Thank you for purchasing this Panasonic product.

- Before operating this product, please read the instructions carefully and save this manual for future use.
- Before using your projector, be sure to read “Read this first!” (pages 2 to 10).

For information on using the product via a network, refer to “Operating Instructions – Network Operations”.

The projection lens is sold separately.
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.

Machine Noise Information Ordinance 3. GSGV, January 18, 1991: 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 earthingtype 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 is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

**CAUTION:** To assure continued compliance, follow the attached installation instructions, which include using the provided power cord and shielded interface cables when connecting to computer or peripheral device. If you use serial port to connect PC for external control of projector, you must use optional RS-232C serial interface cable with ferrite core. Any unauthorized changes or modifications to this equipment will void the user’s authority to operate.

**Product information (for Turkey only)**

EEE Yönetmeliğine Uygundur.
EEE Complies with Directive of Turkey.

**WARNING:**
TURN OFF THE UV LAMP BEFORE OPENING THE LAMP COVER

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DONOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

**WARNING:**
RISK OF ELECTRIC SHOCK, DO NOT OPEN.

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.

**CAUTION (USA and Canada)**

**CAUTION:** 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.
FCC NOTICE (USA)

Declaration of Conformity
Model Number: PT-EX12KU/PT-EX12KE
Trade Name: Panasonic
Responsible Party: Panasonic Corporation of North America
Address: One Panasonic Way, Secaucus, NJ 07094
Telephone number: (877)803-8492
E-mail: projectorsupport@us.panasonic.com

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.
To assure continued compliance, follow the attached installation instructions and do not make any unauthorized modifications.

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.

NOTIFICATION (Canada)

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

WARNING (USA and Canada)

- 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.

NOTICE USA only:
- This product has a High Intensity Discharge (HID) lamp that contains mercury. Disposal may be regulated in your community due to environmental considerations. For disposal or recycling information, please visit Panasonic website: http://www.panasonic.com/environmental or call 1-888-769-0149.
IMPORTANT: THE MOULDED PLUG (U.K. only)

FOR YOUR SAFETY, PLEASE READ THE FOLLOWING TEXT CAREFULLY.

This appliance is supplied with a moulded 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 Authorised Service Center.

If the fitted moulded 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 coloured in accordance with the following code:

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

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

The wire which is coloured 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 coloured GREEN or GREEN - AND - YELLOW.

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

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

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

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 use anything other than the provided power cord.
Failure to observe this will result in fire or electric shocks.

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.

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.

■ 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, ex. a bathroom.
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.
**WARNING:**

Do not cover the air intake/exhaust ports or place anything within 1 m (39") 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.

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 look and place your skin into the lights 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 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 disconnect the power plug when you are away from the projector.

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.

Do not project an image with the lens cover attached. Doing so can cause fire.

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.

Do not touch other than the specified portion or remove the components. Doing so may impair the performance or safety.

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.
- Do not use anything other than an authorized ceiling mount bracket.
- Be sure to use the provided accessory wire with an eye bolt as an extra safety measure to prevent the projector from falling down. (Install in a different location to the ceiling mount bracket.)
WARNING:

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.
• Use AAA/R03 or AAA/LR03 batteries.
• Do not use unspecified batteries.
• Use manganese or alkaline batteries but not rechargeable 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 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.

Do not allow children to reach the batteries (AAA/R03/LR03).
• The battery can cause personal injury if swallowed.
• If swallowed, seek medical advice immediately.

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 disassemble the lamp unit.
If the lamp breaks, it could cause injury.

Lamp replacement
The lamp has high internal pressure. If improperly handled, an explosion and severe injury or accidents will result.
• The lamp can easily explode if struck against hard objects or dropped.
• Before replacing the lamp, be sure to disconnect the power plug from the wall outlet.
  Electric shocks or explosions can result if this is not done.
• When replacing the lamp, turn the power off and allow it to cool for at least 60 minutes before handling it otherwise it can cause burns.

Do not allow infants or pets to touch the remote control unit.
• Keep the remote control unit out of the reach of infants and pets after using it.

Do not use the supplied power cord with devices other than this projector.
• Using the supplied power cord with devices other than this projector may cause short circuits or overheating, and result in electric shock or fire.

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 and remove the batteries from the remote control. Failure to do so may result in fire or electric shock.

Disconnect the power plug from the wall outlet before carrying out any cleaning 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 stoves.

Do not place your hands in the openings beside the optical lens, while shifting the lens. Failure to observe this could cause injury.

When lifting or carrying the projector, do not hold the lens hood and lens. Doing so may damage the projector.

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.

Use the lens specified by Panasonic. Using the lens other than the specified one will result in malfunctions.
  - Before attaching the lens, check the projector model no. and optional lens model no. and use the lens suitable for the projector.
  - For details, consult your dealer.

■ **ACCESSORIES**

Do not use the old lamp unit. If used it could cause lamp explosion.

If the lamp has broken, ventilate the room immediately. Do not touch or bring your face close to the broken pieces. Failure to observe this will cause the user to absorb the gas which was released when the lamp broke and which contains nearly the same amount of mercury as fluorescent lamps, and the broken pieces will cause injury.
  - If you believe that you have absorbed the gas or that the gas has got into your eyes or mouth, seek medical advice immediately.
  - Ask your dealer about replacing the lamp unit and check the inside of the projector.

Do not attach wet air filter. Doing so may result in electric shocks or malfunctions.
  - After washing the air filter, dry it thoroughly before attaching to the projector.

Ask your dealer about cleaning inside the projector once a year. 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 poderão 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.

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.
Trademarks
• HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.

• Other names, company names or product names used in these operating instructions are the trademarks or registered trademarks of their respective holders.
  Please note that the operating instructions do not include the © and TM symbols.

Illustrations in these operating instructions
• Note that illustrations of the projector and screens may differ from the ones you actually see.

Page references
• In these instructions, references to pages are indicated as: (page 00).

Term
• In these instructions, the “Wireless/wired remote control unit” accessories are referred to as the “Remote control”.

10 - ENGLISH
Features of the projector

High clarity and high contrast image

- Image quality of high clarity with 13,000 lumens and high contrast with 4,000:1.

More flexible setup

- Allows installation of vertically 360° direction. Equipped with the electric lens shift function that enables vertical and horizontal positioning adjustment as well as test patterns. Also, you can use lights for the control panel and connection terminals. In addition, you can choose one from nine types of optional lenses.

High reliability and maintainability

- Equipped with auto-switchable two lamps that enable continuous projecting when a lamp has been worn out. The air filter block dust and keep clear images and long life of the projector.

Quick steps

For details, see the corresponding pages.

1. Set up your projector. (☞ page 34)

2. Connect with external devices. (☞ page 36)

3. Connect the power cord. (☞ page 41)

4. Power on. (☞ page 43)

5. Select the input signal. (☞ page 45)

6. Adjust the image. (☞ page 45)
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Be sure to read "Read this first!". (pages 2 to 10)

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Precautions for use

Cautions when transporting

- When transporting the projector, hold it securely by its carry handle and avoid excessive vibration and impacts by such handling as dragging it on the floor. Failure to do so may damage the internal parts 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 use in the following places.
  - Places where vibration and impacts occur such as in a vehicle or vessel: Doing so may damage the internal parts and result in malfunctions.
  - Near the exhaust of an air conditioner or near lights (studio lamps, etc.) where there are large swings in temperature ("Operating environment" (⇒ page 115)): Doing so may shorten the life of the lamp or result in deformation of the outer case, resulting in malfunctions.
  - Near high-voltage power lines or near motors: Interference may occur.

- Be sure to ask a qualified technician or your dealer before installing the product on a ceiling.
  If the product is to be installed hanging from the ceiling, purchase the optional ceiling mount bracket.
  Product No.: ET-PKE16H (for high ceilings), ET-PKE16S (for low ceilings), ET-PKE12B (for projector)

- Do not install the projector at elevations of 2 700 m (8 858 ft) or higher above sea level.
  Failure to do so may shorten the life of the internal parts and result in malfunctions.

- Do not use the projector while it is tilted (⇒ page 34).
  Using the projector while tilted may shorten the life of the internal parts.
### Precautions for use

#### Cautions when setting up the projector

- Do not block the ventilation ports (intake and exhaust) of the projector.
- Avoid exposing the ventilation ports (intake and exhaust) of the projector to heated and cooled air from the air conditioning system.
- Avoid setting up the projector in a humid or dusty location.
- Do not stack the projectors when multiple projectors are used.

#### Using single projector

- 1 m (39") to the above, both sides, and back side

#### Using multiple projectors

- (Over 1 m (39") to the above, both sides, and back side)

- Do not set up the projector in a confined space.

  - If setting up in a confined space is necessary, install an air conditioning or ventilation system for the space.
  - If ventilation is insufficient, exhaust heat may accumulate and trigger the protection circuit of the projector.

#### Security

When using this product, implement appropriate security measures to prevent the following:

- Personal information being leaked via this product
- Unauthorized operation of this product by a malicious third party
- Interference or stopping of this product by a malicious third party

Take sufficient security measures. (page 79)

- Make your PIN code as difficult to guess as possible.
- Change your PIN code periodically.
- Panasonic Corporation and its affiliate companies will never ask you directly for your PIN code. If you are asked directly, do not give your PIN code.
- Be sure to use a secure network with a firewall, etc.
- Set a PIN code and restrict the users who can log in.

#### Disposal

When disposing of the product, ask your local authority or dealer about the correct methods of disposal.

- The lamp contains mercury. When disposing of the used lamp unit, ask your nearest local authorities or dealer about proper disposal of the unit.
- Dispose of used batteries according to the instructions or your local disposal rule or guidelines.
Precautions for use

Cautions on use

■ To achieve a high picture quality
  - You achieve a high picture quality by drawing curtains or blinds over windows and turning off any lights near the screen to prevent outside light or light from indoor lamps from shining onto the screen.
  - Depending on the conditions, the picture may wobble due to the heated air from the air exhaust port or heated or cooled air from the air conditioner. Take care to ensure that neither the exhaust from the projector or other equipment, nor air from any air conditioner blows on the front of the projector.
  - The projection lens is heated by the light from the luminous source, making the focus unstable in the period just after switching on. The focus will stabilize after 30 minutes elapsed with the image being projected.

■ Do not touch the surface of the projection lens with your bare hands.
  If the surface of the lens is contaminated by fingerprints or dirt, this will be magnified and projected onto the screen, degrading the picture.

■ LCD panel
  The LCD panel is precision-made. Note that in rare cases, pixels of high precision could be missing or always lit. This is not a malfunction.
  When a still image is projected for a long period, the image may burn in to the LCD panel. In this case, project the all white screen from the test patterns (page 84) for at least one hour. Note, however, that it may not always be possible to fully eradicate the burned-in image.

■ Optical components
  If you are using the projecting a high-temperature environment or an environment which is dusty or full of cigarette smoke etc., the replacement cycle for optical components such as the LCD panel and polarizer may reduce even when duration of use is less than a year. For more information, please consult your dealer.

■ Lamp
  The projector luminous source is a mercury lamp with high internal pressure.
  A high-pressure mercury lamp has the following characteristics.
  - The brightness of the lamp will decrease with usage time.
  - An impact, scratch, or deterioration with usage may cause the bulb burst loudly or reduce the service life.
  - The service life of the lamp varies greatly depending on the individual lamp and usage conditions. In particular, continuous use for periods of 24 hours or longer and frequent on/off switching of the power accelerate deterioration in the lamp and affect the lamp life.
  - In rare cases, the lamp burst shortly after starting the projection.
  - The risk of bursting increases when the lamp is used beyond its replacement cycle. Make sure to replace the lamp unit consistently. “When to replace the lamp unit” (page 96)
  - If the lamp bursts, gas contained in the lamp is released in a form of smoke.
  - It is recommended that you store a replacement lamp just in case.
  - It is recommended that you request a qualified technician to replace the lamp unit. Consult your dealer.

<Software information regarding this product>

© Panasonic Corporation 2012
This product incorporates the following software:
the software which is developed independently by or for Panasonic Corporation.

If you wish to ask any questions as to the software, please contact (sav.pj.gpl.pavic@ml.jp.panasonic.com) by email.

Pursuant to at the directive 2004/108/EC, article 9(2)
Panasonic Testing Centre
Panasonic Service Europe, a division of Panasonic Marketing Europe GmbH
Winsbergring 15, 22525 Hamburg, F.R. Germany
## Accessories

Make sure that the following accessories are provided with your projector.

<table>
<thead>
<tr>
<th>Accessory (product name)</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wireless/wired remote control unit (N2QAYA000036)</td>
<td>1</td>
</tr>
<tr>
<td>AAA/R03/LR03 battery (for remote control unit)</td>
<td>2</td>
</tr>
<tr>
<td>Power cord for PT-EX12KE (T0K3K0022--1 and T0K3K0023--1)</td>
<td>2</td>
</tr>
<tr>
<td>Power cord for PT-EX12KU (T0K3K0025--1)</td>
<td>1</td>
</tr>
<tr>
<td>Computer cable (for D-Sub) (T0K3K0013--1)</td>
<td>1</td>
</tr>
<tr>
<td>CD-ROM (T0K3K0019A-1)</td>
<td>1</td>
</tr>
<tr>
<td>Operating Instructions – Basic Guide (T6P1P6106--)</td>
<td>1</td>
</tr>
<tr>
<td>Lens lock lever fixing bracket*1 (T0STF0045--1)</td>
<td>1</td>
</tr>
<tr>
<td>Spacer*1 (T0SAS0001--)</td>
<td>1 (set)</td>
</tr>
<tr>
<td>Lens attachment*1 (T0HLA0045--)</td>
<td>1 (set)</td>
</tr>
<tr>
<td>Lens hood strap (T0SRZ0005-A)</td>
<td>1</td>
</tr>
<tr>
<td>Cable tie</td>
<td>3</td>
</tr>
<tr>
<td>Power cord holder, power cord cover (T0STF0040--1)</td>
<td>1 (set)</td>
</tr>
<tr>
<td>Light-shielding plate-1*1 (T0CRS0008--1)</td>
<td>1</td>
</tr>
<tr>
<td>Light-shielding plate-2*1 (T0CRM0014--1)</td>
<td>1</td>
</tr>
<tr>
<td>Light-shielding plate-3*1 (T0CRM0013--1)</td>
<td>1</td>
</tr>
</tbody>
</table>

*1: Used when attaching the lens (optional). (☞ page 25)

### Attention

- After unpacking the projector, dispose of the power cord cap and packing material in an appropriate manner.
- If you lose any of the accessories, consult your dealer.
- The product numbers of accessories and separately sold components are subject to change without notice.
- Store small parts in an appropriate manner, and keep them away from infants.
Precautions for use

Contents of CD-ROM
The following contents are stored on the supplied CD-ROM.

<table>
<thead>
<tr>
<th>Manual/list (PDF)</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>● Operating Instructions – Projector Operations</td>
<td>● Multi Projector Monitoring &amp; Control Software (Windows)</td>
</tr>
<tr>
<td>● Operating Instructions – Network Operations</td>
<td>- This is software for monitoring and controlling</td>
</tr>
<tr>
<td>● Multi Projector Monitoring &amp; Control Operations</td>
<td>multiple projectors connected via a LAN.</td>
</tr>
<tr>
<td>Software Operation Manual</td>
<td>● Logo Transfer Software (Windows)</td>
</tr>
<tr>
<td>● Logo Transfer Software Operation Manual</td>
<td>- This is software to set the projector to project the</td>
</tr>
<tr>
<td>● Real Color Manager Pro Operation Manual</td>
<td>user’s own logo such as a company logo mark on</td>
</tr>
<tr>
<td>● List of Compatible Projector Models</td>
<td>startup.</td>
</tr>
<tr>
<td>- This is a list of projectors that are compatible</td>
<td>● Real Color Manager Pro Software</td>
</tr>
<tr>
<td>with the software included in the CD-ROM, and their</td>
<td>(Windows)</td>
</tr>
<tr>
<td>restrictions.</td>
<td>- This is software for performing color correction</td>
</tr>
<tr>
<td></td>
<td>and gamma correction of the projected image.</td>
</tr>
</tbody>
</table>

Optional accessories

<table>
<thead>
<tr>
<th>Optional accessories (product name)</th>
<th>Product No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ceiling mount bracket</td>
<td>ET-PKE16H (for high ceilings), ET-PKE16S (for low ceilings), ET-PKE12B (for projector)</td>
</tr>
<tr>
<td>Replacement lamp unit</td>
<td>ET-LAE12</td>
</tr>
<tr>
<td>Replacement filter</td>
<td>ET-RFE12</td>
</tr>
<tr>
<td>Input module</td>
<td>ET-MD16SD1</td>
</tr>
<tr>
<td>Lens</td>
<td>ET-ELW02, ET-ELW03, ET-ELW04, ET-ELW06, ET-ELS02, ET-ELS03, ET-ELM01, ET-ELT02, ET-ELT03</td>
</tr>
</tbody>
</table>
About your projector

Remote control

(1) Remote control signal emitters
(2) Remote control indicator
   Flashes when you press a button on the remote control.
(3) <LIGHT> button
   Press once to light the control buttons for ten seconds.
(4) Power <POWER ON> button
   Starts projection when the main power switch on the projector is set to <|> and in the standby mode.
(5) <SHUTTER> button
   Opens and closes the shutter. ( page 47)
(6) <MENU> button
   Displays the menu screen. ( page 50)
(7) ▲▼◀▶ buttons
   Move the cursor on the on-screen menu and adjust the settings of the menu.
   Also move the image vertically and horizontally in the digital zoom mode or the real mode.
(8) <LENS SHIFT> button
   Slides the lens vertically and horizontally to move the position of the projected image vertically and horizontally. ( page 45)
(9) <FOCUS> button
   Adjusts the focus. ( page 46)
(10) <ZOOM> button
    Adjusts the zoom of the lens. ( page 46)
(11) <FREEZE> button
    Temporarily freezes the projected image. ( page 47)
(12) <D.ZOOM> button
    Turns on the digital zoom mode.
(13) <P-TIMER> button
    Counts and displays the time elapsed from the press of the button or displays a countdown from the set time when you press the <P-TIMER> button. ( page 49)
(14) <KEYSTONE> button
    Corrects the keystone effect. ( page 48)
(15) <INFO.> button
    Displays the state of signals during projection, and current settings. ( page 49)
(16) <ON>/<OFF> switch
    Set to <ON> when using the remote control.
    Set to <OFF> when not using the remote control for a long period.
(17) Wired remote control terminal
    When the remote control is used as a wired remote control, connect this terminal to the <REMOTE IN> terminal on the projector.
    The remote control requires batteries. ( page 24)
(18) Power <STANDBY> button
    Sets the projector to the standby mode when the main power switch on the projector is set to <|> and in the projecting mode.
(19) <SCREEN> button
    Selects the screen size.
    If you press the button for at least five seconds, the settings of the [Screen] menu return to the factory default settings. ( page 49)
(20) <AUTO PC ADJ.> button
    Automatically adjusts tracking, total number of dots, horizontal shift, and vertical shift. ( page 56)
(21) <ENTER> button
    Selects an item indicated by the cursor on the on-screen menu.
    Also used to enlarge or reduce the image in the digital zoom mode. ( page 50)
(22) <IMAGE ADJUST> button
    Displays the [Image adjust] menu to adjust the image. ( page 49)
(23) <IMAGE SELECT> button
    Selects the mode from [Image select]. ( page 48)
(24) <INPUT 1> - <INPUT 4> buttons
    Selects the input signal to project. ( page 47)
(25) Number (<0> - <9>) buttons
    Used to enter PIN codes and remote control numbers.
About your projector

Attention

- Do not drop the remote control.
- Avoid contact with liquids or moisture.
- Do not attempt to modify or disassemble the remote control.

Note

- The remote control can be used from any distance within about 5 m (16'4") if pointed directly at the remote control sensor. The remote control is effective from angles of up to ±30° vertically and horizontally, but available operating distance may shorten.
- If there are any obstacles between the remote control and the remote control sensor, the remote control may not operate properly.
- You can control the projector by reflecting the signal off the screen, but the effective operating range may be restricted due to the loss of the light reflection by the characteristics of the screen.
- If the remote control sensor receives strong light such as fluorescent light, the remote control may not operate properly. Place the projector as far as possible from other light sources.
About your projector

Projector body

(1) Lens hood
(2) Lens (optional)
(3) Indicator (page 87)
(4) Remote control sensor (front)
(5) Adjustable feet
  Adjusts the projection angle. (page 35)
(6) Connection terminals (page 23)
(7) Carry handle
(8) Control panel (page 22)
(9) Lamp cover
  Houses the lamp unit. (page 97)
(10) Remote control sensor (rear)
(11) Air exhaust port
(12) Main power switch
  Turns off/on the main power.
(13) AC input terminal
  Connect the supplied power cord. (page 41)
(14) Security slot
  This security slot is compatible with the Kensington security cables.
(15) Air intake port
(16) Air filter cover

Attention
● Keep your hands and other objects away from the air exhaust port.
  - Keep your hands and face away.
  - Do not insert your fingers.
  - Keep away heat-sensitive articles.
Heated air from the air exhaust port can cause burns, injuries, or deformations.
About your projector

Control panel

(1) **<key> I/O >** button
   Turns off/on the power when the main power switch on the projector is set to <I>.

(2) **<key> SHUTTER >** button
   Opens and closes the shutter. Adjusts the shielding of the projection light. (page 47)

(3) **<key> ZOOM >** button
   Adjusts the zoom of the lens. (page 46)

(4) **<key> FOCUS >** button
   Adjusts the focus. (page 46)

(5) **<key> MENU >** button
   Displays the menu screen. (page 50)

(6) **<key> ▲▼◀▶** buttons
   Move the cursor on the on-screen menu and adjust the settings of the menu.
   Also move the image vertically and horizontally in the digital zoom mode or the real mode.

(7) **<key> AUTO PC ADJ. >** button
   Automatically adjusts tracking, total number of dots, horizontal shift, and vertical shift.

(8) **<key> LIGHT >** button
   Switches on/off the control panel and connection terminals by each press of this button.

