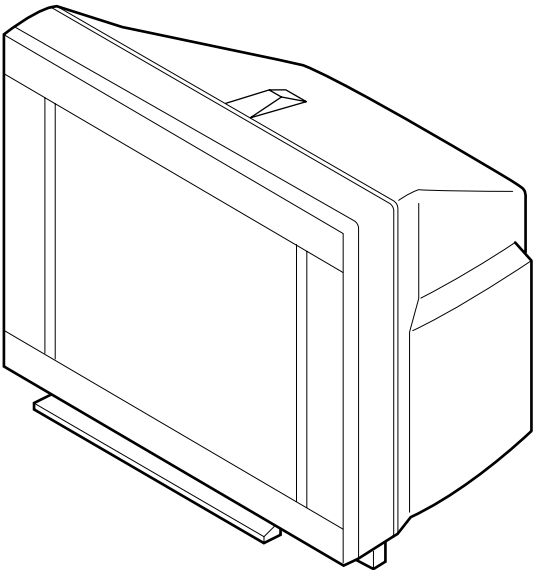
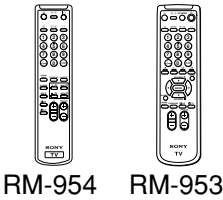


SERVICE MANUAL

BG-3R 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-XA29M60</i>	<i>RM-954</i>	<i>Thailand</i>	<i>SCC-U49B-A</i>				
<i>KV-XA29M84</i>	<i>RM-953</i>	<i>ME</i>	<i>SCC-U48A-A</i>				



TRINITRON® COLOR TV
SONY®

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	KV-XA29M84 only
	220-240 V AC, 50/60 Hz	KV-XA29M60 only
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I, DK; A2 Stereo/Bilingual B/G	KV-XA29M60 only
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
⌚ (Antenna)	75-ohm external terminal	
Audio output (Speaker)	8W + 8W	10% distortion
Number of terminal		
📺 (Video)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 1 V _{P-P} , 75 ohms
🎵 (Audio)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 500 mVrms
📺 (S Video)	Input: 2	Y : 1 V _{P-P} , 75 ohms, unbalanced, sync negative C : 0.286 V _{P-P} , 75 ohms
📺 (Component Video)	Input: 1	Phono jacks Y : 1 V _{P-P} , 75 ohms, sync negative C _B : 0.7 V _{P-P} , 75 ohms C _R : 0.7 V _{P-P} , 75 ohms Audio : 500 mVrms
🎧 (Headphones)	Output: 1	Stereo minijack
Picture tube	29 inch	
Tube size (cm)	72	Measured diagonally
Screen size (cm)	68	Measured diagonally
Dimension (w/h/d, mm)	722 x 576 x 516	
Mass (kg)	51	

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.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK  ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
	SELF DIAGNOSIS FUNCTION	4	6. DIAGRAMS		
1. GENERAL		7	6-1. Block Diagram		61
2. DISASSEMBLY			6-2. Circuit Board Location		65
2-1. Rear Cover Removal		43	6-3. Schematic Diagrams		66
2-2. Speaker Removal		43	(1) Schematic Diagrams of F, J and VM Boards		67
2-3. Chassis Assy Removal		43	(2) Schematic Diagram of H Board		69
2-4. F Bracket Removal		43	(3) Schematic Diagram of A Board		85
2-5. Service Position		43	(4) Schematic Diagram of B Board		93
2-6. Replacement of Parts		44	(5) Schematic Diagram of P2 Board		95
2-6-1 Replacement of Light Guide		44	(6) Schematic Diagram of C6 Board		97
2-6-2 Replacement of Power Button		44	(7) Schematic Diagram of B1 and D3 Board		99
2-7. HV Cap Block, PWB Holder and J Board Removal ..		44	6-4. Voltage Measurements		102
2-8. Terminal Bracket Removal		44	6-5. Waveforms		109
2-9. D3 Board Removal		44	6-6. Printed Wiring Boards and Parts Location		110
2-10. P2 Board Removal		44	6-7. Semiconductors		118
2-11. B1 Board Removal		45	7. EXPLODED VIEWS		
2-12. H Board Removal		45	7-1. Picture Tube		120
2-13. A and B Boards Removal		45	7-2. Chassis		121
2-14. Picture Tube Removal		46	8. ELECTRICAL PARTS LIST		122
2-15. Removal of Anode Cap		46			
3. ADVANCE OPERATION					
3-1. "RESET" Function		47			
4. SET-UP ADJUSTMENTS					
4-1. Beam Landing		48			
4-2. Convergence Adjustment		49			
4-3. Focus Adjustment		51			
4-4. G2 (Screen) and White Balance Adjustments		52			
5. CIRCUIT ADJUSTMENTS					
5-1. Adjustments with Commander		53			
5-2. Adjustment Method		53			
5-3. Picture Quality Adjustments		58			
5-4. Display position Adjustment		58			
5-5. Deflection Adjustment		58			
5-6. H-Trapezoid Adjustment		59			
5-7. A Board Adjustment after IC003 Replacement		59			
5-8. Picture Distortion Adjustment		60			

SELF DIAGNOSTIC FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER lamp will automatically begin to flash.

The number of times the lamp flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER lamp flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

1. DIAGNOSTIC TEST INDICATORS

When an errors occurs, the STANDBY/TIMER lamp will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	• Power cord is not plugged in. • Fuse is burned out F4601 (F)	• Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP) or overvoltage (OVP) • Vertical deflection stopped • Horizontal deflection overdrive	2 times	002:000 or 002:001~255 003:001~255 004:001~255 at the same time	• H.OUT Q511 is shorted. (A board) • Q701, Q702, Q703 is shorted (C6 board) • -13V is not supplied. (A board) • IC 503 faulty (A board)	• Power does not come on. • Load on power line is shorted. • Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~225	• G2 is improperly adjusted. (Note 2) • CRT problem. • R(Q703), G(Q702) or B(Q701) out is faulty (C6 board) • IC301 is faulty. (A board) • No connection A board to C6 board.	• No raster is generated. • CRT cathode current detection reference pulse output is small.
• Micro reset	—	101:00 or 101:001~225	• Discharge CRT (C6 Board) • Static discharge • External noise	• Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

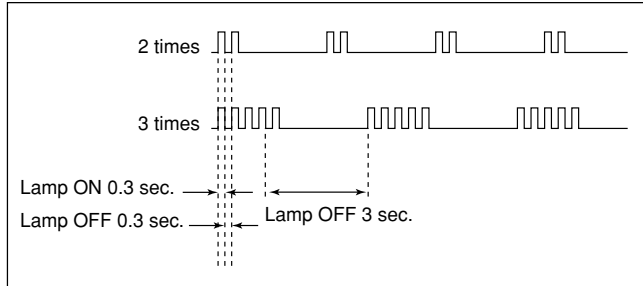
Note 1: If a + B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously.

The symptom that is diagnosed first by the microcontroller is displayed on the screen.

Note 2: Refer to screen (G2) Adjustment in section 3-4 of this manual.

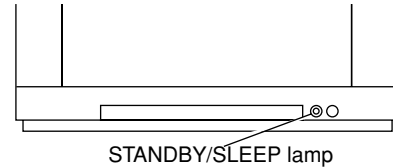
* R(Q703), G(Q702) or B(Q701) out is faulty (C6 board).

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count*
+B overcurrent/overvoltage	2 times
Vertical deflection stopped	2 times
White balance failure	5 times

* One flash count is not used for self-diagnostic.



3. STOPPING THE STANDBY/TIMER FLASH

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER lamp from flashing.

4. SELF-DIAGNOSTIC SCREEN DISPLAY

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

[To Bring Up Screen Test]

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

Screen display → channel [5] → Sound volume [] → Power ON



Note that this differs from entering the service mode (mode volume []).

Self-Diagnosis screen display

SELF DIAGNOSTIC	
002 : 000	← Numeral "0" means that no fault has been detected.
003 : 000	
004 : 000	
005 : 001	← Numeral "1" means a fault has been detected.
101 : 000	

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

[Clearing the result display]

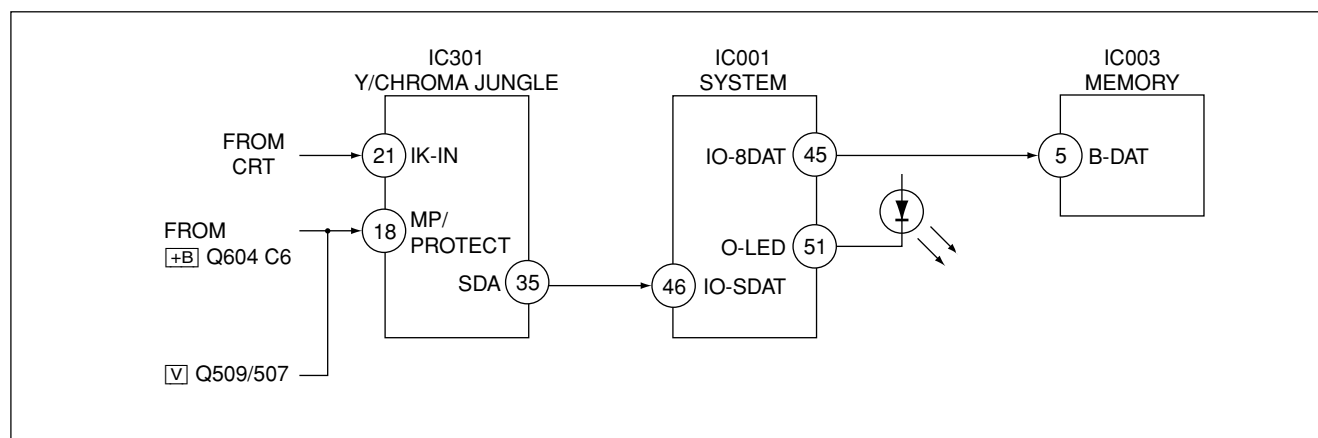
To clear the result display to "0", press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel **[8]** ➔ 0

[Quitting Self-diagnostic screen]

To quit the entire self-diagnostic screen, turn off the power switch on the remote commander or the main unit.

6. SELF-DIAGNOSTIC CIRCUIT



[+B overcurrent (OCP)]

Occurs when an overcurrent on the +B(135) line is detected by Q604. If Q604 go to ON and the voltage to pin 18 of IC301 should go down when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

[Vertical deflection stopped]

Occurs when an absence of the vertical deflection pulse is detected by Q509 and IC001 shut down the power supply.

[Vertical deflection overcurrent]

Occurs when an overcurrent on V drive line is detected by Q507. Power supply will be shut down when detect this by IC001.

[White balance failure]

If the RGB levels* do not balance or become low level within 5 seconds, this error will be detected by IC301. TV will stay on, but there will be no picture.

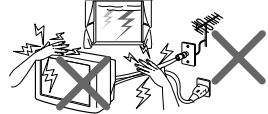
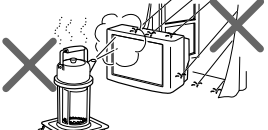
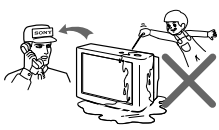
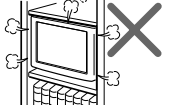
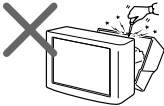
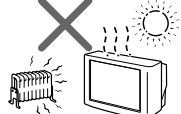
* (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

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

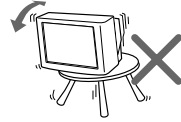
SECTION 1
GENERAL 1-2
(KV-XA29M84)

WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC.

 For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.	 For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.
 To prevent fire or shock hazard, do not expose the TV to rain or moisture.	 Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.
 Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.	 Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.
 Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV before moving it or if you are not going to use it for several days.	 Do not plug in too many appliances to the same power socket. Do not damage the power cord.
 Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.	 Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

WARNING (continued)

 Do not install the TV in an unstable position. Use a proper TV stand.	 Do not place any objects on the TV.
--	--

Using Your New TV

Getting Started

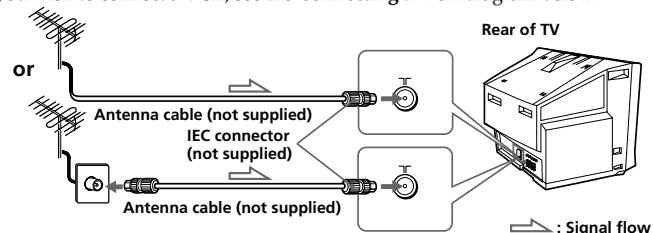
CAUTION

- Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

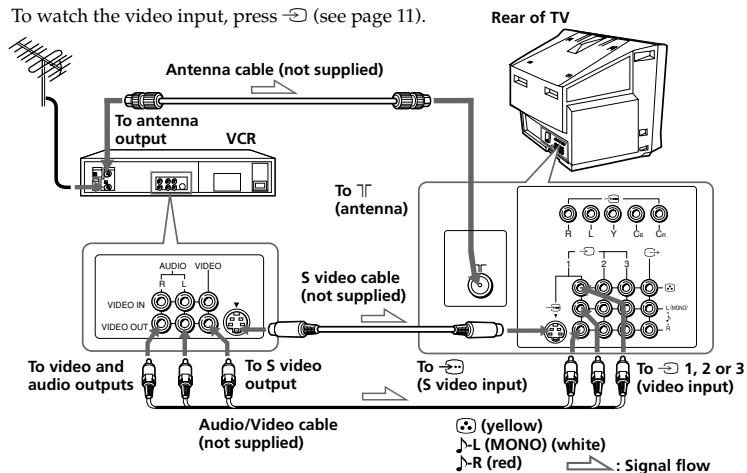
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press $\rightarrow$ (see page 11).

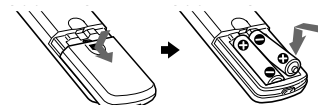


Notes

- If you connect a monaural VCR, connect the yellow plug to $\odot$ (the yellow jack) and the black plug to $\curvearrowright$ -L (MONO) (the white jack).
- If you connect a VCR to the Υ (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both $\rightarrow$ (S video input) and $\rightarrow$ 1 (video input) at the rear of your TV are input at the same time, the $\rightarrow$ (S video input) is automatically selected. To view the video input to $\rightarrow$ 1 (video input), disconnect the S video cable.
- Do not connect video equipment to $\rightarrow$ 3 (video input) at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



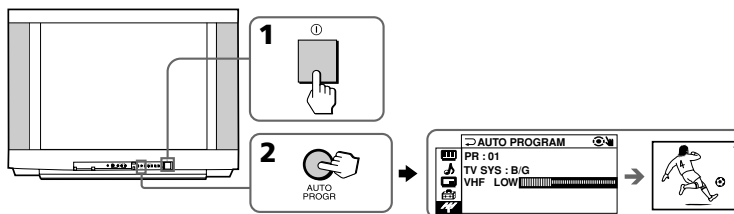
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



Tips

- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 31).

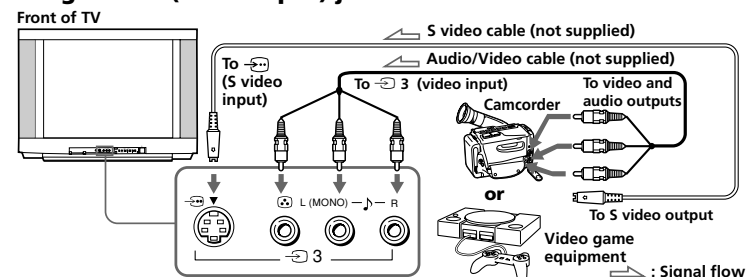
Note

- During automatic channel presetting, your TV screen will indicate "B/G", "I", "D/K" or "M" for the TV system ("TV SYS").

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system. To watch the picture of the connected equipment, press (see page 11).

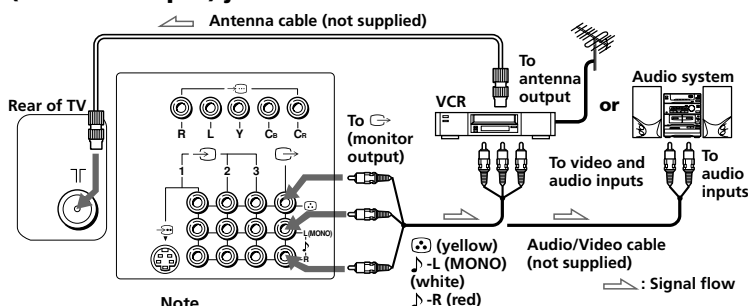
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

- You can also connect video equipment to the 1, 2 or 3 (video input) jacks at the rear of your TV.
- If both (S video input) and 3 (video input) at the front of your TV are input at the same time, the (S video input) is automatically selected. To view the video input to 3 (video input), disconnect the S video cable.
- Do not connect video equipment to the 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the (monitor output) jacks



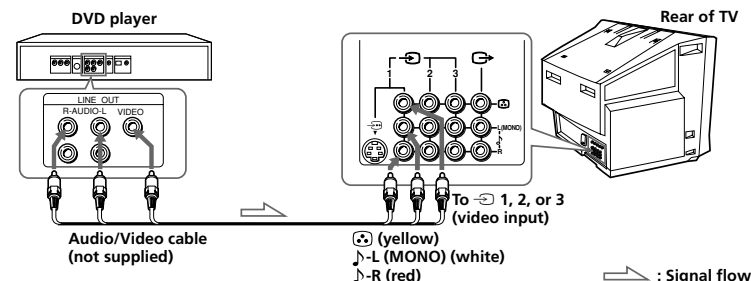
Note

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 11).

continued

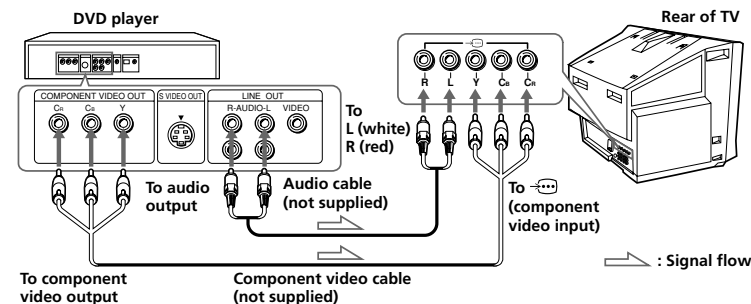
Connecting optional components (continued)

Connecting a DVD player using the (video input) jacks



Connecting a DVD player using the (component video input) jacks

- Connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.
- Using a component video cable, connect Y, C_B, and C_R under (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C _B (blue)	C _B , B-Y or P _B
C _R (red)	C _R , R-Y or P _R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 24).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

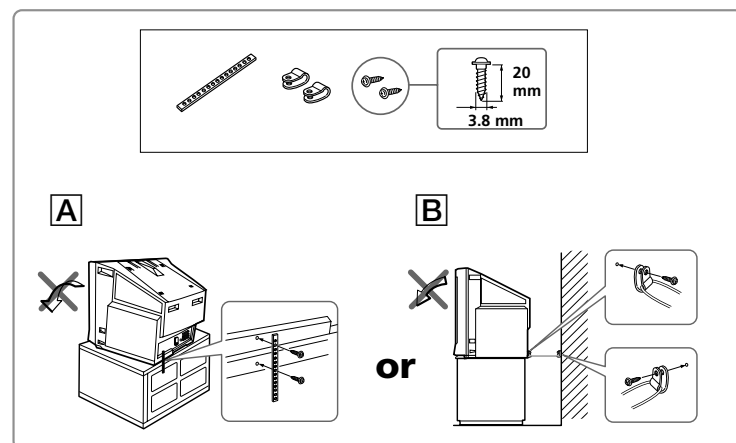
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

- A** With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

- B** Put the cord or chain through the clamps to secure the TV against a wall or pillar.



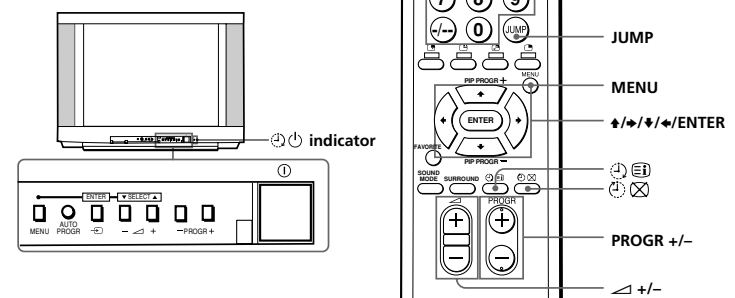
Note

- Use only the supplied screws. Use of other screws may damage the TV.

Using Your New TV

Watching the TV

This section explains various functions and operations available while watching the TV. Most operations can be done using the remote.



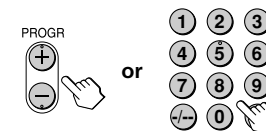
- 1** Press ① to turn on the TV.

When the TV is in the standby mode (the ① indicator on the TV is lit red), press I/ON on the remote or PROG +/- on the TV.



- 2** Press PROG +/- or number buttons to select the program number.

For double digit numbers, press +/-, then the number (e.g., for 25, press +/-, then 2 and 5).



To select a program number quickly

- Press and hold PROG +/-.
- Release PROG +/- when the desired program number appears.

Note

- When you select a program number quickly, the picture may be disrupted. This does not indicate a malfunction.

Additional tasks

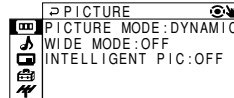
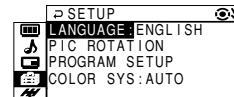
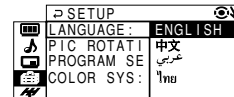
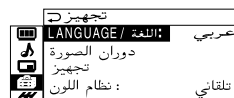
To	Press
Turn off temporarily	I/⏻. The ⏻ indicator on the TV lights up red.
Turn off completely	⏻ on the TV.
Adjust the volume	⏮ +/-.
Mute the sound	⏸.
Watch the video input (VCR, camcorder, etc.)	⏮ to select "VIDEO 1", "VIDEO 2", "VIDEO 3" or "DVD". To return to the TV program, press ⏻.
Jump back to the previous program number	JUMP.
Display the on-screen information*	ⓘ.

* The picture, sound, and either the program number or video input are displayed. The on-screen display for the picture and sound information disappears after about three seconds.

Changing the menu language

You can change the menu language as well as the on-screen language.

For details on how to use the menu, see **Introducing the menu system** on page 20.

- Press MENU.  
- Press ⬆ or ⬇ to select the "SETUP" icon (⚙), then press ENTER.  
- Make sure "LANGUAGE" is selected, then press ENTER.  
- Press ⬆ or ⬇ to select the desired language (e.g., "عربي"), then press ENTER.  

The selected menu language appears.

To return to the normal screen

Press MENU.

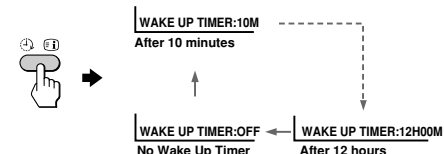
Using Your New TV

Watching the TV (continued)

Setting the Wake Up timer

- Press ⏻ until the desired period of time appears.

The Wake Up timer starts immediately after you have set it.



- Select the program number or video input you want to display when you wake up.
- Press ⏻ or set the Sleep timer if you want the TV to turn off automatically. The ⏻ indicator lights up orange.

To cancel the Wake Up timer

Press ⏻ until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

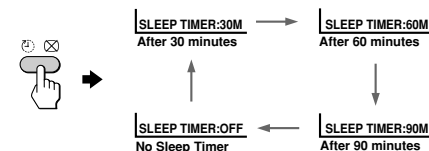
Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press ⏻ until the desired period of time appears.

The Sleep timer starts immediately after you have set it.



To cancel the Sleep timer

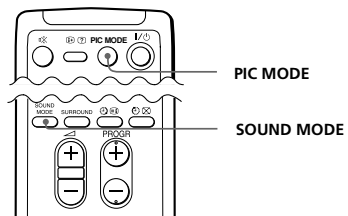
Press ⏻ until "SLEEP TIMER: OFF" appears or turn the TV off.

continued

Advanced Operations

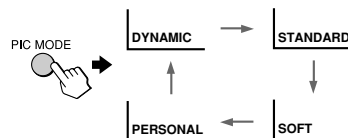
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in "PERSONAL" option.



Selecting the picture mode

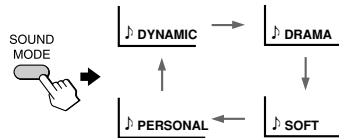
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 23).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



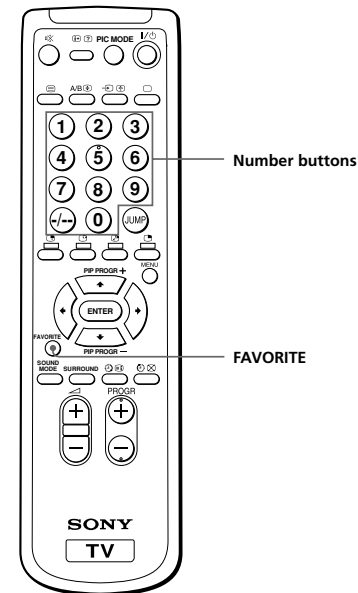
Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 25).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 23 and **Changing the "SOUND" setting** on page 25).

Viewing your favorite channels

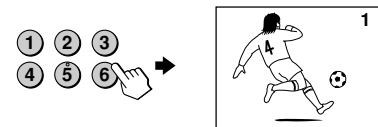
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



2 Press the number button from 1 to 6 to select the desired favorite channel.



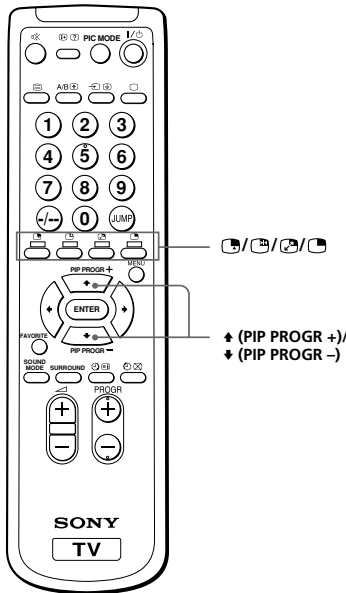
Tip

- To program your favorite channels, see **Adjusting each program number settings (PROGRAM SETUP)** on page 29.

Watching two programs at the same time

— PIP

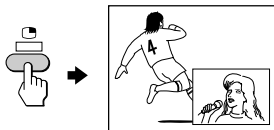
With the Picture-in-Picture (PIP) feature, you can display a sub screen within the main picture of different TV programs or video inputs.



Advanced Operations

Displaying a sub screen

Press .



To return to the normal screen

Press  (when displaying the sub screen).

Watching two programs at the same time (continued)

Additional PIP tasks

To	Press
change the program number in the sub screen	▲ (PIP PROGR +) or ▼ (PIP PROGR -).
select a video input in the sub screen	 .
swap pictures between the main and sub screens	 
freeze the sub screen	 To unfreeze the screen, press the  button again.

Tips

- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the “PIP” setting** on page 27).
- You can change the position of the sub screen (see **Changing the “PIP” setting** on page 27).

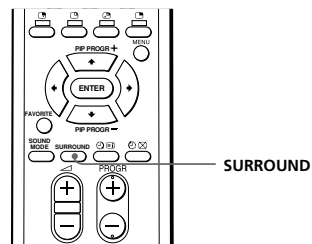
Notes

- When you display a video input on the sub screen at a faster/slower speed, the picture may be disrupted depending on the VCR type.
- If you display different color systems on the sub screen, the size of the sub screen may be different and the picture may be disrupted. This does not indicate a malfunction of the TV.

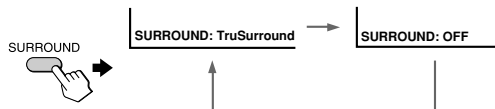
continued

Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"OFF"	turn off the surround sound.

Tip

- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 25).

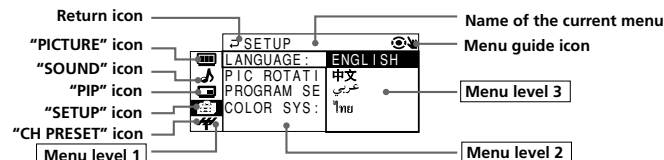
The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

Adjusting Your Setup (MENU)

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.



Level 1	Level 2	Level 3/Function
"PICTURE" 	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
"SOUND" 	"SOUND MODE"	Select the sound mode: "DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE" → "BALANCE" → "BBE"*
	"SURROUND"	Select the surround mode: "TruSurround" → "OFF"
	"INTELLIGENT VOL"	Adjust volume automatically.
"PIP" 	"POSITION"	Change the position of the sub screen.
	"PIP"	Display a sub screen within the main picture.
	"SWAP"	Exchange pictures between main screen and sub screen.
"SETUP" 	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Rotate the picture.
	"PROGRAM SETUP"	Adjust each program number settings.
	"COLOR SYS"	Change the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"

Level 1	Level 2	Level 3/Function
	"CH PRESET"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Change the TV system: "B/G" → "I" → "D/K" → "M"

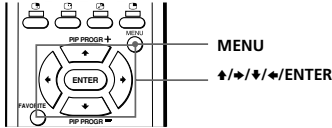
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

continued

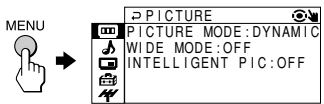
Introducing the menu system (continued)

How to use the menu

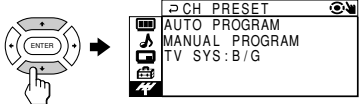
You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.



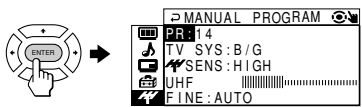
- 1 Press MENU to display the menu.



- 2 Press ↑ or ↓ to select the desired item.



- 3 Press ENTER to confirm your selection and go to the next menu level.



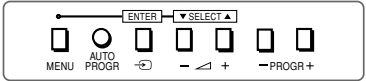
Other menu operations

To	Press
Adjust the setting value	↕, ↔, ↖, or ↗
Move to the next/previous menu level	↔ or ↖
Cancel the menu	MENU

Tips

- If you want to exit from Menu Level 2 to Menu Level 1, press ↑ or ↓ until the return icon (↶) is highlighted, then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

Front of TV

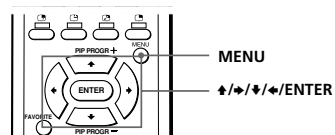


Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

Changing the "PICTURE" setting

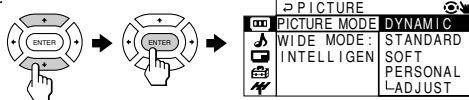
The "PICTURE" menu allows you to change the picture settings.



- 1 Press MENU.
- 2 Make sure the "PICTURE" icon () is selected, then press ENTER.



- 3 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., "PICTURE MODE"), then press ENTER.



Select	To
"PICTURE MODE"	choose either "DYNAMIC", "STANDARD", "SOFT", "PERSONAL"* or "ADJUST".
"WIDE MODE"	change the picture size when receiving wide-mode (16:9) picture signal. Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"INTELLIGENT PIC"	optimize picture quality. Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted picture settings from the "ADJUST" option (see page 24).

Note

- For details on the options under "PICTURE MODE", see page 13.

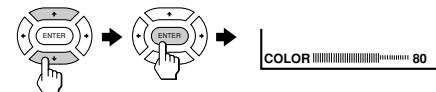
To return to the normal screen

Press MENU.

Changing the "PICTURE" setting (continued)

Adjusting the "ADJUST" items under "PICTURE MODE"

- 1 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., "COLOR"), then press ENTER.



- 2 Adjust the value according to the following table, then press ENTER.

For	Press $\blacktriangle/\blacktriangleleft$ to	Press $\blacktriangledown/\blacktriangleright$ to
"PICTURE"	decrease picture contrast	increase picture contrast
"COLOR"	decrease color intensity	increase color intensity
"BRIGHT"	darken the picture	brighten the picture
"HUE"*	increase red picture tones	increase green picture tones
"SHARP"	soften the picture	sharpen the picture

* You can adjust "HUE" for the NTSC color system only.

- 3 Repeat the above steps to adjust other items.
The adjusted settings will be received when you select "PERSONAL".

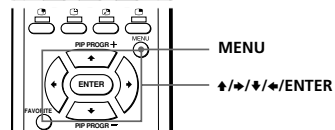
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

continued

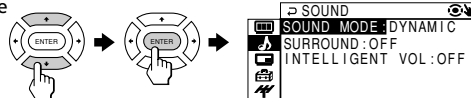
Changing the "SOUND" setting

The "SOUND" menu allows you to change the sound settings.

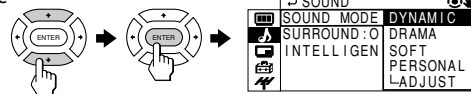


1 Press MENU.

2 Press $\uparrow$ or $\downarrow$ to select the "SOUND" icon (🔊), then press ENTER.



3 Press $\uparrow$ or $\downarrow$ to select the desired item (e.g., "SOUND MODE"), then press ENTER.



Select	To
"SOUND MODE"	choose either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL"*, or "ADJUST".
"SURROUND"	choose either "TruSurround" or "OFF".
"INTELLIGENT VOL"	adjust the volume of all program numbers and video inputs automatically. Press $\uparrow$ or $\downarrow$ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can received the last adjusted sound settings from the "ADJUST" option (see page 26).

Tip

- For details on the options under "SOUND MODE" and "SURROUND", see pages 13 and 17 respectively.

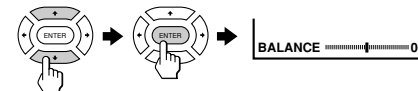
To return to the normal screen

Press MENU.

Changing the "SOUND" setting (continued)

Adjusting the "ADJUST" items under "SOUND MODE"

1 Press $\uparrow$ or $\downarrow$ to select the desired item (e.g., "BALANCE"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press $\leftarrow/\rightarrow$ to	Press $\uparrow/\downarrow$ to
"BASS"	decrease the bass	increase the bass
"TREBLE"	decrease the treble	increase the treble
"BALANCE"	increase the left speaker's volume	increase the right speaker's volume
"BBE"	select "HIGH" for higher enhancement of sound clarity; select "LOW" for lower enhancement of sound clarity; select "OFF" to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select "PERSONAL".

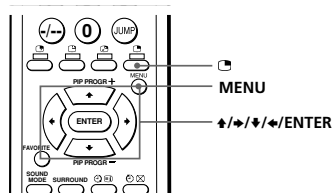
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

continued

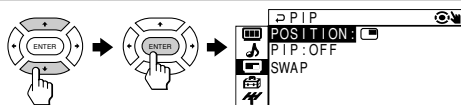
Changing the "PIP" setting

The "PIP" menu allows you to display a sub screen, change the sub screen position and exchange pictures between the main and sub screens.

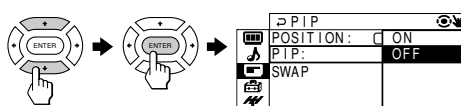


1 Press MENU.

2 Press $\uparrow$ or $\downarrow$ to select the "PIP" icon (), then press ENTER.



3 Press $\uparrow$ or $\downarrow$ to select the desired item (e.g., "PIP"), then press ENTER.



Select	To
"POSITION"	change the position of the sub screen. Press $\uparrow$ or $\downarrow$ to select the desired position, then press ENTER.
"PIP"	display a sub screen within the main picture. Press $\uparrow$ or $\downarrow$ to select "ON", then press ENTER. To cancel, press or select "PIP : OFF", then press ENTER.
"SWAP"	exchange pictures between main screen and sub screen.

To return to the normal screen

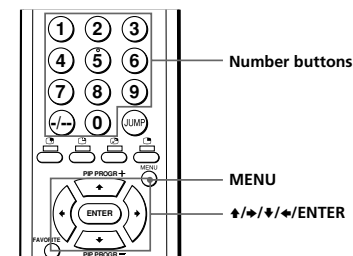
Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

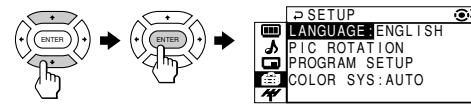
Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, adjust the program number setting and select color system.

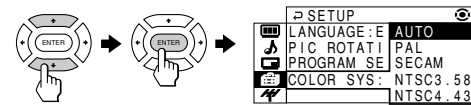


1 Press MENU.

2 Press $\uparrow$ or $\downarrow$ to select "SETUP" icon (), then press ENTER.



3 Press $\uparrow$ or $\downarrow$ to select the desired item (e.g., "COLOR SYS"), then press ENTER.



Select	To
"LANGUAGE"	change the menu language (see Changing the menu language on page 11).
"PIC ROTATION"	adjust the picture position when it is not aligned to the TV screen. Press $\uparrow$, $\downarrow$, $\leftarrow$ or $\rightarrow$ to adjust the picture position, then press ENTER.
"PROGRAM SETUP"	adjust each program number settings. (see Adjusting each program number settings (PROGRAM SETUP) on page 29).
"COLOR SYS"	change the color system. Normally, set this to "AUTO".

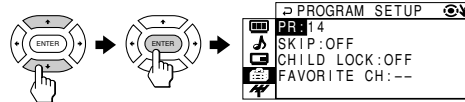
To return to the normal screen

Press MENU.

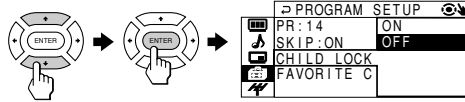
Adjusting each program number settings (PROGRAM SETUP)

1 Select "PROGRAM SETUP" from the "SETUP" menu.

2 Select "PR" and press ENTER. Press $\blacktriangle$ or $\blacktriangledown$ to select the desired program number you want to adjust, then press ENTER.



3 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., "CHILD LOCK"), then press ENTER.



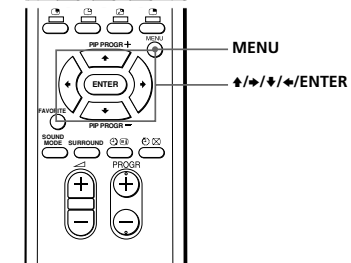
Select	To
"PR"	select the desired program number.
"SKIP"	skip unwanted or unused program number. Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"CHILD LOCK"	prevent children from watching this selected program number. Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER. The lock symbol (🔒) appears on the screen. To cancel, select "OFF", then press ENTER. If you preset a locked program number, that program number will be unlocked automatically.
"FAVORITE CH"	program favorite channels for direct selection. Press $\blacktriangle$ or $\blacktriangledown$ to select one of the six favorite channel numbers (if you decide not to make any changes, select "↶"), then press ENTER. To view the selected favorite channel, refer page 14.

4 To continue adjusting other program number, press $\blacktriangle$ or $\blacktriangledown$ to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

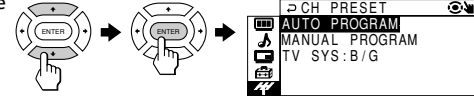
Changing the Channel Preset ("CH PRESET") setting



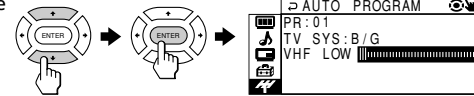
The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

1 Press MENU.

2 Press $\blacktriangle$ or $\blacktriangledown$ to select the "CH PRESET" icon (📺), then press ENTER.



3 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.



Select	To
"AUTO PROGRAM"	preset channels automatically.
"MANUAL PROGRAM"	preset channels manually. See Presetting channels manually on page 31.
"TV SYS"	change the TV system. Press $\blacktriangle$ or $\blacktriangledown$ to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 20.

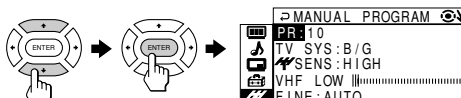
Presetting channels manually

- 1** After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

- (1) Make sure "PR" is selected, then press ENTER.



- (2) Press ▲ or ▼ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

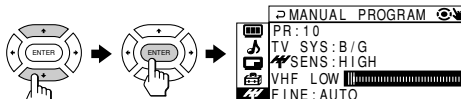


Tip

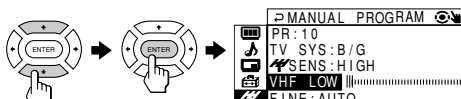
- You can also select the program number with the PROGR +/- or number buttons.

- 2** Select the desired channel.

- (1) Make sure either "VHF LOW", "VHF HIGH" or "UHF" is selected, then press ENTER.

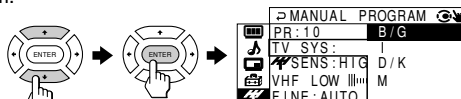


- (2) Press ▲ or ▼ until the desired channel picture appears on the TV screen, then press ENTER.

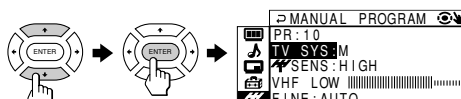


- 3** If the sound of the desired channel is abnormal, select the appropriate TV system.

- (1) Press ▲ or ▼ to select "TV SYS", then press ENTER.



- (2) Press ▲ or ▼ until the sound becomes normal (e.g., "M"), then press ENTER.

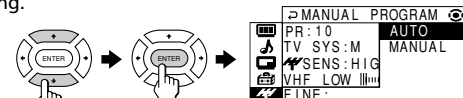


continued

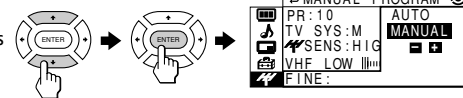
Changing the Channel Preset ("CH PRESET") setting (continued)

- 4** If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

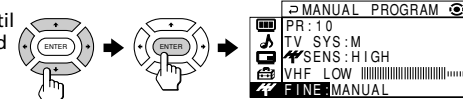
- (1) Press ▲ or ▼ to select "FINE", then press ENTER.



- (2) Press ▲ or ▼ to select "MANUAL", then press ENTER.



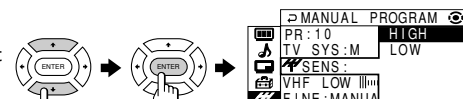
- (3) Press ▲, ▼, ▲, ▼ or ◀ until the picture and sound quality are optimal, then press ENTER.



The + or - icon on the menu flashes while tuning.

- 5** If the TV signal is too strong and the picture is distorted, you may reduce the TV receiving sensitivity.

- (1) Press ▲ or ▼ to select "SENS", then press ENTER.



- (2) Press ▲ or ▼ to select "LOW", then press ENTER.



To return to the normal screen

Press MENU.

Notes

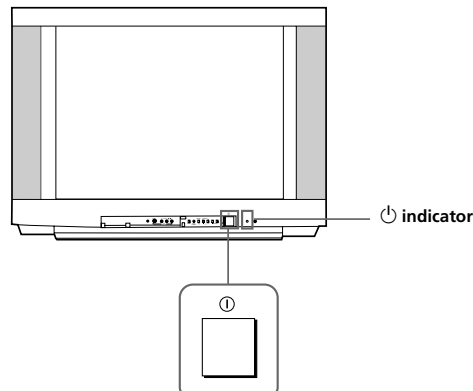
- If you preset a locked program number ("CHILD LOCK"), that particular program number will be unlocked automatically (see page 29).
- The TV system ("TV SYS"), "SENS" and the fine tuning ("FINE") settings are memorized for each program number.

Additional Information

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the  indicator flashes red. The number of times the  indicator flashes indicates the possible causes.

