



DLP Cinema® Projector

Installation Manual

DLP Cinema® Projector

**NC3200S/NC3200S-A
NC3240S-A**

Lamp Power Supply Unit

NC-32PS01/NC-32PS02

NEC Display Solutions, Ltd.

Introduction

DLP Cinema Projector Installation and Adjustment NEC Display Solutions, Ltd. Manual (This document) describes the procedures to install, adjust and maintain the projector (NC3200/NC3200S-A/NC3240S-A), lamp power supply unit (NC-32PS01/NC-32PS02) and peripheral devices. For safe and correct installation, adjustment and use of the projector, carefully read this document before installation.

Refer to the operation manuals of the applicable products for basic operation and remarks of the projector. This document expects the readers who have basic knowledge about projector installation. After reading, please keep this document under care of the company which installed or adjusted the projector.

The product name used in this manual

In this manual, the device name is written as listed below. If the function has difference by devices, the product name is written in the text.

•NC3200/NC3200S-A/NC3240S-A	Projector
•NC-32PS01/NC-32PS02	Lamp power supply (option for the NC3200 series , and NC3240S series)
• NC-80LB01/NC-80DS01	Signal input board or SIB
• NC-80MB01	Media block or IMB
• MM3000B	Multi-media switcher or MMS
• Digital Cinema Communicator for S2	DCC for S2

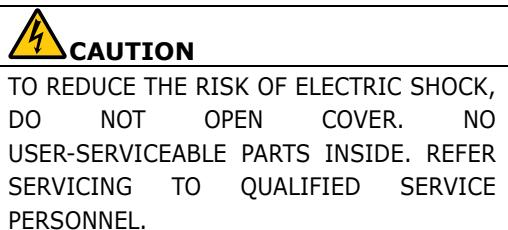
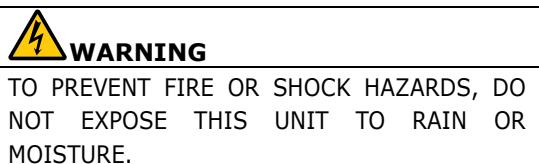
Important Information

Precautions: Please read this manual carefully before using your **NC3200/NC3200S-A/NC3240S-A** and **NC-32PS01/NC-32PS02** and keep the manual handy for future reference.

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- Microsoft and Windows are registered trademarks of Microsoft Corporation in the United States or other countries.
- Other product names and manufacturer names described in this manual are the registered trademarks or trademarks of their respective companies.
- The display screens and illustrations shown in this manual may differ slightly from the actual ones.
- GPL/LGPL Software Licenses
The product includes software licensed under GNU General Public License (GPL), GNU Lesser General Public License (LGPL), and others.
For more information on each software, see "readme.pdf" inside the "about GPL&LGPL" folder on the supplied CD-ROM.

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.



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock.



Therefore, it is dangerous to make any kind of contact with any part inside of this unit.

This symbol alerts the user that important literature concerning the operation and maintenance of this unit has been included.

Therefore, it should be read carefully in order to avoid any problems.

Machine Noise Information Regulation - 3. GPSGV,

The highest sound pressure level is less than 70 dB (A) in accordance with EN ISO 7779.

DOC compliance Notice

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

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.

WARNING

Lamp power supply setup conditions

- The location where you setup the lamp power supply should have plenty of space in front of the air inlet and air outlet to prevent the inside of that unit from becoming excessively hot. Ensure that air can flow inside the unit to allow the inside to be cooled. As a guide, there should be at least 20 cm of free space in front of the air inlet and at least 50 cm in front of the air outlet.
- Particularly, if storing the lamp power supply in a rack or case, see the section about "Lamp power supply installation conditions" to ensure that there is plenty of opening area on the portions facing the lamp power supply air inlet and air outlet. Also, a duct structure should be configured to lead to the air outlet on the rack or case so that the exhaust air from the lamp power supply can be discharged. This is to ensure that the air circulates outside the rack or case.

Always connect to a ground prior to connecting to the AC power supply.

- A very high, leaked current will flow to the projector and lamp power supply frame. Therefore, always connect to a ground prior to connecting to the AC power supply.

Connecting the lamp power supply and AC power supply

- AC power from the building's AC power facility supplied to the lamp power should be connected via a breaker. Refer to "2.3 Connecting the Power Cable" for details.
- The cable connecting the building's AC power facility and lamp power supply should have a core wire thicker than 8AWG and the core wire material should be copper.
- Use UL- and CSA-certified terminals to connect the lamp power supply to the AC power source. Mount a terminal properly as described in this manual.

Connect the projector to exhaust equipment.

- Use a duct, etc., to connect the projector's air outlet to exhaust equipment that can handle flow amounts of at least 16 m³/min.

Refer to 2.8 "Mounting the Exhaust Equipment" in this manual to mount it correctly.

Backing up authentication data

- In order to backup the authentication data needed to receive cinema video signals, a secondary battery is used inside the projector. If you have not used the projector at all for 6 months or more, the battery will lose power and the authentication data will not be able to be backed up. Always put the projector into standby mode for at least 48 hours once every 6 months to recharge the battery.

Installation

- Consult your dealer for information about transporting and installing the projector. Do not attempt to transport and install the projector yourself. The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
- 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.
- Do not place the projector in direct sunlight, near heaters or heat radiating appliances.
- Exposure to direct sunlight, smoke or steam could harm internal components.
- Handle your projector carefully. Dropping or jarring your projector could damage internal components.
- To carry the projector, a minimum of five persons are required. Remove the lens and the lamp before carrying the projector. Do not apply a strong shock to the projector. Do not hold the lens part and the anamorphic lens part (or the wide converter lens part) with your hand. Otherwise the projector may tumble or drop, causing personal injury.
- Do not place heavy objects on top of the projector.
- Shut down AC power to the projector and the lamp power supply, and disconnect the power cable before moving the projector.

Power Supply

- The projector is so designed that it operates with the power supply voltage described below.
 - Projector:
AC 100-240 V 50/60 Hz
Single-phase
 - Lamp Power Supply:
-NC-32PS01:AC 200-230 V 50/60 Hz
Three-phase
-NC-32PS02:AC 380-415 V 50/60 Hz
Three-phase
- Ensure that your power supply fits this requirement before attempting to use your projector.
- Consult your dealer about installing the power cable to the projector. DO NOT install the power cable by yourself. Doing so may cause a fire or electric shock.
- Handle the power cable carefully and avoid excessive bending. Do not place any heavy objects on the power cable. A damaged cable can cause electric shock or fire.
- If the projector will not be used for an extended period of time, shut down AC power.
- Placing the power cable 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.
- Do not touch the projector during a thunder storm. Doing so can cause electrical shock or fire.

Cleaning

- When performing maintenance work on the projector, turn off the projector main unit and lamp power supplies, disconnect the power plug of the projector main unit, and shut down the circuit breaker to which the AC power cord of the lamp power supply is connected to ensure safety.
- 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.
- Use a blower or lens paper to clean the lens, and be careful not to scratch or mar the lens.

Fire and Shock Precautions

- 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 (20 cm) of space between your projector and a wall. Allow at least 20 inches (50 cm) of space between the ventilation outlet of the lamp power supply and an object. Connect the projector exhaust outlet with the exhaust equipment having a capacity of 16 m³/min or more.
- 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 qualified service person.
- Do not place any liquids on top of your projector. Refer servicing to qualified service personnel if liquid has been spilled.
- 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.
- Do not cover the lens with the supplied lens cap or equivalent while the projector is on. Doing so can lead to distorting or melting of the cap and burning your hands due to the heat emitted from the light output.
- 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.
- Always ask your distributor to performing cleaning and maintenance inside the projector.

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 "Bulb Over Time". 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.
- When main body is damaged, cooling fluids may come out of internal part. DO NOT touch and drink the cooling fluid. When the cooling fluids are swallowed or contacted with your eyes, please consult medical attention immediately.

CAUTION

Never unplug the projection head power plug from the outlet or disconnect the breaker connected to the AC power cable of the lamp power supply under the following conditions. Doing so can cause damage to the projector:

- While projecting image
- While the projector is turned on
- While cooling after the lamp has been turned off. (The POWER indicator blinks in white while the fan is running, and the LCD screen displays "cooling...". The cooling fan continues to operate for 5 minutes.)

Handling the Battery

- Take care when handling the battery, as it could cause fire, injury, or damage to surrounding objects.
 - Do not short out, dismantle, or place batteries in a fire.
 - Do not use the battery other than as designated.
 - Ensure that you have the batteries' polarity (+/-) aligned correctly.
- Dispose of used batteries according to your local regulations.
- There is a battery mounted on the electronic circuit board within the main unit. When disposing of the main unit, do not dismantle the device or remove the internal circuit board, and contact the shop where you purchased the product or your local government agency.

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 branch for questions relating to unclear points, malfunctions and repairs of the product.

In Europe

NEC Display Solutions Europe GmbH
Address: Landshuter Allee 12-14,
D-80637 Muenchen, Germany
Telephone: +49 89 99699 0
Fax Line: +49 89 99699 500
Email Address: info@nec-displays.com
WEB Address:
<http://www.nec-display-solutions.com>

In North America

NEC Display Solutions of America, Inc.
Address: 500 Park Boulevard, Suite
1100 Itasca, Illinois 60143, U.S.A.
Telephone: +1 800 836 0655
Fax Line: +1 800 356 2415
Email Address:
pjtechsupport@necdisplay.com
WEB Address:
<http://www.necdisplay.com/>

In Hong Kong, Taiwan, Singapore, Malaysia and Indonesia

Strong Westrex, Inc.
Address: Room 4108 China Resources
Building, No. 26 Harbour Road,
Wanchai, Hong Kong.
Telephone: +852 2827 8289
Fax Line: +852 2827 5993
Email Address:
hkstrong@netvigator.com

In China

Strong Westrex (Beijing) Trading Inc.
Address: Room 212, No.28 Office
Building, No. 20 Xinde Street, Xicheng
District, Beijing, China
PC 100088
Telephone: +86 10-6205 9008
Fax Line: +86 10-6205 9775
Email Address: bjstrong@163.com

In South Korea

Hyosung ITX Co., Ltd.
Address: 1F, Ire Building, 2,
Yangpyeong-dong 4-ga,
Yeongdeungpo-gu, Seoul, Korea
150-967
Telephone: +82-2-2102-8591
Fax Line: +82-2-2102-8588
Email Address:
moneybear@hyosung.com
WEB Address:
<http://www.hyosungitx.com>

In Australia and New Zealand

NEC Australia Pty Ltd
Address: 26 Rodborough Road Frenchs
Forest NSW 2086
Telephone: 131 632 (from anywhere in
Australia)
Email Address: displays@nec.com.au
WEB Address: <http://www.nec.com.au>

Wichtige Informationen

Vorsichtsmaßnahmen: Lesen Sie sich dieses Handbuch bitte sorgfältig durch, bevor Sie den **NC3200S-A/NC3240S-A und NC-32PS01/NC-32PS02** benutzen, und bewahren Sie das Bedienungshandbuch in greifbarer Nähe als spätere Referenz auf. In diesem Handbuch wird der NC3200S-A/NC3240S-A (Projektoreinheit) „Projektor“ und das NC-32PS01/NC-32PS02 (Lampen-Spannungsversorgungseinheit) „Lampen-Spannungsversorgung“ genannt.

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 WARNUNG
ZUR VERMEIDUNG VON FEUER UND ELEKTRISCHEN SCHLAGEN DARF DAS GERÄT WEDER REGEN NOCH FEUCHTIGKEIT AUSGESETZT WERDEN.

 ACHTUNG
ZUR VERMEIDUNG EINES ELEKTRISCHEN SCHLAGES ÖFFNEN SIE NICHT DAS GEHÄUSE. INNERHALB DES GEHÄUSES BEFINDEN SICH KEINE FÜR DIE BEDIENUNG DES GERÄTES ERFORDERLICHEN TEILE. LASSEN SIE DEN KUNDENDIENST NUR VON HIERFÜR QUALIFIZIERTEN PERSONEN DURCHFÜHREN.

 Dieses Symbol warnt den Benutzer, dass innerhalb des Gerätes unisolierte Teile vorhanden sind, die Hochspannung führen und deren Berührung einen elektrischen Schlag verursachen kann.

 Dieses Symbol macht den Benutzer darauf aufmerksam, dass wichtige, den Betrieb und die Wartung des Gerätes betreffende Schriften beigelegt sind. Um irgendwelche Probleme zu vermeiden, sollten diese Beschreibungen sorgfältig gelesen werden.

Maschinenlärminformations-Vereinbarung – 3. GPSGV,

Der höchste Schalldruckpegel beträgt 70 dB (A) oder weniger gemäß EN ISO 7779.

WARNUNG

Sehen Sie nicht direkt in den leuchtintensiven Lichtstrahl.

- Die in diesem Produkt befindliche Lampe ist eine intensive Licht- und Hitzequelle. Ultraviolettes Licht ist ein Bestandteil des von der Lampe abgestrahlten Lichts. Die Aufstellung und Inbetriebnahme dieses Produkts darf ausschließlich durch lizenzierte Fachkräfte oder geschulte Benutzer erfolgen, die ausreichend über die möglichen Gefahren unterrichtet sind, die von der in diesem Gerät entstehenden Ultraviolettsstrahlung ausgehen können.

Bedingungen zur Einrichtung der Lampen-Spannungsversorgung

- Der Ort, an dem Sie die Lampen-Spannungsversorgung einrichten, sollte viel Platz vor dem Lufteinlass und dem Luftauslass bieten, um eine Überhitzung im Inneren des Geräts zu vermeiden. Sorgen Sie für einen ausreichenden Luftfluss im Gerät, damit das Innere gekühlt werden kann. Als Richtlinie sollte mindestens 20 cm Platz vor dem Laufeinlass und mindestens 50 cm vor dem Luftauslass sein.
- Insbesondere beim Unterbringen der Lampen-Spannungsversorgung in einem Gestell oder Gehäuse sollten Sie den Abschnitt über „Lamp power supply installation conditions“ beachten, um sicherzustellen, dass ausreichende Öffnungen in den Bereichen beim Lufteinlass und Luftauslass der Lampen-Spannungsversorgung vorhanden sind. Darüber hinaus sollte ein Belüftungskanal zum Luftauslass am Gestell oder Gehäuse angebracht werden, sodass die Abluft von der Lampen-Spannungsversorgung abgeleitet werden kann. Dies dient dazu, sicherzustellen, dass die Luft außerhalb des Gestells oder Gehäuses zirkuliert.

Gerät vor dem Anschließen an die Wechselstromversorgung immer erden.

- Ein sehr hoher Kriechstrom fließt zum Projektor und zum Lampen-Spannungsversorgungsgehäuse. Stellen Sie daher stets eine Masseverbindung her, bevor Sie eine Verbindung zum Netzanschluss herstellen.

Anschließen der Lampen-Spannungsversorgung und des Netzanschlusses

- Die Netzspannung von der Stromversorgung des Gebäudes, die an die Lampen-Spannungsversorgung geliefert wird, sollte über einen Ausschalter angeschlossen werden.
Siehe „2.4. Anschließen des Stromkabels“ betreffend den Einzelheiten.
- Die Kernader des Kabels, das an die Stromversorgung des Gebäudes und die Lampen-Spannungsversorgung angeschlossen wird, sollte dicker als 8 AWG sein, und das Kernadermaterial sollte Kupfer sein.

- Verwenden Sie UL- und CSA-zertifizierte Anschlussklemmen zum Anschließen der Lampen-Spannungsversorgung an den Netzanschluss. Montieren Sie eine Klemme ordnungsgemäß wie in diesem Handbuch beschrieben.

Projektor an Entlüftungsanlage anschließen.

- Verwenden Sie einen Abluftschlauch o. Ä., um den Luftauslass des Projektors an eine Entlüftungsanlage anzuschließen, die eine Durchflussmenge von mindestens 16 m³/min bewältigt. Informationen zur korrekten Montage finden Sie im Abschnitt „2.9 Montage der Entlüftungsanlage“ in diesem Handbuch.

Sehen Sie nicht direkt in den leuchtintensiven.

- Die in diesem Produkt befindliche Lampe ist eine intensive Licht- und Hitzequelle. Ultraviolettes Licht ist ein Bestandteil des von der Lampe abgestrahlten Lichts. Die Aufstellung und Inbetriebnahme dieses Produkts darf ausschließlich durch lizenzierte Fachkräfte oder geschulte Benutzer erfolgen, die ausreichend über die möglichen Gefahren unterrichtet sind, die von der in diesem Gerät entstehenden Ultraviolet-Strahlung ausgehen können.

Sicherung der Autentizierungsdaten

- Eine Zweitbatterie ist im Projektor installiert, um die für den Empfang der Videosignale notwendigen Autentizierungsdaten zu sichern. Falls der Projektor während den letzten 6 Monaten gar nicht mehr verwendet wurde, wird die Batterie leer sein, und die Autentizierungsdaten können nicht gesichtet werden. Lassen den Projektor alle 6 Monate mindesten 48 Stunden in Wartemodus um die Batterie wiederaufzuladen.

Installation

- Wenn Sie Informationen zum Transport und zur Installation des Projektors wünschen, wenden Sie sich an Ihren Händler. Versuchen Sie nicht, den Projektor selbst zu transportieren oder zu installieren.
Zur Gewährleistung eines ordnungsgemäßen Betriebs des Projektors und zur Minimierung des Risikos von Verletzungen von Personen muss der Projektor von qualifizierten Technikern installiert werden.
- Stellen Sie den Projektor auf eine flache, waagerechte Fläche in einer trockenen Umgebung; frei von Staub und Feuchtigkeit.
- Stellen Sie den Projektor weder in direktes Sonnenlicht noch in die Nähe einer Heizung oder sonstiger Hitze abstrahlender Einrichtungen.
- Wenn das Gerät direktem Sonnenlicht, Rauch oder Dampf ausgesetzt wird, können interne Komponenten beschädigt werden.
- Behandeln Sie Ihren Projektor vorsichtig. Fallenlassen oder starkes Schütteln kann interne Komponenten beschädigen.
- Zum Tragen des Projektors werden mindestens fünf Personen benötigt. Bringen Sie beim Umstellen des Projektors immer den Tragegriff am Projektor an, und tragen Sie ihn am Tragegriff. Den Projektor nicht am Linsenbereich oder an der anamorphotischen Linsenwelle (oder an der Weitwinkelkonverterlinse) tragen. Andernfalls kann der Projektor umkippen oder herunterfallen und Verletzungen verursachen.
- Legen Sie keine schweren Gegenstände auf den Projektor.
- Schalten Sie die Stromversorgung des Projektors und der Lampen-Spannungsversorgung ab und trennen Sie das Netzkabel ab, bevor Sie den Projektor umsetzen.

Spannungsversorgung

- Der Projektor wurde so konzipiert, dass er mit der unten aufgeführten Netzspannung läuft.
 - Projektionskopf:
100-240 V Wechselstrom 50/60 Hz einphasig
 - Stromversorgungsgerät der Lampe:
-NC-32PS01: 200-230 V Wechselstrom 50/60 Hz dreiphasig
-NC-32PS02: 380-415 V Wechselstrom 50/60 Hz dreiphasig
- Stellen Sie sicher, dass die vorhandene Spannungsversorgung diesen Vorgaben entspricht, bevor Sie versuchen, Ihren Projektor zu betreiben.
- Zum Installieren des Netzkabels am Projektor wenden Sie sich bitte an Ihren Fachhändler. UNTER KEINEN UMSTÄNDEN versuchen, das Netzkabel selbst zu installieren. Brand- und Schlaggefahr.
- Behandeln Sie das Netzkabel vorsichtig und vermeiden Sie Knicke. Legen Sie keine schweren Gegenstände das Netzkabel. Ein beschädigtes Netzkabel kann elektrische Schläge oder einen Brand verursachen.
- Wenn der Projektor über eine längere Zeit nicht genutzt wird, schalten Sie die Stromversorgung ab.
- Wenn Sie das Netzkabel und das Signalkabel in unmittelbarer Nähe zueinander platzieren, kann Überlagerungsrauschen auftreten. Vergrößern Sie in einem derartigen Fall den Abstand zwischen diesen beiden Kabeln.
- Berühren Sie den Projektor auf keinen Fall während eines Gewitters. Wenn Sie dies nicht beachten, kann dies zu einem elektrischen Schlag oder einem Feuer führen.

Reinigung

- Bei Unterhaltsarbeiten am Projektor muss der Stromzufuhr für Hauptgruppe und Lampe unterbrochen, der Stromanschluss abgezogen und der Abschalter zum Netzanschluss geschlossen werden, um sicherzustellen, dass es keine Risiken gibt.
- Reinigen Sie das Gehäuse regelmäßig mit einem feuchten Tuch. Bei starker Verschmutzung verwenden Sie ein mildes Reinigungsmittel. Reinigen Sie das Gerät niemals mit starken Reinigungs- oder Lösungsmitteln wie z.B. Alkohol oder Verdünner.

- Reinigen Sie die Linse mit einer Blaseinrichtung oder einem Linsentuch. Beachten Sie dabei, dass die Linsenoberfläche weder zerkratzt noch auf andere Weise beschädigt wird.

Vorsichtsmaßnahmen zur Vermeidung von Bränden und elektrischen Schlägen

- Sorgen Sie für ausreichende Belüftung und stellen Sie außerdem sicher, dass die Lüftungsschlitzte frei bleiben, damit sich innerhalb des Projektors kein Hitzestau bilden kann. Lassen Sie mindestens 20 cm Abstand zwischen Ihrem Projektor und der Wand. Lassen Sie mindestens 50 cm Abstand zwischen der Belüftung des Stromversorgungsgeräts der Lampe und anderen Gegenständen. Schließen Sie den Entlüftungsanschluss des Projektors an die Entlüftungsanlage an, die eine Kapazität von $16\text{m}^3/\text{min}$ oder mehr hat.
- Vermeiden Sie, dass Fremdgegenstände wie Büroklammern und Papierschnipsel in den Projektor fallen. Versuchen Sie nicht, in den Projektor gefallene Gegenstände selbst zu entfernen. Stecken Sie keine Metallgegenstände wie einen Draht oder Schraubendreher in Ihren Projektor. Wenn etwas in den Projektor gefallen ist, müssen Sie sofort den Netzstecker ziehen und den Gegenstand von qualifiziertem Servicepersonal entfernen lassen.
- Stellen Sie keine mit Flüssigkeit gefüllten Gefäße auf Ihren Projektor. Überlassen Sie die Reparatur ausschließlich qualifiziertem Servicepersonal, wenn Flüssigkeit verschüttet worden ist.
- Lichtkegel des Projektors fern. Da das von der Linse projizierte Licht umfassend ist, können alle abnormalen Gegenstände, die in der Lage sind, das aus der Linse austretende Licht umzulenken, unvorhersehbare Ereignisse wie z.B. einen Brand oder Augenverletzungen verursachen.
- Bedecken Sie die Linse nicht mit der mitgelieferten Linsenkappe o.ä. während der Projektor eingeschaltet ist. Dies kann eine Verformung oder ein Schmelzen der Kappe verursachen. Darüber hinaus würden Sie sich aufgrund der vom Lichtausgang abgestrahlten Hitze wahrscheinlich die Hände verbrennen.

- Wenn ein LAN-Kabel verwendet wird: Schließen Sie es aus Sicherheitsgründen nicht an den Anschluss der Peripheriegeräte-Verbindung an, das sie eine zu hohe Spannung führen könnte.

VORSICHT:

- Bei unsachgemäßer Handhabung kann die Hochdrucklampe explodieren. Überlassen Sie die Reparatur ausschließlich qualifiziertem Servicepersonal.
- Fragen Sie immer Ihren Wiederverkäufer, um die Reinigungs- und Unterhaltsarbeiten im Projektor auszuführen.

Vorsichtsmaßnahmen bezüglich der Lampe: Bitte vor dem Betrieb durchlesen

Aufgrund der unter Druck luftdicht verschlossenen Lampe besteht bei falscher Handhabung eine geringe Explosionsgefahr. Wenn sich das Gerät in einwandfreiem Zustand befindet, ist dieses Risiko minimal; die Explosionsgefahr erhöht sich jedoch im Falle einer Beschädigung oder bei einer Benutzung über die empfohlenen Betriebsstunden hinaus. Beachten Sie bitte, dass im Gerät ein Warnsystem integriert ist, das bei Erreichen der voreingestellten Betriebsdauer die nachfolgende Meldung anzeigt: "Bulb Over Time".

Im Falle einer Lampenexplosion tritt aus den Lüftungsschlitzten der Rückseite des Gerätes Rauch aus. Stehen Sie nicht vor den Entlüftungsöffnungen während des Betriebes. Dieser Rauch besteht aus einer ganz besonderen Form von Glas und aus Xenon-Gas. Solange dieser Rauch nicht in die Augen gelangt, bestehen keinerlei gesundheitliche Risiken.

Wenn Ihre Augen dem Gas ausgesetzt worden sind, spülen Sie die Augen bitte sofort mit Wasser aus und konsultieren Sie einen Arzt. Reiben Sie die Augen nicht! Dies könnte ernsthafte Verletzungen zur Folge haben.

WARNUNG:

- Schauen Sie nicht in die Linse, wenn der Projektor eingeschaltet ist. Dies könnte schwere Augenverletzungen zur Folge haben.
- Wenn das Hauptteil beschädigt ist, kann Kühlungsflüssigkeit aus dem Inneren austreten. Berühren Sie die Flüssigkeit NICHT, und trinken Sie sie NICHT. Wenn die Kühlungsflüssigkeit geschluckt wurde oder in Augenkontakt kam, rufen Sie bitte sofort einen Arzt.

VORSICHT

Ziehen Sie den Projektor-Hauptnetzstecker nicht vom Ausgang ab, und trennen Sie den Unterbrecher, der am Netzkabel der Lampenstromversorgungseinheit angeschlossen ist, unter den folgenden Bedingungen nicht ab. Andernfalls kann der Projektor beschädigt werden.

- Während der Projizierung von Bildern
- Der Projektor ist eingeschaltet
- Während des Abkühlens, nach dem Projektor ausgeschaltet worden ist. (Die POWER-Kontrollleuchte blinkt weiß, während der Lüfter betrieben wird, und auf dem LCD-Bildschirm wird „cooling...“ angezeigt. Das abkühlende fan fährt fort, für 5 Minuten zu arbeiten.)

Umgang mit der Batterie

- Seien Sie äusserst vorsichtig beim Hantieren der Batterie, um jedes Risiko von Brand, Verletzungen oder Beschädigungen anderer Objekte.
 - Die Batterien nicht kurzschiessen, demontieren oder ins Feuer werfen.
 - Die Batterien nicht anders als zum vorgesehenen Verwendungszweck benutzen.
 - Stellen Sie sicher, dass Sie die Batterie mit der richtigen Polung (+/-) eingelegt haben.
- Entsorgen Sie verbrauchte Batterien entsprechend den in Ihrem Land geltenden Bestimmungen.
- Auf der Leiterplatte der Haupteinheit ist eine Batterie montiert. Zerlegen Sie die Haupteinheit beim Entsorgen nicht, und entfernen Sie nicht die interne Leiterplatte. Wenden Sie sich stattdessen an den Händler, bei dem Sie das Gerät erworben haben, oder an die zuständige Behörde.

Entsorgung Ihres benutzten Gerätes



Die EU-weite Gesetzgebung, wie sie in jedem einzelnen Mitgliedstaat gilt, bestimmt, dass benutzte elektrische und elektronische Geräte mit dieser Markierung (links) getrennt vom normalen Haushaltsabfall entsorgt werden müssen.

Dies schließt Projektoren und deren elektrisches Zubehör oder ihre Lampen mit ein. Folgen Sie beim Entsorgen eines solchen Gerätes bitte den Anweisungen Ihrer örtlichen Behörde und/oder konsultieren Sie den Händler, bei dem Sie das Gerät erworben haben.

Nach der Sammlung benutzerter Geräte werden diese erneut verwendet und entsprechend den Umweltbestimmungen recycelt. Das trägt dazu bei, die Abfallmenge zu reduzieren sowie die negativen Auswirkungen auf die menschliche Gesundheit und die Umwelt möglichst gering zu halten.

Die Markierung auf elektrischen und elektronischen Geräten gilt nur für die gegenwärtigen Mitgliedsstaaten der Europäischen Union.

Bei Fragen, die sich aus unklaren Punkten oder Reparaturarbeiten ergeben

Bei Fragen, die sich aus unklaren Punkten, Fehlfunktionen oder Reparaturarbeiten am Produkt ergeben, wenden Sie sich an Ihren Händler oder an die folgende Niederlassung.

In Europa

NEC Display Solutions Europe GmbH
Adresse: Landshuter Allee 12-14, D-80637 Muenchen, Germany
Telefon: +49 89 99699 0
Fax-Nummer: +49 89 99699 500
E-Mail-Adresse: info@nec-displays.com
Web-Adresse:
<http://www.nec-display-solutions.com>

In Nordamerika

NEC Display Solutions of America, Inc.
Adresse: 500 Park Boulevard, Suite 1100 Itasca, Illinois 60143, U.S.A.
Telefon: +1 800 836 0655
Fax-Nummer: +1 800 356 2415
E-Mail-Adresse:
pjtechsupport@necd़isplay.com
Web-Adresse: <http://www.necd़isplay.com/>

In Hongkong, Taiwan, Singapur, Malaysia und Indonesien

Strong Westrex, Inc.
Adresse: Room 4108 China Resources Building, No. 26 Harbour Road, Wanchai, Hong Kong.
Telefon: +852 2827 8289
Fax-Nummer: +852 2827 5993
E-Mail-Adresse: hkstrong@netvigator.com

In China

Strong Westrex (Beijing) Trading Inc.
Adresse: Room 212, No.28 Office Building, No. 20 Xinde Street, Xicheng District, Beijing, China
PC 100088
Telefon: +86 10-6205 9008
Fax-Nummer: +86 10-6205 9775
E-Mail-Adresse: bjstrong@163.com

In Südkorea

Hyosung ITX Co., Ltd.
Adresse: 1F, Ire Building, 2, Yangpyeong-dong 4-ga, Yeongdeungpo-gu, Seoul, Korea 150-967
Telefon: +82-2-2102-8591
Fax-Nummer: +82-2-2102-8588
E-Mail-Adresse: moneybear@hyosung.com
Web-Adresse: <http://www.hyosungitx.com>

In Australien und Neuseeland

NEC Australia Pty Ltd
Adresse: 26 Rodborough Road Frenchs Forest NSW 2086
Telefon: 131 632 (von überall in Australien)
E-Mail-Adresse: displays@nec.com.au
Web-Adresse: <http://www.nec.com.au>

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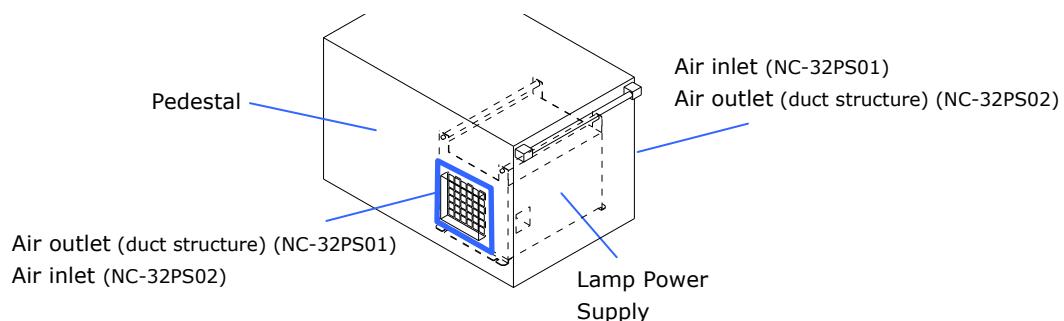
1.

Before Setting Up Your Projector

1.1 Lamp Power Supply Installation Conditions

The location where you install the lamp power supply must have a plenty of space in front of the air inlet and air outlet to prevent the inside of that unit from becoming excessively hot. Ensure that air can flow inside the unit to allow the internal cooling. Be careful of the following points when setting up the lamp power supply.

When the lamp power supply is not stored in a rack or case:	Lay out the lamp power supply so that a sufficient space is assured around it. - Space in front of the air inlet (guide): 20 cm at least - Space in front of the air outlet (guide): 50 cm at least
When the lamp power supply is stored in a rack or case:	Ensure a plenty of case opening area on the portions facing the air inlet and the air outlet of the lamp power supply. - Air inlet opening area: 36000 mm ² at least - Air outlet opening area: 48400 mm ² at least, duct structure A duct structure should be configured to lead to the air outlet on the rack or case so that the exhaust from the lamp power supply can be exhausted. <u>This is to ensure that the air does not circulate only inside the rack or case.</u> Lay out the rack or case storing the lamp power supply so that a sufficient space is assured around them. - Space in front of the air inlet (guide): 20 cm at least - Space in front of the air outlet (guide): 50 cm at least

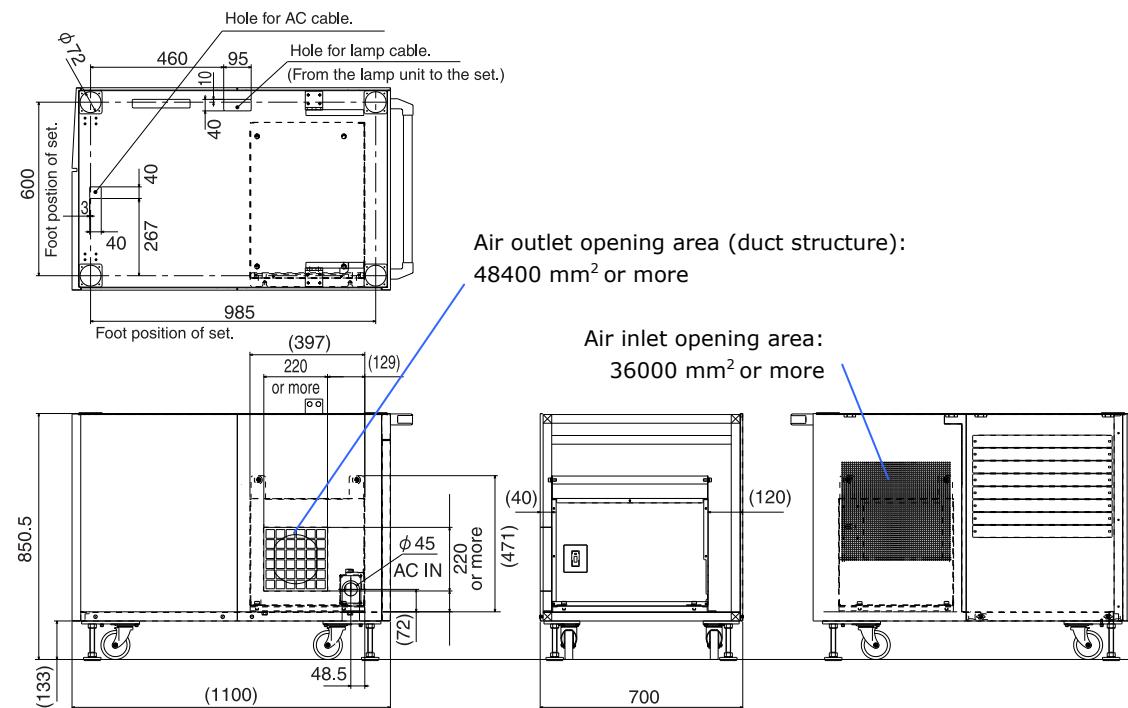


Example where the lamp power supply is installed to the Pedestal (NC-PD02)

Shown below is an example where the lamp power supply (NC-32PS01) is installed to the pedestal (NC-PD02). Air inlet and Air outlet position will be opposite when installing NC-32PS02.

< (Front)

(Rear)>



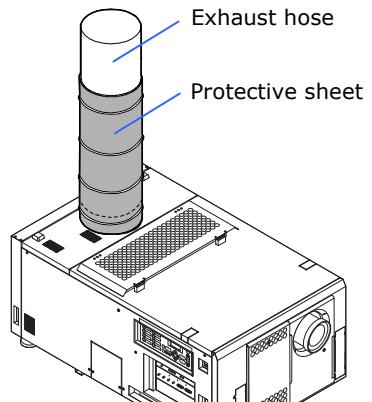
Unit: mm

For installation procedure, refer to "2.2.1 Mounting a Lamp Power Supply to the Pedestal" (Page 43).

1.2 Exhaust Equipment Specifications

It is necessary to connect the air outlet of the projector to the exhaust equipment. The accessory protective sheet should also be mounted, because the area around the air outlet becomes very hot. For Exhaust equipment Installation, see "2.8. Mounting the Exhaust Equipment" (Page 97).

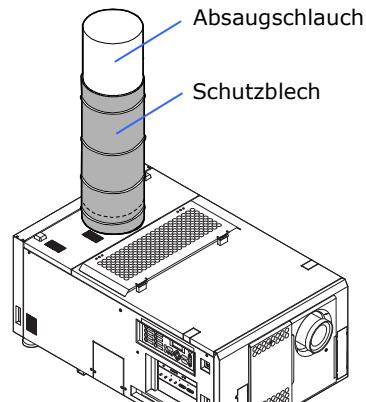
Exhaust	16 m ³ /min. or more
Air outlet size (external diameter)	about 200 mm



1.3 Technische Daten des Absauggeräts

Der Luftauslass des Projektors muss an das Absauggerät angeschlossen werden. Das Zubehör-Schutzbblech sollte ebenfalls angebracht werden, da der Bereich um den Luftauslass sehr heiß werden kann. Bezuglich der Installation des Absauggeräts siehe „2.9. Montage der Entlüftungsanlage“ (Seite 98).

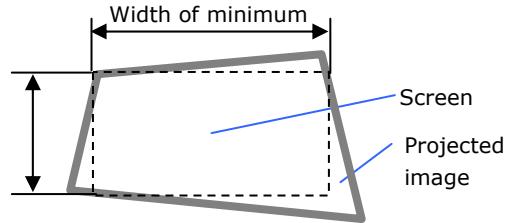
Absaugung	16 m ³ /Min. oder mehr
Luftauslassgröße (Außendurchmesser)	ca. 200 mm



1.4 Selecting Primary/Wide Converter Lenses for Your Projector

This section provides the guideline information on how to select a screen size, projector mounting position, and type of lenses, which is appropriate for your presentation purposes. Select primary/wide converter lenses for your projector according to the environment in which it is installed.

If you are using the anamorphic lens, please read wide converter lens as anamorphic lens.



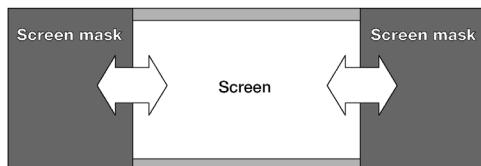
Note that all descriptions given in this manual assume that the angle of projection is zero degree. In case of projection from an upper position or from the right or left, it is necessary to calculate the width for the minimum projected image that is a little larger than the screen size.

1.4.1 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/wide converter lenses to be used on the projector and its settings depend upon the type of screen mask you use.

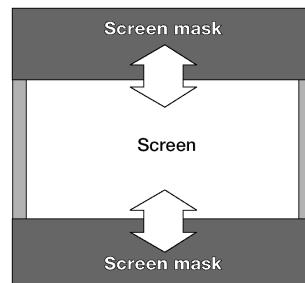
Horizontal moving screen mask

Screen masks move horizontally to adjust the screen.



Vertical moving screen mask

Screen masks move vertically to adjust the screen.



1.4.2 Selection of Wide Converter Lens/ Anamorphic Lens

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

Note

- Both horizontal and vertical display area will be doubled at 4K.

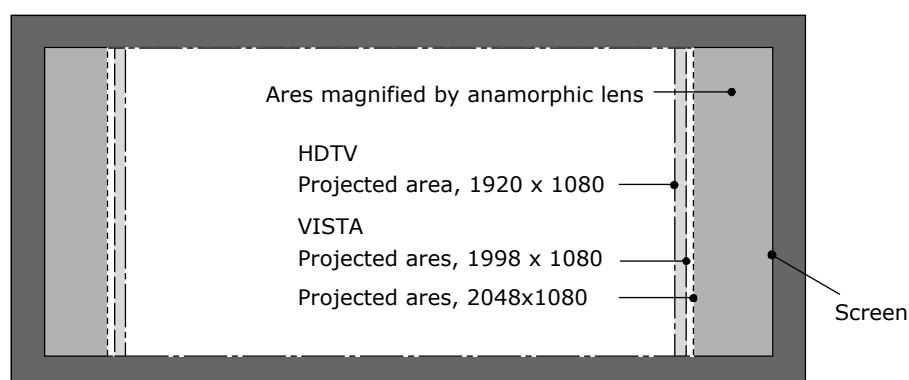
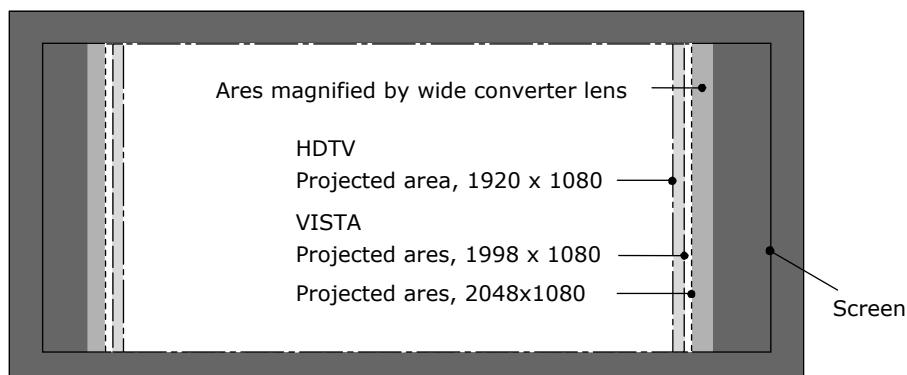
Available Wide Converter Lenses/ Anamorphic Lenses

Screen mask type	Screen Type	Projected area	Wide converter lens/ 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 (Note)
	VISTA (FLAT)	1998 x 1080	-
	HDTV	1920 x 1080	-

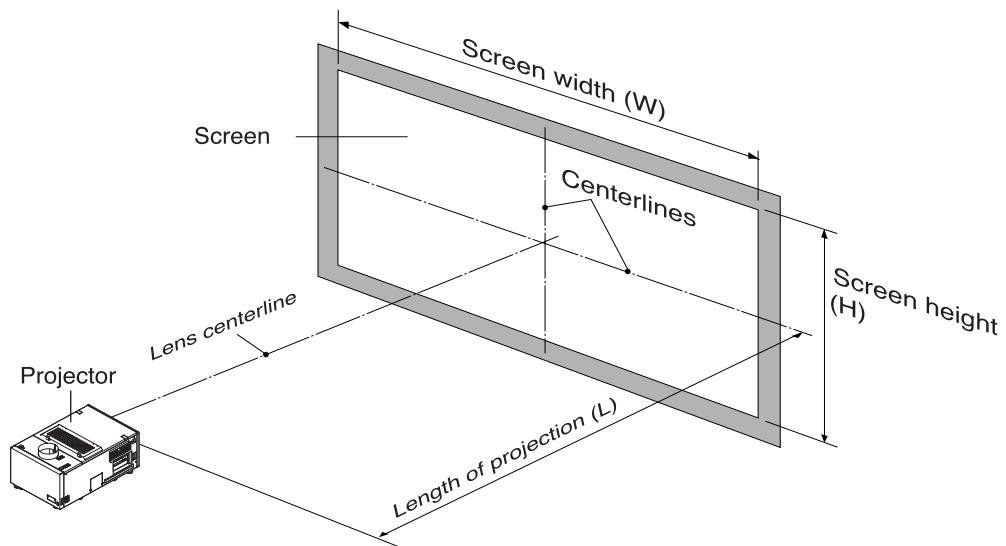
Note: If the screen mask is vertical moving type and the image cannot be enlarged vertically due to insufficient zooming magnification of the primary lens, do not use the wide converter lens for projection. In this case, it is necessary to set the Screen file (Screen Presentation Setting). For the Screen file, refer to "Digital Cinema Communicator for S2 Installation Manual".

