Panasonic®

Functional Instructions

LCD Projector

Model No. **PT-AE4000U**

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

VIERA Link™

Thank you for purchasing this Panasonic product.
For your own safety, please read "Precautions with regard to safety" of the operating instructions carefully before operating your projector.

ENGLISH

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■ Quick steps

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Getting Started

Basic Operation

Settings

Appendix

Setting up

Screen size and throw distance

You can adjust the projection size with 2 × zoom lens. Calculate and define the throw distance as follows.

Projected image
Screen
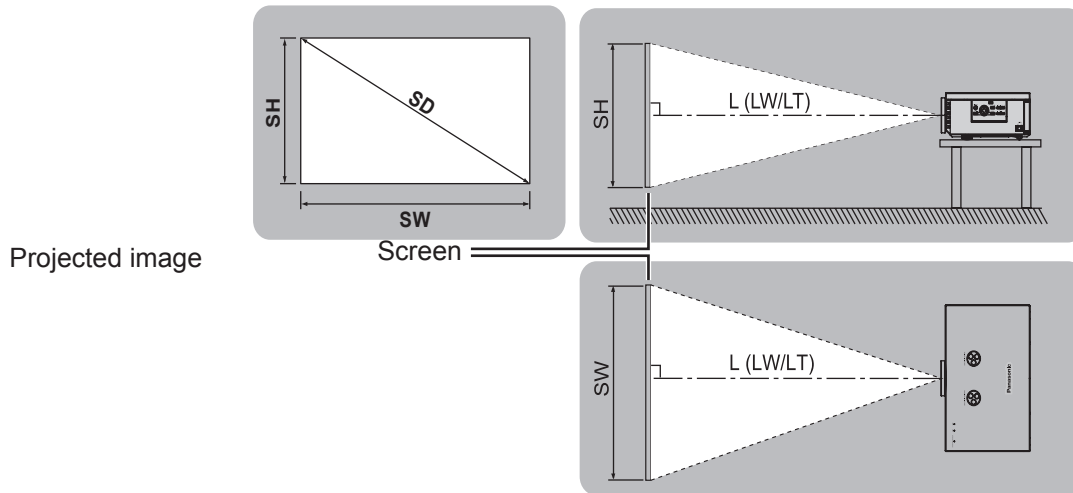
All measurements and the calculation results below are approximate and may differ from the actual measurements.

Screen Diagonal (SD)		Throw distance (16:9)				Throw distance (2.35:1)			
		Minimum distance (LW)		Maximum distance (LT)		Minimum distance (LW)[1]		Maximum distance (LT)	
1.02 m	(40")	1.2 m	(3'11")	2.3 m	(7'6")	1.3 m	(4'3")		
1.27 m	(50")	1.5 m	(4'11")	2.9 m	(9'6")	1.6 m	(5'3")	2.3 m	(7'6")
1.52 m	(60")	1.8 m	(5'10")	3.5 m	(11'5")	1.9 m	(6'2")	2.8 m	(9'2")
1.78 m	(70")	2.1 m	(6'10")	4.1 m	(13'5")	2.2 m	(7'2")	3.3 m	(10'9")
2.03 m	(80")	2.4 m	(7'10")	4.7 m	(15'5")	2.6 m	(8'6")	3.8 m	(12'5")
2.29 m	(90")	2.7 m	(8'10")	5.3 m	(17'4")	2.9 m	(9'6")	4.2 m	(13'9")
2.54 m	(100")	3.0 m	(9'10")	5.9 m	(19'4")	3.2 m	(10'6")	4.7 m	(15'5")
3.05 m	(120")	3.6 m	(11'9")	7.2 m	(23'7")	3.8 m	(12'5")	5.7 m	(18'8")
3.81 m	(150")	4.5 m	(14'9")	9.0 m	(29'6")	4.8 m	(15'9")	7.1 m	(23'3")
5.08 m	(200")	6.0 m	(19'8")	12.0 m	(39'4")	6.4 m	(21'0")	9.6 m	(31'6")
6.35 m	(250")	7.6 m	(24'11")	15.0 m	(49'2")	8.0 m	(26'3")	12.0 m	(39'4")
7.62 m	(300")	9.1 m	(29'10")	18.0 m	(59')	9.6 m	(31'6")	14.4 m	(47'2")

*1. When using both 2.35:1 and 16:9 aspect images onto a 2.35:1 sized screen.

■ Calculation methods for screen dimensions

You can calculate more detailed screen dimensions from the screen diagonal.

	16:9 size	2.35:1 size
Screen height (SH)	= SD (m) × 0.490	= SD (m) × 0.392
Screen width (SW)	= SD (m) × 0.872	= SD (m) × 0.920
Minimum distance (LW)	= SD (m) × 1.189 − 0.04	= SD (m) × 1.256 − 0.04
Maximum distance (LT)	= SD (m) × 2.378 − 0.05	= SD (m) × 1.899 − 0.05

NOTE:
• You can tilt the projector body less than approximately ±30 ° vertically and ±10 ° horizontally. Overtilting may result in shortening the component's life.
• Do not cover the air exhaust/intake ports or place anything within 50 cm (19 5/8") of them.

+30 °
−30 °
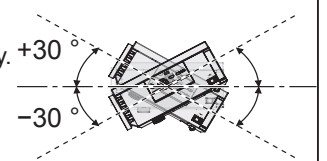
Projection method

You can use the projector with any of the following 4 projection methods. To set the projector in the desired method, see "INSTALLATION" on page 39.

■ **Setting on a desk/floor and projecting from front**
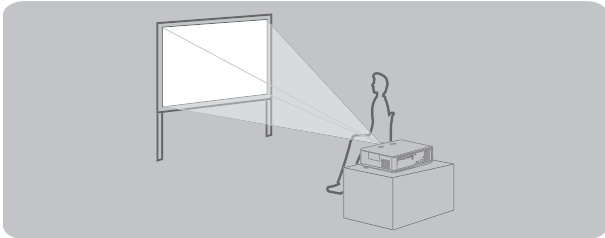
INSTALLATION: FRONT/DESK

■ **Setting on a desk/floor and projecting from rear**
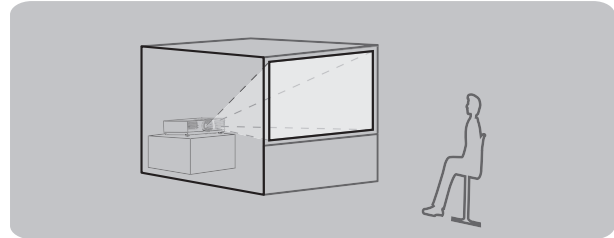
INSTALLATION: REAR/DESK

■ **Mounting on the ceiling and projecting from front**
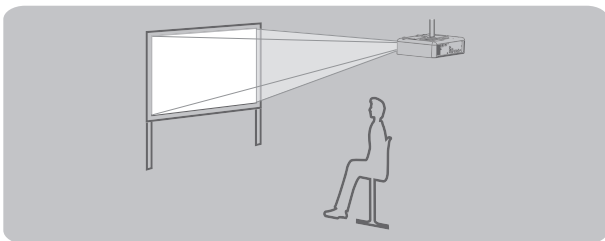
INSTALLATION: FRONT/CEILING

■ **Mounting on the ceiling and projecting from rear**
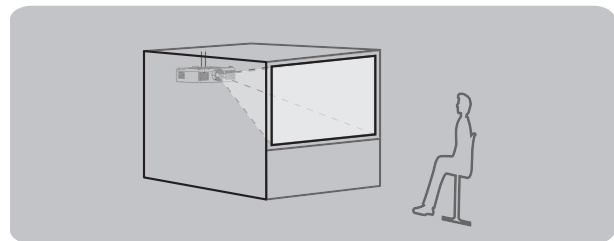
INSTALLATION: REAR/CEILING

NOTE:
- A translucent screen is required for rear projection.
- When mounting the projector on the ceiling, the optional ceiling mount bracket (ET-PKE2000, ET-PKE1000S) is required.
- See "Ceiling mount bracket safeguards" in "Technical Information" of the operating instructions.

Front leg adjusters and throwing angle

You can screw up/down the front leg adjusters to control the angle of the projector for adjusting the throwing angle. See "Positioning the image" on page 12.
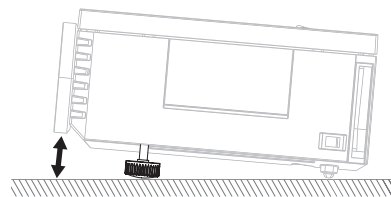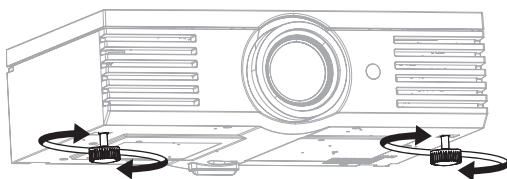
NOTE:
- Heated air comes out of the air exhaust port. Do not touch the air exhaust port directly.
- If keystone distortion occurs, see "KEYSTONE" on page 34.
- Screw up the front leg adjusters, and an audible click will be heard as the limit.

Lens shift and positioning

If the projector is not positioned right in front of the center of the screen, you can adjust the projected image position by moving the lens shift dials within the shift range of the lens.

■ Adjusting the lens shift dials

● Horizontal shift

You can place the projector where the projector lens is up to 40 % horizontally off-center from the screen and then adjust the image position with the **Lens shift dial • Horizontal**.

Up to about 40 %
of the projection

Up to about 40 %
of the projection

Turning the dial clockwise:
Image moves to the right

Turning the dial counterclockwise:
Image moves to the left
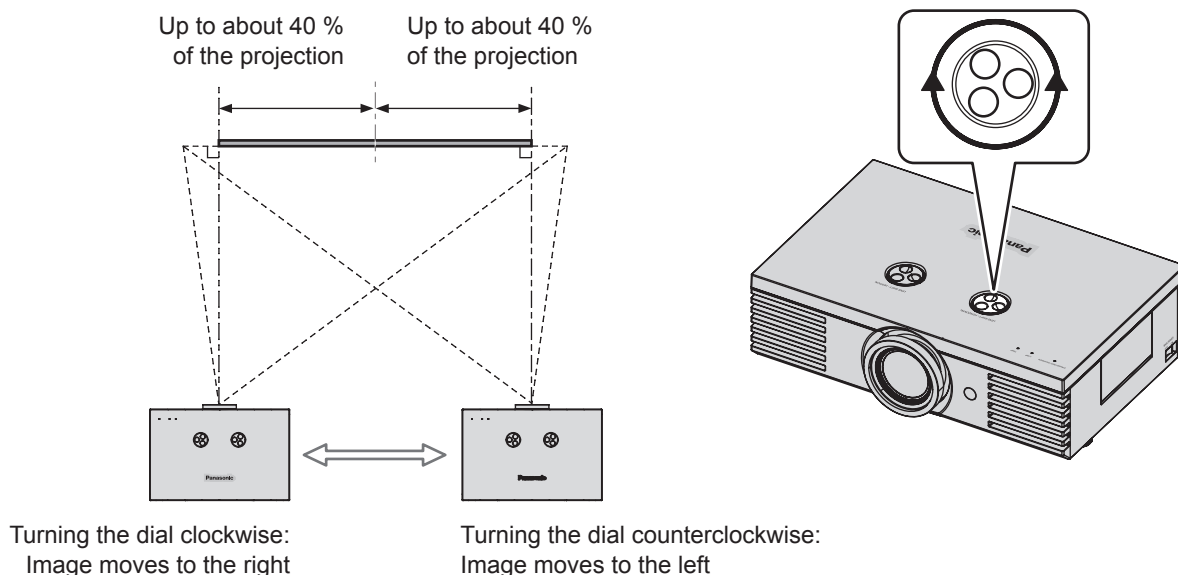
● Vertical shift

You can place the projector where the projector lens is up to 100 % vertically off-center from the screen and then adjust the image position with the **Lens shift dial • Vertical**.

Turning the dial counterclockwise:
Image moves to the bottom

Up to about 100 %
of the projection

Up to about 100 %
of the projection

Turning the dial clockwise:
Image moves to the top
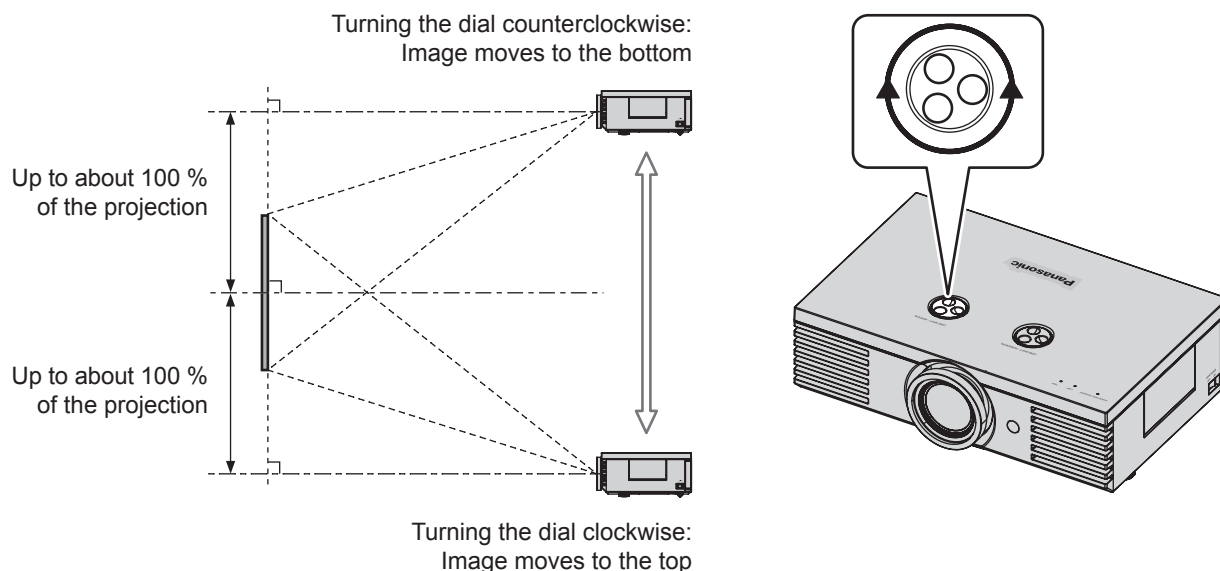
■ Projector location range

You can determine where to locate the screen and the projector by considering the lens shift possibilities.

● When the screen position is fixed
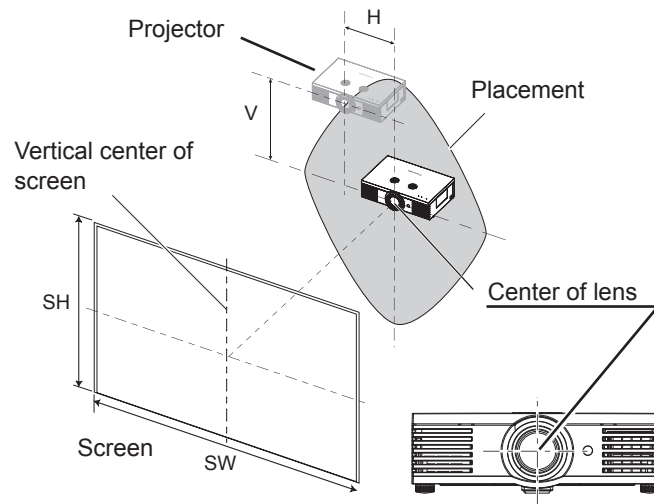
● When the projector position is fixed
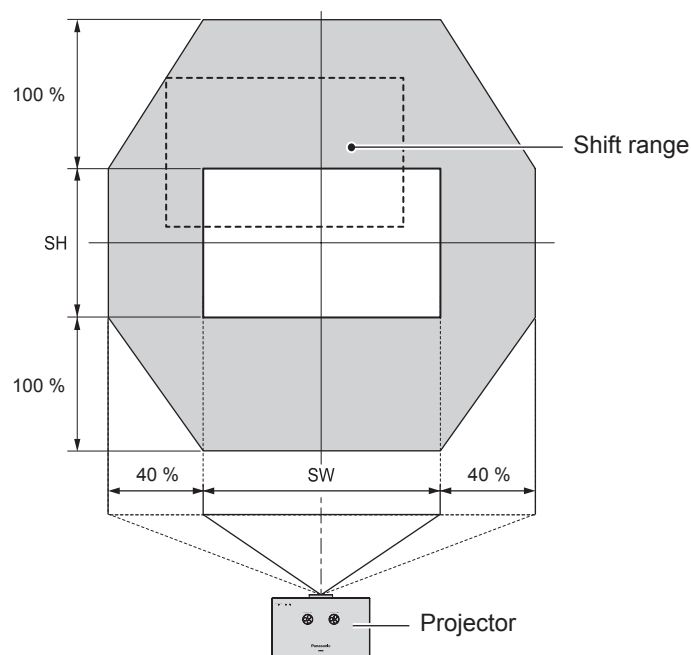
NOTE:
- When the projector is located right in front of the center of the screen and the lens shift dials is centered, you will get the best quality of the projection image.
- When the **Lens shift dial • Vertical** is at the vertical limit of the shift range, you cannot turn the dial to the horizontal limit, likewise when the **Lens shift dial • Horizontal** is at the horizontal limit of the shift range, you cannot turn the dial to the vertical limit.
- When the projector is tilted and adjusting **KEYSTONE**, the center of the screen and the lens need to be realigned.
- Do not force the lens shift dials to turn as this may damage the projector. Turning the dials maximum limit is 3 or 4 times from the default position.

Connections

Before connecting to the projector

- Read and follow the operating and connecting instructions of each peripheral device.
- The peripheral devices must be turned off.
- Use cables that match each peripheral device to be connected.
- Confirm the type of video signals. See "List of compatible signals" in "Technical Information" of the operating instructions.
- Audio cables must be connected from each peripheral device directly to the audio reproduction system.

