8.5	④ 0.2	⑤ 3.0
	⑥ NC	⑦ 0.3	⑧ 8.5	⑨ NC	⑩ 5.1
	⑪ GND	⑫ 8.5	⑬ 7.6	⑭ 4.7	⑮ GND
	⑯ 3.9	⑰ 2.0	⑱ 0	⑲ 2.0	⑳ 2.9
	㉑ 5.9	㉒ 0.4	㉓ 4.3	㉔ 3.0	
IC3208	① 4.2	② 1.3	③ GND	④ 2.7	⑤ GND
	⑥ *	⑦ 0.9	⑧ GND	⑨ 1.1	⑩ GND
	⑪ 1.8	⑫ 1.0	⑬ 0.3	⑭ 2.7	⑮ GND
	⑯ 0.6	⑰ 0.6	⑱ GND	⑲ 2.1	⑳ 5.0
	㉑ *	㉒ 0.6	㉓ 2.5	㉔ 1.8	㉕ 5.0
	㉖ *	㉗ 2.7	㉘ 0.2	㉙ 5.0	
IC3209	① 0.5	② 0.6	③ 0.7	④ 0.6	⑤ 1.8
	⑥ 2.5	⑦ 0	⑧ 0.4	⑨ 1.0	⑩ *
	⑪ 2.0	⑫ 0.5	⑬ 4.9	⑭ 0.9	⑮ 5.0
	⑯ GND	⑰ 2.8	⑱ 4.9	⑲ 1.3	⑳ 4.2
	㉑ 2.5	㉒ GND	㉓ GND	㉔ *	㉕ *
	㉖ 5.0	㉗ 5.0	㉘ 2.7	㉙ *	
	㉚ GND	㉛ 0.2	㉜ 0.6	㉝ *	
IC3210	① GND	② 6.3	③ 0	④ 6.3	⑤ 6.3
	⑥ 6.3	⑦ 0.3	⑧ 6.3	⑨ 12.3	⑩ 6.3
	⑪ 6.3	⑫ 5.2	⑬ 6.3	⑭ 6.3	

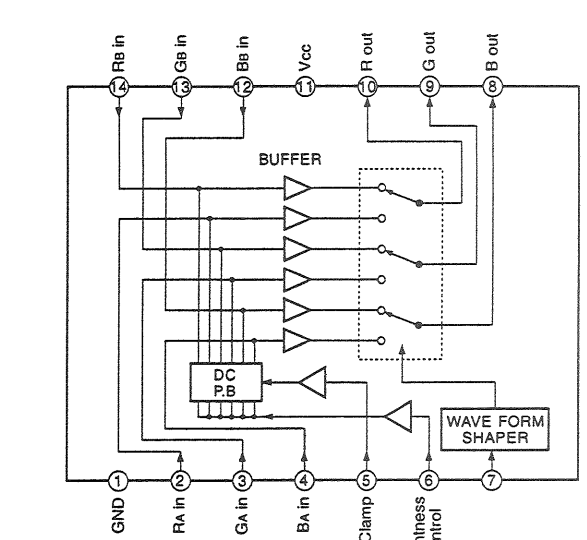
* - Measurement impossibility

PA BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q3201	4.9	5.0	4.9
Q3203	0.4	8.5	0.4
Q3204	4.7	8.5	5.3
Q3205	4.7	8.5	5.3
Q3206	4.9	8.5	5.6
Q3207	5.0	8.5	5.6
Q3208	0	8.0	0.4
Q3209	0	5.0	0.4
Q3210	0.9	GND	0.2
Q3211	1.3	GND	0.6
Q3212	1.2	GND	0.5
Q3213	0.8	0	0
Q3214	1.4	GND	0.8
Q3215	0.3	5.0	0.8
Q3216	0.8	GND	0.2
Q3217	1.1	GND	0.5
Q3218	0.8	0	0
Q3219	1.4	GND	0.8
Q3220	1.2	GND	0.6

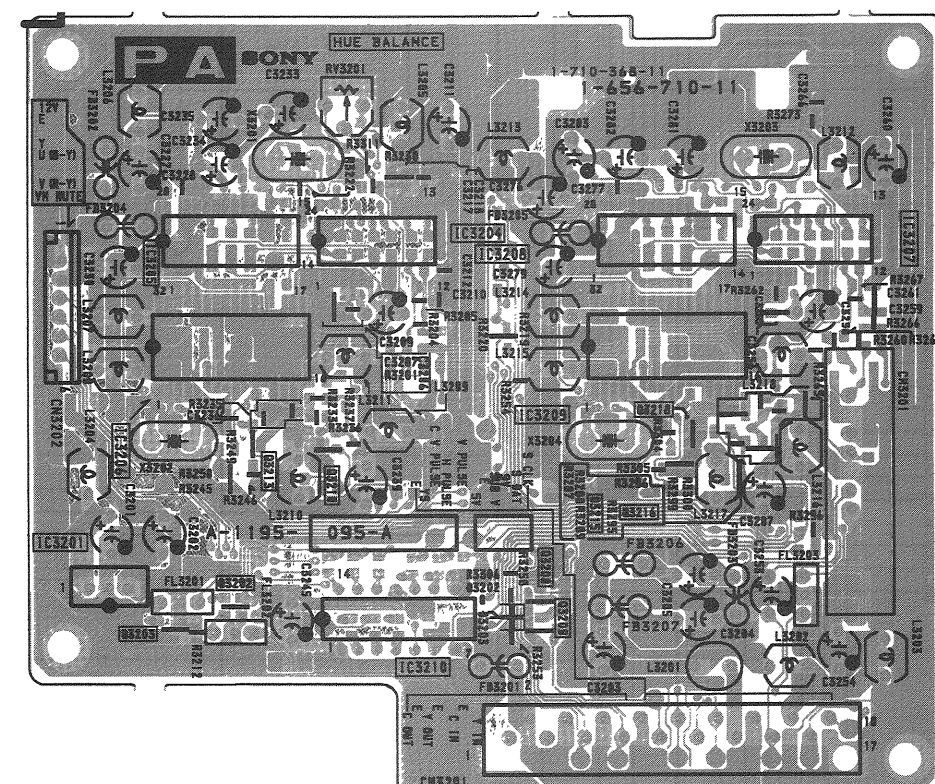


PA BOARD IC3210 AN5860

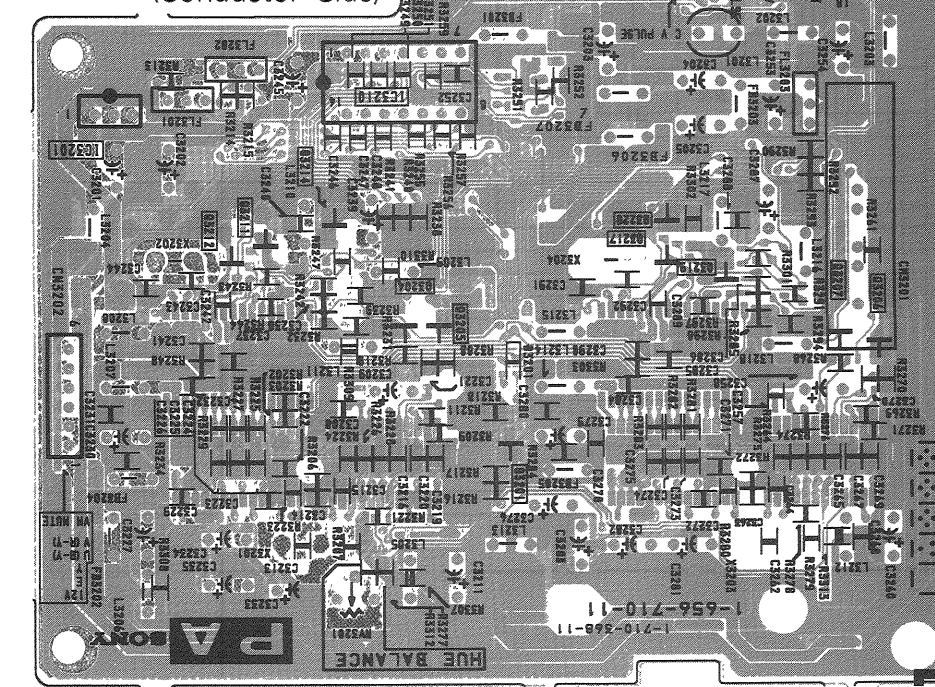


PA MAIN/SUB DECODER
A/D CONVERTER,
MAIN/SUB PIC PROCESS

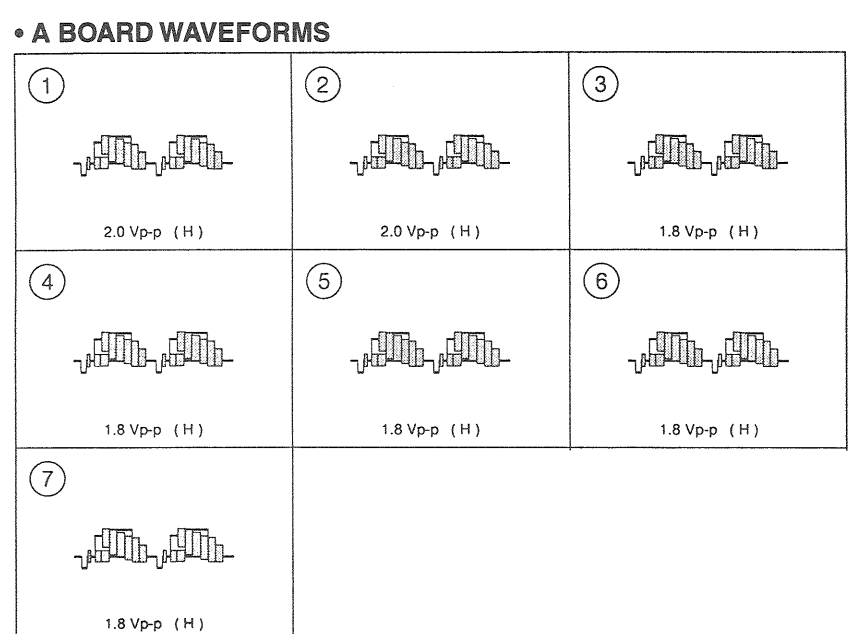
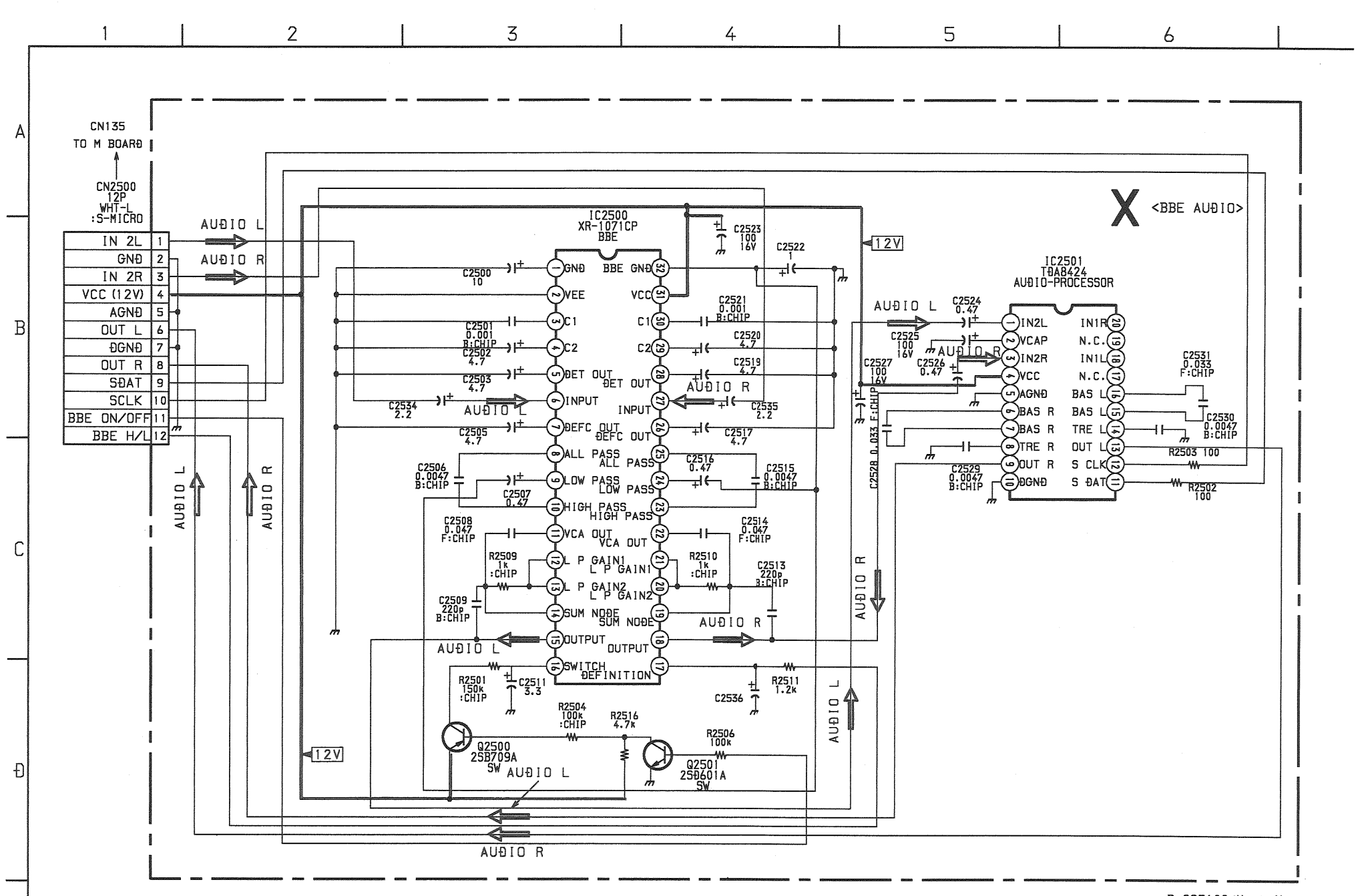
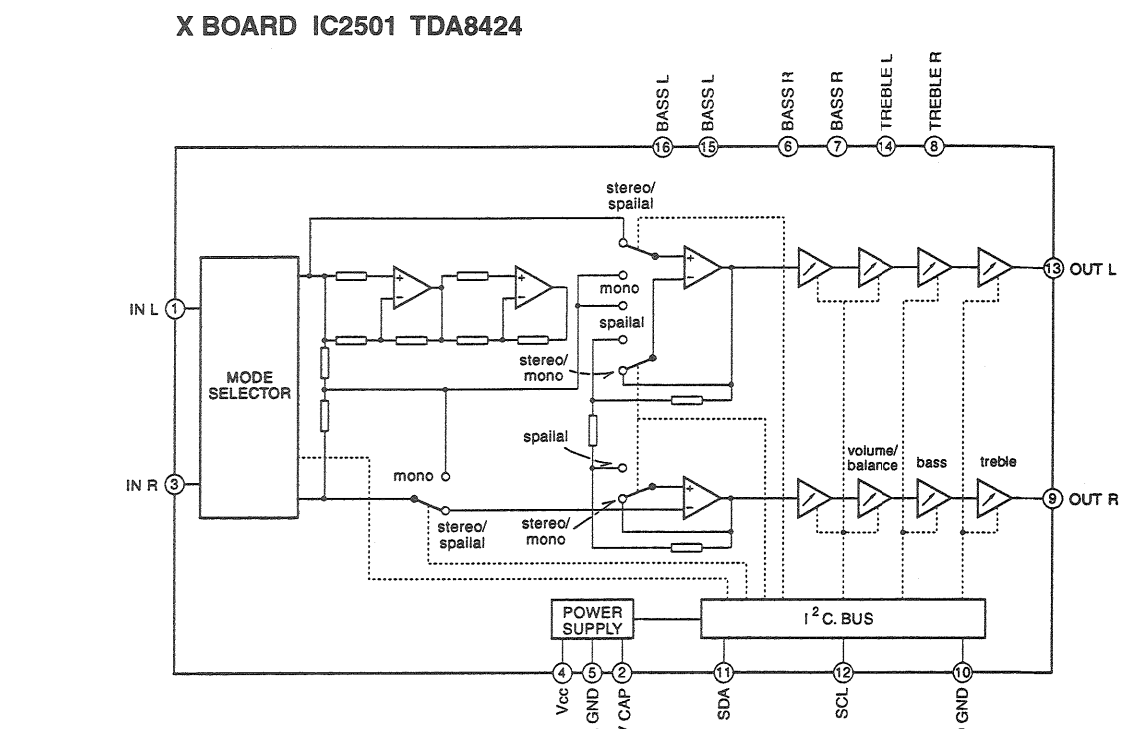
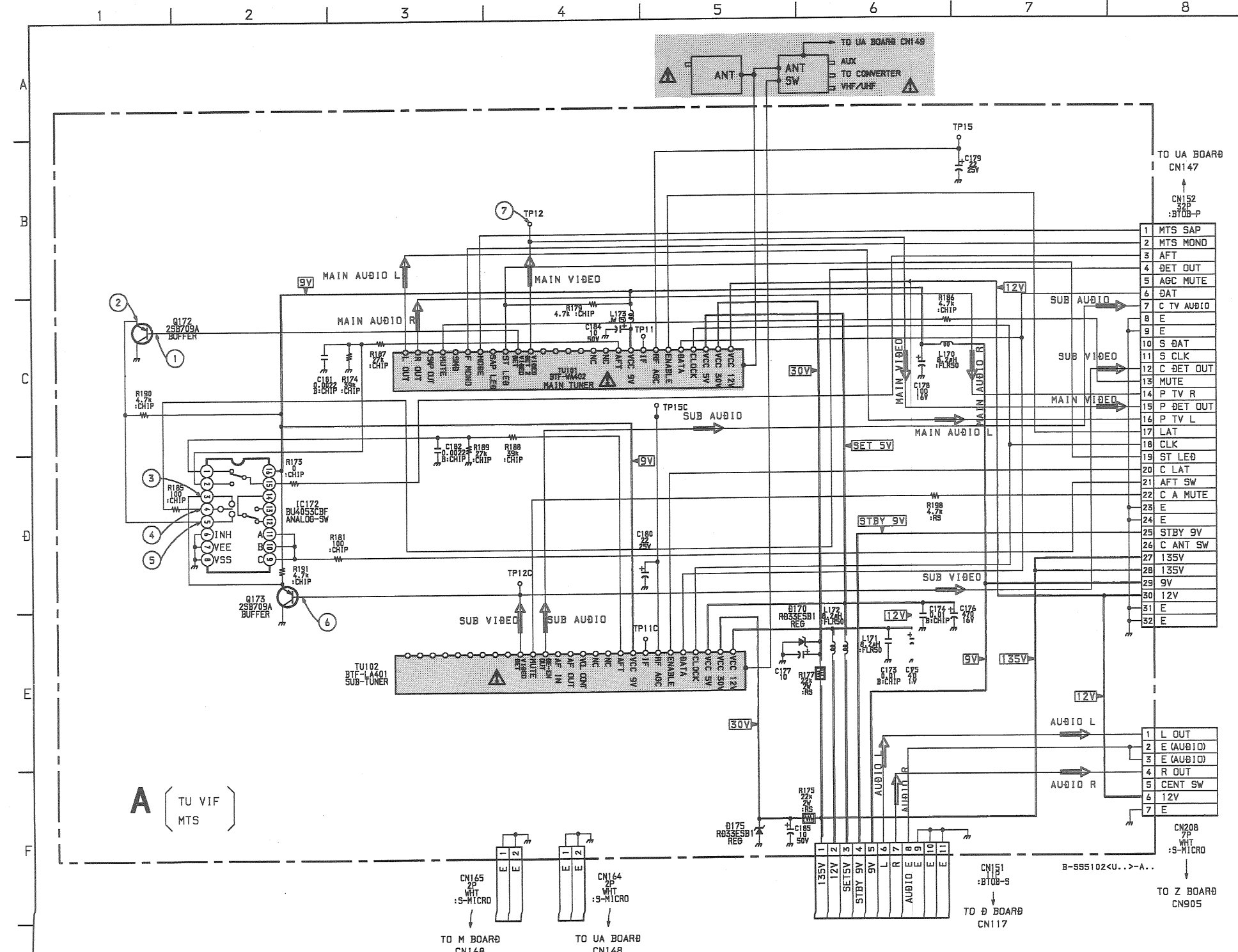
- PA BOARD - (Component Side)



(Conductor Side)



Note:
• : Pattern from the side which enables seen
• : Pattern of the rear side.



A BOARD IC VOLTAGE LIST

IC172	1	2.0	5	5.1	6	2.8	13	NC
	2	2.2	6	GND	10	2.8	14	NC
	3	5.2	7	GND	11	2.8	15	2.1
	4	5.2	8	GND	12	NC	16	8.9

A BOARD TRANSISTOR VOLTAGE LIST

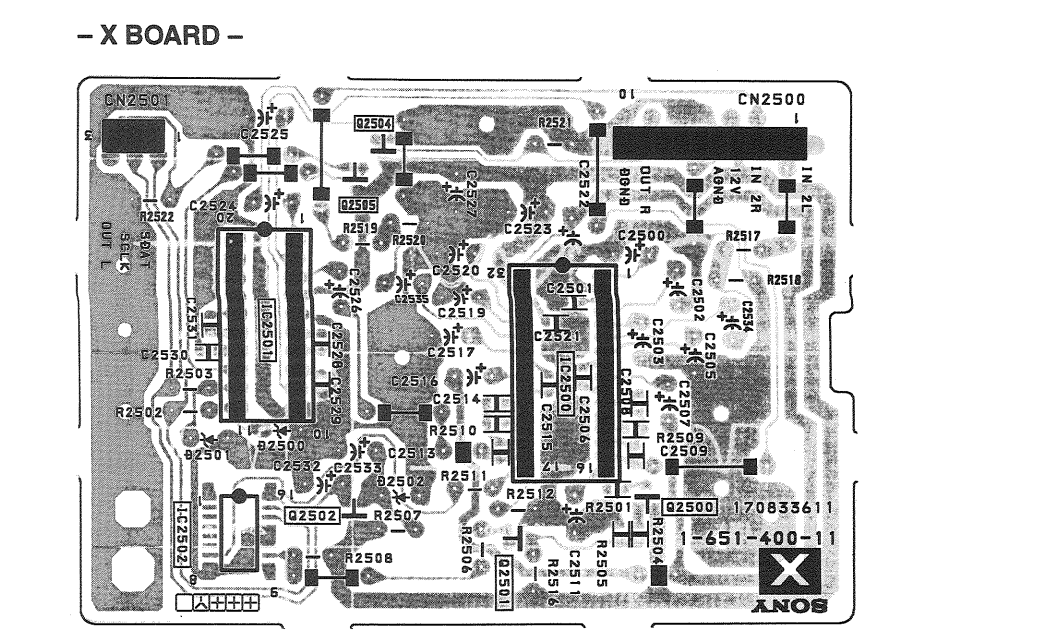
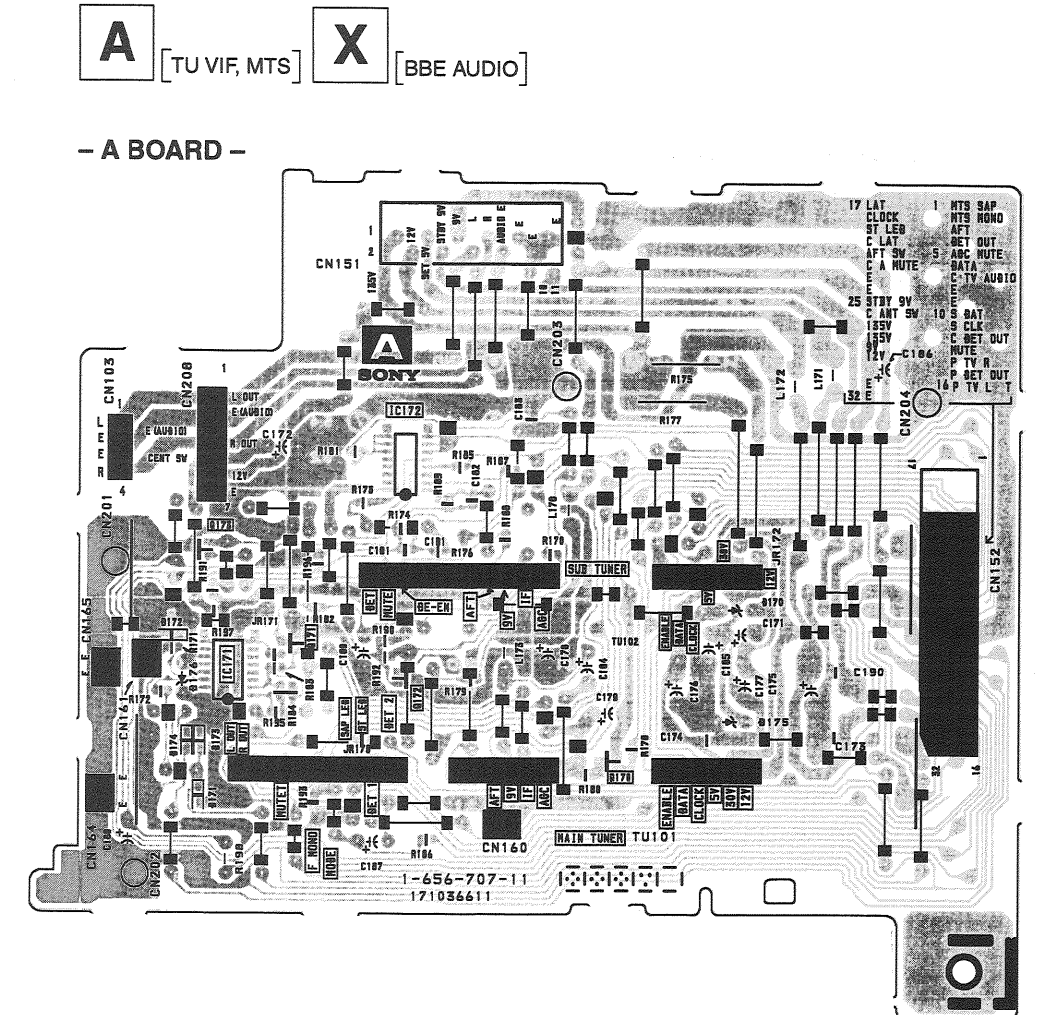
	E	C	B
Q172	5.1	GND	4.5
Q173	5.2	GND	4.5

X BOARD IC VOLTAGE LIST

IC2500	1	6.0	5	6.0	15	6.0	25	6.0
	2	GND	6	6.0	16	6.6	26	6.0
	3	6.0	7	6.0	17	0.7	27	6.0
	4	6.0	8	6.0	18	6.0	28	6.0
	5	1.9	9	6.0	19	6.0	29	6.0
	6	6.0	10	6.0	20	6.0	30	6.0
	7	5.4	11	6.0	21	6.0	31	1.7
IC2501	1	6.1	5	GND	15	6.2	17	NC
	2	12.3	6	0	16	6.2	18	NC
	3	6.2	7	6.2	11	5.0	15	0
	4	12.4	8	6.2	12	5.1	16	6.2

X BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q2500	12.4	12.4	11.7
Q2501	GND	0.2	0.8



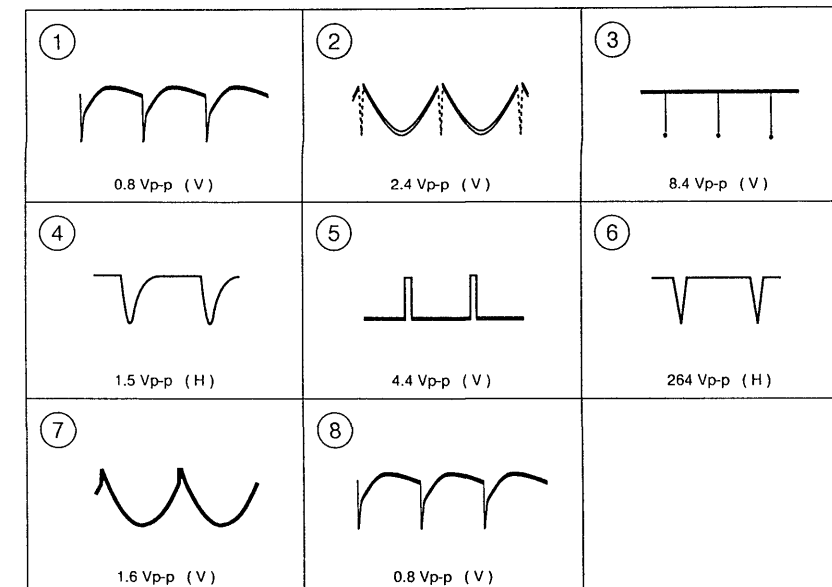
E BOARD IC VOLTAGE LIST

IC1501	①	5.0	⑤	8.9	⑨	2.0	⑬	4.6
	②	5.0	⑥	3.1	⑩	4.6	⑭	GND
	③	NC	⑦	GND	⑪	5.1	⑮	8.0
	④	4.8	⑧	5.5	⑫	GND	⑯	4.2
IC1502	①	14.5	②	9.2	③	GND		
IC1504	①	1.5	③	0.8	⑤	4.8	⑦	5.4
	②	0.8	④	GND	⑥	4.8	⑧	9.2

