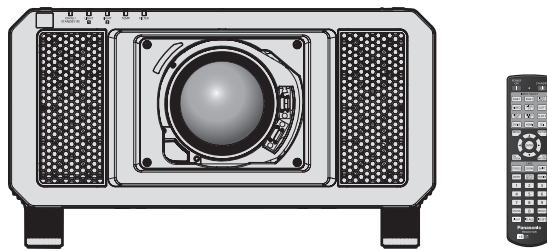


Operating Instructions Functional Manual

DLP™ Projector Commercial Use

Model No. **PT-RQ13K**



The projection lens is sold separately.

Thank you for purchasing this Panasonic product.

- The Operating Instructions correspond to the firmware's main version 3.00 and higher.
- This manual is common to all the models regardless of suffixes of the Model No.
 - for India
PT-RQ13KD
 - for other countries or regions
PT-RQ13K
- Before operating this product, please read the instructions carefully and save this manual for future use.
- Before using this product, be sure to read "Read this first!" (➔ pages 5 to 13).



4K^{*}
PROFESSIONAL

* Resolution is 5 120 x 3 200 dots
(QUAD PIXEL DRIVE: ON)



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Read this first! 5

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Read this first!

WARNING: THIS APPARATUS MUST BE EARTHED.

WARNING: To prevent damage which may result in fire or shock hazard, do not expose this appliance to rain or moisture.
This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflexions at visual display workplaces this device must not be placed in the direct field of view.
The equipment is not intended for used at a video workstation in compliance BildscharbV.

The sound pressure level at the operator position is equal or less than 70 dB (A) according to ISO 7779.

WARNING:

1. Remove the plug from the mains socket when this unit is not in use for a prolonged period of time.
2. To prevent electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.
3. Do not remove the earthing pin on the mains plug. This apparatus is equipped with a three prong earthing-type mains plug. This plug will only fit an earthing-type mains socket. This is a safety feature. If you are unable to insert the plug into the mains socket, contact an electrician. Do not defeat the purpose of the earthing plug.

WARNING:

This equipment is compliant with Class A of CISPR32.
In a residential environment this equipment may cause radio interference.

CAUTION: To assure continued compliance, follow the attached installation instructions. This includes using the provided power cord and shielded interface cables when connecting to computer or peripheral devices. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

This is a device to project images onto a screen, etc., and is not intended for use as indoor lighting in a domestic environment.

Directive 2009/125/EC

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

WARNING: RISK OF ELECTRIC SHOCK. DON'T OPEN



Indicated on the projector



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**Notice on laser
(for USA and Canada)**

This projector is the Class 3R laser product that complies with IEC 60825-1:2007.

RISK GROUP 3
WARNING: POSSIBLY HAZARDOUS OPTICAL RADIATION EMITTED FROM THIS PRODUCT.
AVERTISSEMENT: DES RADIATIONS OPTIQUES NUISIBLES PEUVENT ÊTRE EMISES PAR CE PRODUIT.
WARNUNG: DIESES PRODUKT EMITTIERT MÖGLICHERWEISE GEFÄHRLICHE OPTISCHE STRAHLUNG.
ПРЕДУПРЕЖДЕНИЕ: ДАННАЯ ПРОДУКЦИЯ МОЖЕТ СОЗДАВАТЬ ОПАСНОЕ ОПТИЧЕСКОЕ ИЗЛУЧЕНИЕ.
경고: 본 제품에서 유해한 광방사가 방출되었을 가능성이 있습니다. TQFX340

For North America
 Complies with 21 CFR Parts 1040.10 and 140.11 except for deviations pursuant to Laser Notice No. 50 dated June 24, 2007.
 IEC 60825-1:2007
 LASER RADIATION
 AVOID DIRECT EYE EXPOSURE
 CLASS 3R LASER PRODUCT
 WAVE LENGTH: 448-467nm
 MAXIMUM OUTPUT: 533mW
 IEC 60825-1:2007
 RAYONNEMENT LASER
 EXPOSITION DIRECTE DANGEREUSE POUR LES YEUX
 APPAREIL À LASER DE CLASSE 3R
 LONGUEURS D'ONDES: 448-467nm
 MAXIMALE DU RAYONNEMENT: 248mW
 DURÉE DE L'IMPULSION: 11ms
 TQFX609

危険-開放時クラス4のレーザー放射 TQFX608
 直接放射又は分散放射に眼又は皮膚を暴露させないこと
 DANGER-CLASS 4 LASER RADIATION WHEN OPEN AVOID EYE OR SKIN EXPOSURE TO DIRECT OR SCATTERED RADIATION
 DANGER-RAYONNEMENT LASER DE CLASSE 4 - EN CAS D'OUVERTURE EXPOSITION DANGEREUSE AU RAYONNEMENT DIRECT OU DIFFUS DES YEUX OU DE LA PEAU

(Inside of product)

(for India)

This projector is the Class 1 laser product that complies with IEC/EN 60825-1:2014.

RISK GROUP 3
WARNING: POSSIBLY HAZARDOUS OPTICAL RADIATION EMITTED FROM THIS PRODUCT.
AVERTISSEMENT: DES RADIATIONS OPTIQUES NUISIBLES PEUVENT ÊTRE EMISES PAR CE PRODUIT.
WARNUNG: DIESES PRODUKT EMITTIERT MÖGLICHERWEISE GEFÄHRLICHE OPTISCHE STRAHLUNG.
ПРЕДУПРЕЖДЕНИЕ: ДАННАЯ ПРОДУКЦИЯ МОЖЕТ СОЗДАВАТЬ ОПАСНОЕ ОПТИЧЕСКОЕ ИЗЛУЧЕНИЕ.
경고: 본 제품에서 유해한 광방사가 방출되었을 가능성이 있습니다. TQFX340

CLASS 1 LASER PRODUCT

(for other countries or regions)

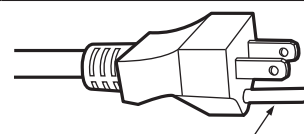
This projector is the Class 1 laser product that complies with IEC/EN 60825-1:2014.

RISK GROUP 3
WARNING: POSSIBLY HAZARDOUS OPTICAL RADIATION EMITTED FROM THIS PRODUCT.
AVERTISSEMENT: DES RADIATIONS OPTIQUES NUISIBLES PEUVENT ÊTRE EMISES PAR CE PRODUIT.
WARNUNG: DIESES PRODUKT EMITTIERT MÖGLICHERWEISE GEFÄHRLICHE OPTISCHE STRAHLUNG.
ПРЕДУПРЕЖДЕНИЕ: ДАННАЯ ПРОДУКЦИЯ МОЖЕТ СОЗДАВАТЬ ОПАСНОЕ ОПТИЧЕСКОЕ ИЗЛУЧЕНИЕ.
경고: 본 제품에서 유해한 광방사가 방출되었을 가능성이 있습니다. TQFX340

IEC/EN 60825-1:2014
 CLASS 1 LASER PRODUCT

CAUTION (North/Middle/South America)

This equipment is equipped with a three-pin grounding-type power plug. Do not remove the grounding pin on the power plug. This plug will only fit a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact an electrician. Do not defeat the purpose of the grounding plug.



Do not remove

WARNING (USA and Canada)

- Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment, ANSI/NFPA 75.
- For permanently connected equipment, a readily accessible disconnect device shall be incorporated in the building installation wiring.
- For pluggable equipment, the socket-outlet shall be installed near the equipment and shall be easily accessible.

NOTIFICATION (Canada)

This class A digital apparatus complies with Canadian ICES-003.

For USA-California Only

This product contains a CR Coin Cell Lithium Battery which contains Perchlorate Material – special handling may apply.

See www.dtsc.ca.gov/hazardouswaste/perchlorate

FCC NOTICE (USA)

Verification

Model Number: PT-RQ13K
Trade Name: Panasonic
Responsible Party: Panasonic Corporation of North America
Address: Two Riverfront Plaza, Newark, NJ 07102-5490
General Contact: <http://www.panasonic.com/support>
Projector Contact: <https://panasonic.net/cns/projector/>

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution:

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 instruction 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.

FCC Warning:

To assure continued compliance, follow the attached installation instructions. This includes using the provided power cord and shielded interface cables when connecting to computer or peripheral devices. Also, any unauthorized changes or modifications to this equipment could void the user's authority to operate this device.

IMPORTANT: THE MOLDED PLUG (U.K. only)

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This appliance is supplied with a molded three pin mains plug for your safety and convenience. A 13 amp fuse is fitted in this plug. Should the fuse need to be replaced, please ensure that the replacement fuse has a rating of 13 amps and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover, you must ensure that it is refitted when the fuse is replaced. If you lose the fuse cover, the plug must not be used until a replacement cover is obtained. A replacement fuse cover can be purchased from an Authorized Service Center.

If the fitted molded plug is unsuitable for the mains socket in your home, then the fuse should be removed and the plug cut off and disposed of safely. There is a danger of severe electrical shock if the cut off plug is inserted into any 13 amp socket.


If a new plug is to be fitted, please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

WARNING: THIS APPLIANCE MUST BE EARTHED.

IMPORTANT: The wires in this mains lead are colored in accordance with the following code:

Green - and - Yellow: Earth
Blue: Neutral
Brown: Live

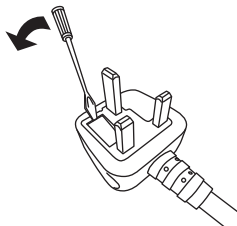
As the colors of the wire in the mains lead of this appliance may not correspond with the colored markings identifying the terminals in your plug, proceed as follows.

The wire which is colored GREEN - AND - YELLOW must be connected to the terminal in the plug which is marked with the letter E or by the Earth symbol  or colored GREEN or GREEN - AND - YELLOW.

The wire which is colored BLUE must be connected to the terminal in the plug which is marked with the letter N or colored BLACK.

The wire which is colored BROWN must be connected to the terminal in the plug which is marked with the letter L or colored RED.

How to replace the fuse: Open the fuse compartment with a screwdriver and replace the fuse.



Importer's name and address within the European Union

Panasonic Marketing Europe GmbH

Panasonic Testing Centre

Winsbergring 15, 22525 Hamburg, Germany

WARNING:

■ POWER

The wall outlet or the circuit breaker shall be installed near the equipment and shall be easily accessible when problems occur. If the following problems occur, cut off the power supply immediately.

Continued use of the projector in these conditions will result in fire or electric shock.

- If foreign objects or water get inside the projector, cut off the power supply.
- If the projector is dropped or the cabinet is broken, cut off the power supply.
- If you notice smoke, strange smells or noise coming from the projector, cut off the power supply.

Please contact an Authorized Service Center for repairs, and do not attempt to repair the projector yourself.

During a thunderstorm, do not touch the projector or the cable.

Electric shocks can result.

Do not do anything that might damage the power cord or the power plug.

If the power cord is used while damaged, electric shocks, short-circuits or fire will result.

- Do not damage the power cord, make any modifications to it, place it near any hot objects, bend it excessively, twist it, pull it, place heavy objects on top of it or wrap it into a bundle.

Ask an Authorized Service Center to carry out any repairs to the power cord that might be necessary.

Do not use anything other than the provided power cord.

Failure to observe this will result in electric shocks or fire. Please note that if you do not use the provided power cord to ground the device on the side of the outlet, this may result in electric shocks.

Completely insert the power plug into the wall outlet and the power connector into the projector terminal.

If the plug is not inserted correctly, electric shocks or overheating will result.

- Do not use plugs which are damaged or wall outlets which are coming loose from the wall.

Do not handle the power plug and power connector with wet hands.

Failure to observe this will result in electric shocks.

Do not overload the wall outlet.

If the power supply is overloaded (ex., by using too many adapters), overheating may occur and fire will result.

Clean the power plug regularly to prevent it from becoming covered in dust.

Failure to observe this will cause a fire.

- If dust builds up on the power plug, the resulting humidity can damage the insulation.
- If not using the projector for an extended period of time, pull the power plug out from the wall outlet.

Pull the power plug out from the wall outlet and wipe it with a dry cloth regularly.

■ ON USE/INSTALLATION

Do not place the projector on soft materials such as carpets or sponge mats.

Doing so will cause the projector to overheat, which can cause burns, fire or damage to the projector.

Do not set up the projector in humid or dusty places or in places where the projector may come into contact with oily smoke or steam.

Using the projector under such conditions will result in fire, electric shocks or deterioration of components.

Deterioration of components (such as ceiling mount brackets) may cause the projector which is mounted on the ceiling to fall down.

Do not install this projector in a place which is not strong enough to take the full weight of the projector or on top of a surface which is sloped or unstable.

Failure to observe this will cause projector to fall down or tip over the projector, and severe injury or damage could result.

Do not cover the air intake/exhaust ports or place anything within 500 mm (19-11/16") of them.

Doing so will cause the projector to overheat, which can cause fire or damage to the projector.

- Do not place the projector in narrow, badly ventilated places.
- Do not place the projector on cloth or papers, as these materials could be drawn into the air intake port.

WARNING:

Do not look at or place your skin into the light emitted from the lens while the projector is being used.

Doing so can cause burns or loss of sight.

- Strong light is emitted from the projector's lens. Do not look at or place your hands directly into this light.
- Be especially careful not to let young children look into the lens. In addition, turn off the power and switch off the main power when you are away from the projector.

Do not project an image with the lens cover of the projection lens (optional) attached.

Doing so can cause fire.

Never attempt to remodel or disassemble the projector.

High voltages can cause fire or electric shocks.

- For any inspection, adjustment and repair work, please contact an Authorized Service Center.

Doing so may cause exposure to dangerous laser radiation.

- The laser module is built in this projector. Follow procedures specified in the Operating Instructions to make operations and adjustments.

Do not allow metal objects, flammable objects, or liquids to enter inside of the projector. Do not allow the projector to get wet.

Doing so may cause short circuits or overheating, and result in fire, electric shock, or malfunction of the projector.

- Do not place containers of liquid or metal objects near the projector.
- If liquid enters inside of the projector, consult your dealer.
- Particular attention must be paid to children.

Use the ceiling mount bracket specified by Panasonic.

Using the ceiling mount bracket other than the specified one will result in falling accidents.

- Attach the supplied safety cable to the ceiling mount bracket to prevent the projector from falling down.

Installation work (such as ceiling mount bracket) should only be carried out by a qualified technician.

If installation is not carried out and secured correctly, it can cause injury or accidents, such as electric shocks.

- Be sure to use the wire provided with the ceiling mount bracket as an extra safety measure to prevent the projector from falling down. (Install in a different location to the ceiling mount bracket.)

■ ACCESSORIES

Do not use or handle the batteries improperly, and refer to the following.

Failure to observe this will cause burns, batteries to leak, overheat, explode or catch fire.

- Do not use unspecified batteries.
- Do not charge dry cell batteries.
- Do not disassemble dry cell batteries.
- Do not heat the batteries or place them into water or fire.
- Do not allow the + and – terminals of the batteries to come into contact with metallic objects such as necklaces or hairpins.
- Do not store or carry batteries together with metallic objects.
- Store the batteries in a plastic bag and keep them away from metallic objects.
- Make sure the polarities (+ and –) are correct when inserting the batteries.
- Do not use a new battery together with an old battery or mix different types of batteries.
- Do not use batteries with the outer cover peeling away or removed.

If the battery fluid leaks, do not touch it with bare hands, and take the following measures if necessary.

- Battery fluid on your skin or clothing could result in skin inflammation or injury.
Rinse with clean water and seek medical advice immediately.
- Battery fluid coming in contact with your eyes could result in loss of sight.
In this case, do not rub your eyes. Rinse with clean water and seek medical advice immediately.

Do not allow children to reach the lens fixing screw.

Accidentally swallowing them can cause physical harm.

- If swallowed, seek medical advice immediately.

Remove the depleted batteries from the remote control promptly.

- Leaving them in the unit may result in fluid leakage, overheating, or explosion of the batteries.

CAUTION:

■ POWER

When disconnecting the power cord, be sure to hold the power plug and power connector.

If the power cord itself is pulled, the lead will become damaged, and fire, short-circuits or serious electric shocks will result.

When not using the projector for an extended period of time, disconnect the power plug from the wall outlet.

Failure to do so may result in fire or electric shock.

Before replacing the projection lens, be sure to turn off the power and disconnect the power plug from the wall outlet.

- Unexpected projection of light may cause injury to eyes.
- Replacing the projection lens without removing the power plug may result in electric shock.

Disconnect the power plug from the wall outlet before attaching or removing the Interface Board (optional), performing maintenance, and replacing the unit.

Failure to do so may result in electric shock.

■ ON USE/INSTALLATION

Do not place heavy objects on top of the projector.

Failure to observe this will cause the projector to become unbalanced and fall, which could result in damage or injury. The projector will be damaged or deformed.

Do not put your weight on this projector.

You could fall or the projector could break, and injury will result.

- Be especially careful not to let young children stand or sit on the projector.

Do not place the projector in extremely hot locations.

Doing so will cause the outer casing or internal components to deteriorate, or result in fire.

- Take particular care in locations exposed to direct sunlight or near heaters.

Do not install the projector in a location where salt pollution or corrosive gas may occur.

Doing so may result in falling due to corrosion. Also, it may result in malfunctions.

Do not place your hands or other objects close to the air exhaust port.

Doing so will cause burns or damage your hands or other objects.

- Heated air comes out of the air exhaust port. Do not place your hands or face, or objects which cannot withstand heat close to this port.

Do not place your hands in the openings beside the optical lens, while shifting the lens.

Failure to observe this could cause injury.

Do not stand in front of the lens while the projector is being used.

Doing so can cause damage and burns to clothing.

- Strong light is emitted from the projector's lens.

Do not place objects in front of the lens while the projector is being used.

Doing so can cause fire, damage to an object, or malfunction of the projector.

- Strong light is emitted from the projector's lens.

The projector must be carried or installed by two or more people.

Failure to do so may cause falling accidents.

Always disconnect all cables before moving the projector.

Moving the projector with cables still attached can damage the cables, which will cause fire or electric shocks to occur.

When mounting the projector on the ceiling, keep mounting screws and power cord from contact with metal parts inside the ceiling.

Contact with metal parts inside the ceiling can cause electric shocks.

CAUTION:

■ **ACCESSORIES**

When not using the projector for an extended period of time, remove the batteries from the remote control.

Failure to observe this will cause the batteries to leak, overheat, catch fire or explode, which may result in fire or contamination of surrounding area.

■ **MAINTENANCE**

Do not attach the air filter unit while it is wet.

Doing so may result in electric shock or malfunctions.

- After you clean the air filter units, dry them thoroughly before reattaching them.

Ask your dealer about cleaning inside the projector every 20 000 hours of usage as an estimated duration.

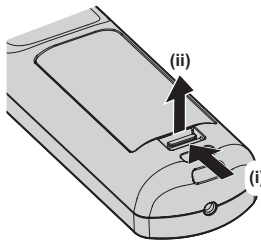
Continuous use while dust is accumulated inside the projector may result in fire.

- For cleaning fee, ask your dealer.

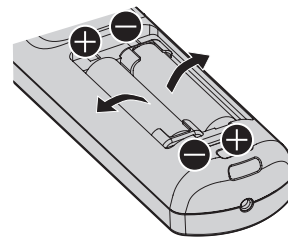
To remove the battery

Remote Control Battery

1. Press the guide and lift the cover.



2. Remove the batteries.



Brazil Only Brasil Apenas

■ Manuseio de baterias usadas

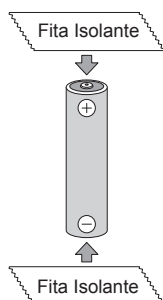


BRASIL

Após o uso, as pilhas e/ou baterias deverão ser entregues ao estabelecimento comercial ou rede de assistência técnica autorizada.

Cobrir os terminais positivo (+) e negativo (-) com uma fita isolante adesiva, antes de depositar numa caixa destinada para o recolhimento. O contato entre partes metálicas pode causar vazamentos, gerar calor, romper a blindagem e produzir fogo. (Fig. 1)

Fig. 1
Como isolar os terminais

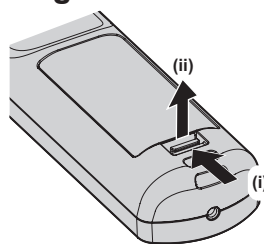


Não desmonte, não remova o invólucro, nem amasse a bateria. O gás liberado pela bateria pode irritar a garganta, danificar o lacre do invólucro ou o vazamento provocar calor, ruptura da blindagem e produzir fogo devido ao curto circuito dos terminais. Não incinere nem aqueça as baterias, elas não podem ficar expostas a temperaturas superiores a 100 °C (212 °F). O gás liberado pela bateria pode irritar a garganta, danificar o lacre do invólucro ou o vazamento provocar calor, ruptura da blindagem e produzir fogo devido ao curto circuito dos terminais provocado internamente.

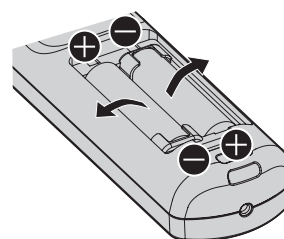
Evite o contato com o líquido que vazar das baterias. Caso isto ocorra, lave bem a parte afetada com bastante água. Caso haja irritação, consulte um médico.

■ Remoção das baterias

1. Pressione a guia e levante a tampa.



2. Remova as baterias.



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Please note that the ® and ™ symbols are not specified in this manual.

■ Illustrations in this manual

- Illustrations of the projector, screen, and other parts may vary from the actual product.
- Illustrations of the projector with the power cord attached are only examples. The shape of the supplied power cords varies depending on the country where you purchased the product.

■ Reference pages

- Reference pages in this manual are indicated as (➡ page 00).

■ Term

- In this manual, the “Wireless/wired remote control unit” accessory is referred to as “Remote control”.

Features of the Projector

High picture quality

- ▶ In addition to high luminance of 10 000 lm and high contrast of 20 000:1, high-density image exceeding 4K is realized with the unique QUAD PIXEL DRIVE technology, providing a high realistic sensation image never seen before.

Easy and highly flexible setup

- ▶ In addition to the DIGITAL LINK support, Art-Net support, and abundant lineup of optional lenses, application to wide range of usage is possible with support of all 360° direction projection utilizing the characteristics of solid-state light source. Furthermore, the projector is equipped with the slots for mounting the Interface Boards, providing the flexibility to support various signal input structures.

Long life and high reliability

- ▶ The maintenance cost for long-term operation is reduced by the unique light source cooling control technology and improvement of the dust resistance. Also, it will contribute to the stable operation by implementation of the backup function that will continue the projection by switching to the backup input signal immediately even when the input signal is discontinued, in addition to adopting solid-state light source which has long life.

Quick Steps

For details, refer to the corresponding pages.

1. **Set up the projector.**
(⇒ page 35)



2. **Attach the projection lens (optional).**
(⇒ page 44)



3. **Connect with external devices.**
(⇒ page 46)



4. **Connect the power cord.**
(⇒ page 55)



5. **Switch on the projector.**
(⇒ page 56)



6. **Make initial settings.**
(⇒ page 57)
 - Take this step when you switch on the power for the first time after purchasing the projector.



7. **Select the input signal.**
(⇒ page 65)



8. **Adjust the image.**
(⇒ page 65)

Chapter 1 Preparation

This chapter describes things you need to know or check before using the projector.

Precautions for use

Cautions when transporting

- Before using the projector, remove the dust sponge from the mounting portion of the projection lens and store it for the future use. When transporting the projector, remove the projection lens before attaching the dust sponge. Otherwise dust will accumulate inside and may cause malfunctions.
- Transport the projector with 2 or more people. Failure to do so may drop the projector, which may result in damage or deformation of the projector, or injury.
- When transporting the projector, hold it securely by its bottom and avoid excessive vibration and impacts. They may damage the internal components and result in malfunctions.
- Do not transport the projector with the adjustable feet extended. Doing so may damage the adjustable feet.

Cautions when installing

■ Do not set up the projector outdoors.

The projector is designed for indoor use only.

■ Do not set up the projector in the following locations.

- Places where vibration and impacts occur such as in a car or vehicle: Doing so may cause damage to internal components or malfunction.
- Location close to sea or where corrosive gas may occur: The projector may fall due to corrosion. Also, failure to do so may shorten the life of the components and result in malfunctions.
- Near the exhaust of an air conditioner: Depending on the conditions of use, the screen may fluctuate in rare cases due to the heated air from the air exhaust port or the hot or cooled air. Make sure that the exhaust from the projector or other equipment, or the air from the air conditioner does not blow toward the front of the projector.
- Places with sharp temperature fluctuations such as near lights (studio lamps): Doing so may shorten the life of the light source, or result in deformation of the projector due to heat, which may cause malfunctions. Follow the operating environment temperature of the projector.
- Near high-voltage power lines or near motors: Doing so may interfere with the operation of the projector.
- Places where there is high-power laser equipment: Directing a laser beam onto the projection lens surface causes damage to the DLP chips.

■ Be sure to ask a specialized technician or your dealer when installing the projector on a ceiling.

The optional Ceiling Mount Bracket is required.

Model No.: ET-PKD520H (for High Ceilings), ET-PKD520S (for Low Ceilings), ET-PKD520B (Projector Mount Bracket)

■ Ask a qualified technician or your dealer to install the cable wiring for DIGITAL LINK connection.

Image and sound may be disrupted if cable transmission characteristics cannot be obtained due to inadequate installation.

■ The projector may not work properly due to strong radio wave from the broadcast station or the radio.

If there is any facility or equipment which outputs strong radio waves near the installation location, install the projector at a location sufficiently far from the source of the radio waves. Or, wrap the LAN cable connected to the <DIGITAL LINK/LAN> terminal using a piece of metal foil or a metal pipe which is grounded at both ends.

■ Focus adjustment

The high clarity projection lens is thermally affected by the light from the light source, making the focus unstable in the period just after switching on the power. It is recommended that images be projected continuously for at least 30 minutes before the focus is adjusted.

- Do not install the projector at an altitude of 4 200 m (13 780') or higher above sea level.
- Do not use the projector in a location that the ambient temperature exceeds 45 °C (113 °F).

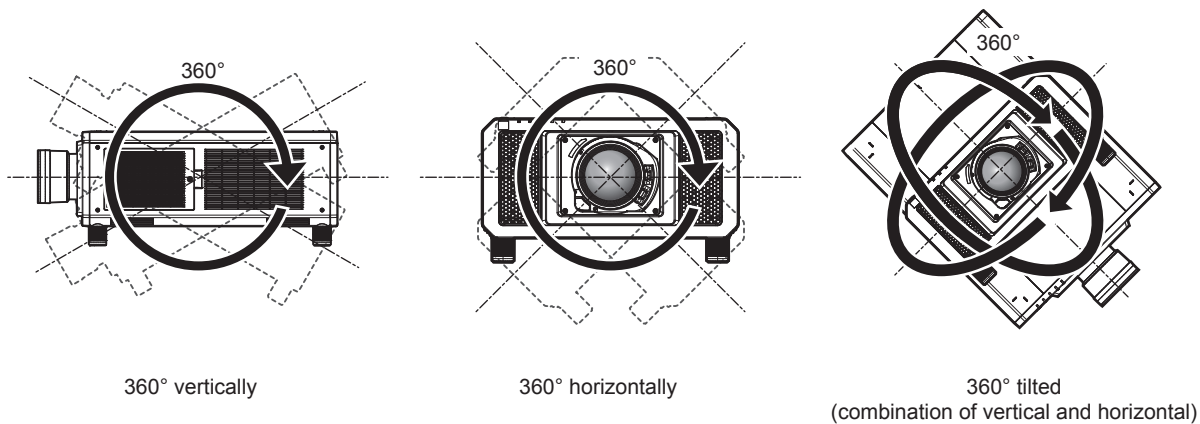
Using the projector in a location that the altitude is too high or the ambient temperature is too high may reduce the life of the components or result in malfunctions.

The upper limit of the operating environment temperature differs depending on the altitude or the [OPERATING MODE] setting in the [PROJECTOR SETUP] menu → [OPERATION SETTING] (➔ page 135).

Altitude above sea level	Setting for [OPERATING MODE]	
	[NORMAL], [USER1], [USER2], [USER3]	[ECO], [LONG LIFE1], [LONG LIFE2], [LONG LIFE3]
Altitude of 0 m (0') or higher to lower than 1 400 m (4 593')	0 °C (32 °F) to 45 °C (113 °F)	0 °C (32 °F) to 40 °C (104 °F)
Altitude of 1 400 m (4 593') or higher to lower than 2 700 m (8 858')	0 °C (32 °F) to 40 °C (104 °F)	
Altitude of 2 700 m (8 858') or higher to lower than 4 200 m (13 780')		

When the Smoke Cut Filter is used, the operating environment temperature should be between 0 °C (32 °F) and 35 °C (95 °F) regardless of the [OPERATING MODE] setting. It cannot be used at an altitude of 1 400 m (4 593') or higher above sea level.

- Projection in all 360° direction is possible.



- The geometric adjustment is disabled when projecting an image in simultaneous format.

The geometric adjustment function cannot be used when the video signal in simultaneous format is input. When installing the projector, follow the instructions below so that distortion does not occur in the projected image.

- Use a flat screen.
- Install the projector so that the front side of the projector is parallel to the screen.
- Install the projector so that the image can be projected within the range of shift adjustment by moving the lens position.

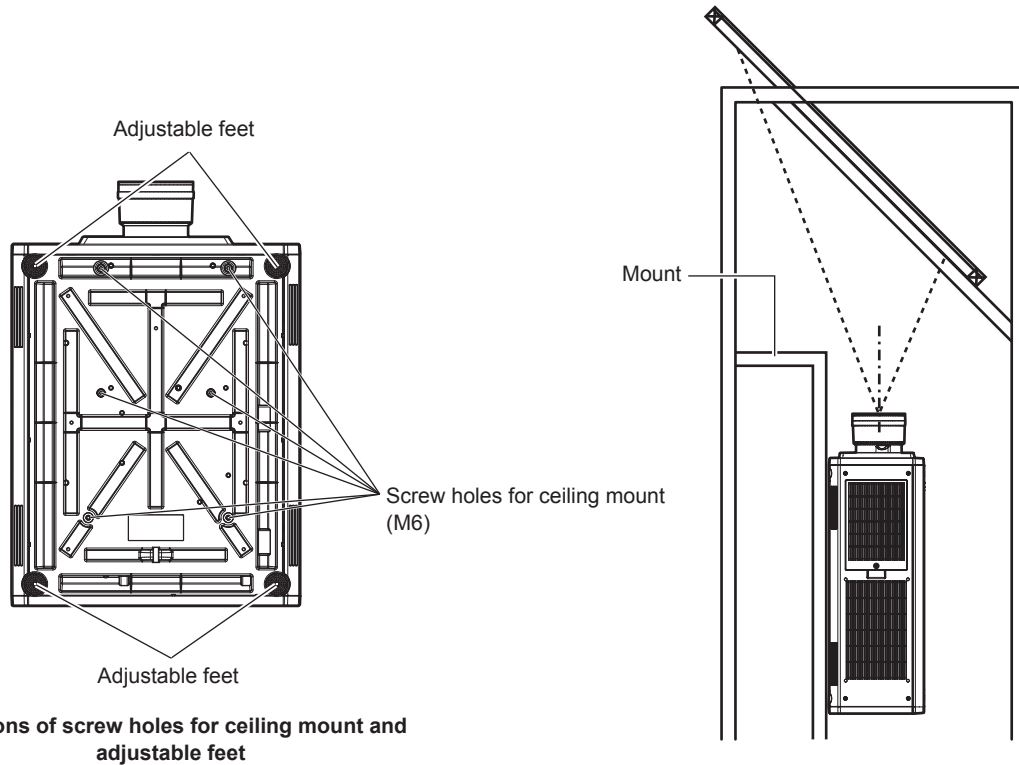
- Cautions when setting up the projector

- Use the adjustable feet only for the floor standing installation and for adjusting the angle. Using them for other purposes may damage the projector.
- The adjustable feet can be removed if not needed in the installation. However, do not use the screw holes where the adjustable feet were removed to fix the projector in place.

Also, insert only the screws that are specified in the user manual of the optional accessories into the screw holes of the adjustable feet. Failure to do so may cause damage to the projector.

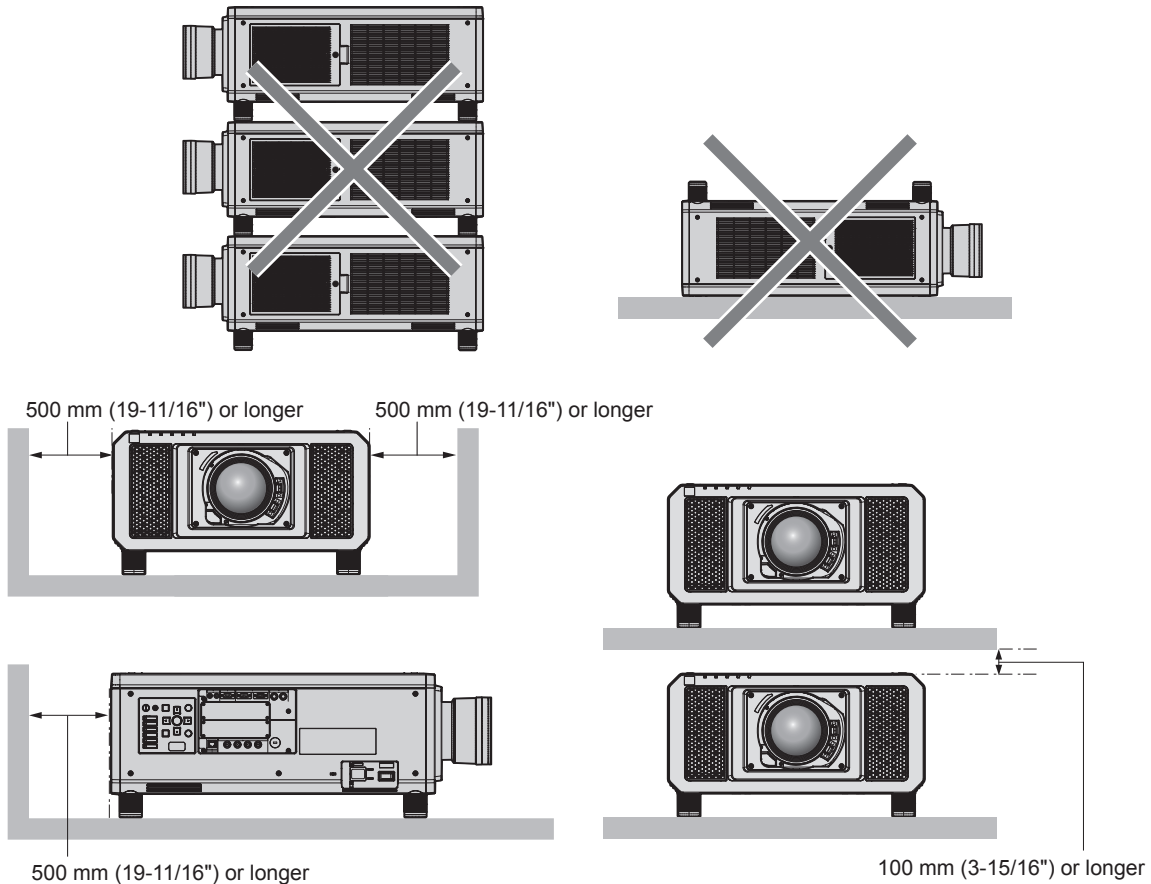
- When installing the projector in a method other than the floor installation using the adjustable feet, or the ceiling installation, remove the adjustable feet (4 locations) and use the six screw holes for ceiling mount to fix the projector to a mount (as shown in the figure).

(Screw diameter: M6, tapping depth inside the projector: 27 mm (1-1/16"), torque: 4 ± 0.5 N·m)



- Do not stack three or more projectors.
- Do not stack two projectors and use them simultaneously.
When stacking two projectors, use one of the either projector, and the other project as a backup. Also, take measure to prevent slipping off as a precaution. Use the optional Frame (Model No.: ET-PFD510) when stacking two projectors and using them simultaneously.
- Do not use the projector supporting it by the top.
- Do not block the ventilation ports (intake and exhaust) of the projector.

- Prevent hot and cool air from the air conditioning system to blow directly to the ventilation ports (intake and exhaust) of the projector.



- Do not install the projector in a confined space.
When installing the projector in a confined space, provide air conditioning or ventilation separately. Exhaust heat may accumulate when the ventilation is not enough, triggering the protection circuit of the projector.

Security

When using this product, take safety measures against the following incidents.

- Personal information being leaked via this product
 - Unauthorized operation of this product by a malicious third party
 - Interfering or stopping of this product by a malicious third party
- Take sufficient security measures. (➔ pages 163, 188)
- Make your password difficult to guess as much as possible.
 - Change your password periodically.
 - Panasonic Corporation or its affiliate companies will never ask for your password directly. Do not divulge your password in case you receive such inquiries.
 - The connecting network must be secured by a firewall, etc.
 - Set a password for the web control and restrict the users who can log in.

QUAD PIXEL DRIVE

“QUAD PIXEL DRIVE” is a technology unique to Panasonic that will enhance the resolution of the projected image with the signal processing for the high resolution of up to 5 120 x 3 200 dots and quadrupling the resolution by shifting the image pixels in horizontal and vertical directions.

A high-density “4K+” image exceeding 4K is displayed by this QUAD PIXEL DRIVE technology.

DIGITAL LINK

“DIGITAL LINK” is a technology to transmit the video, audio, Ethernet, and serial control signals using a twisted pair cable by adding unique functions by Panasonic to the HDBaseT™ communication standard formulated by HDBaseT Alliance.

This projector supports the optional Panasonic DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) and peripheral devices by other manufacturers (twisted-pair-cable transmitters such as the “XTP transmitter” of Extron Electronics) that use the same HDBaseT™ standard. For the devices of other manufacturers that the operation has been verified with this projector, visit the Panasonic website (<https://panasonic.net/cns/projector/>). Note that the verification for devices of other manufacturers has been made for the items set by Panasonic Corporation, and not all the operations have been verified. For operation or performance problems caused by the devices of other manufacturers, contact the respective manufacturers. This projector does not support audio transmission because it is not equipped with audio function.

Art-Net

“Art-Net” is an Ethernet communication protocol based on the TCP/IP protocol.

By using the DMX controller and the application software, illumination and stage system can be controlled. Art-Net is made based on DMX512 communication protocol.

Early Warning Software

The projector supports “Early Warning Software”, which monitors the status of the display (projector or flat panel display) and the peripheral devices inside an intranet, and notifies of abnormality of such equipment and detects signs of possible abnormality. Also, maintenance can be performed in advance, because this software gives notification of approximate time to replace consumables of the display, to clean each part of the display, and to replace the components of the display.

Depending on the type of license, the number of displays that can be registered for monitoring varies. Limited to the first 90 days after installation in a computer, it is possible to register up to 2048 units of displays free of charge. Download the software from the Panasonic website (<https://panasonic.net/cns/projector/pass/>). It is necessary to register and login to PASS*1 to download.

*1 PASS: Panasonic Professional Display and Projector Technical Support Website
Visit the Panasonic website (<https://panasonic.net/cns/projector/pass/>) for details.

Disposal

To dispose of the product, ask your local authorities or dealer for correct methods of disposal.

Cautions on use

■ To get a good picture quality

In order to view a beautiful image in higher contrast, prepare an appropriate environment. Draw curtains or blinds over windows and turn off any lights near the screen to prevent outside light or light from indoor lamps from shining onto the screen.

■ Do not touch the surface of the projection lens with your bare hands.

If the surface of the projection lens becomes dirty from fingerprints or anything else, this will be magnified and projected onto the screen.

Attach the supplied lens cover to the optional projection lens when not using the projector.

■ DLP chips

- The DLP chips are precision-made. Note that in rare cases, pixels of high precision could be missing or always lit. Such a phenomenon does not indicate malfunction.
- Directing a high-power laser beam onto the projection lens surface can damage the DLP chips.

■ Do not move the projector or subject it to vibration or impact while it is operating.

Doing so may shorten the life of the built-in motor.

■ Light source

The light source of the projector uses lasers, and has the following characteristics.

- Depending on the operating environment temperature, the luminance of the light source will decrease.
The higher the temperature becomes, the more the luminance of the light source decreases.
- The luminance of the light source will decrease by duration of usage.
The time until when the luminance of the light source decreases by half differs depending on the setting of the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE].
The estimated time until when the luminance of the light source decreases by half is as follows.
(The time is estimated when the [PICTURE] menu → [DYNAMIC CONTRAST] is set to [3].)
 - When [OPERATING MODE] is set to [NORMAL]: Approximately 20 000 hours
 - When [OPERATING MODE] is set to [ECO]: Approximately 24 000 hours
 - When [OPERATING MODE] is set to [LONG LIFE1]: Approximately 43 000 hours
 - When [OPERATING MODE] is set to [LONG LIFE2]: Approximately 61 000 hours
 - When [OPERATING MODE] is set to [LONG LIFE3]: Approximately 87 000 hoursThe luminance can be maintained as much as possible for the same runtime by setting the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [CONSTANT MODE] to [AUTO]. These times are rough estimate when the projector is used without changing the [OPERATING MODE] and [CONSTANT MODE] settings, and will vary depending on individual difference and usage condition.
If brightness is noticeably reduced and the light source does not turn on, ask your dealer to clean inside the projector or replace the light source unit.

■ Computer and external device connections

When connecting a computer or an external device, read this manual carefully regarding the use of power cords and shielded cables as well.

■ Slot

This projector is equipped with two SLOT NX-specification slots.

There are four SDI input terminals and one DIGITAL LINK input terminal equipped on this projector as the standard video input terminals. The input for HDMI, DVI-D, and SDI can be added by installing the optional Interface Board in the slot.

“SLOT NX” is a name of the slot unique to Panasonic supporting the signal input for the 4K image.

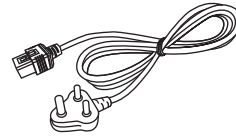
Accessories

Make sure that the following accessories are provided with your projector. Numbers enclosed in < > show the number of accessories.

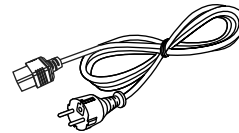
Wireless/wired remote control unit <1>
(N2QAYB001052)



(K2CZ3YY00058): for 200 V - 240 V

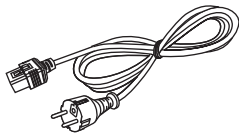


(K2CZ3YY00032): for 200 V - 240 V

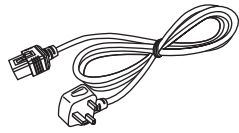


Power cord

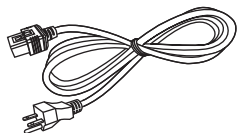
(K2CM3YY00007): for 200 V - 240 V



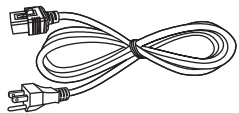
(K2CT3YY00014): for 200 V - 240 V



(K2CG3YY00035): for 200 V - 240 V

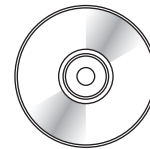


(K2CG3YY00189): for 110 V - 120 V

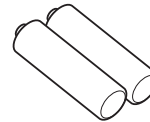


CD-ROM <1>

(TXFQB02WREZ)



AA/R6 or AA/LR6 battery <2>



(For remote control unit)

Lens fixing screw <1>

(XYN4+J18FJ)



Attention

- After unpacking the projector, discard the power cord cap and packaging material properly.
- Do not use the supplied power cord for devices other than this projector.
- For missing accessories, consult your dealer.
- Store small parts in an appropriate manner, and keep them away from small children.

Note

- The type and number of the supplied power cords vary depending on the country or region where you purchased the product.
- The model numbers of accessories are subject to change without prior notice.

Contents of the supplied CD-ROM

The contents of the supplied CD-ROM are as follows.

Instruction/list (PDF)	Operating Instructions – Functional Manual	
	Multi Monitoring & Control Software Operating Instructions	
	Logo Transfer Software Operating Instructions	
	List of Compatible Device Models	This is a list of display models (projector or flat panel display) that are compatible with the software contained in the CD-ROM and their restrictions.
Software	Multi Monitoring & Control Software (Windows)	This software allows you to monitor and control multiple displays (projector or flat panel display) connected to the LAN.
	Logo Transfer Software (Windows)	This software allows you to transfer original images, such as company logos to be displayed when projection starts, to the projector.

Optional accessories

Optional accessories (product name)		Model No.
Projection lens	Zoom Lens	ET-D75LE6, ET-D75LE8, ET-D75LE10, ET-D75LE20, ET-D75LE30, ET-D75LE40
	Fixed-focus Lens	ET-D75LE50, ET-D75LE90
Interface Board	Interface Board for HDMI 2 input	ET-MDNHM10
	Interface Board for DVI-D 2 input	ET-MDNDV10
	3G-SDI Terminal Board with Audio	TY-TBN03G
	Interface Board for 12G-SDI	ET-MDN12G10
Ceiling Mount Bracket	ET-PKD520H (for High Ceilings) ET-PKD520S (for Low Ceilings) ET-PKD520B (Projector Mount Bracket)	
Frame	ET-PFD510	
Replacement Filter Unit	ET-EMF330	
Smoke Cut Filter	ET-SFR330	
Early Warning Software (Basic license/3-year license)	ET-SWA100 Series*1	
Upgrade Kit	ET-UK20	
Auto Screen Adjustment Upgrade Kit	ET-CUK10	
Auto Screen Adjustment Upgrade Kit (PC)	ET-CUK10P	
Digital Interface Box	ET-YFB100G	
DIGITAL LINK Switcher	ET-YFB200G	

*1 The suffix of the Model No. differs according to the license type.

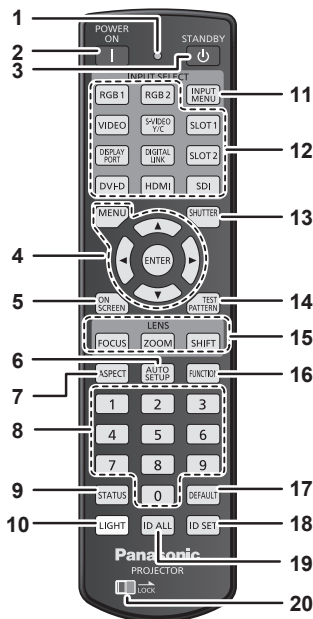
Note

- To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00.
For details on how to confirm the firmware version, refer to “How to confirm the firmware version of the 3G-SDI Terminal Board with Audio” (➔ page 31).
- The expansion function by applying the optional Upgrade Kit (Model No.: ET-UK20) cannot be used when the video signal in simultaneous format is input.
- The model numbers of optional accessories are subject to change without prior notice.
- The optional accessories described in this document are as of December 2017. Optional accessories may be added or changed without prior notice.
For the latest information, visit the Panasonic website (<https://panasonic.net/cns/projector/>).

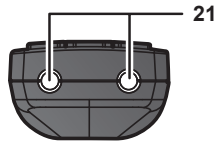
About your projector

Remote control

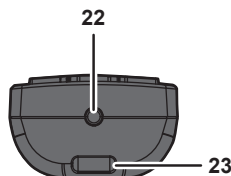
■ Front



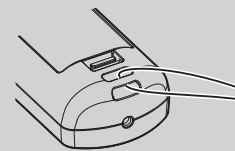
■ Top



■ Bottom



A strap can be attached depending on the usage.



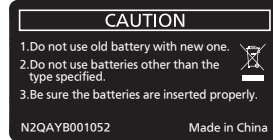
- 1 Remote control indicator**
Blinks if any button in the remote control is pressed.
- 2 Power on <|> button**
Sets the projector to projection mode when the <MAIN POWER> switch on the projector is set to <ON> and the power is turned off (standby mode).
- 3 Power standby <⏻> button**
Sets the projector to the state where the projector is turned off (standby mode) when the <MAIN POWER> switch on the projector is set to <ON> and in projection mode.
- 4 <MENU> button/<ENTER> button/▲▼◀▶ buttons**
Used to navigate through the menu screen. (➔ page 77)
- 5 <ON SCREEN> button**
Switches the on-screen display function on (display) or off (hide). (➔ page 72)
- 6 <AUTO SETUP> button**
Automatically adjusts the image display position while projecting the image.
[PROGRESS] is displayed while in automatic adjustment.
(➔ page 73)
- 7 <ASPECT> button**
Switches the aspect ratio of the image. (➔ page 73)
- 8 Number (<0> - <9>) buttons**
Used for entering an ID number or a password in a multiple projector environment.
- 9 <STATUS> button**
Displays the projector information.
- 10 <LIGHT> button**
Pressing this button lights up the remote control buttons. The lights will go off when the remote control operation goes idle for 10 seconds.
- 11 <INPUT MENU> button**
Displays the input selection screen. (➔ page 71)
- 12 Input selection buttons (<DIGITAL LINK>, <DVI-D>, <HDMI>, <SLOT 1>, <SLOT 2>, <SDI>)**
Switches the input signal to project. (➔ page 70)
<DVI-D> button, <HDMI> button, <SLOT 1> button, and <SLOT 2> button can be used when the optional Interface Board equipped with corresponding input is installed in the slot on the projector.
Following buttons are not used with this projector.
<RGB 1> button, <RGB 2> button, <VIDEO> button, <S-VIDEO Y/C> button, <DISPLAY PORT> button
- 13 <SHUTTER> button**
Used to temporarily turn off the image. (➔ page 72)
- 14 <TEST PATTERN> button**
Displays the test pattern. (➔ page 74)
- 15 Lens buttons (<FOCUS>, <ZOOM>, <SHIFT>)**
Adjusts the projection lens. (➔ page 65)
- 16 <FUNCTION> button**
Assigns a frequently used operation as a shortcut button.
(➔ page 73)
- 17 <DEFAULT> button**
Resets the content of the sub-menu to the factory default.
(➔ page 78)
- 18 <ID SET> button**
Sets the ID number of the remote control in a multiple projector environment. (➔ page 72)
- 19 <ID ALL> button**
Used to simultaneously control all the projectors with a single remote control in a multiple projector environment.
(➔ page 32)
- 20 <LOCK> button**
Used to prevent unintended operation by careless pressing of the buttons and prevent draining the remote control batteries. Operation of each button on the remote control is disabled by sliding the <LOCK> button toward the arrow.
- 21 Remote control signal transmitter**
- 22 Remote control wired terminal**
This is a terminal used to connect to the projector via a cable when the remote control is used as a wired remote control.
(➔ page 33)

23 Strap hole

Attention

- Do not drop the remote control.
- Avoid contact with liquids or moisture.
- Do not attempt to modify or disassemble the remote control.
- Do not swing the remote control holding onto the strap when a strap is attached.
- Observe the following instructions that are indicated on the caution label at the back of the remote control:
 - Do not use old battery with new one.
 - Do not use batteries other than the type specified.
 - Be sure the batteries are inserted properly.

For other instructions, read the instructions related to batteries that are described in "Read this first!".



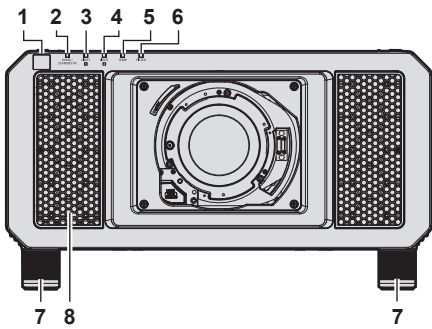
Caution label at the back of the remote control

Note

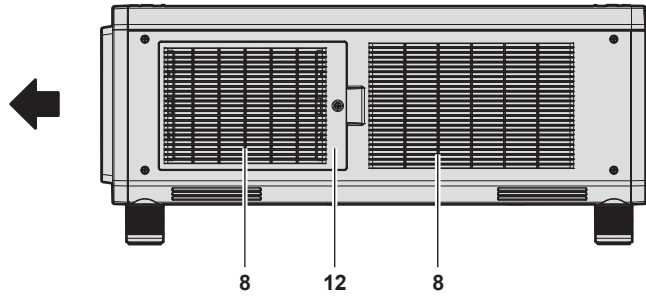
- When operating the remote control by directly pointing the remote control signal receiver of the projector, operate the remote control at a distance approx. 30 m (98'5") or shorter from the remote control signal receiver. The remote control can control at angles of up to $\pm 15^\circ$ vertically and $\pm 30^\circ$ horizontally, but the effective control range may be reduced.
- If there are any obstacles between the remote control and the remote control signal receiver, the remote control may not operate properly.
- The signal will be reflected off the screen. However, the operating range may be limited from light reflection loss due to the screen material.
- If the remote control signal receiver directly receives strong light, such as fluorescent light, the remote control may not operate properly. Use it in a place distant from the light source.
- The power indicator <ON (G)/STANDBY (R)> will blink if the projector receives a remote control signal.

Projector body

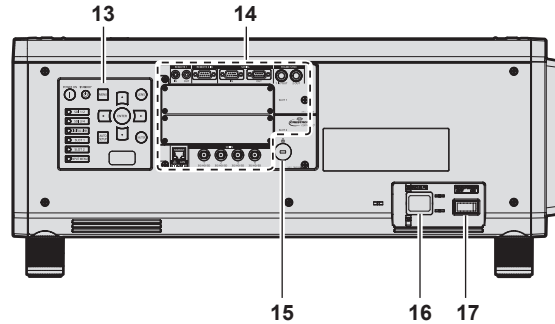
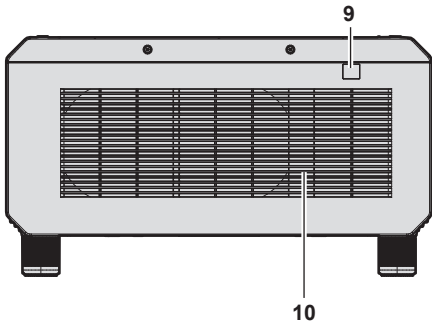
■ Front



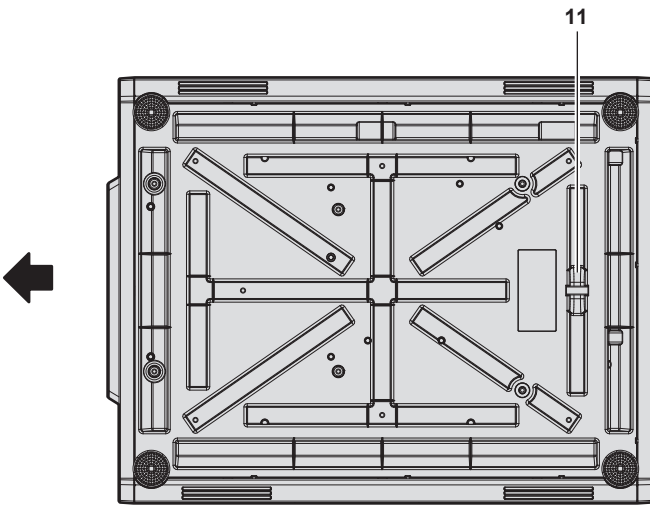
■ Side



■ Rear



■ Bottom



- 4 **Light source indicator <LIGHT2>**
Indicates the status of light source 2.
- 5 **Temperature indicator <TEMP>**
Indicates the internal temperature status.
- 6 **Filter indicator <FILTER>**
Indicates the status of the air filter unit.
- 7 **Adjustable feet**
Adjusts the projection angle.
- 8 **Air intake port**
- 9 **Remote control signal receiver (rear)**
- 10 **Air exhaust port**
- 11 **Burglar hook port**
Attaches a burglar prevention cable, etc.
- 12 **Air filter cover**
The air filter unit is inside.
- 13 **Control panel** (⇒ page 28)
- 14 **Connecting terminals** (⇒ page 29)
- 15 **Security slot**
This security slot is compatible with the Kensington security cables.
- 16 **<AC IN> terminal**
Connect the supplied power cord.
- 17 **<MAIN POWER> switch**
Turns on/off the main power.

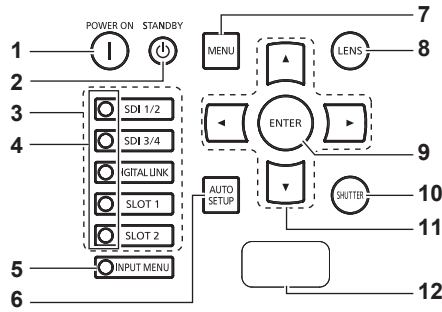
← : Projection direction

- 1 **Remote control signal receiver (front)**
- 2 **Power indicator <ON (G)/STANDBY (R)>**
Indicates the status of the power.
- 3 **Light source indicator <LIGHT1>**
Indicates the status of light source 1.

Attention

- Do not block the ventilation ports (intake and exhaust) of the projector.

■ Control panel



1 Power on <|> button

Sets the projector to projection mode when the <MAIN POWER> switch on the projector is set to <ON> and the power is turned off (standby mode).

2 Power standby <⏻> button

Sets the projector to the state where the projector is turned off (standby mode) when the <MAIN POWER> switch on the projector is set to <ON> and in projection mode.

3 Input selection buttons (<SDI 1/2>, <SDI 3/4>, <DIGITAL LINK>, <SLOT 1>, <SLOT 2>)

Switches the input signal to project. (➔ page 70)
<SLOT 1> button and <SLOT 2> button can be used when the optional Interface Board is installed in the slot on the projector.

4 Input selection terminal indicator

Indicator that shows the selected input terminal. This indicator lights up when a video signal is being input to the selected terminal, and blinks when there is no video signal being input.

5 <INPUT MENU> button

Displays the input selection screen. (➔ page 71)
The indicator of the button is lit while this button is pressed.

6 <AUTO SETUP> button

Automatically adjusts the image display position while the image is projected. [PROGRESS] is displayed while in automatic adjustment. (➔ page 73)

7 <MENU> button

Displays or hides the main menu. (➔ page 77)
Returns to the previous menu when a sub-menu is displayed. If you press the <MENU> button on the control panel for at least three seconds while the on-screen display is off (hidden), the on-screen display is turned on.

8 <LENS> button

Adjusts the focus, zoom, and shift (position) of the lens.

9 <ENTER> button

Determines and executes an item in the menu screen.

10 <SHUTTER> button

Used to temporarily turn off the image. (➔ page 72)

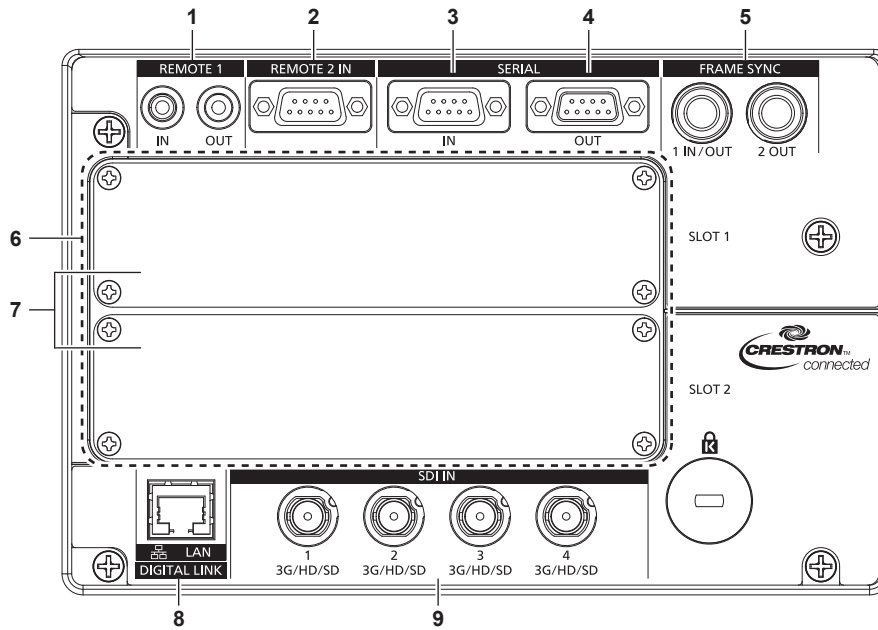
11 ▲▼◀▶ buttons

Used to select items in the menu screen, change settings, and adjust levels.
Also used to enter a password in [SECURITY] or enter characters.

12 Self-diagnosis display

Automatically displays the value of the input supply voltage, or details of errors or warnings when they occur. (➔ pages 75, 200)

■ Connecting terminals



- 1 <REMOTE 1 IN> terminal/<REMOTE 1 OUT> terminal**
These are terminals to connect the remote control for serial control in a multiple projector environment.
- 2 <REMOTE 2 IN> terminal**
This is a terminal to remotely control the projector using the external control circuit.
- 3 <SERIAL IN> terminal**
This is the RS-232C compatible terminal to externally control the projector by connecting a computer.
- 4 <SERIAL OUT> terminal**
This is a terminal to output the signal connected to the <SERIAL IN> terminal.

- 5 <FRAME SYNC 1 IN/OUT> terminal/<FRAME SYNC 2 OUT> terminal**
These are terminals to input and output the control signal to synchronize the projected images in a multiple projector environment.
The projected images of second and subsequent projectors can be synchronized to the first projector when the same image is projected simultaneously.
- 6 Slots (<SLOT 1>, <SLOT 2>)**
There are SLOT NX-specification slots to install the optional Interface Board internally.
- 7 Slot cover**
- 8 <DIGITAL LINK/LAN> terminal**
This is the LAN terminal to connect to the network. This is also used when connecting a video signal transmission device via the LAN terminal.
- 9 <SDI IN 1> terminal/<SDI IN 2> terminal/<SDI IN 3> terminal/<SDI IN 4> terminal**
These are terminals to input SDI signals.

Attention

- When a LAN cable is directly connected to the projector, the network connection must be made indoors.

Names and functions of the Interface Board (optional)

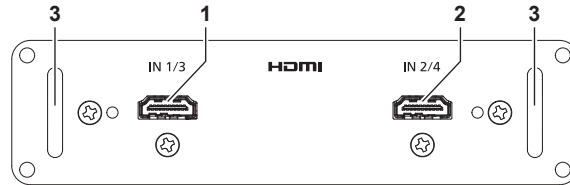
This projector is equipped with two SLOT NX-specification slots.

There are four SDI input terminals and one DIGITAL LINK input terminal equipped on this projector as the standard video input terminals. The input for HDMI, DVI-D, and SDI can be added by installing the optional Interface Board in the slot.

The terminal name of the optional Interface Board is described with different terminal name in this document when it is installed in <SLOT 1> and when it is installed in <SLOT 2>. Refer to following information for details.

■ Interface Board for HDMI 2 input (Model No.: ET-MDNHM10)

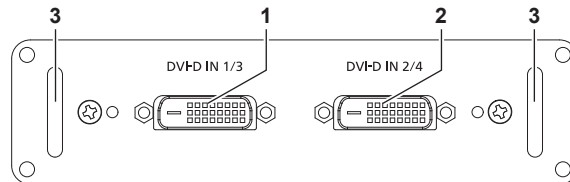
This board supports the HDMI signal.



- | | |
|--|--|
| <p>1 <HDMI IN 1> terminal (when installed in <SLOT 1>), <HDMI IN 3> terminal (when installed in <SLOT 2>)
This is a terminal to input the HDMI signal.</p> | <p>2 <HDMI IN 2> terminal (when installed in <SLOT 1>), <HDMI IN 4> terminal (when installed in <SLOT 2>)
This is a terminal to input the HDMI signal.</p> |
| <p>3 Handle</p> | |

■ Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10)

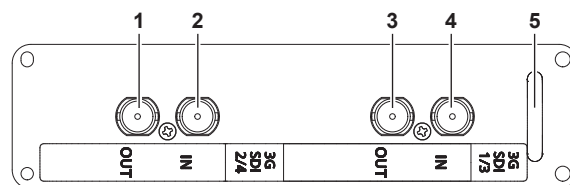
This board supports the DVI-D signal.



- | | |
|---|---|
| <p>1 <DVI-D IN 1> terminal (when installed in <SLOT 1>), <DVI-D IN 3> terminal (when installed in <SLOT 2>)
This is a terminal to input the DVI-D signal.</p> | <p>2 <DVI-D IN 2> terminal (when installed in <SLOT 1>), <DVI-D IN 4> terminal (when installed in <SLOT 2>)
This is a terminal to input the DVI-D signal.</p> |
| <p>3 Handle</p> | |

■ 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G)

This board supports the SD-SDI signal, HD-SDI signal, and 3G-SDI signal.



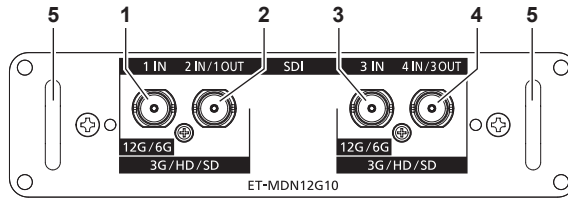
- | | |
|---|---|
| <p>1 <3G-SDI 2 OUT> terminal (when installed in <SLOT 1>), <3G-SDI 4 OUT> terminal (when installed in <SLOT 2>)
This is an active through terminal to output the SDI signal input to the <3G-SDI 2 IN> terminal/<3G-SDI 4 IN> terminal of this board.</p> | <p>3 <3G-SDI 1 OUT> terminal (when installed in <SLOT 1>), <3G-SDI 3 OUT> terminal (when installed in <SLOT 2>)
This is an active through terminal to output the SDI signal input to the <3G-SDI 1 IN> terminal/<3G-SDI 3 IN> terminal of this board.</p> |
| <p>2 <3G-SDI 2 IN> terminal (when installed in <SLOT 1>), <3G-SDI 4 IN> terminal (when installed in <SLOT 2>)
This is a terminal to input the SDI signal.</p> | <p>4 <3G-SDI 1 IN> terminal (when installed in <SLOT 1>), <3G-SDI 3 IN> terminal (when installed in <SLOT 2>)
This is a terminal to input the SDI signal.</p> |
| <p>5 Handle</p> | |

Note

- This projector does not support audio output because it is not equipped with audio function. However, when SDI signal with audio is input to the <3G-SDI 1 IN>/<3G-SDI 2 IN>/<3G-SDI 3 IN>/<3G-SDI 4 IN> terminal, a signal with audio is output from the <3G-SDI 1 OUT>/<3G-SDI 2 OUT>/<3G-SDI 3 OUT>/<3G-SDI 4 OUT> terminal.
- To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Confirm the firmware version of the 3G-SDI Terminal Board with Audio when it does not operate after installing to the projector.
Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00.
For details on how to confirm the firmware version, refer to "How to confirm the firmware version of the 3G-SDI Terminal Board with Audio" (► page 31).

■ Interface Board for 12G-SDI (Model No.: ET-MDN12G10)

This board supports the SD-SDI signal, HD-SDI signal, 3G-SDI signal, 6G-SDI signal, and 12G-SDI signal.



1 <SDI 1 IN> terminal

This is a terminal to input SDI signal (SD-SDI/HD-SDI/3G-SDI/6G-SDI/12G-SDI).

2 <SDI 2 IN/1 OUT> terminal

This is a terminal to input SDI signal (SD-SDI/HD-SDI/3G-SDI). This is also an active through terminal to output the SDI signal (SD-SDI/HD-SDI/3G-SDI/6G-SDI/12G-SDI) input to the <SDI 1 IN> terminal of this board.

3 <SDI 3 IN> terminal

This is a terminal to input SDI signal (SD-SDI/HD-SDI/3G-SDI/6G-SDI/12G-SDI).

4 <SDI 4 IN/3 OUT> terminal

This is a terminal to input SDI signal (SD-SDI/HD-SDI/3G-SDI). This is also an active through terminal to output the SDI signal (SD-SDI/HD-SDI/3G-SDI/6G-SDI/12G-SDI) input to the <SDI 3 IN> terminal of this board.

5 Handle

Note

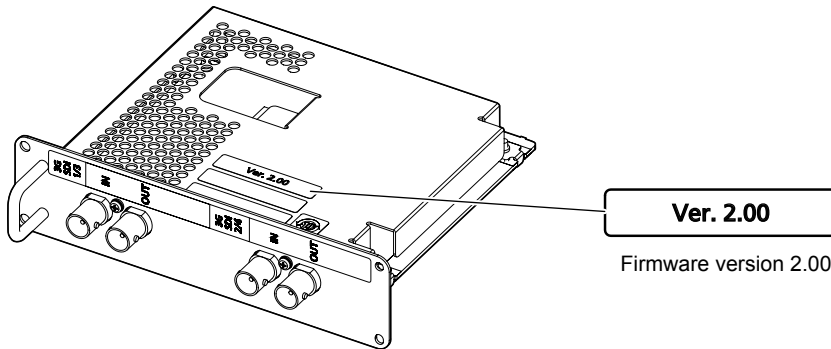
- The <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal do not support the input of the 6G-SDI signal or the 12G-SDI signal.
- To use the <SDI 2 IN/1 OUT> terminal or the <SDI 4 IN/3 OUT> terminal as an output terminal, set the [DISPLAY OPTION] menu → [SLOT IN] → [SDI MODE] to [OUTPUT].
- When the projector is in standby mode, a signal is not output from the <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal.
- Install this board in either <SLOT 1> or <SLOT 2>. When these boards are installed in both <SLOT 1> and <SLOT 2>, only the board installed in <SLOT 1> can be used.

How to confirm the firmware version of the 3G-SDI Terminal Board with Audio

The version is displayed on the product for the 3G-SDI Terminal Board with Audio with the firmware version 2.00 or later.

The firmware version can also be confirmed in the [STATUS] screen. (➔ page 153)

Display example



Preparing the remote control

Inserting and removing the batteries

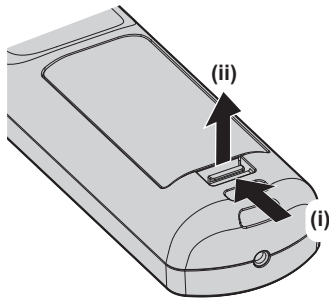


Fig. 1

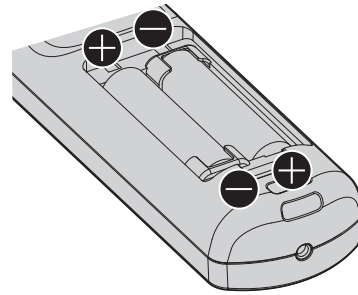


Fig. 2

- 1) **Open the cover. (Fig. 1)**
- 2) **Insert the batteries and close the cover (insert the \ominus side first). (Fig. 2)**
 - When removing the batteries, perform the steps in reverse order.

When using the multiple projectors

When you use the multiple projectors together, you can operate all the projectors simultaneously or each projector individually using single remote control, if a unique ID number is assigned to each projector.

When using the projectors by setting the ID numbers, set the ID number of the projector body after initial settings have been completed. Then, set the ID number of the remote control. For initial settings, refer to “When the initial setting screen is displayed” (➔ page 57).

The factory default ID number of the projector (projector body and remote control) is set to [ALL], so you can use it as it is. Set the ID numbers of the projector body and remote control as necessary.

For details on setting the ID number of the remote control, refer to “Setting ID number of the remote control” (➔ page 75).

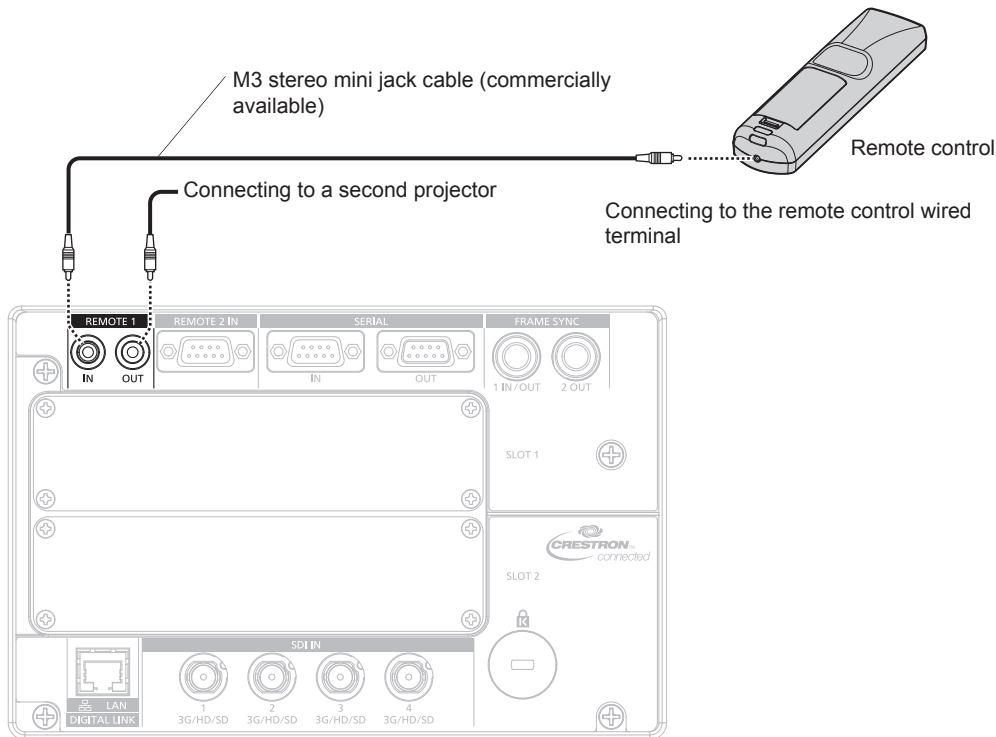
Note

- Set the ID number of the projector body from the [PROJECTOR SETUP] menu → [PROJECTOR ID].

Connecting the remote control to the projector with a cable

If you control the multiple projectors with a single remote control, use commercially available M3 stereo mini jack cables to connect to the <REMOTE 1 IN>/<REMOTE 1 OUT> terminals of the projectors.

The remote control is effective even in places where an obstacle stands in the light path or where devices are susceptible to outside light.



Connecting terminals

Attention

- Use a cable that is 15 m (49'3") or shorter, with 2 core shielded. The remote control may not operate when the length of the cable exceeds 15 m (49'3") or when the shielding of the cable is inadequate.

Chapter 2 **Getting Started**

This chapter describes things you need to do before using the projector such as the setup and connections.

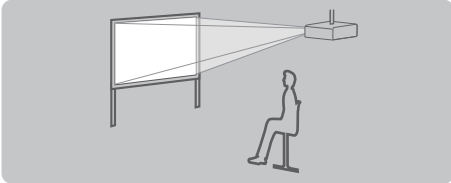
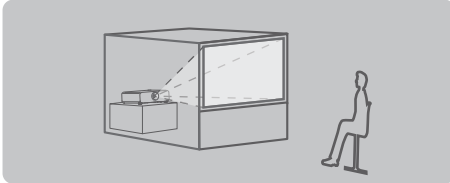
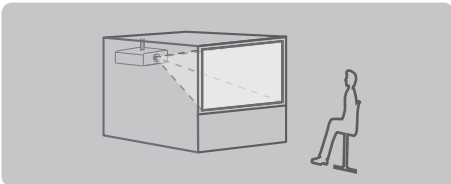
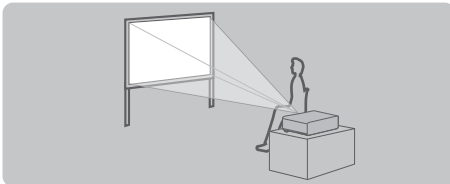
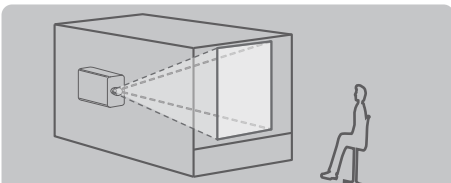
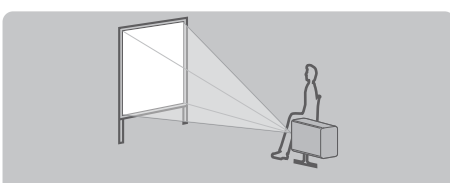
Setting up

Note

- The light output will decrease as much as the power supply voltage is decreased. It is recommended to use with AC 200 V or higher to prioritize luminance.

Installation mode

The installation modes of the projector are as follows. Set the [PROJECTOR SETUP] menu → [PROJECTION METHOD] (➔ page 135) depending on the installation mode.

Mounting on the ceiling and projecting forward 		Setting on a desk/floor and projecting from rear (Using the translucent screen) 	
Menu item	Setting value	Menu item	Setting value
[PROJECTION METHOD]	[FRONT/CEILING]	[PROJECTION METHOD]	[REAR/FLOOR]
Mounting on the ceiling and projecting from rear (Using the translucent screen) 		Setting on a desk/floor and projecting forward 	
Menu item	Setting value	Menu item	Setting value
[PROJECTION METHOD]	[REAR/CEILING]	[PROJECTION METHOD]	[FRONT/FLOOR]
Portrait setting and projecting from the rear (Using the translucent screen) 		Portrait setting and projecting forward 	
Menu item	Setting value	Menu item	Setting value
[PROJECTION METHOD]	[REAR/FLOOR]	[PROJECTION METHOD]	[FRONT/FLOOR]

Note

- In the portrait setting, the on-screen menu is displayed sideways.
To display the on-screen menu in portrait, go to the [DISPLAY OPTION] menu → [ON-SCREEN DISPLAY] (➔ page 127) and change the [OSD ROTATION] setting.

Interface Board (optional)

This projector is equipped with two SLOT NX-specification slots.