Front of TV

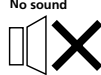


- 1** Check that the  indicator flashes red a number of times between 3-second intervals.
- 2** Count the number of times the  indicator flashes.
- 3** Press  (main power) to turn off your TV.
- 4** Inform your nearest Sony service center about the number of times the  indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Additional Information

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

Symptom	Possible cause	Solutions	Page
Snowy picture 	- Connection is loose or the cable is damaged. - Channel presetting is inappropriate or incomplete.	- Check the antenna cable and connection on the TV, VCR and on the wall. - Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again.	4 30
Noisy sound 	- The antenna type is inappropriate. - The antenna direction is inappropriate. - Signal transmission is low.	- Check the antenna type (VHF/UHF). Contact a Sony dealer for advice. - Adjust the antenna direction. Contact a Sony dealer for advice. - Try using a booster.	– – –
Distorted picture 	Broadcast signals are too strong.	- Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "SENS: LOW". - Turn off or disconnect the booster if it is in use.	30 –
Noisy sound 			
Good picture 	The TV system setting or channel presetting is inappropriate or incomplete.	- If the sound of all the channels are noisy, display the "CH PRESET" menu and check the TV system ("TV SYS") setting, then select "AUTO PROGRAM" to preset the channels again. - If the sound of some channels are noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").	30 30
Noisy sound 			
No picture 	- The power cord, antenna or VCR is not connected. - The TV is not turned on.	- Check the power cord, antenna and the VCR connections. - Press  (power). - Press  (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	4 10 10
No sound 			

Symptom	Possible cause	Solutions	Page
Good picture 	• The volume level is too low.	• Press $\triangle$ + to increase the volume level.	11
No sound 	• The sound is muted.	• Press $\otimes$ to cancel the muting.	11
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	— —
Double images or "ghosts" 	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.	— 32
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	—
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	—
No color 	• The color level setting is too low.	• Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	23
	• The color system setting is inappropriate.	• Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO").	28
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	—
Abnormal color patches 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press $\odot$ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	—

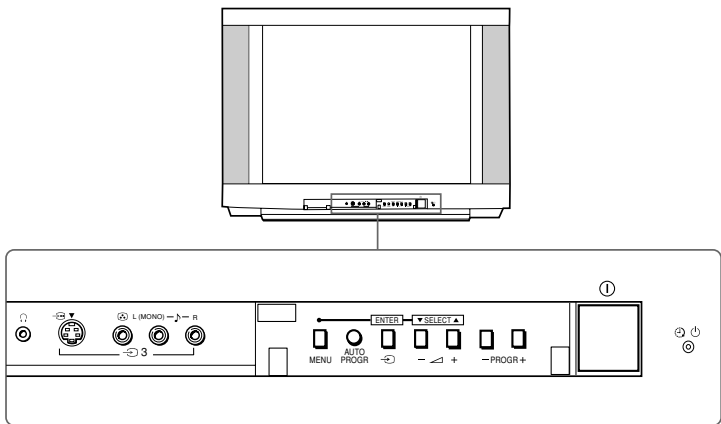
continued

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
"100" appears on the top of the screen and no Teletext display. (Not used for this model)	• The channel carries no Teletext broadcast.	—	18
Teletext display is incomplete (picture snowy or double images). (Not used for this model)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	—
	• Signal transmission is too low.	• Try using a booster. • Use the fine tuning ("FINE") function.	— 32
Picture slant 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. • Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.	— 28
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	32
The $\odot$ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	33
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	—
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	—

Overview of controls

TV front panel

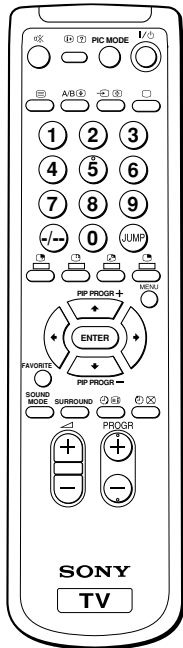


Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
⓪	Turn off completely or turn on the TV.	10
PROGR +/-	Select program number.	10
ⓧ	Standby indicator.	10
⏏ +/-	Adjust volume.	11
⏏	Select TV or video input.	11
⌚	Wake Up indicator.	12
MENU	Display the menu.	22
🎧	Headphones jack.	-

continued

Overview of controls (continued)

Remote control



The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations
Yellow	For PIP operations

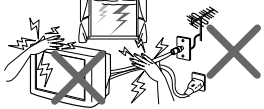
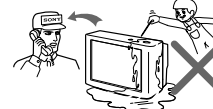
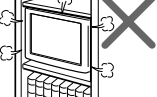
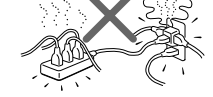
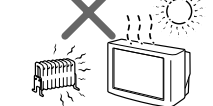
Button	Function	Page
I/ⓧ	Turn off temporarily or turn on the TV.	10
PROGR +/-	Select program number.	10
0 - 9, -/-	Input numbers.	10
⏏ +/-	Adjust volume.	11
⏏	Select TV or video input.	11
⏏	Display the TV program.	11
🔇	Mute the sound.	11
ⓧ	Display on-screen information.	11
JUMP	Jump to previous program number.	11
Timer operations		
⌚	Set TV to turn on automatically.	12
⌚	Set TV to turn off automatically.	12
PICTURE	Select picture mode.	13
SOUND MODE	Select sound mode.	13
FAVORITE	Display favorite channels.	14
PIP operations		
🖥	Display a sub screen.	15
🖥	Swap main and sub screens.	16
🖥	Freeze the sub screen.	16
🖥	Select video input for the sub screen.	16
⏏/⏏ (PIP PROGR +/-)	Change program number in the sub screen.	16
SURROUND	Select surround mode.	17
Stereo/bilingual operations (not used for used this model)		
A/B	Select stereo/bilingual mode.	-
Teletext operations (not used for this model)		
ⓧ	Display Teletext broadcast.	18
⏏	Enlarge the Teletext display.	19
⏏	Reveal concealed information.	19
⏏	Stop Teletext page from scrolling.	19
ⓧ	Display Teletext service contents.	19
ⓧ	Show TV screen while waiting for Teletext page.	19
0 - 9	Input Teletext page number.	19
PROGR +/-	Display the next or previous page.	19
⏏ (red, green, yellow, blue)	Access a FASTEXT menu.	19
Menu operations		
MENU	Display the menu.	22
⏏/⏏/⏏/⏏/ENTER	Select, adjust and confirm selected item.	22

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

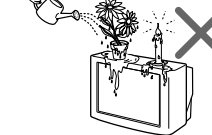
GENERAL 2-2 (KV-XA29M60)

WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 220 – 240 V AC.

 For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.	 For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.
 To prevent fire or shock hazard, do not expose the TV to rain or moisture.	 Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.
 Do not block the ventilation openings of the TV. Do not install the TV in a confined space, such as a bookcase or built-in cabinet.	 Clean the TV with a dry and soft cloth. Do not use benzine, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.
 Pull the power cord out by the plug. Do not pull the power cord itself. Disconnect the TV before moving it or if you are not going to use it for several days.	 Do not plug in too many appliances to the same power socket. Do not damage the power cord.
 Do not open the cabinet and the rear cover of the TV as high voltages and other hazards are present inside the TV. Refer servicing and disposal of the TV to qualified personnel.	 Your TV is recommended for home use only. Do not use the TV in any vehicle or where it may be subject to excessive dust, heat, moisture or vibrations.

WARNING (continued)

 Do not install the TV in an unstable position. Use a proper TV stand.	 Do not place any objects on the TV.
--	--

Getting Started

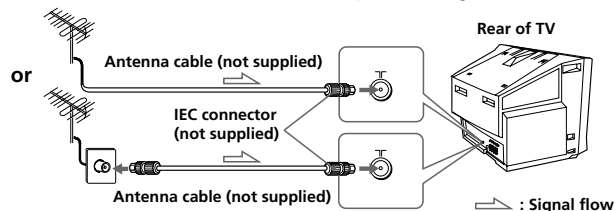
CAUTION

- Do not connect the power cord until you have completed making all other connections; otherwise a minimum leakage current might flow through the antenna and other terminals to ground.
- To avoid battery leakage and damage to the remote, remove the batteries from the remote if you are not going to use it for several days. If any liquid that leaks from the batteries touches you, immediately wash it away with water.

Step 1

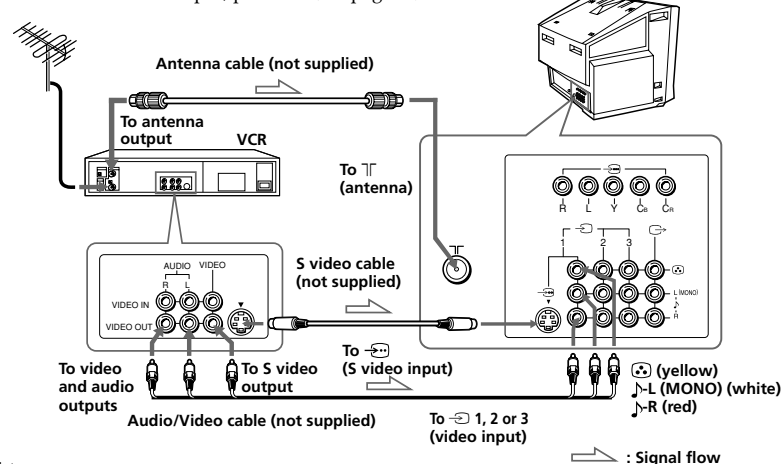
Connect the antenna

If you wish to connect a VCR, see the **Connecting a VCR** diagram below.



Connecting a VCR

To watch the video input, press **VIDEO** (see page 11).

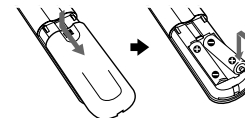


Notes

- If you connect a monaural VCR, connect the yellow plug to **Y** (the yellow jack) and the black plug to **L (MONO)** (the white jack).
- If you connect a VCR to the **antenna** terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both **S** (S video input) and **1** (video input) at the rear of your TV are input at the same time, the **S** (S video input) is automatically selected. To view the video input to **1** (video input), disconnect the S video cable.
- Do not connect video equipment to the **3** (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote



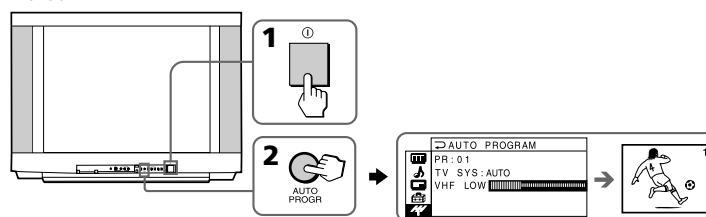
Note

- Do not use old batteries nor use different types of batteries together.

Step 3

Preset the channels automatically

Front of TV



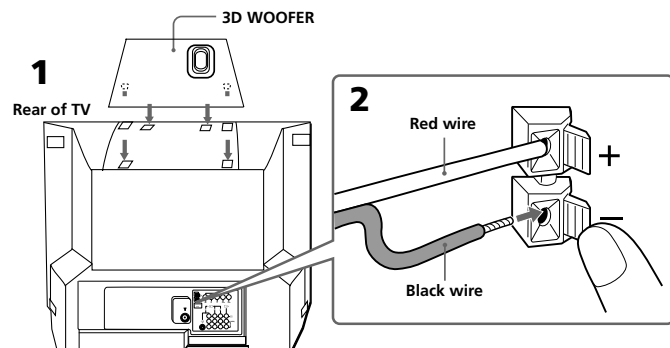
Tips

- If you want to stop the automatic channel presetting, press **MENU**.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 27).

Connecting the 3D WOOFER

(Not used for this model)

You can enjoy high quality sound by connecting the 3D WOOFER.



- 1 Attach the 3D WOOFER into the footholds on the top of your TV.
- 2 Connect the wires to the 3D WOOFER (8Ω) terminals at the rear of your TV. The red wire should be connected to the ⊕ red terminal and the black wire to the ⊖ black terminal.

Notes

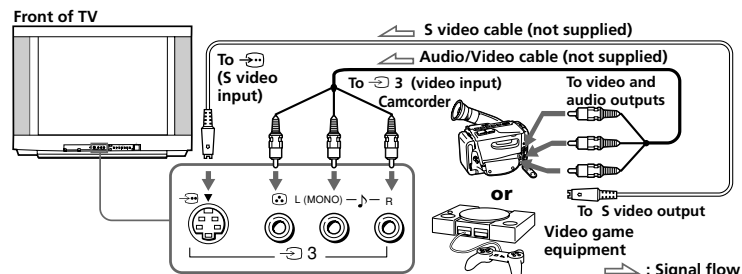
- Connect only the supplied 3D WOOFER; otherwise your TV may malfunction.
- Unplug your TV from the wall outlet when connecting the 3D WOOFER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the 3D WOOFER wire strands stick out, making contact with the neighbouring speaker terminal.

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, DVD, camcorder, video game or stereo system.

To watch the video input of the connected equipment, press (see page 11).

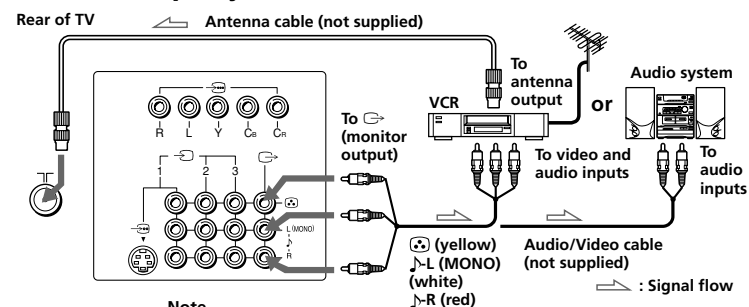
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

- You can also connect video equipment to the 1 or 2 (video input) jacks at the rear of your TV.
- If both (S video input) and 3 (video input) at the front of your TV are input at the same time, the (S video input) is automatically selected. To view the video input to 3 (video input), disconnect the S video cable.
- Do not connect video equipment to the 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Connecting audio/video equipment using the (monitor output) jacks



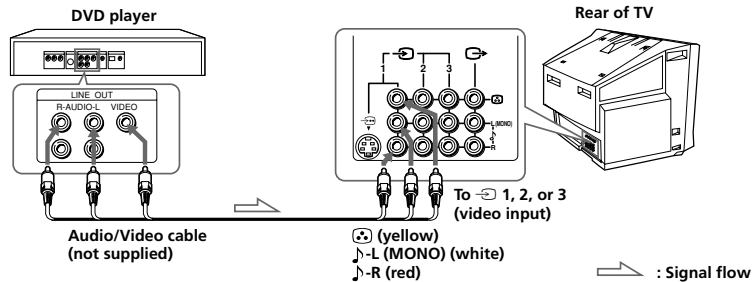
Note

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 11).

continued

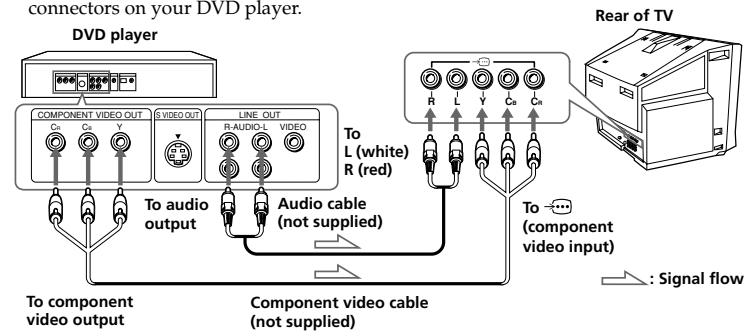
Connecting Optional Components (continued)

Connecting a DVD player using the (video input) jacks



Connecting a DVD player using the (component video input) jacks

- 1 Connect R and L under (component video input) on your TV to the LINE OUT, AUDIO R and L output connectors on your DVD player.
- 2 Using a component video cable, connect Y, C_B, and C_R under (component video input) on your TV to the COMPONENT VIDEO OUT Y, C_B, and C_R output connectors on your DVD player.



Notes

- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
C _B (blue)	C _B , B-Y or P _B
C _R (red)	C _R , R-Y or P _R

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 21).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

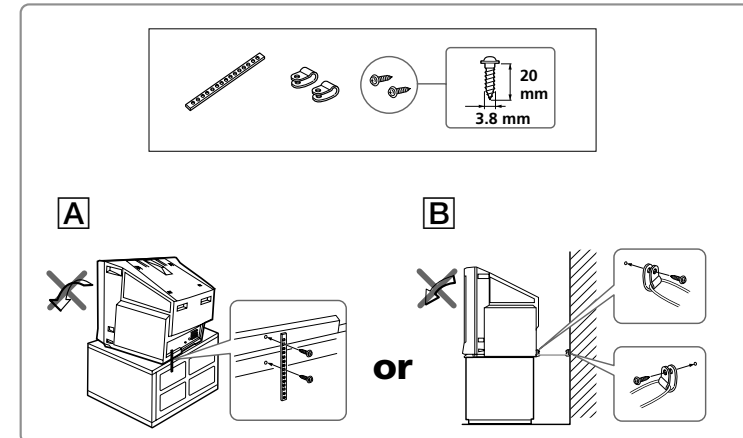
Securing the TV

To prevent the TV from falling, secure the TV using one of the following methods:

- A** With the supplied screws, attach the band to the TV stand and to the rear of the TV using the provided hole.

or

- B** Put the cord or chain through the clamps to secure the TV against a wall or pillar.



Note

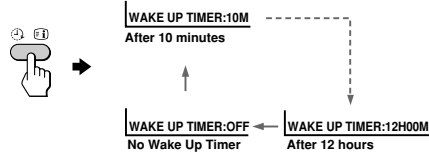
- Use only the supplied screws. Use of other screws may damage the TV.

28

Watching the TV (continued)

Setting the Wake Up timer

- 1 Press  until the desired period of time appears. The Wake Up timer starts immediately after you have set it.



- 2 Select the program number or video input you want to display when you wake up.
- 3 Press  or set the Sleep timer if you want the TV to turn off automatically. The  indicator on the TV lights up orange.

To cancel the Wake Up timer

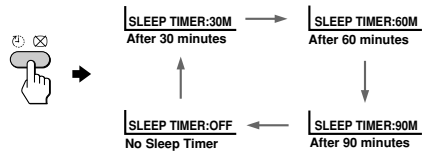
Press  until "WAKE UP TIMER: OFF" appears or turn off the TV's main power.

Note

- If no buttons or controls are pressed for more than two hours after the TV is turned on using the Wake Up timer, the TV automatically goes into the standby mode. To continue watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

Press  until the desired period of time appears. The Sleep timer starts immediately after you have set it.



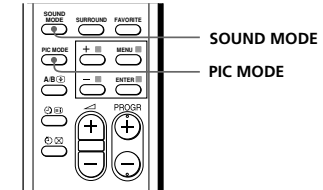
To cancel the Sleep timer

Press  until "SLEEP TIMER: OFF" appears or turn the TV off.

Advanced Operations

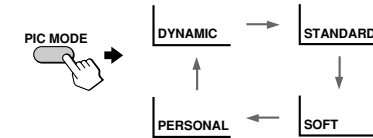
Selecting the picture and sound modes

You can select picture and sound modes and adjust the setting to your preference in "PERSONAL" option.



Selecting the picture mode

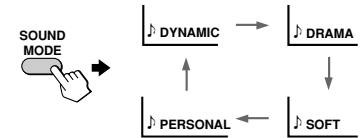
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 20).

Selecting the sound mode

Press SOUND MODE repeatedly until you get the desired sound mode.



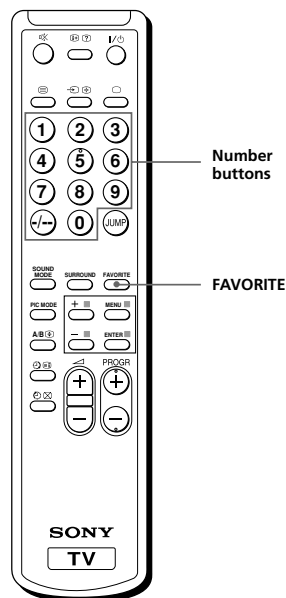
Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 22).

Tip

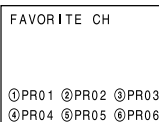
- You can also set the picture and sound modes using the menu (see Changing the "PICTURE" setting on page 20 and Changing the "SOUND" setting on page 22).

Viewing your favorite channels

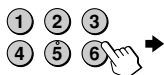
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



2 Press the number button from 1 to 6 to select the desired favorite channel.

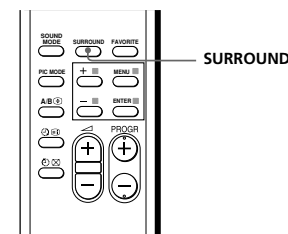


Tip

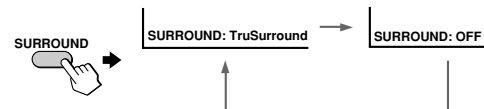
- To program your favorite channels, see **Adjusting each program number settings (PROGRAM SETUP)** on page 25.

Listening with surround sound

The surround feature enables you to enjoy the sound effects of a concert hall or movie theater.



Press SURROUND repeatedly until you receive the desired surround sound.



Select	To
"TruSurround"	listen to the surround sound that spreads out to the rear of a room.
"OFF"	turn off the surround sound.

Tip

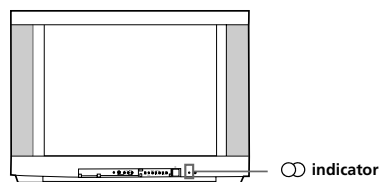
- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 22).

The surround of your TV is categorized as TruSurround.

TruSurround™ is a trademark of SRS Labs, Inc. SRS and the SRS symbol are registered trademarks of SRS Labs, Inc. in the United States and selected foreign countries. SRS and TruSurround are incorporated under license from SRS Labs, Inc. and are protected under United States Patent Nos. 4,748,669 and 4,841,572 with numerous additional issued and pending foreign patents.

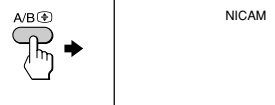
Enjoying stereo or bilingual programs

You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems.



Press A/B repeatedly until you receive the sound you want.

The on-screen display changes to show the selected sound. The indicator on the TV lights up red when receiving any stereo or bilingual program.



When receiving a NICAM program

Broadcasting	On-screen display (Selected sound)
NICAM stereo	NICAM (Stereo sound) MONO (Regular sound)
NICAM bilingual	NICAM MAIN (Main sound) NICAM SUB (Sub sound) MONO (Regular sound)
NICAM monaural	NICAM MAIN (Main sound) MONO (Regular sound)

When receiving an A2 program

Broadcasting	On-screen display (Selected sound)
A2 stereo	MONO (Regular sound) STEREO (Stereo sound)
A2 bilingual	MAIN (Main sound) SUB (Sub sound)

Receiving area for NICAM and A2 programs

System	Receiving area
NICAM	Hong Kong, Singapore, New Zealand, Malaysia, Thailand, etc.
A2	Australia, Malaysia, Thailand, etc.

Notes

- If the signal is very weak, the sound becomes monaural automatically.
- If the stereo sound is noisy when receiving a NICAM program, select "MONO". The sound becomes monaural, but the noise is reduced.

If the sound is distorted when receiving a monaural program through the (antenna) terminal

Press A/B repeatedly until "MONO" appears on the screen. To cancel the monaural sound setting, press A/B again until "AUTO" appears on the screen.



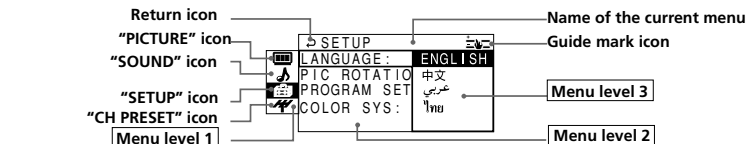
Notes

- The "MONO" or "AUTO" setting is memorized for each program number.
- You cannot receive stereo broadcast signal when the TV is in the "MONO" setting. Normally set the TV to "AUTO".

Adjusting Your Setup (MENU)

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. Here's an overview of the menu system.

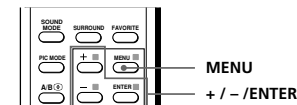


Level 1	Level 2	Level 3/Function
"PICTURE" 	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
"SOUND" 	"SOUND MODE"	Select the sound mode: "DYNAMIC" → "DRAMA" → "SOFT" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "BASS" → "TREBLE" → "BALANCE" → "BBE"*
	"SURROUND"	Select the surround mode: "TruSurround" → "OFF"
	"INTELLIGENT VOL"	Adjust volume automatically.
"SETUP" 	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Rotate the picture.
	"PROGRAM SETUP"	Adjust each program number settings.
	"COLOR SYS"	Change the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
"CH PRESET" 	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Change the TV system: "B/G" → "I" → "D/K" → "M"

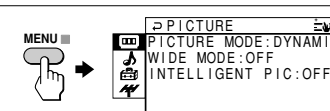
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

How to use the menu

You can use the buttons on the remote and on the TV as well to display the menu and adjust the settings.



- 1 Press MENU to display the menu.



- 2 Press + or - to select the desired item.



- 3 Press ENTER to confirm your selection and go to the next menu level.



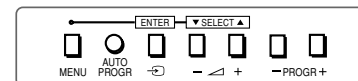
Other menu operations

To	Press
Adjust the setting value	+ / -
Return to the previous menu level	ENTER
Cancel the menu	MENU

Tips

- To return from Menu Level 2 to Menu Level 1, press + / - to select the return icon (⏪), then press ENTER.
- Some of the menu items can be operated directly using the remote buttons.
- The MENU, ENTER, and SELECT ▼/▲ buttons on the TV can also be used for the operations above.

Front of TV

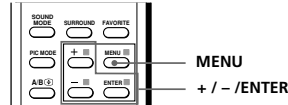


Note

- If more than 60 seconds elapse between entries, the menu screen automatically disappears.

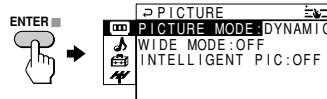
Changing the “PICTURE” setting

The “PICTURE” menu allows you to change the picture settings.

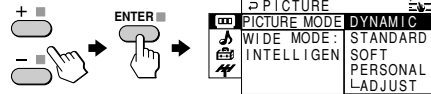


1 Press MENU.

2 Make sure the “PICTURE” icon () is selected, then press ENTER.



3 Press + or – to select the desired item (e.g., “PICTURE MODE”), then press ENTER.



Select	To
“PICTURE MODE”	choose either “DYNAMIC”, “STANDARD”, “SOFT”, “PERSONAL”*, or “ADJUST”.
“WIDE MODE”	change the picture size when receiving wide-mode (16:9) picture signal. Press + or – to select “ON”, then press ENTER. To cancel, select “OFF”, then press ENTER.
“INTELLIGENT PIC”	optimize picture quality. Press + or – to select “ON”, then press ENTER. To cancel, select “OFF”, then press ENTER.

* When the “PERSONAL” mode is selected, you can receive the last adjusted picture settings from the “ADJUST” option (see page 21).

Note

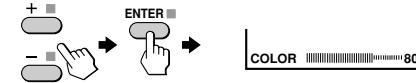
- For details on the options under “PICTURE MODE”, see page 13.

To return to the normal screen

Press MENU.

Adjusting the “ADJUST” items under “PICTURE MODE”

1 Press + or – to select the desired item (e.g., “COLOR”), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
“PICTURE”	decrease picture contrast	increase picture contrast
“COLOR”	decrease color intensity	increase color intensity
“BRIGHT”	darken the picture	brighten the picture
“HUE”*	increase red picture tones	increase green picture tones
“SHARP”	soften the picture	sharpen the picture

* You can adjust “HUE” for the NTSC color system only.

3 Repeat the above steps to adjust other items.

The adjusted settings will be received when you select “PERSONAL”.

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

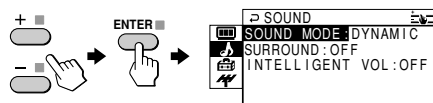
Changing the "SOUND" setting

The "SOUND" menu allows you to change the sound settings.

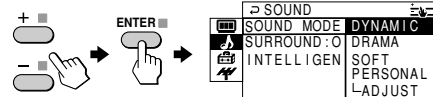


1 Press MENU.

2 Press + or – to select the "SOUND" icon (🔊), then press ENTER.



3 Press + or – to select the desired item (e.g., "SOUND MODE"), then press ENTER.



Select	To
"SOUND MODE"	choose either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL"*, or "ADJUST".
"SURROUND"	choose either "TruSurround" or "OFF".
"INTELLIGENT VOL"	adjust the volume of all program numbers and video inputs automatically. Press + or – to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.

* When the "PERSONAL" mode is selected, you can receive the last adjusted sound settings from the "ADJUST" option (see page 23).

Tip

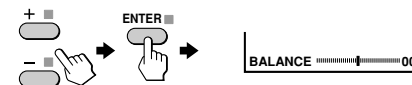
- For details on the options under "SOUND MODE" and "SURROUND", see pages 13 and 15 respectively.

To return to the normal screen

Press MENU.

Adjusting the "ADJUST" items under "SOUND MODE"

1 Press + or – to select the desired item (e.g., "BALANCE"), then press ENTER.



2 Adjust the value according to the following table, then press ENTER.

For	Press – to	Press + to
"BASS"	decrease the bass	increase the bass
"TREBLE"	decrease the treble	increase the treble
"BALANCE"	increase the left speaker's volume	increase the right speaker's volume
"BBE"	select "HIGH" for higher enhancement of sound clarity; select "LOW" for lower enhancement of sound clarity; select "OFF" to turn off the BBE sound	

3 Repeat the above steps to adjust other items.

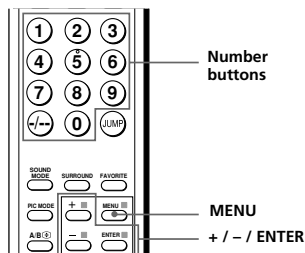
The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

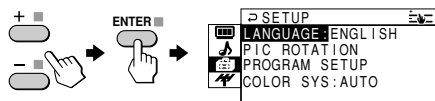
Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, adjust the program number setting and select color system.

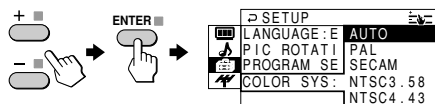


1 Press MENU.

2 Press + or - to select "SETUP" icon (), then press ENTER.



3 Press + or - to select the desired item (e.g., "COLOR SYS"), then press ENTER.



Select	To
"LANGUAGE"	change the menu language (see Changing the menu language on page 11).
"PIC ROTATION"	adjust the picture position when it is not aligned to the TV screen. Press + or - to adjust the picture position, then press ENTER.
"PROGRAM SETUP"	adjust each program number settings (see Adjusting each program number settings (PROGRAM SETUP) on page 25).
"COLOR SYS"	change the color system. Normally, set this to "AUTO".

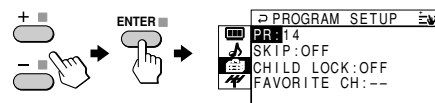
To return to the normal screen

Press MENU.

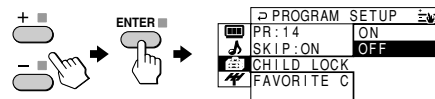
Adjusting each program number settings (PROGRAM SETUP)

1 Select "PROGRAM SETUP" from the "SETUP" menu.

2 Select "PR" and press ENTER. Press + or - to select the desired program number you want to adjust, then press ENTER.



3 Press + or - to select the desired item (e.g., "CHILD LOCK"), then press ENTER.



Select	To
"PR"	select the desired program number.
"SKIP"	skip unwanted or unused program number. Press + or - to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"CHILD LOCK"	prevent children from watching this selected program number. Press + or - to select "ON", then press ENTER. The lock symbol () appears on the screen. To cancel, select "OFF", then press ENTER. If you preset a locked program number, that particular program number will be unlocked automatically.
"FAVORITE CH"	program favorite channels for direct selection. Press + or - to select one of the six favorite channel numbers (if you decide not to make any changes, select " > "), then press ENTER. To view the selected favorite channel, refer page 14.

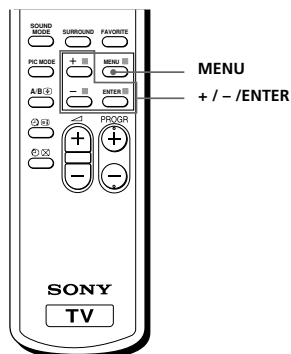
4 To continue adjusting other program number, press + or - to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

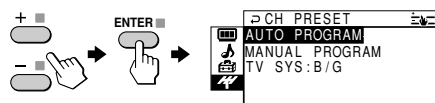
Changing the Channel Preset ("CH PRESET") setting

The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can receive a channel with a weak signal that fails to be tuned in by automatic presetting.

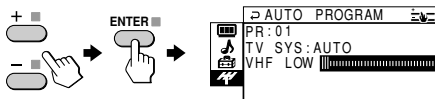


1 Press MENU.

2 Press + or – to select the "CH PRESET" icon (📺), then press ENTER.



3 Press + or – to select the desired item (e.g., "AUTO PROGRAM"), then press ENTER.



Select	To
AUTO PROGRAM	preset channels automatically.
MANUAL PROGRAM	preset channels manually (see Presetting channels manually on page 27).
TV SYS	change the TV system. Press + or – to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

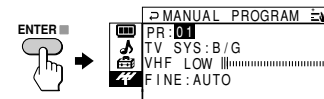
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 18.

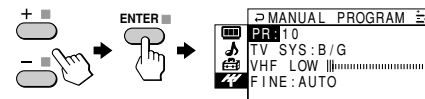
Presetting channels manually

1 After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.

(1) Make sure "PR" is selected, then press ENTER.

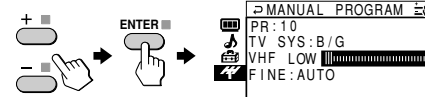


(2) Press + or – until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

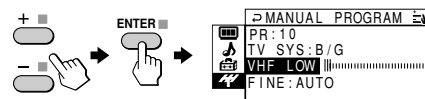


2 Select the desired channel.

(1) Make sure either "VHF LOW", "VHF HIGH" or "UHF" is selected, then press ENTER.

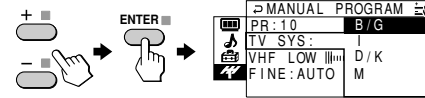


(2) Press + or – until the desired channel picture appears on the TV screen, then press ENTER.

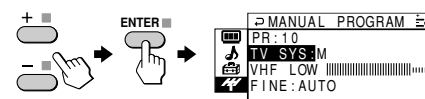


3 If the sound of the desired channel is abnormal, select the appropriate TV system.

(1) Press + or – to select "TV SYS", then press ENTER.



(2) Press + or – until the sound becomes normal (e.g., "M"), then press ENTER.

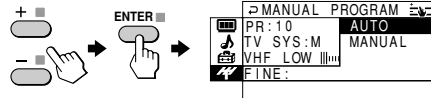


continued

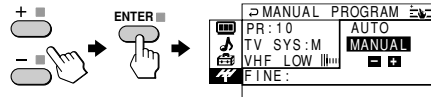
Changing the Channel Preset ("CH PRESET") setting (continued)

- 4** If you are not satisfied with the picture and sound quality, you may improve them by using fine tuning.

- (1) Press + or – to select "FINE", then press ENTER.



- (2) Press + or – to select "MANUAL", then press ENTER.



- (3) Press + or – until the picture and sound quality are optimal, then press ENTER.



The + or – icon on the menu flashes while tuning.

To return to the normal screen

Press MENU.

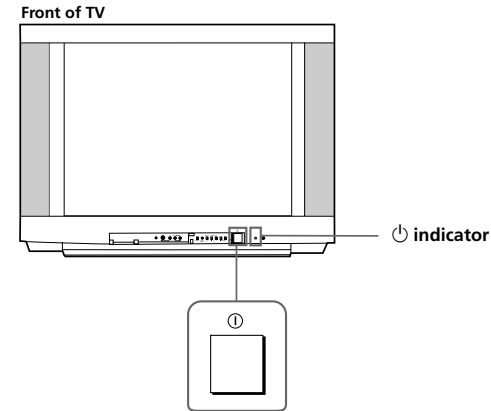
Notes

- If you preset a locked program number ("CHILD LOCK"), that particular program number will be unlocked automatically (see page 25).
- The TV system ("TV SYS") and the fine tuning ("FINE") settings are memorized for each program number.

Additional Information

Self-diagnosis function

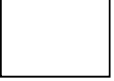
Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the ⏻ indicator flashes red. The number of times the ⏻ indicator flashes indicates the possible causes.



- 1 Check that the ⏻ indicator flashes red a number of times between 3-second intervals.
- 2 Count the number of times the ⏻ indicator flashes.
- 3 Press ⏻ (main power) to turn off your TV.
- 4 Inform your nearest Sony service center about the number of times the ⏻ indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Troubleshooting

If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer .

Symptom	Possible cause	Solutions	Page
Snowy picture 	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• Channel presetting is inappropriate or incomplete.	• Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again.	27
Noisy sound 	• The antenna type is inappropriate.	• Check the antenna type ("VHF" / "UHF"). Contact a Sony dealer for advice.	–
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Signal transmission is low.	• Try using a booster.	–
Distorted picture 	• Broadcast signals are too strong.	• Turn off or disconnect the booster if it is in use.	–
Noisy sound 			
Good picture 	• The TV system setting or channel presetting is inappropriate or incomplete.	• If the sound of all the channels are noisy, display the "CH PRESET" menu and check the TV system ("TV SYS") setting, then select "AUTO PROGRAM" to preset the channels again.	26
Noisy sound 		• If the sound of some channels are noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").	26
No picture 	• The power cord, antenna or VCR is not connected.	• Check the power cord, antenna and the VCR connections.	4
	• The TV is not turned on.	• Press I/⏻ (power).	10
No sound 		• Press ⏻ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	10

Symptom	Possible cause	Solutions	Page
Good picture 	• The volume level is too low.	• Press ◀ + to increase the volume level.	11
	• The sound is muted.	• Press ⏻ to cancel the muting.	11
No sound 	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	16
Dotted lines or stripes 	• There is local interference from cars, neon signs, hair dryers, power generators, etc.	• Do not use a hair dryer or other equipment near the TV. • Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	– –
Double images or "ghosts" 	• Broadcast signals are reflected by nearby mountains or buildings.	• Use a highly directional antenna. • Use the fine tuning ("FINE") function.	– 28
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Use of a booster is inappropriate.	• Turn off or disconnect the booster if it is in use.	–
No color 	• The color level setting is too low.	• Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level.	21
	• The color system setting is inappropriate.	• Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO").	24
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
Abnormal color patches 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–
TV cannot receive stereo broadcast signal.	• The stereo reception setting is inappropriate.	• Press A/B until "AUTO" appears on the screen.	16

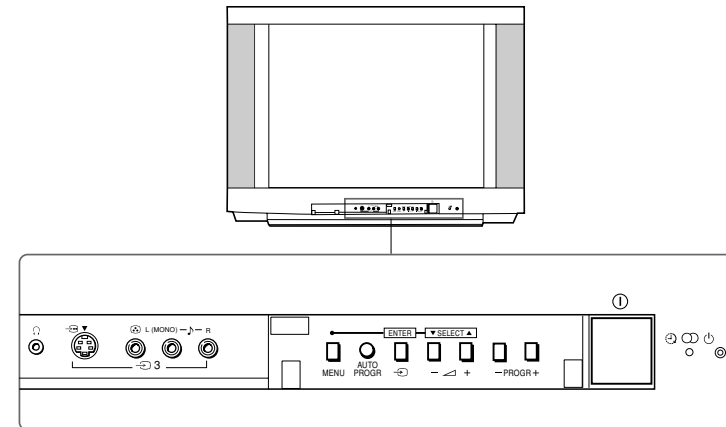
continued

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. Or The sound switches between monaural and stereo frequently.	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	16
Picture slant 	• The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	• Keep external speakers or other electrical equipment away from the TV. • Display the "SETUP" menu and adjust "PIC ROTATION" so that the picture is aligned to the TV screen.	– 24
Lines moving across the TV screen.	• There is interference from external sources, e.g., heavy machineries, nearby broadcast station.	• Use the fine tuning ("FINE") function.	28
The Ⓢ indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	29
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	–
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	–

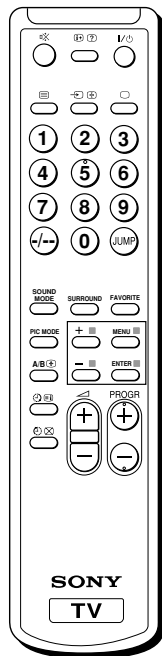
Overview of controls

TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
①	Turn off completely or turn on the TV.	10
PROGR +/-	Select program number.	10
Ⓢ	Standby indicator	10
⏮ +/-	Adjust volume.	11
⏮	Select TV or video input.	11
⏰	Wake Up indicator	12
Ⓢ	Stereo/bilingual indicator.	16
Menu operations		
MENU	Display the menu.	19
SELECT ▽/▲	Select and adjust items.	19
RETURN	Confirm selected items.	19
🎧	Headphones jack.	–

continued

Overview of controls (continued)**Remote control**

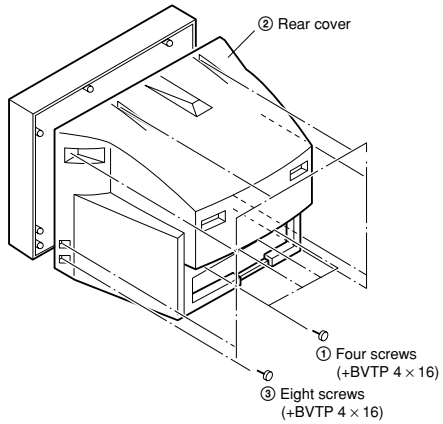
Names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

Label color	Button function
White	For general TV operations
Green	For Teletext operations

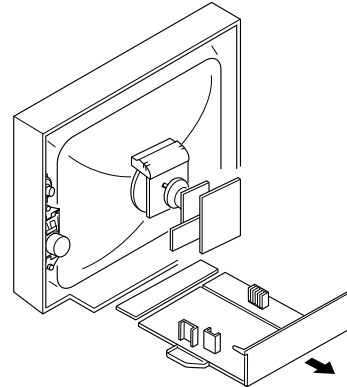
Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/-	Select program number.	10
0 – 9, -/-	Input numbers.	10
⏮ +/-	Adjust volume.	11
→	Select TV or video input.	11
□	Display the TV program.	11
⏸	Mute the sound.	11
ℹ+	Display on-screen information.	11
JUMP	Jump to previous program number.	11
Timer operations		
⌚	Set TV to turn on automatically.	12
⌚	Set TV to turn off automatically.	12
PIC MODE	Select picture mode.	13
SOUND MODE	Select sound mode.	13
FAVORITE	Display favorite channels.	14
SURROUND	Select surround mode.	15
Stereo/bilingual operations		
A/B	Select stereo/bilingual mode.	16
Teletext operations (Not used for KV-XA34M60/XA29M60/XA25M63/XA25M60)		
⌂	Display Teletext broadcast.	–
⏏	Enlarge the Teletext display.	–
?	Reveal concealed information.	–
⏏	Stop Teletext display from scrolling.	–
ℹ	Display Teletext service contents.	–
⊗	Show TV screen while waiting for Teletext page.	–
0 – 9	Input Teletext page number.	–
PROGR +/-	Display the next or previous page.	–
■ (red, green, yellow, blue)	Access a Fastext menu	–
Menu operations		
MENU	Display the menu.	19
+ or –	Select and adjust item.	19
ENTER	Confirm selected item.	19

SECTION 2 DISASSEMBLY

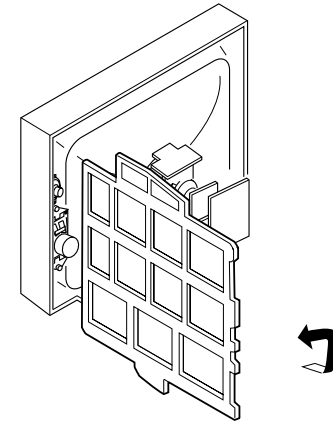
2-1. REAR COVER REMOVAL



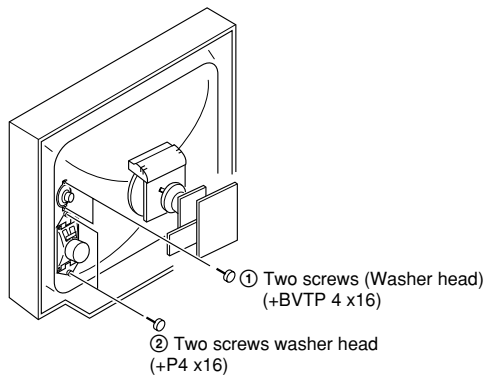
2-3. CHASSIS ASSY REMOVAL



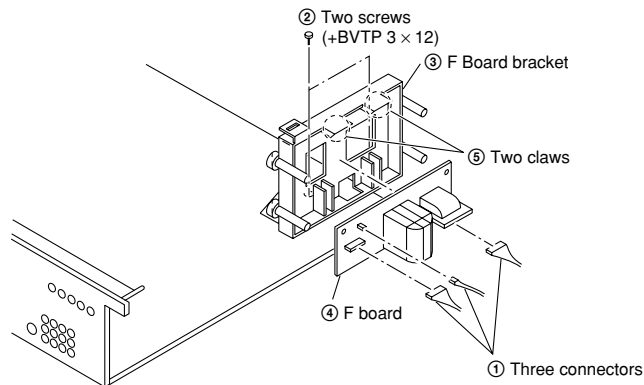
2-5. SERVICE POSITION



2-2. SPEAKER REMOVAL



2-4. F BRACKET REMOVAL



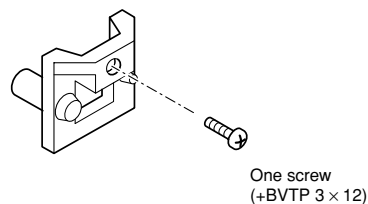
Note:

1. Disconnect the speaker connection on the right side.
2. Undress necessary wires that creates tension while placing the chassis into Service Position.

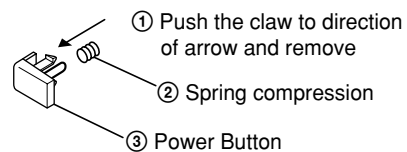
2-6. REPLACEMENT OF PARTS

2-6-1. Light Guide

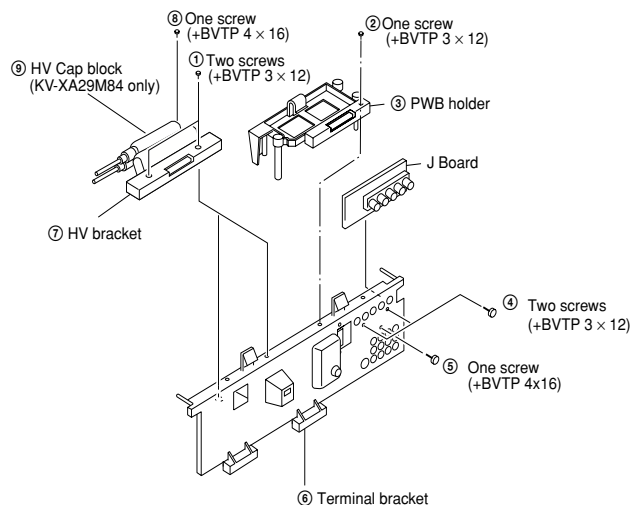
For replacement of light guide, unscrew them, exchange with new parts and fix them with screws respectively.