(9) **<key> LENS SHIFT >** button
   Slides the lens vertically and horizontally to move the position of the projected image vertically and horizontally. (page 45)

(10) **<key> INPUT >** button
    Selects the input signal to project. (page 47)

(11) **<key> ENTER >** button
    Selects an item indicated by the cursor on the on-screen menu.
    Also used to enlarge or reduce the image in the digital zoom mode. (page 50)

(12) **<key> INFORMATION >** button
    Displays the state of signals during projection, and current settings. (page 49)
■ Connection terminals

(1) DVI-D input terminal <DIGITAL IN>
This terminal is for inputting the DVI-D signal.

(2) HDMI input terminal <HDMI IN>
This terminal is for inputting the HDMI signal.

(3) Computer input terminal <ANALOG IN>
This terminal is for inputting an RGB signal.

(4) RGB 5BNC input terminal <G,B,R,H/V IN>/<VIDEO IN>/<Y,Pb/Cb,Pr/Cr IN>
This terminal is for inputting the G,B,R,H/V, Y,Pb/Cb,Pr/Cr signal.

(5) USB terminal <USB>
This terminal is for use by service personnel.

(6) Serial input terminal <SERIAL IN>
This input terminal is compatible with RS-232C and for externally controlling the projector by connecting the projector.

(7) Serial output terminal <SERIAL OUT>
This terminal is for outputting the signal connected to the serial input terminal.

(8) Wired remote control terminal <REMOTE IN>
This terminal is for connecting the remote control cable when using the remote control as a wired remote control.

(9) LAN terminal <LAN>
This terminal is for connecting the projector to the network.

(10) S-VIDEO input terminal <S-VIDEO IN>
This terminal is for inputting S-video signals.

**Attention**

- Make sure to connect the LAN cable to the indoor equipment.
Using the remote control

Inserting and removing the batteries

1) Open the cover.

2) Insert the batteries and close the cover.
   - Insert the side first.
   - To remove the batteries, perform the above procedure in the reverse order.

Setting remote control numbers

When you are using multiple projectors, you can set a remote control number to each projector to allow simultaneous control with a single remote control. After setting a remote control number to the projector, specify the same remote control number to the remote control.

Setting method

1) While holding the <MENU> button, press the number (<0> - <9>) buttons (2 digits) to enter the desired remote control number.
   - When you release your finger, the remote control number will change to the new number.
   - To set the remote control number to 09, press <0>, <9> while holding down the <MENU> button.

Note
   - The factory default setting is [All]. [All] supports all remote control numbers.
   - Set the remote control number of the projector using [Remote control] (page 77) from the [Setting] menu.
   - To reset the remote control number (to set to [All]), simultaneously hold down the <MENU> button and the <0> button for at least five seconds.

Using the remote control as a wired remote control

Connect the <REMOTE IN> terminal on the projector body to the wired remote control terminal on the remote control using the remote control cable (commercially available).
   - Make sure that the batteries are inserted in the remote control.
   - To use the remote control wirelessly, disconnect the remote control cable from the projector and the remote control. When the remote control cable is connected, you cannot use the remote control wirelessly.
Attaching the lens

Notes on attaching the lens

Before putting the projector in position, attach the lens to the projector body. First, determine the lens according to the operating environment for the projector. For lens product numbers suitable for the projector and lens specifications, consult your dealer. When attaching or replacing a lens, consult the technical staff or service personnel at a specialist dealer for safety. Do not attempt to attach or replace the lens by yourself.

- Use the light-shielding plates, lens attachment, spacer, and lens lock lever fixing bracket supplied with the projector when attaching the lens. For details, refer to “Accessories” (page 17).

Caution

When setting up the projector after attaching the lens, be sure to fit the lens cover to the lens. When carrying or holding the projector body, never hold the lens. Doing so may damage the projector.

Available lens

The following optional lenses are available. Check the lens specifications and use an appropriate lens. (page 33)

<table>
<thead>
<tr>
<th>Lens Model No.</th>
<th>Type</th>
<th>Focus</th>
<th>Zoom</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET-ELW02</td>
<td>Wide zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELW03</td>
<td>Fixed short-focus lens</td>
<td>Manual</td>
<td>Fixed</td>
</tr>
<tr>
<td>ET-ELW04</td>
<td>Wide zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELW06</td>
<td>Wide zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELS02</td>
<td>Standard zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELS03</td>
<td>Standard zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELT02</td>
<td>Long zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
<tr>
<td>ET-ELT03</td>
<td>Long zoom lens</td>
<td>Manual</td>
<td>Manual</td>
</tr>
<tr>
<td>ET-ELM01</td>
<td>Long zoom lens</td>
<td>Motor driven</td>
<td>Motor driven</td>
</tr>
</tbody>
</table>
Attaching the lens

1) Install the lens attachment to the lens.
   (i) Remove the lens covers on the front and rear of the lens, install the lens attachment, and secure with four screws supplied with the lens.

   ① Focus lock screw
   ② Lens attachment

   (ii) Connect the lens motor lead connector to the socket on the top right of the lens attachment (the motor driven lens only).

   ① Socket
   ② Lens attachment

2) Set the projector to the standby mode, press the <O> side of the main power switch to turn off the power, and then unplug the power cord from the outlet.

3) Turn the lens hood counterclockwise to remove.

4) Remove two screws A, loosen two screws B, and slide the lens attachment cover forward to take off.

5) Remove the cover plate.
6) Select the light-shielding plate to be attached.

**Light-shielding plate for each lens**
Refer to the following table and use an appropriate light-shielding plate.

<table>
<thead>
<tr>
<th>Accessory (product name)</th>
<th>Lens Model No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light-shielding plate-1</td>
<td>ET-ELW03*1</td>
</tr>
<tr>
<td>(T0CRS0008--1)</td>
<td></td>
</tr>
<tr>
<td>Light-shielding plate-2</td>
<td>ET-ELW04, ET-ELW06, ET-ELS02, ET-ELS03, ET-ELT03</td>
</tr>
<tr>
<td>(T0CRM0014--1)</td>
<td></td>
</tr>
<tr>
<td>Light-shielding plate-3</td>
<td>ET-ELW02, ET-ELW03*1, ET-ELT02, ET-ELM01</td>
</tr>
<tr>
<td>(T0CRM0013--1)</td>
<td></td>
</tr>
</tbody>
</table>

*1: Use the light-shielding plate-1 and light-shielding plate-3 together.

**Attention**
- The light-shielding plate-2 and light-shielding plate-3 should be separated to the upper and lower plates.

7) Insert the lower light-shielding plate.

8) Attach the lens into the projector body.

(i) Hold the lens lock lever and slide it upward to release the lock, and then insert the lens with the lens attachment into the projector body.

(ii) Hold the lens lock lever and slide it downward until the lever clicks to secure the lens.
- When attaching the motor driven lens, be sure to move the motor to the right side to attach the lens.
- After attaching the lens, make sure that the lens is not loose and is properly attached.

9) Adjust the focus of the projection lens (ET-ELW03 only).
- For details, refer to “Adjusting the focus” (page 30).
- If the focus adjustment is not necessary, go to Step 10).
Attaching the lens

10) Secure the lens lock lever with the lens lock lever fixing bracket.

(i) Remove the lens fixing screw and insert it to the lens lock lever fixing bracket.
Lens lock lever fixing bracket (Type SC-A) (T0STF0045--)

(ii) Mount the lens lock lever fixing bracket in the location of the removed screw.
   - Make sure that the lens lock lever fixing bracket is mounted to keep the lens lock lever in the lock position. Confirm that the lens lock lever fixing bracket is mounted properly shown in the figure.

11) Insert the upper light-shielding plate along with the guide to into combine with the lower light-shielding plate.

Attention

- In order to fix the attached lens securely, be sure to mount the supplied lens lock lever fixing bracket.

Attention

- When inserting the upper light-shielding plate, the lower light-shielding plate should be lifted upward.
- Make sure that the attaching direction of the light-shielding plate is correct and set them properly.
- If you cannot set the upper light-shielding plate easily, move the projection screen from the center to the upper side with the lens shift function in advance.

12) Slide the lens attachment cover and fix it with two screws A and two screws B.
13) **Turn the lens hood clockwise to attach.**
   - Aligning the point position of the lens hood with the end (on the left) of the caution label attached to the projector body, turn the lens hood while pushing it until it clicks to overlap with the point position of the projector body.

14) **Check that the lens and light-shielding plate are set properly.**
   - Turn on the projector. Operate the lens shift, zoom, and focus fully to check that the light-shielding plate is moved with the lens properly. If the light-shielding plate interferes with lens operations, set the light-shielding plate again.

**Attention**
- Confirm that the lens hood is attached completely. If not attached completely, the lens may fall off, causing damage.

**Notes on attaching ET-ELW03**
When attaching ET-ELW03, use two types of light-shielding plates. Follow the procedure on “Attaching the lens” (page 26) to set the light-shielding plate-3, and then follow the procedure below to set the light-shielding plate-1.

**Attention**
- Set the light-shielding plate with the <THIS SIDE BACK> side down.

1) **Turn on the projector before setting the light-shielding plate-1, and move the projected image to the most upper left with the lens shift function.**

2) **Turn off the projector**

3) **Insert the light-shielding plate-1 in the direction shown in the figure and set it to encircle the lens.**
   - Set the light-shielding plates with the convex side of the light-shielding plate-1 down.
   - Light-shielding plate-1 (In front of the light-shielding plate-3)

**Attention**
- Do not operate the projector with the light-shielding plate removed. Doing so may result in malfunction of the projector.
Attaching the lens

Adjusting the focus

After setting up the projector, turn on the power, and then project the image on the screen. Adjust the position of the projector and the projected image.

ET-ELW03

1) Loosen the focus lock screw.

2) Rotate the lens to obtain the proper focus on the center area of the screen.
   ● When the distance between the projector and the screen is 1 m (39"), set the position of the focus lock screw to the ● mark (yellow allow) of the lens.

3) Tighten the focus lock screw.

4) If the proper focus is not observed on outer area of the screen, proceed further adjustment.
   (i) Turn the focus ring counterclockwise to loosen.
   (ii) Rotate the lens to obtain the proper focus on outer area of the screen.
   (iii) Turn the focus ring clockwise to tighten.
      • If the proper focus is not observed over the entire screen, repeat steps from the first.

ET-ELT03

1) Rotate (i) to adjust the zoom.

2) Rotate (ii) to obtain the proper focus on the center area of the screen.
Correcting the focus

When the lens is attached to the projector and images are being projected onto the screen, the peripheral focus may be out of focus in some areas. If this happens, insert the supplied spacer between the lens attachment and the lens to adjust the focus. Inserting the spacer corrects the distance on the lens adjustment and improves the diagonal focus. The corrected distance is determined by the thickness of the spacer to be inserted. As a guide, the corrected distance is approximately 30 mm by 0.1 mm in the thickness of the spacer.

Three types of spacers, four for each spacer type, are supplied. Insert these spacers to correct the distance as required.

<table>
<thead>
<tr>
<th>Spacer (T0SAS0001--)</th>
<th>Color</th>
<th>Thickness</th>
<th>Corrected distance for 1.52-m (60&quot;) screen size projection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Clear</td>
<td>0.1 mm</td>
<td>30 mm</td>
</tr>
<tr>
<td>2</td>
<td>Black</td>
<td>0.2 mm</td>
<td>60 mm</td>
</tr>
<tr>
<td>3</td>
<td>Cream</td>
<td>0.3 mm</td>
<td>90 mm</td>
</tr>
</tbody>
</table>

Distance

1.52-m (60") screen size projection

Spacer

Lens

Lens attachment
Attaching the lens hood strap

In order to prevent the lens hood from falling off, use the supplied strap to tie the projector and the lens hood.

1) Turn the lens hood counterclockwise to remove.

2) Remove the screw C.

3) Thread the lens hood strap through the hole of the lens hood.

4) Align the screw hole with the lens hood strap and tighten the screw that was removed in Step 2) over the strap.

5) Turn the lens hood clockwise to attach.
   - Aligning the point position of the lens hood with the end (on the left) of the caution label attached to the projector body, turn the lens hood while pushing it until it clicks to overlap with the point position of the projector body.

CAUTION
Do not pull the lens hood strap forcibly. Doing so may deform this metal part and fail to attach the lens hood.

CAUTION
Pull out the lens hood strap outside of the lens hood. Put the lens hood strap between the lens hood and the projector body to attach the lens hood.
**Lens specifications**

Refer to the following tables for the lens specifications. All measurements in the following tables are approximate. They may differ slightly from the actual measurements.

### Projection distance and screen size

<table>
<thead>
<tr>
<th>Lens Model No.</th>
<th>ET-ELW02</th>
<th>ET-ELW03</th>
<th>ET-ELW04</th>
<th>ET-ELW06</th>
<th>ET-ELS02</th>
<th>ET-ELS03</th>
<th>ET-ELT02</th>
<th>ET-ELT03</th>
<th>ET-ELM01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen size (m (&quot;))</td>
<td>TELE</td>
<td>WIDE</td>
<td>Fixed</td>
<td>TELE</td>
<td>WIDE</td>
<td>TELE</td>
<td>WIDE</td>
<td>TELE</td>
<td>WIDE</td>
</tr>
<tr>
<td>1.02 (40&quot;)</td>
<td>1.4</td>
<td>1.1</td>
<td>0.6</td>
<td>1.6</td>
<td>1.2</td>
<td>1.2</td>
<td>0.9</td>
<td>2.0</td>
<td>1.5</td>
</tr>
<tr>
<td>1.52 (60&quot;)</td>
<td>2.2</td>
<td>1.7</td>
<td>0.9</td>
<td>2.4</td>
<td>1.8</td>
<td>1.8</td>
<td>1.4</td>
<td>3.1</td>
<td>2.3</td>
</tr>
<tr>
<td>2.03 (80&quot;)</td>
<td>2.9</td>
<td>2.2</td>
<td>1.3</td>
<td>3.2</td>
<td>2.4</td>
<td>2.4</td>
<td>1.9</td>
<td>4.2</td>
<td>3.2</td>
</tr>
<tr>
<td>2.54 (100&quot;)</td>
<td>3.7</td>
<td>2.8</td>
<td>1.6</td>
<td>4.1</td>
<td>3.1</td>
<td>3.1</td>
<td>2.4</td>
<td>5.3</td>
<td>4.0</td>
</tr>
<tr>
<td>3.05 (120&quot;)</td>
<td>4.4</td>
<td>3.4</td>
<td>1.9</td>
<td>4.9</td>
<td>3.7</td>
<td>3.7</td>
<td>2.9</td>
<td>6.4</td>
<td>4.8</td>
</tr>
<tr>
<td>3.81 (150&quot;)</td>
<td>5.6</td>
<td>4.3</td>
<td>2.4</td>
<td>6.2</td>
<td>4.7</td>
<td>4.7</td>
<td>3.6</td>
<td>8.0</td>
<td>6.1</td>
</tr>
<tr>
<td>4.57 (180&quot;)</td>
<td>6.7</td>
<td>5.1</td>
<td>2.9</td>
<td>7.4</td>
<td>5.7</td>
<td>5.6</td>
<td>4.3</td>
<td>9.6</td>
<td>7.4</td>
</tr>
<tr>
<td>5.08 (200&quot;)</td>
<td>7.5</td>
<td>5.7</td>
<td>3.3</td>
<td>8.3</td>
<td>6.3</td>
<td>6.2</td>
<td>4.8</td>
<td>10.7</td>
<td>8.2</td>
</tr>
<tr>
<td>6.35 (250&quot;)</td>
<td>9.3</td>
<td>7.2</td>
<td>4.1</td>
<td>10.4</td>
<td>7.9</td>
<td>7.8</td>
<td>6.0</td>
<td>13.5</td>
<td>10.3</td>
</tr>
<tr>
<td>7.62 (300&quot;)</td>
<td>11.2</td>
<td>8.6</td>
<td>4.9</td>
<td>12.5</td>
<td>9.5</td>
<td>9.4</td>
<td>7.3</td>
<td>16.2</td>
<td>12.4</td>
</tr>
<tr>
<td>8.89 (350&quot;)</td>
<td>13.1</td>
<td>10.1</td>
<td>5.8</td>
<td>14.6</td>
<td>11.1</td>
<td>11.0</td>
<td>8.5</td>
<td>18.9</td>
<td>14.5</td>
</tr>
<tr>
<td>10.16 (400&quot;)</td>
<td>15.0</td>
<td>11.5</td>
<td>6.6</td>
<td>16.7</td>
<td>12.6</td>
<td>12.6</td>
<td>9.7</td>
<td>21.7</td>
<td>16.6</td>
</tr>
<tr>
<td>12.70 (500&quot;)</td>
<td>18.8</td>
<td>14.4</td>
<td>8.3</td>
<td>20.9</td>
<td>15.9</td>
<td>15.8</td>
<td>12.1</td>
<td>27.1</td>
<td>20.8</td>
</tr>
<tr>
<td>15.24 (600&quot;)</td>
<td>22.5</td>
<td>17.3</td>
<td>9.9</td>
<td>25.1</td>
<td>19.2</td>
<td>18.9</td>
<td>14.6</td>
<td>32.6</td>
<td>25.0</td>
</tr>
</tbody>
</table>

### Lens shift and optical axis ratio

<table>
<thead>
<tr>
<th>Lens Model No.</th>
<th>ET-ELW02</th>
<th>ET-ELW03</th>
<th>ET-ELW04</th>
<th>ET-ELW06</th>
<th>ET-ELS02</th>
<th>ET-ELS03</th>
<th>ET-ELT02</th>
<th>ET-ELT03</th>
<th>ET-ELM01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lens shift/ optical axis ratio</td>
<td>Vertical (max.)</td>
<td>H1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>H2</td>
<td>8</td>
<td>1</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Horizontal (max.)</td>
<td>W1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>W2</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Attention**

- After attaching or replacing the lens, be sure to check the following points and then attach the lens attachment cover.
  - Check that the lens is securely fixed with the screws.
  - Check that no wiring is damaged or tangled on the gear of the lens motor or other mechanical parts.
  - Check that no part is missing and no mounting part remains inside.

Some parts are not used for attaching or replacing the lens. Keep these parts for later use.

* Illustrations in this manual may differ from the actual product.
Setting up

Projection method

You can project images vertically and diagonally. You can select rear (page 68) or ceiling (page 68) from the menu. Select the projection method appropriate to the environment.

Mounting on the ceiling and projecting forward

- Mounting on the ceiling and projecting from rear
  (Using the translucent screen)

- Setting on a desk/floor and projecting forward
  (Using the translucent screen)

Attention

- To get a high picture quality, set up the screen in a location that is, as far as possible, not directly affected by natural light or electric light. Draw the curtains or blinds and turn off the lights.
- When setting up the projector with tilt, do not use the projector at an inclination angle that exceeds ±10° vertically to the horizontal plane. Installing the projector at an inclination angle that exceeds this value may reduce the component life and result in malfunctions.
Installation options (optional)

You can install the projector on the ceiling using the optional ceiling mount bracket (Product No.: ET-PKE16H (for high ceilings), ET-PKE16S (for low ceilings) and ET-PKE12B (for projector)).

- Use only ceiling mount brackets specified for this projector.
- For details on installation of the projector with the bracket, refer to the installation manual for the ceiling mount bracket.

**Attention**

- To ensure the projector performance and security, installation of the ceiling mount bracket must be carried out by your dealer or a qualified technician.

Adjusting adjustable feet

The adjustable feet can be extended by turning it as shown in the figure. It is retracted by turning it in the opposite direction. This finely adjusts the height and tilt of the projected image.

When the adjustable feet are extended, the projector can be tilted to a maximum of 2.8°. (The projection angle can be adjusted vertically.)

**Attention**

- Heated air is blowing out from the air exhaust port while the lamp is on. Do not touch the air exhaust port directly when adjusting the adjustable feet.
- If the keystone effect occurs in the projected image, perform [Keystone] (page 67) from the [Screen] menu.

**Note**

- Do not extend the adjustable feet beyond the red line. Adjustable feet may fall off.
- The vertical and horizontal position of the image can be adjusted using the lens shift function.
Connections

Before connecting to the projector

- Read carefully the instruction manual of the device you intend to connect.
- Turn off the power switch of the device before connecting the cable.
- If a connection cable is not supplied with the device and the optional cable is not available, prepare a connection cable to suit the device.
- Video signals containing too much jitter may cause the images on the screen to randomly wobble. In this case, a time base corrector (TBC) must be connected.
- The projector accepts the following signals: video signals, S-video signals, analog RGB signals (synchronous signals are TTL level), and digital signals.
- Some computer models are not compatible with the projector.
- When connecting a device to the projector using a long cable, it may not be possible to achieve a normal picture without a compensator.
- For details of the video signals supported by the projector, refer to “List of compatible signals” (page 111).

Connecting example: Computers

Note

- Use an HDMI High Speed cable that adheres to the HDMI standard. Use of a cable that does not adhere to the standard may result in abnormal operation such as cut-out of the image, failure to project, etc.
- The <HDMI IN> terminal can be connected with an external device with a DVI terminal using an HDMI/DVI conversion cable. With some devices, however, normal operation may not be possible and images may not appear. (page 76)
- When the <DIGITAL IN> terminal is used, normal operation may not be possible with some devices and images may not appear.
- The <DIGITAL IN> terminal (in the digital signal input mode) is compatible only with single link signals.
- For details of RGB signals from computers that the projector supports, refer to “List of compatible signals” (page 111).
- If you operate the projector using the computer with the resume feature (last memory), it may be required to reset the resume feature.
- The <DIGITAL IN> terminal (in the digital signal input mode) may require the EDID setting depending on the connected device.
- To connect the projector with a computer over a wired LAN, refer to the “Operating Instructions – Network Operations” on the supplied CD-ROM.
Connecting example: AV equipment

Video, S-video, DVD player, and HDMI video output devices

Attention

- Always use one of the following when connecting a VCR.
  - A VCR with built-in time base corrector (TBC)
  - A time base corrector (TBC) between the projector and the VCR
- If burst signals are connected to nonstandard signals, the image may be distorted. In such a case, connect a time base corrector (TBC) between the projector and the device.

