SONY®

Video
Projector

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

VPL-BW120S

HDMI

http://www.sony.net/

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

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

WARNING
THIS APPARATUS MUST BE EARTHED.

WARNING

When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

IMPORTANT
The nameplate is located on the bottom.

For kundene i Norge
Dette utstyret kan kobles til et IT-strømfordelingssystem.

For the customers in U.S.A. and Canada
WARNING:

Using this unit at a voltage other than 120 V may require the use of a different line cord or attachment plug, or both. To reduce the risk of fire or electric shock, refer servicing to qualified service personnel.

For the customers in the U.S.A.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

– Reorient or relocate the receiving antenna.
– Increase the separation between the equipment and receiver.
– Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
– Consult the dealer or an experienced radio/TV technician for help.

If you have any questions about this product, you may call; Sony Customer Information Service Center 1-800-222-7669 or http://www.sony.com/

Declaration of Conformity	
Trade Name	: SONY
Model	: VPL-BW120S
Responsible party	: Sony Electronics Inc.
Address	: 16530 Via Esprillo, San Diego, CA 92127 U.S.A.
Telephone Number: 858-942-2230	

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

For the customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

For the customers in Europe

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 Japan.
The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

AVERTISSEMENT

Afin de réduire les risques d'incendie ou d'électrocution, ne pas exposer cet appareil à la pluie ou à l'humidité.

Afin d'écarter tout risque d'électrocution, garder le coffret fermé. Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

AVERTISSEMENT
CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

AVERTISSEMENT

Lors de l'installation de l'appareil, incorporer un dispositif de coupure dans le câblage fixe ou brancher la fiche d'alimentation dans une prise murale facilement accessible proche de l'appareil. En cas de problème lors du fonctionnement de l'appareil, enclencher le dispositif de coupure d'alimentation ou débrancher la fiche d'alimentation.

IMPORTANT

La plaque signalétique se situe sous l'appareil.

Pour les clients aux Etats-Unis et au Canada
AVERTISSEMENT

L'utilisation de l'appareil avec une tension autre que 120 V peut nécessiter l'utilisation d'un autre cordon d'alimentation ou d'une autre prise ou les deux à la fois. Pour réduire le risque d'incendie et d'électrocution, confiez toute réparation à un personnel qualifié.

Pour les clients au Canada

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

Pour les clients en Europe

Le fabricant de ce produit est Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 Japon.
Le représentant autorisé pour EMC et la sécurité des produits est Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Allemagne. Pour toute question concernant le service ou la garantie, veuillez consulter les adresses indiquées dans les documents de service ou de garantie séparés.

WARNUNG

Um die Gefahr von Bränden oder elektrischen Schlägen zu verringern, darf dieses Gerät nicht Regen oder Feuchtigkeit ausgesetzt werden.

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

WARNUNG
DIESES GERÄT MUSS GEERDET WERDEN.

WARNUNG

Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder der Netzstecker muss mit einer in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden. Wenn während des Betriebs eine Funktionsstörung auftritt, ist der Unterbrecher zu betätigen bzw. der Netzstecker abzuziehen, damit die Stromversorgung zum Gerät unterbrochen wird.

WICHTIG

Das Namensschild befindet sich auf der Unterseite des Gerätes.

Für Kunden in Europa

Der Hersteller dieses Produkts ist Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, 108-0075 Japan.
Der autorisierte Repräsentant für EMV und Produktsicherheit ist Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Deutschland. Bei jeglichen Angelegenheiten in Bezug auf Kundendienst oder Garantie wenden Sie sich bitte an die in den separaten Kundendienst- oder Garantiedokumenten aufgeführten Anschriften.

Für Kunden in Deutschland

Entsorgungshinweis: Bitte werfen Sie nur entladene Batterien in die Sammelboxen beim Handel oder den Kommunen. Entladen sind Batterien in der Regel dann, wenn das Gerät abschaltet und signalisiert „Batterie leer" oder nach längerer Gebrauchsdauer der Batterien „nicht mehr einwandfrei funktioniert". Um sicherzugehen, kleben Sie die Batteriepole z.B. mit einem Klebestreifen ab oder geben Sie die Batterien einzeln in einen Plastikbeutel.

For the customers in Taiwan only

廢電池請回收

For the State of California, USA only

Perchlorate Material - special handling may apply, See www.dtsc.ca.gov/hazardouswaste/perchlorate Perchlorate Material : Lithium battery contains perchlorate.

For the Customers in Brazil only

DESCARTE DE PILHAS E BATERIAS

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

Bateria Primária
Atenção:

Verifique as instruções de uso do aparelho certificando-se de que as polaridades (+) e (-) estão no sentido indicado. As pilhas poderão vazar ou explodir se as polaridades forem invertidas, expostas ao fogo, desmontadas ou recarregadas.

Evite misturar com pilhas de outro tipo ou com pilhas usadas, transportá-las ou armazená-las soltas, pois aumenta o risco de vazamento.

Retire as pilhas caso o aparelho não esteja sendo utilizado, para evitar possíveis danos na eventualidade de ocorrer vazamento.

As pilhas devem ser armazenadas em local seco e ventilado.

No caso de vazamento da pilha, evite o contato com a mesma. Lave qualquer parte do corpo afetado com água abundante. Ocorrendo irritação, procure auxílio médico.

Não remova o invólucro da pilha.

Mantenha fora do alcance das crianças. Em caso de ingestão procure auxílio médico imediatamente.

Table of Contents

Overview

Preparation

Projecting/Adjusting an Image

## *Adjustments and Settings Using a Menu*

Others

Precautions

On safety

- Check that the operating voltage of your unit is identical with the voltage of your local power supply. If voltage adaptation is required, consult with qualified Sony personnel.
- 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 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, even if the unit itself has been turned off.
- 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.
- Be careful not to catch your fingers by the rear foot (adjustable) when you adjust the height of the unit. Do not push hard on the top of the unit with the rear foot (adjustable) out.
- Avoid using an extension cord with a low voltage limited since it may cause the short-circuit and physical incidents.
- Do not catch your finger between the unit and surface of the floor when moving the projector installed on the floor.
- Do not carry the projector with the cabinet on and with its cover open.
- 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.
- Never mount the projector on the ceiling or move it by yourself. Be sure to consult with qualified Sony personnel (charged).

- If the ventilation holes are blocked, internal heat builds up, and it may cause a fire or damage the unit. To allow adequate air circulation and prevent internal heat build-up, follow the items below:
- Leave space around the unit (page 7).
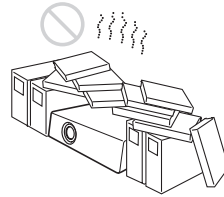
- Avoid using something to cover the ventilation holes (exhaust/intake).
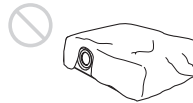
- Do not place the unit on surfaces such as an original packing sheet, soft cloth, papers, rugs, or scraps of paper. The ventilation holes may take in such materials.
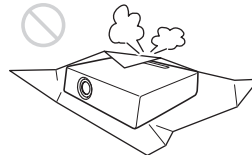
- Do not place any object just in front of the lens that may block the light during projection. Heat from the light may damage the object. Use the picture muting function to cut off the picture.
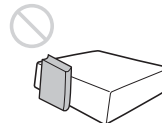
• Do not use the Security bar for the purpose of preventing theft for transporting or installing the unit. If you lift the unit by the Security bar or hang the unit by this bar, it may cause the unit to fall and be damaged, and may result in personal injury.
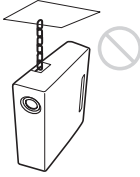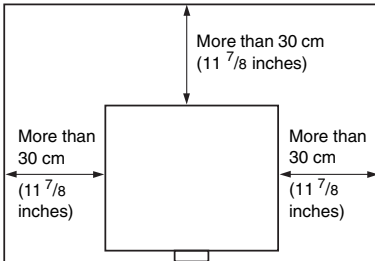
For dealers

• Be sure to secure the cabinet cover firmly when installing to the ceiling firmly.

On Installation

• When installing the unit, leave space between any walls, etc. and the unit as illustrated.

More than 30 cm
(11 $^7/_8$ inches)

More than 30 cm
(11 $^7/_8$ inches)

More than 30 cm
(11 $^7/_8$ inches)

• Avoid using if the unit is tilted more than 15 degrees horizontally.

15°   15°

• Avoid using the unit in a location where the temperature or humidity is very high, or temperature is very low.
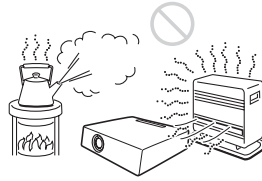
• Avoid installing the unit in a location subject to direct cool or warm air from an air-conditioner. Installing in such a location may cause malfunction of the unit due to moisture condensation or rise in temperature.
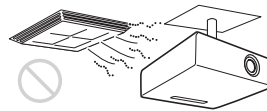
• Avoid installing the unit in a location near a heat or smoke sensor. Installing in such a location may cause malfunction of the sensor.

• Avoid installing the unit in a very dusty or extremely smoky environment. Otherwise, the air filter will become obstructed, and this may cause a malfunction of the unit or damage it.