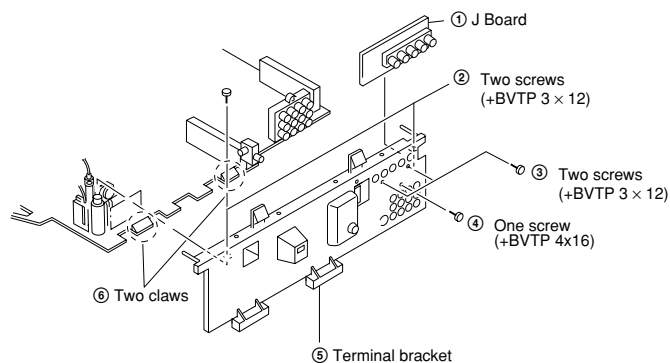
2-6-2. Power Button



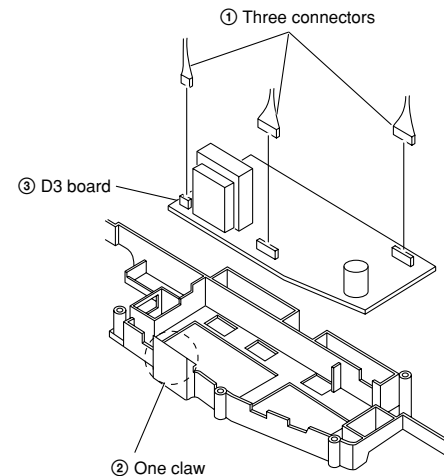
2-7. HV CAP BLOCK (KV-XA29M84 ONLY), PWB HOLDER AND J BOARD REMOVAL



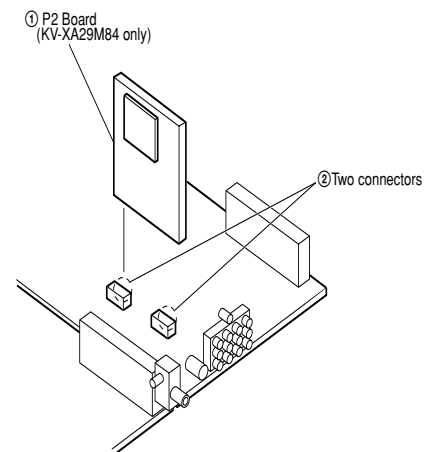
2-8. TERMINAL BRACKET REMOVAL



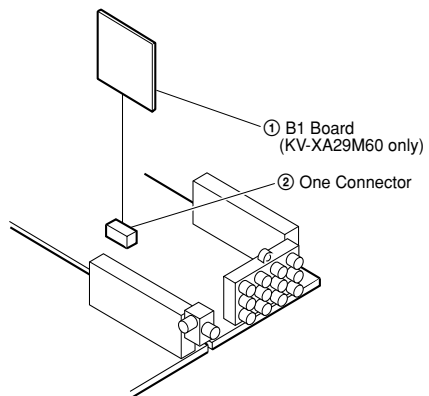
2-9. D3 BOARD REMOVAL



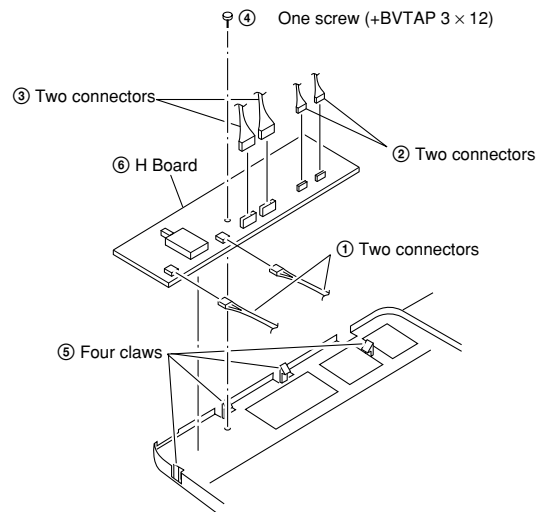
2-10. P2 BOARD (KV-XA29M84 ONLY) REMOVAL



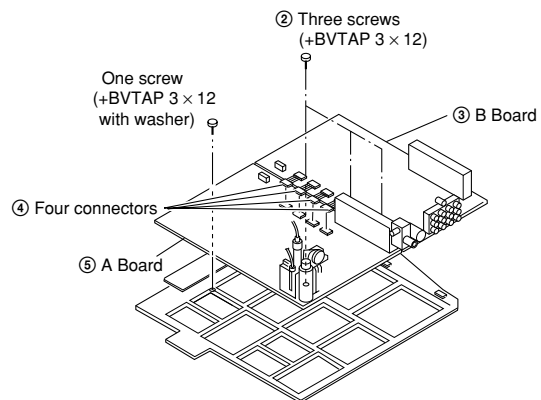
2-11. B1 BOARD (KV-XA29M60) REMOVAL



2-12. H BOARD REMOVAL



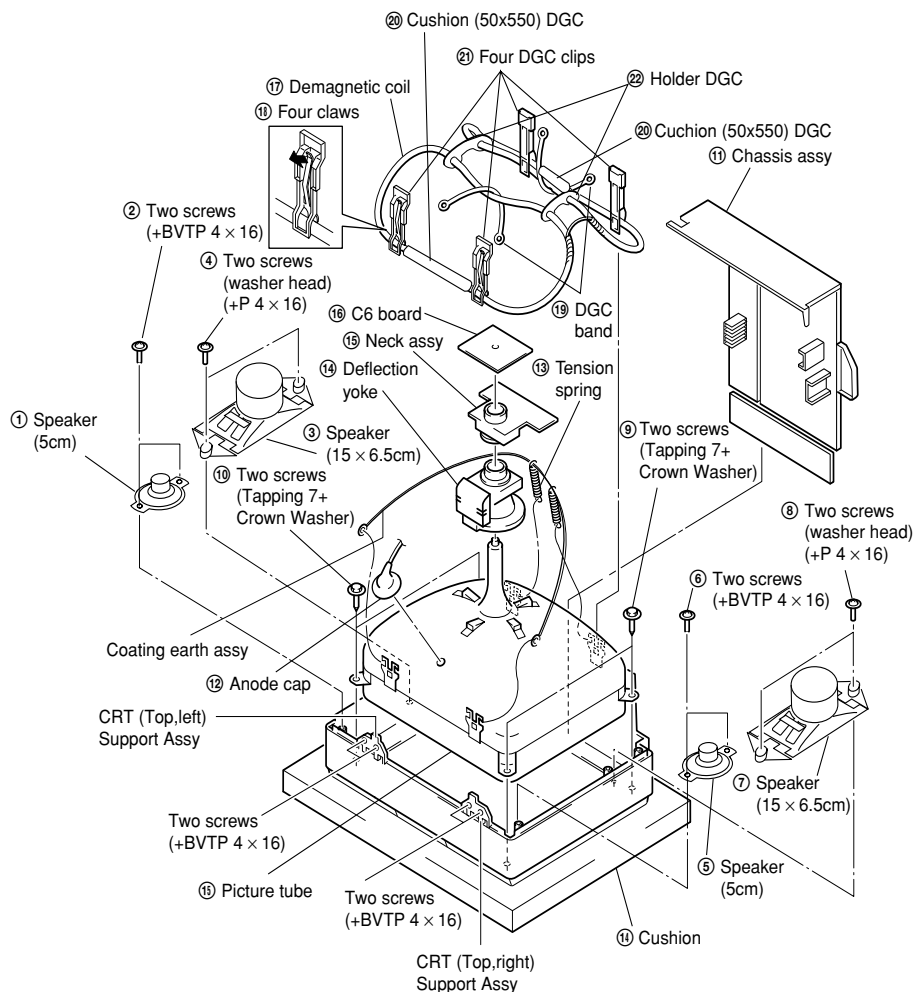
2-13. A AND B BOARDS REMOVAL



2-14. PICTURE TUBE REMOVAL

Note:

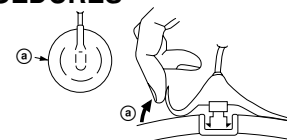
Please remove necessary CRT support located on top left, top right, prior to removing the CRT.



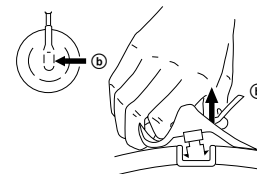
•REMOVAL OF ANODE-CAP

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

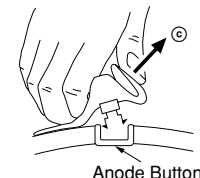
•REMOVING PROCEDURES



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



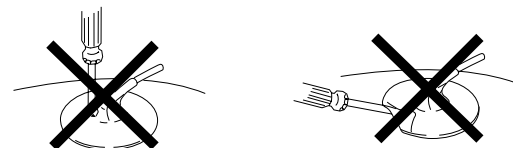
- 2 Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow b.



- 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 it up in the direction of the arrow c.

• HOW TO HANDLE AN ANODE-CAP

- 1 Do not damage the surface of anode-caps with sharp shaped objects.
- 2 Do not press the rubber too hard so as not to damage the inside of anode-cap. A metal fitting called the shatter-hook terminal is built into the rubber.
- 3 Do not turn the foot of rubber over too hard. The shatter-hook terminal will stick out or damage the rubber.



SECTION 3 ADVANCE OPERATION

3-1. "RESET" FUNCTION

1. Purpose

If a customer faces some setting problem that cannot be solved, using the "RESET" function some items will be reset to its original setting (shipment condition)

2. How to Operate

The way to access to the "RESET" Function:-

- a) By pressing "MENU" button or "SELECT" button (for non-menu models) on the Front Key Input and hold it down for 5 seconds.

3. Subsequent of Operation

Sequential to the resetting operation (either methods being used in No. 2), TV set would shut down once and automatically turn on again. The power-off duration is expected to be about 500msec. An OSD message, "RESET" tentatively will be displayed for 10 sec after IK status gets stable.

As a result, some items will be reset to an initial condition (shipment condition) wheareas some other remains at the last selection by user.

Items that remains at the last selection by user

Program No., Favourite CH Setup, PIC rotation,
OSD Language, Fine tuning, TV System, Skip

Reset Items

Video input	RF	Color system(RF)	AUTO*
Volume	30	Antenna sensitivity	HIGH*
Picture mode	DYNAMIC	Stereo mode *2	STEREO/NICAM*
Sound mode	DYNAMIC	Bilingual mode *2	MAIN*
Surround mode	OFF	High-deviation mode	AUTO*
Color system(video)	AUTO	Child lock	OFF*
Multi picture(PIP) *1	OFF	Wide mode	OFF
PIP position *1	Bottom-right	Game mode	OFF
Favourite CH mode	AUTO	Teletext mode *2	OFF
OSD recall	OFF	Sleep timer	OFF
Intelligent volume	OFF	Wake-up timer	OFF
ECO mode *2	OFF	Sound muting	OFF

* = only when in RF mode

*1= KV-XA29M84 only

*2= Not used for these models

SECTION 4 SET-UP ADJUSTMENTS

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

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

PICTURE control normal

BRIGHTNESS control normal

Preparation :

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

4-1. BEAM LANDING

1. Input a white signal with the pattern generator.
Contrast } normal
Brightness }
2. Position neck assy as shown in Fig4-1.
3. Set the pattern generator raster signal to a green raster.
4. Move the deflection yoke to the rear and adjust with the purity control so that the green is at the center and the blue and the red take up equally sized areas on each side.
(See Figures 4-2 through 4-4.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 4-2.)
6. Switch the raster signal to blue, then to red and verify the condition.
7. When the position of the deflection yoke has been decided, fasten the deflection yoke with the screws and DY spacers.
8. If the beam does not land correctly in all the corners, use a magnet to adjust it.
(See Figure 4-5.)

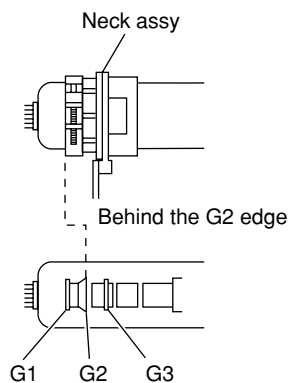


Fig. 4-1

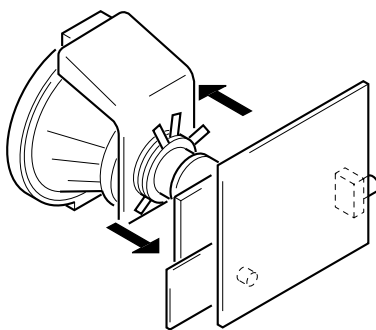


Fig. 4-2

Perform the adjustments in the following order :

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

Note : Test Equipment Required.

1. Pattern Generator
2. Degausser
3. Oscilloscope

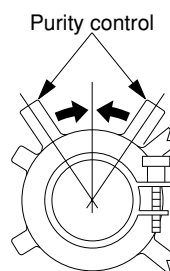


Fig. 4-3

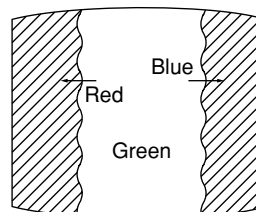


Fig. 4-4

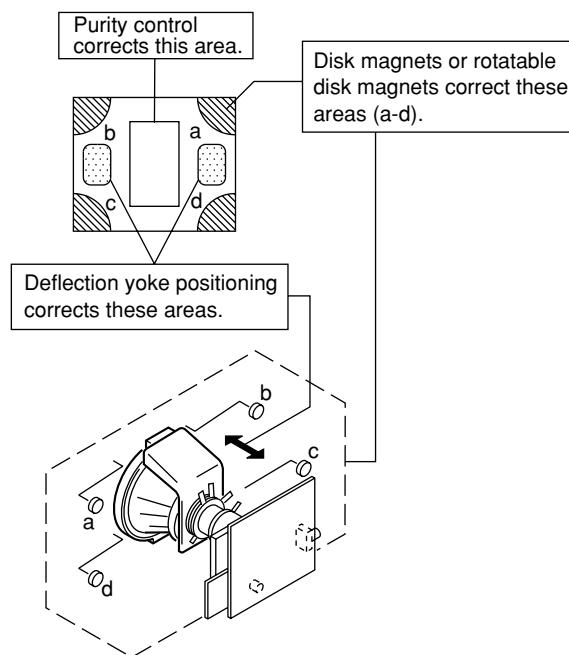


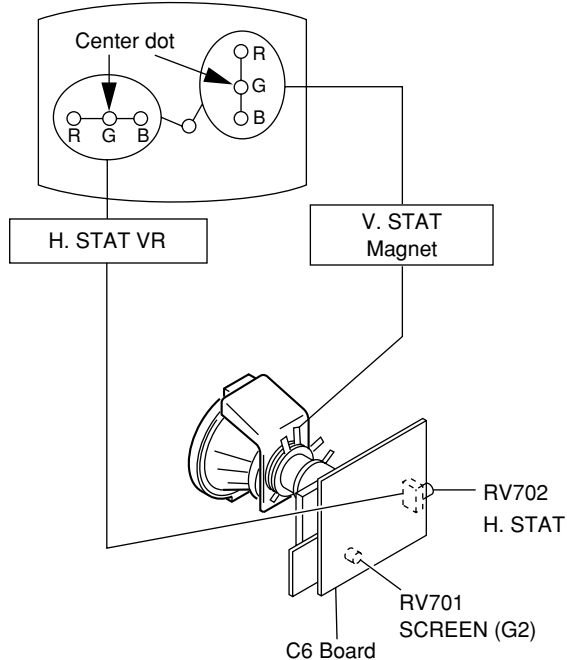
Fig. 4-5

4-2. CONVERGENCE

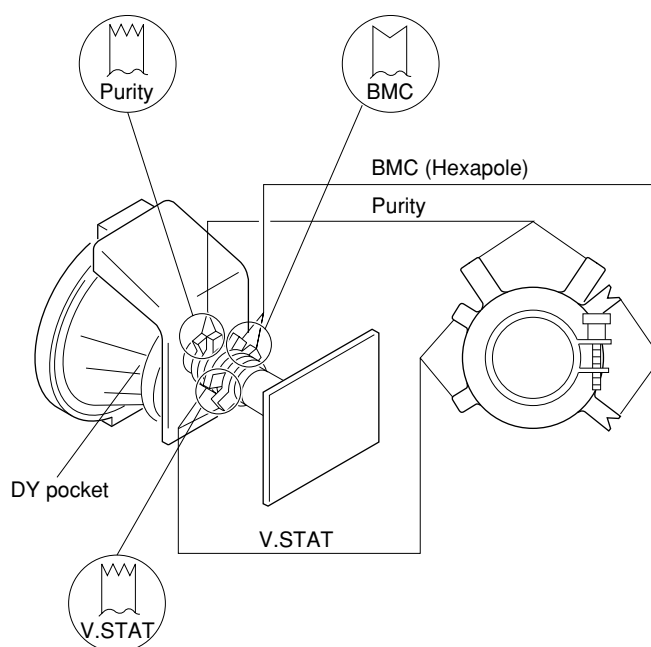
Preparation :

- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Receive dot/hatch signal.
- Pic mode: Personal (Pic 90%, Brightness 50%, Col 50 %, Hue 50%, Shp 50%).

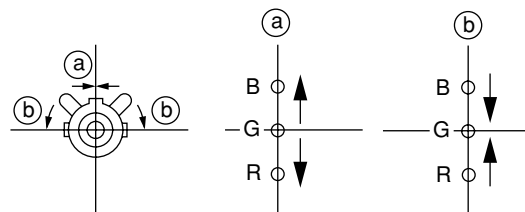
(1) Horizontal and Vertical Static Convergence



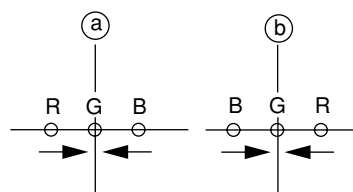
1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. If the H.STAT variable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



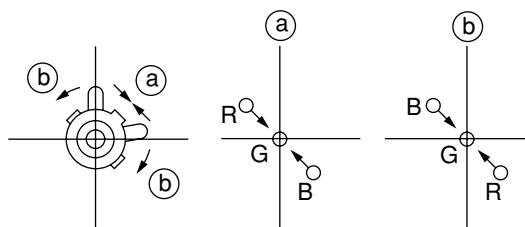
① V. STAT



② H. STAT VR

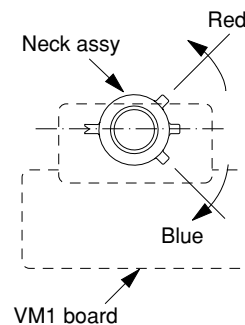
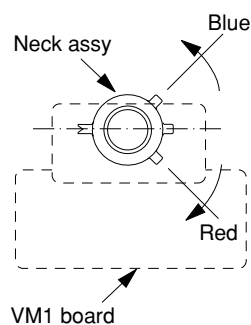
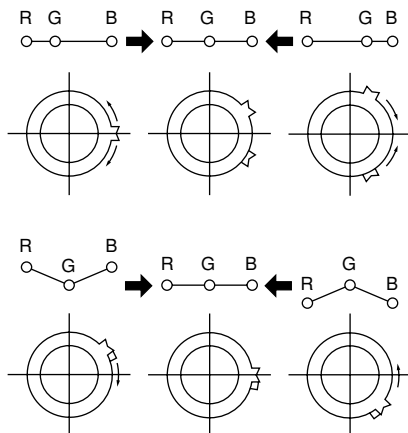


③



④ BMC (Hexapole) Magnet.

If the red, green and blue dots are not balanced or aligned, then use the BMC magnet to adjust in the manner described below.

**Note**

1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

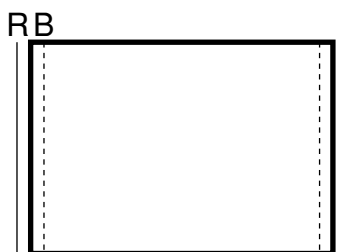
⑤ Y separation axis correction magnet adjustment.

1. Receive the cross-hatch signal and adjust [PICTURE] to [MIN] and [BRIGHTNESS] to [STANDARD] .
2. Adjust the Y separation axis correction magnet on the neck assembly so that the horizontal lines at the top and bottom of the screen are straight.

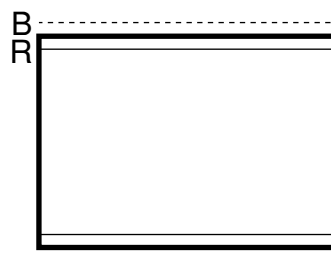
(2) Dynamic Convergence Adjustment

Preparation:

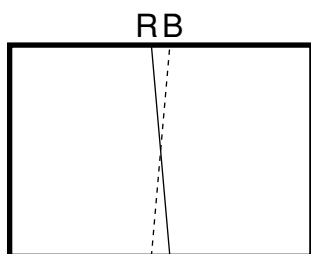
- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence



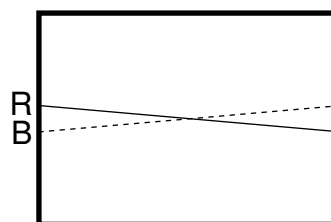
TLH



TLV



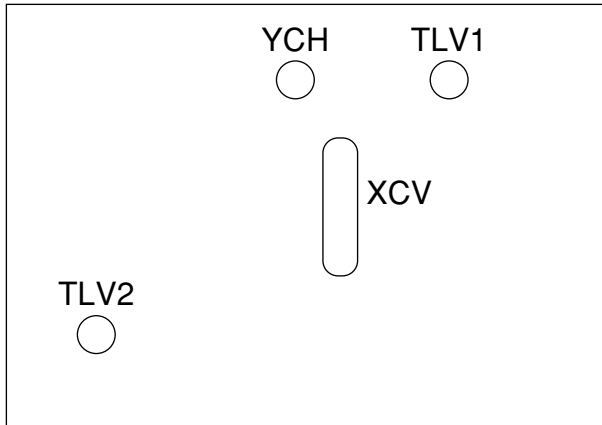
YCH



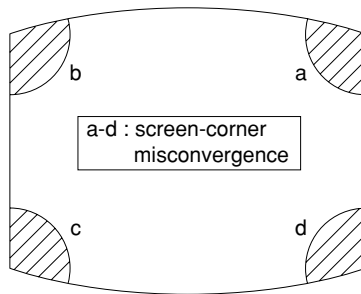
XCV

TLV	Rotate	TLV-2	VOL (29", 34") on DY
	Rotate	TLV	VOL (25") on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

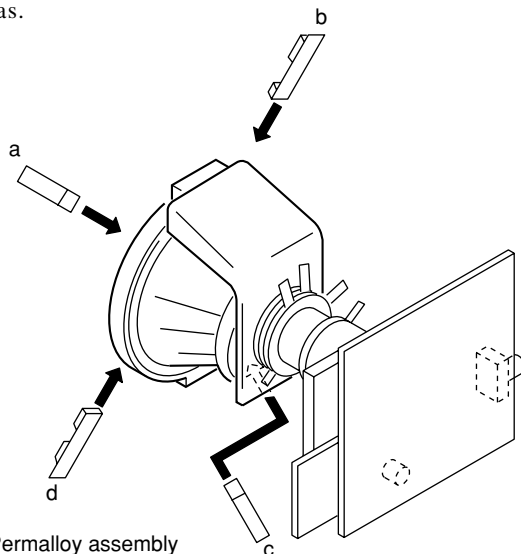
ON DY:



(3) Screen-corner Convergence



Fix a Permalloy assy corresponding to the misconverged areas.



4-3. FOCUS ADJUSTMENT

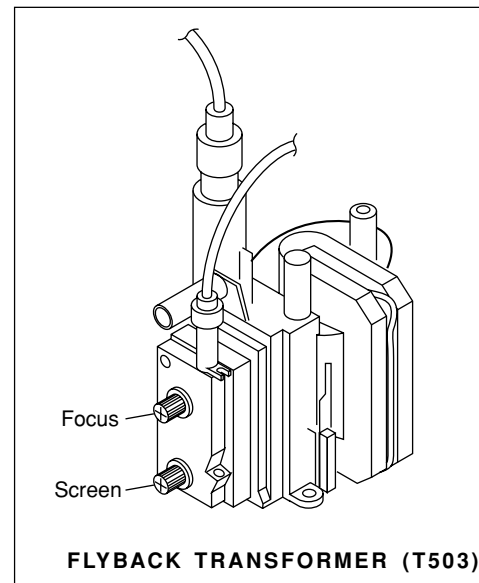
FOCUS adjustment should be completed before W/B adjustment.

(Except 34")

1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "DYNAMIC".
3. (a) Adjust figure VR so that the center of screen becomes just focus (except 25").
(b) Adjust focus VR so that the lion teeth becomes just focus (25" only).
4. Change the receiving signal to white pattern and blue back.
5. Confirm magenta ring is not noticable. Incase magenta ring is obvious, adjust FOCUS VR to balance between MAGENTA RING and FOCUS.

(For 34")

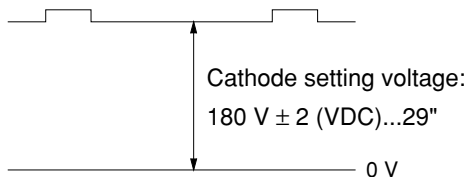
1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "Standard".
3. Set S2801 to mechanical center position.
4. Adjust focus VR so that the center of the screen becomes just focus.
5. Adjust S2801 when corner focus is unbalance is right and left.
6. Change the receiving signal to white pattern blue back.
7. Confirm Magenta ring is not noticable. Incase magneta ring is obvious, reset S2801 to mechanical center position and then adjust FOCUS VR to balance between MAGENTA RING and FOCUS.



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

1. G2 (SCREEN) ADJUSTMENT

- 1) Set the PICTURE to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C6 board cathode to the oscilloscope.
- 4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
- 5) Adjust G2 (screen) on the FBT until picture shows the point before cut off.

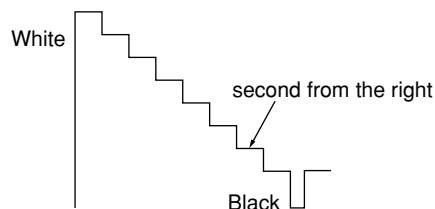


2. WHITE BALANCE ADJUSTMENT

- 1) Set to Service Mode (Refer Section 5-1: ADJUSTMENTS WITH COMMANDER).
- 2) Input white raster signal.
- 3) Set the PICTURE to minimum.
- 4) Select GCT (WHB 4) and BCT (WHB 5) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 5) Set the PICTURE to maximum.
- 6) Select GDR (WHB 1) and BDR (WHB 2) with [1] and [4], and adjust the level with [3] and [6] for the best white balance.
- 7) Write into the memory by pressing [MUTING] then [0].

3. SUB BRIGHT ADJUSTMENT

- 1) Set to service mode.
- 2) Input a staircase signal of black to white from the pattern generator.
- 3) BRIGHTNESS 50%.
PICTURE MINIMUM
- 4) Select SBR (WHB7) with [1] and [4], and adjust SBR (WHB7) level with [3] and [6] so that the second stripe from the right is dimly lit.



SECTION 5

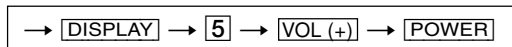
CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied Remote Commander RM-953 or RM-954.

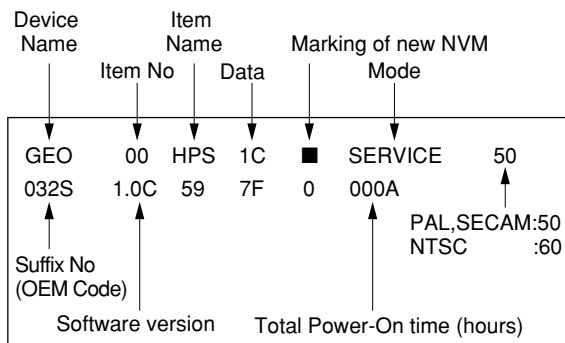
a. ENTERING SERVICE MODE

With the unit on standby



This operation sequence puts the unit into service mode.

The screen display is :



b. METHOD OF CANCELLATION FROM SERVICE MODE

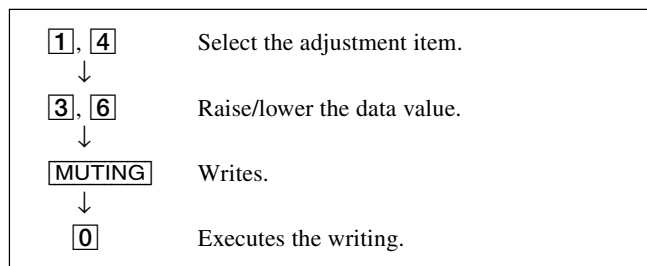
Set the standby condition (Press **POWER** button on the commander), then press **POWER** button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

- 1) Set to Service Mode.
- 2) Press **1** (UP) and **4** (DOWN), to select the adjustment.
- 4) Press **MUTING** button to indicate WRITE on the screen.
- 5) Press **0** button to write into memory.

d. MEMORY WRITE CONFIRMATION METHOD

- 1) After adjustment, pull out the plug from AC outlet, and then plug into AC outlet again.
- 2) Turn the power switch ON and set to Service Mode.
- 3) Call the adjusted items again to confirm adjustments were made.



- 7, 0** All the data becomes the values in memory.
- 8, 0** All user control goes to the standard state.
- 5, 0** Service data initialization (Be sure not to use usually.)
- 2, 0** Write 50Hz adjustment data to 60Hz, or vice versa.

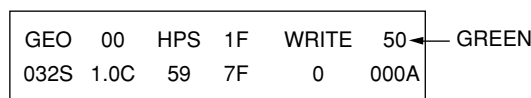
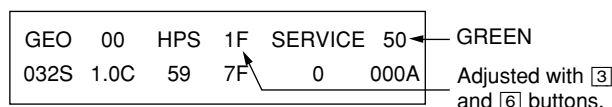
5-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

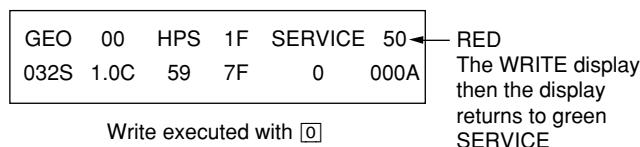
This explanation uses H-Position as an example.

1. Select "GEO 00 HPS" with the **1** and **4** buttons.
2. Raise/lower the data with the **3** and **6** buttons.
3. Select the optimum state. (The standard is 1F for PAL reception.)
4. Write with the **MUTING** button. (The display changes to WRITE.)
5. Execute the writing with the **0** button. (The WRITE display will be changed to red color while excuting, and back to SERVICE.)

Example on screen display :-



Write with **MUTING**



Write executed with **0**

Use the same method for all Items. Use **1** and **4** to select the adjustment item, use **3** and **6** to adjust, write with **MUTING**, then execute the write with **0**.

- Note :**
1. In **WRITE**, the data for all items are written into memory together.
 2. For adjustment items that have different standard data between 50Hz or 60Hz, be sure to use the respective input signal after adjustment.

Adjustment Item Table

8 TVG	Functionality		Range	Function	Table & Note	Register No.bit	Device Name Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name							Slave	Sub	Bit Range	Initial data for tables
GEO	00	HPS	3F	H Position	Normal(50/60)/Wide(50/60)	14 (7-2)	CXA2159S(88H)	-	A0/A4	(A1/AE)/(44/4F)	7-2	1E (for 50Hz)/16(for 60Hz)
	01	HSZ	3F	H Size	Normal(50/60)/Wide(50/60)	13 (7-2)		-	A0/A4	(A0/AD)/(43/4E)	7-2	1F
	02	PAP	3F	Pin Amp	Normal(50/60)/Wide(50/60)	15 (7-2)		-	A0/A4	(A2/AF)/(45/50)	7-2	1F
	03	TLT	0F	Trapezium	Normal(50/60)/Wide(50/60)	17 (7-4)		-	A0/A4	(A4/B1)/(47/52)	7-4	7
	04	VPS	3F	V Position	Normal(50/60)/Wide(50/60)	11 (7-2)		-	A0/A4	(9E/AB)/(41/4C)	7-2	1F
	05	VSZ	3F	V size	Normal(50/60)/Wide(50/60)	10 (7-2)		-	A0/A4	(9D/AA)/(40/4B)	7-2	1F
	06	SCO	0F	S Correction	Normal(50/60)/Wide(50/60)	12 (7-4)		-	A0/A4	(9F/AC)/(42/4D)	7-4	7
	07	VLN	0F	V Linearity	Normal(50/60)/Wide(50/60)	12 (3-0)		-	A0/A4	(9F/AC)/(42/4D)	3-0	7
	08	BOW	0F	AFC Bow	Normal(50/60)/Wide(50/60)	18 (7-4)		-	A0/A4	(A5/B2)/(48/53)	7-4	7
	09	AGL	0F	AFC Angle	Normal(50/60)/Wide(50/60)	18 (3-0)		-	A0/A4	(A5/B2)/(48/53)	3-0	7
	0A	UPN	3F	Upper Pin	Normal(50/60)/Wide(50/60)	16 (7-2)		-	A0/A4	(A3/B0)/(46/51)	7-2	1F
	0B	LPN	3F	Lower Pin	Normal(50/60)/Wide(50/60)	1A (7-2)		-	A0/A4	(A7/B4)/(4A/55)	7-2	1F
	0C	HBL	1	H Blanking on/off		1A (1)		-	A0	9A	1	1
	0D	LBL	0F	Left H Blanking	Normal(50/60)/Wide(50/60)	19 (7-4)		-	A0/A4	(A6/B3)/(49/54)	7-4	0B(for 50Hz)/0F(for 60Hz)
	0E	RBL	0F	Right H Blanking	Normal(50/60)/Wide(50/60)	19 (3-0)		-	A0/A4	(A6/B3)/(49/54)	3-0	2
WHB	00	RDR	3F	R Drive	DYNAMIC/others	0B (7-2)	CXA2159S(88H)	-	A0	C0/BA	7-2	25 (DYNAMIC)/ 2A (for OTHERS)
	01	GDR	3F	G Drive	DYNAMIC/others	0C (7-2)		-	A0	C1/BB	7-2	1F
	02	BDR	3F	B Drive	DYNAMIC/others	0D (7-2)		-	A0	C2/BC	7-2	1F
	03	RCT	0F	R Cutoff	SECAM/others	09 (3-0)		-	A0	C3/BD	3-0	7
	04	GCT	0F	G Cutoff	SECAM/others	0A (7-4)		-	A0	C4/BE	7-4	7
	05	BCT	0F	B Cutoff	SECAM/others	0A (3-0)		-	A0	C4/BE	3-0	7
	06	BMN	1F	Brightness Minimum Data		08 (7-2)		-	A0	22	6-2	15
	07	SBR	3F	Sub Brightness Control		08 (7-2)		-	A0	23	7-2	1F
	APB	3	Sub Bright Control Switch for Intelligent Picture #3		08 (7-2)		-	A0	23	1-0	3	
SAJ	00	PMX	3F	Picture Maximum Data	non-Wide/Wide	05 (7-2)	CXA2159S(88H)	-	A0	21/20	7-2	38(NON-WIDE) / 33 (WIDE)
	01	SHU	0F	Sub Hue Control	TV/Video	07 (7-2)		-	A0	24/38	5-2	8
	02	SSH	0F	Sub Sharpness Control	TV/Video	09 (7-4)		-	A0	25/36	7-4	04 (for TV) / 09 (FOR VIDEO)
	03	SCL	3F	Sub Color Control	(NTSC/others)/WIDE(NTSC/others)	06 (7-2)		-	A0	(37/26)(3C/3B)	7-2	1F
VP	00	EHT	0F	EHT Comp	50/60Hz	17 (3-0)	CXA2159S(88H)	-	A0[A4]	A4/B1[(47/52)]	3-0	5
	01	GMA	3	Gamma Correction (sepatated in STANDARD mode)	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		-	A4	68/67/6A/69	1-0	02(NON-STANDARD)/01 (STANDARD)
	02	APG	1	Gamma Control Switch for Intelligent Picture #3	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		-	A4	68/67/6A/69	2	0
	03	YDL	0F	Y Delay	PAL/SECAM/NTSC/DVD	0E (3-0)		-	A4	3C/3E/3D/3F	3-0	(06/09/08/08 for PAL/SECAM/NTSC/DVD)
	04	SST	3	SECAM ID Start Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (5-4)		-	A4	6B/6D	5-4	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	05	SSP	3	SECAM ID Stop Position	SECAM&AUTO/FORSED-PAL&NTSC	03 (7-6)		-	A4	6B/6D	7-6	01(for SECAM/AUTO)/01(for forced PAL/NTSC)
	06	RLM	3	RGB Limit		03 (1-0)		-	A0	83	1-0	0
	07	SLV	03	SECAM ID Level	SECAM&AUTO/FORSED-PAL&NTSC	04 (1-0)		-	A4	6C/6E	1-0	02(for SECAM/AUTO)/02(for forced PAL/NTSC)
	08	SBF	3F	SECAM BELL f0	SECAM&AUTO/FORSED-PAL&NTSC	04 (7-2)		-	A4	6C/6E	7-2	22(for SECAM/AUTO)/22(for forced PAL/NTSC)
	09	DYC	1	Dynamic Color on/off		0C (1)		-	A0	8C	1	1
	0A	ABL	1	ABL Mode Switching (except STANDARD mode)	except STANDARD	0B (1)		-	A0	8B	1	(00 for STANDARD)/01(OTHERS)
	0B	VTH	1	ABL Detection Vth Switching		0B (0)		-	A0	8B	0	1
	0C	SFO	1	FO Switching for Sharpness	NTSC/others	07 (1)		-	A4	5C/59	1	1
	0D	DCX	1	DC Trans. Ratio Switching		08 (1)		-	A0	88	1	1

Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name								Slave	Sub	Bit Range	Initial data for tables
VP	0E	SHT	-	1	Pre-/Overshoot ratio Switch	NTSC/others	08 (0)	CXA2159S(88H)	-	A4	5D/59	0	1
	0F	HDW	-	1	H Drive Pulse Width Switch		00 (6)		-	A0	80	6	0
	10	AFC	-	03	AFC Gain Control	TV/Video/Text	11 (1-0)		-	A0	28/29/2A	1-0	01/00/01 (for TV/VIDEO/TEXT)
	11	HOS	-	0F	H Oscillation		0E (7-4)		-	A0	8E	7-4	7
	12	HSS	-	1	Slice Level of H Sync Sep.		0F (1)		-	A0	8F	1	0
	13	VSS	-	1	Slice Level of V Sync Sep.		0F (0)		-	A0	8F	0	0
	14	HMS	-	1	Macro Vision C/m off/on	50/60Hz	10 (0)		-	A0[(A4)]	9D/AA[(40/4B)]	0	1
	15	YUV	-	1	Y SEL		00 (2)		-	A0	80	2	0
	16	CDV	-	3	CD mode for Video and RF under no signal	Video only	0F (5-4)		-	A0	2B	5-4	1
	17	RON	-	1	R ON	not memorized	01 (2)		-	A0	81	2	1
	18	GON	-	1	G ON	not memorized	01 (1)		-	A0	81	1	1
	19	BON	-	1	B ON	not memorized	01 (0)		-	A0	81	0	1
	1A	PON	-	1	P ON	not memorized	00 (7)		-	A0	80	7	1
	1B	AXN	-	1	AXIS SW	NTSC/others (only for DYNAMIC)	07 (0)		-	A0	37/26[(3C/3B)]	0	1
	1C	RSL	-	1	RGB SEL		0C (0)		-	A0	8C	0	0
	1D	VBW	-	3	VBLKW		16 (1-0)		-	A0	96	1-0	0
	1E	RFP	-	1	REFP		14 (0)		-	A0	94	0	0
	1F	VMC	-	3	VM Level		03 (3-2)		-	A0	83	3-2	0
AP	00	AGC	-	1	AGC On/off Control		05 (7)	BH3868AFS(80H)	-	A6	05	7	0
	01	SON	-	1	Surround On/off		05 (6)		-	A6	05	6	0
	02	SST	-	1	Surround Stereo		05 (5)		-	A6	05	5	0
	03	SMO	-	1	Surround Monoral		05 (4)		-	A6	05	4	0
	04	LOP	-	1	Surround Effect Enhancer		05 (3)		-	A6	05	3	0
	05	SUR	-	7	Surround Effect		05 (2-0)		-	A6	05	2-0	0
	06	BAS	-	1F	Bass Sound Mode Control	dyna/drama/soft	03 (6-0)		-	A6	06/09/0C	4-0	12/10/10 (for DYNAMIC/DRAMA/SOFT)
	07	TRE	-	1F	Treble Sound Mode Control	dyna/drama/soft	04 (6-0)		-	A6	07/0A/0D	4-0	13/13/10 (for DYNAMIC/DRAMA/SOFT)
	08	TRF	-	3	Treble data offset		04 (6-0)		-	A6	11	1-0	2
MSP	09	BBE	-	FF	BBE Sound Mode Control	dyna/drama/soft	02 (7-0)		-	A6	08/0B/0E	7-0	99/D5/00 (for DYNAMIC/DRAMA/SOFT)
	00	WST	-	FF	W/G Stereo Threshold			MSP3415D(84H)	-	A0	60	7-0	15
	01	WBT	-	FF	W/G Bilingual Threshold				-	A0	61	7-0	EC
	02	WLL	-	FF	W/G Monaural Threshold				-	A0	62	7-0	5
	03	WAC	-	0F	W/G Agreement Count				-	A0	63	3-0	1
	04	WDL	-	FF	W/G Search Delay				-	A0	64	7-0	30
	05	NDL	-	FF	NICAM Search Delay				-	A0	65	7-0	20
	06	SDL	-	FF	Stereo Status Read Delay				-	A0	66	7-0	10
	07	AGC	-	1	AGC Switch Auto/Constant		00BB (7)		-	A0	68	7	1
	08	REL	-	3F	AGC Gain at Constant Mode		00BB (6-1)		-	A0	68	6-1	28
	09	CRM	-	1	Carrier muting on/off		00BB (9)		-	A0	67	1	0
	0A	ACO	-	1	Audio Clock out on/off		0083 (5)		-	A0	69	5	1

Adjustment Item Table

TVG	Functionality	Initial	Range	Function	Table & Note	Register No.bit	Slava Address	RAM Address (bit)	NVM			Remarks:
Category	No.	Name							Slave	Sub	Bit Range	Initial data for tables
MSP	0B	FP	-	7F	FM Prescale for non-M system	000E (14-8)	MSP3415D(84H)	-	A0	6A	6-0	1B
	0C	FPM	-	7F	FM Prescale for M system	000E (24-8)		-	A0	6B	6-0	32
	0D	FH	-	7F	FM Prescale for HDEV	000E (14-8)		-	A0	6C	6-0	36
	0E	FHM	-	7F	FM Prescale for HDEV and M	000E (14-8)		-	A0	6D	6-0	65
	0F	WGP	-	7F	W/G Prescale	000E (14-8)		-	A0	6E	6-0	1C
	10	NIP	-	7F	NICAM Prescale	0010 (14-8)		-	A0	6F	6-0	7F
	11	ERR	-	FF	Auto FM Switch Threshold	0021 (10-3)		-	A0	70	7-0	50
	12	VOL	-	FF	Loud Speaker gain 7000h to 7ff0h	0000 (15-4)		-	A4	62	7-0	6D
SVP	00	SBF	-	3F	SECAM BELL f0	1C (7-2)	CXA2139S(84H)	-	A4	11	7-2	22
	01	HOS	-	0F	H Oscillation	0C (7-4)		-	A4	0C	7-4	7
	02	SHU	-	0F	Sub Hue Control	05 (7-2)		-	A4	2D/2F	5-2	8
	03	AFC	-	3	AFC Gain	0F (0)		-	A4	31/32	1-0	1
PIP	00	SDL	-	0F	Delay of Output SELECT	01 (6-3)	SDA9288X(D6H)	-	A4	1C	6-3	2
	01	PPH	-	FF	H Position of TOP-LEFT Pin P	01/02		-	A4	29	7-0	15
	02	PPV	-	FF	V Position of TOP-LEFT Pin P	03 (7-0)		-	A4	2A	7-0	2E
	03	YDL	-	7	Delay of Luminance Input	04 (2-0)		-	A4	1F	2-0	0
	04	HDI	-	0F	H Sync Delay for Inset	06 (3-0)		-	A4	21	3-0	0
	05	ISC	-	1	Inset Clock Selection	06 (4)		-	A4	21	4	1
	06	CLP	-	1	Clamp Pulse Selection	06 (5)		-	A4	21	5	1
	07	CLC	-	1	Clamp Cycle Selection	06 (6)		-	A4	21	6	0
	08	CON	-	0F	Contrast Adjustment for inset	09 (7-4)		-	A4	24	7-4	0
	09	PLL	-	3	H Position For A-ch	0D (6-5)		-	A4	28	6-5	2
	0A	PDV	-	0F	PIP V Pedestal Level	0E (7-4)		-	A4	57	7-4	0
	0B	PDU	-	0F	PIP U Pedestal Level	0E (3-0)		-	A4	57	3-0	0
TXT	00	TXH	-	3	Teletext Horizontal Position	10 (1-0)	SAA5261(58H)	-	A4	58	1-0	0
	01	TXV	-	3	Teletext Vertical Position	10 (5-4)		-	A4	58	5-4	0
OPM	00	OSH	-	3F	OSD H Position	Option-Misc 1F1	CXP750097(60H)	-	A0	27	7-2	0D
	01	COM	-	03	Comb Selection (0: None, NTSC, 2: Digital, 3: 3D)			-	A0	50	7-6	2
	02	APC	-	1	APC Switch			-	A0	4F	5	1
	03	TSY	-	3	TV Sys at Auto TV Sys			-	A0	4F	4-3	0
	04	MUT	-	1	No Signal Mute			-	A0	4F	0	0
	05	AFM	-	1	Auto FM Switch			-	A0	4F	1	1
	06	RFB	-	3	C-BPF Control			-	A0	50	5-4	0
	07	TV0	-	7	Tilt to V-Angle Offset			-	A0	50	2-0	2
	08	DBL	-	1	Disable Blueback Function			-	A0	4F	2	0
	09	SSO	-	3	Speed Search Option (0-Off, 1-4X, 2-6X, 3-8x)			-	A0	4F	7-6	1
OPB	00	OP1	-	FF	Optional Bits 1 (see the specified sheet)	Option-Bits	CXP750097(60H)	-	A0	2D	7-0	FF
	01	OP2	-	FF	Optional Bits 2 (see the specified sheet)			-	A0	2E	7-0	#
	02	OP3	-	FF	Optional Bits 3 (see the specified sheet)			-	A0	2F	7-0	#
	03	OP4	-	FF	Optional Bits 4 (see the specified sheet)			-	A0	30	7-0	#

NOTE

- shaded items are fixed data.
- Standard data listed on the Adjustment Item Table are reference values, therefore it may be different for each model and for each mode.
- Note for Different Data Those are the standard data values written on the microprocessor. Therefore, the data values of the modes and stored respectively in the memory.
In case of a device replacement, adjustment by rewriting the data value is necessary for some items.
- The indication as "#" in OP2, OP3 and OP4 means that it would be referred Option Mode Data.

