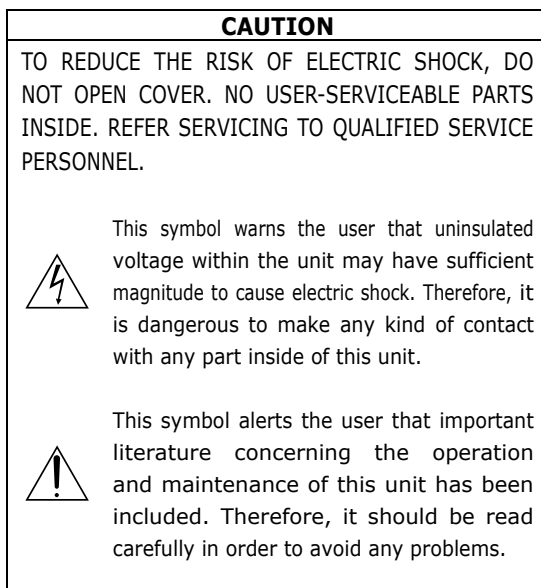
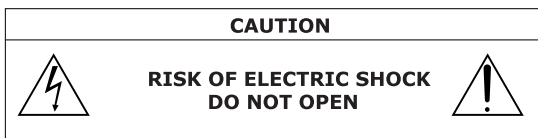


DLP Cinema® Projector Installation manual

NC800C

WARNING

TO PREVENT FIRE, SHOCK, OR OTHER HAZARDS, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE. ALSO DO NOT USE THIS UNIT'S POLARIZED PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLETS, UNLESS THE PRONGS CAN BE FULLY INSERTED. REFRAIN FROM OPENING THE CABINET AS THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



DOC compliance Notice

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Precautions: Please read this manual carefully before using your **NC800C** and keep the manual handy for future reference.

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION

- In order to reduce any interference with radio and television reception use a signal cable with ferrite core attached. Use of signal cables without a ferrite core attached may cause interference with radio and television reception.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the installation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Important Safeguards

These safety instructions are to ensure the long life of your projector and to prevent fire and shock. Please read them carefully and heed all warnings.

Installation

1. Continual place the projector on a flat, level surface in a dry area away from dust and moisture. Tilting the front of the projector up or down could reduce lamp life. Do not put the projector on its side when the lamp is on. Doing so may cause damage to the projector.

2. Do not place the projector in direct sunlight, near heaters or heat radiating appliances.
 3. Exposure to direct sunlight, smoke or steam could harm internal components.
 4. Handle your projector carefully. Dropping or jarring your projector could damage internal components.
 5. To carry the projector, a minimum of four persons are required. Do not hold the lens part and the anamorphic lens part with your hand. Otherwise the projector may tumble or drop, causing personal injury.
 6. Do not place heavy objects on top of the projector.
 7. If you wish to have the projector installed on the ceiling:
 - a Do not attempt to install the projector yourself.
 - b The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
 - c In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes.
 - d Please consult your dealer for more information.
 - e Do not attempt to stack projectors on the ceiling.
3. Handle the power cord carefully and avoid excessive bending. Do not place any heavy objects on the power cord. A damaged cord can cause electric shock or fire.
 4. If the projector will not be used for an extended period of time, shut down AC power.
 5. Placing the power cord and the signal cable closely to each other can cause beat noise. Beat noise is corruption of the picture often seen as a rolling band moving through the image. Keep the two separated, to ensure beat noise is not generated.
 6. Do not touch the projector during a thunder storm. Doing so can cause electrical shock or fire.

Cleaning

1. Unplug the projector before cleaning.
2. Clean the cabinet periodically with a damp cloth. If heavily soiled, use a mild detergent. Never use strong detergents or solvents such as alcohol or thinner.
3. Use a blower or lens paper to clean the lens, and be careful not to scratch or mar the lens.

Fire and Shock Precautions

1. Ensure that there is sufficient ventilation and that vents are unobstructed to prevent potentially dangerous concentrations of ozone and the build-up of heat inside your projector. Allow at least 8 inches (20cm) of space between your projector and a wall. Connect the projector exhaust outlet with the exhaust equipment having a capacity of 16m³/min or more.
2. Prevent foreign objects such as paper clips and bits of paper from falling into your projector. Do not attempt to retrieve any objects that might fall into your projector. Do not insert any metal objects such as a wire or screwdriver into your projector. If something should fall into your projector, disconnect it immediately and have the object removed by a

Power Supply

1. The projector is so designed that it operates with the power supply voltage described below.
 - 1.2kW (Max. 12A) AC100-120V 50/60Hz
 - 1.7kW (Max. 8.5A) AC200-240V 50/60HzEnsure that your power supply fits this requirement before attempting to use your projector.
2. Consult your dealer about installing the power cord to the projector. DO NOT install the power cord by yourself. Doing so may cause a fire or electric shock.

- qualified service person.
3. Do not place any liquids on top of your projector. Refer servicing to qualified service personnel if liquid has been spilled.
 4. Keep any items such as magnifying glass out of the light path of the projector. The light being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause unpredictable outcome such as fire or injury to the eyes.
 5. Do not cover the lens with the supplied lens cap or equivalent while the projector is on. Doing so can lead to melting of the cap and possibly burning your hands due to the heat emitted from the light output.
 6. When using a LAN cable:
For safety, do not connect to the connector for peripheral device wiring that might have excessive Voltage.

CAUTION: High Pressure Lamp May Explode if Improperly Handled. Refer Servicing to Qualified Service Personnel.

Lamp Caution: Please read before operation

Due to the lamp being sealed in a pressurized environment, there is a small risk of explosion, if not operated correctly. There is minimal risk involved, if the unit is in proper working order, but if damaged or operated beyond the recommended hours, the risk of explosion increases. Please note that there is a warning system built in, that displays following message when you reach a preset operating time "Over Time Bulb". When you see this message please contact your dealer for a replacement. If the lamp does explode, smoke will be discharged from the vents located on the back of the unit. Do not stand in front of the vents during the operation. This smoke is comprised of glass in particulate form and Xenon gas, and will not cause harm if

kept out of your eyes. If your eyes have been exposed to this gas, please flush your eyes out with water immediately and seek immediate medical attention. Do not rub your eyes! This could cause serious injury.

WARNING:

Do not look into the lens while the projector is on. Serious damage to your eyes could result.

CAUTION

Never unplug the projection head power plug from the outlet under the following conditions. Doing so can cause damage to the projector:

- While projecting image
- While cooling after the projector has been turned off. (The POWER indicator blinks in orange while the fan is rotating, and the LCD screen is displaying "cooling...". The cooling fan continues to work for 3 minutes.)

Remote Control Precautions

- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Do not heat, take apart, or throw batteries into fire.
- If you will not be using the remote control for a long time, remove the batteries.
- Ensure that you have the batteries' polarity (+/-) aligned correctly.
- Do not use new and old batteries together, or use different types of batteries together.
- Dispose of used batteries according to your local regulations.

Disposing of your used product



EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste.

This includes projectors and their electrical accessories or lamps. When you dispose of such products, please follow the guidance of your local authority and/or ask the shop where you purchased the product. After collecting the used products, they are reused and recycled in a proper way. This effort will help us reduce the wastes as well as the negative impact to the human health and the environment at the minimum level. The mark on the electrical and electronic products only applies to the current European Union Member States.

For questions relating to unclear points or repairs

Contact your dealer or the following support branches for questions relating to unclear points, malfunctions and repairs of the product.

In Europe

NEC Europe, Ltd. / European Technical Centre
Address: Unit G, Stafford Park 12, Telford TF3 3BJ, U.K.

Telephone: +44 1952 237000

Fax Line: +44 1952 237006

In North America

NEC Corporation of America
Digital Cinema Division
Address: 4111 West Alameda Avenue
Suite 412 Burbank, CA 91505

Telephone: 818 557 2500

*If the above line is busy, please dial as below;

Telephone: 866 632 6431

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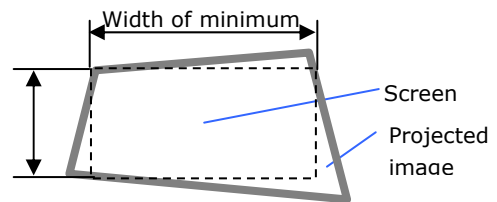
1.

Before Setting Up Your Projector

1.1 Selecting Primary/Anamorphic Lenses for Your Projector

This section provides guideline information on how to select a screen size and projector mounting position appropriate for your presentation purposes and about selection of types of lenses as well. Select primary/anamorphic lenses for your projector according to the environment in which it is installed.

Note that all descriptions given in this manual assume that the angle of projection is zero degree. In case of projection from an upper position or from the right or left, it is necessary to calculate the width for the minimum projected image that is a little larger than the screen size.

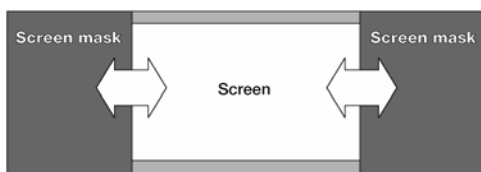


1.2 Screen Type

The following two types of screen masks can be used for the DLP Cinema Projector. Check the screen mask for your projector for its type before selecting lenses because types of primary/anamorphic lenses to be used on the projector and its settings depend upon the type of screen mask you use.

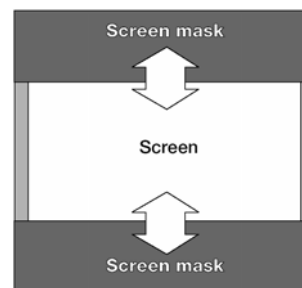
Horizontal moving screen mask

Screen masks move horizontally to adjust the screen.



Vertical moving screen mask

Screen masks move vertically to adjust the screen.



1.3 Selecting of Anamorphic Lenses

An anamorphic lens is required when you use a wide screen for projection. Because a different type of anamorphic lens should be used according to the type of projector and screen, determine an appropriate anamorphic lens in consultation with the end user, considering its application purpose. See the table below for available anamorphic lenses.