Connecting example: COMPONENT IN/S-VIDEO IN/VIDEO IN

To COMPONENT video output

To VIDEO output

To S-VIDEO output

DVD player

Video player

DVD player
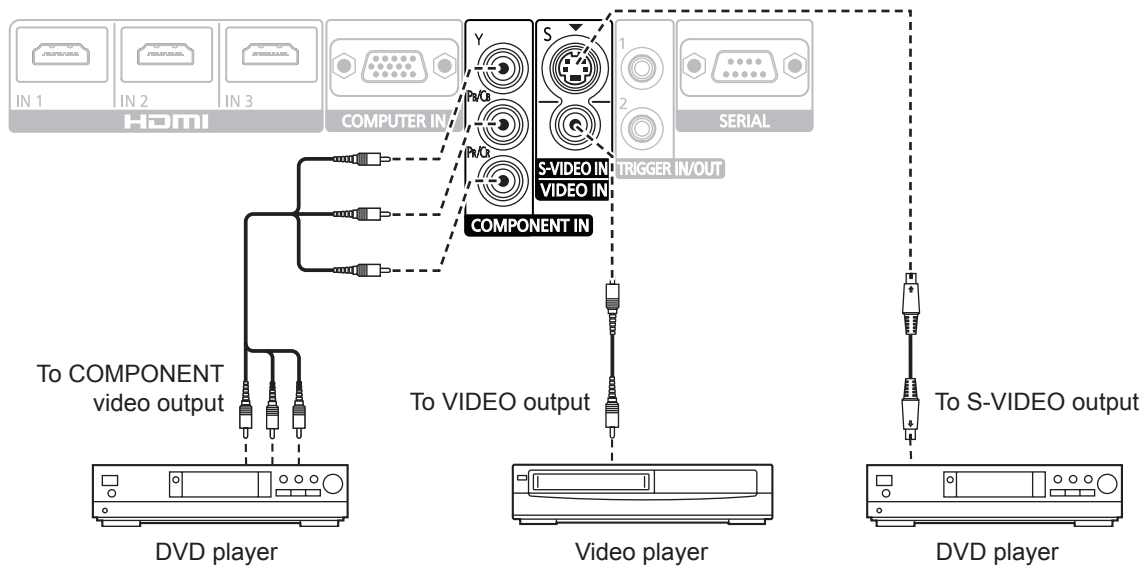
Connecting example: HDMI IN/COMPUTER IN

HDMI cable (Commercial item)

RGB signal cable (Commercial item)

To HDMI output

Blu-ray player

Computer
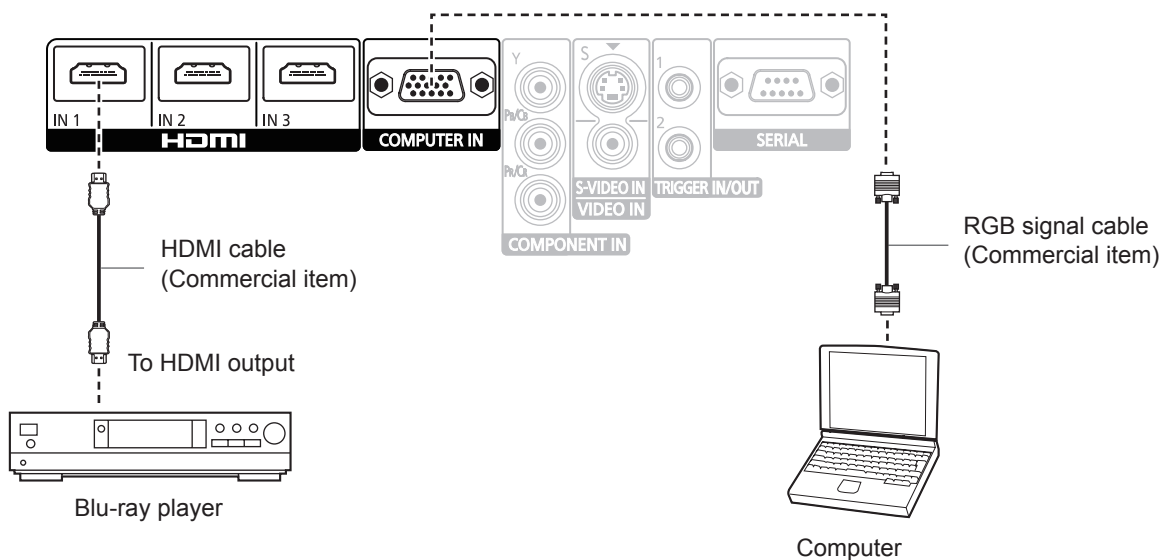
NOTE:
- Make sure the HDMI cable is adapted to your HDMI device for proper performance.
- A compatible cable is required for an HDMI 1 080p signal.
- It is possible to connect with DVI devices via a HDMI/DVI conversion adapter, but some equipment may not project the image properly or other problems could be encountered.
- Please tighten securely, fixing the screws on the connectors (D-SUB 15-pin) of the RGB signal cable.
- For more information about the serial terminals, see "Serial terminal" on page 42.

Switching the projector on/off

Power cord

■ Connecting

1. Make sure the shape of the power plug and the **AC IN** terminal on the back of the projector match, then push the plug all the way in.
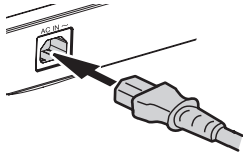
2. Align the side of the power cord secure lock with the side guide rail of the **AC IN** terminal of the projector and slide it in.

Rail guide
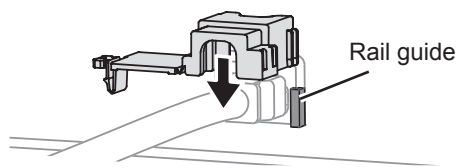
3. Place the latch to the latch catcher and press until it clicks.
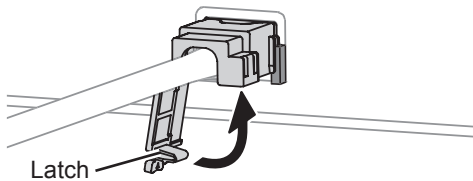
Latch

4. Connect the power cord to a wall outlet.

■ Disconnecting

1. Unplug the power cord from the wall outlet.
2. Depress the latch and slide the cover off.

Latch
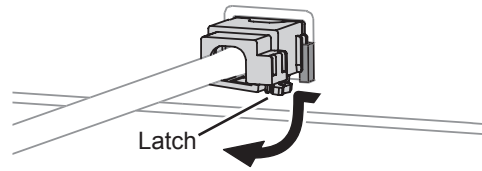
3. Slide the power cord secure lock up along the side guide rail.

Rail guide
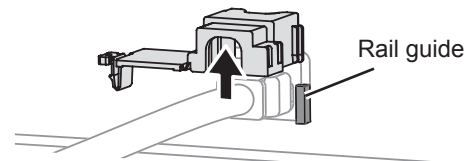
4. Hold the plug and unplug it from the **AC IN** terminal on the back of the projector.

NOTE:
- Do not use other than the provided power cord.
- Ensure all the input devices are connected and turned off before connecting the power cord.
- Do not force the connector as this may damage the projector and/or the power cord.
- Dirt or dust build-up around plugs may cause fire or electrical hazards.
- Switch off the power to the projector when not in use.

Power indicator

Power indicator informs you of the status of the power.
- ● When the **TEMP** indicator is flashing, the power indicator will turn red, and you cannot switch on the power.

Power indicator ——— STANDBY(RED)/ON(GREEN)   LAMP   TEMP
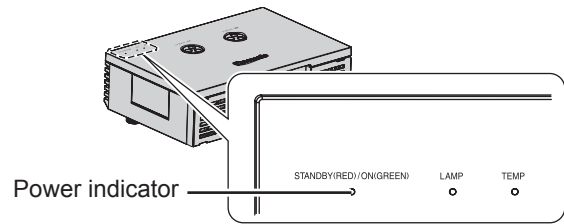
Indicator status		Status
No illumination or flashing		**MAIN POWER** is switched off.
Red	**Lit**	**MAIN POWER** is switched on and the projector is in standby mode.
	Flashing	**MAIN POWER** is switched on (standby mode) and the **POWER ON LINK** is set to **YES**. • The power consumption is not much different when it is lit. (See "VIERA Link™ Connection" on page 45)
Green	**Flashing**	The power button is switched on and the projector is getting ready to project.
	Lit	Projecting.
Orange	**Lit**	The power button is switched off and the projector is cooling the lamp.
	Flashing	The power button is switched on again when cooling the lamp and recovering to projection mode. Recovery may take a while.

NOTE:
- • See "TEMP indicator" in "TEMP and LAMP Indicators" of the operating instructions.
- • While the projector is cooling the lamp, do not switch **MAIN POWER** off or unplug the power cord.
- • The electric consumption in standby mode is 0.08 W.

Switching on the projector
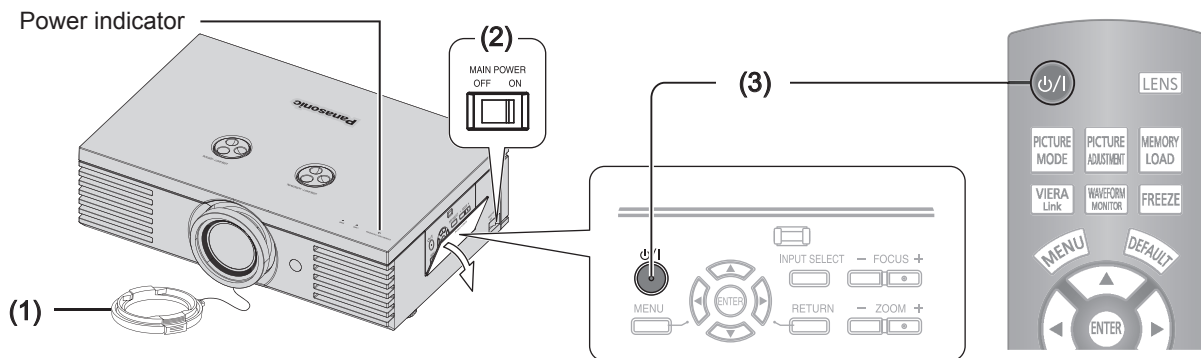
1. Remove the lens cover from the lens.
2. Switch **MAIN POWER** on.
   ● The power indicator lights up in red.

3. Press the power button.
   ● The power indicator lights up in green after flashing for a while.
   ● The **STARTUP LOGO** is displayed on the screen. See "STARTUP LOGO" on page 39.

NOTE:
- When the internal cooling fan is operating, some operational sound may be heard. The loudness of the operational sound depends on the external temperature.
- You can reduce the operational sound by setting the **LAMP POWER** in **OPTION menu** to the **ECO-MODE**. See "LAMP POWER" on page 41.
- When starting up the projector, some small rattling or tinkling sound may be heard, or the display may flicker for the characteristics of the lamp. Those are normal and will not affect the performance of the projector.
- Do not attempt to modify the lens cover which may cause burns, fire or damage to the projector.

Switching off the projector
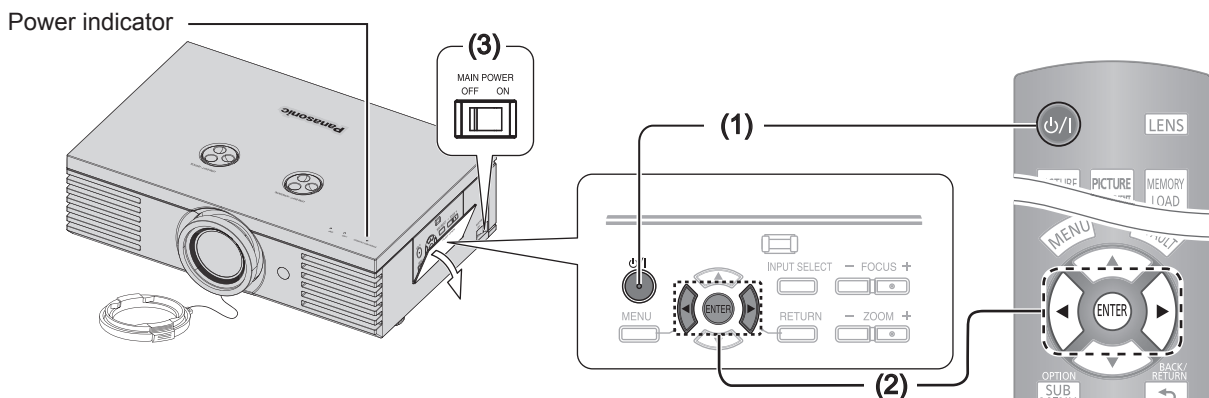
1. Press the power button.
   ● The confirmation screen is displayed.
   ● To return to the projection, press the **MENU** or **RETURN** button.

2. Press the power or **ENTER** button.
   ● The power indicator lights up in orange while cooling the lamp, then illuminates red when it is ready to switch off **MAIN POWER**.
3. Switch off **MAIN POWER** on the left side of the projector.
4. Attach the lens cover.

NOTE:
- Press the power button twice or for a long duration to switch the power off.

Projecting an image

Selecting the input signal

1. Switch on the connected devices.
   - Press the play button of the required device.
2. Press the **INPUT SELECT** button to select the required input method if needed. See "Switching the input signal" on page 15.
   - The image will be projected on the screen.

NOTE:
- **AUTO SEARCH** is **ON** as default and the signal from the connected devices is detected automatically. See "AUTO SEARCH" on page 39.

Positioning the image

1. Adjust the projected image with the lens shift dials. See "Lens shift and positioning" on page 6.

2. Adjust the angle of the projector.
   - Screw the front leg adjusters up/down and adjust the angle vertically.
   - See "Front leg adjusters and throwing angle" on page 5.

3. Adjust the focus and the projected image size.
   - Press +/− of the **FOCUS** and **ZOOM** buttons to adjust.
   - Press the **LENS** button to adjust the focus and zoom by the remote control. See "LENS CONTROL" on page 35.
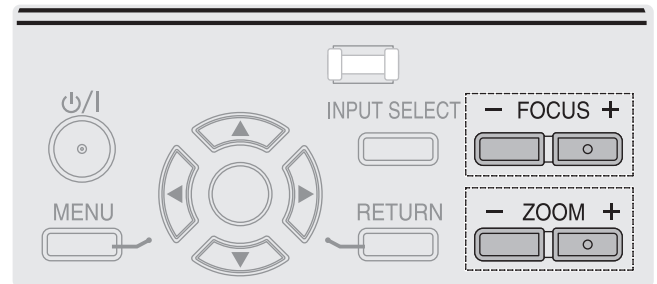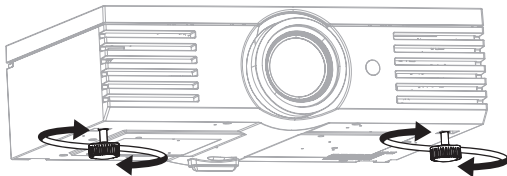
NOTE:
- Do not touch the air exhaust port as this may cause burns or injury.
- If keystone distortion occurs, see "KEYSTONE" on page 34.
- If you adjust the focus, you may need to adjust the size of the image by pressing the **ZOOM** button again.

Remote control operation

Operating range
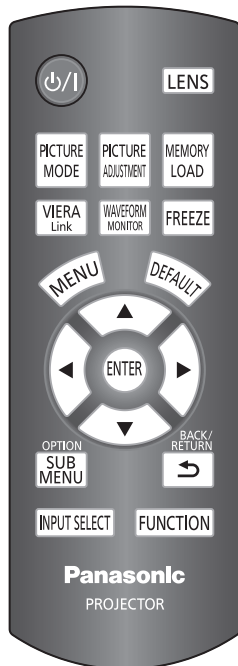
You can operate the projector with the remote control within the remote range of 7 m (22'11").

● **Facing to the projector**
Ensure the remote control emitter is facing the remote control signal receptor on the front of the projector and press the required buttons to operate.

● **Facing to the screen**
Ensure the remote control emitter is facing the screen and press the required buttons to operate the projector. The signal will be reflected off the screen. The operating range may differ due to the screen material. This function may not be effective with a translucent screen.

NOTE:
- Do not let strong light shine onto the signal receptor. The remote control may malfunction under strong light such as fluorescent light.
- If there are any obstacles between the remote control and the remote control signal receptor, the remote control may not operate correctly.

Managing the lens control settings

LENS You can adjust the focus and zoom of the projected image, and save the settings. Press the **LENS** button once to display the **LENS CONTROL** menu.

If you have saved Lens Memories, press the **LENS** button twice to load the saved memories instantly. And press the **LENS** button three times to go back to the **LENS CONTROL** menu.
See "LENS CONTROL" on page 35.

Switching the picture mode

PICTURE MODE You can switch the preset picture mode settings by pressing the **PICTURE MODE** button. Press the button until the required setting is selected. See "PICTURE MODE" on page 20.

NORMAL	←	CINEMA3
↓	↑	
DYNAMIC		CINEMA2
↓	↑	
COLOR1		
↓		
COLOR2	→	CINEMA1
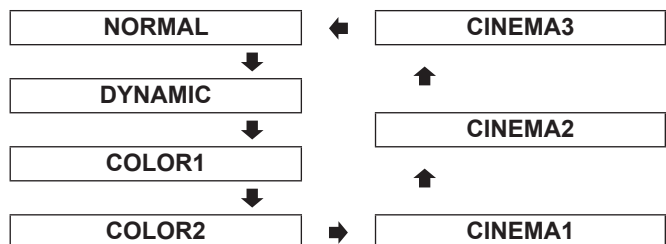
Adjusting the image

PICTURE ADJUSTMENT You can display the **PICTURE** and **ADVANCED MENU** menu items by pressing the **PICTURE ADJUSTMENT** button. Press the button to switch between **PICTURE** and **ADVANCED MENU** menu.
Press ▲ ▼ to select the required menu item and ◄ ► to adjust.

● **PICTURE menu items**
PICTURE MODE, **CONTRAST**, **BRIGHTNESS**, **COLOR**, **TINT**, **SHARPNESS**, **COLOR TEMPERATURE** and **DYNAMIC IRIS**

● **ADVANCED MENU items**
GAMMA ADJUSTMENT, **CONTRAST R/G/B**, **BRIGHTNESS R/G/B**, **NR**, **MPEG NR**, **FRAME CREATION**, **COLOR MANAGEMENT**, **x.v.Color**, **DETAIL CLARITY**, **CINEMA REALITY**, **TV-SYSTEM** and **RGB/YPbPr**.

NOTE:
- For each menu item description, see "PICTURE menu" on page 20.
- The screen will be cleared after 7 seconds without any operation.
- The **GAMMA** setting is only available when the **GAMMA ADJUSTMENT** is set to **SIMPLE**.

Loading a saved setting

MEMORY LOAD

You can access saved settings instantly. See "MEMORY LOAD" on page 31.

1. Select the required setting from **MEMORY 1 - 16**.
   - Undefined setting will not be displayed.
2. Press the **ENTER** button to activate the selected setting.

> **NOTE:**
> • If you have not saved any settings, **MEMORY 1 - 16** will not be displayed.

VIERA Link

VIERA Link

You can control some functions of the connected equipment with this projector remote control.
See the operating instructions for more details.

Adjusting the signal condition with a waveform

WAVEFORM MONITOR

You can display the image brightness and contrast level of the input signal with a waveform. See "WAVEFORM MONITOR" on page 21.

FULL SCAN	Monitoring the waveform of brightness and contrast of the whole image.
SINGLE LINE SCAN	Monitoring the waveform of brightness and contrast in each horizontal line of the image.

■ Displaying the waveform
1. Press the **WAVEFORM MONITOR** button and display the waveform monitor.
   - Press the **WAVEFORM MONITOR** button again to escape from the waveform mode.

2. Press the **ENTER** button until the required waveform option is displayed.
   - In **FULL SCAN** mode, press ▲ ▼ ◄ ► to change the waveform position.
   - In **SINGLE LINE SCAN** mode, press ▲ ▼ to select the required line position.

