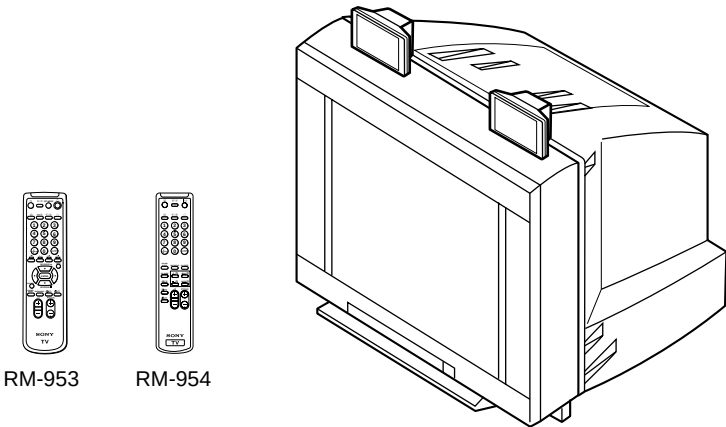


SERVICE MANUAL

BG-3R CHASSIS

<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>	<u>MODEL</u>	<u>COMMANDER</u>	<u>DEST.</u>	<u>CHASSIS NO.</u>
KV-XA25M61	RM-954	GE	SCC-U52D-A	KV-XA25M87	RM-953	ME	SCC-U48F-A
KV-XA25M61	RM-954	Malaysia	SCC-U45G-A	KV-XA25M84	RM-953	ME	SCC-U48G-A
KV-XA25M31	RM-954	OCE	SCC-U44D-A	KV-XA25M86	RM-953	ME	SCC-U48H-A
KV-XA25M90	RM-954	Hong Kong	SCC-U50D-A				
KV-XA25M80	RM-954	Singapore	SCC-U39B-A				
KV-XA25M50	RM-954	Malaysia	SCC-U45H-A				



SPECIFICATIONS
(except KV-XA25M87/XA25M86/XA25M84)

		Note
Power requirements	110-240 V AC, 50/60 Hz	KV-XA25M61/XA25M80
	220-240 V AC, 50/60 Hz	
Power consumption (W)	Indicated on the rear of the TV	
Television system	B/G, I, D/K, M	
Color system	PAL, PAL 60, SECAM, NTSC4.43, NTSC3.58	
Stereo/Bilingual system	NICAM Stereo/Bilingual B/G, I, DK; A2 Stereo/Bilingual B/G	Except KV-XA25M50/XA25M80
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
⌚ (Antenna)	75-ohm external terminal	
Audio output (Speaker)	8W + 8W	(TWEETER supplied)
Number of terminal		
📺 (Video)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 1 V _{P-P} , 75 ohms
🎵 (Audio)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 500 mVrms
📺 (S Video)	Input: 2	Y : 1 V _{P-P} , 75 ohms, unbalanced, sync negative C : 0.286 V _{P-P} , 75 ohms
📺 (Component Video)	Input: 1	Phono jacks Y : 1 V _{P-P} , 75 ohms, sync negative C _B : 0.7 V _{P-P} , 75 ohms C _R : 0.7 V _{P-P} , 75 ohms Audio : 500 mVrms
🎧 (Headphones)	Output: 1	Stereo minijack
Picture tube	25 inch	
Tube size (cm)	64	Measured diagonally
Screen size (cm)	60	Measured diagonally
Dimension (w/h/d, mm)	696 x 513x 500	
Mass (kg)	38	

Design and specifications are subject to change without notice.

CAUTION

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

SAFETY-RELATED COMPONENT WARNING!!

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

SPECIFICATIONS
(KV-XA25M87/XA25M86/XA25M84)

		Note
Power requirements	110-240 V AC, 50/60 Hz	
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	
Teletext language	English, Arabic, French	KV-XA25M86 only
Channel coverage		
B/G	VHF: E2 to E12 / UHF: E21 to E69 / CATV: S01 to S03, S1 to S41	
I	UHF: B21 to B68 / CATV: S01 to S03, S1 to S41	
D/K	VHF: C1 to C12, R1 to R12 / UHF: C13 to C57, R21 to R60 CATV: S01 to S03, S1 to S41, Z1 to Z39	
M	VHF: A2 to A13 / UHF: A14 to A79 / CATV: A-8 to A-2, A to W+4, W+6 to W+84	
ㄗ (Antenna)	75-ohm external terminal	
Audio output (Speaker)	8W + 8W	
	8W + 8W (TWEETER supplied)	KV-XA25M87 only
Number of terminal		
Ⓜ (Video)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 1 V _{P-P} , 75 ohms
♪ (Audio)	Input: 4* Output: 1 * Three input lines available	Phono jacks; 500 mVrms
Ⓢ (S Video)	Input: 2	Y : 1 Vp-p, 75 ohms, unbalanced, sync negative C : 0.286 Vp-p, 75 ohms
Ⓢ (Component Video)	Input: 1	Phono jacks Y : 1 Vp-p, 75 ohms, sync negative C _B : 0.7 Vp-p, 75 ohms C _R : 0.7 Vp-p, 75 ohms Audio : 500 mVrms
🎧 (Headphones)	Output: 1	Stereo minijack
Picture tube	25 inch	
Tube size (cm)	64	Measured diagonally
Screen size (cm)	60	Measured diagonally
Dimension (w/h/d, mm)	696 x 513x 500	
Mass (kg)	38	

Design and specifications are subject to change without notice.

CAUTION

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

SAFETY-RELATED COMPONENT WARNING!!

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

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>	<u>Section</u>	<u>Title</u>	<u>Page</u>
	SELF DIAGNOSIS FUNCTION	5			
1. GENERAL		8	6. DIAGRAMS		
2. DISASSEMBLY			6-1. Block Diagram	65	
2-1. Rear Cover Removal	46		6-2. Circuit Board Location	67	
2-2. Speaker Removal	46		6-3. Schematic Diagrams	68	
2-3. Chassis Assy Removal	46		(1) Schematic Diagram of H Board	69	
2-4. F Bracket Removal	46		(2) Schematic Diagram of A Board	71	
2-5. Service Position	46		(3) Schematic Diagram of B Board	87	
2-6. Replacement of Parts	46		(4) Schematic Diagram of P2 Board	89	
2-6-1 Replacement of Light Guide	46		(5) Schematic Diagram of V1 Board	91	
2-6-2 Replacement of Power Button	46		(6) Schematic Diagram of C6 Board	93	
2-7. HV Cap Block, PWB Holder and J Board Removal ..	47		(7) Schematic Diagram of B1 Board	94	
2-8. Terminal Bracket Removal	47		(8) Schematic Diagram of VM1 Board	95	
2-9. B1 Board Removal	47		(9) Schematic Diagram of F and J Boards	96	
2-10. H Board Removal	47		(10) Schematic Diagram of J1 Board	97	
2-11. A and B Boards Removal	47		6-4. Voltage Measurements	101	
2-12. Picture Tube Removal	48		6-5. Waveforms	108	
3. ADVANCE OPERATION			6-6. Printed Wiring Boards and Parts Location	109	
3-1. "RESET" Function	49		6-7. Semiconductors	117	
4. SET-UP ADJUSTMENTS			7. EXPLODED VIEWS		
4-1. Beam Landing	50		7-1. Picture Tube	119	
4-2. Convergence Adjustment	51		7-2. Chassis	120	
4-3. Focus Adjustment	53		8. ELECTRICAL PARTS LIST	121	
4-4. G2 (Screen) and White Balance Adjustments	54				
5. CIRCUIT ADJUSTMENTS					
5-1. Adjustments with Commander	55				
5-2. Adjustment Method	55				
5-3. Picture Quality Adjustments	61				
5-4. Deflection Adjustment	61				
5-5. H-Trapezoid Adjustment	62				
5-6. A Board Adjustment after IC003 Replacement	62				
5-7. Picture Distortion Adjustment	63				

SELF DIAGNOSTIC FUNCTION

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

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

1. DIAGNOSTIC TEST INDICATORS

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

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

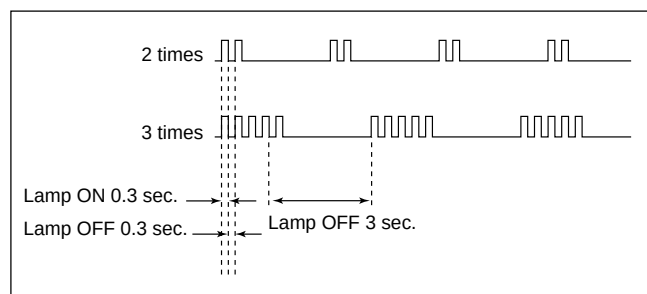
Diagnostic Item Description	No. of times STANDBY/TIMER lamp flashes	Self-diagnostic display/Diagnostic result	Probable Cause Location	Detected Symptoms
• Power does not turn on	Does not light	—	- Power cord is not plugged in. - Fuse is burned out F4601 (F)	- Power does not come on. - No power is supplied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

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

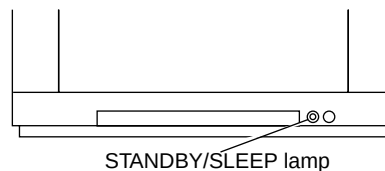
The symptom that is diagnosed first by the microcontroller is displayed on the screen.

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

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



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



SELF DIAGNOSTIC

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

5. HANDLING OF SELF-DIAGNOSTIC SCREEN DISPLAY

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

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

[Clearing the result display]

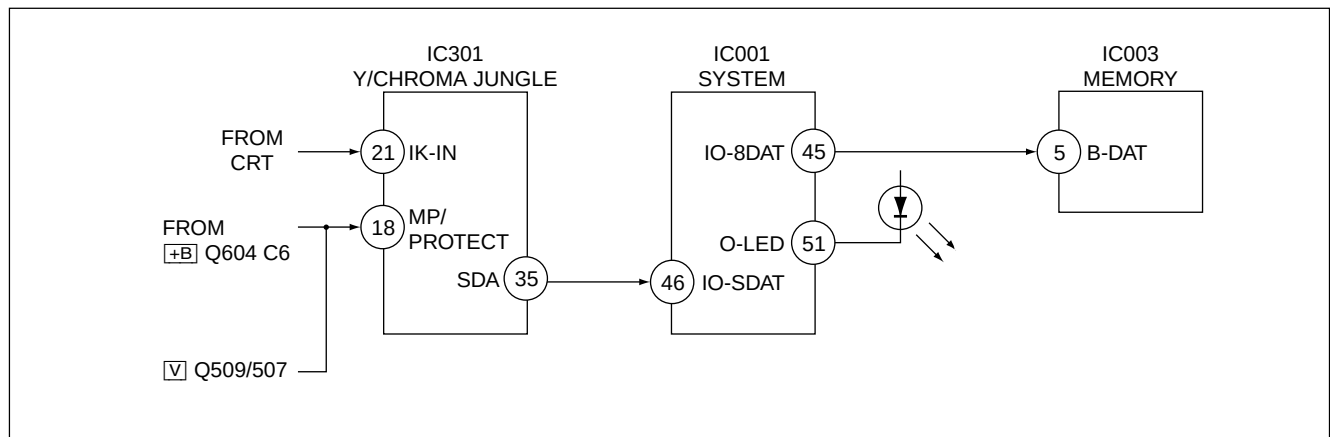
To clear the result display to "0", press buttons on the remote commander sequentially as shown below when the diagnostic screen is being displayed.

Channel **[8]** ➡ 0

[Quitting Self-diagnostic screen]

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

6. SELF-DIAGNOSTIC CIRCUIT



[+B overcurrent (OCP)]

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

[Vertical deflection stopped]

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

[Vertical deflection overcurrent]

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

[White balance failure]

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

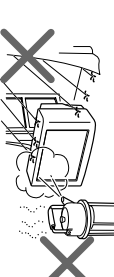
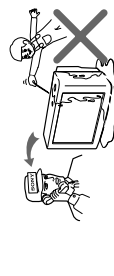
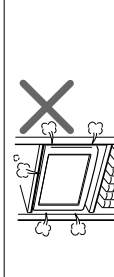
* (Refers to the RGB levels of the AKB detection Ref pulse that detects IK.)

SECTION 1 GENERAL 1-2

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

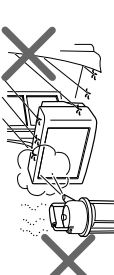
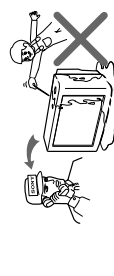
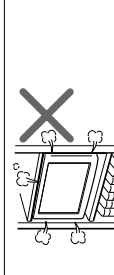
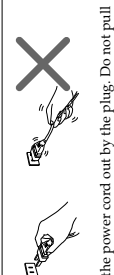
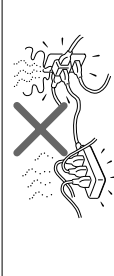
- Dangerously high voltages are present inside the TV.
- TV operating voltage: 220 – 240 V AC. (KV-XA25M61(ME)/XA25M31(OCE)/XA25M50(EM))

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

2

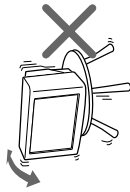
WARNING (KV-XA25M90/XA25M80/XA25M61(GE))

- Dangerously high voltages are present inside the TV.
- TV operating voltage: 110 – 240 V AC. (For Hong Kong only: 220 – 240 V AC).

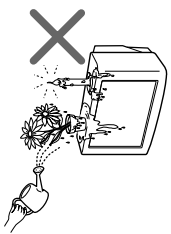
	
For your own safety, do not touch any part of the TV, the power cord and the antenna cable during lightning storms.	For children's safety, do not leave children alone with the TV. Do not allow children to climb onto it.
	
To prevent fire or shock hazard, do not expose the TV to rain or moisture.	Do not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

2

WARNING (continued)



Do not install the TV in an unstable position. Use a proper TV stand.



Do not place any objects on the TV.

Using Your New TV

Getting Started

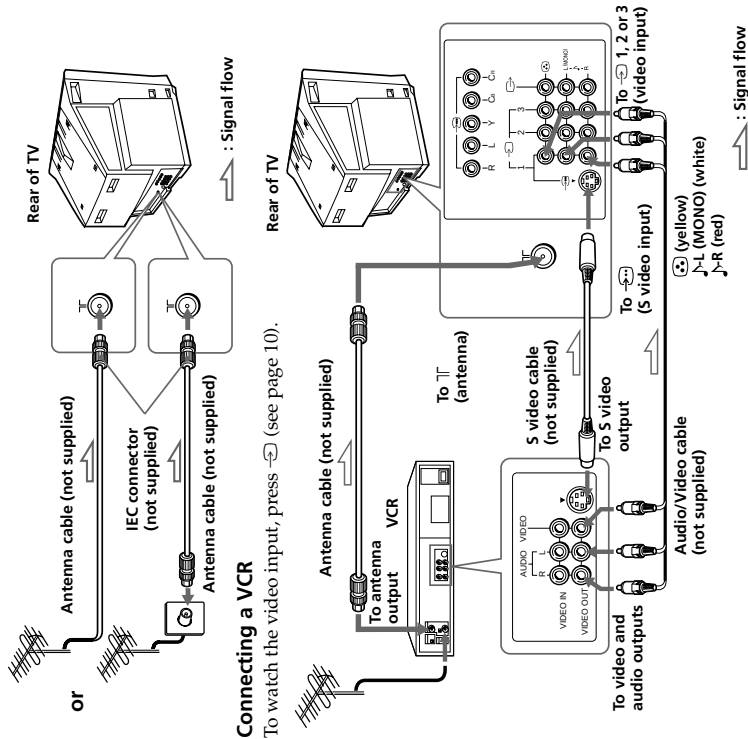
CAUTION

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

Step 1

Connect the antenna

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

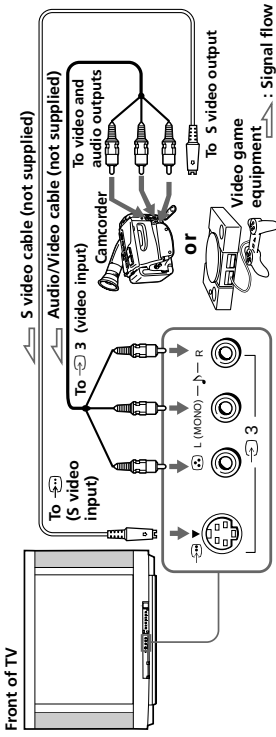


Connecting optional components

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

To watch the picture of the connected equipment, press (see page 10).

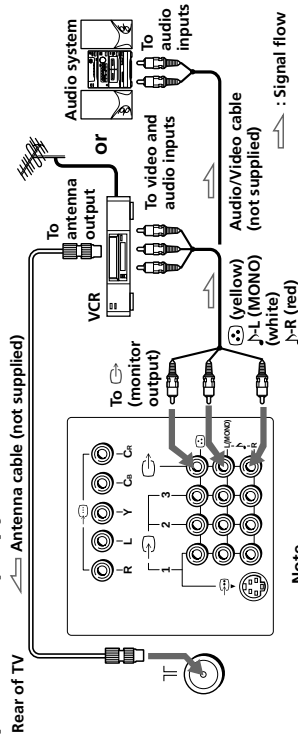
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

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

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



Note

- If you select "DVD" on your TV screen, no signal will be output at the (monitor output) jacks (see page 10).

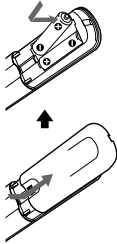
Using Your New TV

Notes

- If you connect a monaural VCR, connect the yellow plug to (the yellow jack) and the black plug to (the white jack).
- If you connect a VCR to the (antenna) terminal, preset the signal output from the VCR to the program number 0 on the TV.
- If both (S video input) and 1 (video input) at the rear of your TV are input at the same time, 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 to the connected video equipment, the TV screen becomes blue.
- Do not connect video equipment to the 3 (video input) jacks at the front and the rear of your TV at the same time; otherwise the picture will not be displayed properly on the screen.

Step 2

Insert the batteries into the remote

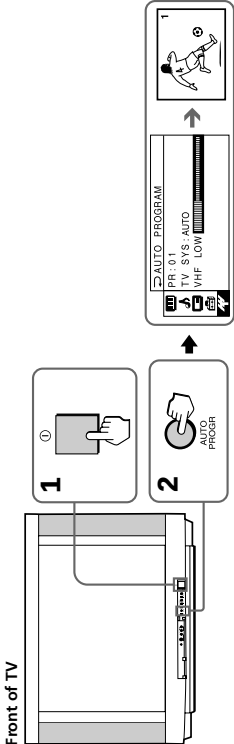


Note

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

Step 3

Preset the channels automatically



Tips (KV-XA25M80/XA25M50/XA25M31)

- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 28).

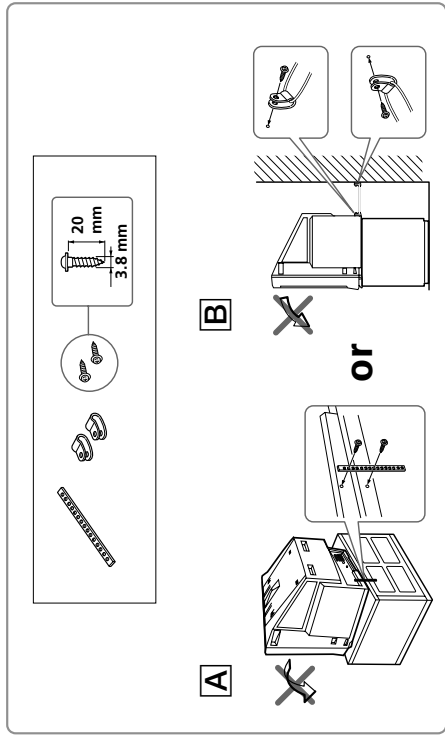
Securing the TV

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

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

or

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

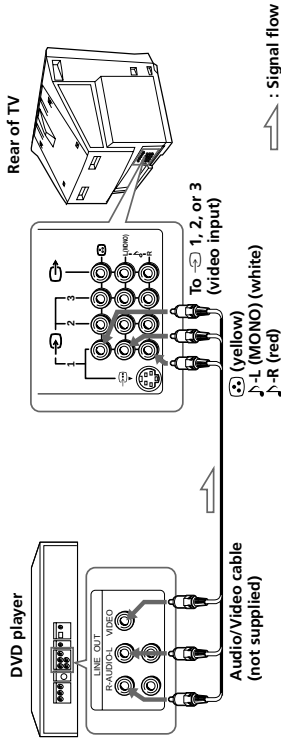


Note

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

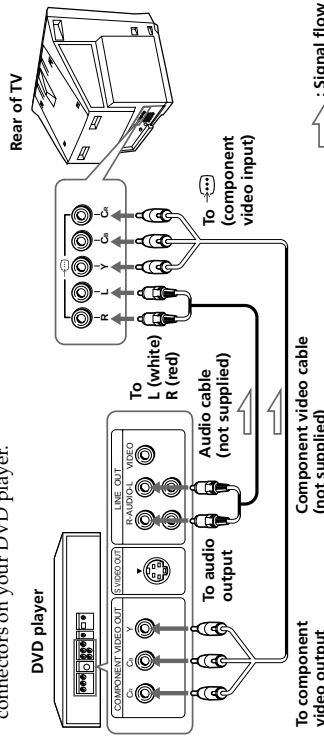
Using Your New TV

Connecting a DVD player using the (video input) jacks



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

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



Notes

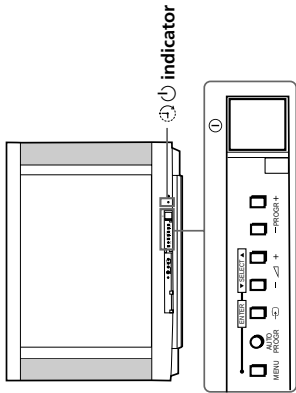
- Some DVD player terminals may be labeled differently:

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

- Since the high quality pictures on a DVD disc contain a lot of information, picture noise may appear. In this case, adjust the sharpness ("SHARP") in the "ADJUST" menu of the "PICTURE MODE" menu (see page 22).
- 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 the standby mode (the ① indicator on the TV is lit red), press I/O on the remote or PROGRAM +/- on the TV.

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

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

To select a program number quickly

- (1) Press and hold PROGRAM +/-.
- (2) Release PROGRAM +/- when the desired program number appears.

Note

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

continued

Watching the TV (continued)

Additional tasks

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

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

Changing the menu language

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

For details on how to use the menu, see **Introducing the menu system** on page 19.

1 Press MENU.

2 Press + or - to select the "SETUP" icon (⊞), 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.

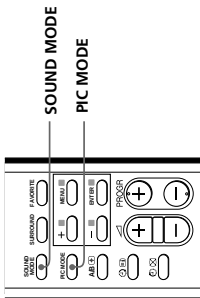
To return to the normal screen

Press MENU.

Advanced Operations

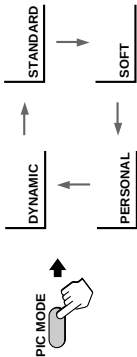
Selecting the picture and sound modes

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



Selecting the picture mode

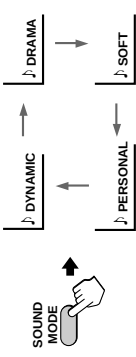
Press PIC MODE repeatedly until you get the desired picture mode.



Select	To
"DYNAMIC"	receive high contrast pictures.
"STANDARD"	receive normal contrast pictures.
"SOFT"	receive mild pictures.
"PERSONAL"	receive the last adjusted picture setting from the "ADJUST" option in the "PICTURE" menu (see page 21).

Selecting the sound mode

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



Select	To
"DYNAMIC"	listen to dynamic and clear sound that emphasizes the low and high tones.
"DRAMA"	listen to sound that emphasizes voice and high tones.
"SOFT"	receive soft sound.
"PERSONAL"	receive the last adjusted sound setting from the "ADJUST" option in the "SOUND" menu (see page 23).

Tip

- You can also set the picture and sound modes using the menu (see **Changing the "PICTURE" setting** on page 21 and **Changing the "SOUND" setting** on page 23).

Using Your New TV

Setting the Wake Up timer

- Press until the desired period of time appears.
The Wake Up timer starts immediately after you have set it.
- Select the program number or video input you want to display when you wake up.
- Press or set the Sleep timer if you want the TV to turn off automatically.
The indicator on the TV lights up orange.

To cancel the Wake Up timer

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

Note

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

Setting the Sleep timer

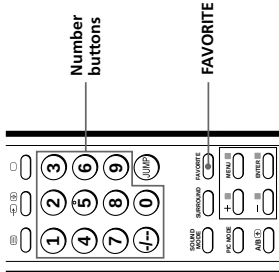
- Press until the desired period of time appears.
The Sleep timer starts immediately after you have set it.
-

To cancel the Sleep timer

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

Viewing your favorite channels

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



1 Press FAVORITE.



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

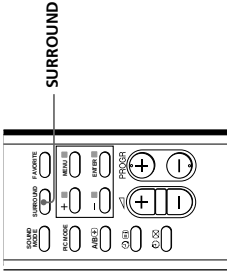


Tip

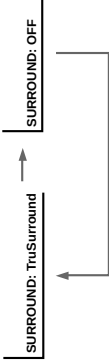
- To program your favorite channels, see **Adjusting each program number settings (PRO GRAM SETUP)** on page 26.

Listening with surround sound

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



Press SURROUND repeatedly until you receive the desired surround sound.



Select

To

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

Tip

- You can also select the surround option using the menu (see **Changing the "SOUND" setting** on page 23).

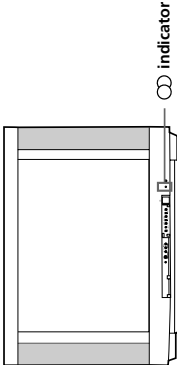
The surround of your TV is categorized as TruSurround.

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

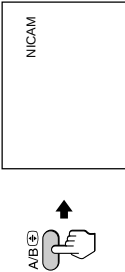
Enjoying stereo or bilingual programs

(Except KV-XA25M50/XA25M80)

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



Press A/B repeatedly until you receive the sound you want.
The on-screen display changes to show the selected sound.
The indicator on the TV lights up red when receiving any stereo or bilingual program.



When receiving a NICAM program

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

continued

Enjoying stereo or bilingual programs (continued)

When receiving an A2 program

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

Receiving area for NICAM and A2 programs

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

Notes

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

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

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

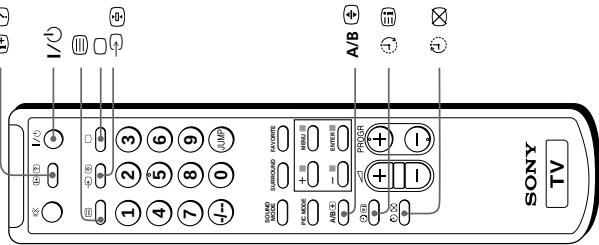


Notes

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

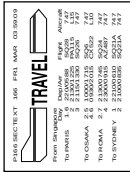
Viewing Teletext (Except KV-XA25M90/XA25M80)

TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.



Displaying Teletext

- 1 Select a TV channel that carries the Teletext broadcast you want to watch.
- 2 Press **T** 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 **□**.

Viewing Teletext (continued)

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press T . Each time you press T , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press T . An overview of the Teletext contents and page numbers appear 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 ⏸ to display the symbol "⏸" at the top left corner of the screen. To resume normal Teletext operation, press ⏸ or ⏹ .
reveal concealed information (e.g., an answer to a quiz)	Press ⏸ . To conceal the information, press the button again.
enlarge the Teletext display	Press ⏏ . Each time you press ⏏ , the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press ⏏ . 2 When the page number is displayed, press ⏹ 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 broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

To access a FASTEXT menu

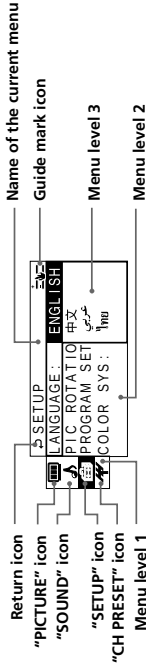
Press the color-coded button on the remote corresponding to the menu you want. The menu page appears on the screen after several seconds.

continued

Adjusting Your Setup (MENU)

Introducing the menu system

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



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

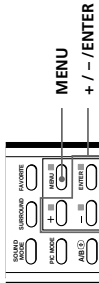
* The BBE is manufactured by Sony Corporation under license from BBE Sound, Inc. It is covered by U.S. Patent No. 4,638,258 and No. 4,482,866. The word "BBE" and the BBE symbol are the trademarks of BBE Sound, Inc.

continued

Introducing the menu system (continued)

How to use the menu

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



1 Press MENU to display the menu.



2 Press + or - to select the desired item.



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



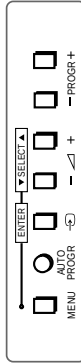
Other menu operations

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

Tips

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

Front of TV

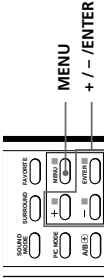


Note

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

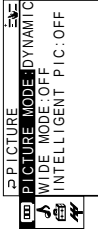
Changing the “PICTURE” setting

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

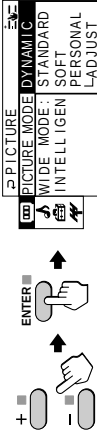


1 Press MENU.

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



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



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

* When the “PERSONAL” mode is selected, you can receive the last adjusted picture settings from the “ADJUST” option (see page 22).

Note

- For details on the options under “PICTURE MODE”, see page 12.

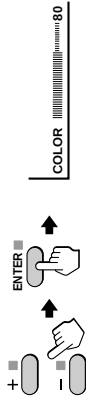
To return to the normal screen

Press MENU.

Changing the “PICTURE” setting (continued)

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”.

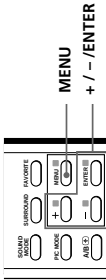
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 19.

continued

Changing the “SOUND” setting

The “SOUND” menu allows you to change the sound settings.



- 1

Press MENU.
- 2

Press + or – to select the “SOUND” icon (), then press ENTER.
- 3

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

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

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

Tip

- For details on the options under “SOUND MODE” and “SURROUND”, see pages 12 and 14 respectively.

To return to the normal screen
Press MENU.

Changing the “SOUND” setting (continued)

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”.

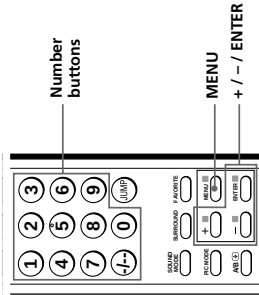
Tip

- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 19.

continued

Changing the “SETUP” setting

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

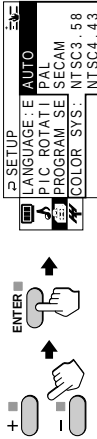


1 Press MENU.

2 Press + or – to select “SETUP” icon (), then press ENTER.



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



Select

To

“LANGUAGE” change the menu language (see **Changing the menu language** on page 10).

“PIC ROTATION”

adjust the picture position when it is not aligned to the TV screen. Press + or – to adjust the picture position, then press ENTER.



“PROGRAM SETUP” adjust each program number settings (see **Adjusting each program number settings (PROGRAM SETUP)** on page 26).

“COLOR SYS” change the color system. Normally, set this to “AUTO”.

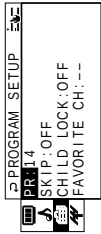
To return to the normal screen
Press MENU.

Changing the “SETUP” setting (continued)

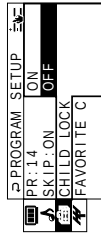
Adjusting each program number settings (PROGRAM SETUP)

1 Select “PROGRAM SETUP” from the “SETUP” menu.

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



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



Select

To

“PR” select the desired program number.

“SKIP” skip unwanted or unused program number. Press + or – to select “ON”, then press ENTER. To cancel, select “OFF”, then press ENTER.

“CHILD LOCK”

prevent children from watching this selected program number. Press + or – to select “ON”, then press ENTER. The lock symbol () appears on the screen. To cancel, select “OFF”, then press ENTER. If you preset a locked program number, that particular program number will be unlocked automatically.

“FAVORITE CH”

program favorite channels for direct selection. Press + or – to select one of the six favorite channel numbers (if you decide not to make any changes, select “ ”), then press ENTER. To view the selected favorite channel, refer page 13.

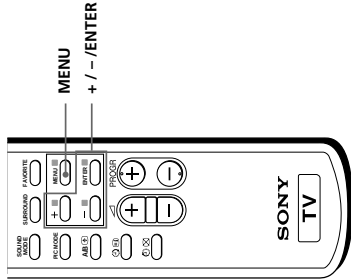
4 To continue adjusting other program numbers, press + or – to select “PR”, then repeat step 2 and 3.

To return to the normal screen
Press MENU.

continued

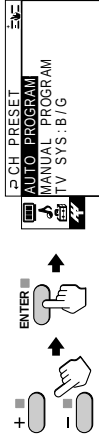
Changing the Channel Preset ("CH PRESET") setting

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

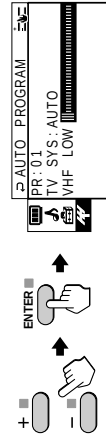


1 Press MENU.

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



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



Select	To
AUTO PROGRAM	preset channels automatically.
MANUAL PROGRAM	preset channels manually (see Presetting channels manually on page 28).
TV SYS	change the TV system. Press + or - to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

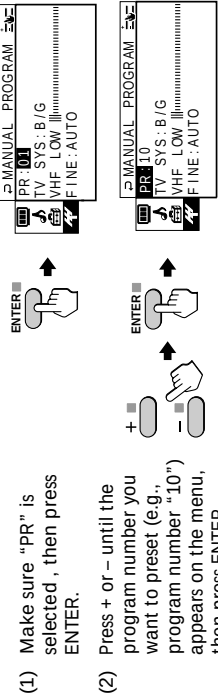
- Tip**
- For details on the menu system and how to use the menu, refer to **Introducing the menu system** on page 19.

continued

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

Presetting channels manually

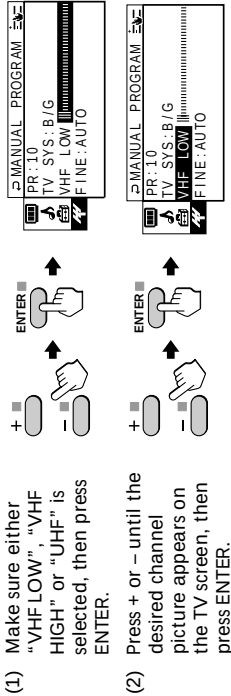
1 After selecting "MANUAL PROGRAM", select the program number to which you want to preset a channel.



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

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

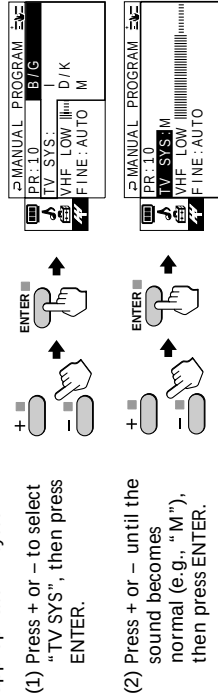
2 Select the desired channel.



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

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

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



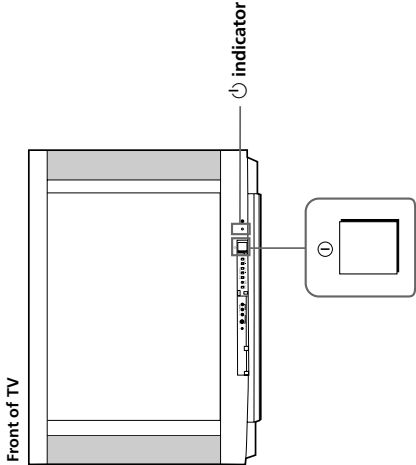
(1) Press + or - to select "TV SYS", then press ENTER.

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

Additional Information

Self-diagnosis function

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



- 1

Check that the  indicator flashes red a number of times between 3-second intervals.
- 2

Count the number of times the  indicator flashes.
- 3

Press  (main power) to turn off your TV.
- 4

Inform your nearest Sony service center about the number of times the  indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

4

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

+

-

ENTER

MANUAL PROGRAM

PR:10

TV SYS:M

VHF LOW

FINE

+

-

ENTER

MANUAL PROGRAM

PR:10

TV SYS:M

VHF LOW

FINE

+

-

ENTER

MANUAL PROGRAM

PR:10

TV SYS:M

VHF LOW

FINE

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

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

(3) Press + or - until the picture and sound quality are optimal, then press ENTER.
The + or - icon on the menu flashes while tuning.

To return to the normal screen
Press MENU.

- Notes
- If you preset a locked program number ("CHILD LOCK"), that particular program number will be unlocked automatically (see page 26).
 - The TV system ("TV SYS") and the fine tuning ("FINE") settings are memorized for each program number.

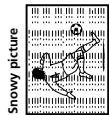
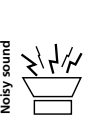
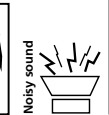
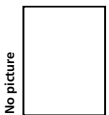
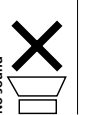
Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
Good picture 	The volume level is too low.	Press $\blacktriangle$ + to increase the volume level.	10
No sound 	- The sound is muted. - Broadcast signal has a transmission problem.	- Press $\boxtimes$ to cancel the muting. - Press A/B until a good sound is heard.	10 15
Dotted lines or stripes 	There is local interference from cars, neon signs, hair dryers, power generators, etc.	- Do not use a hair dryer or other equipment near the TV. - Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	–
Double images or "ghosts" 	Broadcast signals are reflected by nearby mountains or buildings.	- Use a highly directional antenna. - Use the fine tuning ("FINE") function.	– 29
No color 	- The antenna direction is inappropriate. - Use of a booster is inappropriate. - The color level setting is too low.	- 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.	– – 22
Abnormal color patches 	- The color system setting is inappropriate. - The antenna direction is inappropriate. - The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	- 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. - Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on.	25 – –
TV cannot receive stereo broadcast signal (Except 00-XA25M50/XA25M80)	The stereo reception setting is inappropriate.	- Press $\odot$ (main power) on the TV to turn off the TV for about five minutes, then turn it on again. - Press A/B until "AUTO" appears on the screen.	15

32 | Additional Information

Troubleshooting

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

Symptom	Possible cause	Solutions	Page
Snowy picture 	Connection is loose or the cable is damaged.	Check the antenna cable and connection on the TV, VCR and on the wall.	4
Noisy sound 	- Channel presetting is inappropriate or incomplete. - The antenna type is inappropriate. - The antenna direction is inappropriate. - Signal transmission is low.	- 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.	28 – – –
Distorted picture 	Broadcast signals are too strong.	Turn off or disconnect the booster if it is in use.	–
Noisy sound 			
Good picture 	The TV system setting or channel presetting is inappropriate or incomplete.	If the sound of all the channels are noisy, display the "CH PRESET" menu and check the TV system ("TV SYS") setting, then select "AUTO PROGRAM" to preset the channels again.	27
Noisy sound 		If the sound of some channels are noisy, select the channel, then display the "CH PRESET" menu and select the appropriate TV system ("TV SYS").	27
No picture 	The selected sound is inappropriate.	If the sound of some channels are noisy, select the channel, then press A/B to select the main sound.	15
No sound 	- The power cord, antenna or VCR is not connected. - The TV is not turned on.	- Check the power cord, antenna and the VCR connections. - Press I/O (power). - Press $\odot$ (main power) on the TV to turn off the TV for about five seconds, then turn it on again.	4 9 9

continued

31 | Additional Information

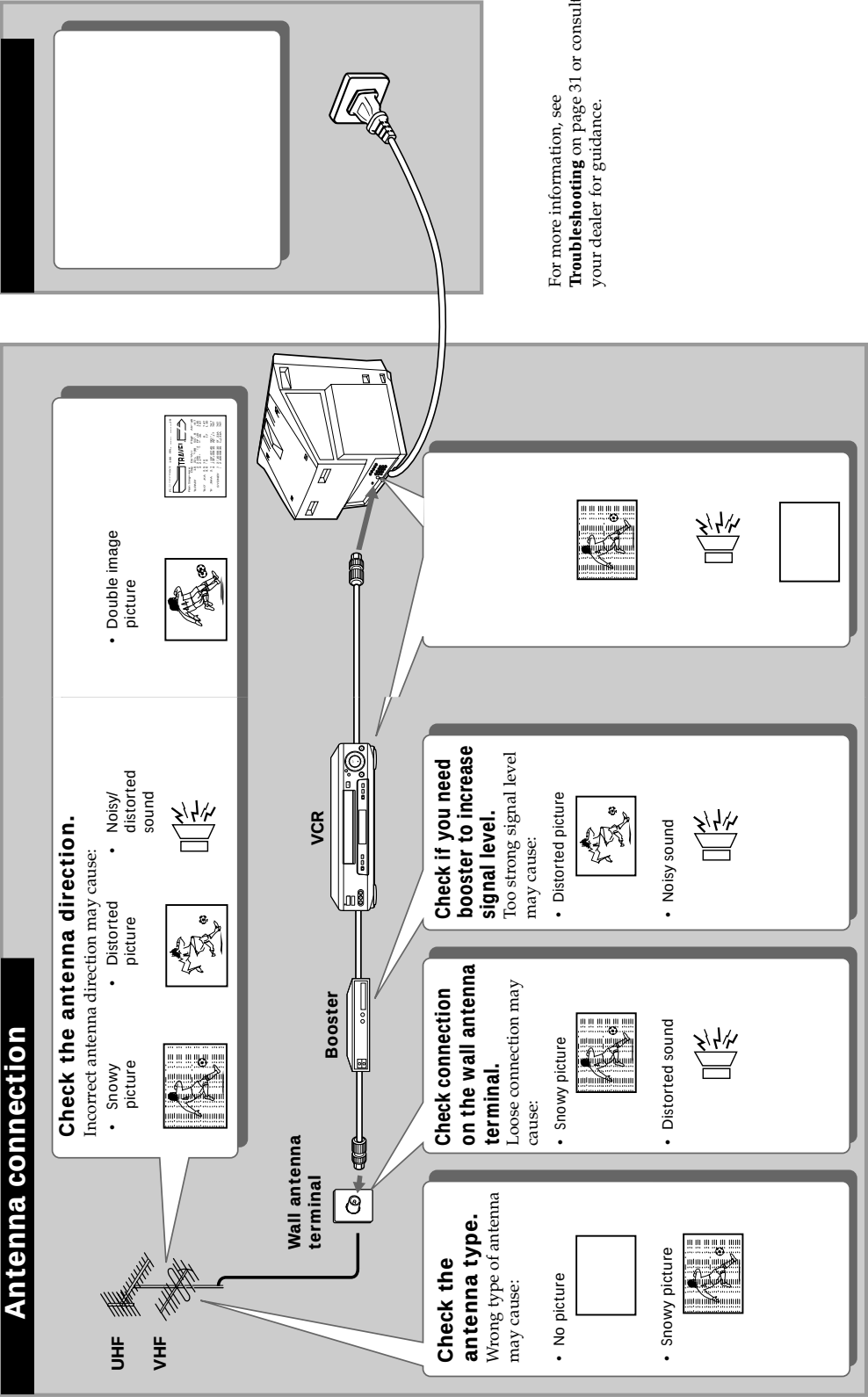
Symptom	Possible cause	Solutions	Page
Stereo broadcast sound switches on and off or is distorted. or The sound switches between monaural and stereo frequently.	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	—
	• Broadcast signal has a transmission problem.	• Press A/B until a good sound is heard.	15
"100" appears on the top of the screen and no teletext display.	• The channel carries no teletext broadcast. (Except KV-XA25M50/XA25M80)	—	17
Teletext display is incomplete (picture snowy or double images). (Except KV-XA25M50/XA25M80)	• Connection is loose or the cable is damaged.	• Check the antenna cable and connection on the TV, VCR and on the wall.	4
	• The antenna direction is inappropriate.	• Adjust the antenna direction. Contact a Sony dealer for advice.	—
	• Signal transmission is too low.	• Try using a booster. • Use the fine tuning ("FINE") function.	— 29
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.	— 25
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.	29
The indicator on your TV flashes red a number of times between 3-second intervals.	• Your TV may need service.	• Contact your nearest Sony service center.	30
TV cabinet creaks.	• Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	—
A "boom" sound is heard when the TV is turned on.	• The TV's demagnetizing function is working. This does not indicate a malfunction.	—	—

Troubleshooting Shortcuts

(KV-XA25M61(EM)/XA25M50)

For better viewing, please check the following connections.