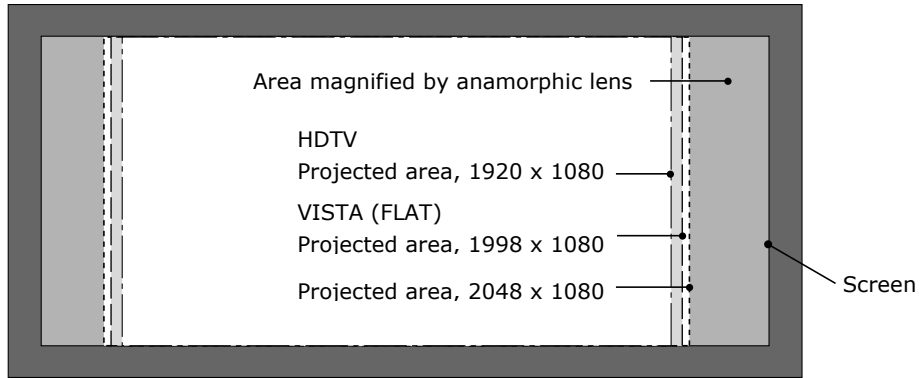
Available Anamorphic Lenses

Screen mask type	Screen Type	Projected area	Anamorphic lens
Horizontal moving	SCOPE	2048 x 1080	x1.25
	VISTA (FLAT)	1998 x 1080	-
	HDTV	1920 x 1080	-
Vertical moving	SCOPE	2048 x 1080	x1.25 or None (*)
	VISTA (FLAT)	1998 x 1080	-
	HDTV	1920 x 1080	-

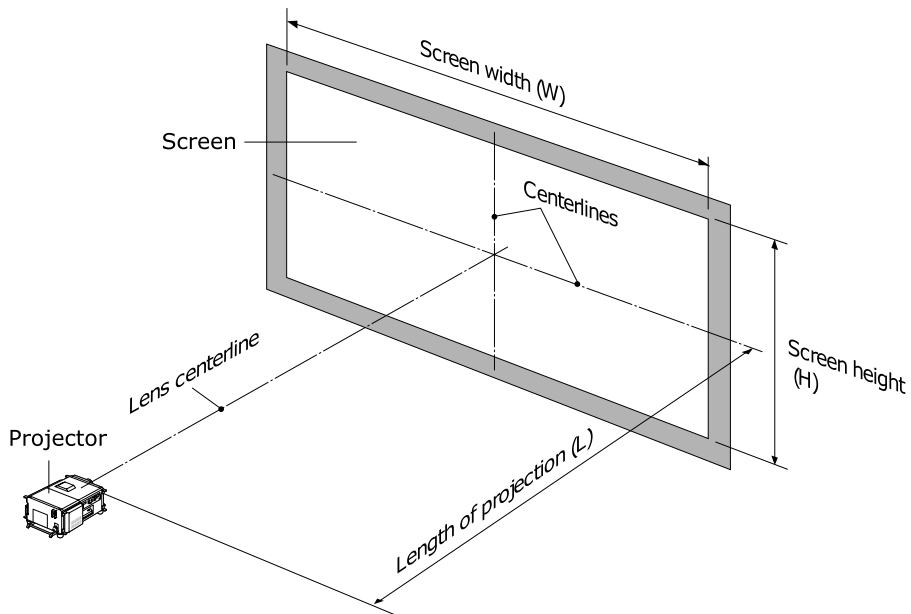
(*) If the screen mask is of vertical moving type and the image cannot be enlarged vertically due to insufficient zooming magnification of the primary lens, do not use the anamorphic lens for projection. In this case, it is necessary to set the Screen file (Screen Presentation Setting). For the Screen file, refer to "Creating a Screen File" in "Installation and Adjustment Manual (Touch Panel)".

Projected Images

The anamorphic lens works to magnify projected images horizontally when you use a wide screen for projection (SCOPE).



1.4 Selection of Primary Lens



Option lenses

MODEL	Magnifying
L2K-12ZM	1.25- 1.45
L2K-14ZM	1.45 - 1.8
L2K-18ZM	1.8 - 2.4
L2K-22ZM	2.2 - 3.0
L2K-30ZM	3.0 - 4.3

How to Calculate the Magnification of Primary Lens

SCOPE projection:

$$\text{Primary lens magnification} = \frac{\text{Length of projection (L)}}{\text{Screen width (W)} \div \text{Anamorphic lens magnification}}$$

Use 1x for anamorphic lens magnification if this lens is not in use.

VISTA (FLAT) /HDTV projection:

$$\text{Primary lens magnification} = \frac{\text{Length of projection (L)}}{\text{Screen width (W)} \times (2048 \div \text{Number of pixels per horizontal line})}$$

* Number of pixels per horizontal line: 1998 for VISTA (FLAT); 1920 for HDTV

* Select a lens that meets the magnification requirement for both SCOPE and VISTA (FLAT)/HDTV screen types.

Example of Primary Lens Calculation

If the projection distance (L) = 16 m, the screen width (W) = 8 m and the anamorphic lens is not used:

$$\text{SCOPE projection} = \frac{16\text{m}}{8\text{m} \div 1} = 2.0\text{x}$$

$$\text{VISTA (FLAT) projection} = \frac{16\text{m}}{8\text{m} \times (2048 \div 1998)} = 1.95\text{x}$$

$$\text{HDTV projection} = \frac{16\text{m}}{8\text{m} \times (2048 \div 1920)} = 1.88\text{x}$$

Therefore, "L2K-18ZM", which satisfies the magnifications in all of the above projections, is selected as the primary lens.

1.5 List of Tools Used

The tools used for NC800C installation are as follows:

Item	Tool	Quantity	Major Application
Projector (NC800C)	Phillips head screwdriver (No.2)	1	Covers
	Flat head screwdriver	1	Lens
	Hexagonal wrench (Width across flats: 4 mm)	1	Lamp house
Anamorphic stand (AS1.25/AS1.25-E)	Phillips head screwdriver (No.2)	1	-
	Hexagonal wrench (Width across flats: 3mm)	1	-
	Hexagonal wrench (Width across flats: 5mm)	1	Front bracket, Lens holder
	Hexagonal wrench (Width across flats: 6mm)	1	Shaft L/R
Touch panel controller (NC-TP6402) Holder arm (NC-TH6403)	Phillips head screwdriver (No.2)	1	-
	Flat head screwdriver (3mm)	1	Connector
	Hexagonal wrench (Width across flats: 5mm)	1	Outer panel of the projector
Lens	Hexagonal wrench (Width across flats: 2.5mm)	1	Lens adaptor

2.

Setting Up Your Projector

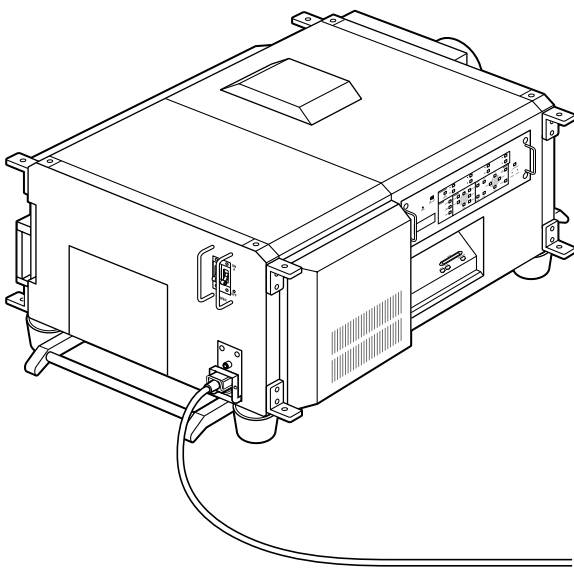
2.1 Connecting the Power Cord

After making sure that the main power switch of your projector is turned off, plug its power cord into an earthed, three-pin power outlet (power supply: 100-120 VAC or 200-240 VAC).



Caution

- Consult your dealer for installing the power cable to the projector. Do not install the power cable by yourself.
- For equipment safety, be sure to provide ground connection. To prevent the risk of electric shock, grounding must be conducted by a qualified electrician. Make sure to connect the grounding conductor before plugging the power connector.



Plug to a 100-120 VAC or 200-240 VAC three-pin power outlet.

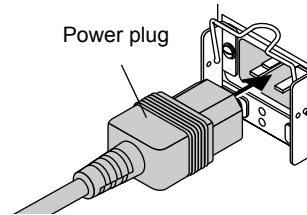
2.1.1 Be sure to secure the power plug as follows:

(To prevent falling out)

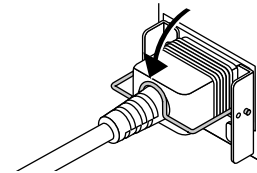
- [1] Lift the wire stopper.


Wire stopper

- [2] Plug the projector's power cord into the wall outlet.



- [3] Bring the wire stopper down to secure the power plug.

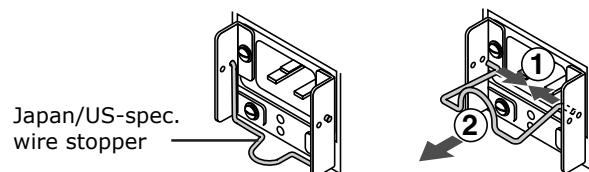


 Caution	In order to protect the projector from being damaged, DO NOT unplug the projector's power cable from the wall outlet: immediately after the cooling fan stops working (the fan continues working for 3 minutes after the projector is tuned off); and while a flash memory card is in use (the memory data could be destructed).
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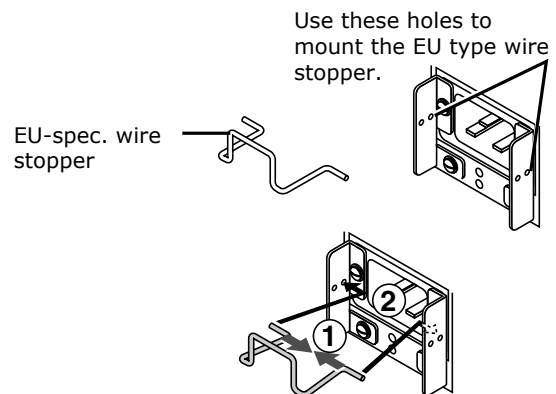
2.1.2 When Using an EU Type Power Cable

Replace the attached wire stopper with the EU-spec. one supplied with the projector, following the steps below:

- [1] Remove the attached Japan/US-spec. wire stopper.



- [2] Mount the EU-spec. wire stopper.

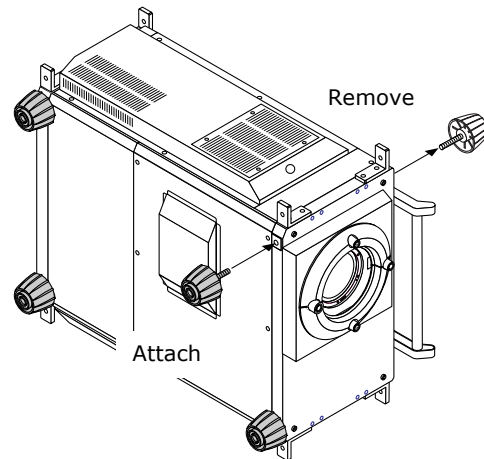


2.2 Setup Required for Overhead Installation

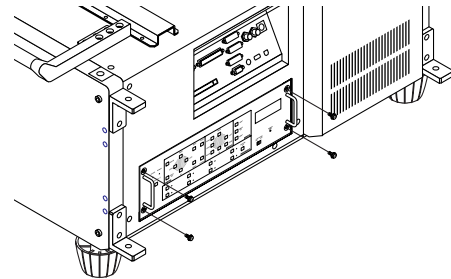
The DLP Cinema Projector has been shipped as a Desktop Front type "Normal-F" from our factory. If you want to have the projector installed overhead or on the ceiling, you must change the mounting orientation of the control panel located at the side of the projector.