Note

- Use an HDMI High Speed cable that adheres to the HDMI standard. Use of a cable that does not adhere to the standard may result in abnormal operation such as cut-out of the image, failure to project, etc.
- The <HDMI IN> terminal can be connected with an external device with a DVI terminal using an HDMI/DVI conversion cable. With some devices, however, normal operation may not be possible and images may not appear. (page 76)
- The <DIGITAL IN> terminal can be connected to HDMI and DVI-D compatible devices, but normal operation may not be possible with some devices and images may not appear.
- The <DIGITAL IN> terminal (in the digital signal input mode) is compatible only with single link signals.
Tying up the cables using cable ties

Keep the cables tidy by fixing the cables connected to the terminals into the carry handle on the projector body.

- The cable ties can be reused. (The tab can be loosened and released.)

Loosening the cable ties

1) Pull the tab in the direction of arrow (i).
2) Pull the tab in the direction of arrow (ii).
   - The loop of the cable tie will widen.

Attention
- Note that the following points when you use the cable tie.
  - Noises may occur in rare occasions.
  - Do not pull the cable forcibly. Doing so may cause disconnection of the cable.
  - It is recommended that you allow some slack when the cables are tied.

Caution
When connecting the projector to a computer or an external device, use the power cord supplied with the device and commercially available shielded cables.
Installing an input module (optional)

Installing an input module

■ Types of input modules
Purchase an input module (optional) matching the input signals of the system.

<table>
<thead>
<tr>
<th>Module name</th>
<th>SD/HD-SDI input module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module number</td>
<td>ET-MD16SD1</td>
</tr>
<tr>
<td>Input/output</td>
<td>BNC input 2 systems, BNC output 1 system</td>
</tr>
<tr>
<td>terminal</td>
<td></td>
</tr>
</tbody>
</table>

Compatible signal format

- SMPTE259M-C standard:
  - 480-60i (59.94 Hz⁻¹), 576-50i (50 Hz)
- SMPTE260M standard:
  - 1035-60i (60/59.94 Hz⁻¹)
- SMPTE274M standard:
  - 1080-24psf (48/47.95 Hz⁻¹), 1080-25psf (50 Hz), 1080-25p (25 Hz), 1080-30psf (60/59.94 Hz⁻¹), 1080-30p (30/29.97 Hz⁻¹), 1080-50i (50 Hz), 1080-60i (60/59.94 Hz⁻¹)
- SMPTE296M standard:
  - 720-60p (60/59.94 Hz⁻¹), 720-50p (50 Hz)

*1: V-sync frequency 60/59.94 Hz, 48/47.95 Hz, and 24/23.98 Hz are automatically distinguished.

Note
- The preceding list shows the signal formats supported by this input module. The signal formats supported by the projector differ depending on the model. For more information, please consult your dealer.

■ Installation procedure
Disconnect the power before installing the input module.

1) Remove the slot cover.

2) Insert the input module.
- Firmly insert the input module into the slot, ensuring that the socket of the connection terminal engages correctly with the plug within the projector body.

3) Fix the input module in place using two screws.

Attention
- Be sure to tighten the screws. Otherwise, the input module may fall off.
- An improper installation may result in damage to the input module.
Installing an input module (optional)

Using the input module
Consult your dealer before using any of the optional input modules. When consulting your dealer, be sure to inform them of [Option control No.] of the projector. [Option control No.] is displayed in the [Information] menu.

List of compatible signals
The following table specifies the types of signals compatible with the projector.

<table>
<thead>
<tr>
<th>Screen display mode</th>
<th>Resolution (dots)</th>
<th>Scanning frequency</th>
<th>Dot clock frequency (MHz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-480i</td>
<td>720 (1 440) x 480</td>
<td>15.734, 59.940</td>
<td>27.000</td>
</tr>
<tr>
<td>D-576i</td>
<td>720 (1 440) x 576</td>
<td>15.625, 50.000</td>
<td>27.000</td>
</tr>
<tr>
<td>D-1035i</td>
<td>1 920 x 1 035</td>
<td>33.750, 60.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1085i</td>
<td>1 920 x 1 080</td>
<td>33.750, 60.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080i</td>
<td>1 920 x 1 080</td>
<td>28.125, 50.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-720p</td>
<td>1 280 x 720</td>
<td>37.500, 50.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080psf/24</td>
<td>1 920 x 1 080</td>
<td>27.000, 48.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080psf/25</td>
<td>1 920 x 1 080</td>
<td>28.125, 50.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080psf/30</td>
<td>1 920 x 1 080</td>
<td>33.750, 60.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080p</td>
<td>1 920 x 1 080</td>
<td>27.000, 24.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080p</td>
<td>1 920 x 1 080</td>
<td>28.125, 25.000</td>
<td>74.250</td>
</tr>
<tr>
<td>D-1080p</td>
<td>1 920 x 1 080</td>
<td>33.750, 30.000</td>
<td>74.250</td>
</tr>
</tbody>
</table>

Connection of signal to the input module
To monitor or projector compatible with HD-SDI or SD-SDI signals
Digital VCR for commercial use
HD-SDI or SD-SDI signals
Connecting the power cord

**Attaching**

1) Insert the power cord holder in the holes provided right and left of the AC input terminal.
   - Push the power cord holder upward to allow insertion of the power cord.

2) Insert the power cord cover in the direction of (i) and press it firmly in the direction of (ii).

3) Connect the power cord to the AC input terminal.

4) Move the power cord holder to secure the power cord.

**Removing**

1) Push the power cord holder upward.

2) Remove the power cord from the AC input terminal.

3) Remove the power cord holder.
Powering on/off

Power indicator

The power indicator informs you of the power status. Check the status of the power indicator <POWER> and the standby indicator <STANDBY> before operating the projector.

![Power indicator diagram]

<table>
<thead>
<tr>
<th>Indicator status</th>
<th>Power indicator &lt;POWER&gt; (green)</th>
<th>Standby indicator &lt;STANDBY&gt; (red)</th>
<th>Projector status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Off</td>
<td>On</td>
<td>The main power is off.</td>
</tr>
<tr>
<td>Off</td>
<td>Off</td>
<td>Flashing</td>
<td>The projector is preparing to turn off the power. After a short time, the power will turn off (in standby mode).</td>
</tr>
<tr>
<td>On</td>
<td>On</td>
<td>Off</td>
<td>The projector is in the projection mode.</td>
</tr>
</tbody>
</table>

Note

- When the projector is preparing to turn off the power (the power indicator <POWER> is off and the standby indicator <STANDBY> is flashing), the internal fan switches on to cool the projector.
- When the projector is preparing to turn off the power, you cannot turn on the power even if you press the power <(I)> button on the control panel or the power <POWER ON> button on the remote control. If the standby indicator <STANDBY> is on, you can turn on the power.
- The projector consumes electricity even in the standby mode (the standby indicator <STANDBY> is on).
Powering on/off

Before turning on the power, remove the lens cover.

1) Connect the power plug to the outlet.
   (AC 100 V - 240 V 50 Hz/60 Hz)

2) Press the < | > side of the main power switch to turn on the power.
   ● After a moment, the standby indicator <STANDBY> will go on and the projector will enter the standby mode.

3) Press the power <Θ/Ι> button on the control panel or the power <POWER ON> button on the remote control.
   ● After a moment, an image will be projected and the currently selected input signal and lamp status (page 96) will be displayed for approximately four seconds.

Note

• When [PIN code lock] (page 79) has been set to [On] using [Security] in the [Setting] menu, enter your PIN code.
• The projector will make a noise when the lamp comes on, but this is not a malfunction.
• During projection, the fan rotates, making a sound. The sound may change depending on the ambient temperature, and when the lamp is on, the sound may become loud.
• If the lamp is switched off and immediately on again, the newly projected image may wobble for a few moments. This is due to the lamp characteristics and is not a malfunction.
• When [Direct on] (page 78) of the [Setting] menu is set to [On], the power will be turned on as soon as you insert the power plug into the outlet or set the main power switch to the < | > side.
• When [Display] (page 69) of the [Setting] menu is set to [On] and [Logo] (page 76) is set to [Off], the countdown will be displayed but the opening display will not be displayed.
• When [Display] (page 69) of the [Setting] menu is set to [Off] or [Countdown off], projection will start as soon as the lamp comes on, regardless of [Logo select] (page 76) setting.

Making adjustments and selections

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

4) Press the <FOCUS> button to adjust the focus of the image roughly. (page 46)

5) Press the <INPUT 1> to <INPUT 4> buttons on the remote control or the <INPUT> button on the control panel to select the input terminal. (page 47)

6) Adjust the projection angle. (page 35)
   ● Extend the adjustable feet to adjust the projection angle.

7) Press the <LENS SHIFT> button to adjust the position of the image. (page 45)

8) Press the <ZOOM> button to adjust the size of the image to fit the screen. (page 46)

9) Press the <FOCUS> button again to adjust the focus.

10) Press the <ZOOM> button again to adjust the zoom and the size of the image to fit the screen.
Powering on/off

Powering off the projector

1) Press the power <ϕ/I> button on the control panel or the power <STANDBY> button on the remote control.
- [Power off ?] is displayed on the screen.
- The screen display will disappear when any button other than the power <ϕ/I> button on the control panel and the power <STANDBY> button on the remote control is pressed or when approximately four seconds elapse.

2) Press again the power <ϕ/I> button on the control panel or the power <STANDBY> button on the remote control.
- The lamp goes off and the projection stops.
- The power indicator <POWER> goes off while the cooling fan continues to rotate, and the standby indicator <STANDBY> flashes.

3) When the standby indicator <STANDBY> comes on, press the <ϕ> side of the main power switch to turn off the power.

Note
- Do not turn on the power immediately after turning it off. In the cooling state of the luminous lamp after the power is turned off, the lamp may not light up even when the power is turned on. In this case, wait for the standby indicator <STANDBY> to turn red, and then turn on the power again. Turning on the power while the lamp is still hot may shorten the lamp life.
- When you turn off the power using the power <ϕ/I> button on the control panel or the power <STANDBY> button on the remote control with the main power switch on the projector body turned on, the projector continues to consume electricity. For details on power consumption, refer to “Power consumption” (page 114).
- Check that key lock is off in the [Security] menu. (page 79)
- If you use the projector for longer than 24 hours, turn off the power every 24 hours and wait for one hour. This will increase the lamp life.

Direct power off function

You can disconnect the power cord, turn off the power by the power breaker switch, etc. without pressing the power <STANDBY> button on the remote control or the main power switch on the projector. This is useful in cases where the switch is not easily accessible, such as when the projector is ceiling mounted. This function also provides safety if a power outage occurs or if the power cord is accidentally disconnected from the outlet immediately after turning off the power.

Note
- When the lamp has been cooled by the direct power off function, it sometimes takes longer than usual for the lamp to light up again.

Power management function

The projector has a power management function. If no signal is detected for 30 seconds and no operation is performed on the projector, [No signal] and the timer appear on the screen and a countdown starts. If the countdown is completed without a signal being input or an operation on the projector, this function works to save power and extend the service life of the lamp.

Note
- The factory default setting is [Off]. For details, refer to [Power management] (page 78).
Projecting

Check the external device connections (page 36) and power cord connections (page 41) and then turn on the power (page 43) to start projection. Select the input signal and adjust the image.

Selecting the input signal

Select an input signal.
The images selected using the <INPUT> button on the control panel or the <INPUT 1> to <INPUT 4> buttons on the remote control are projected. (page 47)

Attention

- Images may not be projected properly depending on the connected device, DVD, video tape, etc. to be played.
- The <INPUT> button on the control panel cannot be used to select input signals. The input signal for each input terminal must be selected in advance using the [Input] menu. If you press the <INPUT> button without having correctly selected the input signal, the projector will not project the image correctly.

Adjusting the image

Adjusting the position of the lens

1) Press the <LENS SHIFT> button on the remote control or the control panel.
   - [Lens shift] is displayed on the screen for four seconds.

2) While the display appears, press ▲▼◀▶ to move the image horizontally and vertically.
   - As you move the image, there is a certain position at which the arrows pointing up, down, left and right turn red. This position is the center for the lens.
   - At positions of maximum shift, the arrows disappear.
   - The projector stores the setting made using the lens shift function when the power is turned off.
   - When the position of the image is shifted, the image may become a little darker.
   * The figure below shows an example of when the standard lens is attached.

* The figure below shows an example of when the standard lens is attached.

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Adjusting the focus and zoom

1) Press the <FOCUS> button and the <ZOOM> button on the remote control or the control panel.
   ● [Focus] and [Zoom] are displayed on the screen for four seconds.

2) While [Focus] and [Zoom] are displayed, press the <FOCUS> button and <ZOOM> button on the remote control or press ▲▼ on the control panel to adjust the focus and zoom.

Note

● When [Display] is set to [Off], the adjustment screen will not appear.
● It is recommended that the images are projected continuously for at least 30 minutes before the focus is adjusted.
● If the keystone effect occurs, refer to “Correcting the keystone effect” (page 48) for details.
Using the remote control

Using the shutter function
You can fully block the projection light.

**SHUTTER** button

1) Press the **<SHUTTER>** button on the remote control.
   - This blocks the projection light. The shutter indicator **<SHUTTER>** lights up in blue.

2) Press the **<SHUTTER>** button again.
   - This opens the shutter and restarts projection. The shutter indicator **<SHUTTER>** goes off.

**Note**
- The operations of the shutter differ depending on the settings. Set the operations using [Shutter] in the [Setting] menu.
- There is also the **<SHUTTER>** button on the control panel.
- If an error message appears when you press the **<SHUTTER>** button, the button lock is enabled. Check the [Shutter] setting from the [Setting] menu.

Using the freeze function
You can temporarily freeze the projected image regardless of the state of playback in an external device.

**FREEZE** button

1) Press the **<FREEZE>** button on the remote control.
   - This freezes the image.

2) Press the button on the remote control or the control panel.
   - Releases the frozen image.

Switching the input signal
You can switch the input signal for projection.

**INPUT 1** button

**INPUT 2** button

**INPUT 3** button

**INPUT 4** button

1) Press the **<INPUT 1> - <INPUT 4>** buttons on the remote control.
   - Each press of the button changes input signal.
   - The **<INPUT 3>** button and the **<INPUT 4>** button are enabled only when an input module is inserted.
Using the remote control

**Note**
- The signal displayed for the <INPUT 3> button and the <INPUT 4> button changes depending on the type of input module inserted.
- Pressing the <INPUT> button on the control panel changes the signal in the order of [Input 1] → [Input 2] → [Input 3] → [Input 4].

**Correcting the keystone effect**

You can correct the keystone effect that occurs when the projector is installed with tilt or when the screen is tilted.
- The amount and range of the correction differ depending on the input signal.
- With certain settings, the image may distort for a moment.
- To achieve the corrected image, the signal undergoes digital compression before projection and lines and text may be altered slightly from those of the original image.
- For details on the correction, refer to [Keystone] in the [Screen] menu.

**Corner correction**

Corrects distortion at the corners of the image.

1) While [Keystone] is displayed, press the <ENTER> button and select the corner to correct.
   - Each press of the button moves the selected corner clockwise.
2) Press ▲▼◄► to correct the distortion.

**Selecting picture quality mode**

Pressing the <IMAGE SELECT> button on the remote control displays the menu for the currently selected [Image select], then each subsequent press of the button changes the mode.

**Standard keystone effect correction**

Corrects the keystone effect vertically and horizontally.

1) While [Keystone] is displayed, press ▲▼◄► of the direction in which you want to make the correction.

**Selecting picture quality mode**

Pressing the <IMAGE SELECT> button on the remote control displays the menu for the currently selected [Image select], then each subsequent press of the button changes the mode.

**Correction note**

- Pressing the <KEYSTONE> button on the remote control for at least three seconds while [Keystone] is displayed returns the image to the uncorrected state.

**Selecting picture quality mode**

Pressing the <IMAGE SELECT> button on the remote control displays the menu for the currently selected [Image select], then each subsequent press of the button changes the mode.

**Correcting the keystone effect note**

- Pressing the <KEYSTONE> button on the remote control for at least three seconds while [Keystone] is displayed returns the image to the uncorrected state.

**Selecting picture quality mode note**

- For details, refer to “[Image select] menu” (page 59).
Using the remote control

Adjusting picture quality

Pressing the <IMAGE ADJUST> button on the remote control displays the [Image adjust] menu.

1) Press the <IMAGE ADJUST> button on the remote control.

2) Press ▲▼ to select an item, and press the <ENTER> button.
   ● The adjustment menu is displayed.

3) Press ▲▼ to select the item to adjust, and then press ◀▶ to change the setting.

Note
● For details, refer to “[Image adjust] menu” (page 60).

Screen button

You can change the setting of the [Screen] menu.

Pressing the <SCREEN> button on the remote control displays the currently selected [Screen] menu, then each subsequent press of the button changes the mode.

For computer input
- [Normal]
  - [Full]
  - [Wide(16:9)]
  - [Zoom]
  - [True]
  - [Custom]

For video input
- [Normal]
  - [Full]
  - [Wide(16:9)]
  - [Zoom]
  - [Custom]

Note
● For details, refer to “[Screen] menu” (page 65).

Displaying a timer for presentations

When you press the <P-TIMER> button on the remote control, the projector displays either a count of the time elapsed from the press of the button or a countdown.

Pressing the <P-TIMER> button again stops the count and displays the elapsed time up to that point.
Pressing the <P-TIMER> button again restarts the count.

Note
● For details, refer to [P-timer] (page 83).
● Pressing the button for at least three seconds resets the time. The count-up is returned to “000:00” and the countdown is returned to the time set on the timer.

Checking the settings

You can check the status of signals and the lamp on the screen during projection.

Pressing the <INFO.> button on the remote control displays the first page of the information.
Pressing the <INFO.> button again displays the second page of the information.
Pressing the <INFO.> button closes the information.

Note
● For details, refer to “[Information] menu” (page 85).
● To move from the information to another menu, press ▲▼.
● There is also the <INFORMATION> button on the control panel.

Note
● For details, refer to “[Screen] menu” (page 65).
● If you press and hold the button for at least five seconds, the settings of the [Screen] menu will return to the factory default settings.
## Menu navigation

### Navigating through menu

#### Operating procedure

1) **Press the <MENU> button.**
   - The menu is displayed.

![Menu Screen](image)

2) **Press ▲▼ to select the main menu item.**
   - Select the item to adjust from [Input], [PC adjust], [Image select], [Image adjust], [Screen], [Setting], [Information], and [Network]. The currently selected item appears with an orange cursor, and the sub menu of the selected item is displayed to the right-hand side.

3) **Press the <ENTER> button.**
   - The sub menu is displayed, and the items on the sub menu can be selected.
   - Alternatively, press ▶ to access the sub menu.

![Sub Menu Screen](image)

4) **Press ▲▼ to select the sub menu item to change, then press the <ENTER> button and ◄► to change the settings or adjust the parameter values.**
   - For some sub menus, a further menu (sub menu 2) containing advanced settings will be displayed. To display sub menu 2, select a sub menu item and press the <ENTER> button or ◄.
   - For items where the setting can be changed or there is a bar scale, the menu screen disappears and, as illustrated below, an adjustment screen for the selected setting (individual adjustment screen) is displayed.

![Adjustment Screen](image)

### Note

- For certain formats of signal input to the projector, it will not be possible to adjust some items or use some functions. The menu items that cannot be adjusted or used are grayed out, and cannot be selected.
- Some items can be adjusted without a signal input.
- For details on the sub menu items, refer to “Sub menu” [pages 51 to 53].
- A guide menu is displayed below the menu. Buttons to be selected and executed are displayed.
   - The guide menu of the sub menu

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Guide Menu" /></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- The guide menu of the adjustment screen

<table>
<thead>
<tr>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Guide Menu" /></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Press the <MENU> button to close the menu.
- Press ◄ to return to the main menu.
- Press ▲▼ to navigate among the items.
- Press ▶ to adjust or select an item.
- Press the <ENTER> button to return to the sub menu.
Main menu

The main menu contains the following eight items. When a main menu item is selected, the screen changes to a sub menu selection screen.

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Input]</td>
<td></td>
</tr>
<tr>
<td>[PC adjust]</td>
<td></td>
</tr>
<tr>
<td>[Image select]</td>
<td></td>
</tr>
<tr>
<td>[Image adjust]</td>
<td></td>
</tr>
<tr>
<td>[Screen]</td>
<td></td>
</tr>
<tr>
<td>[Setting]</td>
<td></td>
</tr>
<tr>
<td>[Information]</td>
<td></td>
</tr>
<tr>
<td>[Network]</td>
<td></td>
</tr>
</tbody>
</table>

Sub menu

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

■ [Input] 📰

<table>
<thead>
<tr>
<th>Sub menu item</th>
<th>Factory default</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Input 1]</td>
<td>[RGB(PC analog)]</td>
<td>54</td>
</tr>
<tr>
<td>[Input 2]</td>
<td>[RGB]</td>
<td>54</td>
</tr>
<tr>
<td>[Input 3]</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>[Input 4]</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

Note

- The signal displayed for [Input 3] and [Input 4] changes depending on the type of input module inserted.

■ [PC adjust] 📰

<table>
<thead>
<tr>
<th>Sub menu item</th>
<th>Factory default</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Auto PC adj.]</td>
<td>—</td>
<td>56</td>
</tr>
<tr>
<td>[Fine sync]</td>
<td>—*1</td>
<td>56</td>
</tr>
<tr>
<td>[Total dots]</td>
<td>—*1</td>
<td>56</td>
</tr>
<tr>
<td>[Position H]</td>
<td>—*1</td>
<td>56</td>
</tr>
<tr>
<td>[Position V]</td>
<td>—*1</td>
<td>57</td>
</tr>
<tr>
<td>[Current mode]</td>
<td>—*1</td>
<td>57</td>
</tr>
<tr>
<td>[Clamp]</td>
<td>—*1</td>
<td>57</td>
</tr>
<tr>
<td>[Display area H]</td>
<td>—*1</td>
<td>57</td>
</tr>
<tr>
<td>[Display area V]</td>
<td>—*1</td>
<td>57</td>
</tr>
<tr>
<td>[Reset]</td>
<td>—</td>
<td>58</td>
</tr>
<tr>
<td>[Mode free]</td>
<td>—</td>
<td>58</td>
</tr>
<tr>
<td>[Store]</td>
<td>—</td>
<td>58</td>
</tr>
</tbody>
</table>

*1: Differs depending on the input signal.

