

# EMP-7900

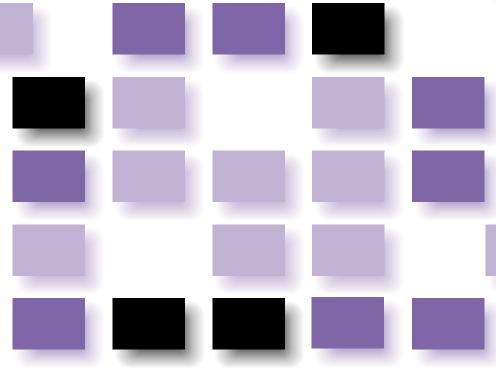
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Be sure to read the User's Guide carefully before using the projector.

#### **WARNING**

Do not look directly into the projector's lens.

# Quick Reference Guide



### Setup

Set up the projector so that the distance from the screen to the projector's lens is 77–1113 cm. The shorter the distance between the two, the smaller will be the images, and the greater the distance, the larger will be the images. Adjust the distance in accordance with the size of the screen. If using an optional lens, refer to the documentation for the lens.

User's Guide "Screen Size and Projection Distance"

#### **Connections**

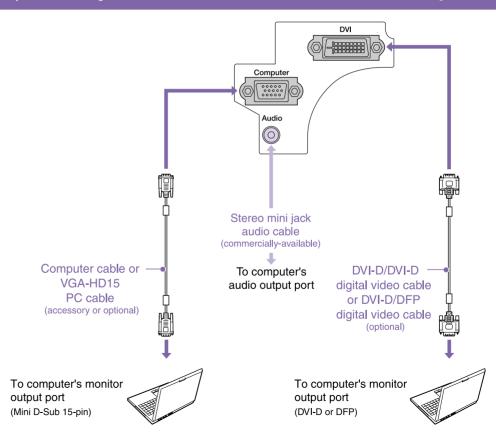
Be sure to turn the power for all components off before making any of the following connections.

User's Guide "Connecting to a Computer" "Connecting to a Video Source"

# Connecting to a computer

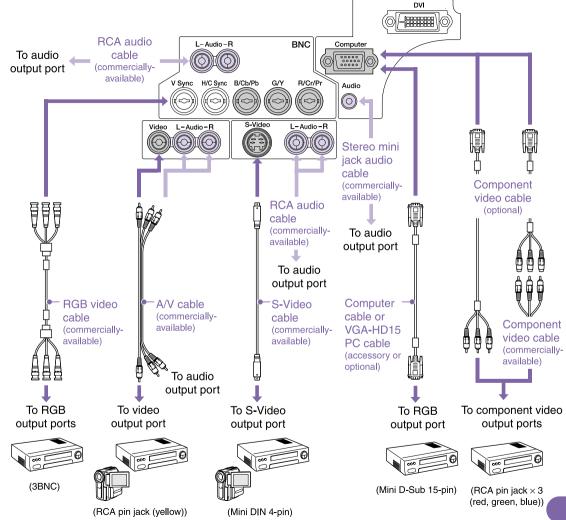
The [Audio] port to use is the port that is in the same box as the port being used to input the video signals.

If the source is connected to the [Computer] port or [DVI] port, the audio signals will be output according to the "Computer/DVI Audio Input" setting in the "Audio" menu.



# Connecting to video equipment

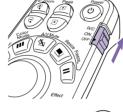
The [Audio] port to use is the port that is in the same box as the port being used to input the video signals.



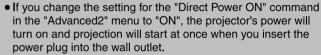
## **Projection preparation and adjustments**

User's Guide
"Turning the Projector On"

Set the [R/C] switch to "ON".



• Check that the power cable is connected to the projector and to the electrical outlet.



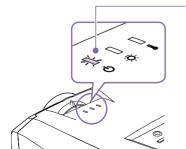
User's Guide "Advanced2 Menu"

Turn the power on for all input equipment.



For a video source, press the [Play] button.

**3** Press the button.



Projection starts after a short period.

(Operation) indicator

Flashes green (warm-up in progress/approx. 30 seconds) → Lights green (projection in progress)

When Password Protect is enabled, the Password Entry screen will be displayed when the power plug is connected to an electrical outlet and the power for the projector is first turned on. Type in the password.

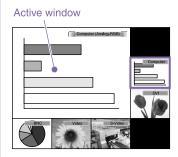
User's Guide "Preventing theft (Password Protect)"

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#### Select the images to be projected.