- [1]** Change the position of the projector stays as illustrated on the right.

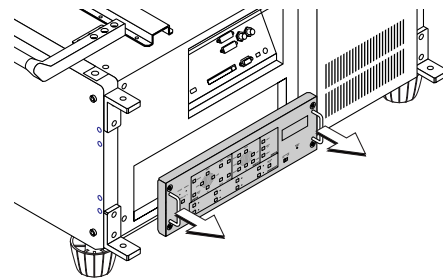
You can remove them by turning counterclockwise.



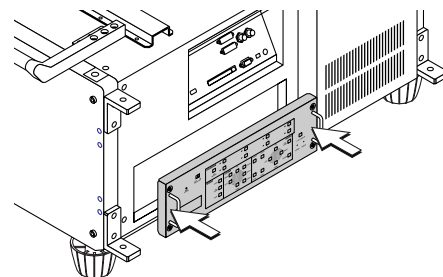
- [2]** Remove the four screws clamping the control panel located on a side panel of the projector.



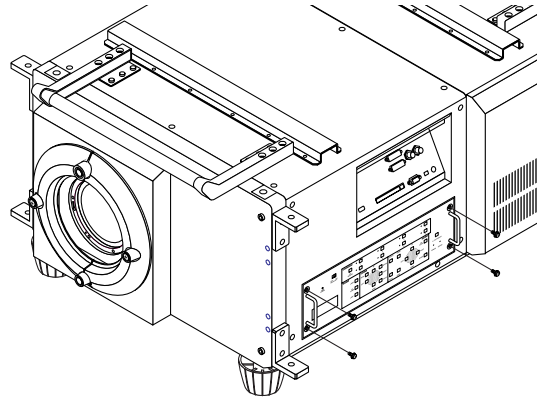
- [3]** Hold the control panel handles and gently pull the panel off.



- [4]** Turn the control panel upside down (180 degrees) and gently insert into the projector.



- [5]** Tighten the four screws previously removed to remount the panel.



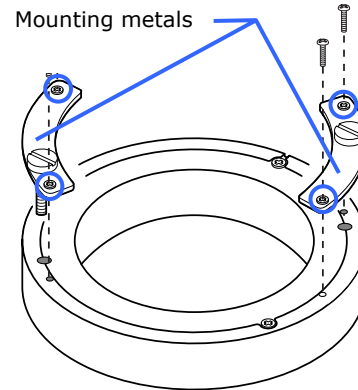
2.3 Mounting the primary lens

Mount the attached lens holder (NC-50LA01) before mounting the primary lens to the projector.

[1] Remove two mounting metals of the lens holder.

Remove four mounting screws and remove two mounting metals.

These four mounting screws and two mounting metals will be used for lens holder mounting.



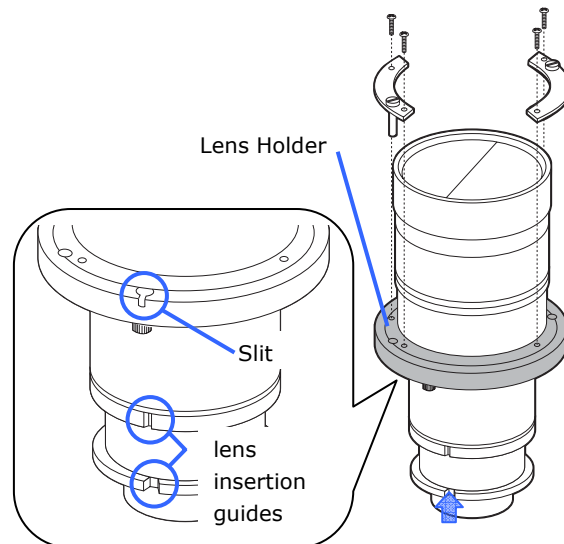
[2] Place the lens with the face upward.

Check that the place for putting the lens is flat before the work.

It is recommended to keep the lens cap set so as to protect the lens from any damage.

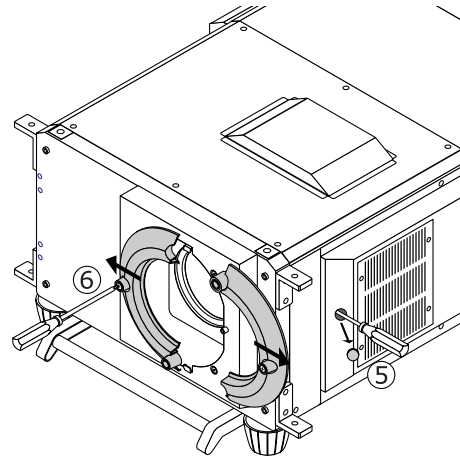
[3] Insert the lens holder from under the lens.

Align the lens holder slits with two lens insertion guides and insert the lens holder.



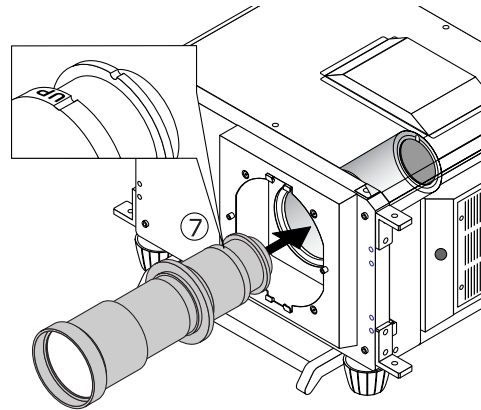
[4] Fix two mounting metals of the lens holder with four mounting screws.

- [5]** Remove the rubber cap that covers the primary lens setscrew located on the side panel of the projector. Use a slotted screwdriver to untighten the setscrew.



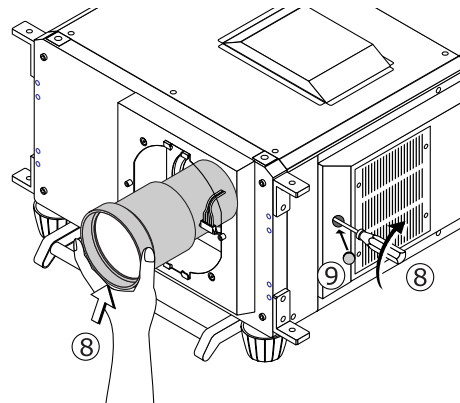
- [6]** Loosen the screws on both sides of the lens hood to remove the hood pieces sideways.

- [7]** Holding the primary lens unit with its guide notch up, insert it into the projector until it cannot go further.

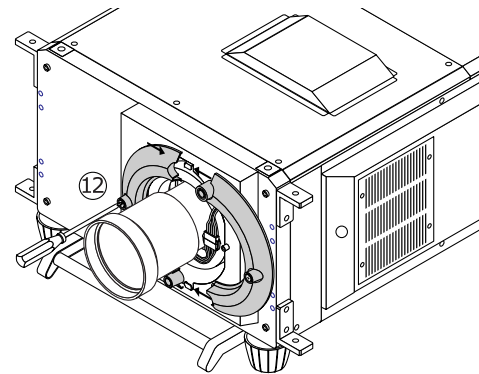
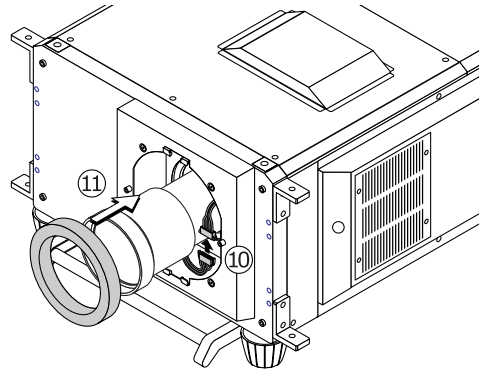


- [8]** While slightly pushing the lens unit up, retighten the lens setscrew previously loosened.

- [9]** Replace the setscrew rubber cap to its place.



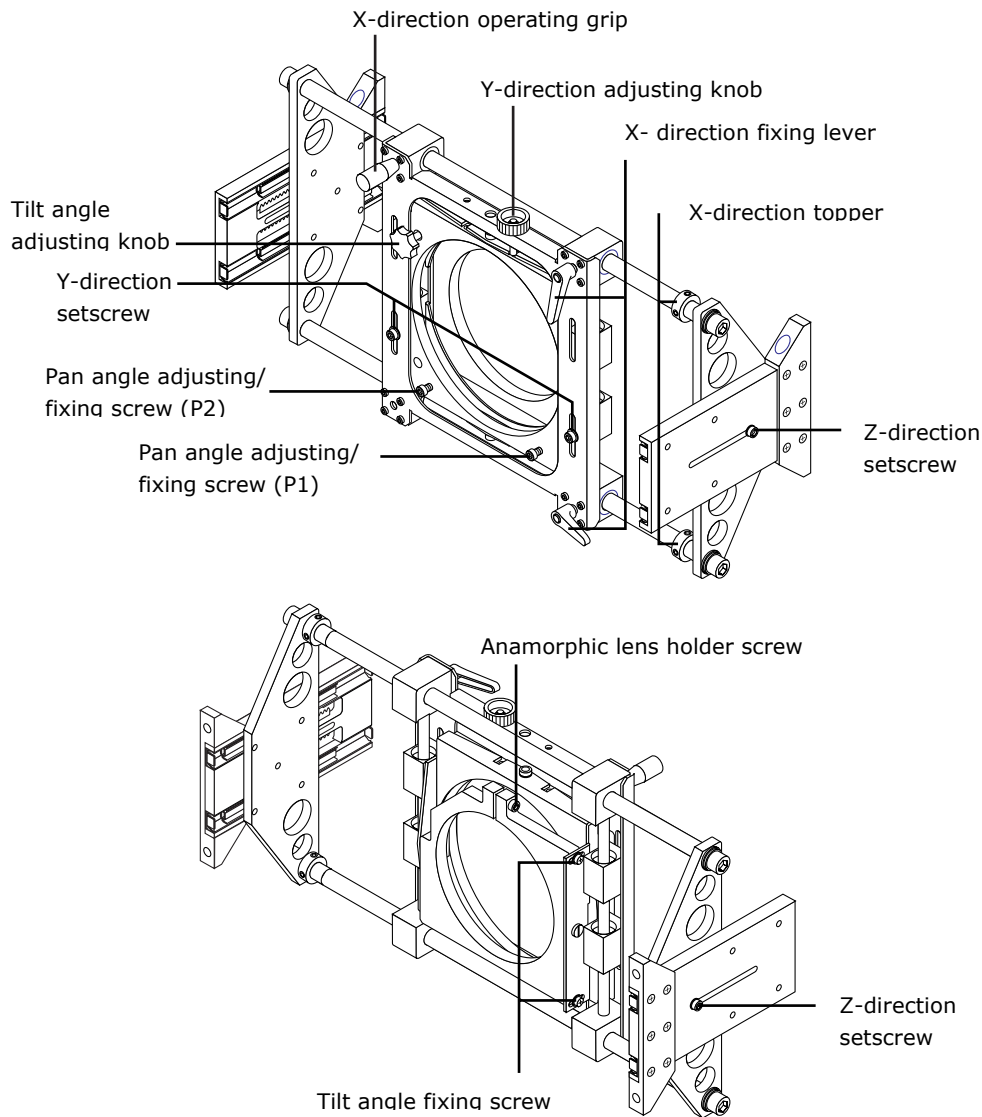
- [10]** Attach the lens control connector.
- [11]** Attach the dust prevention cover (sponge), supplied with the projector, to the lens unit.
- [12]** Remount the lens hood pieces.