■ [Image select] 📰

Details (page 59)
## Menu navigation

### [Image adjust] 📷

<table>
<thead>
<tr>
<th>Sub menu item</th>
<th>Factory default</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Contrast]</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td>[Brightness]</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td>[Color]*1</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td>[Tint]*1</td>
<td>32</td>
<td>60</td>
</tr>
<tr>
<td>[Color management]</td>
<td>—</td>
<td>61</td>
</tr>
<tr>
<td>[Color temp.]</td>
<td>[Mid]</td>
<td>62</td>
</tr>
<tr>
<td>White balance ([Red]/[Green]/[Blue])</td>
<td>32</td>
<td>62</td>
</tr>
<tr>
<td>[Offset]</td>
<td>32</td>
<td>62</td>
</tr>
<tr>
<td>[Auto picture control]</td>
<td>[L 1]</td>
<td>62</td>
</tr>
<tr>
<td>[Advanced color]</td>
<td>[Auto]</td>
<td>63</td>
</tr>
<tr>
<td>[Sharpness]</td>
<td>For computer input: 0 For video input: 15</td>
<td>63</td>
</tr>
<tr>
<td>[Gamma]</td>
<td>8</td>
<td>63</td>
</tr>
<tr>
<td>[Noise reduction]*1</td>
<td>[On]</td>
<td>63</td>
</tr>
<tr>
<td>[Progressive]*1</td>
<td>[On]</td>
<td>63</td>
</tr>
<tr>
<td>[Reset]</td>
<td>—</td>
<td>64</td>
</tr>
<tr>
<td>[Store]</td>
<td>—</td>
<td>64</td>
</tr>
</tbody>
</table>

*1: Only displayed and selectable when video input is used.

### [Screen] 📜

<table>
<thead>
<tr>
<th>Sub menu item</th>
<th>Factory default</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Normal]</td>
<td>—</td>
<td>65</td>
</tr>
<tr>
<td>[Full]</td>
<td>—</td>
<td>65</td>
</tr>
<tr>
<td>[Wide(16:9)]</td>
<td>—</td>
<td>65</td>
</tr>
<tr>
<td>[Zoom]</td>
<td>—</td>
<td>65</td>
</tr>
<tr>
<td>[True]*1</td>
<td>—</td>
<td>65</td>
</tr>
<tr>
<td>[Custom]</td>
<td>—</td>
<td>66</td>
</tr>
<tr>
<td>[Custom adj.]</td>
<td>—</td>
<td>66</td>
</tr>
<tr>
<td>[Digital zoom +]*1</td>
<td>—</td>
<td>66</td>
</tr>
<tr>
<td>[Digital zoom -]*1</td>
<td>—</td>
<td>67</td>
</tr>
<tr>
<td>[Keystone]</td>
<td>—</td>
<td>67</td>
</tr>
<tr>
<td>[Ceiling]</td>
<td>[Off]</td>
<td>68</td>
</tr>
<tr>
<td>[Rear]</td>
<td>[Off]</td>
<td>68</td>
</tr>
<tr>
<td>[Reset]</td>
<td>—</td>
<td>68</td>
</tr>
</tbody>
</table>

*1: Only displayed and selectable when computer input is used.
### [Setting]  

<table>
<thead>
<tr>
<th>Sub menu item</th>
<th>Factory default</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Language]</td>
<td>[English]</td>
<td>69</td>
</tr>
<tr>
<td>[Menu position]</td>
<td>—</td>
<td>69</td>
</tr>
<tr>
<td>[Display]</td>
<td>[On]</td>
<td>69</td>
</tr>
<tr>
<td>[Background]</td>
<td>[Blue]</td>
<td>70</td>
</tr>
<tr>
<td>[Lamp select]</td>
<td>📡</td>
<td>70</td>
</tr>
<tr>
<td>[Lamp power]</td>
<td>🕯️ (Auto)</td>
<td>70</td>
</tr>
<tr>
<td>[Lamp interval]</td>
<td>[Off]</td>
<td>71</td>
</tr>
<tr>
<td>[Edge blending]</td>
<td>[Off]</td>
<td>71</td>
</tr>
<tr>
<td>[Color matching]</td>
<td>[Off]</td>
<td>72</td>
</tr>
<tr>
<td>[HDMI setup]</td>
<td>[Normal]</td>
<td>76</td>
</tr>
<tr>
<td>[Logo]</td>
<td>—</td>
<td>76</td>
</tr>
<tr>
<td>[Fan control]</td>
<td>[Normal]</td>
<td>77</td>
</tr>
<tr>
<td>[Remote control]</td>
<td>[All]</td>
<td>77</td>
</tr>
<tr>
<td>[RC sensor]</td>
<td>[Both]</td>
<td>77</td>
</tr>
<tr>
<td>[Power management]</td>
<td>[Off], [Timer]</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>30 minutes</td>
<td></td>
</tr>
<tr>
<td>[Direct on]</td>
<td>[Off]</td>
<td>78</td>
</tr>
<tr>
<td>[Security]</td>
<td>—</td>
<td>79</td>
</tr>
<tr>
<td>[Projector ID]</td>
<td>[All]</td>
<td>80</td>
</tr>
<tr>
<td>[Shutter]</td>
<td>—</td>
<td>80</td>
</tr>
<tr>
<td>[Video delay control]</td>
<td>[Off]</td>
<td>82</td>
</tr>
<tr>
<td>[Closed caption]</td>
<td>[Off]</td>
<td>82</td>
</tr>
<tr>
<td>[Filter counter]</td>
<td>—</td>
<td>82</td>
</tr>
<tr>
<td>[P-timer]</td>
<td>[Count up]</td>
<td>83</td>
</tr>
<tr>
<td>[Test pattern]</td>
<td>—</td>
<td>84</td>
</tr>
<tr>
<td>[Factory default]</td>
<td>—</td>
<td>84</td>
</tr>
</tbody>
</table>

### [Information]  
Details (⇒ page 85)

### [Network]  
Refer to “Operating Instructions – Network Operations”.  
Details (⇒ page 86)
[Input] menu

Select [Input] from the main menu on the menu screen, and select the item from the sub menu. For operation of the menu screen, refer to “Navigating through menu” (⇒ page 50).

• After selecting the item, press ▲▼◀▶ to make the setting.

1) Press ▲▼ to select [Input 1].

2) Press ▶ .
   • The sub menu 2 is displayed.

3) Press ▲▼ to select an item, and press the <ENTER> button.

<table>
<thead>
<tr>
<th>Input 1</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[RGB(Scart)]</td>
<td>Select when inputting a SCART signal to the &lt;ANALOG IN&gt; terminal.</td>
</tr>
<tr>
<td>[RGB(PC digital)]</td>
<td>Select when inputting a digital signal from a computer to the &lt;DIGITAL IN&gt; terminal.</td>
</tr>
<tr>
<td>[RGB(AV HDCP)]</td>
<td>Select when inputting an HDCP-compatible digital signal to the &lt;DIGITAL IN&gt; terminal.</td>
</tr>
<tr>
<td>[RGB(PC analog)]</td>
<td>Select when inputting an analog signal from a computer to the &lt;G,B,R,H/HV,V IN&gt; terminal.</td>
</tr>
<tr>
<td>[Y, Pb/Cb, Pr/Cr]</td>
<td>Select when inputting a component video signal to the &lt;Y,Pb/Cb,Pr/Cr IN&gt; terminal.</td>
</tr>
<tr>
<td>[Video]</td>
<td>Select when inputting a composite video signal to the &lt;VIDEO IN&gt; terminal.</td>
</tr>
<tr>
<td>[S-video]</td>
<td>Select when inputting an S-video signal to the &lt;S-VIDEO IN&gt; terminal.</td>
</tr>
</tbody>
</table>

Note

• While some RGB signals are automatically recognized, unrecognized RGB signals are detected as “Y,Pb/Cb,Pr/Cr” and it is necessary to select [RGB] from the menu.

[Input 2]

1) Press ▲▼ to select [Input 2].

2) Press ▶ .
   • The sub menu 2 is displayed.

3) Press ▲▼ to select an item, and press the <ENTER> button.

Note

• The SCART21 pin terminal is a video output terminal provided in video players sold mainly in Europe. To view RGB output from this terminal on the projector, connect the SCART21 pin terminal of the video player to the <ANALOG IN> terminal of the projector using a dedicated cable. The RGB SCART signals to be played via the <ANALOG IN> terminal are limited to 480i and 576i RGB signals. Composite video signals cannot be played back.
[System]

[System] is displayed below the sub menu.

1) Press ▲▼ to select [System] below the sub menu and press the <ENTER> button.
   - The sub menu 2 is displayed.

2) Press ▲▼ to select an item and press the <ENTER> button.
   - Press ◀ to return to the sub menu.

■ For computer input

<table>
<thead>
<tr>
<th>[Auto]</th>
<th>The projector automatically selects the scanning method of the input signal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Auto]</td>
<td>There is no input signal compatible with the signal from a connected computer on the projector, the automatic PC adjustment function works and [Auto] is displayed on the system. If images are not being correctly projected, manually adjust the settings to suit your computer and register in [Store].</td>
</tr>
</tbody>
</table>

■ For component input

<table>
<thead>
<tr>
<th>Component video scanning methods</th>
<th>The projector automatically selects the scanning method of the input signal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>([480p], [576p], [720p], [480i], [576i], [1035i], [1080i], [1080p])</td>
<td>When video is not being played back correctly, select the correct scanning method from the menu.</td>
</tr>
</tbody>
</table>

■ For video and S-video input

<table>
<thead>
<tr>
<th>[Auto]</th>
<th>The projector automatically selects the color system of the input signal.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[PAL]/[SECAM]/[NTSC]/[NTSC4.43]/[PAL-M]/[PAL-N]</td>
<td>This is a list of supported color systems. The Japanese color system is NTSC. When the quality of the input signal is poor (irregular color, absence of color etc.), and the color system is not selected even when [Auto] is set, select [NTSC].</td>
</tr>
</tbody>
</table>
[PC adjust] menu

Select [PC adjust] from the main menu on the menu screen, and select the item from the sub menu.
For operation of the menu screen, refer to "Navigating through menu" (page 50).
- After selecting the item, press ▲▼◀▶ to make the setting.

Remote control
Control panel

[Auto PC adj.]

Automatically adjusts synchronization, total number of dots, horizontal shift, and vertical shift.

1) Press ▲▼ to select [Auto PC adj.].

2) Press the <ENTER> button.
   ● This executes automatic adjustment.

Note
- You can also use [Auto PC adj.] by pressing the <AUTO PC ADJ.> button on the remote control.
- Some computers will be unable to adjust any of [Fine sync], [Total dots], [Position H], or [Position V]. In this case, adjust manually and register in [Store].
- After registering the automatically adjusted settings, you can select that mode using [System] in the [Input] menu.
- The automatic PC adjustment function does not work when any of [480p], [576p], [720p], [480i], [576i], [1035i], [1080i], or [1080p] have been selected using [System] in the [Input] menu.
- With some computers and types of signal, it may not be possible to project the images correctly.

[Fine sync]

Adjusts the projector when there is flicker due to a tracking (synchronization) mismatch.

1) Press ▲▼ to select [Fine sync].

2) Press the <ENTER> button.
   ● The adjustment screen is displayed.

3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

Note
- The adjustment value can be set from 0 to 31.
- For some computers, it may not be possible to completely eliminate the screen flicker.

[Total dots]

Adjusts total number of dots in the horizontal interval.

1) Press ▲▼ to select [Total dots].

2) Press the <ENTER> button.
   ● The adjustment screen is displayed.

3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

[Position H]

Adjusts the horizontal position of the screen.

1) Press ▲▼ to select [Position H].

2) Press the <ENTER> button.
   ● The adjustment screen is displayed.

3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.
[Position V]
Adjusts the vertical position of the screen.
1) Press ▲▼ to select [Position V].
2) Press the <ENTER> button.
   ● The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

[Current mode]
Displays the current values of H-sync frequency and V-sync frequency for the currently connected computer.
1) Press ▲▼ to select [Current mode].
2) Press the <ENTER> button.
   ● The sub menu 2 is displayed.
   ● Press ◀ to return to the sub menu.

[Display area H]
Adjusts the horizontal resolution.
1) Press ▲▼ to select [Display area H].
2) Press the <ENTER> button.
   ● The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

Note
● You cannot adjust [Display area H] when any of [480p], [576p], [720p], [480i], [576i], [1035i], [1080i], or [1080p] have been selected using [System] in the [Input] menu.

[Clamp]
Adjusts the clamp position.
Use this when a black line is visible in the projected image.
1) Press ▲▼ to select [Clamp].
2) Press the <ENTER> button.
   ● The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

[Display area V]
Adjusts vertical resolution.
1) Press ▲▼ to select [Display area V].
2) Press the <ENTER> button.
   ● The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

Note
● You cannot adjust [Display area V] when any of [480p], [576p], [720p], [480i], [576i], [1035i], [1080i], or [1080p] have been selected using [System] in the [Input] menu.
[PC adjust] menu

[Reset]
The setting returns to its value before adjustment.

1) Press ▲▼ to select [Reset].
2) Press the <ENTER> button.
3) Select [Yes], and press the <ENTER> button.
   ● The setting returns to its value before adjustment.
   ● Select [No] and press the <ENTER> button to return to the sub menu.

[Mode free]
Deletes the values registered in [Store].

1) Press ▲▼ to select [Mode free].
2) Press the <ENTER> button.
   ● The registered content of each mode is displayed in the sub menu 2.
3) Press ▲▼ to select the mode to delete.
4) Press the <ENTER> button.
5) Select [Yes], and press the <ENTER> button.
   ● The selected mode is deleted and the projector returns to the sub menu 2.
   ● Select [No] and press the <ENTER> button to return to the sub menu 2.

[Store]
Registers the adjusted values in [Store].

1) Press ▲▼ to select [Store].
2) Press the <ENTER> button.
   ● The registered content of each mode is displayed in the sub menu 2.
3) Press ▲▼ to select the mode to register.
4) Press the <ENTER> button.
5) Select [Yes], and press the <ENTER> button.
   ● The selected mode is registered and the projector returns to the sub menu 2.
   ● Select [No] and press the <ENTER> button to return to the sub menu 2.
Select [Image select] from the main menu on the menu screen, and select the item from the sub menu.
For operation of the menu screen, refer to “Navigating through menu” (☞ page 50).
● After selecting the item, press ▲▼◀▶ to make the setting.

Remote control
Control panel

● You can also display sub menus using the <IMAGE SELECT> button on the remote control.

Adjusting the picture quality
Adjusts the picture quality of the projected image to suit the environment in which you are using the projector.

■ [Standard]
Resets the [Image adjust] menu items to the factory default settings.

■ [Real]
In this mode, intermediate settings are adjusted to be brighter, improving the view in bright locations.
● This mode can only be selected for computer inputs.

■ [Cinema]
Emphasizes gradation, making this mode suitable for viewing movies.
● This mode can only be selected for video or component inputs.

■ [Dynamic]
Gives picture with stronger contrast than [Standard].

■ [Image 1] - [Image 10]
Calls up picture quality settings set manually using the [Image adjust] menu.
● Images can be registered with both computer inputs and video inputs.
[Image adjust] menu

Select [Image adjust] from the main menu on the menu screen, and select the item from the sub menu.

For operation of the menu screen, refer to “Navigating through menu” (page 50).

- After selecting the item, press ▲▼◀▶ to make the setting.

For operation of the menu screen, refer to “Navigating through menu” (page 50).

Remote control

Control panel

[Contrast]

1) Press ▲▼ to select [Contrast].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ▼▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶.</td>
<td>Brightens the screen and deepens the color of images.</td>
<td>0 - +63</td>
</tr>
<tr>
<td>Press ◀.</td>
<td>Darkens the screen and lightens the color of images.</td>
<td></td>
</tr>
</tbody>
</table>

[Brightness]

1) Press ▲▼ to select [Brightness].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ▼▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶.</td>
<td>The brightness increases.</td>
<td>0 - +63</td>
</tr>
<tr>
<td>Press ◀.</td>
<td>The brightness decreases.</td>
<td></td>
</tr>
</tbody>
</table>

[Color]

This setting can only be adjusted for video or component inputs.

1) Press ▲▼ to select [Color].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ▼▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶.</td>
<td>Darkens the color.</td>
<td>0 - +63</td>
</tr>
<tr>
<td>Press ◀.</td>
<td>Lightens the color.</td>
<td></td>
</tr>
</tbody>
</table>

[Tint]

This setting can only be adjusted for video or component inputs.

1) Press ▲▼ to select [Tint].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ▼▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶.</td>
<td>Emphasizes green.</td>
<td>0 - +63</td>
</tr>
<tr>
<td>Press ◀.</td>
<td>Emphasizes purple.</td>
<td></td>
</tr>
</tbody>
</table>
**[Color management]**

Adjusts the color of the projected image as desired.

1) Press ▲▼ to select [Color management].

2) Press the <ENTER> button.
   - The image is paused and a colorless cursor appears in the center of the screen.

3) Press ▲▼◀▶ to move the cursor over the color to adjust, and press the <ENTER> button.
   - The cursor becomes that color and [COLOR SELECTION] menu is displayed.

4) Press ▲▼◀▶ to move the cursor over the color to adjust, and press the <ENTER> button.
   - The screen moves to [GAMMA] adjustment.

5) Press ▲▼ to select the color to display after adjustment, then press the <ENTER> button.
   - The cursor moves to [LIST].

6) Select [LIST], and press the <ENTER> button.
   - This registers the adjusted color.
   - Displays [COLOR MANAGEMENT LIST].
   - You can check whether the registered color has been stored.

   **[LIST]** Displays [COLOR MANAGEMENT LIST].

   **[COLOR M.]** Cancels the adjustment and returns the cursor to the colorless state.

   **[MENU]** Ends the display of [COLOR MANAGEMENT LIST].

**[COLOR MANAGEMENT LIST] operations**

- Re-adjusting stored colors
  1) Press ▲▼ to select the color to re-adjust.

2) Press the <ENTER> button to return to the [COLOR SELECTION] menu.
   - You can re-adjust the color.

- Re-adjusting stored colors
  1) Press ▲▼ to select the color to delete.

2) Press ◀▶ to move the cursor onto the [DEL] checkbox.

3) Press the <ENTER> button.

4) Select [Yes], and press the <ENTER> button.
   - The registered color will be deleted.

| [ALL DEL] | Deletes all stored items on the list. |
| [MENU]    | Ends the display of [COLOR MANAGEMENT LIST], and returns to the [Image adjust] menu. |
| [COLOR M.]| Stores the adjustment. A new colorless cursor is displayed and you can continue to make adjustments. |
[Image adjust] menu

[Color temp.]

1) Press ▲▼ to select [Color temp.].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶  .</td>
<td>Makes the color temperature higher.</td>
<td>[XLow] - [Low] - [Mid] - [High]</td>
</tr>
<tr>
<td>Press ◀  .</td>
<td>Makes the color temperature very low.</td>
<td></td>
</tr>
</tbody>
</table>

Note
- [XLow] (emphasize red) - [High] (emphasize blue)
- Note that adjusting this item will also change the white balance setting.
- [Adj.] is displayed when you adjust the white balance (any of [Red], [Green], and [Blue]).

[Offset]

1) Press ▲▼ to select [Offset].
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) Press ▲▼ to select [Red] (or [Green] or [Blue]).
4) Press the <ENTER> button.
5) While looking at the screen, press ◀▶ to adjust the setting.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[Red]</td>
<td>[Green]</td>
<td>[Blue]</td>
</tr>
<tr>
<td></td>
<td>0 - +63</td>
<td></td>
</tr>
</tbody>
</table>

[Auto picture control]

Emphasizes the dark parts of the projected image.

1) Press ▲▼ to select [Auto picture control].
2) Press the <ENTER> button.
3) Press ◀▶ to switch the setting.
   - The setting will change as follows each time you press the button.

   [Off] ⇔ [L 1] ⇔ [L 2]
   - The effect is the strongest with [L 2].

White balance ([Red]/[Green]/[Blue])

1) Press ▲▼ to select [Red] (or [Green] or [Blue]).
2) Press the <ENTER> button.
   - The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.

<table>
<thead>
<tr>
<th>Operation</th>
<th>Adjustment</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press ▶  .</td>
<td>Deepens red (or green, blue).</td>
<td>0 - +63</td>
</tr>
<tr>
<td>Press ◀  .</td>
<td>Weakens red (or green, blue).</td>
<td></td>
</tr>
</tbody>
</table>
[Advanced color]
Sets the operation of the color control device that independently controls the quantity of yellow light.

1) Press ▲▼ to select [Advanced color].
2) Press the <ENTER> button.
3) Press ◀▶ to switch the setting.
   • The setting will change as follows each time you press the button.

   ![Advanced color settings](image)
   • The white balance may change depending on the image.

[Sharpness]

1) Press ▲▼ to select [Sharpness].
2) Press the <ENTER> button.
   • The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.

   ![Sharpness settings](image)
   Operation | Adjustment | Range
---|---|---
Press ▶ | The sharpness increases. | 0 - +31
Press ◀ | The sharpness decreases. |

[Noise reduction]
Reduces noise when viewing old video or other images affected by noise.

1) Press ▲▼ to select [Noise reduction].
2) Press the <ENTER> button.
3) Press ◀▶ to switch the setting.
   • The setting will change as follows each time you press the button.

   ![Noise reduction settings](image)

[Progressive]
Can be set for video input signals of 480i, 576i, 1035i, and 1080i.

1) Press ▲▼ to select [Progressive].
2) Press the <ENTER> button.
3) Press ◀▶ to switch the setting.
   • The setting will change as follows each time you press the button.

   ![Progressive settings](image)
   • Set to [Off] when video with a lot of movement is affected by flickers or horizontal lines.
   • [Film] enables playback of 3-2 pull down/2-2 pull down images on the projector without loss of picture quality in the images.
   • When switching, the image will distort for a moment.

[Gamma]

1) Press ▲▼ to select [Gamma].
2) Press the <ENTER> button.
   • The adjustment screen is displayed.
3) While looking at the screen, press ◀▶ to adjust the setting.