ITEM INFORMATION**No. OPB0 OP1**

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XA29M60	1	1	1	1	1	1	1	1
KV-XA29M84	1	1	1	1	1	1	1	1

APPLICABLE FOR XF-L (14" AND 21") MODELS ONLY

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XA29M60	0	1	1	0	0	1	1	1
KV-XA29M84	1	0	1	0	0	1	1	1

AV Input 00 = no AV Input 01 = 1 AV Input

10 = 2 AV Input 11 = 3 AV Input

DVD Input Effective only when "AV Input" is set to 3 AV Input

Dis Fav. Disable Favorite Channel (Effective For XF-L (21" & 14") Models Only)

No. OPB2 OP3

Item	PIC Rotate* ¹	2199 Curve* ¹	Auto PIC	Auto TV sys	US ST	AV Mono* ¹	11 KEY	Colour SW* ²
KV-XA29M60	0	0	1	1	0	0	0	1
KV-XA29M84	1	0	1	0	0	0	0	1

PIC Rotate*¹ PIC Rotation Switch 0 = disabled, 1 = enabled2199 Curve*¹ 2199 volume Curve Selection 0 = Others, 1 = 2199 Volume Curve.Auto PIC*³ Auto Picture Improvement 0 = off PNC1/PNC2, 1 = activate PNC1/PNC2

A-TVsys Auto TV System in Auto Program 0 = disabled, 1 = enabled

US ST* USA Stereo 0 = disabled, 1 = enabled

AV MONO*¹ AV Mono model 0 = Stereo, 1 = Mono
(No Balance & Surround selection)

11 Key Front Key Selection 0 = 7 key model, 1 = 11 key model

Color SW*² Color Data Selection in Dynamic Mode 0 = 65 (No PIP), 1 = 57 (PIP)Note: *¹ - For XA21/XH29 Models Only*² - For XA34/29/25 Models Only*³ - For PNC3, the enables are from service item APG & APB**No. OPB3 *OP4**

Item	PNC2	Korean ST	Vid NTSC3.58	Wide	Video3	Chinese	Arabic	Thai
KV-XA29M60	1	0	0	1	0	1	1	1
KV-XA29M84	1	0	0	1	0	1	1	1

APPLICABLE TO XS ONLY - Sub Language Selection (Bit 0 - Bit 2)

Korean Stereo* Korean Stereo 0 = disabled, 1 = enabled

PNC2*² Enable switch of PNC2 0 = disable, 1 = enable

Video NTSC3.58* Video Color System 0 = Multi System, 1 = Single System (NTSC3.58)

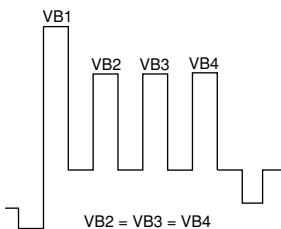
Wide Enable wide mode 0 = disable, 1 = enable

*Note : *APPLICABLE FOR NTSC MODELS ONLY

5-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

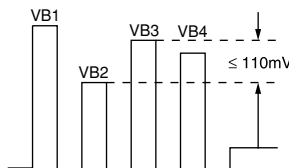
1. Select Video.
2. Input a PAL color-bar.
3. Set to the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and [6].
6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SAJ 3 'SCL' as step 3 to 5 when receiving NTSC color-bar.
8. Select the 'Wide' mode, write the 'same data-3 steps' for both PAL and NTSC input.



VB2 = VB3 = VB4 (Difference is within 70mV)

SUB HUE ADJUSTMENT

1. Select Video 1.
2. Input a NTSC 3.58 color-bar, into Video.
3. Set the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Select SAJ 1 'SHU' with [1] and [4] of the commander by setting to Service Mode and adjust to VB1=VB2=VB3=VB4 with [3] and [6].



VB1 = VB2 = VB3 = VB4

The highest level of VB1, VB2, VB3, VB4 must be aligned at the same line. Ideal difference level between VB2 and VB3 should be within $\pm 110\text{mV}$.

6. Press [MUTING] → [0] of the commander to write the data.
7. Adjust SAJ 1 'SHU' as step 3 to 6 when receiving TV mode.

5-4. DISPLAY POSITION ADJUSTMENT

PIP POSITION (KV-XA29M84 ONLY)

1. Input a PAL color-bar.
2. Press PIP button of the remote commander to set the PIP picture.
3. Set to Service Mode.
4. Use [1] and [4] of the remote commander to select PIP 1 "PPH" and use [3] and [6] to set data "15".
5. Select PIP 2 "PPV" to set data "2E".
6. Press [MUTING] → [0] of the remote commander to write the data.
7. Use the screen display menu changing the PIP position to check the PIP position.

5-5. DEFLECTION ADJUSTMENT

NORMAL MODE (50Hz)

1. Set to Service Mode.
2. Using the [1] and [4] button, select category GEO (Service Mode).
3. Raise/lower the data using the [3] and [6] buttons. Select and adjust the following items to obtain optimum image.

Service Item

GEO : 00	HPS	H POSITION
01	HSZ	H SIZE
02	PAP	PIN AMP
03	TLT	TILT
04	VPS	V POSITION
05	VSZ	V SIZE
06	SCO	S CORRECTION
07	VLN	V LINEARITY
08	BOW	AFC BOW
09	AGL	AFC ANGLE
0A	UPN	UPPER CORNER PIN
0B	LPN	LOWER CORNER PIN

WIDE MODE (50Hz)

4. Input PAL color bar.
5. Adjust condition change to WIDE MODE : ON.
6. Using the [1] and [3] button, select category GEO (Service Mode).
7. Copy (item from normal mode (50Hz)) adjusted data for the following item:

Service Item

GEO : 01	HSZ	H POSITION
05	VSZ	V POSITION
06	SCO	S CORRECTION
07	VLN	V LINEARITY

8. Raise/lower data using [3] and [6] buttons, select and adjust the following items to obtain optimum image.

Service Item

GEO : 00	HPS	H POSITION
02	PAP	PIN AMP
03	TLT	TILT
04	VPS	V POSITION
08	BOW	AFC BOW
09	AGL	AFC ANGLE
0A	UPN	UPPER CORNER PIN
0B	LPN	LOWER CORNER PIN

9. After confirm WIDE MODE : ON – OFF.
10. Repeat same steps for NTSC input signal.

NORMAL MODE (60Hz)

11. Input 525/60Hz signal.
12. Using the **[1]** and **[4]** buttons select category GEO (Service Mode).
13. Select and adjust the following items to obtain optimum image.
Raise/lower the data with the **[3]** and **[6]** buttons.

Service Item

GEO : 00	HPS	H POSITION
01	HSZ	H SIZE
02	PAP	PIN AMP
03	TLT	TILT
04	VPS	V POSITION
05	VSZ	V SIZE
06	SCO	S CORRECTION
07	VLN	V LINEARITY
08	BOW	AFC BOW
09	AGL	AFC ANGLE
0A	UPN	UPPER CORNER PIN
0B	LPN	LOWER CORNER PIN

WIDE MODE (60Hz)

14. Input monoscope signal.
15. Adjust condition change to WIDE MODE: ON.
16. Using the **[1]** and **[4]** button select category GEO (Service Mode).
17. Copy (item from NORMAL MODE (60Hz)) adjusted data for the following items:

Service Item

GEO : 01	HSZ	H SIZE
05	VSZ	V SIZE
06	SCO	S CORRECTION
07	VLN	V LINEARITY

18. Raise/lower the data with the **[3]** and **[6]** buttons. Select and adjust the following items to obtain optimum image.

Service Item

GEO : 00	HPS	H POSITION
02	PAP	PIN AMP
03	TLT	TILT
04	VPS	V POSITION
08	BOW	AFC BOW
09	AGL	AFC ANGLE
0A	UPN	UPPER CORNER PIN
0B	LPN	LOWER CORNER PIN

19. After confirm WIDE MODE : ON – OFF.

Note:

For Deflection Adjustment, set PICTURE MODE to "SOFT".

5-6. H-TRAPEZOID ADJUSTMENT

1. Receive cross hatch/dot signal.
2. Adjust RV1801 on C6 board to make H-Trapezoid distortion best.

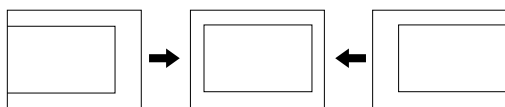
5-7. A BOARD ADJUSTMENT AFTER IC003 REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons **[5]** and **[0]** (Data Initialize), and **[2]** and **[0]** (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the fine adjustment.
Write the data per each item number (**[MUTING]** + **[0]**).
4. Select item numbers "OPB00" (OP1), "OPB01" (OP2), "OPB02" (OP3) and "OPB03" (OP4) respectively set the bit per model with command buttons **[3]** and **[6]**.
5. Press commander buttons **[8]** and **[0]** (Test Normal) to return to the data that was set on the shipment from the factory.
(This will also cancel Service Mode.)

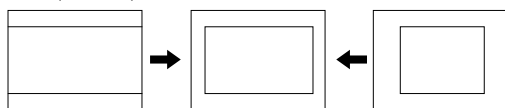
5-8. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

GEO 0 HPS (H POSITION)



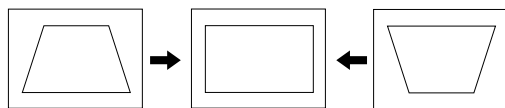
GEO 1 HSZ (H SIZE)



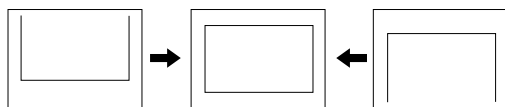
GEO 2 PAP (PIN AMP)



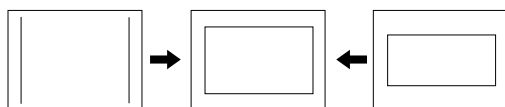
GEO 3 TLT (TRAPEZIUM)



GEO 4 VPS (V POSITION)



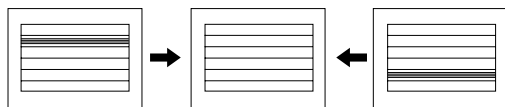
GEO 5 VSZ (V SIZE)



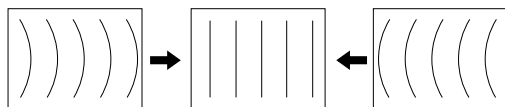
GEO 6 SCO (VERTICAL S-Correction)



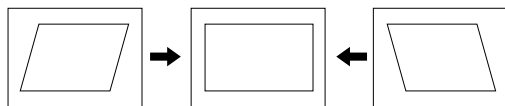
GEO 7 VLN (V LINEARITY)



GEO 8 BOW (AFC.BOW)

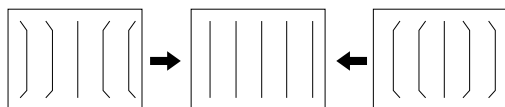


GEO 9 AGL (AFC.ANGLE)

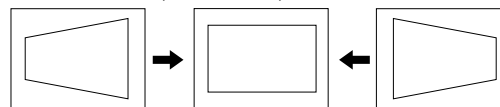


GEO 0A UPN (UPPER CORNER PIN)

GEO 0B LPN (LOWER CORNER PIN)

**PICTURE DISTORTION ADJUSTMENT (2)**

H-TRAPEZOID (DAC 4 HTR)



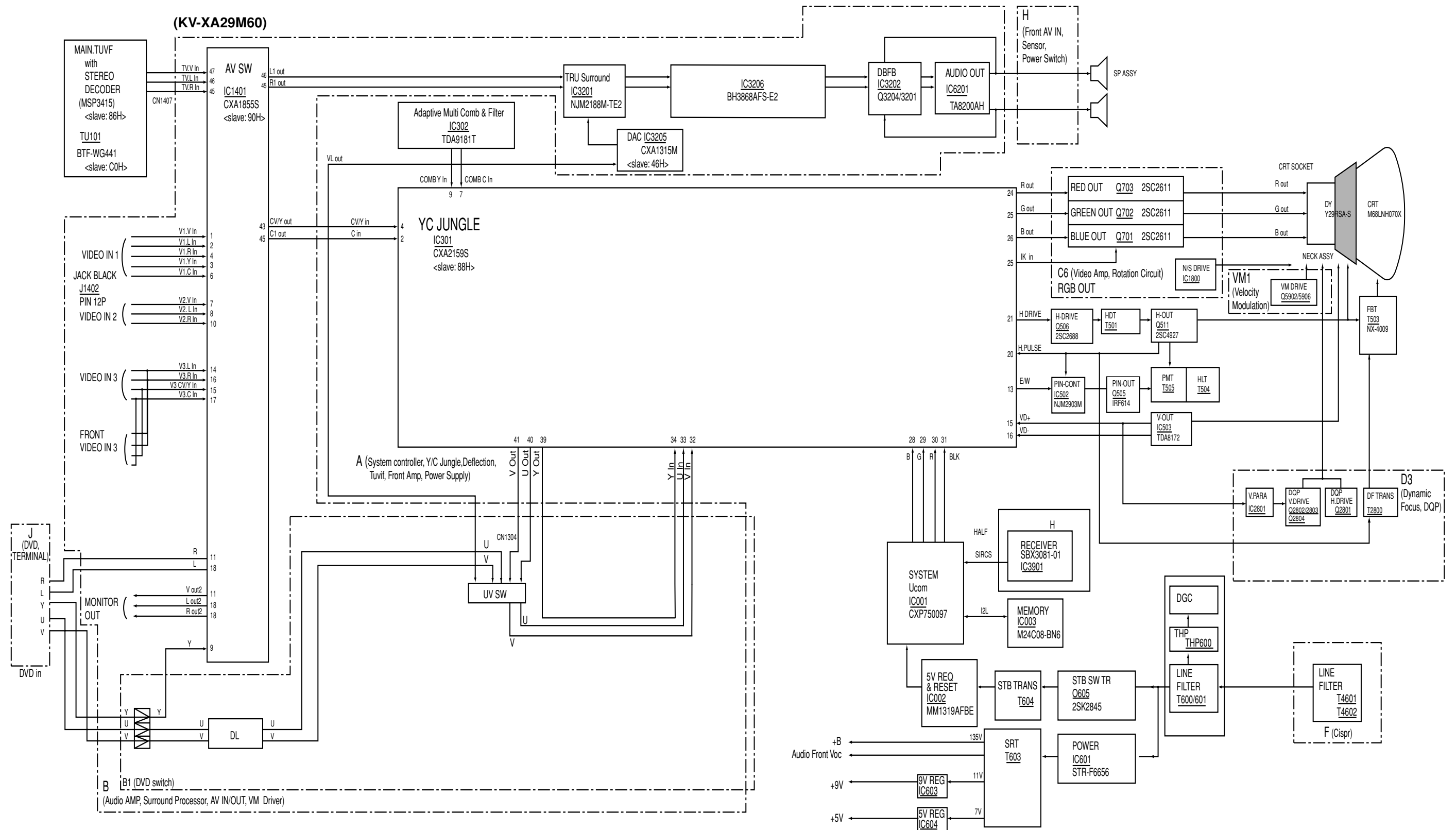
MEMO

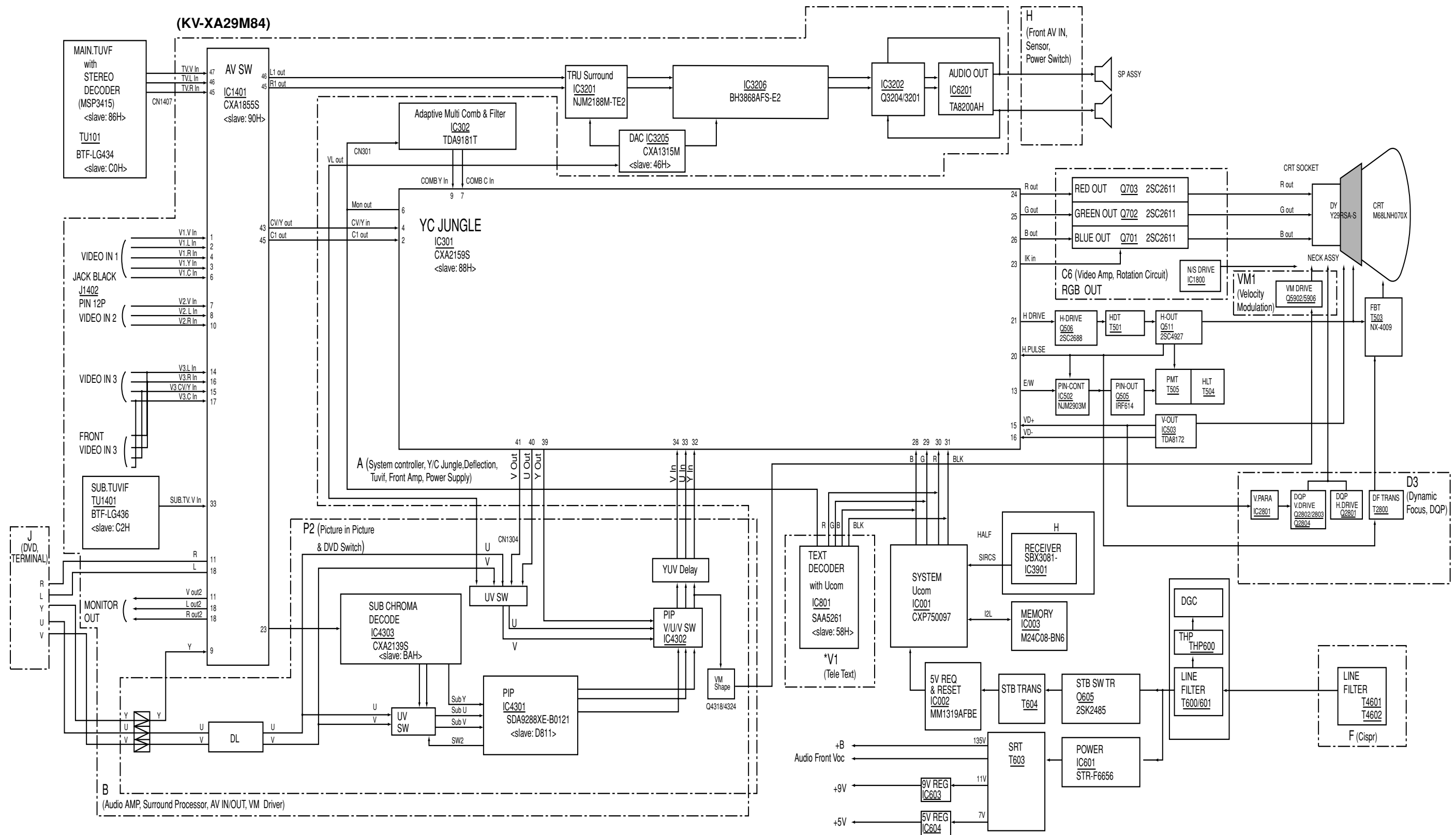
SECTION 6 DIAGRAMS

KV-XA29M60/XA29M84
RM-954 RM-953

KV-XA29M60/XA29M84
RM-954 RM-953

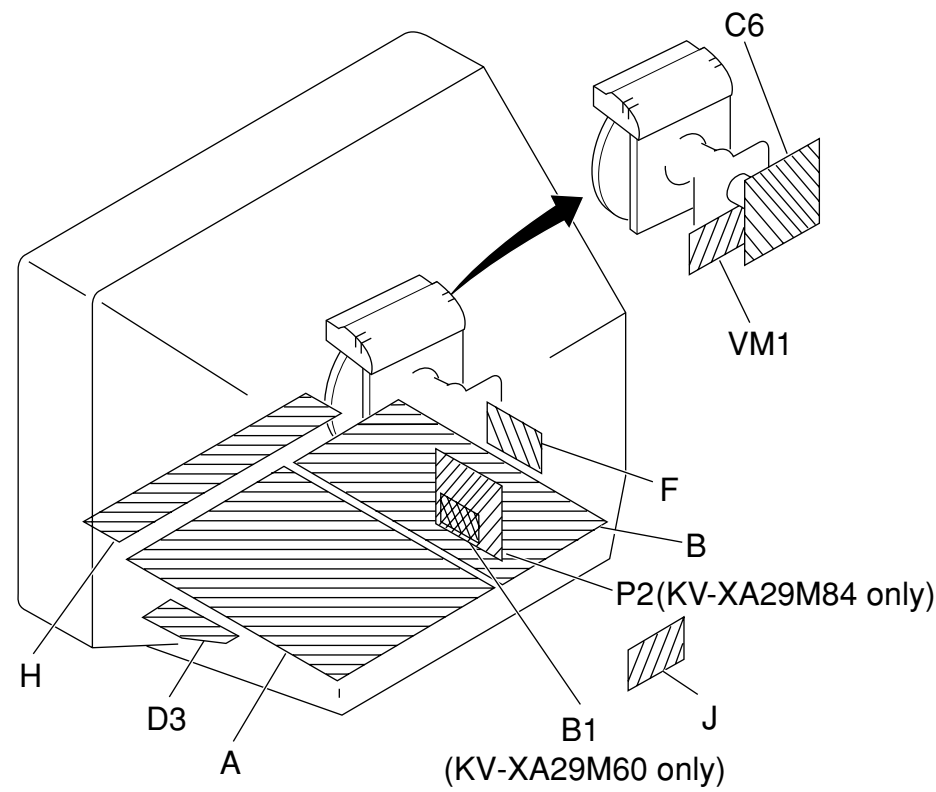
6-1. BLOCK DIAGRAM





* Not used for this model

6-2. CIRCUIT BOARDS LOCATION



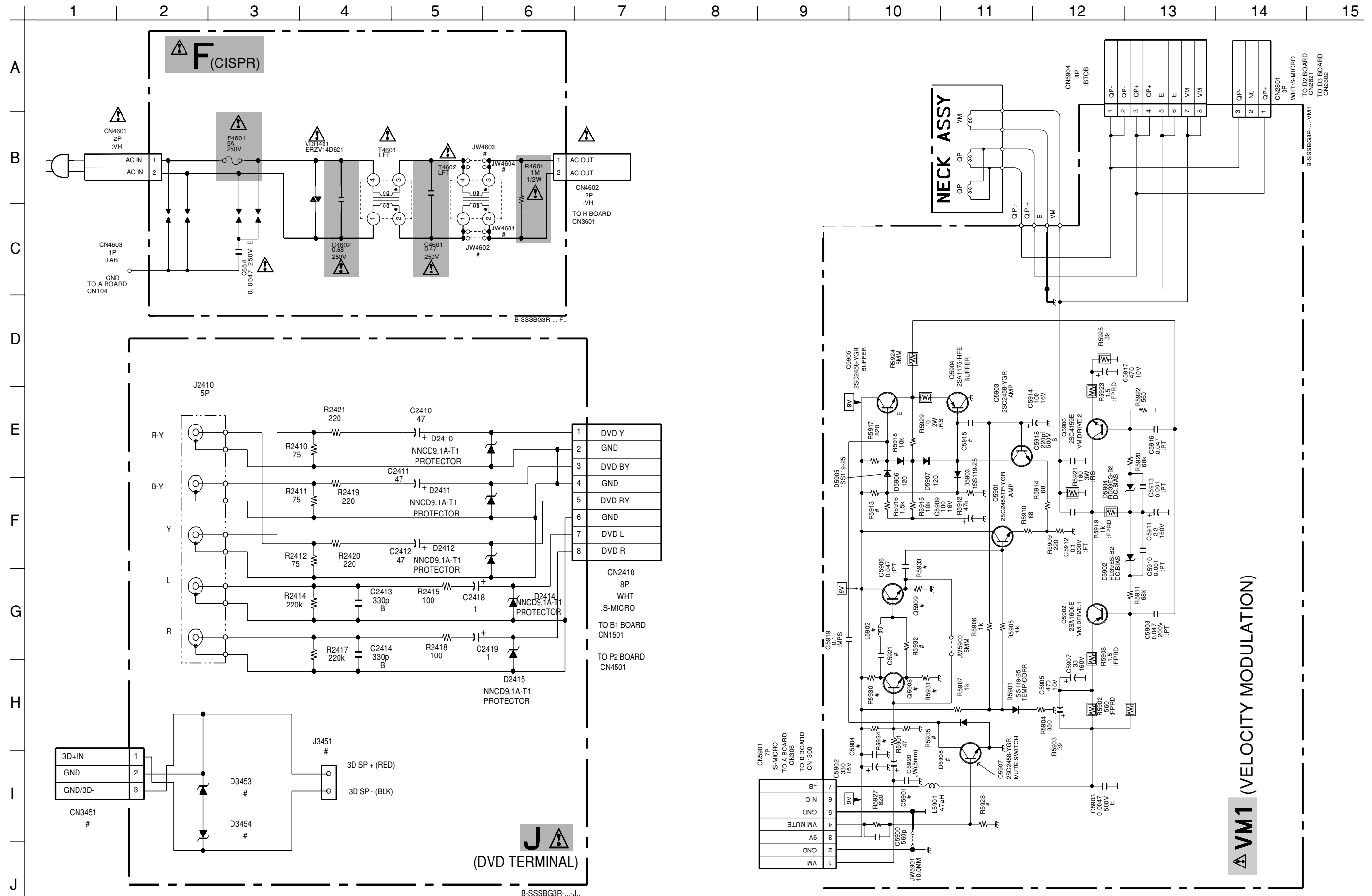
6-3. SCHEMATIC DIAGRAM

- Note:**
- All capacitors are in μF unless otherwise noted.
 - All electrolytic capacitors are rated at 50V unless otherwise noted.
 - All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
 - Indication of resistance which does not have rating electrical power is as follows.
- Pitch: 5 mm
 Rating electrical power 1/4W (CHIP: 1/10W)
- : nonflammable resistor.
 - : internal component.
 - : panel designation or adjustment for repair.
 - All variable and adjustable resistors have characteristic curve B unless otherwise noted.
 - **Readings are taken with a color-bar signal input.**
 no mark : PAL
 () : SECAM
 [] : NTSC 3.58
 << >> : NTSC 4.43
 - **Readings are taken with a 10W MW digital multimeter.**
 - **Voltage are dc with respect to ground unless otherwise noted.**
 - **Voltage variations may be noted due to normal production tolerances.**
 - **All voltage are in V.**
 - * : Cannot be measured.
 - **Circled numbers are waveform references.**
 - : B +bus.
 - : B -bus.
 - : signal path.

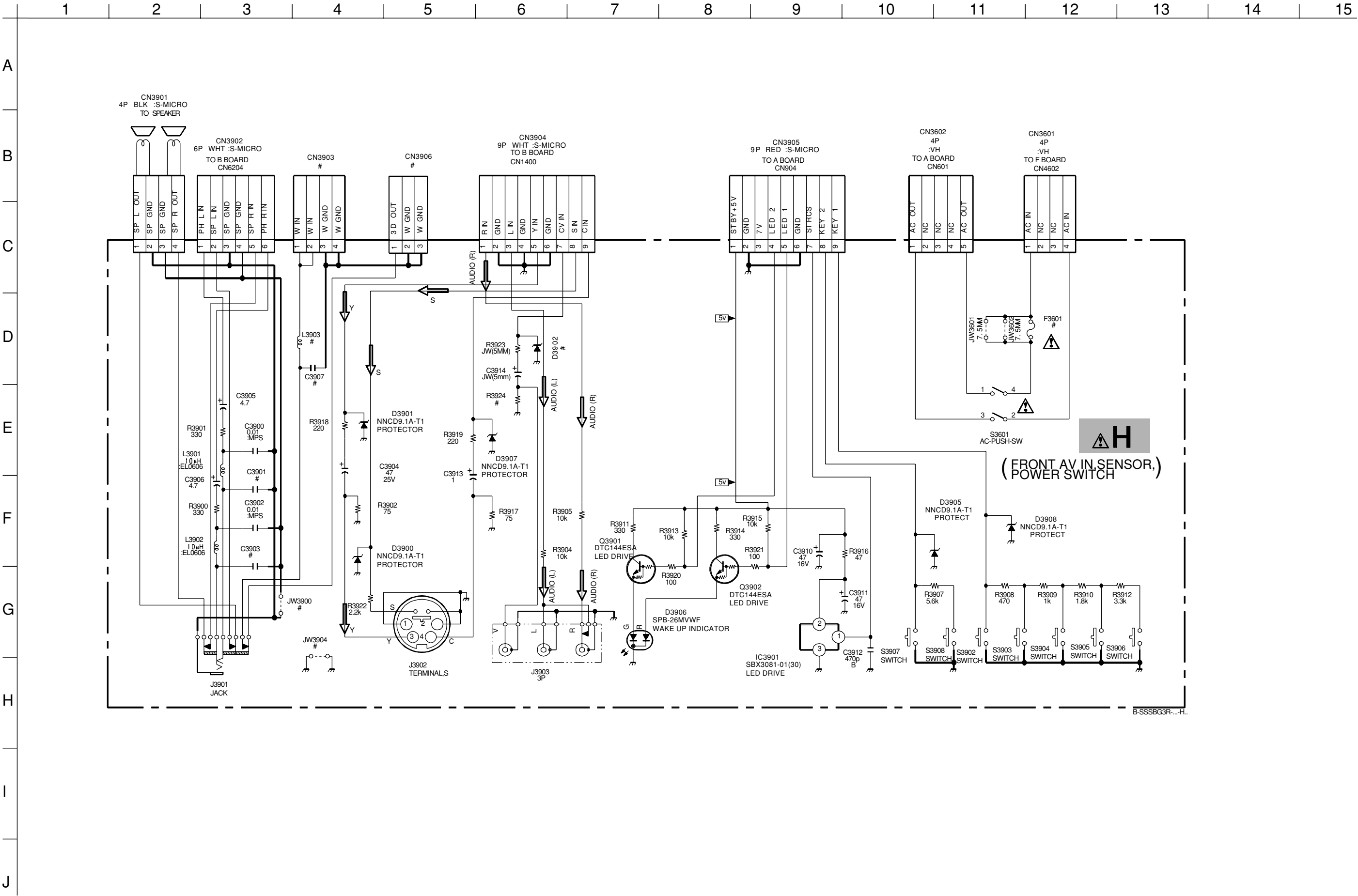
Reference information		
RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFLAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: *	ADJUSTMENT RESISTOR
	: LF-8L	MICRO INDUCTOR
	: TA	TANTALUM
CAPACITOR	: PS	STYROL
	: PP	POLYPROPYLENE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

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

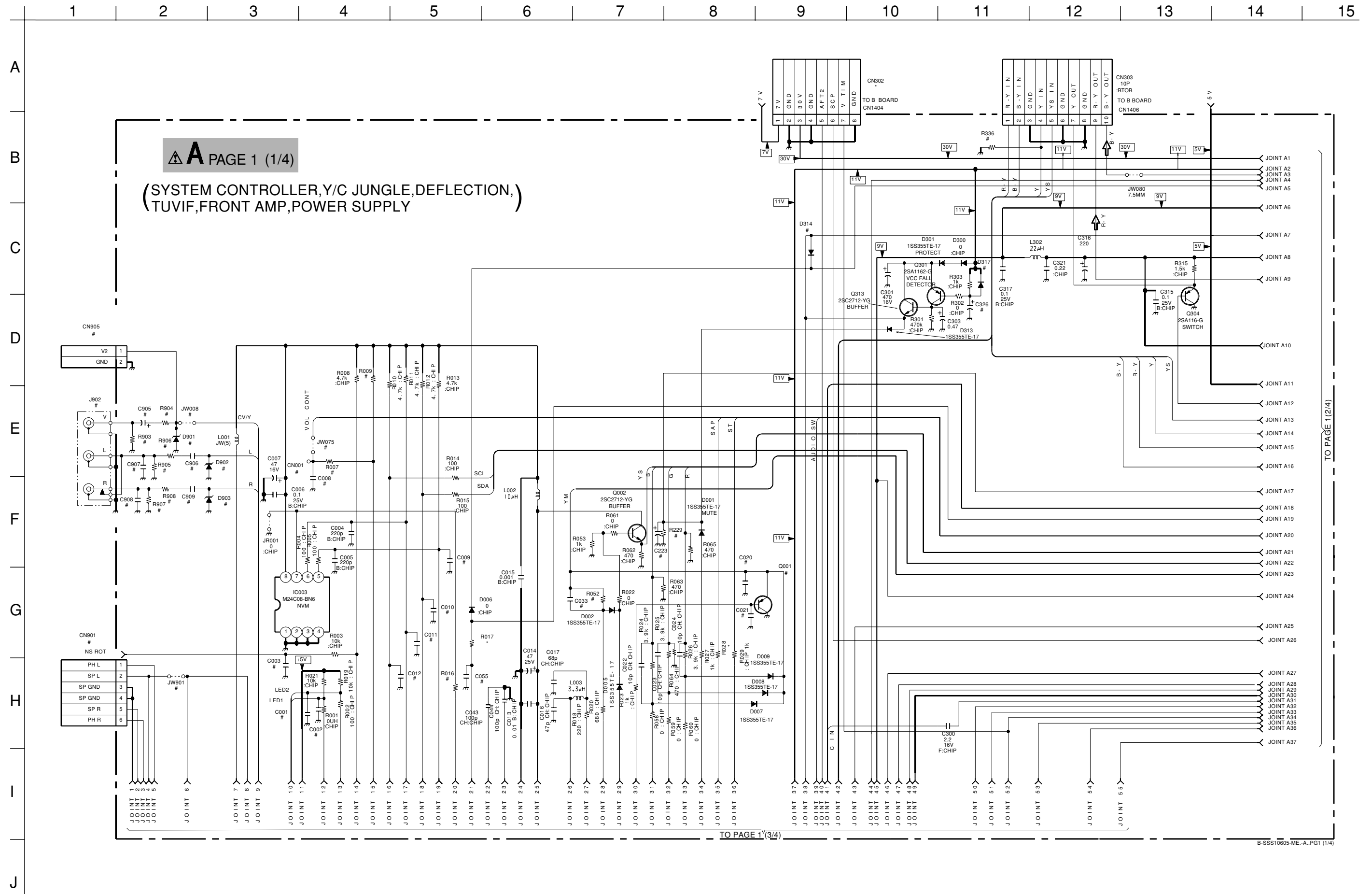
(1) Schematic Diagrams of F, J and VM1 Boards

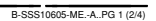


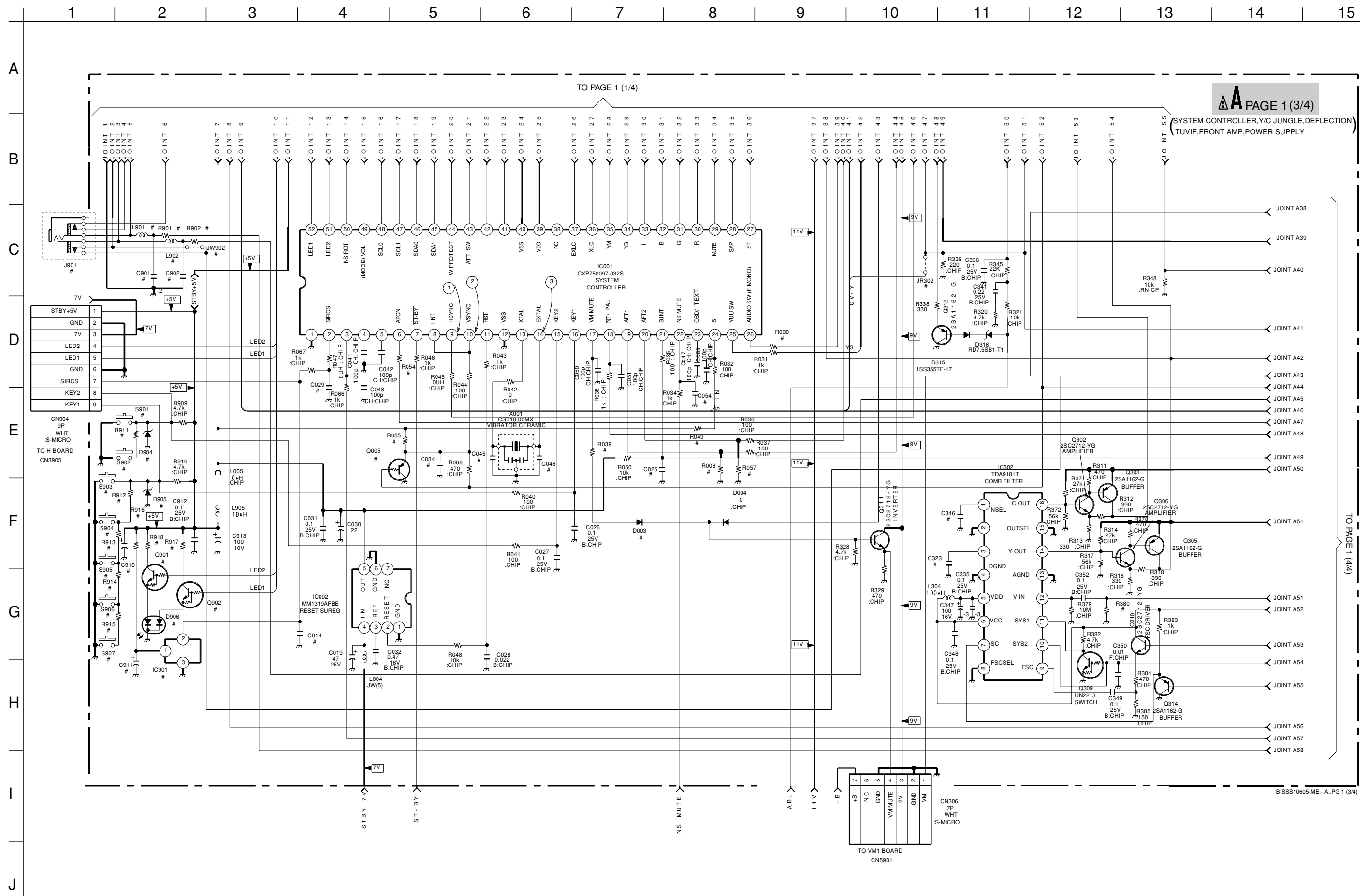
(2) Schematic Diagram of H Board

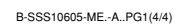


(3) Schematic Diagram of A Board

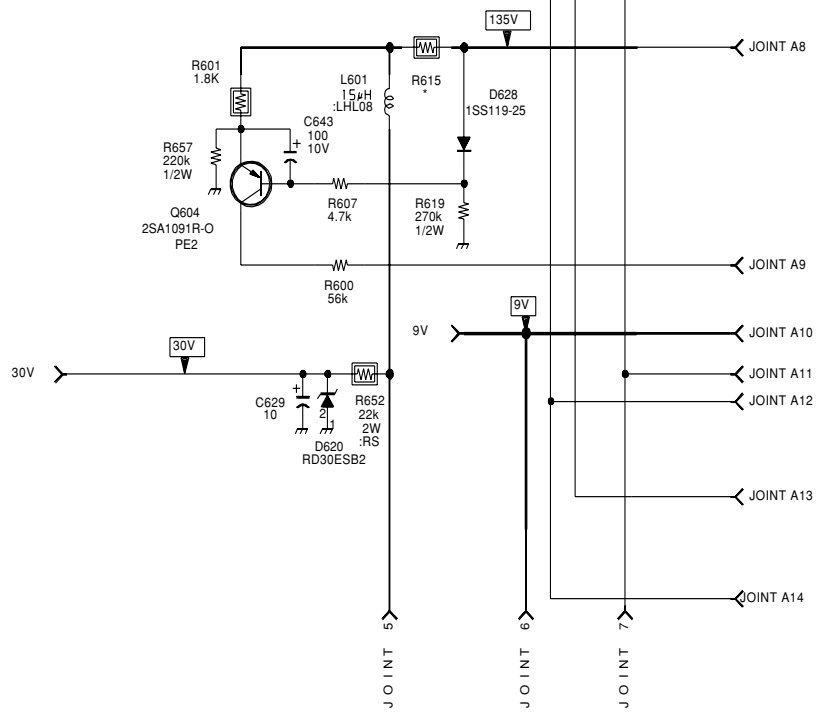
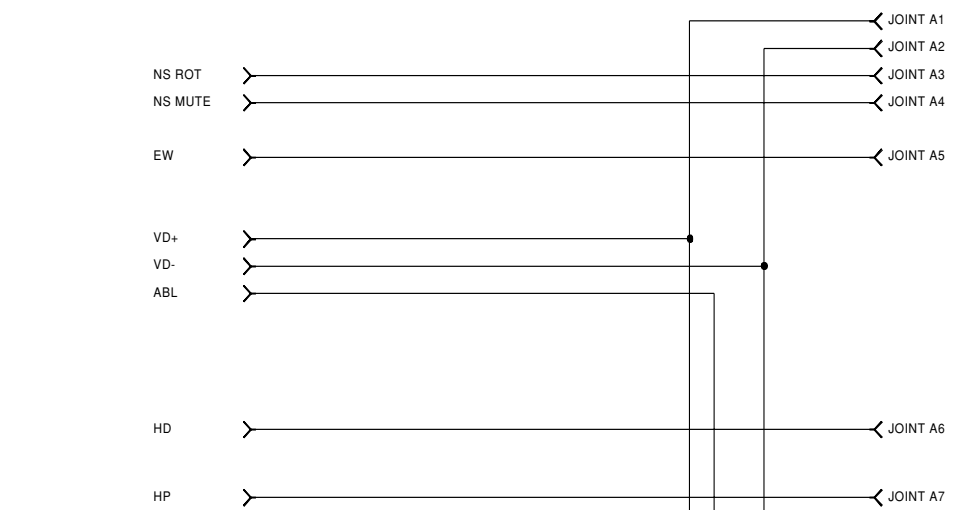
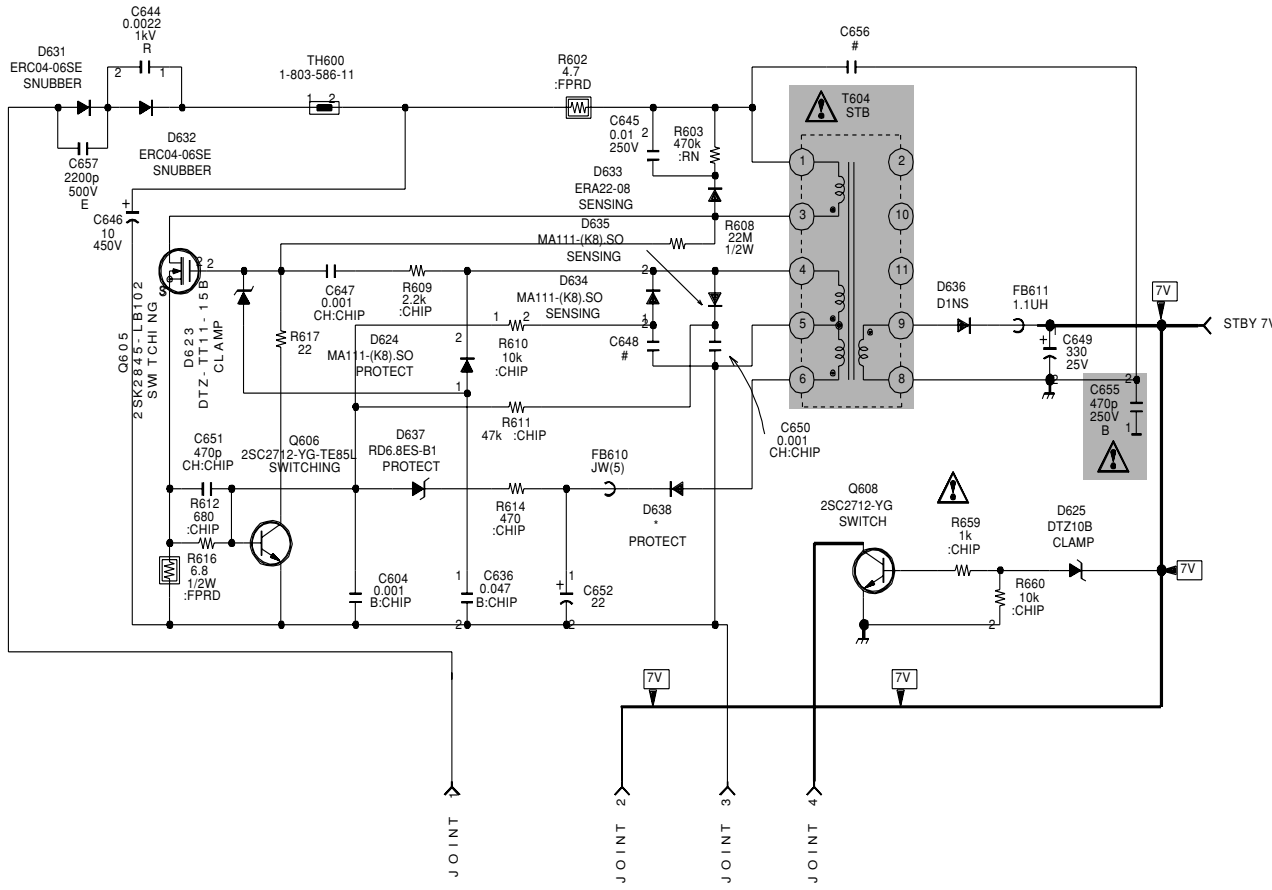








A PAGE 2 (1/4)
(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION,
TUVIF,FRONT AMP,POWER SUPPLY)