2.4 Mounting the Anamorphic Lens and Its Holder

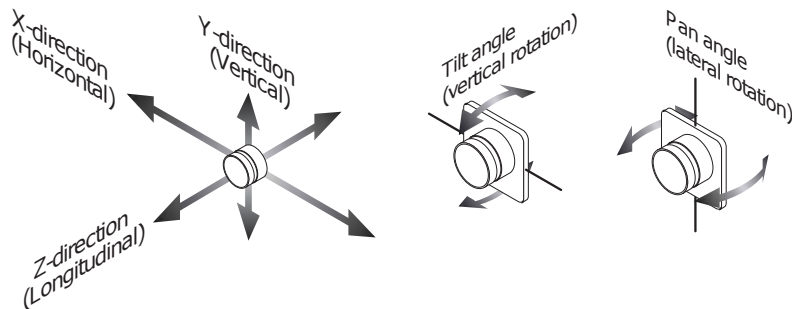
An optional 1.25x anamorphic lens Model AL1.25/AL1.25-E are required for film projection in a wide-screen, CinemaScopic movie format on the DLP Cinema Projector Model NC800C. A dedicated, stand-type anamorphic lens holder Model AS1.25/AS1.25-E are optionally available for mounting this lens. See also the instruction manual for the lens holder.

Names of the Components



Indication of Adjustment Directions

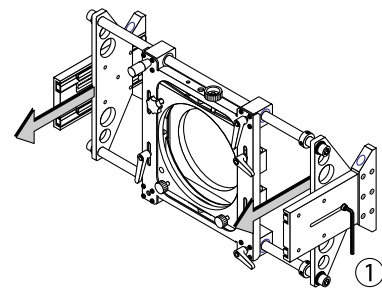
The following arrows are used in this manual to indicate the moving and rotating directions of the lens unit.



Preparation:

Get the supplied Allen wrench and screws (hexagon socket head cap screws) ready.

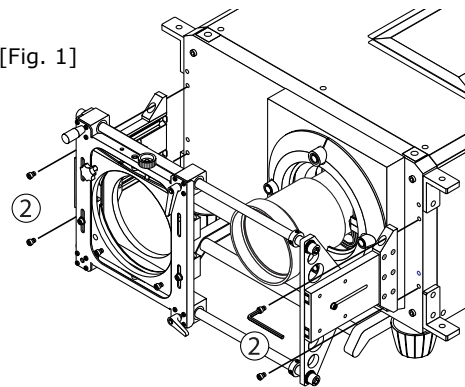
- [1]** Loosen the z-direction setscrews located at either side of the lens holder. Extend the side plates toward the depth as far as they will go, then retighten the setscrew on each side.



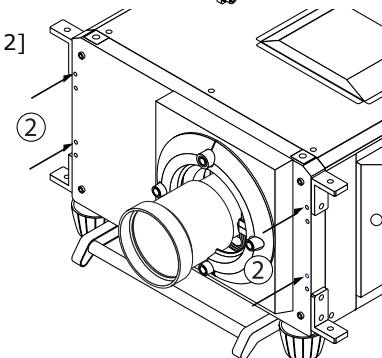
- [2]** Using the enclosed four Allen screws (M8 hexagon socket head cap screws), mount the anamorphic lens holder to your projector housing with its orientation as illustrated below.

Shown in Fig. 1 below are the tapped holes to be used for mounting the lens holder when you want to have the projector lens 'look down' while keeping the film plane vertical, with (or without) the use of lens shift feature. Shown in Fig. 2 below are the tapped holes to be used for mounting the lens holder when you want to have the lens 'look up' while keeping the film plane vertical, with the use of lens shift feature.

[Fig. 1]

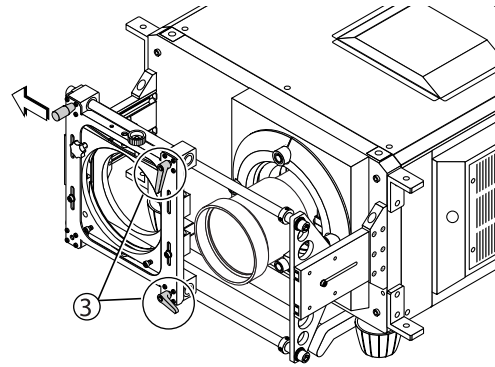


[Fig. 2]



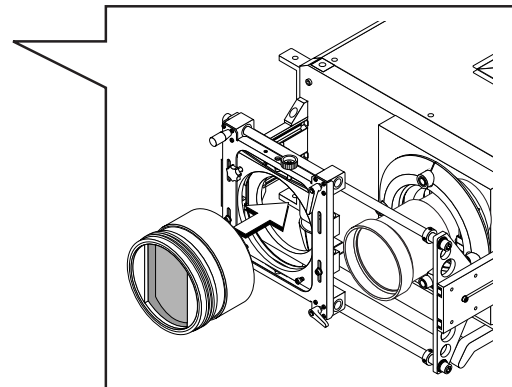
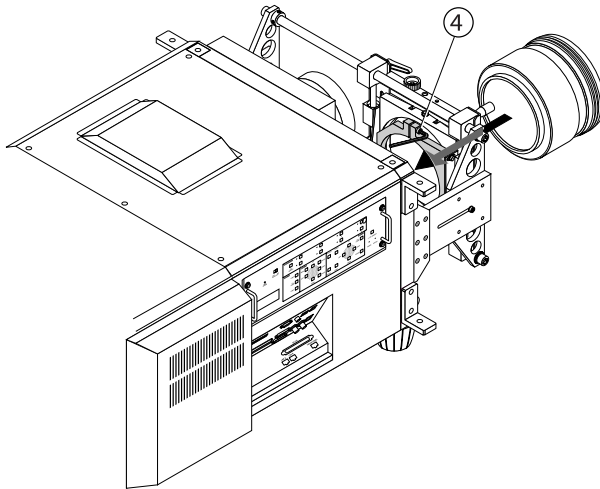
- [3]** Slide the anamorphic lens mount toward the side where it does not come in front of the primary lens of the projector. Lock the levers to fix the mount.

To slide the lens mount, turn the x-direction fixing levers counterclockwise to unlock them. After sliding, lock the levers to fix the mount.



- [4]** Untighten the M6 hexagon head screw for anamorphic lens mount. Mount the anamorphic lens to the mount with its orientation as illustrated below, then retighten the mount screw.

M6 hexagon head screw for anamorphic lens holder



2.5 Installation of Small Iris (Information for Service Personnel)

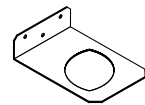
If it is requested by the customer to reduce the projector's lamp luminance because it is too bright even when set to the minimum level, you may reduce it as follows. This operation will also improve the contrast ratio.

Note

- With the small iris installed, the automatic luminance adjustment [Auto] will be disabled.

Preparation:

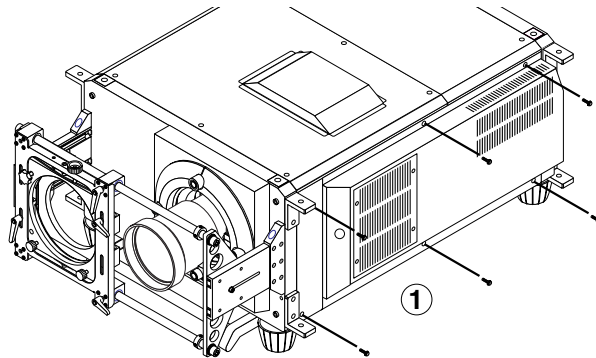
- Make sure that the main power switch of the customer's projector is turned off.
- Get the supplied small iris ready. (Included in the standard set of accessories)



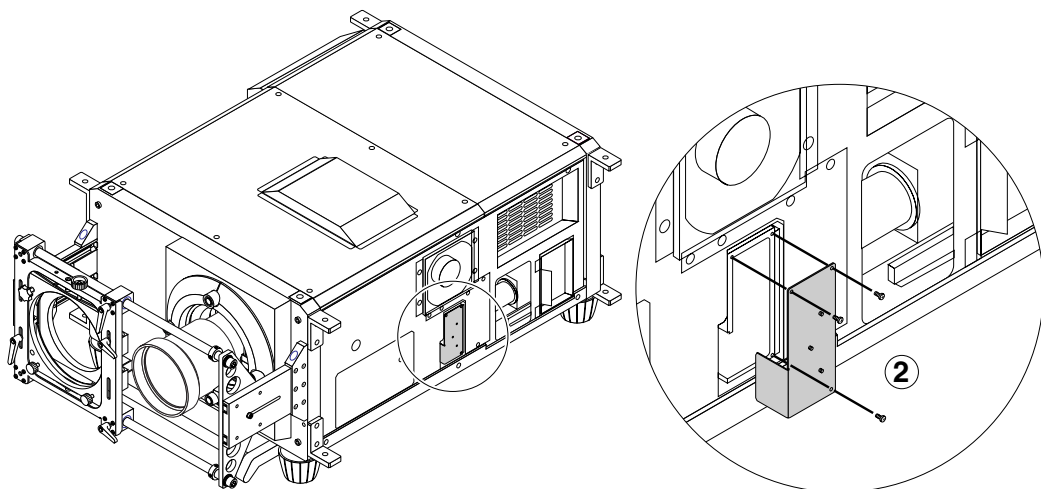
Installation Steps

- [1]** Remove the side panels from the projector.

