

SERVICE MANUAL

AG-3E CHASSIS

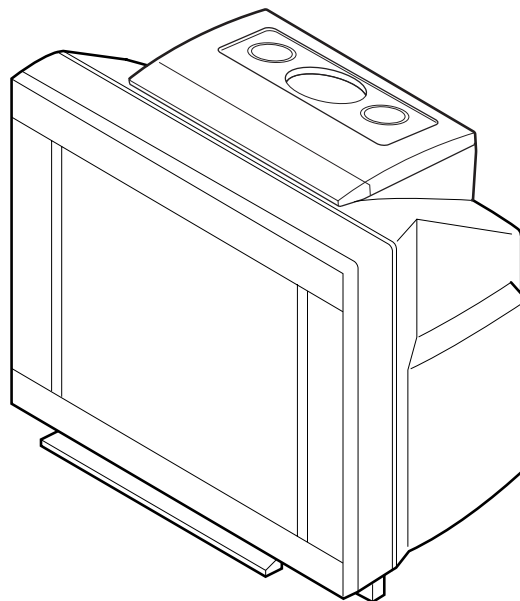
<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
<i>KV-EX29M63</i>	<i>RM-964</i>	<i>Thailand</i>	<i>SCC-U46A-A</i>				
<i>KV-EX34M39</i>	<i>RM-963</i>	<i>OCE</i>	<i>SCC-U41C-A</i>				
<i>KV-EX34M69</i>	<i>RM-963</i>	<i>Malaysia</i>	<i>SCC-U42C-A</i>				
<i>KV-EX34M87</i>	<i>RM-963</i>	<i>ME</i>	<i>SCC-U43B-A</i>				



RM-964



RM-963



TRINITRON[®] COLOR TV
SONY[®]

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

SPECIFICATIONS

		Note
Power requirements	110-240 V AC, 50/60 Hz	KV-EX34M87
	220-240 V AC, 50/60 Hz	KV-EX29M63/EX34M39/ EX34M69
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, D/K; A2 Stereo/Bilingual B/G	KV-EX29M63/EX34M39/ EX34M69 only
Teletext Language	English, Arabic, French	KV-EX34M39/EX34M69 only
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
	VHF: 0 to E12,5A,9A / UHF: 28 to 69 / CATV: S01 to S03, S1 to S41	Australia Only
	VHF: 1 to 11 / UHF: 21 to 69 / CATV: S01 to S03, S1 to S41	New Zealand Only
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)	6W + 6W	
3D WOOFER	15W	
Number of terminal		
📺 (Video)	Input: 4 Output: 1	Phono jacks; 1 V _{P-P} , 75 ohms
🎵 (Audio)	Input: 4 Output: 1	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	34 inch
Tube size (cm)	72	86
Screen size (cm)	68	80
Dimension (w/h/d, mm)	722 x 603 x 516	895 x 700 x 590
Mass (kg)	56	84

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 \triangle 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.

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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

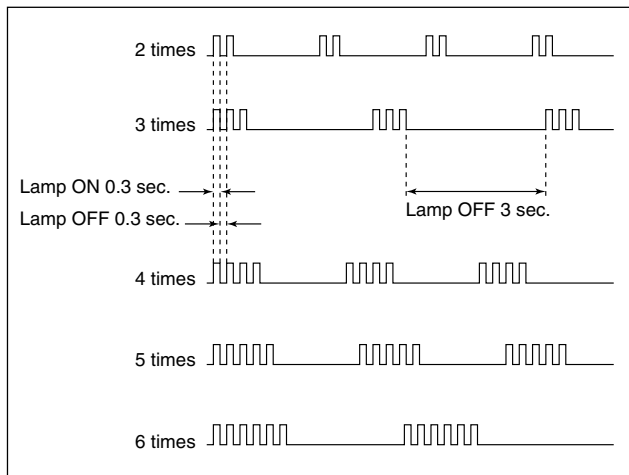
When an error occurs, the STANDBY/TIMER lamp will flash a number of times to indicate the possible cause of the problem. If there is more than one error, the lamp will identify the first of the problem areas.

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	—	<ul style="list-style-type: none"> • Power cord is not plugged in. • Fuse is burned out F1601 (F1 Board) 	<ul style="list-style-type: none"> • Power does not come on. • No power is supplied to the TV. • AC power supply is faulty.
• +B overcurrent (OCP)	2 times	002:000 or 002:001~255	<ul style="list-style-type: none"> • H.OUT Q6807 is shorted. • H.IN Q6810 is shorted. (D board) 	<ul style="list-style-type: none"> • Power does not come on. • Load on power line is shorted.
• +B overvoltage (OVP)	3 times	003:000 or 003:001~255	<ul style="list-style-type: none"> • PH 6602 faulty. • 10.5V is not supplied. (D board) 	<ul style="list-style-type: none"> • Power does not come on.
• Vertical deflection failure	4 times	004:000 or 004:001~255	<ul style="list-style-type: none"> • V.OUT IC6800 faulty • D6816 faulty • D6817 faulty • D6824 faulty • R6852 open • R6851 open (D board) 	<ul style="list-style-type: none"> • Vertical deflection pulse is stopped. • Vertical size is too small. • Vertical deflection stopped.
• White balance failure (no PICTURE)	5 times	005:000 or 005:001~255	<ul style="list-style-type: none"> • G2 is improperly adjusted. (Note 2) • CRT problem. • Video OUT IC9001, 9002, 9003 are faulty. (C board) • IC8306 (A board) and IC4301 (A board) are faulty. 	<ul style="list-style-type: none"> • No raster is generated. • CRT cathode current detection reference pulse output is small.
• Horizontal deflection failure	6 times	006:000 or 006:001~225	<ul style="list-style-type: none"> • C6831 is open circuit. (D board) 	<ul style="list-style-type: none"> • H pulse output is too high.
• Micro reset	—	101:00 or 101:001~225	<ul style="list-style-type: none"> • CRT Discharge (C Board) • Static discharge • External noise 	<ul style="list-style-type: none"> • Power is shut down shortly, after this return back to normal. • Detect Micro latch up.

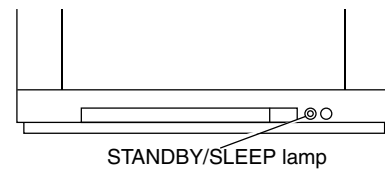
Note 1: Refer to screen (G2) Adjustment in section 6-5 of this manual.

2. DISPLAY OF STANDBY/TIMER LIGHT FLASH COUNT



Diagnostic Item	Flash Count*
+B overcurrent	2 times
+B overvoltage	3 times
V deflection stop	4 times
White balance failure	5 times
Horizontal Deflection Failure	6 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 ←	Numerical "0" means that no fault has been detected.
003 : 000	
004 : 000	
005 : 001 ←	Numerical "1" means a fault has been detected.
006 : 002 ←	
101 : 000	Numerical "2" means two faults have been detected.

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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]

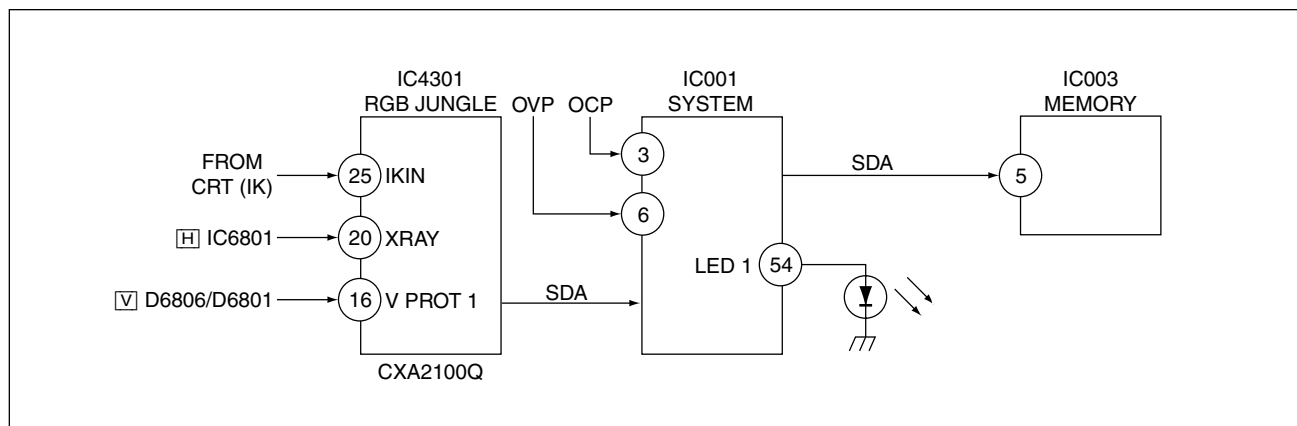
To clear the result display to "0", press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

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 Q6610 and Q6609. If Q6610 and Q6609 go to ON, the voltage to the pin3 of IC001 go to UP. The unit will automatically turn off.

+B overvoltage (OVP)

Occurs when an overvoltage on the +B(135) line is detected by D6635, Q6611 and Q6612. If Q6611 and Q6612 go to ON, the voltage to pin6 of IC001 go to UP. The unit will automatically turn off.

Vertical deflection failure

Occurs when an absence of the vertical deflection pulse is detected by Q6811, Q6819, Q6820, Q6821 and D6801. Shut down the power supply.

White balance failure

If the RGB levels do not balance or become low level within 5 seconds. This error will be detected by IC4301. TV will stay on, but there will be no picture.

High voltage protector of Horizontal Deflection

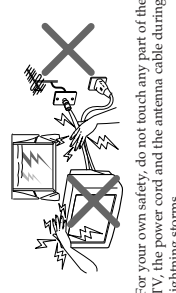
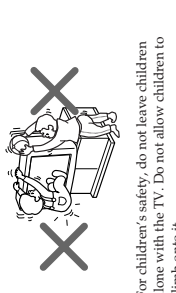
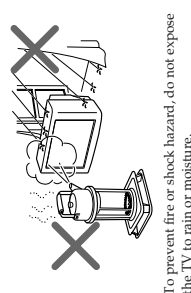
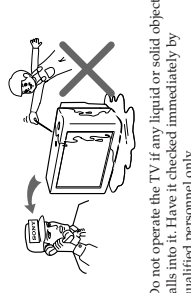
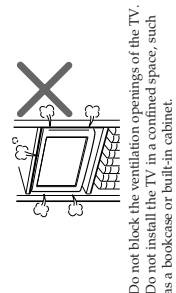
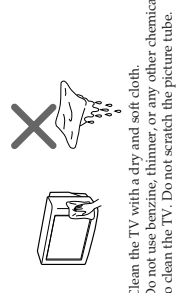
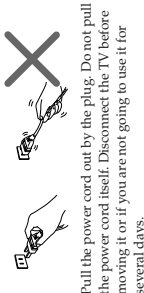
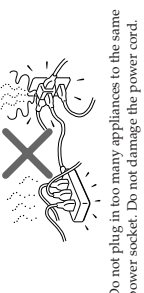
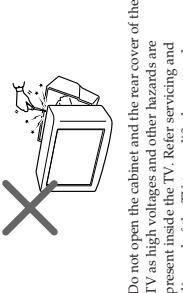
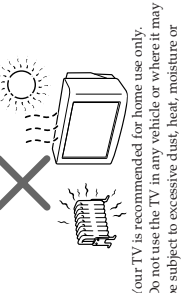
Occurs when an overvoltage of horizontal pulse is detected by D6809 and IC6801. If the voltage of 7 pin of IC6801 goes to High, the voltage to pin20 of IC4301 go to UP. The unit will automatically turn off.

SECTION 1
GENERAL 1-1
(EXCEPT KV-EX29M63)

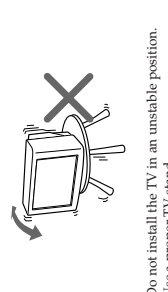
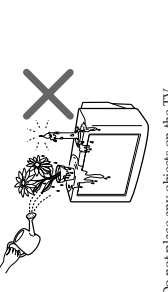
The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

WARNING

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC. (For Australia/New Zealand only: 220-240 V AC.)

 <p>For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.</p>	 <p>For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.</p>
 <p>To prevent fire or shock hazard, do not expose the TV to rain or moisture.</p>	 <p>Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.</p>
 <p>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.</p>	 <p>Clean the TV with a dry and soft cloth. Do not use benzoin, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.</p>
 <p>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.</p>	 <p>Do not plug in too many appliances to the same power socket. Do not damage the power cord.</p>
 <p>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.</p>	 <p>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.</p>

WARNING (continued)

 <p>Do not install the TV in an unstable position. Use a proper TV stand.</p>	 <p>Do not place any objects on the TV.</p>
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Using Your New TV

Getting Started

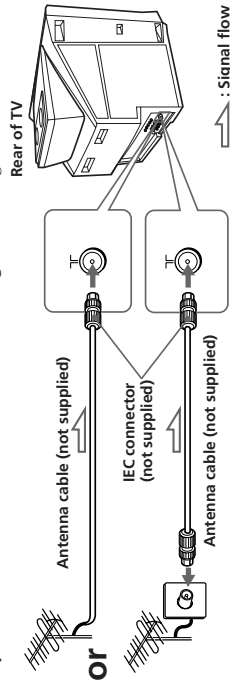
CAUTION

- 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

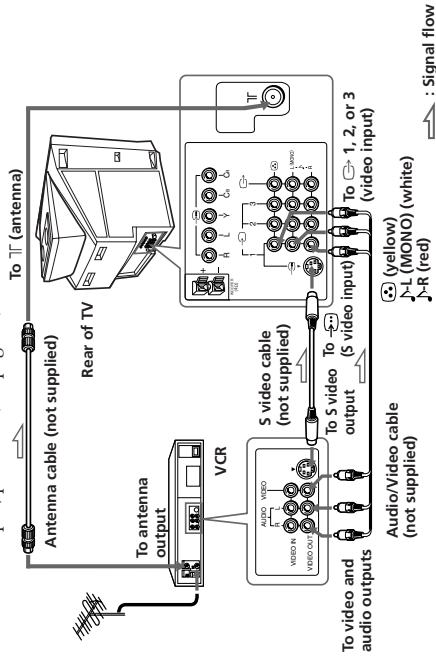
Connect the antenna

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



Connecting a VCR

To watch the video input, press (see page 12).



Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to (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.
- When both the (S video input) and 1 (video input) are connected, the (S video input) is automatically selected. To view the video input to 1 (video input), disconnect the S video cable.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

Step 2

Insert the batteries into the remote

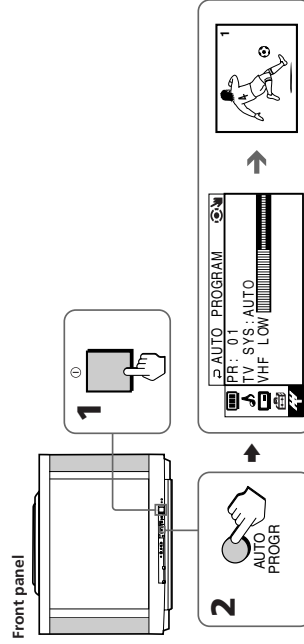


Note

- Do not use old batteries or different types of batteries together.

Step 3

Preset the channels automatically



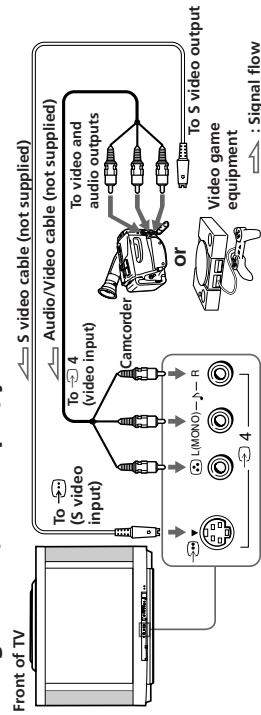
Tips

- 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 38).

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game, or stereo system. To watch and operate the connected equipment, see pages 12 and 25.

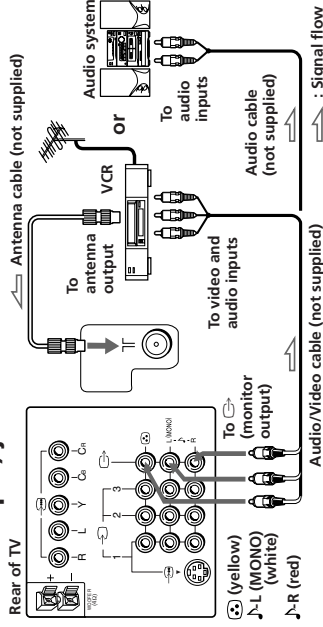
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

- When connecting video equipment, display the "PICTURE" menu and select "ON" for "GAME MODE" to adjust the picture setting that is suitable for video games (see page 30).
- You can also connect video equipment to the (video input) jacks at the rear of your TV.
- When both the (S video input) and (video input) are connected, the (S video input) is automatically selected. To view the video input to (video input), disconnect the S video cable.

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

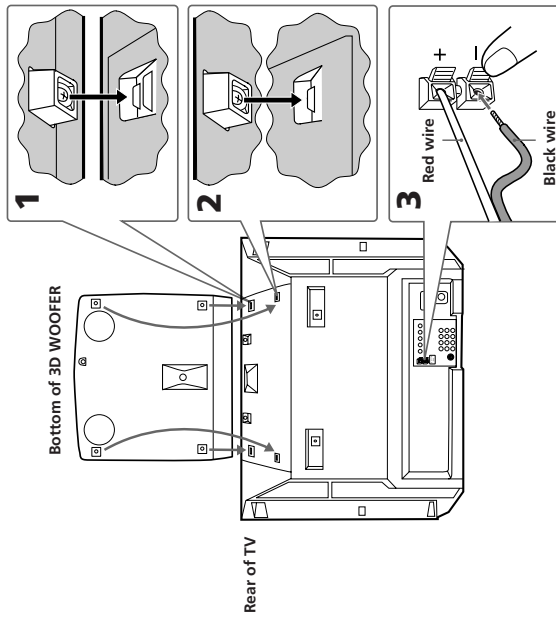


Note

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 12).

Connecting the 3D WOOFER

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



1 Place the foot at the front of the 3D WOOFER into the footholds on the top of your TV.

2 Place the foot at the rear of the 3D WOOFER into the footholds at the rear of your TV.

3 Connect the wires to the 3D WOOFER (4Ω) 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

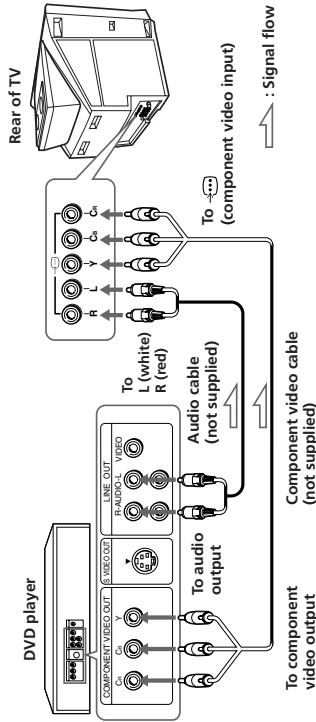
- Connect only the supplied 3D WOOFER; otherwise your TV may malfunction.
- Unplug your TV from the wall outlet when connecting the 3D WOOFER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the 3D WOOFER wire strands stick out, making contact with its neighbouring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

Using Your New TV

Connecting optional components (continued)

Connecting a DVD player to (component video input)

- 1 Using an audio cable, 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, Cb, and Cr under (component video input) on your TV to the COMPONENT VIDEO OUT Y, Cb, and Cr output connectors on your DVD player.
- 3 Press on the remote or the TV until "DVD" appears on the screen.



Notes

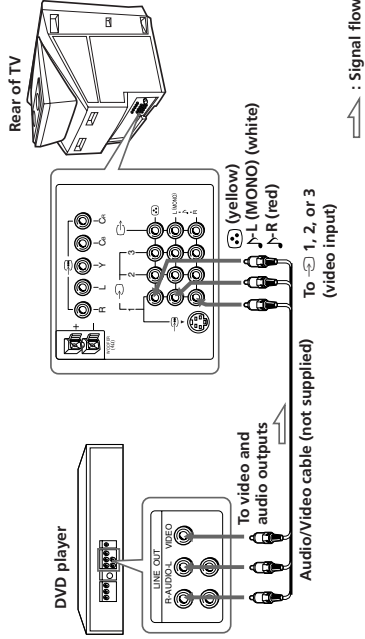
- Some DVD player terminals may be labeled differently:

Connect	To (on the DVD player)
Y (green)	Y
Cb (blue)	Cb, B-Y or Pb
Cr (red)	Cr, R-Y or Pr

- When connecting to (component video input) on your TV, you must connect Y, Cb, and Cr to receive the video signals, and connect L and R to receive analog audio signals.

Connecting a DVD player to (video input)

Connect 1, 2, or 3 (video input) / (audio/video) connectors on your TV to LINE OUT on your DVD player.

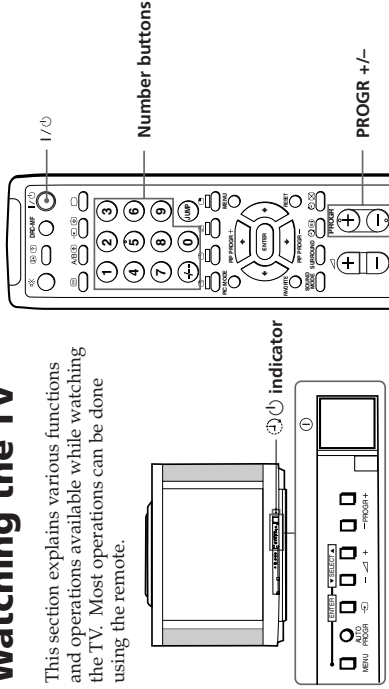


Notes

- 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") under "PERSONAL ADJUST" in the "PICTURE MODE" menu (see page 31).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

Watching the TV

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



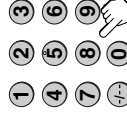
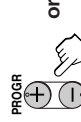
1 Press ① to turn on the TV.

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



2 Press PROG +/- or the number buttons to select the TV channel.

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



Note

- When you turn on the TV, either the program number or video mode is displayed for approximately 40 seconds. The ECO MODE (ECO) icon will also appear if "ECO MODE" in the "SETUP" menu is set "ON" (see page 35).

To select a TV program quickly

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

Note

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

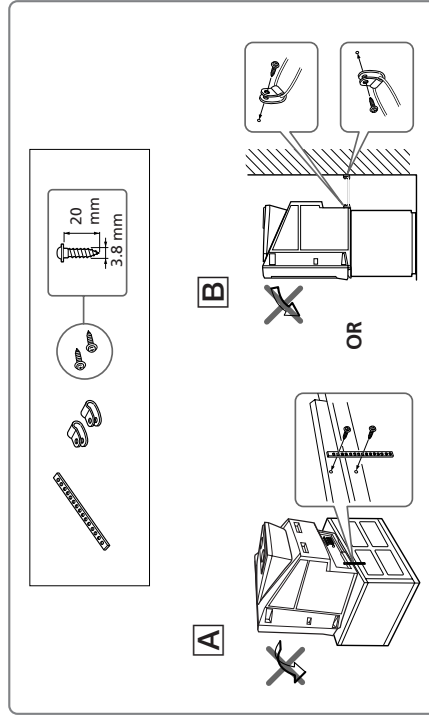
Securing the TV

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

A With the supplied screws, attach the stabilizer 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 dampers to secure the TV against a wall or pillar.

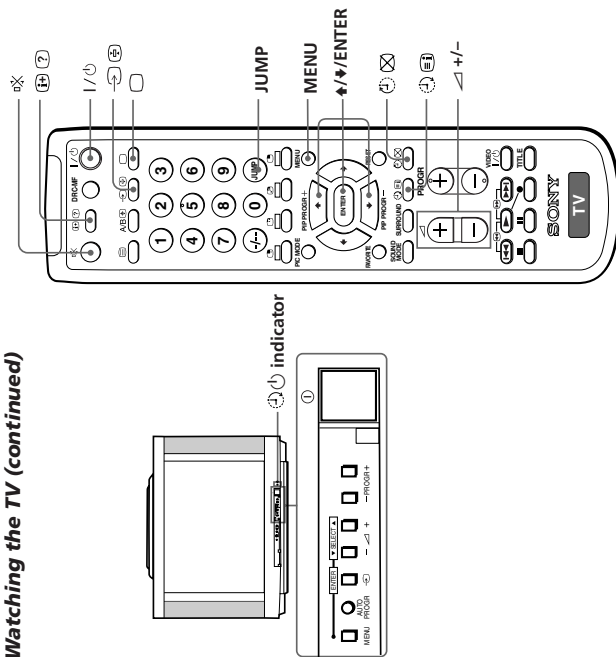


Note

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

Using Your New TV

Watching the TV (continued)



Additional tasks

To	Press
Turn off temporarily	1/⏻ The ⏻ indicator on the TV lights up red.
Turn off completely	⓪ on the TV.
Adjust the volume	⏪/+/-
Mute the sound	⏸.
Watch the video input (VCR, camcorder, etc.)	⏮ (or ⏭) on the TV) to select "VIDEO 1", "VIDEO 2", "VIDEO 3", "VIDEO 4" or "DVD". To return to the TV screen, press ⓪ (or ⏪) on the TV).
Jump back to the previous channel	JUMP.
Display the on-screen information*	Ⓜ.

* Some picture/sound settings, and either the program number or video mode are displayed. The on-screen display for the picture/sound settings disappears after about 3 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 27.

- 1 Press MENU.
- 2 Press ⏪ or ⏩ to select MENU, then press ENTER.
- 3 Make sure "LANGUAGE" is selected then press ENTER.
- 4 Press ⏪ or ⏩ to select the desired language (e.g. "中文"), then press ENTER.

The selected menu language appears.

To return to the normal screen

Press MENU.

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 TV channel or video mode you want to wake up to.
- 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 standby mode. To resume 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.

Using Your New TV

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 22.

- Press MENU.
- Press or to select then press ENTER.
- Make sure "LANGUAGE" is selected then press ENTER.
- Press or to select the desired language (e.g., "عربي", "English"). then press ENTER.
The selected menu language appears.

To return to the normal screen

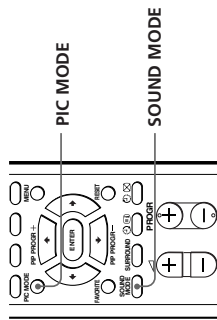
Press MENU.M

continued

Advanced Operations

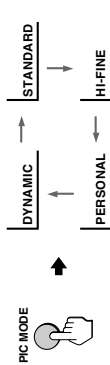
Selecting the picture and sound modes

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



Selecting the picture mode

Press PIC MODE repeatedly until the desired picture mode is selected.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal pictures.
"HI-FINE"	receive higher resolution pictures with mild contrast.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 31).

Selecting the sound mode

Press SOUND MODE repeatedly until the desired sound mode is selected.



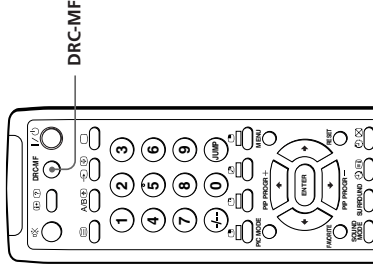
Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes both the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 33).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 30 and **Changing the "SOUND" setting** on page 32).

Viewing higher quality pictures — "DRC-MF"

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can select "DRC1250" to watch super real (higher resolution) pictures, or "DRC PROGRESSIVE" to reduce any jittering on the screen if necessary.



Press DRC-MF repeatedly until you receive the desired picture quality.

Select	To
"DRC1250"	select higher resolution pictures.
"DRC PROGRESSIVE"	reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen.

Tips

- You can also select the DRC-MF option using the menu (see **Changing the "PICTURE" setting** on page 30).
- When the broadcast signal is weak, you may see some dots or noise on the TV screen. To reduce this interference, display the "PICTURE" menu and select "ADJUST" in "PICTURE MODE", then adjust "SHARP" to reduce the sharpness (see page 31).

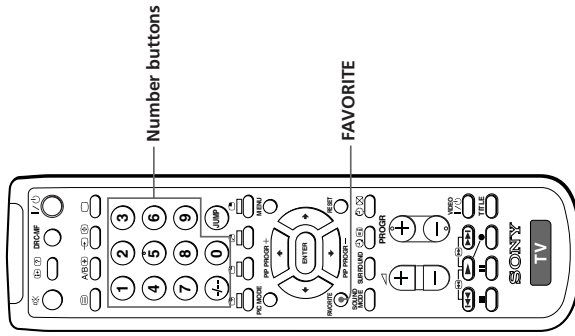
Note

- The DRC-MF mode is not selectable when the "GAME MODE" or Picture-In-Picture ("PIP") mode is turned "ON".

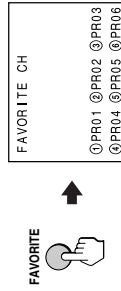
The DRC-MF logo () and "DRC-MF" are trademarks of Sony Corporation.

Viewing your favorite channels

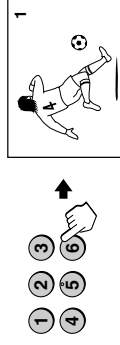
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



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

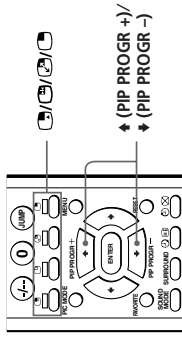


Tip

- To program your favorite channels, see **Adjusting each channel settings (PROGRAM SETUP)** on page 36.

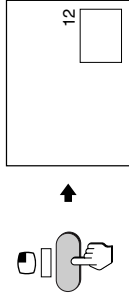
Watching two programs at the same time — "PIP"

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




Displaying a sub screen

Press .



To return to the normal screen


Press  (when displaying the sub screen).

Additional PIP tasks

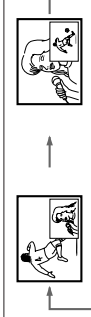
To


Press

change a TV program in the sub screen  (PIP PROGRAM +) or  (PIP PROGRAM -).

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

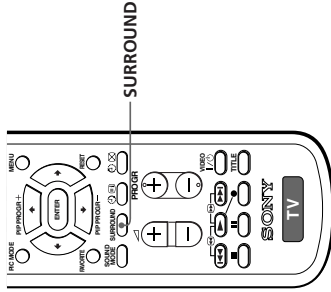
- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the "PIP" setting** on page 29).
- You can change the position of the sub screen (see **Changing the "PIP" setting** on page 29).

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 main screen and the sub screen, the size of the sub screen may be different and the sub screen picture may be disrupted. This does not indicate a malfunction of the TV.

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 "TruSurround"

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

Tip

- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 32).

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.

Additional PIP tasks

To change a TV program in the sub screen

press **▲** (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

press **■**. To unfreeze the screen, press the button again.

Tips

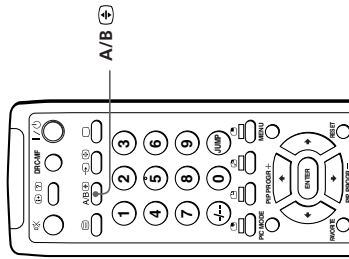
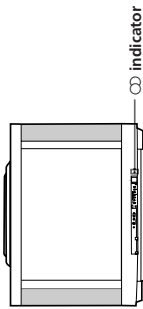
- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the "PIP" setting** on page 34).
- You can change the position of the sub screen (see **Changing the "PIP" setting** on page 34).

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 main screen and the sub screen, the size of the sub screen may be different and the sub screen picture may be disrupted. This does not indicate a malfunction of the TV.

Enjoying stereo or bilingual programs (KV-EX34M39/EX34M69 only)

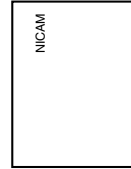
You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems.



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

The on-screen display changes to show the selected sound.

The \odot indicator on the TV lights up red when receiving any stereo or bilingual program.



When receiving a NICAM program

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

continued

Enjoying stereo or bilingual programs (continued)

When receiving an A2 program

	On-screen display (Selected sound)	
Broadcasting 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.



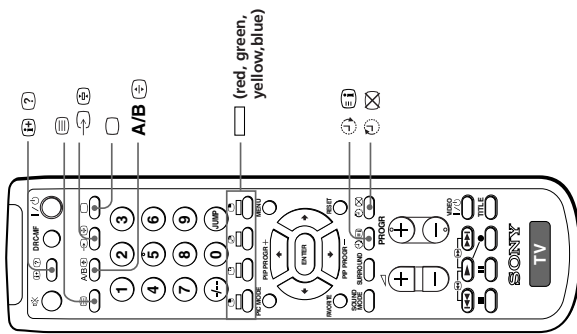
Notes

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

Viewing Teletext

(KV-EX34M39/EX34M69 only)

Some TV stations broadcast an information service called Teletext which allows you to receive various information, such as stock market reports and news.

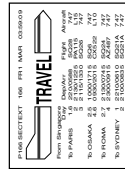


Displaying Teletext

1 Select a TV channel that carries the Teletext broadcast you want to watch.

2 Press **[E]** to display the text.

A Teletext page (normally the index page) is displayed. If there is no Teletext broadcast, "100" is displayed at the top left corner of the screen.



To turn off Teletext

Press **[O]**.

Viewing teletext (continued)

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press [E] . Each time you press [E] , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press [E] . An overview of the Teletext contents, including page numbers, appears on the screen.
select a Teletext page	Press the number buttons to enter the three-digit page number of the desired Teletext page.* If you make a mistake, reenter the correct page number. To access the next or previous page, press PROGR +/– .
hold (pause) a Teletext display	Press [E] to display the symbol "@@" at the top left corner of the screen. To resume normal Teletext viewing, press [E] or [E] .
reveal concealed information (e.g., an answer to a quiz)	Press [E] . To conceal the information, press the button again.
enlarge the Teletext display	Press [E] . Each time you press [E] , the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
stand by for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press [E] . 2 When the page number is displayed, press [E] to show the text.

* You can also select a Teletext page that appears in the colored columns at the bottom of the screen using the corresponding color-coded buttons on the remote.

Using FASTEXT

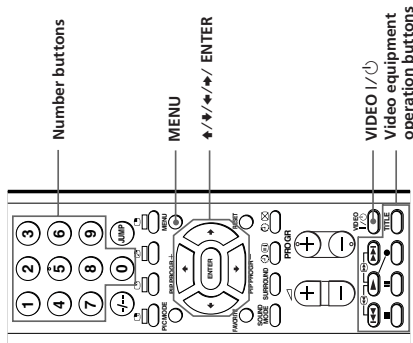
This feature allows you to quickly access a Teletext page that uses FASTEXT. When a FASTEXT program is broadcast, colored menus appear at the bottom of the screen. The color of each menu corresponds to the color-coded buttons on the remote (red **[E]**, green **[E]**, yellow **[E]**, and blue **[E]**).

To access a FASTEXT menu

Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after a few seconds.

Operating optional components

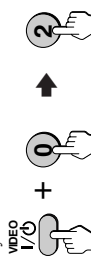
You can use the supplied remote to operate Sony video equipment such as Beta, 8 mm, VHS, MDP, CD or DVD.



Setting up the remote to work with other connected equipment

While holding down VIDEO I/O, press the following number combinations to enter the equipment's code number (see the chart below.)

For example, to operate a Sony 8 mm VCR:



Code numbers for Sony video equipment

To control	Hold down VIDEO I/O and press
DVD	00
VTR1 (Beta)	01
VTR2 (8 mm)	02
VTR3 (VHS)	03
MDP	04
CD	06
MD	07

Notes

- If your video equipment is furnished with a COMMAND MODE selector, set this selector to the same position as the setting code.
- If the equipment does not have a certain function, the corresponding button on the remote will not operate.
- When you remove the batteries, the code number may revert to the factory setting.

continued

Advanced Operations 25

Operating optional components (continued)

Operating a VCR using the remote

To	Press
turn on/off	VIDEO I/O
record	▶ while pressing ●
play	▶
stop	■
fast forward (▶▶)	▶▶
rewind the tape (◀◀)	◀◀
pause	
	Press again to resume normal playback.
search the picture forward (▶▶)	▶▶ or ▶▶▶ during playback. Release to resume normal playback.
	or backward (◀◀)

Operating a DVD player using the remote

To	Press
turn on/off	VIDEO I/O
play	▶
stop	■
pause	
	Press again to resume normal playback.
step through different tracks of a disc	▶▶ to step forward or ◀◀ to step backward.
display the title menu	TITLE
display the menu	MENU while holding down ●
select the menu item	↕/↔/↗/↘ while holding down ●

Operating an MDP using the remote

To	Press
turn on/off	VIDEO I/O
play	▶
stop	■
pause	
	Press again to resume normal playback.
step through different tracks of a disc	▶▶ to step forward or ◀◀ to step backward.

Operating a CD/MD using the remote

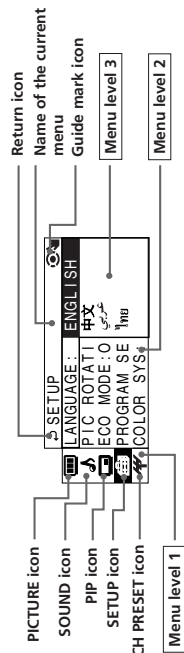
To	Press
turn on/off	VIDEO I/O
play	▶
stop	■
pause	
	Press again to resume normal playback.
go to the next/previous tracks	▶▶ or ◀◀
go forward (▶▶)/backward (◀◀) quickly in a track	▶▶ or ◀◀ while holding down ▶

Advanced Operations 26

Adjusting Your Setup (MENU)

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.



Introducing the menu system (continued)

Level 1	Level 2	Level 3/Function
"SETUP"	"LANGUAGE"	Change the menu language: "ENGLISH" → "中文" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Adjust the picture position.
	"ECO MODE"	Reduce power consumption of your TV.
	"PROGRAM SETUP"	Adjust each channel settings.
	"COLOR SYS"	Select the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
"CH PRESET"	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Select the TV system: "B/C" → "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.

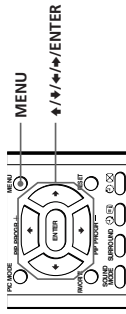
Adjusting Your Setup (MENU)

Level 1	Level 2	Level 3/Function
	"DRC-MF"	Select the "DRC-MF" mode: "DRC1250" → "PROGRESSIVE"
	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "TH-FINE" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"GAME MODE"	Adjust the picture settings for video games.
	"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.
		"POSITION"
"PIP"		Display a sub screen within the main picture.
"SWAP"		Exchange pictures between main screen and sub screen.

continued

Changing the "PICTURE" setting

The "PICTURE" menu allows you to adjust 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., "DRC-MF"), then press ENTER.

Select	To
"DRC-MF"	choose either "DRC1250" or "PROGRESSIVE".
"PICTURE MODE"	choose either "DYNAMIC", "STANDARD", "HI-FINE", "PERSONAL", or "ADJUST".
"WIDE MODE"	change the picture size when receiving wide-mode (16:9) picture signal.
"GAME MODE"	Press ⬆ or ⬇ to select "ON", then press ENTER. To restore the normal picture size, select "OFF", then press ENTER. adjust the picture setting that is suitable to view video games. 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 31).

Notes

- For details on the options under "DRC-MF" and "PICTURE MODE", see pages 16 and 15 respectively.
- "GAME MODE" is available only when receiving signals through the (video input), (S video input), or (component video input) jacks at the front and rear of your TV.

To return to the normal screen

Press MENU.

How to use the menu

Press MENU to display the menu.

Press ⬆ or ⬇ (or ⬅ or ➡) to select the desired item.

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

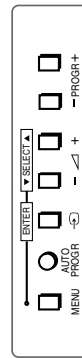
Other menu operations

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.

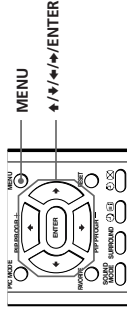
Front of TV



Note

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

Changing the "SOUND" setting



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

- 1** Press MENU.
 - 2** Press **▲** or **▼** to select the "SOUND" icon (A), 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 TV programs 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 33).

Note

- For details on the options under "SOUND MODE" and "SURROUND", see pages 15 and 20 respectively.

To return to the normal screen
 Press MENU.

Adjusting the "ADJUST" items under "PICTURE MODE"

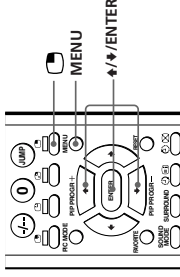
- 1** Press **▲** or **▼** to select the desired item (e.g., "COLOR"), then press ENTER.
 - 2** Adjust the value according to the following table, then press ENTER.
- | For | Press ▲ or ▼ to | Press ▲ or ▼ to |
|-----------|-------------------------------|-------------------------------|
| "PICTURE" | 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 27.

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 \blacktriangle or \blacktriangledown to select the "PIP" icon (PIP), then press ENTER.

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

Select

To

change the position of the sub screen.

Press \blacktriangle or \blacktriangledown to select the desired position, then press ENTER.



"PIP"

display a sub screen within the main picture.

Press \blacktriangle or \blacktriangledown to select "ON", then press ENTER.

To cancel, press \square or select "OFF", then press ENTER.

"SWAP"

exchange pictures between the 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, see **Introducing the menu system** on page 27.

Adjusting the "ADJUST" items under "SOUND MODE"

1 Press \blacktriangle or \blacktriangledown 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 \blacktriangle or \blacktriangledown to	Press \blacktriangle or \blacktriangledown 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.

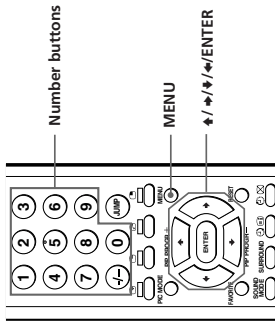
The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 27.

Changing the "SETUP" setting

The "SETUP" menu allows you to change the menu language, adjust the picture position, reduce your TV power consumption, setup your programs and select the color system.



- 1 Press MENU.
- 2 Press \blacktriangle or \blacktriangledown to select the "SETUP" icon (🔧), then press ENTER.
- 3 Press \blacktriangle or \blacktriangledown 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 13).
"PIC ROTATION"	adjust the picture position when it is not aligned with the TV screen. Press \blacktriangle , \blacktriangleright , or \blacktriangleleft to adjust the picture position, then press ENTER.
"ECO MODE"	reduce power consumption of your TV to save energy. Press \blacktriangle or \blacktriangledown to select "ON", then press ENTER. To cancel, select "OFF", then press ENTER.
"PROGRAM SETUP"	adjust each channel settings (see Adjusting each channel settings (PROGRAM SETUP) on page 36).
"COLOR SYS"	select the color system. Normally, set this to "AUTO".

To return to the normal screen
Press MENU.

continued
Adjusting Your Setup (MENU) | 35

Changing the "SETUP" setting (continued)

Adjusting each channel 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 channel you want to adjust, then press ENTER.
- 3 Press \blacktriangle or \blacktriangledown to select the desired item (e.g., "SKIP"), then press ENTER.

Select	To
"PR"	select the desired channel.
"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 channel. 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 channel, that channel will be unlocked automatically.
"FAVORITE CH"	program six 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 "0"), then press ENTER. To view the selected favorite channel, refer page 17.

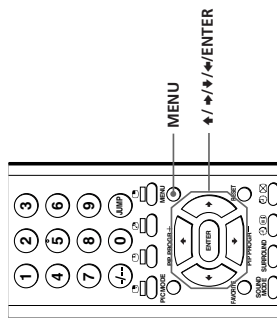
- 4 To continue adjusting other channels, press \blacktriangle or \blacktriangledown to select "PR", then repeat step 2 and 3.

To return to the normal screen
Press MENU.

36 | Adjusting Your Setup (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 manually tune in a channel with a weak signal that fails to be tuned in by automatic presetting.

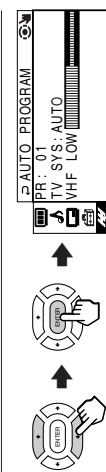


1 Press MENU.

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



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



Select

"AUTO PROGRAM" preset channels automatically.

"MANUAL PROGRAM" preset channels manually. See **Presetting channels** manually on page 38.

"TV SYS"

select the TV system.

Press \blacktriangle or \blacktriangledown to select either "B/G", "T", "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 27.

continued

Changing the "CH PRESET" setting (continued)

Presetting channels manually

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



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

- Press \blacktriangle or \blacktriangledown 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.



- Press \blacktriangle or \blacktriangledown to select either "VHF LOW", "VHF HIGH", or "UHF", then press ENTER.

- Press \blacktriangle or \blacktriangledown until the desired channel's broadcast appears on the TV screen, then press ENTER.

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


- Press \blacktriangle or \blacktriangledown to select "TV SYS", then press ENTER.

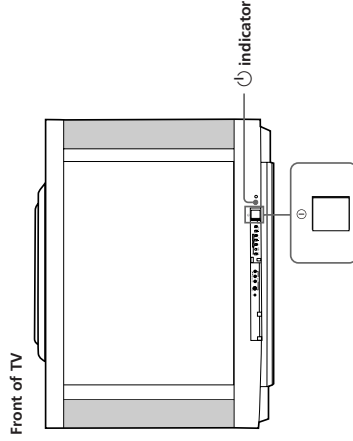






- Press \blacktriangle or \blacktriangledown until the sound becomes normal, then press ENTER.

Additional Information








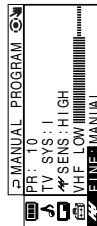
Self-diagnosis function

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



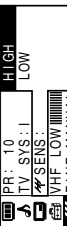





- 1** Check that the  indicator flashes red a number of times between 3-second intervals.
- 2** Count the number of times the  indicator flashes.
- 3** Press  (main power) to turn off your TV.
- 4** Inform your nearest Sony service center about the number of times the  indicator flashed. Be sure to note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

4 If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

- (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 can adjust the TV reception 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

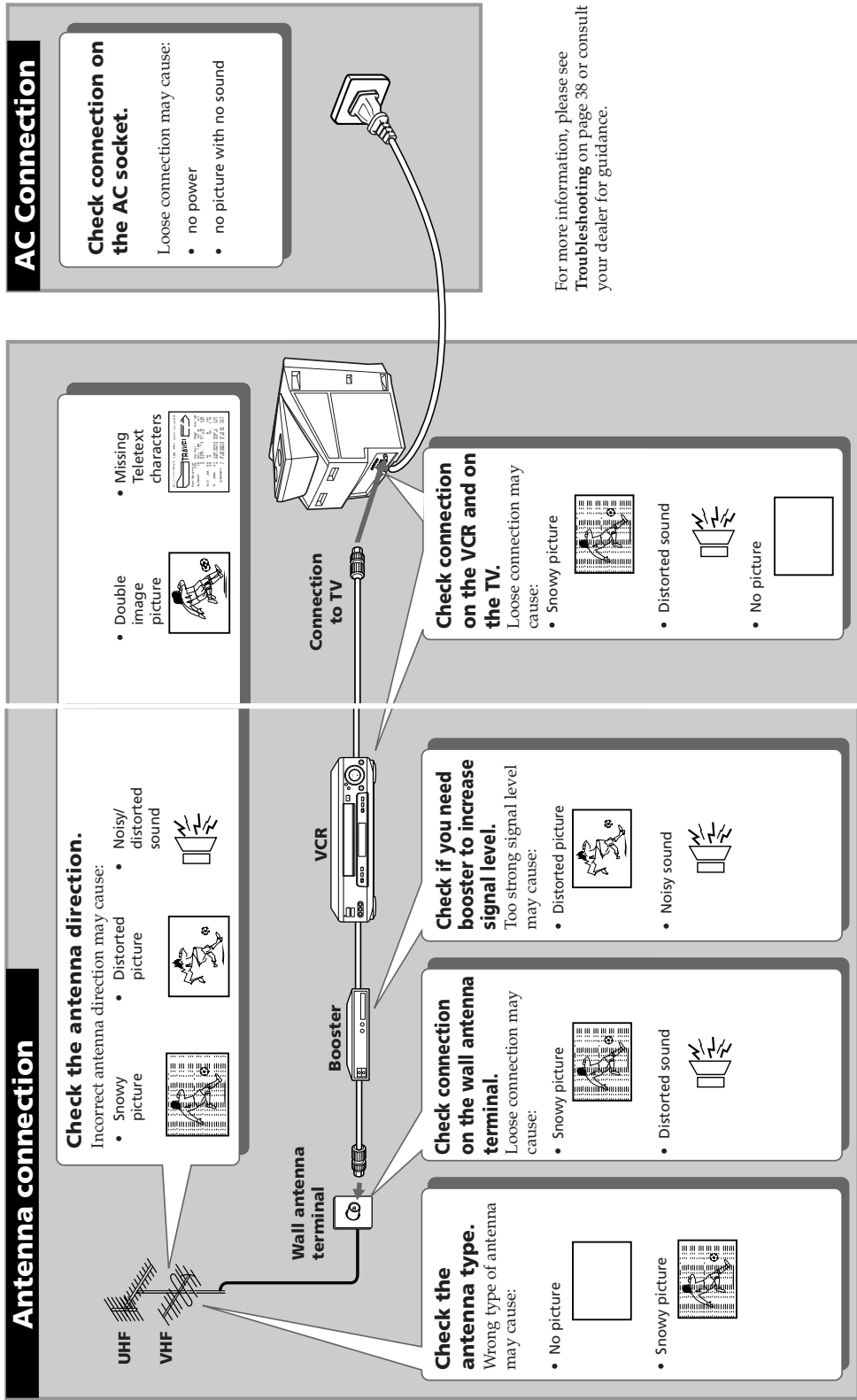
Press MENU.

Notes

- The TV system ("TV SYS"), TV reception sensitivity ("SENS") and fine tuning ("FINE") settings are memorized for each program number.
- If you preset a locked channel ("CHILD LOCK"), that channel will be unlocked automatically (see page 36).

Troubleshooting Shortcuts

For better viewing, please check the following connections.



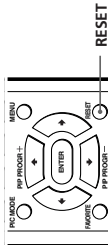
For more information, please see **Troubleshooting** on page 38 or consult your dealer for guidance.

Troubleshooting

If you have any problem while viewing your TV, you can either use the Reset function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.

Reset function

Press the RESET button on your remote control. Your TV will go blank for about half a second then the picture will reappear with "RESET" displayed on your TV screen for about 10 seconds. Pressing RESET will set your TV to the factory setting, but certain problems may be solved.



Troubleshooting guide

Symptom	Possible cause	Solutions	Page
 Snowy picture	<ul style="list-style-type: none"> The connection is loose or the cable is damaged. Channel presetting is inappropriate or incomplete. The antenna type is inappropriate. The antenna direction needs adjustment. Signal transmission is low. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR and at the wall. Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again. 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. 	4 38
 Noisy sound			
 Distorted picture	<ul style="list-style-type: none"> Broadcast signals are too strong. 	<ul style="list-style-type: none"> Display the "CH PRESET" menu and select "MANUAL PROGRAM". Then, select "SENS: LOW". Turn off or disconnect the booster if it is in use. 	39
 Noisy sound			
 Good picture	<ul style="list-style-type: none"> The TV system presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> If the sound of all the channels are noisy, display the "CH PRESET" menu and select "AUTO PROGRAM" to preset the channels again. If the sound of some channels is noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS"). 	37 38
 Noisy sound			

continued
Additional Information 41



Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
 No picture	<ul style="list-style-type: none"> The power cord, antenna or VCR is not connected. The TV is not turned on. 	<ul style="list-style-type: none"> Check the power cord, antenna and the VCR connections. Press I/O (power). Press 0 (main power) on the TV to turn off the TV for about five seconds, then turn it on again. 	4 11 12
 No sound			
 Good picture	<ul style="list-style-type: none"> The volume level is too low. The sound is muted. The broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> Press \blacktriangle + to increase the volume level. Press \times to cancel the muting. Press A/B until a better sound is heard. 	12 12 21
 Dotted lines or stripes	<ul style="list-style-type: none"> There is local interference from cars, neon signs, hair dryers, power generators, etc. 	<ul style="list-style-type: none"> 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"	<ul style="list-style-type: none"> Broadcast signals are reflected by nearby mountains or buildings. The antenna direction needs adjustment. Use of a booster is inappropriate. 	<ul style="list-style-type: none"> Use a highly directional antenna. Use the fine tuning ("FINE") function. Adjust the antenna direction. Contact a Sony dealer for advice. Turn off or disconnect the booster if it is in use. 	- 39
 No color	<ul style="list-style-type: none"> The color level setting is too low. The color system setting is inappropriate. The antenna direction needs adjustment. 	<ul style="list-style-type: none"> Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level. Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO"). Adjust the antenna direction. Contact a Sony dealer for advice. 	31 35


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Additional Information

Troubleshooting (continued)

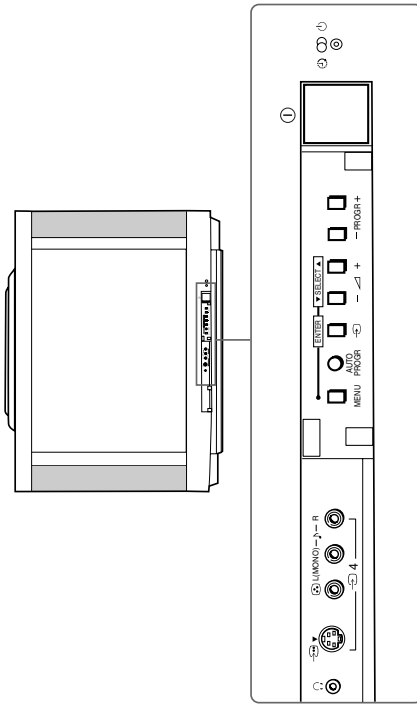
Symptom	Possible cause	Solutions	Page
Abnormal color patches 	<ul style="list-style-type: none"> The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. 	<ul style="list-style-type: none"> Keep external speakers or other equipment 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. (KV-EX34M39/EX29M39 only)	<ul style="list-style-type: none"> The stereo reception setting is inappropriate. 	<ul style="list-style-type: none"> Press A/B until "AUTO" appears on the screen. 	21
Stereo broadcast sound switches on and off or is distorted.	<ul style="list-style-type: none"> The connection is loose or the cable is damaged. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR and on the wall. 	4
OR	<ul style="list-style-type: none"> The antenna direction needs adjustment. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	—
The sound switches between stereo and monaural frequently. (KV-EX34M39/EX29M39 only)	<ul style="list-style-type: none"> The broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> Press A/B until a better sound is heard. 	21
"100" appears at the top of the screen and there is no Teletext display. (KV-EX34M39/EX29M39 only)	<ul style="list-style-type: none"> The channel carries no Teletext broadcast. 	—	23
Teletext display is incomplete (snowy picture or double images). (KV-EX34M39/EX29M39 only)	<ul style="list-style-type: none"> Connection is loose or the cable is damaged. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR, and at the wall. 	4
	<ul style="list-style-type: none"> The antenna direction is inappropriate. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	—
	<ul style="list-style-type: none"> Signal transmission is too low. 	<ul style="list-style-type: none"> Try using a booster. Use the fine tuning ("FINE") function. 	— 39
Picture slant 	<ul style="list-style-type: none"> The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV. 	<ul style="list-style-type: none"> 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. 	— 35

continued

Symptom	Possible cause	Solutions	Page
Lines moving across the TV screen.	<ul style="list-style-type: none"> There is interference from external sources, e.g., heavy machineries, nearby broadcast station. 	<ul style="list-style-type: none"> Use the fine tuning ("FINE") function. 	39
The  indicator on your TV flashes red a number of times between 3-second intervals.	<ul style="list-style-type: none"> Your TV may need servicing. 	<ul style="list-style-type: none"> Contact your nearest Sony service center. 	40
Cannot play shooting games.	<ul style="list-style-type: none"> Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For detail, see the instruction manual supplied with the video game software. 	—	—
TV cabinet creaks.	<ul style="list-style-type: none"> Changes in room temperature sometimes make the TV cabinet expand or contract, causing a noise. This does not indicate a malfunction. 	—	—
A small "boom" sound is heard when the TV is turned on.	<ul style="list-style-type: none"> The TV's demagnetizing function is working. This does not indicate a malfunction. 	—	—

Overview of controls

TV front panel

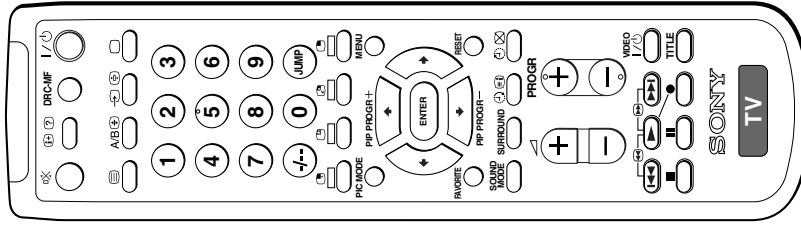


Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
①	Turn off completely or turn on the TV.	11
PROGR +/-	Select program number.	11
⏸	Standby indicator.	11
↔ +/-	Adjust volume.	12
⏪	Select TV or video input.	12
⏩	Wake Up indicator.	14
🔊	Stereo/Bilingual indicator.	21
(KV-EX34M39/EX34M69 only)	Display the menu.	29
📞	Headphone jack.	-

continued | 45
 Additional Information

Overview of controls (continued)

Remote control



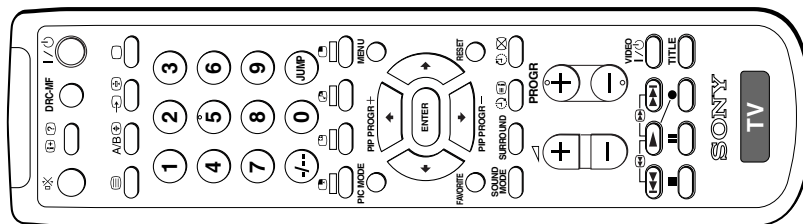
The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

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.	11
PROGR +/-	Select program number.	11
0 - 9, +/-	Input numbers.	11
⏪	Display on-screen information.	12
🔇	Mute the sound.	12
⏩	Display the TV program.	12
⏪	Select TV or video input.	12
↔ +/-	Adjust volume.	12
JUMP	Jump to previous channel.	12
Timer operation		
⌚	Set TV to turn on automatically.	14
⌚	Set TV to turn off automatically.	14
SOUND MODE	Select sound mode.	15
PIC MODE	Select picture mode.	15
DRC-MF	Select DRC-MF mode.	16
Favorite Channel operations		
FAVORITE	Display favorite channels.	17
1 - 6	Select desired channel.	17
PIP operations		
📺	Display a sub screen.	18
⬆ (PIP PROGR +) /	Change programs in the sub screen.	19
⬇ (PIP PROGR -)	Select video input for the sub screen.	19
📺	Swap main and sub screens.	19
📺	Freeze the sub screen.	19

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Button	Function	Page
SURROUND	Select surround mode.	20
Stereo/bilingual operations (KV-EX34M39/EX34M69 only)		
A/B	Select stereo/bilingual mode.	21
Teletext operations (KV-EX34M39/EX34M69 only)		
	Display Teletext broadcast.	23
	Display Teletext service contents.	24
	Stop Teletext display from scrolling.	24
	Reveal concealed information.	24
	Enlarge the Teletext display.	24
	Show TV screen while waiting for Teletext page.	24
0 - 9	Input Teletext page number.	24
PROGR +/-	Display the next or previous page.	24
	Access a FASTEXT menu.	24
Optional components operations		
VIDEO I/O	Power.	26
TITLE	Display the title menu.	26
	Play.	26
	Fast forward/Search forward.	26
	Rewind/Search backward.	26
	Record.	26
	Stop.	26
	Pause.	26
Menu operations		
MENU	Display the menu.	29
	Select and adjust items.	29
ENTER	Confirm selected items.	29
RESET	Set TV to factory setting.	41



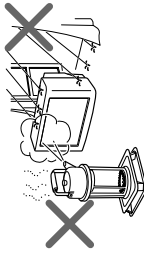
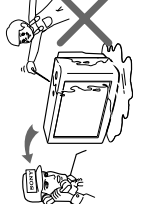
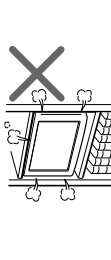


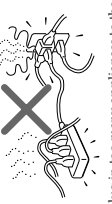




**SECTION 1
 GENERAL 1-2
 (KV-EX29M63)**


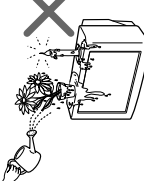
The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

WARNING

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

 <p>For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.</p>	 <p>For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.</p>
 <p>To prevent fire or shock hazard, do not expose the TV to rain or moisture.</p>	 <p>Do not operate the TV if any liquid or solid object falls into it. Have it checked immediately by qualified personnel only.</p>
 <p>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.</p>	 <p>Clean the TV with a dry and soft cloth. Do not use benzene, thinner, or any other chemicals to clean the TV. Do not scratch the picture tube.</p>
 <p>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.</p>	 <p>Do not plug in too many appliances to the same power socket. Do not damage the power cord.</p>
 <p>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.</p>	 <p>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.</p>

WARNING (continued)

 <p>Do not install the TV in an unstable position. Use a proper TV stand.</p>	 <p>Do not place any objects on the TV.</p>
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Using Your New TV

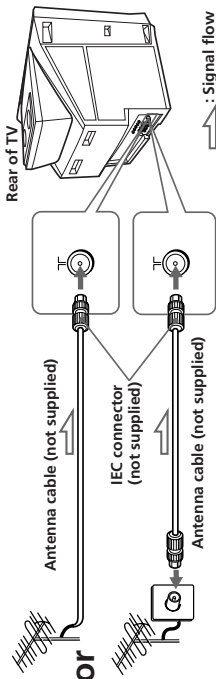
Getting Started

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.

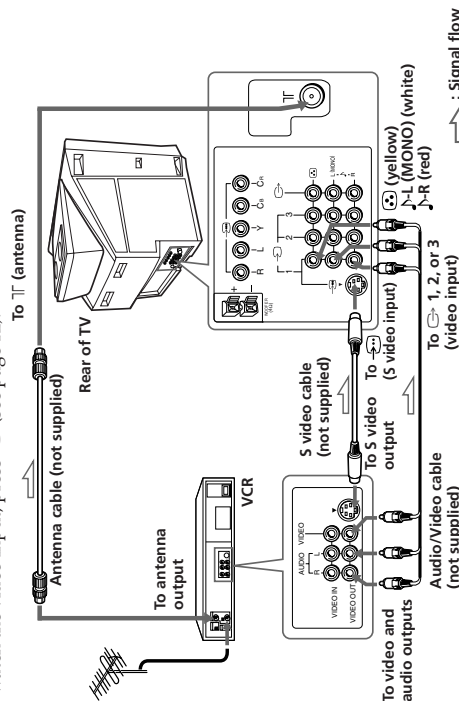
Connect the antenna

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



Connecting a VCR

To watch the video input, press **1** (see page 12).



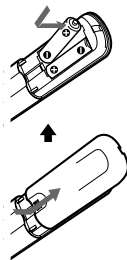
4 Using Your New TV

Using Your New TV

Notes

- If you connect a monaural VCR, connect the yellow plug to **1** (the yellow jack) and the black plug to **L** (MONO) (the white jack).
- If you connect a VCR to the **1** (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- When both the **1** (S video input) and **1** (video input) are connected, the **1** (S video input) is automatically selected. To view the video input to **1** (video input), disconnect the S video cable.
- When no signal is input from the connected video equipment, the TV screen becomes blue.

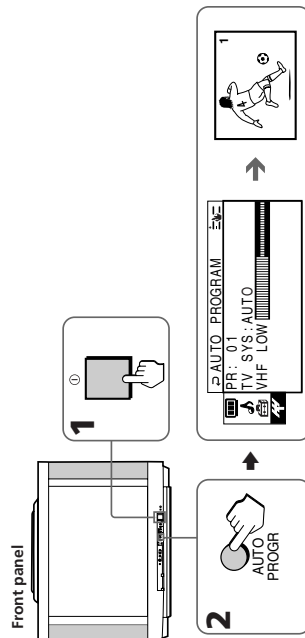
Insert the batteries into the remote



Note

- Do not use old batteries or different types of batteries together.

Preset the channels automatically



Tips

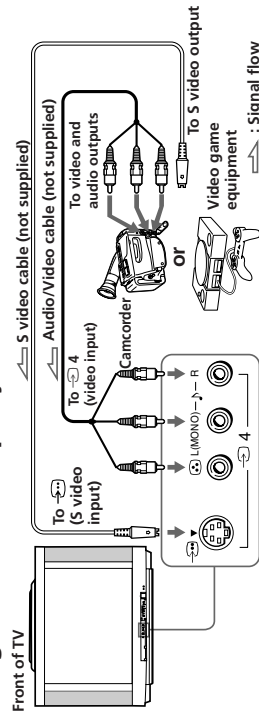
- To stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 31).

Using Your New TV | 5

Connecting optional components

You can connect optional audio/video components, such as a VCR, multi disc player, camcorder, video game, or stereo system. To watch the picture from the connected equipment, see page 12.

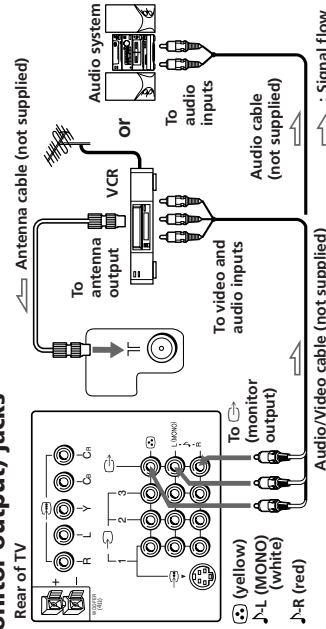
Connecting a camcorder/video game equipment using the (S video input) jacks



Notes

- When connecting video game equipment, display the "PICTURE" menu and select "ON" for "GAME MODE" to adjust the picture setting that is suitable for video games (see page 24).
- You can also connect video equipment to the (S video input) jacks at the rear of your TV.
- When both the (S video input) and (S video input) are connected, the (S video input) is automatically selected. To view the video input to (S video input), disconnect the S video cable.

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

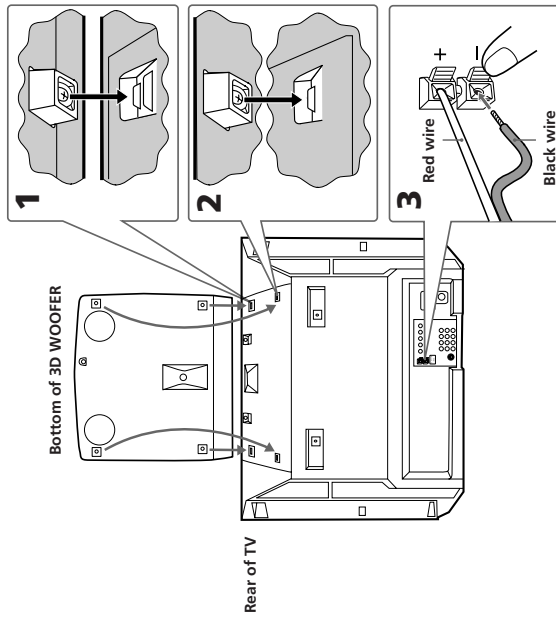


Note

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 12).

Connecting the 3D WOOFER

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



1 Place the foot at the front of the 3D WOOFER into the footholds on the top of your TV.

2 Place the foot at the rear of the 3D WOOFER into the footholds at the rear of your TV.

3 Connect the wires to the 3D WOOFER (4Ω) 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

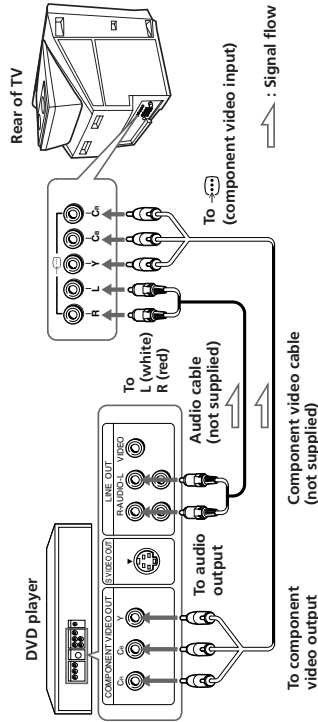
- Connect only the supplied 3D WOOFER; otherwise your TV may malfunction.
- Unplug your TV from the wall outlet when connecting the 3D WOOFER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the 3D WOOFER wire strands stick out, making contact with it's neighbouring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

Using Your New TV

Connecting optional components (continued)

Connecting a DVD player to (component video input)

- 1 Using an audio cable, 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.
- 3 Press on the remote or the TV until "DVD" appears on the screen.



Notes

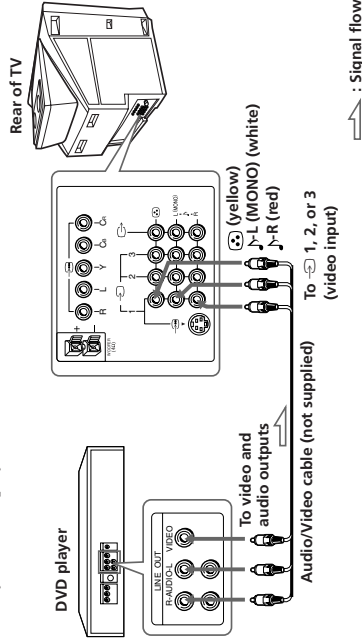
- Some DVD player terminals may be labeled differently:

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

- When connecting to (component video input) on your TV, you must connect Y, C_B, and C_R to receive the video signals, and connect L and R to receive analog audio signals.

Connecting a DVD player to (video input)

Connect 1, 2, or 3 (video input) / (audio/video) connectors on your TV to LINE OUT on your DVD player.

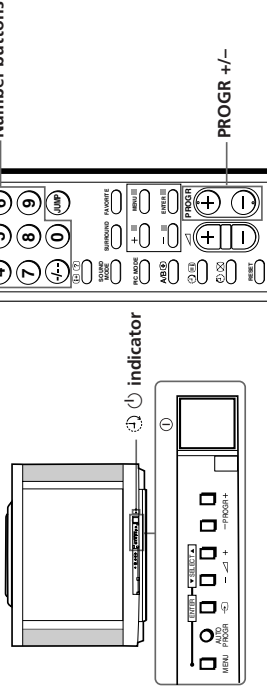


Notes

- 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") under "PERSONAL ADJUST" in the "PICTURE MODE" menu (see page 25).
- Connect your DVD player directly to your TV. Connecting the DVD player through other video equipment will cause unwanted picture noise.