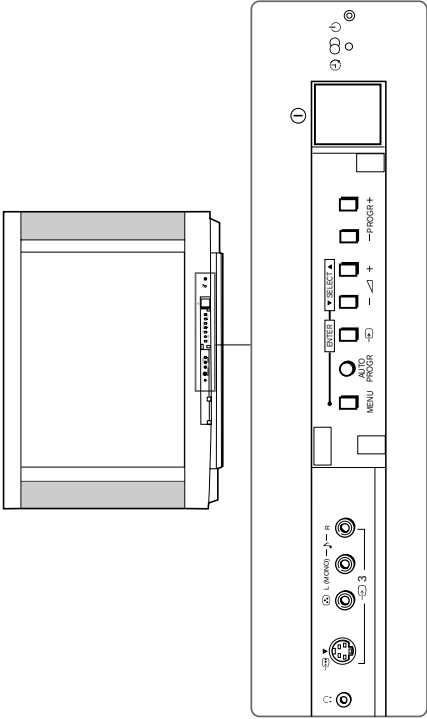
Antenna connection



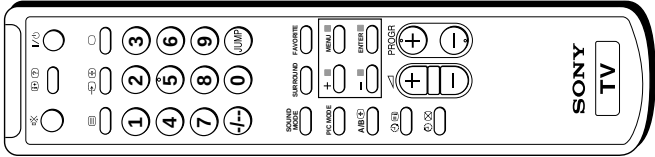
For more information, see **Troubleshooting** on page 31 or consult your dealer for guidance.

Overview of controls

TV front panel



Remote control



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

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

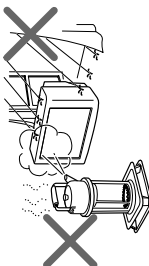
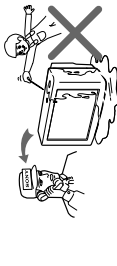
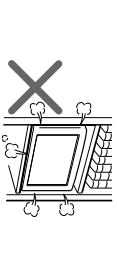
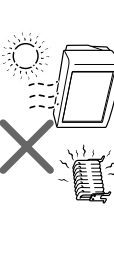
Button	Function	Page
I/O	Turn off temporarily or turn on the TV.	9
PROGR +/-	Select program number.	9
0 - 9, +/-	Input numbers.	9
Δ +/-	Adjust volume.	10
↵	Select TV or video input.	10
□	Display the TV program.	10
⏏	Mute the sound.	10
Ⓜ	Display on-screen information.	10
JUMP	Jump to previous program number.	10
Timer operations		
⌚	Set TV to turn on automatically.	11
⌚	Set TV to turn off automatically.	11
PIC MODE	Select picture mode.	12
SOUND MODE	Select sound mode.	12
FAVORITE	Display favorite channels.	13
SURROUND	Select surround mode.	14
Stereo/bilingual operations (KV-XA29M61/XA25M61 only)		
A/B	Select stereo/bilingual mode.	15
Teletext operations (KV-XA29M61/XA25M61 only)		
Ⓜ	Display Teletext broadcast.	17
Ⓜ	Enlarge the Teletext display.	18
Ⓜ	Reveal concealed information.	18
Ⓜ	Stop Teletext display from scrolling.	18
Ⓜ	Display Teletext service contents.	18
Ⓜ	Show TV screen while waiting for Teletext page.	18
0 - 9	Input Teletext page number.	18
PROGR +/-	Display the next or previous page.	18
■ (red, green, yellow, blue)	Access a Fastext menu	18
Menu operations		
MENU	Display the menu.	20
+ 0r -	Select and adjust item.	20
ENTER	Confirm selected item.	20

GENERAL 2-2

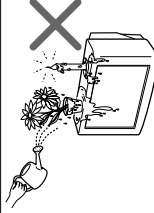
The operating instruction mentioned here are partial abstracts from the Operating Instruction Manual. The page numbers of the Operating Instruction Manual remain as in the manual.

WARNING

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

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

WARNING (continued)

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

Using Your New TV

Getting Started

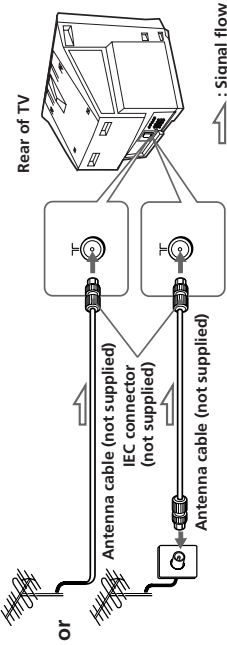
CAUTION

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

Step 1

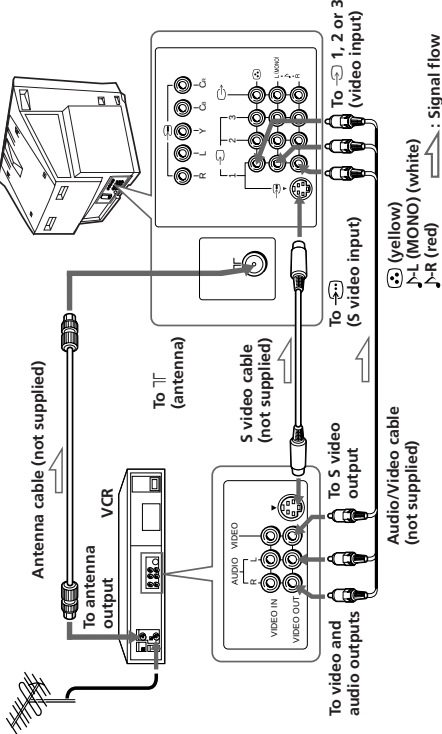
Connect the antenna

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



Connecting a VCR

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



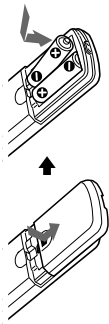
Using Your New TV

Notes

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

Step 2

Insert the batteries into the remote

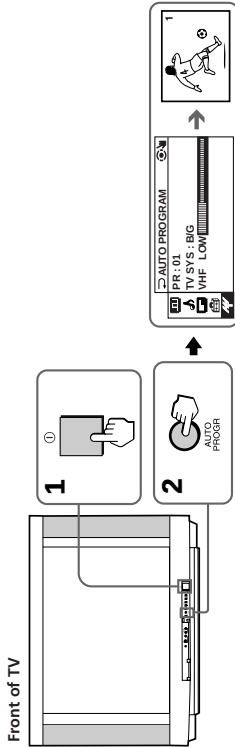


Note

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

Step 3

Preset the channels automatically



Tips

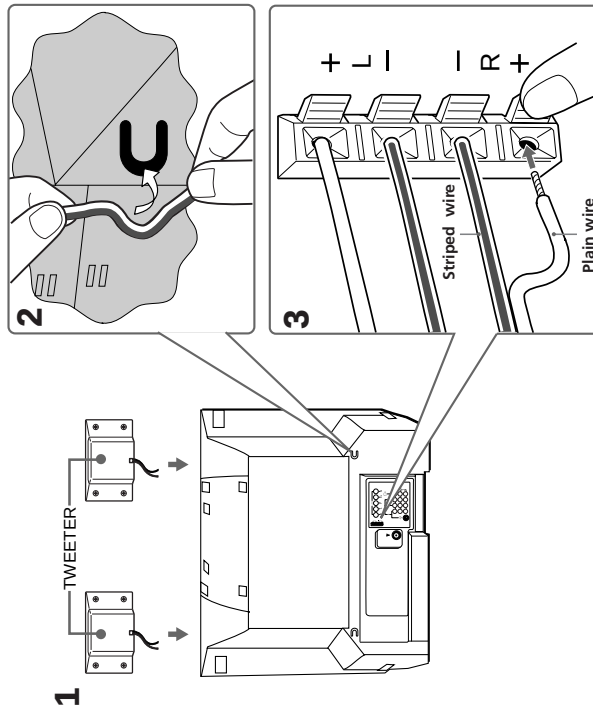
- If you want to stop the automatic channel presetting, press MENU.
- If your TV has preset an unwanted channel or cannot preset a particular channel, then preset your TV manually (see page 31).

Note

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

Connecting the TWEETER (KV-XA25M87 only)

You can enjoy high quality sound by connecting the TWEETER.



1 Place the TWEETER on top of your TV.

2 Bend the wire to hook it at the rear of your TV.

3 Connect the wires to the TWEETER terminals at the rear of your TV. The plain wire should be connected to the ⊕ red terminal and the striped wire to the ⊖ black terminal.

Notes

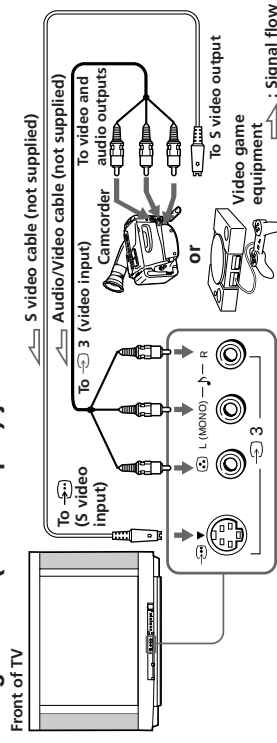
- Connect only the supplied TWEETER; otherwise your TV may malfunction.
- Unplug your TV from the wall outlet when connecting the TWEETER.
- To prevent a malfunction caused by a short circuit of the terminals, make sure that none of the TWEETER wire strands stick out, making contact with the neighbouring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

6 | Using Your New TV

Connecting optional components

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

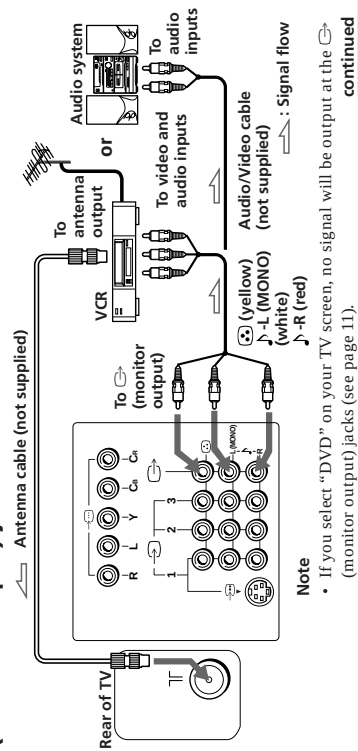
Connecting a camcorder/video game equipment using the (video input) jacks



Notes

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

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



Note

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

Using Your New TV | 7

Using Your New TV

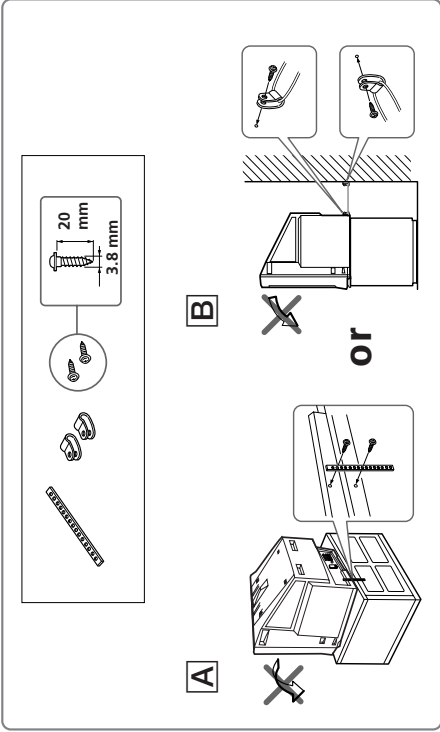
Securing the TV

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

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

or

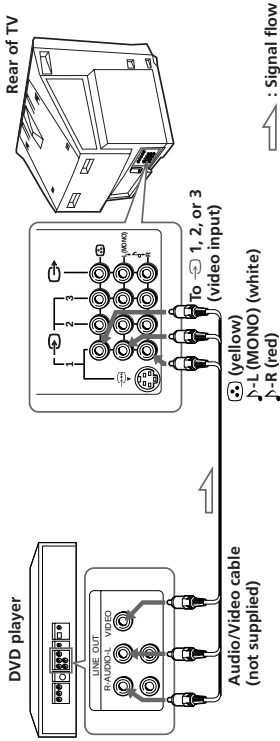
B Put the cord or chain through the clamps to secure the TV against a wall or pillar.



Note
• Use only the supplied screws. Use of other screws may damage the TV.

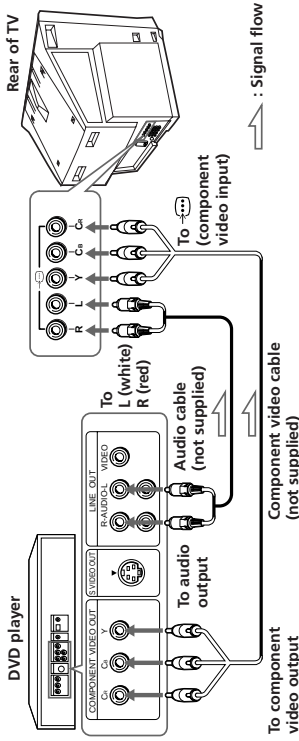
Connecting optional components (continued)

Connecting a DVD player using the (video input) jacks



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

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



Notes
• Some DVD player terminals may be labeled differently:

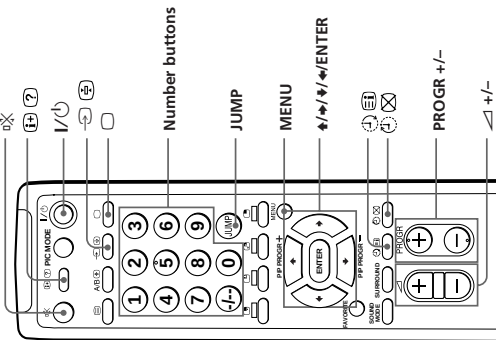
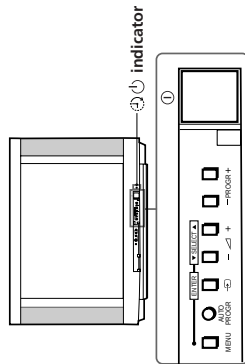
Connect	To (on the DVD player)
Y (green)	Y
C _B (blue)	C _B , B-Y or P _B
C _R (red)	C _R , R-Y or P _R

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

Using Your New TV

Watching the TV

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



1 Press ① to turn on the TV.

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

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

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

To select a program number quickly

- (1) Press and hold PROGR +/-.
- (2) Release PROGR +/- when the desired program number appears.

Note

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

Additional tasks

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

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

Changing the menu language

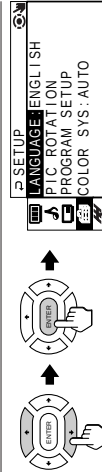
You can change the menu language as well as the on-screen language.

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

1 Press MENU.



2 Press ↖ or ↗ to select the "SETUP" icon (⚙), then press ENTER.



3 Make sure "LANGUAGE" is selected, then press ENTER.



4 Press ↖ or ↗ to select the desired language (e.g., "عربي"), then press ENTER.



The selected menu language appears.

To return to the normal screen

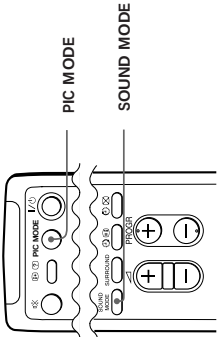
Press MENU.

continued

Advanced Operations

Selecting the picture and sound modes

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



Selecting the picture mode

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

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

Selecting the sound mode

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

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

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

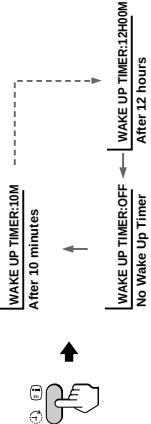
Watching the TV (continued)

Setting the Wake Up timer

- 1

Press  until the desired period of time appears.

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


- 2

Select the program number or video input you want to display when you wake up.
- 3

Press  or set the Sleep timer if you want the TV to turn off automatically. The  indicator lights up orange.

To cancel the Wake Up timer

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

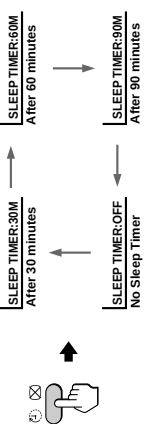
Note

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

Setting the Sleep timer

- Press  until the desired period of time appears.

The Sleep timer starts immediately after you have set it.

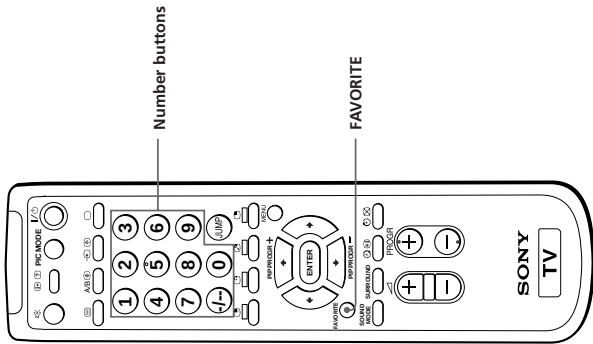


To cancel the Sleep timer

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

Viewing your favorite channels

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



1 Press FAVORITE.



FAVORITE CH
① PR01 ② PR02 ③ PR03
④ PR04 ⑤ PR05 ⑥ PR06

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

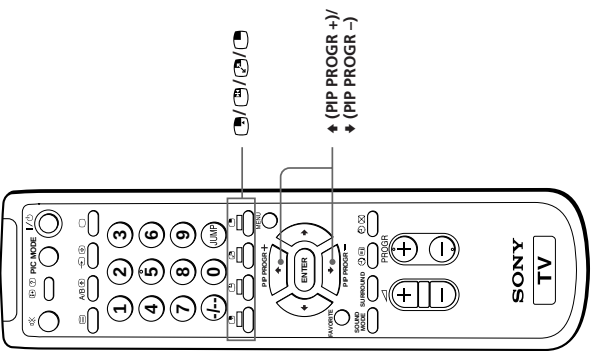


Tip

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

Watching two programs at the same time — PIP

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



Displaying a sub screen

Press .



To return to the normal screen

Press  (when displaying the sub screen).

Watching two programs at the same time (continued)

Additional PIP tasks

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



Tips

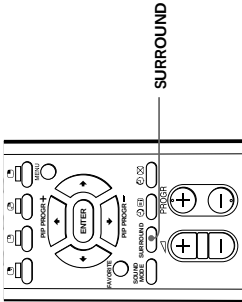
- You can also display the sub screen and exchange pictures between the main and sub screens using the menu (see **Changing the “PIP” setting** on page 27).
- You can change the position of the sub screen (see **Changing the “PIP” setting** on page 27).

Notes

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

Listening with surround sound

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



Press SURROUND repeatedly until you receive the desired surround sound.



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

Tip

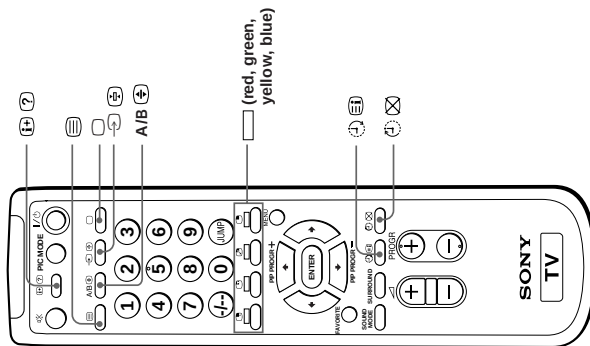
- You can also select the surround option using the menu (see **Changing the “SOUND” setting** on page 25).

The surround of your TV is categorized as TruSurround.

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

Viewing Teletext

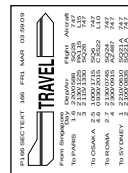
TV stations broadcast an information service called Teletext via some TV channels. Teletext allows you to receive various information, such as shares market or news.



Displaying Teletext

- 1 Select a TV channel that carries the Teletext broadcast you want to watch.
- 2 Press  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 $\square$.

Additional Teletext tasks

To	Do this
display a Teletext page on the TV picture	Press ⏏ . Each time you press ⏏ , the screen changes as follows: Teletext → Teletext and TV → TV.
check the contents of a Teletext service	Press ⏏ . An overview of the Teletext contents and page numbers appear 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 PROG+/-.
hold (pause) a Teletext display	Press ⏏ to display the symbol “⏏” at the top left corner of the screen. To resume normal Teletext operation, press ⏏ or ⏏ .
reveal concealed information (e.g., an answer to a quiz)	Press ⏏ . To conceal the information, press the button again.
enlarge the Teletext display	Press ⏏ . Each time you press ⏏ , the Teletext display changes as follows: Enlarge upper half → Enlarge lower half → Normal size.
wait for a Teletext page while watching a TV program	1 Enter the Teletext page number that you want to refer to, then press ⏏ . 2 When the page number is displayed, press ⏏ 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 broadcasted, the colored menus appear at the bottom of the screen. The colors of the menus correspond to the red, green, yellow, and blue color-coded buttons on the remote.

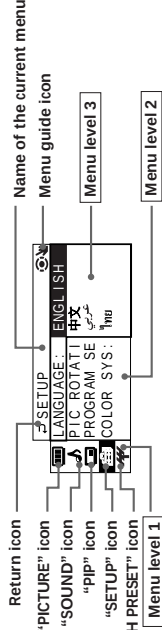
To access a FASTEXT menu

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

Adjusting Your Setup (MENU)

Introducing the menu system

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



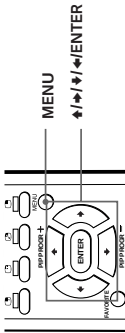
Level 1	Level 2	Level 3/Function
	"PICTURE MODE"	Select the picture mode: "DYNAMIC" → "STANDARD" → "SOFT" → "PERSONAL" → "ADJUST" Adjust the "PERSONAL" option: "PICTURE" → "COLOR" → "BRIGHT" → "HUE" → "SHARP"
	"WIDE MODE"	Change the picture size.
	"INTELLIGENT PIC"	Optimize picture quality.
	"SOUND MODE"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

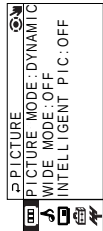
Adjusting Your Setup (MENU)

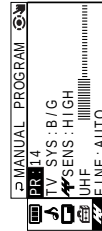
Introducing the menu system (continued)

How to use the menu

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



- 1 Press MENU to display the menu.

- 2 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item.

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


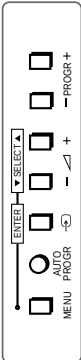
Other menu operations

To	Press
Adjust the setting value	$\blacktriangle$, $\blacktriangledown$ or $\blacklozenge$
Move to the next/previous menu level	$\blacktriangle$ or $\blacktriangledown$
Cancel the menu	MENU

Tips

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

Front of TV

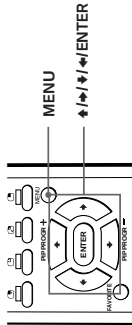


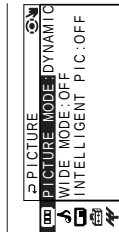
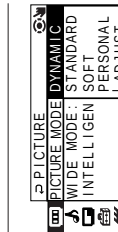
Note

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

Changing the "PICTURE" setting

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



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

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

- | Select | To |
|-----------------------|--|
| "PICTURE MODE" | choose either "DYNAMIC", "STANDARD", "SOFT", "PERSONAL", or "ADJUST".
change the picture size when receiving wide-mode (16:9) picture signal.
Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER.
To cancel, select "OFF", then press ENTER. |
| "INTELLIGENT PICTURE" | optimize picture quality.
Press $\blacktriangle$ or $\blacktriangledown$ to select "ON", then press ENTER.
To cancel, select "OFF", then press ENTER. |
- * When the "PERSONAL" mode is selected, you can receive the last adjusted picture settings from the "ADJUST" option (see page 24).

Note

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

To return to the normal screen

Press MENU.

continued

Changing the “PICTURE” setting (continued)

Adjusting the “ADJUST” items under “PICTURE MODE”

1

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



2

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

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

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

3

Repeat the above steps to adjust other items.

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

Tip

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

Changing the “SOUND” setting

The “SOUND” menu allows you to change the sound settings.

1

Press MENU.

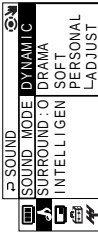
2

Press $\blacktriangle$ or $\blacktriangledown$ to select the “SOUND” icon (SOUND), then press ENTER.



3

Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., “SOUND MODE”), then press ENTER.



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

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

To return to the normal screen
Press MENU.

Tip

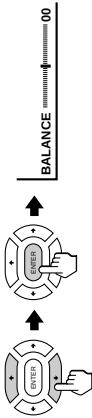
- For details on the options under “SOUND MODE” and “SURROUND”, see pages 13 and 17 respectively.

Changing the “SOUND” setting (continued)

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.

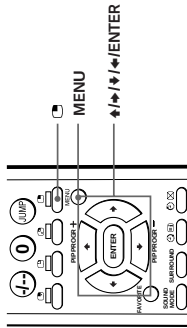
The adjusted settings will be received when you select “PERSONAL”.

Tip

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

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.



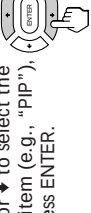
- 1

Press MENU.
- 2

Press **▲** or **▼** to select the “PIP” icon (), then press ENTER.


- 3

Press **▲** or **▼** to select the desired item (e.g., “PIP”), then press ENTER.


- | Select | To |
|------------|--|
| “POSITION” | change the position of the sub screen.
Press ▲ or ▼ to select the desired position, then press ENTER.
 |
| “PIP” | display a sub screen within the main picture.
Press ▲ or ▼ to select “ON”, then press ENTER.
To cancel, press  or select “PIP : OFF”, then press ENTER. |
| “SWAP” | exchange pictures between main screen and sub screen. |

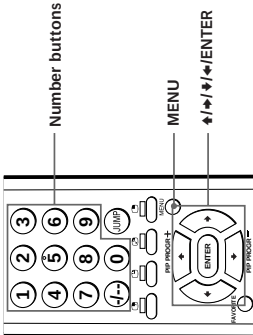
To return to the normal screen
Press MENU.

Tip

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

Changing the “SETUP” setting

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



1 Press MENU.

2 Press $\blacktriangle$ or $\blacktriangledown$ to select “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 11).
“PIC ROTATION”	adjust the picture position when it is not aligned to the TV screen. Press $\blacktriangle$, $\blacktriangleright$, $\blacktriangleleft$ or $\blacktriangledown$ to adjust the picture position, then press ENTER.
“PROGRAM SETUP”	adjust each program number settings. (see Adjusting each program number settings (PROGRAM SETUP) on page 29).
“COLOR SYS”	change the color system. Normally, set this to “AUTO”.

To return to the normal screen
Press MENU.

Adjusting each program number settings (PROGRAM SETUP)

1 Select “PROGRAM SETUP” from the “SETUP” menu.

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

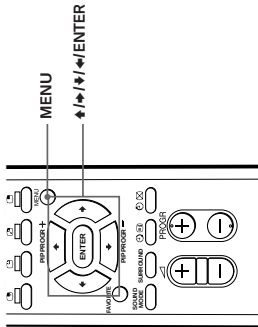
3 Press $\blacktriangle$ or $\blacktriangledown$ to select the desired item (e.g., “CHILD LOCK”), then press ENTER.

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

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

To return to the normal screen
Press MENU.

Changing the Channel Preset ("CH PRESET") setting



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

1 Press MENU.

2 Press $\blacktriangle$ or $\blacktriangledown$ to select the "CH PRESET" icon ($\star$), 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 31.

"TV SYS" change the TV system.

Press $\blacktriangle$ or $\blacktriangledown$ to select either "B/G", "I", "D/K" or "M", then press ENTER.

To return to the normal screen

Press MENU.

Tip

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

Presetting channels manually

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

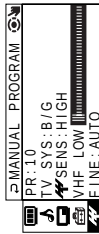


- Make sure "PR" is selected, then press ENTER.
- Press $\blacktriangle$ or $\blacktriangledown$ until the program number you want to preset (e.g., program number "10") appears on the menu, then press ENTER.

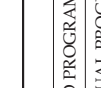
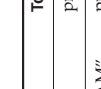
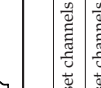
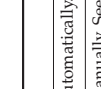
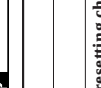
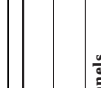
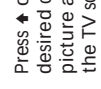
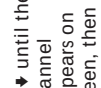
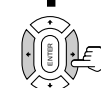
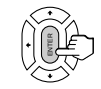
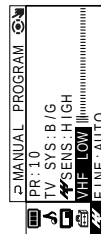
Tip

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

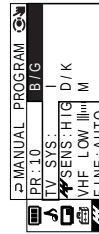
2 Select the desired channel.



- Make sure either "VHF LOW", "VHF HIGH" or "UHF" is selected, then press ENTER.
- Press $\blacktriangle$ or $\blacktriangledown$ until the desired channel picture appears on the TV screen, then press ENTER.



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



- Press $\blacktriangle$ or $\blacktriangledown$ to select "TV SYS", then press ENTER.
- Press $\blacktriangle$ or $\blacktriangledown$ until the sound becomes normal (e.g., "M"), then press ENTER.

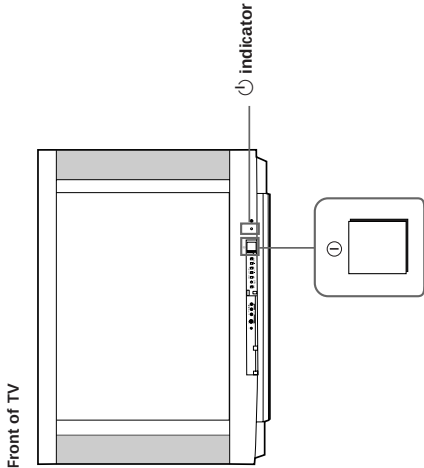


continued

Additional Information

Self-diagnosis function

Your TV is equipped with a self-diagnosis function. If there is a problem with your TV, the 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 1 (main power) to turn off your TV.
- 4

Inform your nearest Sony service center about the number of times the indicator flashes.
Be sure to note the model name and serial number located on the rear of your TV.

Additional Information

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

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

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

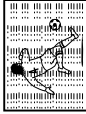
5 If the TV signal is too strong and the picture is distorted, you may reduce the TV receiving sensitivity.

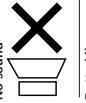
To return to the normal screen
Press MENU.

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

Troubleshooting

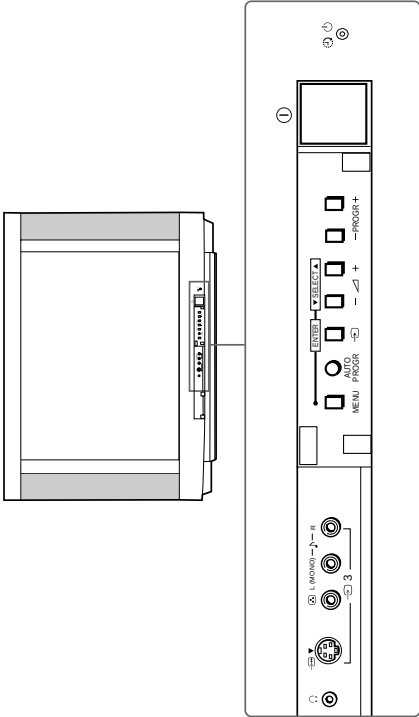
If you find any problem while viewing your TV, please check the following guide. If any problem persists, contact your Sony dealer.

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

Symptom	Possible cause	Solutions	Page
Good picture 	- The volume level is too low. - The sound is muted.	- Press $\blacktriangle$ + to increase the volume level. - Press MUTE to cancel the muting.	11
No sound 			11
Dotted lines or stripes 	There is local interference from cars, neon signs, hair dryers, power generators, etc.	- Do not use a hair dryer or other equipment near the TV. - Adjust the antenna direction for minimum interference. Contact a Sony dealer for advice.	–
Double images or "ghosts" 	- Broadcast signals are reflected by nearby mountains or buildings. - The antenna direction is inappropriate. - Use of a booster is inappropriate.	- 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.	– 32 –
No color 	- The color level setting is too low. - The color system setting is inappropriate. - The antenna direction is inappropriate.	- 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.	23 28 –
Abnormal color patches 	The magnetic disturbance from external speakers or other equipment, or the direction of the earth's magnetic field may affect the TV.	Keep external speakers or other electrical equipment away from the TV. Do not move the TV while the TV is turned on. Press ⏻ (main power) on the TV to turn off the TV for about five minutes, then turn it on again.	–

Overview of controls

TV front panel



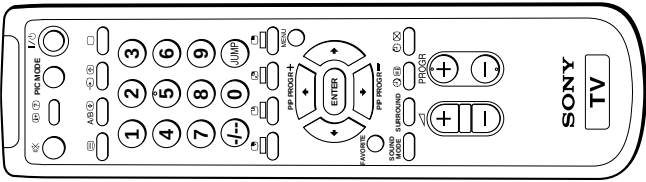
Button	Function	Page
AUTO PROGR	Preset channels automatically.	5
①	Turn off completely or turn on the TV.	10
PROGR +/-	Select program number.	10
⏻ +/-	Standby indicator.	10
⏻ +/-	Adjust volume.	11
⏻ +/-	Select TV or video input.	11
⏻ +/-	Wake Up indicator.	12
Menu operations		
MENU	Display the menu.	22
SELECT ⏻/▲	Select and adjust item.	22
ENTER	Confirm selected item.	22
⏻ +/-	Headphones jack.	—

Troubleshooting (continued)

Symptom	Possible cause	Solutions	Page
"100" appears on the top of the screen and no Teletext display. (KV-XA34M86/ XA25M86 only)	The channel carries no Teletext broadcast.	—	18
Teletext display is incomplete (picture snowy or double images). (KV-XA34M86/ XA25M86 only)	- Connection is loose or the cable is damaged. - The antenna direction is inappropriate. - Signal transmission is too low.	- Check the antenna cable and connection on the TV, VCR and on the wall. - Adjust the antenna direction. Contact a Sony dealer for advice. - Try using a booster. - Use the fine tuning ("FINE") function.	4
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 service.	Contact your nearest Sony service center.	33
TV cabinet creaks.	Changes in room temperature sometimes make the TV cabinet expand or contract, making a noise. This does not indicate a malfunction.	—	—
A "boom" sound is heard when the TV is turned on.	The TV's demagnetizing function is working. This does not indicate a malfunction.	—	—

Overview of controls (continued)

Remote control



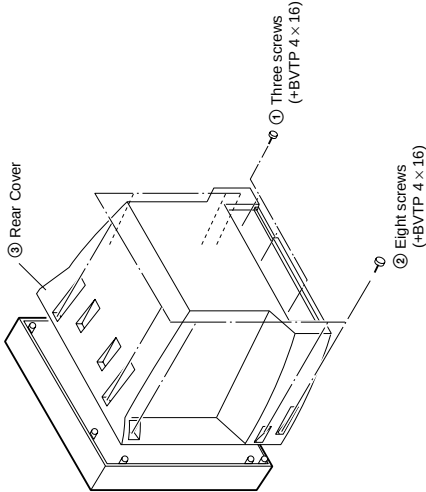
The names /symbols of buttons on the remote are indicated in different colors to represent the available functions.

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

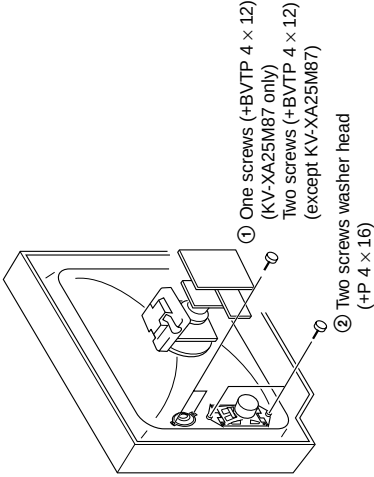
Button	Function	Page
I/⏻	Turn off temporarily or turn on the TV.	10
PROGR +/-	Select program number.	10
0 - 9, -/--	Input numbers.	10
↔ +/-	Adjust volume.	11
⏮ ⏭	Select TV or video input.	11
⏸	Mute the sound.	11
⏴	Display on-screen information.	11
JUMP	Jump to previous program number.	11
Timer operations		
⌚	Set TV to turn on automatically.	12
⌚	Set TV to turn off automatically.	12
PIC MODE	Select picture mode.	13
SOUND MODE	Select sound mode.	13
FAVORITE	Display favorite channels.	14
PIP operations		
Ⓜ	Display a sub screen.	15
Ⓜ	Swap main and sub screens.	16
Ⓜ	Freeze the sub screen.	16
Ⓜ	Select video input for the sub screen.	16
Ⓜ/PROGR +/-	Change program number in the sub screen.	16
SURROUND	Select surround mode.	17
Stereobilingual operations (not used for these models)		
A/B	Select stereo / bilingual mode.	-
Teletext operations (KV-XA25M86 only)		
Ⓜ	Display Teletext broadcast.	18
Ⓜ	Enlarge the Teletext display.	19
Ⓜ	Reveal concealed information.	19
Ⓜ	Stop Teletext page from scrolling.	19
Ⓜ	Display Teletext service contents.	19
Ⓜ	Show TV screen while waiting for Teletext page.	19
0 - 9	Input Teletext page number	19
PROGR +/-	Display the next or previous page.	19
Ⓜ (red, green, yellow, blue)	Access a FASTEXT menu.	19
Menu operations		
MENU	Display the menu.	22
Ⓜ/Ⓜ/Ⓜ/Ⓜ	Select and adjust item.	22
ENTER	Confirm selected item.	22

SECTION 2
DISASSEMBLY

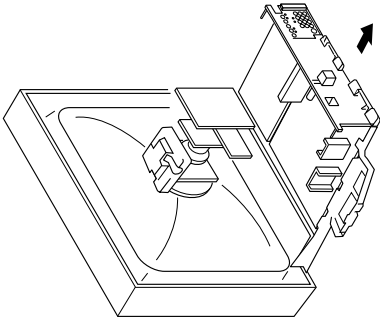
2-1. REAR COVER REMOVAL



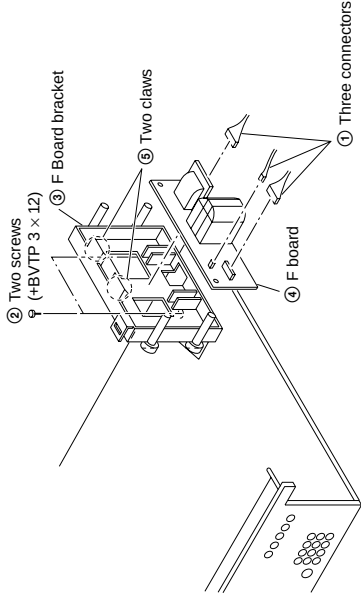
2-2. SPEAKER REMOVAL



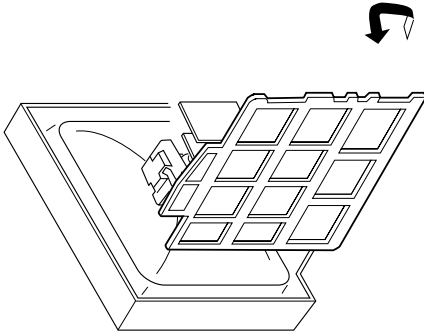
2-3. CHASSIS ASSY REMOVAL



2-4. F BRACKET REMOVAL

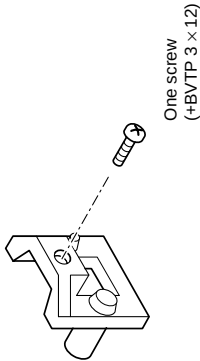


2-5. SERVICE POSITION

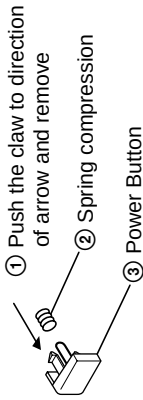


2-6. REPLACEMENT OF PARTS

2-6-1. Light Guide
For replacement of light guide, unscrew them, exchange with new parts and fix them with screws respectively.



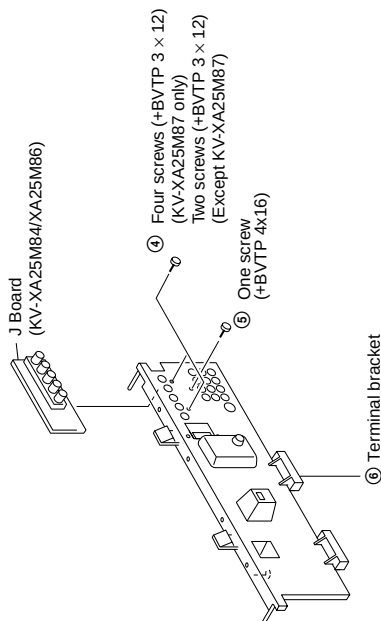
2-6-2. Power Button



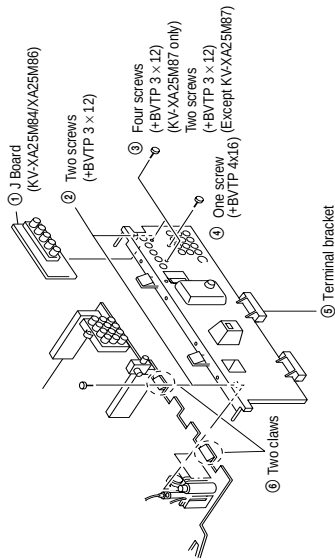
Note:

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

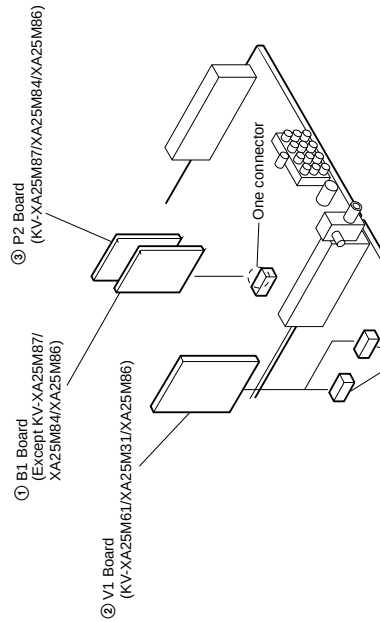
2-7. HV CAP BLOCK, PWB HOLDER AND J BOARD REMOVAL



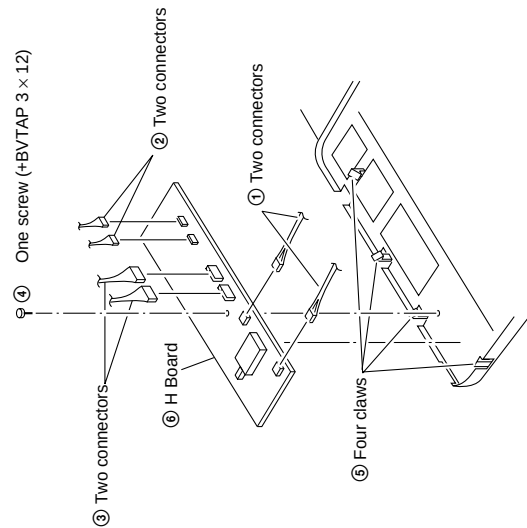
2-8. TERMINAL BRACKET REMOVAL



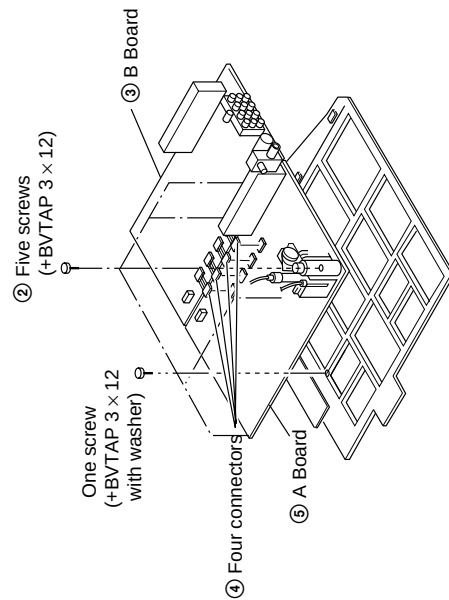
2-9. B1, P2 AND V1 BOARD REMOVAL



2-10. H BOARD REMOVAL



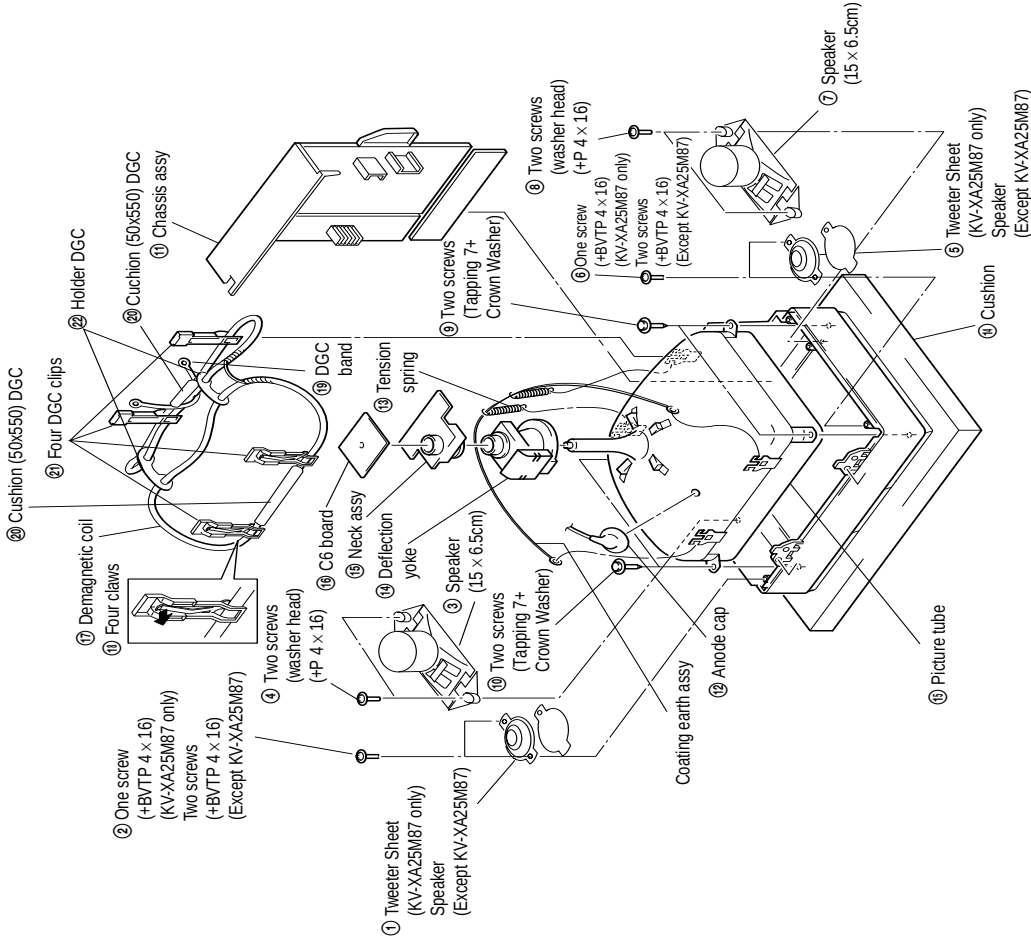
2-11. A AND B BOARDS REMOVAL



2-12. PICTURE TUBE REMOVAL

Note:

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



• REMOVAL OF ANODE-CAP

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

• REMOVING PROCEDURES

- ① Turn up one side of the rubber cap in the direction indicated by the arrow ㉓.
- ② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow ㉔.
- ③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow ㉕.