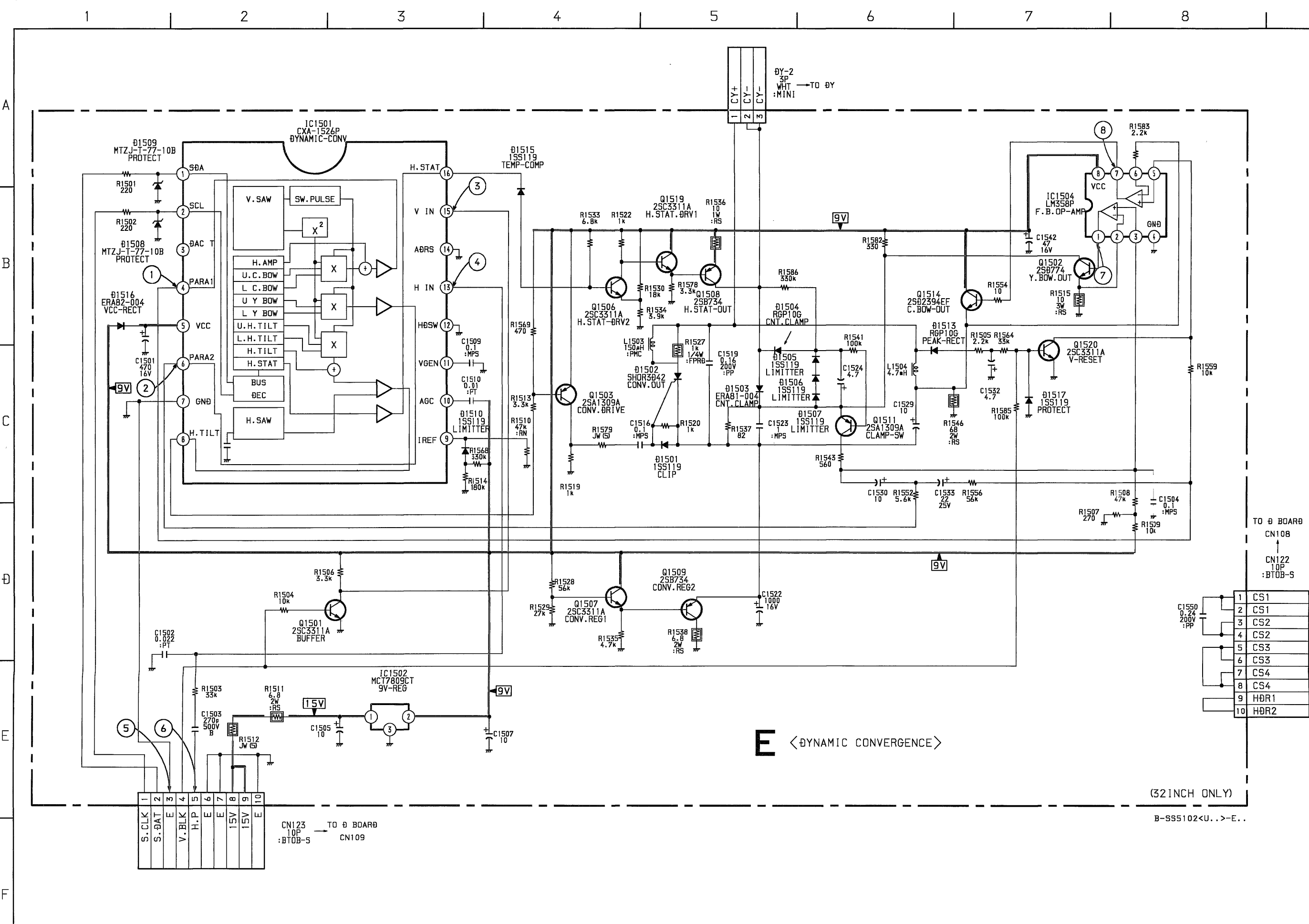
E BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q1501	GND	8.0	0.3
Q1502	0.8	4.3	1.5
Q1503	9.2	7.6	8.9
Q1506	4.2	8.4	4.9
Q1507	2.4	9.2	3.0
Q1508	8.4	4.6	7.8
Q1509	3.1	0.6	2.4
Q1511	4.3	0.9	3.7
Q1514	4.8	9.2	5.4
Q1519	7.8	9.2	8.4
Q1520	GND	4.8	-0.5

E BOARD WAVEFORMS



(32 inch only)

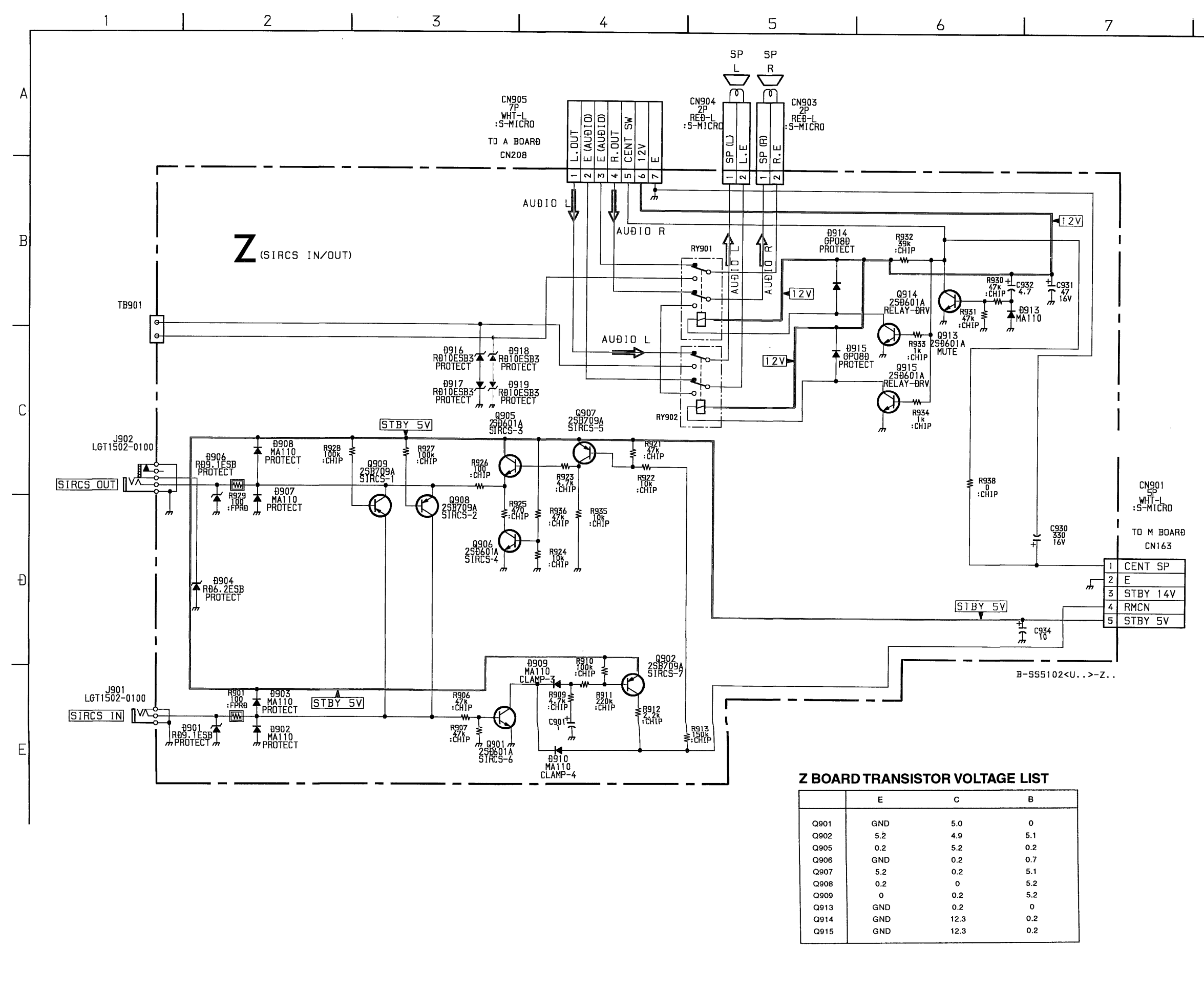


E <DYNAMIC CONVERGENCE>

(32 INCH ONLY)

B-S95102<U..>-E..

(32 inch only)



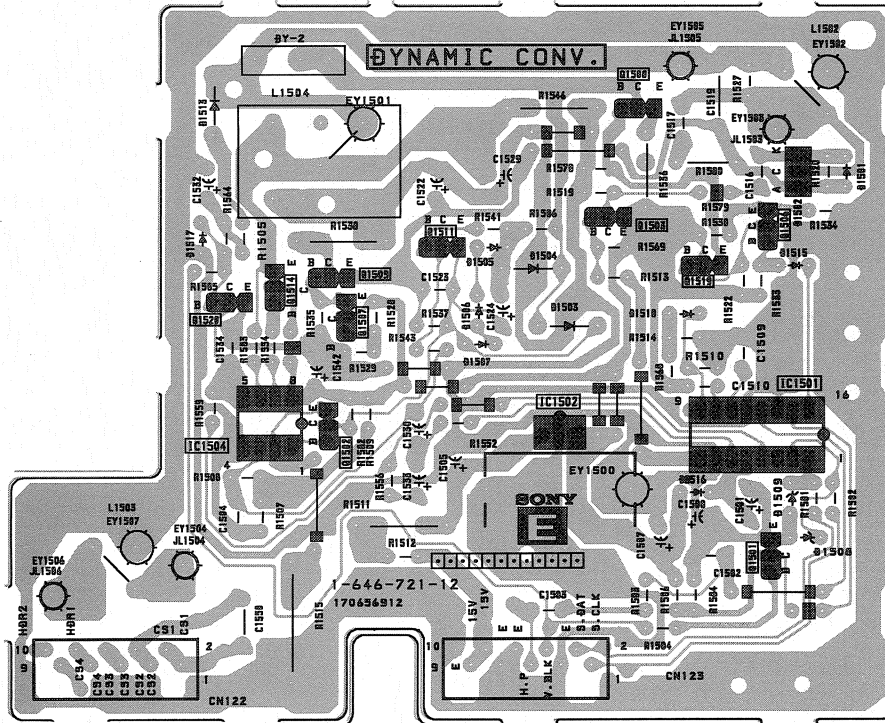
Z (SIRCS IN/OUT)

Z BOARD TRANSISTOR VOLTAGE LIST

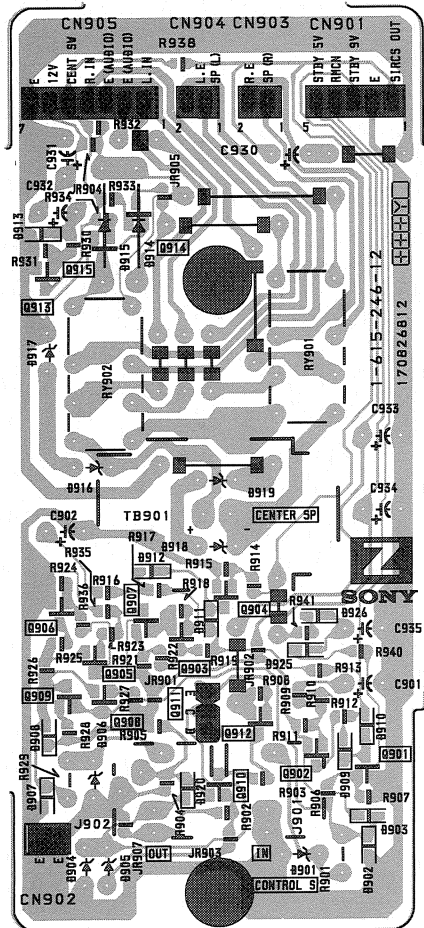
	E	C	B
Q901	GND	5.0	0
Q902	5.2	4.9	5.1
Q905	0.2	5.2	0.2
Q906	GND	0.2	0.7
Q907	5.2	0.2	5.1
Q908	0.2	0	5.2
Q909	0	0.2	5.2
Q913	GND	0.2	0
Q914	GND	12.3	0.2
Q915	GND	12.3	0.2

E [DYNAMIC, CONVERGENCE] **Z** [SIRCS IN/OUT]

- E BOARD - (32 inch only)

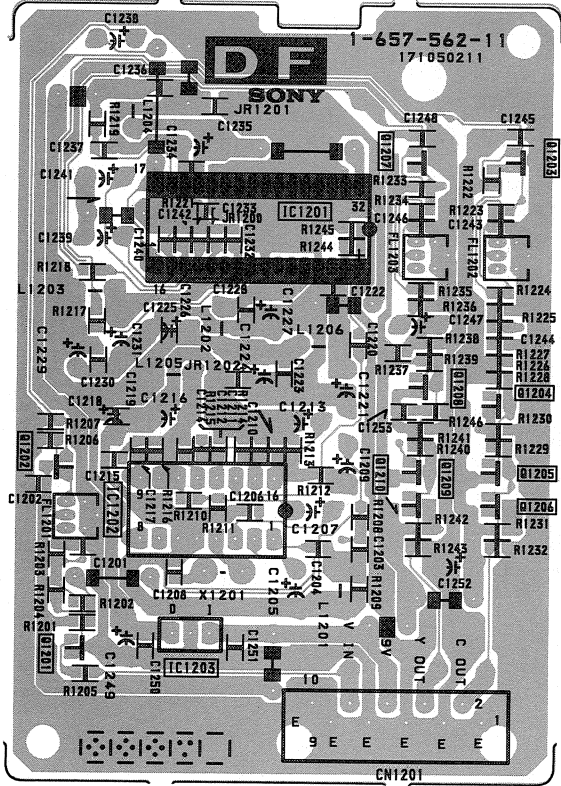


- Z BOARD -

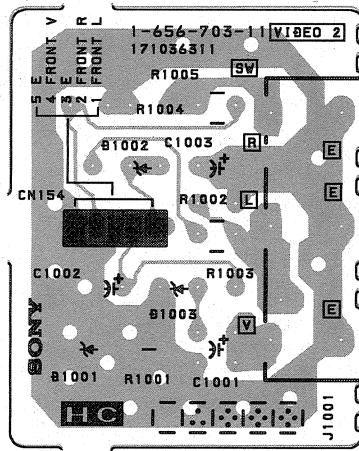


DF [COMB-FILTER] **HC** [USER CONTROL] **HB** [USER CONTROL] **W** [VELOCITY, MODULATION]

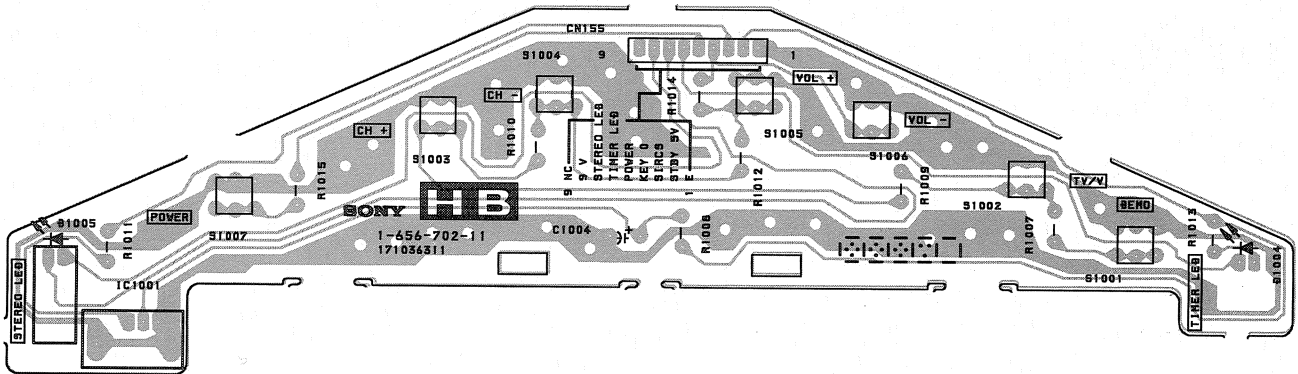
- DF BOARD -



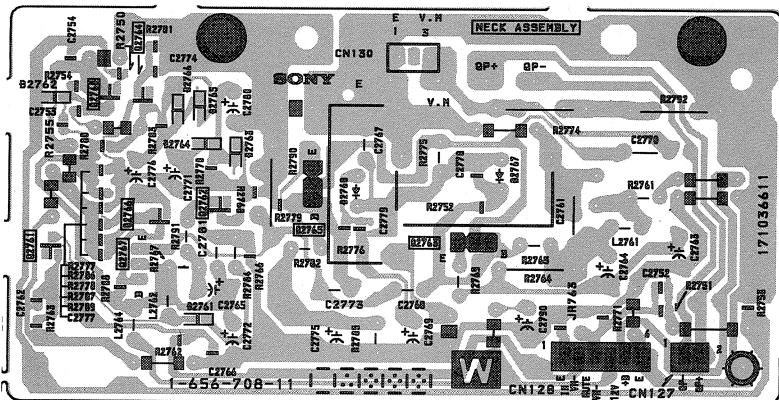
- HC BOARD -

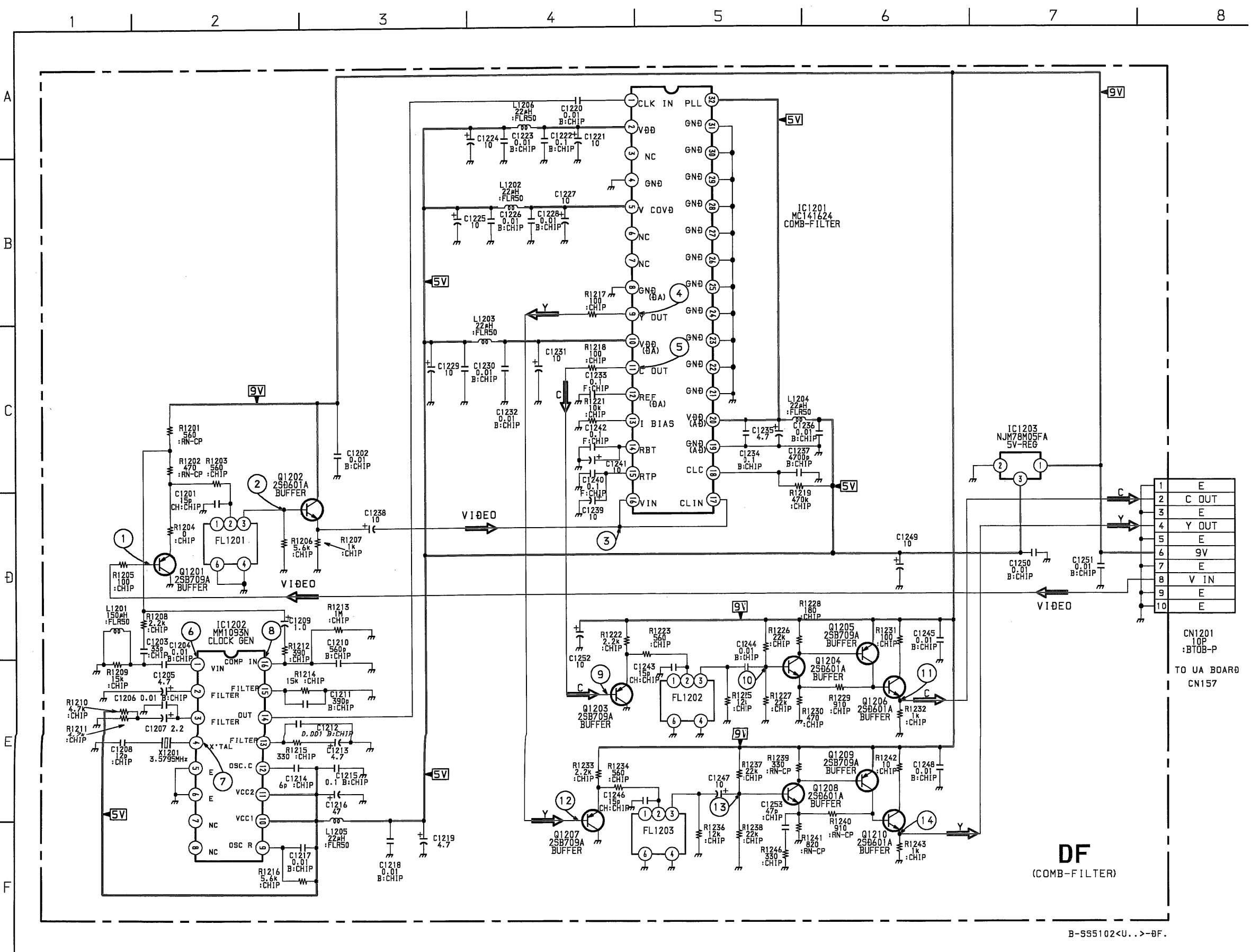


- HB BOARD -



- W BOARD -





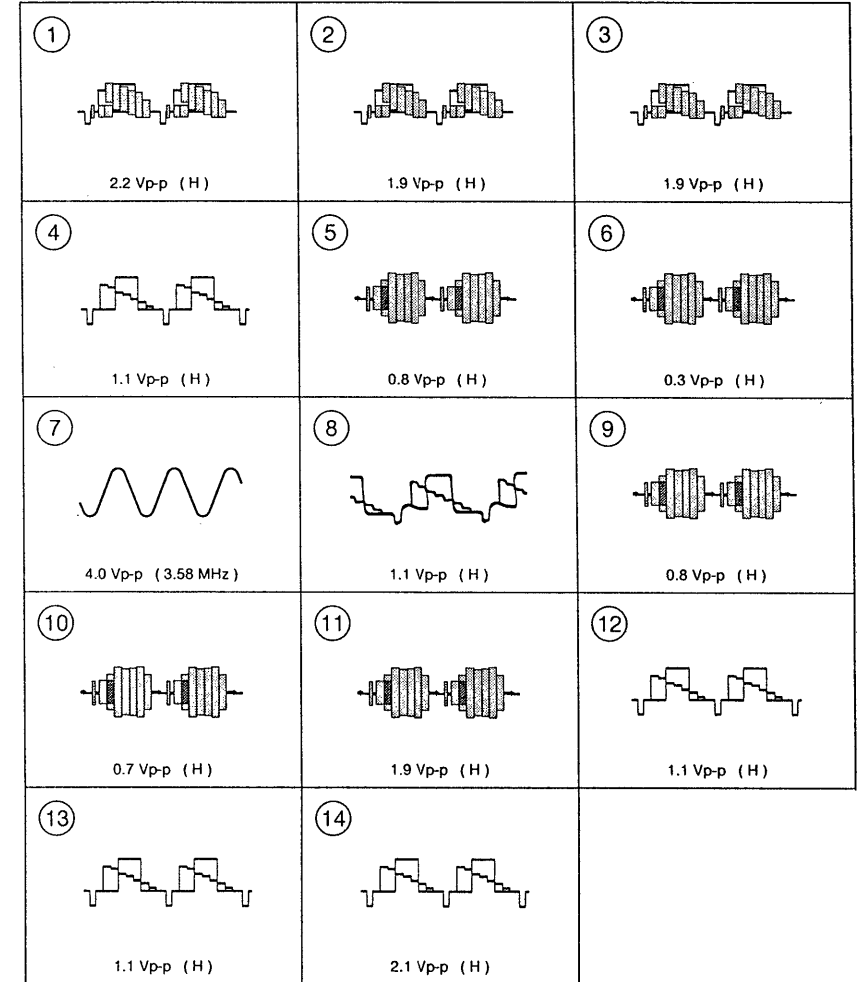
DF BOARD IC VOLTAGE LIST

IC1201	①	2.4	⑧	GND	⑮	3.2	⑳	GND	⑲	GND
	②	5.3	⑨	1.2	⑯	2.2	㉑	GND	㉒	GND
	③	NC	⑩	5.3	⑰	2.2	㉓	GND	㉔	GND
	④	GND	⑪	1.1	⑱	2.6	㉕	GND	㉖	GND
	⑤	5.3	⑫	1.7	⑲	GND	㉗	GND	㉘	GND
	⑥	NC	⑬	1.4	㉙	5.3	㉚	GND	㉛	GND
	⑦	NC	⑭	1.2	㉜	GND	㉝	GND	㉞	5.3
IC1202	①	3.8	⑤	GND	⑨	3.7	⑬	2.4		
	②	0.9	⑥	GND	⑩	5.3	⑭	3.4		
	③	2.7	⑦	NC	⑪	5.3	⑮	0.8		
	④	3.6	⑧	NC	⑫	3.5	⑯	2.6		
IC1203	①	9.0	②	GND	③	5.3				