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 standby mode (the ① indicator on the TV is lit red), press I/O on the remote or PROGR +/- on the TV.

2 Press PROGR +/- or the number buttons to select the TV channel.

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

Note

- When you turn on the TV, either the program number or video mode is displayed for approximately 40 seconds. The ECO MODE (ECO) icon will also appear if "ECO MODE" in the "SETUP" menu is set "ON" (see page 28).

To select a TV program quickly

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

Note

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

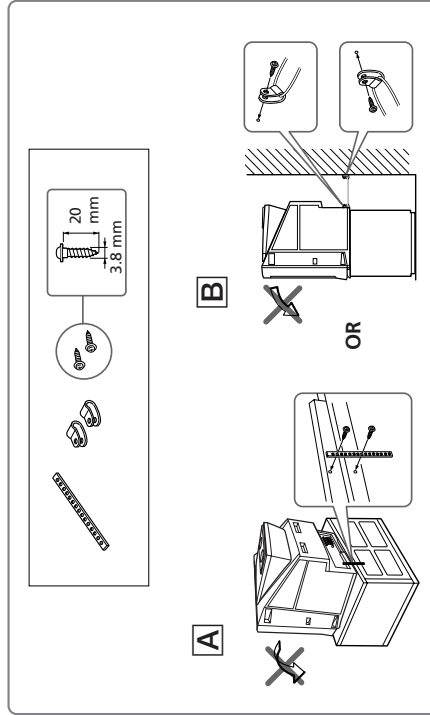
Securing the TV

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

A With the supplied screws, attach the stabilizer 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.

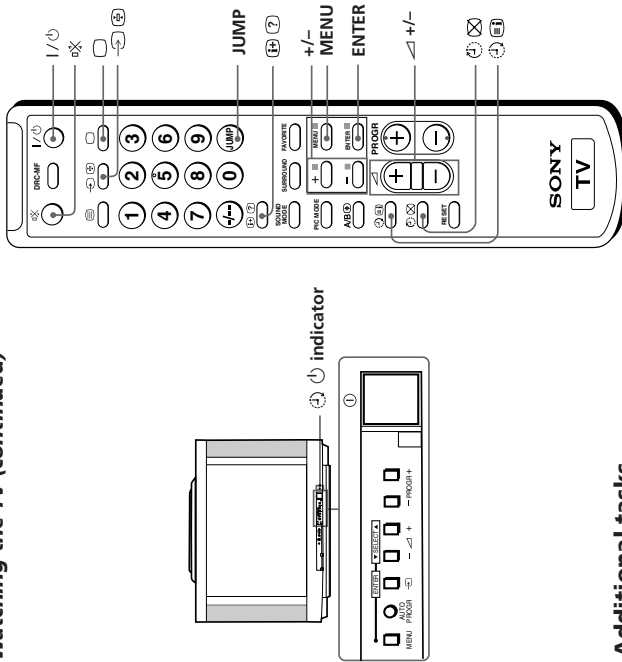


Note

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

Using Your New TV

Watching the TV (continued)



Additional tasks

To	Press
Turn off temporarily	I/O, The I/O indicator on the TV lights up red.
Turn off completely	① on the TV.
Adjust the volume	↔ +/-
Mute the sound	MUTE
Watch the video input (VCR, camcorder, etc.)	↔ (or ←) on the TV to select "VIDEO 1", "VIDEO 2", "VIDEO 3", "VIDEO 4" or "DVD". To return to the TV screen, press ① (or →) on the TV.
Jump back to the previous channel	JUMP
Display the on-screen information*	①

* Some picture/sound settings, and either the program number or video mode are displayed. The on-screen display for the picture/sound settings disappears after about 3 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 Z1.

- 1** Press MENU.
- 2** Press + or - to select **LANGUAGE: ENGLISH**, then press ENTER.
- 3** Make sure "LANGUAGE" is selected then press ENTER.
- 4** Press + or - to select the desired language (e.g., "泰文"), then press ENTER. The selected menu language appears.

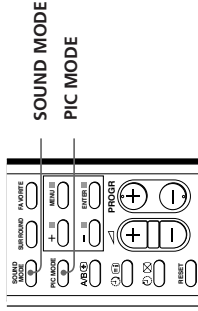
To return to the normal screen

Press MENU.

Advanced Operations

Selecting the picture and sound modes

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



Selecting the picture mode

Press PIC MODE repeatedly until the desired picture mode is selected.



Select

To receive high contrast pictures.

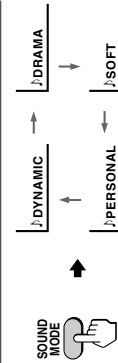
"DYNAMIC" receive normal pictures.

"STANDARD" receive higher resolution pictures with mild contrast.

"HI-FINE" receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 25).

Selecting the sound mode

Press SOUND MODE repeatedly until the desired sound mode is selected.



Select

To listen to dynamic and clear sound that emphasizes both the low and high tones.

"DYNAMIC" listen to sound that emphasizes voice and high tones.

"DRAMA" receive soft sound.

"SOFT" receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 27).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 24 and **Changing the "SOUND" setting** on page 26).

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 TV channel or video mode you want to wake up to.

- 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 standby mode. To resume watching the TV, press any button or control on the TV or the remote.

Setting the Sleep timer

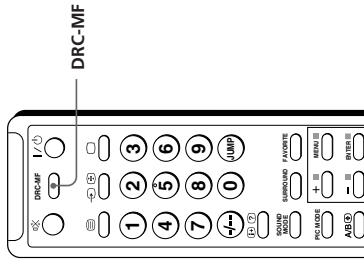
- Press until the desired period of time appears. The Sleep timer starts immediately after you have set it.

To cancel the Sleep timer

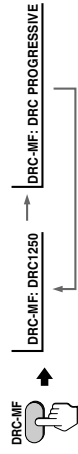
Press until "SLEEP TIMER: OFF" appears, or turn the TV off.

Viewing higher quality pictures — "DRC-MF"

The Digital Reality Creation-Multi Function (DRC-MF) feature allows you to enjoy higher quality pictures on your TV. You can select "DRC1250" to watch super real (higher resolution) pictures, or "DRC PROGRESSIVE" to reduce any jittering on the screen if necessary.



Press DRC-MF repeatedly until you receive the desired picture quality.



Select

"DRC1250" select higher resolution pictures.

"DRC PROGRESSIVE" reduce jitter of any small areas or scanning lines (e.g., letters or the edge of objects) on the screen.

Tips

- You can also select the DRC-MF option using the menu (see **Changing the "PICTURE" setting** on page 24).
- When the broadcast signal is weak, you may see some dots or noise on the TV screen. To reduce this interference, display the "PICTURE" menu and select "ADJUST" in "PICTURE MODE", then adjust "SHARP" to reduce the sharpness (see page 25).

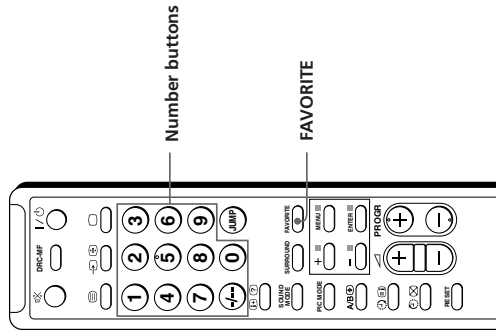
Note

- The DRC-MF mode is not selectable when the "GAME MODE" is turned "ON".

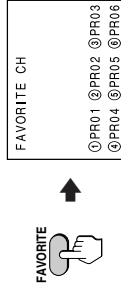
The DRC-MF logo () and "DRC-MF" are trademarks of Sony Corporation.

Viewing your favorite channels

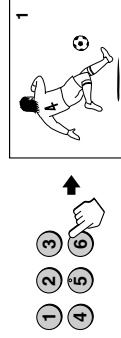
You can display and select six of your favorite channels directly from your TV screen.



1 Press FAVORITE.



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

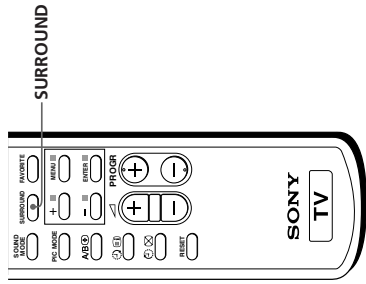
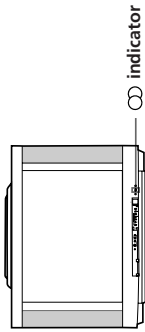


Tip

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

Enjoying stereo or bilingual programs

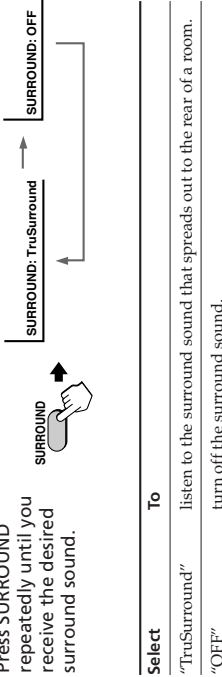
You can enjoy stereo sound or bilingual programs of NICAM and A2 stereo systems.



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.



Tip


- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 26).

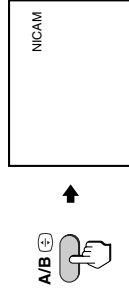
The surround of your TV is categorized as TruSurround.

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.

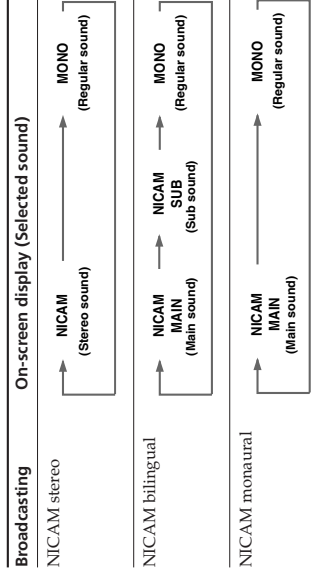
Press **A/B** repeatedly until you receive the sound you want.

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

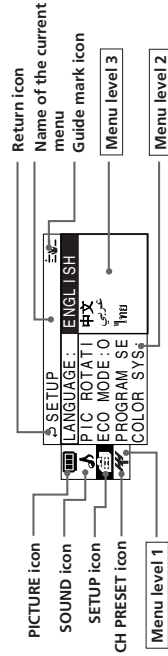


continued

Adjusting Your Setup (MENU)

Introducing the menu system

The MENU button lets you open a menu and change the settings of your TV. The following is an overview of the menu system.

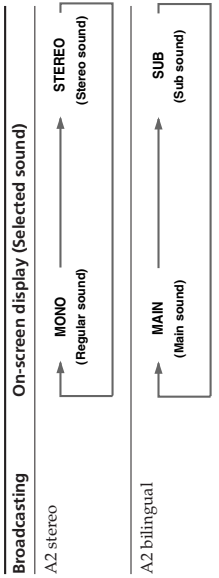


Level 1	Level 2	Level 3/Function
"PICTURE"	"DRC-MF"	Select the "DRC-MF" mode: "DRC1250" → "PROGRESSIVE"
	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "HI-FINE" → "PERSONAL" → "ADJUST"
	"ADJUST"	Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"GAME MODE"	Adjust the picture settings for video games.
	"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.

Adjusting Your Setup (MENU)

Enjoying stereo or bilingual programs (continued)

When receiving an A2 program



Receiving area for NICAM and A2 programs

System	Receiving area
NICAM	Thailand, Hong Kong, Singapore, New Zealand, Malaysia, etc.
A2	Thailand, Australia, Malaysia, 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 position.
- You cannot receive a stereo broadcast signal when the TV is in the "MONO" setting. Normally, set the TV to "AUTO".

continued

Adjusting Your Setup (MENU) | 21

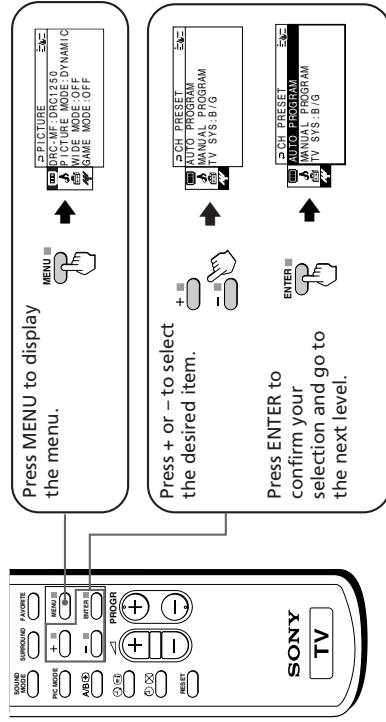
20 | Advanced Operations

Introducing the menu system (continued)

Level 1	Level 2	Level 3/Function
	"LANGUAGE"	Change the menu language: "ENGLISH" → "한글" (Chinese) → "عربي" (Arabic) → "ไทย" (Thai)
	"PIC ROTATION"	Adjust the picture position.
	"ECO MODE"	Reduce power consumption of your TV.
	"PROGRAM SETUP"	Adjust each channel settings.
	"COLOR SYS"	Select the color system: "AUTO" → "PAL" → "SECAM" → "NTSC3.58" → "NTSC4.43"
	"AUTO PROGRAM"	Preset channels automatically.
	"MANUAL PROGRAM"	Preset channels manually.
	"TV SYS"	Select 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



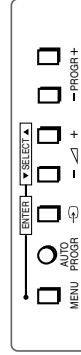
Other menu operations

To	Press
Adjust the setting value	+ or -.
Return to the previous menu level	ENTER.
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

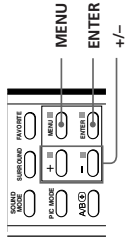


Note

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

Changing the "PICTURE" setting

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

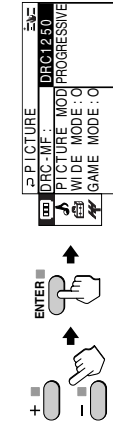


1 Press MENU.

2 Make sure the "PICTURE" icon (P) is selected, then press ENTER.



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



Select

To

"DRC-MF" choose either "DRC1250" or "PROGRESSIVE".

"PICTURE MODE" choose either "DYNAMIC", "STANDARD", "HI-FINE", "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.

"GAME MODE" adjust the picture setting that is suitable to view video games.

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 25).

Notes

- For details on the options under "DRC-MF" and "PICTURE MODE", see Pages 16 and 15 respectively.
- "GAME MODE" is available only when receiving signals through the (video input), (S video input), or (component video input) jacks at the front and rear of your TV.

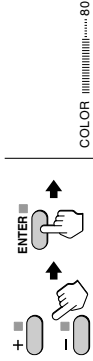
To return to the normal screen

Press MENU.

24 Adjusting Your Setup (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.

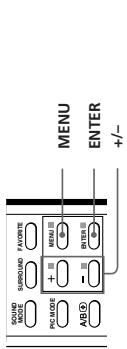
The adjusted settings will be received when you select "PERSONAL".

Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

Changing the "SOUND" setting

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

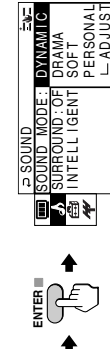


1 Press MENU.

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



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



Select To choose either "DYNAMIC", "DRAMA", "SOFT", "PERSONAL",* or "ADJUST".

"SURROUND" choose either "TruSurround" or "OFF".

"INTELLIGENT VOL" adjust the volume of all TV programs 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 27).

Note

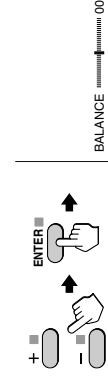
- For details on the options under "SOUND MODE" and "SURROUND", see pages 15 and 18 respectively.

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.

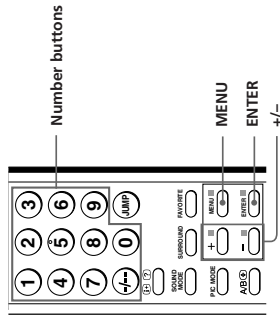
The adjusted settings will be received when you select "PERSONAL".

Tip

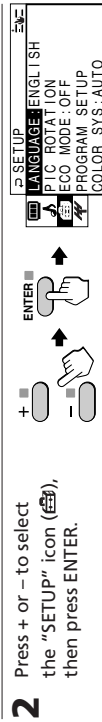
- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 21.

Changing the "SETUP" setting

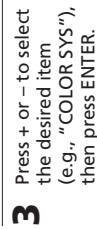
The "SETUP" menu allows you to change the menu language, adjust the picture position, reduce your TV power consumption, setup your programs and select the color system.



1 Press MENU.



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



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

To

"LANGUAGE" change the menu language (see **Changing the menu language** on page 13).
 "PIC ROTATION" adjust the picture position when it is not aligned with the TV screen.
 Press + or - to adjust the picture position, then press ENTER.



"ECO MODE" reduce power consumption of your TV to save energy.
 Press + or - to select "ON", then press ENTER.
 To cancel, select "OFF", then press ENTER.

"PROGRAM SETUP" adjust each channel settings (see **Adjusting each channel settings (PROGRAM SETUP)** on page 29).

"COLOR SYS" select the color system. Normally, set this to "AUTO".

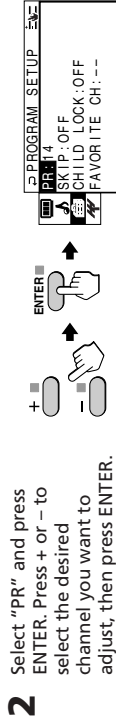
To return to the normal screen

Press MENU.

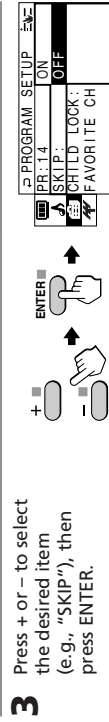
28 Adjusting Your Setup (MENU)

Adjusting each channel settings (PROGRAM SETUP)

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



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



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

To

"SKIP" select the desired channel.
 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 channel.
 Press + or - to select "ON", then press ENTER.
 The lock symbol (L) appears on the screen.
 To cancel, select "OFF", then press ENTER.
 If you preset a locked channel, that channel will be unlocked automatically.

"FAVORITE CH"

program six channels for direct selection.
 Press + or - to select one of the six favorite channel numbers (if you decide not to make any changes, select "0"), then press ENTER.
 To view the selected favorite channel, refer page 17.

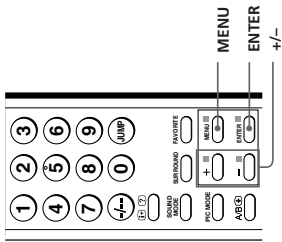
4 To continue adjusting other channels, press + or - to select "PR", then repeat step 2 and 3.

To return to the normal screen

Press MENU.

29 Adjusting Your Setup (MENU)

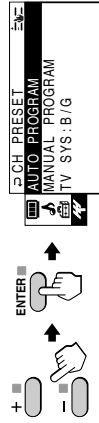
Changing the Channel Preset ("CH PRESET") setting



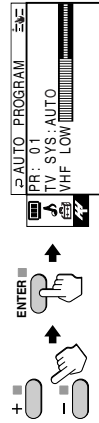
The "CH PRESET" menu allows you to adjust the setup of your TV. For example, you can manually tune in a channel with a weak signal that fails to be tuned in by automatic presetting.

1 Press MENU.

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



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



Select

"AUTO PROGRAM" preset channels automatically.

"MANUAL PROGRAM" preset channels manually. See **Presetting channels manually** on page 31.

"TV SYS"

select 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 21.

Presetting channels manually

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



- 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 PROG + / - or number buttons.

2 Select the desired channel.

(1) Press + or - to select either "VHF LOW", "VHF HIGH", or "UHF", then press ENTER.



(2) Press + or - until the desired channel's broadcast appears on the TV screen, then press ENTER.



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



- Press + or - to select "TV SYS", then press ENTER.





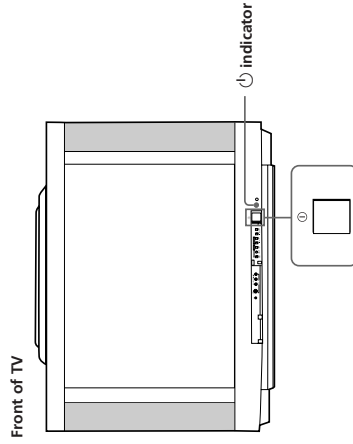
- Press + or - until the sound becomes normal, then press ENTER.





continued

Additional Information

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the  (standby) 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 flashed. Be sure to note the model name and serial number located on the rear of your TV.

Additional Information

Changing the "CH PRESET" setting (continued)

4 If you are not satisfied with the picture and sound quality, you may be able to improve them by using the "FINE" tuning feature.

- (1) Press + or - to select "FINE" tuning, 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

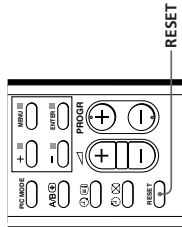
- The TV system ("TV SYS") and fine tuning ("FINE") settings are memorized for each program number.
- If you preset a locked channel ("CHILD LOCK"), that channel will be unlocked automatically (see page 29).

Troubleshooting

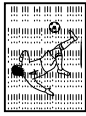





If you have any problem while viewing your TV, you can either use the Reset function or check the Troubleshooting guide below. If the problem persists, contact your Sony dealer.





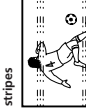





Reset function

Press the RESET button on your remote control. Your TV will go blank for about half a second then the picture will reappear with "RESET" displayed on your TV screen for about 10 seconds. Pressing RESET will set your TV to the factory setting, but certain problems may be solved.






Troubleshooting guide

Symptom	Possible cause	Solutions	Page
 Snowy picture  Noisy sound	<ul style="list-style-type: none"> The connection is loose or the cable is damaged. Channel presetting is inappropriate or incomplete. The antenna type is inappropriate. The antenna direction needs adjustment. Signal transmission is low. 	<ul style="list-style-type: none"> Check the antenna cable and connection on the TV, VCR and at the wall. Display the "CH PRESET" menu and select "MANUAL PROGRAM" to preset the channel again. 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. 	4 31 – – –
 Distorted picture  Noisy sound	<ul style="list-style-type: none"> Broadcast signals are too strong. 	<ul style="list-style-type: none"> Turn off or disconnect the booster if it is in use. 	–
 Good picture  Noisy sound	<ul style="list-style-type: none"> The TV system setting or channel presetting is inappropriate or incomplete. 	<ul style="list-style-type: none"> If the sound of all the channels are noisy, display the "CH PRESET" menu and select "AUTO PROGRAM" to preset the channels again. If the sound of some channels is noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS"). 	30 31

Symptom	Possible cause	Solutions	Page
 No picture  No sound	<ul style="list-style-type: none"> The power cord, antenna or VCR is not connected. The TV is not turned on. 	<ul style="list-style-type: none"> Check the power cord, antenna and the VCR connections. Press I/O (power). Press Ⓞ (main power) on the TV to turn off the TV for about five seconds, then turn it on again. 	4 11 12
 Good picture  No sound	<ul style="list-style-type: none"> The volume level is too low. The sound is muted. The broadcast signal has a transmission problem. 	<ul style="list-style-type: none"> Press \blacktriangle + to increase the volume level. Press \times to cancel the muting. Press A/B until a better sound is heard. 	12 12 19
 Dotted lines or stripes  Noisy sound	<ul style="list-style-type: none"> There is local interference from cars, neon signs, hair dryers, power generators, etc. 	<ul style="list-style-type: none"> 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"  Good picture	<ul style="list-style-type: none"> Broadcast signals are reflected by nearby mountains or buildings. The antenna direction needs adjustment. Use of a booster is inappropriate. The color level setting is too low. The color system setting is inappropriate. The antenna direction needs adjustment. 	<ul style="list-style-type: none"> Use a highly directional antenna. Use the fine tuning ("FINE") function. Adjust the antenna direction. Contact a Sony dealer for advice. Turn off or disconnect the booster if it is in use. Display the "PICTURE" menu and select "ADJUST" of "PICTURE MODE", then adjust the "COLOR" level. Display the "SETUP" menu and check the color system ("COLOR SYS") setting (usually set this to "AUTO"). Adjust the antenna direction. Contact a Sony dealer for advice. 	– 32 – – 25 28 –
 No color  Good picture	<ul style="list-style-type: none"> The antenna direction needs adjustment. 	<ul style="list-style-type: none"> Adjust the antenna direction. Contact a Sony dealer for advice. 	–

continued

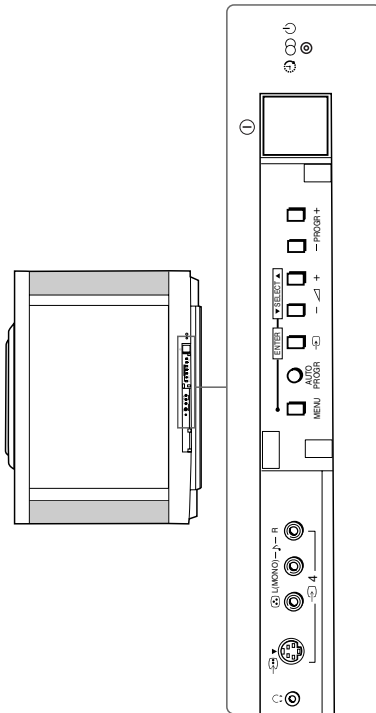
Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
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 equipment away from the TV. Do not move the TV while the TV is turned on. Press ⓪ (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.	19
Stereo broadcast sound switches on and off or is distorted.	• The connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
OR	• The antenna direction needs adjustment.	• Adjust the antenna direction. Contact a Sony dealer for advice.	–
The sound switches between stereo and monaural frequently.	• The broadcast signal has a transmission problem.	• Press A/B until a better sound is heard.	19
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  indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need servicing.	• Contact your nearest Sony service center.	33
Cannot play shooting games.	• Some shooting games which involve pointing a light beam at the TV screen with an electronic gun or rifle cannot be used with your TV. For detail, see the instruction manual supplied with the video game software.	–	–

Symptom	Possible cause	Solutions	Page
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract causing a noise. This does not indicate a malfunction.	–	–
A small "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	–	–

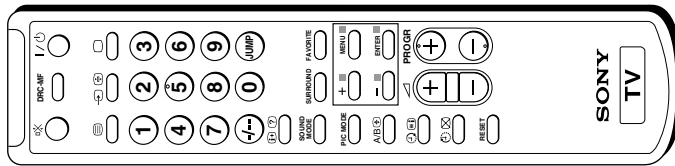
Overview of controls

TV front panel



Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
①	Turn off completely or turn on the TV.	11
PROGR +/-	Select program number.	11
⏻ +/-	Standby indicator.	11
↔ +/-	Adjust volume.	12
⏻	Select TV or video input.	12
⏻	Wake Up indicator.	14
MENU	Stereo/bilingual indicator.	19
⏻	Display the menu.	23
⏻	Headphone jack.	-

Remote control



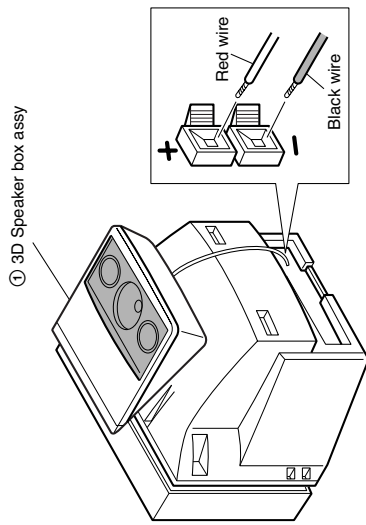
The names/symbols of buttons on the remote are indicated in different colors to represent the available functions.

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

Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	11
PROGR +/-	Select program number.	11
0-9, +/-	Input numbers.	11
⏻	Display on-screen information.	12
⏻	Mute the sound.	12
⏻	Display the TV program.	12
⏻	Select TV or video input.	12
⏻ +/-	Adjust volume.	12
JUMP	Jump to previous channel.	12
Timer operation		
⏻	Set TV to turn on automatically.	14
⏻	Set TV to turn off automatically.	14
SOUND MODE	Select sound mode.	15
PIC MODE	Select picture mode.	15
DRC-MF	Select DRC-MF mode.	16
Favorite Chann		
FAVORITE	Display favorite channels.	17
1-6	Select desired channel.	17
SURROUND	Select surround mode.	18
Stereo/bilingual		
A/B	Select stereo/bilingual mode.	19
Teletext operation (not used for KV-)		
⏻	Display Teletext broadcast.	-
⏻	Display Teletext service contents.	-
⏻	Stop Teletext display from scrolling.	-
⏻	Reveal concealed information.	-
⏻	Enlarge the Teletext display.	-
⏻	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 operation		
MENU	Display the menu.	23
+/-	Select and adjust items.	23
ENTER	Confirm selected items.	23
RESET	Set TV to factory setting.	34

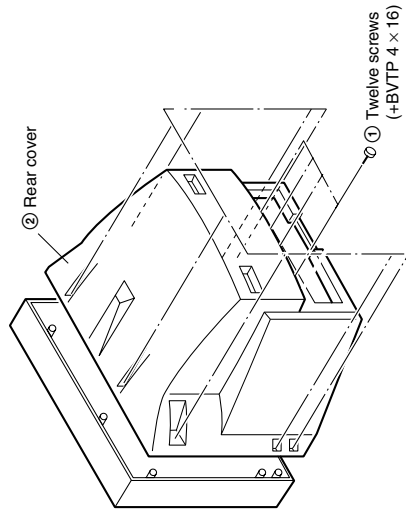
SECTION 2 DISASSEMBLY

2-1. SPEAKER BOX REMOVAL

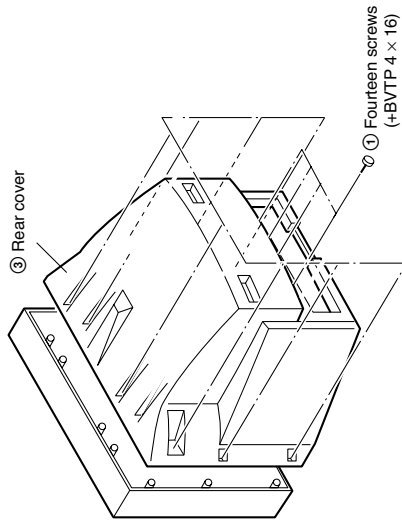


2-2. REAR COVER REMOVAL

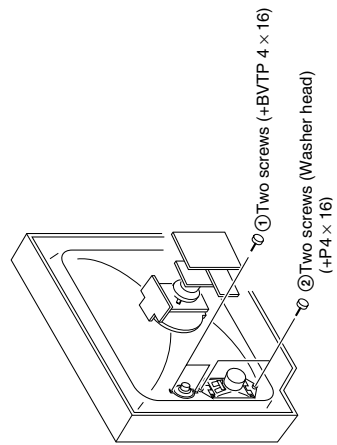
(i) KV-EX29 MODELS



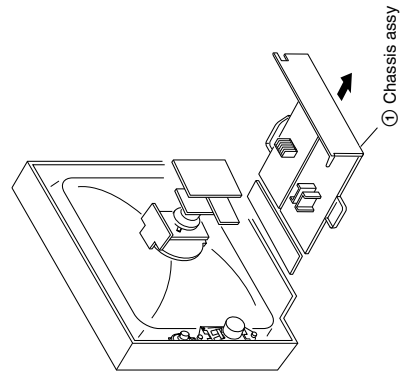
(ii) KV-EX34 MODEL



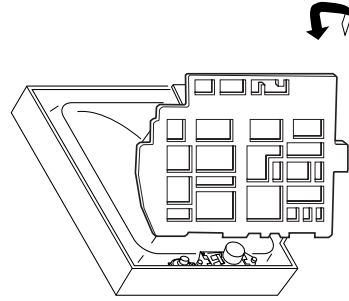
2-3. SPEAKER REMOVAL



2-4. CHASSIS ASSY REMOVAL



2-5. SERVICE POSITION

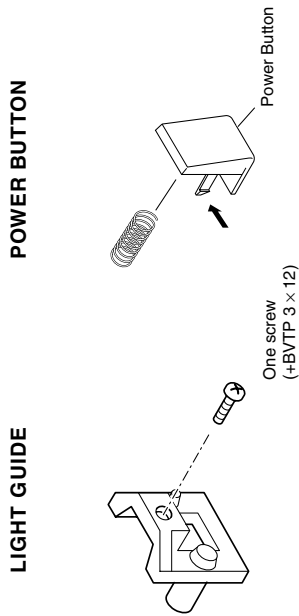


Note:

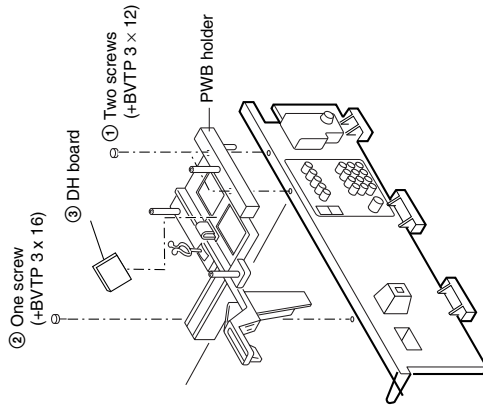
1. Disconnect the DGC connector from CN6603 (D board)
2. Disconnect Lead Assy Speaker (R) from Relay.
3. Undress necessary wires that creates tension while placing the chassis into Service Position.

2-6. REPLACEMENT OF PARTS

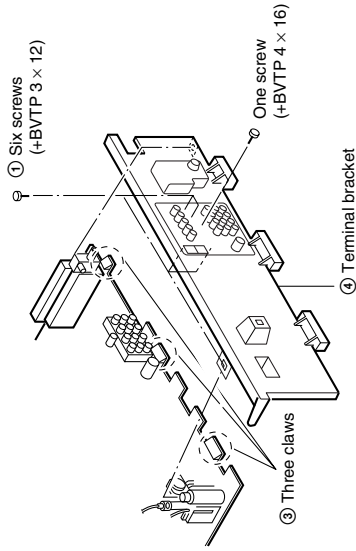
For Power Button removal, push the claw in the direction of the arrow and remove.



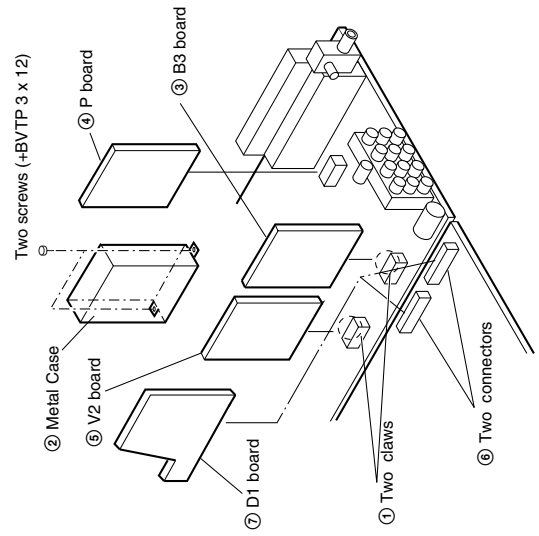
2-7. PWB AND DH BOARDS REMOVAL



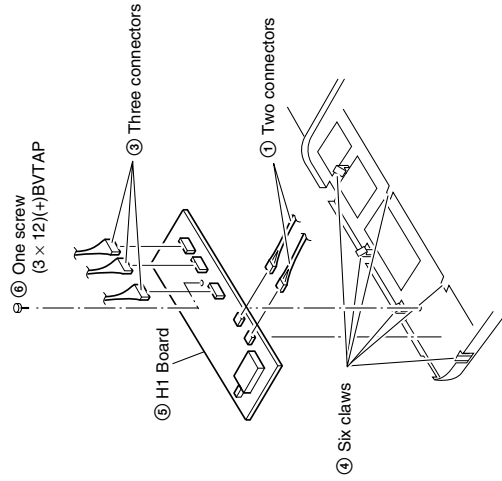
2-8. TERMINAL BRACKET REMOVAL



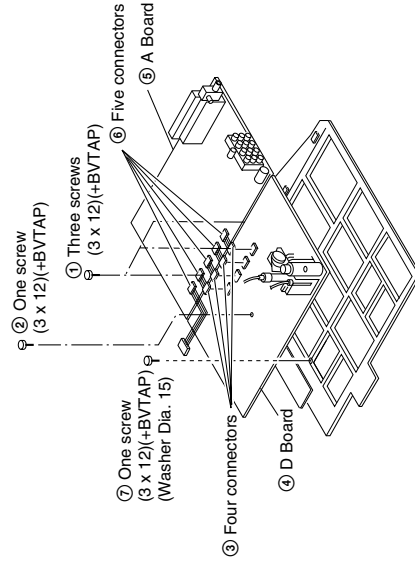
2-9. B3, P (KV-EX34M39/M69/M87 ONLY), V2 (KV-EX34M39/M69 ONLY) AND D1 BOARDS REMOVAL



2-10. H1 BOARD REMOVAL



2-11. A AND D BOARDS REMOVAL



KV-EX29M63

RM-964

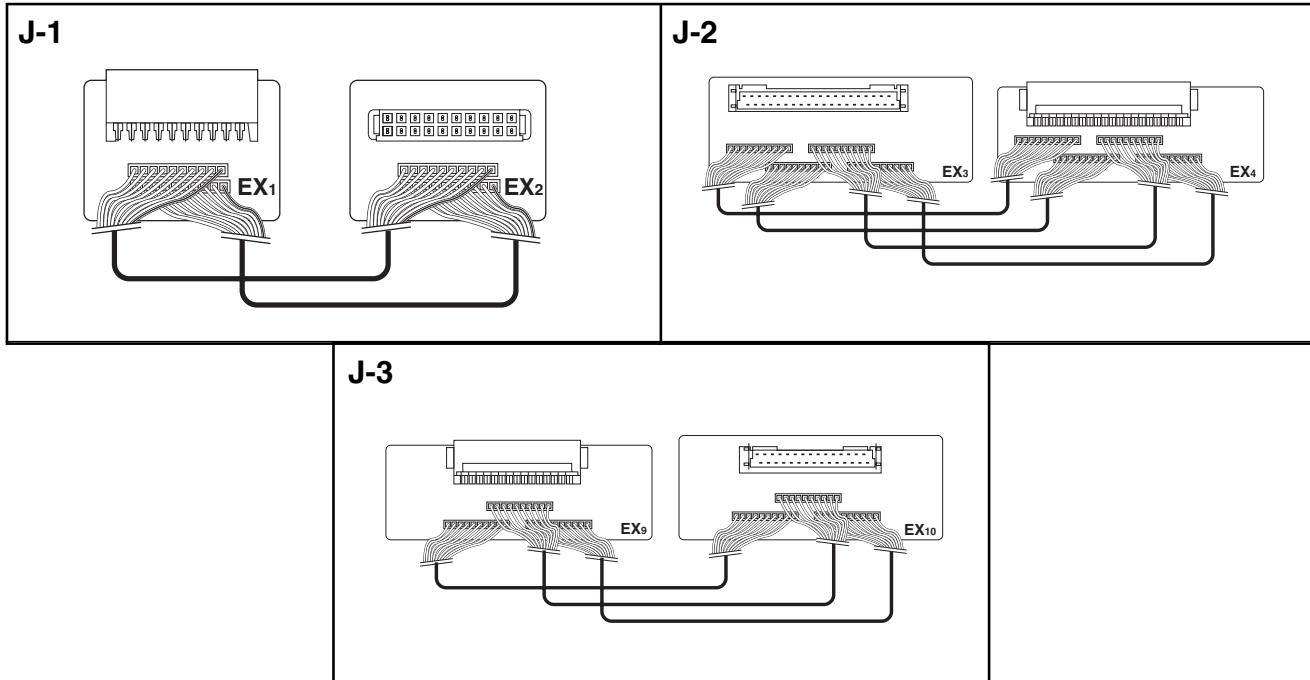
KV-EX34M39/EX34M69/EX34M87

RM-963

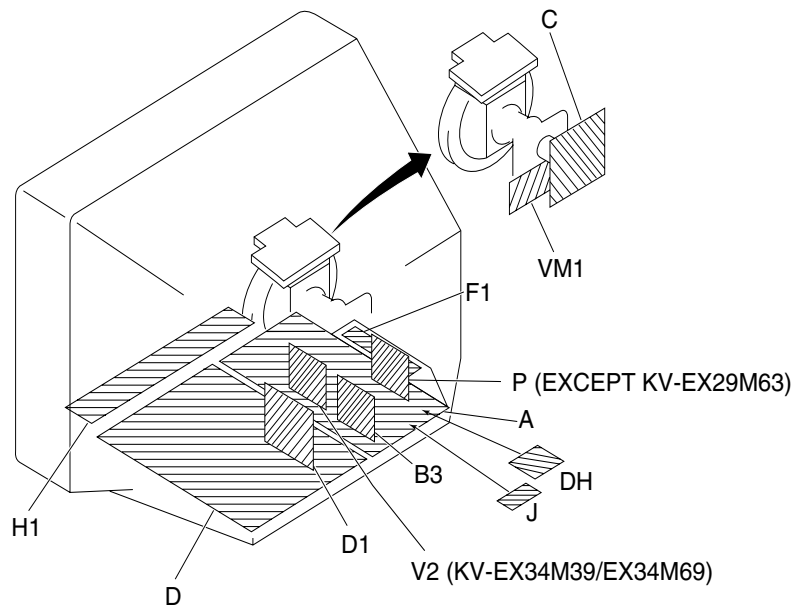
SECTION 3 SERVICE JIG

3-1. JIGS REQUIRED FOR SERVICING

REF NO.	DESCRIPTION	QUANTITY	PART NO.	REMARK
J-1	TOOL (20P), SERVICE	1	3-702-763-01	For A to V2 board extension For A to P board extension
J-2	TOOL (40P), SERVICE	1	3-702-764-01	For B3 to A board extension
J-3	TOOL (30P), SERVICE	2	3-702-773-01	For D to D1 board extension



SECTION 4 CIRCUIT BOARDS LOCATION



SECTION 5 ADVANCE OPERATION

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

5-1. "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 (shipping condition)

2. How to Operate

There are 2 ways to access to the "RESET" Function:-

- a) By pressing "RESET" button on the Remote Commander.
- b) 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) whereas 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* (KV-EX29M39/M87, EX34M97 ONLY)
DRC-MF	DRC1250	Stereo mode	STEREO/NICAM* } (EXCEPT
Picture mode	DYNAMIC	Bilingual mode	MAIN* } KV-EX34M87)
Sound mode	DYNAMIC	High-deviation mode	AUTO*
Surround mode	OF	Child lock	OFF*
Color system(video)	AUTO	Wide mode	OFF
Multi picture(PIP)	OFF	Game mode	OFF
PIP position	Bottom-right } (EXCEPT	Teletext mode	OFF (KV-EX34M39/M69)
Favourite CH mode	AUTO	Sleep timer	OFF
OSD recall	OFF	Wake-up timer	OFF
Intelligent volume	OFF	Sound muting	OFF
ECO mode	OFF		

*= only when in RF mode

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

SECTION 6 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

Perform the adjustments in the following order :

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

Note : Test Equipment Required.

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

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.

6-1. BEAM LANDING

1. Input a white signal with the pattern generator.

Contrast	} normal
Brightness	
2. Position neck assy as shown in Fig6-1.
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 6-1 through 6-3.)
5. Move the deflection yoke forward and adjust so that the entire screen is green. (See Figure 6-2.)
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 6-4.)

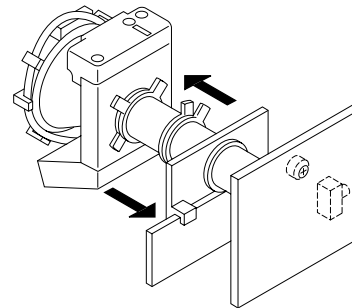


Fig. 6-2

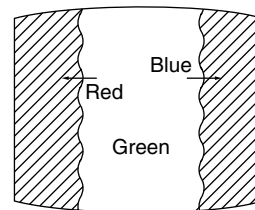


Fig. 6-3

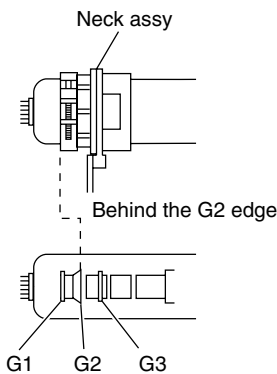


Fig. 6-1

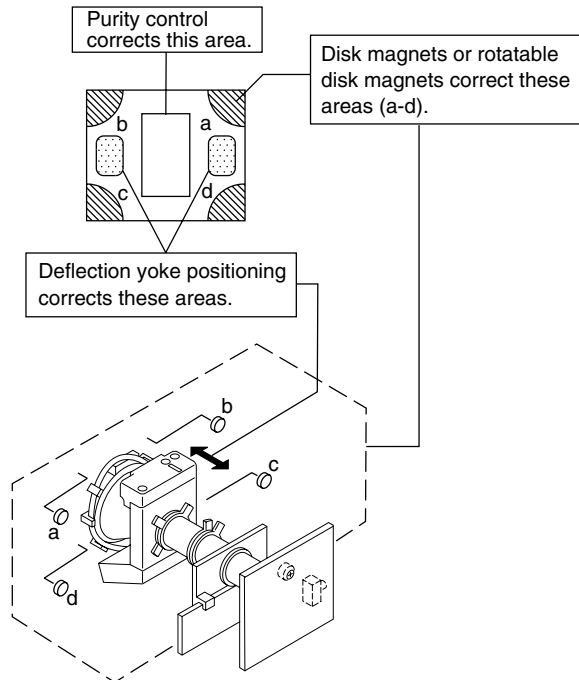


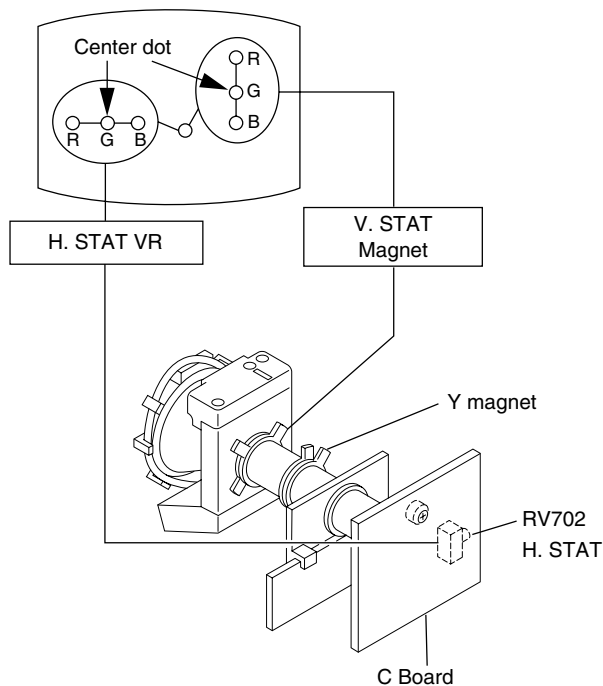
Fig. 6-4

6-2. CONVERGENCE ADJUSTMENT

Preparation :

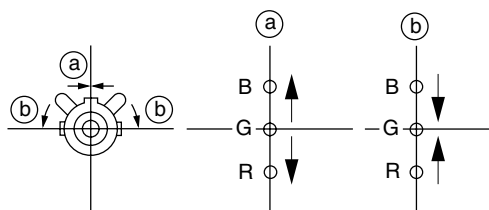
- Before starting this adjustment, adjust the focus, horizontal size and vertical size.
- Set the PICTURE 70% and BRIGHTNESS 0%.
- Cross hatch / Dot pattern.

(1) Horizontal and Vertical Static Convergence

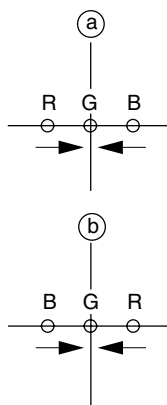


1. (Moving horizontally), adjust the H.STAT control so that the red, green and blue dots are on top of each other at the center of the screen.
2. (Moving vertically), adjust the V.STAT magnet so that the red, green and blue dots are on top of each other at the center of the screen.
3. Adjust Horizontal Trapezoid with "DAC 04 HTR" in Service Mode to make H-Trapezoid distortion best.
4. 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.)

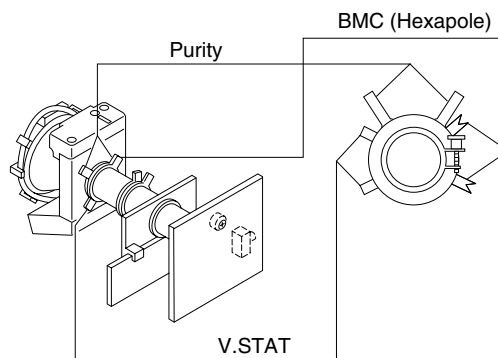
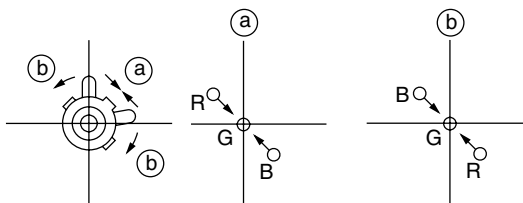
① V. STAT



② H. STAT VR



③



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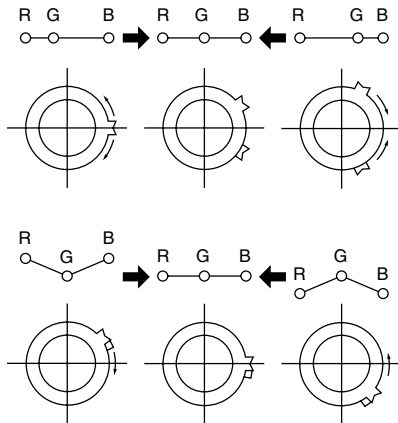
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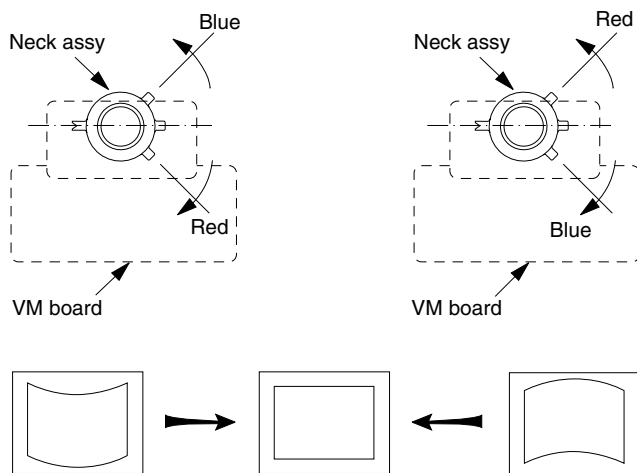
④ BMC (Hexapole) Magnet.

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



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.



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)

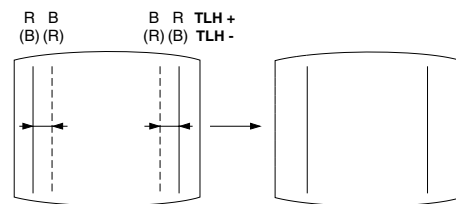
(2) Dynamic Convergence Adjustment

Preparation:

- Before starting this adjustment, adjust the horizontal static convergence and the vertical static convergence
- Set the PICTURE and BRIGHTNESS to normal.

1. Adjust TLH. (TLH convergence piece)

- ① Receive the dot/hatch pattern signal and adjust picture quality by the menu.
- ② Correct horizontal mis-convergence of red and blue of both sides on the X axis.
When red is outside insert TLH convergence piece to right side (TLH +) views from DY neck. And when blue is outside, insert it to left side (TLH -) and take both sides.



2. Adjust XCV core.

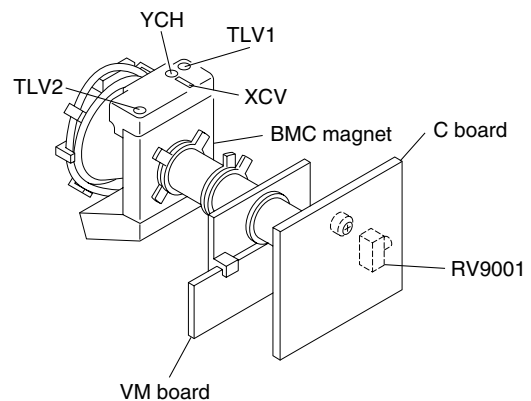
To able to become balance of XCV on the X axis well.

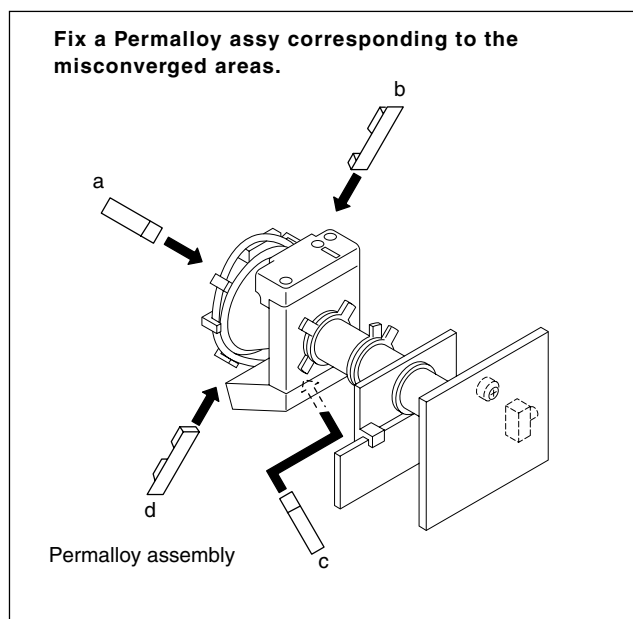
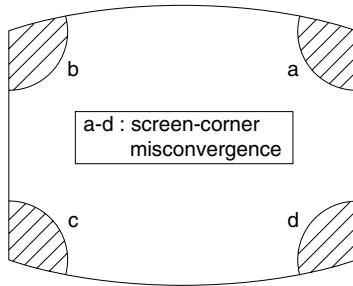
3. Adjust V-TILT.

Correct the vertical mis-convergence of red and blue of vertically sides on the Y axis.

4. Adjust YCH.

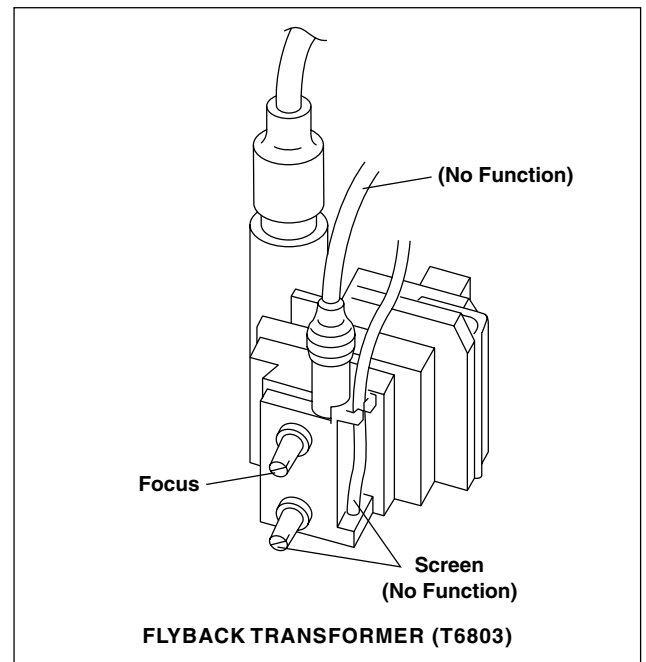
Adjust horizontal mis-convergence of red and blue of vertically sides on the Y axis. Mentioned above steps 2 to 4 are adjusting respectively perform minuteness tracking.



(3) Screen-corner Convergence**6-3. FOCUS ADJUSTMENT****Note**

Focus adjustment should be completed before W/B adjustment.

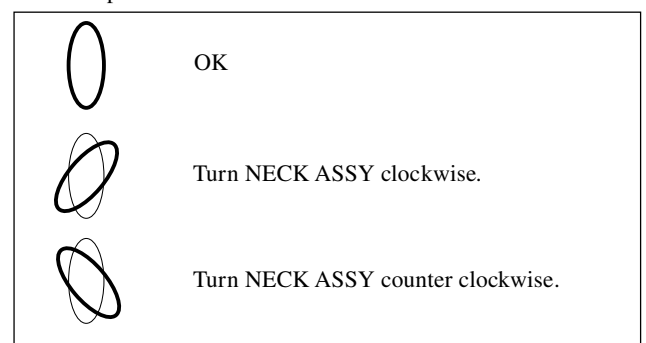
- (1) Receive digital monoscope pattern.
- (2) Set "A/V CONTROL" to "STANDARD".
- (3) Adjust FOCUS VR so that the center of the screen becomes just focus.
- (4) Change the receiving signal to white pattern and blue back.
- (5) Confirm MAGENTA RING is not noticeable. In case MAGENTA RING is obvious, adjust FOCUS VR to balance between MAGENTA RING and FOCUS adjustment.

**6-4. NECK ASSY TWIST ADJUSTMENT**

- (1) Receive dot/hatch pattern DRC-MF, DRC1250, DYNAMIC.
- (2) Turn FOCUS VR fully counter-clockwise.
- (3) Confirm the dot shape at the screen center. (Fig. 6-4)
- (4) Resume FOCUS VR.

Note

In case of turning NECK ASSY, loosen the screw 3 turns. Do not move the position.

**Fig. 6-4**

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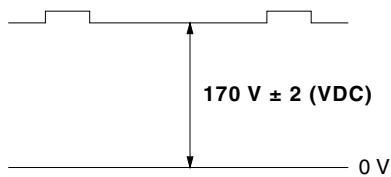
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6-5. G2 (SCREEN) AND WHITE BALANCE ADJUSTMENTS

1. G2 (SCREEN) ADJUSTMENT

- 1) Set the PICTURE and BRIGHTNESS to normal.
- 2) Put to VIDEO input mode without signals.
- 3) Connect R, G and B of the C board cathode to the oscilloscope.
- 4) Adjust BRIGHTNESS to obtain the cathode voltage to the value below.
- 5) Whilst watching the picture, adjust the screen VR [RV9002] located on the C board to the point just before the retrace lines disappear (to the point before cut-off)



2. WHITE BALANCE ADJUSTMENT

- 1) Set to Service Mode (Refer Section 7-1: ADJUSTMENTS WITH COMMANDER).
- 2) Input white raster signal.
- 3) Set the following condition.
PICTURE minimum, BRIGHTNESS 50%
- 4) Select GCT (WHB 7) and BCT (WHB 8) 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 4) and BDR (WHB 5) 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].

SECTION 7 CIRCUIT ADJUSTMENTS

7-1. ADJUSTMENTS WITH COMMANDER

Service adjustments to this model can be performed using the supplied Remote Commander RM-963 and RM-964.

a. ENTERING SERVICE MODE

With the unit on standby

→ [DISPLAY] → [5] → [VOL (+)] → [POWER]

The screen display is :

Device Name	Item No	Item Name	Data	Marking of new NVM	Mode	
GEO	00	VSZ	29	■	SERVICE	50
0	034Q	1.9M	59	FF 0	000A	PAL,SECAM:50 NTSC :60
	Suffix No (OEM Code)	Software version	Total Power-On time (hours)			

b. CANCELLATION OF 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 item Name.
- 3) Press [3] or [6] to raise/lower the data value.
- 4) Press [MUTING] button to indicate WRITE on the screen.
- 5) Press [0] button to write into memory.

d. OTHER FUNCTION VIA REMOTE COMMANDER

- [7], [0] All the data becomes the values in memory.
 [8], [0] All goes to the standard state.
 [5], [0] Service data initialization (Be sure not to use usually.)
 [DISPLAY], [0] Write 50Hz adjustment data to 60Hz, or vice versa.
 [2], [0] Copy and write all data.
 [Cursor +/-] Skip category (device) to caategory (device)

example : GEO 00 VSZ
 ↓
 DAC 00 HCT

e. 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.

7-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

This explanation uses V-size as an example.

1. Select "GEO 00 VSZ" 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. Press [MUTING] button to indicate WRITE on screen. (The display from SERVICE (green display) to WRITE (green display).)
5. Execute the writing with the [0] button. (The WRITE display changes to red color while executing and then back to SERVICE (green display).)
6. The WRITE execution is completed.

Example on screen display :-

GREEN
 GEO 00 VSZ 29 SERVICE 50
 0 034Q 1.9M 59 FF 0 000A
 Adjusted with [3] and [6] buttons.

GREEN
 GEO 00 VSZ 1F WRITE 50
 0 034Q 1.9M 59 FF 0 000A
 Write with [MUTING]

RED
 The WRITE (red display) return to SERVICE (green display) shows write is executed.
 GEO 00 VSZ 1F WRITE 50
 0 034Q 1.9M 59 FF 0 000A
 Write executed with [0]

Use the same method for all Items.

- 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.