- If only one signal source is connected, images from that source will be projected automatically.
- If more than one device is connected to the projector, use the [Source] button to select the image source to be projected.

To select images to be projected while viewing all images being input (Preview Function)



1. Press the button.

The image can be changed directly by selecting the desired image source with the [Source] button.

2. To view the images in more detail, switch to the active window.

Tilt the button to select an image and then press the button.

3. Project the images in the active window.

Press the Enter button.

User's Guide "Selecting an Image Source While Viewing Projected Images (Preview Function)"

If the source does not change to a laptop PC



Examples of changing output						
NEC	Fn + F3					
Panasonic	+ 23					
TOSHIBA	Fn + F5					
IBM	Fn + F7					
SONY	+ =					
FUJITSU	Fn + F10					
Macintosh	Set mirror setting or display detection.					

You may need to change the output destination using the keyboard or by changing settings.

To change, hold down the f key and press the f key (with a symbol such as f or f on it).

Once the setting is changed, projection will start after a short period.

Computer documentation

If images are still not projected after carrying out the above, see p.12.

### Adjusting projected images

#### Adjusting the projection angle



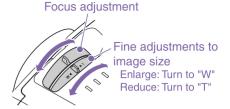
Foot adjust lever

While pulling the foot adjust lever. lift up the front of the projector so that the front adjustable foot can extend. The Auto Keystone function will operate when the projector is tilted.

To retract the front adjustable foot, gently push down on the projector while pulling the foot adjust lever.

> User s Guide "Adjusting the Feets"

#### Adjusting the image size and focus



User's Guide "Zoom Function" "Focus Adjustment"

• If tilted horizontally, adjust using the left and right rear adjustable feet.

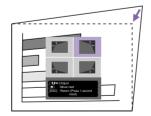


• If the height of the image is too short after Auto Keystone is carried out, adjust the height as follows. For adjustment using the configuration menus:

"Setting" - "Keystone" - "H/V-Keystone" - "Height"

**User's Guide "Height Correction"** 

#### Fitting the image size to the projection screen (Quick Corner)



The four corners of the image can be adjusted so that the image fits the screen exactly. This cannot be used together with Auto Keystone.

- 1. Press the button.
  - Select "Quick Corner" from the "Keystone" sub-menu of the "Setting" menu.
- 2. Select the corner to be adjusted.

Press the Enter button.

3. Adjust the corner to the desired position.

Tilt the button.

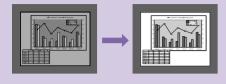
Once the adjustment is complete, press the button.





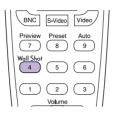
"Correcting Keystone Distortion so that the Projection Area Fits the Screen Exactly (Quick Corner)

# If projecting onto a blackboard or wall



#### ■ Wall Shot

Images can be automatically corrected and projected without loss of original colour onto surfaces which are not white. In addition, the tints can be adjusted in accordance with the brightness of the room.



- 1. Press the double button.
  - The current status is displayed on the screen.
- 2. Press the dollars button while the status is displayed to change it to "Wall Shot ON".

Colours in the order red  $\rightarrow$  green  $\rightarrow$  blue  $\rightarrow$  black will be projected for approximately five seconds, and then the corrected images will be displayed. 

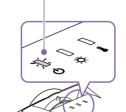
( User's Guide "Wall Shot"

When the projector's power is turned off, images will be projected next time with the status set to "Wall Shot OFF". If projecting in the same location as before, press the  $\frac{\text{Well Shot}}{4}$  button twice, you can project images using the previous adjustment values without needing to repeat the measurements. The status will change in the order "Wall Shot OFF"  $\rightarrow$  "Wall Shot ON"  $\rightarrow$  "Wall Shot Memory Call" each time the  $\frac{\text{Well Shot}}{4}$  button is pressed.

### **Turning the projector off**

User's Guide"Turning the Projector Off"

- Turn the power off for the equipment that is connected to the projector.
- Press the 6 button twice to turn the power off.
- Set the [R/C] switch to "OFF".



#### (<sup>|</sup>) (Operation) indicator

Flashes orange\* (cool-down in progress/approx. 20 seconds) → Lights orange

\* Do not disconnect the power cable while the indicator is still flashing orange, otherwise it may result in errors in projector operation.