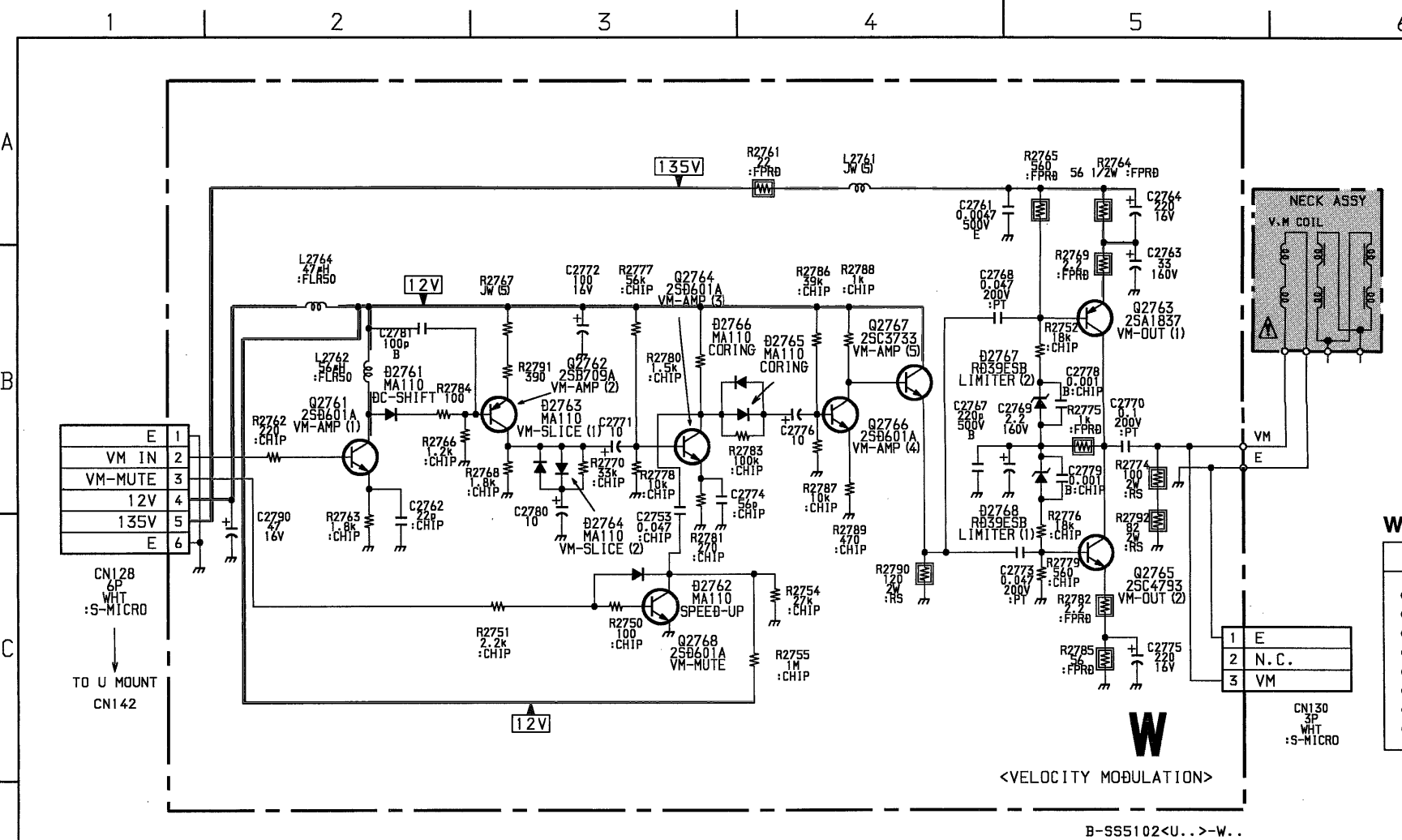
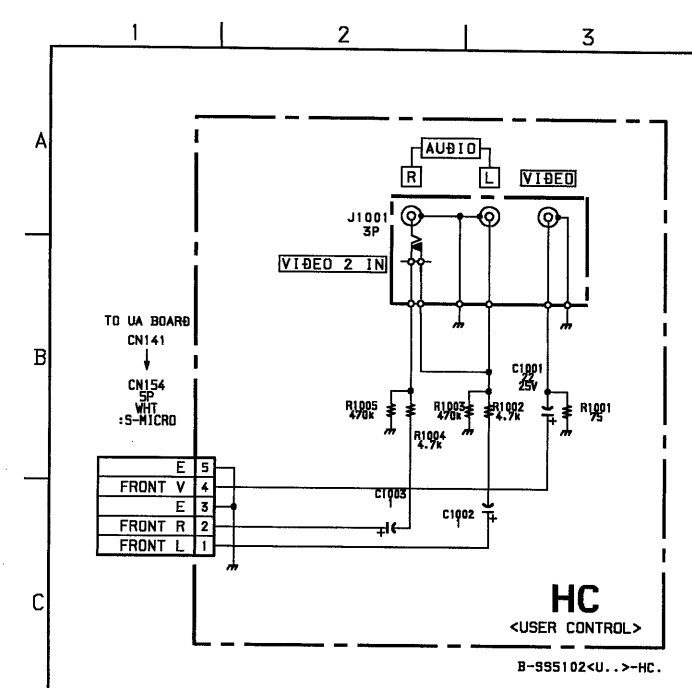
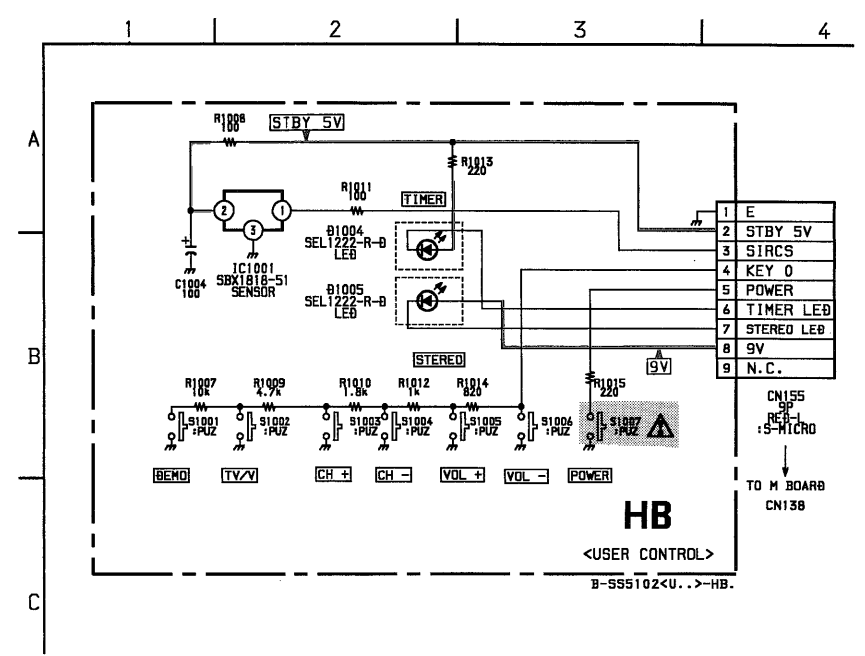
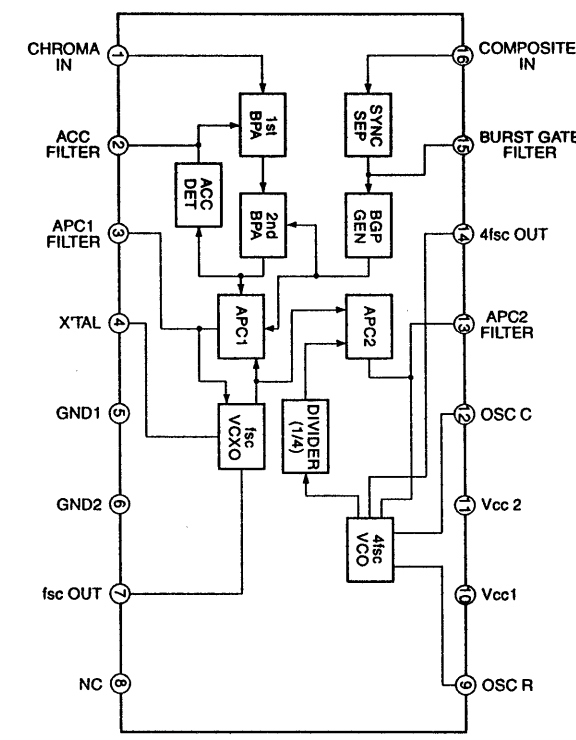
DF BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q1201	5.3	GND	4.7
Q1202	4.2	9.0	4.9
Q1203	1.8	GND	1.0
Q1204	3.7	8.3	4.4
Q1205	9.0	7.3	8.3
Q1206	6.6	8.3	7.3
Q1207	1.8	GND	1.1
Q1208	3.7	8.3	4.4
Q1209	9.0	5.9	8.3
Q1210	5.3	8.9	5.9

DF BOARD WAVEFORMS



DF BOARD IC1202 MM1093ND

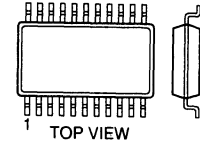


W BOARD TRANSISTOR VOLTAGE LIST

	E	C	B
Q2761	5.5	12.1	6.1
Q2762	11.1	4.7	10.5
Q2763	138	69.8	137
Q2764	1.1	6.4	1.8
Q2765	0.6	69.8	1.0
Q2766	1.8	8.1	2.4
Q2767	7.5	12.1	8.1
Q2768	GND	0.5	0

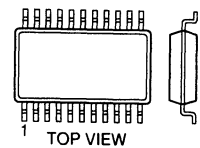
4-4. SEMICONDUCTIONS

AN5860
LM2901M



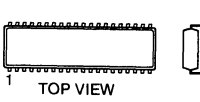
14pin SOP

BU4053BCF

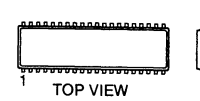


16pin SOP

CXA1477AS
CXA1855S

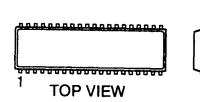


MC141624
XR1071CP



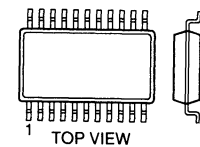
32pin DIP

MM1093ND



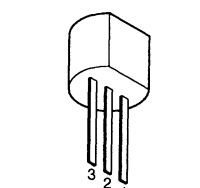
16pin DIP

NJM2904M

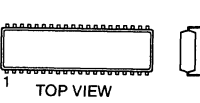


8pin SOP

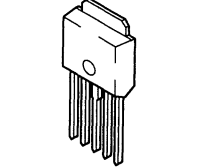
NJM78L05A



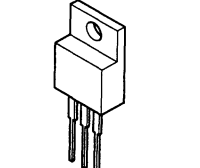
48pin DIP
CXP85332A-046S



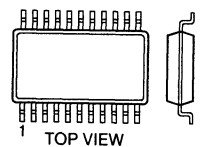
64pin DIP
L78LR05D-MA



L78S05CV
L78S12CV
NJM78M05FA
NJM78M08FA
NJM78M09FA
TA7805S
TA7812S

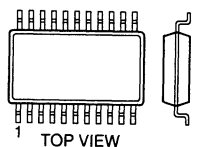


SDA9187-2XGEG



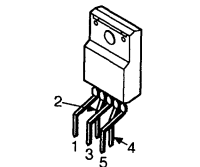
28pin SOP

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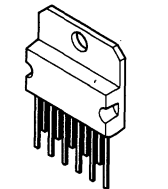


32pin SOP

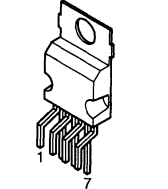
SI-3120C



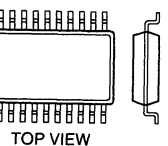
TDA7262



TDA8172

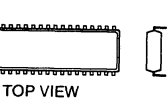


TDA8315T/N2A-T



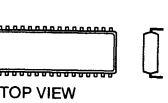
24pin SOP

TDA8424



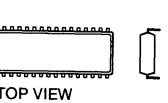
20pin DIP

UPC393C
24C04A1/P



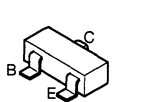
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Z8622812PSC

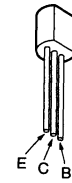


18pin DIP

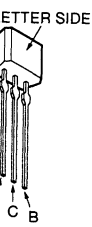
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2SA1162-G
2SC1623-L5L6
2SD601A-Q



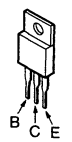
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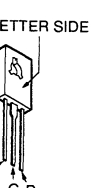
2SA1175-HFE
2SC2785-HFE



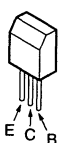
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2SB1565EF
2SC4159-E
2SC4793



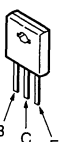
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2SC2688-LK



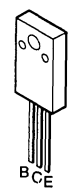
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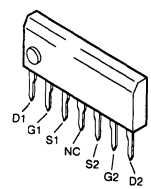
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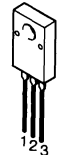
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2SC4927-01

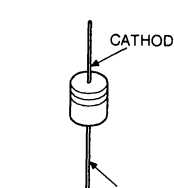


D10SC4M

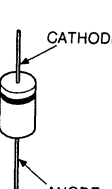


D1N20R
D1NS4

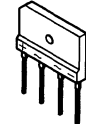
RD10ESB2
RD10ESB3
RD11ESB2
RD12ESB3
RD13ESB2
RD3.3ESB2
RD3.9ESB2
RD30ESB2
RD33ESB1
RD33ESB2
RD39ESB4
RD5.1ESB1
RD6.2ESB2
RD8.2ESB3
RD9.1ESL
1SS119-25
1SS133T-77



D2S4MF



D4SB60L



EGP20G
EL1Z
GP08D
RGP02-17EL-6433



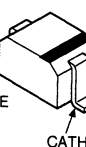
ERC06-15S
S2L20UF
S3V10SS



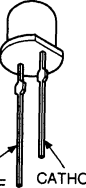
ERD29-08J



MA110
1SS355
1T363-01-T8A



SEL1222R-C



SECTION 5

EXPLODED VIEWS

NOTE:

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

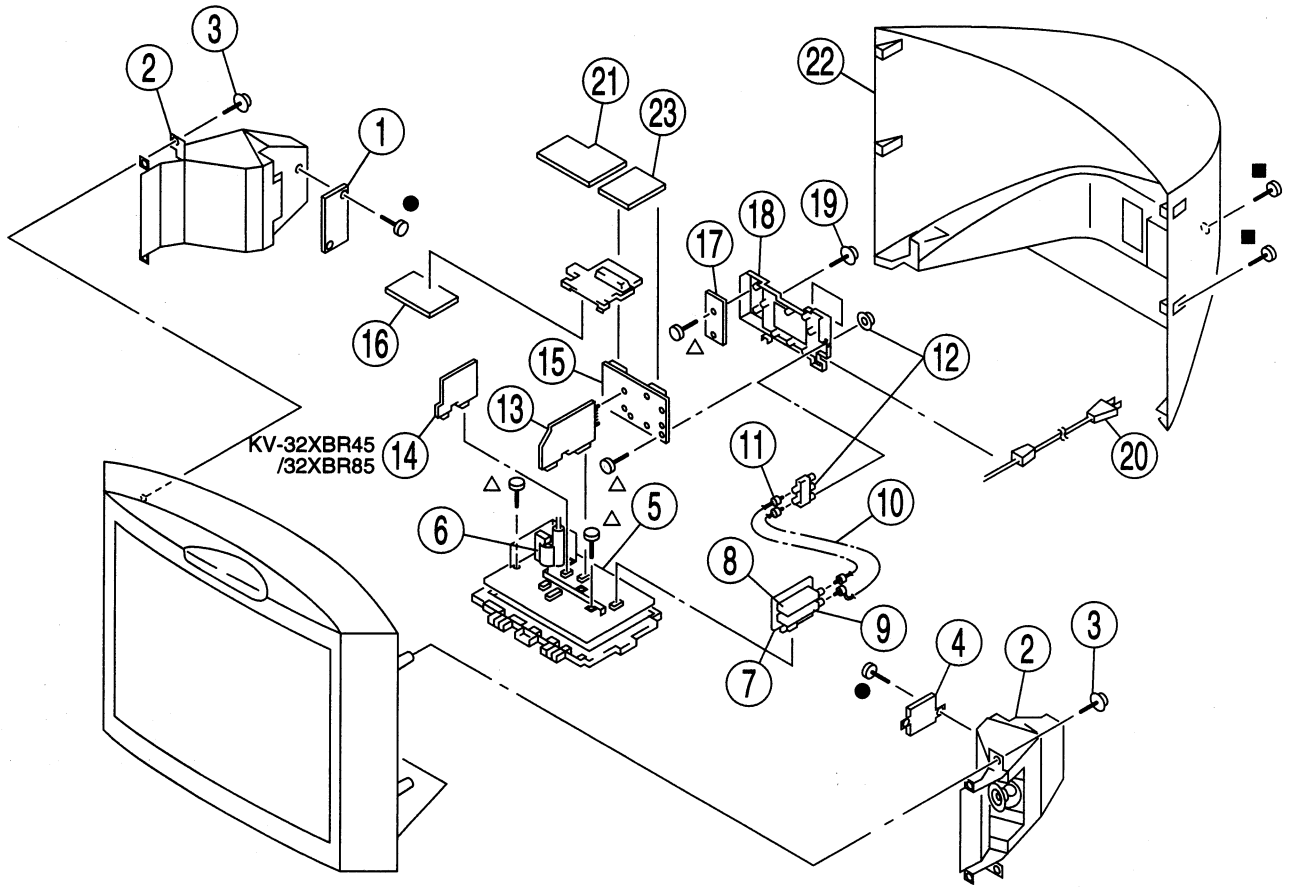
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

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

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

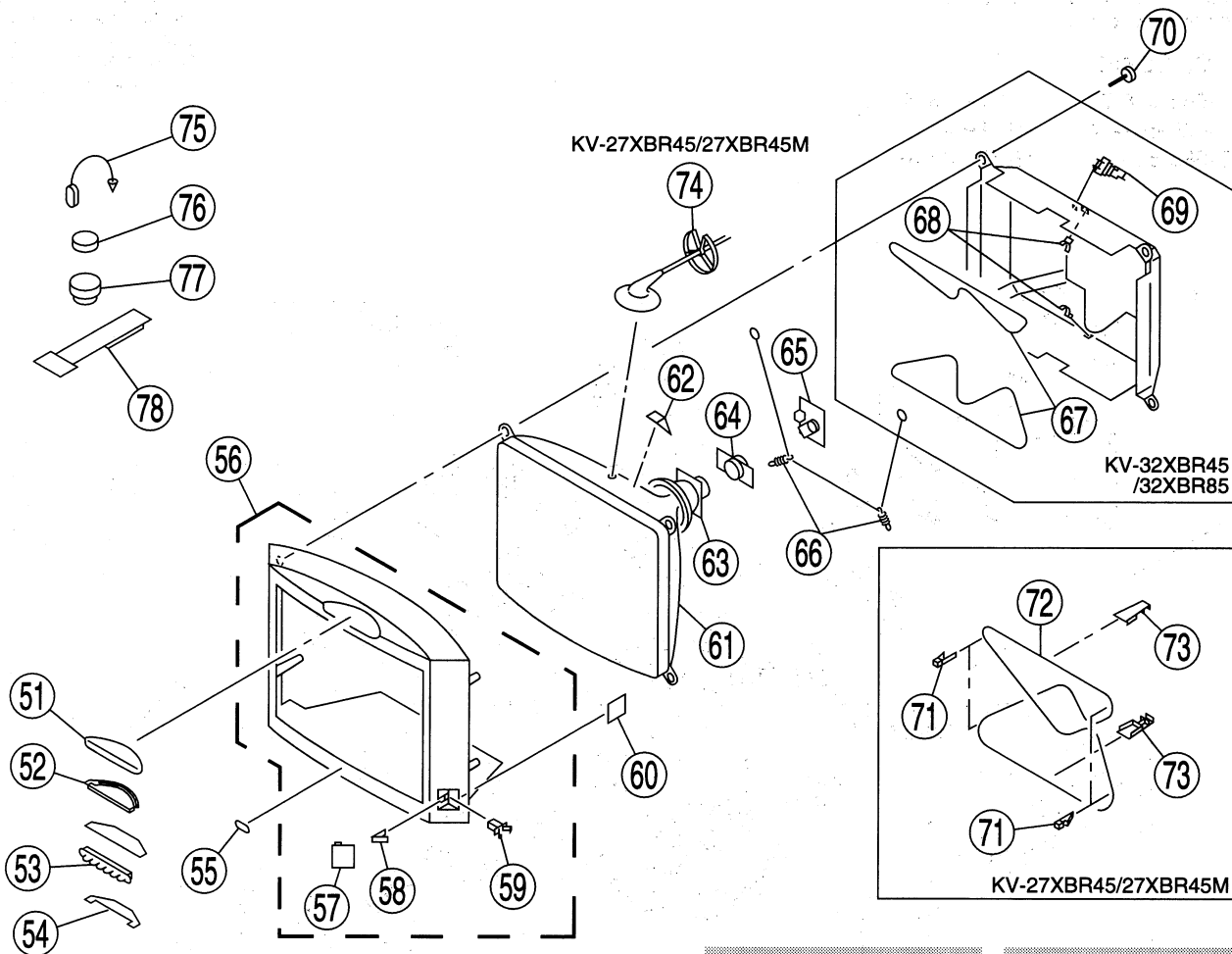
5-1. CHASSIS

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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	* A-1372-122-A	W BOARD, COMPLETE		11	* 1-751-135-11	CABLE, PIN	
2	1-504-322-11	BOX, SPEAKER (10CM.5CM)		12	1-417-178-11	SELECTOR, ANTENNA (AS-2)	
	1-504-322-21	BOX, SPEAKER (10CM.5CM)		13	* A-1306-512-A	M BOARD, COMPLETE	
				14	* A-1343-014-A	E BOARD, COMPLETE	
3	4-384-096-01	SCREW (4X16), TAPPING, +P					(KV-32XBR45/32XBR85)
4	8-913-821-90	TRANSMITTER TMR-D1002 SET		15	* A-1394-659-A	U BOARD, COMPLETE	
5	* A-1346-334-A	D BOARD, COMPLETE (KV-27XBR45/27XBR45M)		16	* A-1390-514-A	X BOARD, COMPLETE	
	* A-1346-331-A	D BOARD, COMPLETE (KV-32XBR45/32XBR85)		17	* A-1390-515-A	Z BOARD, COMPLETE	
6	Δ 1-453-146-11	TRANSFORMER ASSY, FLYBACK (NX-2604A3)		18	4-039-517-21	PANEL, ANTENNA TERMINAL	
7	* A-1297-519-A	A BOARD, COMPLETE		19	4-382-854-11	SCREW (M3X10), P. SW (+)	
8	Δ 8-598-254-00	TUNER, BTF-WA402		20	Δ 1-751-059-11	CORD, POWER (WITH CONNECTOR) (10A/125V)	
9	Δ 8-598-047-11	TUNER, ET BTF-LA401		21	* A-1195-095-A	PA BOARD, COMPLETE	
10	* 1-751-136-11	CABLE, PIN		22	4-048-237-01	COVER, REAR (KV-27XBR45/27XBR45M)	
					4-048-239-01	COVER, REAR (KV-32XBR45/32XBR85)	
				23	* A-1341-957-A	DF BOARD, COMPLETE	

5-2. PICTURE TUBE



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

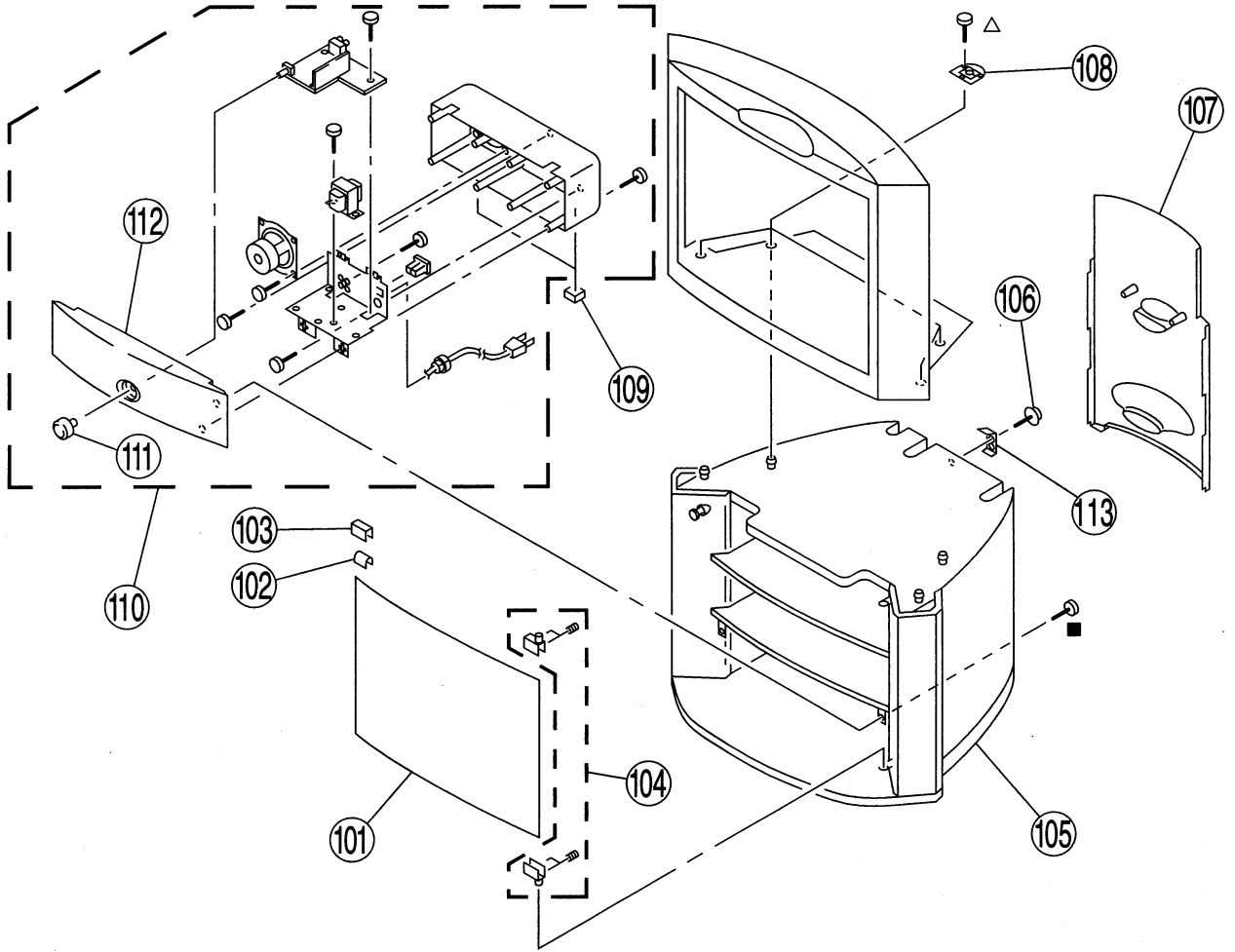
Les composants identifiés par une trame et une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

REF. NO.	PART NO.	DESCRIPTION	REMARK
51	4-048-240-01	PANEL, CONTROL	
52	4-048-241-01	BUTTON, MULTI	
53	8-913-823-90	LUMINOUS UNIT IFP-D1002 SET	
54	* A-1372-120-A	HB BOARD, COMPLETE	
55	3-704-179-31	EMBLEM (NO.9), SONY	
56	X-4032-887-1	BEZNET ASSY (KV-32XBR45/32XBR85)	57-59
	X-4032-886-1	BEZNET ASSY (KV-27XBR45/27XBR45M)	57-59
57	4-048-250-01	DOOR	
58	4-049-533-01	DOOR, SPRING	
59	4-392-036-01	CATCHER, PUSH	
60	* A-1372-121-A	HC BOARD, COMPLETE	
61	Δ 8-733-848-05	PICTURE TUBE 29PXD (A68KZJ50X)	
		(KV-27XBR45/27XBR45M)	
	Δ 8-451-275-42	PICTURE TUBE 29PXD (A68KZJ50X)	
		(KV-27XBR45/27XBR45M)	
	Δ 8-733-741-05	PICTURE TUBE 39PXD (A80JYV51X)	
		(KV-32XBR45/32XBR85)	
62	4-041-361-01	SPACER, DEFLECTION YOKE	
63	Δ 8-451-275-42	DEFLECTION YOKE (Y28PFA) (VTM)	
		(KV-27XBR45/27XBR45M)	
	Δ 8-451-315-41	DEFLECTION YOKE (Y34FXA) (VTM)	
		(KV-32XBR45/32XBR85)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
64	Δ 1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308)	
		(KV-27XBR45/27XBR45M)	
	Δ 1-452-579-21	NECK ASSY, PICTURE TUBE (NA322)	
		(KV-32XBR45/32XBR85)	
65	* A-1331-436-A	C BOARD, COMPLETE	
66	4-036-329-01	SPRING (B), TENSION	
67	Δ 1-402-952-12	COIL, GEGAUSSING	
		(KV-32XBR45/32XBR85)	
68	* 4-371-629-01	STOPPER, WIRE	(KV-32XBR45/32XBR85)
69	4-033-681-01	HOLDER, LEAD	(KV-32XBR45/32XBR85)
70	4-041-268-01	SCREW (7), TAPPING	
71	4-040-388-01	HOLDER (S), DGC	(KV-27XBR45/27XBR45M)
72	Δ 1-406-726-13	COIL, DEGAUSSING (KV-27XBR45/27XBR45M)	
73	4-040-387-01	HOLDER (M), DGC	(KV-27XBR45/27XBR45M)
74	3-704-372-31	HOLDER, HV CABLE	(KV-27XBR45/27XBR45M)
75	4-308-870-00	CLIP, LEAD WIRE	
76	1-452-032-00	MAGNET, DISC ; 10mm ϕ	
77	1-452-094-00	MAGNET, ROTATABLE DISK : 15mm ϕ	
78	X-4306-312-0	PERMALLOY ASSY, CONVERGENCE	

5-3. CABINET BASE [KV-32XBR85]

△ : 7-685-661-14 +BVTP 4X12
 ■ : 7-685-663-79 +BVTP 4X16



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	4-049-526-01	DOOR, GLASS		108	X-4032-889-1	CLAMP ASSY	
102	2-352-981-01	SPACER		109	4-049-527-01	FOOT, WOOFER	
103	2-359-505-01	RETAINER, MAGNET		110	1-550-910-21	WOOFER, ACTIVE SUPER	111, 112
104	4-049-536-01	HINGE SET		111	4-048-244-01	KNOB, WOOFER	
105	*X-4032-888-1	BASE ASSY, CABINET		112	4-048-246-01	COVER, WOOFER	
106	4-041-164-11	SCREW (4X20), TAPPING		113	4-049-530-01	BRACKET, REAR	
107	4-048-245-01	PANEL, BACK					

SECTION 6

ELECTRICAL PARTS LIST

PA

NOTE:

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

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

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

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

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

RESISTORS

- All resistors are in ohms
- F : nonflammable

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

• CAPACITORS

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.