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Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Device Name											
	No.	Name				50				60				60VC			
Category						50	50NC	50VC	60	60 NC	60VC						
GEO	00	VSZ	21	3F	V SIZE	1A	1A	1A		1C	1C	CXA2100AQ					
	01	VPS	27	3F	V POSITION	25	25	25		22	22						
	02	VLN	5	0F	V LINEARITY	06	06	06		06	06						
	03	SCO	0A	0F	S CORRECTION	09	09	09		09	09						
	04	HSZ	1E	3F	H SIZE	1E	1E	1E		1B	1B						
	05	HPS	2F	3F	H POSITION	24	22	22		1B	1A						
	06	PAP	28	3F	PIN AMP	2D	2F	2F		30	33						
	07	UPN	25	3F	UPPER CORNER PIN	24	28	28		26	29						
	08	LPN	23	3F	LOWER CORNER PIN	23	26	26		24	27						
	09	TRZ	0C	0F	TRAPEZIUM	0B	0B	0B		0A	0A						
	0A	AGL	0A	0F	AFC ANGLE	09	09	09		09	09						
	0B	BOW	6	0F	AFC BOW	0A	0A	0A		0A	0A						
	0C	LBL	12	3F	LEFT H BLANKING	16	16	16		21	21						
	0D	RBL	2C	3F	RIGHT H BLANKING	1B	1B	1B		1C	1C						
	0E	MPN	0	3	MIDDLE PIN DISTORTION COMPENSATION	00	00	00		00	00						
	0F	UVL	0	0F	UPPER V LINEARITY	00			00								
	10	LVL	0	0F	LOWER V LINEARITY	00			00								
	11	HCP	0	3	HORIZONTAL HIGH VOLTAGE COMPENSATION	00	00	00		00	00						
	12	VCP	1	3	VERTICAL HIGH VOLTAGE COMPENSATION	00	00	00		00	00						
	13	VAS	2F	3F	V ASPECT	2F	2D	2D		2F	2D						
	14	VSC	1F	3F	V SCROLL	1F	1D	1D	1F	1F	1E						
	15	USC	0	1	UNDER-SCAN MODE ON/OFF	00	01	01		00	01						
	16	VBW	0	3	V BLANKING WIDTH CONTROL	00	02	02		00	00						
	17	AT1	2	3	AKB REFERENCE TIMING	02	01	01		02	00						
	18	CPY	0	1	COPY THE GEO DATA TO ALL 50/60HZ NVM AREA												

FOR KV-EX34 MODEL ONLY

Adjustment Item Table

TVG	Functionality		Initial	Range	Function	Device Name						
	No.	Name				50		60		60VC		
Category						50	50NC	50VC	60	60 NC	60VC	
GEO	00	VSZ	21	3F	V SIZE		26	26		26	26	CXA2100AQ
	01	VPS	27	3F	V POSITION		26	26		26	26	
	02	VLN	5	0F	V LINEARITY		08	08		08	08	
	03	SCO	0A	0F	S CORRECTION		08	08		08	08	
	04	HSZ	1E	3F	H SIZE		20	20		20	20	
	05	HPS	2F	3F	H POSITION		35	35		2B	2B	
	06	PAP	28	3F	PIN AMP		1E	1E		1E	1E	
	07	UPN	25	3F	UPPER CORNER PIN		24	28		24	28	
	08	LPN	23	3F	LOWER CORNER PIN		24	24		24	24	
	09	TRZ	0C	0F	TRAPEZIUM		08	08		08	08	
	0A	AGL	0A	0F	AFC ANGLE		0B	0B		0B	0B	
	0B	BOW	6	0F	AFC BOW		0A	0A		0A	0A	
	0C	LBL	12	3F	LEFT H BLANKING		16	16		21	21	
	0D	RBL	2C	3F	RIGHT H BLANKING		1B	1B		1C	1C	
	0E	MPN	0	3	MIDDLE PIN DISTORTION COMPENSATION		00	00		00	00	
	0F	UVL	0	0F	UPPER V LINEARITY		00		00			
	10	LVL	0	0F	LOWER V LINEARITY		00		00			
	11	HCP	0	3	HORIZONTAL HIGH VOLTAGE COMPENSATION		00	00		00	00	
	12	VCP	1	3	VERTICAL HIGH VOLTAGE COMPENSATION		00	00		00	00	
	13	VAS	2F	3F	V ASPECT		2F	2F		2F	2F	
	14	VSC	1F	3F	V SCROLL		1F	1F	1F	1F	22	
	15	USC	0	1	UNDER-SCAN MODE ON/OFF		00	00		00	01	
	16	VBW	0	3	V BLANKING WIDTH CONTROL		00	00		00	00	
	17	AT1	2	3	AKB REFERENCE TIMING		02	02		02	00	
	18	CPY	0	1	COPY THE GEO DATA TO ALL 50/60HZ NVM AREA							

FOR KV-EX29 MODEL ONLY

Adjustment Item Table

TVG Category	Functionality		Initial	Range	Function	Eco Mode						Device Name				
	No.	Name				50	50NC	50VC	60	60NC	60VC		Eco On/NC	Eco Off/NC	Eco Off/VC	
DAC	00	HCT	33	FF	H CENTER	CC										MB88141
	01	HLN	27	3F	H LINEARITY		2B	2B		2D	2D					
	02	MDP	26	3F	MIDDLE PIN		1F	1F		1F	1F					
	03	CCP	37	3F	LOWER CORNER PIN		10	04		10	04					
	04	HTR	26	3F	HORIZONTAL TRAPEZIUM		1F	1F		1F	1F					
	05	PBA	1F	3F	PIN UNBALANCE		16	16		16	16					
	06	DPH	1F	3F	DF PHASE		1F	1F		1F	1F					
	07	QPH	19	3F	QP PHASE		19	19		19	19					
	08	QAC	23	3F	QP AMPLITUDE		23	23		23	23					
	09	QDC	20	3F	QP DC LEVEL		20	20		20	20					
	0A	QDV	1F	3F	QP V MODULATION		1F	1F		1E	1E					
	0B	QAV	1A	3F	QP AMPLITUDE MODULATION		1A	1A		1D	1D					
	0C	ABC	0	FF	ABL D/A CONTROL							00	00	7E	7E	
	0D	CPY	0	1	COPY THE DAC DATA TO ALL 50/60Hz NVM AREA											

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Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
WHB	00	CBO	7	0F	DC OFFSET CANCELLER FOR Cb1	0A	CXA2100QA
	01	CRO	7	0F	DC OFFSET CANCELLER FOR C11	0A	
	02	SBR	18	3F	SUB BRIGHTNESS CONTROL	1F	
	03	RDR	29	3F	R DRIVE	29	
	04	GDR	25	3F	G DRIVE	24	
	05	BDR	26	3F	B DRIVE	25	
	06	RCT	1D	3F	R CUTOFF	1D	
	07	GCT	12	3F	G CUTOFF	06	
	08	BCT	31	3F	B CUTOFF	25	
	09	SBO	29	3F	SUB BRIGHTNESS OFFSET	20	
	0A	RDO	1F	3F	R DRIVE OFFSET	1F	
	0B	GDO	1A	3F	G DRIVE OFFSET	1A	
	0C	BDO	1A	3F	B DRIVE OFFSET	1B	
	0D	RCO	1F	3F	R CUTOFF OFFSET	1F	
	0E	GCO	1E	3F	G CUTOFF OFFSET	22	
	0F	BCO	15	3F	B CUTOFF OFFSET	16	

FOR KV-EX34 MODEL ONLY

Adjustment Item Table

Category	Functionality		Initial	Range	Function	Eco Mode						Device Name				
	No.	Name				50	50NC	50VC	60	60NC	60VC		Eco OnNC	Eco OffNC	Eco OnVC	Eco OffVC
DAC	00	HCT	33	FF	H CENTER	59										MB88141
	01	HLN	27	3F	H LINEARITY		26	26	26	26						
	02	MDP	26	3F	MIDDLE PIN		19	19	19	19						
	03	CCP	37	3F	LOWER CORNER PIN		00	00	00	00						
	04	HTR	26	3F	HORIZONTAL TRAPEZIUM		1F	1F	1F	1F						
	05	PBA	1F	3F	PIN UNBALANCE		16	16	16	16						
	06	DPH	1F	3F	DF PHASE		22	22	22	22						
	07	QPH	19	3F	QP PHASE		12	12	12	12						
	08	QAC	23	3F	QP AMPLITUDE		24	24	24	24						
	09	QDC	20	3F	QP DC LEVEL		1E	1E	1E	1E						
	0A	QDV	1F	3F	QP V MODULATION		28	29	29	28						
	0B	QAV	1A	3F	QP AMPLITUDE MODULATION		1E	20	20	1E						
	0C	ABC	0	FF	ABL D/A CONTROL						00	00	00	00	00	
	0D	CPY	0	1	COPY THE DAC DATA TO ALL 50/60Hz NVM AREA											

FOR KV-EX34 MODEL ONLY

Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
WHB	00	CBO	7	0F	DC OFFSET CANCELLER FOR Cb1	0A	CXA2100QA
	01	CRO	7	0F	DC OFFSET CANCELLER FOR C11	0A	
	02	SBR	18	3F	SUB BRIGHTNESS CONTROL	1F	
	03	RDR	29	3F	R DRIVE	29	
	04	GDR	25	3F	G DRIVE	24	
	05	BDR	26	3F	B DRIVE	25	
	06	RCT	1D	3F	R CUTOFF	1D	
	07	GCT	12	3F	G CUTOFF	20	
	08	BCT	31	3F	B CUTOFF	25	
	09	SBO	29	3F	SUB BRIGHTNESS OFFSET	1C	
	0A	RDO	1F	3F	R DRIVE OFFSET	1F	
	0B	GDO	1A	3F	G DRIVE OFFSET	1D	
	0C	BDO	1A	3F	B DRIVE OFFSET	1C	
	0D	RCO	1F	3F	R CUTOFF OFFSET	1F	
	0E	GCO	1E	3F	G CUTOFF OFFSET	11	
	0F	BCO	15	3F	B CUTOFF OFFSET	14	

Adjustment Item Table

Category	Functionality		Initial	Range	Function	Common	50/60Hz		Device Name
	No.	Name					TV	Video	
PIP	00	PRO	0	1	PROGRESSIVE SCAN MODE ENABLE	00			SDA9489X
	01	RED	0	1	READ DOUBLE MODE	00			
	02	FEI	0	3	FIELD SELECT	00			
	03	HPS	35	FF	HORIZONTAL PICTURE POSITION	33			
	04	VPS	1B	FF	VERTICAL PICTURE POSITION	1B			
	05	HFP	0	0F	HORIZONTAL FINE POSITIONING	08			
	06	VFP	0	0F	VERTICAL FINE POSITIONING	00			
	07	DIS	0	3	DISPLAY STANDARD	00			
	08	HOS	0	3	HORIZONTAL SIZE	00			
	09	VES	0	3	VERTICAL SIZE	00			
	0A	FPS	0	3	FORCE PARENT STANDARD	00			
	0B	HZM	0	7	HORIZONTAL ZOOM	00			
	0C	VSP	0	1	VERTICAL SYNC PULSE NOISE REDUCTION	01			
	0D	VDL	0	1F	VERTICAL SYNC PULSE DELAY	00			
	0E	FRH	5	7	FRAME WIDTH HORIZONTAL	05			
	0F	FMV	2	3	FRAME WIDTH VERTICAL	02			
	10	VRD	0	1	REDUCTION	00			
	11	VBK	0	1	VERTICAL BLANKING	00			
	12	DLY	0	F	SELECT DELAY	01			
	13	PCR	0	1	POSITION CORRECTION	00			
	14	AGM	3	3	AGC MODE	03			
	15	AGC	6	F	AUTOMATIC GAIN CONTROL VALUE	0B			
	16	CVB	0	3	CVBS SELECT	00			
	17	CPD	1	3	CLAMPING DURATION	01			
	18	GPT	1	3	CLAMPING PULSE START	01			
	19	LUM	0	3	LUMINANCE OFFSET	00			
	1A	PLL	0	3	INSERT PLL TIME CONSTANT	00	00	00	
	1B	YCD	2	F	Y/C DELAY	08			
	1C	NSR	0	3	NOISE REDUCTION FOR INSERT PLL		02	00	
	1D	LSP	0	1	STANDARD IDENTIFICATION SPEED	00			
	1E	KIL	0	3	COLOR KILLER THRESHOLD	02			
	1F	BGP	0	1	BURST GATE POSITION	01			
	20	SEC	0	1	SECAM IDENTIFICATION LEVEL	01			
	21	DEM	1	3	DEEMPHASIS SELECTION	01			
	22	CMA	0	3	CHROMA BANDWIDTH	00			
23	IFC	2	3	IF COMPENSATION FILTER	02				
24	HUE	0	1F	HUE	00				
25	SCA	7	1F	COLOR SUBCARRIER ADJUSTMENT	06				
26	CON	0	F	CONTRAST ADJUSTMENT	00				
27	BLR	0	F	BLANKING LEVEL RED CHANNEL	00				
28	BRG	0	F	BRIGHTNESS ADJUSTMENT	00				
29	BLG	0	F	BLANKING LEVEL GREEN CHANNEL	00				
2A	BIR	0	1	BLANKING INVERSION RED CHANNEL	00				
2B	BIB	0	1	BLANKING INVERSION BLUE CHANNEL	00				
2C	BLB	0	F	BLANKING LEVEL BLUE CHANNEL	00				
2D	INT	0	1	REFRESH INTERVAL	00				
2E	PKR	4F	FF	PEAK LEVEL RED CHANNEL	85				
2F	PKG	4F	FF	PEAK LEVEL GREEN CHANNEL	85				
30	PKB	4F	FF	PEAK LEVEL BLUE CHANNEL	85				
31	FRY	A	F	FRAME COLOR Y	09				
32	OUT	1	1	OUTPUT FORMAT	01				
33	FRU	0	F	FRAME COLOR U	00				
34	FRV	0	F	FRAME COLOR V	00				
35	SAT	7	F	COLOR SATURATION ADJUSTMENT	07				
36	YPK	7	7	Y PEAK ADJUSTMENT	03				
37	YCO	0	F	Y CORING ENABLE	00				
38	PAL	3	3	PAL ID LEVEL	03				
39	POV	0	7	POSITION OFFSET VERTICAL	00				
3A	POH	0	1F	POSITION OFFSET HORIZONTAL	00				
3B	VSH	0	1F	VERTICAL SHRINK	00				
3C	HSR	0	1F	H SHRINK	00				
3D	CPL	1	3	CLAMPING PULSE LENGTH	01				

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Adjustment Item Table

TVG Category	Functionality No.	Name	Initial	Range	Function	Common	Multi Comb	3D Comb	S-Input	Other	TV	Video		DVD		Device Name
												50	60	50	60	
YCT	00	TNT	1F	3F	TINT ADJUSTMENT FOR NTSC						1F	1F				CXA2123Q (KV-EX29) (KV-EX34)
	00	TNT	1F	3F	TINT ADJUSTMENT FOR NTSC						20	1F				
	01	PNG	1	1	PAL/NTSC GATE WIDTH	01										
	02	PNI	0	1	PAL/NTSC SENSITIVITY SW	00										
	03	SCL	7	0F	SUB COLOR CONTROL						05	04	07	07		
	04	SCT	8	0F	SUB CONTRAST CONTROL						07	07	07	07		
	05	SFO	2	3	SHARPNESS CENTER FREQUENCY CHANGING	02										
	06	SEQ	3	3	SHARPNESS EQUALIZER CHARACTERISTIC	03										
	07	SHG	5	0F	SHARPNESS GAIN CONTROL						05	06	05	06	07	07
	07	SHG	5	0F	SHARPNESS GAIN CONTROL						04	05	05	05	07	07
	08	YOL	1F	3F	Y-OUTPUT LEVEL CONTROL	1F										
	09	BSP	0	3	BLACK STRETCH START POINT CHANGING	00										
	0A	COL	1F	3F	Cb/Cr OUTPUT LEVEL CONTROL	1A										
	0B	DCR	0	3	DC RESTORATION RATIO ADJUSTMENT	00										
	0C	BFO	1	3	BPF/TQF F0 ADJUSTMENT	01										
	0D	BFO	2	3	BPF/TQF Q ADJUSTMENT	02										
	0E	FSW	1	1	BPF/TQF SWITCH	01										
	0F	SDT	1	1	SECAM DOUBLE TRAP SWITCH	01										
	10	LPF	1	1	Y/Cb/Cr LPF SWITCH	01										
	11	YDL	6	0F	Y-DL TIME ADJUSTMENT		07	05	06	06						
	12	CMT	0	1	Cb/Cr OUTPUT MUTE SWITCH	00										
	13	BO1	7	0F	Cb OFFSET 1 ADJUSTMENT (MAIN ROUTE)	07										
	14	RO1	7	0F	Cr OFFSET 1 ADJUSTMENT	07										
	15	CDF	0	7	V COUNT DOWN FREQUENCY SWITCH	00										
	16	CDM	0	3	V COUNT DOWN JUDGE SWITCH	00										
	17	AFC	0	3	AFC SENSITIVITY SWITCH							00	00			
	18	MVM	1	1	MACROVISION MASK + AFC MASK	01										
	19	SRY	7	0F	SECAM R-Y BLACK ADJUSTMENT	07										
	1A	SBY	1	0F	SECAM B-Y BLACK ADJUSTMENT	01										
	1B	BEL	2	3	SECAM BELL/HPF SWITCHING	02										
	1C	BLF	0	1	BELL F0 ADJUSTMENT	00										
	1D	SV1	0	1	SECAM V-ID SWITCH	00										
	1E	SGP	0	3	SECAM GATE POSITION ADJUSTMENT	00										
	1F	SID	1	1	SECAM SENSITIVITY SWITCH	01										
	20	SIH	0	1	SECAM INHIBITION SWITCH	00										
	21	STP	0	1	Y BLACK LEVEL SETUP FOR PAL PLUS	00										
	22	ASW	2	1	AUTO VIDEO SELECT MODE SW	01										
	23	WSH	0	3	SHARPNESS GAIN STEP FOR NOISE REDUCTION	00										
	24	WCO	0	3	Cb/Cr OUTPUT LEVEL STEP FOR NOISE REDUCTION	00										
	25	CB2	7	7	CB2 OFFSET ADJUSTMENT (YCbCr2 INPUT)	07										
	26	CR2	7	7	Cr2 OFFSET ADJUSTMENT (YCbCr2 INPUT)	07										
	27	HPH	0	1	HS OUTPUT PHASE SWITCH	00										
	28	VPH	0	1	SWITCH FOR VP OUTPUT PHASE	00										
	29	NCM	0	1	NTSC COMB	01										

Adjustment Item Table

TVG Category	Functionality		Initial	Range	Function	Common	Dynamic	Standard/Drama	Hi-Fine/Soft	Personal	Device Name
	No.	Name									
AP	00	BAS	13	1F	BASE SOUND MODE CONTROL		12	10	10		BH3868FS
	01	TRE	12	1F	TREBLE SOUND MODE CONTROL		12	12	10		(KV-EX29) (KV-EX34)
	02	BBE	99	FF	BBE SOUND MODE CONTROL		97	D5	00		
	02	BBE	99	FF	BBE SOUND MODE CONTROL		B7	E5	00		
	03	SON	0	1	SURROUND ON/OFF	00					
	04	SST	0	1	SURROUND STEREO	00					
	05	SMO	0	1	SURROUND MONORAL	00					
	06	LOP	0	1	SURROUND EFFECT ENHANCEER	00					
	07	SUR	0	7	SURROUND EFFECT	00					

TVG Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
MSP	00	WST	15	FF	W/G STEREO THRESHOLD	15	MPS3415D
	01	WBT	EA	FF	W/G BILINGUAL THRESHOLD	EC	
	02	WLL	5	FF	W/G MONAURAL THRESHOLD	05	
	03	WAC	1	OF	W/G AGREEMENT COUNT	01	
	04	WDL	30	FF	W/G SEARCH DELAY	30	
	05	NDL	20	FF	NICAM SEARCH DELAY	20	
	06	SDL	10	FF	STEREO STATUS READ DELAY	10	
	07	AGC	1	1	AGC SWITCH AUTO/CONSTANT	01	
	08	REL	28	3F	AGC GAIN AT CONSTANT MODE	28	
	09	CRM	0	1	CARRIER MUTING ON/OFF	00	
	0A	ACO	1	1	AUDIO CLOCK OUT ON/OFF	01	
0B	FP	1B	7F	FM PRESCALE FOR NON-M SYSTEM	1B		
0C	FPM	32	7F	FM PRESCALE FOR M SYSTEM	32		
0D	FH	2D	7F	FM PRESCALE FOR HDEV	36		
0E	FHM	65	7F	FM PRESCALE FOR HDEV AND M	65		
0F	WGP	1C	7F	W/G PRESCALE	1C		
10	NIP	7F	7F	NICAM PRESCALE	7F		
11	ERR	50	FF	AUTO FM SWITCH THRESHOLD	50		

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Adjustment Item Table

TVG Category	Functionality No.	Functionality Name	Initial	Range	Function	Common	TV			Device Name	
							Video	Picture Mode			
							Dynamic	Standard/Drama	Hi-Fine/soft	Personal	
LT1	00	LDH	1	1	HISTOGRAM SEGMENT SELECTION	01					TDA9178
	01	CFS	1	1	CONTOUR FILTER SELECTION	01					
	02	WLB	0	1	LETTERBOX WINDOW SWITCH	00					
	03	VDC	1	1	VIDEO DEPENDANT CORING		01	01	01	01	
	04	DEM	0	1	DEMONSTRATION MODE	00					
	05	CDP	4	07	LUMINANCE DELAY	04					
	06	OSP	0	1	OVERRULE SMART PEAKING	00					
	07	WPO	0	1	WHITE POINT STRETCH OFF	00					
	08	DSK	0	1	SKIN TONE SWITCH		00	00	00	00	
	09	ASK	0	1	SKIN TONE ANGLE SELECTION	00					
	0A	WSK	0	1	SKIN TONE WIDTH SELECTION	00					
	0B	SSK	0	1	SKIN TONE SIZE SELECTION	00					
	0C	DGR	1	1	GREEN ENHANCEMENT SWITCH		01	01	00	01	(Thailand, Malaysia, ME only)
	0C	DGR	1	1	GREEN ENHANCEMENT SWITCH		00	00	00	00	(OCEANIA MODEL ONLY)
	0D	DGT	7	7	THRESHOLD OF GREEN ENHANCEMENT SWITCH	07					
	0E	GGR	0	1	GREEN ENHANCEMENT GAIN	00					
	0F	WGR	0	1	GREEN ENHANCEMENT WIDTH	00					
	10	SGR	0	1	GREEN ENHANCEMENT SIZE	00					
	11	DBL	0	1	BLUE STRETCH SWITCH	00					
	12	GBL	0	1	BLUE STRETCH GAIN SELECTION	00					
	13	SBL	0	1	BLUE STRETCH SIZE SELECTION	00					
	14	CDS	1	1	COLOR DEPENDANT SHARPNESS		01	01	00	01	
	15	CST	7	7	THRESHOLD OF COLOR DEPENDANT SHARPNESS	07					
	16	CT1	0	1	COLOR TRANSIENT IMPROVEMENT		00	00	00	00	
	17	BON	0	1	BLACK OFFSET COMPENSATION		00	00	00	00	
	18	BTD	0	3F	ADAPTIVE BLACK STRETCH		00	00	00	00	
	19	NLD	15	3F	NON-LINEARITY AMPLIFIER		15	15	00	15	
	1A	NLW	7	7	STEP WIDTH OF NON-LINEARITY AMPLIFIER	07					
	1B	VGD	15	3F	VARIABLE GAMMA		1F	1F	1F	1F	(KV-EX29)
	1B	VGD	15	3F	VARIABLE GAMMA		22	1F	1F	1F	(KV-EX34)
	1C	VGW	0	7	STEP WIDTH OF VARIABLE GAMMA	00					
	1D	PKD	3F	3F	PEAKING AMPLITUDE		3F	2B	0E	2B	(KV-EX29)
	1D	PKD	3F	3F	PEAKING AMPLITUDE		3F	30	0E	30	(KV-EX34)
	1E	PKW	8	0F	STEP WIDTH OF PEAKING AMPLITUDE	08					
	1F	SPD	0	3F	STEEPNESS CORRECTION		20	00	00	00	
	20	CRD	11	3F	CORING LEVEL		1B	1B	00	1B	(KV-EX29)
	20	CRD	11	3F	CORING LEVEL		16	16	00	16	(KV-EX34)
	21	CRW	9	0F	STEP WITH CORING LEVEL	09					
	22	CRO	0	0F	CORING LEVEL OFFSET FOR VIDEO MODE	06					(KV-EX29)
	22	CRO	0	0F	CORING LEVEL OFFSET FOR VIDEO MODE	01					(KV-EX34)
	23	LWD	1F	3F	LINE WIDTH CORRECTION	1F					
	24	SNM	0	7	S/N MODE UNDER UNRELIABLE S/N CONDITION	00					
	25	SNC	3	0F	S/N RATIO AVERAGE COUNTER		03	03			
	26	FMC	2	0F	FEATURE MODE MATCHING COUNTER	02					

TVG Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
DRC	00	MOD	0	3	DRC MODE (FOR EVALUATION ONLY) 00-NORMAL, 01-FORCED 1250I, 02-FORCED PROGRESSIVE, 03-FORCED SIMPLE PROGRESSIVE	00	

Adjustment Item Table

TVG Category	Functionality No.	Name	Initial	Range	Function	Common	TV Video				Picture Mode				Device Name	
							NR mode 0	NR mode 1	NR mode 2	NR mode 3	Dynamic	Standard/Drama	Hi-Fine/soft	Personal		
3CM	00	FRZ	0	1	EXTERNAL MEMORY TEST BIT	00										UPD64082
	01	NRM	0	3	NOISE REDUCTION OPERATION MODE	00										
	02	YCO	0E	0F	YC SIGNAL OUTPUT SELECTION	0D										
	03	SYC	1	3	SYSTEM CLOCK SELECTION	01										
	04	STD	0	3	STANDARD/NON-STANDARD OPERATION SELECTION	00										
	05	MSS	0	3	INTER-FRAME/INTER-LINE OPERATION SELECTION	00										
	06	KIL	3	3	KILLER/NON-KILLER OPERATION SELECTION	03										
	07	EAD	0	1	EXTERNAL Y-ADC SWITCH	00										
	08	ECS	1	3	EXTERNAL C-SYNC INPUT SELECTION	01										
	09	CPP	2	3	ADC INPUT LEVEL & CLUMP PULSE WIDTH SELECTION	02										
	0A	PWR	0	1	ADC INPUT WIDTH SWITCH	00										
	0B	HDP	5	7	HORIZONTAL PHASE ADJUSTMENT	05										
	0C	CDL	4	7	C-SIGNAL DELAY ADJUSTMENT	04										
	0D	DYC	2	0F	DY DETECTION CORING LEVEL ADJUSTMENT		02	02	02	04						
	0E	DYG	0A	0F	DY DETECTION GAIN ADJUSTMENT		0A	0A	0A	0A						
	0F	DCC	5	0F	DC DETECTION CORING LEVEL ADJUSTMENT		05	03	03	05						
	10	DCG	5	0F	DC DETECTION GAIN ADJUSTMENT		05	0A	0A	05						
	11	YNR	1	0F	YNR NON-LINEAR FILTER SETUP	01										
	12	CNR	1	0F	CNR NON-LINEAR FILTER SETUP	01										
	13	WSC	1	3	NOISE DETECTION CORING ADJUSTMENT	01										
	14	VTH	1	3	HYSTERSIS SELECTION FOR H-SYNC NON-STANDARD		01	01								
	15	VTR	1	3	SENSITIVITY SELECTION FOR H-SYNC NON-STANDARD		01	01								
	16	LDR	2	3	SENSITIVITY SELECTION FOR FRAME-SYNC NON-STANDARD		02	01								
	17	VAP	3	7	GAIN ADJUSTMENT FOR VERTICAL SHAPE CORRECTION											
	18	VAI	0C	1F	VANISHING ADJUSTMENT FOR VERTICAL SHAPE CORRECTION											
	19	TST	0	1	TEST BIT	00										
	1A	YPF	3	3	CENTER FREQUENCY SELECTION FOR Y-PEAKING BPF											
	1B	YPG	8	0F	GAIN ADJUSTMENT FOR Y-PEAKING BPF											
	1C	VSE	0A	0F	LINE COMB FILTER SETUP	02										
	1D	CCN	0	1	C-SIGNAL SPLIT FILTER SWITCH	00										
	1E	COS	0	1	C-SIGNAL DELAY SWITCH AT NOISE REDUCTION	00										
	1F	SDC	0	1	DC DETECTION SENSITIVITY SWITCH	00										
	20	SDY	1	1	DY DETECTION LOWER-LEVEL SENSITIVITY SWITCH	01										
	21	DZG	4	7	D2 GAIN SELECTION	04										
	22	YHC	0	3	Y-SIGNAL HIGHER-LEVEL CORING SELECTION											
	23	YHG	0	1	Y-SIGNAL HIGHER-LEVEL GAIN SWITCH											
	24	SHT	0	0F	NON-STANDARD DETECTION & HV COUNTER TEST BITS	00										
	25	CLK	8	0F	CLOCK TEST BITS	08										
	26	PLL	0D	0F	PLL FILTER SETUP	0D										
	27	KRF	3	0F	KILLER DETECTION REFERENCE ADJUSTMENT	03										
	28	HSL	0C	0F	H-SYNC SLICE LEVEL ADJUSTMENT	0C										
	29	VSL	8	0F	V-SYNC SLICE LEVEL ADJUSTMENT	08										
	2A	BFS	4	0F	INTERNAL BURST GATE START POSITION ADJUSTMENT	04										
	2B	BPW	0A	0F	INTERNAL BURST GATE WIDTH POSITION ADJUSTMENT	0A										
	2C	ADC	3	3	ADC CLOCK DELAY SELECTION	03										
	2D	APD	1	1	ADC POWER-DOWN SWITCH	01										
	2E	NSD	1	1	NON-STANDARD DETECTION TEST BIT	01										
	2F	SPD	2	3	MEMORY POWER-DOWN SWITCH	02										
	30	CNT	0	1	CNR TEST BIT	00										

Adjustment Item Table

TVG Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
TXT	00	TXH	1	3	TELETEXT HORIZONTAL POSITION FOR PHILIPS	01	SAA5261
	01	TXV	0	7	TELETEXT VERTICAL POSITION FOR PHILIPS	07	

TVG Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
OPM	00	OSH	12	3F	OSD H POSITION	12	CXP750096
	01	FW1	0	3F	OSD ODD/EVEN FIELD WINDOW SETUP #1	00	OPTION-MISC
	02	FW2	3	3F	OSD ODD/EVEN FIELD WINDOW SETUP #2	03	
	03	COM	0	03	COMB OPERATION SELECTION	01	
	04	APC	1	1	APC SWITCH	01	
	05	TSY	0	03	TV SYSTEM SELECTION UNDER SEARCHING WITH AUTO TV SYSTEM	00	
	06	MUT	0	1	NO SIGNAL MUTE	00	
	07	AFM	1	1	AUTO FM SWITCH	01	
	08	TVO	3	7	V-ANGLE CORRECTION TO PICTURE ROTATION	03	
	09	DBL	0	1	DISABLE BLUEBACK FUNCTION	00	
	0A	SSO	1	3	SPEED CH SEARCH SELECTION	01	
	0B	TRP	0	3F	MPEG/JPEG NOISE REDUCTION FOR EACH INPUT	00	
	0C	SCH	1	7F	CH SELECTION FOR SHIPPING CONDITION	7F	
	0D	SCA	1	1	CABLE/AIR SELECTION FOR SHIPPING CONDITION	01	
	0E	VSN	0	1	ENABLE NOISE REDUCTION IN VIDEO MODE	01	
	0F	PSQ	0	1	POWER SEQ FOR CONTINUOUS SIRCS DETECTION SPEC	00	
10	POR	0	1	POWER ON RESET DETECTION FROM YCT	01		

TVG Category	Functionality		Initial	Range	Function	Common	Device Name
	No.	Name					
OPB	00	OP1	E7	FF	OPTION BITS 1 (SEE THE SPECIFIED SHEET)	#	OPTION-BITS
	01	OP2	17	FF	OPTION BITS 2 (SEE THE SPECIFIED SHEET)	#	

Note:- OP1 AND OP2 "#": SEE OPTION NOTE.

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7-3. PICTURE QUALITY ADJUSTMENTS

PICTURE ADJUSTMENT

1. Set to service mode.
2. Set A/V control to HI-FINE.
3. Set the following condition.

Adjustment condition

SAJ 00 PIC 3F
 06 DYC 00
 0E CLO 06
 10 HUU 07
 JGL 04 BBT 00
 05 LML 03

ECO MODE : OFF
 WIDE MODE : OFF
 DRC-MF : DRC1250

MEASUREMENT POINT

VR : R100 (the pin 6 of CN1100)

VB : B100 (the pin 7 of CN1100)

CAUTION

After Adjustment, these adjustment parameters must be recovered to the original condition.

Original Condition

SAJ 00 PIC 28 HI-FINE
 06 DYC 0 HI-FINE

	50 TV	50 VIDEO	60 TV	60 VIDEO
0E CLO	09	08	09	09
10 HUU	08	08	09	09

JGL 04 BBT 03
 05 LML 00

1. DRIVE ADJUSTMENT (VIDEO MODE)

Input signal : PAL Color bar, to Video 1

[Service] mode.

(i) SUB CONTRAST

Condition : SAJ 00 PIC 3F
 02 COL 00
 JGL 01 RGB 04

Adjusting parameter:
 YCT 08 YOL

2. DRIVE ADJUSTMENT (RF MODE)

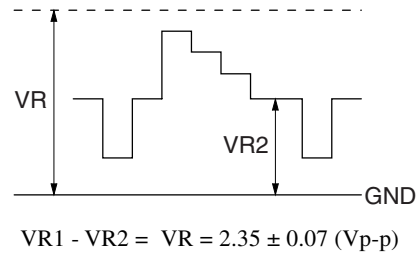
Input signal : PAL Color bar HI-FINE Mode.

(i) SUB CONTRAST

Condition : SAJ 00 PIC 3F
 02 COL 00
 JGL 01 RGB 04

Adjusting parameter:
 YCT 04 SCT

(ii) Copy SCT data to NTSC (RF MODE)



SUB HUE/COL ADJUSTMENT

1. SUB HUE/SUB COL (VIDEO MODE)

Input signal : NTSC Color bar HI-FINE Mode.

Condition : SAJ 02 COL 1F
 JGL 01 RGB 07
 SAJ 10 HUU 07

Adjusting parameter:
 YCT 0A COL
 YCT 00 TNT

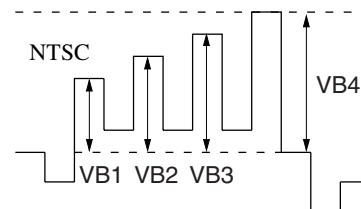
After the adjustment SAJ 10 HUU 9

2. SUB HUE/SUB COL (NTSC RF MODE)

Input signal : NTSC Color bar.

Condition : SAJ 02 COL 1F
 JGL 01 RGB 07
 SAJ 10 HUU 07

Adjusting parameter:
 YCT 03 SCL
 YCT 00 TNT



$VB1 = VB4 \pm 70 \text{ mV}$

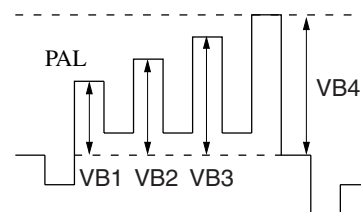
$VB2 = VB3 \pm 70 \text{ mV}$

3. SUB COLOR ADJUSTMENT (PAL RF MODE)

Input signal : RF PAL Color bar HI-FINE Mode.

Condition : SAJ 02 COL 1F
 JGL 01 RGB 07

Adjusting parameter:
 YCT 03 SCL



$VB1 = VB2 = VB3$

7-4. DEFLECTION ADJUSTMENTS

FOR DRC 1250 (50Hz) MODE

- Set to Service Mode.
- Input a Pal cross hatch/dot signal.
- Set the following condition.
Picture Mode to [DYNAMIC], Picture Rotation to [+/-0] and Eco Mode to OFF.
- Set to DRC-MF1250 mode.
- Using the [1] and [4] button, select category GEO (Service Mode).
- Raise/lower the data using the [3] and [6] buttons.
Select and adjust the following items to obtain optimum image.

Service Item

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

- Using the [1] and [4] buttons select category DAC (Service Mode).
- Select and ad List the following items to obtain optimum image. Raise/lower the data with the [3] and [6] buttons. Select and adjust the following items to obtain optimum image.

Service Item

DAC: 01	HLN	H LINEARITY
04	HTR	HORIZONTAL TRAPEZIUM
05	PBA	PIN UNBALANCE

- Select "GEO 04 HSZ" with the [1] and [4] buttons.
- Confirm the H Size condition. If necessary, adjust the H Size to get a best condition.
- Write into the memory by pressing [MUTING] then [0] on the remote commander.

FOR WIDE MODE, DRC1250 (50Hz)

- Adjust condition change to WIDE MODE : ON.
- COPY (item FOR DRC 1250 (50Hz) MODE and adjust data for the following items.

Service Item

GEO : 00	VSZ	V SIZE
01	VPS	V POSITION
04	HSZ	H SIZE

- Adjust V Blanking the following items.

Service Item

GEO : 13	VAS	V ASPECT
14	VSC	V SCROLL

- Adjust the following items.

Service Item

GEO : 02	VLN	V LINEARITY
03	SCO	S CORRECTION
05	HPS	H POSITION
06	PAP	PIN AMP
07	UPN	UPPER CORNER PIN
08	LPN	LOWER CORNER PIN
09	TRZ	TRAPEZIUM
0A	AGL	AFC ANGLE
0B	BOW	AFC BOW
DAC : 01	HLN	H LINEARITY
04	HTR	HORIZONTAL TRAPEZIUM
05	PBA	PIN UNBALANCE

- Repeat step 5 and 6.

FOR DRC 1250 (60Hz) MODE

- Input 525/60Hz signal.
- Set to DRC-MF : 1250
- COPY "DAC 00 HCT (DRC 1250, 50Hz)"
to
"DAC 00 HCT (DRC 1250, 60Hz)"
- Adjust the Service Item listed in no. 6 and no. 8.

FOR WIDE MODE, DRC 1250 (60Hz)

- Set to WIDE MODE : ON
 - Using the [1] and [4] buttons select category GEO (Service Mode).
 - Select and adjust the following items to obtain optimum image.
Raise/lower the data with the [3] and [6] buttons.
- | | | |
|--------|-----|------------|
| GEO 00 | VSZ | V SIZE |
| 01 | VPS | V POSITION |
| 04 | HSZ | H SIZE |
- Adjust V Blanking for the following items
- | | | |
|--------|-----|----------|
| GEO 13 | VAS | V ASPECT |
| 14 | VSC | V SCROLL |
- Adjust the Service Item listed in no.15.
 - Repeat step 5 and 6
 - Input a NTSC cross hatch/dot signal and repeat all above steps.

7-5. A BOARD ADJUSTMENT AFTER IC003 (MEMORY) REPLACEMENT

- Enter to Service Mode.
- Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
- Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the items with fine adjustment.
Write the data per each item number ([MUTING] + [0]).
- Select item numbers "OPB00" (OP1), "OPB01" (OP2) and respectively set the bit per model with command buttons [3] and [6].
- 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.)

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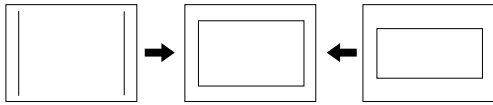
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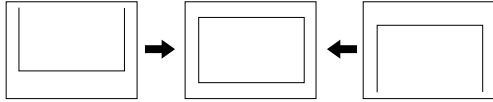
7-6. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

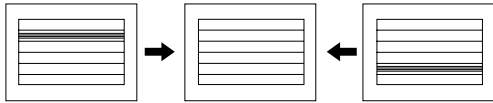
GEO 0 VSZ (V SIZE)



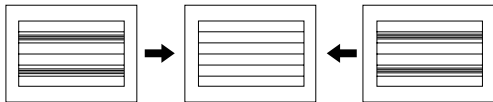
GEO 1 VPS (V POSITION)



GEO 2 VLN (V LINEARITY)



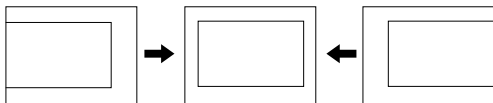
GEO 3 SCO (VERTICAL S-Correction)



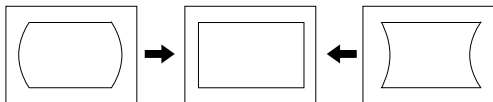
GEO 4 HSZ (H SIZE)



GEO 5 HPS (H POSITION)

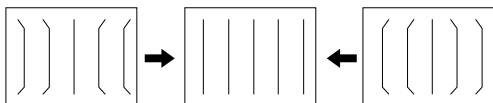


GEO 6 PAP (PIN AMP)

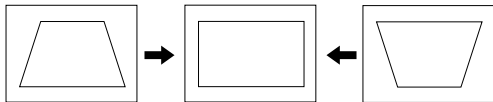


GEO 07 UPN (UPPER CORNER PIN)

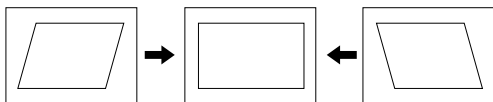
GEO 08 LPN (LOWER CORNER PIN)



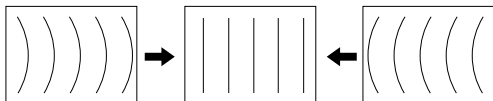
GEO 9 TRZ (TRAPEZIUM)



GEO 0A AGL (AFC.ANGLE)

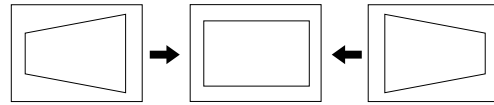


GEO 0B BOW (AFC.BOW)



PICTURE DISTORTION ADJUSTMENT (2)

H-TRAPEZOID (DAC 4 HTR)

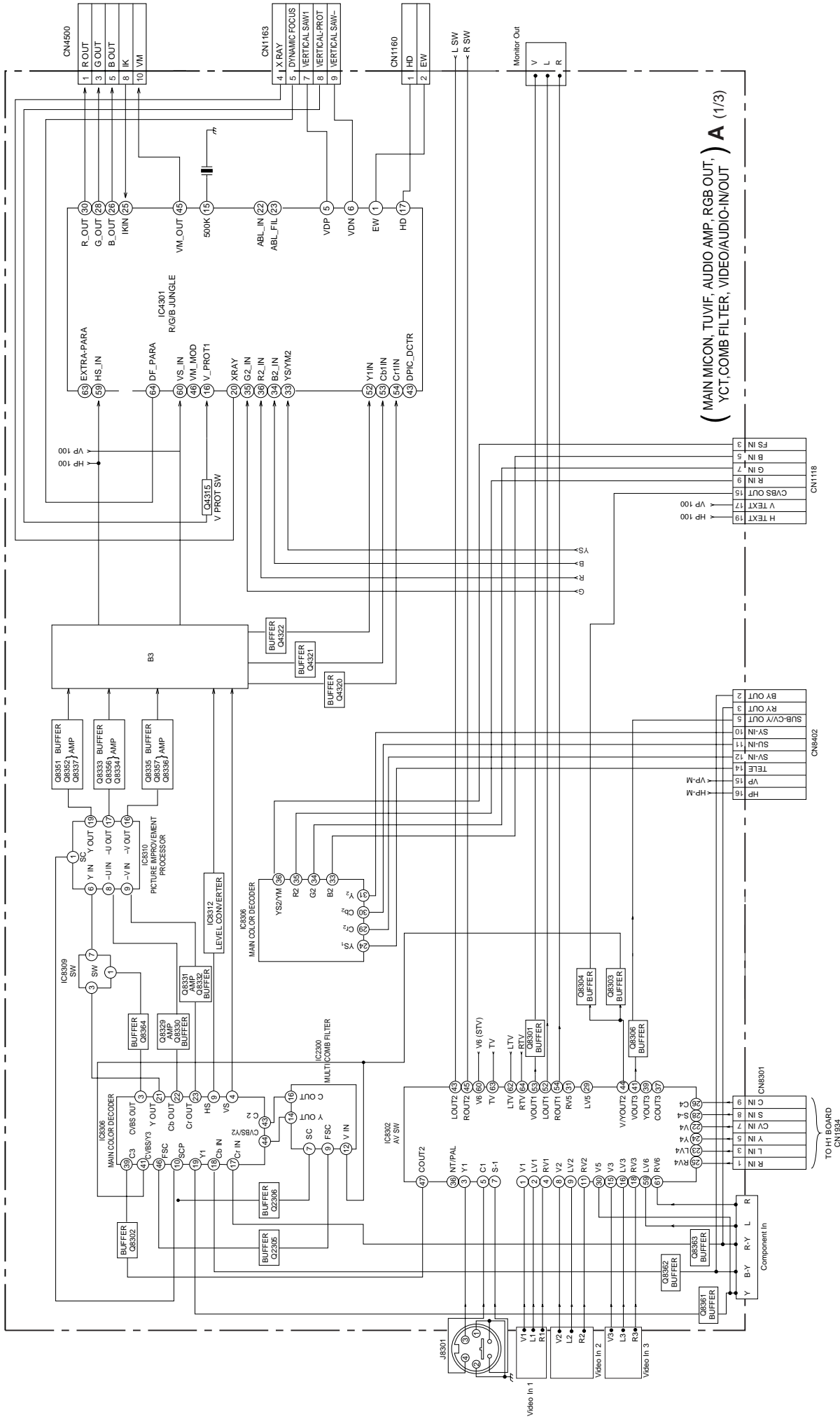


SECTION 8
DIAGRAMS

KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

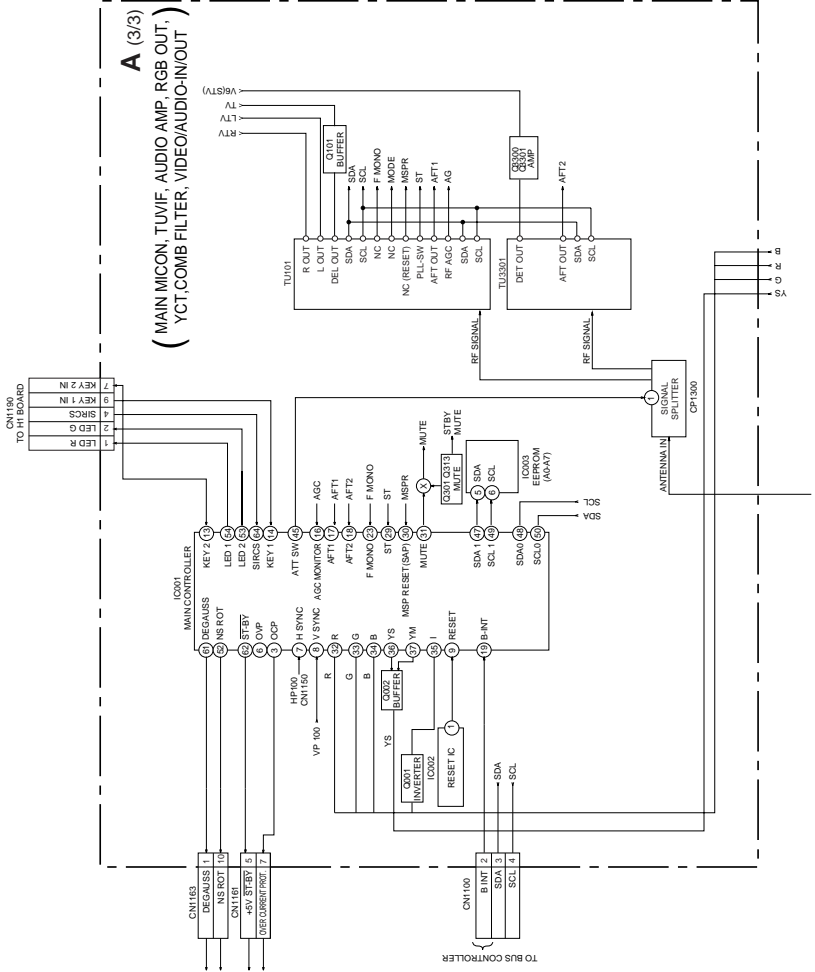
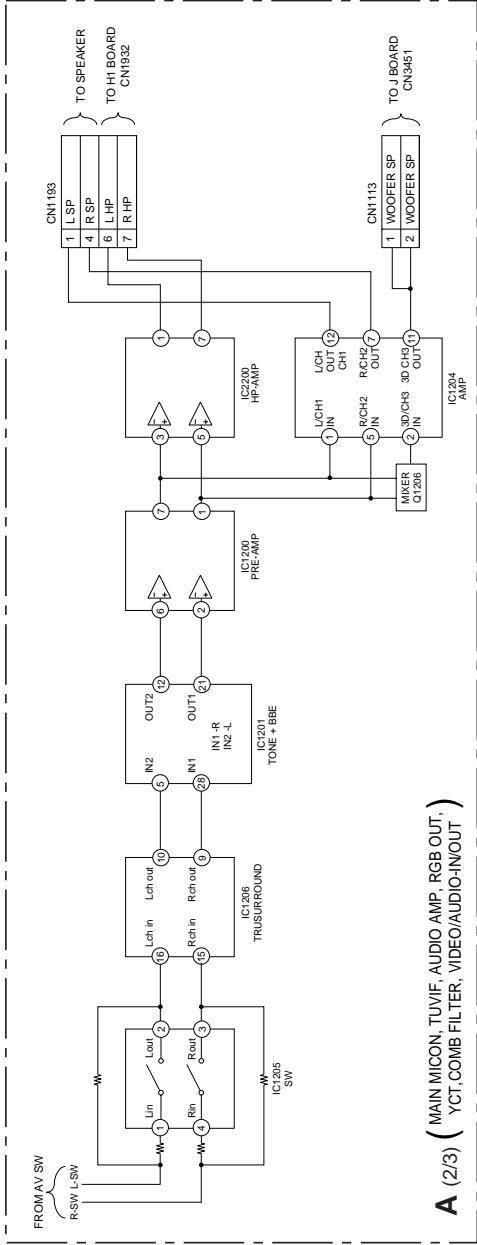
8-1. BLOCK DIAGRAMS



(MAIN MICON, TUVIF, AUDIO AMP, RGB OUT, YCT, COMB FILTER, VIDEO/AUDIO-IN/OUT) A (1/3)

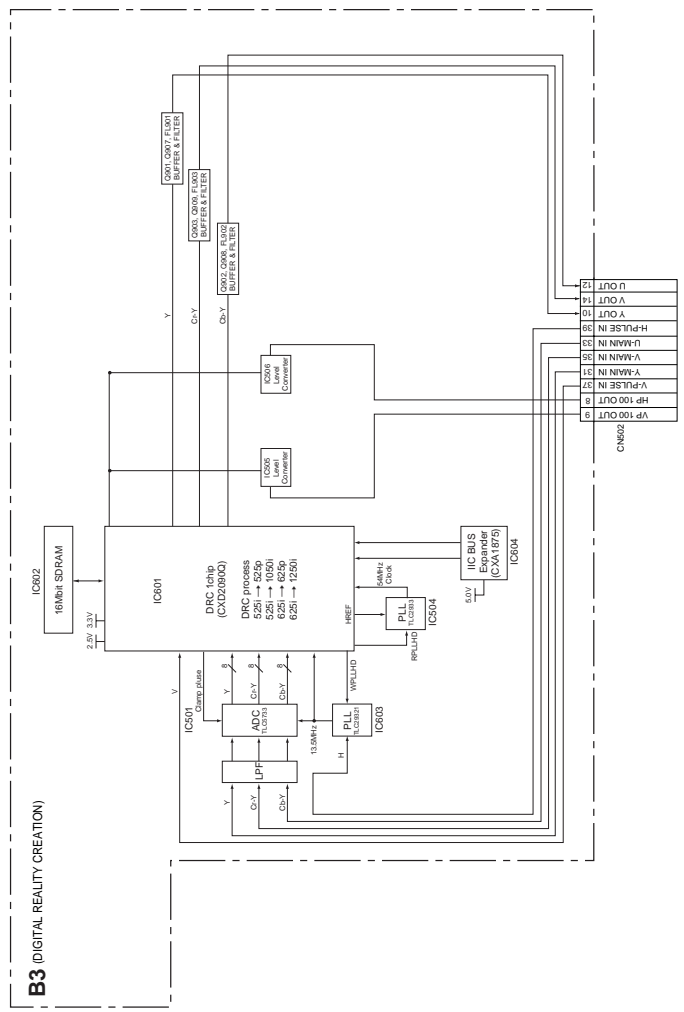
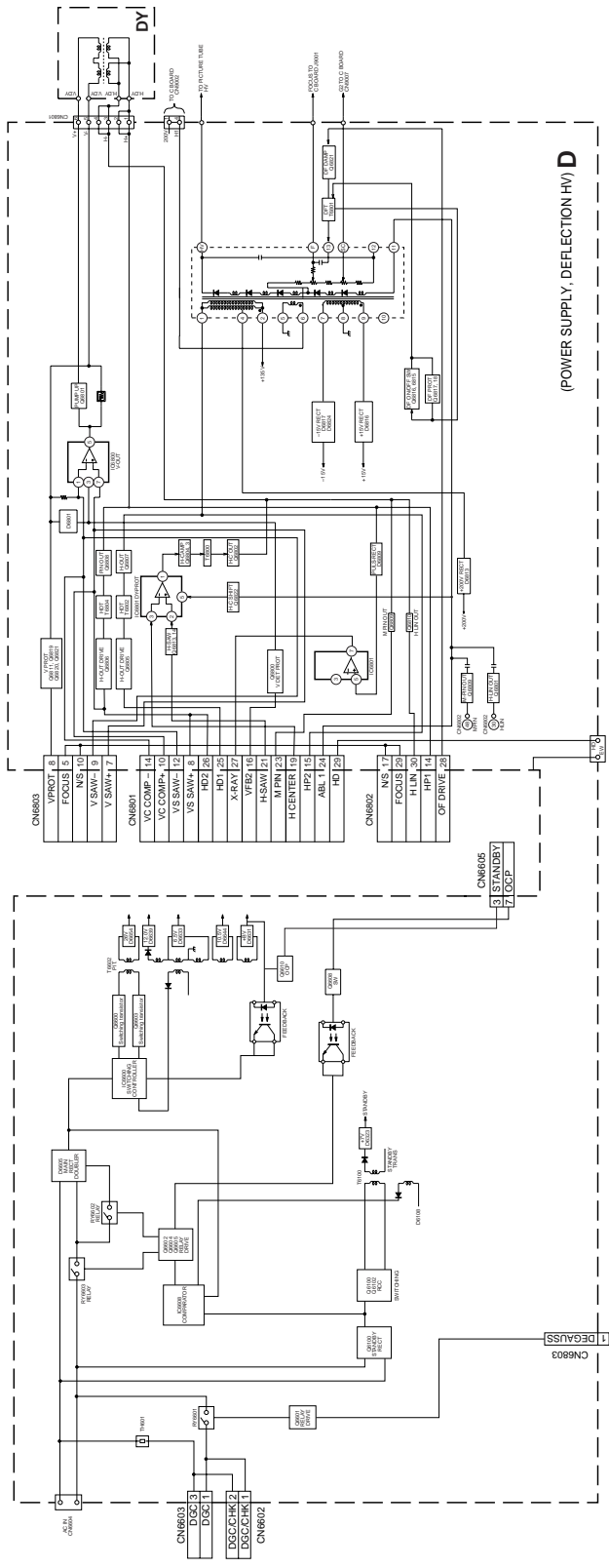
KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963



KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963



8-2. SCHEMATIC DIAGRAMS

Note:

- All capacitors are in μF unless otherwise noted.
- All electrolytic capacitors are rated at 50V unless otherwise noted.
- All resistors are in ohms.
- $KO = 1000K, MQ = 1000K\Omega$
- Indication of resistance which does not have rating electrical power is as follows.

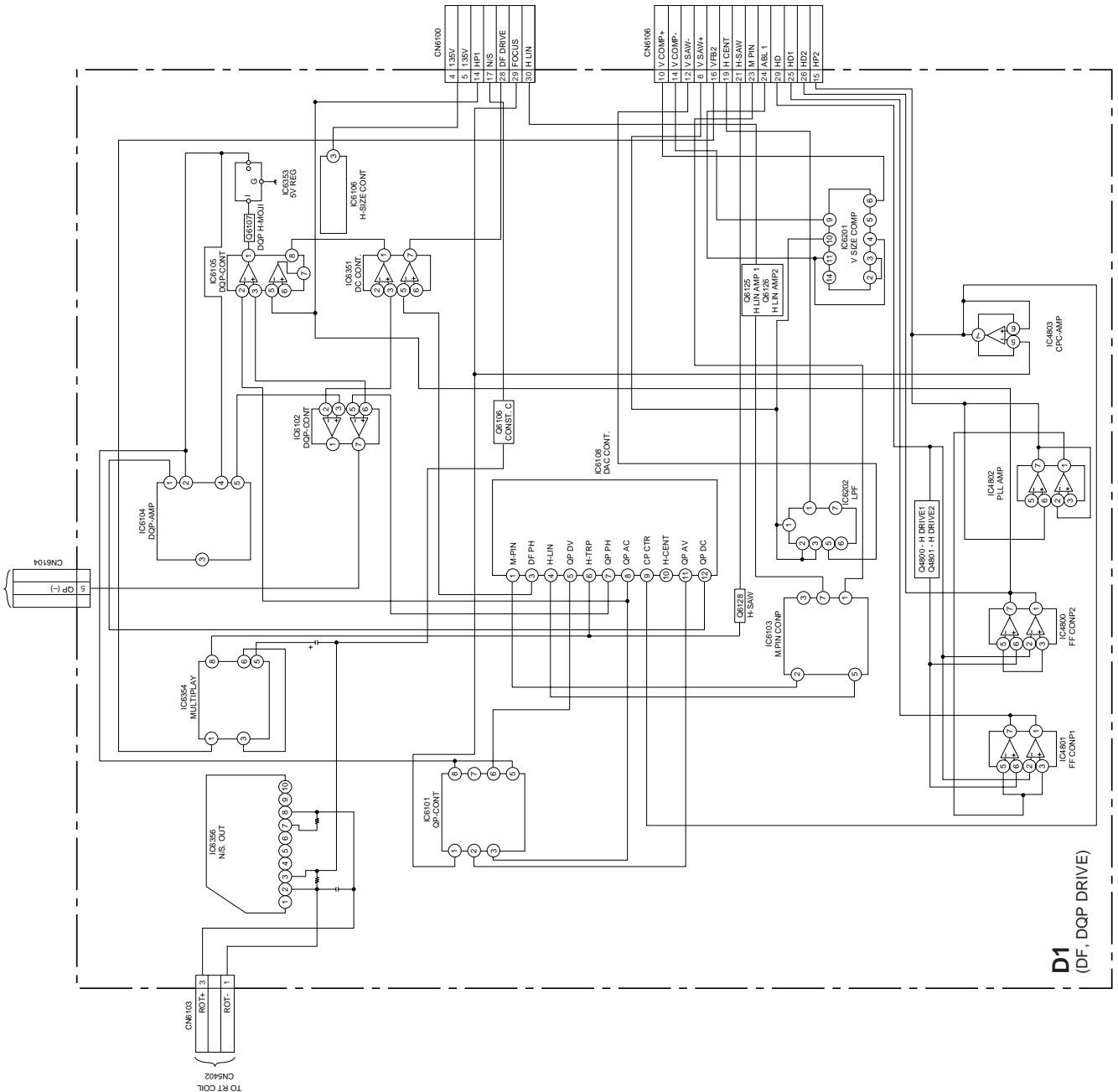
Pitch: 5 mm
 Rating electrical power 1/4W (CHIP: 1/10W)

- \square : nonflammable resistor.
- \triangle : internal component.
- \square : 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 10 Ω MW digital multimeter.
- Voltage are dc with respect to ground unless otherwise noted.
- Voltage variations may be noted due to normal production tolerances.
- All voltages 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 : STYROL
 POLYPROPYLENE : PP
 MYLAR : PT
 METALIZED POLYESTER : MPS
 METALIZED POLYPROPYLENE : MPP
 BIPOLAR : ALB
 HIGH TEMPERATURE : ALT
 HIGH RIPPLE : ALR
- COIL : PS
 CAPACITOR : PP

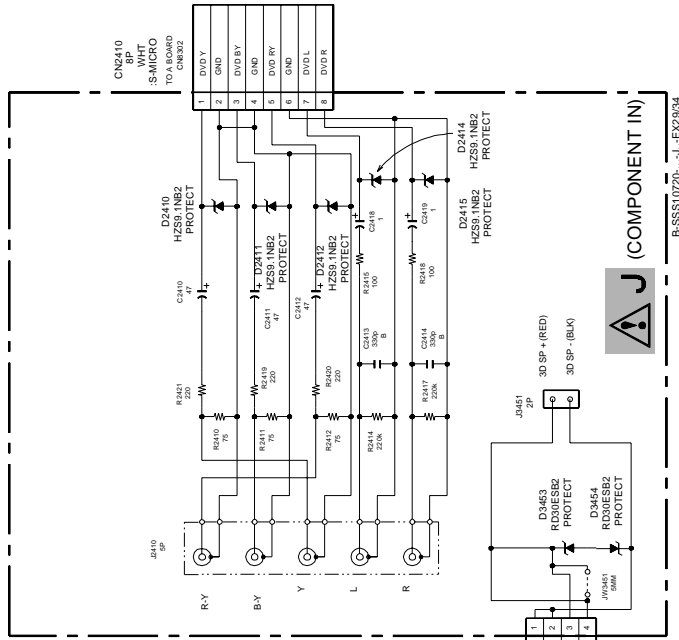
Note: The component identified by shading and mark \triangle are critical for safety. Replace only with part number specified.



KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

(1) Schematic Diagrams of F1, J, and VM Boards



B-SSS10720...J...EX29/34

B-SSS10720...F1-EX29/34

15

14

13

12

11

10

9

8

7

6

5

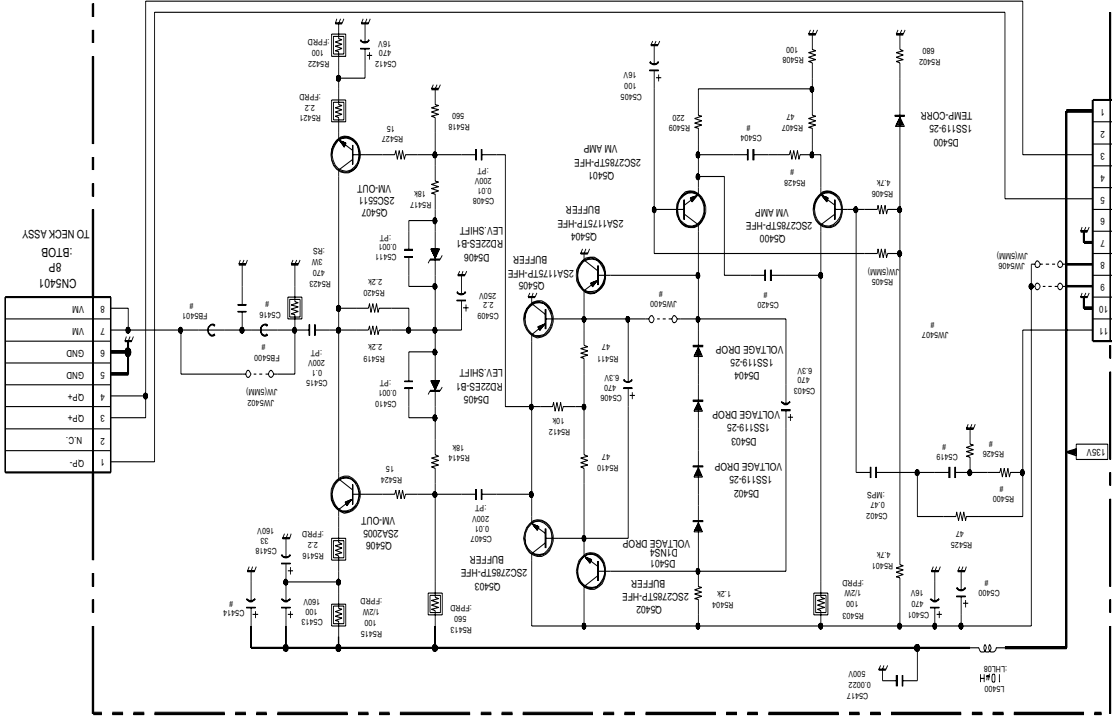
4

3

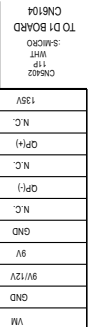
2

1

(VELOCITY MODULATION)

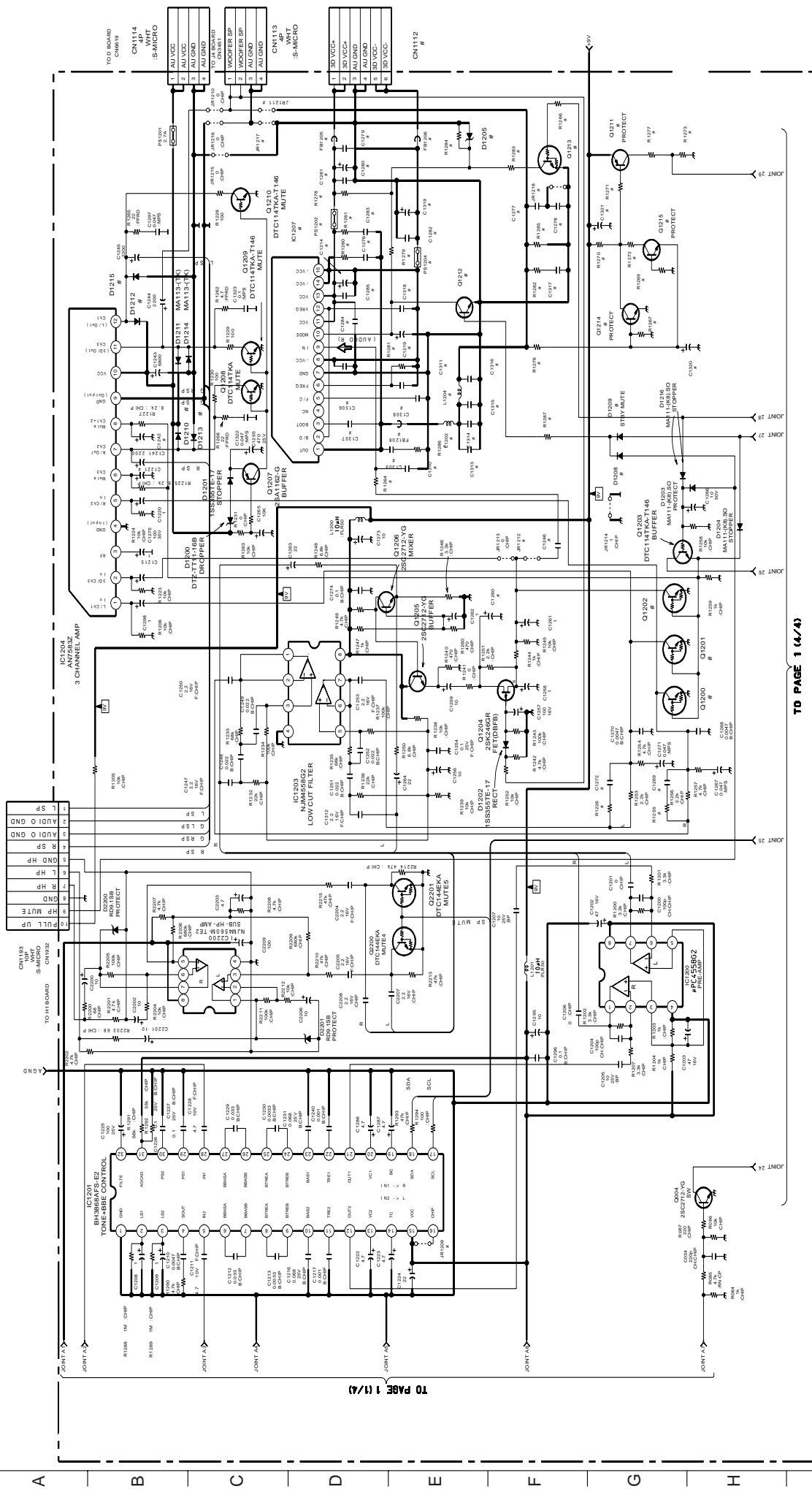


B-SSS10720...VM-EX29/34



KV-EX29M63 RM-964 KV-EX34M39/EX34M69/EX34M87 RM-963
KV-EX29M63 RM-964 KV-EX34M39/EX34M69/EX34M87 RM-963

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



TO PAGE 1 (1/4)

TO PAGE 1 (4/4)

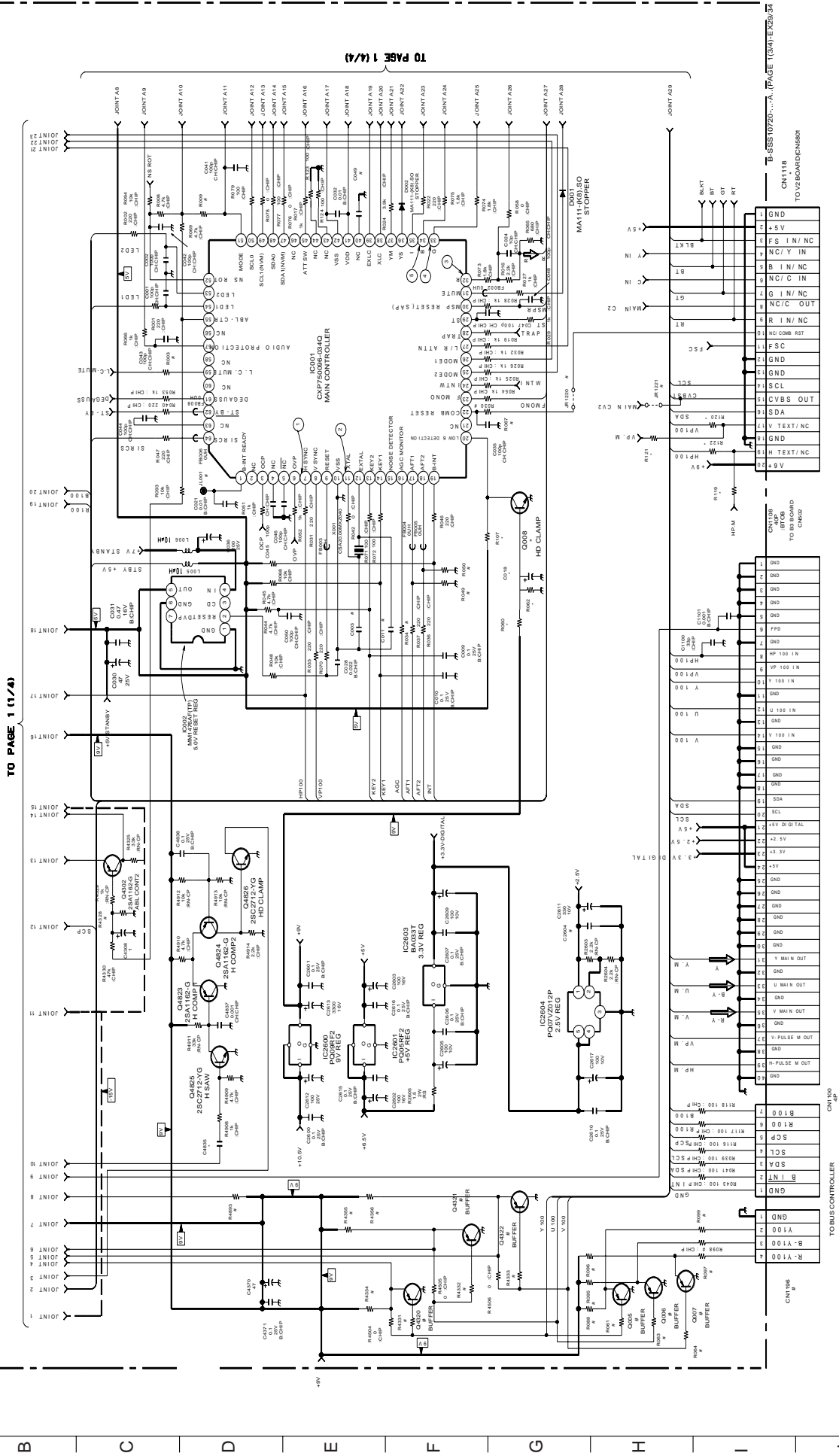
A PAGE 1 (2/4)

MAIN MICON,TUVIF,AUDIO AMP
RGB OUT,YCT,COMB FILTER
VIDEO/AUDIO-INPUT

KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963
KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

A PAGE 1 (3/4)

MAIN MICON, TUVIF, AUDIO AMP
RGB OUT, YCT, COMB FILTER
VIDEO/AUDIO-IN/OUT



KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

A PAGE 1 (4/4)

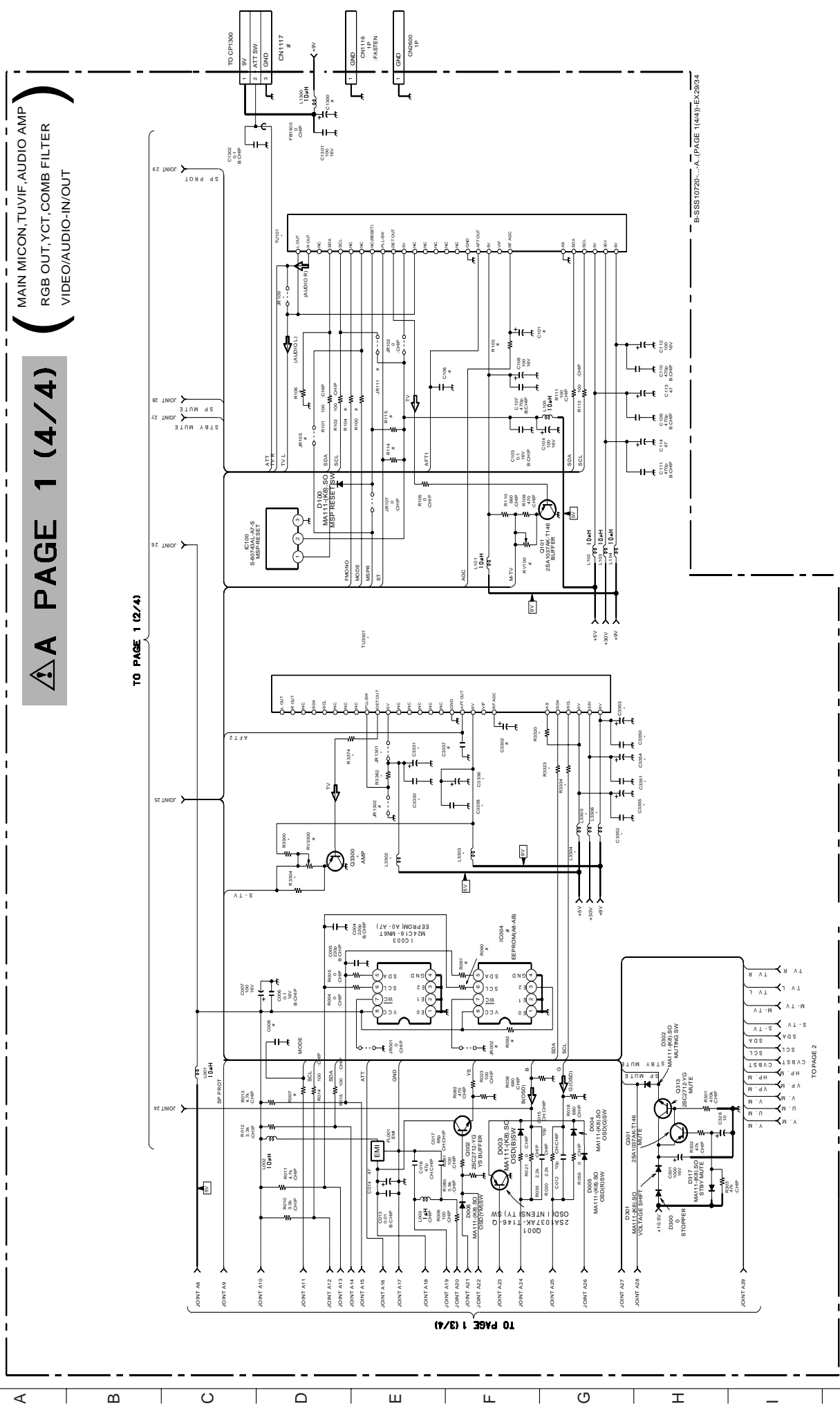
MAIN MICON, TUVIF, AUDIO AMP
RGB OUT, YCT, COMB FILTER
VIDEO/AUDIO-IN/OUT

TO PAGE 1 (2/4)

TO PAGE 1 (3/4)

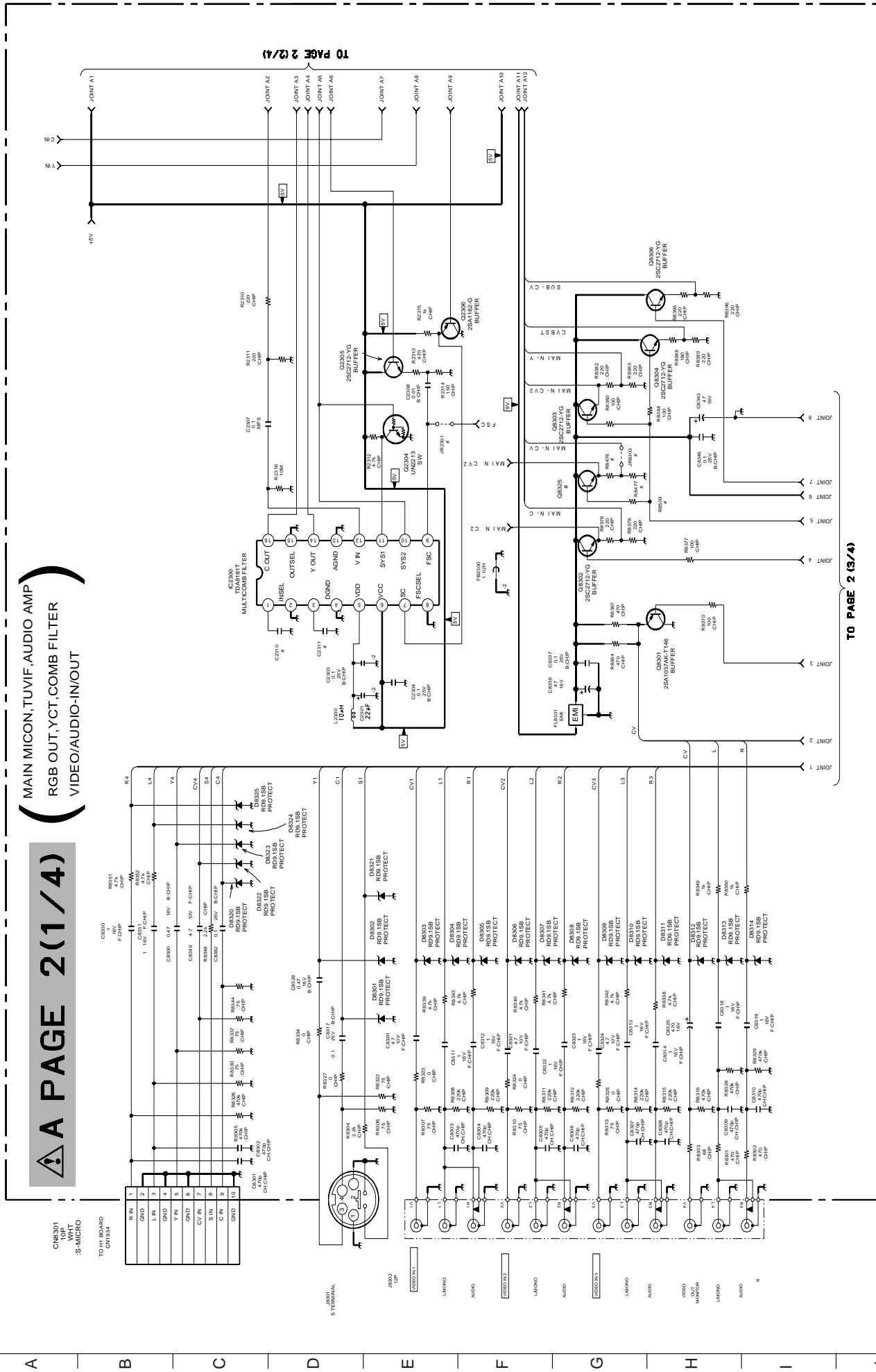
TO PAGE 2

B-SS51020...A... (PAGE 1(44))-EX29/34



A PAGE 2(1/4)