FULL SCAN(Y)	←	SINGLE LINE SCAN(B)
↓		↑
FULL SCAN(R)		SINGLE LINE SCAN(G)
↓		↑
FULL SCAN(G)		SINGLE LINE SCAN(R)
↓		↑
FULL SCAN(B)	→	SINGLE LINE SCAN(Y)

> **NOTE:**
> • In **SINGLE LINE SCAN** mode, the position of the waveform monitor depends on the position of the selected line.
> • You can display the main menu by pressing the **MENU** button and adjust the menu items.
> • The called up menu items displayed position depends on the position of the waveform monitor.
> • You can activate **AUTO ADJUST** of the **WAVEFORM MONITOR** menu by pressing the **DEFAULT** button.
> • The signal which is lower than 0 % in the waveform will be displayed as same as 0 % on the projected image.
> • While the waveform is displayed, you can not adjust the **COLOR MANAGEMENT** settings.

Capturing an image

FREEZE

Press the **FREEZE** button to capture the image, and you can see it as a still picture while the AV equipment are still running. Press the **FREEZE** button again to escape and return to the continuing image.

While displaying the frozen image, you can enter the **AREA SELECT** mode of the **SPLIT ADJUST** menu by pressing the **ENTER** button. See "SPLIT ADJUST" on page 22.

Resetting to the factory default settings

DEFAULT

You can reset most of the customized settings to the factory defaults by pressing the **DEFAULT** button. Display the required sub-menu or the menu items and press the button.

> **NOTE:**
> • Some menu items are not available to reset by pressing the **DEFAULT** button. Adjust each menu item manually.

SUB MENU

SUB MENU | You can command the connected equipment to display their sub menu.
● It is used with the Link function (VIERA Link).

Switching the input signal

INPUT SELECT | You can switch the input method manually by pressing the **INPUT SELECT** button. Press the button several times or press ▲ ▼ ◄ ► to cycle through the input methods as follows. The actual projected image will be changed in a while.

● The graphical guidance will be displayed on the upper right of the projected image and you can confirm the selected input method which is highlighted in yellow. See "INPUT GUIDE" on page 39.

COMPONENT IN	⬌	S-VIDEO IN
⬆⬇		⬆⬇
COMPUTER IN		VIDEO IN
⬆⬇		⬆⬇
HDMI 3 IN		
⬆⬇		
HDMI 2 IN	⬌	HDMI 1 IN
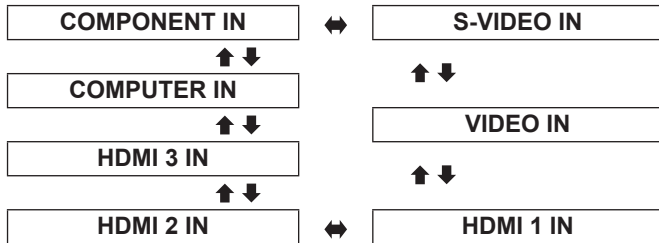
COMPONENT IN	**COMPONENT** (YP$_B$P$_R$) signals from the equipment connected to **COMPONENT IN**.
S-VIDEO IN	**S-VIDEO** signal from the equipment connected to **S-VIDEO IN**.
VIDEO IN	**VIDEO** signal from the equipment connected to **VIDEO IN**.
HDMI 1 IN	**HDMI** signal from the equipment connected to **HDMI IN 1**/**HDMI IN 2**/**HDMI IN 3**.
HDMI 2 IN	
HDMI 3 IN	
COMPUTER IN	**RGB**/**YP$_B$P$_R$** signal from the equipment connected to **COMPUTER IN**.

NOTE:
- If you select an unplugged input method, the guidance will blink on and off.
- See "List of compatible signals" in "Technical Information" of the operating instructions.
- See "Connections" on page 8.

Using the assigned function as a shortcut

FUNCTION | You can access the assigned function in **FUNCTION BUTTON** menu as a shortcut. See "FUNCTION BUTTON" on page 38.

COLOR MANAGEMENT	page 27	OPERATE OTHER DEVICE	Booklet
GAMMA ADJUSTMENT	page 23	ASPECT	page 32
SPLIT ADJUST	page 22	AUTO SETUP	page 34
WAVEFORM AUTO ADJUST	page 21	CONTRAST	page 20
FRAME CREATION	page 26	BRIGHTNESS	
NORMAL	page 20	BLANK	page 38
DYNAMIC		HDMI 1 IN	page 15
COLOR1		HDMI 2 IN	
COLOR2		HDMI 3 IN	
CINEMA1		COMPUTER IN	
CINEMA2		COMPONENT IN	
CINEMA3		S-VIDEO IN	
TEST PATTERN	page 41	VIDEO IN	

Menu Navigation

Navigating through the MENU

■ Displaying the main menu

MENU

Press the **MENU** button to display the main menu and the operating guidance.

Main menu | Sub-menu | Current settings

PICTURE		
POSITION	PICTURE MODE	NORMAL
LANGUAGE	CONTRAST	0 − +
LENS CONTROL	BRIGHTNESS	0 − +
FUNCTION BUTTON	COLOR	0 − +
VIERA LINK	TINT	0 − +
OPTION	SHARPNESS	0 − +
	COLOR TEMPERATURE	0 − +
	DYNAMIC IRIS	ON
ENTER SELECT	WAVEFORM MONITOR	
RETURN	SPLIT ADJUST	
	ADVANCED MENU	
	MEMORY SAVE	
	MEMORY LOAD	
	MEMORY EDIT	
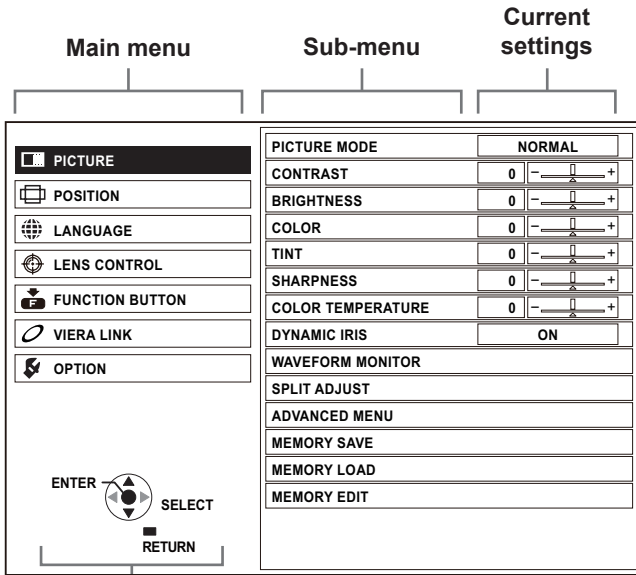
Operating guidance
Contains the required buttons to adjust the settings.

■ Adjusting with the bar scale items

The triangle mark under the bar indicates factory default setting and the square indicates the current setting.

Current setting

BRIGHTNESS ◄ 0 − + ►

Default
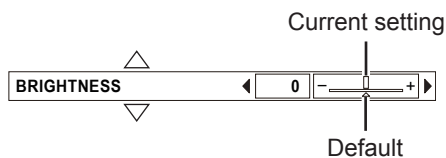
■ Returning to the previous menu

⤺

Press the **MENU** or **RETURN** button to return to the previous menu. Press repeatedly to escape from the menu mode and return to the projection.

■ Operating procedure

1. Press ▲ ▼ to scroll to the required main menu item and press the **ENTER** button to select.
   - The selected item is highlighted in orange and the sub-menu is displayed on the right.
   - See "Menu list" on page 17.

PICTURE	H-POSITION	0 − +
POSITION	V-POSITION	0 − +
LANGUAGE	ASPECT	16:9
LENS CONTROL	WSS	ON
FUNCTION BUTTON	OVER SCAN	+7 − +
VIERA LINK	KEYSTONE	0 − +
OPTION		
ENTER SELECT RETURN		
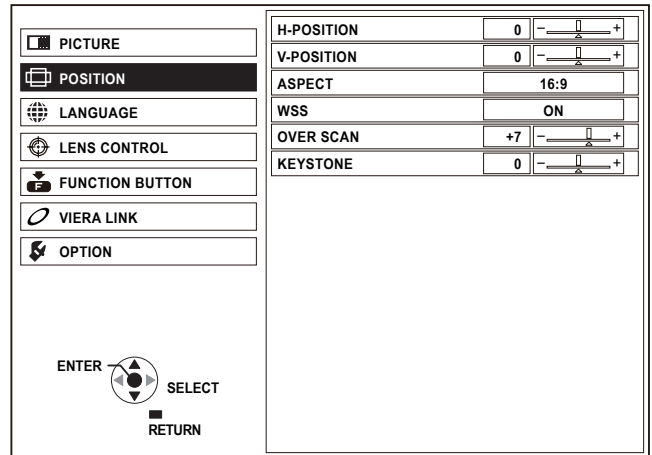
2. Press ▲ ▼ to scroll to the required sub-menu item and press ◄ ► or the **ENTER** button to adjust.
   - The selected item is called up and the other menu items disappear from the screen. The Called up item will disappear after 5 seconds without any operation and return to the menu mode.
   - If there is a lower level to the sub-menu item, the next level will be displayed.

PICTURE	H-POSITION ◄ 0 − + ►
POSITION	V-POSITION 0 − +
LANGUAGE	ASPECT 16:9
LENS CONTROL	WSS ON
FUNCTION BUTTON	OVER SCAN +7 − +
VIERA LINK	KEYSTONE 0 − +
OPTION	
ENTER DEFAULT SELECT RETURN	
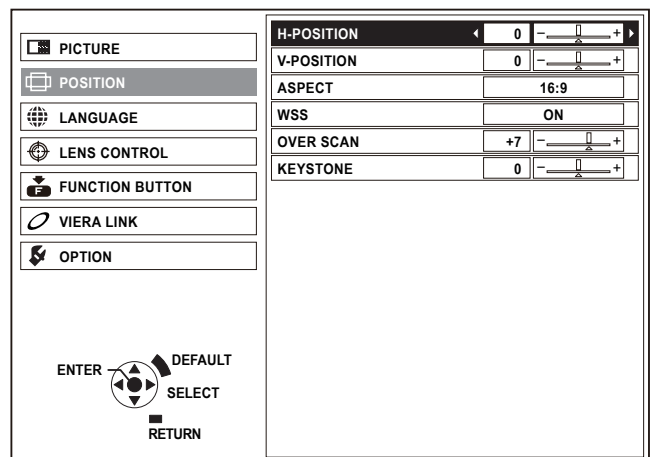
3. Press ◄ ► to adjust or set the selected item.
   - For items using a bar scale, the current settings are displayed on the left of the bar scale.
   - You can cycle through the options of an item by pressing ▲ ▼.

BRIGHTNESS ◄ 0 − + ►

4. Press the **MENU** or **RETURN** button to return to the previous menu.

Menu list

The menu options are structured and categorized. You can navigate through the menu with ▲ ▼ ◄ ► buttons.

NOTE:
- The underlined items are factory default settings.
- Some default settings vary by the selected input signal.
- Sub-menu items vary according to the selected input signal.
- Some settings are adjustable without any signals.

▦ PICTURE

- It is possible to adjust the picture quality.

PICTURE MODE		page 20
NORMAL	DYNAMIC	
COLOR1	COLOR2	
CINEMA1	CINEMA2	
CINEMA3		

CONTRAST	page 20
(Default: 0)	

BRIGHTNESS	page 20
(Default: 0)	

COLOR	page 20
(Default: 0)	

TINT	page 20
(Default: 0)	

SHARPNESS	page 20
(Default: 0)	

COLOR TEMPERATURE	page 21
(Default: 0)	

DYNAMIC IRIS		page 21
ON	OFF	

WAVEFORM MONITOR		page 21
OFF		
FULL SCAN(Y)	FULL SCAN(R)	
FULL SCAN(G)	FULL SCAN(B)	
SINGLE LINE SCAN(Y)		
SINGLE LINE SCAN(R)		
SINGLE LINE SCAN(G)		
SINGLE LINE SCAN(B)		
MONITOR POSITION		
UPPER LEFT	UPPER CENTER	
UPPER RIGHT	LOWER LEFT	
LOWER CENTER	LOWER RIGHT	
AUTO ADJUST		
START AUTO ADJUST		
BLACK LEVEL ADJUST		
WHITE LEVEL ADJUST		
RGB ADJUST (BLACK)		
RGB ADJUST (WHITE)		

SPLIT ADJUST		page 22
AREA SELECT		
SPLIT ADJUST MODE		
NORMAL	REVERSE	

▼

▲

ADVANCED MENU		page 23
GAMMA ADJUSTMENT		
SIMPLE	ADVANCED	
CONTRAST R	(Default: 0)	
CONTRAST G	(Default: 0)	
CONTRAST B	(Default: 0)	
BRIGHTNESS R	(Default: 0)	
BRIGHTNESS G	(Default: 0)	
BRIGHTNESS B	(Default: 0)	
NR	(Default: 0)	
MPEG NR	(Default: 0)	
FRAME CREATION		
OFF	MODE1	
MODE2	MODE3	
COLOR MANAGEMENT		
PROFILE	ADJUSTMENT MODE	
START ADJUSTMENT	LOG	
PROFILE SAVE	PROFILE DELETE	
PROFILE NAME CHANGE		
x.v.Color		
ON	OFF	
DETAIL CLARITY	(Default: 3)	
CINEMA REALITY		
ON	OFF	
TV-SYSTEM		
AUTO		
NTSC	NTSC 4.43	
PAL	PAL-M	
PAL-N	SECAM	
RGB/YPbPr		
AUTO	RGB	YPbPr

MEMORY SAVE	page 30
MEMORY 1 - 16	

MEMORY LOAD	page 31
MEMORY 1 - 16	

MEMORY EDIT		page 31
MEMORY DELETE		
MEMORY 1 - 16	ALL DELETE	
MEMORY NAME CHANGE		
MEMORY 1 - 16		

SIGNAL MODE	page 31

Menu Navigation

🖵 POSITION

- It is possible to adjust the image size and position.

H-POSITION (Default: 0)	page 32
V-POSITION (Default: 0)	page 32
DOT CLOCK (Default: 0)	page 32
CLOCK PHASE (Default: 0)	page 32
ASPECT	page 32

4:3	**16:9**	**s16:9**	**14:9**
ZOOM	**ZOOM1**	**ZOOM2**	**JUST**
AUTO	**H-FIT**	**V-FIT**	

WSS	page 34

<u>**ON**</u>	**OFF**

OVER SCAN	page 34
KEYSTONE (Default: 0)	page 34
AUTO SETUP	page 34

🌐 LANGUAGE

- It is possible to change the display language.

DEUTSCH	POLSKI
FRANÇAIS	ČEŠTINA
ESPAÑOL	MAGYAR
ITALIANO	РУССКИЙ
PORTUGUÊS	ไทย
SVENSKA	한국어
NORSK	<u>ENGLISH</u>
DANSK	中文
	日本語

◎ LENS CONTROL

- It is possible to adjust the lens position.

ZOOM/FOCUS	page 35
LENS MEMORY LOAD LENS MEMORY 1 - 6	page 35
LENS MEMORY SAVE LENS MEMORY 1 - 6	page 35
LENS MEMORY EDIT	page 36

LENS MEMORY DELETE
  LENS MEMORY 1 - 6   ALL DELETE
LENS MEMORY NAME CHANGE
  LENS MEMORY 1 - 6

AUTO SWITCHING	page 36

2.35:1 IMAGE DETECTION
  <u>OFF</u>   LENS MEMORY 1 - 6
16:9 IMAGE DETECTION
  <u>OFF</u>   LENS MEMORY 1 - 6

▼

▲

H-AREA POSITION (Default: 0)	page 37
V-AREA POSITION (Default: 0)	page 37
LEFT MASKING AREA (Default: 0)	page 37
RIGHT MASKING AREA (Default: 0)	page 37
UPPER MASKING AREA (Default: 0)	page 37
LOWER MASKING AREA (Default: 0)	page 37

Ｆ FUNCTION BUTTON   page 38

- It is possible to assign a useful function to the **FUNCTION** button.

<u>COLOR MANAGEMENT</u>	
GAMMA ADJUSTMENT	
SPLIT ADJUST	
WAVEFORM AUTO ADJUST	
FRAME CREATION	
NORMAL	DYNAMIC
COLOR1	COLOR2
CINEMA1	CINEMA2
CINEMA3	TEST PATTERN
OPERATE OTHER DEVICE	
ASPECT	AUTO SETUP
CONTRAST	BRIGHTNESS
BLANK	HDMI 1 IN
HDMI 2 IN	HDMI 3 IN
COMPUTER IN	COMPONENT IN
S-VIDEO IN	VIDEO IN

𝒪 VIERA LINK

- It is possible to link with the connected equipment.

VIERA LINK CONTROL	Booklet

RECORDER 1 - 3
PLAYER 1 - 3
HOME THEATER 1 - 3
CAMCORDER 1 - 3
LUMIX 1 - 3
OTHER 1 - 4

HOME THEATER VOLUME	Booklet
HOME THEATER MUTE	Booklet
OPERATE OTHER DEVICE	Booklet

OPTION

- It is possible to change the option settings.

INPUT GUIDE		page 39
<u>DETAILED</u>	OFF	
SIMPLE		

OSD DESIGN		page 39
<u>TYPE1</u>	TYPE2	
TYPE3		

OSD POSITION		page 39
<u>CENTER</u>	LOWER LEFT	
LOWER CENTER	LOWER RIGHT	
UPPER LEFT	UPPER CENTER	
UPPER RIGHT		

BACK COLOR		page 39
<u>BLUE</u>	BLACK	

STARTUP LOGO		page 39
<u>ON</u>	OFF	

AUTO SEARCH		page 39
<u>ON</u>	OFF	

HDMI SIGNAL LEVEL		page 39
<u>NORMAL</u>	EXPAND	

FRAME RESPONSE		page 39
<u>NORMAL</u>	FAST	

INSTALLATION		page 39
<u>FRONT/DESK</u>	FRONT/CEILING	
REAR/DESK	REAR/CEILING	

TRIGGER 1/2 SETTING	page 40
<u>OFF</u>	
OUTPUT	
POWER ON	
SELECT LENS MEMORY 1 - 6	
BLANK	
SELECT 4:3 ASPECT	
SELECT 16:9 ASPECT	
SELECT S16:9 ASPECT	
SELECT JUST ASPECT	
SELECT ZOOM ASPECT	
SELECT H-FIT ASPECT	
SELECT V-FIT ASPECT	
RS-232C COMMAND LINK	

▼

▲

DELAY TIME			
<u>0 SEC.</u>	2 SEC.	4 SEC.	6 SEC.
8 SEC.	10 SEC.	20 SEC.	30 SEC.
INPUT			
POWER ON/OFF	BLANK		

SLEEP			page 41
<u>OFF</u>	60 MIN.	90 MIN.	120 MIN.
150 MIN.	180 MIN.	210 MIN.	240 MIN.

