

# Data Projector

### Operating Instructions

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

### VPL-MX20/MX25

Not all models are available in all countries and area. Please check with your local Sony Authorized Dealer.

### **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.

#### **Notice for customers**

The statements for each country/area are only applicable to equipment sold in that country/area.

WARNING: THIS WARNING IS APPLICABLE FOR USA ONLY. If used in USA, use the UL LISTED power cord specified below. DO NOT USE ANY OTHER POWER CORD.

Plug Cap Parallel blade with ground pin (NEMA 5-15P Configuration)
Cord Type SVT, three 18 AWG wires
Length Minimum 1.5 m (4 ft. 11 in.),
Less than 2.0 m (6 ft. 7 in.)
Rating Minimum 7 A, 125 V

Using this unit at a voltage other than 120V 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.

# **WARNING:** THIS WARNING IS APPLICABLE FOR OTHER COUNTRIES.

- 1 Use the approved Power Cord (3-core mains lead) / Appliance Connector / Plug with earthing-contacts that conforms to the safety regulations of each country if applicable.
- 2 Use the Power Cord (3-core mains lead) / Appliance Connector / Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord / Appliance Connector / Plug, please consult a qualified service personnel.

#### **IMPORTANT**

The nameplate is located on the bottom.

### For kundene i Norge

Dette utstyret kan kobles til et ITstrømfordelingssystem.

#### 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.

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.

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-MX20

VPL-MX25

Responsible party:

Address:

Sony Electronics Inc. 16530 Via Esprillo, San

Diego, CA 92127U.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.

#### 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, 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.

### 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.

### 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 Electronic Industries Alliance (www.eiae.org).

### For safety

Be sure to attach the air filter to the unit.

### For the customers in Taiwan only



廢電池請回收

### For VPL-MX25 only

### For the customers in the U.S. A. and Canada

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

This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of

the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated with at least 20cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and ankles).

#### For the customers in the U.S.A.

In according with 47 CFR Part15.407 (e) U-NII devices operating in 5.15-5.25GHz frequency bands are restricted to indoor operations only.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

### For the customers in Europe

Notice for customers: the following information is only applicable to equipment sold in Countries applying EU directives.



This product is intended to be used in the following countries:

AT	BE	ВG	CY	CZ	DK	EE	FI	FR	DE	GR
HU	ΙE	ΙT	LV	LT	LU	MT	NL	PL	PT	RO
SK	SI	ES	SE	GB	IS	LI	NO	СН		

Bulgarian	С настоящето Сони Корпорация декларира, че този VPL-MX25/Data Projector отговаря на основните изисквания и другите сьответстващи клаузи на Директива 1999/5/ЕС. Подробности може да намерите на Интернет страницата: http://www.compliance.sony.de/.
Czech	Sony Corporation tímto prohlašuje, že tento VPL-MX25/Data Projector je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES. Podrobnosti lze získat na následující URL: http://www.compliance.sony.de/
Danish	Undertegnede Sony Corporation erklærer herved, at følgende udstyr VPL-MX25/Data Projector overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF. For yderligere information gå ind på følgende hjemmeside: http://www.compliance.sony.de/
Dutch	Hierbij verklaart Sony Corporation dat het toestel VPL-MX25/Data Projector in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG. Nadere informatie kunt u vinden op: http://www.compliance.sony.de/
English	Hereby, Sony Corporation, declares that this VPL-MX25/Data Projector is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. For details, please access the following URL: http://www.compliance.sony.de/

Estonian	Sony Corporation kinnitab käesolevaga seadme VPL-MX25/Data Projector vastavust 1999/5/EÜ direktiivi põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele. Üksikasjalikum info: http://www.compliance.sony.de/.
Finnish	Sony Corporation vakuuttaa täten että VPL-MX25/Data Projector tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen. Halutessasi lisätietoja, käy osoitteessa: http://www.compliance.sony.de/
French	Par la présente Sony Corporation déclare que l'appareil VPL-MX25/Data Projector est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE. Pour toute information complémentaire, veuillez consulter l'URL suivante: http://www.compliance.sony.de/
German	Hiermit erklärt Sony Corporation, dass sich das Gerät VPL-MX25/Data Projector in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet. Weitere Informationen erhältlich unter: http://www.compliance.sony.de/
Greek	Με την παρούσα η Sony Corporation δηλώνει ότι VPL-MX25/Data Projector συμμο ρφώνεται προς της ουσιώδεις απαιτήσεις και τις λοιπές σχετικές διατάξεις της οδηγίας 1999/5/ΕΚ. Για λεπτομέρειες παρακαλούμε όπως ελένξετε την ακόλουθη σελίδα του διαδ ικτύου: http://www.compliance.sony.de/
Hungarian	Alulírott, Sony Corporation nyilatkozom, hogy a(z) VPL-MX25/Data Projector megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak. További információkat a következő weboldalon találhat: http://www.compliance.sony.de/
Italian	Con la presente Sony Corporation dichiara che questo VPL-MX25/Data Projector è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE. Per ulteriori dettagli, si prega di consultare il seguente URL: http://www.compliance.sony.de/
Latvian	Ar šo Sony Corporation deklarē, ka VPL-MX25/Data Projector atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem. Plašāka inform ācija ir pieejama: http:// www.compliance.sony.de/
Lithuanian	Šiuo Sony Corporation deklaruoja, kad šis VPL-MX25/Data Projector atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas. Susipažinti su visu atitikties deklaracijos turiniu Jūs galite interneto tinklalapyje: http://www.compliance.sony.de/
Norwegian	Sony Corporation erklærer herved at utstyret VPL-MX25/Data Projector er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 1999/5/EF. For flere detaljer, vennligst se: http://www.compliance.sony.de/
Polish	Niniejszym Sony Corporation oświadcza, że VPL-MX25/Data Projector jest zgodne z zasadniczymi wymaganiami oraz innymi stosownymi postanowieniami Dyrektywy 1999/5/WE. Szczególowe informacje znaleźć mozna pod następującym adresem URL: http://www.compliance.sony.de/
Portuguese	Sony Corporation declara que este VPL-MX25/Data Projector está conforme os requisitos essenciais e outras disposições da Directiva 1999/5/CE. Para mais informacoes, por favor consulte a seguinte URL: http://www.compliance.sony.de/

Romanian	Prin prezenta, Sony Corporation declară că acest VPL-MX25/Data Projector respectă cerințele esențiale şieste în conformitate cu prevederile Directivei 1999/5/EC. Pentru detalii, vă rugăm accesați următoarea adresă: http://www.compliance.sony.de/
Slovak	Sony Corporation týmto vyhlasuje, že VPL-MX25/Data Projector splňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES. Podrobnosti získate na nasledovnej webovej adrese: http://www.compliance.sony.de/
Slovenian	Sony Corporation izjavlja, da je ta VPL-MX25/Data Projector v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES. Za podrobnosti vas naprošamo, če pogledate na URL: http://www.compliance.sony.de/
Spanish	Por medio de la presente Sony Corporation declara que el VPL-MX25/Data Projector cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE. Para mayor información, por favor consulte el siguiente URL: http://www.compliance.sony.de/
Swedish	Härmed intygar Sony Corporation att denna VPL-MX25/Data Projector står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG. För ytterligare information gå in på följande hemsida: http://www.compliance.sony.de/

#### For the customers in France

The WLAN feature of this Data Projector shall exclusively be used inside buildings.

### For the customers in Italy

Use of the RLAN network is governed:

- with respect to private use, by the Legislative Decree of 1.8.2003, no. 259 ("Code of Electronic Communications").
   In particular Article 104 indicates when the prior obtainment of a general authorization is required and Art. 105 indicates when free use is permitted;
- with respect to the supply to the public of the RLAN access to telecom networks and services, by the Ministerial Decree 28.5.2003, as amended, and Art. 25 (general authorization for electronic communications networks and services) of the Code of electronic communications
- with respect to private use, by the Ministerial Decree 12.07.2007

### For the customers in Cyprus

The end user must register the RLAN devices in the Department of Electronic Communications (P.I. 6/2006 and P.I. 6A/2006).

P.I. 6/2006 is the Radiocommunications (Categories of Stations Subject to General Authorization and Registration) Order of 2006

P.I. 6A/2006 is the General Authorization for the use of Radiofrequencies by Radio Local area Networks and by Wireless Access Systems, including Radio Local Area Networks (WAS/RLAN).

### Για τους πελάτες στην Κύπρο

Ο τελικός χοήστης ποέπει να εγγοάψει τις συσκευές RLAN στο Τμήμα Ηλεκτρονικών Επικοινωνιών (ΚΔΠ. 6/2006).

Το ΚΔΠ. 6/2006 είναι το Διάταγμα πεφί Ραδιοεπικοινωνιών του 2006 (Κατηγοφίες Ραδιοσυχνοτήτων Υποκείμενες σε Γενική Εξουσιοδότηση και Εγγραφή). Το ΚΔΠ. 6Α/2006 αποτελεί τη Γενική Εξουσιοδότηση για τη χρήση φαδιοσυχνοτήτων από τοπικά ασύρματα δίκτυα και ασύρματα συστήματα πρόσβασης, συμπεφιλαμβανομένων των τοπικών δικτύων επικοινωνιών (WAS/RLAN).

### For the customers in Norway

Use of this radio equipment is not allowed in the geographical area within a radius of 20 km from the centre of Ny-Ålesund, Svalbard.

### For kunder i Norge

Det er ikke tillatt å bruke dette radioutstyret innen en radius på 20 km fra sentrum av Ny-Ålesund, Svalbard.

### For the customers in Taiwan

### 注意

經型式認證合格之低功率射頻電機,非 經許可,公司、商號或使用者均不得擅 自變更頻率、加大功率或變更原設計之 特性及功能。

低功率射頻電機之使用不得影響飛航安 全及干擾合法通信;經發現有干擾現象 時,應立即停用,並改善至無干擾時方 得繼續使用。前項合法通信,指依電信 法規定作業之無線電通信。

低功率射頻電機須忍受合法通信或工 業、科學及醫療用電波輻射性電機設備 之干擾。

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### **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 (exhaust) — the air coming out is hot.
- Be careful not to get your fingers caught in the adjuster. The powered tilt adjuster of this unit automatically extends when the power is turned on, and is retracted automatically when the power is turned off. Do not touch the unit while the adjuster is in operation. Adjust the powered tilt adjuster carefully after its automatic operation is completed.
- Do not use the product with the filter removed.
- Do not drop in at the exhaust outlet.

#### On illumination

- To obtain the best picture, the front of the screen should not be exposed to direct lighting or sunlight.
- Cover any windows that face the screen with opaque draperies.
- It is desirable to install the unit in a room where floor and walls are not of lightreflecting 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 buildup

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

### On cleaning

### Before cleaning

Be sure to disconnect the AC power cord from the AC outlet.

### On cleaning the air filter

- Clean the air filter regularly.
- Refer to the "Cleaning the Air Filter" on page 51 for the air filter cleaning.

### On cleaning the lens cover

The lens cover surface is especially treated to reduce reflection of light.