**MAIN MICON, TUVIF, AUDIO AMP
RGB OUT, YCT, COMB FILTER
VIDEO/AUDIO-IN/OUT**



KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963
KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

TO PAGE 2 (3/4)

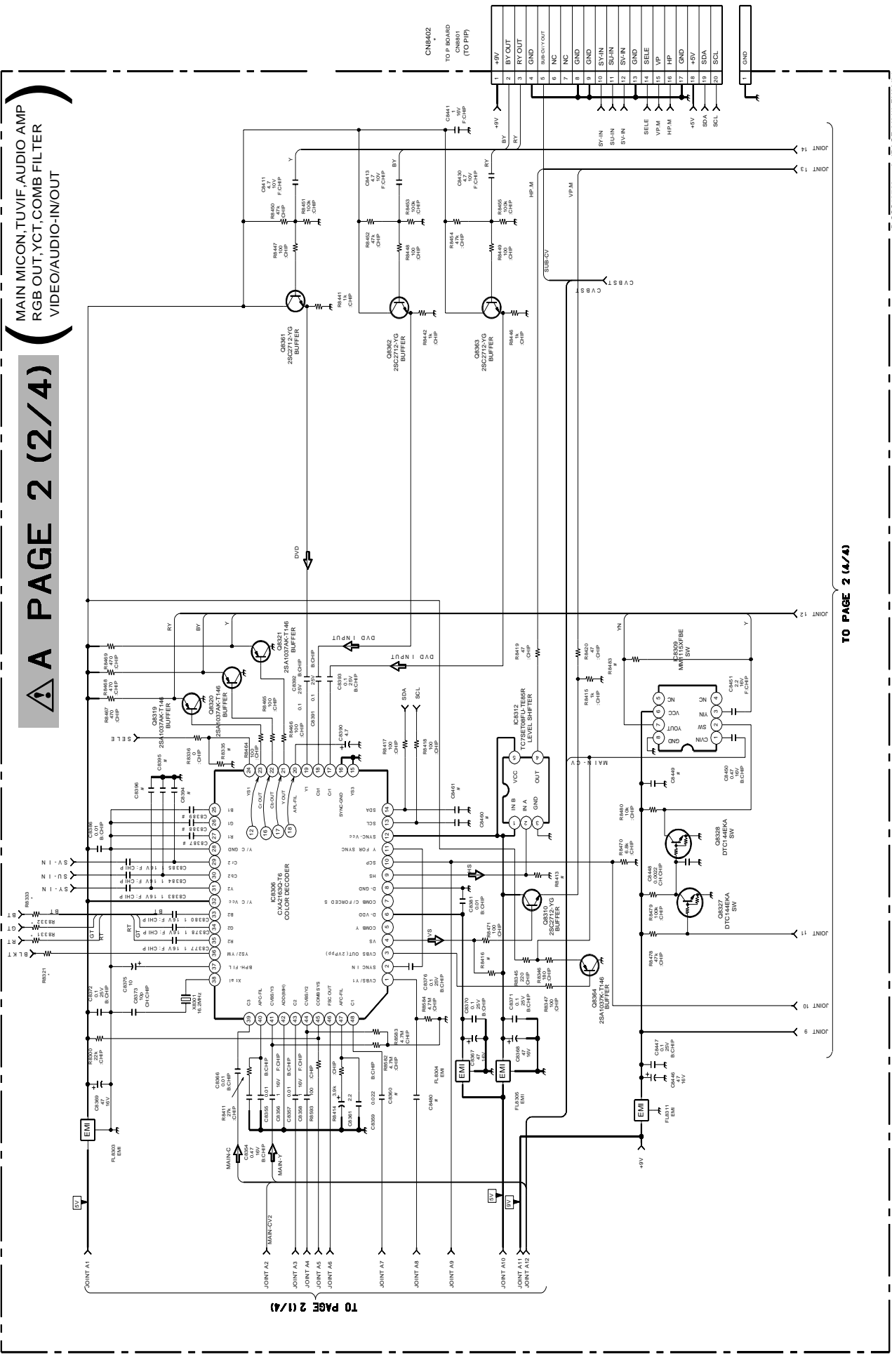
B:SS510720...A...PAGE 2(1/4)-EX29(3/4)

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

A PAGE 2 (2/4)

MAIN MICN, TUVIF, AUDIO AMP
 RGB OUT, YCT, COMB FILTER
 VIDEO/AUDIO-IN/OUT



TO PAGE 2 (1/4)

TO PAGE 2 (4/4)

B-SSS10720...A (PAGE 2(2/4), EX29M63)

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

MAIN MICON, TUVIF, AUDIO AMP
 RGB OUT, YCT, COMB FILTER
 VIDEO/AUDIO-IN/OUT

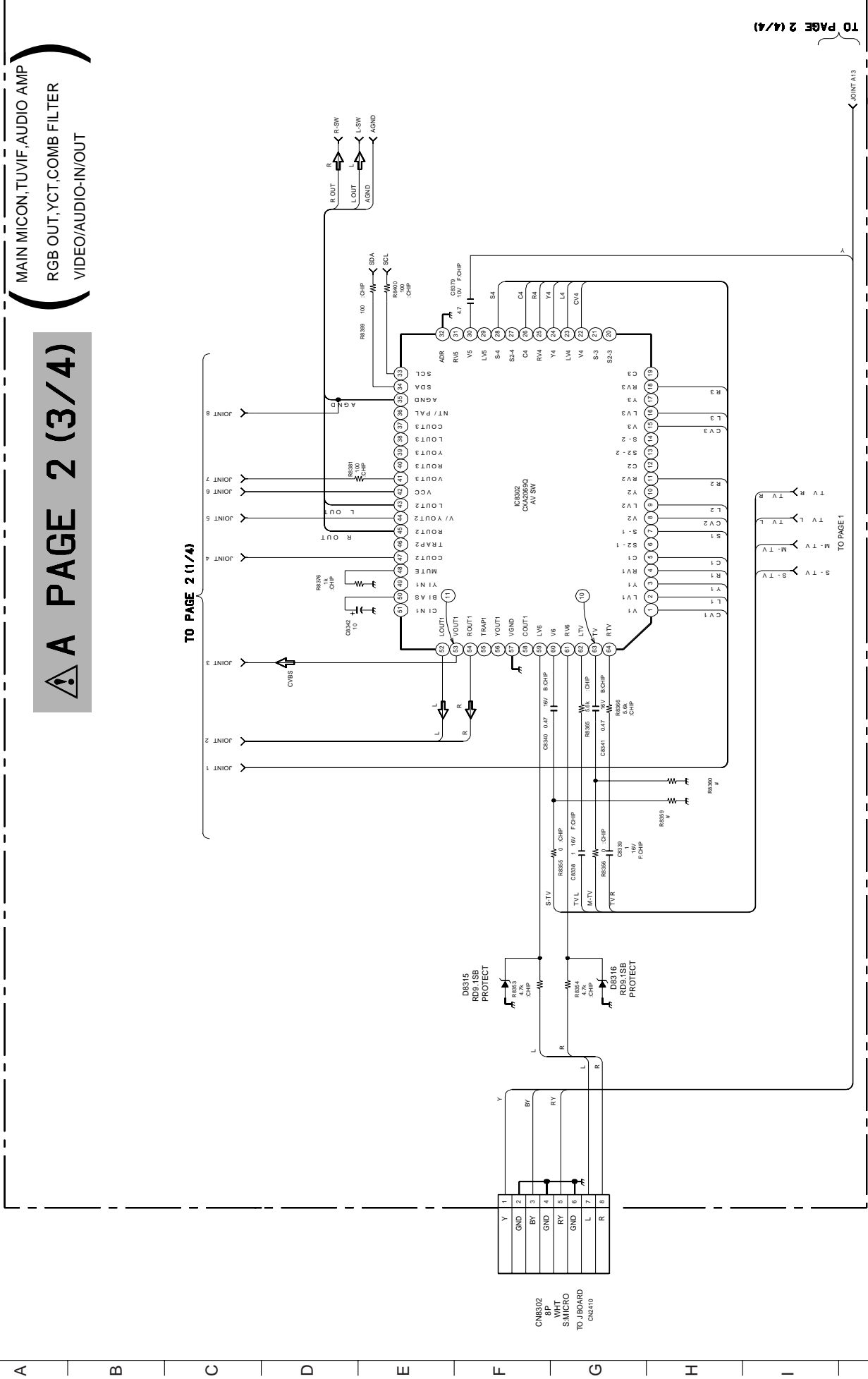
A PAGE 2 (3/4)

TO PAGE 2 (1/4)

TO PAGE 2 (4/4)

JOINT A13

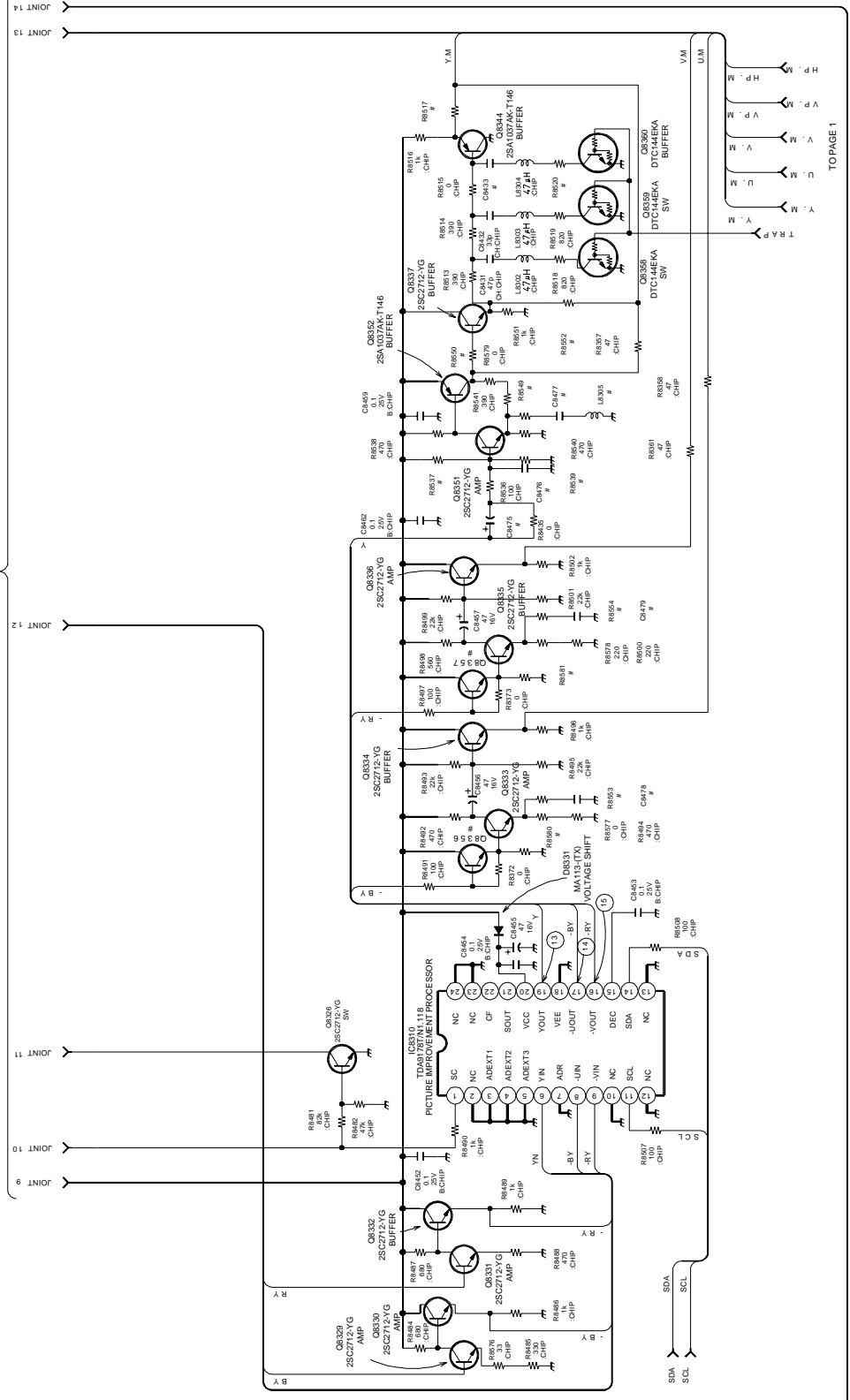
B-SSS10720...A...(PAGE 2(3/4)EX2934



A PAGE 2 (4/4)

MAIN MICON, TUVIF, AUDIO AMP
 RGB OUT, YCT, COMB FILTER
 VIDEO/AUDIO-IN/OUT

TO PAGE 2 (2/4)

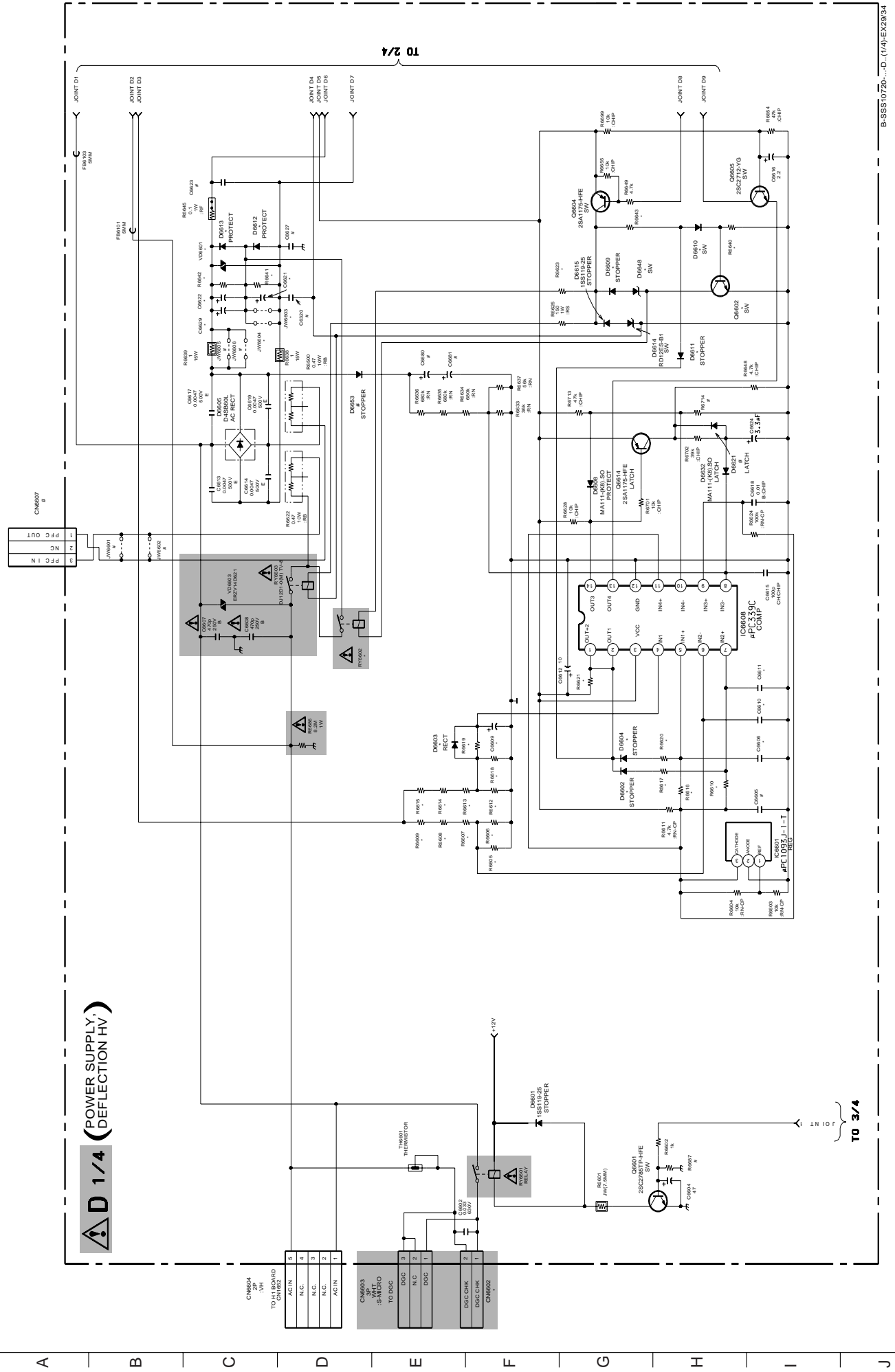


TO PAGE 2 (3/4)

TO PAGE 1

(3) Schematic Diagram of D Board

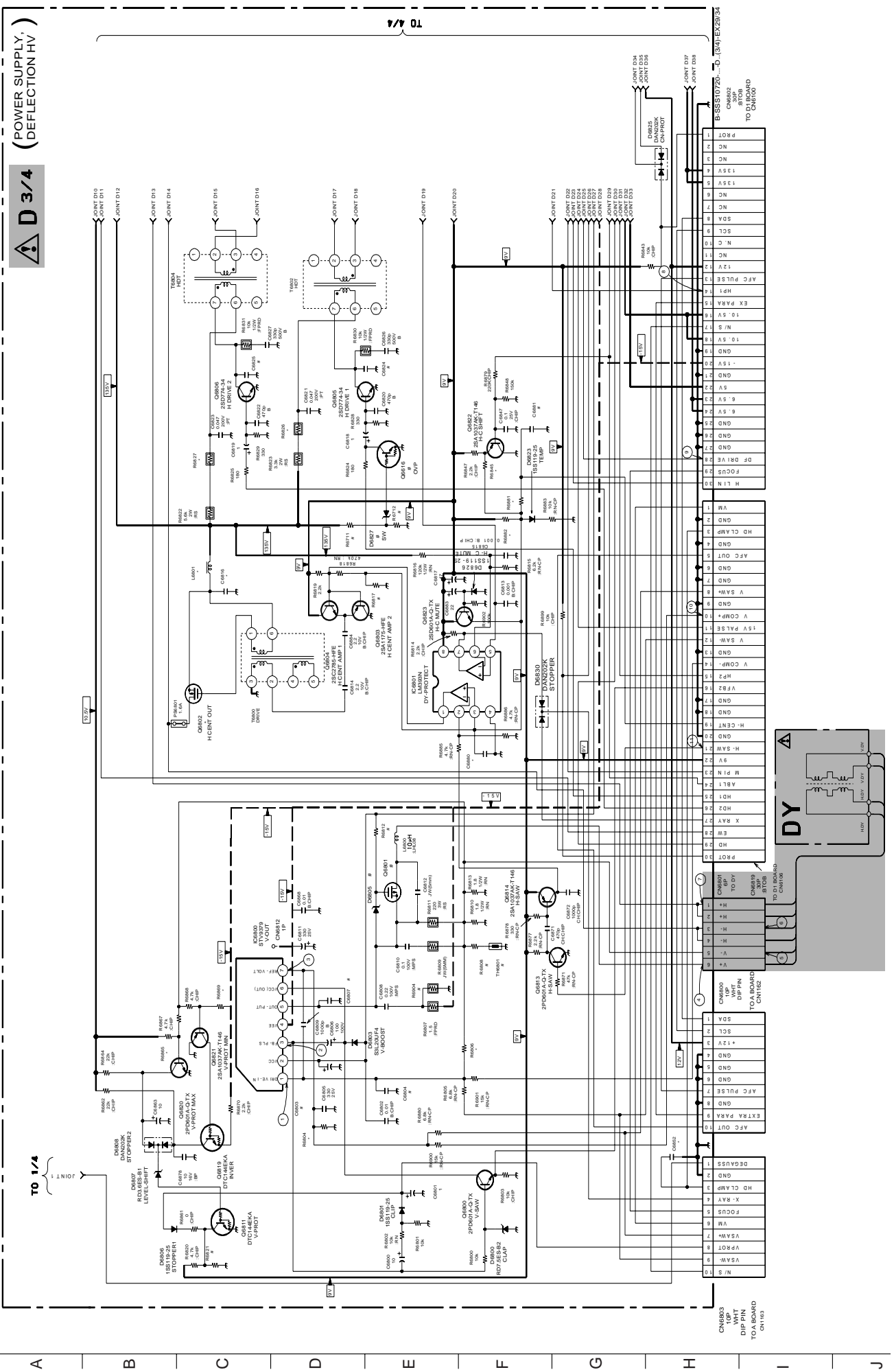
KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963



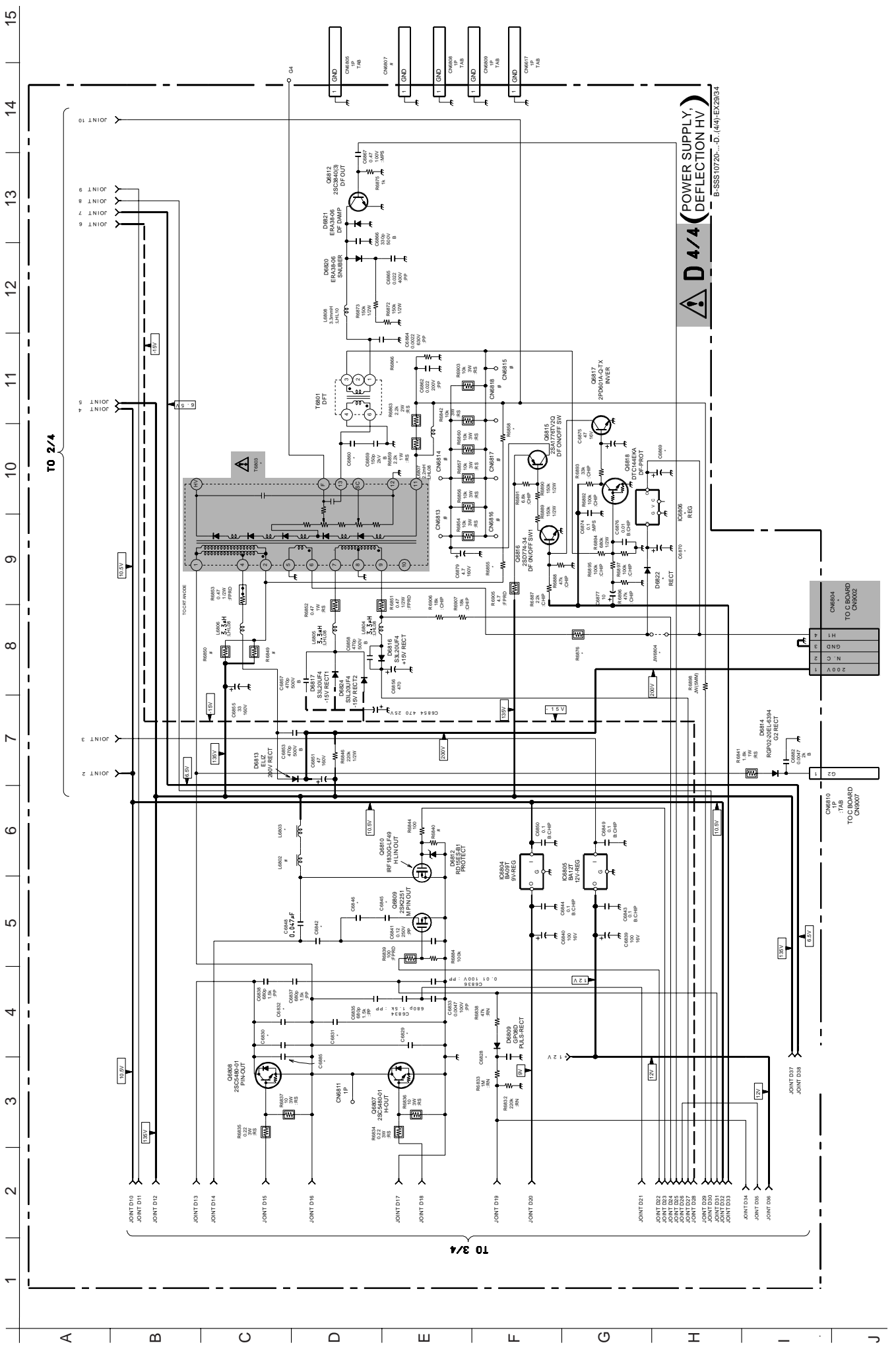
KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

D 3/4 (POWER SUPPLY, DEFLECTION HV)



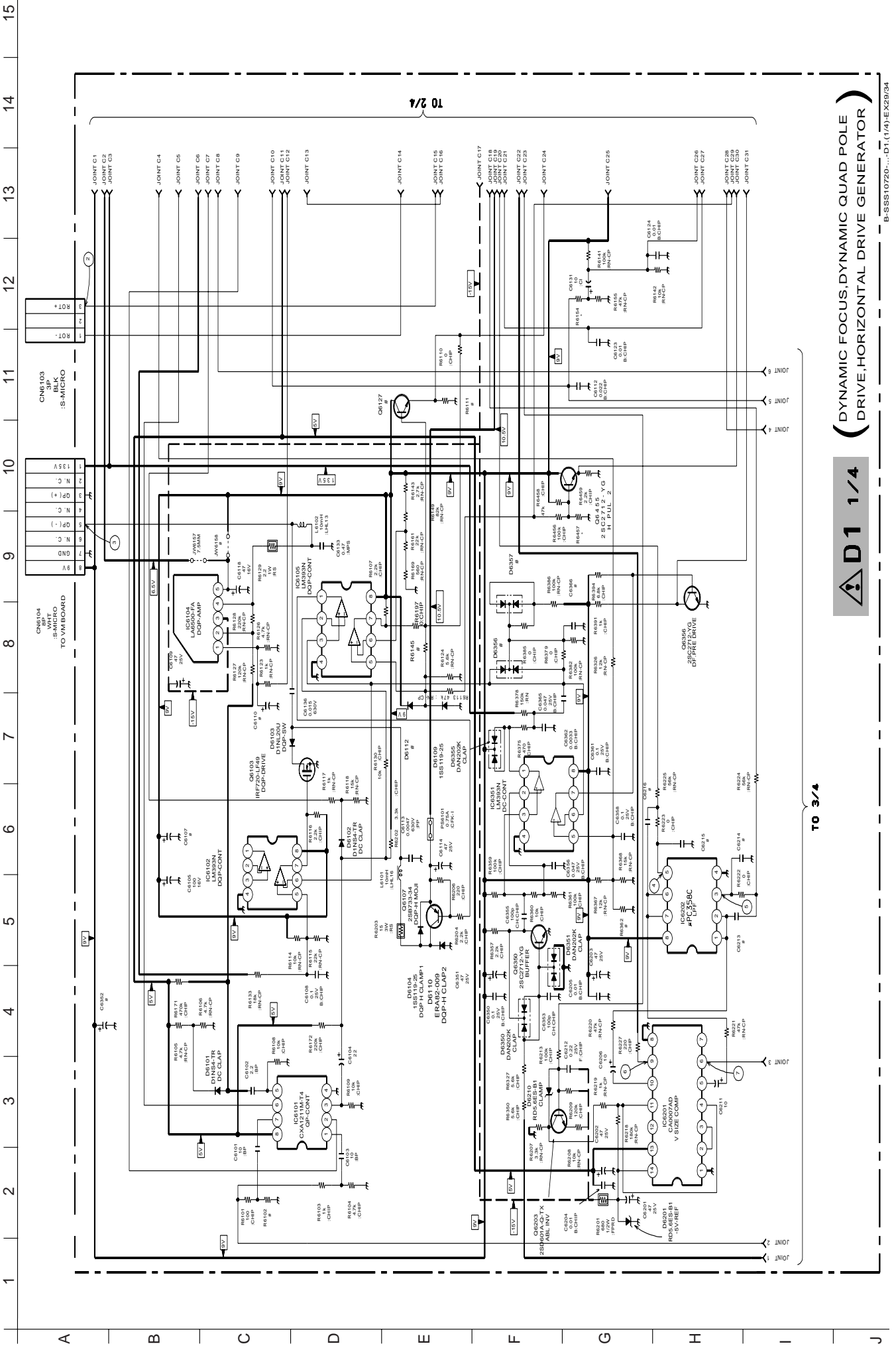
KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963



! D 4/4 (POWER SUPPLY, DEFLECTION HV)
 B-SSS10720...-D14(4)-EX2934

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

(4) Schematic Diagram of D1 Board

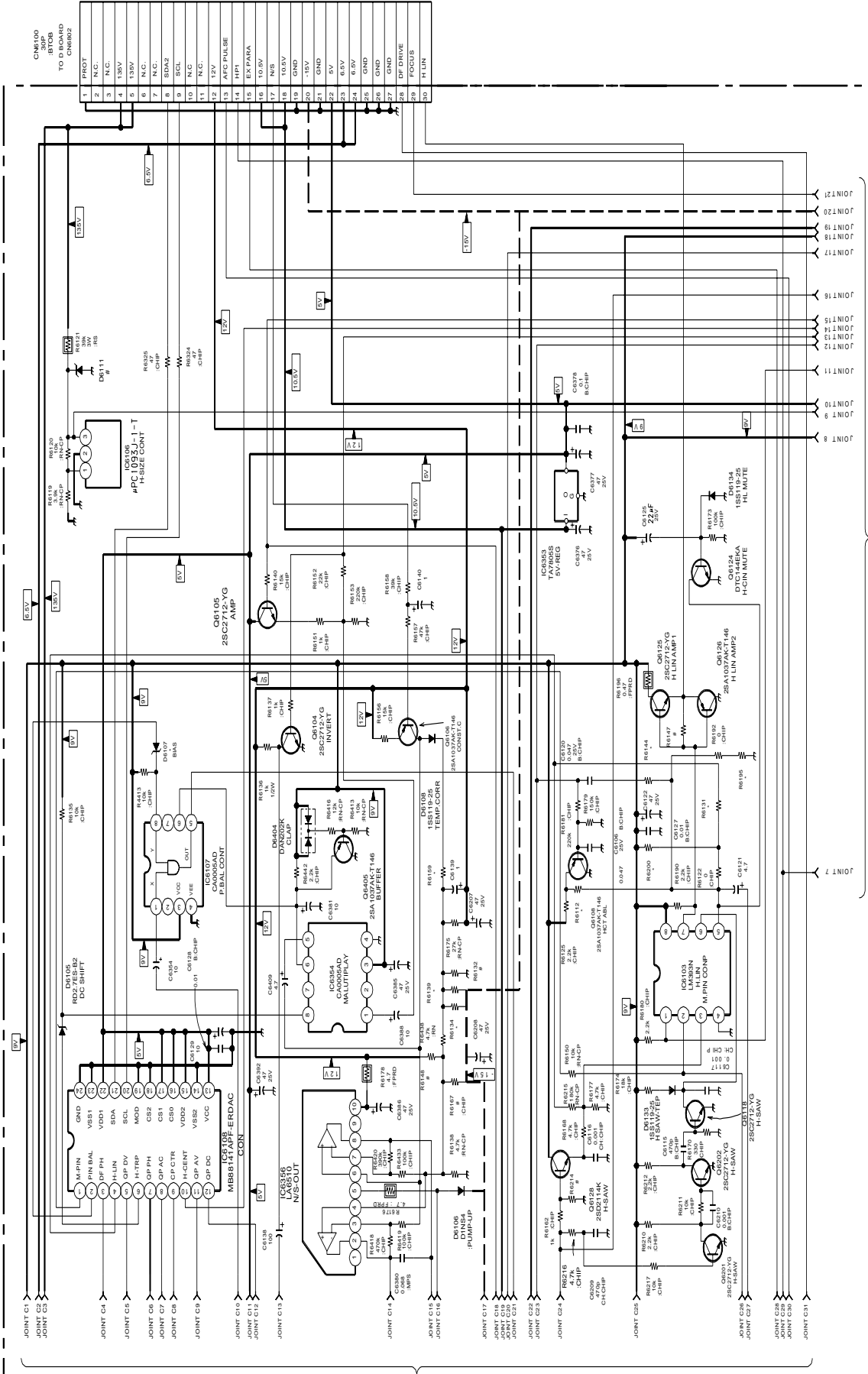


D1 1/4 (DYNAMIC FOCUS, DYNAMIC QUAD POLE DRIVE, HORIZONTAL DRIVE GENERATOR)

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



TO 4/4

D1 2/4 (DYNAMIC FOCUS, DYNAMIC QUAD POLE DRIVE, HORIZONTAL DRIVE GENERATOR)

B-SSS10720...-D (2/4)-EX29/94

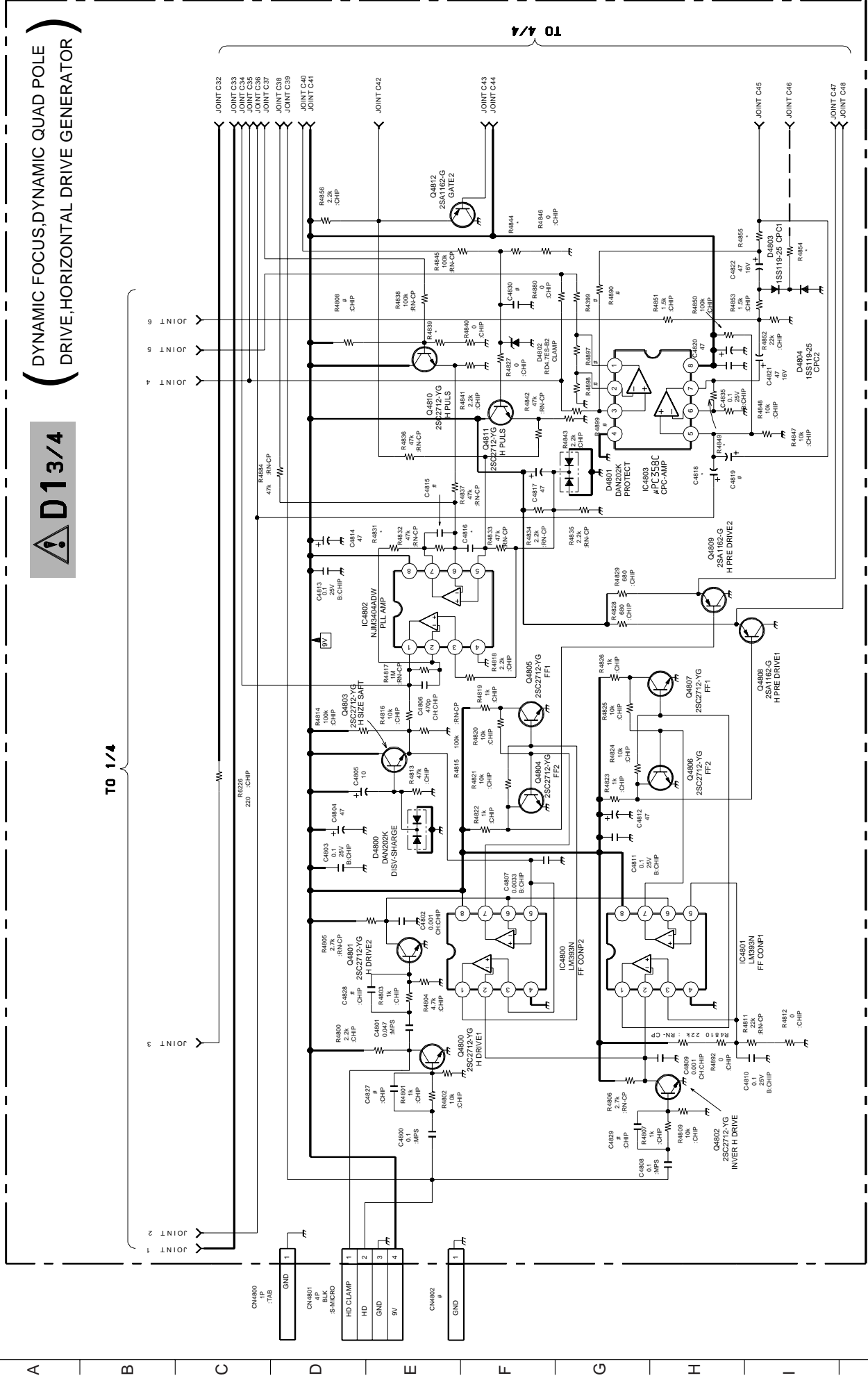
KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963



D13/4

(DYNAMIC FOCUS, DYNAMIC QUAD POLE DRIVE, HORIZONTAL DRIVE GENERATOR)

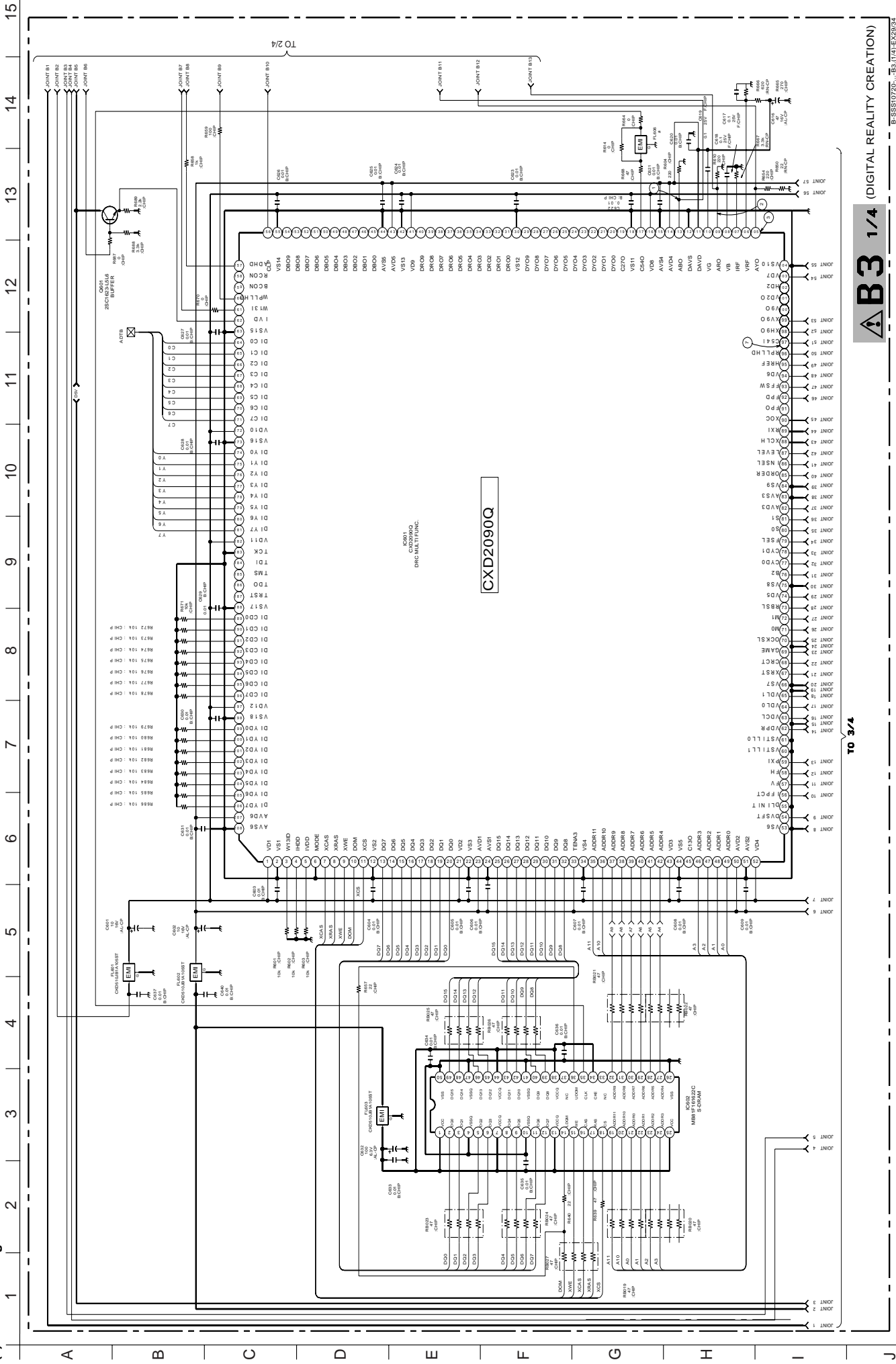
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15



B-SSS10720...D1(34)-EX29/34

KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963
KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

(5) Schematic Diagram of B3 Board

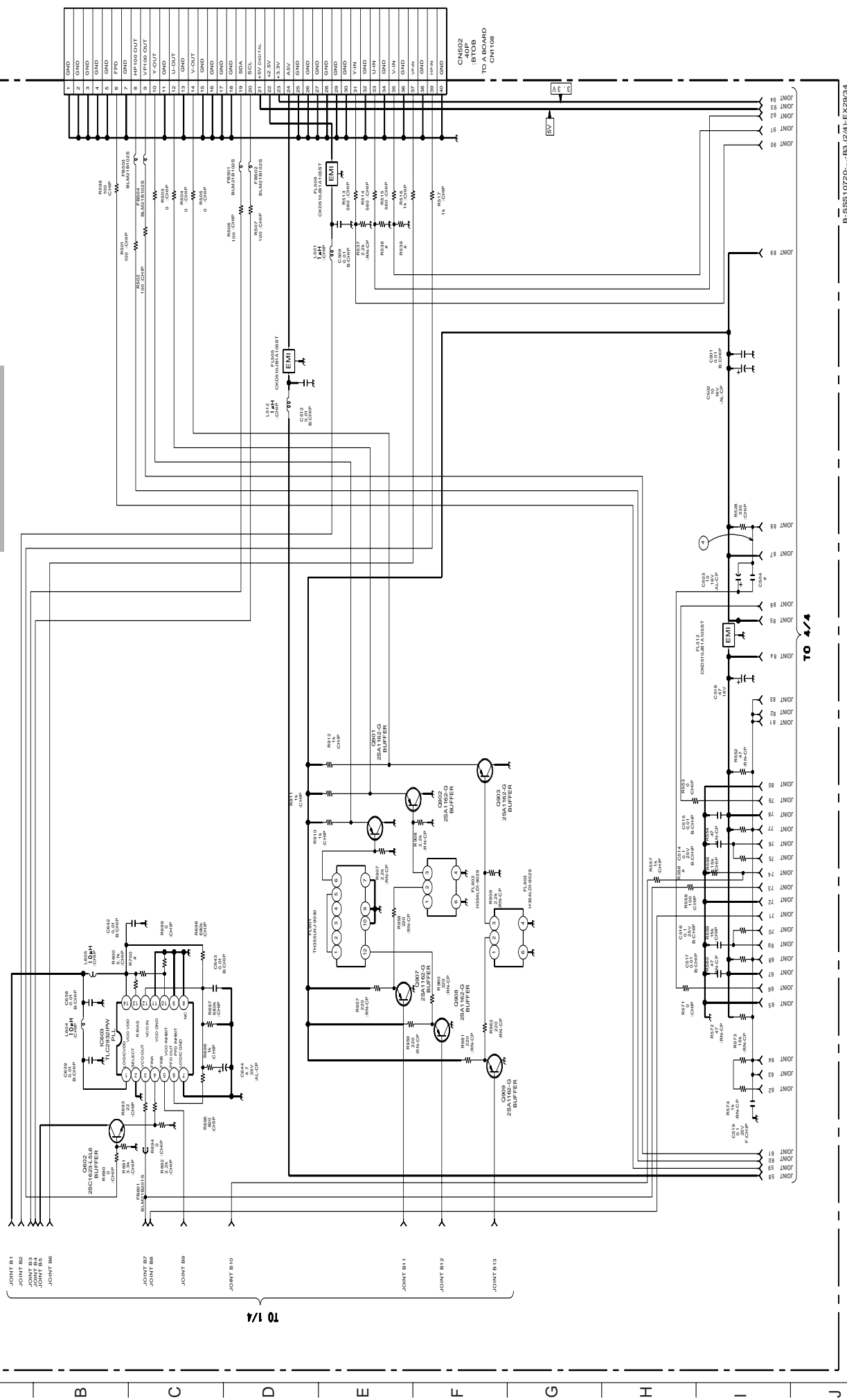


B3 1/4 (DIGITAL REALITY CREATION)

B-SSS10720...B3 (1/4)-EX29/34

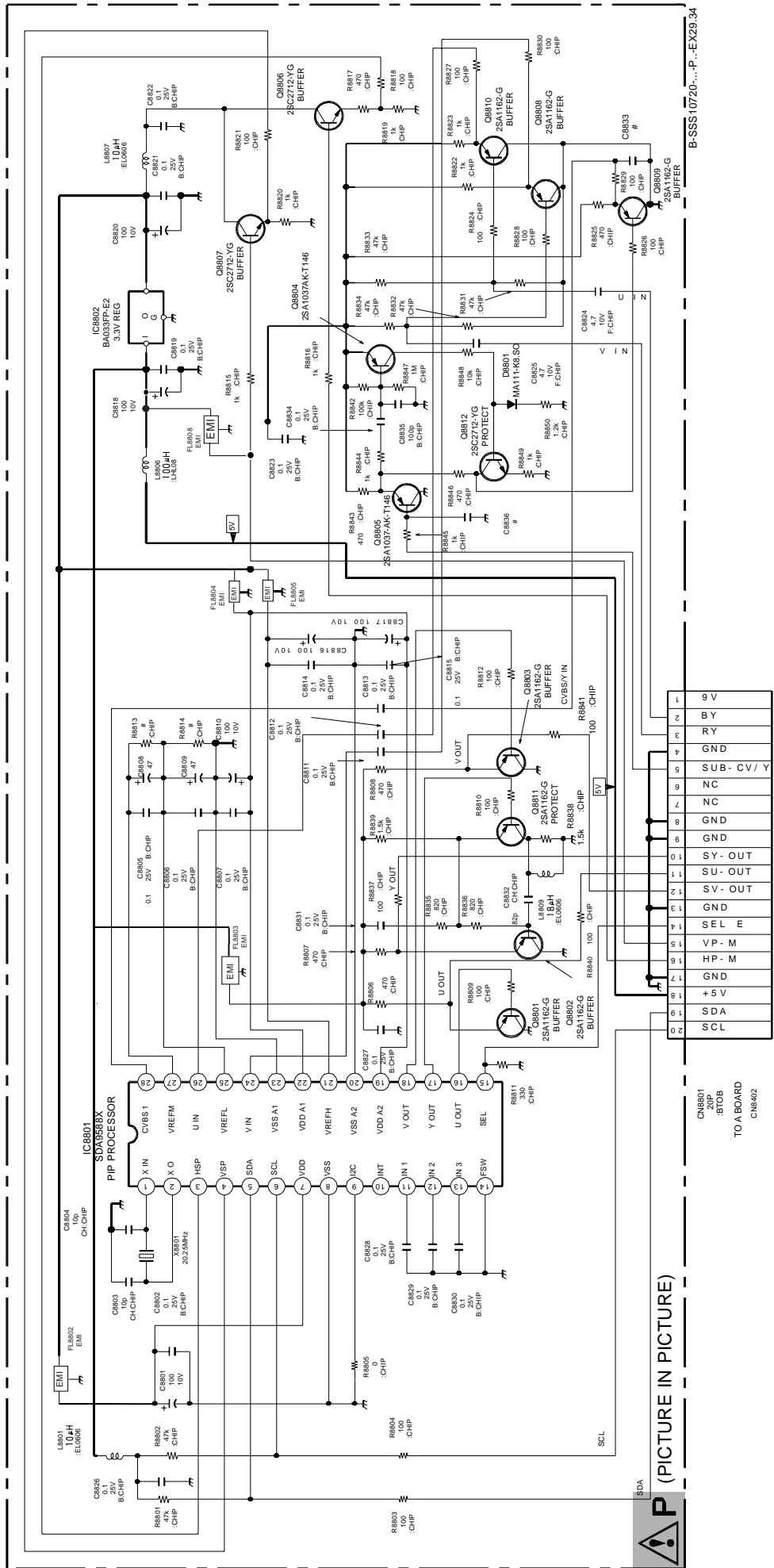
KV-EX29M63 RM-964
KV-EX34M39/EX34M69/EX34M87 RM-963

B3 2/4 (DIGITAL REALITY CREATION)



KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

(6) Schematic Diagram of P Board (EXCEPT KV-EX29M63)

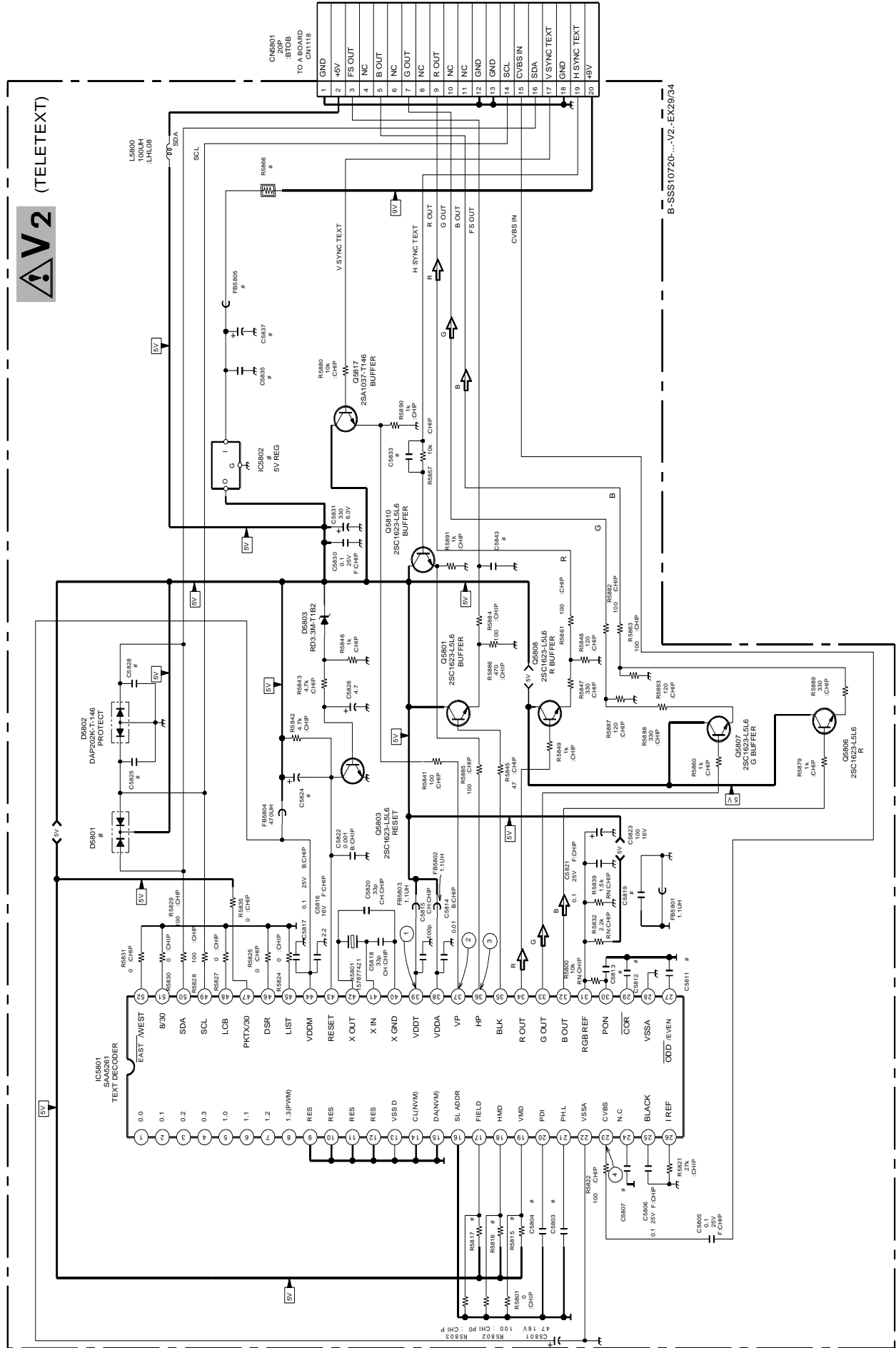


P (PICTURE IN PICTURE)

B-SSS10720...P-EX29.34

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

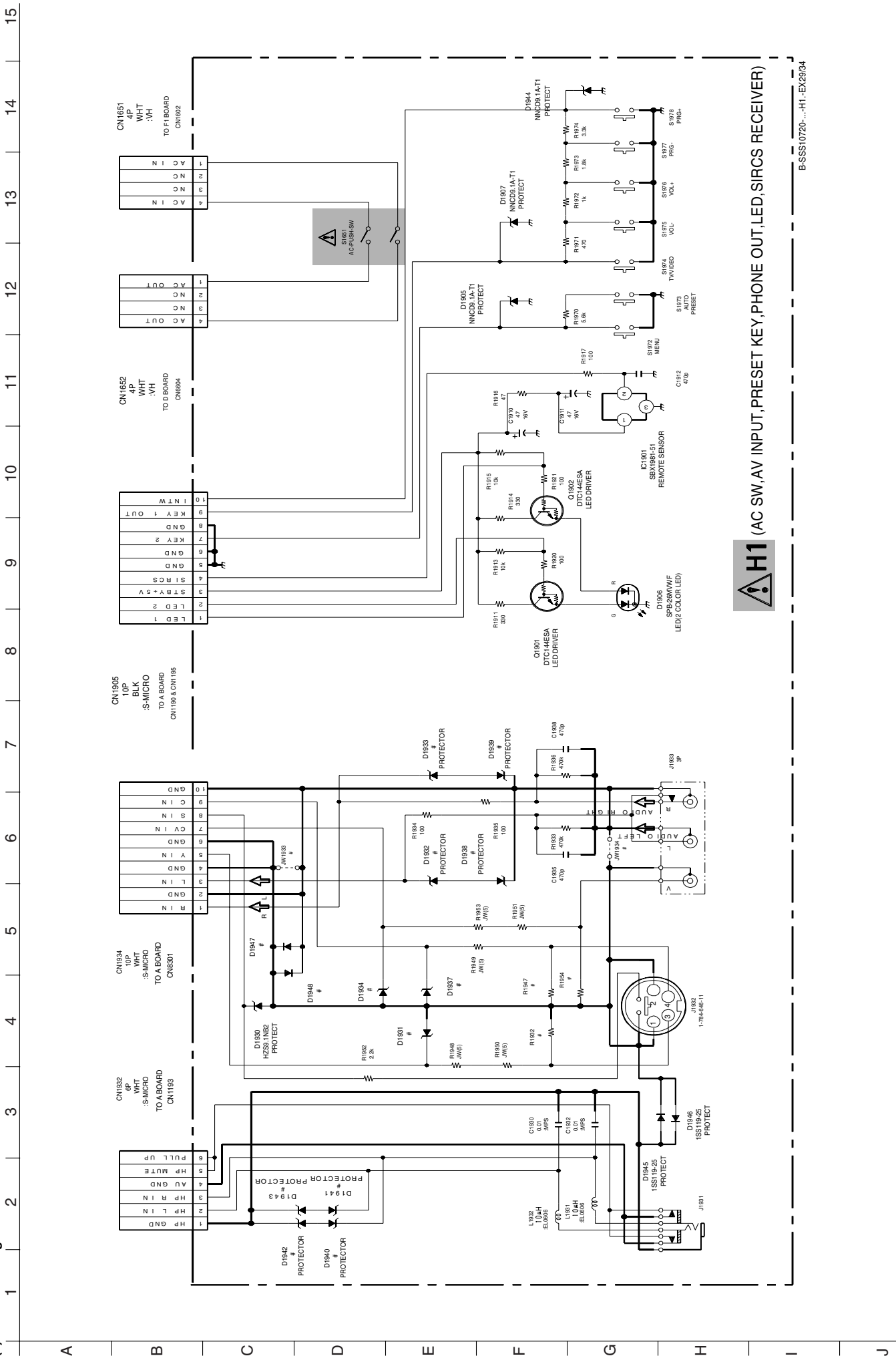
(8) Schematic Diagram of V2 Board (KV-EX34M39/EX34M69 Only)



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A B C D E F G H I J

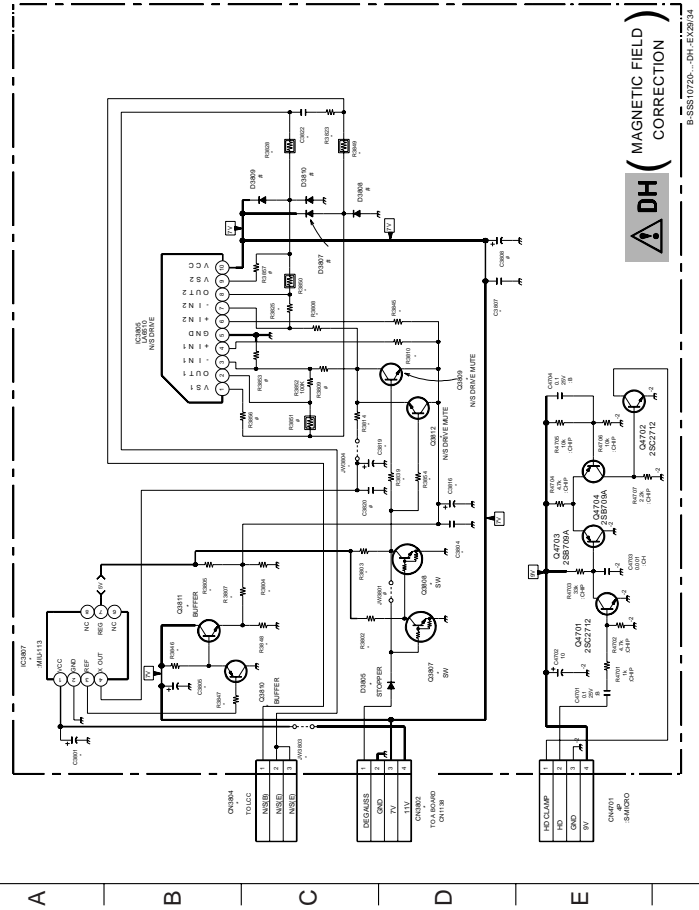
(9) Schematic Diagram of H1 Board



H1 (AC SW, AV INPUT, PRESET KEY, PHONE OUT, LED, SIROS RECEIVER)

B-SSS10720...H1-EX29/34

(10) Schematic Diagram of DH Board



D Board * Mark List (1/2)

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
C6806	#	#	#	100P .CHIP
C6809	#	#	#	1.0
C6810	#	#	#	100P .CHIP
C6811	#	#	#	0.001 .CHIP
C6821	#	#	#	1200 .250V
C6822	#	#	#	1200 .250V
C6829	560 .450V	560 .450V	560 .450V	#
C6816	0.047 .400V .PP	0.068 .400V .PP	0.068 .400V .PP	0.068 .400V .PP
C6828	0.001 .200V .PT	0.01 .200V .PT	0.01 .200V .PT	0.01 .200V .PT
C6829	100P .2KV	330P .2KV	330P .2KV	330P .2KV
C6830	#	1000P .1.2KV .PP	1000P .1.2KV .PP	1000P .1.2KV .PP
C6831	6200P .1.5KV .PP	8200P .1.5KV .PP	8200P .1.5KV .PP	8200P .1.5KV .PP
C6832	6800P .1.5KV .PP	12000P .1.5KV .PP	12000P .1.5KV .PP	12000P .1.5KV .PP
C6842	0.47 .250V .PP	1.5 .250V .PP	1.5 .250V .PP	1.5 .250V .PP
C6845	0.22 .250V .PP	0.27 .250V .PP	0.27 .250V .PP	0.27 .250V .PP
C6846	0.18 .250V .PP	0.22 .250V .CHIP	0.22 .250V .CHIP	0.22 .250V .CHIP
C6852	#	0.0022	0.0022	0.0022
C6860	220P .2KV	150P .2KV	150P .2KV	150P .2KV
C6869	#	100 .16V	100 .16V	100 .16V
C6870	#	470 .25V	470 .25V	470 .25V
C6880	0.1 .25V .CHIP	0.01 .CHIP	0.01 .CHIP	0.01 .CHIP
CN6802	#	2P	#	2P
CN6803	2P	3P	#	3P
CN6804	3P	#	#	#

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

D Board * Mark List (2/2)

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
D6602	#	#	#	MA-111-(K9).SO
D6603	#	#	#	MA111-(K9).SO
D6604	#	#	#	MA111-(K9).SO
D6609	#	#	#	1SS119-25
D6610	#	#	#	MA111-(K9).SO
D6611	#	#	#	MA111-(K9).SO
D6612	#	#	#	U05G
D6613	#	#	#	U05G
D6628	#	#	#	RDZSE5F1
D6822	#	RN4Z	RN4Z	RN4Z
JC8R06	#	PGRD83B	PGRD83B	PGRD83B
L6801	4.7MH	3.3UH	3.3UH	3.3UH
L6803	2.2MH	680UH	680UH	680UH
C6802	IRF720-LF49	IRF740G	IRF740G	2SC2795-HFE
R6605	#	#	#	120K .RN
R6606	#	#	#	75K .RN
R6607	#	#	#	680K .RN
R6608	#	#	#	680K .RN
R6609	#	#	#	680K .RN
R6610	#	#	#	100K .CHIP
R6612	#	#	#	120K .RN
R6613	#	#	#	680K .RN
R6614	#	#	#	680K .RN
R6615	#	#	#	680K .RN
R6617	#	#	#	100K .CHIP
R6618	#	#	#	390K .CHIP
R6619	#	#	#	75K .RN
R6620	#	#	#	470K .CHIP
R6621	#	#	#	10K .CHIP
R6623	#	#	#	150 1W .RS
R6640	#	#	#	22K .CHIP
R6641	#	#	#	470K 1/2W
R6642	#	#	#	470K 1/2W
R6643	#	#	#	22K .CHIP
R6804	3.9K .CHIP	3.6K .CHIP	3.6K .CHIP	3.6K .CHIP
R6806	3.9K .CHIP	3.6K .CHIP	3.6K .CHIP	3.6K .CHIP
R6826	27K 2W .RS	27K 2W .RS	27K 2W .RS	27K 2W .RS
R6827	3.3K 2W .RS	27K 2W .RS	27K 2W .RS	27K 2W .RS
R6845	180K .CHIP	58K .CHIP	58K .CHIP	58K .CHIP
R6855	27K 1/2W .RN	24K 1/2W .RN	24K 1/2W .RN	24K 1/2W .RN
R6858	27K 1/2W .RN	24K 1/2W .RN	24K 1/2W .RN	24K 1/2W .RN
R6865	180K .CHIP	150K .CHIP	150K .CHIP	150K .CHIP
R6866	3.3K .RN	27K .RN	27K .RN	27K .RN
R6869	560K .CHIP	470K .CHIP	470K .CHIP	470K .CHIP
R6876	1.5 3W .RS	0.47 1/2W	0.47 1/2W	0.47 1/2W
R6881	22K .RN	12K .RN	12K .RN	12K .RN
R6882	30K .RN	22K .RN	22K .RN	22K .RN
RV6802	#	#	#	RELAY AC POWER
T803	NX-4821/J14	NX-4801/J184	NX-4801/J14	NX-4801/J14
VD6801	#	#	#	VARIABLE (ER2V14D821)

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

A Board * Mark List

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
C018	#	100.0	100.0	100.0
C3330	#	0.1 16V :CHIP	0.1 16V :CHIP	0.1 16V :CHIP
C3331	#	100 16V	100 16V	100 16V
C3336	#	100 16V	100 16V	100 16V
C3338	#	470P :CHIP	470P :CHIP	470P :CHIP
C3350	#	470P :CHIP	470P :CHIP	470P :CHIP
C3351	#	470P :CHIP	470P :CHIP	470P :CHIP
C3352	#	470P :CHIP	470P :CHIP	470P :CHIP
C3353	#	100 16V	100 16V	100 16V
C3354	#	47.0	47.0	47.0
C3355	#	47.0	47.0	47.0
C4303	0.22 16V :CHIP	0.1 25V :CHIP	0.1 25V :CHIP	0.1 25V :CHIP
C4366	0.01 :CHIP	0.047 :CHIP	0.047 :CHIP	0.047 :CHIP
C4367	0.033 :CHIP	0.1 25V :CHIP	0.1 25V :CHIP	0.1 25V :CHIP
C4380	0.022 :CHIP	#	#	#
C4835	#	0.1 :CHIP	0.1 :CHIP	0.1 :CHIP
CN1118	#	20P	20P	#
CN1138	#	4P	4P	#
CN8402	#	20P	20P	20P
D4304	UDZS-TE17-9.1B	DTZ9.1	DTZ9.1	DTZ9.1
D4305	UDZS-TE17-9.1B	DTZ9.1	DTZ9.1	DTZ9.1
JR109	#	#	#	0 :CHIP
JR1301	#	0 :CHIP	0 :CHIP	0 :CHIP
L3302	#	10UH	10UH	10UH
L3303	#	10UH	10UH	10UH
L3304	#	10UH	10UH	10UH
L3305	#	10UH	10UH	10UH
L3306	#	10UH	10UH	10UH
Q008	#	2SC2712-YG	2SC2712-YG	2SC2712-YG
Q3300	#	2SA1037AK-T146-R	2SA1037AK-T146-R	2SA1037AK-T146-R
Q4318	2SC2712-YG	#	#	#
Q4823	2SA1162-G	#	#	#
Q4824	2SA1162-G	#	#	#
Q4825	2SC2712-YG	#	#	#
Q4826	2SC2712-YG	#	#	#
R060	#	47K :CHIP	47K :CHIP	47K :CHIP
R062	#	6.8K :CHIP	6.8K :CHIP	6.8K :CHIP
R107	#	10K :CHIP	10K :CHIP	10K :CHIP
R119	470 :CHIP	470 :CHIP	470 :CHIP	#
R120	100 :CHIP	#	#	100 :CHIP
R121	47 :CHIP	47 :CHIP	47 :CHIP	#
R122	100 :CHIP	#	#	100 :CHIP
R3300	#	560 :CHIP	560 :CHIP	560 :CHIP
R3304	#	470 :CHIP	470 :CHIP	470 :CHIP
R3320	#	10K :CHIP	10K :CHIP	10K :CHIP
R3323	#	100 :CHIP	100 :CHIP	100 :CHIP
R3334	#	100 :CHIP	100 :CHIP	100 :CHIP
R3362	#	100 :CHIP	100 :CHIP	100 :CHIP
R3374	#	0 :CHIP	0 :CHIP	0 :CHIP
R4306	100 :CHIP	#	#	100 :CHIP
R4307	100 :CHIP	#	#	100 :CHIP
R4381	750K :CHIP	1M :CHIP	1M :CHIP	1M :CHIP
R4383	62K :CHIP	18K :CHIP	18K :CHIP	18K :CHIP
R4402	2.2M :CHIP	#	#	#
R4403	1.0K :CHIP	#	#	#
R4404	22K :CHIP	#	#	#
R4406	100K :CHIP	#	#	#
R4411	12K :CHIP	39K :CHIP	39K :CHIP	39K :CHIP
R4413	47K :CHIP	220K :CHIP	220K :CHIP	220K :CHIP
R4520	100 :CHIP	#	#	100 :CHIP
R4521	100 :CHIP	#	#	100 :CHIP
R4908	1K :CHIP	#	#	#
R4909	4.7K :CHIP	#	#	#
R4910	4.7K :CHIP	#	#	#
R4911	33K :CHIP	#	#	#
R4912	10K :CHIP	#	#	#
R4913	10K :CHIP	#	#	#
R4914	2.2K :CHIP	#	#	#
R8321	#	100 :CHIP	100 :CHIP	#
R8331	#	100 :CHIP	100 :CHIP	#
R8832	#	100 :CHIP	100 :CHIP	#
R8833	#	100 :CHIP	100 :CHIP	#
TU101	BTF-WG441	BTF-WG442	BTF-WG442	BTF-LG434
TU3301	#	BTF-LG436	BTF-LG436	BTF-LG436

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

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KV-EX34M39/EX34M69/EX34M87

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DH Board * Mark List

	KV-EX29M63	KV-EX34M93	KV-EX34M69	KV-EX34M87
C3801	#	#	10	#
C3804	#	#	0.01	#
C3805	#	#	10	#
C3807	#	#	0.01	#
C3816	#	#	10	#
C3819	#	#	1	#
C3822	#	#	0.1 :PP	#
CN3802	#	#	4P	#
CN3804	#	#	3P	#
D3805	#	#	ISS119-25	#
IC3805	#	#	LA6510	#
IC3807	#	#	SENSOR UNIT	#
JW3802	#	#	10.0MM	#
JW3803	#	#	12.5MM	#
JW3804	#	#	15.0MM	#
JW3805	#	#	5.0MM	#
JW3807	#	#	5.0MM	#
Q3807	#	#	DTC144ESA	#
Q3808	#	#	DTC144ESA	#
Q3809	#	#	2SC2785-HFE	#
Q3810	#	#	2SA1175-HFE	#
Q3811	#	#	2SC2785-HFE	#
Q3812	#	#	2SC2785-HFE	#
R3802	#	#	1.0K	#
R3803	#	#	1.0K	#
R3804	#	#	9.1K :RN	#
R3805	#	#	4.7K	#
R3807	#	#	470 :RN	#
R3808	#	#	150K	#
R3809	#	#	75K	#
R3810	#	#	4.7K	#
R3814	#	#	330	#
R3823	#	#	15	#
R3825	#	#	1K	#
R3828	#	#	0.47	#
R3839	#	#	10K	#
R3845	#	#	4.7K	#
R3846	#	#	1K	#
R3847	#	#	100	#
R3848	#	#	1K	#
R3849	#	#	0.47	#
R3852	#	#	100K	#
R3854	#	#	10K	#