• When using the unit at an altitude of 1,500 m or higher, set "High Altitude Mode" to "On" in the INSTALL SETTING menu. Failing to set this mode when using the unit at high altitudes could have adverse effects, such as reducing the reliability of certain components.

On cleaning the lens and the cabinet

• Be sure to disconnect the AC power cord from the AC outlet before cleaning.
• If you rub on the unit with a stained cloth, the cabinet may be scratched.
• If the unit is exposed to volatile materials such as insecticide, or the unit is in contact with a rubber or vinyl resin product for a long period of time, the unit may deteriorate or the coating may come off.
• Do not touch the lens with bare hands.
• On cleaning the lens surface:
Wipe the lens gently-with a soft cloth, such as a glass cleaning cloth. Stubborn stains may be removed with a soft cloth lightly dampened with water. Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or a chemical cleaning cloth.
• On cleaning the cabinet:
Clean the cabinet gently with a soft cloth. Stubborn stains may be removed with a soft cloth lightly dampened with mild detergent solution and wrung, followed by wiping with a soft dry cloth. Never use solvent such as alcohol, benzene or thinner, or acid, alkaline or abrasive detergent, or a chemical cleaning cloth.

On Illumination

To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.

On LCD Projector

The LCD projector is manufactured using high-precision technology. You may, however, see tiny black points and/or bright points (red, blue, or green) that continuously appear on the LCD projector. This is a normal result of the manufacturing process and does not indicate a malfunction.
Also, when you use multiple LCD projectors to project onto a screen, even if they are of the same model, the color reproduction among projectors may vary, since color balance may be set differently from one projector to the next.

On Screen

When using a screen with an uneven surface, stripes pattern may rarely appear on the screen depending on the distance between the screen and the unit or the zooming magnifications. This is not a malfunction of the unit.

On Fan

Since the projector is equipped with a fan inside to prevent internal temperature from rising, there may be some noise. This is a normal result of the manufacturing process and does not indicate a malfunction. If, however, in a case of abnormal noise, consult with qualified Sony personnel.

On Lamp

The lamp used as a light source contains mercury that has high internal pressure. A high-pressure mercury lamp has the following characteristics:
• Brightness of the lamp will be lowered as the elapse of time used.
• The lamp may break with a loud noise as a result of shock, damage, or deterioration caused by the elapse of time. The lamp may become unlit and may burn out.
• The lamp life varies with individual differences or usage conditions of each lamp. Therefore, it may break or will not light even before the specified replacement time.
• It may possibly break after the replacement time has elapsed. Replace the lamp with a new one as soon as possible if

a message displayed on the projected image, even if the lamp normally lights.

For carrying

This unit is precision equipment. When carrying the unit, do not subject the unit to shocks, or fall. It may damage the unit.
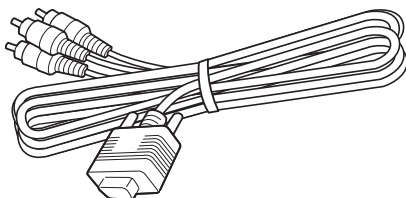
Checking the Supplied Accessories

RM-PJ7 Remote Commander (1)
Lithium battery (CR2025) (1)
> The battery is already installed. Before using the remote commander, remove the insulation film.
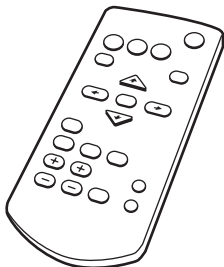
AC power cord (1)
Signal cable (HD D-sub 15-pin ←→ 3 × phono plug) (1.8 m) (1)
(9-885-125-47/Sony)
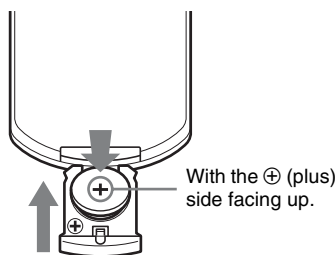Câble de signal (HD D-sub 15 broches ←→ 3 × fiche phono) (1,8 m) (1)
(9-885-125-47/Sony)

Warranty card (1)
Operating Instructions (this manual) (1)

Installing Batteries

1 Pull out the lithium battery compartment.

> Pull out the battery compartment with a stick as shown in the illustration.
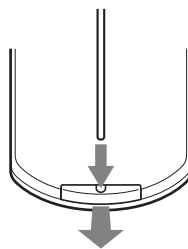
2 Insert a lithium battery.

With the ⊕ (plus) side facing up.

3 Close the lithium battery compartment.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
When you dispose of the battery, you must obey the law in the relative area or country.

ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.
Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.
Lorsque vous mettez la batterie au rebut, vous devez respecter la législation en

vigueur dans le pays ou la région où vous vous trouvez.

VORSICHT

Explosionsgefahr bei Verwendung falscher Batterien. Batterien nur durch den vom Hersteller empfohlenen oder einen gleichwertigen Typ ersetzen.
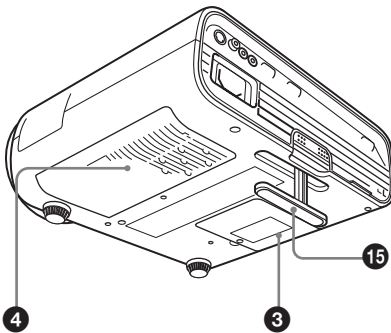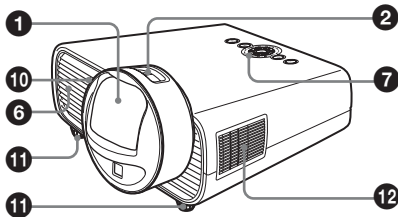Wenn Sie die Batterie entsorgen, müssen Sie die Gesetze der jeweiligen Region und des jeweiligen Landes befolgen.

Installing batteries

One lithium battery (CR2025) is supplied for the RM-PJ7 Remote Commander.
To avoid risk of explosion, use a lithium battery (CR2025).

Location and Function of Controls

Main unit

a **Projection lens**

b **Focus ring (page 20)**

c **Lamp cover (page 35)**

d **Air filter cover (page 37)/
Ventilation holes (intake)**

e **Ventilation holes (intake)**

f **Ventilation holes (exhaust)**

Caution

Do not place anything near the ventilation holes as this may cause internal heat buildup. Do not place your hand near the ventilation holes and the circumference as this may cause injury.
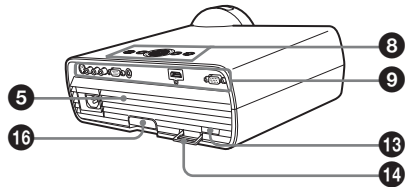
g **LAMP/COVER indicator
(page 31)**

h **Control panel (page 14)**

i **Connector panel (page 13)**

j **Remote control detector**

k **Front feet (adjustable) (page 20)**

l **Speaker**

m **Security lock**

Connects to an optional security cable manufactured by Kensington.
For details, visit Kensington's web site.
http://www.kensington.com/

n **Security bar**

Connects to a commercially available security chain or wire.
If it is difficult to pull out, pull out the Security bar using a screwdriver.

Security bar
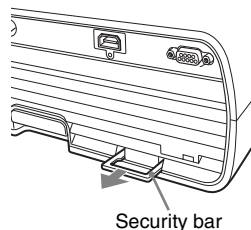
o **Rear foot (adjustable) (page 20)**

p **Foot adjust button (page 20)**

Connector Panel
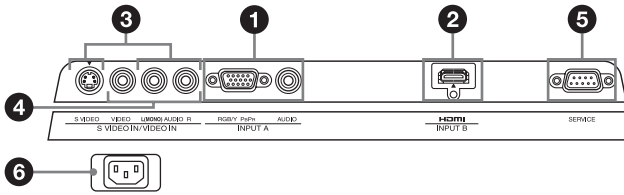
Input (pages 16, 17)

a INPUT A

Video: RGB/YPBPR input connector
(RGB/YPBPR)
Audio: Audio input connector (AUDIO)

b INPUT B

Video: HDMI input connector (HDMI)
Audio: HDMI input connector (HDMI)

c S VIDEO (S VIDEO IN)

Video: S video input connector
Audio: Audio input connector (L
[MONO] AUDIO/R)

d VIDEO (VIDEO IN)

Video: Video input connector
Audio: Audio input connector (L
[MONO] AUDIO/R)

Note

The audio inputs of S VIDEO and VIDEO are
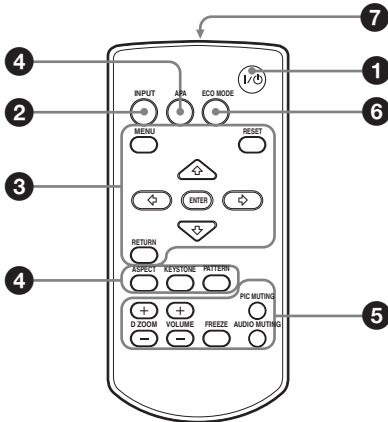shared.

Others

e SERVICE

This connector is for service purposes
only, and not for customer use.

f AC IN (∼) socket

Connects the supplied AC power cord.