There are four SDI input terminals and one DIGITAL LINK input terminal equipped on this projector as the standard video input terminals. The input for HDMI, DVI-D, and SDI can be added by installing the optional Interface Board in the slot.

Attention

- Requesting a qualified technician to install or remove the optional Interface Board is recommended. A malfunction may occur due to static electricity. Consult your dealer.

Parts for installation (optional)

The projector can be installed on the ceiling by combining the optional Ceiling Mount Bracket (Model No.: ET-PKD520H (for High Ceilings), ET-PKD520S (for Low Ceilings)) and Ceiling Mount Bracket (Model No.: ET-PKD520B (Projector Mount Bracket)).

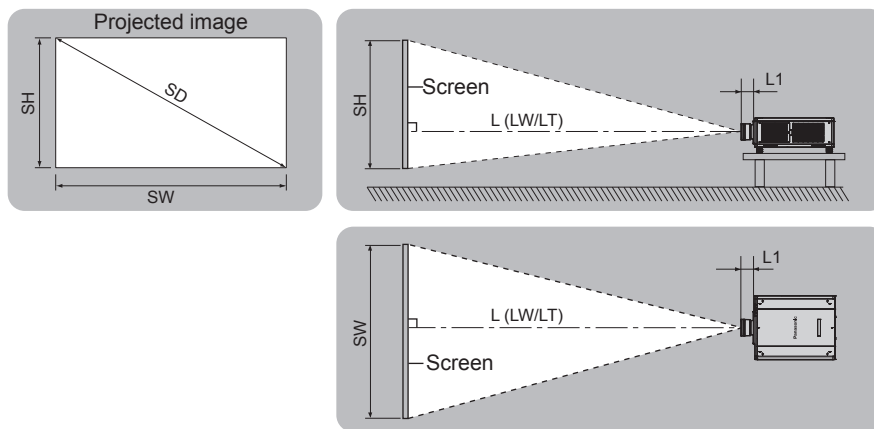
- Be sure to use the Ceiling Mount Bracket specified for this projector.
 - Refer to the Installation Instructions of the Ceiling Mount Bracket when installing and setting up the projector.
- Two projectors can be stacked and used simultaneously by using the optional Frame (Model No.: ET-PFD510).

Attention

- To ensure projector performance and security, installation of the Ceiling Mount Bracket must be carried out by your dealer or a qualified technician.

Projected image and throw distance

Install the projector referring to the projected image size and projection distance. Image size and image position can be adjusted in accordance with the screen size and screen position. When the Fixed-focus Lens (Model No.: ET-D75LE90) is attached, the projection relation between the screen and the projector differs from that of other lenses. Refer to “For the Fixed-focus Lens (Model No.: ET-D75LE90)” (➔ page 37) for details.



(Unit: m)

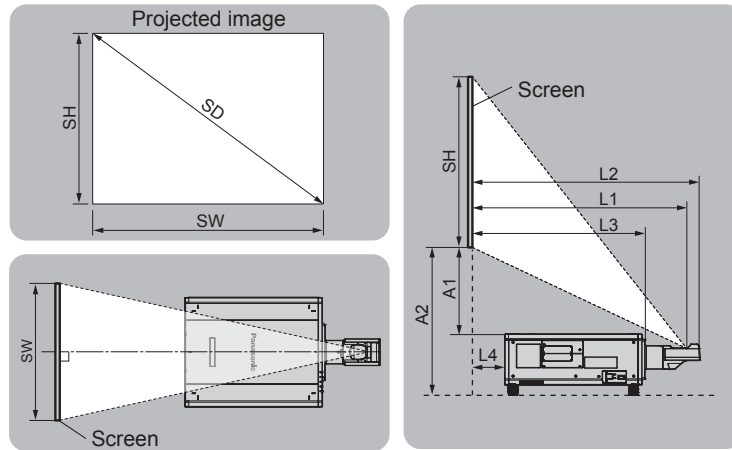
L (LW/LT)*1	Projection distance
L1	Lens protrusion dimension
SH	Projected image height
SW	Projected image width
SD	Projected image size

*1 LW: Minimum projection distance when the Zoom Lens is used
 LT: Maximum projection distance when the Zoom Lens is used

(Unit: m)

Projection lens Model No.	Dimension for L1 (approximate value)
ET-D75LE6	0.212
ET-D75LE8	0.254
ET-D75LE10	0.125
ET-D75LE20	0.121
ET-D75LE30	0.121
ET-D75LE40	0.124
ET-D75LE50	0.203

■ For the Fixed-focus Lens (Model No.: ET-D75LE90)



(Unit: m)

SH	Projected image height
SW	Projected image width
SD	Projected image size
L1	Projection distance (from the screen to the mirror reflection surface*1)
L2	Distance between the projector and the screen (from the screen to the tip of the lens)
L3	Distance between the projector and the screen (from the screen to the front surface of the projector)
L4	Distance between the projector and the screen (from the screen to the rear surface of the projector)
A1	Distance between the projector and the screen (from the screen bottom edge to the projector top)
A2	Distance between the projector and the screen (from the screen bottom edge to the projector bottom)

*1 The mirror reflection surface cannot be seen from the outside, because it is located inside the Fixed-focus Lens.

(Unit: m)

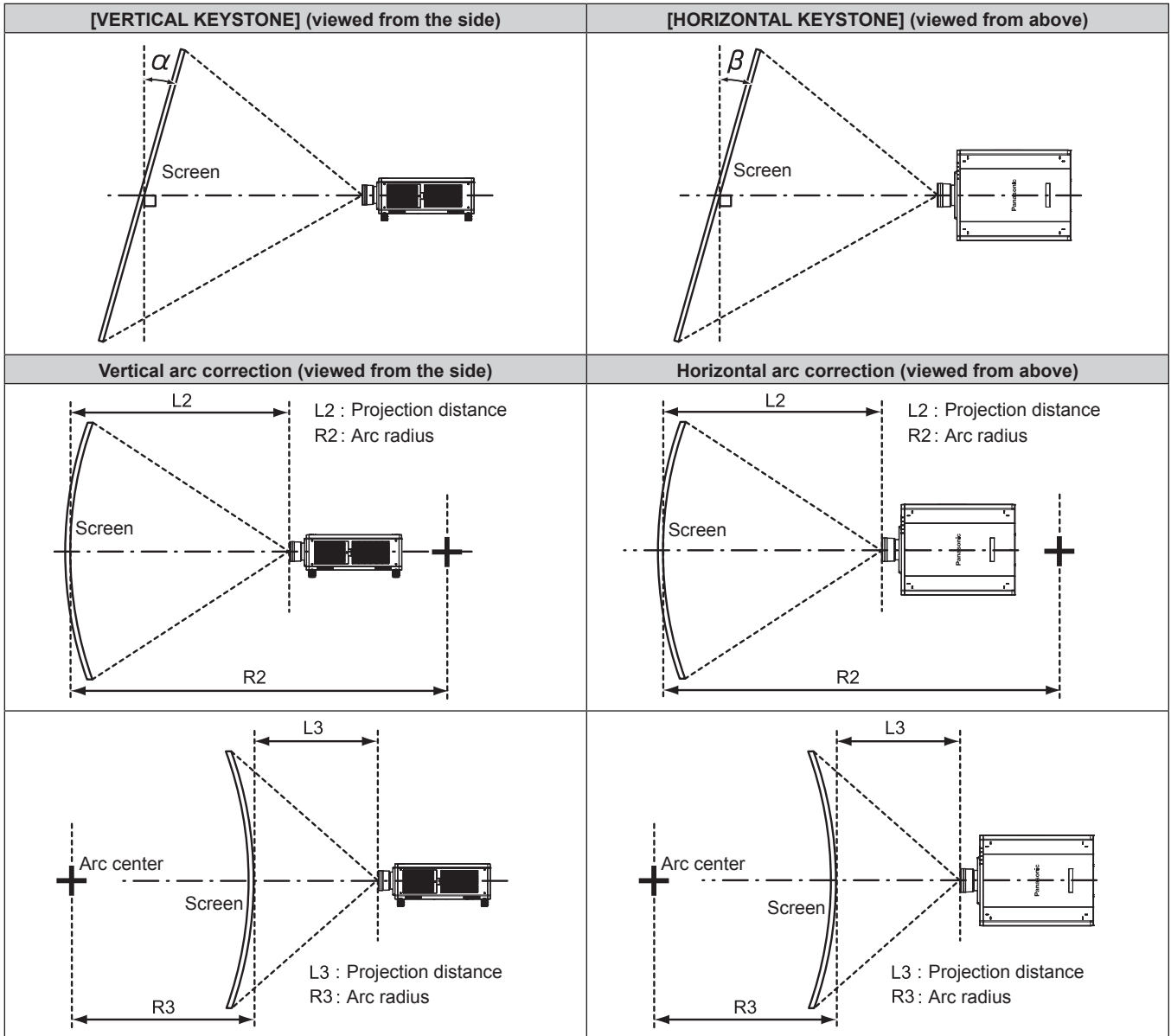
Distance between projector and screen	Formula
L2	$= L1^{*1} + 0.029$
L3	$= L1^{*1} - 0.277$
L4	$= L1^{*1} - 1.002$
A2	$= A1^{*1} + 0.324$

*1 For details of calculating values, refer to "Formula for calculating the projection distance per projection lens" (➡ page 42).

Attention

- Before setting up, read "Precautions for use" (➡ page 17).
Especially when the Fixed-focus Lens (Model No.: ET-D75LE90) is used, install the projector so that its back plane is parallel to the screen, making the projected image rectangular.
The vertical keystone distortion in moderate range can be corrected by the [POSITION] menu → [GEOMETRY] → [KEystone] → [VERTICAL KEystone] (➡ page 92) even after the projector is installed. For the range that can be corrected, refer to "[GEOMETRY] projection range" (➡ page 38).
- The geometric adjustment function cannot be used when the video signal in simultaneous format is input. When installing the projector, follow the instructions below so that distortion does not occur in the projected image.
 - Use a flat screen.
 - Install the projector so that the front side of the projector is parallel to the screen.
 - Install the projector so that the image can be projected within the range of shift adjustment by moving the lens position.
- Do not use the projector and the high-powered laser equipment in the same room. The DLP chips can be damaged if a laser beam hits the projection lens surface.
- The dimension of L4 is not the distance between the rear of the projector body and the wall, but the distance between the rear of the projector body and the screen surface. Install the projector with 500 mm (19-11/16") or larger space between the rear of the projector body and the wall or any object so that the ventilation is not obstructed.
When installing the projector in a confined space, provide air conditioning or ventilation separately. Exhaust heat may accumulate when the ventilation is not enough, triggering the protection circuit of the projector.

[GEOMETRY] projection range



Standard status

Projection lens Model No.	Only [KEystone] used* ¹		[KEystone] and [CURVED] used together* ¹				Only [CURVED] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
ET-D75LE6	±28	±15	±10	±10	1.6	3.9	0.9	2.3
ET-D75LE8	±40	±15	±20	±15	0.2	0.4	0.2	0.3
ET-D75LE10	±40	±15	±10	±10	1.1	2.6	0.6	1.5
ET-D75LE20	±40	±15	±15	±10	0.9	1.7	0.5	1.0
ET-D75LE30	±40	±15	±20	±10	0.6	1.2	0.4	0.7
ET-D75LE40	±40	±15	±20	±15	0.4	0.7	0.2	0.4
ET-D75LE50	±22	±15	±8	±8	2.0	4.9	1.2	2.9
ET-D75LE90* ²	+5 / -0	0	—	—	—	—	—	—

*1 When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 30°.

*2 Only the vertical keystone correction angle can be corrected in the direction in which the projector body moves away from the screen.

When using the optional Upgrade Kit (Model No.: ET-UK20)

Projection lens Model No.	Only [KEystone] used* ¹		[KEystone] and [CURVED] used together* ¹				Only [CURVED] used	
	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Vertical keystone correction angle α (°)	Horizontal keystone correction angle β (°)	Min. value of R2/L2	Min. value of R3/L3	Min. value of R2/L2	Min. value of R3/L3
ET-D75LE6	±28	±15	±10	±10	1.2	3.0	0.7	1.7
ET-D75LE8	±45	±40	±20	±15	0.2	0.3	0.1	0.2
ET-D75LE10	±40	±15	±10	±10	0.9	2.0	0.5	1.1
ET-D75LE20	±40	±20	±15	±10	0.7	1.3	0.4	0.7
ET-D75LE30	±45	±25	±20	±10	0.5	0.9	0.3	0.5
ET-D75LE40	±45	±30	±20	±15	0.3	0.5	0.2	0.3
ET-D75LE50	±22	±15	±8	±8	1.5	3.7	0.9	2.2
ET-D75LE90* ²	+5 / -0	0	—	—	—	—	—	—

*1 When [VERTICAL KEYSTONE] and [HORIZONTAL KEYSTONE] are used simultaneously, correction cannot be made exceeding total of 30°.

*2 Only the vertical keystone correction angle can be corrected in the direction in which the projector body moves away from the screen.

Note

- When [GEOMETRY] is used, the focus of the entire screen may be lost as correction increases.
- Make the curved screen a circular arc shape with one part of a perfect circle removed.
- Adjustment range of the [GEOMETRY] items may not match the listed projection range depending on the projection lens. Use this projector within the projection range, otherwise the correction may not work.
- The expansion function by applying the optional Upgrade Kit (Model No.: ET-UK20) cannot be used when the video signal in simultaneous format is input.

Projection distance of each projection lens

A ±5 % error in listed projection distances may occur.

When [GEOMETRY] is used, distance is corrected to become smaller than the specified image size.

■ **When the image aspect ratio is 16:10**

(Unit: m)

Lens type			Zoom Lens											
Projection lens Model No.			ET-D75LE6		ET-D75LE10		ET-D75LE20		ET-D75LE30		ET-D75LE40		ET-D75LE8	
Throw ratio ^{*1}			1.0-1.2:1		1.4-1.8:1		1.8-2.6:1		2.6-5.0:1		4.9-7.9:1		7.9-14.8:1	
Projected image size			Projection distance (L)											
Diagonal (SD)	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)
1.78 (70")	0.942	1.508	1.46	1.75	2.05	2.65	2.64	3.85	3.82	7.45	7.37	11.85	11.65	22.20
2.03 (80")	1.077	1.723	1.68	2.01	2.35	3.04	3.03	4.41	4.38	8.54	8.45	13.56	13.37	25.42
2.29 (90")	1.212	1.939	1.90	2.27	2.65	3.43	3.42	4.98	4.94	9.63	9.52	15.28	15.09	28.64
2.54 (100")	1.346	2.154	2.11	2.53	2.96	3.83	3.81	5.54	5.51	10.72	10.60	16.99	16.81	31.86
3.05 (120")	1.615	2.585	2.55	3.05	3.57	4.61	4.59	6.67	6.63	12.90	12.75	20.42	20.25	38.31
3.81 (150")	2.019	3.231	3.20	3.83	4.48	5.79	5.76	8.37	8.32	16.17	15.98	25.57	25.41	47.97
5.08 (200")	2.692	4.308	4.29	5.13	6.00	7.76	7.71	11.20	11.12	21.62	21.36	34.14	34.01	64.08
6.35 (250")	3.365	5.385	5.37	6.43	7.52	9.73	9.65	14.03	13.93	27.07	26.74	42.72	42.61	80.19
7.62 (300")	4.039	6.462	6.46	7.73	9.05	11.70	11.60	16.86	16.74	32.51	32.12	51.30	51.21	96.31
8.89 (350")	4.712	7.539	7.54	9.03	10.57	13.66	13.55	19.69	19.55	37.96	37.50	59.87	59.81	112.42
10.16 (400")	5.385	8.616	8.63	10.33	12.09	15.63	15.50	22.52	22.36	43.41	42.88	68.45	68.40	128.53
12.70 (500")	6.731	10.770	10.80	12.93	15.13	19.56	19.39	28.18	27.98	54.31	53.63	85.60	85.60	160.75
15.24 (600")	8.077	12.923	12.97	15.53	18.18	23.50	23.29	33.84	33.60	65.21	64.39	102.75	102.80	192.97
25.40 (1000")	13.462	21.539	21.66	25.94	30.35	39.24	38.86	56.48	56.08	108.79	107.43	171.36	171.59	—

Lens type			Fixed-focus Lens			
Projection lens Model No.			ET-D75LE90 ^{*2}			ET-D75LE50
Throw ratio ^{*1}			0.39:1			0.7:1
Projected image size			Projection distance (L1)	Distance between projector and screen		Projection distance (L)
Diagonal (SD)	Height (SH)	Width (SW)		(L4)	(A1)	
1.78 (70")	0.942	1.508	—	—	—	1.09
2.03 (80")	1.077	1.723	—	—	—	1.25
2.29 (90")	1.212	1.939	—	—	—	1.42
2.54 (100")	1.346	2.154	—	—	—	1.58
3.05 (120")	1.615	2.585	1.01	0.01	0.27 - 0.42	1.91
3.81 (150")	2.019	3.231	1.26	0.26	0.37 - 0.56	2.41
5.08 (200")	2.692	4.308	1.67	0.67	0.53 - 0.78	3.23
6.35 (250")	3.365	5.385	2.08	1.08	0.70 - 1.01	4.06
7.62 (300")	4.039	6.462	2.50	1.49	0.86 - 1.24	4.89
8.89 (350")	4.712	7.539	2.91	1.91	1.03 - 1.47	5.71
10.16 (400")	5.385	8.616	3.32	2.32	1.19 - 1.70	6.54
12.70 (500")	6.731	10.770	4.15	3.14	1.52 - 2.15	8.19
15.24 (600")	8.077	12.923	4.97	3.97	1.85 - 2.61	9.84
25.40 (1000")	13.462	21.539	—	—	—	16.45

*1 The throw ratio is based on the value during projection with the projected image size of 3.81 m (150").

*2 When the Fixed-focus Lens (Model No.: ET-D75LE90) is attached, the projection relation between the screen and the projector differs from that of other lenses. Refer to "For the Fixed-focus Lens (Model No.: ET-D75LE90)" (➡ page 37) for details.

■ When the image aspect ratio is 16:9

(Unit: m)

Lens type			Zoom Lens											
Projection lens Model No.			ET-D75LE6		ET-D75LE10		ET-D75LE20		ET-D75LE30		ET-D75LE40		ET-D75LE8	
Throw ratio ^{*1}			1.0-1.2:1		1.4-1.8:1		1.8-2.6:1		2.6-5.0:1		4.9-7.9:1		7.9-14.9:1	
Projected image size			Projection distance (L)											
Diagonal (SD)	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)
1.78 (70")	0.872	1.550	1.51	1.80	2.10	2.72	2.72	3.96	3.93	7.66	7.58	12.18	11.99	22.82
2.03 (80")	0.996	1.771	1.73	2.07	2.42	3.13	3.12	4.54	4.51	8.78	8.69	13.94	13.75	26.13
2.29 (90")	1.121	1.992	1.95	2.33	2.73	3.53	3.52	5.12	5.08	9.90	9.79	15.70	15.52	29.45
2.54 (100")	1.245	2.214	2.18	2.60	3.04	3.94	3.92	5.70	5.66	11.02	10.90	17.47	17.29	32.76
3.05 (120")	1.494	2.657	2.62	3.13	3.67	4.74	4.72	6.86	6.82	13.26	13.11	20.99	20.82	39.38
3.81 (150")	1.868	3.321	3.29	3.94	4.61	5.96	5.92	8.61	8.55	16.62	16.43	26.28	26.13	49.32
5.08 (200")	2.491	4.428	4.41	5.27	6.17	7.98	7.92	11.52	11.44	22.22	21.96	35.10	34.97	65.88
6.35 (250")	3.113	5.535	5.52	6.61	7.74	10.00	9.92	14.43	14.32	27.82	27.49	43.91	43.80	82.43
7.62 (300")	3.736	6.641	6.64	7.95	9.30	12.02	11.93	17.33	17.21	33.42	33.01	52.73	52.64	98.99
8.89 (350")	4.358	7.748	7.75	9.28	10.86	14.05	13.93	20.24	20.10	39.02	38.54	61.54	61.48	115.55
10.16 (400")	4.981	8.855	8.87	10.62	12.43	16.07	15.93	23.15	22.99	44.62	44.07	70.36	70.32	132.11
12.70 (500")	6.226	11.069	11.10	13.30	15.56	20.11	19.93	28.97	28.76	55.82	55.13	87.98	87.99	165.23
15.24 (600")	7.472	13.283	13.33	15.97	18.69	24.16	23.94	34.78	34.54	67.02	66.19	105.61	105.67	198.35
25.40 (1000")	12.453	22.138	22.26	26.66	31.20	40.33	39.95	58.05	57.64	111.82	110.42	176.13	176.37	—

Lens type			Fixed-focus Lens			
Projection lens Model No.			ET-D75LE90 ^{*2}			ET-D75LE50
Throw ratio ^{*1}			0.39:1			0.7:1
Projected image size			Projection distance (L1)	Distance between projector and screen		Projection distance (L)
Diagonal (SD)	Height (SH)	Width (SW)		(L4)	(A1)	Fixed
1.78 (70")	0.872	1.550	—	—	—	1.12
2.03 (80")	0.996	1.771	—	—	—	1.29
2.29 (90")	1.121	1.992	—	—	—	1.46
2.54 (100")	1.245	2.214	—	—	—	1.63
3.05 (120")	1.494	2.657	1.04	0.04	0.28 - 0.52	1.97
3.81 (150")	1.868	3.321	1.29	0.29	0.38 - 0.68	2.48
5.08 (200")	2.491	4.428	1.72	0.71	0.55 - 0.95	3.33
6.35 (250")	3.113	5.535	2.14	1.14	0.72 - 1.22	4.17
7.62 (300")	3.736	6.641	2.56	1.56	0.89 - 1.49	5.02
8.89 (350")	4.358	7.748	2.99	1.99	1.06 - 1.75	5.87
10.16 (400")	4.981	8.855	3.41	2.41	1.23 - 2.02	6.72
12.70 (500")	6.226	11.069	4.26	3.26	1.57 - 2.56	8.42
15.24 (600")	7.472	13.283	5.11	4.11	1.91 - 3.10	10.12
25.40 (1000")	12.453	22.138	—	—	—	16.91

*1 The throw ratio is based on the value during projection with the projected image size of 3.81 m (150").

*2 When the Fixed-focus Lens (Model No.: ET-D75LE90) is attached, the projection relation between the screen and the projector differs from that of other lenses. Refer to "For the Fixed-focus Lens (Model No.: ET-D75LE90)" (➡ page 37) for details.

■ When the image aspect ratio is 4:3

(Unit: m)

Lens type			Zoom Lens											
Projection lens Model No.			ET-D75LE6		ET-D75LE10		ET-D75LE20		ET-D75LE30		ET-D75LE40		ET-D75LE8	
Throw ratio ^{*1}			1.2-1.4:1		1.7-2.2:1		2.1-3.1:1		3.1-6.0:1		5.9-9.5:1		9.5-17.8:1	
Projected image size			Projection distance (L)											
Diagonal (SD)	Height (SH)	Width (SW)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)	Min. (LW)	Max. (LT)
1.78 (70")	1.067	1.422	1.66	1.99	2.33	3.01	3.00	4.37	4.34	8.46	8.37	13.43	13.24	25.18
2.03 (80")	1.219	1.626	1.91	2.28	2.67	3.46	3.44	5.01	4.98	9.69	9.59	15.37	15.19	28.83
2.29 (90")	1.372	1.829	2.16	2.58	3.02	3.90	3.89	5.65	5.61	10.93	10.80	17.32	17.14	32.47
2.54 (100")	1.524	2.032	2.40	2.87	3.36	4.35	4.33	6.29	6.25	12.16	12.02	19.26	19.08	36.12
3.05 (120")	1.829	2.438	2.89	3.46	4.05	5.24	5.21	7.57	7.52	14.63	14.46	23.14	22.98	43.42
3.81 (150")	2.286	3.048	3.63	4.34	5.08	6.57	6.53	9.49	9.43	18.33	18.11	28.97	28.82	54.36
5.08 (200")	3.048	4.064	4.86	5.82	6.81	8.80	8.74	12.70	12.61	24.50	24.20	38.68	38.56	72.60
6.35 (250")	3.810	5.080	6.09	7.29	8.53	11.03	10.94	15.90	15.79	30.67	30.29	48.39	48.29	90.84
7.62 (300")	4.572	6.096	7.32	8.76	10.25	13.26	13.15	19.11	18.97	36.84	36.38	58.10	58.03	109.08
8.89 (350")	5.334	7.112	8.55	10.23	11.98	15.48	15.35	22.31	22.15	43.00	42.47	67.81	67.76	127.32
10.16 (400")	6.096	8.128	9.78	11.71	13.70	17.71	17.56	25.51	25.33	49.17	48.56	77.52	77.50	145.57
12.70 (500")	7.620	10.160	12.24	14.65	17.15	22.16	21.96	31.92	31.69	61.51	60.75	96.94	96.97	182.05
15.24 (600")	9.144	12.192	14.69	17.60	20.59	26.62	26.37	38.33	38.06	73.85	72.93	116.36	116.44	218.53
25.40 (1000")	15.240	20.320	24.53	29.38	34.38	44.44	44.01	63.96	63.50	123.20	121.65	194.04	194.32	—

Lens type			Fixed-focus Lens			
Projection lens Model No.			ET-D75LE90 ^{*2}			ET-D75LE50
Throw ratio ^{*1}			0.47:1			0.9:1
Projected image size			Projection distance (L1)	Distance between projector and screen		Projection distance (L)
Diagonal (SD)	Height (SH)	Width (SW)		(L4)	(A1)	Fixed
1.78 (70")	1.067	1.422	—	—	—	1.24
2.03 (80")	1.219	1.626	—	—	—	1.43
2.29 (90")	1.372	1.829	—	—	—	1.61
2.54 (100")	1.524	2.032	—	—	—	1.80
3.05 (120")	1.829	2.438	1.14	0.14	0.32 - 0.49	2.17
3.81 (150")	2.286	3.048	1.42	0.42	0.43 - 0.65	2.73
5.08 (200")	3.048	4.064	1.89	0.89	0.62 - 0.91	3.67
6.35 (250")	3.810	5.080	2.36	1.35	0.81 - 1.16	4.61
7.62 (300")	4.572	6.096	2.82	1.82	0.99 - 1.42	5.54
8.89 (350")	5.334	7.112	3.29	2.29	1.18 - 1.68	6.48
10.16 (400")	6.096	8.128	3.76	2.75	1.37 - 1.94	7.41
12.70 (500")	7.620	10.160	4.69	3.69	1.74 - 2.46	9.28
15.24 (600")	9.144	12.192	5.62	4.62	2.11 - 2.97	11.15
25.40 (1000")	15.240	20.320	—	—	—	18.64

*1 The throw ratio is based on the value during projection with the projected image size of 3.81 m (150").

*2 When the Fixed-focus Lens (Model No.: ET-D75LE90) is attached, the projection relation between the screen and the projector differs from that of other lenses. Refer to "For the Fixed-focus Lens (Model No.: ET-D75LE90)" (➔ page 37) for details.

Formula for calculating the projection distance per projection lens

To use a projected image size not listed in this manual, check the projected image size SD (m) and use the respective formula to calculate projection distance.

The unit of all the formulae is m. (Values obtained by the following calculation formulae contain a slight error.)

When calculating a projection distance using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula for calculating the projection distance.

■ Zoom Lens

Projection lens Model No.	Throw ratio	Aspect ratio	Projection distance (L) formula	
			Min. (LW)	Max. (LT)
ET-D75LE6	1.0 - 1.2:1	16:10	= 0.8549 x SD - 0.0566	= 1.0242 x SD - 0.0736
	1.0 - 1.2:1	16:9	= 0.8786 x SD - 0.0566	= 1.0527 x SD - 0.0736
	1.2 - 1.4:1	4:3	= 0.9679 x SD - 0.0566	= 1.1596 x SD - 0.0736
ET-D75LE10	1.4 - 1.8:1	16:10	= 1.1985 x SD - 0.0857	= 1.5490 x SD - 0.1085
	1.4 - 1.8:1	16:9	= 1.2318 x SD - 0.0857	= 1.5921 x SD - 0.1085
	1.7 - 2.2:1	4:3	= 1.3569 x SD - 0.0857	= 1.7538 x SD - 0.1085
ET-D75LE20	1.8 - 2.6:1	16:10	= 1.5334 x SD - 0.0832	= 2.2280 x SD - 0.1162
	1.8 - 2.6:1	16:9	= 1.5760 x SD - 0.0832	= 2.2900 x SD - 0.1162
	2.1 - 3.1:1	4:3	= 1.7361 x SD - 0.0832	= 2.5226 x SD - 0.1162

Projection lens Model No.	Throw ratio	Aspect ratio	Projection distance (L) formula	
			Min. (LW)	Max. (LT)
ET-D75LE30	2.6 - 5.0:1	16:10	= 2.2121 x SD - 0.1131	= 4.2901 x SD - 0.1765
	2.6 - 5.0:1	16:9	= 2.2736 x SD - 0.1131	= 4.4094 x SD - 0.1765
	3.1 - 6.0:1	4:3	= 2.5046 x SD - 0.1131	= 4.8573 x SD - 0.1765
ET-D75LE40	4.9 - 7.9:1	16:10	= 4.2356 x SD - 0.1577	= 6.7529 x SD - 0.1615
	4.9 - 7.9:1	16:9	= 4.3534 x SD - 0.1577	= 6.9406 x SD - 0.1615
	5.9 - 9.5:1	4:3	= 4.7955 x SD - 0.1577	= 7.6456 x SD - 0.1615
ET-D75LE8	7.9 - 14.8:1	16:10	= 6.7707 x SD - 0.3862	= 12.6858 x SD - 0.3598
	7.9 - 14.9:1	16:9	= 6.9590 x SD - 0.3862	= 13.0385 x SD - 0.3598
	9.5 - 17.8:1	4:3	= 7.6658 x SD - 0.3862	= 14.3627 x SD - 0.3598

■ Fixed-focus Lens

Projection lens Model No.	Throw ratio	Aspect ratio	Projection distance (L1) formula	Formula for distance between projector and screen (A1)	
				Min.	Max.
ET-D75LE90	0.39:1	16:10	= 0.325 x SD + 0.020	= 0.245 x SH - 0.128	= 0.339 x SH - 0.128
	0.39:1	16:9	= 0.334 x SD + 0.020	= 0.272 x SH - 0.128	= 0.432 x SH - 0.128
	0.47:1	4:3	= 0.368 x SD + 0.020	= 0.245 x SH - 0.128	= 0.339 x SH - 0.128

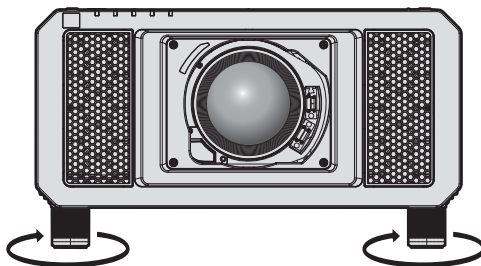
Projection lens Model No.	Throw ratio	Aspect ratio	Projection distance (L) formula
ET-D75LE50	0.7:1	16:10	= 0.6505 x SD - 0.0713
	0.7:1	16:9	= 0.6686 x SD - 0.0713
	0.9:1	4:3	= 0.7365 x SD - 0.0713

Adjusting adjustable feet

Install the projector on a flat surface so that the front of the projector is parallel to the screen surface and the projection screen is rectangular.

If the screen is tilted downward, the projection screen can be adjusted to be rectangular by adjusting the front adjustable feet. The adjustable feet can also be used to adjust the projector to be level when it is tilted in the horizontal direction.

Adjustable feet can be extended by turning them as shown in the figure. Turning them in the opposite direction will return them to the original position.



Maximum adjustable range
Adjustable feet: 12 mm (15/32") each

Attention

- Be careful not to block the intake/exhaust ports with your hands or any objects when adjusting the adjustable feet while the light source is on. (➔ page 27)

Attaching/removing the projection lens (optional)

Move the lens position to the home position before replacing or removing the projection lens. (➔ page 67)

Attention

- Replace the projection lens after turning off the power of the projector.
- Do not touch the electric contacts of the projection lens. Dust or dirt may cause poor contact.
- Do not touch the surface of the projection lens with your bare hands.
- Before attaching the projection lens, remove the lens cover attached to the projection lens.
- Do not install the Fixed-focus Lens (Model No.: ET-D75LE5 (production discontinued)) on the projector. Installing by mistake will cause malfunction of the projector.

Note

- The precautions for handling the lens are different for the Fixed-focus Lens (Model No.: ET-D75LE90). For details, refer to the Operating Instructions of ET-D75LE90.

Attaching the projection lens

Attach the projection lens using the following procedure.

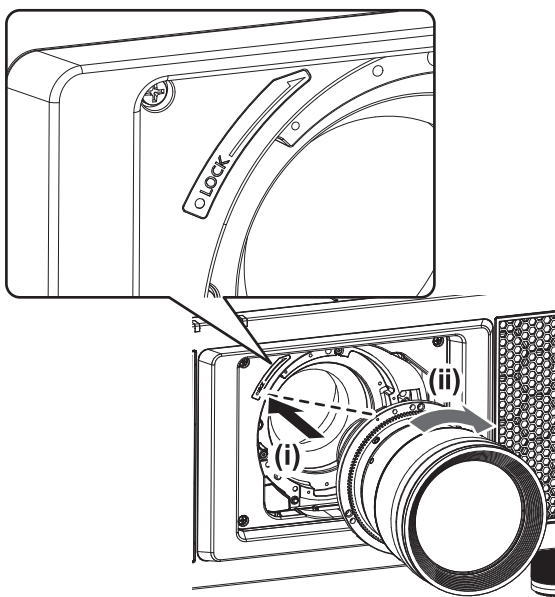


Fig. 1

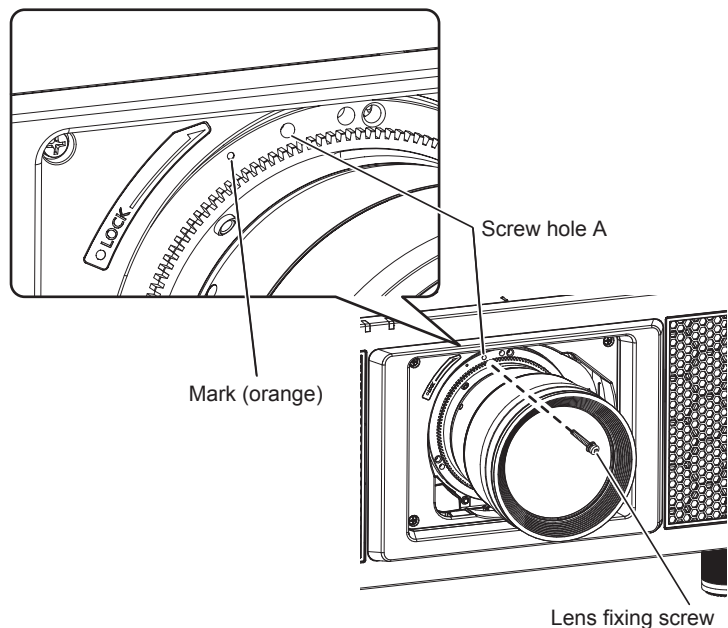


Fig. 2

- 1) Insert the projection lens by aligning the mark on the projection lens (orange) with the mark on the projector (○ to the left of LOCK) and turn clockwise until it clicks. (Fig. 1)
- 2) Secure the projection lens with the supplied lens fixing screw. (Fig. 2)
 - Use a Phillips screwdriver to secure it in screw hole A located to the right of mark on the projection lens (orange).
 - Some lenses may not have a screw hole A for securing the projection lens.

Attention

- Turn the projection lens counterclockwise to confirm that it does not come out.

Removing the projection lens

Remove the projection lens using the following procedure.

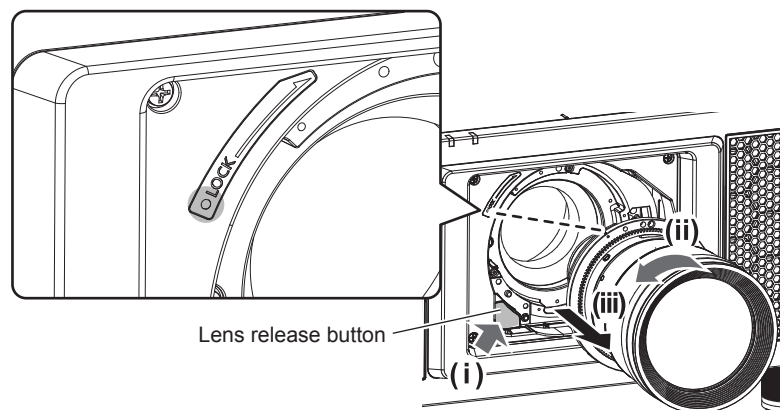


Fig. 1

1) Remove the lens fixing screw.

- Use a Phillips screwdriver to remove the first screw to the right of the mark on the projection lens (orange).

2) Remove the projection lens by turning it counterclockwise while pressing the lens release button. (Fig. 1)

- Turn the projection lens counterclockwise until the mark on the projection lens (orange) is aligned with the mark on the projector (○ to the left of LOCK).

Note

- Some lenses may not have a screw hole to use to secure the projection lens.

Attention

- Store the removed projection lens where it will be free from vibration and impact.
- Store the removed lens fixing screw in a safe place.

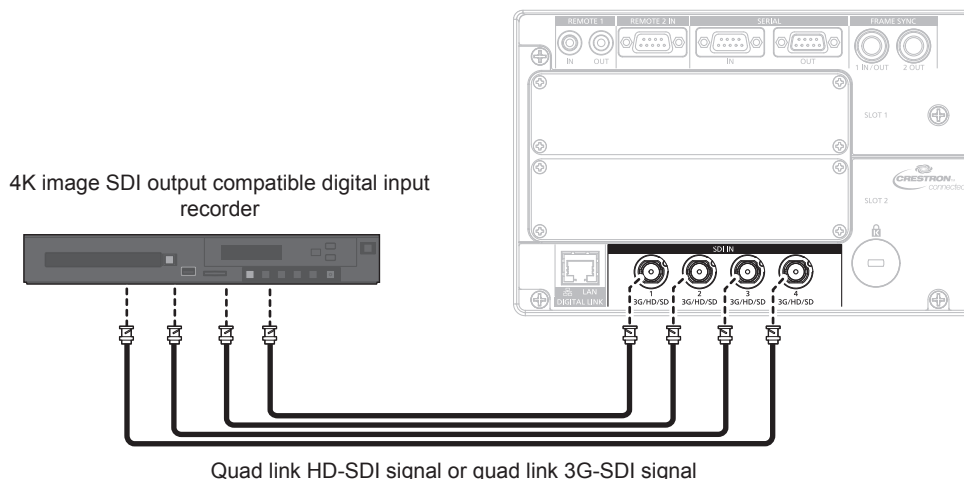
Connecting

Before connecting

- Before connecting, carefully read the operating instructions for the external device to be connected.
- Turn off the power of all devices before connecting cables.
- Take note of the following points before connecting the cables. Failure to do so may result in malfunctions.
 - When connecting a cable to a device connected to the projector or the projector itself, touch any nearby metallic objects to eliminate static electricity from your body before performing work.
 - Do not use unnecessarily long cables to connect a device to the projector or to the projector body. The longer the cable, the more susceptible to noise it becomes. Since using a cable while it is wound makes it act like an antenna, it is more susceptible to noise.
 - When connecting cables, connect GND first, then insert the connecting terminal of the connecting device in a straight manner.
- Acquire any connection cable necessary to connect the external device to the system that is neither supplied with the device nor available as an option.
- Install the optional Interface Board necessary for the video equipment to connect with the projector to the slot in advance.
Requesting a qualified technician to install or remove the optional Interface Board is recommended. A malfunction may occur due to static electricity. Consult your dealer.
For details on how to install the optional Interface Board, refer to “Installing the Interface Board (optional)” (➔ page 241).
- Some computer models are not compatible with the projector.
- Connect using an extension device, etc., when installing the projector away from the video equipment. The projector may not display the image properly when it is connected directly using a long cable.
- For details of the types of video signals that can be used with the projector, refer to “List of compatible signals” (➔ page 217).

Connecting example: AV equipment

For <SDI IN 1>/<SDI IN 2>/<SDI IN 3>/<SDI IN 4> terminals



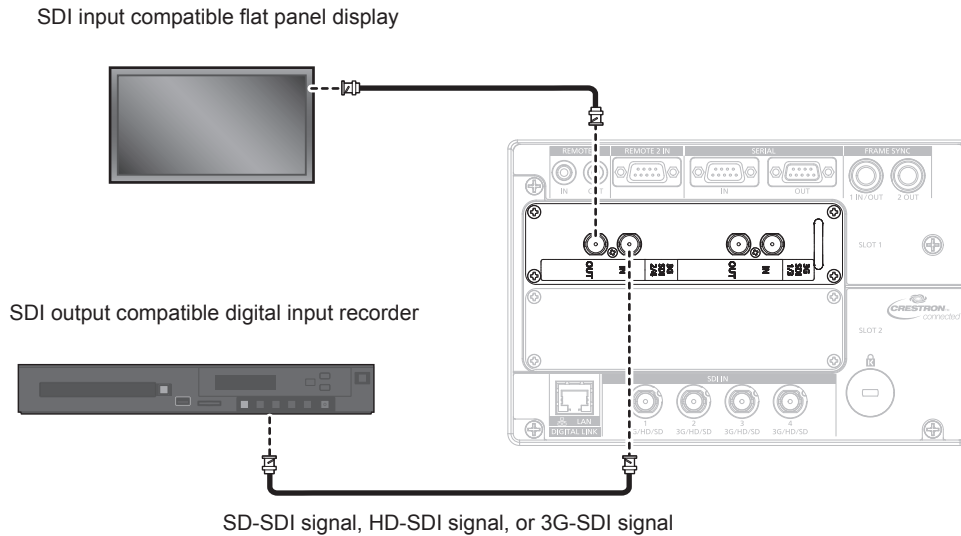
Note

- Use a connection cable with 5C-FB or higher (such as 5C-FB or 7C-FB), or Belden 1694A or higher to properly transmit images. Use a connection cable of 100 m (328'1") length or less.
- Setting the [DISPLAY OPTION] menu → [SDI IN] is required depending on the connected external device or the input signal. Set [SDI LINK] in [SDI IN] when the dual link signal or the quad link signal is input.
- To input the dual link signal, use the cable with same length and same type for connecting to the <SDI IN 1> terminal and the <SDI IN 2> terminal, or the <SDI IN 3> terminal and the <SDI IN 4> terminal. The image may not be projected correctly when the difference of the cable length is 4 m (13'1") or more.
- To input the quad link signal, use the cable with same length and same type for connecting to each of <SDI IN 1>/<SDI IN 2>/<SDI IN 3>/<SDI IN 4> terminals. The image may not be projected correctly when the difference of the cable length is 4 m (13'1") or more.
- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting dual link signals. A phase difference between the LINK-A signal and the LINK-B signal may occur, and the image may not be projected correctly.

- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting quad link signals. A phase difference between the signals of Link 1, Link 2, Link 3, and Link 4 may occur, and the image may not be projected correctly.
- An error in signal detection may occur when an unsteady signal is input to the projector. In such case, set the [DISPLAY OPTION] menu → [SDI IN] to the content corresponding to the input signal.

For <3G-SDI 1 IN>/<3G-SDI 2 IN> terminals and <3G-SDI 3 IN>/<3G-SDI 4 IN> terminals of the Interface Board

This is an example when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in <SLOT 1>.



Note

- To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00. For details on how to confirm the firmware version, refer to “How to confirm the firmware version of the 3G-SDI Terminal Board with Audio” (▶ page 31).
- Use a connection cable with 5C-FB or higher (such as 5C-FB or 7C-FB), or Belden 1694A or higher to properly transmit images. Use a connection cable of 100 m (328'1”) length or less.
- Setting the [DISPLAY OPTION] menu → [SLOT IN] is required depending on the connected external device or the input signal. Set [SDI LINK] in [SLOT IN] when the dual link signal or the quad link signal is input.
- To input the dual link signal, use the cable with same length and same type for connecting to the <3G-SDI 1 IN> terminal and the <3G-SDI 2 IN> terminal, or the <3G-SDI 3 IN> terminal and the <3G-SDI 4 IN> terminal. The image may not be projected correctly when the difference of the cable length is 4 m (13'1”) or more.
- To input the quad link signal, use the cable with same length and same type for connecting to each of <3G-SDI 1 IN>/<3G-SDI 2 IN>/<3G-SDI 3 IN>/<3G-SDI 4 IN> terminals. The image may not be projected correctly when the difference of the cable length is 4 m (13'1”) or more.
- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting dual link signals. A phase difference between the LINK-A signal and the LINK-B signal may occur, and the image may not be projected correctly.
- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting quad link signal. A phase difference between the signals of Link 1, Link 2, Link 3, and Link 4 may occur, and the image may not be projected correctly.
- An error in signal detection may occur when an unsteady signal is input to the projector. In such case, set the [DISPLAY OPTION] menu → [SLOT IN] to the content corresponding to the input signal.

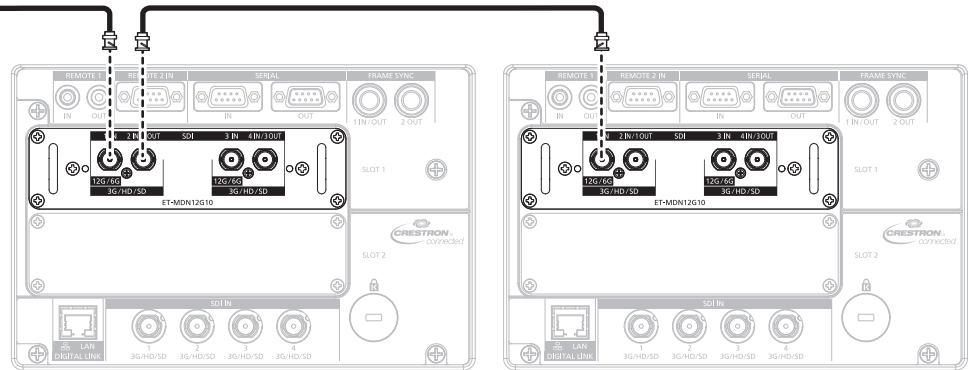
For <SDI 1 IN>/<SDI 2 IN/1 OUT>/<SDI 3 IN>/<SDI 4 IN/3 OUT> terminals of the Interface Board

This is an example when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1>.

12G-SDI signal output compatible device



SD-SDI signal, HD-SDI signal, 3G-SDI signal, 6G-SDI signal, or 12G-SDI signal

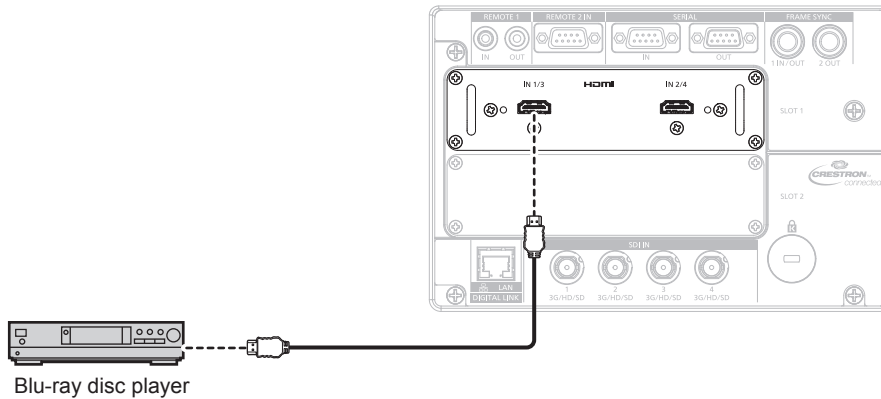


Note

- Use a connection cable of 5C-FB or higher (such as 5C-FB, or 7C-FB), Belden 1694A or higher, or L-5.5CUHD manufactured by Canare Electric Co., Ltd. to properly transmit images. The maximum cable length that can be used is as follows. However, this maximum cable length is a rough guideline, and does not guarantee the transmission distance.
 - SD-SDI signal, HD-SDI signal, 3G-SDI signal: 150 m (492'2")
 - 6G-SDI signal: 80 m (262'6") (When L-5.5CUHD is used, the cable length should be 110 m (360'11").)
 - For 12G-SDI signal, the cable length will differ depending on the setting in the [DISPLAY OPTION] menu → [SLOT IN] → [SDI MODE].
 - When [SDI MODE] is set to [INPUT]: 50 m (164'1") (When L-5.5CUHD is used, the cable length should be 100 m (328'1").)
 - When [SDI MODE] is set to [OUTPUT]: 50 m (164'1") (When L-5.5CUHD is used, the cable length should be 90 m (295'3").)
- When the [DISPLAY OPTION] menu → [SLOT IN] → [SDI MODE] is set to [OUTPUT], attach a terminating resistor (75 Ω) to the terminal with no device connected as an output destination.
- Use the BNC connector that is compatible with the coaxial cable and type of the signal to be used.
- Setting of the [DISPLAY OPTION] menu → [SLOT IN] is required depending on the connected external device or the input signal.
- Setting of the [DISPLAY OPTION] menu → [SLOT IN] → [SDI LINK] is required when the dual link signal or the quad link signal is input.
- To input the dual link signal, use the cable with same length and same type for connecting to the <SDI 1 IN> terminal and the <SDI 3 IN> terminal. The image may not be projected correctly when the difference of the cable length is 4 m (13'1") or more.
- To input the quad link signal, use the cable with same length and same type for connecting to each of <SDI 1 IN>/<SDI 2 IN/1 OUT>/<SDI 3 IN>/<SDI 4 IN/3 OUT> terminals. The image may not be projected correctly when the difference of the cable length is 4 m (13'1") or more.
- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting dual link signals. A phase difference is generated between the LINK-A signal and the LINK-B signal, and the image may not be projected correctly.
- Directly connect the projector with the external device that will output the signal without going through a distributor, etc., when inputting quad link signals. A phase difference is generated between the signals of Link 1, Link 2, Link 3, and Link 4, and the image may not be projected correctly.
- An error in signal detection may occur when an unsteady signal is input to the projector. In such case, set the [DISPLAY OPTION] menu → [SLOT IN] to the content corresponding to the input signal.
- The <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal do not support the input of the 6G-SDI signal or the 12G-SDI signal.
- To use the <SDI 2 IN/1 OUT> terminal or the <SDI 4 IN/3 OUT> terminal as an output terminal, set the [DISPLAY OPTION] menu → [SLOT IN] → [SDI MODE] to [OUTPUT].
- Install this board in either <SLOT 1> or <SLOT 2>. When these boards are installed in both <SLOT 1> and <SLOT 2>, only the board installed in <SLOT 1> can be used.

For <HDMI IN 1>/<HDMI IN 2> terminals and <HDMI IN 3>/<HDMI IN 4> terminals of the Interface Board

This is an example when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in <SLOT 1>.

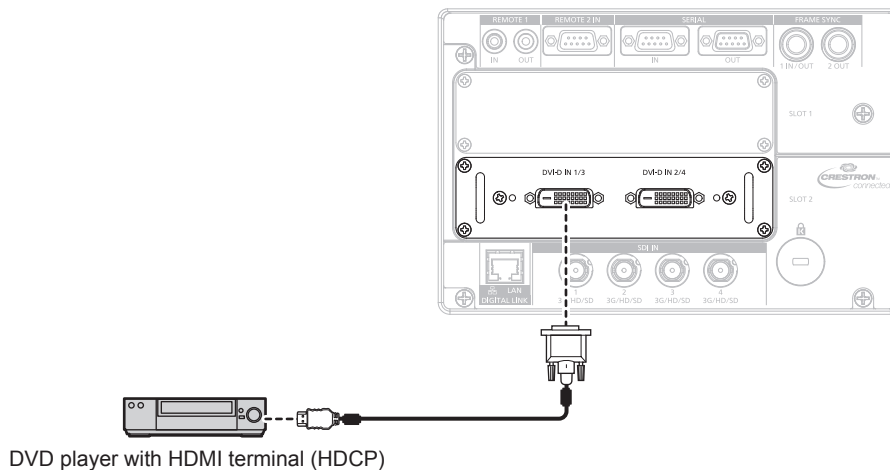


Note

- For the HDMI cable, use an HDMI High Speed cable that conforms to the HDMI standards. If a cable that does not conform to the HDMI standards is used, images may be interrupted or may not be projected. Even if an HDMI High Speed cable that conforms to the HDMI standards is used, the 4K image may not be projected properly depending on the performance or the length of the cable.
- Setting the [DISPLAY OPTION] menu → [SLOT IN] is required depending on the connected external device or the input signal. Set [HDMI LINK] in [SLOT IN] when the dual link signal or the quad link signal is input.
- The <HDMI IN 1>/<HDMI IN 2>/<HDMI IN 3>/<HDMI IN 4> terminals can be connected to the external device with a DVI-D terminal by using the HDMI/DVI conversion cable. However, this may not function properly for some external devices, and image may not be displayed.
- The projector does not support VIERA Link (HDMI).

For <DVI-D IN 1>/<DVI-D IN 2> terminals and <DVI-D IN 3>/<DVI-D IN 4> terminals of the Interface Board

This is an example when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in <SLOT 2>.

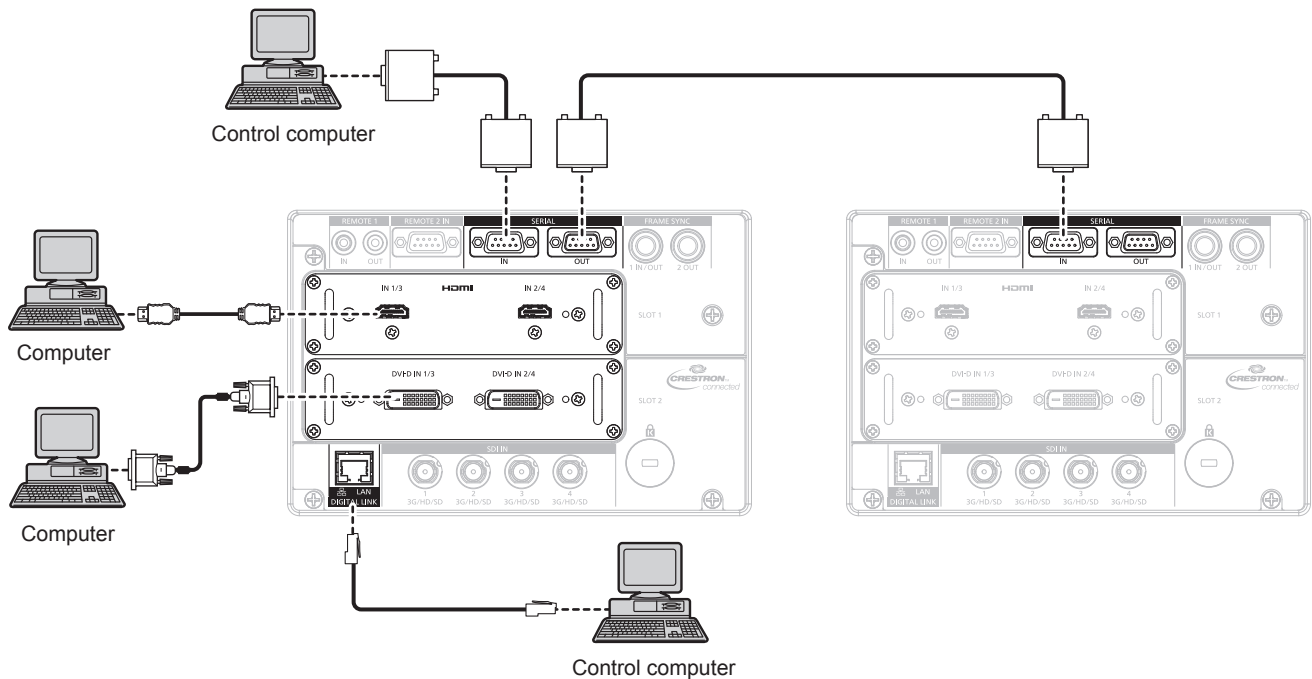


Note

- Setting the [DISPLAY OPTION] menu → [SLOT IN] is required depending on the connected external device or the input signal. Setting [DVI-D LINK] in [SLOT IN] is required when the dual link signal or the quad link signal is input.
- The <DVI-D IN 1>/<DVI-D IN 2>/<DVI-D IN 3>/<DVI-D IN 4> terminals can be connected with the HDMI and DVI-D compatible device. However, some external devices may not be able to project images properly, such as the image not displaying.

Connecting example: Computers

This is an example of installing the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) to <SLOT 1>, and the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) to <SLOT 2>.



Attention

- When connecting the projector to a computer or an external device, use the power cord supplied with each device and commercially available shielded cables.

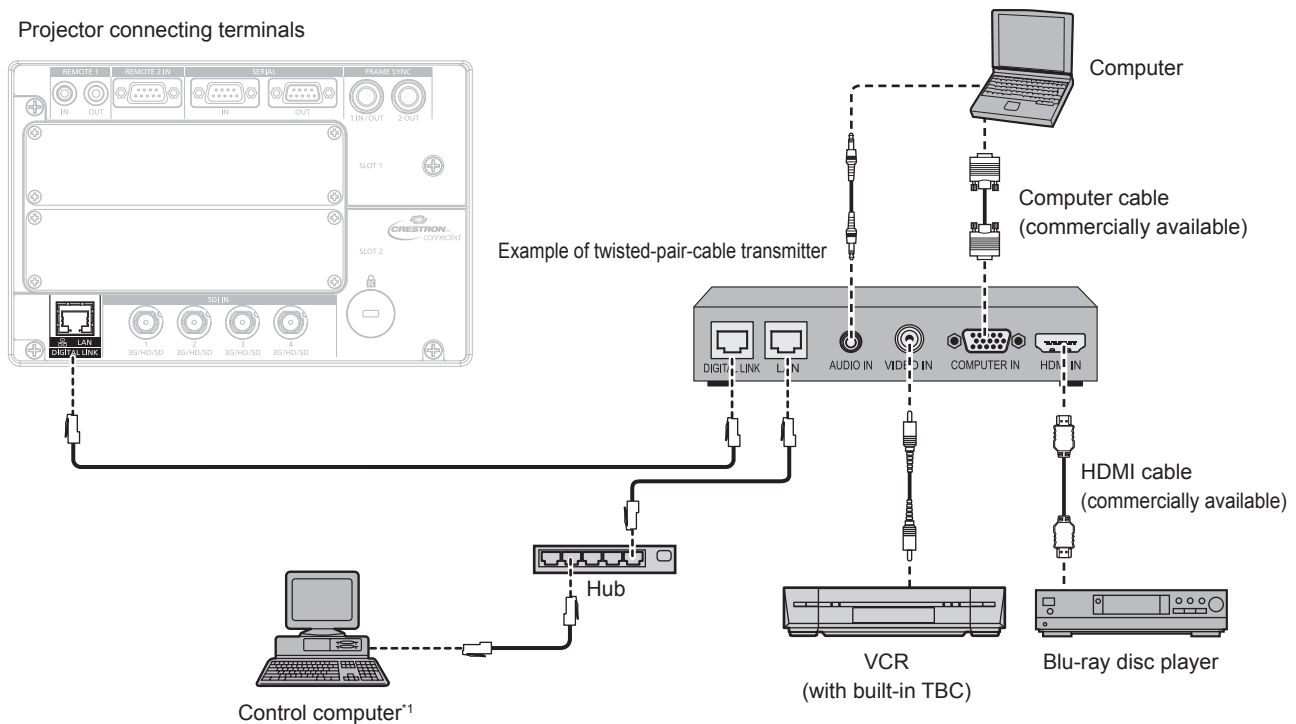
Note

- Setting the [DISPLAY OPTION] menu → [SLOT IN] is required depending on the connected external device or the input signal.
- For the HDMI cable, use an HDMI High Speed cable that conforms to the HDMI standards. If a cable that does not conform to the HDMI standards is used, images may be interrupted or may not be projected. Even if an HDMI High Speed cable that conforms to the HDMI standards is used, the 4K image may not be projected properly depending on the performance or the length of the cable.
- The <HDMI IN 1>/<HDMI IN 2>/<HDMI IN 3>/<HDMI IN 4> terminals can be connected to the external device with a DVI-D terminal by using the HDMI/DVI conversion cable. However, this may not function properly for some external devices, and image may not be displayed.
- The <DVI-D IN 1>/<DVI-D IN 2>/<DVI-D IN 3>/<DVI-D IN 4> terminals support the single link for DVI 1.0. They do not support the dual link for DVI 1.0.
- If you operate the projector using the computer with the resume feature (last memory), you may have to reset the resume feature to operate the projector.

Connecting example using DIGITAL LINK

Twisted-pair-cable transmitter based on the communication standard HDBaseT™ such as the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) uses the twisted pair cable to transmit input images, Ethernet, and serial control signal, and the projector can input such digital signal to the <DIGITAL LINK/LAN> terminal.

Projector connecting terminals



*1 Control target is the projector or the twisted-pair-cable transmitter. The control itself may not be possible depending on the twisted-pair-cable transmitter. Check the operating instructions of the device to be connected.

Attention

- Always use one of the following when connecting a VCR.
 - Use a VCR with built-in time base corrector (TBC).
 - Use a time base corrector (TBC) between the projector and the VCR.
- If nonstandard burst signals are connected, the image may be disrupted. In such a case, connect the time base corrector (TBC) between the projector and the external devices.
- Ask a qualified technician or your dealer to install the cable wiring between the twisted-pair-cable transmitter and the projector. Image may be disrupted if cable transmission characteristics cannot be obtained due to inadequate installation.
- For the LAN cable between the twisted-pair-cable transmitter and the projector, use a cable that meets the following criteria:
 - Conforming to CAT5e or higher standards
 - Shielded type (including connectors)
 - Straight-through
 - Single wire
- When laying cables between the twisted-pair-cable transmitter and the projector, confirm that cable characteristics are compatible with CAT5e or higher using tools such as a cable tester or cable analyzer. When a relay connector is used, include it in the measurement.
- Do not use a hub between the twisted-pair-cable transmitter and the projector.
- When connecting to the projector using a twisted-pair-cable transmitter (receiver) of other manufacturers, do not place another twisted-pair-cable transmitter between the twisted-pair-cable transmitter of other manufacturers and the projector. This may cause image to be disrupted.
- Do not pull cables forcefully. Also, do not bend or fold cables unnecessarily.
- To reduce the effects of noise as much as possible, stretch out the cables between the twisted-pair-cable transmitter and the projector without any loops.
- Lay the cables between the twisted-pair-cable transmitter and the projector away from other cables, particularly power cables.
- When laying multiple cables, run them side by side along the shortest distance possible without bundling them together.
- After laying the cables, go to the [NETWORK] menu → [DIGITAL LINK STATUS] and confirm that the value of [SIGNAL QUALITY] is displayed in green which indicates normal quality. (► page 169)

Note

- For the HDMI cable, use an HDMI High Speed cable that conforms to the HDMI standards. If a cable that does not conform to the HDMI standards is used, images may be interrupted or may not be projected.
- The projector does not support VIERA Link (HDMI).
- The optional Digital Interface Box (Model No.: ET-YFB100G) and the optional DIGITAL LINK Switcher (Model No.: ET-YFB200G) do not support the input and output of the 4K video signal.

- The maximum transmission distance between the twisted-pair-cable transmitter and the projector is 100 m (328'1") for the signal with resolution of 1 920 x 1 200 dots or less. It is possible to transmit up to 150 m (492'2") if the twisted-pair-cable transmitter supports the long-reach communication method. However, the signal that the projector can receive is only up to 1080/60p (1 920 x 1 080 dots, dot clock frequency 148.5 MHz) for the long-reach communication method. For the signal with the resolution exceeding 1 920 x 1 200 dots, the maximum transmission distance will be 50 m (164'1"). If these distances are exceeded, image may be disrupted or a malfunction may occur in LAN communication. Please note that Panasonic does not support the use of the projector outside the maximum transmission distance. When connecting with the long reach, video signal or distance that can be transmitted may be restricted, depending on the specification of the twisted-pair-cable transmitter.
- For twisted-pair-cable transmitters of other manufacturers of which the operation has been verified with the projector, visit the Panasonic website (<https://panasonic.net/cns/projector/>). Note that the verification for devices of other manufacturers has been made for the items set by Panasonic Corporation, and not all the operations have been verified. For operation or performance problems caused by the devices of other manufacturers, contact the respective manufacturers.

Connection example when multiple projected images are to be synchronized

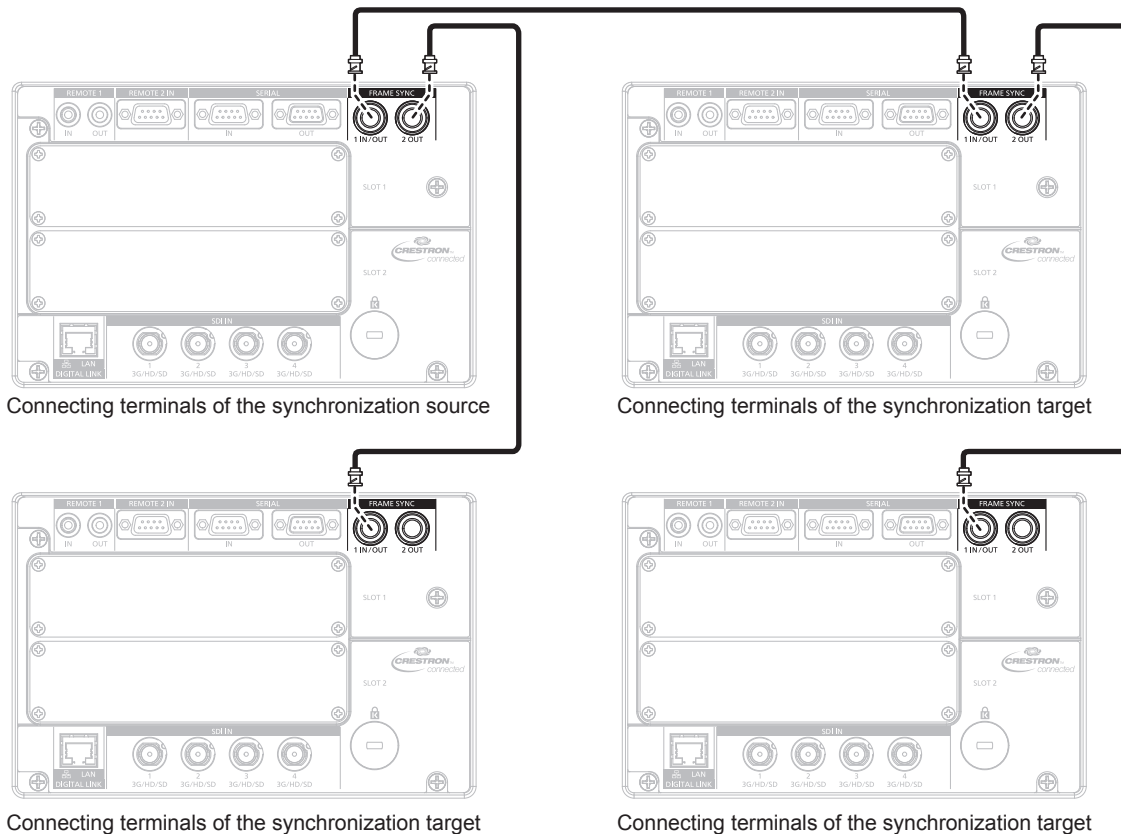
Frames of the projected images can be synchronized by linking multiple projectors using the <FRAME SYNC 1 IN/OUT> terminal and the <FRAME SYNC 2 OUT> terminal. A combined screen with a balanced contrast can be displayed by sharing the brightness level of the video signal input to each projector when structuring a multi-display screen by combining the projected images from multiple projectors.

The connection method differs depending on the purpose, and menu setting will also be required. For the usage of the <FRAME SYNC 1 IN/OUT> terminal and the <FRAME SYNC 2 OUT> terminal, go to the [DISPLAY OPTION] menu → [FRAME SYNC SETTING] and set [FRAME SYNC] and [CONTRAST SYNC].

When the frames are synchronized and the contrast is not balanced

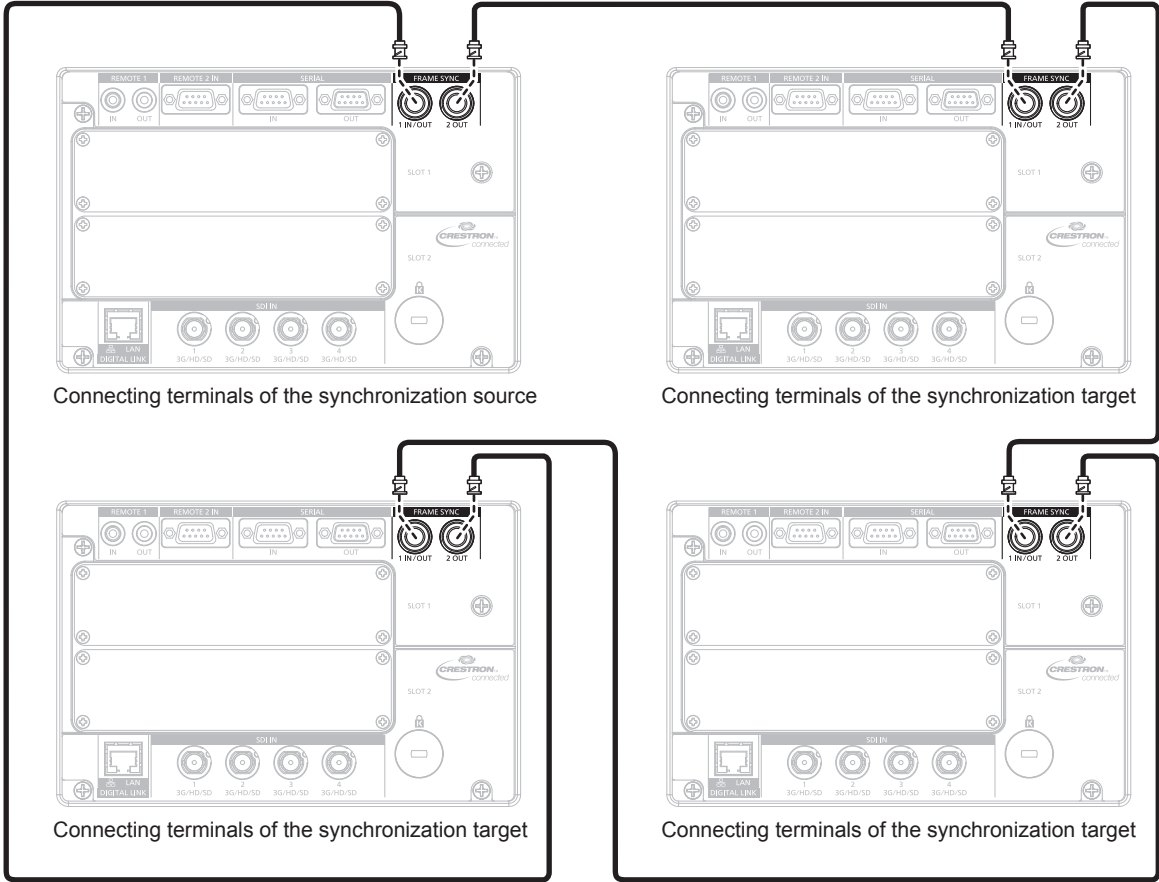
Set [FRAME SYNC] of the one projector that is to be the synchronization source to [MASTER]. Set [FRAME SYNC] of the other projectors that are to be the synchronization target to [SLAVE].

Set [CONTRAST SYNC] to [OFF] on all projectors.



When the frames are synchronized and the contrast is balanced

Set [FRAME SYNC] of the one projector that is to be the synchronization source to [MASTER]. Set [FRAME SYNC] of the other projectors that are to be the synchronization target to [SLAVE]. Set [CONTRAST SYNC] to [ON] on all projectors.



Note

- Connect all the projectors to be linked in a loop by daisy chain connection when the frames are to be synchronized and the contrast is to be balanced. The number of linked projectors is limited to 64 projectors.

Chapter 3 Basic Operations

This chapter describes basic operations to start with.

Switching on/off the projector

Connecting the power cord

Make sure that the supplied power cord is securely fixed to the projector body to prevent it from being removed easily.

Confirm that the <MAIN POWER> switch is on the <OFF> side before connecting the power cord.

Use the power cord matching with the power supply voltage and the shape of the outlet.

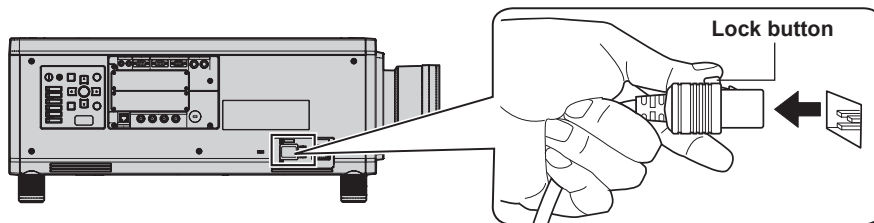
For details of power cord handling, refer to “Read this first!” (➡ page 5).

- The light output will decrease as much as the power supply voltage is decreased. It is recommended to use with AC 200 V or higher to prioritize luminance.

How to attach the power cord

- 1) Check the shapes of the <AC IN> terminal on the side of the projector and the power cord connector, then insert the connector completely in the correct direction.

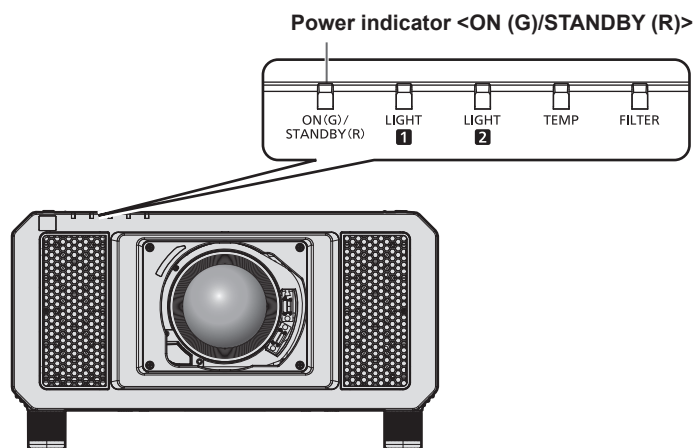
How to remove the power cord



- 1) Confirm that the <MAIN POWER> switch on the side of the projector is on the <OFF> side, and remove the power plug from the outlet.
- 2) Remove the power cord connector from the <AC IN> terminal of the projector while pressing the lock button.

Power indicator

Indicate the status of the power. Check the status of the power indicator <ON (G)/STANDBY (R)> before operating the projector.



Indicator status		Projector status
Off		The main power is switched off.
Red	Lit	The power is switched off. (standby mode) Projection will start when the power on < > button is pressed. • The projector may not operate when the light source indicators <LIGHT1>/<LIGHT2> or the temperature indicator <TEMP> are blinking. (➡ page 193)
Green	Lit	Projecting.
Orange	Lit	The projector is preparing to switch off the projector. The power is switched off after a while. (Changes to the standby mode.)

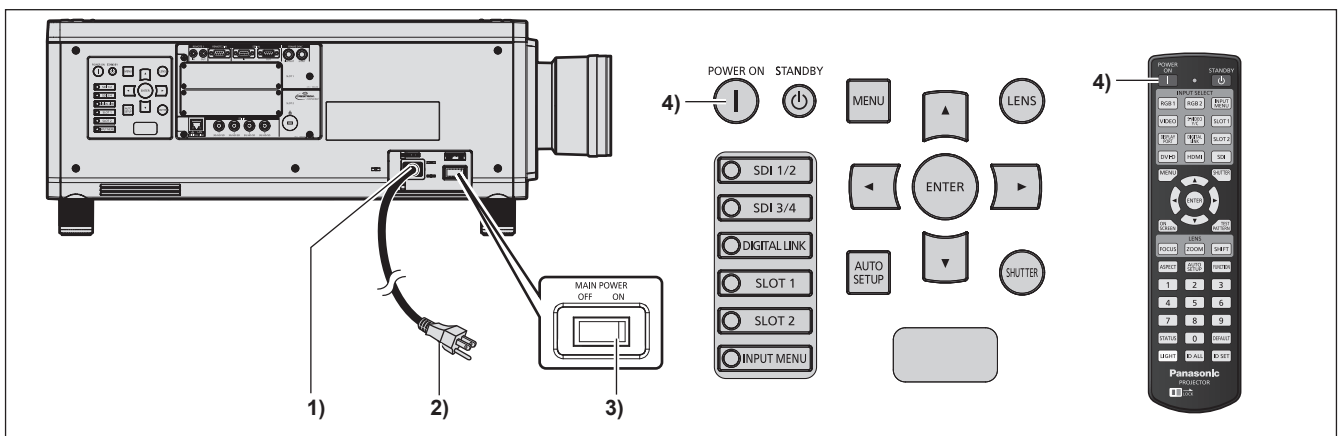
Note

- While the power indicator <ON (G)/STANDBY (R)> lights in orange, the fan is running to cool the projector.
- For approximately 15 seconds after the projector is switched off, the indicator does not light up even if the power is switched on. Turn on the power again after the power indicator <ON (G)/STANDBY (R)> lights in red.
- The projector consumes power even in standby mode (power indicator <ON (G)/STANDBY (R)> lit in red). Refer to “Power consumption” (➔ page 236) for the power consumption.
- When the projector receives the signal from the remote control, the power indicator <ON (G)/STANDBY (R)> will blink in the following color according to the status of the projector.
 - When the projector is in projection mode: Green
 - When the projector is in standby mode: Orange
 However, if the [PROJECTOR SETUP] menu → [STANDBY MODE] is set to [ECO], the indicator will stay lit in red and will not blink if the projector is in standby mode.
- The power indicator <ON (G)/STANDBY (R)> will blink slowly in green while the shutter function is in use (shutter: closed), or while the function of the [PROJECTOR SETUP] menu → [NO SIGNAL LIGHTS-OUT] (➔ page 144) is operating and the light source is turned off.
- If the power indicator <ON (G)/STANDBY (R)> is blinking in red, consult your dealer.