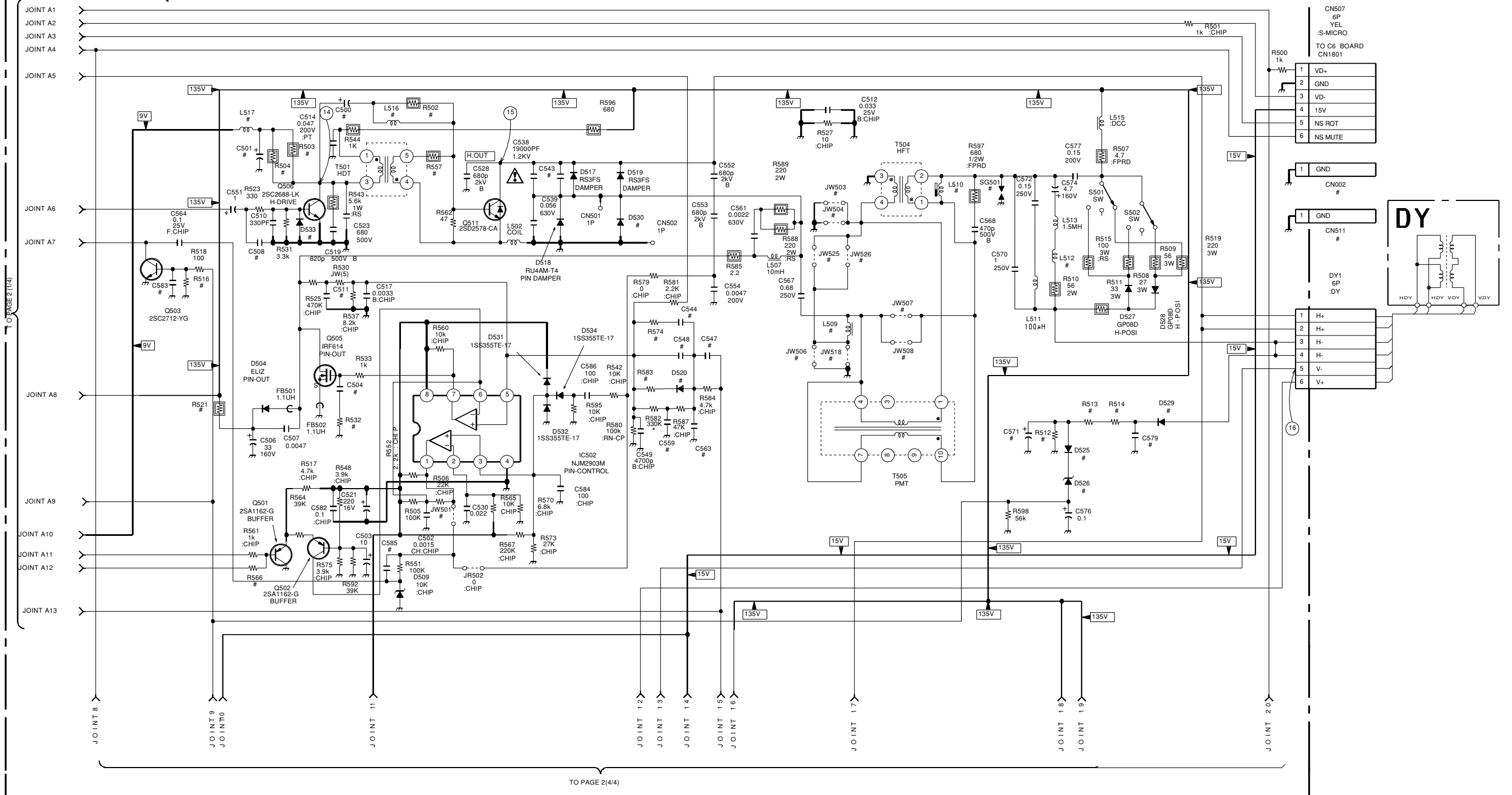


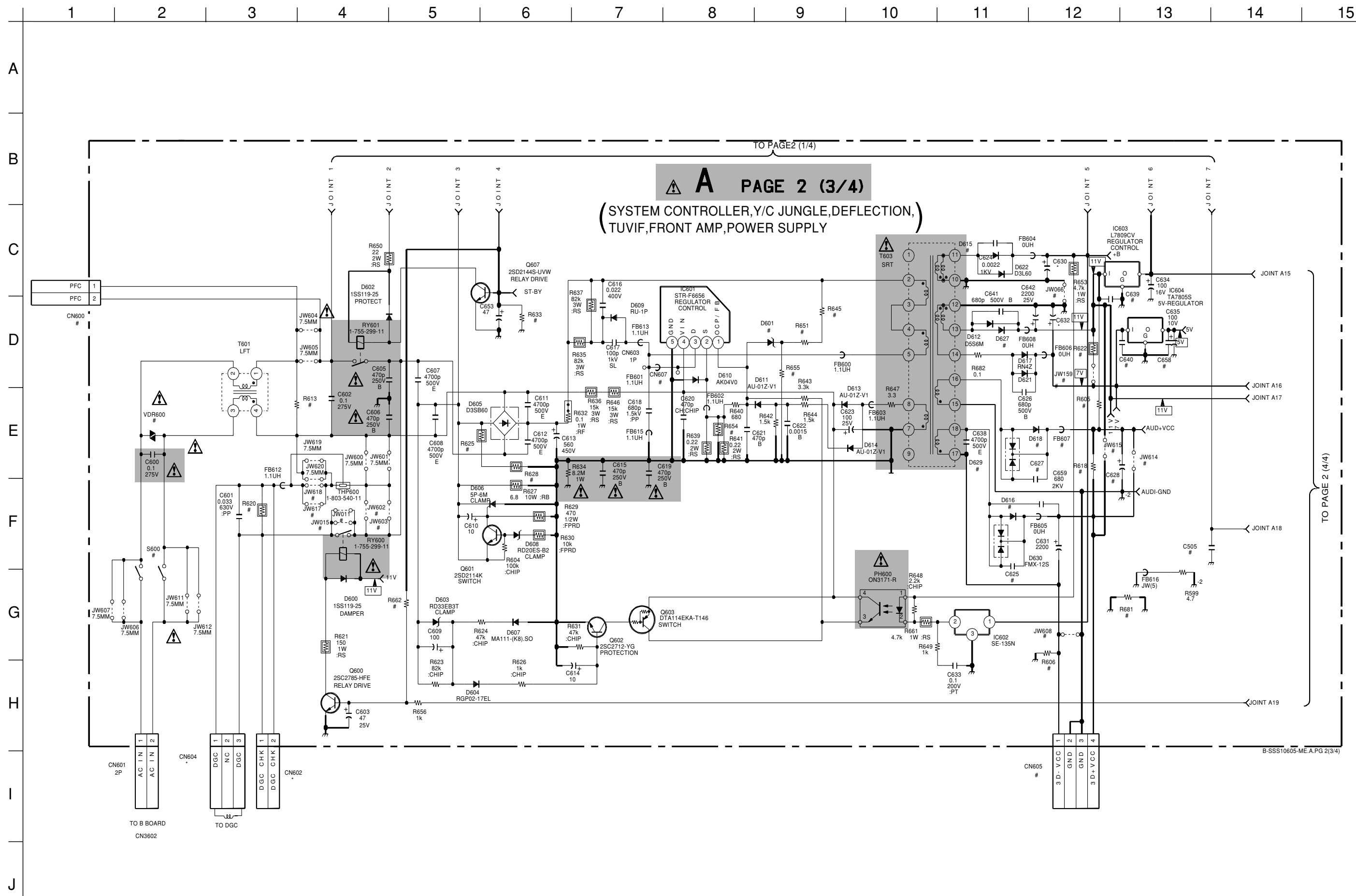
TO PAGE 2 (3/4)

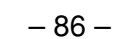
TO PAGE 2 (2/4)

TO PAGE 2 (4/4)

(SYSTEM CONTROLLER,Y/C JUNGLE,DEFLECTION,
TUVIF,FRONT AMP,POWER SUPPLY)



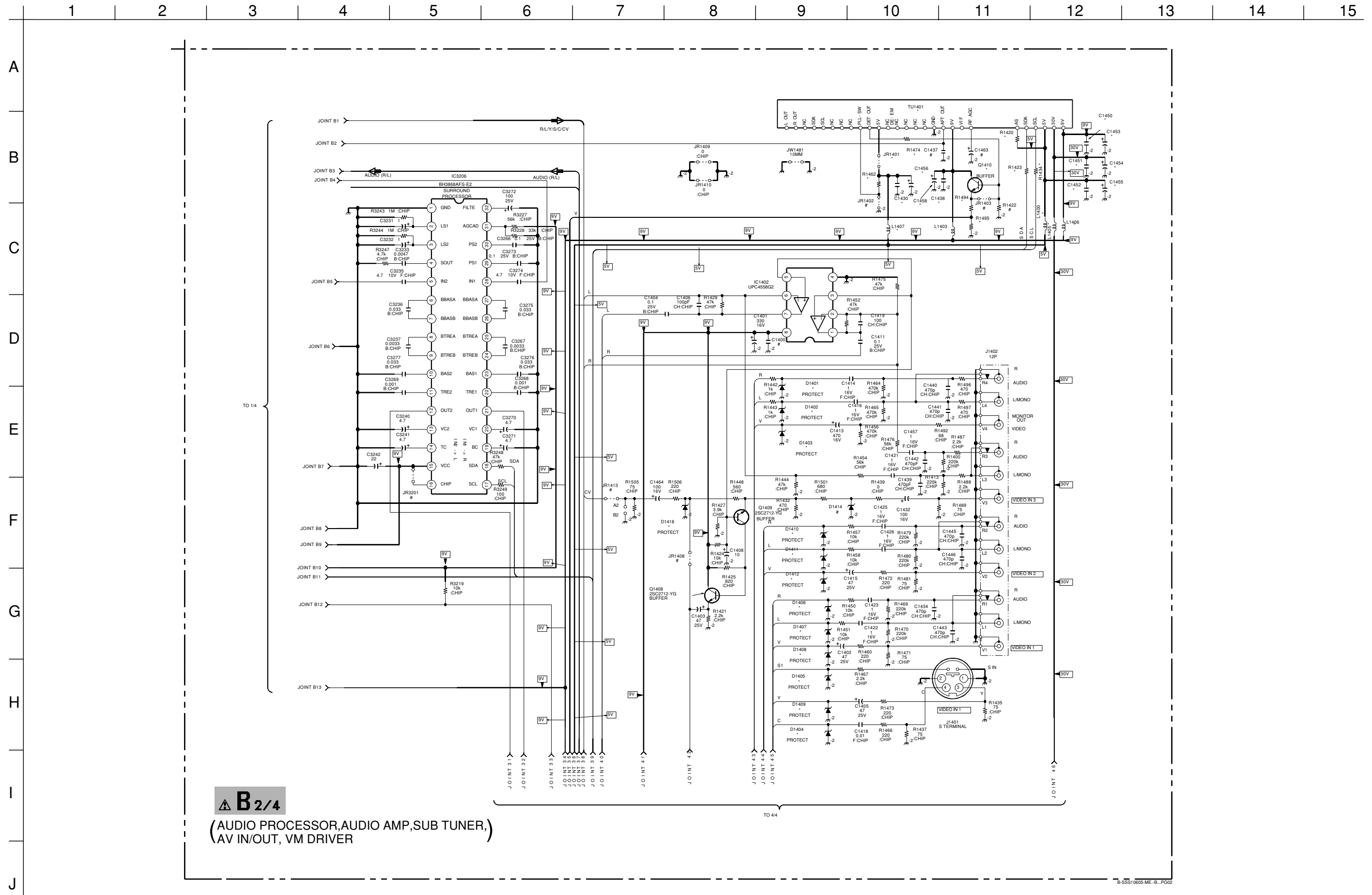


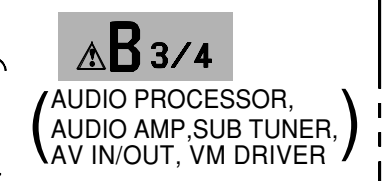


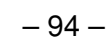
ل



B-SSS10605-ME.-B..PG01





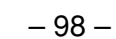


ل



(PICTURE IN PICTURE,DVD)

A
—
B
—
C
—
D
—
E
—
F
—
G
—
H
—
I
—
J



[illegible]

A Board * Mark List

	KV-XA29M60	KV-XA29M84
C115	#	47
C116	#	0.1 25V
C117	#	0.1 25V
C311	10	4.7
C630	100 160V	560 160V
C632	2200 16V	3300 16V
CN302	#	8P
CN508	#	TAB 1P
CN602	#	2P
CN604	2P	3P
D100	1SS355TE-17	#
D316	RD7.5SB1.71	RD11SB2-T1
D638	11ES2-NTA2B	D1N 20R
FB101	#	0 :CHIP
FB102	#	0 :CHIP
IC100	80743AL-A7-S	#
JR107	0 :CHIP	#
JR109	#	0 :CHIP
R017	#	1.0K
R028	10K :CHIP	#
R101	100 :CHIP	#
R102	100 :CHIP	#
R582	#	330K :CHIP
TU101	BTF-WG441	BTF-LG434

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

B Board * Mark List

	KV-XA29M60	KV-XA29M84
C1407	#	100 16V
C1412	#	0.1 25V
C1417	#	100 16V
C1420	#	0.1 25V
C1430	#	0.1 25V
C1438	#	470P :CHIP
C1450	#	470P :CHIP
C1451	#	470P :CHIP
C1452	#	470P :CHIP
C1453	#	100 16V
C1454	#	47
C1455	#	47
C1456	#	100 16V
C1458	#	100 16V
CN1404	#	8P
CN1408	#	10P
D1401	UDZS-TE17-9.1B	RD9.1S-B
D1402	UDZS-TE17-9.1B	RD9.1S-B
D1403	UDZS-TE17-9.1B	RD9.1S-B
D1404	UDZS-TE17-9.1B	RD9.1S-B
D1405	UDZS-TE17-9.1B	RD9.1S-B
D1406	UDZS-TE17-9.1B	RD9.1S-B
D1407	UDZS-TE17-9.1B	RD9.1S-B
D1408	UDZS-TE17-9.1B	RD9.1S-B
D1409	UDZS-TE17-9.1B	RD9.1S-B
D1410	UDZS-TE17-9.1B	RD9.1S-B
D1411	UDZS-TE17-9.1B	RD9.1S-B
D1412	UDZS-TE17-9.1B	RD9.1S-B
D1415	UDZS-TE17-9.1B	RD9.1S-B
D1416	UDZS-TE17-9.1B	RD9.1S-B
D1418	UDZS-TE17-9.1B	RD9.1S-B
D6211	MA111-(K8).S0	1SS355TE-17
D6212	MA111-(K8).S0	1SS355TE-17
IC1403	#	TA7805S
JR1401	#	0 :CHIP
L1400	#	10UH
L1402	#	100UH
L1403	#	10UH
L1405	#	10UH
L1406	#	10UH
L1407	#	10UH
Q1316	2SA1037AK-T146	2SA1162-G
Q1317	2SC1623-L5L6	2SC2712-YG
Q1318	2SC1623-L5L6	2SC2712-YG
Q1323	2SC1623-L5L6	2SC2712-YG
Q1324	2SC1623-L5L6	2SC2712-YG
Q1365	2SC1623-L5L6	2SC2712-YG
Q1372	2SC1623-L5L6	2SC2712-YG
Q1401	#	2SC2712-YG
Q1402	2SA1037AK-T146	2SA1162-G
Q1403	2SC1623-L5L6	2SC2712-YG
Q1404	2SC1623-L5L6	2SC2712-YG
Q1410	#	2SC2712-YG
R1343	1K :CHIP	#
R1401	#	180 :CHIP
R1402	#	220 :CHIP
R1419	#	100 :CHIP
R1420	#	10K :CHIP
R1423	#	100 :CHIP
R1434	#	100 :CHIP
R1462	#	100 :CHIP
R1474	#	0 :CHIP
R1494	#	180 :CHIP
R1495	#	220 :CHIP
TU1401	#	BTF-LG436

Note: The parts indicated as "#" in this circuit diagram are not listed here, as they are not used for these models.

6-4 VOLTAGE MEASUREMENTS

A (1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC001	1	0		6	0		45	8.6
	2	4.9		7	0		46	5.0
	3	0.7		1	0		47	8.7
	4	4.9		2	0		48	2.1(0.2)
	5	4.9		3	0		49	5.3(4.3)
	6	0		4	0		50	0
	7	3.9		5	4.9		51	0
	8	4.8		6	4.9		52	2.9
	9	0.5	IC003	7	0	IC302	1	0.9(1.6)
	10	4.8		8	4.9		2	0
	11	4.9		1	4.9		3	1.3
	12	0		2	4.9		4	0
	13	2.2		3	0		5	4.9(1.7)
	14	2.1	IC100	1	3.3		6	4.9
	15	4.9		2	5.0		7	1.1[0]
	16	4.9		3	5.5[6.3]<4.8>		8	0[0.6]
	17	0		4	5.0		9	0.6(0)
	18	4.9(0)		5	4.9		10	4.8(1.1)
	19	2.7[2.1]		6	4.32		11	0.1(4.9)
	20	2.7		7	1.8		12	1.4(4.9)
	21	4.9		8	3.7		13	0
	22	0	IC301	9	4.7		14	1.7[0]
	23	4.9		10	3.8		15	0
	24	0.6		11	5.0		16	1.7(0.9)
	25	4.9		12	0	IC502	1	0.9
	26	4.9		13	3.7		2	3.6
	27	4.8		14	2.4		3	1.7
	28	4.9		15	3.6		4	0
	29	0		16	3.5		5	2.9
	30	0		17	5.4		6	2.4
	31	0		18	7.7		7	6.9
	32	0		19	0.8		8	8.8
	33	4.9		20	3.6	IC503	1	1.6
	34	0		21	3.1		2	13.2
	35	0		22	3.9		3	13.4
	36	2.5		23	2.9<3.6>		4	14.7
	37	2.5		24	1.5		5	0.3
	38	4.8[5.0]		25	1.5		6	13.3
	39	4.9		26	1.5		7	1.6
	40	0[0.1]		27	0	IC601	1	1.9
	41	0.4		28	4.5		2	0.1
	42	0.9		29	4.5		3	288.5
	43	0[0.1]		30	4.5		4	17.0
	44	4.9		31	8.8		5	0
	45	4.9		32	4.1	IC602	1	122.4
	46	4.4		33	4.1		2	135.1
	47	4.9		34	3.6		3	0
	48	4.4		35	8.7	IC603	1	7.5[12.36]
	49	0		36	4.4		3	3.8
	50	2.7		37	4.5		4	17.0
	51	0.1		38	4.6	PH600	1	129.1
	52	4.7(0.1)		39	4.6		2	128.1
IC002	1	0		40	5.1		3	3.8
	2	4.9		41	5.1		4	17.0
	3	4.9		42	0	Q002	B	0
	4	7.2		43	5.0		C	4.9
	5	4.9		44	4.9		E	0

A(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q101	B	2.8	Q311	B	0	Q509	B	0.6
	C	8.8		C	8.9		C	0.1
	E	2.2		E	0		E	0
Q301	B	12.4	Q313	B	0	Q511	B	-0.1
	C	0		C	12.2		C	123.1
	E	12.2		E	0		E	122.9(0)
Q302	B	1.7	Q314	B	0.5	Q600	B	0
	C	8.1		C	0		C	12.4
	E	1.1		E	1.1		E	0
Q303	B	8.1	Q315	B	0	Q601	B	-0.8
	C	1.8		C	1.6		C	-0.5
	E	8.7		E	0		E	-0.7
Q304	B	3.6	Q316	B	0(4.0)	Q602	B	0
	C	0		C	0		C	16.
	E	4.3		E	4.7		E	0
Q305	B	0(8.1)	Q501	B	3.5	Q603	B	16.9
	C	1.9(1.5)		C	0		C	0
	E	8.7		E	4.0		E	17.0
Q306	B	1.7	Q502	B	4.2	Q604	B	133.9
	C	8.1		C	2.4		C	0
	E	1.1		E	4.0		E	133.9
Q307	B	4.3	Q503	B	0	Q605	D	391.8
	C	8.7		C	3.6		G	112.7
	E	3.7		E	0		S	112.4
Q308	B	3.5	Q505	D	16.4	Q606	B	113.2
	C	0.5		G	6.9		C	113.2
	E	0.8		S	0		E	112.3
Q309	B	4.8(0)	Q506	B	-0.6	Q607	B	0.8
	C	0(4.9)		C	90.2		C	0.1
	E	0		E	0		E	0
Q310	B	2.1(0)[0.2]	Q507	B	12.7	Q608	B	0
	C	4.9		C	0(0.4)		C	0.8
	E	1.2(0)		E	13.2		E	0

B1 BOARD VOLTAGE LIST (KV-XA29M60 ONLY)

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC1502	1	3.1	Q1502	B	2.3	Q1511	B	0.7
	2	3.0		C	2.3		C	0.7
	3	3.2		E	2.5		E	0
	4	4.6	Q1503	B	0.6	Q1514	B	0.6
	5	4.6		C	0.6		C	0.6
	6	0		E	0.6		E	0.6
	7	0	Q1505	B	0.6	Q1515	B	0.6
	8	0		C	0.8		C	0.6
	9	8.1		E	0		E	0.6
	10	7.9	Q1507	B	0.7	Q1516	B	0.5
	11	7.9		C	0.8		C	0.5
	12	7.6		E	0.7		E	0.5
	13	7.6	Q1509	B	0.8	Q1520	B	0.5
	14	7.3		C	0.8		C	0.4
	15	7.6		E	0		E	0
	16	7.6	Q1510	B	0.7	Q1522	B	0.4
Q1501	B	2.5		C	0.7		C	0
	C	2.4		E	0		E	0.5
	E	2.4				Q1523	B	0.4
							C	0
							E	0.5

B(1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC1401	1	3.9	IC1404	I	12.1		3	8.7
	2	3.9		G	0		4	0.4
	3	3.9		O	8.8		5	0.4
	4	3.9	IC3200	1	4.4		6	0.4
	5	3.9		2	4.4		7	0.4
	6	8.1		3	4.4		8	0
	7	3.9		4	0		9	2.2
	8	3.9		5	4.4		10	2.3
	9	3.9		6	4.4		11	0
	10	3.9		7	4.4		12	0
	11	3.9		8	8.8		13	8.8
	12	8.1	IC3201	1	0.1		14	4.5
	13	3.9		2	0.1		15	4.4
	14	3.9		3	8.8		16	8.8
	15	3.9		4	4.4	IC3206	1	0
	16	3.9		5	4.4		2	0
	17	3.9		6	4.4		3	0(0.1)
	18	8.1		7	4.4		4	4.4
	19	4.4		8	0		5	0(4.4)
	20	4.4		9	4.4		6	4.4
	21	0		10	4.4		7	4.4
	22	3.9		11	4.4		8	4.4
	23	3.8		12	4.4		9	4.4
	24	3.9		13	4.4		10	4.4
	25	3.8		14	4.4		11	4.4
	26	3.9		15	4.4		12	4.4
	27	3.8		16	4.4		13	0(1.6)
	28	3.9	IC3202	1	4.4		14	2.0
	29	3.8		2	4.4		15	8.8
	30	3.8		3	4.3		16	0.1
	31	3.9		4	0		17	4.4
	32	3.9		5	4.3		18	4.4
	33	3.8		6	4.4		19	2.0
	34	0		7	4.4		20	1.6[0.1]
	35	3.8		8	8.8		21	4.4
	36	0	IC3203	1	4.4		22	4.4
	37	3.8		2	4.4		23	4.4
	38	3.9		3	4.4		24	0(4.4)
	39	3.9		4	4.4		25	4.4
	40	3.8		5	8.7		26	4.4
	41	3.8		6	0.4		27	4.4
	42	4.0		7	0		28	4.4
	43	3.7		8	0.3		29	4.4
	44	8.8		9	0.3		30	4.4
	45	3.8		10	0.3		31	3.1
	46	3.8		11	0.3	IC6200	32	4.4
	47	3.8		12	0.3		1	1.6
	48	3.8		13	8.7		2	0
				14	8.8		3	0
IC1402	1	4.8	IC3204	1	4.4		4	0
	2	2.4		2	4.4		5	1.6
	3	2.4		3	4.2		6	9.8
	4	0		4	0		7	13.6
	5	2.4		5	4.3		8	5.0
	6	2.4		6	4.4		9	28.9
	7	4.9		7	4.4		10	0
	8	9.0		8	8.8		11	4.1
IC1403	I	7.4	IC3205	1	0.1		12	13.2
	G	0		2	0.1			
	O	8.8						

B(2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q1316	B	8.2	Q1402	B	3.8	Q3201	D	4.2
	C	4.9		C	0		G	39
	E	8.8		E	4.4		S	4.2
Q1317	B	4.9	Q1403	B	3.7	Q3203	B	4.0
	C	8.8		C	8.8		C	8.6
	E	4.3		E	3.1		E	3.5
Q1318	B	3.1	Q1404	B	3.8	Q3204	D	4.2
	C	6.9		C	8.8		G	3.9
	E	2.4		E	3.1		S	4.3
Q1323	B	4.9(2.7)	Q1405	B	3.9	Q6201	B	0
	C	8.8		C	5.6		C	4.1
	E	4.3(2.1)		E	3.2		E	0
Q1324	B	6.9	Q1406	B	3.9	Q6203	B	0
	C	8.8		C	5.6		C	0
	E	6.3		E	3.2		E	0
Q1365	B	3.1	Q1408	B	5.6	Q6204	B	0
	C	6.3		C	8.8		C	0
	E	2.4		E	5.0		E	0
Q1372	B	2.4	Q1409	B	2.4	Q6208	B	0
	C	8.8		C	5.6		C	9.7
	E	1.8		E	1.8		E	0
Q1401	B	3.8	Q1410	B	3.8			
	C	8.8		C	8.7			
	E	3.1		E	3.2			

P2 (2/2) BOARD VOLTAGE LIST (KV-XA29M84 ONLY)

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4363	B	4.7	Q4502	B	8.1	Q4514	B	5.6
	C	0		C	2.0		C	8.8
	E	5.3		E	8.8		E	5.0
Q4364	B	4.2	Q4503	B	5.2	Q4515	B	2.4
	C	0		C	8.8		C	8.1
	E	4.9		E	4.5		E	1.8
Q4366	B	3.2	Q4505	B	2.2	Q4516	B	8.1
	C	3.4		C	8.1		C	3.2
	E	2.6		E	1.6		E	8.8
Q4368	B	2.6	Q4507	B	8.1	Q4520	B	3.2
	C	8.8		C	2.9		C	6.2
	E	0		E	8.8		E	2.5
Q4369	B	3.2	Q4509	B	3.0	Q4522	B	0
	C	6.2		C	6.4		C	6.8
	E	2.6		E	2.3		E	1.9
Q4371	B	2.6	Q4510	B	2.4	Q4523	B	1.9
	C	8.8		C	7.1		C	0
	E	1.9		E	1.7		E	2.6
Q4501	B	2.7	Q4511	B	1.7			
	C	8.1		C	0			
	E	2.0		E	2.4			

P2 (1/2) BOARD VOLTAGE LIST (KV-XA29M84 ONLY)

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC4301	1	0		12	2.4		7	0
	2	2.9		13	3.4		8	0
	3	2.4		14	3.6		9	0
	4	2.4		15	5.4		10	0
	5	5.0		16	7.6		11	0
	6	0		17	1.0		12	4.0
	7	0.3		18	3.5		13	2.4
	8	0		19	0.5		14	0
	9	0.4		20	3.8		15	0.2
	10	5.0		21	0.4		16	8.7
	11	2.0		22	0.2	Q4300	B	5.4
	12	0		23	0.2		C	0
	13	0.1		24	0.2		E	6.1
	14	3.0		25	7.4	Q4301	B	0.2
	15	0		26	3.8		C	3.4
	16	0		27	3.8		E	0
	17	4.9		28	3.8	Q4302	B	4.7
	18	0.3		29	0		C	0.1
	19	5.0		30	4.0		E	5.0
	20	0.3		31	4.0	Q4303	B	0.1
	21	4.5		32	3.7		C	4.9
	22	4.4		33	8.7		E	0
	23	0.8		34	4.3	Q4304	B	3.4
	24	0.8		35	4.4		C	0.3
	25	1.0		36	0		E	0
	26	0		37	3.7	Q4305	B	3.3
	27	0		38	4.3		C	0.3
	28	2.0		39	4.3		E	0
	29	5.0		40	0	Q4306	B	0.2
	30	0.4		41	5.0		C	3.3
	31	4.0		42	7.2		E	0
	32	2.3		43	5.0	Q4307	B	0
IC4302	1	3.1		44	8.7		C	4.9
	2	0		45	4.3		E	0
	3	1.7		46	0	Q4308	B	4.8
	4	0		47	0		C	0
	5	1.5		48	2.8		E	5.0
	6	0	IC4502	1	0.4	Q4309	B	0.8
	7	0		2	0.4		C	0
	8	3.0		3	0		E	0
	9	3.0		4	2.9	Q4310	B	0.8
	10	0.3		5	2.9		C	0
	11	3.0		6	0		E	0
	12	0		7	0	Q4313	B	0.4
	13	5.0		8	0		C	0
	14	3.0		9	0		E	1.1
	15	0		10	0	Q4314	B	0.7
	16	3.0		11	0		C	0
IC4303	1	3.3		12	0		E	1.3
	2	5.1		13	0.2	Q4315	B	0.3
	3	2.6		14	2.9		C	0
	4	5.1		15	0.4		E	1.0
	5	4.7		16	8.8	Q4327	B	0
	6	4.3	IC4503	1	0		C	0
	7	0.5		2	0.1		E	0.6
	8	4.7		3	2.6	Q4362	B	4.7
	9	5.1		4	4.0		C	0
	10	0		5	4.0		E	5.3
	11	3.4		6	0			

C6 BOARD VOLTAGE LIST

Ref	Pin No	Voltage(V)	Ref	Pin No	Voltage(V)
IC1800	1	4.8	Q708	B	159.1(161)[162.5]<152.7>
	2	4.7		C	4.2(3.6)[3.4]<5.0>
	3	5.6		E	155.2(156.5)[158.2]<148.7>
	4	5.6	Q709	B	162.6[165.7]<155.9>
	5	0		C	3.4[3.2]<4.6>
	6	5.8		E	158.5(160.1)[162.1]<151.8>
	7	5.8	Q710	B	1.5<1.7>
	8	7.2		C	8.3
	9	7.2		E	1.2
	10	12.7	Q711	B	1.6(1.5)
Q701	B	157.8[161.1]<152.1>		C	8.3
	C	202.5[202.3]		E	1.2(1.1)
	E	158.3[161.3]<152.3>	Q712	B	1.5(1.4)
Q702	B	158.8(160.9) [162.4]<153.2>		C	8.3
	C	202.6[202.4]		E	1.1
	E	158.6(160)[162.4]<152.7>	Q714	B	0.7(0.5)
Q703	B	162.8(164) [166.1]<155.8>		C	0.2(0)
	C	202.4		E	0<0.1>
	E	163.1[165.7]<155.9>	Q1800	B	3.9
Q704	B	8.9[8.7]		C	0
	C	156.4(158.3)[160.3]<150.7>		E	4.6
	E	8.3[8.1]	Q1802	B	0.5
Q705	B	8.9		C	2.0
	C	158.8(161)[162.4]<152.8>		E	0
	E	8.3	Q1803	B	0
Q706	B	8.9(8.6)		C	4.9
	C	162.8[166.1]<155.7>		E	0
	E	8.3(8.1)	J701	KR	16.1[162.4]<152.5>
Q707	B	159.1[161.2]<152.5>		KG	156[158.7]<149.3>
	C	3.9[4.7]<3.2>		KB	156[157.8]<149.8>
	E	155.1[157.9]<148.6>		HI	0
				G2	301.1(303.6)[305.5]<298.6>

VM1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
Q5901	B	2.6	Q5906	B	0
	C	8.8		C	0.2
	E	2.0		E	0
Q5902	B	0.5	Q5907	B	0.8
	C	0.1		C	0
	E	0.5		E	0
Q5903	B	2.6	Q5908	B	4.3
	C	4.6		C	0
	E	2.0		E	0
Q5904	B	4.6	Q5909	B	0
	C	0		C	8.8
	E	5.0		E	4.3
Q5905	B	5.6			
	C	8.8			
	E	5.0			

D3 BOARD VOLTAGE LIST

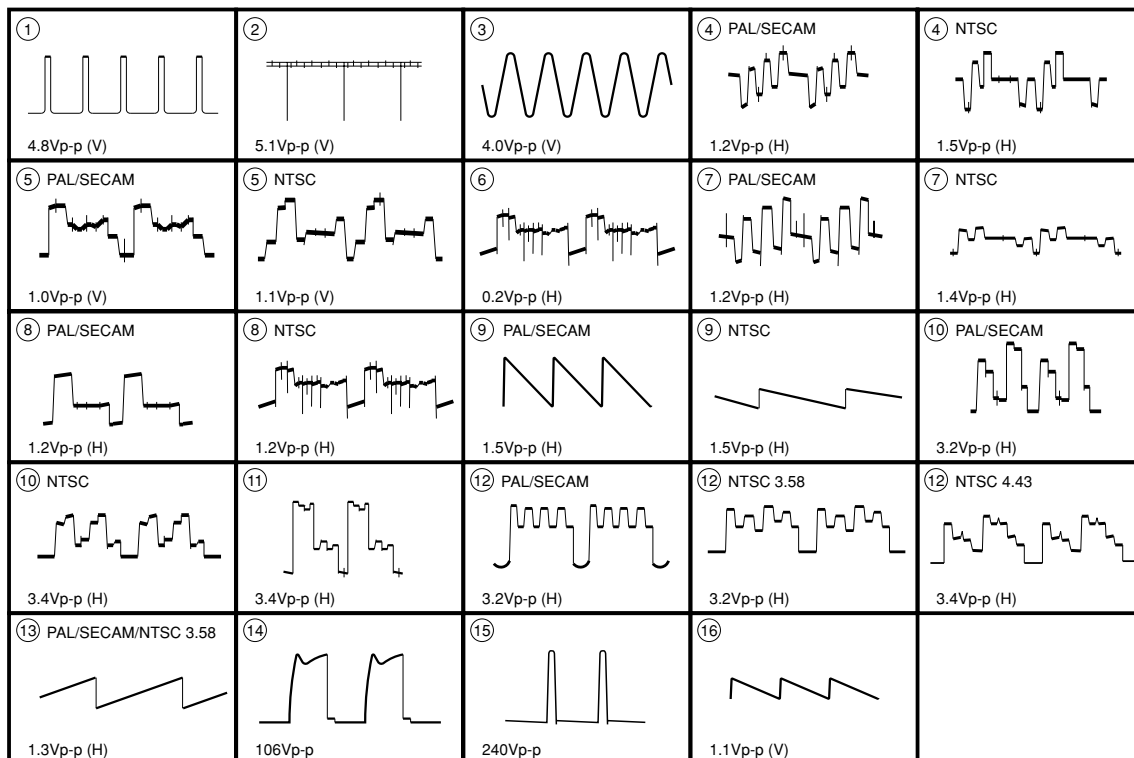
Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]
IC2800	I	13.3	Q2801	B	0.3
	G	0		C	1.9
	O	9.1		E	0
IC2801	1	4.5	Q2802	B	13.3
	2	4.5		C	13.3
	3	4.5		E	13.3
	4	0	Q2803	B	12.7
	5	0.5		C	13.3
	6	0.5		E	13.3
	7	7.9	Q2804	B	2.1
	8	9.1		C	12.7
Q2800	B	0.3		E	1.5
	C	0.3			
	E	0			

H BOARD VOLTAGE LIST

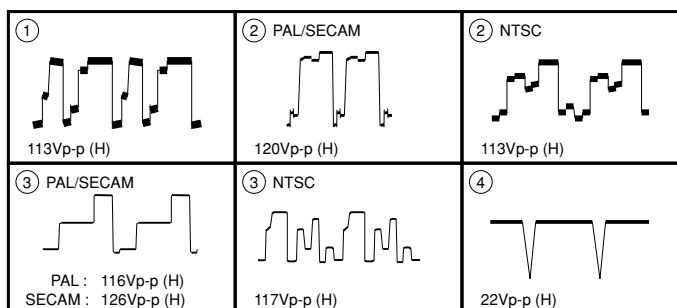
Ref	Pin No	Voltage[v]
IC3901	1	4.9
	2	4.9
	3	0
Q3901	B	0.1
	C	4.9
	E	0.1
Q3902	B	4.7
	C	2.2
	E	1.8

6-5 WAVEFORM

A BOARD WAVEFORMS



C6 BOARD WAVEFORMS

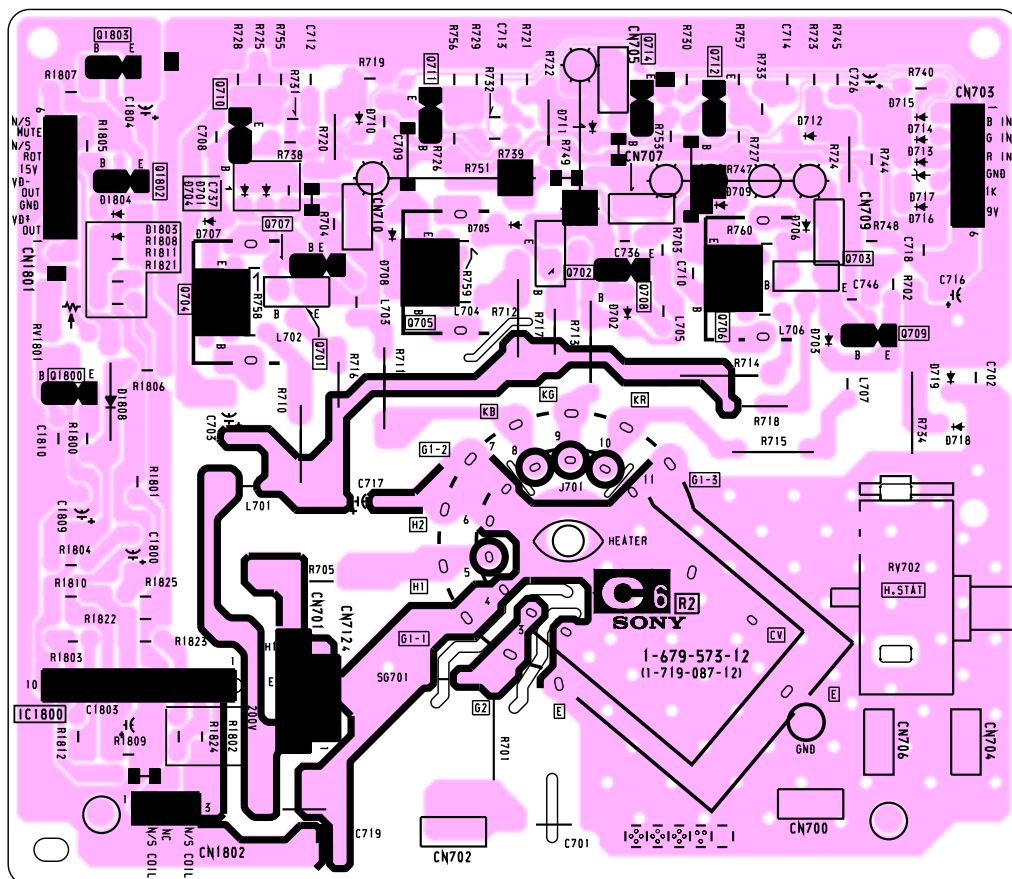


6-6. PRINTED WIRING BOARDS AND PARTS LOCATION

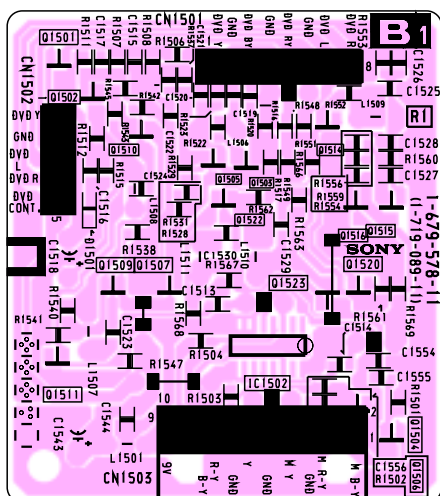
PRINTED WIRING BOARDS

C6 [VIDEO AMP, ROTATION CIRCUIT]**B1** [DVD SWITCH]

– C6 Board –



– B1 Board – (KV-XA29M60 ONLY)



PRINTED WIRING BOARD

A [SYSTEM CONTROLLER, Y/C JUNGLE,
DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

- A Board -



NOTE:

The circuit indicated at left contains high voltage of over 1220 Vp-p. Please pay attention when inspecting or repairing it to prevent an electric shock.