Projected Images

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



1.4.3 Selection of Primary Lens



Option lenses

MODEL	Magnifying	
	NC3200S/NC3200S-A	NC3240S-A
L2K-12ZM	1.25 - 1.45	1.13 - 1.31
L2K-14ZM	1.45 - 1.8	1.31 - 1.63
NC-50LS14Z	1.44 - 2.05	1.30 - 1.85
NC-50LS16Z	1.6 - 2.4	1.45 - 2.17
L2K-18ZM	1.8 - 2.4	1.63 - 2.17
NC-50LS18Z	1.8 - 3.0	1.63 - 2.71
L2K-22ZM	2.2 - 3.0	1.99 - 2.71
NC-50LS21Z	2.15 - 3.6	1.95 - 3.26
L2K-30ZM	3.0 - 4.3	2.71 - 3.89

How to Calculate the Magnification of Primary Lens

SCOPE projection:

$$\text{magnification} = \frac{\text{Primary lens length of projection (L)}}{\text{Screen width (W)} \div \text{Wide Converter lens magnification}}$$

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

VISTA (FLAT)/HDTV projection:

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

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

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

Example of Primary Lens Calculation

If the "projection distance (L) = 30 m, the screen width (W) = 15 m" and the wide converter lens is not used:

$$\text{SCOPE projection} = \frac{30\text{m}}{15\text{m} \div 1} = 2.0x$$

$$\text{VISTA (FLAT) projection} = \frac{30\text{m}}{15\text{m} \times (2048 \div 1998)} = 1.95x$$

$$\text{HDTV projection} = \frac{30\text{m}}{15\text{m} \times (2048 \div 1920)} = 1.88x$$

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

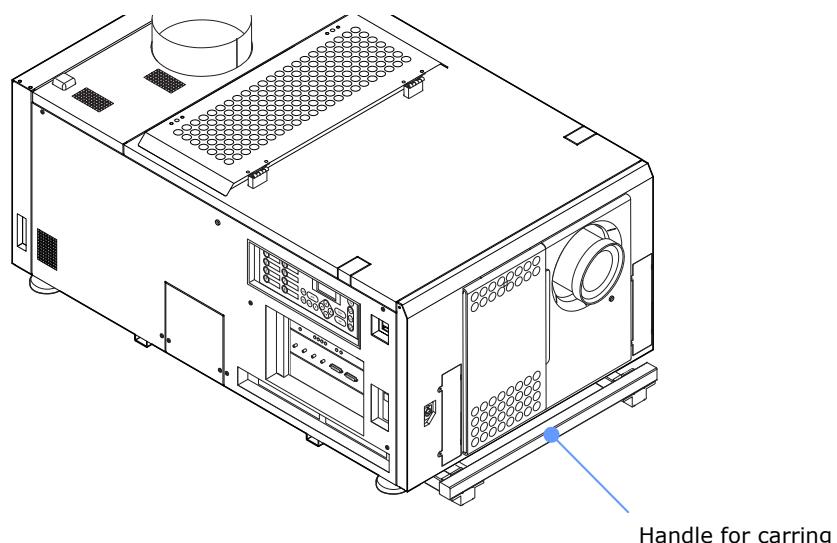
The tools used for installing projector are as follows:

Item	Tool	Quantity	Major Application
Projector (NC3200S/ NC3200S-A / NC3240S-A)	Phillips head screwdriver (No.2)	1	Covers
	Flat head screwdriver	1	Lens
	Hexagonal wrench (Width across flats: 4 mm)	1	Lamp Bulb
	Hexagonal wrench (Width across flats: 5 mm)	1	Lamp house
	Spanner (Width across flats: 17 mm)	2	Power cable
	Spanner (Width across flats: 19 mm)	1	Level adjuster
	Box wrench (Width across flats: 17mm)	1	Lamp house
Installation base (NC-PD02)	Phillips head screwdriver (No.2)	1	Covers
	Phillips head screwdriver (No.3)	1	Lamp power supply
	Hexagonal wrench (Width across flats: 3mm)	1	Outer panel
	Hexagonal wrench (Width across flats: 4mm)	1	Holder foot
	Hexagonal wrench (Width across flats: 14mm)	1	Tilt metal
	Spanner (Width across flats: 24mm)	1	Level adjuster
Wide converter lens turret (NC-AT02)	Phillips head screwdriver (No.2)	1	-
	Hexagonal wrench (Width across flats: 5mm)	1	Front bracket, Lens holder
	Hexagonal wrench (Width across flats: 6mm)	1	Shaft L/R
	Spanner (Width across flats: 10mm)	1	Adjust stopper bolt
Lens	Hexagonal wrench (Width across flats: 2.5mm)	1	Lens adaptor
Option Board (NC-80MB01/ NC-80LB01/ NC-80DS01)	Phillips head screwdriver (No.2)	1	-

1.6 Carrying the projector

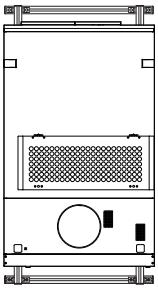
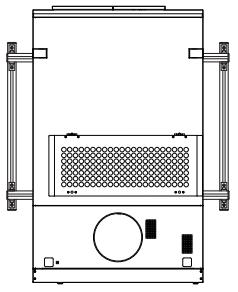
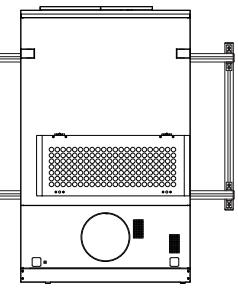
When carrying the projector, attach the handles for carrying (sold separately: NC-60HD01) to the main unit and carry the projector using the handles. Ask your distributor for details on purchasing the handles. If you are not using the handles, make sure that you carry the projector by holding the base of the main unit.

⚠ Warning	<ul style="list-style-type: none">• To carry the projector, a minimum of five persons are required.• Whenever carrying the projector, please be sure to attach the handles and hold the handles.• Before attaching the handles, please remove the "lens" and "wide converter lens turret", otherwise the main unit may become damaged due to vibrations and impacts during transportation.• Please make sure that the pins for anti-drop of handles are inserted on the handles before carrying the projector with handles. If the pins for anti-drop of handles are not inserted during carrying the projector with handles, it may cause the projector dropping and lead to injury.
------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



1.6.1 Handles Installation Locations

The handles can be installed in the following three locations.

Front/Back installation	Left/Right installation	
	Push the handle all the way in to use	Pull the handle to use
		

Note

- The handles cannot be attached while the projector is in the shipping box. Remove the projector from the shipping box before attaching the handles.
- When installing the handles to the front and back, insert the handle all the way in to use it. Do not pull the handle out to use the handle when it is in the front and back position.
- When installing the handles, be sure that the caution label on the handle faces up.

1.6.2 Installing and Removing the Handles



- Please make sure that the pins for anti-drop of handles are inserted on the handles before carrying the projector with handles. If the pins for anti-drop of handles are not inserted during carrying the projector with handles, it may cause the projector dropping and lead to injury.

Installing the handles

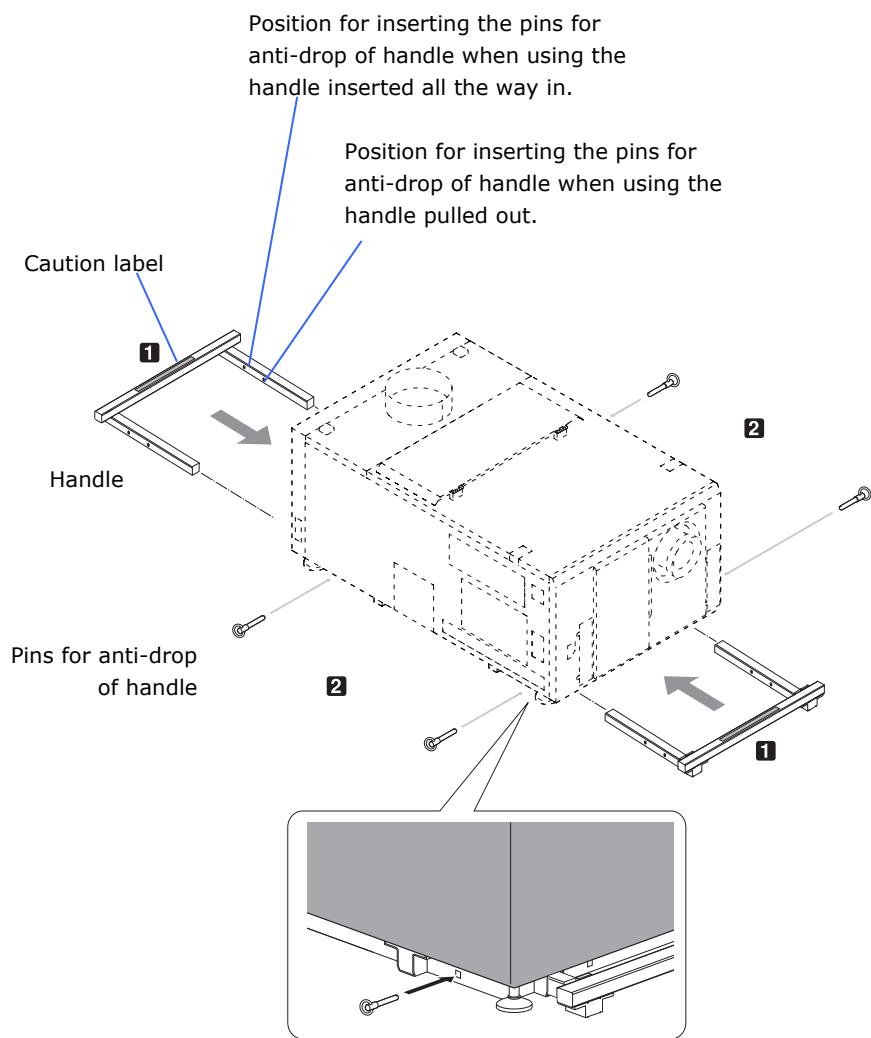
- [1] Remove the projector from the shipping box
- [2] Mount the handle in the attachment position in the projector base.
- [3] Insert the pins for anti-drop of handle (4 pieces) into the holes in the attachment position.

For the handle installation locations, refer to "1.6.1 Handles Installation Locations" (See page 28).

The following diagram shows an example of front and back installation.

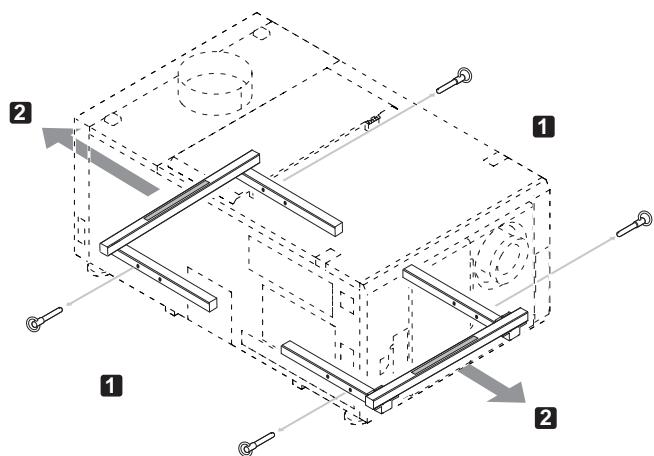
Note

- When installing the handles, be sure that the caution label on the handle faces up.



Removing the handles

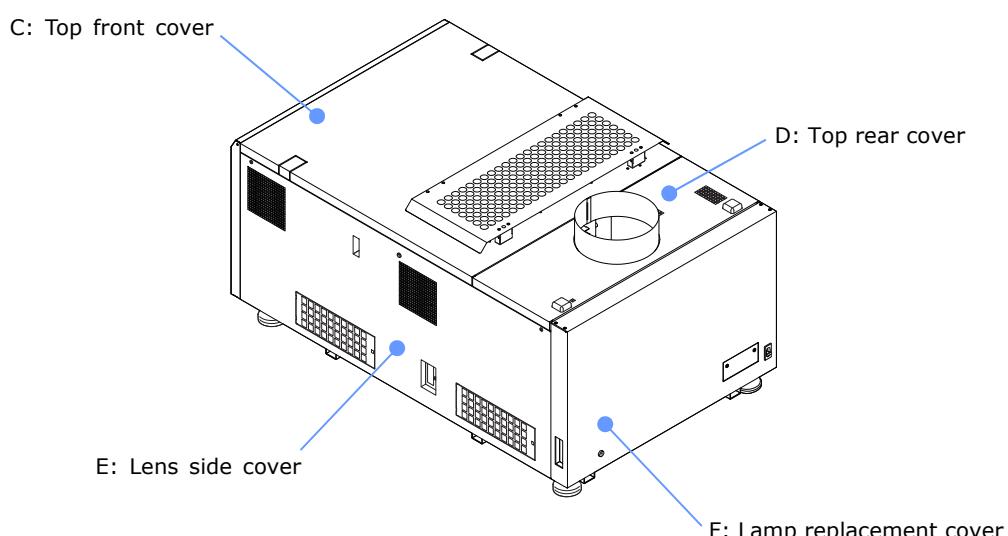
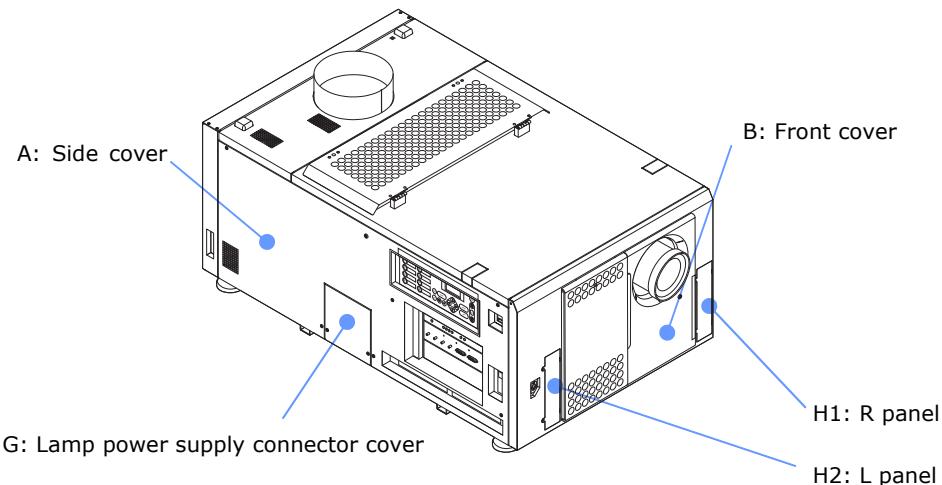
- [1] Remove the pins for anti-drop of handles (4 pieces).
- [2] Pull out the handle from the projector.



1.7 Removing the Projector Covers

This section provides guideline information on how to mount and remove covers on the projector.

Name of the cover



Note

- If you remove the front cover, side cover, or lens side cover, the following error message is displayed on the LCD screen of the main unit operating panel by the tamper detection circuit. "Tamper Fail", "Service Door Open"

Encrypted contents cannot be displayed while an error message is being displayed. Refer to "3.2 Recovering from Tamper Errors" (page 106) for the recovery procedure.

Remarks for cover mounting and removal

- "A: Side cover", "B: Front cover", "E: Lens side cover", and "F: Lamp replacement cover" are equipped with key locks. Special keys (cover key or lamp cover key) are required to mount or remove them.
- "C: Top front cover" cannot be removed unless "A: Side cover" and "E: Lens side cover" are removed in advance.
- "D: Top rear cover" cannot be removed unless "A: Side cover", "C: Top front cover", "E: Lens side cover", and "F: Lamp replacement cover" are removed in advance.

The table below shows the covers which need to be removed at each step.

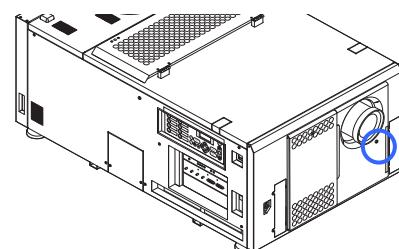
Step	Covers (*:the covers which need to be removed at each step)								
	A	B	C	D	E	F	G	H1	H2
Connecting the Lamp power cable							*		
Connecting the Lamp control cable		*							
Connecting the AC power cable	*								
Mounting the Primary lens	*								
Mounting the wide converter lens turret							*	*	
Mounting the Small iris					*				
Mounting the Media Block (optional)	*								
Mounting the SIB (optional)(Note1)	*								
Mounting the MMS (optional)	*								
Mounting the Exhaust equipment									

Note1: SIB (NC-80LB01)is equipped to NC3200S at factory default. Nothing is equipped to NC3200S-A／NC-3240S-A at factory default.

1.7.2 Mounting and Removing the Front Cover

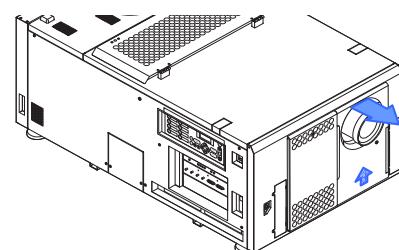
[1] Unlock the front cover.

Unlock the cover using the cover key.



[2] Remove the front cover.

Remove the cover by lifting it up.

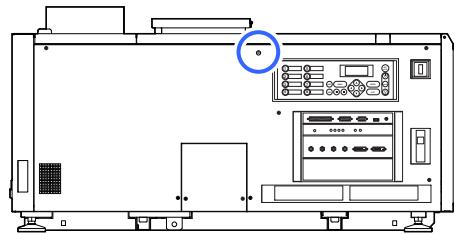


To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to lock the key lock.

1.7.3 Mounting and Removing the Side Cover

[1] Unlock the side cover.

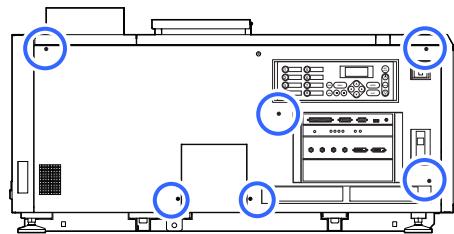
Unlock the cover using the cover key.



[2] Loosen the six fixing screws on the side cover.

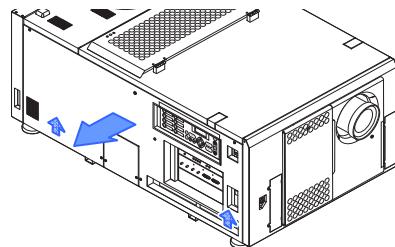
Loosen six screws on the side cover until they are free to spin.

The screws do not detach from the cover.



[3] Remove the side cover.

Remove the cover by rotating it towards you and lifting it up.

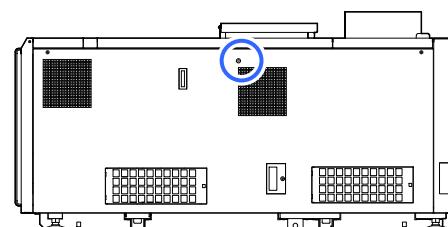


To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to tighten the screws or to lock the key lock.

1.7.4 Mounting and Removing the Lens Side Cover

[1] Unlock the lens side cover.

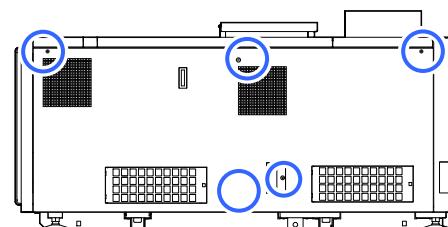
Unlock the cover using the cover key.



[2] Remove the five fixing screws on the lens side cover.

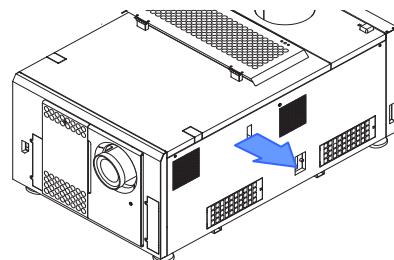
Loosen five screws on the lens side cover until they are free to spin.

The screws do not detach from the cover.



[3] Remove the lens side cover.

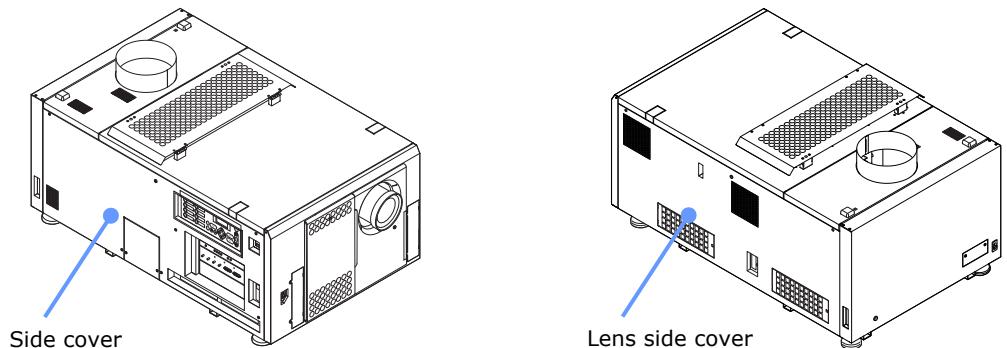
Remove the cover by rotating it towards you and lifting it up.



To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to tighten the screws or to lock the key lock.

1.7.5 Mounting and Removing the Top Front Cover

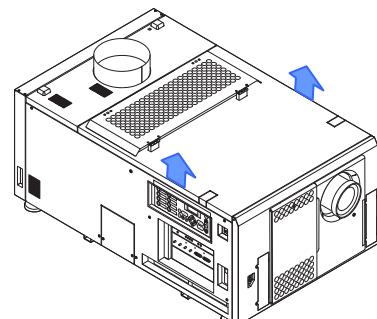
- [1] Remove the side cover and the lens side cover.



- [2] Remove the fixing screws on the upper front cover (one each on the left and right sides).

- [3] Remove the top front cover.

Remove the cover by lifting it up.

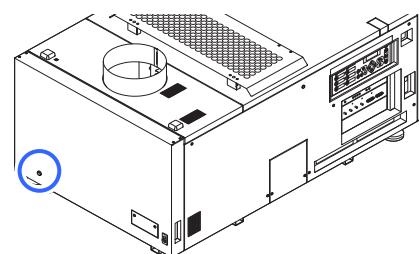


To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to tighten the screws and lock the key lock when mounting the side cover or lens side cover.

1.7.6 Mounting and Removing the Lamp Replacement Cover

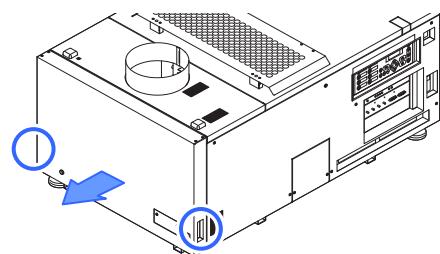
[1] Unlock the lamp replacement cover.

Unlock the cover using the lamp cover key.



[2] Remove the lamp replacement cover.

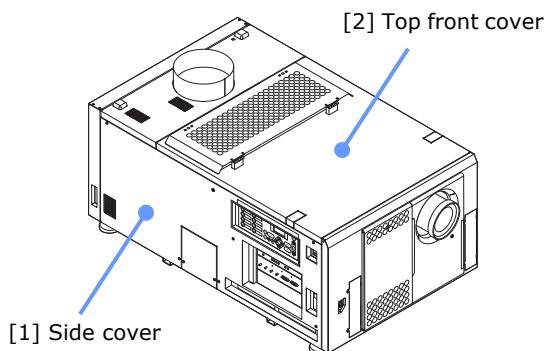
Remove the cover by holding notches on both sides and lift it towards you.



To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to lock the key lock.

1.7.7 Mounting and Removing the Top Rear Cover

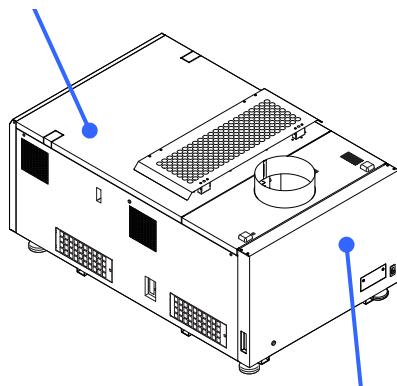
- [1] Remove the side cover and lens side cover.



- [2] Remove the top front cover.

- [3] Remove the lamp replacement cover.

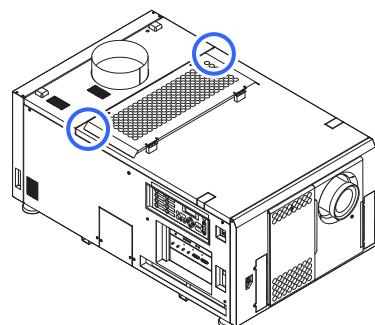
[1] Lens side cover



- [4] Remove fixing screws on the top rear cover.

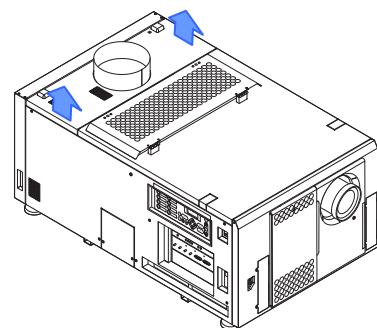
Remove 2 fixing screws on the cover.

Take care not to lose removed screws.



[5] Remove the top rear cover.

Remove the cover by lifting it up.



To mount the cover, perform the removal procedure in reverse. Make sure that you do not forget to lock the key lock when mounting the lamp replacement door. Also, do not forget to tighten the screws and lock the key lock when mounting the side cover or lens side cover.

2.

Setting Up Your Projector

2.1 Setup Procedure

Set up the projector according to the procedure below. This chapter describes the installation of procedure until turning on of the power.

- Step 1

Projector Installation (See page 42)

- Step 2

Connecting the Power Cable (See page 47)

- Step 3

Mounting the Primary Lens (See page 83)

- Step 4

Mounting the Wide Converter Lens Turret (See page 86)

- Step 5

Installing Small Iris (See page 93)

- Step 6

Mounting Exhaust Equipment (See page 97)

- Step 7

Mounting the Lamp Bulb (See page 99)

- Step 8

Mounting the following optional parts as required.

Installing the Media Block (NC-80MB01) (See page 100)

Installing the Signal Input Board (NC-80LB01/NC-80DS01) (See page 100)

Installing the Multi-media Switcher (See "MM3000B Installation Manual")

2.2 Projector Installation

Move the projector to the projection position and install it corresponding to the screen and projection conditions.

By mounting an exclusive pedestal (NC-PD02 separately sold) and tilt feet, you can adjust the tilting angle. For adjustment of the tilting angle, refer to the pedestal (NC-PD02) manual.

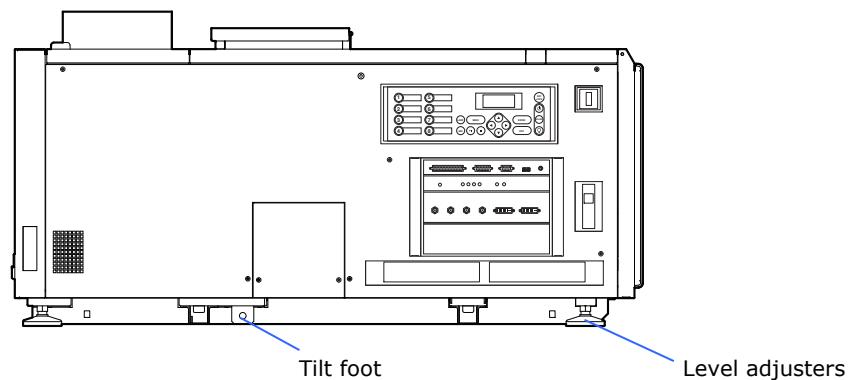
To correct the inclination to the right or left of the projector, use the level adjusters at 4 positions. You can extend the level adjuster to 10mm at the maximum (Rotate it counterclockwise for extension).

Tips

- If you use the pedestal (NC-PD02), the projector is fixed to the pedestal. In this case, correct the inclination to the right or left of the projector using the level adjusters on the pedestal side.



- To adjust the level adjusters of the projector, extend the two level adjusters at the front and the back at the same time so that the weight is imposed to them equally. If you adjust only one adjuster, the weight is not imposed equally, which may result in level adjuster failure.

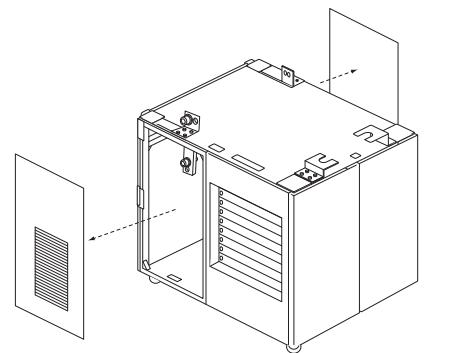


2.2.1 Mounting a Lamp Power Supply to the Pedestal

This section describes the procedure to mount the lamp power supply to the pedestal (NC-PD02). If you do not use an installation base, proceed to "2.3 Connecting the Power Cable" (Page 47).

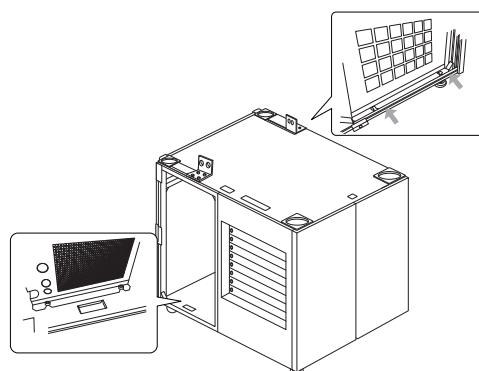
Execute the work below with referring to the "NC-PD02 installation manual".

- [1] Remove the covers at the back and side back of the pedestal.
- [2] Remove two M10x20 screws fastening the bottom of the back on the pedestal.



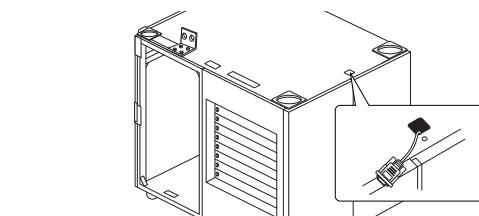
- [3] Put the lamp power supply into the back of the pedestal.

This work should be executed by two or more workers. Pay attention to store the unit in the proper direction.



- [4] Fix the lamp power supply.

Fix the lamp power supply using the screws removed at Step [2] with aligning it with the guide on the bottom plate of the pedestal.

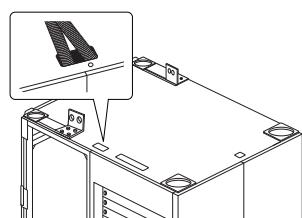


- [5] Connect the dedicated interface cable to the lamp power supply.

Remove the cover at the front side of the pedestal. Pass the dedicated interface cable through the hole of the pedestal partition, put it toward the front side and pull it out of the hole at the top on the front side of the pedestal.

- [6] Connect the lamp power cable to the projector.

For connection procedure, refer to "2.3.5 Connecting the AC Power Supply Cable to the Projector" (Page 62).

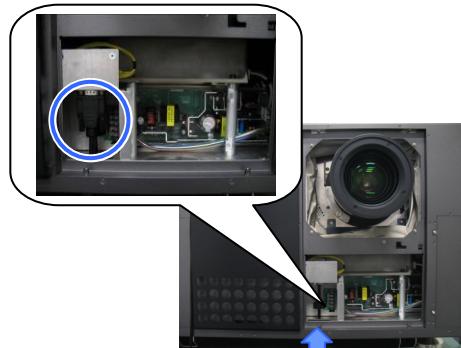


[7] Connect the dedicated interface cable to the projector.

For connection procedure, refer to "2.3.5

Connecting the AC Power Supply Cable to the Projector" (Page 62).

Bundle any excessive cables in connection of dedicated interface cable at the back of the pedestal.



Note

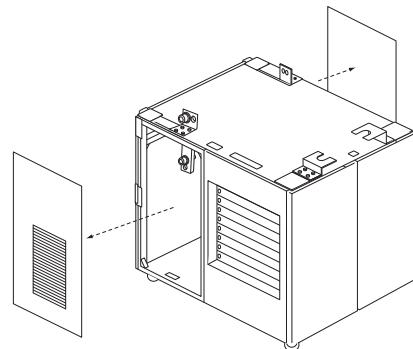
- Mount the ferrite clamp core to dedicated interface cable of female connector side, when using NC-32PS02 as lamp power supply. For procedure, refer to "2.3.5 Connecting the AC Power Supply Cable to the Projector" (Page 62).

2.2.2 Befestigen einer Lampen-Spannungsversorgung am Fuß

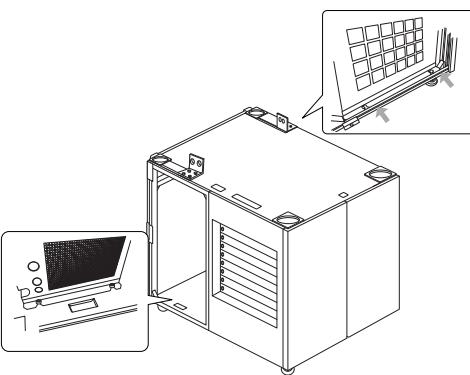
In diesem Abschnitt wird das Verfahren zum Befestigen der Lampen-Spannungsversorgung am Fuß (NC-PD02) beschrieben. Wenn Sie den Montagesockel nicht verwenden, fahren Sie mit „2.4 Anschließen des Stromkabels“ (Seite 64) fort.

Führen Sie die unten beschriebenen Arbeiten durch, und ziehen Sie dabei das „Installationshandbuch für den NC-PD02“ zu Rate.

- [1]** Entfernen Sie die Abdeckungen auf der Rückseite und an den Seiten des Fußes.



- [2]** Entfernen Sie zwei M10x20-Schrauben zur Befestigung der unteren Rückseite am Fuß.

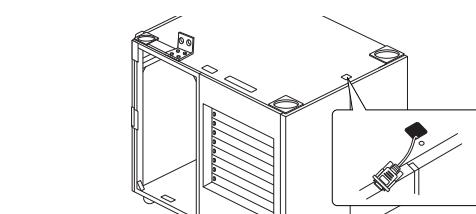


- [3]** Setzen Sie die Lampen-Spannungsversorgung in die Rückseite des Fußes ein.

Diese Arbeit sollte von zwei oder mehr Mitarbeitern durchgeführt werden. Achten Sie darauf, das Gerät richtig herum einzusetzen.

- [4]** Befestigen Sie die Lampen-Spannungsversorgung.

Befestigen Sie die Lampen-Spannungsversorgung mit den in Schritt 2 entfernten Schrauben. Richten Sie sie dabei mit der Führung an der Bodenplatte des Fußes aus.

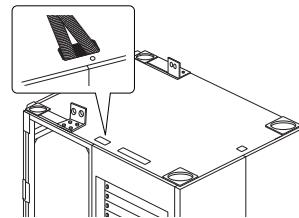


- [5]** Schließen Sie Schnittstellenkabel an die Lampen-Spannungsversorgung an.

Nehmen Sie die Abdeckung an der Vorderseite des Fußes ab. Schieben Sie das Schnittstellenkabel durch die Öffnung der Fußtrennwand, führen Sie es zur Vorderseite durch und ziehen Sie es durch die Öffnung oben an der Vorderseite des Fußes.

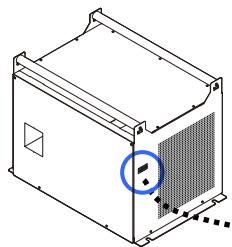
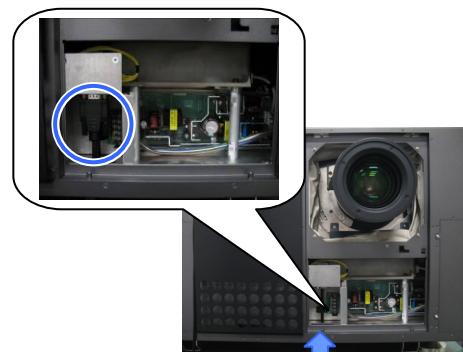
[6] Schließen Sie das Lampenstromkabel an den Projektor an.

Für den Anschlussvorgang siehe „2.4.5 Anschließen des Netzkabels an den Projektor“ (Seite 81).



[7] Schließen Sie das Schnittstellenkabel an den Projektor an.

Für den Anschlussvorgang siehe „2.4.5 Anschließen des Netzkabels an den Projektor“ (Seite 81).
Bündeln Sie überschüssige Kabellängen des Schnittstellenkabels an der Rückseite des Fußes.



Hinweis

- Wenn Sie die NC-32PS02 als Lampen-Spannungsversorgung verwenden, montieren Sie den Ferritklemmkern an der Steckbuchenseite des Schnittstellenkabels. Für den Vorgang siehe „2.4.5 Anschließen des Netzkabels an den Projektor“ (Seite 81).

2.3 Connecting the Power Cable

Connect the power cables of the lamp power supply and the projector.

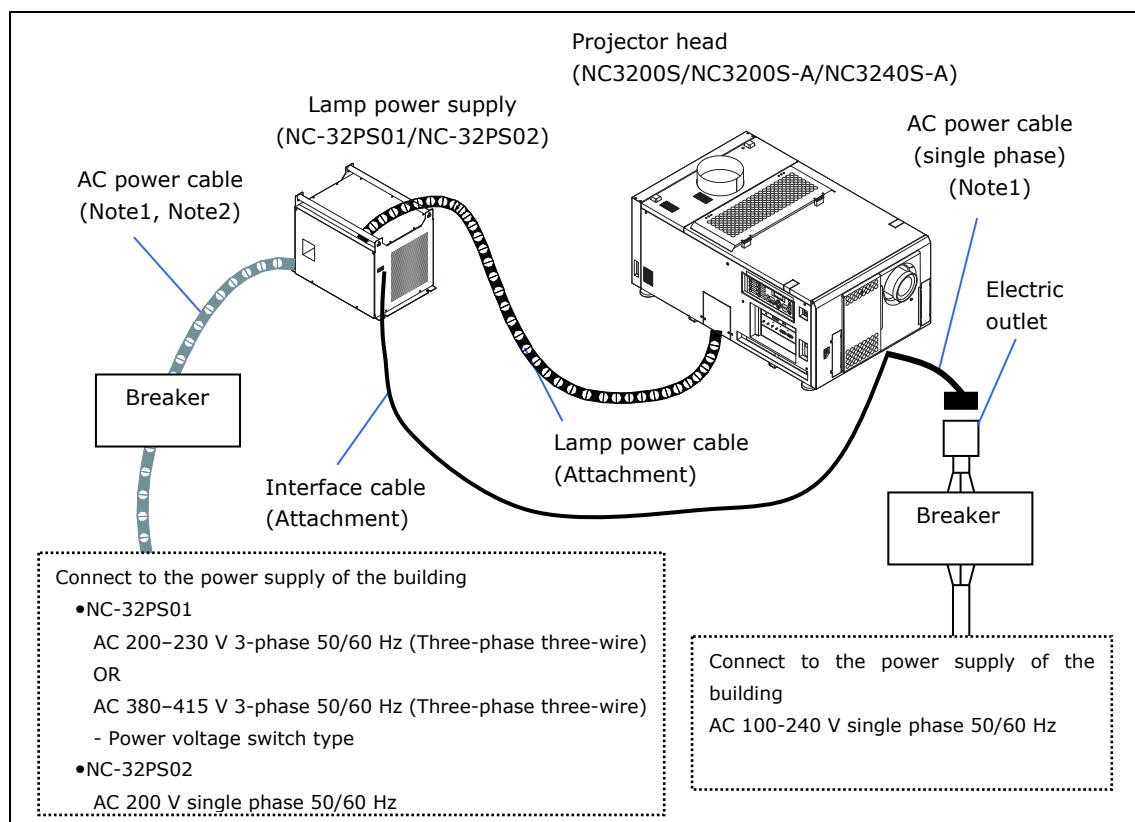


- Carefully read the contents described in this section before connection and connect the cables according to the proper procedure. Inappropriate handling may cause fatal, serious or other bodily injuries due to fire or electric shock.



- Before connecting the power cables, check that the main power switches of the projector and the lamp power supply are turned off. Implement the connection with AC power shut off.
- Entrust a specialist to carry out the power supply work from the power supply equipment of the building to the place of projector installation.
- Be sure to ground the equipment to ensure safety. To avoid electric shock, request a professional to carry out the grounding and related works. Make sure to ground the equipment before supply of the AC power.

Schematic diagram of connection



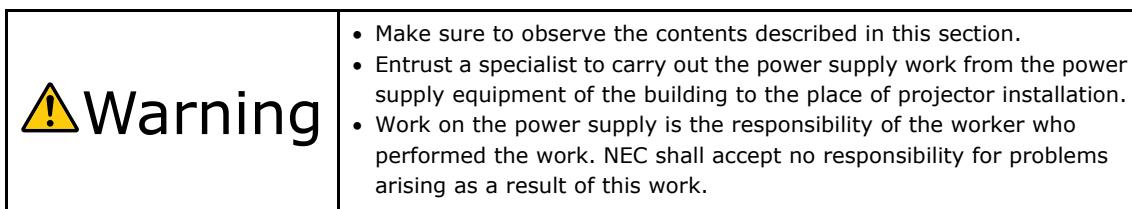
Note1: NC-32PS01 is 3-phase, and NC-32PS02 is single phase.

Note2: The AC power cable is not attached as an accessory.

Consult with your dealer/distributor for the cable.