Switching on the projector

Install the projection lens before switching on the projector.

Remove the lens cover first.



- 1) **Connect the power cord to the projector.**
- 2) **Connect the power plug to an outlet.**
- 3) **Press the <ON> side of the <MAIN POWER> switch to turn on the power.**
 - The power indicator <ON (G)/STANDBY (R)> lights in red, and the projector enters the standby mode.
- 4) **Press the power on <|> button.**
 - The power indicator <ON (G)/STANDBY (R)> lights in green and the image is soon projected on the screen.

Attention

- Always remove the lens cover before starting the projection. Projecting continuously while the lens cover is attached may cause the lens cover to heat up and result in a fire.

Note

- A warm-up period of up to approximately five minutes may be necessary until an image is displayed when the projector is switched on at around 0 °C (32 °F). The temperature indicator <TEMP> lights during the warm-up period. When the warm-up is completed, the temperature indicator <TEMP> turns off and the projection starts. Refer to “When an indicator lights up” (➔ page 193) for the indicator status display.
- If the operating environment temperature is low and warm-up takes more than five minutes, the projector will judge that a problem has occurred and the power will automatically be set to standby mode. In such case, increase the operating environment temperature to 0 °C (32 °F) or higher, turn off the main power, and then turn on the power again.
- It may take longer to start the projection after the power is turned on when the [PROJECTOR SETUP] menu → [STANDBY MODE] is set to [ECO], compared to when it is set to [NORMAL].
- When the [PROJECTOR SETUP] menu → [INITIAL STARTUP] is set to [LAST MEMORY], and the power was turned off at the previous use by pressing the <OFF> side of the <MAIN POWER> switch while projecting or with the power breaker, the power indicator <ON (G)/STANDBY (R)> will light up in green and the image is projected after a while when the power is turned on by pressing <ON> side of the <MAIN POWER> switch while the power plug is plugged into the outlet, or when the power breaker is turned on.
- The light output will decrease as much as the power supply voltage is decreased. It is recommended to use with AC 200 V or higher to prioritize luminance.

When the initial setting screen is displayed

When the projector is switched on for the first time after purchase, as well as when [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE], the focus adjustment screen is displayed after projection starts, then the [INITIAL SETTING] screen is displayed. Set them according to the circumstances.

In other occasions, you can change the settings by menu operations.

If you press the <MENU> button while the [INITIAL SETTING] screen is displayed, you can go back to the previous screen.

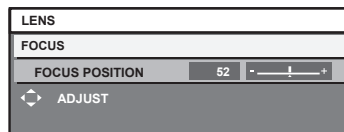
Focus adjustment

Adjust the focus to display the menu screen clearly.

You may also need to adjust the zoom and shift.

Refer to “How to adjust focus, zoom, and shift” (➔ page 65) for details.

- 1) Press ▲▼◀▶ to adjust the focus.



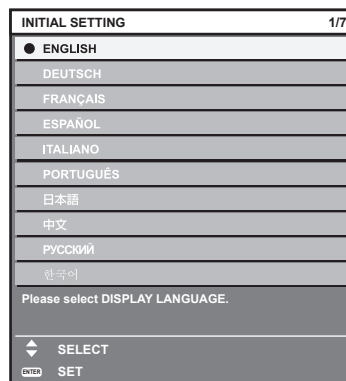
- 2) Press the <MENU> button to proceed to the initial setting.

Initial setting (display language)

Select the language to show on the screen.

After completed the initial setting, you can change the display language from the [DISPLAY LANGUAGE] menu.

- 1) Press ▲▼ to select the display language.



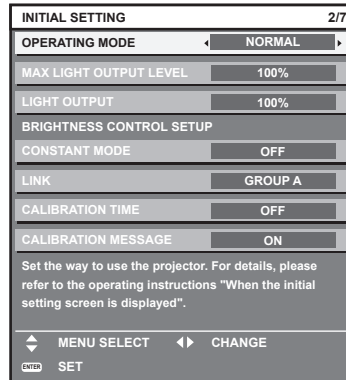
- 2) Press the <ENTER> button to proceed to the initial setting.

Initial setting (operation setting)

Set the items for the operating method depending on the projector's application and duration of usage.

After completed the initial setting, you can change the settings of each item from the [PROJECTOR SETUP] menu. If you change the settings while using the projector, the duration until the luminance of light source decreases by half may shorten or the luminance may decrease.

By using this initial setting (operation setting), you can complete the settings at once when installing the projector, if the operation method of the projector is determined in advance. If [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE], do not change the initial setting (operation setting) and proceed to next initial setting (installation setting) by pressing the <ENTER> button. If you need to change the setting, ask the person responsible for this projector (such as a person in charge of equipment or operation).



Note

- The preceding initial setting screen is displayed when the projector is switched on for the first time after purchase. If [ALL USER DATA] is executed from the [PROJECTOR SETUP] → [INITIALIZE], the settings before execution are displayed in [OPERATING MODE] and [MAX LIGHT OUTPUT LEVEL].
- For the relationship between the luminance and the runtime, refer to "Interrelation of luminance and runtime" (➔ page 60).
- For details on each setting item, refer to the [PROJECTOR SETUP] menu → [OPERATION SETTING].

1) Press ▲▼ to select [OPERATING MODE].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.
- Set [OPERATING MODE] to anything other than [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3] when using the projector at an altitude of 2 700 m (8 858') or higher above sea level.

[NORMAL]*1	Set this item when high luminance is required. The estimated runtime is approximately 20 000 hours.
[ECO]*1	Set this item to increase the life of the light source though it will lower the luminance than [NORMAL]. The estimated runtime is approximately 24 000 hours.
[LONG LIFE1]*1	Set this item to increase the life of the light source though it will lower the luminance than [ECO]. The estimated runtime is approximately 43 000 hours.
[LONG LIFE2]*1	Set this item to increase the life of the light source though it will lower the luminance than [LONG LIFE1]. The estimated runtime is approximately 61 000 hours.
[LONG LIFE3]*1	Set this item to increase the life of the light source though it will lower the luminance than [LONG LIFE2]. The estimated runtime is approximately 87 000 hours.
[USER1]	Set [MAX LIGHT OUTPUT LEVEL] and [LIGHT OUTPUT] individually.
[USER2]	
[USER3]	

*1 The runtime is estimated when the [PICTURE] menu → [DYNAMIC CONTRAST] is set to [3].

- When [NORMAL], [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3] is selected, proceed to Step 5).

3) Press ▲▼ to select [MAX LIGHT OUTPUT LEVEL].

4) Press ◀▶ to adjust.

Operation	Adjustment	Range of adjustment
Press ▶.	Increases the maximum level of brightness correction.	8.0 % - 100.0 %
Press ◀.	Decreases the maximum level of brightness correction.	

5) Press ▲▼ to select [LIGHT OUTPUT].

6) Press ◀▶ to adjust.

Operation	Adjustment		Range of adjustment
	Brightness	Runtime (estimate)	
Press ▶.	The screen becomes brighter.	The runtime becomes shorter.	8.0 % - 100.0 %
Press ◀.	The screen becomes darker.	The runtime becomes longer.	

7) Press ▲▼ to select [CONSTANT MODE].

8) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Does not perform the brightness control (correction by the brightness sensor).
[AUTO]	Performs the brightness control (correction by the brightness sensor). When the brightness of light source or white balance changes, the brightness of the screen is automatically corrected.
[PC]	Synchronizes nine or more projectors using a computer and the dedicated software "Multi Monitoring & Control Software"*1.

*1 "Multi Monitoring & Control Software" is included in the supplied CD-ROM.

- When not performing the brightness control ([OFF] is selected), proceed to Step 15).
- When [PC] is selected, proceed to Step 11).

9) Press ▲▼ to select [LINK].

10) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Performs correction by the brightness sensor on one projector without synchronizing with the other projectors. The duration that the constant brightness is kept will become longer by setting the value of [LIGHT OUTPUT] smaller.
[GROUP A] [GROUP B] [GROUP C] [GROUP D]	Performs correction by the brightness sensor in multiple projectors in synchronization. Up to four groups (A to D) can be set within the same subnet by using the network function. You can register and synchronize up to eight projectors in one group.

11) Press ▲▼ to select [CALIBRATION TIME].

12) Press the number (<0> - <9>) buttons on the remote control to enter the time.

- The projector is in the adjustment mode (the time is blinking).
- Press ◀▶ to select "hour" or "minute".
- [CALIBRATION TIME] is set when the cursor is moved from [CALIBRATION TIME] using ▲▼.
- Brightness and color are measured at the specified time. The dynamic contrast function does not operate during measurement.
- When the time is not to be specified, press the <DEFAULT> button while [CALIBRATION TIME] is selected (the time is not blinking) using ▲▼.

13) Press ▲▼ to select [CALIBRATION MESSAGE].

14) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[ON]	Displays the message during calibration.
[OFF]	Does not display the message during calibration.

15) Press the <ENTER> button to proceed to the initial setting.

Interrelation of luminance and runtime

You can use the projector with desired brightness and duration of use by combining the settings of [MAX LIGHT OUTPUT LEVEL], [LIGHT OUTPUT], and [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP]. Interrelation of luminance and runtime is as follows. Make the initial setting (operation setting) depending on your desired duration of use and brightness of the projected image. Values of the luminance and runtime are rough estimations.

■ **To set the projector based on the duration of use**

Duration of use (hour)	When [CONSTANT MODE] is set to [OFF]			When [CONSTANT MODE] is set to [AUTO] or [PC]		
	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Luminance (lm)	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Luminance (lm)
20 000	100.0	100.0	10 000	100.0	58.0	5 800
24 000	100.0	83.0	8 300	100.0	54.0	5 400
27 000	100.0	65.0	6 500	100.0	51.0	5 100
31 000	—	—	—	100.0	47.0	4 700
35 000	—	—	—	100.0	44.0	4 400
40 000	—	—	—	100.0	41.0	4 100

■ **To set the projector based on luminance**

Luminance (lm)	When [CONSTANT MODE] is set to [OFF]			When [CONSTANT MODE] is set to [AUTO] or [PC]		
	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Runtime (hour)	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Runtime (hour)
10 000	100.0	100.0	20 000	—	—	—
9 000	100.0	90.0	23 300	100.0	90.0	1 900
8 000	100.0	80.0	24 000	100.0	80.0	5 900
7 000	100.0	70.0	26 100	100.0	70.0	11 500
6 000	100.0	60.0	27 800	100.0	60.0	18 700
5 000	100.0	50.0	29 600	100.0	50.0	28 000
4 000	—	—	—	100.0	40.0	40 800
3 000	—	—	—	100.0	30.0	59 300

Note

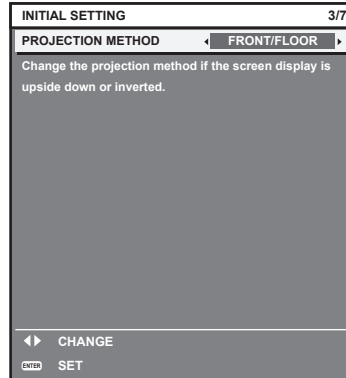
- Under influence of characteristics of each light source, conditions of use, installation environment, etc., the runtime may be shorter than the estimation.
- The duration of use is referred to as the runtime when you use the projector successively. The duration of use is an estimated duration and is not the warranty period.
- If the runtime exceeds 20 000 hours, replacement of the components inside the projector may be required. Consult your dealer for details.

Initial setting (installation setting)

Set [PROJECTION METHOD] depending on the installation mode. Refer to “Installation mode” (➔ page 35) for details.

After completed the initial setting, you can change the setting from the [PROJECTOR SETUP] menu → [PROJECTION METHOD].

1) Press ◀▶ to switch the setting.

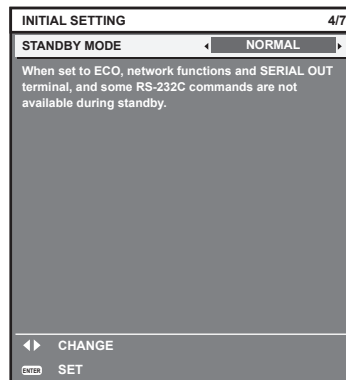


2) Press the <ENTER> button to proceed to the initial setting.

Initial setting (standby mode)

Set the operation mode during standby mode. The factory default setting is [NORMAL], which allows you to use the network function during standby mode. To keep power consumption low during standby mode, set this function to [ECO]. After completed the initial setting, you can change the setting from the [PROJECTOR SETUP] menu → [STANDBY MODE].

1) Press ◀▶ to switch the setting.



2) Press the <ENTER> button to proceed to the initial setting.

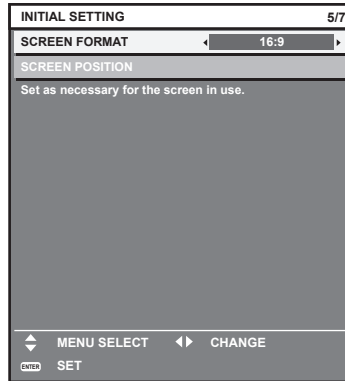
Note

- The preceding initial setting screen is displayed when the projector is switched on for the first time after purchase. When [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE], the [STANDBY MODE] setting before execution is displayed.

Initial setting (screen setting)

Set the screen format (aspect ratio) and display position of the image. After completed the initial setting, you can change the settings of each item from the [DISPLAY OPTION] menu → [SCREEN SETTING].

- 1) Press ▲▼ to select an item.
- 2) Press ◀▶ to switch the setting.

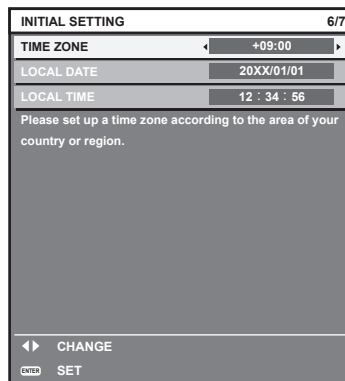


- 3) Press the <ENTER> button to proceed to the initial setting.

Initial setting (time zone)

Set [TIME ZONE] in accordance with the country or region where you use the projector. After completed the initial setting, you can change the setting from the [PROJECTOR SETUP] menu → [DATE AND TIME]. The current settings are displayed in [LOCAL DATE] and [LOCAL TIME].

- 1) Press ◀▶ to switch the setting.



- 2) Press the <ENTER> button to proceed to the initial setting.

Note

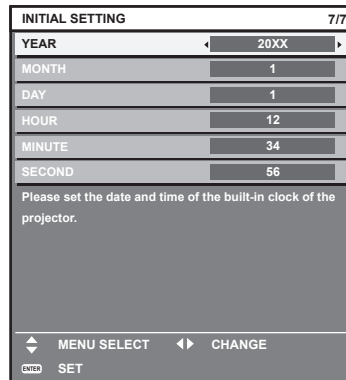
- In the factory default setting, the time zone of the projector is set to +09:00 (Japan and Korean Standard Time). Change the setting in the [PROJECTOR SETUP] menu → [DATE AND TIME] → [TIME ZONE] to the time zone of the region where you use the projector.

Initial setting (date and time)

Set the local date and time. After completed the initial setting, you can change the setting from the [PROJECTOR SETUP] menu → [DATE AND TIME].

To set the date and time automatically, refer to “Setting the date and time automatically” (➡ page 146).

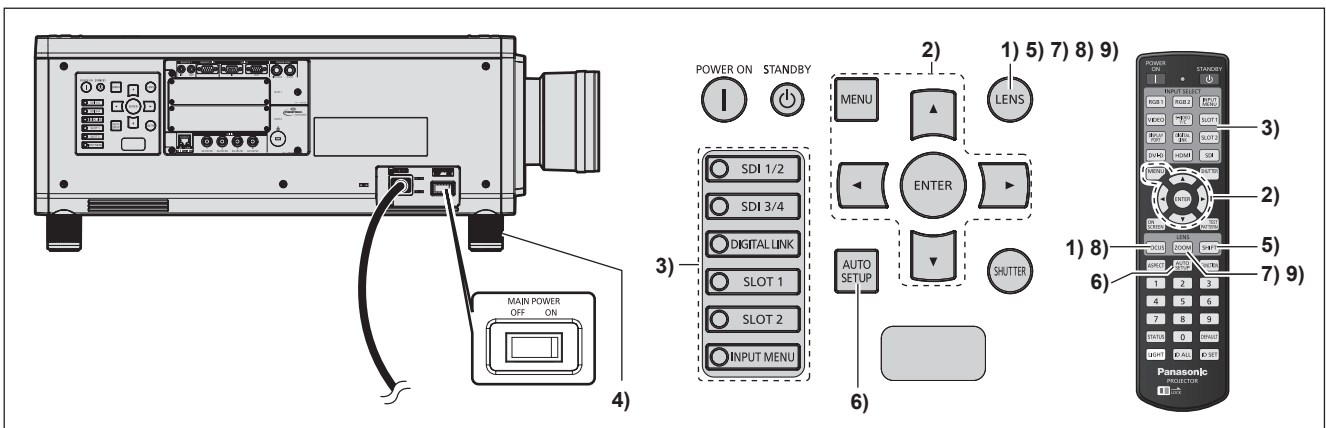
- 1) Press ▲▼ to select an item.



- 2) Press ◀▶ to switch the setting.
- 3) Press the <ENTER> button.
 - Confirm the setting value and complete the initial setting.

Making adjustments and selections

It is recommended that images be projected continuously for at least 30 minutes before the focus is adjusted.



- 1) Press the <FOCUS> button to roughly adjust the focus of the image. (➡ page 65)
- 2) Change the setting of the [PROJECTOR SETUP] menu → [PROJECTION METHOD] depending on the installation mode. (➡ page 35)
 - Refer to “Navigating through the menu” (➡ page 77) for the operation of the menu screen.
- 3) Select the input by pressing the input selection button on the remote control or the control panel.
 - The buttons that can be used on the remote control or the control panel are as follows.

Remote control:
<DIGITAL LINK> button, <DVI-D> button, <HDMI> button, <SLOT 1> button, <SLOT 2> button, <SDI> button

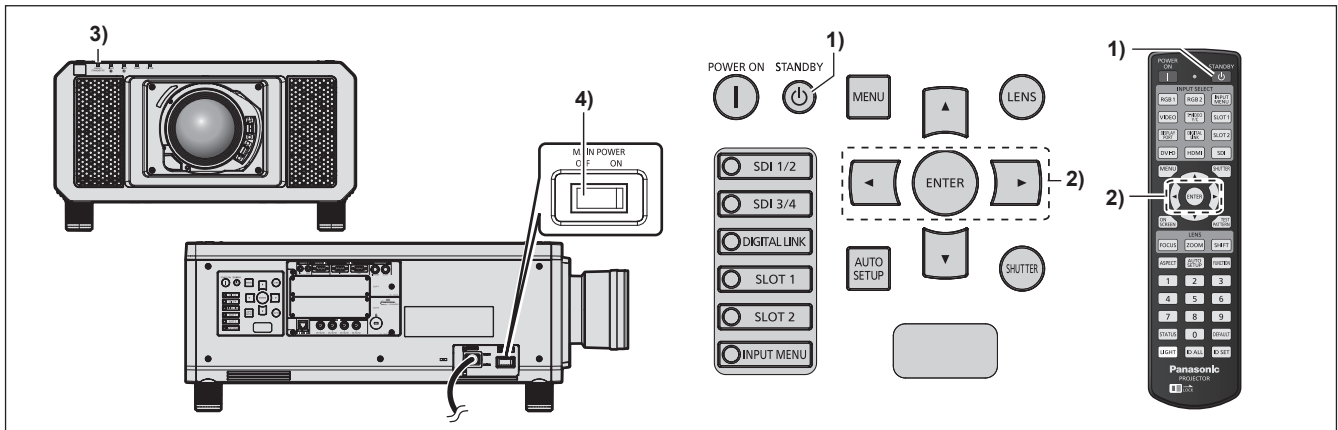
Control panel:
<SDI 1/2> button, <SDI 3/4> button, <DIGITAL LINK> button, <SLOT 1> button, <SLOT 2> button
 - For details of operation for input selection, refer to “Switching the input” (➡ page 70).
- 4) Adjust the front, back and sideway tilt of the projector with the adjustable feet. (➡ page 43)
- 5) Press the <SHIFT> button to adjust the image position.
- 6) If the input signal is DVI-D/HDMI signal, press the <AUTO SETUP> button.

- 7) Press the <ZOOM> button to adjust the image size to match the screen.
- 8) Press the <FOCUS> button again to adjust the focus.
- 9) Press the <ZOOM> button again to adjust the zoom and the image size to match the screen.

Note

- When the projector is switched on for the first time after purchase, as well as when [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE], the focus adjustment screen is displayed after projection starts, then the [INITIAL SETTING] screen is displayed. Refer to “When the initial setting screen is displayed” (▶ page 57) for details.

Switching off the projector



- 1) Press the power standby <⏻> button.
 - The [POWER OFF(STANDBY)] confirmation screen is displayed.
- 2) Press ◀▶ to select [OK], and press the <ENTER> button.
(Or press the power standby <⏻> button again.)
 - Projection of the image will stop, and the power indicator <ON (G)/STANDBY (R)> on the projector body lights in orange. (The fan keeps running.)
- 3) Wait for a few seconds until the power indicator <ON (G)/STANDBY (R)> of the projector body lights up in red (fan is stopped).
- 4) Press the <OFF> side of the <MAIN POWER> switch to turn off the power.

Attention

- When switching off the projector, make sure to follow the procedures described. Failure to do so may damage the internal components and result in malfunctions.

Note

- For approximately 15 seconds after the projector is switched off, the indicator does not light up even if the power is switched on.
- Even when the power standby <⏻> button is pressed and the projector is switched off, the projector consumes power if the main power of the projector is on.
When the [PROJECTOR SETUP] menu → [STANDBY MODE] is set to [ECO], use of some functions is restricted, but the power consumption during standby can be conserved.

Projecting

Check the projection lens attachment (➔ page 44), external device connection (➔ page 46), power cord connection (➔ page 55), switch on the power (➔ page 56) to start projecting. Select the video for projection, and adjust appearance of the projected image.

Selecting the input signal

Select an input signal.

1) Press the input selection button on the remote control or the control panel.

- The buttons that can be used on the remote control or the control panel are as follows.

Remote control:

<DIGITAL LINK> button, <DVI-D> button, <HDMI> button, <SLOT 1> button, <SLOT 2> button, <SDI> button

Control panel:

<SDI 1/2> button, <SDI 3/4> button, <DIGITAL LINK> button, <SLOT 1> button, <SLOT 2> button

- The image of the signal being input in the selected terminal is projected.

Attention

- Images may not be projected properly depending on the external device, or the Blu-ray disc or DVD disc, to be played back. Set the [PICTURE] menu → [SYSTEM SELECTOR]. When the SDI signal is input, set the [DISPLAY OPTION] menu → [SDI IN], or set the [DISPLAY OPTION] menu → [SLOT IN].
- Confirm the aspect ratio of the projection screen and the image, and switch to an optimum aspect ratio from the [POSITION] menu → [ASPECT].

Note

- <DVI-D> button, <HDMI> button, <SLOT 1> button, and <SLOT 2> button can be used when the optional Interface Board equipped with corresponding input is installed in the slot.
- For details of operation for input selection, refer to “Switching the input” (➔ page 70).

How to adjust focus, zoom, and shift

If the projected image or the position is not correct when the positioning of the projector and the screen is correctly installed, adjust the focus, zoom, and shift.

This section describes the adjustment method when anything other than the Fixed-focus Lens (Model No.: ET-D75LE90) is used. When the Fixed-focus Lens (Model No.: ET-D75LE90) is used, refer to “Adjusting the lens position and focus when the Fixed-focus Lens (Model No.: ET-D75LE90) is used” (➔ page 66).

Using the control panel

1) Press the <LENS> button on the control panel.

- Pressing the button changes the adjustment screen in the order of [FOCUS], [ZOOM], and [SHIFT].

2) Select each item and press ▲▼◀▶ to adjust it.

Using the remote control

1) Press the lens buttons (<FOCUS>, <ZOOM>, <SHIFT>) on the remote control.

- <FOCUS> button: Adjusts focus.
- <ZOOM> button: Adjusts zoom.
- <SHIFT> button: Adjusts shift.

2) Select each item and press ▲▼◀▶ to adjust it.

CAUTION

During the lens shift operation, do not insert your hand in any opening around the lens.
Your hand may be caught in between, resulting to injury.

Note

- The zoom adjustment screen is not displayed when the projection lens without the zoom function is attached.

- When the Fixed-focus Lens (Model No.: ET-D75LE50) is used, do not use the shift adjustment, and use the projector with the lens position at the home position. (➡ page 67)
- The adjustment can be performed faster by pressing and holding ▲▼◀▶ for approximately three seconds or longer while adjusting the focus and shift.
- It is recommended that images be projected continuously for at least 30 minutes before the focus is adjusted.
- Only [FOCUS] is shown in yellow so that the displayed menu item can be recognized by color, even when the projector is not focused and displayed characters are unreadable. (Factory default)
The display color of [FOCUS] depends on the setting of the [DISPLAY OPTION] menu → [ON-SCREEN DISPLAY] → [OSD DESIGN].
- When the power is switched off during focus and shift adjustment, lens calibration needs to be performed the next time the power is switched on. (➡ page 151)
- When the main power is switched off during focus adjustment, lens calibration is performed automatically during the next focus adjustment.
- When the main power is switched off during shift adjustment, a lens calibration error screen will be displayed during the next shift adjustment. Execute the [PROJECTOR SETUP] menu → [LENS CALIBRATION].
- When the lens calibration error is displayed even though [LENS CALIBRATION] was executed, ask your dealer to repair the unit.

Adjusting the lens position and focus when the Fixed-focus Lens (Model No.: ET-D75LE90) is used

After attaching the projection lens, adjust the lens position and the focus with the projector correctly installed against the screen.

The focus balance between the center and periphery of the projected image will differ depending on the size of the projected image when the Fixed-focus Lens (Model No.: ET-D75LE90) is attached. Adjust the focus balance of the periphery with the Fixed-focus Lens (Model No.: ET-D75LE90) as necessary.

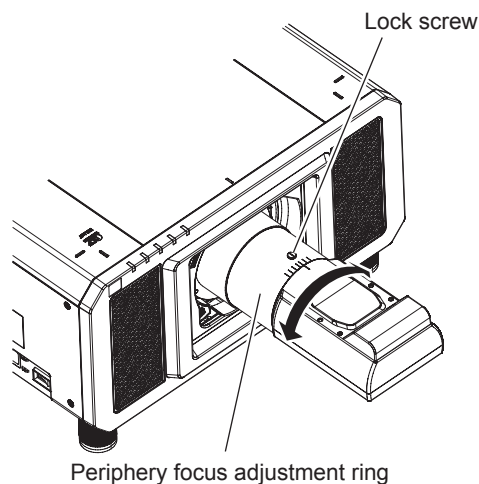
1) Move the lens to the ET-D75LE90 lens standard position.

- While the shift adjustment screen is displayed, press the <DEFAULT> button on the remote control to display the [HOME POSITION] screen. Select [D75LE90] to move the lens to the lens standard position. Refer to “Setting the lens position” (➡ page 67) for details.

2) Adjust the focus at the center of projected image.

- For the steps to adjust the focus, refer to “How to adjust focus, zoom, and shift” (➡ page 65).

3) Loosen the lock screw and turn the periphery focus adjustment ring by hand to adjust the focus in the periphery of the screen.



4) Check the focus at the center of the image again and make fine adjustments.

5) Tighten the lock screw.

- Periphery focus adjustment ring is fixed.

Note

- The projected image size and scale shown on the periphery focus adjustment ring are an approximate guide.

Setting the lens position

To move the lens position to the home position or the lens standard position, perform the following procedure.

- 1) Press the <DEFAULT> button on the remote control while the shift adjustment screen is displayed.
 - The [HOME POSITION] screen is displayed.



- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[NORMAL]	Moves the lens to the home position. Select this item when replacing or removing the projection lens. Select this item when the Fixed-focus Lens (Model No.: ET-D75LE50) is used for projection.
[D75LE90]	Moves the lens to the ET-D75LE90 lens standard position. Select this item when the Fixed-focus Lens (Model No.: ET-D75LE90) is used for projection.

- 3) Press the <ENTER> button.
 - [PROGRESS] is displayed in the [HOME POSITION] screen, and the lens position returns to the home position or the lens standard position.

Note

- Complete the operation within approximately 5 seconds after the [HOME POSITION] screen is displayed. The [HOME POSITION] screen will disappear after time limit.
- The home position of the lens is used when the lens is being replaced or when the projector is being stored, and it is not the optical center of the screen.
- You can also display the [HOME POSITION] screen by pressing the <LENS> button on the control panel or the <SHIFT> button on the remote control for at least three seconds.

Adjustment range by the lens position shift (optical shift)

Perform the lens position shift within the adjustment range.

The focus may change when the lens position is shifted out of the adjustment range. This is because the shift of the lens is restricted to protect the optical parts. Projection position can be adjusted with the optical axis shift function based on the position of the projected image in the home position (standard projection position) or the position of the projected image in the ET-D75LE90 lens standard position (reference projection position).

Projection lens Model No.		
ET-D75LE8, ET-D75LE10, ET-D75LE20, ET-D75LE30, ET-D75LE40	ET-D75LE6	ET-D75LE90
<p>Projected image width H: 0.29 H (left), 0.29 H (right)</p> <p>Projected image height V: 0.15 V (top), 0.59 V (bottom)</p> <p>Standard projection position</p>	<p>Projected image width H: 0.19 H (left), 0.19 H (right)</p> <p>Projected image height V: 0.24 V (top), 0.56 V (bottom)</p> <p>Standard projection position</p>	<p>Projected image width H: 0.12 H (left), 0.16 H (right)</p> <p>Projected image height V: 0.74 V (standard position), 0.10 V (bottom)</p> <p>Reference projection position</p>

Note

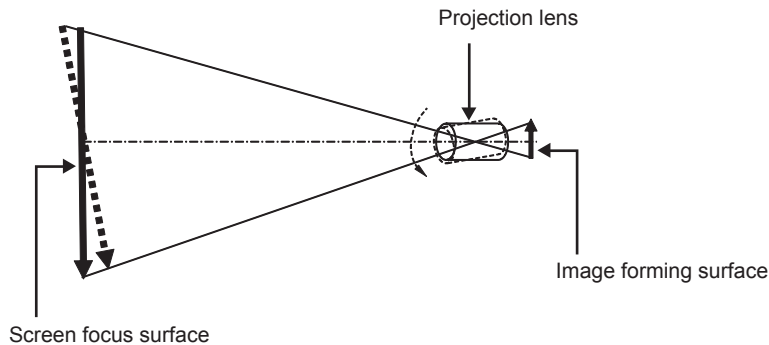
- When the optional Fixed-focus Lens (Model No.: ET-D75LE50) is attached, use it in the standard projection position without adjusting shift.

Adjusting the lens mounter when the focus is unbalanced

Focus balance

Relationship between the tilt of the lens and the screen focus surface

When the projection lens is tilted in contrast with the image forming surface, tilting the front side (screen side) of the projection lens downwards (in the direction of the dotted arrow line), the upper side of the screen focus surface will tilt inwards and the lower side will tilt outwards as shown in the example.



How to adjust the focus balance (adjustment by tilting the lens mounter)

When the entire screen surface is not uniform even if the focus has been adjusted, the lens mounter has focus adjustment screws in three locations.

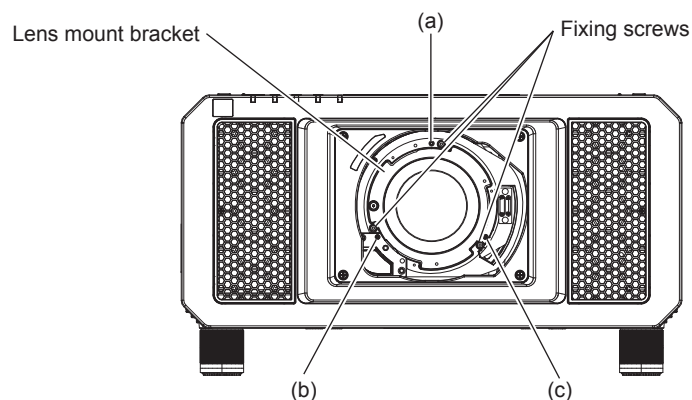
- Tool used: Hex driver or Allen wrench (diagonal 2.5 mm (3/32"))
- The Allen wrench is included with the projection lens ET-D75LE6, ET-D75LE8.

Lens mounter structure

Focus adjustment screws (a), (b), and (c) can be turned to move the lens mount bracket back and forth. Also, tightening the fixed screws locks the lens mount bracket in place so it does not move.

When a projection lens with a large weight is installed, or when the projector is installed on an inclination, the lens may tilt and the focus may become unbalanced. In these cases, perform adjustment by referring to the relationship between the adjustment location and adjustment screws.

■ Front view diagram of the lens mounter (viewed from the screen side)

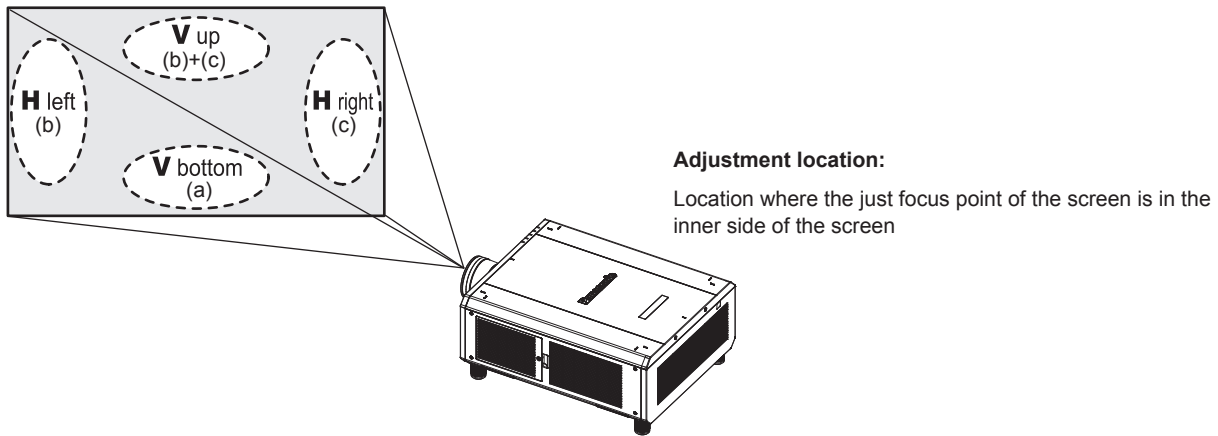


Note

- Focus adjustment screws (a), (b), and (c) are adjusted with the lens attached.

Adjustment procedure

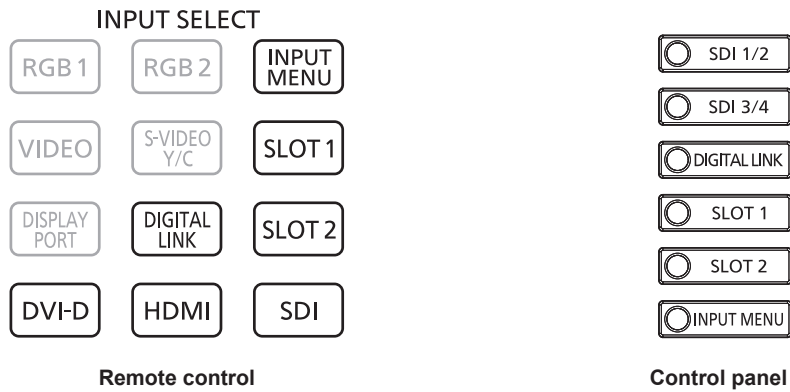
■ Relationship between the adjustment location and adjustment screws



	When the just focus point of the screen in V up (top in the vertical direction) is in the inner side of the screen	When the just focus point of the screen in V bottom (bottom in the vertical direction) is in the inner side of the screen	When the just focus point of the screen in H left (left in the horizontal direction) is in the inner side of the screen	When the just focus point of the screen in H right (right in the horizontal direction) is in the inner side of the screen
(a)	Rotate counterclockwise	—	—	—
(b)	—	Rotate counterclockwise	Rotate counterclockwise	—
(c)	—	Rotate counterclockwise	—	Rotate counterclockwise

- 1) Press the <FOCUS> button on the remote control or the <LENS> button on the control panel to display the focus adjustment screen.
- 2) Press ▼ to shift the focus of the entire screen once.
- 3) Press ▲ to stop on any part of the screen to be the first just focus point.
 - For the location where focus is shifted in this state, the just focus point is on the inner side of the screen.
- 4) Loosen the fixed screws in the position relative to the location where the focus is shifted the most (the location where the just focus point is shifted the most towards the inner side in Step 2)) up to two rotations.
 - Turn screws clockwise in two locations, or at least in one location when making an adjustment.
- 5) Slowly turn the focus adjustment screws corresponding to the locations counterclockwise and stop where the image is in focus. (➡ page 68)
 - If the screws are turned counterclockwise, the tilt of the lens will change by moving the lens mount bracket of the lens mounter forward (screen side), and in the projected image on the screen, the focus point in the opposite direction of the adjustment screws will move from the inner side of the screen to the outside.
- 6) Press the <SHIFT> button on the remote control or the <LENS> button on the control panel to display the shift adjustment menu, and reset the screen position of the projected image on the screen surface back to an optimal state.
- 7) Perform focus adjustment again near the center of the screen and if it is still not enough, fine tune the amount of rotation of the adjustment screws.
- 8) When adjustments have been made, securely tighten the loosened fixing screws.
- 9) Adjust the focus again using the remote control.

Switching the input



The input for projection can be switched. Method to switch the input is as follows.

- Press the input selection button on the remote control and directly specify the input to project.
- Press the input selection button on the control panel and directly specify the input to project.
- Display the input selection screen and select the input to project from the list.

Switching the input directly with the remote control

The input for projection can be switched by directly specifying it with the input selection button on the remote control.

- 1) Press the input selection button (<DIGITAL LINK>, <DVI-D>, <HDMI>, <SLOT 1>, <SLOT 2>, <SDI>).

<DIGITAL LINK>	Switches the input to DIGITAL LINK.
<DVI-D>	Switches the input to DVI-D. This can be operated when the optional Interface Board equipped with the DVI-D input is installed in the slot. The input is switched every time the button is pressed when one of the DVI-D inputs is selected on the installed optional Interface Board.
<HDMI>	Switches the input to HDMI. This can be operated when the optional Interface Board equipped with the HDMI input is installed in the slot. The input is switched every time the button is pressed when one of the HDMI inputs is selected on the installed optional Interface Board.
<SLOT 1>	Switches the input to the signal of the optional Interface Board installed in <SLOT 1>. The input is switched every time the button is pressed when one of the inputs is selected on the installed optional Interface Board.
<SLOT 2>	Switches the input to the signal of the optional Interface Board installed in <SLOT 2>. The input is switched every time the button is pressed when one of the inputs is selected on the installed optional Interface Board.
<SDI>	Switches the input to SDI1, SDI2, SDI3, or SDI4 installed on the projector as standard. The input is switched every time the button is pressed when one of the SDI inputs equipped on the projector as standard is selected. All the SDI inputs including the SDI input equipped on the projector as standard and the SDI input on the installed optional Interface Board are switched when an optional Interface Board equipped with the SDI input is installed in the slot.

Note

- When the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the <DIGITAL LINK/ LAN> terminal, the input on the DIGITAL LINK output supported device changes each time the <DIGITAL LINK> button is pressed. The input can also be changed using the RS-232C control command.
For twisted-pair-cable transmitters of other manufacturers, switch the input on the projector to DIGITAL LINK, and then switch the input on the twisted-pair-cable transmitter.
- <DVI-D> button, <HDMI> button, <SLOT 1> button, and <SLOT 2> button can be used when the optional Interface Board equipped with corresponding input is installed in the slot.
- The operation when the <DVI-D> button, <HDMI> button, <SLOT 1> button, <SLOT 2> button, or <SDI> button is pressed can be fixed to operation to switch to the input set in the [SECURITY] menu → [CONTROL DEVICE SETUP].

Switching the input directly with the control panel

The input for projection can be switched by directly specifying it with the input selection button on the control panel.

1) Press the input selection button (<SDI 1/2>, <SDI 3/4>, <DIGITAL LINK>, <SLOT 1>, <SLOT 2>).

<SDI 1/2>	Switches the input to SDI1 or SDI2 equipped on the projector as standard. The input is switched every time the button is pressed when either of the SDI1 or SDI2 input is selected.
<SDI 3/4>	Switches the input to SDI3 or SDI4 equipped on the projector as standard. The input is switched every time the button is pressed when either of the SDI3 or SDI4 input is selected.
<DIGITAL LINK>	Switches the input to DIGITAL LINK.
<SLOT 1>	Switches the input to the signal of the optional Interface Board installed in <SLOT 1>. The input is switched every time the button is pressed when one of the inputs is selected on the installed optional Interface Board.
<SLOT 2>	Switches the input to the signal of the optional Interface Board installed in <SLOT 2>. The input is switched every time the button is pressed when one of the inputs is selected on the installed optional Interface Board.

Note

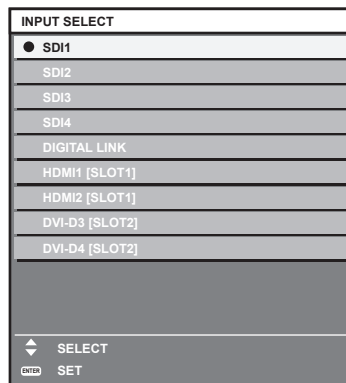
- If the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the <DIGITAL LINK/LAN> terminal, the input of the DIGITAL LINK output supported device is switched every time the <DIGITAL LINK> button is pressed. The input can also be changed using the RS-232C control command. For twisted-pair-cable transmitters of other manufacturers, switch the input on the projector to DIGITAL LINK, and then switch the input on the twisted-pair-cable transmitter.
- The <SLOT 1> button and the <SLOT 2> button can be used when the optional Interface Board equipped with corresponding input is installed in the slot.
- The operation when the <SDI 1/2> button, <SDI 3/4> button, <SLOT 1> button, or <SLOT 2> is pressed can be fixed to operation to switch the input set in the [SECURITY] menu → [CONTROL DEVICE SETUP].

Switching the input by displaying the input selection screen

The input for projection can be selected by displaying the input selection screen.

1) Press the <INPUT MENU> button on the remote control or control panel.

- The input selection screen is displayed. Following input selection screen is an example of installing the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) to <SLOT 1>, and the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) to <SLOT 2>.



2) Press the <INPUT MENU> button again.

- The input will switch each time you press the <INPUT MENU> button.

Note

- Input can be switched by selecting the input to project by pressing ▲▼ and pressing the <ENTER> button while the input selection screen is displayed.
- The [MULTI DISPLAY MODE] screen is display when the <INPUT MENU> button is pressed while in the four-screen display mode. Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] when using the four-screen display mode. (➡ page 157)
- If the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the projector, the input selection menu for the DIGITAL LINK output supported device is displayed when the <ENTER> button is pressed while the DIGITAL LINK input is selected in the input selection screen.
- If the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the projector, the DIGITAL LINK logo and the input name selected in the DIGITAL LINK output supported device are displayed in the display section of the [DIGITAL LINK] in the input selection screen.

Operating with the remote control



Using the shutter function

If the projector is not used for a certain period of time during the meeting intermission, for example, it is possible to turn off the image temporarily.

button

- 1) **Press the <SHUTTER> button.**
 - The image disappears.
 - This operation can be also performed using the <SHUTTER> button on the control panel.
- 2) **Press the <SHUTTER> button again.**
 - The image is displayed.

Note

- The power indicator <ON (G)/STANDBY (R)> will blink slowly in green while the shutter function is in use (shutter: closed).
- You can set whether to use the mechanical shutter or not and the time for the fade in/fade out of the image using the [DISPLAY OPTION] menu → [SHUTTER SETTING].
- If [MECHANICAL SHUTTER] in the [DISPLAY OPTION] menu → [SHUTTER SETTING] (➔ page 131) is set to [DISABLE], the light source may be lit dimly due to warm-up when the shutter function is used while the operating environment temperature is around 0 °C (32 °F).

Using the on-screen display function

Turn off the on-screen display function (no display) when you do not wish the viewers to see the on-screen display, such as the menu or the input terminal name.

button

- 1) **Press the <ON SCREEN> button.**
 - The on-screen display disappears.
- 2) **Press the <ON SCREEN> button again.**
 - The on-screen display appears.

Note

- If you press the <MENU> button on the control panel for at least three seconds while the on-screen display is off (hidden), the on-screen display is turned on.

Using the automatic setup function

The image position when DVI-D/HDMI signal is input can be adjusted automatically. It is recommended to input an image with bright white borders at the edges and high-contrast black and white characters when the automatic setup is being performed.

Avoid using images that include halftones or gradation, such as photographs and computer graphics.



1) Press the <AUTO SETUP> button.

- [COMPLETE] is displayed when it has completed without any problem.
- This operation can be also performed using the <AUTO SETUP> button on the control panel.

Note

- It is necessary to install the optional Interface Board equipped with the corresponding input on the slot to input the DVI-D/HDMI signal directly without passing through the <DIGITAL LINK/LAN> terminal.
- If an image with blurred edges or a dark image is input, [INCOMPLETE] may appear or adjustment may not be performed properly even when [COMPLETE] appears. In this case, adjust the setting in the [POSITION] menu → [SHIFT] (➡ page 90).
- Adjust special signals according to the [DISPLAY OPTION] menu → [AUTO SETUP] (➡ page 104).
- Automatic adjustment may not work depending on the model of the computer.
- Images may be disrupted for a few seconds during automatic adjustment, but it is not a malfunction.
- Adjustment is required for each input signal.
- Automatic adjustment can be canceled by pressing the <MENU> button during the automatic adjustment operation.
- Even if a signal possible to perform the automatic setup is being input, it may not be able to adjust correctly if the automatic setup function is used while the moving image is being input. [INCOMPLETE] may be displayed, or the adjustment may not be completed correctly even if [COMPLETE] is displayed.

Switching the image aspect ratio

Switch the image aspect ratio according to the input.



1) Press the <ASPECT> button.

- The setting will change each time you press the button.

Note

- Refer to the [POSITION] menu → [ASPECT] (➡ page 90) for details.

Using the function button

The <FUNCTION> button of the remote control can be used as a simplified shortcut button by assigning [MULTI DISPLAY], [SUB MEMORY], [SYSTEM SELECTOR], [SYSTEM DAYLIGHT VIEW], [FREEZE], [WAVEFORM MONITOR], [LENS MEMORY LOAD], or [PROJECTION METHOD].



1) Press the <FUNCTION> button.

Note

- Assignment of the function is performed from the [PROJECTOR SETUP] menu → [FUNCTION BUTTON] (➡ page 150).

Displaying internal test pattern

The projector has eight types of internal test patterns to check the condition of the projector body. To display test patterns, perform the following steps.



- 1) Press the <TEST PATTERN> button.
- 2) Press ◀▶ to select the test pattern.

Note




- Setting is also available from the [TEST PATTERN] (▶ page 159) menu.
- Settings of position, size, and other factors will not be reflected in test patterns. Make sure to display the input signal before performing various adjustments.

Using the status function

Display the status of the projector.



- 1) Press the <STATUS> button.
 - The [STATUS] screen is displayed.

STATUS		1/4
PROJECTOR TYPE	RQ13K(123456789012)	
PROJECTOR RUNTIME	10000h	
LIGHT RUNTIME	10000h / 10000h	
MAIN/SUB VERSION	1.00 / 1.00	
INTAKE AIR TEMP.	31°C/87°F	———
OPTICS MODULE TEMP.	27°C/80°F	———
EXHAUST AIR TEMP.	31°C/87°F	———
AROUND LIGHT1 TEMP.	31°C/87°F	———
AROUND LIGHT2 TEMP.	31°C/87°F	———
COOLING CONDITION	AUTO - FLOOR	
ATMOSPHERIC PRESSURE	1013hPa	
SELF TEST	NO ERRORS	
	SEND E-MAIL	
	CHANGE	 EXIT

Note

- This can be displayed from the [PROJECTOR SETUP] menu → [STATUS] (▶ page 153).

Using the AC voltage monitor function

The value of input supply voltage can be displayed on the self-diagnosis display at the side of the projector.

■ To display during projection

1) **Press the power on <|> button.**

- The value of the input supply voltage is displayed only as numeric value on the self-diagnosis display.
- The display will turn off automatically after approximately 3 seconds.

■ To display during standby mode

1) **Press the power standby <⏻> button.**

- The value of the input supply voltage is displayed only as numeric value on the self-diagnosis display.
- The display will turn off automatically after approximately 3 seconds.

Note

- It can be set using the [PROJECTOR SETUP] menu → [AC VOLTAGE MONITOR] (➔ page 154).
- The value of input supply voltage cannot be displayed in the self-diagnosis display during standby when the [PROJECTOR SETUP] menu → [STANDBY MODE] (➔ page 144) is set to [ECO].
- Operation can also be performed by the power on <|> button or power standby <⏻> button on the control panel.

Setting ID number of the remote control

When you use the multiple projectors together, you can operate all the projectors simultaneously or each projector individually using a single remote control, if a unique ID number is assigned to each projector.

After setting the ID number of the projector, set same ID number on the remote control.

The factory default ID number of the projector is set to [ALL]. When using a single projector, press the <ID ALL> button on the remote control. Also, you can control a projector by pressing the <ID ALL> button on the remote control even if you do not know the projector ID.



1) **Press the <ID SET> button on the remote control.**

2) **Within five seconds, press and set the one-digit or two-digit ID number set on the projector body using the number (<0> - <9>) buttons.**

- If you press the <ID ALL> button, you can control the projectors regardless of the ID number setting of the projector body.

Attention

- Since the ID number of the remote control can be set without the projector body, do not press the <ID SET> button on the remote control carelessly. If the <ID SET> button is pressed and no number (<0> - <9>) buttons are pressed within five seconds, the ID number returns to its original value before the <ID SET> button was pressed.
- The ID number set on the remote control will be stored unless it is set again. However, it will be erased if the remote control is left with dead batteries. Set the same ID number again when the batteries are replaced.

Note

- When the ID number of the remote control is set to [0], you can control the projector regardless of the ID number setting of the projector body, as same as when [ALL] is set.
- Set the ID number of the projector body from the [PROJECTOR SETUP] menu → [PROJECTOR ID].

Chapter 4 Settings

This chapter describes the settings and adjustments you can make using the on-screen menu.

Menu navigation

The on-screen menu (Menu) is used to perform various settings and adjustments of the projector.

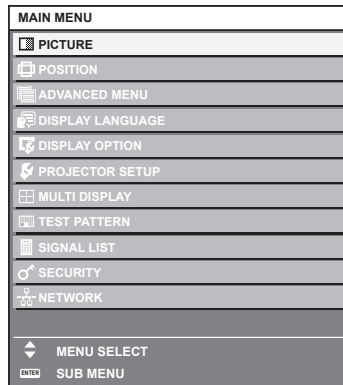
Navigating through the menu

Operating procedure



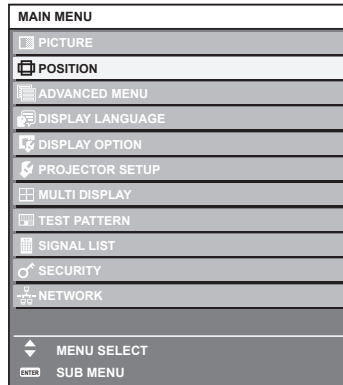
1) Press the <MENU> button on the remote control or control panel.

- The [MAIN MENU] screen is displayed.



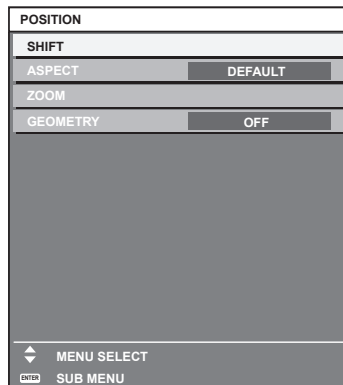
2) Press ▲▼ to select an item from the main menu.

- The selected item is highlighted in yellow.



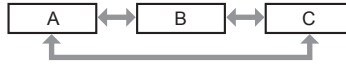
3) Press the <ENTER> button.

- The sub-menu items of the selected main menu are displayed.



4) Press ▲▼ to select a sub-menu, and press ◀▶ or the <ENTER> button to change or adjust settings.

- Some items will switch in order as follows each time you press ◀▶.



- For some items, press ◀▶ to display an individual adjustment screen with a bar scale as shown below.



Note

- Pressing the <MENU> button while the menu screen is displayed returns to the previous menu.
- Some items or functions may not be adjusted or used for certain signals to be input to the projector. When the items cannot be adjusted or used, the items in the menu screen are shown in black characters, and they cannot be adjusted or set. If the item in the menu screen is displayed in black characters and the item cannot be adjusted or set, the factor causing it is displayed by pressing the <ENTER> button while the corresponding menu is selected.
- Some items can be adjusted even if signals are not input.
- Individual adjustment screen is cleared automatically if no operation is performed for approximately five seconds.
- For menu items, refer to “Main menu” (➔ page 78) and “Sub-menu” (➔ page 79).
- The cursor color depends on the settings of the [DISPLAY OPTION] menu → [ON-SCREEN DISPLAY] → [OSD DESIGN]. The selected item is displayed with the yellow cursor by the factory default.
- In the portrait setting, the on-screen menu is displayed sideways. To display the on-screen menu in portrait, go to the [DISPLAY OPTION] menu → [ON-SCREEN DISPLAY] (➔ page 127) and change the [OSD ROTATION] setting.

Resetting adjustment values to the factory default

If the <DEFAULT> button on the remote control is pressed, the values adjusted in the menu items are restored to the factory default settings.

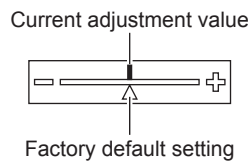


1) Press the <DEFAULT> button on the remote control.



Note

- You cannot reset all the settings to the factory default at a time.
- To reset all the settings adjusted in the sub-menu item to the factory default one at a time, execute the [PROJECTOR SETUP] menu → [INITIALIZE] (➔ page 155).
- Some items cannot be reset to the factory default settings even when the <DEFAULT> button on the remote control is pressed. Adjust those items individually.
- The triangular mark under the bar scale in the individual adjustment screen indicates the factory default setting. The position of the triangular mark varies according to the selected input signals.










Main menu

The following items are in the main menu.

When a main menu item is selected, the screen changes to a sub-menu selection screen.

Main menu item		Page
	[PICTURE]	82
	[POSITION]	90
	[ADVANCED MENU]	95
	[DISPLAY LANGUAGE]	101

Main menu item		Page
	[DISPLAY OPTION]	102
	[PROJECTOR SETUP]	135
	[MULTI DISPLAY]	157
	[TEST PATTERN]	159
	[SIGNAL LIST]	160
	[SECURITY]	163
	[NETWORK]	168

Sub-menu

The sub-menu of the selected main menu item is displayed, and you can set and adjust items in the sub-menu.

[PICTURE]

Sub-menu item	Factory default	Page
[PICTURE MODE]	[STANDARD] ^{*1}	82
[CONTRAST]	[0] ^{*2}	82
[BRIGHTNESS]	[0] ^{*2}	83
[COLOR]	[0] ^{*2}	83
[TINT]	[0] ^{*2}	83
[COLOR TEMPERATURE]	[DEFAULT] ^{*2}	83
[GAMMA]	[DEFAULT] ^{*2}	85
[SYSTEM DAYLIGHT VIEW]	[OFF] ^{*2}	86
[SHARPNESS]	[+8] ^{*2}	86
[NOISE REDUCTION]	[2] ^{*2}	87
[DYNAMIC CONTRAST]	[2] ^{*2}	87
[SYSTEM SELECTOR]	[AUTO] ^{*1}	88

*1 Depends on the signal input.

*2 Depends on the [PICTURE MODE].

[POSITION]

Sub-menu item	Factory default	Page
[SHIFT]	—	90
[ASPECT]	[DEFAULT]	90
[ZOOM]	—	91
[GEOMETRY]	[OFF]	92

[ADVANCED MENU]

Sub-menu item	Factory default	Page
[DIGITAL CINEMA REALITY]	[AUTO] ^{*1}	95
[BLANKING]	—	95
[EDGE BLENDING]	[OFF]	96
[FRAME RESPONSE]	[NORMAL]	98
[FRAME CREATION]	—	98
[QUAD PIXEL DRIVE]	[ON]	99
[RASTER POSITION]	—	100

*1 Depends on the signal input.

Note

- Sub-menu items and factory default settings vary depending on the selected input terminal.

[DISPLAY LANGUAGE] 

Details (➔ page 101)

[DISPLAY OPTION] 

Sub-menu item	Factory default	Page
[COLOR MATCHING]	[OFF]	102
[LARGE SCREEN CORRECTION]	[OFF]	103
[SCREEN SETTING]	—	103
[AUTO SIGNAL]	[OFF]	104
[AUTO SETUP]	—	104
[BACKUP INPUT SETTING]	—	105
[SIMUL INPUT SETTING]	—	106
[SDI IN]	—	107
[DIGITAL LINK IN]	—	111
[SLOT IN]	—	112
[FRAME SYNC SETTING]	—	126
[ON-SCREEN DISPLAY]	—	127
[BACK COLOR]	[BLUE]	129
[STARTUP LOGO]	[DEFAULT LOGO]	130
[UNIFORMITY]	—	130
[SHUTTER SETTING]	—	131
[FREEZE]	—	132
[WAVEFORM MONITOR]	[OFF]	132
[CUT OFF]	—	134

[PROJECTOR SETUP] 

Sub-menu item	Factory default	Page
[PROJECTOR ID]	[ALL]	135
[PROJECTION METHOD]	[FRONT/FLOOR]	135
[OPERATION SETTING]	—	135
[LIGHT OUTPUT]	[100.0%]	139
[BRIGHTNESS CONTROL]	[OFF]	140
[STANDBY MODE]	[NORMAL]	144
[NO SIGNAL SHUT-OFF]	[DISABLE]	144
[NO SIGNAL LIGHTS-OUT]	[DISABLE]	144
[INITIAL STARTUP]	[LAST MEMORY]	145
[STARTUP INPUT SELECT]	[LAST USED]	145
[DATE AND TIME]	—	146
[SCHEDULE]	[OFF]	147
[RS-232C]	—	149
[REMOTE2 MODE]	[DEFAULT]	150
[FUNCTION BUTTON]	—	150
[LENS CALIBRATION]	[NORMAL]	151
[LENS MEMORY]	—	151
[STATUS]	—	153
[AC VOLTAGE MONITOR]	[OFF]	154
[SAVE ALL USER DATA]	—	155
[LOAD ALL USER DATA]	—	155
[INITIALIZE]	—	155
[SERVICE PASSWORD]	—	156

[MULTI DISPLAY] 

Details (➔ page 157)

[TEST PATTERN] 

Details (➔ page 159)

[SIGNAL LIST] 

Details (➔ page 160)

[SECURITY] 

Sub-menu item	Factory default	Page
[SECURITY PASSWORD]	[OFF]	163
[SECURITY PASSWORD CHANGE]	—	163
[DISPLAY SETTING]	[OFF]	163
[TEXT CHANGE]	—	164
[CONTROL DEVICE SETUP]	—	164
[CONTROL DEVICE PASSWORD CHANGE]	—	167

[NETWORK] 

Sub-menu item	Factory default	Page
[DIGITAL LINK MODE]	[AUTO]	168
[DIGITAL LINK SETUP]	—	168
[DIGITAL LINK STATUS]	—	169
[NETWORK SETUP]	—	169
[NETWORK CONTROL]	—	170
[NETWORK STATUS]	—	170
[DIGITAL LINK MENU]	—	171
[Art-Net SETUP]	[OFF]	171
[Art-Net CHANNEL SETTING]	[2]	171
[Art-Net STATUS]	—	172

Note

- Some items may not be adjusted or used for certain signal formats to be input to the projector.
When the items cannot be adjusted or used, the items in the menu screen are shown in black characters, and they cannot be adjusted or set.
- Sub-menu items and factory default settings vary depending on the selected input terminal.

[PICTURE] menu

On the menu screen, select [PICTURE] from the main menu, and select an item from the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[PICTURE MODE]

You can switch to the desired picture mode suitable for the image source and the environment in which the projector is used.

- 1) Press ▲▼ to select [PICTURE MODE].
- 2) Press ◀▶.
 - The [PICTURE MODE] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[STANDARD]	The image becomes suitable for moving images in general.
[CINEMA]	The image becomes suitable for movie contents.
[NATURAL]	The image is sRGB compliant.
[DICOM SIM.]	The image becomes similar to that of DICOM Part 14 Grayscale Standard.
[DYNAMIC]	The light output is maximized for use in bright areas.
[GRAPHIC]	The image becomes suitable for input from the personal computer.
[USER]	Set any desired picture mode.

Note

- The factory default picture mode is [GRAPHIC] for still image input signals and [STANDARD] for movie-based input signals.
- DICOM is an abbreviation of “Digital Imaging and COmmunication in Medicine” and is a standard for medical imaging devices. Although the DICOM name is used, the projector is not a medical device, and display images should not be used for medical purposes such as diagnosis.
- Press the <ENTER> button when each [PICTURE MODE] is selected to save as a specified value when a new signal is input. The data of all items except [SYSTEM SELECTOR] in the [PICTURE] menu is saved.
- In the factory default settings, [USER] is set to images that comply with the ITU-R BT.709 standard.

Changing the [USER] name

- 1) Press ▲▼ to select [PICTURE MODE].
- 2) Press ◀▶ to select [USER].
- 3) Press the <ENTER> button.
 - The [PICTURE MODE] detailed screen is displayed.
- 4) Press ▲▼ to select [PICTURE MODE NAME CHANGE], and press the <ENTER> button.
 - The [PICTURE MODE NAME CHANGE] screen is displayed.
- 5) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 6) Press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The picture mode name is changed.

[CONTRAST]

You can adjust the contrast of the colors.

- 1) Press ▲▼ to select [CONTRAST].
- 2) Press ◀▶ or the <ENTER> button.
 - The [CONTRAST] individual adjustment screen is displayed.
- 3) Press ◀▶ to adjust the level.

Operation	Adjustment	Range of adjustment
Press ▶.	The screen becomes brighter.	-31 - +31
Press ◀.	The screen becomes darker.	

Attention

- Adjust [BRIGHTNESS] first when you need to adjust the black level.

[BRIGHTNESS]

You can adjust the dark (black) part of the projected image.

- 1) Press ▲▼ to select [BRIGHTNESS].
- 2) Press ◀▶ or the <ENTER> button.
 - The [BRIGHTNESS] individual adjustment screen is displayed.
- 3) Press ◀▶ to adjust the level.

Operation	Adjustment	Range of adjustment
Press ▶.	Increases the brightness of the dark (black) parts of the screen.	-31 - +31
Press ◀.	Reduces the brightness of the dark (black) parts of the screen.	

[COLOR]

You can adjust the color saturation of the projected image.

- 1) Press ▲▼ to select [COLOR].
- 2) Press ◀▶ or the <ENTER> button.
 - The [COLOR] individual adjustment screen is displayed.
- 3) Press ◀▶ to adjust the level.

Operation	Adjustment	Range of adjustment
Press ▶.	Deepens colors.	-31 - +31
Press ◀.	Weakens colors.	

[TINT]

You can adjust the skin tone in the projected image.

- 1) Press ▲▼ to select [TINT].
- 2) Press ◀▶ or the <ENTER> button.
 - The [TINT] individual adjustment screen is displayed.
- 3) Press ◀▶ to adjust the level.

Operation	Adjustment	Range of adjustment
Press ▶.	Adjusts skin tone toward greenish color.	-31 - +31
Press ◀.	Adjusts skin tone toward reddish purple.	

[COLOR TEMPERATURE]

You can switch the color temperature if the white areas of the projected image are bluish or reddish.

Adjusting with color temperature

- 1) Press ▲▼ to select [COLOR TEMPERATURE].
- 2) Press ◀▶ or the <ENTER> button.
 - The [COLOR TEMPERATURE] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT]	Factory default setting.
-----------	--------------------------

[USER1]	Adjusts white balance as desired. Refer to “Adjusting desired white balance” (➔ page 84) for details.
[USER2]	
[3200K] - [9300K]	Allows you to set in increments of 100 K. Select so that images become natural.

Note

- When [PICTURE MODE] (➔ page 82) is set to [USER] or [DICOM SIM.], [DEFAULT] cannot be selected.
- When [COLOR MATCHING] (➔ page 102) adjustment is set to other than [OFF], [COLOR TEMPERATURE] is fixed to [USER1].
- The color temperature numerical values are guidelines.

Adjusting desired white balance

- 1) Press ▲▼ to select [COLOR TEMPERATURE].
- 2) Press ◀▶ or the <ENTER> button.
 - The [COLOR TEMPERATURE] individual adjustment screen is displayed.
- 3) Press ◀▶ to select [USER1] or [USER2].
- 4) Press the <ENTER> button.
 - The [COLOR TEMPERATURE] screen is displayed.
- 5) Press ▲▼ to select [WHITE BALANCE].
- 6) Press the <ENTER> button.
 - The [WHITE BALANCE] screen is displayed.
- 7) Press ▲▼ to select [WHITE BALANCE HIGH] or [WHITE BALANCE LOW].
- 8) Press the <ENTER> button.
 - The [WHITE BALANCE HIGH] screen or the [WHITE BALANCE LOW] screen is displayed.
- 9) Press ▲▼ to select [RED], [GREEN], or [BLUE].
- 10) Press ◀▶ to adjust the level.

Item	Operation	Adjustment	Range of adjustment
[RED]	Press ▶.	Deepens red.	[WHITE BALANCE HIGH]: 0 - +255 (factory default is +255) [WHITE BALANCE LOW]: -127 - +127 (factory default is 0)
	Press ◀.	Weakens red.	
[GREEN]	Press ▶.	Deepens green.	
	Press ◀.	Weakens green.	
[BLUE]	Press ▶.	Deepens blue.	
	Press ◀.	Weakens blue.	

Note

- Adjust [COLOR TEMPERATURE] correctly. All colors will not be displayed properly unless adequate adjustment is made. If the adjustment does not look suitable, you can press the <DEFAULT> button on the remote control to return the setting for the selected item only to the factory default setting.

Adjusting desired white balance based on existing color temperature settings

- 1) Press ▲▼ to select [COLOR TEMPERATURE].
- 2) Press ◀▶ or the <ENTER> button.
 - The [COLOR TEMPERATURE] individual adjustment screen is displayed.
- 3) Press ◀▶ to select an item other than [DEFAULT], [USER1], and [USER2].
- 4) Press the <ENTER> button.
 - The [CHANGE TO *****] screen is displayed.
- 5) Press ▲▼ to select [USER1] or [USER2].
 - The status of the color temperature changed is saved to the selected item.

- 6) Press the <ENTER> button.
 - The confirmation screen is displayed.
- 7) Press ◀▶ to select [OK], and press the <ENTER> button.
 - The [USER1] or [USER2] data is overwritten.
 - If you press ◀▶ to select [CANCEL] and then press the <ENTER> button, the data will not be overwritten.
 - The [WHITE BALANCE HIGH] screen is displayed.
- 8) Press ▲▼ to select [RED], [GREEN], or [BLUE].
- 9) Press ◀▶ to adjust the level.

Note

- Adjust [COLOR TEMPERATURE] correctly. All colors will not be displayed properly unless adequate adjustment is made. If the adjustment does not look suitable, you can press the <DEFAULT> button on the remote control to return the setting for the selected item only to the factory default setting.
- When color temperature has been changed, the colors before and after the change will differ slightly.

Changing the name of [USER1] or [USER2]

- 1) Press ▲▼ to select [COLOR TEMPERATURE].
- 2) Press ◀▶ or the <ENTER> button.
 - The [COLOR TEMPERATURE] individual adjustment screen is displayed.
- 3) Press ◀▶ to select [USER1] or [USER2].
- 4) Press the <ENTER> button.
 - The [COLOR TEMPERATURE] screen is displayed.
- 5) Press ▲▼ to select [COLOR TEMPERATURE NAME CHANGE].
- 6) Press the <ENTER> button.
 - The [COLOR TEMPERATURE NAME CHANGE] screen is displayed.
- 7) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 8) Press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The name set to color temperature is changed.

Note

- When a name is changed, display of [USER1], [USER2] is also changed.

[GAMMA]

You can switch gamma mode.

- 1) Press ▲▼ to select [GAMMA].
- 2) Press ◀▶ or the <ENTER> button.
 - The [GAMMA] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT]*1	Factory default setting.
[USER1]	Allows you to change the name.
[USER2]	Refer to “Changing the name of [USER1] or [USER2]” (▶ page 86) for details.
[DICOM SIM.]	The picture becomes similar to that of DICOM standard.
[1.0]	Set so that images become as you like. [2.0] - [2.8] can be set in increments of 0.1.
[1.8]	
[2.0] - [2.8]	

*1 When [PICTURE MODE] is set to [DYNAMIC], [USER], or [DICOM SIM.], [DEFAULT] cannot be selected.

Note

- DICOM is an abbreviation of “Digital Imaging and COmmunication in Medicine” and is a standard for medical imaging devices. Although the DICOM name is used, the projector is not a medical device, and display images should not be used for medical purposes such as diagnosis.

Changing the name of [USER1] or [USER2]

- 1) Press ▲▼ to select [GAMMA].
- 2) Press ◀▶ or the <ENTER> button.
 - The [GAMMA] individual adjustment screen is displayed.
- 3) Press ◀▶ to select [USER1] or [USER2].
- 4) Press the <ENTER> button.
 - The [GAMMA] screen is displayed.
- 5) Press the <ENTER> button.
 - The [GAMMA NAME CHANGE] screen is displayed.
- 6) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 7) Press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The selected gamma name is changed.

Note

- When a name is changed, display of [USER1], [USER2] is also changed.

[SYSTEM DAYLIGHT VIEW]

You can correct the image to the optimal vividness even if it is projected under a bright light.

- 1) Press ▲▼ to select [SYSTEM DAYLIGHT VIEW].
- 2) Press ◀▶ or the <ENTER> button.
 - The [SYSTEM DAYLIGHT VIEW] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	No correction.
[1] - [6]	Corrects the vividness of the image. The larger the value, the stronger the correction.

[SHARPNESS]

You can adjust the sharpness of the projected image.

- 1) Press ▲▼ to select [SHARPNESS].
- 2) Press ◀▶ or the <ENTER> button.
 - The [SHARPNESS] individual adjustment screen is displayed.
- 3) Press ◀▶ to adjust the level.

Operation	Adjustment	Range of adjustment
Press ▶.	Contours become sharper.	0 - +15
Press ◀.	Contours become softer.	

Note

- If you press ▶ while the adjustment value is [+15], the value will become [0]. If you press ◀ while the adjustment value is [0], the value will become [+15].

[NOISE REDUCTION]

You can reduce noises when the input image is degraded and noise is occurring in the image signal.

- 1) Press ▲▼ to select [NOISE REDUCTION].
- 2) Press ◀▶ or the <ENTER> button.
 - The [NOISE REDUCTION] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	No correction.
[1]	Slightly corrects the noise.
[2]	Moderately corrects the noise.
[3]	Strongly corrects the noise.

Attention

- When this is set for an input signal with less noise, the image may look different from what it originally was. In such a case, set it to [OFF].

[DYNAMIC CONTRAST]

Light adjustment of the light source and signal compensation are performed automatically according to the image to make the contrast optimum for the image.

- 1) Press ▲▼ to select [DYNAMIC CONTRAST].
- 2) Press ◀▶ or the <ENTER> button.
 - The [DYNAMIC CONTRAST] individual adjustment screen is displayed.
- 3) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the dynamic contrast function.
[1]	Adjusts the light source and compensates signals to a small extent.
[2]	Adjusts the light source and compensates signals to a moderate extent.
[3]	Adjusts the light source and compensates signals to a large extent.
[USER]	Set any desired correction. Refer to "Performing desired correction" (➔ page 87) for details.

Performing desired correction

- 1) Press ▲▼ to select [DYNAMIC CONTRAST].
- 2) Press ◀▶ or the <ENTER> button.
 - The [DYNAMIC CONTRAST] individual adjustment screen is displayed.
- 3) Press ◀▶ to select [USER].
- 4) Press the <ENTER> button.
 - The [DYNAMIC CONTRAST] screen is displayed.
- 5) Press ▲▼ to select an item, and press ◀▶ to change the setting.

Setting item	Details	
[AUTO CONTRAST] (Automatic light source adjustment)	[OFF]	Does not adjust the light source.
	[1] - [255]	The higher the value, the stronger the light adjustment of the light source. Can be set in increments of 1.
[BRIGHT SIGNAL LEVEL] (Setting of the brightness level of the signal to start the light adjustment)	[6%] - [50%]	Adjusts the light source when the brightness level of the video signal being input gets lower than the set value. The higher the value, the larger the range to perform the light adjustment of the light source. Can be set in increments of 1 %. (Factory setting: 30 %)

Setting item		Details
[LIGHTS OUT TIMER] (Time setting until the light turns off)	[DISABLE]	Does not turn off the light source.
	[0.0s] - [10.0s]	Turns off the light source when the brightness level of the video signal being input goes under the value set in [LIGHTS OUT SIGNAL LEVEL]. Select an item from [0.0s] - [4.0s], [5.0s], [7.0s], or [10.0s]. [0.0s] - [4.0s] can be selected in increments of 0.5.
[LIGHTS OUT SIGNAL LEVEL] (Setting of the brightness level of the signal to turn off the light)	[0%] - [5%]	Set the level of the brightness of the video signal to turn off the light source with [LIGHTS OUT TIMER]. Can be set in increments of 1 %. (Factory setting: 0 %)
[MANUAL INTENSITY] (Manual light source adjustment)	[0] - [255]	The larger the value, the stronger the correction. Can be set in increments of 1. (Factory setting: 255)
[DYNAMIC GAMMA] (Adjustment of signal compensation)	[OFF]	Does not compensate the signal.
	[1]	Slightly compensates the signal.
	[2]	Moderately compensates the signal.
	[3]	Strongly compensates the signal.

Note

- [LIGHTS OUT SIGNAL LEVEL] cannot be set when [LIGHTS OUT TIMER] is set to [DISABLE].
- When [LIGHTS OUT TIMER] is set to anything other than [DISABLE], the following are the conditions to turn the light source back on again from the state that the light source has turned off by this function.
 - When the brightness level of the video signal being input has exceeded the value set in [LIGHTS OUT SIGNAL LEVEL]
 - When the input signal is gone
 - When on-screen display such as menu screen (OSD) or input guide, a test pattern, or a warning message is displayed
 - When the operating environment temperature is around 0 °C (32 °F) and the light source is forced to turn on due to warm-up
- When [LIGHTS OUT TIMER] is set to anything other than [DISABLE], it will take approximately 0.5 seconds to turn the light source back on again from the state that the light source has turned off by this function.
- When [DYNAMIC GAMMA] is set to [3], the contrast will be maximized.
- The brightness control function and the dynamic contrast function will operate simultaneously, but the dynamic contrast function will not operate while measuring the brightness and the color.

[SYSTEM SELECTOR]

The projector will automatically detect the input signal, but you can set the system method manually when an unstable signal is input. Set the system method matching the input signal.

- 1) Press **▲▼** to select [SYSTEM SELECTOR].
- 2) Press the **<ENTER>** button.
- 3) Press **▲▼** to select a system format.
 - Available system formats vary depending on the input signal.

Terminal		System format
<DIGITAL LINK/LAN> terminal, <HDMI IN 1> terminal, <HDMI IN 2> terminal, <HDMI IN 3> terminal, <HDMI IN 4> terminal	480i, 576i, 480p, or 576p signal	Select [AUTO], [RGB], or [YCbCr].
	Other moving image signals	Select [AUTO], [RGB], or [YPbPr].
<DVI-D IN 1> terminal, <DVI-D IN 2> terminal, <DVI-D IN 3> terminal, <DVI-D IN 4> terminal	480i, 576i, 480p, or 576p signal	Select [RGB] or [YCbCr].
	Other moving image signals	Select [RGB] or [YPbPr].

