Data Projector

Operating Instructions

VPD-LE100

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

For the customers in the USA
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.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

For the customers in Canada
This Class A digital apparatus complies with Canadian ICES-003.

For the customers in the United Kingdom

WARNING
THIS APPARATUS 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 wires in the mains lead of this apparatus 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 by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

Voor de klanten in Nederland
• Dit apparaat bevat een Li-ion batterij voor memory back-up.
• De batterij voor memory back-up van het geheugen is bevestigd op IC2206 van plaat M.
• Raadpleeg uw leverancier over de verwijdering van de batterij op het moment dat u het apparaat bij einde levensduur afdankt.
• Gooi de batterij niet weg, maar lever hem in als KCA.
• Bij dit produkt zijn batterijen geleverd. Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

The socket-outlet should be installed near the equipment and be easily accessible.

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AVERTISSEMENT

Afin d'éviter tout risque d'incendie et d'électrocution, ne pas exposer l'appareil à la pluie ou à l'humidité.

Pour éviter tout risque de décharge électrique, ne pas ouvrir le boîtier. Confiez l'entretien uniquement à un personnel qualifié.

Pour les utilisateurs au Canada
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

> La prise doit être près de l'appareil et facile d'accès.

ADVERTENCIA

Para evitar riesgos de incendio o electrocución, no exponga la unidad a la lluvia ni a la humedad.

Para evitar recibir descargas eléctricas, no abra el aparato. Contrate exclusivamente los servicios de personal cualificado.

> La toma mural debe estar instalada cerca del equipo y debe accederse a ésta con facilidad.

ACHTUNG

Um Feuergefahr und die Gefahr eines eiektrischen Schlages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.

Um einen elektrischen Schlag zu vermeiden, darf das Gehäuse nicht geöffnet werden. Überlassen Sie Wartungsarbeiten stets nur einem Fachmann.

Für Kunden in Deutschland
Dieses Gerät ist nur für den Gebrauch in Gewerbe und Leichtindustrie bestimmt. Es entspricht der Klasse A, es erfüllt nicht die Grenzwerte der Klasse B.

> Die Steckdose muß nahe bei diesem Gerät angebracht und leicht zugänglich sein.

AVVERTENZA

Per evitare il pericolo di incendi o scosse elettriche, non esporre l'apparecchio alla pioggia o all'umidità e non aprirlo.

Per eventuali riparazioni, rivolgersi esclusivamente a personale qualificato.

> La presa di corrente deve essere situata vicino all'apparecchio e deve essere facilmente accessibile.

Table of Contents

Precautions

On safety

- Operate the unit on 200 – 240 V AC, 50/60 Hz.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified Sony personnel before operating it further.
- Unplug the unit from the wall outlet or set the POWER switch to OFF if it is not to be used for several days.
- To disconnect the cord, pull it out by the plug. Never pull the cord itself.
- The wall outlet should be near the unit and easily accessible.
- The unit is not disconnected from the AC power source (mains) as long as it is connected to the wall outlet and the main POWER switch is set to ON.
- Do not look into the lens while the lamp is on.
- Do not place your hand or objects near the ventilation holes — the air coming out is hot.
- Have at least four people carry and handle the projector, to avoid accidents or injury.
- Avoid using an extension cord with a low voltage limit, as it may cause short-circuiting and physical injury.
- To carry the projector, be sure to use the carrying handles. Do not hold other parts of the projector, especially the lens, nor catch your finger between the handle, floor, and the projector.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Be careful not to catch your finger in the cooling fan.
- Do not carry the projector by holding the cover of the cabinet.
- Do not carry the projector with the cabinet on and with its cover open.

On installation

- Allow adequate air circulation to prevent internal heat build-up. Do not place the unit on surfaces (rugs, blankets, etc.) or near materials (curtains, draperies) that may block the ventilation holes. Leave space of more than 80 cm (31 $^1/_2$ inches) between the wall and the projector. Be aware that room heat rises to the ceiling; check that the temperature near the installation location is not excessive.
- Install the projector on the floor or hang it from the ceiling. Any other installation causes a malfunction such as color irregularity or a shorten lamp life.
- Do not install the unit in a location near heat sources such as radiators or air ducts, or in a place subject to direct sunlight, excessive dust or humidity, mechanical vibration or shock.

- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Ceiling-mounted spot lighting is recommended. Use a cover over fluorescent lamps to avoid lowering the contrast ratio.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the projector in a room where floor and walls are not of light-reflecting material. If the floor and walls are of reflecting material, it is recommended that the carpet and wall paper be changed to a dark color.

On preventing internal heat build-up

After turning off the power, the cooling fan runs for about 15 minutes while the ON indicator flashes in green.

Caution
The projector is equipped with ventilation holes (intake) at the front and right/left side, and ventilation holes (exhaust) at the left side.
Do not block or place anything near these holes, or internal heat build-up may occur, causing picture degradation or damage to the projector.

On cleaning

- To keep the cabinet looking new, periodically clean it with a soft cloth. Stubborn stains may be removed with a cloth lightly dampened with a mild detergent solution. Never use strong solvents, such as thinner, benzene, or abrasive cleansers, since these will damage the cabinet.
- Avoid touching the lens. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Have the lamp filters and air filter inside the unit cleaned regularly by qualified Sony personnel. If the filters are clogged, internal heat may build up and the power may be turned off automatically.

On repacking

Save the original shipping carton and packing material; they will come in handy if you ever have to ship your unit. For maximum protection, repack your unit as it was originally packed at the factory.

Features

High brightness, high picture quality

• High brightness
The combination of a 2 kW arc Xenon lamp and Digital Light Processing™ (DLP™), a Texas Instruments technology, provides superb light output of 10,000 ANSI lumen while assuring excellent uniformity on the entire screen.

• High resolution
Thanks to use of three SXGA-resolution Digital Micromirror Device™ (DMD™) panels with approximately 1,300,000 pixels, the projector can project the sharp picture with the resolution of 1280 × 1024 pixels.

• DRC (Digital Reality Creation)
The DRC technology allows you to obtain a finer, more detailed picture with four-times higher density than the conventional video picture.

• 2-3 Pull-Down technology
The 2-3 Pull-Down technology allows you to obtain a smooth picture movement when playing back movies or other video sources on film. To activate the 2-3 Pull-Down technology, set FILM to ON in the PICTURE CTRL menu. (Effective for the NTSC$_{3.58/4.43}$, PAL-M, 15 k RGB (60 Hz) and 525/60 signals only.)

Accepts various input signals

This projector has a built-in high performance scan converter which converts the input signals to display the 15 k RGB, DTV, HDTV, VGA, SVGA, XGA, SXGA and UXGA (fV = up to 75 Hz) signals as well as the composite video[1], S video[1] and component signals. The projector accepts a wide range of HDTV/DTV signals as shown in the chart below.

Format	Scanning rate (kHz)	Frame rate (Hz) [2]	Scanning format	Aspect ratio	Standard
1035/60I	33.75	30	2:1 interlace	16:9	BTA S-001B
1080/60I	33.75	30	2:1 interlace	16:9	SMPTE 274M/ BTA S-001B
480/60P	31.5	60	Progressive	16:9/4:3	SMPTE 293M
575/50P	31.25	50	Progressive	16:9/4:3	–
1080 /24PsF	27	24	2:1 interlace	16:9	–
1080/50I	28.13	25	2:1 interlace	16:9	SMPTE 274M
720/60P	45	60	Progressive	16:9	SMPTE 293M
720/50P	37.5	60	Progressive	16:9	–

Digital HDTV signals are also acceptable when the optional IFB-LE100 interface board is installed.

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1) The optional IFB-12A or IFB-1000 interface board is required for displaying the composite video and S video signals.
2) Each of the frame rates is also compatible with 1/1.001.

System expandability and versatility

The projector has RS-232C/422A/PJ COM interface connectors for communication.
By combining the interface boards and signal interface switcher (not supplied), the projection systems can be greatly expanded. The projector also has the group and device index functions for using multiple projectors in one system.

Easy and flexible setup

• Sony's original APA (Auto Pixel Alignment) function
You can obtain the clearest picture automatically by simply pressing the APA key when the signal is input from a computer.

### • Easy setup with external equipment
This projector has 49 preset data for input signals in the memory. You can get a clear picture on the screen simply by connecting equipment and pressing the APA key. (For the signals that are not preset, adjustment may be necessary to get a clear picture.)

• Flexible setup
The lens shift function allows you to install the projector in a wide range of locations, without worrying about keystone distortion (the picture going out of square). The power focus and power zoom functions also let you change the size of the projection screen without having to move the projector.

Overview

Location and Function of Controls

Front
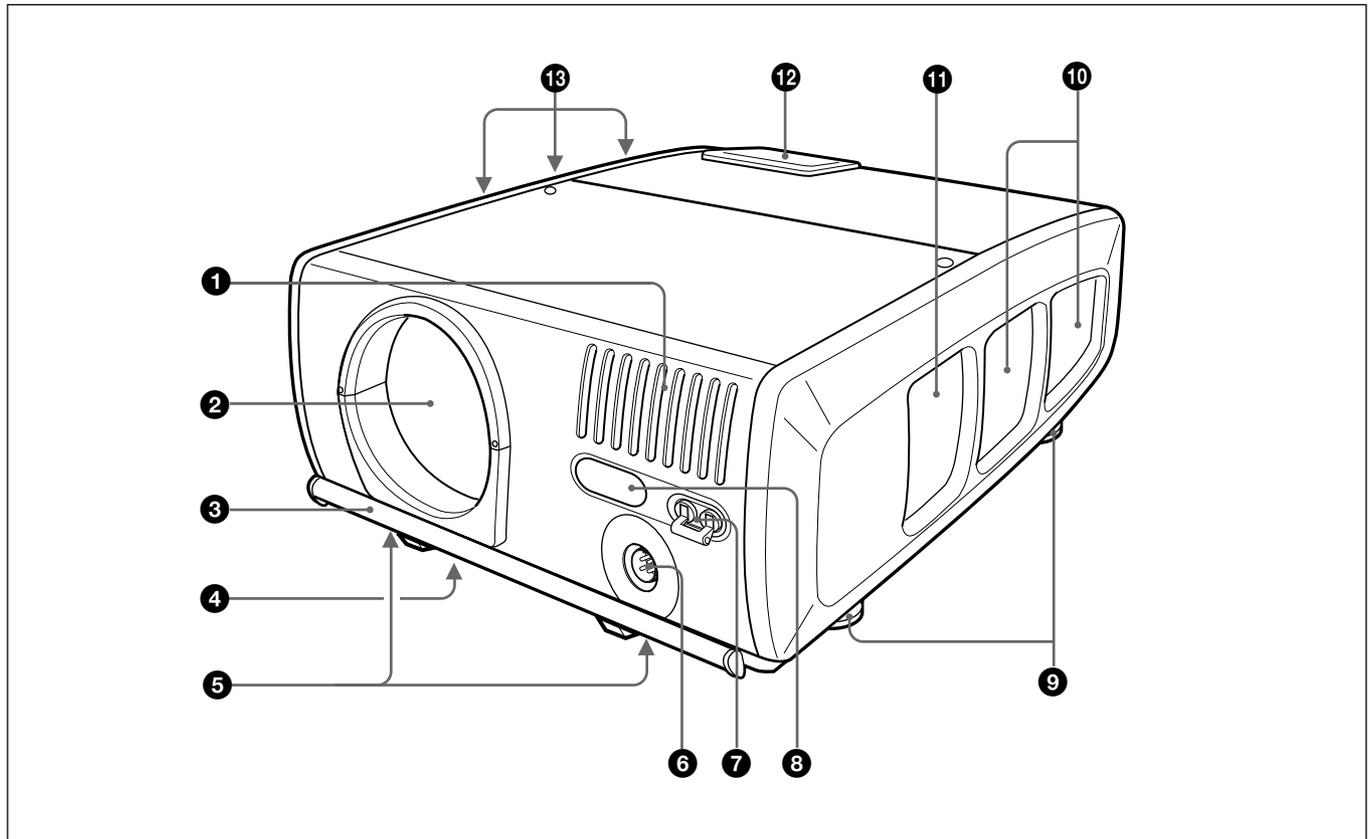
❶ Front ventilation holes (intake)

❷ Lens mount part
When attaching the optional lens, consult with
qualified Sony personnel.

❸ Carrying handle
Pull out the handle for carrying the projector.

❹ Front ventilation holes (under the lens, intake)

❺ Handle release buttons
Press the two buttons simultaneously for putting away
the carrying handle.

❻ AC inlet
Connect the supplied AC power cord.
For the connection of the AC power cord, see page 9.

❼ POWER switch
Turn on/off the main power of the projector.

❽ Front remote control (SIRCS) detector

❾ Adjusters
Use the adjusters to keep the projector level if it is
installed on an uneven surface.

❿ Left side ventilation holes (exhaust)

⓫ Left side ventilation holes (intake)

⓬ Control panel
For details, see page 10.

**⓭ Right side ventilation holes (intake)**

About the ventilation holes

Caution
• Do not block the ventilation holes (intake and
  exhaust), or internal heat build-up may occur, causing
  fire or damage to the projector.
• Do not place anything near the ventilation holes
  (exhaust) or touch these holes as the temperature will
  be very high.

Connecting the AC power cord

1 Press the lower part of the AC inlet cover ring to remove it.

Press the lower part.　　　　　AC inlet cover ring
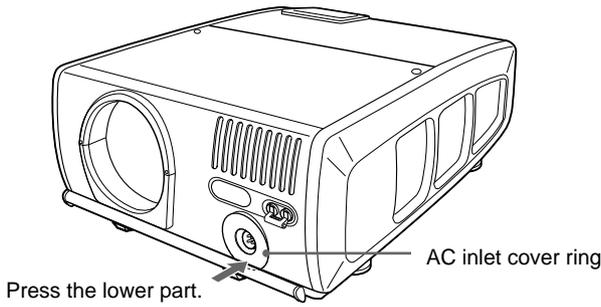
2 Pass the supplied AC power cord through the ring.

3 Insert the plug of the AC power cord into the AC inlet, aligning the indent of the plug with the projection of the inlet, then tighten the screw on the plug.
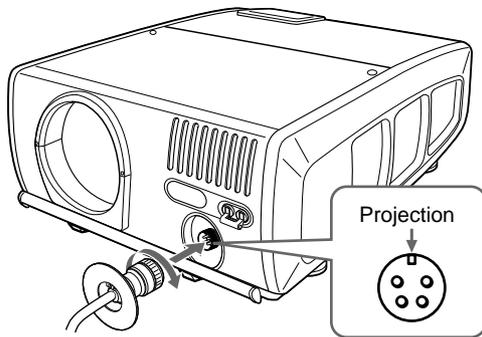
Projection

4 Replace the AC inlet cover ring.

Using the carrying handles

Use the front and rear carrying handles to carry the projector.