HIGH ALTITUDE MODE		page 41
<u>OFF</u>	ON	

LAMP POWER		page 41
<u>NORMAL</u>	ECO-MODE	

VIERA LINK SETTINGS		page 41
VIERA LINK		
<u>ON</u>	OFF	
POWER ON LINK		
<u>NO</u>	YES	
POWER OFF LINK		
<u>YES</u>	NO	
STAND-BY POWER SAVE		
<u>NO</u>	YES	
AUTO POWER STAND-BY		
<u>NO</u>	YES (WITH REMINDER)	
YES (NO REMINDER)		
VERSION		

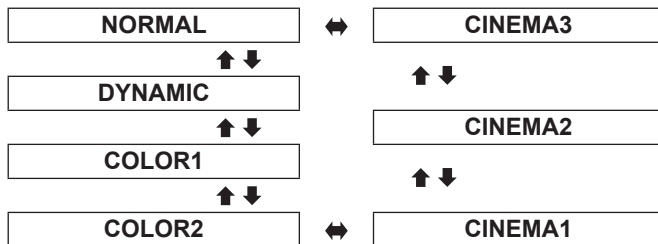| TEST PATTERN	page 41
LAMP RUNTIME	page 41

PICTURE menu
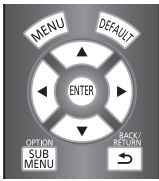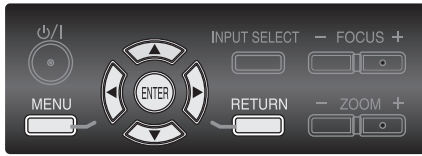
- See "Navigating through the MENU" on page 16.
- See "Menu list" on page 17.

PICTURE MODE

Depending on the projection environment, you can use these preset parameter settings to optimise image projection. Press ◄ ► to cycle through the options.

NORMAL	Setting for a general image, such as sports programme or TV games.
DYNAMIC	Bright and sharp setting.
COLOR1	Setting for HDTV standard in ITU-R BT. 709 and color temperature 6 500 K at the default setting of the **PICTURE** menu items.
COLOR2	Setting for DCDM standard (SMPTE431-2) and color temperature 6 300 K at the default setting of the **PICTURE** menu items.
CINEMA1	Setting tuned by top Hollywood colorists.
CINEMA2	Deeper and more rich color setting
CINEMA3	Vivid and crisp color setting.

NOTE:
- It may take a while until the selected mode is stabilized.

CONTRAST

You can adjust the contrast of the projected image. Adjust the **BRIGHTNESS** in advance if necessary.

Lower **Higher**

- Setting range: −64 to +64

BRIGHTNESS

You can adjust the brightness of the projected image.

Darker **Brighter**

- Setting range: −32 to +32

COLOR

You can adjust the color saturation of the projected image.

Lighter **Darker**

- Setting range: −32 to +32
- When **RGB/YP$_B$P$_R$** signal is connected, only available with the following signals.

  1 125 (1 080)/60i   1 125 (1 080)/50i

  1 125 (1 080)/60p   1 125 (1 080)/50i

TINT

You can adjust the skin tone in the projected image.

More reddish **More greenish**

- Setting range: −32 to +32
- When **COMPUTER** signal is connected, only available with the following signals.

  1 125 (1 080)/60i   1 125 (1 080)/50i

  1 125 (1 080)/60p   1 125 (1 080)/50i

SHARPNESS

You can adjust the sharpness of the projected image.

Less sharp **More sharp**

- Setting range will vary according to the selected input signal.

COLOR TEMPERATURE

You can adjust the white balance of the projected image.

Less bluish ◄ ENTER ► **More bluish**

● Setting range: −6 to +6

DYNAMIC IRIS

You can switch automatic adjustment of the lamp and the lens iris on/off.

● **ON:** Automatic adjustment
● **OFF:** No adjustment

WAVEFORM MONITOR

You can monitor whether or not the luminance level of the input signal is in the recommended range by displaying it in the waveform monitor. If the waveform is not in the recommended range, adjust it for the best quality. See "Adjusting the signal condition with a waveform" on page 14.

● OFF	
FULL SCAN(Y)	
FULL SCAN(R)	
FULL SCAN(G)	
FULL SCAN(B)	
SINGLE LINE SCAN(Y)	
SINGLE LINE SCAN(R)	
SINGLE LINE SCAN(G)	
SINGLE LINE SCAN(B)	
MONITOR POSITION	UPPER LEFT
AUTO ADJUST	

1. Press ▲ ▼ to move to the required waveform style.
2. Press the **ENTER** button to select.
   ● The **WAVEFORM MONITOR** will be displayed.

NOTE:
- When the **WAVEFORM MONITOR** is set to **OFF**, the **AUTO ADJUST** is not displayed.
- The waveform of the **WAVEFORM MONITOR** will not be displayed correctly with a noisy equipment or source.
- The **WAVEFORM MONITOR** adjusts the signal level based on the reference signal which consists of 0 % and 100 %. The over scanned reference signal which runs off the edge of the screen, below 0 % or over 100 % signal level will not be adjusted correctly.

■ MONITOR POSITION

When the **FULL SCAN** is selected, press ▲ ▼ ◄ ► to adjust the position of the monitor.
● See "Adjusting the signal condition with a waveform" on page 14.
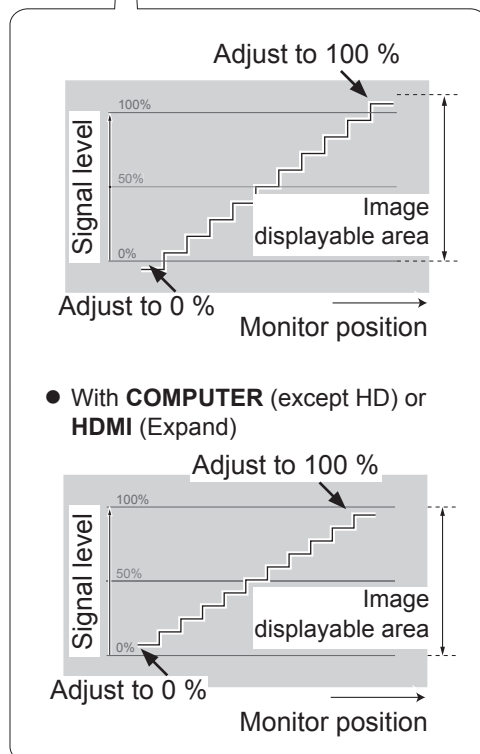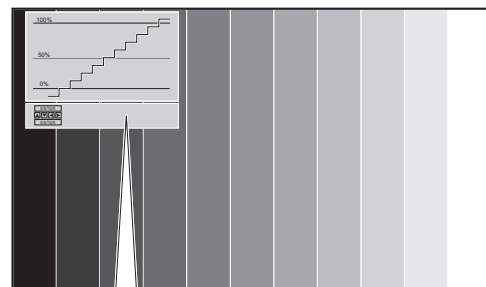
■ AUTO ADJUST

You can switch on/off the automatic adjustment system in each item.

BLACK LEVEL ADJUST Adjust the black level of luminance (Y) to 0 %.	**ON**
WHITE LEVEL ADJUST Adjust the white level of luminance (Y) to 100 %.	**ON**
RGB ADJUST (BLACK) Adjust the black level of colors (R/G/B) to 0 %.	**OFF**
RGB ADJUST (WHITE) Adjust the white level of colors (R/G/B) to 100 %.	**OFF**

1. Press ▲ ▼ and select the required item.
2. Press ◄ ► and switch on/off.
3. Press ▲ ▼ and select **START AUTO ADJUST** and press the **ENTER** button.
   ● The confirmation screen will be displayed.
4. Press ◄ ► and select **OK**.
5. Press the **ENTER** button.

■ Adjustment example

Project a commercial test signal for picture adjustment on the screen and press the **WAVEFORM MONITOR** button.

Adjust to 100 %
Signal level
Image displayable area
Adjust to 0 %
Monitor position

● With **COMPUTER** (except HD) or **HDMI** (Expand)

Adjust to 100 %
Signal level
Image displayable area
Adjust to 0 %
Monitor position

PICTURE menu

● Adjusting with luminance options

1. Press the **ENTER** button several times to display **FULL SCAN(Y)/SINGLE LINE SCAN(Y)**.
   - In **SINGLE LINE SCAN** mode, select the required adjusting point by pressing ▲ ▼.
2. Press the **PICTURE ADJUSTMENT** button and display the **BRIGHTNESS** by pressing ▲ ▼.
   - When **ADVANCED MENU** is displayed, press the button again to switch to the **PICTURE** menu.
3. Adjust by pressing ◄ ►.
   - Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE).
   - Setting range: −32 to +32
4. Press ▲ ▼ to display the **CONTRAST**.
5. Adjust by pressing ◄ ►.
   - Adjust the up line of the waveform to 100 % (100 IRE).
   - Setting range: −64 to +64

FULL SCAN(Y)/SINGLE LINE SCAN(Y)	
BRIGHTNESS	Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE)
CONTRAST	Adjust the top line of the waveform to 100 % (100 IRE)

● Adjusting with RGB options

1. Press the **ENTER** button several times to display the required R/G/B waveform option.
   - In **SINGLE LINE SCAN** mode, select the required adjusting point by pressing ▲ ▼.
2. Press the **PICTURE ADJUSTMENT** button and display the **BRIGHTNESS R/BRIGHTNESS G/ BRIGHTNESS B** by pressing ▲ ▼.
   - When **PICTURE** menu is displayed, press the button again to switch to the **ADVANCED MENU**.
3. Adjust by pressing ◄ ►.
   - Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE).
   - Setting range: −16 to +16
4. Press ▲ ▼ to display the **CONTRAST R/ CONTRAST G/CONTRAST B**.
5. Adjust by pressing ◄ ►.
   - Adjust the up line of the waveform to 100 % (100 IRE).
   - Setting range: −32 to +32

FULL SCAN(R)/SINGLE LINE SCAN(R)	
BRIGHTNESS R	Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE)
CONTRAST R	Adjust the top line of the waveform to 100 % (100 IRE)

FULL SCAN(G)/SINGLE LINE SCAN(G)	
BRIGHTNESS G	Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE)
CONTRAST G	Adjust the top line of the waveform to 100 % (100 IRE)

| FULL SCAN(B)/SINGLE LINE SCAN(B)	
BRIGHTNESS B	Adjust the bottom line of the waveform to 0 % (0 or 7.5 IRE)
CONTRAST B	Adjust the top line of the waveform to 100 % (100 IRE)

SPLIT ADJUST

You can perform image adjustment for some **PICTURE** menu items while displaying a certain area of the frozen image in a split window.
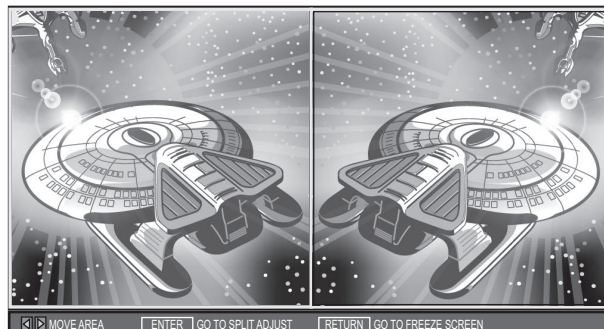
● SPLIT ADJUST MODE

Select the required split style from **NORMAL** and **REVERSE** in the **SPLIT ADJUST MODE** menu.
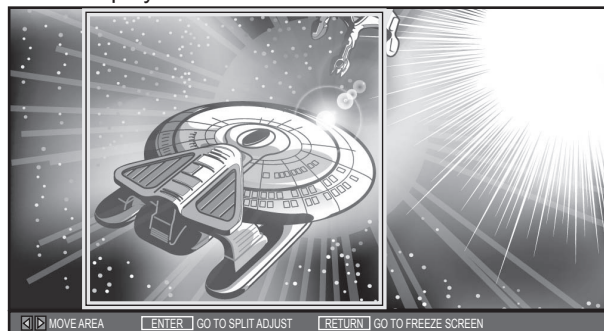
- **NORMAL**
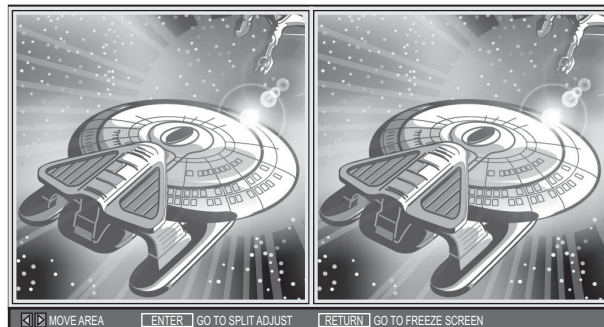
- **REVERSE**

● Adjusting the image in a split window

1. Select **AREA SELECT** and press the **ENTER** button.
   - The image will be frozen and the area cursor will be displayed.

2. Press ◄ ► to move the area cursor to select the area of interest and press the **ENTER** button.
   - The selected frozen image will be displayed in a split window.

3. Press the **MENU** button to display the **PICTURE** menu on the right.

MOVE AREA   ENTER GO TO SPLIT ADJUST   RETURN GO TO FREEZE SCREEN
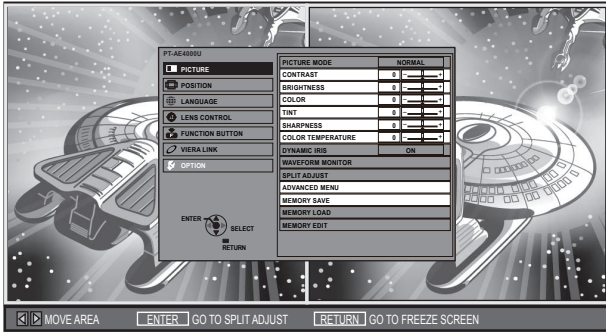
4. Adjust the required **PICTURE** menu items.
   ● Only the highlighted menu items are adjustable.
   ● Sub-menu items vary according to the selected input signal. See "Menu list" on page 17.
5. Press the **MENU** or **RETURN** button several times to escape from the menu.
6. Press the **ENTER** button.
   ● The confirmation screen will be displayed. Select **YES** to finish the adjustment.
7. Press the **ENTER** button.
   ● Press the **ENTER** button again to return to the **AREA SELECT**.
   ● Press the **RETURN** button to escape from the **SPLIT ADJUST** mode.

ADVANCED MENU

You can perform more detailed image adjustment manually.

■ GAMMA

You can make detailed adjustments to the light intensity of each input signal level by using the **ADVANCED** mode or using the **SIMPLE** mode to adjust at 3 levels (high, mid, low).
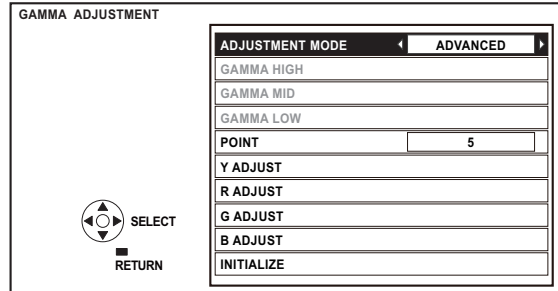
NOTE:
• You can only adjust the **GAMMA** settings through either the **ADVANCED** or **SIMPLE** mode.
Both settings cannot be used at the same time.

Select **GAMMA ADJUSTMENT** in **ADVANCED MENU**, and press ◄ ► or the **ENTER** button.
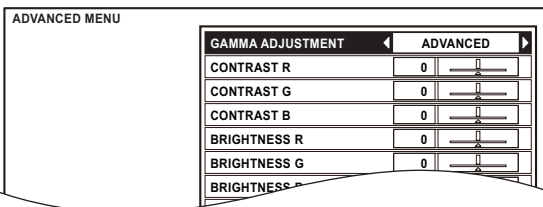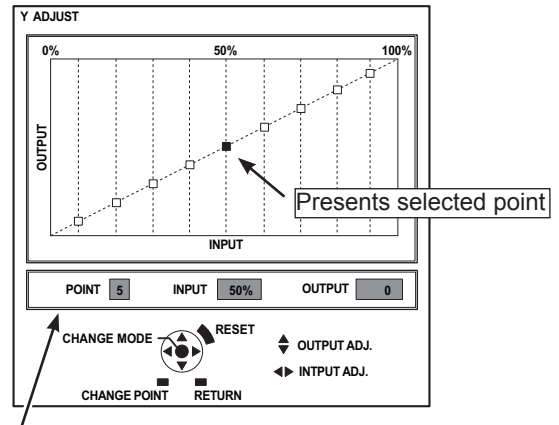

● **Setting the GAMMA with the ADVANCED mode**

1. The **GAMMA ADJUSTMENT** menu will be displayed and press ◄ ► to select **ADVANCED**.

2. To open the **Y ADJUST** menu, press ▲ ▼ to select **Y ADJUST** and then press the **ENTER** button.
   In the graph below
   ● Maximum 9 points are adjustable.
   ● The point counts from lower input signal, 1 to 9.

Information about the present selected point.
The factory default setting:
POINT [5]   INPUT [50 %]   OUTPUT [0]

| POINT	Display the present selected point number. Your selected point is indicated in yellow on the graph. (The factory default setting: point 5)
INPUT	Display the input level of the present selected point. Setting range: from 1 to 99 % in increments of 1 % (The factory default setting: 10, 20, 30, 40, 50, 60, 70, 80, 90 %)
OUTPUT	Display the output level of the present selected point. Adjustable range depends on the input level. (The factory default setting: 0)

3. Adjusting the linear intensity.

1) Changing the selected point.

(Using the remote control)
● To select another point, press the **SUB MENU** button. Selected point will be moved each time the **SUB MENU** button is pressed.
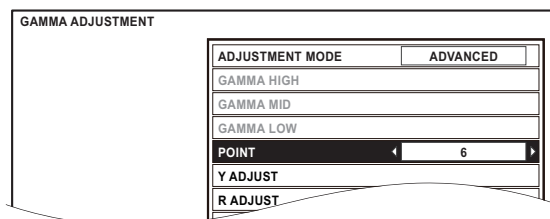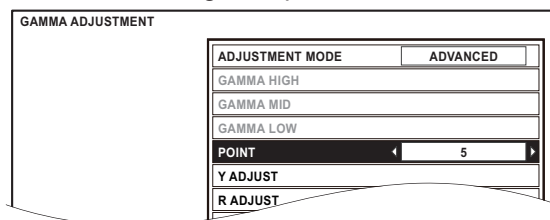
Ex. 5 → 6 → ⋯ 9 → 1 → …
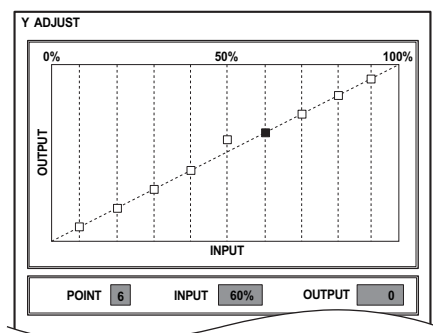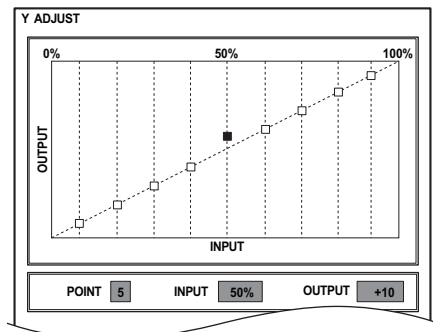
(Using the control panel/remote control)
● You can also change the **POINT** from the **GAMMA ADJUSTMENT** menu directly. Press the **RETURN** button to display the **GAMMA ADJUSTMENT** menu if you are in the **Y**/**R**/**G**/**B ADJUST** menu.
Use ▲ ▼ to select **POINT** and ◄ ► to change the point from 1 to 9.