• HOW TO HANDLE AN ANODE-CAP

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



SECTION 3 ADVANCE OPERATION

3-1. "RESET" FUNCTION

1. Purpose

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

2. How to Operate

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

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

3. Subsequent of Operation

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

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

Items that remains at the last selection by user

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

Reset Items

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

* = only when in RF mode

*1= Not used for these models

SECTION 4

SET-UP ADJUSTMENTS

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

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

PICTURE control normal

BRIGHTNESS control normal

Preparation :

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

4-1. BEAM LANDING

1. Input a white signal with the pattern generator.

Contrast } normal
Brightness }

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

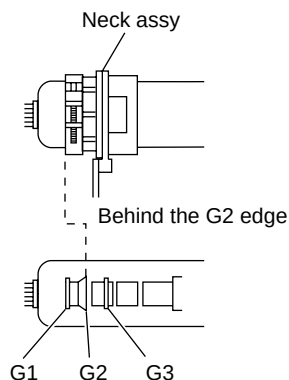


Fig. 4-1

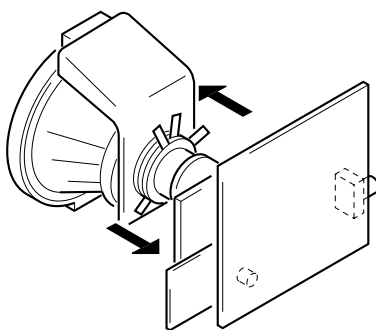


Fig. 4-2

Perform the adjustments in the following order :

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

Note : Test Equipment Required.

1. Pattern Generator
2. Degausser
3. Oscilloscope

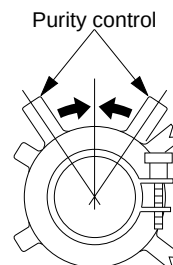


Fig. 4-3

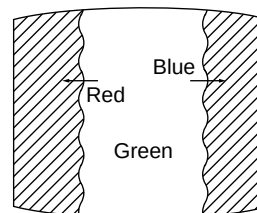


Fig. 4-4

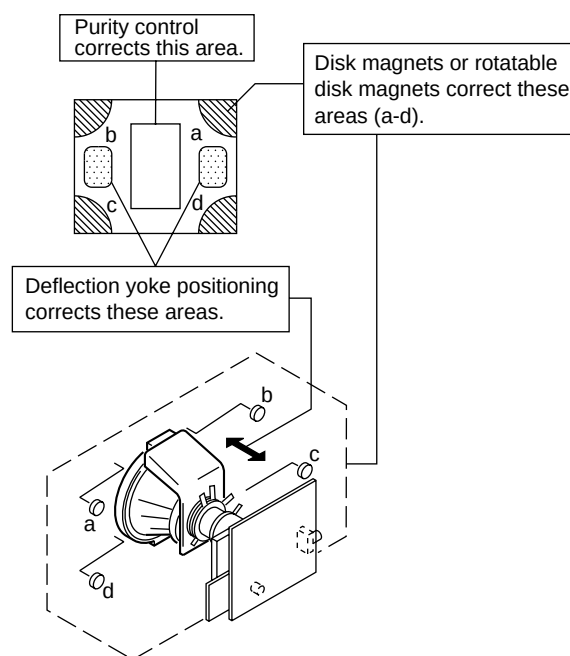
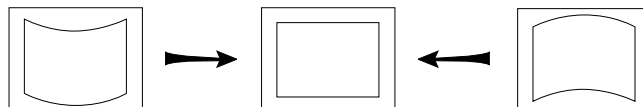
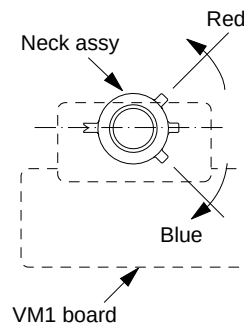
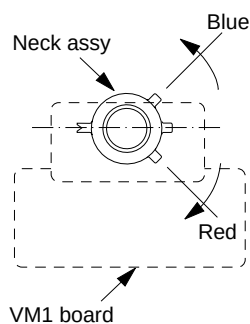
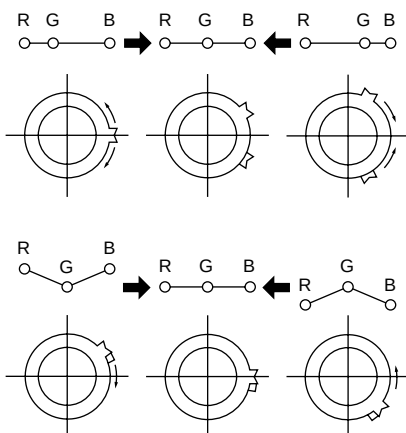


Fig. 4-5

④ BMC (Hexapole) Magnet.

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

**Note**

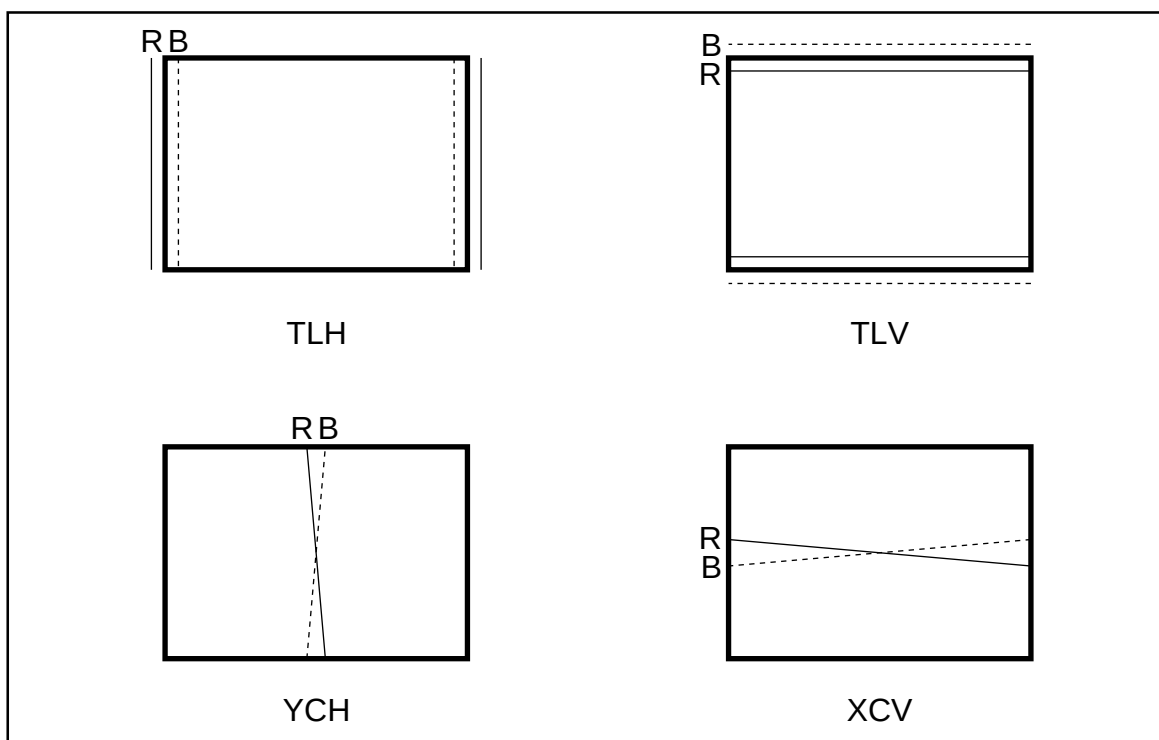
1. The Red and Blue magnets should be equally far from the horizontal center line.
2. Do not separate the Red and Blue magnets too far. (Less than 8 mm)

⑤ Y separation axis correction magnet adjustment.

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

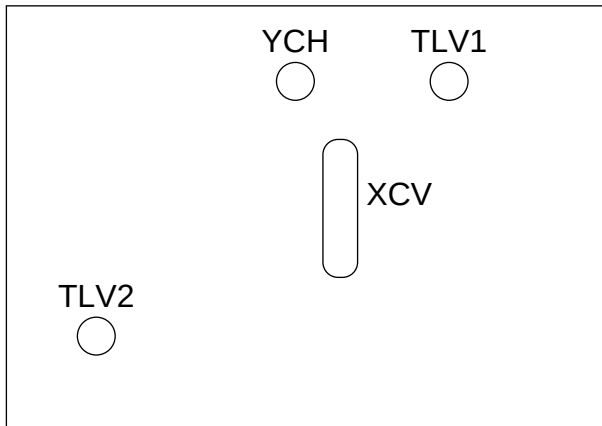
(2) Dynamic Convergence Adjustment**Preparation:**

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

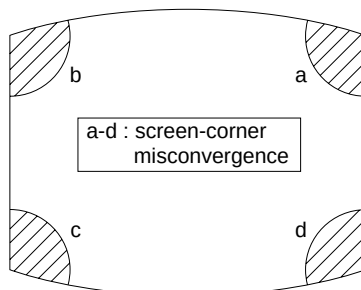


TLV	Rotate	TLV-2	VOL (29", 34") on DY
	Rotate	TLV	VOL (25") on DY
XCV	Rotate	XCV	Adj core on DY
YCH	Rotate	YCH	VOL on DY
TLH	Insert	TLH	Correction Plate to DY Pocket (Left or Right)

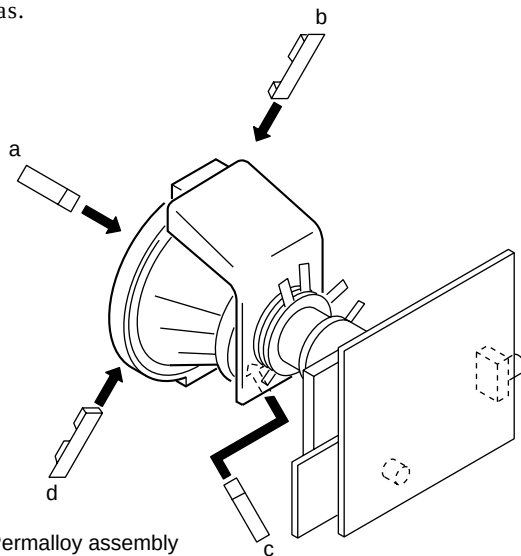
ON DY:



(3) Screen-corner Convergence



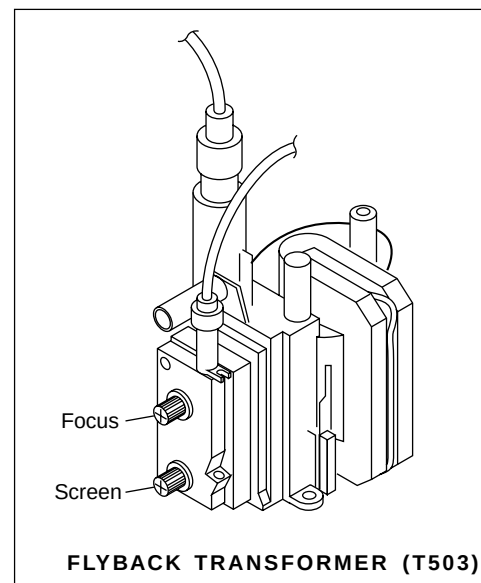
Fix a Permalloy assy corresponding to the misconverged areas.



4-3. FOCUS ADJUSTMENT

FOCUS adjustment should be completed before W/B adjustment.

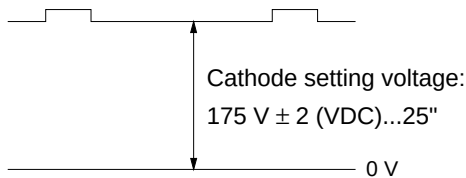
1. Receive digital monoscope pattern.
2. Set "Picture Mode" to "DYNAMIC".
3. (a) Adjust figure VR so that the center of screen becomes just focus (except 25").
(b) Adjust focus VR so that the lion teeth becomes just focus (25" only).
4. Change the receiving signal to white pattern and blue back.
5. Confirm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



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

1. G2 (SCREEN) ADJUSTMENT

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

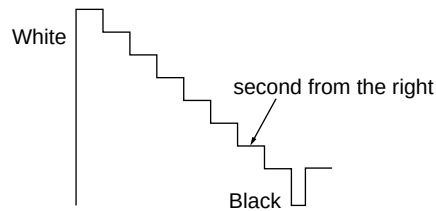


2. WHITE BALANCE ADJUSTMENT

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

3. SUB BRIGHT ADJUSTMENT

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



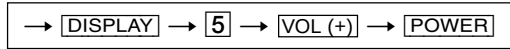
SECTION 5 CIRCUIT ADJUSTMENTS

5-1. ADJUSTMENTS WITH COMMANDER

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

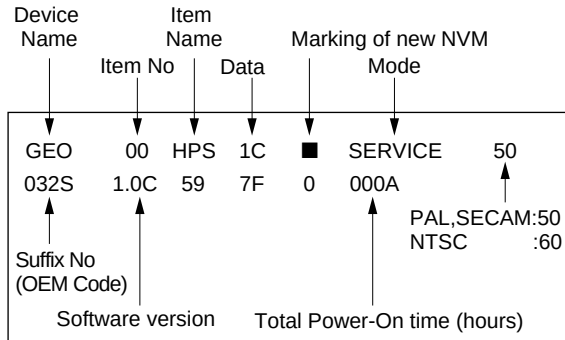
a. ENTERING SERVICE MODE

With the unit on standby



This operation sequence puts the unit into service mode.

The screen display is :



b. METHOD OF CANCELLATION FROM SERVICE MODE

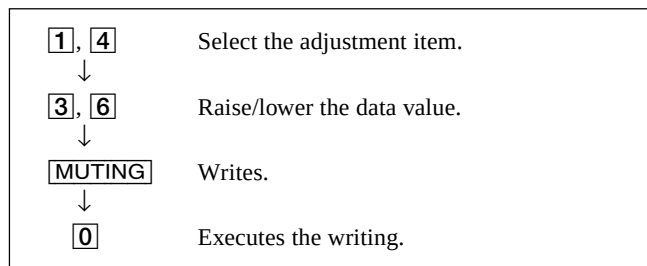
Set the standby condition (Press [POWER] button on the commander), then press [POWER] button again, hereupon it becomes TV mode.

c. METHOD OF WRITE INTO MEMORY

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

d. MEMORY WRITE CONFIRMATION METHOD

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



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

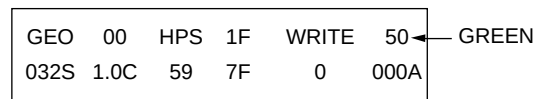
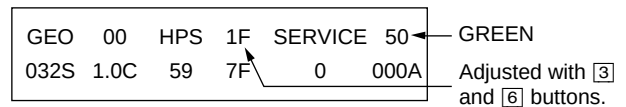
5-2. ADJUSTMENT METHOD

Item Number 00 of device GEO

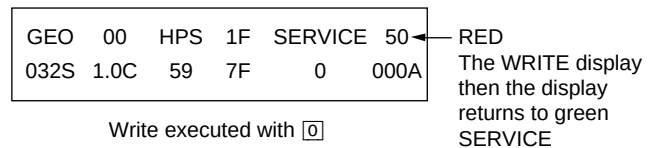
This explanation uses H-Position as an example.

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

Example on screen display :-



Write with [MUTING]



Write executed with [0]

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

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

Adjustment Item Table

TVG Category	Functionality		Init.	Range	Function	Table & Note	Register No. (Bit Range)	Device Name (Slave Address)	RAM Address (Bit Range)	Remarks:	
	No.	Name								Initial data for tables	
GEO	00	HPS	1E	3F	H Position	Normal(50/60)/Wide(50/60)	14 (7-2)	CXA2159S(88H)	9E (7-2)	1E (for 60Hz)	
	01	HSZ	25	3F	H Size	Normal(50/60)/Wide(50/60)	13 (7-2)		9D (7-2)	typical	
	02	PAP	1F	3F	Pin Amp	Normal(50/60)/Wide(50/60)	15 (7-2)		9F (7-2)	typical	
	03	TLT	7	0F	Trapezium	Normal(50/60)/Wide(50/60)	17 (7-4)		A1 (7-4)	typical	
	04	VPS	1F	3F	V Position	Normal(50/60)/Wide(50/60)	11 (7-2)		9B (7-2)	typical	
	05	VSZ	1F	3F	V size	Normal(50/60)/Wide(50/60)	10 (7-2)		9A (7-2)	typical	
	06	SCO	7	0F	S Correction	Normal(50/60)/Wide(50/60)	12 (7-4)		9C (7-4)	typical	
	07	VLN	7	0F	V Linearity	Normal(50/60)/Wide(50/60)	12 (3-0)		9C (3-0)	typical	
	08	BOW	7	0F	AFC Bow	Normal(50/60)/Wide(50/60)	18 (7-4)		A2 (7-4)	typical	
	09	AGL	7	0F	AFC Angle	Normal(50/60)/Wide(50/60)	18 (3-0)		A2 (3-0)	typical	
	0A	UPN	1F	3F	Upper Pin	Normal(50/60)/Wide(50/60)	16 (7-2)		A0 (7-2)	typical	
	0B	LPN	1F	3F	Lower Pin	Normal(50/60)/Wide(50/60)	1A (7-2)		A4 (7-2)	typical	
	0C	HLB	1	1	H Blanking on/off		1A (1)		74 (1)	typical	
	0D	LBL	0B	0F	Left H Blanking	Normal(50/60)/Wide(50/60)	19 (7-4)		A3 (7-4)	0F (for 60Hz)	
	0E	RBL	2	0F	Right H Blanking	Normal(50/60)/Wide(50/60)	19 (3-0)		A3 (3-0)	typical	
WHB	00	RDR	25	3F	R Drive	DYNAMIC/Others	0B (7-2)	CXA2159S(88H)	37E (7-2)	2A (for non-DYNAMIC)	
	01	GDR	25	3F	G Drive	DYNAMIC/Others	0C (7-2)		37F (7-2)	typical	
	02	BDR	25	3F	B Drive	DYNAMIC/Others	0D (7-2)		380 (7-2)	typical	
	03	RCT	7	0F	R Cutoff	SECAM/Others	09 (3-0)		382 (3-0)	typical	
	04	GCT	7	0F	G Cutoff	SECAM/Others	0A (7-4)		383 (7-4)	typical	
	05	BCT	7	0F	B Cutoff	SECAM/Others	0A (3-0)		383 (3-0)	typical	
	06	BMN	15	1F	Brightness Minimum Data		08 (7-2)		106 (6-2)	-	
	07	SBR	1F	3F	Sub Brightness Control		08 (7-2)		107 (7-2)	-	
SAJ	08	APB	0	3	Sub Bright Control Switch for Intelligent Picture #3		08 (7-2)		107 (1-0)	-	
	00	PMX	38	3F	Picture Maximum Data	non-Wide/Wide	05 (7-2)	CXA2159S(88H)	105 (7-2)	typical	
	01	SHU	7	0F	Sub Hue Control	TV/Video	07 (7-2)		108 (5-2)	typical	
	02	SSH	5	0F	Sub Sharpness Control	TV/Video	09 (7-4)		109 (7-4)	09 (for VIDEO)	
	03	SCL	1F	3F	Sub Color Control	(NTSC/Others)/WIDE(NTSC/Others)	06 (7-2)		10A (7-2)	typical	
	00	EHT	5	0F	EHT Comp	50/60Hz	17 (3-0)	CXA2159S(88H)	A1 (3-0)	typical	
	01	GMA	2	3	Gamma Correction (separated in STANDARD mode)	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		367 (1-0)	typical	
	02	APG	0	1	Gamma Control Switch for Intelligent Picture #3	NON-STD.(NTSC/Others)/STD.(NTSC/Others)	0D (1-0)		367 (2)	-	
VP	03	YDL	6	0F	Y Delay	PAL/SECAM/NTSC/DVD	0E (3-0)		36C (3-0)	(09/08/08 for SECAM/NTSC/DVD)	
	04	SST	1	3	SECAM ID Start Position	SECAM&ATUTO/FORCED-PAL&NTSC	03 (5-4)		369 (5-4)	(00 for forced PAL/NTSC)	
	05	SSP	1	3	SECAM ID Stop Position	SECAM&ATUTO/FORCED-PAL&NTSC	03 (7-6)		369 (7-6)	(03 for forced PAL/NTSC)	
	06	RLM	0	3	RGB Limit		03 (1-0)		5D (1-0)	typical	
	07	SLV	2	03	SECAM ID Level	SECAM&ATUTO/FORCED-PAL&NTSC	04 (1-0)		36A (1-0)	(02 for forced PAL/NTSC)	
	08	SBF	22	3F	SECAM BELL f0	SECAM&ATUTO/FORCED-PAL&NTSC	04 (7-2)		36A (7-2)	(22 for forced PAL/NTSC)	
	09	DYC	1	1	Dynamic Color on/off		0C (1)		66 (1)	-	
	0A	ABL	1	1	ABL Mode Switching (except STANDARD mode)	except STANDARD	0B (1)		65 (1)	(00 for STANDARD)	
	0B	VTH	1	1	ABL Detection Vth Switching		0B (0)		65 (0)	-	
	0C	SFO	1	1	FO Switching for Sharpness		07 (1)		35A (1)	typical	
	0D	DCX	1	1	DC Trans. Ratio Switching	NTSC/Others	08 (1)		62 (1)	-	

Adjustment Item Table

TVG Category	Functionality		Initial	Range	Function	Table & Note	Register No. (Bit Range)	Device Name (Slave Address)	RAM Address (Bit Range)	Remarks:	
	No.	Name									Initial data for tables
VP	0E	SHT	1	1	Pre-/Overshoot ratio Switch	NTSC/others	08 (0)	CXA2159S(88H)	35B (0)		typical
	0F	HDW	0	1	H Drive Pulse Width Switch		00 (6)		5A (6)		-
	10	AFC	1	03	AFC Gain Control	TV/video/Text	11 (1-0)		A7 (1-0)		(00/01 for VIDEO/TEXT)
	11	HOS	7	0F	H Oscillation		0E (7-4)		68 (7-4)		-
	12	HSS	0	1	Slice Level of H Sync Sep.		0F (1)		69 (1)		-
	13	VSS	0	1	Slice Level of V Sync Sep.		0F (0)		69 (0)		-
	14	HMS	1	1	Macro Vision C/m off/on	50/60Hz	10 (0)		9A (0)		typical
	15	YUV	0	1	Y SEL		00 (2)		5A (2)		-
	16	CDV	1	3	CD mode for Video and RF under no signal	video only	0F (5-4)		365 (5-4)		-
	17	RON	1	1	R ON	not memorized	01 (2)		5B (2)		not memorised
	18	GON	1	1	G ON	not memorized	01 (1)		5B (1)		not memorised
	19	BON	1	1	B ON	not memorized	01 (0)		5B (0)		not memorised
	1A	PON	1	1	P ON	not memorized	00 (7)		5A (7)		not memorised
	1B	AXN	1	1	AXIS SW	NTSC/others (only for DYNAMIC)	07 (0)		10A (0)		-
	1C	RSL	0	1	RGB SEL		0C (0)		66 (0)		-
	1D	VBW	0	3	VBLKW		16 (1-0)		70 (1-0)		-
	1E	RFP	0	1	REFP		14 (0)		6E (0)		-
	1F	VMC	0	3	VM Level		03 (3-2)		6D (3-2)		-
AP	00	AGC	0	1	AGC On/Off Control		05 (7)	BH3868FS(80H)	17A (7)		-
	01	SON	0	1	Surround On/Off		05 (6)		17A (6)		-
	02	SST	0	1	Surround Stereo		05 (5)		17A (5)		-
	03	SMO	0	1	Surround Monoral		05 (4)		17A (4)		-
	04	LOP	0	1	Surround Effect Enhancer		05 (3)		17A (3)		-
	05	SUR	0	7	Surround Effect		05 (2-0)		17A (2-0)		-
	06	BAS	12	1F	Bass Sound Mode Control	dyna/drama/soft	03 (6-0)		370 (6-0)		(10/10 for Drama/Soft)
	07	TRE	13	1F	Treble Sound Mode Control	dyna/drama/soft	04 (6-0)		371 (6-0)		(13/10 for Drama/Soft)
	08	TRF	0	3	Treble Data Offset		04 (6-0)		38C (1-0)		-
	09	BBE	99	FF	BBE Sound Mode Control	dyna/drama/soft	02 (7-0)		372 (7-0)		(D5/00 for Drama/Soft)
	00	WST	15	FF	W/G Stereo Threshold			MSP3415D(84H)	165		-
	01	WBT	EC	FF	W/G Bilingual Threshold				166		-
	02	WLL	5	FF	W/G Monaural Threshold				167		-
	03	WAC	1	0F	W/G Agreement Count				168 (3-0)		-
	04	WDL	30	FF	W/G Search Delay				169		-
	05	NDL	20	FF	NICAM Search Delay				16A		-
	06	SDL	10	FF	Stereo Status Read Delay				16B		-
	07	AGL	1	1	AGC Switch Auto/Constant		00BB (7)		116 (7)		-
MSP	08	REL	28	3F	AGC Gain at Constant Mode		00BB (6-1)		116 (6-1)		-
	09	CRM	0	1	Carrier muting on/off		00BB (9)		115 (9)		-
	0A	ACO	1	1	Audio Clock out on/off		0083 (5)		11A (5)		-

Adjustment Item Table

TV/G Category	Functionality No.	Name	Initial Range	Function	Table & Note	Register No. (Bit Range)	Device Name (Slave Address)	RAM Address (Bit Range)	Remarks:
MSP	0B	FP	1B	7F	FM Prescale for non-M system		MSP3415D(84H)	32F	-
	0C	FPM	32	7F	FM Prescale for M system			330	-
	0D	FH	36	7F	FM Prescale for HDEV			331	-
	0E	FHM	65	7F	FM Prescale for HDEV and M			332	-
	0F	WGP	1C	7F	W/G Prescale			333	-
	10	NIP	7F	7F	NICAM Prescale			147	-
	11	ERR	50	FF	Auto FM Switch Threshold			174	-
	12	VOL	6D	FF	Loud Speaker gain 7000h to 7f0h			360	-
	00	SBF	22	3F	SECAM BELL f0		CXA2139S(84H)	8B (7-2)	-
	01	HOS	7	0F	H Oscillation			86 (7-4)	-
	02	SHU	8	0F	Sub Hue Control	TV/Video		31E	typical
	03	AFC	1	3	AFC Gain	TV/Video		357 (1-0)	typical
PIP	00	SDL	2	0F	Delay of Output SELECT			192 (6-3)	-
	01	PPH	15	FF	H Position of TOP-LEFT Pin P			1A1	-
	02	PPV	2E	FF	V Position of TOP-LEFT Pin P			1A2	-
	03	YDL	0	7	Delay of Luminance Input			195 (2-0)	-
	04	HDI	0	0F	H Sync Delay for Inset			197 (3-0)	-
	05	ISC	1	1	Inset Clock Selection			197 (4)	-
	06	CLP	1	1	Clamp Pulse Selection			197 (5)	-
	07	CLC	0	1	Clamp Cycle Selection			197 (6)	-
	08	CON	0	0F	Contrast Adjustment for inset			19A (7-4)	-
	09	PLL	2	3	H Position For A-ch			19E (6-5)	-
	0A	PDV	0	0F	PIP V Pedestal Level			19F (7-4)	-
	0B	PDU	0	0F	PIP U Pedestal Level			19F (3-0)	-
TXT	00	TXH	0	3	Teletext Horizontal Position		SAA5261(58H)	96 (1-0)	-
	01	TXV	0	3	Teletext Vertical Position			96 (5-4)	-
OPM	00	OSH	0D	3F	OSD H Position	Option-Misc	CXP750097(60H)	17B (7-2)	-
	01	COM	2	3	Comb Selection (0: None, 1: NTSC, 2: Digital, 3: 3D)			34D (7-6)	-
	02	APC	1	1	APC Switch			34C (5)	-
	03	TSY	0	3	TV Sys at Auto TV Sys			34C (4-3)	-
	04	MUT	0	1	No Signal Mute			34C (0)	-
	05	AFM	1	1	Auto FM Switch			34C (1)	-
	06	RFB	0	3	C-BPF Control			34D (5-4)	-
	07	TVO	2	7	Tilt to V-Angle Offset			34D (2-0)	-
	08	DBL	0	1	Disable Blueback Function			34C (2)	-
	09	SSO	1	3	Speed Search Option (0-Off, 1:4X, 2:6X, 3:8x)			34C (7-6)	-
	##	SCH	1	7F	CH Selection for Shipping Condition	NTSC Models only		376 (0-6)	-
	##	SCA	1	1	Cable/Air selection for shipping condition	NTSC Models only		376 (7)	-
OPB	00	OP1	FF	FF	Optional Bits 1 (see below)	Option-Bits	CXP750097(60H)	4E	-
	01	OP2	67	FF	Optional Bits 2 (see below)			4F	-
	02	OP3	31	FF	Optional Bits 3 (see below)			50	-
	03	OP4	97	FF	Optional Bits 4 (see below)			51	-

NOTE

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

ITEM INFORMATION

No. OPB0 OP1

Item	XTAL 4.43	XTAL 3.58	SECAM	2nd. Lang	B/G	I	D/K	M
KV-XA25M61 (GE)	1	1	1	1	1	1	1	1
KV-XA25M31 (OCE)	1	1	1	1	1	1	1	1
KV-XA25M90 (HK)	1	1	1	1	1	1	1	1
KV-XA25M80 (ES)	1	1	1	1	1	1	1	1
KV-XA25M50 (EM)	1	1	1	1	1	1	1	1
KV-XA25M87 (ME)	1	1	1	1	1	1	1	1
KV-XA25M84 (ME)	1	1	1	1	1	1	1	1
KV-XA25M86 (ME)	1	1	1	1	1	1	1	1
KV-XA25M61 (EM)	1	1	1	1	1	1	1	1

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

No. OPB1 OP2

Item	TOP	NICAM	HDEV	Thai Bil	Dis Fav.	DVD Input	AV Input	
KV-XA25M61 (GE)	0	1	1	0	0	1	1	1
KV-XA25M31 (OCE)	1	1	1	0	0	1	1	1
KV-XA25M90 (HK)	0	1	1	0	0	1	1	1
KV-XA25M80 (ES)	0	0	0	0	0	1	1	1
KV-XA25M50 (EM)	0	0	0	0	0	1	1	1
KV-XA25M87 (ME)	0	0	0	0	0	1	1	1
KV-XA25M84 (ME)	0	0	0	0	0	1	1	1
KV-XA25M86 (ME)	0	0	0	0	0	1	1	1
KV-XA25M61 (EM)	0	1	1	0	0	1	1	1

AV Input

00 = no AV Input

01 = 1 AV Input

10 = 2 AV Input

11 = 3 AV Input

DVD Input

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

Dis Fav.

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

No. OPB2 OP3

Item	PIC Rotate* ¹	2199 Curve* ¹	Auto PIC	Auto TV sys	US ST	AV Mono* ¹	11 KEY	Colour SW* ²
KV-XA25M61 (GE)	0	0	1	1	0	0	0	1
KV-XA25M31 (OCE)	0	0	1	1	0	0	0	1
KV-XA25M90 (HK)	0	0	1	1	0	0	0	1
KV-XA25M80 (ES)	0	0	1	0	0	0	0	1
KV-XA25M50 (EM)	0	0	1	0	0	0	0	1
KV-XA25M87 (ME)	0	0	1	0	0	0	0	1
KV-XA25M84 (ME)	0	0	1	0	0	0	0	1
KV-XA25M86 (ME)	0	0	1	0	0	0	0	1
KV-XA25M61 (EM)	0	0	1	1	0	0	0	1

PIC Rotate*¹

PIC Rotation Switch 0 = disabled, 1 = enabled

2199 Curve*¹

2199 volume Curve Selection 0 = Others, 1 = 2199 Volume Curve.

Auto PIC*³

Auto Picture Improvement 0 = off PNC1/PNC2, 1 = activate PNC1/PNC2

A-TVsys

Auto TV System in Auto Program 0 = disabled, 1 = enabled

US ST*

USA Stereo 0 = disabled, 1 = enabled

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

11 Key

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

Color SW*²

Color Data Selection in Dynamic Mode 0 = 65 (No PIP), 1 = 57 (PIP)

Note: *¹ - For XA21/XH29 Models Only*² - For XA34/29/25 Models Only*³ - For PNC3, the enables are from service item APG & APB

No. OPB3 *OP4

Item	PNC2	Korean ST	Vid NTSC3.58	Wide	Video3	Chinese	Arabic	Thai
KV-XA25M61 (GE)	1	0	0	1	0	1	1	1
KV-XA25M31 (OCE)	1	0	0	1	0	1	1	1
KV-XA25M90 (HK)	1	0	0	1	0	1	1	1
KV-XA25M80 (ES)	1	0	0	1	0	1	1	1
KV-XA25M50 (EM)	1	0	0	1	0	1	1	1
KV-XA25M87 (ME)	1	0	0	1	0	1	1	1
KV-XA25M84 (ME)	1	0	0	1	0	1	1	1
KV-XA25M86 (ME)	1	0	0	1	0	1	1	1
KV-XA25M61 (ME)	1	0	0	1	0	1	1	1

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

Korean Stereo*

Korean Stereo 0 = disabled, 1 = enabled

PNC2*²

Enable switch of PNC2 0 = disable, 1 = enable

Video NTSC3.58*

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

Wide

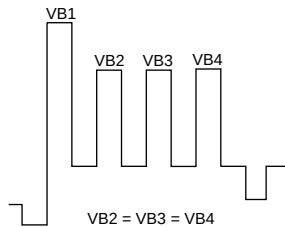
Enable wide mode 0 = disable, 1 = enable

*Note : *APPLICABLE FOR NTSC MODELS ONLY

5-3. PICTURE QUALITY ADJUSTMENTS

SUB COLOR ADJUSTMENT

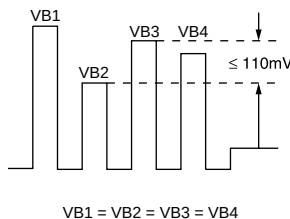
1. Select Video.
2. Input a PAL color-bar.
3. Set to the following condition:
PICTURE 100%, BRIGHTNESS 50%, COLOR 50%
4. Connect an oscilloscope to pin ① (B OUT) of CN305, A board.
5. Set to Service Mode and select SAJ 3 'SCL' with [1] and [4] of the commander then adjust to VB2=VB3=VB4 with [3] and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



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

SUB HUE ADJUSTMENT

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



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

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

5-4. DEFLECTION ADJUSTMENT

NORMAL MODE (50Hz)

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

Service Item

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

WIDE MODE (50Hz)

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

Service Item

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

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

Service Item

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

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

NORMAL MODE (60Hz)

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

Service Item

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

WIDE MODE (60Hz)

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

Service Item

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

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

Service Item

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

19. After confirm WIDE MODE : ON – OFF.

Note:

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

5-5. H-TRAPEZOID ADJUSTMENT

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

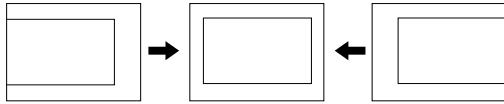
5-6. A BOARD ADJUSTMENT AFTER IC003 REPLACEMENT

1. Enter to Service Mode.
2. Press commander buttons [5] and [0] (Data Initialize), and [2] and [0] (Data Copy) to initialize the data.
3. Call each item number and check if the respective screen shows the normal picture.
In cases where items are not well adjusted, rectify the fine adjustment.
Write the data per each item number ([MUTING] + [0]).
4. Select item numbers "OPB00" (OP1), "OPB01" (OP2), "OPB 02" (OP3) and "OPB 03" (OP4) respectively set the bit per model with command buttons [3] and [6].
5. Press commander buttons [8] and [0] (Test Normal) to return to the data that was set on the shipment from the factory.
(This will also cancel Service Mode.)

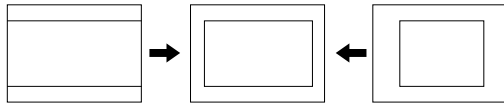
5-7. PICTURE DISTORTION ADJUSTMENT (1)

Item Number 00 – 0B

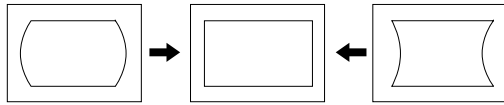
GEO 0 HPS (H POSITION)



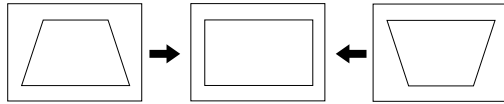
GEO 1 HSZ (H SIZE)



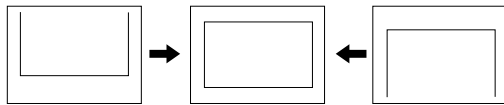
GEO 2 PAP (PIN AMP)



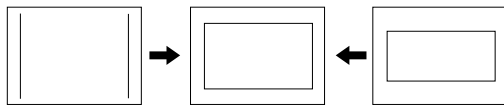
GEO 3 TLT (TRAPEZIUM)



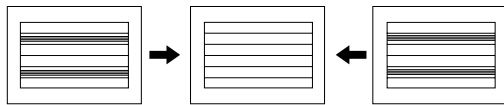
GEO 4 VPS (V POSITION)



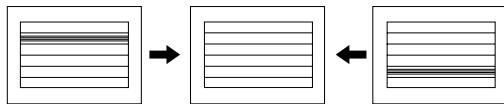
GEO 5 VSZ (V SIZE)



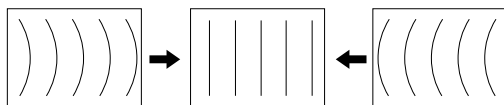
GEO 6 SCO (VERTICAL S-Correction)



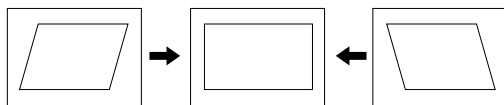
GEO 7 VLN (V LINEARITY)



GEO 8 BOW (AFC.BOW)

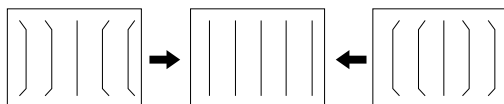


GEO 9 AGL (AFC.ANGLE)

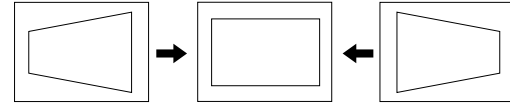


GEO 0A UPN (UPPER CORNER PIN)

GEO 0B LPN (LOWER CORNER PIN)

**PICTURE DISTORTION ADJUSTMENT (2)**

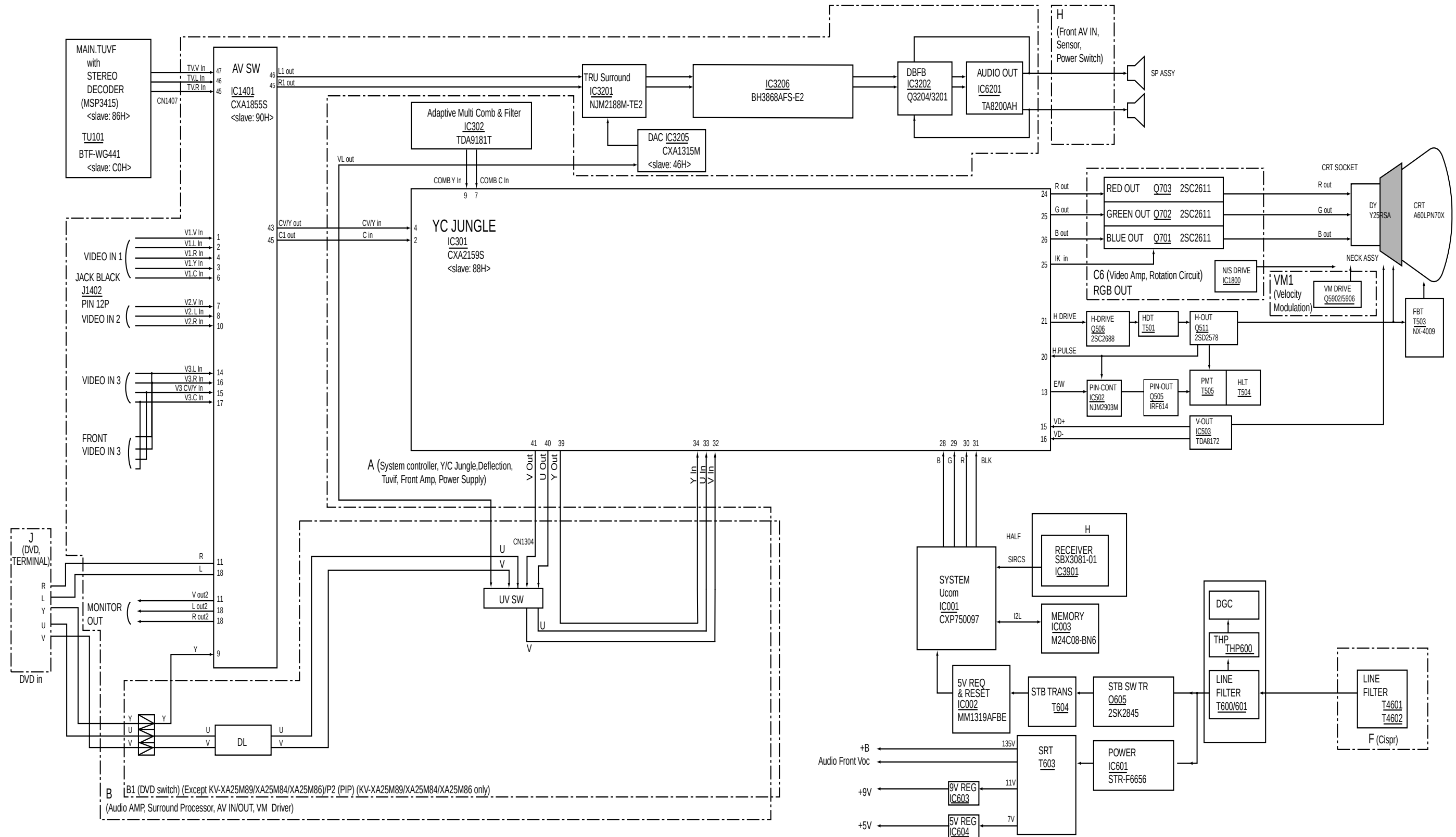
H-TRAPEZOID (DAC 4 HTR)



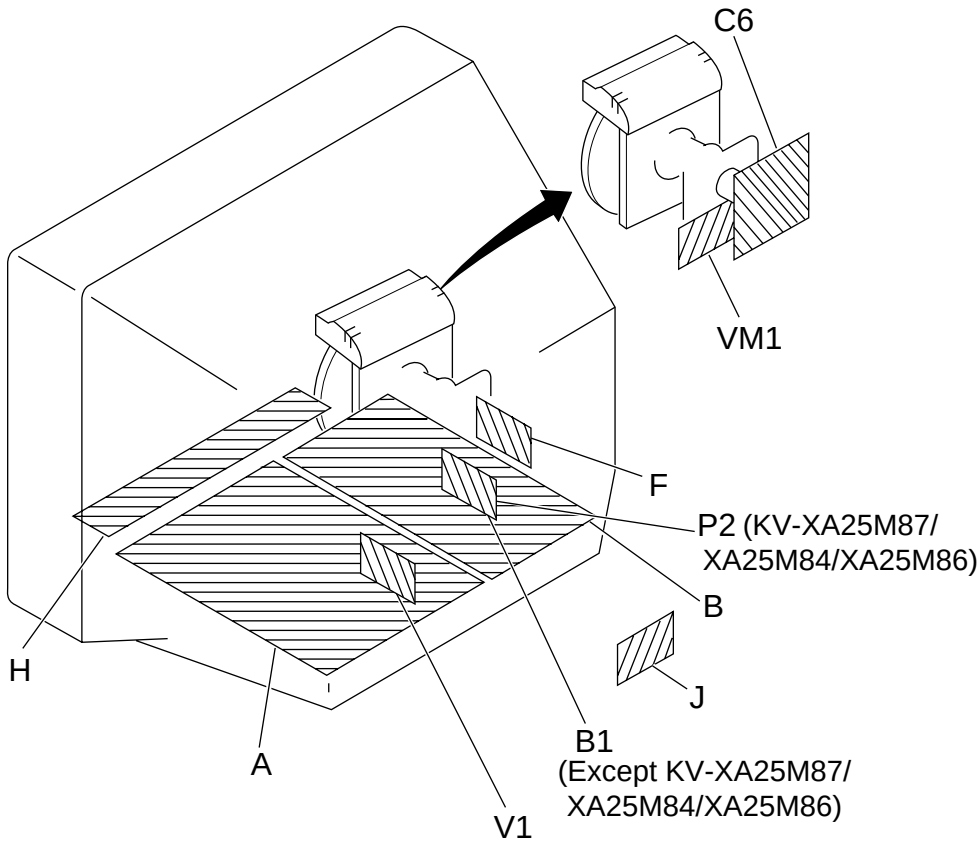
KV-XA25M87/XA25M84/XA25M86**RM-953**

SECTION 6 DIAGRAMS

6-1. BLOCK DIAGRAM



6-2. CIRCUIT BOARDS LOCATION



6-3. SCHEMATIC DIAGRAM

- Note:**
- All capacitors are in μF unless otherwise noted.
 - All electrolytic capacitors are rated at 50V unless otherwise noted.
 - All resistors are in ohms.
 $\text{k}\Omega = 1000\Omega$, $\text{M}\Omega = 1000\text{k}\Omega$
 - Indication of resistance which does not have rating electrical power is as follows.

