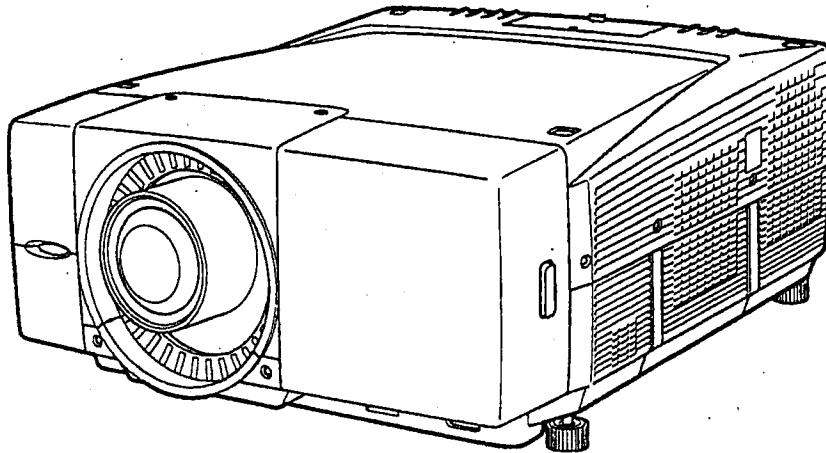


SANYO

Multimedia Projector

MODEL PLC-XF60



* Projection lens is optional.

Owner's Manual





To The Owner

Before operating this projector, read this manual thoroughly and operate the projector properly.

This projector provides many convenient features and functions. Operating the projector properly enables you to manage those features and maintains it in better condition for a considerable time.

Improper operation may result in not only shortening the product-life, but also malfunctions, fire hazard, or other accidents.

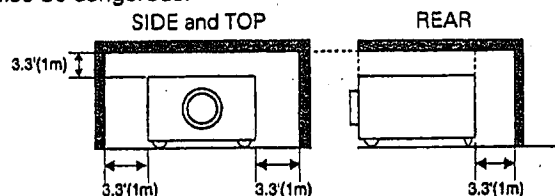
If your projector seems to operate improperly, read this manual again, check operations and cable connections and try the solutions in the "Troubleshooting" section in the end of this booklet. If the problem still persists, contact the dealer where you purchased the projector or the service center.

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE EXCEPT LAMP REPLACEMENT. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.	
	THIS SYMBOL INDICATES THAT THERE ARE IMPORTANT OPERATING AND MAINTENANCE INSTRUCTIONS IN THE OWNER'S MANUAL WITH THIS UNIT.	

Safety Precaution

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

- This projector produces intense light from the projection lens. Do not stare directly into the lens as possible. Eye damage could result. Be especially careful that children do not stare directly into the beam.
- Install the projector in a proper position. If not, it may result in a fire hazard.
- Provide appropriate space on the top, sides and rear of the projector cabinet for allowing air circulation and cooling the projector. Minimum clearance must be maintained. If the projector is to be built into a compartment or similarly enclosed, the minimum distances must be maintained. Do not cover the ventilation slot on the projector. Heat build-up can reduce the service life of your projector, and can also be dangerous.



- Do not put any flammable object or spray can near the projector, hot air is exhausted from the ventilation holes.
- If the projector is not to be used for an extended time, unplug the projector from the power outlet.

READ AND KEEP THIS OWNER'S MANUAL FOR LATER USE.

CAUTION

Not for use in a computer room as defined in the Standard for the Protection of Electronic Computer/Data Processing Equipment, ANSI/NFPA 75.

Ne peut être utilisé dans une salle d'ordinateurs telle que définie dans la norme ANSI/NFPA 75 Standard for Protection of Electronic Computer/Data Processing Equipment

Trademarks

Each name of corporations or products in this book is either a registered trademark or a trademark of its respective corporation.

Remark

Any graphic and figure in this manual are subject to change without notice.

Safety Instructions

All the safety and operating instructions should be read before the product is operated.