Pull up.

Pull out.
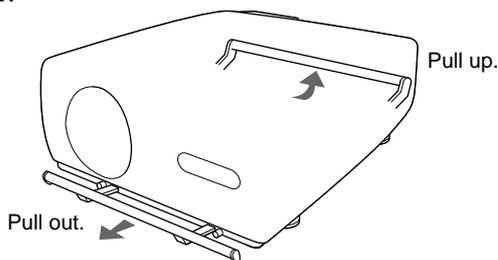
Caution

To avoid injury, have at least four people carry the projector using the front and rear handles.
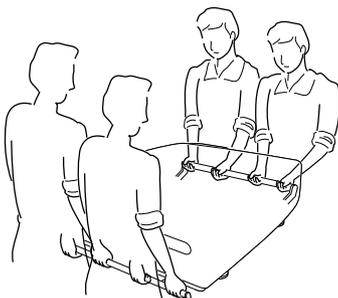
To put away the handles

To put away the front handle, press the two handle release buttons beside the left and right feet of the handle simultaneously.
To put away the rear handle, lower it.

Handle release button
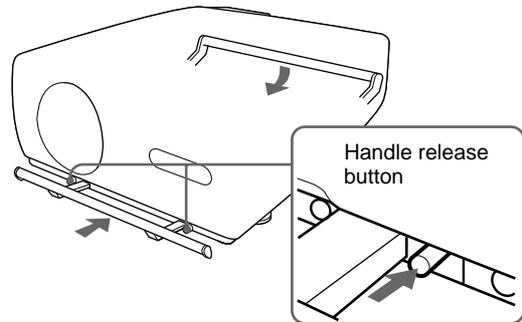
Using the adjusters

When the projector installation location is not horizontal, rotate the adjusters using the supplied tool so that the projector is placed horizontally. There are four adjusters.

To raise　　　　　**To lower**

Supplied tool　　　　　Supplied tool
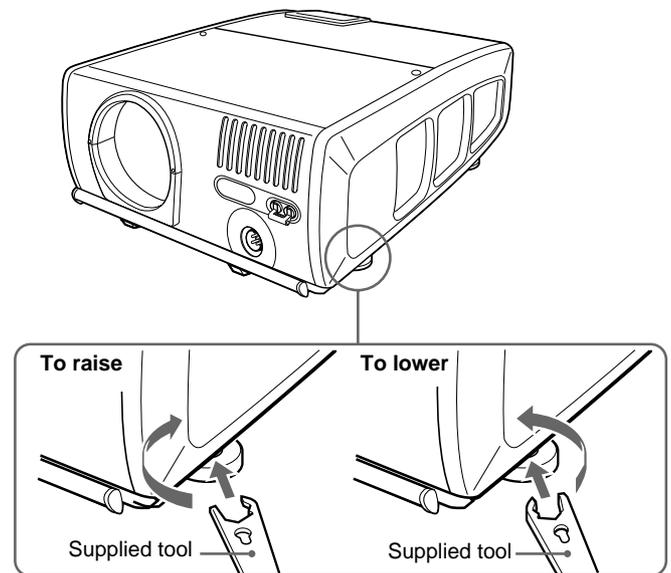
Note

The supplied tool can rotate the adjuster screw in one direction only. To rotate the screw in the reverse direction, turn the tool upside down.

Caution

Do not turn the tool forcibly when the screw has fully rotated. Otherwise, the tool may slip out and injure your hand.

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Control Panel

❶ ON key
Press to turn on the power of the projector.

❷ STANDBY key
Press to make the projector enter standby mode.

❸ RGB keys
Adjust the picture.
  APA (Auto Pixel Alignment): Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.
  DOT PHASE: Adjusts the phase of the signal input from a computer. After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
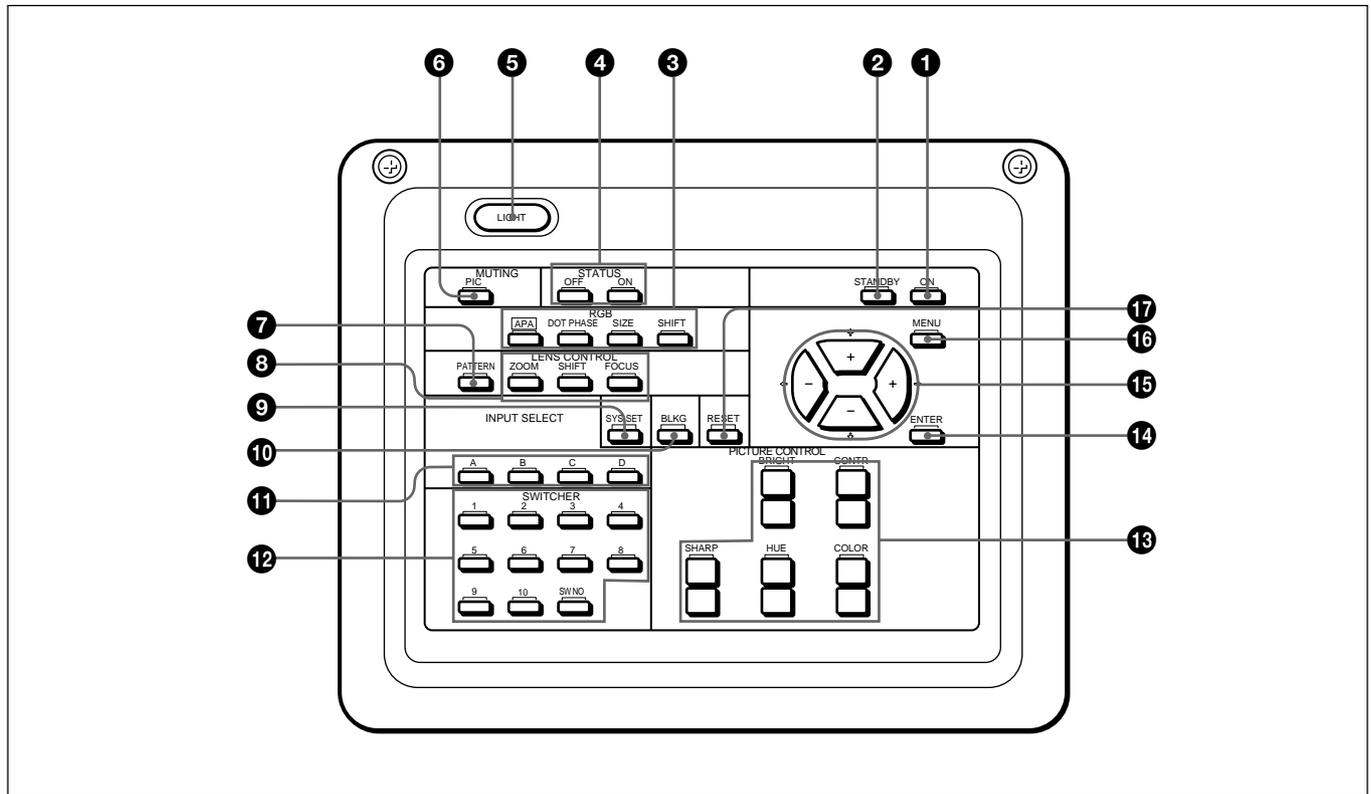 **SIZE:** Enters the size adjustment mode for the input signal. Adjust the horizontal size of the picture using the arrow keys.
      ←: to reduce horizontal size
      →: to expand horizontal size
  SHIFT: Enters the shift adjustment mode for the input signal. Adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❹ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

❺ LIGHT button
Illuminates the key indicators on the control panel and the message display window on the rear panel when the projector is turned on. If you do not press any key on the control panel for more than 30 seconds, the illumination turns off automatically. The illumination also turns off if you press the LIGHT button again.

❻ MUTING PIC (picture) key
Press to cut off the picture. Press again to restore the picture.

❼ PATTERN key
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

❽ LENS CONTROL keys

FOCUS: Enters the focus adjustment mode. Adjust the focus using the arrow keys.

    ↑: Focuses on a forward picture.

    ↓: Focuses on a picture further back.

SHIFT (lens shift): Enters the shift adjustment mode. Adjust the vertical position of the picture using the arrow keys.

    ↑: Moves the picture upward.

    ↓: Moves the picture downward.

    →: Moves the picture rightward.

    ←: Moves the picture leftward.

ZOOM: Enters the zoom adjustment mode. Adjust the zoom using the arrow keys.

    ↑: Enlarges the picture size.

    ↓: Reduces the picture size.

❾ SYS SET (system set) key

When the PC-3000 Signal Interface Switcher is used in the system or the system connections are changed, press this key. This makes the projector confirm the system construction and the settings of the interface boards.

Note

After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

❿ BLKG (blanking) adjustment key

Enters the blanking adjustment mode.

Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓫ INPUT SELECT keys

Select the input signal.

A: Selects the video signal input from the INPUT A connectors.

B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section. When the IFB-12A interface board is installed and the output mode is selected on the IFB-12A, the key does not function.

C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.

D: Selects the signal input from the connectors on the optional IFB-LE100 interface board which is installed in the INPUT D section.

⓬ SWITCHER keys

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.

When one switcher is connected, press the input number key directly.

When multiple switchers are connected, press the SW NO key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.

    e.g. To select input 4 of switcher 2, press the keys as follows:

        SW NO → 2 → 4

⓭ PICTURE CONTROL +/– keys

Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓮ ENTER key

Stores the settings in the menu.

⓯ Arrow and +/– keys (↑/↓/←/→/+/–)

Used to adjust the picture after pressing the LENS CONTROL or RGB key. Also used to move the cursor or adjust the value in the menu.
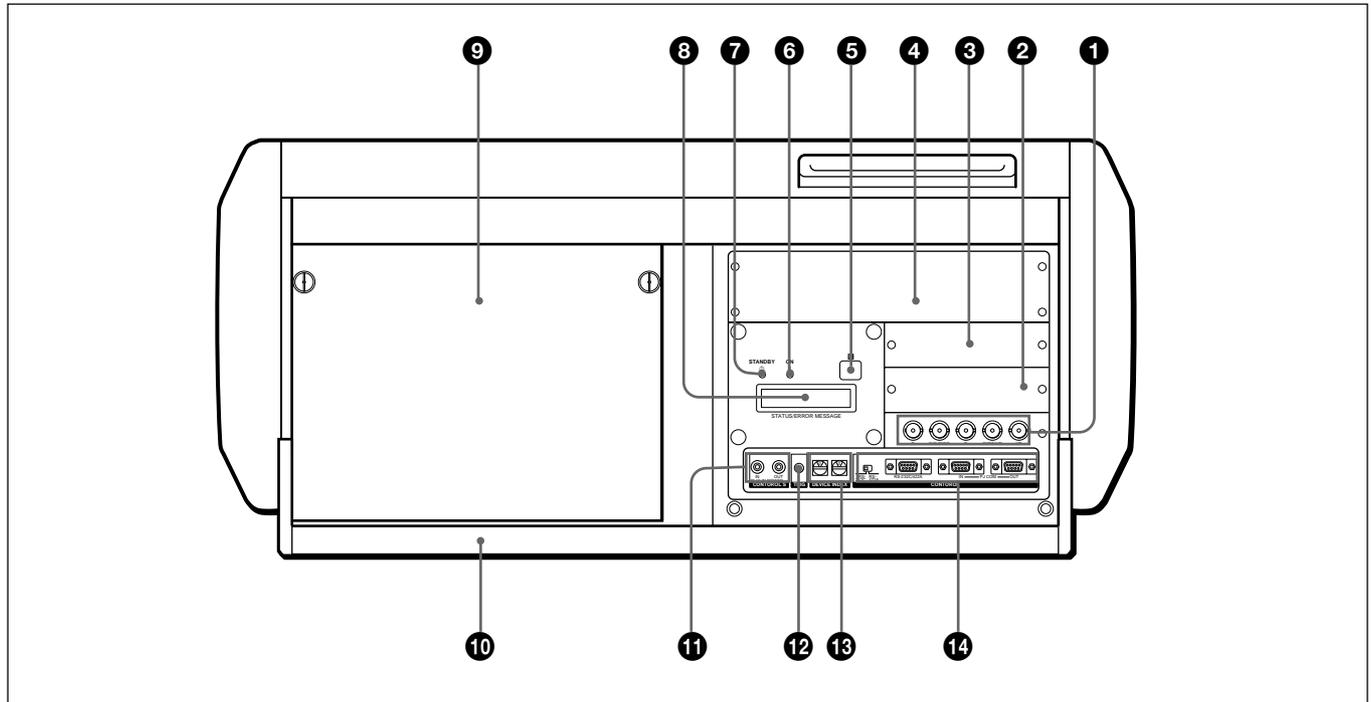
⓰ MENU key

Displays the menu on the screen.

Press again to turn off the menu.

⓱ RESET key

Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

Rear

❶ **INPUT A connectors**
  RGB input connectors (R, G/G SYNC, B, SYNC/ HD, VD) (BNC type): Connect to the video outputs of equipment such as a computer or a video camera.

Note

The INPUT A connectors do not function when the PC-3000 Signal Interface Switcher is connected.

❷ **Signal interface board attachment part (INPUT B)**
An optional signal interface board can be attached according to your requirements. If you install the IFB-12A interface board to this section and select the output mode, you can output the signal input through the INPUT A connectors.
For details on installing the interface boards, consult with qualified Sony personnel.

❸ **Signal interface board attachment part (INPUT C)**
An optional signal interface board can be attached according to your requirements.

Note

You cannot select the output mode when attaching the IFB-12A interface board.

❹ **IFB-LE100 interface board attachment part (INPUT D)**
The optional IFB-LE100 interface board can be attached.

❺ **Rear remote control (SIRCS) detector**

❻ **ON indicator**
Lights when the power is turned on.
The indicator flashes for about 15 minutes after the power is turned off by pressing the STANDBY key, as the fan runs to cool down the inside of the projector.

❼ **STANDBY ⏻ indicator**
Lights to indicate that the projector is in standby mode.

❽ **STATUS/ERROR MESSAGE (message) display window**
Displays the signal status and error messages about the input signals.

❾ **Lamp cover**
The lamp is inside.
For the lamp replacement, consult with qualified Sony personnel.

❿ **Carrying handle**
Pull up the handle when carrying the projector.

⓫ **CONTROL S IN/OUT jacks (stereo minijack)**
Connect to the control S jacks of other Sony
equipment.
> **CONTROL S IN/PLUG IN POWER (DC 5 V
> output) jack:** Connects to the CONTROL S OUT
> jack of the supplied Remote Commander when
> using as a wired Remote Commander. In this case,
> you do not need to install the batteries in the
> Remote Commander, since the power is supplied
> from this jack.
> **CONTROL S OUT jack:** Outputs the control S
> signal.