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

- : nonflammable resistor.
- : internal component.
- : panel designation or adjustment for rrepair.
- All variable and adjustable resistors have characteristic curve B unless otherwise noted.
- **Redings are taken with a color-bar signal input.**
no mark : PAL
() : SECAM
[] : NTSC 3.58
<< >> : NTSC 4.43
- **Readings are taken with a 10W MW digital multimeter.**
- **Voltage are dc with respect to ground unless otherwise noted.**
- **Voltage variations may be noted due to normal produc-tion tolerances.**
- **All voltage are in V.**
- * : Cannot be measured.
- **Circled numbers are waveform references.**
- : B +bus.
- : B -bus.
- : signal path.

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

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

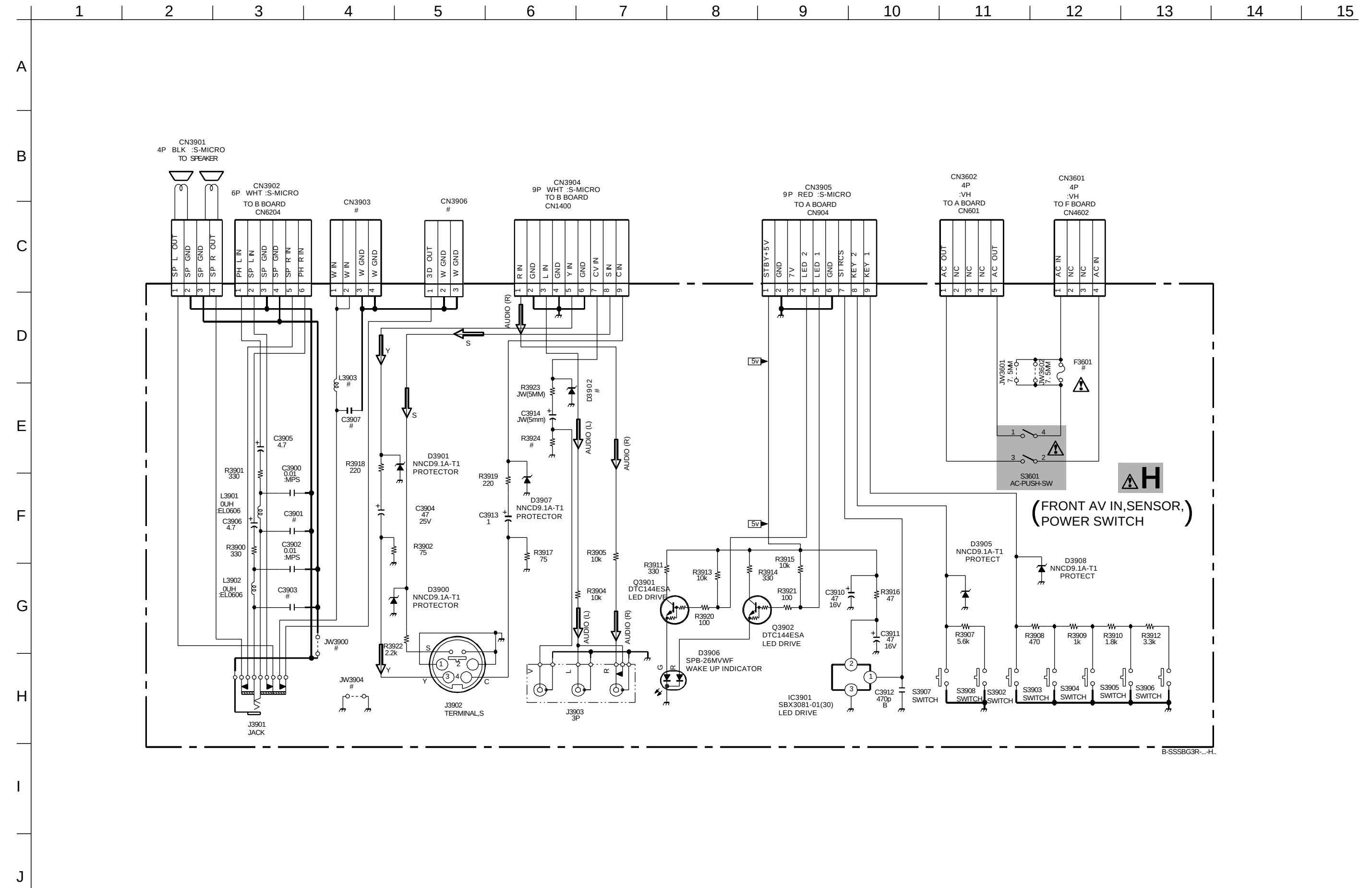
(1) Schematic Diagram of H Board

KV-XA25M61/XA25M31/XA25M90/XA25M80/XA25M50
RM-954

KV-XA25M87/XA25M84/XA25M86
RM-953

KV-XA25M61/XA25M31/XA25M90/XA25M80/XA25M50
RM-954

KV-XA25M87/XA25M84/XA25M86
RM-953



1



3

4

5

e

10

11

12

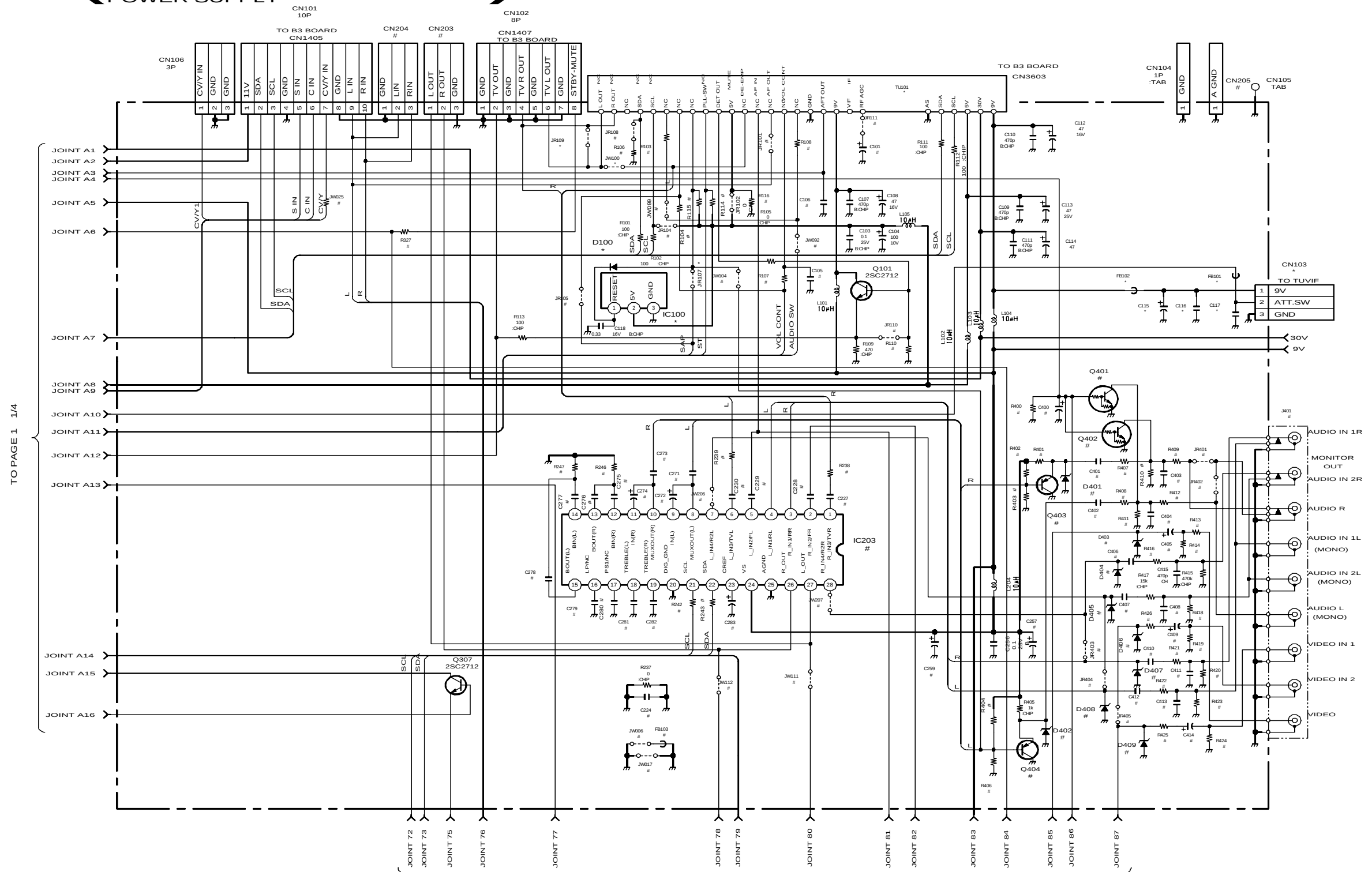
13

14

15

A PAGE 1 (2/4)

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



TO PAGE 1 4/4

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

TO PAGE 1 4/4

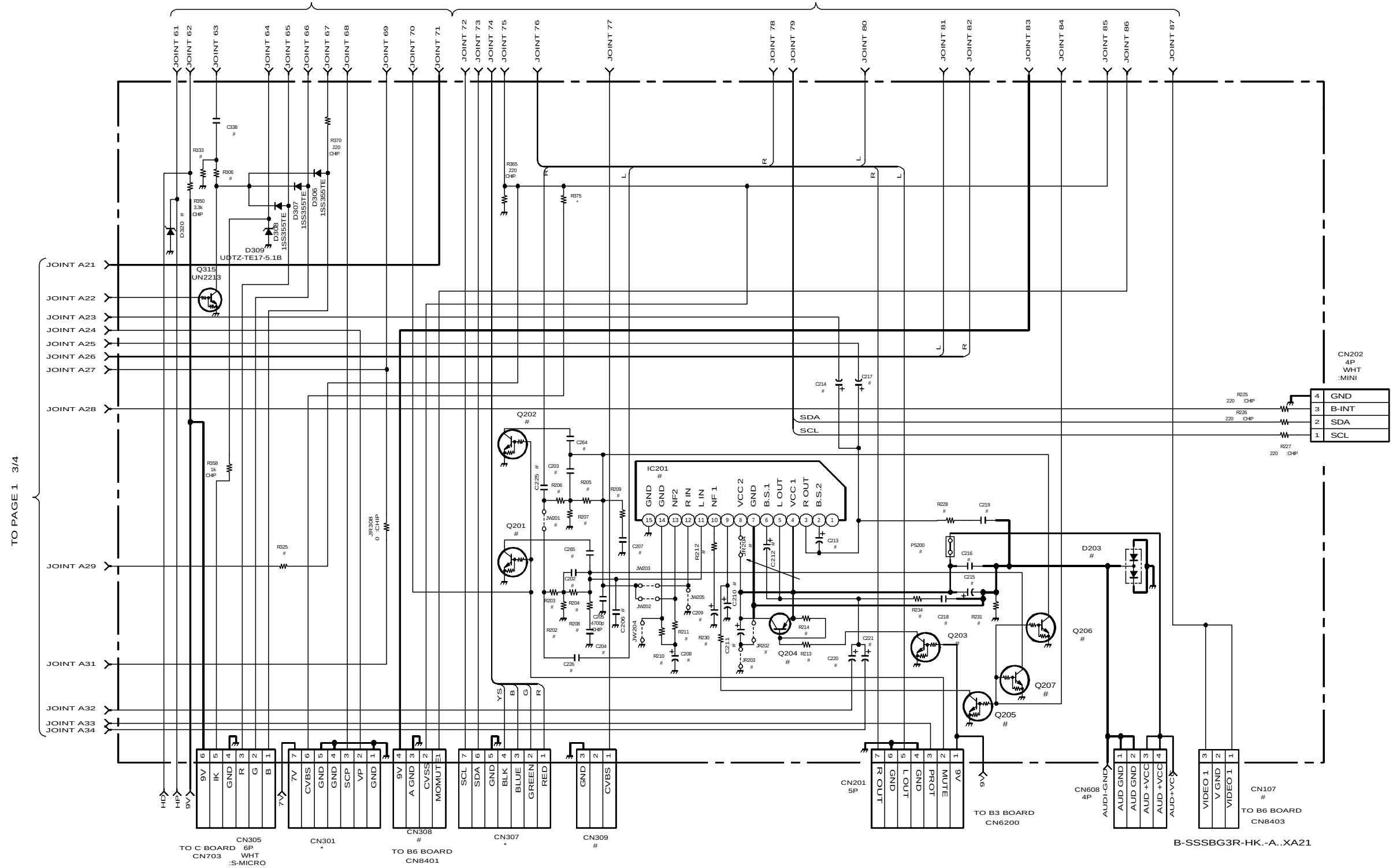


A PAGE 1 (4/4)

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

TO PAGE 1 1/4

TO PAGE 1 2/4

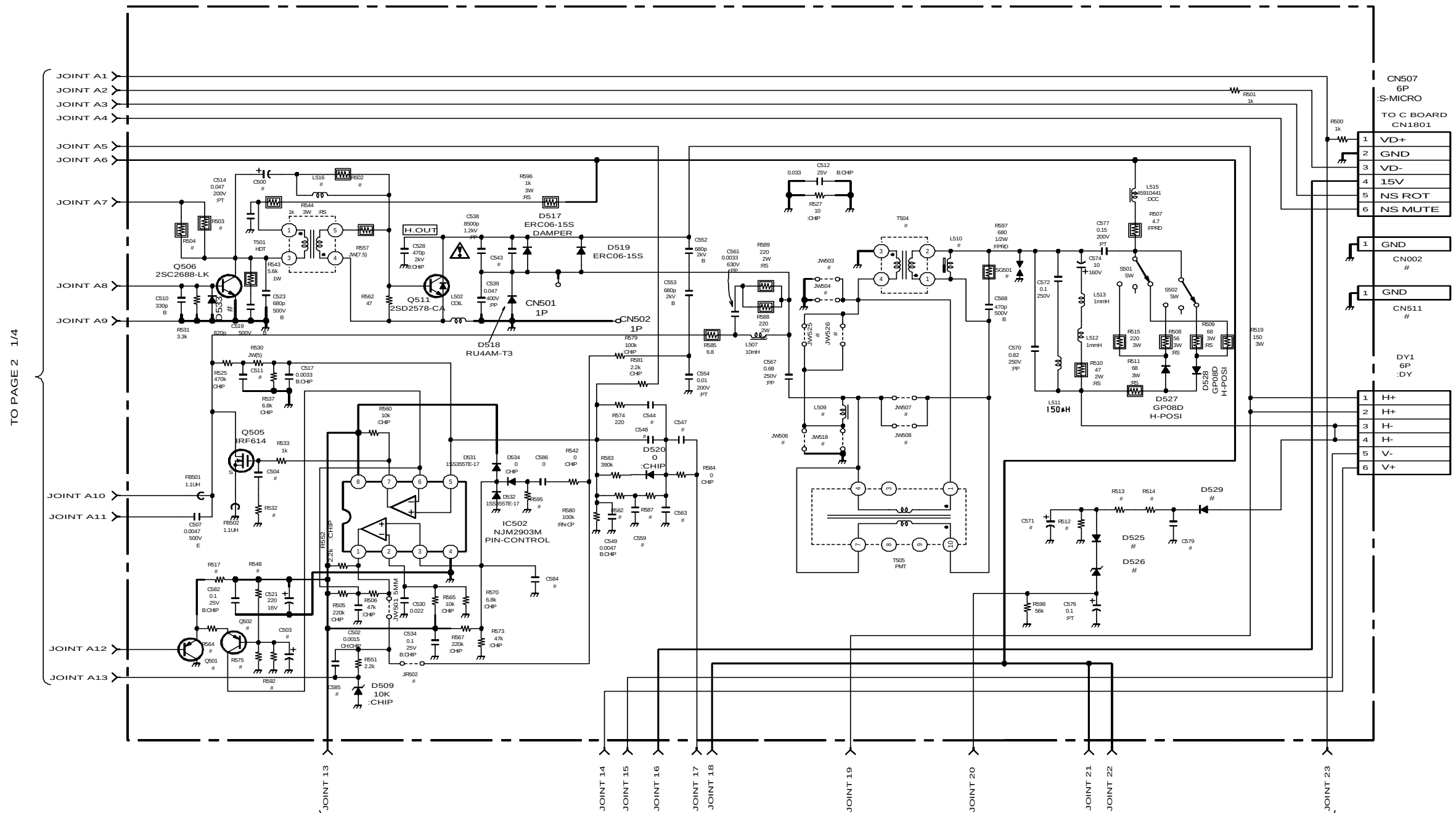


SYSTEM CONTROLLER,Y/C JUNGLE,
DEFLECTION,TUVIF,FRONT AMP,
POWER SUPPLY



A PAGE 2 (2/4)

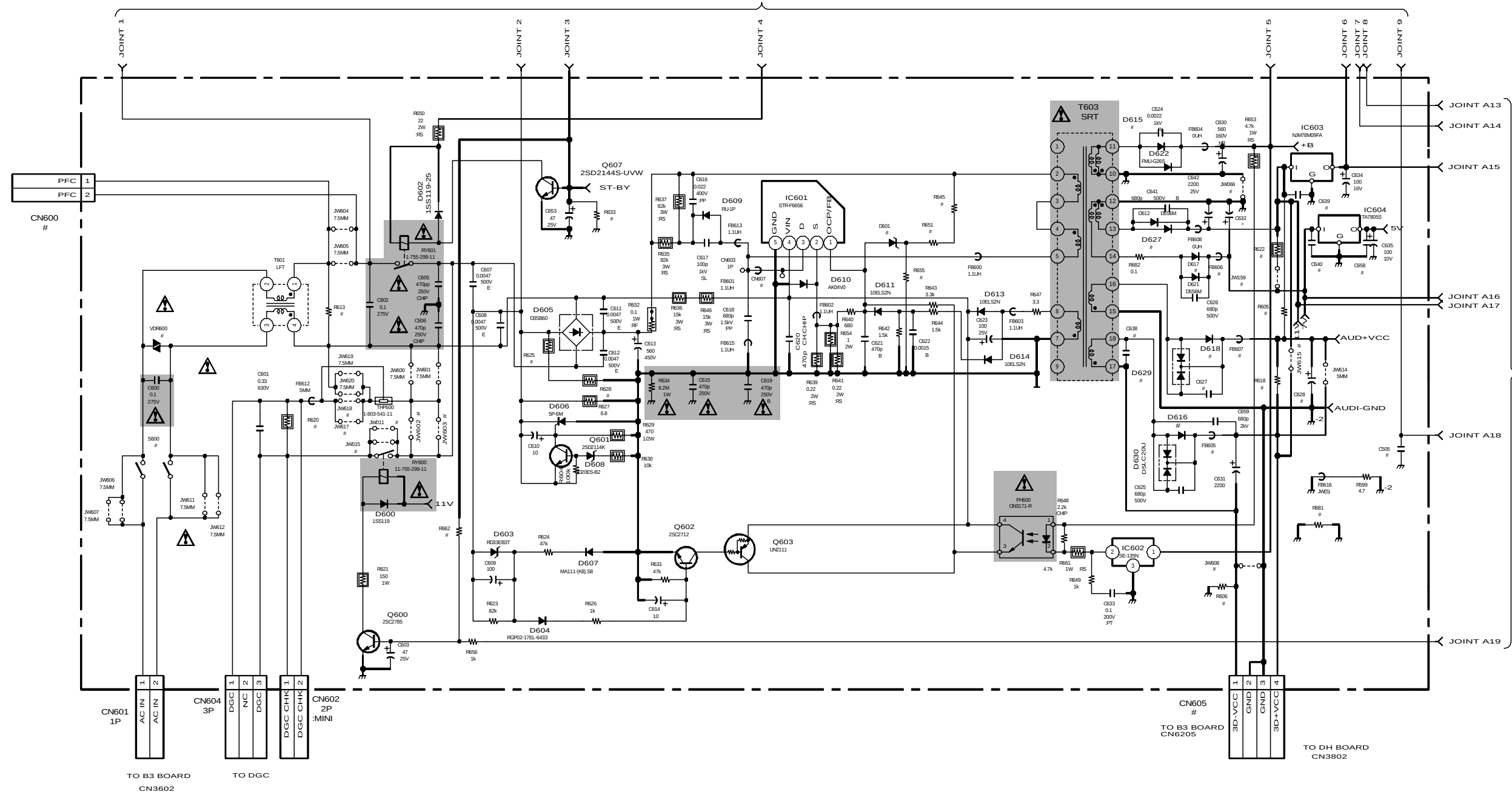
SYSTEM CONTROLLER,Y/C JUNGLE,
DEFLECTION,TUVIF,FRONT AMP,
POWER SUPPLY



TO PAGE 2 4/4

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

TO PAGE 2 1/4



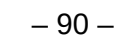
TO PAGE 2 4/4



J



KV-XA25M87/XA25M84/XA25M86
RM-953



J

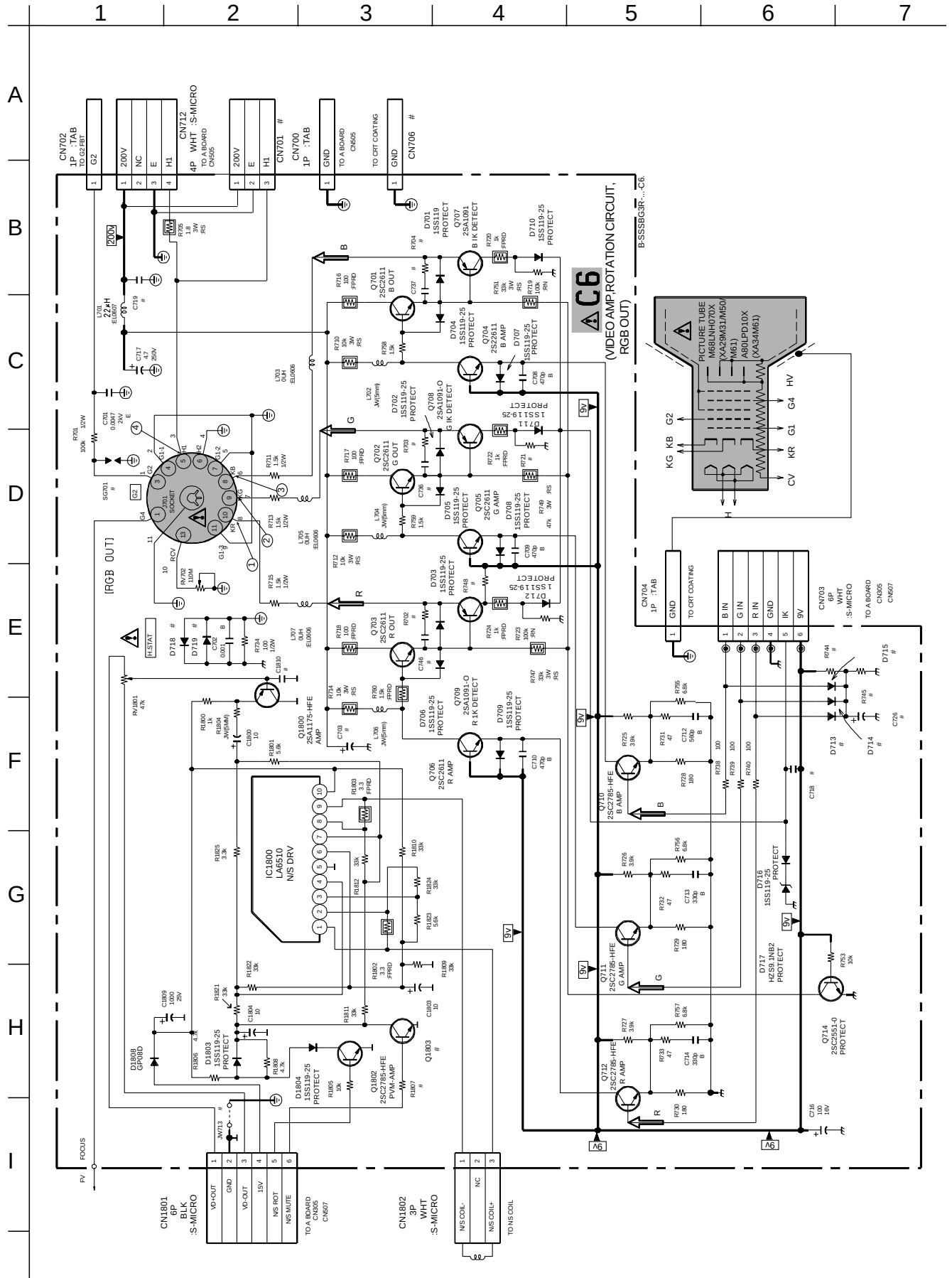


	CN801 7P :BTOB TO A BOARD CN307
1	RED
2	GREEN
3	BLUE
4	BLK
5	GND
6	SDA
7	SCL

1	GND
2	VP
3	SCP
4	GND
5	GND
6	CVBS
7	7.5V

CN803
 7P
 :BTOB
 TO A BOARD
 CN301

(6) Schematic Diagram of C6 Board



1 | 2 | 3 | 4 | 5 | 6 | 7



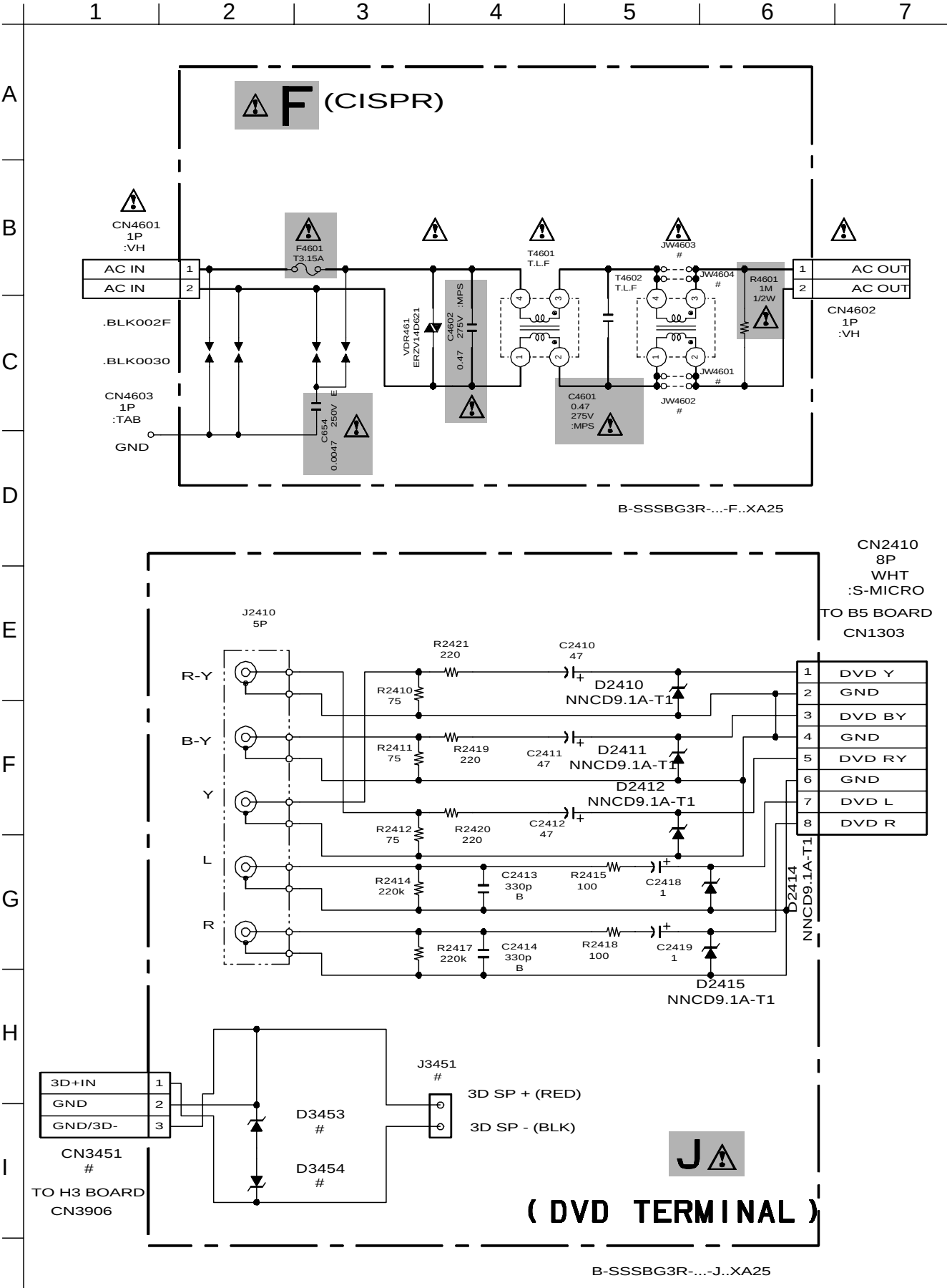
VM1 (VELOCITY MODULATION)

7	+	9V
6	NC	
5	GND	
4	VM MUTE	
3	9V	
2	GND	
1	VM	

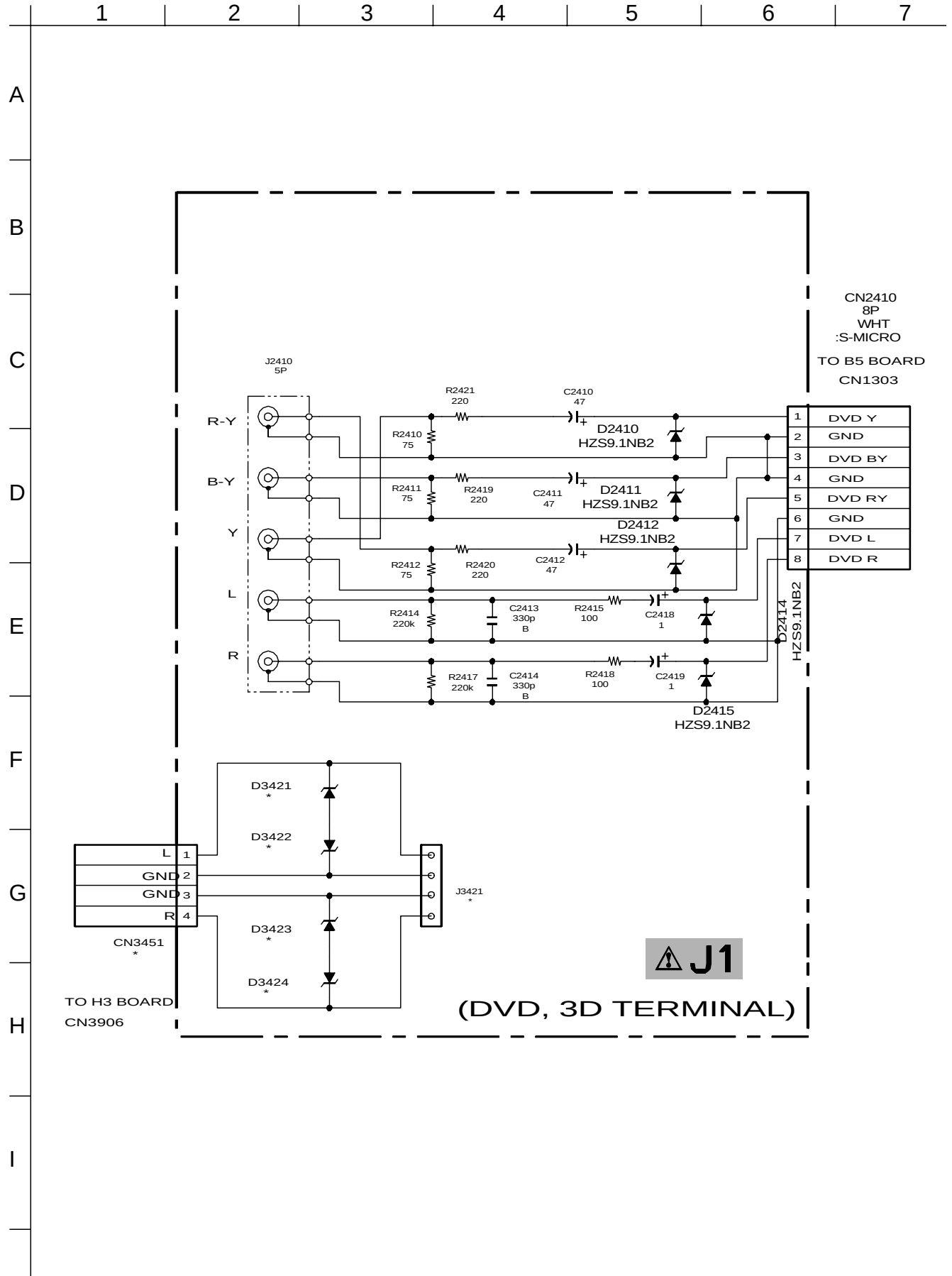
CN5901 10.0MM
 S-MICRO
 TO A BOARD
 CN306
 TO B BOARD
 CN1300

C5902 330 16V
 C5904 10V
 R5927 820
 C5901 10.0MM
 R5928 10.0MM
 L5901 0.0H
 C5900 300p
 C5920 47
 R5931 10.0MM
 R5932 10.0MM
 R5933 10.0MM
 R5934 10.0MM
 R5935 10.0MM
 R5936 10.0MM
 R5937 10.0MM
 R5938 10.0MM
 R5939 10.0MM
 R5940 10.0MM
 R5941 10.0MM
 R5942 10.0MM
 R5943 10.0MM
 R5944 10.0MM
 R5945 10.0MM
 R5946 10.0MM
 R5947 10.0MM
 R5948 10.0MM
 R5949 10.0MM
 R5950 10.0MM
 R5951 10.0MM
 R5952 10.0MM
 R5953 10.0MM
 R5954 10.0MM
 R5955 10.0MM
 R5956 10.0MM
 R5957 10.0MM
 R5958 10.0MM
 R5959 10.0MM
 R5960 10.0MM
 R5961 10.0MM
 R5962 10.0MM
 R5963 10.0MM
 R5964 10.0MM
 R5965 10.0MM
 R5966 10.0MM
 R5967 10.0MM
 R5968 10.0MM
 R5969 10.0MM
 R5970 10.0MM
 R5971 10.0MM
 R5972 10.0MM
 R5973 10.0MM
 R5974 10.0MM
 R5975 10.0MM
 R5976 10.0MM
 R5977 10.0MM
 R5978 10.0MM
 R5979 10.0MM
 R5980 10.0MM
 R5981 10.0MM
 R5982 10.0MM
 R5983 10.0MM
 R5984 10.0MM
 R5985 10.0MM
 R5986 10.0MM
 R5987 10.0MM
 R5988 10.0MM
 R5989 10.0MM
 R5990 10.0MM
 R5991 10.0MM
 R5992 10.0MM
 R5993 10.0MM
 R5994 10.0MM
 R5995 10.0MM
 R5996 10.0MM
 R5997 10.0MM
 R5998 10.0MM
 R5999 10.0MM
 R6000 10.0MM
 R6001 10.0MM
 R6002 10.0MM
 R6003 10.0MM
 R6004 10.0MM
 R6005 10.0MM
 R6006 10.0MM
 R6007 10.0MM
 R6008 10.0MM
 R6009 10.0MM
 R6010 10.0MM
 R6011 10.0MM
 R6012 10.0MM
 R6013 10.0MM
 R6014 10.0MM
 R6015 10.0MM
 R6016 10.0MM
 R6017 10.0MM
 R6018 10.0MM
 R6019 10.0MM
 R6020 10.0MM
 R6021 10.0MM
 R6022 10.0MM
 R6023 10.0MM
 R6024 10.0MM
 R6025 10.0MM
 R6026 10.0MM
 R6027 10.0MM
 R6028 10.0MM
 R6029 10.0MM
 R6030 10.0MM
 R6031 10.0MM
 R6032 10.0MM
 R6033 10.0MM
 R6034 10.0MM
 R6035 10.0MM
 R6036 10.0MM
 R6037 10.0MM
 R6038 10.0MM
 R6039 10.0MM
 R6040 10.0MM
 R6041 10.0MM
 R6042 10.0MM
 R6043 10.0MM
 R6044 10.0MM
 R6045 10.0MM
 R6046 10.0MM
 R6047 10.0MM
 R6048 10.0MM
 R6049 10.0MM
 R6050 10.0MM
 R6051 10.0MM
 R6052 10.0MM
 R6053 10.0MM
 R6054 10.0MM
 R6055 10.0MM
 R6056 10.0MM
 R6057 10.0MM
 R6058 10.0MM
 R6059 10.0MM
 R6060 10.0MM
 R6061 10.0MM
 R6062 10.0MM
 R6063 10.0MM
 R6064 10.0MM
 R6065 10.0MM
 R6066 10.0MM
 R6067 10.0MM
 R6068 10.0MM
 R6069 10.0MM
 R6070 10.0MM
 R6071 10.0MM
 R6072 10.0MM
 R6073 10.0MM
 R6074 10.0MM
 R6075 10.0MM
 R6076 10.0MM
 R6077 10.0MM
 R6078 10.0MM
 R6079 10.0MM
 R6080 10.0MM
 R6081 10.0MM
 R6082 10.0MM
 R6083 10.0MM
 R6084 10.0MM
 R6085 10.0MM
 R6086 10.0MM
 R6087 10.0MM
 R6088 10.0MM
 R6089 10.0MM
 R6090 10.0MM
 R6091 10.0MM
 R6092 10.0MM
 R6093 10.0MM
 R6094 10.0MM
 R6095 10.0MM
 R6096 10.0MM
 R6097 10.0MM
 R6098 10.0MM
 R6099 10.0MM
 R6100 10.0MM
 R6101 10.0MM
 R6102 10.0MM
 R6103 10.0MM
 R6104 10.0MM
 R6105 10.0MM
 R6106 10.0MM
 R6107 10.0MM
 R6108 10.0MM
 R6109 10.0MM
 R6110 10.0MM
 R6111 10.0MM
 R6112 10.0MM
 R6113 10.0MM
 R6114 10.0MM
 R6115 10.0MM
 R6116 10.0MM
 R6117 10.0MM
 R6118 10.0MM
 R6119 10.0MM
 R6120 10.0MM
 R6121 10.0MM
 R6122 10.0MM
 R6123 10.0MM
 R6124 10.0MM
 R6125 10.0MM
 R6126 10.0MM
 R6127 10.0MM
 R6128 10.0MM
 R6129 10.0MM
 R6130 10.0MM
 R6131 10.0MM
 R6132 10.0MM
 R6133 10.0MM
 R6134 10.0MM
 R6135 10.0MM
 R6136 10.0MM
 R6137 10.0MM
 R6138 10.0MM
 R6139 10.0MM
 R6140 10.0MM
 R6141 10.0MM
 R6142 10.0MM
 R6143 10.0MM
 R6144 10.0MM
 R6145 10.0MM
 R6146 10.0MM
 R6147 10.0MM
 R6148 10.0MM
 R6149 10.0MM
 R6150 10.0MM
 R6151 10.0MM
 R6152 10.0MM
 R6153 10.0MM
 R6154 10.0MM
 R6155 10.0MM
 R6156 10.0MM
 R6157 10.0MM
 R6158 10.0MM
 R6159 10.0MM
 R6160 10.0MM
 R6161 10.0MM
 R6162 10.0MM
 R6163 10.0MM
 R6164 10.0MM
 R6165 10.0MM
 R6166 10.0MM
 R6167 1

(9) Schematic Diagrams of F and J Boards



(10) Schematic Diagram of J1 Board



A Board * Mark List

	KV-XA25M61 (GE)	KV-XA25M61 (ME)	KV-XA25M31	KV-XA25M90	KV-XA25M80	KV-XA25M50	KV-XA25M87	KV-XA25M84	KV-XA25M86
C115	#	#	#	#	#	#	47	47	47
C116	#	#	#	#	#	#	0.1 25V	0.1 25V	0.1 25V
C117	#	#	#	#	#	#	0.1 25V	0.1 25V	0.1 25V
C311	10	10	10	10	10	10	4.7	4.7	4.7
C312	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	#
C313	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	1 16V :CHIP	#
C632	2200 16V	2200 16V	2200 16V	2200 16V	2200 16V	2200 16V	3300 16V	3300 16V	3300 16V
CN301	7P	7P	7P	#	#	#	#	#	7P
CN302	8P	8P	8P	#	#	#	#	#	8P
CN307	7P	7P	7P	#	#	#	#	#	7P
D100	MA111-(K8).SO	MA111-(K8).SO	MA111-(K8).SO	MA111-(K8).SO	MA111-(K8).SO	MA111-(K8).SO	#	#	MA111-(K8).SO
D316	RD7.5SB1-T1	RD7.5SB1-T1	RD7.5SB1-T1	RD7.5SB1-T1	RD7.5SB1-T1	RD7.5SB1-T1	RD7.5SB1-T1	RD11SB2-T1	RD11SB2-T1
FB101	#	#	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP
FB102	#	#	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP
FB615	0uH	0uH	0uH	0uH	1.1uH	1.1uH	1.1uH	1.1uH	1.1uH
IC100	S-80743AL-A7-S	S-80743AL-A7-S	S-80743AL-A7-S	S-80743AL-A7-S	S-80743AL-A7-S	S-80743AL-A7-S	#	#	S-80743AL-A7-S5
JR107	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	#	#	0 :CHIP
JR109	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP	0 :CHIP	#
Q304	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	#
Q316	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	#
Q317	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	2SA1162-G	#
R017	#	#	#	#	#	#	1.0K :CHIP	1.0K :CHIP	1.0K :CHIP
R028	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	#	#	#	#	#
R315	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	#
R323	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	#
R324	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	1.5K :CHIP	#
R366	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	#
R367	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	#
R368	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	10K :CHIP	#
R375	#	#	#	#	#	#	100 :CHIP	100 :CHIP	100 :CHIP
TU101	BTF WG441	BTF WG441	BTF WG441	BTF WG441	BTF LG433	BTF LG433	BTF LG434	BTF LG434	BTF LG434

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

B Board * Mark List

	KV-XA25M61 (GE)	KV-XA25M61 (ME)	KV-XA25M31	KV-XA25M90	KV-XA25M80	KV-XA25M50	KV-XA25M87	KV-XA25M84	KV-XA25M86
C1407	#	#	#	#	#	#	100 16V	100 16V	100 16V
C1412	#	#	#	#	#	#	0.1 25V	0.1 25V	0.1 25V
C1417	#	#	#	#	#	#	100 16V	100 16V	100 16V
C1420	#	#	#	#	#	#	0.1 25V	0.1 25V	0.1 25V
C1430	#	#	#	#	#	#	0.1 25V :CHIP	0.1 25V :CHIP	0.1 25V :CHIP
C1438	#	#	#	#	#	#	470P :CHIP	470P :CHIP	470P :CHIP
C1450	#	#	#	#	#	#	470P :CHIP	470P :CHIP	470P :CHIP
C1451	#	#	#	#	#	#	470P :CHIP	470P :CHIP	470P :CHIP
C1452	#	#	#	#	#	#	470P :CHIP	470P :CHIP	470P :CHIP
C1453	#	#	#	#	#	#	100 16V	100 16V	100 16V
C1454	#	#	#	#	#	#	47	47	47
C1455	#	#	#	#	#	#	47	47	47
C1456	#	#	#	#	#	#	100 16V	100 16V	100 16V
C1458	#	#	#	#	#	#	100 16V	100 16V	100 16V
CN1404	#	#	#	#	#	#	8P	8P	8P
CN1408	#	#	#	#	#	#	10P	10P	10P
IC1403	#	#	#	#	#	#	TA7805S	TA7805S	TA7805S
JR1401	#	#	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP
JR1402	#	#	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP
L1400	#	#	#	#	#	#	10UH	10UH	10UH
L1402	#	#	#	#	#	#	100UH	100UH	100UH
L1403	#	#	#	#	#	#	10UH	10UH	10UH
L1405	#	#	#	#	#	#	10UH	10UH	10UH
L1406	#	#	#	#	#	#	10UH	10UH	10UH
L1407	#	#	#	#	#	#	10UH	10UH	10UH
Q1401	#	#	#	#	#	#	2SC2712-YG	2SC2712-YG	2SC2712-YG
Q1410	#	#	#	#	#	#	2SC2712-YG	2SC2712-YG	2SC2712-YG
R1401	#	#	#	#	#	#	180 :CHIP	180 :CHIP	180 :CHIP
R1402	#	#	#	#	#	#	220 :CHIP	220 :CHIP	220 :CHIP
R1419	#	#	#	#	#	#	100 :CHIP	100 :CHIP	100 :CHIP
R1420	#	#	#	#	#	#	10K	10K	10K
R1423	#	#	#	#	#	#	100 :CHIP	100 :CHIP	100 :CHIP
R1434	#	#	#	#	#	#	100 :CHIP	100 :CHIP	100 :CHIP
R1462	#	#	#	#	#	#	100 :CHIP	100 :CHIP	100 :CHIP
R1474	#	#	#	#	#	#	0 :CHIP	0 :CHIP	0 :CHIP
R1494	#	#	#	#	#	#	180 :CHIP	180 :CHIP	180 :CHIP
R1495	#	#	#	#	#	#	220 :CHIP	220 :CHIP	220 :CHIP
TU1401	#	#	#	#	#	#	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.