Read all of the instructions given here and retain them for later use. Unplug this projector from AC power supply before cleaning. Do not use liquid or aerosol cleaners. Use a damp cloth for cleaning.

Follow all warnings and instructions marked on the projector.

For added protection to the projector during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage due to lightning and power line surges.

Do not expose this unit to rain or use near water... for example, in a wet basement, near a swimming pool, etc...

Do not use attachments not recommended by the manufacturer as they may cause hazards.

Do not place this projector on an unstable cart, stand, or table. The projector may fall, causing serious injury to a child or adult, and serious damage to the projector. Use only with a cart or stand recommended by the manufacturer, or sold with the projector. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturers.

An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.



Slots and openings in the back and bottom of the cabinet are provided for ventilation, to ensure reliable operation of the equipment and to protect it from overheating.

The openings should never be covered with cloth or other materials, and the bottom opening should not be blocked by placing the projector on a bed, sofa, rug, or other similar surface. This projector should never be placed near or over a radiator or heat register.

This projector should not be placed in a built-in installation such as a book case unless proper ventilation is provided.

Never push objects of any kind into this projector through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the projector.

Do not install the projector near the ventilation duct of air-conditioning equipment.

This projector should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized dealer or local power company.

Do not overload wall outlets and extension cords as this can result in fire or electric shock. Do not allow anything to rest on the power cord. Do not locate this projector where the cord may be damaged by persons walking on it.

Do not attempt to service this projector yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

Unplug this projector from wall outlet and refer servicing to qualified service personnel under the following conditions:

- When the power cord or plug is damaged or frayed.
- If liquid has been spilled into the projector.
- If the projector has been exposed to rain or water.
- If the projector does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the projector to normal operation.
- If the projector has been dropped or the cabinet has been damaged.
- When the projector exhibits a distinct change in performance-this indicates a need for service.

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or injury to persons.

Upon completion of any service or repairs to this projector, ask the service technician to perform routine safety checks to determine that the projector is in safe operating condition.



Voor de klanten in Nederland

Bij dit product zijn batterijen geleverd.

Wanneer deze leeg zijn, moet u ze niet weggooien maar inleveren als KCA.

Compliance

Federal Communication Commission Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Do not make any changes or modifications to the equipment unless otherwise specified in the instructions. If such changes or modifications should be made, you could be required to stop operation of the equipment.

CAUTION

This is a Class A equipment. This equipment can cause interference in residential areas; in this case, the operator can be asked to take adequate countermeasures.

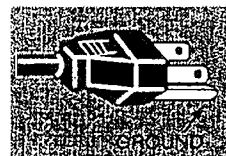
AC Power Cord Requirement

The AC Power Cord supplied with this projector meets the requirement for use in the country you purchased it.

AC Power Cord for the United States and Canada :

AC Power Cord used in the United States and Canada is listed by the Underwriters Laboratories (UL) and certified by the Canadian Standard Association (CSA).

AC Power Cord has a grounding-type AC line plug. This is a safety feature to be sure that the plug will fit into the power outlet. Do not try to defeat this safety feature. Should you be unable to insert the plug into the outlet, contact your electrician.



AC Power Cord for the United Kingdom :

This cord is already fitted with a moulded plug incorporating a fuse, the value of which is indicated on the pin face of the plug. Should the fuse need to be replaced, an ASTA approved BS 1362 fuse must be used of the same rating, marked thus \diamond . If the fuse cover is detachable, never use the plug with the cover omitted. If a replacement fuse cover is required, ensure it is of the same colour as that visible on the pin face of the plug (i.e. red or orange). Fuse covers are available from the Parts Department indicated in your User Instructions. If the plug supplied is not suitable for your socket outlet, it should be cut off and destroyed.

The end of the flexible cord should be suitably prepared and the correct plug fitted. (See Over)

WARNING : A PLUG WITH BARED FLEXIBLE CORD IS HAZARDOUS IF ENGAGED IN A LIVE SOCKET OUTLET.