Note

When connecting the remote commander cable to the
CONTROL S IN jack, the remote control detectors
will not function.

⓬ **TRIG (trigger output) jack (monaural minijack)**
The signal is transmitted from this jack to the
connected equipment whether the projector is on or
off. (This is not a power source for external
equipment.) When the power is on, the TRIG jack
transmits approximately 12 V trigger signal to external
equipment connected to the projector. This signal is
useful when you connect a system integrator, etc., to
the projector; you can pull down an electric screen,
draw an electric curtain, or dim lights at the same time
as you turn on the projector power. (You cannot use
the trigger signal as a power source.)
This jack outputs 0 V DC when the power is off.

⓭ **DEVICE INDEX switch**
Set the device index number of the projector when
using multiple projectors. You can set the numbers
between "01" and "99." It is set to "01" at the factory.
You can also set the group index number in the menu
for system setup.

Note

Do not set the device index number to "00."
If you do, the projector will not operate with the
Remote Commander.
You can operate the projector with the keys on the
control panel of the projector but the connected
equipment cannot be operated with the keys on the
control panel.

⓮ **REMOTE connectors**
Used to expand system capability.
> **RS-232C/RS-422A select switch:** Selects according
> to the interface connected to the RS-232C/422A
> connector.
> **RS-232C/422A connector (D-sub 9-pin, female):**
> Connect to a computer to operate the projector
> from the computer.
> **PJ COM IN/OUT connectors (D-sub 9-pin,
> female):** The connectors conform to the RS-485
> standards and are used to expand system
> capability for Sony projectors.
> *For details on connections, see the PJ COM protocol
> manual for Sony projectors.*

Remote Commander

The Remote Commander can be used as a wireless or wired Remote Commander. The keys on the Remote Commander with the same names function the same as those on the control panel of the projector.

For details on control panel keys on the projector, see pages 10 and 11.
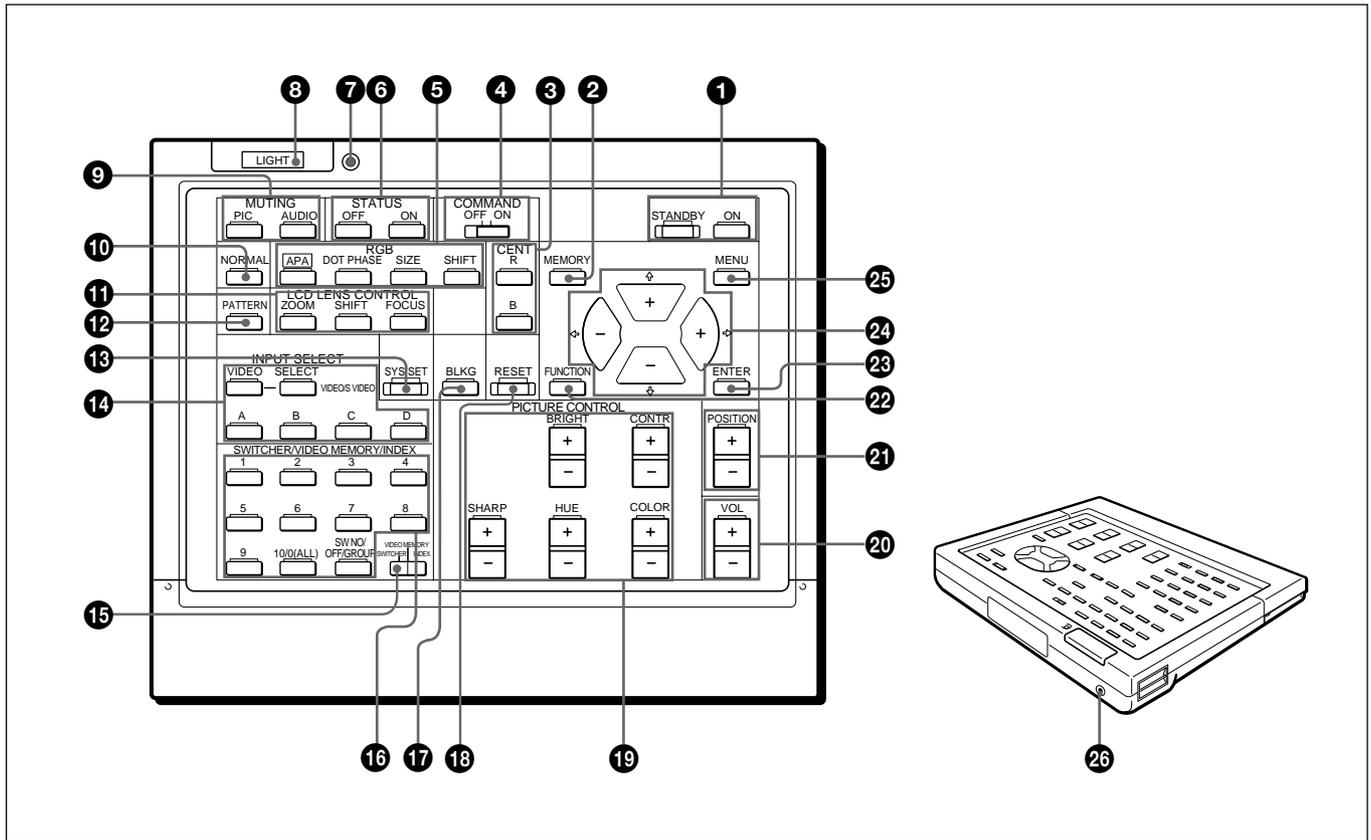
❶ ON/STANDBY keys
ON: Press to turn on the power of the projector.
STANDBY: Press to make the projector enter standby mode.

❷ MEMORY key
The key does not function with this projector.

❸ CENT R/B keys
The keys do not function with this projector.

❹ COMMAND ON/OFF switch
No keys except for the LIGHT button on the Remote Commander function when this switch is set to OFF. This saves battery power.

❺ RGB keys
Adjust the picture.
APA (Auto Pixel Alignment): Adjusts the position of the picture on the screen automatically so that the picture is clearly visible when the signals are input from a computer.

DOT PHASE: Adjusts the phase of the signal input from a computer. After pressing this key, adjust the position of the picture using the four arrow keys so that the clearest picture is obtained.
SIZE: Enters the size adjustment mode for the input signal. Adjust the horizontal size of the picture using the arrow keys.
    ←: to reduce horizontal size
    →: to expand horizontal size
SHIFT: Enters the shift adjustment mode for the input signal. Adjust the position of the picture using the four arrow keys. The picture shifts in the direction of the arrow on the pressed key.

❻ STATUS ON/OFF keys
Press OFF to eliminate the on-screen display.
Press ON to restore the on-screen display.

Note
The menus and warning messages appear even if the OFF key is pressed.

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❼ **Transmission indicator**
The light goes on each time a key is pressed. If the indicator does not light, replace the batteries.

❽ **LIGHT button**
Illuminates the key indicators when the COMMAND switch is set to ON. If the switch is set to OFF, only the COMMAND switch is illuminated.
If you do not press any key on the Commander for more than 30 seconds, the key indicators turn off automatically. The indicators also turn off if you press the LIGHT button again.

❾ **MUTING keys**
  PIC (picture): Press to cut off the picture. Press again to restore the picture.
  AUDIO: The key does not function with this projector.

❿ **NORMAL key**
The key does not function with this projector.

⓫ **LCD LENS CONTROL keys**
Functions the same as the LENS CONTROL keys on the control panel.
Press one of the ZOOM, SHIFT and FOCUS keys and then the arrow keys.

⓬ **PATTERN key**
Displays a HATCH pattern on the screen for focus, zoom, and shift adjustments. Press again to turn off the HATCH pattern.

⓭ **SYS SET (system set) key**
When the PC-3000 Signal Interface Switcher is used in the system or the system connections are changed, press this key. This makes the projector confirm the system construction and the settings of the interface boards.

Note
After connecting the PC-3000 switcher and pressing the SYS SET key, the input channel is set to SW1-1 when connecting a single switcher, or to SW1-2 when connecting two or more switchers.

⓮ **INPUT SELECT keys**
Selects the input signal.
  VIDEO: The key does not function with this projector.
  SELECT VIDEO/S VIDEO: The key does not function with this projector.
  A/B/C/D: Functions the same as the INPUT SELECT A/B/C/D keys on the control panel.

⓯ **SWITCHER/VIDEO MEMORY/INDEX select switch**
Selects the function of the SWITCHER/VIDEO MEMORY/INDEX keys.
  SWITCHER: Selects the input from the PC-3000 switcher.
  VIDEO MEMORY: The position does not function with this projector.
  INDEX: Selects a projector by its index number when multiple projectors are used.

⓰ **SWITCHER/VIDEO MEMORY/INDEX keys**

> When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **SWITCHER**

When the PC-3000 switcher is connected to the projector, press a number key (1 to 8) to select the input from the switcher. Number key 9 does not function.
When one switcher is connected, press the input number key directly.
When multiple switchers are connected, press the SW NO/OFF/GROUP key. Next press the switcher number (1 to 8) and the input number (1 to 8) in sequence. Be sure to press the keys one after another within 2 seconds.
  e.g. To select input 4 of switcher 2, press the keys as follows:
  SW NO → 2 → 4.

> When **the SWITCHER/VIDEO MEMORY/ INDEX select switch** is set to **INDEX**

Used to specify the device or group index number.

⓱ **BLKG (blanking) adjustment key**
Enters the blanking adjustment mode.
Next, press the ↑/↓ key to select the position to be adjusted on the screen, and then adjust the position using the ←/→ keys.

⓲ **RESET key**
Resets the adjusted value of an item to its factory preset value. This key functions when the menu or a setting item is displayed on the screen.

⓳ **PICTURE CONTROL +/– keys**
Adjust the picture conditions: CONTR (contrast), BRIGHT (brightness), COLOR, HUE and SHARP (sharpness).

⓴ **VOL (volume) +/– keys**
These keys do not function with this projector.

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㉑ POSITION +/– keys

These keys do not function with this projector.

㉒ FUNCTION key

The key does not function with this projector.

㉓ ENTER key

Stores the settings in the menu.

㉔ Arrow and +/– keys (↑/↓/←/→/+/–)

Used to adjust the picture after pressing the LENS
CONTROL or RGB key. Also used to move the cursor
or adjust the value in the menu.

㉕ MENU key

Displays the menu on the screen.
Press again to turn off the menu.

㉖ CONTROL S OUT jack

Connect the supplied remote commander cable to this
jack and to the CONTROL S IN jack of the projector
for wired remote control operation.
When the Commander is connected to the CONTROL
S IN/PLUG IN POWER jack of the projector via the
remote commander cable (stereo), the power for the
Remote Commander is supplied from the projector.

Battery installation

1 Push to open the lid, and install three R6 (size AA)
batteries (supplied) with the polarities correctly
aligned.

Be sure to install the battery
from the ⊖ side.
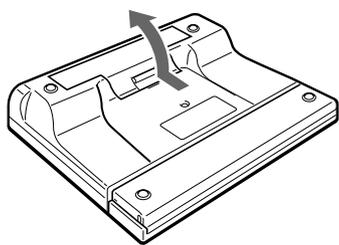
2 Replace the lid.

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Notes on batteries

• Make sure that the battery orientation is correct when
  inserting batteries.
• Do not mix old battery with new one, or different
  types of batteries.
• If you will not use the Remote Commander for a long
  time, remove the batteries to avoid damage from
  battery leakage. If batteries have leaked, remove
  them, wipe the battery compartment dry and replace
  the batteries with new ones.

Notes on wireless Remote Commander operation

• Be sure that there is nothing to obstruct the infrared
  beam between the Remote Commander and the
  projector.
• The operation range is limited. The shorter the
  distance between the Remote Commander and the
  projector, the wider the angle within which the
  commander can control the projector.
• The remote control detectors on the projector do not
  operate when connecting the remote commander
  cable to the CONTROL S IN jack. If you wish to use
  the Remote Commander as a wireless Remote
  Commander, be sure to remove the remote
  commander cable from both the Remote Commander
  and the projector.

To connect the Remote Commander to the projector

Rear

to CONTROL
S IN

Remote Commander

Remote
commander
cable (supplied)

to CONTROL S OUT
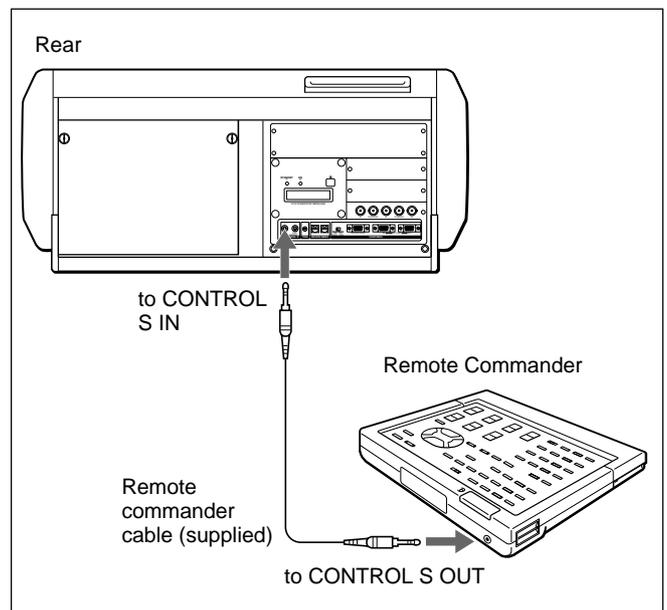
Note on wired Remote Commander operation using the supplied remote commander cable (stereo)

You do not need to install the batteries since the power
is supplied from the CONTROL S IN jack on the
projector. In this case, the batteries are not consumed.

Precautions on Installation

For installation examples with projection distances, see the supplied "Projection Distance Charts."
Do not install the projector in the following situations. These installations may cause malfunction or damage to the projector.

Do not install the projector in an ill-ventilated place
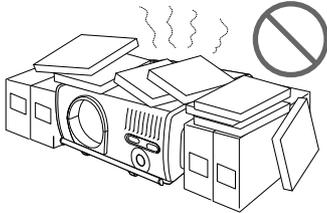
The projector is equipped with ventilation holes for intake and these for exhaust on the front, left and right sides to prevent internal heat build-up. Do not block these ventilation holes and allow adequate air circulation at an installation location.

Do not place any object beside the projector

If you put something beside the ventilation holes on the sides, the exhaust may be inhaled into the projector through the ventilation holes (intake), causing the internal temperature to rise and thereby activating the protection circuit. Install the projector so that the exhaust is not blocked.