Remote Commander and Control Panel

Remote Commander

Control Panel
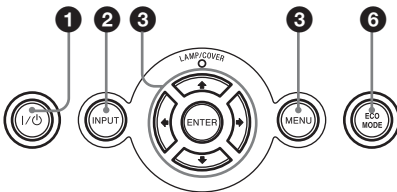
❶ **Turning on the power/Going to standby mode**
I/⏻ (On/Standby) key

❷ **Selecting an input signal (page 19)**
INPUT key

❸ **Operating a menu (page 23)**
MENU key
RESET key
ENTER /↑/↓/←/→ (arrow) keys
RETURN key
This function is not provided in this projector.

❹ **Adjusting the image (page 20)**
ASPECT key
KEYSTONE key
PATTERN key
This function is not provided in this projector.

APA (Auto Pixel Alignment) key*
Note
* Use this key when inputting a computer signal via the RGB input connector (INPUT A).

❺ **Using various functions during projecting**

D ZOOM (Digital Zoom) +/– key*1
Enlarges a portion of the image while projecting.

1 Press the D ZOOM + key to display the digital zoom icon on the projected image.
2 Press the ↑/↓/←/→ keys to move the digital zoom icon to the point on the image you wish to enlarge.
3 Press the D ZOOM + key or the D ZOOM – key repeatedly to change the enlargement ratio. The image can be enlarged up to 4 times.
Press the RESET key to restore the previous image.

PIC MUTING key

Cuts off the image. Press again to restore the image.

AUDIO MUTING key

Mutes the audio output. Press again to restore the previous volume.

VOLUME +/– key

For adjusting the volume output.

FREEZE key*2

Pauses a projected image. Press again to restore the image.

Notes

*1: Use this key when inputting a computer signal. But it may not be used depending on the resolution of the input signal.

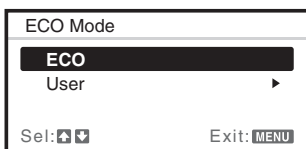*2: Use this key when inputting a computer signal.

⑥ **Setting the energy–saving mode easily**

ECO MODE key

Energy-saving mode can be set easily. Energy-saving mode consists of "Lamp Mode," "Power Saving Mode" and "Standby Mode."

1 Press the ECO MODE key to display the ECO Mode menu.

ECO Mode Menu

ECO Mode	
ECO	
User	▶
Sel:🔼🔽	Exit: MENU

2 Press the ▲/▼ key or ECO MODE key to select ECO or User mode.

ECO: Sets each mode to the optimum energy-saving value.
Lamp Mode: Low
Power Saving Mode: Standby
Standby Mode: Low
(go to step **6**)

User: Sets each item of the energy-saving mode menu as you desire (go to step **3**).

3 Select "User" then press the ➡ key. The setting items appear.

User	
Lamp Mode	**Low**
Power Saving Mode	Off
Standby Mode	Low
Sel:🔼🔽 Set:ENTER	Exit: MENU
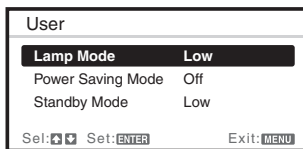
4 Press the ▲/▼ key to select the item then press the ENTER key.

5 Press the ▲/▼ key to select the setting value.

6 Press the ENTER key to restore the User screen.

For details on ECO Mode settings, see "Lamp Mode" (page 29) and "Standby Mode" (page 29) on the INSTALL SETTING menu and "Power Saving Mode*4" (page 27) on the SET SETTING menu.

Others

⑦ **Infrared transmitter**

About Remote Commander operation

• Direct the Remote Commander toward the remote control detector.

• The shorter the distance between the Remote Commander and the projector is, the wider the angle within which the Remote Commander can control the projector becomes.

• Make sure that nothing obstructs the infrared beam between the Remote Commander and the remote control detector on the projector.

Connecting the Projector

Notes

- Make sure all the equipment is powered off when connecting the projector.
- Use the proper cables for each connection.
- Insert the cable plugs firmly; Loose connections may reduce performance of picture signals or cause a malfunction. When pulling out a cable, be sure to grip it by the plug, not the cable itself.
- For more information, refer also to the instruction manuals of the equipment you are connecting.
- Use a no-resistance audio cable.

Connecting a Computer

Connection with a computer is explained for each input signal.

INPUT A

For connecting a computer with an RGB output connector.

Mini D-sub 15-pin cable (not supplied)

RGB output connector

Computer

Audio output connector

RGB/Y PʙPʀ AUDIO

INPUT A

Audio cable (Stereo mini plug) (not supplied)
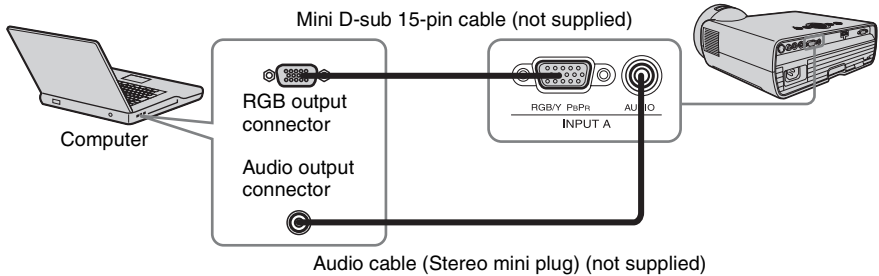
Note

It is recommended that you set the resolution of your computer to 1280 × 800 pixels for the external monitor.

Connecting a Video equipment

Connections with a VHS video deck, DVD player, or BD player are explained for each input signal.

S VIDEO IN

For connecting video equipment with an S-video output connector.

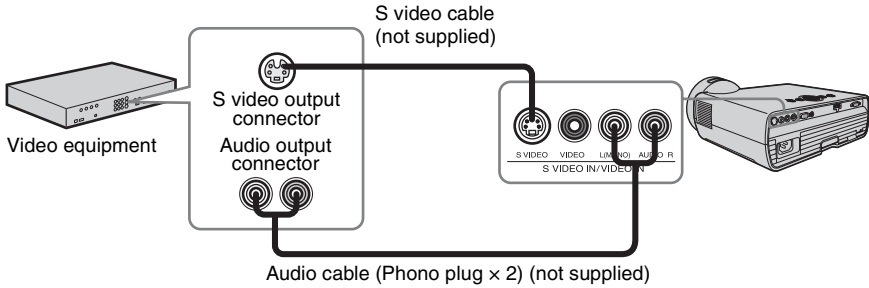S video cable (not supplied)

S video output connector

Audio output connector

Video equipment

S VIDEO VIDEO L(MONO) AUDIO R
S VIDEO IN/VIDEO IN

Audio cable (Phono plug × 2) (not supplied)

VIDEO IN

For connecting video equipment with a video output connector.

Video cable (not supplied)

Video output connector

Audio output connector

Video equipment

S VIDEO VIDEO L(MONO) AUDIO R
S VIDEO IN/VIDEO IN

Audio cable (Phono plug × 2) (not supplied)
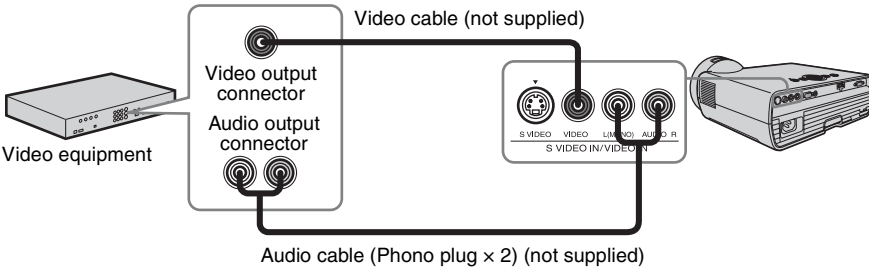
INPUT A

For connecting video equipment with a YPBPR output connector.

Signal cable (HD D-sub 15-pin ←→ 3 × phono plug) (supplied)

YPBPR output connector

Audio output connector

Video equipment

RGB/Y PBPR AUDIO
INPUT A

Audio cable (Phono plug × 2 – stereo mini plug) (not supplied)
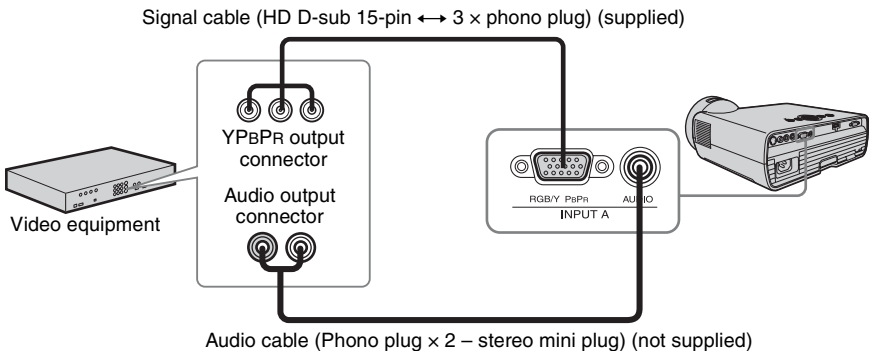
INPUT B

For connecting video equipment with an HDMI output connector.
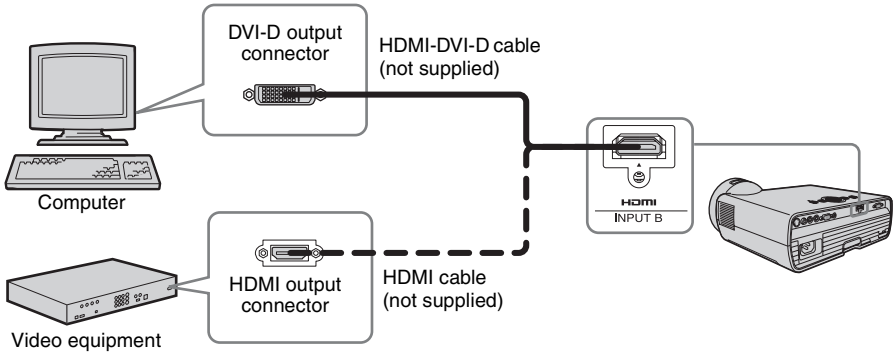
Notes

- Use HDMI-compatible equipment and cable(s) that have an HDMI logo on them.
- The HDMI connector of this projector is not compatible with DSD (Direct Stream Digital) Signal or CEC (Consumer Electronics Control) Signal.