The Wires in this mains lead are coloured in accordance with the following code:

Green-and-yellow Earth
Blue Neutral
Brown Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol \downarrow or coloured green or green-and-yellow.

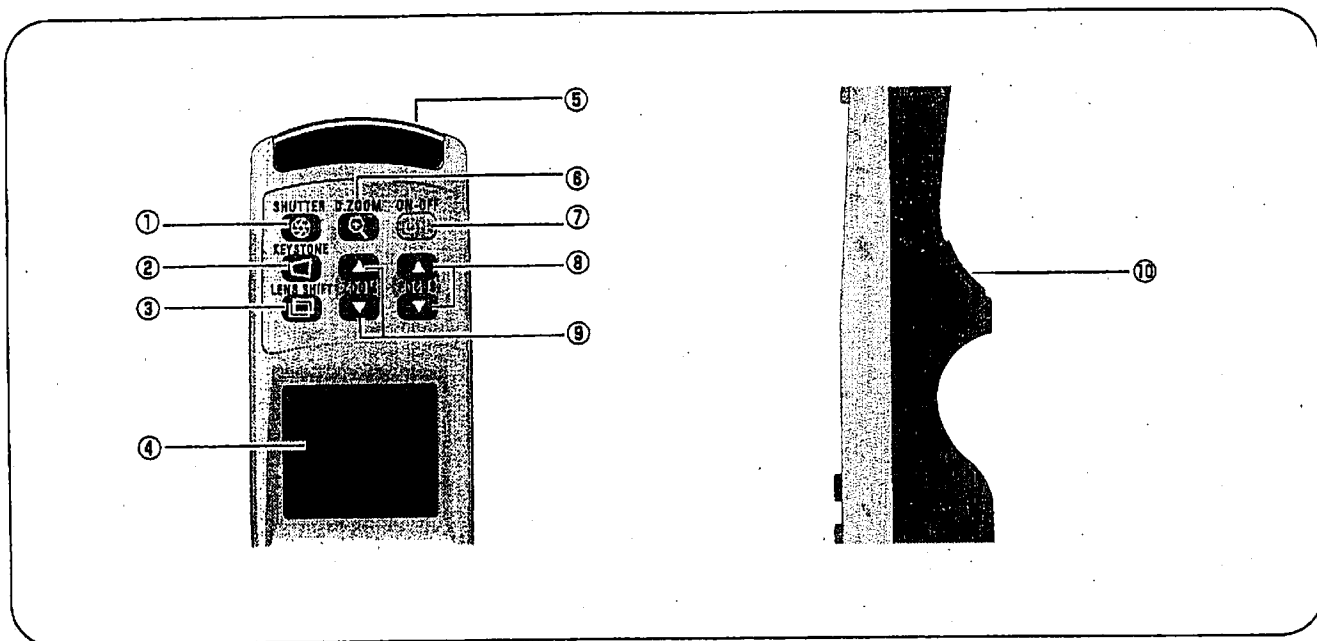
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

WARNING : THIS APPARATUS MUST BE EARTHED.

THE SOCKET-OUTLET SHOULD BE INSTALLED NEAR THE EQUIPMENT AND EASILY ACCESSIBLE.

Remote Control



① **SHUTTER button**
Releases the built-in shutter for light blocking. (p30)

② **KEystone button**
Corrects keystone distortion. (p32)

③ **LENS SHIFT button**
Activates LENS SHIFT function. (p30)

④ **CONTROL PAD (VersaPad touchpad)**
Selects an item or adjusts value in the On-Screen Menu. These are also used to pan the image in the Digital zoom + mode. (p33)

⑤ **WIRED REMOTE JACK**
Connect the Remote Control Cable to this jack. Battery installation is required regardless if it is used as wired or wireless. (p16)