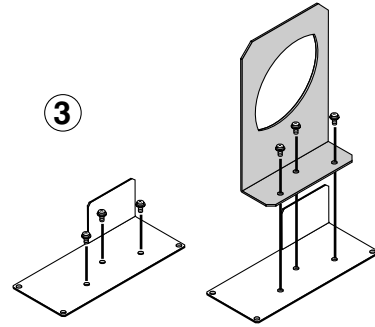
Untighten the six clamping screws to remove them.



- [2]** Remove the holder panel of the engine block by untightening the three setscrews.

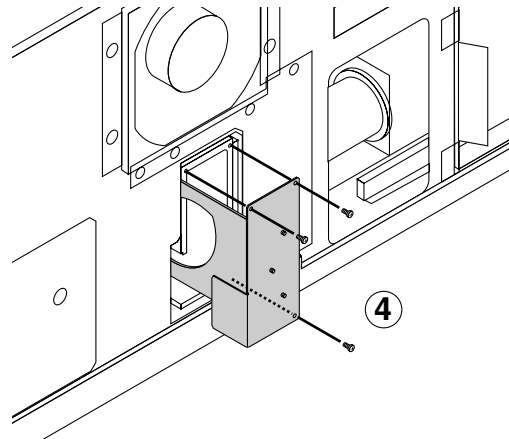


- [3]** Remove the holder panel setscrews completely and attach the supplied small iris to the panel, using the removed screws.

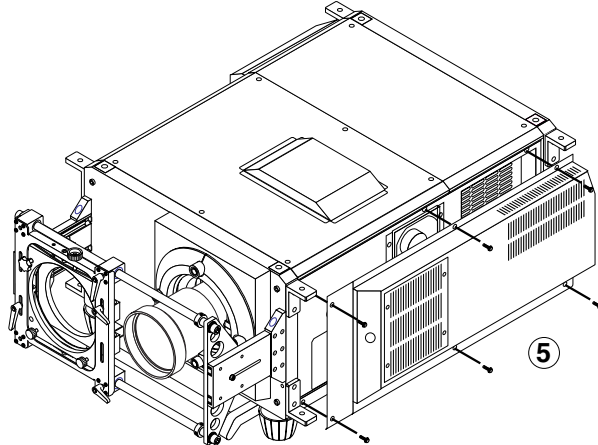


- [4]** Remount the holder panel now attached with the iris to the engine block.

Use three screws you have removed at Step 2 to mount the iris plate.



- [5]** Replace the side panels to their place.



2.6 Affixing the security label

When the projector of FIPS correspondence is used, the following procedure is not necessary. Upon completion of installation and mounting of all parts, affix the security label when mounting the cover of the projector. For affixing of the security label, refer to the supplement sheet attached to the projector.

Tips

- When the touch panel controller (separately available) or the incorporated multimedia switcher (separately available) is mounted, affix the security label after completion of these parts.

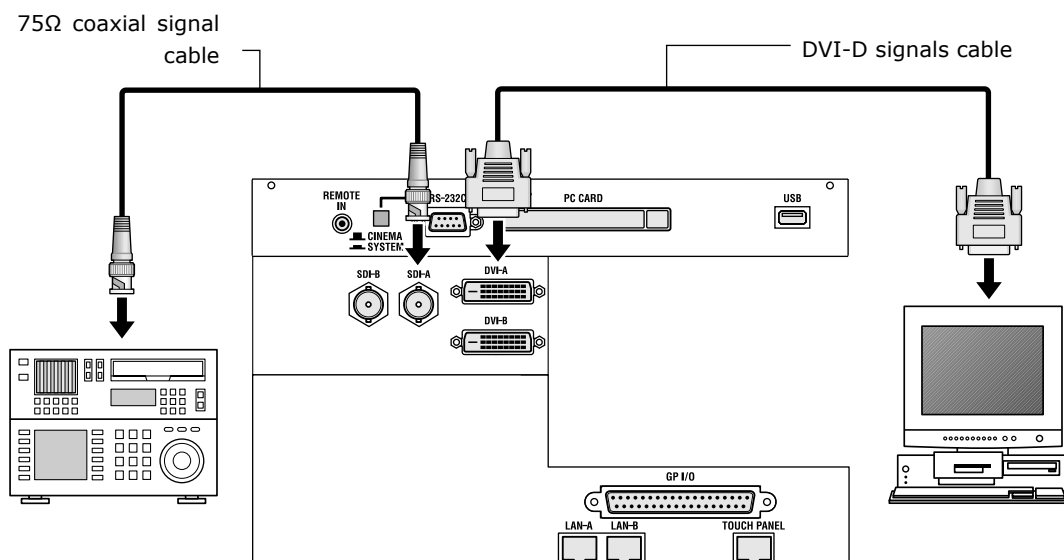
3.

Connecting to the Projector

3.1 Connecting the image input

Your projector has four image input terminals, namely, the HDSDI A input terminal, the HDSDI B input terminal, the DVI-D A input terminal, and the DVI-D B input terminal.

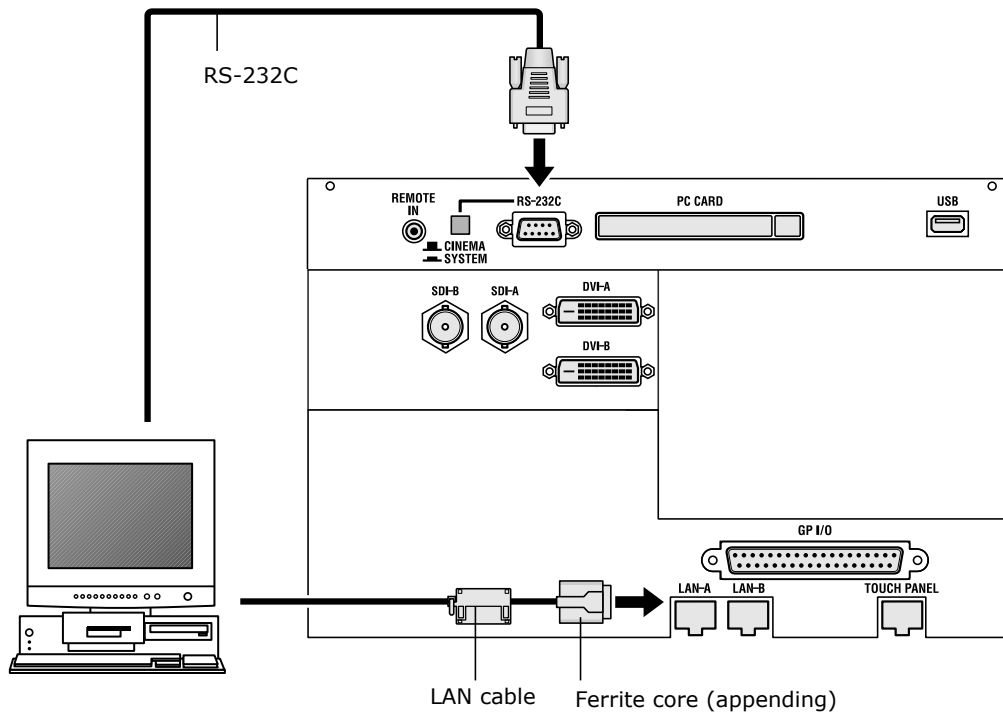
HDSDI A/B input terminal (SDI A/SDI B)	Inputs serial digital images from a Video Server or Video source.
DVI-D A/B input terminal (DVI A/DVI B)	Inputs digital RGB signals from a PC.



3.2 Connecting the various control terminal

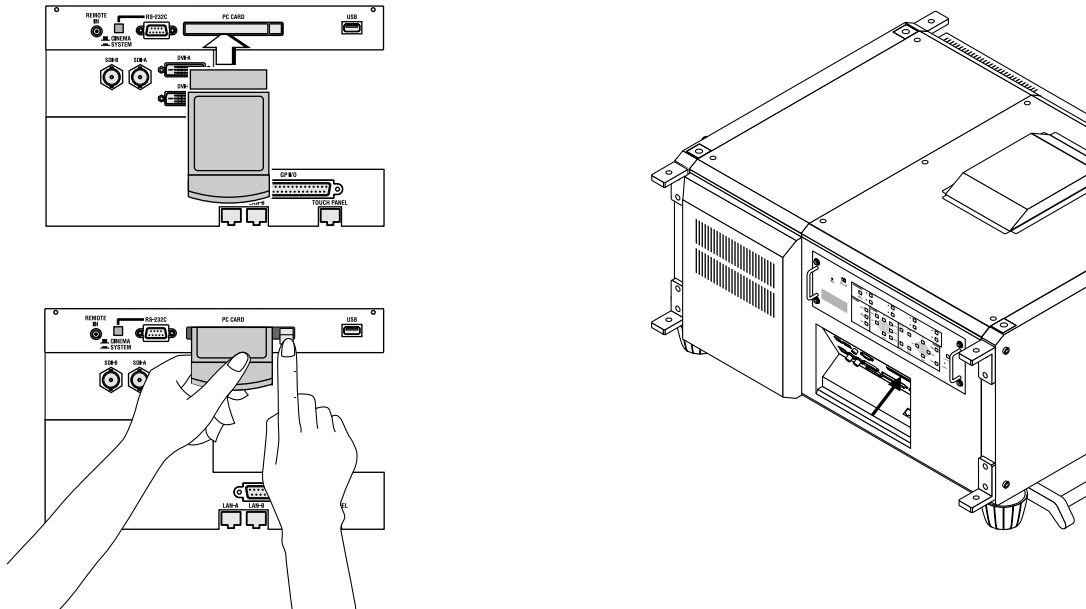
For control, your projector comes with such ports as the PC control terminal and the Ethernet port (RJ-45).

PC control terminal (PC CONTROL)	Use this terminal when controlling the projector in serial connection from a PC.
Ethernet port (LAN 1/LAN 2)	Use this port when controlling the projector in LAN connection from a PC.
Touch panel port (TOUCH PANEL)	Use this to use the touch panel controller (separately sold).



3.3 Controlling Your Projector Using a Wireless LAN Card

When using a wireless LAN to control the projector, please insert a wireless LAN card (available separately) into the Connection terminal PC Card slot located at the projector side.



Note

- If the wireless LAN card is in use, NC800C cannot be controlled from the incorporated LAN port (LAN A/LAN B). The Cinema circuit can be controlled even if the wireless LAN is in use.
- Be sure to set or remove your wireless LAN card only when the power to your projector is off. Insertion or removal of a wireless LAN card when power to your projector is on may result in a destruction of the wireless LAN card.