A BOARD

IC		Q605	E-12	D523	H-4
		Q606	F-11	D525	F-5
IC001	B-10	Q607	H-13	D526	F-6
IC002	D-10	Q608	D-12	D527	F-3
IC003	A-9	Q901	H-13	D528	F-3
IC100	B-4	Q902	H-13	D529	F-5
IC201	B-12	DIODE		D531	E-6
IC203	B-4			D533	D-2
IC301	B-6	D001	B-8	D534	E-6
IC302	D-7	D002	B-9	D600	G-13
IC502	E-6	D003	C-9	D601	I-8
IC503	J-5	D004	D-8	D602	G-13
IC601	J-8	D005	B-8	D603	F-11
IC602	H-6	D006	A-3	D604	J-7
IC603	E-8	D007	B-8	D605	G-10
IC604	D-10	D008	B-8	D606	E-11
IC901	I-13	D009	B-8	D607	F-10
PH600	1-7	D010	D-10	D608	F-11
TRANSISTOR		D011	C-8	D609	H-8
		D100	B-4	D610	J-8
		D203	C-11	D611	I-7
Q001	B-8	D300	A-9	D612	F-8
Q002	B-8	D301	B-9	D613	I-7
Q005	B-9	D303	B-5	D615	E-7
Q101	B-4	D304	B-5	D616	E-9
Q201	A-11	D305	B-5	D617	F-8
Q202	A-11	D306	C-5	D618	F-9
Q203	C-11	D307	C-5	D620	D-8
Q204	C-12	D308	B-5	D621	F-9
Q205	A-12	D309	D-5	D622	F-8
Q206	A-11	D311	C-5	D623	F-12
Q207	A-12	D312	C-5	D624	E-12
Q301	A-8	D313	A-8	D625	D-12
Q302	C-6	D314	A-9	D627	F-8
Q303	D-6	D315	B-7	D628	G-5
Q304	B-6	D316	B-7	D629	F-9
Q305	C-6	D317	B-9	D630	E-10
Q306	D-6	D319	B-6	D631	G-12
Q307	D-6	D320	C-5	D632	F-12
Q308	C-5	D321	B-6	D633	E-12
Q309	D-6	D322	B-6	D634	F-11
Q310	D-8	D401	C-2	D635	E-12
Q311	D-9	D402	D-2	D636	D-12
Q312	B-7	D403	C-2	D637	F-11
Q313	B-8	D404	C-2	D638	E-11
Q314	D-8	D405	B-1	D901	C-13
Q315	B-4	D406	B-1	D902	C-13
Q316	B-5	D407	C-2	D903	C-13
Q317	B-5	D408	B-1	D904	C-13
Q401	D-2	D409	A-1	D905	F-13
Q402	D-1	D504	D-5	D906	H-13
Q403	C-3	D505	H-6		
Q404	D-2	D506	F-6		
Q501	D-6	D507	F-6		
Q502	E-7	D508	I-5		
Q503	F-6	D509	F-6		
Q505	D-6	D510	F-5		
Q506	E-2	D511	F-5		
Q507	H-6	D512	G-5		
Q509	F-6	D513	I-5		
Q511	F-1	D517	F-2		
Q600	D-12	D518	F-2		
Q601	F-11	D519	F-2		
Q602	I-7	D520	E-5		
Q603	I-7	D521	I-4		
Q604	H-6	D522	J-4		

P2 [PICTURE IN PICTURE, DVD]

IC	Q6202 C-12
IC1401 C-2	Q6203 A-8
IC1402 A-2	Q6204 A-9
IC1403 E-4	Q6205 B-11
IC1404 E-2	Q6206 C-12
IC3200 E-10	Q6207 B-11
IC3201 C-9	Q6208 B-9
IC3202 C-10	Q6214 B-10
IC3203 C-5	DIODE
IC3204 D-12	
IC3205 C-7	D1401 B-1
IC3206 C-9	D1402 B-1
IC6200 B-8	D1403 B-1
IC6201 B-11	D1404 E-1
	D1405 E-1
TRANSISTOR	D1406 D-1
	D1407 D-1
Q1316 D-4	D1408 D-2
Q1317 D-4	D1409 D-2
Q1318 D-5	D1410 D-1
Q1323 C-5	D1411 C-1
Q1324 D-4	D1412 C-2
Q1365 D-2	D1413 B-2
Q1372 D-3	D1414 B-2
Q1401 B4	D1415 A-3
Q1402 C-4	D1416 A-3
Q1403 C-3	D1418 A-1
Q1404 D-2	D3201 D-13
Q1408 A-2	D3203 E-13
Q1409 A-2	D3204 D-12
Q1410 A-5	D6200 B-12
Q3201 D-12	D6201 B-8
Q3202 C-13	D6202 B-8
Q3203 E-12	D6205 B-12
Q3204 D-12	D6210 B-7
Q6200 B-11	D6211 B-8
Q6201 A-8	D6212 B-8

IC		Q4522	B-1
		Q4523	B-1
IC4301	A-4	Q4571	D-1
IC4302	C-3	Q4572	D-1
IC4303	D-5	Q4573	C-2
IC4503	C-5	Q4574	C-2
TRANSISTOR		DIODE	
Q4308	C-4	D4304	D-1
Q4314	C-3		
Q4316	A-5		
Q4317	A-5		
Q4318	B-5		
Q4322	D-2		
Q4323	A-5		
Q4326	D-2		
Q4328	D-1		
Q4329	C-4		
Q4365	C-2		
Q4368	D-2		
Q4374	D-2		
Q4375	A-5		
Q4501	A-2		
Q4510	B-1		
Q4511	A-1		

[illegible]

IC		Q4372	D-5
		Q4373	D-3
IC4303	D-2	Q4502	A-4
IC4501	C-1	Q4503	A-5
IC4502	D-3	Q4505	A-5
		Q4507	A-4
TRANSISTOR		Q4509	A-4
		Q4514	B-5
Q4301	A-3	Q4515	B-4
Q4302	A-2	Q4516	B-4
Q4303	A-2	Q4520	B-4
Q4304	A-3	Q4575	C-5
Q4305	B-2	Q4576	C-5
Q4306	C-2	Q4577	C-5
Q4307	B-2	Q4578	C-5
Q4313	B-2		
Q4315	B-2	DIODE	
Q4324	B-1		
Q4325	D-5	D4305	C-1
Q4327	B-3	D4501	A-4
Q4362	D-5		
Q4363	D-5		
Q4364	D-5		
Q4366	D-3		
Q4369	E-2		
Q4371	E-2		

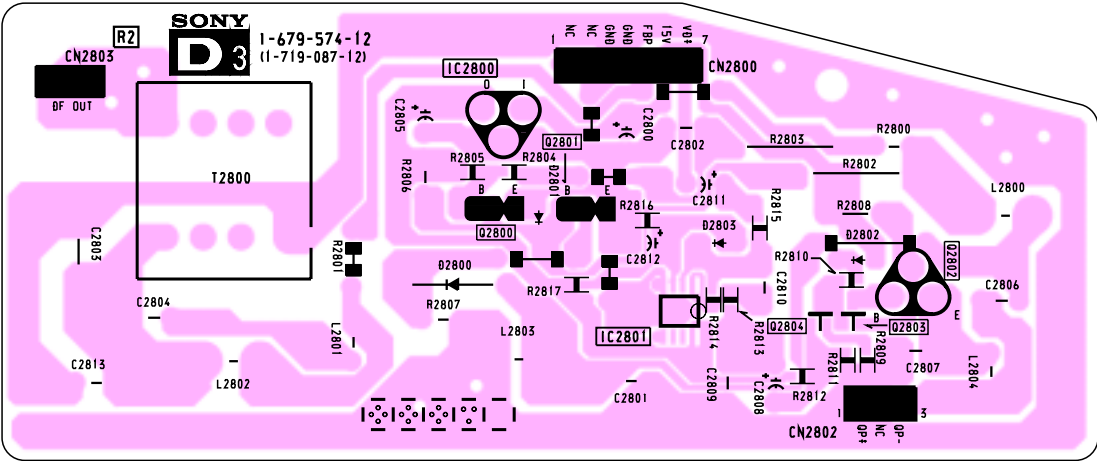
- 114 –

PRINTED WIRING BOARD

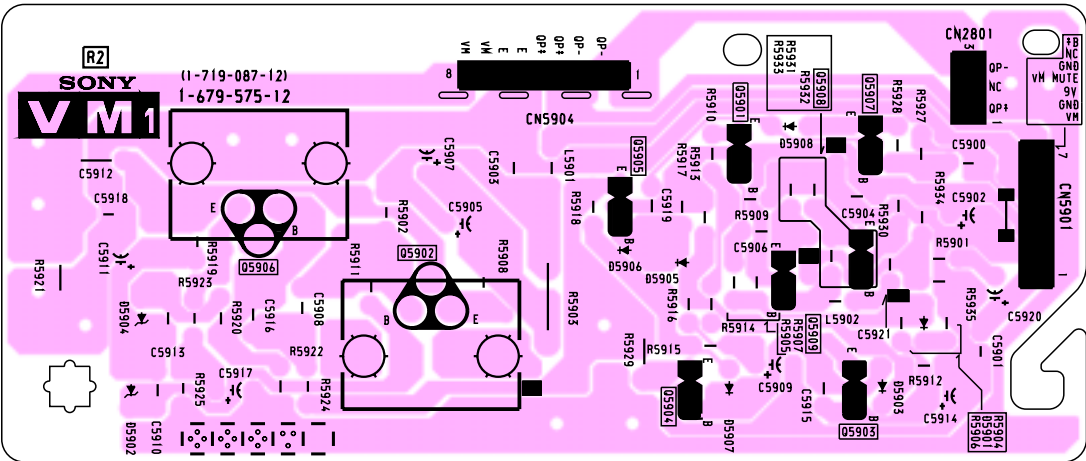
D3 [DYNAMIS FOCUS, DQP] **H** [FRONT AV IN, SENSOR, POWER SWITCH]

VM1 [VELOCITY MODULATION]

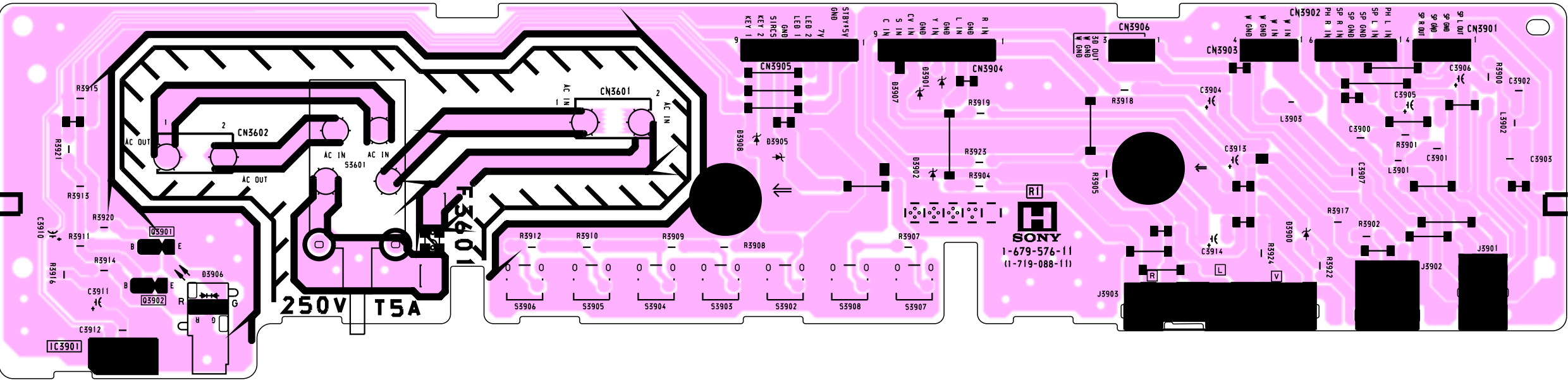
– D3 Board –



– VM1 Board –



– H Board –

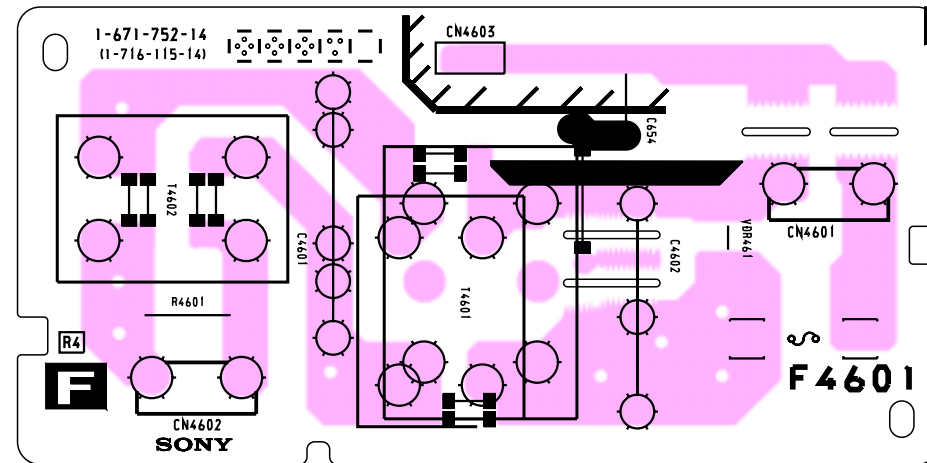


PRINTED WIRING BOARDS

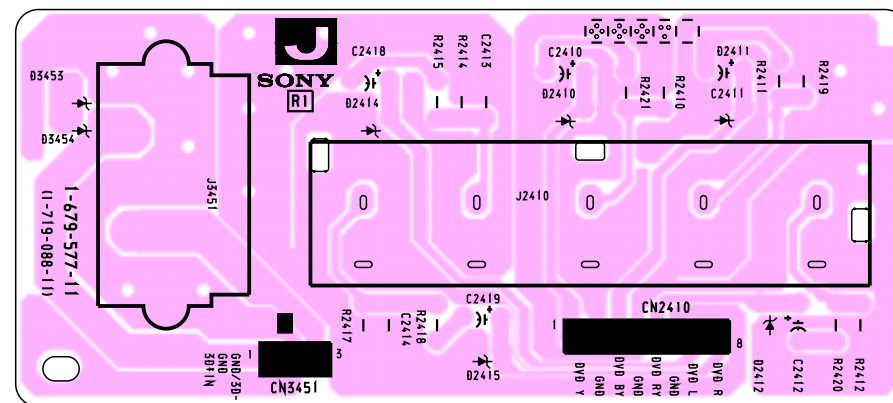
F [CISPR]

J [DVD, 3D TERMINAL]

– F Board –

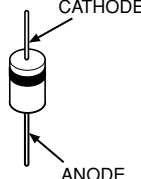
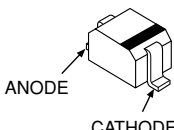
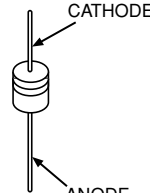
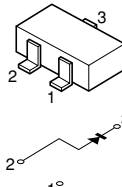
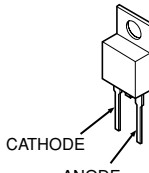


– J Board –



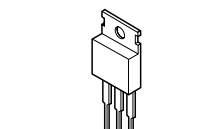
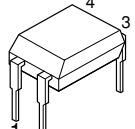
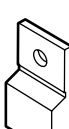
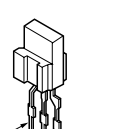
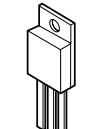
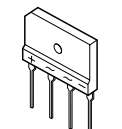
6-7. SEMICONDUCTORS

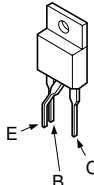
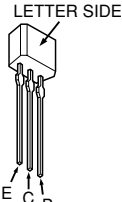
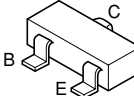
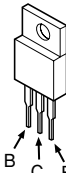
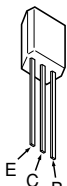
DIODE

				
AK04V0 AU-01Z-V1 D2L20U ELIZ ERA22-08 ERC04-06SE EU2A GP08D RN4Z	NNCD9.1A-T1 RD33EB3T RGP02-17EL-6433 RU4AM-T4 RS3FS	DTZ-TT11-15B DTZ10B MA111-(K8).S0 RD5.1SB-T2 RD9.1S-B UDZTE17-9.1B 1SS355TE-17 RD7.5SB1-T1	D1N20R D1NS4 RD39-ES-B2 RD20ES-B2 RD30ES-B2 RD6.8ES-B1 ISS119-25 11ES2-NTA2B	1SS302
				D5S6M

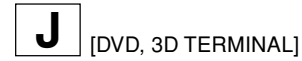
LED

TRANSISTOR

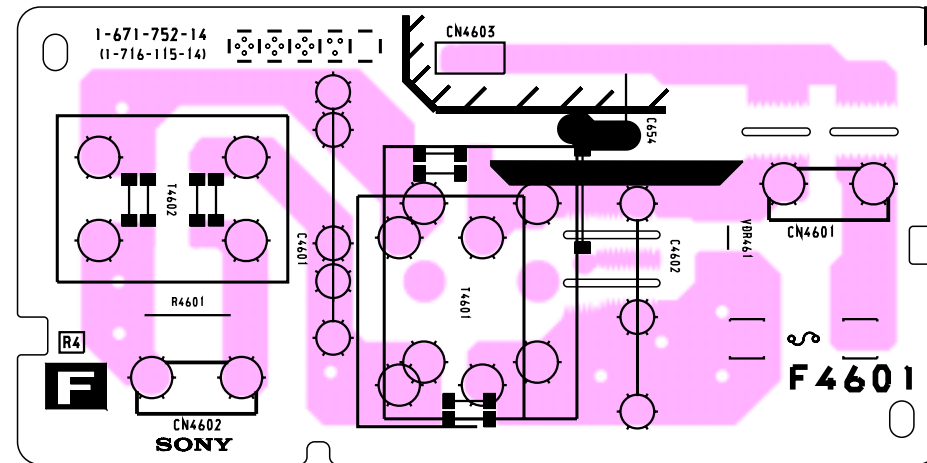
					
5P-6M	ON3171-R	D3L60	SPB-26MVWF	FMX-12S	D3SB60

					
2SK2845-LB102	DTC144ESA 2SA1175-HFE 2SC2785-HFE	DTC114EKA-T146 UN2212 UN2213 UN2111 2SC2712-YG	2SC1623-L5L6 2SA1037AK-T146 2SA1162-G 2SD2114K	2SA1606-E 2SC4159-E 2SC4793	2SC2551-0 2SA1091-0 2SD2144S-UVW 2SC2458-YGR

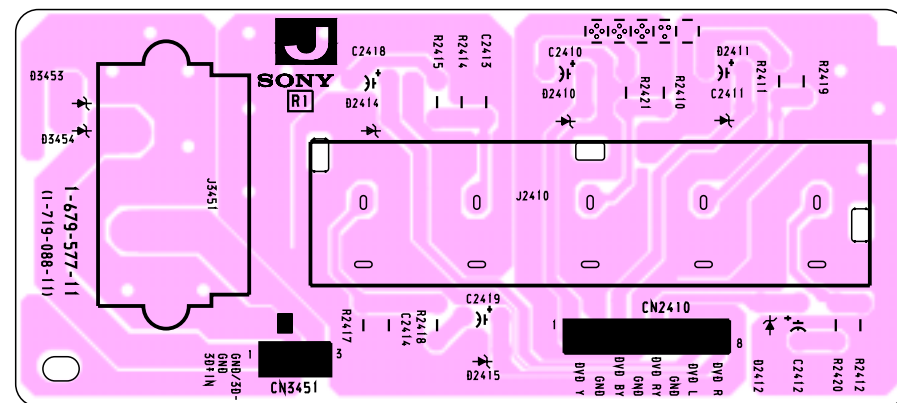
PRINTED WIRING BOARDS



– F Board –

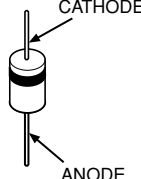
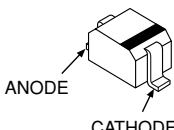
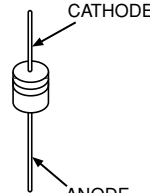
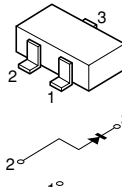
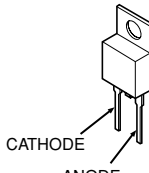


– J Board –



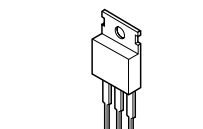
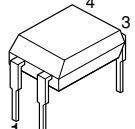
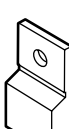
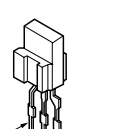
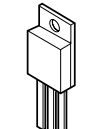
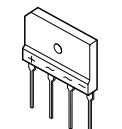
6-7. SEMICONDUCTORS

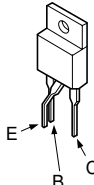
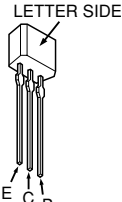
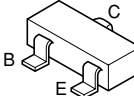
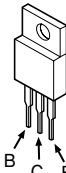
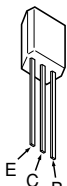
DIODE

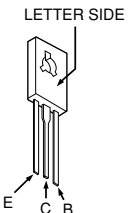
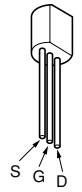
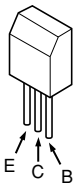
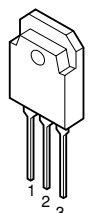
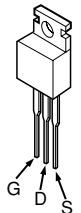
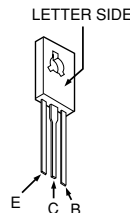
				
AK04V0 AU-01Z-V1 D2L20U ELIZ ERA22-08 ERC04-06SE EU2A GP08D RN4Z	NNCD9.1A-T1 RD33EB3T RGP02-17EL-6433 RU4AM-T4 RS3FS	DTZ-TT11-15B DTZ10B MA111-(K8).S0 RD5.1SB-T2 RD9.1S-B UDZTE17-9.1B 1SS355TE-17 RD7.5SB1-T1	D1N20R D1NS4 RD39-ES-B2 RD20ES-B2 RD30ES-B2 RD6.8ES-B1 ISS119-25 11ES2-NTA2B	1SS302
				D5S6M

LED

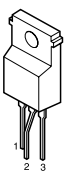
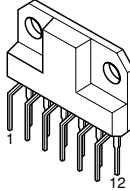
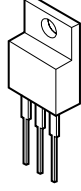
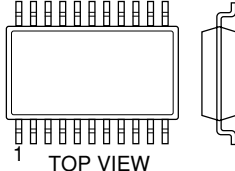
TRANSISTOR

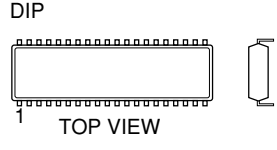
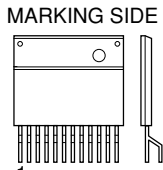
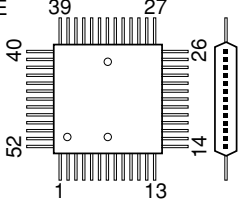
					
5P-6M	ON3171-R	D3L60	SPB-26MVWF	FMX-12S	D3SB60

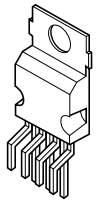
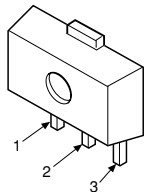
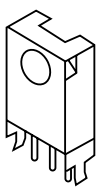
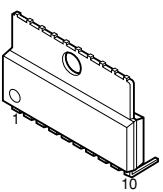
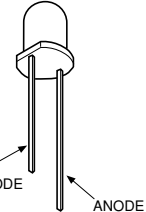
					
2SK2845-LB102	DTC144ESA 2SA1175-HFE 2SC2785-HFE	DTC114EKA-T146 UN2212 UN2213 UN2111 2SC2712-YG	2SC1623-L5L6 2SA1037AK-T146 2SA1162-G 2SD2114K	2SA1606-E 2SC4159-E 2SC4793	2SC2551-0 2SA1091-0 2SD2144S-UVW 2SC2458-YGR

					
2SC2611	2SK246-GR	2SC2958	2SD2578-CA	IRF614	2SC2688-LK

IC

			 SOP Small Outline L-Leaded Pin 8~98		
SE-135N	TA8200AH	TA7805S	BA7606F-E2 BH3868AFS-E2 CXA1315M HEF4053BT LM358D	MM1319AFBE NJU4066BM NJM2188M-TE2 NJM2903M SDA9288XE-B0121 UPC4558G2	

 DIP Dual In-line Package Pin 6~98		 MARKING SIDE VIEW Zig-zag In-line Package Pin 6~99	 MARKING SIDE VIEW
CXA1855S CXA2139S CXA2159S CXP750097-032S M24C08-BN6(A)	TDA9181T	STR-F6656	RU-1P

					
TDA8172	S-80743AL-A7-S	SBX3081-(01)30	LA6510	NJM78M09FA	

SECTION 7 EXPLODED VIEWS

NOTE:

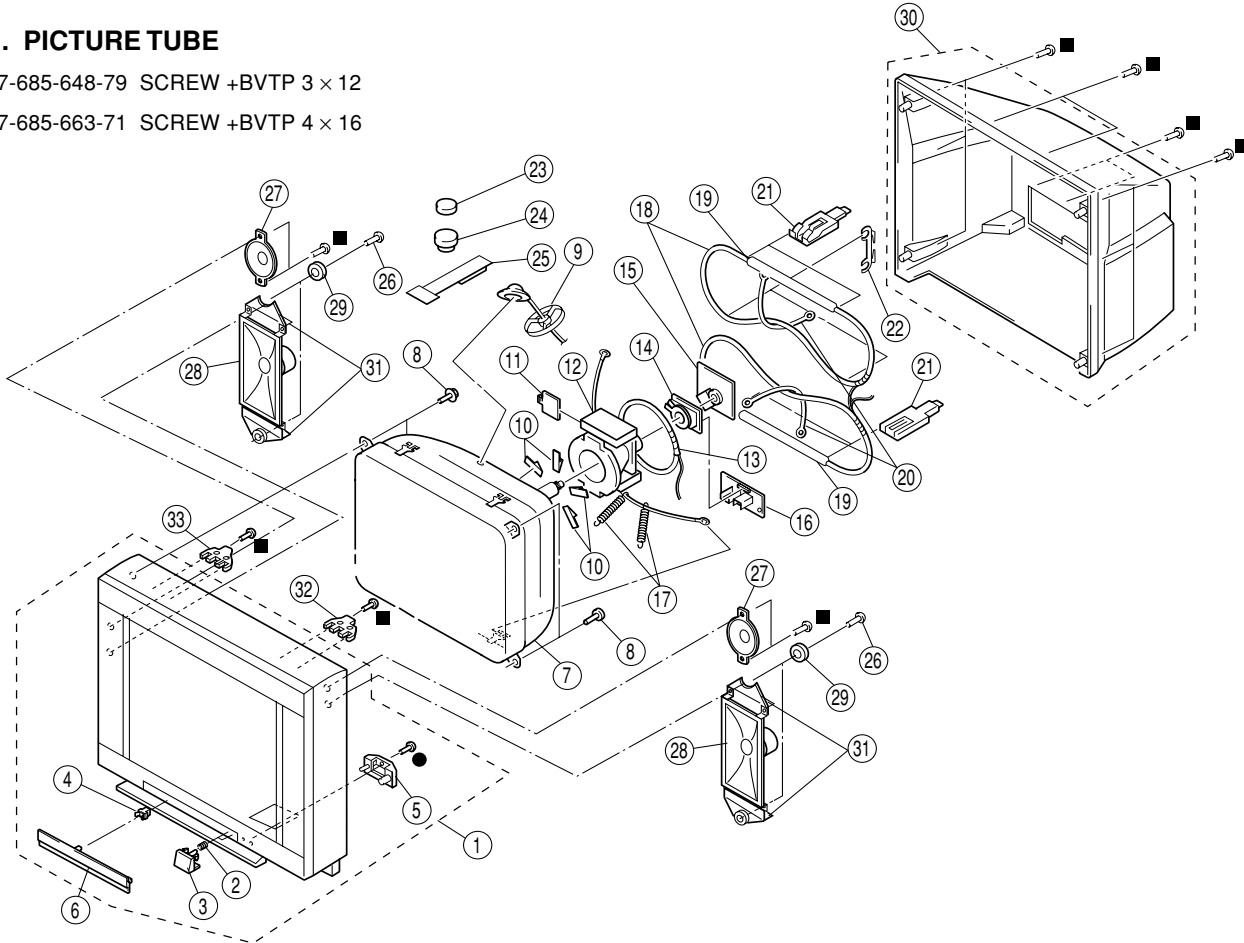
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine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

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

7-1. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



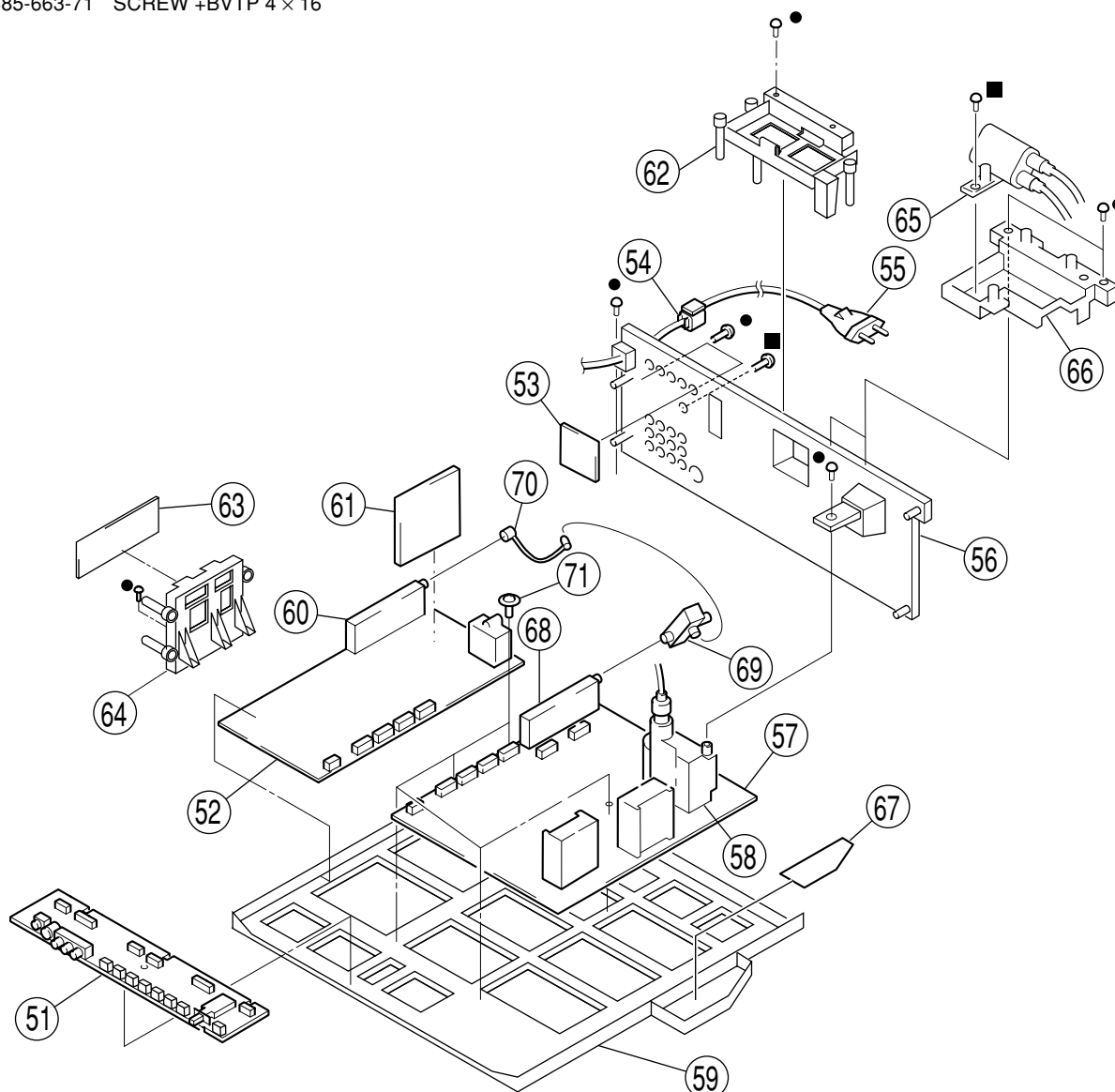
REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4038-454-1	BEZNET ASSY (KV-XA29M84)	2 ~ 6
	X-4038-467-1	BEZNET ASSY (KV-XA29M60)	
2	4-036-405-11	SPRING, COMPRESSION	
3	4-075-747-11	BUTTON, POWER	
4	4-047-464-01	CATCHER, PUSH	
5	* 4-075-749-01	GUIDE, LIGHT	
6	4-078-944-31	CONTROL, DOOR (KV-XA29M84)	
	4-078-944-51	CONTROL, DOOR (KV-XA29M60)	
7	Δ 8-735-056-05	PICTURE TUBE (M68LNH070X) (KV-XA29M60)	
	Δ 8-735-057-05	PICTURE TUBE (M68LNH070X) (KV-XA29M84)	
8	4-046-765-12	SCREW, TAPPING 7 + CROWN WASHER	
9	* 3-704-372-11	HOLER, HV CABLE	
10	3-703-961-01	SPACER, DY (KV-XA29M84)	
	4-064-818-01	SPACER, DY (KV-XA29M60)	
11	4-077-228-01	PIECE, TLH CONVERGENCE	
12	Δ 8-451-494-31	DEFLECTION YOKE (Y29RSA-S)	
13	1-452-896-11	COIL, NA ROTATION (RT200)	
14	8-453-011-11	NA299-M	
15	* A-1332-110-A	C6 BOARD MOUNTED (KV-XA29M84)	
	* A-1332-138-A	C6 BOARD MOUNTED (KV-XA29M60)	
16	* A-1342-580-A	VM1 BOARD MOUNTED (KV-XA29M840)	
	* A-1342-587-A	VM1 BOARD MOUNTED (KV-XA29M60)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
17	4-369-318-61	SPRING, EXTENSION (KV-XA29M84)	
	4-078-765-11	SPRING, EXTENSION (KV-XA29M60)	
18	Δ 1-419-294-11	COIL, DEGAUSSING (KV-XA29M84)	
	Δ 1-419-323-31	COIL, DEGAUSSING (KV-XA29M60)	
19	4-063-935-21	CUSHION (50 x 550), DGC	
20	4-068-028-32	BAND, DGC	
21	* 4-062-970-12	CLIP (29RSN), DGC	
22	4-064-883-03	HOLDER, DGC	
23	1-452-032-00	MAGNET, DISC	
24	1-452-094-00	CIRCULAR DISC MAGNET B	
25	X-4387-214-3	PERMALOY ASSY, CORRECTION (KV-XA29M84)	
	4-051-734-42	PIECE B (120), CONV, CORRECT (KV-XA29M60)	
26	4-302-404-03	SCREW (WASHER HEAD) (+P 4 x 16)	
27	1-529-190-11	SPEAKER (5 CM)	
28	1-529-563-11	SPEAKER (15 x 6.5 CM)	
29	4-374-745-21	CUSHION A	
30	X-4038-161-1	REAR COVER ASSY (■ 12)	
31	* 4-046-981-01	BRACKET, SPEAKER	
32	* X-4038-461-2	CRT (TOP, RIGHT) SUPPORT ASSY (■ 2)	
33	* X-4038-460-2	CRT (TOP, LEFT) SUPPORT ASSY (■ 2)	

7-2. CHASSIS

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* A-1372-887-A	H BOARD MOUNTED (KV-XA29M84)	
	* A-1372-912-A	H BOARD MOUNTED (KV-XA29M60)	
52	* A-1136-140-A	B BOARD MOUNTED (KV-XA29M84)	
	* A-1136-153-A	B BOARD MOUNTED (KV-XA29M60)	
53	* A-1388-288-A	J BOARD MOUNTED (KV-XA29M84)	
	* A-1388-296-A	J BOARD MOUNTED (KV-XA29M60)	
54	△ 4-022-115-00	HOLDER, AC CORD	
55	△ 1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-XA29M84 ONLY)	
	△ 1-575-023-11	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-XA29M60 ONLY)	
56	* 4-075-447-11	BRACKET, TERMINAL (■ 1)	
57	* A-1299-384-A	A BOARD COMPLETE (KV-XA29M84)	
	* A-1299-387-A	A BOARD COMPLETE (KV-XA29M60)	
58	△ 1-453-305-11	TRANSFORMER ASSY, FLYBACK (NX-4009//C6P4) (KV-XA29M84)	
	△ 1-453-284-11	TRANSFORMER ASSY, FLYBACK (NX-4009//314) (KV-XA29M60)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
59	* 4-066-681-04	BRACKET, MAIN (6 SCREWS ((3 x 12), (+) BVTAP)	
60	8-598-508-10	TUNER, FSS BTF-LG436	
61	* A-1190-376-A	P2 BOARD MOUNTED (KV-XA29M84)	
	* A-1131-665-A	B1 BOARD MOUNTED (KV-XA29M60)	
62	* 4-066-683-11	HOLDER, PWB	
63	* A-1241-443-A	F BOARD MOUNTED (KV-XA29M84)	
	* A-1241-447-A	F BOARD MOUNTED (KV-XA29M60)	
64	* 4-066-682-01	BRACKET, F PWB	
65	△ 1-467-525-31	CAP BLOCK, HIGH-VOLTAGE (KV-XA29M84 ONLY)	
66	4-066-680-02	BRACKET, HVC (KV-XA29M84 ONLY)	
67	* A-1343-946-A	D3 BOARD MOUNTED (KV-XA29M84)	
	* A-1333-008-A	D3 BOARD MOUNTED (KV-XA29M60)	
68	8-598-450-10	TUNER, FSS BTF-LG434 (KV-XA29M84)	
	8-598-451-00	TUNER, FSS BTF-WG441 (KV-XA29M60)	
69	1-251-658-21	SPLITTER RF (KV-XA29M84 ONLY)	
70	* 1-555-110-00	P-P CABLE (KV-XA29M84 ONLY)	
71	4-046-797-01	SCREW (3 x 12), (+) BVTAP	

SECTION 10

ELECTRICAL PARTS LIST



NOTE:

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

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

• 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.

• All resistors are in ohms
• F : nonflammable

CAPACITORS

• MF : μ F, PF : μ μ F

COILS

• MMH : mH, UH : μ H

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-387-A	A BOARD COMPLETE (KV-XA29M60)		C112	1-104-664-11	ELECT 47UF	20.00% 16V
	A-1299-384-A	A BOARD COMPLETE (KV-XA29M84)		C113	1-104-664-11	ELECT 47UF	20.00% 25V
		*****		C114	1-126-967-11	ELECT 47UF	20.00% 50V
	* 4-040-983-21	TERMINAL BOARD (D)(KV-XA29M60 ONLY)		C115	1-126-967-11	ELECT 47UF	20.00% 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C116	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
	4-382-854-21	SCREW (M3X14), P, SW (+)		C117	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
		<CAPACITOR>		C118	1-110-501-11	CERAMIC CHIP 0.33UF	10.00% 16V
C004	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	C300	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C005	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	C301	1-126-935-11	ELECT 470UF	20.00% 16V
C006	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C302	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
C007	1-104-664-11	ELECT 47UF	20.00% 16V	C303	1-126-959-11	ELECT 0.47UF	20.00% 50V
C013	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C304	1-126-967-11	ELECT 47UF	20.00% 50V
C014	1-104-664-11	ELECT 47UF	20.00% 25V	C305	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C015	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	C306	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V
C016	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V	C307	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V
C017	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	C308	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V
C019	1-104-664-11	ELECT 47UF	20.00% 25V	C309	1-137-378-11	MYLAR 0.22UF	5.00% 50V
C020	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V	C311	1-126-964-11	ELECT 10UF	20.00% 50V
C022	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V			(KV-XA29M60 ONLY)	
C023	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C312	1-164-346-11	CERAMIC CHIP 1UF	16V
C024	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C313	1-164-346-11	CERAMIC CHIP 1UF	16V
C026	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C314	1-164-346-11	CERAMIC CHIP 1UF	16V
C027	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C315	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C028	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C316	1-126-934-11	ELECT 220UF	20.00% 16V
C030	1-126-965-11	ELECT 22UF	20.00% 50V	C317	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C031	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C318	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C032	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C319	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C041	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C320	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C042	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C321	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C043	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C322	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
C044	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C324	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C047	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C325	1-126-960-11	ELECT 1UF	20.00% 50V
C048	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C327	1-126-965-11	ELECT 22UF	20.00% 50V
C050	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C328	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C051	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C329	1-126-963-11	ELECT 4.7UF	20.00% 50V
C053	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C330	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C056	1-163-263-11	CERAMIC CHIP 330PF	5.00% 50V	C331	1-126-963-11	ELECT 4.7UF	20.00% 50V
C103	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C332	1-126-963-11	ELECT 4.7UF	20.00% 50V
C104	1-104-665-11	ELECT 100UF	20.00% 10V	C335	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C107	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V	C336	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C108	1-104-664-11	ELECT 47UF	20.00% 16V	C337	1-126-961-11	ELECT 2.2UF	20.00% 50V
C109	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V	C341	1-115-340-11	CERAMIC CHIP 0.22UF	10.00% 25V
C110	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V	C342	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V
C111	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V	C347	1-126-933-11	ELECT 100UF	20.00% 16V

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

A

REF. NO.	PART NO.	DESCRIPTION	REMARK
C348	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C349	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C350	1-163-031-11	CERAMIC CHIP	0.01UF 50V
C351	1-126-964-11	ELECT	10UF 20.00% 50V
C352	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C353	1-126-960-11	ELECT	1UF 20.00% 50V
C356	1-104-664-11	ELECT	47UF 20.00% 16V
C357	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C502	1-163-145-00	CERAMIC CHIP	0.0015UF 5.00% 50V
C503	1-126-964-11	ELECT	10UF 20.00% 50V
C506	1-107-638-11	ELECT	33UF 20.00% 160V
C507	1-161-830-00	CERAMIC	0.0047UF 500V
C510	1-102-112-00	CERAMIC	330PF 10.00% 50V
C512	1-163-989-11	CERAMIC CHIP	0.033UF 10.00% 25V
C513	1-163-263-11	CERAMIC CHIP	330PF 5.00% 50V
C514	1-106-383-00	MYLAR	0.047UF 10.00% 200V
C517	1-164-182-11	CERAMIC CHIP	0.0033UF 10.00% 50V
C518	1-104-665-11	ELECT	100UF 20.00% 10V
C519	1-102-212-00	CERAMIC	820PF 10.00% 500V
C521	1-126-934-11	ELECT	220UF 20.00% 16V
C522	1-126-933-11	ELECT	100UF 20.00% 16V
C523	1-102-002-00	CERAMIC	680PF 10.00% 500V
C524	1-126-967-11	ELECT	47UF 20.00% 50V
C526	1-130-495-00	MYLAR	0.1UF 5.00% 50V
C527	1-102-820-00	CERAMIC	330PF 5.00% 50V
C528	1-162-116-00	CERAMIC	680PF 10.00% 2KV
C530	1-137-372-11	MYLAR	0.022UF 5.00% 50V
C531	1-107-903-11	ELECT	2.2UF 20.00% 50V
C532	1-126-941-11	ELECT	470UF 20.00% 25V
C533	1-126-941-11	ELECT	470UF 20.00% 25V
C534	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C536	1-130-495-00	MYLAR	0.1UF 5.00% 50V
C537	1-126-969-11	ELECT	220UF 20.00% 50V
C538	1-127-717-11	FILM	19000PF 3% 1.2KV
C539	1-129-723-00	FILM	0.056UF 5.00% 630V
C540	1-136-171-00	FILM	0.33UF 5.00% 50V
C546	1-165-319-11	CERAMIC CHIP	0.1UF 50V
C549	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V
C550	1-106-220-00	MYLAR	0.1UF 10.00% 100V
C551	1-126-960-11	ELECT	1UF 20.00% 50V
C552	1-162-116-00	CERAMIC	680PF 10.00% 2KV
C553	1-162-116-00	CERAMIC	680PF 10.00% 2KV
C554	1-137-417-11	MYLAR	0.0047UF 10.00% 200V
C556	1-126-941-11	ELECT	470UF 20.00% 25V
C557	1-126-941-11	ELECT	470UF 20.00% 25V
C558	1-123-024-21	ELECT	33UF 160V
C560	1-102-228-00	CERAMIC	470PF 10.00% 500V
C561	1-129-898-00	FILM	0.0022UF 5.00% 630V
C562	1-102-228-00	CERAMIC	470PF 10.00% 500V
C564	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C565	1-107-655-11	ELECT	47UF 20.00% 250V
C566	1-102-244-00	CERAMIC	220PF 10.00% 500V
C567	1-115-520-11	FILM	0.68UF 5.00% 250V
C568	1-102-228-00	CERAMIC	470PF 10.00% 500V
C570	1-115-522-11	FILM	1UF 5.00% 250V
C572	1-117-661-11	FILM	0.15UF 5.00% 250V
C573	1-106-387-00	MYLAR	0.068UF 10.00% 200V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C574	1-104-709-11	ELECT	4.7UF 160V
C576	1-130-495-00	MYLAR	0.1UF 5.00% 50V
C577	1-106-395-00	MYLAR	0.15UF 10.00% 200V
C582	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C584	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V
C586	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V
C600 Δ	1-104-705-11	MYLAR	0.1UF 20.00% 250V
C601	1-129-720-00	FILM	0.033UF 5.00% 630V
C602 Δ	1-104-705-11	MYLAR	0.1UF 20.00% 250V
C603	1-104-664-11	ELECT	47UF 20.00% 25V
C604	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V
C605 Δ	1-119-892-51	CERAMIC	470PF 10.00% 250V
C606 Δ	1-119-892-51	CERAMIC	470PF 10.00% 250V
C607	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C608	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C609	1-126-968-11	ELECT	100UF 20.00% 50V
C610	1-126-964-11	ELECT	10UF 20.00% 50V
C611	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C612	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C613	1-125-906-11	ELECT	560UF 20.00% 450V
C614	1-126-964-11	ELECT	10UF 20.00% 50V
C615 Δ	1-119-892-51	CERAMIC	470PF 10.00% 250V
C616	1-130-202-00	FILM	0.022UF 5.00% 400V
C617	1-107-792-11	CERAMIC	100PF 5.00% 1KV
C618	1-125-893-11	FILM	680PF 3.00% 1.5KV
C619 Δ	1-119-892-51	CERAMIC	470PF 10.00% 250V
C620	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V
C621	1-102-114-00	CERAMIC	470PF 10.00% 50V
C622	1-102-119-00	CERAMIC	0.0015UF 10.00% 50V
C623	1-104-665-11	ELECT	100UF 20.00% 25V
C624	1-104-331-11	CERAMIC	0.0022UF 10.00% 1KV
C626	1-102-002-00	CERAMIC	680PF 10.00% 500V
C629	1-126-964-11	ELECT	10UF 20.00% 50V
C630	1-124-347-51	ELECT	100UF 20.00% 160V (KV-XA29M60 ONLY)
C630	1-125-494-11	ELECT (BLOCK)	560UF 20.00% 160V (KV-XA29M84 ONLY)
C631	1-128-550-11	ELECT	2200UF 20.00% 50V
C632	1-128-339-11	ELECT	2200UF 20.00% 16V (KV-XA29M60 ONLY)
C633	1-104-999-11	MYLAR	0.1UF 10.00% 200V
C634	1-126-933-11	ELECT	100UF 20.00% 16V
C634	1-126-936-11	ELECT	3300UF 20.00% 16V (KV-XA29M84 ONLY)
C635	1-104-665-11	ELECT	100UF 20.00% 10V
C636	1-104-760-11	CERAMIC CHIP	0.047UF 10.00% 50V
C638	1-161-830-00	CERAMIC	0.0047UF 500V
C641	1-102-002-00	CERAMIC	680PF 10.00% 500V
C642	1-126-943-11	ELECT	2200UF 20.00% 25V
C643	1-104-665-11	ELECT	100UF 20.00% 10V
C644	1-104-331-11	CERAMIC	0.0022UF 10.00% 1KV
C645	1-137-605-11	MYLAR	0.01UF 10.00% 250V
C646	1-107-679-91	ELECT	10UF 20.00% 450V
C647	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V
C649	1-126-940-11	ELECT	330UF 20.00% 25V
C650	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V
C651	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V

KV-XA29M60/XA29M84

RM-954

RM-953

A

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

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C652	1-126-965-11	ELECT	22UF 20.00% 50V	D313	8-719-988-61	1SS355TE-17	
C653	1-104-664-11	ELECT	47UF 20.00% 25V	D315	8-719-988-61	1SS355TE-17(KV-XA29M60 ONLY)	
C655 $\triangle$	1-119-892-51	CERAMIC	470PF 10.00% 250V	D316	8-719-037-06	RD7.5SB1-T1(KV-XA29M60 ONLY)	
C657	1-101-821-00	CERAMIC	0.0022UF 500V	D316	8-719-037-20	RD11SB2-T1(KV-XA29M84 ONLY)	
C659	1-162-116-00	CERAMIC	680PF 10.00% 2KV	D320	8-719-158-35	RD9.1S-B	
C912	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	D321	8-719-158-35	RD9.1S-B	
C913	1-104-665-11	ELECT	100UF 20.00% 10V	D504	8-719-302-43	EL1Z	
				D505	8-719-988-61	1SS355TE-17	
		<CONNECTOR>		D506	8-719-911-19	1SS119-25	
CN101 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P		D507	8-719-988-61	1SS355TE-17	
CN102 *	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P		D508	8-719-988-61	1SS355TE-17	
CN104	1-695-915-11	TAB (CONTACT)		D509	1-216-073-00	RES-CHIP	10K 5% 1/10W
CN105	1-695-915-11	TAB (CONTACT)		D510	8-719-988-61	1SS355TE-17	
CN106 *	1-564-506-11	PLUG, CONNECTOR 3P		D511	8-719-988-61	1SS355TE-17	
CN201 *	1-564-508-11	PLUG, CONNECTOR 5P		D512	8-719-988-61	1SS355TE-17	
CN202 *	1-508-847-00	PIN, CONNECTOR 4P		D513	8-719-908-03	GP08D	
CN302 *	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P (KV-XA29M84 ONLY)		D517	8-719-312-71	RS3FS	
CN303 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P		D518	8-719-074-35	RU4AM-T4	
CN305 *	1-564-509-11	PLUG, CONNECTOR 6P		D519	8-719-312-71	RS3FS	
CN501 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D521	8-719-302-43	EL1Z	
CN502 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D522	8-719-028-45	D2L20U	
CN503 *	1-564-510-11	PLUG, CONNECTOR 7P		D523	8-719-302-43	EL1Z	
CN504	1-695-915-11	TAB (CONTACT)		D527	8-719-908-03	GP08D	
CN505 *	1-564-508-11	PLUG, CONNECTOR 5P		D528	8-719-908-03	GP08D	
CN507 *	1-564-509-11	PLUG, CONNECTOR 6P		D532	8-719-988-61	1SS355TE-17	
CN508	1-695-915-11	TAB (CONTACT)(KV-XA29M84 ONLY)		D534	8-719-988-61	1SS355TE-17	
CN601 *	1-580-843-11	PIN, CONNECTOR (POWER)		D600	8-719-911-19	1SS119-25	
CN602 *	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P (KV-XA29M84 ONLY)		D602	8-719-911-19	1SS119-25	
CN603 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D603	8-719-150-92	RD33EB3T	
CN604 *	1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P (KV-XA29M60 ONLY)		D604	8-719-028-72	RGP02-17EL-6433	
CN604 *	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P (KV-XA29M84 ONLY)		D605	8-719-510-22	D3SB60	
CN608 *	1-564-507-11	PLUG, CONNECTOR 4P		D606	8-719-108-18	5P-6M	
CN904 *	1-564-512-11	PLUG, CONNECTOR 9P		D607	8-719-073-01	MA111-(K8).S0	
		<DIODE>		D608	8-719-110-53	RD20ES-B2	
D001	8-719-988-61	1SS355TE-17		D609	8-719-311-31	RU-1P	
D002	8-719-988-61	1SS355TE-17		D610	8-719-043-76	AK04V0	
D004	1-216-295-11	SHORT	0	D611	8-719-046-74	AU-01Z-V1	
D005	8-719-988-61	1SS355TE-17		D612	8-719-071-38	D5S6M	
D006	1-216-295-11	SHORT	0	D613	8-719-046-74	AU-01Z-V1	
D007	8-719-988-61	1SS355TE-17		D614	8-719-046-74	AU-01Z-V1	
D008	8-719-988-61	1SS355TE-17		D617	8-719-067-18	RN4Z	
D009	8-719-988-61	1SS355TE-17		D620	8-719-110-72	RD30ESB2	
D100	8-719-988-61	1SS355TE-17(KV-XA29M60 ONLY)		D622	8-719-077-49	D3L60	
D300	1-216-295-11	SHORT	0	D623	8-719-978-65	DTZ-TT11-15B	
D301	8-719-988-61	1SS355TE-17		D624	8-719-073-01	MA111-(K8).S0	
D306	8-719-988-61	1SS355TE-17		D625	8-719-977-28	DTZ10B	
D307	8-719-988-61	1SS355TE-17		D628	8-719-911-19	1SS119-25	
D308	8-719-988-61	1SS355TE-17		D630	8-719-052-74	FMX-12S	
D309	8-719-159-10	RD5.1SB-T2		D631	8-719-068-00	ERC04-06SE	
D311	8-719-988-61	1SS355TE-17		D632	8-719-068-00	ERC04-06SE	
D312	8-719-988-61	1SS355TE-17		D633	8-719-948-45	ERA22-08	
				D634	8-719-073-01	MA111-(K8).S0	
				D635	8-719-073-01	MA111-(K8).S0	
				D636	8-719-510-02	D1NS4	
				D637	8-719-109-96	RD6.8ES-B1	
				D638	8-719-024-99	11ES2-NTA2B(KV-XA29M60 ONLY)	
				D638	8-719-510-48	D1N20R(KV-XA29M84 ONLY)	