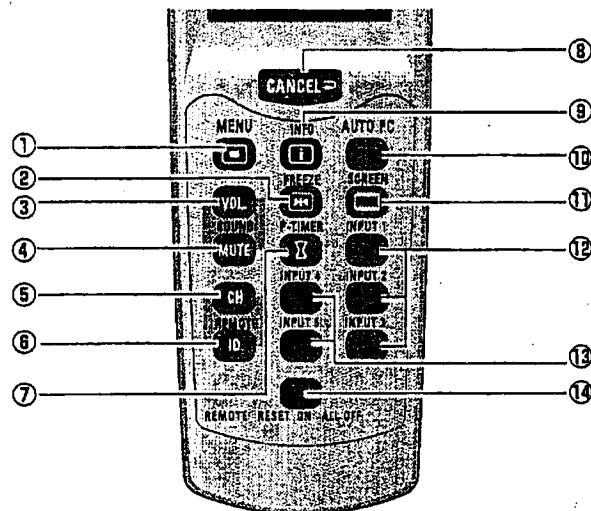
⑥ **D.ZOOM button**
Activates D.Zoom +/- function. (p33)

⑦ **POWER ON-OFF button**
Turns the projector on or off. (p28, 29)

⑧ **FOCUS buttons**
Adjust focus of the image. (p30)

⑨ **ZOOM buttons**
Adjust zoom of the image. (p30)

⑩ **SELECT button**
Executes the item selected.



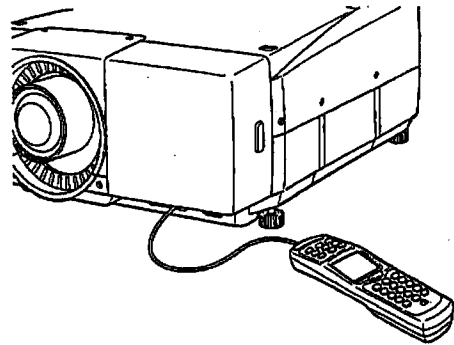
- | | |
|--|--|
| <p>① MENU button
Opens or closes the On-Screen Menu. (p34, 35)</p> <p>② FREEZE button
Freezes the projected picture. (p32)</p> <p>③ VOL. button
Adjusts volume. (p33)</p> <p>④ MUTE button
Mutes sound. (p33)</p> <p>⑤ CH button
Switches Remote Control Channel (CH). (p16)</p> <p>⑥ ID button
Switches Remote Control ID. (p16)</p> <p>⑦ P-TIMER button
Operates P-Timer function. (p32)</p> <p>⑧ CANCEL button
Cancels the selection and return to the previous menu. (p34)</p> | <p>⑨ INFO button
Displays the projector information. (p31)</p> <p>⑩ AUTO PC button
Operates the Auto PC adjustment. (p31)</p> <p>⑪ SCREEN button
Selects screen sizes. (p32)</p> <p>⑫ INPUT 1-3 buttons
Select input source (INPUT 1 - INPUT 3). (p31)</p> <p>⑬ INPUT 4-5 buttons
Select input source (INPUT 4 - INPUT 5). (p31)</p> <p>⑭ REMOTE RESET/ON/ALL-OFF switch
When using the remote control, set this switch to "ON." Set it to "ALL OFF" for power saving when it is not used. Slide this switch to "RESET" with holding down the CH and ID buttons at the same time to initialize the Remote Control ID and CH. (p16)</p> |
|--|--|

Remote Control Transmitter

This wireless remote control uses radio frequency signal. You can switch four frequency channels prepared and select a remote control ID from eight ID. The Remote Control Channel selection prevents radio frequency interference from the other equipment and The Remote Control ID selection allows you to operate several projectors with their respective remote controls without mutual interference among those projectors.

Wired Remote Control Transmitter

The remote control can be used as a wired remote control. When interference between the projector and other equipment occurs or the projector is used in a place where the operation of radio equipment is restricted, connect the remote control and the projector with the remote control cable provided. Connected with the remote control cable, the remote control does not emit radio signal.