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

D1Board * Mark List

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
C4807	0.001 :CHIP	0.0033 :CHIP	0.0033 :CHIP	0.0033 :CHIP
C4814	47 25V	47 16V	47 16V	47 16V
C4816	0.047	#	#	#
C4817	47 25V	47 16V	47 16V	47 16V
C4818	2.2	10	10	10
C4825	0.1 25V	0.047 25V :CHIP	0.047 25V :CHIP	0.047 25V :CHIP
C4831	0.015 :CHIP	#	#	#
C6106	#	0.047 25V :CHIP	0.047 25V :CHIP	0.047 25V :CHIP
D6107	RD5.1ES-B1	RD5.1ESB2	RD5.1ESB2	RD5.1ESB2
Q6108	#	2SA1037AK-T146-R	2SA1037AK-T146-R	2SA1037AK-T146-R
R4831	4.7K :CHIP	3.3 :CHIP	3.3K :CHIP	3.3K :CHIP
R4839	8.2K :CHIP	6.8K :CHIP	6.8K :CHIP	6.8K :CHIP
R4844	3.9K :CHIP	4.7K :CHIP	4.7K :CHIP	4.7K :CHIP
R4849	33K :CHIP	82K :CHIP	82K :CHIP	82K :CHIP
R4854	5.6K :CHIP	3.3K :CHIP	3.3K :CHIP	3.3K :CHIP
R4855	4.7K :CHIP	15K :CHIP	15K :CHIP	15K :CHIP
R4857	2.7K :CHIP	22K :CHIP	22K :CHIP	22K :CHIP
R4859	10K :CHIP	2.7K :CHIP	2.7K :CHIP	2.7K :CHIP
R4860	3.3K :CHIP	2.7K :CHIP	2.7K :CHIP	2.7K :CHIP
R4862	10K :CHIP	15K :CHIP	15K :CHIP	15K :CHIP
R4864	3.3K :CHIP	2.2K :CHIP	2.2K :CHIP	2.2K :CHIP
R4865	680 :CHIP	470 :CHIP	470 :CHIP	470 :CHIP
R4868	470K :CHIP	#	#	#
R4871	39K :CHIP	100K :CHIP	100K :CHIP	100K :CHIP
R4882	56K :CHIP	68K :CHIP	68K :CHIP	68K :CHIP
R6112	#	56K :CHIP	56K :CHIP	56K :CHIP
R6125	#	2.2K :CHIP	2.2K :CHIP	2.2K :CHIP
R6131	27K :CHIP	4.7K :CHIP	4.7K :CHIP	4.7K :CHIP
R6134	7.5K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP
R6139	7.5K :CHIP	4.3K :CHIP	4.3K :CHIP	4.3K :CHIP
R6144	270K :CHIP	120K :CHIP	120K :CHIP	120K :CHIP
R6154	6.8K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP
R6159	5.6K :CHIP	6.8K :CHIP	6.8K :CHIP	6.8K :CHIP
R6179	#	150K :CHIP	150K :CHIP	150K :CHIP
R6181	#	220K :CHIP	220K :CHIP	220K :CHIP
R6195	10K :CHIP	5.6K :CHIP	5.6K :CHIP	5.6K :CHIP
R6200	75K :CHIP	180K :CHIP	180K :CHIP	180K :CHIP
R6457	22K :CHIP	39K :CHIP	39K :CHIP	39K :CHIP

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

C Board * Mark List

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
C9006	4P :CHIP	8P :CHIP	8.0P :CHIP	8P :CHIP
C9009	8P :CHIP	4P :CHIP	4.0P :CHIP	4P :CHIP
L9002	2.2UH	1UH	1UH	1UH
L9003	2.2UH	1UH	1UH	1UH
L9004	2.2UH	1UH	1UH	1UH

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

F Board * Mark List

	KV-EX29M63	KV-EX34M39	KV-EX34M69	KV-EX34M87
F1601	FUSE 5A/250V	FUSE 6.3A/250V	FUSE 6.3A/250V	FUSE 6.3A/250V

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

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KV-EX34M39/EX34M69/EX34M87

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8-3. VOLTAGE MEASUREMENTS

A (1/4) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	
IC001	1	4.8		62	4.4		23	4.5	
	2	0		63	0.4		24	4.5	
	3	0		64	4.8		25	4.5	
	4	0.8	IC002	1	0		26	4.5	
	5	0.8		2	4.9		27	4.5	
	6	0		3	4.9		28	4.5	
	7	0.4		4	7.0		29	0<[(4.5)]>	
	8	0		5	4.9		30	3.2[0]	
	9	4.9		6	0		31	4.5[3.3]	
	10	0		7	0.9		32	4.4	
	11	2.2	IC003	1	0		IC1203	1	4.5
	12	* <2.2>		2	0			2	0<(4.5)>
	13	4.9		3	0			3	4.5(0)
	14	4.9		4	0			4	0
	15	0.6<1.6>		5	4.9			5	4.5
	16	0.5<1.6>		6	4.9			6	4.5
	17	2.4		7	0			7	4.5
	18	1.0		8	4.9			8	9.0
	19	4.9	IC004	1	0		IC1204	1	0
20	0	2		0	2	0			
21	0	3		4.9(0)	3	27.5			
22	4.9	4		0	4	0			
23	0	5		0	5	0			
24	0.5<1.6>	6		4.9	6	0.6[3.5]			
25	0	7		0	7	13.6			
26	0	8		0<(4.9)>	8	1.4(0.1)[3.5]<0.9>			
27	4.9	IC100	1	4.9	9	0			
28	0		2	4.9	10	28.3			
29	4.8		3	0	11	13.2			
30	4.9	IC1200	1	4.5	IC1205	12	13.4		
31	4.9		2	4.5		1	4.5		
32	0		3	4.5		2	4.5		
33	0		4	0		3	4.5		
34	0		5	4.5[4.9]		4	4.5		
35	4.9		6	4.5		5	4.9		
36	0		6	4.5		6	0.4		
37	0		7	4.5[0]		7	0		
38	2.5	8	9.0[0]	8	0.2				
39	2.5	IC1201	1	0	9	0.2			
40	4.7		2	0(0.9)	10	0.2			
41	4.9		3	1.2[0]	11	0.2			
42	0		4	4.5	12	0.2[0]			
43	0.5<1.6>		5	4.5	13	4.9			
44	0.6		6	4.5	14	9.0			
45	0		7	4.5	IC1206	1	*		
46	0		8	4.5		2	*		
47	4.9		9	4.5		3	*		
48	4.7		10	4.5		4	*		
49	4.9		11	4.5		5	*		
50	4.6		12	4.5		6	*		
51	0		13	0.6[0]		7	*		
52	2.6		14	2.5		8	*		
53	0	15	9.0[0.2]	9		4.5			
54	4.5<0>	16	4.6	10		4.5			
55	0.1	17	4.6	11		4.5			
56	0	18	2.8	12		4.5			
57	0	19	0.6[0]	13	4.5				
58	0	20	4.5	14	4.5				
59	0	21	4.5	15	4.5				
60	0	22	4.5	16	4.5				
61	0								

A (2/4) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	
IC1207	1	0		10	0.4		6	0.1	
	2	0		11	1.8		7	5.0	
	3	0		12	0<(9.1)>		8	4.0	
	4	0.1		13	1.0		9	4.5	
	5	0		14	5.1		10	0<(4.2)>	
	6	0		15	2.6		11	0.3	
	7	0		16	0		12	4.4	
	8	0		17	3.5		13	0.1	
	9	0		18	2.7		14	5.0	
	10	0		19	4.2		15	4.0	
	11	0		20	0		16	4.5	
	12	0		21	0<(6.3)>		17	4.2	
	13	0		22	1.7		18	4.5	
	14	0		23	6.5<(0)>		19	4.4	
	15	0		24	0		20	0.1	
IC2200	1	4.5		25	0		21	0<(5.0)>	
	2	4.5		26	2.4		22	4.0	
	3	4.3		27	3.3		23	4.5	
	4	0		28	2.6		24	4.0	
	5	4.2[0]		29	2.6		25	4.5	
	6	0<4.5>		30	2.4		26	4.4	
	7	4.6		31	3.3		27	0.1	
	8	9.1		32	9.1		28	5.0	
IC2300	1	0.9		33	0		29	4.5	
	2	2		34	4.8		30	0<(4.5)>	
	3	1.3		35	4.8		31	4.5	
	4	0		36	4.8		32	0	
	5	4.9		37	9.1		33	4.6	
	6	4.9		38	0		34	4.6	
	7	1.5		39	0<(4.3)>		35	0	
	8	0		40	4.3		36	0	
	9	0.6		41	4.3		37	4.4	
	10	3.6<0>		42	0		38	4.5	
	11	0<4.9>		43	0		39	3.8	
	12	1.4		44	0		40	4.5	
	13	0		45	0<(6.6)>		41	4.5	
	14	1.5		46	0<(9.1)>		42	9.0	
	15	0		47	9.1		43	4.5	
	16	1.5		48	6.0		44	4.3	
IC2600	I	13.0		49	2.6		45	4.5	
	G	9.1		50	4.1		46	3.8	
	O	0		51	0		47	0<(4.4)>	
IC2601	I	7.5		52	0		48	0	
	G	0		53	6.0		49	4.2	
	O	5.0		54	6.0		50	4.5	
IC2603	I	7.3		55	0		51	4.4	
	G	0		56	6.0		52	4.5	
	O	3.3		57	6.0		53	4.5	
IC2604	1	1.2		58	6.0		54	4.5	
	2	2.6		59	0.4		55	0<(3.8)>	
	3	4.8		60	0		56	3.2	
IC4301	1	4.0		61	4.6		57	0	
	2	0		62	0<(4.6)>		58	0<(4.3)>	
	3	4.4		63	4.4		59	4.5	
	4	4.7		64	3.6		60	4.2	
	5	3.5		IC8302	1		4.4	61	4.5
	6	3.4(0)			2		4.5	62	4.5
	7	7.6			3		4.0	63	4.3
	8	0			4		0<(4.5)>	64	4.5
	9	0			5		4.4		

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A (3/4) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	
IC8305	I	13.1		3	0	Q1204	D	0	
	G	0		4	0		G	0	
	O	9.1		5	0		S	0	
IC8306	1	0(2.2)		6	2.0	Q1205	B	0<5.5>	
	2	0.1<(1.9)>		7	0		C	0<9.0>	
	3	0<(1.6)>		8	5.0		E	0<(4.9)>	
	4	0.1		9	5.85	Q1206	B	2.9	
	5	2.6		10	0		C	5.5[(0)]	
	6	4.9		11	4.6		E	2.3[0]	
	7	2.6		12	0	Q1207	B	28.0	
	8	0		13	0		C	0	
	9	0.3		14	4.6		E	18.1	
	10	0.9		15	5.1	Q1208	B	0	
	11	2.5		16	2.5		C	13.2	
	12	4.9		17	2.5		E	0	
	13	4.6		18	0	Q1209	B	0	
	14	4.6		19	2.9		C	13.2	
	15	0		20	8.2		E	0	
	16	0		21	2.5	Q1210	B	0	
	17	2.5		22	0.2		C	13.4[0]	
	18	2.5		23	0		E	0	
	19	1.4		24	0	Q1211	B	9.0	
	20	2.3		IC8312	1		4.9	C	0
	21	1.8			2		0.3	E	9.0
	22	1.8			3	0	Q1215	B	0
	23	0<(1.8)>			4	0		C	0<(9.0)>
	24	0.1			5	4.9		E	0
	25	0<(1.9)>		Q001	B	4.9	Q2200	B	0
	26	0<(1.9)>			C	0		C	0
	27	0<(1.9)>			E	0.6		E	0
	28	0		Q002	B	0	Q2201	B	0
	29	0(2.0)			C	4.9		C	0
	30	0(2.0)<1.6>			E	0		E	0
	31	0(1.2)		Q003	B	0.4	Q2304	B	3.6<0>
	32	0.1<(4.9)>			C	4.9		C	0<4.9>
	33	0.1<(2.5)>			E	0.3		E	0
	34	0<(2.5)>		Q004	B	0.1	Q2305	B	2.3<3.1>
	35	0<(2.50)>			C	0		C	4.9
	36	0			E	0		E	1.5<2.3>
	37	0<(1.1)>		Q005	B	1.6	Q2306	B	0.8
	38	3.9			C	0		C	0
	39	1.8			E	2.2		E	1.5
	40	3.3		Q006	B	1.8	Q3300	B	4.6[0]
	41	0<(2.3)>			C	0		C	0
	42	0			E	2.4		E	4.6
	43	0		Q007	B	1.8	Q4300	B	6.2
	44	0<(2.3)>			C	0		C	9.1
	45	3.6			E	2.4		E	5.5[0]
	46	2.3		Q101	B	2.8[0]	Q4301	B	-11.9
	47	0<(3.6)>			C	0		C	1.7
	48	1.7			E	3.4		E	-11.7
IC8309	1	3.0	Q301	B	0<(12.9)>	Q4302	B	0	
	2	5.3		C	0		C	11.7	
	3	2.8		E	12.3		E	0.6[0]	
	4	0	Q313	B	*	Q4303	B	0.3[0]	
	5	0		C	*		C	1.6[3.2]	
	6	9.0		E	*		E	0	
	7	2.0	Q1203	B	0	Q4304	B	7.1	
	8	0		C	5.0		C	9.1	
		E		0.2<[0]>	E		6.5		
IC8310	1	0.8							
	2	0							

A (4/4) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4307	B	2.8[0]	Q4826	B	*	Q8331	B	2.4
	C	0[4.5]		C	*		C	6.4
	E	0		E	[E	1.8
Q4308	B	2.5	Q8301	B	4.5	Q8332	B	6.4
	C	0		C	0		C	9.0
	E	3.2		E	5.2		E	5.8
Q4310	B	2.4	Q8302	B	4.4	Q8333	B	2.5
	C	0		C	9.0		C	7.1<6.7>
	E	0<(3.1)>		E	3.8		E	1.9
Q4311	B	5.5	Q8303	B	4.4	Q8334	B	4.4
	C	0		C	9.0		C	9.0
	E	6.2		E	3.7		E	3.8
Q4312	B	8.0	Q8304	B	4.4	Q8335	B	2.5
	C	1.4		C	9.0		C	7.1[(6.7)]
	E	8.6		E	3.8		E	1.9
Q4313	B	*	Q8306	B	4.2	Q8336	B	4.4
	C	*		C	9.0		C	9.0
	E	*		E	3.6		E	3.8
Q4314	B	0.9	Q8308	B	3.8	Q8337	B	0
	C	0		C	9.0		C	9.0
	E	1.6		E	3.1		E	0
Q4315	B	3.2<3.5>	Q8309	B	4.4	Q8344	B	0
	C	0		C	9.0		C	0
	E	0		E	3.8		E	0.7
Q4316	B	3.0[2.5]	Q8310	B	0.1	Q8351	B	2.9
	C	4.5[0]		C	4.9		C	8.4
	E	3.2		E	0.1[0]		E	2.3
Q4317	B	0[3.1]	Q8319	B	0<(1.8)>	Q8352	B	8.4
	C	4.5		C	0		C	3.7
	E	0[3.2]		E	2.4		E	9.0
Q4319	B	6.5	Q8320	B	1.8	Q8358	B	0
	C	1.9		C	0		C	0
	E	7.1		E	2.4		E	0
Q4320	B	1.6	Q8321	B	1.7	Q8359	B	0
	C	0		C	0		C	0
	E	2.2		E	2.3		E	0
Q4321	B	1.8	Q8326	B	0.2	Q8360	B	0
	C	0		C	3.4		C	0
	E	2.4		E	0		E	0
Q4322	B	1.8	Q8327	B	3.5	Q8361	B	3.0
	C	0		C	0.2		C	4.9
	E	2.4		E	0		E	2.4
Q4823	B	1.1	Q8328	B	0.2	Q8362	B	3.0
	C	0		C	5.3		C	4.9
	E	1.7		E	0		E	2.4
Q4824	B	*	Q8329	B	2.4	Q8363	B	3.0
	C	*		C	5.6		C	5.0
	E	*		E	1.8		E	2.4
Q4825	B	0<-1.0>	Q8330	B	5.6	Q8364	B	1.6
	C	9.1<(0)>		C	9.0		C	0
	E	0.8<(0)>		E	5.0		E	2.2

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D1 (1/2) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	
IC4800	1	0.3		6	0.9	IC6351	7	3.4	
	2	4.4		7	2.0		8	9.0	
	3	4.5		8	0.3		1	5.2	
	4	0	IC6106	1	2.5		2	4.4	
	5	4.5		2	0		3	4.8	
	6	3.4		3	8.9		4	0	
	IC4801	7	0.4	IC6107	1		4.6	5	4.1
		8	9.0		2		0	6	4.5
IC4802		1	0.3		3	9.0	7	0.4	
		2	4.4		4	0	8	9.0	
		3	4.5		5	4.5	IC6353	I	11.0
		4	0		6	4.5		G	0
		5	4.5		7	0		O	0
		6	3.1		IC6108	8	6.5	IC6354	1
	7	0.4	1	2.5		2	0		
	8	9.0	2	2.6		3	9.0		
IC4802	1	4.5	3	2.4		4	0		
	2	4.5	4	0.8		5	4.5		
	3	4.5	5	2.4		6	4.5		
	4	0	6	1.4		7	0		
	5	0.8	7	1.9		8	3.4		
	6	0.7	8	2.8	IC6356	1	-2.8		
	7	3.5	9	1.2		2	-6.3		
	8	9.0	10	3.1		3	-3.0		
IC6101	1	2.6	11	2.0		4	-3.3		
	2	2.0	12	2.5		5	-15.0		
	3	2.1	13	0		6	-3.5		
	4	0	14	0		7	-3.0		
	5	2.1	15	0		8	-4.0		
	6	2.4	16	0	9	-4.1			
	7	2.6	17	0	10	11.7			
	8	5.0	18	0	Q4800	B	1.2		
IC6102	1	0	19	0		C	3.3		
	2	1.7	20	4.6		E	0		
	3	1.8	21	4.6	Q4801	B	0.6		
	4	0	22	5.0		C	5.6		
	5	5.0	23	0		E	0		
	6	4.5	IC6201	24	0	Q4802	B	1.3	
	7	4.5		1	0		C	4.4	
	8	9.0		2	0		E	0	
IC6103	1	2.9		3	0	Q4803	B	0	
	2	1.6		4	-21.7		C	8.9	
	3	1.4		5	0		E	5.1	
	4	0		6	0	Q4804	B	0.4	
	5	1.1		7	0		C	3.8	
	6	4.0	8	0	E		0		
	7	1.2	9	0	Q4805	B	0.3		
	8	9.0	10	0		C	4.8		
IC6104	1	2.0	11	2.17		E	0		
	2	2.4	12	0	Q4806	B	0.4		
	3	-15.4	13	5.0		C	3.9		
	4	1.4	14	5.0		E	0		
	5	6.7	IC6202	1	3.5	Q4807	B	0	
IC6105	1	5.5		2	3.5		C	4.8	
	2	1.1		3	3.4		E	0	
	3	2.0		4	0	Q4808	B	0	
	4	0.3		5	3.4		C	4.2	
	5	1.7		6	3.4		E	3.2	

D1 (2/2) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4809	B	0.5	Q4821	B	4.3	Q6125	B	1.5
	C	0.8		C	0		C	8.9
	E	0		E	0		E	1.6
Q4810	B	0.1	Q4822	B	0	Q6126	B	1.5
	C	8.9		C	0		C	0
	E	0.4		E	0		E	1.6
Q4811	B	0	Q6103	D	30.2	Q6128	B	1.1
	C	8.9		G	4.4		C	8.9
	E	0.2		S	0		E	2.8
Q4812	B	1.4	Q6104	B	0.6	Q6201	B	0.4
	C	0		C	2.9		C	4.8
	E	0.8		E	0		E	0
Q4813	B	2.6	Q6105	B	3.4	Q6202	B	-0.6
	C	0		C	5.0		C	2.6
	E	0.8		E	2.9		E	0
Q4814	B	1.8	Q6106	B	2.5	Q6203	B	-6.0
	C	0		C	-3.3		C	-2.3
	E	0.7		E	3.1		E	-6.6
Q4815	B	1.4	Q6107	B	10.8	Q6350	B	0.4
	C	0		C	4.8		C	2.1
	E	0.7		E	11.1		E	0
Q4816	B	1.8	Q6108	B	1.7	Q6356	B	0.4
	C	0		C	0		C	1.7
	E	2.4		E	2.4		E	0
Q4817	B	3.9	Q6118	B	0	Q6405	B	-0.6
	C	8.9		C	4.1		C	-4.5
	E	3.3		E	0		E	0
Q4818	B	3.3	Q6124	B	0	Q6455	B	2.6
	C	0		C	1.5		C	8.9
	E	3.9		E	0		E	1.9
Q4820	B	4.5						
	C	0						
	E	5.2						

C BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC9001	1	3.4	IC9003	7	139.8[134]	Q9001	9	159
	2	11.7		8	160(158)[137]		10	156
	3	3.3		9	139.3(133)		B	8.3
	4	-0		1	3.44(3.34)	C	0	
	5	8.6(8.3)[8.8]		2	11.72	E	4.5	
	6	199.3(198.8)		3	3.36	Q9009	B	3.0
	7	148.7(144)		4	-0(0.12)		C	0
	8	157.2(159)[154]		5	8.5		E	3.6
	9	148.3(144)[147]		6	198	Q9010	B	3.2
IC9002	1	3.4	7	145.5(141)	C		0	
	2	11.7	8	160	E		3.8	
	3	3.3	9	143.9	Q9011	B	2.9	
	4	-0	J9001	3		520	C	0
	5	8.49(8.24)[8.55]		5		22.2(22.2)[-0]	E	3.6
	6	199.3(198)		8	160			

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Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC501	1	0		60	1.5		31	0
	2	0		61	3.4		32	0
	3	0		62	0		33	0
	4	0		63	0		34	3.3
	5	0		64	0		35	1.5
	6	0.6	IC504	1	0		36	0.5
	7	0.2		2	0		37	0
	8	1.2		3	0		38	3.3
	9	0.		4	3.3		39	1.6
	10	1.5		5	1.6		40	1.4
	11	0		6	2.0		41	0
	12	1.3		7	0		42	1.4
	13	0		8	0		43	1.7
	14	3.3		9	0		44	3.3
	15	-0		10	0		45	1.6
	16	3.3		11	0		46	1.5
	17	1.2		12	2.1		47	0
	18	1.6		13	2.2		48	1.3
	19	1.8		14	0		49	0.8
	20	1.6	IC505	1	0	IC603	50	0
	21	2.0		2	3.2		1	0
	22	1.9		3	4.8		2	0
	23	1.7		4	4.8		3	1.2
	24	1.8		5	0		4	0.2
	25	-0	IC506	1	0	5	1.3	
	26	4.8		2	3.0	6	1.3	
	27	2.4		3	0	7	0	
	28	0		4	0	8	0	
	29	3.4		5	0	9	0	
	30	4.8	IC602	1	3.3	10	0	
31	2.4	2		1.5	11	0		
32	0	3		1.4	12	1.3		
33	1.4	4		0	13	0		
34	0	5		1.1	14	3.3		
35	0	6		1.6	IC604	1	4.9	
36	1.4	7		3.3		2	0	
37	1.4	8		1.5		3	0	
38	0	9		1.4		4	0.3	
39	0	10		0		5	0.3	
40	0	11	1.4	6		0.4		
41	0	12	0.9	7		0.3		
42	0	13	3.3	8		0		
43	0	14	0.5	9		3.2		
44	0	15	3.2	10		3.2		
45	4.8	16	0	11		0		
46	0	17	3.1	12		4.9		
47	0	18	3.1	13		0		
48	0	19	0	14		4.6		
49	0	20	0	15		4.6		
50	2.4	21	0	16		4.9		
51	4.8	22	0					
52	3.4	23	0					
53	2.4	24	0					
54	0	25	3.3					
55	0	26	0					
56	1.4	27	0					
57	0	28	0					
58	0	29	0					
59	0	30	0					

B3 (2/3) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC601	1	2.3		73	0		137	1.8
	2	0		74	2.4		138	0
	3	0		66	0		139	1.7
	4	0		67	3.3		140	1.3
	5	0		68	0		141	2.4
	6	0		69	0.3		142	0
	7	0		70	0		143	3.3
	8	0		71	0		144	0
	9	0		72	3.3		145	1.1
	10	0.4		73	0		146	0.9
	11	0		74	2.4		147	1.4
	12	0		75	0		148	1.4
	13	0		76	0		149	1.5
	14	0		77	0		150	1.8
	15	0		78	3.3		151	1.4
	16	0		79	3.3		152	1.7
	17	0		80	0.3		153	1.6
	18	0		81	0.4		154	1.7
	19	0		82	3.2		155	0
	20	1.5		83	0		156	0.1
	21	0		84	0		157	3.2
	22	0		85	3.3		158	0.9
	23	3.3		86	0.3		159	0.9
	24	0		87	3.3		160	1.3
	25	0		88	0		161	1.3
	26	0		89	0		162	0
	27	1.6		90	0		163	0
	28	0		91	1.6		164	1.5
	29	0		92	1.6		165	1.5
	30	0		93	0		166	1.7
	31	0		94	2.4		167	1.9
	32	1.6		95	1.6		168	1.4
	33	3.2		96	0		169	1.6
	34	-0		97	2.0		170	1.5
	35	0		98	3.0		171	1.5
	36	0		99	0		172	2.4
	37	0		100	0		173	0
	38	0		101	0		174	1.7
	39	0		102	0.2		175	1.4
	40	0		103	2.4		176	1.0
	41	0		104	0		177	1.5
	42	0		105	0.3		178	1.8
	43	2.3		106	1.0		179	0
	44	0		107	1.2		180	1.2
	45	1.2		108	1.0		181	0.6
	46	0		109	0.5		182	0
	47	0		110	2.2		183	0
	48	0		111	3.3		184	2.6
	49	0		112	0		185	2.6
	50	0		113	0.5		186	2.6
	51	0		114	3.3		187	2.6
	52	0		115	3.3		188	0
	53	0		116	2.4		189	0.3
	54	3.3		117	1.5		190	0
	55	0		118	0		191	0.3
	56	0		119	0		192	0
	57	2.9		120	1.1		193	0.3
	58	2.9		121	1.1		194	0
	59	0		122	1.3		195	0.3
	60	0		123	1.3		196	0.3
	61	0		124	1.5		197	2.3
	62	0		125	1.5		198	0
	63	2.9		126	2.0		199	0.3
	64	2.9		127	1.3		200	0.3
	65	0		128	1.1		201	0.3
	66	0		129	0.1		202	0.3
	67	3.3		130	0.1		203	0.3
	68	0		131	1.0		204	0.3
	69	0.3		132	0.9		205	0
	70	0		133	1.8		206	0.3
	71	0		134	1.8		207	3.3
	72	3.3		135	2.3		208	0
			136	2.2				

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B3 (3/3) BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q501	B	0.0	Q521	B	4.8	Q902	B	0
	C	2.9		C	2.4		C	0.8
	E	2.2		E	3.1		E	0.2
Q502	B	4.8	Q522	B	4.8	Q903	B	0.7
	C	2.1		C	3.1		C	0.8
	E	2.8		E	3.7		E	0.2
Q503	B	4.8	Q523	B	4.8	Q907	B	0
	C	2.1		C	3.0		C	1.2
	E	2.7		E	0		E	0.5
Q516	B	4.0	Q601	B	4.0	Q908	B	0
	C	2.5		C	0.7		C	1.0
	E	3.2		E	0		E	0.3
Q517	B	4.1	Q602	B	4.2	Q909	B	0
	C	3.4		C	0.4		C	1.2
	E	0		E	0.5		E	0
Q518	B	0.7	Q901	B	0.8			
	C	1.3		C	0.7			
	E	0		E	0			

P BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC8801	1	1.3	IC8802	I	4.5
	2	1.7		G	0
	3	0.2		O	3.3
	4	0.2	Q8801	B	0.6
	5	4.5		C	0
	6	4.4		E	1.3
	7	3.3	Q8802	B	1.0
	8	0		C	0
	9	0		E	1.7
	10	0.8	Q8803	B	0.6
	11	0.5		C	0
	12	0.5		E	1.3
	13	0.5	Q8806	B	0.3
	14	0.7		C	3.3
	15	0		E	0.3
	16	0.3	Q8807	B	0.1
	17	0		C	3.3
	18	0.3		E	0.1
	19	0	Q8808	B	2.6
	20	0		C	0
	21	3.3		E	3.2
	22	3.3	Q8809	B	2.1
	23	0		C	0
	24	0.2		E	2.7
	25	0	Q8810	B	2.6
	26	0.3		C	0
	27	2.1		E	3.2
	28	2.1	Q8811	B	0.3
		C		0	
		E		1.0	

VM BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q5400	B	1.5		C	0
	C	8.4		E	5.9
	E	0.9		Q5405	B
Q5401	B	1.6	C		0
	C	5.2	E		6.2
	E	1.0	Q5406	B	134
Q5402	B	7.2		C	67.7
	C	9.0		E	134
	E	6.6	Q5407	B	1.3
Q5403	B	6.6		C	67.8
	C	9.0		E	0.8
	E	6.2			
Q5404	B	5.2			

H1 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[v]
IC901	1	4.9
	2	4.8
	3	0
Q1901	B	0.1
	C	4.9
	E	0.1
Q1902	B	4.5
	C	2.6
	E	1.8

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V2 BOARD VOLTAGE LIST

Ref	Pin No.	Voltage[V]	Ref	Pin No.	Voltage[V]	Ref	Pin No.	Voltage[V]
IC5801	1	0		27	2.4	IC5802	I	7.9
	2	0		28	-0		G	0
	3	0		29	0.9		O	4.9
	4	0		30	0	Q5801	B	4.8
	5	0		31	1.8		C	4.9
	6	0		32	0.2		E	4.2
	7	0		33	0.5	Q5803	B	0.7
	8	0		34	0.2		C	0.02
	9	0		35	4.8		E	0
	10	0		36	0.3	Q5806	B	0.03
	11	0		37	0.1		C	4.9
	12	0		38	4.9		E	0
	13	0		39	4.9	Q5807	B	0.04
	14	0		40	0		C	4.9
	15	0		41	2.3		E	0
	16	00		42	2.5	Q5808	B	0.04
	17	0		43	0		C	4.9
	18	0		44	4.8		E	0
	19	0		45	0	Q5810	B	0.3
	20	0.9		46	0		C	4.9
	21	0.9		47	4.9		E	0.3
	22	0		48	0	Q5817	B	4.9
	23	2.2		49	4.5		C	0.1
	24	0.9		50	4.5		E	0.09
	25	2.0		51	0			
	26	2.4		52	0			

DH BOARD VOLTAGE LIST (KV-EX34 MODEL)

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC3805	1	4.2	Q3807	B	0
	2	3.8		C	4.8
	3	2.6		E	0
	4	2.6	Q3808	B	4.8
	5	0		C	0.1
	6	2.6		E	0
	7	2.6	Q3809	B	0.1
	8	2.6		C	1.5
	9	2.4		E	2.6
	10	6.6	Q3810	B	2.5
IC3807	1	10.8		C	0
	2	0	E	3.2	
	3	2.5	Q3811	B	3.2
	4	1.7		C	6.6
	5	0		E	2.5
	6	0	Q3812	B	0.1
	7	4.9		C	2.6
	8	0		E	1.5

D BOARD VOLTAGE LIST (KV-EX29 MODELS)

Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC6600	1	2.7	IC6804	I	11.1	Q6800	B	-0.5
	2	1.9		G	0		C	13.9
	3	2.2		O	9.0		E	0.9
	4	2.5	IC6805	I	14.0	Q6803	B	7.0
	5	0		G	0		C	0
	6	0		O	11.9		E	7.0
	7	4.6	IC6806	I	*	Q6804	B	8.0
	8	17.8		G	*		C	9.0
	9	0.01		O	*		E	8.0
	10	10.4		VC	*		Q6805	B
	11	0	Q6100	D	302	C		68.0
	12	4.8		G	0.9	E		0
	13	*		S	0	Q6806	B	-0.3
	14	139	Q6102	B	0.4		C	59.0
	15	129		C	1.0		E	0
	16	133		E	0	Q6809	D	20.0
	17	*	Q6600	D	297.0		G	2.7
	18	294		G	134.0		S	0
IC6601	1	2.4		S	130.0	Q6810	D	135.8
	2	0	Q6601	B	-0.02		G	1.7
	3	5.0		C	12.0		S	0
IC6607	1	134.0	Q6602	E	0	Q6811	B	0
	2	2.5		B	0.3		C	9.0
	3	8.8		C	18.0		E	0
	4	0	E	0	Q6812	B	-0.8	
IC6608	1	0.04	Q6603	D		131.0	C	81.0
	2	0.04		G		4.8	E	0
	3	18		S	0	Q6813	B	0.4
	4	7.0	Q6604	B	16.9		C	6.4
	5	4.2		C	17.6		E	0
	6	7.0		E	17.7	Q6814	B	9.1
	7	4.1	Q6605	B	0.8		C	3.0
	8	3.2		C	0.13		E	9.0
	9	5.0		E	0.12	Q6815	B	134.5
	10	8.8	Q6608	B	0.6		C	134.1
	11	5.0		C	0		E	135.0
	12	0		E	0	Q6816	B	0.6
	13	0.11	Q6609	B	4.9		C	0
	14	18		C	0		E	0
IC6800	1	1.1		E	5.0	Q6817	B	0
	2	13.5	Q6610	B	0.5		C	0.5
	3	-13.6		C	4.9		E	0
	4	-15		E	0.2	Q6818	B	3.0
	5	0.4	Q6611	B	0.4		C	0
	6	14.0		C	7.1		E	0
	7	1.1		E	0	Q6819	B	-9.0
IC6801	1	8.0	Q6613	B	0		C	-9.4
	2	1.5		C	0.6		E	-12.9
	3	3.1		E	0	Q6820	B	0.2
	4	0	Q6614	B	17.6		C	0.3
	5	3.8		C	0		E	0
	6	6.6		E	17.7	Q6821	B	0
	7	0.2	Q6617	B	0		C	-10.9
	8	9.0		C	7.0		E	0
		E		0	Q6823	B	0	
		Q6618	B	7.0		C	8.9	
			C	0		E	3.1	
			E	7.0				

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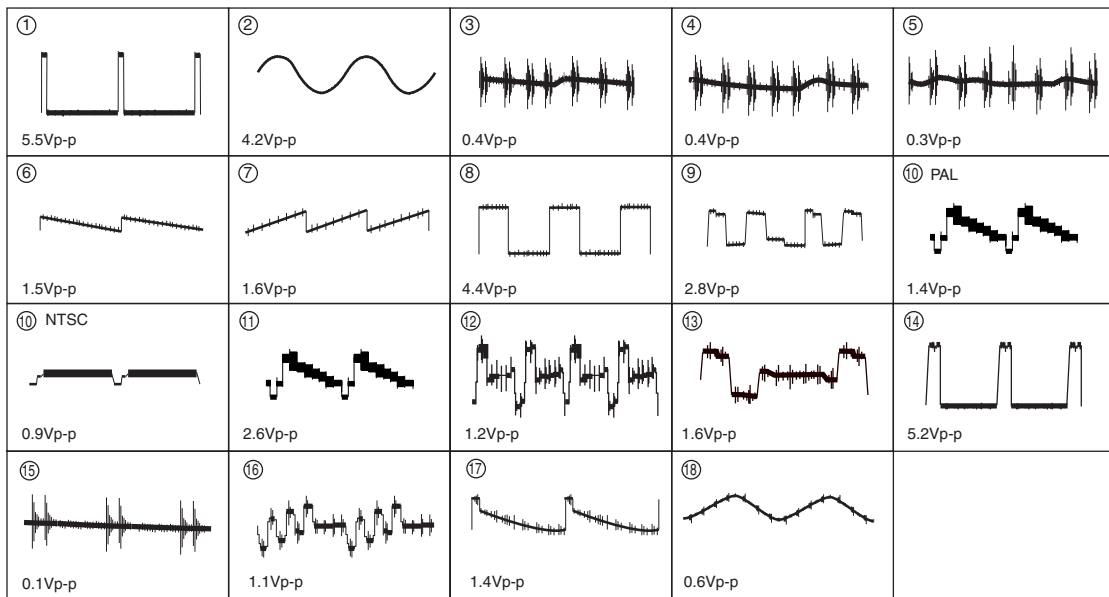
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D BOARD VOLTAGE LIST (KV-EX34 MODEL)

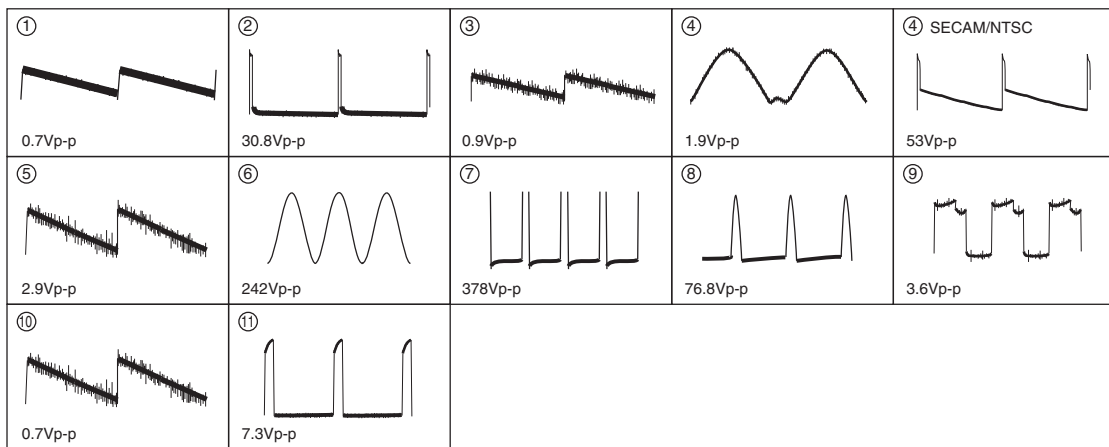
Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC6600	1	2.8	IC6805	I	13.7	Q6803	B	7.2
	2	1.9		G	0		C	0
	3	2.2		O	11.9		E	7.2
	4	2.5	IC6806	I	8.4	Q6804	B	7.2
	5	0		G	0		C	9.1
	6	0		O	6.3		E	0
	7	4.6		VC	2.2	Q6805	B	-0.4
	8	17.5	Q6100	D	320		C	65.5
	9	0		G	1.0		E	0
	10	10.2		S	0	Q6806	B	-0.3
	11	0	Q6102	B	0.4		C	54.5
	12	4.7		C	1.0		E	0
	13	*		E	0	Q6809	D	12.4
	14	142.8	Q6600	B	128		G	3.4
	15	133		C	297		S	0
	16	136.2		E	125	Q6810	D	104/SAJ35.8
	17	*	Q6601	B	0		G	2.0
	18	307		C	11.9		S	0.1
IC6601	1	2.4		E	0	Q6811	B	-0
	2	0	Q6602	B	0.3		C	-11.4
	3	5.0		C	18		E	0
IC6607	1	134.2		E	0	Q6813	B	0.4
	2	2.5	Q6603	B	4.8		C	6.5
	3	8.5		C	134		E	0
	4	0		E	0	Q6814	B	9.1
IC6608	1	0	Q6604	B	17.2		C	3.0
	2	0		C	17.9		E	9.1
	3	17.9		E	18.0	Q6815	B	134.5
	4	2.0	Q6605	B	0.8		C	134.7
	5	2.0		C	0.13		E	135.2
	6	2.0		E	0.12	Q6816	B	0.6
	7	1.9	Q6608	B	0.6		C	0.1
	8	3.2		C	0		E	0
	9	5.0		E	0	Q6817	B	0
	10	8.9	Q6609	B	4.9		C	0.6
	11	5.0		C	0		E	0
	12	0		E	5.0	Q6818	B	3.4
	13	0.1	Q6610	B	0.5		C	0
	14	17.9		C	4.9		E	0
IC6800	1	1.0		E	0.2	Q6819	B	-9.0
	2	14.2	Q6611	B	0		C	-9.4
	3	-14.3		C	3.9		E	-12.9
	4	-16.0		E	0	Q6820	B	2.4
	5	0.4	Q6613	B	0		C	5.4
	6	14.6		C	0.6		E	0
	7	1.0		E	0	Q6821	B	0
IC6801	1	7.2	Q6614	B	18.0		C	-10.9
	2	1.5		C	0		E	0
	3	2.6		E	18.0	Q6823	B	0
	4	0	Q6800	B	-0.5		C	8.9
	5	3.4		C	14.5		E	3.1
	6	6.7		E	0.9			
	7	0.2	IC6804	I	10.8			
	8	9.1		G	0			
		O		9.1				

8-4. WAVEFORMS

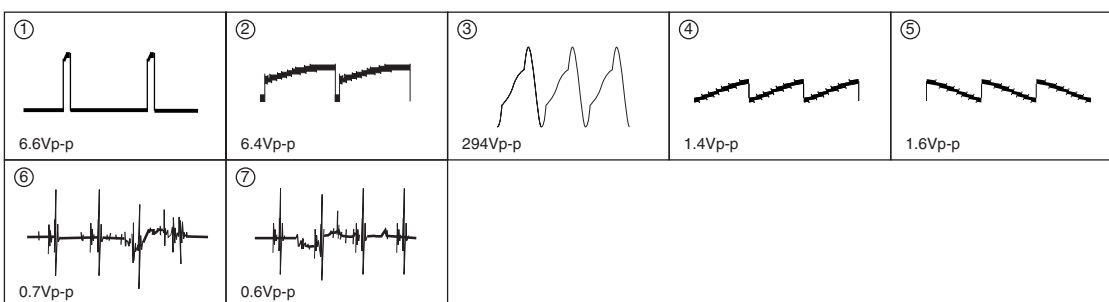
A BOARD WAVEFORMS



D BOARD WAVEFORMS



D1 BOARD WAVEFORMS

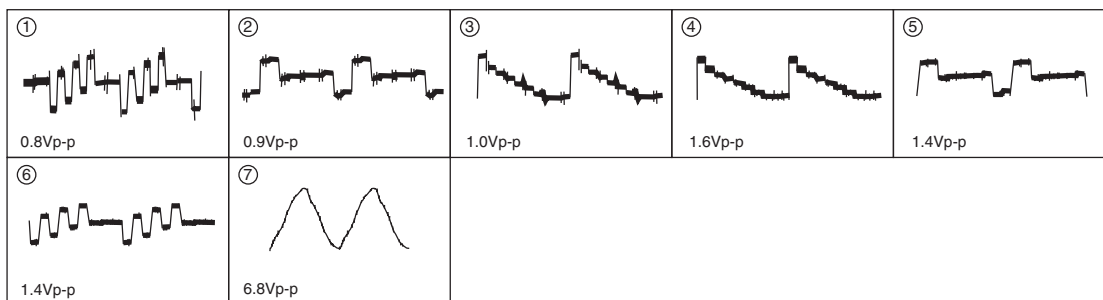
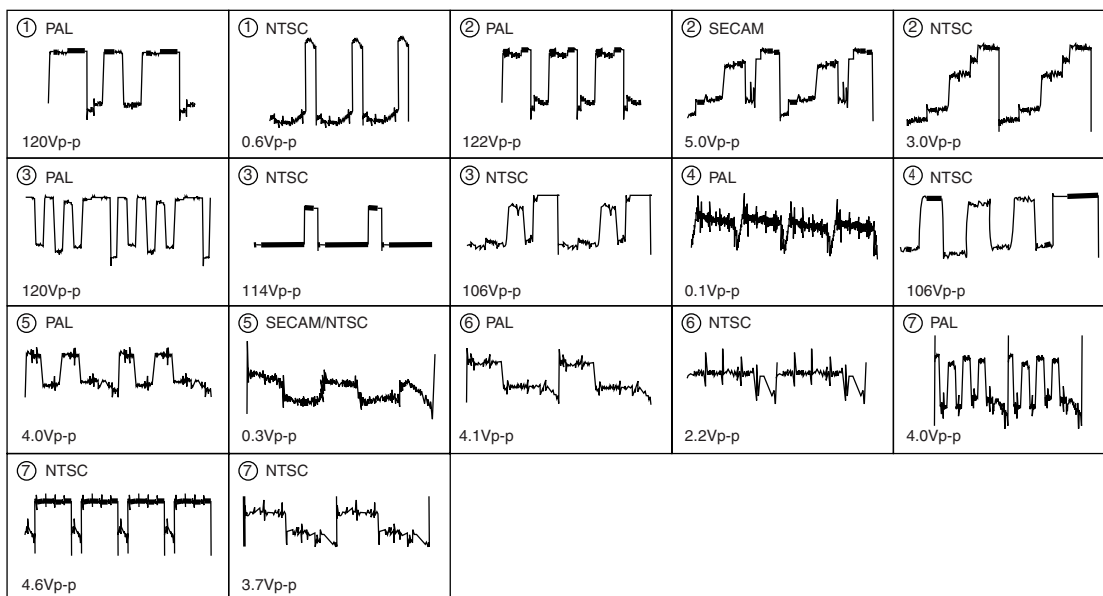
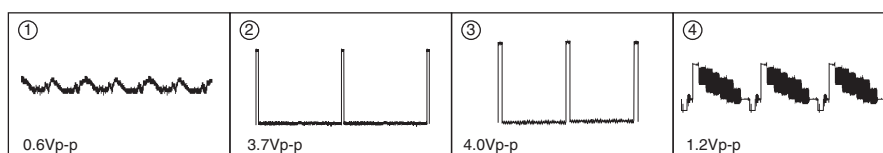


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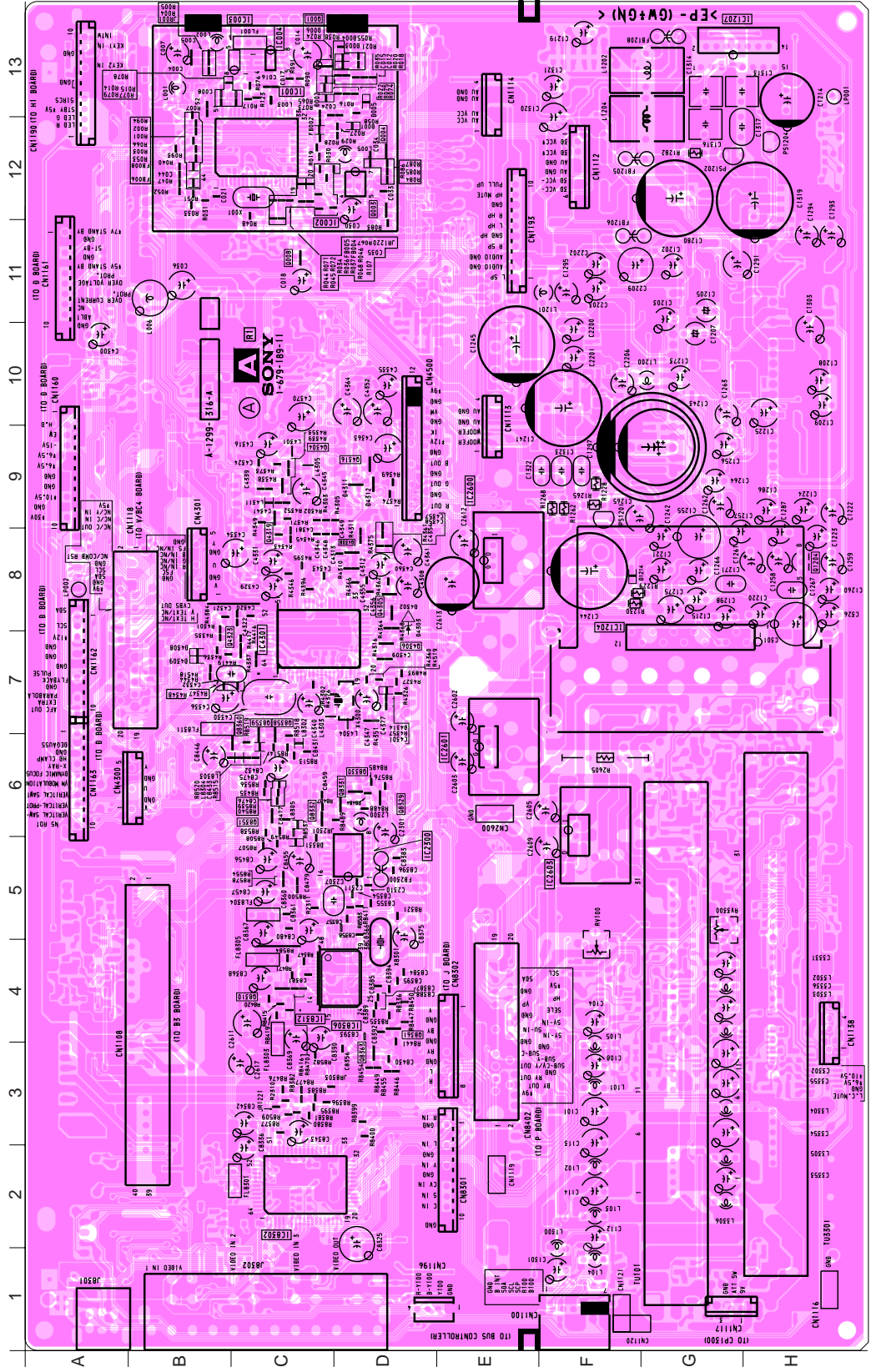
RM-963

B3 BOARD WAVEFORMS**C BOARD WAVEFORMS****V2 BOARD WAVEFORMS**

8-5. PRINTED WIRING BOARDS AND PARTS LOCATION
PRINTED WIRING BOARDS

A MAIN MICON, TUVIF, AUDIO AMPLIFIER, RGB OUT,
YCT, COMB FILTER, VIDEO/AUDIO I/O/UT

- A Board - (Component Side)



A BOARD (Component Side)

IC	TRANSISTOR	DIODE
IC001 C-13	Q001 C-13	D001 D-12
IC002 C-11	Q003 D-12	D002 C-13
IC003 C-13	Q004 D-12	D003 D-13
IC004 C-13	Q008 C-11	D004 D-13
IC1204 F-7	Q1204 H-8	D005 D-12
IC1207 G-13	Q4304 C-9	D006 C-13
IC2300 D-5	Q4305 D-8	D1214 F-8
IC2600 E-9	Q4306 D-7	D4302 D-8
IC2601 E-6	Q4308 D-8	D4303 D-8
IC2603 F-5	Q4316 D-9	D4308 B-7
IC4301 C-7	Q4319 C-8	D4309 B-7
IC8302 C-2	Q4323 B-7	D4311 D-9
IC8306 D-4	Q8310 C-4	D4312 D-9
IC8312 C-4	Q8329 D-6	D8331 C-5
	Q8330 D-6	
	Q8331 D-6	
	Q8335 C-6	
	Q8351 C-6	
	Q8358 C-7	
	Q8359 C-7	
	Q8360 C-7	
	Q8381 D-4	
	Q8383 D-3	

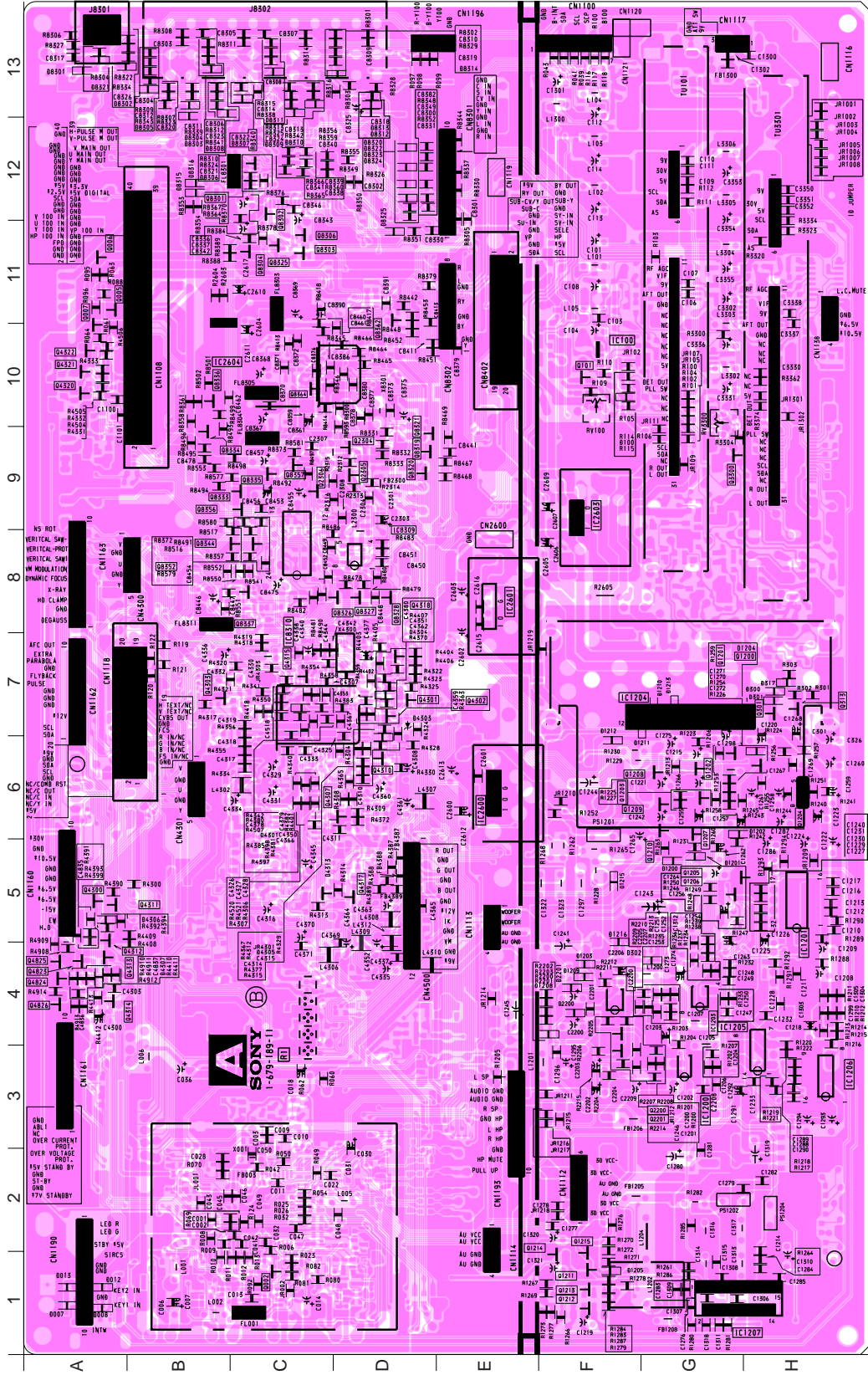
A BOARD (Conductor Side)

IC	Q8320	D9
IC001	Q8321	D10
IC1200	Q8325	C-11
IC1201	Q8326	D8
IC1204	Q8328	D-8
IC1204	Q8333	B-9
IC1205	Q8334	B-9
IC1206	Q8335	C-9
IC1207	Q8336	B-10
IC2200	Q8337	C-8
IC2600	Q8344	B-8
IC2601	Q8345	B-8
IC2603	Q8356	B-9
IC2604	Q8357	C-9
IC8309	Q8357	C-9
IC8310	Q8362	D-10
IC8364	Q8364	C-10
DIODE		
D007	A-1	
D008	A-1	
D012	A-1	
D013	A-1	
D100	F-9	
D300	H-7	
D301	H-7	
D302	F-4	
D307	H-7	
D1200	G-5	
D1201	G-5	
D1202	H-6	
D1203	F-4	
D1204	G-5	
D1205	G-5	
D1206	F-1	
D1207	G-5	
D1208	F-6	
D1209	F-4	
D1210	F-4	
D1211	F-6	
D1212	F-1	
D1213	F-1	
D1214	E-2	
D1215	F-2	
D1216	F-5	
D2200	G-3	
D2201	G-3	
D2202	F-4	
D2203	F-4	
D2204	F-4	
D2205	C-9	
D2206	D-7	
D2207	D-7	
D2208	C-4	
D2209	C-4	
D2210	B-5	
D2211	B-5	
D2212	C-5	
D2213	C-5	
D2214	A-13	
D2215	A-13	
D2216	B-12	
D2217	B-12	
D2218	B-12	
D2219	B-12	
D2220	B-12	
D2221	A-4	
D2222	A-4	
D2223	A-4	
D2224	A-4	
D2225	A-4	
D2226	A-4	
D2227	A-4	
D2228	A-4	
D2229	A-4	
D2230	A-4	
D2231	A-4	
D2232	A-4	
D2233	A-4	
D2234	A-4	
D2235	A-4	
D2236	A-4	
D2237	A-4	
D2238	A-4	
D2239	A-4	
D2240	A-4	
D2241	A-4	
D2242	A-4	
D2243	A-4	
D2244	A-4	
D2245	A-4	
D2246	A-4	
D2247	A-4	
D2248	A-4	
D2249	A-4	
D2250	A-4	
D2251	A-4	
D2252	A-4	
D2253	A-4	
D2254	A-4	
D2255	A-4	
D2256	A-4	
D2257	A-4	
D2258	A-4	
D2259	A-4	
D2260	A-4	
D2261	A-4	
D2262	A-4	
D2263	A-4	
D2264	A-4	
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D2266	A-4	
D2267	A-4	
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D2269	A-4	
D2270	A-4	
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D2291	A-4	
D2292	A-4	
D2293	A-4	
D2294	A-4	
D2295	A-4	
D2296	A-4	
D2297	A-4	
D2298	A-4	
D2299	A-4	
D2300	A-4	

KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

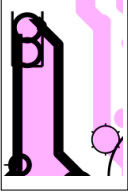
MAIN MICON, TUVIF, AUDIO AMPLIFIER, RGB OUT,
 YCT, COMB FILTER, VIDEO/AUDIO IN/OUT

- A Board - (Conductor Side)

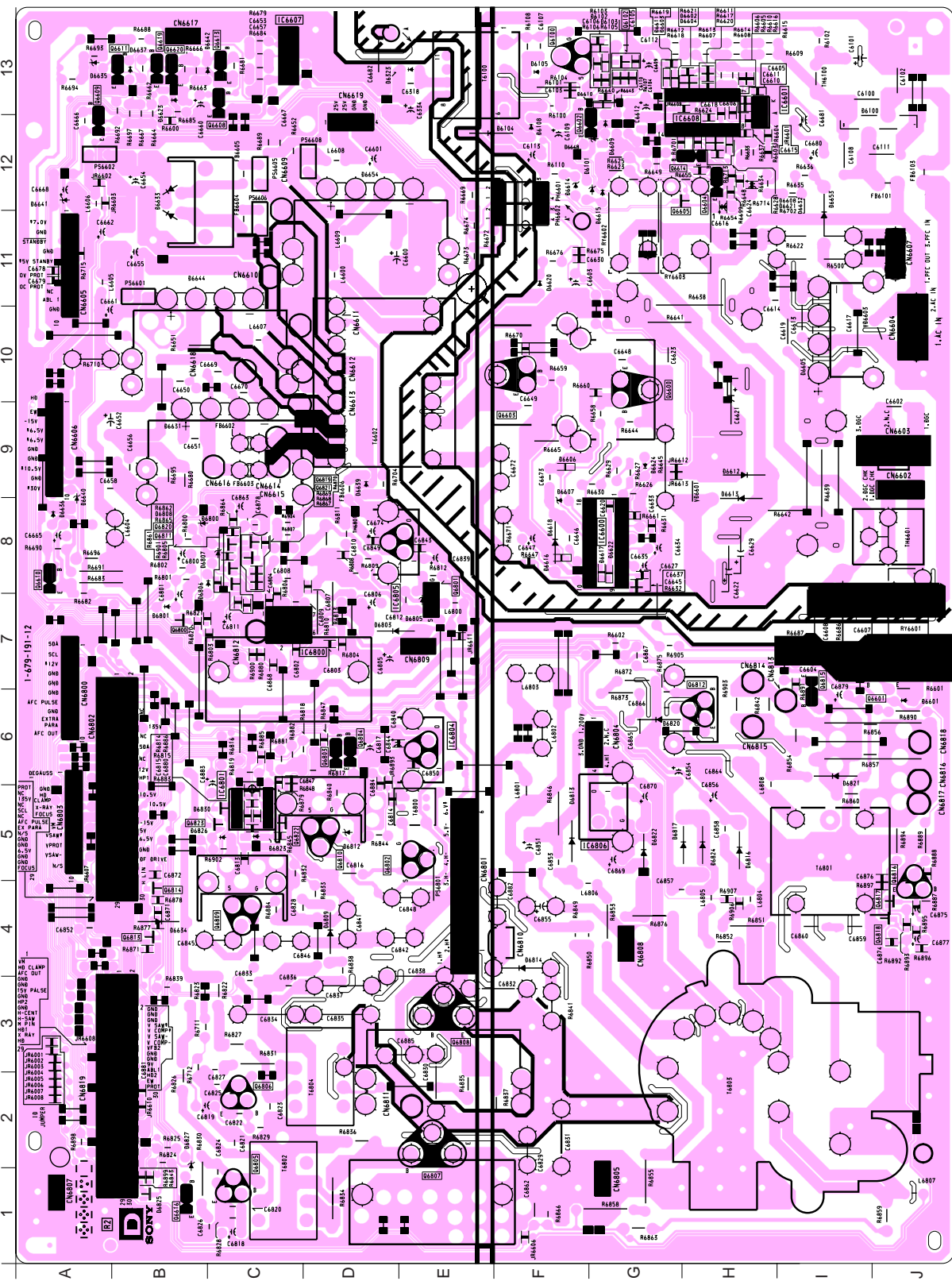


KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963
 KV-EX29M63 RM-964
 KV-EX34M39/EX34M69/EX34M87 RM-963

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.