J1 Board * Mark List

	KV-XA25M61 (GE)	KV-XA25M61 (ME)	KV-XA25M31	KV-XA25M90	KV-XA25M80	KV-XA25M50	KV-XA25M87	KV-XA25M84	KV-XA25M86
CN3451	#	#	#	#	#	#	4P	#	#
J3421	#	#	#	#	#	#	4P	#	#
D3421	#	#	#	#	#	#	RD30ESB2	#	#
D3422	#	#	#	#	#	#	RD30ESB2	#	#
D3423	#	#	#	#	#	#	RD30ESB2	#	#
D3424	#	#	#	#	#	#	RD30ESB2	#	#

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

6-4 VOLTAGE MEASUREMENTS**A (1/2) BOARD VOLTAGE LIST**

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC001	1	0	IC002	1	0		41	5.1
	2	4.9		2	4.9		42	0
	3	0.1		3	4.8		43	5.1
	4	0.1		4	7.3		44	4.9(5.1)
	5	4.9		5	4.9		45	6.2
	6	4.9		6	0		46	5.1
	7	3.9		7	0		47	8.8
	8	4.8	IC003	1	0		48	2.1(0.2)
	9	0.5		2	0		49	5.2(4.2)
	10	4.8		3	0		50	0
	11	4.9		4	0		51	0
	12	0		5	4.9		52	1.7
	13	2.11		6	0(4.9)	IC302	1	1.6
	14	2.1		7	4.9(0)		2	0
	15	4.9		8	4.9		3	1.6
	16	4.9	IC100	1	4.8		4	0
	17	0		2	4.8		5	1.4(1.7)
	18	4.8(0)		3	0		6	0(4.9)
	19	2.4	IC301	1	3.3		7	4.7(0)
	20	0.2		2	5.1		8	0.6
	21	4.9		3	1.4		9	0
	22	0		4	5.1		10	1.1
	23	4.9		5	4.8		11	4.9
	24	0.1		6	4.4		12	4.8
	25	4.8		7	1.6		13	0
	26	4.9		8	3.8		14	1.4
	27	4.8		9	5.1		15	0
	28	4.9		10	3.8		16	0.9
	29	4.9		11	5.1	IC502	1	1.3
	30	0		12	0		2	3.5
	31	0		13	3.9		3	1.9
	32	0		14	2.3		4	0
	33	4.9		15	3.5		5	2.9
	34	0		16	3.5		6	2.6
	35	0		17	5.4		7	0(6.4)
	36	2.5		18	7.6		8	8.9
	37	2.5		19	0(0.8)	IC503	1	1.6
	38	4.8		20	3.6		2	13.8
	39	4.9		21	3.2		3	-13.8
	40	0		22	3.8		4	-14.8
	41	0.1		23	3.5(3.9)		5	0.5(0.3)
	42	0		24	1.7		6	13.1
	43	0		25	1.8		7	1.6
	44	4.9		26	1.6	IC602	1	119.5
	45	4.9		27	0		2	135.3
	46	4.6		28	4.5		3	0
	47	4.9	IC603	29	4.5	IC603	I	12.6
	48	4.6		30	4.5		G	0
	49	0		31	8.8		O	8.9
	50	2.1		32	4.1	IC604	I	7.8
	51	0.1		33	4.1		G	0
	52	4.7(0.1)		34	3.6		O	4.9
				35	8.8	Q001		
				36	4.6		B	4.9
				37	4.6		C	0
				38	4.6	Q002	E	0.9
				39	4.7		B	0
				40	5.1		C	4.9
							E	09

A (2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q005	B	4.8	Q311	B	0	Q511	B	-0.1
	C	0		C	8.9		C	123.9(100.00)
	E	4.8		E	0		E	0
Q101	B	2.8	Q312	B	4.8(5.1)	Q600	B	0
	C	8.9		C	0		C	12.6
	E	2.1		E	6.2(6.6)		E	0
Q301	B	12.6	Q313	B	0	Q601	B	-0.6
	C	0		C	12.5		C	-0.4
	E	12.5		E	0		E	-0.6
Q302	B	1.6	Q314	B	0.5	Q602	B	0
	C	8.1		C	0		C	16.7
	E	0.9		E	1.1		E	0
Q303	B	8.1	Q315	B	0	Q603	B	16.7
	C	1.7		C	2.9		C	3.9
	E	8.7		E	0		E	16.7
Q304	B	3.6	Q316	B	4.1	Q604	B	134.1
	C	0		C	0		C	0
	E	4.3		E	4.7		E	134.2
Q305	B	8.1	Q317	B	4.1	Q605	D	310.6
	C	2.1		C	0		G	32.1
	E	8.7		E	4.8		S	-0.6
Q306	B	1.6	Q503	B	0	Q606	B	-0.1
	C	8.1		C	3.6		C	0.2
	E	1.0		E	0		E	-0.6
Q307	B	4.3	Q505	D	21.8	Q607	B	0.7
	C	8.7		G	6.4		C	0
	E	3.7		S	0		E	0
Q308	B	3.6	Q506	B	-0.6	Q608	B	0
	C	0.5		C	86.9		C	0.7
	E	0.8		E	0		E	0
Q309	B	4.7(0)	Q507	B	12.6	PH600	1	0.2
	C	0(4.7)		C	0.1		2	4.9
	E	0		E	13.0		3	0
Q310	B	2.1(0.2)	Q509	B	0.6		4	16.7
	C	4.8		C	0.1			
	E	1.3(0)		E	0			

B (1/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC1401	1	3.8		6	2.4	IC3205	1	0.1
	2	3.9		7	4.8		2	0.1
	3	3.8		8	8.9		3	8.7
	4	3.9	IC1404	I	12.5		4	0.3
	5	3.8		G	0		5	0.3
	6	8.2		O	8.9		6	0.3
	7	3.8	IC3200	1	4.4		7	0.3
	8	3.9		2	4.4		8	0
	9	3.8		3	4.4		9	0.1
	10	3.9		4	0		10	2.2
	11	3.8		5	4.4		11	0
	12	3.8		6	4.4		12	0
	13	8.2		7	4.4		13	8.9
	14	3.8		8	8.9		14	4.6
	15	3.9	IC3201	1	0.1		15	4.6
	16	3.8		2	0.1	IC3206	16	8.9
	17	3.9		3	8.9		1	0
	18	3.8		4	4.5		2	0
	19	8.2		5	4.4		3	0(0.2)
	20	4.6		6	4.4		4	4.4
	21	4.6		7	4.4		5	4.4
	22	0		8	4.4		6	4.4
	23	3.9		9	0		7	4.4
	24	3.8		10	4.4		8	4.4
	25	3.9		11	4.4		9	4.4
	26	3.8		12	4.4		10	4.4
	27	3.9		13	4.4		11	4.4
	28	3.8		14	4.4		12	4.4
	29	3.9		15	4.4		13	0
	30	3.8		16	4.1		14	2.5
	31	3.8	IC3202	1	4.4		15	8.9
	32	3.8		2	4.4		16	0.1
	33	3.9		3	4.4		17	4.5
	34	3.8		4	0		18	4.6
	35	3.8		5	4.4		19	2.5
	36	0		6	4.4		20	0
	37	3.8		7	4.4		21	4.4
	38	3.9		8	8.8		22	4.4
	39	3.8	IC3203	1	4.4		23	4.4
	40	3.8		2	4.4		24	4.4
	41	3.9		3	4.4		25	4.4
	42	3.9		4	4.4		26	4.4
	43	3.8		5	8.7		27	4.4
	44	3.7		6	0.2		28	4.4
	45	8.9		7	0		29	4.4
	46	3.8		8	0.2		30	4.4
	47	3.9		9	0.2		31	3.9(3.3)
	48	3.9		10	0.2		32	4.4
				11	0.1	IC6200	1	1.6
				12	0.1		2	0
				13	8.7		3	0
				14	8.9		4	0
IC1402	1	4.8	IC3204	1	4.4		5	1.6
	2	2.42		2	4.4		6	8.7
	3	2.4		3	4.4		7	12.1
	4	0		4	0		8	0.8
	5	2.4		5	4.4		9	25.7
				6	4.4		10	0
				7	4.4			
				8	8.9			

B (2/2) BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q1316	B	(8.3)	Q1402	B	(3.8)	Q3203	B	3.9
	C	4.1		C	0		C	8.7
	E	8.9		E	4.9		E	3.3
Q1317	B	4.1	Q1403	B	3.7	Q3204	D	4.3
	C	8.9		C	8.9		G	3.9
	E	3.4		E	3.0		S	4.3
Q1318	B	4.3	Q1404	B	3.8	Q6201	B	4.1
	C	6.2		C	8.9		C	0
	E	3.6		E	3.1		E	0
Q1323	B	2.6	Q1408	B	5.8	Q6203	B	4.1
	C	8.3		C	8.9		C	0
	E	1.9		E	5.2		E	0
Q1324	B	6.2	Q1409	B	2.4	Q6204	B	4.1
	C	8.9		C	5.8		C	0
	E	5.5		E	1.7		E	0
Q1365	D	0	Q3201	D	4.2	Q6208	B	0
	F	0		G	4.0		C	8.7
	C	4.3		S	4.3		E	0
Q1372	B	3.6	Q3202	B	0(3.9)			
	C	6.2		C	8.7			
	E	2.9		E	3.3			

C6 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
IC1800	1	6.4	Q703	B	150.9<145.7>	Q710	B	1.6(8.4)<1.7>
	2	6.4		C	203.6		C	8.4(8.9)
	3	6.4		E	151.8<146.7>		E	1.2
	4	6.4	Q704	B	8.9	Q711	B	1.8
	5	0		C	155.1(153.6)<149.2>		C	8.4
	6	6.4		E	8.4		E	1.4
	7	6.4	Q705	B	8.9	Q712	B	1.7
	8	6.3		C	148.9<143.5>		C	8.4
	9	6.3		E	8.4		E	1.3
	10	12.7	Q706	B	8.2	Q714	B	0.7
J701	KR	152.2(148.7)<145.2>		C	151(149.2)<145.6>		C	0.2
	KG	148.7(145.9)<142.3>		E	7.7(8.3)		E	4.8
	KB	155.9(152.8)<148.6>	Q707	B	155.8<150.4>	Q714	B	0.7
	H2	0(-0.7)		C	4.4(5.2)		C	0.2
	G2	312.7<310.2>		E	153.4<148.1>		E	0
Q701	B	154.4<149.2>	Q708	B	148.6<143.6>	Q1800	B	3.8
	C	204.2		C	5.6<6.0>		C	0
	E	156.6<150.6>		E	147<141.7>		E	4.5
Q702	B	148.8<143.5>	Q709	B	151.6<146.6>	Q1802	B	0.4
	C	204.4		C	4.9		C	3.4
	E	149.3<143.7>		E	149.2<144.3>		E	0
						Q1803	B	0
							C	6.4
							E	0

VM1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
Q5901	B	2.7	Q5904	B	4.6	Q5907	B	0
	C	8.9		C	0		C	0.2
	E	2.0		E	5.1		E	0
Q5902	B	135.2	Q5905	B	5.6	Q5908	B	3.4
	C	81.2		C	8.9		C	0
	E	135.2		E	5.1		E	0
Q5903	B	2.7	Q5906	B	0.4	Q5909	B	0
	C	4.6		C	81.3		C	8.9
	E	2.0		E	0.1		E	3.4

V1 BOARD VOLTAGE LIST

Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]	Ref	Pin No	Voltage[v]
IC801	1	2.1		30	2.1	Q808	B	0
	2	5.0		31	2.5		C	5.0
	3	2.1		32	0		E	0
	4	2.1<0.1>		33	0	Q805	B	1.3
	5	4.7		34	0		C	0.5
	6	2.2		35	0		E	0
	7	2.1		36	1.3	Q801	B	0
	8	2.1<0>		37	0		C	5.0
	9	0		38	5.0		E	0
	10	0		39	5.0	Q803	B	0.6
	11	0		40	0		C	0
	12	0		41	2.4		E	0
	13	0		42	2.4	Q811	B	5.6
	14	0		43	0		C	6.7
	15	0		44	4.8		E	5.0
	16	0		45	0	Q813	B	0
	17	0		46	0		C	5.3
	18	0		47	5.0		E	0
	19	0		48	0	Q818	B	0.5
	20	2.2(0)<0>		49	0		C	2.8
	21	2.1		50	4.6		E	0
	22	2.5		51	0	Q814	B	4.3
	23	0<2.5>[2.3]		52	0		C	0.9
	24	(2.1)	Q806	B	0		E	0
	25	2.1		C	5.0(0.2)	Q817	B	4.2
	26	2.4		E	0		C	0.3
	27	0	Q807	B	0		E	0
	28	0		C	1.2(5.0)[4.9]<<4.9>>			
	29	3.1		E	0			

B1 BOARD VOLTAGE LIST

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

H BOARD VOLTAGE LIST

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

P2 (2/2) BOARD VOLTAGE LIST

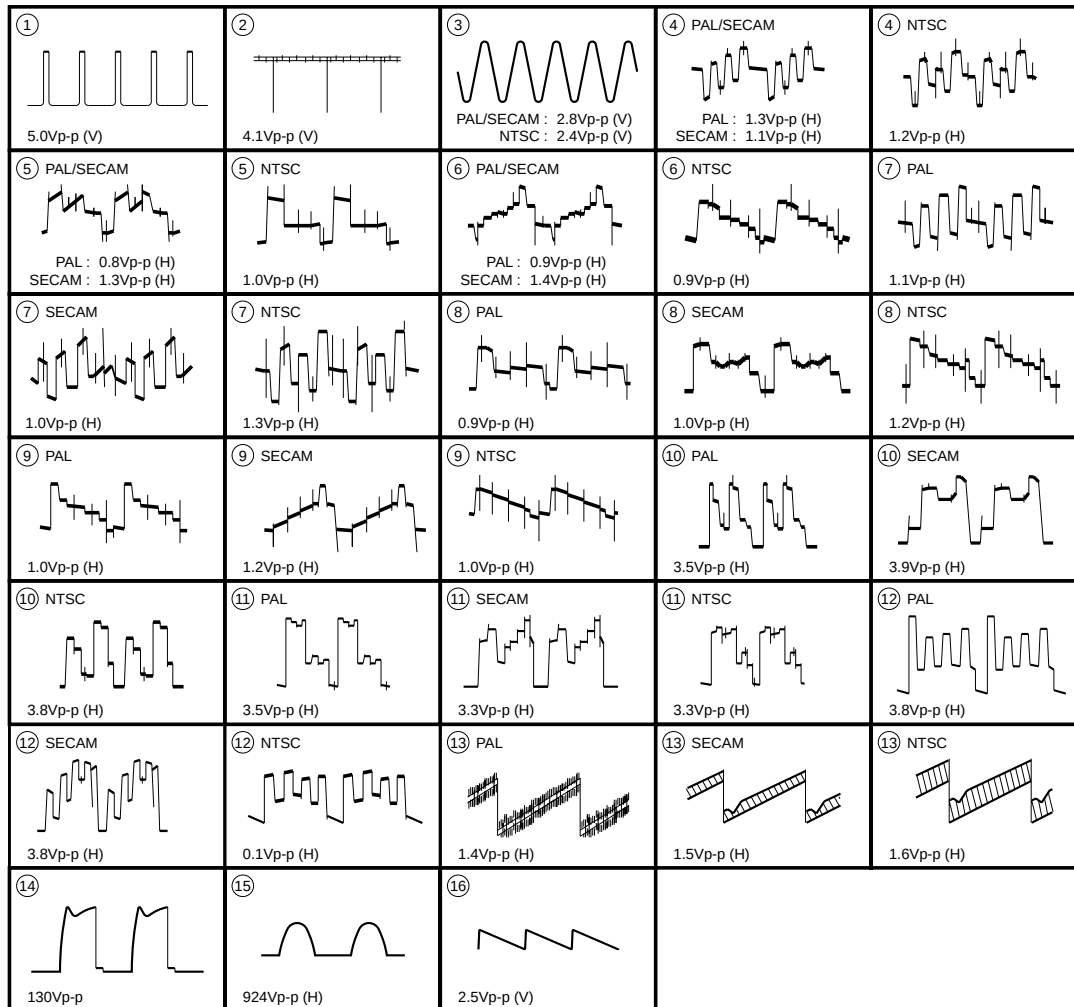
Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
Q4363	B	4.7	Q4502	B	8.1	Q4514	B	5.6
	C	0		C	2.0		C	8.8
	E	5.3		E	8.8		E	5.0
Q4364	B	4.2	Q4503	B	5.2	Q4515	B	2.4
	C	0		C	8.8		C	8.1
	E	4.9		E	4.5		E	1.8
Q4366	B	3.2	Q4505	B	2.2	Q4516	B	8.1
	C	3.4		C	8.1		C	3.2
	E	2.6		E	1.6		E	8.8
Q4368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

P2 (1/2) BOARD VOLTAGE LIST

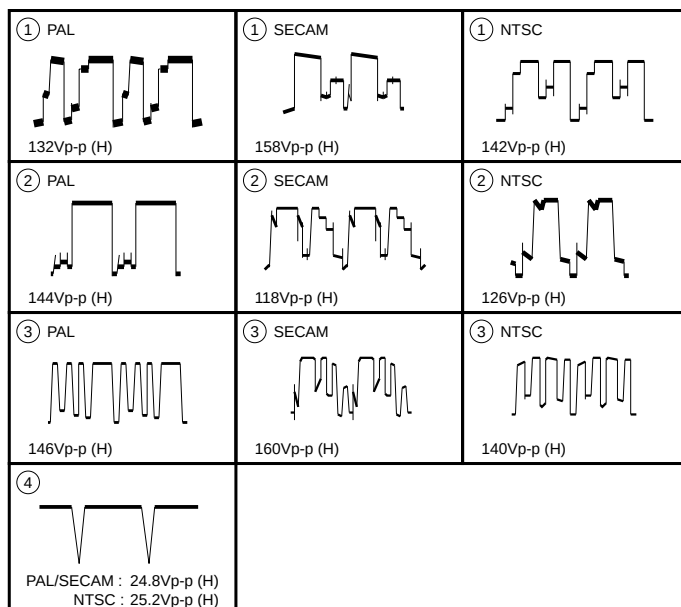
Ref	Pin No	Voltage[v]	Ref	Pin No.	Voltage[v]	Ref	Pin No.	Voltage[v]
IC4301	1	0		12	2.4		7	0
	2	2.9		13	3.4		8	0
	3	2.4		14	3.6		9	0
	4	2.4		15	5.4		10	0
	5	5.0		16	7.6		11	0
	6	0		17	1.0		12	4.0
	7	0.3		18	3.5		13	2.4
	8	0		19	0.5		14	0
	9	0.4		20	3.8		15	0.2
	10	5.0		21	0.4		16	8.7
	11	2.0		22	0.2	Q4300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

6-5 WAVEFORMS

A BOARD WAVEFORM



C6 BOARD WAVEFORM



6.6 PRINTED WIRING BOARD

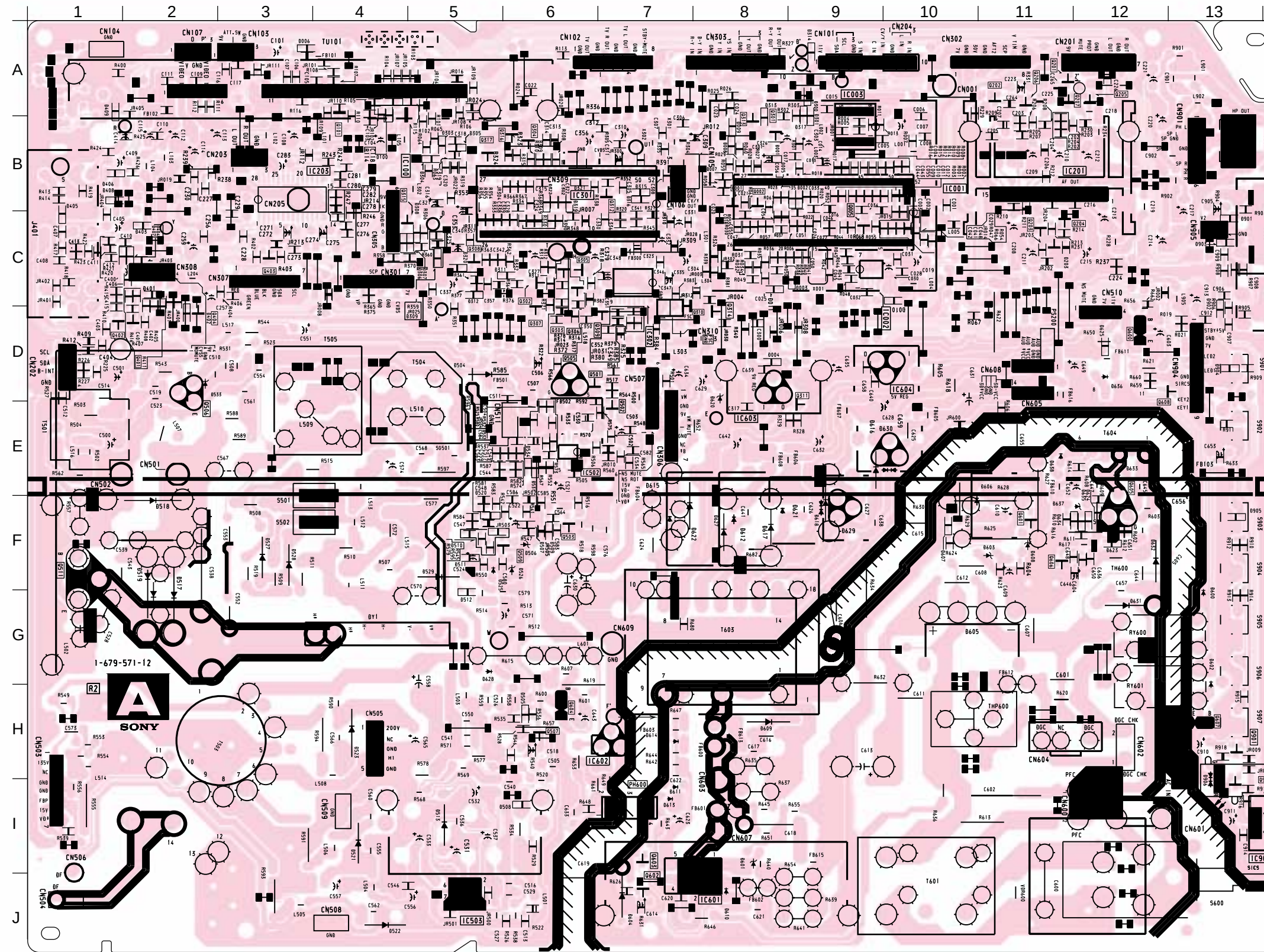
A [SYSTEM CONTROLLER, Y/C JUNGLE, DEFLECTION, TUVIF, FRONT AMP, POWER SUPPLY]

- A Board -



NOTE:

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



A BOARD

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

KV-XA25M61/XA25M31/XA25M90/XA25M80/XA25M50
RM-954

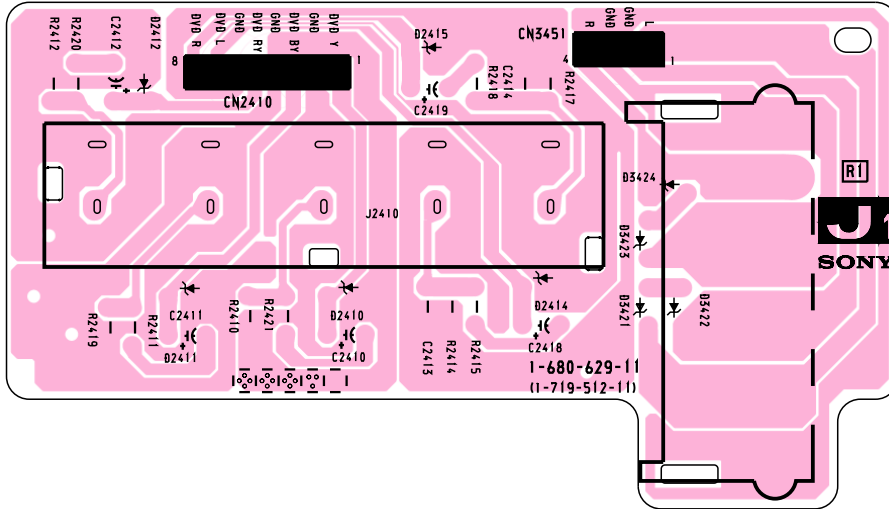
KV-XA25M87/XA25M84/XA25M86
RM-953

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

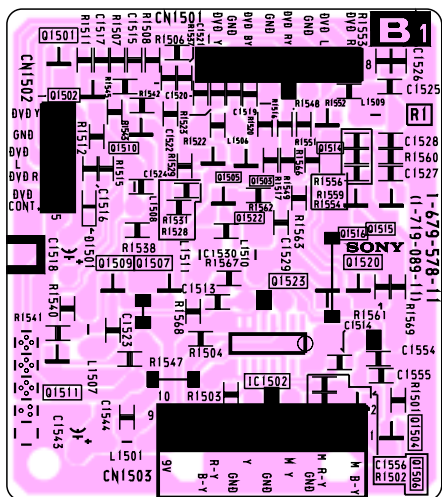
PRINTED WIRING BOARD

J1 [DVD, 3D TERMINAL]

B1 [DVD SWITCH]



- B1 Board -



RM-954**RM-953**

C6

[VIDEO AMP, ROTATION CIRCUIT]

$$\mathbf{V}_1$$

[TELETEXT]

VM₁ [VELOCITY MODULATION]

F [CISPR]

J [DVD, 3D TERMINAL]

1-671-752-14
(1-716-115-14)

100% 100% 100% 100%

CN4603

C554

CN4601

VBR461

C4602

10961

C4601

R4601

R4

F

CN4602

SONY

F4601

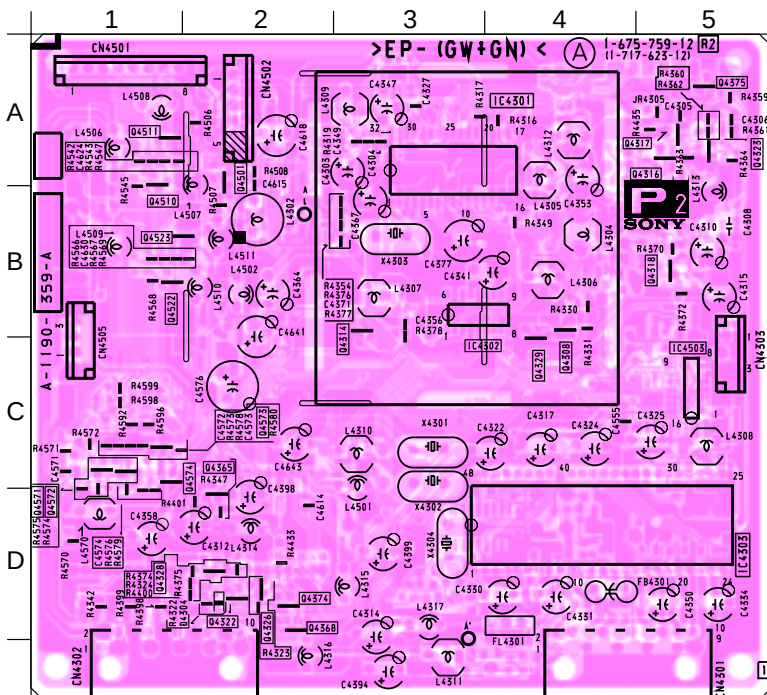
0

PRINTED WIRING BOARD

P2

[PICTURE IN PICTURE, DVD]

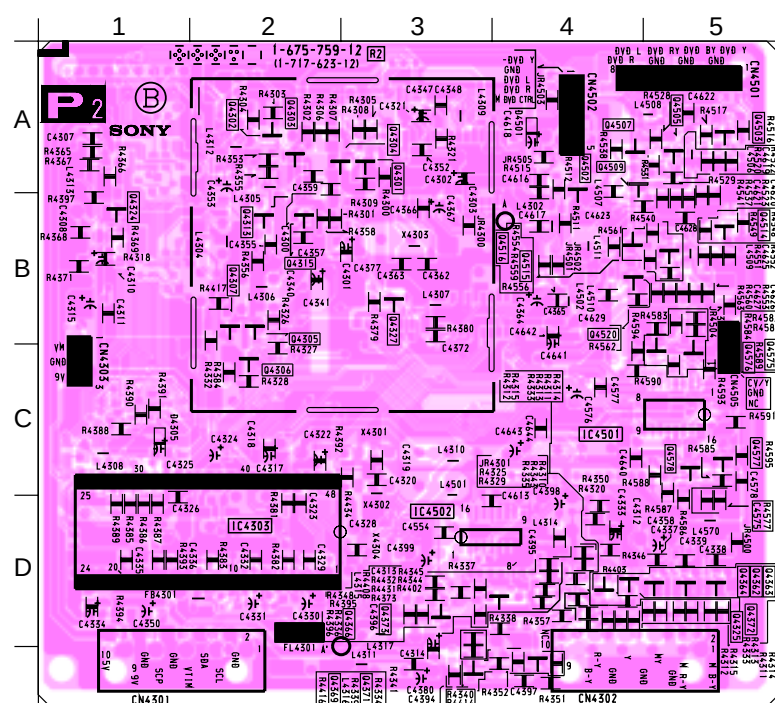
- P2 Board - (Component Side)



P2 A BOARD

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

- P2 Board - (Conductor Side)



P2 B BOARD

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

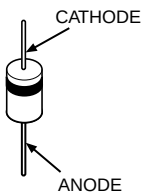
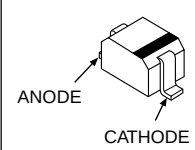
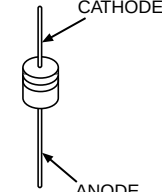
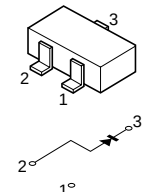
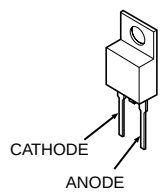
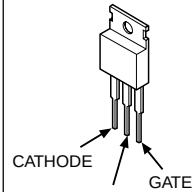
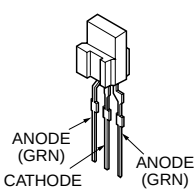
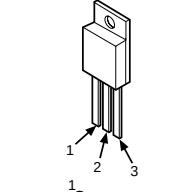
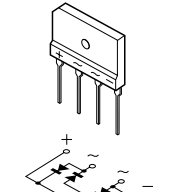
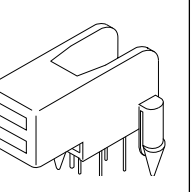
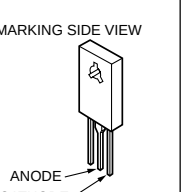
-  : Pattern from the side which enables seeing.
-  : Pattern from the rear side.

6-7. SEMICONDUCTORS

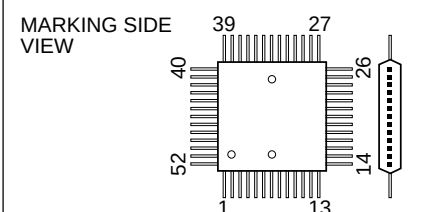
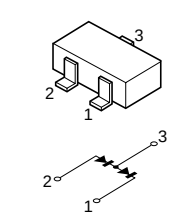
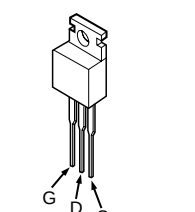
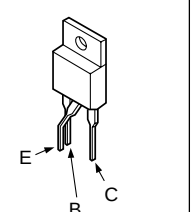
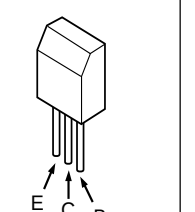
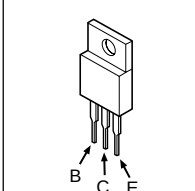
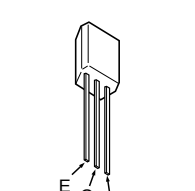
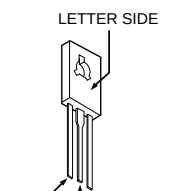
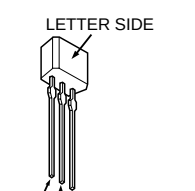
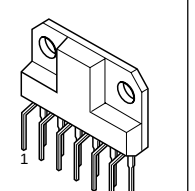
KV-XA25M87/XA25M84/XA25M86

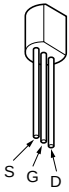
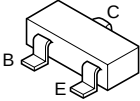
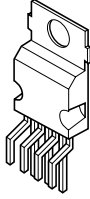
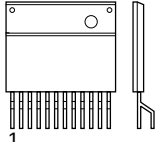
RM-953

DIODE

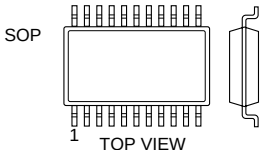
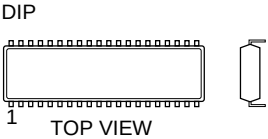
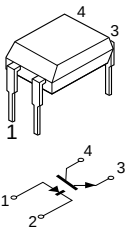
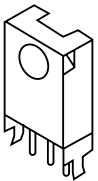
				
AK0HV0 EL1Z ERA22-08 ERC06-15S ERC04-06SE GP08D NNCD9.1A-T1	RD33EB3T RGP02-17EL-6433 RU4AM-T3 10ELS2N-TB5	DTZ-TT11-15B DTZ10B MA111-(K8).S0 RD9.1S-B 1SS355TE-17 UDZS-TE17-9.1B UDZS-TE17-5.1B RD7.5SB1-T1	D1N20R D1NS4 RD11SB2-T1 RD6.8ES-B1 RD20ES-B2 RD30ES-B2 RD39-ES-B2 1SS119-25 HZS9.1NB2	RD5.6M-B2 RD3.3M-B2
				
5P-6M	SPB-26MVWF	FMU-G26S	D3SB60	LNK0210037F1
				

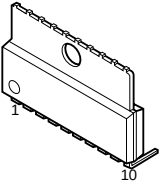
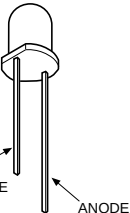
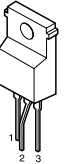
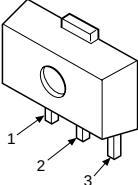
TRANSISTOR

				
RU-1P	DA204K DAP202K	IRF614	2SK2845-LB102	2SD2578-CA
				
2SA1606-E 2SC4159-E 2SD2394-EF	2SC2458-YGR 2SC2551-0 2SA1091-0 2SD2144S-UVW	2SC2611 2SC2688-LK	DTC144ESA 2SA1175-HFE 2SC2785-HFE	TA8200AH
				TA7805S

			MARKING SIDE VIEW  Zig-zag In-line Package Pin 6~99		
2SK246-GR	UN2213 UN2111 2SC2712-YG UN2212 DTA114TK DTC114EK	2SC1623-L5L6 2SA1162-G 2SD2114K DTC114EKA-T146	TDA8172	STR-F6656	

IC

 Single In-line Package Pin 8~98	 Dual In-line Package Pin 6~98				
BH3868BFS-E2 CXA1315M HEF4053BT MM1319AFBE BA7606F-E2	SDA9288XE-B0121 NJM4066BM NJM2903M NJM2188M-TE2 UPC4558G2	CXA1855S CXA2159S CXP750097-032S M24C08-BN6(A) TDA9181T	SAA5261 CXA2139S	ON3171-R	SBX3081-(01)30

	 CATHODE ANODE		
LA6510	NJM78M09FA	SE-135N	S-80743AL-A7-S

SECTION 7 EXPLODED VIEWS

NOTE:

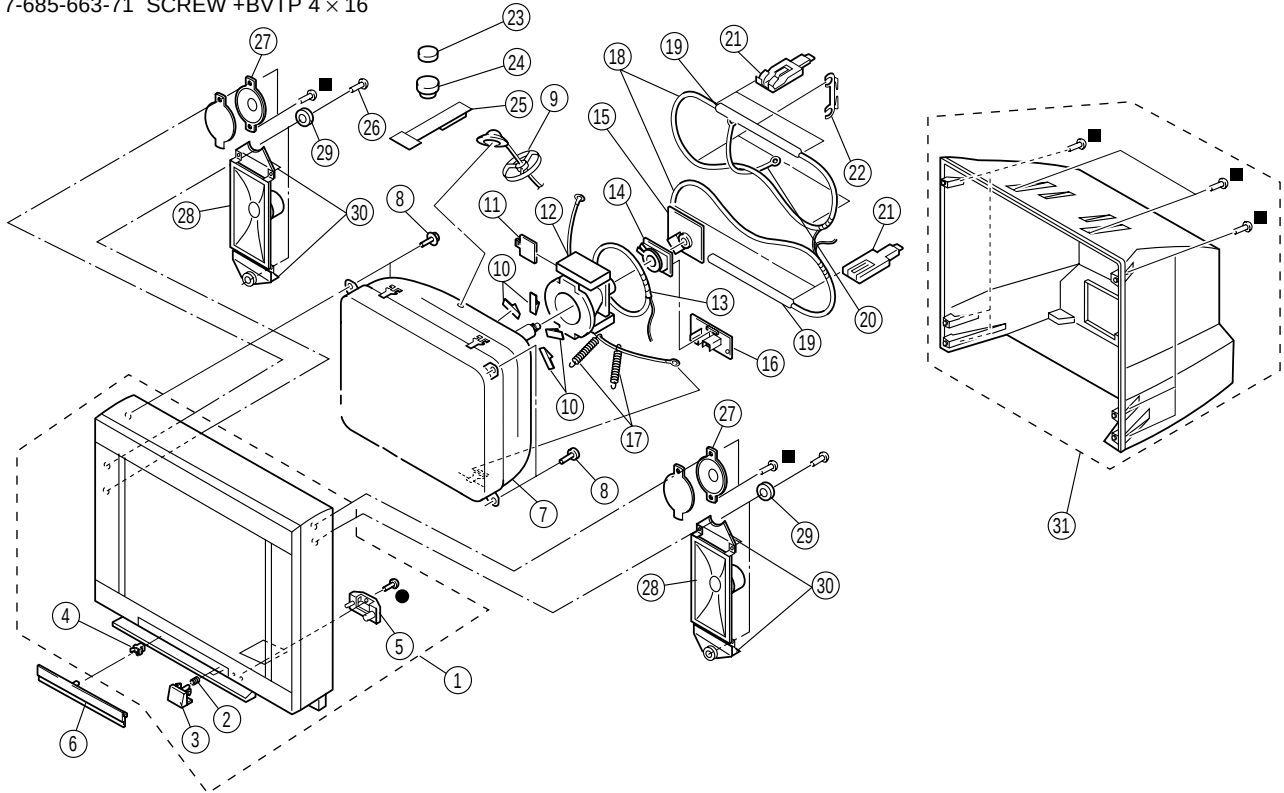
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine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