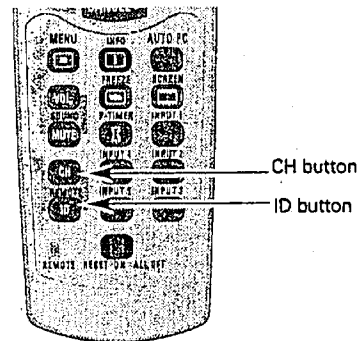


Remote Control Channel and ID Setup

Factory set Remote Control Channel and ID are CH1 and ID1. When you change the setting, set a Channel first, and then an ID.

Channel and ID settings for the remote control should be the same as those for the projector. When changing the CH and ID settings to the remote control, do it to the projector as well. Refer to "Remote Control" in Setting menu on page 54.

Should you be lost at which CH and ID are currently set, initialize the Channel and ID to factory setting once, and set them again.

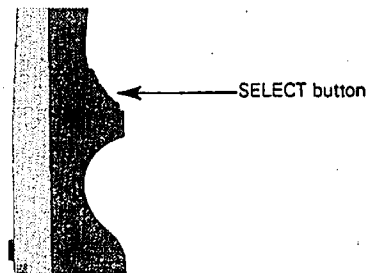


1 Set the Remote Control Channel

With holding down the CH button, press the SELECT button. The Remote Control Channel switches sequentially for one pressing the SELECT button. (See Table1 on next page.)

2 Set the Remote Control ID

With holding down the ID button, press the SELECT button. The Remote Control ID switches sequentially for one pressing the SELECT button. (See Table2 on next page.)



Initialize the Remote Control Channel and ID

With holding down the CH and ID buttons at the same time, slide the REMOTE RESET/ON/ALL-OFF switch to REMOTE RESET, and then to ON. The initial Channel and ID are CH1 and ID1. (p15)

~~The remote control Channel and ID are initialized when the batteries are replaced as well.~~

While pressing the CH/ID button, press the SELECT button number of times corresponding to the remote control CH/ID.

✓ **Note:**

Remote Control Channel and ID cannot be initialized separately.

電池交換時に
CH、IDは同時に初期化される。

Remote Control CH	Radio Frequency
CH 1 *	2.472 GHz
CH 2	2.403 GHz
CH 3	2.446 GHz
CH 4	2.421GHz

Channel switches sequentially for one pressing the SELECT button.

Remote Control ID
ID 1 *
ID 2
ID 3
ID 4
ID 5
ID 6
ID 7
ID 8

Channel switches sequentially for one pressing the SELECT button.

Table1: Remote Control Channel & Frequency

* Default setting

Table2: Remote Control ID



Caution about Radio Wave

The remote control operates in 2.4 GHz band, the same frequency band used for industrial, scientific, and medical equipment (such as pacemaker), as well as amateur radio stations.

Before operating the remote control, make sure no electromagnetic interference occurs and pay attention to the following cautions.

1. Be sure that there are no other devices in the area that may use the same frequency band as the remote control.
2. If any other devices are causing radio interferences, change the communication frequency channel or move to other location.

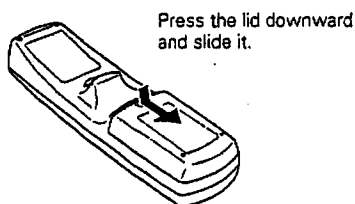
Caution in Wireless LAN Interference

Under wireless LAN environment based on IEEE 802.11b and IEEE802.11g, the remote control may not operate properly due to radio interferences. The remote control is initially set to use 2.472 GHz band (CH1) corresponding to several channels of wireless LAN.

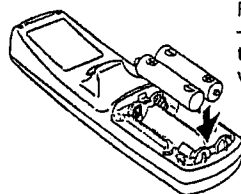
Should the remote control not operate properly due to radio interference, switch the communication frequency channel to CH2. Yet the operating condition is not improved, try CH3 and CH4. In case of failure in every channel operation, relocate other radio equipment using 2.4 GHz band away from the remote control and the projector.

Remote Control Battery Installation

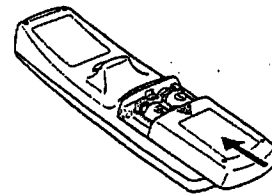
- 1 Remove the battery compartment lid.