Do not install the projector in a location where temperature or humidity is very high

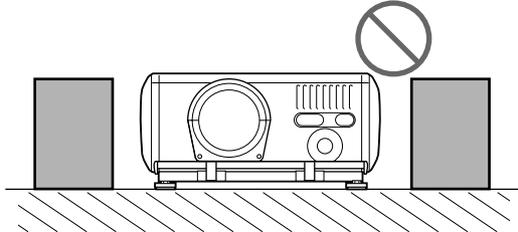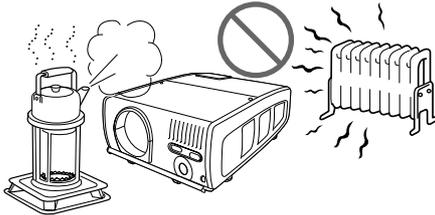## Avoid installing the projector in a location where temperature may rise or fall rapidly
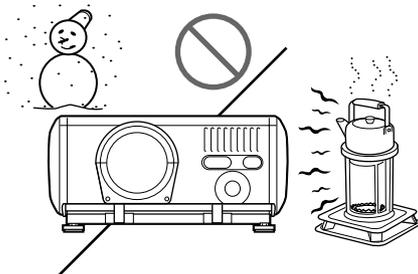
Be careful of air-conditioning and heating in a room where the projector is installed, as sudden changes in temperature may lead to moisture condensation and cause damage to the projector.

Avoid installing the projector in a location subject to excessive dust
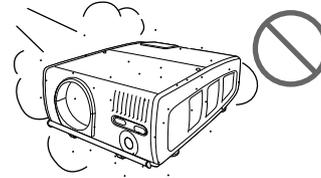
Do not use the projector while laying it on its side or upside down
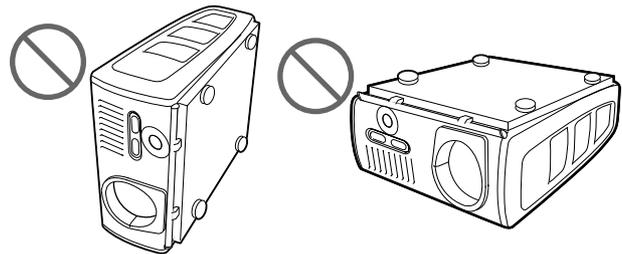
Do not tilt the projector when in use

±5°
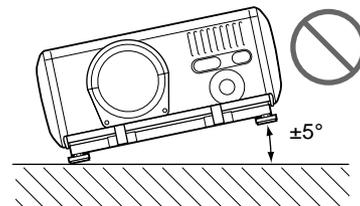
Avoid tilting the projector more than ±5 degrees or installing it other than on the floor and ceiling. Such installations may cause malfunctions such as color irregularity or shortening of lamp life.

Do not cover the ventilation holes (exhaust)
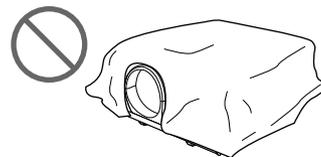
Do not cover the ventilation holes (exhaust) on the left side; otherwise, internal heat may build up.

Do not install the projector on a deep-pile carpet
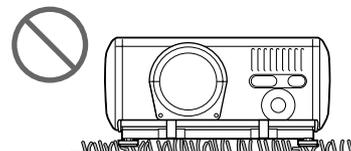
If you install the projector on a deep-pile carpet, the ventilation holes (intake) may be blocked, causing an internal heat build-up.

Setting up and projecting

Installing the Projector

This section describes the installation arrangements for installing the projector on the floor.
For ceiling installation, consult with qualified Sony personnel.

For details on installation examples with projection distances, see the supplied "Projection Distance Charts."

Horizontal center of the screen

Install the projector so that the tip of the lens is within this area.

Vertical center of the screen

Installation area

Projection distance

Adjust the vertical and horizontal positioning of the projector.

Vertical positioning (side view)

Screen

Adjustable range

Install the projector so that the center of the lens is between just above the bottom edge of the screen and the center of the screen.
You can adjust the angle of projection by performing the shift adjustment *(page 21)*.

Horizontal positioning (top view)

Screen

Center of the lens
94.4 mm (3 ³/₄ inches)

Center of the projector

Install the projector so that the center of the lens is aligned with the horizontal center of the screen.
You can adjust the horizontal position of the picture by performing the shift adjustment *(page 21)*.

The distance between the lens and the screen varies depending on the size of the screen and the attached lens. Use the charts for installation examples in the supplied "Projection Distance Charts."

Should the lamp break, broken pieces may be scattered around the projector. To avoid risk of injury, place a tray to receive pieces or keep a no-go area around the projector.
For the required space, see the figures on page 22 of the Projection Distance Charts.

Selecting the Menu Language

You can select one of seven languages for the menus and other on-screen displays. The factory setting is English.

1 Set the POWER switch on the front of the projector to ON.
The STANDBY indicator lights in red and the projector enters the standby mode.

2 Press the ON key to turn the power on.
The ON indicator lights in green.

3 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.

```
     PICTURE  CTRL            INPUT-A
□    CONTRAST:      80
⊞    BRIGHT:        50
⊟    COLOR TEMP:  6500
⊡    GAMMA MODE: 2.2
```
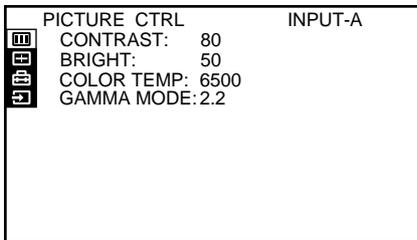
4 Press the ↑ or ↓ key to select the 🗄 icon, then press the ➡ or the ENTER key.
The setting items of the SET SETTING menu are displayed.

```
     SET SETTING              INPUT-A
□    STATUS:        ON
⊞    LANGUAGE:      ENGLISH
⊟    INSTALLATION:1
⊡    POWER SAVING: OFF
     SIRCS RECEIVER:FRONT&REAR
     GROUP INDEX: 1
     DEVICE INDEX: 1
     C. BLACK:      OFF
```
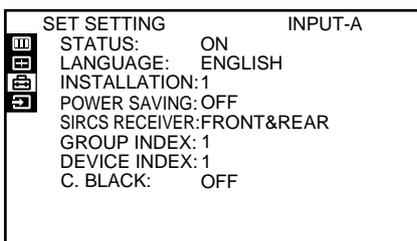
5 Press the ↑ or ↓ key to select "LANGUAGE," then press the ➡ or the ENTER key.
The language options are displayed.

```
     SET SETTING              INPUT-A
□    STATUS:        ON
⊞    LANGUAGE:      ENGLISH
⊟    INSTALLATION:FRANCAIS
⊡    POWER SAVING:DEUTSCH
     SIRCS RECEIVER: ITALIANO
     GROUP INDEX: ESPANOL
     DEVICE INDEX:日本語
     C. BLACK:      中文
```

6 Press the ↑ or ↓ key to select the desired language, then press the ⬅ or the ENTER key.
The menu changes to the selected language.

To clear the menu display
Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

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Projecting
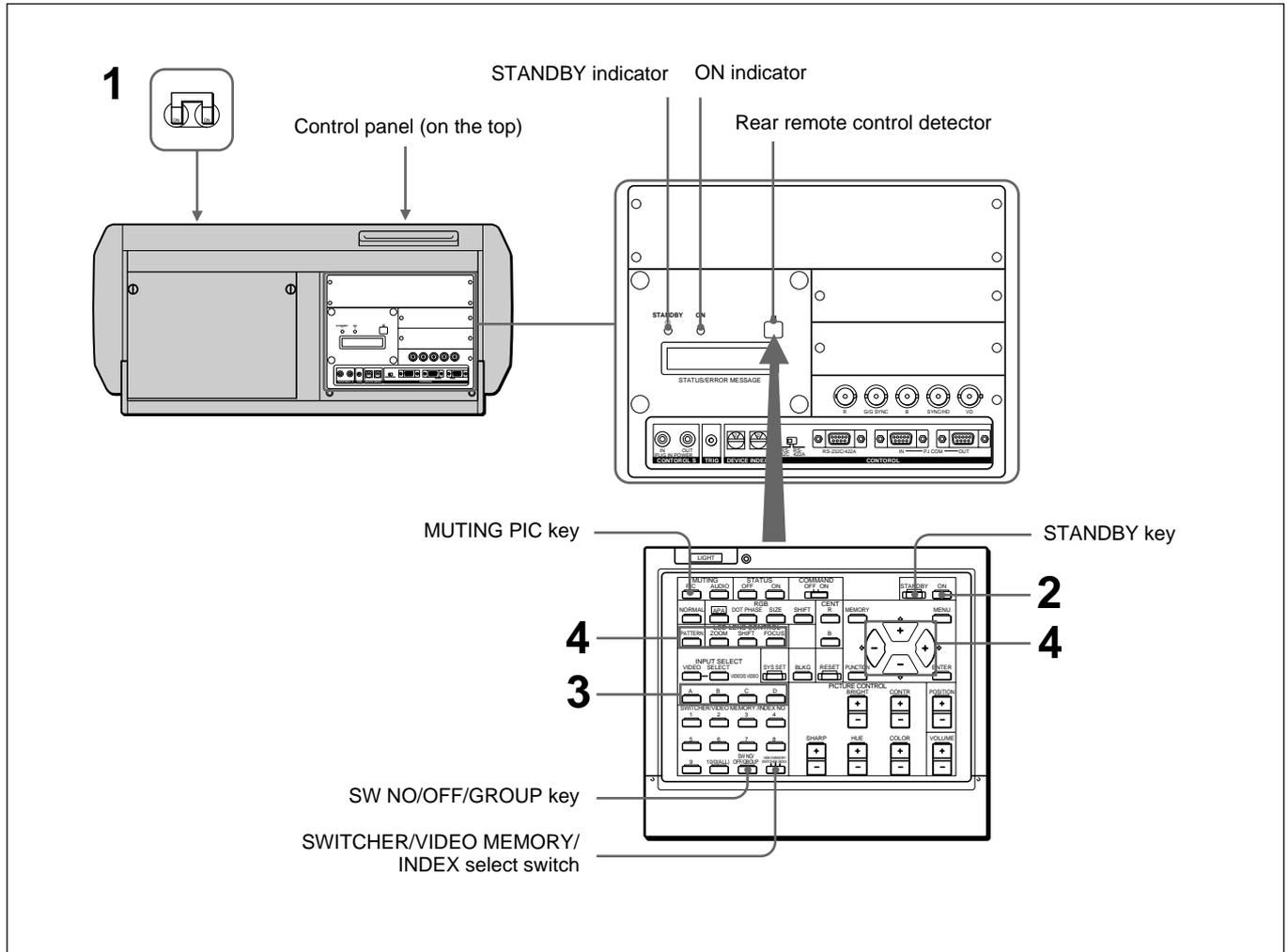
1 Set the POWER switch on the front of the projector to ON.
The STANDBY indicator lights in red and the projector enters the standby mode.

2 Press the ON key.
The ON indicator lights in green.

3 Turn on the power of equipment connected to the projector. Press the INPUT SELECT keys to select the input source.
  A: Selects the signal input from the INPUT A connectors.
  B: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT B section.
  C: Selects the signal input from the connectors on the optional interface board which is installed in the INPUT C section.
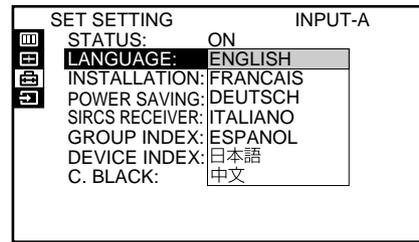 **D:** Selects the signal input from the connectors on the optional IFB-LE100 interface board which is installed in the INPUT D section.

Note

When you select the input signal connected to the INPUT A, INPUT B, INPUT C or INPUT D section, be sure to select the correct signal type on INPUT-A, INPUT-B, INPUT-C or INPUT-D of the SIGNAL SELECT menu. If an incorrect signal type is selected, picture may be distorted.
For details, see "The SIGNAL SELECT Menu" on page 28.

When you input the signal from equipment connected to the PC-3000 Signal Interface Switcher (not supplied)
Set the SWITCHER/VIDEO MEMORY/INDEX select switch on the Remote Commander to the SWITCHER position and press the number keys 1 to 8 to select the input. When multiple switchers are connected, press the SW NO/OFF/GROUP key, then select the switcher number and the input number.

To operate from the control panel, use the SWITCHER keys 1 to 8 to select the input, and the SW NO key to select the switcher.

Note

Press the SYS SET key when you make the system connections using the PC-3000 switcher.

4 Adjust the size, position and focus of the picture.
For details, see "Adjusting the Picture" on the right column.

To cut off the picture

Press the MUTING PIC key. To restore the picture, press the MUTING PIC key again.

Caution

Do not look into the lens when the projector lamp is on. Doing so may damage the eyes.

To turn off the power

1 Press the STANDBY key.
The ON indicator flashes in green and the cooling fan keeps running for about 15 minutes to reduce the internal heat.
When the fan stops running, the STANDBY indicator lights in red.

2 Set the POWER switch to OFF.

Note

Do not set the POWER switch to OFF while the fan is running. Doing so stops the fan before the inside of the unit has not be cooled down sufficiently and may damage the unit.

Adjusting the Picture

This section describes how to adjust the focus, size and vertical/horizontal position of the picture.

1 Press the PATTERN key to display the HATCH pattern.
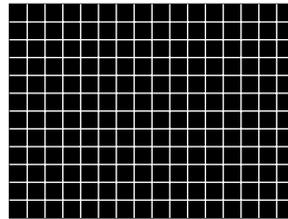
2 Press the FOCUS key then the ↑ or ↓ key to adjust the focus.
"FOCUS" appears on the screen during adjustment.

3 Press the ZOOM key then the ↑ or ↓ key to adjust the picture size.
"ZOOM" appears on the screen during adjustment.

4 Press the FOCUS key then the ↑ or ↓ key to adjust the focus again.
"FOCUS" appears on the screen during adjustment.

5 Press the SHIFT key then the ↑/↓/←/→ keys to adjust the vertical/horizontal position of the picture.
"PICTURE SHIFT" appears on the screen during adjustment.

6 Press the PATTERN key again to clear the HATCH pattern.

Notes

• The picture adjustments can be performed only when FOCUS, ZOOM or PICTURE SHIFT is displayed on the screen. If the display disappears, press the FOCUS, ZOOM or SHIFT key again, and adjust with the ↑/↓/←/→ keys.
• Focus may drift depending on the temperature. Therefore, we recommend you adjust the focus after you have turned on the projector and projected the picture for more than 30 minutes. Even after you have adjusted the focus exactly, slight lack of focus may occur when the lens is not sufficiently warmed, e.g. immediately after the power is turned on. In such a case, the correct focus is recovered by projecting the picture for more than 30 minutes.
• If you cannot obtain the correct focus on the upper and lower parts of the screen by pressing the ↑ or ↓ key, the adjustment inside the projector may be required. Please consult with qualified Sony personnel.