As incorrect maintenance may impair the performance of the projector, take care with respect to the following:

- Avoid touching the lens cover. To remove dust on the lens, use a soft dry cloth. Do not use a damp cloth, detergent solution, or thinner.
- Wipe the lens cover gently with a soft cloth such as a cleaning cloth or glass cleaning cloth.
- Stubborn stains may be removed with a soft cloth such as a cleaning cloth or glass cleaning cloth lightly dampened with water.
- Never use solvent such as alcohol, benzene
  or thinner, or acid, alkaline or abrasive
  detergent, or chemical cleaning cloth, as
  they will damage the lens cover surface.

### On cleaning the cabinet

- Clean the cabinet gently with a soft dry cloth. Stubborn stains may be removed with a cloth lightly dampened with mild detergent solution, followed by wiping with a soft dry cloth.
- Use of alcohol, benzene, thinner or insecticide may damage the finish of the

- cabinet or remove the indications on the cabinet. Do not use these chemicals.
- If you rub on the cabinet with a stained cloth, the cabinet may be scratched.
- If the cabinet is in contact with a rubber or vinyl resin product for a long period of time, the finish of the cabinet may deteriorate or the coating may come off.

### 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.

### Lens cover with hardened glass

A lens cover with hardened glass is supplied; however, it is not unbreakable. If the glass is shattered, dangerous shards may be scattered. Take note of the followings:

- Do not impact strong shock to the cover by dropping it from a high location.
- Do not scratch it. A deep scratch can lead to breakage.

# Notes on Installation and Usage

#### Unsuitable Installation

Do not install the unit in the following situations. These installations may cause malfunction or damage to the unit.

### **Poorly ventilated**



- 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.
- When the internal heat builds up due to the block-up, the temperature sensor will function with the message "High temp.! Lamp off in 1 min." The power will be turned off automatically after one minute.
- Leave space of more than 30 cm (11 <sup>7</sup>/8 inches) around the unit.
- Be careful that the ventilation holes may inhale tininess such as a piece of paper.

### Highly heated and humid



- Avoid installing the unit in a location where the temperature or humidity is very high, or temperature is very low.
- To avoid moisture condensation, do not install the unit in a location where the temperature may rise rapidly.

### 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.

### Near a heat or smoke sensor

Malfunction of the sensor may be caused.

### Very dusty, extremely smoky



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. Dust preventing the air passing through the filter may cause a rise in the internal temperature of the unit. Clean the air filter whenever you replace the lamp.

### **Usage in High Altitude**

When using the unit at an altitude of 1,500 m or higher, set the "High Altitude Mode" to "On" in the Setup 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.

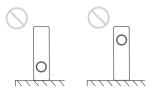
#### Note on the screen

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.

### **Unsuitable Conditions**

Do not use the unit under the following conditions.

### Do not topple the unit



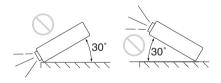
Avoid using as the unit topples over on its side. It may cause malfunction.

### Do not tilt right/left



Avoid using as the unit tilts right or left more than 20 degrees. Do not install the unit other than on the floor or ceiling. These installations may cause malfunction.

### Do not tilt the unit backward or forward



If the unit is left tilted for a certain period of time, a warning message may appear to show that the installation angle is outside the proper range.

### Do not block the ventilation holes



Avoid using something to cover over the ventilation holes (exhaust/intake); otherwise, the internal heat may build up.

### Do not place a blocking object just in front of the lens



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 PIC MUTING key to cut off the picture.

# About the Supplied Manuals

The following manuals are supplied with the projector.

On Macintosh system, you can read only the Operating Instructions.

#### **Manuals**

### Safety Regulations (separately printed manual)

This manual describes important notes and cautions to which you have to pay attention when handling and using this projector.

## Quick Reference Manual (separately printed manual)

This manual describes basic operations for projecting pictures after you have made the required connections.

## Operating Instructions (on the CD-ROM) (this manual)

This Operating Instructions describes the setup and operations of this projector.

### Operating Instructions for Network/ USB File Viewer (VPL-MX25 only) (on the CD-ROM)

This Operating Instructions describes how to set up and operate the network presentation.

### Note

You must have Adobe Acrobat Reader 5.0 or higher installed to read the Operating Instructions stored on the CD-ROM.

This manual contains explanations for the VPL-MX20 and VPL-MX25 together. Be aware that the VPL-MX25 is mainly used for explanation of the display, and there may be an item that is not displayed due to the model.

### **Features**

## High brightness, high picture quality

### **High brightness**

Adopting Sony's unique new optical system that incorporates newly developed LCD panels provides a high-efficiency optical system. It allows the 200 W Ultra High Pressure mercury lamp to give a light output of 2500 lumen.

### High picture quality

Three super-high-aperture 0.63-inch XGA panels with approximately 790,000 effective pixels, produce a resolution of  $1024 \times 768$  dots (horizontal/vertical) for RGB input, and 750 horizontal TV lines for video input.

### Compact and lightweight

The projector is light because the weight is only about 1.7 kg, and the body is designed to be thin. This makes the projector convenient for carrying.

### Easy setup and simple operation

### Advanced Intelligent Auto-setup function with auto focus adjustment

Simply press the power key, and the projector automatically performs the setups required before use. The projector corrects the V Keystone, adjusts the focus automatically, detects a signal, and sets optimum conditions for projection.

### Powered zoom/focus equipped

The projector is equipped with a powered zoom and powered focus lens, allowing you to adjust the size and focus of an image with the Remote Commander away from the projector.

#### Short focal lens

The projection distance is very short, approximately 2.36 m (7.7 feet), when projecting an 80-inch image, which allows projection on a larger screen even in a limited space.

### Off & Go feature

The projector can be moved to another location, after turning it off and disconnecting the plug just after use.

### **Security Functions**

### Security lock

This function makes it possible to prevent projection of a picture on the screen unless the required password is entered when the projector is turned on.

### Panel key lock

This function locks all the keys on the control panel of the projector, allowing use of the keys on the Remote Commander. This prevents the projector from operating incorrectly.

# Network Presentation\* (VPL-MX25 only)

If you make the projector part of a LAN environment, it can project and present a file not only from a computer connected to the LAN but also from a remote computer. For details, refer to the Operating Instructions for Network/USB File Viewer.

### Compatible to the Windows Vista's Network Projector function

By using the "Network Projector" function of Windows Vista, the computer window can be projected by the projector via the network with a simple operation.

### **Remote Desktop**

This unit corresponds to Remote Desktop of Windows XP Professional, Vista, and others. You can access the computer via LAN from this projector to project windows or files from the computer directly.

#### **Network File Viewer**

This function helps you give a simple presentation using a file on the server without using a computer. You can view Power Point and Excel files, as well a Wmv (Microsoft) and Jpeg files.

### Streaming

This function enables you to project motionpicture images via a wireless LAN.

# USB Memory Presentation without a Computer\* (VPL-MX25 only)

By connecting USB memory directly to this unit, you can give a simple presentation without using a computer. You can view Power Point and Excel files, as well a Wmv (Microsoft) and Jpeg files stored in the USB memory.

# Supervising Condition via a Network\* (VPL-MX25 only)

After making the projector part of a LAN environment, you can control its power or get information such as its usage period of time via the Web.

\* For details, refer to "Operating Instructions (For Network/USB File Viewer)" on the supplied CD-ROM.

### **Other Convenient Functions**

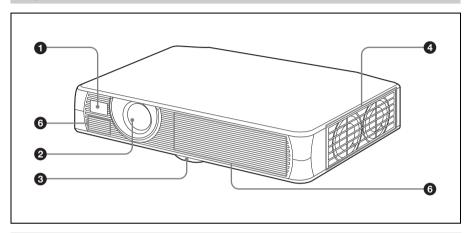
- On-screen menu in 17 languages
- Picture muting
- Freeze
- Lamp mode switching function
- Equiped with "Low" in Standby Mode

#### **About Trademarks**

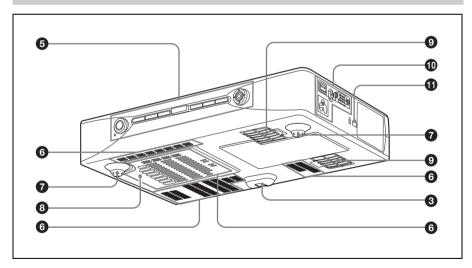
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# Location and Function of Controls (Main Unit)

### Top/Front/Side



### Rear/Side/Bottom



- Front remote control detector
- 2 Lens cover glass
- Powered tilt adjuster
- 4 Ventilation holes (exhaust)

G Control Panel

For details, see "Control Panel" on page 18.

**6** Ventilation holes (intake)

### Adjusters (hind pad)

Turn the appropriate adjuster to the right or left for minor tilt adjustment of the projected picture.

- 8 Lamp cover
- Ventilation holes (intake)/Air filter cover
- **1** Connector Panel

For details, see "Connector Panel" on page 19.

Security lock

Connects to an optional security cable (from Kensington).
Web page address:
http://www.kensington.com/

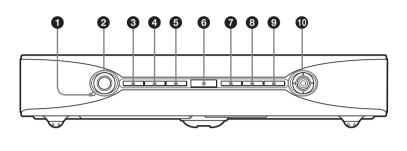
### Notes on ventilation holes

- 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.
- To maintain optimal performance, clean the air filter every 500 hours.

For details, see "Cleaning the Air Filter" on page 51.

### **Control Panel**

### Rear



### 1 LAMP/COVER indicators

Flashes in orange under the following conditions:

- A repetition rate of 2 flashes when the lamp cover is not secured firmly.
- A repetition rate of 3 flashes when the lamp has reached the end of its life or reaches a high temperature.

For details, see page 54.

### ② I/<sup>⊕</sup> (On/Standby) key

Turns on the projector when it is in standby mode. When you press I/U key, this key flashes in green and then lights in green when the projector is ready to operate.

To turn off the power, press the I/\(\therefore\) key twice according to the message or hold the I/\(\therefore\) key for about two seconds. I/\(\therefore\) key lights up or flashes under the following conditions:

- Lights in red when the AC power cord is plugged into a wall outlet. Once the projector is in standby mode, you can turn it on with the I/O key.
- Flashes in red when the internal temperature is high or the electrical system has failed.
- Lights in green when the projector is turned on, and when it is ready to operate.

- Flashes in green from the time when the projector is turned on until the projector is ready to operate. Also, flashes in green while the cooling fan is running after the power is turned off with the I/O key. The fan runs for about 90 seconds after the power is turned off.
- Lights in orange when the power saving mode is on.

For details, see page 54.

### **3** INPUT key

Select the input signal. Each time you press the key the input signal switches.

### **4** MENU key

Displays the on-screen menu. Press again to clear the menu.

### **5** PIC MUTING key

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

### 6 Rear remote control detector

### **7** AUTO FOCUS key

Adjusts the picture focus automatically.

### 200M/FOCUS key

Each time this key is pressed, ZOOM and FOCUS adjusting menus are displayed alternately. Use the arrow keys

 $(\triangle/\nabla/\triangle/\triangleright)$  for adjustment on your desired menu.