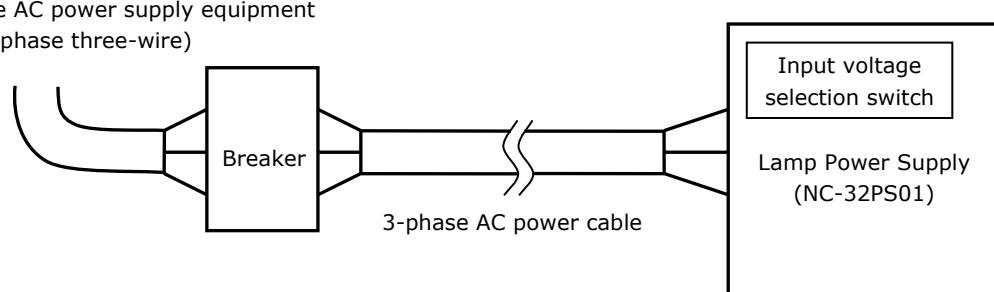
2.3.1 Lamp AC Power Supply Installation Specifications

The NC3200S series or the NC3240S series requires an AC power supply for the projector main unit and an AC power supply for the lamp power supply. This section describes the work for the AC power supply for the lamp power supply.



When using NC-32PS01

3-phase AC power supply equipment
(Three-phase three-wire)



3-phase AC power supply equipment

- Do not use any voltage other than those shown below for the AC power supply connected to the lamp power supply (NC-32PS01).

200 V AC to 230 V	AC 3 phase power of 50/60 Hz or
380 V AC to 415 V	AC 3 phase power of 50/60 Hz

- 3-phase AC power should be supplied from the three-phase three-wire power supply equipment to the NC-32PS01.

Note that it is not necessary to connect neutral lines in this machine

Breaker

Connect the AC power supply from the 3-phase power supply equipment of the building to the lamp power supply (NC-32PS01) via a breaker. Determine the breaker capacity depending on the voltage of the AC power supply used.

The breaker capacity will be as follows depending on the power supply voltage.

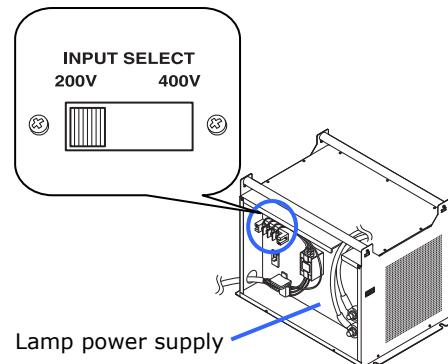
AC power supply voltage used	Breaker current capacity
200-230V	40 A or more
380-415V	20 A or more

Input voltage selection switch

- Set the input voltage selection switch for the lamp power supply corresponding to the voltage of the AC power supply used. Set it as follows:

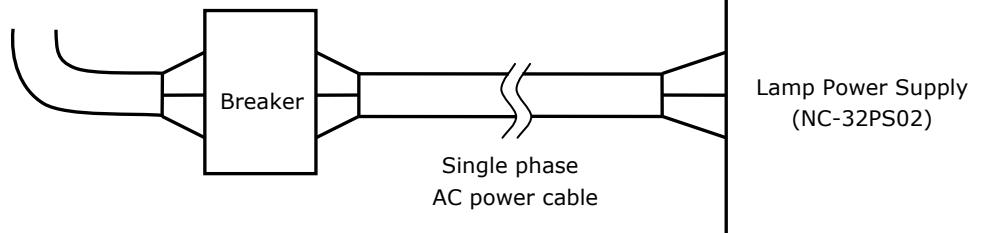
AC power supply voltage used	Switch setting
200-230V	200 V
380-415V	400 V

The factory default setting is 400 V.



When using NC-32PS02

Single phase AC power supply equipment



Single phase AC power supply equipment

- Do not use any voltage other than those shown below for the AC power supply connected to the lamp power supply (NC-32PS02).

200 V AC to 240 V AC single phase power of 50/60 Hz

Breaker

Connect the AC power supply from the AC power supply equipment of the building to the lamp power supply (NC-32PS02) via a breaker. Determine the breaker capacity depending on the voltage of the AC power supply used.

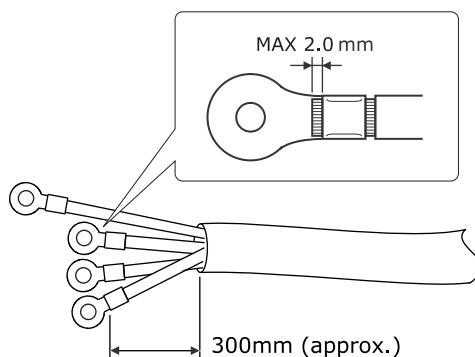
The breaker capacity will be as follows depending on the power supply voltage.

AC power supply voltage used	Breaker current capacity
200-240V	40 A

Common Items

AC Power Supply Cable

- Use a cable having a thickness of 8 AWG or 6 AWG and with a core wire made of copper.
- Use a round type UL-listed solderless terminal for the section connected to the lamp power supply. In addition, when clamping this terminal with the cable, use an UL listed tool.
- Refer to "Compatible Cables and Solderless Terminals" on the following page for details on the solderless terminals to use.
- When crimping a solderless terminal onto the cable, ensure that the amount of exposed wire protruding from the crimped area is a maximum of 2.0 mm.
- Cut off approximately 300 mm of the outer cladding of the power cable from the area of the solderless terminals, and leave the wires separated.



Compatible Cables and Solderless Terminals

The specifications of the cable mounting terminals of the lamp power supply are as follows:
The following diagram shows the terminal block for the AC power cable.



Power terminals: Black

Ground terminals: Green/Yellow

Solderless terminals and screw fastening torques compatible with the terminal block are specified below.

Use the cable and solderless terminal that is suitable for the specific type of terminal block as shown in the following table.

This specifies the model name of the recommended solderless terminals. Use these parts or equivalent parts. If you are unable to use the recommended solderless terminals, ensure that you use terminals of the dimensions shown in the following diagram.

Warning	<ul style="list-style-type: none"> Always use solderless terminals with the dimensions as shown in the following diagram. The use of parts with dimensions other than as designated creates a risk of the AC power supply unit short circuiting due to the terminal block generating heat and melting because the terminal block of the lamp power supply cannot be attached correctly.
----------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Power terminal (Black)

	JIS	IEC/EN	UL	CSA
Thickness of compatible wiring (using solderless terminal)	14 mm ²	14 mm ²	AWG6 or AWG8	AWG6 or AWG8
Solderless terminal dimensions	M5 x 10			
Tightening torque	2.0 ~ 2.5 Nm			
Solderless terminal dimensions		 Unit: mm		
Solderless terminal recommended part (J.S.T parts)	Model R8-5		When using AWG6: Model R14-5 When using AWG8: Model R8-5	

J.S.T: J.S.T. Manufacturing Co. Ltd.

Grounding terminal (Green/yellow)

	JIS	IEC/EN	UL	CSA
Thickness of compatible wiring (using solderless terminal)	14 mm ²	14 mm ²	AWG6 or AWG8	AWG6 or AWG8
Solderless terminal dimensions	M6 x 15			
Tightening torque	3.5 ~ 5.0 Nm			
Solderless terminal dimensions		 Unit: mm		
Solderless terminal recommended part (J.S.T parts)	Model 8-8NS		When using AWG6: Model R14-6 When using AWG8: Model 8-8NS	

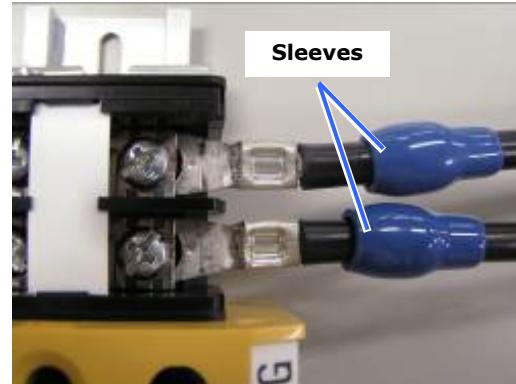
J.S.T: J.S.T. Manufacturing Co. Ltd.

Connecting the cable

In order to attach the power cable to the connector block, connect the wires using the following procedure such that the individual wires cannot directly touch each other.

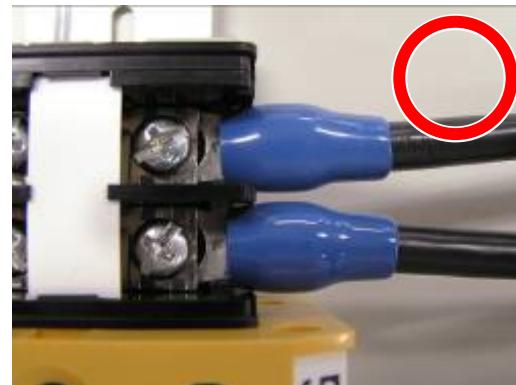
- [1]** Remove the power cable sleeves from the terminals to ensure that the sleeves are not pinched by the terminal attachment screw.

Pull back the sleeves from the terminal area before fastening the screw to prevent the sleeves from being pinched.

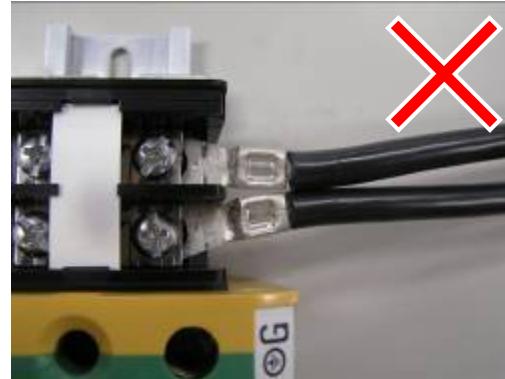


- [2]** Attach the sleeves after tightening the screw.

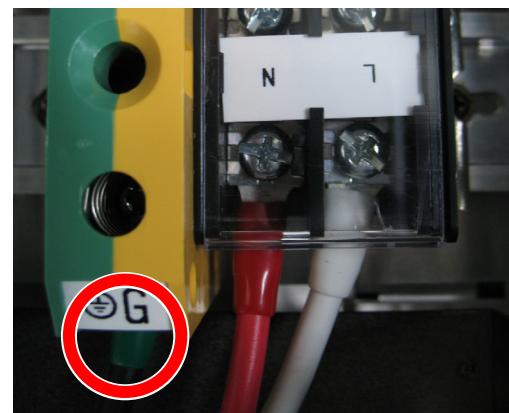
Tighten the fixing screw to the designated torque.



Use sleeves and secure the insulation to ensure that terminals do not touch each other. If the cables are attached to the power supply terminal without using sleeves, there is a risk of the terminals touching each other as shown in the photograph on the right.



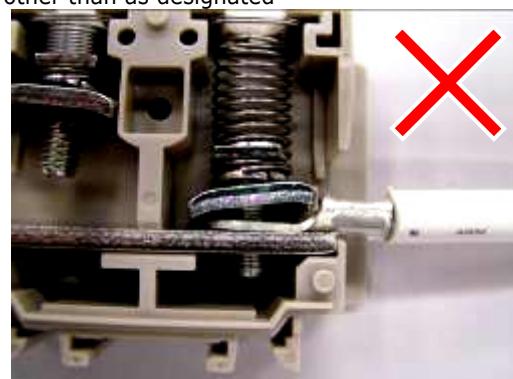
When connecting the cables to the ground terminal block, ensure that parts other than the solderless terminal (such as cable wires and fittings) are not pinched within the terminal fastening area.



When correctly fastened

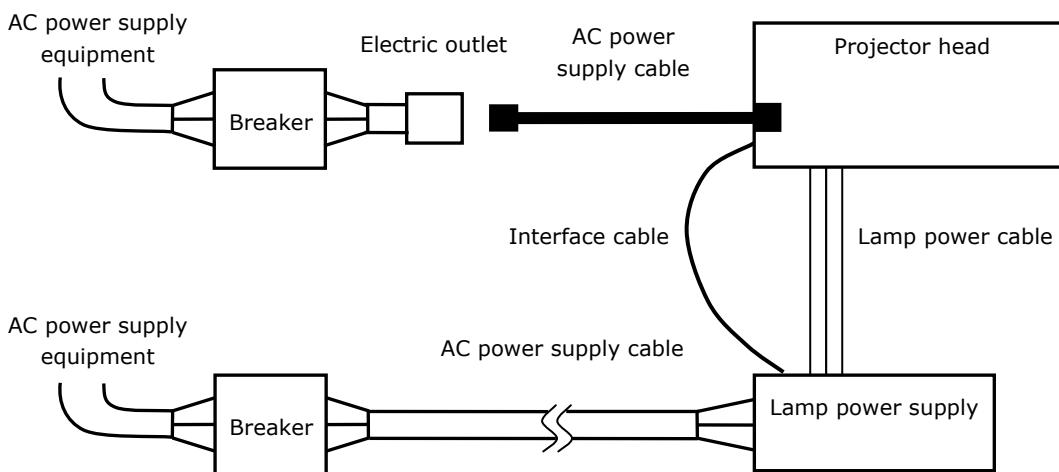
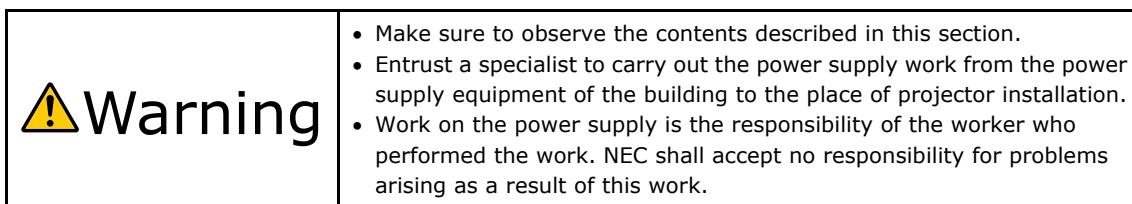


When the cable wire has become pinched due to using a solderless terminal with dimensions other than as designated



2.3.2 Projector AC Power Supply Installation Specifications

The NC3200S series or the NC3240S series requires an AC power supply for the projector main unit and an AC power supply for the lamp power supply. This section describes the work for the AC power supply for the projector main unit.



Install the electric outlet nearby the projector main unit so that the power supply can be cut by unplugging the AC power cord.

AC power supply equipment

Do not use any voltage other than those shown below for the AC power supply connected to the projector head.

100 V AC to 240 V AC, single phase, power, 50/60 Hz

Breaker

Connect the AC power supply from the power supply equipment of the building to the projector head via a breaker. The breaker capacity will be as follows depending on the power supply voltage.

AC power supply voltage used	Breaker current capacity
100-240V	10 A

AC power supply cable for the projector

The projector is equipped with an IEC60320-1 C14 connector to connect an AC power supply cable. Ensure that the AC power cables that connect the connectors built into the projector to the AC power mains have the current capacities as shown below.

Power supply voltage	Projector power current	Power cable current capacity
AC 100-120 V	10 A	12.5 A or more
AC 200-240 V	5 A	6.5 A or more

Furthermore, use plugs, cables, and connectors that are suitable for the regulations of the country of installation, as shown in the following table.

Note

- For users in North America
Use a power cable no longer than 4.5m/14.76 ft according to National Electrical Code.


Germany

Plug	Cable	Connector	Cable set
CEE 7	H05VV-F 3 x 1 mm ² 	IEC60320-1 (Form: C13) 	-

USA

Plug	Cable	Connector	Cable set
NEMA 5-15P	SJT AWG 16 	UL817 	-

Japan

Plug	Cable	Connector	Cable set
JIS C 8303	HVCTF 3 x 1.25 mm ² 	IEC60320-1 (Form: C13) 	-

China

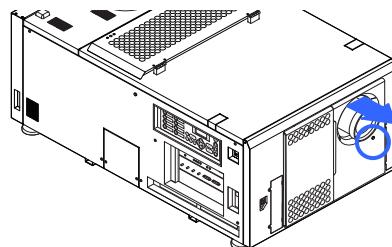
Plug	Cable	Connector	Cable set
GB2099.1	227IEC53(RVV)-300/500	GB17465.1	GB15934

2.3.3 Removing the Covers of the Projector and LPS

To connect the power cable, remove the covers of the projector and the lamp power supply (LPS).

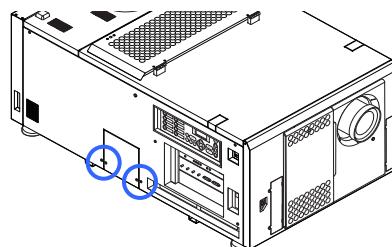
[1] Remove the front cover of the projector.

- <1> Unlock the front cover locks using the cover key.
- <2> Remove the cover by rotating it towards you and lifting it up.



[2] Remove the lamp power supply connector cover.

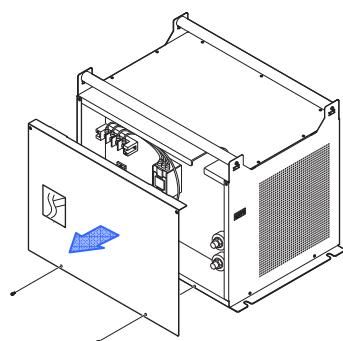
- <1> Remove 2 fixing screws.
Take care not to lose removed screws.
- <2> Remove the cover.



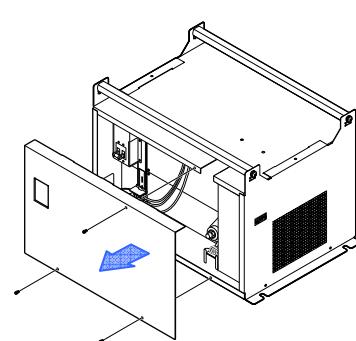
[3] Remove the cover of the lamp power supply.

NC-32PS01: Cover mounting screws are used at 2 places.

NC-32PS02: Cover mounting screws are used at 3 places.



NC-32PS01 (2 places)



NC-32PS02 (3 places)

2.3.4 Connecting the AC Power Cable to the LPS

Entrust a specialist to carry out the AC power supply work from the power supply equipment of the building to the place of projector installation.

This document describes the connection procedure for the lamp power supply (LPS) assuming that the AC power supply construction has been completed.



- Before connecting the AC power cable to the lamp power supply, check that the supply of the AC power is shut off. If not, it may cause fire or electric shock.

- [1]** Remove the terminal cover at the top of the AC power supply connecting terminal of the lamp power supply.

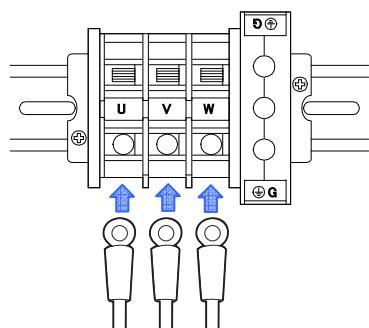


- [2]** Insert live wires of the AC power cable into the connection terminal and fix them with screws.

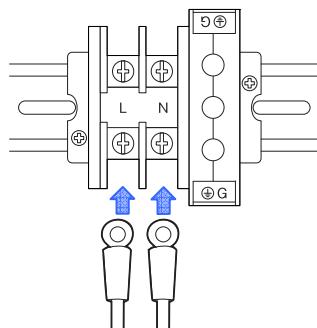
Insert the solderless terminal into the fixing hole of the connecting terminal and tighten the screw with a Phillips-head type screwdriver.

When using NC-32PS02 and the neutral phase is wired from the power supply equipment, wrap the cable end such as insulation tape, so that it does not contact the live section. It is not necessary to connect the neutral phase, because this phase is not used in this machine.

NC-32PS01

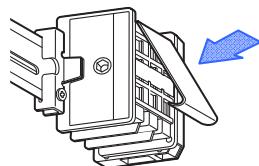


NC-32PS02



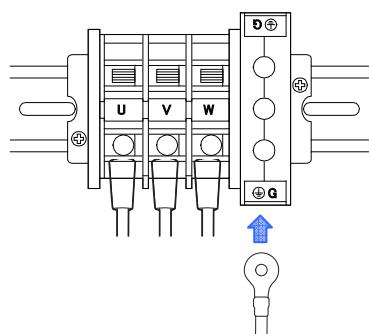
- Securely fix the AC power cable to the connecting terminals using screws. After screw fixing, check that all power cables are securely fixed with screws. If they are not securely fixed, it may cause death, serious wound or other bodily injuries.

- [3] Mount the terminal cover to the AC power supply connection terminal.

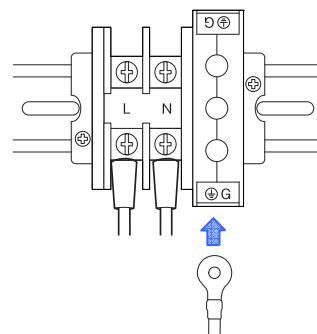


- [4] Insert the grounding cable into the connection terminal and fix it with screws.

NC-32PS01



NC-32PS02



⚠️ Warning

- Securely fix the grounding cable to the connecting terminal with screws. After screw fixing, check that the cable is securely fixed with screws. If it is not securely fixed, it may cause death, serious wound or other bodily injuries.

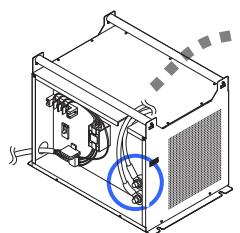
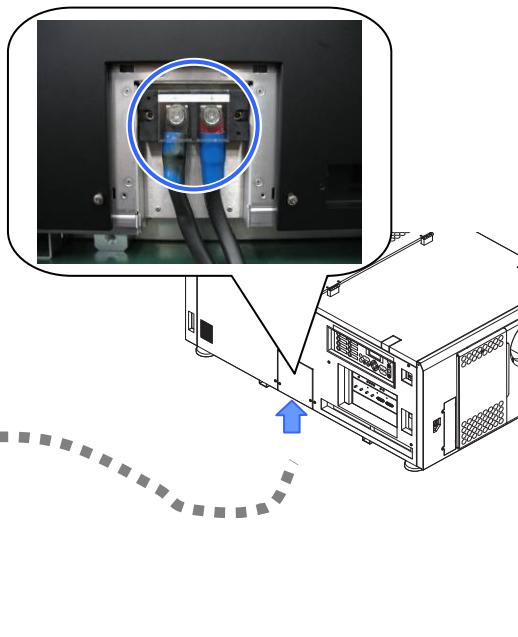
[5] Connect the lamp power supply cable to the LPS and the projector.

Connect the included lamp power supply cable to the lamp power supply connector.

Connect the positive (+) side (the cable wrapped in red tape) to the positive (+) terminal and the negative (-) side to the negative (-) terminal.

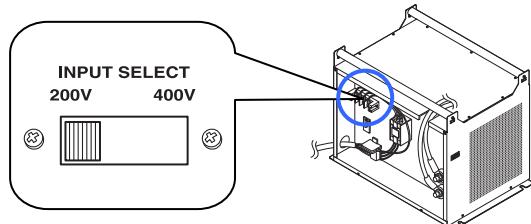
In case the pedestal (NC-PD02) is used, the cable inlets (cable inlets on installation base side and on the projector side) may be shifted depending on the tilting angle.

Pay attention to the wiring.



[6] (NC-32PS01 ONLY)
Check the setting of the input power selection switch.

Check that the switch is properly set to the voltage of the AC power supply used.

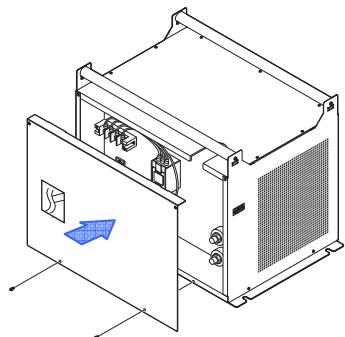


- Make sure to check that the input power supply selection switch of the lamp power supply is set properly. Improper setting would cause a failure of the lamp power supply.

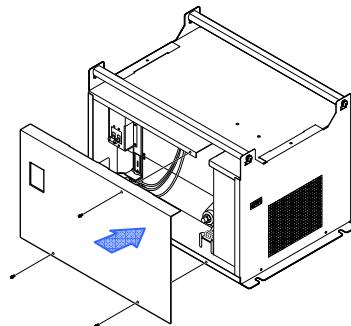
[7] Mount the cover of the lamp power supply.

NC-32PS01: Cover mounting screws are used at 2 places.

NC-32PS02: Cover mounting screws are used at 3 places.



NC-32PS01 (2 places)



NC-32PS02 (3 places)

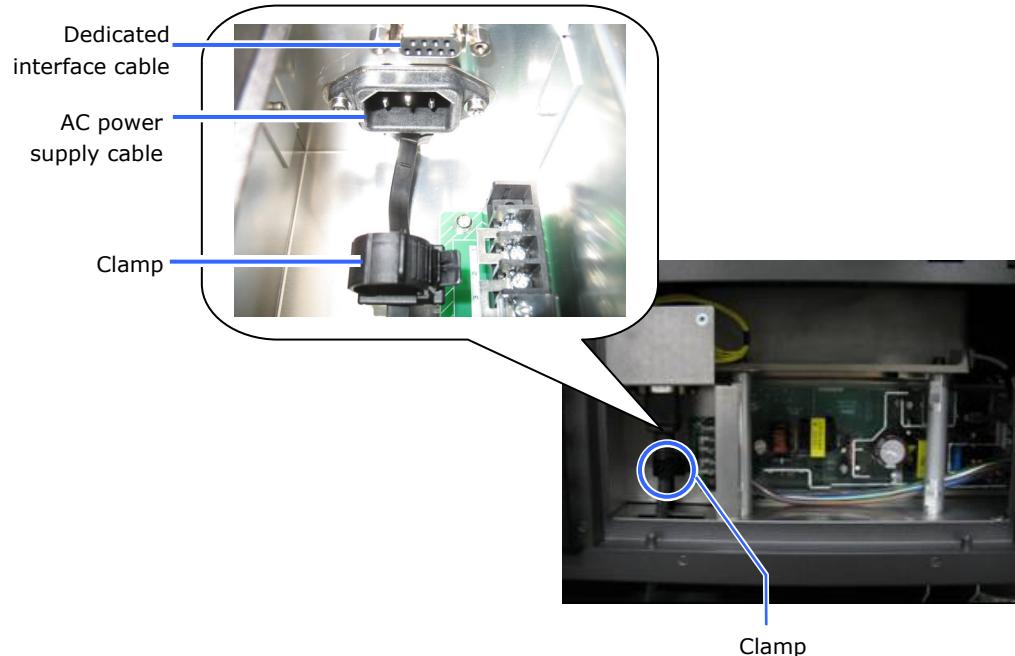
This completes the connection of the lamp power supply cable. Next, connect the power supply cable of the projector (Here, keep the covers of the projector removed).

2.3.5 Connecting the AC Power Supply Cable to the Projector

[1] Connect the AC power supply cable.

Connect the AC power supply cable (for the power supply for the projector) to the projector through the cabling hole on the bottom of the projector.

When connected, fasten the AC power supply cable with a clamp.

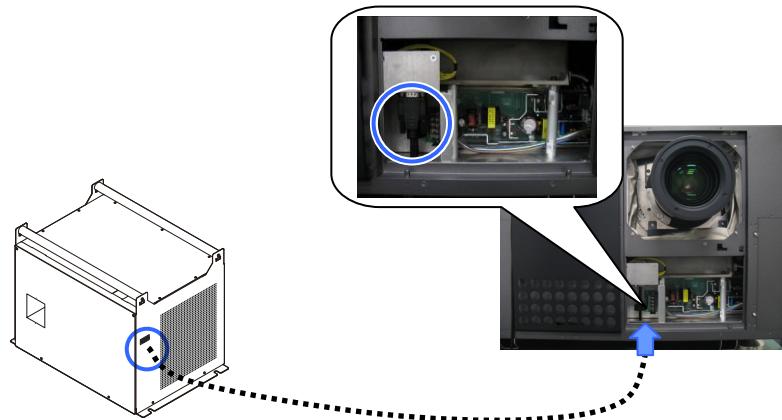


[2] Mount the ferrite clamp core near the female connector of the dedicated interface cable.

Mount the ferrite clamp core to female connector as near as possible. Also, wind the cable to ferrite clamp core once as shown below, when mounting the cable to the ferrite clamp core.



- [3]** Connect the dedicated interface cable to the projector and the lamp power supply.



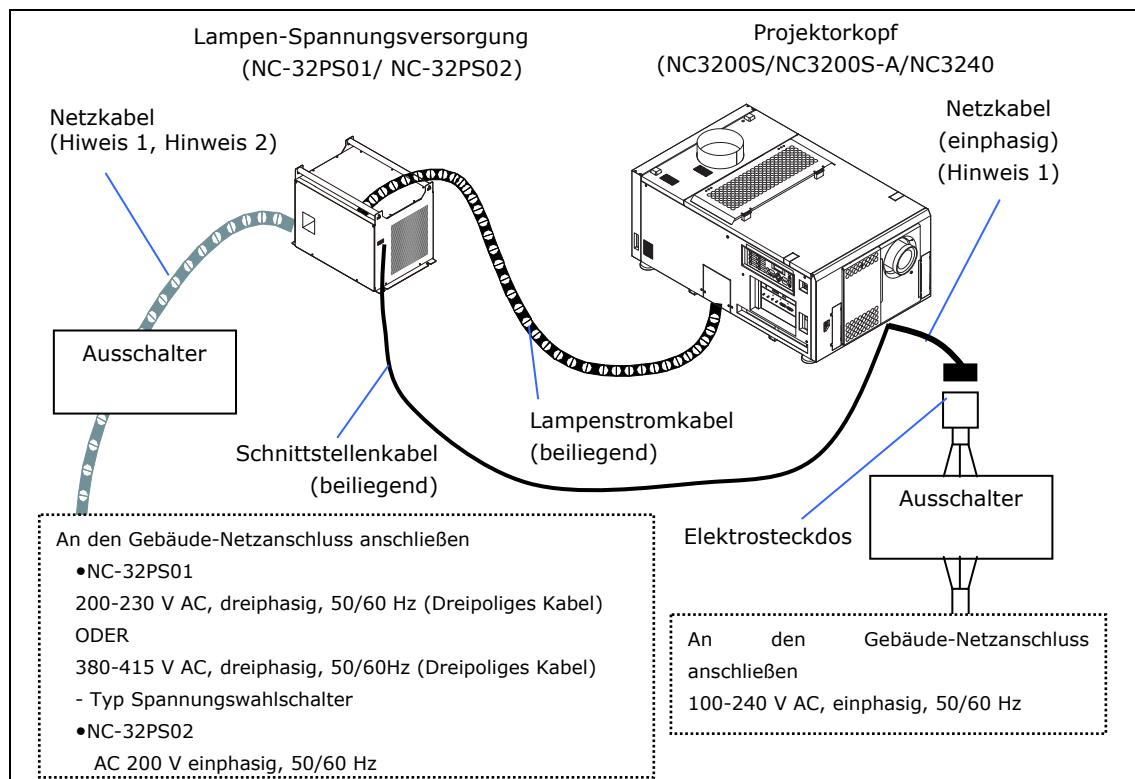
This completes the connection of the AC power supply cable. Next, mount a primary lens (Keep the front cover (bottom) of the projector removed here).

2.4 Anschließen des Stromkabels

Schließen Sie die Stromkabel der Lampen-Spannungsversorgung und des Projektors an.

 Warnung	<ul style="list-style-type: none"> Lesen Sie diesen Abschnitt vor dem Herstellen der Verbindungen sorgfältig durch, und schließen Sie die Kabel anhand der ordnungsgemäßen Verfahren an. Falsche Handhabung kann zu schweren oder sogar tödlichen Verletzungen durch Brand oder einen elektrischen Schlag führen.
 Achtung	<ul style="list-style-type: none"> Bevor Sie die Stromkabel anschließen, prüfen Sie, ob die Hauptstromschalter des Projektors und der Lampen-Spannungsversorgung ausgeschaltet sind. Stellen Sie die Verbindungen bei ausgeschaltetem Netzstrom her. Beauftragen Sie einen Fachmann mit der Installation die Stromzufuhr von der Stromversorgungsanlage des Gebäudes zum Aufstellort des Projektors. Erden Sie das Gerät, um die Sicherheit zu gewährleisten. Um elektrische Schläge zu vermeiden beauftragen Sie einen Fachmann mit der Erdung und den damit verbundenen Arbeiten. <p>Stellen Sie sicher, dass das Gerät geerdet ist, bevor Sie Strom zuführen.</p>

Verbindungsschema



Hinweis 1: NC-32PS01 ist dreiphasig und NC-32PS02 ist einphasig.

Hinweis 2: Das Netzkabel ist nicht als Zubehör beigelegt.

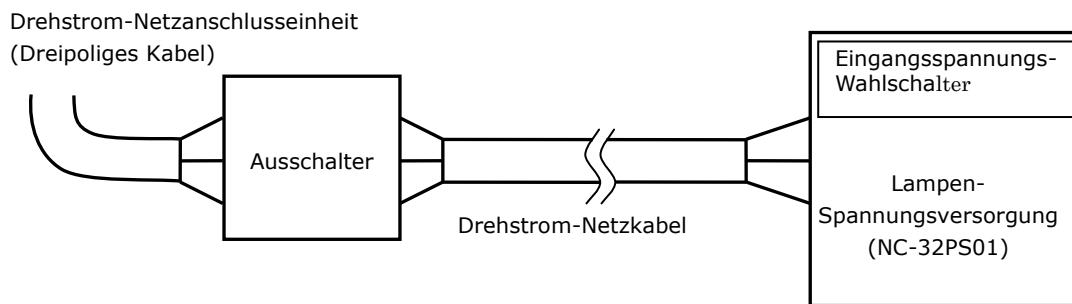
Ein Kabel können Sie bei Ihrem Händler/Lieferanten erwerben.

2.4.1 Installationsanweisungen für die Lampen-Spannungsversorgung

Die NC3200S-Serie oder die NC3240S-Serie braucht eine Wechselstromzufuhr für die Hauptgruppe des Projektors und eine Wechselstromzufuhr für die Lampe. In diesem Kapitel finden Sie eine Beschreibung der Wechselstromzufuhr für die Hauptgruppe des Projektors.

 Warnung	<ul style="list-style-type: none"> • Beachten Sie die Angaben in diesem Abschnitt. • Lassen Sie die Spannungsversorgungsarbeiten von der Netzanschlusseinheit des Gebäudes bis zum Ort der Projektorinstallation von einem Fachmann durchführen. • Die Arbeiten an der Spannungsversorgung liegen in der Verantwortung des ausführenden Arbeiters. NEC übernimmt keine Verantwortung für Probleme, die aufgrund dieser Arbeiten entstehen.
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Bei der Nutzung von NC-32PS01



Drehstrom-Netzanschlusseinheit

- Verwenden Sie für die Netzspannungsversorgung, die an die Lampen-Spannungsversorgung angeschlossen ist, nur die unten angegebene Spannung.

200 bis 230 V Wechselstrom 50/60 Hz dreiphasig oder
380 bis 415 V Wechselstrom 50/60 Hz dreiphasig

- Dreiphasiger Wechselstrom sollte von der dreipoliges Kabel Netzanschlusseinheit an die Lampen-Spannungsversorgung zugeführt werden.

Hinweis: Es ist nicht notwendig, an diesem Gerät Neutralleitungen anzuschließen.

Ausschalter

Schließen Sie die Netzspannungsversorgung von der Drehstrom-Netzanschlusseinheit des Gebäudes über einen Ausschalter an die Lampen-Spannungsversorgung an. Bestimmen Sie die Ausschalterleistung abhängig von der Spannung der verwendeten Netzspannungsversorgung. Die Ausschalterleistung hat abhängig von der Versorgungsspannung folgende Werte.

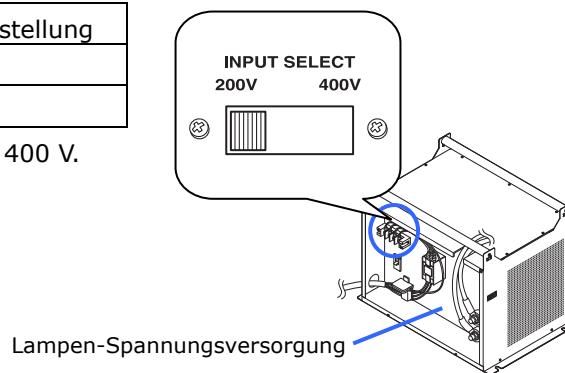
Verwendete Netzspannung	Ausschalterleistung
200–230 V	40 A oder mehr
380–415 V	20 A oder mehr

Eingangsspannungs-Wahlschalter

- Stellen Sie den Eingangsspannungs-Wahlschalter für die Lampen-Spannungsversorgung entsprechend der Spannung der verwendeten Netzanschlusseinheit ein. Nehmen Sie folgende Einstellung vor:

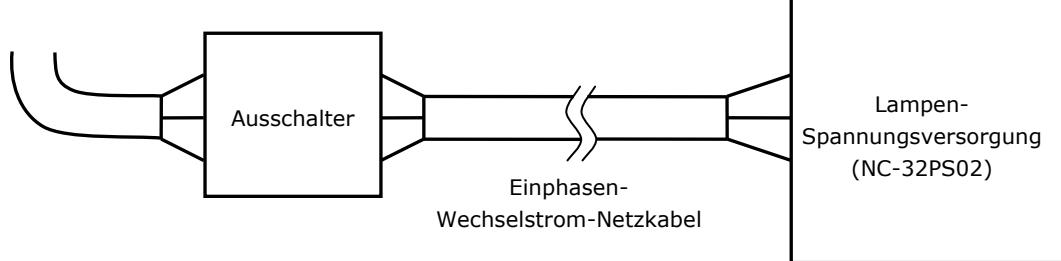
Verwendete Netzspannung	Schalttereinstellung
200–230 V	200 V
380–415 V	400 V

Die werkseitige Standardeinstellung beträgt 400 V.



Bei der Nutzung von NC-32PS02

Einphasen-Wechselstrom-Zufuhreinheit



Einphasen-Wechselstrom-Zufuhreinheit

- Verwenden Sie für die Netzspannungsversorgung, die an die Lampen-Spannungsversorgung (NC-32PS02) angeschlossen ist, nur die unten angegebene Spannung.

200 V AC to 240 V AC, einphasig, 50/60 Hz

Ausschalter

Schließen Sie die Netzspannungsversorgung von der Drehstrom-Netzanschlusseinheit des Gebäudes über einen Ausschalter an die Lampen-Spannungsversorgung (NC-32PS02) an. Bestimmen Sie die Ausschalterleistung abhängig von der Spannung der verwendeten Netzspannungsversorgung.

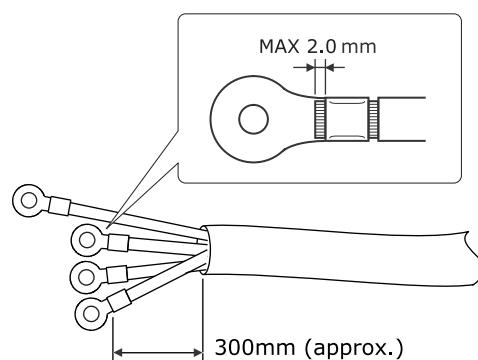
Die Ausschalterleistung hat abhängig von der Versorgungsspannung folgende Werte.

Verwendete Netzspannung	Ausschalterleistung
200-240 V	40 A

Gemeinsame Elemente

Drehstrom-Netzkabel

- Verwenden Sie ein Kabel mit einer Stärke von 8 AWG oder 6 AWG und mit einer Kernader aus Kupfer.
- Verwenden Sie einen runden UL-gelisteten Quetschkabelschuh für die an die Lampen-Spannungsversorgung angeschlossene Kabelstärke. Verwenden Sie darüber hinaus zum Quetschen dieses Kabelschuhs an das Kabel ein UL-gelistetes Werkzeug.
- Nähere Informationen zu den zu verwendenden Quetschkabelschuhen finden Sie unter „Kompatible Kabel und Quetschkabelschuhe“ auf der folgenden Seite.
- Wenn Sie einen Quetschkabelschuh an ein Kabel quetschen, sorgen Sie dafür, dass maximal 2,0 mm freigelegter Draht aus dem Quetschbereich ragt.
- Schneiden Sie ca. 300 mm der Außenhülle des Netzkabels vom Bereich der Quetschkabelschuhe ab, und halten Sie die Drähte getrennt.



Kompatible Kabel und Quetschkabelschuhe

Die technischen Daten der Leitungsmontageanschlüsse der Lampen-Spannungsversorgung lauten wie folgt:

Das folgende Diagramm zeigt die Anschlussklemme für das Netzkabel.



Stromanschlüsse: Schwarz

Masseanschlüsse: Grün/Gelb

Kompatible Quetschklemmen und Schraubenanzugsmomente für die Anschlussklemme sind unten angegeben.

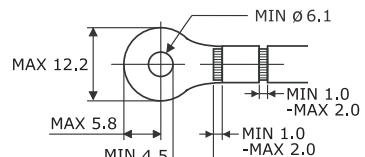
Verwenden Sie das Kabel und die lötfreie Anschlussklemme, die jeweils für den entsprechenden Klemmenblock geeignet sind (siehe folgende Tabelle).

In dieser Tabelle sind die Modellnamen der empfohlenen lötfreien Anschlussklemmen angegeben. Verwenden Sie die angegebenen oder gleichwertige Bauteile. Wenn Sie die empfohlenen lötfreien Anschlussklemmen nicht verwenden können, stellen Sie sicher, dass Sie Anschlussklemmen verwenden, deren Abmessungen den Angaben in der folgenden Tabelle entsprechen.

⚠ Warnung

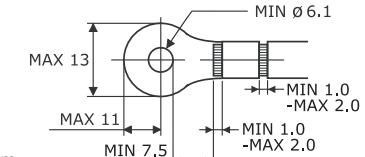
- Verwenden Sie immer lötfreie Anschlussklemmen, deren Abmessungen den Angaben in der folgenden Abbildung entsprechen.
- Die Verwendung von Bauteilen mit abweichenden Abmessungen birgt die Gefahr eines Kurzschlusses des Netzteils aufgrund von Hitzeentwicklung und Schmelzen des Klemmenblocks, da der Klemmenblock für die Stromversorgung der Lampe nicht ordnungsgemäß angebracht werden kann.

Netzklemme (Schwarz)

	JIS	IEC/EN	UL	CSA
Leiterquerschnitt kompatibler Kabel (bei Verwendung lötfreier Anschlussklemmen)	14 mm ²	14 mm ²	AWG6 oder AWG8	AWG6 oder AWG8
Abmessungen lötfreier Anschlussklemmen	M5 x 10			
Anzugsmoment	2,0 bis 2,5 Nm			
Abmessungen lötfreier Anschlussklemmen		 <p>Unit: mm</p>		
Empfohlene Modelle für lötfreie Anschlussklemmen (J.S.T-Teile)	Modell R8-5		Bei AWG6: Modell R14-5 Bei AWG8: Modell R8-5	

J.S.T: J.S.T. Manufacturing Co. Ltd.