- 4) Press the **<ENTER>** button.

Note

- For details of the types of video signals that can be used with the projector, refer to “List of compatible signals” (➔ page 217).
- This may not function properly for some connected external devices.
- The selection item for the input signal to the <HDMI IN 1> terminal and the <HDMI IN 2> terminal can be selected when the optional Interface Board equipped with the HDMI input is installed in <SLOT 1>.
- The selection item for the input signal to the <HDMI IN 3> terminal and the <HDMI IN 4> terminal can be selected when the optional Interface Board equipped with the HDMI input is installed in <SLOT 2>.
- The selection item for the input signal to the <DVI-D IN 1> terminal and the <DVI-D IN 2> terminal can be selected when the optional Interface Board equipped with the DVI-D input is installed in <SLOT 1>.

- The selection item for the input signal to the <DVI-D IN 3> terminal and the <DVI-D IN 4> terminal can be selected when the optional Interface Board equipped with the DVI-D input is installed in <SLOT 2>.
- For the SDI input, the signal format can be set in detail in the [DISPLAY OPTION] menu → [SDI IN] (➔ page 107).

sRGB-compliant video

sRGB is an international standard (IEC61966-2-1) for color reproduction defined by IEC (International Electrotechnical Commission).

Set according to the following steps to reproduce more faithful, sRGB compliant colors.

- 1) **Set [COLOR MATCHING] to [OFF].**
 - Refer to [COLOR MATCHING] (➔ page 102).
- 2) **Display the [PICTURE] menu.**
 - Refer to “[PICTURE] menu” (➔ page 82).
- 3) **Press ▲▼ to select [PICTURE MODE].**
- 4) **Press ◀▶ to set [NATURAL].**
- 5) **Press ▲▼ to select [COLOR].**
- 6) **Press the <DEFAULT> button on the remote control to set the factory default setting.**
- 7) **Follow Steps 5) to 6) to set [TINT], [COLOR TEMPERATURE], [GAMMA], and [SYSTEM DAYLIGHT VIEW] to the factory default settings.**

Note

- sRGB is available for RGB signal input only.

[POSITION] menu

On the menu screen, select [POSITION] from the main menu, and select an item from the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

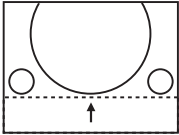
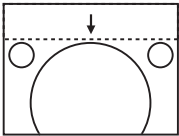
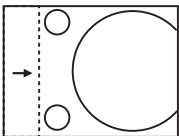
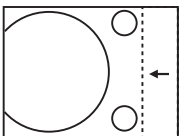
Note

- When the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the <DIGITAL LINK/ LAN> terminal, adjust the shift and aspect from the menu of DIGITAL LINK output supported device first.

[SHIFT]

Move the image position vertically or horizontally if the image projected on the screen is still out of position even when the positions of the projector and screen are correct.

- Press ▲▼ to select [SHIFT].
- Press the <ENTER> button.
 - The [SHIFT] screen is displayed.
- Press ▲▼◀▶ to adjust the position.

Orientation	Operation	Adjustment	
Vertical (up and down) adjustment	Press ▲.	The image position moves up.	
	Press ▼.	The image position moves down.	
Horizontal (right and left) adjustment	Press ▶.	The image position moves to the right.	
	Press ◀.	The image position moves to the left.	

Note

- For the portrait setting, image position is moved horizontally when “Vertical (up and down) adjustment” is made. Image position is moved vertically when “Horizontal (right and left) adjustment” is made.

[ASPECT]

You can switch the aspect ratio of the image.

The aspect ratio is switched within the screen range selected in [SCREEN SETTING]. Set [SCREEN SETTING] first. (➔ page 103)

- Press ▲▼ to select [ASPECT].
- Press ◀▶ or the <ENTER> button.
 - The [ASPECT] individual adjustment screen is displayed.
- Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT]	Displays images without changing the aspect ratio of the input signals.
[THROUGH]	Displays images without changing the resolution of the input signals.

[16:9]	Displays images with the aspect ratio converted to 16:9 when standard signals are input*1. When wide-screen signals are input*2, the images are displayed without changing the aspect ratio.
[4:3]	Displays images without changing the aspect ratio when standard signals are input*1. When wide-screen signals are input*2, and [4:3] is selected in [SCREEN FORMAT], the images are displayed by converting the aspect ratio to 4:3. When anything other than [4:3] is selected in [SCREEN FORMAT], the images are reduced to be displayed without changing input aspect ratio so that the images will fit in the 4:3 screen.
[H FIT]	Displays images using the entire width of the screen range selected in [SCREEN FORMAT]. When signals have the aspect ratio vertically longer than the screen aspect ratio selected in [SCREEN FORMAT], the images are displayed with the top and bottom parts cut off.
[V FIT]	Displays images using the entire height of the screen range selected in [SCREEN FORMAT]. When signals have the aspect ratio horizontally longer than the aspect ratio of the screen selected in [SCREEN FORMAT], the images are displayed with the right and left parts cut off.
[HV FIT]	Displays images in the entire screen range selected in [SCREEN FORMAT]. When the aspect ratio of the input signals differs from that of the screen range, the images are displayed with the aspect ratio converted to that of the screen selected in [SCREEN FORMAT].

*1 Standard signals are input signals with an aspect ratio of 4:3 or 5:4.

*2 Wide-screen signals are input signals with an aspect ratio of 16:10, 16:9, 15:9 or 15:10.

Note

- If an aspect ratio which is different from the aspect ratio for the input signals is selected, the images will appear differently from the originals. Be careful of this when selecting the aspect ratio.
- If using the projector in places such as cafes or hotels to display programs for a commercial purpose or for public presentation, note that adjusting the aspect ratio or using the zoom function to change the screen images may be an infringement of the rights of the original copyright owner for that program under copyright protection laws. Take care when using a function of the projector such as the aspect ratio adjustment and zoom function.
- If conventional (normal) 4:3 images which are not wide-screen images are displayed on a wide screen, the edges of the images may not be visible or they may become distorted. Such images should be viewed as with an aspect ratio of 4:3 in the original format intended by the creator of the images.

[ZOOM]

You can adjust the image size.

When [ASPECT] is set to other than [DEFAULT] and [THROUGH]

- 1) Press ▲▼ to select [ZOOM].
- 2) Press the <ENTER> button.
 - The [ZOOM] screen is displayed.
- 3) Press ▲▼ to select [INTERLOCKED].
- 4) Press ◀▶ to switch the item.

[OFF]	Sets the [VERTICAL] and [HORIZONTAL] zoom ratio.
[ON]	Uses [BOTH] to set zoom ratio. Image can be enlarged or reduced vertically and horizontally at the same magnification.

- 5) Press ▲▼ to select [VERTICAL] or [HORIZONTAL].
 - If [ON] is selected, select [BOTH].
- 6) Press ◀▶ to adjust.

Note

- When [ASPECT] is set to [THROUGH], [ZOOM] cannot be adjusted.
- Zoom ratio less than 100 cannot be set when the video signal fulfilling one of the following conditions is being input.
 - Video signal with resolution exceeding 1 920 x 1 200 dots
 - Video signal with dot clock frequency exceeding 162 MHz

When [ASPECT] is set to [DEFAULT]

- 1) Press ▲▼ to select [ZOOM].
- 2) Press the <ENTER> button.
 - The [ZOOM] screen is displayed.

3) Press ▲▼ to select [MODE].

4) Press ◀▶ to switch the item.

[INTERNAL]	Enlarges the size within the aspect range set with [SCREEN FORMAT].
[FULL]	Enlarges or reduces the size using the entire display area set with [SCREEN FORMAT].

5) Press ▲▼ to select [INTERLOCKED].

6) Press ◀▶ to switch the item.

[OFF]	Sets the [VERTICAL] and [HORIZONTAL] zoom ratio.
[ON]	Uses [BOTH] to set zoom ratio. Image can be enlarged or reduced vertically and horizontally at the same magnification.

7) Press ▲▼ to select [VERTICAL] or [HORIZONTAL].

- If [ON] is selected, select [BOTH].

8) Press ◀▶ to adjust.

Note

- When [ASPECT] is not set to [DEFAULT], [MODE] is not displayed.
- Zoom ratio less than 100 cannot be set when the video signal fulfilling one of the following conditions is being input.
 - Video signal with resolution exceeding 1 920 x 1 200 dots
 - Video signal with dot clock frequency exceeding 162 MHz

[GEOMETRY]

You can correct various types of distortion in a projected image.

Unique image processing technology enables projection of a square image on a special screen shape.

1) Press ▲▼ to select [GEOMETRY].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Does not perform geometric adjustment.
[KEYSTONE]	Adjusts any trapezoidal distortion in the projected image.
[CORNER CORRECTION]	Adjusts any distortion in the four corners of the projected image.
[CURVED]	Adjusts any curved distortion in the projected image.
[PC-1]*1	Performs geometric adjustment using a computer.
[PC-2]*1	
[PC-3]*1	

*1 Advanced skills are necessary to use a computer to control geometric adjustment. Consult your dealer. Up to three geometric adjustments performed using the computer can be saved.

Setting [KEYSTONE] or [CURVED]

1) Press ▲▼ to select [GEOMETRY].

2) Press ◀▶ to select [KEYSTONE] or [CURVED].

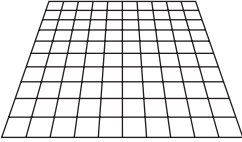
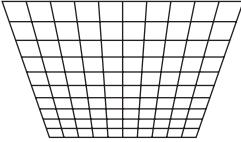
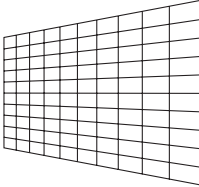
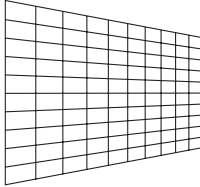
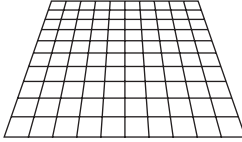
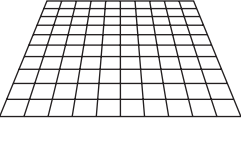
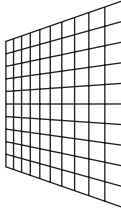

3) Press the <ENTER> button.

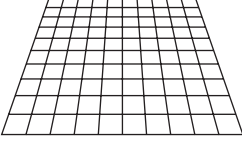
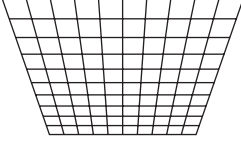
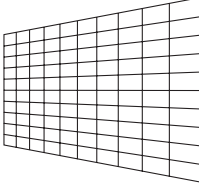
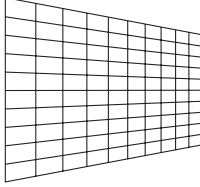
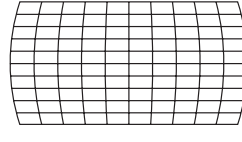
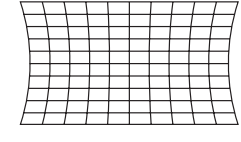
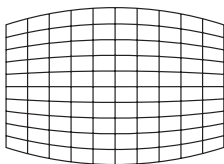
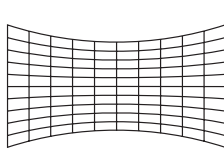
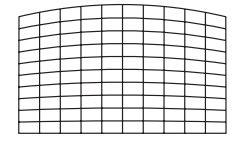
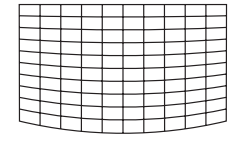
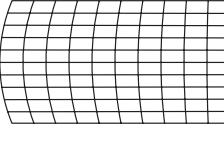
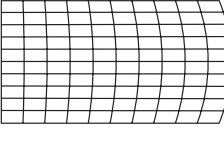
- The [GEOMETRY:KEYSTONE] or [GEOMETRY:CURVED] screen is displayed.

4) Press ▲▼ to select the item to adjust.

5) Press ◀▶ to adjust.

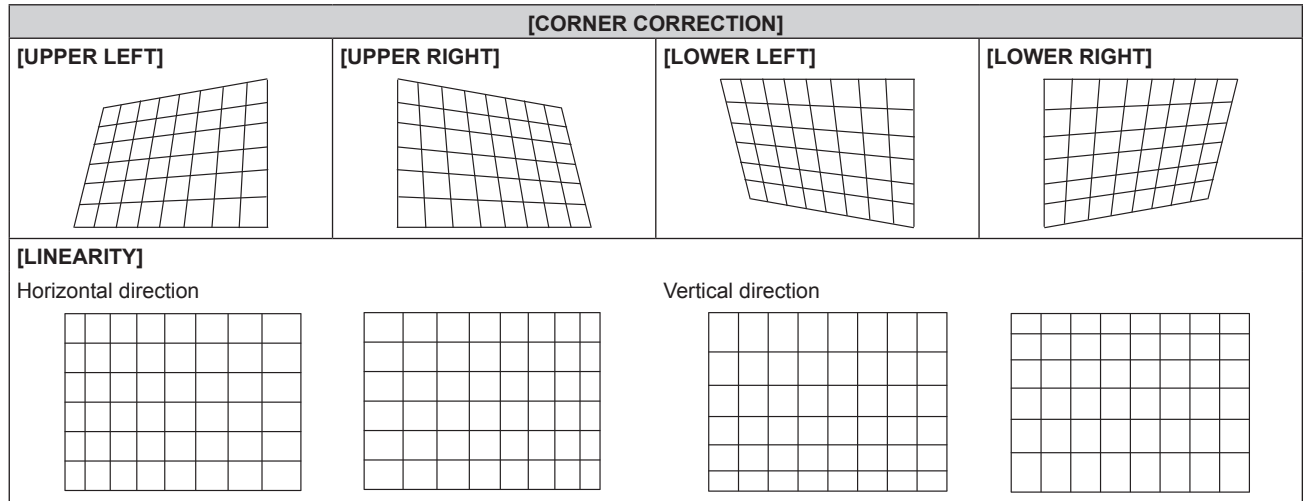
[KEYSTONE]
[LENS THROW RATIO] Set the throw ratio for the lens used.

[KEYSTONE]			
[VERTICAL KEYSTONE]		[HORIZONTAL KEYSTONE]	
			
[VERTICAL BALANCE]		[HORIZONTAL BALANCE]	
			
Adjust the setting according to the lens shift range in the vertical direction.		Adjust the setting according to the lens shift range in the horizontal direction.	

[CURVED]			
[LENS THROW RATIO] Set the throw ratio for the lens used.			
[VERTICAL KEYSTONE]		[HORIZONTAL KEYSTONE]	
			
[VERTICAL ARC]		[HORIZONTAL ARC]	
			
[VERTICAL BALANCE]		[HORIZONTAL BALANCE]	
			
[MAINTAIN ASPECT RATIO] Select [ON] to correct while keeping the aspect ratio.			

Setting [CORNER CORRECTION]

- 1) Press ▲▼ to select [GEOMETRY].
- 2) Press ◀▶ to select [CORNER CORRECTION].
- 3) Press the <ENTER> button.
 - The [GEOMETRY:CORNER CORRECTION] screen is displayed.
- 4) Press ▲▼ to select the item to adjust, and press the <ENTER> button.
- 5) Press ▲▼◀▶ to adjust.



Note

- The menu or logo may run off the screen when [GEOMETRY] is set.
- If [EDGE BLENDING] (▶ page 96) adjustment and [GEOMETRY] are used together, correct edge blending adjustment may not be possible in certain environments.
- The optional Upgrade Kit (Model No.: ET-UK20) can be used to expand the correctable range. To purchase the product, consult your dealer.
- The [GEOMETRY] setting is disabled in the following cases, and the geometric adjustment function cannot be used.
 - When the [ADVANCED MENU] menu → [QUAD PIXEL DRIVE] is set to [OFF]
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to anything other than [OFF]
- The image may disappear for a moment or may be disrupted while performing adjustment, but it is not a malfunction.

[ADVANCED MENU] menu

On the menu screen, select [ADVANCED MENU] from the main menu, and select an item from the sub-menu.

Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[DIGITAL CINEMA REALITY]

The picture quality is enhanced by raising the vertical resolution further by performing the cinema processing when the 1080/50i or 1080/60i signal is input.

1) Press ▲▼ to select [DIGITAL CINEMA REALITY].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[AUTO]	Automatically detects the input signal and performs cinema processing.	
[OFF]	Does not perform cinema processing.	
[30p FIXED]	When 1080/60i signal is input	Performs forced cinema processing (2:2 pulldown).
[25p FIXED]	When 1080/50i signal is input	

Note

- In [DIGITAL CINEMA REALITY], the picture quality will degrade when a signal other than the 2:2 pulldown is set as [25p FIXED] or [30p FIXED]. (Vertical resolution will degrade.)
- [DIGITAL CINEMA REALITY] is fixed to [OFF] in the following cases.
 - When [FRAME RESPONSE] is set to [FAST]
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format
- The [DIGITAL CINEMA REALITY] setting is disabled and fixed to [OFF] when [DIGITAL CINEMA REALITY] is set to anything other than [OFF] and the following setting or operation is performed.
 - Set [FRAME RESPONSE] to [FAST].
 - Set the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] to [AUTO(x2-speed)] or [AUTO(x4-speed)] and display an image in simultaneous format.

[BLANKING]

You can adjust the blanking width if there are noises at the edge of the screen or the image is slightly running out from the screen while an image from the VCR or other devices are projected.

1) Press ▲▼ to select [BLANKING].

2) Press the <ENTER> button.

- The [BLANKING] adjustment screen is displayed.


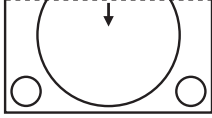

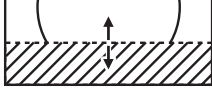




3) Press ▲▼ to select [UPPER], [LOWER], [LEFT], or [RIGHT].

- The blanking width can be adjusted to a desired shape using a computer when [CUSTOM MASKING] is selected and set to anything other than [OFF] ([PC-1], [PC-2], [PC-3]). Up to three blanking settings adjusted using the computer can be saved.

[CUSTOM MASKING] is using the masking function of the Panasonic computer application.

To use the [CUSTOM MASKING] function, the optional Upgrade Kit (Model No.: ET-UK20) is required. To purchase the product, consult your dealer.

4) Press ◀▶ to adjust the blanking width.

Blanking correction	Item	Operation	Adjustment	Range of adjustment	
Top of the screen	[UPPER]	Press ◀.	The blanking zone moves upward.		Top to bottom 0 - 1 99*1
		Press ▶.	The blanking zone moves downward.		
Bottom of the screen	[LOWER]	Press ▶.	The blanking zone moves upward.		
		Press ◀.	The blanking zone moves downward.		
Left side of the screen	[LEFT]	Press ▶.	The blanking zone moves to the right.		Left to right 0 - 1 919*1
		Press ◀.	The blanking zone moves to the left.		
Right side of the screen	[RIGHT]	Press ◀.	The blanking zone moves to the right.		
		Press ▶.	The blanking zone moves to the left.		

*1 The actual blanking width cannot be adjusted exceeding the center of the projected image.

Note

- The [CUSTOM MASKING] setting in [BLANKING] is disabled in the following cases, and the masking function of Panasonic computer application cannot be used.
 - When [QUAD PIXEL DRIVE] is set to [OFF]
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format

[EDGE BLENDING]

The overlapping area is made seamless by creating inclination in the brightness in the overlapped area when structuring a multi-display screen by combining the projected images from multiple projectors.

- Press ▲▼ to select [EDGE BLENDING].
- Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Sets the edge blending function to off.
[ON]	Use the setting value preset in the projector for the inclination of the edge blending area.
[USER]	Use the user-setting value for the inclination of the edge blending area. (Configuration/registration requires separate software. Consult your dealer.)

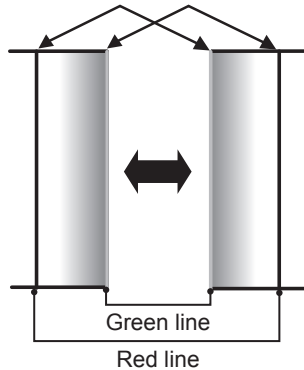
- When anything other than [OFF] is selected, proceed to Step 3).
- Press the <ENTER> button.
 - The [EDGE BLENDING] screen is displayed.
 - Press ▲▼ to specify the location to be corrected.
 - When joining at top: Set [UPPER] to [ON]
 - When joining at bottom: Set [LOWER] to [ON]
 - When joining at left: Set [LEFT] to [ON]
 - When joining at right: Set [RIGHT] to [ON]
 - Press ◀▶ to switch to [ON].
 - Press ▲▼ to select [START] or [WIDTH].
 - Press ◀▶ to adjust the starting position or correction width.

8) Press ▲▼ to select [MARKER].

9) Press ◀▶ to switch to [ON].

- A marker for image position adjustment is displayed. The position where the red and green lines overlap for the projectors to be joined will be the optimal point. Make sure to set the correction width for the projectors to be joined with the same value. Optimal joining is not possible with projectors that have different correction widths.

The optimal point is the point at which these lines overlap.



10) Press ▲▼ to select [BRIGHTNESS ADJUST].

11) Press the <ENTER> button.

- The [BRIGHTNESS ADJUST] screen is displayed.
- By setting [AUTO TESTPATTERN] to [ON] on the [EDGE BLENDING] screen, the black test pattern is displayed when you enter the [BRIGHTNESS ADJUST] screen.

12) Press ▲▼ to select [NON-OVERLAPPED BLACK LEVEL].

13) Press the <ENTER> button.

- The [NON-OVERLAPPED BLACK LEVEL] screen is displayed.
- [RED], [GREEN], and [BLUE] can be adjusted individually if [INTERLOCKED] is set to [OFF].

14) Press ▲▼ to select an item, and press ◀▶ to adjust the setting.

- Once the adjustment is completed, press the <MENU> button to return to the [BRIGHTNESS ADJUST] screen.

15) Press ▲▼ to select [UPPER], [LOWER], [LEFT], or [RIGHT] in [BLACK BORDER WIDTH].

16) Press ◀▶ to set the region (width) of the [BLACK BORDER WIDTH] adjustment.

17) Press ▲▼ to select [UPPER KEYSTONE AREA], [LOWER KEYSTONE AREA], [LEFT KEYSTONE AREA], or [RIGHT KEYSTONE AREA].

18) Press ◀▶ to adjust the tilt of the border between [NON-OVERLAPPED BLACK LEVEL] and [BLACK BORDER LEVEL].

19) Press ▲▼ to select [BLACK BORDER LEVEL].

20) Press the <ENTER> button.

- The [BLACK BORDER LEVEL] screen is displayed.
- [RED], [GREEN], and [BLUE] can be adjusted individually if [INTERLOCKED] is set to [OFF].

21) Press ▲▼ to select an item, and press ◀▶ to adjust the setting.

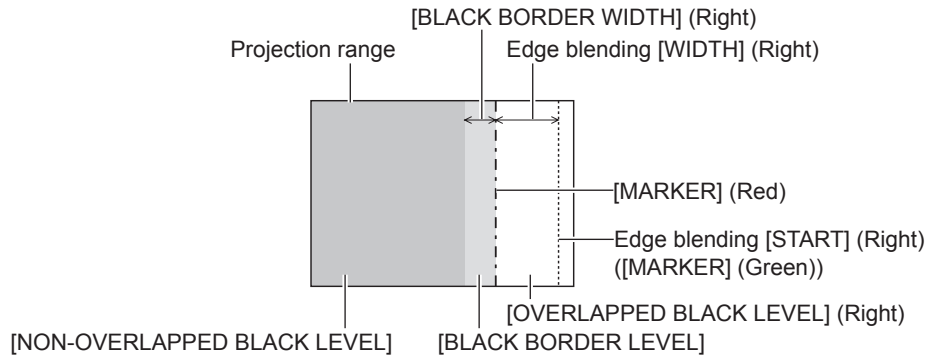
- Once the adjustment is completed, press the <MENU> button to return to the [BLACK BORDER LEVEL] screen.

22) Press ▲▼ to select [UPPER], [LOWER], [LEFT], or [RIGHT] for [OVERLAPPED BLACK LEVEL].

23) Press the <ENTER> button.

- The [OVERLAPPED BLACK LEVEL] screen is displayed.
- [RED], [GREEN], and [BLUE] can be adjusted individually if [INTERLOCKED] is set to [OFF].

24) Press ▲▼ to select an item, and press ◀▶ to adjust the setting.



Note

- [BRIGHTNESS ADJUST] is a function that makes the increased brightness in black level of the overlapping image area difficult to notice when [EDGE BLENDING] is used to structure a multi-display screen. The optimal point of correction is set by adjusting [NON-OVERLAPPED BLACK LEVEL] so the black level of the overlapping image area will be the same level as the non-overlapping area. If the border area of the part where the image is overlapping and the non-overlapping part gets brighter after adjusting [NON-OVERLAPPED BLACK LEVEL], adjust the width of the top, bottom, left, or right. Adjust [BLACK BORDER LEVEL] when the width adjustment makes only the border area darker.
- The joining part may look discontinuous depending on the position you are looking from when a screen with high gain or rear screen is used.
- When structuring a multi-display screen using both horizontal and vertical edge blending, adjust [OVERLAPPED BLACK LEVEL] first before making adjustments in Step 12). Adjustment method is same as the procedure of [NON-OVERLAPPED BLACK LEVEL].
- If only horizontal or vertical edge blending is used, set all items in [OVERLAPPED BLACK LEVEL] to 0.
- The [AUTO TESTPATTERN] setting changes synchronizing with [AUTO TESTPATTERN] of [COLOR MATCHING].
- Adjustment of the tilt of the border between [NON-OVERLAPPED BLACK LEVEL] and [BLACK BORDER LEVEL] is a function to perform the adjustment of [GEOMETRY] (➔ page 92) together with the edge blending. If [NON-OVERLAPPED BLACK LEVEL] is tilted by correcting the keystone from [KEystone] in [GEOMETRY], perform Steps 17) and 18) to adjust the edge blending according to the shape of [NON-OVERLAPPED BLACK LEVEL].

[FRAME RESPONSE]

Set image frame delay.

1) Press ▲▼ to select [FRAME RESPONSE].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[NORMAL]	Standard setting.
[FAST] ^{*1}	Simplifies the image processing to reduce image frame delay.
[FIXED] ^{*2}	Sets image frame delay to be constant regardless of the image position or magnification.

*1 When input signals are other than interlaced signals, [FAST] cannot be set.

*2 Only when moving image signals and still image signals with the vertical scanning frequency of 50 Hz or 60 Hz are input

Note

- [FRAME RESPONSE] is fixed to [NORMAL] in the following cases.
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format
 - While in the four-screen display mode
The four-screen display mode can be canceled by setting the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to [OFF]. (➔ page 157)
- The [FRAME RESPONSE] setting is disabled and fixed to [NORMAL] when [FRAME RESPONSE] is set to anything other than [NORMAL] and the following setting or operation is performed.
 - Set the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] to [AUTO(x2-speed)] or [AUTO(x4-speed)] and display an image in simultaneous format.
 - Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] and display the four-screen display.
- The [DIGITAL CINEMA REALITY] and [FRAME CREATION] settings are disabled and fixed to [OFF] when [FRAME RESPONSE] is set to [FAST].

[FRAME CREATION]

Set the amount of image frame interpolation.

The image with fast movement can be displayed more smoothly by automatically generating the intermediate frame from the previous and next frame.

1) Press ▲▼ to select [FRAME CREATION].

- 2) Press the <ENTER> button.
 - The [FRAME CREATION] screen is displayed.
- 3) Press ▲▼ to select [FRAME CREATION MODE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the frame creation function.
[1]	Sets the amount of interpolation weaker.
[2]	Sets the amount of interpolation midway. (Factory default setting)
[3]	Sets the amount of interpolation stronger.

Note

- The effect may be difficult to notice depending on the image.
- Switch the setting when the image looks unnatural due to delay of image or generation of noise.
- [FRAME CREATION] is fixed to [OFF] in the following cases.
 - When [FRAME RESPONSE] is set to [FAST]
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format
 - While in the four-screen display mode
The four-screen display mode can be canceled by setting the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to [OFF].
(▶ page 157)
 - When the internal test pattern is displayed.
- The [FRAME CREATION] setting is disabled and fixed to [OFF] when [FRAME CREATION] is set to anything other than [OFF] and the following setting or operation is performed.
 - Set [FRAME RESPONSE] to [FAST].
 - Set the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] to [AUTO(x2-speed)] or [AUTO(x4-speed)] and display an image in simultaneous format.
 - Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] and display the four-screen display.

Setting [FILM DETECTION]

Set the film detection function to enhance the video resolution by determining if it is a content that the telecine is performed on the input signal.

- 1) Press ▲▼ to select [FRAME CREATION].
- 2) Press the <ENTER> button.
 - The [FRAME CREATION] screen is displayed.
- 3) Press ▲▼ to select [FRAME CREATION MODE].
- 4) Press ◀▶ to select a mode from [1], [2], or [3].
- 5) Press ▲▼ to select [FILM DETECTION].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the film detection function.
[ON]	Enables the film detection function. The video resolution is enhanced for the contents that telecine is performed on the input signal.

Note

- The video resolution is not changed even if [FILM DETECTION] is set to [ON] for the contents that the telecine is not performed on the input signal.
The contents which telecine is performed is the contents that the film image is converted to the video image.
- [FILM DETECTION] cannot be set when a signal for the content with vertical scanning frequency of 30 Hz, 25 Hz, or 24 Hz is input.

[QUAD PIXEL DRIVE]

Set the enable/disable of the QUAD PIXEL DRIVE function to enhance the resolution of the projected image.

- 1) Press ▲▼ to select [QUAD PIXEL DRIVE].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[ON]	Enables the QUAD PIXEL DRIVE function.
[OFF]	Disables the QUAD PIXEL DRIVE function.

Note

- [QUAD PIXEL DRIVE] is fixed to [ON] in the following cases.
 - When the [POSITION] menu → [GEOMETRY] is set to anything other than [OFF]
 - When [CUSTOM MASKING] in [BLANKING] is set to anything other than [OFF] ([PC-1], [PC-2], [PC-3])
To use the [CUSTOM MASKING] function, the optional Upgrade Kit (Model No.: ET-UK20) is required. To purchase the product, consult your dealer.
 - While in the four-screen display mode
The four-screen display mode can be canceled by setting the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to [OFF].
(▶ page 157)
- [QUAD PIXEL DRIVE] is fixed to [OFF] in the following cases.
 - When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format
 - When the focus test pattern is displayed using the [TEST PATTERN] menu
To enable the QUAD PIXEL DRIVE function while displaying the focus test pattern, set [QUAD PIXEL DRIVE] to [ON] again while displaying the focus pattern.
- [QUAD PIXEL DRIVE] is fixed to [OFF] when the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying an image in simultaneous format while [QUAD PIXEL DRIVE] is set to [ON].
- [QUAD PIXEL DRIVE] is fixed to [ON] when the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display while [QUAD PIXEL DRIVE] is set to [OFF].
- [OSD SIZE] in the [DISPLAY OPTION] menu → [ON-SCREEN DISPLAY] (▶ page 127) cannot be set when [QUAD PIXEL DRIVE] is set to [ON].

[RASTER POSITION]

This will allow the position of the image to move within the display area arbitrarily when the input image is not using the whole display area.

1) Press ▲▼ to select [RASTER POSITION].

2) Press the <ENTER> button.

- The [RASTER POSITION] screen is displayed.

3) Press ▲▼◀▶ to adjust the position.

Note

- The range that can be moved is limited when the projected image is smaller than the display size of the menu screen (OSD).

[DISPLAY LANGUAGE] menu

On the menu screen, select [DISPLAY LANGUAGE] from the main menu, and display the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

Changing the display language

You can select the language of the on-screen display.

- 1) Press ▲▼ to select the display language and press the <ENTER> button.



- Various menus, settings, adjustment screens, control button names, etc., are displayed in the selected language.
- The language can be changed to English, German, French, Spanish, Italian, Portuguese, Japanese, Chinese, Russian, or Korean.

Note

- The on-screen display language of the projector is set to English by default as well as when [ALL USER DATA] (➔ page 155) in [INITIALIZE] is executed.

[DISPLAY OPTION] menu

On the menu screen, select [DISPLAY OPTION] from the main menu, and select an item from the sub-menu.

Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[COLOR MATCHING]

Correct the color difference between projectors when using multiple projectors simultaneously.

Adjusting the color matching as desired

- 1) Press ▲▼ to select [COLOR MATCHING].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Color matching adjustment is not carried out.
[3COLORS]	Adjusts the three colors [RED], [GREEN], or [BLUE].
[7COLORS]	Adjusts the seven colors [RED], [GREEN], [BLUE], [CYAN], [MAGENTA], [YELLOW], or [WHITE].
[709MODE]	Refer to “Adjusting the color matching using a colorimeter” (➔ page 102) for details about this mode.
[MEASURED]	

- 3) Select [3COLORS] or [7COLORS], and press the <ENTER> button.
 - The [3COLORS] or [7COLORS] screen is displayed.
- 4) Press ▲▼ to select [RED], [GREEN], or [BLUE] ([RED], [GREEN], [BLUE], [CYAN], [MAGENTA], [YELLOW], or [WHITE] for [7COLORS]).
- 5) Press the <ENTER> button.
 - The [3COLORS:RED], [3COLORS:GREEN], or [3COLORS:BLUE] screen is displayed.
For [7COLORS], the [7COLORS:RED], [7COLORS:GREEN], [7COLORS:BLUE], [7COLORS:CYAN], [7COLORS:MAGENTA], [7COLORS:YELLOW], or [7COLORS:WHITE] screen is displayed.
 - By setting [AUTO TESTPATTERN] to [ON], the test pattern for the selected color is displayed.
- 6) Press ▲▼ to select [RED], [GREEN], or [BLUE].
- 7) Press ◀▶ to adjust.
 - The adjustment value changes between 0 and 2 048.

Note

- Operation when correcting the adjustment color
When the correction color same as the adjustment color is changed: The luminance of the adjustment color changes.
When correction color red is changed: Red is added to or subtracted from the adjustment color.
When correction color green is changed: Green is added to or subtracted from the adjustment color.
When correction color blue is changed: Blue is added to or subtracted from the adjustment color.
- Since advanced skills are necessary for the adjustment, this adjustment should be carried out by a person who is familiar with the projector or by a service person.
- Pressing the <DEFAULT> button on the remote control will restore the factory default settings for all items.
- When [COLOR MATCHING] is set to other than [OFF], [COLOR TEMPERATURE] is fixed to [USER1].

Adjusting the color matching using a colorimeter

Use a colorimeter that can measure chromaticity coordinates and luminance to change the colors [RED], [GREEN], [BLUE], [CYAN], [MAGENTA], [YELLOW], or [WHITE] to desired colors.

- 1) Press ▲▼ to select [COLOR MATCHING].
- 2) Press ◀▶ to select [709MODE] or [MEASURED].
- 3) Press the <ENTER> button.
 - The [709MODE] or [MEASURED MODE] screen is displayed.
- 4) Press ▲▼ to select [MEASURED DATA].

- 5) Press the <ENTER> button.
 - The [MEASURED DATA] screen is displayed.
- 6) Measure the current luminance (Y) and the chromaticity coordinates (x, y) using the colorimeter.
- 7) Press ▲▼ to select a color, and press ◀▶ to adjust the setting.
 - Set [AUTO TESTPATTERN] to [ON] to display a test pattern of selected colors.
- 8) Once all the input is completed, press the <MENU> button.
 - The [709MODE] or [MEASURED MODE] screen is displayed.
 - When [MEASURED] is selected in Step 2), proceed to Step 9) and enter the coordinates of desired colors.
- 9) Press ▲▼ to select [TARGET DATA].
- 10) Press the <ENTER> button.
 - The [TARGET DATA] screen is displayed.
- 11) Press ▲▼ to select a color and press ◀▶ to input coordinates for desired colors.
 - By setting [AUTO TESTPATTERN] to [ON], the test pattern for the selected color is displayed.
- 12) Once all the input is completed, press the <MENU> button.

Note

- When [709MODE] is selected in [COLOR MATCHING], the ITU-R BT.709 standard three primary colors are set as target data.
- Colors are not displayed properly when target data is a color outside the region of this projector.
- The [709MODE] may differ slightly from the ITU-R BT.709 standard colors.
- Set the [AUTO TESTPATTERN] to [ON] to automatically display a test pattern for use in adjusting the selected adjustment colors.
- Before using a colorimeter or similar instrument to measure measurement data, set [PICTURE MODE] to [DYNAMIC].
- A difference in the color coordinates of target data and measurement values obtained from an instrument may occur for certain instruments and measurement environments used.
- [AUTO TESTPATTERN] settings change together with the [AUTO TESTPATTERN] of [EDGE BLENDING].

[LARGE SCREEN CORRECTION]

Corrects the phenomenon in which colors that appear lighter when viewed on a large screen viewed from a close distance compared to when viewed on an average screen size so that colors appear the same.

- 1) Press ▲▼ to select [LARGE SCREEN CORRECTION].
- 2) Press ◀▶ to switch the item.

[OFF]	Performs no correction.
[1]	Performs weak correction.
[2]	Performs strong correction.

[SCREEN SETTING]

Set the screen size.

Correct to the optimum image position for the set screen when the aspect ratio of a projected image is changed. Set as necessary for the screen in use.

- 1) Press ▲▼ to select [SCREEN SETTING].
- 2) Press the <ENTER> button.
 - The [SCREEN SETTING] screen is displayed.
- 3) Press ◀▶ to switch the [SCREEN FORMAT] item.
 - The items will switch each time you press the button.

[SCREEN FORMAT]	Range when [SCREEN POSITION] is selected
[16:10]	Cannot be adjusted.
[4:3]	Adjusts the horizontal position between -320 and 320.
[16:9]	Adjusts the vertical position between -120 and 120.

- 4) Press ▲▼ to select [SCREEN POSITION].
 - [SCREEN POSITION] cannot be selected or adjusted when [SCREEN FORMAT] is set to [16:10].

5) Press ◀▶ to adjust [SCREEN POSITION].

[AUTO SIGNAL]

Set whether to execute automatic setup of signals automatically.

The screen display position or signal level can be adjusted automatically without pressing the <AUTO SETUP> button on the remote control on each occasion if you input unregistered signals frequently at meetings, etc.

1) Press ▲▼ to select [AUTO SIGNAL].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Sets the auto signal function to off.
[ON]	Executes automatic setup automatically when images are changed to unregistered signals during projection.

[AUTO SETUP]

Set this when adjusting a special signal or horizontally long (such as 16:9) signal.

Setting with [MODE]

1) Press ▲▼ to select [AUTO SETUP].

2) Press the <ENTER> button.

- The [AUTO SETUP] screen is displayed.

3) Press ▲▼ to select [MODE].

4) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[DEFAULT]	Standard setting.
[WIDE]	Select this item when an image aspect ratio is a wide-screen signal, which does not meet the [DEFAULT] setting.

5) Press the <ENTER> button.

- Automatic adjustment is executed. [PROGRESS] is displayed while in automatic adjustment. When completed, the screen returns to the [AUTO SETUP] screen.

Adjusting position automatically

1) Press ▲▼ to select [AUTO SETUP].

2) Press the <ENTER> button.

- The [AUTO SETUP] screen is displayed.

3) Press ▲▼ to select [POSITION ADJUST].

4) Press ◀▶ to switch the item.

[ON]	Adjust the screen position and size when automatic setup is executed.
[OFF]	Does not perform automatic adjustment.

Adjusting signal level automatically

1) Press ▲▼ to select [AUTO SETUP].

2) Press the <ENTER> button.

- The [AUTO SETUP] screen is displayed.

3) Press ▲▼ to select [SIGNAL LEVEL ADJUST].

4) Press ◀▶ to switch the item.

[OFF]	Does not perform automatic adjustment.
[ON]	Adjusts black level (on-screen menu [BRIGHTNESS]) and white level (on-screen menu [CONTRAST]) when automatic setup is executed.

Note

- [SIGNAL LEVEL ADJUST] may not function properly unless a still image containing clear blacks and whites is input.

[BACKUP INPUT SETTING]

Set the backup function that switches the signal to the backup input signal as seamless as possible when input signal is disrupted.

- 1) Press ▲▼ to select [BACKUP INPUT SETTING].
- 2) Press the <ENTER> button.
 - The [BACKUP INPUT SETTING] screen is displayed.
- 3) Press ▲▼ to select [BACKUP INPUT MODE].
- 4) Press the <ENTER> button.
 - The [BACKUP INPUT MODE] screen is displayed.
- 5) Press ▲▼ to select the combination of the input and press the <ENTER> button.

Primary input	Secondary input	Number of signals constructing one screen	Details
[OFF]		—	Disables the backup function.
[SDI1]	[SDI2]	1	Enables the backup function.
[HDMI1 [SLOT1]]*1	[HDMI2 [SLOT1]]*1		
[HDMI3 [SLOT2]]*2	[HDMI4 [SLOT2]]*2		
[DVI-D1 [SLOT1]]*1	[DVI-D2 [SLOT1]]*1		
[DVI-D3 [SLOT2]]*2	[DVI-D4 [SLOT2]]*2		
[SDI1 [SLOT1]]*3	[SDI2 [SLOT1]]*3		
[SDI3 [SLOT2]]*4	[SDI4 [SLOT2]]*4		
[SDI1 [SLOT1]]*5	[SDI3 [SLOT1]]*5		
[SDI1 [SLOT2]]*6	[SDI3 [SLOT2]]*6		
[SDI1-2]	[SDI3-4]	2	
[HDMI1-2 [SLOT1]]*7	[HDMI3-4 [SLOT2]]*7		
[DVI-D1-2 [SLOT1]]*7	[DVI-D3-4 [SLOT2]]*7		
[SDI1-2 [SLOT1]]*8	[SDI3-4 [SLOT2]]*8	4	
[SDI1-2-3-4]*8	[SDI1-2-3-4 [SLOT1/2]]*8		
[SDI1-2-3-4]*5	[SDI1-2-3-4 [SLOT1]]*5		
[SDI1-2-3-4]*6	[SDI1-2-3-4 [SLOT2]]*6		

*1 This is displayed when the optional Interface Board equipped with corresponding input is installed in <SLOT 1>.
 *2 This is displayed when the optional Interface Board equipped with corresponding input is installed in <SLOT 2>.
 *3 This is displayed when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in <SLOT 1>.
 *4 This is displayed when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in <SLOT 2>.
 *5 This is displayed when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1>.
 *6 This is displayed when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 2>.
 *7 This is displayed when the optional Interface Boards equipped with corresponding input are installed in <SLOT 1> and <SLOT 2>.
 *8 This is displayed when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in <SLOT 1> and <SLOT 2>.

- 6) Press the <MENU> button.
 - The [BACKUP INPUT SETTING] screen is displayed.
- 7) Press ▲▼ to select [AUTOMATIC SWITCHING].
 - When [BACKUP INPUT MODE] is set to [OFF], [AUTOMATIC SWITCHING] cannot be selected.
- 8) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[ENABLE]	Switches to the secondary input automatically when the input signal for primary input is disrupted.
[DISABLE]	Disables the automatic input switching function.

Note

- The backup function is enabled when [BACKUP INPUT MODE] is set to anything other than [OFF] and same signal is input to the primary input and the secondary input.
- To switch to the backup input signal using the backup function, make sure that the following three conditions are satisfied to be ready to use the function.
 - Set [BACKUP INPUT MODE] to anything other than [OFF].
 - Input the same signal to the primary and secondary inputs.
 - Display the image of the primary input.
- If the input is switched to other than the primary or secondary input while the backup function is ready for use, the state of readiness to use the backup function is canceled. To switch to the backup input signal using the backup function again, switch to the primary input.
- When [BACKUP INPUT MODE] is set to anything other than [OFF], the combination of that input is displayed in [PRIMARY INPUT] and [SECONDARY INPUT] of the [BACKUP INPUT SETTING] screen.
- [BACKUP INPUT STATUS] is displayed in the input guide (➔ page 129) and the [STATUS] screen (➔ pages 74 and 153) when [BACKUP INPUT MODE] is set to anything other than [OFF].
When the signal can be switched to the backup input signal using the backup function, [ACTIVE] is displayed in [BACKUP INPUT STATUS]. When it is not possible, [INACTIVE] is displayed instead.
The secondary input will be the backup input when [BACKUP INPUT STATUS] shows [ACTIVE] while displaying the image from the primary input.
The primary input will be the backup input when [BACKUP INPUT STATUS] shows [ACTIVE] while displaying the image from the secondary input.
- When [BACKUP INPUT MODE] is set to anything other than [OFF], the input is switched seamlessly if the input is switched between the primary input and the secondary input while it is possible to switch to the backup input signal.
- When [AUTOMATIC SWITCHING] is set to [ENABLE] and [BACKUP INPUT STATUS] shows [ACTIVE], the input is automatically switched to the backup input when a disruption occurs in the input signal.
- When [AUTOMATIC SWITCHING] is set to [ENABLE], the indication in [BACKUP INPUT STATUS] will change to [INACTIVE] if the input signal is disrupted and automatically switched to the backup input. In this case, it is not possible to switch to the backup input signal until the original input signal is restored. If the input has switched to the backup input automatically, it is possible to switch to the backup input signal when the original signal has restored. In this case, the current input is maintained.
- [BACKUP INPUT SETTING] cannot be set while in the four-screen display mode. The backup operation is not performed either. Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] when using the four-screen display mode.
- [BACKUP INPUT MODE] in which the standard SDI input is included as the primary input or the secondary input cannot be selected when [SDI IN] in [SIMUL INPUT SETTING] is set to anything other than [OFF].
- [BACKUP INPUT MODE] including the primary input or the secondary input equipped on the optional Interface Board installed in the slot cannot be selected when [SLOT IN] in [SIMUL INPUT SETTING] is set to anything other than [OFF].
- When [SDI LINK SETTINGS] for the primary input and the secondary input is set to [AUTO], [BACKUP INPUT MODE] for that combination cannot be selected. When [SDI LINK SETTINGS] for the primary input and the secondary input do not match, [BACKUP INPUT MODE] for that combination cannot be selected.
Match the following settings in accordance with the signal and then input the same signal in the primary input and the secondary input.
 - [SDI LINK] in the [DISPLAY OPTION] menu → [SDI IN]
 - [SDI LINK] in the [DISPLAY OPTION] menu → [SLOT IN]
- When [HDMI LINK SETTINGS] or [DVI-D LINK SETTINGS] for the primary input and the secondary input is set to [AUTO], [BACKUP INPUT MODE] for that combination cannot be selected. When [HDMI LINK SETTINGS] or [DVI-D LINK SETTINGS] for the primary input and the secondary input do not match, [BACKUP INPUT MODE] for that combination cannot be selected.
Match the setting in accordance to the signal and then input the same signal in the primary input and the secondary input.
 - [HDMI LINK] in the [DISPLAY OPTION] menu → [SLOT IN]
 - [DVI-D LINK] in the [DISPLAY OPTION] menu → [SLOT IN]

[SIMUL INPUT SETTING]

Set this function when the video signal in simultaneous format is input and used.

- 1) Press ▲▼ to select [SIMUL INPUT SETTING].
- 2) Press the <ENTER> button.
 - The [SIMUL INPUT SETTING] screen is displayed.
- 3) Press ▲▼ to select [SDI IN], [SLOT IN].
 - [SLOT IN] can be selected when the optional Interface Board is installed in the slot.
- 4) Press ◀▶ to switch the setting.
 - The items will switch each time you press the button.

[OFF]	This is not used for simultaneous input.
[AUTO(x2-speed)]	Displays the image in double speed using the signals input in the two input terminals.
[AUTO(x4-speed)]*1	Displays the image in quadruple speed using the signals input in the four input terminals.

*1 [SLOT IN] cannot be set to [AUTO(x4-speed)] when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1> or <SLOT 2>.

Note

- The image for double or quadruple speed is displayed when [AUTO(x2-speed)] or [AUTO(x4-speed)] is set and the same corresponding signal is input to each of the input terminal.
- [QUAD PIXEL DRIVE] is fixed to [OFF] when [AUTO(x2-speed)] or [AUTO(x4-speed)] is set and the image in simultaneous format is displayed.
- [SDI IN] or [SLOT IN] in [SIMUL INPUT SETTING] (including the input set as the primary input or the secondary input) is fixed to [OFF] when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set to anything other than [OFF].
- [SDI IN] in [SIMUL INPUT SETTING] is fixed to [OFF] when [SDI LINK] in [SDI IN] is set to anything other than [SINGLE].
- [SLOT IN] in [SIMUL INPUT SETTING] is fixed to [OFF] when [HDMI LINK], [DVI-D LINK], or [SDI LINK] in [SLOT IN] is set to anything other than [SINGLE].
- [SLOT IN] in [SIMUL INPUT SETTING] can be selected when the optional Interface Board is not installed in the slot.
- [SIMUL INPUT SETTING] cannot be set when the [POSITION] menu → [GEOMETRY] is set to anything other than [OFF]. To input and project the video signal in simultaneous format, use a flat screen so that the geometric adjustment is unnecessary, and install the projector so that the projected image will be rectangular.
- [SIMUL INPUT SETTING] cannot be set when the [ADVANCED MENU] menu → [BLANKING] → [CUSTOM MASKING] is set to anything other than [OFF] ([PC-1], [PC-2], [PC-3]).
[CUSTOM MASKING] is using the masking function of the Panasonic computer application.
- [SIMUL INPUT SETTING] cannot be set when the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display.
- This may not function properly for some connected external devices.
- This may not function properly depending on the signal.

■ **[SIMUL INPUT SETTING] screen**

Usage of each input signal is displayed under the setting items of [SDI IN] and [SLOT IN] in the **[SIMUL INPUT SETTING]** screen when [AUTO(x2-speed)] or [AUTO(x4-speed)] is set.

[SIMUL INPUT SETTING]	Usage of the input signal	Details
[AUTO(x2-speed)]	[1st FRAME INPUT]	Uses the signal for the corresponding input as the signal for the odd frame.
	[2nd FRAME INPUT]	Uses the signal for the corresponding input as the signal for the even frame.
[AUTO(x4-speed)]	[1st FRAME INPUT]	Uses the signal for the corresponding input as the signal for the first frame (1 + n x 4).
	[2nd FRAME INPUT]	Uses the signal for the corresponding input as the signal for the second frame (2 + n x 4).
	[3rd FRAME INPUT]	Uses the signal for the corresponding input as the signal for the third frame (3 + n x 4).
	[4th FRAME INPUT]	Uses the signal for the corresponding input as the signal for the fourth frame (4 + n x 4).

[SDI IN]

Set this item in accordance with the signal input to the <SDI IN 1>/<SDI IN 2>/<SDI IN 3>/<SDI IN 4> terminal.

Setting [SDI LINK] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SDI LINK].
- 4) Press the <ENTER> button.
 - The [SDI LINK] screen is displayed.
- 5) Press ▲▼ to select the setting.

[AUTO]	Automatically selects the single link, the dual link, or the quad link.
[SINGLE]	Sets each of the SDI1 input, the SDI2 input, the SDI3 input, and the SDI4 input to single link.
[DUAL/SINGLE]	Sets the SDI1 input and the SDI2 input to dual link, and the SDI3 input and the SDI4 input to single link.
[SINGLE/DUAL]	Sets the SDI1 input and the SDI2 input to single link, and the SDI3 input and the SDI4 input to dual link.
[DUAL/DUAL]	Sets the SDI1 input and the SDI2 input to dual link, and the SDI3 input and the SDI4 input to dual link.
[QUAD]	Sets the SDI1 input, the SDI2 input, the SDI3 input, and the SDI4 input to quad link. (Factory default setting)

6) Press the <ENTER> button.

Note

- The single link is a setting to display one image with one input signal. The dual link is a setting to display one image with two input signals. The quad link is a setting to display one image with four input signals.
- [SDI LINK] is fixed to [SINGLE] in the following cases.
 - When [SIMUL INPUT SETTING] is set to anything other than [OFF]
 - When [MULTI DISPLAY] → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display
- The [SDI LINK] setting cannot be changed when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set as the combination used for the SDI input equipped on the projector as standard.
- When [SDI LINK] is set to [AUTO], use the same format for the signal to be input to the <SDI IN 1>/<SDI IN 2>/<SDI IN 3>/<SDI IN 4> terminals. If different format signal is input to even one terminal, currently displayed image may not be projected correctly.
- [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].
- The content set is displayed in [SDI LINK SETTINGS].

Setting [RESOLUTION] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [RESOLUTION], and press the <ENTER> button.
 - The [RESOLUTION] screen is displayed.
- 6) Press ▲▼ to select an item, and press the <ENTER> button.
 - Select [AUTO], [720x480i], [720x576i], [1280x720p], [1920x1035i], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], or [2048x1080sF] when [SINGLE LINK SETTING] is selected.
 - Select [AUTO], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], [2048x1080sF], [3840x2160p], or [4096x2160p] when [DUAL LINK SETTING] is selected.
 - Select [AUTO], [3840x2160p], [3840x2160sF], [4096x2160p], or [4096x2160sF] when [QUAD LINK SETTING] is selected.

Setting [4K DIVISION] in [SDI IN]

Set the transmission method in the 4K division when 4K image is displayed with SDI input.

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [DUAL LINK SETTING] or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [DUAL LINK SETTING] screen or the [QUAD LINK SETTING] screen is displayed.
 - When [DUAL LINK SETTING] is selected, press ▲▼ to select [SDI1-2] or [SDI3-4], and press the <ENTER> button.
- 4) Press ▲▼ to select [4K DIVISION].
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [SQUARE] or [INTERLEAVE].
[SQUARE]	Fixes the transmission method to Square Division.
[INTERLEAVE]	Fixes the transmission method to 2-Sample Interleave Division.

Setting [3G-SDI MAPPING] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [3G-SDI MAPPING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically select [LEVEL A] or [LEVEL B].
[LEVEL A]	Fixes the mapping method to 3G-SDI Level-A.
[LEVEL B]	Fixes the mapping method to 3G-SDI Level-B.

Note

- This function does not operate when the SD-SDI signal or the HD-SDI signal is input.
- [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].

Setting [COLOR SPACE] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [COLOR SPACE].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [RGB], [YP _B P _R], or [XYZ].
[RGB]	Fixes to [RGB].
[YP _B P _R]	Fixes to [YP _B P _R].
[XYZ]	Fixes to [XYZ].

Setting [SAMPLING] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.

- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SAMPLING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [4:4:4] or [4:2:2].
[4:4:4]	Fixes to [4:4:4].
[4:2:2]	Fixes to [4:2:2].

Setting [BIT DEPTH] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [BIT DEPTH].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [12-bit] or [10-bit].
[12-bit]	Fixes to [12-bit].
[10-bit]	Fixes to [10-bit].

Setting [SIGNAL LEVEL] in [SDI IN]

- 1) Press ▲▼ to select [SDI IN].
- 2) Press the <ENTER> button.
 - The [SDI IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - When [QUAD LINK SETTING] is selected, proceed to Step 5).
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], [SDI4], [SDI1-2], or [SDI3-4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen or [DUAL LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SIGNAL LEVEL].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[64-940]	Normally use this setting.
[4-1019]	Select this item when gray is displayed as black.

[DIGITAL LINK IN]

Set this item in accordance with the video signal input to the <DIGITAL LINK/LAN> terminal.

Setting [SIGNAL LEVEL] in [DIGITAL LINK IN]

- 1) Press ▲▼ to select [DIGITAL LINK IN].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK IN] screen is displayed.
- 3) Press ▲▼ to select [SIGNAL LEVEL].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically sets the signal level.
[64-940]	Select this item when the signal output from the HDMI terminal of an external device (Blu-ray disc player, etc.) is input to the <DIGITAL LINK/LAN> terminal via a twisted-pair-cable transmitter.
[0-1023]	Select this item when the signal output from the DVI-D terminal or HDMI terminal of an external device (such as a computer) is input to the <DIGITAL LINK/LAN> terminal via a twisted-pair-cable transmitter.

Note

- The optimal setting varies depending on the output setting of the connected external device. Refer to the operating instructions of the external device regarding the output of the external device.
- The signal level is displayed for 30 bits of input.

Setting [EDID SELECT] in [DIGITAL LINK IN]

- 1) Press ▲▼ to select [DIGITAL LINK IN].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK IN] screen is displayed.
- 3) Press ▲▼ to select [EDID SELECT].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[EDID1:4K/60p]	Switches to EDID corresponding to the 4K video signal (maximum 4 096 x 2 160 dots, maximum vertical scanning frequency 60 Hz).
[EDID2:4K/30p]	Switches to EDID corresponding to the 4K video signal (maximum 4 096 x 2 160 dots, maximum vertical scanning frequency 30 Hz).
[EDID3:2K]	Switches to EDID corresponding to the 2K video signal (maximum 1 920 x 1 200 dots) or lower.

Note

- Switch the setting to [EDID2:4K/30p] when proper image is not projected while [EDID SELECT] is set to [EDID1:4K/60p] and the 4K video signal is input.
- Switch the setting to [EDID3:2K] when proper image is not projected while [EDID SELECT] is set to [EDID1:4K/60p] or [EDID2:4K/30p] and the 2K video signal or lower is input.
- For details of the signal described in EDID of [EDID1:4K/60p], [EDID2:4K/30p], or [EDID3:2K], refer to “List of plug and play compatible signals” (➔ page 220).

Setting [EDID MODE] in [DIGITAL LINK IN]

- 1) Press ▲▼ to select [DIGITAL LINK IN].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK IN] screen is displayed.

- 3) Press ▲▼ to select [EDID MODE].
- 4) Press the <ENTER> button.
 - The [DIGITAL LINK EDID MODE] screen is displayed.
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT]	Standard setting.
[USER]	Sets the [RESOLUTION] and [VERTICAL SCAN FREQUENCY] items as EDID.

- When [DEFAULT] is selected, proceed to Step 10).
- 6) Press the <ENTER> button.
 - The [RESOLUTION] screen is displayed.
 - 7) Press ▲▼◀▶ to select [RESOLUTION].
 - Select [1024x768p], [1280x720p], [1280x768p], [1280x800p], [1280x1024p], [1366x768p], [1400x1050p], [1440x900p], [1600x900p], [1600x1200p], [1680x1050p], [1920x1080p], [1920x1080i], [1920x1200p], [2048x1080p], or [2560x1600p].
 - 8) Press the <ENTER> button.
 - The [VERTICAL SCAN FREQUENCY] screen is displayed.
 - 9) Press ◀▶ to switch [VERTICAL SCAN FREQUENCY].
 - Select [60Hz], [50Hz], [30Hz], [25Hz], or [24Hz] when [2048x1080p] or [1920x1080p] is selected for [RESOLUTION].
 - Select [60Hz], [50Hz], or [48Hz] when [1920x1080i] is selected for [RESOLUTION].
 - Select [60Hz] or [50Hz] when anything other than following is selected for [RESOLUTION].
 - [2048x1080p], [1920x1080p], [1920x1080i]
 - 10) Press the <ENTER> button.
 - The confirmation screen is displayed.
 - 11) Press ◀▶ to select [OK], and press the <ENTER> button.

Note

- The settings in [RESOLUTION] and [VERTICAL SCAN FREQUENCY] are displayed in [EDID STATUS].
- The resolution and vertical scanning frequency settings may also be required on your computer or video device.
- After configuring settings, your computer or video device or the projector may be required to be turned off and on.
- A signal may not be output with the resolution and vertical scanning frequency that have been set, depending on your computer or video device.

[SLOT IN]

Set this item in accordance with the signal input to the input terminal of the installed Interface Board when the optional Interface Board is installed in the slot.

The content that can be set varies depending on the structure of the installed Interface Board. It cannot be set if no Interface Board is installed in the slots.

When the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed

Setting [HDMI LINK] in [SLOT IN] (HDMI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [HDMI LINK], and press the <ENTER> button.
 - The [HDMI LINK] screen is displayed.
- 4) Press ▲▼ to select the setting.

[AUTO]	Automatically selects the single link, the dual link, or the quad link. Selects the quad link when the signal in the same format (such as resolution and timing) is input in the four inputs of HDMI1, HDMI2, HDMI3, and HDMI4. Selects the dual link when the signal in the same format is input in the HDMI1 input and the HDMI2 input, or the HDMI3 input and the HDMI4. Quad link will be automatically selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in both of the slots.
[SINGLE]	Sets the HDMI1 input and the HDMI2 input, and the HDMI3 input and the HDMI4 input to single link. (Factory default setting)
[DUAL] ^{*1}	Sets the HDMI1 input and the HDMI2 input, or the HDMI3 input and the HDMI4 input to dual link.
[DUAL/SINGLE] ^{*2}	Sets the HDMI1 input and the HDMI2 input to dual link, and the HDMI3 input and the HDMI4 input to single link.
[SINGLE/DUAL] ^{*2}	Sets the HDMI1 input and the HDMI2 input to single link, and the HDMI3 input and the HDMI4 input to dual link.
[DUAL/DUAL] ^{*2}	Sets the HDMI1 input and the HDMI2 input to dual link, and the HDMI3 input and the HDMI4 input to dual link.
[QUAD] ^{*2}	Sets the HDMI1 input, the HDMI2 input, the HDMI3 input, and the HDMI4 input to quad link.

*1 This can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in either of the slots.

*2 This can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in both of the slots.

5) Press the <ENTER> button.

Note

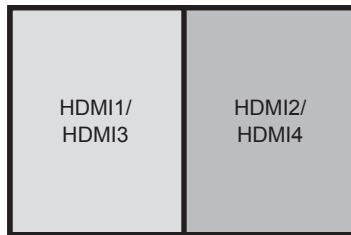
- [HDMI LINK] is fixed to [SINGLE] in the following cases.
 - When [SIMUL INPUT SETTING] is set to anything other than [OFF]
 - When the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display
- The [HDMI LINK] setting cannot be changed when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set as the combination used for the HDMI input of the Interface Board.
- The content set is displayed in [HDMI LINK SETTINGS].

■ Structure of the projected image

The single link is a setting to display one image with one input signal. The dual link is a setting to display one image with two input signals. The quad link is a setting to display one image with four input signals.



Single link



Dual link



Quad link

Setting [SIGNAL LEVEL] in [SLOT IN] (HDMI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
- 4) Press ▲▼ to select [SIGNAL LEVEL].
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically sets the signal level.
[64-940]	Select this item when the HDMI terminal output of the external device (such as Blu-ray disc player) is input to the <HDMI IN 1> terminal, the <HDMI IN 2> terminal, the <HDMI IN 3> terminal, or the <HDMI IN 4> terminal.

[0-1023]	Select this item when the DVI-D terminal output from the external device (such as computer) is input to the <HDMI IN 1> terminal, the <HDMI IN 2> terminal, the <HDMI IN 3> terminal, or the <HDMI IN 4> terminal via a conversion cable, etc. This is the same when the HDMI terminal output from a device such as a computer is input to the <HDMI IN 1> terminal, the <HDMI IN 2> terminal, the <HDMI IN 3> terminal, and the <HDMI IN 4> terminal.
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Note

- The optimal setting varies depending on the output setting of the connected external device. Refer to the operating instructions of the external device regarding the output of the external device.
- The HDMI signal level is displayed for 30 bits of input.

Setting [EDID SELECT] in [SLOT IN] (HDMI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [EDID SETTING], and press the <ENTER> button.
 - The [EDID SETTING] screen is displayed.
- 4) Press ▲▼ to select [EDID SELECT].
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[EDID1:4K/60p]	Switches to EDID corresponding to the 4K video signal (maximum 4 096 x 2 160 dots, maximum vertical scanning frequency 60 Hz).
[EDID2:4K/30p]	Switches to EDID corresponding to the 4K video signal (maximum 4 096 x 2 160 dots, maximum vertical scanning frequency 30 Hz).
[EDID3:2K]	Switches to EDID corresponding to the 2K video signal (maximum 1 920 x 1 200 dots) or lower.

Note

- Switch the setting to [EDID2:4K/30p] when proper image is not projected while [EDID SELECT] is set to [EDID1:4K/60p] and the 4K video signal is input.
- Switch the setting to [EDID3:2K] when proper image is not projected while [EDID SELECT] is set to [EDID1:4K/60p] or [EDID2:4K/30p] and the 2K video signal or lower is input.
- For details of the signal described in EDID of [EDID1:4K/60p], [EDID2:4K/30p], or [EDID3:2K], refer to “List of plug and play compatible signals” (➔ page 220).

Setting [EDID MODE] in [SLOT IN] (HDMI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [EDID SETTING], and press the <ENTER> button.
 - The [EDID SETTING] screen is displayed.
- 4) Press ▲▼ to select [EDID MODE].
- 5) Press the <ENTER> button.
 - The [HDMI EDID MODE] screen is displayed.
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT]	Standard setting.
[USER]	Set the [RESOLUTION] and [VERTICAL SCAN FREQUENCY] items as EDID.

- When [DEFAULT] is selected, proceed to Step 11).

- 7) Press the <ENTER> button.
 - The [RESOLUTION] screen is displayed.
- 8) Press ▲▼◀▶ to select [RESOLUTION].
 - Select [1024x768p], [1280x720p], [1280x768p], [1280x800p], [1280x1024p], [1366x768p], [1400x1050p], [1440x900p], [1600x900p], [1600x1200p], [1680x1050p], [1920x1080p], [1920x1080i], [1920x1200p], [1920x2160p], [2048x1080p], [2048x2160p], or [2560x1600p].
- 9) Press the <ENTER> button.
 - The [VERTICAL SCAN FREQUENCY] screen is displayed.
- 10) Press ◀▶ to select [VERTICAL SCAN FREQUENCY].
 - Select [60Hz], [50Hz], [30Hz], [25Hz], or [24Hz] when [2048x2160p], [2048x1080p], [1920x2160p], or [1920x1080p] is selected for [RESOLUTION].
 - Select [60Hz], [50Hz], or [48Hz] when [1920x1080i] is selected for [RESOLUTION].
 - Select [60Hz] or [50Hz] when anything other than following is selected for [RESOLUTION].
 - [2048x2160p], [2048x1080p], [1920x2160p], [1920x1080p], [1920x1080i]
- 11) Press the <ENTER> button.
 - The confirmation screen is displayed.
- 12) Press ◀▶ to select [OK], and press the <ENTER> button.

Note

- The settings in [RESOLUTION] and [VERTICAL SCAN FREQUENCY] are displayed in [EDID STATUS].
- The resolution and vertical scanning frequency settings may also be required on your computer or video device.
- After configuring settings, your computer or video device or the projector may be required to be turned off and on.
- A signal may not be output with the resolution and vertical scanning frequency that have been set, depending on your computer or video device.

When the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed

Setting [DVI-D LINK] in [SLOT IN] (DVI-D input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [DVI-D LINK], and press the <ENTER> button.
 - The [DVI-D LINK] screen is displayed.
- 4) Press ▲▼ to select the setting.

[AUTO]	Automatically selects the single link, the dual link, or the quad link. Selects the quad link when the signal in the same format (such as resolution and timing) is input in the four inputs of DVI-D1, DVI-D2, DVI-D3, and DVI-D4. Selects the dual link when the signal in the same format is input in the DVI-D1 input and the DVI-D2 input, or the DVI-D3 input and the DVI-D4. Quad link will be automatically selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in both of the slots.
[SINGLE]	Sets the DVI-D1 input and the DVI-D2 input, and the DVI-D3 input and the DVI-D4 input to single link. (Factory default setting)
[DUAL] ^{*1}	Sets the DVI-D1 input and the DVI-D2 input, or the DVI-D3 input and the DVI-D4 input to dual link.
[DUAL/SINGLE] ^{*2}	Sets the DVI-D1 input and the DVI-D2 input to dual link, and the DVI-D3 input and the DVI-D4 input to single link.
[SINGLE/DUAL] ^{*2}	Sets the DVI-D1 input and the DVI-D2 input to single link, and the DVI-D3 input and the DVI-D4 input to dual link.
[DUAL/DUAL] ^{*2}	Sets the DVI-D1 input and the DVI-D2 input to dual link, and the DVI-D3 input and the DVI-D4 input to dual link.
[QUAD] ^{*2}	Sets the DVI-D1 input, the DVI-D2 input, the DVI-D3 input, and the DVI-D4 input to quad link.

*1 This can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in either of the slots.

*2 This can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in both of the slots.

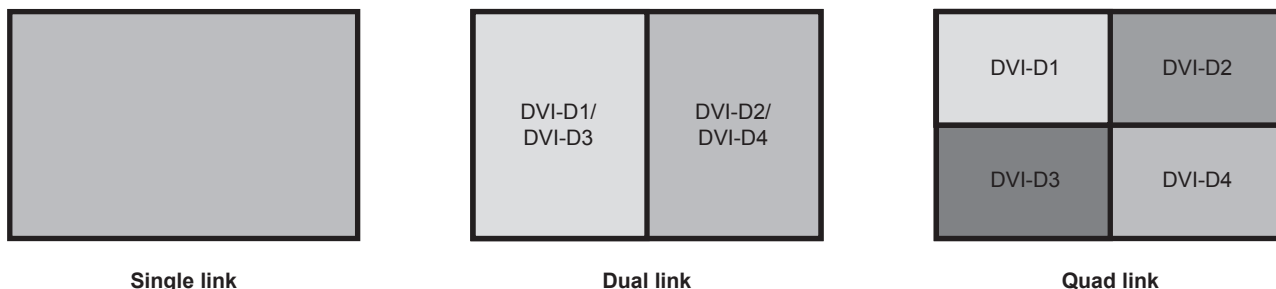
- 5) Press the <ENTER> button.

Note

- [DVI-D LINK] is fixed to [SINGLE] in the following cases.
 - When [SIMUL INPUT SETTING] is set to anything other than [OFF]
 - When the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display
- The [DVI-D LINK] setting cannot be changed when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set as the combination used for the DVI-D input of the Interface Board.
- The content set is displayed in [DVI-D LINK SETTINGS].

■ Structure of the projected image

The single link is a setting to display one image with one input signal. The dual link is a setting to display one image with two input signals. The quad link is a setting to display one image with four input signals.



Setting [SIGNAL LEVEL] in [SLOT IN] (DVI-D input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
- 4) Press ▲▼ to select [SIGNAL LEVEL].
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically sets the signal level.
[0-255:PC]	Select this item when the DVI-D terminal output of the external device (such as computer) is input to the <DVI-D IN 1> terminal, the <DVI-D IN 2> terminal, the <DVI-D IN 3> terminal, or the <DVI-D IN 4> terminal.
[16-235]	Select this item when the HDMI terminal output from the external device (such as Blu-ray disc player) is input to the <DVI-D IN 1> terminal, the <DVI-D IN 2> terminal, the <DVI-D IN 3> terminal, or the <DVI-D IN 4> terminal via a conversion cable, etc.

Note

- The optimal setting varies depending on the output setting of the connected external device. Refer to the operating instructions of the external device regarding the output of the external device.

Setting [EDID SELECT] in [SLOT IN] (DVI-D input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [EDID SETTING], and press the <ENTER> button.
 - The [EDID SETTING] screen is displayed.
- 4) Press ▲▼ to select [EDID SELECT].

5) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[EDID3]	Recognizes moving image signals and still image signals automatically.
[EDID1]	Select this item mainly when the external device (such as Blu-ray disc player) which outputs the moving image signal is connected to the <DVI-D IN 1> terminal, the <DVI-D IN 2> terminal, the <DVI-D IN 3> terminal, or the <DVI-D IN 4> terminal.
[EDID2:PC]	Select this item mainly when the external device (such as computer) which outputs the still image signal is connected to the <DVI-D IN 1> terminal, the <DVI-D IN 2> terminal, the <DVI-D IN 3> terminal, or the <DVI-D IN 4> terminal.

Note

- The data for Plug and play will change when the setting is changed. Refer to “List of compatible signals” (▶ page 217) for a resolution that supports plug and play.

Setting [EDID MODE] in [SLOT IN] (DVI-D input)

1) Press ▲▼ to select [SLOT IN].

2) Press the <ENTER> button.

- The [SLOT IN] screen is displayed.

3) Press ▲▼ to select [EDID SETTING], and press the <ENTER> button.

- The [EDID SETTING] screen is displayed.

4) Press ▲▼ to select [EDID MODE].

5) Press the <ENTER> button.

- The [DVI-D EDID MODE] screen is displayed.

6) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[DEFAULT]	Standard setting.
[USER]	Set the [RESOLUTION] and [VERTICAL SCAN FREQUENCY] items as EDID.

- When [DEFAULT] is selected, proceed to Step 11).

7) Press the <ENTER> button.

- The [RESOLUTION] screen is displayed.

8) Press ▲▼◀▶ to select [RESOLUTION].

- Select [1024x768p], [1280x720p], [1280x768p], [1280x800p], [1280x1024p], [1366x768p], [1400x1050p], [1440x900p], [1600x900p], [1600x1200p], [1680x1050p], [1920x1080p], [1920x1080i], [1920x1200p], [1920x2160p], [2048x1080p], or [2048x2160p].

9) Press the <ENTER> button.

- The [VERTICAL SCAN FREQUENCY] screen is displayed.

10) Press ◀▶ to select [VERTICAL SCAN FREQUENCY].

- Select [30Hz], [25Hz], or [24Hz] when [2048x2160p] or [1920x2160p] is selected for [RESOLUTION].
- Select [60Hz], [50Hz], [30Hz], [25Hz], or [24Hz] when [2048x1080p] or [1920x1080p] is selected for [RESOLUTION].
- Select [60Hz], [50Hz], or [48Hz] when [1920x1080i] is selected for [RESOLUTION].
- Select [60Hz] or [50Hz] when anything other than following is selected for [RESOLUTION].
 - [2048x2160p], [1920x2160p], [2048x1080p], [1920x1080p], [1920x1080i]

11) Press the <ENTER> button.

- The confirmation screen is displayed.

12) Press ◀▶ to select [OK], and press the <ENTER> button.

Note

- The settings in [RESOLUTION] and [VERTICAL SCAN FREQUENCY] are displayed in [EDID STATUS].

- The resolution and vertical scanning frequency settings may also be required on your computer or video device.
- After configuring settings, your computer or video device or the projector may be required to be turned off and on.
- A signal may not be output with the resolution and vertical scanning frequency that have been set, depending on your computer or video device.

When the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed

To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00.

For details on how to confirm the firmware version, refer to “How to confirm the firmware version of the 3G-SDI Terminal Board with Audio” (➔ page 31).

Setting [SDI LINK] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SDI LINK], and press the <ENTER> button.
 - The [SDI LINK] screen is displayed.
- 4) Press ▲▼ to select the setting.

[AUTO]	Automatically selects the single link, the dual link, or the quad link. Quad link will be automatically selected when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in both of the slots.
[SINGLE]	Sets the SDI1 input and the SDI2 input, and the SDI3 input and the SDI4 input of the Interface Board to single link. (Factory default setting)
[DUAL] ^{*1}	Sets the SDI1 input and the SDI2 input, or the SDI3 input and the SDI4 input of the Interface Board to dual link.
[DUAL/SINGLE] ^{*2}	Sets the SDI1 input and the SDI2 input of the Interface Board to dual link, and the SDI3 input and the SDI4 input of the Interface Board to single link.
[SINGLE/DUAL] ^{*2}	Sets the SDI1 input and the SDI2 input of the Interface Board to single link, and the SDI3 input and the SDI4 input of the Interface Board to dual link.
[DUAL/DUAL] ^{*2}	Sets the SDI1 input and the SDI2 input of the Interface Board to dual link, and the SDI3 input and the SDI4 input of the Interface Board to dual link.
[QUAD] ^{*2}	Sets the SDI1 input, the SDI2 input, the SDI3 input, and the SDI4 input of the Interface Board to quad link.

*1 This can be selected when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in either of the slots.

*2 This can be selected when the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed in both of the slots.

- 5) Press the <ENTER> button.

Note

- The single link is a setting to display one image with one input signal. The dual link is a setting to display one image with two input signals. The quad link is a setting to display one image with four input signals.
- [SDI LINK] is fixed to [SINGLE] in the following cases.
 - When [SIMUL INPUT SETTING] is set to anything other than [OFF]
 - When the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display
- The [SDI LINK] setting cannot be changed when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set as the combination used for the SDI input of the Interface Board.
- When [SDI LINK] is set to [AUTO], use the same format for the signal to be input to the <3G-SDI 1 IN>/<3G-SDI 2 IN>/<3G-SDI 3 IN>/<3G-SDI 4 IN> terminals. If different format signal is input to even one terminal, currently displayed image may not be projected correctly.
- [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].
- The content set is displayed in [SDI LINK SETTINGS].

Setting [RESOLUTION] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.

- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [RESOLUTION], and press the <ENTER> button.
 - The [RESOLUTION] screen is displayed.
- 6) Press ▲▼ to select an item, and press the <ENTER> button.
 - Select [AUTO], [720x480i], [720x576i], [1280x720p], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], or [2048x1080sF] when [SINGLE LINK SETTING] is selected.
 - Select [AUTO], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], [2048x1080sF], [3840x2160p], or [4096x2160p] when [DUAL LINK SETTING] is selected.
 - Select [AUTO], [3840x2160p], [3840x2160sF], [4096x2160p], or [4096x2160sF] when [QUAD LINK SETTING] is selected.