# 9 TILT/KEYSTONE (Trapezoidal distortion correction) key

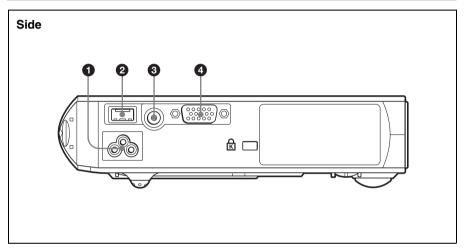
Adjusts the tilt of the projector, or the trapezoidal distortion of the image manually. Each time you press this key, the Tilt menu and the V Keystone menu

are displayed in turn. Use the arrow keys  $(\triangle/\nabla/\blacktriangleleft/\triangleright)$  for adjustment.

# PUSH ENTER/▲/▼/◄/► (Arrow) keys

Used to enter the settings of items in the menu system, select a menu, or make various adjustments.

### **Connector Panel**



### AC IN socket

Connects the supplied AC power cord.

### USB connector (type A) (VPL-MX25 only)

Uses to view files saved on media with USB connection.

#### Note

The projector cannot be connected with the computer by connecting the USB cable to the USB connector on the projector.

### 3 VIDEO jack (phono type)

Connects to the composite video output of video equipment.

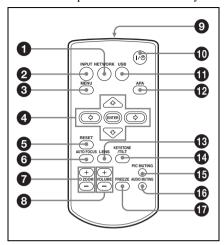
### INPUT A (Analog RGB) connector (HD D-sub 15-pin, female)

Inputs a computer signal, video GBR signal, component signal, or DTV signal depending on the connected equipment. Connects to the output connector of equipment using the supplied cable or an optional cable.

For details, see "Connecting a Computer" on page 23 and "Connecting a VCR" on page 24.

### **Remote Commander**

The keys that have the same names as those on the control panel function identically.



### **1** NETWORK key

Displays the home window of a Network presentation.

For details, refer to "Operating Instructions (For Network/USB File Viewer)" on the supplied CD-ROM.

### Note

No key may function immediately after connecting the AC power cord, as the unit is starting up.

- INPUT key
- MENU key
- RESET key

Resets the value of an item to its factory preset value or returns the enlarged image with D ZOOM key to its original size. This key functions when the menu or a setting item is displayed on the screen.

### 6 AUTO FOCUS key

### **7** D ZOOM (Digital Zoom) +/- key

Enlarges the image at a desired location on the screen.

### 8 VOLUME +/- keys

This function is not provided in this projector.

- Infrared transmitter
- I/
   (On/Standby) key

### 1 USB key

Displays the home window of a PC presentation from USB memory.

For details, refer to "Operating Instructions (For Network/USB File Viewer)" on the supplied CD-ROM.

#### Note

No key may function immediately after connecting the AC power cord, as the unit is starting up.

### APA (Auto Pixel Alignment) key

Automatically adjusts a picture to its clearest while a signal is input from a computer.

For details, see "Smart APA" in "The Function Menu" on page 42.

### LENS key

Functions as a ZOOM/FOCUS key.

- KEYSTONE (Trapezoidal distortion correction) /TILT key
- **(b)** PIC MUTING key
- **1** AUDIO MUTING key

This function is not provided in this projector.

### **1** FREEZE key

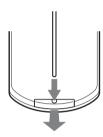
Freezes the projected picture. To cancel the frozen picture, press the key again. This function is available when the PC signal is input.

### Before using the Remote Commander

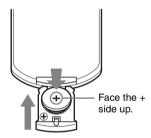
Pull out the clear film from the lithium battery holder.

### To replace a battery

1 Pull out the battery cover by a thin stick inserting to a hole, as shown the illustration.



**2** Install the lithium battery.



**3** Put the lithium battery holder back into the Remote Commander.

#### Notes on the lithium battery

- A button type lithium battery (CR2025) is used in the Remote Commander. Do not use batteries other than CR2025.
- Keep the lithium battery out of the reach of children.
- Should the battery be swallowed, immediately consult a doctor.

## Notes on Remote Commander operation

 Make sure that nothing obstructs the infrared beam between the Remote Commander and the remote control

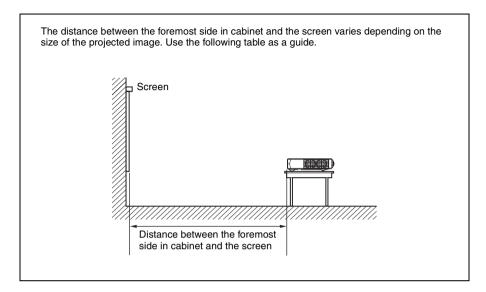
- detector on the projector. Direct the Remote Commander toward the remote control detector.
- The operation range is limited. The shorter the distance between the Remote Commander and the remote control detector is, the wider the angle within which the commander can control the projector becomes.

#### 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.

### **Installing the Projector**



Unit: m (feet)

Projected image size (diagonal) (inches)	30	40	60	80	100	120	150
Minimum	0.86	1.2	1.8	2.4	3.0	3.6	4.5
Distance	(2.8)	(3.9)	(5.9)	(7.9)	(9.8)	(11.8)	(14.8)
Maximum	0.99	1.3	2.0	2.7	3.4	4.1	5.1
Distance	(3.2)	(4.3)	(6.6)	(8.9)	(11.2)	(13.5)	(16.7)

There may be a slight difference between the actual value and the design value shown in the table above.

# Connecting the **Projector**

## When you connect the projector, make sure to:

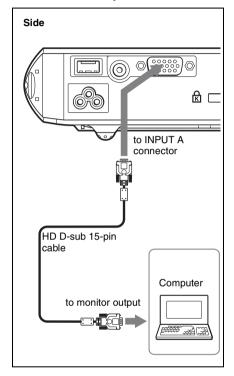
- Turn off all equipment before making any connections.
- Use the proper cables for each connection.
- Insert the cable plugs firmly; loose connections may reduce performance of picture signals. When pulling out a cable, be sure to pull it out by the plug, not the cable itself.

For VPL-MX25, when connecting to the USB connector, see "Operating Instructions for Network/USB File Viewer" stored on the CD-ROM

### **Connecting a Computer**

This section describes how to connect the projector to a computer. For more information, refer to the computer's instruction manual.

### To connect a computer



#### Notes

- The projector accepts VGA, SVGA, XGA, SXGA and SXGA+ signals. However, we recommend that you set the output mode of your computer to XGA for the external monitor.
- If you set your computer, such as a notebook computer, to output the signal to both your computer's display and the external monitor, the picture of the external monitor may not appear properly. Set your computer to output the signal to only the external monitor.

For details, refer to the operating instructions supplied with your computer.



### Note

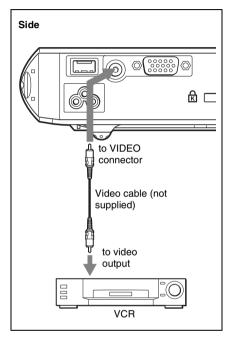
To connect a Macintosh computer equipped with a video output connector of a type having two rows of pins, use a commercially available plug adaptor.

### Connecting a VCR

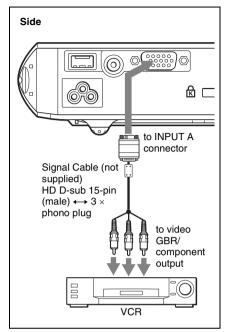
This section describes how to connect the projector to a VCR.

For more information, refer to the instruction manuals of the equipment you are connecting.

### To connect to a video output connector



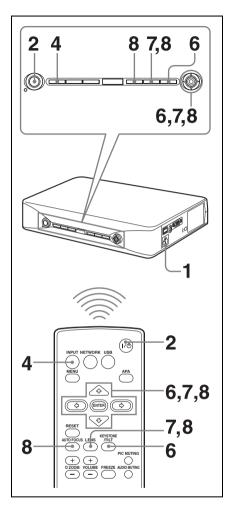
### To connect to a video GBR/ Component output connector



### Notes

- Set the aspect ratio using "Aspect" on the Screen menu according to the input signal.
- When you connect the projector to a video GBR output connector, select "Video GBR" or when you connect the projector to a component output connector, select "Component" with the "Input-A Signal Sel." setting on the Setup menu.

### **Projecting**



- 1 Plug the AC power cord into a wall outlet, then connect all equipment.

  The I/U key lights in red and the projector goes into standby mode.
- Press the I/() key.

  The I/() key flashes in green and the Advanced Intelligent Auto-setup starts.

  The powered tilt adjuster rises and stops at the previously adjusted position and adjusts the focus.

### Note

The projection size that can be adjusted with the automatic focus adjustment is from 30-inch up to 150-inch. The focus cannot be fine adjusted, because of characteristics of the screen onto which the image is projected. In this case, adjust it manually in step **8** on page 27.

- **3** Turn on the equipment connected to the projector.
- **4** Press the INPUT key to select the input source.

Each time you press the key, the input signal switches as follows:

#### VPL-MX20



#### VPL-MX25



To input from	Press INPUT to display
Computer connected to the INPUT A connector	Input-A
Video equipment connected to the VIDEO input connector	Video
Computer connected to LAN to use the network presentation function	Network
USB equipment connected to the USB connector	USB

Smart APA (Auto Pixel Alignment) adjusts the picture of the connected equipment so that it is projected clearly.

### When Network or USB is selected (VPL-MX25 only)

When Network is selected, the confirmation display to show disconnection with USB equipment appears.

When USB is selected, the confirmation display to show disconnection with the network equipment appears.

If the network or USB equipment is not connected, or if they are to be turned off, press the ENTER key.

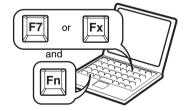
### Notes

 If "Auto Input Search" is set to "On," the projector searches for the signals from the connected equipment and displays the input channel where the input signals are found. In VPL-MX25, if there is no input signal, "Network" is selected.

For details, see "Auto Input Search" on page 42.

- The Smart APA feature is effective for the input signal from a computer only.
- **5** Switch the equipment connected to output to the projector.

Depending on the type of your computer, for example a notebook, or an all-in-one LCD type, you may have to switch the computer to output to the projector by pressing certain keys (e.g., LCD)/VGA , etc.), or by changing your computer's settings.

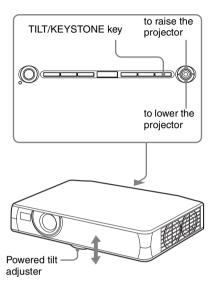


### Note

The key used for switching the computer to output to the projector varies depending on the type of computer.

**6** Adjust the upper or lower position of the picture.

Press the TILT/KEYSTONE key on the projector or KEYSTONE/TILT key on the Remote Commander to display the Tilt menu and adjust the tilt using the ▲/▼/◄/▶ keys.



### Notes

- When you adjust the powered tilt adjuster with the TILT/KEYSTONE key, the V keystone adjustment is performed at the same time. If you do not want to perform the automatic keystone adjustment, set the "V Keystone" to "Manual." (See page 44.)
- If you set the "V Keystone" adjustment to "Auto," the "V Keystone" correction is automatically adjusted. However, it may not be perfectly adjusted depending on the room temperature or the screen angle. In this case, adjust it manually.
- Press the TILT/KEYSTONE key until "V Keystone" appears on the screen, and adjust the value with the ▲/▼/◄/▶ key. The corrected value is effective until the power is turned off.
- Be careful not to let the projector down on your fingers.
- Do not push hard on the top of the projector with the powered tilt adjuster extended.