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1195-095-A PA BOARD, COMPLETE *****				C3250	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
<CAPACITOR>				C3251	1-164-346-11	CERAMIC CHIP 1 μ F	16V
C3201	1-126-967-11	ELECT 47 μ F	20% 16V	C3252	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3202	1-126-967-11	ELECT 47 μ F	20% 16V	C3253	1-126-967-11	ELECT 47 μ F	20% 16V
C3203	1-126-967-11	ELECT 47 μ F	20% 16V	C3254	1-126-967-11	ELECT 47 μ F	20% 16V
C3204	1-126-967-11	ELECT 47 μ F	20% 16V	C3255	1-164-346-11	CERAMIC CHIP 1 μ F	16V
C3205	1-126-967-11	ELECT 47 μ F	20% 16V	C3256	1-163-017-00	CERAMIC CHIP 0.0047 μ F	10% 50V
C3206	1-164-346-11	CERAMIC CHIP 1 μ F	16V	C3257	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V
C3207	1-163-017-00	CERAMIC CHIP 0.0047 μ F	10% 50V	C3258	1-124-903-11	ELECT 1 μ F	20% 50V
C3208	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V	C3259	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3209	1-124-903-11	ELECT 1 μ F	20% 50V	C3260	1-126-967-11	ELECT 47 μ F	20% 16V
C3210	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3261	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3211	1-126-967-11	ELECT 47 μ F	20% 16V	C3262	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C3212	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3263	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V
C3213	1-163-097-00	CERAMIC CHIP 15PF	5% 50V	C3264	1-163-017-00	CERAMIC CHIP 0.0047 μ F	10% 50V
C3214	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V	C3265	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3215	1-163-017-00	CERAMIC CHIP 0.0047 μ F	10% 50V	C3266	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3216	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3267	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3217	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3268	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3218	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3269	1-164-005-11	CERAMIC CHIP 0.47 μ F	25V
C3219	1-164-005-11	CERAMIC CHIP 0.47 μ F	25V	C3270	1-163-135-00	CERAMIC CHIP 560PF	5% 50V
C3220	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3271	1-164-343-11	CERAMIC CHIP 0.056 μ F	10% 25V
C3221	1-163-135-00	CERAMIC CHIP 560PF	5% 50V	C3272	1-163-275-11	CERAMIC CHIP 0.001 μ F	5% 50V
C3222	1-164-343-11	CERAMIC CHIP 0.056 μ F	10% 25V	C3273	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3223	1-163-275-11	CERAMIC CHIP 0.001 μ F	5% 50V	C3274	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3224	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3275	1-164-336-11	CERAMIC CHIP 0.33 μ F	25V
C3225	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3276	1-126-933-11	ELECT 100 μ F	20% 10V
C3226	1-164-336-11	CERAMIC CHIP 0.33 μ F	25V	C3277	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3227	1-126-933-11	ELECT 100 μ F	20% 10V	C3278	1-164-161-11	CERAMIC CHIP 0.0022 μ F	10% 50V
C3228	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3279	1-126-967-11	ELECT 47 μ F	20% 16V
C3229	1-164-161-11	CERAMIC CHIP 0.0022 μ F	10% 50V	C3280	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3230	1-126-967-11	ELECT 47 μ F	20% 16V	C3281	1-124-903-11	ELECT 1 μ F	20% 50V
C3231	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3282	1-124-903-11	ELECT 1 μ F	20% 50V
C3232	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3283	1-124-903-11	ELECT 1 μ F	20% 50V
C3233	1-124-903-11	ELECT 1 μ F	20% 50V	C3284	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3234	1-124-903-11	ELECT 1 μ F	20% 50V	C3285	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3235	1-124-903-11	ELECT 1 μ F	20% 50V	C3286	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V
C3236	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3287	1-126-967-11	ELECT 47 μ F	20% 16V
C3237	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	C3288	1-163-249-11	CERAMIC CHIP 82PF	5% 50V
C3238	1-164-004-11	CERAMIC CHIP 0.1 μ F	10% 25V	C3289	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V
C3239	1-126-967-11	ELECT 47 μ F	20% 16V	C3290	1-163-117-00	CERAMIC CHIP 100PF	5% 50V
C3240	1-163-249-11	CERAMIC CHIP 82PF	5% 50V	C3291	1-163-235-11	CERAMIC CHIP 22PF	5% 50V
C3241	1-163-117-00	CERAMIC CHIP 100PF	5% 50V	C3292	1-163-237-11	CERAMIC CHIP 27PF	5% 50V
C3242	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V	<FILTER BLOCK>			
C3243	1-163-237-11	CERAMIC CHIP 27PF	5% 50V	CM3201	1-467-554-21	FILTER BLOCK, COMB	
C3244	1-163-235-11	CERAMIC CHIP 22PF	5% 50V	<CONNECTOR>			
C3245	1-126-967-11	ELECT 47 μ F	20% 16V	CN3201	1-573-297-21	CONNECTOR, BOARD TO BOARD 18P	
C3246	1-164-346-11	CERAMIC CHIP 1 μ F	16V	CN3202	* 1-564-509-11	PLUG, CONNECTOR 6P	
C3247	1-163-038-91	CERAMIC CHIP 0.1 μ F	25V				
C3248	1-164-346-11	CERAMIC CHIP 1 μ F	16V				
C3249	1-164-346-11	CERAMIC CHIP 1 μ F	16V				

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<DIODE>					
D3201	8-719-404-46	DIODE MA110		Q3216	8-729-216-22	TRANSISTOR 2SA1162-G	
D3202	8-719-404-46	DIODE MA110		Q3217	8-729-216-22	TRANSISTOR 2SA1162-G	
D3203	8-719-404-46	DIODE MA110		Q3218	8-729-216-22	TRANSISTOR 2SA1162-G	
		<FERRITE BEAD>		Q3219	8-729-216-22	TRANSISTOR 2SA1162-G	
FB3201	1-412-911-11	INDUCTOR, FERRITE BEAD		Q3220	8-729-216-22	TRANSISTOR 2SA1162-G	
FB3202	1-412-911-11	INDUCTOR, FERRITE BEAD				<RESISTOR>	
FB3203	1-412-911-11	INDUCTOR, FERRITE BEAD		R3201	1-216-075-00	METAL GLAZE 12K	5% 1/10W
FB3204	1-412-911-11	INDUCTOR, FERRITE BEAD		R3202	1-216-041-00	METAL GLAZE 470	5% 1/10W
FB3205	1-412-911-11	INDUCTOR, FERRITE BEAD		R3203	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
FB3206	1-412-911-11	INDUCTOR, FERRITE BEAD		R3205	1-216-049-91	METAL GLAZE 1K	5% 1/10W
FB3207	1-412-911-11	INDUCTOR, FERRITE BEAD		R3206	1-216-097-91	METAL GLAZE 100K	5% 1/10W
		<FILTER>		R3207	1-216-113-00	METAL GLAZE 470K	5% 1/10W
FL3201	1-236-728-11	ENCAPSULATED COMPONENT		R3208	1-216-041-00	METAL GLAZE 470	5% 1/10W
FL3202	1-236-728-11	ENCAPSULATED COMPONENT		R3209	1-216-043-91	METAL GLAZE 560	5% 1/10W
FL3203	1-236-728-11	ENCAPSULATED COMPONENT		R3210	1-216-041-00	METAL GLAZE 470	5% 1/10W
		<IC>		R3211	1-216-043-91	METAL GLAZE 560	5% 1/10W
IC3201	8-759-701-58	IC NJM78M08FA		R3212	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC3204	8-759-295-76	IC TDA8315T/N2A-T		R3213	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC3205	8-759-248-15	IC SDA9187-2XGEG		R3214	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC3206	8-759-338-13	IC SDA9189XGEG		R3215	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC3207	8-759-295-76	IC TDA8315T/N2A-T		R3216	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC3208	8-759-248-15	IC SDA9187-2XGEG		R3217	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC3209	8-759-338-13	IC SDA9189XGEG		R3218	1-216-073-00	METAL GLAZE 10K	5% 1/10W
IC3210	8-759-420-58	IC AN5860		R3219	1-216-025-91	METAL GLAZE 100	5% 1/10W
		<COIL>		R3220	1-216-025-91	METAL GLAZE 100	5% 1/10W
L3201	1-410-663-31	INDUCTOR 10μH		R3221	1-216-025-91	METAL GLAZE 100	5% 1/10W
L3203	1-410-470-11	INDUCTOR 10μH		R3222	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
L3204	1-410-470-11	INDUCTOR 10μH		R3223	1-216-083-00	METAL GLAZE 27K	5% 1/10W
L3205	1-410-470-11	INDUCTOR 10μH		R3224	1-216-027-00	METAL GLAZE 120	5% 1/10W
L3206	1-410-470-11	INDUCTOR 10μH		R3225	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
L3207	1-410-470-11	INDUCTOR 10μH		R3226	1-216-045-00	METAL GLAZE 680	5% 1/10W
L3208	1-410-470-11	INDUCTOR 10μH		R3227	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
L3209	1-410-470-11	INDUCTOR 10μH		R3228	1-216-037-00	METAL GLAZE 330	5% 1/10W
L3210	1-410-473-11	INDUCTOR 18μH		R3229	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
L3211	1-410-470-11	INDUCTOR 10μH		R3230	1-216-105-91	METAL GLAZE 220K	5% 1/10W
L3212	1-410-470-11	INDUCTOR 10μH		R3233	1-216-295-91	CONDUCTOR, CHIP	
L3213	1-410-470-11	INDUCTOR 10μH		R3235	1-216-049-91	METAL GLAZE 1K	5% 1/10W
L3214	1-410-470-11	INDUCTOR 10μH		R3236	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
L3215	1-410-470-11	INDUCTOR 10μH		R3237	1-216-049-91	METAL GLAZE 1K	5% 1/10W
L3216	1-410-470-11	INDUCTOR 10μH		R3238	1-216-049-91	METAL GLAZE 1K	5% 1/10W
L3217	1-410-473-11	INDUCTOR 18μH		R3239	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
L3218	1-410-470-11	INDUCTOR 10μH		R3240	1-216-049-91	METAL GLAZE 1K	5% 1/10W
		<TRANSISTOR>		R3241	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q3201	8-729-422-27	TRANSISTOR 2SD601A-Q		R3242	1-216-047-91	METAL GLAZE 820	5% 1/10W
Q3202	8-729-422-27	TRANSISTOR 2SD601A-Q		R3243	1-216-642-11	METAL CHIP 430	0.50% 1/10W
Q3203	8-729-422-27	TRANSISTOR 2SD601A-Q		R3244	1-216-638-11	METAL CHIP 300	0.50% 1/10W
Q3204	8-729-422-27	TRANSISTOR 2SD601A-Q		R3245	1-216-646-11	METAL CHIP 620	0.50% 1/10W
Q3205	8-729-422-27	TRANSISTOR 2SD601A-Q		R3246	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
Q3206	8-729-422-27	TRANSISTOR 2SD601A-Q		R3247	1-216-047-91	METAL GLAZE 820	5% 1/10W
Q3207	8-729-422-27	TRANSISTOR 2SD601A-Q		R3248	1-208-801-11	METAL CHIP 6.2K	0.50% 1/10W
Q3208	8-729-422-27	TRANSISTOR 2SD601A-Q		R3249	1-216-295-91	CONDUCTOR, CHIP	
Q3209	8-729-422-27	TRANSISTOR 2SD601A-Q		R3251	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q3210	8-729-216-22	TRANSISTOR 2SA1162-G		R3252	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q3211	8-729-216-22	TRANSISTOR 2SA1162-G		R3253	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q3212	8-729-216-22	TRANSISTOR 2SA1162-G		R3254	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q3213	8-729-216-22	TRANSISTOR 2SA1162-G		R3258	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q3214	8-729-216-22	TRANSISTOR 2SA1162-G		R3260	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
Q3215	8-729-422-27	TRANSISTOR 2SD601A-Q		R3261	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
				R3262	1-216-075-00	METAL GLAZE 12K	5% 1/10W
				R3263	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R3264	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
				R3265	1-216-025-91	METAL GLAZE 100	5% 1/10W
				R3267	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R3268	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R3269	1-216-043-91	METAL GLAZE 560	5% 1/10W
				R3270	1-216-041-00	METAL GLAZE 470	5% 1/10W

PA A M

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R3271	1-216-043-91	METAL GLAZE 560	5% 1/10W
R3272	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R3273	1-216-105-91	METAL GLAZE 220K	5% 1/10W
R3274	1-216-045-00	METAL GLAZE 680	5% 1/10W
R3275	1-216-027-00	METAL GLAZE 120	5% 1/10W
R3276	1-216-037-00	METAL GLAZE 330	5% 1/10W
R3277	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R3278	1-216-025-91	METAL GLAZE 100	5% 1/10W
R3279	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R3280	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R3281	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R3282	1-216-055-00	METAL GLAZE 1.8K	5% 1/10W
R3283	1-216-051-00	METAL GLAZE 1.2K	5% 1/10W
R3286	1-216-295-91	CONDUCTOR, CHIP	
R3287	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R3288	1-216-059-00	METAL GLAZE 2.7K	5% 1/10W
R3289	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R3290	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R3291	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R3292	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R3293	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R3295	1-216-045-00	METAL GLAZE 680	5% 1/10W
R3296	1-216-037-00	METAL GLAZE 330	5% 1/10W
R3297	1-216-638-11	METAL CHIP 300	0.50% 1/10W
R3298	1-216-047-91	METAL GLAZE 820	5% 1/10W
R3299	1-216-646-11	METAL CHIP 620	0.50% 1/10W
R3300	1-216-053-00	METAL GLAZE 1.5K	5% 1/10W
R3301	1-216-047-91	METAL GLAZE 820	5% 1/10W
R3302	1-216-642-11	METAL CHIP 430	0.50% 1/10W
R3303	1-208-801-11	METAL CHIP 6.2K	0.50% 1/10W
R3305	1-216-295-91	CONDUCTOR, CHIP	
R3306	1-216-037-00	METAL GLAZE 330	5% 1/10W
<VARIABLE RESISTOR>			
RV3201	1-238-019-11	RES, ADJ, CARBON 47K	
<CRYSTAL>			
X3201	1-567-505-11	OSCILLATOR, CRYSTAL	
X3202	1-760-095-21	VIBRATOR, CRYSTAL	
X3203	1-567-505-11	OSCILLATOR, CRYSTAL	
X3204	1-760-095-21	VIBRATOR, CRYSTAL	

* A-1297-519-A A BOARD, COMPLETE

<CAPACITOR>

C173	1-164-232-11	CERAMIC CHIP 0.01 μ F	10% 50V
C174	1-164-232-11	CERAMIC CHIP 0.01 μ F	10% 50V
C175	1-126-935-11	ELECT 470 μ F	20% 16V
C176	1-126-935-11	ELECT 470 μ F	20% 16V
C177	1-126-964-11	ELECT 10 μ F	20% 50V
C178	1-126-933-11	ELECT 100 μ F	20% 16V
C179	1-128-551-11	ELECT 22 μ F	20% 25V
C180	1-128-551-11	ELECT 22 μ F	20% 25V
C181	1-164-161-11	CERAMIC CHIP 0.0022 μ F	10% 50V
C182	1-164-161-11	CERAMIC CHIP 0.0022 μ F	10% 50V
C184	1-126-964-11	ELECT 10 μ F	20% 50V
C185	1-126-964-11	ELECT 10 μ F	20% 50V

<CONNECTOR>

CN151	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
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REF. NO.	PART NO.	DESCRIPTION	REMARK
CN152	1-750-394-11	PIN, CONNECTOR (STAKING) 32P	
CN164	1-564-505-11	PLUG, CONNECTOR 2P	
CN165	1-564-505-11	PLUG, CONNECTOR 2P	
CN208	1-564-510-11	PLUG, CONNECTOR 7P	
<DIODE>			
D170	8-719-110-76	DIODE RD33ESB1	
D175	8-719-110-76	DIODE RD33ESB1	
<IC>			
IC172	8-759-932-67	IC BU4053BCF	
<COIL>			
L170	1-408-408-00	INDUCTOR 8.2 μ H	
L171	1-408-408-00	INDUCTOR 8.2 μ H	
L172	1-408-408-00	INDUCTOR 8.2 μ H	
<TRANSISTOR>			
Q172	8-729-216-22	TRANSISTOR 2SA1162-G	
Q173	8-729-216-22	TRANSISTOR 2SA1162-G	
<RESISTOR>			
R173	1-216-295-91	CONDUCTOR, CHIP	
R174	1-216-689-11	METAL GLAZE 39K	5% 1/10W
R175	1-215-900-11	METAL OXIDE 22K	5% 2W F
R177	1-215-900-11	METAL OXIDE 22K	5% 2W F
R179	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R181	1-216-025-91	METAL GLAZE 100	5% 1/10W
R185	1-216-025-91	METAL GLAZE 100	5% 1/10W
R186	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R187	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R188	1-216-689-11	METAL GLAZE 39K	5% 1/10W
R189	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R190	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R191	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R198	1-249-425-11	CARBON 4.7K	5% 1/4W

TU101 Δ 8-598-254-00 TUNER, BTF-WA402
 TU102 Δ 8-598-047-11 TUNER, ET BTF-LA401

* A-1306-512-A M BOARD, COMPLETE

<CAPACITOR>

C001	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C002	1-163-809-11	CERAMIC CHIP 0.047 μ F	10% 25V
C003	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C004	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C005	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C006	1-163-125-00	CERAMIC CHIP 220PF	5% 50V
C007	1-124-903-11	ELECT 1 μ F	20% 50V
C008	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C009	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C010	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C011	1-163-001-11	CERAMIC CHIP 220PF	10% 50V
C012	1-163-001-11	CERAMIC CHIP 220PF	10% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D315	8-719-404-46	DIODE MA110		R026	1-216-097-91	METAL GLAZE 100K	5% 1/10W
D316	8-719-404-46	DIODE MA110		R027	1-216-121-91	METAL GLAZE 1M	5% 1/10W
D327	8-719-404-46	DIODE MA110		R028	1-216-073-00	METAL GLAZE 10K	5% 1/10W
D328	8-719-404-46	DIODE MA110		R029	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
D330	8-719-110-22	DIODE RD11ESB2		R030	1-216-073-00	METAL GLAZE 10K	5% 1/10W
D341	8-719-121-24	DIODE RD9.1ESL		R031	1-216-033-00	METAL GLAZE 220	5% 1/10W
D355	8-719-404-46	DIODE MA110		R032	1-216-033-00	METAL GLAZE 220	5% 1/10W
		<IC>		R033	1-216-033-00	METAL GLAZE 220	5% 1/10W
IC101	8-752-867-91	IC CXP85332A-046S		R034	1-216-033-00	METAL GLAZE 220	5% 1/10W
IC102	8-759-067-24	IC 24C04AI/P		R035	1-216-033-00	METAL GLAZE 220	5% 1/10W
IC103	8-759-805-37	IC L78LR05D-MA		R038	1-216-033-00	METAL GLAZE 220	5% 1/10W
IC150	8-759-328-12	IC Z8622812PSC		R039	1-216-295-91	CONDUCTOR, CHIP	
IC203	8-749-921-21	IC SI-3120C		R040	1-216-049-91	METAL GLAZE 1K	5% 1/10W
IC301	8-752-063-50	IC CXA1477AS		R041	1-216-033-00	METAL GLAZE 220	5% 1/10W
IC333	8-759-981-61	IC LM2901M		R042	1-216-033-00	METAL GLAZE 220	5% 1/10W
		<COIL>		R043	1-216-295-91	CONDUCTOR, CHIP	
L001	1-410-470-11	INDUCTOR 10μH		R044	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
L002	1-410-476-11	INDUCTOR 33μH		R045	1-216-033-00	METAL GLAZE 220	5% 1/10W
L320	1-408-413-00	INDUCTOR 22μH		R048	1-216-073-00	METAL GLAZE 10K	5% 1/10W
		<TRANSISTOR>		R049	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q002	8-729-216-22	TRANSISTOR 2SA1162-G		R050	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q004	8-729-216-22	TRANSISTOR 2SA1162-G		R051	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q151	8-729-422-27	TRANSISTOR 2SD601A-Q		R052	1-216-073-00	METAL GLAZE 10K	5% 1/10W
Q201	8-729-422-27	TRANSISTOR 2SD601A-Q		R053	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q203	8-729-422-27	TRANSISTOR 2SD601A-Q		R054	1-216-049-91	METAL GLAZE 1K	5% 1/10W
Q204	8-729-422-27	TRANSISTOR 2SD601A-Q		R055	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q302	8-729-422-27	TRANSISTOR 2SD601A-Q		R057	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q303	8-729-422-27	TRANSISTOR 2SD601A-Q		R058	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q304	8-729-422-27	TRANSISTOR 2SD601A-Q		R059	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
Q307	8-729-422-27	TRANSISTOR 2SD601A-Q		R060	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q308	8-729-422-27	TRANSISTOR 2SD601A-Q		R061	1-216-041-00	METAL GLAZE 470	5% 1/10W
Q315	8-729-216-22	TRANSISTOR 2SA1162-G		R062	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
Q316	8-729-216-22	TRANSISTOR 2SA1162-G		R064	1-216-077-00	METAL GLAZE 15K	5% 1/10W
Q317	8-729-216-22	TRANSISTOR 2SA1162-G		R065	1-216-083-00	METAL GLAZE 27K	5% 1/10W
Q318	8-729-216-22	TRANSISTOR 2SA1162-G		R066	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q340	8-729-216-22	TRANSISTOR 2SA1162-G		R067	1-216-025-91	METAL GLAZE 100	5% 1/10W
Q391	8-729-216-22	TRANSISTOR 2SA1162-G		R069	1-216-033-00	METAL GLAZE 220	5% 1/10W
Q392	8-729-216-22	TRANSISTOR 2SA1162-G		R070	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
		<RESISTOR>		R075	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R001	1-216-033-00	METAL GLAZE 220	5% 1/10W	R076	1-216-295-91	CONDUCTOR, CHIP	
R002	1-216-033-00	METAL GLAZE 220	5% 1/10W	R077	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R003	1-216-033-00	METAL GLAZE 220	5% 1/10W	R078	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R004	1-216-033-00	METAL GLAZE 220	5% 1/10W	R079	1-216-295-91	CONDUCTOR, CHIP	
R005	1-216-033-00	METAL GLAZE 220	5% 1/10W	R080	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R006	1-216-049-91	METAL GLAZE 1K	5% 1/10W	R082	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R007	1-216-033-00	METAL GLAZE 220	5% 1/10W	R083	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R008	1-216-033-00	METAL GLAZE 220	5% 1/10W	R086	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R009	1-216-033-00	METAL GLAZE 220	5% 1/10W	R087	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R010	1-216-033-00	METAL GLAZE 220	5% 1/10W	R095	1-216-079-00	METAL GLAZE 18K	5% 1/10W
R011	1-216-033-00	METAL GLAZE 220	5% 1/10W	R099	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R012	1-216-033-00	METAL GLAZE 220	5% 1/10W	R100	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R013	1-216-295-91	CONDUCTOR, CHIP		R101	1-216-045-00	METAL GLAZE 680	5% 1/10W
R014	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R102	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R015	1-216-033-00	METAL GLAZE 220	5% 1/10W	R103	1-216-045-00	METAL GLAZE 680	5% 1/10W
R016	1-216-033-00	METAL GLAZE 220	5% 1/10W	R104	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W
R019	1-216-033-00	METAL GLAZE 220	5% 1/10W	R105	1-216-045-00	METAL GLAZE 680	5% 1/10W
R021	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R150	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R022	1-216-073-00	METAL GLAZE 10K	5% 1/10W	R151	1-216-295-91	CONDUCTOR, CHIP	
R023	1-216-033-00	METAL GLAZE 220	5% 1/10W	R152	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R025	1-216-033-00	METAL GLAZE 220	5% 1/10W	R153	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
				R154	1-216-295-91	CONDUCTOR, CHIP	
				R155	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R156	1-216-049-91	METAL GLAZE 1K	5% 1/10W
				R157	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R158	1-216-041-00	METAL GLAZE 470	5% 1/10W
				R159	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R160	1-216-073-00	METAL GLAZE 10K	5% 1/10W
				R165	1-216-295-91	CONDUCTOR, CHIP	
				R166	1-216-049-91	METAL GLAZE 1K	5% 1/10W

C

DF

REF. NO.	PART NO.	DESCRIPTION	REMARK
D772	8-719-991-33	DIODE 1SS133T-77	
D773	8-719-991-33	DIODE 1SS133T-77	
<JACK>			
J701	1-251-328-11	SOCKET, PICTURE TUBE	
<COIL>			
L701	1-410-478-11	INDUCTOR 47μH	
L702	1-410-470-11	INDUCTOR 10μH	
L703	1-410-470-11	INDUCTOR 10μH	
L704	1-410-470-11	INDUCTOR 10μH	
<TRANSISTOR>			
Q711	8-729-326-11	TRANSISTOR 2SC2611	
Q712	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q731	8-729-326-11	TRANSISTOR 2SC2611	
Q732	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q751	8-729-326-11	TRANSISTOR 2SC2611	
Q752	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q770	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q771	8-729-200-17	TRANSISTOR 2SA1091-O	
Q772	8-729-200-17	TRANSISTOR 2SA1091-O	
Q773	8-729-200-17	TRANSISTOR 2SA1091-O	
<RESISTOR>			
R700	1-247-739-11	CARBON 100	5% 1/2W
R701	1-244-941-00	CARBON 680K	5% 1/2W
R702	1-249-496-11	CARBON 100K	5% 1/2W
R703	1-249-496-11	CARBON 100K	5% 1/2W
R704	1-216-398-11	METAL OXIDE 5.6	5% 3W F
R705	1-216-398-11	METAL OXIDE 5.6	5% 3W F
R710	1-247-752-11	CARBON 1K	5% 1/2W
R711	1-247-807-31	CARBON 100	5% 1/4W
R712	1-216-486-00	METAL OXIDE 8.2K	5% 3W F
R713	1-535-303-00	LEAD, JUMPER (5.0mm)	
R714	1-249-421-11	CARBON 2.2K	5% 1/4W
R716	1-249-407-11	CARBON 150	5% 1/4W
R717	1-249-401-11	CARBON 47	5% 1/4W
R730	1-247-752-11	CARBON 1K	5% 1/2W
R731	1-247-807-31	CARBON 100	5% 1/4W
R732	1-216-486-00	METAL OXIDE 8.2K	5% 3W F
R733	1-535-303-00	LEAD, JUMPER (5.0mm)	
R734	1-249-421-11	CARBON 2.2K	5% 1/4W
R736	1-249-407-11	CARBON 150	5% 1/4W
R737	1-249-401-11	CARBON 47	5% 1/4W
R750	1-247-752-11	CARBON 1K	5% 1/2W
R751	1-247-807-31	CARBON 100	5% 1/4W
R752	1-216-486-00	METAL OXIDE 8.2K	5% 3W F
R753	1-535-303-00	LEAD, JUMPER (5.0mm)	
R754	1-249-421-11	CARBON 2.2K	5% 1/4W
R756	1-249-407-11	CARBON 150	5% 1/4W
R757	1-249-401-11	CARBON 47	5% 1/4W
R770	1-247-863-91	CARBON 22K	5% 1/4W
R771	1-249-409-11	CARBON 220	5% 1/4W F
R772	1-249-409-11	CARBON 220	5% 1/4W F
R773	1-249-409-11	CARBON 220	5% 1/4W F
R774	1-249-437-11	CARBON 47K	5% 1/4W
R775	1-249-417-11	CARBON 1K	5% 1/4W F
R776	1-249-409-11	CARBON 220	5% 1/4W F
R790	1-249-414-11	CARBON 560	5% 1/4W
R791	1-249-412-11	CARBON 390	5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
<VARIABLE RESISTOR>			
RV702	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M	

* A-1341-957-A DF BOARD, COMPLETE *****			
<CAPACITOR>			
C1201	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C1202	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1203	1-163-105-00	CERAMIC CHIP 33PF	5% 50V
C1204	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1205	1-124-927-11	ELECT 4.7μF	20% 50V
C1206	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1207	1-124-925-11	ELECT 2.2μF	20% 50V
C1208	1-163-095-00	CERAMIC CHIP 12PF	5% 50V
C1209	1-124-903-11	ELECT 1μF	20% 50V
C1210	1-163-006-11	CERAMIC CHIP 560PF	10% 50V
C1211	1-163-131-00	CERAMIC CHIP 390PF	10% 50V
C1212	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C1213	1-124-927-11	ELECT 4.7μF	20% 50V
C1214	1-163-089-00	CERAMIC CHIP 6PF	0.25PF 50V
C1215	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C1216	1-126-967-11	ELECT 47μF	20% 50V
C1217	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1218	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1219	1-124-927-11	ELECT 4.7μF	20% 50V
C1220	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1221	1-126-964-11	ELECT 10μF	20% 50V
C1222	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C1223	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1224	1-126-964-11	ELECT 10μF	20% 50V
C1225	1-126-964-11	ELECT 10μF	20% 50V
C1226	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1227	1-126-964-11	ELECT 10μF	20% 50V
C1228	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1229	1-126-964-11	ELECT 10μF	20% 50V
C1230	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1231	1-126-964-11	ELECT 10μF	20% 50V
C1232	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1233	1-165-319-11	CERAMIC CHIP 0.1μF	5% 50V
C1234	1-164-004-11	CERAMIC CHIP 0.1μF	10% 25V
C1235	1-124-927-11	ELECT 4.7μF	20% 50V
C1236	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1237	1-163-017-00	CERAMIC CHIP 0.0047μF	10% 50V
C1238	1-126-964-11	ELECT 10μF	20% 50V
C1239	1-126-964-11	ELECT 10μF	20% 50V
C1240	1-165-319-11	CERAMIC CHIP 0.1μF	5% 50V
C1241	1-126-964-11	ELECT 10μF	20% 50V
C1242	1-165-319-11	CERAMIC CHIP 0.1μF	5% 50V
C1243	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C1244	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1245	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1246	1-163-097-00	CERAMIC CHIP 15PF	5% 50V
C1247	1-126-964-11	ELECT 10μF	20% 50V
C1248	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1249	1-126-964-11	ELECT 10μF	20% 50V
C1250	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1251	1-164-232-11	CERAMIC CHIP 0.01μF	10% 50V
C1252	1-126-964-11	ELECT 10μF	20% 50V
C1253	1-163-109-00	CERAMIC CHIP 47PF	5% 50V