4.

Projector Adjustment

4.1 Setting the projector projection method

When the projector is shipped from the factory, the projection method is set to the front mode (projection from the front of the screen with the projector installed on the pedestal). It is necessary to use the remote controller for change of the projection method. Refer to the operation manual for remote controller operation

- [1]** Press the "TEST" button while holding down the "CTL" button on the remote control panel.

The Passcode input screen appears on the LC display located on the projector's side panel.

- [2]** Enter your passcode* using the numeric character keys of the remote control.

After authentication of your passcode, the Configuration menu will become active.

* Contact your dealer for your specific passcode.

- [3]** Use the arrow buttons "◀/▶" to select "Configuration" and press the ▼ button.

- [4]** Use the arrow buttons "◀/▶" to select "Installation" and press the ▼ button.

- [5]** Check that "Image Orient" is selected and press the ▼ button.

If "Image Orient" is not selected, press the "◀/▶" buttons to select it

- [6]** Press the "◀/▶" buttons to select the projection method (Image Orientation).

When shipped from the factory, it is set to [Normal-F].

- Normal-F: Front projection. With the projector installed on the pedestal, projection is executed from the front of the screen.
- UpsideDown-F: The projector body is installed upside down, and projection is made from front of the screen.
- Normal-R: Rear projection. With the projector installed on the pedestal, projection is executed from the back of the screen.
- UpsideDown-R: The projector body is installed upside down, and projection is made from behind the screen.

[7] Press the "ENTER" button.

An (*) will be put on the selected projection method (Image Orientation).

[8] Press the "EXIT" button several times.

The projector exits the menu and goes back to the regular screen.

4.2 Adjusting the primary lens

Display the test pattern and adjust the screen size, focus and screen position with the primary lens.

4.2.1 Display the test pattern

[1] Press the "MENU button" of the remote controller.

"Title Select" is displayed on the LCD screen at the projector side.

[2] Press "▼" button.

[3] Press the "◀/▶" buttons to select "TEST Pattern".

[4] Press "▼" button.

[5] Use the "◀/▶" buttons to select the "TEST Pattern name" which it projects, and press "Enter" button.

An (*) will be put on the selected projection method.

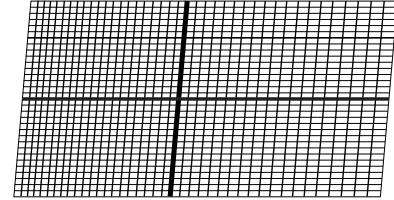
To cancel the display of the test pattern, select the projection signal again or select "OFF" of the test pattern.

4.2.2 Adjusting the screen ratio

Adjust the screen ratio of the primary lens here.

When an anamorphic lens is used, distortions will be produced on the projection screen. To prevent the image from being cut off due to these distortions, the image size should be made larger than the screen size beforehand.

To minimize potential distortions of the anamorphic lens, it is recommended that the lens shift not be used as much as you can and that projection be kept at lens center.

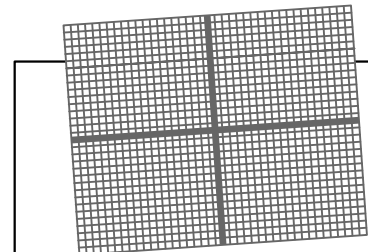


Memo

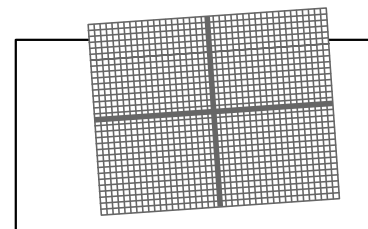
- How to Call the Lens Center

- [1] Press the "MENU" button on the remote control panel.
"Title Select" appears on the projector's LCD display.
- [2] the Configuration menu using the arrow buttons "◀/▶".
- [3] Press the "▼" button.
- [4] Select "Installation" using the "◀/▶" buttons.
- [5] Press the "▼" button.
- [6] Select "Lens Center" using the "◀/▶" buttons.
- [7] Press the "▼" button.
- [8] When "Execute" appears on the display, press the "ENTER" button.
The lens will begin to move.

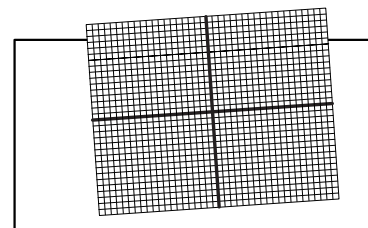
- [1]** Press the "ZOOM+/-" buttons on the remote control panel or of the projector to roughly adjust the screen size so that the screen height and the image height are the same.



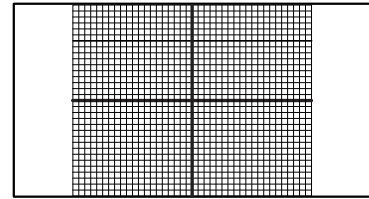
- [2]** Press the "FOCUS+/-" buttons of the remote control or the projector to roughly adjust the focus.



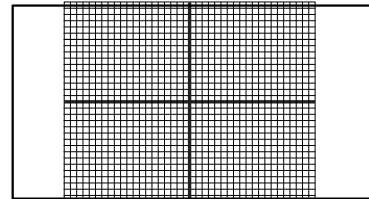
- [3]** Adjust the surface on which the projector is set up and the tilt foot of the projector to adjust the setup position, height, and tilt (front-back and left right) of the projector so that the projected image is level at the screen center.



- [4] Use the "ZOOM+-" buttons again to adjust the screen size so that the projected image is kept 0.5 to 1 crosshatch cell portions higher than the top edge of the screen.



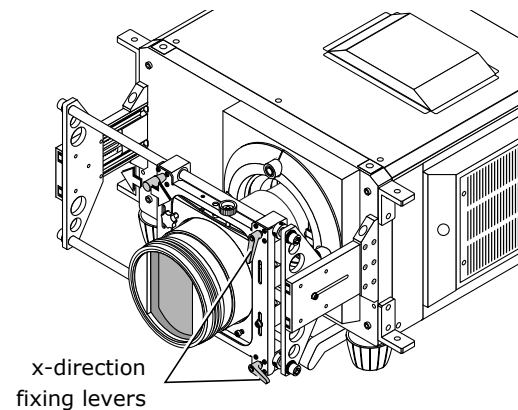
- [5] Finally adjust the focus using the "FOCUS+-" buttons either of the remote control or the projector.



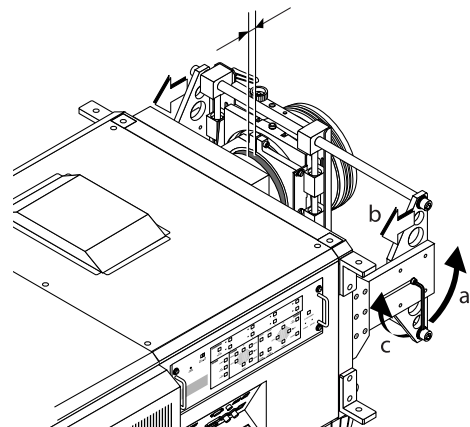
4.3 Adjusting the anamorphic lens

Here, you will adjust the positions (vertical and horizontal positions and depth) of the anamorphic lens, and its rotation, tilt/pan angles and focusing as well.

- [1] Move the anamorphic lens mount (of the holder) until it comes in front of the primary lens of the projector. Temporarily lock the x-direction fixing levers to fix the mount.

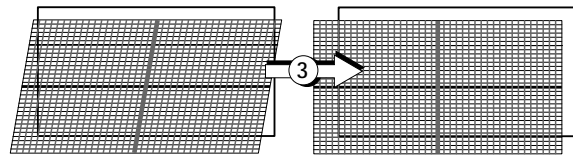
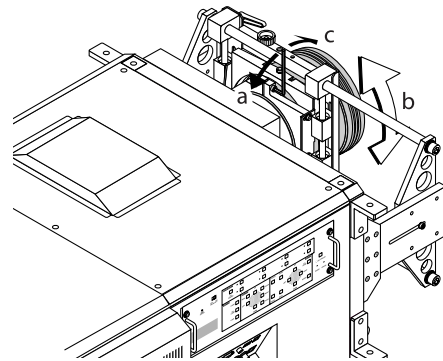


- [2] Loosen the right and left hexagon head screws of the anamorphic lens holder and move the anamorphic lens so that the clearance between this and the primary lens is minimized. Tighten the side hex screws.

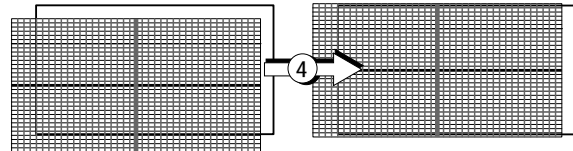
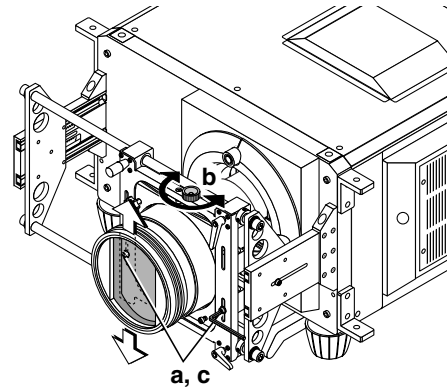


- [3]** Loosen the anamorphic lens setscrew (hexagon head screw) and turn the lens unit so that the vertical and horizontal lines of the center of the image projected become perpendicular and level.

(To prevent the anamorphic lens from coming off, be sure to hold the lens while loosening the setscrew.)

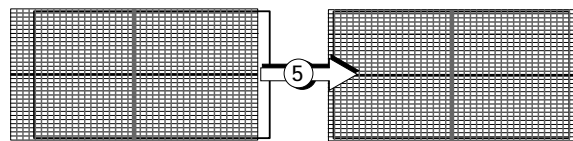
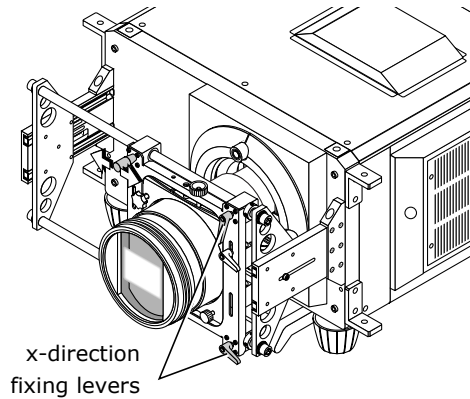


- [4]** Loosen each of the two y-direction setscrews of the anamorphic lens holder and turn the y-direction adjusting knob on the top to adjust the lens position so that the image is projected through the center of the anamorphic lens. Securely tighten the two setscrews after adjustment.