Erdungsklemme (Grün/gelb)

	JIS	IEC/EN	UL	CSA
Leiterquerschnitt kompatibler Kabel (bei Verwendung lötfreier Anschlussklemmen)	14 mm ²	14 mm ²	AWG6 oder AWG8	AWG6 oder AWG8
Abmessungen lötfreier Anschlussklemmen	M6 x 15			
Anzugsmoment	3,5 bis 5,0 Nm			
Abmessungen lötfreier Anschlussklemmen		 <p>Unit: mm</p>		
Empfohlene Modelle für lötfreie Anschlussklemmen (J.S.T-Teile)	Modell 8-8NS		Bei AWG6: Modell R14-6 Bei AWG8: Modell 8-8NS	

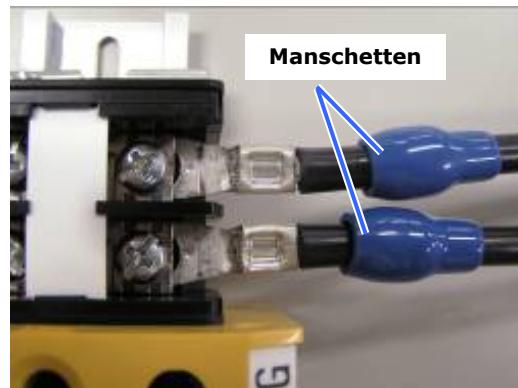
J.S.T: J.S.T. Manufacturing Co. Ltd.

Anschließen des Kabels

Schließen Sie zum Befestigen des Netzkabels am Klemmenblock die Drähte entsprechend den folgenden Anweisungen an, sodass sich die einzelnen Drähte nicht direkt berühren können.

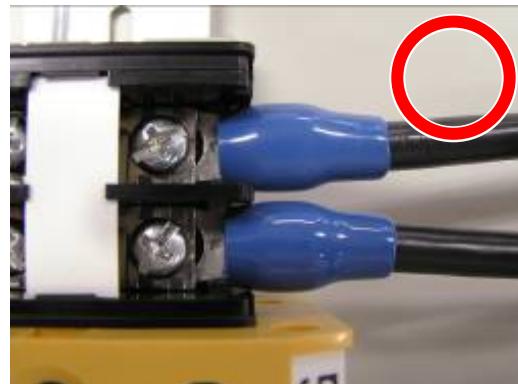
- [1]** Ziehen Sie die Kabelmanschetten der Netzkabel von den Anschlussklemmen zurück, um sicherzustellen, dass diese nicht von der Schraube der Anschlussklemme eingeklemmt werden.

Ziehen Sie die Kabelmanschette von der Anschlussklemme zurück, bevor Sie die Schraube anziehen, damit die Kabelmanschette nicht eingeklemmt wird.

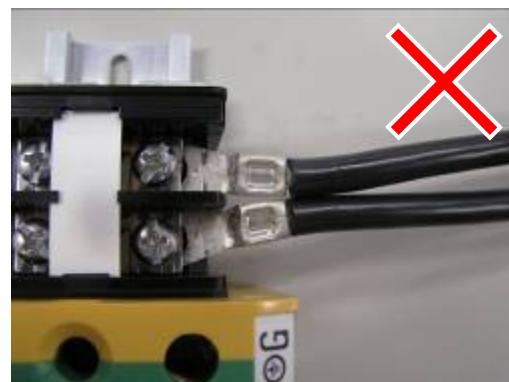


- [2]** Schieben Sie die Manschetten nach dem Anziehen der Schraube wieder an ihre richtige Position.

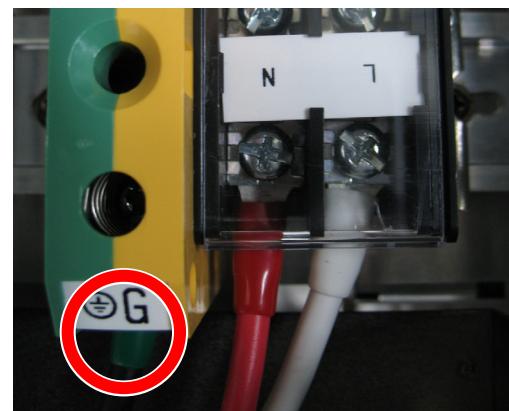
Ziehen Sie die Befestigungsschraube mit dem angegebenen Drehmoment an.



Verwenden Sie Kabelmanschetten und fixieren Sie das Isolationsmaterial, damit sich die Anschlussklemmen nicht berühren. Wenn die Kabel ohne Kabelmanschetten an der Netzklemme befestigt werden, besteht die Gefahr, dass sich die Anschlussklemmen wie in der Abbildung rechts berühren.



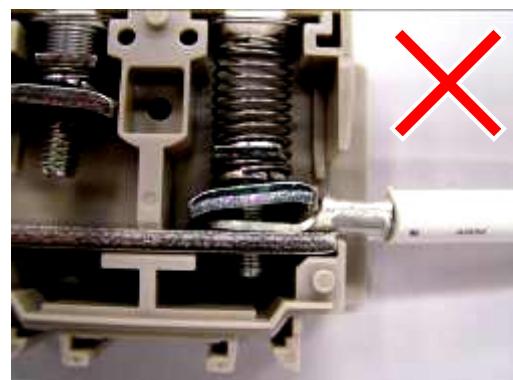
Achten Sie beim Anschließen der Kabel an die Masseanschlussklemme darauf, dass keine anderen Teile als der Quetschkabelschuh (z. B. Kabeladern und Verschraubungen) in der Klemmenbefestigung eingeklemmt werden.



Richtig befestigt

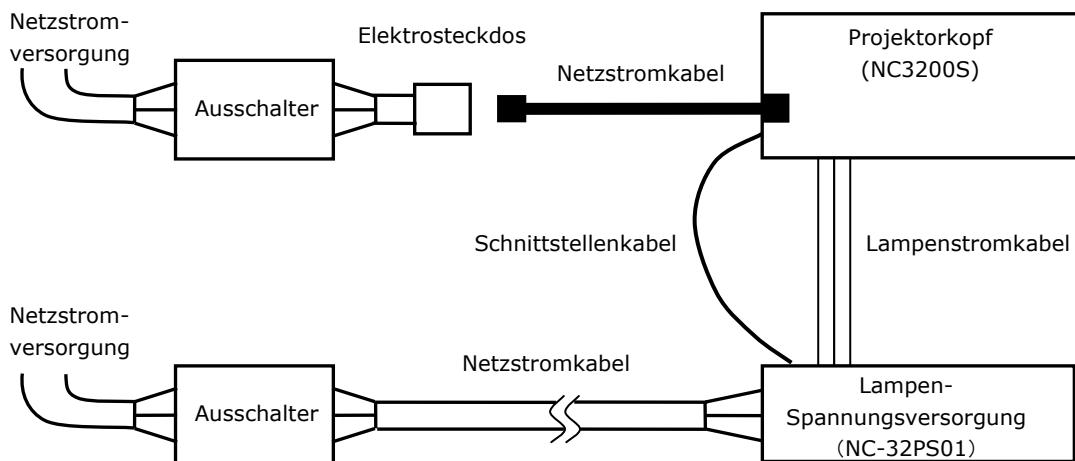
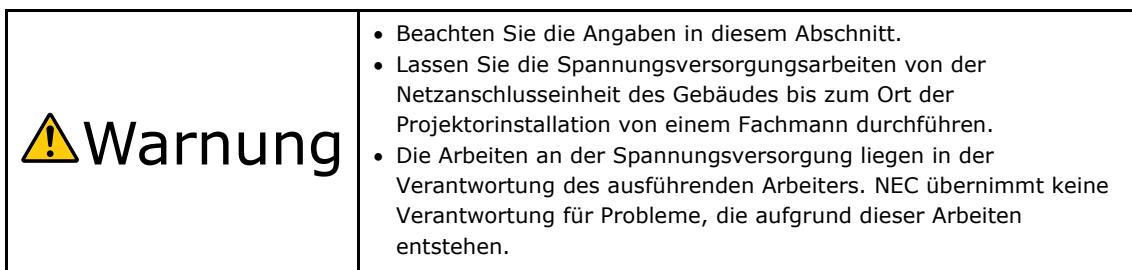


Kabeldraht ist verkantet, da eine lötfreie Anschlussklemme mit Abmessungen verwendet wurde, die nicht den Vorgaben entsprechen



2.4.2 Installationsanweisungen für die Projektor-Spannungsversorgung

Die NC3200S-Serie oder die NC3240S-Serie braucht eine Wechselstromzufuhr für die Hauptgruppe des Projektors und eine Wechselstromzufuhr für die Lampe. In diesem Kapitel finden Sie eine Beschreibung der Wechselstromzufuhr für die Hauptgruppe des Projektors.



Installieren Sie die Steckdose nahe beim Projektor, so dass Sie den Stromzufuhr unterbrechen können, indem Sie den Drehstromzufuhr unterbrechen.

Netzkabel

Verwenden Sie für die Netzspannungsversorgung, die an den Projektorkopf angeschlossen ist, nur die unten angegebene Spannung.

100 - 240 V AC, einphasig, 50/60 Hz

Ausschalter

Verbinden Sie das Netzkabel mit der Netzversorgung via einen Abschalter.

Die Ausschalterleistung hat abhängig von der Versorgungsspannung folgende Werte.

Verwendete Netzspannung	Ausschalterleistung
100-240 V	10 A

Netzkabel für den Projektor

Der Projektor ist mit einem C14-Steckverbinder gemäß IEC60320-1 zum Anschließen des Netzkabels ausgestattet. Sorgen Sie dafür, dass die Netzkabel, die von den Steckverbindern am Projektor zum Netzanschluss führen, über die unten angegebenen Stromkapazitäten verfügen.

Netzspannung	Netzstrom für den Projektor	Stromkapazität des Netzkabels
100–120 V AC	10 A	mind. 12,5 A
200–240 V AC	5 A	mind. 6,5 A

Verwenden Sie zudem Stecker, Kabel und Steckverbinder, die den Vorgaben des jeweiligen Landes entsprechen (siehe dazu folgende Tabelle).



Deutschland

Stecker	Kabel	Steckverbinder	Konfektioniertes Kabel
CEE 7	H05VV-F 3 x 1 mm ² 	IEC60320-1 (Form: C13) 	-

USA

Stecker	Kabel	Steckverbinder	Konfektioniertes Kabel
NEMA 5-15P	SJT AWG 16 	UL817 	-

Japan

Stecker	Kabel	Steckverbinder	Konfektioniertes Kabel
JIS C 8303	HVCTF 3 x 1,25mm ² 	IEC60320-1 (Form: C13) 	-

China

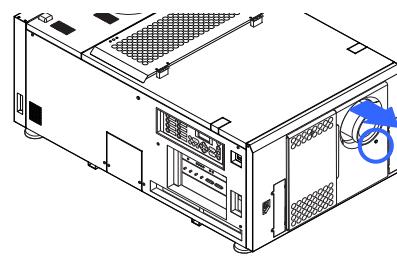
Stecker	Kabel	Steckverbinder	Konfektioniertes Kabel
GB2099.1	227IEC53(RVV)-300/500	GB17465.1	GB15934

2.4.3 Abnehmen der Abdeckungen des Projektors und der Lampen-Spannungsversorgung

Um das Stromkabel anzuschließen, nehmen Sie die Abdeckungen des Projektors und der Lampen-Spannungsversorgung ab.

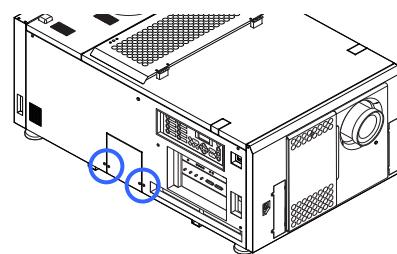
[1] Nehmen Sie die vordere Abdeckung des Projektors ab.

- <1> Entriegeln Sie die Verriegelungen der vorderen Abdeckung mit dem Abdeckungsschlüssel.
- <2> Nehmen Sie die Abdeckung ab, indem Sie sie zu sich hin drehen und anheben.



[2] Nehmen Sie die Abdeckung des Lampen-Spannungsversorgung-Steckverbinder ab.

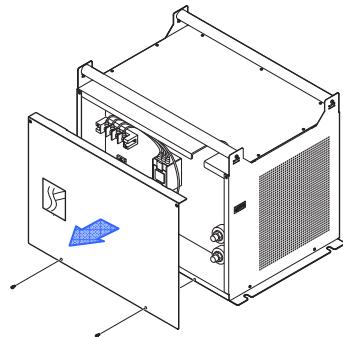
- <1> Entfernen Sie zwei Befestigungsschrauben. Bewahren Sie die Schrauben gut auf.
- <2> Nehmen Sie die Abdeckung ab.



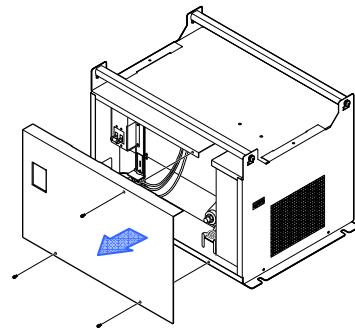
[3] Nehmen Sie die Abdeckung der Lampen-Spannungsversorgung ab.

NC-32PS01: An zwei Stellen der Abdeckung sind Befestigungsschrauben angebracht.

NC-32PS02: An drei Stellen der Abdeckung sind Befestigungsschrauben angebracht.



NC-32PS01 (2 Stellen)



NC-32PS02 (3 Stellen)

2.4.4 Anschließen des Wechselstrom-Netzkabels an die Lampen-Spannungsversorgung

Lassen Sie die Spannungsversorgungsarbeiten von der Netzanschlusseinheit des Gebäudes bis zum Ort der Projektorinstallation von einem Fachmann durchführen.

Dieses Dokument beschreibt den Anschlussvorgang für die Lampen-Spannungsversorgung (LSV), vorausgesetzt, die Netzspannungsversorgungsarbeiten wurden vorher abgeschlossen.



- Prüfen Sie vor dem Anschließen des Wechselstrom-Netzkabels an die Lampen-Spannungsversorgung, ob die Netzspannungsversorgung ausgeschaltet ist. Andernfalls kann es zu einem Brand oder einem elektrischen Schlag kommen.

- [1]** Nehmen Sie den Klemmendeckel an der Oberseite der Netzanschlussklemme der Lampen-Spannungsversorgung ab.

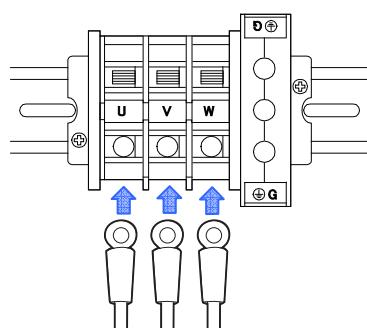


- [2]** Stecken Sie die spannungsführenden Leitungen des Netzkabels in die Anschlussklemme, und befestigen Sie sie mit Schrauben.

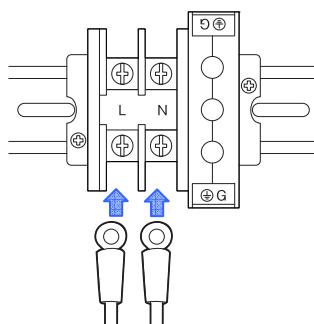
Stecken Sie den Quetschkabelschuh in die Befestigungsöffnung der Anschlussklemme und ziehen Sie die Schraube mit einem Kreuzschlitzschraubendreher fest.

Wenn Sie die NC-32PS02 verwenden und der Neutralleiter vom Spannungsversorgungsgerät angeschlossen ist, umwickeln Sie das Kabelende mit Isolierklebeband oder Ähnlichem, sodass es nicht mit den spannungsführenden Leitungen in Berührung kommt. Der Neutralleiter muss nicht angeschlossen werden, da er in diesem Gerät nicht verwendet wird.

NC-32PS01



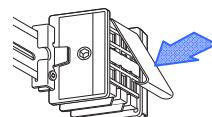
NC-32PS02



! Warnung

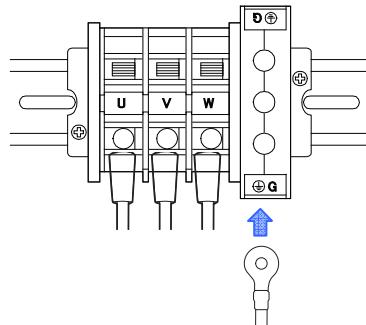
- Befestigen Sie das Wechselstrom-Netzkabel sicher mit Schrauben an den Anschlussklemmen. Prüfen Sie nach dem Festschrauben, ob alle Stromkabel sicher befestigt sind. Wenn sie nicht sicher befestigt sind, kann dies zu tödlichen Unfällen, schweren Verwundungen oder anderen Verletzungen führen.

- [3]** Bringen Sie den Klemmendeckel an der Netzanschlussklemme an.

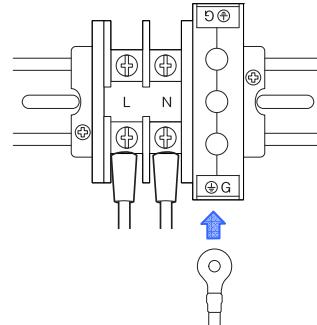


- [4]** Schieben Sie das Massekabel in die Anschlussklemme, und befestigen Sie es mit Schrauben.

NC-32PS01



NC-32PS02

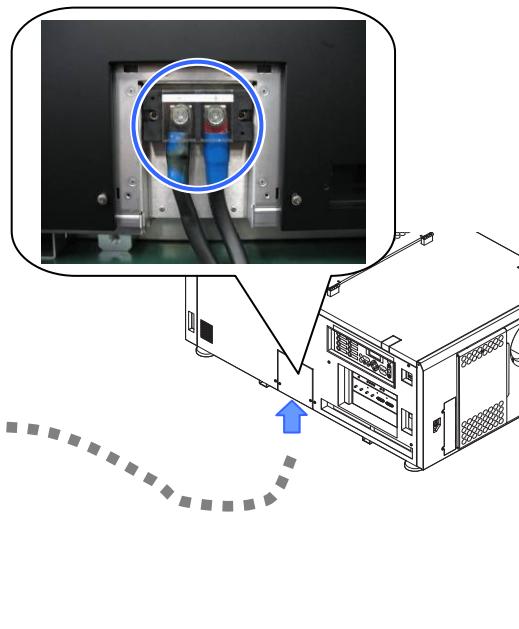


! Warnung

- Befestigen Sie das Massekabel mit Schrauben sicher an der Anschlussklemme. Prüfen Sie nach dem Festschrauben, ob das Kabel sicher befestigt ist. Wenn es nicht sicher befestigt ist, kann dies zu tödlichen Unfällen, schweren Verwundungen oder anderen Verletzungen führen.

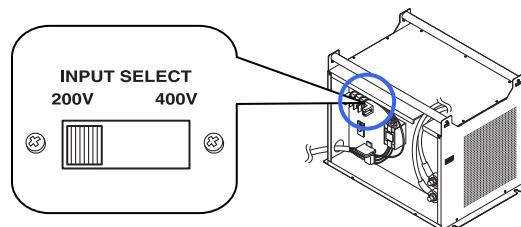
[5] Schließen Sie das Lampen-Stromkabel an die Lampen-Spannungsversorgung und den Projektor an.

Schließen Sie das beiliegende Lampenstromkabel an den Lampen-Spannungsversorgungs-Steckverbinder an. Verbinden Sie den positiven (+) Pol (das rot umwickelte Kabel) mit dem positiven (+) Pol und den negativen (-) Pol mit dem negativen (-) Pol.
Wenn der Fuß (NC-PD02) verwendet wird, können die Kabeleingänge (Kabeleingänge am Montagesockel und am Projektor) abhängig vom Neigungswinkel verschoben sein. Achten Sie auf die Verkabelung.



[6] (NUR NC-32PS01)
Überprüfen Sie die Einstellung des Eingangsspannungs-Wahlschalters.

Prüfen Sie, ob der Schalter ordnungsgemäß auf die Spannung der verwendeten Netzanschlusseinheit eingestellt ist.

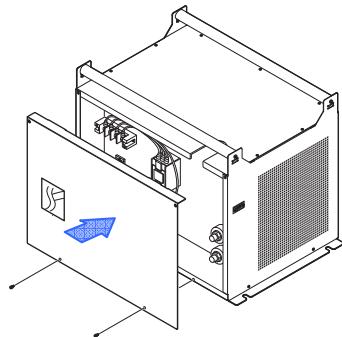


- Prüfen Sie, ob der Eingangsspannungs-Wahlschalter der Lampen-Spannungsversorgung richtig eingestellt ist. Eine falsche Einstellung kann zum Ausfall der Lampen-Spannungsversorgung führen.

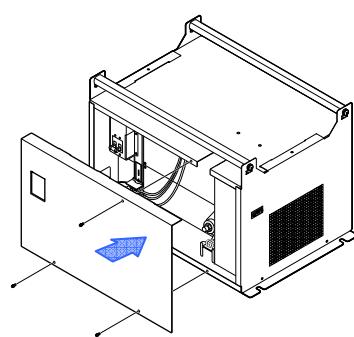
[7] Bringen Sie die Abdeckung der Lampen-Spannungsversorgung an.

NC-32PS01: An zwei Stellen der Abdeckung werden Befestigungsschrauben angebracht.

NC-32PS02: An drei Stellen der Abdeckung werden Befestigungsschrauben angebracht.



NC-32PS01 (2 Stellen)



NC-32PS02 (3 Stellen)

Dadurch ist der Anschluss des Lampen-Stromkabels abgeschlossen. Schließen Sie als nächstes das Stromkabel des Projektors an (nehmen Sie dazu die Abdeckungen des Projektors ab).

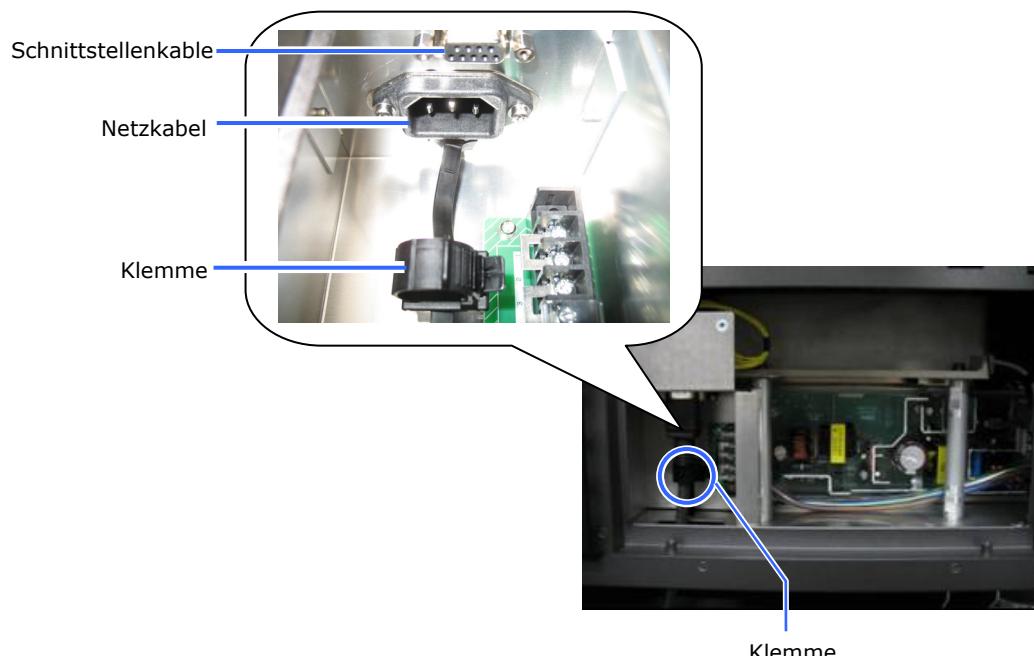
2.4.5 Anschließen des Netzkabels an den Projektor

[1] Schließen Sie das Netzkabel an.

Schließen Sie das Netzkabel (für die Spannungsversorgung des Projektors) über die Verkabelungsöffnung an der Unterseite des Projektors an den Projektor an.

Befestigen Sie das Netzkabel anschließend mit einer Klemme.

Wenn das Anschließen des Netzkabels schwierig ist, trennen Sie das Schnittstellenkabel ab, und schließen Sie erst das Netzkabel und dann das Schnittstellenkabel wieder an.

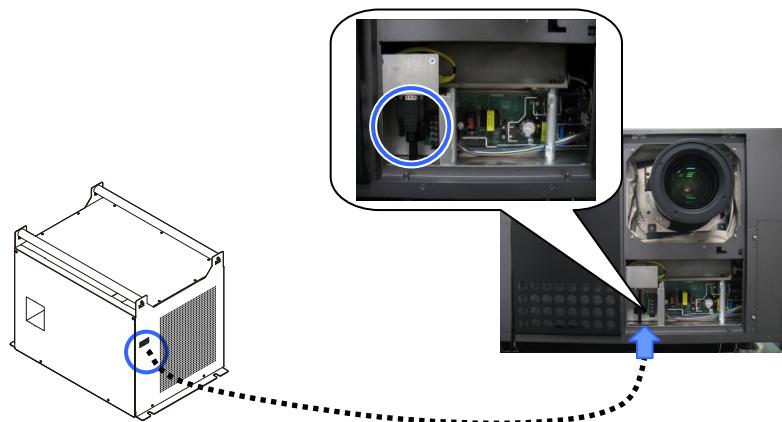


[2] Befestigen Sie den Ferritklemmkern in der Nähe der Steckbuchse des Schnittstellenkabels.

Befestigen Sie den Ferritklemmkern so nah wie möglich bei der Steckbuchse. Wickeln Sie das Kabel außerdem bei der Montage einmal wie unten abgebildet um den Ferritklemmkern.



- [3]** Schließen Sie das dafür vorgesehene Schnittstellenkabel an den Projektor und an die Lampen-Spannungsversorgung an.



Dadurch ist der Anschluss des Netzkabels abgeschlossen. Bringen Sie anschließend eine Primärlinse an (nehmen Sie dazu die vordere Abdeckung (unten) des Projektors ab).

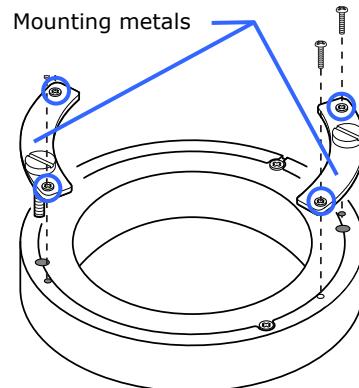
2.5 Mounting the Primary Lens

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.



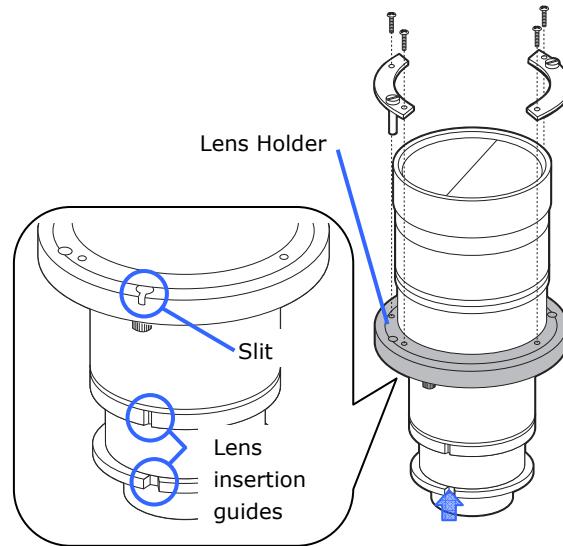
[2] Place the lens with the face upward.

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.

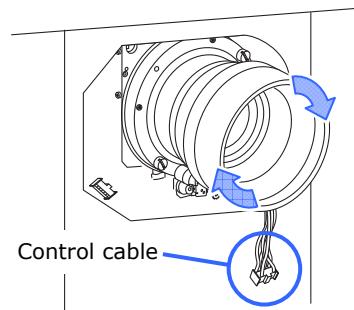
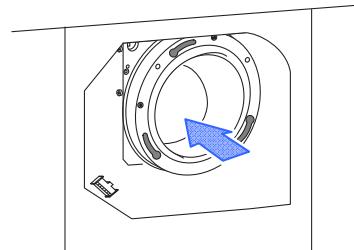
[5] Remove the lens cap.

If the lens has a lens cap, remove the lens cap here.

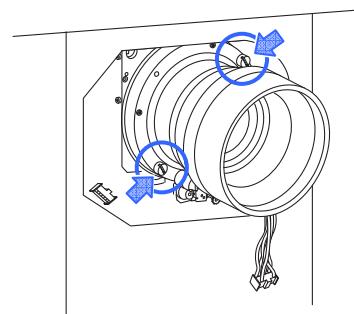
- [6]** Hold the lens unit with its guide notch faced upward and insert the lens until it cannot go further.

Insert the holder into the fixing hole of the lens ring and mount it with rotating it clockwise.

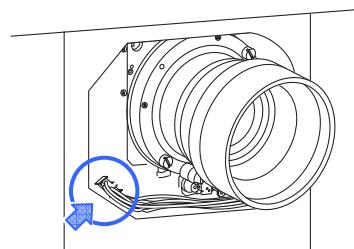
Pay attention not to catch the lens control cable here.



- [7]** Tighten the fixing screws (2 screws) for the lens holder.



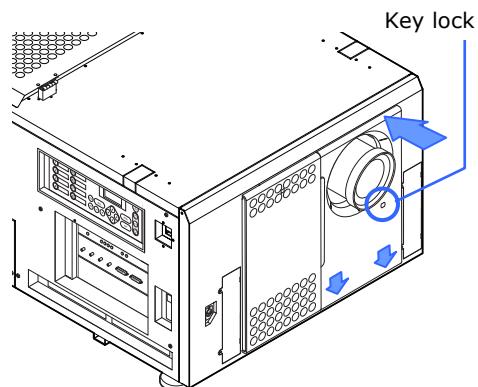
- [8]** Connect the control signal cable to the projector.



[9] Mount the front cover on the projector.

- <1> Align the two holes at the bottom of the cover with the two protrusions at the bottom of the projector and insert the protrusions into the holes, then close the cover.
- <2> Lock using the cover key.

Mount the sponge attached to the lens after screen ratio adjustment.



This completes the installation of the primary lens.

2.6 Mounting the Wide Converter Lens Turret

Use an optional wide converter lens or an anamorphic lens for projection of cinemascope size. Wide converter lens turret (separately sold: NC-AT02) is required for mounting the wide converter lens or the anamorphic lens.

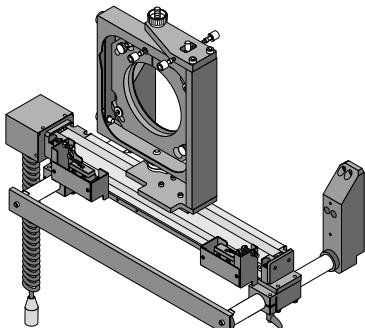
This section describes how to attach the wide converter lens turret and wide converter lens. If you are using the anamorphic lens, please read wide converter lens as anamorphic lens.

⚠ Caution

- If you need to move the wide converter lens turret from one place to another, be sure to remove the wide converter lens from the unit and lock all adjusting parts.
- If you need to move the projector from one place to another, be sure to detach this lens unit from the projector before moving.
- Be sure to faithfully follow the instructions given in this manual.
- This unit should be attached to or detached from the projector without wide converter lens installed.

2.6.1 List of Accessories Attached to Turret

- Wide converter lens turret



- Allen screws (hexagonal socket head

screws) (M8x25): 8



- Allen screws (hexagonal socket head

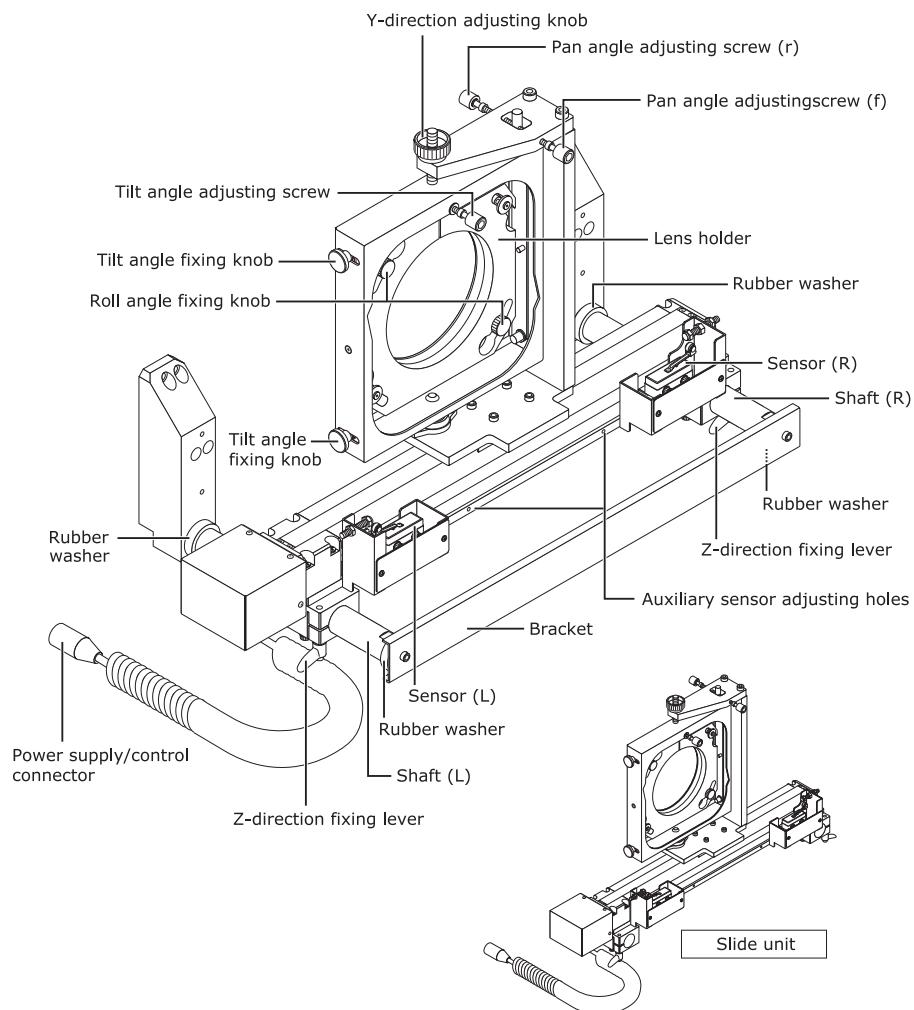
screws) (M6x12): 2



- Rubber washers: 4



2.6.2 Descriptions of the Parts in Turret



2.6.3 Mounting the Wide Converter Lens Turret

Preparations:

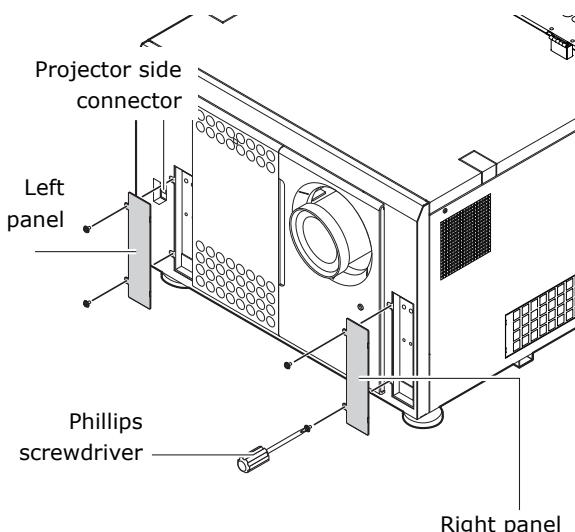
Prepare Allen Keys (for M8 and M6 screws) and a Phillips screwdriver (also tools for adjustments)



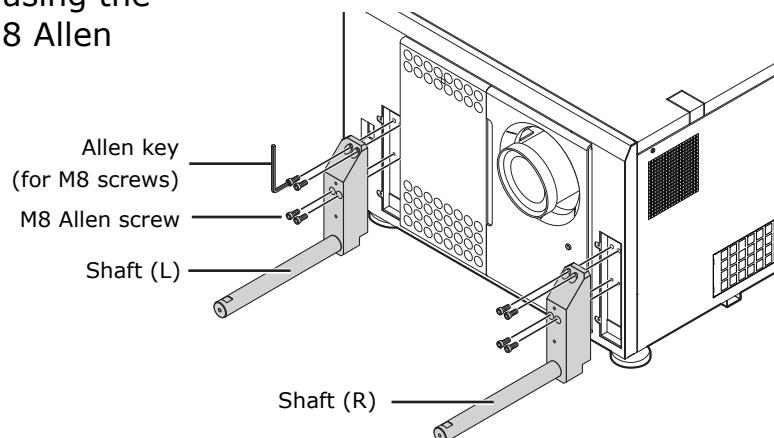
- In the mounting steps below, DO NOT remove screws other than those indicated in each step; otherwise it could lead to injury.

[1] Remove the left and right panels from the front panel of the projector.

The panels and screws that are removed will be used when mounting the wide converter lens turret, so be sure to put them in a safe place.



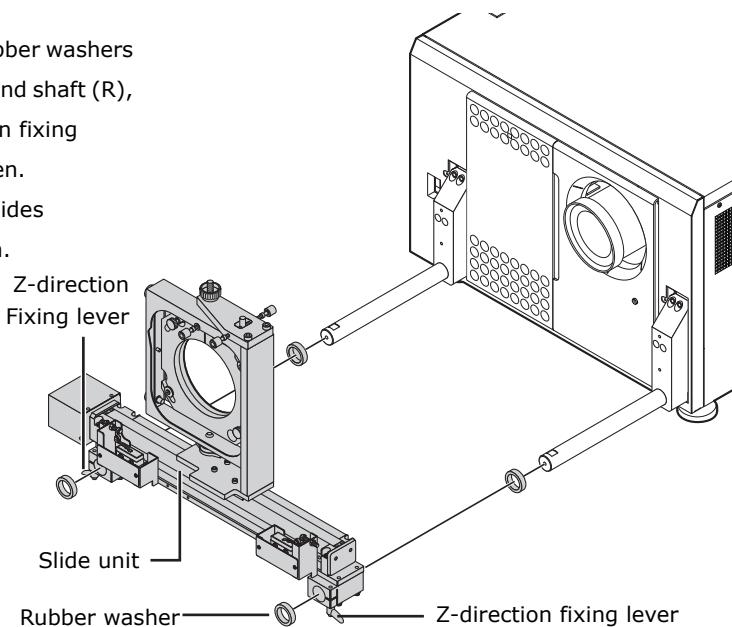
[2] Fix shaft (L) and shaft (R) to the projector using the eight included M8 Allen screws.



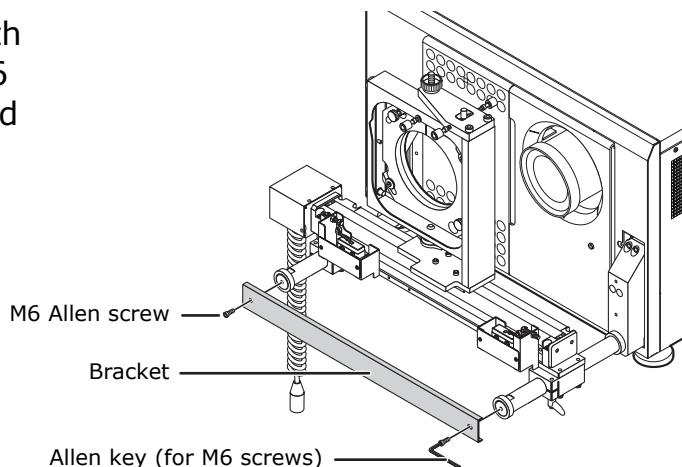
[3] Fix the slide unit to the shafts.

Mount the four included rubber washers and slide unit on shaft (L) and shaft (R), then tighten the Z-direction fixing levers on the sides to fasten.

Check that the slide unit slides smoothly in the Z direction.



[4] Mount the bracket with using two included M6 hexagonal socket head bolts.



This completes the mounting of the wide converter lens turret. Next, mount the wide converter lens.

2.6.4 Mounting of the Wide Converter Lens or Anamorphic Lens

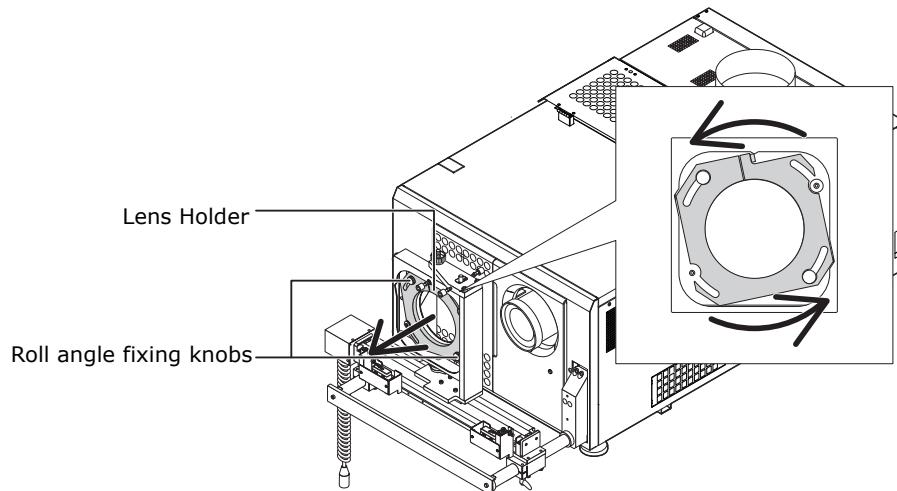
This section describes the procedure for mounting the wide converter lens. If you are mounting an anamorphic lens, please read wide converter lens as anamorphic lens.

- [1]** Loosen the two roll angle fixing knobs, then turn the lens holder counterclockwise and remove it from the slide unit.

Turn the lens holder's knob hole to the position of the roll angle fixing knobs and pull the lens holder towards you.

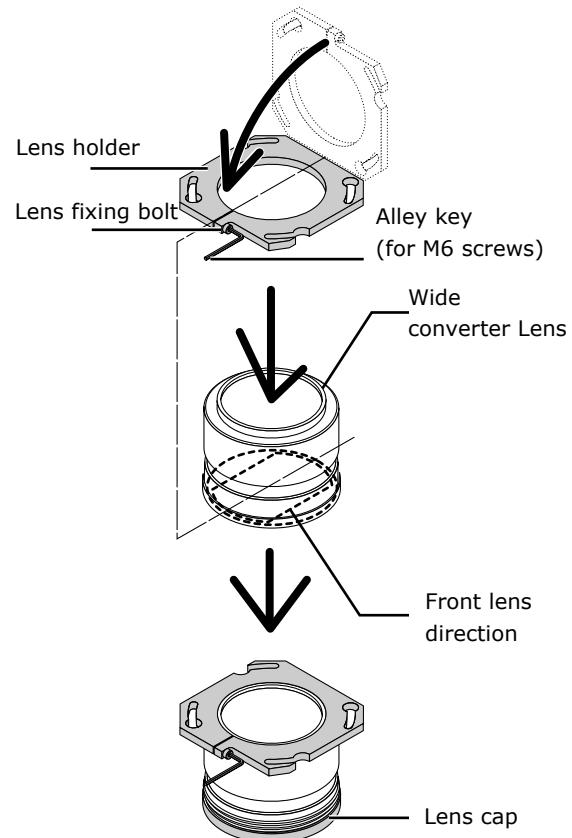
Caution

- Pay attention not to have the finger caught when rotating the lens holder.