Ex. Press ► to change the point from 5 to 6.

2) Adjusting the **INPUT** level.
To adjust the **INPUT** level from the present setting, press ◄ ► continuously until it reaches your desired level.
● It can move from left to right but cannot be set beyond the adjacent points.
● Only available to adjust the **INPUT** level in the **Y ADJUST** menu and not other menus (**R**/**G**/**B ADJUST**).

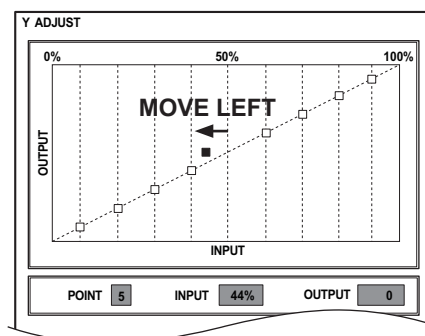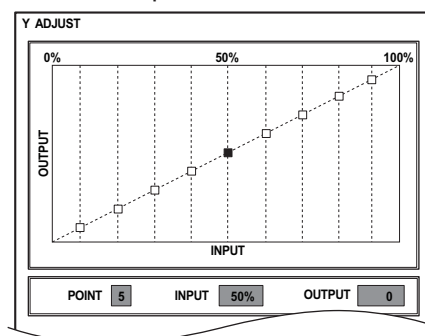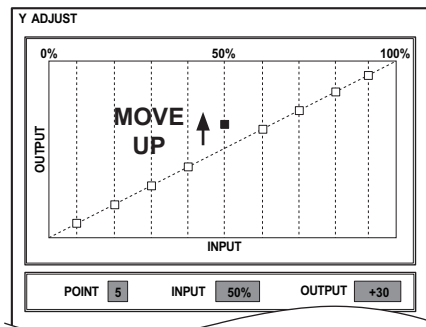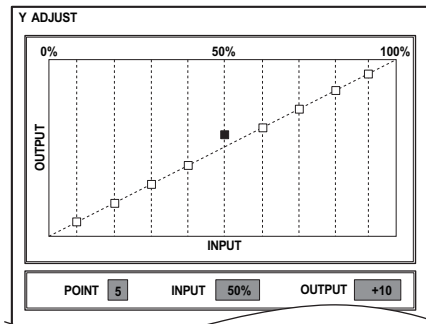Ex. Press ◄ in the **Y ADJUST** menu and move the selected point leftward.

3) Adjusting the **OUTPUT** level.
   To adjust the **OUTPUT** level from the present setting, press ▲ ▼ continuously until it reaches to your desired level.
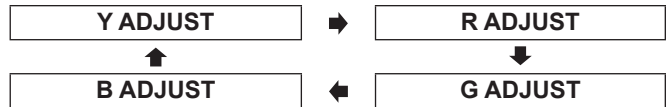   ● It can move up and down but cannot be set beyond the adjacent points.
   Ex. Press ▲ in the **Y ADJUST** menu and move the selected point upward.

4) Changing the adjustment by different color types.
   ● To switch to a different color **ADJUST** menu, press the **ENTER** button continuously until it reaches your desired color **ADJUST** menu.

Y ADJUST	➡	R ADJUST
⬆ B ADJUST	⬅	G ADJUST ⬇

   ● You can also switch each different color **ADJUST** menu through the **GAMMA ADJUSTMENT** menu. Select your required color **ADJUST** (**Y ADJUST**, **R ADJUST**, **G ADJUST**, **B ADJUST**) with ▲ ▼ in the **GAMMA ADJUSTMENT** menu and press the **ENTER** button.
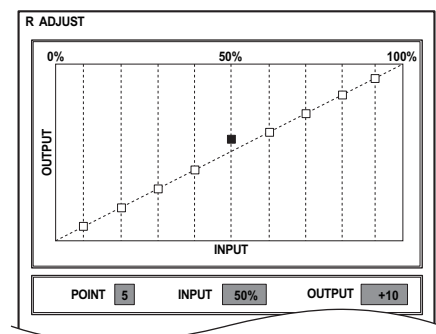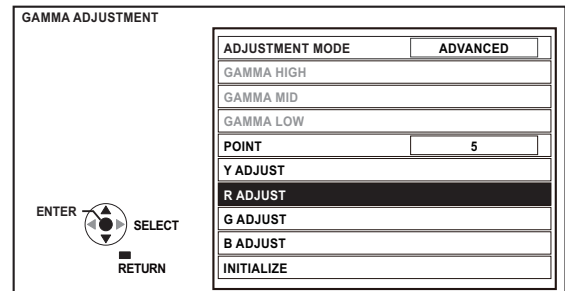
5) Setting the **OUTPUT** levels back to the default setting.
   To set the **OUTPUT** level on the selected point back to the default setting "0", press the **DEFAULT** button on the remote control.

NOTE:
• Individual **INPUT** levels cannot be set back to their default settings by pressing the **DEFAULT** button. Please press ◄ ► to move back themselves if needed.
• In the **Y ADJUST** menu, if you press the **DEFAULT** button, all **Y/R/G/B** output settings will go back to the default setting "0".
• Adjustable range depends on the input signal.

4. Initialize the **GAMMA** settings in the **ADVANCED** mode.

1) Press ▲ ▼ to select **INITIALIZE** in the **GAMMA ADJUSTMENT** menu, and press the **ENTER** button.

```
GAMMA ADJUSTMENT

               ADJUSTMENT MODE        ADVANCED
               GAMMA HIGH
               GAMMA MID
               GAMMA LOW
               POINT                      5
               Y ADJUST
ENTER          R ADJUST
      SELECT   G ADJUST
               B ADJUST
      RETURN   INITIALIZE
```
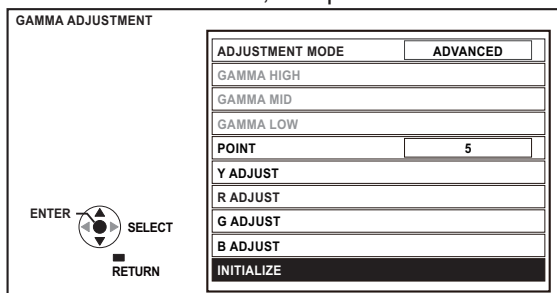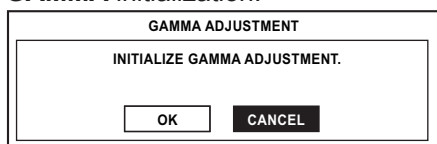
2) The confirmation screen will be displayed for the **GAMMA** initialization.

```
GAMMA ADJUSTMENT

INITIALIZE GAMMA ADJUSTMENT.

    OK          CANCEL
```

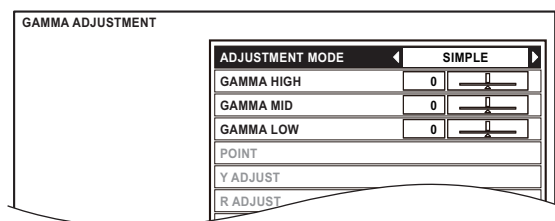3) Press ◄ ► to select **OK** and press the **ENTER** button.
   - Your **GAMMA** settings in the **ADVANCED** mode will go back to the factory default setting.

NOTE:
 • It is not available to initialize in the **SIMPLE** mode.

● **Setting the GAMMA with the SIMPLE mode**

1. In the **GAMMA ADJUSTMENT** menu, press ◄ ► to select **SIMPLE** in **ADJUSTMENT MODE**.

```
GAMMA ADJUSTMENT

    ADJUSTMENT MODE   ◄   SIMPLE    ►
    GAMMA HIGH            0
    GAMMA MID             0
    GAMMA LOW            0
    POINT
    Y ADJUST
    R ADJUST
```
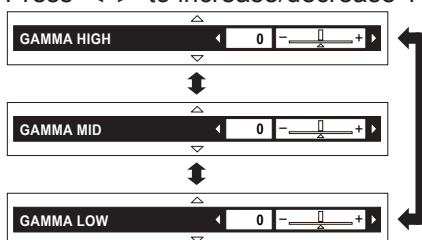
2. You can adjust linear intensity at 3 levels (high, mid, low).
   Press ▲ ▼ to select your required **GAMMA** levels.

Levels	Default setting
GAMMA HIGH	0
GAMMA MID	0
GAMMA LOW	0

● Setting range: −8 to +8

Press ◄ ► to increase/decrease 1 point.

```
GAMMA HIGH   ◄   0   - [ ] +   ►

GAMMA MID    ◄   0   - [ ] +   ►

GAMMA LOW    ◄   0   - [ ] +   ►
```

■ CONTRAST

You can adjust the amount of contrast of individual RGB colors. Press ◄ ► to increase/decrease 1 point.

RGB	Default setting
CONTRAST R	0
CONTRAST G	0
CONTRAST B	0

● Setting range: −32 to +32

■ BRIGHTNESS

You can adjust the brightness of individual RGB colors. Press ◄ ► to increase/decrease 1 point.

RGB	Default setting
BRIGHTNESS R	0
BRIGHTNESS G	0
BRIGHTNESS B	0

● Setting range: −16 to +16

■ NR (Noise Reduction)

You can adjust the automatic noise reduction system level. Press ◄ ► to change the level.
 ● Setting range: 0 to +3

■ MPEG NR

You can adjust the automatic noise reduction system level for MPEG format images. The system minimise block noise and mosquito noise to eliminate jagged edges, and provides an overall smoother image. Press ◄ ► to change the level.
 ● Setting range: 0 to +3

NOTE:
 • **MPEG NR** system is not available with **COMPUTER**/ **HDMI** (VGA60) signals.

■ FRAME CREATION

You can activate the rendering system for fast motion frames with fewer afterimage. Press ◄ ► to select the required option.
 ● **OFF**   Deactivate
 ● **MODE1**   Setting for a cinema image
 ● **MODE2**   Setting for a moving image
 ● **MODE3**   Setting for a fast moving image

NOTE:
 • With some of the images, it might be difficult to see a difference in result.
 • The image might look delayed with the **MODE2**/ **MODE3** setting. When the result does not meet your requirement, select **MODE1** or deactivate the system.

■ COLOR MANAGEMENT

You can adjust a selected color individually by using **CURSOR** or adjust the six color components (Red, Green, Blue, Cyan, Magenta, Yellow) by using **RGBCMY**.

To open the **COLOR MANAGEMENT** menu, select from the **ADVANCED MENU** in the **PICTURE** menu, or press the **FUNCTION** button as a shortcut.

● In the factory default setting, **COLOR MANAGEMENT** is set as a default for the **FUNCTION** button.
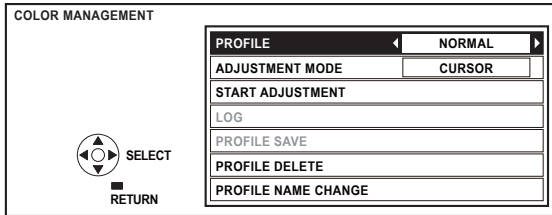

● Create a new profile

● Adjusting the selected color with the CURSOR mode.

Select a color and adjust **COLOR**, **TINT** and **BRIGHTNESS**.

1. Press ◄ ► to select **CURSOR** in **ADJUSTMENT MODE**.

2. Press ▲ ▼ to select **START ADJUSTMENT** and press the **ENTER** button.
   ● The projected image is captured, and the target cursor is displayed.
   ● When the **LOG** is fully stored, the target cursor will not be displayed.
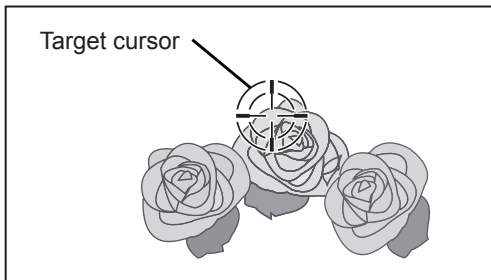
Target cursor

3. Move the cursor with ▲ ▼ ◄ ► to the required place to select a color and press the **ENTER** button.
   ● The color at the center of the target cursor is sampled and the sample box is displayed in the left of the cursor. The menu items are displayed on the screen.
   ● You may fail to adjust when the very edge point of the projection area is selected as sample.
   ● You can create a profile only when **ADJUSTMENT MODE** is set to either **CURSOR** or **RGBCMY**.
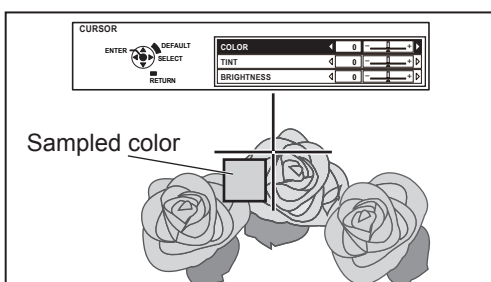
Sampled color

4. Press ▲ ▼ to select a menu item and the ◄ ► to adjust each item level.
   ● The result box is displayed on the right of the cursor and shows the adjusted color.
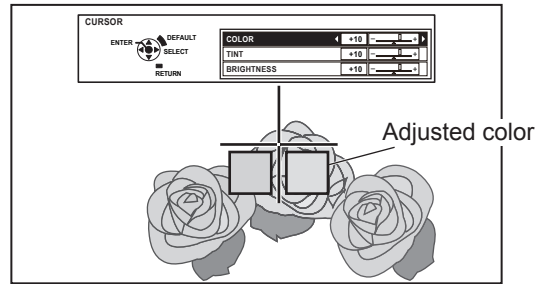
Adjusted color

COLOR	Adjust the vividness of the color. Setting range: −30 to +30
TINT	Adjust the color tone. Setting range: −30 to +30
BRIGHTNESS	Adjust the brightness of the color. Setting range: −20 to +20

5. Press the **ENTER** button to store the adjusted result.
   ● "**PROCESSING**" is displayed for a few seconds and the result is stored in **LOG**.
   ● You can store up to 8 logs under **LOG** for each **PICTURE MODE** setting.

6. Press the **MENU** or **RETURN** button to return to the previous menu.
   ● Repeat the steps above to store more adjustment.
   ● When the **LOG** is fully stored, the screen will be switched automatically to the **COLOR MANAGEMENT** menu.

● Adjusting the selected color with the RGBCMY mode.

Select the color from 6 different color types (**RED**, **GREEN**, **BLUE**, **CYAN**, **MAGENTA**, **YELLOW**) and adjust **COLOR**, **TINT** and **BRIGHTNESS**.
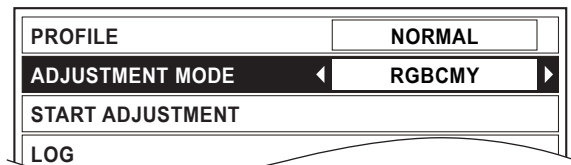
1. Press ◄ ► to select **RGBCMY** in **ADJUSTMENT MODE**.

2. Press ▲ ▼ to select **START ADJUSTMENT** and press the **ENTER** button.

3. Press ▲ ▼ to select your desired color and press the **ENTER** button.

RED
GREEN
BLUE
CYAN
MAGENTA
YELLOW

- The sample box and the menu items are displayed on the screen.

Sampled color

4. Press ▲ ▼ to select a menu item and the ◄ ► to adjust each item level.
- The result box is displayed on the right of the sample box and shows the adjusted color.
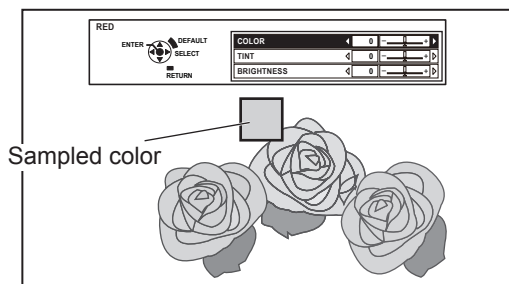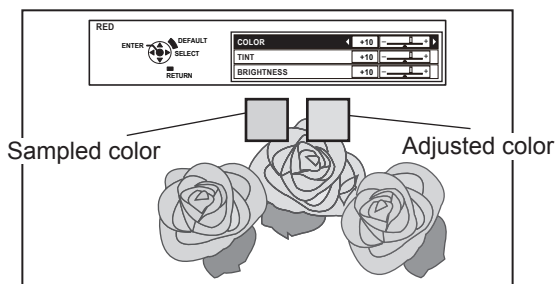- Both the sampled and adjusted color indicated in the **RGBCMY** mode are shown only as a guide.

Sampled color   Adjusted color

COLOR	Adjust the vividness of the color. Setting range: −30 to +30
TINT	Adjust the color tone. Setting range: −30 to +30
BRIGHTNESS	Adjust the brightness of the color. Setting range: −20 to +20

5. Press the **ENTER** button to store the adjusted result.
- "**PROCESSING**" is displayed for a few seconds and the result is stored in **LOG**.
- You can store up to 6 different color adjusted images under **LOG** for each **PICTURE MODE** setting.
6. Press the **MENU** or **RETURN** button to return to the previous menu.
- Repeat the steps above to store more adjustments.

● **Managing the stored logs which are created through the CURSOR mode.**
You can edit or delete the stored logs of the selected **PICTURE MODE**.
1. Press ▲ ▼ to select **LOG** and press the **ENTER** button.
- The **LOG** menu is displayed.

ADJUSTMENT MODE : CURSOR PICTURE MODE : NORMAL			
	COLOR	TINT	BRIGHTNESS
POINT1	+10	+10	+10
POINT2	+10	+10	+10
POINT3	+10	+10	+10
POINT4	+10	+10	+10
POINT5	+10	+10	+10
POINT6	+10	+10	+10
POINT7	+10	+10	+10
POINT8	+10	+10	+10
ALL DELETE			

Sampled color ____ ____ Adjusted color

2. Press ▲ ▼ to select the required log from 1 - 8 or **ALL DELETE**, and press the **ENTER** button.
- Select **CHANGE** to edit the log.
The **CURSOR** mode is displayed and you can readjust the color.
- Select **DELETE** to delete the log.
The confirmation screen will be displayed. Select **OK** to delete.
- When you select **ALL DELETE**, the "**DELETE ALL LOG.**" screen is displayed. Select **OK** to delete all logs. The **PROFILE** setting will be set to **NORMAL**.