PRINTED WIRING BOARDS
 [D] (POWER SUPPLY, DEFLECTION HV)
 -D Board -



D BOARD

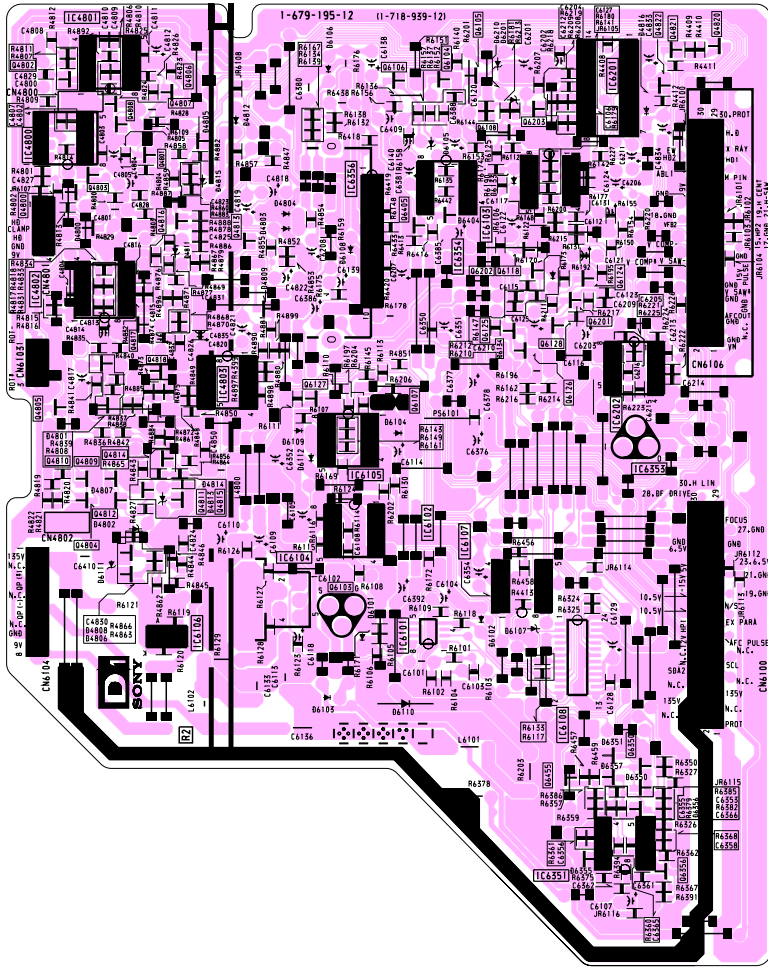
IC	D6104 F-12
IC6600 G8	D6105 F-13
IC6601 H13	D6108 F-12
IC6602 C13	D6203 F-13
IC6608 G12	D6601 G-6
IC6600 D7	D6602 G-13
IC6601 C5	D6603 G-13
IC6604 E6	D6604 F-10
IC6605 D7	D6606 F-9
IC6606 G5	D6607 F-9
IC6608 D7	D6608 L-12
IC6609 G-12	D6610 F-13
IC6611 G-13	D6611 G-13
IC6612 H-9	D6612 H-9
IC6613 H-8	D6613 H-8
IC6614 F-11	D6614 F-11
IC6615 G-11	D6615 G-11
IC6616 F-8	D6616 F-8
IC6617 G-8	D6617 G-8
IC6618 F-8	D6618 F-8
IC6619 A-13	D6620 F-11
IC6620 F-11	D6621 F-11
IC6621 B-13	D6622 B-13
IC6622 B-13	D6623 B-13
IC6623 B-13	D6624 G-9
IC6624 G-9	D6625 B-9
IC6625 B-9	D6626 L-2
IC6626 L-2	D6627 B-12
IC6627 B-12	D6628 B-4
IC6628 B-4	D6629 A-8
IC6629 A-8	D6630 D-9
IC6630 D-9	D6631 B-8
IC6631 B-8	D6632 D-5
IC6632 D-5	D6633 C-5
IC6633 C-5	D6634 B-7
IC6634 B-7	D6635 A-8
IC6635 A-8	D6636 A-8
IC6636 A-8	D6637 D-7
IC6637 D-7	D6638 C-5
IC6638 C-5	D6639 C-5
IC6639 C-5	D6640 A-8
IC6640 A-8	D6641 A-12
IC6641 A-12	D6642 B-12
IC6642 B-12	D6643 B-11
IC6643 B-11	D6644 G-12
IC6644 G-12	D6645 E-3
IC6645 E-3	D6646 D-2
IC6646 D-2	D6647 C-8
IC6647 C-8	D6648 B-7
IC6648 B-7	D6649 C-5
IC6649 C-5	D6650 G-6
IC6650 G-6	D6651 B-8
IC6651 B-8	D6652 H-7
IC6652 H-7	D6653 E-7
IC6653 E-7	D6654 B-8
IC6654 B-8	D6655 B-8
IC6655 B-8	D6656 B-8
IC6656 B-8	D6657 J-5
IC6657 J-5	D6658 D-4
IC6658 D-4	D6659 D-5
IC6659 D-5	D6660 F-4
IC6660 F-4	D6661 F-5
IC6661 F-5	D6662 H-6
IC6662 H-6	D6663 G-5
IC6663 G-5	D6664 H-5
IC6664 H-5	D6665 B-4
IC6665 B-4	D6666 G-2
IC6666 G-2	D6667 B-2
IC6667 B-2	D6668 B-4
IC6668 B-4	D6669 G-13
IC6669 G-13	

PRINTED WIRING BOARDS

D1 [DYNAMIC FOCUS, DYNAMIC QUAD POLE DRIVE, HORIZONTAL DRIVE GENERATOR]

H1 [AC SW, AV INPUT, PRESET KEY, PHONE OUT, LED, SIRCS RECEIVER]

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

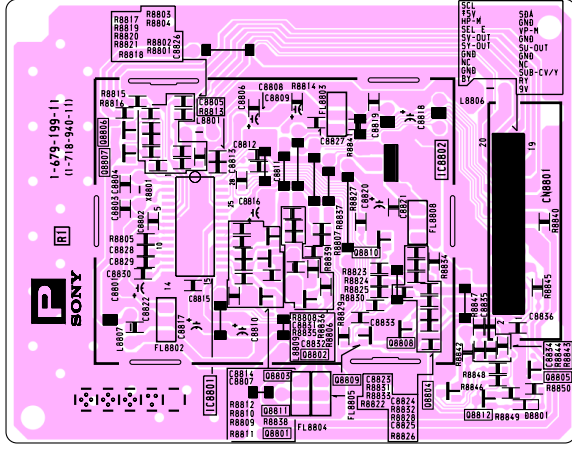


- D1 Board -

P [PICTURE IN PICTURE]

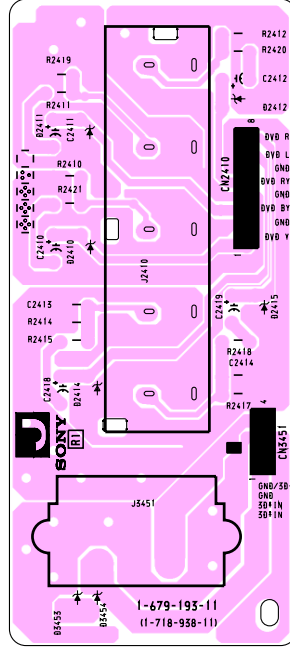
J [COMPONENT IN]

KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

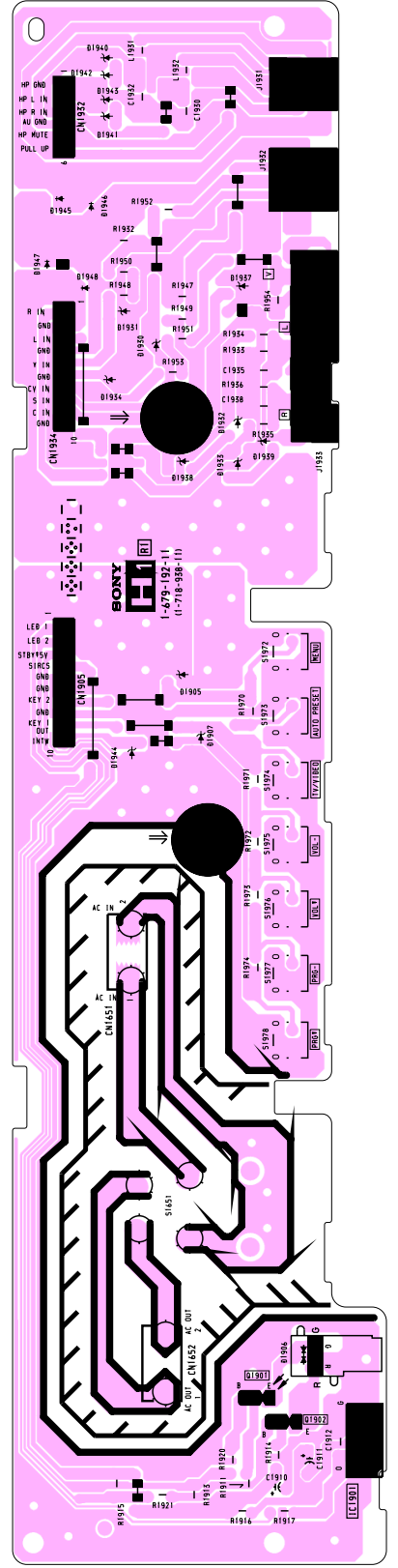


- P Board - (EXCEPT KV-EX29M63)

- J Board -



- J Board -



- H1 Board -

KV-EX29M63
RM-964
KV-EX34M39/EX34M69
RM-963

KV-EX29M63
RM-964
KV-EX34M39/EX34M87
RM-963

PRINTED WIRING BOARDS

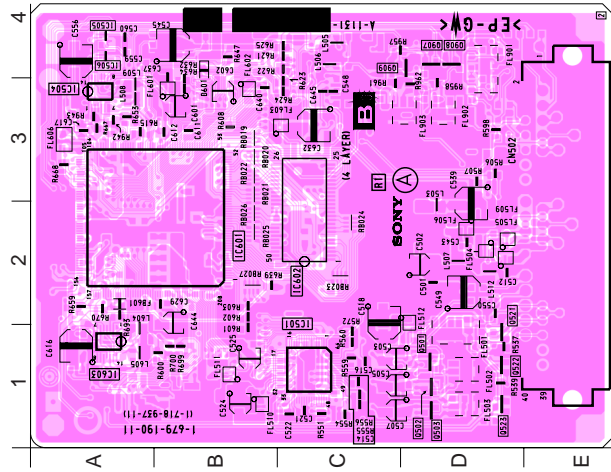
B3

[DIGITAL REALITY CREATION]

DH

[MAGNETIC FIELD CORRECTION]

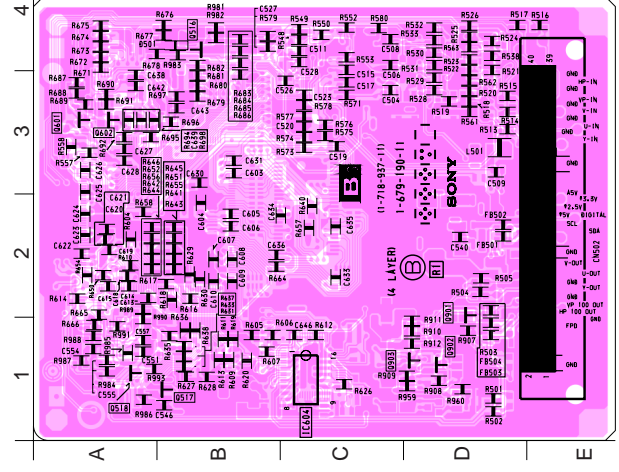
- B3 Board - (Component Side)



IC	
IC501	C-1
IC504	A-3
IC505	A-4
IC601	B-2
IC602	C-2
IC603	A-1
TRANSISTOR	
Q501	D-1
Q502	D-1
Q521	D-2
Q522	D-1
Q523	D-1
Q807	D-4
Q808	D-4
Q809	C-4
DIODE	
D601	B-3

B3 BOARD (Component Side)

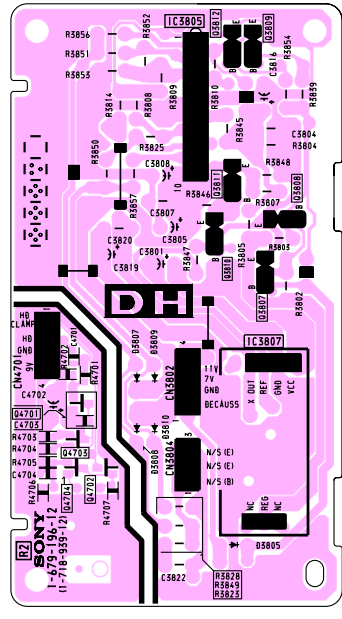
- B3 Board - (Conductor Side)



IC	
IC604	C-1
TRANSISTOR	
Q516	B-4
Q517	B-1
Q518	A-1
Q601	A-3
Q602	A-3
Q901	D-2
Q902	D-1
Q903	C-1
TRANSISTOR	
D501	A-4

B3 BOARD (Conductor Side)

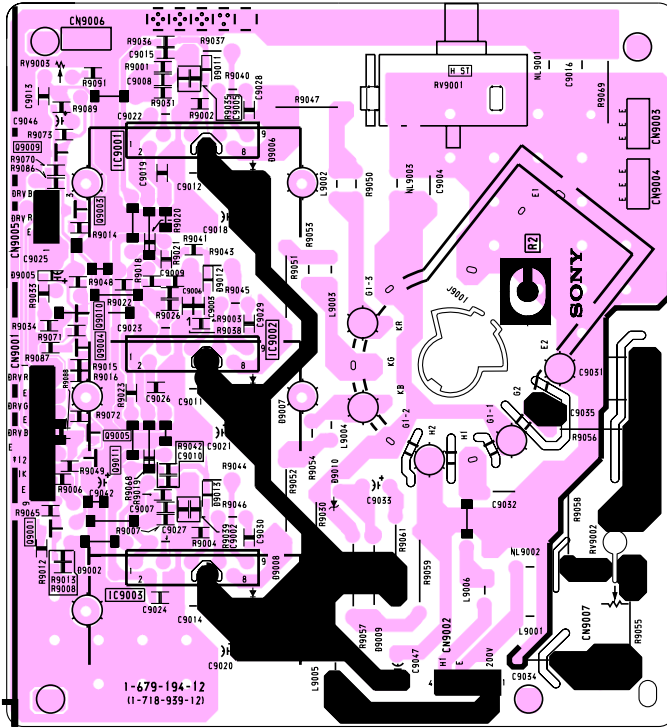
- DH Board -



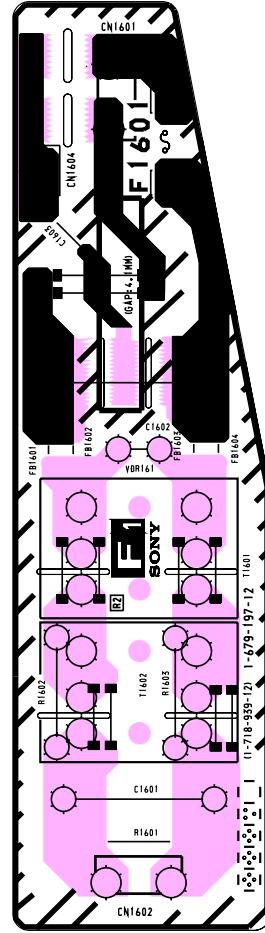
KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

F1 [AC LINE FILTER]

- C Board -



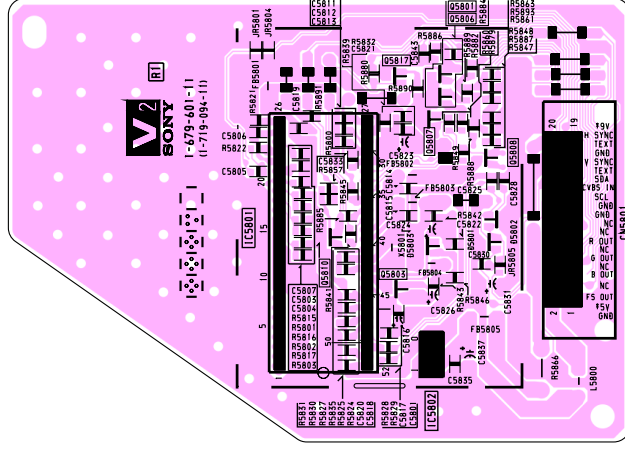
- F1 Board -



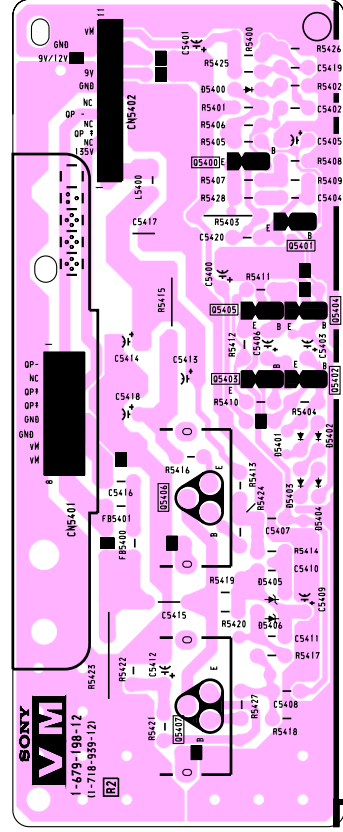
KV-EX29M63
RM-964
KV-EX34M39/EX34M69/EX34M87
RM-963

V2 [TELETEXT]

- V2 Board - (KV-EX34M39/EX34M69 Only)

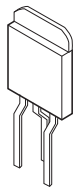
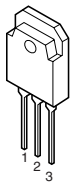
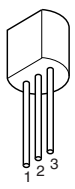
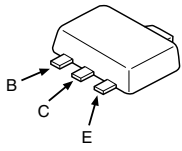
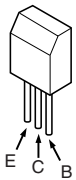
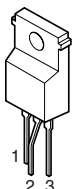


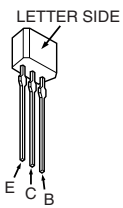
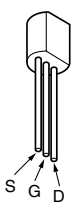
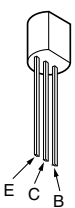
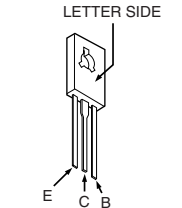
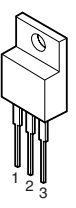
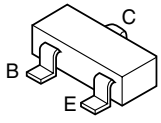
- VM Board -



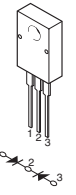
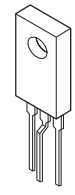
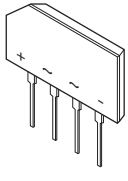
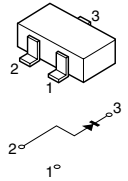
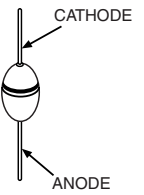
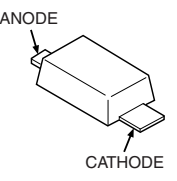
8-6 SEMICONDUCTORS

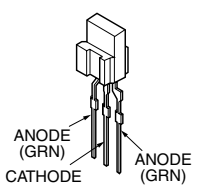
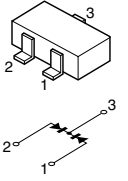
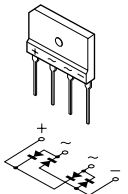
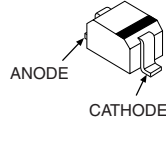
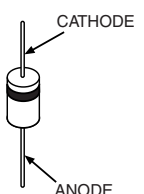
TRANSISTOR

					
2SK2663	2SC5480-01	2SA933AS-QT 2SA1776TV2Q	2SK2036(TE85L)	2SB733-34 2SD774-34	IRF720-LF49

					
DTC144ESA 2SA1175-HFE 2SC2785-HFE 2SC3311A-QRSTA	2SK246-GR	2SC2500-B	2SC3601-E- T.12 2SC2688-LK	2SA2005 2SC5511 2SC3840(3) IRF1830G-LF49 IRFIB7N50A BA12T BA09T	DTC144EKA 2SA1037AK-T146R 2SA1162-YG 2SC1623-L5L6 2SC2712-YG 2SD601A-Q DTC144TKA-T146 UN2213 2SD2114K

DIODE

					
D10SC4M	D10SBS4F	D2SB60A-F04	MA3091- D.04 RD6.2M-B2	U05G	MA8039 DTZ.T11-15B

					
SPB-26MVWF	DAN202K	EZ0150AV1 D4SBL20U D4SB60L	DTZ9.1 DTZ-TT11-16B MA111-(K8).S0 MA113-(TX) RD5.6SB3-T1 RD9.1S-B 1SS355TE-17	D1NL20U-TR GP08D HSS83TD NNCD9.1A-T1 HZS9.1NB2 UF4005PKG23 1SS119-25	1SS133T-77 RGP02-20EL-6394 D1NS6 ERA22-08 EL1Z 10ELS2N-TB5 EU2A S3L20UF4

KV-EX29M63

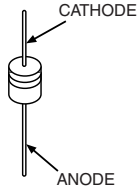
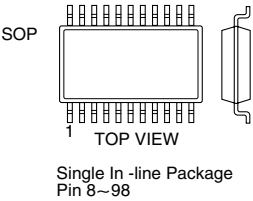
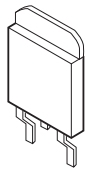
RM-964

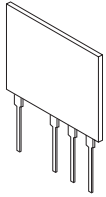
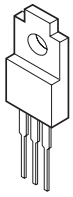
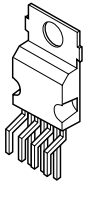
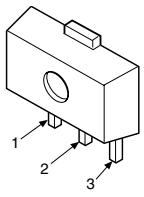
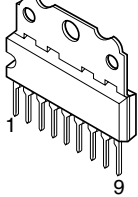
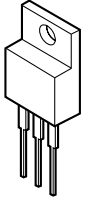
KV-EX34M39/EX34M69/EX34M87

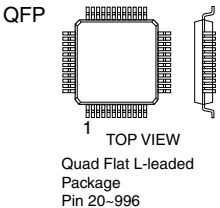
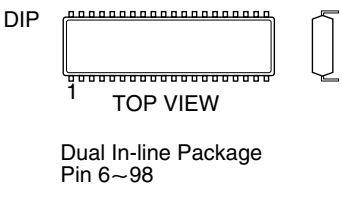
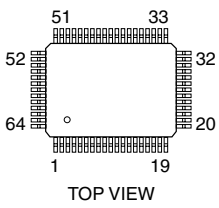
RM-963

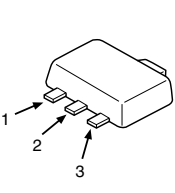

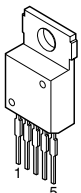
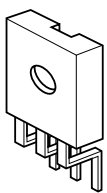
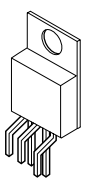
DIODE

IC

					
<p>D1NS4 ERA82-009 MTZJ-T-77-10 MTZJ-T-77-22 MTZJ-T-77-2.2B RD5.1ESB2 RD2.2ESB2 RD10ESB2 RD2.7ESB2 RD4.7ESB2</p>	<p>RD12ESB1 RD30ESB2 RD22ESB1 ERA85-009 MTZJ-2.7A MTZJ-T-77-12 ERA38-06 MTZJ-30A D1N20R RD6.8ESB2</p>	<p>MTZJ-7.5B MTZJ-T-77-12 MTZJ-T-77-15 RD18ES-B2 RD18ESB RD3.6ES-B1 RD6.8ES-B1 RD7.5ES-B2 RD15ES-B1 RD3.9ES-B2</p>	<p>MB88141APF-ER CXA1875AM-T4 TLC2932IPW TLC2933IPWR MB81F161622B-80FN TC7SET00FU(TE85R) CXA1211 SDA9588X</p>	<p>UPC358C M24C16-MN6T TDA9178T/N1.118 BH3868AFS-E2 UPC4558G2 NJM4560M MM1115XFBE MM1476AF(TP)</p>	<p>BA033FP-E2</p>

					
DM-58	L49040V5	STV9379	S-80743AL-A7-S	TDA6111Q/N4	TA7805S PQ09RF2 2SK2251-01

<p>QFP</p> 	<p>DIP</p> 			
<p>CXD2090Q</p>	<p>CA0007AD CA0005AD NJM3404ADW SDA5254-2B006 LM393N</p>	<p>NJM386BL NJU4066BM TDA9181T UPC399-C</p>	<p>TLC5733AIPM CXA2069Q CXA2100AQ CXP750096-030Q CXA2123AQ-T6</p>	

					
PQ07VZ012P	UPC1093J-1-T TA78L05S	LA6500-FA LA6510	SBX1981-51P	BA033T	

SECTION 9 EXPLODED VIEWS

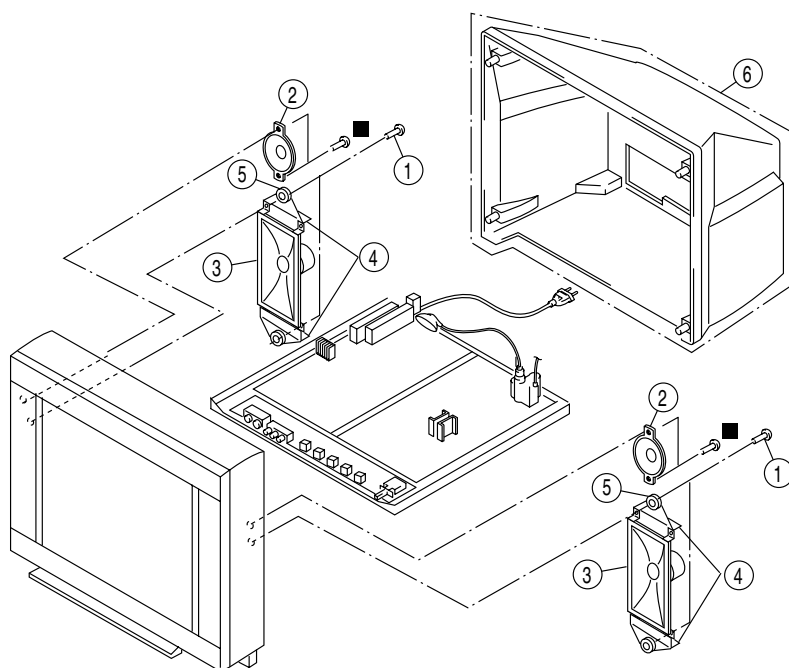
NOTE:

- 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 \triangle are critical for safety.
Replace only with part number specified.

9-1. SPEAKER BRACKET

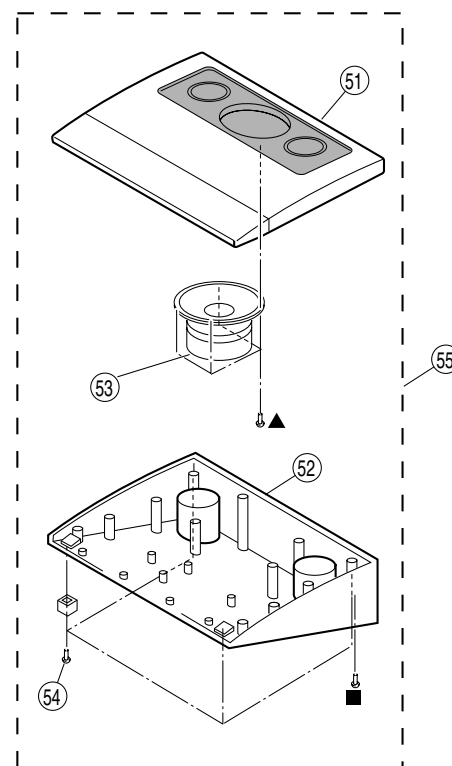
■ : 7-685-663-71 SCREW +BVTP 4 × 16



9-2. 3D SPEAKER

■ : 7-685-663-71 SCREW +BVTP 4 × 16

▲ : 7-685-661-14 SCREW +BVTP 4 × 12



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
1	4-302-404-03	SCREW (WASHER HEAD)(+P4 x 16)		51	* 4-076-059-01	3D BOX, TOP	(■ 20 SCREWS)
2	1-529-190-11	SPEAKER (5CM)		52	* 4-076-060-01	3D BOX, BOTTOM	
3	1-503-902-41	SPEAKER (15 x 6.5CM)		53	1-529-839-11	SPEAKER, (16CM)	
4	* 4-046-981-01	BRACKET,SPEAKER		54	4-302-428-03	SCREW (WASHER HEAD)(+P3 x 12)	
5	4-374-745-21	CUSHION (A)		55	A-1501-737-A	3D BOX ASSY	51-54
6	X-4038-161-1	REAR COVER ASSY (■ 12 SCREWS) (KV-EX29M63)					
	X-4038-310-1	REAR COVER ASSY (■ 14 SCREWS) (EXCEPT KV-EX29M63)					

KV-EX29M63

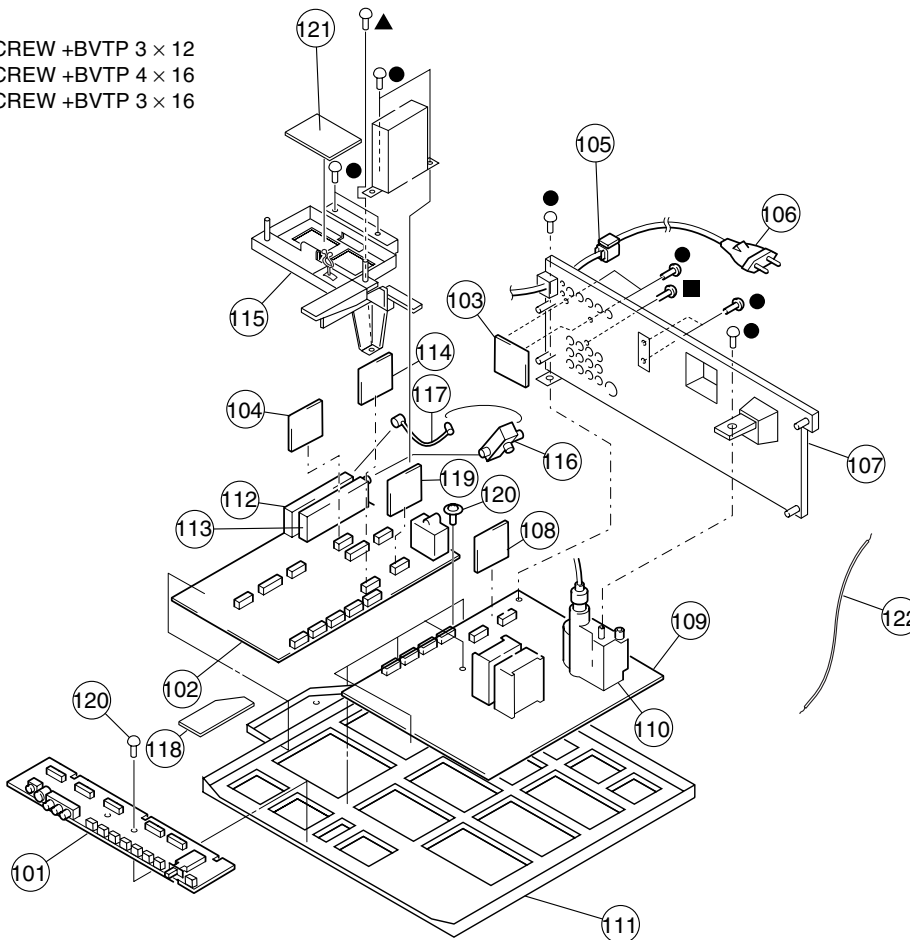
RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

9-3. CHASSIS

- : 7-685-648-79 SCREW +BVTP 3 × 12
- : 7-685-663-71 SCREW +BVTP 4 × 16
- ▲ : 7-685-650-79 SCREW +BVTP 3 × 16



REF. NO.	PART NO.	DESCRIPTION	REMARK
101	* A-1372-869-A	H1 BOARD, MOUNTED (EXCEPT KV-EX29M63)	
	* A-1372-907-A	H1 BOARD, MOUNTED (KV-EX29M63)	
102	* A-1299-376-A	A BOARD, COMPLETE (KV-EX29M63)	
	* A-1299-380-A	A BOARD, COMPLETE (KV-EX34M39/M69)	
	* A-1299-383-A	A BOARD, COMPLETE (KV-EX34M87)	
103	* A-1388-286-A	J BOARD, MOUNTED (EXCEPT KV-EX29M63)	
	* A-1388-295-A	J BOARD, MOUNTED (KV-EX29M63)	
104	* A-1195-161-A	P BOARD, COMPLETE (EXCEPT KV-EX29M63)	
105	▲ 4-022-115-12	HOLDER, AC CORD (EXCEPT KV-EX29M63)	
	▲ 4-022-115-31	HOLDER, AC CORD (KV-EX29M63)	
106	▲ 1-575-023-31	CORD, POWER (WITH CONNECTOR) 5A/250V (KV-EX29M63 ONLY)	
	▲ 1-792-035-11	CORD, POWER (WITH FILTER) (KV-EX34M39)	
	▲ 1-791-439-11	CORD, POWER (WITH CONNECTOR) (KV-EX34M69/M87)	
107	* 4-075-447-01	BRACKET, TERMINAL (EXCEPT KV-EX29M63)	
	* 4-075-447-21	BRACKET, TERMINAL (KV-EX29M63)	
108	* A-1343-987-A	D1 BOARD, MOUNTED (KV-EX29M63)	
	* A-1343-962-A	D1 BOARD, MOUNTED (EXCEPT KV-EX29M63)	
109	* A-1348-013-A	D BOARD, COMPLETE (KV-EX29M63)	
	* A-1348-020-A	D BOARD, COMPLETE (KV-EX34M39)	
	* A-1346-995-A	D BOARD, COMPLETE (KV-EX34M69)	
	* A-1348-019-A	D BOARD, COMPLETE (KV-EX34M87)	
110	▲ 1-453-349-11	TRANSFORMER ASSY, FLYBACK (NX-4522/J114) (KV-EX29M63)	

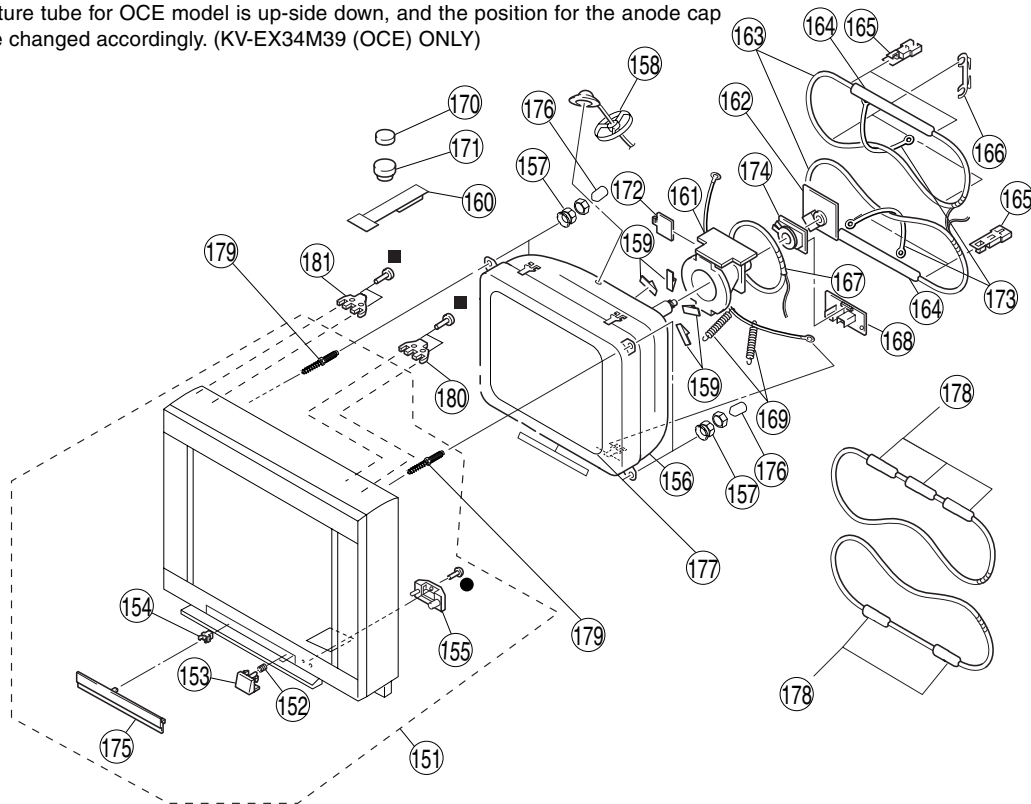
REF. NO.	PART NO.	DESCRIPTION	REMARK
	▲ 1-453-326-11	TRANSFORMER ASSY, FLYBACK (NX-4601/J114) (KV-EX34M87/KV-EX34M69)	
	▲ 1-453-332-21	TRANSFORMER ASSY, FLYBACK (NX-4601/J1B4) (KV-EX34M39)	
111	* 4-075-446-01	BRACKET, MAIN	
112	8-598-508-10	TUNER, FSS BTF-LG436 (EXCEPT KV-EX29M63)	
113	8-598-452-20	TUNER, FSS BTF-WG442 (KV-EX34M39/M69)	
	8-598-451-00	TUNER, FSS BTF-WG441 (KV-EX29M63)	
	8-598-450-10	TUNER, FSS BTF-LG434 (KV-EX34M87)	
114	* A-1347-165-A	V2 BOARD, COMPLETE (KV-EX34M39/M69 ONLY)	
115	* 4-076-315-01	BRACKET, PWB	
116	1-251-658-21	SPLITTER RF (EXCEPT KV-EX29M63)	
117	1-555-110-00	P-P CABLE (EXCEPT KV-EX29M63)	
118	* A-1241-446-A	F1 BOARD, MOUNTED (KV-EX29M63)	
	A-1241-448-A	F1 BOARD, MOUNTED (EXCEPT KV-EX29M63)	
119	* A-1136-132-A	B3 BOARD, COMPLETE (EXCEPT KV-EX29M63)	
	* A-1136-150-A	B3 BOARD, COMPLETE (KV-EX29M63)	
120	4-046-797-01	SCREW (3 x 12)(+)BVTP (EXCEPT KV-EX29M63)	
	4-046-797-21	SCREW (3 x 12)(+)BVTP (KV-EX29M63)	
121	* A-1343-998-A	DH BOARD, MOUNTED (KV-EX34M69)	
	* A-1333-012-A	DH BOARD, MOUNTED (KV-EX29M63)	
	* A-1333-004-A	DH BOARD, MOUNTED (KV-EX34M39/M87)	
122	1-900-251-82	LEAD ASSY, G2 (KV-EX34M69/M87 ONLY) (CN9007 (AT C BOARD) TO CN6810 (AT D BOARD))	
	1-900-252-15	LEAD ASSY, G2 (KV-EX34M39) (CN9007 (AT C BOARD) TO CN6810 (AT D BOARD))	

9-4. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16

NOTE: The picture tube for OCE model is up-side down, and the position for the anode cap and springs are changed accordingly. (KV-EX34M39 (OCE) ONLY)



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
151	X-4038-241-1	BEZNET ASSY (KV-EX29M63)	152-155,175,179	164	* 4-063-935-21	CUSHION (50 x 550), DGC (KV-EX29M63)	
	X-4038-458-1	BEZNET ASSY (KV-EX34M87)	152-155,175,179	165	* 4-062-970-12	CLIP (29RSN), DGC (KV-EX29M63)	
	X-4038-445-1	BEZNET ASSY (KV-EX34M39/KV-EX34M69)	152-155,175,179		4-069-493-02	CLIP, DGC (EXCEPT KV-EX29M63)	
152	4-036-405-11	SPRING, COMPRESSION		166	4-064-883-03	HOLDER, DGC (KV-EX29M63)	
153	4-075-747-01	BUTTON, POWER			4-061-369-01	HOLDER, DEGAUSE COIL (EXCEPT KV-EX29M63)	
154	4-047-464-01	CATCHER, PUSH		167	1-452-896-91	COIL, NA ROTATION (KV-EX29M63)	
155	* 4-075-749-01	GUIDE, LIGHT			1-452-896-11	COIL, NA ROTATION (RT200) (EXCEPT KV-EX29M63)	
156	△ 8-735-056-05	PICTURE TUBE (M68LNH070X) (KV-EX29M63)		168	* A-1342-570-A	VM BOARD, MOUNTED (EXCEPT KV-EX29M63)	
	△ 8-735-063-05	PICTURE TUBE (A80LPD10X) (KV-EX34M69)			* A-1342-584-A	VM BOARD, MOUNTED (KV-EX29M63)	
	△ 8-735-062-05	PICTURE TUBE (A80LDP10X) (KV-EX34M39/M87)		169	4-078-765-11	SPRING, EXTENSION (KV-EX29M63)	
157	4-387-204-01	NUT SPECIAL, CRT			4-078-766-01	SPRING, EXTENSION (EXCEPT KV-EX29M63)	
158	* 3-704-372-11	HOLDER, HV CABLE		170	1-452-032-00	MAGNET, DISC	
159	3-703-961-01	SPACER DY (EXCEPT KV-EX29M63)		171	1-452-094-00	CIRCULAR DISC MAGNET B	
	4-064-818-01	SPACER DY (KV-EX29M63)		172	4-077-228-01	PIECE, TLH CONVERGENCE	
160	X-4387-214-3	PERMALOY ASSY, CORRECTION (EXCEPT KV-EX29M63)		173	4-079-376-01	BAND, DGC (KV-EX29M63)	
	4-051-734-42	PIECE B (120), CONV. CORRECT (KV-EX29M63)			4-067-455-01	BAND, DGC (EXCEPT KV-EX29M63)	
161	△ 8-451-504-61	DEFLECTION YOKE (Y29RSC-S2) (KV-EX29M63)		174	8-453-011-11	NA299-M (KV-EX29M63)	
	△ 8-451-500-31	DEFLECTION YOKE (Y34RSC2-M3) (EXCEPT KV-EX29M63)			8-453-007-31	NA324-M3 (EXCEPT KV-EX29M63)	
162	* A-1332-131-A	C BOARD, MOUNTED (KV-EX29M63)		175	4-075-748-11	CONTROL, DOOR (KV-EX29M63)	
	* A-1332-123-A	C BOARD, MOUNTED (EXCEPT KV-EX29M63)			4-075-748-01	CONTROL, DOOR (KV-EX34M39/M69)	
163	△ 1-419-323-11	COIL, DEGAUSSING (KV-EX29M63)			4-075-748-41	CONTROL, DOOR (KV-EX34M87)	
	△ 1-419-293-11	COIL, DEGAUSSING (EXCEPT KV-EX29M63)		176	4-074-060-01	CAP, SCREW (EXCEPT KV-EX29M63)	
				177	1-416-871-11	COIL, LANDING CORRECTION (KV-EX34M69 ONLY)	
				178	* 4-074-512-21	CUSHION (S), DGC (EXCEPT KV-EX29M63)	
				179	4-079-175-01	SCREW, CRT (TAPPING 7+M 8)	
				180	* X-4038-461-2	CRT (TOP, RIGHT) SUPPORT ASSY (KV-EX29M63 ONLY) (■ 2 SCREWS)	
				181	* X-4038-460-2	CRT (TOP, LEFT) SUPPORT ASSY (KV-EX29M63 ONLY) (■ 2 SCREWS)	

SECTION 10 ELECTRICAL PARTS LIST

A

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 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-1299-376-A		A BOARD, COMPLETE (KV-EX29M63) *****		C104	1-126-933-11	ELECT 100UF	20.00% 16V
* A-1299-380-A		A BOARD, COMPLETE (KV-EX34M39/EX24M69) *****		C107	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
* A-1299-383-A		A BOARD, COMPLETE (KV-EX34M87) *****		C108	1-126-933-11	ELECT 100UF	20.00% 16V
				C109	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
				C110	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
4-073-258-61		HEAT SINK, V OUT (KV-EX29M63 ONLY)		C111	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
4-382-854-11		SCREW (M3X10), P, SW (+)		C112	1-126-933-11	ELECT 100UF	20.00% 16V
		<CAPACITOR>		C113	1-126-967-11	ELECT 47UF	20.00% 50V
C001	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C114	1-126-967-11	ELECT 47UF	20.00% 50V
C002	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C301	1-126-767-11	ELECT 1000UF	20.00% 16V
C004	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	C326	1-126-964-11	ELECT 10UF	20.00% 50V
C005	1-163-001-11	CERAMIC CHIP 220PF	10.00% 50V	C1100	1-163-239-11	CERAMIC CHIP 33PF	5.00% 50V
C006	1-107-725-11	CERAMIC CHIP 0.1UF	10.00% 16V	C1101	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C007	1-126-933-11	ELECT 100UF	20.00% 16V	C1200	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C009	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C1201	1-216-295-11	SHORT 0	
C010	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C1202	1-104-664-11	ELECT 47UF	20.00% 16V
C012	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C1203	1-104-664-11	ELECT 47UF	20.00% 16V
C013	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C1204	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C014	1-126-967-11	ELECT 47UF	20.00% 50V	C1205	1-107-698-11	ELECT 10UF	20.00% 25V
C015	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C1206	1-216-295-11	SHORT 0	
C016	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V	C1207	1-107-698-11	ELECT 10UF	20.00% 25V
C017	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	C1208	1-126-960-11	ELECT 1UF	20.00% 50V
C018	1-104-665-11	ELECT 100UF (EXCEPT KV-EX29M63)	20.00% 10V	C1209	1-126-960-11	ELECT 1UF	20.00% 50V
C021	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C1210	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00% 50V
C024	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C1211	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C028	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V	C1212	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C030	1-104-664-11	ELECT 47UF	20.00% 25V	C1213	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V
C031	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C1215	1-126-960-11	ELECT 1UF	20.00% 50V
C032	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C1216	1-164-344-11	CERAMIC CHIP 0.068UF	10.00% 25V
C033	1-115-339-11	CERAMIC CHIP 0.1UF	10.00% 50V	C1217	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C034	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V	C1218	1-164-489-11	CERAMIC CHIP 0.22UF	10.00% 16V
C035	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1220	1-126-960-11	ELECT 1UF	20.00% 50V
C036	1-104-665-11	ELECT 100UF	20.00% 25V	C1222	1-126-963-11	ELECT 4.7UF	20.00% 50V
C041	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1223	1-126-963-11	ELECT 4.7UF	20.00% 50V
C042	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1224	1-126-965-11	ELECT 22UF	20.00% 50V
C043	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1225	1-104-665-11	ELECT 100UF	20.00% 25V
C044	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1226	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C045	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1227	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C046	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1228	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C047	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1229	1-115-185-11	CERAMIC CHIP 0.033UF	10.00% 50V
C048	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1230	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00% 50V
C050	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C1231	1-164-344-11	CERAMIC CHIP 0.068UF	10.00% 25V
C103	1-107-725-11	CERAMIC CHIP 0.1UF	10.00% 16V	C1232	1-117-720-11	CERAMIC CHIP 4.7UF	10V
				C1233	1-117-720-11	CERAMIC CHIP 4.7UF	10V
				C1240	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
				C1241	1-128-550-11	ELECT 2200UF	20.00% 50V
				C1243	1-131-612-11	ELECT 6800UF	20% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1244	1-128-550-11	ELECT	2200UF 20.00% 50V	C2208	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C1245	1-128-550-11	ELECT	2200UF 20.00% 50V	C2209	1-126-968-11	ELECT	100UF 20.00% 50V
C1247	1-164-505-11	CERAMIC CHIP	2.2UF 16V	C2301	1-126-965-11	ELECT	22UF 20.00% 50V
C1248	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	C2303	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1249	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	C2304	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1250	1-164-505-11	CERAMIC CHIP	2.2UF 16V	C2307	1-136-165-00	FILM	0.1UF 5.00% 50V
C1251	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	C2308	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V
C1252	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	C2600	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1253	1-164-505-11	CERAMIC CHIP	2.2UF 16V	C2601	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1254	1-163-038-11	CERAMIC CHIP	0.1UF 25V	C2602	1-126-933-11	ELECT	100UF 20.00% 16V
C1255	1-126-941-11	ELECT	470UF 20.00% 25V	C2603	1-126-933-11	ELECT	100UF 20.00% 16V
C1256	1-126-964-11	ELECT	10UF 20.00% 50V	C2605	1-104-665-11	ELECT	100UF 20.00% 10V
C1257	1-126-933-11	ELECT	100UF 20.00% 16V	C2606	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1258	1-126-960-11	ELECT	1UF 20.00% 50V	C2607	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1259	1-126-964-11	ELECT	10UF 20.00% 50V	C2609	1-104-665-11	ELECT	100UF 20.00% 10V
C1261	1-126-960-11	ELECT	1UF 20.00% 50V	C2610	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1262	1-126-960-11	ELECT	1UF 20.00% 50V	C2611	1-126-924-11	ELECT	330UF 20.00% 10V
C1263	1-126-965-11	ELECT	22UF 20.00% 50V	C2612	1-104-665-11	ELECT	100UF 20.00% 25V
C1264	1-126-965-11	ELECT	22UF 20.00% 50V	C2613	1-126-936-11	ELECT	3300UF 20.00% 16V
C1265	1-249-429-11	CARBON	10K 5% 1/4W	C2615	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1266	1-126-964-11	ELECT	10UF 20.00% 50V	C2616	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1267	1-136-161-00	FILM	0.047UF 5.00% 50V	C2617	1-104-665-11	ELECT	100UF 20.00% 10V
C1268	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	C3330	1-107-725-11	CERAMIC CHIP	0.1UF 10.00% 16V (EXCEPT KV-EX29M63)
C1270	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	C3331	1-126-933-11	ELECT	100UF 20.00% 16V (EXCEPT KV-EX29M63)
C1271	1-136-161-00	FILM	0.047UF 5.00% 50V	C3336	1-126-933-11	ELECT	100UF 20.00% 16V (EXCEPT KV-EX29M63)
C1273	1-126-964-11	ELECT	10UF 20.00% 50V	C3338	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V (EXCEPT KV-EX29M63)
C1274	1-115-339-11	CERAMIC CHIP	0.1UF 10.00% 50V	C3350	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V (EXCEPT KV-EX29M63)
C1275	1-126-948-11	ELECT	100UF 20.00% 35V	C3351	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V (EXCEPT KV-EX29M63)
C1286	1-126-963-11	ELECT	4.7UF 20.00% 50V	C3352	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V (EXCEPT KV-EX29M63)
C1287	1-126-963-11	ELECT	4.7UF 20.00% 50V	C3353	1-126-933-11	ELECT	100UF 20.00% 16V (EXCEPT KV-EX29M63)
C1288	1-164-489-11	CERAMIC CHIP	0.22UF 10.00% 16V	C3354	1-126-967-11	ELECT	47UF 20.00% 50V (EXCEPT KV-EX29M63)
C1289	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	C3355	1-126-967-11	ELECT	47UF 20.00% 50V (EXCEPT KV-EX29M63)
C1290	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	C4300	1-126-964-11	ELECT	10UF 20.00% 50V
C1291	1-104-665-11	ELECT	100UF 20.00% 25V	C4301	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1292	1-115-339-11	CERAMIC CHIP	0.1UF 10.00% 50V	C4303	1-164-489-11	CERAMIC CHIP	0.22UF 10.00% 16V (KV-EX29M63)
C1293	1-126-964-11	ELECT	10UF 20.00% 50V	C4303	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V (EXCEPT KV-EX29M63)
C1294	1-126-964-11	ELECT	10UF 20.00% 50V	C4307	1-107-823-11	CERAMIC CHIP	0.47UF 10.00% 16V
C1295	1-126-964-11	ELECT	10UF 20.00% 50V	C4308	1-126-960-11	ELECT	1UF 20.00% 50V
C1296	1-115-339-11	CERAMIC CHIP	0.1UF 10.00% 50V	C4309	1-164-489-11	CERAMIC CHIP	0.22UF 10.00% 16V
C1297	1-136-161-00	FILM	0.047UF 5.00% 50V	C4316	1-104-664-11	ELECT	47UF 20.00% 25V
C1298	1-126-960-11	ELECT	1UF 20.00% 50V	C4317	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1299	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	C4318	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1301	1-126-933-11	ELECT	100UF 20.00% 16V	C4319	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1302	1-115-339-11	CERAMIC CHIP	0.1UF 10.00% 50V	C4320	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1303	1-104-665-11	ELECT	100UF 20.00% 25V	C4321	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1304	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V	C4322	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1305	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	C4324	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C1312	1-164-505-11	CERAMIC CHIP	2.2UF 16V	C4325	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C1322	1-136-161-00	FILM	0.047UF 5.00% 50V				
C1323	1-136-165-00	FILM	0.1UF 5.00% 50V				
C2200	1-126-964-11	ELECT	10UF 20.00% 50V				
C2201	1-126-964-11	ELECT	10UF 20.00% 50V				
C2202	1-126-964-11	ELECT	10UF 20.00% 50V				
C2203	1-126-963-11	ELECT	4.7UF 20.00% 50V				
C2204	1-164-505-11	CERAMIC CHIP	2.2UF 16V				
C2205	1-164-505-11	CERAMIC CHIP	2.2UF 16V				
C2206	1-126-964-11	ELECT	10UF 20.00% 50V				
C2207	1-164-505-11	CERAMIC CHIP	2.2UF 16V				

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C4326	1-164-346-11	CERAMIC CHIP 1UF	16V	C8307	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C4327	1-164-346-11	CERAMIC CHIP 1UF	16V	C8308	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C4328	1-164-346-11	CERAMIC CHIP 1UF	16V	C8309	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C4329	1-126-963-11	ELECT 4.7UF	20.00% 50V	C8310	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C4330	1-136-244-11	FILM 0.1UF	5.00% 50V	C8311	1-164-346-11	CERAMIC CHIP 1UF	16V
C4331	1-126-959-11	ELECT 0.47UF	20.00% 50V	C8312	1-164-346-11	CERAMIC CHIP 1UF	16V
C4332	1-136-161-00	FILM 0.047UF	5.00% 50V	C8313	1-164-346-11	CERAMIC CHIP 1UF	16V
C4333	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8314	1-164-346-11	CERAMIC CHIP 1UF	16V
C4334	1-126-967-11	ELECT 47UF	20.00% 50V	C8317	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4336	1-126-967-11	ELECT 47UF	20.00% 50V	C8318	1-164-346-11	CERAMIC CHIP 1UF	16V
C4338	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8319	1-164-346-11	CERAMIC CHIP 1UF	16V
C4339	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V	C8320	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C4340	1-126-933-11	ELECT 100UF	20.00% 16V	C8321	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C4341	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C8322	1-164-346-11	CERAMIC CHIP 1UF	16V
C4342	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C8323	1-164-346-11	CERAMIC CHIP 1UF	16V
C4343	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8324	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C4344	1-163-809-11	CERAMIC CHIP 0.047UF	10.00% 25V	C8325	1-126-935-11	ELECT 470UF	20.00% 16V
C4345	1-126-967-11	ELECT 47UF	20.00% 50V	C8326	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4346	1-164-346-11	CERAMIC CHIP 1UF	16V	C8330	1-164-346-11	CERAMIC CHIP 1UF	16V
C4348	1-164-346-11	CERAMIC CHIP 1UF	16V	C8331	1-164-346-11	CERAMIC CHIP 1UF	16V
C4349	1-164-346-11	CERAMIC CHIP 1UF	16V	C8336	1-104-664-11	ELECT 47UF	20.00% 16V
C4350	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8337	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4351	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V	C8338	1-164-346-11	CERAMIC CHIP 1UF	16V
C4352	1-126-967-11	ELECT 47UF	20.00% 50V	C8339	1-164-346-11	CERAMIC CHIP 1UF	16V
C4353	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C8340	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4354	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C8341	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4355	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8342	1-126-964-11	ELECT 10UF	20.00% 50V
C4356	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8343	1-104-664-11	ELECT 47UF	20.00% 16V
C4357	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8346	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4358	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8349	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C4359	1-164-161-11	CERAMIC CHIP 0.0022UF	10.00% 50V	C8354	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V
C4360	1-126-963-11	ELECT 4.7UF	20.00% 50V	C8355	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C4362	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8356	1-164-346-11	CERAMIC CHIP 1UF	16V
C4363	1-126-967-11	ELECT 47UF	20.00% 50V	C8357	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C4364	1-126-967-11	ELECT 47UF	20.00% 50V	C8358	1-164-346-11	CERAMIC CHIP 1UF	16V
C4366	1-163-021-91	CERAMIC CHIP 0.01UF (KV-EX29M63)	10.00% 50V	C8359	1-163-037-11	CERAMIC CHIP 0.022UF	10.00% 50V
C4366	1-104-760-11	CERAMIC CHIP 0.047UF (EXCEPT KV-EX29M63)	10.00% 50V	C8361	1-126-961-11	ELECT 2.2UF	20.00% 50V
C4367	1-115-185-11	CERAMIC CHIP 0.033UF (KV-EX29M63)	10.00% 50V	C8366	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C4367	1-164-004-11	CERAMIC CHIP 0.1UF (EXCEPT KV-EX29M63)	10.00% 25V	C8367	1-104-664-11	ELECT 47UF	20.00% 16V
C4369	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8368	1-104-664-11	ELECT 47UF	20.00% 16V
C4370	1-126-967-11	ELECT 47UF	20.00% 50V	C8369	1-104-664-11	ELECT 47UF	20.00% 16V
C4371	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C8370	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4378	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C8371	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4380	1-163-037-11	CERAMIC CHIP 0.022UF (KV-EX29M63 ONLY)	10.00% 50V	C8372	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4835	1-164-004-11	CERAMIC CHIP 0.1UF (EXCEPT KV-EX29M63)	10.00% 25V	C8373	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V
C8300	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	C8375	1-126-964-11	ELECT 10UF	20.00% 50V
C8301	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8376	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C8302	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8377	1-164-346-11	CERAMIC CHIP 1UF	16V
C8303	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8378	1-164-346-11	CERAMIC CHIP 1UF	16V
C8304	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8379	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C8305	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8380	1-164-346-11	CERAMIC CHIP 1UF	16V
C8306	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	C8381	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
				C8382	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
				C8383	1-164-346-11	CERAMIC CHIP 1UF	16V
				C8384	1-164-346-11	CERAMIC CHIP 1UF	16V
				C8385	1-164-346-11	CERAMIC CHIP 1UF	16V
				C8386	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C8390	1-126-963-11	ELECT 4.7UF	20.00% 50V	D317	8-719-073-01	MA111-(K8).S0	
C8391	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D1200	8-719-978-69	DTZ-TT11-16B	
C8392	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D1201	8-719-988-61	1SS355TE-17	
C8393	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D1202	8-719-988-61	1SS355TE-17	
C8411	1-117-720-11	CERAMIC CHIP 4.7UF	10V	D1203	8-719-073-01	MA111-(K8).S0	
C8413	1-117-720-11	CERAMIC CHIP 4.7UF	10V	D1204	8-719-073-01	MA111-(K8).S0	
C8430	1-117-720-11	CERAMIC CHIP 4.7UF	10V	D1211	8-719-041-97	MA113-(TX)	
C8431	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V	D1214	8-719-041-97	MA113-(TX)	
C8432	1-163-239-11	CERAMIC CHIP 33PF	5.00% 50V	D1216	8-719-073-01	MA111-(K8).S0	
C8441	1-164-346-11	CERAMIC CHIP 1UF	16V	D2200	8-719-158-35	RD9.1S-B	
C8446	1-104-664-11	ELECT 47UF	20.00% 16V	D2201	8-719-158-35	RD9.1S-B	
C8447	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D4303	8-719-109-72	RD3.9ES-B2	
C8448	1-164-690-91	CERAMIC CHIP 0.0022UF	5.00% 50V	D4304	8-719-069-60	UDZS-TE17-9.1B (KV-EX29M63)	
C8450	1-107-823-11	CERAMIC CHIP 0.47UF	10.00% 16V	D4304	8-719-977-22	DTZ9.1 (EXCEPT KV-EX29M63)	
C8451	1-164-505-11	CERAMIC CHIP 2.2UF	16V	D4305	8-719-069-60	UDZS-TE17-9.1B (KV-EX29M63)	
C8452	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D4305	8-719-977-22	DTZ9.1 (EXCEPT KV-EX29M63)	
C8453	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D4306	8-719-073-01	MA111-(K8).S0	
C8454	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D4311	8-719-914-43	DAN202K	
C8455	1-104-664-11	ELECT 47UF	20.00% 16V	D4312	8-719-914-43	DAN202K	
C8456	1-104-664-11	ELECT 47UF	20.00% 16V	D4313	8-719-401-63	MA3062M-TX	
C8457	1-104-664-11	ELECT 47UF	20.00% 16V	D4314	8-719-073-01	MA111-(K8).S0	
C8459	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D8301	8-719-158-35	RD9.1S-B	
C8462	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D8302	8-719-158-35	RD9.1S-B	
		<CONNECTOR>		D8303	8-719-158-35	RD9.1S-B	
CN1100 *	1-785-608-11	PIN, CONNECTOR 4P		D8304	8-719-158-35	RD9.1S-B	
CN1108	1-793-494-11	CONNECTOR, BOARD TO BOARD 40P		D8305	8-719-158-35	RD9.1S-B	
CN1113 *	1-564-507-11	PLUG, CONNECTOR 4P		D8306	8-719-158-35	RD9.1S-B	
CN1114 *	1-564-507-11	PLUG, CONNECTOR 4P		D8307	8-719-158-35	RD9.1S-B	
CN1116	1-695-915-11	TAB (CONTACT)		D8308	8-719-158-35	RD9.1S-B	
CN1118	1-793-493-11	CONNECTOR, BOARD TO BOARD 20P (KV-EX34M39/EX34M69 ONLY)		D8309	8-719-158-35	RD9.1S-B	
CN1138 *	1-564-507-11	PLUG, CONNECTOR 4P (KV-EX34M39/EX34M69 ONLY)		D8310	8-719-158-35	RD9.1S-B	
CN1190 *	1-764-333-11	PLUG, CONNECTOR 10P		D8311	8-719-158-35	RD9.1S-B	
CN1193 *	1-764-333-11	PLUG, CONNECTOR 10P		D8312	8-719-158-35	RD9.1S-B	
CN2600	1-695-915-11	TAB (CONTACT)		D8313	8-719-158-35	RD9.1S-B	
CN4500 *	1-764-333-11	PLUG, CONNECTOR 10P		D8314	8-719-158-35	RD9.1S-B	
CN8301 *	1-764-333-11	PLUG, CONNECTOR 10P		D8315	8-719-158-35	RD9.1S-B	
CN8302 *	1-564-511-11	PLUG, CONNECTOR 8P		D8316	8-719-158-35	RD9.1S-B	
CN8402	1-793-493-11	CONNECTOR, BOARD TO BOARD 20P (EXCEPT KV-EX29M63)		D8320	8-719-158-35	RD9.1S-B	
		<DIODE>		D8321	8-719-158-35	RD9.1S-B	
D001	8-719-073-01	MA111-(K8).S0		D8322	8-719-158-35	RD9.1S-B	
D002	8-719-073-01	MA111-(K8).S0		D8323	8-719-158-35	RD9.1S-B	
D003	8-719-073-01	MA111-(K8).S0		D8324	8-719-158-35	RD9.1S-B	
D004	8-719-073-01	MA111-(K8).S0		D8325	8-719-158-35	RD9.1S-B	
D005	8-719-073-01	MA111-(K8).S0		D8331	8-719-041-97	MA113-(TX)	
D006	8-719-073-01	MA111-(K8).S0				<FERRITE BEAD>	
D007	8-719-158-18	RD5.6SB3		FB002	1-414-233-22	INDUCTOR 0UH	
D013	8-719-158-18	RD5.6SB3		FB003	1-414-233-22	INDUCTOR 0UH	
D100	8-719-073-01	MA111-(K8).S0		FB004	1-414-233-22	INDUCTOR 0UH	
D300	1-216-295-11	SHORT 0		FB005	1-414-233-22	INDUCTOR 0UH	
				FB006	1-414-233-22	INDUCTOR 0UH	
D301	8-719-073-01	MA111-(K8).S0		FB008	1-414-233-22	INDUCTOR 0UH	
D302	8-719-073-01	MA111-(K8).S0		FB1300	1-216-295-11	SHORT 0	
				FB2300	1-410-397-21	FERRITE 1.1UH	
				FB4387	1-216-295-11	SHORT 0	
				FB4388	1-216-295-11	SHORT 0	

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB4389	1-216-295-11	SHORT	0			<COIL>	
		<FILTER>		L001	1-414-856-11	INDUCTOR	10UH
FL001	1-236-071-11	ENCAPSULATED COMPONENT		L002	1-414-856-11	INDUCTOR	10UH
FL8301	1-236-071-11	ENCAPSULATED COMPONENT		L003	1-414-751-11	INDUCTOR	1UH
FL8303	1-236-071-11	ENCAPSULATED COMPONENT		L005	1-414-856-11	INDUCTOR	10UH
FL8304	1-236-071-11	ENCAPSULATED COMPONENT		L006	1-412-525-31	INDUCTOR	10UH
FL8305	1-236-071-11	ENCAPSULATED COMPONENT		L101	1-414-856-11	INDUCTOR	10UH
FL8311	1-236-071-11	ENCAPSULATED COMPONENT		L102	1-414-856-11	INDUCTOR	10UH
		<IC>		L103	1-414-856-11	INDUCTOR	10UH
IC001	8-752-920-70	IC CXP750096-034Q		L104	1-414-856-11	INDUCTOR	10UH
IC002	8-759-663-29	MM1476AF(TP)		L105	1-414-856-11	INDUCTOR	10UH
IC003	8-759-527-77	M24C16-MN6T		L1200	1-414-856-11	INDUCTOR	10UH
IC100	8-759-042-02	S-80743AL-A7-S		L1201	1-414-856-11	INDUCTOR	10UH
IC1200	8-759-100-96	UPC4558G2		L1300	1-414-856-11	INDUCTOR	10UH
IC1201	8-759-678-92	BH3868AFS-E2		L2300	1-414-856-11	INDUCTOR	10UH
IC1203	8-759-100-96	UPC4558G2		L3302	1-414-856-11	INDUCTOR	10UH (EXCEPT KV-EX29M63)
IC1204	8-759-690-61	AN7583Z		L3303	1-414-856-11	INDUCTOR	10UH (EXCEPT KV-EX29M63)
IC1205	8-759-711-10	NJU4066BM		L3304	1-414-856-11	INDUCTOR	10UH (EXCEPT KV-EX29M63)
IC1206	8-759-689-71	NJM2188M-TE2		L3305	1-414-856-11	INDUCTOR	10UH (EXCEPT KV-EX29M63)
IC2200	8-759-745-64	NJM4560M		L3306	1-414-856-11	INDUCTOR	10UH (EXCEPT KV-EX29M63)
IC2300	8-759-666-90	TDA9181T		L4301	1-412-029-11	INDUCTOR	10UH
IC2600	8-759-095-63	PQ09RF2		L4302	1-412-029-11	INDUCTOR	10UH
IC2601	8-759-065-07	PQ05RF2		L4303	1-412-030-11	INDUCTOR	22UH
IC2603	8-759-445-59	BA033T		L4304	1-412-029-11	INDUCTOR	10UH
IC2604	8-749-015-18	PQ07VZ012P		L4305	1-412-029-11	INDUCTOR	10UH
IC4301	8-752-090-87	CXA2100AQ		L4306	1-412-029-11	INDUCTOR	10UH
IC8302	8-752-080-04	CXA2069Q		L4308	1-412-031-11	INDUCTOR	47UH
IC8306	8-752-096-06	CXA2163Q-T6		L4309	1-412-031-11	INDUCTOR	47UH
IC8309	8-759-337-26	MM1115XFBE		L4311	1-412-002-31	INDUCTOR	4.7UH
IC8310	8-759-572-04	TDA9178T/N1.118		L8302	1-414-196-41	INDUCTOR	47UH
IC8312	8-759-485-79	TC7SET08FU(TE85L		L8303	1-414-196-41	INDUCTOR	47UH
		<JACK>		L8304	1-414-196-41	INDUCTOR	47UH
J8301	1-784-646-11	TERMINAL, S				<IC LINK>	
J8302	1-778-387-11	JACK BLOCK, PIN 12P		PS1201	1-533-597-41	LINK, IC	
		<CHIP CONDUCTOR>				<TRANSISTOR>	
JR001	1-216-295-11	SHORT	0	Q001	8-729-026-49	2SA1037AK-T146-R	
JR102	1-216-295-11	SHORT	0	Q002	8-729-230-49	2SC2712-YG	
JR107	1-216-295-11	SHORT	0	Q003	8-729-230-49	2SC2712-YG	
JR109	1-216-295-11	SHORT	0 (KV-EX34M87 ONLY)	Q004	8-729-230-49	2SC2712-YG	
JR1210	1-216-295-11	SHORT	0	Q008	8-729-230-49	2SC2712-YG (EXCEPT KV-EX29M63)	
JR1213	1-216-295-11	SHORT	0	Q101	8-729-026-49	2SA1037AK-T146-R	
JR1214	1-216-295-11	SHORT	0	Q301	8-729-026-49	2SA1037AK-T146-R	
JR1215	1-216-295-11	SHORT	0	Q313	8-729-230-49	2SC2712-YG	
JR1216	1-216-295-11	SHORT	0	Q1203	8-729-027-44	DTC114TKA-T146	
JR1219	1-216-295-11	SHORT	0	Q1204	8-729-224-62	2SK246-GR	
JR1301	1-216-295-11	SHORT	0 (EXCEPT KV-EX29M63)	Q1205	8-729-230-49	2SC2712-YG	
JR4301	1-216-295-11	SHORT	0	Q1206	8-729-230-49	2SC2712-YG	
JR4302	1-216-295-11	SHORT	0	Q1207	8-729-216-22	2SA1162-G	
JR4303	1-216-295-11	SHORT	0	Q1208	8-729-027-44	DTC114TKA-T146	
				Q1209	8-729-027-44	DTC114TKA-T146	
				Q1210	8-729-027-44	DTC114TKA-T146	
				Q2200	1-801-806-11	TR DTC144EKA	



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q2201	1-801-806-11	TR DTC144EKA				<RESISTOR>	
Q2304	8-729-421-19	UN2213					
Q2305	8-729-230-49	2SC2712-YG		R001	1-216-033-00	RES-CHIP 220	5% 1/10W
				R002	1-216-033-00	RES-CHIP 220	5% 1/10W
Q2306	8-729-216-22	2SA1162-G		R004	1-216-295-11	SHORT 0	
Q3300	8-729-026-49	2SA1037AK-T146-R (EXCEPT KV-EX29M63)		R005	1-216-295-11	SHORT 0	
Q4300	8-729-422-33	2SD601A-Q-TX		R006	1-216-029-00	RES-CHIP 150	5% 1/10W
Q4301	8-729-230-49	2SC2712-YG					
Q4302	8-729-216-22	2SA1162-G		R008	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
				R010	1-216-061-00	RES-CHIP 3.3K	5% 1/10W
Q4303	8-729-120-28	2SC1623-L5L6		R011	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
Q4304	8-729-230-49	2SC2712-YG		R012	1-216-061-00	RES-CHIP 3.3K	5% 1/10W
Q4307	8-729-216-22	2SA1162-G		R013	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
Q4308	8-729-216-22	2SA1162-G					
Q4310	8-729-216-22	2SA1162-G		R014	1-216-025-11	RES-CHIP 100	5% 1/10W
				R015	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4311	8-729-216-22	2SA1162-G		R016	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
Q4312	8-729-216-22	2SA1162-G		R017	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4313	8-729-422-33	2SD601A-Q-TX		R018	1-216-045-00	RES-CHIP 680	5% 1/10W
Q4314	8-729-216-22	2SA1162-G					
Q4315	1-801-806-11	TR DTC144EKA		R019	1-216-049-11	RES-CHIP 1K	5% 1/10W
				R020	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
Q4316	8-729-230-49	2SC2712-YG		R021	1-216-295-11	SHORT 0	
Q4317	8-729-900-53	DTC114EK		R022	1-216-033-00	RES-CHIP 220	5% 1/10W
Q4318	8-729-230-49	2SC2712-YG (KV-EX29M63 ONLY)		R023	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4319	8-729-216-22	2SA1162-G					
Q4823	8-729-216-22	2SA1162-G (KV-EX29M63 ONLY)		R024	1-216-063-91	RES-CHIP 3.9K	5% 1/10W
				R025	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4824	8-729-216-22	2SA1162-G (KV-EX29M63 ONLY)		R026	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4825	8-729-230-49	2SC2712-YG (KV-EX29M63 ONLY)		R027	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4826	8-729-230-49	2SC2712-YG (KV-EX29M63 ONLY)		R028	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8301	8-729-026-49	2SA1037AK-T146-R					
Q8302	8-729-230-49	2SC2712-YG		R029	1-216-049-11	RES-CHIP 1K	5% 1/10W
				R031	1-216-033-00	RES-CHIP 220	5% 1/10W
Q8303	8-729-230-49	2SC2712-YG		R032	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8304	8-729-230-49	2SC2712-YG		R033	1-216-033-00	RES-CHIP 220	5% 1/10W
Q8306	8-729-230-49	2SC2712-YG		R035	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
Q8310	8-729-230-49	2SC2712-YG					
Q8319	8-729-026-49	2SA1037AK-T146-R		R036	1-216-033-00	RES-CHIP 220	5% 1/10W
				R037	1-216-033-00	RES-CHIP 220	5% 1/10W
Q8320	8-729-026-49	2SA1037AK-T146-R		R038	1-216-045-00	RES-CHIP 680	5% 1/10W
Q8321	8-729-026-49	2SA1037AK-T146-R		R039	1-216-025-11	RES-CHIP 100	5% 1/10W
Q8326	8-729-230-49	2SC2712-YG		R040	1-216-033-00	RES-CHIP 220	5% 1/10W
Q8327	1-801-806-11	TR DTC144EKA					
Q8328	1-801-806-11	TR DTC144EKA		R041	1-216-025-11	RES-CHIP 100	5% 1/10W
				R042	1-216-295-11	SHORT 0	
Q8329	8-729-230-49	2SC2712-YG		R043	1-216-025-11	RES-CHIP 100	5% 1/10W
Q8330	8-729-230-49	2SC2712-YG		R044	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
Q8331	8-729-230-49	2SC2712-YG		R045	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
Q8332	8-729-230-49	2SC2712-YG					
Q8333	8-729-230-49	2SC2712-YG		R046	1-216-033-00	RES-CHIP 220	5% 1/10W
				R047	1-216-033-00	RES-CHIP 220	5% 1/10W
Q8334	8-729-230-49	2SC2712-YG		R048	1-216-073-00	RES-CHIP 10K	5% 1/10W
Q8335	8-729-230-49	2SC2712-YG		R051	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8336	8-729-230-49	2SC2712-YG		R052	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8337	8-729-230-49	2SC2712-YG					
Q8344	8-729-026-49	2SA1037AK-T146-R		R053	1-216-049-11	RES-CHIP 1K	5% 1/10W
				R054	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8351	8-729-230-49	2SC2712-YG		R055	1-216-295-11	SHORT 0	
Q8352	8-729-216-22	2SA1162-G		R058	1-216-295-11	SHORT 0	
Q8358	1-801-806-11	TR DTC144EKA		R060	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q8359	1-801-806-11	TR DTC144EKA				(EXCEPT KV-EX29M63)	
Q8360	1-801-806-11	TR DTC144EKA					
				R062	1-216-069-00	RES-CHIP 6.8K	5% 1/10W
Q8361	8-729-230-49	2SC2712-YG				(EXCEPT KV-EX29M63)	
Q8362	8-729-230-49	2SC2712-YG		R065	1-216-045-00	RES-CHIP 680	5% 1/10W
Q8363	8-729-230-49	2SC2712-YG		R066	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q8364	8-729-026-49	2SA1037AK-T146-R		R068	1-216-073-00	RES-CHIP 10K	5% 1/10W
				R069	1-216-065-91	RES-CHIP 4.7K	5% 1/10W