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

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

DF	D
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>							
CN1201	* 1-573-296-21	CONNECTOR, BOARD TO BOARD 10P		R1233	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
<FILTER>				R1234	1-216-043-91	METAL GLAZE 560	5% 1/10W
FL1201	1-239-847-11	FILTER, LOW PASS		R1236	1-216-075-00	METAL GLAZE 12K	5% 1/10W
FL1202	1-239-847-11	FILTER, LOW PASS		R1237	1-216-081-00	METAL GLAZE 22K	5% 1/10W
FL1203	1-239-847-11	FILTER, LOW PASS		R1238	1-216-081-00	METAL GLAZE 22K	5% 1/10W
<IC>				R1239	1-216-639-11	METAL CHIP 330	0.50% 1/10W
IC1201	8-759-346-46	IC MC141624		R1240	1-216-650-11	METAL CHIP 910	0.50% 1/10W
IC1202	8-759-065-82	IC MM1093ND		R1241	1-216-649-11	METAL CHIP 820	0.50% 1/10W
IC1203	8-759-701-56	IC NJM78M05FA		R1242	1-216-001-00	METAL GLAZE 10	5% 1/10W
<COIL>				R1243	1-216-049-91	METAL GLAZE 1K	5% 1/10W
L1201	1-408-617-31	INDUCTOR 150 μ H		R1246	1-216-037-00	METAL GLAZE 330	5% 1/10W
L1202	1-408-413-00	INDUCTOR 22 μ H		<CRYSTAL>			
L1203	1-408-413-00	INDUCTOR 22 μ H		X1201	1-567-505-11	OSCILLATOR, CRYSTAL	
L1204	1-408-413-00	INDUCTOR 22 μ H		*****			
L1205	1-408-413-00	INDUCTOR 22 μ H		* A-1346-334-A	D BOARD, COMPLETE		
L1206	1-408-413-00	INDUCTOR 22 μ H		*****			
<TRANSISTOR>				(KV-27XBR45/27XBR45M)			
Q1201	8-729-216-22	TRANSISTOR 2SA1162-G		* A-1346-331-A	D BOARD, COMPLETE		
Q1202	8-729-422-27	TRANSISTOR 2SD601A-Q		*****			
Q1203	8-729-216-22	TRANSISTOR 2SA1162-G		(KV-32XBR45/32XBR85)			
Q1204	8-729-422-27	TRANSISTOR 2SD601A-Q		4-382-854-11	SCREW (M3X10), P, SW (+)		
Q1205	8-729-216-22	TRANSISTOR 2SA1162-G		<CAPACITOR>			
Q1206	8-729-422-27	TRANSISTOR 2SD601A-Q		C501	1-126-942-61	ELECT 1000 μ F	20% 25V
Q1207	8-729-216-22	TRANSISTOR 2SA1162-G		C502	1-162-131-11	CERAMIC 220PF	10% 2KV
Q1208	8-729-422-27	TRANSISTOR 2SD601A-Q		C503	1-126-942-61	ELECT 1000 μ F	20% 25V
Q1209	8-729-216-22	TRANSISTOR 2SA1162-G		C504	1-137-366-11	FILM 0.0022 μ F	5% 50V
Q1210	8-729-422-27	TRANSISTOR 2SD601A-Q		C505	1-128-551-11	ELECT 22 μ F	20% 25V
<RESISTOR>				C506	1-128-560-11	ELECT 22 μ F	20% 100V
R1201	1-216-645-11	METAL CHIP 560	0.50% 1/10W	C507	1-107-636-11	ELECT 10 μ F	20% 160V
R1202	1-208-774-11	METAL CHIP 470	0.50% 1/10W	C508	1-129-898-00	FILM 0.0022 μ F	5% 630V
R1203	1-216-043-91	METAL GLAZE 560	5% 1/10W	(KV-27XBR45/27XBR45M)			
R1204	1-216-295-91	CONDUCTOR, CHIP		C509	1-128-551-11	ELECT 22 μ F	20% 25V
R1205	1-216-025-91	METAL GLAZE 100	5% 1/10W	C510	1-106-387-00	MYLAR 0.068 μ F	10% 200V
R1206	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	C511	1-123-024-21	ELECT 33 μ F	160V
R1207	1-216-049-91	METAL GLAZE 1K	5% 1/10W	C512	1-102-212-00	CERAMIC 820PF	10% 500V
R1208	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C513	1-102-212-00	CERAMIC 820PF	10% 500V
R1209	1-216-077-00	METAL GLAZE 15K	5% 1/10W	C514	1-102-244-00	CERAMIC 220PF	10% 500V
R1210	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C515	1-137-416-11	FILM 0.01 μ F	10% 100V
R1211	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W	C517	1-162-116-00	CERAMIC 680PF	10% 2KV
R1212	1-216-039-00	METAL GLAZE 390	5% 1/10W	C518	1-162-116-00	CERAMIC 680PF	10% 2KV
R1213	1-216-121-91	METAL GLAZE 1M	5% 1/10W	C519	Δ 1-104-771-11	FILM 0.02 μ F	3% 2KV
R1214	1-216-077-00	METAL GLAZE 15K	5% 1/10W	C520	Δ 1-162-134-11	CERAMIC 470PF	10% 2KV
R1215	1-216-037-00	METAL GLAZE 330	5% 1/10W	C521	Δ 1-129-723-00	FILM 0.056 μ F	5% 630V
R1216	1-216-067-00	METAL GLAZE 5.6K	5% 1/10W	C522	1-106-383-00	MYLAR 0.047 μ F	10% 200V
R1217	1-216-025-91	METAL GLAZE 100	5% 1/10W	C523	1-102-002-00	CERAMIC 680PF	10% 500V
R1218	1-216-025-91	METAL GLAZE 100	5% 1/10W	C524	1-102-212-00	CERAMIC 820PF	10% 500V
R1219	1-216-113-00	METAL GLAZE 470K	5% 1/10W	C525	1-124-902-00	ELECT 0.47 μ F	20% 50V
R1221	1-216-073-00	METAL GLAZE 10K	5% 1/10W	C526	1-106-395-00	MYLAR 0.15 μ F	10% 200V
R1222	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W	C527	1-109-956-11	ELECT 1 μ F	20% 200V
R1223	1-216-043-91	METAL GLAZE 560	5% 1/10W	C528	1-136-113-00	FILM 2 μ F	5% 200V
R1225	1-216-075-00	METAL GLAZE 12K	5% 1/10W	C529	1-137-410-11	FILM 0.001 μ F	10% 100V
R1226	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C530	1-104-770-11	FILM 0.62 μ F	5% 200V
R1227	1-216-081-00	METAL GLAZE 22K	5% 1/10W	C531	1-104-664-11	ELECT 47 μ F	20% 25V
R1228	1-216-031-00	METAL GLAZE 180	5% 1/10W	C532	1-136-165-00	FILM 0.1 μ F	5% 50V
R1229	1-216-048-00	METAL GLAZE 910	5% 1/10W	C533	1-124-927-11	ELECT 4.7 μ F	20% 50V
R1230	1-216-041-00	METAL GLAZE 470	5% 1/10W	C534	1-136-161-00	FILM 0.047 μ F	5% 50V
R1231	1-216-025-91	METAL GLAZE 100	5% 1/10W	C535	1-126-969-11	ELECT 220 μ F	20% 50V
R1232	1-216-049-91	METAL GLAZE 1K	5% 1/10W	C536	1-137-398-11	FILM 0.068 μ F	10% 100V
				C537	1-126-964-11	ELECT 10 μ F	20% 50V
				C538	1-136-161-00	FILM 0.047 μ F	5% 50V

KV-27XBR45/27XBR45M/32XBR45/32XBR85

RM-Y127

RM-Y127

RM-Y127

RM-Y127

D

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
C540	1-137-366-11	FILM	0.0022 μ F 5% 50V
C541	1-137-366-11	FILM	0.0022 μ F 5% 50V
C542	1-137-366-11	FILM	0.0022 μ F 5% 50V
C545	1-124-927-11	ELECT	4.7 μ F 20% 50V
C547	1-102-112-00	CERAMIC	330PF 10% 50V
C548	Δ 1-162-116-00	CERAMIC	680PF 10% 2KV
C553	1-102-112-00	CERAMIC	330PF 10% 50V
C561	1-162-815-11	CERAMIC	47PF 5% 500V
C595	1-107-635-11	ELECT	4.7 μ F 20% 160V
C598	1-107-650-11	ELECT	3.3 μ F 20% 160V
C600	1-126-964-11	ELECT	10 μ F 20% 50V
C601	Δ 1-136-311-11	FILM	0.47 μ F 20% 125V
C602	Δ 1-136-311-11	FILM	0.47 μ F 20% 125V
C603	Δ 1-104-708-11	FILM	0.47 μ F 20% 250V
C604	Δ 1-162-578-81	CERAMIC	0.0047 μ F 20% 400V
C607	1-125-735-11	ELECT	470 μ F 20% 200V
C608	1-125-735-11	ELECT	470 μ F 20% 200V
C609	1-136-169-00	FILM	0.22 μ F 5% 50V
C610	1-136-169-00	FILM	0.22 μ F 5% 50V
C611	1-136-169-00	FILM	0.22 μ F 5% 50V
C612	1-136-169-00	FILM	0.22 μ F 5% 50V
C613	1-164-625-11	CERAMIC	680PF 10% 500V
C614	1-164-625-11	CERAMIC	680PF 10% 500V
C616	1-126-964-11	ELECT	10 μ F 20% 50V
C617	1-128-550-11	ELECT	2200 μ F 20% 50V
C618	1-126-943-11	ELECT	2200 μ F 20% 25V
C619	1-126-952-11	ELECT	1000 μ F 20% 16V
C620	1-164-644-11	CERAMIC	330PF 10% 500V
C621	1-126-356-11	ELECT	220 μ F 20% 160V
C623	1-162-117-00	CERAMIC	100PF 10% 500V
C624	1-136-155-00	FILM	0.015 μ F 5% 50V
C625	1-129-719-00	FILM	0.027 μ F 10% 400V
C626	1-104-665-11	ELECT	100 μ F 20% 25V
C634	1-165-127-11	CERAMIC	470PF 10% 500V
C635	1-126-967-11	ELECT	47 μ F 20% 16V
C636	1-137-374-11	FILM	0.047 μ F 5% 50V
C637	1-128-551-11	ELECT	22 μ F 20% 25V
C639	1-161-740-00	CERAMIC	470PF 10% 400V
C641	1-126-933-11	ELECT	100 μ F 20% 10V
C642	1-137-217-11	FILM	0.01 μ F 5% 0
C643	1-137-218-11	FILM	0.012 μ F 5% 0
C645	1-102-125-00	CERAMIC	0.0047 μ F 10% 50V
C646	1-126-933-11	ELECT	100 μ F 20% 16V
C647	1-128-551-11	ELECT	22 μ F 20% 25V
C684	1-124-667-11	ELECT	10 μ F 20% 50V
C685	1-136-346-21	FILM	0.22 μ F 20% 125V
C695	1-126-964-11	ELECT	10 μ F 20% 50V
C2205	1-124-925-11	ELECT	2.2 μ F 20% 50V
C2208	1-124-925-11	ELECT	2.2 μ F 20% 50V
C2210	1-104-666-11	ELECT	220 μ F 20% 25V
C2211	1-104-664-11	ELECT	47 μ F 20% 25V
C2212	1-104-666-11	ELECT	220 μ F 20% 25V
C2213	1-136-173-00	FILM	0.47 μ F 5% 50V
C2215	1-136-169-00	FILM	0.22 μ F 5% 50V
C2216	1-128-550-11	ELECT	2200 μ F 20% 50V
C2217	1-136-169-00	FILM	0.22 μ F 5% 50V
C2218	1-126-952-11	ELECT	1000 μ F 20% 35V
C2219	1-126-952-11	ELECT	1000 μ F 20% 35V
C2220	1-124-925-11	ELECT	2.2 μ F 20% 50V
<CONNECTOR>			
CN104	1-573-979-21	CONNECTOR, BOARD TO BOARD 11P	
CN105	* 1-508-768-00	PIN, CONNECTOR (5mm PITCH) 6P	
CN107	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
CN108	* 1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	(KV-32XBR45/32XBR85)
CN109	* 1-573-296-21	CONNECTOR, BOARD TO BOARD 10P	

REF. NO.	PART NO.	DESCRIPTION	REMARK
(KV-32XBR45/32XBR85)			
CN113	* 1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P	
CN114	* 1-580-843-11	PIN, CONNECTOR (POWER)	
CN115	1-573-298-21	CONNECTOR, BOARD TO BOARD 20P	
CN116	* 1-691-915-11	CONNECTOR, BOARD TO BOARD 15P	
CN117	1-573-978-21	CONNECTOR, BOARD TO BOARD 11P	
CN125	* 1-564-506-11	PLUG, CONNECTOR 3P	
CN126	* 1-564-506-11	PLUG, CONNECTOR 3P	
<DIODE>			
D501	8-719-028-72	DIODE RGP02-17EL-6433	
D502	8-719-979-85	DIODE EGP20G	
D503	8-719-979-85	DIODE EGP20G	
D504	8-719-302-43	DIODE EL1Z	
D505	8-719-302-43	DIODE EL1Z	
D506	8-719-945-80	DIODE ERC06-15S	
D507	8-719-945-80	DIODE ERC06-15S	
D508	8-719-900-26	DIODE ERD29-08J	
D509	8-719-302-43	DIODE EL1Z	
D510	8-719-908-03	DIODE GP08D	
D511	8-719-908-03	DIODE GP08D	
D512	8-719-109-84	DIODE RD5.1ESB1	
D513	8-719-908-03	DIODE GP08D	
D514	8-719-991-33	DIODE 1SS133T-77	
D515	8-719-991-33	DIODE 1SS133T-77	
D601	8-719-991-33	DIODE 1SS133T-77	
D602	8-719-510-53	DIODE D4SB60L	
D603	8-719-500-69	DIODE S3V10SS	
D605	8-719-500-69	DIODE S3V10SS	
D607	8-719-510-02	DIODE D1NS4	
D608	8-719-022-97	DIODE D2S4MF	
D609	8-719-022-97	DIODE D2S4MF	
D610	8-719-022-97	DIODE D2S4MF	
D611	8-719-022-97	DIODE D2S4MF	
D612	8-719-510-12	DIODE D10SC4M	
D613	8-719-022-97	DIODE D2S4MF	
D614	8-719-110-33	DIODE RD12ESB3	
D615	8-719-027-43	DIODE S2L20UF	
D616	8-719-027-43	DIODE S2L20UF	
D617	8-719-027-43	DIODE S2L20UF	
D618	8-719-027-43	DIODE S2L20UF	
D619	8-719-510-02	DIODE D1NS4	
D622	8-719-991-33	DIODE 1SS133T-77	
D623	8-719-991-33	DIODE 1SS133T-77	
D624	8-719-991-33	DIODE 1SS133T-77	
D626	8-719-510-48	DIODE D1N20R	
D627	8-719-510-48	DIODE D1N20R	
D628	8-719-991-33	DIODE 1SS133T-77	
D629	8-719-908-03	DIODE GP08D	
D630	8-719-908-03	DIODE GP08D	
D631	8-719-908-03	DIODE GP08D	
D632	8-719-908-03	DIODE GP08D	
D633	8-719-110-09	DIODE RD8.2ESB3	
D634	8-719-991-33	DIODE 1SS133T-77	
D635	8-719-991-33	DIODE 1SS133T-77	
D636	8-719-510-48	DIODE D1N20R	
D637	8-719-991-33	DIODE 1SS133T-77	
D638	8-719-991-33	DIODE 1SS133T-77	
<FUSE>			
F601	Δ 1-576-193-11	FUSE (6.3A/125V)	
	1-533-223-11	HOLDER, FUSE; F601	
<FERRITE BEAD>			
FB501	1-412-911-11	INDUCTOR, FERRITE BEAD	

The components identified by shading and mark Δ are critical for safety.

Replace only with part number specified.

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

• The components identified by Δ 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.

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB502	1-412-911-11	INDUCTOR, FERRITE BEAD		R507	1-249-429-11	CARBON 10K	5% 1/4W
FB601	1-412-911-11	INDUCTOR, FERRITE BEAD		R508	1-249-425-11	CARBON 4.7K	5% 1/4W
FB602	1-412-911-11	INDUCTOR, FERRITE BEAD		R509	1-249-389-11	CARBON 4.7	5% 1/4W F
FB603	1-412-911-11	INDUCTOR, FERRITE BEAD		Δ R511			
FB604	1-412-911-11	INDUCTOR, FERRITE BEAD		R512	1-249-389-11	CARBON 4.7	5% 1/4W F
FB605	1-412-911-11	INDUCTOR, FERRITE BEAD		R513	1-216-385-11	METAL OXIDE 0.47	5% 3W F
FB606	1-412-911-11	INDUCTOR, FERRITE BEAD		R514	1-249-429-11	CARBON 10K	5% 1/4W
FB610	1-535-303-00	LEAD, JUMPER (5.0mm)		R516	1-249-401-11	CARBON 47	5% 1/4W
FB613	1-412-911-11	INDUCTOR, FERRITE BEAD		R517	1-215-892-11	METAL OXIDE 1K	5% 2W F
FB614	1-412-911-11	INDUCTOR, FERRITE BEAD		R518	1-215-892-11	METAL OXIDE 1K	5% 2W F
		<IC>		R519	1-249-426-11	CARBON 5.6K	5% 1/4W F
IC501	8-759-980-58	IC TDA8172		R520	1-249-423-11	CARBON 3.3K	5% 1/4W
IC504	8-759-103-93	IC μ PC393C		R521	1-249-411-11	CARBON 330	5% 1/4W
IC601	Δ 1-810-051-11	POWER MODULE DM-48		R522	1-215-886-11	METAL OXIDE 100	5% 2W F
IC604	8-759-231-53	IC TA7805S		R523	1-215-862-11	METAL OXIDE 68	5% 1W F
IC605	8-759-231-58	IC TA7812S		Δ R524			
IC606	8-759-701-59	IC NJM78M09FA		R525	1-215-884-11	METAL OXIDE 47	5% 2W F (KV-27XBR45/27XBR45M)
IC610	8-759-708-05	IC NJM78L05A		R526	1-247-887-00	CARBON 220K	5% 1/4W
IC2200	8-759-089-13	IC TDA7262		R527	1-215-861-00	METAL OXIDE 47	5% 1W F
		<COIL>		R528	1-247-750-11	CARBON 680	5% 1/2W F
L502	1-421-465-00	COIL, FERRITE CHOKE 68 μ H		R530	1-215-445-00	METAL 10K	1% 1/4W
L503	1-412-524-11	INDUCTOR 8.2 μ H		R531	1-247-903-00	CARBON 1M	5% 1/4W
L504	1-410-669-31	INDUCTOR 33 μ H		R532	1-215-446-00	METAL 11K	1% 1/4W
L505	1-459-104-00	COIL, WITH CORE		R534	1-249-385-11	CARBON 2.2	5% 1/4W F
L506	1-410-396-41	FERRITE BEAD INDUCTOR 0.45 μ H		R535	1-216-453-00	METAL OXIDE 270	5% 2W F
L508	1-412-553-11	INDUCTOR 3.3mH		R536	1-249-389-11	CARBON 4.7	5% 1/4W F (KV-32XBR45/32XBR45)
L509	Δ 1-409-861-11	COIL, HORIZONTAL LINEARITY		R539	1-215-459-00	METAL 39K	1% 1/4W
L510	1-411-189-11	COIL, CHOKE 15mH		R543	1-249-419-11	CARBON 1.5K	5% 1/4W
L513	1-412-524-11	INDUCTOR 8.2 μ H		R546	1-247-863-91	CARBON 22K	5% 1/4W
		<PROTECTOR MODULE>		R547	1-247-883-00	CARBON 150K	5% 1/4W
PM501	1-810-061-11	PROTECTOR MODULE PM-38 (KV-27XBR45/27XBR45M)		R548	1-247-863-91	CARBON 22K	5% 1/4W (KV-32XBR45/32XBR45)
PM501	1-810-061-21	PROTECTOR MODULE PM-39 (KV-32XBR45/32XBR85)		R554	1-216-371-00	METAL OXIDE 1.5	5% 2W F
		<IC LINK>		R556	1-249-411-11	CARBON 330	5% 1/4W
PS601	Δ 1-532-679-00	LINK, IC (0.6A/150V)		R557	1-249-415-11	CARBON 680	5% 1/4W F
PS2201	Δ 1-532-984-11	LINK, IC (2A/90V)		R561	1-249-429-11	CARBON 10K	5% 1/4W
		<TRANSISTOR>		R562	1-215-437-00	METAL 4.7K	1% 1/4W
Q502	8-729-119-80	TRANSISTOR 2SC2688-LK		R563	1-249-429-11	CARBON 10K	5% 1/4W
Q503	8-729-809-29	TRANSISTOR 2SC4159-E		R564	1-247-863-91	CARBON 22K	5% 1/4W
Q505	8-729-119-78	TRANSISTOR 2SC2785-HFE		R566	1-249-435-11	CARBON 33K	5% 1/4W
Q591	8-729-016-32	TRANSISTOR 2SC4927-01		R580	1-249-411-11	CARBON 330	5% 1/4W
Q601	8-729-019-49	TRANSISTOR 2SC4834M		R601	Δ 1-202-723-00	SOLID 2.2M	20% 1/2W
Q602	8-729-019-49	TRANSISTOR 2SC4834M		R602	Δ 1-202-723-00	SOLID 2.2M	20% 1/2W
Q603	8-729-119-76	TRANSISTOR 2SA1175-HFE		R603	1-249-419-11	CARBON 1.5K	5% 1/4W
Q604	8-729-119-78	TRANSISTOR 2SC2785-HFE		R605	1-247-893-11	CARBON 390K	5% 1/4W
Q605	8-729-119-78	TRANSISTOR 2SC2785-HFE		R606	1-247-893-11	CARBON 390K	5% 1/4W
Q611	8-729-119-78	TRANSISTOR 2SC2785-HFE		R607	1-202-933-61	FUSIBLE 0.1	10% 1/2W F
Q613	8-729-024-95	TRANSISTOR 2SB1565EF		R608	1-215-860-11	METAL OXIDE 33	5% 1W F
Q614	8-729-119-78	TRANSISTOR 2SC2785-HFE		R609	1-216-349-00	METAL OXIDE 1	5% 1W F
Q2202	8-729-119-78	TRANSISTOR 2SC2785-HFE		R610	1-216-369-00	METAL OXIDE 1	5% 2W F
Q2203	8-729-119-76	TRANSISTOR 2SA1175-HFE		R611	1-216-492-11	METAL OXIDE 82K	5% 3W F
		<RESISTOR>		R613	1-215-908-00	METAL OXIDE 33	5% 3W F
R501	1-249-444-11	CARBON 0.56	5% 1/4W F	R614	1-215-908-00	METAL OXIDE 33	5% 3W F
R503	1-215-862-11	METAL OXIDE 68	5% 1W F	R615	1-249-421-11	CARBON 2.2K	5% 1/4W
R504	1-215-872-11	METAL OXIDE 3.3K	5% 1W F	R616	1-249-417-11	CARBON 1K	5% 1/4W
R505	1-249-443-11	CARBON 0.47	5% 1/4W F	R617	1-249-377-11	CARBON 0.47	5% 1/4W F
R506	1-215-886-11	METAL OXIDE 100	5% 2W F	R618	1-249-377-11	CARBON 0.47	5% 1/4W F
				R619	1-249-377-11	CARBON 0.47	5% 1/4W F
				R621	1-249-377-11	CARBON 0.47	5% 1/4W F
				R622	1-249-377-11	CARBON 0.47	5% 1/4W F
				R623	1-249-377-11	CARBON 0.47	5% 1/4W F
				R624	1-249-377-11	CARBON 0.47	5% 1/4W F
				R625	1-249-377-11	CARBON 0.47	5% 1/4W F
				R627	1-249-377-11	CARBON 0.47	5% 1/4W F
				R628	1-249-377-11	CARBON 0.47	5% 1/4W F
				R629	1-249-388-11	CARBON 3.9	5% 1/4W F

KV-27XBR45/27XBR45M/32XBR45/32XBR85

RM-Y127

RM-Y127

RM-Y127

RM-Y127

D

E

(KV-32XBR45/32XBR85)

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R630	1-215-857-11	METAL OXIDE 10	5%
R632	1-249-417-11	CARBON 1K	5%
R633	1-249-405-11	CARBON 100	5%
R635	1-249-413-11	CARBON 470	5%
R636	1-249-383-11	CARBON 1.5	5%
R637	1-249-421-11	CARBON 2.2K	5%
R638	1-249-423-11	CARBON 3.3K	5%
R639	1-249-423-11	CARBON 3.3K	5%
R640	1-202-730-00	SOLID 8.2M	20%
R643	1-216-395-00	METAL OXIDE 3.3	5%
R644	1-212-853-00	FUSIBLE 6.8	5%
R645	1-249-377-11	CARBON 0.47	5%
R646	1-249-429-11	CARBON 10K	5%
R647	1-247-863-91	CARBON 22K	5%
R648	1-249-414-11	CARBON 560	5%
R649	1-216-431-11	METAL OXIDE 560	5%
R650	1-249-405-11	CARBON 100	5%
R651	1-216-395-00	METAL OXIDE 3.3	5%
R653	1-249-381-11	CARBON 1	5%
R654	1-216-385-11	METAL OXIDE 0.47	5%
R655	1-249-417-11	CARBON 1K	5%
R656	1-249-381-11	CARBON 1	5%
R657	1-249-417-11	CARBON 1K	5%
R658	1-249-389-11	CARBON 4.7	5%
R659	1-247-883-00	CARBON 150K	5%
R660	1-247-863-91	CARBON 22K	5%
R661	1-249-406-11	CARBON 120	5%
R662	1-249-393-11	CARBON 10	5%
R663	1-247-737-11	CARBON 68	5%
R664	1-215-907-11	METAL OXIDE 22	5%
R683	1-205-998-11	WIREWOUND 1	5%
R684	1-205-998-11	WIREWOUND 1	5%
R687	1-216-359-00	METAL OXIDE 6.8	5%
R690	1-249-423-11	CARBON 3.3K	5%
R691	1-249-423-11	CARBON 3.3K	5%
R693	1-216-389-11	METAL OXIDE 1	5%
R699	1-216-492-11	METAL OXIDE 82K	5%
R2209	1-249-427-11	CARBON 6.8K	5%
R2210	1-249-431-11	CARBON 15K	5%
R2211	1-249-427-11	CARBON 6.8K	5%
R2212	1-249-431-11	CARBON 15K	5%
R2215	1-249-425-11	CARBON 4.7K	5%
R2216	1-249-437-11	CARBON 47K	5%
R2217	1-249-435-11	CARBON 33K	5%
R2218	1-249-441-11	CARBON 100K	5%
R2219	1-249-413-11	CARBON 470	5%
R2220	1-249-430-11	CARBON 12K	5%
R2221	1-249-430-11	CARBON 12K	5%
R2222	1-249-398-11	CARBON 27	5%
R2223	1-249-418-11	CARBON 1.2K	5%
R2224	1-249-418-11	CARBON 1.2K	5%
R2225	1-249-398-11	CARBON 27	5%
R2226	1-249-385-11	CARBON 2.2	5%
R2227	1-249-385-11	CARBON 2.2	5%
R2228	1-249-421-11	CARBON 2.2K	5%
R2229	1-249-421-11	CARBON 2.2K	5%

<RELAY>

RY601 Δ 1-515-516-00 RELAY
RY602 Δ 1-515-516-00 RELAY

<SWITCH>

S501 1-572-707-11 SWITCH, LEVER
S502 1-572-707-11 SWITCH, LEVER

<TRANSFORMER>

REF. NO.	PART NO.	DESCRIPTION	REMARK
T501	Δ 1-453-146-11	TRANSFORMER ASSY. FLYBACK (NX-2604A3)	
T502	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE	
T503	Δ 1-424-545-11	TRANSFORMER, FERRITE (PMT)	
T601	Δ 1-423-593-11	TRANSFORMER, LINE FILTER (LFT)	
T602	Δ 1-424-220-11	TRANSFORMER, LINE FILTER	
T603	1-423-563-11	TRANSFORMER, CONVERTER DRIVE	
T604	1-423-615-11	TRANSFORMER, CONVERTER (PIT)	
T605	1-423-582-11	TRANSFORMER, FERRITE (SBT)	
<THERMISTOR>			
THP601	1-809-539-11	THERMISTOR, POSITIVE	
<VARISTOR>			
VDR601	1-807-288-11	VARISTOR	
VDR602	1-810-053-11	VARISTOR	
VDR603	1-810-053-11	VARISTOR	