It may cause a malfunction.

**7** Adjust the size of the picture.

### To adjust using the Remote Commander

Press the LENS key on the Remote Commander to display the Lens Zoom menu and adjust the size of the picture using the ▲/▼/◄/▶ keys.

# To adjust using the control panel on the rear of the projector

Press the ZOOM/FOCUS keys on the projector to display the Lens Zoom menu and adjust the size of the picture using the ▲/▼/◄/▶ keys.

**8** Adjust the focus.

# **To adjust the focus automatically** Press the AUTO FOCUS key on the rear

of the projector or on the Remote Commander.

# To adjust the focus manually To adjust the focus using the Remote Commander:

Press the LENS key on the Remote Commander to display the Lens Focus menu and adjust the focus using the ▲/▼/◄/▶ keys.

### Note

The focus cannot be fine adjusted, because of characteristics of the screen onto which the image is projected. In this case, adjust it manually.

### To adjust the focus using the control panel on the rear of the projector:

Press the ZOOM/FOCUS keys to display the Lens Focus menu and adjust the focus using the ▲/▼/◄/▶ keys.

# Turning Off the Power

1 Press the I/ key.
"POWER OFF? Please press I/ key again." appears to confirm that you want to turn off the power.

### Note

The message disappears if you press any key other than the  $I/\bigcirc$  key, or if you do not press any key for five seconds.

- 2 Press the I/Ů key again.

  The powered tilt adjuster is retracted into the projector. The I/Ů key flashes in green and the fan continues to run to reduce the internal heat.
- **3** Unplug the AC power cord from the wall outlet after the fan stops running and the I/O key lights in red. (Except when using the Off & Go function)

### When you cannot confirm the onscreen message

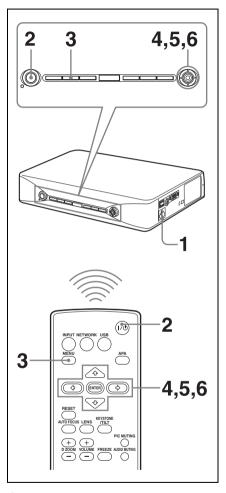
When you cannot confirm the on-screen message under certain conditions, you can turn off the power by holding the  $I(\cdot)$  key for about two seconds instead of above steps 1 and 2.

To project again immediately, you can make the lamp light by turning on the power again even, while the  $I(\cdot)$  key is flashing in green. There may be a delay, depending on conditions, before the lamp lights.

### **Selecting the Menu Language**

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

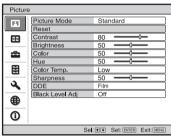
To change the menu language, proceed as follows:



- 1 Plug the AC power cord into a wall outlet.
- 2 Press the I/() key to turn on the projector.

The I/(1) key flashes in green, and then lights in green.

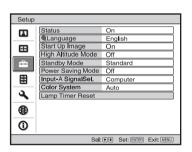
**3** Press the MENU key. The menu appears. The menu currently selected is shown as a yellow button.



(VPL-MX25)

4 Press the ▲ or ▼ key to select the Setup menu, then press the ► or ENTER key.

The selected menu appears.



Press the ▲ or ▼ key to select "Language," then press the ► or ENTER key.



6 Press the ▲, ▼, ◀ or ▶ key to select a language, then press the ENTER key. The menu changes to the selected language.

### To clear the menu

Press the MENU key.

The menu also disappears automatically if a key is not pressed for one minute.

### **Security Lock**

The projector is equipped with a security lock function. When you turn the power of the projector on, you are required to input the previously set password. If you do not input the correct password, you will not be able to project the picture.

#### Notes

- When the security lock becomes effective, you are required to input the password only when you turn the projector on after disconnecting or reconnecting the cable.
- You will not be able to use the projector if you forget your password and the password administrator is not available. Be please aware that using the security lock can prevent valid usage in such cases.

### To use the security lock

- 1 Press the MENU key and then, on the Function menu, turn on the "Security Lock" setting.
- **2** Enter the password.

Use the MENU, ▲/▼/◄/▶, and ENTER keys to enter the four-digit password. (The default initial password setting is "ENTER, ENTER, ENTER, ENTER." After this is entered you can put in your own password. Therefore, when you use this function for the first time, please input "ENTER" four times.)



Next, the screen for entering the new password is displayed. (Enter the password on this screen even if you want to keep the current password.)
Enter the password on this screen.



**3** Enter the password again to confirm.



When "Security Lock enabled!" is displayed on the menu screen, the setting for security lock is completed.

If "Invalid Password!" is displayed on the menu screen, perform this procedure again from step 1.

**4** Turn the main power off and disconnect the AC power cord. The security lock is set to on, then it becomes effective. The screen used for entering the password is displayed when the power is turned on the next time.

### Security certification

When the password screen is displayed, enter the password that was set. If you fail to enter the correct password after three tries, the projector cannot be used. In this case, press the I/U key to turn off the power.

### To cancel the security lock

- Press the MENU key, then turn off the "Security Lock" setting in the Function menu.
- **2** Enter the password. Enter the password that was set.

### Note

If you call the customer service center because you have forgotten the password, you will need to be able 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.



### **Other Functions**

### Off & Go Function

If you are leaving the conference room immediately, turn the projector off, and then, after the powered tilt adjuster is retracted into the projector, you can unplug the AC power cord.

#### Notes

- When unplugging the AC power cord, ensure that the powered tilt adjuster has been retracted into the projector. Moving the projector with the powered tilt adjuster extended may damage the adjuster.
- Turn off the projector according to the procedure explained in "Turning Off the Power" on page 28, then cool it down before storing the projector in the carrying case.
- When the power is turned on soon after it has been turned off, it may take some time until the lamp will light on.

# Effective Tools for Your Presentation

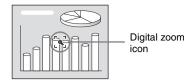
## To enlarge the image (Digital Zoom function)

You can select a section of the image to enlarge. This function will be active only when a signal from a computer is input or an input signal of "Network" or "USB" is selected.

This function does not work when a video signal is input.

 Project a normal image, and press the D ZOOM + key on the Remote Commander.

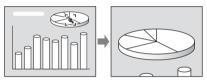
The digital zoom icon appears in the center of the image.



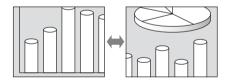
- Move the icon to the point on the image you want to enlarge. Use the arrow key (▲/▼/◄/▶) to move the icon.
- **3** Press the D ZOOM + key again.

The portion of the image where the icon is located is enlarged. The enlargement ratio is displayed on the screen for a few seconds.

By pressing the + key repeatedly, the image size (ratio of enlargement: max. 4 times) increases.



Use the arrow key  $(\triangle/\nabla/\blacktriangleleft/\triangleright)$  to scroll the enlarged image.



### To return the image to its original size

Press the D ZOOM – key. Just pressing the RESET key returns the image back to its original size immediately.

## To freeze the image projected (Freeze function)

Press the FREEZE key. "Freeze" appears when the key is pressed. This function will be active only when a signal from a computer is input or an input signal of "Network" or "USB" is selected.

To restore the original screen, press the FREEZE key again.

Adjustments and Settings Using a Menu

### **Using a MENU**

The projector is equipped with an on-screen menu for making various adjustments and settings. Some of the adjustable/setting items are displayed in a pop-up menu, in a setting menu or adjustment menu with no main menu, or in the next menu window. If you select an item name followed by an arrow (), the next menu window with the setting items appears.

To change the on-screen menu language, see "Selecting the Menu Language" on page 29.

### Display items

### Input signal indicator



#### Input signal indicator

Shows the selected input channel. X is displayed when no signal is input. You can hide this indicator using "Status" on the Setup menu.

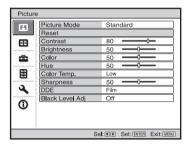
This manual contains explanations for the VPL-MX20 and VPL-MX25 all together. Be aware that the VPL-MX25 is mainly used for explanation of the display, and there may be an item that is not displayed due to the model.

**1** Press the MENU key. The menu appears.

#### VPL-MX25

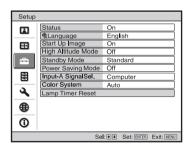
Picture		
	Picture Mode	Standard
	Reset	
	Contrast	80 ————
_	Brightness	50 —0
	Color	50 —0—
	Hue	50 —0—
	Color Temp.	Low
	Sharpness	50 ——0—
<b>%</b>	DDE	Film
_	Black Level Adj	Off
●		
0		
	9	Sel: ● Set: ENTER Exit: MENU

#### VPL-MX20



2 Use the ▲ or ▼ key to select a menu, then press the ▶ or ENTER key.

The items that can be set or adjusted with the selected menu appear. The item presently selected is shown in yellow.



3 Select an item.

Use the  $\triangle$  or  $\nabla$  key to select the item, then press the  $\triangleright$  or ENTER key.

The setting items are displayed in a pop-up menu, in a setting menu, in an adjustment menu or in the next menu window.

#### Pop-up menu

Setting items



#### Setting menu



#### Adjustment menu



#### Next menu window

Screen

Adjust Signal

APA
Phase 16
Pitch 1334
Shift H:260 V:35

- **4** Make the setting or adjustment of an item.
  - When changing the adjustment level:

To increase the number, press the  $\triangle$  or  $\triangleright$  key.

To decrease the number, press the  $\nabla$  or  $\triangleleft$  key.

Press the ENTER key to restore the previous screen.

### • When changing the setting:

Press the  $\triangle$  or  $\nabla$  key to change the setting.

Press the ENTER key to restore the previous screen.

You can restore the previous screen using ◀ depending on the selected item

#### To clear the menu

Press the MENU key.

The menu disappears automatically if a key is not pressed for one minute.

## To reset items that have been adjusted

To reset the setting of the items, there are the following two ways.

· Select "Reset" in the Picture menu.



Select "Yes" when the screen display appears. The following settings are reset to their factory preset values:

"Contrast," "Brightness," "Color," "Hue," "Color Temp.," "Sharpness," "DDE," "Black Level Adj.," and "Gamma Mode" in the Picture menu.

• Press the RESET key on the Remote Commander.

To reset the value of an item back to its factory preset value, press the RESET key while a setting item is displayed on the screen.

### Unadjustable items

The adjustable items are limited depending on the input signals. The items that cannot be adjusted or set do not appear in the menu.

For details, see page 47.

### Storage of the settings

The settings are automatically stored in the projector memory.

### If no signal is input

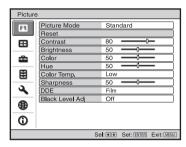
If there is no input signal, "Cannot adjust this item." appears on the screen.

### **The Picture Menu**

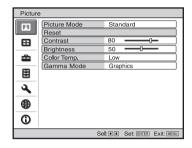
The Picture menu is used for adjusting the picture. Items that can be adjusted or set depend on the kind of input signals.

For details, see "Input signals and adjustable/setting items" on page 47.