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

7-1. PICTURE TUBE

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



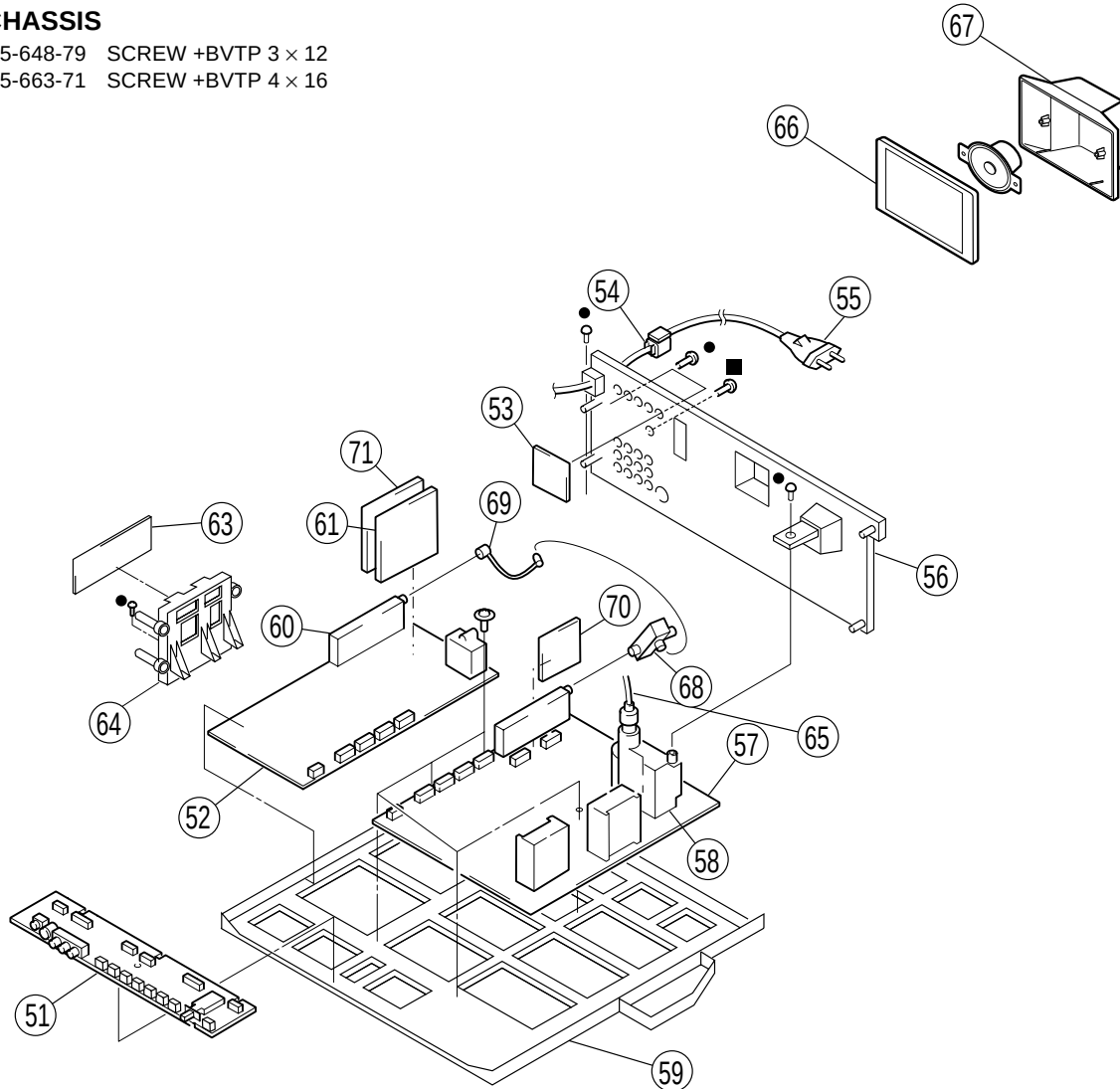
REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4038-537-1	BEZNET ASSY (KV-XA25M31/M61/M90)	2 ~ 6
	X-4038-690-1	BEZNET ASSY (KV-XA25M50/M80/M84/M86/M87)	
2	4-036-405-11	SPRING, COMPRESSION	
3	4-075-747-01	BUTTON, POWER	
4	4-047-464-01	CATCHER, PUSH	
5	* 4-075-749-01	GUIDE, LIGHT	
6	4-078-944-11	CONTROL, DOOR (KV-XA25M31/M61)	
	4-078-944-21	CONTROL, DOOR (KV-XA25M50/M80)	
	4-078-944-31	CONTROL, DOOR (KV-XA25M84)	
	4-078-944-51	CONTROL, DOOR (KV-XA25M90)	
	4-080-703-11	CONTROL, DOOR (KV-XA25M87)	
	4-080-703-21	CONTROL, DOOR (KV-XA25M86)	
7	$\triangle$ 8-733-250-05	PICTURE TUBE (A60LPN70X)	
8	4-046-765-12	SCREW, TAPPING 7 + CROWN WASHER	
9	* 3-704-372-11	HOLER, HV CABLE	
10	4-046-600-11	SPACER, DY	
11	4-074-013-12	PIECE, TLH CONVERGENCE	
12	$\triangle$ 1-451-475-11	DEFLECTION YOKE (Y25RSA)	
13	1-452-896-61	COIL, NA ROTATION (RT200)	
14	8-453-011-21	NA299-S	
15	* A-1332-147-A	C6 BOARD MOUNTED	

REF. NO.	PART NO.	DESCRIPTION	REMARK
16	* A-1342-590-A	VM1 BOARD MOUNTED	
17	4-369-318-61	SPRING, TENSION	
18	$\triangle$ 1-419-322-11	COIL, DEGAUSSING	
19	4-063-935-11	CUSHION (50 x 550), DGC	
20	4-079-376-01	BAND, DGC	
21	* 4-065-572-01	CLIP (25 RSN), DGC	
22	4-064-883-03	HOLDER, DGC	
23	1-452-032-00	MAGNET, DISC	
24	1-452-014-11	CIRCULAR DISC MAGNET B	
25	X-4387-214-3	PERMALOY ASSY, CORRECTION	
26	4-302-404-03	SCREW (WASHER HEAD) (+P 4 x 16)	
27	1-529-190-11	SPEAKER (5 CM)	
	1-529-968-11	SPEAKER (5 CM) (KV-XA25M87 only)	
28	1-503-902-11	SPEAKER (15 x 6.5 CM) (KV-XA25M93)	
29	4-374-745-21	CUSHION A	
30	* 4-046-981-01	BRACKET, SPEAKER	
31	4-080-624-01	REAR COVER (■ 11)	

7-2. CHASSIS

● : 7-685-648-79 SCREW +BVTP 3 × 12

■ : 7-685-663-71 SCREW +BVTP 4 × 16



REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* A-1372-915-A	H BOARD MOUNTED	
	* A-1372-963-A	H BOARD MOUNTED (KV-XA25M86 only)	
52	* A-1136-160-A	B BOARD MOUNTED	
	* A-1136-187-A	B BOARD MOUNTED (KV-XA29M84/M86/M87)	
53	* A-1388-308-A	J BOARD MOUNTED (KV-XA29M84/M86 only)	
	A-1388-301-A	J1 BOARD MOUNTED (KV-XA25M61 only)	
	A-1388-300-A	J1 BOARD MOUNTED (KV-XA25M87 only)	
54	△ 4-022-115-00	HOLDER, AC CORD	
55	△ 1-769-609-21	CORD, POWER (WITH CONNECTOR)	(KV-XA25M90 only)
	△ 1-574-062-11	CORD, POWER (WITH CONNECTOR)	
	△ 1-574-358-11	CORD, POWER (WITH CONNECTOR)	(KV-XA25M31 only)
56	* 4-081-023-11	BRACKET, TERMINAL (■ 1) (KV-XA25M87 only)	
	* 4-081-023-01	BRACKET, TERMINAL (■ 1) (KV-XA25M90 only)	
	* 4-066-684-01	BRACKET, TERMINAL (■ 1)	(KV-XA25M86/M84 only)
57	* A-1299-400-A	A BOARD COMPLETE (KV-XA25M90 only)	
	* A-1299-442-A	A BOARD COMPLETE (KV-XA25M31/M61)	
	* A-1299-448-A	A BOARD COMPLETE (KV-XA25M50/M80)	
	* A-1299-454-A	A BOARD COMPLETE (KV-XA25M84/M87)	
	* A-1299-455-A	A BOARD COMPLETE (KV-XA25M86)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
58	△ 1-453-357-21	TRANSFORMER ASSY, FLYBACK (NX-4009//M3B4)	
	△ 1-453-364-11	TRANSFORMER ASSY, FLYBACK	(NX-4009//M3J4)(KV-XA25M31 only)
59	* 4-066-681-05	BRACKET, MAIN (6 SCREWS ((3 x 12), (+) BVTAP)	
60	8-598-451-30	TUNER, FSS BTF-WG441 (KV-XA25M90 only)	
	8-598-499-10	TUNER, FSS BTF-LG433 (KV-XA25M50/M80)	
	8-598-451-20	TUNER, FSS BTF-WG441 (KV-XA25M31/M61)	
	8-596-450-10	TUNER, FSS BTF-LG434 (KV-XA25M84/M86/M87)	
61	* A-1131-652-A	B1 BOARD MOUNTED	(except KV-XA25M87/M84/M86)
63	* A-1241-452-A	F BOARD MOUNTED	
64	* 4-066-682-01	BRACKET, F PWB	
65	△ 1-251-374-12	CAP ASSY, HIGH-VOLTAGE	(KV-XA25M31 only)
66	4-080-403-01	BOX, FRONT (TWEETER)	
67	4-080-402-01	BOX, REAR (TWEETER)	
68	1-534-630-31	P-P CABLE (KV-XA25M84/M86/M87)	
69	1-251-658-21	SPLITTER RF (KV-XA25M84/M86/M87)	
70	A-1347-164-A	V1 BOARD MOUNTED (KV-XA25M61/M31/M86)	
71	A-1190-376-A	P2 BOARD MOUNTED	(KV-XA25M84/M86/M87 only)

SECTION 8 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 F

COILS

- MMH : mH, UH : μ H

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1299-400-A	A BOARD COMPLETE (KV-XA25N90)		C109	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
	* A-1299-442-A	A BOARD COMPLETE (KV-XA25M31/XA25M61/GE/EM)		C110	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
	* A-1299-448-A	A BOARD COMPLETE (KV-XA25M50/XA25M80)		C111	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
	* A-1299-454-A	A BOARD COMPLETE (KV-XA25M84/XA25M87)		C112	1-104-664-11	ELECT 47UF	20.00 16V
	* A-1299-455-A	A BOARD COMPLETE (KV-XA25M86)		C113	1-104-664-11	ELECT 47UF	20.00 25V

	4-382-854-11	SCREW (M3X10), P, SW (+)		C114	1-126-967-11	ELECT 47UF	20.00 50V
	4-382-854-21	SCREW (M3X14), P, SW (+)		C115	1-126-967-11	ELECT 47UF	20.00 50V
		<CAPACITOR>					
C004	1-163-001-11	CERAMIC CHIP 220PF	10.00 50V	C116	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C005	1-163-001-11	CERAMIC CHIP 220PF	10.00 50V			(KV-XA25M84/XA25M86/XA25M87)	
C006	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V	C117	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C007	1-104-664-11	ELECT 47UF	20.00 16V			(KV-XA25M84/XA25M86/XA25M87)	
C013	1-163-021-91	CERAMIC CHIP 0.01UF	10.00 50V	C118	1-110-501-11	CERAMIC CHIP 0.33UF	10.00 16V
C014	1-104-664-11	ELECT 47UF	20.00 25V	C300	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C015	1-163-009-11	CERAMIC CHIP 0.001UF	10.00 50V	C301	1-126-935-11	ELECT 470UF	20.00 16V
C016	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V	C302	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
C017	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V	C303	1-126-959-11	ELECT 0.47UF	20.00 50V
C019	1-104-664-11	ELECT 47UF	20.00 25V	C304	1-126-967-11	ELECT 47UF	20.00 50V
C020	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V	C305	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C022	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C306	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V
C023	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C307	1-163-233-11	CERAMIC CHIP 18PF	5.00% 50V
C024	1-163-227-11	CERAMIC CHIP 10PF	0.50PF 50V	C308	1-163-259-91	CERAMIC CHIP 220PF	5.00% 50V
C026	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V	C309	1-137-378-11	MYLAR 0.22UF	5.00% 50V
C027	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V	C311	1-126-964-11	ELECT 10UF	20.00 50V
C028	1-163-037-11	CERAMIC CHIP 0.022UF	10.00 50V			(EXCEPT KV-XA25M84/XA25M86/XA25M87)	
C030	1-126-965-11	ELECT 22UF	20.00 50V	C311	1-126-963-11	ELECT 4.7UF	20.00 50V
C031	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V			(KV-XA25M84/XA25M86/XA25M87)	
C032	1-107-823-11	CERAMIC CHIP 0.47UF	10.00 16V	C312	1-164-346-11	CERAMIC CHIP 1UF	16V
						(EXCEPT KV-XA25M86)	
C034	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C313	1-164-346-11	CERAMIC CHIP 1UF	16V
C041	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V			(EXCEPT KV-XA25M86)	
C042	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C314	1-164-346-11	CERAMIC CHIP 1UF	16V
C043	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V				
C044	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C315	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
				C316	1-126-934-11	ELECT 220UF	20.00 16V
C047	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C317	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C048	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C318	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C050	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C319	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C051	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V				
C053	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V	C320	1-163-031-11	CERAMIC CHIP 0.01UF	50V
				C321	1-164-489-11	CERAMIC CHIP 0.22UF	10.00 16V
C056	1-163-263-11	CERAMIC CHIP 330PF	5.00% 50V	C322	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
C103	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V	C324	1-163-017-00	CERAMIC CHIP 0.0047UF	10.00 50V
C104	1-104-665-11	ELECT 100UF	20.00 10V	C325	1-126-960-11	ELECT 1UF	20.00 50V
C107	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V				
C108	1-104-664-11	ELECT 47UF	20.00 16V	C327	1-126-965-11	ELECT 22UF	20.00 50V
				C328	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
				C329	1-126-963-11	ELECT 4.7UF	20.00 50V
				C330	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
				C331	1-126-963-11	ELECT 4.7UF	20.00 50V

A

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

REF. NO.	PART NO.	DESCRIPTION	REMARK
C332	1-126-963-11	ELECT	4.7UF 20.00 50V
C335	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C336	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C337	1-126-961-11	ELECT	2.2UF 20.00 50V
C341	1-115-340-11	CERAMIC CHIP	0.22UF 10.00 25V
C342	1-163-259-91	CERAMIC CHIP	220PF 5.00% 50V
C347	1-126-933-11	ELECT	100UF 20.00 16V
C348	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C349	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C350	1-163-031-11	CERAMIC CHIP	0.01UF 50V
C351	1-126-964-11	ELECT	10UF 20.00 50V
C352	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C353	1-126-960-11	ELECT	1UF 20.00 50V
C356	1-104-664-11	ELECT	47UF 20.00 16V
C357	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C502	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V
C506	1-107-638-11	ELECT	33UF 20.00 160V
C507	1-161-830-00	CERAMIC	0.0047UF 500V
C510	1-102-112-00	CERAMIC	330PF 10.00 50V
C512	1-163-989-11	CERAMIC CHIP	0.033UF 10.00 25V
C513	1-163-263-11	CERAMIC CHIP	330PF 5.00% 50V
C514	1-106-383-00	MYLAR	0.047UF 10.00 200V
C517	1-164-182-11	CERAMIC CHIP	0.0033UF 10.00 50V
C518	1-104-665-11	ELECT	100UF 20.00 10V
C519	1-102-212-00	CERAMIC	820PF 10.00 500V
C521	1-126-934-11	ELECT	220UF 20.00 16V
C522	1-126-933-11	ELECT	100UF 20.00 16V
C523	1-102-002-00	CERAMIC	680PF 10.00 500V
C524	1-126-967-11	ELECT	47UF 20.00 50V
C526	1-130-495-00	MYLAR	0.1UF 5.00% 50V
C527	1-102-820-00	CERAMIC	330PF 5.00% 50V
C528	1-161-754-00	CERAMIC	0.001UF 10.00 2KV
C530	1-137-372-11	MYLAR	0.022UF 5.00% 50V
C531	1-107-903-11	ELECT	2.2UF 20.00 50V
C532	1-126-941-11	ELECT	470UF 20.00 25V
C533	1-126-941-11	ELECT	470UF 20.00 25V
C534	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C536	1-136-165-00	FILM	0.1UF 5.00% 50V
C537	1-126-969-11	ELECT	220UF 20.00 50V
C538	1-136-617-11	FILM	0.019UF 3.00% 2KV
C539	1-130-959-91	FILM	0.047UF 5.00% 400V
C540	1-136-171-00	FILM	0.33UF 5.00% 50V
C544	8-719-073-01	MA1111-(K8).S0	
C546	1-165-319-11	CERAMIC CHIP	0.1UF 50V
C548	1-163-243-11	CERAMIC CHIP	47PF 5.00% 50V
C549	1-163-017-00	CERAMIC CHIP	0.0047UF 10.00 50V
C550	1-106-220-00	MYLAR	0.1UF 10.00 100V
C551	1-126-960-11	ELECT	1UF 20.00 50V
C552	1-162-116-00	CERAMIC	680PF 10.00 2KV
C553	1-162-116-00	CERAMIC	680PF 10.00 2KV
C554	1-107-364-11	MYLAR	0.01UF 10.00 200V
C556	1-126-941-11	ELECT	470UF 20.00 25V
C557	1-126-941-11	ELECT	470UF 20.00 25V
C558	1-123-024-21	ELECT	33UF 160V
C560	1-102-228-00	CERAMIC	470PF 10.00 500V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C561	1-129-708-91	FILM	0.0033UF 5.00% 630V
C562	1-102-228-00	CERAMIC	470PF 10.00 500V
C564	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C565	1-107-655-11	ELECT	47UF 20.00 250V
C566	1-102-244-00	CERAMIC	220PF 10.00 500V
C567	1-115-520-11	FILM	0.68UF 5.00% 250V
C568	1-102-228-00	CERAMIC	470PF 10.00 500V
C570	1-115-521-11	FILM	0.82UF 5.00% 250V
C572	1-107-846-11	FILM	0.1UF 5.00% 250V
C573	1-106-379-12	MYLAR	0.033UF 10.00 200V
C574	1-107-636-11	ELECT	10UF 20.00 160V
C576	1-130-495-00	MYLAR	0.1UF 5.00% 50V
C577	1-106-395-00	MYLAR	0.15UF 10.00 200V
C582	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C586	1-216-295-11	SHORT	0
C600	$\triangle$ 1-104-705-11	MYLAR	0.1UF 20.00 250V
C601	1-129-720-00	FILM	0.033UF 5.00% 630V
C602	$\triangle$ 1-104-705-11	MYLAR	0.1UF 20.00 250V
C603	1-104-664-11	ELECT	47UF 20.00 25V
C604	1-163-009-11	CERAMIC CHIP	0.001UF 10.00 50V
C605	$\triangle$ 1-119-886-51	CERAMIC	470PF 10.00 250V
C606	$\triangle$ 1-119-886-51	CERAMIC	470PF 10.00 250V
C607	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C608	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C609	1-126-968-11	ELECT	100UF 20.00 50V
C610	1-126-964-11	ELECT	10UF 20.00 50V
C611	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C612	1-161-830-00	CERAMIC	0.0047UF 99% 500V
C613	1-125-906-11	ELECT	560UF 20.00 450V
C614	1-126-964-11	ELECT	10UF 20.00 50V
C615	$\triangle$ 1-119-886-51	CERAMIC	470PF 10.00 250V
C616	1-130-202-00	FILM	0.022UF 5.00% 400V
C617	1-107-792-11	CERAMIC	100PF 5.00% 1KV
C618	1-125-893-11	FILM	680PF 3.00% 1.5KV
C619	$\triangle$ 1-119-886-51	CERAMIC	470PF 10.00 250V
C620	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V
C621	1-102-114-00	CERAMIC	470PF 10.00 50V
C622	1-102-119-00	CERAMIC	0.0015UF 10.00 50V
C623	1-104-665-11	ELECT	100UF 20.00 25V
C624	1-104-331-11	CERAMIC	0.0022UF 10.00 1KV
C626	1-102-002-00	CERAMIC	680PF 10.00 500V
C629	1-126-964-11	ELECT	10UF 20.00 50V
C630	1-125-494-11	ELECT(BLOCK)	560UF 20.00 160V
C631	1-128-550-11	ELECT	2200UF 20.00 50V
C632	1-128-339-11	ELECT	2200UF 20.00 16V
(EXCEPT KV-XA25M84/XA25M86/XA25M87)			
C632	1-126-936-11	ELECT	3300UF 20.00 16V
(KV-XA25M84/XA25M86/XA25M87)			
C633	1-104-999-11	MYLAR	0.1UF 10.00 200V
C634	1-126-933-11	ELECT	100UF 20.00 16V
C635	1-104-665-11	ELECT	100UF 20.00 10V
C636	1-104-760-11	CERAMIC CHIP	0.047UF 10.00 50V
C641	1-102-002-00	CERAMIC	680PF 10.00 500V
C642	1-126-943-11	ELECT	2200UF 20.00 25V

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

KV-XA25M87/XA25M84/XA25M86

RM-953

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C643	1-104-665-11	ELECT	100UF 20.00 10V	D100	8-719-073-01	MA111-(K8).S0	
C644	1-104-331-11	CERAMIC	0.0022UF 10.00 1KV			(EXCEPT KV-XA25M84/XA25M87)	
C645	1-137-605-11	MYLAR	0.01UF 10.00 250V	D300	1-216-295-11	SHORT	0
C646	1-107-679-91	ELECT	10UF 20.00 450V	D301	8-719-988-61	1SS355TE-17	
C647	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V	D306	8-719-988-61	1SS355TE-17	
C649	1-126-940-11	ELECT	330UF 20.00 25V	D307	8-719-988-61	1SS355TE-17	
C650	1-163-275-11	CERAMIC CHIP	0.001UF 5.00% 50V	D308	8-719-988-61	1SS355TE-17	
C651	1-163-133-00	CERAMIC CHIP	470PF 5.00% 50V	D309	8-719-069-54	UDZS-TE17-5.1B	
C652	1-126-965-11	ELECT	22UF 20.00 50V	D311	8-719-988-61	1SS355TE-17	
C653	1-104-664-11	ELECT	47UF 20.00 25V	D312	8-719-988-61	1SS355TE-17	
C655 Δ	1-119-886-51	CERAMIC	470PF 10.00 250V	D313	8-719-988-61	1SS355TE-17	
C657	1-101-821-00	CERAMIC	0.0022UF 500V	D315	8-719-988-61	1SS355TE-17	
C659	1-162-116-00	CERAMIC	680PF 10.00 2KV	D316	8-719-037-06	RD7.5SB1-T1	
C912	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V			(EXCEPT KV-XA25M84/XA25M86/XA25M87)	
C913	1-104-665-11	ELECT	100UF 20.00 10V	D316	8-719-037-20	RD11SB2-T1	
		<CONNECTOR>				(KV-XA25M84/XA25M86/XA25M87)	
CN101 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P		D320	8-719-069-60	UDZS-TE17-9.1B	
CN102 *	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P		D321	8-719-069-60	UDZS-TE17-9.1B	
CN104	1-695-915-11	TAB (CONTACT)		D504	8-719-302-43	EL1Z	
CN105	1-695-915-11	TAB (CONTACT)		D505	8-719-988-61	1SS355TE-17	
CN106 *	1-564-506-11	PLUG, CONNECTOR 3P		D506	8-719-911-19	1SS119-25	
CN201 *	1-564-508-11	PLUG, CONNECTOR 5P		D507	8-719-988-61	1SS355TE-17	
CN202 *	1-785-608-11	PIN, CONNECTOR 4P		D508	8-719-988-61	1SS355TE-17	
CN301 *	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D509	1-216-073-00	RES-CHIP	10K 5% 1/10W
		(KV-XA25M61/GE/ME/XA25M31/XA25M86)		D510	8-719-988-61	1SS355TE-17	
CN302 *	1-779-889-11	CONNECTOR, BOARD TO BOARD 8P		D511	8-719-988-61	1SS355TE-17	
		(KV-XA25M61/GE/ME/XA25M31/XA25M86)		D512	8-719-988-61	1SS355TE-17	
CN303 *	1-779-890-11	CONNECTOR, BOARD TO BOARD 10P		D513	8-719-908-03	GP08D	
				D517	8-719-945-80	ERC06-15S	
CN305 *	1-564-509-11	PLUG, CONNECTOR 6P		D518	8-719-074-35	RU4AM-T4	
CN306	1-564-507-11	PLUG, CONNECTOR 4P		D519	8-719-945-80	ERC06-15S	
CN307 *	1-774-813-11	CONNECTOR, BOARD TO BOARD 7P		D520	8-719-073-01	MA111-(K8).S0	
		(KV-XA25M61/GE/ME/XA25M31/XA25M86)		D521	8-719-302-43	EL1Z	
CN501 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D522	8-719-302-43	EL1Z	
CN502 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D523	8-719-302-43	EL1Z	
CN505 *	1-564-508-11	PLUG, CONNECTOR 5P		D527	8-719-908-03	GP08D	
CN506	4-352-844-01	PIN, LEAD, COATING		D528	8-719-908-03	GP08D	
CN507 *	1-564-509-11	PLUG, CONNECTOR 6P		D531	8-719-988-61	1SS355TE-17	
CN508	1-695-915-11	TAB (CONTACT)		D532	8-719-988-61	1SS355TE-17	
CN601	1-580-843-11	PIN, CONNECTOR (POWER)		D534	1-216-295-11	SHORT	0
CN602 *	1-508-786-00	PIN, CONNECTOR (5MM PITCH) 2P		D600	8-719-911-19	1SS119-25	
CN603 *	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P		D602	8-719-911-19	1SS119-25	
CN604 *	1-573-963-11	PIN, CONNECTOR (PC BOARD) 3P		D603	8-719-150-92	RD33EB3T	
CN608	1-564-507-41	PLUG, CONNECTOR 4P		D604	8-719-028-72	RGPO2-17EL-6433	
CN904 *	1-564-512-11	PLUG, CONNECTOR 9P		D605	8-719-510-22	D3SB60	
		<DIODE>		D606	8-719-108-18	5P-6M	
D001	8-719-988-61	1SS355TE-17		D607	8-719-073-01	MA111-(K8).S0	
D002	8-719-988-61	1SS355TE-17		D608	8-719-110-53	RD20ES-B2	
D004	1-216-295-11	SHORT	0	D609	8-719-311-31	RU-1P	
D005	8-719-988-61	1SS355TE-17		D610	8-719-043-76	AK04V0	
D006	8-719-988-61	1SS355TE-17		D611	8-719-075-73	10ELS2N-TB5	
D007	8-719-988-61	1SS355TE-17		D612	8-719-071-38	D5S6M	
D008	8-719-988-61	1SS355TE-17		D613	8-719-075-73	10ELS2N-TB5	
D009	8-719-988-61	1SS355TE-17		D614	8-719-075-73	10ELS2N-TB5	
				D620	8-719-110-72	RD30ESB2	
				D621	8-719-071-38	D5S6M	
				D622	8-719-177-49	FMU-G26S	



REF. NO.	PART NO.	DESCRIPTION	REMARK
D623	8-719-978-65	DTZ-TT11-15B	
D624	8-719-073-01	MA111-(K8).S0	
D625	8-719-977-28	DTZ10B	
D628	8-719-911-19	1SS119-25	
D630	8-719-510-37	D5LC20U	
D631	8-719-068-00	ERC04-06SE	
D632	8-719-068-00	ERC04-06SE	
D633	8-719-948-45	ERA22-08	
D634	8-719-073-01	MA111-(K8).S0	
D635	8-719-073-01	MA111-(K8).S0	
D636	8-719-510-02	D1NS4	
D637	8-719-109-96	RD6.8ES-B1	
D638	8-719-510-48	D1N20R	
<CONNECTOR>			
DY1	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
<FERRITE BEAD>			
FB101	1-216-295-11	SHORT 0 (KV-XA25M84/XA25M86/XA25M87)	
FB102	1-216-295-11	SHORT 0 (KV-XA25M84/XA25M86/XA25M87)	
FB300	1-412-911-31	FERRITE 0UH	
FB501	1-410-397-21	FERRITE 1.1UH	
FB502	1-410-397-21	FERRITE 1.1UH	
FB600	1-410-397-21	FERRITE 1.1UH	
FB601	1-410-397-21	FERRITE 1.1UH	
FB602	1-410-397-21	FERRITE 1.1UH	
FB603	1-410-397-21	FERRITE 1.1UH	
FB604	1-412-911-31	FERRITE 0UH	
FB605	1-410-397-21	FERRITE 1.1UH	
FB606	1-412-911-31	FERRITE 0UH	
FB608	1-412-911-31	FERRITE 0UH	
FB611	1-410-397-21	FERRITE 1.1UH	
FB612	1-410-397-21	FERRITE 1.1UH	
FB613	1-410-397-21	FERRITE 1.1UH	
FB615	1-412-911-31	FERRITE 0UH (KV-XA25M61/XA25M31/XA25M90)	
FB615	1-410-397-21	FERRITE 1.1UH (EXCEPT KV-XA25M61/XA25M31/XA25M90)	
<IC>			
IC001	8-752-917-80	CXP750097-032S	
IC002	8-759-371-21	MM1319AFBE	
IC003	8-759-672-78	M24C08-BN6(A)	
IC100	8-759-042-02	S-80743AL-A7-S (EXCEPT KV-XA25M84/XA25M87)	
IC301	8-752-095-72	CXA2159S	
IC302	8-759-666-90	TDA8191T	
IC502	8-759-700-07	NJM2903M	
IC503	8-759-980-58	TDA8172	
IC601	8-749-014-48	STR-F6656	
IC602	8-749-920-61	SE-135N	

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC603	8-759-701-59	NJM78M09FA	
IC604	8-759-231-53	TA7805S	
<CHIP CONDUCTOR>			
JR001	1-216-295-11	SHORT 0	
JR002	1-216-295-11	SHORT 0	
JR003	1-216-295-11	SHORT 0	
JR004	1-216-295-11	SHORT 0	
JR006	1-216-295-11	SHORT 0	
JR007	1-216-295-11	SHORT 0	
JR008	1-216-295-11	SHORT 0	
JR010	1-216-295-11	SHORT 0	
JR012	1-216-295-11	SHORT 0	
JR014	1-216-295-11	SHORT 0	
JR015	1-216-295-11	SHORT 0	
JR016	1-216-295-11	SHORT 0	
JR020	1-216-295-11	SHORT 0	
JR022	1-216-295-11	SHORT 0	
JR023	1-216-295-11	SHORT 0	
JR024	1-216-295-11	SHORT 0	
JR025	1-216-295-11	SHORT 0	
JR028	1-216-295-11	SHORT 0	
JR030	1-216-295-11	SHORT 0	
JR031	1-216-295-11	SHORT 0	
JR102	1-216-295-11	SHORT 0	
JR107	1-216-295-11	SHORT 0 (EXCEPT KV-XA25M84/XA25M87)	
JR109	1-216-295-11	SHORT 0 (KV-XA25M50/XA25M80/XA25M84/XA25M87)	
JR304	1-216-295-11	SHORT 0	
JR308	1-216-295-11	SHORT 0	
JR309	1-216-295-11	SHORT 0	
JR310	1-216-295-11	SHORT 0	
JR311	1-216-295-11	SHORT 0	
JR500	1-216-295-11	SHORT 0	
JR501	1-216-295-11	SHORT 0	
JR503	1-216-295-11	SHORT 0	
JR505	1-216-295-11	SHORT 0	
JR600	1-216-295-11	SHORT 0	
<COIL>			
L002	1-414-856-11	INDUCTOR 10UH	
L003	1-414-180-11	INDUCTOR 3.3UH	
L005	1-414-233-22	FERRITE 0UH	
L101	1-414-856-11	INDUCTOR 10UH	
L102	1-414-856-11	INDUCTOR 10UH	
L103	1-414-856-11	INDUCTOR 10UH	
L104	1-414-856-11	INDUCTOR 10UH	
L105	1-414-856-11	INDUCTOR 10UH	
L301	1-414-189-31	INDUCTOR 100UH	
L302	1-414-185-41	INDUCTOR 22UH	
L303	1-414-189-31	INDUCTOR 100UH	
L304	1-414-189-31	INDUCTOR 100UH	
L501	1-412-525-31	INDUCTOR 10UH	

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

KV-XA25M87/XA25M84/XA25M86

RM-953

A

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
L502	1-422-613-11	COIL, AIR CORE				<RESISTOR>	
L503	1-412-525-31	INDUCTOR 10UH		R001	1-414-233-22	FERRITE 0UH	
L504	1-412-525-31	INDUCTOR 10UH		R002	1-216-025-11	RES-CHIP 100 5% 1/10W	
L507	1-459-111-00	INDUCTOR 10MH		R003	1-216-073-00	RES-CHIP 10K 5% 1/10W	
L511	1-406-978-11	INDUCTOR 150UH		R004	1-216-025-11	RES-CHIP 100 5% 1/10W	
L512	1-412-549-31	INDUCTOR 1MH		R005	1-216-025-11	RES-CHIP 100 5% 1/10W	
L513	1-412-549-31	INDUCTOR 1MH		R008	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
L515	1-459-104-00	COIL, WITH CORE		R010	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
L518	1-414-187-11	INDUCTOR 47UH		R011	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
L601	1-412-527-11	INDUCTOR 15UH		R012	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
L905	1-414-856-11	INDUCTOR 10UH		R013	1-216-065-91	RES-CHIP 4.7K 5% 1/10W	
		<PHOTO COUPLER>		R014	1-216-025-11	RES-CHIP 100 5% 1/10W	
PH600 $\triangle$	8-749-924-35	ON3171-R		R015	1-216-025-11	RES-CHIP 100 5% 1/10W	
		<TRANSISTOR>		R017	1-216-049-11	RES-CHIP 1K 5% 1/10W (KV-XA25M84/XA25M86/XA25M87)	
Q001	8-729-216-22	2SA1162-G		R018	1-216-033-00	RES-CHIP 220 5% 1/10W	
Q002	8-729-230-49	2SC2712-YG		R019	1-216-073-00	RES-CHIP 10K 5% 1/10W	
Q005	8-729-900-51	DTA114TK		R020	1-216-045-00	RES-CHIP 680 5% 1/10W	
Q101	8-729-230-49	2SC2712-YG		R021	1-216-073-00	RES-CHIP 10K 5% 1/10W	
Q301	8-729-216-22	2SA1162-G		R022	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q302	8-729-230-49	2SC2712-YG		R023	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q303	8-729-216-22	2SA1162-G		R024	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
Q304	8-729-216-22	2SA1162-G (EXCEPT KV-XA25M86)		R025	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
Q305	8-729-216-22	2SA1162-G		R026	1-216-063-91	RES-CHIP 3.9K 5% 1/10W	
Q306	8-729-230-49	2SC2712-YG		R027	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q307	8-729-230-49	2SC2712-YG		R028	1-216-073-00	RES-CHIP 10K 5% 1/10W (KV-XA25M31/XA25M61/GE/ME/XA25M90)	
Q308	8-729-216-22	2SA1162-G		R029	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q309	8-729-421-19	UN2213		R031	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q310	8-729-230-49	2SC2712-YG		R032	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q311	8-729-230-49	2SC2712-YG		R034	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q312	8-729-216-22	2SA1162-G		R035	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q313	8-729-230-49	2SC2712-YG		R036	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q314	8-729-216-22	2SA1162-G		R037	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q315	8-729-421-19	UN2213		R038	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q316	8-729-216-22	2SA1162-G (EXCEPT KV-XA25M86)		R040	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q317	8-729-216-22	2SA1162-G (EXCEPT KV-XA25M86)		R041	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q503	8-729-230-49	2SC2712-YG		R042	1-216-295-11	SHORT 0	
Q505	8-729-931-45	IRF614		R043	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q506	8-729-119-80	2SC2688-LK		R044	1-216-025-11	RES-CHIP 100 5% 1/10W	
Q507	8-729-216-22	2SA1162-G		R045	1-414-233-22	FERRITE 0UH	
Q509	8-729-230-49	2SC2712-YG		R046	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q511	8-729-048-07	2SD2578-CA		R047	1-414-233-22	FERRITE 0UH	
Q600	8-729-119-78	2SC2785-HFE		R048	1-216-073-00	RES-CHIP 10K 5% 1/10W	
Q601	8-729-023-22	2SD2114K		R050	1-216-073-00	RES-CHIP 10K 5% 1/10W	
Q602	8-729-230-49	2SC2712-YG		R053	1-216-049-11	RES-CHIP 1K 5% 1/10W	
Q603	8-729-424-08	UN2111		R058	1-216-295-11	SHORT 0	
Q604	8-729-200-17	2SA1091-O		R059	1-216-295-11	SHORT 0	
Q605	8-729-044-30	2SK2845-LB102		R060	1-216-295-11	SHORT 0	
Q606	8-729-230-49	2SC2712-YG		R061	1-216-295-11	SHORT 0	
Q607	8-729-922-37	2SD2144S-UVW		R062	1-216-041-00	RES-CHIP 470 5% 1/10W	
Q608	8-729-230-49	2SC2712-YG		R063	1-216-041-00	RES-CHIP 470 5% 1/10W	
				R064	1-216-041-00	RES-CHIP 470 5% 1/10W	
				R065	1-216-041-00	RES-CHIP 470 5% 1/10W	
				R066	1-216-049-11	RES-CHIP 1K 5% 1/10W	



REF. NO.	PART NO.	DESCRIPTION			REMARK
R067	1-216-049-11	RES-CHIP	1K	5%	1/10W
R068	1-216-041-00	RES-CHIP	470	5%	1/10W
R101	1-216-025-11	RES-CHIP	100	5%	1/10W
R102	1-216-025-11	RES-CHIP	100	5%	1/10W
R105	1-216-295-11	SHORT	0		
R109	1-216-041-00	RES-CHIP	470	5%	1/10W
R111	1-216-025-11	RES-CHIP	100	5%	1/10W
R112	1-216-025-11	RES-CHIP	100	5%	1/10W
R113	1-216-025-11	RES-CHIP	100	5%	1/10W
R225	1-216-033-00	RES-CHIP	220	5%	1/10W
R226	1-216-033-00	RES-CHIP	220	5%	1/10W
R227	1-216-033-00	RES-CHIP	220	5%	1/10W
R237	1-216-295-11	SHORT	0		
R301	1-216-113-00	RES-CHIP	470K	5%	1/10W
R302	1-216-295-11	SHORT	0		
R303	1-216-049-11	RES-CHIP	1K	5%	1/10W
R304	1-216-073-00	RES-CHIP	10K	5%	1/10W
R308	1-216-025-11	RES-CHIP	100	5%	1/10W
R309	1-216-025-11	RES-CHIP	100	5%	1/10W
R310	1-216-025-11	RES-CHIP	100	5%	1/10W
R311	1-216-041-00	RES-CHIP	470	5%	1/10W
R312	1-216-039-00	RES-CHIP	390	5%	1/10W
R313	1-216-037-00	RES-CHIP	330	5%	1/10W
R314	1-216-083-00	RES-CHIP	27K	5%	1/10W
R315	1-216-053-00	RES-CHIP (KV-XA25M86 ONLY)	1.5K	5%	1/10W
R316	1-216-037-00	RES-CHIP	330	5%	1/10W
R317	1-216-091-00	RES-CHIP	56K	5%	1/10W
R318	1-216-039-00	RES-CHIP	390	5%	1/10W
R319	1-216-025-11	RES-CHIP	100	5%	1/10W
R320	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R321	1-216-073-00	RES-CHIP	10K	5%	1/10W
R322	1-216-033-00	RES-CHIP	220	5%	1/10W
R323	1-216-053-00	RES-CHIP (KV-XA25M86 ONLY)	1.5K	5%	1/10W
R324	1-216-053-00	RES-CHIP (KV-XA25M86 ONLY)	1.5K	5%	1/10W
R326	1-216-029-00	RES-CHIP	150	5%	1/10W
R327	1-216-033-00	RES-CHIP	220	5%	1/10W
R328	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R329	1-216-041-00	RES-CHIP	470	5%	1/10W
R331	1-216-295-11	SHORT	0		
R332	1-216-033-00	RES-CHIP	220	5%	1/10W
R335	1-216-045-00	RES-CHIP	680	5%	1/10W
R338	1-216-037-00	RES-CHIP	330	5%	1/10W
R339	1-216-033-00	RES-CHIP	220	5%	1/10W
R340	1-216-025-11	RES-CHIP	100	5%	1/10W
R345	1-216-081-00	RES-CHIP	22K	5%	1/10W
R348	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R349	1-216-073-00	RES-CHIP	10K	5%	1/10W
R350	1-216-061-00	RES-CHIP	3.3K	5%	1/10W
R351	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R354	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R355	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R356	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R357	1-216-079-00	RES-CHIP	18K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R358	1-216-049-11	RES-CHIP	1K	5%	1/10W
R359	1-216-033-00	RES-CHIP	220	5%	1/10W
R360	1-216-033-00	RES-CHIP	220	5%	1/10W
R361	1-216-073-00	RES-CHIP	10K	5%	1/10W
R362	1-216-075-00	RES-CHIP	12K	5%	1/10W
R363	1-216-079-00	RES-CHIP	18K	5%	1/10W
R364	1-216-295-11	SHORT	0		
R365	1-216-033-00	RES-CHIP	220	5%	1/10W
R366	1-216-073-00	RES-CHIP (KV-XA25M86 ONLY)	10K	5%	1/10W
R367	1-216-073-00	RES-CHIP (KV-XA25M86 ONLY)	10K	5%	1/10W
R368	1-216-073-00	RES-CHIP (KV-XA25M86 ONLY)	10K	5%	1/10W
R370	1-216-033-00	RES-CHIP	220	5%	1/10W
R371	1-216-083-00	RES-CHIP	27K	5%	1/10W
R372	1-216-091-00	RES-CHIP	56K	5%	1/10W
R375	1-216-025-11	RES-CHIP (KV-XA25M84/XA25M86/XA25M87)	100	5%	1/10W
R376	1-216-081-00	RES-CHIP	22K	5%	1/10W
R377	1-216-121-11	RES-CHIP	1M	5%	1/10W
R378	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R379	1-218-179-11	RES-CHIP	10M	5%	1/10W
R381	1-216-295-11	SHORT	0		
R382	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R383	1-216-049-11	RES-CHIP	1K	5%	1/10W
R384	1-216-041-00	RES-CHIP	470	5%	1/10W
R385	1-216-029-00	RES-CHIP	150	5%	1/10W
R391	1-216-295-11	SHORT	0		
R500	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-216-049-11	RES-CHIP	1K	5%	1/10W
R505	1-216-105-91	RES-CHIP	220K	5%	1/10W
R506	1-216-089-11	RES-CHIP	47K	5%	1/10W
R507	1-249-389-11	CARBON	4.7	5%	1/4W
R508	1-216-473-11	METAL OXIDE	56	5%	3W
R509	1-215-910-00	METAL OXIDE	68	5%	3W
R510	1-215-884-11	METAL OXIDE	47	5%	2W
R511	1-215-910-00	METAL OXIDE	68	5%	3W
R515	1-215-913-11	METAL OXIDE	220	5%	3W
R516	1-216-081-00	RES-CHIP	22K	5%	1/10W
R518	1-247-807-31	CARBON	100	5%	1/4W
R519	1-215-912-11	METAL OXIDE	150	5%	3W
R520	1-249-429-11	CARBON	10K	5%	1/4W
R522	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R523	1-249-411-11	CARBON	330	5%	1/4W
R526	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R527	1-216-001-00	RES-CHIP	10	5%	1/10W
R528	1-208-814-91	METAL CHIP	22K	0.5%	1/10W
R529	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R531	1-247-843-11	CARBON	3.3K	5%	1/4W
R533	1-249-417-11	CARBON	1K	5%	1/4W
R534	1-216-361-00	METAL OXIDE	0.22	5%	2W
R535	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R536	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R537	1-208-802-11	METAL CHIP	6.8K	0.5%	1/10W
R540	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R541	1-216-065-91	RES-CHIP	4.7K	5%	1/10W