Setting [4K DIVISION] in [SLOT IN] (SDI input)

Set the transmission method in the 4K division when 4K image is displayed with SDI input.

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [DUAL LINK SETTING] or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [DUAL LINK SETTING] screen or the [QUAD LINK SETTING] screen is displayed.
- 4) Press ▲▼ to select [4K DIVISION].
- 5) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [SQUARE] or [INTERLEAVE].
[SQUARE]	Fixes the transmission method to Square Division.
[INTERLEAVE]	Fixes the transmission method to 2-Sample Interleave Division.

Setting [3G-SDI MAPPING] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [3G-SDI MAPPING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [LEVEL A] or [LEVEL B].
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[LEVEL A]	Fixes the mapping method to 3G-SDI Level-A.
[LEVEL B]	Fixes the mapping method to 3G-SDI Level-B.

Note

- This function does not operate when the SD-SDI signal or the HD-SDI signal is input.
- [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].

Setting [COLOR SPACE] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [COLOR SPACE].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [RGB] or [YP _B P _R].
[RGB]	Fixes to [RGB].
[YP _B P _R]	Fixes to [YP _B P _R].

Setting [SAMPLING] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SAMPLING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [4:4:4] or [4:2:2].
[4:4:4]	Fixes to [4:4:4].
[4:2:2]	Fixes to [4:2:2].

Setting [BIT DEPTH] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].

- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [BIT DEPTH].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically select [12-bit] or [10-bit].
[12-bit]	Fixes to [12-bit].
[10-bit]	Fixes to [10-bit].

Setting [SIGNAL LEVEL] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SIGNAL LEVEL].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[64-940]	Normally use this setting.
[4-1019]	Select this item when gray is displayed as black.

When the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed

Setting [SDI MODE] in [SLOT IN] (SDI input)

Switch input/output of the <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal.

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SDI MODE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[INPUT]	Select this item when using the <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal as SDI2 input and SDI4 input.
---------	---

[OUTPUT]	Select this item when the signal input to the <SDI 1 IN> terminal is output from the <SDI 2 IN/1 OUT> terminal, and the signal input to the <SDI 3 IN> terminal is output from the <SDI 4 IN/3 OUT> terminal.
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Note

- The <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal do not support the input of the 6G-SDI signal or the 12G-SDI signal.
- The <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal support the output of the SD-SDI signal, HD-SDI signal, 3G-SDI signal, 6G-SDI signal, and 12G-SDI signal.
- When the projector is in standby mode, a signal is not output from the <SDI 2 IN/1 OUT> terminal and the <SDI 4 IN/3 OUT> terminal.

Setting [SDI LINK] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SDI LINK], and press the <ENTER> button.
 - The [SDI LINK] screen is displayed.
- 4) Press ▲▼ to select an item.

[AUTO]	Automatically selects the single link, the dual link, or the quad link.
[SINGLE]	Sets the SDI1 input, the SDI2 input, the SDI3 input, and the SDI4 input of the Interface Board to single link. (Factory default setting)
[DUAL]	Sets the SDI1 input and the SDI3 input of the Interface Board to dual link.
[QUAD]	Sets the SDI1 input, the SDI2 input, the SDI3 input, and the SDI4 input of the Interface Board to quad link.

- 5) Press the <ENTER> button.

Note

- The single link is a setting to display one image with one input signal. The dual link is a setting to display one image with two input signals. The quad link is a setting to display one image with four input signals.
- [SDI LINK] is fixed to [SINGLE] in the following cases.
 - When [SIMUL INPUT SETTING] is set to anything other than [OFF]
 - When the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] is set to anything other than [OFF] and displaying the four-screen display
- The [SDI LINK] setting cannot be changed when [BACKUP INPUT MODE] in [BACKUP INPUT SETTING] is set as the combination used for the SDI input of the Interface Board.
- When [SDI LINK] is set to [AUTO], use the same format for the signal to be input to the <SDI 1 IN>/<SDI 2 IN/1 OUT>/<SDI 3 IN>/<SDI 4 IN/3 OUT> terminals. If different format signal is input to even one terminal, currently displayed image may not be projected correctly.
- [SDI MAPPING] and [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].
- The content set is displayed in [SDI LINK SETTINGS].

Setting [RESOLUTION] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [RESOLUTION], and press the <ENTER> button.
 - The [RESOLUTION] screen is displayed.

6) Press ▲▼ to select an item, and press the <ENTER> button.

- Select [AUTO], [720x480i], [720x576i], [1280x720p], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], [3840x2160p], or [4096x2160p] when SDI1 input or SDI3 input is selected for [SINGLE LINK SETTING].
- Select [AUTO], [720x480i], [720x576i], [1280x720p], [1920x1080i], [1920x1080p], [1920x1080sF], or [2048x1080p] when SDI2 input or SDI4 input is selected for [SINGLE LINK SETTING].
- Select [AUTO], [1920x1080i], [1920x1080p], [1920x1080sF], [2048x1080p], [3840x2160p], or [4096x2160p] when [DUAL LINK SETTING] is selected.
- Select [AUTO], [3840x2160p], [3840x2160sF], or [4096x2160p] when [QUAD LINK SETTING] is selected.

Setting [4K DIVISION] in [SLOT IN] (SDI input)

Set the transmission method in the 4K division when 4K image is displayed with SDI input.

1) Press ▲▼ to select [SLOT IN].

2) Press the <ENTER> button.

- The [SLOT IN] screen is displayed.

3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.

- The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
- Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.

4) Press ▲▼ to select [SDI1] or [SDI3], and press the <ENTER> button.

- The [SINGLE LINK SETTING] screen for the selected item is displayed.

5) Press ▲▼ to select [4K DIVISION].

6) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[AUTO]	Automatically selects [SQUARE] or [INTERLEAVE].
[SQUARE]	Fixes the transmission method to Square Division.
[INTERLEAVE]	Fixes the transmission method to 2-Sample Interleave Division.

Setting [SDI MAPPING] in [SLOT IN] (SDI input)

Set the mapping method for the SDI1 input and the SDI3 input.

1) Press ▲▼ to select [SLOT IN].

2) Press the <ENTER> button.

- The [SLOT IN] screen is displayed.

3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.

- The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
- Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.

4) Press ▲▼ to select [SDI1] or [SDI3], and press the <ENTER> button.

- The [SINGLE LINK SETTING] screen for the selected item is displayed.

5) Press ▲▼ to select [SDI MAPPING].

6) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[AUTO]	Automatically selects [TYPE1/LEVEL A] or [TYPE2/LEVEL B].
[TYPE1/LEVEL A]	Fixes the mapping method to Type 1 or Level-A.
[TYPE2/LEVEL B]	Fixes the mapping method to Type 2 or Level-B.

Note

- This function does not operate when the SD-SDI signal or the HD-SDI signal is input.
- [SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].

Setting [3G-SDI MAPPING] in [SLOT IN] (SDI input)

Set the mapping method for the SDI2 input and the SDI4 input.

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI2] or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [3G-SDI MAPPING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [LEVEL A] or [LEVEL B].
[LEVEL A]	Fixes the mapping method to 3G-SDI Level-A.
[LEVEL B]	Fixes the mapping method to 3G-SDI Level-B.

Note

- This function does not operate when the SD-SDI signal or the HD-SDI signal is input.
- [3G-SDI MAPPING] cannot be set when [SDI LINK] is set to [AUTO].

Setting [COLOR SPACE] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [COLOR SPACE].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [RGB], [YP _B P _R], or [XYZ].
[RGB]	Fixes to [RGB].
[YP _B P _R]	Fixes to [YP _B P _R].
[XYZ]	Fixes to [XYZ].

Setting [SAMPLING] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SAMPLING].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [4:4:4] or [4:2:2].
[4:4:4]	Fixes to [4:4:4].
[4:2:2]	Fixes to [4:2:2].

Setting [BIT DEPTH] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.
- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [BIT DEPTH].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Automatically selects [12-bit] or [10-bit].
[12-bit]	Fixes to [12-bit].
[10-bit]	Fixes to [10-bit].

Setting [SIGNAL LEVEL] in [SLOT IN] (SDI input)

- 1) Press ▲▼ to select [SLOT IN].
- 2) Press the <ENTER> button.
 - The [SLOT IN] screen is displayed.
- 3) Press ▲▼ to select [SINGLE LINK SETTING], [DUAL LINK SETTING], or [QUAD LINK SETTING], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen, the [DUAL LINK SETTING] screen, or the [QUAD LINK SETTING] screen is displayed.
 - Proceed to Step 5) when [DUAL LINK SETTING] or [QUAD LINK SETTING] is selected.

- 4) Press ▲▼ to select [SDI1], [SDI2], [SDI3], or [SDI4], and press the <ENTER> button.
 - The [SINGLE LINK SETTING] screen for the selected item is displayed.
- 5) Press ▲▼ to select [SIGNAL LEVEL].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[64-940]	Normally use this setting.
[4-1019]	Select this item when gray is displayed as black.

[FRAME SYNC SETTING]

Set if the frames are to be synchronized between the multiple projectors.

Frames of the projected images can be synchronized by linking multiple projectors using the <FRAME SYNC 1 IN/OUT> terminal and the <FRAME SYNC 2 OUT> terminal. A combined screen with a balanced contrast can be displayed by sharing the brightness level of the video signal input to each projector when a multi-display is constructed by linking the projected images of multiple projectors.

For details of how to connect the projectors, refer to “Connection example when multiple projected images are to be synchronized” (➔ page 52).

- 1) Press ▲▼ to select [FRAME SYNC SETTING].
- 2) Press the <ENTER> button.
 - The [FRAME SYNC SETTING] screen is displayed.
- 3) Press ▲▼ to select [FRAME SYNC].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Select this item when the frames are not to be synchronized.
[MASTER]	Select this item when the frames are to be synchronized. Set this item in the one projector that is to be the synchronization source.
[SLAVE]	Select this item when the frames are to be synchronized. Set this item in all the projectors that are to be the synchronization target.

- When anything other than [OFF] is selected, proceed to Step 5).
The usage of the <FRAME SYNC 1 IN/OUT> terminal and the <FRAME SYNC 2 OUT> terminal is displayed in [FRAME SYNC1] and [FRAME SYNC2] in the [FRAME SYNC SETTING] screen.
The contents that are displayed are as follows.

[FRAME SYNC]	[FRAME SYNC1]	[FRAME SYNC2]
[MASTER]	[OUTPUT] is displayed. The <FRAME SYNC 1 IN/OUT> terminal will operate as an output terminal. Connect to the <FRAME SYNC 1 IN/OUT> terminal of the projector that is to be the synchronization target.	[OUTPUT] is displayed. The <FRAME SYNC 2 OUT> terminal will operate as an output terminal. Connect to the <FRAME SYNC 1 IN/OUT> terminal of the projector that is to be the synchronization target.
[SLAVE]	[INPUT] is displayed. The <FRAME SYNC 1 IN/OUT> terminal will operate as an input terminal.	[OUTPUT] is displayed. The <FRAME SYNC 2 OUT> terminal will operate as an output terminal.

- 5) Press ▲▼ to select [CONTRAST SYNC].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Select this item when the contrast is not balanced in the combined screen.
[ON]	Select this item when the contrast is balanced in the combined screen. The synchronization source projector with [FRAME SYNC] set to [MASTER] will calculate the brightness level of the video signal to become optimum on the whole combined screen for every frame. All the projectors targeted to link will control the dynamic contrast function based on the calculation result.

- When [ON] is selected, the usage of the <FRAME SYNC 1 IN/OUT> terminal displayed in [FRAME SYNC1] is switched.

The contents that are displayed are as follows.

[FRAME SYNC]	[FRAME SYNC1]	[FRAME SYNC2]
[MASTER]	[INPUT] is displayed. The <FRAME SYNC 1 IN/OUT> terminal will operate as an input terminal. Connect to the <FRAME SYNC 2 OUT> terminal of the last projector.	[OUTPUT] is displayed. The <FRAME SYNC 2 OUT> terminal will operate as an output terminal. Connect to the <FRAME SYNC 1 IN/OUT> terminal of the first projector that is to be the synchronization target.
[SLAVE]	[INPUT] is displayed. The <FRAME SYNC 1 IN/OUT> terminal will operate as an input terminal.	[OUTPUT] is displayed. The <FRAME SYNC 2 OUT> terminal will operate as an output terminal.

- When [ON] is selected, the diagnosis result if the target projector is correctly connected is displayed in [STATUS].

[ACTIVE]	The target projector is correctly connected and the [CONTRAST SYNC] function is operating.
[INACTIVE]	The [CONTRAST SYNC] function is stopped. Confirm the setting of each linked projector and the connection of the cable.

Note

- The [CONTRAST SYNC] function will operate when all of the following conditions are fulfilled.
 - [FRAME SYNC] is set to [MASTER] on only the one projector to be linked, and it is set to [SLAVE] on all other projectors.
 - [CONTRAST SYNC] is set to [ON] on all the projectors to be linked.
 - All the projectors to be linked are connected in a loop with the daisy chain connection. (Maximum 64 projectors)

[ON-SCREEN DISPLAY]

Set the on-screen display.

Setting [OSD POSITION]

Set the position of the menu screen (OSD).

- 1) Press ▲▼ to select [ON-SCREEN DISPLAY].
- 2) Press the <ENTER> button.
 - The [ON-SCREEN DISPLAY] screen is displayed.
- 3) Press ▲▼ to select [OSD POSITION].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[2]	Sets to the center left of the screen.
[3]	Sets to the bottom left of the screen.
[4]	Sets to the top center of the screen.
[5]	Sets to the center of the screen.
[6]	Sets to the bottom center of the screen.
[7]	Sets to the upper right of the screen.
[8]	Sets to the center right of the screen.
[9]	Sets to the bottom right of the screen.
[1]	Sets to the upper left of the screen.

Setting [OSD SIZE]

Set the display size of the menu screen (OSD).

- 1) Press ▲▼ to select [ON-SCREEN DISPLAY].
- 2) Press the <ENTER> button.
 - The [ON-SCREEN DISPLAY] screen is displayed.
- 3) Press ▲▼ to select [OSD SIZE].

4) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[NORMAL]	Does not enlarge the text size.
[DOUBLE]	Displays the menu screen with the text size enlarged to double size.

Note

- [OSD SIZE] cannot be set when the [ADVANCED MENU] menu → [QUAD PIXEL DRIVE] (➔ page 99) is set to [ON]. The menu screen with the text size enlarged to double size is displayed.
- [OSD SIZE] cannot be set when [SIMUL INPUT SETTING] (➔ page 106) is set to [AUTO(x2-speed)] or [AUTO(x4-speed)] and displaying the image in simultaneous format.

Setting [OSD ROTATION]

Set the orientation of the menu screen (OSD).

1) Press ▲▼ to select [ON-SCREEN DISPLAY].

2) Press the <ENTER> button.

- The [ON-SCREEN DISPLAY] screen is displayed.

3) Press ▲▼ to select [OSD ROTATION].

4) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Does not rotate the screen.
[CLOCKWISE]	Rotates the screen by 90° clockwise.
[COUNTERCLOCKWISE]	Rotates the screen by 90° counterclockwise.

Setting [OSD DESIGN]

Set the color of the menu screen (OSD).

1) Press ▲▼ to select [ON-SCREEN DISPLAY].

2) Press the <ENTER> button.

- The [ON-SCREEN DISPLAY] screen is displayed.

3) Press ▲▼ to select [OSD DESIGN].

4) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[1]	Sets to yellow.
[2]	Sets to blue.
[3]	Sets to white.
[4]	Sets to green.
[5]	Sets to peach.
[6]	Sets to brown.

Setting [OSD MEMORY]

Set hold for the position of the menu screen (OSD) cursor.

1) Press ▲▼ to select [ON-SCREEN DISPLAY].

2) Press the <ENTER> button.

- The [ON-SCREEN DISPLAY] screen is displayed.

3) Press ▲▼ to select [OSD MEMORY].

4) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[ON]	Holds the cursor position.
[OFF]	Does not hold the cursor position.

Note

- The cursor position is not maintained even if [OSD MEMORY] is set to [ON].

Setting [INPUT GUIDE]

Set whether to display the input guide in the position set in [OSD POSITION].

The input guide is the screen to display the information such as currently selected input terminal name, signal name, memory number display, [BACKUP INPUT STATUS], and input terminal and signal structuring the [MULTI DISPLAY].

- 1) Press ▲▼ to select [ON-SCREEN DISPLAY].
- 2) Press the <ENTER> button.
 - The [ON-SCREEN DISPLAY] screen is displayed.
- 3) Press ▲▼ to select [INPUT GUIDE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[ON]	Displays the input guide.
[OFF]	Hides the input guide.

Setting [WARNING MESSAGE]

Set the display/hide of the warning message.

- 1) Press ▲▼ to select [ON-SCREEN DISPLAY].
- 2) Press the <ENTER> button.
 - The [ON-SCREEN DISPLAY] screen is displayed.
- 3) Press ▲▼ to select [WARNING MESSAGE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[ON]	Displays the warning message.
[OFF]	Hides the warning message.

Note

- When [WARNING MESSAGE] is set to [OFF], the warning message will not be displayed on the projected image even if a warning status such as [TEMPERATURE WARNING] or [CLEAN THE AIR FILTER] is detected. Also, the following countdown message is not displayed: the message until the power is turned off after the no signal lights-out function is executed; the message until the light source is turned off after the no signal lights-out function is executed

[BACK COLOR]

Set the display of the projected screen when there is no signal input.

- 1) Press ▲▼ to select [BACK COLOR].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[BLUE]	Displays the entire projection area in blue.
[BLACK]	Displays the entire projection area in black.
[DEFAULT LOGO]	Displays the Panasonic logo.
[USER LOGO]	Displays the image registered by the user.

Note

- To create/register the [USER LOGO] image, use "Logo Transfer Software" included in the supplied CD-ROM.

[STARTUP LOGO]

Set the logo display when the power is turned on.

- 1) Press ▲▼ to select [STARTUP LOGO].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[DEFAULT LOGO]	Displays the Panasonic logo.
[USER LOGO]	Displays the image registered by the user.
[NONE]	Disables the startup logo display.

Note

- When [USER LOGO] is selected, the display of the startup logo will be kept for approximately 15 seconds.
- To create/register the [USER LOGO] image, use "Logo Transfer Software" included in the supplied CD-ROM.

[UNIFORMITY]

Correct the brightness and color unevenness of the entire screen.

Setting each color

- 1) Press ▲▼ to select [UNIFORMITY].
- 2) Press the <ENTER> button.
 - The [UNIFORMITY] screen is displayed.
- 3) Press ▲▼ to select [WHITE], [RED], [GREEN], or [BLUE].
- 4) Press ◀▶ to adjust the level.

Item	Operation	Adjustment	Range of adjustment
[VERTICAL]	Press ▶.	The lower-side color becomes pale, or the upper-side color becomes dark.	-127 - +127
	Press ◀.	The upper-side color becomes pale, or the lower-side color becomes dark.	
[HORIZONTAL]	Press ▶.	The left-side color becomes pale, or the right-side color becomes dark.	
	Press ◀.	The right-side color becomes pale, or the left-side color becomes dark.	

Setting [PC CORRECTION]

To use the [PC CORRECTION] function, the optional Upgrade Kit (Model No.: ET-UK20) is required. To purchase the product, consult your dealer.

- 1) Press ▲▼ to select [UNIFORMITY].
- 2) Press the <ENTER> button.
 - The [UNIFORMITY] screen is displayed.
- 3) Press ▲▼ to select [PC CORRECTION].
- 4) Press ◀▶ to switch the item.

[OFF]	Does not perform correction using a computer.
[ON]*1	Performs correction for the brightness and color unevenness of the entire screen using a computer.

*1 Advanced skills are necessary to use computer control correction. Consult your dealer.

Note

- The [UNIFORMITY] setting value will not return to factory default even if [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE] (➔ page 155).

[SHUTTER SETTING]

Set the image fade-in and fade-out when the shutter function operates. You can also configure the setting to automatically enable/disable the shutter (shutter: close/open) when the power is turned off/on, and to use the mechanical shutter or not.

Setting [MECHANICAL SHUTTER]

- 1) Press ▲▼ to select [SHUTTER SETTING].
- 2) Press the <ENTER> button.
 - The [SHUTTER SETTING] screen is displayed.
- 3) Press ▲▼ to select [MECHANICAL SHUTTER].
- 4) Press ◀▶ to switch the item.

[ENABLE]	Turns off the light source and closes the mechanical shutter when the shutter function is enabled (shutter: closed).
[DISABLE]	Leaves the mechanical shutter open and turns off only the light source when the shutter function is enabled (shutter: closed).

Note

- By closing the mechanical shutter, the malfunction of the DLP chip caused by high power laser ray entering the projection lens surface can be prevented. To close the mechanical shutter, set [MECHANICAL SHUTTER] to [ENABLE] and then set the shutter function to be enabled (shutter: closed).
- When [MECHANICAL SHUTTER] is set to [ENABLE], it will take approximately 0.5 seconds from when the shutter function is enabled (shutter: closed) to the shutter function is disabled (shutter: opened).
- When [MECHANICAL SHUTTER] is set to [DISABLE], and the shutter function is used at the environment temperature of around 0 °C (32 °F), the light source may light up dimly due to warm-up.

Setting [FADE-IN] or [FADE-OUT]

- 1) Press ▲▼ to select [SHUTTER SETTING].
- 2) Press the <ENTER> button.
 - The [SHUTTER SETTING] screen is displayed.
- 3) Press ▲▼ to select [FADE-IN] or [FADE-OUT].
- 4) Press ◀▶ to switch the item.

Item		Adjustment
[FADE-IN] [FADE-OUT]	[OFF]	Does not set fade-in or fade-out.
	[0.5s] - [10.0s]	Sets the fade-in or fade-out time. Select an item from [0.5s] - [4.0s], [5.0s], [7.0s], or [10.0s]. [0.5s] - [4.0s] can be selected in increments of 0.5.

Note

- Press the <SHUTTER> button on the remote control or the control panel during fade-in or fade-out to cancel the fade operation.

Setting [STARTUP]

- 1) Press ▲▼ to select [SHUTTER SETTING].
- 2) Press the <ENTER> button.
 - The [SHUTTER SETTING] screen is displayed.
- 3) Press ▲▼ to select [STARTUP].
- 4) Press ◀▶ to switch the item.

[OPEN]	The projector goes into projection mode with the shutter function disabled (shutter: opened) when the power is turned on.
[CLOSE]	The projector goes into projection mode with the shutter function enabled (shutter: closed) when the power is turned on.

Setting [SHUT-OFF]

- 1) Press ▲▼ to select [SHUTTER SETTING].
- 2) Press the <ENTER> button.
 - The [SHUTTER SETTING] screen is displayed.
- 3) Press ▲▼ to select [SHUT-OFF].
- 4) Press ◀▶ to switch the item.

[LAST USED]	The projector goes into standby mode with the condition of the mechanical shutter maintained when the projector is switched off.
[OPEN]	The projector goes into standby mode with the mechanical shutter opened when the projector is switched off.
[CLOSE]	The projector goes into standby mode with the mechanical shutter closed when the projector is switched off.

[FREEZE]

Pause the projected image temporarily regardless of the playback of the external device.

- 1) Press ▲▼ to select [FREEZE].
- 2) Press the <ENTER> button.
 - Press the <MENU> button to release.

Note

- [FREEZE] is displayed on the screen when video is paused.
- When an image from one input terminal is displayed on multiple screens while in the four-screen display mode, the appearance may vary for each image being paused. Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] when using the four-screen display mode.

[WAVEFORM MONITOR]

Use the input signals from a connected external device to display in a waveform. Check whether video output (luminance) signal level is within the recommended range for the projector and adjust.

- 1) Press ▲▼ to select [WAVEFORM MONITOR].
- 2) Press ◀▶ to switch the item.

[OFF]	Does not display the waveform monitor.
[ON]	Displays the waveform monitor.

- 3) Press the <MENU> button two times to clear.
- 4) Press ▲▼ to select any horizontal line.
- 5) Press the <ENTER> button to switch the Select line to either luminance, red, green, or blue.
 - Line selection items switch each time the <ENTER> is pressed only when the waveform monitor is displayed.

“Select line (luminance)”	Displayed in white waveform.
“Select line (red)”	Displayed in red waveform.
“Select line (green)”	Displayed in green waveform.
“Select line (blue)”	Displayed in blue waveform.

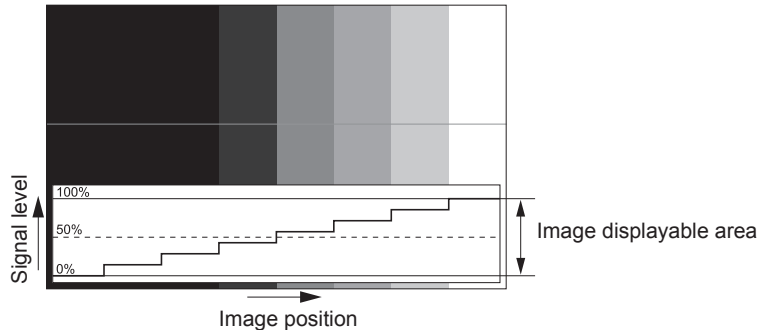
Note

- Setting is also available with [FUNCTION BUTTON] (➡ page 150).

- The waveform monitor cannot be displayed while in the four-screen display mode. Set the [MULTI DISPLAY] menu → [MULTI DISPLAY MODE] to anything other than [OFF] when using the four-screen display mode.
- The waveform monitor turns off when [MULTI DISPLAY] is executed during waveform monitoring.
- The waveform monitor is not displayed when on-screen display is hidden (off).

Adjusting the waveform

Project the luminance adjustment signal of a commercial test disk (0 % (0 IRE or 7.5 IRE) – 100 % (100 IRE)) and adjust.



- 1) Select “Select line (luminance)” on the waveform monitor.
- 2) Adjust black level.
 - Use [BRIGHTNESS] in the on-screen menu [PICTURE] to adjust the black level 0 % of the video signal to the 0 % position of the waveform monitor.
- 3) Adjust white level.
 - Use [CONTRAST] in the on-screen menu [PICTURE] to adjust the white level 100 % of the video signal to the 100 % position of the waveform monitor.

Adjusting red, green, and blue

- 1) Set [COLOR TEMPERATURE] to [USER1] or [USER2] (➔ page 83).
- 2) Select “Select line (red)” on the waveform monitor.
- 3) Adjust dark red areas.
 - Use [RED] in [WHITE BALANCE LOW] to adjust the black level 0 % of the video signal to the 0 % position of the waveform monitor.
- 4) Adjust bright red areas.
 - Use [RED] in [WHITE BALANCE HIGH] to adjust the white level 100 % of the video signal to the 100 % position of the waveform monitor.
- 5) Use the procedure for [RED] to adjust [GREEN] and [BLUE].

Note

- Confirm that the [SIGNAL LEVEL] setting of the input signal is correct before adjusting the black level.

[CUT OFF]

Each red, green, and blue color component can be removed.

- 1) Press ▲▼ to select [CUT OFF].
- 2) Press the <ENTER> button.
 - The [CUT OFF] screen is displayed.
- 3) Press ▲▼ to select [RED], [GREEN], or [BLUE].
- 4) Press ◀▶ to switch the item.

[OFF]	Disables cutoff.
[ON]	Enables cutoff.

Note

- When input is switched or a signal is switched, the cutoff setting returns to its original setting (off).

[PROJECTOR SETUP] menu

On the menu screen, select [PROJECTOR SETUP] from the main menu, and select an item from the sub-menu.

Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[PROJECTOR ID]

The projector has an ID number setting function that can be used when multiple projectors are used side by side to enable simultaneous control or individual control via a single remote control.

- 1) Press ▲▼ to select [PROJECTOR ID].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[ALL]	Select this item when controlling projectors without specifying an ID number.
[1] - [64]	Select this item when specifying an ID number to control individual projector.

Note

- To specify an ID number for individual control, the ID number of a remote control must match the ID number of the projector.
- When the ID number is set to [ALL], the projector will operate regardless of the ID number specified during remote control or computer control.
If multiple projectors are set up side by side with IDs set to [ALL], they cannot be controlled separately from the projectors with other ID numbers.
- Refer to “Setting ID number of the remote control” (➔ page 75) for how to set the ID number on the remote control.

[PROJECTION METHOD]

Set the projection method in accordance with the installation status of the projector.
Change the projection method if the screen display is upside down or inverted.

- 1) Press ▲▼ to select [PROJECTION METHOD].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[FRONT/FLOOR]	When installing the projector on the desk, etc., in front of the screen
[FRONT/CEILING]	When installing the projector in front of the screen using the Ceiling Mount Bracket (optional)
[REAR/FLOOR]	When installing the projector on the desk, etc., behind the screen (with a translucent screen)
[REAR/CEILING]	When installing the projector behind the screen (with a translucent screen) using the Ceiling Mount Bracket (optional)

[OPERATION SETTING]

Set the operation method of the projector.

The settings are reflected when “Initial setting (operation setting)” (➔ page 58) in the [INITIAL SETTING] screen is already set.

If you change the settings while using the projector, the duration until the luminance of light source decreases by half may shorten or the luminance may decrease.

Setting [OPERATING MODE]

- 1) Press ▲▼ to select [OPERATION SETTING].
- 2) Press the <ENTER> button.
 - The [OPERATION SETTING] screen is displayed.
- 3) Press ▲▼ to select [OPERATING MODE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[NORMAL]*1	Set this item when high luminance is required. The estimated runtime is approximately 20 000 hours.
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[ECO]*1	Set this item to increase the life of the light source though it will lower the luminance than [NORMAL]. The estimated runtime is approximately 24 000 hours.
[LONG LIFE1]*1	Set this item to increase the life of the light source though it will lower the luminance than [ECO]. The estimated runtime is approximately 43 000 hours.
[LONG LIFE2]*1	Set this item to increase the life of the light source though it will lower the luminance than [LONG LIFE1]. The estimated runtime is approximately 61 000 hours.
[LONG LIFE3]*1	Set this item to increase the life of the light source though it will lower the luminance than [LONG LIFE2]. The estimated runtime is approximately 87 000 hours.
[USER1]	Set [MAX LIGHT OUTPUT LEVEL] and [LIGHT OUTPUT] individually.
[USER2]	
[USER3]	

*1 The runtime is estimated when the [PICTURE] menu → [DYNAMIC CONTRAST] is set to [3].

- 5) Press ▲▼ to select [APPLY].
- 6) Press the <ENTER> button.
- 7) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- The [OPERATING MODE] setting will not return to the factory default even when [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE] (➔ page 155).
- Set [OPERATING MODE] to anything other than [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3] when using the projector at an altitude of 2 700 m (8 858') or higher above sea level.
- If the runtime exceeds 20 000 hours, replacement of the components inside the projector may be required. Consult your dealer for details.

Setting [MAX LIGHT OUTPUT LEVEL]

Adjust the maximum level to correct screen brightness according to the changes in brightness of the light source.

- 1) Press ▲▼ to select [OPERATION SETTING].
- 2) Press the <ENTER> button.
 - The [OPERATION SETTING] screen is displayed.
- 3) Press ▲▼ to select [MAX LIGHT OUTPUT LEVEL].
- 4) Press ◀▶ to adjust.

Operation	Adjustment	Range of adjustment
Press ▶.	Increases the maximum level of brightness correction.	8.0 % - 100.0 %
Press ◀.	Decreases the maximum level of brightness correction.	

- 5) Press ▲▼ to select [APPLY].
- 6) Press the <ENTER> button.
- 7) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- When [OPERATING MODE] is set to [NORMAL], [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the item of [MAX LIGHT OUTPUT LEVEL] cannot be adjusted.
- When the [PROJECTOR SETUP] menu → [BRIGHTNESS CONTROL] → [BRIGHTNESS CONTROL SETUP] → [CONSTANT MODE] is set to [AUTO] or [PC], the brightness is corrected using this setting.
- The [MAX LIGHT OUTPUT LEVEL] setting will not return to the factory default even when [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE] (➔ page 155).

Setting [LIGHT OUTPUT]

Adjust the brightness of light source.

The [LIGHT OUTPUT] setting is synchronized with the [PROJECTOR SETUP] menu → [LIGHT OUTPUT]. The most recent setting is reflected in both items.

- 1) Press ▲▼ to select [OPERATION SETTING].
- 2) Press the <ENTER> button.
 - The [OPERATION SETTING] screen is displayed.

3) Press ▲▼ to select [LIGHT OUTPUT].

4) Press ◀▶ to adjust.

Operation	Adjustment		Range of adjustment
	Brightness	Runtime (estimate)	
Press ▶.	The screen becomes brighter.	The runtime becomes shorter.	8.0 % - 100.0 %
Press ◀.	The screen becomes darker.	The runtime becomes longer.	

5) Press ▲▼ to select [APPLY].

6) Press the <ENTER> button.

7) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- [LIGHT OUTPUT] can be adjusted individually for each setting item of [OPERATING MODE].
- The uniformity of the brightness between multiple displays can be maintained by adjusting [LIGHT OUTPUT] for each projector when structuring a multi-display screen by combining the projected images from multiple projectors.

Interrelation of luminance and runtime

You can use the projector with desired brightness and duration of use by combining the settings of [MAX LIGHT OUTPUT LEVEL], [LIGHT OUTPUT], and [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP].

Interrelation of luminance and runtime is as follows. Make the settings depending on your desired duration of use and brightness of the projected image.

Values of the luminance and runtime are rough estimations.

■ To set the projector based on the duration of use

Duration of use (hour)	When [CONSTANT MODE] is set to [OFF]			When [CONSTANT MODE] is set to [AUTO] or [PC]		
	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Luminance (lm)	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Luminance (lm)
20 000	100.0	100.0	10 000	100.0	58.0	5 800
24 000	100.0	83.0	8 300	100.0	54.0	5 400
27 000	100.0	65.0	6 500	100.0	51.0	5 100
31 000	—	—	—	100.0	47.0	4 700
35 000	—	—	—	100.0	44.0	4 400
40 000	—	—	—	100.0	41.0	4 100

■ To set the projector based on luminance

Luminance (lm)	When [CONSTANT MODE] is set to [OFF]			When [CONSTANT MODE] is set to [AUTO] or [PC]		
	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Runtime (hour)	[MAX LIGHT OUTPUT LEVEL] (%)	[LIGHT OUTPUT] (%)	Runtime (hour)
10 000	100.0	100.0	20 000	—	—	—
9 000	100.0	90.0	23 300	100.0	90.0	1 900
8 000	100.0	80.0	24 000	100.0	80.0	5 900
7 000	100.0	70.0	26 100	100.0	70.0	11 500
6 000	100.0	60.0	27 800	100.0	60.0	18 700
5 000	100.0	50.0	29 600	100.0	50.0	28 000
4 000	—	—	—	100.0	40.0	40 800
3 000	—	—	—	100.0	30.0	59 300

Note

- Under influence of characteristics of each light source, conditions of use, installation environment, etc., the runtime may be shorter than the estimation.
- The duration of use is referred to as the runtime when you use the projector successively. The duration of use is an estimated duration and is not the warranty period.
- If the runtime exceeds 20 000 hours, replacement of the components inside the projector may be required. Consult your dealer for details.

Setting [BRIGHTNESS CONTROL SETUP]

Set the operation of the brightness control function.

The [BRIGHTNESS CONTROL SETUP] setting is synchronized with the [PROJECTOR SETUP] menu → [BRIGHTNESS CONTROL] → [BRIGHTNESS CONTROL SETUP]. The most recent setting is reflected in both items.

- 1) Press ▲▼ to select [OPERATION SETTING].
- 2) Press the <ENTER> button.
 - The [OPERATION SETTING] screen is displayed.
- 3) Press ▲▼ to select [CONSTANT MODE].
- 4) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Does not correct the brightness of the screen by the brightness sensor.
[AUTO]	Corrects the brightness of the screen by the brightness sensor. When the brightness of light source or white balance changes, the brightness of the screen is automatically corrected.
[PC]	Synchronizes nine or more projectors using a computer and the dedicated software "Multi Monitoring & Control Software"*1.

*1 "Multi Monitoring & Control Software" is included in the supplied CD-ROM.

- When [PC] is selected, proceed to Step 7).

- 5) Press ▲▼ to select [LINK].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Performs correction by the brightness sensor on one projector without synchronizing with the other projectors. The duration that the constant brightness is kept will become longer by setting the value of [LIGHT OUTPUT] smaller.
[GROUP A] [GROUP B] [GROUP C] [GROUP D]	Performs correction by the brightness sensor in multiple projectors in synchronization. Up to four groups (A to D) can be set within the same subnet by using the network function. You can register and synchronize up to eight projectors in one group.

- 7) Press ▲▼ to select [CALIBRATION TIME].
- 8) Press the <ENTER> button.
 - The projector is in the adjustment mode (the time is blinking).
- 9) Press ◀▶ to select "hour" or "minute", and press ▲▼ or the number (<0> - <9>) buttons to set a time.
 - Selecting "hour" allows setting of only the hour in increments of one hour, and selecting "minute" allows setting of only the minute in increments of one minute between 00 and 59.
 - When the time is not specified, select [OFF] between 23 and 00 of the hour, or between 59 and 00 of the minute.
- 10) Press the <ENTER> button.
 - [CALIBRATION TIME] is set.
 - Brightness and color are measured at the specified time. The dynamic contrast function does not operate during measurement.
- 11) Press ▲▼ to select [CALIBRATION MESSAGE].
- 12) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[ON]	Displays the message during calibration.
[OFF]	Does not display the message during calibration.

- 13) Press ▲▼ to select [APPLY].

14) Press the <ENTER> button.

- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to anything other than [OFF], the brightness and white balance of light source at the time when the <ENTER> button is pressed is recorded as the standard brightness and white balance.
- If the <ENTER> button is pressed when [LINK] is set from [GROUP A] to [GROUP D], the group name is displayed on the screens of projectors that have been set in the same group.



15) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], keep the shutter function disabled (shutter: open) for at least two minutes to perform the brightness sensor calibration after the [BRIGHTNESS CONTROL SETUP] setting has been completed.
- If the shutter function is enabled (shutter: closed) within approximately 10 minutes after the light source has turned on while [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], brightness and color cannot be measured. Therefore, brightness may be corrected approximately two minutes after the shutter function is disabled (shutter: open).
- Since the brightness and the color of the light source do not stabilize for approximately eight minutes after turning on the light source when [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], the brightness and the color of the light source will automatically measured approximately eight minutes after the light source is turned on. A correction is made based on this measurement result so that the brightness and the color will be the same as the standard brightness and the color when adjusted with the brightness control.
- When the projector operates with [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] set to [AUTO] or [PC], the items of [OPERATING MODE] and [LIGHT OUTPUT] cannot be changed.
- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO], and [LINK] is set to [OFF], the brightness will be corrected until it reaches the value set in [MAX LIGHT OUTPUT LEVEL].
- The variation in brightness may increase due to dust accumulating on the lens, screen, or inside the projector, depending on the installation environment of the projector.
- When the variation in brightness has increased due to aging of the light source, or when you replaced the light source, readjust the brightness control.
- When the projector is used continuously for more than 24 hours, set the [CALIBRATION TIME] in [BRIGHTNESS CONTROL SETUP]. If it is not set, correction will not be performed automatically.
- The brightness control function and the dynamic contrast function will operate simultaneously, but the dynamic contrast function will not operate while measuring the brightness and the color.
- The [CALIBRATION TIME] setting will be reflected when you enter the time.
- The [CALIBRATION MESSAGE] setting will be reflected when the item is changed using ◀▶.

[LIGHT OUTPUT]

Adjust the brightness of light source.

The setting is reflected when it is already set with “Initial setting (operation setting)” (➔ page 58) in the [INITIAL SETTING] screen, or the [PROJECTOR SETUP] menu → [OPERATION SETTING]. The [LIGHT OUTPUT] setting is synchronized with the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [LIGHT OUTPUT]. The most recent setting is reflected in both items.

1) Press ▲▼ to select [LIGHT OUTPUT].

2) Press ◀▶ to adjust.

Operation	Adjustment		Range of adjustment
	Brightness	Runtime (estimate)	
Press ▶.	The screen becomes brighter.	The runtime becomes shorter.	8.0 % - 100.0 %
Press ◀.	The screen becomes darker.	The runtime becomes longer.	

Note

- [LIGHT OUTPUT] can be adjusted individually for each setting item of [OPERATING MODE].
- The uniformity of the brightness between multiple displays can be maintained by adjusting [LIGHT OUTPUT] for each projector when structuring a multi-display screen by combining the projected images from multiple projectors.

[BRIGHTNESS CONTROL]

The projector is equipped with a brightness sensor to measure brightness and color of the light source, and corrects brightness and white balance of the projected image according to the changes in brightness and color of the light source.

By using this function while structuring the multi-display by combining the projected images from multiple projectors, the change in the brightness and white balance for the whole multi-display can be reduced or hold down the difference of the brightness and white balance to maintain uniformity, caused by the aging of the light source.

Setting [BRIGHTNESS CONTROL SETUP]

Set the operation of the brightness control function.

- 1) Press ▲▼ to select [BRIGHTNESS CONTROL].
- 2) Press the <ENTER> button.
 - The [BRIGHTNESS CONTROL] screen is displayed.
- 3) Press ▲▼ to select [BRIGHTNESS CONTROL SETUP].
- 4) Press the <ENTER> button.
 - The [BRIGHTNESS CONTROL SETUP] screen is displayed.
- 5) Press ▲▼ to select [CONSTANT MODE].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Does not correct the brightness of the screen by the brightness sensor.
[AUTO]	Corrects the brightness of the screen by the brightness sensor. When the brightness of light source or white balance changes, the brightness of the projected image is automatically corrected.
[PC]	Synchronizes nine or more projectors using a computer and the dedicated software "Multi Monitoring & Control Software"*1.

*1 "Multi Monitoring & Control Software" is included in the supplied CD-ROM.

- When [PC] is selected, proceed to Step 9).

- 7) Press ▲▼ to select [LINK].
- 8) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Performs corrections by the brightness sensor on a single projector without synchronizing with the other projectors. The duration that the constant brightness is kept will become longer by setting the value of [LIGHT OUTPUT] smaller.
[GROUP A] [GROUP B] [GROUP C] [GROUP D]	Performs correction by the brightness sensor in multiple projectors in synchronization. Up to four groups (A to D) can be set within the same subnet by using the network function. You can register and synchronize up to eight projectors in one group.

- 9) Press ▲▼ to select [CALIBRATION TIME].
- 10) Press the <ENTER> button.
 - The projector is in the adjustment mode (the time is blinking).
- 11) Press ◀▶ to select "hour" or "minute", and press ▲▼ or the number (<0> - <9>) buttons to set a time.
 - Selecting "hour" allows setting of only the hour in increments of one hour, and selecting "minute" allows setting of only the minute in increments of one minute between 00 and 59.
 - When the time is not specified, select [OFF] between 23 and 00 of the hour, or between 59 and 00 of the minute.
- 12) Press the <ENTER> button.
 - [CALIBRATION TIME] is set.

- Brightness and color are measured at the specified time. The dynamic contrast function does not operate during measurement.

13) Press ▲▼ to select [CALIBRATION MESSAGE].

14) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[ON]	Displays messages during calibration.
[OFF]	Does not display messages during calibration.

15) Press ▲▼ to select [APPLY].

16) Press the <ENTER> button.

- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to anything other than [OFF], the brightness and white balance of light source at the time when the <ENTER> button is pressed is recorded as the standard brightness and white balance.
- If the <ENTER> button is pressed when [LINK] is set from [GROUP A] to [GROUP D], the group name is displayed on the screens of projectors that have been set in the same group.



Note

- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], keep the shutter function disabled (shutter: open) for at least two minutes to perform the brightness sensor calibration after the [BRIGHTNESS CONTROL SETUP] setting has been completed.
- If the shutter function is enabled (shutter: closed) within approximately 10 minutes after the light source has turned on while [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], brightness and color cannot be measured. Therefore, brightness may be corrected approximately two minutes after the shutter function is disabled (shutter: open).
- Since the brightness and the color of the light source do not stabilize for approximately eight minutes after turning on the light source while [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO] or [PC], the brightness and the color of the light source will be automatically measured approximately eight minutes after the light source is turned on. A correction is made based on this measurement result so that the brightness and the color will be the same as the standard brightness and the color when adjusted with the brightness control.
- When [CONSTANT MODE] in [BRIGHTNESS CONTROL SETUP] is set to [AUTO], and [LINK] is set to [OFF], the brightness will be corrected until it reaches the value set in [MAX LIGHT OUTPUT LEVEL].
- The variation in brightness may increase due to dust accumulating on the lens, screen, or inside the projector, depending on the installation environment of the projector.
- When the variation in brightness has increased due to aging of the light source, or when you replaced the light source, readjust the brightness control.
- When the projector is used continuously for more than 24 hours, set the [CALIBRATION TIME] in [BRIGHTNESS CONTROL SETUP]. If it is not set, correction will not be performed automatically.
- The brightness control function and the dynamic contrast function will operate simultaneously, but the dynamic contrast function will not operate while measuring the brightness and the color.
- The [CALIBRATION TIME] setting will be reflected when you enter the time.
- The [CALIBRATION MESSAGE] setting will be reflected at the time when the item is switched using ◀▶.

Displaying [BRIGHTNESS CONTROL STATUS]

Display the brightness control status.

1) Press ▲▼ to select [BRIGHTNESS CONTROL].

2) Press the <ENTER> button.

- The [BRIGHTNESS CONTROL] screen is displayed.

3) Press ▲▼ to select [BRIGHTNESS CONTROL STATUS].

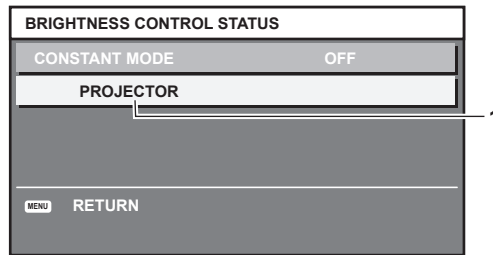
4) Press the <ENTER> button.

- The [BRIGHTNESS CONTROL STATUS] screen is displayed.

[BRIGHTNESS CONTROL STATUS] screen display example

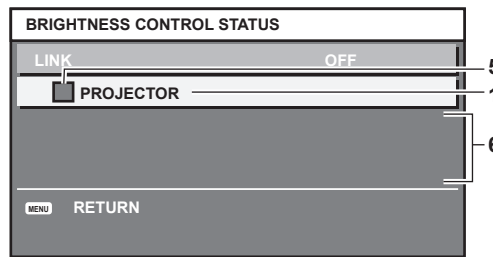
When [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] is set to [OFF]

The screen shows the status that the brightness control is disabled.



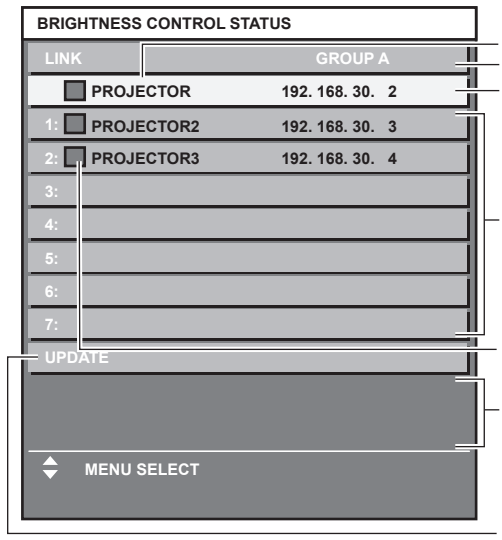
When [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] is set to [AUTO] and [LINK] is set to [OFF]

The screen shows the status of the brightness control in one projector.

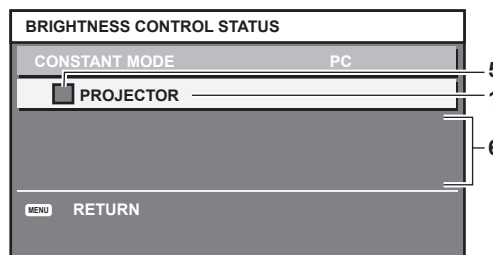


When [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] is set to [AUTO] and [LINK] is set from [GROUP A] to [GROUP D]

The screen shows the status of the brightness control of synchronized projectors (up to eight units), including the projector being controlled through the on-screen menu.



When [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] is set to [PC]



- 1 Display the name of the projector.
- 2 Display the synchronized group.
- 3 Display the IP address of the projector.
- 4 Display the names and IP addresses of projectors in same group detected over the network.

5 Display the status by color.

Green: There is an allowance for brightness correction.
 Yellow: There is little allowance for brightness correction.
 Red: There is a brightness control error.

6 Display error detailed messages.

7 Display error messages.

When the message [Failed to apply BRIGHTNESS CONTROL to some projectors.] appears, it means that synchronization with the projector displayed in red has failed.
 Press ▲▼ to select the projector displayed in red, and press the <ENTER> button to display the error details.

8 Update to the latest status information.

■ Error details

Error message	Measures to take
[Exceed maximum number of projectors.]	<ul style="list-style-type: none"> • Limit the number of projectors in one group to eight. • To synchronize nine or more projectors, use a PC and the dedicated software "Multi Monitoring & Control Software"*1.
[Please check the COMMAND CONTROL setting.]	<ul style="list-style-type: none"> • Set [NETWORK CONTROL] → [COMMAND CONTROL] to [ON] for the projector in error. • Set [NETWORK CONTROL] → [COMMAND PORT] of all projectors to be linked to the same value.
[Please check the USER NAME and PASSWORD in the COMMAND CONTROL setting.]	<ul style="list-style-type: none"> • Assign the same [User name] and [Password] strings that have web control administrator rights to all projectors to be linked.
[Cannot apply BRIGHTNESS CONTROL. Please check projector status.]	<ul style="list-style-type: none"> • The projector is in standby. Switch on the power.
[Brightness Sensor Error]	<ul style="list-style-type: none"> • There is a problem with the brightness sensor. If problems persist even after switching on the power, consult your dealer.

*1 "Multi Monitoring & Control Software" is included in the supplied CD-ROM.

Note

- If the synchronized projectors are not displayed in the list, check the following:
 - Are there devices with the same IP address on the network?
 - Are the LAN cables connected correctly? (➡ page 172)
 - Are the subnets of the projectors the same?
 - Are the same [LINK] settings applied to a group?
- Refer to [NETWORK SETUP] (➡ page 169) or "[Network config] page" (➡ page 182) on how to change the projector name.

Brightness control adjustment procedure example

The steps exemplify an adjustment to link the brightness of eight projectors connected in a network.

- 1) Connect all projectors to the hub using LAN cables. (➡ page 172)**
- 2) Switch on all projectors and start projection.**
- 3) Set [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] to [OFF], and select [APPLY], and then press the <ENTER> button.**
- 4) Set [OPERATING MODE] of each projector to the same setting. (➡ page 135)**
- 5) Set [SUBNET MASK] and [IP ADDRESS] in each projector.**
 - To be able to communicate over the network, set the same value in [SUBNET MASK] for all projectors and set a different value in [IP ADDRESS] for each projector.
- 6) Wait for at least eight minutes after projection has started until the light source brightness becomes steady.**
- 7) Set all items in the [PICTURE] menu of all projectors to the same values.**
- 8) Adjust [COLOR MATCHING] to match colors.**
- 9) Display the internal test pattern "All white" in all projectors.**
- 10) Set [LIGHT OUTPUT] of all projectors to 100 % or the maximum value that can be set.**
 - Depending on the [OPERATING MODE] settings, [LIGHT OUTPUT] may not be able to be set to 100 %.
- 11) Set [LIGHT OUTPUT] of the projector with the least brightness to 90 % or 10 % lower than the maximum value that can be set.**

12) Adjust [LIGHT OUTPUT] of each projector.

- Adjust [LIGHT OUTPUT] of all the other projectors so that the brightness will be the same as the projector with the least brightness.

13) Set [CONSTANT MODE] of [BRIGHTNESS CONTROL SETUP] to [AUTO], and [LINK] to [GROUP A] in all projectors.

14) Select [APPLY] of [BRIGHTNESS CONTROL SETUP] and press the <ENTER> button in all projectors.

- Brightness control starts.

Note

- Brightness is automatically corrected whenever the light source lights up by switching on/off the projector, etc.
- When the variation in brightness has increased due to aging of the light source, or when you replaced the light source, readjust the brightness control.

[STANDBY MODE]

Set the power consumption during the standby.

1) Press ▲▼ to select [STANDBY MODE].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[NORMAL]	Select this item to use the network function during standby.
[ECO]	Select this item to reduce power consumption during standby.

Note

- The AC voltage monitor function, the network function, the <SERIAL OUT> terminal, and part of the RS-232C command cannot be used during the standby when set to [ECO].
When an error or warning occurs on the projector, the self-diagnosis display appears on the control panel regardless of the [STANDBY MODE] settings. (➔ page 200)
- When [ECO] is set, it may take approximately 10 seconds longer before the projector starts projecting after the power is turned on, compared with when [NORMAL] is set.
- When [NORMAL] is set, the network function and the <SERIAL OUT> terminal can be used during standby.
- The [STANDBY MODE] setting will not reset to the factory default even if [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE].

[NO SIGNAL SHUT-OFF]

A function that automatically switches the power source of the projector to standby if there is no input signal for a certain period of time. The time before switching to standby can be set.

1) Press ▲▼ to select [NO SIGNAL SHUT-OFF].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[DISABLE]	Disables the No signal shut-off function.
[10MIN.] - [90MIN.]	Sets the time in increments of 10 minutes.

[NO SIGNAL LIGHTS-OUT]

This is a function to automatically turn off the light source of the projector when there is no input signal for specific period. The time until the light source is turned off can be set.

1) Press ▲▼ to select [NO SIGNAL LIGHTS-OUT].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[DISABLE]	Disables the no signal lights-out function.
[10SEC.] - [5MIN.]	Turns off the light source when there is no input signal for the preset period. Select [10SEC.], [20SEC.], [30SEC.], [1MIN.], [2MIN.], [3MIN.], or [5MIN.].

Note

- The power indicator <ON (G)/STANDBY (R)> will blink slowly in green while the no signal lights-out function is operating and the light source is turned off.
- When [NO SIGNAL LIGHTS-OUT] is set to anything other than [DISABLE], the following are the conditions to turn the light source back on again from the condition that the light source has turned off by this function.
 - When the signal is input
 - When on-screen display such as menu screen (OSD) or input guide, a test pattern, or a warning message is displayed
 - When the power on <|> button is pressed
 - When the operation to disable the shutter function (shutter: open) is performed, such as pressing the <SHUTTER> button
 - When the operating environment temperature is around 0 °C (32 °F) and the light source is forced to turn on due to warm-up

[INITIAL STARTUP]

Set the startup method when the <MAIN POWER> switch is set to <ON>.

- 1) Press ▲▼ to select [INITIAL STARTUP].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[LAST MEMORY]	Starts up the projector in the condition before the <MAIN POWER> switch is set to <OFF>.
[STANDBY]	Starts up the projector in standby.
[ON]	Starts projecting immediately.

[STARTUP INPUT SELECT]

Set the input when the projector is switched on to start projection.

- 1) Press ▲▼ to select [STARTUP INPUT SELECT].
- 2) Press the <ENTER> button.
 - The [STARTUP INPUT SELECT] screen is displayed.
- 3) Press ▲▼◀▶ to select the input, and press the <ENTER> button.

[LAST USED]	Keeps the input selected last.
[SDI1]	Sets the input to SDI1.
[SDI2]	Sets the input to SDI2.
[SDI3]	Sets the input to SDI3.
[SDI4]	Sets the input to SDI4.
[DIGITAL LINK]	Sets the input to DIGITAL LINK.
[HDMI1 [SLOT1]]*1	Sets the input to HDMI1 of the Interface Board.
[HDMI2 [SLOT1]]*1	Sets the input to HDMI2 of the Interface Board.
[HDMI3 [SLOT2]]*2	Sets the input to HDMI3 of the Interface Board.
[HDMI4 [SLOT2]]*2	Sets the input to HDMI4 of the Interface Board.
[DVI-D1 [SLOT1]]*1	Sets the input to DVI-D1 of the Interface Board.
[DVI-D2 [SLOT1]]*1	Sets the input to DVI-D2 of the Interface Board.
[DVI-D3 [SLOT2]]*2	Sets the input to DVI-D3 of the Interface Board.
[DVI-D4 [SLOT2]]*2	Sets the input to DVI-D4 of the Interface Board.
[SDI1 [SLOT1]]*1	Sets the input to SDI1 of the Interface Board.
[SDI2 [SLOT1]]*1	Sets the input to SDI2 of the Interface Board.
[SDI3 [SLOT1]]*3	Sets the input to SDI3 of the Interface Board.
[SDI4 [SLOT1]]*3	Sets the input to SDI4 of the Interface Board.
[SDI1 [SLOT2]]*3	Sets the input to SDI1 of the Interface Board.
[SDI2 [SLOT2]]*3	Sets the input to SDI2 of the Interface Board.
[SDI3 [SLOT2]]*2	Sets the input to SDI3 of the Interface Board.
[SDI4 [SLOT2]]*2	Sets the input to SDI4 of the Interface Board.
[INPUT1] - [INPUT10]*4	Sets the input to DIGITAL LINK, and switches the input of the Panasonic twisted-pair-cable transmitter to the specified input.

*1 This can be set when the optional Interface Board equipped with corresponding input is installed in <SLOT 1>.
 *2 This can be set when the optional Interface Board equipped with corresponding input is installed in <SLOT 2>.
 *3 This is displayed when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1> or <SLOT 2>.
 *4 When the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the projector, its input name is automatically reflected from [INPUT1] to [INPUT10]. When an item that does not reflect the input name is selected, it will be disabled.

Note

- When the [DISPLAY OPTION] menu → [BACKUP INPUT SETTING] (➔ page 105) → [BACKUP INPUT MODE] is set to anything other than [OFF], and the power was turned off with the secondary input at the previous use, the projection is started with the primary input even if [STARTUP INPUT SELECT] is set to [LAST USED].

[DATE AND TIME]

Set the time zone, date, and time of the built-in clock of the projector.

Setting the time zone

- 1) Press ▲▼ to select [DATE AND TIME].
- 2) Press the <ENTER> button.
 - The [DATE AND TIME] screen is displayed.
- 3) Press ▲▼ to select [TIME ZONE].
- 4) Press ◀▶ to switch [TIME ZONE].

Setting the date and time manually

- 1) Press ▲▼ to select [DATE AND TIME].
- 2) Press the <ENTER> button.
 - The [DATE AND TIME] screen is displayed.
- 3) Press ▲▼ to select [ADJUST CLOCK].
- 4) Press the <ENTER> button.
 - The [ADJUST CLOCK] screen is displayed.
- 5) Press ▲▼ to select an item, and press ◀▶ to set the local date and time.
- 6) Press ▲▼ to select [APPLY], and press the <ENTER> button.
 - The setting of the date and time will be completed.

Setting the date and time automatically

- 1) Press ▲▼ to select [DATE AND TIME].
- 2) Press the <ENTER> button.
 - The [DATE AND TIME] screen is displayed.
- 3) Press ▲▼ to select [ADJUST CLOCK].
- 4) Press the <ENTER> button.
 - The [ADJUST CLOCK] screen is displayed.
- 5) Press ▲▼ to select [NTP SYNCHRONIZATION], and press ◀▶ to change the setting to [ON].
- 6) Press ▲▼ to select [APPLY], and press the <ENTER> button.
 - The setting of the date and time will be completed.

Note

- To set the date and time automatically, the projector must be connected to the network.
- If synchronization with the NTP server fails just after [NTP SYNCHRONIZATION] is set to [ON], [NTP SYNCHRONIZATION] will return to [OFF]. If [NTP SYNCHRONIZATION] is set to [ON] while the NTP server is not set, [NTP SYNCHRONIZATION] will return to [OFF].
- Access the projector via a web browser to set the NTP server. Refer to "[Adjust clock] page" (➔ page 183) for details.
- The [TIME ZONE] setting is reset to the factory default when [ALL USER DATA] is executed from the [PROJECTOR SETUP] menu → [INITIALIZE] (➔ page 155). However, the date and time based on the local date and time setting (Coordinated Universal Time, UTC, Universal Time, Coordinated) will be maintained without being initialized.

[SCHEDULE]

Set the command execution schedule for each day of the week.

Enabling/disabling the schedule function

- 1) Press ▲▼ to select [SCHEDULE].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the schedule function.
[ON]	Enables the schedule function. Refer to “How to assign a program” (➔ page 147) or “How to set a program” (➔ page 147) for how to set the schedule.

Note

- When [SCHEDULE] is set to [ON], the [STANDBY MODE] setting is forcibly switched to [NORMAL], and the setting cannot be changed. Even if [SCHEDULE] is then set to [OFF] when in this state, the setting of [STANDBY MODE] remains at [NORMAL].

How to assign a program

- 1) Press ▲▼ to select [SCHEDULE].
- 2) Press ◀▶ to select [ON], and press the <ENTER> button.
 - The [SCHEDULE] screen is displayed.
- 3) Select and assign a program to each day of week.
 - Press ▲▼ to select the day of week, and press ◀▶ to select a program number.
 - You can set the program from No.1 to No.7. “- - -” indicates that the program number has not been set.

How to set a program

Set up to 16 commands to each program.

- 1) Press ▲▼ to select [SCHEDULE].
- 2) Press ◀▶ to select [ON], and press the <ENTER> button.
 - The [SCHEDULE] screen is displayed.
- 3) Press ▲▼ to select [PROGRAM EDIT].
- 4) Press ◀▶ to select a program number, and press the <ENTER> button.
- 5) Press ▲▼ to select a command number, and press the <ENTER> button.
 - You can change the page using ◀▶.
- 6) Press ▲▼◀▶ to select [TIME], and press the <ENTER> button.
 - The projector is in the adjustment mode (the time is blinking).
- 7) Press ◀▶ to select “hour” or “minute”, and press ▲▼ or the number (<0> - <9>) buttons to set a time, and then press the <ENTER> button.
- 8) Press ▲▼◀▶ to select [COMMAND].
- 9) Press the <ENTER> button.
 - The [COMMAND] detailed screen is displayed.
- 10) Press ▲▼ to select a [COMMAND].
 - For [COMMAND] which requires detailed settings, the items of the detailed settings will switch each time you press ◀▶.
 - When [INPUT] is selected, press the <ENTER> button, and then press ▲▼◀▶ to select the input to be set.

[COMMAND]	Detailed settings of [COMMAND]	Description
[POWER ON]	—	Switches on the projector.
[STANDBY]	—	Enters standby.
[SHUTTER]	[OPEN]	Disables the shutter function (shutter: open).
	[CLOSE]	Enables the shutter function (shutter: closed).
[INPUT]	[SDI1]	Switches the input to SDI1.
	[SDI2]	Switches the input to SDI2.
	[SDI3]	Switches the input to SDI3.
	[SDI4]	Switches the input to SDI4.
	[DIGITAL LINK]	Switches the input to DIGITAL LINK.
	[HDMI1 [SLOT1]]* ¹	Switches the input to HDMI1 of the Interface Board.
	[HDMI2 [SLOT1]]* ¹	Switches the input to HDMI2 of the Interface Board.
	[HDMI3 [SLOT2]]* ²	Switches the input to HDMI3 of the Interface Board.
	[HDMI4 [SLOT2]]* ²	Switches the input to HDMI4 of the Interface Board.
	[DVI-D1 [SLOT1]]* ¹	Switches the input to DVI-D1 of the Interface Board.
	[DVI-D2 [SLOT1]]* ¹	Switches the input to DVI-D2 of the Interface Board.
	[DVI-D3 [SLOT2]]* ²	Switches the input to DVI-D3 of the Interface Board.
	[DVI-D4 [SLOT2]]* ²	Switches the input to DVI-D4 of the Interface Board.
	[SDI1 [SLOT1]]* ¹	Switches the input to SDI1 of the Interface Board.
	[SDI2 [SLOT1]]* ¹	Switches the input to SDI2 of the Interface Board.
	[SDI3 [SLOT1]]* ³	Switches the input to SDI3 of the Interface Board.
	[SDI4 [SLOT1]]* ³	Switches the input to SDI4 of the Interface Board.
	[SDI1 [SLOT2]]* ⁴	Switches the input to SDI1 of the Interface Board.
	[SDI2 [SLOT2]]* ⁴	Switches the input to SDI2 of the Interface Board.
	[SDI3 [SLOT2]]* ²	Switches the input to SDI3 of the Interface Board.
[SDI4 [SLOT2]]* ²	Switches the input to SDI4 of the Interface Board.	
[INPUT1] - [INPUT10]* ⁵	Switches the input to DIGITAL LINK, and switches the input of the Panasonic twisted-pair-cable transmitter to the specified input.	
[OPERATING MODE]* ⁶	[NORMAL]	Prioritizes luminance.
	[ECO]	Controls the power to increase the life of the light source with higher luminance.
	[LONG LIFE1]	Controls the power to increase the life of the light source although the luminance is lower than that of [ECO].
	[LONG LIFE2]	Controls the power to increase the life of the light source although the luminance is even lower than that of [LONG LIFE1].
	[LONG LIFE3]	Controls the power to increase the life of the light source to the maximum although the luminance is even lower than that of [LONG LIFE2].
	[USER1]	Controls the power with the setting set to [USER1].
	[USER2]	Controls the power with the setting set to [USER2].
[USER3]	Controls the power with the setting set to [USER3].	
[MULTI DISPLAY]	[OFF]	Does not use the multi-display function.
	[USER1]	Displays four-screen display with the setting in [USER1].
	[USER2]	Displays four-screen display with the setting in [USER2].
	[USER3]	Displays four-screen display with the setting in [USER3].

*1 This can be set when the optional Interface Board equipped with corresponding input is installed in <SLOT 1>.

*2 This can be set when the optional Interface Board equipped with corresponding input is installed in <SLOT 2>.

*3 This is displayed when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1>.

*4 This is displayed when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 2>.

*5 When the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the projector, its input name is automatically reflected from [INPUT1] to [INPUT10]. When an item that does not reflect the input name is selected, it will be disabled.

*6 If you change the settings while using the projector, the duration until the luminance of light source decreases by half may shorten or the luminance may decrease.

11) Press the <ENTER> button.

- The command is fixed and ● is displayed at the left of the selected command.
- After the command is fixed, press the <MENU> button to close the detailed setting screen.

12) Press ▲▼◀▶ to select [STORE], and press the <ENTER> button.

Note

- To delete a command that has been already set, press the <DEFAULT> button on the remote control while the screen in Step 5) is displayed, or select [DELETE] at the screen in Step 6) and press the <ENTER> button.
- If multiple commands have been set for the same time, they are executed in chronological order starting from the smallest command number.
- The operating time will be the local time. (➔ page 146)
- If an operation is executed with the remote control or control panel of the projector or with a control command before the command set in [SCHEDULE] is executed, the command set with the schedule function may not be executed.

[RS-232C]

Set the communication conditions of the <SERIAL IN>/<SERIAL OUT> terminal. Refer to “<SERIAL IN>/<SERIAL OUT> terminal” (➔ page 211).

Setting the communication condition of the <SERIAL IN> terminal

- 1) Press ▲▼ to select [RS-232C].
- 2) Press the <ENTER> button.
 - The [RS-232C] screen is displayed.
- 3) Press ▲▼ to select [INPUT SELECT].
- 4) Press ◀▶ to switch the item.

[PROJECTOR]	Performs the RS-232C communication with the <SERIAL IN> terminal of the projector.
[DIGITAL LINK]	Performs the RS-232C communication via the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) and the <DIGITAL LINK/LAN> terminal.

- 5) Press ▲▼ to select [(IN) BAUDRATE].
- 6) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[9600]	Select the proper speed.
[19200]	
[38400]	

- 7) Press ▲▼ to select [(IN) PARITY].
- 8) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[NONE]	Select the parity condition.
[EVEN]	
[ODD]	

Setting the communication condition of the <SERIAL OUT> terminal

- 1) Press ▲▼ to select [RS-232C].
- 2) Press the <ENTER> button.
 - The [RS-232C] screen is displayed.
- 3) Press ▲▼ to select [(OUT) BAUDRATE].
- 4) Press ◀▶ to switch the item.

[9600]	Select the proper speed.
[19200]	
[38400]	

- 5) Press ▲▼ to select [(OUT) PARITY].

6) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[NONE]	Select the parity condition.
[EVEN]	
[ODD]	

Setting the response

1) Press ▲▼ to select [RS-232C].

2) Press the <ENTER> button.

- The [RS-232C] screen is displayed.

3) Press ▲▼ to select [RESPONSE(ID ALL)].

4) Press ◀▶ to switch the item.

[ON]	Returns the response when an ID is designated as ALL.
[OFF]	Does not return the response when an ID is designated as ALL.

5) Press ▲▼ to select [GROUP].

6) Press ◀▶ to switch the item.

[A] - [Z]	Controls multiple projectors simultaneously by sending the ID of RS-232C. You can set groups from [A] to [Z]. The projector responds when the ID of RS-232C matches the setting.
-----------	--

7) Press ▲▼ to select [RESPONSE(ID GROUP)].

8) Press ◀▶ to switch the item.

[ON]	Returns the response when an ID is designated as GROUP.
[OFF]	Does not return the response when an ID is designated as GROUP.

Note

- When [INPUT SELECT] is set to [DIGITAL LINK], communication using that serial terminal is available only when the corresponding device (such as the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G)) is connected to the <DIGITAL LINK/LAN> terminal.
- When transferring logos via the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G), setting for "NO SIGNAL SLEEP" of the DIGITAL LINK output supported device should be set to "OFF" to avoid interruption of communication.
- When [INPUT SELECT] is set to [DIGITAL LINK], communication speed for input is fixed to 9 600 bps and the parity is fixed to "NONE".

[REMOTE2 MODE]

You can set the <REMOTE 2 IN> terminal.

1) Press ▲▼ to select [REMOTE2 MODE].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[DEFAULT]	Uses pin assignment of the <REMOTE 2 IN> terminal in standard setting. (➡ page 215)
[USER]	Changes the setting of the <REMOTE 2 IN> terminal.

- When [USER] is selected, proceed to Step 3).

3) Press the <ENTER> button.

4) Press ▲▼ to select one from [PIN2] to [PIN8], and press ◀▶ to switch the setting.

[FUNCTION BUTTON]

Set the function of the <FUNCTION> button on the remote control.

1) Press ▲▼ to select [FUNCTION BUTTON].

- 2) Press the <ENTER> button.
 - The [FUNCTION BUTTON] screen is displayed.
- 3) Press ▲▼ to select a function.

[DISABLE]	Disables the <FUNCTION> button.
[MULTI DISPLAY]	Switches the [MULTI DISPLAY MODE] setting. (➔ page 157)
[SUB MEMORY]	Displays the sub memory list. (➔ page 162)
[SYSTEM SELECTOR]	Switches the [SYSTEM SELECTOR] setting. (➔ page 88)
[SYSTEM DAYLIGHT VIEW]	Switches the [SYSTEM DAYLIGHT VIEW] setting. (➔ page 86)
[FREEZE]	Temporarily pauses the image. (➔ page 132)
[WAVEFORM MONITOR]	Displays the waveform of the input signal. (➔ page 132)
[LENS MEMORY LOAD]	Loads the registered lens memory. (➔ page 151)
[PROJECTION METHOD]	Switches the [PROJECTION METHOD] setting. (➔ page 135)

- 4) Press the <ENTER> button.

[LENS CALIBRATION]

Detect the lens shift limit value of the projector and set the home position and the ET-D75LE90 lens standard position automatically.

- 1) Press ▲▼ to select [LENS CALIBRATION].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[NORMAL]	Select this item when anything other than the Fixed-focus Lens (Model No.: ET-D75LE90) is used. Move the lens to the home position after completing the calibration.
[D75LE90]	Select this item when the Fixed-focus Lens (Model No.: ET-D75LE90) is used. Move the lens to the ET-D75LE90 lens standard position after completing the calibration.

- 3) Press the <ENTER> button.
 - The confirmation screen is displayed.
- 4) Press ◀▶ to select [OK], and press the <ENTER> button.
 - To cancel, select [CANCEL].
 - The lens moves up, down, left, and right to detect the lens shift limit value, and automatically set the home position and the ET-D75LE90 lens standard position.
 - The lens stops to complete the calibration.

Note

- [PROGRESS] is displayed in the menu during lens calibration. The operation cannot be canceled during calibration.
- When lens calibration executes correctly, [COMPLETE] is displayed and [INCOMPLETE] is displayed when it does not execute correctly.
- Pressing the <FOCUS> button on the remote control for at least three seconds will also display the confirmation screen for lens calibration execution.

[LENS MEMORY]

Save and load the focus position, shift position, and zoom position of an adjusted lens.

Saving lens position

- 1) Press ▲▼ to select [LENS MEMORY].
- 2) Press the <ENTER> button.
- 3) Press ▲▼ to select [LENS MEMORY SAVE].
- 4) Press the <ENTER> button.
 - The [LENS MEMORY SAVE] screen is displayed.
- 5) Press ▲▼ to select the item to save, and press the <ENTER> button.

- 6) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.
 - The [LENS MEMORY NAME INPUT] screen is displayed.
- 7) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 8) After the name is input, press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The registration completes and returns to the [LENS MEMORY SAVE] screen.
 - If you press ▲▼◀▶ to select [CANCEL] and then press the <ENTER> button, the lens memory will not be saved.
 - If you press ▲▼◀▶ to select [DEFAULT] and press the <ENTER> button, the entered name will not be registered and the default name will be used.
 - If you select [OK] without entering any characters and press the <ENTER> button, the default name will be used.

Loading the lens position

- 1) Press ▲▼ to select [LENS MEMORY].
- 2) Press the <ENTER> button.
- 3) Press ▲▼ to select [LENS MEMORY LOAD].
- 4) Press the <ENTER> button.
 - The [LENS MEMORY LOAD] screen is displayed.
- 5) Press ▲▼ to select the item to load, and press the <ENTER> button.
- 6) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.
 - The lens moves automatically to the registered shift, zoom, and focus positions.

Note

- Lens memory is not guaranteed to be 100 % reproduced.
- The zoom and focus positions may have shifted after lens memory was loaded. Readjust as necessary. Beware of shift, as errors in zoom position are particularly significant.
- When a lens is replaced, readjust and save the lens memory again.
- If a lens without zoom function is used, the lens memory of the zoom position does not operate.
- When [LENS MEMORY LOAD] is assigned to the <FUNCTION> button, the registered lens memory is loaded in order each time you press the <FUNCTION> button.

Deleting a lens memory

- 1) Press ▲▼ to select [LENS MEMORY].
- 2) Press the <ENTER> button.
- 3) Press ▲▼ to select [LENS MEMORY EDIT].
- 4) Press the <ENTER> button.
 - The [LENS MEMORY EDIT] screen is displayed.
- 5) Press ▲▼ to select [LENS MEMORY DELETE].
- 6) Press the <ENTER> button.
 - The [LENS MEMORY DELETE] screen is displayed.
- 7) Press ▲▼ to select the item to delete, and press the <ENTER> button.
- 8) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Changing the lens memory name

- 1) Press ▲▼ to select [LENS MEMORY].
- 2) Press the <ENTER> button.
- 3) Press ▲▼ to select [LENS MEMORY EDIT].

- 4) Press the <ENTER> button.
 - The [LENS MEMORY EDIT] screen is displayed.
- 5) Press ▲▼ to select [LENS MEMORY NAME CHANGE].
- 6) Press the <ENTER> button.
 - The [LENS MEMORY NAME CHANGE] screen is displayed.
- 7) Press ▲▼ to select the name to change, and press the <ENTER> button.
 - The [LENS MEMORY NAME INPUT] screen is displayed.
- 8) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 9) After the name is changed, press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The registration completes and returns to the [LENS MEMORY NAME CHANGE] screen.
 - If you press ▲▼◀▶ to select [CANCEL] and then press the <ENTER> button, the changed name will not be registered.
 - If you press ▲▼◀▶ to select [DEFAULT] and press the <ENTER> button, the changed name will not be registered and the default name will be used.
 - If you select [OK] without entering any characters and press the <ENTER> button, the default name will be used.

[STATUS]

Display the status of the projector.

- 1) Press ▲▼ to select [STATUS].
- 2) Press the <ENTER> button.
 - The [STATUS] screen is displayed.
- 3) Press ◀▶ to switch the pages.
 - The page will change each time you press the button.