● **Managing the stored logs which are created through the RGBCMY mode.**

ADJUSTMENT MODE : RGBCMY PICTURE MODE : NORMAL			
	COLOR	TINT	BRIGHTNESS
RED	+10	+10	+10
GREEN	+10	+10	+10
BLUE	+10	+10	+10
CYAN	+10	+10	+10
MAGENTA	+10	+10	+10
YELLOW	+10	+10	+10
ALL DELETE			

Sampled color ____ ____ Adjusted color

1. Press ▲ ▼ to select **LOG** and press the **ENTER** button.
- The **LOG** menu is displayed.
2. Select the required log from 6 different colors (**R**, **G**, **B**, **C**, **M**, **Y**) or **ALL DELETE**, and press the **ENTER** button.
- Select **CHANGE** to edit the log.
The **RGBCMY** mode is displayed and you can readjust the color.
- Select **DELETE** to delete the log.
The confirmation screen will be displayed. Select **OK** to delete.
- When you select **ALL DELETE**, the "**DELETE ALL LOG.**" screen is displayed. Select **OK** to delete all logs. The **PROFILE** setting will be set to **NORMAL**.
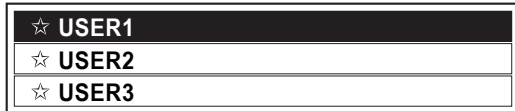
● **Saving a log setting as a profile**

Return to the **COLOR MANAGEMENT** menu and save the stored log as a profile. Make sure that the **PICTURE MODE** is not switched.
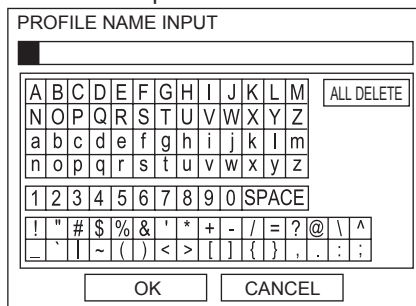
1. Select the **PROFILE SAVE** menu and press the **ENTER** button.
   ● The **PROFILE SAVE** menu is displayed. You can save the profile as **USER1**, **USER2** and **USER3**.

☆ **USER1**
☆ **USER2**
☆ **USER3**

   ● Indicated with ★ is in use, and ☆ is empty.

2. Press the **ENTER** button to save the profile.
   ● The confirmation screen is displayed. Press the **ENTER** button again to save.

3. Name the profile.
   ● Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.
   ● You can enter up to 14 characters.

   ```
   PROFILE NAME INPUT

   ■
   ┌─────────────────────────────┐
   A B C D E F G H I J K L M   ALL DELETE
   N O P Q R S T U V W X Y Z
   a b c d e f g h i j k l m
   n o p q r s t u v w x y z
   1 2 3 4 5 6 7 8 9 0 SPACE
   ! " # $ % & ' * + - / = ? @ \ \ ^
   _ ` | ~ ( ) < > [ ] { } , . : ;

        OK              CANCEL
   ```

4. Repeat step 3 until you finish the text line.
   ● Move cursor to **ALL DELETE** and press the **ENTER** button to delete all the entered text line.
   ● Press the **DEFAULT** button to delete the last entered character or indicated with cursor in the text box.
   ● To insert a character in the entered text line, move the cursor to the text box to select the required place and press ▼ then perform step 3.

5. Select **OK** and press the **ENTER** button to set the entered text as a name.
   ● Press the **ENTER** button without entering any text to keep the default name.

● **Deleting the saved profiles**

You can delete the profiles from **PROFILE DELETE** menu.

1. Select **PROFILE DELETE** and press the **ENTER** button.

2. Press ▲ ▼ to select the required profile or **PROFILE ALL DELETE** and press the **ENTER** button.
   ● The confirmation screen will be displayed and select **OK**.

3. Press the **ENTER** button.

● **Changing the profile names**

You can change the name of the profiles from the **PROFILE NAME CHANGE** menu.

1. Press ▲ ▼ to select **PROFILE NAME CHANGE** and press the **ENTER** button.

2. Press ▲ ▼ to select the required profile and press the **ENTER** button.

3. Rename the profile.
   ● Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.

4. Select **OK** and press the **ENTER** button to set the entered text as a name.

● **Loading saved profiles**

When profiles are loaded under the **PICTURE MODE** setting, you can keep them as you defined until the **PROFILE** is set to **NORMAL**.

1. Select the required **PICTURE MODE** and press the **ENTER** button.

2. Press the **COLOR MANAGEMENT** button and select the **PROFILE** menu.
   ● The profile settings of the selected **PICTURE MODE** will be displayed.

3. Select the required profile and press the **ENTER** button.

NORMAL	Return to the default setting of the **PICTURE MODE** menu.
USER1	
USER2	Defined profile settings.
USER3	

NOTE:
- In the **CURSOR** mode, you can adjust the colors except white, gray and black.
- In the **CURSOR** mode, if you adjust the exact same color differently, both will affect each other and you might get unexpected results.
- **COLOR MANAGEMENT** will be unable to adjust with the setting of **COLOR1** in **PICTURE MODE**, when HDMI signal is selected.
- If there is another area, which has an exact same or similar color with your target in the same screen, all colors will be adjusted as well.
- If you switch the input signal before you save the profile, the setting will be cancelled without notice.

■ **x.v.Color**

You can switch on/off the automatic adjustment system for signals which comply with International Standard xvYCC.

● **ON:**   Active
● **OFF:**   Deactive

NOTE:
- **x.v.Color** adjustment system is available only with **HDMI** signals in **COLOR1** of **PICTURE MODE** menu.

■ DETAIL CLARITY

You can adjust the detail clarity system levels.
● Setting range: 0 to +7

■ CINEMA REALITY

You can switch the automatic image synchronizer on/off for 24 frames a second images, such as movies. Press ◄ ► to select the required setting.
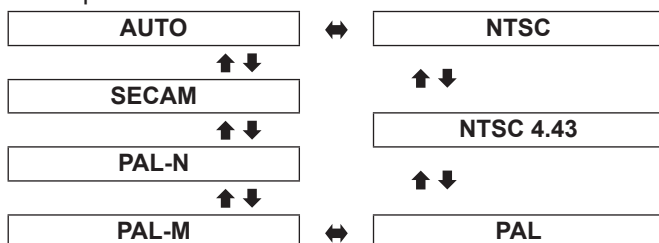● **ON:** Active
● **OFF:** Deactive

> **NOTE:**
> • **CINEMA REALITY** is effective only with interlace signals.

■ TV-SYSTEM

When the video signal is changed, the setting switches automatically.
You can switch the setting manually to match the video data. Press ◄ ► to cycle through the options.

AUTO	⬌	NTSC
SECAM		
PAL-N		NTSC 4.43
PAL-M	⬌	PAL

> **NOTE:**
> • **AUTO** setting will select from **NTSC/NTSC 4.43/PAL/ PAL60/PAL-M/PAL-N/SECAM**.

■ RGB/YP$_B$P$_R$

The projector will detect the signal from the **COMPUTER** terminals if the signal is **RGB** or **YP$_B$P$_R$**. You can turn off the automatic detecting system and switch between **RGB** and **YP$_B$P$_R$** manually.
● **AUTO:** Automatic detecting system
● **RGB:** Project as **RGB** signal
● **YP$_B$P$_R$:** Project as **YP$_B$P$_R$** signal

> **NOTE:**
> • Available with VGA60, 480i, 576i, 480p, 576p, 1 080/60i, 1 080/50i, 720/60p, 720/50p, 1 080/60p, 1 080/50p only.
> • When the input signal is not selected correctly with **AUTO** setting, select **RGB** or **YP$_B$P$_R$** manually.

MEMORY SAVE

You can save and name the adjusted **PICTURE** menu settings for instant access from **MEMORY LOAD** menu.
1. Adjust the items in **PICTURE** menu.
2. Select **MEMORY SAVE** and press the **ENTER** button.
3. Select the required memory setting and press the **ENTER** button.
   ● The confirmation screen will be displayed. Select **OK** and press the **ENTER** button.
   ● Indicated with ★ is in use, and ☆ is empty.
4. Name the memory setting.
   ● Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.
   ● You can enter up to 16 characters.

```
MEMORY NAME INPUT
┌─────────────────────────────────┐
│ ■                               │
└─────────────────────────────────┘
A B C D E F G H I J K L M   ALL DELETE
N O P Q R S T U V W X Y Z
a b c d e f g h i j k l m
n o p q r s t u v w x y z
1 2 3 4 5 6 7 8 9 0 SPACE
! " # $ % & ' * + - / = ? @ \ ^
_ ` | ~ ( ) < > [ ] { } , . : ;
        OK          CANCEL
```

5. Repeat step 4 until you finish the text line.
   ● Move the cursor to **ALL DELETE** and press the **ENTER** button to delete all the entered text line.
   ● Press the **DEFAULT** button to delete the last entered character or indicated with cursor in the text box.
   ● To insert a character in the entered text line, move the cursor to the text box to select the required place and press ▼ then perform step 4.
6. Select **OK** and press the **ENTER** button to set the entered text as a name.

> **NOTE:**
> • If you leave the text box empty and save, the default memory number will stay as a name.

MEMORY LOAD

You can access the saved settings instantly. See "Loading a saved setting" on page 14.
1. Select a setting from **MEMORY 1 - 16**.
   ● Undefined settings will not be selectable.
2. Press the **ENTER** button to activate.

NOTE:
   • If you have not saved any settings, **MEMORY 1 - 16** will not be displayed.

MEMORY EDIT

You can edit the named memory settings.
● **Deleting a memory setting**
1. Select **MEMORY DELETE** and press the **ENTER** button.
2. Select the required memory setting and press the **ENTER** button.
   ● If you select **ALL DELETE**, you can delete all of the saved memory settings.
3. Select **OK** in the confirmation screen and press the **ENTER** button.
● **Changing the name of the memory setting**
1. Select **MEMORY NAME CHANGE** and press the **ENTER** button.
2. Select the required memory setting and press the **ENTER** button.
3. Rename the memory setting.
   ● Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.
   ● You can enter up to 16 characters.

```
MEMORY NAME INPUT
┌──────────────────────────────────┐
│ ■                                │
└──────────────────────────────────┘
 A B C D E F G H I J K L M   ALL DELETE
 N O P Q R S T U V W X Y Z
 a b c d e f g h i j k l m
 n o p q r s t u v w x y z
 1 2 3 4 5 6 7 8 9 0 SPACE
 ! " # $ % & ' * + - / = ? @ \ \ ^
 _ ` | ~ ( ) < > [ ] { } , . : ;
        [   OK   ]  [  CANCEL  ]
```

4. Repeat step 3 until you finish the text line.
   ● Move the cursor to **ALL DELETE** and press the **ENTER** button to delete all the entered text line.
   ● Press the **DEFAULT** button to delete the last entered character or indicated with cursor in the text box.
   ● To insert a character in the entered text line, move the cursor to the text box to select the required place and press ▼ then perform step 3.
5. Select **OK** and press the **ENTER** button to set the entered text as a name.

NOTE:
   • If you have not saved any settings, **MEMORY 1 - 16** will not be displayed.

SIGNAL MODE

The current selected signal will be displayed. This is available with signals from **COMPUTER IN/COMPONENT IN/HDMI IN** only.
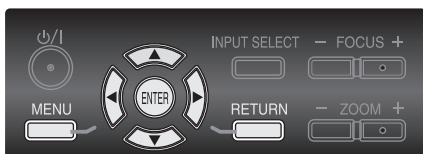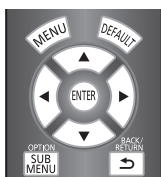
NOTE:
   • See "List of compatible signals" in "Technical Information" of the operating instructions.

POSITION menu

H-POSITION

You can move the projected image horizontally for fine adjustment.

Move left ◄ ENTER ► **Move right**

V-POSITION

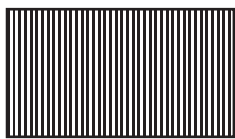You can move the projected image vertically for fine adjustment.

Move down ◄ ENTER ► **Move up**

DOT CLOCK

If you have interference patterns of the projected image, which is sometimes referred to as moire or noise, you can minimize it by pressing ◄ ► to adjust the clock frequency. (Available with **RGB** signal from **COMPUTER IN** only)

NOTE:
- If the projecting signal's dot clock frequency is higher than 150 MHz, the adjustment may not make a difference.
- **DOT CLOCK** needs to be adjusted before adjusting the **CLOCK PHASE**.

CLOCK PHASE

If you require further adjustment for the same reason as the **DOT CLOCK** adjustment, you can fine adjust the timing of the clock. Press ◄ ► to adjust. (Available with signals from **COMPUTER IN**/**COMPONENT IN** only)

NOTE:
- If the projecting signal's dot clock frequency is higher than 150 MHz, the adjustment may not make a difference.
- Available signals from YP_BP_R:
  1 125 (1 080)/60i, 1 125 (1 080)/50i, 1 125 (1 080)/60p, 1 125 (1 080)/50p, 1 125 (1 080)/24p, 750 (720)/60p, 750 (720)/50p.

ASPECT

You can switch the aspect ratio manually when needed.

■ Aspect ratio depend on signals

Press ◄ ► to cycle through the aspect ratio options. The cycle pattern depends on the connected signals.

VIDEO/ S-VIDEO	**4:3 ➡ 16:9 ➡ s16:9 ➡ JUST ➡ ZOOM ➡ AUTO** NTSC, NTSC 4.43, PAL-M, PAL60 signals
	4:3 ➡ 16:9 ➡ s16:9 ➡ 14:9 ➡ ZOOM1 ➡ ZOOM2 ➡ JUST PAL, PAL-N, SECAM signals
HDMI	**4:3 ➡ 16:9 ➡ s16:9 ➡ H-FIT ➡ V-FIT ➡ ZOOM** 1 125 (1 080)/50i, 1 125 (1 080)/60i, 1 125 (1 080)/50p, 1 125 (1 080)/60p, 1 125 (1 080)/24p, 750 (720)/50p and 750 (720)/60p signals
	4:3 ➡ 16:9 ➡ s16:9 ➡ JUST ➡ ZOOM 525p (480p) signal
	4:3 ➡ 16:9 ➡ s16:9 ➡ 14:9 ➡ ZOOM1 ➡ ZOOM2 ➡ JUST 625p (576p) signal
COMPUTER (RGB)/ COMPONENT (YP_BP_R)	**4:3 ➡ 16:9 ➡ s16:9 ➡ 14:9 ➡ ZOOM1 ➡ ZOOM2 ➡ JUST** 625i (576i), 625p (576p) signals
	4:3 ➡ 16:9 ➡ s16:9 ➡ JUST ➡ ZOOM 525i (480i), 525p (480p) signals
	4:3 ➡ 16:9 ➡ s16:9 ➡ H-FIT ➡ V-FIT ➡ ZOOM 1 125 (1 080)/50i, 1 125 (1 080)/60i, 1 125 (1 080)/50p, 1 125 (1 080)/60p, 1 125 (1 080)/24p, 750 (720)/50p, 750 (720)/60p signals

■ Aspect ratio options and projection example

If you apply the aspect ratio options to the projected image, the result will be as follows. The result may differ due to the input signals.

● VIDEO/S-VIDEO/COMPUTER/COMPONENT/HDMI

Not available with 1 125 (1 080)/50i, 1 125 (1 080)/60i, 1 125 (1 080)/50p, 1 125 (1 080)/60p, 1 125 (1 080)/24p, 750 (720)/50p and 750 (720)/60p signals.

Original size		4:3	Squeeze signal	16:9 Letter box	14:9 Letter Box	2.35:1 Cinescope
4:3	Projects at 4:3.					
16:9	Adjusts horizontally to 16:9.					
JUST	Adjusts horizontally to fit 16:9. Closer to edge, more enlarged. Not available with **COMPUTER** signals.					
ZOOM/ ZOOM1	Adjusts to 16:9 size while preserving original ratio. Escape the menu mode and press ▲ ▼ to adjust vertically. (Not available with HDMI signal.)					
ZOOM2	Adjusts to cinescope size not including letter box. Escape the menu mode and press ▲ ▼ to adjust vertically. (Not available with HDMI signal.)					
14:9	Adjusts to 14:9.					

● COMPUTER/COMPONENT/HDMI

Available with 1 125 (1 080)/50i, 1 125 (1 080)/60i, 1 125 (1 080)/50p, 1 125 (1 080)/60p, 1 125 (1 080)/24p, 750 (720)/50p and 750 (720)/60p signals.

Original size		4:3	16:9	Cinescope
H-FIT	Adjusts horizontally to 16:9.			
V-FIT	Adjusts to 16:9 vertically. Escape and press ▲ ▼ to scroll the image to adjust the edge vertically. (Not available with HDMI signal.)			
ZOOM	Adjusts to 16:9 size with preserving original ratio. Escape the menu mode and press ▲ ▼ to adjust vertically.			

NOTE:
- If you project an image with an unmatched aspect ratio, the image may distort or some portions may be cropped. Select an aspect ratio which preserves the intention of the image creator.
- The order of aspect type is defined not only by the input method but also by the input signals. See "List of compatible signals" in "Technical Information" of the operating instructions.
- If you project a copyrighted image enlarged or distorted by using **ASPECT** function in commercial use in a public place, such as a restaurant or hotel, you might infringe on the copyright of the creator which is protected by copyright law.

WSS

WSS (Wide Screen Signalling) detects if a **PAL**/ 625p (576p)/625i (576i) signal is input and that signal has an identification signal, and switch the aspect ratio to required setting automatically. You can switch the system off manually. (Available with **VIDEO**/**S-VIDEO**/ **COMPONENT** signals only)

OVER SCAN

If the 4 edges of an image is partly dropped, you can use this function to adjust and project it properly.

- Setting range: 0 to +10
- **OVER SCAN** is not available with **COMPUTER** signals.

Shrink ◀ (ENTER) ▶ **Enlarge**

KEYSTONE

If the projector is aligned non-perpendicularly to the screen, or if the projection screen has an angled surface, you can correct the keystone vertically.

Image	Operation
	▲ ◀ (ENTER) ▶ ▼
	▲ ◀ (ENTER) ▶ ▼

- Setting range: −32 to +32

NOTE:
- You can correct the distortion ± 30 degrees from the vertical plane. For a better quality image, installing the projector with minimum distortion is recommended.
- Some distortion may be retained for the lens shift adjustment.
- The distortion of the main menu screen is not correctable.
- The result of the keystone correction will affect the aspect ratio and the size of the image.
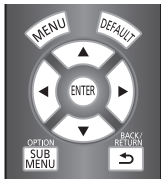
AUTO SETUP

You can adjust **V-POSITION**, **H-POSITION**, **DOT CLOCK** and **CLOCK PHASE** automatically when the computer signal is detected. Press the **ENTER** button to adjust these at the same time.
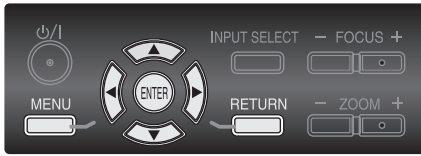
LENS CONTROL

NOTE:
- The saved lens memory adjustment accuracy is not guaranteed.
- If the memorised **ZOOM/FOCUS** adjustment is not accurate enough, adjust the **ZOOM/FOCUS** menu again.
- If the power supply is stopped while loading or saving the lens memory, saved adjusted settings may differ from the original after restarting the projector. Adjust the **ZOOM/FOCUS** menu again.
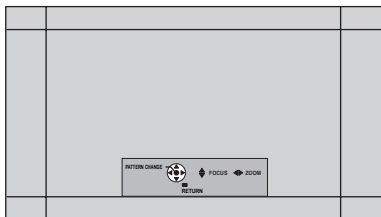
ZOOM/FOCUS

You can use the 2 different test patterns to adjust the focus and zoom of the image.
1. Press the **ENTER** button to display test pattern 1.
   - Press ▲ ▼ to adjust the focus and ◄ ► to adjust the zoom.
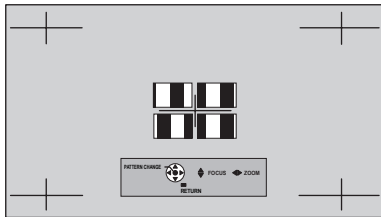
2. Press the **ENTER** button to display test pattern 2.
   - Press ▲ ▼ to adjust the focus and ◄ ► to adjust the zoom.