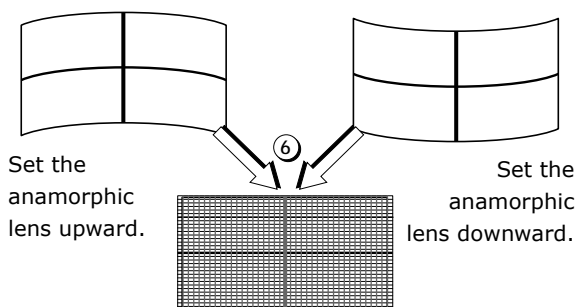
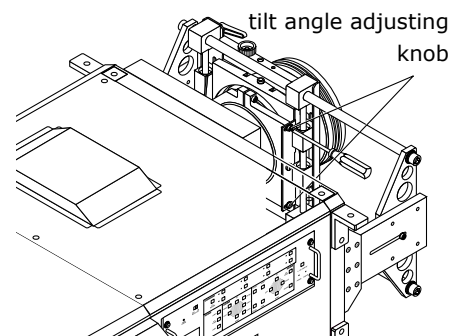
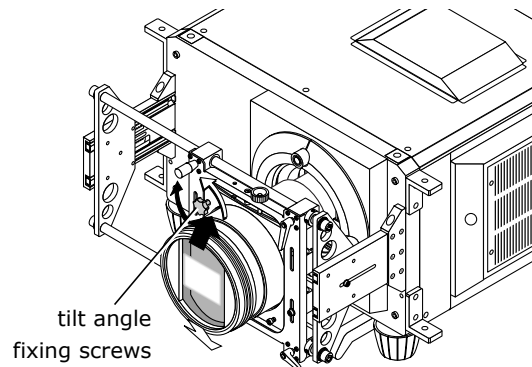
- [5]** Unlock the x-direction fixing levers to adjust the lens position so that the image is projected through the center of the anamorphic lens. Securely lock the levers after adjustment.

(The image center on the screen must match with and without the anamorphic lens.)



- [6]** Loosen the two tilt angle fixing screws and turn the tilt angle adjusting knob (see the illustration below) to adjust the angle so that the projected image becomes as illustrated below. Securely tighten the screws after adjustment.

Note: Be careful not to allow the anamorphic lens to get into contact with the primary lens when the former is tilted. If the two lenses eventually meet, repeat step (2) above.



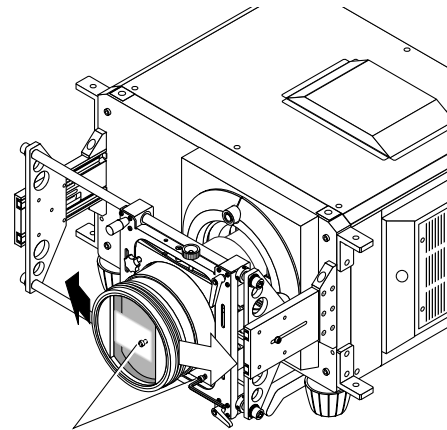
Set the anamorphic lens upward.

Set the anamorphic lens downward.

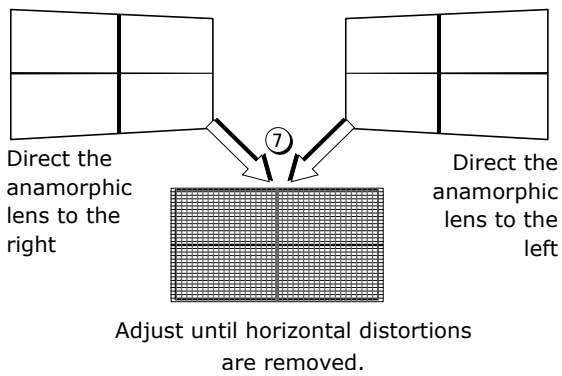
Adjust until vertical distortions are removed.

- [7]** Loosen the two pan angle adjusting/fixing screws (hex screws) and shift the anamorphic lens horizontally so that the projected image becomes as illustrated below. Securely tighten the screws after completing the adjustment of pan angle.

Note: Be careful not to allow the anamorphic lens to get into contact with the primary lens when the former is panned. If the two lenses eventually meet, repeat step (2) above.



pan angle adjusting/fixing screws



5.

LCD Menu

This chapter describes the menus displayed in the LCD screen on the projector's control panel and their functions. For basic operations of menus, refer to the operation manual. The list of menu is shown in "5.2. List of menu" (See next page).

5.1 When you use the service personnel menu

To use the menu for service personnel, you need to input the pass code from the remote controller.

- [1]** Press the TEST button while holding down the CTL button of the remote controller.

The pass code input screen will be displayed on the LCD screen at the projector's control panel.

- [2]** Enter your pass code using the numeric character keys of the remote controller.

After authentication of your pass code, the service personnel menu will become active.

5.2 List of menu

Menus in parentheses are menus for our service personnel.

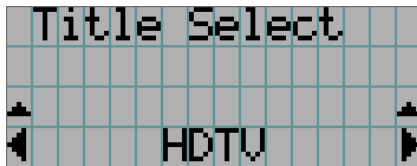
Main menu	Submenu		Description	Ref. page	
Title Select	"Title Memory name"		Selects the title of the signal to be projected.	E-38	
	TEST Pattern		Selects the test pattern to be projected.	E-38	
Configuration	Lamp Setup	Adjust	Adjusts lamp brightness.	E-39	
		Feedback	Sets the lamp brightness constant mode that uses a brightness sensor.		
	(Setup)	Douser Mode	Selects whether to use the douser (screen mute) when switching signals.	E-39	
		Ext. MMS Link	Sets whether to connect an external multi-media switcher (MMS).		
		Panel Key Lock	Locks the buttons on the projector's control panel so that they cannot be operated.		
		GPIO Port	Selects the target of GPIO port control.		
		FactoryDefault	Returns the settings to their default values (only macro keys and titles, or all settings).		
	(Installation)	Image Orient	Selects the projection method (front/rear).	E-41	
		Lens Center	Moves the lens shift position to the center.		
		MMS Select	Selects the multi-media switcher (MMS) to connect.		
		Baudrate	Sets the PC control connector (RS-232C) data transmission speed (bps).		
		Date/Time	Sets the date and time on the projector.		
		Bulb Alignment	Not in use.		
		Security Key	Registers the authentication file to the USB memory. Do not use this function usually.		
	(Memory)	Lamp	Saves the current lamp setting.	E-43	
		Lens	Saves the current lens setting.		
	(Title Setup)	Macro Key	Macro Key No.1-8	Sets the titles to be assigned to the macro keys of 1 to 8.	E-43
Information	Lamp	Output	Displays the lamp output setting.	E-44	
	Macro Key	Macro Key No.1-8	Displays the titles assigned to the macro keys of 1 to 8.	E-44	
	Usage		Displays the usage times of the projector, lamp bulb, lamp house and bulb warning.	E-44	
	Error Code		Displays the currently occurring error.	E-45	
	Version	BIOS		Displays the version of the BIOS.	E-45
		Firmware		Displays the version of the Firmware.	
		Data		Displays the version of the Data.	
		Serial No		Displays the Serial Number of the projector head.	
	IP Address	System		Displays the SYSTEM IP address.	E-45
		Cinema		Displays the CINEMA IP address.	
MMS Status			Displays the status information of the connected multi-media switcher (MMS).	E-46	

5.3 Title Select

5.3.1 Title select (Title Memory)

Select the title of the signal to be projected.

You can register up to 100 titles. You can also assign registered titles to the macro keys 1 to 8 on the projector's control panel and call them up directly using those buttons.



- ← Displays the currently selected item with asterisk (*).
- ← Selects the title to be projected.

5.3.2 Test Pattern

Selects the test pattern to be projected.



- ← Displays the currently selected item with asterisk (*).
- ← Selects the test pattern to be projected.

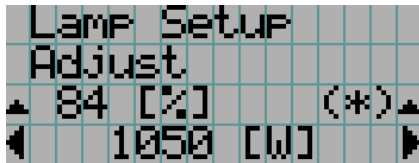
OFF, Alignment, Convergence, H-Ramp, RGB-Black, RGB-Blue, RGB-Green, RGB-Red, RGB-White, Y-Color Bars, YCbCr-Blue, YCbCr-Green, YCbCr-Red, YCbCr-White, RGB-CROSS, RGB-50%-White

5.4 Configuration

5.4.1 Lamp Setup

Adjust

Adjusts the lamp output (brightness). Control the output at “W” increments.



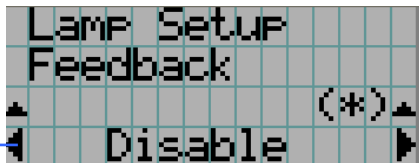
← Displays the lamp output (%) with regard to the setting.

← Adjusts the lamp brightness.

Note • Lamp output below 70% will cause an error. Arrange the setting so that the lamp output becomes 70% at least.

Feedback

Sets the lamp brightness constant mode that uses a brightness sensor.



← Displays the currently selected item with asterisk (*).

← Displays the setting.

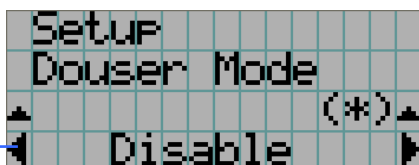
Disable	Disables the lamp brightness constant mode.
Enable	Enables the lamp brightness constant mode.

5.4.2 Setup

This menu is for service personnel. For the procedure to use it, refer to “5.1. When you use the service personnel menu” (page E-36).

Douser Mode

The douser function will be activated when signals are switched. Request your dealer/distributor to perform the setting.



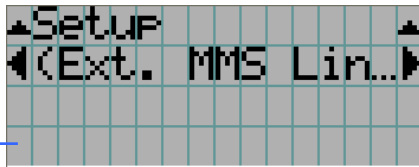
← Displays the currently selected item with asterisk (*).

← Displays the setting

Disable	Disables the douser mode.
Enable	Enables the douser mode.

Ext. MMS Link

Connect an external multimedia switcher (MMS) to control the input signal.



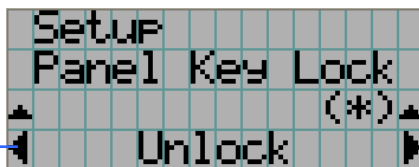
← Displays the currently selected item with asterisk (*).

← Displays the setting

Connect	To enable connection with external MMS
Disconnect	To disable connection with external MMS

Panel Key Lock

The control buttons on your projector are locked to be inoperative.