### When the video signal is input



### When the signal is input from a computer



Setting items	Functions	Initial setting
Picture Mode	Selects the picture mode. A setting value is stored for each setting item. Dynamic: Emphasizes the contrast to produce a "dynamic" picture. Standard: Makes the picture be natural and well balanced. Presentation: Makes the picture bright to be suitable for a presentation when the signal is input from a computer or an input signal of Network* or USB* is selected.  VPL-MX25 only	Set according to the input signal
Reset	The following settings are initialized to their factory preset values: "Contrast," "Brightness," "Color," "Hue," "Color Temp.," "Sharpness," "DDE," "Black Level Adj.," and "Gamma Mode" in the Picture menu.	_
Contrast	Adjusts the white area of pictures (white level). The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.	80
Brightness	Adjusts the brightness of the picture. The higher the setting, the brighter the picture. The lower the setting, the darker the picture.	50
Color	Adjusts the intensity of the color density. The higher the setting, the greater the intensity. The lower the setting, the lower the intensity.	50
Hue	Adjusts the color tone. The higher the setting, the more greenish the picture becomes. The lower the setting, the more reddish the picture becomes.	50
Color Temp.	Adjusts the color temperature.     High: Gives white colors a blue tint.     Low: Gives white colors a red tint.	Low

Setting items	Functions	Initial setting
Sharpness	Sharpens the outline of the picture, or reduces the noise. The higher the setting, the sharper the picture. The lower the setting, the softer the picture, thus reducing the noise.	50
DDE (Dynamic Detail Enhancer)	According to the film source you have selected, make a setting for playback.  • Film: Normally, select this option. Reproduces the 2-3 Pull-Down film sources with smooth picture movement. When the video signal with a format other than the 2-3 Pull-Down is input, "Progressive" is automatically selected.  • Progressive: Converts an interlace format video signal to a progressive format.  • Off: Plays a video signal in an interlace format without converting.	Film
Black Level Adj. (Adjust)	Dark parts will be clear. Set according to the input signal source. • High: Gives higher emphasis to the black color. • Low: Gives lower emphasis to the black color. • Off: Cancels this feature.	Off
Gamma Mode	Selects a gamma correction curve.  • 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.	Graphics

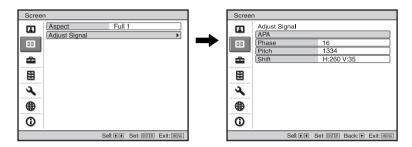
- When the "Picture Mode" is set to "Presentation", the setting item of "Color Temp." is not displayed.
- The Picture Mode setting is common between Network and USB. (VPL-MX25 only)

# The Screen Menu

The Screen menu is used to adjust the input signal. You can also adjust the aspect ratio of the picture.

Items that can be adjusted or set depend on the kind of input signals.

For details, see "Input signals and adjustable/setting items" on page 47.



Setting items	Functions	Initial setting
Aspect (When the video signal is input)	You can set the aspect ratio of the picture to be displayed for the current input signal. This item is enabled only when an video signal (preset memory numbers 1 to 11) is input.  • Zoom: Select this when black bands are displayed in both sides by the squeeze signal.  • 4:3: Select to view a picture with normal 4:3 aspect ratio.  • 16:9: Select to view a picture squeezed.	Set according to the input signal
Aspect (When the PC signal is input)	You can set the aspect ratio of the picture to be displayed for the current input signal. This item is enabled only when an PC signal (preset memory numbers 21 to 63) is input.  • Full1: Displays a picture vertically or horizontally to fill the screen without changing the aspect ratio of the original picture.  • Normal: Displays the picture while matching one pixel of input picture element to that of the LCD. The picture will be clear but the picture size will be smaller.  • 4:3: Makes the aspect ratio 4:3.  • 16:9: Makes the aspect ratio 16:9.	Set according to the input signal

Set	ting items	Functions	Initial setting	
Adjust Signal			Set according to	
	APA (Auto Pixel Alignment)  Pressing ENTER key automatically adjusts the "Phase," "Pitch" and "Shift" to position the image correctly on a screen.		the input signal	
	Phase	Adjusts the dot phase of the panel and the computer signal. Adjust the picture to the point where it looks clearest.		
	Pitch	Adjusts the horizontal size of the picture from a computer.  The higher the setting, the wider the picture. The lower the setting, the narrower the picture. Adjust the setting to match the number of dots of the input signal.		
	Shift	Adjusts the position of the picture.  • H: As the setting for H (horizontal) increases, the picture moves to the right, and as the setting decreases, the picture moves to the left. Use ◀/▶ key to adjust the horizontal position.  • V: As the setting for V (vertical) increases, the picture moves up, and as the setting decreases, the picture moves down. Use ▲/▼ key to adjust the vertical position.		

## About the Preset Memory No.

This projector has 46 types (VPL-MX25)/45 types (VPL-MX20) of preset data for input signals (the preset memory). When a preset signal is input, the projector automatically detects the signal type and recalls the data for the signal from the preset memory to adjust it to an optimum picture. The memory number and signal type of that signal are displayed on the Information menu (See page 47). You can also adjust the preset data through the Screen menu.

This projector has 20 types of user memories for Input-A into which you can save the setting of the adjusted data for an unpreset input signal.

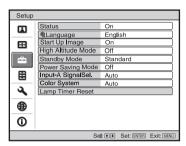
When an unpreset signal is input for the first time, a memory number is displayed as 0. When you adjust the data of the signal using the Screen menu, it will be registered in the projector. If more than 20 user memory items are registered, the newest memory always overwrites the oldest one.

See the chart on page 59 to find if the signal is registered in the preset memory.

- When "Aspect" of the Screen menu is set to other than "Zoom", a part of the screen may be displayed in black.
- 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.
- For Aspect, "Aspect" itself or a part of the setting items cannot be displayed on the screen according to the input signal.

# The Setup Menu

The Setup menu is used for changing the settings of the projector.



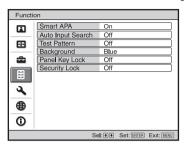
Setting items	Functions	Initial setting		
Status	<ul> <li>On: Sets whether or not the on-screen display is displayed.</li> <li>Off: Turns off the on-screen displays except for the menus, message when turning off the power, and warning messages.</li> </ul>	On		
Language	Selects the language used in the menu and on-screen displays. Available languages are: English, Dutch, French, Italian, German, Spanish, Portuguese, Russian, Swedish, Norwegian, Japanese, Chinese (Simplified Chinese), Chinese (Traditional Chinese), Korean, Thai, Arabic and Turkish.	English		
Start Up Image	<ul> <li>On: Displays the Start Up Image on the screen after turning on the power.</li> <li>Off: Does not displays the Start Up Image on the screen after turning on the power.</li> </ul>	On		
High Altitude Mode	Use this item when using the projector at high altitudes.  • On: Use this setting when using the projector at an altitude of 1,500 m or higher.  • Off: Use this setting when using the projector at normal altitudes.	Off		
Standby Mode	Standard: Lowers the power consumption in standby mode.     Low: The power consumption in standby is more lowered.	Standard		
Power Saving Mode	<ul> <li>Selects the power saving mode.</li> <li>Lamp Cutoff: The lamp goes off and the I/Û key lights in orange if no signal is input for 10 minutes. The lamp lights again when a signal is input or any key is pressed.</li> <li>Standby: The projector goes into standby mode and the I/Û key lights in red if no signal is input for 10 minutes. To use it, turn on the power again.</li> <li>Off: The projector does not go into power saving mode.</li> </ul>	Off		

Setting items	Functions	Initial setting
Input-A Signal Sel.	Selects the type of signal input from the equipment connected to the INPUT A connector.  Selects the type of signal input from the equipment by selecting "Input-A" with the INPUT key.  • Auto: Selects the input signal type automatically.  • Computer: Inputs the signal from a computer.  • Video GBR: Inputs the signal from a TV game or HDTV broadcast.  • Component: Inputs the component signal from a DVD player/recorder, Blu-ray Disc player, digital tuner, etc.	Auto
Color System	Selects the color system of the input signal.  • Auto: Selects the color system of the input signal automatically from among NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, or PAL60.  • "NTSC3.58"—"PAL-N": Allows you to set the color system to the selected system manually.	Auto
Lamp Timer Reset	When replacing the lamps, reset the lamp timer.	_

- If you turn on "High Altitude Mode" to "On" at an altitude less than 1,500 m (4,921 feet), the projector may reduce the reliability of the lamp.
- When "High Altitude Mode" is set to "On", the number of turns of the fan increases, and the fan noise becomes slightly louder.
- If "Standby Mode" is set to "Low," the network and network control function cannot be operated while the unit is in standby mode.
- When the input signal is not displayed correctly even if "Input-A Signal Sel." set to "Auto," select the item according to the input signal.
- Normally, set "Color System" to "Auto." If the picture is distorted or colorless, select the color system appropriate for the input signal.

# **The Function Menu**

The Function menu is used for changing the settings of the various functions of the projector.



Setting items	Functions	Initial setting	
Smart APA	The APA (Auto Pixel Alignment) automatically adjusts "Phase," "Pitch" and "Shift" in the Screen menu for the input signal from a computer. When it is set to "On", it will be executed whenever a signal is input.  • On: When a signal is input from a computer, the APA functions automatically so that the picture can be seen clearly. You can adjust the picture by pressing the APA key on the Remote Commander even if "Smart APA" set to "On."  • Off: The APA functions when you press the APA key on the Remote Commander.	On	
Auto Input Search	Detects the input signal and displays the detected input signal automatically when the INPUT key is pressed.  • On: Checks if an input signal of Input-A, Network*, USB* and Video in order when the INPUT key is pressed, and then displays the input terminal at which the input signal is detected. (*: VPL-MX25 only) Network and USB are always displayed, as they have input signals (VPL-MX25 only).  • Off: Set when you want to select an input selector with no input signal, or you want to switch the setting manually.	Off	
Test Pattern	Displays the test pattern.  On: A test pattern appears on the screen to be used when adjusting the lens with Focus and Zoom or correcting the screen proportions with V Keystone.  Off: A test pattern does not appear.	Off	
Background	Selects the background color of the screen when no signal is input.  • Black: The background color will be black.  • Blue: The background color will be blue.	Blue	

Setting items	Functions	Initial setting
Panel Key Lock	Locks all the control panel keys of the projector so that the projector can be operated only with the Remote Commander.  • On: Locks the control panel keys.  To release the lock with the projector, press and hold the MENU key for about 10 seconds when the power is on. The lock will be released and "Panel Key Lock" is automatically set to "Off."  • Off: Select this when you wish to release the lock of the control panel keys.	Off
Security Lock	<ul> <li>Turns on the projector's security lock function.</li> <li>On: Turns on the security lock function, which locks the projector once a password has been set. For details, see "Security Lock" on page 30.</li> <li>Off: Does not turn on the security lock function.</li> </ul>	Off

- · Press the APA key when the full image is displayed on the screen. If the projected image includes a black portion around it, the APA function will not work properly and some parts of the image may not be displayed on the screen.
- You can cancel the adjustment by pressing the APA key again while "Adjusting" appears on the screen.
- The picture may not be adjusted properly depending on the type of input signal.
- · Adjust the "Phase," "Pitch," and "Shift" items in the Screen menu when you adjust the picture manually.

# The Installation Menu

The Installation menu is used for changing the settings of the projector.