[PROJECTOR TYPE]	Displays the projector type and serial number of the projector.	
[PROJECTOR RUNTIME]	Displays the runtime of the projector.	
[LIGHT RUNTIME]	Displays the runtime of the light source 1 and the light source 2.	
[MAIN/SUB VERSION]	Displays the main and sub versions of the firmware of the projector.	
[INTAKE AIR TEMP.]*1	Displays the status of the intake air temperature of the projector.	
[OPTICS MODULE TEMP.]*1	Displays the status of the internal temperature of the projector.	
[EXHAUST AIR TEMP.]*1	Displays the status of the exhaust air temperature of the projector.	
[AROUND LIGHT1 TEMP.]*1	Displays the status of the temperature around light source 1 of the projector.	
[AROUND LIGHT2 TEMP.]*1	Displays the status of the temperature around light source 2 of the projector.	
[COOLING CONDITION]	Displays the set cooling conditions.	
[ATMOSPHERIC PRESSURE]	Displays the atmospheric pressure.	
[SELF TEST]	Displays the status of the projector.	
[INPUT]	Displays the input terminal currently selected. Displays the representative input terminal when one image is displayed with multiple input signals.	
[SIGNAL NAME]	Displays the input signal name.	
[MEMORY NO.]	Displays the memory number of the input signal.	
[BACKUP INPUT STATUS]	Displays whether switching to the backup input signal is possible or not when [BACKUP INPUT MODE] is set to [OFF]. (➔ page 105)	
[ON COUNT]	[POWER ON TIMES]	Displays the number of times the power is turned on.
	[MECHANICAL SHUTTER]	Displays the number of times the mechanical shutter is closed. It is counted when [MECHANICAL SHUTTER] is set to [ENABLE]. (➔ page 131)
[NUMBER OF REGISTERED SIGNAL]	Displays the number of registered signals.	
[REMOTE2 STATUS]	Displays the control status of the REMOTE2.	
[AC VOLTAGE]	Displays the status of the input supply voltage.	
[UPGRADE KIT]	[ET-UK20]	Displays the activation status by the Upgrade Kit (Model No.: ET-UK20).
	[ET-CUK10]	Displays the activation status by the Auto Screen Adjustment Upgrade Kit (Model No.: ET-CUK10).

[SLOT1]	Displays the product number of the Interface Board installed in <SLOT 1>. When the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed, the firmware version is displayed after the product number.	
[SLOT2]	Displays the product number of the Interface Board installed in <SLOT 2>. When the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is installed, the firmware version is displayed after the product number.	
[SIGNAL INFORMATION]	[INPUT]	Displays the input terminal used for the projected image. Displays the representative input terminal when one image is displayed with multiple input signals. [MULTI DISPLAY] is displayed while in the four-screen display mode.
	[SIGNAL FORMAT]	Displays the format of the input signal.
	[LINK]	Displays the settings of [SDI LINK], [HDMI LINK], and [DVI-D LINK]. Displays the determination result of the signal when set to [AUTO].
	[SIMUL]	Displays the setting of [SIMUL INPUT SETTING]. Displays the determination result of the signal when set to [AUTO(x2-speed)] or [AUTO(x4-speed)].
	[4K DIVISION]	Displays the setting of [4K DIVISION]. Displays the determination result of the signal when set to [AUTO].
	[COLOR SPACE]	Displays the color space of the input signal.
	[SAMPLING]	Displays the sampling information of the input signal.
	[BIT DEPTH]	Displays the gradation of the input signal.
	[SIGNAL LEVEL]	Displays the signal level of the input signal.
[DETAILED INFORMATION]	[INPUT]	Displays the input terminal used for the projected image.
	[UPPER LEFT INPUT], [UPPER RIGHT INPUT], [LOWER LEFT INPUT], [LOWER RIGHT INPUT]	Displays the input terminal corresponding to each screen while in the four-screen display mode.
	[SIGNAL FORMAT]	Displays the format of the input signal.
	[SIGNAL FREQUENCY]	Displays the frequency of the input signal.
	[SCAN TYPE]	Displays the scan type of the input signal.
	[TOTAL DOTS]	Displays the total dot count of the input signal.
	[DISPLAY DOTS]	Displays the number of input signal display dots.
	[TOTAL LINES]	Displays the total line count of the input signal.
	[DISPLAY LINES]	Displays the number of input signal display lines.
	[COLOR SPACE]	Displays the color space of the input signal.
	[SAMPLING]	Displays the sampling information of the input signal.
	[BIT DEPTH]	Displays the gradation of the input signal.
	[SIGNAL LEVEL]	Displays the signal level of the input signal.

*1 The temperature status is indicated with text color (green/yellow/red) and bar scale. Use the projector within the range that the indication is green.

Note

- The content of the status can be sent to the E-mail address (up to two addresses) set in "[E-mail set up] page" (➔ page 184) when the <ENTER> button is pressed while displaying the pages 1/4 to 3/4 of the [STATUS] screen.
- The detailed information of the input signal is displayed when the <ENTER> button is pressed while displaying the page 4/4 of the [STATUS] screen. Information for multiple input signals may be displayed depending on the projected image. Press ◀▶ to switch page.
- There are items that are displayed or not displayed in [SIGNAL INFORMATION] and [DETAILED INFORMATION] depending on the setting or the input signal.
- If any abnormality has occurred on the projector, press the <DEFAULT> button while the [STATUS] screen is displayed to display the detail screen of the error information.
- For details on the contents displayed in [SELF TEST], refer to "Self-diagnosis display" (➔ page 200).

[AC VOLTAGE MONITOR]

Enable or disable the AC voltage monitor function. The value of input supply voltage is displayed on the self-diagnosis display at the side of the projector when enabled.

- 1) Press ▲▼ to select [AC VOLTAGE MONITOR].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the AC voltage monitor function.
[ON]	Enables the AC voltage monitor function.

Note

- When [ON] is set, the value of the input supply voltage is always displayed in the self-diagnosis display while the main power of the projector is turned on.
- Even when [OFF] is set, the value of input supply voltage can be displayed temporarily in the self-diagnosis display by operating the button on the remote control. (➔ page 75)
- The value of input supply voltage cannot be displayed in the self-diagnosis display during standby when the [PROJECTOR SETUP] menu → [STANDBY MODE] (➔ page 144) is set to [ECO].

[SAVE ALL USER DATA]

Save the various setting values as a backup in the built-in memory of the projector.

- 1) Press ▲▼ to select [SAVE ALL USER DATA].
- 2) Press the <ENTER> button.
 - The [SECURITY PASSWORD] screen is displayed.
- 3) Enter a security password and press the <ENTER> button.
- 4) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.
 - [PROGRESS] is displayed while saving data.

Note

- Data set from the computer application is not included in [ALL USER DATA].

[LOAD ALL USER DATA]

Load the various setting values saved as a backup in the built-in memory of the projector.

- 1) Press ▲▼ to select [LOAD ALL USER DATA].
- 2) Press the <ENTER> button.
 - The [SECURITY PASSWORD] screen is displayed.
- 3) Enter a security password and press the <ENTER> button.
- 4) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- The projector enters the standby mode to reflect the setting values when [LOAD ALL USER DATA] is executed.
- Data registered from a computer is not included in [ALL USER DATA].

[INITIALIZE]

Return various setting values to their factory default settings.

- 1) Press ▲▼ to select [INITIALIZE].
- 2) Press the <ENTER> button.
 - The [SECURITY PASSWORD] screen is displayed.
- 3) Enter a security password and press the <ENTER> button.
 - The [INITIALIZE] screen is displayed.
- 4) Press ▲▼ to select an item to initialize.

[ALL USER DATA]	Returns all setting values including [REGISTERED SIGNAL], [NETWORK SETUP], [E-mail set up], and [USER LOGO] to the factory default settings. The projector enters the standby mode to reflect the setting values.
[REGISTERED SIGNAL]	Deletes all the setting values saved for each input signal. To delete only a part of a registered signal, perform the procedure described in “Deleting the registered signal” (➔ page 160).
[NETWORK/E-MAIL]	Returns [NETWORK SETUP] and [E-mail set up] to factory default settings.
[LOGO IMAGE]	Deletes the image registered in [USER LOGO].

- 5) Press the <ENTER> button.
- 6) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- Even when [ALL USER DATA] is executed, the settings of [UNIFORMITY], [OPERATING MODE], [MAX LIGHT OUTPUT LEVEL], and [STANDBY MODE] are not initialized.

[SERVICE PASSWORD]

This function is used by a service person.

[MULTI DISPLAY] menu

On the menu screen, select [MULTI DISPLAY] from the main menu, and select an item from the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

Using the multi-display function

Four images can be displayed simultaneously by dividing the projection screen into four.

- 1) Press ▲▼ to select [MULTI DISPLAY MODE].
- 2) Press the <ENTER> button.
 - The [MULTI DISPLAY MODE] screen is displayed.
- 3) Press ▲▼ to select a function.

[OFF]	Does not use the multi-display function.
[USER1]	Displays four-screen display with the setting in “Setting the multi-display function” (➔ page 157).
[USER2]	
[USER3]	

- 4) Press the <ENTER> button.

Setting the multi-display function

The setting of the multi-display function can be saved to [USER1], [USER2], or [USER3].

- 1) Press ▲▼ to select [MULTI DISPLAY MODE].
- 2) Press the <ENTER> button.
 - The [MULTI DISPLAY MODE] screen is displayed.
- 3) Press ▲▼ to select the desired mode from [USER1], [USER2], and [USER3], and press the <ENTER> button.
- 4) Press ▲▼ to select [UPPER LEFT WINDOW], [UPPER RIGHT WINDOW], [LOWER LEFT WINDOW], or [LOWER RIGHT WINDOW], and press the <ENTER> button.
 - The [UPPER LEFT WINDOW] screen, the [UPPER RIGHT WINDOW] screen, the [LOWER LEFT WINDOW] screen, or the [LOWER RIGHT WINDOW] screen is displayed.
- 5) Press ▲▼ to select the input terminal to be displayed in the window, and press the <ENTER> button.
 - The input terminal that can be selected varies depending on the structure of the optional Interface Board installed in the slot.
- 6) Press ▲▼ to select [FRAME LOCK].
- 7) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[UPPER LEFT WINDOW]	Sets the frame lock for the input signal set to the upper left window.
[UPPER RIGHT WINDOW]	Sets the frame lock for the input signal set to the upper right window.
[LOWER LEFT WINDOW]	Sets the frame lock for the input signal set to the lower left window.
[LOWER RIGHT WINDOW]	Sets the frame lock for the input signal set to the lower right window.

Note

- The image currently displayed in the four dividing screen is not projected correctly when the following video signal is input.
 - Video signal with resolution exceeding 1 920 x 1 200 dots
 - Video signal with dot clock frequency exceeding 162 MHz
 - 6G-SDI signal, 12G-SDI signal
- The appearance may vary for each when an image from one input terminal is displayed on multiple screens.
- The image adjustment values such as [PICTURE MODE], [GAMMA], and [COLOR TEMPERATURE] that are set to the upper left screen are applied to all screens.
- The movement of the displayed image becomes discontinuous when [FRAME LOCK] is set for the still image signal.
- The movement of the displayed image may become discontinuous for the images where [FRAME LOCK] is not set.
- [MULTI DISPLAY MODE] is fixed to [OFF] and the four-screen display is not possible in the following cases.
 - When the [DISPLAY OPTION] menu → [BACKUP INPUT SETTING] → [BACKUP INPUT MODE] is set to anything other than [OFF]

- When the [DISPLAY OPTION] menu → [SIMUL INPUT SETTING] is set to anything other than [OFF]
- When the [DISPLAY OPTION] menu → [SDI IN] → [SDI LINK] is set to anything other than [SINGLE]
- When the [DISPLAY OPTION] menu → [SLOT IN] → [HDMI LINK]/[DVI-D LINK]/[SDI LINK] is set to anything other than [SINGLE]
- The [FRAME RESPONSE] setting is disabled and fixed to [NORMAL] while in the four-screen display mode.
- The [FRAME CREATION] setting is disabled and fixed to [OFF] while in the four-screen display mode.
- [QUAD PIXEL DRIVE] is fixed to [ON] while in the four-screen display mode.

[TEST PATTERN] menu

On the menu screen, select [TEST PATTERN] from the main menu.

Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[TEST PATTERN]

Display the test pattern built-in to the projector.

Settings of position, size, and other factors will not be reflected in test patterns. Make sure to display the input signal before performing various adjustments.

1) Press ◀▶ to switch the [TEST PATTERN] item.

- The items will switch each time you press the button.

Menu screen + All white	Displays a test pattern with the menu screen. Select a desired test pattern.
Menu screen + All black	
Menu screen + Window	
Menu screen + Window (inversion)	
Menu screen + Color bar (vertical)	
Menu screen + Color bar (horizontal)	
Menu screen + 16:9/4:3 aspect frame	
Menu screen + Focus	
Menu screen + Input screen	Displays the menu screen and input signal. Internal test patterns are not displayed.

Note

- Press the <ON SCREEN> button on the remote control while the test pattern is displayed to hide the menu screen.

Changing color or a focus test pattern

The color can be changed when the “Menu screen + Focus” test pattern is displayed.

1) Press ◀▶ to select the “Menu screen + Focus” test pattern.

2) Press the <ENTER> button.

- The [TEST PATTERN COLOR] screen is displayed.

3) Press ▲▼ to select a color, and press the <ENTER> button.

- The color of the focus test pattern will be changed to the selected color.

Note

- The test pattern color settings return to [WHITE] when the projector is switched off.
- Colors of the test patterns other than focus test patterns cannot be changed.

[SIGNAL LIST] menu

On the menu screen, select [SIGNAL LIST] from the main menu.

Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

■ Registered signal details

Memory number: A1 (1-2)



When the address number (A1, A2, ... L7, L8) signal is registered

- A name can be set for each sub memory (➔ page 162).

Registering new signals

After a new signal is input and the <MENU> button on the remote control or the control panel is pressed, the registration is completed and the [MAIN MENU] screen is displayed.

Note

- Up to 96 signals, including sub memories, can be registered to the projector.
- There are 12 pages (eight memories of A through L, with eight memories possible on each page) for memory numbers, and the signal is registered to the lowest number that is available. If there is no available memory number it will be overwritten from the oldest signal.
- The name to be registered is automatically determined by the input signal.
- If a menu is being displayed, the new signals will be registered at the instant they are input.

Renaming the registered signal

Registered signals can be renamed.

- 1) Press ▲▼◀▶ to select the signal of which name is to be changed.
- 2) Press the <ENTER> button.
 - The [REGISTERED SIGNAL STATUS] screen is displayed.
 - The memory number, input terminal, input signal name, frequency, synch polarity, etc., are displayed.
 - Press the <MENU> button to return to the [SIGNAL LIST] screen.
- 3) Press the <ENTER> button.
 - The [REGISTERED SIGNAL SETUP] screen is displayed.
- 4) Press ▲▼ to select [SIGNAL NAME CHANGE].
- 5) Press the <ENTER> button.
 - The [SIGNAL NAME CHANGE] screen is displayed.
- 6) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 7) After the name is changed, press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The registration is completed and the [REGISTERED SIGNAL SETUP] screen returns.
 - When pressing ▲▼◀▶ to select [CANCEL] and pressing the <ENTER> button, the changed signal name will not be registered and an automatically registered signal name will be used.

Deleting the registered signal

Registered signals can be deleted.

- 1) Press ▲▼◀▶ to select the signal to delete.
- 2) Press the <DEFAULT> button on the remote control.
 - The [REGISTERED SIGNAL DELETE] screen is displayed.
 - To cancel the deletion, press the <MENU> button to return to the [REGISTERED SIGNAL LIST] screen.
- 3) Press the <ENTER> button.
 - The selected signal will be deleted.

Note

- A registered signal can also be deleted from [REGISTERED SIGNAL DELETE] on the [REGISTERED SIGNAL SETUP] screen.

Protecting the registered signal

- 1) Press **▲▼◀▶** to select the signal to protect.
- 2) Press the **<ENTER>** button.
 - The [REGISTERED SIGNAL STATUS] screen is displayed.
- 3) Press the **<ENTER>** button.
 - The [REGISTERED SIGNAL SETUP] screen is displayed.
- 4) Press **▲▼** to select [LOCK].
- 5) Press **◀▶** to switch the item.
 - The items will switch each time you press the button.

[OFF]	The signal is not protected.
[ON]	The signal is protected.

- A lock icon is displayed at the right of the [SIGNAL LIST] screen when [LOCK] is set to [ON].

**Note**

- When [LOCK] is set to [ON], signal deletion, image adjustment, and automatic setup are not available. To perform these operations, set [LOCK] to [OFF].
- A signal can be registered to the sub memory even if it is protected.
- Even a protected signal will be deleted if [INITIALIZE] is executed.

Expanding signal lock-in range

- 1) Press **▲▼◀▶** to select the signal to set.
- 2) Press the **<ENTER>** button.
 - The [REGISTERED SIGNAL STATUS] screen is displayed.
- 3) Press the **<ENTER>** button.
 - The [REGISTERED SIGNAL SETUP] screen is displayed.
- 4) Press **▲▼** to select [LOCK-IN RANGE].
- 5) Press **◀▶** to switch the item.
 - The items will switch each time you press the button.

[NARROW]	Select this item usually.
[WIDE]	Widens the lock-in range.

- An expansion icon is displayed at the right of the [SIGNAL LIST] screen when [LOCK-IN RANGE] is set to [WIDE].

**Note**

- Switch the range where the signal to be input is determined to be the same signal as the already registered signal.
- To prioritize the determination that a signal is the same as the already registered signal, set this function to [WIDE].
- Use in cases such as when the synchronizing frequency of a signal to be input has changed slightly, or multiple signal lists are registered.
- This item can be set only for the DIGITAL LINK input signal, and the HDMI input signal or the DVI-D input signal of the optional Interface Board installed in the slot.
- When [WIDE] is set, the image may be distorted because a signal is recognized as the same even if its synchronizing frequency varies slightly.
- When a signal to be input corresponds to multiple signals set in [WIDE], a registered signal with a high memory number receives priority. Example: a signal to be input that corresponds to memory numbers A2, A4 and B1 will be determined to be B1.
- When a registration signal is deleted, the settings are also deleted.

- In an environment where multiple types of signals are input to the same terminal, signals are sometimes not determined correctly when the setting is set to [WIDE].

Sub memory

The projector has a sub memory function that can register the multiple image adjustment data, even if it is recognized as the same signal by the frequency or format of the synchronization signal source.

Use this function when you need to switch the aspect or adjust the image quality such as the white balance while using the same signal source. The sub memory includes all the data that can be adjusted for each signal, such as the image aspect ratio and data adjusted in the [PICTURE] item (such as [CONTRAST], [BRIGHTNESS]).

Registering to the sub memory

- 1) **While in the normal screen (where no menu is displayed), press ◀▶.**
 - The sub memory registration screen is displayed if the sub memory is not registered. Proceed to Step 3).
 - A list of sub memories registered to the signal currently input is displayed.
 - The <FUNCTION> button on the remote control can be used instead of ◀▶ when [SUB MEMORY] is selected from the [PROJECTOR SETUP] menu → [FUNCTION BUTTON].
- 2) **Press ▲▼◀▶ to select the sub memory number to register in [SUB MEMORY LIST].**
- 3) **Press the <ENTER> button.**
 - The [SIGNAL NAME CHANGE] screen is displayed.
- 4) **Press ▲▼◀▶ to select [OK], and press the <ENTER> button.**
 - To rename the registered signal, follow the procedure in Steps 6) and 7) in “Renaming the registered signal” (➔ page 160).

Switching to the sub memory

- 1) **While in the normal screen (where no menu is displayed), press ◀▶.**
 - A list of sub memories registered to the signal currently input is displayed.
- 2) **Press ▲▼◀▶ to select the signal to switch in [SUB MEMORY LIST].**
- 3) **Press the <ENTER> button.**
 - This switches to the signal selected in Step 2).

Deleting the sub memory

- 1) **While in the normal screen (where no menu is displayed), press ◀▶.**
 - The [SUB MEMORY LIST] screen is displayed.
- 2) **Press ▲▼◀▶ to select the sub memory to be deleted, and press the <DEFAULT> button on the remote control.**
 - The [REGISTERED SIGNAL DELETE] screen is displayed.
 - To cancel the deletion, press the <MENU> button to return to the [SUB MEMORY LIST] screen.
- 3) **Press the <ENTER> button.**
 - The selected sub memory will be deleted.

[SECURITY] menu

On the menu screen, select [SECURITY] from the main menu, and select an item from the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

- When the projector is used for the first time
Initial password: Press ▲▶▼◀▲▶▼◀ in order, and press the <ENTER> button.

Attention

- When you select the [SECURITY] menu and press the <ENTER> button, entering a password is required. Enter the preset password and then continue operations of the [SECURITY] menu.
- When the password has been changed previously, enter the changed password, and press the <ENTER> button.

Note

- The entered password is displayed with * marks on the screen.
- An error message is displayed on the screen when the entered password is incorrect. Re-enter the correct password.

[SECURITY PASSWORD]

Display the [SECURITY PASSWORD] screen when the power is turned on with the <MAIN POWER> switch set to the <OFF> side. When the entered password is incorrect, the operation will be restricted to the power standby <⏻> button, the <SHUTTER> button, and the <LENS> buttons (<FOCUS>, <ZOOM>, <SHIFT>).

- 1) Press ▲▼ to select [SECURITY PASSWORD].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[OFF]	Disables the security password entry.
[ON]	Enables the security password entry.

Note

- The [SECURITY PASSWORD] setting is set to [OFF] by the factory default or when [ALL USER DATA] in [INITIALIZE] (➔ page 155) is executed.
- Change the password periodically that is hard to guess.
- The security password is enabled after setting [SECURITY PASSWORD] to [ON] and turning the <MAIN POWER> switch to <OFF>.

[SECURITY PASSWORD CHANGE]

Change the security password.

- 1) Press ▲▼ to select [SECURITY PASSWORD CHANGE].
- 2) Press the <ENTER> button.
 - The [SECURITY PASSWORD CHANGE] screen is displayed.
- 3) Press ▲▼◀▶ and the number (<0> - <9>) buttons to set the password.
 - Up to eight button operations can be set.
- 4) Press the <ENTER> button.
- 5) Re-enter the password for the confirmation.
- 6) Press the <ENTER> button.

Note

- The entered password is displayed with * marks on the screen.
- When numerical values are used for the security password, the security password is required to be initialized if the remote control is lost. Consult your dealer for the method of initialization.

[DISPLAY SETTING]

Overlap the security message (text or image) over the projecting image.

- 1) Press ▲▼ to select [DISPLAY SETTING].

2) Press ◀▶ to switch the item.

- The items will switch each time you press the button.

[OFF]	Hides the security message.
[TEXT]	Displays the text set in the [SECURITY] menu → [TEXT CHANGE].
[USER LOGO]	Displays the image registered by the user.

Note

- To create/register the [USER LOGO] image, use “Logo Transfer Software” included in the supplied CD-ROM.

[TEXT CHANGE]

Edit the text to be displayed when [TEXT] is selected in [DISPLAY SETTING].

- 1) Press ▲▼ to select [TEXT CHANGE].
- 2) Press the <ENTER> button.
 - The [TEXT CHANGE] screen is displayed.
- 3) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 4) Press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - The text is changed.

[CONTROL DEVICE SETUP]

Enable/disable the button operations on the control panel and the remote control.

- 1) Press ▲▼ to select [CONTROL DEVICE SETUP].
- 2) Press the <ENTER> button.
 - The [CONTROL DEVICE SETUP] screen is displayed.
- 3) Press ▲▼ to select [CONTROL PANEL] or [REMOTE CONTROL].

[CONTROL PANEL]	You can set the limitation on the control from the control panel.
[REMOTE CONTROL]	You can set the limitation on the control from the remote control.

- 4) Press the <ENTER> button.
 - The [CONTROL PANEL] screen or the [REMOTE CONTROL] screen is displayed.
- 5) Press ▲▼ to select [CONTROL PANEL] or [REMOTE CONTROL].
- 6) Press ◀▶ to switch the item.
 - You can set the operation restriction from the control panel or the remote control.

[ENABLE]	Enables all button operations.
[DISABLE]	Disables all button operations.
[USER]	Operation of all buttons can be enabled/disabled separately. Refer to “Enabling/disabling any button” (➔ page 164) for details.

- 7) Press ▲▼ to select [APPLY], and press the <ENTER> button.
 - The confirmation screen is displayed.
- 8) Press ◀▶ to select [OK], and press the <ENTER> button.

Enabling/disabling any button

- 1) Press ▲▼ to select [CONTROL DEVICE SETUP].
- 2) Press the <ENTER> button.
 - The [CONTROL DEVICE SETUP] screen is displayed.
- 3) Press ▲▼ to select [CONTROL PANEL] or [REMOTE CONTROL].

- 4) Press the <ENTER> button.
 - The [CONTROL PANEL] screen or the [REMOTE CONTROL] screen is displayed.
- 5) Press ▲▼ to select [CONTROL PANEL] or [REMOTE CONTROL].
- 6) Press ◀▶ to switch [USER].
- 7) Press ▲▼ to select the button item to set.
 - When [INPUT SELECT BUTTON] is selected, press the <ENTER> button, and then press ▲▼ to select the button to set.

	Buttons that can be set	
	[CONTROL PANEL]	[REMOTE CONTROL]
[POWER BUTTON]	Power standby <⏻> button, power on < > button	
[INPUT SELECT BUTTON]	<SDI 1/2> button, <SDI 3/4> button, <DIGITAL LINK> button, <SLOT 1> button, <SLOT 2> button, <INPUT MENU> button	<DVI-D> button, <HDMI> button, <SDI> button, <DIGITAL LINK> button, <SLOT 1> button, <SLOT 2> button, <INPUT MENU> button
[MENU BUTTON]	<MENU> button	
[LENS BUTTON]	<LENS> button	Lens buttons (<FOCUS>, <ZOOM>, <SHIFT>)
[AUTO SETUP BUTTON]	<AUTO SETUP> button	
[SHUTTER BUTTON]	<SHUTTER> button	
[ASPECT BUTTON]	—	<ASPECT> button
[ON SCREEN BUTTON]	—	<ON SCREEN> button
[OTHER BUTTON]	▲▼◀▶, <ENTER> button	Buttons not listed above

- 8) Press ◀▶ to switch the item.

[ENABLE]	Enables button operations.
[DISABLE]	Disables button operations.

- When [INPUT SELECT BUTTON] is selected in Step 7), the item that can be set varies depending on the selected button.
Refer to “Item that can be set with [INPUT SELECT BUTTON]” (➔ page 165) for details.
Once the switching of the item is completed, press the <MENU> button to return to the [CONTROL PANEL] screen or the [REMOTE CONTROL] screen.

- 9) Press ▲▼ to select [APPLY], and press the <ENTER> button.
 - The confirmation screen is displayed.

- 10) Press ◀▶ to select [OK], and press the <ENTER> button.

Note

- When a button operation is performed on the device set to [DISABLE], the [CONTROL DEVICE PASSWORD] screen is displayed. Enter the control device password.
- The [CONTROL DEVICE PASSWORD] screen will disappear when there is no operation for approx. 10 seconds.
- If the operations of both [CONTROL PANEL] and [REMOTE CONTROL] are set to [DISABLE], the projector cannot be turned off (cannot enter standby).
- When the setting has completed, the menu screen will disappear. To operate continuously, press the <MENU> button to display the main menu.
- Even when you set button operations on the remote control disabled, operations of the <ID SET> and <ID ALL> buttons on the remote control are kept enabled.

Item that can be set with [INPUT SELECT BUTTON]

When [INPUT SELECT BUTTON] is selected in Step 7) of “Enabling/disabling any button” (➔ page 164), the item that can be selected varies depending on the button to set.

The item that can be selected when each button is set is as follows.

■ [SDI1/2 BUTTON]

[TOGGLE]	Switches between [SDI1] and [SDI2] when the button is operated.
[SDI1]	Fixes to selection operation of the SDI1 input.
[SDI2]	Fixes to selection operation of the SDI2 input.
[DISABLE]	Disables button operations.

■ [SDI3/4 BUTTON]

[TOGGLE]	Switches between [SDI3] and [SDI4] when the button is operated.
[SDI3]	Fixes to selection operation of the SDI3 input.
[SDI4]	Fixes to selection operation of the SDI4 input.
[DISABLE]	Disables button operations.

■ [DVI-D BUTTON]

[DVI-D1 [SLOT1]] and [DVI-D2 [SLOT1]] can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in <SLOT 1>.

[DVI-D3 [SLOT2]] and [DVI-D4 [SLOT2]] can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in <SLOT 2>.

[TOGGLE]	Switches the items in following order when the button is operated. [DVI-D1 [SLOT1]] → [DVI-D2 [SLOT1]] → [DVI-D3 [SLOT2]] → [DVI-D4 [SLOT2]]
[DVI-D1 [SLOT1]]	Fixes to selection operation of the DVI-D1 input of the Interface Board.
[DVI-D2 [SLOT1]]	Fixes to selection operation of the DVI-D2 input of the Interface Board.
[DVI-D3 [SLOT2]]	Fixes to selection operation of the DVI-D3 input of the Interface Board.
[DVI-D4 [SLOT2]]	Fixes to selection operation of the DVI-D4 input of the Interface Board.
[DISABLE]	Disables button operations.

■ [HDMI BUTTON]

[HDMI1 [SLOT1]] and [HDMI2 [SLOT1]] can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in <SLOT 1>.

[HDMI3 [SLOT2]] and [HDMI4 [SLOT2]] can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in <SLOT 2>.

[TOGGLE]	Switches the items in following order when the button is operated. [HDMI1 [SLOT1]] → [HDMI2 [SLOT1]] → [HDMI3 [SLOT2]] → [HDMI4 [SLOT2]]
[HDMI1 [SLOT1]]	Fixes to selection operation of the HDMI1 input of the Interface Board.
[HDMI2 [SLOT1]]	Fixes to selection operation of the HDMI2 input of the Interface Board.
[HDMI3 [SLOT2]]	Fixes to selection operation of the HDMI3 input of the Interface Board.
[HDMI4 [SLOT2]]	Fixes to selection operation of the HDMI4 input of the Interface Board.
[DISABLE]	Disables button operations.

■ [SDI BUTTON]

The items from [SDI1 [SLOT1]] to [SDI4 [SLOT1]] can be selected when the optional Interface Board with the corresponding input (3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or Interface Board for 12G-SDI (Model No.: ET-MDN12G10)) is installed in <SLOT 1>.

The items from [SDI1 [SLOT2]] to [SDI4 [SLOT2]] can be selected when the optional Interface Board with the corresponding input (3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or Interface Board for 12G-SDI (Model No.: ET-MDN12G10)) is installed in <SLOT 2>.

[TOGGLE]	Switches the SDI input equipped on the projector as standard and the SDI input on the optional Interface Boards installed in <SLOT 1> and <SLOT 2> in turn when the button is operated.
[SDI1]	Fixes to selection operation of the SDI1 input.
[SDI2]	Fixes to selection operation of the SDI2 input.
[SDI3]	Fixes to selection operation of the SDI3 input.
[SDI4]	Fixes to selection operation of the SDI4 input.
[SDI1 [SLOT1]]	Fixes to selection operation of the SDI1 input of the Interface Board.
[SDI2 [SLOT1]]	Fixes to selection operation of the SDI2 input of the Interface Board.
[SDI3 [SLOT1]]	Fixes to selection operation of the SDI3 input of the Interface Board.
[SDI4 [SLOT1]]	Fixes to selection operation of the SDI4 input of the Interface Board.
[SDI1 [SLOT2]]	Fixes to selection operation of the SDI1 input of the Interface Board.
[SDI2 [SLOT2]]	Fixes to selection operation of the SDI2 input of the Interface Board.
[SDI3 [SLOT2]]	Fixes to selection operation of the SDI3 input of the Interface Board.
[SDI4 [SLOT2]]	Fixes to selection operation of the SDI4 input of the Interface Board.
[DISABLE]	Disables button operations.

■ [SLOT1 BUTTON]

The items from [SDI1 [SLOT1]] to [SDI4 [SLOT1]] can be selected when the optional Interface Board with the corresponding input (3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or Interface Board for 12G-SDI (Model No.: ET-MDN12G10)) is installed in <SLOT 1>.

[HDMI1 [SLOT1]] and [HDMI2 [SLOT1]] can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in <SLOT 1>.

[DVI-D1 [SLOT1]] and [DVI-D2 [SLOT1]] can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in <SLOT 1>.

[TOGGLE]	Switches the input of the Interface Board installed in <SLOT 1> in turn when the button is operated.
[SDI1 [SLOT1]]	Fixes to selection operation of the SDI1 input of the Interface Board.
[SDI2 [SLOT1]]	Fixes to selection operation of the SDI2 input of the Interface Board.
[SDI3 [SLOT1]]	Fixes to selection operation of the SDI3 input of the Interface Board.
[SDI4 [SLOT1]]	Fixes to selection operation of the SDI4 input of the Interface Board.
[HDMI1 [SLOT1]]	Fixes to selection operation of the HDMI1 input of the Interface Board.
[HDMI2 [SLOT1]]	Fixes to selection operation of the HDMI2 input of the Interface Board.
[DVI-D1 [SLOT1]]	Fixes to selection operation of the DVI-D1 input of the Interface Board.
[DVI-D2 [SLOT1]]	Fixes to selection operation of the DVI-D2 input of the Interface Board.
[DISABLE]	Disables button operations.

■ [SLOT2 BUTTON]

The items from [SDI1 [SLOT2]] to [SDI4 [SLOT2]] can be selected when the optional Interface Board with the corresponding input (3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or Interface Board for 12G-SDI (Model No.: ET-MDN12G10)) is installed in <SLOT 2>.

[HDMI3 [SLOT2]] and [HDMI4 [SLOT2]] can be selected when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in <SLOT 2>.

[DVI-D3 [SLOT2]] and [DVI-D4 [SLOT2]] can be selected when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in <SLOT 2>.

[TOGGLE]	Switches the input of the Interface Board installed in <SLOT 2> in turn when the button is operated.
[SDI1 [SLOT2]]	Fixes to selection operation of the SDI1 input of the Interface Board.
[SDI2 [SLOT2]]	Fixes to selection operation of the SDI2 input of the Interface Board.
[SDI3 [SLOT2]]	Fixes to selection operation of the SDI3 input of the Interface Board.
[SDI4 [SLOT2]]	Fixes to selection operation of the SDI4 input of the Interface Board.
[HDMI3 [SLOT2]]	Fixes to selection operation of the HDMI3 input of the Interface Board.
[HDMI4 [SLOT2]]	Fixes to selection operation of the HDMI4 input of the Interface Board.
[DVI-D3 [SLOT2]]	Fixes to selection operation of the DVI-D3 input of the Interface Board.
[DVI-D4 [SLOT2]]	Fixes to selection operation of the DVI-D4 input of the Interface Board.
[DISABLE]	Disables button operations.

[CONTROL DEVICE PASSWORD CHANGE]

The control device password can be changed.

- 1) Press ▲▼ to select [CONTROL DEVICE PASSWORD CHANGE].
- 2) Press the <ENTER> button.
 - The [CONTROL DEVICE PASSWORD CHANGE] screen is displayed.
- 3) Press ▲▼◀▶ to select the text, and press the <ENTER> button to enter the text.
- 4) Press ▲▼◀▶ to select [OK], and press the <ENTER> button.
 - To cancel, select [CANCEL].

Attention

- The initial password is "AAAA" by the factory default or when [ALL USER DATA] in [INITIALIZE] (► page 155) is executed.
- Change the password periodically that is hard to guess.

[NETWORK] menu

On the menu screen, select [NETWORK] from the main menu, and select an item from the sub-menu. Refer to “Navigating through the menu” (➔ page 77) for the operation of the menu screen.

[DIGITAL LINK MODE]

Switch the communication method of the <DIGITAL LINK/LAN> terminal of the projector.

- 1) Press ▲▼ to select [DIGITAL LINK MODE].
- 2) Press ◀▶ to switch the item.
 - The items will switch each time you press the button.

[AUTO]	Switches the communication method automatically to DIGITAL LINK, long reach, or Ethernet.
[DIGITAL LINK]	Fixes the communication method to DIGITAL LINK.
[LONG REACH]	Fixes the communication method to long reach.
[ETHERNET]	Fixes the communication method to Ethernet.

Possible communication modes

- ✓: Communication possible
—: Communication not possible

Setting		Communication possible			
		Video transfer (100 m (328'1"))	Video transfer (150 m (492'2"))	Ethernet	RS-232C
[AUTO]	For DIGITAL LINK	✓	—	✓	✓
	For long reach	—	✓	✓	✓
	For Ethernet	—	—	✓*1	—
[DIGITAL LINK]		✓	—	✓	✓
[LONG REACH]		—	✓	✓	✓
[ETHERNET]		—	—	✓*1	—

*1 Communication via a twisted-pair-cable transmitter is not available. Connect the projector to the network directly.

Note

- The maximum transmission distance when connected with the long-reach communication method is 150 m (492'2"). In this case, the signal that the projector can receive is only up to 1080/60p (1 920 x 1 080 dots, dot clock frequency 148.5 MHz).
- When the communication method of the twist-pair-cable transmitter is set to long reach, the projector will connect with long-reach communication method when [DIGITAL LINK MODE] is set to [AUTO]. To connect with the optional DIGITAL LINK Switcher (Model No.: ET-YFB200G) with the long-reach communication method, set [DIGITAL LINK MODE] to [LONG REACH].
- Connection will not be made correctly if the twist-pair-cable transmitter is not supporting the long-reach communication method even if [DIGITAL LINK MODE] is set to [LONG REACH].

[DIGITAL LINK SETUP]

Set the communication method of DIGITAL LINK or Ethernet.

When the projector is connected directly via Ethernet

- 1) Press ▲▼ to select [DIGITAL LINK SETUP].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK SETUP] screen is displayed.
- 3) Press ▲▼ to select [DUPLEX(ETHERNET)].
- 4) Press ◀▶ to switch the communication method.
 - The items will switch each time you press the button.

[AUTONEGOTIATION]	Sets the communication method automatically.
[100BaseTX-Full]	Sets full-duplex communication method.
[100BaseTX-Half]	Sets half-duplex communication method.

- 5) Press ▲▼ to select [STORE].
- 6) Press the <ENTER> button.
- 7) When the confirmation screen is displayed, press ◀▶ to select [OK], and then press the <ENTER> button.

Note

- The projector does not support 10BaseT Full/Half.

When the projector is connected to a twisted-pair-cable transmitter

- 1) Press ▲▼ to select [DIGITAL LINK SETUP].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK SETUP] screen is displayed.
- 3) Press ▲▼ to select [DUPLEX(DIGITAL LINK)].
- 4) Press ◀▶ to switch the communication method.
 - The items will switch each time you press the button.

[100BaseTX-Full]	Sets full-duplex communication method.
[100BaseTX-Half]	Sets half-duplex communication method.
[AUTONEGOTIATION]	Sets the communication method automatically.

- 5) Press ▲▼ to select [STORE].
- 6) Press the <ENTER> button.
- 7) When the confirmation screen is displayed, press ◀▶ to select [OK], and then press the <ENTER> button.

[DIGITAL LINK STATUS]

Display the DIGITAL LINK connection environment.

- 1) Press ▲▼ to select [DIGITAL LINK STATUS].
- 2) Press the <ENTER> button.
 - The [DIGITAL LINK STATUS] screen is displayed.

[LINK STATUS]	One of [NO LINK], [DIGITAL LINK], [LONG REACH], or [ETHERNET] is displayed.
[HDCP STATUS]	One of [NO SIGNAL], [OFF], or [ON] is displayed.
[SIGNAL QUALITY]	<p>[SIGNAL QUALITY] is a numerical value of the amount of error, and the display color changes to green, yellow, or red depending on that value. Check the signal quality level while receiving a signal from the twisted-pair-cable transmitter.</p> <ul style="list-style-type: none"> • [MAX]/[MIN]: Maximum/minimum value of the amount of error • Green (-12 dB or lower) → normal signal quality level. • Yellow (-11 to -8 dB) → caution level that noise may appear on the screen. • Red (-7 dB or higher) → abnormal level with interrupted synchronization and receiving not possible.

[NETWORK SETUP]

Perform the initial setting of the network before using the network function.

- 1) Press ▲▼ to select [NETWORK SETUP].
- 2) Press the <ENTER> button.
 - The [NETWORK SETUP] screen is displayed.
- 3) Press ▲▼ to select an item, and change the settings according to the operation instructions of the menu.

[PROJECTOR NAME]	Allows to change the projector name. Enter the host name if it is required to use a DHCP server.
------------------	--

[DHCP]	[ON]	If a DHCP server exists in the network where the projector is to be connected, obtains the IP address automatically.
	[OFF]	If a DHCP server does not exist in the network where the projector is to be connected, set [IP ADDRESS], [SUBNET MASK], and [DEFAULT GATEWAY].
[IP ADDRESS]	Enter the IP address when a DHCP server is not used.	
[SUBNET MASK]	Enter the subnet mask when a DHCP server is not used.	
[DEFAULT GATEWAY]	Enter the default gateway address when a DHCP server is not used.	

- 4) Press ▲▼ to select [STORE], and press the <ENTER> button.
- 5) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- When using a DHCP server, confirm that the DHCP server is running.
- Consult your network administrator regarding the IP address, subnet mask, and default gateway.
- When [Art-Net SETUP] is set to [ON(2.X.X.X)] or [ON(10.X.X.X)], [NETWORK SETUP] cannot be selected.

[NETWORK CONTROL]

Set up the control method of the network.

- 1) Press ▲▼ to select [NETWORK CONTROL].
- 2) Press the <ENTER> button.
 - The [NETWORK CONTROL] screen is displayed.
- 3) Press ▲▼ to select an item, and press ◀▶ to change the setting.

[WEB CONTROL]	Set to [ON] to control with the web browser.
[PJLink CONTROL]	Set to [ON] to control with the PJLink protocol.
[COMMAND CONTROL]	Set to [ON] to control with the <SERIAL IN>/<SERIAL OUT> terminal control command format (➡ page 214). Refer to “Control commands via LAN” (➡ page 208).
[COMMAND PORT]	Set the port number used for command control.
[Crestron Connected(TM)]	Set to [ON] to control with Crestron Connected™ of Crestron Electronics, Inc.
[AMX D.D.]	Set to [ON] to control with the controller of AMX Corporation. Setting this function to [ON] enables detection through “AMX Device Discovery”. For details, visit the website of AMX Corporation. URL http://www.amx.com/
[EXTRON XTP]	Set to [ON] when connecting the “XTP transmitter” of Extron Electronics to the <DIGITAL LINK/LAN> terminal. The [EXTRON XTP] setting must be set to [OFF] when connecting the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G). For details of the “XTP transmitter”, visit the website of Extron Electronics. URL http://www.extron.com/

- 4) Press ▲▼ to select [STORE], and press the <ENTER> button.
- 5) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

[NETWORK STATUS]

Display the status of the projector network.

- 1) Press ▲▼ to select [NETWORK STATUS].
- 2) Press the <ENTER> button.
 - The [NETWORK STATUS] screen is displayed.

[DHCP]	Displays the status of use of the DHCP server.
[IP ADDRESS]	Displays the [IP ADDRESS].
[SUBNET MASK]	Displays the [SUBNET MASK].
[DEFAULT GATEWAY]	Displays the [DEFAULT GATEWAY].
[DNS1]	Displays the address of the preferred DNS server.
[DNS2]	Displays the address of the alternate DNS server.
[MAC ADDRESS]	Displays the [MAC ADDRESS].

[DIGITAL LINK MENU]

When the optional DIGITAL LINK output supported device (Model No.: ET-YFB100G, ET-YFB200G) is connected to the <DIGITAL LINK/LAN> terminal, the main menu of the connected DIGITAL LINK output supported device is displayed. Refer to the Operating Instructions of the DIGITAL LINK output supported device for details.

Note

- [DIGITAL LINK MENU] cannot be selected when [EXTRON XTP] is set to [ON].
- The operation guidance for the "RETURN" button is in the menu screen of the Digital Interface Box and DIGITAL LINK Switcher. The projector does not have the "RETURN" button, but the same operation is available with the <MENU> button.

[Art-Net SETUP]

Make settings to use the Art-Net function.

- 1) Press ▲▼ to select [Art-Net SETUP].
- 2) Press ◀▶ to select an item.
 - The items will switch each time you press the button.

[OFF]	Disables the Art-Net function.
[ON(2.X.X.X)]	Enables the Art-Net function and sets the IP address to 2.X.X.X.
[ON(10.X.X.X)]	Enables the Art-Net function and sets the IP address to 10.X.X.X.
[ON(MANUAL)]	Enables the Art-Net function and uses the IP address set in [NETWORK SETUP].

- When anything other than [OFF] is selected, proceed to Step 3).

- 3) Press the <ENTER> button.
 - The [Art-Net SETUP] screen is displayed.
- 4) Press ▲▼ to select an item, and press ◀▶ to switch the setting.

[NET]	Enter [NET] to be used when the projector processes Art-Net.
[SUB NET]	Enter [SUB NET] to be used when the projector processes Art-Net.
[UNIVERSE]	Enter [UNIVERSE] to be used when the projector processes Art-Net.
[START ADDRESS]	Enter [START ADDRESS] to be used when the projector processes Art-Net.

- 5) Press ▲▼ to select [STORE], and press the <ENTER> button.
- 6) When the confirmation screen is displayed, press ◀▶ to select [OK], and press the <ENTER> button.

Note

- If [ON(2.X.X.X)] or [ON(10.X.X.X)] is selected, IP address is calculated and set automatically.

[Art-Net CHANNEL SETTING]

Set the assignment of the channel.

For the channel definitions used for controlling the projector with the Art-Net function, refer to "Using Art-Net function" (➔ page 204).

- 1) Press ▲▼ to select [Art-Net CHANNEL SETTING].
- 2) Press ◀▶ to switch the item.

[2]	Uses the channel assignment in standard setting.
[USER]	Changes the channel assignment.
[1]	Uses the channel assignment with DZ21K series compatible. DZ21K series: DZ21K series, DS20K series, DW17K series, DZ16K series

- When [2] or [1] is selected, the function assigned to the channel is displayed by pressing the <ENTER> button.
- When [USER] is selected, proceed to Step 3).

- 3) Press the <ENTER> button.
 - The [Art-Net CHANNEL SETTING] screen is displayed.
- 4) Press ▲▼ to select the channel to set, and press ◀▶ to switch the item.

[LIGHT OUTPUT]	Adjusts the amount of light.
[INPUT SELECT]	Switches the input.
[LENS POSITION]	Moves the lens position.
[LENS H SHIFT]	Adjusts the lens shift in the horizontal direction.
[LENS V SHIFT]	Adjusts the lens shift in the vertical direction.
[LENS FOCUS]	Adjusts the focus.
[LENS ZOOM]	Adjusts the zoom.
[POWER]	Controls the power status.
[SHUTTER]	Controls the shutter.
[GEOMETRY]	Performs geometric adjustment.
[CUSTOM MASKING]	Performs geometric adjustment using a computer. To use PC-1, PC-2, and PC-3, the optional Upgrade Kit (Model No.: ET-UK20) is required.
[FREEZE]	Freezes the projected image.
[COLOR]	Adjusts the color saturation.
[TINT]	Adjusts the tint.
[RASTER PATTERN]	Displays the raster pattern.
[ENABLE/DISABLE]	Enables/disables the control of the projector with the Art-Net function.
[NONE]	No definition

- The setting can be also made by pressing ▲▼ to select the channel, pressing the <ENTER> button to display the item list, pressing ▲▼◀▶ to select the item, and pressing the <ENTER> button.
- Same item cannot be set for multiple channels, except for [NONE].

[Art-Net STATUS]

Display the content of control assigned to each channel and the received data of that channel.

- 1) Press ▲▼ to select [Art-Net STATUS].
- 2) Press the <ENTER> button.
 - The [Art-Net STATUS] screen is displayed.

Network connection

The projector has a network function, and the following operations are available from the computer using the web control.

- Setting and adjustment of the projector
- Display of the projector status
- Sending E-mail messages when there is a problem with the projector

The projector supports “Crestron Connected™”, and the following application software of Crestron Electronics, Inc. can be used.

- RoomView Express
- Fusion RV
- RoomView Server Edition

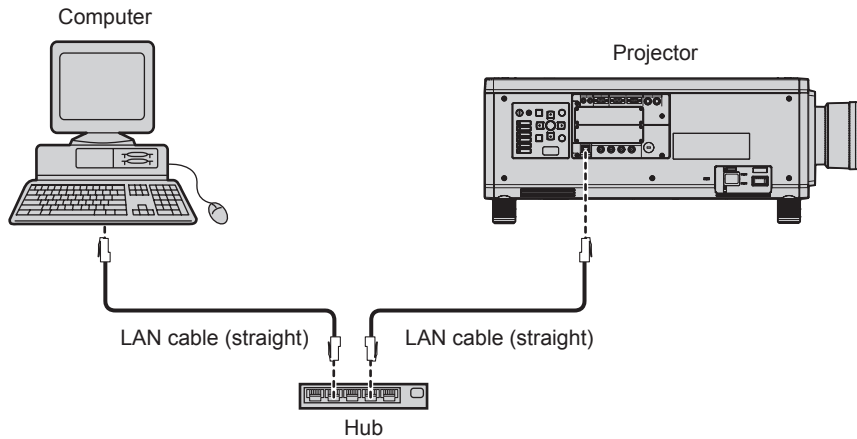
Attention

- When a LAN cable is directly connected to the projector, the network connection must be made indoors.

Note

- “Crestron Connected™” is a system of Crestron Electronics, Inc. that collectively manages and controls devices on multiple systems connected to a network using a computer.
- For details of the “Crestron Connected™”, visit the website of Crestron Electronics, Inc. (English only.)
URL <http://www.crestron.com>
Download “RoomView Express” from the Crestron Electronics, Inc. website. (English only.)
URL <http://www.crestron.com/getroomview>
- A LAN cable is required to use the network function.

■ Example of a normal network connection

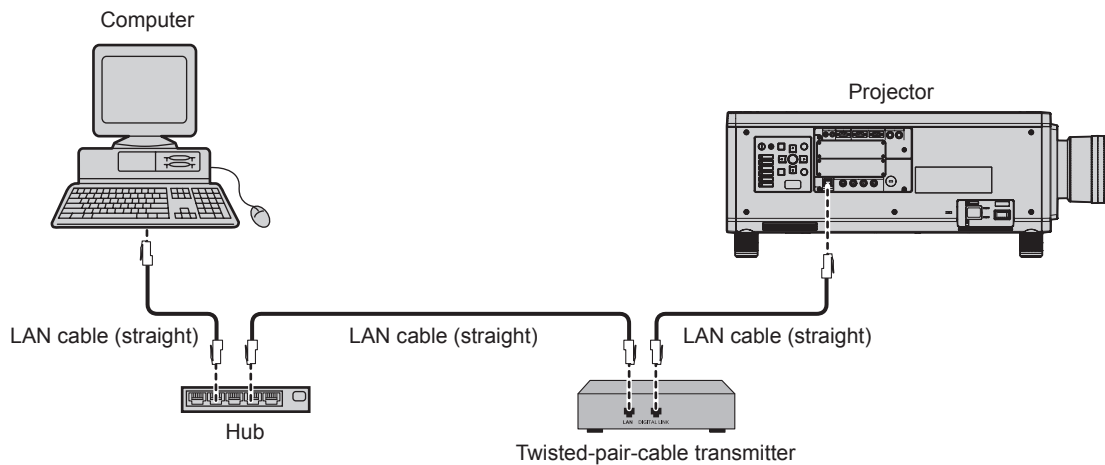


- A web browser is required to use this function. Confirm that the web browser can be used beforehand.
Supported browser: Internet Explorer 8.0/9.0/10.0/11.0 (Windows OS), Safari 6.0/7.0/8.0 (Mac OS)
- Communication with an E-mail server is required to use the E-mail function. Confirm that the E-mail can be used beforehand.
- Use a LAN cable that is straight cable and compatible with category 5 or higher.
- Use a LAN cable of 100 m (328'1") or shorter.

Connecting to a twisted-pair-cable transmitter

The projector has a function that can receive Ethernet signals from a twisted-pair-cable transmitter together with video and audio signals via a LAN cable. Connect a LAN cable to the <DIGITAL LINK/LAN> terminal of the projector. (➔ pages 21, 29)

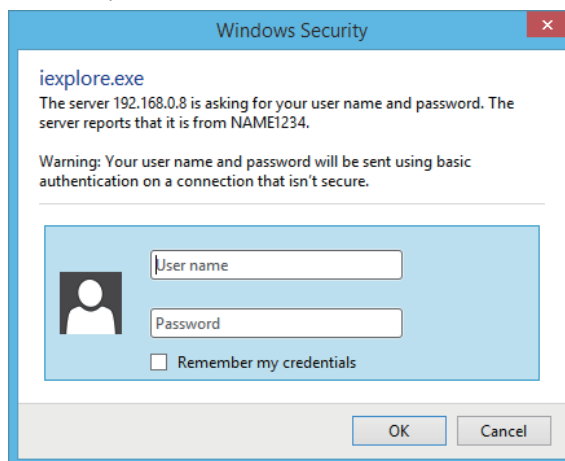
■ Example of network connections via a twisted-pair-cable transmitter



- For the LAN cable between the twisted-pair-cable transmitter and the projector, use a cable that meets the following criteria:
 - Conforming to CAT5e or higher standards
 - Shielded type (including connectors)
 - Straight-through
 - Single wire
- The maximum transmission distance between the twisted-pair-cable transmitter and the projector is 100 m (328'1") for the signal with resolution of 1 920 x 1 200 dots or less. It is possible to transmit up to 150 m (492'2") if the twisted-pair-cable transmitter supports the long-reach communication method. However, the signal that the projector can receive is only up to 1080/60p (1 920 x 1 080 dots, dot clock frequency 148.5 MHz) for the long-reach communication method. For the signal with the resolution exceeding 1 920 x 1 200 dots, the maximum transmission distance will be 50 m (164'1"). If these distances are exceeded, image may be disrupted or a malfunction may occur in LAN communication.
- When laying cables between the twisted-pair-cable transmitter and the projector, confirm that cable characteristics are compatible with CAT5e or higher using tools such as a cable tester or cable analyzer.
When a relay connector is used, include it in the measurement.
- Do not use a hub between the twisted-pair-cable transmitter and the projector.
- Do not pull cables forcefully. Also, do not bend or fold cables unnecessarily.
- To reduce the effects of noise as much as possible, stretch out the cables between the twisted-pair-cable transmitter and the projector without any loops.
- Lay the cables between the twisted-pair-cable transmitter and the projector away from other cables, particularly power cables.
- When laying multiple cables, run them side by side along the shortest distance possible without bundling them together.
- After laying the cables, go to the [NETWORK] menu → [DIGITAL LINK STATUS] and confirm that the value of [SIGNAL QUALITY] is displayed in green which indicates normal quality. (➔ page 169)
- For twisted-pair-cable transmitters of other manufacturers of which the operation has been verified with the projector, visit the Panasonic website (<https://panasonic.net/cns/projector/>). Note that the verification for devices of other manufacturers has been made for the items set by Panasonic Corporation, and not all the operations have been verified. For operation or performance problems caused by the devices of other manufacturers, contact the respective manufacturers.

Accessing from the web browser

- 1) Start up the web browser on the computer.
- 2) Enter the IP address set on the projector into the URL entry field of the web browser.
- 3) Enter the user name and the password.
 - The factory default setting of the user name is user1 (user rights)/admin1 (administrator rights) and the password is panasonic (lower case).



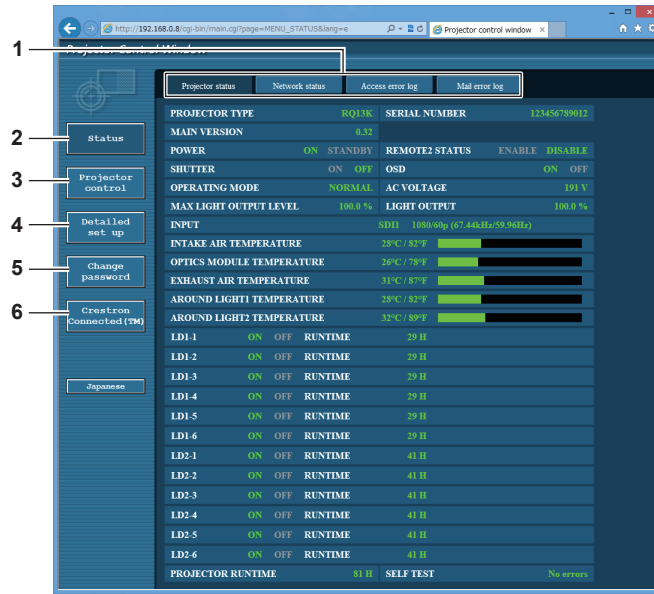
4) Click OK.

- The [Projector status] page is displayed.

**Note**

- If you use a web browser to control the projector, set [WEB CONTROL] to [ON] in [NETWORK CONTROL] (➔ page 170).
- Do not perform setting or control simultaneously by starting up multiple web browsers. Do not set or control the projector from multiple computers.
- Change the password first. (➔ page 188)
- The administrator rights allow use of all functions. The user rights allow use of [Projector status] (➔ page 177), confirmation of the error information page (➔ page 178), [Network status] (➔ page 179), [Basic control] (➔ page 181), and [Change password] (➔ page 188) only.
- Access will be locked for few minutes when an incorrect password is entered three times consecutively.
- Some items on the projector setting page use the Javascript function of the web browser. The projector may not be able to be controlled properly if this function is disabled on the browser settings.
- If the screen for the web control is not displayed, consult your network administrator.
- While updating the screen for the web control, the screen may appear white for a moment, but it is not a malfunction.
- Screenshot of a computer
The size or the display of the screen may be different from this manual depending on the OS or the Web browser you use.

Descriptions of items

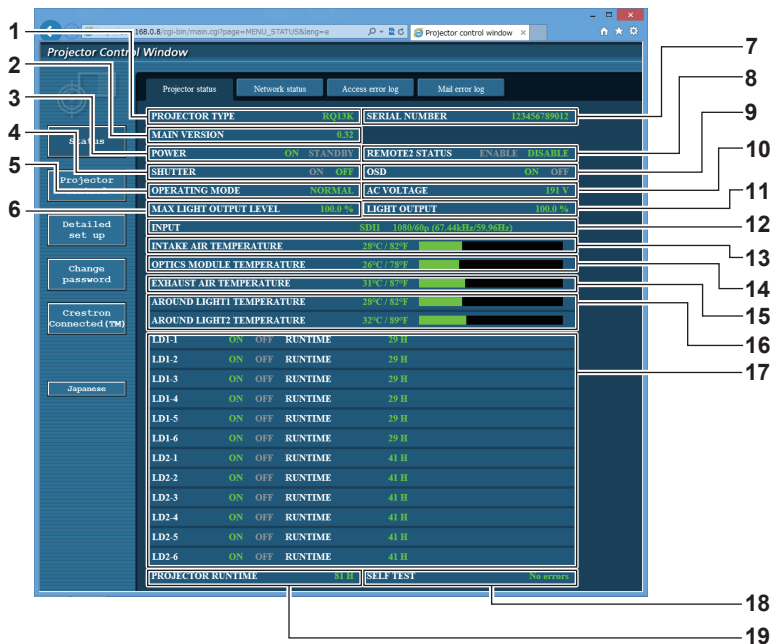


- | | |
|--|--|
| <p>1 Page tab
Switches pages by clicking this item.</p> <p>2 [Status]
The status of the projector is displayed by clicking this item.</p> <p>3 [Projector control]
The [Projector control] page is displayed by clicking this item.</p> | <p>4 [Detailed set up]
The [Detailed set up] page is displayed by clicking this item.</p> <p>5 [Change password]
The [Change password] page is displayed by clicking this item.</p> <p>6 [Crestron Connected(TM)]
The operation page of Crestron Connected™ is displayed by clicking this item.</p> |
|--|--|

[Projector status] page

Click [Status] → [Projector status].

Display the status of the projector for the following items.

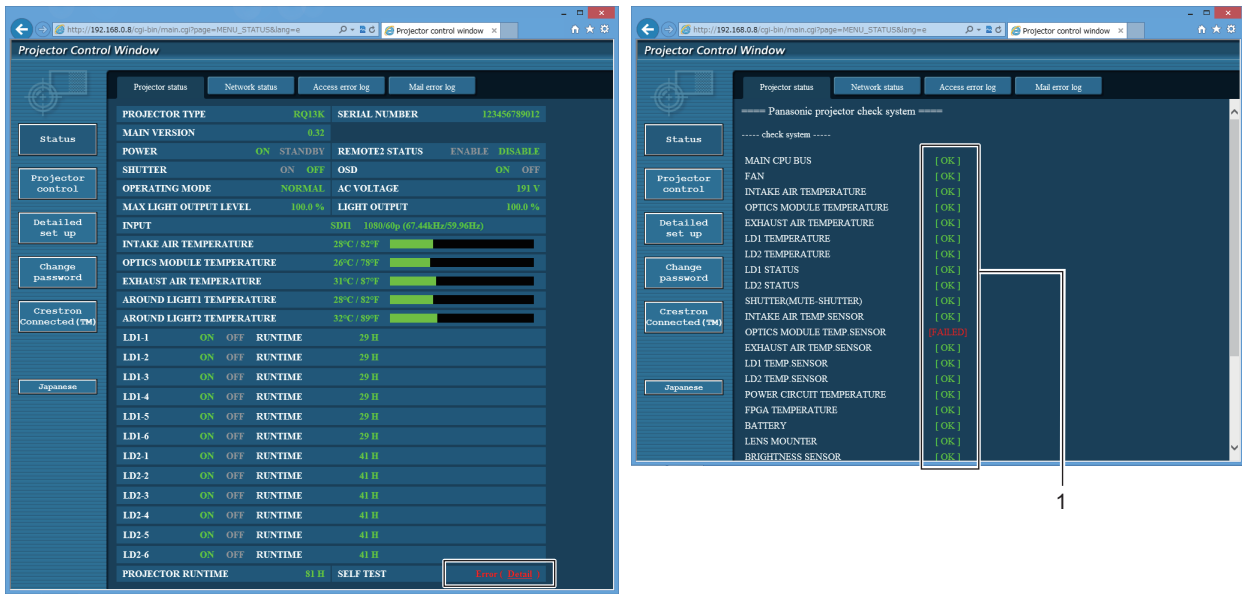


- | | |
|---|--|
| <p>1 [PROJECTOR TYPE]
Displays the type of the projector.</p> <p>2 [MAIN VERSION]
Displays the firmware version of the projector.</p> <p>3 [POWER]
Displays the status of the power.</p> <p>4 [SHUTTER]
Displays the status of shutter function (ON: enabled (closed), OFF: disabled (open)).</p> <p>5 [OPERATING MODE]
Displays the setting status of [OPERATING MODE].</p> <p>6 [MAX LIGHT OUTPUT LEVEL]
Displays the setting status of [MAX LIGHT OUTPUT LEVEL].</p> <p>7 [SERIAL NUMBER]
Displays the serial number of the projector.</p> <p>8 [REMOTE2 STATUS]
Displays the control status of the <REMOTE 2 IN> terminal.</p> <p>9 [OSD]
Displays the status of the on-screen display.</p> <p>10 [AC VOLTAGE]
Displays the input supply voltage.</p> | <p>11 [LIGHT OUTPUT]
Displays the setting status of [LIGHT OUTPUT].</p> <p>12 [INPUT]
Displays the status of the selected input.</p> <p>13 [INTAKE AIR TEMPERATURE]
Displays the status of the intake air temperature of the projector.</p> <p>14 [OPTICS MODULE TEMPERATURE]
Displays the status of the internal temperature of the projector.</p> <p>15 [EXHAUST AIR TEMPERATURE]
Displays the status of the exhaust air temperature of the projector.</p> <p>16 [AROUND LIGHT1 TEMPERATURE], [AROUND LIGHT2 TEMPERATURE]
Displays the temperature status of the light source.</p> <p>17 [LD1-1], [LD1-2], [LD1-3], [LD1-4], [LD1-5], [LD1-6], [LD2-1], [LD2-2], [LD2-3], [LD2-4], [LD2-5], [LD2-6]
Displays the lighting status and runtime of the light source.</p> <p>18 [SELF TEST]
Displays the self-diagnosis information.</p> <p>19 [PROJECTOR RUNTIME]
Displays the runtime of the projector.</p> |
|---|--|

Error information page

When [Error (Detail)] or [Warning (Detail)] is displayed in the [SELF TEST] display field of the [Projector status] screen, click it to display the content of the error/warning.

- The projector may go into the standby status to protect the projector depending on the contents of the error.



1 Self-diagnosis result display

Displays the item check results.

[OK]:

Indicates that operation is normal.

[FAILED]:

Indicates that there is a problem.

[WARNING]:

Indicates that there is a warning.

■ [FAILED] items

Item	Description
[MAIN CPU BUS]	There is a problem with the microcomputer circuitry. Consult your dealer.
[FAN]	There is a problem with the fan or the fan drive circuit. Consult your dealer.
[INTAKE AIR TEMPERATURE]	The intake air temperature is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[OPTICS MODULE TEMPERATURE]	The temperature around the optics module inside the projector is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[EXHAUST AIR TEMPERATURE]	The exhaust air temperature is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance. Or the air exhaust port may be blocked.
[LD1 TEMPERATURE]	The temperature of the light source is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[LD2 TEMPERATURE]	
[LD1 STATUS]	The light source has failed to turn on. Consult your dealer.
[LD2 STATUS]	
[SHUTTER(MUTE-SHUTTER)]	There is a problem with the shutter circuitry. Consult your dealer.
[INTAKE AIR TEMP.SENSOR]	There is a problem with the sensor used to detect intake temperature. Consult your dealer.
[OPTICS MODULE TEMP.SENSOR]	There is a problem with the sensor used to detect temperature inside the projector. Consult your dealer.
[EXHAUST AIR TEMP.SENSOR]	There is a problem with the sensor used to detect exhaust air temperature. Consult your dealer.
[LD1 TEMP.SENSOR]	There is a problem with the temperature detection sensor of light source 1. Consult your dealer.
[LD2 TEMP.SENSOR]	There is a problem with the temperature detection sensor of light source 2. Consult your dealer.
[POWER CIRCUIT TEMPERATURE]	The temperature around the power circuit is high. The air intake port may be blocked.
[FPGA TEMPERATURE]	The temperature inside the projector is high. The air intake port may be blocked.
[LENS MOUNTER]	There is a problem in the lens mounter. Consult your dealer.

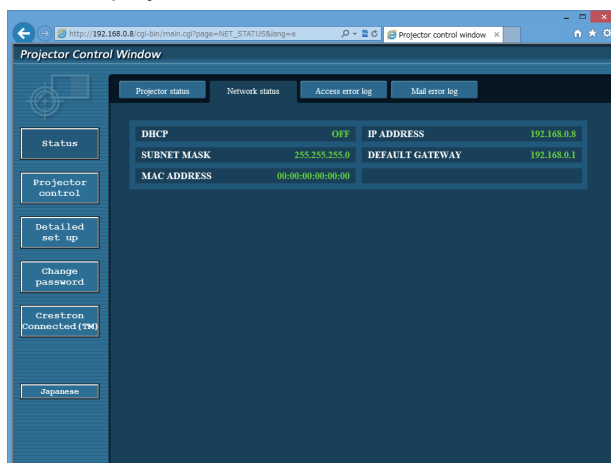
Item	Description
[BRIGHTNESS SENSOR]	There is a problem with the luminance sensor. If problems persist even after switching on the power, consult your dealer.
[PHOSPHOR WHEEL1]	There is a problem with the phosphor wheel 1 or phosphor wheel 1 drive circuit. Consult your dealer.
[PHOSPHOR WHEEL2]	There is a problem with the phosphor wheel 2 or phosphor wheel 2 drive circuit. Consult your dealer.
[QUAD PIXEL DRIVE UNIT]	There is a problem with the QUAD PIXEL DRIVE unit handling the function to enhance the resolution of the projected image, or its drive circuit. Consult your dealer.
[FILTER UNIT]	The air filter unit is not attached. Check the connection of the air filter unit. (➡ page 195)

■ [WARNING] items

Item	Description
[INTAKE AIR TEMPERATURE]	The intake temperature is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[OPTICS MODULE TEMPERATURE]	The temperature around the optics module inside the projector is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[EXHAUST AIR TEMPERATURE]	The exhaust air temperature is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance. Or the air exhaust port may be blocked.
[LD1 TEMPERATURE]	The temperature of the light source is high. The projector may be used in an environment where the temperature is high, such as near a heating appliance.
[LD2 TEMPERATURE]	
[POWER CIRCUIT TEMPERATURE]	The temperature around the power circuit is high. The air intake port may be blocked.
[FPGA TEMPERATURE]	The temperature inside the projector is high. The air intake port may be blocked.
[BATTERY]	Battery replacement is required. Consult your dealer.
[AIR FILTER]	There is too much dust accumulated in the air filter. Set the <MAIN POWER> switch to <OFF> (➡ page 64), and clean the air filter. (➡ page 195)
[AC VOLTAGE]	The input supply voltage is low. Use electric wiring that can sufficiently withstand the power consumption of the projector.
[LOW-TEMPERATURE]	The temperature around the optics module inside the projector is low. Projection cannot be started until the optics module becomes warm.

[Network status] page

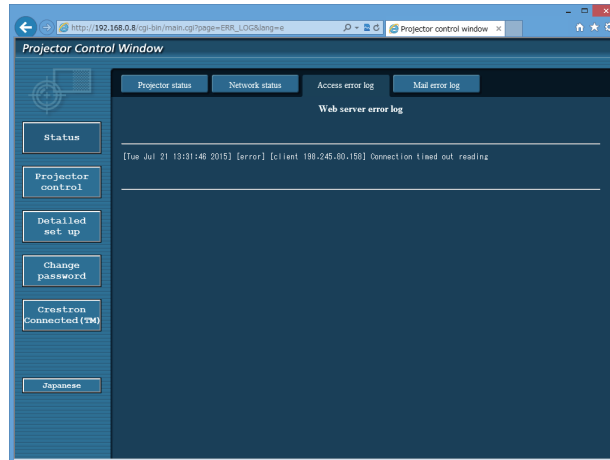
Click [Status] → [Network status].
The current network setting status is displayed.



[Access error log] page

Click [Status] → [Access error log].

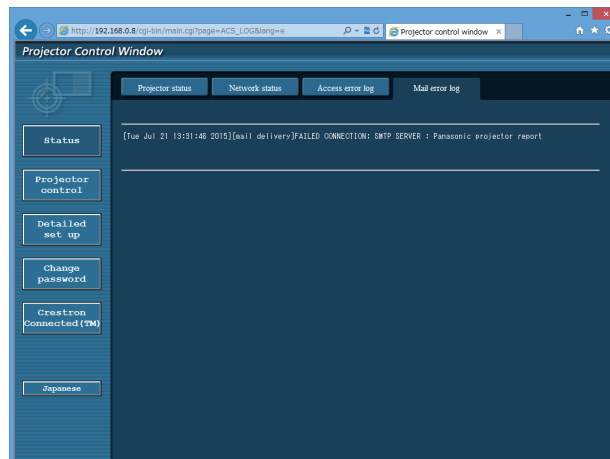
The error log on the web server is displayed such as access to the pages that do not exist or access with unauthorized user names or passwords.



[Mail error log] page

Click [Status] → [Mail error log].

E-mail error log is displayed if periodic E-mail sending has failed.

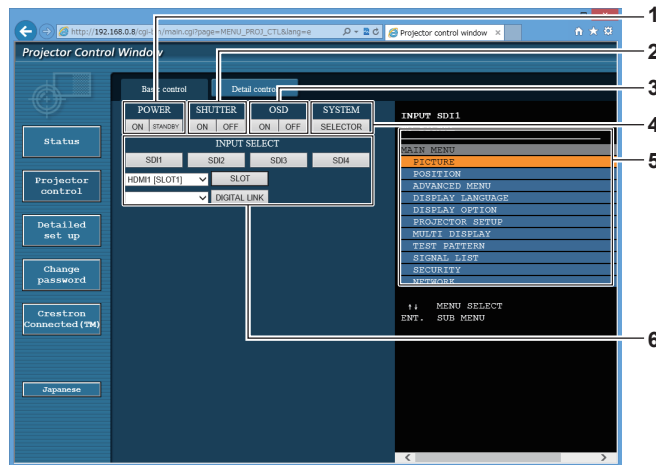


Note

- [Access error log] and [Mail error log] display the recent few thousand accesses/requests. All information may not be displayed when many accesses/requests are made at once.
- Logs in [Access error log] and [Mail error log] are deleted from the oldest when exceeding a certain amount.
- Check [Access error log] and [Mail error log] periodically.

[Basic control] page

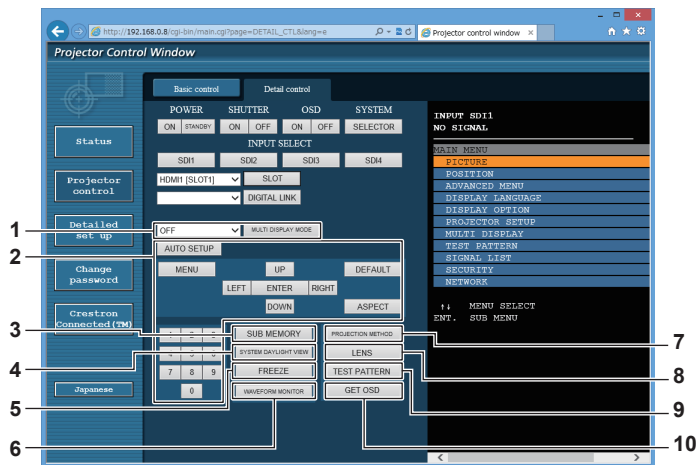
Click [Projector control] → [Basic control].



- 1 **[POWER]**
Turns on/off the power.
- 2 **[SHUTTER]**
Switches whether to use the shutter function (enabled (shutter: closed)/disabled (shutter: open)).
- 3 **[OSD]**
Switches on (display)/off (hide) the on-screen display function.
- 4 **[SYSTEM]**
Switches the system method.
- 5 **On-screen display of the projector**
Displays the same items as shown on the on-screen display of the projector. You can check or change the settings of the menus. It is displayed even if the on-screen display function is set to off (hide).
- 6 **[INPUT SELECT]**
Switches the input signal. The display content for the input selection button varies depending on the optional Interface Board installed in the slot.

[Detail control] page

Click [Projector control] → [Detail control].

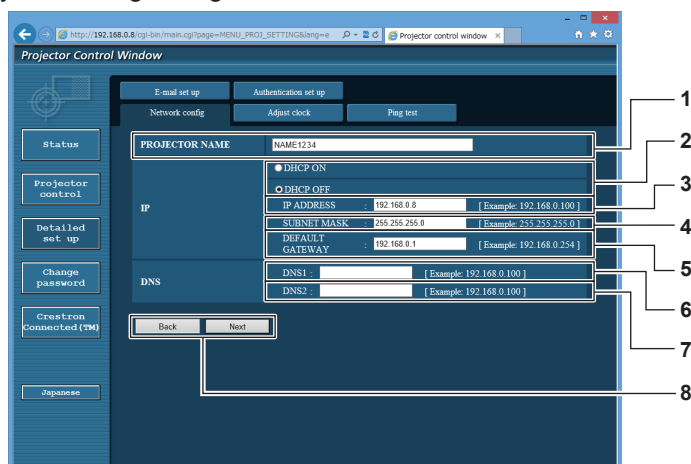


- 1 **[MULTI DISPLAY MODE]**
Switches the setting of the multi-display mode.
- 2 **Control of the projector**
The projector is controlled by clicking the buttons in the same way as the buttons on the remote control. After control, the on-screen display of the projector at the right of the control page is updated.
- 3 **[SUB MEMORY]**
Switches the sub memory.
- 4 **[SYSTEM DAYLIGHT VIEW]**
Switches to system daylight view settings.
- 5 **[FREEZE]**
Temporarily pauses the image.
- 6 **[WAVEFORM MONITOR]**
Displays the waveform of the input signal.
- 7 **[PROJECTION METHOD]**
Switches the setting of the projection method.
- 8 **[LENS]**
Adjusts the projection lens.
- 9 **[TEST PATTERN]**
Displays the test pattern.
- 10 **[GET OSD]**
Updates the on-screen display of the projector at the right of the control page.

[Network config] page

Click [Detailed set up] → [Network config].

- Click [Network config] to display the **[CAUTION!]** screen.
- The current settings are displayed by pressing the [Next] button.
- Click [Change] to display the setting change screen.



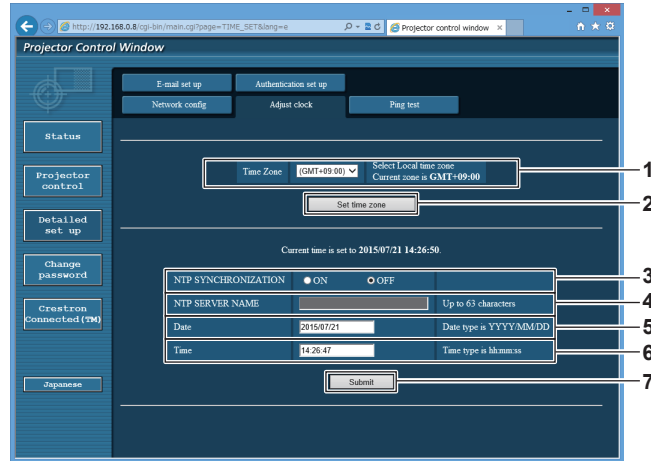
- [PROJECTOR NAME]**
Enter the name of the projector. Enter the host name if it is required when using a DHCP server etc.
- [DHCP ON], [DHCP OFF]**
To enable the DHCP client function, set to [DHCP ON].
- [IP ADDRESS]**
Enter the IP address when not using a DHCP server.
- [SUBNET MASK]**
Enter the subnet mask when not using a DHCP server.
- [DEFAULT GATEWAY]**
Enter the default gateway address when not using a DHCP server.
- [DNS1]**
Enter the DNS1 server address.
Permissible characters for the entry of DNS1 server address (primary):
Numbers (0 - 9), period (.)
(Example: 192.168.0.253)
- [DNS2]**
Enter the DNS2 server address.
Available characters for the entry of DNS2 server address (secondary):
Numbers (0 - 9), period (.)
(Example: 192.168.0.254)
- [Back], [Next]**
Click the [Back] button to return to the original screen. The current settings are displayed by pressing the [Next] button. Click the [Submit] button to update the settings.