[2] Mount the lens holder onto the wide converter lens.

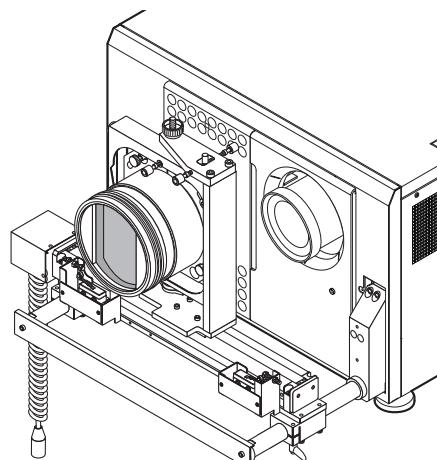
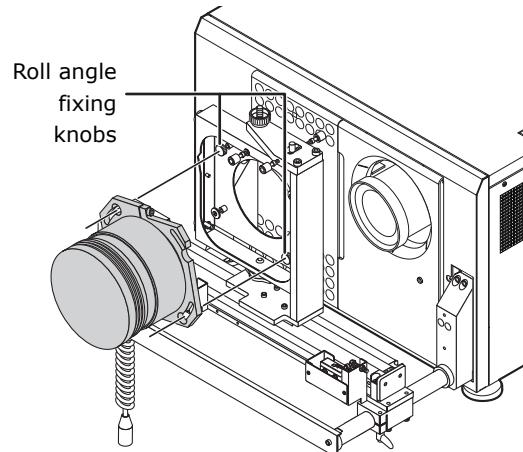
- <1> Loosen the lens holder's lens fixing bolt.
- <2> Line up the lens holder with the wide converter lens (perpendicularly) and mount it on the wide converter lens.
(Be careful not to touch the lens.)
- <3> Tighten the lens holder's lens fixing bolt.

**Caution**

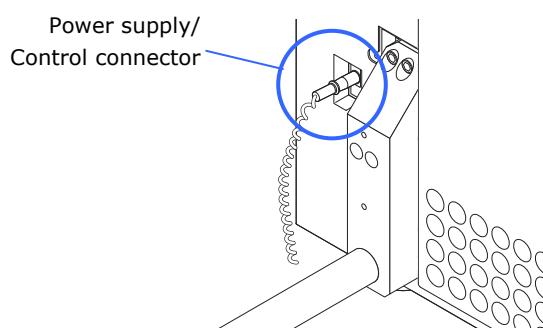
- To prevent damaging the lens, be sure to attach the lens cap over the lens when performing this operation.

[3] Mount the lens holder onto which the wide converter lens is mounted to the slide unit.

- <1> Turn the lens holder's knob hole to the position of the roll angle fixing knobs, insert, then turn clockwise.
- <2> Tighten the two roll angle fixing knobs and tighten the lens holder.
- <3> Remove the lens cap.



[4] Insert the wide converter lens power supply/ control connector into the projector side connector.



This completes the mounting of the wide converter lens. Adjust the wide converter lens after the adjustment the primary lens. For details, refer to "3.8 Adjusting the Wide Converter Lens or Anamorphic Lens" (Page 118).

2.7 Installing Small Iris

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.

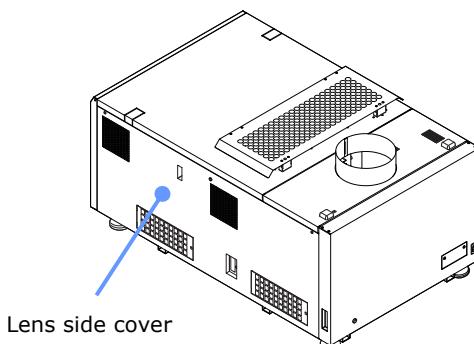
Preparatory operation:

- 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 step

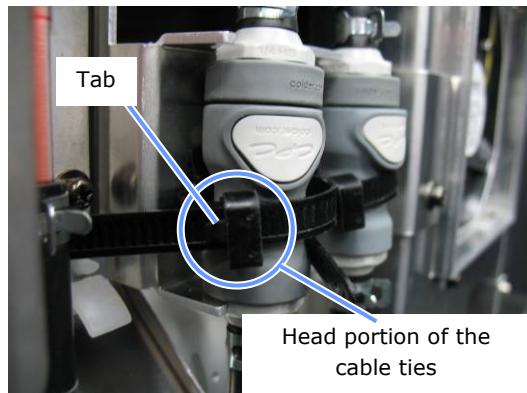
[1] Remove the lens side cover.

Refer to "1.7.4 Mounting and Removing the Lens Side Cover" (page 36) for details.



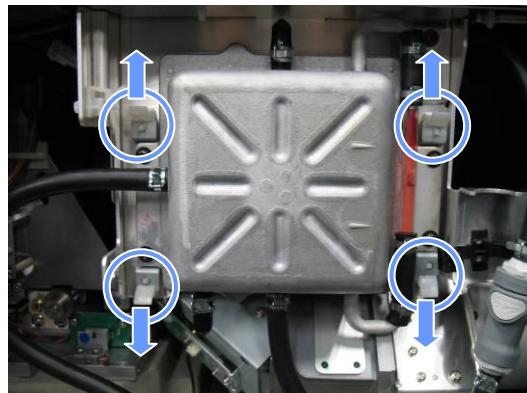
[2] Remove the cable ties fixing the joint (2 piece) of the water-cooling tube.

With the tab of the head portion of the cable ties pulled toward you, pull the ties.

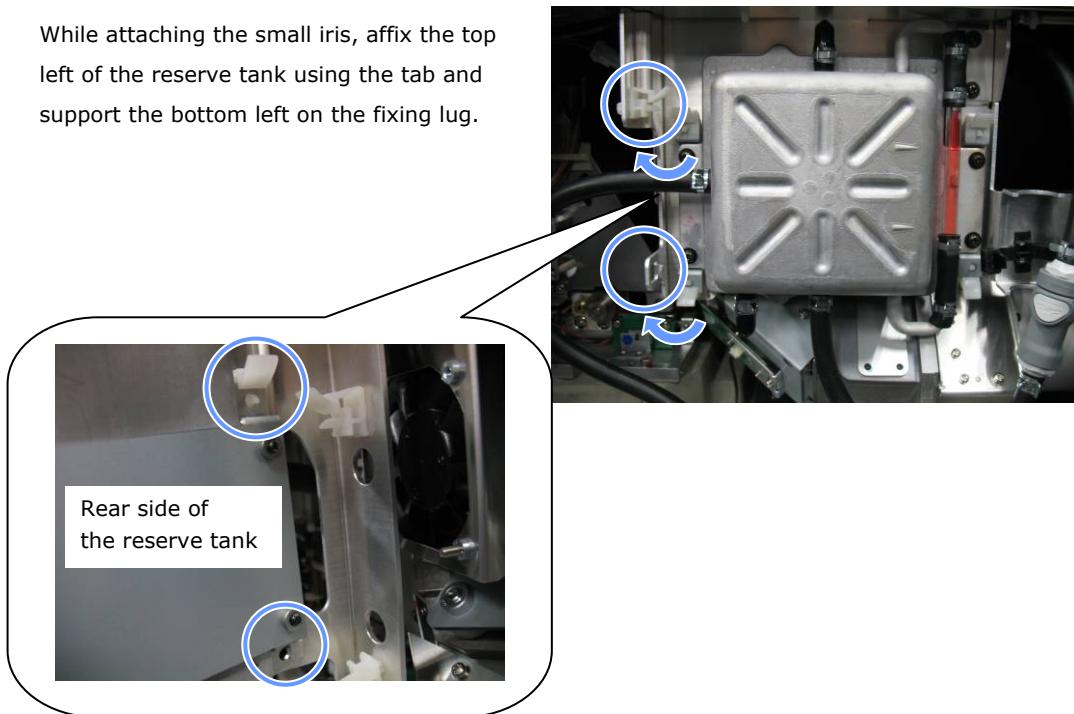


[3] Move the reserve tank.

Remove the fixing tabs (4 pieces) by pulling them towards the outside, and move the reserve tank to the left.



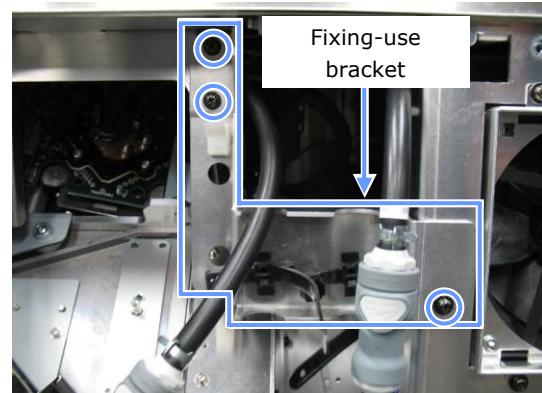
While attaching the small iris, affix the top left of the reserve tank using the tab and support the bottom left on the fixing lug.



Note • Take care that you do not bend the connected pipes when you move the reserve tank.

[4] Remove the fixing-use bracket.

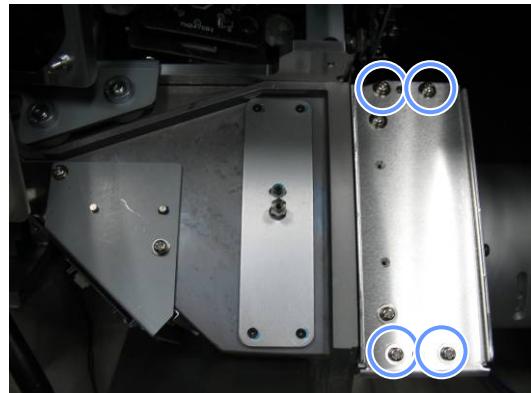
Loosen the three screws to remove the fixing-use bracket.



[5] Remove the iris plate of the engine block.

Loosen the four clamping screws to remove the iris plate.

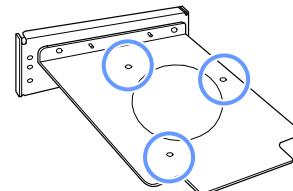
Do not loosen any screws other than those specified.



[6] Remove the iris screws.

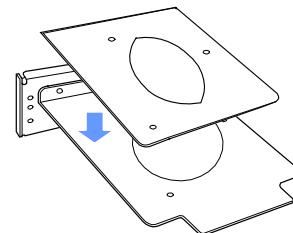
Iris plate is provided with a default iris.

Remove 3 screws from the iris.



[7] Mount the small iris.

Use 3 screws you have removed at Step [6] to mount the small iris among accessories with overlapping it over the iris.

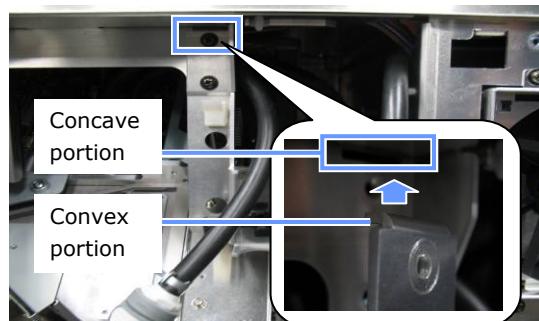


[8] Remount the iris plate now attached with the small iris to the engine block.

Use 4 screws you have removed at Step [5] to mount the iris plate.

[9] Remount the fixing-use bracket.

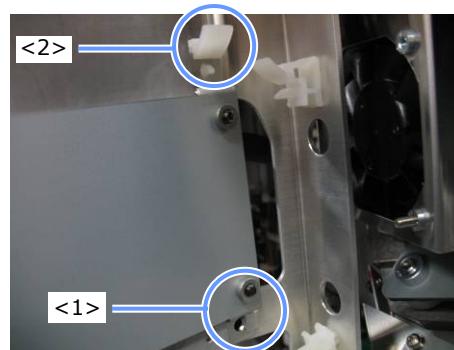
- <1> Align the convex portion of the fixing-use bracket with the concave portion of the projector.
- <2> Use 3 screws you removed at Step [5] to fix the fixing-use bracket.



[10] Return the reserve tank to its original position.

To remove the reserve tank, follow the following steps.

- <1> Pull out towards the outside and remove the tab that is fixing the top left of the reserve tank.
- <2> Shift the reserve tank toward you, and remove it from the fixing-use protuberances.



[11] Mount the lens side cover.

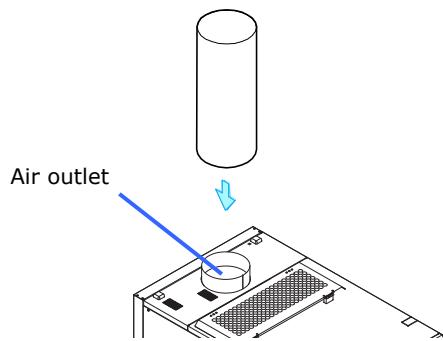
This completes the Installation of the Small Iris.

2.8 Mounting the Exhaust Equipment

It is necessary to connect the air outlet of the projector to the exhaust equipment. The accessory protective sheet should also be mounted, because the area around the air outlet can be very hot.

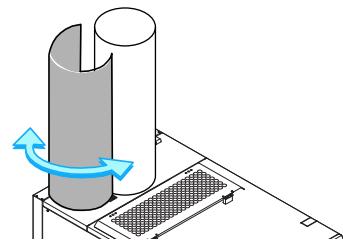
- [1]** Mount an exhaust hose to the air outlet.

Mount the hose for connection to the exhaust equipment to the air outlet.

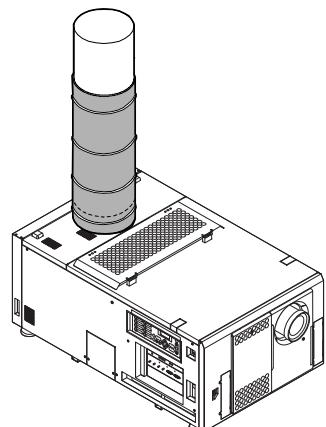


- [2]** Wrap the protective sheet around the exhaust hose.

Wrap the protective sheet to cover the connection of the air outlet and hose.



- [3]** Use the accessory protective sheet bands (4 bands) to fasten the protective sheet.

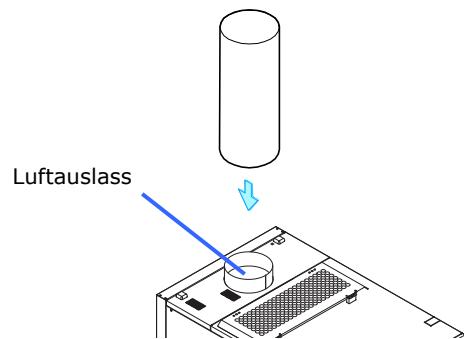


2.9 Montage der Entlüftungsanlage

Es ist erforderlich, den Luftauslass des Projektors an eine Entlüftungsanlage anzuschließen. Die als Zubehör erhältliche Schutzfolie muss ebenfalls angebracht werden, da der Bereich um den Luftauslass sehr heiß werden kann.

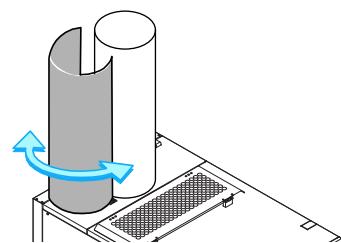
- [1]** Befestigen Sie einen Entlüftungsschlauch am Luftauslass.

Befestigen Sie den Verbindungsschlauch an der Entlüftungsanlage und am Luftauslass.

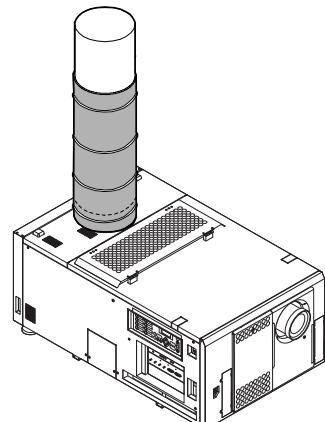


- [2]** Wickeln Sie die Schutzfolie um den Entlüftungsschlauch.

Wickeln Sie die Schutzfolie so um den Schlauch, dass die Verbindung zwischen Luftauslass und Schlauch bedeckt ist.



- [3]** Verwenden Sie die als Zubehör erhältlichen Befestigungsbänder für die Auslass-Schutzfolie (4 Stück), um die Schutzfolie zu befestigen.



2.10 Mounting the Lamp Bulb

Mount the lamp bulb to the projector here.

Ask the service personnel to mount the lamp bulb.

It is necessary to adjust the lamp bulb shaft for mounting and replacing the lamp bulb. For the adjustment procedures, refer to "3.7 Adjusting the Primary Lens" (Page 115).



- It is concerned that the lamp bulb would burst under shock or vibration. Make sure to move the projector to the installation position before mounting the bulb. In addition, make sure to remove the lamp bulb before moving the projector to another place.

2.11 Mounting the Option Board

The following option board or multimedia switcher (MM3000B) can be mounted to the slot A and B of the projector.

Name		Slot A	Slot B
Image Media Block	NC-80MB01	*	*
Signal Input Board	NC-80LB01	*	*
	NC-80DS01	*	*
Multi-media Switcher	MM3000B	*	-

This section describes the procedure of mounting the media block and signal input board. For the procedure of mounting multi-media switcher, refer to "MM3000B Installation Manual".

Preparatory operation:

Phillips head screwdriver (No.2) and cover key (attached goods).

- Step 1

Remove the Projector Cover (See page 101)

- Step 2

Mount the Option Board to the Projector (See page 101)

- Step 3

Mount the Cover to the Projector (See page 102)

- Step 4

Recovering from Tamper Errors (See page 106)

Setting up the Projector (See page 103)

Note

If you remove the front cover, side cover, or lens side cover, the following error message is displayed on the LCD screen of the main unit operating panel by the tamper detection circuit.
"Tamper Fail", "Service Door Open"

Also, if you remove the closing panel or device from slot, the following error message is displayed on the LCD screen of the main unit operating panel by the tamper detection circuit. Furthermore, since the marriage is cleared, re-marriage is necessary.
"Marriage Tamper Fail", "Physical Marriage Tamper", "Marriage Not Active"

Encrypted contents cannot be displayed while an error message is being displayed. Refer to "3.2 Recovering from Tamper Errors" (page 106) for the recovery procedure.

2.11.1 Remove the Projector Cover

Side cover of the projector head should be removed to mount the option board. For the procedure of removing the side cover, refer to “1.7 Removing the Projector Covers” (See page 32).

2.11.2 Mount the Option Board to the Projector

This section describes the procedure of mounting the option board to the projector. This procedure is described for the example, mounting the signal input board to slot B, when slot A and B is empty.

[1] Remove the blocking panel from slot A.

- <1> Loosen the fixed screws (2 places) of slot A until their rotations become idle. Screws cannot be removed.
- <2> Remove the blocking panel.



Note

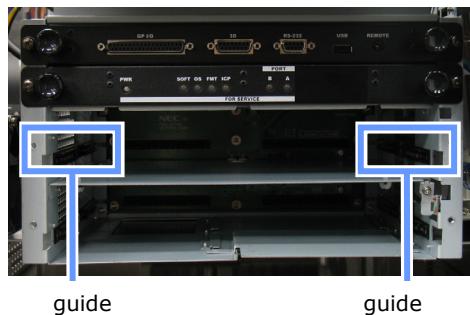
- Attach the slot A blocking panel after fitting the signal input board into the slot B.
- Carefully store the blocking panel and screws that you removed.

[2] Remove the blocking panel from slot B.

Remove the blocking panel as same procedure as slot A. Carefully store the blocking panel and screws that you removed.

[3] Mount the signal input board to the projector.

- <1> Take hold of the installation handle on the front of the board, and insert the board by following the guide on either side of the slot.
- <2> Tighten up the fixed screws (2 places) until it fix.



[4] Mount the blocking panel of slot A in the opposite procedure of removing the panel.

2.11.3 Mount the Cover to the Projector

Mount the side cover to the projector by the opposite procedure of removing.

This completes the mounting of option board. Next, recover the tamper error. For the procedure of recovering, refer to "3.2 Recovering from Tamper Errors" (See page 106). A setting to use option board is needed, after recovering from tamper error. For the procedure, refer to "2.11.4 Setting Up the Projector" (See page 103).

2.11.4 Setting Up the Projector

By registering the mounted option board to the slot, you can use option board by setting up the projector. This procedure is described for the example, when signal input board is mounted to slot B. For the operation of the projector, refer to projector's "Users Manual".

Tips

- DCC for S2 can be used to set up.
For the procedure by using DCC for S2, refer to "Digital Cinema Communicator for S2 Installation Manual".

[1] Set the projector in standby mode.

[2] Enable the service personnel menu.

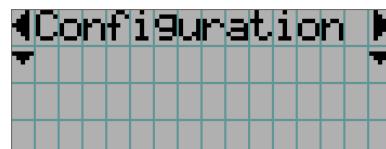
These settings are for our service personnel and cannot normally (user mode) be used. You need to enter a passcode to enable the service personnel menu. Refer to the "4.1.1 When You Use the Service Personnel Menu" (page 131) for the procedure.

[3] Press the MENU button on the control panel.

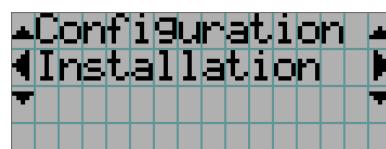
"Title Select" is displayed in the menu. From this procedure on, control panel of the projector will be used.



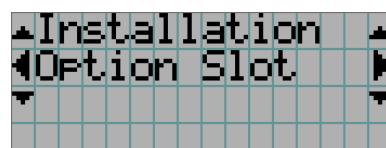
[4] Press the LEFT/RIGHT button to display "Configuration" and press the DOWN button.



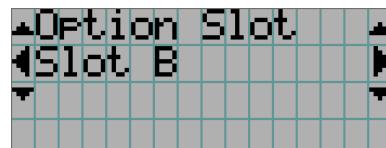
[5] Press the LEFT/RIGHT button to display "Installation" and press the DOWN button.



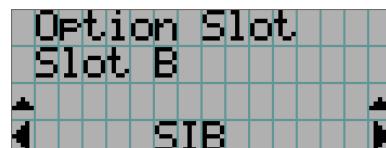
[6] Press the LEFT/RIGHT button to display "Option Slot" and press the DOWN button.



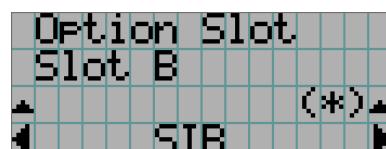
- [7] Press the LEFT/RIGHT button to display "Slot B" and press the DOWN button.



- [8] Press the LEFT/RIGHT button to display "SIB".



- [9] Press the ENTER button.
(*) is displayed to the selected item.



- [10] Press the EXIT button several times.

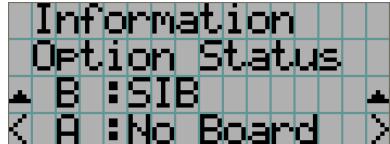
The projector exits the menu and goes back to the regular screen.

If you press the EXIT button and then select "Yes" and press the ENTER button on a regular screen, you will returned to user mode.

This completes the setting of the projector.

Tips

- Settings of slot A and slot B can be confirmed at projector's [Information]-[Option Status]



3.

Projector Adjustment and Connecting

3.1 Flow of Adjustment and Connecting

Adjustment and Connecting of the projector accord to the procedure below.

- **Step1**

Turning Your Projector On (See page 109)

- **Step2**

Setting The Date and Time in the Projector (See page 111)

- **Step3**

Setting the Projector Projection Method (See page 112)

- **Step4**

Adjusting the Lamp Bulb Shaft (See page 113)

- **Step5**

Adjusting the Primary Lens (See page 115)

Display the test pattern to adjust the screen size, screen ratio and focus.

- **Step6**

Adjusting the Wide Converter Lens (See page 118)

- **Step7**

Connecting with the Image Input Port (See page 127)

- **Step8**

Connecting the Various Control Terminal (See page 128)

This chapter explains the adjustment and connection of the projector with Steps 1 to 8.

Steps 1 to 8 complete the adjustment and connection of the projector. Next, carry out various settings such as color adjustment using DCC for S2. Refer to the "Digital Cinema Communicator for S2 Installation Manual" for the procedure.

3.2 Recovering from Tamper Errors

The tamper detection circuit is fitted in the projector.

If any of the following actions is performed, an error message will be displayed on the LCD screen of the main unit control panel by tamper detection circuit.

Action	Error code	Error message
Cover removed	177	Tamper Fail
- Front cover	486	Service Door Open
- Side cover		
- Lens side cover		
Slot device or blocking panel removed	178	Marriage Tamper Fail
- Media block	482	Physical Marriage Tamper
- Signal input board	484	Marriage Not Active
- Multi-media switcher		

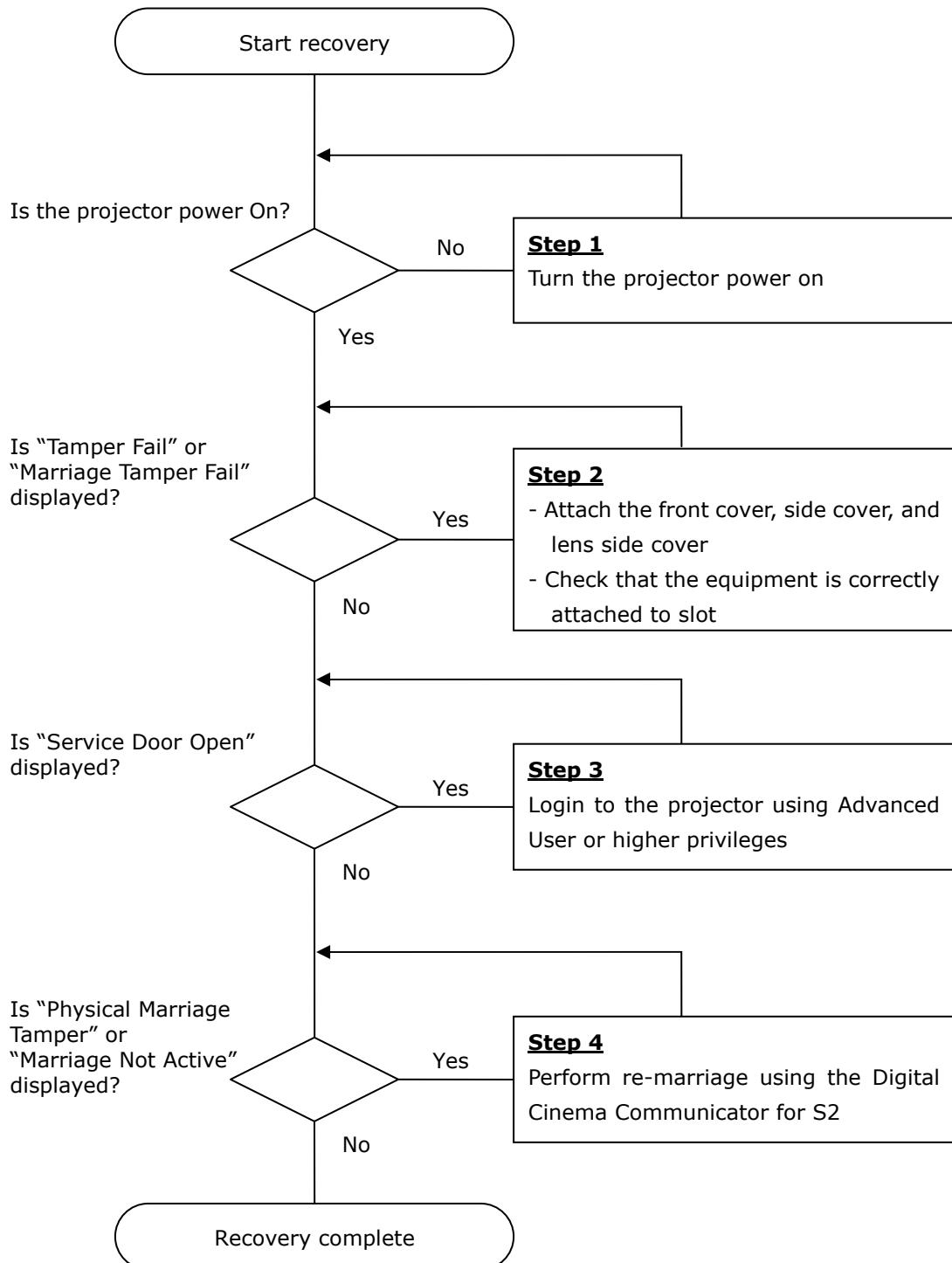
Tips

- Error codes can be checked when using the DCC for S2.

While the above error messages are being displayed, encrypted contents cannot be displayed. Refer to “3.2.1 Procedure for Recovering from Tamper Errors” (page 107) for details on how to recover from tamper errors.

3.2.1 Procedure for Recovering from Tamper Errors

When a tamper error is displayed, recover by using the following procedure.



- Step 1

"Turn the projector power on"

Refer to "3.3 Turning your Projector On" (page 109) for details on how to turn on the projector.

When the covers and slot are correctly fitted, "Tamper Fail" and "Marriage Tamper Fail" are cleared.

- Step 2

"Attach the front cover, side cover, and lens side cover"

If you have removed a cover, then attach the cover. Furthermore, if the covers are attached, check that they are attached correctly.

When the covers are attached, "Tamper Fail" is cleared.

"Check that the equipment is correctly attached to slot"

If there are no devices mounted in slot, attach the blocking panel. Also, if a device is mounted in slot, check that it is securely pushed all the way into the slot.

When the device is mounted correctly in slot, "Marriage Tamper Fail" is cleared.

- Step3

"Login to the projector using Advanced User or higher privileges"

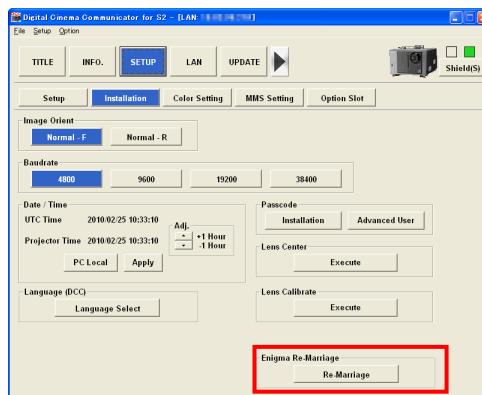
Refer to "4.1.1 When You Use the Service Personnel Menu" (page 131) for details on logging into the projector using Advanced User or higher privileges.

Once you login, "Service Door Open" is cleared.

- Step 4

"Perform Re-Marriage using the Digital Cinema Communicator for S2"

DCC for S2 is used to perform re-marriage. Refer to "Digital Cinema Communicator for S2 Installation Manual" for details.



3.3 Turning your Projector On

The power to this projector is separated to the power to the projector head and power to the lamp. To project an image, it is necessary for both power supplies to be on.

Note

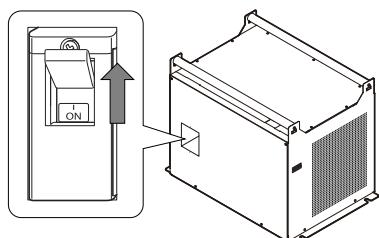
- While your projector is on, be sure to have the lens cap removed from the lens. Otherwise, the lens cap may get deformed due to a heat buildup.
- In the following instances, the power to your projector cannot be turned on even if you press the POWER button.
 - When the inside temperature is abnormally high. The protective function prevents power from turning on. Wait some time (until the projector inside cools down) and then turn on the power.
 - When the STATUS indicator is blinking without the lamp lighting up after power-on. Your projector may be in trouble. Check the error display on the LCD screen and contact your dealer/distributor for instructions.
- Note that the image may sometimes flicker until the lamp has stabilized (5 to 10 minutes) after power-on. This is due to the characteristics of the lamp and is not trouble of your projector.

Preparation: Supply AC power to the projector head and to the lamp power supply.

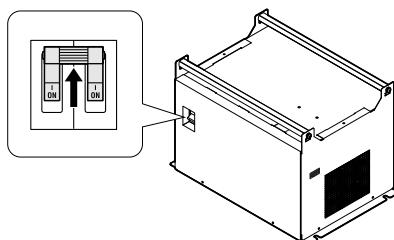
[1] Remove the lens cap.

[2] Turn the main power switch on the lamp power supply to on.

The lamp power unit fan will begin rotating.



NC-32PS01



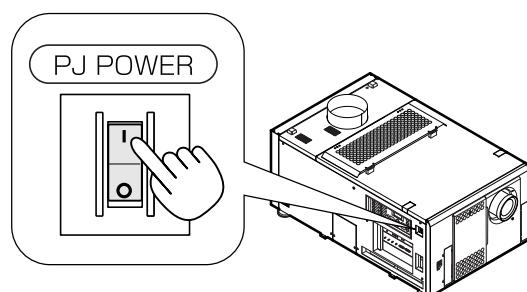
NC-32PS02

[3] Turn on the main power switch on the side of the projector.

A buzzer will ring on the projector. The POWER button will blink green and the Rear STATUS indicator light orange (standby state).

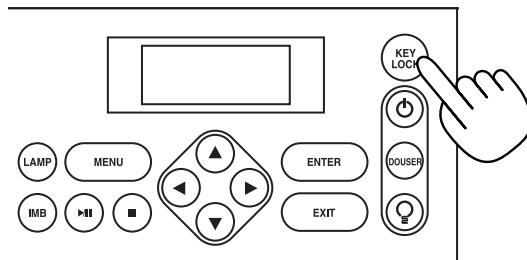
KEY LOCK becomes automatically on if no control panel operation takes place in the standby state for 30 seconds by default.

Buttons on the control panel do not function while KEY LOCK is on.



- [4]** If KEY LOCK is on, press the KEY LOCK button for one second or longer.

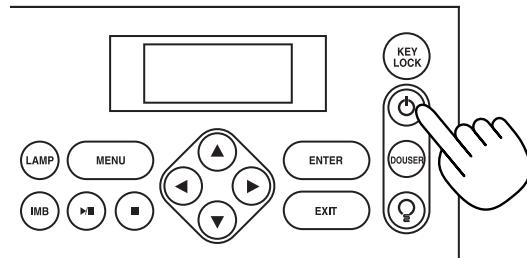
KEY LOCK becomes off. The color of the KEY LOCK button changes from orange to white, and buttons on the control panel become operable.



- [5]** Press the POWER button on the control panel of your projector three seconds or longer.

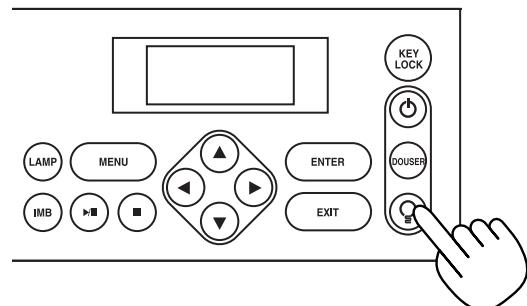
Projector turns on.

The POWER indicator of the projector lights up green after the completion of activation.



- [6]** Press the LAMP ON/OFF button on the control panel for five seconds or longer.

The lamp is turned on and the screen glows light about 15 seconds later. The LAMP ON/OFF button lights green. The douser is closed until the screen glows light (the DOUSER button blinks white). When the douser is open, the DOUSER button lights green.



3.4 Setting the Date and Time in the Projector

The internal clock in the projector operates on coordinated universal time (UTC). You can set the internal projector time to the time in your region by setting the time difference between the standard time in your region and UTC.

If you are using DCC for S2, you can easily set the date and time in the projector by reading the date and time settings of the computer where DCC is installed. Refer to "Digital Cinema Communicator for S2 Installation Manual" for details.

3.5 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).

This procedure is described for the example of using the LCD screen of the projector main unit. Refer to the projector user's manual for details on how to use the main unit operating panel.

- [1]** Press the MENU button for three seconds or longer.

The Passcode input screen appears on the LCD screen at the projector's control panel.

Press the EXIT button to return to the original screen.

- [2]** Enter the passcode and press the ENTER button.

If you make a mistake during input, you can move the cursor by pressing the LEFT/RIGHT buttons and overwrite the passcode.

If the passcode is correct, you can use the service personnel menu.

- [3]** Press the LEFT/RIGHT button to display "Configuration" and press the DOWN button.

- [4]** Press the LEFT/RIGHT button to display "Installation" and press the DOWN button.

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

If "Image Orient" is not properly selected, press the LEFT/RIGHT buttons to select it

- [6]** Press the LEFT/RIGHT 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.
- Normal-R Rear projection. With the projector installed on the pedestal, projection is executed from the back of 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.

If you press the EXIT button and then select "Yes" and press the ENTER button on a regular screen, you are returned to user mode.

3.6 Adjusting the Lamp Bulb Shaft

It is necessary to adjust the lamp bulb shaft for mounting and replacement of the lamp bulb.

Preparation:

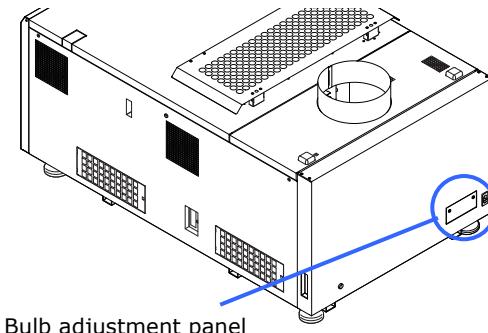
Adjustment should be made with the projection status. Turn on the projector and the lamp power supply. In addition, prepare gloves, a Phillips head screwdriver and hexagonal wrench (5 mm).

Note

- When you are adjusting the lamp bulb shaft (X-axis, Y-axis, or Z-axis), do not forcefully rotate the screws once they no longer rotate. Doing so may cause the adjustment function to break.

[1] Remove the bulb adjustment panel at the rear of the projector.

Loosen two screws until their rotations become idle and remove the bulb adjustment panel.



[2] Enable the service personnel menu.

These settings are for our service personnel and cannot normally be used (user mode). You need to enter a passcode to enable the service personnel menu. Refer to the "4.1.1 When You Use the Service Personnel Menu" (page 131) for the procedure.

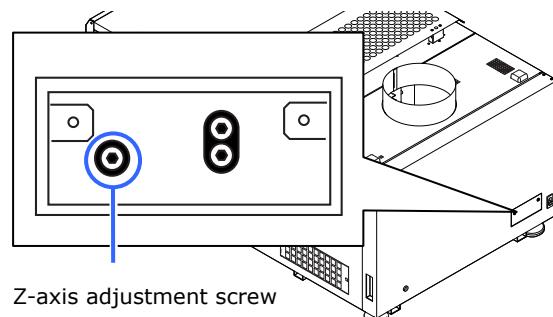
[3] Call "Bulb Alignment" from the menu.

From the LCD menu of the projector (Configuration > Installation > Bulb Alignment), call the "Bulb Alignment" screen.



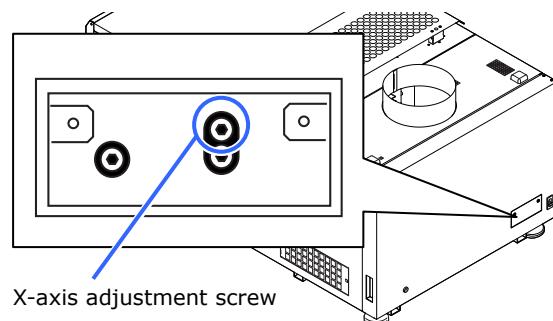
[4] Adjust the Z-axis adjustment screw to have the maximum bulb alignment.

With rotating the adjustment screw using a 5-mm hexagonal wrench, set the Peak hold value in the "Bulb Alignment" screen to the maximum. Average shows the average value in the adjustment.



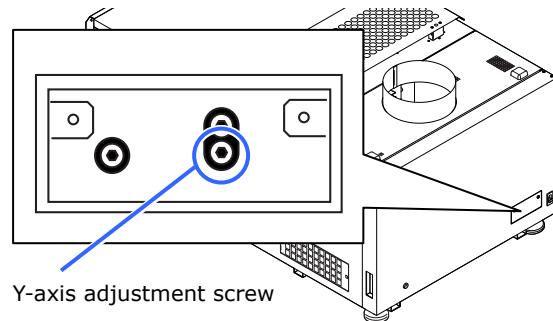
[5] Adjust the X-axis adjustment screw to have the maximum bulb alignment.

With rotating the adjustment screw using a 5-mm hexagonal wrench, set the Peak hold value in the "Bulb Alignment" screen to the maximum. Average shows the average value in the adjustment.



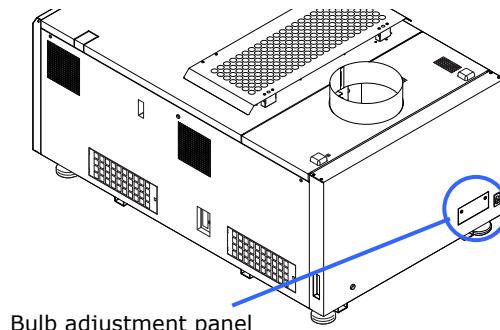
[6] Adjust the Y-axis adjustment screw to have the maximum bulb alignment.

With rotating the adjustment screw using a 5-mm hexagonal wrench, set the Peak hold value in the "Bulb Alignment" screen to the maximum. Average shows the average value in the adjustment.



[7] Mount the bulb adjustment panel at the rear of the projector.

Loosen two screws to mount the bulb adjustment panel.



This completes the adjustment of the lamp bulb shaft.

3.7 Adjusting the Primary Lens

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

3.7.1 Display the Test Pattern

- [1] Press the MENU button.

"Title Select" is displayed on the LCD screen at the projector's control panel.

- [2] Press the DOWN button.

- [3] Press the LEFT/RIGHT buttons to select "TEST Pattern".

- [4] Press the DOWN button.

- [5] Press the LEFT/RIGHT buttons to select "RGB-CROSS".

- [6] Press the ENTER button.

An (*) will be put on the selected test pattern.

3.7.2 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.

Tips

- How to Call the Lens Center

- [1] Press the MENU button on the projector's control panel.

- "Title Select" appears on the projector's LC display.

- [2] Select "Configuration" menu using LEFT the LEFT/RIGHT button.

- [3] Press the DOWN button.

- [4] Select "Installation" using the LEFT/RIGHT button.

- [5] Press the DOWN button.

- [6] Select "Lens Center" using the LEFT/RIGHT button.

- [7] Press the DOWN button.

- [8] When "Execute" appears on the display, press the ENTER button.

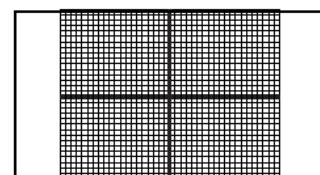
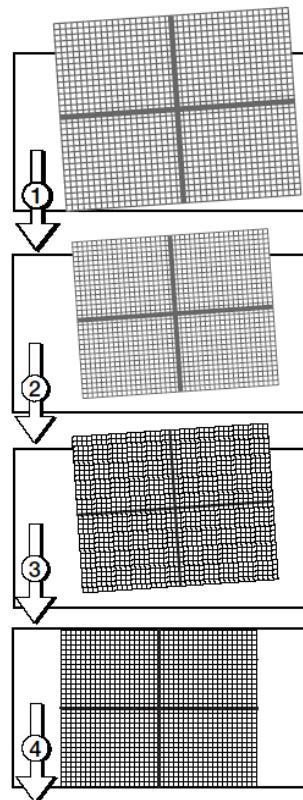
- The lens will begin to move.