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Using the Menu

The projector is equipped with an on-screen menu for making various adjustments and settings.
Unadjustable items are not displayed in the menu.

1 Press the MENU key.
The menu display appears.
The menu presently selected is highlighted in yellow.

```
PICTURE CTRL          INPUT-A
  CONTRAST:    80
  BRIGHT:      50
  COLOR TEMP:  6500
  GAMMA MODE: 2.2
```
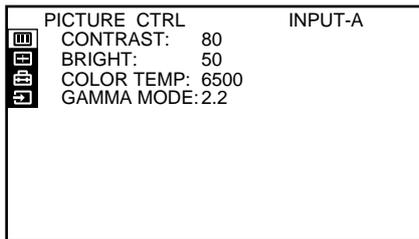
2 Press the ↑ or ↓ key to select a menu, then press the ➡ or the ENTER key.
The setting items of the selected menu are displayed.

Menus   Setting items

```
SET SETTING           INPUT-A
 STATUS:        ON
 LANGUAGE:      ENGLISH
 INSTALLATION: 1
 POWER SAVING: OFF
 SIRCS RECEIVER: FRONT&REAR
 GROUP INDEX:  1
 DEVICE INDEX: 1
 C. BLACK:     O F F
```
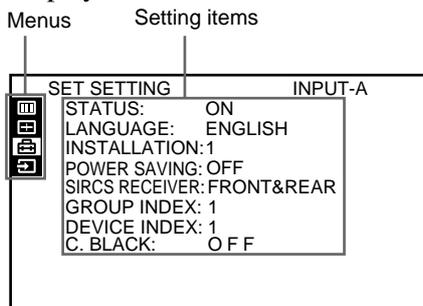
3 Press the ↑ or ↓ key to select the item, then press the ➡ or the ENTER key.
The adjustment menu or the setting menu (pop-up menu) is displayed.

4 Adjust an item.
• **When changing the adjustment level:**
To increase the number, press the ↑ or ➡ key.
To decrease the number, press the ↓ or ⬅ key.
Press the ENTER key to restore the original screen.

• **When changing the setting:**
Press the ↑ or ↓ key to change the setting, then press the ⬅ or the ENTER key.
The original screen is restored.

For details on setting individual items, see the relevant menu pages.

To clear the menu display

Press the MENU key. The menu display also disappears automatically if no key is pressed for one minute.

To reset settings that have been adjusted

Press the RESET key.
"Reset complete!" appears on the screen and the settings appearing on the screen will be reset to their factory preset values.

Items that can be reset are as follows:
CONTRAST, BRIGHT, COLOR, HUE, SHARP, DOT PHASE, SIZE, SHIFT and BLANKING.

About the memory of the settings

The settings are automatically stored in the projector memory.

The PICTURE CTRL Menu

The PICTURE CTRL menu is used for adjusting the picture. Unadjustable items are not displayed in the menu. (The following display shows an example when the component signal is input.)

```
   PICTURE  CTRL              INPUT-A
▥  CONTRAST:       80
▣  BRIGHT:         50
▤  COLOR:          50
▧  HUE:            50
   SHARP:          50
   COLOR TEMP: 6500
   GAMMA MODE: 2.2
   COMPONENT FORMAT: SMPTE/EBU-N10
```

CONTRAST

Adjusts the picture contrast.
The higher the setting, the greater the contrast.
The lower the setting, the lower the contrast.

BRIGHT (brightness)

Adjusts the picture brightness.
The higher the setting, the brighter the picture.
The lower the setting, the darker the picture.

COLOR

Adjusts color intensity.
The higher the setting, the greater the intensity.
The lower the setting, the lower the intensity.

HUE

Adjusts color tones.
At high settings, the picture becomes greenish.
At low settings, the picture becomes purplish.

SHARP (sharpness)

Adjusts the picture sharpness.
The higher the setting, the sharper the picture.
The lower the setting, the softer the picture.

D. (dynamic) PICTURE

Emphasizes the black color.
OFF: Reproduces the dark portions of the picture accurately, in accordance with the source signal.
ON: Emphasizes the black color to produce a bolder "dynamic" picture.

COLOR TEMP (temperature)

Selects the appropriate color temperature (9300/6500/5400/PRESET 1/PRESET 2/PRESET 3) according to your application and the input signal.
You can perform the white balance adjustment for a particular input signal and preset the adjusted color temperature to PRESET 1, PRESET 2 and PRESET 3.

COLOR SYS (system)

Selects the color system of the composite video or S video signal input from the optional IFB-12A or IFB-1000 interface board installed in INPUT B or INPUT C. Normally, set to AUTO.
If the picture is distorted or colorless, select the color system ($NTSC_{3.58}$/PAL/SECAM/$NTSC_{4.43}$/PAL-M) according to the input signal.

GAMMA MODE

Selects either position to obtain an optimum picture.
2.2: Normally set to this position.
1.8: Set when you input the signal from Macintosh or other equipment whose output gamma curve is 1.8.

FILM

Selects either position according to the signal source for the $NTSC_{3.58/4.43}$, 15 k RGB (60 Hz) or 525/60 signal.
OFF: Normally set to this position.
ON: Set to this position when the input signal source is a movie.

SET UP

Selects the set up level (standard black level) for the $NTSC_{3.58/4.43}$ or 525/60 signal.
0 (0 IRE): Normally set to this position.
7.5 (7.5 IRE): Set to this position when the black color is too light.

COMPONENT FORMAT

Selects the input component signal.

SMPTE/EBU-N10: Set to this position if the input signal is the SMPTE or EBU-N10 level component signal.

BETACAM7.5: Set to this position if the input signal is the Betacam 7.5 level component signal.

Input signals and adjustable/setting items

Item	Input signal					
	Video/ S video *1	15k RGB	Component/ Progressive component	RGB (preset)	RGB (preset) (HDTV, DTV)	RGB (not preset)
CONTRAST	Y	Y	Y	Y	Y	Y
BRIGHT	Y	Y	Y	Y	Y	Y
COLOR	Y*2	Y	Y	N	Y	N
HUE	Y*3	Y	Y	N	Y	N
SHARP	Y	Y	Y	N	Y	N
D. PICTURE	Y	N	Y*4	N	N	N
COLOR TEMP	Y	Y	Y	Y	Y	Y
COLOR SYS	Y	N	N	N	N	N
GAMMA MODE	Y	Y	Y	Y	Y	Y
FILM	Y*7	Y*6	Y*5	N	N	N
SET UP	Y*3	N	Y*3	N	N	N
COMPONENT FORMAT	N	N	Y	N	N	N

Y: Adjustable/can be set
N: Not adjustable/cannot be set

*1 Can be displayed when the optional IFB-12A or IFB-1000 interface board is attached.
*2 Monochrome signal is not adjustable/cannot be set.
*3 Only NTSC$_{3.58/4.43}$ [1] signal is adjustable/can be set.
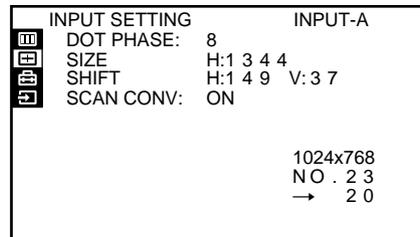*4 Progressive component signal is not adjustable/cannot be set.
*5 Only 525/60 signal is adjustable/can be set.
*6 Only 15 k RGB (60 Hz) signal is adjustable/can be set.
*7 Only NTSC$_{3.58/4.43}$ signal and PAL-M signal are adjustable/can be set.

The INPUT SETTING Menu

The INPUT SETTING menu is used to change the settings of the input signal. Unadjustable items, which vary according to the input signal, are not displayed in the menu. (The following display shows an example.)

```
INPUT SETTING          INPUT-A
   DOT PHASE:   8
   SIZE         H:1 4 4
   SHIFT        H:1 4 9   V:3 7
   SCAN CONV:   ON


                   1024x768
                   N O . 2 3
                   →      2 0
```

DOT PHASE

Adjusts the phase of the Digital Micromirror Device (DMD) [2] panel and the input signal.
Adjust the value to obtain the clearest picture.

SIZE

Adjusts the horizontal size of the picture.
As the setting for H increases, the horizontal size of the picture becomes larger, and as the setting decreases, the size becomes smaller. Adjust the setting according to the input signal.
Use the ← or → key to adjust the horizontal size.

SHIFT

Adjusts the position of the picture.
H adjusts the horizontal position of the picture, and V adjusts the vertical position. As the setting for H increases, the picture moves to the right, and as the setting decreases, it moves to the left.
As the setting for V increases, the picture moves up, and as the setting decreases, it moves down.
Use the ← or → key to adjust the horizontal position and the ↑ or ↓ key for the vertical position.

....
1) NTSC$_{4.43}$ is the color system used when playing back a video recorded in NTSC color system on a NTSC$_{4.43}$ system VCR.
2) The Digital Micromirror Device (DMD) is the core device of Texas Instruments' Digital Light Processing (DLP) technology.

SCAN CONV (converter)

Converts the signal to display the picture so that it fits the screen size.

ON: Displays the picture as large as possible on the DMD panel.

Only the picture of the SXGA signal is smaller than that of the OFF position (its size is reduced so that the height becomes the same as that of a 4:3 picture).

OFF: Displays the picture while matching one pixel of input picture element to that of the DMD. The picture will be clear but the picture size will be smaller.

Note

The function does not work for signals in Memory No. 32 and 33.

ASPECT

Sets the aspect ratio of the picture.

4:3: When the picture with ratio 4:3 is input

16:9: When the picture with ratio 16:9 (squeezed) is input from equipment.

H FILTER

Corrects the vertical bands that appear on the picture. The vertical bands may occur when an RGB signal with horizontal resolution of more than 1280×1024 pixels is input. In such cases, set to ON. The picture will loose some clarity, but the vertical bands will be reduced. Set to OFF to associate a dot of the input signal with a pixel of the DMD.

BLANKING

Adjusts if excess signals are seen with the picture. Select BLANKING, then press the ENTER key to display the blanking adjustment screen.
Use the ⬆ or ⬇ key to select the part to be adjusted (TOP/BOTTOM/RIGHT/LEFT), and the ⬅ or ➡ key to adjust.

Input signals and adjustable/setting items

Item	Input signal				
	Video/ S video *1	15k RGB	Component/ Progressive component	RGB (preset)	RGB (not preset)
DOT PHASE	N	N	N	Y (except for HDTV, DTV)	Y
SIZE	N	N	Y	Y	Y
SHIFT	Y	Y	Y	Y	Y
SCAN CONV	N	N	N	Y (Only for lower resolution than SXGA)	Y (Only for lower resolution than SXGA)
ASPECT	Y	Y	Y	N	N
H FILTER	N	N	N	Y (UXGA only)	Y (UXGA only)
BLANKING	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (TOP and BOTTOM only)	Y (HDTV, DTV only)	Y

Y: Adjustable/can be set
N: Not adjustable/cannot be set

*1 Can be displayed when the optional IFB-12A or IFB-1000 interface board is attached.

INPUT MEMORY No.

The upper number indicates the memory number of the current input signal. The lower number indicates the user memory number.

```
INPUT SETTING          INPUT-A
  DOT PHASE:   8
  SIZE         H:1 0 4 8
  SHIFT        H:1 4 9   V:3 7
  SCAN CONV:   ON


                        1024x768 ──── Type of input signal
                        NO.   1  ──── Memory number
                        →    2 3 ──── User memory
                                      number
```
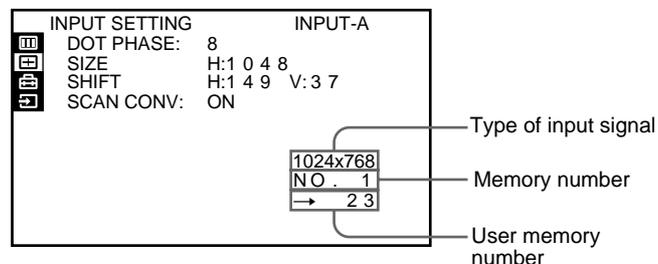
(continued)

About the memory function

The adjustment data for 49 types of input signals are preset at the factory (preset memory).

When a signal is input to the projector, the signal type is automatimally detected and the data for the signal is called from the memory to display an optimum picture. When the preset signal is input, the memory number in use and the type of the current input signal are displayed. The data can be adjusted in the INPUT SETTING menu and the adjusted data will be saved as user memory.

When you save more than 200 user memories, the newest one always overwrites the oldest one.

The saved user memory number is displayed in the INPUT SETTING menu as → NO. □□.

When an RGB signal other than the preset signals is input to the projector, the memory number is displayed as 0 and the closest option is automatically selected from the preset 49 types of signals.

Notes

- When an RGB signal is input with sync on Green including external sync, the picture tone may be greenish. In this case, disconnect the external sync signal.
- When an HDTV 1035/60I signal is input, the picture will appear smaller. Adjust SIZE, SHIFT and BLANKING referring to the following levels as a standard.