3. Press the **ENTER** button to display the projected image.
   - You can confirm the adjustment is fit to the projected image.
4. Press the **MENU** or **RETURN** button to return to the previous menu, or press repeatedly to escape the menu mode.

NOTE:
- When the projector and/or the screen is tilted, adjust the focus at the center of the image. The upper and lower edge might be out of focus.
- When the image is distorted in keystone, adjust the **KEYSTONE** in **POSITION** menu. See "KEYSTONE" on page 34.

LENS MEMORY LOAD

You can access the saved lens control settings (**ZOOM/FOCUS**, **H/V-AREA POSITION**, and **MASKING AREA**) instantly.
1. Select a setting from **LENS MEMORY 1 - 6**.
2. Press the **ENTER** button to activate.

LENS MEMORY1
LENS MEMORY2
LENS MEMORY3
LENS MEMORY4
LENS MEMORY5
LENS MEMORY6

NOTE:
- The option that contains no saved adjustment will not be displayed.
- If there is no saved setting, the **LENS MEMORY LOAD** menu will not be selectable.

LENS MEMORY SAVE

You can save and name the adjusted lens control settings in the **LENS MEMORY**.

☆ **LENS MEMORY1**
☆ **LENS MEMORY2**
☆ **LENS MEMORY3**
☆ **LENS MEMORY4**
☆ **LENS MEMORY5**
☆ **LENS MEMORY6**

- Indicated with ★ is in use, and ☆ is empty.

1. Adjust **ZOOM/FOCUS**, **H/V-AREA POSITION** and **MASKING AREA**.
2. Select the **LENS MEMORY SAVE** and press the **ENTER** button.
3. Select the required memory setting and press the **ENTER** button.
4. The confirmation screen will be displayed. Select **OK** and press the **ENTER** button.
5. Name the lens memory setting.
   - Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.

6. Repeat step 5 until you finish the text line.
   - You can enter up to 16 characters.
   - Move the cursor to **ALL DELETE** and press the **ENTER** button to delete all the entered text line.
   - Press the **DEFAULT** button to delete the last entered character or indicted with the cursor in the text box.
   - To insert a character in the entered text line, move the cursor to the text box to select the required place and press ▼ then perform step 5.
7. Select **OK** and press the **ENTER** button to set the entered text as a name.

NOTE:
   • If you leave the text box empty and save, the default memory number will stay as a name.

LENS MEMORY EDIT

You can edit saved lens memory settings.

● **Deleting a memory setting**
1. Select **LENS MEMORY DELETE** and press the **ENTER** button.
2. Select the required lens memory setting and press the **ENTER** button.
3. If you select **ALL DELETE**, you can delete all of the saved lens memory settings.
4. Select **OK** in the confirmation screen and press the **ENTER** button.

● **Changing the name of the memory setting**
1. Select **LENS MEMORY NAME CHANGE** and press the **ENTER** button.
2. Select the required lens memory setting and press the **ENTER** button.
3. Rename the lens memory setting.
   - Use ▲ ▼ ◄ ► to specify the location of the required character to enter and press the **ENTER** button.
4. Repeat step 3 until you finish the text line.
   - You can enter up to 16 characters.
   - Move the cursor to **ALL DELETE** and press the **ENTER** button to delete all the entered text line.
   - Press the **DEFAULT** button to delete the last entered character or indicted with the cursor in the text box.
   - To insert a character in the entered text line, move the cursor to the text box to select the required place and press ▼ then perform step 3.
5. Select **OK** and press the **ENTER** button to set the entered text as a name.

NOTE:
   • The option that contains no saved adjustment will not be displayed
   • If you leave the text box empty and save, the default memory name will stay as a name.

AUTO SWITCHING

You can automatically load the saved lens memory settings which are set for each screen size.
This function is able to identify the wide signal* or 16:9/4:3 and recalls the lens memory settings automatically.
   * Wide signal includes: 2.35:1, 2.40:1, 2.50:1, 2.55:1

Press the **ENTER** button to display the **AUTO SWITCH** menu.
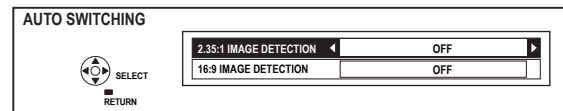
1. Press ▲ ▼ to select the **IMAGE DETECTION** in the **AUTO SWITCH** menu.
2. Press ◄ ► to select your required **LENS MEMORY** for **AUTO SWITCHING**.
   - The **LENS MEMORY** setting which has been selected for **2.35:1 IMAGE DETECTION** is loaded after a given period of time once the input signal switches from 16:9/4:3 to 2.35:1.
   - The **LENS MEMORY** setting which has been selected for **16:9 IMAGE DETECTION** is loaded after a given period of time once the input signal switches from 2.35:1 to 16:9/4:3.

   - Only saved **LENS MEMORY** data will appear in the **IMAGE DETECTION** item.
   - If **OFF**, the auto-identify will not be performed.
   - When selecting the **ZOOM/ZOOM1/ZOOM2/V-HIT** in the **ASPECT** setting, this function will be invalid.
   - When displaying the menu or test pattern, also when performing the **PICTURE** menu, auto-identify will be invalid.

NOTE:
In the following conditions, it might take longer to identify or it might be unable to identify the correct image.
   • If there is noise in the picture or external equipment generate noise, or depends on the picture images.
   • If the input signal level from the external equipment is not set to the suggested value range. Please adjust the **WAVEFORM MONITOR** settings. See page 21.
   • If the screen position is not adjusted well. Please adjust the **POSITION** settings. See page 32.
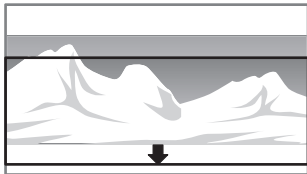
H-AREA POSITION

You can move the frame area horizontally, such as aligning the right or left frame edge to the screen edge. Press ◄ ► to move the frame.
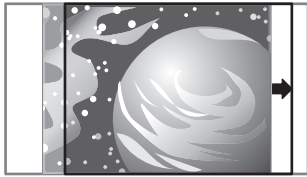
- Setting range: −63 to +63

V-AREA POSITION

You can move the frame area vertically, such as aligning the top or bottom frame edge to the screen edge. Press ◄ ► to move the frame.

- Setting range: −63 to +63

LEFT MASKING AREA

You can place a blank (mask) area in the left side edge on the screen.

Less **More**

- Setting range: 0 to +70

RIGHT MASKING AREA

You can place a blank (mask) area in the right side edge on the screen.

Less **More**

- Setting range: 0 to +70

UPPER MASKING AREA

You can place a blank (mask) area in the upper side edge on the screen.

Less **More**

- Setting range: 0 to +70

LOWER MASKING AREA

You can place a blank (mask) area in the lower side edge on the screen.
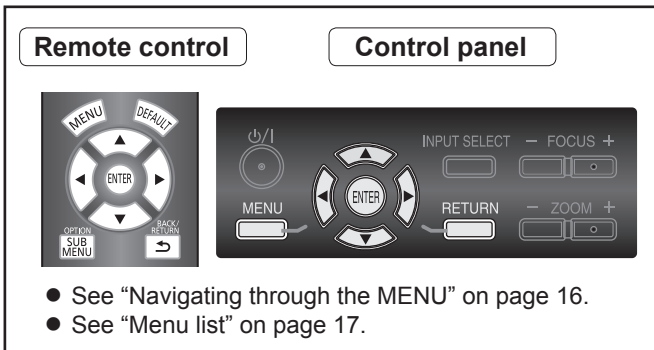
Less **More**

- Setting range: 0 to +70

NOTE:
- If it is set to 0, each **MASKING** will be invalid.
- The **MASKING AREA** function will be invalid when adjusting the **COLOR MANAGEMENT** or **SPLIT ADJUST** settings and displaying the **TEST PATTERN** or **WAVEFORM MONITOR**, and no signal is detected.
- You can not adjust the **MASKING** if keystone correction is performed.

FUNCTION BUTTON

Remote control	Control panel

● See "Navigating through the MENU" on page 16.
● See "Menu list" on page 17.

FUNCTION BUTTON

You can assign certain menu option to the **FUNCTION** button as a shortcut. Press ▲ ▼ ◄ ► to select the required menu options and press the **ENTER** button.

● **Assignable functions**

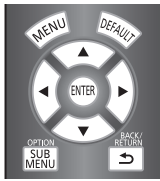| Functions	Reference page
<u>COLOR MANAGEMENT</u>*1	page 27
GAMMA ADJUSTMENT	page 23
SPLIT ADJUST	page 22
WAVEFORM AUTO ADJUST	page 21
FRAME CREATION	page 26
NORMAL	
DYNAMIC	
COLOR1	
COLOR2	page 20
CINEMA1	
CINEMA2	
CINEMA3	
TEST PATTERN	page 41
OPERATE OTHER DEVICE	Booklet
ASPECT	page 32
AUTO SETUP	page 34
CONTRAST	page 20
BRIGHTNESS	
BLANK	page 38
HDMI 1 IN	
HDMI 2 IN	
HDMI 3 IN	
COMPUTER IN	page 15
COMPONENT IN	
S-VIDEO IN	
VIDEO IN	

*1. The underlined item is factory default setting.
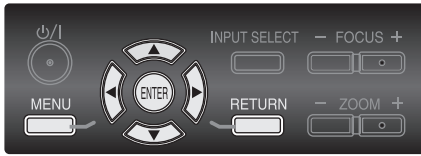
● **BLANK function**
You can stop the projection temporarily for electrical power save while the input source is stopped. Press any button to escape from the blank mode.

OPTION menu

- See "Navigating through the MENU" on page 16.
- See "Menu list" on page 17.

INPUT GUIDE

When you change the input method, the guidance appears in the upper right corner of the screen. The following display methods are available. Press ◄ ► to cycle through the options.

Options	Function
DETAILED	Display the input method graphically. The **INPUT GUIDE** will disappear after 3 seconds without any operation.
SIMPLE	Display the input method by text. The **INPUT GUIDE** will disappear after 3 seconds without any operation.
OFF	Turn off the guidance.

OSD DESIGN

You can change the background color of the menu. Press ◄ ► to cycle through the options.

- **TYPE1**   Semi transparent black
- **TYPE2**   Solid blue
- **TYPE3**   Semi transparent dark blue

OSD POSITION

You can change the displaying position of the menu. Press ◄ ► to cycle through the options.

UPPER LEFT	UPPER CENTER	UPPER RIGHT
	CENTER	
LOWER LEFT	LOWER CENTER	LOWER RIGHT

BACK COLOR

You can choose a screen color from **BLUE** or **BLACK** for when the projector is in idle. Press ◄ ► to select.

STARTUP LOGO

You can switch the logo on/off that is displayed when starting up the projector. Press ◄ ► to select the required option. **STARTUP LOGO** "**Panasonic**" will be displayed for 15 seconds.

- **ON:**   Active
- **OFF:**   Deactive

AUTO SEARCH

When the projector is turned on, the input terminals are detected and an input signal is selected automatically. You can switch the system on/off. Press ◄ ► to cycle through the options.

- **ON:**   Active
- **OFF:**   Deactive

NOTE:
- When no signal is detected, the last used input will be selected.

HDMI SIGNAL LEVEL

When an **HDMI IN** is selected, you can switch the **HDMI** signal **NORMAL** or **EXPAND** to display the image. Press ◄ ► to select an option.

- **NORMAL**   For general HDMI equipment
- **EXPAND**   For HDMI equipment with expanded signals.

NOTE:
- **HDMI SIGNAL LEVEL** is not available with some equipment.

FRAME RESPONSE

You can minimise the time delay of image displayed for the progressive signals.

- **NORMAL**   Prioritise the image quality
- **FAST**   Prioritise the frame response

INSTALLATION

When installing the projector, select the projection method according to the projector position. Press ◄ ► to cycle through the options. See "Projection method" on page 5.

FRONT/DESK	Setting on a desk/floor and projecting from front
FRONT/CEILING	Mounting on the ceiling and projecting from front
REAR/DESK	Setting on a desk/floor and projecting from rear
REAR/CEILING	Mounting on the ceiling and projecting from rear

TRIGGER 1/2 SETTING

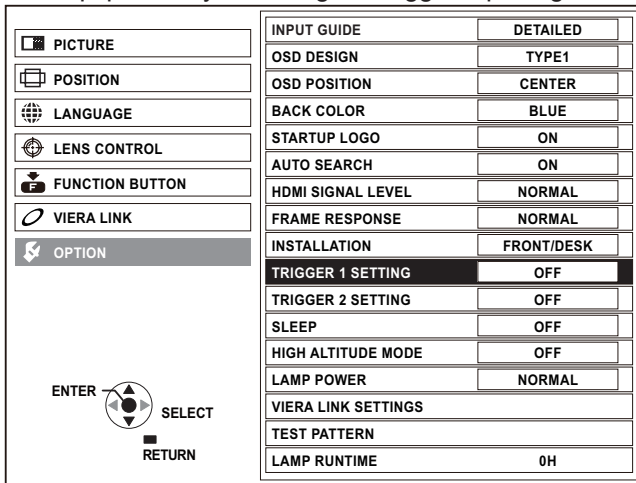You can set the input/output function for each **TRIGGER** terminal.

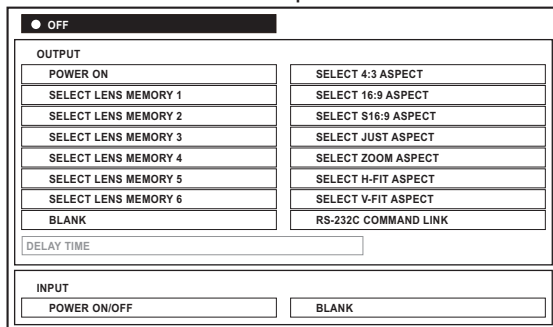There are 2 functions, **INPUT** and **OUTPUT**.

● **OUTPUT function**

It is possible to control the external equipment which have trigger terminals by transmitting the trigger output signal.

● **INPUT function**

It is possible to control the projector from external equipment by receiving the trigger input signal.

PICTURE	INPUT GUIDE	DETAILED
POSITION	OSD DESIGN	TYPE1
LANGUAGE	OSD POSITION	CENTER
LENS CONTROL	BACK COLOR	BLUE
FUNCTION BUTTON	STARTUP LOGO	ON
VIERA LINK	AUTO SEARCH	ON
OPTION	HDMI SIGNAL LEVEL	NORMAL
	FRAME RESPONSE	NORMAL
	INSTALLATION	FRONT/DESK
	TRIGGER 1 SETTING	OFF
	TRIGGER 2 SETTING	OFF
	SLEEP	OFF
	HIGH ALTITUDE MODE	OFF
	LAMP POWER	NORMAL
	VIERA LINK SETTINGS	
	TEST PATTERN	
	LAMP RUNTIME	0H

ENTER ▲◄●►▼ SELECT ■ RETURN

1. Select **TRIGGER 1** or **TRIGGER 2 SETTING** in the **OPTION** menu and press the **ENTER** button.

● OFF

OUTPUT

POWER ON	SELECT 4:3 ASPECT
SELECT LENS MEMORY 1	SELECT 16:9 ASPECT
SELECT LENS MEMORY 2	SELECT S16:9 ASPECT
SELECT LENS MEMORY 3	SELECT JUST ASPECT
SELECT LENS MEMORY 4	SELECT ZOOM ASPECT
SELECT LENS MEMORY 5	SELECT H-FIT ASPECT
SELECT LENS MEMORY 6	SELECT V-FIT ASPECT
BLANK	RS-232C COMMAND LINK

DELAY TIME

INPUT

POWER ON/OFF	BLANK

2. Press ▲ ▼ ◄ ► to select your required input/output function and press the **ENTER** button.

● **OFF**

Unable to transmit the trigger output signal.
It does not work even if trigger input signal is received. (Enable to receive the trigger input signal)

● **OUTPUT**

OPTIONS	
POWER ON	**SELECT 4:3 ASPECT***
SELECT LENS MEMORY 1	**SELECT 16:9 ASPECT**
SELECT LENS MEMORY 2	**SELECT S16:9 ASPECT***
SELECT LENS MEMORY 3	**SELECT JUST ASPECT**
SELECT LENS MEMORY 4	**SELECT ZOOM ASPECT***
SELECT LENS MEMORY 5	**SELECT H-FIT ASPECT**
SELECT LENS MEMORY 6	**SELECT V-FIT ASPECT**
BLANK	**RS-232C COMMAND LINK**

When the selected trigger item is chosen in the projector menu, 12 V is outputted.

· **BLANK**
When **BLANK** is activated, output is 12 V, but if the setting is released, output is 0 V.

· **RS-232C COMMAND LINK**
By receiving the command from external equipment, it conforms and outputs 12 V.

· When **AUTO** is selected in the **ASPECT** menu, it may automatically select **4:3**/**16:9**/**ZOOM ASPECT** depending on the input signal. When this matches the aspect selected in the trigger menu, 12 V is automatically output from the trigger terminal, but if other aspects are selected, output is 0 V.

● **INPUT**

OPTIONS	
POWER ON/OFF	**BLANK**

· **POWER ON/OFF**
If the trigger input signal from the external equipment is changed from 0 V to 12 V, the projector power will be switched on. And if it is changed from 12 V to 0 V, the power will be switched off.

· **BLANK**
If the trigger input signal from the external equipment is changed from 0 V to 12 V, the screen will go blank. And if it is changed from 12 V to 0 V, the **BLANK** setting will be released.

3. Press ▲ ▼ ◄ ► to move the cursor to **DELAY TIME** and press ◄ ► to set the delay time for the trigger output signal.
   - It is possible to delay the trigger output signal (12 V). (Only available if Trigger **OUTPUT** item is selected.)

NOTE:
- This trigger terminal output is used for control from external equipment only.
  You should not use it as the power source for external equipment.
- During start up and cooling off period, projector will not accept the trigger input signal.
  Please input the trigger signal only after it is in the projection or standby mode.
- The trigger control is not available to use for the RS-232C command during the standby mode.

SLEEP

You can select the required duration of time and set the off timer to turn off the power of the projector automatically. 3 minutes before turn-off, the countdown of minutes will be displayed in the lower right corner. Press ◄ ► to cycle through the options.