Preparations: Display the zoom/focus adjustment screen by using the following procedure.

- [1] Press the MENU button on the projector's control panel.
“Title Select” appears on the projector's LC display.
- [2] Select “Configuration” menu using LEFT the LEFT/RIGHT button.
- [3] Press the DOWN button.
- [4] Select “Lens Control” using the LEFT/RIGHT button.
- [5] Press the DOWN button.
- [6] Press the ENTER button.

“Focus Zoom” is displayed and you can adjust the focus/zoom.

- [1] Press the LEFT/RIGHT buttons to roughly adjust the screen size so that the screen height and the image height are the same.
- [2] Press the UP/DOWN buttons 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 tile (front-back and left right) of the projector so that the projected image is level at the screen center.
- [4] Use the LEFT/RIGHT 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 UP/DOWN buttons.



[6] Press the EXIT button several times.

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

Note

- If you use the lens memory for adjustment of the focus, first move the ▼ key (Focus Down) almost to the limit and then make adjustments so that you can finish the adjustment on the ▲ (Focus Up) side.

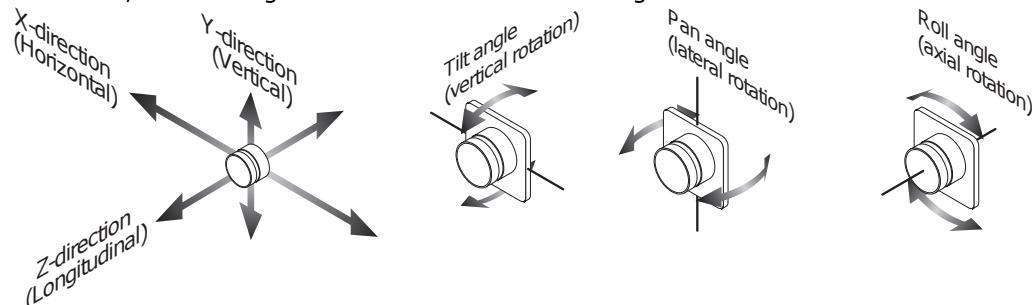
3.8 Adjusting the Wide Converter Lens or Anamorphic Lens

Here, you will adjust the positions (vertical and horizontal positions and depth) of the wide converter lens or anamorphic lens, and its rotation, tilt/pan angles and focusing as well. This section describes how to adjust the wide converter lens. If you are using the anamorphic lens, please read wide converter lens as anamorphic lens.

Adjust the wide converter lens position so that it becomes parallel with the primary lens in horizontal and vertical directions. In addition, rotate the lens to adjust it so that the projection screen enlarged by the anamorphic lens becomes horizontal.

Indication of Adjustment Directions

In this section, the moving direction and the rotation angle are indicated as shown below.



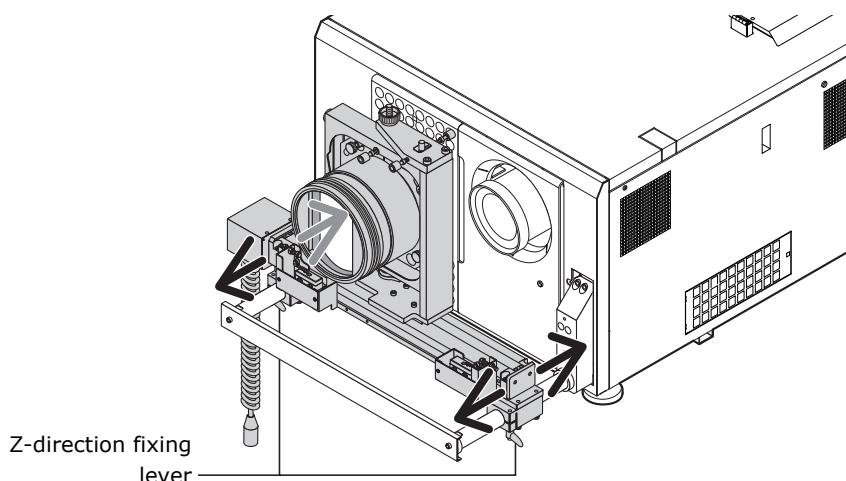
3.8.1 Z-direction Adjustment

Move the wide converter lens in the Z-direction and adjust it so that the distance between the primary lens and the wide converter lens becomes as small as possible.

- [1] Loosen the two Z-direction fixing levers.
- [2] Hold the slide unit with both hands and slide it manually.
- [3] After adjusting, tighten the two Z-direction fixing levers to fasten.

Note

- Check that the slide unit does not touch the primary lens.

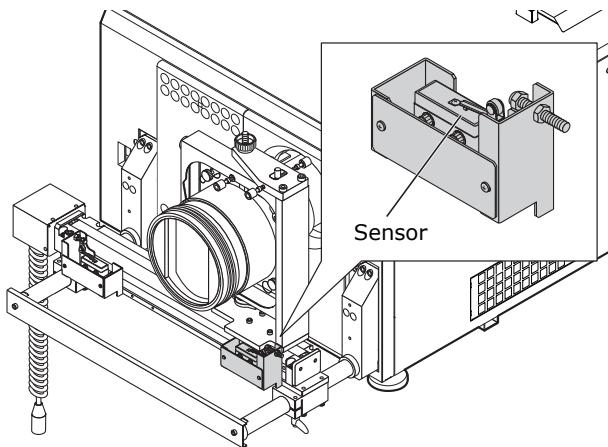


When using the wide converter lens, adjust the spacing from the primary lens using the values in the following table as a guide.

Primary lens	Spacing (mm)
L2K-14ZM	8.6
NC-50LS14Z	18-45
NC-50LS16Z	16.1
L2K-18ZM	13.6
NC-50LS18Z	6
L2K-22ZM	6
NC-50LS21Z	6
L2K-30ZM	6

3.8.2 X-direction Adjustment

For the X-direction, the wide converter lens is set (on) and reset (off) electrically. For this reason it is necessary to properly adjust the sensor position for the set position.



⚠ Caution

- Pay attention not to have the finger caught by the movable section in adjustment.

Note

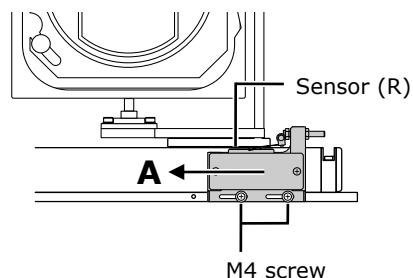
- Make the X-direction adjustment with the power supply/control connector disconnected.

Tips

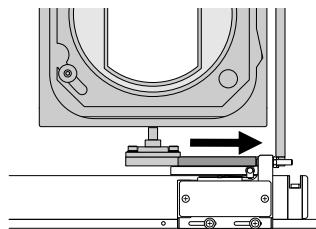
- It is not possible to adjust in the X-direction electrically.

Wide converter lens set position adjustment

- [1] Loosen the two M4 screws fixing sensor (R), then slide in the direction of arrow A.

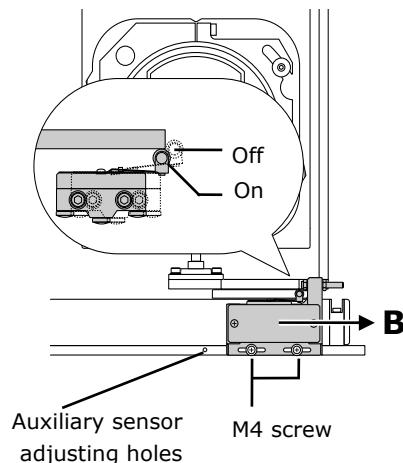


- [2] Line up the top of the slide unit with the projector side lens position.



- [3] Slide sensor (R) in the direction of arrow B and fasten it in the position where the sensor switches from "off" to "on" by tightening the two M4 screws.

* If necessary, use the auxiliary sensor adjusting holes.

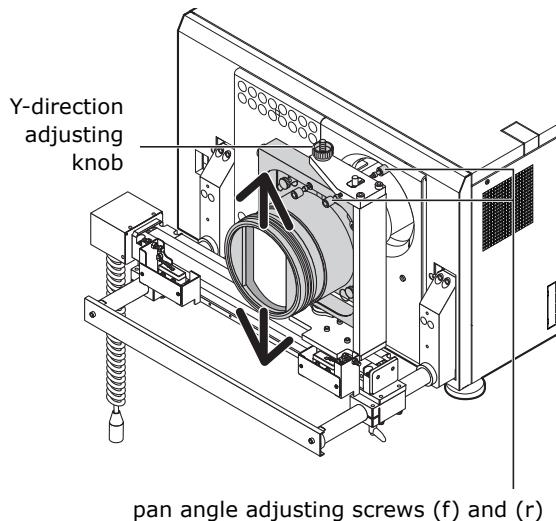


Adjusting the wide converter lens reset position

Normally there is no need to adjust the reset position. If necessary, use the procedure in steps <1> to <3> above to adjust the reset position of the opposite side (sensor (L)).

3.8.3 Y-direction Adjustment

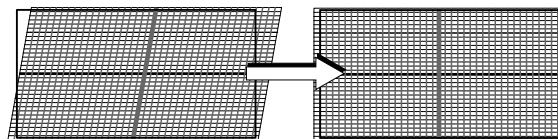
- [1] Loosen pan angle adjusting screws (f) and (r) a little.
- [2] Turn the Y-direction adjusting knob to adjust.
- [3] After adjusting, tighten pan angle adjusting screws (f) and (r) to fasten.



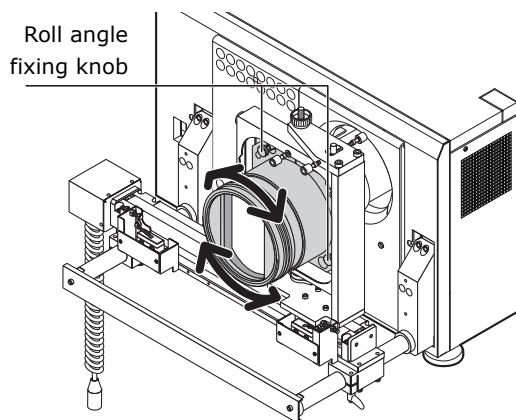
3.8.4 Adjusting the Roll Angle

Adjusting the roll angle is only performed when using the anamorphic lens. This adjustment is not required when using the wide converter lens.

Rotate the anamorphic lens so that the vertical lines and the horizontal lines at the center of the image projected to the screen become horizontal and vertical.



- [1] Loosen the two roll angle fixing knobs.
- [2] Grasp the anamorphic lens firmly by hand and turn it along the guide to adjust.
- [3] After adjusting, tighten the two roll angle fixing knobs to fasten.

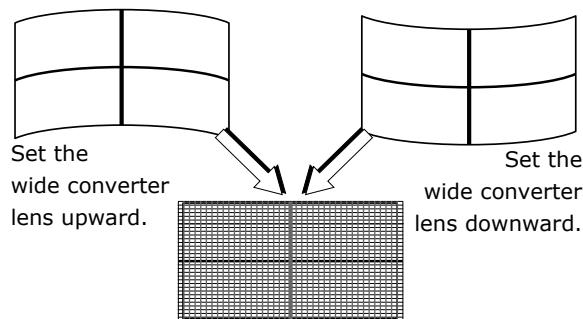


Note

- Be careful not to turn too far counterclockwise or the lens holder will come off.

3.8.5 Adjusting the Tilt Angle

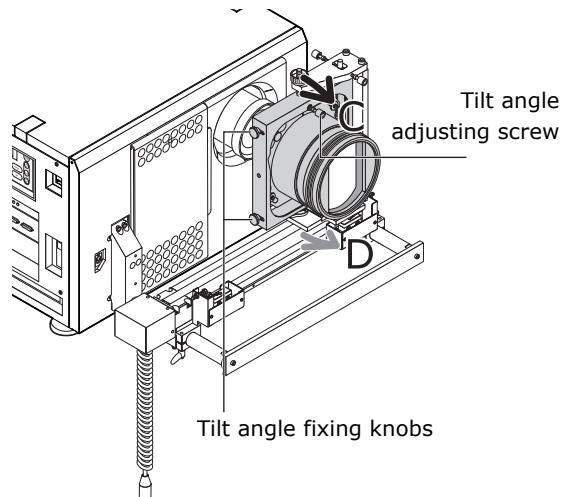
Adjust the tilt angle so that the distortions at the top and the bottom of the image become equivalent.



Note

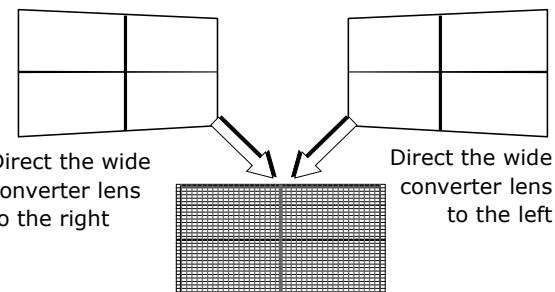
- When you adjust the tilt angle, pay attention so that the wide converter lens does not contact the primary lens. If the wide converter lens is touching the primary lens, repeat the steps in "3.8.1 Z-direction Adjustment" (Page 119).

- [1] Loosen the two tilt angle fixing knobs.
- [2] Loosen the tilt angle adjusting screw to adjust in the C-direction, tighten it to adjust in the D-direction.
- [3] After adjusting, tighten the two tilt angle fixing knobs to fasten.

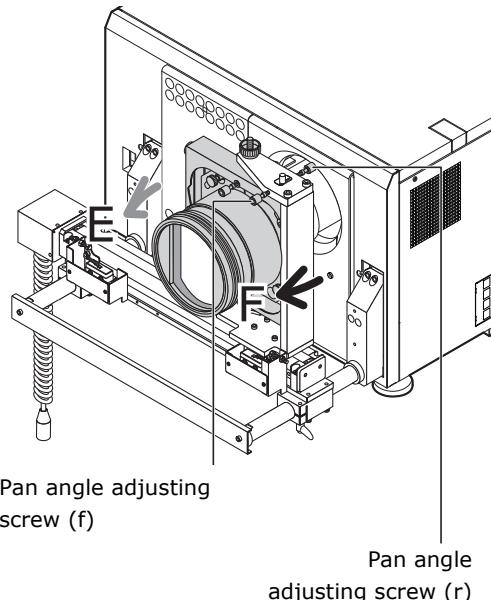


3.8.6 Adjusting the Pan Angle

Adjust the pan angle so that the heights on the right and left of the image become equivalent.



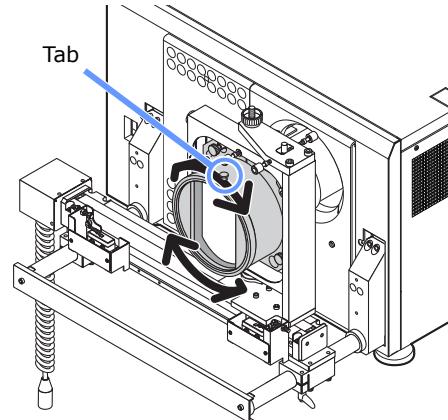
- [1] Loosen the two pan angle adjusting screws (f) and (r).
- [2] Tighten pan angle adjusting screw (f) to adjust in the E-direction, tighten pan angle adjusting screw (r) to adjust in the F-direction.
- [3] After adjusting, tighten the pan angle adjusting screw on the side opposite the one adjusted in step <2> to fasten.



3.8.7 Adjusting the Focus

Adjusting the focus is only performed when using the wide converter lens. This adjustment is not required when using the anamorphic lens.

- [1] Loosen the tab of the wide converter lens and adjust by rotating it along the guide.
- [2] After making the adjustment, tighten the tab to fasten it.

**Note**

- If you are unable to adjust the focus, change the spacing from the primary lens. Refer to "3.8.1 Z-direction Adjustment" (Page 119) for details.

3.8.8 Checking the Adjustment Results

This completes the adjustment of the wide converter lens. Check that the projected image is substantially at the center of the wide converter lens and that four corners of the projected image are not eliminated by the wide converter lens (check whether the image has a notch or not).

If the image is not fully given, repeat the steps in "3.8 Adjusting the Wide Converter Lens or Anamorphic Lens" (Page 118).

3.9 Connecting with the Image Input Port

By installing option board to projector, you can add input port. The following shows the input port, which can add to each option board.

NC3200S-A/NC3240S-A	Option board is not installed at factory default.
NC3200S	An NC-80LB01 is installed to slot B at factory default. (slot A is empty)

Input port which can add to option board is listed below. For the connection diagram of projector and peripheral equipment, refer to Installation manual of option board. Refer to projector's manual when using NC3200S.

Option Board	Image Input Port	
NC-80LB01/NC-80DS01 (Note1)	HD-SDI input port (BNC)x4 DVI-D input port (DVI-D 24pin)x2	
NC-80MB01	Storage port (for connection to NC-80SS01)	
MM3000B (Note2)	MM-70DV01	DVI-D input port (DVI-D 24pin, HDCP support)
	MM-RGB-E	RGB input port (BNC5 conductors)
	MM-SDI-E	SDI input port (BNC)x2 Monitor input port (BNC)
	MM-VIDEO-E	CVBS input port (BNC) S-Video image input port (BNC2 conductors) Component video input port (BNC3 conductors)

Note1:NC-80LB01 supports CineLink 2, and NC-80DS01 does not support CineLink 2.

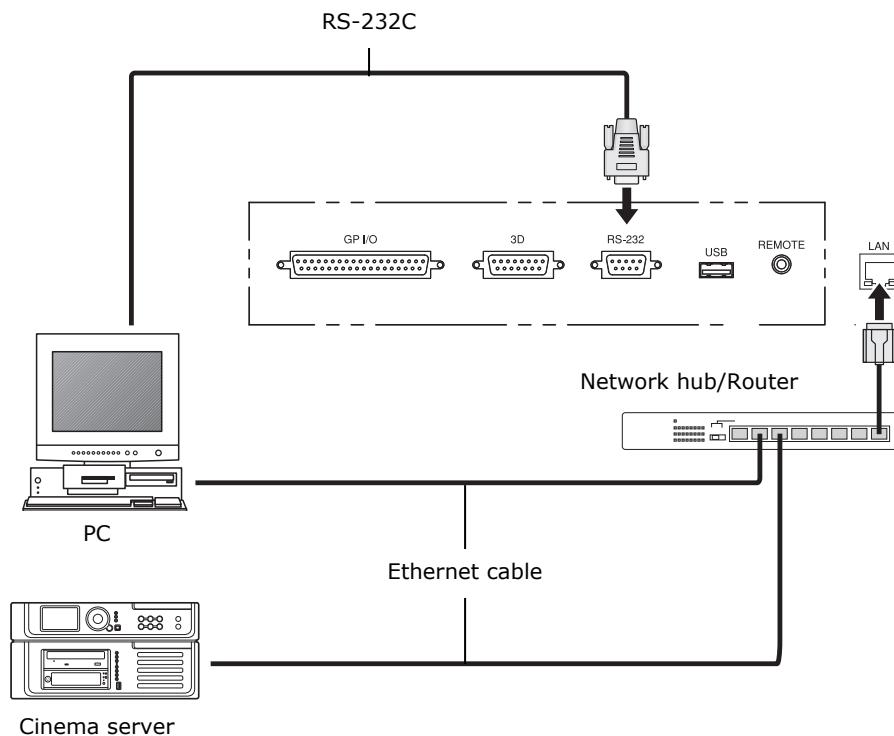
NC-80DS01 cannot display the encrypted contents.

Note2:Both MM-70DV01 and MM-RGB-E is installed at factory default.

3.10 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 (RS-232)	Use this terminal when controlling the projector in serial connection from a PC.
Ethernet port (LAN)	Use this port when controlling the projector in LAN connection from a PC or a cinema server.



This completes the adjustment and connection of the projector. Next, set up the projector from the DCC for S2. Refer to the "Digital Cinema Communicator for S2 Installation Manual" for the procedure.

4.

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 projector's operation manual.

4.1 List of Menu

Menus in parentheses are menus for our service personnel. Normally, these menus cannot be used.

Main menu	Submenu		Description	Ref. page
Title Select	"Title Memory name"		Selects the title of the signal to be projected.	132
	TEST Pattern		Selects the test pattern to be projected.	132
Configuration	Lamp Setup	Adjust	Adjusts lamp brightness.	133
		Feedback	Sets the lamp brightness constant mode that uses a brightness sensor.	
	Lens Control	Lens Position	Adjusts the position of the projected screen.	133
		Focus Zoom	Adjusts the size and focus of the projected screen.	
	(Setup)	Douser Mode	Selects whether to use the douser (screen mute) when switching signals.	134
		PowerOn Douser	Sets whether the douser is opened or closed after the main unit is turned on.	
		Turret	Controls the wide converter lens turret.	
		Panel Key Lock	Locks the buttons on the projector's control panel so that they cannot be operated.	
		Auto Key Lock	Enables or disables Auto Key Lock.	
		Unlit Mode	When lamp is unlit, sets whether to shut down the projector or transit to lamp-off state.	
		3D Connector	Sets the signal input terminal for a 3D image system (3D terminal or GP I/O terminal).	
		FactoryDefault	Returns the settings to their default values. Selects between preset buttons and titles only, LAN settings only and all settings.	
	(Installation)	Option Slot	Configures the device installed in slot A and slot B (only when the projector is standby mode).	138
		Image Orient	Selects the projection method (front/rear).	

Main menu	Submenu		Description	Ref. page
Configuration	(Installation)	Lens Center	Moves the lens shift position to the center.	138
		MMS Select	Selects whether or not to use the multi media switcher (MMS).	
		Baudrate	Sets the PC control connector (RS-232C) data transmission speed (bps).	
		Date/Time	Sets the date and time on the projector.	
		New Bulb	Resets the lamp bulb usage time and selects or edits new entries (only when the projector is in standby mode).	
		Bulb Warning	Sets the lamp bulb warning time (only when the projector is in standby mode).	
		New Lamp House	Resets the lamp house usage time, and makes settings or selects modes (only when the projector is in standby mode).	
		Bulb Alignment	Sets the lamp bulb alignment.	
		Usage Reset	Initializes the usage time of the fan and air filter.	
		NewRouterSetup	Sets the router with the default settings when the router built-in the projector had been replaced.	
	(Memory)	Security Key	Registers the certification file to USB memory. Do not use usually.	144
		Lamp	Saves the current lamp setting.	
		Lens	Saves the current lens setting.	
(Title Setup)	Preset Button	Preset Button 1-8	Sets the titles to be assigned to the preset button (<1> to <8> buttons).	144
Information	Lamp	Output	Displays the lamp output setting.	145
		Bulb Type [A]	Displays the registered name and the maximum/minimum current setting of the currently used lamp bulb.	
		Bulb Type [W]	Displays the registered name and the lamp rated output (kW) of the currently used lamp bulb.	
		Bulb Type [H]	Displays the registered name and the lamp bulb warning time (Bulb Warning Time) setting of the currently used lamp bulb.	
	Preset Button	Preset Button 1-8	Displays the titles assigned to the preset buttons (<1> to <8> buttons).	146
	Usage		Displays the usage times of the projector, lamp bulb, lamp house, bulb warning, fan, and air filter.	146
	Error Code		Displays the currently occurring error.	147
	Version	System	Displays the version of the projector head. (BIOS, Firmware, Data, and Serial No.)	147
		SIB	Displays the version of the signal input board.	
		IMB	Displays the vendor name and version of the image media block.	
		MMS (Built-in)	Displays the version of the built-in multi-media switcher (MMS). (BIOS, Firmware, Data, FPGA, Configuration FPGA, and Serial No.)	
	IP Address	System	Displays the SYSTEM IP address.	149
	Setup Date		Displays the date when the projector was setup (starting date of the warranty period).	149
	Option Status		Displays the link status of the device mounted in slot A and slot B, and the projector.	149

4.1.1 When You Use the Service Personnel Menu

To use the menu for service personnel, you need to input the passcode. This section describes how to display the passcode entry screen and how to enter the passcode. Refer to the Projector Manual for details on how to enter text.

[1] Press the MENU button for three seconds or longer.

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

Press the EXIT button to return to the original screen.

[2] Enter the passcode and press the ENTER button.

If you make a mistake during input, you can move the cursor by pressing the LEFT/RIGHT buttons and overwrite the passcode.

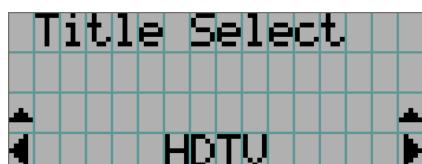
If the passcode is correct, you can use the menu for service personnel.

4.2 Title Select

4.2.1 Title select (Title Memory)

Select the title of the signal to be projected.

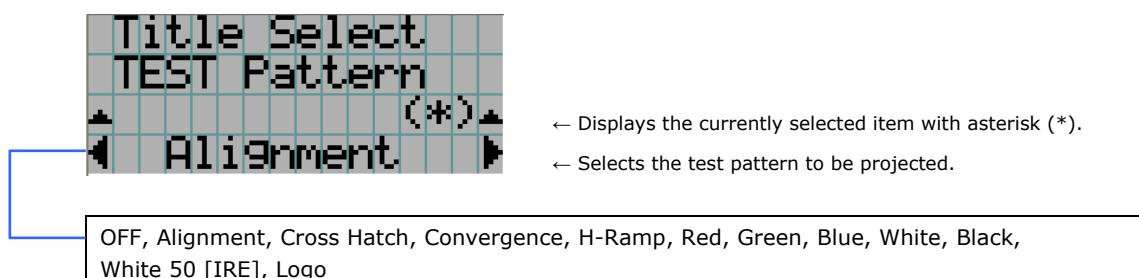
You can register up to 100 titles. You can also assign registered titles to the preset buttons 1 to 8 on the projector's control panel and call them up directly using those buttons.



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

4.2.2 Test Pattern

Selects the test pattern to be projected.



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

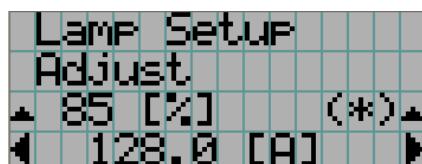
OFF, Alignment, Cross Hatch, Convergence, H-Ramp, Red, Green, Blue, White, Black,
White 50 [IRE], Logo

4.3 Configuration

4.3.1 Lamp Setup

Adjust

Adjusts the lamp output (brightness). Control the current at 0.1A increments.



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

← Adjusts the lamp brightness.

Note

- You cannot set the lamp output to below 70% (if you set it below 70% it is set to 70%).

Feedback

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

Lamp Setup	
Feedback	
(*)	
Disable	← Displays the currently selected item with asterisk (*).
Disable	← Displays the setting.
Enable	Disables the lamp brightness constant mode.
Enable	Enables the lamp brightness constant mode.

4.3.2 Lens Control

Adjust the position, size, and focus of the projected screen.

Press the ENTER button to switch the display between "Lens Position" and "Focus Zoom" adjustments. Press the EXIT button to return to a menu one level above.

Lens Position

Adjusts the position of the projected screen.

The projected screen moves in the selected direction as you press the UP/DOWN/LEFT/RIGHT button.



Focus Zoom

Adjusts the size (Zoom) and focus (Focus) of the projected screen.

Press the UP/DOWN button to adjust the focus.

Press the LEFT/RIGHT button to adjust the size of the projected screen.



4.3.3 Setup

This menu is for service personnel. For the procedure to use it, refer to “4.1.1 When You Use the Service Personnel Menu” (page 131).

Douser Mode

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

<p>The image shows a grid-based LCD menu interface under the "Setup" section. The second item, "Douser Mode", has an asterisk (*) next to it, indicating it is selected. Below the menu are four buttons: up, down, left, and right. A blue line connects the "Disable" entry in the table below to the "Disable" button in the menu.</p>	
<p>← Displays the currently selected item with asterisk (*). ← Displays the setting</p>	
Disable	Disables the douser mode.
Enable	Enables the douser mode.

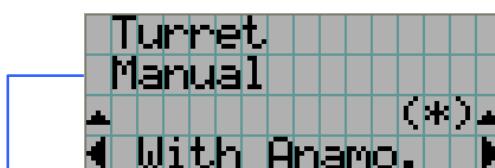
PowerOn Douser

You can set whether the douser is opened or closed after the main unit is turned on.

<p>The image shows a grid-based LCD menu interface under the "Setup" section. The third item, "PowerOn Douser", has an asterisk (*) next to it, indicating it is selected. Below the menu are four buttons: up, down, left, and right. A blue line connects the "Close" entry in the table below to the "Close" button in the menu.</p>	
<p>← Displays the currently selected item with asterisk (*). ← Displays the setting</p>	
Close	Douser remains closed on coming out of Standby.
Open	Open douser on coming out of Standby.

Turret

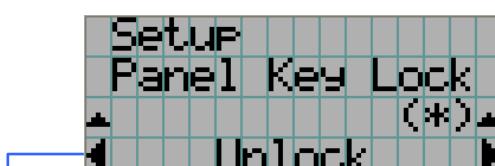
Controls the wide converter lens turret (NC-AT02).



Manual	Manually control the turret. - Without Anamo: Unuses the turrent. - With Anamo: Uses the turrent.
Auto	Controls the turret automatically when the title is switched. - Disable : Unuse the turrent in conjunction with the title. - Enable : Use the turrent in conjunction with the title.
Ref. Select	Controls the turret for the selected title. - Without Anamo: Unuses the turrent. - With Anamo: Uses the turrent.

Panel Key Lock

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



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

Note

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

Auto Key Lock

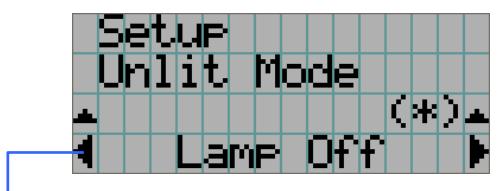
Enables or disables Auto Key Lock.



Enable	Enables the auto key lock function. This applies the key lock automatically if you do not perform any operations from the main unit control panel for 30 seconds after entering the standby state. If you do not perform any operations for 30 seconds after releasing the key lock, the key lock is applied again.
Disable	Disables the auto key lock function. Although the key lock becomes active after entering the standby state, once you release the key lock it is not automatically applied.

Unlit Mode

When lamp is unlit, sets whether to shut down the projector or transit to lamp-off state. For this menu, the new setting is reflected immediately when the setting is changed.



Lamp Off	In case the lamp did not turn on for some reason, the projector will transit to lamp-off state (the power remains turned on).
Cooling	In case the lamp did not turn on for some reason, the projector shuts down (powers off). (Before shutting down, the fan operates for 5 minutes (cool off time).)

3D Connector

Selects the port for 3D video systems used as the control signal input/output for the 3D video system.

If you select "Not Use", the GP I/O port is used as the control signal input/output for the 3D video system. If you select "Use", the 3D port is used as the signal input for the 3D video system.



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

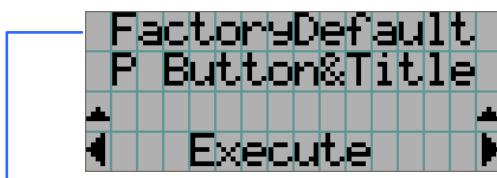
← Displays the setting

Not Use	Does not use the 3D port as the control signal input/output for the 3D video system (uses the GP I/O port).
Use	Uses the 3D port as the control signal input/output for the 3D video system.

FactoryDefault

Returns the projector main unit settings to the factory default state. You can choose from the following three types of methods.

- Registered preset buttons and title settings
- Network settings
- All adjustment and setting values



← Select the item to be reset.

← Press the ENTER button to execute resetting

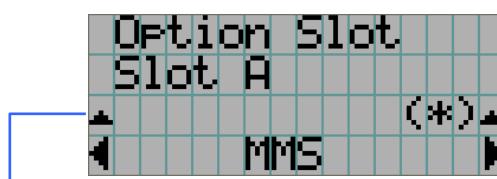
P Button & Title	Resets the allocation of preset buttons and all registered titles.
LAN	Resets the network settings.
All	Resets all adjustment and setting values.

4.3.4 Installation

This menu is the service personnel menu. For the using service personnel menu, refer to "4.1.1. When You Use the Service Personnel Menu" (Page 131).

Option Slot

Configures the devices mounted in slot A and slot B. This menu is active in standby mode only.



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

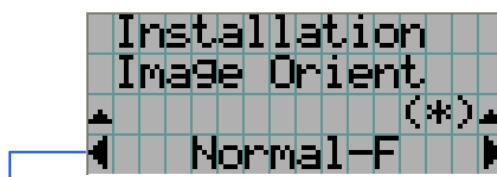
IMB	Image media block (NC-80MB01)
SIB	Signal input board (NC-80LB01/NC-80DS01)
MMS	Multi-media switcher (MM3000B)
No Board	No device mounted

Note

- The following settings are required when using the multi media switcher (MM3000B).
 - "Option Slot" in the Installation menu (this setting)
 - "MMS Select" in the Installation menu

Image Orient

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

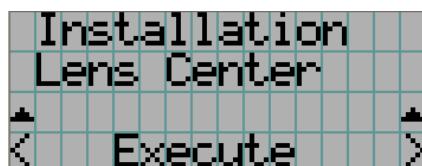


← Displays the currently selected item with asterisk (*).
← Displays the setting

Normal-F	Projection is made from front of the screen.
Normal-R	Projection is made from behind 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 whether or not to use the multi-media switcher (MMS).



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

← Displays the setting

Built-in	Use the MMS (optional: MM3000B)
Not Use	Does not use MMS

Note

- The following settings are required when using the multi-media switcher (MM3000B).
 - "Option Slot" in the Installation menu
 - "MMS Select" in the Installation menu (this setting)

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.



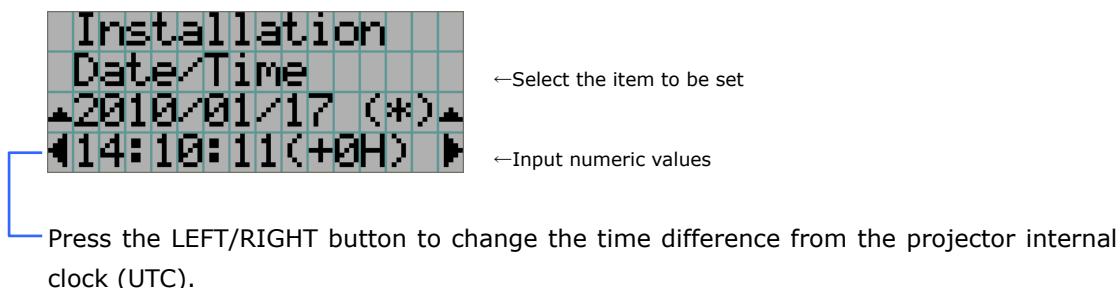
← Displays the currently selected item with asterisk (*).

← Displays the setting

Date/Time

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

The internal clock in the projector uses coordinated universal time (UTC). This sets the time difference between the standard time in your region and UTC.

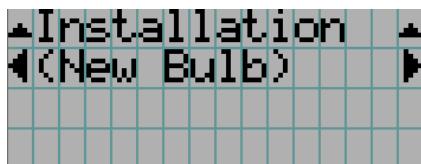


Tips

- If you are using DCC for S2, you can set the date and time from your computer. Refer to "Digital Cinema Communicator for S2 Installation Manual" for details.

New Bulb

When the lamp bulb is replaced, reset the lamp time and select the lamp bulb type. Ask our service personnel to configure the setting when replacing the lamp bulb. This menu is active in standby mode only.



Bulb Warning

To set the time for display of lamp bulb warning. This menu is active in standby mode only.

Installation	
Bulb Warning	
	(*)
Manual	<p>← Displays the currently selected item with asterisk (*).</p> <p>→ Displays the setting</p>
Manual	Manually specify the warning time (H). Press the SELECT ▲ key to display the numeric input line (input the value using the remote controller).
Use Bulb Entry	Warning time set by BulbEntry is used.

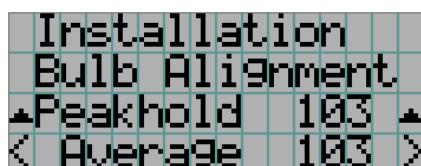
New Lamp house

When the lamp house is replaced, reset the lamp house time and select the lamp house. This menu is active in standby mode only.

New Lamp house	
Usage Clear	
	(*)
House 1	<p>← Displays the currently selected item with asterisk (*).</p> <p>→ Displays the setting</p> <p>→ Select the items for which the usage times are cleared.</p>
New Lamp house	
Usage Mode	
	(*)
Multi	<p>← Displays the currently selected item with asterisk (*).</p> <p>→ Displays the setting</p> <p>→ Select the mode for lamp house usage time.</p>
Single	To set the mode in which lamp house is not replaced (Single mode)
Multi	To set the mode in which the lamp houses are alternately replaced for use (Multi-mode). - Lamp house 1: To use the lamp house 1 - Lamp house 2: To use the lamp house 2
House	To set the mode in which lamp house is not replaced (Single mode)
House1	When multi-mode lamp 1 is used
House2	When multi-mode lamp 2 is used
Usage Clear	Reset the lamp house usage time.
Usage Mode	Set the mode for lamp house usage time.

Bulb Alignment

Use this for lamp bulb alignment adjustment.



← Display the maximum value of the lamp light quantity input.
← Display the current input for lamp light quantity.

Usage Reset

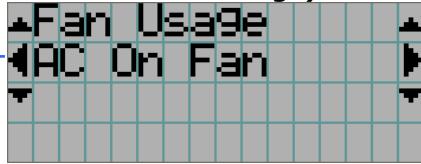
Initializes the usage time of the fan and air filter.



← Select fan or air filter.

Fan Usage	Resets the fan usage time.
Filter Usage	Resets the air filter usage time.

(If you selected Fan Usage)



← Select the type of fan.

Select the type of fan then press the DOWN button. "Reset" is displayed.

If you press the DOWN button at this time, the usage time for the selected fan is reset.

AC On Fan	Resets the usage time of the projector cooling fan (Power On Fan). Fan 6 corresponds to the AC On Fan.
Power On Fan	Resets the usage time of the projector cooling fan (AC On Fan). Fan 0 to Fan 5 corresponds to Power On Fan.
Lamp Fan	Resets the usage time of the lamp cooling fan.
All	Resets the usage times for all of the fans.

(If you selected Filter Usage)

← Select the type of filter.

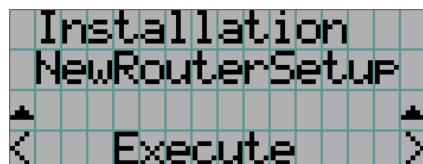
Select the type of air filter then press the DOWN button. "Reset" is displayed.

If you press the DOWN button at this time, the usage time for the selected air filter is reset.

Body Filter	Resets the usage time for the projector main unit air filter.
Lamp Filter	Resets the usage time for the lamp air filter.
All	Resets the usage times for all of the air filters.

NewRouterSetup

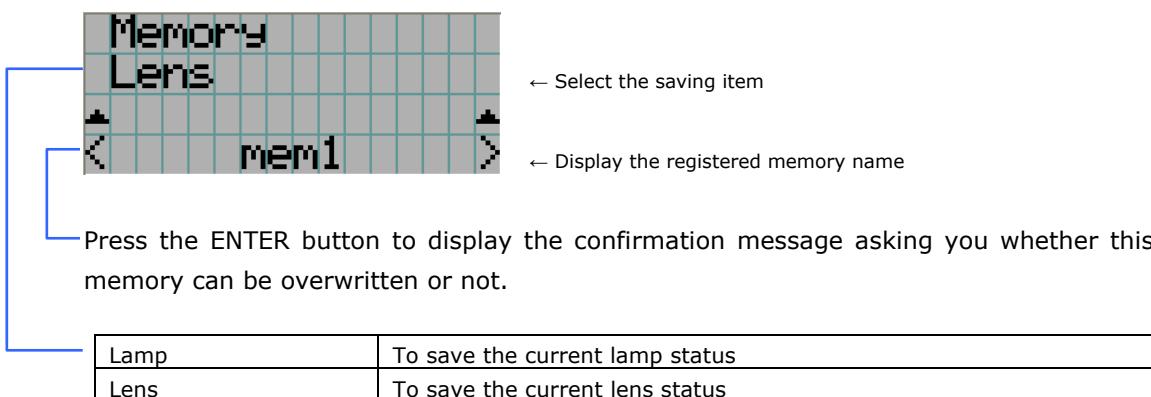
Sets the router with the default settings when the router built-in the projector had been replaced.



← Press the ENTER button to execute the setup.

4.3.5 Memory

This menu is the service personnel menu. For the using service personnel menu, refer to "4.1.1. When You Use the Service Personnel Menu" (Page 131).
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.
Memory is registered using DCC for S2. Refer to the "Digital Cinema Communicator for S2 Installation Manual" for details.

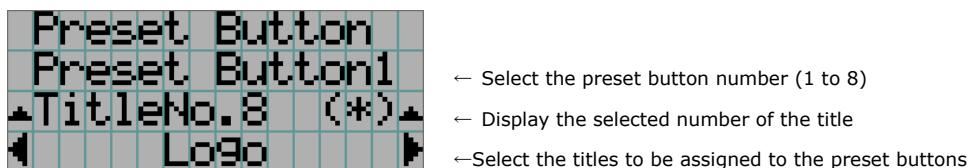


4.4 Title Setup

This menu is the service personnel menu. For the using service personnel menu, refer to "4.1.1. When You Use the Service Personnel Menu" (Page 131).

4.4.1 Preset Button

Use this button to set the titles to be assigned to the preset buttons (<1> to <8> buttons). You cannot assign the same title to several preset buttons. If you want to assign any title to another number, cancel the assignment once and then set it to any button again.



Select the titles from those registered in advance.
To clear assignment to preset buttons, select "---".

4.5 Information

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

4.5.1 Lamp

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

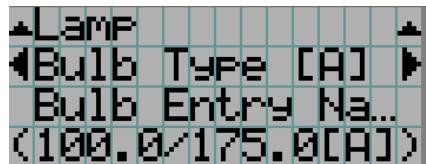
Output

Displays the lamp brightness (output) setting.



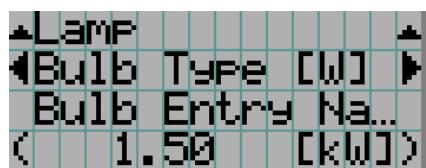
Bulb Type [A]

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



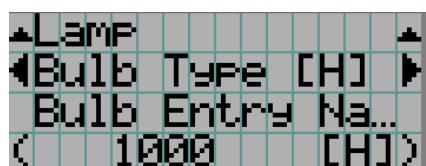
Bulb Type [W]

Displays the registered name and the lamp rated output (kW) of the currently used lamp bulb.