Projecting an Image

The size of a projected image depends on the distance between the projector and screen. Install the projector so that the projected image fits the screen size. For details on projection distances and projected image sizes, see "Projection Distance" (page 42).
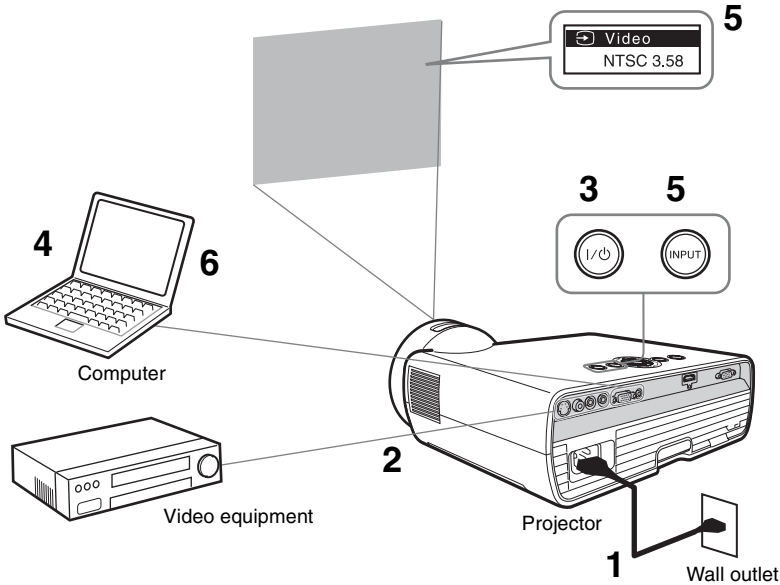

1 Plug the AC power cord into the wall outlet.

2 Connect all equipment to the projector (page 16).

3 Press **I/**(¹) to turn on the unit.

4 Turn on the connected equipment.

5 Select the input source.
Each time you press the INPUT key on the projector, the input signal switches. Press the INPUT key repeatedly to select an image to be projected.
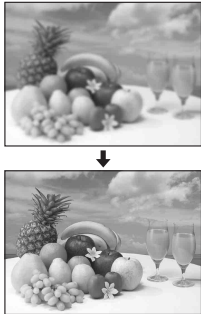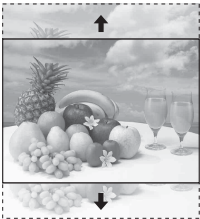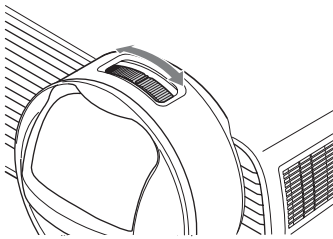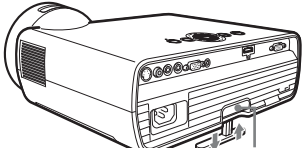
6 Switch your computer to output to external display by changing your computer's setting.
How to switch the computer to output to the projector varies, depending on the type of computer.

(Example)

[Fn] + [F7]

7 Adjust the focus and position of the projected image (page 20).

Adjusting the Projected image

Focus	Position

Foot adjust button |

Adjusting the tilt of the projector with the front feet (adjustable)

You can adjust the height of the projector using the front feet (adjustable).
By changing the slope of the projector with the front feet (adjustable), you can adjust the position of the projected image.
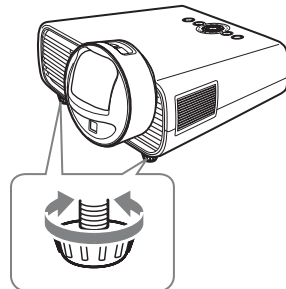
Notes

- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the rear foot (adjustable) extended. It may cause malfunction.

Changing the aspect ratio of the projected image

Press ASPECT on the remote commander to change the aspect ratio of the projected image.
You can also change the setting in Aspect of the INPUT SETTING menu (page 25, page 26).

Correcting trapezoidal distortion of the projected image (Keystone feature)

Keystone feature may not work automatically when the screen is tilted. In this case, set
keystone manually.

1 Press KEYSTONE on the remote
commander or select V Keystone in the
INSTALL SETTING menu.

2 Use ↑/↓/←/→ to set the value. The higher
the setting, narrower the top of the
projected image. The lower the setting, the
narrower the bottom.

Note

Since the Keystone adjustment is an electronic
correction, the image may be deteriorated.

Increase the number
towards plus

Increase the number
towards minus
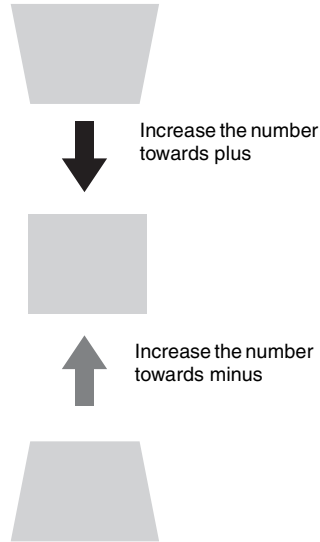
Automatically adjusts Phase, Pitch and Shift of projected image while a signal is input from a computer (APA (Auto Pixel Alignment))

Press APA on the remote commander. Press again to cancel during the setting.
If Smart APA is set to On, executes APA automatically when a signal is input (page 27).

Turning Off the Power

1 Press the I/(¹) key on the main unit or the Remote Commander.
The message appears. Press it again according to the message.

2 Unplug the AC power cord from the wall outlet.
After step **1**, the fan continues to run for a while to reduce internal heat, however, you may also unplug the AC power cord before the fan stops.

To clear the confirmation message

The message disappears if you press any key other than the I/(¹) key on the main unit or the Remote Commander, or if you do not press any key for a while.

To turn off without displaying confirmation message

Hold the I/(¹) key on the main unit pressed for a few seconds.

SET HEADER

Using a MENU

Note

The menu displays used for the explanation below may be different depending on the model you are using.

1 Press the MENU key to display the menu.
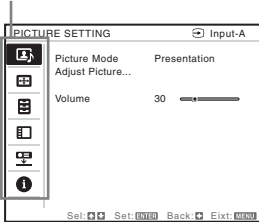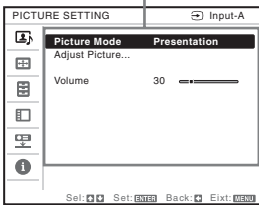
2 Select the setting menu.
Use the ▲ or ▼ key to select the setting menu then press ➜ or ENTER key.

Setting menu

```
PICTURE SETTING              ⊕ Input-A
 ▣
 ⊞         Picture Mode      Presentation
           Adjust Picture...
 ▤
           Volume            30  ━━━━
 ▢
 ⊒
 ❶
           Sel:▣▣  Set:ENTER  Back:▣  Eixt:MENU
```

3 Select the setting item.
Use the ▲ or ▼ key to select the setting menu then press ➜ or ENTER key.
To return to the selection screen of the setting menu, press the ◄ key.

Setting items

```
PICTURE SETTING              ⊕ Input-A
 ▣
 ⊞         Picture Mode      Presentation
           Adjust Picture...
 ▤
           Volume            30  ━━━━
 ▢
 ⊒
 ❶
           Sel:▣▣  Set:ENTER  Back:▣  Eixt:MENU
```

4 Make the setting or adjustment for the selected item.

Menu operation differs depending on the setting item. If the next menu window is displayed, select the item according to the operations in step **3**.
To return to the selection screen of the setting items, press the ◄ key. Also, to reset the setting value of an item to its factory preset value, press the RESET key during setting or adjusting.

Selecting items

```
PICTURE SETTING              ⊕ Input-A
 ▣         Picture Mode      Dynamic
 ⊞         Adjust Picture... Standard
                             Game
 ▤         Volume            Living
                             Cinema
 ▢                           Presentation
 ⊒
 ❶
           Sel:▣▣  Set:ENTER  Back:▣  Eixt:MENU
```
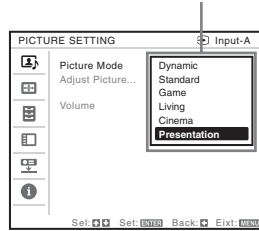
Using the setting menu
Press the ▲ or ▼ key to select the item.
Press the ENTER key to restore the previous screen.