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

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>				JR028	1-216-295-11	SHORT	0
DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P		JR030	1-216-295-11	SHORT	0
<FERRITE BEAD>				JR031	1-216-295-11	SHORT	0
FB101	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)	JR102	1-216-295-11	SHORT	0
FB102	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)	JR107	1-216-295-11	SHORT	0 (KV-XA29M60 ONLY)
FB300	1-412-911-31	FERRITE	0UH	JR109	1-216-295-11	SHORT	0 (KV-XA29M84 ONLY)
FB501	1-410-397-21	FERRITE	1.1UH	JR214	1-216-295-11	SHORT	0
FB502	1-410-397-21	FERRITE	1.1UH	JR304	1-216-295-11	SHORT	0
FB600	1-410-397-21	FERRITE	1.1UH	JR308	1-216-295-11	SHORT	0
FB601	1-410-397-21	FERRITE	1.1UH	JR309	1-216-295-11	SHORT	0
FB602	1-410-397-21	FERRITE	1.1UH	JR310	1-216-295-11	SHORT	0
FB603	1-410-397-21	FERRITE	1.1UH	JR311	1-216-295-11	SHORT	0
FB604	1-412-911-31	FERRITE	0UH	JR500	1-216-295-11	SHORT	0
FB605	1-412-911-31	FERRITE	0UH	JR501	1-216-295-11	SHORT	0
FB606	1-412-911-31	FERRITE	0UH	JR502	1-216-295-11	SHORT	0
FB608	1-412-911-31	FERRITE	0UH	JR503	1-216-295-11	SHORT	0
FB611	1-410-397-21	FERRITE	1.1UH	JR600	1-216-295-11	SHORT	0
FB612	1-410-397-21	FERRITE	1.1UH	<COIL>			
FB613	1-410-397-21	FERRITE	1.1UH	L002	1-414-856-11	INDUCTOR	10UH
FB615	1-410-397-21	FERRITE	1.1UH	L003	1-414-180-11	INDUCTOR	3.3UH
<IC>				L005	1-414-233-22	INDUCTOR	0UH
IC001	8-752-917-80	CXP750097-032S		L101	1-414-856-11	INDUCTOR	10UH
IC002	8-759-371-21	MM1319AFBE		L102	1-414-856-11	INDUCTOR	10UH
IC003	8-759-672-78	M24C08-BN6(A)		L103	1-414-856-11	INDUCTOR	10UH
IC100	8-759-042-02	S-80743AL-A7-S(KV-XA29M60 ONLY)		L104	1-414-856-11	INDUCTOR	10UH
IC301	8-752-095-72	CXA2159S		L105	1-414-856-11	INDUCTOR	10UH
IC302	8-759-666-90	TDA9181T		L301	1-414-189-31	INDUCTOR	100UH
IC502	8-759-700-07	NJM2903M		L302	1-414-185-41	INDUCTOR	22UH
IC503	8-759-980-58	TDA8172		L303	1-414-189-31	INDUCTOR	100UH
IC601	8-749-014-48	STR-F6656		L304	1-414-189-31	INDUCTOR	100UH
IC602	8-749-920-61	SE-135N		L501	1-412-525-31	INDUCTOR	10UH
IC603	8-759-701-59	NJM78M09FA		L502	1-422-613-11	COIL, AIR CORE	
IC604	8-759-231-53	TA7805S		L503	1-412-525-31	INDUCTOR	10UH
<CHIP CONDUCTOR>				L504	1-412-525-31	INDUCTOR	10UH
JR001	1-216-295-11	SHORT	0	L507	1-459-111-00	INDUCTOR	10MH
JR002	1-216-295-11	SHORT	0	L511	1-406-977-21	INDUCTOR	100UH
JR003	1-216-295-11	SHORT	0	L513	1-412-551-31	INDUCTOR	1.5MH
JR004	1-216-295-11	SHORT	0	L515	1-459-104-00	COIL, WITH CORE	
JR006	1-216-295-11	SHORT	0	L518	1-414-187-11	INDUCTOR	47UH
JR007	1-216-295-11	SHORT	0	L601	1-412-527-11	INDUCTOR	15UH
JR008	1-216-295-11	SHORT	0	L905	1-414-856-11	INDUCTOR	10UH
JR010	1-216-295-11	SHORT	0	<PHOTO COUPLER>			
JR012	1-216-295-11	SHORT	0	PH600 $\triangle$ 8-749-924-35	ON3171-R		
JR014	1-216-295-11	SHORT	0	<TRANSISTOR>			
JR015	1-216-295-11	SHORT	0	Q001	8-729-216-22	2SA1162-G	
JR016	1-216-295-11	SHORT	0	Q002	8-729-230-49	2SC2712-YG	
JR020	1-216-295-11	SHORT	0	Q101	8-729-230-49	2SC2712-YG	
JR022	1-216-295-11	SHORT	0	Q301	8-729-026-49	2SA1037AK-T146-R	
JR023	1-216-295-11	SHORT	0	Q301	8-729-216-22	2SA1162-G	
JR024	1-216-295-11	SHORT	0	Q301	8-729-216-22	2SA1162-G	
JR025	1-216-295-11	SHORT	0	Q302	8-729-230-49	2SC2712-YG	

KV-XA29M60/XA29M84

RM-954

RM-953

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q303	8-729-216-22	2SA1162-G		R027	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q304	8-729-216-22	2SA1162-G		R028	1-216-073-00	RES-CHIP 10K	5% 1/10W
Q305	8-729-216-22	2SA1162-G				(KV-XA29M60 ONLY)	
Q306	8-729-230-49	2SC2712-YG		R029	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q307	8-729-230-49	2SC2712-YG		R031	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q308	8-729-216-22	2SA1162-G		R032	1-216-025-11	RES-CHIP 100	5% 1/10W
Q309	8-729-421-19	UN2213		R034	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q310	8-729-230-49	2SC2712-YG		R035	1-216-025-11	RES-CHIP 100	5% 1/10W
Q311	8-729-230-49	2SC2712-YG		R036	1-216-025-11	RES-CHIP 100	5% 1/10W
Q312	8-729-216-22	2SA1162-G		R037	1-216-025-11	RES-CHIP 100	5% 1/10W
Q313	8-729-230-49	2SC2712-YG		R038	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q314	8-729-216-22	2SA1162-G		R040	1-216-025-11	RES-CHIP 100	5% 1/10W
Q315	8-729-421-19	UN2213		R041	1-216-025-11	RES-CHIP 100	5% 1/10W
Q316	8-729-216-22	2SA1162-G		R042	1-216-295-11	SHORT 0	
Q317	8-729-216-22	2SA1162-G		R043	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q501	8-729-216-22	2SA1162-G		R044	1-216-025-11	RES-CHIP 100	5% 1/10W
Q502	8-729-216-22	2SA1162-G		R045	1-414-233-22	INDUCTOR 0UH	
Q503	8-729-230-49	2SC2712-YG		R046	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q505	8-729-931-45	IRF614		R047	1-414-233-22	INDUCTOR 0UH	
Q506	8-729-119-80	2SC2688-LK		R048	1-216-073-00	RES-CHIP 10K	5% 1/10W
Q507	8-729-216-22	2SA1162-G		R050	1-216-073-00	RES-CHIP 10K	5% 1/10W
Q509	8-729-230-49	2SC2712-YG		R053	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q511	8-729-048-07	2SD2578-CA		R058	1-216-295-11	SHORT 0	
Q600	8-729-119-78	2SC2785-HFE		R059	1-216-295-11	SHORT 0	
Q601	8-729-023-22	2SD2114K		R060	1-216-295-11	SHORT 0	
Q602	8-729-230-49	2SC2712-YG		R061	1-216-295-11	SHORT 0	
Q603	8-729-424-08	UN2111		R062	1-216-041-00	RES-CHIP 470	5% 1/10W
Q604	8-729-200-17	2SA1091-O		R063	1-216-041-00	RES-CHIP 470	5% 1/10W
Q605	8-729-044-30	2SK2845-LB102		R064	1-216-041-00	RES-CHIP 470	5% 1/10W
Q606	8-729-230-49	2SC2712-YG		R065	1-216-041-00	RES-CHIP 470	5% 1/10W
Q607	8-729-922-37	2SD2144S-UVW		R066	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q608	8-729-230-49	2SC2712-YG		R067	1-216-049-11	RES-CHIP 1K	5% 1/10W
		<RESISTOR>		R068	1-216-041-00	RES-CHIP 470	5% 1/10W
				R101	1-216-025-11	RES-CHIP 100	5% 1/10W
						(KV-XA29M60 ONLY)	
R001	1-414-233-22	INDUCTOR 0UH		R102	1-216-025-11	RES-CHIP 100	5% 1/10W
R002	1-216-025-11	RES-CHIP 100	5% 1/10W			(KV-XA29M60 ONLY)	
R003	1-216-073-00	RES-CHIP 10K	5% 1/10W	R105	1-216-295-11	SHORT 0	
R004	1-216-025-11	RES-CHIP 100	5% 1/10W	R109	1-216-041-00	RES-CHIP 470	5% 1/10W
R005	1-216-025-11	RES-CHIP 100	5% 1/10W	R111	1-216-025-11	RES-CHIP 100	5% 1/10W
R008	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R112	1-216-025-11	RES-CHIP 100	5% 1/10W
R010	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R113	1-216-025-11	RES-CHIP 100	5% 1/10W
R011	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R225	1-216-033-00	RES-CHIP 220	5% 1/10W
R012	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R226	1-216-033-00	RES-CHIP 220	5% 1/10W
R013	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R227	1-216-033-00	RES-CHIP 220	5% 1/10W
R014	1-216-025-11	RES-CHIP 100	5% 1/10W	R237	1-216-295-11	SHORT 0	
R015	1-216-025-11	RES-CHIP 100	5% 1/10W	R301	1-216-113-00	RES-CHIP 470K	5% 1/10W
R018	1-216-033-00	RES-CHIP 220	5% 1/10W	R302	1-216-295-11	SHORT 0	
R017	1-216-049-11	RES-CHIP 1K	5% 1/10W	R303	1-216-049-11	RES-CHIP 1K	5% 1/10W
		(KV-XA29M84 ONLY)		R304	1-216-073-00	RES-CHIP 10K	5% 1/10W
R019	1-216-073-00	RES-CHIP 10K	5% 1/10W	R308	1-216-025-11	RES-CHIP 100	5% 1/10W
R020	1-216-045-00	RES-CHIP 680	5% 1/10W	R309	1-216-025-11	RES-CHIP 100	5% 1/10W
R021	1-216-073-00	RES-CHIP 10K	5% 1/10W	R310	1-216-025-11	RES-CHIP 100	5% 1/10W
R022	1-216-295-11	SHORT 0		R311	1-216-041-00	RES-CHIP 470	5% 1/10W
R023	1-216-049-11	RES-CHIP 1K	5% 1/10W	R312	1-216-039-00	RES-CHIP 390	5% 1/10W
R024	1-216-063-91	RES-CHIP 3.9K	5% 1/10W	R313	1-216-037-00	RES-CHIP 330	5% 1/10W
R025	1-216-063-91	RES-CHIP 3.9K	5% 1/10W	R314	1-216-083-00	RES-CHIP 27K	5% 1/10W
R026	1-216-063-91	RES-CHIP 3.9K	5% 1/10W	R315	1-216-053-00	RES-CHIP 1.5K	5% 1/10W

A

REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R316	1-216-037-00	RES-CHIP	330	5%	1/10W	R509	1-216-473-11	METAL OXIDE	56	5%	3W
R317	1-216-091-00	RES-CHIP	56K	5%	1/10W	R510	1-216-449-11	METAL OXIDE	56	5%	2W
R318	1-216-039-00	RES-CHIP	390	5%	1/10W	R511	1-215-908-00	METAL OXIDE	33	5%	3W
						R515	1-215-911-11	METAL OXIDE	100	5%	3W
R319	1-216-025-11	RES-CHIP	100	5%	1/10W	R517	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R321	1-216-073-00	RES-CHIP	10K	5%	1/10W	R518	1-247-807-31	CARBON	100	5%	1/4W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W	R519	1-215-913-11	METAL OXIDE	220	5%	3W
R323	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R520	1-215-445-00	METAL	10K	1%	1/4W
						R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R324	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R523	1-249-411-11	CARBON	330	5%	1/4W
R326	1-216-029-00	RES-CHIP	150	5%	1/10W						
R327	1-216-033-00	RES-CHIP	220	5%	1/10W	R525	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R328	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R526	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R329	1-216-041-00	RES-CHIP	470	5%	1/10W	R527	1-216-001-00	RES-CHIP	10	5%	1/10W
						R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R331	1-216-295-11	SHORT	0			R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R332	1-216-033-00	RES-CHIP	220	5%	1/10W						
R335	1-216-045-00	RES-CHIP	680	5%	1/10W	R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W	R533	1-249-417-11	CARBON	1K	5%	1/4W
R339	1-216-033-00	RES-CHIP	220	5%	1/10W	R534	1-216-364-11	METAL OXIDE	0.39	5%	2W
						R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R340	1-216-025-11	RES-CHIP	100	5%	1/10W	R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W						
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W	R537	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W
R349	1-216-073-00	RES-CHIP	10K	5%	1/10W	R539	1-216-049-11	RES-CHIP	1K	5%	1/10W
R350	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
						R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R542	1-216-073-00	RES-CHIP	10K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W						
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R544	1-215-917-11	METAL OXIDE	1K	5%	3W
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W	R545	1-216-077-91	RES-CHIP	15K	5%	1/10W
						R546	1-216-077-91	RES-CHIP	15K	5%	1/10W
R358	1-216-049-11	RES-CHIP	1K	5%	1/10W	R547	1-216-085-00	RES-CHIP	33K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W						
R360	1-216-033-00	RES-CHIP	220	5%	1/10W	R548	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R361	1-216-073-00	RES-CHIP	10K	5%	1/10W	R549	1-215-452-00	METAL	20K	1%	1/4W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W	R550	1-216-097-11	RES-CHIP	100K	5%	1/10W
						R551	1-249-441-11	CARBON	100K	5%	1/4W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W	R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R364	1-216-295-11	SHORT	0								
R365	1-216-033-00	RES-CHIP	220	5%	1/10W	R553	1-215-453-00	METAL	22K	1%	1/4W
R366	1-216-073-00	RES-CHIP	10K	5%	1/10W	R554	1-215-453-00	METAL	22K	1%	1/4W
R367	1-216-073-00	RES-CHIP	10K	5%	1/10W	R556	1-215-437-00	METAL	4.7K	1%	1/4W
						R558	1-247-843-11	CARBON	3.3K	5%	1/4W
R368	1-216-073-00	RES-CHIP	10K	5%	1/10W	R559	1-249-429-11	CARBON	10K	5%	1/4W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W						
R371	1-216-083-00	RES-CHIP	27K	5%	1/10W	R560	1-216-073-00	RES-CHIP	10K	5%	1/10W
R372	1-216-091-00	RES-CHIP	56K	5%	1/10W	R561	1-216-049-11	RES-CHIP	1K	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W	R562	1-249-401-11	CARBON	47	5%	1/4W
						R564	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
R377	1-216-121-11	RES-CHIP	1M	5%	1/10W	R565	1-216-073-00	RES-CHIP	10K	5%	1/10W
R378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W						
R379	1-218-179-11	RES-CHIP	10M	5%	1/10W	R567	1-216-105-91	RES-CHIP	220K	5%	1/10W
R381	1-216-295-11	SHORT	0			R568	1-249-383-11	CARBON	1.5	5%	1/4W
R382	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
						R571	1-215-443-00	METAL	8.2K	1%	1/4W
R383	1-216-049-11	RES-CHIP	1K	5%	1/10W	R573	1-216-083-00	RES-CHIP	27K	5%	1/10W
R384	1-216-041-00	RES-CHIP	470	5%	1/10W						
R385	1-216-029-00	RES-CHIP	150	5%	1/10W	R575	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W
R391	1-216-295-11	SHORT	0			R577	1-215-913-11	METAL OXIDE	220	5%	3W
R500	1-249-417-11	CARBON	1K	5%	1/4W	R578	1-216-369-00	METAL OXIDE	1	5%	2W
						R579	1-216-295-11	SHORT	0		
R501	1-216-049-11	RES-CHIP	1K	5%	1/10W	R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R505	1-208-830-11	METAL CHIP	100K	0.5%	1/10W						
R506	1-216-081-00	RES-CHIP	22K	5%	1/10W	R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W	R582	1-208-842-11	METAL CHIP	330K	0.5%	1/10W
R508	1-216-471-11	METAL OXIDE	27	5%	3W						

(KV-XA29M84 ONLY)

A

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
R584	1-208-838-91	METAL CHIP	220K 0.5% 1/10W
R585	1-249-385-11	CARBON	2.2 5% 1/4W
R587	1-208-822-11	METAL CHIP	47K 0.5% 1/10W
R588	1-215-888-00	METAL OXIDE	220 5% 2W
R589	1-215-888-00	METAL OXIDE	220 5% 2W
R590	1-215-465-00	METAL	68K 1% 1/4W
R591	1-260-288-11	CARBON	0.47 5% 1/2W
R592	1-208-820-11	METAL CHIP	39K 0.5% 1/10W
R593	1-260-288-11	CARBON	0.47 5% 1/2W
R594	1-260-288-11	CARBON	0.47 5% 1/2W
R595	1-216-073-00	RES-CHIP	10K 5% 1/10W
R596	1-215-916-00	METAL OXIDE	680 5% 3W
R597	1-247-750-11	CARBON	680 5% 1/2W
R598	1-249-438-11	CARBON	56K 5% 1/4W
R599	1-249-389-11	CARBON	4.7 5% 1/4W
R600	1-249-438-11	CARBON	56K 5% 1/4W
R601	1-249-420-11	CARBON	1.8K 5% 1/4W
R602	1-249-389-11	CARBON	4.7 5% 1/4W
R603	1-215-485-00	METAL	470K 1% 1/4W
R604	1-216-097-11	RES-CHIP	100K 5% 1/10W
R607	1-249-425-11	CARBON	4.7K 5% 1/4W
R608	1-240-205-91	CARBON	22M 5% 1/2W
R609	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R610	1-216-073-00	RES-CHIP	10K 5% 1/10W
R611	1-216-089-11	RES-CHIP	47K 5% 1/10W
R612	1-216-045-00	RES-CHIP	680 5% 1/10W
R614	1-216-041-00	RES-CHIP	470 5% 1/10W
R615	1-216-369-00	METAL OXIDE	1 5% 2W
R616	1-260-302-51	CARBON	6.8 5% 1/2W
R617	1-247-791-91	CARBON	22 5% 1/4W
R619	1-260-128-11	CARBON	270K 5% 1/2W
R621	1-215-864-00	METAL OXIDE	150 5% 1W
R623	1-216-095-00	RES-CHIP	82K 5% 1/10W
R624	1-216-089-11	RES-CHIP	47K 5% 1/10W
R626	1-216-049-11	RES-CHIP	1K 5% 1/10W
R627	1-240-251-11	CEMENTED	6.8 5% 10W
R629	1-247-747-11	CARBON	470 5% 1/2W
R630	1-249-429-11	CARBON	10K 5% 1/4W
R631	1-216-089-11	RES-CHIP	47K 5% 1/10W
R632	1-220-886-11	FUSIBLE	0.1 10% 1W
R634	Δ 1-218-265-11	METAL	8.2M 5% 1W
R635	1-216-492-11	METAL OXIDE	82K 5% 3W
R636	1-215-924-00	METAL OXIDE	15K 5% 3W
R637	1-216-492-11	METAL OXIDE	82K 5% 3W
R639	1-216-361-00	METAL OXIDE	0.22 5% 2W
R640	1-249-415-11	CARBON	680 5% 1/4W
R641	1-216-361-00	METAL OXIDE	0.22 5% 2W
R642	1-249-419-11	CARBON	1.5K 5% 1/4W
R643	1-247-843-11	CARBON	3.3K 5% 1/4W
R644	1-249-419-11	CARBON	1.5K 5% 1/4W
R646	1-215-924-00	METAL OXIDE	15K 5% 3W
R647	1-249-387-11	CARBON	3.3 5% 1/4W
R648	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R649	1-249-417-11	CARBON	1K 5% 1/4W
R650	1-215-882-00	METAL OXIDE	22 5% 2W
R652	1-215-900-11	METAL OXIDE	22K 5% 2W
R653	1-215-873-00	METAL OXIDE	4.7K 5% 1W
R656	1-249-417-11	CARBON	1K 5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R657	1-260-127-11	CARBON	220K 5% 1/2W
R659	1-216-049-11	RES-CHIP	1K 5% 1/10W
R660	1-216-073-00	RES-CHIP	10K 5% 1/10W
R661	1-215-873-00	METAL OXIDE	4.7K 5% 1W
R682	1-219-134-11	FUSIBLE	0.1 10% 1/4W
R909	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R910	1-216-065-91	RES-CHIP	4.7K 5% 1/10W

<RELAY>

RY600	Δ 1-755-214-11	RELAY, AC POWER
RY601	Δ 1-755-214-11	RELAY, AC POWER

<SWITCH>

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

<TRANSFORMER>

T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE
T503	Δ 1-453-284-11	TRANSFORMER ASSY FLYBACK NX-4009/M314 (KV-XA29M60 ONLY)
T503	Δ 1-453-305-11	TRANSFORMER ASSY FLYBACK NX-4009/C6P4 (KV-XA29M84 ONLY)
T504	1-431-693-11	TRANSFORMER, HORIZONTAL LINEAR
T505	1-426-981-11	TRANSFORMER, FERRITE (PMT)
T601	1-424-505-11	TRANSFORMER, LINE FILTER
T603	Δ 1-431-976-11	TRANSFORMER, CONVERTER (SRT)
T604	Δ 1-431-852-11	TRANSFORMER, CONVERTER (SRT)

<THERMISTOR>

TH600	1-803-586-11	THERMISTOR, NTC
-------	--------------	-----------------

<THERMISTOR>

THP600	1-803-540-11	THERMISTOR
--------	--------------	------------

<TUNER>

TU101	8-598-451-00	TUNER, FSS BTF-WG441(KV-XA29M60 ONLY)
TU101	8-598-450-10	TUNER, FSS BTF-LG434(KV-XA29M84 ONLY)

<CRYSTAL>

X001	1-781-174-21	VIBRATOR, CERAMIC
X301	1-781-134-21	VIBRATOR, CRYSTAL
X302	1-781-132-21	VIBRATOR, CRYSTAL

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1136-153-A	B BOARD COMPLETE (KV-XA29M60)		C1443	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
	A-1136-140-A	B BOARD COMPLETE (KV-XA29M84)		C1444	1-164-005-11	CERAMIC CHIP 0.47UF	25V
		*****		C1445	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
				C1446	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
	4-382-854-11	SCREW (M3X10), P, SW (+)		C1447	1-126-964-11	ELECT 10UF	20.00% 50V
		<CAPACITOR>					
C1305	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C1448	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C1307	1-164-346-11	CERAMIC CHIP 1UF	16V	C1449	1-126-933-11	ELECT 100UF	20.00% 16V
C1310	1-104-664-11	ELECT 47UF	20.00% 16V	C1450	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
C1312	1-104-664-11	ELECT 47UF	20.00% 16V			(KV-XA29M84 ONLY)	
C1330	1-126-964-11	ELECT 10UF	20.00% 50V	C1451	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
						(KV-XA29M84 ONLY)	
C1333	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C1452	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
C1395	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V			(KV-XA29M84 ONLY)	
C1401	1-104-661-91	ELECT 330UF	20.00% 16V	C1453	1-126-933-11	ELECT 100UF	20.00% 16V
C1402	1-104-664-11	ELECT 47UF	20.00% 25V			(KV-XA29M84 ONLY)	
C1403	1-104-664-11	ELECT 47UF	20.00% 25V	C1454	1-126-967-11	ELECT 47UF	20.00% 50V
						(KV-XA29M84 ONLY)	
C1404	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C1455	1-126-967-11	ELECT 47UF	20.00% 50V
C1405	1-104-664-11	ELECT 47UF	20.00% 25V			(KV-XA29M84 ONLY)	
C1406	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1456	1-126-933-11	ELECT 100UF	20.00% 16V
C1407	1-126-933-11	ELECT 100UF	20.00% 16V			(KV-XA29M84 ONLY)	
		(KV-XA29M84 ONLY)		C1457	1-164-346-11	CERAMIC CHIP 1UF	16V
C1408	1-126-964-11	ELECT 10UF	20.00% 50V				
				C1458	1-126-933-11	ELECT 100UF	20.00% 16V
C1410	1-104-664-11	ELECT 47UF	20.00% 25V			(KV-XA29M84 ONLY)	
C1411	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C1459	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1412	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C1460	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
		(KV-XA29M84 ONLY)		C1461	1-164-346-11	CERAMIC CHIP 1UF	16V
C1413	1-126-935-11	ELECT 470UF	20.00% 16V	C1462	1-164-346-11	CERAMIC CHIP 1UF	16V
C1414	1-164-346-11	CERAMIC CHIP 1UF	16V				
				C1464	1-126-933-11	ELECT 100UF	20.00% 16V
C1415	1-104-664-11	ELECT 47UF	20.00% 25V	C3201	1-126-964-11	ELECT 10UF	20.00% 50V
C1416	1-164-346-11	CERAMIC CHIP 1UF	16V	C3202	1-136-171-00	FILM 0.33UF	5.00% 50V
C1417	1-126-933-11	ELECT 100UF	20.00% 16V	C3203	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
		(KV-XA29M84 ONLY)		C3208	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1418	1-163-031-11	CERAMIC CHIP 0.01UF	50V				
C1419	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C3209	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
				C3210	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1420	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C3211	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
		(KV-XA29M84 ONLY)		C3213	1-104-665-11	ELECT 100UF	20.00% 25V
C1421	1-164-346-11	CERAMIC CHIP 1UF	16V	C3214	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V
C1422	1-164-346-11	CERAMIC CHIP 1UF	16V				
C1423	1-164-346-11	CERAMIC CHIP 1UF	16V	C3215	1-126-964-11	ELECT 10UF	20.00% 50V
C1425	1-164-346-11	CERAMIC CHIP 1UF	16V	C3216	1-126-964-11	ELECT 10UF	20.00% 50V
				C3217	1-104-665-11	ELECT 100UF	20.00% 25V
C1426	1-164-346-11	CERAMIC CHIP 1UF	16V	C3218	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1428	1-104-665-11	ELECT 100UF	20.00% 25V	C3219	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C1429	1-104-663-11	ELECT 33UF	20.00% 25V				
C1431	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C3220	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C1430	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C3221	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
		(KV-XA29M84 ONLY)		C3222	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
				C3223	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C1432	1-126-933-11	ELECT 100UF	20.00% 16V	C3224	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C1433	1-104-664-11	ELECT 47UF	20.00% 16V				
C1434	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C3225	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1435	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C3226	1-126-964-11	ELECT 10UF	20.00% 50V
C1436	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C3227	1-164-505-11	CERAMIC CHIP 2.2UF	16V
				C3228	1-107-698-11	ELECT 10UF	20.00% 25V
				C3229	1-107-698-11	ELECT 10UF	20.00% 25V
C1438	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V				
		(KV-XA29M84 ONLY)		C3230	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1439	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C3231	1-126-960-11	ELECT 1UF	20.00% 50V
C1440	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C3232	1-126-960-11	ELECT 1UF	20.00% 50V
C1441	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C3233	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C1442	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C3234	1-117-720-11	CERAMIC CHIP 4.7UF	10V

KV-XA29M60/XA29M84

RM-954

RM-953

B

REF. NO.	PART NO.	DESCRIPTION	REMARK
C3235	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C3236	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C3237	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V
C3238	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C3239	1-136-171-00	FILM 0.33UF	5.00% 50V
C3240	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3241	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3242	1-126-965-11	ELECT 22UF	20.00% 50V
C3243	1-163-989-11	CERAMIC CHIP 0.033UF	10.00% 25V
C3244	1-164-346-11	CERAMIC CHIP 1UF	16V
C3245	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C3246	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C3247	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3248	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3249	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C3250	1-164-346-11	CERAMIC CHIP 1UF	16V
C3251	1-126-964-11	ELECT 10UF	20.00% 50V
C3252	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3253	1-126-933-11	ELECT 100UF	20.00% 16V
C3254	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C3255	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C3256	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3257	1-164-346-11	CERAMIC CHIP 1UF	16V
C3258	1-163-989-11	CERAMIC CHIP 0.033UF	10.00% 25V
C3259	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3260	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3262	1-104-664-11	ELECT 47UF	20.00% 16V
C3264	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3265	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C3266	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3267	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V
C3268	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C3269	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C3270	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3271	1-126-963-11	ELECT 4.7UF	20.00% 50V
C3272	1-104-665-11	ELECT 100UF	20.00% 25V
C3273	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C3274	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C3275	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C3276	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C3277	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C3280	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3281	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C6200	1-216-295-11	SHORT 0	
C6202	1-128-550-11	ELECT 2200UF	20.00% 50V
C6203	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C6204	1-128-550-11	ELECT 2200UF	20.00% 50V
C6205	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C6206	1-128-550-11	ELECT 2200UF	20.00% 50V
C6209	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C6210	1-126-924-11	ELECT 330UF	20.00% 10V
C6211	1-126-924-11	ELECT 330UF	20.00% 10V
C6212	1-104-664-11	ELECT 47UF	20.00% 25V
C6213	1-126-964-11	ELECT 10UF	20.00% 50V
C6217	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C6220	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C6222	1-164-505-11	CERAMIC CHIP 2.2UF	16V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C6223	1-126-960-11	ELECT 1UF	20.00% 50V
C6241	1-126-964-11	ELECT 10UF	20.00% 50V
C6244	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C6245	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C6249	1-216-295-11	SHORT 0	
<CONNECTOR>			
CN1300*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1400*	1-564-512-11	PLUG, CONNECTOR 9P	
CN1401*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN1403*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1404*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P (KV-XA29M84 ONLY)	
CN1405*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN1406*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN1407*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P	
CN1408	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P (KV-XA29M84 ONLY)	
CN1409	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P	
CN6200*	1-564-507-11	PLUG, CONNECTOR 4P	
CN6204*	1-564-509-11	PLUG, CONNECTOR 6P	
CN6206*	1-564-508-11	PLUG, CONNECTOR 5P	
<DIODE>			
D1401	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1401	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1402	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1402	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1403	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1403	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1404	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1404	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1405	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1405	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1406	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1406	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1407	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1407	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1408	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1408	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1409	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1409	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1410	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1410	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1411	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1411	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1412	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1412	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1415	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1415	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1416	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1416	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D1418	8-719-069-60	UDZS-TE17-9.1B(KV-XA29M60 ONLY)	
D1418	8-719-158-35	RD9.1S-B(KV-XA29M84 ONLY)	
D3201	8-719-988-61	1SS355TE-17	
D3203	8-719-988-61	1SS355TE-17	

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
D6210	8-719-820-41	1SS302		L1404	1-412-537-31	INDUCTOR	100UH
D6211	8-719-073-01	MA111-(K8).S0(KV-XA29M60 ONLY)		L1405	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
D6211	8-719-988-61	1SS355TE-17(KV-XA29M84 ONLY)		L1406	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
D6212	8-719-073-01	MA111-(K8).S0(KV-XA29M60 ONLY)		L1407	1-414-856-11	INDUCTOR	10UH(KV-XA29M84 ONLY)
D6212	8-719-988-61	1SS355TE-17(KV-XA29M84 ONLY)		L3202	1-414-856-11	INDUCTOR	10UH
<IC>				<TRANSISTOR>			
IC1401	8-752-068-46	CXA1855S		Q1316	8-729-026-49	2SA1037AK-T146-R(KV-XA29M60 ONLY)	
IC1402	8-759-100-96	UPC4558G2		Q1316	8-729-216-22	2SA1162-G(KV-XA29M84 ONLY)	
IC1403	8-759-231-53	TA7805S(KV-XA29M84 ONLY)		Q1317	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
IC1404	8-759-701-59	NJM78M09FA		Q1317	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
IC3200	8-759-100-96	UPC4558G2		Q1318	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
IC3201	8-759-689-71	NJM2188M-TE2		Q1318	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
IC3202	8-759-100-96	UPC4558G2		Q1323	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
IC3203	8-759-711-10	NJU4066BM		Q1323	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
IC3204	8-759-100-96	UPC4558G2		Q1324	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
IC3205	8-752-058-68	CXA1315M		Q1324	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
IC3206	8-759-690-57	BH3868BFS-E2		Q1365	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
IC6200	8-759-168-24	TA8200AH		Q1365	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
<JACK>				Q1372	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
J1401	1-784-646-11	TERMINAL, S		Q1372	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
J1402	1-778-387-11	JACK BLOCK, PIN 12P		Q1401	8-729-230-49	2SC2712-YG(KV-XA29M60 ONLY)	
<CHIP CONDUCTOR>				Q1402	8-729-026-49	2SA1037AK-T146-R(KV-XA29M60 ONLY)	
JR1303	1-216-295-11	SHORT	0	Q1403	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
JR1401	1-216-295-11	SHORT	0(KV-XA29M84 ONLY)	Q1403	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
JR1405	1-216-295-11	SHORT	0	Q1404	8-729-120-28	2SC1623-L5L6(KV-XA29M60 ONLY)	
JR1406	1-216-295-11	SHORT	0	Q1404	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
JR1407	1-216-295-11	SHORT	0	Q1408	8-729-230-49	2SC2712-YG	
JR1409	1-216-295-11	SHORT	0	Q1409	8-729-230-49	2SC2712-YG	
JR1410	1-216-295-11	SHORT	0	Q1410	8-729-230-49	2SC2712-YG(KV-XA29M84 ONLY)	
JR1411	1-216-295-11	SHORT	0	Q3201	8-729-224-62	2SK246-GR	
JR3202	1-216-295-11	SHORT	0	Q3202	8-729-230-49	2SC2712-YG	
JR3204	1-216-295-11	SHORT	0	Q3203	8-729-230-49	2SC2712-YG	
JR3209	1-216-295-11	SHORT	0	Q3204	8-729-224-62	2SK246-GR	
JR3210	1-216-295-11	SHORT	0	Q6201	8-729-421-19	UN2213	
JR3211	1-216-295-11	SHORT	0	Q6203	8-729-421-19	UN2213	
JR3212	1-216-295-11	SHORT	0	Q6204	8-729-421-19	UN2213	
JR6200	1-216-295-11	SHORT	0	Q6208	8-729-421-19	UN2213	
JR6202	1-216-295-11	SHORT	0	<RESISTOR>			
JR6203	1-216-295-11	SHORT	0	R1301	1-216-041-00	RES-CHIP	470 5% 1/10W
JR6204	1-216-295-11	SHORT	0	R1318	1-216-033-00	RES-CHIP	220 5% 1/10W
JR6206	1-216-295-11	SHORT	0	R1320	1-216-081-00	RES-CHIP	22K 5% 1/10W
<COIL>				R1343	1-216-049-11	RES-CHIP	1K 5% 1/10W
L1313	1-414-187-11	INDUCTOR	47UH	(KV-XA29M60 ONLY)			
L1314	1-414-856-11	INDUCTOR	10UH	R1344	1-216-025-11	RES-CHIP	100 5% 1/10W
L1315	1-414-856-11	INDUCTOR	10UH	R1345	1-216-041-00	RES-CHIP	470 5% 1/10W
L1317	1-414-856-11	INDUCTOR	10UH	R1346	1-216-041-00	RES-CHIP	470 5% 1/10W
L1400	1-414-856-11	INDUCTOR	10UH (KV-XA29M84 ONLY)	R1347	1-216-025-11	RES-CHIP	100 5% 1/10W
L1402	1-412-537-31	INDUCTOR	100UH (KV-XA29M84 ONLY)	R1350	1-216-085-00	RES-CHIP	33K 5% 1/10W
L1403	1-414-856-11	INDUCTOR	10UH (KV-XA29M84 ONLY)	R1359	1-216-025-11	RES-CHIP	100 5% 1/10W
				R1360	1-216-041-00	RES-CHIP	470 5% 1/10W
				R1361	1-216-041-00	RES-CHIP	470 5% 1/10W
				R1362	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
				R1363	1-216-033-00	RES-CHIP	220 5% 1/10W
				R1364	1-216-089-11	RES-CHIP	47K 5% 1/10W

KV-XA29M60/XA29M84

RM-954

RM-953

B

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1365	1-216-081-00	RES-CHIP 22K	5% 1/10W
R1366	1-216-295-11	SHORT 0	
R1368	1-216-049-11	RES-CHIP 1K	5% 1/10W
R1369	1-216-025-11	RES-CHIP 100	5% 1/10W
R1370	1-216-041-00	RES-CHIP 470	5% 1/10W
R1371	1-216-039-00	RES-CHIP 390	5% 1/10W
R1372	1-216-041-00	RES-CHIP 470	5% 1/10W
R1397	1-216-045-00	RES-CHIP 680	5% 1/10W
R1400	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1401	1-216-031-00	RES-CHIP 180 (KV-XA29M84 ONLY)	5% 1/10W
R1402	1-216-033-00	RES-CHIP 220 (KV-XA29M84 ONLY)	5% 1/10W
R1403	1-216-033-00	RES-CHIP 220	5% 1/10W
R1404	1-216-295-11	SHORT 0	
R1406	1-216-013-00	RES-CHIP 33	5% 1/10W
R1407	1-216-033-00	RES-CHIP 220	5% 1/10W
R1408	1-216-031-00	RES-CHIP 180	5% 1/10W
R1409	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1410	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1411	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1412	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1413	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1414	1-216-025-11	RES-CHIP 100	5% 1/10W
R1417	1-216-025-11	RES-CHIP 100	5% 1/10W
R1418	1-216-025-11	RES-CHIP 100	5% 1/10W
R1419	1-216-025-11	RES-CHIP 100 (KV-XA29M84 ONLY)	5% 1/10W
R1420	1-216-073-00	RES-CHIP 10K (KV-XA29M84 ONLY)	5% 1/10W
R1421	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R1423	1-216-025-11	RES-CHIP 100 (KV-XA29M84 ONLY)	5% 1/10W
R1424	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1425	1-216-047-91	RES-CHIP 820	5% 1/10W
R1426	1-216-025-11	RES-CHIP 100	5% 1/10W
R1427	1-216-063-91	RES-CHIP 3.9K	5% 1/10W
R1428	1-216-025-11	RES-CHIP 100	5% 1/10W
R1429	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1430	1-216-025-11	RES-CHIP 100	5% 1/10W
R1431	1-216-025-11	RES-CHIP 100	5% 1/10W
R1432	1-216-041-00	RES-CHIP 470	5% 1/10W
R1433	1-216-025-11	RES-CHIP 100	5% 1/10W
R1434	1-216-025-11	RES-CHIP 100 (KV-XA29M84 ONLY)	5% 1/10W
R1435	1-216-022-00	RES-CHIP 75	5% 1/10W
R1436	1-216-025-11	RES-CHIP 100	5% 1/10W
R1437	1-216-022-00	RES-CHIP 75	5% 1/10W
R1438	1-216-025-11	RES-CHIP 100	5% 1/10W
R1439	1-216-295-11	SHORT 0	
R1441	1-216-025-11	RES-CHIP 100	5% 1/10W
R1442	1-216-049-11	RES-CHIP 1K	5% 1/10W
R1443	1-216-049-11	RES-CHIP 1K	5% 1/10W
R1444	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1445	1-216-025-11	RES-CHIP 100	5% 1/10W
R1446	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1447	1-216-025-11	RES-CHIP 100	5% 1/10W
R1448	1-216-043-91	RES-CHIP 560	5% 1/10W
R1449	1-249-429-11	CARBON 10K	5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1450	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1451	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1452	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1453	1-216-025-11	RES-CHIP 100	5% 1/10W
R1454	1-216-091-00	RES-CHIP 56K	5% 1/10W
R1455	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1456	1-216-113-00	RES-CHIP 470K	5% 1/10W
R1457	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1458	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1459	1-216-025-11	RES-CHIP 100	5% 1/10W
R1460	1-216-033-00	RES-CHIP 220	5% 1/10W
R1461	1-216-025-11	RES-CHIP 100	5% 1/10W
R1462	1-216-025-11	RES-CHIP 100 (KV-XA29M84 ONLY)	5% 1/10W
R1463	1-249-429-11	CARBON 10K	5% 1/4W
R1464	1-216-113-00	RES-CHIP 470K	5% 1/10W
R1465	1-216-113-00	RES-CHIP 470K	5% 1/10W
R1466	1-216-033-00	RES-CHIP 220	5% 1/10W
R1467	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R1468	1-216-093-91	RES-CHIP 68K	5% 1/10W
R1469	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1470	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1471	1-216-022-00	RES-CHIP 75	5% 1/10W
R1472	1-216-033-00	RES-CHIP 220	5% 1/10W
R1473	1-216-033-00	RES-CHIP 220	5% 1/10W
R1474	1-216-295-11	SHORT 0(KV-XA29M84 ONLY)	
R1475	1-216-089-11	RES-CHIP 47K	5% 1/10W
R1476	1-216-091-00	RES-CHIP 56K	5% 1/10W
R1477	1-216-047-91	RES-CHIP 820	5% 1/10W
R1478	1-216-051-00	RES-CHIP 1.2K	5% 1/10W
R1479	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1480	1-216-105-91	RES-CHIP 220K	5% 1/10W
R1481	1-216-022-00	RES-CHIP 75	5% 1/10W
R1482	1-216-025-11	RES-CHIP 100	5% 1/10W
R1483	1-216-025-11	RES-CHIP 100	5% 1/10W
R1484	1-216-025-11	RES-CHIP 100	5% 1/10W
R1485	1-216-025-11	RES-CHIP 100	5% 1/10W
R1486	1-216-067-00	RES-CHIP 5.6K	5% 1/10W
R1487	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R1488	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R1489	1-216-022-00	RES-CHIP 75	5% 1/10W
R1490	1-216-025-11	RES-CHIP 100	5% 1/10W
R1491	1-216-025-11	RES-CHIP 100	5% 1/10W
R1492	1-216-021-00	RES-CHIP 68	5% 1/10W
R1493	1-216-067-00	RES-CHIP 5.6K	5% 1/10W
R1494	1-216-031-00	RES-CHIP 180 (KV-XA29M84 ONLY)	5% 1/10W
R1495	1-216-033-00	RES-CHIP 220 (KV-XA29M84 ONLY)	5% 1/10W
R1496	1-216-041-00	RES-CHIP 470	5% 1/10W
R1497	1-216-041-00	RES-CHIP 470	5% 1/10W
R1498	1-216-025-11	RES-CHIP 100	5% 1/10W
R1499	1-216-025-11	RES-CHIP 100	5% 1/10W
R1500	1-216-025-11	RES-CHIP 100	5% 1/10W
R1501	1-216-045-00	RES-CHIP 680	5% 1/10W
R1503	1-216-073-00	RES-CHIP 10K	5% 1/10W
R1504	1-216-073-00	RES-CHIP 10K	5% 1/10W