Note

- When you use the “Forward” and “Back” functions of your browser, a warning message “Page has Expired” may appear. In that case, click [Network config] again since the following operation LAN will not be guaranteed.
- Changing LAN settings while connected to the LAN may cause the connection to cut out.

[Adjust clock] page

Click [Detailed set up] → [Adjust clock].



- | | |
|---|--|
| <p>1 [Time Zone]
Select the time zone.</p> <p>2 [Set time zone]
Updates the time zone setting.</p> <p>3 [NTP SYNCHRONIZATION]
Set to [ON] to adjust the date and time automatically.</p> <p>4 [NTP SERVER NAME]
Enter the IP address or server name of the NTP server when you set to adjust the date and time manually.
(To enter the server name, the DNS server needs to be set up.)</p> | <p>5 [Date]
Enter the date to be changed.</p> <p>6 [Time]
Enter the time to be changed.</p> <p>7 [Submit]
Updates the date and time settings.</p> |
|---|--|

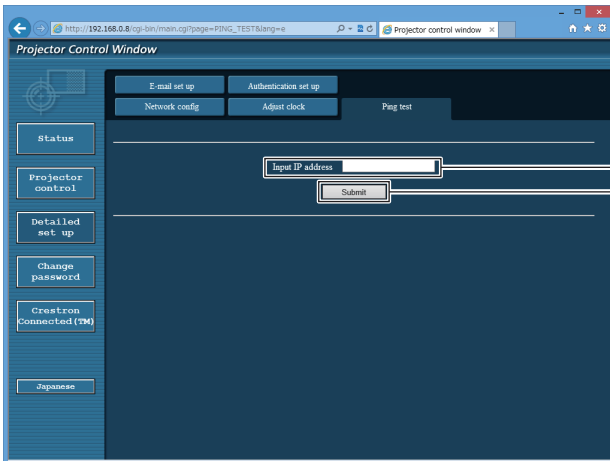
Note

- The replacement of the battery inside the projector is required when the time goes out of alignment right after correcting the time. Consult your dealer.

[Ping test] page

Check whether the network is connected to the E-mail server, POP server, DNS server, etc.

Click [Detailed set up] → [Ping test].



```
PING 192.168.0.8 (192.168.0.8): 56 data bytes
64 bytes from 192.168.0.8: seq=0 ttl=128 time=1 ms
64 bytes from 192.168.0.8: seq=1 ttl=128 time=1 ms
64 bytes from 192.168.0.8: seq=2 ttl=128 time=1 ms
64 bytes from 192.168.0.8: seq=3 ttl=128 time=1 ms
```

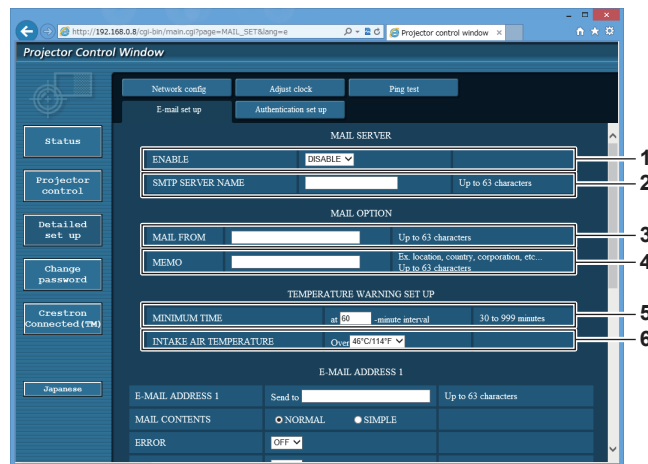
```
--- 192.168.0.8 ping statistics ---
4 packets transmitted, 4 packets received, 0% packet loss
round-trip min/avg/max = 1/1/1 ms
```

```
PING 198.245.80.10 (198.245.80.10): 56 data bytes
--- 198.245.80.10 ping statistics ---
4 packets transmitted, 0 packets received, 100% packet loss
```

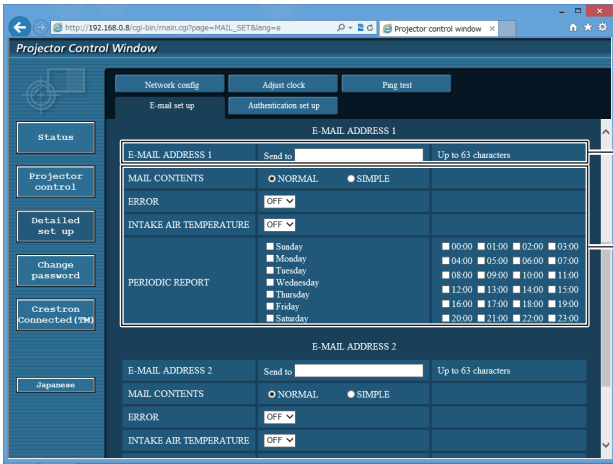
- | | |
|--|--|
| <p>1 [Input IP address]
Enter the IP address of the server to be tested.</p> <p>2 [Submit]
Executes the connection test.</p> | <p>3 Example of display when the connection has succeeded</p> <p>4 Example of display when the connection has failed</p> |
|--|--|

[E-mail set up] page

Send an E-mail to preset E-mail addresses (up to two addresses) when a problem has occurred.
 Click [Detailed set up] → [E-mail set up].



- | | |
|---|---|
| <p>1 [ENABLE]
 Select [Enable] to use the E-mail function.</p> <p>2 [SMTP SERVER NAME]
 Enter the IP address or the server name of the E-mail server (SMTP). To enter the server name, the DNS server needs to be set up.</p> <p>3 [MAIL FROM]
 Enter the E-mail address of the projector. (Up to 63 characters in single byte)</p> <p>4 [MEMO]
 Enter information such as the location of the projector that notifies the sender of the E-mail. (Up to 63 characters in single byte)</p> | <p>5 [MINIMUM TIME]
 Change the minimum interval for the temperature warning E-mail. The default value is 60 minutes. In this case, another E-mail will not be sent for 60 minutes after sending the temperature warning E-mail even if it reaches the warning temperature.</p> <p>6 [INTAKE AIR TEMPERATURE]
 Change the temperature setting for the temperature warning mail. A temperature warning E-mail is sent when the temperature exceeds this value.</p> |
|---|---|

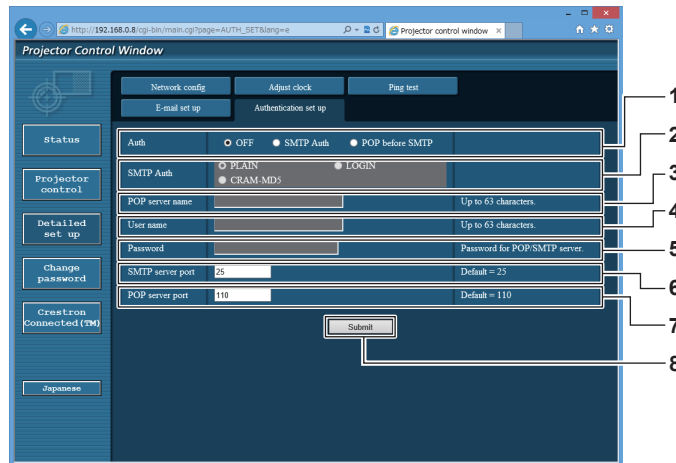


- 7 **[E-MAIL ADDRESS 1], [E-MAIL ADDRESS 2]**
Enter the E-mail address to be sent. Leave [E-MAIL ADDRESS 2] blank when two E-mail addresses are not to be used.

- 8 **Settings of the conditions to send E-mail**
Select the conditions to send E-mail.
[MAIL CONTENTS]:
Select either [NORMAL] or [SIMPLE].
[ERROR]:
Send an E-mail when an error occurred in the self-diagnosis.
[INTAKE AIR TEMPERATURE]:
Send an E-mail when the intake air temperature has reached the value set at the above field.
[PERIODIC REPORT]:
Place a check mark on this to send an E-mail periodically. It will be sent on the days and time with the check mark.
- 9 **[Submit]**
Update the settings.

[Authentication set up] page

Set the authentication items when POP authentication or SMTP authentication is necessary to send an E-mail. Click [Detailed set up] → [Authentication set up].



- 1 **[Auth]**
Select the authentication method specified by your Internet service provider.
- 2 **[SMTP Auth]**
Set when the SMTP authentication is selected.
- 3 **[POP server name]**
Enter the POP server name.
Allowed characters:
Alphanumerics (A - Z, a - z, 0 - 9)
Minus sign (-) and period (.)
- 4 **[User name]**
Enter the user name for the POP server or the SMTP server.
- 5 **[Password]**
Enter the password for the POP server or the SMTP server.
- 6 **[SMTP server port]**
Enter the port number of the SMTP server. (Normally 25)
- 7 **[POP server port]**
Enter the port number of the POP server. (Normally 110)
- 8 **[Submit]**
Update the settings.

Contents of E-mail sent

Example of the E-mail sent when E-mail is set

The following E-mail is sent when the E-mail settings have been established.

```

=== Panasonic projector report(CONFIGURE) ===
Projector Type      : RQ13K
Serial No          : 123456789012

----- E-mail setup data -----
TEMPERATURE WARNING SETUP
MINIMUM TIME              at [ 60] minutes interval
INTAKE AIR TEMPERATURE    Over [ 46 degC / 114 degF ]

ERROR                      [ OFF ]
INTAKE AIR TEMPERATURE     [ OFF ]
PERIODIC REPORT
Sunday [ ON ] Monday [ ON ] Tuesday [ ON ] Wednesday [ ON ]
Thursday [ ON ] Friday [ ON ] Saturday [ ON ]

00:00 [ ON ] 01:00 [ ON ] 02:00 [ ON ] 03:00 [ ON ]
04:00 [ ON ] 05:00 [ ON ] 06:00 [ ON ] 07:00 [ ON ]
08:00 [ ON ] 09:00 [ ON ] 10:00 [ ON ] 11:00 [ ON ]
12:00 [ ON ] 13:00 [ ON ] 14:00 [ ON ] 15:00 [ ON ]
16:00 [ ON ] 17:00 [ ON ] 18:00 [ ON ] 19:00 [ ON ]
20:00 [ ON ] 21:00 [ ON ] 22:00 [ ON ] 23:00 [ ON ]

----- check system -----
MAIN CPU BUS                [ OK ]
FAN                          [ OK ]
INTAKE AIR TEMPERATURE      [ OK ]
OPTICS MODULE TEMPERATURE  [ OK ]
EXHAUST AIR TEMPERATURE     [ OK ]
LD1 TEMPERATURE             [ OK ]
LD2 TEMPERATURE             [ OK ]
LD1 STATUS                   [ OK ]
LD2 STATUS                   [ OK ]
SHUTTER(MUTE-SHUTTER)      [ OK ]
INTAKE AIR TEMP.SENSOR      [ OK ]
OPTICS MODULE TEMP.SENSOR  [ OK ]
EXHAUST AIR TEMP.SENSOR    [ OK ]
LD1 TEMP.SENSOR             [ OK ]
LD2 TEMP.SENSOR             [ OK ]
POWER CIRCUIT TEMPERATURE  [ OK ]
FPGA TEMPERATURE           [ OK ]
BATTERY                      [ OK ]
LENS MOUNTER                 [ OK ]
BRIGHTNESS SENSOR          [ OK ]
PHOSPHOR WHEEL1             [ OK ]
PHOSPHOR WHEEL2            [ OK ]
QUAD PIXEL DRIVE UNIT      [ OK ]
FILTER UNIT                  [ OK ]
AIR FILTER                   [ OK ]
AC VOLTAGE                   [ OK ]
(Error code 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00)

Intake air temperature      : 27 degC / 80 degF
Optics module temperature   : 26 degC / 78 degF
Exhaust air temperature     : 28 degC / 82 degF
Around light1 temperature   : 29 degC / 84 degF
Around light2 temperature   : 28 degC / 82 degF
PROJECTOR RUNTIME          : 81 H
POWER ON                    : 834 times
LD1-1 ON                    : 294 times
LD1-1 RUNTIME               : 29 H
LD1-2 ON                    : 294 times
LD1-2 RUNTIME               : 29 H
LD1-3 ON                    : 294 times
LD1-3 RUNTIME               : 29 H
LD1-4 ON                    : 294 times
LD1-4 RUNTIME               : 29 H
LD1-5 ON                    : 294 times
LD1-5 RUNTIME               : 29 H
LD1-6 ON                    : 294 times
LD1-6 RUNTIME               : 29 H
LD2-5 ON                    : 41 H
LD2-5 RUNTIME               : 41 H
LD2-6 ON                    : 430 times
LD2-6 RUNTIME               : 41 H

----- Current status -----
MAIN VERSION                 0.32
SUB VERSION                  0.04.01
LD STATUS
LD1-1=ON LD1-2=ON LD1-3=ON LD1-4=ON LD1-5=ON LD1-6=ON
LD2-1=ON LD2-2=ON LD2-3=ON LD2-4=ON LD2-5=ON LD2-6=ON
INPUT                        SDI1
SIGNAL NAME                   ---
SIGNAL FREQUENCY              ---kHz / ---Hz
REMOTE2 STATUS                DISABLE

----- Wired Network configuration -----
DHCP Client                   OFF
IP address                    192.168.0.8
MAC address                    12:34:56:78:90:12

Mon Jan 01 12:34:56 20XX
----- Memo -----

```

Example of the E-mail sent for an error

The following E-mail is sent when an error has occurred.

```

=== Panasonic projector report(ERROR) ===
Projector Type      : RQ13K
Serial No          : 123456789012

---- check system ----
MAIN CPU BUS       [ OK ]
FAN                [ OK ]
INTAKE AIR TEMPERATURE [ OK ]
OPTICS MODULE TEMPERATURE [ OK ]
EXHAUST AIR TEMPERATURE [ OK ]
LD1 TEMPERATURE   [ OK ]
LD2 TEMPERATURE   [ OK ]
LD1 STATUS        [ OK ]
LD2 STATUS        [ OK ]
SHUTTER(MUTE-SHUTTER) [ FAILED ]
INTAKE AIR TEMP.SENSOR [ OK ]
OPTICS MODULE TEMP.SENSOR [ OK ]
EXHAUST AIR TEMP.SENSOR [ OK ]
LD1 TEMP.SENSOR   [ OK ]
LD2 TEMP.SENSOR   [ OK ]
POWER CIRCUIT TEMPERATURE [ OK ]
FPGA TEMPERATURE  [ OK ]
BATTERY           [ OK ]
LENS MOUNTER      [ OK ]
BRIGHTNESS SENSOR [ OK ]
PHOSPHOR WHEEL1   [ OK ]
PHOSPHOR WHEEL2   [ OK ]
QUAD PIXEL DRIVE UNIT [ OK ]
FILTER UNIT       [ OK ]
AIR FILTER        [ OK ]
AC VOLTAGE        [ OK ]
(Error code 00 00 00 00 00 00 04 00 00 00 00 00 00 00)

Intake air temperature      : 27 degC / 80 degF
Optics module temperature  : 26 degC / 78 degF
Exhaust air temperature    : 28 degC / 82 degF
Around light1 temperature  : 29 degC / 84 degF
Around light2 temperature  : 28 degC / 82 degF
PROJECTOR RUNTIME          : 81 H
POWER ON                   : 834 times
LD1-1 ON                   : 294 times
LD1-1 RUNTIME              : 29 H
LD1-2 ON                   : 294 times
LD1-2 RUNTIME              : 29 H
LD1-3 ON                   : 294 times
LD1-3 RUNTIME              : 29 H
LD1-4 ON                   : 294 times
LD1-4 RUNTIME              : 29 H
LD1-5 ON                   : 294 times
LD1-5 RUNTIME              : 29 H
LD1-6 ON                   : 294 times
LD1-6 RUNTIME              : 29 H
LD2-1 ON                   : 430 times
LD2-1 RUNTIME              : 41 H
LD2-2 ON                   : 430 times
LD2-2 RUNTIME              : 41 H
LD2-3 ON                   : 430 times
LD2-3 RUNTIME              : 41 H
LD2-4 ON                   : 430 times
LD2-4 RUNTIME              : 41 H
LD2-5 ON                   : 430 times
LD2-5 RUNTIME              : 41 H
LD2-6 ON                   : 430 times
LD2-6 RUNTIME              : 41 H

----- Current status -----
MAIN VERSION              0.32
SUB VERSION               0.04.01
LD STATUS
LD1-1=ON LD1-2=ON LD1-3=ON LD1-4=ON LD1-5=ON LD1-6=ON
LD2-1=ON LD2-2=ON LD2-3=ON LD2-4=ON LD2-5=ON LD2-6=ON
INPUT                     SDI1
SIGNAL NAME               ---
SIGNAL FREQUENCY         ---kHz / ---Hz
REMOTE2 STATUS           DISABLE

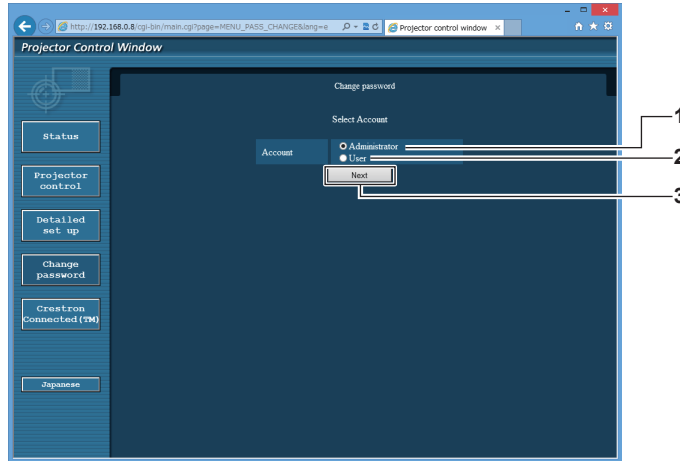
---- Wired Network configuration ----
DHCP Client              OFF
IP address               192.168.0.8
MAC address              12:34:56:78:90:12

Mon Jan 01 12:34:56 20XX
---- Memo ----

```

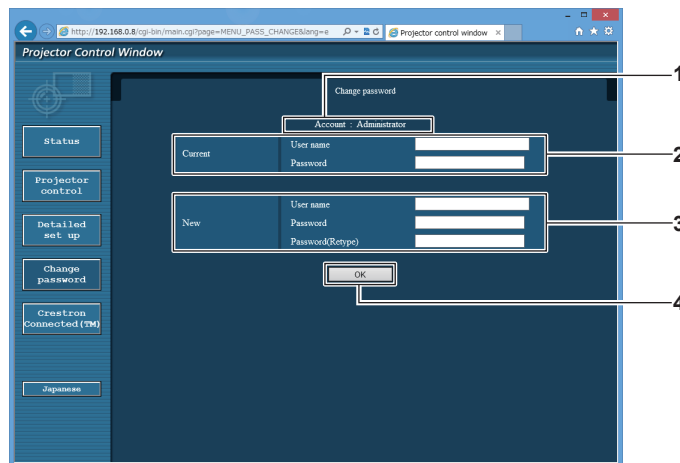
[Change password] page

Click [Change password].



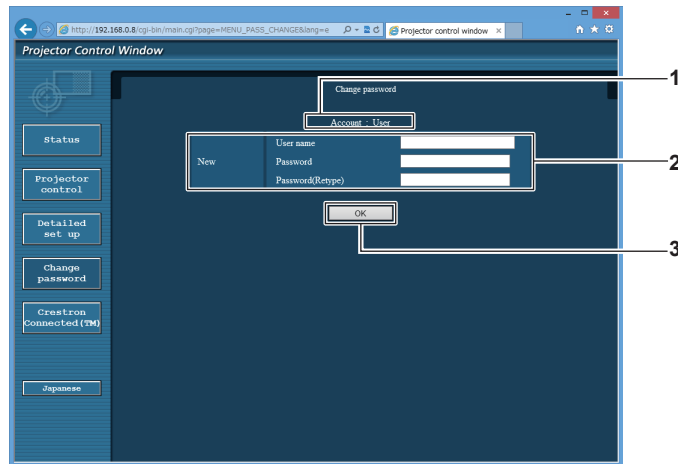
- 1 **[Administrator]**
Used to change the setting of the [Administrator].
- 2 **[User]**
Used to change the setting of the [User].
- 3 **[Next]**
Used to change the setting of the password.

[Administrator] account



- 1 **[Account]**
Displays the account to change.
- 2 **[Current]**
[User name]:
Enter the user name before the change.
[Password]:
Enter the current password.
- 3 **[New]**
[User name]:
Enter the desired new user name. (Up to 16 characters in single byte)
[Password]:
Enter the desired new password. (Up to 16 characters in single byte)
[Password(Retyp)]:
Enter the desired new password again.
- 4 **[OK]**
Determines the change of password.

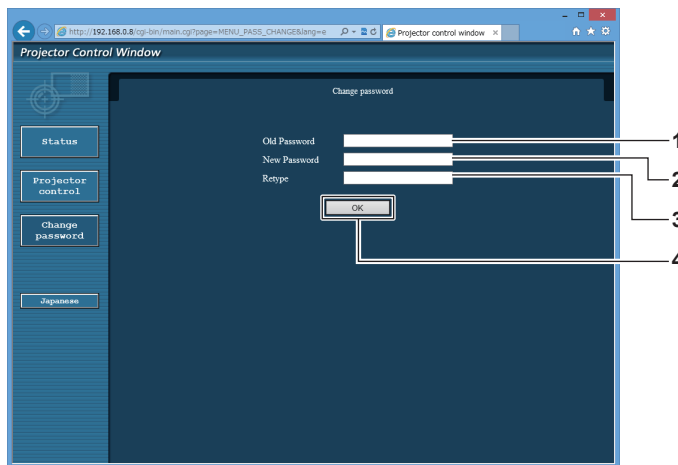
[User] account



- | | |
|---|---|
| <p>1 [Account]
Displays the account to change.</p> <p>2 [New]
[User name]:
Enter the desired new user name. (Up to 16 characters in single byte)
[Password]:
Enter the desired new password. (Up to 16 characters in single byte)
[Password(Retyp)]:
Enter the desired new password again.</p> | <p>3 [OK]
Determines the change of password.</p> |
|---|---|

[Change password] (For user rights)

Only the change of password is enabled under the user rights.



- | | |
|--|--|
| <p>1 [Old Password]
Enter the current password.</p> <p>2 [New Password]
Enter the desired new password. (Up to 16 characters in single byte)</p> | <p>3 [Retype]
Enter the desired new password again.</p> <p>4 [OK]
Determines the change of password.</p> |
|--|--|

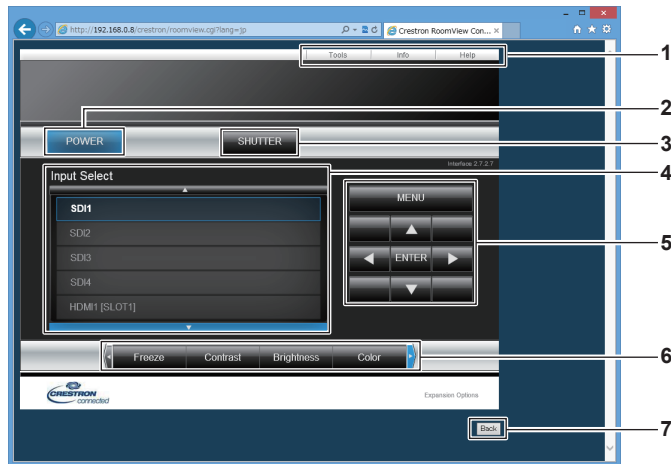
Note

- To change the account of the administrator, you must enter the [User name] and [Password] in [Current].

[Crestron Connected(TM)] page

The projector can be monitored/controlled with Crestron Connected™. It is necessary to access with the administrator rights to start the operation screen of Crestron Connected™ from the web control screen. (The [Crestron Connected(TM)] button is not displayed in the web control screen with the user rights.) The operation page of Crestron Connected™ is displayed by clicking [Crestron Connected(TM)]. It is not displayed if Adobe Flash Player is not installed on your computer, or the browser you use does not support Flash. In such a case, click [Back] in the operation page to go back to the previous page.

Operation page



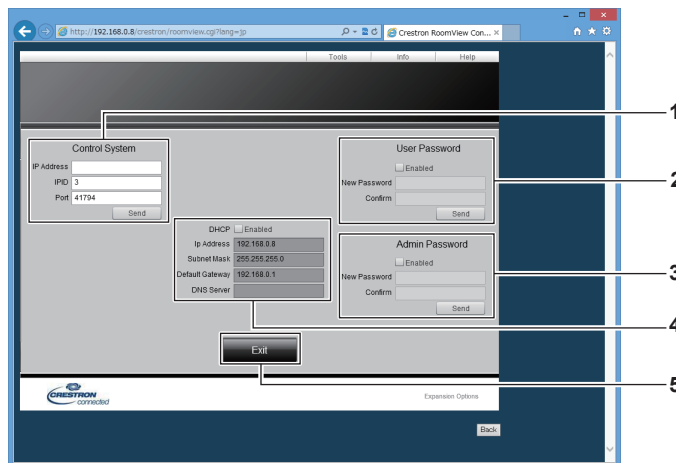
- | | |
|---|--|
| <p>1 [Tools], [Info], [Help]
 Tabs for selecting the setting, information, or help page of the projector.</p> <p>2 [POWER]
 Turns on/off the power.</p> <p>3 [SHUTTER]
 Switches whether to use the shutter function (enabled (shutter: closed)/disabled (shutter: open)).</p> | <p>4 [Input Select]
 Controls input selection.
 Not available when the power of the projector is turned off.</p> <p>5 Menu screen control buttons
 Navigates the menu screen.</p> <p>6 Freeze/image quality adjustment
 Controls items related to freeze/image quality.</p> <p>7 [Back]
 Returns to the previous page.</p> |
|---|--|

Note

- When the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1> or <SLOT 2>, switching to the SDI2 input or the SDI4 input on the Interface Board for 12G-SDI is not possible by operating [Input Select].

[Tools] page

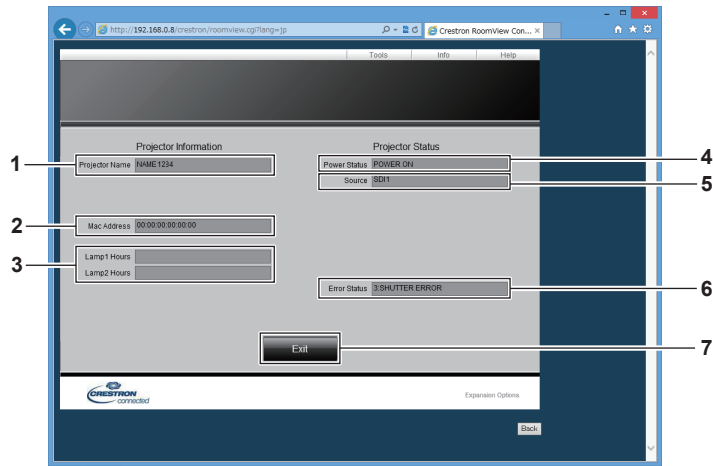
Click [Tools] in the operation page.



- | | |
|--|--|
| <p>1 [Control System]
 Set the information required for communicating with the controller to be connected with the projector.</p> <p>2 [User Password]
 Set the user rights password for the operation page of Crestron Connected™.</p> <p>3 [Admin Password]
 Set the administrator rights password for the operation page of Crestron Connected™.</p> | <p>4 Network status
 Displays the settings of wired LAN.
 [DHCP]
 Displays the current setting.
 [Ip Address]
 Displays the current setting.
 [Subnet Mask]
 Displays the current setting.
 [Default Gateway]
 Displays the current setting.
 [DNS Server]
 Displays the current setting.</p> <p>5 [Exit]
 Returns to the operation page.</p> |
|--|--|

[Info] page

Click [Info] in the operation page.



- | | |
|--|---|
| <p>1 [Projector Name]
Displays the projector name.</p> <p>2 [Mac Address]
Displays the MAC address.</p> <p>3 [Lamp1 Hours], [Lamp2 Hours]
Displays the runtime of the light source 1 and the light source 2.</p> <p>4 [Power Status]
Displays the status of the power.</p> | <p>5 [Source]
Displays the selected input.</p> <p>6 [Error Status]
Displays the error status.</p> <p>7 [Exit]
Returns to the operation page.</p> |
|--|---|

[Help] page

Click [Help] in the operation page.
The [Help Desk] window is displayed.



- 1 **[Help Desk]**
A message can be sent/received with the administrator using the Crestron Connected™.

Chapter 5 Maintenance

This chapter describes methods of inspection when there are problems, maintenance, and replacement of the units.

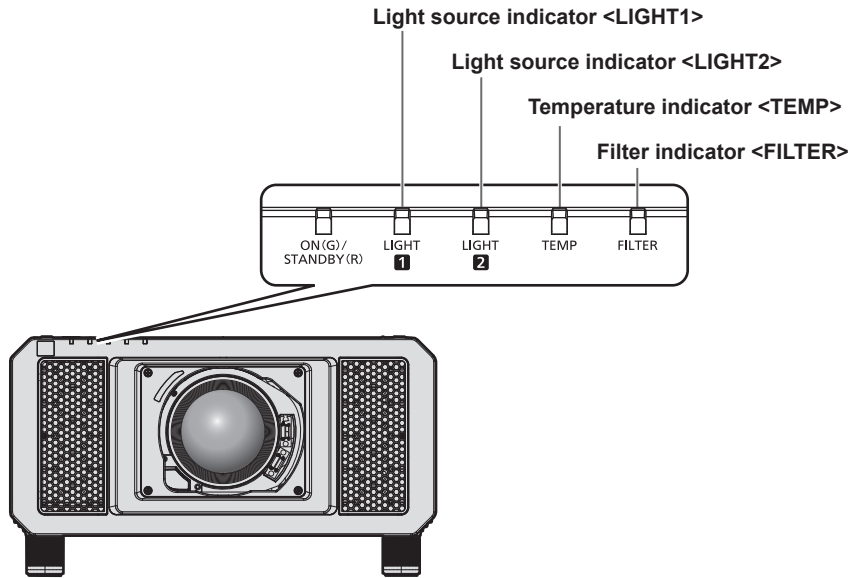
Light source/temperature/filter indicators

When an indicator lights up

If a problem occurs inside the projector, the light source indicators <LIGHT1>/<LIGHT2>, temperature indicator <TEMP>, or filter indicator <FILTER> will inform you by lighting or blinking in red. Check the status of the indicators and take following measures.

Attention

- When switching off the projector to deal with problems, make sure to follow the procedure in “Switching off the projector” (➔ page 64).



Light source indicators <LIGHT1>/<LIGHT2>

Indicator status	Blinking in red (2 times)	Blinking in red (3 times)
Status	The light source does not light up, or the light source turns off while the projector is in use.	
Cause	—	
Solution	<ul style="list-style-type: none"> Turn the <MAIN POWER> switch to <OFF> (➔ page 64), and turn on the power again. 	

Note

- If the light source indicators <LIGHT1>/<LIGHT2> are still lit or blinking after taking the measures, ask your dealer for repair.
- The light source indicator corresponding to the light source being lit will light up in green if the projector is in projection mode and there is no indication of problem by lighting or blinking in red.

Temperature indicator <TEMP>

Indicator status	Lighting in red		Blinking in red (2 times)	Blinking in red (3 times)
Status	Warm-up status	Internal temperature is high (warning).	Internal temperature is high (standby status).	The cooling fan has stopped.
Cause	<ul style="list-style-type: none"> Did you turn on the power when the temperature was low (around 0 °C (32 °F))? 	<ul style="list-style-type: none"> Is the air intake/exhaust port blocked? Is the room temperature high? Is the filter indicator <FILTER> lit? 		—
Solution	<ul style="list-style-type: none"> Wait at least five minutes in the current status. Install the projector in a location with the operating environment temperature between 0 °C (32 °F) and 45 °C (113 °F)*1. 	<ul style="list-style-type: none"> Remove any objects that are blocking the air intake/exhaust port. Install the projector in a location with the operating environment temperature between 0 °C (32 °F) and 45 °C (113 °F)*1, and ambient humidity between 10 % and 80 % (no condensation). Clean or replace the air filter unit. (➔ page 195) 		<ul style="list-style-type: none"> Turn the <MAIN POWER> switch to <OFF> (➔ page 64), and consult your dealer.

*1 The operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F) if the projector is used at an altitude between 1 400 m (4 593') and 4 200 m (13 780') above sea level. When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F), regardless of the altitude. When the Smoke Cut Filter is used, the operating environment temperature should be between 0 °C (32 °F) and 35 °C (95 °F).
 When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the projector cannot be used at an altitude of 2 700 m (8 858') or higher above sea level. When the Smoke Cut Filter is used, the projector cannot be used at an altitude of 1 400 m (4 593') or higher above sea level.

Note

- If the temperature indicator <TEMP> is still lit or blinking after taking the measures, ask your dealer for repair.

Filter indicator <FILTER>

Indicator status	Lighting in red			Blinking in red
Status	The filter is clogged. The temperature inside or outside the projector is abnormally high.			The air filter unit is not attached.
Cause	<ul style="list-style-type: none"> Is the air filter unit dirty? 	<ul style="list-style-type: none"> Is the air intake/exhaust port blocked? 	<ul style="list-style-type: none"> Is the projector used at an altitude of 4 200 m (13 780')*1 or higher above sea level? 	<ul style="list-style-type: none"> Is the air filter unit attached?
Solution	<ul style="list-style-type: none"> Clean or replace the air filter unit. (➔ page 195) 	<ul style="list-style-type: none"> Remove any objects that are blocking the air intake/exhaust port. 	<ul style="list-style-type: none"> Do not use the projector at an altitude of 4 200 m (13 780')*1 or higher above sea level. 	<ul style="list-style-type: none"> Attach the air filter unit.

*1 When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the projector cannot be used at an altitude of 2 700 m (8 858') or higher above sea level. When the Smoke Cut Filter is used, the projector cannot be used at an altitude of 1 400 m (4 593') or higher above sea level.

Note

- If the filter indicator <FILTER> is still lit or blinking after taking the measures, ask your dealer for repair.

Maintenance/replacement

Before performing maintenance/replacement

- Make sure to turn off the power before maintaining or replacing the unit. (➔ pages 55, 64)
- When switching off the projector, make sure to follow the procedures in “Switching off the projector” (➔ page 64).

Maintenance

Outer case

Wipe off dirt and dust with a soft, dry cloth.

- If the dirt is persistent, soak the cloth with water and wring it thoroughly before wiping. Dry off the projector with a dry cloth.
- Do not use benzene, thinner, or rubbing alcohol, other solvents, or household cleaners. Doing so may deteriorate the outer case.
- When using chemically treated dust cloths, follow the instructions written on its packaging.

Lens front surface

Wipe off dirt and dust from the front surface of the lens with a soft clean cloth.

- Do not use a cloth that is fluffy, dusty, or soaked with oil/water.
- Since the lens is fragile, do not use excessive force when wiping the lens.

Attention

- The lens is made of glass. Impacts or excessive force when wiping may scratch its surface. Handle with care.

Air filter unit

Perform maintenance of the air filter unit in the following cases.

- The air filter is clogged with dust, causing the filter replacement message to appear on the screen and the filter indicator <FILTER> to light in red.

Attention

- Make sure to turn off the power before performing maintenance on the air filter unit.
- Make sure that the projector is stable, and perform the maintenance in a safe place even if you drop it accidentally.

Removing the air filter unit

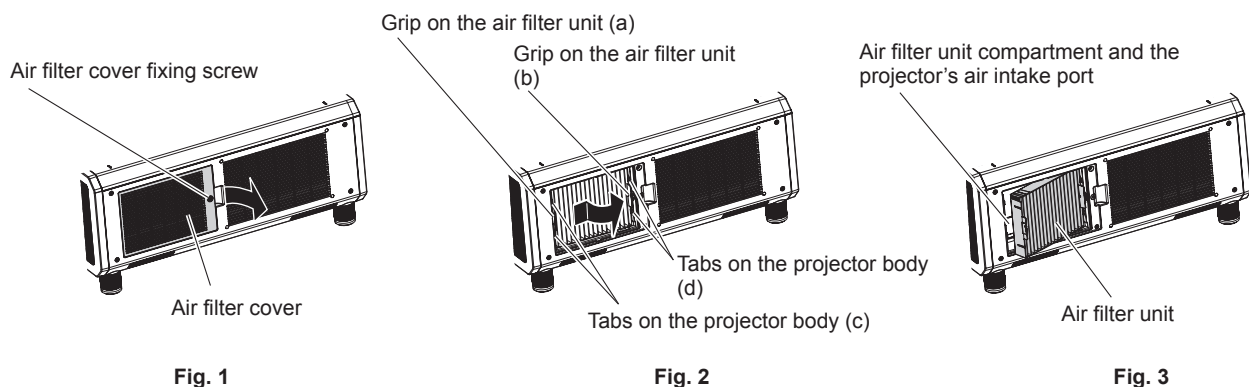


Fig. 1

Fig. 2

Fig. 3

1) Remove the air filter cover. (Fig. 1)

- Use a Phillips screwdriver to turn the air filter cover screw counterclockwise until it turns freely, and then remove the air filter cover.
- Loosen the air filter cover fixing screw while putting your hand on.

2) Pull out the air filter unit.

- Pull out the air filter unit from the tabs on the projector body (c) while slightly pressing the grip on the air filter unit (a) inward as described with the arrow. (Fig. 2)

ii) Pull out the air filter unit. (Fig. 3)

- When pulling out, confirm that the air filter unit comes off from the tabs on the projector body (d).
- After pulling out the air filter unit, remove large foreign objects and dust from the air filter unit compartment and the air intake port of the projector body if there are any.

Cleaning the air filter unit

Remove the air filter unit beforehand with the previously described procedure in “Removing the air filter unit” (➔ page 195).

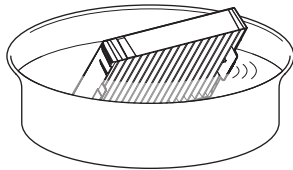


Fig. 1

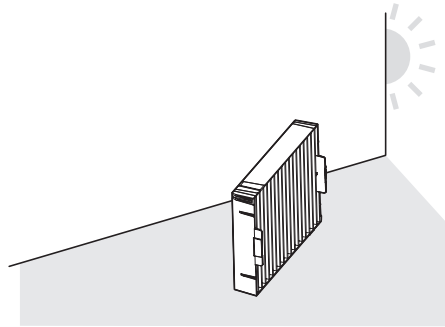


Fig. 2

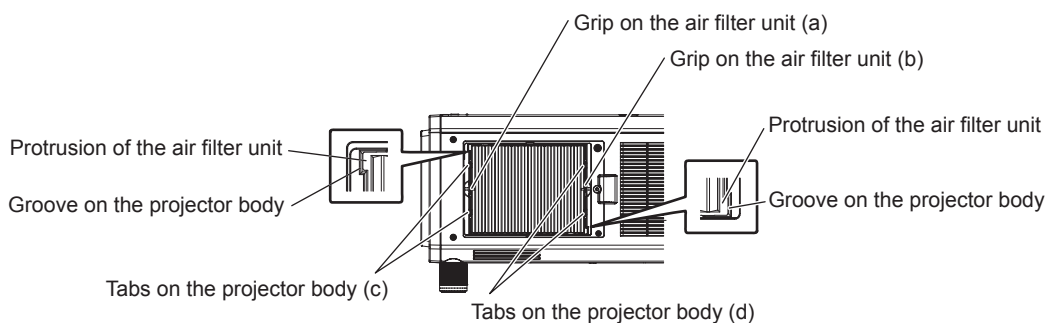
1) Wash the air filter unit. (Fig. 1)

- Soak the air filter unit in cold or warm water and then lightly rinse it.
 - Do not use cleaning tools such as brushes.
 - When rinsing, hold the frame of the air filter unit without putting strong pressure on the filter unit.
- Rinse the air filter unit two to three times using fresh water each time.
 - Insufficient rinsing may result in odors.

2) Dry the air filter unit. (Fig. 2)

- Let the air filter unit naturally dry off in a well-ventilated place where there is little dust and is not exposed to direct sunlight.
- Do not dry using drying devices such as dryers.
- After the air filter is dried, proceed to “Attaching the air filter unit” (➔ page 196).

Attaching the air filter unit



1) Attach the air filter unit to the projector.

- The air filter unit has no difference between top and bottom, but is two-sided. Match the protrusion position of the air filter unit with the grooves on the projector body.
- Hook the air filter unit frame at the air exhaust port side to the tabs on the projector body (d), and perform Step 2) in “Removing the air filter unit” (➔ page 195) in the reverse order to attach.
- Confirm that the tabs on the projector body (c) and (d) are hooked to the air filter unit frame.

2) Attach the air filter cover to the projector and use a Phillips screwdriver to tighten the air filter cover screw.

- Attach the air filter cover by performing Step 1) in “Removing the air filter unit” (➔ page 195) in the reverse order.

Attention

- After washing the air filter unit, dry it thoroughly before attaching it back to the projector. Attaching a wet unit will cause an electric shock or malfunction.
- Do not disassemble the air filter unit.
- Take care not to touch the air intake fan in the air filter unit compartment when removing dirt or dust.

Note

- Make sure that the air filter unit is properly attached before using the projector. If it is not properly attached, the projector will suck in dirt and dust causing a malfunction.
- If you use the projector without attaching the air filter unit, the filter indicator <FILTER> blinks in red and the message appears on the projected image for approximately 30 seconds.
- Replace the air filter unit with the new optional Replacement Filter Unit (Model No.: ET-EMF330) if it is damaged or if the dirt does not come off even after washing.
- Air filter replacement is recommended after cleaning the unit two times.
- The dust-proof properties may be reduced after each cleaning.

Replacing the unit

Air filter unit

If dirt does not come off even after the unit is maintained, it is time for the unit to be replaced.

The Replacement Filter Unit (Model No.: ET-EMF330) is an optional accessory. To purchase the product, consult your dealer.

Replacing the air filter unit

Attention

- Make sure to turn off the power before replacing the air filter unit.
- When attaching the unit, make sure that the projector is stable, and perform the replacement in a safe place even if you drop it accidentally.

1) Remove the air filter unit.

- Refer to “Removing the air filter unit” (➔ page 195).

2) Attach the optional Replacement Filter Unit (Model No.: ET-EMF330) to the projector.

- The air filter unit has no difference between top and bottom, but is two-sided. Match the protrusion position of the air filter unit with the grooves on the projector body.
- Refer to “Attaching the air filter unit” (➔ page 196).

Attention

- When switching on the projector, make sure that the air filter unit is attached. If it is not properly attached, the projector will suck in dirt and dust causing a malfunction.
- If you use the projector without attaching the air filter unit, the filter indicator <FILTER> blinks in red and the message appears on the projected image for approximately 30 seconds.

Note

- The replacement cycle of the air filter unit varies greatly depending on the usage environment.

Troubleshooting

Review the following points. For details, see the corresponding pages.

Problems	Points to be checked	Page
Power does not turn on.	• Is the power plug firmly inserted into the outlet?	—
	• Is the <MAIN POWER> switch set to <OFF>?	64
	• Is the wall outlet supplying electricity?	—
	• Have the circuit breakers tripped?	—
	• Are the light source indicators <LIGHT1>/<LIGHT2> or the temperature indicator <TEMP> lighting or blinking?	193
No image appears.	• Are connections to external devices correctly performed?	46
	• Is the input selection setting correct?	70
	• Is the [BRIGHTNESS] adjustment setting at a minimum?	83
	• Is the external device that is connected to the projector working properly?	—
	• Is the shutter function in use?	72
	• If the power indicator <ON (G)/STANDBY (R)> is blinking in red, consult your dealer.	—
	• Is the lens cover still attached to the lens?	56
Image is fuzzy.	• Is the lens focus set correctly?	65
	• Is the projection distance appropriate?	36
	• Is the lens dirty?	21
	• Is the projector installed perpendicular to the screen?	—
Color is pale or grayish.	• Are [COLOR] and [TINT] adjusted correctly?	83
	• Is the external device connected to the projector adjusted correctly?	46
Remote control does not respond.	• Are the batteries depleted?	—
	• Is the polarity of the batteries set correctly?	32
	• Are there any obstructions between the remote control and the remote control signal receiver of the projector?	25
	• Is the remote control being used beyond its effective operation range?	25
	• Are other forms of light, such as fluorescent light, affecting the projection?	25
	• Is the button operation disabled by operating the <LOCK> button on the remote control?	25
	• Is the [REMOTE CONTROL] setting in [CONTROL DEVICE SETUP] set to [DISABLE]?	164
	• Is the <REMOTE 2 IN> terminal used for contact control?	215
• Is the ID number setting operation correct?	75	
Menu screen does not appear.	• Is the on-screen display function turned off (hidden)?	72
Buttons on the control panel do not operate.	• Is the [CONTROL PANEL] setting in [CONTROL DEVICE SETUP] set to [DISABLE]?	164
	• Is the <REMOTE 2 IN> terminal used for contact control?	215
Image does not display correctly.	• Is the [SYSTEM SELECTOR] selection set correctly?	88
	• Is there a problem with the image output source?	—
	• Is a signal which is not compatible with the projector being input?	217
	• Are the settings for [SDI IN], [DIGITAL LINK IN], and [SLOT IN] made correctly?	—
Image from a computer does not appear.	• Is the cable too long?	—
	• Is the external video output on the laptop computer set correctly? (Ex.: The external output settings may be switched by pressing the "Fn" + "F3" or "Fn" + "F10" simultaneously. Since the method varies depending on the computer type, refer to the user manual provided with your computer.)	—
Image output from DVI-D of the computer does not appear.	• Is [DVI-D LINK] in [SLOT IN] correctly set? If the setting is [AUTO], the condition may be improved by setting to anything other than [AUTO].	115
	• Is the [EDID SELECT] setting in [SLOT IN] set to [EDID3] or [EDID2:PC]?	116
	• The graphics accelerator driver of the computer may need to be updated to the latest version.	—
	• The condition may improve by setting [EDID SELECT] in [SLOT IN] and then restarting the computer.	116
Video from HDMI compatible device does not appear or it appears jumbled.	• Is the HDMI cable connected securely?	46
	• Turn the power of the projector and the external device off and on.	—
	• Is a signal which is not compatible with the projector being input?	217

Chapter 5 Maintenance — Troubleshooting

Problems	Points to be checked	Page
Lens shift cannot be adjusted.	<ul style="list-style-type: none"> • Perform [LENS CALIBRATION]. • Is the Fixed-focus Lens (Model No.: ET-D75LE50) attached? 	151 —
Geometric adjustment is not possible.	<ul style="list-style-type: none"> • Is [QUAD PIXEL DRIVE] set to [OFF]? • Is [SIMUL INPUT SETTING] set to [AUTO(x2-speed)] or [AUTO(x4-speed)]? 	92 92
Cannot control the projector with Art-Net.	<ul style="list-style-type: none"> • Are the connections between the twisted-pair-cable transmitter and an external device, and between the twisted-pair-cable transmitter and projector correctly done? • Is [Art-Net SETUP] set to other than [OFF]? • Are [NET], [SUB NET], [UNIVERSE], and [START ADDRESS] set correctly? 	— 171 171
The DIGITAL LINK input image is not displayed.	<ul style="list-style-type: none"> • Is the cable compatible to the condition of the projector used? • Are the connections between the twisted-pair-cable transmitter and an external device, and between the twisted-pair-cable transmitter and projector correctly done? • Is [DIGITAL LINK MODE] set to [AUTO] or [DIGITAL LINK]? Is it set to [ETHERNET]? • Is a signal which is not compatible with a twisted-pair-cable transmitter being input? 	51 — 168 —
Cannot switch to the input of the Interface Board.	<ul style="list-style-type: none"> • Is the Interface Board correctly installed in the slot? • When the 3G-SDI Terminal Board with Audio is installed, is the firmware version of the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) 2.00 or later? 	241 31

Attention

- If problems persist even after checking the preceding points, consult your dealer.

Self-diagnosis display

There is a self-diagnosis display on the side of the projector. Self-diagnosis display will automatically display the value of the input supply voltage, or details of errors or warnings when they occur. (➔ page 28)

The following list shows the alphanumeric symbol that is displayed when an error or a warning has occurred and its details. Confirm “Action number”, and follow the measure in “Measure for error and warning” (➔ page 201).

The input supply voltage is displayed only with the numeric value.

Error/warning display	Details	Action number
U04	Air filter clogging	1
U11	Intake temperature warning	2
U12	Optical module temperature warning	2
U13	Exhaust air temperature warning	3
U14	Low temperature warning	4
U16	Light source 1 temperature warning	2
U17	Light source 2 temperature warning	2
U21	Intake temperature error	2
U22	Optical module temperature error	2
U23	Exhaust air temperature error	3
U24	Low temperature error	4
U25	Light source 1 temperature error	2
U26	Light source 2 temperature error	2
U76	Air filter unit not installed	5
U81	Low AC voltage warning (below 90 V)	6
UA0	Power supply temperature warning	2
UA1	FPGA temperature warning	2
UA4	Power supply temperature error	2
UA5	FPGA temperature error	2
H01	Battery replacement for the internal clock	7
H11	Intake temperature sensor not present	8
H12	Optical module temperature sensor not present	8
H13	Exhaust air temperature sensor not present	8
H14	Light source 1 temperature sensor not present	8
H15	Light source 2 temperature sensor not present	8
H18	Clog sensor not present	8
F00	Liquid cooling pump 1 warning	8
F01	Liquid cooling pump 2 warning	8
F11	Shutter error	8
F15	Luminance sensor error	8
F17	QUAD PIXEL DRIVE unit error	8
F50	Radiator fan 1 warning	8
F51	Radiator fan 2 warning	8
F52	Radiator fan 3 warning	8
F53	Radiator fan 4 warning	8
F54	Radiator fan 5 warning	8
F55	Radiator fan 6 warning	8
F56	Exhaust fan 1 warning	8
F57	Exhaust fan 2 warning	8
F58	Intake fan 1 warning	8
F59	Intake fan 2 warning	8
F61	LD 1 driver communication error	8
F62	LD 2 driver communication error	8
F70	Color prism fan 1 warning	8
F71	Color prism fan 2 warning	8
F72	Color prism fan 3 warning	8
F73	Optical engine exhaust fan 1 warning	8
F74	Optical engine exhaust fan 2 warning	8
F75	Circuit intake fan 1 warning	8
F76	Circuit intake fan 2 warning	8

Error/warning display	Details	Action number
F77	LD driver fan warning	8
F96	Lens mounter error	8
FA8	Light source 1 error	8
FC8	Light source 2 error	8
FE1	Radiator fan 1 error	8
FE2	Radiator fan 2 error	8
FE3	Radiator fan 3 error	8
FE4	Radiator fan 4 error	8
FE5	Radiator fan 5 error	8
FE6	Radiator fan 6 error	8
FE7	Exhaust fan 1 error	8
FE8	Exhaust fan 2 error	8
FE9	Intake fan 1 error	8
FF0	Intake fan 2 error	8
FF1	Color prism fan 1 error	8
FF2	Color prism fan 2 error	8
FF3	Color prism fan 3 error	8
FF4	Optical engine exhaust fan 1 error	8
FF5	Optical engine exhaust fan 2 error	8
FF6	Circuit intake fan 1 error	8
FF7	Circuit intake fan 2 error	8
FF8	LD driver fan error	8
FH0	Phosphor wheel 1 error SUB	8
FH1	Phosphor wheel 1 error FPGA	8
FH2	Phosphor wheel 2 error SUB	8
FH3	Phosphor wheel 2 error FPGA	8
FJ0	Liquid cooling pump 1 error	8
FJ1	Liquid cooling pump 2 error	8
FL1	Light source 1 unit error	8
FL2	Light source 2 unit error	8

Note

- The self-diagnosis display and the details of the malfunction may vary.
- For errors and warnings that are not described in the table, consult your dealer.

■ Measure for error and warning

Action number	Measure
1	Clean the air filter unit.
2	The operating environment temperature is too high. Use the projector in an appropriate operating environment temperature*1.
3	The operating environment temperature is too high, or the air exhaust port may be blocked. Use the projector in an appropriate operating environment temperature*1. Or remove any objects that are blocking the air exhaust port.
4	The operating environment temperature is too low. Use the projector in an appropriate operating environment temperature*1.
5	Attach the air filter unit.
6	The input supply voltage is low. Use electric wiring that can sufficiently withstand the power consumption of the projector.
7	Battery replacement is required. Consult your dealer.
8	If the display does not clear after switching the main power off and on, consult your dealer.

*1 Refer to "Operating environment temperature" (➡ page 236) for the operating environment temperature of the projector.

Chapter 6 Appendix

This chapter describes the specification of the projector, how to install the optional Interface Board, and after-sales service.

Technical information

PJLink protocol

The network function of this projector supports the PJLink class 1, and the PJLink protocol can be used to perform projector setting and projector status query operations from a computer.

Control commands

The following table lists the PJLink protocol commands that can be used to control the projector.

• x characters in tables are non-specific characters.

Command	Control details	Parameter/response string	Remark													
POWR	Power supply control	0 1	Standby Power on													
POWR?	Power supply status query	0 1 2 3	Standby Power on Preparing for switching off the projector Warm-up													
INPT	Input selection	31 32 33 34 35	SDI1 SDI2 SDI3 SDI4 DIGITAL LINK													
INPT?	Input selection query	36 37 38 39	SLOT1-1 (input 1 of the Interface Board installed in <SLOT 1>) ^{*1} SLOT1-2 (input 2 of the Interface Board installed in <SLOT 1>) ^{*2} SLOT2-3 (input 3 of the Interface Board installed in <SLOT 2>) ^{*1} SLOT2-4 (input 4 of the Interface Board installed in <SLOT 2>) ^{*2}													
AVMT	Shutter control	30	Shutter function disabled (shutter: open)													
AVMT?	Shutter status query	31	Shutter function enabled (shutter: closed)													
ERST?	Error status query	xxxxxx	<table border="1"> <tr> <td>1st byte</td> <td>Indicates fan errors, and returns 0 - 2.</td> <td rowspan="6"> <ul style="list-style-type: none"> • 0 = No error is detected • 1 = Warning • 2 = Error </td> </tr> <tr> <td>2nd byte</td> <td>Indicates light source errors, and returns 0 - 2.</td> </tr> <tr> <td>3rd byte</td> <td>Indicates temperature errors, and returns 0 - 2.</td> </tr> <tr> <td>4th byte</td> <td>Returns 0.</td> </tr> <tr> <td>5th byte</td> <td>Indicates filter errors, and returns 0 - 2.</td> </tr> <tr> <td>6th byte</td> <td>Indicates other errors, and returns 0 - 2.</td> </tr> </table>	1st byte	Indicates fan errors, and returns 0 - 2.	<ul style="list-style-type: none"> • 0 = No error is detected • 1 = Warning • 2 = Error 	2nd byte	Indicates light source errors, and returns 0 - 2.	3rd byte	Indicates temperature errors, and returns 0 - 2.	4th byte	Returns 0.	5th byte	Indicates filter errors, and returns 0 - 2.	6th byte	Indicates other errors, and returns 0 - 2.
1st byte	Indicates fan errors, and returns 0 - 2.	<ul style="list-style-type: none"> • 0 = No error is detected • 1 = Warning • 2 = Error 														
2nd byte	Indicates light source errors, and returns 0 - 2.															
3rd byte	Indicates temperature errors, and returns 0 - 2.															
4th byte	Returns 0.															
5th byte	Indicates filter errors, and returns 0 - 2.															
6th byte	Indicates other errors, and returns 0 - 2.															
LAMP?	Light source status query	xxxxxxxxxxxx	1st number (1 - 5 digits): Light source 1 runtime 2nd number: 0 = Light source 1 off, 1 = Light source 1 on 3rd number (1 - 5 digits): Light source 2 runtime 4th number: 0 = Light source 2 off, 1 = Light source 2 on													
INST?	Input selection list query	31 32 33 34 35 36 37 38 39	—													
NAME?	Projector name query	xxxxx	Returns the name set in [PROJECTOR NAME] of [NETWORK SETUP].													
INF1?	Manufacturer name query	Panasonic	Returns manufacturer name.													
INF2?	Model name query	RQ13K	Returns model name.													
INF0?	Other information queries	xxxxx	Returns information such as version number.													
CLSS?	Class information query	1	Returns class for PJLink.													

*1 When the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed, this corresponds to the input switch for the <SDI 1 IN> terminal. Switching to the <SDI 2 IN/1 OUT> terminal or the <SDI 4 IN/3 OUT> terminal is not possible.

*2 When the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed, this corresponds to the input switch for the <SDI 3 IN> terminal. Switching to the <SDI 2 IN/1 OUT> terminal or the <SDI 4 IN/3 OUT> terminal is not possible.

PJLink security authentication

The password used for PJLink is the same as that of the password set for web control.

When using the projector without security authentication, do not set a password for web control.

- For specifications related to PJLink, visit the website of Japan Business Machine and Information System Industries Association.

URL <http://pjlink.jbmia.or.jp/english/>

Using Art-Net function

Since the network function of the projector supports the Art-Net function, you can control the projector settings with the DMX controller and application software using the Art-Net protocol.

Channel definition

The following table lists the channel definitions used for controlling the projector with the Art-Net function.

Channel settings can be switched using the [NETWORK] menu → [Art-Net CHANNEL SETTING] (➡ page 171).

The control details assigned to each channel are listed in the following table.

- Channel assignment for [USER] is in factory default setting. Assignment can be changed.

Channel	Control details		
	[2]	[USER]	[1]
CHANNEL1	LIGHT OUTPUT	LIGHT OUTPUT	SHUTTER
CHANNEL2	INPUT SELECT	INPUT SELECT	INPUT SELECT
CHANNEL3	LENS POSITION	LENS POSITION	LENS FUNCTION SELECT
CHANNEL4	LENS H SHIFT	LENS H SHIFT	LENS CONTROL
CHANNEL5	LENS V SHIFT	LENS V SHIFT	POWER
CHANNEL6	LENS FOCUS	LENS FOCUS	LIGHT OUTPUT
CHANNEL7	LENS ZOOM	LENS ZOOM	ENABLE/DISABLE
CHANNEL8	POWER	POWER	FADE-IN
CHANNEL9	GEOMETRY	GEOMETRY	FADE-OUT
CHANNEL10	CUSTOM MASKING	CUSTOM MASKING	CUSTOM MASKING
CHANNEL11	ENABLE/DISABLE	ENABLE/DISABLE	GEOMETRY
CHANNEL12	NONE	NONE	NONE

Control details

■ LIGHT OUTPUT

This can be set in 256 steps between 100 % and 0 %.

Performance	Parameter	Default value
100 %	0	0
...	...	
0 %	255	

■ INPUT SELECT (when [Art-Net CHANNEL SETTING] is set to [1])

Performance	Parameter	Default value
No operation	0-47	0
SDI1	48-55	
SDI2	56-63	
No operation	64-255	

■ INPUT SELECT (when [Art-Net CHANNEL SETTING] is set to [2] or [USER])

Performance	Parameter	Default value
No operation	0-39	0
DIGITAL LINK	40-47	
SDI1	48-55	
SDI2	56-63	
SDI3	64-71	
SDI4	72-79	
SLOT1-1 ^{*1}	80-87	
SLOT1-2 ^{*1}	88-95	
SLOT2-3 ^{*2}	96-103	
SLOT2-4 ^{*2}	104-111	
No operation	112-119	
MULTI DISPLAY OFF	120-127	
Execute MULTI DISPLAY, USER1	128-135	
Execute MULTI DISPLAY, USER2	136-143	
Execute MULTI DISPLAY, USER3	144-151	
SLOT1-1 ^{*3}	152-159	
SLOT1-2 ^{*3}	160-167	
SLOT1-3 ^{*3}	168-175	
SLOT1-4 ^{*3}	176-183	
SLOT2-1 ^{*4}	184-191	
SLOT2-2 ^{*4}	192-199	
SLOT2-3 ^{*4}	200-207	
SLOT2-4 ^{*4}	208-215	
No operation	216-255	

*1 When the Interface Board equipped with two inputs is installed in <SLOT 1>, the input is switched to the specified input of the Interface Board.

*2 When the Interface Board equipped with two inputs is installed in <SLOT 2>, the input is switched to the specified input of the Interface Board.

*3 When the Interface Board equipped with four inputs is installed in <SLOT 1>, the input is switched to the specified input of the Interface Board.

*4 When the Interface Board equipped with four inputs is installed in <SLOT 2>, the input is switched to the specified input of the Interface Board.

■ LENS POSITION

Performance	Parameter	Default value
No operation	0-31	0
Move to the home position ^{*1}	32-63	
Move to the ET-D75LE90 lens standard position ^{*2}		
Load LENS MEMORY 1	64-79	
Load LENS MEMORY 2	80-95	
Load LENS MEMORY 3	96-111	
Load LENS MEMORY 4	112-127	
Load LENS MEMORY 5	128-143	
Load LENS MEMORY 6	144-159	
Load LENS MEMORY 7	160-175	
Load LENS MEMORY 8	176-191	
Load LENS MEMORY 9	192-207	
Load LENS MEMORY 10	208-223	
No operation	224-255	

*1 Operation when [NORMAL] is selected in [HOME POSITION] in the [HOME POSITION] screen

*2 Operation when [D75LE90] is selected in [HOME POSITION] in the [HOME POSITION] screen

■ LENS H SHIFT, LENS V SHIFT, LENS FOCUS, LENS ZOOM

Performance		Parameter	Default value
Lens adjustment	(-) High speed	0-31	128
	(-) Low speed	32-63	
	(-) Fine adjustment	64-95	
Operation stop		96-159	
Lens adjustment	(+) Fine adjustment	160-191	
	(+) Low speed	192-223	
	(+) High speed	224-255	

■ LENS FUNCTION SELECT (when [Art-Net CHANNEL SETTING] is set to [1])

Operate together with LENS CONTROL.

Performance	Parameter	Default value
No operation	0-15	0
LENS H SHIFT	16-31	
LENS V SHIFT	32-47	
LENS FOCUS	48-63	
LENS ZOOM	64-79	
Move to the home position ^{*1}	80-95	
Move to the ET-D75LE90 lens standard position ^{*2}		
No operation	96-255	

*1 Operation when [NORMAL] is selected in [HOME POSITION] in the [HOME POSITION] screen

*2 Operation when [D75LE90] is selected in [HOME POSITION] in the [HOME POSITION] screen

■ LENS CONTROL (when [Art-Net CHANNEL SETTING] is set to [1])

Operate together with LENS FUNCTION SELECT.

Performance		Parameter	Default value
Lens adjustment	(-) High speed	0-31	100
	(-) Low speed	32-63	
	(-) Fine adjustment	64-95	
Operation stop		96-127	
Lens adjustment	(+) Fine adjustment	128-159	
	(+) Low speed	160-191	
	(+) High speed	192-223	
Execute command action		224-255	

■ POWER

Performance	Parameter	Default value
Standby	0-63	128
No operation	64-191	
Power on	192-255	

■ SHUTTER

Performance	Parameter	Default value
SHUTTER: Open	0-63	128
No operation	64-191	
SHUTTER: Close	192-255	

■ **FADE-IN, FADE-OUT (when [Art-Net CHANNEL SETTING] is set to [1])**

Operate together with SHUTTER.

Performance	Parameter	Default value
OFF	0-15	255
0.5s	16-31	
1.0s	32-47	
1.5s	48-63	
2.0s	64-79	
2.5s	80-95	
3.0s	96-111	
3.5s	112-127	
4.0s	128-143	
5.0s	144-159	
7.0s	160-175	
10.0s	176-191	
No operation	192-255	

■ **GEOMETRY**

Performance	Parameter	Default value
OFF	0-15	255
KEYSTONE	16-31	
CURVED	32-47	
PC-1	48-63	
PC-2	64-79	
PC-3	80-95	
CORNER CORRECTION	96-111	
No operation	112-255	

■ **CUSTOM MASKING**

To use PC-1, PC-2, or PC-3, the optional Upgrade Kit (Model No.: ET-UK20) is required.

Performance	Parameter	Default value
OFF	0-31	255
PC-1	32-63	
PC-2	64-95	
PC-3	96-127	
No operation	128-255	

■ **FREEZE**

Performance	Parameter	Default value
No operation	0-31	128
OFF	32-95	
No operation	96-159	
ON	160-223	
No operation	224-255	

■ COLOR, TINT

Performance	Parameter	Default value
No operation	0-31	0
Factory default setting	32-63	
-31	64-65	
...	...	
0	128-129	
...	...	
+31	190-191	
No operation	192-255	

■ RASTER PATTERN

Performance	Parameter	Default value
No operation	0-15	0
OFF	16-31	
WHITE	32-47	
YELLOW	48-63	
CYAN	64-79	
GREEN	80-95	
MAGENTA	96-111	
RED	112-127	
BLUE	128-143	
BLACK	144-159	
USER LOGO	160-175	
No operation	176-255	

■ ENABLE/DISABLE

Operation for all channels is not accepted when set to “Disable”.

Performance	Parameter	Default value
Disable	0-127	0
Enable	128-255	

Note

- If the projector is operated using the remote control or the control panel, or by the control command while controlling the projector using the Art-Net function, the setting of the DMX controller or computer application may be different from the projector status. To reflect the controls of all channels to the projector, set “ENABLE/DISABLE” of channel 11 to “Disable” and then back to “Enable”.
- To create/register the USER LOGO image, use “Logo Transfer Software” included in the supplied CD-ROM.

Control commands via LAN

When web control administrator rights password is set (Protect mode)

Connecting

1) Obtain the IP address and port number (Initial set value = 1024) of the projector and request a connection to the projector.

- You can obtain both the IP address and the port number from the menu screen of the projector.

IP address	Obtain from the [NETWORK] menu → [NETWORK STATUS].
Port number	Obtain from the [NETWORK] menu → [NETWORK CONTROL] → [COMMAND PORT].

2) Check the response from the projector.

	Data section	Blank	Mode	Blank	Random number section	Termination symbol
Command example	"NTCONTROL" (ASCII string)	' ' 0x20	'1' 0x31	' ' 0x20	"zzzzzzzz" (ASCII code hex number)	(CR) 0x0d
Data length	9 bytes	1 byte	1 byte	1 byte	8 bytes	1 byte

- Mode: 1 = Protect mode
- Example: Response during protect mode (random number section is undefined value)
"NTCONTROL 1 23181e1e" (CR)

3) **Generate a 32-byte hash value from the following data using MD5 algorithm.**

- "xxxxxx:yyyyy:zzzzzzzz"

xxxxxx	Administrator rights user name for the web control (default user name is "admin1")
yyyyy	Password of above administrator rights user (default password is "panasonic")
zzzzzzzz	8-byte random number obtained in Step 2)

Command transmission method

Transmit using the following command formats.

■ **Transmitted data**

	Header			Data section	Termination symbol
Command example	Hash value "Connecting" (➔ page 208)	'0' 0x30	'0' 0x30	Control command (ASCII string)	(CR) 0x0d
Data length	32 bytes	1 byte	1 byte	Undefined length	1 byte

- Example: Transmission of power supply status acquisition command (hash value is calculated from default user name, password, and acquired random number)
"dbdd2dabd3d4d68c5dd970ec0c29fa6400QPW" (CR)

■ **Received data**

	Header		Data section	Termination symbol
Command example	'0' 0x30	'0' 0x30	Control command (ASCII string)	(CR) 0x0d
Data length	1 byte	1 byte	Undefined length	1 byte

- Example: The projector is powered on
"00001" (CR)

■ **Error response**

	String	Details	Termination symbol
Message	"ERR1"	Undefined control command	(CR) 0x0d
	"ERR2"	Out of parameter range	
	"ERR3"	Busy state or no-acceptable period	
	"ERR4"	Timeout or no-acceptable period	
	"ERR5"	Wrong data length	
	"ERRA"	Password mismatch	
Data length	4 bytes	—	1 byte

When web control administrator rights password is not set (Non-protect mode)

Connecting

1) Obtain the IP address and port number (Initial set value = 1024) of the projector and request a connection to the projector.

- You can obtain both the IP address and the port number from the menu screen of the projector.

IP address	Obtain from the [NETWORK] menu → [NETWORK STATUS].
Port number	Obtain from the [NETWORK] menu → [NETWORK CONTROL] → [COMMAND PORT].

2) Check the response from the projector.

	Data section	Blank	Mode	Termination symbol
Command example	"NTCONTROL" (ASCII string)	' '	'0' 0x30	(CR) 0x0d
Data length	9 bytes	1 byte	1 byte	1 byte

- Mode: 0 = Non-protect mode
- Example: Response during non-protect mode
"NTCONTROL 0" (CR)

Command transmission method

Transmit using the following command formats.

■ Transmitted data

	Header		Data section	Termination symbol
Command example	'0' 0x30	'0' 0x30	Control command (ASCII string)	(CR) 0x0d
Data length	1 byte	1 byte	Undefined length	1 byte

- Example: Transmission of power supply status acquisition command
"00QPW" (CR)

■ Received data

	Header		Data section	Termination symbol
Command example	'0' 0x30	'0' 0x30	Control command (ASCII string)	(CR) 0x0d
Data length	1 byte	1 byte	Undefined length	1 byte

- Example: The power of the projector is in standby status
"00000" (CR)

■ Error response

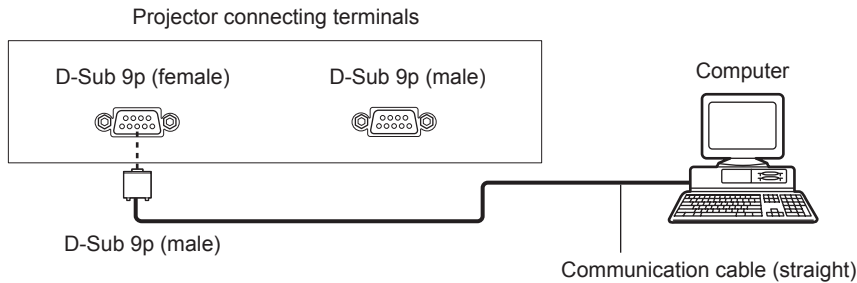
	String	Details	Termination symbol
Message	"ERR1"	Undefined control command	(CR) 0x0d
	"ERR2"	Out of parameter range	
	"ERR3"	Busy state or no-acceptable period	
	"ERR4"	Timeout or no-acceptable period	
	"ERR5"	Wrong data length	
	"ERRA"	Password mismatch	
Data length	4 bytes	—	1 byte

<SERIAL IN>/<SERIAL OUT> terminal

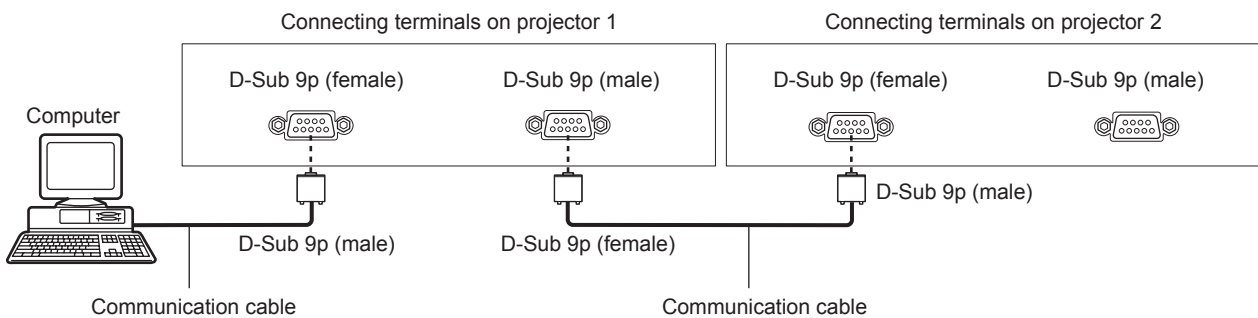
The <SERIAL IN>/<SERIAL OUT> terminal of the projector conforms with RS-232C so that the projector can be connected to and controlled from a computer.

Connection

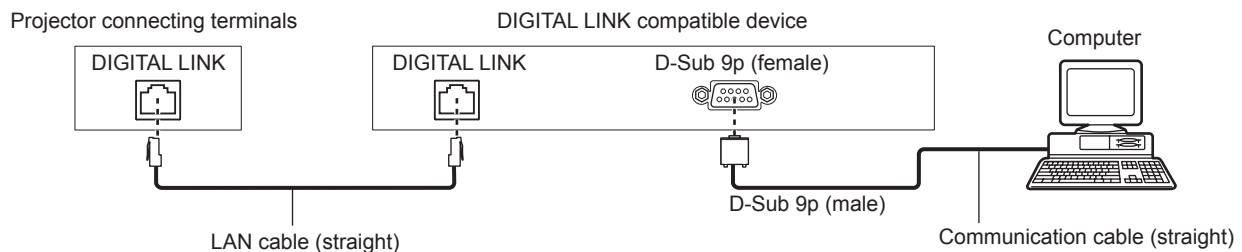
Single projector



Multiple projectors



When connecting using DIGITAL LINK compatible device



Note

- The destination of [RS-232C] (➔ page 149) must be set according to the connection method.
- When connecting using a DIGITAL LINK compatible device, set the [PROJECTOR SETUP] menu → [STANDBY MODE] (➔ page 144) to [NORMAL] to control the projector during standby.
When [STANDBY MODE] is set to [ECO], the projector cannot be control during standby.

Pin assignments and signal names

D-Sub 9-pin (female) Outside view	Pin No.	Signal name	Details
	(1)	—	NC
	(2)	TXD	Transmitted data
	(3)	RXD	Received data
	(4)	—	NC
	(5)	GND	Earth
	(6)	—	NC
	(7)	CTS	Connected internally
	(8)	RTS	
	(9)	—	NC

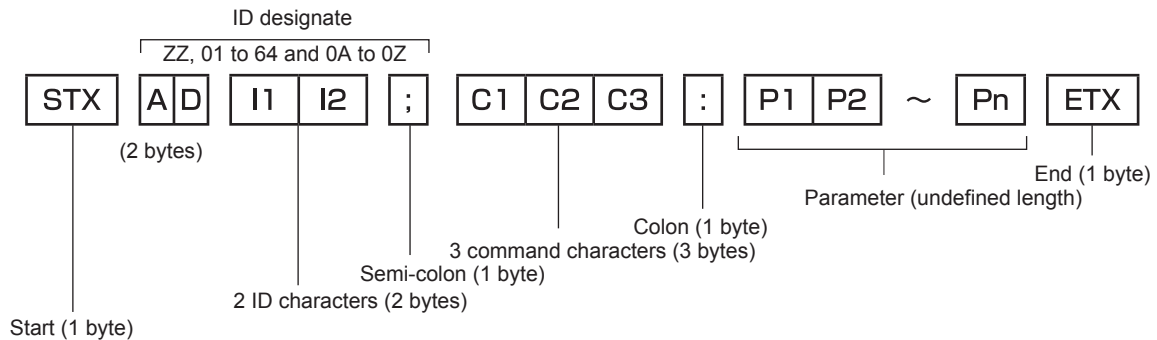
D-Sub 9-pin (male) Outside view	Pin No.	Signal name	Details
	(1)	—	NC
	(2)	RXD	Received data
	(3)	TXD	Transmitted data
	(4)	—	NC
	(5)	GND	Earth
	(6)	—	NC
	(7)	RTS	Connected internally
	(8)	CTS	
	(9)	—	NC

Communication conditions (Factory default)

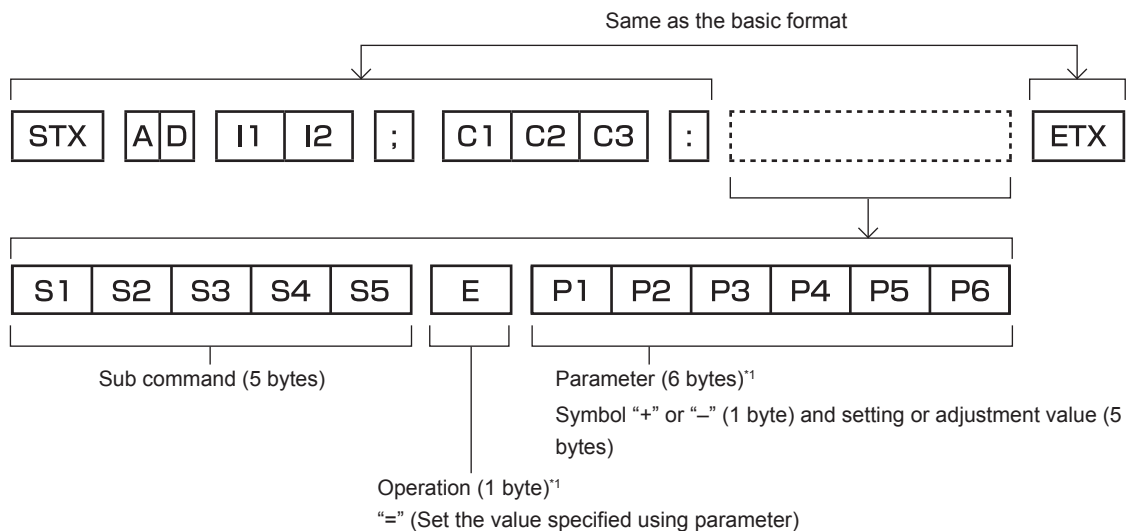
Signal level	RS-232C-compliant
Sync. method	Asynchronous
Baud rate	9 600 bps
Parity	None
Character length	8 bits
Stop bit	1 bit
X parameter	None
S parameter	None

Basic format

Transmission from the computer starts with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.