   ![Gamma settings](image)
   Operation | Adjustment | Range
---|---|---
Press ▶ | Brightens the intermediate gradations. | 0 - +15
Press ◀ | Darkens the intermediate gradations. |
[Image adjust] menu

[Reset]
The setting returns to its value before adjustment.

1) Press ▲▼ to select [Reset].
2) Press the <ENTER> button.
3) Select [Yes], and press the <ENTER> button.
   ● The setting returns to its value before adjustment.
   ● Select [No] and press the <ENTER> button to return to the sub menu.

[Store]

1) Press ▲▼ to select [Store].
2) Press the <ENTER> button.
   ● The registered content of each mode is displayed in the sub menu 2.
3) Press ▲▼ to select the mode to register.
   ● [Image 1] - [Image 10]
4) Press the <ENTER> button.
5) Select [Yes], and press the <ENTER> button.
   ● The selected mode is registered and the projector returns to the sub menu 2.
   ● Select [No] and press the <ENTER> button to return to the sub menu 2.

Note
● The adjusted item is registered and stored in [Store].
● With [Store], you can store both computer inputs and video inputs.
[Screen] menu

Select [Screen] from the main menu on the menu screen, and select the item from the sub menu.

For operation of the menu screen, refer to “Navigating through menu” (page 50).

- After selecting the item, press ▲▼◀▶ to make the setting.

<table>
<thead>
<tr>
<th>Remote control</th>
<th>Control panel</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Remote control" /></td>
<td><img src="image" alt="Control panel" /></td>
</tr>
</tbody>
</table>

**[Normal]**

Displays the maximum allowable size while retaining the aspect ratio of the input signal.

1) Press ▲▼ to select [Normal].
2) Press the <ENTER> button.

**[Full]**

Displays the full screen size.

- When there is no input signal, this item is grayed out and cannot be selected.

1) Press ▲▼ to select [Full].
2) Press the <ENTER> button.

**[Wide(16:9)]**

Displays in widescreen with aspect ratio of 16:9.

- When there is no input signal, this item is grayed out and cannot be selected.

1) Press ▲▼ to select [Wide(16:9)].
2) Press the <ENTER> button.

**[Zoom]**

Stores the aspect ratio and projects at full panel size.

- When there is no input signal, this item is grayed out and cannot be selected.
- If the image is horizontally wider than the panel, the right and left edges will be cropped. If vertically longer than the panel, the top and bottom edges will be cropped.

1) Press ▲▼ to select [Zoom].
2) Press the <ENTER> button.

**[True]**

Projects the image at the original size.

- This mode can only be adjusted for computer inputs.
- When there is no input signal, this item is grayed out and cannot be selected.

1) Press ▲▼ to select [True].
2) Press the <ENTER> button.

- **When the image size is less than the panel resolution**
  - [True] is displayed at the top left of the screen, and the image is projected in the center of the screen.

- **When the image size is same as the panel resolution**
  - [True] is displayed at the top left of the screen, but the image is subsequently projected in [Normal] mode.

- **When the image size is larger than the panel resolution**
  - [True] is displayed at the top left of the screen, and △ (▲▼◀▶) are displayed at the top, bottom, left, and right of the screen. Press ▲▼◀▶ to move the image.
    - The arrow in the direction of movement is displayed in red.
    - At positions of maximum shift the arrows disappear.

*1: The panel resolution of the projector is 1024 x 768 dots.
[Screen] menu

[Custom]
Deletes the values registered in [Custom adj.].
● When there is no input signal, [Custom] can be selected but the image will be projected in [Normal] mode.

1) Press ▲▼ to select [Custom].
2) Press the <ENTER> button.

[Custom adj.]
Adjusts the horizontal and vertical scale and position.
● When there is no input signal, this item is grayed out and cannot be selected.
● If the input signal is lost during adjustment, the adjustment value is stored and the [Aspect] adjustment screen is cleared.

1) Press ▲▼ to select [Custom adj.], and press the <ENTER> button.
   ● The sub menu 2 ([Aspect] adjustment screen) is displayed.
2) Press ▲▼ to select an item, and press the <ENTER> button.
   ● The adjustment screen is displayed.
   ● To adjust [H&V], press the <ENTER> button and adjust on the sub menu 2 screen.
   ● Press the <ENTER> button for [Common] and [Reset]. Select [Yes] and press the <ENTER> button.
   ● While the adjustment screen is displayed, press ▲▼ to display menus other than [H&V], [Common], and [Reset] in order.
3) Press ◀▶ to adjust the setting.
   ● Press the <ENTER> button to return to the sub menu.

<table>
<thead>
<tr>
<th>[Scale H]</th>
<th>Adjusts the horizontal scale.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Scale V]</td>
<td>Adjusts the vertical scale.</td>
</tr>
</tbody>
</table>
| [H&V]     | When adjusting the vertical and horizontal scale, select [On] to link the vertical and horizontal scales and preserve the aspect ratio of the image.  
   ● As you adjust the numerical value of [Scale H], the numerical value of [Scale V] changes accordingly. |
| [Position H] | Adjusts the horizontal shift. |
| [Position V] | Adjusts the vertical shift.  |
| [Common]  | Applies the adjusted content to all inputs. |
| [Reset]   | Resets all the adjusted content. |

[Digital zoom +]
This mode can only be adjusted for computer inputs.

1) Press ▲▼ to select [Digital zoom +].
2) Press the <ENTER> button.
   ● The menu screen is cleared and [D. zoom +] is displayed.
3) Press the <ENTER> button.
   ● Each press of the button enlarges the image.
   ● Press ▲▼◀▶ to move the image.
   ● The image move function only works when the image size is larger than the panel resolution*1.

*1: The panel resolution of the projector is 1 024 x 768 dots.

Note
● When there is no input signal, [Digital zoom +] is grayed out and cannot be selected.
● When [True] is selected, [Digital zoom +] cannot be selected.
● To end the [Digital zoom +] operation, press any button other than the <D.ZOOM>, <ENTER>, and ▲▼◀▶ buttons.
[Digital zoom –]

This mode can only be adjusted for computer inputs.

1) Press ▲▼ to select [Digital zoom –].
2) Press the <ENTER> button.
   - The menu screen is cleared and [D. zoom –] is displayed.
3) Press the <ENTER> button.
   - Each press of the button reduces the image.
   - Press ▲▼◀▶ to move the image.
   - The image move function only works when the image size is larger than the panel resolution*1

*1: The panel resolution of the projector is 1 024 x 768 dots.

Note
- When there is no input signal, [Digital zoom –] is grayed out and cannot be selected.
- When [True] is selected, [Digital zoom –] cannot be selected.
- When [Custom] is selected, you cannot set [Digital zoom –] to [Normal] or smaller.
- When [Store] registered in the [PC adjust] menu is selected in [System] of the [Input] menu, the image move function of [Digital zoom –] may not work correctly.
- When VGA, SVGA, SXGA, WXGA, or UXGA is selected in [System] of the [Input] menu and the upward [Keystone] adjustment is at the maximum value, [Digital zoom –] may not work correctly.
- To end the [Digital zoom –] operation, press any button other than the <D.ZOOM>, <ENTER>, and ▲▼◀▶ buttons.

[Keystone]

1) Press ▲▼ to select [Keystone].
2) Press the <ENTER> button.
   - The menu screen is cleared and [Keystone] is displayed.
3) Press ▲▼ to select.

[Standard]

Corrects the keystone effect vertically and horizontally.

1) Select [Standard], and press the <ENTER> button.
   - The menu screen is cleared and [Keystone] is displayed.

2) Press ▲▼◀▶ to correct the corner.

[Corner correction]

Corrects distortion at the corners of the image.

1) Select [Corner correction], and press the <ENTER> button.
   - The menu screen is cleared and [Keystone] is displayed.
2) Press the <ENTER> button to select the corner to correct.
3) Press ▲▼◀▶ to correct the corner.
[Screen] menu

■ [Corner pattern]
Selects the corner pattern mode displayed during corner correction.

1) Select [Corner pattern], and press the <ENTER> button.
2) Press ▲▼ to select.

- [Red]: Displays the corner pattern in red.
- [White]: Displays the corner pattern in white.
- [Blue]: Displays the corner pattern in blue.
- [Off]: Clears display of corner pattern.

■ [Store]
Stores the correction state.

1) Select [Store], and press the <ENTER> button.
2) Press ▲▼ to select an item, and press the <ENTER> button.

- [Store]: The adjustment state remains in memory even after removing the power cord.
- [Reset]: The adjustment state is reset when the power cord is removed.

- You can register only one of [Standard] and [Corner correction].

■ [Rear]
Sets the projection method in accordance with the installation status of the projector. If the screen display has flipped, select [On].

1) Press ▲▼ to select [Rear].
2) Press the <ENTER> button.
3) Press ▲▼ to select.

- [Off]  ↔  [On]

■ [Reset]
The setting returns to its value before adjustment.

1) Press ▲▼ to select [Reset].
2) Press the <ENTER> button.
3) Select [Yes], and press the <ENTER> button.

- The setting returns to its value before adjustment.
- Select [No] and press the <ENTER> button to return to the sub menu.

■ [Ceiling]
Sets the projection method in accordance with the installation status of the projector. If the screen display is upside down, select [On].

- This setting is used when the projector is installed using the ceiling mount bracket (optional accessory).

1) Press ▲▼ to select [Ceiling].
2) Press the <ENTER> button.
3) Press ▲▼ to select.

- [Off]  ↔  [On]

- You can register only one of [Standard] and [Corner correction].
Select [Setting] from the main menu on the menu screen, and select the item from the sub menu.
For operation of the menu screen, refer to “Navigating through menu” (page 50).
- After selecting the item, press ▲▼◄► to make the setting.

Remote control

<table>
<thead>
<tr>
<th>Control panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>MENU</td>
</tr>
<tr>
<td>◄</td>
</tr>
</tbody>
</table>

[Language]
Switches the display language.

1) Press ▲▼ to select [Language].

2) Press the <ENTER> button.
   - The sub menu 2 is displayed.
   - Ten languages are available (English, German, French, Italian, Spanish, Portuguese, Russian, Chinese, Korean, and Japanese).

3) Press ▲▼ to select an item and press the <ENTER> button.

[Menu position]
Adjusts the display position of the on-screen menu.

1) Press ▲▼ to select [Menu position].

2) Press the <ENTER> button.
   - Arrows are displayed on the sub menu 2. Press ▲▼◄► to adjust the position.
   - At positions of maximum shift the arrows disappear.

[Display]
Sets the display of the on-screen menu.

1) Press ▲▼ to select [Display].

2) Press the <ENTER> button.

3) Press ▲▼ to select an item and press the <ENTER> button.

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● Menu display</td>
</tr>
<tr>
<td></td>
<td>● Display of [Power off?] when turning off the power</td>
</tr>
<tr>
<td></td>
<td>● Timer display when using the presentation timer</td>
</tr>
<tr>
<td></td>
<td>● Display of [Please wait ...] in [Auto PC adj.]</td>
</tr>
<tr>
<td></td>
<td>● Timer display when using power management</td>
</tr>
<tr>
<td></td>
<td>● Arrows displayed when [Menu position] in [Setting] is selected</td>
</tr>
<tr>
<td></td>
<td>● Error message displayed when a button is pressed that is not used for the current settings</td>
</tr>
<tr>
<td></td>
<td>● △ arrows displayed when the image size is larger than the panel resolution (1024 x 768 dots)</td>
</tr>
<tr>
<td></td>
<td>● Display of [Corner pattern]</td>
</tr>
</tbody>
</table>

| [Countdown off] | Makes the projector project immediately after the lamp comes on without displaying the countdown for approximately 20 seconds.
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● Select when you want to project the image quickly and it is not important that the projected image is a little dark.</td>
</tr>
</tbody>
</table>

| [On] | Shows all screen displays.
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>● Select when you want to project the image after the projection screen has reached certain level of brightness.</td>
</tr>
</tbody>
</table>
[Setting] menu

[Background]
Selects the background screen when there is no input signal.

1) Press ▲▼ to select [Background].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.
   ● The setting will change as follows each time you press the button.

   ![Switching Background Settings]
   
   Blue <-> User*1 <-> Black

*1: Available when the image is registered.
   ● [User] displays the image registered by the user.
   ● “Logo Transfer Software” is required to register the image.

[Lamp select]
Selects the lamp used for projection.

1) Press ▲▼ to select [Lamp select].
2) Press the <ENTER> button.
   ● The sub menu 2 is displayed.
3) Press ▲▼ to select an item, and press the <ENTER> button.
   ● Press ◀ to return to the sub menu.

   ![Lamp Select Settings]

   [2-Lamps]
   - Turns on two lamps.

   [1-Lamp]
   - Automatically detects the lamp with the shortest total time, and prioritizes to turn it on.
   - Turns on lamp 1.
   - Turns on lamp 2.

4) Select [Yes], and press the <ENTER> button.
   ● The setting ends and the projector returns to the sub menu 2 screen.
   ● Select [No] and press the <ENTER> button to return to the sub menu 2.

Note
● If a lamp fails as a result of a fault or reaching the end of its service life, the lamp indicator <LAMP 1 REPLACE>/<LAMP 2 REPLACE> on the front of the projector body. An X mark will also appear as the lamp status at the top of the screen.
   ● When [2-Lamps] is selected and one lamp fails, the projection will continue with one lamp.
   ● When [1-Lamp] is selected and one lamp fails, the lamp will be switched to the other one if it is available.
   ● If all the lamps fail, the power will switch off. If the power is turned on without replacing the lamps after the duration exceeds 2 200 hours of usage for all lamps, the power automatically turns off after approximately ten minutes to prevent the malfunction of the projector.

[Lamp power]
Sets switching of lamp brightness. Using the eco mode is recommended if you want to reduce power consumption.

1) Press ▲▼ to select [Lamp power].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.
   ● The setting will change as follows each time you press the button.

   ![Lamp Power Settings]

   ![Lamp Power Settings]

   (Auto) Sets the brightness automatically using a light-metering circuit.
   (Standard) Operates in certain brightness.
   (Eco mode 1) The projected image is darker than .
   (Eco mode 2) The air intake/exhaust increases in comparison to , and the fan becomes louder.
[Setting] menu

[Lamp interval]
Sets the replacement cycle when [Lamp select] is set to [1-Lamp]. After the replacement cycle, the lamp for use is automatically changed.
- The set time here is a guideline time.
1) Press ▲▼ to select [Lamp interval].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>[Off]</th>
<th>Does not change lamps.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[12 H]/[24 H]/[500 H]/[1000 H]/[2000 H]</td>
<td>Changes lamps in the set intervals. When the set time is reached, the projector lights a lamp, giving priority to the lamp with the shortest total usage time.</td>
</tr>
</tbody>
</table>

[Edge blending]
Makes it less easy to see the join between screens when multiple screens are used.
1) Press ▲▼ to select [Edge blending].
2) Press the <ENTER> button.
   - Displays [Edge blending] setting screen.
3) Press ▲▼ to select [Edge blending].
4) Press the <ENTER> button.
5) Press ▲▼ to select [On].
   - When not performing [Edge blending], select [Off]. Items other than [Back] will be grayed out and cannot be selected.
6) Press the <ENTER> button.
   - The panel edge is displayed in green, changing to red when the setting value for the edge blending width is 1 or larger.

Note
- Even when the [Edge blending] setting screen is displayed, if you press the <ZOOM> button, the <FOCUS> button, the <LENS SHIFT> button, or the <SHUTTER> button, the setting screen is cleared and the selected function is given priority. On completion of the function, the projector returns to the setting screen.
- The join between screens may stand out with certain types of image. Reducing the value of [Contrast] in the [Image adjust] menu may make the join look more natural.

To adjust the blending start position and blending width

1) Press ▲▼ to select the location ([Start]/[Width] of [Left]/[Right]/[Top]/[Bottom]) to be corrected.

<table>
<thead>
<tr>
<th>[Start]</th>
<th>Sets the blending start position. The frame (green) moves as you change the numerical value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Width]</td>
<td>Adjusts the blending width. The red line moves as you change the numerical value.</td>
</tr>
</tbody>
</table>

2) Press the <ENTER> button.
3) Press ▲▼ to change the value, and press ◀▶ to move between digits.
   - The numerical values can also be entered using the number (<0> - <9>) buttons of the remote control.
   - Press the <ENTER> button to end the edit mode.

Note
- [Left] and [Right] adjustable value: 0 - 512
- [Top] and [Bottom] adjustable value: 0 - 384
[Setting] menu

■ To adjust the black level
Adjusts the black level in the image.

1) Press ▲▼ to select [Black level].
2) Press the <ENTER> button.
3) Press ▲▼ to select an item and press the <ENTER> button.

<table>
<thead>
<tr>
<th>[All]</th>
<th>Changes with R/G/B.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[R]/[G]/[B]</td>
<td>Adjustment value: ±127</td>
</tr>
</tbody>
</table>

4) Press ◀▶ to change the value.
   ● Press the <ENTER> button to end the edit mode.

■ To display the test pattern

1) Press ▲▼ to select [Test pattern].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.
   ● Press the <ENTER> button to end the edit mode.

<table>
<thead>
<tr>
<th>[Off]</th>
<th>Clears display of test pattern.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[On]</td>
<td>Displays the test pattern.</td>
</tr>
</tbody>
</table>

■ Not to display the menus
The settings screen and lines are cleared temporarily.

1) Press ▲▼ to select [Menu off].
2) Press the <ENTER> button.
   ● Press any button to return to the setting screen.

■ To reset a value during adjustment
The setting returns to its value before adjustment.

1) Press ▲▼ to select [Reset].
2) Press the <ENTER> button.
   ● A screen for confirming whether to reset is displayed.
3) Select [Yes], and press the <ENTER> button.
   ● The confirmation screen is displayed.
4) Select [Yes], and press the <ENTER> button.

■ To return to the sub menu
Returns the projector to the sub menu.

1) Press ▲▼ to select [Back].
2) Press the <ENTER> button.

[Color matching]
Makes it less easy to see different projector coloring when multiple screens are used.

1) Press ▲▼ to select [Color matching].
2) Press the <ENTER> button.
   ● Displays [Color matching] setting screen.
3) Press ▲▼ to select [Color matching].
4) Press the <ENTER> button.
5) Press ▲▼ to select [On].
   ● When not performing [Color matching], select [Off]. Items other than [Advanced color matching] will be grayed out and cannot be selected.
6) Press the <ENTER> button.
### [Setting] menu

#### To adjust the color

1) Press ▲▼ to select the color to adjust.
2) Press the <ENTER> button.
3) Press ▲▼ to change the value, and press ◀▶ to move between digits.
   ● The numerical values can also be entered using the number (<0> - <9>) buttons of the remote control.

<table>
<thead>
<tr>
<th>Color</th>
<th>x</th>
<th>y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>Green</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>Blue</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>White</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
</tbody>
</table>

#### To set the display of test pattern

1) Press ▲▼ to select [Auto test pattern].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.
   ● Press the <ENTER> button to end the edit mode.

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>Clears display of test pattern.</td>
</tr>
<tr>
<td>On</td>
<td>Displays the test pattern.</td>
</tr>
</tbody>
</table>

#### To reset a value during adjustment

The setting returns to its value before adjustment. The value returns to the standard value stored in [Store].

1) Press ▲▼ to select [Reset].
2) Press the <ENTER> button.
   ● A screen for confirming whether to reset is displayed.
3) Select [Yes], and press the <ENTER> button.

#### To register adjusted content you have changed

Registers values after adjustment.

1) Press ▲▼ to select [Store].
2) Press the <ENTER> button.
3) Select [Yes], and press the <ENTER> button.

#### To return to the sub menu

Returns the projector to the sub menu.

1) Press ▲▼ to select [Back].
2) Press the <ENTER> button.

#### [Advanced color matching]

More advanced settings than [Color matching] are possible.

1) Press ▲▼ to select [Color matching].
2) Press the <ENTER> button.
   ● Displays [Color matching] setting screen.
3) Press ▲▼ to select [Advanced color matching].
4) Press the <ENTER> button.
   ● Displays [Advanced color matching] setting screen.
5) Press ▲▼ to select [Advanced color matching], and press the <ENTER> button.
6) Press ▲▼ to select [On].
   ● When not performing [Advanced color matching], select [Off]. Items other than [Test pattern] and [Back] will be grayed out and cannot be selected.
To check the settings
Displays the setting status of [Image adjust].

1) Press ▲▼ to select [Measured information].

2) Press the <ENTER> button.
   ● Displays [Dynamic], [Standard], or [Real/Cinema] setting status.
   ● The measured information can be exited by pressing any button.
   ● The selected item is displayed as normal. Other items are grayed out.
   ● For the item being adjusted, [Adj.] is displayed.

To check [Measured]
Displays data for R/G/B.

1) Press ▲▼ to select the color ([Red]/[Green]/[Blue] in [Measured]) to be measured.

2) Press the <ENTER> button.

3) Press ▲▼ to change the value, and press ◀▶ to move between digits.
   ● The numerical values can also be entered using the number (<0> - <9>) buttons of the remote control.

To check [Target]
1) Press ▲▼ to select the color ([Red]/[Green]/[Blue]/[Cyan]/[Magenta]/[Yellow]/[White] in [Target]) to be adjusted.

2) Press the <ENTER> button.

3) Press ▲▼ to change the value, and press ◀▶ to move between digits.
   ● The numerical values can also be entered using the number (<0> - <9>) buttons of the remote control.
   ● The numerical value changes according to the value of [Color temp.] in the [Image adjust] menu.

<table>
<thead>
<tr>
<th>Color</th>
<th>x</th>
<th>y</th>
<th>g</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Red]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[Green]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[Blue]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[Cyan]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[Magenta]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[Yellow]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
<tr>
<td>[White]</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
<td>0.000 - 1.000</td>
</tr>
</tbody>
</table>
To set the display of test pattern

1) Press ▲▼ to select [Auto test pattern].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.
   ● Press the <ENTER> button to end the edit mode.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Off]</td>
<td>Clears display of test pattern.</td>
</tr>
<tr>
<td>[On]</td>
<td>Displays the test pattern.</td>
</tr>
</tbody>
</table>

To temporarily clear the setting screen

1) Press ▲▼ to select [Menu off].
2) Press the <ENTER> button.
   ● Press any button to return to the setting screen.

To perform [Factory default] setting

When the currently selected [Measured] and [Target] are reset, the values are returned to the factory default settings.