- 2 Slide the batteries into the compartment.



- 3 Replace the compartment lid.



To insure safe operation, please observe the following precautions :

- Use (2) AA, UM3 or LR6 type alkaline batteries.
- Replace two batteries at the same time.
- Do not use a new battery with a used battery.
- Avoid contact with water or liquid.
- Do not expose the remote control to moisture, or heat.
- Do not drop the remote control.
- If a battery has leaked on remote control, carefully wipe case clean and install new batteries.
- Risk of explosion if battery is replaced by an incorrect type.
- Dispose of used batteries according to the instructions.

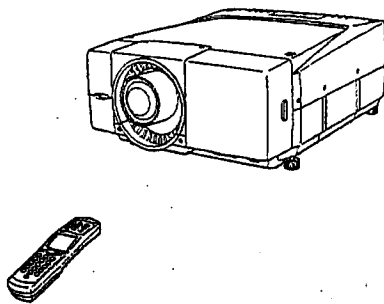
Basic Operation

Operating the Projector

You can operate the projector with the projector's top control, the remote control or a mouse (not provided). The remote control is available as wireless and wired.

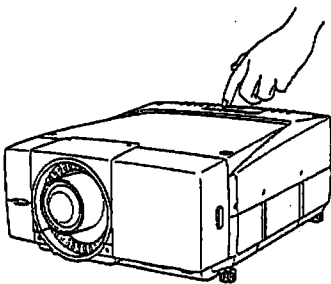
Operational range of the wireless remote control is within about 20m from the projector. Operational range differs depending on the environment where the projector is used. Any obstruction to air signal between the projector and the remote control may prevent the remote control from working properly.

Wireless Remote Control Operation



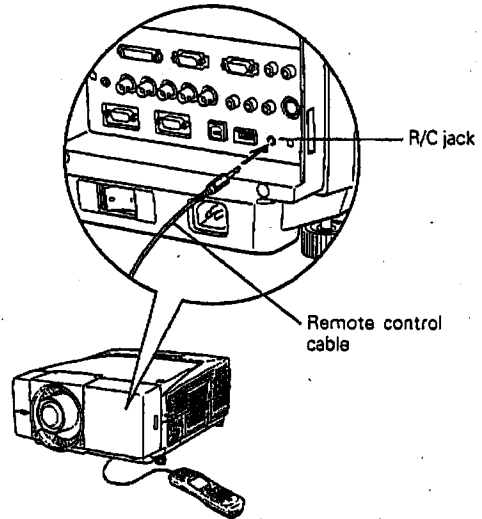
The wireless remote control does not work when the remote control cable is connected to either the projector or the remote control. Remove the remote control cable from both of the projector and the remote control when using as wireless.

Projector Top Control Operation



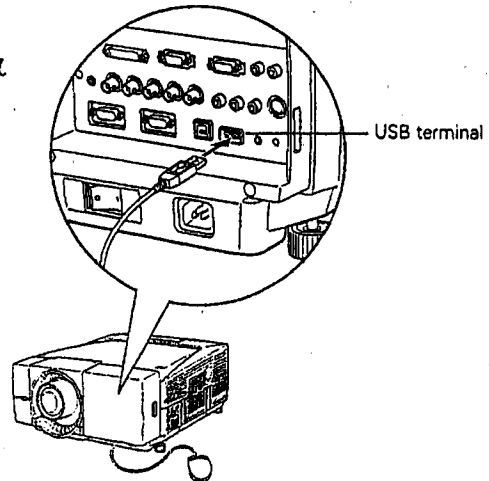
PJ側の上面にリモコンが挿入して
してRFで操作可能。
又、RCの上面にリモコンが挿入して
してRFで操作可能。

Wired Remote Control Operation



Connect the R/C JACK on the projector and the remote control with the remote control cable when operating the remote control with wired.