SIZE	H: 1479
SHIFT	H: 327
	V: 35
BLANKING	TOP: 167
	BOTTOM: 167
	RIGHT: 27
	LEFT: 27

- If SCAN CONV is set to ON when a signal in Memory No. 34–38 is input, the picture will appear widened. Adjust SIZE and SHIFT, referring to the following levels as standard.
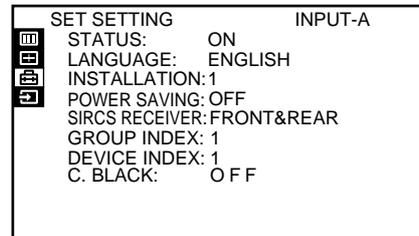
Memory No.		34	35	36	37	38
SIZE		1590	1575	1590	1582	1620
SHIFT	H	166	154	166	130	138
	V	16	31	34	35	41

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
1	Video 60 Hz		15.73	59.94	H-neg V-neg	—
2	Video 50 Hz		15.63	50.00	H-neg V-neg	—
3	15k RGB (60 Hz)		15.73	59.94	S on G	—
4	15k RGB (50 Hz)		15.63	50.00	S on G	—
5	HDTV 1080/60I		33.75	60.00	S on G	1543
6	640 × 350	VGA-1 (VGA350)	31.47	70.09	H-pos V-neg	800
7		VESA 85 (VGA350)	37.86	85.08	H-pos V-neg	832
8	640 × 400	NEC PC98	24.82	56.42	H-neg V-neg	848
9		VGA-2 (TEXT) /VESA 70	31.47	70.09	H-neg V-pos	800
10		VESA 85 (VGA400)	37.86	85.08	H-neg V-pos	832
11	640 × 480	VGA VESA 60	31.47	59.94	H-neg V-neg	800
12		Mac 13	35.00	66.67	S on G	864
13		VGA VESA 72	37.86	72.81	H-neg V-neg	832
14		VGA VESA 75 (IBM M3)	37.50	75.00	H-neg V-neg	840
15		VGA VESA 85 (IBM M4)	43.27	85.01	H-neg V-neg	832
16	800 × 600	SVGA VESA 56	35.16	56.25	H-pos V-pos	1024
17		SVGA VESA 60	37.88	60.32	H-pos V-pos	1056
18		SVGA VESA 72	48.08	72.19	H-pos V-pos	1040
19		SVGA VESA 75 (IBM M5)	46.88	75.00	H-pos V-pos	1056
20		SVGA VESA 85	53.67	85.06	H-pos V-pos	1048
21	832 × 624	Mac 16	49.72	74.55	H-neg V-neg	1152
22	1024 × 768	XGA VESA 43 (8514)	35.52	43.48	H-pos V-pos	1264
23		XGA VESA 60	48.36	60.00	H-neg V-neg	1344
24		XGA VESA 70	56.48	69.96	H-neg V-neg	1328
25		XGA VESA 75	60.02	75.03	H-pos V-pos	1312
26		XGA VESA 85	68.68	85.00	H-pos V-pos	1376
27	1152 × 864	VESA 70	64.00	70.02	H-pos V-pos	1472
28		VESA 75	67.50	75.00	H-pos V-pos	1600
29		VESA 85	77.49	85.06	H-pos V-pos	1568
30	1152 × 900	SUN LO	61.80	65.96	H-neg V-neg	1504
31		SUN HI	71.71	76.05	C-neg	1472
32	1280 × 960	VESA 60	60.00	60.00	H-pos V-pos	1800
33		VESA 75	75.00	75.00	H-pos V-pos	1728
34	1280 × 1024	SXGA VESA 43	46.43	43.44	H-pos V-pos	1696
35		SGI-5	53.32	50.06	S on G	1680
36		SXGA VESA 60	63.97	60.01	H-pos V-pos	1696
37		SXGA VESA 75	79.98	75.03	H-pos V-pos	1688
38		SXGA VESA 85	91.15	85.02	H-pos V-pos	1728

Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Horizontal size
39	1600 × 1200	UXGA VESA 60	75.00	60.00	H-pos V-pos	1689
40		UXGA VESA 65	81.91	65.53	H-pos V-pos	1689
41		UXGA VESA 75	93.75	75.00	H-pos V-pos	1689
43	480/60P (Progressive component)		31.47	60.00	S on G	1605
44	575/50P (Progressive component)		31.25	50.00	S on G	1616
45	1080/50I		28.13	50.00	—	1852
47	720/60P		45.00	60.00	—	1736
48	720/50P		37.50	50.00	—	2084
49	1080/24PsF		27.00	48.00	—	1929
51	FILM/60P	Pull-Down 60P (VIDEO)	15.73	59.94	H-neg V-neg	—
52		Pull-Down 60P (15k)	15.73	59.94	H-neg V-neg	—

The SET SETTING Menu

The SET SETTING menu is used for changing the initial settings of the projector. Unadjustable items are not displayed in the menu. (The following display shows an example.)

```
SET SETTING              INPUT-A
     STATUS:        ON
     LANGUAGE:      ENGLISH
     INSTALLATION: 1
     POWER SAVING: OFF
     SIRCS RECEIVER: FRONT&REAR
     GROUP INDEX: 1
     DEVICE INDEX: 1
     C. BLACK:      O F F
```

STATUS

Sets up the on-screen display.

ON: Shows all of the on-screen displays.

OFF: Turns off the on-screen displays except for the menus and warning messages.

LANGUAGE

Selects the language used in the menu and on-screen displays.
Available languages are: English, French, German, Italian, Spanish, Japanese and Chinese.

INSTALLATION

Reverses the picture horizontally or vertically. Select the position to match the installation location.

1: Set to this position when the projector is placed in front of the screen.

2: Reverses the picture vertically.

3: Reverses the picture horizontally.

4: Reverses the picture horizontally and vertically.

Note

When using a mirror, be careful during installation as the picture may be reversed.

(continued)

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POWER SAVING

OFF: The power saving function does not operate.
ON: The projector goes into the power saving mode
and the lamp for light source turns off if no signal
is input for about 10 minutes.
The power saving mode is canceled when a signal
is input or any key is pressed.

SIRCS RECEIVER

Selects the remote control detectors to be activated.
Change the setting if the wireless Remote Commander
does not work properly due to the influence of the
fluorescent lamp, etc.
FRONT & REAR: Activates both the front and rear
detectors.
FRONT: Activates the front detector only.
REAR: Activates the rear detector only.
OFF: Activates neither the front nor rear detector.

Note

When set to OFF, the wireless Remote Commander
does not function. Use the keys on the control panel or
the wired Remote Commander.

GROUP INDEX

Groups multiple projectors or switchers to operate
them simultaneously.
You can set the group index number to the desired
number between 1 and 99.
For details on the group index, see page 33.

DEVICE INDEX

Displays the index number set with the DEVICE
INDEX switches on the rear of the projector. You can
check the device index number but cannot set it with
this menu.
For details on setting the number, see page 33.

C. (cinema) BLACK

Switches the lamp wattage during projection.
OFF: Normal wattage.
ON: Enhances the black by reducing the lamp
wattage.

The SIGNAL SELECT Menu

The SIGNAL SELECT menu is used for selecting the
input signal.
Depending on the interface board installed in the
projector, some items may not be displayed in the
menu. (The following display shows an example.)

```
SIGNAL SELECT          INPUT-A
  INPUT-A:       DTV-GBR
  INPUT-B:       DTV-GBR
  INPUT-C:       DTV-GBR
  INPUT-D:       1080/60I
```

INPUT-A

Selects the signal input from the INPUT A connectors.
COMPUTER: Inputs the signal from a computer or
the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP$_B$P$_R$: Inputs the DTV (YP$_B$P$_R$) or HDTV
(YP$_B$P$_R$) signal.
DTV-GBR: Inputs the DTV (GBR) or HDTV
(GBR) signal.

Note

When the PC-3000 Signal Interface Switcher is
connected to the INPUT A connectors, you cannot
select the item.

INPUT-B

Selects the input signal from the connectors on the
optional IFB-12A interface board installed in the
INPUT B section.
COMPUTER: Inputs the signal from a computer or
the RGB signal for a still picture.
COMPONENT: Inputs the component signal.
DTV-YP$_B$P$_R$: Inputs the DTV (YP$_B$P$_R$) or HDTV
(YP$_B$P$_R$) signal.
DTV-GBR: Inputs the DTV (GBR) or HDTV
(GBR) signal.
VIDEO: Inputs the composite video signal.
S-VIDEO: Inputs the S video signal.

Note

This item is not displayed when the optional interface
board other than the IFB-12A is installed in the INPUT
B section, or when the output mode is selected on the
IFB-12A.

INPUT-C

Selects the input signal from the connectors on the optional IFB-12A interface board installed in the INPUT C section.

   COMPUTER: Inputs the signal from a computer or the RGB signal for a still picture.
   COMPONENT: Inputs the component signal.
   DTV-YP$_B$P$_R$: Inputs the DTV (YP$_B$P$_R$) or HDTV (YP$_B$P$_R$) signal.
   DTV-GBR: Inputs the DTV (GBR) or HDTV (GBR) signal.
   VIDEO: Inputs the composite video signal.
   S-VIDEO: Inputs the S video signal.

Note

This item is not displayed when the optional interface board other than the IFB-12A is installed in the INPUT C section.

INPUT-D

Selects the type of the HDTV signal (1080/60I, 1080/50I or 1080/24PsF) input from the connectors on the optional IFB-LE100 interface board installed in the INPUT D section.

Note

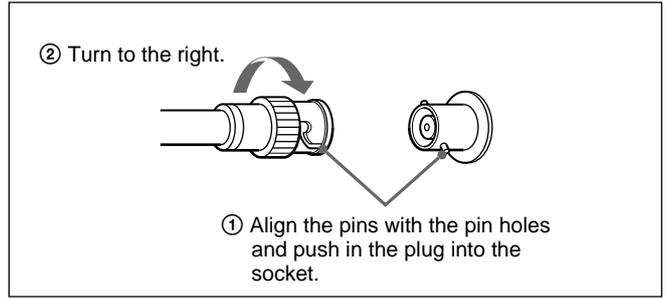When inputting the 1035/60I signal to the IFB-LE100, select 1080/60I.

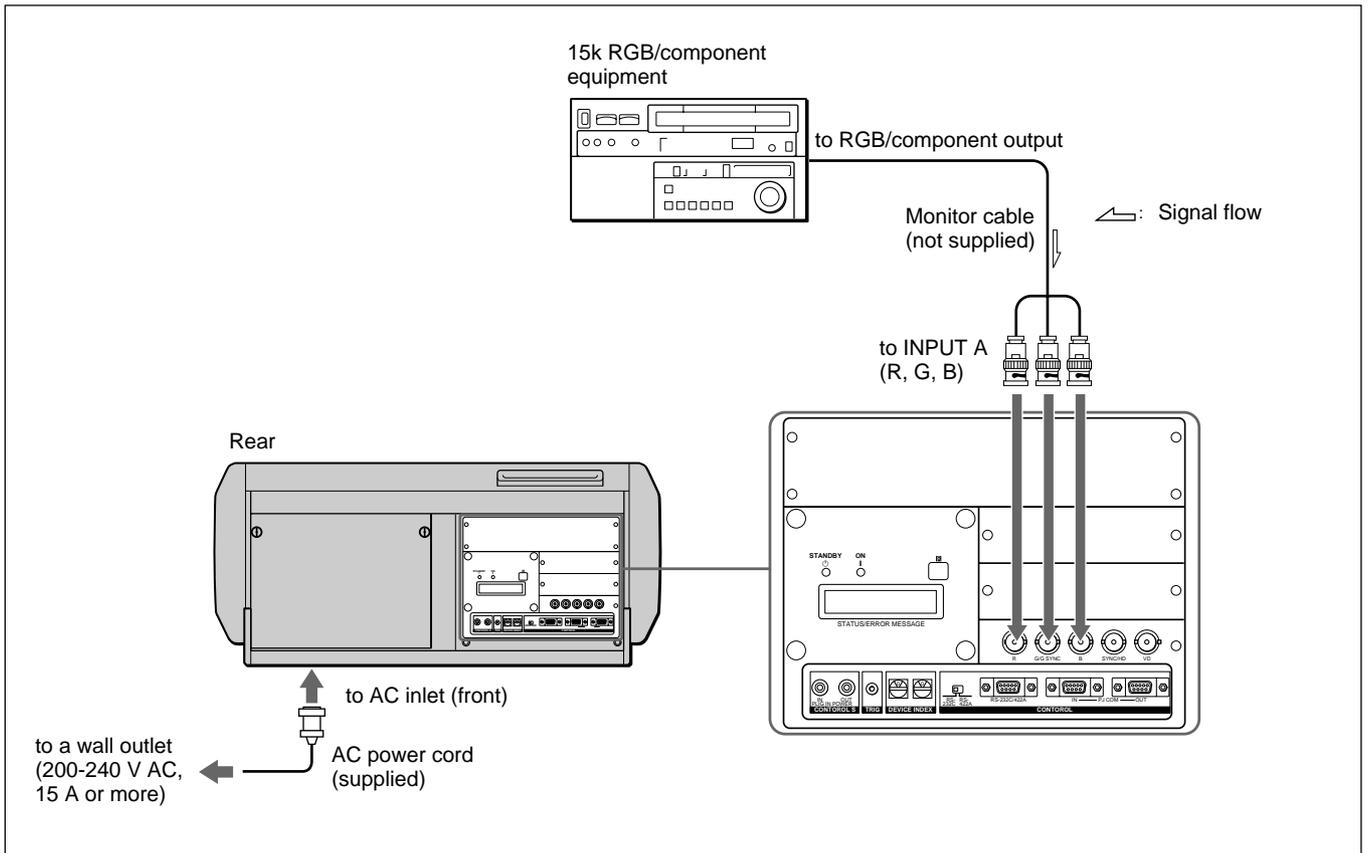# Connection Examples

When making connections, be sure to:
• turn off all equipment before making any connections.
• use the proper cables for each connection.
• insert the plugs of the cables properly; plugs that are not fully inserted may generate noise. When pulling out a cable, be sure to pull it out from the plug, not the cable itself.

Also refer to the instruction manual of the equipment to be connected.

Connecting a BNC connector

② Turn to the right.

① Align the pins with the pin holes and push in the plug into the socket.

Connecting 15k RGB/Component Equipment

15k RGB/component equipment

to RGB/component output

Monitor cable (not supplied)

⟍: Signal flow

to INPUT A (R, G, B)

Rear

STANDBY   ON

STATUS/ERROR MESSAGE

to AC inlet (front)

to a wall outlet (200-240 V AC, 15 A or more)

AC power cord (supplied)