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R070	1-216-033-00	RES-CHIP	220 5% 1/10W	R1214	1-216-129-00	RES-CHIP	2.2M 5% 1/10W
R071	1-216-025-11	RES-CHIP	100 5% 1/10W	R1215	1-216-095-00	RES-CHIP	82K 5% 1/10W
R072	1-216-025-11	RES-CHIP	100 5% 1/10W	R1216	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R073	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R1217	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R074	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R1218	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R075	1-216-055-00	RES-CHIP	1.8K 5% 1/10W	R1219	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R076	1-216-295-11	SHORT	0	R1220	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R077	1-216-025-11	RES-CHIP	100 5% 1/10W	R1221	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R078	1-216-295-11	SHORT	0	R1222	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R079	1-216-025-11	RES-CHIP	100 5% 1/10W	R1223	1-216-073-00	RES-CHIP	10K 5% 1/10W
R080	1-216-063-91	RES-CHIP	3.9K 5% 1/10W	R1224	1-216-073-00	RES-CHIP	10K 5% 1/10W
R081	1-216-025-11	RES-CHIP	100 5% 1/10W	R1225	1-216-071-00	RES-CHIP	8.2K 5% 1/10W
R082	1-216-041-00	RES-CHIP	470 5% 1/10W	R1227	1-216-071-00	RES-CHIP	8.2K 5% 1/10W
R083	1-216-049-11	RES-CHIP	1K 5% 1/10W	R1228	1-249-405-11	CARBON	100 5% 1/4W
R084	1-216-049-11	RES-CHIP	1K 5% 1/10W	R1229	1-249-405-11	CARBON	100 5% 1/4W
R085	1-208-798-11	METAL CHIP	4.7K 0.5% 1/10W	R1230	1-249-405-11	CARBON	100 5% 1/4W
R086	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1231	1-216-295-11	SHORT	0
R087	1-216-033-00	RES-CHIP	220 5% 1/10W	R1232	1-216-081-00	RES-CHIP	22K 5% 1/10W
R093	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1233	1-216-093-91	RES-CHIP	68K 5% 1/10W
R094	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1234	1-216-097-11	RES-CHIP	100K 5% 1/10W
R101	1-216-025-11	RES-CHIP	100 5% 1/10W	R1235	1-216-093-91	RES-CHIP	68K 5% 1/10W
R102	1-216-025-11	RES-CHIP	100 5% 1/10W	R1236	1-216-081-00	RES-CHIP	22K 5% 1/10W
R105	1-216-295-11	SHORT	0	R1237	1-216-097-11	RES-CHIP	100K 5% 1/10W
R107	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1238	1-216-073-00	RES-CHIP	10K 5% 1/10W
R109	1-216-041-00	RES-CHIP	470 5% 1/10W	R1239	1-216-073-00	RES-CHIP	10K 5% 1/10W
R110	1-216-043-91	RES-CHIP	560 5% 1/10W	R1240	1-216-041-00	RES-CHIP	470 5% 1/10W
R111	1-216-025-11	RES-CHIP	100 5% 1/10W	R1241	1-216-295-11	SHORT	0
R112	1-216-025-11	RES-CHIP	100 5% 1/10W	R1242	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R116	1-216-025-11	RES-CHIP	100 5% 1/10W	R1243	1-216-097-11	RES-CHIP	100K 5% 1/10W
R117	1-216-025-11	RES-CHIP	100 5% 1/10W	R1244	1-216-049-11	RES-CHIP	1K 5% 1/10W
R118	1-216-025-11	RES-CHIP	100 5% 1/10W	R1245	1-216-073-00	RES-CHIP	10K 5% 1/10W
R119	1-216-017-91	RES-CHIP	47 5% 1/10W	R1246	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R120	1-216-025-11	RES-CHIP	100 5% 1/10W	R1247	1-216-049-11	RES-CHIP	1K 5% 1/10W
R121	1-216-017-91	RES-CHIP	47 5% 1/10W	R1248	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R122	1-216-025-11	RES-CHIP	100 5% 1/10W	R1249	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R123	1-216-025-11	RES-CHIP	100 5% 1/10W	R1250	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R124	1-216-025-11	RES-CHIP	100 5% 1/10W	R1251	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R301	1-216-113-00	RES-CHIP	470K 5% 1/10W	R1252	1-216-073-00	RES-CHIP	10K 5% 1/10W
R302	1-216-089-11	RES-CHIP	47K 5% 1/10W	R1253	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R303	1-216-089-11	RES-CHIP	47K 5% 1/10W	R1254	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R1200	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R1256	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R1201	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R1257	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R1202	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R1258	1-216-073-00	RES-CHIP	10K 5% 1/10W
R1203	1-216-049-11	RES-CHIP	1K 5% 1/10W	R1259	1-216-049-11	RES-CHIP	1K 5% 1/10W
R1204	1-216-049-11	RES-CHIP	1K 5% 1/10W	R1260	1-216-041-00	RES-CHIP	470 5% 1/10W
R1205	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1262	1-249-389-11	CARBON	4.7 5% 1/4W
R1206	1-216-073-00	RES-CHIP	10K 5% 1/10W	R1263	1-216-073-00	RES-CHIP	10K 5% 1/10W
R1207	1-216-061-00	RES-CHIP	3.3K 5% 1/10W	R1265	1-249-397-11	CARBON	22 5% 1/4W
R1210	1-216-095-00	RES-CHIP	82K 5% 1/10W	R1268	1-249-397-11	CARBON	22 5% 1/4W
R1211	1-216-053-00	RES-CHIP	1.5K 5% 1/10W	R1288	1-216-121-11	RES-CHIP	1M 5% 1/10W
R1212	1-216-091-00	RES-CHIP	56K 5% 1/10W	R1289	1-216-121-11	RES-CHIP	1M 5% 1/10W
R1213	1-216-085-00	RES-CHIP	33K 5% 1/10W	R1290	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R1291	1-216-091-00	RES-CHIP	56K 5% 1/10W
				R1292	1-216-085-00	RES-CHIP	33K 5% 1/10W
				R1293	1-216-089-11	RES-CHIP	47K 5% 1/10W
				R1294	1-216-025-11	RES-CHIP	100 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R2200	1-216-021-00	RES-CHIP 68	5% 1/10W	R4320	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R2201	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4321	1-216-298-00	RES-CHIP 2.2	5% 1/10W
R2202	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4323	1-208-814-91	METAL CHIP 22K	0.5% 1/10W
R2203	1-216-021-00	RES-CHIP 68	5% 1/10W	R4324	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W
R2204	1-216-073-00	RES-CHIP 10K	5% 1/10W	R4325	1-208-818-11	METAL CHIP 33K	0.5% 1/10W
R2205	1-216-097-11	RES-CHIP 100K	5% 1/10W	R4326	1-208-826-11	METAL CHIP 68K	0.5% 1/10W
R2206	1-216-117-00	RES-CHIP 680K	5% 1/10W	R4327	1-208-822-11	METAL CHIP 47K	0.5% 1/10W
R2207	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4329	1-208-782-11	METAL CHIP 1K	0.5% 1/10W
R2208	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4330	1-216-089-11	RES-CHIP 47K	5% 1/10W
R2209	1-216-117-00	RES-CHIP 680K	5% 1/10W	R4335	1-216-025-11	RES-CHIP 100	5% 1/10W
R2210	1-216-089-11	RES-CHIP 47K	5% 1/10W	R4336	1-216-025-11	RES-CHIP 100	5% 1/10W
R2211	1-216-097-11	RES-CHIP 100K	5% 1/10W	R4337	1-216-025-11	RES-CHIP 100	5% 1/10W
R2212	1-216-073-00	RES-CHIP 10K	5% 1/10W	R4338	1-216-041-00	RES-CHIP 470	5% 1/10W
R2213	1-216-089-11	RES-CHIP 47K	5% 1/10W	R4339	1-216-051-00	RES-CHIP 1.2K	5% 1/10W
R2214	1-216-089-11	RES-CHIP 47K	5% 1/10W	R4341	1-216-295-11	SHORT 0	
R2215	1-216-089-11	RES-CHIP 47K	5% 1/10W	R4343	1-216-025-11	RES-CHIP 100	5% 1/10W
R2310	1-216-033-00	RES-CHIP 220	5% 1/10W	R4344	1-216-025-11	RES-CHIP 100	5% 1/10W
R2311	1-216-033-00	RES-CHIP 220	5% 1/10W	R4345	1-216-075-00	RES-CHIP 12K	5% 1/10W
R2312	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4346	1-208-812-11	METAL CHIP 18K	0.5% 1/10W
R2313	1-216-041-00	RES-CHIP 470	5% 1/10W	R4347	1-216-025-11	RES-CHIP 100	5% 1/10W
R2314	1-216-029-00	RES-CHIP 150	5% 1/10W	R4348	1-216-025-11	RES-CHIP 100	5% 1/10W
R2315	1-216-049-11	RES-CHIP 1K	5% 1/10W	R4349	1-216-041-00	RES-CHIP 470	5% 1/10W
R2316	1-218-179-11	RES-CHIP 10M	5% 1/10W	R4350	1-216-025-11	RES-CHIP 100	5% 1/10W
R2603	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W	R4351	1-216-081-00	RES-CHIP 22K	5% 1/10W
R2604	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W	R4352	1-216-041-00	RES-CHIP 470	5% 1/10W
R2605	1-216-371-00	METAL OXIDE 1.5	5% 2W	R4353	1-216-051-00	RES-CHIP 1.2K	5% 1/10W
R3300	1-216-043-91	RES-CHIP 560 (EXCEPT KV-EX29M63)	5% 1/10W	R4354	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R3304	1-216-041-00	RES-CHIP 470 (EXCEPT KV-EX29M63)	5% 1/10W	R4357	1-216-073-00	RES-CHIP 10K	5% 1/10W
R3320	1-216-073-00	RES-CHIP 10K (EXCEPT KV-EX29M63)	5% 1/10W	R4358	1-216-071-00	RES-CHIP 8.2K	5% 1/10W
R3323	1-216-025-11	RES-CHIP 100 (EXCEPT KV-EX29M63)	5% 1/10W	R4359	1-216-043-91	RES-CHIP 560	5% 1/10W
R3334	1-216-025-11	RES-CHIP 100 (EXCEPT KV-EX29M63)	5% 1/10W	R4360	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R3362	1-216-025-11	RES-CHIP 100 (EXCEPT KV-EX29M63)	5% 1/10W	R4361	1-216-133-00	RES-CHIP 3.3M	5% 1/10W
R3374	1-216-295-11	SHORT 0 (EXCEPT KV-EX29M63)		R4363	1-216-025-11	RES-CHIP 100	5% 1/10W
R4300	1-216-025-11	RES-CHIP 100	5% 1/10W	R4365	1-216-025-11	RES-CHIP 100	5% 1/10W
R4301	1-216-025-11	RES-CHIP 100	5% 1/10W	R4366	1-216-025-11	RES-CHIP 100	5% 1/10W
R4302	1-216-025-11	RES-CHIP 100	5% 1/10W	R4367	1-216-025-11	RES-CHIP 100	5% 1/10W
R4303	1-216-025-11	RES-CHIP 100	5% 1/10W	R4369	1-216-025-11	RES-CHIP 100	5% 1/10W
R4304	1-216-025-11	RES-CHIP 100	5% 1/10W	R4370	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4305	1-216-025-11	RES-CHIP 100	5% 1/10W	R4372	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4306	1-216-025-11	RES-CHIP 100 (KV-EX29M63/EX34M87 ONLY)	5% 1/10W	R4373	1-216-295-11	SHORT 0	
R4307	1-216-025-11	RES-CHIP 100 (KV-EX29M63/EX34M87 ONLY)	5% 1/10W	R4374	1-216-025-11	RES-CHIP 100	5% 1/10W
R4308	1-216-295-11	SHORT 0		R4375	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4310	1-216-295-11	SHORT 0		R4376	1-216-025-11	RES-CHIP 100	5% 1/10W
R4312	1-216-295-11	SHORT 0		R4377	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4313	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4380	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4314	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R4381	1-208-851-11	METAL CHIP 750K (KV-EX29M63)	0.5% 1/10W
R4316	1-216-069-00	RES-CHIP 6.8K	5% 1/10W	R4381	1-208-854-11	METAL CHIP 1M (EXCEPT KV-EX29M63)	0.5% 1/10W
R4317	1-216-081-00	RES-CHIP 22K	5% 1/10W	R4382	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4318	1-208-810-11	METAL CHIP 15K	0.5% 1/10W	R4383	1-208-825-11	METAL CHIP 62K (KV-EX29M63)	0.5% 1/10W
R4319	1-208-810-11	METAL CHIP 15K	0.5% 1/10W	R4383	1-216-079-00	RES-CHIP 18K (EXCEPT KV-EX29M63)	5% 1/10W
				R4384	1-216-025-11	RES-CHIP 100	5% 1/10W
				R4385	1-216-295-11	SHORT 0	
				R4387	1-216-295-11	SHORT 0	

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KV-EX34M39/EX34M69/EX34M87

RM-963

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R4388	1-216-295-11	SHORT	0	R8307	1-216-022-00	RES-CHIP	75 5% 1/10W
R4389	1-216-295-11	SHORT	0	R8308	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4390	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8309	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4391	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8310	1-216-022-00	RES-CHIP	75 5% 1/10W
R4392	1-216-089-11	RES-CHIP	47K 5% 1/10W	R8311	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4395	1-216-295-11	SHORT	0	R8312	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4396	1-216-295-11	SHORT	0	R8313	1-216-022-00	RES-CHIP	75 5% 1/10W
R4397	1-216-295-11	SHORT	0	R8314	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4399	1-208-790-11	METAL CHIP	2.2K 0.5% 1/10W	R8315	1-216-105-91	RES-CHIP	220K 5% 1/10W
R4401	1-216-105-91	RES-CHIP	220K 5% 1/10W	R8316	1-216-113-00	RES-CHIP	470K 5% 1/10W
R4402	1-216-129-00	RES-CHIP	2.2M 5% 1/10W	R8321	1-216-025-11	RES-CHIP	100 5% 1/10W
R4403	1-216-049-11	RES-CHIP	1K 5% 1/10W			(EXCEPT KV-EX29M63/EX34M87)	
R4404	1-208-814-91	METAL CHIP	22K 0.5% 1/10W	R8322	1-216-022-00	RES-CHIP	75 5% 1/10W
R4406	1-216-097-11	RES-CHIP	100K 5% 1/10W	R8323	1-216-295-11	SHORT	0
R4408	1-208-806-11	METAL CHIP	10K 0.5% 1/10W	R8324	1-216-295-11	SHORT	0
R4409	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8325	1-216-295-11	SHORT	0
R4411	1-208-808-11	METAL CHIP	12K 0.5% 1/10W	R8326	1-216-113-00	RES-CHIP	470K 5% 1/10W
R4411	1-208-820-11	METAL CHIP	39K 0.5% 1/10W	R8327	1-216-295-11	SHORT	0
R4412	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8328	1-216-113-00	RES-CHIP	470K 5% 1/10W
R4413	1-208-822-11	METAL CHIP	47K 0.5% 1/10W	R8329	1-216-113-00	RES-CHIP	470K 5% 1/10W
R4413	1-208-838-91	METAL CHIP	220K 0.5% 1/10W	R8330	1-216-022-00	RES-CHIP	75 5% 1/10W
R4504	1-216-295-11	SHORT	0	R8331	1-216-025-11	RES-CHIP	100 5% 1/10W
R4505	1-216-295-11	SHORT	0			(EXCEPT KV-EX29M63/EX34M87)	
R4506	1-216-295-11	SHORT	0	R8332	1-216-025-11	RES-CHIP	100 5% 1/10W
R4518	1-216-025-11	RES-CHIP	100 5% 1/10W			(EXCEPT KV-EX29M63)	
R4519	1-216-073-00	RES-CHIP	10K 5% 1/10W	R8333	1-216-025-11	RES-CHIP	100 5% 1/10W
R4520	1-216-025-11	RES-CHIP	100 5% 1/10W			(EXCEPT KV-EX29M63/EX34M87)	
R4521	1-216-025-11	RES-CHIP	100 5% 1/10W	R8334	1-216-295-11	SHORT	0
R4908	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8336	1-216-295-11	SHORT	0
R4909	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R8337	1-216-022-00	RES-CHIP	75 5% 1/10W
R4910	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R8338	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4911	1-208-818-11	METAL CHIP	33K 0.5% 1/10W	R8339	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4912	1-208-806-11	METAL CHIP	10K 0.5% 1/10W	R8340	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4913	1-208-806-11	METAL CHIP	10K 0.5% 1/10W	R8341	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R4914	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8342	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R8300	1-216-081-00	RES-CHIP	22K 5% 1/10W	R8343	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R8301	1-216-041-00	RES-CHIP	470 5% 1/10W	R8344	1-216-022-00	RES-CHIP	75 5% 1/10W
R8302	1-216-041-00	RES-CHIP	470 5% 1/10W	R8345	1-216-033-00	RES-CHIP	220 5% 1/10W
R8303	1-216-021-00	RES-CHIP	68 5% 1/10W	R8346	1-216-031-00	RES-CHIP	180 5% 1/10W
R8304	1-216-057-00	RES-CHIP	2.2K 5% 1/10W	R8347	1-216-025-11	RES-CHIP	100 5% 1/10W
R8305	1-216-113-00	RES-CHIP	470K 5% 1/10W	R8348	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R8306	1-216-022-00	RES-CHIP	75 5% 1/10W	R8349	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R8350	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R8351	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R8352	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R8353	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R8354	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
				R8355	1-216-295-11	SHORT	0
				R8356	1-216-295-11	SHORT	0
				R8357	1-216-017-91	RES-CHIP	47 5% 1/10W
				R8358	1-216-017-91	RES-CHIP	47 5% 1/10W
				R8361	1-216-017-91	RES-CHIP	47 5% 1/10W
				R8364	1-216-041-00	RES-CHIP	470 5% 1/10W
				R8365	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
				R8366	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
				R8367	1-216-041-00	RES-CHIP	470 5% 1/10W
				R8370	1-216-025-11	RES-CHIP	100 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R8372	1-216-295-11	SHORT	0	R8487	1-216-045-00	RES-CHIP	680 5% 1/10W
R8373	1-216-295-11	SHORT	0	R8488	1-216-041-00	RES-CHIP	470 5% 1/10W
R8376	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8489	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8377	1-216-025-11	RES-CHIP	100 5% 1/10W	R8490	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8378	1-216-033-00	RES-CHIP	220 5% 1/10W	R8491	1-216-025-11	RES-CHIP	100 5% 1/10W
R8379	1-216-033-00	RES-CHIP	220 5% 1/10W	R8492	1-216-041-00	RES-CHIP	470 5% 1/10W
R8380	1-216-025-11	RES-CHIP	100 5% 1/10W	R8493	1-216-081-00	RES-CHIP	22K 5% 1/10W
R8381	1-216-025-11	RES-CHIP	100 5% 1/10W	R8494	1-216-041-00	RES-CHIP	470 5% 1/10W
R8382	1-216-033-00	RES-CHIP	220 5% 1/10W	R8495	1-216-081-00	RES-CHIP	22K 5% 1/10W
R8383	1-216-033-00	RES-CHIP	220 5% 1/10W	R8496	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8384	1-216-025-11	RES-CHIP	100 5% 1/10W	R8497	1-216-025-11	RES-CHIP	100 5% 1/10W
R8388	1-216-031-00	RES-CHIP	180 5% 1/10W	R8498	1-216-043-91	RES-CHIP	560 5% 1/10W
R8389	1-216-033-00	RES-CHIP	220 5% 1/10W	R8499	1-216-081-00	RES-CHIP	22K 5% 1/10W
R8395	1-216-033-00	RES-CHIP	220 5% 1/10W	R8500	1-216-033-00	RES-CHIP	220 5% 1/10W
R8396	1-216-033-00	RES-CHIP	220 5% 1/10W	R8501	1-216-081-00	RES-CHIP	22K 5% 1/10W
R8399	1-216-025-11	RES-CHIP	100 5% 1/10W	R8502	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8400	1-216-025-11	RES-CHIP	100 5% 1/10W	R8507	1-216-025-11	RES-CHIP	100 5% 1/10W
R8411	1-216-083-00	RES-CHIP	27K 5% 1/10W	R8508	1-216-025-11	RES-CHIP	100 5% 1/10W
R8414	1-208-796-11	METAL CHIP	3.9K 0.5% 1/10W	R8513	1-216-039-00	RES-CHIP	390 5% 1/10W
R8415	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8514	1-216-039-00	RES-CHIP	390 5% 1/10W
R8417	1-216-025-11	RES-CHIP	100 5% 1/10W	R8515	1-216-295-11	SHORT	0
R8418	1-216-025-11	RES-CHIP	100 5% 1/10W	R8516	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8419	1-216-017-91	RES-CHIP	47 5% 1/10W	R8518	1-216-047-91	RES-CHIP	820 5% 1/10W
R8420	1-216-017-91	RES-CHIP	47 5% 1/10W	R8519	1-216-047-91	RES-CHIP	820 5% 1/10W
R8435	1-216-295-11	SHORT	0	R8536	1-216-025-11	RES-CHIP	100 5% 1/10W
R8441	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8538	1-216-041-00	RES-CHIP	470 5% 1/10W
R8442	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8540	1-216-041-00	RES-CHIP	470 5% 1/10W
R8446	1-216-049-11	RES-CHIP	1K 5% 1/10W	R8541	1-216-039-00	RES-CHIP	390 5% 1/10W
R8447	1-216-025-11	RES-CHIP	100 5% 1/10W	R8551	1-216-049-11	RES-CHIP	1K 5% 1/10W
R8448	1-216-025-11	RES-CHIP	100 5% 1/10W	R8576	1-216-013-00	RES-CHIP	33 5% 1/10W
R8449	1-216-025-11	RES-CHIP	100 5% 1/10W	R8577	1-216-295-11	SHORT	0
R8450	1-216-089-11	RES-CHIP	47K 5% 1/10W	R8578	1-216-033-00	RES-CHIP	220 5% 1/10W
R8451	1-216-097-11	RES-CHIP	100K 5% 1/10W	R8579	1-216-295-11	SHORT	0
R8452	1-216-089-11	RES-CHIP	47K 5% 1/10W	R8582	1-208-291-11	RES-CHIP	4.7M 5% 1/10W
R8453	1-216-097-11	RES-CHIP	100K 5% 1/10W	R8583	1-208-291-11	RES-CHIP	4.7M 5% 1/10W
R8454	1-216-089-11	RES-CHIP	47K 5% 1/10W	R8584	1-208-291-11	RES-CHIP	4.7M 5% 1/10W
R8455	1-216-097-11	RES-CHIP	100K 5% 1/10W	R8593	1-216-025-11	RES-CHIP	100 5% 1/10W
R8464	1-216-025-11	RES-CHIP	100 5% 1/10W			<TUNER>	
R8465	1-216-025-11	RES-CHIP	100 5% 1/10W	TU101	8-598-451-00	TUNER, FSS BTF-WG441 (KV-EX29M63)	
R8466	1-216-025-11	RES-CHIP	100 5% 1/10W	TU101	8-598-452-20	TUNER, FSS BTF-WG442 (KV-EX34M39/EX34M69)	
R8467	1-216-041-00	RES-CHIP	470 5% 1/10W	TU101	8-598-450-10	TUNER, FSS BTF-LG434 (KV-EX34M87)	
R8468	1-216-041-00	RES-CHIP	470 5% 1/10W	TU3301	8-598-508-10	TUNER, FSS BTF-LG436 (EXCEPT KV-EX29M63)	
R8469	1-216-041-00	RES-CHIP	470 5% 1/10W			<CRYSTAL>	
R8470	1-216-069-00	RES-CHIP	6.8K 5% 1/10W	X001	1-567-928-11	VIBLATOR, CERAMIC	
R8471	1-216-025-11	RES-CHIP	100 5% 1/10W	X4300	1-767-127-11	VIBRATOR, CERAMIC	
R8478	1-216-089-11	RES-CHIP	47K 5% 1/10W	X8301	1-781-612-11	VIBRATOR, CRYSTAL	
R8479	1-216-097-11	RES-CHIP	100K 5% 1/10W				
R8480	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R8481	1-216-095-00	RES-CHIP	82K 5% 1/10W				
R8482	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8484	1-216-045-00	RES-CHIP	680 5% 1/10W				
R8485	1-216-037-00	RES-CHIP	330 5% 1/10W				
R8486	1-216-049-11	RES-CHIP	1K 5% 1/10W				

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B3

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1136-150-A		B3 BOARD, COMPLETE (KV-EX29M63) *****		C611	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
* A-1136-132-A		B3 BOARD, COMPLETE (EXCEPT KV-EX29M63) *****		C612	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
		<CAPACITOR>		C613	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C501	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C614	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C502	1-124-779-00	ELECT CHIP 10UF	20.00% 16V	C615	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C503	1-124-779-00	ELECT CHIP 10UF	20.00% 16V	C616	1-126-396-11	ELECT CHIP 47UF	20.00% 16V
C505	1-124-779-00	ELECT CHIP 10UF	20.00% 16V	C617	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C507	1-124-779-00	ELECT CHIP 10UF	20.00% 16V	C618	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C509	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C619	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C511	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C620	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C512	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C621	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C514	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C622	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C515	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C623	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C516	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C624	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C517	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C625	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C518	1-126-204-11	ELECT CHIP 47UF	20.00% 16V	C626	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C519	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C627	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C520	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C628	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C521	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C629	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C522	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C630	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C523	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C631	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C524	1-124-779-00	ELECT CHIP 10UF	20.00% 16V	C632	1-126-206-11	ELECT CHIP 100UF	20.00% 6.3V
C525	1-126-394-11	ELECT CHIP 10UF	20.00% 16V	C633	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C526	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C634	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C527	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	C635	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C528	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C636	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C539	1-126-204-11	ELECT CHIP 47UF	20.00% 16V	C637	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C540	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C638	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C543	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C639	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C545	1-126-396-11	ELECT CHIP 47UF	20.00% 16V	C640	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C546	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C642	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C548	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C643	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C549	1-126-204-11	ELECT CHIP 47UF	20.00% 16V	C644	1-126-398-11	ELECT CHIP 4.7UF	20.00% 35V
C550	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	C645	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C551	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V			<CONNECTOR>	
C554	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	CN502	1-793-497-11	CONNECTOR, BOARD TO BOARD 40P	
C555	1-163-038-11	CERAMIC CHIP 0.1UF	25V			<DIODE>	
C556	1-126-396-11	ELECT CHIP 47UF	20.00% 16V	D501	8-719-422-12	MA8039	
C557	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	D601	8-719-073-01	MA111-(K8).S0	
C559	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V			<FERRITE BEAD>	
C560	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FB501	1-414-813-11	FERRITE 0UH	
C601	1-126-394-11	ELECT CHIP 10UF	20.00% 16V	FB502	1-414-813-11	FERRITE 0UH	
C602	1-126-394-11	ELECT CHIP 10UF	20.00% 16V	FB503	1-414-813-11	FERRITE 0UH	
C603	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FB504	1-414-813-11	FERRITE 0UH	
C604	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FB601	1-414-553-11	FERRITE 0UH	
C605	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V			<FILTER>	
C606	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FL501	1-233-877-11	FILTER, LOW PASS	
C607	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FL502	1-233-504-21	FILTER, LOW PASS	
C608	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	FL503	1-233-504-21	FILTER, LOW PASS	
C609	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V				
C610	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V				



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FL504	1-234-177-21	FILTER, CHIP EMI				<RESISTOR>	
FL505	1-234-177-21	FILTER, CHIP EMI					
FL506	1-234-177-21	FILTER, CHIP EMI		R501	1-216-025-11	RES-CHIP	100 5% 1/10W
FL509	1-234-177-21	FILTER, CHIP EMI		R502	1-216-025-11	RES-CHIP	100 5% 1/10W
FL510	1-234-177-21	FILTER, CHIP EMI		R503	1-216-295-11	SHORT	0
FL511	1-234-177-21	FILTER, CHIP EMI		R504	1-216-295-11	SHORT	0
FL512	1-234-177-21	FILTER, CHIP EMI		R505	1-216-295-11	SHORT	0
FL601	1-234-177-21	FILTER, CHIP EMI		R506	1-216-025-11	RES-CHIP	100 5% 1/10W
FL602	1-234-177-21	FILTER, CHIP EMI		R507	1-216-025-11	RES-CHIP	100 5% 1/10W
FL603	1-234-177-21	FILTER, CHIP EMI		R513	1-216-043-91	RES-CHIP	560 5% 1/10W
FL901	1-234-113-21	FILTER, LOW PASS		R514	1-216-043-91	RES-CHIP	560 5% 1/10W
FL902	1-234-112-21	FILTER, LOW PASS		R515	1-216-043-91	RES-CHIP	560 5% 1/10W
FL903	1-234-112-21	FILTER, LOW PASS		R516	1-216-049-11	RES-CHIP	1K 5% 1/10W
		<IC>		R517	1-216-049-11	RES-CHIP	1K 5% 1/10W
IC501	8-759-447-90	TLC5733AIPM		R518	1-216-295-11	SHORT	0
IC504	8-759-669-78	TLC2933IPWR-12		R520	1-208-776-11	METAL CHIP	560 0.5% 1/10W
IC505	8-759-547-54	TC7SET00FU(TE85		R521	1-216-295-11	SHORT	0
IC506	8-759-547-54	TC7SET00FU(TE85		R523	1-208-776-11	METAL CHIP	560 0.5% 1/10W
IC601	8-752-398-47	CXD2090Q		R524	1-216-295-11	SHORT	0
IC602	8-759-665-38	MB81F161622C-80		R526	1-208-776-11	METAL CHIP	560 0.5% 1/10W
IC603	8-759-669-75	TLC2932IPWR		R528	1-216-037-00	RES-CHIP	330 5% 1/10W
IC604	8-752-072-94	CXA1875AM-T4		R529	1-208-800-11	METAL CHIP	5.6K 0.5% 1/10W
		<COIL>		R530	1-208-800-11	METAL CHIP	5.6K 0.5% 1/10W
L501	1-412-026-11	INDUCTOR 1UH		R531	1-216-031-00	RES-CHIP	180 5% 1/10W
L503	1-412-026-11	INDUCTOR 1UH		R532	1-208-800-11	METAL CHIP	5.6K 0.5% 1/10W
L505	1-412-029-11	INDUCTOR 10UH		R533	1-216-031-00	RES-CHIP	180 5% 1/10W
L506	1-412-026-11	INDUCTOR 1UH		R537	1-208-790-11	METAL CHIP	2.2K 0.5% 1/10W
L508	1-412-029-11	INDUCTOR 10UH		R548	1-208-750-11	METAL CHIP	47 0.5% 1/10W
L509	1-412-029-11	INDUCTOR 10UH		R549	1-208-750-11	METAL CHIP	47 0.5% 1/10W
L512	1-412-026-11	INDUCTOR 1UH		R550	1-208-756-11	METAL CHIP	82 0.5% 1/10W
L604	1-412-029-11	INDUCTOR 10UH		R551	1-208-756-11	METAL CHIP	82 0.5% 1/10W
L605	1-412-029-11	INDUCTOR 10UH		R552	1-208-750-11	METAL CHIP	47 0.5% 1/10W
		<TRANSISTOR>		R553	1-216-295-11	SHORT	0
Q501	8-729-216-22	2SA1162-G		R554	1-208-750-11	METAL CHIP	47 0.5% 1/10W
Q502	8-729-120-28	2SC1623-L5L6		R555	1-216-077-91	RES-CHIP	15K 5% 1/10W
Q503	8-729-120-28	2SC1623-L5L6		R557	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q516	8-729-120-28	2SC1623-L5L6		R558	1-216-025-11	RES-CHIP	100 5% 1/10W
Q517	8-729-120-28	2SC1623-L5L6		R559	1-216-077-91	RES-CHIP	15K 5% 1/10W
Q518	8-729-216-22	2SA1162-G		R560	1-208-750-11	METAL CHIP	47 0.5% 1/10W
Q521	8-729-120-28	2SC1623-L5L6		R561	1-216-043-91	RES-CHIP	560 5% 1/10W
Q522	8-729-120-28	2SC1623-L5L6		R562	1-216-043-91	RES-CHIP	560 5% 1/10W
Q523	8-729-120-28	2SC1623-L5L6		R563	1-216-043-91	RES-CHIP	560 5% 1/10W
Q601	8-729-120-28	2SC1623-L5L6		R571	1-216-295-11	SHORT	0
Q518	8-729-216-22	2SA1162-G		R572	1-208-750-11	METAL CHIP	47 0.5% 1/10W
Q521	8-729-120-28	2SC1623-L5L6		R573	1-208-810-11	METAL CHIP	15K 0.5% 1/10W
Q522	8-729-120-28	2SC1623-L5L6		R574	1-208-782-11	METAL CHIP	1K 0.5% 1/10W
Q523	8-729-120-28	2SC1623-L5L6		R575	1-208-756-11	METAL CHIP	82 0.5% 1/10W
Q601	8-729-120-28	2SC1623-L5L6		R576	1-208-756-11	METAL CHIP	82 0.5% 1/10W
Q602	8-729-120-28	2SC1623-L5L6		R577	1-208-750-11	METAL CHIP	47 0.5% 1/10W
Q901	8-729-216-22	2SA1162-G		R578	1-208-750-11	METAL CHIP	47 0.5% 1/10W
Q902	8-729-216-22	2SA1162-G		R579	1-216-077-91	RES-CHIP	15K 5% 1/10W
Q903	8-729-216-22	2SA1162-G		R580	1-216-295-11	SHORT	0
Q907	8-729-216-22	2SA1162-G		R598	1-216-025-11	RES-CHIP	100 5% 1/10W
Q908	8-729-216-22	2SA1162-G		R600	1-216-066-00	RES-CHIP	5.1K 5% 1/10W
Q909	8-729-216-22	2SA1162-G		R601	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R602	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R603	1-216-073-00	RES-CHIP	10K 5% 1/10W

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KV-EX34M39/EX34M69/EX34M87

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B3

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R604	1-216-033-00	RES-CHIP	220 5% 1/10W	R684	1-216-073-00	RES-CHIP	10K 5% 1/10W
R605	1-216-295-11	SHORT	0	R685	1-216-073-00	RES-CHIP	10K 5% 1/10W
R608	1-216-295-11	SHORT	0	R686	1-216-073-00	RES-CHIP	10K 5% 1/10W
R609	1-216-073-00	RES-CHIP	10K 5% 1/10W	R687	1-216-295-11	SHORT	0
R610	1-216-033-00	RES-CHIP	220 5% 1/10W	R688	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R611	1-216-073-00	RES-CHIP	10K 5% 1/10W	R689	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R612	1-216-073-00	RES-CHIP	10K 5% 1/10W	R690	1-216-295-11	SHORT	0
R613	1-216-065-91	RES-CHIP	4.7K 5% 1/10W	R691	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R614	1-216-295-11	SHORT	0	R692	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R615	1-216-089-11	RES-CHIP	47K 5% 1/10W	R693	1-216-009-91	RES-CHIP	22 5% 1/10W
R616	1-216-073-00	RES-CHIP	10K 5% 1/10W	R694	1-216-295-11	SHORT	0
R617	1-216-295-11	SHORT	0	R695	1-216-047-91	RES-CHIP	820 5% 1/10W
R619	1-216-073-00	RES-CHIP	10K 5% 1/10W	R696	1-216-049-11	RES-CHIP	1K 5% 1/10W
R621	1-216-295-11	SHORT	0	R697	1-216-117-00	RES-CHIP	680K 5% 1/10W
R622	1-216-295-11	SHORT	0	R698	1-216-117-00	RES-CHIP	680K 5% 1/10W
R623	1-216-295-11	SHORT	0	R699	1-216-295-11	SHORT	0
R624	1-216-295-11	SHORT	0	R907	1-208-790-11	METAL CHIP	2.2K 0.5% 1/10W
R626	1-216-073-00	RES-CHIP	10K 5% 1/10W	R908	1-208-790-11	METAL CHIP	2.2K 0.5% 1/10W
R628	1-216-295-11	SHORT	0	R909	1-208-790-11	METAL CHIP	2.2K 0.5% 1/10W
R629	1-216-073-00	RES-CHIP	10K 5% 1/10W	R910	1-216-049-11	RES-CHIP	1K 5% 1/10W
R631	1-216-295-11	SHORT	0	R911	1-216-049-11	RES-CHIP	1K 5% 1/10W
R634	1-216-295-11	SHORT	0	R912	1-216-049-11	RES-CHIP	1K 5% 1/10W
R635	1-216-295-11	SHORT	0	R942	1-216-037-00	RES-CHIP	330 5% 1/10W
R638	1-216-295-11	SHORT	0	R943	1-216-033-00	RES-CHIP	220 5% 1/10W
R639	1-216-017-91	RES-CHIP	47 5% 1/10W	R957	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R640	1-216-009-91	RES-CHIP	22 5% 1/10W	R958	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R642	1-216-295-11	SHORT	0	R959	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R643	1-216-295-11	SHORT	0	R960	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R645	1-216-295-11	SHORT	0	R961	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R647	1-216-295-11	SHORT	0	R962	1-216-635-11	METAL CHIP	220 0.5% 1/10W
R650	1-211-960-11	METAL CHIP	22 0.5% 1/10W	R981	1-216-037-00	RES-CHIP	330 5% 1/10W
R651	1-216-295-11	SHORT	0	R982	1-216-037-00	RES-CHIP	330 5% 1/10W
R653	1-216-025-11	RES-CHIP	100 5% 1/10W	R983	1-216-089-11	RES-CHIP	47K 5% 1/10W
R654	1-216-033-00	RES-CHIP	220 5% 1/10W	R984	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R655	1-216-295-11	SHORT	0	R985	1-216-113-00	RES-CHIP	470K 5% 1/10W
R657	1-216-009-91	RES-CHIP	22 5% 1/10W	R986	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R658	1-216-049-11	RES-CHIP	1K 5% 1/10W	R987	1-216-049-11	RES-CHIP	1K 5% 1/10W
R659	1-216-025-11	RES-CHIP	100 5% 1/10W	R988	1-216-033-00	RES-CHIP	220 5% 1/10W
R664	1-216-295-11	SHORT	0	R989	1-216-081-00	RES-CHIP	22K 5% 1/10W
R665	1-216-035-00	RES-CHIP	270 5% 1/10W	R990	1-216-113-00	RES-CHIP	470K 5% 1/10W
R666	1-216-646-11	METAL CHIP	620 0.5% 1/10W	R991	1-216-295-11	SHORT	0
R667	1-208-794-11	METAL CHIP	3.3K 0.5% 1/10W	R993	1-216-089-11	RES-CHIP	47K 5% 1/10W
R668	1-216-017-91	RES-CHIP	47 5% 1/10W				
R670	1-216-295-11	SHORT	0	RB019	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R671	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB020	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R672	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB021	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R673	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB022	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R674	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB023	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R675	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB024	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R676	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB025	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R677	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB026	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R678	1-216-073-00	RES-CHIP	10K 5% 1/10W	RB027	1-239-409-11	NETWORK RESISTOR (CHIP)	47
R679	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R680	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R681	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R682	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R683	1-216-073-00	RES-CHIP	10K 5% 1/10W				

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

C

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1332-131-A	C BOARD, MOUNTED (KV-EX29M63)					<DIODE>	

* A-1332-123-A	C BOARD, MOUNTED (EXCEPT KV-EX29M63)			D9002	8-719-400-75	MA3091	
	*****			D9005	8-719-073-01	MA111-(K8),S0	
7-682-948-01	SCREW +PSW 3X8 (KV-EX29M63)			D9006	8-719-051-85	HSS83TD	
4-382-854-01	SCREW (M3X8), P,SW (+) (EXCEPT KV-EX29M63)			D9007	8-719-051-85	HSS83TD	
				D9008	8-719-051-85	HSS83TD	
		<CAPACITOR>		D9009	8-719-908-03	GP08D	
				D9010	8-719-110-17	RD10ESB2	
C9002	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V		
C9003	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V		<IC>
C9004	1-104-574-11	CERAMIC	0.0047UF	10.00%	2KV		
C9005	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	IC9001	8-759-360-83 TDA6111Q/N4
C9006	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	IC9002	8-759-360-83 TDA6111Q/N4
		(KV-EX29M63)				IC9003	8-759-360-83 TDA6111Q/N4
C9006	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V		<JACK>
		(EXCEPT KV-EX29M63)					
C9007	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V		
C9008	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V		
C9009	1-163-091-00	CERAMIC CHIP	8PF	0.25PF	50V		
		(KV-EX29M63)				J9001 Δ	1-540-071-22 SOCKET, CRT
C9009	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V		<COIL>
		(EXCEPT KV-EX29M63)					
C9010	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	L9001	1-414-158-11 INDUCTOR 2.2UH
C9011	1-136-207-11	MYLAR	0.047UF	10.00%	250V	L9002	1-408-595-31 INDUCTOR 2.2UH (KV-EX29M63)
C9012	1-136-207-11	MYLAR	0.047UF	10.00%	250V	L9002	1-408-591-11 INDUCTOR 1UH (EXCEPT KV-EX29M63)
C9014	1-136-207-11	MYLAR	0.047UF	10.00%	250V	L9003	1-408-595-31 INDUCTOR 2.2UH (KV-EX29M63)
C9015	1-163-087-00	CERAMIC CHIP	4PF	0.25PF	50V	L9003	1-408-591-11 INDUCTOR 1UH (EXCEPT KV-EX29M63)
C9016	1-102-106-00	CERAMIC	100PF	10.00%	50V	L9004	1-408-595-31 INDUCTOR 2.2UH (KV-EX29M63)
C9018	1-107-961-91	ELECT	10UF	20.00%	250V	L9004	1-408-591-11 INDUCTOR 1UH (EXCEPT KV-EX29M63)
C9019	1-163-035-00	CERAMIC CHIP	0.047UF	50V		L9005	1-406-666-21 INDUCTOR 150UH
C9020	1-107-961-91	ELECT	10UF	20.00%	250V	L9006	1-412-526-11 INDUCTOR 12UH
C9021	1-107-961-91	ELECT	10UF	20.00%	250V		
							<NEON LAMP>
C9022	1-101-004-00	CERAMIC	0.01UF	50V		NL9001	1-519-526-11 LAMP, NEON
C9023	1-101-004-00	CERAMIC	0.01UF	50V		NL9003	1-519-526-11 LAMP, NEON
C9024	1-163-035-00	CERAMIC CHIP	0.047UF	50V			
C9025	1-104-653-11	ELECT	220UF	20.00%	16V		
C9026	1-163-035-00	CERAMIC CHIP	0.047UF	50V			
							<TRANSISTOR>
C9027	1-101-004-00	CERAMIC	0.01UF	50V		Q9001	8-729-026-49 2SA1037AK-T146-R
C9028	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V	Q9009	8-729-026-49 2SA1037AK-T146-R
C9029	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V	Q9010	8-729-216-22 2SA1162-G
C9030	1-163-017-00	CERAMIC CHIP	0.0047UF	10.00%	50V	Q9011	8-729-026-49 2SA1037AK-T146-R
C9031	1-104-574-11	CERAMIC	0.0047UF	10.00%	2KV		
							<RESISTOR>
C9032	1-162-116-00	CERAMIC	680PF	10.00%	2KV	R9001	1-216-059-00 RES-CHIP 2.7K 5% 1/10W
C9033	1-107-662-11	ELECT	22UF	20.00%	250V	R9006	1-216-073-00 RES-CHIP 10K 5% 1/10W
C9035	1-104-574-11	CERAMIC	0.0047UF	10.00%	2KV	R9007	1-208-789-11 METAL CHIP 2K 0.5% 1/10W
C9042	1-126-940-11	ELECT	330UF	20.00%	25V	R9008	1-216-085-00 RES-CHIP 33K 5% 1/10W
C9047	1-107-651-11	ELECT	4.7UF	20.00%	250V	R9012	1-216-049-11 RES-CHIP 1K 5% 1/10W
		<CONNECTOR>				R9013	1-216-049-11 RES-CHIP 1K 5% 1/10W
CN9001*	1-564-512-11	PLUG, CONNECTOR 9P				R9018	1-216-059-00 RES-CHIP 2.7K 5% 1/10W
CN9002	1-691-765-11	PLUG (MICRO CONNECTOR) 3P				R9019	1-216-059-00 RES-CHIP 2.7K 5% 1/10W
CN9003	1-695-915-11	TAB (CONTACT)				R9021	1-216-295-11 SHORT 0
CN9004	1-695-915-11	TAB (CONTACT)				R9023	1-216-295-11 SHORT 0
CN9007	1-785-879-11	CONNECTOR, ONE TOUCH					

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

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D

REF. NO.	PART NO.	DESCRIPTION	REMARK
R9026	1-208-789-11	METAL CHIP 2K	0.5% 1/10W
R9031	1-208-789-11	METAL CHIP 2K	0.5% 1/10W
R9033	1-208-808-11	METAL CHIP 12K	0.5% 1/10W
R9034	1-208-800-11	METAL CHIP 5.6K	0.5% 1/10W
R9035	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R9036	1-216-049-11	RES-CHIP 1K	5% 1/10W
R9037	1-240-233-71	METAL OXIDE 100	5% 3W
R9038	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R9039	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R9041	1-216-049-11	RES-CHIP 1K	5% 1/10W
R9042	1-216-049-11	RES-CHIP 1K	5% 1/10W
R9043	1-240-233-71	METAL OXIDE 100	5% 3W
R9044	1-240-233-71	METAL OXIDE 100	5% 3W
R9047	1-202-557-00	SOLID 220	20% 1/2W
R9048	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R9049	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R9050	1-249-424-11	CARBON 3.9K	5% 1/4W
R9051	1-202-557-00	SOLID 220	20% 1/2W
R9052	1-202-557-00	SOLID 220	20% 1/2W
R9053	1-249-424-11	CARBON 3.9K	5% 1/4W
R9054	1-249-424-11	CARBON 3.9K	5% 1/4W
R9055	1-243-994-91	CEMENTED 820K	5% 0.5W
R9056	1-219-752-11	CARBON 100K	5% 1/2W
R9057	1-220-827-91	RESISTOR 560K	5% 1/2W
R9058	1-243-994-91	CEMENTED 820K	5% 0.5W
R9059	1-219-746-11	CARBON 1K	5% 1/2W
R9061	1-219-743-11	CARBON 100	5% 1/2W
R9065	1-216-069-00	RES-CHIP 6.8K	5% 1/10W
R9068	1-216-101-00	RES-CHIP 150K	5% 1/10W
R9069	1-219-743-11	CARBON 100	5% 1/2W
R9070	1-216-037-00	RES-CHIP 330	5% 1/10W
R9071	1-216-037-00	RES-CHIP 330	5% 1/10W
R9072	1-216-037-00	RES-CHIP 330	5% 1/10W
R9073	1-216-057-00	RES-CHIP 2.2K	5% 1/10W

<VARIABLE RESISTOR>

RV9001	1-241-656-11	RES, ADJ, METAL FILM 110M
RV9002	1-230-641-11	RES, ADJ, METAL GLAZE 2.2M

- * A-1348-013-A D BOARD, COMPLETE (KV-EX29M63)

- * A-1348-020-A D BOARD, COMPLETE (KV-EX34M39)

- * A-1346-995-A D BOARD, COMPLETE (KV-EX34M69)

- * A-1348-019-A D BOARD, COMPLETE (KV-EX34M87)

- * 4-363-146-00 HEAT SINK, V.OUT
(KV-EX34M39/EX34M87 ONLY)
- * 4-374-846-01 COVER, CAPACITOR, CAP TYPE
(KV-EX34M87 ONLY)

REF. NO.	PART NO.	DESCRIPTION	REMARK
	4-047-778-11	COVER, CAP TYPE CONDENSER (KV-EX29M63 ONLY)	
	4-382-854-11	SCREW (M3X10), P, SW (+)	
	4-382-854-21	SCREW (M3X14), P, SW (+)	
		<CAPACITOR>	
C6100	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6101	1-107-680-91	ELECT 22UF	20.00% 450V
C6102	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6103	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C6104	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6105	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C6106	1-163-005-11	CERAMIC CHIP 470PF	10.00% 50V
C6107	1-137-605-11	MYLAR 0.01UF	10.00% 250V
C6108	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6109	1-126-971-11	ELECT 470UF	20.00% 50V
C6110	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6111	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6113	1-126-965-11	ELECT 22UF	20.00% 50V
C6334	1-126-940-11	ELECT 330UF	20.00% 25V
C6600	1-128-550-11	ELECT 2200UF	20.00% 50V
C6601	1-126-967-11	ELECT 47UF	20.00% 50V
C6602	1-129-720-00	FILM 0.033UF	5.00% 630V
C6603	1-126-949-11	ELECT 220UF	20.00% 35V
C6604	1-126-967-11	ELECT 47UF	20.00% 50V
C6606	1-163-251-11	CERAMIC CHIP 100PF (KV-EX34M87 ONLY)	5.00% 50V
C6607 Δ	1-119-886-51	CERAMIC 470PF	10.00% 250V
C6608 Δ	1-119-886-51	CERAMIC 470PF	10.00% 250V
C6609	1-126-960-11	ELECT 1UF (KV-EX34M87 ONLY)	20.00% 50V
C6610	1-163-251-11	CERAMIC CHIP 100PF (KV-EX34M87 ONLY)	5.00% 50V
C6611	1-163-275-11	CERAMIC CHIP 0.001UF (KV-EX34M87 ONLY)	5.00% 50V
C6612	1-126-964-11	ELECT 10UF	20.00% 50V
C6613	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6614	1-161-830-00	CERAMIC 0.0047UF	500V
C6615	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C6616	1-126-961-11	ELECT 2.2UF	20.00% 50V
C6617	1-161-830-00	CERAMIC 0.0047UF	500V
C6618	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C6619	1-161-830-00	CERAMIC 0.0047UF	99% 500V
C6620	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V
C6621	1-131-940-11	ELECT 1200UF (KV-EX34M87 ONLY)	20% 250V
C6622	1-131-940-11	ELECT 1200UF (KV-EX34M87 ONLY)	20% 250V
C6624	1-126-962-11	ELECT 3.3UF	20.00% 50V
C6629	1-125-906-11	ELECT 560UF (EXCEPT KV-EX34M87)	20.00% 450V
C6633	1-136-479-11	FILM 0.001UF	2.00% 50V
C6634	1-126-964-11	ELECT 10UF	20.00% 50V
C6635	1-126-963-11	ELECT 4.7UF	20.00% 50V
C6637	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C6645	1-163-009-11	CERAMIC CHIP 0.001UF	10.00% 50V
C6647	1-126-964-11	ELECT 10UF	20.00% 50V
C6648	1-125-969-91	CERAMIC 680PF	10.00% 1KV



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C6649	1-125-969-91	CERAMIC	680PF	10.00%	1KV		
C6650	1-125-969-91	CERAMIC	680PF	10.00%	1KV		
C6651	1-125-969-91	CERAMIC	680PF	10.00%	1KV		
C6652	1-110-626-11	ELECT	330UF	20.00%	160V		
C6653	1-137-368-11	MYLAR	0.0047UF	5.00%	50V		
C6654	1-126-936-11	ELECT	3300UF	20.00%	16V		
C6655	1-126-936-11	ELECT	3300UF	20.00%	16V		
C6656	1-136-165-00	FILM	0.1UF	5.00%	50V		
C6658	1-104-330-91	CERAMIC	470PF	10.00%	1KV		
C6660	1-126-960-11	ELECT	1UF	20.00%	50V		
C6661	1-104-664-11	ELECT	47UF	20.00%	16V		
C6662	1-104-664-11	ELECT	47UF	20.00%	16V		
C6665	1-126-964-11	ELECT	10UF	20.00%	50V		
C6666	1-137-150-11	MYLAR	0.01UF	5.00%	50V		
C6668	1-104-664-11	ELECT	47UF	20.00%	25V		
C6669	1-125-969-91	CERAMIC	680PF	10.00%	1KV		
C6670	1-125-969-91	CERAMIC	680PF	10.00%	1KV		
C6672	1-135-946-21	FILM	47000PF	3%	800V		
C6673	1-136-189-00	MYLAR	0.1UF	10.00%	250V		
C6674	1-128-527-11	ELECT	330UF	20.00%	25V		
C6679	1-107-823-11	CERAMIC CHIP	0.47UF	10.00%	16V		
C6800	1-126-964-11	ELECT	10UF	20.00%	50V		
C6801	1-126-960-11	ELECT	1UF	20.00%	50V		
C6802	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V		
C6805	1-111-087-11	ELECT	330UF	20.00%	25V		
C6806	1-107-933-11	ELECT	100UF	20.00%	100V		
C6808	1-137-401-11	MYLAR	0.22UF	10.00%	100V		
C6809	1-102-074-00	CERAMIC	0.001UF	10.00%	50V		
C6810	1-106-220-00	MYLAR	0.1UF	10.00%	100V		
C6811	1-111-087-11	ELECT	330UF	20.00%	25V		
C6813	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V		
C6814	1-125-889-91	CERAMIC CHIP	2.2UF	10%	10V		
C6815	1-163-009-11	CERAMIC CHIP	0.001UF	10.00%	50V		
C6816	1-136-060-00	FILM (KV-EX29M63)	0.047UF	5.00%	400V		
C6816	1-137-577-11	FILM (EXCEPT KV-EX29M63)	0.068UF	5.00%	400V		
C6817	1-126-967-11	ELECT	47UF	20.00%	50V		
C6818	1-126-960-11	ELECT	1UF	20.00%	50V		
C6819	1-126-960-11	ELECT	1UF	20.00%	50V		
C6820	1-102-114-00	CERAMIC	470PF	10.00%	50V		
C6821	1-106-383-00	MYLAR	0.047UF	10.00%	200V		
C6822	1-102-114-00	CERAMIC	470PF	10.00%	50V		
C6823	1-106-383-00	MYLAR	0.047UF	10.00%	200V		
C6826	1-102-030-00	CERAMIC	330PF	10.00%	500V		
C6827	1-102-030-00	CERAMIC	330PF	10.00%	500V		
C6828	1-104-987-11	MYLAR (KV-EX29M63)	0.001UF	10.00%	200V		
C6828	1-107-364-11	MYLAR (EXCEPT KV-EX29M63)	0.01UF	10.00%	200V		
C6829	1-107-444-11	CERAMIC (KV-EX29M63)	100PF	10.00%	2KV		
C6829	1-162-115-00	CERAMIC (EXCEPT KV-EX29M63)	330PF	10.00%	2KV		
C6830	1-117-619-11	FILM (EXCEPT KV-EX29M63)	1000PF	3.00%	1.2KV		
C6831	1-117-835-11	FILM (KV-EX29M63)	6200PF	3.00%	1.5KV		
C6831	1-117-838-11	FILM	8200PF	3.00%	1.5KV		
C6832	1-117-836-11	FILM (KV-EX29M63)	6800PF	3.00%	1.5KV		
C6832	1-117-842-11	FILM (EXCEPT KV-EX29M63)	12000PF	3.00%	1.5KV		
C6833	1-127-680-11	FILM MELF	4700PF	2%	100V		
C6834	1-125-893-11	FILM	680PF	3.00%	1.5KV		
C6835	1-125-893-11	FILM	680PF	3.00%	1.5KV		
C6836	1-127-681-11	FILM MELF	10000PF	2%	100V		
C6837	1-125-893-11	FILM	680PF	3.00%	1.5KV		
C6838	1-125-893-11	FILM	680PF	3.00%	1.5KV		
C6839	1-126-933-11	ELECT	100UF	20.00%	16V		
C6840	1-126-933-11	ELECT	100UF	20.00%	16V		
C6841	1-117-600-21	FILM (KV-EX29M63)	0.12UF	5.00%	250V		
C6841	1-115-511-11	FILM (EXCEPT KV-EX29M63)	0.12UF	5.00%	250V		
C6842	1-117-667-11	FILM (KV-EX29M63)	0.47UF	5.00%	250V		
C6842	1-117-673-11	FILM (EXCEPT KV-EX29M63)	1.5UF	5.00%	250V		
C6843	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V		
C6844	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V		
C6845	1-117-663-11	FILM (KV-EX29M63)	0.22UF	5.00%	250V		
C6845	1-117-664-11	FILM (EXCEPT KV-EX29M63)	0.27UF	5.00%	250V		
C6846	1-117-662-11	FILM (KV-EX29M63)	0.18UF	5.00%	250V		
C6846	1-115-514-11	FILM (EXCEPT KV-EX29M63)	0.22UF	5.00%	250V		
C6847	1-164-004-11	CERAMIC CHIP	0.1UF	10.00%	25V		
C6848	1-113-979-51	FILM	0.047UF	5%	250V		
C6849	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V		
C6850	1-115-339-11	CERAMIC CHIP	0.1UF	10.00%	50V		
C6851	1-107-639-11	ELECT	47UF	20.00%	160V		
C6852	1-102-121-00	CERAMIC (EXCEPT KV-EX29M63)	0.0022UF	10.00%	50V		
C6853	1-102-228-00	CERAMIC	470PF	10.00%	500V		
C6854	1-126-941-11	ELECT	470UF	20.00%	25V		
C6855	1-123-024-21	ELECT	33UF		160V		
C6856	1-126-971-11	ELECT	470UF	20.00%	50V		
C6857	1-102-228-00	CERAMIC	470PF	10.00%	500V		
C6858	1-102-228-00	CERAMIC	470PF	10.00%	500V		
C6859	1-162-129-00	CERAMIC	150PF	10.00%	2KV		
C6860	1-162-131-11	CERAMIC (KV-EX29M63)	220PF	10.00%	2KV		
C6860	1-162-129-00	CERAMIC (EXCEPT KV-EX29M63)	150PF	10.00%	2KV		
C6862	1-130-202-00	FILM	0.022UF	5.00%	200V		
C6863	1-107-906-11	ELECT	10UF	20.00%	50V		
C6864	1-129-898-00	FILM	0.0022UF	5.00%	630V		
C6865	1-130-202-00	FILM	0.022UF	5.00%	400V		
C6866	1-102-030-00	CERAMIC	330PF	10.00%	500V		
C6867	1-130-785-11	MYLAR	0.47UF	10.00%	100V		
C6868	1-163-021-91	CERAMIC CHIP	0.01UF	10.00%	50V		
C6869	1-107-882-91	ELECT (EXCEPT KV-EX29M63)	100UF	20.00%	16V		
C6870	1-128-528-11	ELECT (EXCEPT KV-EX29M63)	470UF	20.00%	25V		

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

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The components identified by shading and mark Δ are critical for safety.
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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C6871	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V	D6102	8-719-978-65	DTZ-TT11-15B	
C6872	1-163-275-11	CERAMIC CHIP 0.001UF	5.00% 50V	D6103	8-719-073-01	MA111-(K8).S0	
C6874	1-136-165-00	FILM 0.1UF	5.00% 50V	D6105	8-719-948-45	ERA22-08	
C6875	1-104-664-11	ELECT 47UF	20.00% 16V	D6108	8-719-063-73	D1NL20U-TR	
C6876	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	D6323	8-719-032-12	D1NS6	
C6877	1-126-964-11	ELECT 10UF	20.00% 50V	D6601	8-719-911-19	1SS119-25	
C6878	1-126-320-11	ELECT 10UF	20.00% 16V	D6602	8-719-073-01	MA111-(K8).S0 (KV-EX34M87 ONLY)	
C6879	1-107-960-11	ELECT 4.7UF	20.00% 160V	D6603	8-719-073-01	MA111-(K8).S0 (KV-EX34M87 ONLY)	
C6880	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V	D6604	8-719-073-01	MA111-(K8).S0 (KV-EX34M87 ONLY)	
		(KV-EX29M63)		D6605	8-719-510-53	D4SB60L	
C6880	1-163-021-91	CERAMIC CHIP 0.01UF	10.00% 50V	D6608	8-719-073-01	MA111-(K8).S0	
		(EXCEPT KV-EX29M63)		D6609	8-719-911-19	1SS119-25 (KV-EX34M87 ONLY)	
C6882	1-104-574-11	CERAMIC 0.0047UF	10.00% 2KV	D6610	8-719-073-01	MA111-(K8).S0 (KV-EX34M87 ONLY)	
C6883	1-126-965-11	ELECT 22UF	20.00% 50V	D6611	8-719-073-01	MA111-(K8).S0 (KV-EX34M87 ONLY)	
C6884	1-125-889-91	CERAMIC CHIP 2.2UF	10% 10V	D6612	8-719-911-55	U05G (KV-EX34M87 ONLY)	
C6885	1-162-131-11	CERAMIC 220PF	10% 2KV	D6613	8-719-911-55	U05G (KV-EX34M87 ONLY)	
		(KV-EX29M63 ONLY)		D6614	8-719-110-30	RD12ES-B1	
		<CONNECTOR>		D6615	8-719-911-19	1SS119-25	
CN6602*	Δ 1-508-786-13	PIN, CONNECTOR (5MM PITCH) 2P		D6618	8-719-979-64	UF4005PKG23	
		(EXCEPT KV-EX29M63)		D6620	8-719-063-73	D1NL20U-TR	
CN6603*	Δ 1-691-134-11	PIN, CONNECTOR (PC BOARD) 2P (KV-EX29M63)		D6623	8-719-911-19	1SS119-25	
CN6603*	Δ 1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P		D6631	8-719-050-18	D4SBL20U	
		(EXCEPT KV-EX29M63)		D6632	8-719-073-01	MA111-(K8).S0	
CN6604*	1-580-843-11	PIN, CONNECTOR (POWER)		D6633	8-719-510-12	D10SC4M	
CN6605*	1-764-333-11	PLUG, CONNECTOR 10P		D6635	8-719-110-47	RD18ESB	
CN6606*	1-764-333-11	PLUG, CONNECTOR 10P		D6636	8-719-911-19	1SS119-25	
CN6609*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6639	8-719-063-73	D1NL20U-TR	
CN6610*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6640	8-719-110-72	RD30ESB2	
CN6611*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6641	8-719-109-96	RD6.8ES-B1	
CN6612*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6642	8-719-911-19	1SS119-25	
CN6613*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6644	8-719-052-92	D10SBS4F	
CN6614*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6648	8-719-110-30	RD12ES-B1 (KV-EX34M87 ONLY)	
CN6615*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6654	8-719-052-92	D10SBS4F	
CN6616*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6800	8-719-110-03	RD7.5ESB2	
CN6617	1-695-915-11	TAB (CONTACT)		D6801	8-719-911-19	1SS119-25	
CN6618*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6803	8-719-510-73	S3L20UF4	
CN6619	1-564-507-41	PLUG, CONNECTOR 4P		D6806	8-719-911-19	1SS119-25	
CN6800*	1-764-333-11	PLUG, CONNECTOR 10P		D6807	8-719-109-68	RD3.6ES-B1	
CN6801*	Δ 1-785-270-12	PIN, DY CONNECTOR (PC BOARD)		D6808	8-719-914-43	DAN202K	
CN6802	1-783-967-11	CONNECTOR, BOARD TO BOARD 30P		D6809	8-719-908-03	GP08D	
CN6803*	1-764-333-11	PLUG, CONNECTOR 10P		D6812	8-719-110-39	RD15ES-B1	
CN6804 Δ	1-691-765-11	PLUG (MICRO CONNECTOR) 3P		D6813	8-719-302-43	EL1Z	
		(KV-EX29M63 ONLY)		D6814	8-719-018-82	RGP02-20EL-6394	
CN6805	1-695-915-11	TAB (CONTACT)		D6816	8-719-510-73	S3L20UF4	
CN6808	1-695-915-11	TAB (CONTACT)		D6817	8-719-510-73	S3L20UF4	
CN6809	1-695-915-11	TAB (CONTACT)		D6820	8-719-970-87	ERA38-06	
CN6810	1-785-879-11	CONNECTOR, ONE TOUCH		D6821	8-719-970-87	ERA38-06	
CN6811*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6822	8-719-067-18	RN4Z (EXCEPT KV-EX29M63)	
CN6812*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D6823	8-719-911-19	1SS119-25	
CN6819	1-783-967-11	CONNECTOR, BOARD TO BOARD 30P		D6824	8-719-510-73	S3L20UF4	
		<DIODE>		D6825	8-719-914-43	DAN202K	
D6100	8-719-077-76	D2SB60A-F04		D6826	8-719-911-19	1SS119-25	
D6101	8-719-110-49	RD18ES-B2		D6830	8-719-914-43	DAN202K	
		<FERRITE BEAD>		FB6602	1-239-358-21	FILTER, NOISE	
				FB6603	1-239-358-21	FILTER, NOISE	

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REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
FB6604	1-410-396-41	FERRITE	0.45UH			<IC LINK>	
FB6605	1-410-396-41	FERRITE	0.45UH				
FB6606	1-410-397-21	FERRITE	1.1UH				
		<IC>					
IC6600	8-759-670-30	MCZ3001D				<TRANSISTOR>	
IC6601	8-759-198-31	UPC1093J-1-T					
IC6607	8-749-012-13	DM-58		Q6100	8-729-046-40	2SK2663	
IC6608	8-759-133-90	UPC339C		Q6102	8-729-023-22	2SD2114K	
IC6800	8-759-192-71	STV9379		Q6600	8-729-052-32	IRFIB7N50A	
IC6801	8-759-450-95	LM393N		Q6601	8-729-119-78	2SC2785-HFE	
IC6804	8-759-394-36	BA09T		Q6602	8-729-119-78	2SC2785-HFE (KV-EX34M87 ONLY)	
IC6805	8-759-394-35	BA12T		Q6603	8-729-052-32	IRFIB7N50A	
IC6806	8-749-013-76	PQ6RD83B (EXCEPT KV-EX29M63)		Q6604	8-729-119-76	2SA1175-HFE	
		<CHIP CONDUCTOR>		Q6605	8-729-230-49	2SC2712-YG	
JR6601	1-216-295-11	SHORT	0	Q6608	8-729-200-21	2SC2500-B	
JR6603	1-216-295-11	SHORT	0	Q6609	8-729-029-56	DTA144ESA	
JR6606	1-216-295-11	SHORT	0	Q6610	8-729-119-78	2SC2785-HFE	
JR6607	1-216-295-11	SHORT	0	Q6611	8-729-029-66	DTC114ESA	
JR6608	1-216-295-11	SHORT	0	Q6613	8-729-030-02	DTC144ESA	
JR6609	1-216-295-11	SHORT	0	Q6614	8-729-119-76	2SA1175-HFE	
JR6610	1-216-295-11	SHORT	0	Q6619	8-729-119-78	2SC2785-HFE	
JR6611	1-216-295-11	SHORT	0	Q6620	8-729-119-78	2SC2785-HFE	
JR6612	1-216-295-11	SHORT	0	Q6800	8-729-422-33	2SD601A-Q-TX	
JR6613	1-216-295-11	SHORT	0	Q6802	8-729-046-33	IRF720-LF49 (KV-EX29M63)	
JR6893	1-216-295-11	SHORT	0	Q6802	8-729-025-19	IRFI740G (EXCEPT KV-EX29M63)	
		<COIL>		Q6803	8-729-119-76	2SA1175-HFE	
L6600	1-410-396-41	FERRITE	0.45UH	Q6804	8-729-119-78	2SC2785-HFE	
L6604	1-412-525-31	INDUCTOR	10UH	Q6805	8-729-140-96	2SD774-34	
L6605	1-412-525-31	INDUCTOR	10UH	Q6806	8-729-140-96	2SD774-34	
L6606	1-412-525-31	INDUCTOR	10UH	Q6807	8-729-046-18	2SC5480-01	
L6607	1-412-519-11	INDUCTOR	3.3UH	Q6808	8-729-046-18	2SC5480-01	
L6608	1-412-525-31	INDUCTOR	10UH	Q6809	8-729-038-83	2SK2251-01-F19	
L6609	1-410-396-41	FERRITE	0.45UH	Q6810	8-729-047-60	IRFI830G-LF49	
L6800	1-412-525-31	INDUCTOR	10UH	Q6811	1-801-806-11	TR DTC144EKA	
L6801	1-406-675-11	INDUCTOR	4.7UH (KV-EX29M63)	Q6812	8-729-043-95	2SC3840(3)	
L6801	1-406-986-21	INDUCTOR	3.3UH (EXCEPT KV-EX29M63)	Q6813	8-729-422-33	2SD601A-Q-TX	
L6803	1-406-985-11	INDUCTOR	2.2MH (KV-EX29M63)	Q6814	8-729-026-49	2SA1037AK-T146-R	
L6803	1-406-982-11	INDUCTOR	680UH (EXCEPT KV-EX29M63)	Q6815	8-729-045-65	2SA1776TV2Q	
L6804	1-412-519-11	INDUCTOR	3.3UH	Q6816	8-729-140-96	2SD774-34	
L6805	1-412-519-11	INDUCTOR	3.3UH	Q6817	8-729-422-33	2SD601A-Q-TX	
L6806	1-412-519-11	INDUCTOR	3.3UH	Q6818	1-801-806-11	TR DTC144EKA	
L6807	1-412-552-11	INDUCTOR	2.2MH	Q6819	1-801-806-11	TR DTC144EKA	
L6808	1-406-674-11	INDUCTOR	3.3MH	Q6820	8-729-422-33	2SD601A-Q-TX	
		<PHOTO COUPLER>		Q6821	8-729-026-49	2SA1037AK-T146-R	
PH6601 Δ	8-749-924-35	ON3171-R		Q6822	8-729-026-49	2SA1037AK-T146-R	
PH6602 Δ	8-749-924-35	ON3171-R		Q6823	8-729-422-33	2SD601A-Q-TX	
		<RESISTOR>		R6100	1-260-298-51	CARBON	3.3 5% 1/2W
				R6101	1-216-045-00	RES-CHIP	680 5% 1/10W
				R6102	1-249-389-11	CARBON	4.7 5% 1/4W
				R6103	1-216-009-91	RES-CHIP	22 5% 1/10W
				R6104	1-240-205-91	CARBON	22M 5% 1/2W