Using the adjustment menu
To increase the number, press the ▲ or ➜ key and to decrease the number, press the ▼ or ◄ key. Press the ENTER key to register the setting. The previous screen is restored.

```
Contrast        90  ━━━━
```

5 Press the MENU key to clear the menu.

The menu disappears automatically if no key is pressed for a while.

The PICTURE SETTING Menu

For adjusting the picture for each input signal.

Items	Item descriptions
Picture Mode	**Dynamic:** Emphasizes the contrast to produce a "dynamic and vivid" picture. **Standard:** Makes the picture be natural and well balanced. **Game:** Select for viewing game picture. **Living:** Select for viewing sports, music, and digital video camera picture. **Cinema:** Select for viewing film-like picture. **Presentation**[1]**:** Makes the picture bright to suit for a presentation.
Adjust Picture...	The unit can store the setting values of the following sub menu items for each picture mode separately.
Contrast	The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.
Brightness	The higher the setting, the brighter the picture. The lower the setting, the darker the picture.
Color[2][4]	The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.
Hue[2][4][5]	The higher the setting, the more greenish the picture becomes. The lower the setting, the more reddish the picture becomes.
Sharpness[2]	The higher the setting, the sharper the picture. The lower the setting, the softer the picture.
Color Temp.[3]	**High/Middle/Low:** The higher the temperature, the more bluish the picture. The lower the temperature, the more reddish the picture.
DDE (Dynamic Detail Enhancer) [6]	**Off:** Plays back the interlace format without conversion. **Progressive:** Plays back the video signal of the interlace format converting to progressive. **Film:** Precisely reproduces the image from a film source to suit the original film source.
Gamma Mode[1]	**Graphics:** Improves the reproduction of halftones. Photos can be reproduced in natural tones. **Text:** Contrasts black and white. Suitable for images that contain lots of text.
Volume	The higher the setting, the higher an audio volume and the lower the setting, the lower the audio volume. The audio output level will work simultaneously.

Notes

[1]: When a computer signal is input, this option is available.
[2]: When a video signal is input, this option is available.
[3]: When "Picture Mode" is set to the item other than "Presentation," this option is available.
[4]: When a B & W signal is input, this option is not available.
[5]: When an analog TV signal is input, this option may not available, depending on the color system.
[6]: When a progressive signal or a 1080i signal is input, this option is not available.
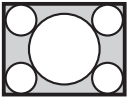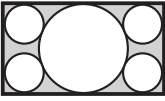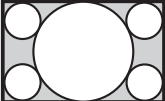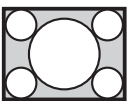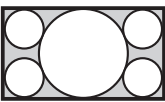
⊞ The INPUT SETTING Menu

For adjusting the size, position, and aspect ratio of the projected image for each input signal.

Items		Item descriptions
Adjust Signal		Adjusts the image of computer signal. Use this item if the edge of the image is cut and reception is bad.
	Dot Phase[*1]	Adjusts the dot phase of the display pixel and the input signal. Set to the value where looks clearest.
	H Size[*1]	The higher the setting, the wider the horizontal image elements (pitch). The lower the setting, the narrower the horizontal image elements (pitch).
	Shift[*2]	**H:** The higher the setting, the farther right the image is projected on the screen. The lower the setting, the image farther left. **V:** The higher the setting, the farther up the image is projected on the screen. The lower the setting, the image farther down.
Aspect[*3]		Changes the aspect ratio of the projected image (page 26).
	When the computer signal is input	**Normal:** Displays the image on the center point of the projected image without changing the resolution of the input signal or enlarging the image.
		Full1: Displays the image to fit the maximum projected image size without changing the aspect ratio of the input signal.
		Full2: Displays the image to fit the maximum projected image size.
		Full3: Displays a 1280 × 760 dot picture on the screen without changing the aspect ratio of the original image.
	When the video signal is input	**Normal:** Displays the image with an aspect ratio fixed to 4:3. **Full:** Displays the image with an aspect ratio fixed to 16:9. **Zoom:** Displays the image to enlarge without changing the aspect ratio of the original image. **Wide Zoom:** Displays the image to enlarge with minimum distortion.
Over Scan[*4]		**On/Off:** When set to "On," the outer edges of the picture will be hidden. Select this setting when noise appears along the edge of the picture.

Notes

*1: Available when a computer signal is input from the RGB input connector (INPUT A).

*2: Available when a computer signal is input from the RGB input connector (INPUT A) or a video signal is input from the YPBPR input connector (INPUT A).

*3: • Note that if the projector is used for profit or for public viewing, modifying the original picture by switching to the aspect mode may constitute an infringement of the rights of authors or producers, which are legally protected.
   • Depending on the input signal, setting items for aspect ratio or some other setting items cannot be set in some cases, or changing the aspect ratio setting may have no effect.
   • A part of the image may be displayed in black, depending on the setting item.

*4: Available when a video signal is input from the YPBPR input connector (INPUT A) or the HDMI input connector (INPUT B).

Adjustments and Settings Using a Menu

Aspect

	Input signal	Recommended setting value and projected image
Computer signal	(4:3)	(Full1)[*1 *2 *3]
	(16:9)	(Full1)[*1 *2 *3]
	(16:10)	(Full1)[*3]
Video signal	(4:3)	(Normal)[*4 *5]
	(16:9)	(Full)

*1: If you select "Normal," the image is projected in the same resolution as the input signal without changing the aspect ratio of the original image.

*2: If you select "Full2," the image is projected to fit the projected image size, regardless of the aspect ratio of the image.
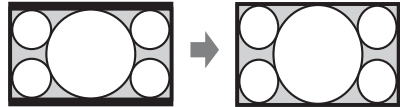
*3: If you adjust the projected image position using an image with 16:9 aspect ratio and then switch the input source to 4:3 image, the top and bottom edge of the image may be hidden. In this a case, select "Full3."

*4: Depending on the input signal, the projected image may be projected as illustrated below. In this a case, select "Full."

*5: Depending on the input signal, the image may be projected as illustrated below. In this a case, select "Zoom."

⊞ The SET SETTING Menu

The SET SETTING menu is used for setting various functions of the projector.

Items	Item descriptions
Smart APA	**On/Off:** When set to "On," executes APA automatically when a signal is input. [1] [2]
Auto Input Search	**On/Off:** When set to "On," the projector detects input signals in the following order: Input-A/Input-B/Video/S Video. It indicates the input channel when the power is turned on or the INPUT key is pressed.
Input-A Signal Sel.	**Auto/Computer/Component/Video GBR:** When set to "Auto," selects the type of video signal input automatically when "Input-A" is selected with the INPUT key. [3]
Color System	**Auto/NTSC$_{3.58}$/PAL/PAL-60/SECAM/NTSC$_{4.43}$/PAL-M/PAL-N:** When set to "Auto," selects the color system automatically when "S Video" or "Video" is selected with the INPUT key. [3]
Power Saving Mode[4]	**Lamp Cutoff:** The lamp turns off automatically and power consumption is reduced if no signal is input for 10 minutes. The lamp lights again when a signal is input or any key is pressed. In Lamp Cutoff, the I/⏻ key lights in orange (page 31). **Standby:** The power will be turned off automatically and the projector goes to Standby mode if no signal is input for 10 minutes. **Off:** The Power Saving Mode is canceled.
Panel Key Lock	**On/Off:** When set to "On," locks all the control panel keys of the projector. However, you can operate the following when set to "On": • Press and hold the I/⏻ key for approximately 10 seconds during Standby mode. → The projector turns on. • Press and hold the I/⏻ key for approximately 10 seconds during power on. → The projector goes to Standby mode. • Press and hold the MENU key for approximately 10 seconds during power on. → "Panel Key Lock" is set to "Off" and enables operation of all keys on the projector.
CC Display	**CC1/CC2/CC3/CC4/Text1/Text2/Text3/Text4:** Select the closed caption service (Captions or Text). **Off:** Closed caption does not appear.
Lamp Timer Reset	When replacing the lamp, resets the lamp timer (page 35).

Notes

*1: Executes APA when a computer signal is input via the RGB input connector (INPUT A).

*2: If the projected image includes large amount of black portion around it, the APA function will not work properly and a part of the image may not be displayed on the screen and also optimum image cannot be obtained, depending on the type of input signal. In this case, adjust the "Dot Phase," "H size," and "Shift" items manually.

*3: The image may not be adjusted properly depending on the type of input signal. In such a case, adjust it manually to suit to the connected equipment.

*4: If you do not want the projector to enter Standby mode automatically, set to "Off."

▣ The MENU SETTING Menu

The MENU SETTING menu is used for setting for the operations by using the menu or the Remote Commander.

Items	Item descriptions
Status	**On:** All on-screen statuses are enabled. **Off:** Turn off the on-screen displays except for the menus, message when turning off the power, and warning messages.
Language	Selects the language used in the menu and on-screen displays.
Menu Position	**Top Left/Bottom Left/Center/Top Right/Bottom Right:** Selects the display position of the menu.
Start Up Image	**On/Off:** When set to "On," the Start Up Image is displayed on the screen upon startup of the projector.