1) Press ▲▼ to select [Factory default].
2) Press the <ENTER> button.
   ● A screen for confirming whether to restore the default setting is displayed.
3) Select [Yes], and press the <ENTER> button.
   ● The confirmation screen is displayed.
4) Select [Yes], and press the <ENTER> button.

To register adjusted content you have changed

Registers values after adjustment.

1) Press ▲▼ to select [Store].
2) Press the <ENTER> button.
3) Select [Yes], and press the <ENTER> button.

To display the test pattern

1) Press ▲▼ to select [Test pattern].
2) Press the <ENTER> button.
   ● Displays the test pattern selection screen.
3) Press ▲▼ to select the test pattern to be displayed, and press the <ENTER> button.
   ● The selection screen is cleared and the test pattern is displayed.
   ● Press any button to return to the setting screen.
   ● Press ▲▼ to select [Exit], and press the <ENTER> button to return to the setting screen of [Advanced color matching].

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Measured]</td>
<td>[Red]/[Green]/[Blue]</td>
</tr>
<tr>
<td>[Target]</td>
<td>[Red]/[Green]/[Blue]/[Cyan]/[Magenta]/[Yellow]/[White]</td>
</tr>
</tbody>
</table>

To return to the sub menu

Returns the projector to the sub menu.

1) Press ▲▼ to select [Back].
2) Press the <ENTER> button.
[Setting] menu

[HDMI setup]
If the image cannot be correctly displayed when an external device is connected to the projector using HDMI, change the settings.

1) Press ▲▼ to select [HDMI setup].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>Normal</th>
<th>Enhanced</th>
</tr>
</thead>
</table>

[Normal] Select when the output from the external device is “NORMAL”.
[Enhanced] Select when the output from the external device is “ENHANCED”.

*1: The titles of the output settings differ depending on the device. For details, refer to the operating instructions of the external device.

[Logo]
Sets logo selection and the PIN code for logo selection.

1) Press ▲▼ to select [Logo].
2) Press the <ENTER> button.
3) Press ▲▼ to select [Logo select].

1) Select [Logo select], and press the <ENTER> button.
2) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>Off</th>
<th>User*1</th>
<th>Default</th>
</tr>
</thead>
</table>

[Off] Clears logo from screen.
[User]*1 Displays the image registered by the user.
[Default] Displays in the factory default settings.

*1: Available when the image is registered.

Note
- The entered PIN code is displayed with * mark on the screen.
- The factory default setting for the logo PIN code is “4321”.
- To re-enter a number, press ▼ to select the digit to re-enter, then press ▲▼ or the number (<0> - <9>) buttons to re-select the number.
- Move the cursor to [Cancel] and press the <ENTER> button to return to the sub menu 2.
- If [Logo PIN code] and the number are displayed in red, an error has occurred. Re-enter the number.

[Logo PIN code lock]
Sets the system to make the setting and changing of the “logo” only by the administrator.

1) Select [Logo PIN code lock], and press the <ENTER> button.
   ● The PIN code input screen is displayed.
2) Press ▲▼ or the number (<0> - <9>) buttons to enter the PIN code.
3) Press ▲▼ to select [Set].
4) Press the <ENTER> button.
   ● If the PIN code is accepted, the projector returns to the sub menu 2.
5) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>Off</th>
<th>On</th>
</tr>
</thead>
</table>

[Off] The logo selection can be changed without the PIN code.
[On] The PIN code is required to change the logo selection.

Note
- “Logo Transfer Software” is required to register the image.
**[Logo PIN code change]**

Changes the logo PIN code.

1) Select [Logo PIN code change], and press the <ENTER> button.
   - The PIN code input screen is displayed.
2) Press ▲▼◆ or the number (<0> - <9>) buttons to enter the PIN code.
3) Press ▲▼◆ to select [Set].
4) Press the <ENTER> button.
   - If the PIN code is accepted, the new logo PIN code is displayed on the screen.
5) Press ▲▼◆ or the number (<0> - <9>) buttons to set your new PIN code.
6) Press the <ENTER> button.
7) Select [Yes], and press the <ENTER> button.
   - If the PIN code is accepted, the projector returns to the sub menu 2.

**Note**

- To re-enter a number, press ◄► to select the digit to re-enter, then press ▲▼ or the number (<0> - <9>) buttons to re-select the number.
- Move the cursor to [Cancel] and press the <ENTER> button to return to the sub menu 2.

**[Fan control]**

The projector controls the rotation of the fan automatically. You can make the rotation of the fan stronger depending on the ambient temperature or where the projector is installed (for example, when it is to be used at a high altitude).

1) Press ▲▼ to select [Fan control].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>[Normal]</th>
<th>[Max]</th>
</tr>
</thead>
</table>

- **[Normal]** Controls the fan operation automatically.
- **[Max]** Forces the fan to work at maximum capacity. Then sound of the fan rotating will be louder than with [Normal].

**[Remote control]**

Allows simultaneous control or individual control with a single remote control when multiple projectors are used side by side.

1) Press ▲▼ to select [Remote control].
2) Press the <ENTER> button.
3) Press ▲▼ to select.
   - The factory default setting is [All].

| [All] | Makes projector accept input from remote control of any ID number. |
| [Code 01] - [Code 64] | Sets ID numbers from 1 - 64. |

4) Press the <ENTER> button.
5) Select [Yes], and press the <ENTER> button.
   - [Remote control] will change.
   - Returns the projector to the sub menu.

**Note**

- When the ID number of the projector is changed, the ID number of remote control must be matched to the ID number of the projector.
- If a projector is set to [All] with multiple projectors in use, the projector cannot be controlled separately from the projectors with other ID numbers.

**[RC sensor]**

Enables and disables the remote control sensor on the projector body.

1) Press ▲▼ to select [RC sensor].
2) Press the <ENTER> button.
   - The sub menu 2 is displayed.
3) Press ▲▼ to switch the setting.

| [Both] | Enables all sensors on front or rear of the projector body. |
| [Front] | Enables only remote control sensor on front of the projector body. |
| [Back] | Enables only remote control sensor on rear of the projector body. |
[Setting] menu

[Power management]

1) Press ▲▼ to select [Power management].

2) Press the <ENTER> button.
   ● The sub menu 2 is displayed.

3) Press ▲▼ to select an item, and press the <ENTER> button.

<table>
<thead>
<tr>
<th>[Off]</th>
<th>Cancels power management function.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Ready]</td>
<td>Turns off the lamps and starts cooling when the time set using [Timer] has elapsed. While lamp is being cooled, the standby indicator &lt;STANDBY&gt;, and the power indicator &lt;POWER&gt; are flashing, you cannot operate the projector. When lamp cooling has finished, the power indicator &lt;POWER&gt; continues flashing and the standby indicator &lt;STANDBY&gt; lights up instead of flashing, indicating that the projector is now in the power management mode. From this point, if a signal is input or operations are performed on the projector, the lamps will turn on and the projection will start.</td>
</tr>
<tr>
<td>[Shut down]</td>
<td>Turns off the lamps and starts cooling when the time set using [Timer] has elapsed. During lamp cooling, you cannot operate the projector. When lamp cooling has finished, the power will turn off.</td>
</tr>
<tr>
<td>[Timer]</td>
<td>Sets times from 1 - 30 minutes.</td>
</tr>
</tbody>
</table>

[Direct on]

This is a function for automatically switching on the power of the projector when the power cord is connected, without requiring operations on the power <POWER ON> button on the remote control or the power <Ủ>/<>] button on the control panel.

1) Press ▲▼ to select [Direct on].

2) Press the <ENTER> button.

3) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>[Off]</th>
<th>Enables normal operations to turn on/off the power.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[On]</td>
<td>Allows power to be turned on directly.</td>
</tr>
</tbody>
</table>

Note

● Be sure to turn on/off the power using the correct operations.
● Pressing the power <POWER ON> button on the remote control or the power <Ủ>/<>] button on the projector will not turn on the power until the lamp cooling has finished and the lamps are ready to be turned on again.

Note

● The factory default setting is [Off].
● The power management function cannot be used when the freeze function (page 47) or shutter function (page 47) is in use.
● When the power management function is started, [P-timer] is reset.
[Security]
Locks projector operations using button locking and the PIN code.

1) Press ▲▼ to select [Security].
2) Press the <ENTER> button.
   ● The sub menu 2 is displayed.
3) Press ▲▼ to select.

[Key lock]
Locks the control buttons to prevent mistaken operations of the projector.

1) Select [Key lock], and press the <ENTER> button.
2) Press ▲▼ to switch the setting.
   ● The setting will change as follows each time you press the button.
   
   - Key lock is off.
   - Locks operations from the control panel.
   - Locks operations from the remote control.
3) Press the <ENTER> button.
4) Select [Yes], and press the <ENTER> button.

Note
● The factory default setting is off.
● If you are unable to unlock, please consult your dealer.

[PIN code lock]
Sets the PIN code to restrict projector operations to the administrator.

1) Select [PIN code lock], and press the <ENTER> button.
   ● The PIN code input screen is displayed.
2) Press ▲▼◀▶ or the number (<0> - <9>) buttons to enter the PIN code.
3) Press ▲▼◀▶ to select [Set].
4) Press the <ENTER> button.
   ● If the PIN code is accepted, the projector returns to the sub menu 2.
5) Press ▲▼ to switch the setting.

   - [Off]
   - [On 1]
   - [On 2]

   [Off] Allows normal operation without the PIN code.
   [On 1] The PIN code is required to turn on the power of the projector.
   [On 2] The PIN code is requested the next time you turn on the power after a disconnection of the power cord.
   ● When the power is turned on/off using the button on the remote control or the control panel but without disconnecting the power cord, the projector operates normally without requesting the PIN code.

Note
● The entered PIN code is displayed with * mark on the screen.
● The factory default setting for the PIN code is “1234”.
● To re-enter a number, press ◀▶ to select the digit to re-enter, then press ▲▼ or the number (<0> - <9>) buttons to re-select the number.
● Move the cursor to [Cancel] and press the <ENTER> button to return to the sub menu 2.
● If “PIN code” and the numbers are displayed in red, an error has occurred. Re-enter the number.
[Setting] menu

■ [PIN code change]
Changes the PIN code.

1) Select [PIN code change], and press the <ENTER> button.
   • The PIN code input screen is displayed.

2) Press ▲▼◄► or the number (<0> - <9>) buttons to enter the PIN code.

3) Press ▲▼◄► to select [Set].

4) Press the <ENTER> button.
   • If the PIN code is accepted, the new PIN code is displayed on the screen.

5) Press ▲▼◄► or the number (<0> - <9>) buttons to set your new PIN code.

6) Press the <ENTER> button.

7) Select [Yes], and press the <ENTER> button.
   • If the PIN code is accepted, the projector returns to the sub menu 2.

Note
• To re-enter a number, press ▲▼◄► to select the digit to re-enter, then press ▲▼ or the number (<0> - <9>) buttons to re-select the number.
• Move the cursor to [Cancel] and press the <ENTER> button to return to the sub menu 2.

[Projector ID]
Sets the projector ID (1 to 64) for the RS-232C serial communication.

1) Press ▲▼ to select [Projector ID].

2) Press the <ENTER> button.

3) Press ▲▼ to switch the setting.
   • The factory default setting is [All].

<table>
<thead>
<tr>
<th>[All]</th>
<th>Makes projector accept operations regardless of any ID number specified by the remote control or PC.</th>
</tr>
</thead>
<tbody>
<tr>
<td>[1] - [64]</td>
<td>Sets ID numbers from 1 - 64 to the projector.</td>
</tr>
</tbody>
</table>

[Shutter]
Sets the shutter function.

1) Press ▲▼ to select [Shutter].

2) Press the <ENTER> button.
   • The sub menu 2 is displayed.

3) Press ▲▼ to select.

■ [Protection]
Locks the button to prevent shutter operations.

1) Select [Protection], and press the <ENTER> button.

2) Press ▲▼ to switch the setting.
   • The setting will change as follows each time you press the button.

   Protection is off. Operation can be made from both remote control and projector.

   Locks operations from the remote control.

   Locks operations from the control panel.

   Locks operations from both the remote control and the control panel.
[Effect]
Sets special effects when shutter is opened and closed.

1) Select [Effect], and press the <ENTER> button.
2) Press ▲▼ to switch the setting.

- [Off]
  Does not set special effects.
- [L 1]
  Sets fade in and fade out when the shutter is opened and closed.
- [L 2]
  Sets slower fade in and fade out than L1.

[Release key]
Sets the release button when shutter is closed.

1) Select [Release key], and press the <ENTER> button.
2) Press ▲▼ to switch the setting.

- [Any]
  The shutter function is canceled by pressing any button on the remote control or projector body, and the function of the pressed button is executed.
- [SHUTTER]
  Only the <SHUTTER> button on the remote control or the control panel can be canceled.

Note
- If the power is turned on again after the power is turned off during the setting or the lamp is turned off with the [Management] setting, the shutter function is canceled.
- The setting of the selected item is enabled.

[Management]
Sets a time between closing of the shutter and the lamps turning off.

1) Select [Management], and press the <ENTER> button.
2) Press ▲▼ to select.

- You can set times from 5 - 480 minutes.

Note
- When the management function is active, the lamp is turned off and the projector will begin a cooling operation.
- When cooling has finished, the power of the projector body is turned off and the standby indicator <STANDBY> turns on.
- The shutter indicator <SHUTTER> begins flashing in blue as the cooling operation begins.
- The flashing continues after the cooling has finished and the standby indicator <STANDBY> has turned on.
- The flashing stops when the projector power is turned on again.
- The power management function does not work when the image is blocked by the [Shutter].
- The factory default setting is “180 minutes”.
- You can set the time while the function cannot be set to off.
[Video delay control]
Sets when you want to speed up digital processing of the images being projected.

1) Press ▲▼ to select [Video delay control].
2) Press the <ENTER> button.
3) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Off]</td>
<td>No change in digital processing</td>
</tr>
<tr>
<td>[Low]</td>
<td>Speed of digital processing increases through [Off] → [Low]</td>
</tr>
<tr>
<td>[High]</td>
<td>Speed of digital processing increases through [Off] → [Low] → [High]</td>
</tr>
</tbody>
</table>

Note
- The speed of digital processing increases through [Low] → [Mid] → [High].
- When each item is selected, the following items are grayed out and cannot be selected.

[Closed caption]
Sets the color of the closed captions and selections.

1) Press ▲▼ to select [Closed caption].
2) Press the <ENTER> button.
3) Press ▲▼ to select an item and press the <ENTER> button.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Closed caption]</td>
<td>[Off], [CC1], [CC2], [CC3], [CC4]</td>
</tr>
<tr>
<td>[Color]</td>
<td>[Color]/[White]</td>
</tr>
</tbody>
</table>

Note
- This function can only be used when the input signal is composite video or S-video.
- The closed caption is not displayed when the menu screen is displayed.

[Filter counter]

Displays usage time.

1) Press ▲▼ to select [Filter counter].
2) Press the <ENTER> button.
   - The sub menu 2 is displayed.
3) Press ▲▼ to select.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Filter counter]</td>
<td>Displays usage time.</td>
</tr>
<tr>
<td>[Filter counter remaining]</td>
<td>The remaining time for the filter counter is displayed in units of 10%.</td>
</tr>
</tbody>
</table>

Note
- This is displayed in red if a blockage is detected or if the usage time exceeds the time set in [Filter counter timer].
- This is displayed in red when the remaining time is 10%.

[Filter counter remaining]

The remaining time for the filter counter is displayed in units of 10%.

Note
- When the remaining time drops to 10% or below, ☢️ is displayed, and when it reaches 0%, ☢️ is displayed.
[Setting] menu

■ [Filter counter timer]
Sets a time to display a notification that the filter has reached the end of its replacement cycle.

1) Select [Filter counter timer], and press the <ENTER> button.

2) Press ▲▼ to switch the setting.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>000 H</td>
</tr>
<tr>
<td>12000 H</td>
<td>2000 H</td>
</tr>
<tr>
<td>8000 H</td>
<td>3000 H</td>
</tr>
<tr>
<td>6000 H</td>
<td>4000 H</td>
</tr>
</tbody>
</table>

**Note**
- When [Off] is selected, blockages are detected automatically.
- When the set time is exceeded, 📈 is displayed.

■ [Filter counter reset]
Resets the value of [Filter counter].

After replacing the filter, be sure to reset the counter.

1) Select [Filter counter reset], and press the <ENTER> button.
   - A screen for confirming whether to reset is displayed.

2) Select [Yes], and press the <ENTER> button.
   - The confirmation screen is displayed.

3) Select [Yes], and press the <ENTER> button.

**Note**
- Reset only after replacing the filter.
- When reset, the display of [Filter warning] disappears.

■ [Count up]
Elapsed time is counted from 00 min 00 sec.
Elapsed time from 00 min 00 sec to 180 min 00 sec is displayed.

■ [Count down]
Elapsed time is counted down from the set time.
Set the time using [Timer].

1) Select [Timer], and press the <ENTER> button.

2) Press ▲▼ to select.

**Note**
- The factory default setting is “10 minutes”.
- When [Count up] is selected, this item is grayed out and cannot be selected.

■ [Timer]
Sets the [Count down] time.

1) Select [Timer], and press the <ENTER> button.

2) Press ▲▼ to select.

■ [Start]
Starts the count-up or countdown.

1) Select [Start], and press the <ENTER> button.
   - The menu screen is cleared and the timer is displayed.

■ [Stop]
Pauses the count-up or countdown.

1) Select [Stop], and press the <ENTER> button.
   - The stopped state of the timer is displayed for approximately three seconds, then the display returns to the menu screen.

■ [P-timer]

1) Press ▲▼ to select [P-timer].

2) Press the <ENTER> button.
   - The sub menu 2 is displayed.

3) Press ▲▼ to select.
[Setting] menu

■ [Restart]
Restarts the count-up or countdown that was paused using [Stop].

1) Select [Restart], and press the <ENTER> button.
   - The menu screen is cleared and the timer is displayed.

■ [Reset]
Resets the counted time during operation.

1) Select [Reset], and press the <ENTER> button.
   - The menu screen is cleared and the timer is displayed.

■ [Exit]
Exits the presentation timer during operation.

1) Select [Exit], and press the <ENTER> button.
   - The timer ends, and the screen display returns to the sub menu.

Note
- You can also use [P-timer] by pressing the <P-TIMER> button on the remote control.

[Test pattern]

1) Press ▲▼ to select [Test pattern].

2) Press the <ENTER> button.
   - The sub menu 2 is displayed.

3) Press ▲▼ to select an item and press the <ENTER> button.
   - The test pattern and the test pattern name are displayed.
   - While the test pattern name is displayed, press ▲▼ to go backwards and forwards between test patterns.

<table>
<thead>
<tr>
<th>[Color]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[Gradation 1], [Gradation 2], [Gradation 3], [Gradation 4]</td>
</tr>
<tr>
<td>[All white]</td>
</tr>
<tr>
<td>[All black]</td>
</tr>
<tr>
<td>[Cross]</td>
</tr>
</tbody>
</table>

Displays the test pattern.

Note
- While the test pattern is displayed, press the <ENTER> button or the <MENU> button to return to the menu screen.
- Even while the test pattern is displayed, the zoom, focus, lens shift, shutter, and power off functions take priority.
- When the zoom, focus, or lens shift operation has finished, the projector returns to the test pattern.

[Factory default]

Returns settings other than the following to the factory default settings.
- [Logo PIN code lock]
- [PIN code lock]
- [Filter counter] (All items)
- The logo registered using the “Logo Transfer Software”

1) Press ▲▼ to select [Factory default].

2) Press the <ENTER> button.
   - A screen for confirming whether to restore the default setting is displayed.

3) Select [Yes], and press the <ENTER> button.
   - The confirmation screen is displayed.

4) Select [Yes], and press the <ENTER> button.

Note
- When you initialize the settings, all settings you have made are lost, and settings are restored to the factory default settings.
[Information] menu

Select [Information] from the main menu on the menu screen. For operation of the menu screen, refer to “Navigating through menu” (page 50).

- Press ◀▶ to switch the items.

Remote control

Control panel

■ You can also display sub menus using the <INFO.> button on the remote control.

Confirming the settings and usage state
Displays state of signals during projection, and current settings.

■ [Input]
Displays type of inputs and signals during projection.

■ [System]
Displays the status of the input signal during projection.

■ [H-sync freq.]
Displays H-sync frequency.

■ [V-sync freq.]
Displays V-sync frequency.

■ [Screen]
Displays the setting status of [Screen].

■ [Lamp select]
Displays the current [Lamp select] setting status.

■ [Lamp power]
Displays the current [Lamp power] setting status.

■ [Lamp interval]
Displays the setting value of the automatic replacement cycle of the lamp which is being used.

■ [Lamp 1]
Displays the usage time and status of the lamp 1.

■ [Lamp 2]
Displays the usage time and status of the lamp 2.

■ [Language]
Displays the current language.

■ [Filter counter]
Displays the actual usage time of the filter.

■ [Power management]
Displays the current [Power management] setting status.

■ [Key lock]
Displays the [Key lock] setting status.

■ [PIN code lock]
Displays the current [PIN code lock] setting status.

■ [Shutter management]
Displays the current [Shutter management] setting status.

■ [Remote control]
Displays the current [Remote control] setting status.

■ [Serial number]
Displays the serial number of the projector.

■ [Option control No.]
For details, refer to “Using the input module” (page 40).
# Network menu

Select [Network] from the main menu on the menu screen, and select the item from the sub menu.

For operation of the menu screen, refer to “Navigating through menu” (page 50).

- After selecting the item, press ◀▶▲▼ to make the setting.

<table>
<thead>
<tr>
<th>Remote control</th>
<th>Control panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Remote control diagram]</td>
<td>![Control panel diagram]</td>
</tr>
</tbody>
</table>

## Note
- Set when connecting the projector to a computer over a network. For details of PJLink and network, refer to “Operating Instructions – Network Operations”.