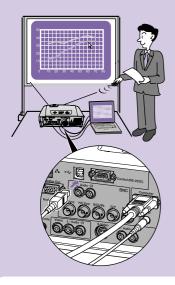
If the message "The projector is over heating. Make sure nothing is blocking the air vent, and clean or replace the air filter." appears during projection of images, press the button to turn the power off and then clean or replace the air filters.

User's Guide "Cleaning the Air Filters and Air Intake Vent"
"Replacing the Air Filters"

If not using for a long period, disconnect the power cable from the electrical outlet.

### **Functions for Enhancing Projection**

# Using the remote control for one-person presentations



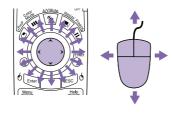
To use the wireless mouse function, you need to connect the computer using a USB cable in addition to the computer cable.

Use the accessory USB cable to connect the USB port of a computer to the projector's [USB] port.

#### **■** Wireless Mouse Function

When projecting images from a computer, the accessory projector's remote control can be used to operate the computer's mouse pointer.

#### Moving the mouse pointer



#### Drag and drop

- 1. Hold down the button for approx. 1.5 seconds.
  - The button lights and drag and drop mode is enabled.
- 2. Tilt the button to drag an item.
- 3. Press the button to drop the item.

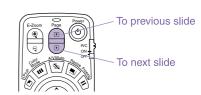
You can also drag and drop in the same way using the button.

#### **Mouse clicks**



Double-click: Press twice in rapid succession.

Displaying previous or next slides in a PowerPoint slideshow

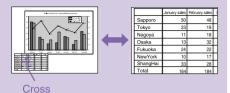


The wireless mouse function may not operate correctly depending on the computer version or function being used.

**User's Guide** 

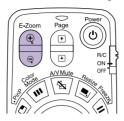
"Using the Remote Control to Operate the Mouse Pointer (Wireless Mouse Function)"

# Enlarging parts of an image



#### **■**E-Zoom Function

This function lets you enlarge and reduce parts of images such as graphs and tables that you would like to view in greater detail.



- 1. Press the 🕦 button.
  - A cursor (cross) will appear on the screen.
- 2. Move the cross to the area of the image that is to be enlarged.

Tilt the button.

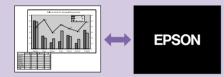
3. To enlarge: Press the 📵 button.

To reduce the enlarged area size: Press the 📵 button.

Press the button to cancel.

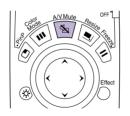
User's Guide "E-Zoom Function"

# Momentarily turning off images and sound



#### ■ A/V Mute Function

You can use this function when you do not wish to show details of operations such as selecting different files.



Press the 🐿 button.

The images and sound are turned off (A/V mute active).

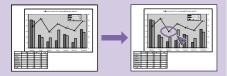
Press the button once more.

The A/V mute is cancelled.

User's Guide "A/V Mute Function"

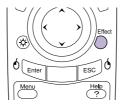
- If you use this function when projecting moving images, the images and sound will still continue to be played back by the source, and you cannot return to the point where the A/V mute function was activated.
- You can use the "A/V Mute" command in the "Setting" menu to set the screen appearance when the images and sound have been paused to "Black", "Blue" or "User's Logo".

# **Emphasising parts of an image**



#### **■** Effect Function

You can display a pointer icon and draw lines on the image being projected to emphasise parts of the image that you want to draw attention to.



#### Using the pointer icon

1. Press the button.

The pointer icon will appear.

The pointer type changes to one of three types each time the button is pressed.

2. The pointer icon moves when the button is tilted.

#### **Drawing straight lines**

- Press the button.
   The pointer icon will appear.
- 2. Move the pointer icon to the starting point for the line.
- 3. Press the button to set the starting point.
- 4. Move the pointer icon to the ending point for the line and press the button to draw the line.

#### **Drawing freehand curves**

- Press the button.
   The pointer icon will appear.
- 2. Move the pointer icon to the starting point for the line.
- 3. Press the button for approximately 1.5 seconds so that the button lights.
- 4. Tilt the button to move the pointer icon and draw the line.
- 5. When the ending point is reached, press the button.

Press the button to clear effects. The pointer icon and lines will all be cleared.

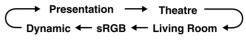
User's Guide "Effect Function"

The type, size and movement speed of the pointer icon and the colours and thicknesses of the lines drawn can be set using the "Effect" menu.

#### Other useful functions

Color Mode

The colour mode changes as follows each time this button is pressed.