⚏ The INSTALL SETTING Menu

The INSTALL SETTING menu is used for installing the projector.

Items	Item descriptions
V Keystone[*1]	**Auto:** Set keystone adjustment automatically. When the projector is installed on an uneven surface, the feature may not work properly. In this case, select "Manual" to set keystone adjustment manually. **Manual:** The higher the setting, narrower the top of the projected image. The lower the setting, narrower the bottom of the projected image.
Image Flip	**HV/H/V/Off:** Flips the projected image horizontally and/or vertically according to the installation method.
Background	**Black/Blue:** Selects the background color of the projected image when no signal is input.
Lamp Mode	**High/Low:** When set to "High," the image becomes brighter, and power consumption becomes higher.
High Altitude Mode[*2]	**On/Off:** Set to "On" when using the projector at an altitude of 1,500 m or higher. Continuing to use the wrong setting may affect component reliability.
Security Lock[*3]	**On/Off:** This function enables restriction of the projector to authorized users by password. The setting procedures for security locking are as follows: **1** Select "On" and press ENTER to display the setting menu. **2** Input the password with the MENU, ♦/♦/♦/♦, and ENTER keys. (The default password setting is "ENTER, ENTER, ENTER, ENTER.") **3** Input a new password with the MENU, ♦/♦/♦/♦, and ENTER keys. **4** Enter the password again to confirm. Enter the password when you turn on the projector after disconnecting and reconnecting the AC power cord. When it is set to "Off," you can cancel the security lock. You are required to input the password again. If you fail to enter the correct password after three consecutive times, the projector cannot be used. In this case, press the I/⏻ key to go Standby mode then turn on the power again.
Direct Power On	**On/Off:** When set to "On," you can turn the power on without going to Standby mode when the AC power cord is connected to a wall outlet. Regardless of the Direct Power On setting, you can disconnect the AC power cord to turn off the power without going to the Standby mode.
Standby Mode	**Standard/Low:** When set to "Low," lowers power consumption in Standby mode.

Notes

*1: Since the Keystone adjustment is an electronic correction, the image may be deteriorated.
*2: When "High Altitude Mode" is set to "On," the speed of the fan increases, and the fan noise becomes slightly louder.
*3: You will not be able to use the projector if you forget your password. If you call qualified Sony personnel because you have forgotten the password, you will be asked to verify the projector's serial number and your identity. (This process may differ in other countries/regions.) Once your identity has been confirmed, we will provide you with the password.

ⓘ The INFORMATION Menu

The INFORMATION menu enables you to confirm various information on the projector, such as the total usage hours of a lamp.

Items	Item descriptions
Model Name	Displays the model name.
Serial No.	Displays the serial number.
fH[*1]	Displays the horizontal frequency of the current input signal.
fV[*1]	Displays the vertical frequency of the current input signal.
Signal type	Displays the type of the current input signal.
Lamp Timer	Indicates the total usage time of a lamp.

Note

*1: These items may not be displayed depending on the input signal.

Indicators

The indicators allow checking the status and notify you of abnormal operation of the projector. If the projector exhibits abnormal status, address the problem in accordance with the table below.

I/⏻ key

Status		Meaning/Remedies
Lights in red		The projector is in Standby mode.
Flashes in green		• The projector is ready to operate after having been turned on. • The lamp cools after the projector is turned off.
Lights in green		The projector's power is on.
Lights in orange		The projector is in Power Saving Mode (lamp cut off). (page 27)
Flashes in red		The projector is in abnormal status. Symptoms are indicated by number of flashes. Address the problem in accordance with the following. If the symptom is shown again, consult with qualified Sony personnel.
	Flashes twice	The internal temperature is unusually high. Check the items below. • Check to see if nothing is blocking the ventilation holes. • Check to see if the air filter is not clogged. (page 12, page 37)
	Flashes six times	Unplug the AC power cord from a wall outlet. After checking that the I/⏻ key goes out, plug the power cord to a wall outlet again then turn on the projector.
	Other number of flashes	Consult with qualified Sony personnel.

LAMP/COVER indicator

Status		Meaning/Remedies
Flashes in red		Symptoms are indicated by number of flashes. Address the problem in accordance with the following.
	Flashes twice	The lamp cover or the air filter cover is not attached securely. (page 37)
	Flashes three times	The temperature of lamp is unusually high. Turn off the power and wait for lamp to cool then turn on the power again. If the symptom is shown again, the lamp may be burnt out. In such a case, replace the lamp with a new one (page 35).

Messages List

When any of the messages listed below appears on the projected image, address the problem in accordance with the table below.

Message	Meaning/Remedy	Page
High temp.! Lamp off in 1 min.	Check the items below. • Check to see if nothing is blocking the ventilation holes. • Check to see if the air filter is not clogged.	12, 37
Frequency is out of range!	Change the output setting of the connected equipment to one for signals supported by the projector.	41
Please check Input-A Signal Sel.	Set "Input-A Signal Sel." to "Auto" or select the input signal type to suit to the input signal.	27
Please replace the Lamp and clean the Filter.	Replace the lamp with a new one and clean the air filter. The message appears whenever you turn on the power until you replace the lamp and reset the lamp timer.	35, 37
Not applicable!	Invalid key pressed.	–
The panel keys are locked!	"Panel Key Lock" is set to "On."	27

Troubleshooting

Before asking to have the projector repaired, try to diagnose the problem, following the instructions below.

Symptom	Remedy	Page
The power is not turned on.	Check if the AC power cord is firmly connected.	–
	When the "Panel Key Lock" is set to "On," you cannot turn on the projector using the I/$\circlearrowleft$ key on the projector.	27
	If the lamp or lamp cover is not attached securely, the projector cannot be turned on.	35
	If the air filter or air filter cover is not attached securely, the projector cannot be turned on.	37
No image.	Check if the connecting cable is connected to external equipment firmly.	–
	Check if the computer signal is set for output to an external monitor. If you set your computer, such as a notebook computer, to output the signal to both your computer's display and an external monitor, the picture of the external monitor may not appear properly. Set your computer to output the signal to only an external monitor.	19
	Check if the input source is correctly selected.	19
	Check if the picture is muted.	15
On-screen display does not appear.	The on-screen display does not appear when "Status" in the MENU SETTING menu is set to "Off."	28
The aspect ratio of the display is not right/the image is displayed smaller /a portion of image does not appear.	Set "Aspect" manually.	14, 25, 26
The image is a trapezoid.	The images become trapezoidal because of the projection angle. In such a case, you can correct the trapezoidal distortion, using a Keystone feature.	14, 21, 29
	When the "V Keystone" is set to "Manual," the keystone feature does not work automatically. Set "V Keystone" to "Auto" or "Manual" to set manually.	14, 21, 29
	When the projector is installed on an uneven surface, the feature may not work properly. In this case, select "Manual" to set "V Keystone" manually.	14, 21, 29
The image is dark/too bright.	The settings for "Brightness," "Contrast," and "Lamp Mode" affect brightness of the image. Check if the value is appropriate.	24, 29
	The image will be dark when the lamp is burnt out. Check "Lamp Timer," and replace the lamp with a new one if necessary.	30

Others

| Symptom	Remedy	Page
The image is not clear.	Check if the projector is in focus.	20
	The picture will not be clear if condensation has accumulated on the lens. In such a case, let the projector sit for about two hours with the power on.	–
The image is noisy.	Check if the connecting cable is connected to external equipment properly.	16
No sound.	Check that the connecting cables between the projector and external video equipment are securely connected.	16
	Audio is not output if audio muting is activated.	15
	Check if "Volume" is not set to minimum.	15, 24
The Remote Commander does not work.	Check that the batteries are installed correctly.	–
	Check that the batteries are not exhausted.	–
The fan is noisy.	The sound from the fan is often greater than normal to cool the lamp, etc. in the following cases. • "Lamp Mode" is set to "High." • "High Altitude Mode" is set to "On." • The unit is used in the location where the temperature is high.	29
	If the ventilation holes are blocked, the internal temperature of the projector rises and the fan noise becomes larger.	12

Replacing the Lamp

Replace the lamp with a new one if a message displayed on the projected image or the LAMP/COVER indicator notifies you to replace the lamp (pages 31, 32).
Use an LMP-E211 projector lamp (not supplied) for replacement.

Caution

- The lamp remains hot after the projector is turned off. **If you touch the lamp, you may burn your finger. When you replace the lamp, wait for at least an hour after turning off the projector for the lamp to cool sufficiently.**
- Do not allow any metallic or inflammable objects into the lamp replacement slot after removing the lamp, otherwise it may cause electrical shock or fire. Do not put your hands into the slot.
- **If the lamp breaks, contact qualified Sony personnel. Do not replace the lamp yourself.**
- When removing the lamp, be sure to pull it out straight, by holding the designated location. If you touch a part of the lamp other than the designated location, you may be burned or injured. If you pull out the lamp while the projector is tilted, the pieces may scatter if the lamp breaks any may cause injury.