B	B1 (KV-XA29M60 only)
----------	-----------------------------

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1505	1-216-022-00	RES-CHIP	75 5% 1/10W	R3257	1-216-097-11	RES-CHIP	100K 5% 1/10W
R1506	1-216-033-00	RES-CHIP	220 5% 1/10W	R3258	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3200	1-216-121-11	RES-CHIP	1M 5% 1/10W	R3259	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R3201	1-216-121-11	RES-CHIP	1M 5% 1/10W	R3262	1-216-101-00	RES-CHIP	150K 5% 1/10W
R3202	1-216-097-11	RES-CHIP	100K 5% 1/10W	R3263	1-216-093-91	RES-CHIP	68K 5% 1/10W
R3203	1-216-121-11	RES-CHIP	1M 5% 1/10W	R3267	1-216-049-11	RES-CHIP	1K 5% 1/10W
R3204	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R3268	1-216-049-11	RES-CHIP	1K 5% 1/10W
R3205	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R3269	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3206	1-216-039-00	RES-CHIP	390 5% 1/10W	R3271	1-216-063-91	RES-CHIP	3.9K 5% 1/10W
R3207	1-216-073-00	RES-CHIP	10K 5% 1/10W	R3273	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3208	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R3274	1-216-063-91	RES-CHIP	3.9K 5% 1/10W
R3209	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6201	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R3210	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R6202	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R3211	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R6203	1-216-295-11	SHORT	0
R3212	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R6209	1-216-049-11	RES-CHIP	1K 5% 1/10W
R3213	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R6213	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3214	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R6214	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3215	1-216-095-00	RES-CHIP	82K 5% 1/10W	R6219	1-216-089-11	RES-CHIP	47K 5% 1/10W
R3216	1-216-129-00	RES-CHIP	2.2M 5% 1/10W	R6220	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V
R3217	1-216-085-00	RES-CHIP	33K 5% 1/10W	R6245	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R3218	1-216-091-00	RES-CHIP	56K 5% 1/10W	R6246	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R3219	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6254	1-216-021-00	RES-CHIP	68 5% 1/10W
R3220	1-216-097-11	RES-CHIP	100K 5% 1/10W	R6255	1-216-308-00	RES-CHIP	4.7 5% 1/10W
R3221	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6258	1-216-021-00	RES-CHIP	68 5% 1/10W
R3222	1-216-073-00	RES-CHIP	10K 5% 1/10W	R6259	1-216-308-00	RES-CHIP	4.7 5% 1/10W
R3223	1-216-045-00	RES-CHIP	680 5% 1/10W	<TUNER>			
R3224	1-216-101-00	RES-CHIP	150K 5% 1/10W	TU1401	8-598-508-10	TUNER, FSS BTF-LG436(KV-XA29M84 ONLY)	
R3225	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	*****			
R3226	1-216-095-00	RES-CHIP	82K 5% 1/10W	* A-1131-665-A B1 BOARD MOUNTED (KV-XA29M60 ONLY)			
R3227	1-216-091-00	RES-CHIP	56K 5% 1/10W	*****			
R3228	1-216-085-00	RES-CHIP	33K 5% 1/10W	<CAPACITOR>			
R3229	1-216-025-11	RES-CHIP	100 5% 1/10W	C1513	1-163-038-11	CERAMIC CHIP	0.1UF 25V
R3230	1-216-025-11	RES-CHIP	100 5% 1/10W	C1514	1-163-038-11	CERAMIC CHIP	0.1UF 25V
R3231	1-216-073-00	RES-CHIP	10K 5% 1/10W	C1515	1-163-243-11	CERAMIC CHIP	47PF 5.00% 50V
R3232	1-216-073-00	RES-CHIP	10K 5% 1/10W	C1517	1-164-005-11	CERAMIC CHIP	0.47UF 25V
R3233	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	C1518	1-126-967-11	ELECT	47UF 20.00% 50V
R3234	1-216-039-00	RES-CHIP	390 5% 1/10W	C1519	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V
R3235	1-216-101-00	RES-CHIP	150K 5% 1/10W	C1520	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V
R3236	1-216-113-00	RES-CHIP	470K 5% 1/10W	C1522	1-164-005-11	CERAMIC CHIP	0.47UF 25V
R3237	1-216-045-00	RES-CHIP	680 5% 1/10W	C1523	1-163-255-11	CERAMIC CHIP	150PF 5.00% 50V
R3238	1-216-073-00	RES-CHIP	10K 5% 1/10W	C1524	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V
R3239	1-216-073-00	RES-CHIP	10K 5% 1/10W	C1525	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V
R3240	1-216-081-00	RES-CHIP	22K 5% 1/10W	C1526	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V
R3241	1-216-093-91	RES-CHIP	68K 5% 1/10W	C1528	1-164-005-11	CERAMIC CHIP	0.47UF 25V
R3242	1-216-081-00	RES-CHIP	22K 5% 1/10W	C1529	1-163-255-11	CERAMIC CHIP	150PF 5.00% 50V
R3243	1-216-121-11	RES-CHIP	1M 5% 1/10W	C1530	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V
R3244	1-216-121-11	RES-CHIP	1M 5% 1/10W	C1543	1-126-933-11	ELECT	100UF 20.00% 16V
R3245	1-216-097-11	RES-CHIP	100K 5% 1/10W	C1544	1-165-319-11	CERAMIC CHIP	0.1UF 50V
R3246	1-216-045-00	RES-CHIP	680 5% 1/10W	C1554	1-165-319-11	CERAMIC CHIP	0.1UF 50V
R3247	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	C1555	1-163-038-11	CERAMIC CHIP	0.1UF 25V
R3248	1-216-025-11	RES-CHIP	100 5% 1/10W	C1556	1-163-038-11	CERAMIC CHIP	0.1UF 25V
R3249	1-216-025-11	RES-CHIP	100 5% 1/10W				
R3251	1-216-101-00	RES-CHIP	150K 5% 1/10W				
R3252	1-216-113-00	RES-CHIP	470K 5% 1/10W				
R3253	1-216-045-00	RES-CHIP	680 5% 1/10W				
R3254	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R3255	1-216-121-11	RES-CHIP	1M 5% 1/10W				
R3256	1-216-121-11	RES-CHIP	1M 5% 1/10W				

KV-XA29M60/XA29M84

RM-954

RM-953

B1(KV-XA29M60 only)**C6**

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<CONNECTOR>	
CN1501 *	1-564-511-11	PLUG, CONNECTOR 8P	
CN1502 *	1-564-508-11	PLUG, CONNECTOR 5P	
CN1503	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P	
		<DIODE>	
D1501	8-719-158-35	RD9.1S-B	
		<IC>	
IC1502	8-759-439-64	HEF4053BT	
		<COIL>	
L1501	1-414-856-11	INDUCTOR 10UH	
L1506	1-414-857-11	INDUCTOR 100UH	
L1507	1-414-187-11	INDUCTOR 47UH	
L1508	1-414-187-11	INDUCTOR 47UH	
L1509	1-414-857-11	INDUCTOR 100UH	
L1510	1-414-187-11	INDUCTOR 47UH	
L1511	1-414-187-11	INDUCTOR 47UH	
		<TRANSISTOR>	
Q1501	8-729-230-49	2SC2712-YG	
Q1502	8-729-216-22	2SA1162-G	
Q1503	8-729-230-49	2SC2712-YG	
Q1504	8-729-230-49	2SC2712-YG	
Q1505	8-729-230-49	2SC2712-YG	
Q1506	8-729-230-49	2SC2712-YG	
Q1507	8-729-216-22	2SA1162-G	
Q1509	8-729-230-49	2SC2712-YG	
Q1510	8-729-230-49	2SC2712-YG	
Q1511	8-729-216-22	2SA1162-G	
Q1514	8-729-230-49	2SC2712-YG	
Q1515	8-729-230-49	2SC2712-YG	
Q1516	8-729-216-22	2SA1162-G	
Q1520	8-729-230-49	2SC2712-YG	
Q1522	8-729-230-49	2SC2712-YG	
Q1523	8-729-216-22	2SA1162-G	
		<RESISTOR>	
R1501	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R1502	1-216-049-11	RES-CHIP 1K 5% 1/10W	
R1503	1-216-025-11	RES-CHIP 100 5% 1/10W	
R1504	1-216-025-11	RES-CHIP 100 5% 1/10W	
R1506	1-216-025-11	RES-CHIP 100 5% 1/10W	
R1507	1-216-081-00	RES-CHIP 22K 5% 1/10W	
R1508	1-216-073-00	RES-CHIP 10K 5% 1/10W	
R1511	1-216-033-00	RES-CHIP 220 5% 1/10W	
R1512	1-216-005-00	RES-CHIP 15 5% 1/10W	
R1515	1-216-041-00	RES-CHIP 470 5% 1/10W	
R1516	1-216-025-11	RES-CHIP 100 5% 1/10W	
R1517	1-216-075-00	RES-CHIP 12K 5% 1/10W	

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1520	1-216-079-00	RES-CHIP	18K	5%	1/10W
R1522	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1523	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1528	1-216-033-00	RES-CHIP	220	5%	1/10W
R1529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R1531	1-216-045-00	RES-CHIP	680	5%	1/10W
R1537	1-216-041-00	RES-CHIP	470	5%	1/10W
R1538	1-216-041-00	RES-CHIP	470	5%	1/10W
R1540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1541	1-216-041-00	RES-CHIP	470	5%	1/10W
R1542	1-216-041-00	RES-CHIP	470	5%	1/10W
R1543	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1545	1-216-041-00	RES-CHIP	470	5%	1/10W
R1547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1548	1-216-025-11	RES-CHIP	100	5%	1/10W
R1549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R1551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R1552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1554	1-216-033-00	RES-CHIP	220	5%	1/10W
R1556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1559	1-216-041-00	RES-CHIP	470	5%	1/10W
R1560	1-216-041-00	RES-CHIP	470	5%	1/10W
R1561	1-216-041-00	RES-CHIP	470	5%	1/10W
R1562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1563	1-216-041-00	RES-CHIP	470	5%	1/10W
R1566	1-216-041-00	RES-CHIP	470	5%	1/10W
R1567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R1568	1-216-041-00	RES-CHIP	470	5%	1/10W
R1569	1-216-049-11	RES-CHIP	1K	5%	1/10W

* A-1332-138-A		C6 BOARD MOUNTED(KV-XA29M60)			
A-1332-110-A		C6 BOARD MOUNTED(KV-XA29M84)			

4-352-844-01		PIN, LEAD, COATING			
4-382-854-11		SCREW (M3X10), P, SW (+)			
<CAPACITOR>					
C701	1-162-114-00	CERAMIC	0.0047UF	2KV	
C702	1-102-074-00	CERAMIC	0.001UF	10.00% 50V	
C708	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C709	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C710	1-102-114-00	CERAMIC	470PF	10.00% 50V	
C712	1-102-115-00	CERAMIC	560PF	10.00% 50V	
C713	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C714	1-102-112-00	CERAMIC	330PF	10.00% 50V	
C716	1-126-933-11	ELECT	100UF	20.00% 16V	
C717	1-107-651-11	ELECT	4.7UF	20.00% 250V	
C718	1-102-106-00	CERAMIC	100PF	10.00% 50V	
C1800	1-126-964-11	ELECT	10UF	20.00% 50V	
C1803	1-126-964-11	ELECT	10UF	20.00% 50V	
C1804	1-126-964-11	ELECT	10UF	20.00% 50V	
C1809	1-126-942-61	ELECT	1000UF	20.00% 25V	

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

C6

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1810	1-102-106-00	CERAMIC 100PF	10.00% 50V	Q709	8-729-200-17	2SA1091-O	
				Q710	8-729-119-78	2SC2785-HFE	
		<CONNECTOR>		Q711	8-729-119-78	2SC2785-HFE	
CN700	1-695-915-11	TAB (CONTACT)		Q712	8-729-119-78	2SC2785-HFE	
CN702	1-695-915-11	TAB (CONTACT)		Q714	8-729-255-12	2SC2551-O	
CN703 *	1-564-509-11	PLUG, CONNECTOR 6P		Q1800	8-729-119-76	2SA1175-HFE	
CN704	1-695-915-11	TAB (CONTACT)		Q1802	8-729-119-78	2SC2785-HFE	
CN712 *	1-564-507-11	PLUG, CONNECTOR 4P				<RESISTOR>	
CN1801 *	1-564-509-11	PLUG, CONNECTOR 6P		R701	1-249-496-11	CARBON 100K	5% 1/2W
CN1802 *	1-564-506-11	PLUG, CONNECTOR 3P		R705	1-216-392-11	METAL OXIDE 1.8	5% 3W
		<DIODE>		R710	1-215-923-00	METAL OXIDE 10K	5% 3W
D701	8-719-911-19	1SS119-25		R711	1-260-328-11	CARBON 1K	5% 1/2W
D702	8-719-911-19	1SS119-25		R712	1-215-923-00	METAL OXIDE 10K	5% 3W
D703	8-719-911-19	1SS119-25		R713	1-260-330-11	CARBON 1.5K	5% 1/2W
D704	8-719-911-19	1SS119-25		R714	1-215-923-00	METAL OXIDE 10K	5% 3W
D705	8-719-911-19	1SS119-25		R715	1-260-330-11	CARBON 1.5K	5% 1/2W
D706	8-719-911-19	1SS119-25		R716	1-249-899-11	CARBON 100	5% 1/4W
D707	8-719-911-19	1SS119-25				(KV-XA29M60 ONLY)	
D708	8-719-911-19	1SS119-25		R716	1-249-405-11	CARBON 100	5% 1/4W
D709	8-719-911-19	1SS119-25				(KV-XA29M84 ONLY)	
D710	8-719-911-19	1SS119-25		R717	1-249-899-11	CARBON 100	5% 1/4W
						(KV-XA29M60 ONLY)	
D711	8-719-911-19	1SS119-25		R717	1-249-405-11	CARBON 100	5% 1/4W
D712	8-719-911-19	1SS119-25				(KV-XA29M84 ONLY)	
D716	8-719-911-19	1SS119-25		R718	1-249-899-11	CARBON 100	5% 1/4W
D717	8-719-070-16	NNCD9.1A-T1				(KV-XA29M60 ONLY)	
D1803	8-719-911-19	1SS119-25		R718	1-249-405-11	CARBON 100	5% 1/4W
						(KV-XA29M84 ONLY)	
D1804	8-719-911-19	1SS119-25		R719	1-215-469-00	METAL 100K	1% 1/4W
D1808	8-719-908-03	GP08D		R720	1-249-923-11	CARBON 1K	5% 1/4W
		<IC>		R722	1-249-923-11	CARBON 1K	5% 1/4W
IC1800	8-759-822-38	LA6510		R723	1-215-469-00	METAL 100K	1% 1/4W
				R724	1-249-923-11	CARBON 1K	5% 1/4W
		<JACK>		R725	1-249-424-11	CARBON 3.9K	5% 1/4W
J701 $\triangle$	1-540-071-22	SOCKET, CRT		R726	1-249-424-11	CARBON 3.9K	5% 1/4W
				R727	1-249-424-11	CARBON 3.9K	5% 1/4W
		<COIL>		R728	1-249-408-11	CARBON 180	5% 1/4W
L701	1-410-667-31	INDUCTOR 22UH		R729	1-249-408-11	CARBON 180	5% 1/4W
L703	1-414-186-31	INDUCTOR 33UH		R730	1-249-408-11	CARBON 180	5% 1/4W
L705	1-414-186-31	INDUCTOR 33UH		R731	1-249-401-11	CARBON 47	5% 1/4W
L707	1-414-187-11	INDUCTOR 47UH		R732	1-249-401-11	CARBON 47	5% 1/4W
				R733	1-249-401-11	CARBON 47	5% 1/4W
		<TRANSISTOR>		R734	1-247-739-11	CARBON 100	5% 1/2W
Q701	8-729-326-11	2SC2611		R738	1-247-807-31	CARBON 100	5% 1/4W
Q702	8-729-326-11	2SC2611		R739	1-247-807-31	CARBON 100	5% 1/4W
Q703	8-729-326-11	2SC2611		R740	1-247-807-31	CARBON 100	5% 1/4W
Q704	8-729-326-11	2SC2611		R747	1-215-926-00	METAL OXIDE 33K	5% 3W
Q705	8-729-326-11	2SC2611		R749	1-215-927-00	METAL OXIDE 47K	5% 3W
				R751	1-215-926-00	METAL OXIDE 33K	5% 3W
Q706	8-729-326-11	2SC2611		R753	1-249-429-11	CARBON 10K	5% 1/4W
Q707	8-729-200-17	2SA1091-O		R755	1-249-427-11	CARBON 6.8K	5% 1/4W
Q708	8-729-200-17	2SA1091-O		R756	1-249-427-11	CARBON 6.8K	5% 1/4W
				R757	1-249-427-11	CARBON 6.8K	5% 1/4W
				R758	1-249-419-11	CARBON 1.5K	5% 1/4W
				R759	1-249-419-11	CARBON 1.5K	5% 1/4W
				R760	1-249-419-11	CARBON 1.5K	5% 1/4W



Table with 7 columns: REF. NO., PART NO., DESCRIPTION, and three unlabeled columns for values. Rows include carbon resistors (R1800-R1825), variable resistors (RV702, RV1801), capacitors (C2800-C2813), and connectors (CN2800-CN2803).

Table with 7 columns: REF. NO., PART NO., DESCRIPTION, and three unlabeled columns for values. Rows include diodes (D2800-D2803), ICs (IC2800, IC2801), coils (L2800-L2804), transistors (Q2800-Q2804), resistors (R2800-R2815), and a transformer (T2800).

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



REF. NO.	PART NO.	DESCRIPTION	REMARK			
	* A-1241-447-A	F BOARD MOUNTED(KV-XA29M60)				
	A-1241-443-A	F BOARD MOUNTED(KV-XA29M84)				

	1-533-223-11	CLIP, FUSE				
	4-044-778-11	COVER, CAP TYPE CONDENSER (KV-XA29M60 ONLY)				
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE (KV-XA29M84)				
		<CAPACITOR>				
C654	1-117-703-11	CERAMIC	0.0047UF	99%	250V	
C4601	$\triangle$ 1-104-708-11	MYLAR	0.47UF	20.00%	250V	
C4602	$\triangle$ 1-109-835-11	MYLAR	0.68UF	20.00%	250V	
		<CONNECTOR>				
CN4601	* 1-580-843-11	PIN, CONNECTOR (POWER)				
CN4602	* 1-580-843-11	PIN, CONNECTOR (POWER)				
CN4603	1-695-915-11	TAB (CONTACT)				
		<FUSE>				
F4601	$\triangle$ 1-532-299-00	FUSE, TIME-LAG 5A/250V				
		<RESISTOR>				
R4601	$\triangle$ 1-202-719-00	SOLID	1M	10%	1/2W	
		<TRANSFORMER>				
T4601	1-424-505-11	TRANSFORMER, LINE FILTER				
T4602	1-431-182-11	TRANSFORMER, LINE FILTER				
		<VARISTOR>				
VDR461	1-803-830-31	VARISTOR (ERZV14D621)				

	* A-1372-912-A	H BOARD MOUNTED (KV-XA29M60)				
	* A-1372-887-A	H BOARD MOUNTED (KV-XA29M84)				

	* 4-055-304-11	HOLDER, LED				
		<CAPACITOR>				
C3900	1-136-153-00	FILM	0.01UF	5.00%	50V	
C3902	1-136-153-00	FILM	0.01UF	5.00%	50V	
C3904	1-104-664-11	ELECT	47UF	20.00%	25V	
C3905	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C3906	1-126-963-11	ELECT	4.7UF	20.00%	50V	
C3910	1-104-664-11	ELECT	47UF	20.00%	16V	
C3911	1-104-664-11	ELECT	47UF	20.00%	16V	
C3912	1-102-114-00	CERAMIC	470PF	10.00%	50V	
C3913	1-126-960-11	ELECT	1UF	20.00%	50V	

REF. NO.	PART NO.	DESCRIPTION	REMARK			
<CONNECTOR>						
CN3601 *	1-580-844-11	PIN, CONNECTOR (POWER)				
CN3602 *	1-580-844-11	PIN, CONNECTOR (POWER)				
CN3901 *	1-564-507-11	PLUG, CONNECTOR 4P				
CN3902 *	1-564-509-11	PLUG, CONNECTOR 6P				
CN3904 *	1-564-512-11	PLUG, CONNECTOR 9P				
CN3905 *	1-564-512-11	PLUG, CONNECTOR 9P				
<DIODE>						
D3900	8-719-070-16	NNCD9.1A-T1				
D3901	8-719-070-16	NNCD9.1A-T1				
D3905	8-719-070-16	NNCD9.1A-T1				
D3906	8-719-045-19	SPB-26MVWF				
D3907	8-719-070-16	NNCD9.1A-T1				
D3908	8-719-070-16	NNCD9.1A-T1				
<IC>						
IC3901	8-759-180-30	SBX3081-01(30)				
<JACK>						
J3901	1-750-264-11	JACK				
J3902	1-784-646-11	TERMINAL, S				
J3903	1-770-329-11	JACK, PIN 3P				
<COIL>						
L3901	1-414-183-41	INDUCTOR	10UH			
L3902	1-414-183-41	INDUCTOR	10UH			
<TRANSISTOR>						
Q3901	8-729-030-02	DTC144ESA				
Q3902	8-729-030-02	DTC144ESA				
<RESISTOR>						
R3900	1-249-411-11	CARBON	330	5%	1/4W	
R3901	1-249-411-11	CARBON	330	5%	1/4W	
R3902	1-247-804-11	CARBON	75	5%	1/4W	
R3904	1-249-429-11	CARBON	10K	5%	1/4W	
R3905	1-249-429-11	CARBON	10K	5%	1/4W	
R3907	1-249-426-11	CARBON	5.6K	5%	1/4W	
R3908	1-249-413-11	CARBON	470	5%	1/4W	
R3909	1-249-417-11	CARBON	1K	5%	1/4W	
R3910	1-249-420-11	CARBON	1.8K	5%	1/4W	
R3911	1-249-411-11	CARBON	330	5%	1/4W	
R3912	1-247-843-11	CARBON	3.3K	5%	1/4W	
R3913	1-249-429-11	CARBON	10K	5%	1/4W	
R3914	1-249-411-11	CARBON	330	5%	1/4W	
R3915	1-249-429-11	CARBON	10K	5%	1/4W	
R3916	1-249-401-11	CARBON	47	5%	1/4W	
R3917	1-247-804-11	CARBON	75	5%	1/4W	
R3918	1-249-409-11	CARBON	220	5%	1/4W	
R3919	1-249-409-11	CARBON	220	5%	1/4W	

H

J

P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION			REMARK
R3920	1-247-807-31	CARBON	100	5%	1/4W
R3921	1-247-807-31	CARBON	100	5%	1/4W
R3922	1-249-421-11	CARBON	2.2K	5%	1/4W
<SWITCH>					
S3901	1-571-433-21	SWITCH, PUSH (AC POWER)			
S3902	1-692-431-21	SWITCH, TACTILE			
S3903	1-692-431-21	SWITCH, TACTILE			
S3904	1-692-431-21	SWITCH, TACTILE			
S3905	1-692-431-21	SWITCH, TACTILE			
S3906	1-692-431-21	SWITCH, TACTILE			
S3907	1-692-431-21	SWITCH, TACTILE			
S3908	1-692-431-21	SWITCH, TACTILE			

* A-1388-296-A		J BOARD MOUNTED(KV-XA29M60)			
* A-1388-288-A		J BOARD MOUNTED (KV-XA29M84)			

<CAPACITOR>					
C2410	1-126-967-11	ELECT	47UF	20.00%	50V
C2411	1-126-967-11	ELECT	47UF	20.00%	50V
C2412	1-126-967-11	ELECT	47UF	20.00%	50V
C2413	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2414	1-102-112-00	CERAMIC	330PF	10.00%	50V
C2418	1-126-960-11	ELECT	1UF	20.00%	50V
C2419	1-126-960-11	ELECT	1UF	20.00%	50V
<CONNECTOR>					
CN2410*	1-564-523-11	PLUG, CONNECTOR 8P			
<DIODE>					
D2410	8-719-070-16	NNCD9.1A-T1			
D2411	8-719-070-16	NNCD9.1A-T1			
D2412	8-719-070-16	NNCD9.1A-T1			
D2414	8-719-070-16	NNCD9.1A-T1			
D2415	8-719-070-16	NNCD9.1A-T1			
<JACK>					
J2410	1-784-623-11	BLOCK, PIN JACK 5P			
<RESISTOR>					
R2410	1-247-804-11	CARBON	75	5%	1/4W
R2411	1-247-804-11	CARBON	75	5%	1/4W
R2412	1-247-804-11	CARBON	75	5%	1/4W
R2414	1-247-887-00	CARBON	220K	5%	1/4W
R2415	1-247-807-31	CARBON	100	5%	1/4W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R2417	1-247-887-00	CARBON	220K	5%	1/4W
R2418	1-247-807-31	CARBON	100	5%	1/4W
R2419	1-249-409-11	CARBON	220	5%	1/4W
R2420	1-249-409-11	CARBON	220	5%	1/4W
R2421	1-249-409-11	CARBON	220	5%	1/4W

* A-1190-376-A		P2 BOARD MOUNTED (KV-XA29M84 ONLY)			

<CAPACITOR>					
C4300	1-164-346-11	CERAMIC CHIP	1UF		16V
C4301	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4302	1-163-031-11	CERAMIC CHIP	0.01UF		50V
C4303	1-126-960-11	ELECT	1UF	20.00%	50V
C4304	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4312	1-104-664-11	ELECT	47UF	20.00%	16V
C4314	1-126-964-11	ELECT	10UF	20.00%	50V
C4315	1-126-934-11	ELECT	220UF	20.00%	16V
C4317	1-104-664-11	ELECT	47UF	20.00%	16V
C4318	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4319	1-163-233-11	CERAMIC CHIP	18PF	5.00%	50V
C4320	1-163-233-11	CERAMIC CHIP	18PF	5.00%	50V
C4321	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4322	1-126-957-11	ELECT	0.22UF	20.00%	50V
C4323	1-163-259-91	CERAMIC CHIP	220PF	5.00%	50V
C4324	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4325	1-104-664-11	ELECT	47UF	20.00%	16V
C4326	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4327	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C4329	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4330	1-126-963-11	ELECT	4.7UF	20.00%	50V
C4331	1-126-964-11	ELECT	10UF	20.00%	50V
C4332	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C4333	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4334	1-126-960-11	ELECT	1UF	20.00%	50V
C4335	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V
C4336	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V
C4337	1-164-346-11	CERAMIC CHIP	1UF		16V
C4338	1-164-346-11	CERAMIC CHIP	1UF		16V
C4339	1-164-346-11	CERAMIC CHIP	1UF		16V
C4340	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4341	1-104-665-11	ELECT	100UF	20.00%	10V
C4347	1-104-665-11	ELECT	100UF	20.00%	10V
C4348	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4349	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C4350	1-126-964-11	ELECT	10UF	20.00%	50V
C4352	1-163-251-11	CERAMIC CHIP	100PF	5.00%	50V
C4353	1-104-665-11	ELECT	100UF	20.00%	10V
C4355	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4356	1-164-346-11	CERAMIC CHIP	1UF		16V
C4357	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4359	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C4362	1-163-235-11	CERAMIC CHIP	22PF	5.00%	50V

P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C4363	1-163-237-11	CERAMIC CHIP	27PF 5.00% 50V	IC4502	8-759-439-64	HEF4053BT	
C4364	1-104-665-11	ELECT	100UF 20.00% 10V	IC4503	8-759-439-64	HEF4053BT	
C4365	1-163-038-11	CERAMIC CHIP	0.1UF 25V				
C4366	1-163-031-11	CERAMIC CHIP	0.01UF 50V			<CHIP CONDUCTOR>	
C4367	1-126-960-11	ELECT	1UF 20.00% 50V				
C4371	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	JR4300	1-216-295-11	SHORT	0
C4372	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	JR4301	1-216-295-11	SHORT	0
				JR4305	1-216-295-11	SHORT	0
C4377	1-104-665-11	ELECT	100UF 20.00% 10V	JR4500	1-216-295-11	SHORT	0
C4380	1-163-038-11	CERAMIC CHIP	0.1UF 25V	JR4502	1-216-295-11	SHORT	0
C4394	1-104-664-11	ELECT	47UF 20.00% 16V				
C4396	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	JR4503	1-216-295-11	SHORT	0
C4397	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	JR4505	1-216-295-11	SHORT	0
C4398	1-126-964-11	ELECT	10UF 20.00% 50V			<COIL>	
C4399	1-126-964-11	ELECT	10UF 20.00% 50V				
C4554	1-165-319-11	CERAMIC CHIP	0.1UF 50V	L4302	1-412-537-31	INDUCTOR	100UH
C4613	1-163-038-11	CERAMIC CHIP	0.1UF 25V	L4304	1-408-603-31	INDUCTOR	10UH
C4614	1-163-038-11	CERAMIC CHIP	0.1UF 25V	L4305	1-408-603-31	INDUCTOR	10UH
				L4306	1-408-603-31	INDUCTOR	10UH
C4615	1-163-243-11	CERAMIC CHIP	47PF 5.00% 50V	L4307	1-408-412-00	INDUCTOR	18UH
C4617	1-164-005-11	CERAMIC CHIP	0.47UF 25V				
C4618	1-126-967-11	ELECT	47UF 20.00% 50V	L4308	1-408-611-31	INDUCTOR	47UH
C4619	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	L4309	1-408-603-31	INDUCTOR	10UH
C4620	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	L4310	1-408-611-31	INDUCTOR	47UH
				L4311	1-408-603-31	INDUCTOR	10UH
C4622	1-164-005-11	CERAMIC CHIP	0.47UF 25V	L4312	1-408-603-31	INDUCTOR	10UH
C4623	1-163-255-11	CERAMIC CHIP	150PF 5.00% 50V				
C4624	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V	L4315	1-414-856-11	INDUCTOR	10UH
C4625	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	L4316	1-414-856-11	INDUCTOR	10UH
C4626	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V	L4317	1-414-856-11	INDUCTOR	10UH
				L4501	1-414-856-11	INDUCTOR	10UH
C4628	1-164-005-11	CERAMIC CHIP	0.47UF 25V	L4506	1-414-857-11	INDUCTOR	100UH
C4629	1-163-255-11	CERAMIC CHIP	150PF 5.00% 50V				
C4630	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V	L4507	1-414-187-11	INDUCTOR	47UH
C4643	1-126-933-11	ELECT	100UF 20.00% 16V	L4508	1-414-187-11	INDUCTOR	47UH
C4644	1-165-319-11	CERAMIC CHIP	0.1UF 50V	L4509	1-414-857-11	INDUCTOR	100UH
				L4510	1-414-187-11	INDUCTOR	47UH
				L4511	1-414-187-11	INDUCTOR	47UH
		<CONNECTOR>					
CN4301	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P				<TRANSISTOR>	
CN4302	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P					
CN4501*	1-564-511-11	PLUG, CONNECTOR 8P		Q4301	8-729-230-49	2SC2712-YG	
CN4502*	1-564-508-11	PLUG, CONNECTOR 5P		Q4302	8-729-216-22	2SA1162-G	
				Q4303	8-729-424-59	UN2212	
		<DIODE>		Q4304	8-729-027-43	DTC114EKA-T146	
				Q4305	8-729-027-43	DTC114EKA-T146	
D4501	8-719-158-35	RD9.1S-B					
				Q4306	8-729-230-49	2SC2712-YG	
		<FERRITE BEAD>		Q4307	8-729-027-43	DTC114EKA-T146	
				Q4313	8-729-216-22	2SA1162-G	
FB4301	1-410-397-21	FERRITE 1.1UH		Q4314	8-729-216-22	2SA1162-G	
				Q4315	8-729-216-22	2SA1162-G	
		<FILTER>					
				Q4327	8-729-216-22	2SA1162-G	
FL4301	1-236-728-41	ENCAPSULATED COMPONENT		Q4329	8-729-230-49	2SC2712-YG	
				Q4362	8-729-216-22	2SA1162-G	
		<IC>		Q4363	8-729-216-22	2SA1162-G	
				Q4364	8-729-216-22	2SA1162-G	
IC4301	8-759-655-57	SDA9288XE-B0121					
IC4302	8-759-568-62	BA7606F-E2		Q4365	8-729-230-49	2SC2712-YG	
IC4303	8-752-090-41	CXA2139S		Q4366	8-729-230-49	2SC2712-YG	
				Q4368	8-729-230-49	2SC2712-YG	
				Q4369	8-729-230-49	2SC2712-YG	
				Q4371	8-729-230-49	2SC2712-YG	

KV-XA29M60/XA29M84

RM-954

RM-953

P2 (KV-XA29M84 only)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q4375	8-729-230-49	2SC2712-YG		R4350	1-216-085-00	RES-CHIP	33K 5% 1/10W
Q4501	8-729-230-49	2SC2712-YG		R4351	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4502	8-729-216-22	2SA1162-G		R4352	1-216-041-00	RES-CHIP	470 5% 1/10W
Q4503	8-729-230-49	2SC2712-YG		R4353	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4505	8-729-230-49	2SC2712-YG		R4354	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4507	8-729-216-22	2SA1162-G		R4355	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4509	8-729-230-49	2SC2712-YG		R4356	1-208-778-11	METAL CHIP	680 0.5% 1/10W
Q4510	8-729-230-49	2SC2712-YG		R4358	1-208-776-11	METAL CHIP	560 0.5% 1/10W
Q4511	8-729-216-22	2SA1162-G		R4376	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
Q4514	8-729-230-49	2SC2712-YG		R4377	1-216-047-91	RES-CHIP	820 5% 1/10W
Q4515	8-729-230-49	2SC2712-YG		R4378	1-216-047-91	RES-CHIP	820 5% 1/10W
Q4516	8-729-216-22	2SA1162-G		R4379	1-208-780-11	METAL CHIP	820 0.5% 1/10W
Q4520	8-729-230-49	2SC2712-YG		R4380	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
Q4522	8-729-230-49	2SC2712-YG		R4382	1-216-025-11	RES-CHIP	100 5% 1/10W
Q4523	8-729-216-22	2SA1162-G		R4383	1-208-806-11	METAL CHIP	10K 0.5% 1/10W
<RESISTOR>				R4384	1-216-079-00	RES-CHIP	18K 5% 1/10W
R4300	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R4385	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4301	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	R4386	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4302	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R4387	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4304	1-216-089-11	RES-CHIP	47K 5% 1/10W	R4388	1-216-025-11	RES-CHIP	100 5% 1/10W
R4305	1-216-025-11	RES-CHIP	100 5% 1/10W	R4389	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4306	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R4390	1-216-025-11	RES-CHIP	100 5% 1/10W
R4307	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R4391	1-216-025-11	RES-CHIP	100 5% 1/10W
R4308	1-216-081-00	RES-CHIP	22K 5% 1/10W	R4392	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4309	1-216-067-00	RES-CHIP	5.6K 5% 1/10W	R4393	1-216-025-11	RES-CHIP	100 5% 1/10W
R4310	1-164-346-11	CERAMIC CHIP	1UF 16V	R4394	1-216-075-00	RES-CHIP	12K 5% 1/10W
R4311	1-216-025-11	RES-CHIP	100 5% 1/10W	R4395	1-216-025-11	RES-CHIP	100 5% 1/10W
R4312	1-216-025-11	RES-CHIP	100 5% 1/10W	R4396	1-216-081-00	RES-CHIP	22K 5% 1/10W
R4313	1-216-049-11	RES-CHIP	1K 5% 1/10W	R4398	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R4314	1-216-049-11	RES-CHIP	1K 5% 1/10W	R4401	1-216-295-11	SHORT	0
R4315	1-216-049-11	RES-CHIP	1K 5% 1/10W	R4403	1-216-025-11	RES-CHIP	100 5% 1/10W
R4316	1-216-025-11	RES-CHIP	100 5% 1/10W	R4408	1-216-041-00	RES-CHIP	470 5% 1/10W
R4317	1-216-025-11	RES-CHIP	100 5% 1/10W	R4414	1-216-025-11	RES-CHIP	100 5% 1/10W
R4319	1-216-045-00	RES-CHIP	680 5% 1/10W	R4416	1-216-041-00	RES-CHIP	470 5% 1/10W
R4320	1-216-081-00	RES-CHIP	22K 5% 1/10W	R4417	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4321	1-216-045-00	RES-CHIP	680 5% 1/10W	R4434	1-216-045-00	RES-CHIP	680 5% 1/10W
R4326	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R4435	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4327	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R4506	1-216-025-11	RES-CHIP	100 5% 1/10W
R4328	1-216-063-91	RES-CHIP	3.9K 5% 1/10W	R4507	1-216-081-00	RES-CHIP	22K 5% 1/10W
R4330	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R4508	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4332	1-216-089-11	RES-CHIP	47K 5% 1/10W	R4511	1-216-033-00	RES-CHIP	220 5% 1/10W
R4333	1-216-025-11	RES-CHIP	100 5% 1/10W	R4512	1-216-005-00	RES-CHIP	15 5% 1/10W
R4334	1-216-025-11	RES-CHIP	100 5% 1/10W	R4515	1-216-041-00	RES-CHIP	470 5% 1/10W
R4335	1-216-025-11	RES-CHIP	100 5% 1/10W	R4516	1-216-025-11	RES-CHIP	100 5% 1/10W
R4336	1-216-041-00	RES-CHIP	470 5% 1/10W	R4517	1-216-075-00	RES-CHIP	12K 5% 1/10W
R4337	1-216-041-00	RES-CHIP	470 5% 1/10W	R4520	1-216-079-00	RES-CHIP	18K 5% 1/10W
R4338	1-216-049-11	RES-CHIP	1K 5% 1/10W	R4522	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4339	1-216-041-00	RES-CHIP	470 5% 1/10W	R4523	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4340	1-216-085-00	RES-CHIP	33K 5% 1/10W	R4528	1-216-033-00	RES-CHIP	220 5% 1/10W
R4341	1-216-081-00	RES-CHIP	22K 5% 1/10W	R4529	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R4344	1-216-295-11	SHORT	0	R4531	1-216-045-00	RES-CHIP	680 5% 1/10W
R4345	1-216-295-11	SHORT	0	R4537	1-216-041-00	RES-CHIP	470 5% 1/10W
R4346	1-216-049-11	RES-CHIP	1K 5% 1/10W	R4538	1-216-041-00	RES-CHIP	470 5% 1/10W
R4347	1-216-295-11	SHORT	0	R4540	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4348	1-216-085-00	RES-CHIP	33K 5% 1/10W	R4541	1-216-041-00	RES-CHIP	470 5% 1/10W
R4349	1-216-025-11	RES-CHIP	100 5% 1/10W	R4542	1-216-041-00	RES-CHIP	470 5% 1/10W
				R4543	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R4545	1-216-041-00	RES-CHIP	470 5% 1/10W

P2 (KV-XA29M84 only)**VM1**

REF. NO.	PART NO.	DESCRIPTION	REMARK		
R4547	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4548	1-216-025-11	RES-CHIP	100	5%	1/10W
R4549	1-216-075-00	RES-CHIP	12K	5%	1/10W
R4551	1-216-081-00	RES-CHIP	22K	5%	1/10W
R4552	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4553	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4554	1-216-033-00	RES-CHIP	220	5%	1/10W
R4556	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4559	1-216-041-00	RES-CHIP	470	5%	1/10W
R4560	1-216-041-00	RES-CHIP	470	5%	1/10W
R4561	1-216-041-00	RES-CHIP	470	5%	1/10W
R4562	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4563	1-216-041-00	RES-CHIP	470	5%	1/10W
R4566	1-216-041-00	RES-CHIP	470	5%	1/10W
R4567	1-216-049-11	RES-CHIP	1K	5%	1/10W
R4568	1-216-041-00	RES-CHIP	470	5%	1/10W
R4569	1-216-049-11	RES-CHIP	1K	5%	1/10W
<CRYSTAL>					
X4301	1-781-134-21	VIBRATOR, CRYSTAL			
X4302	1-781-132-21	VIBRATOR, CRYSTAL			
X4303	1-760-095-21	VIBRATOR, CRYSTAL			

	* A-1342-587-A	VM1 BOARD MOUNTED(KV-XA29M60)			
	* A-1342-580-A	VM1 BOARD MOUNTED (KV-XA29M84)			

	4-382-854-11	SCREW (M3X10), P, SW (+)			
<CAPACITOR>					
C5900	1-102-115-00	CERAMIC	560PF	10.00%	50V
C5902	1-104-661-91	ELECT	330UF	20.00%	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-935-11	ELECT	470UF	20.00%	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00%	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00%	200V
C5909	1-126-933-11	ELECT	100UF	20.00%	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00%	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00%	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00%	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-935-11	ELECT	470UF	20.00%	10V
C5918	1-102-244-00	CERAMIC	220PF	10.00%	500V
C5919	1-136-165-00	FILM	0.1UF	5.00%	50V
<CONNECTOR>					
CN2801*	1-564-506-11	PLUG, CONNECTOR 3P			
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P			
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			

REF. NO.	PART NO.	DESCRIPTION	REMARK		
<DIODE>					
D5901	8-719-911-19	1SS119-25			
D5902	8-719-110-88	RD39ES-B2			
D5903	8-719-911-19	1SS119-25			
D5904	8-719-110-88	RD39ES-B2			
D5905	8-719-911-19	1SS119-25			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
<COIL>					
L5901	1-414-187-11	INDUCTOR	47UH		
<TRANSISTOR>					
Q5901	8-729-230-45	2SC2458-YGR			
Q5902	8-729-809-26	2SA1606-E			
Q5903	8-729-230-45	2SC2458-YGR			
Q5904	8-729-119-76	2SA1175-HFE			
Q5905	8-729-230-45	2SC2458-YGR			
Q5906	8-729-809-29	2SC4159-E			
Q5907	8-729-230-45	2SC2458-YGR			
<RESISTOR>					
R5901	1-249-401-11	CARBON	47	5%	1/4W
R5902	1-249-414-11	CARBON	560	5%	1/4W
R5903	1-247-734-11	CARBON	39	5%	1/2W
R5904	1-249-411-11	CARBON	330	5%	1/4W
R5905	1-249-417-11	CARBON	1K	5%	1/4W
R5906	1-249-417-11	CARBON	1K	5%	1/4W
R5907	1-249-417-11	CARBON	1K	5%	1/4W
R5908	1-249-383-11	CARBON	1.5	5%	1/4W
R5909	1-249-409-11	CARBON	220	5%	1/4W
R5910	1-249-403-11	CARBON	68	5%	1/4W
R5911	1-249-439-11	CARBON	68K	5%	1/4W
R5912	1-249-437-11	CARBON	47K	5%	1/4W
R5914	1-249-403-11	CARBON	68	5%	1/4W
R5915	1-249-429-11	CARBON	10K	5%	1/4W
R5916	1-249-419-11	CARBON	1.5K	5%	1/4W
R5917	1-249-416-11	CARBON	820	5%	1/4W
R5918	1-249-429-11	CARBON	10K	5%	1/4W
R5919	1-249-417-11	CARBON	1K	5%	1/4W
R5920	1-249-439-11	CARBON	68K	5%	1/4W
R5921	1-216-476-11	METAL OXIDE	180	5%	3W
R5922	1-249-414-11	CARBON	560	5%	1/4W
R5923	1-249-383-11	CARBON	1.5	5%	1/4W
R5925	1-249-400-11	CARBON	39	5%	1/4W
R5927	1-249-416-11	CARBON	820	5%	1/4W
R5929	1-215-880-00	METAL OXIDE	10	5%	2W

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
		MISCELLANEOUS *****	
	1-419-294-11 Δ	COIL, DEGAUSSING(KV-XA29M84 ONLY)	
	1-419-323-11 Δ	COIL, DEGAUSSING(KV-XA29M60 ONLY)	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET,DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
	1-452-896-91	COIL, NA ROTATION(KV-XA29M60 ONLY)	
	1-467-525-31 Δ	CAP BLOCK, HIGH-VOLTAGE (KV-XA29M84 ONLY)	
	1-529-190-11	SPEAKER (5CM)	
	1-529-563-11	SPEAKER (15X6.5CM)	
	*1-555-110-00	P-P CABLE(KV-XA29M84 ONLY)	
	1-569-008-21	ADAPTOR, CONVERSION 2P (KV-XA29M84 ONLY)	
	1-575-023-11 Δ	CORD, POWER (WITH CONNECTOR) 6A/250V (KV-XA29M60 ONLY)	
	1-574-062-11 Δ	CORD, POWER (WITH CONNECTOR) 2.5A/250V (KV-XA29M84 ONLY)	
	8-451-494-31 Δ	DEFLECTION YOKE Y29RSA-S	
	8-735-056-05 Δ	PICTURE TUBE (M68LNH070X) (KV-XA29M60 ONLY)	
	8-735-057-05 Δ	PICTURE TUBE (M68LNH070X) (KV-XA29M84 ONLY)	
	8-453-011-11	NA299-M	

ACCESSORIES AND PACKING MATERIALS

3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)
4-054-764-01	BAG,PROTECTION(KV-XA29M60 ONLY)
4-029-168-01	BAG, PROTECTION(KV-XA29M84 ONLY)
4-065-210-01	JOINT
4-080-174-11	MANUAL, INSTRUCTION (KV-XA29M60 ONLY)

REF. NO.	PART NO.	DESCRIPTION	REMARK
	4-078-793-51	MANUAL, INSTRUCTION (KV-XA29M84 ONLY)	
	4-080-175-01	CUSHION(LOWER)(ASSY) (KV-XA29M60 ONLY)	
	4-078-945-01	CUSHION(LOWER)(ASSY) (KV-XA29M84 ONLY)	
	4-080-176-01	CUSHION(UPPER)(ASSY) (KV-XA29M60 ONLY)	
	4-078-948-01	CUSHION(UPPER)(ASSY) (KV-XA29M84 ONLY)	
	4-080-177-01	INDIVIDUAL CARTON(KV-XA29M60 ONLY)	
	4-080-178-01	TRAY(KV-XA29M60 ONLY)	
	4-079-400-01	TRAY(KV-XA29M84 ONLY)	
	4-392-003-21	BAND, HOLD	
	4-059-705-01	CLIP(KV-XA29M60 ONLY)	
	4-392-004-11	CLIP(KV-XA29M84 ONLY)	

REMOTE COMMANDER

1-418-038-12	REMOTE COMMANDER (RM-954) (KV-XA29M60 ONLY)
1-418-040-12	REMOTE COMMANDER (RM-953) (KV-XA29M84 ONLY)
4-987-977-01	BATTERY COVER REMOTE COMMANDER (RM953)
9-933-895-01	BATTERY COVER REMOTE COMMANDER (RM954)