Setting items	Functions	Initial setting
Tilt	Adjusts the position (height) of the projected picture.	
V Keystone	Corrects the vertical trapezoidal distortion of the picture.  • Auto: To have it adjusted automatically.  • Manual: Lets you adjust it manually.  When the bottom of the trapezoid is longer than the top (): Sets a lower value ( direction).  When the top of the trapezoid is longer than the bottom (): Sets a higher value (+ direction).	Auto
Image Flip	Flips the picture on the screen horizontally and/or vertically. Use this item for installation for the backside projection. • HV: Flips the picture horizontally and vertically. • H: Flips the picture horizontally. • V: Flips the picture vertically. • Off: The picture does not flip.	Off
Lamp Mode	Sets the lamp brightness used during the projection.  • High: Illuminates the projected image brightly.  • Standard: Reduces fan noise and power consumption.  The brightness of the projected image will be lower compared with the "High" setting.	Standard
Lens Control	On: You can adjust the projection lens.     Off: The LENS (Focus/Zoom) key on the Remote Commander, and the FOCUS and ZOOM keys on the projector do not function.	On
Auto Focus	On: The focus adjustment works automatically when the projector is turned on or when the AUTO FOCUS key is pressed.     Off: The focus adjustment does not work automatically when the projector is turned on or when the AUTO FOCUS key is pressed.	On

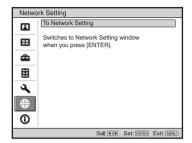
Setting items	Functions	Initial setting
IR Receiver	Selects the remote control detectors (IR Receiver) on the front and rear of the projector.  • Front & Rear: Activates both the front and rear detectors.  • Front: Activates the front detector only.  • Rear: Activates the rear detector only.	Front & Rear

# Note

Since the V keystone function is an electronic correction, sometimes the image will be deteriorated.

# The Network Setting Menu (VPL-MX25 only)

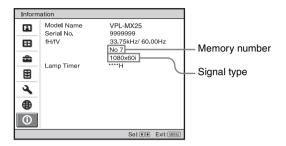
The Network Setting menu is used to set the network of this unit.



Setting items	Functions
Network Setting	The network setting window appears. For details, refer to "Operating Instructions For Network/USB File Viewer" included on the supplied CD-ROM.

# **The Information Menu**

The Information menu displays the model name, serial number, the horizontal and vertical frequencies of the input signal and the cumulated hours of usage of the lamp.



Setting items	Functions
Model Name	Displays the model name.
Serial No.	Displays the serial number.
fH (horizontal frequency)	Displays the horizontal frequency of the input signal.
fV (vertical frequency)	Displays the vertical frequency of the input signal.
Memory No.	Displays the preset memory number of the input signal.
Signal Type	Displays the type of the input signal.
Lamp Timer	Indicates the total usage time of a lamp.

#### Notes

- fH (horizontal frequency) and fV(vertical frequency) may not be displayed depending on the input signal used on the projector.
- · You cannot change the displays listed above.

# Input signals and adjustable/setting items

Some of the items in the menus cannot be adjusted depending on the input signal as indicated in the following tables. The items that cannot be adjusted are not displayed in the menu.

#### Picture menu

Item		Input signal				
	Video	Component Video GBR Computer Network*5 USB*5				
Picture Mode	•	•	•	•	•	•
Contrast	•	•	•	•	•	•
Brightness	•	•	•	•	•	•
Color	•*1	•	•	_	-	-
Hue	●*2	•	•	_	-	-

Item	Input signal					
	Video	Component	Video GBR	Computer	Network*5	USB*5
Color Temp.	•	•	•	●*3	●*3	●*3
Sharpness	•	•	•	-	-	-
DDE	•	•	•	-	-	-
Black Level Adj.	•	•	•	_	-	_
Gamma Mode	_	-	●*4	•	•	•

- : Adjustable/can be set
- -: Not adjustable/cannot be set
- \*1: Except B & W
- \*2: NTSC3.58 and NTSC4.43 only, except B & W
- \*3: Adjustable only when the "Picture Mode" is set to "Dynamic" or "Standard"
- \*4: Preset memory No. 3, 4 only
- \*5: VPL-MX25 only

#### Screen menu

Ite	m	Input signal					
		Video Component Video GBR Computer Network*6 USB*6				USB*6	
As	pect	•	•	•	•	_	-
Ad	ljust Signal	•		•	•		
	APA	_	_	_	•	_	_
	Phase	-	-	-	•	_	_
	Pitch	-	-	-	•	-	-
	Shift	_	•	•	•	_	-

- : Adjustable/can be set
- -: Not adjustable/cannot be set
- \*6: VPL-MX25 only

# **Replacing the Lamp**

The lamp used as a light source is a consumable product. Thus, replace the lamp with a new one in the following cases.

- When the lamp has burnt out or dims
- "Please replace the Lamp." appears on the screen
- The LAMP/COVER indicator flashes in orange (Repetition rate of 3 flashes) (Refer to page 54 for another possible cause.)

The lamp life varies depending on conditions of use.

Use an LMP-M200 Projector Lamp as the replacement lamp.

Use of any other lamps than the LMP-M200 may cause damage to the projector.

#### Caution

The lamp remains not after the projector is turned off with the  $I/\bigcirc$  key. If you touch the lamp, you may burn your finger. When you replace the lamp, wait for at least an hour for the lamp to cool.

#### Notes

- If the lamp breaks, contact qualified Sony personnel.
- Pull out the lamp by holding the handle. If you touch the lamp, you may be burned or injured.
- When removing the lamp, make sure it remains horizontal, then pull straight up. Do not tilt the lamp. If you pull out the lamp while it is tilted and if the lamp breaks, the pieces may scatter, causing injury.
- 1 Turn off the projector, and disconnect the AC power cord from the AC outlet.

#### Note

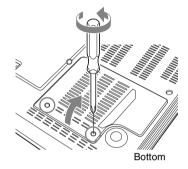
When replacing the lamp after using the projector, wait for at least an hour for the lamp to cool.

2 Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can see its underside.

#### Note

Be sure that the projector is stable after turning it over.

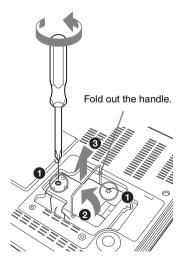
3 Open the lamp cover by loosening the two screws with a Phillips screwdriver.



#### Note

For safety reasons, do not loosen any other screws.

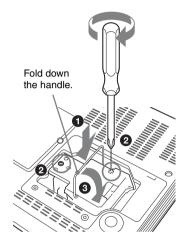
4 Loosen the two screws on the lamp unit with the Phillips screwdriver (1). Fold out the handle (2), then pull out the lamp unit by the handle (3).



#### Caution

Do not put your hands into the lamp replacement slot, and do not allow any liquid or other objects into the slot **to avoid electrical shock or fire.** 

5 Insert the new lamp all the way in until it is securely in place (1). Tighten the two screws (2). Fold down the handle to replace it (3).



### Notes

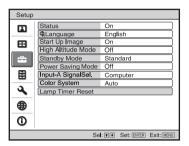
- Be careful not to touch the glass surface of the lamp and a inside conductor.
- Insert the handle firmly to attach it securely.
- The power will not turn on if the lamp is not secured properly.
- **6** Close the lamp cover and tighten the two screws.

#### Note

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

- **7** Turn the projector back over.
- 8 Connect the power cord. The I/b key lights in red.

- **9** Press the I/() key to turn the projector on.
- **10**Press the MENU key, and then select the Setup menu.
- **11** Select "Lamp Timer Reset", and then press the ENTER key.



"Settings for Lamp replacement. Has the projection Lamp been replaced?" is displayed in the menu screen.



**12**Select "Yes" with the ◀ key, and then press the ENTER key.

The Lamp Timer is initialized to 0, "Lamp Timer Reset Complete!" is displayed in the menu screen.

**13**Select "Yes" and press ENTER key.

#### Note

To erase a message, press any key on the control panel of the projector or on the Remote Commander.

### Disposal of the used lamp For the customers in the USA

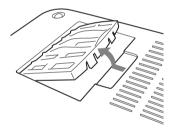
Lamp in this product contains mercury. Disposal of these materials may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronic Industries Alliance (www.eiae.org).

# Cleaning the Air Filter

The air filter should be cleaned after approximately 500 hours use. Remove the air filter covers in two places then remove the dust with a vacuum cleaner.

The time needed to clean the air filter will vary depending on the environment or how the projector is used.

- **1** Turn the power off and unplug the ower cord.
- **2** Place a protective sheet (cloth) beneath the projector and turn the projector over.
- **3** Remove the air filter cover.



4 Clean the surface of the air filter cover with a vacuum cleaner.



**5** Return the air filter cover.

- If the dust cannot be removed from the air filter cover, replace the air filter cover with a new one.
  - For details on new air filter cover, consult with qualified Sony personnel.
- Be sure to attach the air filter cover firmly; it
  may cause a problem if the air filter cover is
  not installed properly.
- To erase a message, press any key on the control panel of the projector or on the remote commander.

# **Troubleshooting**

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

#### **Power**

Symptom	Cause and Remedy
The power is not turned on.	<ul> <li>The lamp cover is not secured.</li> <li>→ Close the lamp cover securely (see page 50).</li> </ul>

#### **Picture**

Symptom	Cause and Remedy			
No picture.	<ul> <li>A cable is disconnected or the connections are wrong.</li> <li>→ Check that the proper connections have been made (see page 23).</li> <li>The connections are wrong.</li> <li>→ This projector is compatible with DDC2B (Digital Data Channel 2B). If your computer is compatible with DDC, turn the projector on according to the following procedures.</li> <li>1 Connect the projector to the computer.</li> <li>2 Turn the projector on.</li> <li>3 Start the computer.</li> <li>Input selection is incorrect.</li> <li>→ Select the input source correctly (see page 26).</li> <li>The picture is muted.</li> <li>→ Press the PIC MUTING key to release the picture muting (see pages 18, 20).</li> <li>The computer signal is not set to output to an external monitor or set to output both to an external monitor and a LCD monitor of a computer.</li> <li>→ Set the computer signal to output only to an external monitor (see page 23).</li> <li>Wait a while (90 seconds at the longest) until the lamp lights again.</li> </ul>			
The picture is noisy.	<ul> <li>Noise may appear on the background depending on the combination of the number of dots input from the computer and the numbers of pixels on the LCD panel.</li> <li>→ Change the desktop pattern on the connected computer.</li> <li>Input a video signal with the jitter.</li> <li>→ Use a TBC (Time Base Corrector) to try to reduce video jitter.</li> </ul>			
The picture from the INPUT A connector is colored strangely.	The setting of "Input-A Signal Sel." in the Setup menu is incorrect.  → Select "Computer," "Video GBR" or "Component" correctly according to the input signal (see page 41).			
"Please check Input-A Signal Sel." appears in spite of inputting the correct signal from INPUT A.	The setting of "Input-A Signal Sel." in the Setup menu is incorrect.  → Select "Computer," "Video GBR" or "Component" correctly according to the input signal (see page 41).			
On-screen display does not appear.	"Status" in the Setup menu has been set to "Off."  → Set "Status" in the Setup menu to "On" (see page 40).			