Bulb Type [H]

Displays the registered name and the lamp bulb warning time (Bulb Warning Time) and setting of the currently used lamp bulb.



4.5.2 Preset Button

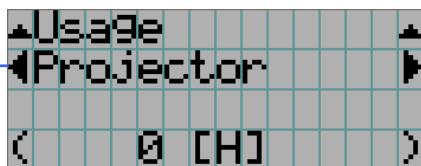
Displays the titles assigned to the preset buttons (<1> to <8> buttons) on the projector's control panel.



- ← Selects the preset button whose contents you want to display.
- ← Displays the assigned title numbers.
- ← Displays the registered names of the assigned titles.

4.5.3 Usage

Displays the hours of projector head, lamp, lamp house, fan, and air filter 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.
Lamphouse	Displays the hours of use of the current lamp house.
BulbWarning	Displays the currently enabled warning time. The following is displayed depending on the item set by the Bulb Warning setting. - When Use Bulb Entry is enabled: Displays the Bulb Entry value. - When in Manual setting: Displays the value set using Manual.
AC On Fan	Displays the usage time of the projector cooling fan (AC On Fan). Fan 6 corresponds to the AC On Fan.
Power On Fan	Displays the usage time of the projector cooling fan (Power On Fan). Fan 0 to Fan 5 corresponds to Power On Fan.
Lamp Fan	Displays the usage time of the lamp cooling fan.
Filter	Displays the usage time of the air filters (for the projector head and for the lamp).

4.5.4 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 LEFT/RIGHT buttons.

4.5.5 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.
Model	Displays the model name of the projector head.

SIB

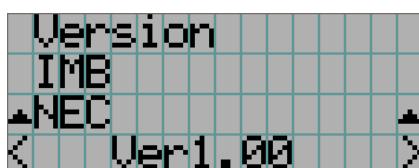
Displays the version information of the signal input board (SIB).



← Displays the version information.

IMB

Displays the vendor name and version information of the image media block (IMB).

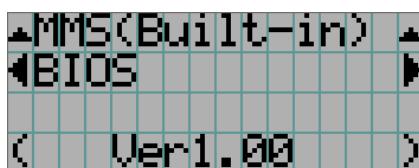


← Displays the vendor name.

← Displays the version information.

MMS (Built-in)

Displays the version of the multi-media switcher (MM3000B) installed to the projector head. However, if "Not Use" is selected in the MMS Select menu, the various version information is not displayed.



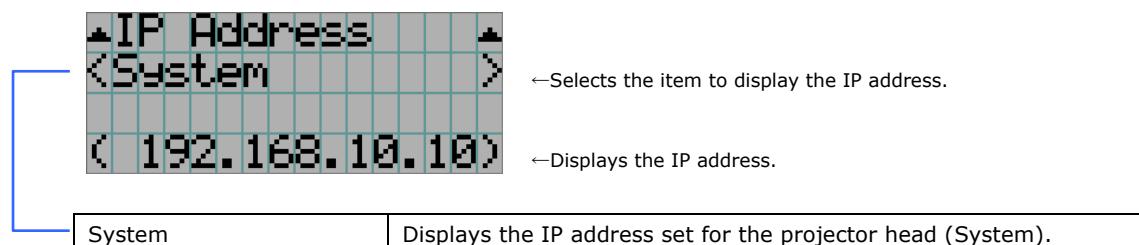
← Selects the item to display.

← Displays the version information.

BIOS	Displays the BIOS version of the MMS (MM3000B).
Firmware	Displays the firmware version of the MMS (MM3000B).
Data	Displays the data version of the MMS (MM3000B).
FPGA	Displays the FPGA version of the MMS (MM3000B).
Cfg FPGA	Displays the configuration FPGA version of the MMS (MM3000B).
Serial No.	Displays the serial number of the MMS (MM3000B).

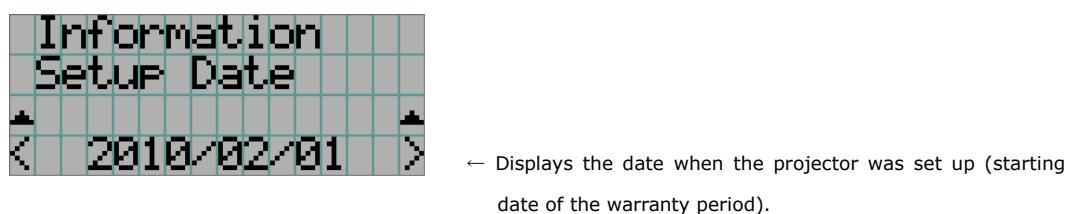
4.5.6 IP Address

Displays the IP address set in the projector head.



4.5.7 Setup Date

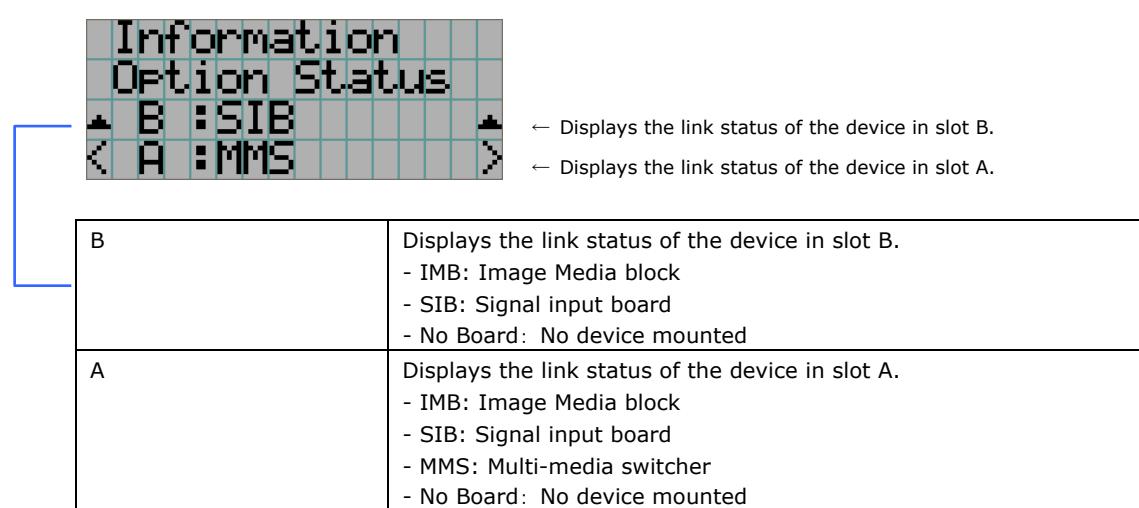
Displays the date when the projector was setup (starting date of the warranty period). The setup date is configured by using DCC for S2. Refer to "Digital Cinema Communicator for S2 Installation Manual" for details.



4.5.8 Option Status

Displays the link status of the device mounted in slot A and slot B (media block, signal input board, or multi-media switcher) on the projector.

The device name is displayed in () when the projector is in standby or when connection to the device cannot be confirmed.



5.

Steps to Upgrade to 4K

By using upgrade kit (NC-32UP4K01), you can upgrade the resolution of NC3200S from 2K to 4K. This section describes the parts and tools need for upgrade, and the procedure how to upgrade.

5.1 List of Parts Used

4K upgrade kit (NC-32UP4K01) is composed of the parts listed below.

Parts Name	Quantity	Comment
NC-32UP4K01	1	-
4K PRISM ASSY	1	Including PRISM cage, FSB cables (power data), Large connector, DMD cooling unit, DMD temperature sensor.
INTEGRATER ROD(NC32-4K)	1	Option Engine for DC4K
G-FSB COOLING ASSY	1	Cooling unit for G-FSB
GASKET	2	Add to CPU PWB for EMI
PJDIV PWB	1	PJDIV PWB for DC4K
CN6	1	CN6 for DC4K
Cable Clamper	2	Cable clamper for CN6 (for DC4K)
Name Plate Label	1	-
Serial Number Label	1	-

Note

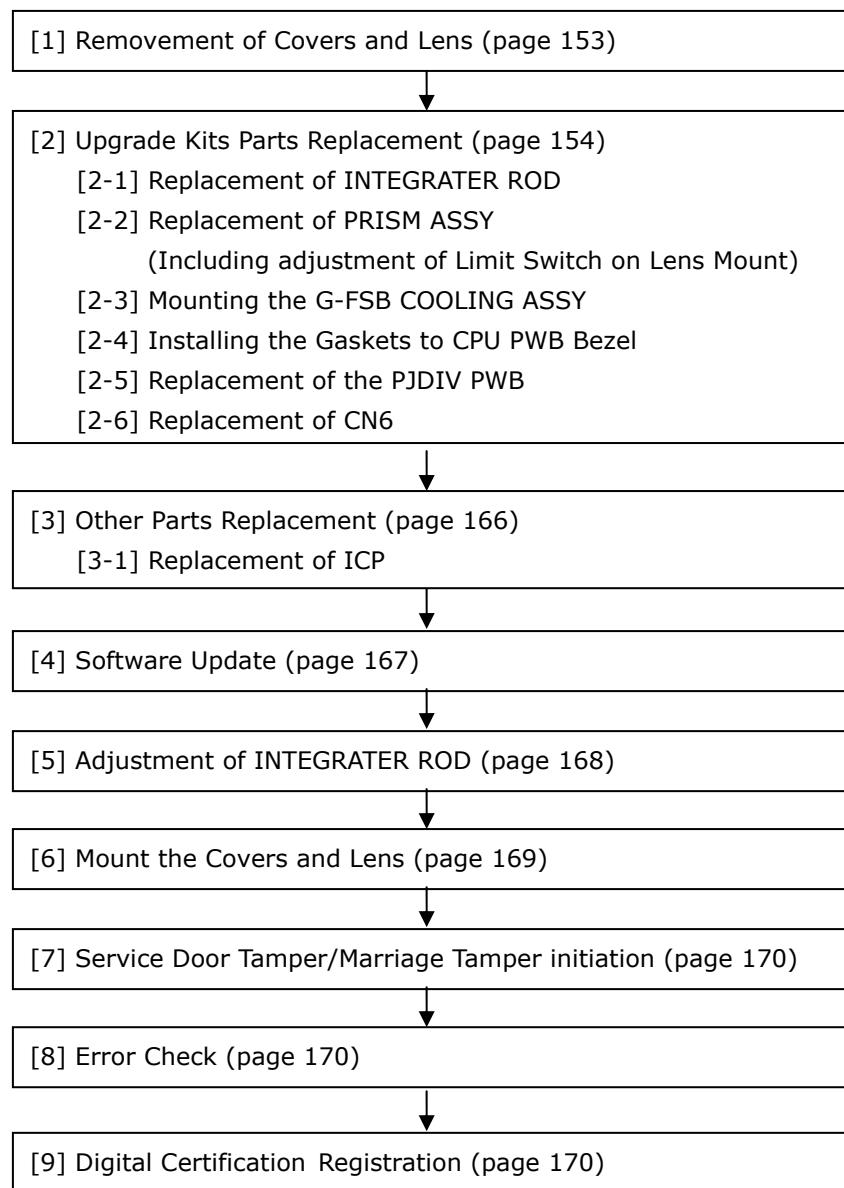
- If the last digit of the serial number of the projector is any of "A, B, C, D, E, F, or G", then an ICP (part number: 7N951521) is needed in addition to the 4K upgrade kit. If the last digit of the serial number is "H" or later, the ICP does not need to be replaced.

5.2 List of Tools Used

The tools used for upgrading to 4K are as follows;

Tool	Quantity	Major Application
Phillips head screwdriver (No.2)	1	Mounting and removing covers
Flat head screwdriver	1	PRISM ASSY replacement
Hexagonal wrench (Width across flats: 2mm)	1	INTEGRATOR ROD replacement
Hexagonal wrench (Width across flats: 2.5mm)	1	INTEGRATOR ROD replacement
Hexagonal wrench (Width across flats: 3mm)	1	Adjustment of the limit switch on lens mount

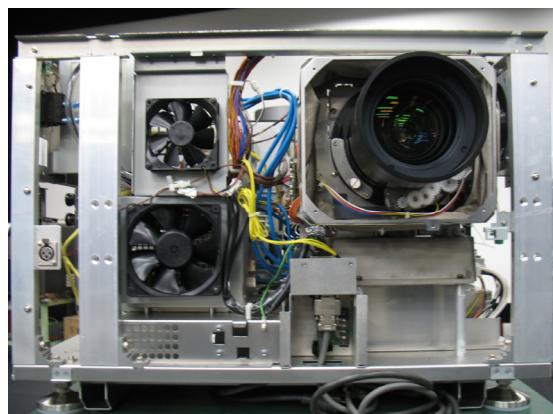
5.3 Summary flow for 4K upgrading



5.4 Removing the Covers and Lens

Remove the projector covers and lens by the following procedure. To remove the covers refer to “1.7 Removing the Projector Covers” (page 32) for details. To remove lens do the reverse procedure of “2.5 Mounting the Primary Lens” (page 83).

- [1] Remove the side cover.
- [2] Remove the lens side cover.
- [3] Remove the top front cover.
- [4] Remove the lens cover.
- [5] Remove the lens.
- [6] Remove the whole cover of front side of the projector.



This completes the removal of cover and lens. Next, replace the option parts included in upgrade kits.

5.5 Upgrade Kits Parts Replacement

This section describes the procedure of replacing the INTEGRATER ROD, PRISM ASSY, G-FSB COOLING ASSY, PJDB PCB and CN6 which is included in upgrade kits (NC-32UP4K01).

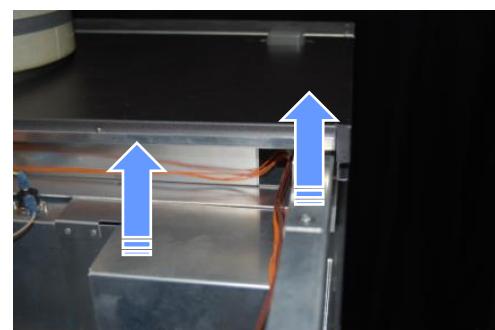
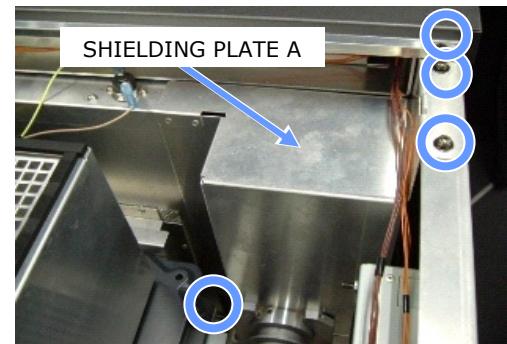
5.5.1 Replacement of the INTEGRATER ROD

- [1] Remove the SIDE FAN by removing the screws shown in the picture (3 places).

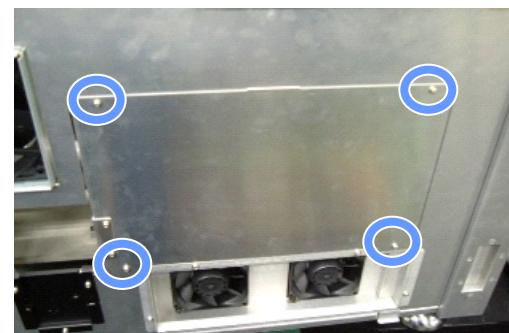


- [2] Remove the SHIELDING PLATE A.

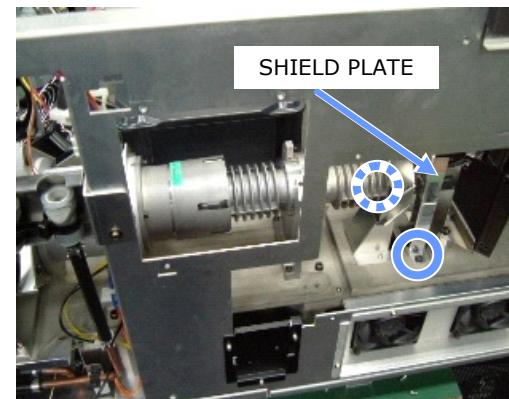
- <1> Remove the screws shown in the picture (4 places).
- <2> Lift up the SHIELDING PLATE A, and remove it.



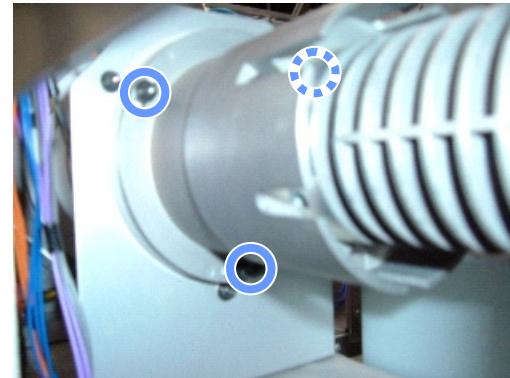
- [3]** Remove the SHIELD PLATE B by removing the screws shown in the picture (4 places).



- [4]** Remove the SHIELD PLATE by removing the screws shown in the picture (2 places).

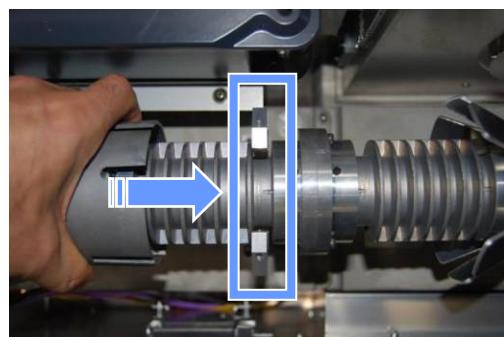


- [5]** Remove 3 screws at the current INTEGRATOR ROD.



[6] Remove the INTEGRATER ROD.

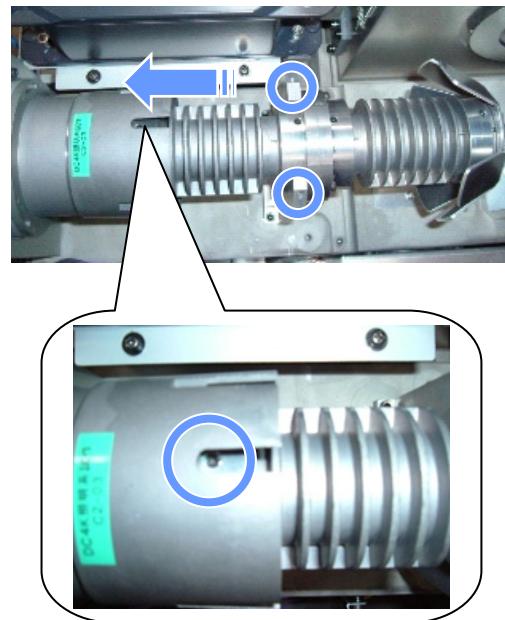
- <1> Loosen the screws shown in the picture (2 places).
- <2> Pull out the ROD up until the place shown in the picture.
- <3> Lift up the ROD and remove.



[7] Clean the new INTEGRATER ROD, which is included in the update kits, by air.

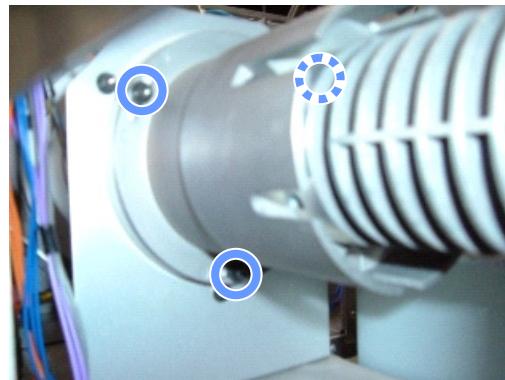
[8] Slide in the new INTEGRATER ROD.

- <1> Mount the new INTEGRATER ROD to the same place, where the old INTEGRATER ROD was.
- <2> Insert the INTEGRATER ROD. Be careful that the screw can be seen from the slit when you adjust the INTEGRATER ROD



[9] Fix the ROD by the screws removed at step [5].

Screws are needed to adjust the position of INTEGRATER ROD. So, do not fix the screws completely.



[10] Mount the SHIELD PLATE, removed at step [4].

[11] Mount the SHIELDING PLATE A, removed at step [2].

[12] Mount the SHIELDING PLATE B, removed at step [3].

[13] Mount the SIDE FAN, removed at step [1].

5.5.2 Replacement of PRISM ASSY

[1] Remove the LARGE CN and the FSB PS cables from the MOTHER PWB.

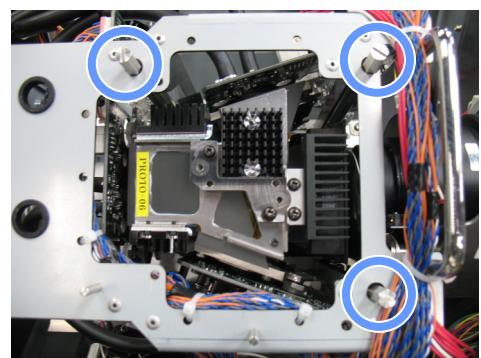
[2] Remove the TMP SENS cables from the TMP SENS PWB.



[3] Remove the two liquid cooling tubes.

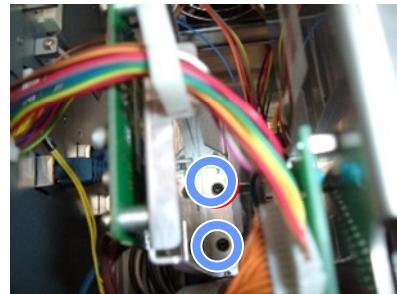


[4] Loose three shafts and remove the 2K PRISM ASSY.



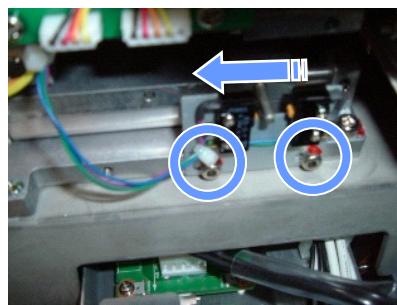
[5] Adjust the Limit Switch on Lens Mount.

- <1> Remove all cables connectors on MOTOR PWB.
- <2> Remove two screws at MOTOR PWB.
- <3> Remove the MOTOR PWB.



MOTOR PWB

- <4> Loose two screws at Limit Switch ASSY, and slide the Limit Switch ASSY in the direction shown in the picture until it stops.
- <5> Fix two screws at Limit Switch ASSY.
- <6> Mount the MOTOR PWB.
- <7> Connect all cable connectors on the MOTOR PWB.



Limit switch ASSY

[6] Mount the 4K PRISM ASSY and fasten the shaft.

[7] Mount the two liquid cooling tubes, removed at step [3].

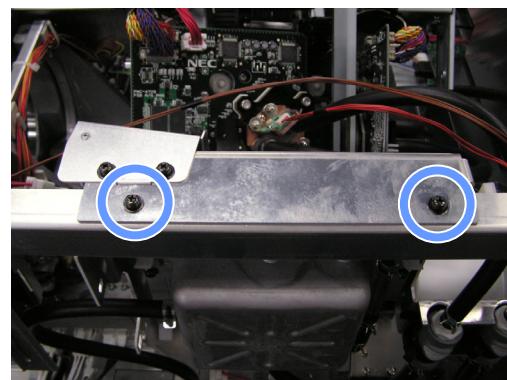
[8] Mount the TMP SENS cables to the TMP SENS PWB, removed at step [2].

[9] Mount the LARGE CN and FSB PS cable to the MOTHER PWB, removed at step [1].

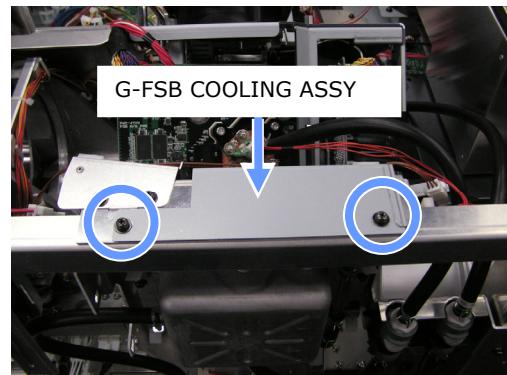
5.5.3 Mounting the G-FSB COOLING ASSY

- [1]** Remove screws (M4) of LIQUID COOLING ASSY.

There are two screws.



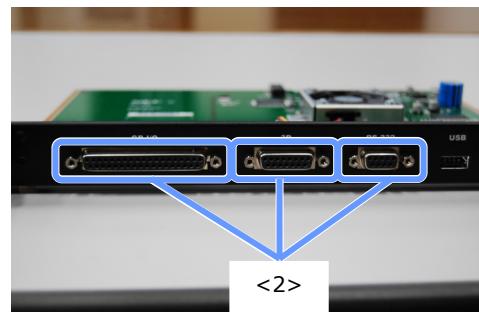
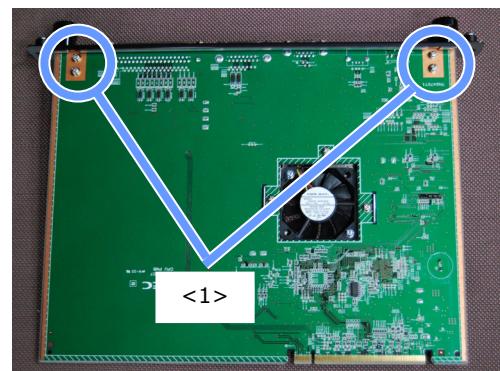
- [2]** Mount the G-FSB COOLING ASSY with the screws, removed at step [1].



5.5.4 Installing the Gaskets to CPU PWB Bezel

[1] Remove the bezel from CPU PWB.

- <1> Remove four screws at CPU PWB.
- <2> Remove six screws of D-SUB connector where is in front of CPU PWB.



[2] Install the gaskets on CPU PWB bezel.

There are two gaskets (24C10121).

Install the gaskets so that they touch the D-SUB connector.



[3] Mount the bezel to CPU PWB.

Confirm that gaskets come in contact with D-SUB connector of GND case.



5.5.5 Replacement of the PJDIV PWB

Note

- If the PKG-NO label on the surface of the PJDIV PWB board is "V37*****" (where the * are any numbers or letters), the PJDIV PWB does not need to be replaced.

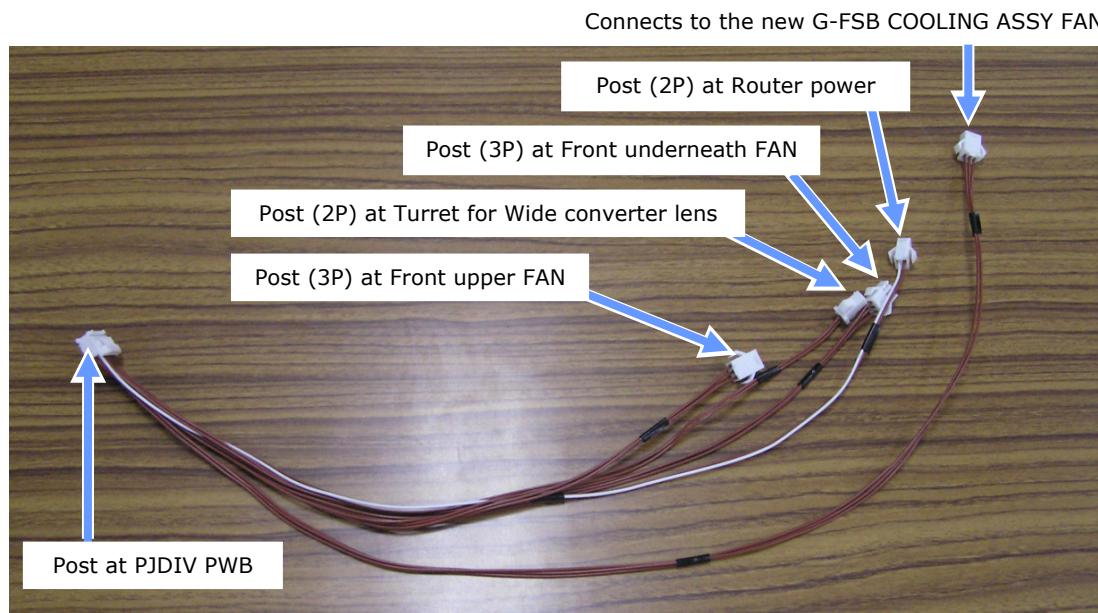
- [1] Remove the router holder, LAN and power cables.
- [2] Remove all cable connectors from the current PJDIV PWB.
- [3] Remove the current PJDIV PWB.
- [4] Seat and fix the new PJDIV PWB.
- [5] Mount the router holder, LAN, and power cables.

5.5.6 Replacement of CN6

Note

- If the PKG-NO label on the surface of the PJDIV PWB board is "V37*****" (where the * are any numbers or letters), then CN6 does not need to be replaced. You should connect to the G-FSB COOLING ASSY FAN connector by using the current CN6. Refer to step 6 in this section for details.

Below is the image of new CN6

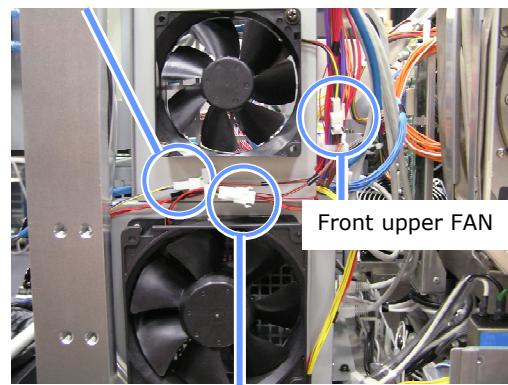


[1] Remove the current CN6.

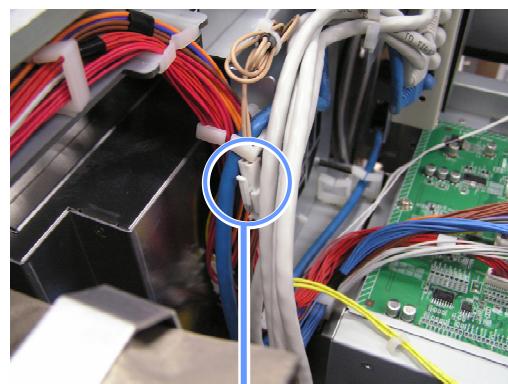
Remove the connector of the 4 places listed below.

- Front upper FAN
- Turret for Wide converter lens
- Front underneath FAN
- Router power

Turret for Wide converter lens

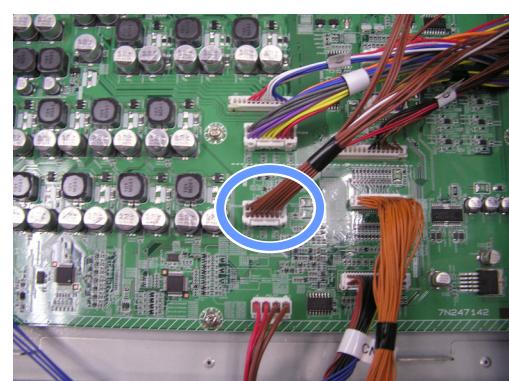


Router power



Front underneath FAN

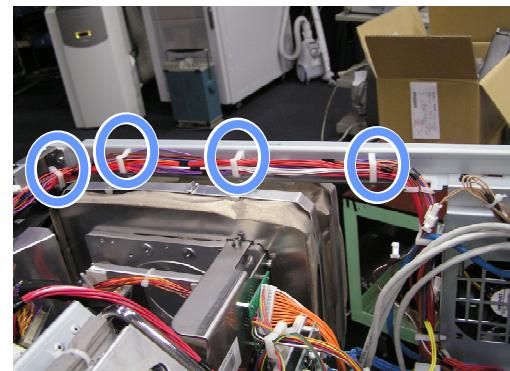
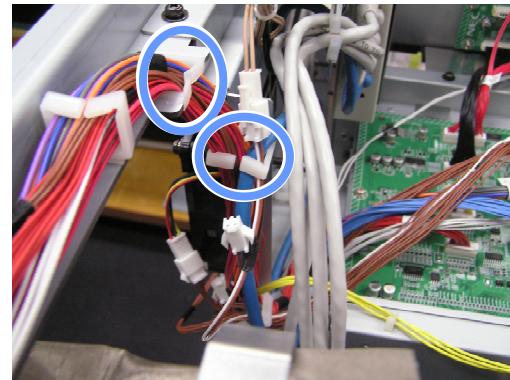
[2] Connect the new CN6 to PJDIV PWB.



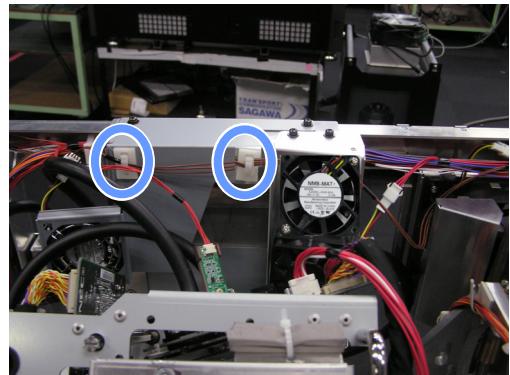
[3] Connect the new CN6 to the following connectors.

- Front upper FAN
 - Turret for Wide converter lens
 - Front underneath FAN
 - Router power
- Attach the G-FSB COOLING ASSY FAN connector last.

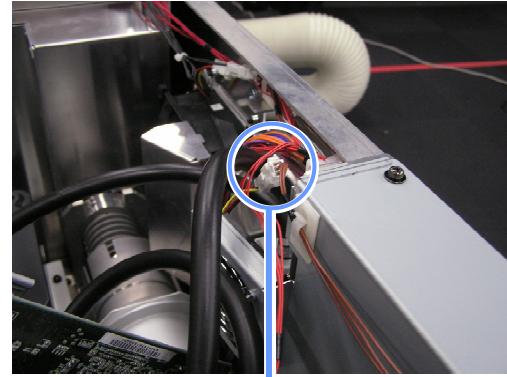
[4] Fix the new CN6 by using the current cable clamps.



[5] Attach the two cable clamps as shown in the picture, and fix the new CN6.



- [6] Connect the new CN6 to the G-FSB COOLING ASSY FAN connector.



G-FSB COOLING ASSY FAN

5.6 Other Parts Replacement

5.6.1 Replacement of the ICP

If the last digit of the serial number of the projector is any of "A, B, C, D, E, F, or G", then an ICP (part number: 7N951521) is needed in addition to the 4K upgrade kit. If the last digit of the serial number is "H" or later, the ICP does not need to be replaced.

- [1] Remove the option board, which is mounted under the ICP.
- [2] Remove the current ICP.
- [3] Remove the front cover from the current ICP, and mount the new ICP.
- [4] Mount the new ICP to the projector.
- [5] Mount the option board, removed at step [1].

This completes the parts replacement. Next, update the projector's software by using DCC for S2.

5.7 Software Update

Update the projector's software by using DCC for S2. For operation of DCC for S2, refer to "Digital Cinema Communicator for S2 Installation Manual".

- [1] Update DCC for S2 to the latest version (Currently "Ver. 3.2.0.0" as of 19th July, 2011).
- [2] Use the DCC for S2 semi-automatic update function to update the projector software.

Note

- Use the latest release package for the NC3200S (4K) (Currently "Ver. 3.003" as of 19th July, 2011).
- Do not use the backup file when executing the semi-automatic update.

When the update finishes, all the adjustment and setting values return to factory default.

Tips

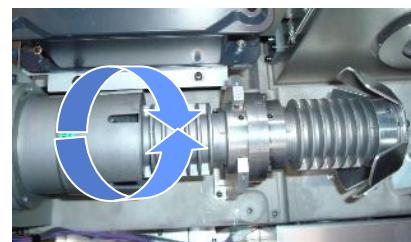
- Logs that were written before the update are kept after the update.
- The LAN settings of the projector main unit (IP address, subnet mask, and default gateway of the projector main unit) continue using the settings from before the update.

This completes the software update. Next, adjust the INTEGRATER ROD.

5.8 Adjustment of INTEGRATER ROD

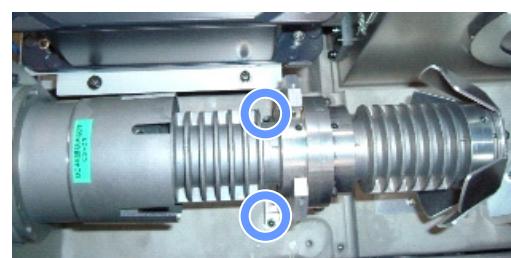
- [1] Power on the projector, select the test pattern (White).
- [2] Confirm that the shadows dose not appear in four corners of the projected image.

If there are shadows, refer to the step [3] in "5.5.1 Replacement of the INTEGRATER ROD" (page 155), and loose the three screws, which fixes the INTEGRATER ROD. Screw the INTEGRATER ROD until the shadows in four corners disappears.



- [3] Adjust the FOLD MIRROR.
- [4] Power off the projector.
- [5] Fix the INTEGRATER ROD by screws.

There are 5 screws to fix.



This completes the adjustment of INTEGRATER ROD.

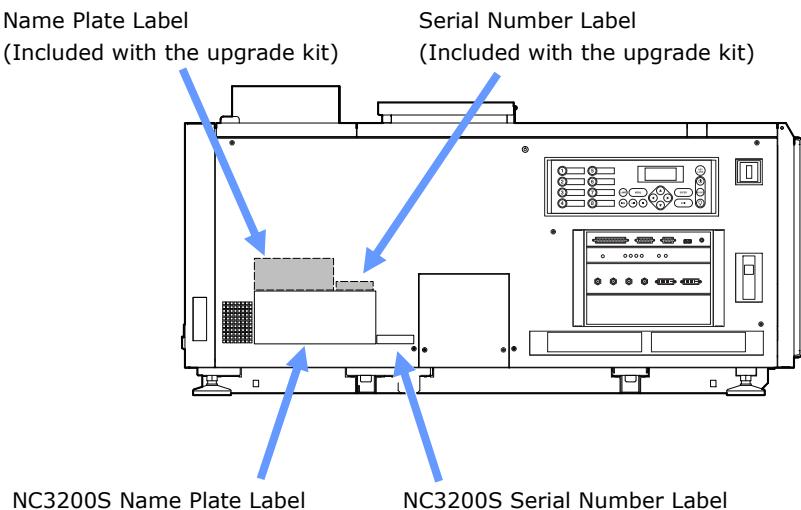
5.9 Confirm the Upgrade

5.9.1 Mount the Covers and Lens

Mount the cover and lens in the opposite procedure of removing. To mount the covers, refer to “1.7 Removing the Projector Covers” (page 32) for details. To mount lens refer to “2.5 Mounting the Primary Lens” (page 83).

- [1] Mount the air inlet cover (front side of the projector).
- [2] Mount the lens.
- [3] Mount the front cover.
- [4] Mount the top front cover.
- [5] Mount the lens side cover.
- [6] Mount the side cover.
- [7] Attach the name plate label and serial number label.

Attach the name plate label and the serial number label that are included with the upgrade kit about the rating label on the side of the projector main unit. Refer to the following diagram for the positions for attaching the labels.



5.9.2 Service Door Tamper/Marriage Tamper Initiation

Erase the service door tamper and marriage tamper.

[1] Power on the projector.

[2] Erase the service door tamper and marriage tamper.

For the procedure, refer to "3.2 Recovering from Tamper Errors" (page 106).

5.9.3 Error Check

Check if there are no errors on the projector. Upgrade is completed if there is no error.

5.9.4 Digital Certification Registration

Once upgrading the projector is complete, the Digital Certification is registered.

6.

Appendix

6.1 List of Registered Titles (when shipped from the factory)

The data listed following page have been cataloged in your projector before shipping from our factory.

NC3200S/NC3200-A

Preset Button	Title Number	TITLE NAME	INPUT	FILES					Wide Converter Lens
				PCF		TCGD		3D File	SCREEN
FILE NAME	Input Size(HxV)	SOURCE Aspect Ratio	SAME FILE NAME	To Tolerance Box	White Clip	3D File	SCREEN	MCGD	Wide Converter Lens
SDI-A,B	DCDM XYZ 239	SDI-A,B	DCDM XYZ 239	2048x858 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC2K SCOPE M101 OFF
SDI-A,B	DCDM XYZ 185	SDI-A,B	DCDM XYZ 185	1998x1080 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC2K FLAT M101 OFF
SDI-A,B	DCDM RGB 239	SDI-A,B	DCDM RGB 239	2048x858 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC2K SCOPE M101 OFF
SDI-A,B	DCDM RGB 185	SDI-A,B	DCDM RGB 185	1998x1080 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC2K FLAT M101 OFF
SDI-A	MXF1 239	SDI-A	MXF1 239	1970x804 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC2K SCOPE M101 OFF
SDI-B	MXF1 185	SDI-B	MXF1 185	1920x1038 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC2K FLAT M101 OFF
SDI-B	HDTV 1920x1080	SDI-B	HDTV 1920x1080	1970x1080 0	Nothing	Use	Not Use	Disable	DC2K HDTV M101 OFF
DVI-A	DVI 2048x1080	DVI-A	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC2K DVI M101 OFF
DVI-B	DVI 2048x1080	DVI-B	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC2K DVI M101 OFF
DVI-TWIN	DVI 2048x1080	DVI-TWIN	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC2K DVI M101 OFF
DVI-TWIN	DVI 2048x1080	DVI-TWIN	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC2K DVI M101 OFF

NC3240S-A

Preset Button	Title Number	TITLE NAME	INPUT	FILES					Wide Converter Lens
				PCF		TCGD		3D File	SCREEN
FILE NAME	Input Size(HxV)	SOURCE Aspect Ratio	SAME FILE NAME	To Tolerance Box	White Clip	3D File	SCREEN	MCGD	Wide Converter Lens
SDI-A,B	DCDM XYZ 239	SDI-A,B	DCDM XYZ 239	2048x858 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K SCOPE M101 OFF
SDI-A,B	DCDM XYZ 185	SDI-A,B	DCDM XYZ 185	1998x1080 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K FLAT M101 OFF
SDI-A,B	DCDM RGB 239	SDI-A,B	DCDM RGB 239	2048x858 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC4K SCOPE M101 OFF
SDI-A,B	DCDM RGB 185	SDI-A,B	DCDM RGB 185	1998x1080 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC4K FLAT M101 OFF
SDI-A	MXF1 239	SDI-A	MXF1 239	1920x804 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC4K SCOPE M101 OFF
SDI-B	MXF1 185	SDI-B	MXF1 185	1920x1038 0	DC28 DCI Xenon	Not Use	Not Use	Disable	DC4K FLAT M101 OFF
HDTV	HDTV 1920x1080	HDTV	HDTV 1920x1080	1920x1080 0	Nothing	Use	Not Use	Disable	DC4K HDTV M101 OFF
DVI-A	DVI 2048x1080	DVI-A	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC4K DVI M101 OFF
DVI-B	DVI 2048x1080	DVI-B	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC4K DVI M101 OFF
DVI-TWIN	DVI 2048x1080	DVI-TWIN	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC4K DVI M101 OFF
DVI-TWIN	DVI 2048x1080	DVI-TWIN	DVI 2048x1080	0x0	P7v2 theatre	Use	Not Use	Disable	DC4K DVI M101 OFF
IMB	DCDM XYZ 239	IMB	DCDM XYZ 239	2048x858 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K SCOPE M101 OFF
IMB	DCDM IMB 2K 185	IMB	DCDM IMB 2K 185	1998x1080 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K FLAT M101 OFF
IMB	DC4K XYZ 239	IMB	DC4K XYZ 239	4096x1716 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K SCOPE M101 OFF
IMB	DC4K XYZ 185	IMB	DC4K XYZ 185	3996x2160 0	DC28 DCI XYZE 314 351	Not Use	Use	Disable	DC4K FLAT M101 OFF

6.2 Error Code List

Please inquire your dealer/distributor about action to be taken for each error code.