1 Turn off the projector, and disconnect the AC power cord from a wall outlet.

2 When the lamp has cooled sufficiently, open the lamp cover by loosening 1 screw.
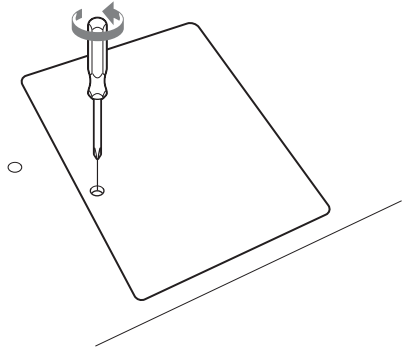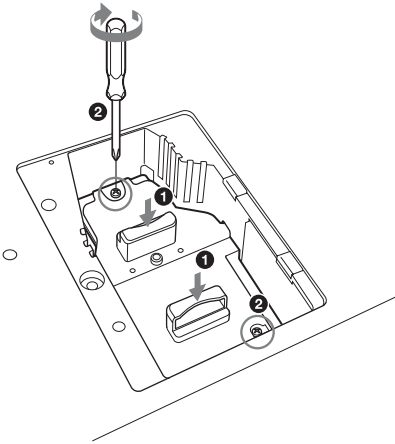

3 Loosen the 2 screws on the lamp then pull out the lamp by its grab.

Grab
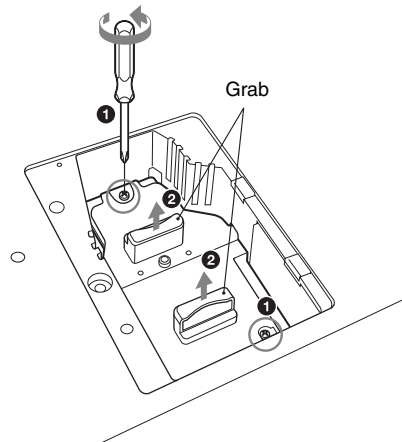
4 Insert the new lamp all the way in until it is securely in place. Tighten the 2 screws.

5 Close the lamp cover and tighten the 1 screw.

Note

Be sure to install the lamp and Lamp cover securely as it was. If not, the projector cannot be turned on.

6 Connect the AC power cord to a wall outlet and turn on the projector.

7 Reset the lamp timer for notification of the next replacement time.
Select "Lamp Timer Reset" on the SET SETTING menu then press the ENTER key. When a message appears, select "Yes" to reset the lamp timer (page 27).

Caution

Disposal of the used lamp
For the customers in the USA
Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Telecommunications Industry Association (www.eiae.org).

Mettre à disposition de la lampe usagée
Pour les clients aux États-Unis
La lampe dans ce produit contient du mercure. La disposition de ces matériaux peut être réglementée suite à des considérations environnementales. Pour obtenir des informations de disposition ou de recyclage, veuillez communiquer avec vos autorités locales ou la Telecommunications Industry Association (www.eiae.org).

Cleaning the Air Filter

When a message appears on the projected image, clean the air filter (page 32).
If the dust cannot be removed from the air filter even after cleaning, replace the air filter with a new one.
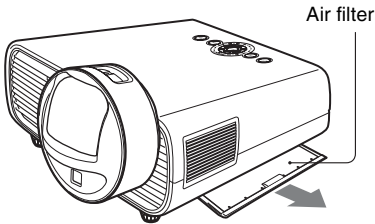For details on a new air filter, consult with qualified Sony personnel.

Caution

If you neglect to clean the air filter, dust may accumulate, clogging it. As a result, the temperature may rise inside the unit, leading to a possible malfunction or fire.

1 Turn off the projector, and disconnect the AC power cord from the AC outlet.

2 Draw out the air filter cover.

Air filter

3 Clean the air filter with a vacuum cleaner.
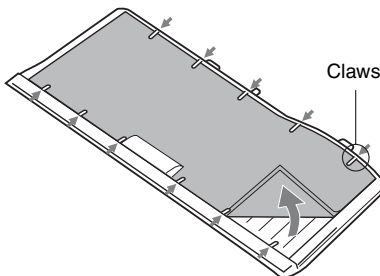Remove the air filter as illustrated below then clean with the vacuum cleaner.

Claws

4 Attach the air filter cover to the unit.

Note

Be sure to attach the air filter cover firmly. If not, the projector cannot be turned on.

Others

Specifications

Item		Description
Model		**VPL-BW120S**
Projection system		3 LCD system
Display device	Effective display size	0.59-inch (15.0 mm), 3 plate, Aspect ratio 16:10
	Effective picture elements	3,072,000 pixels (1280 × 800 pixels, 3 plate panels)
Projection lens	Focus	Manual
Light source		High-pressure mercury lamp, 210 W type
Projected image size		50 inches to 100 inches (1.27 m to 2.54 m)
Luminous flux (Brightness)		2600 lm (when "Lamp Mode" is set to "High")
Speaker		2 W × 1 (monaural)
Applicable scanning frequency [*1]		Horizontal: 19 kHz to 92 kHz, Vertical: 48 Hz to 92 Hz
Resolution	When a computer signal is input	Maximum display resolution: 1400 × 1050 pixels (resize) Panel display resolution: 1280 × 800 pixels
	When a video signal is input	NTSC, PAL, SECAM, 480/60i, 576/50i, 480/60p, 576/50p, 720/60p, 720/50p, 1080/60i, 1080/50i
Color system		NTSC$_{3.58}$, PAL, SECAM, NTSC$_{4.43}$, PAL-M, PAL-N, PAL60
INPUT OUTPUT (Computer/video)	INPUT A	**RGB/YP$_B$P$_R$ input connector:** Mini D-sub 15 pin female, G with sync/Y: 1 Vp-p ± 2 dB, sync negative, 75 ohms terminated, RGB/P$_B$P$_R$: 0.7 Vp-p ± 2 dB, 75 ohms terminated, Sync signal: TTL level high impedance, positive/negative **Audio input connector:** Stereo mini jack, rated input 500 mVrms, input impedance more than 47 kohms
	INPUT B	**HDMI input connector:** HDMI 19-pin, HDCP support, HDMI audio support
	S VIDEO (S VIDEO IN)	**S video input connector:** Mini DIN 4-pin, Y: 1 Vp-p ± 2 dB, sync negative, 75 ohms terminated, C: (burst signal) 0.286 (NTSC)/0.3 (PAL/SECAM) Vp-p ± 2 dB, 75 ohms terminated **Audio input connector:** Phono jack × 2, rated input 500 mVrms, Input impedance more than 47 kohms
	VIDEO (VIDEO IN)	**Video input connector:** Phono jack, 1 Vp-p ± 2 dB, sync negative, 75 ohms terminated **Audio input connector:** Shared with S VIDEO IN
Others connector		**SERVICE connector:** D-Sub 9 pin female

| Item	Description
Model	**VPL-BW120S**
Operating temperature/ Operating humidity	5 °C to 35 °C (41 °F to 95 °F)/20% to 80% (no condensation)
Storage temperature/ Storage humidity	–10 °C to +60 °C (14 °F to 140 °F)/20% to 80% (no condensation)
Power requirements	100 V to 240 V AC, 3.0 A-1.3 A, 50/60 Hz
Power consumption	**100 V AC:** 290 W **240 V AC:** 275 W
Standby power	**100 V AC:** 3 W (when "Standby Mode" is set to "Standard")/0.5 W (when "Standby Mode" is set to "Low") **240 V AC:** 3 W (when "Standby Mode" is set to "Standard")/0.5 W (when "Standby Mode" is set to "Low")
Heat dissipation	**100 V AC:** 990 BTU **240 V AC:** 940 BTU
Standard dimensions (W/H/D)	Approx. 313.4 × 160.3 × 349.3 mm (12 $^{11}/_{32}$ × 6 $^{5}/_{16}$ × 13 $^{3}/_{4}$) Approx. 313.4 × 144.9 × 349.3 mm (12 $^{11}/_{32}$ × 5 $^{23}/_{32}$ × 13 $^{3}/_{4}$ inches) (without projecting parts)
Mass	Approx. 3.7 kg (8 lb 3 oz)
Supplied accessories	See "Checking the Supplied Accessories" (page 10).
Optional accessories [2] [3]	**Projector Lamp LMP-E211 (for replacement)**

Others

Notes

*1: For details, refer to "Acceptable Input Signals" on page 41.

*2: Information on accessories in this manual is current as of June 2012.

*3: Not all optional accessories are available in all countries and area. Please check with your local Sony Authorized Dealer.

Design and specifications of the unit, including the optional accessories, are subject to change without notice.