Basic format (has subcommands)



*1 When transmitting a command which does not need a parameter, an operation (E) and parameter are not necessary.

Attention

- If a command is sent after the light source starts lighting, there may be a delay in response or the command may not be executed. Try sending or receiving any command after 60 seconds.
- When transmitting multiple commands, be sure to wait until 0.5 seconds has elapsed after receiving the response from the projector before sending the next command. When transmitting a command which does not need a parameter, a colon (:) is not necessary.

Note

- If a command cannot be executed, the “ER401” response is sent from the projector to the computer.
- If an invalid parameter is sent, the “ER402” response is sent from the projector to the computer.
- ID transmission in RS-232C supports ZZ (ALL) and 01 to 64, as well as 0A to 0Z groups.
- If a command is sent with an ID designated, a response will be sent to the computer only in the following cases.
 - It matches the projector ID
 - ID is designated as ALL and [RESPONSE(ID ALL)] is set to [ON]
 - ID is designated as GROUP and [RESPONSE(ID GROUP)] is set to [ON]
- STX and ETX are character codes. STX shown in hexadecimal is 02, and ETX shown in hexadecimal is 03.

When multiple projectors are controlled

When multiple projectors are all controlled

When controlling multiple projectors together via RS-232C, perform the following settings.

- 1) Set a different ID for each projector.
- 2) Set [RESPONSE(ID ALL)] to [ON] in only one projector.
- 3) Set [RESPONSE(ID ALL)] to [OFF] for all other projectors set in Step 2).

When multiple projectors are all controlled by group unit

When controlling multiple projectors by group unit via RS-232C, perform the following settings.

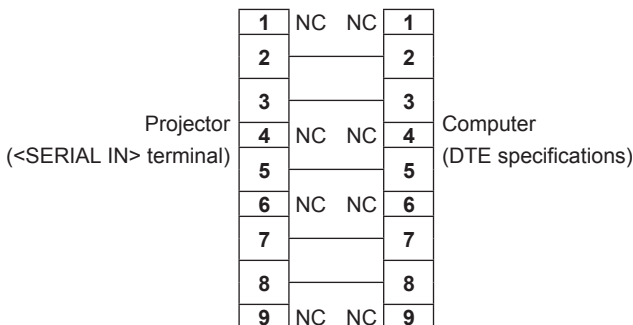
- 1) Set a different ID for each projector.
- 2) Set [RESPONSE(ID GROUP)] to [ON] in only one projector.
- 3) Set [RESPONSE(ID GROUP)] to [OFF] for all other projectors set in Step 2).

Note

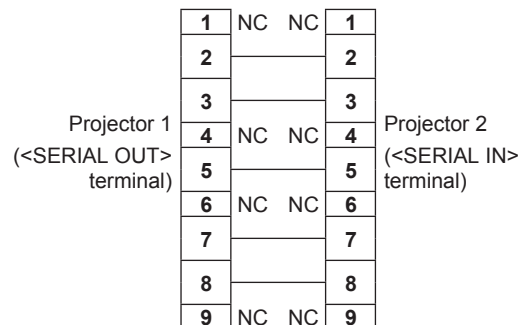
- There will be no response if two or more projectors have [RESPONSE(ID ALL)] set to [ON].
- When setting multiple groups, set [RESPONSE(ID GROUP)] to [ON] in only one projector in each group. Response is not made correctly if [RESPONSE(ID GROUP)] is set to [ON] in two or more projectors of the same group.

Cable specification

When connected to a computer



When multiple projectors are connected



Control command

The following table lists the commands that can be used to control the projector using a computer.

■ **Projector control command**

Command	Details	Parameter/response string	Remark (parameter)
PON	Power on	—	To check if the power is on, use the “Power query” command.
POF	Power standby		
QPW	Power query	000 001	STANDBY Power on
IIS	Switching the input signal	SD1 SD2 SD3 SD4 DL1 AU1,SD1*1 AU1,SD2*1 AU1,SD3*2 AU1,SD4*2 AU2,SD1*3 AU2,SD2*3 AU2,SD3*4 AU2,SD4*4 AU1,HD1*1 AU1,HD2*1 AU2,HD3*4 AU2,HD4*4 AU1,DV1*1 AU1,DV2*1 AU2,DV3*4 AU2,DV4*4	SDI1 SDI2 SDI3 SDI4 DIGITAL LINK SDI1 [SLOT1] SDI2 [SLOT1] SDI3 [SLOT1] SDI4 [SLOT1] SDI1 [SLOT2] SDI2 [SLOT2] SDI3 [SLOT2] SDI4 [SLOT2] HDMI1 [SLOT1] HDMI2 [SLOT1] HDMI3 [SLOT2] HDMI4 [SLOT2] DVI-D1 [SLOT1] DVI-D2 [SLOT1] DVI-D3 [SLOT2] DVI-D4 [SLOT2]
OSH	Shutter control	0	OPEN
QSH	Shutter status query	1	CLOSE
VSE	Aspect ratio switch	0 1 2 5 6	DEFAULT 4:3 16:9 THROUGH HV FIT
QSE	Aspect ratio settings query	9 10	H FIT V FIT
OCS	Sub memory switch	01 - 96	Sub memory number
QSB	Sub memory status query		

*1 This can be used when the optional Interface Board equipped with corresponding input is installed in <SLOT 1>.

*2 This can be used when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 1>.

*3 This can be used when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in <SLOT 2>.

*4 This can be used when the optional Interface Board equipped with corresponding input is installed in <SLOT 2>.

■ **Projector control command (with sub command)**

Command	Sub command	Details	Remark
VXX	MDMI1	MULTI DISPLAY execution	+00000 = OFF, +00001 = USER1, +00002 = USER2, +00003 = USER3
QVX	MDMI1	MULTI DISPLAY MODE query	

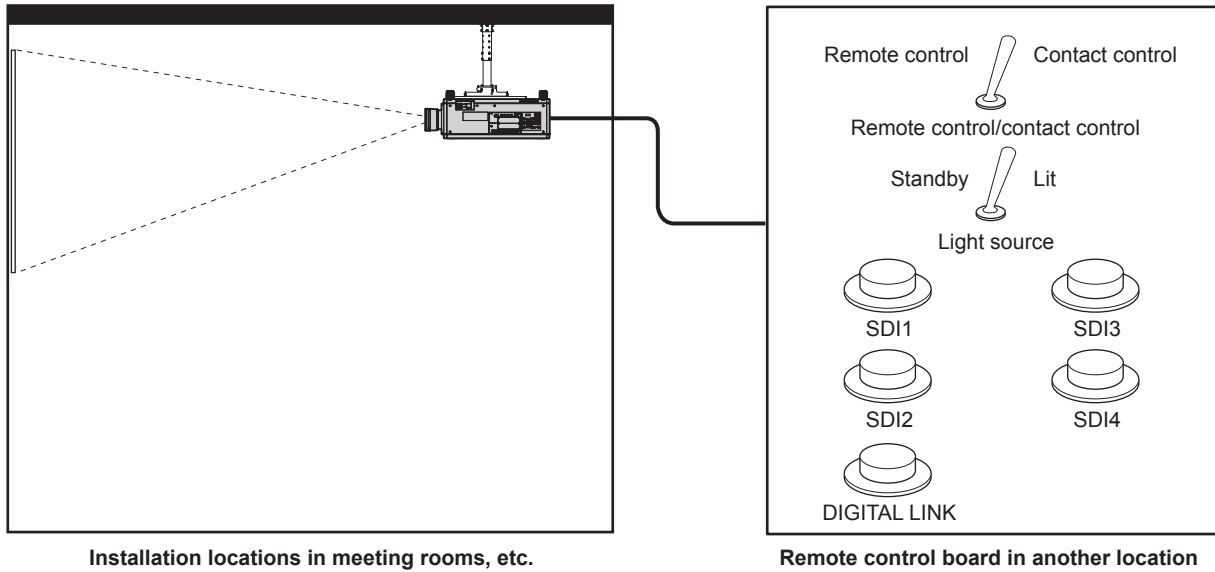
■ Lens control command

Command	Sub command	Details	Remark
VXX	LNSI2	Lens H shift	+00000 = Fine adjustment 1+, +00001 = Fine adjustment 1-, +00100 = Fine adjustment 2+, +00101 = Fine adjustment 2-, +00200 = Coarse adjustment+, +00201 = Coarse adjustment-
VXX	LNSI3	Lens V shift	
VXX	LNSI4	Lens focus	
VXX	LNSI5	Lens zoom	

<REMOTE 2 IN> terminal

It is possible to control the projector remotely (by external contact) from a control panel located away from the projector where remote control signals cannot reach.

Use the <REMOTE 2 IN> terminal on the connecting terminals of the projector to connect to the control panel.



Installation locations in meeting rooms, etc.

Remote control board in another location

Pin assignments and signal names

D-Sub 9-pin Outside view	Pin No.	Signal name	Open (H)	Short (L)
	(1)	GND	—	GND
	(2)	POWER	OFF	ON
	(3)	SDI1	Other	SDI1
	(4)	SDI2	Other	SDI2
	(5)	SDI3	Other	SDI3
	(6)	SDI4	Other	SDI4
	(7)	DIGITAL LINK	Other	DIGITAL LINK
	(8)	SHUTTER	OFF	ON
	(9)	ENABLE / DISABLE	Controlled by remote control	Controlled by external contact

Attention

- When controlling, make sure to short-circuit pins (1) and (9).
- When pins (1) and (9) are short-circuited, the following buttons on the control panel and the remote control are disabled. Commands for RS-232C and network functions corresponding to these functions are also disabled.
 - Power on <|> button, power standby <ϕ> button, <SHUTTER> button
- When pins (1) and (9) are short-circuited, and then any pins from (3) to (7) and the pin (1) are short-circuited, the following buttons on the control panel and the remote control are disabled. Commands for RS-232C and network functions corresponding to these functions are also disabled.
 - Power on <|> button, power standby <ϕ> button, <DIGITAL LINK> button, <DVI-D> button, <HDMI> button, <SDI> button, <SDI 1/2> button, <SDI 3/4> button, <SLOT 1> button, <SLOT 2> button, <INPUT MENU> button, <SHUTTER> button

Note

- To change the settings of pin (2) to pin (8), set [REMOTE2 MODE] to [USER]. (➔ page 150)

Control device password

To initialize your password, consult your distributor.

Upgrade Kit

If the optional Upgrade Kit (Model No.: ET-UK20) is applied, the following functions are extended.

Function	Standard status	When the Upgrade Kit is applied
Adjustment range of [VERTICAL KEYSTONE]	Maximum of $\pm 40^{\circ*1}$	Maximum of $\pm 45^{\circ*1}$
Adjustment range of [HORIZONTAL KEYSTONE]	Maximum of $\pm 15^{\circ*1}$	Maximum of $\pm 40^{\circ*1}$
Adjustment range of [CURVED]	Vertical arc, Maximum $\pm 50^{\circ*1}$ Horizontal arc, Maximum $\pm 50^{\circ*1}$	Vertical arc, Maximum $\pm 100^{\circ*1}$ Horizontal arc, Maximum $\pm 100^{\circ*1}$
[CUSTOM MASKING]	Cannot be used.	The image is masked in optional form.
[PC CORRECTION] of [UNIFORMITY]	Cannot be used.	Correct the brightness and color unevenness of the entire screen.

*1 The adjustment range of the menu. Refer to "[GEOMETRY] projection range" (➔ page 38) for the possible projection range.

List of compatible signals

The following table specifies the video signals that the projector can project. For details of SDI signal, refer to “List of single link SDI compatible signals” (➔ page 222), “List of dual link SDI compatible signals” (➔ page 226), “List of quad link SDI compatible signals” (➔ page 230).

This projector supports the signal with ✓ in the compatible signal column.

- The content of the compatible signal column is as follows.
 - 1: Single link (displays one image using one input signal.)
 - 2: Dual link (displays one image using two input signals.)
 - 3: Quad link (displays one image using four input signals.)

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal						
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK	HDMI ¹			DVI-D ²		
						1	1	2	3	1	2
480i	720 (1 440) x 480i ³	15.7	59.9	27.0	✓	✓	—	—	✓	—	—
576i	720 (1 440) x 576i ³	15.6	50.0	27.0	✓	✓	—	—	✓	—	—
480p	720 x 480	31.5	59.9	27.0	✓	✓	—	—	✓	—	—
576p	720 x 576	31.3	50.0	27.0	✓	✓	—	—	✓	—	—
720/60p	1 280 x 720	45.0	60.0	74.3	✓	✓	—	—	✓	—	—
720/50p	1 280 x 720	37.5	50.0	74.3	✓	✓	—	—	✓	—	—
1080/60i	1 920 x 1 080i	33.8	60.0	74.3	✓	✓	—	—	✓	—	—
1080/50i	1 920 x 1 080i	28.1	50.0	74.3	✓	✓	—	—	✓	—	—
1080/24p	1 920 x 1 080	27.0	24.0	74.3	✓	✓	—	—	✓	—	—
1080/24sF	1 920 x 1 080i	27.0	48.0	74.3	✓	✓	—	—	✓	—	—
1080/25p	1 920 x 1 080	28.1	25.0	74.3	✓	✓	—	—	✓	—	—
1080/30p	1 920 x 1 080	33.8	30.0	74.3	✓	✓	—	—	✓	—	—
1080/60p	1 920 x 1 080	67.5	60.0	148.5	✓	✓	—	—	✓	—	—
1080/50p	1 920 x 1 080	56.3	50.0	148.5	✓	✓	—	—	✓	—	—
2K/24p	2 048 x 1 080	27.0	24.0	74.3	✓	✓	—	—	✓	—	—
2K/25p	2 048 x 1 080	28.1	25.0	74.3	✓	✓	—	—	✓	—	—
2K/30p	2 048 x 1 080	33.8	30.0	74.3	✓	✓	—	—	✓	—	—
2K/48p	2 048 x 1 080	54.0	48.0	148.5	✓	✓	—	—	✓	—	—
2K/60p	2 048 x 1 080	67.5	60.0	148.5	✓	✓	—	—	✓	—	—
2K/50p	2 048 x 1 080	56.3	50.0	148.5	✓	✓	—	—	✓	—	—
3840 x 2160/24p	3 840 x 2 160	54.0	24.0	297.0	✓	✓	✓	✓	—	✓	✓
3840 x 2160/25p	3 840 x 2 160	56.3	25.0	297.0	✓	✓	✓	✓	—	✓	✓
3840 x 2160/30p	3 840 x 2 160	67.5	30.0	297.0	✓	✓	✓	✓	—	✓	✓
3840 x 2160/60p	3 840 x 2 160	135.0	60.0	297.0	✓ ⁴	✓ ⁴	—	—	—	—	—
	3 840 x 2 160	135.0	60.0	594.0	—	✓	✓	✓	—	—	✓
3840 x 2160/50p	3 840 x 2 160	112.5	50.0	297.0	✓ ⁴	✓ ⁴	—	—	—	—	—
	3 840 x 2 160	112.5	50.0	594.0	—	✓	✓	✓	—	—	✓
3840 x 2400/60p	3 840 x 2 400	74.0	60.0	616.0	—	—	—	✓	—	—	✓
3840 x 2400/50p	3 840 x 2 400	61.8	49.9	633.0	—	—	—	✓	—	—	✓
4096 x 2160/24p	4 096 x 2 160	54.0	24.0	297.0	✓	✓	✓	✓	—	✓	✓
4096 x 2160/25p	4 096 x 2 160	56.3	25.0	297.0	✓	✓	✓	✓	—	✓	✓
4096 x 2160/30p	4 096 x 2 160	67.5	30.0	297.0	✓	✓	✓	✓	—	✓	✓
4096 x 2160/60p	4 096 x 2 160	135.0	60.0	297.0	✓ ⁴	✓ ⁴	—	—	—	—	—
	4 096 x 2 160	135.0	60.0	594.0	—	✓	✓	✓	—	—	✓
4096 x 2160/50p	4 096 x 2 160	112.5	50.0	297.0	✓ ⁴	✓ ⁴	—	—	—	—	—
	4 096 x 2 160	112.5	50.0	594.0	—	✓	✓	✓	—	—	✓
640 x 400/70	640 x 400	31.5	70.1	25.2	✓	✓	—	—	✓	—	—
640 x 400/85	640 x 400	37.9	85.1	31.5	✓	✓	—	—	✓	—	—
640 x 480/60	640 x 480	31.5	59.9	25.2	✓	✓	—	—	✓	—	—
640 x 480/67	640 x 480	35.0	66.7	30.2	✓	✓	—	—	✓	—	—
640 x 480/73	640 x 480	37.9	72.8	31.5	✓	✓	—	—	✓	—	—
640 x 480/75	640 x 480	37.5	75.0	31.5	✓	✓	—	—	✓	—	—
640 x 480/85	640 x 480	43.3	85.0	36.0	✓	✓	—	—	✓	—	—

Chapter 6 Appendix — Technical information

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal						
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK	HDMI ¹			DVI-D ²		
						1	1	2	3	1	2
800 x 600/56	800 x 600	35.2	56.3	36.0	✓	✓	—	—	✓	—	—
800 x 600/60	800 x 600	37.9	60.3	40.0	✓	✓	—	—	✓	—	—
800 x 600/72	800 x 600	48.1	72.2	50.0	✓	✓	—	—	✓	—	—
800 x 600/75	800 x 600	46.9	75.0	49.5	✓	✓	—	—	✓	—	—
800 x 600/85	800 x 600	53.7	85.1	56.3	✓	✓	—	—	✓	—	—
832 x 624/75	832 x 624	49.7	74.6	57.3	✓	✓	—	—	✓	—	—
1024 x 768/50	1 024 x 768	39.6	50.0	51.9	✓	✓	—	—	✓	—	—
1024 x 768/60	1 024 x 768	48.4	60.0	65.0	✓	✓	—	—	✓	—	—
1024 x 768/70	1 024 x 768	56.5	70.1	75.0	✓	✓	—	—	✓	—	—
1024 x 768/75	1 024 x 768	60.0	75.0	78.8	✓	✓	—	—	✓	—	—
1024 x 768/82	1 024 x 768	65.5	81.6	86.0	✓	✓	—	—	✓	—	—
1024 x 768/85	1 024 x 768	68.7	85.0	94.5	✓	✓	—	—	✓	—	—
1024 x 768/100	1 024 x 768	81.4	100.0	113.3	✓	✓	—	—	✓	—	—
1024 x 768/120	1 024 x 768	98.7	120.0	139.1	✓	✓	—	—	✓	—	—
1152 x 864/60	1 152 x 864	53.7	60.0	81.6	✓	✓	—	—	✓	—	—
1152 x 864/70	1 152 x 864	64.0	70.0	94.2	✓	✓	—	—	✓	—	—
1152 x 864/75	1 152 x 864	67.5	75.0	108.0	✓	✓	—	—	✓	—	—
1152 x 864/85	1 152 x 864	77.1	85.0	119.7	✓	✓	—	—	✓	—	—
1152 x 870/75	1 152 x 870	68.7	75.1	100.0	✓	✓	—	—	✓	—	—
1280 x 720/50	1 280 x 720	37.1	49.8	60.5	✓	✓	—	—	✓	—	—
1280 x 720/60	1 280 x 720	44.8	59.9	74.5	✓	✓	—	—	✓	—	—
1280 x 720/100	1 280 x 720	76.3	100.0	131.8	✓	✓	—	—	✓	—	—
1280 x 720/120	1 280 x 720	92.6	120.0	161.6	✓	✓	—	—	✓	—	—
1280 x 768/50	1 280 x 768	39.6	49.9	65.3	✓	✓	—	—	✓	—	—
1280 x 768/60	1 280 x 768	47.8	59.9	79.5	✓	✓	—	—	✓	—	—
	1 280 x 768 ⁵	47.4	60.0	68.3	✓	✓	—	—	✓	—	—
1280 x 768/75	1 280 x 768	60.3	74.9	102.3	✓	✓	—	—	✓	—	—
1280 x 768/85	1 280 x 768	68.6	84.8	117.5	✓	✓	—	—	✓	—	—
1280 x 800/50	1 280 x 800	41.3	50.0	68.0	✓	✓	—	—	✓	—	—
1280 x 800/60	1 280 x 800	49.7	59.8	83.5	✓	✓	—	—	✓	—	—
	1 280 x 800 ⁵	49.3	59.9	71.0	✓	✓	—	—	✓	—	—
1280 x 800/75	1 280 x 800	62.8	74.9	106.5	✓	✓	—	—	✓	—	—
1280 x 800/85	1 280 x 800	71.6	84.9	122.5	✓	✓	—	—	✓	—	—
1280 x 960/60	1 280 x 960	60.0	60.0	108.0	✓	✓	—	—	✓	—	—
1280 x 1024/50	1 280 x 1 024	52.4	50.0	88.0	✓	✓	—	—	✓	—	—
1280 x 1024/60	1 280 x 1 024	64.0	60.0	108.0	✓	✓	—	—	✓	—	—
1280 x 1024/66	1 280 x 1 024	72.3	66.3	125.0	✓	✓	—	—	✓	—	—
1280 x 1024/72	1 280 x 1 024	78.2	72.0	135.1	✓	✓	—	—	✓	—	—
1280 x 1024/75	1 280 x 1 024	80.0	75.0	135.0	✓	✓	—	—	✓	—	—
1280 x 1024/85	1 280 x 1 024	91.1	85.0	157.5	✓	✓	—	—	✓	—	—
1366 x 768/50	1 366 x 768	39.6	49.9	69.0	✓	✓	—	—	✓	—	—
1366 x 768/60	1 366 x 768	47.7	59.8	85.5	✓	✓	—	—	✓	—	—
1400 x 1050/50	1 400 x 1 050	54.1	50.0	99.9	✓	✓	—	—	✓	—	—
1400 x 1050/60	1 400 x 1 050	64.0	60.0	108.0	✓	✓	—	—	✓	—	—
	1 400 x 1 050	65.3	60.0	121.8	✓	✓	—	—	✓	—	—
	1 400 x 1 050	65.2	60.0	122.6	✓	✓	—	—	✓	—	—
1400 x 1050/72	1 400 x 1 050	78.8	72.0	149.3	✓	✓	—	—	✓	—	—
1400 x 1050/75	1 400 x 1 050	82.2	75.0	155.9	✓	✓	—	—	✓	—	—
1440 x 900/50	1 440 x 900	46.3	49.9	86.8	✓	✓	—	—	✓	—	—
1440 x 900/60	1 440 x 900	55.9	59.9	106.5	✓	✓	—	—	✓	—	—
1600 x 900/50	1 600 x 900	46.4	49.9	96.5	✓	✓	—	—	✓	—	—
1600 x 900/60	1 600 x 900	55.9	60.0	119.0	✓	✓	—	—	✓	—	—
1600 x 1200/50	1 600 x 1 200	61.8	49.9	131.5	✓	✓	—	—	✓	—	—

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Compatible signal						
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK	HDMI*1			DVI-D*2		
						1	1	2	3	1	2
1600 x 1200/60	1 600 x 1 200	75.0	60.0	162.0	✓	✓	—	—	✓	—	—
1680 x 1050/50	1 680 x 1 050	54.1	50.0	119.5	✓	✓	—	—	✓	—	—
1680 x 1050/60	1 680 x 1 050	65.3	60.0	146.3	✓	✓	—	—	✓	—	—
1920 x 1080/50	1 920 x 1 080	55.6	49.9	141.5	✓	✓	—	—	✓	—	—
1920 x 1080/60	1 920 x 1 080*5	66.6	59.9	138.5	✓	✓	—	—	✓	—	—
	1 920 x 1 080	67.2	60.0	173.0	✓	✓	—	—	—	—	—
1920 x 1200/50	1 920 x 1 200	61.8	49.9	158.3	✓	✓	—	—	✓	—	—
1920 x 1200/60	1 920 x 1 200	74.6	59.9	193.3	✓	✓	—	—	—	—	—
1920 x 1200/60RB	1 920 x 1 200*5	74.0	60.0	154.0	✓	✓	—	—	✓	—	—
2560 x 1600/50	2 560 x 1 600	82.4	50.0	286.0	✓	✓	—	—	—	—	—
2560 x 1600/60	2 560 x 1 600*5	98.7	60.0	268.5	✓	✓	—	—	—	—	—

- *1 This is supported when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in the slot.
Quad link is supported only when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed on both <SLOT 1> and <SLOT 2>.
- *2 This is supported when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in the slot.
Quad link is supported only when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed on both <SLOT 1> and <SLOT 2>.
- *3 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only
- *4 YP_BP_R 4:2:0 format only
- *5 VESA CVT-RB (Reduced Blanking)-compliant

Note

- A signal with a different resolution is converted to the number of display dots. The number of display dots is as follows.
 - When the [ADVANCED MENU] menu → [QUAD PIXEL DRIVE] is set to [ON]: 5 120 x 3 200
 - When the [ADVANCED MENU] menu → [QUAD PIXEL DRIVE] is set to [OFF]: 2 560 x 1 600
- The "i" at the end of the resolution indicates an interlaced signal.
- When interlaced signals are connected, flickering may occur on the projected image.

List of plug and play compatible signals

The following table specifies the video signals compatible with plug and play.

Signal with ✓ in the plug and play compatible signal column is the signal described in the EDID (extended display identification data) of the projector. For the signal without ✓ in the plug and play compatible signal column, the resolution may not be selected on the computer even if the projector is supporting it.

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Plug and play compatible signal								
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK			HDMI ¹			DVI-D ²		
					EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1	EDID2	EDID3
480i	720 (1 440) x 480i ³	15.7	59.9	27.0	—	—	—	—	—	—	—	—	—
576i	720 (1 440) x 576i ³	15.6	50.0	27.0	—	—	—	—	—	—	—	—	—
480p	720 x 480	31.5	59.9	27.0	✓	✓	✓	✓	✓	✓	✓	—	✓
576p	720 x 576	31.3	50.0	27.0	✓	✓	✓	✓	✓	✓	✓	—	✓
720/60p	1 280 x 720	45.0	60.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
720/50p	1 280 x 720	37.5	50.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/60i	1 920 x 1 080i	33.8	60.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/50i	1 920 x 1 080i	28.1	50.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/24p	1 920 x 1 080	27.0	24.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/24sF	1 920 x 1 080i	27.0	48.0	74.3	—	—	—	—	—	—	—	—	—
1080/25p	1 920 x 1 080	28.1	25.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/30p	1 920 x 1 080	33.8	30.0	74.3	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/60p	1 920 x 1 080	67.5	60.0	148.5	✓	✓	✓	✓	✓	✓	✓	—	✓
1080/50p	1 920 x 1 080	56.3	50.0	148.5	✓	✓	✓	✓	✓	✓	✓	—	✓
2K/24p	2 048 x 1 080	27.0	24.0	74.3	—	—	—	—	—	—	—	—	—
2K/25p	2 048 x 1 080	28.1	25.0	74.3	—	—	—	—	—	—	—	—	—
2K/30p	2 048 x 1 080	33.8	30.0	74.3	—	—	—	—	—	—	—	—	—
2K/48p	2 048 x 1 080	54.0	48.0	148.5	—	—	—	—	—	—	—	—	—
2K/60p	2 048 x 1 080	67.5	60.0	148.5	—	—	—	—	—	—	—	—	—
2K/50p	2 048 x 1 080	56.3	50.0	148.5	—	—	—	—	—	—	—	—	—
3840 x 2160/24p	3 840 x 2 160	54.0	24.0	297.0	✓	✓	—	✓	✓	—	—	—	—
3840 x 2160/25p	3 840 x 2 160	56.3	25.0	297.0	✓	✓	—	✓	✓	—	—	—	—
3840 x 2160/30p	3 840 x 2 160	67.5	30.0	297.0	✓	✓	—	✓	✓	—	—	—	—
3840 x 2160/60p	3 840 x 2 160	135.0	60.0	297.0	✓ ^{*4}	—	—	✓ ^{*4}	—	—	—	—	—
	3 840 x 2 160	135.0	60.0	594.0	—	—	—	✓	—	—	—	—	—
3840 x 2160/50p	3 840 x 2 160	112.5	50.0	297.0	✓ ^{*4}	—	—	✓ ^{*4}	—	—	—	—	—
	3 840 x 2 160	112.5	50.0	594.0	—	—	—	✓	—	—	—	—	—
3840 x 2400/60p	3 840 x 2 400	74.0	60.0	616.0	—	—	—	—	—	—	—	—	—
3840 x 2400/50p	3 840 x 2 400	61.8	49.9	633.0	—	—	—	—	—	—	—	—	—
4096 x 2160/24p	4 096 x 2 160	54.0	24.0	297.0	✓	✓	—	✓	✓	—	—	—	—
4096 x 2160/25p	4 096 x 2 160	56.3	25.0	297.0	✓	✓	—	✓	✓	—	—	—	—
4096 x 2160/30p	4 096 x 2 160	67.5	30.0	297.0	✓	✓	—	✓	✓	—	—	—	—
4096 x 2160/60p	4 096 x 2 160	135.0	60.0	297.0	✓ ^{*4}	—	—	✓ ^{*4}	—	—	—	—	—
	4 096 x 2 160	135.0	60.0	594.0	—	—	—	✓	—	—	—	—	—
4096 x 2160/50p	4 096 x 2 160	112.5	50.0	297.0	✓ ^{*4}	—	—	✓ ^{*4}	—	—	—	—	—
	4 096 x 2 160	112.5	50.0	594.0	—	—	—	✓	—	—	—	—	—
640 x 400/70	640 x 400	31.5	70.1	25.2	—	—	—	—	—	—	—	—	—
640 x 400/85	640 x 400	37.9	85.1	31.5	—	—	—	—	—	—	—	—	—
640 x 480/60	640 x 480	31.5	59.9	25.2	✓	✓	✓	✓	✓	✓	✓	✓	✓
640 x 480/67	640 x 480	35.0	66.7	30.2	—	—	—	—	—	—	—	—	—
640 x 480/73	640 x 480	37.9	72.8	31.5	✓	✓	✓	✓	✓	✓	—	✓	✓
640 x 480/75	640 x 480	37.5	75.0	31.5	✓	✓	✓	✓	✓	✓	—	✓	✓
640 x 480/85	640 x 480	43.3	85.0	36.0	—	—	—	—	—	—	—	—	—
800 x 600/56	800 x 600	35.2	56.3	36.0	✓	✓	✓	✓	✓	✓	—	✓	✓
800 x 600/60	800 x 600	37.9	60.3	40.0	✓	✓	✓	✓	✓	✓	—	✓	✓

Chapter 6 Appendix — Technical information

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Plug and play compatible signal								
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK			HDMI ¹			DVI-D ²		
					EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1	EDID2	EDID3
800 x 600/72	800 x 600	48.1	72.2	50.0	✓	✓	✓	✓	✓	✓	—	✓	✓
800 x 600/75	800 x 600	46.9	75.0	49.5	✓	✓	✓	✓	✓	✓	—	✓	✓
800 x 600/85	800 x 600	53.7	85.1	56.3	—	—	—	—	—	—	—	—	—
832 x 624/75	832 x 624	49.7	74.6	57.3	✓	✓	✓	✓	✓	✓	—	✓	✓
1024 x 768/50	1 024 x 768	39.6	50.0	51.9	—	—	—	—	—	—	—	—	—
1024 x 768/60	1 024 x 768	48.4	60.0	65.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1024 x 768/70	1 024 x 768	56.5	70.1	75.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1024 x 768/75	1 024 x 768	60.0	75.0	78.8	✓	✓	✓	✓	✓	✓	—	✓	✓
1024 x 768/82	1 024 x 768	65.5	81.6	86.0	—	—	—	—	—	—	—	—	—
1024 x 768/85	1 024 x 768	68.7	85.0	94.5	—	—	—	—	—	—	—	—	—
1024 x 768/100	1 024 x 768	81.4	100.0	113.3	—	—	—	—	—	—	—	—	—
1024 x 768/120	1 024 x 768	98.7	120.0	139.1	✓	✓	✓	✓	✓	✓	—	✓	✓
1152 x 864/60	1 152 x 864	53.7	60.0	81.6	—	—	—	—	—	—	—	—	—
1152 x 864/70	1 152 x 864	64.0	70.0	94.2	—	—	—	—	—	—	—	—	—
1152 x 864/75	1 152 x 864	67.5	75.0	108.0	—	—	—	—	—	—	—	—	—
1152 x 864/85	1 152 x 864	77.1	85.0	119.7	—	—	—	—	—	—	—	—	—
1152 x 870/75	1 152 x 870	68.7	75.1	100.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1280 x 720/50	1 280 x 720	37.1	49.8	60.5	—	—	—	—	—	—	—	—	—
1280 x 720/60	1 280 x 720	44.8	59.9	74.5	—	—	—	—	—	—	—	—	—
1280 x 720/100	1 280 x 720	76.3	100.0	131.8	—	—	—	—	—	—	—	—	—
1280 x 720/120	1 280 x 720	92.6	120.0	161.6	—	—	—	—	—	—	—	—	—
1280 x 768/50	1 280 x 768	39.6	49.9	65.3	—	—	—	—	—	—	—	—	—
1280 x 768/60	1 280 x 768	47.8	59.9	79.5	—	—	—	—	—	—	—	—	—
	1 280 x 768 ⁵	47.4	60.0	68.3	—	—	—	—	—	—	—	—	—
1280 x 768/75	1 280 x 768	60.3	74.9	102.3	—	—	—	—	—	—	—	—	—
1280 x 768/85	1 280 x 768	68.6	84.8	117.5	—	—	—	—	—	—	—	—	—
1280 x 800/50	1 280 x 800	41.3	50.0	68.0	—	—	—	—	—	—	—	—	—
1280 x 800/60	1 280 x 800	49.7	59.8	83.5	—	—	—	—	—	—	—	—	—
	1 280 x 800 ⁵	49.3	59.9	71.0	—	—	—	—	—	—	—	—	—
1280 x 800/75	1 280 x 800	62.8	74.9	106.5	—	—	—	—	—	—	—	—	—
1280 x 800/85	1 280 x 800	71.6	84.9	122.5	—	—	—	—	—	—	—	—	—
1280 x 960/60	1 280 x 960	60.0	60.0	108.0	—	—	—	—	—	—	—	—	—
1280 x 1024/50	1 280 x 1 024	52.4	50.0	88.0	—	—	—	—	—	—	—	—	—
1280 x 1024/60	1 280 x 1 024	64.0	60.0	108.0	—	—	—	—	—	—	—	—	—
1280 x 1024/66	1 280 x 1 024	72.3	66.3	125.0	—	—	—	—	—	—	—	—	—
1280 x 1024/72	1 280 x 1 024	78.2	72.0	135.1	—	—	—	—	—	—	—	—	—
1280 x 1024/75	1 280 x 1 024	80.0	75.0	135.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1280 x 1024/85	1 280 x 1 024	91.1	85.0	157.5	—	—	—	—	—	—	—	—	—
1366 x 768/50	1 366 x 768	39.6	49.9	69.0	—	—	—	—	—	—	—	—	—
1366 x 768/60	1 366 x 768	47.7	59.8	85.5	—	—	—	—	—	—	—	—	—
1400 x 1050/50	1 400 x 1 050	54.1	50.0	99.9	—	—	—	—	—	—	—	—	—
1400 x 1050/60	1 400 x 1 050	64.0	60.0	108.0	—	—	—	—	—	—	—	—	—
	1 400 x 1 050	65.3	60.0	121.8	—	—	—	—	—	—	—	—	—
	1 400 x 1 050	65.2	60.0	122.6	✓	✓	✓	✓	✓	✓	—	✓	✓
1400 x 1050/72	1 400 x 1 050	78.8	72.0	149.3	—	—	—	—	—	—	—	—	—
1400 x 1050/75	1 400 x 1 050	82.2	75.0	155.9	—	—	—	—	—	—	—	—	—
1440 x 900/50	1 440 x 900	46.3	49.9	86.8	—	—	—	—	—	—	—	—	—
1440 x 900/60	1 440 x 900	55.9	59.9	106.5	—	—	—	—	—	—	—	—	—
1600 x 900/50	1 600 x 900	46.4	49.9	96.5	—	—	—	—	—	—	—	—	—
1600 x 900/60	1 600 x 900	55.9	60.0	119.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1600 x 1200/50	1 600 x 1 200	61.8	49.9	131.5	—	—	—	—	—	—	—	—	—
1600 x 1200/60	1 600 x 1 200	75.0	60.0	162.0	✓	✓	✓	✓	✓	✓	—	✓	✓
1680 x 1050/50	1 680 x 1 050	54.1	50.0	119.5	—	—	—	—	—	—	—	—	—
1680 x 1050/60	1 680 x 1 050	65.3	60.0	146.3	—	—	—	—	—	—	—	—	—

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Plug and play compatible signal									
		Horizontal (kHz)	Vertical (Hz)		DIGITAL LINK			HDMI ^{*1}			DVI-D ^{*2}			
					EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1: 4K/60p	EDID2: 4K/30p	EDID3: 2K	EDID1	EDID2	EDID3	
1920 x 1080/50	1 920 x 1 080	55.6	49.9	141.5	—	—	—	—	—	—	—	—	—	—
1920 x 1080/60	1 920 x 1 080 ^{*5}	66.6	59.9	138.5	—	—	—	—	—	—	—	—	—	—
	1 920 x 1 080	67.2	60.0	173.0	—	—	—	—	—	—	—	—	—	—
1920 x 1200/50	1 920 x 1 200	61.8	49.9	158.3	—	—	—	—	—	—	—	—	—	—
1920 x 1200/60	1 920 x 1 200	74.6	59.9	193.3	—	—	—	—	—	—	—	—	—	—
1920 x 1200/60RB	1 920 x 1 200 ^{*5}	74.0	60.0	154.0	✓	✓	✓	✓	✓	✓	—	✓	✓	✓
2560 x 1600/50	2 560 x 1 600	82.4	50.0	286.0	—	—	—	—	—	—	—	—	—	—
2560 x 1600/60	2 560 x 1 600 ^{*5}	98.7	60.0	268.5	✓	✓	—	✓	✓	—	—	—	—	—

*1 This is supported when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in the slot.

*2 This is supported when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNVDV10) is installed in the slot.

*3 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

*4 YP_bP_R 4:2:0 format only

*5 VESA CVT-RB (Reduced Blanking)-compliant

List of single link SDI compatible signals

The following table specifies the single link SDI signals that the projector can project.

This is the list of compatible signals including the input of the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) installed in the slot, in addition to the standard SDI input.

- The content of the 4K division column is as follows.
 - SQ: Square (transmission format of Square Division)
 - IL: Interleave (transmission format of 2-Sample Interleave Division)

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
480/60i	720 x 480i	15.7	59.9	27.0	—	SD-SDI	Y _C B _B C _R	4:2:2 10bit
576/50i	720 x 576i	15.6	50.0	27.0	—	SD-SDI	Y _C B _B C _R	4:2:2 10bit
720/60p	1 280 x 720	45.0	60.0 ^{*1}	74.3	—	HD-SDI	YP _b P _R	4:2:2 10bit
720/50p	1 280 x 720	37.5	50.0	74.3	—	HD-SDI	YP _b P _R	4:2:2 10bit
1080/60i	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _b P _R	4:2:2 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _b P _R	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _b P _R	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _b P _R	4:4:4 12bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _b P _R	4:4:4 12bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/50i	1 920 x 1 080i	28.1	50.0	74.3	—	HD-SDI	YP _b P _R	4:2:2 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-A	YP _b P _R	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-B	YP _b P _R	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-A	YP _b P _R	4:4:4 12bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-B	YP _b P _R	4:4:4 12bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080i	28.1	50.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
1080/24p	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/24sF	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/25p	1 920 x 1 080	28.1	25.0	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/25sF	1 920 x 1 080	28.1	50.0	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080	28.1	50.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/30p	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
1080/30sF	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit

Chapter 6 Appendix — Technical information

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
1080/60p	1 920 x 1 080	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	1 920 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	RGB	4:4:4 12bit
1080/50p	1 920 x 1 080	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	1 920 x 1 080	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	1 920 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	RGB	4:4:4 12bit
2K/24p	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-A	XYZ	4:4:4 12bit
	2 048 x 1 080 ^{*2}	27.0	24.0 ^{*1}	74.3	—	3G-SDI Level-B	XYZ	4:4:4 12bit
2K/25p	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080	28.1	25.0	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	28.1	25.0	74.3	—	3G-SDI Level-A	XYZ	4:4:4 12bit
	2 048 x 1 080 ^{*2}	28.1	25.0	74.3	—	3G-SDI Level-B	XYZ	4:4:4 12bit
2K/30p	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-A	XYZ	4:4:4 12bit
	2 048 x 1 080 ^{*2}	33.8	30.0 ^{*1}	74.3	—	3G-SDI Level-B	XYZ	4:4:4 12bit
2K/48p	2 048 x 1 080 ^{*2}	54.0	48.0 ^{*1}	148.5	—	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	2 048 x 1 080 ^{*2}	54.0	48.0 ^{*1}	148.5	—	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
2K/60p	2 048 x 1 080	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	2 048 x 1 080	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	2 048 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	RGB	4:4:4 10bit
	2 048 x 1 080 ^{*3}	67.5	60.0 ^{*1}	148.5	—	6G-SDI Type 1	RGB	4:4:4 12bit
2K/50p	2 048 x 1 080	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	2 048 x 1 080	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	2 048 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	RGB	4:4:4 10bit
	2 048 x 1 080 ^{*3}	56.3	50.0	148.5	—	6G-SDI Type 1	RGB	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
3840 x 2160/24p	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 12bit
3840 x 2160/25p	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	RGB	4:4:4 12bit
3840 x 2160/30p	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 12bit
3840 x 2160/60p	3 840 x 2 160 ³	135.0	60.0 ^{*1}	594.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	135.0	60.0 ^{*1}	594.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
3840 x 2160/50p	3 840 x 2 160 ³	112.5	50.0	594.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	112.5	50.0	594.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
4096 x 2160/24p	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 12bit

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
4096 x 2160/25p	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
4096 x 2160/30p	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	6G-SDI Type 2	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	SQ	12G-SDI Type 1	RGB	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0 ^{*1}	297.0	IL	12G-SDI Type 1	RGB	4:4:4 12bit
4096 x 2160/60p	4 096 x 2 160 ³	135.0	60.0 ^{*1}	594.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	135.0	60.0 ^{*1}	594.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
4096 x 2160/50p	4 096 x 2 160 ³	112.5	50.0	594.0	SQ	12G-SDI Type 1	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	112.5	50.0	594.0	IL	12G-SDI Type 1	YP _B P _R	4:2:2 10bit

*1 The signal with 1/1.001x vertical scanning frequency is also supported.

*2 The optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is not supported.

*3 Only the <SDI 1 IN> terminal and the <SDI 3 IN> terminal of the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) are supported.

List of dual link SDI compatible signals

The following table specifies the dual link SDI signals that the projector can project.

This is the list of compatible signals including the input of the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) installed in the slot, in addition to the standard SDI input.

- The content of the 4K division column is as follows.
 - SQ: Square (transmission format of Square Division)
 - IL: Interleave (transmission format of 2-Sample Interleave Division)

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
1080/60i	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080i	33.8	60.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/50i	1 920 x 1 080i	28.1	50.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080i	28.1	50.0	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080i	28.1	50.0	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/24p	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
1080/24sF	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080i	27.0	48.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/25p	1 920 x 1 080	28.1	25.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	25.0	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	25.0	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/25sF	1 920 x 1 080	28.1	50.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	28.1	50.0	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080	28.1	50.0	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/30p	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/30sF	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	1 920 x 1 080	33.8	60.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
1080/60p	1 920 x 1 080	67.5	60.0 ^{*1}	148.5	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*2}	67.5	60.0 ^{*1}	148.5	—	3G-SDI Level-A	RGB	4:4:4 12bit
1080/50p	1 920 x 1 080	56.3	50.0	148.5	—	HD-SDI	YP _B P _R	4:2:2 10bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-A	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-B	RGB	4:4:4 10bit
	1 920 x 1 080 ^{*2}	56.3	50.0	148.5	—	3G-SDI Level-A	RGB	4:4:4 12bit
2K/24p	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	2 048 x 1 080	27.0	24.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	27.0	24.0 ^{*1}	74.3	—	HD-SDI	XYZ	4:4:4 12bit
2K/25p	2 048 x 1 080	28.1	25.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	28.1	25.0	74.3	—	HD-SDI	RGB	4:4:4 10bit
	2 048 x 1 080	28.1	25.0	74.3	—	HD-SDI	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	28.1	25.0	74.3	—	HD-SDI	XYZ	4:4:4 12bit
2K/30p	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	YP _B P _R	4:4:4 12bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 10bit
	2 048 x 1 080	33.8	30.0 ^{*1}	74.3	—	HD-SDI	RGB	4:4:4 12bit
	2 048 x 1 080 ^{*2}	33.8	30.0 ^{*1}	74.3	—	HD-SDI	XYZ	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
2K/48p	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080 ²	54.0	48.0 ¹	148.5	—	3G-SDI Level-B	RGB	4:4:4 12bit
2K/50p	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080 ²	56.3	50.0	148.5	—	3G-SDI Level-B	RGB	4:4:4 12bit
2K/60p	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-A	RGB	4:4:4 10bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-B	RGB	4:4:4 10bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-A	RGB	4:4:4 12bit
	2 048 x 1 080 ²	67.5	60.0 ¹	148.5	—	3G-SDI Level-B	RGB	4:4:4 12bit
3840 x 2160/24p	3 840 x 2 160	54.0	24.0 ¹	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	54.0	24.0 ¹	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	54.0	24.0 ¹	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit
3840 x 2160/25p	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
3840 x 2160/30p	3 840 x 2 160	56.3	30.0*1	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	56.3	30.0*1	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	3 840 x 2 160 ³	56.3	30.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit
3840 x 2160/60p	3 840 x 2 160 ³	135.0	60.0*1	594.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	135.0	60.0*1	594.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
3840 x 2160/50p	3 840 x 2 160 ³	112.5	50.0	594.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
	3 840 x 2 160 ³	112.5	50.0	594.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
4096 x 2160/24p	4 096 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	4 096 x 2 160 ³	54.0	24.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit
4096 x 2160/25p	4 096 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	56.3	25.0	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	4 096 x 2 160 ³	56.3	25.0	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
4096 x 2160/30p	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B Dual Stream	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 12bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	SQ	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	IL	6G-SDI Type 1	YP _B P _R	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 10bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	SQ	6G-SDI Type 1	RGB	4:4:4 12bit
	4 096 x 2 160 ³	67.5	30.0*1	297.0	IL	6G-SDI Type 1	RGB	4:4:4 12bit
4096 x 2160/60p	4 096 x 2 160 ³	135.0	60.0*1	594.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	135.0	60.0*1	594.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
4096 x 2160/50p	4 096 x 2 160 ³	112.5	50.0	594.0	SQ	6G-SDI Type 1	YP _B P _R	4:2:2 10bit
	4 096 x 2 160 ³	112.5	50.0	594.0	IL	6G-SDI Type 1	YP _B P _R	4:2:2 10bit

*1 The signal with 1/1.001x vertical scanning frequency is also supported.

*2 The optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) is not supported.

*3 Only the combination of the <SDI 1 IN> terminal and the <SDI 3 IN> terminal of the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is supported.

List of quad link SDI compatible signals

The following table specifies the quad link SDI signals that the projector can project.

This is the list of compatible signals including the input of the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) installed in the slot, in addition to the standard SDI input.

- The content of the 4K division column is as follows.
 - SQ: Square (transmission format of Square Division)
 - IL: Interleave (transmission format of 2-Sample Interleave Division)

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
3840 x 2160/24p	3 840 x 2 160	54.0	24.0*1	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
	3 840 x 2 160	54.0	24.0*1	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 12bit
3 840 x 2 160	54.0	24.0*1	297.0	IL	3G-SDI Level-B	RGB	4:4:4 12bit	

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
3840 x 2160/24sF	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	54.0	48.0 ^{*1}	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
3840 x 2160/25p	3 840 x 2 160	56.3	25.0	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	56.3	25.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
	3 840 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
	3840 x 2160/25sF	3 840 x 2 160	56.3	50.0	297.0	SQ	HD-SDI	YP _B P _R
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
3 840 x 2 160		56.3	50.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
3840 x 2160/30p	3 840 x 2 160	67.5	30.0*1	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
	3 840 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
	3 840 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
	3840 x 2160/30sF	3 840 x 2 160	67.5	60.0*1	297.0	SQ	HD-SDI	YP _B P _R
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
3 840 x 2 160		67.5	60.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
3840 x 2160/60p	3 840 x 2 160	135.0	60.0*1	594.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	135.0	60.0*1	594.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	135.0	60.0*1	594.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	135.0	60.0*1	594.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
3840 x 2160/50p	3 840 x 2 160	112.5	50.0	594.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	112.5	50.0	594.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	112.5	50.0	594.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	3 840 x 2 160	112.5	50.0	594.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 10bit

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Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
4096 x 2160/24p	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
	4 096 x 2 160	54.0	24.0 ^{*1}	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
	4096 x 2160/25p	4 096 x 2 160	56.3	25.0	297.0	SQ	HD-SDI	YP _B P _R
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
4 096 x 2 160		56.3	25.0	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 12bit
4 096 x 2 160	56.3	25.0	297.0	IL	3G-SDI Level-B	RGB	4:4:4 12bit	

Chapter 6 Appendix — Technical information

Signal name (SIGNAL FORMAT)	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	4K division	Format	Color format	Sampling
		Horizontal (kHz)	Vertical (Hz)					
4096 x 2160/30p	4 096 x 2 160	67.5	30.0*1	297.0	SQ	HD-SDI	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	YP _B P _R	4:4:4 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-B	RGB	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-B	RGB	4:4:4 10bit
	4 096 x 2 160	67.5	30.0*1	297.0	SQ	3G-SDI Level-A	RGB	4:4:4 12bit
	4 096 x 2 160	67.5	30.0*1	297.0	IL	3G-SDI Level-A	RGB	4:4:4 12bit
	4096 x 2160/60p	4 096 x 2 160	135.0	60.0*1	594.0	SQ	3G-SDI Level-A	YP _B P _R
4 096 x 2 160		135.0	60.0*1	594.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
4 096 x 2 160		135.0	60.0*1	594.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
4 096 x 2 160		135.0	60.0*1	594.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
4096 x 2160/50p	4 096 x 2 160	112.5	50.0	594.0	SQ	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	112.5	50.0	594.0	IL	3G-SDI Level-A	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	112.5	50.0	594.0	SQ	3G-SDI Level-B	YP _B P _R	4:2:2 10bit
	4 096 x 2 160	112.5	50.0	594.0	IL	3G-SDI Level-B	YP _B P _R	4:2:2 10bit

*1 The signal with 1/1.001x vertical scanning frequency is also supported.

List of simultaneous input compatible signals

The following table specifies the simultaneous input compatible video signals that the projector can project.

Signal format	Resolution (Dots)	Scanning freq.		Dot clock freq. (MHz)	Simultaneous input compatible signal					
		Horizontal (kHz)	Vertical (Hz)		SDI		HDMI*1		DVI-D*2	
					Double speed	Quadruple speed	Double speed	Quadruple speed	Double speed	Quadruple speed
1080/60p	1 920 x 1 080	67.5	60.0	148.5	✓ ^{*3}	✓ ^{*4}	✓	✓	✓	✓
1080/50p	1 920 x 1 080	56.3	50.0	148.5	✓ ^{*3}	✓ ^{*4}	✓	✓	✓	✓
1366 x 768/50	1 366 x 768	39.6	49.9	69.0	—	—	✓	—	✓	—
1366 x 768/60	1 366 x 768	47.7	59.8	85.5	—	—	✓	—	✓	—
1400 x 1050/50	1 400 x 1 050	54.1	50.0	99.9	—	—	✓	—	✓	—
1400 x 1050/60	1 400 x 1 050	65.3	60.0	121.8	—	—	✓	—	✓	—
1920 x 1080/50	1 920 x 1 080	55.6	49.9	141.5	—	—	✓	—	✓	—
1920 x 1080/60	1 920 x 1 080* ⁵	66.6	59.9	138.5	—	—	✓	—	✓	—
1920 x 1200/50	1 920 x 1 200	61.8	49.9	158.3	—	—	✓	—	✓	—
1920 x 1200/60RB	1 920 x 1 200* ⁵	74.0	60.0	154.0	—	—	✓	—	✓	—

*1 This is supported when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in the slot.

*2 This is supported when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in the slot.

*3 In addition to the standard SDI input, this supports the input of the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) or the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) installed in the slot.

*4 In addition to the standard SDI input, this supports the input from the optional 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G) installed in the slot.

Input of the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is not supported.

*5 VESA CVT-RB (Reduced Blanking)-compliant

Note

- The geometric adjustment function and the expansion function by applying the optional Upgrade Kit (Model No.: ET-UK20) cannot be used when the video signal in simultaneous format is input.

Specifications

The specifications of the projector are as follows.

Power supply		100 V - 240 V ~ (100 V - 240 V alternating current), 50 Hz/60 Hz
Power consumption		1 270 W (12.0 A - 6.0 A)
		When [STANDBY MODE] is set to [ECO]: 0.3 W
		When [STANDBY MODE] is set to [NORMAL]: 4 W
DLP chip	Size	22.9 mm (0.90") (aspect ratio 16:10)
	Display system	DLP chip x 3, DLP projection system
	Number of pixels	4 096 000 pixels (2 560 x 1 600 dots)
Lens		Optional
Light source		Laser, 2-bank type
Light output*1		10 000 lm (ANSI)
Contrast ratio*1		20 000:1 (when [DYNAMIC CONTRAST] is set as [3])
Projected image size		1.78 m (70") to 25.40 m (1 000")*2
Image aspect ratio		16:10
Projection method		[FRONT/CEILING], [FRONT/FLOOR], [REAR/CEILING], [REAR/FLOOR]
Power cord length		3.0 m (118-1/8")
Outer case		Molded plastic
Dimensions	Width	578 mm (22-3/4")
	Height	270 mm (10-5/8") (excluding the feet)
	Depth	725 mm (28-17/32") (excluding the protrusion)
Weight		Approx. 49.0 kg (108.0 lbs.)*3
Noise level*1		46 dB
Operating environment	Operating environment temperature	0 °C (32 °F) to 45 °C (113 °F)*4 *5
	Operating environment humidity	10 % to 80 % (no condensation)
Remote control	Power supply	DC 3 V (AA/R6/LR6 battery x 2)
	Operating range	Within approx. 30 m (98'5") (when operated directly in front of signal receiver)
	Weight	150 g (5.3 ozs.) (including batteries)
	Dimensions	Width: 47.5 mm (1-7/8"), Height: 181.5 mm (7-5/32"), Depth: 27.5 mm (1-3/32")

*1 Measurement, measuring conditions and method of notation all comply with ISO21118 international standards.

*2 When the Zoom Lens (Model No.: ET-D75LE8) is used, the projected image size for the maximum projection distance will be 1.78 m (70") to 15.24 m (600"). When the Fixed-focus Lens (Model No.: ET-D75LE90) is used, the projected image size for the maximum projection distance will be 3.05 m (120") to 15.24 m (600").

*3 Average value. Weight varies for each product.

*4 The operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F) if the projector is used at an altitude between 1 400 m (4 593') and 4 200 m (13 780') above sea level. When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the operating environment temperature should be between 0 °C (32 °F) and 40 °C (104 °F), regardless of the altitude. When the Smoke Cut Filter is used, the operating environment temperature should be between 0 °C (32 °F) and 35 °C (95 °F).

When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], the projector cannot be used at an altitude of 2 700 m (8 858') or higher above sea level. When the Smoke Cut Filter is used, the projector cannot be used at an altitude of 1 400 m (4 593') or higher above sea level.

*5 When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [NORMAL], and the operating environment temperature exceeds the following value, the light output may be reduced to protect the projector.

- When using the projector at an altitude lower than 2 700 m (8 858') above sea level: 35 °C (95 °F)

- When using the projector at an altitude between 2 700 m (8 858') and 4 200 m (13 780') above sea level: 25 °C (77 °F)

When the [PROJECTOR SETUP] menu → [OPERATION SETTING] → [OPERATING MODE] is set to [ECO], [LONG LIFE1], [LONG LIFE2], or [LONG LIFE3], and the operating environment temperature exceeds 35 °C (95 °F), the light output may be reduced to protect the projector.

Note

- The light output will decrease as much as the power supply voltage is decreased. It is recommended to use with AC 200 V or higher to prioritize luminance.

■ Connecting terminal/slot

<p><SDI IN 1> terminal <SDI IN 2> terminal <SDI IN 3> terminal <SDI IN 4> terminal</p>	<p>Total 4 sets (BNC) Single link SD-SDI signal Single link HD-SDI signal Single link 3G-SDI signal Dual link HD-SDI signal SMPTE ST 372 compliant <SDI IN 1> terminal: LINK-A signal/<SDI IN 2> terminal: LINK-B signal/<SDI IN 3> terminal: LINK-A signal/<SDI IN 4> terminal: LINK-B signal Dual link 3G-SDI signal SMPTE ST 425 compliant <SDI IN 1> terminal: Link 1 signal/<SDI IN 2> terminal: Link 2 signal/<SDI IN 3> terminal: Link 1 signal/<SDI IN 4> terminal: Link 2 signal Quad link HD-SDI signal <SDI IN 1> terminal: Link 1 signal/<SDI IN 2> terminal: Link 2 signal/<SDI IN 3> terminal: Link 3 signal/<SDI IN 4> terminal: Link 4 signal Quad link 3G-SDI signal SMPTE ST 425 compliant <SDI IN 1> terminal: Link 1 signal/<SDI IN 2> terminal: Link 2 signal/<SDI IN 3> terminal: Link 3 signal/<SDI IN 4> terminal: Link 4 signal</p>
<p><FRAME SYNC 1 IN/OUT> terminal</p>	<p>1 set (BNC) During input setting TTL high impedance During output setting TTL output: Maximum 10 mA</p>
<p><FRAME SYNC 2 OUT> terminal</p>	<p>1 set (BNC) TTL output: Maximum 10 mA</p>
<p><SERIAL IN> terminal <SERIAL OUT> terminal</p>	<p>D-Sub 9 p, 1 set each, RS-232C compliant, for computer control</p>
<p><REMOTE 1 IN> terminal <REMOTE 1 OUT> terminal</p>	<p>M3 stereo mini jack, 1 set each, for remote control (wired)/for projector connection control</p>
<p><REMOTE 2 IN> terminal</p>	<p>1 set, D-Sub 9 p, for contact control</p>
<p><DIGITAL LINK/LAN> terminal</p>	<p>1 set, RJ-45, for network and DIGITAL LINK connections (HDBaseT™ compliant), PLink compatible, 100Base-TX, Art-Net compatible, HDCP 2.2 compatible, Deep Color compatible</p>
<p><SLOT 1> <SLOT 2></p>	<p>Total 2 sets (blank), SLOT NX specification, for installing the Interface Board</p>

■ Compatible signal

For details of the types of video signals that can be used with the projector, refer to “List of compatible signals” (➔ page 217).

SDI input
SD-SDI signal HD-SDI signal 3G-SDI signal 6G-SDI signal*1 12G-SDI signal*1
DIGITAL LINK input
<ul style="list-style-type: none"> • Moving image signal resolution: 480i²/576i² to 4 096 x 2 160 Still image signal resolution: 640 x 400 to 2 560 x 1 600 (non-interlace) • Dot clock frequency: 25 MHz to 297 MHz
HDMI input*3
<ul style="list-style-type: none"> • Moving image signal resolution: 480i²/576i² to 4 096 x 2 160 Still image signal resolution: 640 x 400 to 2 560 x 1 600 (non-interlace) • Dot clock frequency: 25 MHz to 594 MHz
DVI-D input*4
<ul style="list-style-type: none"> • Moving image signal resolution: 480i²/576i² to 2 048 x 1 080 Still image signal resolution: 640 x 400 to 1 920 x 1 200 (non-interlace) • Dot clock frequency: 25 MHz to 162 MHz

*1 This is supported when the optional Interface Board for 12G-SDI (Model No.: ET-MDN12G10) is installed in the slot.

*2 Pixel-Repetition signal (dot clock frequency 27.0 MHz) only

*3 This is supported when the optional Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) is installed in the slot.

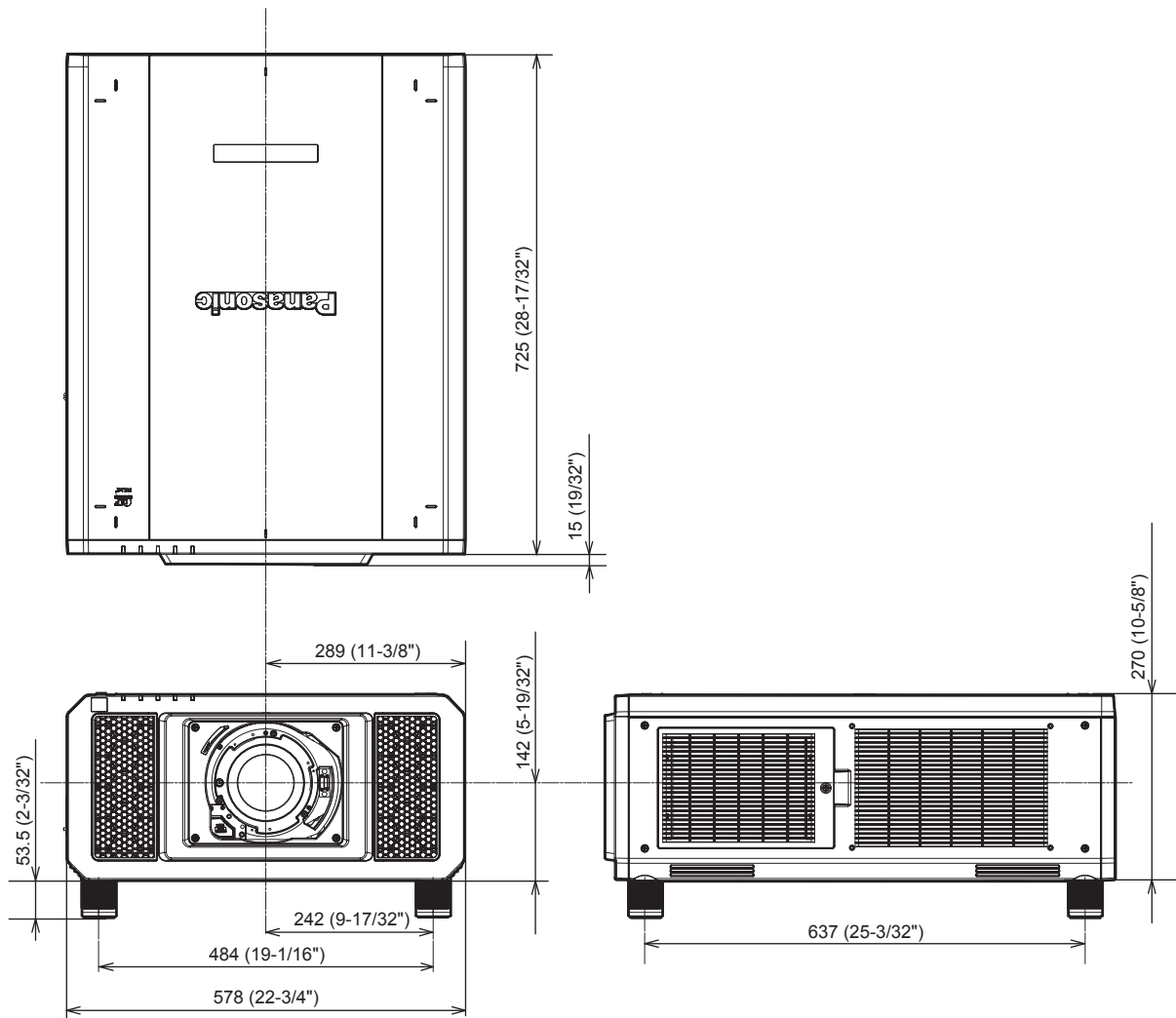
*4 This is supported when the optional Interface Board for DVI-D 2 input (Model No.: ET-MDNDV10) is installed in the slot.

Note

- The model numbers of accessories and optional accessories are subject to change without prior notice.
- To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00.
For details on how to confirm the firmware version, refer to “How to confirm the firmware version of the 3G-SDI Terminal Board with Audio” (➔ page 31).

Dimensions

Unit: mm



* Actual dimensions may differ depending on the product.

Precautions for attaching the Ceiling Mount Bracket

- When installing the projector to a ceiling, be sure to use the specified optional Ceiling Mount Bracket (Model No.: ET-PKD520H (for High Ceilings), ET-PKD520S (for Low Ceilings), ET-PKD520B (Projector Mount Bracket)). The Ceiling Mount Bracket (Model No.: ET-PKD520H (for High Ceilings), ET-PKD520S (for Low Ceilings)) is used in combination with the Ceiling Mount Bracket (Model No.: ET-PKD520B (Projector Mount Bracket)).
- Attach the drop-prevention set that comes with the Ceiling Mount Bracket to the projector. If you need the drop-prevention set (hex bolt with washer (M10 x 40), wire rope: TTRA0143) separately, consult your dealer.
- Ask a qualified technician to do the installation work such as mounting the projector on the ceiling.
- Panasonic takes no responsibility for any damage to the projector resulting from use of the Ceiling Mount Bracket not manufactured by Panasonic or the inappropriate choice of location for installing the Ceiling Mount Bracket, even if the warranty period of the projector has not expired.
- Unused products must be removed promptly by a qualified technician.
- Referring to the following screw holes for ceiling mount diagram, use screws of sufficient length to reach the embedded nuts.
- Use a torque screwdriver or Allen torque wrench to tighten bolts to their specified tightening torques. Do not use electric screwdrivers or impact screwdrivers.
- Read the Installation Instructions of the Ceiling Mount Bracket for details.
- The model numbers of accessories and optional accessories are subject to change without prior notice.

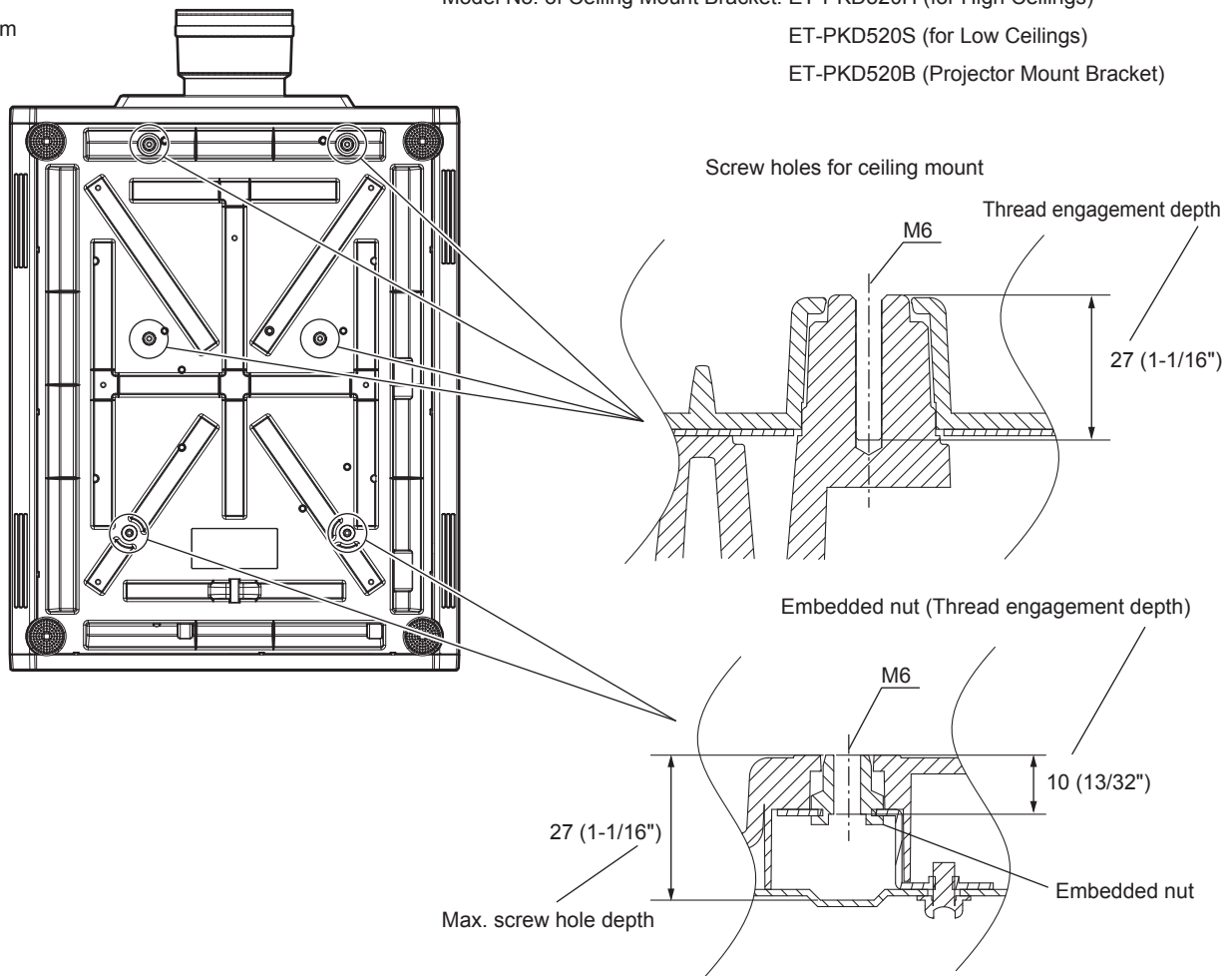
Bottom view

Unit: mm

Model No. of Ceiling Mount Bracket: ET-PKD520H (for High Ceilings)

ET-PKD520S (for Low Ceilings)

ET-PKD520B (Projector Mount Bracket)



Torque: (M6) 4 ± 0.5 N·m

Installing the Interface Board (optional)

This projector is equipped with two SLOT NX-specification slots.

There are four SDI input terminals and one DIGITAL LINK input terminal equipped on this projector as the standard video input terminals. The input for HDMI, DVI-D, and SDI can be added by installing the optional Interface Board in the slot.

Requesting a qualified technician to install or remove the optional Interface Board is recommended. A malfunction may occur due to static electricity. Consult your dealer.

Before installing or removing

- Always turn off the power of the projector before installing or removing the Interface Board.
 - Always follow the procedure of “Switching off the projector” (➔ page 64) when turning off the power.
- Do not touch the connector section of the Interface Board directly with your hands.
 - The component may be damaged by the static electricity.
- Remove the static charge from your body by touching to surrounding metal, etc., in advance to prevent the static electricity damage.
- Take care not to get injured when installing or removing the Interface Board.
 - Hands may be injured by the opening of the blank slot or the edge of the bracket of the Interface Board.
- When installing the Interface Board to the slot, insert it into the connector straight and slowly.
 - It may not operate or cause malfunction if it is not correctly installed.
- To use the 3G-SDI Terminal Board with Audio (Model No.: TY-TBN03G), it is necessary for the firmware version of the 3G-SDI Terminal Board with Audio to be 2.00 or later. Consult your dealer regarding the version update to the latest firmware if the version is earlier than 2.00.

For details on how to confirm the firmware version, refer to “How to confirm the firmware version of the 3G-SDI Terminal Board with Audio” (➔ page 31).

- The figure indicating the installation and removal of the Interface Board is using the Interface Board for HDMI 2 input (Model No.: ET-MDNHM10) as an example.

How to install the Interface Board

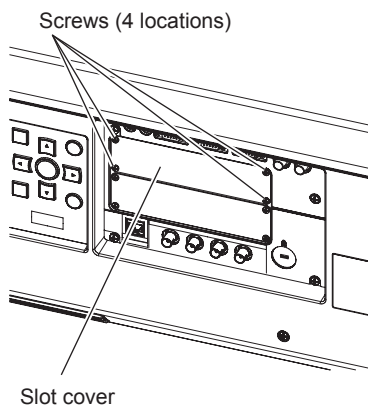


Fig. 1

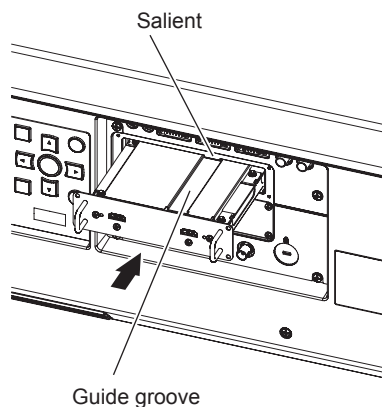


Fig. 2

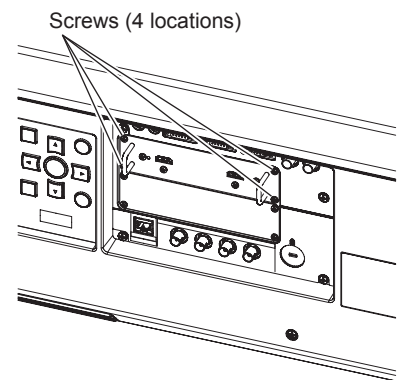


Fig. 3

1) Remove the slot cover. (Fig. 1)

- Remove the four screws fixing the slot cover by rotating counterclockwise with a Phillips screwdriver. The removed screws are used to fix the Interface Board.
- When removing the fourth screw, hold the slot cover with your hand so it will not fall.
- To replace from other Interface Board, remove the Interface Board following the procedure in “How to remove the Interface Board” (➔ page 242).

2) Install the Interface Board to the projector. (Fig. 2)

- Insert the guide groove of the Interface Board aligned to the salient of the slot. Insert the bracket firmly all the way in.

3) Fix the Interface Board. (Fig. 3)

- Tighten and fix with the four screws removed in Step 1).

Attention

- The removed slot cover is required when the unnecessary Interface Board is removed. Store it so it can be attached in the future.

How to remove the Interface Board

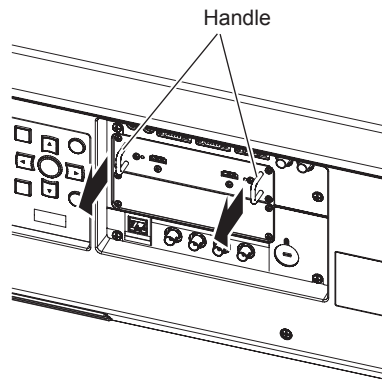


Fig. 1

1) Remove the Interface Board. (Fig. 1)

- Remove the four screws fixing the Interface Board by rotating counterclockwise with a Phillips screwdriver. The removed screws are used to fix the slot cover.
- Hold the handle of the Interface Board and remove it slowly.

2) Attach the slot cover.

- Attach the stored slot cover, and tighten and fix with the four screws removed in Step 1).
- To replace with other Interface Board, attach the Interface Board following the procedure in “How to install the Interface Board” (➔ page 241).

Attention

- Always attach the slot cover on the blank slot.
- Store the removed Interface Board inside an antistatic bag.

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Information for Users on Collection and Disposal of Old Equipment and used Batteries



These symbols on the products, packaging, and/or accompanying documents mean that used electrical and electronic products and batteries should not be mixed with general household waste. For proper treatment, recovery and recycling of old products and used batteries, please take them to applicable collection points, in accordance with your national legislation and the Directives 2002/96/EC and 2006/66/EC.

By disposing of these products and batteries correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling.



For more information about collection and recycling of old products and batteries, please contact your local municipality, your waste disposal service or the point of sale where you purchased the items.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.



For business users in the European Union

If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Cd

Information on Disposal in other Countries outside the European Union

These symbols are only valid in the European Union. If you wish to discard these items, please contact your local authorities or dealer and ask for the correct method of disposal.

Note for the battery symbol (bottom two symbol examples):

This symbol might be used in combination with a chemical symbol. In this case it complies with the requirement set by the Directive for the chemical involved.

Product Information (for Turkey only)



AEEE Yönetmeliğine Uygundur.

Eski Ekipman ve Bataryaların İşlenmesi.

Sadece geri dönüşüm sistemleri olan Avrupa Birliği ve ülkeleri için geçerlidir.

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Atıkların atılmasıyla ilgili yanlış uygulamalar yasayla belirlenmiş olan cezalara sebebiyet verebilir.

Panasonic Corporation

Web Site : <https://panasonic.net/cns/projector/>

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