OFF	⬅	240 MIN.
⬇		⬆
60 MIN.		210 MIN.
⬇		⬆
90 MIN.		180 MIN.
⬇		⬆
120 MIN.	➡	150 MIN.
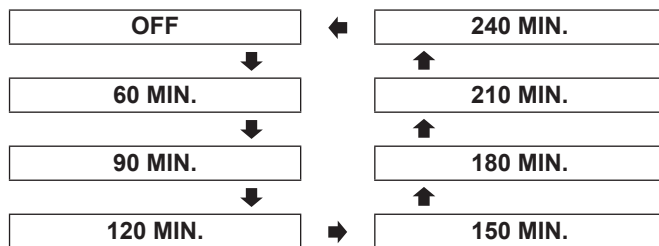
HIGH ALTITUDE MODE

If you use the projector at high elevation, the **HIGH ALTITUDE MODE** setting need to be **ON** to set the fan speed high. Press ◄ ► to select the required option.
- **OFF**   The fan speed is low.
- **ON**   The fan speed is high.

NOTE:
- At 1 400 - 2 700 m (4 593 - 8 858 ft) above sea level, the setting must be **ON**.
- The loudness of fan noise depends on the **HIGH ALTITUDE MODE setting**.

LAMP POWER

You can adjust the power of the lamp to save on electricity, prolong the lamp life and reduce the fun noise.

Options	Function
NORMAL	When higher luminance is required.
ECO-MODE	When lower luminance is sufficient.

NOTE:
- When no input signal is detected, the function is disabled.

VIERA LINK SETTINGS

You can set the VIERA Link settings. See "VIERA Link™ Connection" on page 45.

TEST PATTERN

You can display the 5 different **TEST PATTERN** images for your setting confirmation.
Press the **ENTER** button to switch to the other patterns.

LAMP RUNTIME

You can check how long the lamp has been used.

NOTE:
- When **LAMP POWER** is set to **NORMAL**; and **LAMP RUNTIME** has reached 1 800 hours, **LAMP RUNTIME** menu will inform the replacing time by flashing the red and gray color.
- **LAMP RUNTIME** is a relevant matter for lamp unit replacement timing. See "Replacing the lamp unit" in "Care and Replacement" of the operating instructions.

Technical Information

Serial terminal

The serial connector which is on the connector panel of the projector conforms to the RS-232C interface specification, so that the projector can be controlled by a personal computer which is connected to this connecter.

■ Connection

D-sub 9 pin (male)

Serial terminal (female)

Computer
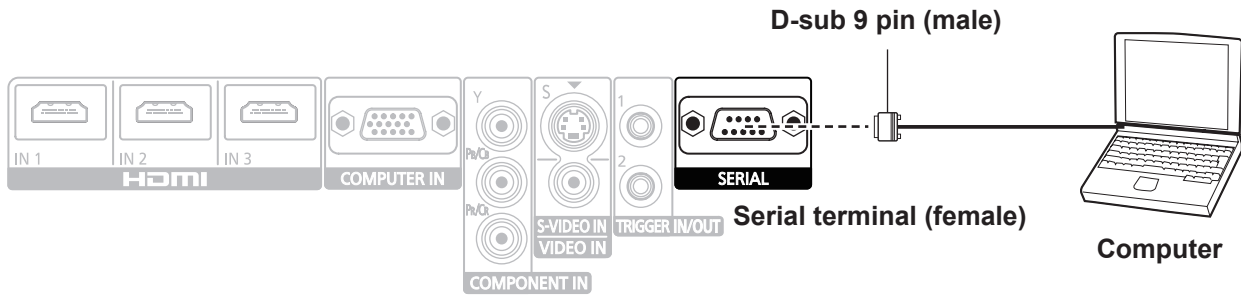
■ Pin assignments and signal names

Pin No.	Signal name	Contents
①		NC
②	TXD	Transmitted data
③	RXD	Received data
④		NC
⑤	GND	Earth
⑥		NC
⑦	RTS	Connected internally
⑧	CTS	
⑨		NC

■ Communication settings

Signal level	RS-232C	Character length	8 bits
Sync. method	Asynchronous	Stop bit	1 bit
Baud rate	9 600 bps	X parameter	None
Parity	None	S parameter	None

■ Basic format

STX	Command	:	Parameter	ETX
Start byte (02h)	3 bytes	1 bytes	1 byte - 4 bytes	End (03h)

The data streaming from the computer will start with STX, and proceed to Command, Parameter and end with ETX. You can add the required parameter.

- The projector can not receive any command for 10 seconds after the lamp is switched on. Wait 10 seconds before sending the command.
- If sending multiple commands, check that a response has been received from the projector for one command before sending the next command.
- When a command which does not require parameters to be sent, the colon (:) is not required.
- If an incorrect command is sent from the personal computer, the ER401 command will be sent from the projector to the personal computer.

■ Cable specifications

(When connected to a personal computer)

Projector

NC	1		1	NC
	2		2	
	3		3	
NC	4		4	NC
	5		5	
NC	6		6	NC
	7		7	
	8		8	
NC	9		9	NC
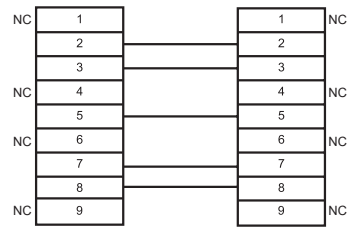
PC (DTE)

■ Control commands

Command	Control contents	Remarks
PON	POWER ON	In standby mode, all commands other than the PON command are ignored. The PON command is ignored during lamp ON control.
POF	POWER OFF	If a PON command is received while the cooling fan is operating after the lamp has switched off, the lamp is not turned back on again straight away in order to protect the lamp.
IIS	INPUT	CP1 = COMPONENT IN SVD = S-VIDEO IN　　　　　　　　　　VID = VIDEO IN HD1 = HDMI1 IN　　　　　　　　　　HD2 = HDMI2 IN HD3 = HDMI3 IN　　　　　　　　　　RG1 = COMPUTER IN
OMN	MENU	Displays the main menu.
OEN	ENTER	Activates the selected items in the menu mode.
OBK	RETURN	Returns to the previous menu or escaping from the menu mode.
OCU/OCD/ OCL/OCR	Navigation buttons	OCU = ▲ cursor　　　　　　　　　　OCL = ◄ cursor OCD = ▼ cursor　　　　　　　　　　OCR = ► cursor
OLE	LENS	Same function as the LENS button on the remote control.
OST	DEFAULT	Resets to the factory default setting. (page 14)
OFZ	FREEZE	Freezes the projected screen. 0 = OFF　　　　　　　　　　　　　　1 = ON
FC1	FUNCTION BUTTON	Activates the function that is assigned to the FUNCTION button of the remote control.
OOT	SLEEP	Sets the duration of time to turn off the power automatically. (See "SLEEP" on page 41.) 0 = OFF　　1 = 60 min.　　2 = 90 min.　　3 = 120 min.　　4 = 150 min. 5 = 180 min.　　6 = 210 min.　　7 = 240 min.
OSH	BLANK	Turns off the projection temporarily. Sends the command to switch between ON and OFF. Do not send the command consecutively.
OVM	PICTURE	Activates the PICTURE menu. Send the command to switch menu items. (page 13)
OWM	WAVEFORM	Activates the WAVEFORM. (page 14) 0 = OFF 1 = FULL SCAN (Y)　　　　　　　　5 = SINGLE LINE SCAN (Y) 2 = FULL SCAN (R)　　　　　　　　6 = SINGLE LINE SCAN (R) 3 = FULL SCAN (G)　　　　　　　　7 = SINGLE LINE SCAN (G) 4 = FULL SCAN (B)　　　　　　　　8 = SINGLE LINE SCAN (B)
VS1	ASPECT	Switches the aspect ratio. (page 32)
VPM	PICTURE MODE	Switches the PICTURE MODE. (page 13) NOR = NORMAL　　　DYN = DYNAMIC　　　CL1 = COLOR1　　　CL2 = COLOR2 CN1 = CINEMA1　　　CN2 = CINEMA2　　　CN3 = CINEMA3
OMM	MEMORY LOAD	Same function as the MEMORY LOAD button on the remote control.
DPA	PICTURE ADJUSTMENT	Same function as the PICTURE ADJUSTMENT button on the remote control.
DCM	COLOR MANAGEMENT	Displays the COLOR MANAGEMENT menu.
OVL	VIERA LINK	Same function as the VIERA Link button on the remote control.
OSM	SUB MENU	Same function as the SUB MENU button on the remote control.

▼

▲

Command	Control contents	Remarks	
VXX	LENS MEMORY LOAD	Loads LENS MEMORY. LMLI0 = +00000 = LENS MEMORY 1 LMLI0 = +00002 = LENS MEMORY 3 LMLI0 = +00004 = LENS MEMORY 5	LMLI0 = +00001 = LENS MEMORY 2 LMLI0 = +00003 = LENS MEMORY 4 LMLI0 = +00005 = LENS MEMORY 6
	GAMMA ADJUSTMENT	Sets Y ADJUST. (OUTPUT) AGOS0 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		Sets R ADJUST. (OUTPUT) AGOS1 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		Sets G ADJUST. (OUTPUT) AGOS2 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		Sets B ADJUST. (OUTPUT) AGOS3 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		Sets GAMMA ADJUSTMENT. (INPUT) AGIS0 = p1p2d1d2d3 p1p2 = POINT (01 - 09)	d1d2d3 = INPUT (001 - 099)
	TRIGGER 1 (OUTPUT)	Switches TRIGGER 1 (OUTPUT) when RS-232C COMMAND LINK is set in the TRIGGER 1 SETTING menu. TROI0 = +00000 = LOW	TROI0 = +00001 = HIGH
	TRIGGER 2 (OUTPUT)	Switches TRIGGER 2 (OUTPUT) when RS-232C COMMAND LINK is set in the TRIGGER 2 SETTING menu. TROI1 = +00000 = LOW	TROI1 = +00001 = HIGH

■ Inquiry commands

Command	Control contents	Parameter	
QPW	Power status	000 = OFF	001 = ON
QFZ	FREEZE status	0 = OFF	1 = ON
QIN	INPUT signal status	CP1 = COMPONENT IN SVD = S-VIDEO IN HD1 = HDMI1 IN HD3 = HDMI3 IN	VID = VIDEO IN HD2 = HDMI2 IN RG1 = COMPUTER IN
QOT	OFF TIMER status	0 = OFF　　1 = 60 min.　　2 = 90 min.　　3 = 120 min.　　4 = 150 min. 5 = 180 min.　　6 = 210 min.　　7 = 240 min.	
QPM	PICTURE MODE status	NOR = NORMAL　　DYN = DYNAMIC　　CL1 = COLOR1　　CL2 = COLOR2 CN1 = CINEMA1　　CN2 = CINEMA2　　CN3 = CINEMA3	
QSH	BLANK status	0 = OFF	1 = ON
QWM	WAVEFORM status	0 = OFF 1 = FULL SCAN (Y) 2 = FULL SCAN (R) 3 = FULL SCAN (G) 4 = FULL SCAN (B)	5 = SINGLE LINE SCAN (Y) 6 = SINGLE LINE SCAN (R) 7 = SINGLE LINE SCAN (G) 8 = SINGLE LINE SCAN (B)
QVX	GAMMA ADJUSTMENT status	AGOS0 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		AGOS1 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		AGOS2 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		AGOS3 = p1p2d1d2d3d4 p1p2 = POINT (01 - 09)	d1d2d3d4 = OUTPUT (0000 - 0255)
		AGIS0 = p1p2d1d2d3 p1p2 = POINT (01 - 09)	d1d2d3 = INPUT (001 - 099)

VIERA Link™ Connection

VIERA Link (HDAVI Control™) connects projector and the equipment with VIERA Link function, and enables easy control of the home theater equipment using the projector remote control.
● This projector supports "HDAVI Control 4" function. But available features depends on the connected equipment's version of HDAVI Control. Please refer to the manual of the equipment to confirm the version.

Summary of VIERA Link features

■ VIERA Link (HDMI connection only)

Connected equipment Feature	DIGA Recorder with VIERA link funtion	DVD Player/ Blu-ray Disk Player with VIERA Link function	HD Camcorder/ LUMIX Camera with VIERA Link function
Easy playback	○	○	○
Power on link	○	○	○
Power off link	○	○	○
Reduce unnecessary power consumption in standby	○[2]	○[2]	–
Auto standby for unnecessary equipment	○[1]	○[1]	–
Control the menu of the connected equipment by projector remote control	○[1]	○[1]	○[1]
Speaker control	–	–	–

*1. Available with equipment which has "HDAVI Control 2 or later" function.
*2. Available with equipment which has "HDAVI Control 4" function.

Connection
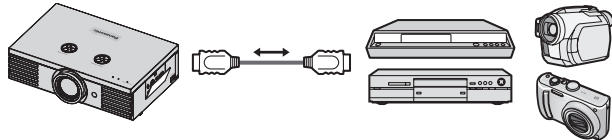
DIGA Recorder/DVD Player/
Blu-ray Disc theater/
HD Camcorder/
LUMIX Camera/
with VIERA Link function

NOTE:
• VIERA Link can only be used with one display (projector, TV, etc).
• VIERA Link function features may be available even with other manufacturers' equipment supporting HDMI CEC.
• Some operations may not be available depending on the equipment. In this case, use its own remote control to operate the equipment.
(The colored buttons operations, such as changing the date of TV program for Blu-ray Disc Recorder cannot be controlled by the projector remote control.)

To use Amplifier

Speaker system

HDMI Cable

Amplifier with VIERA link function

HDMI Cable

HDMI Cable

HD Camcorder/
LUMIX Camera
with VIERA Link function

DIGA Recorder with VIERA Link function
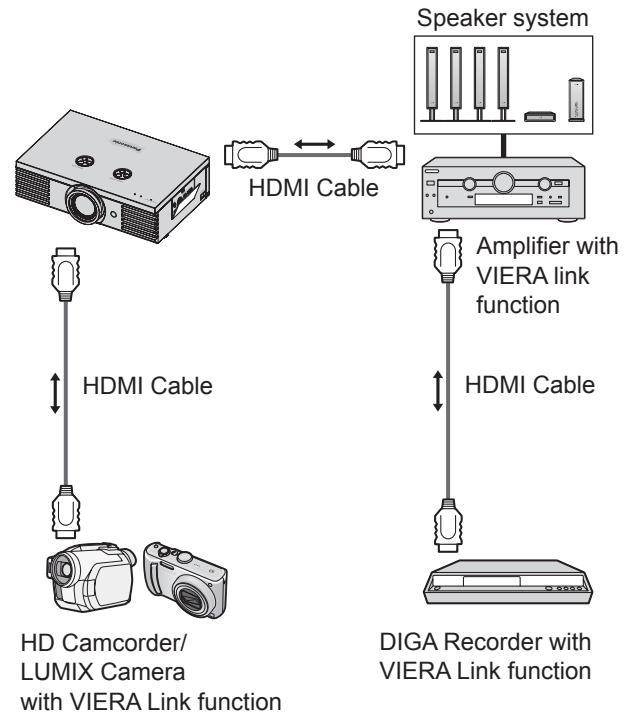
VIERA Link "HDAVI Control™"

Connections to the equipment (DIGA Recorder, HD Camcorder, Player theater, Amplifier, etc.) with HDMI cables allow you to interface them automatically.

These features are limited to models incorporating "HDAVI Control" and "VIERA Link".

● Some functions are not available depending on the equipment's version of HDAVI Control.
Please confirm the connected equipment's version of HDAVI Control.
But some functions will not be able to perform even if the versions are the same.

● VIERA Link "HDAVI Control", based on the control functions provided by HDMI which is an industry standard known as HDMI CEC (Consumer Electronics Control), is a unique function that we have developed and added.
As such, its operation with other manufacturers' equipment that supports HDMI CEC cannot be guaranteed.

● Please refer to individual manuals for other manufacturers' equipment supporting Link function.

● About applicable Panasonic equipment, consult your local Panasonic dealer.

■ Preparations

● Use fully wired HDMI compliant cable. Non-HDMI-compliant cables cannot be utilized.

● Set up the connected equipment.
⇨ **Switch the connected equipment ON.**
Set VIERA LINK ON in the Setup Menu.
(Please read the manual of the equipment for these setup.)

● Set up the projector
⇨ **Switch the projector ON.**
Select the input mode to HDMI1, HDMI2 or HDMI3, and make sure that an image is displayed correctly.
Select VIERA LINK SETTINGS in the OPTION menu.
If the VIERA LINK is set to ON, you need to select OFF first, and then switch to ON again to activate the ON setting.

NOTE:

This setup should be done each time when the following conditions occur:
• When using for the first time
• When adding or reconnecting equipment
• When changing setup

Option menu

Select **VIERA LINK SETTINGS** in the **OPTION** menu for the **VIERA LINK** settings.

VIERA LINK SETTINGS	
VIERA LINK	◄ ON ►
POWER ON LINK	NO
POWER OFF LINK	YES
STAND-BY POWER SAVE	NO
AUTO POWER STAND-BY	NO
VERSION : HDAVI Control 4	

◄◉► SELECT
■ RETURN
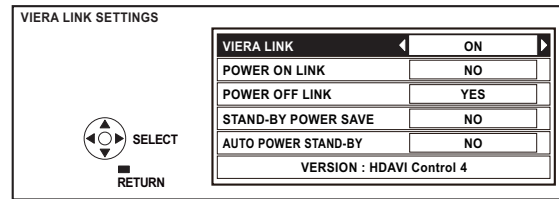
■ Available Features

● Easy playback
Automatic Input Switching - When the connected equipment is operated, input mode is switched automatically.

● POWER ON LINK
Set POWER ON LINK "YES" in the Setup Menu to use this function.
When the connected equipment is turned ON, the projector which has been linked with the connected equipment is automatically turned ON.

● POWER OFF LINK
Set POWER OFF LINK "YES" in the Setup Menu to use this function.
When the projector is turned OFF and it is in standby mode, the connected equipment is also automatically set to Standby.
● This function will work even if the projector enters standby mode automatically by **SLEEP** function.

● Reduce unnecessary power consumption in standby (STAND-BY POWER SAVE)
Set STAND-BY POWER SAVE "YES" in the Setup Menu to use this function.
The power consumption in standby mode of the connected equipment is lowered in synchronization when the projector is turned OFF to reduce power consumption.
● This function will work when **POWER OFF LINK** is set to **YES**.

● Auto standby for unnecessary equipment (AUTO POWER STAND-BY)
Set AUTO POWER STAND-BY "YES (WITH REMINDER)" or "YES (NO REMINDER)" in the Setup Menu to use this function.
When the projector is ON, non-input selected connected equipment goes into standby mode automatically to reduce the power consumption.
● If you select **YES (WITH REMINDER)**, the on screen message will be displayed to be noticed before this function is activated.

NOTE:

POWER ON LINK
- Depending on the connected equipment, the projector might automatically turn ON when some functions of the connected equipment are performed. (Only when the projector is in standby mode.)
- Due to the projector's characteristics, warm up time is needed before starting the projection, so please be aware that the movie might have already started by the time the projector is fully lit.

POWER OFF LINK
- Depending on the condition of the connected equipment, such as during recording, not all power of the connected equipment will be switched off.

STAND-BY POWER SAVE
- Depending on the connected equipment, when the projector is turned on, even if the power consumption setting of the connected equipment is set to the eco-standby mode, it's power consumption is increased so it can startup faster.

AUTO POWER STAND-BY
- This function may not work properly depending on the connected equipment. If required, set to **NO**.

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