* A-1343-014-A E BOARD, COMPLETE			

(KV-32XBR45/32XBR85)			
1-508-765-00 PIN, CONNECTOR (5mm PITCH) 3P			
4-382-854-11 SCREW (M3X10), P, SW (+)			
<CAPACITOR>			
C1501	1-126-935-11	ELECT 470 μ F 20% 16V	
C1502	1-137-372-11	FILM 0.022 μ F 5% 50V	
C1503	1-102-234-00	CERAMIC 270PF 10% 500V	
C1504	1-136-165-00	FILM 0.1 μ F 5% 50V	
C1505	1-126-964-11	ELECT 10 μ F 20% 50V	
C1507	1-126-964-11	ELECT 10 μ F 20% 50V	
C1509	1-136-165-00	FILM 0.1 μ F 5% 50V	
C1510	1-137-370-11	FILM 0.01 μ F 5% 50V	
C1516	1-136-165-00	FILM 0.1 μ F 5% 50V	
C1519	1-136-104-00	FILM 0.16 μ F 5% 200V	
C1522	1-126-952-11	ELECT 1000 μ F 20% 16V	
C1523	1-136-177-00	FILM 1 μ F 5% 50V	
C1524	1-124-927-11	ELECT 4.7 μ F 20% 50V	
C1529	1-126-964-11	ELECT 10 μ F 20% 50V	
C1530	1-126-964-11	ELECT 10 μ F 20% 50V	
C1532	1-124-927-11	ELECT 4.7 μ F 20% 50V	
C1533	1-128-551-11	ELECT 22 μ F 20% 25V	
C1542	1-126-967-11	ELECT 47 μ F 20% 16V	
C1550	1-136-756-11	FILM 0.24 μ F 5% 200V	
<CONNECTOR>			
CN122	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
CN123	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
<DIODE>			
D1501	8-719-911-19	DIODE 1SS119-25	
D1501	8-719-991-33	DIODE 1SS133T-77	
D1502	8-719-801-35	THYRISTOR SHOR3D42(N)	
D1503	8-719-980-78	DIODE ERA83-006	
D1504	8-719-302-43	DIODE EL1Z	
D1505	8-719-911-19	DIODE 1SS119-25	
D1506	8-719-911-19	DIODE 1SS119-25	
D1507	8-719-911-19	DIODE 1SS119-25	
D1508	8-719-110-17	DIODE RD10ESB2	
D1509	8-719-110-17	DIODE RD10ESB2	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D1510	8-719-911-19	DIODE 1SS119-25		R1568	1-247-891-00	CARBON 330K	5% 1/4W
D1513	8-719-302-43	DIODE EL1Z		R1569	1-249-413-11	CARBON 470	5% 1/4W
D1515	8-719-911-19	DIODE 1SS119-25		R1578	1-249-423-11	CARBON 3.3K	5% 1/4W
D1516	8-719-987-87	DIODE ERA85-009		R1582	1-249-411-11	CARBON 330	5% 1/4W
D1517	8-719-911-19	DIODE 1SS119-25		R1583	1-249-421-11	CARBON 2.2K	5% 1/4W
		<IC>		R1585	1-249-441-11	CARBON 100K	5% 1/4W
IC1501	8-752-052-88	IC CXA1526P		R1586	1-247-891-00	CARBON 330K	5% 1/4W
IC1502	8-759-701-59	IC NJM78M09FA		*****			
IC1504	8-759-135-80	IC μPC358C		* A-1372-120-A HB BOARD, COMPLETE			
		<COIL>		*****			
L1503	1-459-592-11	COIL (WITH CORE) (PMC)		<CAPACITOR>			
L1504	1-459-474-11	COIL (WITH CORE)		C1004	1-124-584-00	ELECT 100μF	20% 10V
		<TRANSISTOR>		<CONNECTOR>			
Q1501	8-729-119-78	TRANSISTOR 2SC2785-HFE		CN155	* 1-564-524-11	PLUG, CONNECTOR 9P	
Q1502	8-729-140-96	TRANSISTOR 2SD774-34		<DIODE>			
Q1503	8-729-119-76	TRANSISTOR 2SA1175-HFE		D1004	8-719-311-89	DIODE SEL1222R-C	
Q1506	8-729-119-78	TRANSISTOR 2SC2785-HFE		D1005	* 4-367-731-00	HOLDER, LED; D1004	
Q1507	8-729-119-78	TRANSISTOR 2SC2785-HFE			8-719-311-89	DIODE SEL1222R-C	
Q1508	8-729-140-93	TRANSISTOR 2SB733-34			* 4-367-731-00	HOLDER, LED; D1005	
Q1509	8-729-140-93	TRANSISTOR 2SB733-34		<IC>			
Q1511	8-729-119-76	TRANSISTOR 2SA1175-HFE		IC1001	8-741-818-51	ELEMENT, RAY-CATCHER SBX1818-51	
Q1514	8-729-019-01	TRANSISTOR 2SD2394-EF		<RESISTOR>			
Q1519	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1007	1-249-429-11	CARBON 10K	5% 1/4W
Q1520	8-729-119-78	TRANSISTOR 2SC2785-HFE		R1008	1-247-807-31	CARBON 100	5% 1/4W
		<RESISTOR>		R1009	1-249-425-11	CARBON 4.7K	5% 1/4W
R1501	1-247-815-91	CARBON 220	5% 1/4W	R1010	1-249-420-11	CARBON 1.8K	5% 1/4W
R1502	1-247-815-91	CARBON 220	5% 1/4W	R1011	1-247-807-31	CARBON 100	5% 1/4W
R1503	1-249-435-11	CARBON 33K	5% 1/4W	R1012	1-249-417-11	CARBON 1K	5% 1/4W
R1504	1-249-429-11	CARBON 10K	5% 1/4W	R1013	1-247-815-91	CARBON 220	5% 1/4W
R1505	1-249-421-11	CARBON 2.2K	5% 1/4W	R1014	1-249-416-11	CARBON 820	5% 1/4W
R1506	1-249-423-11	CARBON 3.3K	5% 1/4W	R1015	1-247-815-91	CARBON 220	5% 1/4W
R1507	1-249-410-11	CARBON 270	5% 1/4W	<SWITCH>			
R1508	1-249-437-11	CARBON 47K	5% 1/4W	S1001	1-572-198-11	SWITCH, KEYBOARD	
R1509	1-249-429-11	CARBON 10K	5% 1/4W	S1002	1-572-198-11	SWITCH, KEYBOARD	
R1510	1-215-461-00	METAL 47K	1% 1/4W	S1003	1-572-198-11	SWITCH, KEYBOARD	
R1511	1-216-379-11	METAL OXIDE 6.8	5% 2W	S1004	1-572-198-11	SWITCH, KEYBOARD	
R1513	1-249-423-11	CARBON 3.3K	5% 1/4W	S1005	1-572-198-11	SWITCH, KEYBOARD	
R1514	1-247-885-00	CARBON 180K	5% 1/4W	S1006	1-572-198-11	SWITCH, KEYBOARD	
R1515	1-215-905-11	METAL OXIDE 10	5% 3W	S1007	1-572-198-11	SWITCH, KEYBOARD	
R1519	1-249-417-11	CARBON 1K	5% 1/4W	*****			
R1520	1-249-417-11	CARBON 1K	5% 1/4W	* A-1372-121-A HC BOARD, COMPLETE			
R1522	1-249-417-11	CARBON 1K	5% 1/4W	*****			
R1527	1-249-417-11	CARBON 1K	5% 1/4W	<CAPACITOR>			
R1528	1-249-438-11	CARBON 56K	5% 1/4W	C1001	1-128-551-11	ELECT 22μF	20% 25V
R1529	1-249-434-11	CARBON 27K	5% 1/4W	C1002	1-124-903-11	ELECT 1μF	20% 50V
R1530	1-249-432-11	CARBON 18K	5% 1/4W	C1003	1-124-903-11	ELECT 1μF	20% 50V
R1533	1-249-427-11	CARBON 6.8K	5% 1/4W	<CONNECTOR>			
R1534	1-249-424-11	CARBON 3.9K	5% 1/4W				
R1535	1-249-425-11	CARBON 4.7K	5% 1/4W				
R1536	1-215-857-11	METAL OXIDE 10	5% 1W				
R1537	1-249-404-00	CARBON 82	5% 1/4W				
R1538	1-216-379-11	METAL OXIDE 6.8	5% 2W				
R1541	1-249-441-11	CARBON 100K	5% 1/4W				
R1543	1-249-414-11	CARBON 560	5% 1/4W				
R1546	1-215-885-00	METAL OXIDE 68	5% 2W				
R1552	1-249-426-11	CARBON 5.6K	5% 1/4W				
R1554	1-249-393-11	CARBON 10	5% 1/4W				
R1556	1-249-438-11	CARBON 56K	5% 1/4W				
R1559	1-249-429-11	CARBON 10K	5% 1/4W				
R1564	1-249-435-11	CARBON 33K	5% 1/4W				



REF. NO.	PART NO.	DESCRIPTION	REMARK
CN154	* 1-564-508-11	PLUG, CONNECTOR 5P	
		<JACK>	
J1001	1-695-586-11	JACK BLOCK, PIN (L TYPE) 3P	
		<RESISTOR>	
R1001	1-247-804-11	CARBON 75 5% 1/4W	
R1002	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1003	1-247-895-91	CARBON 470K 5% 1/4W	
R1004	1-249-425-11	CARBON 4.7K 5% 1/4W	
R1005	1-247-895-91	CARBON 470K 5% 1/4W	

	* A-1372-122-A	W BOARD, COMPLETE	

	4-382-854-11	SCREW (M3X10), P, SW (+)	
		<CAPACITOR>	
C2753	1-163-035-00	CERAMIC CHIP 0.047μF 50V	
C2761	1-161-830-00	CERAMIC 0.0047μF 500V	
C2762	1-163-101-00	CERAMIC CHIP 22PF 50V	
C2763	1-107-638-11	ELECT 33μF 20% 160V	
C2764	1-126-934-11	ELECT 220μF 20% 16V	
C2767	1-102-244-00	CERAMIC 220PF 10% 500V	
C2768	1-106-383-00	MYLAR 0.047μF 10% 200V	
C2769	1-107-667-11	ELECT 2.2μF 20% 160V	
C2770	1-106-391-12	MYLAR 0.1μF 10% 200V	
C2771	1-126-964-11	ELECT 10μF 20% 50V	
C2772	1-126-933-11	ELECT 100μF 20% 16V	
C2773	1-106-383-00	MYLAR 0.047μF 10% 200V	
C2774	1-163-111-00	CERAMIC CHIP 56PF 5% 50V	
C2775	1-126-934-11	ELECT 220μF 20% 16V	
C2776	1-126-964-11	ELECT 10μF 20% 50V	
C2778	1-163-009-11	CERAMIC CHIP 0.001μF 10% 50V	
C2779	1-163-009-11	CERAMIC CHIP 0.001μF 10% 50V	
C2780	1-126-964-11	ELECT 10μF 20% 50V	
C2781	1-102-106-00	CERAMIC 100PF 10% 50V	
C2790	1-126-967-11	ELECT 47μF 20% 16V	
		<CONNECTOR>	
CN128	* 1-564-509-11	PLUG, CONNECTOR 6P	
CN130	1-564-506-11	PLUG, CONNECTOR 3P	
		<DIODE>	
D2761	8-719-404-46	DIODE MA110	
D2762	8-719-404-46	DIODE MA110	
D2763	8-719-404-46	DIODE MA110	
D2764	8-719-404-46	DIODE MA110	
D2765	8-719-404-46	DIODE MA110	
D2766	8-719-404-46	DIODE MA110	
D2767	8-719-110-90	DIODE RD39ESB4	
D2768	8-719-110-90	DIODE RD39ESB4	
		<COIL>	
L2762	1-408-418-00	INDUCTOR 56μH	
L2764	1-410-478-11	INDUCTOR 47μH	
		<TRANSISTOR>	
Q2761	8-729-422-27	TRANSISTOR 2SD601A-Q	

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q2762	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2763	8-729-017-05	TRANSISTOR 2SA1837	
Q2764	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2765	8-729-017-06	TRANSISTOR 2SC4793	
Q2766	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q2767	8-729-142-86	TRANSISTOR 2SC3733	
Q2768	8-729-422-27	TRANSISTOR 2SD601A-Q	
		<RESISTOR>	
R2750	1-216-025-91	METAL GLAZE 100 5% 1/10W	
R2751	1-216-057-00	METAL GLAZE 2.2K 5% 1/10W	
R2752	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2754	1-216-083-00	METAL GLAZE 27K 5% 1/10W	
R2755	1-216-121-91	METAL GLAZE 1M 5% 1/10W	
R2761	1-249-397-11	CARBON 22 5% 1/4W F	
R2762	1-216-033-00	METAL GLAZE 220 5% 1/10W	
R2763	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2764	1-247-736-11	CARBON 56 5% 1/2W F	
R2765	1-249-414-11	CARBON 560 5% 1/4W F	
R2766	1-216-051-00	METAL GLAZE 1.2K 5% 1/10W	
R2767	1-535-303-00	LEAD, JUMPER (5.0mm)	
R2768	1-216-055-00	METAL GLAZE 1.8K 5% 1/10W	
R2769	1-249-385-11	CARBON 2.2 5% 1/4W F	
R2770	1-216-085-00	METAL GLAZE 33K 5% 1/10W	
R2774	1-215-886-11	METAL OXIDE 100 5% 2W F	
R2775	1-249-417-11	CARBON 1K 5% 1/4W F	
R2776	1-216-079-00	METAL GLAZE 18K 5% 1/10W	
R2777	1-216-091-00	METAL GLAZE 56K 5% 1/10W	
R2778	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2779	1-216-043-91	METAL GLAZE 560 5% 1/10W	
R2780	1-216-053-00	METAL GLAZE 1.5K 5% 1/10W	
R2781	1-216-035-00	METAL GLAZE 270 5% 1/10W	
R2782	1-249-385-11	CARBON 2.2 5% 1/4W F	
R2783	1-216-097-91	METAL GLAZE 100K 5% 1/10W	
R2784	1-247-807-31	CARBON 100 5% 1/4W	
R2785	1-249-402-11	CARBON 56 5% 1/4W F	
R2786	1-216-689-11	METAL GLAZE 39K 5% 1/10W	
R2787	1-216-073-00	METAL GLAZE 10K 5% 1/10W	
R2788	1-216-049-91	METAL GLAZE 1K 5% 1/10W	
R2789	1-216-041-00	METAL GLAZE 470 5% 1/10W	
R2790	1-216-451-11	METAL OXIDE 120 5% 2W F	
R2791	1-249-412-11	CARBON 390 5% 1/4W	
R2792	1-216-450-00	METAL OXIDE 82 5% 2W F	

	* A-1390-514-A	X BOARD, COMPLETE	

		<CAPACITOR>	
C2500	1-126-964-11	ELECT 10μF 20% 50V	
C2501	1-163-009-11	CERAMIC CHIP 0.001μF 10% 50V	
C2502	1-124-927-11	ELECT 4.7μF 20% 50V	
C2503	1-124-927-11	ELECT 4.7μF 20% 50V	
C2505	1-124-927-11	ELECT 4.7μF 20% 50V	
C2506	1-163-017-00	CERAMIC CHIP 0.0047μF 10% 50V	
C2507	1-124-902-00	ELECT 0.47μF 20% 50V	
C2508	1-163-035-00	CERAMIC CHIP 0.047μF 50V	
C2509	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C2511	1-126-111-11	ELECT 3.3μF 20% 50V	
C2513	1-163-001-11	CERAMIC CHIP 220PF 10% 50V	
C2514	1-163-035-00	CERAMIC CHIP 0.047μF 50V	
C2515	1-163-017-00	CERAMIC CHIP 0.0047μF 10% 50V	
C2516	1-124-902-00	ELECT 0.47μF 20% 50V	
C2517	1-124-927-11	ELECT 4.7μF 20% 50V	



REF. NO.	PART NO.	DESCRIPTION	REMARK
C2519	1-124-927-11	ELECT 4.7μF	20% 50V
C2520	1-124-927-11	ELECT 4.7μF	20% 50V
C2521	1-163-009-11	CERAMIC CHIP 0.001μF	10% 50V
C2522	1-124-903-11	ELECT 1μF	20% 50V
C2523	1-126-933-11	ELECT 100μF	20% 16V
C2524	1-124-902-00	ELECT 0.47μF	20% 50V
C2525	1-126-933-11	ELECT 100μF	20% 16V
C2526	1-124-902-00	ELECT 0.47μF	20% 50V
C2527	1-126-933-11	ELECT 100μF	20% 16V
C2528	1-163-034-00	CERAMIC CHIP 0.033μF	50V
C2529	1-163-017-00	CERAMIC CHIP 0.0047μF	10% 50V
C2530	1-163-017-00	CERAMIC CHIP 0.0047μF	10% 50V
C2531	1-163-034-00	CERAMIC CHIP 0.033μF	50V
C2534	1-124-925-11	ELECT 2.2μF	20% 50V
C2535	1-124-925-11	ELECT 2.2μF	20% 50V
C2536	1-124-903-11	ELECT 1μF	20% 50V
<CONNECTOR>			
CN2500	* 1-564-515-11	PLUG, CONNECTOR 12P	
<IC>			
IC2500	8-759-253-06	IC XR1071CP	
IC2501	8-759-090-21	IC TDA8424	
<TRANSISTOR>			
Q2500	8-729-216-22	TRANSISTOR 2SA1162-G	
Q2501	8-729-422-27	TRANSISTOR 2SD601A-Q	
<RESISTOR>			
R2501	1-216-101-00	METAL GLAZE 150K	5% 1/10W
R2502	1-247-807-31	CARBON 100	5% 1/4W
R2503	1-247-807-31	CARBON 100	5% 1/4W
R2504	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R2506	1-249-441-11	CARBON 100K	5% 1/4W
R2509	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2510	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R2511	1-249-418-11	CARBON 1.2K	5% 1/4W
R2516	1-249-425-11	CARBON 4.7K	5% 1/4W

* A-1390-515-A Z BOARD, COMPLETE *****			
<CAPACITOR>			
C901	1-124-903-11	ELECT 1μF	20% 50V
C930	1-126-940-11	ELECT 330μF	20% 16V
C931	1-126-967-11	ELECT 47μF	20% 16V
C932	1-124-927-11	ELECT 4.7μF	20% 50V
C934	1-126-964-11	ELECT 10μF	20% 50V
<CONNECTOR>			
CN901	* 1-564-520-11	PLUG, CONNECTOR 5P	
CN903	* 1-564-517-11	PLUG, CONNECTOR 2P	
CN904	* 1-564-505-11	PLUG, CONNECTOR 2P	
CN905	* 1-564-522-11	PLUG, CONNECTOR 7P	
<DIODE>			
D901	8-719-121-24	DIODE RD9.1ESL	
D902	8-719-404-46	DIODE MA110	
D903	8-719-404-46	DIODE MA110	

REF. NO.	PART NO.	DESCRIPTION	REMARK
D904	8-719-109-93	DIODE RD6.2ESB2	
D906	8-719-121-24	DIODE RD9.1ESL	
D907	8-719-404-46	DIODE MA110	
D908	8-719-404-46	DIODE MA110	
D909	8-719-404-46	DIODE MA110	
D910	8-719-404-46	DIODE MA110	
D913	8-719-404-46	DIODE MA110	
D914	8-719-908-03	DIODE GP08D	
D915	8-719-908-03	DIODE GP08D	
D916	8-719-110-18	DIODE RD10ESB3	
D917	8-719-110-18	DIODE RD10ESB3	
D918	8-719-110-18	DIODE RD10ESB3	
D919	8-719-110-18	DIODE RD10ESB3	
<JACK>			
J901	1-764-873-11	JACK	
J902	1-764-873-11	JACK	
<CHIP CONDUCTOR>			
JR901	1-216-295-91	CONDUCTOR, CHIP	
JR902	1-216-295-91	CONDUCTOR, CHIP	
JR903	1-216-295-91	CONDUCTOR, CHIP	
JR904	1-216-295-91	CONDUCTOR, CHIP	
JR905	1-216-295-91	CONDUCTOR, CHIP	
JR907	1-216-295-91	CONDUCTOR, CHIP	
<TRANSISTOR>			
Q901	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q902	8-729-216-22	TRANSISTOR 2SA1162-G	
Q905	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q906	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q907	8-729-216-22	TRANSISTOR 2SA1162-G	
Q908	8-729-216-22	TRANSISTOR 2SA1162-G	
Q909	8-729-216-22	TRANSISTOR 2SA1162-G	
Q913	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q914	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q915	8-729-422-27	TRANSISTOR 2SD601A-Q	
<RESISTOR>			
R901	1-249-405-11	CARBON 100	5% 1/4W F
R906	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R907	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R909	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R910	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R911	1-216-105-91	METAL GLAZE 220K	5% 1/10W
R912	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R913	1-216-101-00	METAL GLAZE 150K	5% 1/10W
R921	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R922	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R923	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R924	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R925	1-216-041-00	METAL GLAZE 470	5% 1/10W
R926	1-216-025-91	METAL GLAZE 100	5% 1/10W
R927	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R928	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R929	1-249-405-11	CARBON 100	5% 1/4W F
R930	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R931	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R932	1-216-689-11	METAL GLAZE 39K	5% 1/10W
R933	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R934	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R935	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R936	1-216-089-91	METAL GLAZE 47K	5% 1/10W
R938	1-216-295-91	CONDUCTOR, CHIP	

Z

U

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<RELAY>					
RY901	1-755-028-11	RELAY		CN149	* 1-564-507-11	PLUG, CONNECTOR 4P	
RY902	1-755-028-11	RELAY		CN157	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P	
		<TAB>		CN171	* 1-564-506-11	PLUG, CONNECTOR 3P	
TB901	1-537-712-11	TERMINAL, PUSH				<DIODE>	

	* A-1394-659-A	U BOARD, COMPLETE		D401	8-719-110-17	DIODE RD10ESB2	
		*****		D402	8-719-110-17	DIODE RD10ESB2	
				D403	8-719-110-17	DIODE RD10ESB2	
				D404	8-719-110-17	DIODE RD10ESB2	
				D405	8-719-110-17	DIODE RD10ESB2	
				D406	8-719-110-17	DIODE RD10ESB2	
				D407	8-719-110-17	DIODE RD10ESB2	
				D408	8-719-110-17	DIODE RD10ESB2	
				D409	8-719-110-17	DIODE RD10ESB2	
				D410	8-719-110-17	DIODE RD10ESB2	
				D411	8-719-110-17	DIODE RD10ESB2	
				D423	8-719-110-36	DIODE RD13ESB2	
				D424	8-719-110-36	DIODE RD13ESB2	
				D425	8-719-110-36	DIODE RD13ESB2	
				D426	8-719-109-66	DIODE RD3.3ESB2	
				D429	8-719-110-17	DIODE RD10ESB2	
				D430	8-719-110-17	DIODE RD10ESB2	
				D431	8-719-110-17	DIODE RD10ESB2	
				D436	8-719-110-17	DIODE RD10ESB2	
				D437	8-719-110-17	DIODE RD10ESB2	
				D445	8-719-510-48	DIODE D1N20R	
						<IC>	
				IC402	8-752-068-46	IC CXA1855S	
				IC405	8-759-701-01	IC NJM2904M	
						<JACK>	
				J401	1-750-515-11	TERMINAL BLOCK, S 3P	
				J402	1-750-517-11	JACK BLOCK, PIN 3P	
				J403	1-750-545-11	JACK BLOCK, PIN 3P	
				J404	1-750-516-11	JACK BLOCK, PIN 2P	
				J406	1-750-517-11	JACK BLOCK, PIN 3P	
						<CHIP CONDUCTOR>	
				JR402	1-216-295-91	CONDUCTOR, CHIP	
				JR403	1-216-295-91	CONDUCTOR, CHIP	
				JR408	1-216-295-91	CONDUCTOR, CHIP	
				JR410	1-216-295-91	CONDUCTOR, CHIP	
				JR411	1-216-295-91	CONDUCTOR, CHIP	
				JR412	1-216-295-91	CONDUCTOR, CHIP	
				JR415	1-216-295-91	CONDUCTOR, CHIP	
				JR418	1-216-295-91	CONDUCTOR, CHIP	
				JR419	1-216-295-91	CONDUCTOR, CHIP	
				JR420	1-216-295-91	CONDUCTOR, CHIP	
				JR421	1-216-295-91	CONDUCTOR, CHIP	
				JR422	1-216-295-91	CONDUCTOR, CHIP	
				JR423	1-216-295-91	CONDUCTOR, CHIP	
				JR428	1-216-295-91	CONDUCTOR, CHIP	
				JR429	1-216-295-91	CONDUCTOR, CHIP	
				JR430	1-216-295-91	CONDUCTOR, CHIP	
				JR431	1-216-295-91	CONDUCTOR, CHIP	
				JR434	1-216-295-91	CONDUCTOR, CHIP	
				JR498	1-216-295-91	CONDUCTOR, CHIP	
				JR499	1-216-295-91	CONDUCTOR, CHIP	
				JR502	1-216-295-91	CONDUCTOR, CHIP	
						<COIL>	
CN146	1-573-300-21	CONNECTOR, BOARD TO BOARD 18P		L401	1-410-473-11	INDUCTOR 18μH	
CN147	1-750-395-11	SOCKET, CONNECTOR 32P					
CN148	1-564-517-11	PLUG, CONNECTOR 2P					

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

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
L405	1-410-669-31	INDUCTOR 33 μ H	
<TRANSISTOR>			
Q401	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q407	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q408	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q410	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q411	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q414	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q415	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q416	8-729-216-22	TRANSISTOR 2SA1162-G	
Q417	8-729-216-22	TRANSISTOR 2SA1162-G	
Q418	8-729-216-22	TRANSISTOR 2SA1162-G	
Q419	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q421	8-729-216-22	TRANSISTOR 2SA1162-G	
Q422	8-729-216-22	TRANSISTOR 2SA1162-G	
Q423	8-729-216-22	TRANSISTOR 2SA1162-G	
Q424	8-729-422-27	TRANSISTOR 2SD601A-Q	
Q425	8-729-422-27	TRANSISTOR 2SD601A-Q	
<RESISTOR>			
R400	1-216-025-91	METAL GLAZE 100	5% 1/10W
R401	1-247-804-11	CARBON 75	5% 1/4W
R402	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R403	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R404	1-247-804-11	CARBON 75	5% 1/4W
R405	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R406	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R407	1-247-804-11	CARBON 75	5% 1/4W
R408	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R409	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R410	1-249-425-11	CARBON 4.7K	5% 1/4W
R411	1-249-425-11	CARBON 4.7K	5% 1/4W
R412	1-249-425-11	CARBON 4.7K	5% 1/4W
R413	1-249-425-11	CARBON 4.7K	5% 1/4W
R414	1-247-804-11	CARBON 75	5% 1/4W
R415	1-249-425-11	CARBON 4.7K	5% 1/4W
R416	1-216-647-11	METAL CHIP 680	0.50% 1/10W
R417	1-216-043-91	METAL GLAZE 560	5% 1/10W
R419	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R421	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R425	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R427	1-216-001-00	METAL GLAZE 10	5% 1/10W
R429	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R432	1-216-033-00	METAL GLAZE 220	5% 1/10W
R435	1-216-033-00	METAL GLAZE 220	5% 1/10W
R439	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R441	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R442	1-216-025-91	METAL GLAZE 100	5% 1/10W
R443	1-216-025-91	METAL GLAZE 100	5% 1/10W
R444	1-216-095-00	METAL GLAZE 82K	5% 1/10W
R445	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R446	1-216-073-00	METAL GLAZE 10K	5% 1/10W
R450	1-216-025-91	METAL GLAZE 100	5% 1/10W
R451	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R452	1-216-025-91	METAL GLAZE 100	5% 1/10W
R454	1-216-025-91	METAL GLAZE 100	5% 1/10W
R456	1-216-295-91	CONDUCTOR, CHIP	
R457	1-216-033-00	METAL GLAZE 220	5% 1/10W
R458	1-216-033-00	METAL GLAZE 220	5% 1/10W
R459	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R460	1-216-037-00	METAL GLAZE 330	5% 1/10W
R461	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R462	1-216-065-00	METAL GLAZE 4.7K	5% 1/10W
R463	1-216-045-00	METAL GLAZE 680	5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R464	1-216-045-00	METAL GLAZE 680	5% 1/10W
R465	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R466	1-216-025-91	METAL GLAZE 100	5% 1/10W
R475	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R476	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R479	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R480	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R481	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R482	1-249-417-11	CARBON 1K	5% 1/4W
R483	1-249-417-11	CARBON 1K	5% 1/4W
R487	1-216-041-00	METAL GLAZE 470	5% 1/10W
R488	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R489	1-216-081-00	METAL GLAZE 22K	5% 1/10W
R490	1-216-295-91	CONDUCTOR, CHIP	
R491	1-216-295-91	CONDUCTOR, CHIP	
R492	1-216-295-91	CONDUCTOR, CHIP	
R493	1-216-041-00	METAL GLAZE 470	5% 1/10W
R494	1-249-403-11	CARBON 68	5% 1/4W
R495	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R496	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R497	1-216-113-00	METAL GLAZE 470K	5% 1/10W
R498	1-216-025-91	METAL GLAZE 100	5% 1/10W
R499	1-216-025-91	METAL GLAZE 100	5% 1/10W
R1400	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R1401	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R1402	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R1403	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R1404	1-249-393-11	CARBON 10	5% 1/4W
R1405	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R1406	1-216-085-00	METAL GLAZE 33K	5% 1/10W
R1407	1-216-001-00	METAL GLAZE 10	5% 1/10W
R1408	1-216-097-91	METAL GLAZE 100K	5% 1/10W
R1409	1-216-061-00	METAL GLAZE 3.3K	5% 1/10W
R1410	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1411	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1415	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1416	1-216-057-00	METAL GLAZE 2.2K	5% 1/10W
R1422	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R1423	1-216-025-91	METAL GLAZE 100	5% 1/10W
R1424	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R1425	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
R1426	1-216-069-00	METAL GLAZE 6.8K	5% 1/10W
R1435	1-216-083-00	METAL GLAZE 27K	5% 1/10W
R1436	1-216-049-91	METAL GLAZE 1K	5% 1/10W
R1437	1-216-049-91	METAL GLAZE 1K	5% 1/10W