User's Guide "Selecting the Projection Quality (Colour Mode Selection)"

Preset Function

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The "Video" menu settings (such as input resolution and tracking) for the respective preset number are retrieved each time this button is pressed. (Adjustment is only possible when analogue RGB signals are being input)

User's Guide "Preset Function"

Freeze Function

The images are paused and unpaused each time this button is pressed.

User's Guide "Freeze Function"

P in P Function This function lets you display separate images in a smaller screen (sub-screen) over the top of the images that are currently being projected (main screen).

User's Guide "P in P (Picture in Picture) Function"

**Brightness Control** 

This lets you set the lamp brightness to one of two settings. Select "Low" if the images being projected are too bright such as when projecting images in a dark room or onto a small screen. When used at low brightness, the life of the lamp will be extended.

User's Guide "Advanced2 Menu"

Network monitoring and control

This lets you monitor multiple projectors and turn their power on and off and change the signal sources via a network. In addition, if a problem occurs with the projector, the projector can send an e-mail message to notify someone of the problem.

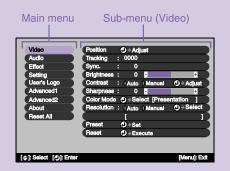
User's Guide "Projector Monitoring and Control using a Network"

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# List of configuration setting menus

User's Guide

"Using the Configuration Menu Functions"



ii settiiig illelius				"Using the Configuration Menu Functions		
Video	During computer (a		During computer (digital RGB) input		Ouring component rideo input	During S-Video or composite video input
0	Position Tracking Sync. Brightness Contrast Sharpness Color Mode Resolution Preset Reset		Brightness Contrast Sharpness Color Mode Reset	- -	Position Brightness Contrast Color Tint Sharpness Color Mode Reset	Position Brightness Contrast Color Tint Sharpness Color Mode Video Signal Reset
Audio	Computer/DVI Audio Input Volume Treble Bass Reset	Logo	xecute	About	During computer (analogue RBG, digital RGB) / component video RGB video input	During S-Video or composite video input
Effect	Pointer/Line1 Pointer/Line2 Pointer/Line3 Pointer Speed Reset	dvanced1	tartup Screen rogressive olor Adjustment ear Proj. eiling tandby Mode anguage eset		Lamp (High Brightness (Low Brightness Reset Lamp Timer Source Input Signal Frequency	
Setting	Keystone P in P No-Signal Msg. Message	dvan Pi	rightness Control rojector ID etwork OM Port		SYNC Polarity SYNC Mode Resolution Refresh Rate	

A/V Mute Computer Input **BNC** Input Sleep Mode Reset

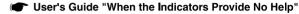
COM Port Auto Setup BNC Sync Termination Direct Power ON Operation Lock Reset

Reset All Execute

### If you cannot select computer images or the images do not project correctly

If a problem occurs with the projected images even though the projector is set up and connected correctly, check the following points.

If the following does not solve the problem





The computer cannot be selected as the image source

Was the projector and computer connected while their power was already turned on?

If the connection is made while the power is already turned on, the function [Fn] key that switches the computer's video signal to external output may not work. Turn the power for the connected computer and the projector back on.

Is the computer display output set to only the computer's accessory screen? The image signals need to be output to the projector. Change the output setting to an external destination only or to an external destination as well as the computer's own monitor.

Computer documentation, under a title such as "External output" or "Connecting an external monitor"

Do the input signal settings match the projector settings? (When connected to the [Computer] port or [BNC] ports)

Select the correct signal format for the connected source in "Computer Input" or "BNC Input" in the "Setting" of the configuration menu.



Images appear greenish or purplish

Do the input signal settings match the projector settings? (When connected to the [Computer] port or [BNC] ports)

Select the correct signal format for the connected source in "Computer Input" or "BNC Input" in the "Setting" of the configuration menu.



Only part of the image is displayed Only part of the images are projected

Has the computer been set for dual display?

Cancel the dual display setting in the connected computer's Control Panel.

Computer documentation, under a title such as "Video driver"

### Using the help function

If a problem occurs with the projector, the Help function uses on-screen displays to assist you in solving the problem.

Press the button and answer the questions that are displayed to proceed through the help screens. User's Guide "Using the Help"

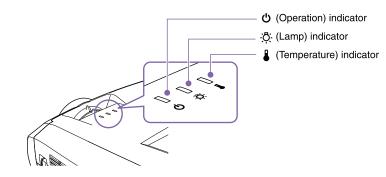
#### **Reading the Indicators**

The projector is provided with indicators to notify you of the operating status of the projector.