### [Projector name]
Changes the projector name on the network.

### [Network setup]
Sets the network environment.

### [Network control]
Sets up the control method of the network.

### [Network status]
Displays the network status of the projector.

### [Network factory default]
Returns the network settings to the factory default settings.
About indicator status

If an indicator turns on

If a problem occurs within the projector, it will be notified with the temperature indicator <WARNING TEMP.>/filter indicator <WARNING FILTER>/shutter indicator <SHUTTER>/lamp indicator <LAMP 1 REPLACE> and <LAMP 2 REPLACE>.

Check the status of the indicators and take the following action.

Attention

- Make sure to follow the procedures in “Powering off the projector” (page 44) to control the power when implementing measures.
- If multiple indicators have turned on or are flashing, check the status of each indicator and take the appropriate action.

Note

- Check the power status with the power indicator <POWER>. (page 42)
### About indicator status

#### When operating correctly

The status of the indicator is displayed with the following symbols.

- ▲: Off
- ●: On
- ★: Flashing
- ■: On or Flashing

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>▲ ▲ ▲ ▲ ▲ ▲</td>
<td>The projector is in the standby mode. Turns on when pressing the power &lt;POWER ON&gt; button on the remote control or the power &lt;ϕ/I&gt; button on the control panel.</td>
</tr>
<tr>
<td>▲ ● ▲'1 ▲'1 ▲'1</td>
<td>The projector is operating normally.</td>
</tr>
<tr>
<td>● ▲ ▲'1 ▲'1 ▲'1</td>
<td>The projector is in the power management mode. The lamp will turn on when controlling the projector, allowing the user to start operating it.</td>
</tr>
<tr>
<td>★'2 ● ▲'1 ▲'1 ▲'1</td>
<td>Power management mode is ON and the lamp is cooling down.</td>
</tr>
<tr>
<td>● ▲ ▲'1 ▲'1 ●'1</td>
<td>The shutter function has been turned on. Press any button on the remote control or the control panel to cancel the function.</td>
</tr>
<tr>
<td>▲ ● ● ▲'1 ▲'1 ★'2</td>
<td>The projector is in the shutter management mode. The lamp will turn on when controlling the projector, allowing the user to start operating it.</td>
</tr>
<tr>
<td>▲ ★'2 ▲ ▲'1 ★'2</td>
<td>Shutter management mode is on and the lamp is cooling down.</td>
</tr>
</tbody>
</table>

*1: The indicator will turn on or flash under certain conditions, regardless of the status of other indicators.

*2: The indicator will flash in approximately 1-second intervals.
### When there is a problem with internal temperature

The status of the indicator is displayed with the following symbols.

- **△**: Off
- **●**: On
- **★**: Flashing
- **■**: On or Flashing

#### Indicator

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;POWER&gt; Green</td>
<td>If the temperature within the projector becomes too high, the temperature indicator &lt;WARNING TEMP.&gt; will start to flash slowly.</td>
</tr>
<tr>
<td>&lt;STANDBY&gt; Red</td>
<td></td>
</tr>
<tr>
<td>&lt;WARNING TEMP.&gt; Red</td>
<td></td>
</tr>
<tr>
<td>&lt;WARNING FILTER&gt; Orange</td>
<td></td>
</tr>
<tr>
<td>&lt;SHUTTER&gt; Blue</td>
<td></td>
</tr>
<tr>
<td>&lt;LAMP 1 REPLACE&gt; Orange</td>
<td></td>
</tr>
<tr>
<td>&lt;LAMP 2 REPLACE&gt; Orange</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>●</td>
<td>If the temperature within the projector becomes even higher, the temperature indicator &lt;WARNING TEMP.&gt; will flash faster, the power indicator &lt;POWER&gt; will turn off, and the projector will turn off automatically. The projector will not turn back on even when pressing the power &lt;POWER ON&gt; button on the remote control or the power &lt;SHUTTER&gt; button on the control panel. When the projector returns to the normal operating temperature, the standby indicator &lt;STANDBY&gt; will change to on. The projector will turn back on when pressing the power &lt;POWER ON&gt; button on the remote control or the power &lt;SHUTTER&gt; button on the control panel. (The temperature indicator &lt;WARNING TEMP.&gt; will remain flashing.) Check the air filter.</td>
</tr>
<tr>
<td>★</td>
<td>The projector has cooled inside, and returned to operating temperature. Pressing the power &lt;POWER ON&gt; button on the remote control or the power &lt;SHUTTER&gt; button on the control panel will make the temperature indicator &lt;WARNING TEMP.&gt; stop flashing and operate the projector. Check the air filter.</td>
</tr>
</tbody>
</table>

*1: The indicator will flash in approximately 2-second intervals.

*2: The indicator will turn on or flash under certain conditions, regardless of the status of other indicators.

*3: The indicator will flash in approximately 1-second intervals.

*4: The indicator will flash in approximately 0.5-second intervals.
About indicator status

When there is a problem with internal power

The status of the indicator is displayed with the following symbols.

△: Off, ●: On, ★: Flashing, ■: On or Flashing

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;POWER&gt; Green</td>
<td>&lt;STANDBY&gt; Red</td>
</tr>
<tr>
<td>☆'1</td>
<td>●</td>
</tr>
</tbody>
</table>

A problem has been detected within the projector. The projector will not turn back on even when pressing the power <POWER ON> button on the remote control or the power <◇/1> button on the control panel. Remove the power plug from the outlet, and plug it back in again. If the power turns off, or the indicator turns on or flashes again, remove the power plug from the outlet and contact your dealer to request an inspection and repair. Do not leave the projector plugged in with the indicator on or flashing. Doing so may cause a fire or electric shock.

*1: The indicator will flash in approximately 0.5-second intervals.

When there is a problem with the air filter

The status of the indicator is displayed with the following symbols.

△: Off, ●: On, ★: Flashing, ■: On or Flashing

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;POWER&gt; Green</td>
<td>&lt;STANDBY&gt; Red</td>
</tr>
<tr>
<td>■'1</td>
<td>■'1</td>
</tr>
</tbody>
</table>

The indicator notifies you when the time set with [Filter counter timer] (page 83) has been reached. Replace the air filter. ( will be shown at the top right of the screen simultaneously.) Alternatively, the indicator notifies you when [Filter counter remaining] becomes 0%. Replace the air filter. ( will be shown at the top right of the screen simultaneously.*2)

*1: The indicator will turn on or flash under certain conditions, regardless of the status of other indicators.

*2: When [Display] (page 69) is set to [On], the freeze function (page 47) or shutter function (page 47) will not be displayed on the screen during operation.
When there is a problem with the lamp

The status of the indicator is displayed with the following symbols.

- ▲: Off, ●: On, ★: Flashing, ■: On or Flashing

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
</table>
| <POWER>  | <STANDBY> <WARNING TEMP> <WARNING FILTER> <SHUTTER> <LAMP 1 REPLACE> <LAMP 2 REPLACE> | Either or both of the lamps do not turn on. (If both of the lamps fail, they are cooling down. After the standby indicator <STANDBY> turns on again, press the power <POWER ON> button on the remote control or the power <I/O> button on the control panel.)
| ■*1     | ■*1                    | The recommended time to replace the lamp has been reached. The ⬤ will be displayed at the top right of the screen to notify the user of replacement. Replace the lamp unit as soon as possible. Replacing the lamp will cause the lamp indicator <LAMP 1 REPLACE>/<LAMP 2 REPLACE> to turn off. |

*1: The indicator will turn on or flash under certain conditions, regardless of the status of other indicators.

*2: The indicator will flash in approximately 1-second intervals.

**Note**
The status of each lamp can be checked as the lamp indicators <LAMP 1 REPLACE>/<LAMP 2 REPLACE> on the front of the projector turn on or flash. (▶ page 96)

When there is a problem with the shutter

The status of the indicator is displayed with the following symbols.

- ▲: Off, ●: On, ★: Flashing, ■: On or Flashing

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Status of the projector</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;POWER&gt;</td>
<td>&lt;STANDBY&gt; &lt;WARNING TEMP&gt; &lt;WARNING FILTER&gt; &lt;SHUTTER&gt; &lt;LAMP 1 REPLACE&gt; &lt;LAMP 2 REPLACE&gt;</td>
</tr>
<tr>
<td>▲</td>
<td>★*3</td>
</tr>
<tr>
<td>▲</td>
<td>●</td>
</tr>
</tbody>
</table>

*1: The indicator will turn on or flash under certain conditions, regardless of the status of other indicators.

*2: The indicator will flash in approximately 0.5-second intervals.

*3: The indicator will flash in approximately 1-second intervals.

**Note**
The status of each lamp can be checked as the lamp indicators <LAMP 1 REPLACE>/<LAMP 2 REPLACE> on the front of the projector turn on or flash. (▶ page 96)
Maintenance/replacement

Before cleaning/replacing the unit

- When cleaning or replacing the unit, always turn off the power and remove the power plug from the outlet. (-pages 41, 44)
- When turning off the power, make sure to follow the procedures in “Powering off the projector” (page 44).

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 solvents such as benzene, thinner, rubbing alcohol, household cleaners, or chemical wipes. Using them may cause deterioration of the outer case.

■ Front surface of the lens
Wipe off dirt and dust on the front surface of the lens with a soft, dry, and clean cloth.
- Do not use a cloth that is fluffy, dusty, or soaked with oil/water.
- Do not use excessive force when wiping the lens as it is fragile.

Attention
- Lenses are made of glass. Impacts or excessive force when wiping may scratch its surface. Please handle with care.
- Never use flammable solvents or air sprays on or around the projector. The temperature within the projector may be extremely hot due to the projection lamp operation. An explosion or fire may still occur even after turning off the projector. Other than flammable air spray, the internal parts may also become damaged due to cold air.
### Air filter

Clean the air filter in the following cases.
- When the replacement message is displayed and the filter indicator <WARNING FILTER> lights up due to a blockage.
- The temperature inside the projector becomes high and the temperature indicator <WARNING TEMP.> lights, causing the projector to turn off, due to a blockage. (When the power is turned off, the temperature indicator <WARNING TEMP.> and standby indicator <STANDBY> flashes.)

1) **Slide the air filter cover.**
   - Pull and slide the air filter cover in the direction shown by the arrow.
   - The top part of the air filter appears.

2) **Remove the air filter.**
   - Hold the grip of the air filter to pull up.

3) **Clean the air filter.**
   - **Removing the dust from the air filter**
     1. Remove the dust from the air filter using a vacuum or other cleaner.
        - If the dust persists after cleaning with a vacuum, wash the air filter in water.
   - **Washing the air filter**
     1. Soak the air filter in water or warm water and rinse it lightly.
        - Do not use materials such as blushes or detergent.
        - When you rinse the air filter, hold the frame and avoid excessive force on the filter part.
Maintenance/replacement

(ii) Change the water two or three times while you rinse the air filter.
   • Rinse it until the cloud of the water clears. If the air filter is not rinsed sufficiently, odor may result.

- Drying the air filter
  Naturally dry the air filter in a well-ventilated place, avoiding dust and direct sunlight.
  • Do not use a hair drier or other drier.

4) Attach the air filter.
   • Insert the air filter with its tabs facing down.

5) Slide the air filter cover to the original position.
   • Perform Step 1) in the reverse order.

6) Reset the filter counter.
   • Turn on the power and perform [Filter counter reset] in the [Setting] menu.

Attention
- After washing the air filter, dry it thoroughly before attaching to the projector. Attaching wet air filter may cause electric shock or malfunction.

Note
- Be sure to attach the air filter properly. If you use the projector without attaching the air filter, the projector may be damaged due to the dirt or dust.
- If the air filter has been damaged or dirt remains even after washing it, replace it with a new filter (Product No.: ET-RFE12).
- It is recommended that the air filter is replaced after two times of cleaning and reusing.
- After washing, the capability of the air filter may decrease.
- After washing the air filter, reset the filter counter. Otherwise, the power of the projector may be turned off for safety.
Replacing the parts

Air filter
The replacement filter (Product No.: ET-RFE12) is optional. To purchase the product, consult your dealer.

Replacement of the air filter

1) Slide the air filter cover.
   - Pull and slide the air filter cover in the direction shown by the arrow.
   - The top part of the air filter appears.

2) Remove the air filter.
   - Hold the grip of the air filter to pull up.

3) Attach a new air filter.
   - Insert a new air filter with its tabs facing down.

4) Slide the air filter cover to the original position.
   - Perform Step 1) in the reverse order.

5) Reset the filter counter.
   - Turn on the power and perform [Filter counter reset] in the [Setting] menu.

Attention
- Make sure to turn off the power before replacing the air filter.
- Before attaching a new air filter, be sure to remove the packing material of the air filter.
- When attaching the unit, make sure that the projector is stable. Perform the replacement in a safe place where the projector will not be damaged even if you drop the air filter.
- When turning the projector on, make sure that the air filter is installed before using the projector. Failure to do so may cause damage.
- After replacing the air filter, reset the filter counter. Otherwise, the power of the projector may be turned off for safety.
Maintenance/replacement

■ Lamp unit
The lamp unit is a consumable component. Check the lamp usage duration with “[Information] menu” (page 85) and perform regular replacement.
If the replacement message is displayed on the screen and the lamp indicators <LAMP 1 REPLACE>/<LAMP 2 REPLACE> turn on, replace the lamp units.
It is recommended that you request a qualified technician to replace the lamp unit. Consult your dealer.
Consult your dealer to purchase the part ET-LAE12 (serviceable part).

Attention
● Do not replace the lamp unit until it has cooled down sufficiently. (Wait at least 60 minutes after use.)
The inside of the cover is very hot and may cause burns.

■ Notes on the replacement of the lamp unit
  ● Since the luminous lamp is made of glass, it may burst if dropped or hit with a hard object. Please handle with care.
  ● A Phillips screwdriver is necessary when replacing the lamp unit.
  ● When replacing the lamp unit, be sure to hold it by the handle.
  ● The lamp contains mercury. When disposing of the used lamp unit, ask your nearest local authorities or dealer about proper disposal of the unit.

Attention
● Use only specified lamp units.
● The product numbers of accessories and separately sold components are subject to change without notice.
● Replacement of all two lamps simultaneously is recommended to ensure a balanced brightness and tint.

■ When to replace the lamp unit
The lamp unit is a consumable component. Replace the lamp unit regularly, as its brightness gradually decreases over time. The estimated duration before replacement is 2,000 hours (when [Lamp power] is set to standard). However, this may shorten depending on individual lamp characteristics, usage conditions, and the installation environment. Earlier replacement of lamp units is recommended for this reason.
The duration exceeds 2,200 hours of usage for one lamp, the lamp will be switched to the other one if it is available.
If the power is turned on without replacing the lamps after the duration exceeds 2,200 hours of usage for all lamps, the power automatically turns off after approximately ten minutes to prevent the malfunction of the projector.

<table>
<thead>
<tr>
<th>On-screen display</th>
<th>Lamp indicator &lt;LAMP 1 REPLACE&gt;/&lt;LAMP 2 REPLACE&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="On-screen display" /></td>
<td><img src="image" alt="LAMP 2 REPLACE" /> <img src="image" alt="LAMP 1 REPLACE" /></td>
</tr>
</tbody>
</table>

The lamp replacement instructions notify the replacement time, and the lamp status notifies which lamp to replace.

Turns orange.
Replacing the lamp unit

Attention
- Turn off the UV lamp before opening the lamp cover.
- When the projector is mounted on the ceiling, do not put your face near the lamp unit.
- Attach the lamp unit securely.
- If the lamp unit is not attached properly, remove it and then attach it again. Forcing the lamp unit in may break the connector.
- The glass surface may be hot. When replacing the lamp unit, be sure to hold it by the handle.

1) Check which lamp to replace with the lamp status displayed on the screen, or the lamp indicators <LAMP 1 REPLACE>/<LAMP 2 REPLACE>.

2) After following the procedures described in “Powering off the projector” (page 44) and pressing the <O> side of the main power switch to turn off the power, disconnect the power plug from the power outlet, and wait at least 60 minutes, and then check if the lamp unit has cooled down.

3) Use a Phillips screwdriver to turn the lamp cover fixing screw until it turns freely, and then open the lamp cover.
   - Pull the lamp cover in the direction of arrow (i) and lift it up in the direction of arrow (ii) to open.
4) Use a Phillips screwdriver to turn the lamp unit fixing screws (two screws) until they turn freely, and then holding the handle, slowly pull out the lamp unit from the projector.

5) Insert the new lamp unit taking note of its direction, and use a Phillips screwdriver to firmly tighten the lamp unit fixing screws (two screws).
   - Do not smear the glass surface by touching it with your hand.

6) Close the lamp cover, and use a Phillips screwdriver to firmly tighten the lamp cover fixing screw.

**Note**
- When replacing with the new lamp unit (Product No.: ET-LAE12), the projector resets the total usage time of the lamp unit automatically.
- After replacing the lamp unit, be sure to tighten the lamp cover fixing screw. If not, the lamp unit may drop off while projecting.

<table>
<thead>
<tr>
<th>TURN OFF THE UV LAMP BEFORE OPENING THE LAMP COVER</th>
</tr>
</thead>
<tbody>
<tr>
<td>To prevent glass fragments from scattering, hold the lamp unit vertically when replacing it. When the projector is attached to the ceiling, do not work directly under the lamp cover or put your face near it. Remove the lamp cover slowly.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAMP NO. : ET-LAE12</th>
</tr>
</thead>
</table>
## Troubleshooting

Review the following points. For details, refer to the corresponding pages.

<table>
<thead>
<tr>
<th>Problem</th>
<th>Points to be checked</th>
<th>Page</th>
</tr>
</thead>
</table>
| Power does not turn on. | - Is the power plug firmly inserted into the outlet?  
- Is the main power switch turned to <O>?  
- Is the power supplied from the outlet?  
- Have the circuit breakers tripped?  
- Is the power indicator <POWER> turned off?  
- Is the temperature indicator <WARNING TEMP.> flashing? | 44, 42, 87 |
| No picture appears. | - Is the picture (output) device connected correctly?  
- Is the input selection set correctly?  
- Is the external device that is connected to the projector working properly?  
- Is the projector being used within the operating temperature range (0°C (32°F) to 40°C (104°F))? | 36, 47, 115 |
| The picture is fuzzy. | - Is the lens focus set correctly?  
- Is the projection distance appropriate?  
- Is the lens dirty?  
- Is the projector installed perpendicular to the screen?  
- Is there condensation on the lens? | 46, 33, 92, — |
| The color is pale/ The tint is grayish. | - Are [Color] and [Tint] adjusted correctly?  
- Is the device that is connected to the projector adjusted correctly?  
- Is the RGB cable damaged? | 60, —, — |
| The picture is dark. | - Are [Contrast] and [Brightness] adjusted correctly?  
- Is [Image select] adjusted correctly?  
- Is [Lamp select] set to [1-Lamp]?  
- Is [Lamp power] set to eco mode?  
- Is it time for the lamp to be replaced? | 60, 59, 70, 70, 96 |
| The remote control does not work. | - Are the batteries flat?  
- Are the batteries inserted in the correct direction?  
- Is the remote control <ON>/<OFF> switch set to <ON>?  
- Are there any obstructions between the remote control and the projector’s remote control sensor?  
- Is the remote control being used beyond its effective operating range?  
- Are other forms of light, such as fluorescent lights, affecting the projection?  
- Is the remote control cable connected to the projector?  
- Is the remote control operation locked with [Key lock] in the [Setting] menu?  
- Is [RC sensor] set correctly in the [Setting] menu?  
- Has the remote control number been changed? | 24, 19, 19, 19, 24, 24, 79, 77, 77, 24, 77 |
## Troubleshooting

<table>
<thead>
<tr>
<th>Problem</th>
<th>Points to be checked</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>The control buttons of the projector do not work.</td>
<td>* Is the projector operation locked with [Key lock] in the [Setting] menu?</td>
<td>79</td>
</tr>
<tr>
<td>The correct picture is not displayed.</td>
<td>* Is [Input] selected correctly?</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>* Is [Image adjust] adjusted correctly?</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>* Is [Screen] selected correctly?</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>* Is the lens shift in its maximum position?</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>* Is there a problem with the video tape or other picture sources?</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>* Is the projector receiving incompatible signals?</td>
<td>111</td>
</tr>
<tr>
<td>The picture from the computer is not displayed.</td>
<td>* Is the cable too long? (Use a cable that is 10 m (32'10&quot;) or shorter.)</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>* Is [Input] selected correctly?</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>* Is [PC adjust] adjusted correctly?</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>* Is the external video output of the laptop computer set correctly? (Example: The external output settings may switch by pressing the Fn + F3 or Fn + F10 keys simultaneously. Refer to the user manual provided with your computer, as the method varies depending on the type of computer.)</td>
<td>—</td>
</tr>
<tr>
<td>[Auto PC adj.] does not work.</td>
<td>* Is the projector receiving incompatible signals?</td>
<td>111</td>
</tr>
<tr>
<td></td>
<td>* Is an incompatible signal selected with [System]?</td>
<td>55</td>
</tr>
<tr>
<td>There is no picture from HDMI compatible devices, or the picture is distorted.</td>
<td>* Is the HDMI cable firmly connected?</td>
<td>36, 37</td>
</tr>
<tr>
<td></td>
<td>* Turn off/on the power of the projector and connected devices.</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>* Is an incompatible signal connected?</td>
<td>113</td>
</tr>
<tr>
<td></td>
<td>* Is the projector being used without replacing the air filter or performing [Filter counter reset] after 🛠️ is displayed in the top right of the screen?</td>
<td>83</td>
</tr>
<tr>
<td>The shutter function does not work.</td>
<td>* Is [Protection] in [Shutter] set correctly in the [Setting] menu?</td>
<td>80</td>
</tr>
</tbody>
</table>

### Attention
- If problems persist even after checking the preceding points, consult your dealer.
- Consult your dealer if you have forgotten the logo password or password.
Adjusting screens of multiple screen images

[Edge blending] and [Color matching] allow images from multiple projectors to be overlapped seamlessly.

■ [Edge blending]

1) Check that the settings of [Screen] and [Image adjust] of each projector are the same.

2) Project images from each projector that you want to overlap.
   - The following is an example of how to overlap images from projector A and B.

3) Select [Edge blending] in the [Setting] menu and display the setting screen.

4) Select [Edge blending] to turn it [On], and then press [Start] and [Width] to adjust the overlapping position and the amount of overlap (blending width) of images from projectors A and B respectively.
   - The following values are an example.
   - Set [Width] to the same value for all projectors to be overlapped.