MISCELLANEOUS

Δ 1-406-726-13	COIL, DEGAUSSING (KV-27XBR45/27XBR45M)
Δ 1-402-952-12	COIL, DEGAUSSING (KV-32XBR45/32XBR85)
1-417-178-11	SELECTOR, ANTENNA (AS-2)
1-452-032-00	MAGNET, DISK ; 10mm ϕ
1-452-094-00	MAGNET, ROTATABLE DISK ; 15mm ϕ
Δ 1-452-509-42	NECK ASSY, PICTURE TUBE (NA-308) (KV-27XBR45/27XBR45M)
Δ 1-452-579-21	NECK ASSY, PICTURE TUBE (NA322) (KV-32XBR45/32XBR85)
1-504-322-11	BOX, SPEAKER (10CM.5CM) (KV-27XBR45/27XBR45M)
1-504-322-21	BOX, SPEAKER (10CM.5CM) (KV-32XBR45/32XBR85)
1-550-910-21	WOOFER, ACTIVE SUPER (KV-32XBR85)
1-558-787-81	CORD, CONNECTION (KV-32XBR85)
Δ 1-751-059-11	CORD, POWER (WITH CONNECTOR) (10A/125V)

KV-27XBR45/27XBR45M/32XBR45/32XBR85

RM-Y127

RM-Y127

RM-Y127

RM-Y127

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* 1-751-135-11	CABLE, PIN	
	* 1-751-136-11	CABLE, PIN	
	Δ 8-451-275-42	DEFLECTION YOKE Y28PFA(VTM) (KV-27XBR45/27XBR45M)	
	Δ 8-451-315-41	DEFLECTION YOKE Y34FXA(VTM) (KV-32XBR45/32XBR85)	
	8-913-821-90	TRANSMITTER TMR-D1002 SET	
	8-913-823-90	LUMINOUS UNIT IFP-D1002 SET	
V901	Δ 8-733-848-05	PICTURE TUBE 29PXD (A68KZJ50X) (KV-27XBR45/27XBR45M)	
V901	Δ 8-451-275-42	PICTURE TUBE 29PXD (A68KZJ50X) (KV-27XBR45/27XBR45M)	
V901	Δ 8-733-741-05	PICTURE TUBE 34PXD (A80JYV51X) (KV-32XBR45/32XBR85)	

ACCESSORIES AND PACKING MATERIALS

- 3-701-627-00 BAG, POLYETHYLENE
- 3-800-378-21 MANUAL, INSTRUCTION
(KV-27XBR45/32XBR45/32XBR85)
- 3-800-378-31 MANUAL, INSTRUCTION (KV-27XBR45)
- 3-800-378-41 MANUAL, INSTRUCTION
(KV-27XBR45/27XBR45M/32XBR45)
- 4-041-255-01 BAG, PROTECTION
(KV-27XBR45/27XBR45M)
- * 4-041-259-01 BAG, PROTECTION (KV-32XBR45/32XBR85)
- * 4-049-534-01 CUSHION (LOWER) (ASSY)
(KV-27XBR45/27XBR45M)
- * 4-049-537-01 CUSHION (UPPER) (ASSY)
(KV-27XBR45/27XBR45M)
- * 4-049-555-01 INDIVIDUAL CARTON (KV-27XBR45)
- * 4-050-355-01 INDIVIDUAL CARTON (KV-27XBR45M)

REMOTE COMMANDER

- 1-473-294-11 REMOTE COMMANDER (RM-Y127)
- 9-907-089-01 POCKET, COVER (FOR RM-Y127)

Sony Corporation
Consumer A&V Products Company
TV & Display Products Div.

9-965-063-01

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SONY[®] SERVICE MANUAL

AA-1A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-27XBR45	RM-Y127	US	SCC-H81A-A	KV-32XBR45	RM-Y127	US	SCC-H81B-A (Serial No. 7,038,538 and later)
KV-27XBR45	RM-Y127	Canadian	SCC-H82A-A	KV-32XBR45	RM-Y127	Canadian	SCC-H82B-A (Serial No. A,701,501 and later)
KV-27XBR45M	RM-Y127	E	SCC-H83A-A	KV-32XBR85	RM-Y127	US	SCC-H81C-A (Serial No. 7,009,901 and later)

SUPPLEMENT-1

SUBJECT: PART CHANGE (CRT,DY)

File this supplement with the Service manual.

INTRODUCTION: DYNAMIC CONVERGENS FREE.(KV-32XBR45/85 only)

SECTION 4. DIAGRAMS

4-3. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

D board (See page 41)

(Parts change)

REF NO.	PART NO.	DESCRIPTION
C560	-	Not mount
L510	1-411-189-11	15 mA/0.4A
R546	1-247-863-91	22KΩ
R547	1-247-883-00	150KΩ

REF NO.	PART NO.	DESCRIPTION
C560	1-136-131-11	ELECT0.12uF/400V
L510	1-409-955-21	COIL,CHOKE 8 mA/0.5A
R546	1-249-865-11	METAL OXIDE 27KΩ
R547	1-247-865-01	CARBON 120KΩ

E board (See page 68)

Dynamic convergence circuit board E.

Not used-please remove

SECTION 5. EXPLODED VIEWS

5-2. PICTURE TUBE(See page 84)(KV-32XBR45/32XBR85 model only)

REF NO.	PART NO.	DESCRIPTION	REMARK
61	△ 8-733-743-05	PICTURE TUBE (A80JYV51X)(KV-32XBR45/32XBR85)	
63	△ 4-451-482-11	DEFLECTION YOKE (Y34FXA2)(KV-32XBR45/32XBR85)	
65	* A-1331-436-B	C BOARD, COMPLETE	

SECTION 6. ELECTRICAL PARTS LIST

C BOARD(See page 91)

REF NO.	PART NO.	DESCRIPTION	REMARK
	* A-1331-436-B	C BOARD, COMPLETE	

SECTION 5. ELECTRICAL PARTS LIST

MISCELLANEOUS(See page 102)(KV-32XBR45/32XBR85 model only)

REF NO.	PART NO.	DESCRIPTION	REMARK
△	8-733-743-05	PICTURE TUBE (A80JYV51X)(KV-32XBR45/32XBR85)	
△	4-451-482-11	DEFLECTION YOKE (Y34FXA2)(KV-32XBR45/32XBR85)	



9-965-063-81

※ Please file according to model size.

27 32

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Display Company
Quality Engineering Dept.

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AA-1A 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>
<i>KV-27XBR45</i>	RM-Y127	US	SCC-H81A-A	<i>KV-32XBR45</i>	RM-Y127	US	SCC-H81B-A
<i>KV-27XBR45</i>	RM-Y127	Canadian	SCC-H82A-A	<i>KV-32XBR45</i>	RM-Y127	Canadian	SCC-H82B-A
<i>KV-27XBR45M</i>	RM-Y127	E	SCC-H83A-A	<i>KV-32XBR85</i>	RM-Y127	US	SCC-H81C-A

CORRECTION-1

SUBJECT: SUPER WOOFER SPEAKER CIRCUIT ADD.
(KV-32XBR85 ONLY)

File this Correction with the Service manual.


 : Indicates changed portion

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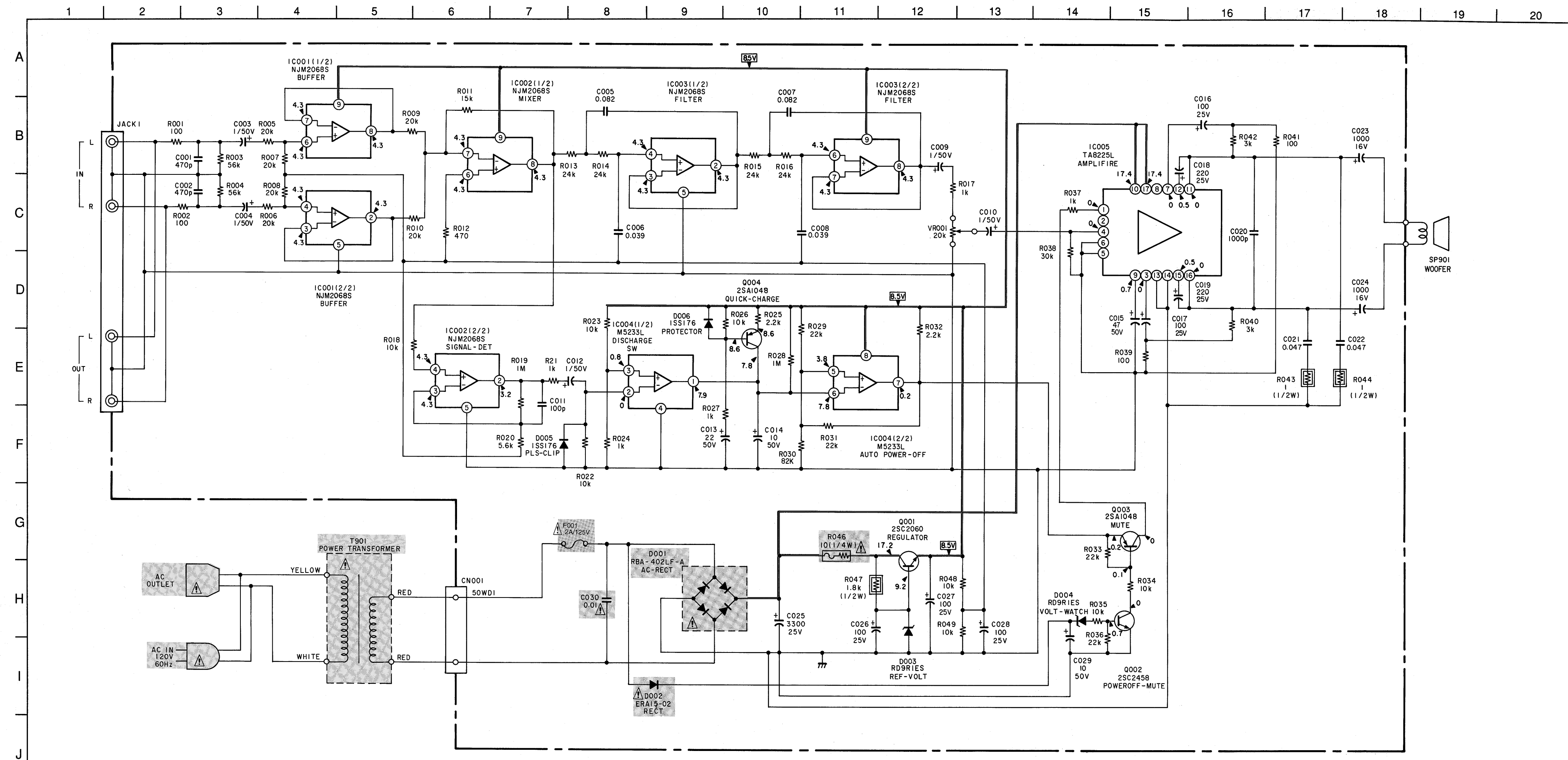
※ Please file according to model size.



4. DIAGRAMS

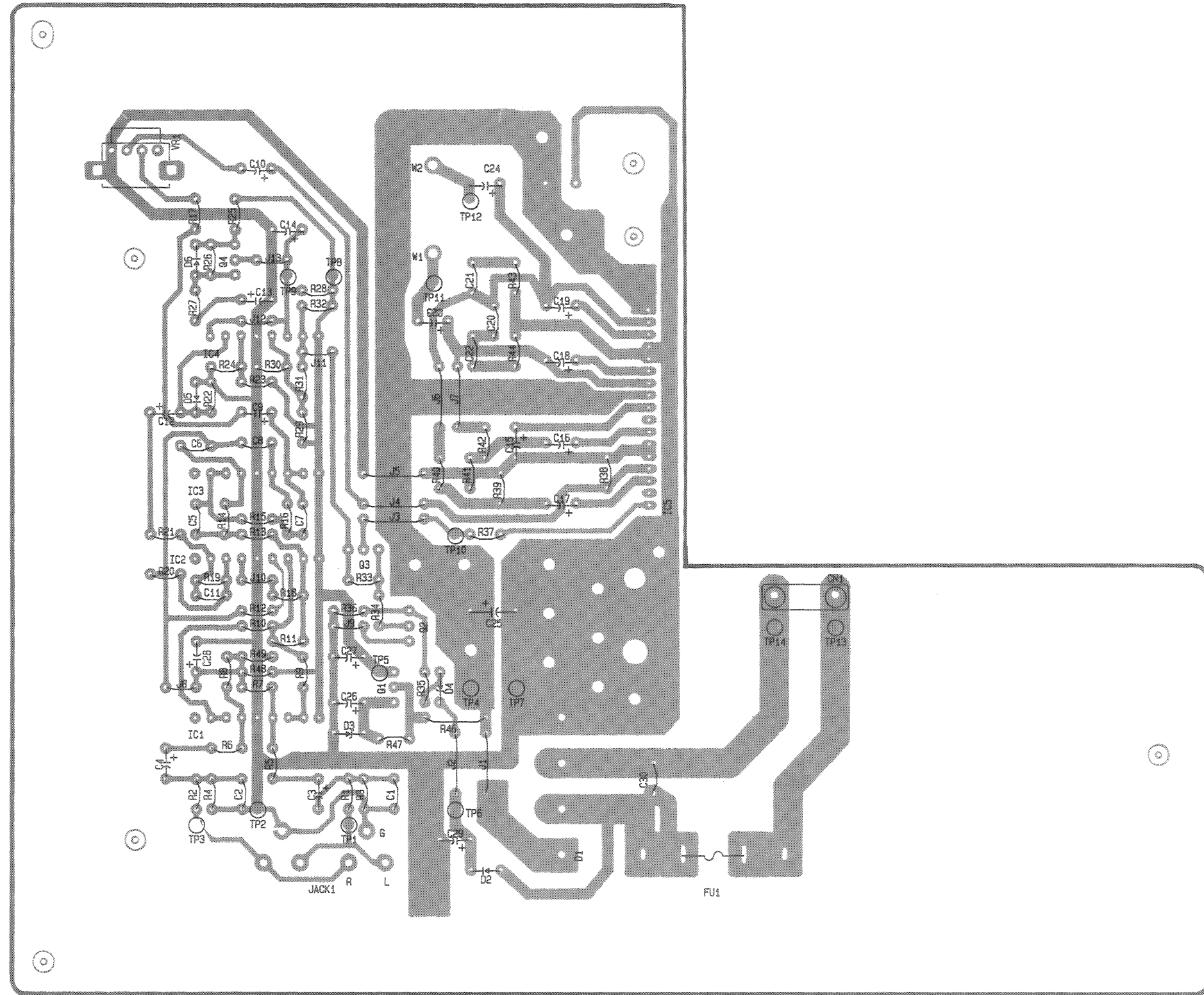
4-3. Printed Wiring Board and Schematic Diagrams

- Speaker (Super Woofer) -



SUPER WOOFER

— SUPER WOOFER Board —

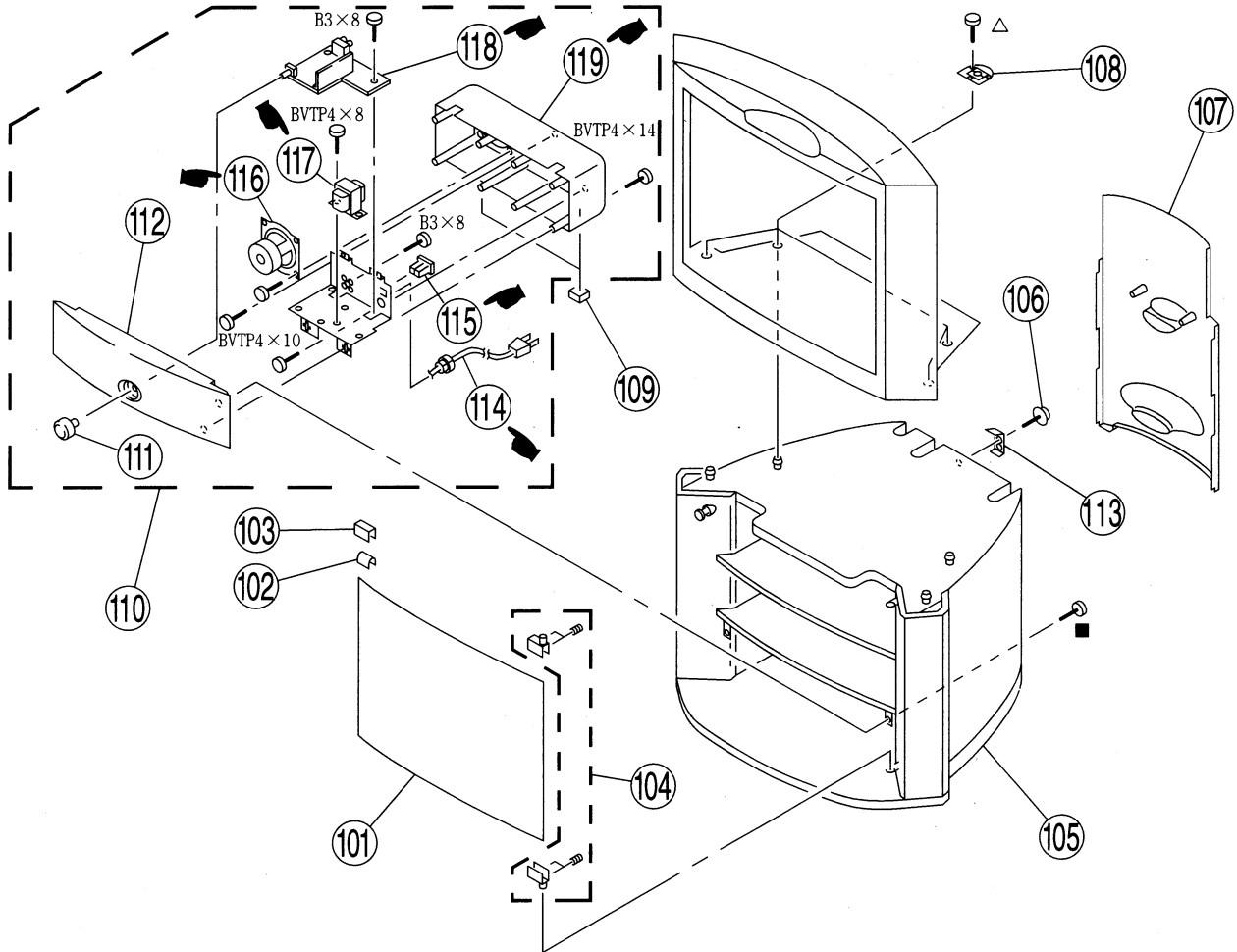


5-3. CABINET BASE [KV-32XBR85]

- △ : 7-685-661-14 +BVTP 4X12
- : 7-685-663-79 +BVTP 4X16

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

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



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
101	4-049-526-01	DOOR, GLASS		111	4-048-244-01	KNOB, WOOFER	
102	2-352-981-01	SPACER		112	4-048-246-01	COVER, WOOFER	
103	2-359-505-01	RETAINER, MAGNET		113	4-049-530-01	BRACKET, RIGHT	
104	4-049-536-01	HINGE SET		114	9-904-750-01	CORD, POWER	
105	* X-4032-888-1	BASE ASSY, CABINET		115	9-904-753-01	AC OUTLET	
106	4-041-164-11	SCREW (4X20), TAPPING		116	9-900-278-01	SPEAKER	
107	4-048-245-01	PANEL, BACK		117	9-904-751-01	TRANSFORMER	
108	X-4032-889-1	CLAMP ASSY		118	9-904-754-01	AMP KIT(TWY1019-A)	
109	4-049-527-01	FOOT, WOOFER		119	9-904-744-01	CABINET	
110	1-550-910-21	WOOFER, ACTIVE SUPER	111, 112, 114-119				

6. ELECTRICAL PARTS LIST

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

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1331-264-A SUPER WOOFER BOARD, COMPLETE (KV-32XBR85 only)			
<CAPACITOR>			
C001	1-102-114-00	CERAMIC 470PF 10% 50V	
C002	1-102-114-00	CERAMIC 470PF 10% 50V	
C003	1-124-903-11	ELECT 1MF 20% 50V	
C004	1-124-903-11	ELECT 1MF 20% 50V	
C005	1-130-494-11	FILM 0.082MF 5% 50V	
C006	1-130-490-11	FILM 0.039MF 5% 50V	
C007	1-130-494-11	FILM 0.082MF 5% 50V	
C008	1-130-490-11	FILM 0.039MF 5% 50V	
C009	1-124-903-11	ELECT 1MF 20% 50V	
C010	1-124-903-11	ELECT 1MF 20% 50V	
C011	1-102-973-00	CERAMIC 100PF 10% 50V	
C012	1-124-903-11	ELECT 1MF 20% 50V	
C013	1-124-908-11	ELECT 0.47MF 20% 50V	
C014	1-124-907-11	ELECT 10MF 20% 50V	
C015	1-124-910-11	ELECT 47MF 20% 50V	
C016	1-124-472-11	ELECT 470MF 20% 10V	
C017	1-124-472-11	ELECT 470MF 20% 10V	
C018	1-124-120-11	ELECT 220MF 20% 25V	
C019	1-124-120-11	ELECT 220MF 20% 25V	
C020	1-102-074-00	CERAMIC 0.001MF 10% 50V	
C021	1-130-491-00	FILM 0.047MF 5% 50V	
C022	1-130-491-00	FILM 0.047MF 5% 50V	
C023	1-124-360-00	ELECT 1000MF 20% 16V	
C024	1-124-360-00	ELECT 1000MF 20% 16V	
C025	1-124-636-91	ELECT 3300MF 20% 25V	
C026	1-124-472-11	ELECT 470MF 20% 10V	
C027	1-124-472-11	ELECT 470MF 20% 10V	
C028	1-124-472-11	ELECT 470MF 20% 10V	
C029	1-124-907-11	ELECT 10MF 20% 50V	
C030	1-102-125-00	CERAMIC 0.01MF 10% 50V	
<CONNECTOR>			
CN001	9-904-761-01	PIN, TERMINAL	
<DIODE>			
D001	9-904-753-01	DIODE RBA-4021P-A	
D002	9-904-765-01	DIODE ERA15-Q2VH-1	
D003	9-904-766-01	DIODE RD9R1ES(B2)-T	
D004	9-904-766-01	DIODE RD9R1ES(B2)-T	
D005	8-719-802-30	DIODE ISS176	
D006	8-719-802-30	DIODE ISS176	
<FUSE>			
F001	9-904-752-01	FUSE GLASS TUBE 2A/125V (20MM)	
<IC>			
IC001	9-904-756-01	IC NJM2068S	
IC002	9-904-756-01	IC NJM2068S	
IC003	9-904-756-01	IC NJM2068S	
IC004	9-904-757-01	IC M5233L	
IC005	9-904-755-01	IC TA8225L(PAIO-K)	
<JACK>			
J001	9-904-759-01	RCA JACK	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<TRANSISTOR>			
Q001	8-729-140-96	TRANSISTOR 2SD774-34	
Q002	8-729-119-78	TRANSISTOR 2SC2785-HEF	
Q003	8-729-119-76	TRANSISTOR 2SA1175-HEF	
Q004	8-729-119-76	TRANSISTOR 2SA1175-HEF	
<RESISTOR>			
R001	1-249-405-11	CARBON 100 5% 1/4W	
R002	1-249-405-11	CARBON 100 5% 1/4W	
R003	1-249-426-11	CARBON 56K 5% 1/4W	
R004	1-249-426-11	CARBON 56K 5% 1/4W	
R005	1-247-862-11	CARBON 20K 5% 1/4W	
R006	1-247-862-11	CARBON 20K 5% 1/4W	
R007	1-247-862-11	CARBON 20K 5% 1/4W	
R008	1-247-862-11	CARBON 20K 5% 1/4W	
R009	1-247-862-11	CARBON 20K 5% 1/4W	
R010	1-247-862-11	CARBON 20K 5% 1/4W	
R011	1-249-431-11	CARBON 15K 5% 1/4W	
R012	1-249-413-11	CARBON 470 5% 1/4W	
R013	1-247-864-11	CARBON 24K 5% 1/4W	
R014	1-247-864-11	CARBON 24K 5% 1/4W	
R015	1-247-864-11	CARBON 24K 5% 1/4W	
R016	1-247-864-11	CARBON 24K 5% 1/4W	
R017	1-249-417-11	CARBON 1K 5% 1/4W	
R018	1-249-429-11	CARBON 10K 5% 1/4W	
R019	1-247-903-91	CARBON 1M 5% 1/4W	
R020	1-249-426-11	CARBON 5.6K 5% 1/4W	
R021	1-249-417-11	CARBON 1K 5% 1/4W	
R022	1-249-429-11	CARBON 10K 5% 1/4W	
R023	1-249-429-11	CARBON 10K 5% 1/4W	
R024	1-249-417-11	CARBON 1K 5% 1/4W	
R025	1-247-839-11	CARBON 2.2K 5% 1/4W	
R026	1-249-429-11	CARBON 10K 5% 1/4W	
R027	1-249-417-11	CARBON 1K 5% 1/4W	
R028	1-247-903-91	CARBON 1M 5% 1/4W	
R029	1-249-433-11	CARBON 22K 5% 1/4W	
R030	1-249-440-11	CARBON 82K 5% 1/4W	
R031	1-249-433-11	CARBON 22K 5% 1/4W	
R032	1-247-839-11	CARBON 2.2K 5% 1/4W	
R033	1-249-433-11	CARBON 22K 5% 1/4W	
R034	1-249-429-11	CARBON 10K 5% 1/4W	
R035	1-249-429-11	CARBON 10K 5% 1/4W	
R036	1-249-433-11	CARBON 22K 5% 1/4W	
R037	1-249-417-11	CARBON 1K 5% 1/4W	
R038	1-249-866-11	CARBON 30K 5% 1/4W	
R039	1-249-405-11	CARBON 100 5% 1/4W	
R040	1-247-842-11	CARBON 3K 5% 1/4W	
R041	1-249-405-11	CARBON 100 5% 1/4W	
R042	1-247-842-11	CARBON 3K 5% 1/4W	
R043	9-904-764-01	METAL OXIDE 1 5% 1/2W	
R044	9-904-764-01	METAL OXIDE 1 5% 1/2W	
R045	9-904-762-01	METAL OXIDE 10 5% 1/4W	
R047	9-904-763-01	METAL OXIDE 1.8K 5% 1/2W	
R048	1-249-429-11	CARBON 10K 5% 1/4W	
R049	1-249-429-11	CARBON 10K 5% 1/4W	
<VARIABLE RESISTOR>			
VR001	9-904-760-01	VOLUME	

ADJUSTMENT MANUAL

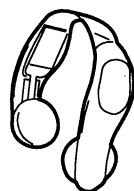
AA - 1A CHASSIS

<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>
<i>KV-27XBR45</i>	<i>RM-Y127</i>	<i>US</i>	<i>SCC-H81A-A</i>	<i>KV-32XBR45</i>	<i>RM-Y127</i>	<i>US</i>	<i>SCC-H81B-A</i>
<i>KV-27XBR45</i>	<i>RM-Y127</i>	<i>Canadian</i>	<i>SCC-H82A-A</i>	<i>KV-32XBR45</i>	<i>RM-Y127</i>	<i>Canadian</i>	<i>SCC-H82B-A</i>
<i>KV-27XBR45M</i>	<i>RM-Y127</i>	<i>E</i>	<i>SCC-H83A-A</i>	<i>KV-32XBR85</i>	<i>RM-Y127</i>	<i>US</i>	<i>SCC-H81C-A</i>

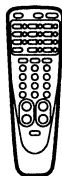
Note :

- Service Manual for this model and Service Manual of MDR-IF210 are separately published.