Note

Switch the input signal with the INPUT-A item in the SIGNAL SELECT menu.
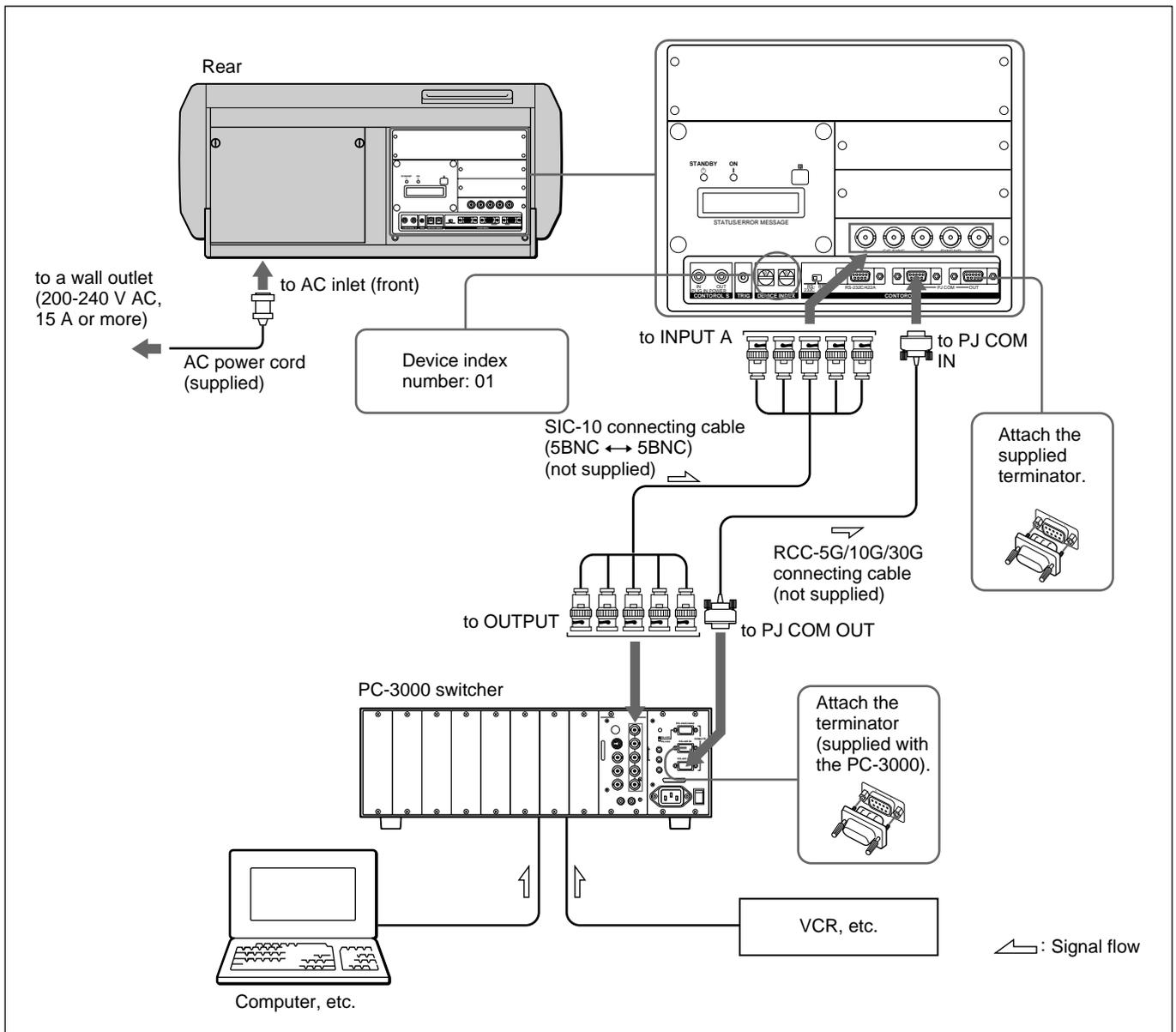*For details, see page 28.*

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Connecting the Switcher

Use the optional PC-3000 Signal Interface Switcher for connecting various video equipment. The input can be selected by pressing the SWITCHER/VIDEO MEMORY/INDEX keys on the Remote Commander or the SWITCHER keys on the control panel.
For selecting the input from the switcher, see pages 11 and 15.

Notes

• When you select the input from the switcher, be sure to set the SWITCHER/VIDEO MEMORY/INDEX select switch on the Remote Commander to the SWITCHER position.

• When connecting the switcher, use the wired Remote Commander. If you use the wireless Remote Commander, activate the remote control detector on only one unit of the equipment connected through the PJ COM connector. To deactivate the remote control detectors of this unit, set SIRCS RECEIVER in the SET SETTING menu to OFF.
For details, see page 28.

• After all the connections are complete, attach the terminator (supplied) to the PJ COM connector on both the projector and switcher to which nothing is connected.

Rear

to a wall outlet
(200-240 V AC,
15 A or more)

to AC inlet (front)

AC power cord
(supplied)

Device index
number: 01

to INPUT A

to PJ COM
IN

Attach the
supplied
terminator.

SIC-10 connecting cable
(5BNC ⟷ 5BNC)
(not supplied)

RCC-5G/10G/30G
connecting cable
(not supplied)

to OUTPUT

to PJ COM OUT

PC-3000 switcher

Attach the
terminator
(supplied with
the PC-3000).

VCR, etc.

Computer, etc.

: Signal flow

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Confirming the System Construction

After all the connections are complete, confirm that equipment of the system is properly setup.

1 Connect the AC cords of all equipment to the AC outlets and turn the power on.
Set the POWER switch of this projector to ON.

2 Press the SYS SET key.
Information on the system construction and the settings of the interface boards, etc. are automatically confirmed. Then the message disappears.

Note

When you want to use the projector without connecting the switcher after using the switcher in the system connections, it is necessary to confirm the system construction again by pressing the SYS SET key after all the connections are complete. If you press the key(s), "Master Switcher not exist" appears, but the system construction is automatically recognized.

When a system error is detected

The following messages are displayed on the screen and the message display window on the rear of the projector:

Message	Remedy
Master Switcher not exist.	Set the switcher that outputs the signal to the projector to number 1.
Same DEVICE INDEX for Projector detected.	Change either number of the projectors that have the same number.
Same DEVICE INDEX for Switcher detected.	Change either number of the switchers that have the same number.

Note

If the projector is in standby mode, the message in English appears only in the message display window.

Setting the Index Numbers

When you connect multiple projectors in your system, you have to set the group index and device index numbers for each projector.

To set the group index number

If you set the same group index number for multiple projectors, you can operate multiple projectors and switchers simultaneously (such as input selection) by designating the number.

The group index number can be set in the SET SETTING menu.

For group index number setting, see page 28.

To set the device index number

If you set the device index number, you can control each projector individually with the supplied Remote Commander.

The device index number can be set with the DEVICE INDEX switches on the rear of the projector. It is set to "01" at the factory.

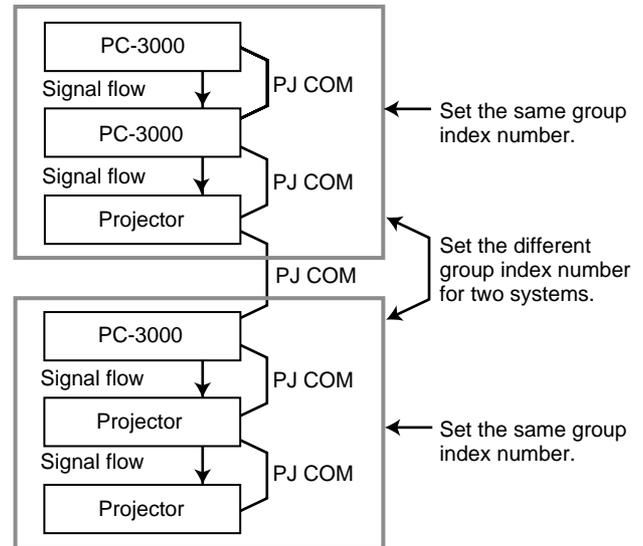If only one projector is connected, set it to "01."

Ten's digit — / — Unit's digit
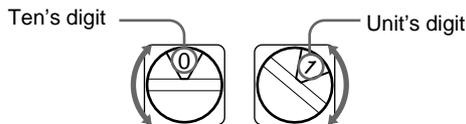
Notes

• Do not set the same device index number for the projectors in the same system.
• Do not set the number to "00." If you do, the projector will be operated only with the keys on the control panel. It cannot be controlled with the wired or wireless Remote Commander, or with an external equipment to which the PJ COM connectors are connected.

Notes on setting of the index number

• **Set the same group index number for all equipment of the same system connection (those on the signal route between the signal source and the projector).**

PC-3000 → Signal flow → PC-3000 / PJ COM → Set the same group index number.
PC-3000 → Signal flow → Projector / PJ COM
PJ COM → Set the different group index number for two systems.
PC-3000 → Signal flow → Projector / PJ COM → Set the same group index number.
Signal flow → Projector / PJ COM

For setting the group index number, see "GROUP INDEX" on page 28.

• **Set the correct group and device index numbers and the switcher number.**

Do not set the same device index number or the same switcher number in one group.

For example, if there are different pieces of equipment with the switcher number 1, the error message will appear when the SYS SET key is pressed.

• **Set the switcher that outputs the signal to the projector to number 1.**

PC-3000 / PJ COM
PC-3000 → Set this switcher to 1.
Projector / PJ COM

33
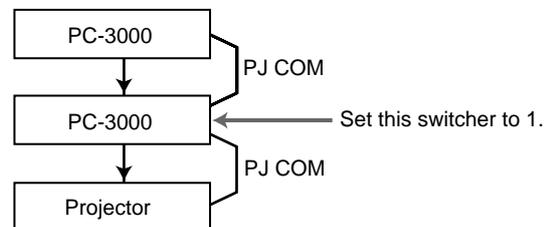
Notes on connections when two or more switchers are used

• **Mount the IFB-12A signal interface board to the slot 1 of the number n switcher and connect the output connector of the number (n+1) switcher to the IFB-12A.**
• **You can attach the IFB-12A signal interface board (when the IN/OUT switch is set to OUT) only to the number 1 switcher.**

To select the projector by designating the index numbers

When the switchers and projectors are connected as illustrated, select the desired projector by pressing the keys on the Remote Commander as shown below.
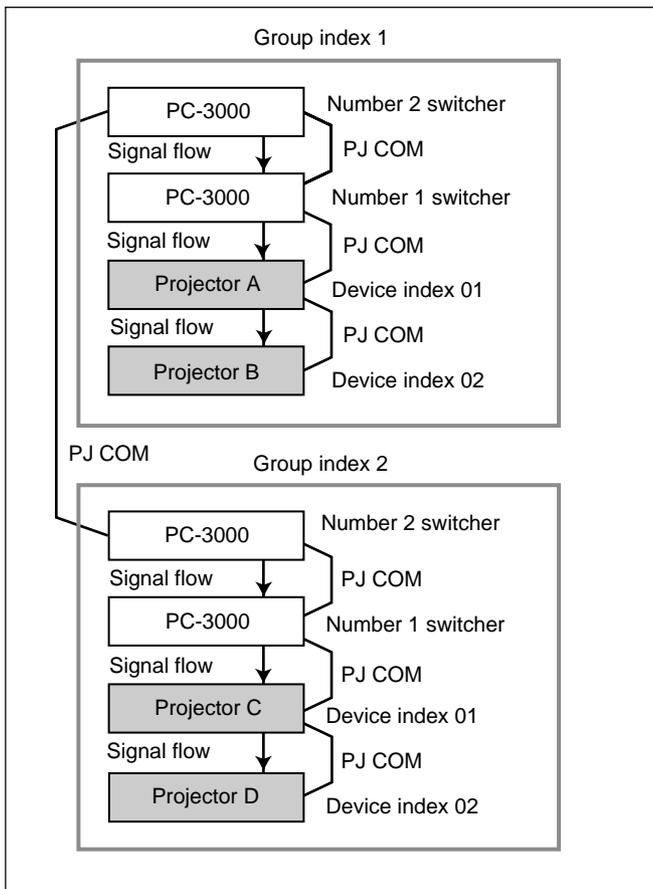
Example:
To select all the projectors in all the groups
GROUP → ALL → ENTER → ALL → ENTER
Projectors A, B, C and D are selected.

To select projectors with device index 01 from all the groups
GROUP → ALL → ENTER → 1 → ENTER
Projectors A and C are selected.

To select a projector with device index 01 from group index 2
GROUP → 2 → ENTER → 1 → ENTER
Projector C is selected.

To select all the projectors from group index 2
GROUP → 2 → ENTER → ALL → ENTER
Projectors C and D are selected.

Notes
• Set the group index and device index numbers correctly. If more than two projectors are set to the same group index and device index numbers, an error message will be displayed when the SYS SET key is pressed.
• If the group index is a tens digit number, press the GROUP key before each press of the number key.
Example:
To select a projector with device index 13 of group index 12
GROUP → 1 → GROUP → 2 → ENTER → 1 → 3 → ENTER

Lamp Life

When it is time to replace the lamp, the message "Please replace the Lamp." appears on the screen when you turn on the projector.

```
Please replace the Lamp.
```
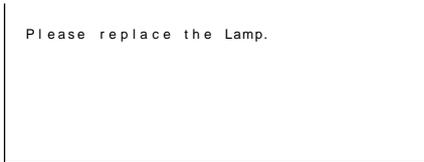
The message disappears when you press any key on the control panel or the Remote Commander. When this message appears, consult with qualified Sony personnel for the lamp replacement.

When "Danger! Lamp exploded" is displayed in the message display window, it means the lamp is out of order. Never open the lamp cover yourself; consult with qualified Sony personnel.

Troubleshooting

If the projector appears to be operating erratically, try to diagnose and correct the problem, using the following guide. If the problem still persists, consult with qualified Sony personnel.

Power

Symptom	Cause	Remedy
The power is not turned on.	The main power is turned off.	Set the POWER switch on the front panel of the projector to ON *(page 8)*.
	The power has been turned off using the STANDBY key and on with the ON key at a short interval.	Wait for about one minute before turning on the power *(page 10)*.
	The lamp cover is open.	Consult with qualified Sony personnel.
	The top cover is detached.	Consult with qualified Sony personnel.

Image

Symptom	Cause	Remedy
No picture.	Cable is disconnected.	Check that the proper connections have been made *(pages 30 and 31)*.
	Input selection is not correct.	Select the input source correctly in the SIGNAL SELECT menu *(page 28)*.
	The picture is cut off.	Press the MUTING PIC key to cancel the muting function *(page 21)*.
	The temperature around the projector is too low.	Warm up the inside of the projector for a while with the lamp lit. The picture will appear as the temperature around the projector is adjusted to be in the acceptable range (0°C to 35°C (32°F to 95°F)).
	The temperature around the projector is too high.	Adjust the room temperature so that the temperature around the projector becomes within the acceptable range (0°C to 35°C (32°F to 95°F)).
	The temperature sensor for the lamp power or the lamp housing has functioned, and the lamp has turned off.	Adjust the room temperature so that the temperature around the projector becomes within the acceptable range (0°C to 35°C (32°F to 95°F)).
The picture is noisy.	Noise may appear on the background depending on the combination of the numbers of dot input from the connector and numbers of pixel on the DMD panel.	Change the desktop pattern on the connected computer.
INPUT A cannot be selected.	The switcher is not connected, but is recognized to be connected.	If the PJ COM connector is connected to something other than the terminator, remove it then press the SYS SET key.
"Please check INPUT-A (INPUT-B, INPUT-C or INPUT-D) in SIGNAL SELECT" appears in spite of inputting the correct signal from the corresponding input.	Setting for INPUT-A (INPUT-B, INPUT-C or INPUT-D) in the SIGNAL SELECT menu is incorrect.	Set the item correctly according to the input signal *(page 28)*.

Symptom	Cause	Remedy
"NO INPUT" appears when 15k RGB or component signal is input.	The sync signal is incorrect.	Input the correct sync singal (composite sync or sync on G singal (sync on Y for component singal)).
On-screen displays do not appear.	STATUS in the SET SETTING menu is set to OFF.	Set STATUS in the SET SETTING menu to ON (page 27).
Color balance is not correct.	Picture has not been adjusted properly.	Adjust the picture (page 23).
	The color system of the input signal is not set correctly.	Set COLOR SYS in the PICTURE CTRL menu correctly to match the color system of the input signal (page 23).
	Setting for INPUT-A, INPUT-B, INPUT-C or INPUT-D in the SIGNAL SELECT menu is incorrect.	Set the item correctly according to the input signal (page 28).
The picture is too dark.	C. BLACK is set to ON.	Set it to OFF in the SET SETTING menu (page 28).
	The lamp is near the end of its life.	Consult with qualified Sony personnel for the lamp replacement.
	Contrast or brightness has not been adjusted properly.	Adjust CONTRAST or BRIGHT in the PICTURE CTRL menu properly (page 23).
The picture is not clear.	The picture is out of focus.	Adjust the focus (page 21).
	Moisture condensation has occurred on the lens.	Leave the projector for about two hours with the power on.