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

KV-XA25M87/XA25M84/XA25M86

RM-953

A

REF. NO.	PART NO.	DESCRIPTION				REMARK	REF. NO.	PART NO.	DESCRIPTION				REMARK
R542	1-216-295-11	SHORT	0				R616	1-260-302-51	CARBON	6.8	5%	1/2W	
R543	1-216-437-00	METAL OXIDE	5.6K	5%	1W		R617	1-247-791-91	CARBON	22	5%	1/4W	
R544	1-215-917-11	METAL OXIDE	1K	5%	3W		R619	1-260-128-11	CARBON	270K	5%	1/2W	
R545	1-216-077-91	RES-CHIP	15K	5%	1/10W		R621	1-215-864-00	METAL OXIDE	150	5%	1W	
R546	1-216-077-91	RES-CHIP	15K	5%	1/10W		R623	1-216-095-00	RES-CHIP	82K	5%	1/10W	
R547	1-216-085-00	RES-CHIP	33K	5%	1/10W		R624	1-216-089-11	RES-CHIP	47K	5%	1/10W	
R549	1-215-453-00	METAL	22K	1%	1/4W		R626	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R550	1-216-097-11	RES-CHIP	100K	5%	1/10W		R627	1-240-251-11	CMT-MELF	6.8	5%	10W	
R551	1-249-421-11	CARBON	2.2K	5%	1/4W		R629	1-247-747-11	CARBON	470	5%	1/2W	
R552	1-216-057-00	RES-CHIP	2.2K	5%	1/10W		R630	1-249-429-11	CARBON	10K	5%	1/4W	
R553	1-215-453-00	METAL	22K	1%	1/4W		R631	1-216-089-11	RES-CHIP	47K	5%	1/10W	
R554	1-215-457-00	METAL	33K	1%	1/4W		R632	1-220-886-11	FUSIBLE	0.1	10%	1W	
R556	1-215-437-00	METAL	4.7K	1%	1/4W		R634	△ 1-218-265-11	METAL	8.2M	5%	1W	
R558	1-247-843-11	CARBON	3.3K	5%	1/4W		R635	1-216-492-11	METAL OXIDE	82K	5%	3W	
R559	1-249-429-11	CARBON	10K	5%	1/4W		R636	1-215-924-00	METAL OXIDE	15K	5%	3W	
R560	1-216-073-00	RES-CHIP	10K	5%	1/10W		R637	1-216-492-11	METAL OXIDE	82K	5%	3W	
R562	1-249-401-11	CARBON	47	5%	1/4W		R639	1-216-361-21	METAL OXIDE	0.22	5%	2W	
R565	1-216-073-00	RES-CHIP	10K	5%	1/10W		R640	1-249-415-11	CARBON	680	5%	1/4W	
R567	1-216-105-91	RES-CHIP	220K	5%	1/10W		R641	1-216-361-21	METAL OXIDE	0.22	5%	2W	
R568	1-249-383-11	CARBON	1.5	5%	1/4W		R642	1-249-419-11	CARBON	1.5K	5%	1/4W	
R570	1-216-069-00	RES-CHIP	6.8K	5%	1/10W		R643	1-247-843-11	CARBON	3.3K	5%	1/4W	
R571	1-215-443-00	METAL	8.2K	1%	1/4W		R644	1-249-419-11	CARBON	1.5K	5%	1/4W	
R573	1-216-089-11	RES-CHIP	47K	5%	1/10W		R646	1-215-924-00	METAL OXIDE	15K	5%	3W	
R574	1-216-113-00	RES-CHIP	470K	5%	1/10W		R647	1-249-387-11	CARBON	3.3	5%	1/4W	
R577	1-215-913-11	METAL OXIDE	220	5%	3W		R648	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	
R578	1-216-369-00	METAL OXIDE	1	5%	2W		R649	1-249-417-11	CARBON	1K	5%	1/4W	
R579	1-216-097-11	RES-CHIP	100K	5%	1/10W		R650	1-215-882-00	METAL OXIDE	22	5%	2W	
R580	1-208-830-11	METAL CHIP	100K	0.5%	1/10W		R652	1-215-900-11	METAL OXIDE	22K	5%	2W	
R581	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W		R653	1-215-873-00	METAL OXIDE	4.7K	5%	1W	
R583	1-216-109-00	RES-CHIP	330K	5%	1/10W		R654	1-216-369-00	METAL OXIDE	1	5%	2W	
R584	1-216-295-11	SHORT	0				R656	1-249-417-11	CARBON	1K	5%	1/4W	
R585	1-249-385-11	CARBON	2.2	5%	1/4W		R657	1-260-127-11	CARBON	220K	5%	1/2W	
R588	1-215-888-00	METAL OXIDE	220	5%	2W		R659	1-216-049-11	RES-CHIP	1K	5%	1/10W	
R589	1-215-888-00	METAL OXIDE	220	5%	2W		R660	1-216-073-00	RES-CHIP	10K	5%	1/10W	
R590	1-215-465-00	METAL	68K	1%	1/4W		R661	1-215-873-00	METAL OXIDE	4.7K	5%	1W	
R591	1-260-288-11	CARBON	0.47	5%	1/2W		R682	1-219-134-11	FUSIBLE	0.1	10%	1/4W	
R593	1-260-288-11	CARBON	0.47	5%	1/2W		R909	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R594	1-260-288-11	CARBON	0.47	5%	1/2W		R910	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
R596	1-215-917-11	METAL OXIDE	1K	5%	3W		<RELAY>						
R597	1-247-750-11	CARBON	680	5%	1/2W								
R598	1-249-438-11	CARBON	56K	5%	1/4W								
R599	1-249-389-11	CARBON	4.7	5%	1/4W								
R600	1-249-438-11	CARBON	56K	5%	1/4W		RY600 △ 1-755-214-11 RELAY, AC POWER						
R601	1-249-419-11	CARBON	1.5K	5%	1/4W		RY601 △ 1-755-214-11 RELAY, AC POWER						
R602	1-249-389-11	CARBON	4.7	5%	1/4W								
R603	1-215-485-00	METAL	470K	1%	1/4W		<SWITCH>						
R604	1-216-097-11	RES-CHIP	100K	5%	1/10W								
R607	1-249-425-11	CARBON	4.7K	5%	1/4W		S501	1-572-707-11	SWITCH, LEVER				
R608	1-240-205-91	CARBON	22M	5%	1/2W		S502	1-572-707-11	SWITCH, LEVER				
R609	1-216-057-00	RES-CHIP	2.2K	5%	1/10W		<TRANSFORMER>						
R610	1-216-073-00	RES-CHIP	10K	5%	1/10W								
R611	1-216-089-11	RES-CHIP	47K	5%	1/10W								
R612	1-216-045-00	RES-CHIP	680	5%	1/10W		T501	1-437-195-11	TRANSFORMER, HORIZONTAL DRIVE				
R614	1-216-041-00	RES-CHIP	470	5%	1/10W		T503	△ 1-453-357-21	TRANSFORMER ASSY FLYBACK				
R615	1-216-369-00	METAL OXIDE	1	5%	2W		(NX-4009//M3B4)						



REF. NO.	PART NO.	DESCRIPTION	REMARK
T503	△ 1-453-364-11	TRANSFORMER ASSY FLYBACK (NX-4009/M3J4) (KV-XA25M31 ONLY)	
T504	1-435-122-11	TRANSFORMER, HORIZONTAL LINEAR	
T505	1-426-981-41	TRANSFORMER, FERRITE (PMT)	
T601	1-431-536-11	TRANSFORMER, LINE FILTER	
T603	△ 1-431-976-31	TRANSFORMER, CONVERTER	
T604	△ 1-431-852-11	TRANSFORMER, CONVERTER (SRT)	
		<THERMISTOR>	
TH600	1-803-586-11	THERMISTOR, NTC	
		<THERMISTOR>	
THP600	1-803-540-11	THERMISTOR	
		<TUNER>	
TU101	8-598-451-20	TUNER, FSS BTF-WG441 (KV-XA25M61/XA25M31)	
TU101	8-598-449-10	TUNER, FSS BTF-LG433 (KV-XA25M50//XA25M80)	
TU101	8-598-450-10	TUNER, FSS BTF-LG434 (KV-XA25M84/XA25M86/XA25M87)	
TU101	8-598-451-30	TUNER, FSS BTF-WG441 (KV-XA25M90 only)	
		<CRYSTAL>	
X001	1-781-174-21	VIBRATOR, CERAMIC	
X301	1-781-134-21	VINRATOR, CRYSTAL	
X302	1-781-132-21	VIBRATOR, CTYSTAL	

* A-1136-160-A	B BOARD COMPLETE (EXCEPT KV-XA25M84/XA25M86/XA25M87)		
* A-1136-187-A	B BOARD COMPLETE (KV-XA25M84/XA25M86/XA25M87)		

4-382-854-11	SCREW (M3X10), P, SW (+)		
		<CAPACITOR>	
C1305	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1307	1-164-346-11	CERAMIC CHIP 1UF	16V
C1310	1-104-664-11	ELECT 47UF	20.00 16V
C1312	1-104-664-11	ELECT 47UF	20.00 16V
C1330	1-126-964-11	ELECT 10UF	20.00 50V
C1333	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1395	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C1401	1-104-661-91	ELECT 330UF	20.00 16V
C1402	1-104-664-11	ELECT 47UF	20.00 25V
C1403	1-104-664-11	ELECT 47UF	20.00 25V

REF. NO.	PART NO.	DESCRIPTION	REMARK
C1404	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C1405	1-104-664-11	ELECT 47UF	20.00 25V
C1406	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C1407	1-126-933-11	ELECT 100UF	20.00 16V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1410	1-104-664-11	ELECT 47UF	20.00 25V
C1411	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C1412	1-163-038-11	CERAMIC CHIP 0.1UF	25V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1413	1-126-935-11	ELECT 470UF	20.00 16V
C1414	1-164-346-11	CERAMIC CHIP 1UF	16V
C1415	1-104-664-11	ELECT 47UF	20.00 25V
C1416	1-164-346-11	CERAMIC CHIP 1UF	16V
C1417	1-126-933-11	ELECT 100UF	20.00 16V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1418	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C1419	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C1420	1-163-038-11	CERAMIC CHIP 0.1UF	25V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1421	1-164-346-11	CERAMIC CHIP 1UF	16V
C1422	1-164-346-11	CERAMIC CHIP 1UF	16V
C1423	1-164-346-11	CERAMIC CHIP 1UF	16V
C1425	1-164-346-11	CERAMIC CHIP 1UF	16V
C1426	1-164-346-11	CERAMIC CHIP 1UF	16V
C1428	1-104-665-11	ELECT 100UF	20.00 25V
C1429	1-104-663-11	ELECT 33UF	20.00 25V
C1430	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1431	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1432	1-126-933-11	ELECT 100UF	20.00 16V
C1433	1-104-664-11	ELECT 47UF	20.00 16V
C1434	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1435	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1436	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C1438	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1439	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1440	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1441	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1442	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1443	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1444	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C1445	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1446	1-163-133-00	CERAMIC CHIP 470PF	5.00% 50V
C1447	1-126-964-11	ELECT 10UF	20.00 50V
C1448	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C1449	1-126-933-11	ELECT 100UF	20.00 16V
C1450	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
		(KV-XA25M84/XA25M86/XA25M87)	
C1408	1-126-964-11	ELECT 10UF	20.00 50V
C1451	1-163-005-11	CERAMIC CHIP 470PF	10.00 50V
		(KV-XA25M84/XA25M86/XA25M87)	

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
C1452	1-163-005-11	CERAMIC CHIP 470PF 10.00	50V	C3244	1-164-346-11	CERAMIC CHIP 1UF	16V
		(KV-XA25M84/XA25M86/XA25M87)		C3245	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C1453	1-126-933-11	ELECT 100UF 20.00	16V	C3246	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
		(KV-XA25M84/XA25M86/XA25M87)		C3247	1-126-963-11	ELECT 4.7UF	20.00 50V
C1454	1-126-967-11	ELECT 47UF 20.00	50V	C3248	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
		(KV-XA25M84/XA25M86/XA25M87)					
C1455	1-126-967-11	ELECT 47UF 20.00	50V	C3249	1-164-505-11	CERAMIC CHIP 2.2UF	16V
		(KV-XA25M84/XA25M86/XA25M87)		C3250	1-164-346-11	CERAMIC CHIP 1UF	16V
C1456	1-126-933-11	ELECT 100UF 20.00	16V	C3251	1-126-964-11	ELECT 10UF	20.00 50V
		(KV-XA25M84/XA25M86/XA25M87)		C3252	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
				C3253	1-126-933-11	ELECT 100UF	20.00 16V
C1457	1-164-346-11	CERAMIC CHIP 1UF	16V				
C1458	1-126-933-11	ELECT 100UF 20.00	16V	C3254	1-164-505-11	CERAMIC CHIP 2.2UF	16V
		(KV-XA25M84/XA25M86/XA25M87)		C3255	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C1459	1-163-133-00	CERAMIC CHIP 470PF 5.00%	50V	C3256	1-126-963-11	ELECT 4.7UF	20.00 50V
C1460	1-163-133-00	CERAMIC CHIP 470PF 5.00%	50V	C3257	1-164-346-11	CERAMIC CHIP 1UF	16V
C1461	1-164-346-11	CERAMIC CHIP 1UF	16V	C3258	1-163-989-11	CERAMIC CHIP 0.033UF	10.00 25V
C1462	1-164-346-11	CERAMIC CHIP 1UF	16V	C3259	1-126-963-11	ELECT 4.7UF	20.00 50V
C1464	1-126-933-11	ELECT 100UF 20.00	16V	C3260	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3201	1-126-964-11	ELECT 10UF 20.00	50V	C3262	1-104-664-11	ELECT 47UF	20.00 16V
C3202	1-136-171-00	FILM 0.33UF 5.00%	50V	C3264	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3203	1-115-339-11	CERAMIC CHIP 0.1UF 10.00	50V	C3265	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C3208	1-163-021-91	CERAMIC CHIP 0.01UF 10.00	50V	C3266	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C3209	1-164-489-11	CERAMIC CHIP 0.22UF 10.00	16V	C3267	1-164-182-11	CERAMIC CHIP 0.0033UF	10.00 50V
C3210	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00	50V	C3268	1-163-009-11	CERAMIC CHIP 0.001UF	10.00 50V
C3211	1-164-489-11	CERAMIC CHIP 0.22UF 10.00	16V	C3269	1-163-009-11	CERAMIC CHIP 0.001UF	10.00 50V
C3213	1-104-665-11	ELECT 100UF 20.00	25V	C3270	1-126-963-11	ELECT 4.7UF	20.00 50V
C3214	1-115-339-11	CERAMIC CHIP 0.1UF 10.00	50V	C3271	1-126-963-11	ELECT 4.7UF	20.00 50V
C3215	1-126-964-11	ELECT 10UF 20.00	50V	C3272	1-104-665-11	ELECT 100UF	20.00 25V
C3216	1-126-964-11	ELECT 10UF 20.00	50V	C3273	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C3217	1-104-665-11	ELECT 100UF 20.00	25V	C3274	1-117-720-11	CERAMIC CHIP 4.7UF	10V
C3218	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00	50V	C3275	1-115-185-11	CERAMIC CHIP 0.033UF	10.00 50V
C3219	1-163-021-91	CERAMIC CHIP 0.01UF 10.00	50V	C3276	1-115-185-11	CERAMIC CHIP 0.033UF	10.00 50V
C3220	1-163-037-11	CERAMIC CHIP 0.022UF 10.00	50V	C3277	1-115-185-11	CERAMIC CHIP 0.033UF	10.00 50V
C3221	1-163-037-11	CERAMIC CHIP 0.022UF 10.00	50V	C3280	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3222	1-163-037-11	CERAMIC CHIP 0.022UF 10.00	50V	C3281	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C3223	1-163-037-11	CERAMIC CHIP 0.022UF 10.00	50V	C6200	1-216-295-11	SHORT 0	
C3224	1-164-505-11	CERAMIC CHIP 2.2UF	16V	C6202	1-128-550-11	ELECT 2200UF	20.00 50V
C3225	1-163-038-11	CERAMIC CHIP 0.1UF	25V	C6203	1-163-021-91	CERAMIC CHIP 0.01UF	10.00 50V
C3226	1-126-964-11	ELECT 10UF 20.00	50V	C6204	1-128-550-11	ELECT 2200UF	20.00 50V
C3227	1-164-505-11	CERAMIC CHIP 2.2UF	16V	C6205	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C3228	1-107-698-11	ELECT 10UF 20.00	25V	C6206	1-128-550-11	ELECT 2200UF	20.00 50V
C3229	1-107-698-11	ELECT 10UF 20.00	25V	C6209	1-130-495-00	MYLAR 0.1UF	5.00% 50V
C3230	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00	50V	C6210	1-126-924-11	ELECT 330UF	20.00 10V
C3231	1-126-960-11	ELECT 1UF 20.00	50V	C6211	1-126-924-11	ELECT 330UF	20.00 10V
C3232	1-126-960-11	ELECT 1UF 20.00	50V	C6212	1-104-664-11	ELECT 47UF	20.00 25V
C3233	1-163-017-00	CERAMIC CHIP 0.0047UF 10.00	50V	C6213	1-126-964-11	ELECT 10UF	20.00 50V
C3234	1-117-720-11	CERAMIC CHIP 4.7UF	10V	C6217	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C3235	1-117-720-11	CERAMIC CHIP 4.7UF	10V	C6220	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C3236	1-115-185-11	CERAMIC CHIP 0.033UF 10.00	50V	C6222	1-164-505-11	CERAMIC CHIP 2.2UF	16V
C3237	1-164-182-11	CERAMIC CHIP 0.0033UF 10.00	50V	C6223	1-126-960-11	ELECT 1UF	20.00 50V
C3238	1-164-005-11	CERAMIC CHIP 0.47UF	25V	C6241	1-126-964-11	ELECT 10UF	20.00 50V
C3239	1-136-171-00	FILM 0.33UF 5.00%	50V	C6244	1-164-161-11	CERAMIC CHIP 0.0022UF	10.00 50V
C3240	1-126-963-11	ELECT 4.7UF 20.00	50V	C6245	1-164-161-11	CERAMIC CHIP 0.0022UF	10.00 50V
C3241	1-126-963-11	ELECT 4.7UF 20.00	50V	C6249	1-216-295-11	SHORT 0	
C3242	1-126-965-11	ELECT 22UF 20.00	50V				
C3243	1-163-989-11	CERAMIC CHIP 0.033UF 10.00	25V				



REF. NO.	PART NO.	DESCRIPTION	REMARK
<CONNECTOR>			
CN1300*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1400*	1-564-512-11	PLUG, CONNECTOR 9P	
CN1401*	1-508-784-21	PIN, CONNECTOR (5MM PITCH) 1P	
CN1403*	1-564-506-11	PLUG, CONNECTOR 3P	
CN1404*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P (KV-XA25M84/XA25M86/XA25M87)	
CN1405*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN1406*	1-779-892-11	CONNECTOR, BOARD TO BOARD 10P	
CN1407*	1-779-891-11	CONNECTOR, BOARD TO BOARD 8P	
CN1408	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P (KV-XA25M84/XA25M86/XA25M87)	
CN1409	1-764-818-11	CONNECTOR, BOARD TO BOARD 10P	
CN6200*	1-564-507-11	PLUG, CONNECTOR 4P	
CN6204*	1-564-509-11	PLUG, CONNECTOR 6P	
CN6206*	1-564-508-11	PLUG, CONNECTOR 5P	
<DIODE>			
D1401	8-719-069-60	UDZS-TE17-9.1B	
D1402	8-719-069-60	UDZS-TE17-9.1B	
D1403	8-719-069-60	UDZS-TE17-9.1B	
D1404	8-719-069-60	UDZS-TE17-9.1B	
D1405	8-719-069-60	UDZS-TE17-9.1B	
D1406	8-719-069-60	UDZS-TE17-9.1B	
D1407	8-719-069-60	UDZS-TE17-9.1B	
D1408	8-719-069-60	UDZS-TE17-9.1B	
D1409	8-719-069-60	UDZS-TE17-9.1B	
D1410	8-719-069-60	UDZS-TE17-9.1B	
D1411	8-719-069-60	UDZS-TE17-9.1B	
D1412	8-719-069-60	UDZS-TE17-9.1B	
D1415	8-719-069-60	UDZS-TE17-9.1B	
D1416	8-719-069-60	UDZS-TE17-9.1B	
D1418	8-719-069-60	UDZS-TE17-9.1B	
D3201	8-719-988-61	1SS355TE-17	
D3203	8-719-988-61	1SS355TE-17	
D6210	8-719-914-42	DA204K	
D6211	8-719-073-01	MA111-(K8).S0	
D6212	8-719-073-01	MA111-(K8).S0	
<IC>			
IC1401	8-752-068-46	CXA1855S	
IC1402	8-759-100-96	UPC4558G2	
IC1403	8-759-231-53	TA7805S (KV-XA25M84/XA25M86/XA25M87)	
IC1404	8-759-701-59	NJM78M09FA	
IC3200	8-759-100-96	UPC4558G2	
IC3201	8-759-689-71	NJM2188M-TE2	
IC3202	8-759-100-96	UPC4558G2	
IC3203	8-759-711-10	NJU4066BM	
IC3204	8-759-100-96	UPC4558G2	
IC3205	8-752-058-68	CXA1315M	
IC3206	8-759-690-57	BH3868BFS-E2	
IC6200	8-759-168-24	TA8200AH	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<JACK>			
J1401	1-784-646-11	TERMINAL, S	
J1402	1-778-387-11	JACK BLOCK, PIN 12P	
<CHIP CONDUCTOR>			
JR1303	1-216-295-11	SHORT	0
JR1401	1-216-295-11	SHORT	0
(KV-XA25M84/XA25M86/XA25M87)			
JR1402	1-216-295-11	SHORT	0
(KV-XA25M84/XA25M86/XA25M87)			
JR1405	1-216-295-11	SHORT	0
JR1406	1-216-295-11	SHORT	0
JR1407	1-216-295-11	SHORT	0
JR1409	1-216-295-11	SHORT	0
JR1410	1-216-295-11	SHORT	0
JR1411	1-216-295-11	SHORT	0
JR3202	1-216-295-11	SHORT	0
JR3204	1-216-295-11	SHORT	0
JR3209	1-216-295-11	SHORT	0
JR3210	1-216-295-11	SHORT	0
JR3211	1-216-295-11	SHORT	0
JR3212	1-216-295-11	SHORT	0
JR6200	1-216-295-11	SHORT	0
JR6202	1-216-295-11	SHORT	0
JR6203	1-216-295-11	SHORT	0
JR6204	1-216-295-11	SHORT	0
JR6206	1-216-295-11	SHORT	0
<COIL>			
L1313	1-414-187-11	INDUCTOR	47UH
L1314	1-414-856-11	INDUCTOR	10UH
L1315	1-414-856-11	INDUCTOR	10UH
L1317	1-414-856-11	INDUCTOR	10UH
L1400	1-414-856-11	INDUCTOR	10UH
(KV-XA25M84/XA25M86/XA25M87)			
L1402	1-412-537-31	INDUCTOR	100UH
(KV-XA25M84/XA25M86/XA25M87)			
L1403	1-414-856-11	INDUCTOR	10UH
(KV-XA25M84/XA25M86/XA25M87)			
L1404	1-412-537-31	INDUCTOR	100UH
L1405	1-414-856-11	INDUCTOR	10UH
(KV-XA25M84/XA25M86/XA25M87)			
L1406	1-414-856-11	INDUCTOR	10UH
(KV-XA25M84/XA25M86/XA25M87)			
L1407	1-414-856-11	INDUCTOR	10UH
(KV-XA25M84/XA25M86/XA25M87)			
L3202	1-414-856-11	INDUCTOR	10UH
<TRANSISTOR>			
Q1316	8-729-010-05	MSB709-RT1	
Q1316	8-729-216-22	2SA1162-G	
Q1317	8-729-230-49	2SC2712-YG	
Q1318	8-729-230-49	2SC2712-YG	
Q1323	8-729-230-49	2SC2712-YG	

B

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1324	8-729-230-49	2SC2712-YG		R1411	1-216-089-11	RES-CHIP 47K 5%	1/10W
Q1365	8-729-230-49	2SC2712-YG		R1412	1-216-089-11	RES-CHIP 47K 5%	1/10W
Q1372	8-729-230-49	2SC2712-YG					
Q1401	8-729-230-49	2SC2712-YG (KV-XA25M84/XA25M86/XA25M87)		R1413	1-216-105-91	RES-CHIP 220K 5%	1/10W
Q1402	8-729-216-22	2SA1162-G		R1414	1-216-025-11	RES-CHIP 100 5%	1/10W
				R1417	1-216-025-11	RES-CHIP 100 5%	1/10W
Q1403	8-729-230-49	2SC2712-YG		R1418	1-216-025-11	RES-CHIP 100 5%	1/10W
Q1404	8-729-230-49	2SC2712-YG		R1419	1-216-025-11	RES-CHIP 100 5%	1/10W
Q1408	8-729-230-49	2SC2712-YG				(KV-XA25M84/XA25M86/XA25M87)	
Q1409	8-729-230-49	2SC2712-YG					
Q1410	8-729-230-49	2SC2712-YG (KV-XA25M84/XA25M86/XA25M87)		R1420	1-216-073-00	RES-CHIP 10K 5%	1/10W
						(KV-XA25M84/XA25M86/XA25M87)	
Q3201	8-729-224-62	2SK246-GR		R1421	1-216-057-00	RES-CHIP 2.2K 5%	1/10W
Q3202	8-729-230-49	2SC2712-YG		R1423	1-216-025-11	RES-CHIP 100 5%	1/10W
Q3203	8-729-230-49	2SC2712-YG				(KV-XA25M84/XA25M86/XA25M87)	
Q3204	8-729-224-62	2SK246-GR		R1424	1-216-073-00	RES-CHIP 10K 5%	1/10W
Q6201	8-729-421-19	UN2213		R1425	1-216-047-91	RES-CHIP 820 5%	1/10W
Q6203	8-729-421-19	UN2213		R1426	1-216-025-11	RES-CHIP 100 5%	1/10W
Q6204	8-729-421-19	UN2213		R1427	1-216-063-91	RES-CHIP 3.9K 5%	1/10W
Q6208	8-729-421-19	UN2213		R1428	1-216-025-11	RES-CHIP 100 5%	1/10W
				R1429	1-216-089-11	RES-CHIP 47K 5%	1/10W
				R1430	1-216-025-11	RES-CHIP 100 5%	1/10W
		<RESISTOR>					
R1301	1-216-041-00	RES-CHIP 470 5%	1/10W	R1431	1-216-025-11	RES-CHIP 100 5%	1/10W
R1318	1-216-033-00	RES-CHIP 220 5%	1/10W	R1432	1-216-041-00	RES-CHIP 470 5%	1/10W
R1320	1-216-081-00	RES-CHIP 22K 5%	1/10W	R1433	1-216-025-11	RES-CHIP 100 5%	1/10W
R1343	1-216-049-11	RES-CHIP 1K 5%	1/10W	R1434	1-216-025-11	RES-CHIP 100 5%	1/10W
R1344	1-216-025-11	RES-CHIP 100 5%	1/10W			(KV-XA25M84/XA25M86/XA25M87)	
				R1435	1-216-022-00	RES-CHIP 75 5%	1/10W
R1345	1-216-041-00	RES-CHIP 470 5%	1/10W				
R1346	1-216-041-00	RES-CHIP 470 5%	1/10W	R1436	1-216-025-11	RES-CHIP 100 5%	1/10W
R1347	1-216-025-11	RES-CHIP 100 5%	1/10W	R1437	1-216-022-00	RES-CHIP 75 5%	1/10W
R1350	1-216-085-00	RES-CHIP 33K 5%	1/10W	R1438	1-216-025-11	RES-CHIP 100 5%	1/10W
R1359	1-216-025-11	RES-CHIP 100 5%	1/10W	R1439	1-216-295-11	SHORT 0	
				R1441	1-216-025-11	RES-CHIP 100 5%	1/10W
R1360	1-216-041-00	RES-CHIP 470 5%	1/10W				
R1361	1-216-041-00	RES-CHIP 470 5%	1/10W	R1442	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1362	1-216-055-00	RES-CHIP 1.8K 5%	1/10W	R1443	1-216-049-11	RES-CHIP 1K 5%	1/10W
R1363	1-216-033-00	RES-CHIP 220 5%	1/10W	R1444	1-216-089-11	RES-CHIP 47K 5%	1/10W
R1364	1-216-089-11	RES-CHIP 47K 5%	1/10W	R1445	1-216-025-11	RES-CHIP 100 5%	1/10W
				R1446	1-216-105-91	RES-CHIP 220K 5%	1/10W
R1365	1-216-081-00	RES-CHIP 22K 5%	1/10W				
R1366	1-216-295-11	SHORT 0		R1447	1-216-025-11	RES-CHIP 100 5%	1/10W
R1368	1-216-049-11	RES-CHIP 1K 5%	1/10W	R1448	1-216-043-91	RES-CHIP 560 5%	1/10W
R1369	1-216-025-11	RES-CHIP 100 5%	1/10W	R1449	1-249-429-11	CARBON 10K 5%	1/4W
R1370	1-216-041-00	RES-CHIP 470 5%	1/10W	R1450	1-216-073-00	RES-CHIP 10K 5%	1/10W
				R1451	1-216-073-00	RES-CHIP 10K 5%	1/10W
R1371	1-216-039-00	RES-CHIP 390 5%	1/10W				
R1372	1-216-041-00	RES-CHIP 470 5%	1/10W	R1452	1-216-089-11	RES-CHIP 47K 5%	1/10W
R1397	1-216-045-00	RES-CHIP 680 5%	1/10W	R1453	1-216-025-11	RES-CHIP 100 5%	1/10W
R1400	1-216-105-91	RES-CHIP 220K 5%	1/10W	R1454	1-216-091-00	RES-CHIP 56K 5%	1/10W
R1401	1-216-031-00	RES-CHIP 180 5%	1/10W	R1455	1-216-073-00	RES-CHIP 10K 5%	1/10W
		(KV-XA25M84/XA25M86/XA25M87)		R1456	1-216-113-00	RES-CHIP 470K 5%	1/10W
R1402	1-216-033-00	RES-CHIP 220 5%	1/10W	R1457	1-216-073-00	RES-CHIP 10K 5%	1/10W
		(KV-XA25M84/XA25M86/XA25M87)		R1458	1-216-073-00	RES-CHIP 10K 5%	1/10W
R1403	1-216-033-00	RES-CHIP 220 5%	1/10W	R1459	1-216-025-11	RES-CHIP 100 5%	1/10W
R1404	1-216-295-11	SHORT 0		R1460	1-216-033-00	RES-CHIP 220 5%	1/10W
R1406	1-216-013-00	RES-CHIP 33 5%	1/10W	R1461	1-216-025-11	RES-CHIP 100 5%	1/10W
R1407	1-216-033-00	RES-CHIP 220 5%	1/10W				
				R1462	1-216-025-11	RES-CHIP 100 5%	1/10W
						(KV-XA25M84/XA25M86/XA25M87)	
R1408	1-216-031-00	RES-CHIP 180 5%	1/10W	R1463	1-249-429-11	CARBON 10K 5%	1/4W
R1409	1-216-105-91	RES-CHIP 220K 5%	1/10W	R1464	1-216-113-00	RES-CHIP 470K 5%	1/10W
R1410	1-216-105-91	RES-CHIP 220K 5%	1/10W	R1465	1-216-113-00	RES-CHIP 470K 5%	1/10W
				R1466	1-216-033-00	RES-CHIP 220 5%	1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK
R1467	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R1468	1-216-093-91	RES-CHIP	68K 5% 1/10W
R1469	1-216-105-91	RES-CHIP	220K 5% 1/10W
R1470	1-216-105-91	RES-CHIP	220K 5% 1/10W
R1471	1-216-022-00	RES-CHIP	75 5% 1/10W
R1472	1-216-033-00	RES-CHIP	220 5% 1/10W
R1473	1-216-033-00	RES-CHIP	220 5% 1/10W
R1474	1-216-295-11	SHORT (KV-XA25M84/XA25M86/XA25M87)	0
R1475	1-216-089-11	RES-CHIP	47K 5% 1/10W
R1476	1-216-091-00	RES-CHIP	56K 5% 1/10W
R1477	1-216-047-91	RES-CHIP	820 5% 1/10W
R1478	1-216-051-00	RES-CHIP	1.2K 5% 1/10W
R1479	1-216-105-91	RES-CHIP	220K 5% 1/10W
R1480	1-216-105-91	RES-CHIP	220K 5% 1/10W
R1481	1-216-022-00	RES-CHIP	75 5% 1/10W
R1482	1-216-025-11	RES-CHIP	100 5% 1/10W
R1483	1-216-025-11	RES-CHIP	100 5% 1/10W
R1484	1-216-025-11	RES-CHIP	100 5% 1/10W
R1485	1-216-025-11	RES-CHIP	100 5% 1/10W
R1486	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
R1487	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R1488	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R1489	1-216-022-00	RES-CHIP	75 5% 1/10W
R1490	1-216-025-11	RES-CHIP	100 5% 1/10W
R1491	1-216-025-11	RES-CHIP	100 5% 1/10W
R1492	1-216-021-00	RES-CHIP	68 5% 1/10W
R1493	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
R1494	1-216-031-00	RES-CHIP (KV-XA25M84/XA25M86/XA25M87)	180 5% 1/10W
R1495	1-216-033-00	RES-CHIP (KV-XA25M84/XA25M86/XA25M87)	220 5% 1/10W
R1496	1-216-041-00	RES-CHIP	470 5% 1/10W
R1497	1-216-041-00	RES-CHIP	470 5% 1/10W
R1498	1-216-025-11	RES-CHIP	100 5% 1/10W
R1499	1-216-025-11	RES-CHIP	100 5% 1/10W
R1500	1-216-025-11	RES-CHIP	100 5% 1/10W
R1501	1-216-045-00	RES-CHIP	680 5% 1/10W
R1503	1-216-073-00	RES-CHIP	10K 5% 1/10W
R1504	1-216-073-00	RES-CHIP	10K 5% 1/10W
R1505	1-216-022-00	RES-CHIP	75 5% 1/10W
R1506	1-216-033-00	RES-CHIP	220 5% 1/10W
R3200	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3201	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3202	1-216-097-11	RES-CHIP	100K 5% 1/10W
R3203	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3204	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R3205	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R3206	1-216-039-00	RES-CHIP	390 5% 1/10W
R3207	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3208	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R3209	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3210	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R3211	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3212	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R3213	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R3214	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
R3215	1-216-095-00	RES-CHIP	82K 5% 1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R3216	1-216-129-00	RES-CHIP	2.2M 5% 1/10W
R3217	1-216-085-00	RES-CHIP	33K 5% 1/10W
R3218	1-216-091-00	RES-CHIP	56K 5% 1/10W
R3219	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3220	1-216-097-11	RES-CHIP	100K 5% 1/10W
R3221	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3222	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3223	1-216-045-00	RES-CHIP	680 5% 1/10W
R3224	1-216-101-00	RES-CHIP	150K 5% 1/10W
R3225	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R3226	1-216-095-00	RES-CHIP	82K 5% 1/10W
R3227	1-216-091-00	RES-CHIP	56K 5% 1/10W
R3228	1-216-085-00	RES-CHIP	33K 5% 1/10W
R3229	1-216-025-11	RES-CHIP	100 5% 1/10W
R3230	1-216-025-11	RES-CHIP	100 5% 1/10W
R3231	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3232	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3233	1-216-069-00	RES-CHIP	6.8K 5% 1/10W
R3234	1-216-039-00	RES-CHIP	390 5% 1/10W
R3235	1-216-101-00	RES-CHIP	150K 5% 1/10W
R3236	1-216-113-00	RES-CHIP	470K 5% 1/10W
R3237	1-216-045-00	RES-CHIP	680 5% 1/10W
R3238	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3239	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3240	1-216-081-00	RES-CHIP	22K 5% 1/10W
R3241	1-216-093-91	RES-CHIP	68K 5% 1/10W
R3242	1-216-081-00	RES-CHIP	22K 5% 1/10W
R3243	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3244	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3245	1-216-097-11	RES-CHIP	100K 5% 1/10W
R3246	1-216-045-00	RES-CHIP	680 5% 1/10W
R3247	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R3248	1-216-025-11	RES-CHIP	100 5% 1/10W
R3249	1-216-025-11	RES-CHIP	100 5% 1/10W
R3251	1-216-101-00	RES-CHIP	150K 5% 1/10W
R3252	1-216-113-00	RES-CHIP	470K 5% 1/10W
R3253	1-216-045-00	RES-CHIP	680 5% 1/10W
R3254	1-216-073-00	RES-CHIP	10K 5% 1/10W
R3255	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3256	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3257	1-216-097-11	RES-CHIP	100K 5% 1/10W
R3258	1-216-121-11	RES-CHIP	1M 5% 1/10W
R3259	1-216-061-00	RES-CHIP	3.3K 5% 1/10W
R3262	1-216-101-00	RES-CHIP	150K 5% 1/10W
R3263	1-216-093-91	RES-CHIP	68K 5% 1/10W
R3267	1-216-049-11	RES-CHIP	1K 5% 1/10W
R3268	1-216-049-11	RES-CHIP	1K 5% 1/10W
R3269	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3271	1-216-063-91	RES-CHIP	3.9K 5% 1/10W
R3273	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
R3274	1-216-063-91	RES-CHIP	3.9K 5% 1/10W
R6201	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6202	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
R6203	1-216-295-11	SHORT	0
R6209	1-216-049-11	RES-CHIP	1K 5% 1/10W
R6213	1-216-073-00	RES-CHIP	10K 5% 1/10W
R6214	1-216-073-00	RES-CHIP	10K 5% 1/10W

B1

C6

REF. NO.	PART NO.	DESCRIPTION	REMARK			REF. NO.	PART NO.	DESCRIPTION	REMARK		
R6219	1-216-089-11	RES-CHIP	47K	5%	1/10W			<IC>			
R6245	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R6246	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	IC1502	8-759-439-64	HEF4053BT			
R6254	1-216-021-00	RES-CHIP	68	5%	1/10W			<COIL>			
R6255	1-216-308-00	RES-CHIP	4.7	5%	1/10W						
R6258	1-216-021-00	RES-CHIP	68	5%	1/10W	L1501	1-414-856-11	INDUCTOR	10UH		
R6259	1-216-308-00	RES-CHIP	4.7	5%	1/10W	L1506	1-414-857-11	INDUCTOR	100UH		
R6278	1-216-295-11	SHORT	0			L1507	1-414-187-11	INDUCTOR	47UH		
		<TUNER>				L1508	1-414-187-11	INDUCTOR	47UH		
TU1401	8-598-508-10	TUNER, FSS BTF-LG436 (KV-XA25M84/XA25M86/XA25M87)				L1509	1-414-857-11	INDUCTOR	100UH		
						L1510	1-414-187-11	INDUCTOR	47UH		
						L1511	1-414-187-11	INDUCTOR	47UH		
								<TRANSISTOR>			
						Q1501	8-729-230-49	2SC2712-YG			
						Q1502	8-729-216-22	2SA1162-G			
						Q1503	8-729-230-49	2SC2712-YG			
						Q1504	8-729-230-49	2SC2712-YG			
						Q1505	8-729-230-49	2SC2712-YG			
						Q1506	8-729-230-49	2SC2712-YG			
						Q1507	8-729-216-22	2SA1162-G			
						Q1509	8-729-230-49	2SC2712-YG			
						Q1510	8-729-230-49	2SC2712-YG			
						Q1511	8-729-216-22	2SA1162-G			
						Q1514	8-729-230-49	2SC2712-YG			
						Q1515	8-729-230-49	2SC2712-YG			
						Q1516	8-729-216-22	2SA1162-G			
						Q1520	8-729-230-49	2SC2712-YG			
						Q1522	8-729-230-49	2SC2712-YG			
						Q1523	8-729-216-22	2SA1162-G			
								<RESISTOR>			
						R1501	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R1502	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R1503	1-216-025-11	RES-CHIP	100	5%	1/10W
						R1504	1-216-025-11	RES-CHIP	100	5%	1/10W
						R1506	1-216-025-11	RES-CHIP	100	5%	1/10W
						R1507	1-216-081-00	RES-CHIP	22K	5%	1/10W
						R1508	1-216-073-00	RES-CHIP	10K	5%	1/10W
						R1511	1-216-033-00	RES-CHIP	220	5%	1/10W
						R1512	1-216-005-00	RES-CHIP	15	5%	1/10W
						R1515	1-216-041-00	RES-CHIP	470	5%	1/10W
						R1516	1-216-025-11	RES-CHIP	100	5%	1/10W
						R1517	1-216-075-00	RES-CHIP	12K	5%	1/10W
						R1520	1-216-079-00	RES-CHIP	18K	5%	1/10W
						R1522	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R1523	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R1528	1-216-033-00	RES-CHIP	220	5%	1/10W
						R1529	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
						R1531	1-216-045-00	RES-CHIP	680	5%	1/10W
						R1537	1-216-041-00	RES-CHIP	470	5%	1/10W
						R1538	1-216-041-00	RES-CHIP	470	5%	1/10W
								<CONNECTOR>			
CN1501*	1-564-511-11	PLUG, CONNECTOR 8P									
CN1502*	1-564-508-11	PLUG, CONNECTOR 5P									
CN1503	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P									
								<DIODE>			
D1501	8-719-158-35	RD9.1S-B									

* A-1131-652-A B1 BOARD MOUNTED
(EXCEPT KV-XA25M84/XA25M86/XA25M87)

<CAPACITOR>

C1513	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1514	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1515	1-163-243-11	CERAMIC CHIP	47PF	5.00%	50V
C1517	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1518	1-126-967-11	ELECT	47UF	20.00	50V
C1519	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1520	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1522	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1523	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C1524	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C1525	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1526	1-163-249-11	CERAMIC CHIP	82PF	5.00%	50V
C1528	1-164-005-11	CERAMIC CHIP	0.47UF		25V
C1529	1-163-255-11	CERAMIC CHIP	150PF	5.00%	50V
C1530	1-163-113-00	CERAMIC CHIP	68PF	5.00%	50V
C1543	1-126-933-11	ELECT	100UF	20.00	16V
C1544	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C1554	1-165-319-11	CERAMIC CHIP	0.1UF		50V
C1555	1-163-038-11	CERAMIC CHIP	0.1UF		25V
C1556	1-163-038-11	CERAMIC CHIP	0.1UF		25V

<CONNECTOR>

CN1501*	1-564-511-11	PLUG, CONNECTOR 8P
CN1502*	1-564-508-11	PLUG, CONNECTOR 5P
CN1503	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P