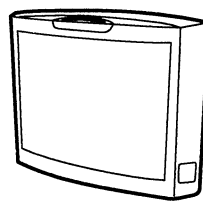
	Service Manual	MDR-IF210 Service Manual
Part No.	9-965-063-01	9-959-113-11



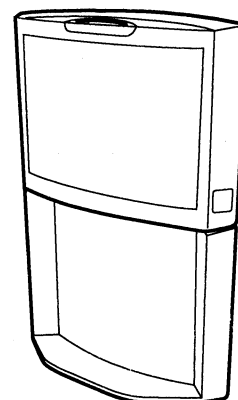
MDR-IF210



RM-Y127



KV-27XBR45
KV-27XBR45M
KV-32XBR45



KV-32XBR85



TRINITRON® COLOR TV
SONY®

※ Please file according to model size. ■

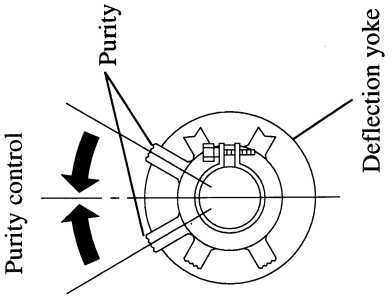
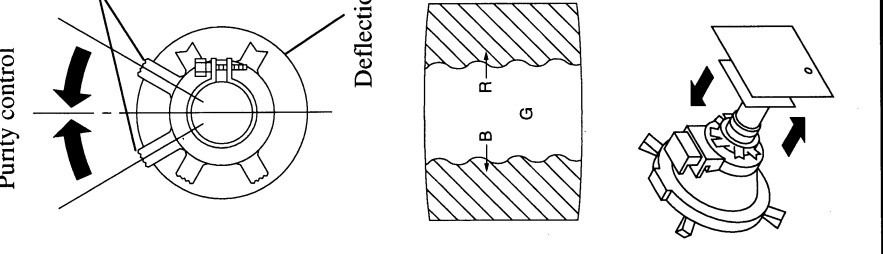
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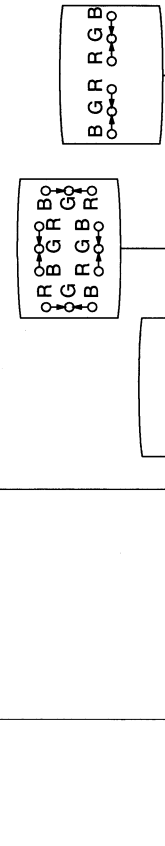
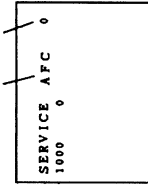
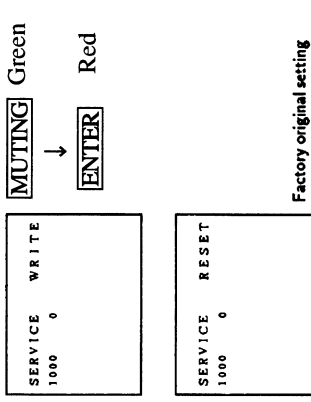
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SET-UP ADJUSTMENTS

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<ul style="list-style-type: none"> The following adjustments should be made when a complete realignment is required or a new picture tube is installed. These adjustments should be performed with rated power supply voltage unless otherwise noted. <p>The controls and switch should be set as follows unless otherwise noted :</p> <p>PICTURE control normal</p> <p>BRIGHTNESS control normal</p> <p>Preparation:</p> <ul style="list-style-type: none"> Feed in the white pattern signal. 	<p>Color bar Pattern Generator</p>			
<p>BEAM LANDING</p> <ol style="list-style-type: none"> Input a *raster signal with the pattern generator. Loosen the deflection yoke mounting screw, and set the *purity control to the center. Turn the *raster signal of the pattern generator to green. Move the *deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are at the sides evenly. Move the deflection yoke forward, and adjust so that the entire screen becomes green. 	<p>*White Pattern</p> <p>*Green Pattern</p>		<p>*Purity Control</p> <p>*Deflection Yoke</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>6. Switch over the raster signal to red and blue and confirm the condition.</p> <p>7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.</p> <p>8. When landing at the corner is not right, adjust by using the *disk magnets.</p> <p>CONVERGENCE</p> <p>Preparation:</p> <ul style="list-style-type: none"> ● Before starting, perform FOCUS, V. LIN and V. SIZE adjustments. ● Set BRIGHTNESS control to minimum. ● Feed in *signal. <p>(1) Horizontal and Vertical Static Convergence Adjustment</p> <p>1. Adjust *magnet to convergence red, green and blue dots in the center of the screen. (Vertical movement)</p>	<p>*Dot Pattern</p>		<p>*Disk Magnets</p> <p>*V. STAT Magnet</p> <p>*V. STAT Magnet</p>	
<p>● Tilt the *magnet and adjust static convergence to open or close the *magnet.</p>			<p>*V. STAT Magnet</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>2. When the *magnet is moved in the direction of arrow ③ and ⑥, red, green and blue dots move as shown below.</p> <ul style="list-style-type: none"> ● Operation of *Magnet ● The respective dot positions resulting from moving each magnet interact, so be sure to perform adjustment while tracking. Use the V STAT tabs to adjust the red, green, and blue dots so they coincide at the center of screen (by moving the dots in the horizontal direction). ● Y separation axis correction magnet adjustment 1. Receive a *signal, and adjust *PICTURE and BRIGHTNESS. 2. Adjust the deflection yoke to the upright condition when it hits the CRT. 3. Adjust so that the Y separation Axis correction magnet on the neck assembly is symmetrical at the top and bottom (open state). 4. Return the deflection yoke to its original position. 	<p>*Cross-hatch Pattern</p>		<p>*V. STAT Magnet</p> <p>*BMC Magnet</p> <p>*PICTURE minimum BRIGHTNESS normal</p>	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>(2) Dynamic Convergence Adjustment</p> <p>Preparation:</p> <ul style="list-style-type: none"> ● Before starting perform Horizontal and Vertical static convergence Adjustment. <ol style="list-style-type: none"> 1. Slightly loosen deflection yoke screw. 2. Remove deflection yoke spacers. 3. Move the *deflection yoke for best convergence as shown below. 4. Tighten the deflection yoke screw. 5. Install the deflection yoke spacers. 			<p>*Deflection Yoke</p>	
<p>(3) Dynamic Convergence Adjustment (32 inch only)</p> <p>SERVICE MODE PROCEDURE</p> <ol style="list-style-type: none"> 1. Standby mode. (Power off) 2. DISPLAY → 5 → VOL (+) → POWER on the *Remote Commander. Press each button within a second. 3. The CRT display 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 MUTING then ENTER to write into memory. 7. Press 8 then ENTER on the Remote Commander to initialize. 8. Turn set off and on to exit. 	<p>*Remote Commander</p>		<p>SERVICE ADJUSTMENT MODE IN</p> 	<p>SERVICE ADJUSTMENT MODE MEMORY</p> 

ADJUSTMENT ITEM AND PROCEDURE				EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
59	UYBO	Upper Y-Bow	Ave. Data				
60	LYBO	Lower Y-Bow	40				
61	HAMP	H. Amp	22				
62	HTILT	H. Tilt	34				
63	UCBO	Upper Corner-Bow	34				
64	UTIL	Upper Tilt	26				
65	LCBO	Lower Corner-Bow	31				
66	LTIL	Lower Tilt	45				
67	DCSH	DC Shift	30				
			36				
		Upper Y-Bow				UYBO	
		Lower Y-Bow				LYBO	
		H. Amp				HAMP	
		H. Tilt				HTILT	
		Upper Corner-Bow				UCBO	
		Upper Tilt				UTIL	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>Lower Corner-Bow</p> <p>Lower Tilt</p> <p>DC Shift</p>			<p>LCBO</p> <p>LTLT</p> <p>DCSH</p>	
<p>(4) Screen-corner Convergence Adjustment</p> <p>a-b : screen-corner misconvergence</p> <p>Affix a Permalloy ass'y corresponding to the misconverged areas</p> <p>FOCUS Adjust *FOCUS control for best picture.</p> <p>SCREEN (G2) 1. Input a *signal. 2. Adjust *PICTURE, BRIGHTNESS controls. 3. Adjust S BRT, G CUT, B CUT in service mode so that voltages on the red, green and blue *cathodes are *Voltage with an oscilloscope. 4. Observe the screen and adjust *SCREEN (G2) VR to obtain the faintly visible background of dot signal.</p>	<p>*Dot pattern</p> <p>Oscilloscope</p>	<p>*cathodes</p>	<p>Permalloy Ass'y</p> <p>*FOCUS control</p> <p>*PICTURE normal</p> <p>*BRIGHTNESS normal</p> <p>*S BRT</p> <p>*G CUT</p> <p>*B CUT</p> <p>*RV702</p> <p>SCREEN (G2)</p>	

ADJUSTMENT ITEM AND PROCEDURE		EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER																																				
<p>WHITE BALANCE ADJUSTMENTS</p> <table border="1"> <thead> <tr> <th>No.</th> <th>Disp.</th> <th>Item</th> <th>27 inch</th> <th>Ave. Data</th> <th>32 inch</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>GAMP</td> <td>Green Drive</td> <td>37</td> <td></td> <td>38</td> </tr> <tr> <td>21</td> <td>BAMP</td> <td>Blue Drive</td> <td>46</td> <td></td> <td>43</td> </tr> <tr> <td>22</td> <td>GCUT</td> <td>Green Cut-off</td> <td>6</td> <td></td> <td>6</td> </tr> <tr> <td>23</td> <td>BCUT</td> <td>Blue Cut-off</td> <td>10</td> <td></td> <td>5</td> </tr> <tr> <td>27</td> <td>SBRT</td> <td>Sub Brightness</td> <td>20</td> <td></td> <td>17</td> </tr> </tbody> </table> <ol style="list-style-type: none"> Input a *signal. Set to service adjustment mode. Set the PICTURE and BRIGHTNESS to *adjustment. Adjust with *S BRT if necessary. Select *G CUT and *B CUT with [1] and [4]. Adjust with [3] and [6] for the best white balance. Set the *PICTURE and BRIGHTNESS to *adjustment. Select *G AMP and B AMP with [1] and [4]. Adjust with [3] and [6] for the best white balance. Write into the memory by pressing [MUTING] then [ENTER]. 						No.	Disp.	Item	27 inch	Ave. Data	32 inch	20	GAMP	Green Drive	37		38	21	BAMP	Blue Drive	46		43	22	GCUT	Green Cut-off	6		6	23	BCUT	Blue Cut-off	10		5	27	SBRT	Sub Brightness	20		17
No.	Disp.	Item	27 inch	Ave. Data	32 inch																																				
20	GAMP	Green Drive	37		38																																				
21	BAMP	Blue Drive	46		43																																				
22	GCUT	Green Cut-off	6		6																																				
23	BCUT	Blue Cut-off	10		5																																				
27	SBRT	Sub Brightness	20		17																																				
		*Entire White Pattern		<p>*PICTURE minimum BRIGHTNESS minimum *S BRT *G CUT *B CUT *PICTURE maximum BRIGHTNESS maximum *G AMP B AMP</p>																																					
		*Grey scale pattern		<p>*PICTURE minimum BRIGHTNESS normal SBRT</p>																																					
<p>SUB BRIGHT ADJUSTMENT</p> <ol style="list-style-type: none"> Set to service adjustment mode. Input a *signal. Select SBRT with [1] and [4], and adjust SUB BRIGHT level with [3] and [6] so that the stripe second from the right is dimly lit. Write into the memory by pressing [MUTING] then [ENTER]. 																																									

CIRCUIT ADJUSTMENTS

ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use of Remote Commander (RM-Y127) can be performed circuit adjustments about this model.

NOTE : Test Equipment Required.

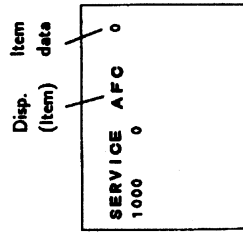
1. Pattern Generator
2. Frequency counter
3. Digital multimeter
4. Audio OSC

1. METHOD OF SETTING THE SERVICE ADJUSTMENT MODE

SERVICE MODE PROCEDURE

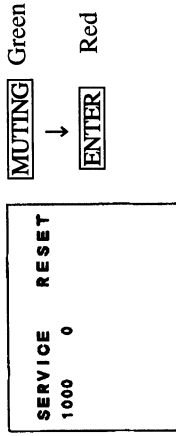
1. Standby mode. (Power off)
2. **DISPLAY** → **5** → **VOL (+)** → **POWER** on the Remote Commander. (Press each button within a second.)

SERVICE ADJUSTMENT MODE IN

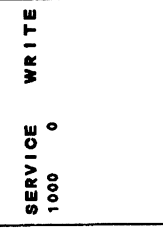


3. The CRT displays the item Being adjusted.
4. Press **1** or **4** on the Remote Commander to select the item.
5. Press **3** or **6** on the Remote Commander to change the data.
6. If you want to recover the latest values press **0** then **ENTER** to lead the memory.
7. Press **MUTING** then **ENTER** to write into memory.

SERVICE ADJUSTMENT MODE MEMORY



8. Press **8** then **ENTER** on the Remote Commander to initialize.



Carry out step 8) when adjusting IDs 0 to 4 and when replacing and adjusting IC102.

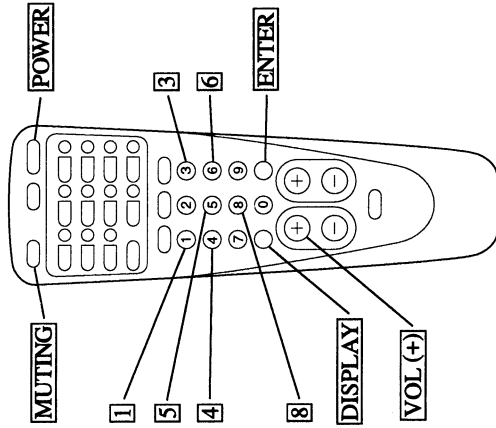
Factory original setting

9. Turn set off and on to exit.

2. MEMORY WRITE CONFIRMATION METHOD

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

3. ADJUST BUTTONS AND INDICATOR



RM-Y127

4. AN ITEM OF ADJUSTMENTS

No.	Disp.	Item	Data range	Ave. data
				27 inch 32 inch
1	PJTV	PJCTV	0-1	*0
2	VPOS	V-POSITION	0-63	42
3	VSIZ	V-SIZE	0-63	34
4	VZOOM	V-ZOOM	*4	19
5	VZLN	V-LINEARITY	0-15	*4
6	VSCO	V-S CORRECTION	0-15	9
7	HPOS	H-POSITION	0-15	4
8	HSIZ	H-SIZE	0-63	33
9	HZOOM	H-ZOOM	0-15	30
10	PAMP	PIN AMPLITUDE	*0	*2
11	UPIN	UPPER PIN	0-63	28
12	LPIN	LOWER PIN	0-15	6
13	PPHA	PIN PHASE	0-15	4
14	VBOW	VERTICAL BOW	0-15	10
15	VANG	VERTICAL ANGLE	0-15	8
16	AFRCG	AUTO FREQ	0-15	5
17	AKRF	REF PULSE POS	*3	*1
18	G2SW	G2 SWITCH	0-15	*10
			0-1	*0

No.	Disp.	Item	Data range	Ave. data
				27 inch 32 inch
19	G2AJ	G2 ADJUSTMENT	0-15	*0
20	GAMP	GREEN DRIVE	0-63	37
21	BAMP	BLUE DRIVE	0-63	38
22	GCUT	GREEN CUT OFF	0-15	46
23	BCUT	BLUE CUT OFF	0-15	6
24	SPIX	SUB CONTRAST	0-15	10
25	SHUE	SUB HUE	0-15	5
26	SCOL	SUB COLOR	0-15	10
27	SBRT	SUB BRIGHTNESS	0-15	7
28	SSHP	SUB SHARPNESS	0-63	6
29	GMMMA	GAMMA LEVEL	*3	4
30	DPIX	DYNAMIC PICTURE	0-15	17
31	YDC	DC TRANSFER	*3	*3
32	ABLM	AUTO BRIGHTNESS	0-3	*3
33	R-YR	R-Y AXIS	0-3	*2
34	R-YB	R-Y AXIS	0-15	*8
35	G-YR	G-Y AXIS	0-15	*4
36	G-YB	G-Y AXIS	0-15	*9
37	CTRP	COLOR TRAP	0-15	*13
38	TOTP	CHROMA TOT POINT	0-1	*1
39	TOTQ	CHROMA TOT WIDTH	0-3	*0
40	PREL	PRE/OVER SHOOT	0-3	*1
41	SHPF	SHARP FREQ	0-15	*4
42	SHPL	SHARPNESS LIMITER	*1	*1
43	ROFF	RED OUT	0-3	*0
44	GOFF	GREEN OUT	0-1	*1
45	BOFF	BLUE OUT	0-1	*1
46	OSDL	OSD LEVEL	0-1	*1
47	VMSL	VERTICAL SYNC	0-3	*2
48	VMLV	VM LEVEL	0-1	*0
49	NRLV	NOISE REDUCTION	0-3	*3
50	DCOL	DYNAMIC COLOR	0-3	*1
51	DISP	ON SCREEN DISPLAY	0-1	*1
52	SVOL	POSITION	0-63	36
53	SBAL	SUB VOLUME	0-15	*0
54	SBAS	SUB BALANCE	0-15	*7
55	STRE	SUB BASS	0-15	*8
56	BBEL	SUB TREBLE	0-15	*8
57	BBEH	BBE LOW	0-15	*15
58	BBES	BBE HIGH	0-15	*0
59	UYBO	BBE OFFSET	0-15	*5
60	LYBO	UPPER Y BOW	0-63	NA
61	HAMP	LOWER Y BOW	0-63	NA
62	HTIL	H AMPLITUDE	0-63	NA
63	UCBO	UPPER CORNER BOW	0-63	NA
64	LCBO	LOWER CORNER BOW	0-63	NA
65	LTIL	UPPER TILT	0-63	NA
66	DCSH	LOWER TILT	0-63	NA
67	PHPO	DL SHIFT	0-63	NA
68	PHUE	PIP H POSITION	0-127	70
69	QVPO	PIP V POSITION	0-63	*0
70	VPDL	PIP V PULSE DELAY	0-63	13
71	MCON	MAIN CONTRAST	0-31	*6
72			0-15	*4

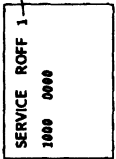
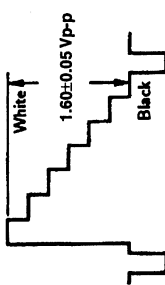
No.	Disp.	Item	Data range	Ave. data
				27 inch 32 inch
73	ICON	INSET CONTRAST	0-15	*4
74	FRMY	FRAME Y LEVEL	0-15	*10
75	MPER	MAIN R-Y LEVEL	0-15	0
76	MPEB	MAIN B-Y LEVEL	0-15	0
77	IPER	INSET R-Y LEVEL	0-15	0
78	IPBE	INSET B-Y LEVEL	0-15	0
79	BLDL	BLANKING DELAY	0-15	*15
80	BKON	BACKGROUND	0-1	*0
81	ID0	SET 1 D 0	0-127	*120
82	ID1	SET 1 D 1	0-127	*127
83	ID2	SET 1 D 2	0-127	*126
84	ID3	SET 1 D 3	0-127	*52
85	ID4	SET 1 D 4	0-127	*28

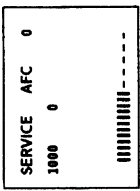
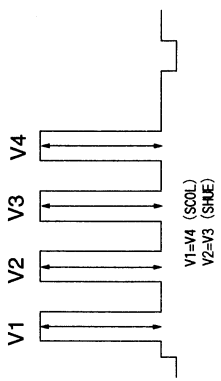
* : FIX

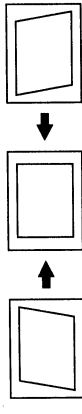
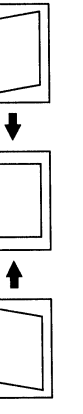
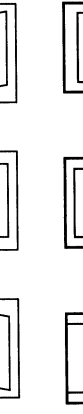
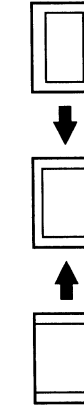
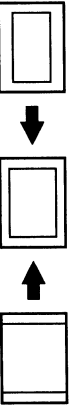
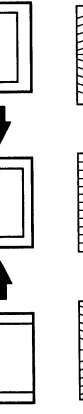
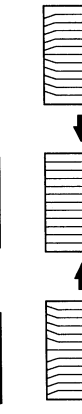
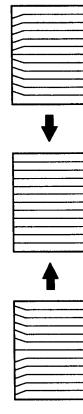
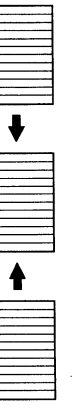

Note : No. From 1 to 85 is to show adjustment order.

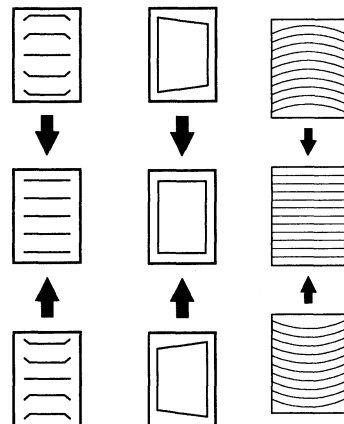
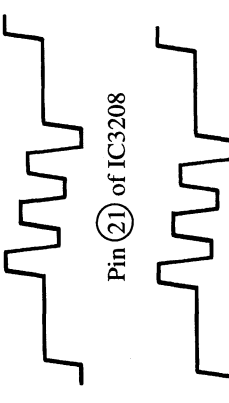
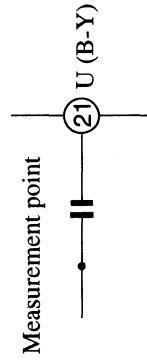
SERVICE ID 0 120
1000 0 1000000

Please adjust the function values as shown below when IC 102 on M board was replaced.

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>A BOARD</p> <p>RF AGC (IF BLOCK VR)</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Adjust *AGC VR of TUNER so that snow noise and cross-modulation disappear from the picture. 3. Confirm them at every channel. 	<p>*Color-Bar Pattern</p>		<p>*AGC (TU101) (TU102)</p>	
<p>M BOARD</p> <p>SUB CONTRAST</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Set the *conditions as follows. <ol style="list-style-type: none"> 4. Connect an *oscilloscope to *TP47B (R OUT) of C board and ground. 5. Select SPIX with [1] and [4]. 6. Adjust with [3] and [6]. 7. Write the memory by pressing [MUTING] then [ENTER]. 8. Return the *following back to normal after *adjustment. 	<p>*Color-bar</p> <p>* Oscilloscope</p>	<p>*TP47R (RED OUT) (C Board)</p>	<p>SPIX</p> <p>*PICTURE maximum COLOR minimum BRIGHTNESS normal</p> <p>R OFF : ON (1) G OFF : OFF (0) B OFF : OFF (0)</p>	 

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>ON SCREEN DISPLAY POSITION</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set to Service adjustment Mode. 3. Select DISP with [1] and [4]. 4. Adjust with [3] and [6] for the bar center. 5. Write the memory by pressing [MUTING] then [ENTER]. 	<p>*Color-bar pattern</p>		DIPS	
<p>SUB BRIGHTNESS</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set to service adjustment Mode. 3. Set the *PICTURE and BRIGHT Controls. 4. Select SBRT with [1] and [4]. 5. Adjust with [3] and [6] for obtain a faintly visible cross-hatch. 6. Write into the memory by pressing [MUTING] then [ENTER]. 	<p>*Cross-hatch pattern</p>		SBRT	
<p>SUB HUE, SUB COLOR</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set the user controls to normal. 3. Set to service adjustment mode. 4. Connect an *Oscilloscope to *TP47B(B OUT) of C board. 5. Select SHUE and SCOL with [1] and [4]. 6. Adjust with [3] and [6] for the V1=V 4 and V2=V3. 7. Write into the memory by pressing [MUTING] then [ENTER]. 	<p>*Full field Color-bar (75%) Oscilloscope</p>	TP47B	SHUE SCOL	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
V-ANGLE	*Cross-hatch or Mono scope		VANG	
V-SIZE			VSIZ	
UPPER PIN			UPIN	
V-POSITION			VPOS	
H-SIZE			HSIZ	
H-POSITION			HPOS	
LOWER PIN			LPIN	
V LINEARITY			VLIN	
V-S CORRECTION			VSCO	
PIN AMP			PAMP	

ADJUSTMENT ITEM AND PROCEDURE	EQUIPMENT AND SIGNAL	MEASUREMENT POSITION	ADJUSTMENT LOCATION	ILLUSTRATION AND SHAPE AND NUMBER
<p>CORNER PIN</p> <p>PIN PHASE</p> <p>V. BOW</p>			<p>CPIN</p> <p>PPHA</p> <p>VBOW</p>	
<p>PA BOARD</p> <p>SUB HUE BARANCE</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set to P&P(MAIN&SUB) Mode. 3. Connect an *oscilloscope *IC Pins of PA board. 4. Adjust RV3201 so that the similar waveform. 	<p>* Color-bar pattern</p> <p>* Oscilloscope</p>	<p>*Pin 21 of IC3205(MAIN)</p> <p>Pin 21 of IC3208(SUB)</p>	<p>RV3201</p>	
<p>P IN P H. POSITION (PHPO)</p> <ol style="list-style-type: none"> 1. Input a *signal. 2. Set to P IN P Mode and service adjustment mode. 3. Select PHPO with [1] and [4]. 4. Adjust with [3] and [6] for the best balanced cent position at 4 corner P IN P display position. 5. Adjust P IN P put at lower right position. 6. Write the memory by Pressing [MUTING] then [ENTER] 	<p>* Color-bar</p>		<p>PHPO</p>	

SONY[®] ADJUSTMENT MANUAL

AA-1A CHASSIS

MODEL	COMMANDER	DEST.	CHASSIS NO.	MODEL	COMMANDER	DEST.	CHASSIS NO.
KV-27XBR45	RM-Y127	US	SCC-H81A-A	KV-32XBR45	RM-Y127	US	SCC-H81B-A (Serial No. 7,038,538 and later)
KV-27XBR45	RM-Y127	Canadian	SCC-H82A-A	KV-32XBR45	RM-Y127	Canadian	SCC-H82B-A (Serial No. A,701,501 and later)
KV-27XBR45M	RM-Y127	E	SCC-H83A-A	KV-32XBR85	RM-Y127	US	SCC-H81C-A (Serial No. 7,009,901 and later)

SUPPLEMENT-1

SUBJECT: SERVICE DATA CHANGE

File this supplement with the Service manual.

INTRODUCTION: DYNAMIC CONVERGENS FREE.(KV-32XBR45/85 only)

4. AN ITEM OF ADJUSTMENTS (See page 11)

No.	Disp.	Item	Data range	Ave. data	
				27 inch	32 inch
1	PJTV	PJ/CTV	0-1	*0	*0
2	VPOS	V-POSITION	0-63	42	37
3	VSIZ	V-SIZE	0-63	34	19
4	VZOM	V-ZOOM	0-15	*4	*6
5	VLIN	V-LINEARITY	0-15	9	10
6	VSCO	V-S CORRECTION	0-15	4	8
7	HPOS	H-POSITION	0-63	33	34
8	HSIZ	H-SIZE	0-63	30	27
9	HZOM	H-ZOOM	0-15	*0	*0
10	PAMP	PIN AMPLITUDE	0-63	28	22
11	UPIN	UPPER PIN	0-15	6	9
12	LPIN	LOWER PIN	0-15	4	7
13	PPHA	PIN PHASE	0-15	10	10
14	VBOW	VERTICAL BOW	0-15	8	9
15	VANG	VERTICAL ANGLE	0-15	5	11
16	AFCG	AUTO FREQ	0-3	*1	*1
17	AKRF	REF PULSE POS	0-15	*10	*10
18	G2SW	G2 SWITCH	0-1	*0	*0

Change data



9-965-064-81

※ Please file according to model size.

27 32

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Display Company
Quality Engineering Dept.

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