The following tables show what the indicators mean and how to remedy the problems that they indicate.

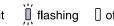
If all indicators are switched off, check that the power cable is connected correctly and that power is being supplied normally.

User's Guide "Reading the Indicators"



If the () indicator is flashing or lit red

Problem/Warning





#### Internal error



Fan related error/



Disconnect the power cable from the electrical outlet.

Then contact your dealer or the nearest address provided in the "International Warranty Conditions" section of the Safety Instructions/World Wide Warranty Terms booklet.



Lamp cover is open error./ Lamp timer failure/Lamp out



Check if the lamp is broken.

Disconnect the power plug from the electrical outlet and wait for the lamp to cool down sufficiently (takes about one hour) before checking.

User's Guide "Replacing the Lamp"

If the lamp is not broken

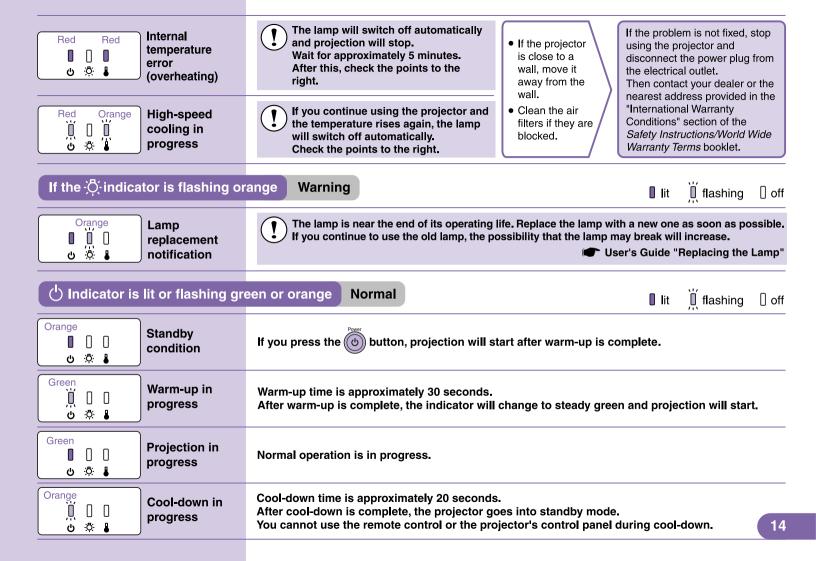
Replace the lamp and then turn the power on.

If the lamp still does not turn on. replace it with a new lamp.

If the problem is still not solved after the lamp is replaced, stop using the projector and disconnect the power cable from the electrical outlet. Then contact your dealer or the nearest address provided in the "International Warranty Conditions" section of the Safety Instructions/World Wide Warranty Terms booklet.

If the lamp is broken

Contact your local dealer for further advice.



# **List of Supported Monitor Displays**

Signal	Refresh rate (Hz)	Resolution (dots)	Resolutions for resized display (dots)
VGAEGA		640 × 350	1024 × 560
VGA	60/72/75/85/100/120, iMac* <sup>1</sup>	640 × 480	1024 × 768
SVGA	56/60/72/75/85/100/120, iMac <sup>*1</sup>	800 × 600	1024 × 768
XGA	60/70/75/85/100/120, iMac <sup>*1</sup>	1024 × 768	1024 × 768
SXGA	70/75/85/100	1152 × 864*2	1024 × 768
SXGA	00/75/05	1280 × 960*2	1024 × 768
	60/75/85	1280 × 1024*2	960×768
SXGA+	60/75/85	1400 × 1050*2	1024 × 768
UXGA	60/65/70/75/80/85	1600 × 1200*2	1024 × 768
MAC13"		640 × 480	1024 × 768
MAC16"		832 × 624	1024 × 768
MAC19"		1024×768	1024 × 768
MAC21"		1152 × 870*2	1016 × 768
SDTV (525i,525p,625i,625p)			1024 × 768 (4:3 aspect ratio) 1024 × 576 (16:9 aspect ratio)
HDTV(750p)			1024 × 576
HDTV(1125i)			1024 × 576

<sup>\*1</sup> Connection is not possible if the equipment does not have a VGA output port.





<sup>\*2</sup> The resolution for real display is the virtual (window) display resolution. It may be possible to project signals which are not listed in the above table. However, not all functions may be supportable with such signals.