Remote Commander/Keys on the control panel

Symptom	Cause	Remedy
The Remote Commander does not work.	The batteries are exhausted.	Replace the batteries with new ones (page 16).
	The remote commander cable is connected to the Remote Commander although you are using it as a wireless Remote Commander.	Disconnect the remote commander cable.
	The fluorescent lamp influences on the remote control detector.	Change the setting of SIRCS RECEIVER in the SET SETTING menu (page 28).
	You have selected a wrong index number.	Select the correct index number (pages 28 and 33).
	You have set the index number to "00."	Select the correct index number (pages 28 and 33).
The wireless Remote Commander does not function.	The SIRCS RECEIVER setting is not correct.	Change the setting of SIRCS RECEIVER in the SET SETTING menu (page 28).
When you press the ZOOM, SHIFT or FOCUS key, "LENS CONTROL is locked! Do you wish to unlock ?" appears.	The lens control function is locked.	Consult with qualified Sony personnel.

Caution Messages

Use the list below to check the meaning of the
messages displayed on the screen.

Message	Meaning	Remedy
Frequency is out of range!	The frequency of the input signal is out of the acceptable range.	Input a signal that is within the range of the frequency.
Please check INPUT-A in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-A in the SIGNAL SELECT menu is set to COMPONENT, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-A correctly *(page 28)*.
Please check INPUT-B (or INPUT-C) in SIGNAL SELECT.	You have input the RGB signal from the computer when INPUT-B (or INPUT-C) in the SIGNAL SELECT menu is set to COMPONENT, VIDEO, S-VIDEO, DTV-GBR or DTV-YP$_B$P$_R$.	Set INPUT-B (or INPUT-C) correctly *(page 28 or 29)*.
Please check INPUT-D in SIGNAL SELECT.	You have input the HDTV signal which is different from the setting of INPUT-D in the SIGNAL SELECT menu.	Set INPUT-D correctly *(page 29)*.
Please replace the Lamp.	Replace the lamp.	Consult with qualified Sony personnel for the lamp replacement.

Error Messages

Use the list below to check the meaning of the error messages displayed in the message display window on the rear of the projector.

Error message	Meaning	Remedy
Around T102 fails on G board	Circuits around T102 on the G board have trouble, or the output is short-circuited.	Consult with qualified Sony personnel.
Around T103 fails on G board	Circuits around T103 on the G board have trouble, or the output is short-circuited.	Consult with qualified Sony personnel.
Around T104 fails on G board	Circuits around T104 on the G board have trouble, or the output is short-circuited.	Consult with qualified Sony personnel.
Fan for G board stopped	The fan for the G board has stopped.	Consult with qualified Sony personnel.
Fan for Input D stopped	The fan for Input D has stopped.	Consult with qualified Sony personnel.
The largest fan stopped	The largest fan has stopped.	Consult with qualified Sony personnel.
Fan for optical unit stopped	The fan for the optical unit has stopped.	Consult with qualified Sony personnel.
Top or Lamp cover is opening	The top or lamp cover is open.	Consult with qualified Sony personnel.
Lamp Temperature is too High	The lamp temperature is too high.	Even if C. BLACK is set to OFF in the SET SETTING menu, the lamp wattage is reduced automatically.
Lamp Temperature was too High	The lamp temperature was too high due to abnormal cooling of the lamp.	The lamp is turned off. Leave the projector for about one hour without ventilation holes blocked to let the temperature go down. If the temperature does not lower after about one hour, the lamp filters may be clogged. Have the filters cleaned regularly by qualified Sony personnel.
Replace the Lamp	Replace the lamp.	Consult with qualified Sony personnel for the lamp replacement.
Unit Temperature is too High	The temperature of the unit is too high.	Adjust the room temperature so that the temperature around the projector becomes within the acceptable range (0°C to 35°C (32°F to 95°F)). Leave the projector for about one hour without ventilation holes blocked to let the temperature go down. When the lamp does not light up even if the room temperature falls within the acceptable range, consult with qualified Sony personnel.
Warming Up	The unit is warming up.	The power is turned on after the warm-up. If the temperature of the projector does not rise by the end of the 20-minutes warm-up, the projector enters the cooling mode.
Unit Temperature is too low	The temperature of the unit is too low.	The temperature of the projector does not rise by the end of the 20-minutes warm-up because the room temperature is too low. Adjust the room temperature so that the temperature around the projector becomes within the acceptable range (0°C to 35°C (32°F to 95°F)).
Lamp does not strike	The lamp does not light.	The message may appear when you turn on the power during lamp cooling. Try turning on the power after waiting several minutes. If the projector still does not operate properly, consult with qualified Sony personnel.
Turned off Lamp Re-try	As the lamp was turned off (intermittently), the unit retries turning on the lamp.	The projector retries turning on the lamp. If the message does not disappear, consult with qualified Sony personnel.
Lamp power supply fails	The lamp power supply has trouble.	Consult with qualified Sony personnel.
Lamp not installed	The lamp is not installed.	Check if the lamp is installed correctly *(page 35)*.
Lens not installed	The lens is not installed.	Consult with qualified Sony personnel.
Danger! Lamp exploded	Danger! Lamp has exploded.	Consult with qualified Sony personnel.
Device Comm has error	Communication between the CPU and the formatter board has trouble.	After cooling has completed, turn off the main POWER switch on the projector. Wait until the STANDBY lamp is turned off, and turn on the main POWER switch again. Then press the ON key. If the projector still does not operate properly, consult with qualified Sony personnel.

Specifications

Optical characteristics

Projection system Digital Micromirror Device (DMD) 3 panel prism color integration system
DMD 3,932,160 pixels (1,280 (horizontal) $\times$ 1,024 (vertical) $\times$ 3), SXGA
Lens Option
Light output ANSI lumen[1] 10,000 lm
Lamp 2 kW Xenon lamp

Electrical characteristics

Color system NTSC$_{3.58}$/PAL/SECAM/NTSC$_{4.43}$/ PAL-M system, switched automatically
Resolution 600 horizontal TV lines (video input)
1280 $\times$ 1024 dots (RGB input)
Acceptable computer signal
fH: 15 to 100 kHz
fV: 40 to 120 Hz

Input/Output

CONTROL S IN/PLUG IN POWER: Stereo minijack, 5 Vp-p, plug in power, DC 5 V, maximum output 60 mA
OUT: Stereo minijack, 5 Vp-p
REMOTE RS-232C/422A
D-sub 9-pin (female)
(For details, see "Pin assignment" on page 42.)
PJ COM IN: D-sub 9-pin (female)
OUT: D-sub 9-pin (female)
(For details, see "Pin assignment" on page 42.)
TRIG Minijack
Power on: DC 12 V, output impedance: 4.7 kilohms
Power off: 0 V

INPUT A Analog RGB/component: BNC type
R/R-Y: 0.7 Vp-p $\pm$ 2 dB positive, 75 ohms terminated
G/G SYNC: 0.7 Vp-p $\pm$ 2 dB positive, 75 ohms terminated
G with sync/Y: 1 Vp-p $\pm$ 2 dB sync negative, 75 ohms terminated
B/B-Y: 0.7 Vp-p $\pm$ 2 dB positive, 75 ohms terminated
SYNC/HD: Composite sync: 0.6–8 Vp-p, high impedance, sync positive/negative
Horizontal sync: 0.6–8 Vp-p, high impedance, sync positive/ negative
VD: Vertical sync: 0.6–8 Vp-p, high impedance, sync positive/ negative
HDTV/DTV (YP$_B$P$_R$): BNC type
Y: 1 Vp-p $\pm$ 2dB positive, 75 ohms terminated
Tri-level sync: $\pm$ 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
P$_B$/P$_R$: $\pm$ 0.35 Vp-p $\pm$ 2dB positive, 75 ohms terminated
HDTV/DTV (GBR): BNC type
G with sync: 1 Vp-p $\pm$ 2 dB, 75 ohms terminated
Tri-level sync: $\pm$ 0.3 Vp-p
Bi-level sync: 0.3 Vp-p
B/R: 0.7 Vp-p $\pm$ 2dB positive, 75 ohms terminated
(For HDTV/DTV signals, see "Acceptable HDTV/DTV formats" on page 42.)
INPUT B, INPUT C
Slot for optional interface boards
INPUT D Slot exclusively for the optional IFB-LE100 interface board
Safety regulations
UL1950, CSA No. 950 (c-UL), FCC Class A, IC Class A, EN60 950 (NEMKO), CE, C-Tick

....
1) ANSI lumen is a measuring method of American National Standard IT 7.228.

General

Dimensions   724.0 × 347.5 × 945.1 mm (28 $^5/_8$ ×
                    13 $^3/_4$ × 37 $^1/_4$ inches) (w/h/d)
Mass   Approx. 94 kg (207 lb 4 oz)
                    (excluding the optional lens)
Power requirements
                    200 to 240 V AC, 50/60 Hz
Power consumption
                    Approx. 2.8 kW (Standby mode:
                    40 W)
Heat dissipation   9,556 BTU
Operating temperature
                    0°C to 35°C (32°F to 95°F)
                    Under 10°C (50°F) or lower, the
                    power is turned on after about 10
                    minutes of the warm-up.
Operating humidity
                    35% to 85% (no condensation)
Storage temperature
                    –20°C to +60°C (–4°F to +140°F)
Storage humidity   10% to 90%
Supplied accessories
                    Remote Commander RM-PJ1001 (1)
                    Size AA (R6) batteries (3)
                    Remote commander cable (stereo)
                    (15 m) (1)
                    AC power cord (1)
                    Terminator for the PJ COM
                    connector (1)
                    Operating Instructions (1)
                    Installation Manual for Dealers (1)
                    Projection Distance Charts (1)
                    CD-ROM Manual (1)
                    Warranty (only for the model for
                    the U.S.A) (1)

Design and specifications are subject to change
without notice.

Optional accessories

Projector Lamp LMP-L2000 (for replacement)
Interface Board
    IFB-12A (Analog RGB/component/HDTV/
        composite video/S video input with 5BNC type
        connectors)
    IFB-20 (Analog RGB input with D-sub 9-pin type
        connector)
    IFB-21 (Analog RGB input/output with HD D-sub
        15-pin type connector)
    IFB-30 (Digital RGB input with D-sub 9-pin type
        connector)
    IFB-50 (Serial digital video input/output with BNC
        type connector)
    IFB-1000 (Composite video input with BNC type
        connector/S video input with mini DIN 4-pin
        type connector)
    IFB-LE100 (Serial digital HD input/output with
        BNC type connectors)
Signal Interface Switcher PC-3000
Interface Unit IFU-1271/1271M
SIC Cable
    SIC-10/20A/20C/21/22/23/24/24A/25/26/26A/30/
    31/M1/M5/M15/M25/M50
9-pin remote cable (for PJ COM)
    RCC-5G/10G/30G
Monitor Cable
    SMF-400 (HD D-sub 15-pin (female) ←→ 5BNC
        (female))
    SMF-401 (HD D-sub 15-pin (female) ←→ HD D-
        sub 15-pin (female))
Signal Adapter
    ADP-10 (D-sub 9-pin ←→ HD D-sub 15-pin (for
        SIC Cable))
    ADP-20 (Macintosh ←→ VGA)
Remote Commander RM-PJ3000S
Remote Control Receiver RM-PJ10
Projection Lens
    VPDL-Z1014 (1.3-times zoom lens)
    VPDL-Z1019 (1.2-times zoom lens)
    VPDL-Z1023 (1.6-times zoom lens)
    VPDL-Z1037 (1.8-times zoom lens)
Screens
    VPS-80FH (80-inch, flat)
    VPS-100FH (100-inch, flat)
    VPS-120FH (120-inch, flat)

Some of the items may not be available in some areas.
For details, please consult your nearest Sony office.

Pin assignment

RS-232C/422A connector (D-sub 9-pin, female)

```
⑤ ④ ③ ② ①
  ⑨ ⑧ ⑦ ⑥
```
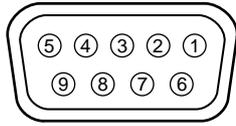
RS-232C

1	NC		6	DSR*	Data Set Ready
2	RD	Receive Data	7	RTS**	Request to Send
3	TD	Transmit Data	8	CTS**	Clear to Send
4	DTR*	Data Terminal Ready	9	NC	
5	GND	Ground			

* Circuit between pins 4 and 6 is short-circuited in the projector.
** Circuit between pins 7 and 8 is short-circuited in the projector.

RS-422A

1	GND	Ground	6	GND	Ground
2	$\overline{TX}$	Transmit	7	TX	Transmit
3	RX	Receive	8	$\overline{RX}$	Receive
4	GND	Ground	9	GND	Ground
5	NC				

PJ COM connector (D-sub 9-pin, female)

```
⑤ ④ ③ ② ①
  ⑨ ⑧ ⑦ ⑥
```
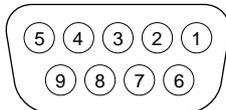
1	GND	Ground	6	GND	Ground
2	$\overline{BUSY}$	Busy	7	BUSY	Busy
3	TX/RX	Tramsmit/Receive	8	$\overline{TX/RX}$	Tramsmit/Receive
4	GND	Ground	9	GND	Ground
5	NC				

S VIDEO connector (mini DIN 4-pin)
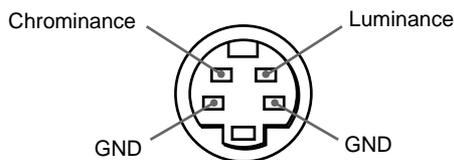
Acceptable HDTV/DTV formats

Format	Scanning rate (kHz)	Frame rate (Hz)*	Scanning format	Aspect ratio	Standard
1035/60I	33.75	30	2:1 interlace	16:9	BTA S-001B
1080/60I	33.75	30	2:1 interlace	16:9	SMPTE 274M/ BTA S-001B
480/60P	31.5	60	Progressive	16:9/4:3	SMPTE 293M
575/50P	31.25	50	Progressive	16:9/4:3	–
1080/24PsF	27	24	2:1 interlace	16:9	–
1080/50I	28.13	25	2:1 interlace	16:9	SMPTE 274M
720/60P	45	60	Progressive	16:9	SMPTE 293M
720/50P	37.5	60	Progressive	16:9	–

* Each of the frame rates is also compatible with 1/1.001.

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