Symptom	Cause and Remedy	
Color balance is incorrect.	<ul> <li>• The picture has not been adjusted properly.</li> <li>→ Adjust the picture (see page 36).</li> <li>• The projector is set to the wrong color system.</li> <li>→ Set "Color System" in the Setup menu to match the color system being input (see page 41).</li> </ul>	
The picture is too dark.	<ul> <li>Contrast or brightness has not been adjusted properly.</li> <li>→ Adjust the Contrast or Brightness in the Picture menu properl (see page 36).</li> <li>The lamp has burnt out or is dim.</li> <li>→ Replace the lamp with a new one (see page 49).</li> </ul>	
The picture is not clear.	<ul> <li>The picture is out of focus.</li> <li>→ Adjust the focus (see page 27).</li> <li>Auto focus is not adjusted to the target.</li> <li>→ Check that there is no barrier in the projecting direction.</li> <li>→ Press the AUTO FOCUS key again (see page 27).</li> <li>→ If Auto focus is not adjusted properly when there is no barrier in the projecting direction and after pressing the AUTO FOCUS key again, consult qualified Sony personnel.</li> <li>Condensation has accumulated on the lens.</li> <li>→ Leave the projector for about two hours with the power on.</li> </ul>	
The image extends beyond the screen.	<ul> <li>The APA key has been pressed even though there are black edges around the image.</li> <li>→ Display the full image on the screen and press the APA key.</li> <li>→ Adjust "Shift" in the Screen menu properly (see page 39).</li> </ul>	
The picture flickers.	"Phase" in the Screen menu has not been adjusted properly.  → Adjust "Phase" in the Screen menu properly (see page 39).	

# **Remote Commander**

Symptom	Cause and Remedy
The Remote Commander does not work.	The Remote Commander batteries are dead.  → Replace them with new batteries (see page 21).

# Others

Symptom	Cause and Remedy		
The control panel keys do not function.	The control panel keys are locked.  → Unlock the control panel keys (see page 43).		
The fan is noisy.	<ul> <li>→ Check the setting of "High Altitude Mode" in the Setup menu (see page 40).</li> <li>→ Check the ventilation holes are not blocked.</li> <li>→ Make sure the room temperature is not too high. To maintain the product reliability of the projector's components, the rotation speed of the fan increases and the fan becomes slightly noisier, when the room temperature exceeds normal. The approximate normal temperature is 25°C.</li> </ul>		
The powered tilt adjuster is not retracted into the projector.	The AC power cord was unplugged with the power of the projector turned on.  → Connect the power cord to the AC outlet again, turn on the power of the projector, then turn it off.		

# Indicators

Symptom	Cause and Remedy	
The LAMP/COVER indicator flashes in orange. (Repetition rate of 2 flashes)	The lamp cover is detached.     → Attach the cover securely (see page 49).	
The LAMP/COVER indicator flashes in orange. (Repetition rate of 3 flashes)	<ul> <li>The interior of the unit reached a high temperature, and the temperature sensor has been activated.</li> <li>→ Check to see that nothing is blocking the fresh-air inlet and exhaust outlet.</li> <li>The lamp has reached a high temperature.</li> <li>→ Wait for 90 seconds for the lamp to cool then turn on the pow again.</li> <li>After you have checked the items above, if any of the troubles rec the following causes are possible:</li> <li>The lamp must be replaced, because it has reached the end of its service life.</li> <li>The interior of the unit reached a high temperature, and the temperature fuse burned out.</li> <li>→ Consult with qualified Sony personnel.</li> </ul>	
I/  key flashes in red. (Repetition rate of 2 flashes)	<ul> <li>The internal temperature is unusually high.</li> <li>→ Check to see that nothing is blocking the ventilation holes.</li> <li>The projector is being used at a high altitude.</li> <li>→ Ensure that "High Altitude Mode" in the Setup menu is set to "On." (see page 40)</li> </ul>	
I/( key flashes in red. (Repetition rate of 4 flashes)	The fan is broken.  → Consult with qualified Sony personnel.	
I/(¹) key flashes in red. (Repetition rate of 6 flashes)	Unplug the AC power cord from the wall outlet after the I/Ů key goes out, plug the power cord to the wall outlet, and then turn the projector on again. If the I/Ů key flashes in red and the problem persists, the electrical system has failed. Or the interior of the unit reached a high temperature, and the temperature fuse has burned out.  → Consult with qualified Sony personnel.	
I/७ key flashes in red. (Repetition rate of 8 flashes)  The installation angle is outside the proper range.  → Install it on the floor then turn on the power (see p		

# **Messages List**

### **Warning Messages**

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

Message	Meaning and Remedy	
High temp.! Lamp off in 1 min.	The internal temperature is too high.  → Turn off the power.  → Check to see that nothing is blocking the ventilation holes.	
Frequency is out of range!	<ul> <li>This input signal cannot be projected as the frequency is out of the acceptable range of the projector.</li> <li>The resolution setting of the output signal of the computer is too high.</li> <li>→ Input a signal that is within the range of the frequency.</li> </ul>	
Please check Input-A Signal Sel.	You have input an RGB signal from the computer when "Input-A Signal Sel." in the Setup menu is set to "Component."  → Set "Input-A Signal Sel." correctly (see page 41).	
Please replace the Lamp.	<ul> <li>• It is time to replace the lamp.</li> <li>→ Replace the lamp (see page 49).</li> <li>• If this message appears again after you replace the lamp, the lamp replacement process is not complete.</li> <li>→ Perform the operations in step 9 to 13 on page 50.</li> </ul> Note To erase a message, press any key on the control panel of the projector or on the remote commander.	
Please clean the filter.	It is time to clean the filter.  → Clean the filter (see page 51).  Note  To cancel the message, press any key on the remote commander or the control panel of the main unit. The message is displayed twice, including when the unit is started next time.	
Projector temperature is high. High Altitude Mode should be "On" if the projector is being used at high altitude.	<ul> <li>Internal temperature is too high.</li> <li>→ When using the projector at an altitude of 1,500 m or higher, set "High Altitude Mode" on the Setup menu to "On" (see page 40).</li> <li>→ If this message appears on the screen when using the projector at normal altitudes, check to see if anything is blocking the ventilation holes (exhaust) (see page 16).</li> </ul>	
Out of projection angle. Power off in 1min.	The installation angle is outside the proper range.  → Restore the condition of placement on the floor (see page 12).	

# **Caution Messages**

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

Message	Meaning and Remedy	
Not applicable!	You have pressed the wrong key.  → Press the appropriate key.	

Message	Meaning and Remedy		
The panel keys are locked!	<ul> <li>"Panel Key Lock" in the Function menu is set to "On."</li> <li>→ All the keys on the control panel of the projector are locked.</li> <li>Operate the projector with the keys on the Remote Commander (see page 43).</li> </ul>		
Auto Focus is disabled! Do you wish to enable? Yes/ No	"Auto Focus" on the Installation menu is set to "Off."  → To enable the Auto Focus function, set it to "On."		
Lens control is locked! Do you wish to unlock? Yes/ No	"Lens Control" on the Installation menu is set to "Off."  → To enable the LENS (Focus/Zoom) key on the Remote Commander, and the FOCUS and ZOOM keys on the projector, set "Lens Control" to "On."		

# **Specifications**

## **Optical characteristics**

Projection system

3 LCD panels, 1 lens, projection

system

LCD panel 0.63-inch XGA panel,

approximately 2,360,000 pixels

 $(786,432 \text{ pixels} \times 3)$ 

Lens 1.2 times zoom lens (powered)

f 18.19 to 21.87 mm/F1.65 to 1.8

Lamp 200 W Ultra High Pressure

mercury lamp

Projected picture size (measured diagonally)

30 to 150 inches

30 to 150 inches (auto focus

operation range)

Light output 2500 lumen

(When the Lamp Mode is set to

"High.")

Throwing distance (When placed on the floor.)

30-inch: 0.86 to 0.99 m (2.8 to 3.2 feet)

40-inch: 1.2 to 1.3 m

(3.9 to 4.3 feet)

60-inch: 1.8 to 2.0 m

(5.9 to 6.6 feet)

80-inch: 2.4 to 2.7 m

(7.9 to 8.9 feet)

100-inch: 3.0 to 3.4 m

(9.8 to 11.2 feet)

120-inch: 3.6 to 4.1 m

(11.8 to 13.5 feet)

150-inch: 4.5 to 5.1 m

(14.8 to 16.7 feet)

There may be a slight difference between the actual value and the design value shown above.

#### **Electrical characteristics**

Color system NTSC3.58/PAL/SECAM/

NTSC4.43/PAL-M/PAL-N/ PAL60 system, switched

automatically/manually

(NTSC4.43 is the color system used

when playing back a video recorded in NTSC on a

NTSC4.43 system VCR.)

Resolution 750 horizontal TV lines (Video

input)

 $1,024 \times 768 \text{ dots (RGB input)}$ 

Acceptable computer signals 1)

fH: 19 to 80 kHz

fV: 48 to 92 Hz

(Maximum input signal resolution:  $SXGA+1400 \times 1050$  fV: 60 Hz)

1) Set the resolution and the frequency of the signal of the connected computer within the range of acceptable preset signals of the projector.

Applicable video signals

15 k RGB/Component 50/60 Hz, Progressive component 50/60 Hz, DTV (480/60I, 575/50I, 480/60P, 575/50P, 720/60P, 720/ 50P, 1080/60I, 1080/50I),

Composite video

### Input/Output

INPUT A HD D-sub15-pin, female

Analog RGB/component:

R/R-Y: 0.7 Vp-p ±2 dB (75 ohms terminated)

G: 0.7 Vp-p ±2 dB (75 ohms terminated)

G with sync/Y: 1 Vp-p ±2 dB

sync negative

(75 ohms terminated) B/B-Y: 0.7 Vp-p ±2 dB

(75 ohms terminated)

SYNC/HD: Composite sync input:

TTL level, positive/negative Horizontal sync input: TTL level,

Positive/negative

VD: Vertical sync input: TTL

level, positive/negative

VIDEO Composite video: 1 Vp-p ±2 dB

sync negative (75 ohms

terminated)

Network (VPL-MX25 only)

Wireless LAN:

IEEE.802.11.a/b/g<sup>2)</sup>

2) Some wireless networks cannot be used in certain countries or areas.

USB (VPL-MX25 only) USB TYPE A

#### General

Dimensions  $273 \times 45 \times 206 \text{ mm} (10^{3}/4 \times 10^{15})$ 

1<sup>13</sup>/<sub>16</sub> × 8 <sup>1</sup>/<sub>8</sub> inches) (w/h/d) (without projecting parts)

Mass Approx. 1.7 kg (3 lb 12 oz)

Power requirements

AC 100 to 240 V, 2.9 to 1.2 A, 50/ 60 Hz

Power consumption

VPL-MX25: Max 290 W in standby (Standard): 11 W in standby (Low): 2 W VPL-MX20: Max 290 W in standby (Standard): 6 W in standby (Low): 2 W

Heat dissipation

990 BTU

Operating temperature

0°C to 35°C (32°F to 95°F)

Operating humidity

35% to 85% (no condensation)

Storage temperature

 $-20^{\circ}$ C to  $+60^{\circ}$ C ( $-4^{\circ}$ F to  $+140^{\circ}$ F)

Storage humidity

10% to 90%

Supplied accessories

Remote Commander (1)
Lithium battery CR2025 (1)
HD D-sub 15 pin cable (2 m) (1)
(1-791-992-51/Sony)
Carrying case (1)
AC power cord (1)
Operating Instructions (CD-ROM)
(1)

Quick Reference Manual (1) Safety Regulations (1)

Security Label (1)

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

#### Note

Always verify that the unit is operating properly before use. SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.