   Projector A: Set [Right] in [Width] to 100

5) Where required, adjust the focus and zoom for the image position from each projector.
6) Then use [Lens shift] to overlap the shaded areas.
   - The red line will turn yellow if it is overlapped correctly.

7) Turn [Test pattern] to [On] to display a 50% white test pattern.
   - The overlapping areas will be displayed more brightly than other areas.

8) Adjust [Black level] so that there is no difference between the overlapping areas and other areas.
   - To adjust the overlapping areas, setting a smaller value to the [Contrast] in the [Image adjust] menu is recommended.

   If the left and right colors do not match, proceed to the following step.

■ [Color matching]

9) Select [Color matching] in the [Setting] menu and display the setting screen.

10) Turn on color matching with [On] and adjust [Red]/[Green]/[Blue]/[White].

11) Select [Advanced color matching] if more detailed settings are required, and display the setting screen.

12) Turn on advanced color matching with [On] and adjust each color with [Target].
   - Set the [Target] value to within the [Measured] value range.

   Example) Value for “[Red], x”
   “[Measured] = 0.674”, so [Target] is set to a smaller value of “0.650”.

13) If the colors do not match even after adjusting [Target], use a colorimeter to measure the chromaticity coordinates and luminance to make further adjustments.
Adjusting colors with a colorimeter

1) Turn [Advanced color matching] to [On].

2) Select [Test pattern] and press the <ENTER> button.
   - Displays the test pattern selection screen.

3) Select [Red] (or [Green], [Blue]) from [Measured] and press the <ENTER> button.
   - The test pattern is displayed.

4) Measure the chromaticity coordinates (x, y) and luminance (Lx) using the colorimeter.

5) Select [Exit] and press the <ENTER> button.
   - Return to the advanced color matching setting screen.

6) Enter the value obtained in Step 4).

7) Calculate the “L” value from the following formula and enter the value.
   Example) Calculate “L” for the measured red value.

   \[
   \text{Luminance (Lx) of red} \\
   \text{Luminance of red + luminance of green + luminance of blue (Lx)}
   \]

8) Adjust the [Target] value again.

9) Select [Store] to register the adjusted value.
   - Where required, adjust other projectors in the same way.
PJLink

This projector complies with Class1 as defined by JBMIA (Japan Business Machine and Information System Industries Association) PJLink standards. This projector is compatible with all commands defined by PJLink Class1, and verifies that it complies with Class1 standards defined by PJLink.

<table>
<thead>
<tr>
<th>Projector input name</th>
<th>PJLink</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input name</td>
</tr>
<tr>
<td>INPUT 1</td>
<td>RGB (PC Analog)</td>
</tr>
<tr>
<td></td>
<td>RGB (Scart)</td>
</tr>
<tr>
<td></td>
<td>RGB (PC Digital)</td>
</tr>
<tr>
<td></td>
<td>RGB (AV HDCP)</td>
</tr>
<tr>
<td></td>
<td>HDMI</td>
</tr>
<tr>
<td></td>
<td>INPUT 1</td>
</tr>
<tr>
<td>INPUT 2</td>
<td>Video</td>
</tr>
<tr>
<td></td>
<td>Y,Pb/Cb,Pr/Cr</td>
</tr>
<tr>
<td></td>
<td>RGB</td>
</tr>
<tr>
<td></td>
<td>S-video</td>
</tr>
<tr>
<td></td>
<td>INPUT 2</td>
</tr>
<tr>
<td>INPUT 3</td>
<td>INPUT 3</td>
</tr>
<tr>
<td>INPUT 4</td>
<td>INPUT 4</td>
</tr>
</tbody>
</table>
PJLink

The PJLink subcommittee was established within the Data Projector Group in September 2003. The new PJLink interface specification for projectors was stipulated by the PJLink subcommittee as part of its first year of activities. PJLink is a unified standard for the control and management of projectors. The standard allows centralized management of projectors and operation with a controller, regardless of manufacturer.

JBMIA aims to provide early systemization of monitoring and control of network projectors, which will become mainstream in the future, delivering greater convenience to the user and making projectors more widely used.

Class1: standardization of the projector's basic control and monitoring functions.
Basic projector control: power control, input selection, etc.
Acquisition of each type of projector information and status: power status, input selection status, error status, lamp cumulative operating time, etc.

JBMIA: Japan Business Machine and Information System Industries Association. Association that changed its name on April 1, 2002, from Japan Business Machine Makers Association (JBMA), which was established in 1960.

PJLink™ PJLink is a registered trademark of JBMIA and pending trademark in some countries.
PJLink URL: http://pjlink.jbmia.or.jp/english/

Serial terminal

The projector <SERIAL IN>/<SERIAL OUT> connection terminals conform with RS-232C so that the projector can be connected to and controlled from a computer.

Connection

● Single projector

Connecting terminals on projector

● Multiple projectors

Connecting terminals on projector 1

Connecting terminals on projector 2

Serial cable (straight)
Technical Information

■ Pin assignments and signal names

<table>
<thead>
<tr>
<th>Pin assignments and signal names</th>
<th>Pin No.</th>
<th>Signal name</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>&lt;SERIAL IN&gt; terminal</strong></td>
<td>(1)</td>
<td>—</td>
<td>NC</td>
</tr>
<tr>
<td>Outside view</td>
<td>(2)</td>
<td>TXD</td>
<td>Transmitted data</td>
</tr>
<tr>
<td></td>
<td>(3)</td>
<td>RXD</td>
<td>Received data</td>
</tr>
<tr>
<td></td>
<td>(4)</td>
<td>—</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td>(5)</td>
<td>GND</td>
<td>Ground</td>
</tr>
<tr>
<td></td>
<td>(6)</td>
<td>—</td>
<td>NC</td>
</tr>
<tr>
<td></td>
<td>(7)</td>
<td>CTS</td>
<td>Connected internally</td>
</tr>
<tr>
<td></td>
<td>(8)</td>
<td>RTS</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(9)</td>
<td>—</td>
<td>NC</td>
</tr>
</tbody>
</table>

| **<SERIAL OUT> terminal**        | (1)     | —             | NC       |
| Outside view                     | (2)     | RXD           | Received data |
|                                  | (3)     | TXD           | Transmitted data |
|                                  | (4)     | —             | NC       |
|                                  | (5)     | GND           | Ground   |
|                                  | (6)     | —             | NC       |
|                                  | (7)     | RTS           | Connected internally |
|                                  | (8)     | CTS           |         |
|                                  | (9)     | —             | NC       |

■ Transmission conditions

<table>
<thead>
<tr>
<th>Signal level</th>
<th>RS-232C-compliant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sync. method</td>
<td>Asynchronous</td>
</tr>
<tr>
<td>Baud rate</td>
<td>19 200 bps*1</td>
</tr>
<tr>
<td>Parity</td>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Character length</th>
<th>8 bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop bit</td>
<td>1 bit</td>
</tr>
<tr>
<td>X parameter</td>
<td>None</td>
</tr>
<tr>
<td>S parameter</td>
<td>None</td>
</tr>
</tbody>
</table>

*1: Fixed to 9 600 bps when [AMX D. D.] is set to on.

■ Basic format

Transmission from the computer begins with STX, then the ID, command, parameter, and ETX are sent in this order. Add parameters according to the details of control.

```
STX [ID] [command] [parameter] [ETX]
```

<table>
<thead>
<tr>
<th>STX</th>
<th>ID</th>
<th>command</th>
<th>parameter</th>
<th>ETX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start (1 byte)</td>
<td>ID 2 characters (2 bytes)</td>
<td>ID 3 characters (3 bytes)</td>
<td>Parameter (undefined length)*1</td>
<td>End (1 byte)</td>
</tr>
</tbody>
</table>

| | | | | |
| | | | | |

*1: When sending commands without parameters, a colon (:) is not necessary.
Basic format (with sub command)

- **Parameter (6 bytes)**
  - Symbol `+` or `-` (1 byte) and set value or adjustment value (5 bytes)
- **Operation (1 byte)**
  - `=` (Value specified using parameter is set)

*1: When sending commands without parameters, the operation (E) and parameter are not necessary.

List of commands

The following list shows commands to control the projector via a computer.

### Command for projector control

<table>
<thead>
<tr>
<th>Command</th>
<th>Details</th>
<th>Note (parameters)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PON</strong></td>
<td>Power on</td>
<td>To check if the power is on, use the “Check power status” command.</td>
</tr>
<tr>
<td><strong>POF</strong></td>
<td>Power standby</td>
<td></td>
</tr>
<tr>
<td><strong>QPW</strong></td>
<td>Check power status</td>
<td>000 = Standby 001 = Power on</td>
</tr>
</tbody>
</table>
| **IIS** | Switch input signal | VID = Input 2 - video  
SVD = Input 2 - S-video  
RG1 = Input 1 - RGB (PC analog)  
RG2 = Input 2 - RGB  
DVI = Input 1 - RGB (PC digital)  
HD1 = Input 1 - HDMI  
SCT = Input 1 - RGB (Scart)  
AU1,SD1 = Input 3 - SDI1  
AU1,SD2 = Input 3 - SDI2  
AU2,SD1 = Input 4 - SDI1  
AU2,SD2 = Input 4 - SDI2 |
| **QSL** | Check used lamp | 0 = 2-Lamps  
1 = auto for 1-Lamp  
2 = Lamp 1 for 1-Lamp  
3 = Lamp 2 for 1-Lamp |
| **LPM** | Select used lamp | 0 = 2-Lamps  
1 = auto for 1-Lamp  
2 = Lamp 1 for 1-Lamp  
3 = Lamp 2 for 1-Lamp |
| **OLP** | Set lamp power | 0 = Normal  
2 = Auto  
3 = Eco mode 1  
4 = Eco mode 2 |
| **QLP** | Check lamp power | 0 = Normal  
2 = Auto  
3 = Eco mode 1  
4 = Eco mode 2 |
| **QSL** | Check lamp usage status | 1 = Lamp 1  
2 = Lamp 2 (when [Lamp power] is set to standard) |
| **OSH** | Shutter | 0 = Finish  
1 = Execute |
| **QSH** | Check shutter status | 0 = Finish  
1 = Execute |
| **VSE** | Change aspect ratio | 0 = NORMAL  
2 = WIDE  
5 = TRUE  
6 = FULL  
40 = ZOOM  
50 = CUSTOM |
| **QSE** | Check aspect ratio setting | 0 = NORMAL  
2 = WIDE  
5 = TRUE  
6 = FULL  
40 = ZOOM  
50 = CUSTOM |
| **QFI** | Check filter status | 6 = Filter counter remaining (ratio), responded in values 000 to 100 (unit: %) |
## Command for lens control

<table>
<thead>
<tr>
<th>Command</th>
<th>Subcommand</th>
<th>Details</th>
<th>Note (parameters)</th>
</tr>
</thead>
<tbody>
<tr>
<td>VXX</td>
<td>LNSI2</td>
<td>Lens H shift</td>
<td>+ 00000 = Fine adjustment 1 +, + 00001 = Fine adjustment 1 −, + 00100 = Fine adjustment 2 +, + 00101 = Fine adjustment 2 −, + 00200 = Rough adjustment 1 +, + 00201 = Rough adjustment 1 −</td>
</tr>
<tr>
<td>VXX</td>
<td>LNSI3</td>
<td>Lens V shift</td>
<td></td>
</tr>
<tr>
<td>VXX</td>
<td>LNSI4</td>
<td>Lens focus</td>
<td></td>
</tr>
<tr>
<td>VXX</td>
<td>LNSI5</td>
<td>Lens zoom</td>
<td></td>
</tr>
</tbody>
</table>
Other terminals

■ <S-VIDEO IN> terminal pin assignments and signal names

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal name</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>GND (luminance signal)</td>
</tr>
<tr>
<td>(2)</td>
<td>GND (color signal)</td>
</tr>
<tr>
<td>(3)</td>
<td>Luminance signal</td>
</tr>
<tr>
<td>(4)</td>
<td>Color signal</td>
</tr>
</tbody>
</table>

■ <ANALOG IN> terminal pin assignments and signal names

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal name</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>R</td>
</tr>
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<td>G</td>
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<tr>
<td>(3)</td>
<td>B</td>
</tr>
<tr>
<td>(9)</td>
<td>+5 V</td>
</tr>
<tr>
<td>(10)</td>
<td>DDC data</td>
</tr>
<tr>
<td>(11)</td>
<td>HD/SYNC</td>
</tr>
<tr>
<td>(14)</td>
<td>VD</td>
</tr>
<tr>
<td>(15)</td>
<td>DDC clock</td>
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</table>

(4) is not used.
(5) to (8), (10), and (11) are GND terminals.

■ <HDMI IN> terminal pin assignments and signal names

<table>
<thead>
<tr>
<th>Pin No.</th>
<th>Signal name</th>
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<tbody>
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<td>(4)</td>
<td>T.M.D.S data 1 +</td>
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<td>(5)</td>
<td>T.M.D.S data 1 shield</td>
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<tr>
<td>(6)</td>
<td>T.M.D.S data 1 –</td>
</tr>
<tr>
<td>(7)</td>
<td>T.M.D.S data 0 +</td>
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<td>(8)</td>
<td>T.M.D.S data 0 shield</td>
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<td>T.M.D.S data 0 –</td>
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<td>(10)</td>
<td>T.M.D.S clock +</td>
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<td>(12)</td>
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<tr>
<td>(13)</td>
<td>CEC</td>
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<td>(14)</td>
<td>—</td>
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<td>(15)</td>
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<td>(16)</td>
<td>SDA</td>
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<tr>
<td>(17)</td>
<td>DDC/CEC/GND</td>
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<tr>
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<td>(19)</td>
<td>Hot plug detection</td>
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### <DIGITAL IN> terminal pin assignments and signal names

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<th>Pin No.</th>
<th>Signal name</th>
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<td>T.M.D.S data 2 +</td>
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<td>(3)</td>
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<td>GND</td>
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<td>(4)</td>
<td>—</td>
<td>(16)</td>
<td>Hot plug detection</td>
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<td>(5)</td>
<td>—</td>
<td>(17)</td>
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<td>(18)</td>
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Outside view

![Diagram of terminal pin assignments and signal names](image-url)
## List of compatible signals

The following table specifies the types of signals compatible with the projector.

### When the signal is analog

<table>
<thead>
<tr>
<th>Screen display mode</th>
<th>Resolution*1 (dots)</th>
<th>Scanning frequency</th>
<th>Dot clock frequency (MHz)</th>
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<td>Vertical (Hz)</td>
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<td>640 x 480</td>
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<td>75.000</td>
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<td>66.600</td>
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<td>35.000</td>
<td>66.670</td>
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<td>640 x 480</td>
<td>31.470</td>
<td>59.880</td>
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<td>50.000</td>
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<td>86.000</td>
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## Technical Information

<table>
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<tr>
<th>Screen display mode</th>
<th>Resolution*1 (dots)</th>
<th>Scanning frequency</th>
<th>Dot clock frequency</th>
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*1: The “i” after the resolution indicates an interlaced signal.
*2: Not compatible with [True] in [Screen].
### When the signal is digital

<table>
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<tr>
<th>Screen display mode</th>
<th>Resolution*1 (dots)</th>
<th>Scanning frequency</th>
<th>Dot clock frequency (MHz)</th>
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<td></td>
<td></td>
<td>Horizontal (kHz)</td>
<td>Vertical (Hz)</td>
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<tr>
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<td>640 x 480</td>
<td>31.470</td>
<td>59.940</td>
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<td>800 x 600</td>
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<td>D-WXGA+ 1</td>
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<td>1 280 x 720</td>
<td>45.000</td>
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<tr>
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<tr>
<td>D-1080i</td>
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<td>33.750</td>
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<td>D-1080psf/30</td>
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<td>1 920 x 1 080</td>
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<td>1 920 x 1 080</td>
<td>56.250</td>
<td>50.000</td>
</tr>
</tbody>
</table>

*1: The “i” after the resolution indicates an interlaced signal.

*2: Only compatible with signals using an HDMI cable connected to the <HDMI IN> terminal.

---

**Note**

- The number of display dots is 1 024 x 768.
- A signal with a different resolution will be projected after converting the resolution to match the projector display.
- When interlaced signals are connected, there may be flickering in the projected image.
- The projector is not compatible with signals with a dot clock frequency of 230 MHz or higher.
The following table describes the specifications of the projector.

<p>| Specifications | PT-EX12KE/PT-EX12KU |
|----------------|--|---------------------|
| <strong>Model No.</strong> | | AC 100 V - 240 V 50 Hz/60 Hz |
| <strong>Power supply</strong> | | 100 V - 240 V 10.3 A 940 W Standby: 17 W |
| <strong>Power consumption</strong> | | |
| <strong>Power supply</strong> | | AC 100 V - 240 V 50 Hz/60 Hz |
| <strong>Power consumption</strong> | | 100 V - 240 V 10.3 A 940 W Standby: 17 W |
| <strong>LCD panel</strong> | | 4.57 cm (1.8&quot;) (aspect ratio 4:3) |
| <strong>Display system</strong> | | Three transparent LCD panels (RGB) |
| <strong>Drive system</strong> | | Polysilicon TFT active matrix system |
| <strong>Number of pixels</strong> | | 786 432 pixels (1 024 x 768 dots) x 3 panels |
| <strong>Luminous lamp</strong> | | 380 W NSHA UHM lamp x 2 |
| <strong>Light output</strong> | | 13 000 lm Usage conditions: [Lamp select]: [2-Lamps] [Lamp power]: auto or standard [Image select]: [Dynamic] [Advanced color]: [Auto] Lens Model No.: ET-ELS03 |
| <strong>Image signals that can be projected</strong> | | Refer to “List of compatible signals” (page 111). |
| <strong>Color system</strong> | | Six standards (NTSC/NTSC4.43/PAL/PAL-N/PAL-M/SECAM) |
| <strong>Screen size</strong> | | 1.02 m (40&quot;) – 15.24 m (600&quot;) |
| <strong>Screen aspect ratio</strong> | | 4:3 |
| <strong>Projection method</strong> | | Refer to “Projection method” (page 34). |
| <strong>Contrast ratio</strong> | | 4 000:1 Usage conditions: [Lamp select]: [2-Lamps] [Lamp power]: auto [Image select]: [Dynamic] [Advanced color]: [Auto] |
| <strong>Terminals</strong> | | |
| <strong>INPUT 1</strong> | | DVI-D input terminal 1 set, DVI-D 24 p (HDCP compliant) Digital signal TMDS (Transition Minimized Differential Signaling) |
| <strong>HDMI input terminal</strong> | | 1 set, HDMI 19 pin (HDCP, Deep color compliant) |
| <strong>Computer input terminal</strong> | | 1 set (D-Sub 15 p (female)) RGB signal 0.7 V [p-p] 75 Ω (G-SYNC: 1.0 V [p-p] 75 Ω) HD/SYNC TTL high impedance, automatic positive/negative polarity compatible VD, TTL high impedance, automatic positive/negative polarity compatible |
| <strong>INPUT 2</strong> | | RGB 5BNC input terminal 1 set (BNC 5 p) RGB signal 0.7 V [p-p] 75 Ω (G-SYNC: 1.0 V [p-p] 75 Ω) HD/SYNC TTL high impedance, automatic positive/negative polarity compatible VIDEO signal 1.0 V [p-p] 75 Ω negative sync Y Pb/Cb Pr/Cr signal Y: 1.0 V [p-p] negative sync, Pb/Cb: 0.7 V [p-p] 75 Ω, Pr/Cr: 0.7 V [p-p] 75 Ω S-VIDEO input terminal 1 set, Mini DIN 4 p Y 1.0 V [p-p], C 0.286 V [p-p] 75 Ω S1 signal compliant |
| <strong>Serial input/output terminal</strong> | | D-Sub 9 p 1 set, RS-232C-compatible computer control |
| <strong>USB terminal (used by service personnel)</strong> | | USB connector (1 set, series B) |
| <strong>Wired remote control terminal</strong> | | Mini jack |
| <strong>LAN terminal</strong> | | 1 set, RJ-45 for network connection, PJLink compliant, 10Base-T/100Base-TX |</p>
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<tr>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model No.</strong></td>
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<td>Power cable length</td>
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<tr>
<td>Outer case</td>
</tr>
<tr>
<td>Dimensions</td>
</tr>
<tr>
<td>Weight</td>
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<tr>
<td>Operating environment</td>
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</table>

<table>
<thead>
<tr>
<th>Remote control</th>
<th>Power supply</th>
<th>DC 3 V (AAA/R03/LR03 battery x 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating range</td>
<td>Approx. 5 m (196-27/32&quot;) (within 30º in each direction)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>102 g (3.6 ozs.) (including batteries)</td>
<td></td>
</tr>
<tr>
<td>Dimensions</td>
<td>Width: 48 mm (1-7/8&quot;) Height: 27 mm (1-1/8&quot;) Depth: 145 mm (5-23/32&quot;)</td>
<td></td>
</tr>
</tbody>
</table>

* The product numbers of accessories and separately sold components are subject to change without notice.
* Actual dimension may differ depending on the product.
Ceiling mount bracket safeguards

- Installation work of the ceiling mount bracket should only be performed by a qualified technician.
- Panasonic takes no responsibility for any damage to the projector resulting from use of a ceiling mount bracket not manufactured by Panasonic or the inappropriate choice of location for installation, even if the warranty period of the projector has not expired.
- An unused ceiling mount bracket must be removed promptly by a qualified technician.
- Use a torque driver or a hex torque driver when tightening the screws, and tighten them to a tightening torque within specified values. Do not use tools such as electric screwdrivers or impact screwdrivers.
- For details, read the installation manual that comes with the ceiling mount bracket.
- The product numbers of accessories and separately sold components are subject to change without notice.

**Bottom view**

Product numbers for ceiling mount bracket:
- ET-PKE16H (for high ceilings)
- ET-PKE16S (for low ceilings)
- ET-PKE12B (for projector)

Screw holes for ceiling mount bracket:
- Screw diameter: M8
- Depth: 10 mm
- Torque: 10 ± 0.5 N·m
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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.

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.

Environment care information for users in China

This symbol is only valid in China.

Panasonic Corporation

Web Site : http://panasonic.net/avc/projector/
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