KV-EX29M63

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KV-EX34M39/EX34M69/EX34M87

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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
R6105	1-216-097-11	RES-CHIP 100K	5% 1/10W	R6637	1-215-463-00	METAL 56K	1% 1/4W
R6106	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R6638	1-240-876-11	CEMENTED 1	5% 15W
R6107	1-216-089-11	RES-CHIP 47K	5% 1/10W	R6639	1-240-876-11	CEMENTED 1	5% 15W
R6108	1-215-493-00	METAL 1M	1% 1/4W	R6640	1-216-081-00	RES-CHIP 22K (KV-EX34M87 ONLY)	5% 1/10W
R6110	1-249-413-11	CARBON 470	5% 1/4W	R6641	1-260-131-11	CARBON 470K (KV-EX34M87 ONLY)	5% 1/2W
R6500	1-220-797-11	CEMENTED 0.47	5% 10W	R6642	1-260-131-11	CARBON 470K (KV-EX34M87 ONLY)	5% 1/2W
R6600	1-216-295-11	SHORT 0		R6643	1-216-081-00	RES-CHIP 22K (KV-EX34M87 ONLY)	5% 1/10W
R6602	1-249-417-11	CARBON 1K	5% 1/4W	R6644	1-249-417-11	CARBON 1K	5% 1/4W
R6603	1-208-806-11	METAL CHIP 10K	0.5% 1/10W	R6645	1-220-886-11	FUSIBLE 0.1	10% 1W
R6604	1-208-806-11	METAL CHIP 10K	0.5% 1/10W	R6647	1-208-770-11	METAL CHIP 330	0.5% 1/10W
R6605	1-215-471-00	METAL 120K (KV-EX34M87 ONLY)	1% 1/4W	R6648	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R6606	1-215-466-00	METAL 75K (KV-EX34M87 ONLY)	1% 1/4W	R6649	1-249-425-11	CARBON 4.7K	5% 1/4W
R6607	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6651	1-217-157-00	METAL 0.33	10% 5W
R6608	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6654	1-216-089-11	RES-CHIP 47K	5% 1/10W
R6609	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6655	1-216-073-00	RES-CHIP 10K	5% 1/10W
R6610	1-208-830-11	METAL CHIP 100K (KV-EX34M87 ONLY)	0.5% 1/10W	R6658	1-249-393-11	CARBON 10	5% 1/4W
R6611	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W	R6659	1-249-393-11	CARBON 10	5% 1/4W
R6612	1-215-471-00	METAL 120K (KV-EX34M87 ONLY)	1% 1/4W	R6660	1-216-073-00	RES-CHIP 10K	5% 1/10W
R6613	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6662	1-249-429-11	CARBON 10K	5% 1/4W
R6614	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6663	1-249-429-11	CARBON 10K	5% 1/4W
R6615	1-215-489-00	METAL 680K (KV-EX34M87 ONLY)	1% 1/4W	R6664	1-249-421-11	CARBON 2.2K	5% 1/4W
R6616	1-208-830-11	METAL CHIP 100K (KV-EX34M87 ONLY)	0.5% 1/10W	R6666	1-249-429-11	CARBON 10K	5% 1/4W
R6617	1-208-844-11	METAL CHIP 390K (KV-EX34M87 ONLY)	0.5% 1/10W	R6667	1-249-425-11	CARBON 4.7K	5% 1/4W
R6618	1-215-466-00	METAL 75K (KV-EX34M87 ONLY)	1% 1/4W	R6669	1-249-417-11	CARBON 1K	5% 1/4W
R6619	1-216-113-00	RES-CHIP 470K (KV-EX34M87 ONLY)	5% 1/10W	R6670	1-216-073-00	RES-CHIP 10K	5% 1/10W
R6620	1-208-846-11	METAL CHIP 470K (KV-EX34M87 ONLY)	0.5% 1/10W	R6671	1-217-611-00	METAL 0.1	10% 2W
R6621	1-216-073-00	RES-CHIP 10K (KV-EX34M87 ONLY)	5% 1/10W	R6672	1-249-421-11	CARBON 2.2K	5% 1/4W
R6622	1-220-797-11	CEMENTED 0.47	5% 10W	R6674	1-249-418-11	CARBON 1.2K	5% 1/4W
R6623	1-215-864-00	METAL OXIDE 150 (KV-EX34M87 ONLY)	5% 1W	R6675	1-208-774-11	METAL CHIP 470	0.5% 1/10W
R6624	1-208-830-11	METAL CHIP 100K	0.5% 1/10W	R6679	1-249-437-11	CARBON 47K	5% 1/4W
R6625	1-215-864-00	METAL OXIDE 150	5% 1W	R6680	1-216-362-11	METAL OXIDE 0.27	5% 2W
R6626	1-215-444-00	METAL 9.1K	1% 1/4W	R6681	1-249-429-11	CARBON 10K	5% 1/4W
R6627	1-215-481-00	METAL 330K	1% 1/4W	R6682	1-249-416-11	CARBON 820	5% 1/4W
R6628	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6683	1-260-127-11	CARBON 220K	5% 1/2W
R6629	1-215-481-00	METAL 330K	1% 1/4W	R6685	1-249-421-11	CARBON 2.2K	5% 1/4W
R6630	1-215-481-00	METAL 330K	1% 1/4W	R6686 \triangle	1-247-289-11	METAL 8.2M	5% 1W
R6631	1-208-808-11	METAL CHIP 12K	0.5% 1/10W	R6688	1-249-417-11	CARBON 1K	5% 1/4W
R6632	1-208-758-11	METAL CHIP 100	0.5% 1/10W	R6689	1-249-389-11	CARBON 4.7	5% 1/4W
R6633	1-215-458-00	METAL 36K	1% 1/4W	R6690	1-249-429-11	CARBON 10K	5% 1/4W
R6634	1-215-489-00	METAL 680K	1% 1/4W	R6691	1-260-131-11	CARBON 470K	5% 1/2W
R6635	1-215-489-00	METAL 680K	1% 1/4W	R6692	1-249-410-11	CARBON 270	5% 1/4W
R6636	1-215-489-00	METAL 680K	1% 1/4W	R6693	1-215-451-00	METAL 18K	1% 1/4W
				R6694	1-215-471-00	METAL 120K	1% 1/4W
				R6696	1-215-925-11	METAL OXIDE 22K	5% 3W
				R6699	1-216-073-00	RES-CHIP 10K	5% 1/10W
				R6701	1-216-073-00	RES-CHIP 10K	5% 1/10W
				R6702	1-216-689-11	RES-CHIP 39K	5% 1/10W
				R6704	1-249-377-11	CARBON 0.47	5% 1/4W
				R6710	1-217-158-00	METAL 0.47	10% 5W
				R6713	1-208-822-11	METAL CHIP 47K	0.5% 1/10W
				R6715	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
				R6800	1-249-429-11	CARBON 10K	5% 1/4W
				R6801	1-249-429-11	CARBON 10K	5% 1/4W



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R6802	1-249-429-11	CARBON 10K	5% 1/4W	R6853	1-260-288-11	CARBON 0.47	5% 1/2W
R6803	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6854	1-215-923-00	METAL OXIDE 10K	5% 3W
R6804	1-208-796-11	METAL CHIP 3.9K	0.5% 1/10W				
		(KV-EX29M63)		R6855	1-214-899-81	METAL 27K	1% 1/2W
R6804	1-208-795-11	METAL CHIP 3.6K	0.5% 1/10W			(KV-EX29M63)	
		(EXCEPT KV-EX29M63)		R6855	1-214-898-81	METAL 24K	1% 1/2W
R6805	1-208-802-11	METAL CHIP 6.8K	0.5% 1/10W			(EXCEPT KV-EX29M63)	
R6806	1-208-796-11	METAL CHIP 3.9K	0.5% 1/10W	R6856	1-215-923-00	METAL OXIDE 10K	5% 3W
		(KV-EX29M63)		R6857	1-215-923-00	METAL OXIDE 10K	5% 3W
R6806	1-208-795-11	METAL CHIP 3.6K	0.5% 1/10W	R6858	1-214-899-81	METAL 27K	1% 1/2W
		(EXCEPT KV-EX29M63)				(KV-EX29M63)	
R6807	1-249-383-11	CARBON 1.5	5% 1/4W	R6858	1-214-898-81	METAL 24K	1% 1/2W
R6810	1-214-798-21	METAL 1.8	1% 1/2W			(EXCEPT KV-EX29M63)	
R6811	1-215-913-11	METAL OXIDE 220	5% 3W	R6859	1-215-871-11	METAL OXIDE 2.2K	5% 1W
				R6860	1-215-923-00	METAL OXIDE 10K	5% 3W
R6813	1-214-798-21	METAL 1.8	1% 1/2W	R6861	1-216-295-11	SHORT 0	
R6814	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R6862	1-216-081-00	RES-CHIP 22K	5% 1/10W
R6815	1-208-801-11	METAL CHIP 6.2K	0.5% 1/10W				
R6816	1-214-915-00	METAL 120K	1% 1/2W	R6863	1-215-894-11	METAL OXIDE 2.2K	5% 2W
R6818	1-215-485-00	METAL 470K	1% 1/4W	R6864	1-216-081-00	RES-CHIP 22K	5% 1/10W
				R6865	1-216-103-00	RES-CHIP 180K	5% 1/10W
						(KV-EX29M63)	
R6819	1-249-421-11	CARBON 2.2K	5% 1/4W	R6865	1-216-101-00	RES-CHIP 150K	5% 1/10W
R6820	1-216-065-91	RES-CHIP 4.7K	5% 1/10W			(EXCEPT KV-EX29M63)	
R6822	1-216-461-00	METAL OXIDE 5.6K	5% 2W	R6866	1-215-433-00	METAL 3.3K	1% 1/4W
R6823	1-215-895-11	METAL OXIDE 3.3K	5% 2W			(KV-EX29M63)	
R6824	1-249-408-11	CARBON 180	5% 1/4W	R6866	1-215-431-00	METAL 2.7K	1% 1/4W
						(EXCEPT KV-EX29M63)	
R6825	1-249-408-11	CARBON 180	5% 1/4W	R6867	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R6826	1-216-459-21	METAL OXIDE 2.7K	5% 2W	R6868	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
		(KV-EX29M63)		R6869	1-216-115-00	RES-CHIP 560K	5% 1/10W
R6826	1-215-894-11	METAL OXIDE 2.2K	5% 2W			(KV-EX29M63)	
		(EXCEPT KV-EX29M63)		R6869	1-216-113-00	RES-CHIP 470K	5% 1/10W
R6827	1-215-895-11	METAL OXIDE 3.3K	5% 2W			(EXCEPT KV-EX29M63)	
		(KV-EX29M63)		R6870	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R6827	1-216-459-00	METAL OXIDE 2.7K	5% 2W	R6871	1-208-822-11	METAL CHIP 47K	0.5% 1/10W
		(EXCEPT KV-EX29M63)		R6872	1-260-125-11	CARBON 150K	5% 1/2W
R6828	1-249-411-11	CARBON 330	5% 1/4W	R6873	1-260-125-11	CARBON 150K	5% 1/2W
R6829	1-249-411-11	CARBON 330	5% 1/4W	R6875	1-249-417-11	CARBON 1K	5% 1/4W
R6830	1-247-764-11	CARBON 10K	5% 1/2W				
R6831	1-247-764-11	CARBON 10K	5% 1/2W	R6876	1-216-391-11	METAL OXIDE 1.5	5% 3W
R6832	1-215-477-00	METAL 220K	1% 1/4W			(KV-EX29M63)	
				R6876	1-260-288-11	CARBON 0.47	5% 1/2W
R6833	1-215-493-00	METAL 1M	1% 1/4W			(EXCEPT KV-EX29M63)	
R6834	1-216-381-11	METAL OXIDE 0.22	5% 3W	R6877	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R6835	1-216-381-11	METAL OXIDE 0.22	5% 3W	R6878	1-208-770-11	METAL CHIP 330	0.5% 1/10W
R6836	1-215-905-11	METAL OXIDE 10	5% 3W	R6879	1-216-105-91	RES-CHIP 220K	5% 1/10W
R6837	1-215-905-11	METAL OXIDE 10	5% 3W				
				R6880	1-208-802-11	METAL CHIP 6.8K	0.5% 1/10W
R6838	1-215-461-00	METAL 47K	1% 1/4W	R6881	1-215-453-00	METAL 22K	1% 1/4W
R6839	1-249-405-11	CARBON 100	5% 1/4W			(KV-EX29M63)	
R6841	1-216-434-11	METAL OXIDE 1.8K	5% 1W	R6881	1-215-447-00	METAL 12K	1% 1/4W
R6842	1-215-923-00	METAL OXIDE 10K	5% 3W			(EXCEPT KV-EX29M63)	
R6843	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6882	1-215-456-00	METAL 30K	1% 1/4W
						(KV-EX29M63)	
R6844	1-247-807-31	CARBON 100	5% 1/4W	R6882	1-215-453-00	METAL 22K	1% 1/4W
R6845	1-208-836-11	METAL CHIP 180	0.5% 1/10W			(EXCEPT KV-EX29M63)	
		(KV-EX29M63)					
R6845	1-208-824-11	METAL CHIP 56K	0.5% 1/10W				
		(EXCEPT KV-EX29M63)		R6883	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R6846	1-260-127-11	CARBON 220K	5% 1/2W	R6884	1-249-441-11	CARBON 100K	5% 1/4W
R6847	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R6885	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W
				R6886	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W
R6848	1-216-101-00	RES-CHIP 150K	5% 1/10W	R6887	1-216-081-00	RES-CHIP 22K	5% 1/10W
R6851	1-260-288-11	CARBON 0.47	5% 1/2W				
R6852	1-216-345-11	METAL OXIDE 0.47	5% 1W				

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KV-EX34M39/EX34M69/EX34M87

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
R6888	1-216-089-11	RES-CHIP	47K 5% 1/10W
R6889	1-260-125-11	CARBON	150K 5% 1/2W
R6890	1-260-125-11	CARBON	150K 5% 1/2W
R6891	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R6892	1-216-097-11	RES-CHIP	100K 5% 1/10W
R6893	1-216-085-00	RES-CHIP	33K 5% 1/10W
R6894	1-260-133-11	CARBON	680K 5% 1/2W
R6895	1-216-097-11	RES-CHIP	100K 5% 1/10W
R6896	1-216-089-11	RES-CHIP	47K 5% 1/10W
R6897	1-216-097-11	RES-CHIP	100K 5% 1/10W
R6899	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6900	1-208-810-11	METAL CHIP	15K 0.5% 1/10W
R6901	1-208-810-11	METAL CHIP	15K 0.5% 1/10W
R6902	1-249-441-11	CARBON	100K 5% 1/4W
R6903	1-215-923-00	METAL OXIDE	10K 5% 3W
R6905	1-249-389-11	CARBON	4.7 5% 1/4W
R6906	1-216-079-00	RES-CHIP	18K 5% 1/10W
R6907	1-216-079-00	RES-CHIP	18K 5% 1/10W
<RELAY>			
RY6601 Δ	1-755-018-11	RELAY	
RY6602 Δ	1-755-357-11	RELAY, AC POWER (KV-EX34M87 ONLY)	
RY6603 Δ	1-755-357-11	RELAY, AC POWER	
<TRANSFORMER>			
T6100 Δ	1-433-844-11	TRANSFORMER, CONVERTER	
T6602 Δ	1-435-690-11	TRANSFORMER, CONVERTER (PIT)	
T6800	1-429-741-11	TRANSFORMER, DRIVE	
T6801	1-433-934-11	TRANSFORMER, FERRITE (DFT)	
T6802	1-433-489-11	TRANSFORMER, FERRITE (HDT)	
T6803 Δ	1-453-349-11	TRANSFORMER ASSY, FLYBACK (NX-4522//J114)	
		(KV-EX29M63)	
T6803 Δ	1-453-326-11	TRANSFORMER ASSY, FLYBACK (NX-4601//J1J4)	
		(KV-EX34M87/M69)	
T6803 Δ	1-453-332-21	TRANSFORMER ASSY, FLYBACK (NX-4601//J1B4)	
		(KV-EX34M39)	
T6804	1-433-489-11	TRANSFORMER, FERRITE (HDT)	
<THERMISTOR>			
TH6100	1-803-586-11	THERMISTOR, NTC	
TH6601	1-803-540-11	THERMISTOR	
<VARISTOR>			
VD6601	1-803-614-11	VARISTOR (KV-EX34M87 ONLY)	
VD6603	1-803-830-11	VARISTOR (ERZV14D621)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1343-987-A	D1 BOARD, MOUNTED (KV-EX29M63)		

* A-1343-962-A	D1 BOARD, MOUNTED (EXCEPT KV-EX29M63)		

4-382-854-11	SCREW (M3X10), P, SW (+)		
<CAPACITOR>			
C4800	1-136-165-00	FILM	0.1UF 5.00% 50V
C4801	1-136-161-00	FILM	0.047UF 5.00% 50V
C4802	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V
C4803	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C4804	1-126-967-11	ELECT	47UF 20.00% 50V
C4805	1-126-964-11	ELECT	10UF 20.00% 50V
C4806	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V
C4807	1-163-009-11	CERAMIC CHIP (KV-EX29M63)	0.001UF 10.00% 50V
C4807	1-164-182-11	CERAMIC CHIP (EXCEPT KV-EX29M63)	0.0033UF 10.00% 50V
C4808	1-136-165-00	FILM	0.1UF 5.00% 50V
C4809	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V
C4810	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C4811	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C4812	1-126-967-11	ELECT	47UF 20.00% 50V
C4813	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C4814	1-163-227-11	CERAMIC CHIP (KV-EX29M63)	10PF 0.50PF 50V
C4814	1-104-664-11	ELECT (EXCEPT KV-EX29M63)	47UF 20.00% 25V
C4816	1-124-589-11	ELECT (KV-EX29M63 ONLY)	47UF 20.00% 16V
C4817	1-104-664-11	ELECT (KV-EX29M63)	47UF 20.00% 25V
C4817	1-124-589-11	ELECT (EXCEPT KV-EX29M63)	47UF 20.00% 16V
C4818	1-126-961-11	ELECT (KV-EX29M63)	2.2UF 20.00% 50V
C4818	1-126-964-11	ELECT (EXCEPT KV-EX29M63)	10UF 20.00% 50V
C4820	1-107-909-11	ELECT	47UF 20.00% 50V
C4821	1-107-909-11	ELECT	47UF 20.00% 16V
C4822	1-107-909-11	ELECT	47UF 20.00% 16V
C4823	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00% 50V
C4824	1-163-809-11	CERAMIC CHIP	0.047UF 10.00% 25V
C4825	1-164-004-11	CERAMIC CHIP (KV-EX29M63)	0.1UF 10.00% 25V
C4825	1-163-809-11	CERAMIC CHIP (EXCEPT KV-EX29M63)	0.047UF 10.00% 25V
C4831	1-163-023-00	CERAMIC CHIP (KV-EX29M63 ONLY)	0.015UF 10.00% 50V
C4833	1-126-964-11	ELECT	10UF 20.00% 50V
C4834	1-126-933-11	ELECT	100UF 20.00% 16V
C4835	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C4850	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C6101	1-107-714-11	ELECT	10UF 20.00% 50V
C6102	1-109-953-11	ELECT	2.2UF 20.00% 50V
C6103	1-107-714-11	ELECT	10UF 20.00% 50V
C6104	1-126-965-11	ELECT	22UF 20.00% 50V



REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C6105	1-126-933-11	ELECT	100UF 20.00% 16V	C6388	1-126-964-11	ELECT	10UF 20.00% 50V
C6106	1-163-809-11	CERAMIC CHIP (EXCEPT KV-EX29M63)	0.047UF 10.00% 25V	C6392	1-104-664-11	ELECT	47UF 20.00% 25V
C6108	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	C6409	1-126-963-11	ELECT	4.7UF 20.00% 50V
C6109	1-104-664-11	ELECT	47UF 20.00% 25V			<CONNECTOR>	
C6112	1-163-037-11	CERAMIC CHIP	0.022UF 10.00% 50V	CN4800	1-695-915-11	TAB (CONTACT)	
C6113	1-136-347-11	FILM	0.0047UF 5.00% 630V	CN4801 *	1-564-507-11	PLUG, CONNECTOR 4P	
C6114	1-104-664-11	ELECT	47UF 20.00% 25V	CN6100	1-783-966-11	CONNECTOR, BOARD TO BOARD 30P	
C6115	1-163-005-11	CERAMIC CHIP	470PF 10.00% 50V	CN6103 *	1-564-518-11	PLUG, CONNECTOR 3P	
C6116	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V	CN6104 *	1-564-523-11	PLUG, CONNECTOR 8P	
C6117	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V				
C6118	1-107-909-11	ELECT	47UF 20.00% 16V	CN6106	1-783-966-11	CONNECTOR, BOARD TO BOARD 30P	
C6120	1-163-809-11	CERAMIC CHIP	0.047UF 10.00% 25V			<DIODE>	
C6121	1-126-963-11	ELECT	4.7UF 20.00% 50V	D4800	8-719-914-43	DAN202K	
C6122	1-104-664-11	ELECT	47UF 20.00% 25V	D4801	8-719-914-43	DAN202K	
C6123	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D4802	8-719-109-81	RD4.7ESB2	
C6124	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D4803	8-719-911-19	ISS119-25	
C6125	1-128-551-11	ELECT	22UF 20.00% 25V	D4804	8-719-911-19	ISS119-25	
C6127	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D4805	8-719-914-43	DAN202K	
C6128	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D4808	8-719-914-43	DAN202K	
C6129	1-126-964-11	ELECT	10UF 20.00% 50V	D4809	8-719-914-43	DAN202K	
C6131	1-126-964-11	ELECT	10UF 20.00% 50V	D4811	1-249-381-11	CARBON	1 5% 1/4W
C6133	1-137-194-81	FILM	0.47UF 5.00% 50V	D4812	8-719-911-19	ISS119-25	
C6136	1-129-716-00	FILM	0.015UF 5.00% 630V	D4813	8-719-109-89	RD5.6ESB2	
C6138	1-126-968-11	ELECT	100UF 20.00% 50V	D4814	8-719-073-01	MA111-(K8).S0	
C6139	1-107-902-11	ELECT	1UF 20.00% 50V	D4815	8-719-109-54	RD2.2ES-B2	
C6140	1-126-960-11	ELECT	1UF 20.00% 50V	D4816	8-719-911-19	ISS119-25	
C6201	1-104-664-11	ELECT	47UF 20.00% 25V	D6101	8-719-510-02	D1NS4	
C6202	1-104-664-11	ELECT	47UF 20.00% 25V	D6102	8-719-510-02	D1NS4	
C6203	1-104-664-11	ELECT	47UF 20.00% 25V	D6103	8-719-063-73		
C6204	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D6104	8-719-911-19	ISS119-25	
C6205	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V	D6105	8-719-109-60	RD2.7ESB2	
C6206	1-126-964-11	ELECT	10UF 20.00% 50V	D6106	8-719-510-02	D1NS4	
C6207	1-104-664-11	ELECT	47UF 20.00% 25V	D6107	8-719-109-84	RD5.1ES-B1 (KV-EX29M63)	
C6208	1-104-664-11	ELECT	47UF 20.00% 25V	D6107	8-719-109-85	RD5.1ESB2 (EXCEPT KV-EX29M63)	
C6209	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V	D6108	8-719-911-19	ISS119-25	
C6210	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V	D6109	8-719-911-19	ISS119-25	
C6211	1-126-964-11	ELECT	10UF 20.00% 50V	D6110	8-719-987-87	ERA85-009	
C6212	1-164-222-11	CERAMIC CHIP	0.22UF 25V	D6133	8-719-911-19	ISS119-25	
C6350	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	D6134	8-719-911-19	ISS119-25	
C6351	1-104-664-11	ELECT	47UF 20.00% 25V	D6201	8-719-109-88	RD5.6ES-B1	
C6353	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	D6210	8-719-109-88	RD5.6ES-B1	
C6354	1-126-964-11	ELECT	10UF 20.00% 50V	D6350	8-719-914-43	DAN202K	
C6355	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V	D6351	8-719-914-43	DAN202K	
C6356	1-163-809-11	CERAMIC CHIP	0.047UF 10.00% 25V	D6355	8-719-914-43	DAN202K	
C6358	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V	D6404	8-719-914-43	DAN202K	
C6361	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V			<IC>	
C6362	1-164-182-11	CERAMIC CHIP	0.0033UF 10.00% 50V	IC4800	8-759-450-95	LM393N	
C6365	1-163-809-11	CERAMIC CHIP	0.047UF 10.00% 25V	IC4801	8-759-450-95	LM393N	
C6376	1-104-664-11	ELECT	47UF 20.00% 16V	IC4802	8-759-638-79	NJM3404AD-W	
C6377	1-104-664-11	ELECT	47UF 20.00% 25V	IC4803	8-759-135-80	UPC358C	
C6378	1-115-339-11	CERAMIC CHIP	0.1UF 10.00% 50V	IC6101	8-752-053-21	CXA1211M	
C6380	1-136-495-11	FILM	0.068UF 5.00% 50V				
C6381	1-126-964-11	ELECT	10UF 20.00% 50V				
C6385	1-104-664-11	ELECT	47UF 20.00% 25V				
C6386	1-104-664-11	ELECT	47UF 20.00% 25V				

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

D1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
IC6102	8-759-450-95	LM393N		Q4813	8-729-216-22	2SA1162-G	
IC6103	8-759-450-95	LM393N		Q4814	8-729-216-22	2SA1162-G	
IC6104	8-759-803-42	LA6500-FA		Q4815	8-729-216-22	2SA1162-G	
IC6105	8-759-450-95	LM393N		Q4816	8-729-216-22	2SA1162-G	
IC6106	8-759-198-31	UPC1093J-1-T		Q4817	8-729-230-49	2SC2712-YG	
IC6107	8-759-325-48	CA0005AD		Q4818	8-729-216-22	2SA1162-G	
IC6108	8-759-567-08	MB88141APF-ER		Q4820	8-729-230-49	2SC2712-YG	
IC6201	8-759-183-37	CA0007AD		Q4821	1-801-806-11	TR DTC144EKA	
IC6202	8-759-135-80	UPC358C		Q4822	8-729-230-49	2SC2712-YG	
IC6351	8-759-450-95	LM393N		Q6103	8-729-046-33	IRF720-LF49	
IC6353	8-759-231-53	TA7805S		Q6104	8-729-230-49	2SC2712-YG	
IC6354	8-759-325-48	CA0005AD		Q6105	8-729-230-49	2SC2712-YG	
IC6356	8-759-822-38	LA6510		Q6106	8-729-026-49	2SA1037AK-T146-R	
		<CHIP CONDUCTOR>		Q6107	8-729-140-93	2SB733-34	
JR6100	1-216-295-11	SHORT	0	Q6108	8-729-026-49	2SA1037AK-T146-R (EXCEPT KV-EX29M63)	
JR6101	1-216-295-11	SHORT	0	Q6118	8-729-230-49	2SC2712-YG	
JR6102	1-216-295-11	SHORT	0	Q6124	1-801-806-11	TR DTC144EKA	
JR6103	1-216-295-11	SHORT	0	Q6125	8-729-230-49	2SC2712-YG	
JR6104	1-216-295-11	SHORT	0	Q6126	8-729-026-49	2SA1037AK-T146-R	
JR6105	1-216-295-11	SHORT	0	Q6128	8-729-023-22	2SD2114K	
JR6106	1-216-295-11	SHORT	0	Q6201	8-729-230-49	2SC2712-YG	
JR6107	1-216-295-11	SHORT	0	Q6202	8-729-230-49	2SC2712-YG	
JR6108	1-216-295-11	SHORT	0	Q6203	8-729-422-33	2SD601A-Q-TX	
JR6109	1-216-295-11	SHORT	0	Q6350	8-729-230-49	2SC2712-YG	
JR6112	1-216-295-11	SHORT	0	Q6356	8-729-230-49	2SC2712-YG	
JR6113	1-216-295-11	SHORT	0	Q6405	8-729-026-49	2SA1037AK-T146-R	
JR6114	1-216-295-11	SHORT	0	Q6455	8-729-230-49	2SC2712-YG	
JR6115	1-216-295-11	SHORT	0			<RESISTOR>	
JR6116	1-216-295-11	SHORT	0	R4408	1-216-025-11	RES-CHIP	100 5% 1/10W
		<COIL>		R4409	1-216-073-00	RES-CHIP	10K 5% 1/10W
L4800	1-412-537-31	INDUCTOR	100UH	R4410	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
L6101	1-416-920-11	INDUCTOR	10MH	R4411	1-216-073-00	RES-CHIP	10K 5% 1/10W
L6102	1-406-989-21	INDUCTOR	10MH	R4412	1-216-097-11	RES-CHIP	100K 5% 1/10W
		<IC LINK>		R4413	1-216-073-00	RES-CHIP	10K 5% 1/10W
PS6101	1-533-589-31	LINK, IC		R4800	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
		<TRANSISTOR>		R4801	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4800	8-729-230-49	2SC2712-YG		R4802	1-216-073-00	RES-CHIP	10K 5% 1/10W
Q4801	8-729-230-49	2SC2712-YG		R4803	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4802	8-729-230-49	2SC2712-YG		R4804	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
Q4803	8-729-230-49	2SC2712-YG		R4805	1-208-792-11	METAL CHIP	2.7K 0.5% 1/10W
Q4804	8-729-230-49	2SC2712-YG		R4806	1-208-792-11	METAL CHIP	2.7K 0.5% 1/10W
Q4805	8-729-230-49	2SC2712-YG		R4807	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q4806	8-729-230-49	2SC2712-YG		R4809	1-216-073-00	RES-CHIP	10K 5% 1/10W
Q4807	8-729-230-49	2SC2712-YG		R4810	1-208-814-91	METAL CHIP	22K 0.5% 1/10W
Q4808	8-729-216-22	2SA1162-G		R4811	1-208-814-91	METAL CHIP	22K 0.5% 1/10W
Q4809	8-729-216-22	2SA1162-G		R4812	1-216-295-11	SHORT	0
Q4810	8-729-230-49	2SC2712-YG		R4813	1-216-089-11	RES-CHIP	47K 5% 1/10W
Q4811	8-729-230-49	2SC2712-YG		R4814	1-216-097-11	RES-CHIP	100K 5% 1/10W
Q4812	8-729-216-22	2SA1162-G				(KV-EX29M63)	
				R4814	1-208-830-11	METAL CHIP	100K 0.5% 1/10W
						(EXCEPT KV-EX29M63)	
				R4815	1-208-830-11	METAL CHIP	100K 0.5% 1/10W
				R4816	1-216-073-00	RES-CHIP	10K 5% 1/10W
				R4817	1-208-854-11	METAL CHIP	1M 0.5% 1/10W
				R4818	1-216-057-00	RES-CHIP	2.2K 5% 1/10W



REF. NO.	PART NO.	DESCRIPTION			REMARK	REF. NO.	PART NO.	DESCRIPTION			REMARK
R4819	1-216-049-11	RES-CHIP	1K	5%	1/10W	R4853	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R4820	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4854	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R4821	1-216-073-00	RES-CHIP	10K	5%	1/10W			(KV-EX29M63)			
R4822	1-216-049-11	RES-CHIP	1K	5%	1/10W	R4854	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R4823	1-216-049-11	RES-CHIP	1K	5%	1/10W			(EXCEPT KV-EX29M63)			
R4824	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4855	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R4825	1-216-073-00	RES-CHIP	10K	5%	1/10W			(KV-EX29M63)			
R4826	1-216-049-11	RES-CHIP	1K	5%	1/10W	R4855	1-216-077-91	RES-CHIP	15K	5%	1/10W
R4827	1-216-295-11	SHORT	0					(EXCEPT KV-EX29M63)			
R4828	1-249-415-11	CARBON	680	5%	1/4W	R4856	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4829	1-249-415-11	CARBON	680	5%	1/4W	R4857	1-208-792-11	METAL CHIP	2.7K	0.5%	1/10W
R4831	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W			(KV-EX29M63)			
R4831	1-216-061-00	RES-CHIP	3.3K	5%	1/10W	R4857	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
		(EXCEPT KV-EX29M63)						(EXCEPT KV-EX29M63)			
R4832	1-208-822-11	METAL CHIP	47K	0.5%	1/10W	R4858	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
		(KV-EX29M63)				R4859	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R4832	1-216-691-11	METAL CHIP	47K	0.5%	1/10W			(KV-EX29M63)			
		(EXCEPT KV-EX29M63)				R4859	1-208-792-11	METAL CHIP	2.7K	0.5%	1/10W
R4833	1-208-822-11	METAL CHIP	47K	0.5%	1/10W			(EXCEPT KV-EX29M63)			
		(KV-EX29M63)				R4860	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
R4833	1-216-691-11	METAL CHIP	47K	0.5%	1/10W			(KV-EX29M63)			
		(EXCEPT KV-EX29M63)				R4860	1-208-792-11	METAL CHIP	2.7K	0.5%	1/10W
R4834	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W			(EXCEPT KV-EX29M63)			
R4835	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W	R4861	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4836	1-208-822-11	METAL CHIP	47K	0.5%	1/10W	R4862	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
		(KV-EX29M63)						(KV-EX29M63)			
R4836	1-216-691-11	METAL CHIP	47K	0.5%	1/10W	R4862	1-208-810-11	METAL CHIP	15K	0.5%	1/10W
		(EXCEPT KV-EX29M63)						(EXCEPT KV-EX29M63)			
R4837	1-208-822-11	METAL CHIP	47K	0.5%	1/10W	R4864	1-208-794-11	METAL CHIP	3.3K	0.5%	1/10W
		(KV-EX29M63)						(KV-EX29M63)			
R4837	1-216-691-11	METAL CHIP	47K	0.5%	1/10W	R4864	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
		(EXCEPT KV-EX29M63)						(EXCEPT KV-EX29M63)			
R4838	1-208-830-11	METAL CHIP	100K	0.5%	1/10W	R4865	1-208-778-11	METAL CHIP	680	0.5%	1/10W
R4839	1-208-804-11	METAL CHIP	8.2K	0.5%	1/10W			(EXCEPT KV-EX29M63)			
		(KV-EX29M63)				R4865	1-208-774-11	METAL CHIP	470	0.5%	1/10W
R4839	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W			(EXCEPT KV-EX29M63)			
		(EXCEPT KV-EX29M63)				R4866	1-216-089-11	RES-CHIP	47K	5%	1/10W
R4840	1-216-295-11	SHORT	0			R4868	1-208-846-11	METAL CHIP	470K	0.5%	1/10W
R4841	1-216-057-00	RES-CHIP	2.2K	5%	1/10W			(KV-EX29M63 ONLY)			
R4842	1-208-822-11	METAL CHIP	47K	0.5%	1/10W	R4869	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
		(KV-EX29M63)									
R4842	1-216-691-11	METAL CHIP	47K	0.5%	1/10W	R4871	1-208-820-11	METAL CHIP	39K	0.5%	1/10W
		(EXCEPT KV-EX29M63)						(KV-EX29M63)			
R4843	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R4871	1-208-830-11	METAL CHIP	100K	0.5%	1/10W
R4844	1-208-796-11	METAL CHIP	3.9K	0.5%	1/10W			(EXCEPT KV-EX29M63)			
		(KV-EX29M63)				R4872	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4844	1-208-798-11	METAL CHIP	4.7K	0.5%	1/10W	R4874	1-216-295-11	SHORT	0		
		(EXCEPT KV-EX29M63)				R4875	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4845	1-208-830-11	METAL CHIP	100K	0.5%	1/10W						
R4846	1-216-295-11	SHORT	0			R4877	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R4847	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4878	1-208-836-11	METAL CHIP	180K	0.5%	1/10W
R4848	1-216-073-00	RES-CHIP	10K	5%	1/10W	R4879	1-216-105-91	RES-CHIP	220K	5%	1/10W
R4849	1-216-085-00	RES-CHIP	33K	5%	1/10W	R4880	1-216-295-11	SHORT	0		
		(KV-EX29M63)				R4881	1-216-295-11	SHORT	0		
R4849	1-216-095-00	RES-CHIP	82K	5%	1/10W						
		(EXCEPT KV-EX29M63)				R4882	1-208-824-11	METAL CHIP	56K	0.5%	1/10W
R4850	1-216-097-11	RES-CHIP	100K	5%	1/10W			(KV-EX29M63)			
R4851	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R4882	1-208-826-11	METAL CHIP	68K	0.5%	1/10W
R4852	1-216-081-00	RES-CHIP	22K	5%	1/10W			(EXCEPT KV-EX29M63)			
						R4883	1-208-842-11	METAL CHIP	330K	0.5%	1/10W
						R4884	1-208-822-11	METAL CHIP	47K	0.5%	1/10W
								(KV-EX29M63)			
						R4884	1-216-691-11	METAL CHIP	47K	0.5%	1/10W
								(EXCEPT KV-EX29M63)			

KV-EX29M63

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KV-EX34M39/EX34M69/EX34M87

RM-963

D1

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R4887	1-208-814-91	METAL CHIP 22K	0.5% 1/10W	R6150	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R4892	1-216-295-11	SHORT 0		R6151	1-216-049-11	RES-CHIP 1K	5% 1/10W
R6101	1-216-025-11	RES-CHIP 100	5% 1/10W	R6152	1-216-081-00	RES-CHIP 22K	5% 1/10W
R6103	1-216-049-11	RES-CHIP 1K	5% 1/10W	R6153	1-216-105-91	RES-CHIP 220K	5% 1/10W
R6104	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R6154	1-208-802-11	METAL CHIP 6.8K	0.5% 1/10W
R6105	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W			(KV-EX29M63)	
R6106	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W	R6154	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R6107	1-216-057-00	RES-CHIP 2.2K	5% 1/10W			(EXCEPT KV-EX29M63)	
R6108	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6155	1-208-822-11	METAL CHIP 47K	0.5% 1/10W
R6109	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6156	1-216-077-91	RES-CHIP 15K	5% 1/10W
R6110	1-216-295-11	SHORT 0		R6157	1-216-089-11	RES-CHIP 47K	5% 1/10W
R6112	1-208-824-11	METAL CHIP 56K	0.5% 1/10W	R6158	1-216-689-11	RES-CHIP 39K	5% 1/10W
		(EXCEPT KV-EX29M63)		R6159	1-208-800-11	METAL CHIP 5.6K	0.5% 1/10W
R6113	1-208-822-11	METAL CHIP 47K	0.5% 1/10W			(KV-EX29M63)	
R6114	1-208-806-11	METAL CHIP 10K	0.5% 1/10W	R6159	1-208-802-11	METAL CHIP 6.8K	0.5% 1/10W
R6115	1-208-814-91	METAL CHIP 22K	0.5% 1/10W			(EXCEPT KV-EX29M63)	
R6116	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R6161	1-208-814-91	METAL CHIP 22K	0.5% 1/10W
R6117	1-208-782-11	METAL CHIP 1K	0.5% 1/10W	R6162	1-216-049-11	RES-CHIP 1K	5% 1/10W
R6118	1-208-810-11	METAL CHIP 15K	0.5% 1/10W	R6168	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R6119	1-208-796-11	METAL CHIP 3.9K	0.5% 1/10W	R6169	1-208-776-11	METAL CHIP 560	0.5% 1/10W
R6120	1-208-806-11	METAL CHIP 10K	0.5% 1/10W	R6170	1-216-037-00	RES-CHIP 330	5% 1/10W
R6121	1-216-490-11	METAL OXIDE 39K	5% 3W	R6171	1-216-113-00	RES-CHIP 470K	5% 1/10W
R6122	1-216-295-11	SHORT 0		R6172	1-216-105-91	RES-CHIP 220K	5% 1/10W
R6123	1-208-782-11	METAL CHIP 1K	0.5% 1/10W	R6173	1-216-097-11	RES-CHIP 100K	5% 1/10W
R6124	1-208-800-11	METAL CHIP 5.6K	0.5% 1/10W	R6174	1-216-079-00	RES-CHIP 18K	5% 1/10W
R6125	1-216-057-00	RES-CHIP 2.2K	5% 1/10W	R6175	1-208-816-11	METAL CHIP 27K	0.5% 1/10W
		(EXCEPT KV-EX29M63)		R6176	1-249-389-11	CARBON 4.7	5% 1/4W
R6126	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W	R6177	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R6127	1-208-832-11	METAL CHIP 120K	0.5% 1/10W	R6178	1-249-389-11	CARBON 4.7	5% 1/4W
R6128	1-208-838-91	METAL CHIP 220K	0.5% 1/10W	R6179	1-216-101-00	RES-CHIP 150K	5% 1/10W
R6129	1-216-353-00	METAL OXIDE 2.2	5% 1W			(EXCEPT KV-EX29M63)	
R6130	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6180	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R6131	1-208-816-11	METAL CHIP 27K	0.5% 1/10W	R6181	1-216-105-91	RES-CHIP 220K	5% 1/10W
		(KV-EX29M63)				(EXCEPT KV-EX29M63)	
R6131	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W	R6190	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
		(EXCEPT KV-EX29M63)		R6192	1-216-295-11	SHORT 0	
R6133	1-208-812-11	METAL CHIP 18K	0.5% 1/10W	R6195	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R6134	1-208-803-11	METAL CHIP 7.5K	0.5% 1/10W			(KV-EX29M63)	
		(KV-EX29M63)		R6195	1-208-800-11	METAL CHIP 5.6K	0.5% 1/10W
R6134	1-208-806-11	METAL CHIP 10K	0.5% 1/10W			(EXCEPT KV-EX29M63)	
		(EXCEPT KV-EX29M63)		R6196	1-249-377-11	CARBON 0.47	5% 1/4W
R6135	1-216-073-00	RES-CHIP 10K	5% 1/10W	R6197	1-216-295-11	SHORT 0	
R6136	1-260-328-11	CARBON 1K	5% 1/2W	R6200	1-208-827-11	METAL CHIP 75K	0.5% 1/10W
R6137	1-216-049-11	RES-CHIP 1K	5% 1/10W			(KV-EX29M63)	
R6138	1-208-798-11	METAL CHIP 4.7K	0.5% 1/10W	R6200	1-208-836-11	METAL CHIP 180K	0.5% 1/10W
R6139	1-208-803-11	METAL CHIP 7.5K	0.5% 1/10W			(EXCEPT KV-EX29M63)	
		(KV-EX29M63)		R6201	1-247-750-11	CARBON 680	5% 1/2W
R6139	1-208-797-11	METAL CHIP 4.3K	0.5% 1/10W	R6202	1-216-061-00	RES-CHIP 3.3K	5% 1/10W
		(EXCEPT KV-EX29M63)		R6203	1-215-906-11	METAL OXIDE 15	5% 3W
R6140	1-216-077-91	RES-CHIP 15K	5% 1/10W	R6204	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R6141	1-208-830-11	METAL CHIP 100K	0.5% 1/10W	R6206	1-216-033-00	RES-CHIP 220	5% 1/10W
R6142	1-208-806-11	METAL CHIP 10K	0.5% 1/10W	R6207	1-208-794-11	METAL CHIP 3.3K	0.5% 1/10W
R6143	1-208-792-11	METAL CHIP 2.7K	0.5% 1/10W	R6208	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R6144	1-208-840-11	METAL CHIP 270K	0.5% 1/10W	R6209	1-216-099-00	RES-CHIP 120K	5% 1/10W
		(KV-EX29M63)		R6210	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R6144	1-208-832-11	METAL CHIP 120K	0.5% 1/10W	R6211	1-216-073-00	RES-CHIP 10K	5% 1/10W
		(EXCEPT KV-EX29M63)		R6212	1-216-057-00	RES-CHIP 2.2K	5% 1/10W
R6149	1-208-828-11	METAL CHIP 82K	0.5% 1/10W				



REF. NO.	PART NO.	DESCRIPTION		REMARK
R6213	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6215	1-208-836-11	METAL CHIP	180K	0.5% 1/10W
R6216	1-216-065-91	RES-CHIP	4.7K	5% 1/10W
R6217	1-216-073-00	RES-CHIP	10K	5% 1/10W
R6218	1-208-836-11	METAL CHIP	180K	0.5% 1/10W
R6219	1-208-782-11	METAL CHIP	1K	0.5% 1/10W
R6220	1-208-822-11	METAL CHIP	47K	0.5% 1/10W
R6221	1-208-822-11	METAL CHIP	47K	0.5% 1/10W
R6222	1-216-295-11	SHORT	0	
R6223	1-216-295-11	SHORT	0	
R6224	1-208-824-11	METAL CHIP	56K	0.5% 1/10W
R6225	1-208-824-11	METAL CHIP	56K	0.5% 1/10W
R6226	1-216-033-00	RES-CHIP	220	5% 1/10W
R6227	1-216-033-00	RES-CHIP	220	5% 1/10W
R6324	1-216-017-91	RES-CHIP	47	5% 1/10W
R6325	1-216-017-91	RES-CHIP	47	5% 1/10W
R6326	1-208-808-11	METAL CHIP	12K	0.5% 1/10W
R6327	1-216-067-00	RES-CHIP	5.6K	5% 1/10W
R6350	1-216-067-00	RES-CHIP	5.6K	5% 1/10W
R6357	1-216-057-00	RES-CHIP	2.2K	5% 1/10W
R6359	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6360	1-216-073-00	RES-CHIP	10K	5% 1/10W
R6361	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6367	1-208-808-11	METAL CHIP	12K	0.5% 1/10W
R6368	1-208-810-11	METAL CHIP	15K	0.5% 1/10W
R6375	1-216-041-00	RES-CHIP	470	5% 1/10W
R6378	1-215-473-00	METAL	150K	1% 1/4W
R6379	1-216-295-11	SHORT	0	
R6382	1-208-830-11	METAL CHIP	100K	0.5% 1/10W
R6385	1-216-295-11	SHORT	0	
R6386	1-208-830-11	METAL CHIP	100K	0.5% 1/10W
R6391	1-216-049-11	RES-CHIP	1K	5% 1/10W
R6394	1-216-069-00	RES-CHIP	6.8K	5% 1/10W
R6413	1-208-806-11	METAL CHIP	10K	0.5% 1/10W
R6416	1-208-808-11	METAL CHIP	12K	0.5% 1/10W
R6418	1-216-113-00	RES-CHIP	470K	5% 1/10W
R6419	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6420	1-216-111-00	RES-CHIP	390K	5% 1/10W
R6433	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6438	1-215-437-00	METAL	4.7K	1% 1/4W
R6442	1-216-057-00	RES-CHIP	2.2K	5% 1/10W
R6456	1-216-097-11	RES-CHIP	100K	5% 1/10W
R6457	1-208-814-91	METAL CHIP (KV-EX29M63)	22K	0.5% 1/10W
R6457	1-208-820-11	METAL CHIP (EXCEPT KV-EX29M63)	39K	0.5% 1/10W
R6458	1-216-089-11	RES-CHIP	47K	5% 1/10W
R6459	1-216-057-00	RES-CHIP	2.2K	5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1333-012-A	DH BOARD, MOUNTED (KV-EX29M63)		

* A-1333-004-A	DH BOARD, MOUNTED (KV-EX34M39/EX34M87)		

* A-1343-998-A	DH BOARD, MOUNTED (KV-EX34M69)		

<CAPACITOR>			
C3801	1-126-964-11	ELECT 10UF	20.00% 50V (KV-EX34M69 ONLY)
C3804	1-102-129-00	CERAMIC 0.01UF	10.00% 50V (KV-EX34M69 ONLY)
C3805	1-126-964-11	ELECT 10UF	20.00% 50V (KV-EX34M69 ONLY)
C3807	1-102-129-00	CERAMIC 0.01UF	10.00% 50V (KV-EX34M69 ONLY)
C3816	1-126-964-11	ELECT 10UF	20.00% 50V (KV-EX34M69 ONLY)
C3819	1-126-960-11	ELECT 1UF	20.00% 50V (KV-EX34M69 ONLY)
C3822	1-136-165-00	FILM 0.1UF	5.00% 50V (KV-EX34M69 ONLY)
C4701	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
C4702	1-126-964-11	ELECT 10UF	20.00% 50V
C4703	1-163-275-11	CERAMIC CHIP 0.001UF	5.00% 50V
C4704	1-164-004-11	CERAMIC CHIP 0.1UF	10.00% 25V
<CONNECTOR>			
CN3802	1-564-507-21	PLUG, CONNECTOR 4P	(KV-EX34M69 ONLY)
CN3804	1-564-506-11	PLUG, CONNECTOR 3P	(KV-EX34M69 ONLY)
CN4701*	1-564-507-11	PLUG, CONNECTOR 4P	
<DIODE>			
D3805	8-719-911-19	1SS119-25	(KV-EX34M69 ONLY)
<IC>			
IC3805	8-759-822-38	LA6510	(KV-EX34M69 ONLY)
IC3807	1-418-597-11	SENSOR UNIT, MAGNETIC	(KV-EX34M69 ONLY)
<TRANSISTOR>			
Q3807	8-729-030-02	DTC144ESA	(KV-EX34M69 ONLY)
Q3808	8-729-030-02	DTC144ESA	(KV-EX34M69 ONLY)
Q3809	8-729-119-78	2SC2785-HFE	(KV-EX34M69 ONLY)
Q3810	8-729-119-76	2SA1175-HFE	(KV-EX34M69 ONLY)
Q3811	8-729-119-78	2SC2785-HFE	(KV-EX34M69 ONLY)
Q3812	8-729-119-78	2SC2785-HFE	(KV-EX34M69 ONLY)
Q4701	8-729-230-49	2SC2712-YG	
Q4702	8-729-230-49	2SC2712-YG	
Q4703	8-729-216-22	2SA1162-G	
Q4704	8-729-216-22	2SA1162-G	

KV-EX29M63

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KV-EX34M39/EX34M69/EX34M87

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

DH F1

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<RESISTOR>	
R3802	1-249-417-11	CARBON 1K (KV-EX34M69 ONLY)	5% 1/4W
R3803	1-249-417-11	CARBON 1K (KV-EX34M69 ONLY)	5% 1/4W
R3804	1-215-444-00	METAL 9.1K (KV-EX34M69 ONLY)	1% 1/4W
R3805	1-249-425-11	CARBON 4.7K (KV-EX34M69 ONLY)	5% 1/4W
R3807	1-215-413-00	METAL 470 (KV-EX34M69 ONLY)	1% 1/4W
R3808	1-247-883-00	CARBON 150K (KV-EX34M69 ONLY)	5% 1/4W
R3809	1-247-876-11	CARBON 75K (KV-EX34M69 ONLY)	5% 1/4W
R3810	1-249-425-11	CARBON 4.7K (KV-EX34M69 ONLY)	5% 1/4W
R3814	1-249-411-11	CARBON 330 (KV-EX34M69 ONLY)	5% 1/4W
R3823	1-249-395-11	CARBON 15 (KV-EX34M69 ONLY)	5% 1/4W
R3825	1-249-417-11	CARBON 1K (KV-EX34M69 ONLY)	5% 1/4W
R3828	1-249-377-11	CARBON 0.47 (KV-EX34M69 ONLY)	5% 1/4W
R3839	1-249-429-11	CARBON 10K (KV-EX34M69 ONLY)	5% 1/4W
R3845	1-249-425-11	CARBON 4.7K (KV-EX34M69 ONLY)	5% 1/4W
R3846	1-249-417-11	CARBON 1K (KV-EX34M69 ONLY)	5% 1/4W
R3847	1-247-807-31	CARBON 100 (KV-EX34M69 ONLY)	5% 1/4W
R3848	1-249-417-11	CARBON 1K (KV-EX34M69 ONLY)	5% 1/4W
R3849	1-249-377-11	CARBON 0.47 (KV-EX34M69 ONLY)	5% 1/4W
R3852	1-249-441-11	CARBON 100K (KV-EX34M69 ONLY)	5% 1/4W
R3854	1-249-429-11	CARBON 10K (KV-EX34M69 ONLY)	5% 1/4W
R4701	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4702	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R4703	1-208-818-11	METAL CHIP 33K	0.5% 1/10W
R4704	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R4705	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R4706	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R4707	1-216-057-00	RES-CHIP 2.2K	5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
	A-1241-446-A	F1 BOARD, MOUNTED (KV-EX29M63) *****	
	A-1241-448-A	F1 BOARD, MOUNTED (EXCEPT KV-EX29M63) *****	
	1-533-223-11	HOLDER, FUSE	
	4-080-419-01	LABEL, FUSE (EXCEPT KV-EX29M63)	
	* 4-044-778-11	COVER, CAP TYPE CONDENSER (KV-EX29M63 ONLY)	
	* 4-374-846-01	COVER, CAPACITOR, CAP TYPE (EXCEPT KV-EX29M63)	
		<CAPACITOR>	
	C1601 Δ 1-104-708-51	MYLAR 0.47UF	20.00% 250V
	C1602 Δ 1-109-835-51	MYLAR 0.68UF	20.00% 250V
	C1603 Δ 1-117-703-51	CERAMIC 0.0047UF	99% 250V
		<CONNECTOR>	
	CN1601* Δ 1-580-843-11	PIN, CONNECTOR (POWER)	
	CN1602* Δ 1-580-843-11	PIN, CONNECTOR (POWER)	
	CN1604 1-695-915-11	TAB (CONTACT)	
		<FUSE>	
	F1601 Δ 1-532-299-11	FUSE, TIME-LAG 5A/250V (KV-EX29M63)	
	F1601 Δ 1-532-325-11	FUSE, TIME-LAG 6.3A/250V (EXCEPT KV-EX29M63)	
		<FERRITE BEAD>	
	FB1601 1-410-397-21	FERRITE 1.1UH	
	FB1602 1-410-397-21	FERRITE 1.1UH	
	FB1603 1-410-397-21	FERRITE 1.1UH	
	FB1604 1-410-397-21	FERRITE 1.1UH	
		<RESISTOR>	
	R1601 Δ 1-202-885-91	SOLID 1M	10% 1/2W
		<TRANSFORMER>	
	T1601 Δ 1-433-900-11	TRANSFORMER, LINE FILTER	
	T1602 Δ 1-433-900-11	TRANSFORMER, LINE FILTER	
		<VARISTOR>	
	VDR161 1-803-830-11	VARISTOR (ERZV14D621)	

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

J P (EXCEPT KV-EX29M63)

REF. NO.	PART NO.	DESCRIPTION	REMARK
D2412	8-719-929-15	HZS9.1NB2	
D2414	8-719-929-15	HZS9.1NB2	
D2415	8-719-929-15	HZS9.1NB2	
D3453	8-719-110-72	RD30ESB2	
D3454	8-719-110-72	RD30ESB2	
<JACK>			
J2410	1-784-623-11	BLOCK, PIN JACK 5P	
J3451	1-694-467-11	TERMINAL, PUSH (2P)	
<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
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-1195-161-A P BOARD, COMPLETE (EXCEPT KV-EX29M63)

<CAPACITOR>

C8801	1-104-665-11	ELECT	100UF 20.00% 10V
C8802	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8803	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C8804	1-163-227-11	CERAMIC CHIP	10PF 0.50PF 50V
C8805	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8806	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8807	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8808	1-126-967-11	ELECT	47UF 20.00% 50V
C8809	1-126-967-11	ELECT	47UF 20.00% 50V
C8810	1-104-665-11	ELECT	100UF 20.00% 10V
C8811	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8812	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8813	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8814	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8815	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8816	1-104-665-11	ELECT	100UF 20.00% 10V
C8817	1-104-665-11	ELECT	100UF 20.00% 10V
C8818	1-104-665-11	ELECT	100UF 20.00% 10V
C8819	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8820	1-104-665-11	ELECT	100UF 20.00% 10V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C8821	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8822	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8823	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8824	1-117-720-11	CERAMIC CHIP	4.7UF 10V
C8825	1-117-720-11	CERAMIC CHIP	4.7UF 10V
C8826	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8827	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8828	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8829	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8830	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8831	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8832	1-163-249-11	CERAMIC CHIP	82PF 5.00% 50V
C8834	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V
C8835	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V
<CONNECTOR>			
CN8801	1-793-496-11	CONNECTOR, BOARD TO BOARD 20P	
<DIODE>			
D8801	8-719-073-01	MA111-(K8).S0	
<FILTER>			
FL8802	1-236-071-11	ENCAPSULATED COMPONENT	
FL8803	1-236-071-11	ENCAPSULATED COMPONENT	
FL8804	1-236-071-11	ENCAPSULATED COMPONENT	
FL8805	1-236-071-11	ENCAPSULATED COMPONENT	
FL8808	1-236-071-11	ENCAPSULATED COMPONENT	
<IC>			
IC8801	8-759-658-34	SDA9588X	
IC8802	8-759-460-72	BA033FP-E2	
<COIL>			
L8801	1-408-603-31	INDUCTOR	10UH
L8806	1-412-537-31	INDUCTOR	100UH
L8807	1-408-603-31	INDUCTOR	10UH
L8809	1-408-412-00	INDUCTOR	18UH
<TRANSISTOR>			
Q8801	8-729-216-22	2SA1162-G	
Q8802	8-729-216-22	2SA1162-G	
Q8803	8-729-216-22	2SA1162-G	
Q8804	8-729-026-49	2SA1037AK-T146-R	
Q8805	8-729-026-49	2SA1037AK-T146-R	
Q8806	8-729-230-49	2SC2712-YG	
Q8807	8-729-230-49	2SC2712-YG	
Q8808	8-729-216-22	2SA1162-G	
Q8809	8-729-216-22	2SA1162-G	
Q8810	8-729-216-22	2SA1162-G	
Q8811	8-729-216-22	2SA1162-G	
Q8812	8-729-230-49	2SC2712-YG	

P (EXCEPT KV-EX29M63)

V2 (KV-EX34M39/EX34M69)

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
		<RESISTOR>					
R8801	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8802	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8803	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8804	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8805	1-216-295-11	SHORT	0				
R8806	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8807	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8808	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8809	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8810	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8811	1-208-770-11	METAL CHIP	330 0.5% 1/10W				
R8812	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8815	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8816	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8817	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8818	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8819	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8820	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8821	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8822	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8823	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8824	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8825	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8826	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8827	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8828	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8829	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8830	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8831	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8832	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8833	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8834	1-216-089-11	RES-CHIP	47K 5% 1/10W				
R8835	1-216-047-91	RES-CHIP	820 5% 1/10W				
R8836	1-216-047-91	RES-CHIP	820 5% 1/10W				
R8837	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8838	1-216-053-00	RES-CHIP	1.5K 5% 1/10W				
R8839	1-216-053-00	RES-CHIP	1.5K 5% 1/10W				
R8840	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8841	1-216-025-11	RES-CHIP	100 5% 1/10W				
R8842	1-216-097-11	RES-CHIP	100K 5% 1/10W				
R8843	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8844	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8845	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8846	1-216-041-00	RES-CHIP	470 5% 1/10W				
R8847	1-216-121-11	RES-CHIP	1M 5% 1/10W				
R8848	1-216-073-00	RES-CHIP	10K 5% 1/10W				
R8849	1-216-049-11	RES-CHIP	1K 5% 1/10W				
R8850	1-216-051-00	RES-CHIP	1.2K 5% 1/10W				
		<CRYSTAL>					
X8801	1-781-946-21	VIBRATOR, CRYSTAL					

						* A-1347-165-A V2 BOARD, COMPLETE (KV-EX34M39/ ***** EX34M69 ONLY)	
						<CAPACITOR>	
C5801	1-104-664-11	ELECT	47UF 20.00% 16V				
C5805	1-163-038-11	CERAMIC CHIP	0.1UF 25V				
C5806	1-163-038-11	CERAMIC CHIP	0.1UF 25V				
C5814	1-163-021-91	CERAMIC CHIP	0.01UF 10.00% 50V				
C5815	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V				
C5816	1-164-505-11	CERAMIC CHIP	2.2UF 16V				
C5817	1-164-004-11	CERAMIC CHIP	0.1UF 10.00% 25V				
C5818	1-163-239-11	CERAMIC CHIP	33PF 5.00% 50V				
C5820	1-163-239-11	CERAMIC CHIP	33PF 5.00% 50V				
C5821	1-163-038-11	CERAMIC CHIP	0.1UF 25V				
C5822	1-163-009-11	CERAMIC CHIP	0.001UF 10.00% 50V				
C5823	1-126-933-11	ELECT	100UF 20.00% 16V				
C5826	1-126-963-11	ELECT	4.7UF 20.00% 50V				
C5830	1-163-038-11	CERAMIC CHIP	0.1UF 25V				
C5831	1-126-924-11	ELECT	330UF 20.00% 6.3V				
						<CONNECTOR>	
CN5801	1-793-496-11	CONNECTOR, BOARD TO BOARD	20P				
						<DIODE>	
D5802	8-719-914-44	DAP202K					
D5803	8-719-105-46	RD3.3M-B2					
						<FERRITE BEAD>	
FB5801	1-410-397-21	FERRITE	1.1UH				
FB5802	1-410-397-21	FERRITE	1.1UH				
FB5803	1-410-397-21	FERRITE	1.1UH				
FB5804	1-410-682-31	INDUCTOR	470UH				
						<IC>	
IC5801	8-759-476-87	SAA5261					
						<CHIP CONDUCTOR>	
JR5801	1-216-295-11	SHORT	0				
JR5804	1-216-295-11	SHORT	0				
JR5805	1-216-295-11	SHORT	0				
						<COIL>	
L5800	1-412-537-31	INDUCTOR	100UH				
						<TRANSISTOR>	
Q5801	8-729-120-28	2SC1623-L5L6					
Q5803	8-729-120-28	2SC1623-L5L6					
Q5806	8-729-120-28	2SC1623-L5L6					
Q5807	8-729-120-28	2SC1623-L5L6					
Q5808	8-729-120-28	2SC1623-L5L6					

KV-EX29M63

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KV-EX34M39/EX34M69/EX34M87

RM-963

V2 (KV-EX34M39/EX34M69)

VM

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q5810	8-729-120-28	2SC1623-L5L6	
Q5817	8-729-026-49	2SA1037AK-T146-R	
<RESISTOR>			
R5800	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R5801	1-216-295-11	SHORT 0	
R5802	1-216-025-11	RES-CHIP 100	5% 1/10W
R5803	1-216-295-11	SHORT 0	
R5821	1-216-083-00	RES-CHIP 27K	5% 1/10W
R5822	1-216-025-11	RES-CHIP 100	5% 1/10W
R5824	1-216-295-11	SHORT 0	
R5825	1-216-295-11	SHORT 0	
R5827	1-216-295-11	SHORT 0	
R5828	1-216-025-11	RES-CHIP 100	5% 1/10W
R5829	1-216-025-11	RES-CHIP 100	5% 1/10W
R5830	1-216-295-11	SHORT 0	
R5831	1-216-295-11	SHORT 0	
R5832	1-208-790-11	METAL CHIP 2.2K	0.5% 1/10W
R5835	1-216-295-11	SHORT 0	
R5839	1-216-655-11	METAL CHIP 1.5K	0.5% 1/10W
R5841	1-216-025-11	RES-CHIP 100	5% 1/10W
R5842	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R5843	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R5845	1-216-017-91	RES-CHIP 47	5% 1/10W
R5846	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5847	1-216-037-00	RES-CHIP 330	5% 1/10W
R5848	1-216-027-00	RES-CHIP 120	5% 1/10W
R5849	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5857	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5860	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5861	1-216-025-11	RES-CHIP 100	5% 1/10W
R5863	1-216-025-11	RES-CHIP 100	5% 1/10W
R5879	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5880	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5882	1-216-025-11	RES-CHIP 100	5% 1/10W
R5884	1-216-025-11	RES-CHIP 100	5% 1/10W
R5885	1-216-025-11	RES-CHIP 100	5% 1/10W
R5886	1-216-041-00	RES-CHIP 470	5% 1/10W
R5887	1-216-027-00	RES-CHIP 120	5% 1/10W
R5888	1-216-037-00	RES-CHIP 330	5% 1/10W
R5889	1-216-037-00	RES-CHIP 330	5% 1/10W
R5890	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5891	1-216-049-11	RES-CHIP 1K	5% 1/10W
R5893	1-216-027-00	RES-CHIP 120	5% 1/10W
<CRYSTAL>			
X5801	1-578-774-11	VIBRATOR, CRYSTAL	

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1342-584-A	VM BOARD, MOUNTED (KV-EX29M63)	*****
	* A-1342-570-A	VM BOARD, MOUNTED (EXCEPT KV-EX29M63)	*****
	4-382-854-11	SCREW (M3X10), P, SW (+)	
<CAPACITOR>			
C5401	1-126-935-11	ELECT 470UF	20.00% 16V
C5402	1-137-194-81	FILM 0.47UF	5.00% 50V
C5403	1-126-935-11	ELECT 470UF	20.00% 6.3V
C5405	1-126-933-11	ELECT 100UF	20.00% 16V
C5406	1-126-935-11	ELECT 470UF	20.00% 6.3V
C5407	1-107-364-11	MYLAR 0.01UF	10.00% 200V
C5408	1-107-364-11	MYLAR 0.01UF	10.00% 200V
C5409	1-107-649-11	ELECT 2.2UF	20.00% 250V
C5410	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C5411	1-130-471-00	MYLAR 0.001UF	5.00% 50V
C5412	1-126-935-11	ELECT 470UF	20.00% 16V
C5413	1-107-648-91	ELECT 100UF	20.00% 160V
C5415	1-104-999-11	MYLAR 0.1UF	10.00% 200V
C5417	1-101-821-00	CERAMIC 0.0022UF	500V
C5418	1-107-638-11	ELECT 33UF	20.00% 160V
<CONNECTOR>			
CN5401 *	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P	
CN5402	1-764-334-11	PLUG, CONNECTOR 11P	
<DIODE>			
D5400	8-719-911-19	1SS119-25	
D5401	8-719-510-02	D1NS4	
D5402	8-719-911-19	1SS119-25	
D5403	8-719-911-19	1SS119-25	
D5404	8-719-911-19	1SS119-25	
D5405	8-719-110-56	RD22ES-B1	
D5406	8-719-110-56	RD22ES-B1	
<COIL>			
L5400	1-412-525-31	INDUCTOR 10UH	
<TRANSISTOR>			
Q5400	8-729-119-78	2SC2785-HFE	
Q5401	8-729-119-78	2SC2785-HFE	
Q5402	8-729-119-78	2SC2785-HFE	
Q5403	8-729-119-78	2SC2785-HFE	
Q5404	8-729-119-76	2SA1175-HFE	
Q5405	8-729-119-76	2SA1175-HFE	
Q5406	8-729-045-05	2SA2005	
Q5407	8-729-045-04	2SC5511	

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



REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R5401	1-249-425-11	CARBON 4.7K 5% 1/4W	
R5402	1-249-415-11	CARBON 680 5% 1/4W	
R5403	1-247-739-11	CARBON 100 5% 1/2W	
R5404	1-249-418-11	CARBON 1.2K 5% 1/4W	
R5406	1-249-425-11	CARBON 4.7K 5% 1/4W	
R5407	1-249-401-11	CARBON 47 5% 1/4W	
R5408	1-247-807-31	CARBON 100 5% 1/4W	
R5409	1-249-409-11	CARBON 220 5% 1/4W	
R5410	1-249-401-11	CARBON 47 5% 1/4W	
R5411	1-249-401-11	CARBON 47 5% 1/4W	
R5412	1-249-429-11	CARBON 10K 5% 1/4W	
R5413	1-249-414-11	CARBON 560 5% 1/4W	
R5414	1-249-432-11	CARBON 18K 5% 1/4W	
R5415	1-247-739-11	CARBON 100 5% 1/2W	
R5416	1-249-385-11	CARBON 2.2 5% 1/4W	
R5417	1-249-432-11	CARBON 18K 5% 1/4W	
R5418	1-249-414-11	CARBON 560 5% 1/4W	
R5419	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5420	1-249-421-11	CARBON 2.2K 5% 1/4W	
R5421	1-249-385-11	CARBON 2.2 5% 1/4W	
R5422	1-249-405-11	CARBON 100 5% 1/4W	
R5423	1-215-915-11	METAL OXIDE 470 5% 3W	
R5424	1-249-395-11	CARBON 15 5% 1/4W	
R5425	1-249-401-11	CARBON 47 5% 1/4W	
R5427	1-249-395-11	CARBON 15 5% 1/4W	

MISCELLANEOUS			

	1-251-658-21	SPLITTER RF (EXCEPT KV-EX29M63)	
	1-416-871-11	COIL, LANDING CORRECTION (KV-EX34M69 ONLY)	
	Δ 1-419-323-21	COIL, DEGAUSSING (KV-EX29M63)	
	Δ 1-419-293-11	COIL, DEGAUSSING (EXCEPT KV-EX29M63)	
	1-452-896-91	COIL, NA ROTATION (KV-EX29M63)	
	1-452-896-11	COIL, NA ROTATION (RT200) (EXCEPT KV-EX29M63)	
	1-452-094-00	CIRCULAR DISC MAGNET B	
	1-452-032-00	MAGNET, DISC	
	1-452-896-11	COIL, NA ROTATION (RT200)	
	1-503-902-41	SPEAKER (15X6.5CM)	
	1-529-190-11	SPEAKER (5CM)	
	* 1-555-110-00	P-P CABLE (EXCEPT KV-EX29M63)	
	Δ 1-575-023-31	CORD, POWER (WITH CONNECTOR) 5A/250V(KV-EX29M63)	
	Δ 1-792-035-11	CORD, POWER (WITH FILTER) (KV-EX34M39)	
	Δ 1-791-439-11	CORD, POWER (WITH CONNECTOR) (KV-EX34M69/EX34M87)	
	1-900-251-82	LEAD ASSY, G2 (KV-EX34M69/EX34M87)	
	1-900-252-15	LEAD ASSY, G2 (KV-EX34M39)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
	Δ 8-451-504-61	DEFLECTION YOKE (Y34RSC2-M3) (KV-EX29M63)	
	Δ 8-451-500-31	DEFLECTION YOKE (Y34RSC2-M3) (EXCEPT KV-EX29M63)	
	8-453-011-11	NA299-M (KV-EX29M63)	
	8-453-007-31	NA324-M3 (EXCEPT KV-EX29M63)	
	Δ 8-735-056-05	PICTURE TUBE (M68LNH070X)(KV-EX29M63)	
	Δ 8-735-062-05	PICTURE TUBE (A80LPD10X) (KV-EX34M39MEX34M87)	
	Δ 8-735-063-05	PICTURE TUBE (A80LPD10X)(KV-EX34M69)	

ACCESSORIES AND PACKING MATERIALS			

	1-569-008-21	ADAPTOR, CONVERSION 2P (ME ONLY)	
	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	4-065-210-01	JOINT	
	* 4-054-764-01	BAG, PROTECTION (KV-EX29M63)	
	* 4-074-148-01	BAG, PROTECTION (EXCEPT KV-EX29M63)	
	4-059-705-11	CLIP (KV-EX29M63)	
	4-392-004-11	CLIP (EXCEPT KV-EX29M63)	
	* 4-080-047-01	CUSHION(LOWER)(ASSY) (KV-EX29M63)	
	* 4-076-924-01	CUSHION(LOWER)(ASSY) (EXCEPT KV-EX29M63)	
	* 4-080-048-01	CUSHION(UPPER)(ASSY) (KV-EX29M63)	
	* 4-076-927-01	CUSHION(UPPER)(ASSY) (EXCEPT KV-EX29M63)	
	* 4-080-049-01	INDIVIDUAL CARTON (KV-EX29M63)	
	* 4-076-930-01	INDIVIDUAL CARTON (EXCEPT KV-EX29M63)	
	* 4-080-050-01	TRAY (KV-EX29M63)	
	* 4-076-931-01	TRAY (EXCEPT KV-EX29M63)	
	4-080-056-11	MANUAL INSTRUCTION (KV-EX29M63)	
	4-078-366-61	MANUAL INSTRUCTION (KV-EX34M69)	
	4-078-366-31	MANUAL INSTRUCTION (KV-EX34M39/EX34M87)	
	4-078-366-51	MANUAL INSTRUCTION (KV-EX34M87)	
	4-080-142-01	BOARD, TOP (KV-EX29M63 ONLY)	
	4-080-427-01	PILLAR, L (KV-EX29M63 ONLY)	
	4-392-003-21	BAND, HOLDING (KV-EX29M63)	
	4-392-003-11	BAND, HOLD (EXCEPT KV-EX29M63)	

REMOTE COMMANDER			

	1-476-291-11	REMOTE COMMANDER (RM-963) (EXCEPT KV-EX29M63)	
	1-476-292-11	REMOTE COMMANDER (RM-964)(KV-EX29M63)	
	4-079-833-01	COVER, BATTERY REMOTE COMMANDER (RM-963) (EXCEPT KV-EX29M63)	
	9-933-895-11	COVER, BATTERY REMOTE COMMANDER (RM-964) (KV-EX29M63)	

KV-EX29M63

RM-964

KV-EX34M39/EX34M69/EX34M87

RM-963

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