<DIODE>

D1501	8-719-158-35	RD9.1S-B
-------	--------------	----------

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

C6

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
R1540	1-216-049-11	RES-CHIP	1K 5% 1/10W	CN1801 *	1-564-509-11	PLUG, CONNECTOR 6P	
R1541	1-216-041-00	RES-CHIP	470 5% 1/10W	CN1802 *	1-564-506-11	PLUG, CONNECTOR 3P	
R1542	1-216-041-00	RES-CHIP	470 5% 1/10W				
R1543	1-216-049-11	RES-CHIP	1K 5% 1/10W			<DIODE>	
R1545	1-216-041-00	RES-CHIP	470 5% 1/10W				
R1547	1-216-049-11	RES-CHIP	1K 5% 1/10W	D701	8-719-911-19	1SS119-25	
R1548	1-216-025-11	RES-CHIP	100 5% 1/10W	D702	8-719-911-19	1SS119-25	
R1549	1-216-075-00	RES-CHIP	12K 5% 1/10W	D703	8-719-911-19	1SS119-25	
R1551	1-216-081-00	RES-CHIP	22K 5% 1/10W	D704	8-719-911-19	1SS119-25	
R1552	1-216-049-11	RES-CHIP	1K 5% 1/10W	D705	8-719-911-19	1SS119-25	
R1553	1-216-049-11	RES-CHIP	1K 5% 1/10W	D706	8-719-911-19	1SS119-25	
R1554	1-216-033-00	RES-CHIP	220 5% 1/10W	D707	8-719-911-19	1SS119-25	
R1556	1-216-049-11	RES-CHIP	1K 5% 1/10W	D708	8-719-911-19	1SS119-25	
R1559	1-216-041-00	RES-CHIP	470 5% 1/10W	D709	8-719-911-19	1SS119-25	
R1560	1-216-041-00	RES-CHIP	470 5% 1/10W	D710	8-719-911-19	1SS119-25	
R1561	1-216-041-00	RES-CHIP	470 5% 1/10W	D711	8-719-911-19	1SS119-25	
R1562	1-216-049-11	RES-CHIP	1K 5% 1/10W	D712	8-719-911-19	1SS119-25	
R1563	1-216-041-00	RES-CHIP	470 5% 1/10W	D716	8-719-911-19	1SS119-25	
R1566	1-216-041-00	RES-CHIP	470 5% 1/10W	D717	8-719-929-15	HZS9.1NB2	
R1567	1-216-049-11	RES-CHIP	1K 5% 1/10W	D1803	8-719-911-19	1SS119-25	
R1568	1-216-041-00	RES-CHIP	470 5% 1/10W	D1804	8-719-911-19	1SS119-25	
R1569	1-216-049-11	RES-CHIP	1K 5% 1/10W	D1808	8-719-908-03	GP08D	
*****						<IC>	
* A-1332-147-A C6 BOARD MOUNTED				IC1800	8-759-822-38	LA6510	
*****						<JACK>	
4-352-844-01		PIN, LEAD, COATING					
4-382-854-11		SCREW (M3X10), P, SW (+)		J701	$\triangle$ 1-540-071-22	SOCKET, CRT	
<CAPACITOR>						<COIL>	
C701	1-162-114-00	CERAMIC	0.0047UF 2KV	L701	1-410-667-31	INDUCTOR	22UH
C702	1-102-074-00	CERAMIC	0.001UF 10.00 50V	L703	1-414-187-11	INDUCTOR	47UH
C708	1-102-114-00	CERAMIC	470PF 10.00 50V	L705	1-414-186-31	INDUCTOR	33UH
C709	1-102-114-00	CERAMIC	470PF 10.00 50V	L707	1-414-187-11	INDUCTOR	47UH
C710	1-102-114-00	CERAMIC	470PF 10.00 50V			<TRANSISTOR>	
C712	1-102-115-00	CERAMIC	560PF 10.00 50V	Q701	8-729-326-11	2SC2611	
C713	1-102-112-00	CERAMIC	330PF 10.00 50V	Q702	8-729-326-11	2SC2611	
C714	1-102-113-00	CERAMIC	390PF 10.00 50V	Q703	8-729-326-11	2SC2611	
C716	1-126-933-11	ELECT	100UF 20.00 16V	Q704	8-729-326-11	2SC2611	
C717	1-107-651-11	ELECT	4.7UF 20.00 250V	Q705	8-729-326-11	2SC2611	
C1800	1-126-964-11	ELECT	10UF 20.00 50V	Q706	8-729-326-11	2SC2611	
C1803	1-126-964-11	ELECT	10UF 20.00 50V	Q707	8-729-200-17	2SA1091-O	
C1804	1-126-964-11	ELECT	10UF 20.00 50V	Q708	8-729-200-17	2SA1091-O	
C1809	1-126-942-61	ELECT	1000UF 20.00 25V	Q709	8-729-200-17	2SA1091-O	
<CONNECTOR>				Q710	8-729-119-78	2SC2785-HFE	
CN700	1-695-915-11	TAB (CONTACT)		Q711	8-729-119-78	2SC2785-HFE	
CN702	1-695-915-11	TAB (CONTACT)		Q712	8-729-119-78	2SC2785-HFE	
CN703 *	1-564-509-11	PLUG, CONNECTOR 6P		Q714	8-729-255-12	2SC2551-O	
CN704	1-695-915-11	TAB (CONTACT)		Q1800	8-729-119-76	2SA1175-HFE	
CN712	1-564-507-11	PLUG, CONNECTOR 4P		Q1802	8-729-119-78	2SC2785-HFE	

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

KV-XA25M87/XA25M84/XA25M86

RM-953



REF. NO.	PART NO.	DESCRIPTION	REMARK
<RESISTOR>			
R701	1-249-496-11	CARBON 100K	5% 1/2W
R705	1-216-392-11	METAL OXIDE 1.8	5% 3W
R710	1-215-923-00	METAL OXIDE 10K	5% 3W
R711	1-260-330-11	CARBON 1.5K	5% 1/2W
R712	1-215-923-00	METAL OXIDE 10K	5% 3W
R713	1-260-330-11	CARBON 1.5K	5% 1/2W
R714	1-215-923-00	METAL OXIDE 10K	5% 3W
R715	1-260-330-11	CARBON 1.5K	5% 1/2W
R716	1-249-405-11	CARBON 100	5% 1/4W
R717	1-249-405-11	CARBON 100	5% 1/4W
R718	1-249-405-11	CARBON 100	5% 1/4W
R719	1-215-469-00	METAL 100K	1% 1/4W
R720	1-249-923-11	CARBON 1K	5% 1/4W
R722	1-249-923-11	CARBON 1K	5% 1/4W
R723	1-215-485-00	METAL 470K	1% 1/4W
R724	1-249-923-11	CARBON 1K	5% 1/4W
R725	1-249-424-11	CARBON 3.9K	5% 1/4W
R726	1-249-424-11	CARBON 3.9K	5% 1/4W
R727	1-249-424-11	CARBON 3.9K	5% 1/4W
R728	1-249-408-11	CARBON 180	5% 1/4W
R729	1-249-408-11	CARBON 180	5% 1/4W
R730	1-249-408-11	CARBON 180	5% 1/4W
R731	1-249-401-11	CARBON 47	5% 1/4W
R732	1-249-401-11	CARBON 47	5% 1/4W
R733	1-249-401-11	CARBON 47	5% 1/4W
R734	1-247-739-11	CARBON 100	5% 1/2W
R738	1-247-807-31	CARBON 100	5% 1/4W
R739	1-247-807-31	CARBON 100	5% 1/4W
R740	1-247-807-31	CARBON 100	5% 1/4W
R747	1-215-926-00	METAL OXIDE 33K	5% 3W
R749	1-215-927-00	METAL OXIDE 47K	5% 3W
R751	1-216-490-11	METAL OXIDE 39K	5% 3W
R753	1-249-429-11	CARBON 10K	5% 1/4W
R755	1-249-427-11	CARBON 6.8K	5% 1/4W
R756	1-249-427-11	CARBON 6.8K	5% 1/4W
R757	1-249-427-11	CARBON 6.8K	5% 1/4W
R758	1-249-419-11	CARBON 1.5K	5% 1/4W
R759	1-249-419-11	CARBON 1.5K	5% 1/4W
R760	1-249-419-11	CARBON 1.5K	5% 1/4W
R1800	1-249-417-11	CARBON 1K	5% 1/4W
R1801	1-249-426-11	CARBON 5.6K	5% 1/4W
R1802	1-249-387-11	CARBON 3.3	5% 1/4W
R1803	1-249-387-11	CARBON 3.3	5% 1/4W
R1805	1-249-429-11	CARBON 10K	5% 1/4W
R1806	1-249-425-11	CARBON 4.7K	5% 1/4W
R1808	1-249-425-11	CARBON 4.7K	5% 1/4W
R1809	1-249-435-11	CARBON 33K	5% 1/4W
R1810	1-249-435-11	CARBON 33K	5% 1/4W
R1811	1-249-435-11	CARBON 33K	5% 1/4W
R1812	1-249-435-11	CARBON 33K	5% 1/4W
R1821	1-249-435-11	CARBON 33K	5% 1/4W
R1822	1-249-435-11	CARBON 33K	5% 1/4W
R1823	1-249-426-11	CARBON 5.6K	5% 1/4W

REF. NO.	PART NO.	DESCRIPTION	REMARK
R1824	1-249-435-11	CARBON 33K	5% 1/4W
R1825	1-247-843-11	CARBON 3.3K	5% 1/4W

<VARIABLE RESISTOR>

RV702	1-241-656-11	RES, ADJ, METAL FILM 110M
RV1801	1-223-241-11	RES, ADJ, CARBON 47K

* A-1241-452-A F BOARD MOUNTED

1-533-223-11 CLIP, FUSE
* 4-374-846-01 COVER, CAPACITOR, CAP TYPE

<CAPACITOR>

C654	$\triangle$ 1-117-703-11	CERAMIC 0.0047UF	99%	250V
C4601	$\triangle$ 1-104-708-11	MYLAR 0.47UF	20.00	250V
C4602	$\triangle$ 1-109-835-11	MYLAR 0.68UF	20.00	250V

<CONNECTOR>

CN4601	1-580-843-11	PIN, CONNECTOR (POWER)
CN4602	1-580-843-11	PIN, CONNECTOR (POWER)
CN4603	1-695-915-11	TAB (CONTACT)

<FUSE>

F4601	$\triangle$ 1-532-299-00	FUSE, TIME-LAG 5A/250V
-------	--------------------------	------------------------

<RESISTOR>

R4601	$\triangle$ 1-202-719-00	SOLID 1M	10%	1/2W
-------	--------------------------	----------	-----	------

<TRANSFORMER>

T4601	1-424-505-11	TRANSFORMER, LINE FILTER
T4602	1-431-182-11	TRANSFORMER, LINE FILTER

<VARISTOR>

VDR461	1-803-830-11	VARISTOR (ERZV14D621)
--------	--------------	-----------------------



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

REF. NO.	PART NO.	DESCRIPTION	REMARK
	* A-1372-915-A	H BOARD MOUNTED (EXCEPT KV-XA25M84/XA25M86)	
	A-1372-963-A	H MOUNT MOUNTED (KV-XA25M84/XA25M86) *****	
	* 4-055-304-01	HOLDER, LED	
	* 4-560-030-01	FILM, CONDUCTIVE	
		<CAPACITOR>	
C3900	1-136-153-00	FILM 0.01UF 5.00% 50V	
C3902	1-136-153-00	FILM 0.01UF 5.00% 50V	
C3904	1-104-664-11	ELECT 47UF 20.00 25V	
C3905	1-126-963-11	ELECT 4.7UF 20.00 50V	
C3906	1-126-963-11	ELECT 4.7UF 20.00 50V	
C3910	1-104-664-11	ELECT 47UF 20.00 16V	
C3911	1-104-664-11	ELECT 47UF 20.00 16V	
C3912	1-102-114-00	CERAMIC 470PF 10.00 50V	
C3913	1-126-960-11	ELECT 1UF 20.00 50V	
		<CONNECTOR>	
CN3601*	1-580-844-11	PIN, CONNECTOR (POWER)	
CN3602*	1-580-844-11	PIN, CONNECTOR (POWER)	
CN3901*	1-564-507-11	PLUG, CONNECTOR 4P	
CN3902	1-564-509-11	PLUG, CONNECTOR 6P	
CN3904*	1-564-512-11	PLUG, CONNECTOR 9P	
CN3905*	1-564-512-11	PLUG, CONNECTOR 9P	
		<DIODE>	
D3900	8-719-070-16	NNCD9.1A-T1	
D3901	8-719-070-16	NNCD9.1A-T1	
D3905	8-719-070-16	NNCD9.1A-T1	
D3906	8-719-045-19	SPB-26MVWF	
D3907	8-719-070-16	NNCD9.1A-T1	
D3908	8-719-070-16	NNCD9.1A-T1	
		<IC>	
IC3901	8-759-180-30	UPD6124G-212	
		<JACK>	
J3901	1-750-264-11	JACK	
J3902	1-784-646-11	TERMINAL, S	
J3903	1-770-329-11	JACK, PIN 3P	
		<COIL>	
L3901	1-414-183-41	INDUCTOR 10UH	
L3902	1-414-183-41	INDUCTOR 10UH	
		<TRANSISTOR>	
Q3901	8-729-030-02	DTC144ESA	
Q3902	8-729-030-02	DTC144ESA	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<RESISTOR>	
R3900	1-249-411-11	CARBON 330 5% 1/4W	
R3901	1-249-411-11	CARBON 330 5% 1/4W	
R3902	1-247-804-11	CARBON 75 5% 1/4W	
R3904	1-249-429-11	CARBON 10K 5% 1/4W	
R3905	1-249-429-11	CARBON 10K 5% 1/4W	
R3907	1-249-426-11	CARBON 5.6K 5% 1/4W	
R3908	1-249-413-11	CARBON 470 5% 1/4W	
R3909	1-249-417-11	CARBON 1K 5% 1/4W	
R3910	1-249-420-11	CARBON 1.8K 5% 1/4W	
R3911	1-249-411-11	CARBON 330 5% 1/4W	
R3912	1-247-843-11	CARBON 3.3K 5% 1/4W	
R3913	1-249-429-11	CARBON 10K 5% 1/4W	
R3914	1-249-411-11	CARBON 330 5% 1/4W	
R3915	1-249-429-11	CARBON 10K 5% 1/4W	
R3916	1-249-401-11	CARBON 47 5% 1/4W	
R3917	1-247-804-11	CARBON 75 5% 1/4W	
R3918	1-249-409-11	CARBON 220 5% 1/4W	
R3919	1-249-409-11	CARBON 220 5% 1/4W	
R3920	1-247-807-31	CARBON 100 5% 1/4W	
R3921	1-247-807-31	CARBON 100 5% 1/4W	
R3922	1-249-421-11	CARBON 2.2K 5% 1/4W	
		<SWITCH>	
S3601 $\triangle$	1-571-433-21	SWITCH, PUSH (AC POWER)	
S3902	1-692-431-21	SWITCH, TACTILE	
S3903	1-692-431-21	SWITCH, TACTILE	
S3904	1-692-431-21	SWITCH, TACTILE	
S3905	1-692-431-21	SWITCH, TACTILE	
S3906	1-692-431-21	SWITCH, TACTILE	
S3907	1-692-431-21	SWITCH, TACTILE	
S3908	1-692-431-21	SWITCH, TACTILE	

	* A-1388-308-A	J BOARD MOUNTED (KV-XA25M84/XA25M86) *****	
		<CAPACITOR>	
C2410	1-126-967-11	ELECT 47UF 20.00 50V	
C2411	1-126-967-11	ELECT 47UF 20.00 50V	
C2412	1-126-967-11	ELECT 47UF 20.00 50V	
C2413	1-102-112-00	CERAMIC 330PF 10.00 50V	
C2414	1-102-112-00	CERAMIC 330PF 10.00 50V	
C2418	1-126-960-11	ELECT 1UF 20.00 50V	
C2419	1-126-960-11	ELECT 1UF 20.00 50V	
		<CONNECTOR>	
CN2410*	1-564-523-11	PLUG, CONNECTOR 8P	

J1**P2**

REF. NO.	PART NO.	DESCRIPTION	REMARK
<DIODE>			
D2410	8-719-070-16	NNCD9.1A-T1	
D2411	8-719-070-16	NNCD9.1A-T1	
D2412	8-719-070-16	NNCD9.1A-T1	
D2414	8-719-070-16	NNCD9.1A-T1	
D2415	8-719-070-16	NNCD9.1A-T1	
<JACK>			
J2410	1-784-623-11	BLOCK, PIN JACK 5P	
<RESISTOR>			
R2410	1-247-804-11	CARBON 75 5% 1/4W	
R2411	1-247-804-11	CARBON 75 5% 1/4W	
R2412	1-247-804-11	CARBON 75 5% 1/4W	
R2414	1-247-887-00	CARBON 220K 5% 1/4W	
R2415	1-247-807-31	CARBON 100 5% 1/4W	
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-1388-300-A	J1 BOARD MOUNTED(KV-XA25M87 ONLY)		
* A-1388-301-A	J1 BOARD MOUNTED(EXCEPT KV-XA25M87)		

<CAPACITOR>			
C2410	1-126-967-11	ELECT 47UF 20.00 50V	
C2411	1-126-967-11	ELECT 47UF 20.00 50V	
C2412	1-126-967-11	ELECT 47UF 20.00 50V	
C2413	1-102-112-00	CERAMIC 330PF 10.00 50V	
C2414	1-102-112-00	CERAMIC 330PF 10.00 50V	
C2418	1-126-960-11	ELECT 1UF 20.00 50V	
C2419	1-126-960-11	ELECT 1UF 20.00 50V	
<CONNECTOR>			
CN2410*	1-564-523-11	PLUG, CONNECTOR 8P	
CN3451*	1-564-519-11	PLUG, CONNECTOR 4P (KV-XA25M87 ONLY)	
<DIODE>			
D2410	8-719-929-15	HZS9.1NB2	
D2411	8-719-929-15	HZS9.1NB2	
D2412	8-719-929-15	HZS9.1NB2	
D2414	8-719-929-15	HZS9.1NB2	
D2415	8-719-929-15	HZS9.1NB2	
D3421	8-719-110-72	RD30ESB2 (KV-XA25M87 ONLY)	
D3422	8-719-110-72	RD30ESB2 (KV-XA25M87 ONLY)	
D3423	8-719-110-72	RD30ESB2 (KV-XA25M87 ONLY)	
D3424	8-719-110-72	RD30ESB2 (KV-XA25M87 ONLY)	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<JACK>			
J2410	1-784-623-11	BLOCK, PIN JACK 5P	
J3421	1-694-719-11	TERMINAL, PUSH (4P) (KV-XA25M87 ONLY)	
<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-1190-376-A	P2 BOARD MOUNTED		
	(KV-XA25M84/XA25M86/XA25M87 ONLY)		

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

P2

REF. NO.	PART NO.	DESCRIPTION	REMARK
C4340	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4341	1-104-665-11	ELECT 100UF	20.00 10V
C4347	1-104-665-11	ELECT 100UF	20.00 10V
C4348	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4349	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C4350	1-126-964-11	ELECT 10UF	20.00 50V
C4352	1-163-251-11	CERAMIC CHIP 100PF	5.00% 50V
C4353	1-104-665-11	ELECT 100UF	20.00 10V
C4355	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4356	1-164-346-11	CERAMIC CHIP 1UF	16V
C4357	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4359	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4362	1-163-235-11	CERAMIC CHIP 22PF	5.00% 50V
C4363	1-163-237-11	CERAMIC CHIP 27PF	5.00% 50V
C4364	1-104-665-11	ELECT 100UF	20.00 10V
C4365	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4366	1-163-031-11	CERAMIC CHIP 0.01UF	50V
C4367	1-126-960-11	ELECT 1UF	20.00 50V
C4371	1-164-004-11	CERAMIC CHIP 0.1UF	10.00 25V
C4372	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4377	1-104-665-11	ELECT 100UF	20.00 10V
C4380	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4394	1-104-664-11	ELECT 47UF	20.00 16V
C4396	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4397	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4398	1-126-964-11	ELECT 10UF	20.00 50V
C4399	1-126-964-11	ELECT 10UF	20.00 50V
C4554	1-165-319-11	CERAMIC CHIP 0.1UF	50V
C4613	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4614	1-163-038-11	CERAMIC CHIP 0.1UF	25V
C4615	1-163-243-11	CERAMIC CHIP 47PF	5.00% 50V
C4617	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C4618	1-126-967-11	ELECT 47UF	20.00 50V
C4619	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4620	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4622	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C4623	1-163-255-11	CERAMIC CHIP 150PF	5.00% 50V
C4624	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C4625	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4626	1-163-249-11	CERAMIC CHIP 82PF	5.00% 50V
C4628	1-164-005-11	CERAMIC CHIP 0.47UF	25V
C4629	1-163-255-11	CERAMIC CHIP 150PF	5.00% 50V
C4630	1-163-113-00	CERAMIC CHIP 68PF	5.00% 50V
C4643	1-126-933-11	ELECT 100UF	20.00 16V
C4644	1-165-319-11	CERAMIC CHIP 0.1UF	50V
<CONNECTOR>			
CN4301	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P	
CN4302	1-764-811-11	CONNECTOR, BOARD TO BOARD 10P	
CN4501*	1-564-511-11	PLUG, CONNECTOR 8P	
CN4502*	1-564-508-11	PLUG, CONNECTOR 5P	
<DIODE>			
D4501	8-719-158-35	RD9.1S-B	

REF. NO.	PART NO.	DESCRIPTION	REMARK
<FERRITE BEAD>			
FB4301	1-410-397-21	FERRITE 1.1UH	
<FILTER>			
FL4301	1-236-728-41	ENCAPSULATED COMPONENT	
<IC>			
IC4301	8-759-655-57	SDA9288XE-B0121	
IC4302	8-759-568-62	BA7606F-E2	
IC4303	8-752-090-41	CXA2139S	
IC4502	8-759-439-64	HEF4053BT	
IC4503	8-759-439-64	HEF4053BT	
<CHIP CONDUCTOR>			
JR4300	1-216-295-11	SHORT	0
JR4301	1-216-295-11	SHORT	0
JR4305	1-216-295-11	SHORT	0
JR4500	1-216-295-11	SHORT	0
JR4502	1-216-295-11	SHORT	0
JR4503	1-216-295-11	SHORT	0
JR4505	1-216-295-11	SHORT	0
<COIL>			
L4302	1-412-537-31	INDUCTOR 100UH	
L4304	1-408-603-31	INDUCTOR 10UH	
L4305	1-408-603-31	INDUCTOR 10UH	
L4306	1-408-603-31	INDUCTOR 10UH	
L4307	1-408-412-00	INDUCTOR 18UH	
L4308	1-408-611-31	INDUCTOR 47UH	
L4309	1-408-603-31	INDUCTOR 10UH	
L4310	1-408-611-31	INDUCTOR 47UH	
L4311	1-408-603-31	INDUCTOR 10UH	
L4312	1-408-603-31	INDUCTOR 10UH	
L4315	1-414-856-11	INDUCTOR 10UH	
L4316	1-414-856-11	INDUCTOR 10UH	
L4317	1-414-856-11	INDUCTOR 10UH	
L4501	1-414-856-11	INDUCTOR 10UH	
L4506	1-414-857-11	INDUCTOR 100UH	
L4507	1-414-187-11	INDUCTOR 47UH	
L4508	1-414-187-11	INDUCTOR 47UH	
L4509	1-414-857-11	INDUCTOR 100UH	
L4510	1-414-187-11	INDUCTOR 47UH	
L4511	1-414-187-11	INDUCTOR 47UH	
<TRANSISTOR>			
Q4301	8-729-230-49	2SC2712-YG	
Q4302	8-729-216-22	2SA1162-G	
Q4303	8-729-424-59	UN2212	
Q4304	8-729-027-43	DTC114EKA-T146	
Q4305	8-729-027-43	DTC114EKA-T146	

P2

REF. NO.	PART NO.	DESCRIPTION	REMARK	REF. NO.	PART NO.	DESCRIPTION	REMARK
Q4306	8-729-230-49	2SC2712-YG		R4330	1-216-053-00	RES-CHIP 1.5K	5% 1/10W
Q4307	8-729-027-43	DTC114EKA-T146		R4332	1-216-089-11	RES-CHIP 47K	5% 1/10W
Q4313	8-729-026-49	2SA1037AK-T146-R		R4333	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4313	8-729-216-22	2SA1162-G		R4334	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4314	8-729-216-22	2SA1162-G		R4335	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4315	8-729-216-22	2SA1162-G		R4336	1-216-041-00	RES-CHIP 470	5% 1/10W
Q4329	8-729-230-49	2SC2712-YG		R4337	1-216-041-00	RES-CHIP 470	5% 1/10W
Q4362	8-729-216-22	2SA1162-G		R4338	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4363	8-729-216-22	2SA1162-G		R4339	1-216-041-00	RES-CHIP 470	5% 1/10W
Q4364	8-729-216-22	2SA1162-G		R4340	1-216-085-00	RES-CHIP 33K	5% 1/10W
Q4365	8-729-230-49	2SC2712-YG		R4341	1-216-081-00	RES-CHIP 22K	5% 1/10W
Q4366	8-729-230-49	2SC2712-YG		R4344	1-216-295-11	SHORT 0	
Q4368	8-729-230-49	2SC2712-YG		R4345	1-216-295-11	SHORT 0	
Q4369	8-729-230-49	2SC2712-YG		R4346	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4371	8-729-230-49	2SC2712-YG		R4347	1-216-295-11	SHORT 0	
Q4375	8-729-230-49	2SC2712-YG		R4348	1-216-085-00	RES-CHIP 33K	5% 1/10W
Q4501	8-729-230-49	2SC2712-YG		R4349	1-216-025-11	RES-CHIP 100	5% 1/10W
Q4502	8-729-216-22	2SA1162-G		R4350	1-216-085-00	RES-CHIP 33K	5% 1/10W
Q4503	8-729-230-49	2SC2712-YG		R4351	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4505	8-729-230-49	2SC2712-YG		R4352	1-216-041-00	RES-CHIP 470	5% 1/10W
Q4507	8-729-216-22	2SA1162-G		R4353	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4509	8-729-230-49	2SC2712-YG		R4354	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4510	8-729-230-49	2SC2712-YG		R4355	1-216-049-11	RES-CHIP 1K	5% 1/10W
Q4511	8-729-216-22	2SA1162-G		R4356	1-208-778-11	METAL CHIP 680	0.5% 1/10W
Q4514	8-729-230-49	2SC2712-YG		R4358	1-208-776-11	METAL CHIP 560	0.5% 1/10W
Q4515	8-729-230-49	2SC2712-YG		R4376	1-216-053-00	RES-CHIP 1.5K	5% 1/10W
Q4516	8-729-216-22	2SA1162-G		R4377	1-216-047-91	RES-CHIP 820	5% 1/10W
Q4520	8-729-230-49	2SC2712-YG		R4378	1-216-047-91	RES-CHIP 820	5% 1/10W
Q4522	8-729-230-49	2SC2712-YG		R4379	1-208-780-11	METAL CHIP 820	0.5% 1/10W
Q4523	8-729-216-22	2SA1162-G		R4380	1-216-053-00	RES-CHIP 1.5K	5% 1/10W
<RESISTOR>				R4382	1-216-025-11	RES-CHIP 100	5% 1/10W
R4300	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4383	1-208-806-11	METAL CHIP 10K	0.5% 1/10W
R4301	1-216-069-00	RES-CHIP 6.8K	5% 1/10W	R4384	1-216-079-00	RES-CHIP 18K	5% 1/10W
R4302	1-216-053-00	RES-CHIP 1.5K	5% 1/10W	R4385	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4304	1-216-089-11	RES-CHIP 47K	5% 1/10W	R4386	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4305	1-216-025-11	RES-CHIP 100	5% 1/10W	R4387	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4306	1-216-053-00	RES-CHIP 1.5K	5% 1/10W	R4388	1-216-025-11	RES-CHIP 100	5% 1/10W
R4307	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4389	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
R4308	1-216-081-00	RES-CHIP 22K	5% 1/10W	R4390	1-216-025-11	RES-CHIP 100	5% 1/10W
R4309	1-216-067-00	RES-CHIP 5.6K	5% 1/10W	R4391	1-216-025-11	RES-CHIP 100	5% 1/10W
R4310	1-164-346-11	CERAMIC CHIP 1UF	16V	R4392	1-216-073-00	RES-CHIP 10K	5% 1/10W
R4311	1-216-025-11	RES-CHIP 100	5% 1/10W	R4393	1-216-025-11	RES-CHIP 100	5% 1/10W
R4312	1-216-025-11	RES-CHIP 100	5% 1/10W	R4394	1-216-075-00	RES-CHIP 12K	5% 1/10W
R4313	1-216-049-11	RES-CHIP 1K	5% 1/10W	R4395	1-216-025-11	RES-CHIP 100	5% 1/10W
R4314	1-216-049-11	RES-CHIP 1K	5% 1/10W	R4396	1-216-081-00	RES-CHIP 22K	5% 1/10W
R4315	1-216-049-11	RES-CHIP 1K	5% 1/10W	R4398	1-216-053-00	RES-CHIP 1.5K	5% 1/10W
R4316	1-216-025-11	RES-CHIP 100	5% 1/10W	R4401	1-216-295-11	SHORT 0	
R4317	1-216-025-11	RES-CHIP 100	5% 1/10W	R4403	1-216-025-11	RES-CHIP 100	5% 1/10W
R4319	1-216-045-00	RES-CHIP 680	5% 1/10W	R4408	1-216-041-00	RES-CHIP 470	5% 1/10W
R4320	1-216-081-00	RES-CHIP 22K	5% 1/10W	R4414	1-216-025-11	RES-CHIP 100	5% 1/10W
R4321	1-216-045-00	RES-CHIP 680	5% 1/10W	R4416	1-216-041-00	RES-CHIP 470	5% 1/10W
R4326	1-216-053-00	RES-CHIP 1.5K	5% 1/10W	R4417	1-216-049-11	RES-CHIP 1K	5% 1/10W
R4327	1-216-065-91	RES-CHIP 4.7K	5% 1/10W	R4434	1-216-045-00	RES-CHIP 680	5% 1/10W
R4328	1-216-063-91	RES-CHIP 3.9K	5% 1/10W	R4435	1-216-065-91	RES-CHIP 4.7K	5% 1/10W
				R4506	1-216-025-11	RES-CHIP 100	5% 1/10W
				R4507	1-216-081-00	RES-CHIP 22K	5% 1/10W



REF. NO.	PART NO.	DESCRIPTION	REMARK
R4508	1-216-073-00	RES-CHIP	10K 5% 1/10W
R4511	1-216-033-00	RES-CHIP	220 5% 1/10W
R4512	1-216-005-00	RES-CHIP	15 5% 1/10W
R4515	1-216-041-00	RES-CHIP	470 5% 1/10W
R4516	1-216-025-11	RES-CHIP	100 5% 1/10W
R4517	1-216-075-00	RES-CHIP	12K 5% 1/10W
R4520	1-216-079-00	RES-CHIP	18K 5% 1/10W
R4522	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4523	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4528	1-216-033-00	RES-CHIP	220 5% 1/10W
R4529	1-216-053-00	RES-CHIP	1.5K 5% 1/10W
R4531	1-216-045-00	RES-CHIP	680 5% 1/10W
R4537	1-216-041-00	RES-CHIP	470 5% 1/10W
R4538	1-216-041-00	RES-CHIP	470 5% 1/10W
R4540	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4541	1-216-041-00	RES-CHIP	470 5% 1/10W
R4542	1-216-041-00	RES-CHIP	470 5% 1/10W
R4543	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4545	1-216-041-00	RES-CHIP	470 5% 1/10W
R4547	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4548	1-216-025-11	RES-CHIP	100 5% 1/10W
R4549	1-216-075-00	RES-CHIP	12K 5% 1/10W
R4551	1-216-081-00	RES-CHIP	22K 5% 1/10W
R4552	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4553	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4554	1-216-033-00	RES-CHIP	220 5% 1/10W
R4556	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4559	1-216-041-00	RES-CHIP	470 5% 1/10W
R4560	1-216-041-00	RES-CHIP	470 5% 1/10W
R4561	1-216-041-00	RES-CHIP	470 5% 1/10W
R4562	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4563	1-216-041-00	RES-CHIP	470 5% 1/10W
R4566	1-216-041-00	RES-CHIP	470 5% 1/10W
R4567	1-216-049-11	RES-CHIP	1K 5% 1/10W
R4568	1-216-041-00	RES-CHIP	470 5% 1/10W
R4569	1-216-049-11	RES-CHIP	1K 5% 1/10W
<CRYSTAL>			
X4301	1-781-134-21	VIBRATOR, CRYSTAL	
X4302	1-781-132-21	VIBRATOR, CRYSTAL	
X4303	1-760-095-21	VIBRATOR, CRYSTAL	

REF. NO.	PART NO.	DESCRIPTION	REMARK
* A-1347-164-A V1 BOARD COMPLETE (KV-XA25M31/XA25M61/XA25M86 ONLY) *****			
<CAPACITOR>			
C801	1-104-664-11	ELECT	47UF 20.00 16V
C805	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C806	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C814	1-163-021-91	CERAMIC CHIP	0.01UF 10.00 50V
C815	1-163-251-11	CERAMIC CHIP	100PF 5.00% 50V
C816	1-164-505-11	CERAMIC CHIP	2.2UF 16V
C817	1-164-004-11	CERAMIC CHIP	0.1UF 10.00 25V
C818	1-163-239-11	CERAMIC CHIP	33PF 5.00% 50V
C820	1-163-239-11	CERAMIC CHIP	33PF 5.00% 50V
C821	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C822	1-163-009-11	CERAMIC CHIP	0.001UF 10.00 50V
C823	1-126-933-11	ELECT	100UF 20.00 16V
C826	1-126-963-11	ELECT	4.7UF 20.00 50V
C829	1-163-113-00	CERAMIC CHIP	68PF 5.00% 50V
C830	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C831	1-126-933-11	ELECT	100UF 20.00 16V
C832	1-126-964-11	ELECT	10UF 20.00 50V
C835	1-163-038-11	CERAMIC CHIP	0.1UF 25V
C837	1-126-933-11	ELECT	100UF 20.00 16V
<CONNECTOR>			
CN801	* 1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	
CN803	* 1-774-812-11	CONNECTOR, BOARD TO BOARD 7P	
<DIODE>			
D802	8-719-914-44	DAP202K	
D803	8-719-105-46	RD3.3M-B2	
D804	8-719-105-91	RD5.6M-B2	
<FERRITE BEAD>			
FB801	1-410-397-21	FERRITE	1.1UH
FB802	1-410-397-21	FERRITE	1.1UH
FB803	1-410-397-21	FERRITE	1.1UH
FB804	1-410-682-31	INDUCTOR	470UH
FB805	1-410-397-21	FERRITE	1.1UH
<IC>			
IC801	8-759-476-87	SAA5261	
<CHIP CONDUCTOR>			
JR800	1-216-295-11	SHORT	0
JR801	1-216-295-11	SHORT	0
JR802	1-216-295-11	SHORT	0
JR804	1-216-295-11	SHORT	0
JR805	1-216-295-11	SHORT	0



REF. NO.	PART NO.	DESCRIPTION	REMARK		
<TRANSISTOR>					
Q801	8-729-120-28	2SC1623-L5L6			
Q803	8-729-120-28	2SC1623-L5L6			
Q805	8-729-120-28	2SC1623-L5L6			
Q806	8-729-120-28	2SC1623-L5L6			
Q807	8-729-120-28	2SC1623-L5L6			
Q808	8-729-120-28	2SC1623-L5L6			
Q810	8-729-120-28	2SC1623-L5L6			
Q811	8-729-019-01	2SD2394-EF			
Q817	8-729-421-22	UN2211			
Q817	8-729-900-53	DTC114EK			
<RESISTOR>					
R800	1-208-806-11	METAL CHIP	10K	0.5%	1/10W
R801	1-216-295-11	SHORT	0		
R802	1-216-025-11	RES-CHIP	100	5%	1/10W
R803	1-216-295-11	SHORT	0		
R804	1-216-295-11	SHORT	0		
R805	1-216-295-11	SHORT	0		
R807	1-216-295-11	SHORT	0		
R813	1-216-295-11	SHORT	0		
R820	1-216-073-00	RES-CHIP	10K	5%	1/10W
R821	1-216-083-00	RES-CHIP	27K	5%	1/10W
R822	1-216-025-11	RES-CHIP	100	5%	1/10W
R824	1-216-295-11	SHORT	0		
R825	1-216-295-11	SHORT	0		
R827	1-216-295-11	SHORT	0		
R828	1-216-025-11	RES-CHIP	100	5%	1/10W
R829	1-216-025-11	RES-CHIP	100	5%	1/10W
R830	1-216-295-11	SHORT	0		
R831	1-216-295-11	SHORT	0		
R832	1-208-790-11	METAL CHIP	2.2K	0.5%	1/10W
R835	1-216-295-11	SHORT	0		
R839	1-216-655-11	METAL CHIP	1.5K	0.5%	1/10W
R841	1-216-025-11	RES-CHIP	100	5%	1/10W
R842	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R844	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R845	1-216-049-11	RES-CHIP	1K	5%	1/10W
R846	1-216-049-11	RES-CHIP	1K	5%	1/10W
R847	1-216-049-11	RES-CHIP	1K	5%	1/10W
R848	1-216-049-11	RES-CHIP	1K	5%	1/10W
R849	1-216-049-11	RES-CHIP	1K	5%	1/10W
R850	1-216-105-91	RES-CHIP	220K	5%	1/10W
R851	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R853	1-216-067-00	RES-CHIP	5.6K	5%	1/10W
R857	1-216-077-91	RES-CHIP	15K	5%	1/10W
R861	1-216-049-11	RES-CHIP	1K	5%	1/10W
R862	1-260-095-11	CARBON	470	5%	1/2W
R863	1-216-049-11	RES-CHIP	1K	5%	1/10W
R864	1-216-041-00	RES-CHIP	470	5%	1/10W
R866	1-215-880-00	METAL OXIDE	10	5%	2W
R871	1-216-037-00	RES-CHIP	330	5%	1/10W
R879	1-216-073-00	RES-CHIP	10K	5%	1/10W
R880	1-216-041-00	RES-CHIP	470	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	REMARK		
R882	1-216-049-11	RES-CHIP	1K	5%	1/10W
R884	1-216-025-11	RES-CHIP	100	5%	1/10W
<CRYSTAL>					
X801	1-578-774-11	VIBRATOR, CRYSTAL			

* A-1342-590-A VM1 BOARD MOUNTED					

* 4-363-146-71 HEAT SINK, V.OUT					
4-382-854-11 SCREW (M3X10), P, SW (+)					
<CAPACITOR>					
C5900	1-102-115-00	CERAMIC	560PF	10.00	50V
C5902	1-104-661-91	ELECT	330UF	20.00	16V
C5903	1-161-830-00	CERAMIC	0.0047UF		500V
C5905	1-126-935-11	ELECT	470UF	20.00	10V
C5906	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5907	1-107-638-11	ELECT	33UF	20.00	160V
C5908	1-106-383-00	MYLAR	0.047UF	10.00	200V
C5909	1-126-933-11	ELECT	100UF	20.00	16V
C5910	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5911	1-107-949-11	ELECT	2.2UF	20.00	160V
C5912	1-104-999-11	MYLAR	0.1UF	10.00	200V
C5913	1-130-471-00	MYLAR	0.001UF	5.00%	50V
C5914	1-126-933-11	ELECT	100UF	20.00	16V
C5916	1-130-491-00	MYLAR	0.047UF	5.00%	50V
C5917	1-126-935-11	ELECT	470UF	20.00	10V
C5918	1-102-244-00	CERAMIC	220PF	10.00	500V
C5919	1-136-165-00	FILM	0.1UF	5.00%	50V
<CONNECTOR>					
CN5901*	1-564-510-11	PLUG, CONNECTOR 7P			
CN5904*	1-770-723-11	CONNECTOR, BOARD TO BOARD 8P			
<DIODE>					
D5901	8-719-911-19	1SS119-25			
D5902	8-719-110-88	RD39ES-B2			
D5903	8-719-911-19	1SS119-25			
D5904	8-719-110-88	RD39ES-B2			
D5905	8-719-911-19	1SS119-25			
D5906	1-249-406-11	CARBON	120	5%	1/4W
D5907	1-249-406-11	CARBON	120	5%	1/4W
<COIL>					
L5901	1-414-187-11	INDUCTOR	47UH		



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

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

MISCELLANEOUS			

$\triangle$ 1-251-374-12	CAP ASSY, HIGH-VOLTAGE (KV-XA25M31/XA25M50)		
$\triangle$ 1-251-374-32	CAP ASSY, HIGH-VOLTAGE (EXCEPT KV-XA25M31/XA25M50)		
1-419-322-11	COIL, DEGAUSSING		
$\triangle$ 1-451-475-11	DEFLECTION YOKE (Y25RSA)		
1-452-094-00	CIRCULAR DISC MAGNET B		
1-452-032-00	MAGNET,DISC		
1-452-896-61	COIL, NA ROTATION (RT-200)		
1-503-902-11	SPEAKER (15X6.5 CM)		

REF. NO.	PART NO.	DESCRIPTION	REMARK
	1-529-190-11	SPEAKER (5CM) (EXCEPT KV-XA25M87)	
	1-529-968-11	SPEAKER (5CM) (KV-XA25M87 ONLY)	
	1-900-703-03	LEAD ASSY , SPEAKER (EXCEPT KV-XA25M87)	
△	1-574-358-11	CORD, POWER (WITH CONNECTOR) 7.5A/250V (KV-XA25M31 ONLY)	
△	1-574-062-11	CORD, POWER (WITH CONNECTOR) 2.5A/250V (EXCEPT KV-XA25M31/XA25M90)	
△	1-769-609-21	CORD, POWER (WITH CONNECTOR) (KV-XA25M90 ONLY)	
△	1-900-702-66	LEAD ASSY, FOCUS+G2 (KV-XA25M31 ONLY)	
△	1-900-701-22	LEAD ASSY, G2+LEAD ASSY, FOCUS (EXCEPT KV-XA25M31)	
	1-251-658-21	SPLITTER RF (KV-XA25M84/XA25M86/XA25M87)	
*	1-555-110-00	P-P CABLE (KV-XA25M84/XA25M86/XA25M87)	
	8-453-011-21	NA299-S	
△	8-733-250-05	PICTURE TUBE (A60LPN70X)	

ACCESSORIES AND PACKING MATERIALS			

	3-701-910-00	SCREW, SPECIAL (DIA. 3.8X20)	
	*4-029-168-01	BAG, PROTECTION	
	*4-080-022-01	CUSHION (UPPER) (ASSY)	
	*4-080-023-01	CUSHION (LOWER) (ASSY)	
	*4-081-560-01	CUSHION (UPPER) (ASSY) (KV-XA25M61(EM)/ XA25M50 ONLY)	
	*4-081-561-01	CUSHION (LOWER) (ASSY) (KV-XA25M61(EM)/ XA25M50 ONLY)	
	4-081-562-01	CUSHION (LEFT UPPER) FRONT (KV-XA25M50/XA25M61EM)	
	4-081-563-01	CUSHION (RIGHT UPPER) FRONT (KV-XA25M50/XA25M61EM)	
	4-081-564-01	CUSHION (LEFT UPPER) REAR (KV-XA25M50/XA25M61EM)	
	4-081-565-01	CUSHION (RIGHT UPPER) REAR (KV-XA25M50/XA25M61EM)	
	4-081-567-01	CUSHION (RIGHT LOWER) FRONT (KV-XA25M50/XA25M61EM)	
	4-081-568-01	CUSHION (LEFT LOWER) REAR (KV-XA25M50/XA25M61EM)	
	4-081-569-01	CUSHION (RIGHT LOWER) REAR (KV-XA25M50/XA25M61EM)	
	4-081-559-01	INDIVIDUAL CARTON (KV-XA25M50/XA25M61/EM)	
	4-081-639-01	INDIVIDUAL CARTON (EXCEPT KV-XA25M50/XA25M61/EM)	
	4-078-793-21	MANUAL, INSTRUCTION (KV-XA25M31 ONLY)	
	4-078-793-31	MANUAL, INSTRUCTION (KV-XA25M50/XA25M61/EM)	

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
	4-078-793-41	MANUAL, INSTRUCTION (KV-XA25M84/XA25M86/XA25M87)				REMOTE COMMANDER *****	
	4-078-793-71	MANUAL, INSTRUCTION (KV-XA25M61/GE/XA25M80/XA25M90)		1-418-038-12		REMOTE COMMANDER (RM-954)	
	4-392-003-11	BAND, HOLD		1-418-040-12		REMOTE COMMANDER (RM-953) (KV-XA25M84/XA25M86/XA25M87)	
	4-392-004-11	CLIP		4-978-977-01		BATTERY COVER REMOTE COMMANDER (RM953)	
				9-933-895-01		BATTERY COVER REMOTE COMMANDER (RM954)	

KV-XA25M61/XA25M31/XA25M90/XA25M80/XA25M50
RM-954

KV-XA25M87/XA25M84/XA25M86
RM-953

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