← Displays the currently selected item with asterisk (*).

← Displays the setting

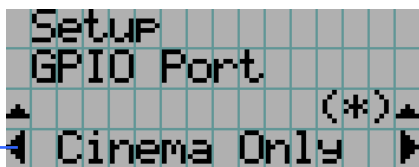
Lock	Enable a lock on the control buttons on your projector.
Unlock	Disable the lock on the control buttons.

Note

- Even if the buttons on the projector's control panel are locked, remote controller buttons are available.
- When the buttons on the projector's control panel are locked, press the CANCEL button on the projector for about 10 sec. to unlock them (The key lock setting on the projector becomes Unlock).

GPIO Port

When controlling the projector from the external control terminal (GPI/O), select the subject of GPI/O port control. With the control subject set to "Cinema Only", the projector does not accept commands issued using the control panel buttons, remote controller or personal computer.



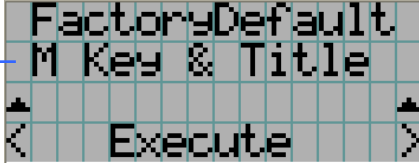
← Displays the currently selected item with asterisk (*).

← Displays the setting

Cinema Only	To restrict the subject of control from the external control terminal (GPI/O) to the Cinema board only
System/Cinema	To restrict the subject of control from the external control terminal (GPI/O) to the System board and the Cinema board

FactoryDefault

Used to select factory default values for the projector settings.



← Select the item to be reset.
← Press the ENTER button to execute resetting.

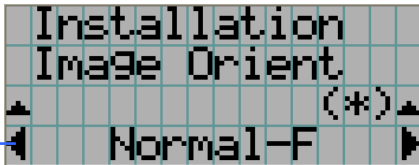
M Key & Title	Titles are set to factory default ones. (Tiles you have created are deleted, but files are not.)
All	All the settings of your projector are set to factory default values except for files.

5.4.3 Installation

This menu is the service personnel menu. For the using service personnel menu, refer to “5.1. When you use the service personnel menu” (Page E-36).

Image Orient

Make a selection according to the setup position of your projector and screen.

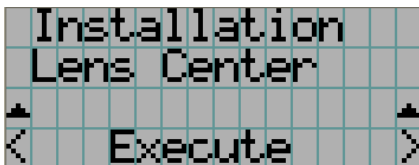


← Displays the currently selected item with asterisk (*).
← Displays the setting

Normal-F	Projection is made from front of the screen.
UpsideDown-R	The projector body is installed upside down, and projection is made from the back of the screen.
Normal-R	Projection is made from behind the screen
UpsideDown-F	The projector body is installed upside down, and projection is made from the front of the screen.

Lens Center

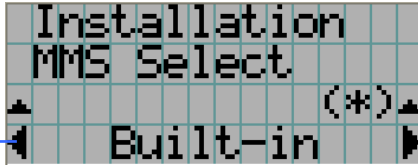
To move the lens shift to the center position. The center position may slightly shift depending upon mounting conditions of the lens.



← Press the ENTER button to execute moving.

MMS Select

Select the MMS for operation when you use a multimedia switcher (MMS) separately sold. You can connect only one MMS.

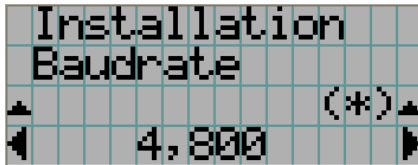


← Displays the currently selected item with asterisk (*).
 ← Displays the setting

External	To use the externally connected MMS (optional)
Not Use	Not to use MMS

Baudrate

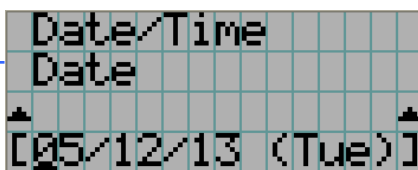
To select the transmission speed (bps) for your projector (SYSTEM) and a PC when they are connected by a commercially available RS-232C straight cable. Select one from 4800, 9600, 192000 and 38400. Select the transfer speed corresponding to the speed of the connected devices.



← Displays the currently selected item with asterisk (*).
 ← Displays the setting

Date/Time

Use this to set the date and time on the projector.



← Select the item to be set
 ← Input numeric values

Use the remote controller to input numeric values. For the procedure to input alphanumeric characters, refer to "Users Manual".
 Use the SELECT <Left/Right> buttons to move the cursor (under bar).


Date	Set the date here (Year, month, day).
Time	Set the time here (Hour, minute, second).

5.4.4 Memory

This menu is the service personnel menu. For the using service personnel menu, refer to “5.1. When you use the service personnel menu” (Page E-36).

Save the current status of lamp and lens to the memory in the projector (lens memory function and lamp memory function).

The saved contents are assigned to the titles for use.



← Select the saving item

← Display the registered memory name

Press the ENTER button to display the confirmation message asking you whether this memory can be overwritten or not.

Lamp	To save the current lamp status
Lens	To save the current lens status

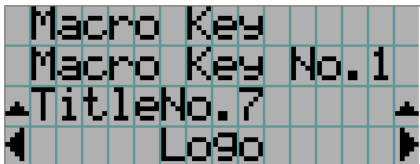
5.5 Title Setup

This menu is the service personnel menu. For the using service personnel menu, refer to “5.1. When you use the service personnel menu” (Page E-36).

5.5.1 Macro Key

Use this key to set the titles to be assigned to the macro keys.

You cannot assign the same title to several macro keys. If you want to assign any title to another number, cancel the assignment once and then set it to any key again.



← Select the macro key number (1 to 8)

← Display the selected number of the title

← Select the titles to be assigned to the macro keys

Select the titles from those registered in advance.

To clear assignment to macro keys, select “---”.

5.6 Information

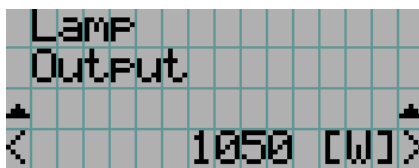
Displays the hours of lamp bulb use, the version information and error codes.

5.6.1 Lamp

Displays information relating to the lamp. (Such as lamp output and the type of lamp bulb.)

Output

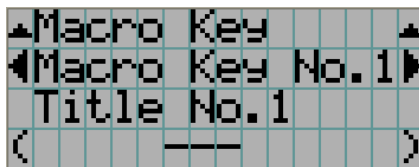
Displays the lamp brightness (output) setting.



← Displays the power consumption (W).

5.6.2 Macro Key

Displays the titles assigned to the macro keys of 1 to 8 on the projector's control panel.



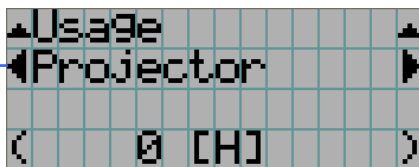
← Selects the macro key whose contents you want to display.

← Displays the assigned title numbers.

← Displays the registered names of the assigned titles.

5.6.3 Usage

Displays the hours of projector head, lamp, and lamp house usage, and warning display time of the lamp bulb.



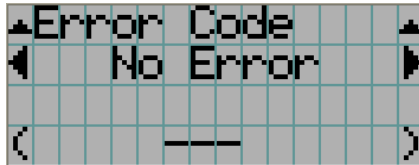
← Selects the item to display.

← Displays the hours of use (H).

Projector	Displays the hours of projector head use.
Bulb	Displays the hours of use of the current lamp bulb.
Remaining Time	Remaining Time: This shows the remaining lamp utilization time (for reference).

5.6.4 Error Code

Displays the error code when an error occurs. See the "Error Code List" in the Appendix for details on error codes.



← Displays the code of the error currently occurring.

← Displays the name of the error currently occurring.

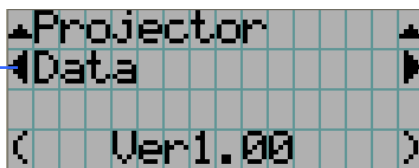
When multiple errors occur, you can display them by pressing the [MENU CTL] LEFT/RIGHT buttons.

5.6.5 Version

Displays the versions of the projector head, and the multi-media switcher (MMS) (optional).

System

Displays the version information of the projector head.



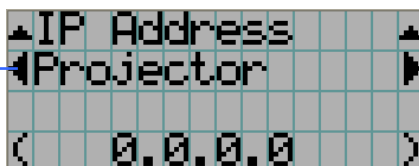
← Selects the item to display.

← Displays the version information.

BIOS	Displays the BIOS version of the projector head.
Firmware	Displays the firmware version of the projector head.
Data	Displays the data version of the projector head.
Serial No.	Displays the serial number of the projector head.

5.6.6 IP Address

Displays the IP address set in the projector head.



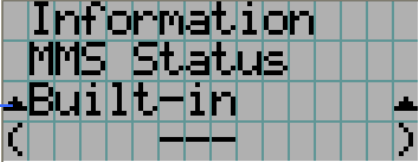
← Selects the item to display the IP address.

← Displays the IP address.

System	Displays the IP address set for the projector head (System).
Cinema	Displays the IP address set for the projector head (Cinema).

5.6.7 MMS Status

Indicates the status of the multi-media switcher (MMS) connected to your projector.



← Displays the status information of MMS linked operations.

← Displays the IP address of MMS.

External	External multi-media switcher (MMS) is linked.
Not Use	There is no link established.

6.

Appendix

6.1 List of registered titles (when shipped from the factory)

The data listed below have been cataloged in your projector before shipping from our factory. When projecting an image source covered by these data, you do not need to change the settings of your projector.

List of default Titles

Macro Key No.	TITLE	Input	FILES		source		TCGD	Anamorphic Lens
			PCF	SCREEN	active	aspect		
1	CS-SCOPE 1920	SDI-A	CS-SCOPE 1920x1080	Anamo1.25 SCOPE	1920x1080	2.35	P7v2 theatre	1.25
2	VV-FLAT 1920	SDI-B	VV-FLAT 1920x1080	DC2K VISTA	1920x1080	1.85	P7v2 theatre	none
3	HDTV	SDI-A	HDTV 1920x1080	DC2K HDTV	1920x1080	0	Rec 709	none
4	SDI-DUAL-RGB	SDI-A,B	SDI DUAL RGB 1920x1080	2048x1080 No Crop	1920x1080	0	P7v2 theatre	none
5	DVI-A	DVI-A	DVI 2048x1080	DC2K DVI	2048x1080	0	P7v2 theatre	none
6	DVI-B	DVI-B	DVI 2048x1080	DC2K DVI	2048x1080	0	P7v2 theatre	none
7	DVI-TWIN	DVI-A,B	DVI 2048x1080	DC2K DVI	2048x1080	0	P7v2 theatre	none

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