Error code	Error message	Description
1	Lamp Door Open	Lamp door (cover) is open.
2	Lamp OverTemp	Temperature (lamp temperature) is abnormal.
4	GPSU(12V) Fail	Power supply is abnormal.
5	Lamp Unlit	Lamp doesn't light up.
6	House OverTime	Lamp house cumulative time is over.
8	LPSU OverTemp	Temperature (lamp power inside temperature) is abnormal.
12	E2PROM R Fail	E2PROM data read error is detected.
13	Interlock Fail	Interlock is activated.
15	E2PROM W Fail	E2PROM data write error is detected.
17	Pump Stop	Stopped for pump error.
120	DLP Ack Fail	ICP failed operation. It could be caused by configuration files lost, disk space issue, or DISKCHIP corruption issue.
123	Bulb OverTime	Lamp bulb cumulative time is over.
125	LPSU Fail	Lamp power supply is abnormal.
128	OutRange	Adjusting lamp output value has set out of range.
129	Down Lamp Power	Down lamp power to decrease set inside temperature.
130	MMS Comm Fail	MMS communication error is detected.
131	MMS Fan Stop	MMS fan has stopped.
132	MMS Fail	MMS internal error.
133	MM Reset	Executed to reset MMS.
140	DLP CommR Fail	No communication with the ICP board. (Communication I/F is RS-232C)
141	DLP CommE Fail	No communication with the ICP board and DCC. (Communication I/F is Ethernet)
145	SensorFail Outside Air	Sensor (Outside Air) read error.
146	SensorFail LPSU Intake	Sensor (LPSU Intake) read error.
147	SensorFail Exhaust	Sensor (Exhaust) read error.
148	SensorFail DMD-B	Sensor (DMD-B) read error.
150	Fan0 Stop	Fan0 has stopped.
151	Fan1 Stop	Fan1 has stopped.
152	Fan2 Stop	Fan2 has stopped.
153	Fan3 Stop	Fan3 has stopped.
154	Fan4 Stop	Fan4 has stopped.
155	Fan5 Stop	Fan5 has stopped.
156	Fan6 Stop	Fan6 has stopped.
157	Fan7 Stop	Fan7 has stopped. (NC3200 Series)
158	Fan8 Stop	Fan8 has stopped. (NC3200 Series)
159	Fan9 Stop	Fan9 has stopped. (NC3200 Series)
160	GPSU Fan Stop	Fan has stopped.
162	Lamp Fan0 Stop	Lamp Fan0 has stopped.

Error code	Error message	Description
163	Lamp Fan1 Stop	Lamp Fan1 has stopped.
164	ICP Fan Stop	ICP Fan has stopped.
165	GPI MACRO(n) Selection Invalid	Selection of preset button (n) through GPI is invalid because metadata is enabled.
166	GPI Control Invalid	Projector control through GPI is invalid because projector is busy.
170	OverTemp.Outside Air	Set outside temperature (Outside Air) is abnormal.
171	OverTemp Precaution	Set inside temperature (LPSU Intake) is close to over temperature.
172	OverTemp.Exhaust	Set inside temperature (Exhaust) is abnormal.
173	OverTemp.DMD-B	Set inside temperature (DMD-B) is abnormal.
174	Bulb Entry	No selection of current bulb.
177	Tamper Fail	Service door tamper switch of projector is open.
178	Marriage Tamper Fail	Service door tamper switch of projector is open.
180	CPU Fail(Mem)	System Test Failed. (Memory)
187	GPSU(24V) Fail	Power supply is abnormal.(24V)
201	Error Log Write Fail	Failed to store logs into projector system.
210	Unknown LPSU Model	Unexpected LPSU is attached.
211	LPSU Fan Stop	LPSU Fan has stopped.
213	12V Outside range	12V supply is out of range.
214	24V Outside range	24V supply is out of range.
215	Lamp Filter Time Over	The time to exchange lamp filter. (Future use)
216	Body Filter Time Over	The time to exchange body filter. (Future use)
220	AC On Fan Exchange Time	The time to exchange Fan (AC On).
221	Power On Fan Exchange Time	The time to exchange Fan (Power On).
222	Lamp Fan Exchange Time	The time to exchange Lamp Fan
230	Router Fail	Failed to control router.
231	SensorFail Opt	Failed to control light sensor.
232	MAC Write Fail	Failed to setup MAC address of CPU board.
233	Illegal MAC Address	Router WAN MAC address is illegal.
235	Router Self Check Fail	Router health-check error.
240	SIB Comm Fail	Failed to communicate with SIB.
241	SIB Error	SIB internal error.
242	SIB FPGA Reboot	Executed to re-boot SIB FPGA for recovery.
246	Fan11 Stop	Fan11 has stopped. (NC3240 Series)
250	Fan0 Stop Precaution	Fan0 Stop Precaution
251	Fan1 Stop Precaution	Fan1 Stop Precaution
252	Fan2 Stop Precaution	Fan2 Stop Precaution
253	Fan3 Stop Precaution	Fan3 Stop Precaution
254	Fan4 Stop Precaution	Fan4 Stop Precaution
255	Fan5 Stop Precaution	Fan5 Stop Precaution
256	Fan6 Stop Precaution	Fan6 Stop Precaution

Error code	Error message	Description
257	Fan7 Stop Precaution	Fan7 Stop Precaution (NC3200 Series)
258	Fan8 Stop Precaution	Fan8 Stop Precaution (NC3200 Series)
259	Fan9 Stop Precaution	Fan9 Stop Precaution (NC3200 Series)
260	Lamp Fan0 Stop Precaution	Lamp Fan0 Stop Precaution
261	Lamp Fan1 Stop Precaution	Lamp Fan1 Stop Precaution
262	Pump Stop Precaution	Pump Stop Precaution
263	ICP Fan Stop Precaution	ICP Fan Stop Precaution
265	Fan11 Stop Precaution	Fan11 Stop Precaution. (NC3240)
270	SD Tamper Terminate	Terminated service door tamper event latched by Enigma board. * This message would be shown on Log, not on LCD.
271	IMB:SD Tamper Terminate	Terminated service door tamper event latched by IMB. * This message would be shown on Log, not on LCD.
280	Bulb Warranty Over	Bulb warranty time over.
301	System Error	ICP board error
302	Self Test Error	ICP board error To recover the issue, update ICP to higher than Prod3.0 or equal. If that can not remove the issue, remove and reseat the ICP board.
303	Install Release Package Error	ICP board error It could be caused by disk space issue or DISKCHIP corruption issue.
304	Load Release Package Error	ICP board error It could be caused by disk space issue or DISKCHIP corruption issue.
305	Key Error	ICP board error
306	Certificate Error	ICP board error
317	ICP Normal Configuration Error	ICP board error
318	ICP Boot Configuration Error	ICP board error
319	FMT Normal Configuration Error	ICP board error
320	FMT Boot Configuration Error	ICP board error
321	FMT Satellite Configuration Error	ICP board error
322	1.20V Supply out of range	ICP board error
323	1.80V Supply out of range	ICP board error
324	2.50V Supply out of range	ICP board error
325	3.30V Regulator out of range	ICP board error
326	ICP FPGA Temperature out of range	ICP board error
327	FMT FPGA Temperature out of range	ICP board error
328	ICP Flash Update Error	ICP board error
329	FMT Sequence Data File Mismatch	ICP board error
330	FMT DMD Data File Mismatch	ICP board error
331	FMT Flash Checksum Error - Sequence Data	ICP board error
332	FMT Flash Checksum Error - DMD Data	ICP board error
333	Satellite Hardware Mismatch	ICP board error
334	FMT Flash Update Error	ICP board error
335	Red Satellite Reports Reset	ICP board error
336	Red Satellite Serial Link Error	ICP board error

Error code	Error message	Description
337	Red Satellite Firmware Configuration Error	ICP board error
338	Red DAD1000 Bias Under Voltage Error	ICP board error
339	Red DAD1000 Reset Under Voltage Error	ICP board error
340	Red DAD1000 Offset Under Voltage Error	ICP board error
341	Red DAD1000 Thermal Shutdown Error	ICP board error
342	Green Satellite Reports Reset	ICP board error
343	Green Satellite Serial Link Error	ICP board error
344	Green Satellite Firmware Configuration Error	ICP board error
345	Green DAD1000 Bias Under Voltage Error	ICP board error
346	Green DAD1000 Reset Under Voltage Error	ICP board error
347	Green DAD1000 Offset Under Voltage Error	ICP board error
348	Green DAD1000 Thermal Shutdown Error	ICP board error
349	Blue Satellite Reports Reset	ICP board error
350	Blue Satellite Serial Link Error	ICP board error
351	Blue Satellite Firmware Configuration Error	ICP board error
352	Blue DAD1000 Bias Under Voltage Error	ICP board error
353	Blue DAD1000 Reset Under Voltage Error	ICP board error
354	Blue DAD1000 Offset Under Voltage Error	ICP board error
355	Blue DAD1000 Thermal Shutdown Error	ICP board error
356	RTC Error	Indicates that ICP RTC is set to a date before January 1, 2009, and is likely invalid. If the year value is less than 2009, then the time is considered to be "invalid".
400	Enigma Comm Fail	No communication with the Enigma board.
410	System Error	Enigma Status error
411	Self Test Error	Enigma Status error
412	Install Release Package Error	Enigma Status error
413	Load Release Package Error	Enigma Status error
414	TI Login List Package Error	Enigma Status error
415	Security Officer Login List Package Error	Enigma Status error
419	Certificate or Key Error	Enigma Status error
420	ICP Communications Status	Enigma fails to do logical marriage to ICP when Enigma powers up. Because of no communications with ICP during logical marriage.
426	User Loader Integrity Error	Enigma is in FIPS error state. (Integrity check error)
427	Main Application Integrity Error	Enigma is in FIPS error state. (Integrity check error)
428	RNG Hardware Integrity Error	Enigma is in FIPS error state. (Integrity check error)
429	DRNG Algorithm Integrity Error	Enigma is in FIPS error state. (Integrity check error)
430	RSA Algorithm Integrity Error	Enigma is in FIPS error state. (Integrity check error)
431	AES Algorithm Integrity Error	Enigma is in FIPS error state. (Integrity check error)
432	HMAC Algorithm Integrity Error	Enigma is in FIPS error state. (Integrity check error)
433	SHA Algorithm Integrity Error	Enigma is in FIPS error state. (Integrity check error)

Error code	Error message	Description
434	TLS Integrity Error	Enigma is in FIPS error state. (Integrity check error)
435	FPGA Configuration Integrity Error	Enigma is in FIPS error state. (Integrity check error)
436	FPGA CineLink 2 Decryption Integrity Error	Enigma is in FIPS error state. (Integrity check error)
437	RTC Error	Indicates that Enigma RTC is set to a date before January 1, 2009, and is likely invalid. If the year value is less than 2009, then the time is considered to be "invalid"
442	FPGA Configuration Error	Enigma Status error
443	FPGA Temperature out of range	Enigma Status error
446	RNG Hardware Duplicate Output Error	Enigma is in FIPS error state. (Integrity check error)
447	DRNG Algorithm Duplicate Output Error	Enigma is in FIPS error state. (Integrity check error)
450	1.20V Supply out of range	Enigma Status error
451	1.80V Supply out of range	Enigma Status error
452	2.50V Supply out of range	Enigma Status error
453	3.30V Regulator out of range	Enigma Status error
458	SelfTest User Loader Integrity Error	Enigma is in FIPS error state. (Self test result)
459	SelfTest Main Application Integrity Error	Enigma is in FIPS error state. (Self test result)
460	SelfTest RNG Hardware Integrity Error	Enigma is in FIPS error state. (Self test result)
461	SelfTest DRNG Algorithm Integrity Error	Enigma is in FIPS error state. (Self test result)
462	SelfTest RSA Algorithm Integrity Error	Enigma is in FIPS error state. (Self test result)
463	SelfTest AES Algorithm Integrity Error	Enigma is in FIPS error state. (Self test result)
464	SelfTest HMAC Algorithm Integrity Error	Enigma is in FIPS error state. (Self test result)
465	SelfTest SHA Algorithm Integrity Error	Enigma is in FIPS error state. (Self test result)
466	SelfTest TLS Integrity Error	Enigma is in FIPS error state. (Self test result)
467	SelfTest FPGA Configuration Integrity Error	Enigma is in FIPS error state. (Self test result)
468	SelfTest FPGA CineLink. 2 Decryption Integrity Error	Enigma is in FIPS error state. (Self test result)
474	Security Tamper	Security tamper condition exists in Enigma.
475	Top Side Security Enclosure Open	Security tamper condition exists in Enigma.
476	Bottom Side Security Enclosure Open	Security tamper condition exists in Enigma.
477	Security Battery Event	Battery tamper condition exists in Enigma.
478	Software Commanded Zeroization	Destroyed Enigma key by software command.

Error code	Error message	Description
481	Security Enclosure Not Armed	Enigma security not armed.
482	Physical Marriage Tamper	Latched physical marriage tamper condition on Enigma board.
483	Logical Marriage Tamper	Logical marriage tamper condition exists in Enigma.
484	Marriage NOT Active	Marriage between ICP and Enigma has NOT been established (active).
486	Service Door Tamper	Latched service door tamper condition on Enigma board.
487	Security Log Error	Security log is full and no more log entries can be created in Enigma. It is the server's responsibility to avoid the issue.
488	Security Battery Low Warning	Close to "(477) Security Battery Event".
489	Security Log Warning	Security log is almost full in Enigma. Close to "(487) Security Log Error".
500	IMB Comm Fail	No communication with the IMB.
510	IMB:System Error	IMB Status error
511	IMB:Self Test Error	IMB Status error
519	IMB:Certificate or Key Error	IMB Status error
520	IMB:ICP Communications Status	IMB fails to do logical marriage to ICP when IMB powers up. Because of no communications with ICP during logical marriage.
537	IMB:RTC Error	IMB RTC is "invalid".
543	IMB:FPGA Temperature out of range	IMB Status error
550	IMB:Supply voltage out of range	IMB Status error
574	IMB:Security Tamper	Security tamper condition exists in IMB.
577	IMB:Security Battery Event	Battery tamper condition exists in IMB.
581	IMB:Security Enclosure Not Armed	IMB security not armed.
582	IMB:Physical Marriage Tamper	Latched physical marriage tamper condition on IMB.
583	IMB:Logical Marriage Tamper	Logical marriage tamper condition exists in IMB.
584	IMB:Marriage NOT Active	Marriage between ICP and IMB has NOT been established (active).
586	IMB:Service Door Tamper	Latched service door tamper condition on IMB
588	IMB:Security Battery Low Warning	Close to "(577) IMB: Security Battery Event".

6.3 Battery Replacement Method for ICP Board

The coin battery (Panasonic BR2330) mounted on the ICP board provides electrical power for maintaining tamper detection, time, and date information while the power to the projector is off. If the battery voltage drops, the tamper detection circuit is activated and the security key is erased. Once the security key has been erased, the projector requires repair at the factory.



- Before replacing the battery, thoroughly read the content of this section, and perform the work by following the procedure correctly. If you make a mistake while fitting the new battery, there is a risk of explosion and damaging the projector.
- When replacing the battery, use the same model of battery.
- Dispose of the used battery by following the directions of your local government agency.

Note

- Make sure that the AC power supply is turned off while removing the ICP board from the projector.
- Always adhere to the instructions given in this section.
- Although data is maintained while the battery is being replaced for approximately 3 hours by the sub-battery built into the ICP board (when the sub-battery is fully charged), please replace the battery quickly. To ensure that the sub-battery is fully charged, turn the projector power supply on for 30 minutes or more before replacing the battery.
- If you remove the front cover, side cover, or lens side cover, the following error message is displayed on the LCD screen of the main unit operating panel by the tamper detection circuit of the signal input board.
"Tamper Fail", "Service Door Open"

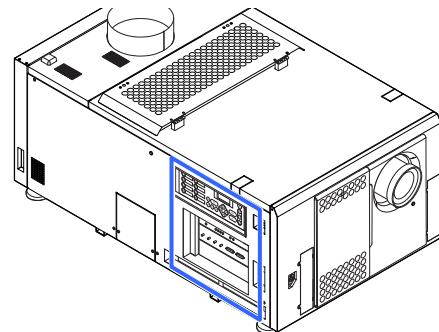
Also, if you remove the closing panel or device from slot, the following error message is displayed on the LCD screen of the main unit operating panel by the tamper detection circuit. Furthermore, since the marriage is cleared, re-marriage is necessary.

"Marriage Tamper Fail", "Physical Marriage Tamper", "Marriage Not Active"

Encrypted contents cannot be displayed while an error message is being displayed. Refer to "3.2 Recovering from Tamper Errors" (page 106) for the recovery procedure.

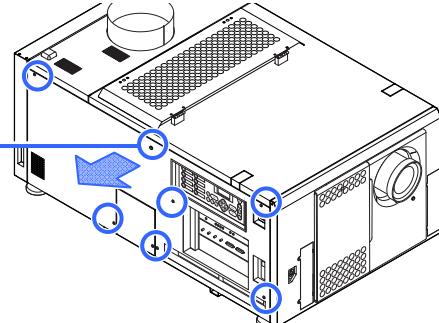
[1] Turn off the power to the projector.

[2] Remove the cables connected to the connector area on the projector.



[3] Remove the side cover.

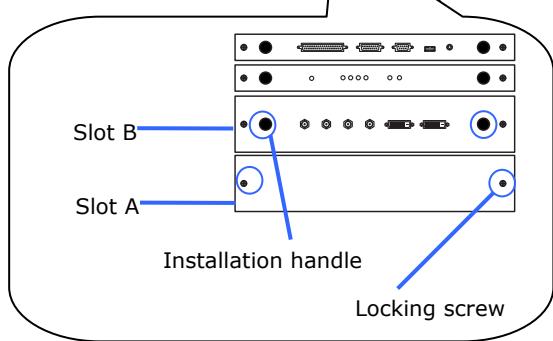
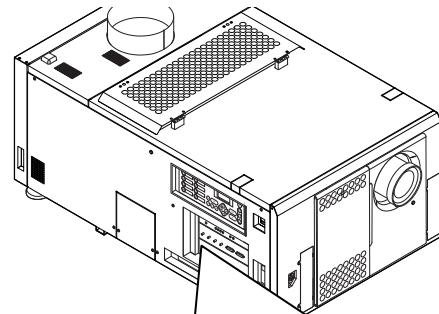
- <1> Unlock the cover locks using the cover key.
- <2> Loosen six screws of the Side cover until their rotations become idle. The screws are not removed.
- <3> Remove the cover by rotating it towards you and lifting out.



[4] Remove the boards mounted in slot A and slot B.

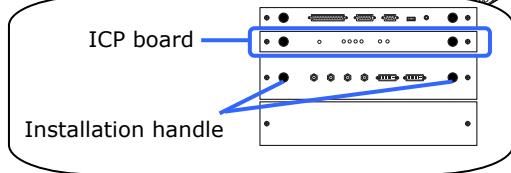
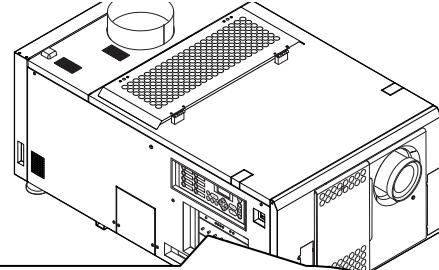
Remove the mounted boards in the order slot A then slot B.

- <1> Unscrew the locking screws (2 locations) on the front of the slot A/B until the screws turn freely. These screws cannot be removed.
- <2> Take hold of the installation handle on the front of the board, and pull the board directly out.



[5] Remove the ICP board.

- <1> Unscrew the locking screws (2 locations) on the front of the ICP board until the screws turn freely. These screws cannot be removed.
- <2> Take hold of the installation handle on the front of the ICP board, and pull the board directly out.



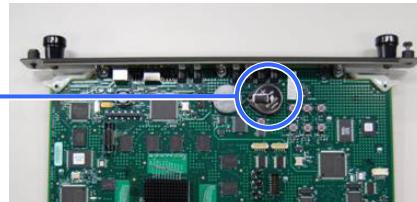
[6] Remove the battery.

To remove the battery, use a non-conductive tool that does not have a sharp tip, or use your fingers.

- <1> Gently lift up the positive (+) terminal that is retaining the battery.
- <2> Insert a non-conductive tool or your finger into the negative side of the socket.
- <3> Remove the battery by lifting it out.

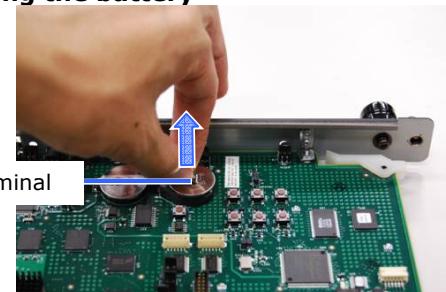
Location of battery on ICP board

Battery
(Model no.:
BR2330)

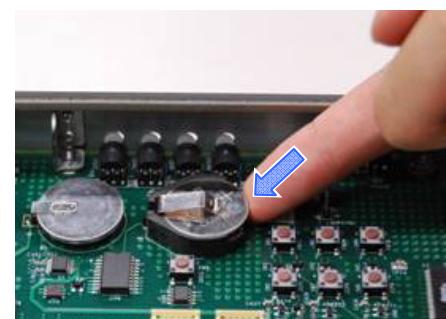


Removing the battery

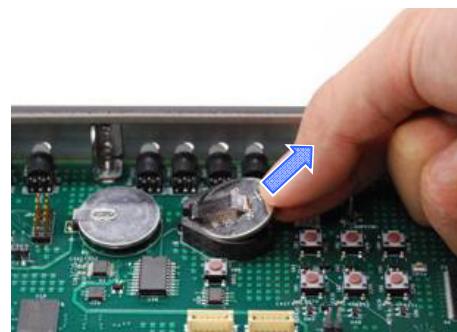
<1>



<2>



<3>



Note

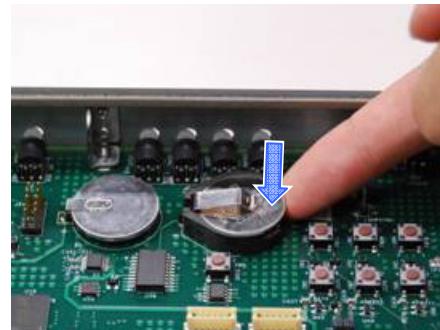
- If you are using a tool to remove the battery, ensure that you have securely inserted the tool between the battery and the socket before removing the battery. Furthermore, take care to ensure that the tool you use to remove the battery does not touch the ICP board. There is a risk of damaging the ICP board.

[7] Fit the new battery.

- <1> Check the model number of the new battery.
Model number: BR2330 (Panasonic)
- <2> Insert the battery into the socket ensuring that the positive (+) side of the battery is upwards.
- <3> Ensure that the positive (+) terminal of the socket is pressing down on the positive (+) surface of the battery.



<3>



[8] Mount the boards in slot A and slot B.

Mount the boards in the order slot A then slot B.

- <1> Hold the installation handle on the front of the board and insert it straight along the guides.
- <2> Tighten the locking screws (2 locations) on the board front to affix the board.

[9] Mount the ICP board into the projector.

- <1> Hold the installation handle on the front of the ICP board and insert it straight along the guides.
- <2> Tighten the locking screws (2 locations) on the ICP board front to affix the board.

[10] Attach the side cover.

[11] Reattach the cables that you removed in procedure [2].

[12] Turn the projector's power on.

[13] Reconfigure the marriage.

Refer to "3.2 Recovering from Tamper Errors" (page 106) for details.

Note

- If you do not set the marriage, you will not be able to project encrypted content.

6.4 Batterieaustauschverfahren für ICP-Karte

Die Knopfbatterie (Panasonic BR2330) auf der ICP-Karte liefert den fürs Erkennen von Daten, Zeit und Datum bei abgeschaltetem Projektor notwendigen Strom. Wenn die Batteriespannung zurückgeht, wird der Datenerkennungskreis aktiviert, und der Sicherheitscode wird gelöscht. Wenn der Sicherheitscode gelöscht worden ist, muss der Projektor in der Fabrik wiederhergestellt werden.

 Warnung	<ul style="list-style-type: none"> • Lesen Sie aufmerksam den Inhalt dieses Kapitels bevor Sie die Batterie ersetzen und gehen Sie vor wie nachstehend beschrieben. Es besteht die Gefahr einer Explosion, wenn Sie beim Einsetzen der neuen Batterie einen Fehler machen, mit dem Risiko schwerwiegender Beschädigungen des Projektors. • Ersetzen Sie die Batterie ausschliesslich durch ein Modell des gleichen Typs. • Entfernen Sie die gebrauchte Batterie gemäss den geltenden Vorschriften Ihres Aufenthaltsortes.
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Hinweis

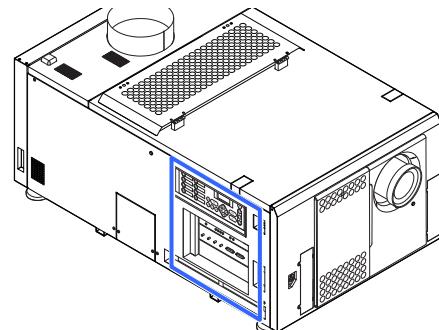
- Stellen Sie sicher, dass die Netzspannung ausgeschaltet ist, wenn sie die ICP-Karte aus dem Projektor nehmen.
- Gehen Sie immer nach den Anweisungen in diesem Kapitel vor.
- Auch wenn die Daten mittels in der ICP-Karte eingebauten Zweitbatterie ca. 3 Stunden lang erhalten bleiben, wenn die Batterie ersetzt wird (bei völlig aufgeladener Zweitbatterie), sollten Sie die Batterie möglichst bald ersetzen. Um sicherzustellen, dass die Zweitbatterie wirklich völlig aufgeladen ist, sollten Sie den Projektor mindestens 30 Minuten lang einschalten, bevor Sie die Batterie ersetzen.
- Falls Sie die Vorder- oder Seitenabdeckung, oder den Deckel der Linse entfernen wird die folgende Fehlermeldung vom Datenerkennungskreis auf dem LCD-Schirm der Betriebskonsole angezeigt.
"Tamper Fail", "Service Door Open"

Wenn Sie die Abdeckung oder das Gerät bei Steckplatz A entfernen, wird die folgende Fehlermeldung vom Datenerkennungskreis auf dem LCD-Schirm der Betriebskonsole angezeigt. Ausserdem muss eine neue Verbindung hergestellt werden, da die alte Verbindung gelöscht wurde,
"Marriage Tamper Fail", "Physical Marriage Tamper", "Marriage Not Active"

Die Videoeingabe im HD-SDI Port der Signaleingabekarte kann nicht angezeigt werden, solange eine Fehlermeldung angezeigt wird. Siehe "3.2 Recovering from Tamper Errors" (Seite 106) betreffend der Wiederherstellung.

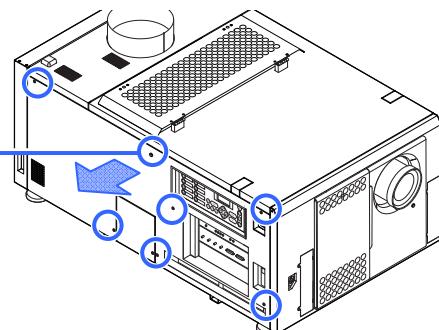
[1] Schalten Sie den Projektor aus.

[2] Ziehen Sie die Kabel aus dem Verbindungsteil des Projektors.



[3] Entfernen Sie die Seitenabdeckung.

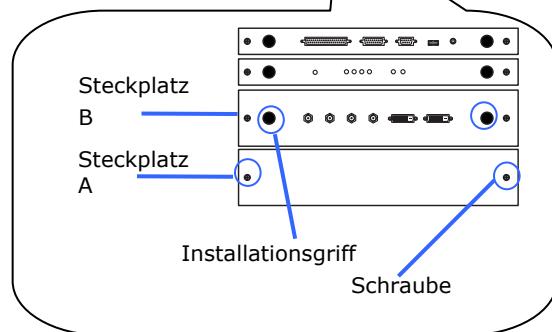
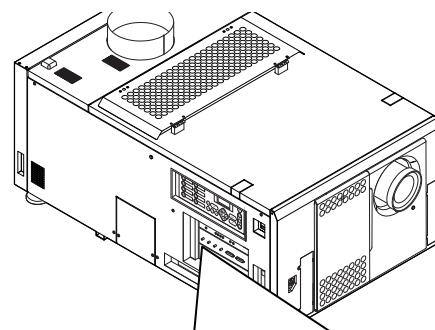
- <1> Schrauben Sie die Abdeckungssicherungen los mir Hilfe der speziellen Schlüssel.
- <2> Schrauben Sie die sechs Schrauben der Seitenabdeckung los, bis sie keinen Halt mehr haben. Schrauben nicht entfernen.
- <3> Entfernen Sie die Abdeckung indem Sie sie zu sich drehen und dann herausheben.



[4] Entfernen Sie die beiden Karten aus Einstechplatz A und B.

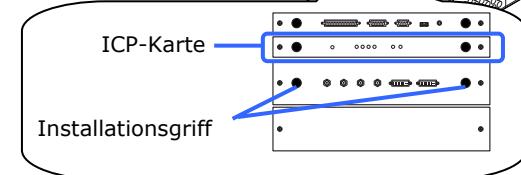
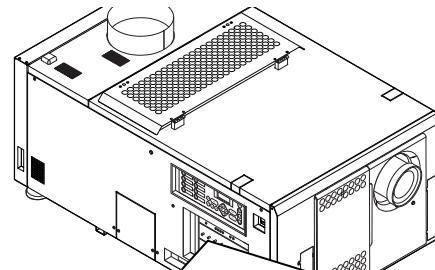
Entfernen Sie zuerst die Karte aus Einstechplatz A und dann aus Einstechplatz B.

- <1> Lösen Sie die Schrauben (an 2 Stellen) an der Vorderseiten des Einstechplatzes A/B bis sie keinen Halt mehr haben. Diese Schrauben dürfen nicht entfernt werden.
- <2> Nehmen Sie den Installationsgriff vorne an der Karte und ziehen Sie die Karte in gerader Richtung heraus.



[5] Die ICP-Karte entfernen.

- <1> Lösen Sie die Schrauben (an 2 Stellen) an der Vorderseiten der ICP-Karte bis sie keinen Halt mehr haben. Diese Schrauben dürfen nicht entfernt werden.
- <2> Nehmen Sie den Installationsgriff vorne an der Karte und ziehen Sie die Karte in gerader Richtung heraus.



[6] Entfernen Sie die Batterie.

Verwenden Sie ein nicht leitendes Werkzeug ohne scharfe Spitze oder Ihre Finder, um die Batterie zu entfernen.

- <1> Heben Sie sorgfältig die positive (+) Anschlussklemme der Batterie hoch.
- <2> Stecken Sie ein nicht leitendes Werkzeug oder Ihren Finder in die negative Seite der Fassung.
- <3> Heben Sie die Batterie hoch um sie zu entfernen.

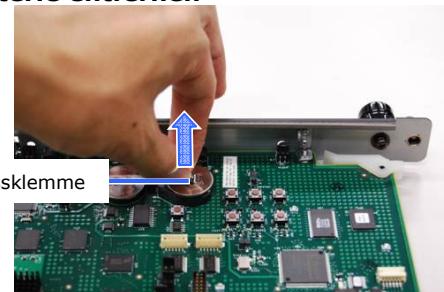
Batterie auf der ICP-Karte

Batterie
(Modell Nr.:
BR2330)

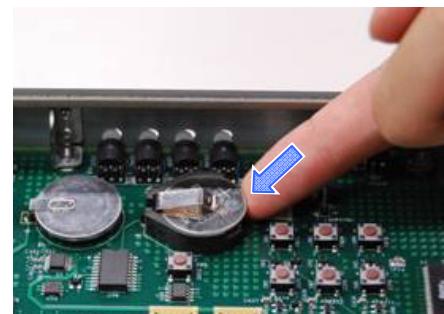


Die Batterie entfernen

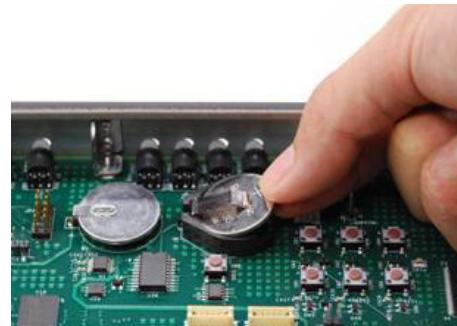
<1>



<2>



<3>



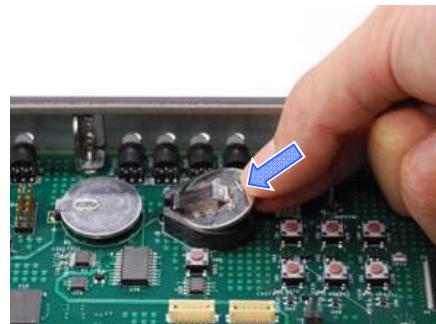
Hinweis

- Falls Sie die Batterie mit Hilfe eines Werkzeugs entfernen, sollten Sie sicher stellen, dass das Werkzeug richtig zwischen Batterie und Fassung eingefügt ist bevor Sie die Batterie entfernen. Ausserdem sollten Sie darauf achten, dass das Werkzeug dass Sie verwenden die ICP-Karte nicht berührt. Die ICP-Karte könnte dadurch beschädigt werden.

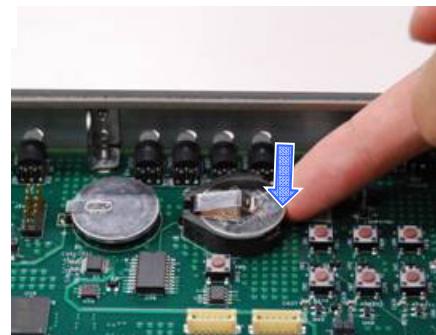
[7] Die neue Batterie einsetzen.

- <1> Kontrollieren Sie die Modellnummer der neuen Batterie, Modellnummer BR2330 (Panasonic)
- <2> Stecken Sie die Batterie in die Fassung, so dass die positive (+) Seite der Batterie nach oben weist.
- <3> Stellen Sie sicher dass die positive (+) Anschlussklemme der Fassung auf die positive (+) Fläche der Batterie drückt.

<2>



<3>



[8] Montieren Sie die Karten in den Einstechplätzen A und B.

Montieren Sie zuerst die Karte in den Einstechplatz A und dann in den Einstechplatz B.

- <1> Nehmen Sie den Installationsgriff vorne auf der Karte und stecken sie die Karte in gerader Linie, den Führungen nach ein.
- <2> Ziehen Sie die Halteschrauben (2 Stellen) an der Vorderseite der Karte an um die Karte zu sichern.

[9] Stecken Sie die ICP-Karte in den Projektor.

- <1> Nehmen Sie den Installationsgriff vorne auf der ICP-Karte und stecken sie die Karte in gerader Linie, den Führungen nach ein.
- <2> Ziehen Sie die Halteschrauben (2 Stellen) an der Vorderseite der ICP-Karte an um die Karte zu sichern.

[10] Bringen Sie die Seitenabdeckung an.

[11] Verbinden Sie die beiden Kabel, die Sie unter 2 entfernt haben.

[12] Schalten Sie den Projektor ein.

[13] Konfigurieren Sie die Verbindung wieder aufs Neue.

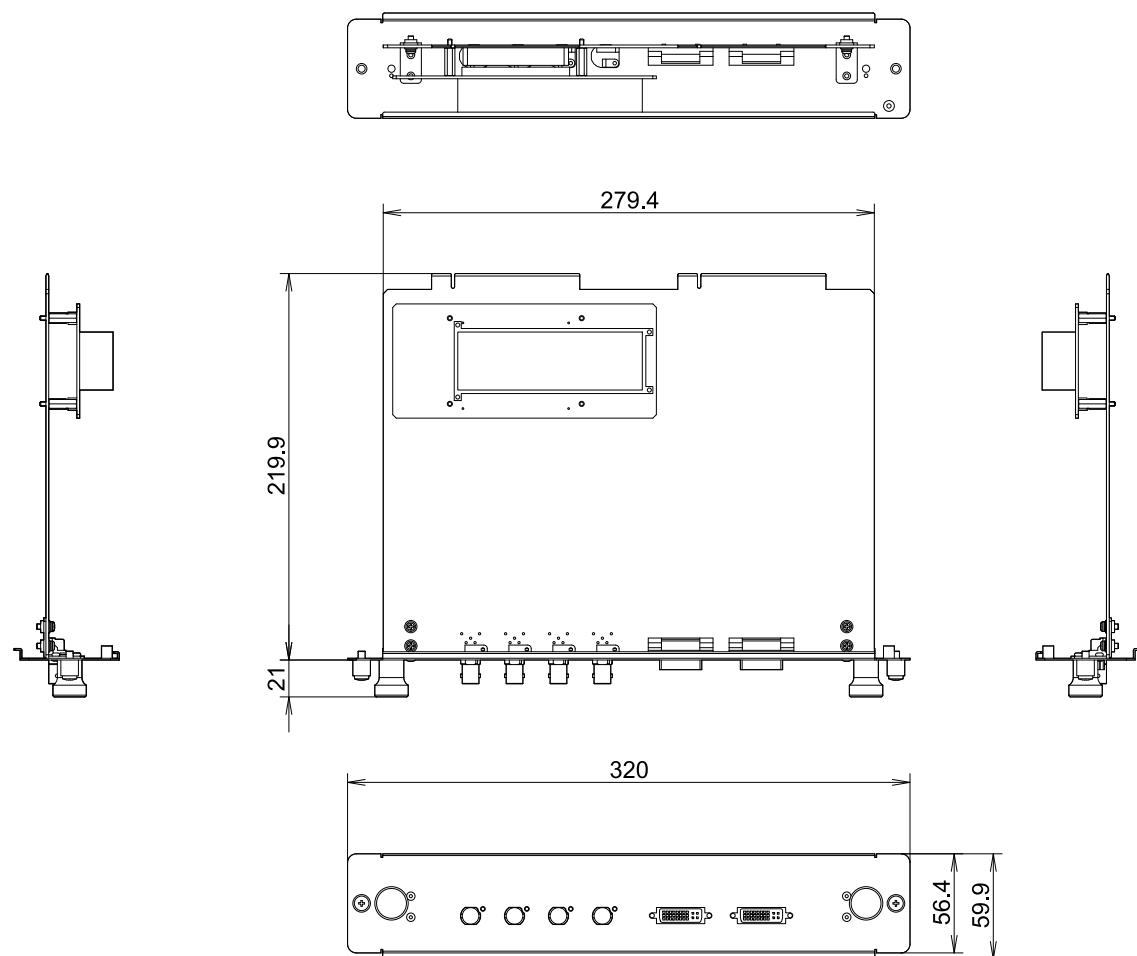
Siehe "3.2 Recovering from Tamper Errors" (Seite 106) betreffend den Einzelheiten.

Hinweis

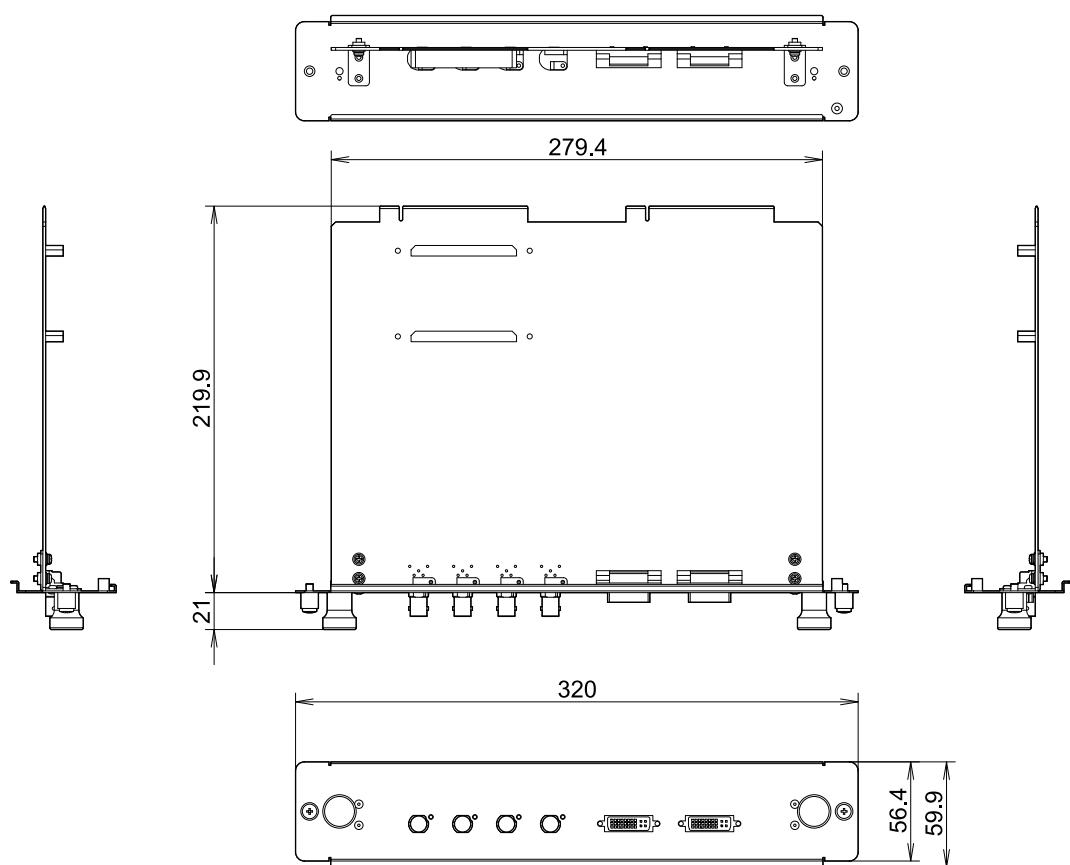
- Wenn die Verbindung nicht neu konfiguriert wird, kann die codierte Eingabe in der HD-SDI Buchse nicht verwendet werden.

6.5 Outline Drawing

6.5.1 Signal Input Board (NC-80LB01)



6.5.2 Signal Input Board (NC-80DS01)



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