Pin assignment

RGB input connector (Mini D-sub 15-pin, female)
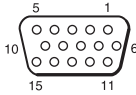
1	Video input (red) R	9	Power supply input for DDC
2	Video input (green) G	10	GND
3	Video input (blue) B	11	GND
4	GND	12	DDC/SDA
5	RESERVE	13	Horizontal sync signal
6	GND (R)	14	Vertical sync signal
7	GND (G)	15	DDC/SCL
8	GND (B)		

HDMI connector (HDMI, female)

1	T.M.D.S. Data2+	11	T.M.D.S. Clock Shield
2	T.M.D.S. Data2 Shield	12	T.M.D.S. Clock–
3	T.M.D.S. Data2–	13	N.C.
4	T.M.D.S. Data1+	14	RESERVED (N.C.)
5	T.M.D.S. Data1 Shield	15	SCL
6	T.M.D.S. Data1–	16	SDA
7	T.M.D.S. Data0+	17	DDC GND
8	T.M.D.S. Data0 Shield	18	+5V Power
9	T.M.D.S. Data0–	19	Hot Plug Detect
10	T.M.D.S. Clock+		

Acceptable Input Signals

Computer signal

Resolution	fH [kHz]/ fV [Hz]	RGB	HDMI
640 × 350	31.5/70	●	
	37.9/85	●	
640 × 400	24.8/56	●	
	31.5/70	●	
	37.9/85	●	
640 × 480	31.5/60	●	●
	35.0/67	●	
	37.9/73	●	
	37.5/75	●	
	43.3/85	●	
800 × 600	35.2/56	●	
	37.9/60	●	●
	48.1/72	●	
	46.9/75	●	
	53.7/85	●	
832 × 624	49.7/75	●	
1024 × 768	48.4/60	●	●
	56.5/70	●	
	60.0/75	●	
	68.7/85	●	
1152 × 864	64.0/70	●	
	67.5/75	●	
	77.5/85	●	
1152 × 900	61.8/66	●	
1280 × 960	60.0/60	●	●
	75.0/75	●	
1280 × 1024	64.0/60	●	●
	80.0/75	●	
	91.1/85	●	
1400 × 1050	65.3/60	●	●
1280 × 768	47.8/60	●	●
1280 × 720	45.0/60	●	●
1360 × 768	47.7/60	●	●

Resolution	fH [kHz]/ fV [Hz]	Input connector	
		RGB	HDMI

Resolution	fH [kHz]/ fV [Hz]	Input connector	
		RGB	HDMI
1440 × 900	55.9/60	●	●
1280 × 800	49.7/60	●	●

Digital TV signal

Signal	fV [Hz]	Input connector	
		RGB/ YPBPR	HDMI
480i	60	●	●
576i	50	●	●
480p	60	●	●
576p	50	●	●
1080i	60	●	●
1080i	50	●	●
720p	60	●	●
720p	50	●	●

Analog TV signal

Signal	fV [Hz]	Input connector VIDEO / S VIDEO
NTSC	60	●
PAL/SECAM	50	●

Notes

- When a signal other than the signals listed in table is input, the picture may not be displayed properly.
- An input signal meant for screen resolution different from that of the panel will not be displayed in its original resolution. Text and lines may be uneven.
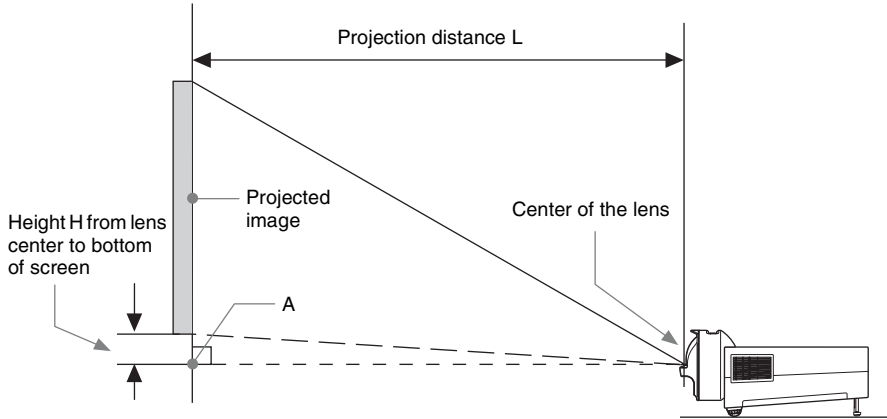
Projection Distance

The following describes the projection distance and height from lens center to bottom of screen by each projected screen size.
The projection distance is the distance between the center of the lens and the surface of the projected image.
Height H is the height from the bottom of the projected image (top for ceiling mount) to A (determined by drawing a perpendicular line from lens center to projected image surface).

Floor Installation (Rear foot (adjustable) fully extended)

Projection distance

Unit: m (inches)

Projected image size		Projection Distance L	Height H from lens center to bottom of screen
Diagonal D	Width × Height		
50 inch (1.27 m)	1.08 × 0.67 (42 × 26)	0.65 (26)	0.15 (5.83)
60 inch (1.52 m)	1.29 × 0.81 (51 × 32)	0.79 (31)	0.18 (7.00)
70 inch (1.78 m)	1.51 × 0.94 (59 × 37)	0.93 (36)	0.21 (8.16)
80 inch (2.03 m)	1.72 × 1.08 (68 × 42)	1.06 (42)	0.24 (9.33)
100 inch (2.54 m)	2.15 × 1.35 (85 × 53)	1.34 (53)	0.30 (11.66)

Projection distance formula

D: Projected image size (Diagonal)
H: Distance between the bottom edge of the image and the center of the lens

Expression#1   Unit: m (inches)

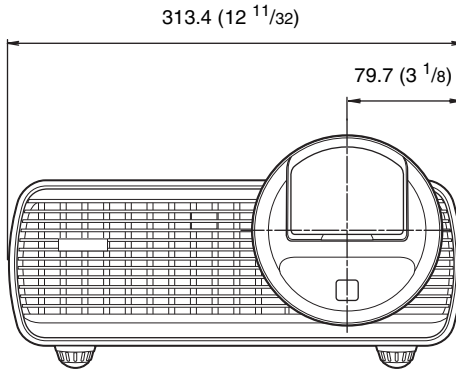| Projection Distance L |
|---|
| L=0.013794 × D – 0.0394 (L=0.543087 × D – 1.5503) |

Expression#2

Height H from lens center to bottom of screen
H=0.00296 × D (H=0.11660 × D)

Ceiling Installation (Top side parallel to ceiling)

Caution

Never mount the projector on the ceiling or move it by yourself. Be sure to consult with qualified Sony personnel (charged).
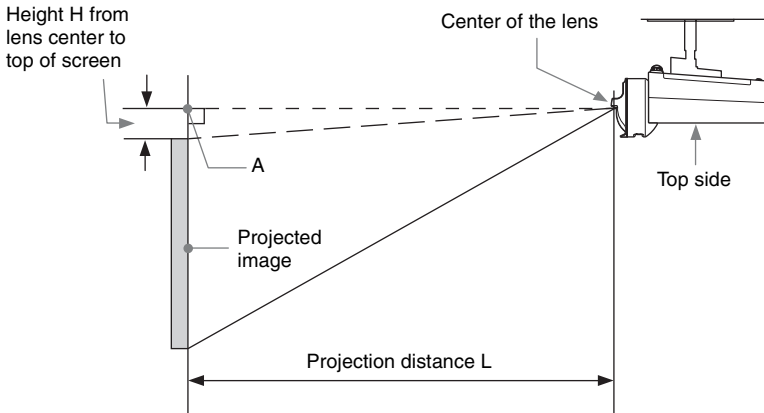
Projection distance

Unit: m (inches)

Projected image size		Projection Distance L	Height H from lens center to top of screen
Diagonal D	Width × Height		
50 inch (1.27 m)	1.08 × 0.67 (42 × 26)	0.65 (26)	0.15 (5.83)
60 inch (1.52 m)	1.29 × 0.81 (51 × 32)	0.79 (31)	0.18 (7.00)
70 inch (1.78 m)	1.51 × 0.94 (59 × 37)	0.93 (36)	0.21 (8.16)
80 inch (2.03 m)	1.72 × 1.08 (68 × 42)	1.06 (42)	0.24 (9.33)
100 inch (2.54 m)	2.15 × 1.35 (85 × 53)	1.34 (53)	0.30 (11.66)

Projection distance formula

D: Projected image size (Diagonal)
H: Distance between the top edge of the image and the center of the lens

Expression#1   Unit: m (inches)

Projection Distance L
$L = 0.013794 \times D - 0.0394$ ($L = 0.543087 \times D - 1.5503$)

Expression#2

Height H from lens center to top of screen
$H = 0.00296 \times D$ ($H = 0.11660 \times D$)

In the case of ceiling mounting, check with your dealer regarding the use of a mount kit that is warranted for use with this product.

Dimensions

Front

313.4 (12 ^{11}/$_{32}$)

79.7 (3 ^{1}/$_{8}$)

Unit: mm (inches)

Side

349.3 (13 ^{3}/$_{4}$)

269 (10 ^{19}/$_{32}$)

144.9
(5 ^{23}/$_{32}$)

114.1
(4 ^{1}/$_{2}$)

Unit: mm (inches)

Side (Top side parallel to ceiling)

69.4
(2 23/32)

Center of
the lens

79.9 (3 5/32)

Unit: mm (inches)

Bottom

27.3 (1 1/16)   24.4 (31/32)

34
(1 11/32)

Center of
the lens

40.2
(1 19/32)

188
(7 13/32)

77 (3 1/32)

131.8
(5 3/16)

40.2
(1 19/32)

8.2 (5/16)

24.4 (31/32)

18.1 (23/32)

22.7 (29/32)

79.3 (3 1/8)

125.4 (4 15/16)

249 (9 13/16)

Unit: mm (inches)

Index

Others

R

S

T

U

V

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