# **Optional accessories**

Projector Lamp

LMP-M200 (for replacement)

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

### Pin assignment

# INPUT A connector (HD D-sub 15-pin, female)



1	R/R-Y	9	Power supply input for DDC
2	G/Y	10	GND
3	B/B-Y	11	GND
4	GND	12	DDC/SDA
5	RESERVE	13	HD/C.Sync
6	GND (R)	14	VD
7	GND (G)	15	DDC/SCL
8	GND (B)		

# Preset signals

Memory No.	Preset signal	fH (kHz)	fV (Hz)	Sync	Pitch	
1	Video 60 Hz	Video 60 Hz	15.734	59.940	_	_
2	Video 50 Hz	Video 50 Hz	15.625	50.000	_	_
3	480/60i	DTV 480/60i	15.734	59.940	S on G/Y	_
4	575/50i	DTV 575/50i	15.625	50.000	S on G/Y	-
5	480/60p	480/60p (NTSC Progressive component)	31.470	60.000	S on G/Y	-
6	575/50p 575/50p (PAL Progressive component)		31.250	50.000	S on G/Y	_
7	1080/60i 1035/60i, 1080/60i		33.750	60.000	S on G/Y	_
8	1080/50i	1080/50i	28.130	50.000	S on G/Y	_
10	720/60p	720/60p	45.000	60.000	S on G/Y	_
11	720/50p	720/50p	37.500	50.000	S on G/Y	-
21	640 × 350	VGA mode 1	31.469	70.086	H-pos, V-neg	800
22		VESA 85 (VGA350)	37.861	85.080	H-pos, V-neg	832
23	640 × 400	NEC PC98	24.823	56.416	H-neg, V-neg	848
24		VGA mode 2	31.469	70.086	H-neg, V-pos	800
25		VESA 85 (VGA400)	37.861	85.080	H-neg, V-pos	832
26	640 × 480	VGA mode 3	31.469	59.940	H-neg, V-neg	800
27		Mac 13	35.000	66.667	H-neg, V-neg	864
28		VESA 72	37.861	72.809	H-neg, V-neg	832
29		VESA 75 (IBM M3)	37.500	75.000	H-neg V-neg	840
30		VESA 85	43.269	85.008	H-neg V-neg	832
31	800 × 600	VESA 56	35.156	56.250	H-pos, V-pos	1024
32		VESA 60	37.879	60.317	H-pos, V-pos	1056
33	1	VESA 72	48.077	72.188	H-pos, V-pos	1040
34		VESA 75 (IBM M5)	46.875	75.000	H-pos, V-pos	1056
35	1	VESA 85	53.674	85.061	H-pos, V-pos	1048
36	832 × 624	Mac 16	49.724	74.550	H-neg, V-neg	1152
37	1024 × 768	VESA 60	48.363	60.004	H-neg V-neg	1344
38	1	VESA 70	56.476	70.069	H-neg V-neg	1328
39		VESA 75	60.023	75.029	H-pos, V-pos	1312
40		VESA 85	68.677	84.997	H-pos, V-pos	1376



Memory No.	Preset signal		fH (kHz)	fV (Hz)	Sync	Pitch
41	1152 × 864	VESA 70	63.995	70.019	H-pos, V-pos	1472
42		VESA 75	67.500	75.000	H-pos, V-pos	1600
43		VESA 85	77.487	85.057	H-pos, V-pos	1568
44	1152 × 900	SUN LO	61.795	65.960	H-neg, V-neg	1504
45	1280 × 960	VESA 60	60.000	60.000	H-pos, V-pos	1800
46		VESA 75	75.000	75.000	H-pos, V-pos	1728
47	1280 × 1024	VESA 60	63.974	60.013	H-pos, V-pos	1688
48		SXGA VESA75	79.976	75.025	H-pos, V-pos	1688
50	1400 × 1050	SXGA+	65.317	59.978	H-neg, V-pos	1864
55	1280 × 768	1280 × 768/60	47.776	59.870	H-neg, V-pos	1664
56	1280 × 720	1280 × 720/60	44.772	59.855	H-neg, V-pos	1664
60	1360 × 768	1360 × 768/60	44.720	59.799	H-neg, V-pos	1776
61	1440 × 900	1400 × 900/60	55.935	59.887	H-neg, V-pos	1904
63	1280 × 800	1280 × 800/60	49.702	59.810	H-neg, V-pos	1680

# Preset memory No. at the input signal

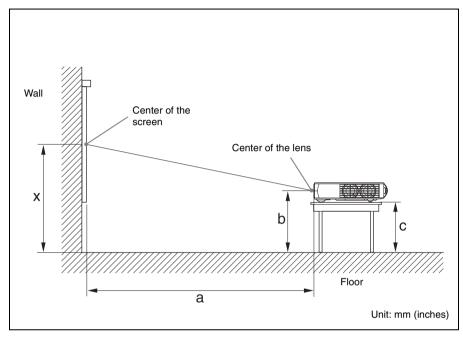
# **Analog signals**

Signal	Preset memory No.
Video (VIDEO connector)	1, 2
Component (INPUT A connector)	3-11
Video GBR (INPUT A connector)	3-11
Computer (INPUT A connector)	21-48, 50, 55, 56, 60, 61, 63

- When a signal other than the preset signals shown above 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.
- When a moving image is played back from signals whose fV (Vertical Frequency) is over 60 Hz, the picture may not be displayed properly.

# **Installation Diagram**

# Floor Installation (Front Projection)



This section describes the examples of installing the projector on a desk, etc.

See the chart on page 62 concerning the installation measurements.

The alphabetical letters in the illustration indicate the distances below.

- **a:** distance between the screen and the foremost side in cabinet
- **b:** distance between the floor and the center of the lens
- **c:** distance between the floor and the bottom of the adjusters of the projector
- **x:** distance between the floor and the center of the screen (free)

PS		30	40	60	80	100	120	150
а	N	860 (33 <sup>7</sup> / <sub>8</sub> )	1160 (45 <sup>3</sup> / <sub>4</sub> )	1760 (69 <sup>3</sup> / <sub>8</sub> )	2360 (93)	2950 (116 <sup>1</sup> / <sub>4</sub> )	3550 (139 <sup>7</sup> / <sub>8</sub> )	4450 (175 <sup>1</sup> / <sub>4</sub> )
a	M	990 (39)	1330 (52 <sup>3</sup> / <sub>8</sub> )	2020 (79 <sup>5</sup> / <sub>8</sub> )	2700 (106 <sup>3</sup> / <sub>8</sub> )	3380 (133 <sup>1</sup> / <sub>8</sub> )	4070 (160 <sup>3</sup> / <sub>8</sub> )	5090 (200 <sup>1</sup> / <sub>2</sub> )
I	b	x-152 (x-6)	x-203 (x-8)	x-305 (x-12)	x-406 (x-16)	x-508 (x-20)	x-610 (x-24)	x-762 (x-30)
	C	$(x-185)$ $(x-7^3/8)$	$(x-9^{3}/_{8})$	$(x-338)$ $(x-13^{3}/8)$	$(x-439)$ $(x-17^{3}/_{8})$	$(x-541)$ $(x-21^{3}/8)$	$(x-642)$ $(x-25^{3}/8)$	$(x-795)$ $(x-31^{3}/8)$

 $a(N) = \{(PS \times 18.368/0.6299) - 35.3\} \times 1.025$ 

a (M) = {(PS  $\times$  22.08003/0.6299)–36.2}  $\times$  0.975

 $b = x - (PS/0.6299 \times 3.2)$ 

 $c = x-(PS/0.6299 \times 3.2+32.8)$ 

The alphabetical letters in the charts and calculation methods indicate the following.

**PS:** projected image size measured diagonally (inches)

a: distance between the screen and the foremost side in cabinet

**b:** distance between the floor and the center of the lens

**c:** distance between the floor and the adjusters of the projector

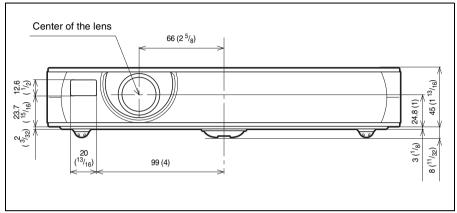
**x:** distance between the floor and the screen (free)

N: minimum

M: maximum

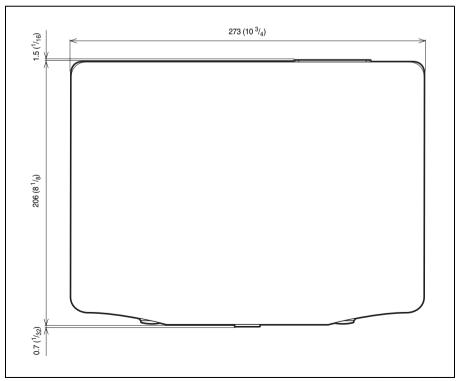
# **Dimensions**

### Front



Unit: mm (inches)

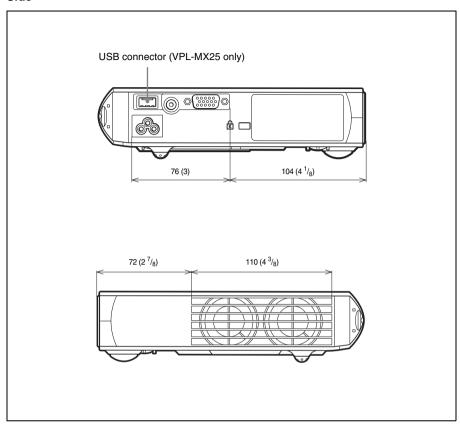
# Top



Unit: mm (inches)

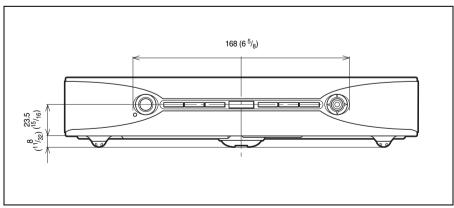


### Side



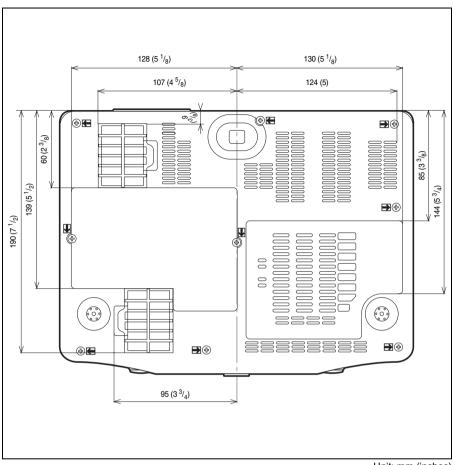
Unit: mm (inches)

### Rear



Unit: mm (inches)

### **Bottom**



Unit: mm (inches)



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