Mouse Operation



Connect the USB terminal on the projector and a USB mouse when operating the projector with the USB mouse. A mouse cursor will appear on the screen with the mouse connected.

Mouse operation offers the On-Screen Menu control. Other operations are unavailable with the USB mouse. For details in the mouse operation, refer to page 34~35.

No sound	<ul style="list-style-type: none"> - Check audio cable connection from audio input source. - Adjust the audio source. - Press the Volume (+) button. (☞ page 33) - Press the Mute button. (☞ page 33)
Some displays are not seen during the Operation.	<ul style="list-style-type: none"> - Check the Display item. (☞ "Setting" on page 54)
Only part of image is displayed. (Large/Small)	<ul style="list-style-type: none"> - Check if you are in D. Zoom+/- mode. (☞ page 33, 49) - Change Aspect setting in the Screen setting menu. (☞ page 48) - Adjust Display area and Position in the PC adjust menu. (☞ page 42-43)
PIN code dialog box appears at start-up.	<ul style="list-style-type: none"> - PJ PIN code lock is being set. Input a PIN code (1234 or numbers you have set). (☞ "Enter a PJ PIN Code" on page 28 and 57)
Image is not displayed on the monitor connected to the ANALOG OUT terminal.	<ul style="list-style-type: none"> - Select Input 1 with the Input button on the top control or the INPUT 1 button on the remote control, or through the Input Menu. (☞ page 31 and 37) - Make sure Analog out is "On". (☞ "Setting" on page 55)
The Top Control does not work.	<ul style="list-style-type: none"> - Check if the Keylock function is set. (☞ "Setting" on page 56)
The Wireless Remote Control does not work.	<ul style="list-style-type: none"> - Check the batteries. When replacing, the two batteries should be replaced at the same time. (☞ page 17) - Make sure no obstruction is between the projector and remote control. - Make sure you are not too far from the projector when using the remote control. Maximum operating range is 16.4' (5m). - Make sure the ID and CH of the remote control is conformed to the projector. (☞ page 16 and 54) - Initialize the remote control ID and CH, and then initialize the remote control ID and CH of the projector as well. (☞ page 16 and 54) - Unlock Key lock for the remote control in the Setting Menu. (☞ page 56) - Make sure the wired remote cable is not connected to the projector. (☞ page 26) <p>When all the solutions above fails, try Factory default in the Setting menu. (☞ page 58)</p>
USB mouse does not operate properly.	<ul style="list-style-type: none"> - Check cable connection of the USB mouse and the projector. (☞ page 26)
SHUTTER button does not operate.	<ul style="list-style-type: none"> - Make sure Shutter protection is "Off". (☞ "Setting" on page 55)
Lens position moves when Input is switched.	<ul style="list-style-type: none"> - Check Lens memory for each input. (☞ "Setting" on page 55)
Some operating menu items do not appear.	<ul style="list-style-type: none"> - Check the My menu setting. (☞ "Setting" on page 51)

WARNING :

High voltages are used to operate this projector. Do not attempt to open the cabinet.

If problems still persist after following all operating instructions, contact the dealer where you purchased the projector or the service center. Give the model number and explain about the problem. We will advise you how to obtain service.

Technical Specifications

Mechanical Information

Projector Type	Multi-media Projector
Dimensions (W x H x D)	20.39" x 9.92" x 23.86" (518mm x 252mm x 606mm) (Not including adjustable feet)
Net Weight	54.3 lbs (24.7kgs)
Feet Adjustment	0' to 3.65'

Panel Resolution

LCD Panel System	1.4' TFT Active Matrix type, 3 panels
Panel Resolution	1024 x 768 dots
Number of Pixels	2,359,296 (1024 x 768 x 3 panels)

Signal Compatibility

Color System	PAL, SECAM, NTSC, NTSC4.43, PAL-M, PAL-N
High Definition TV Signal	480i, 480p, 575i, 575p, 720p, 1035i, and 1080i
Scanning Frequency	H-sync. 15 ~ 120 KHz, V-sync. 50 ~ 120 Hz

Optical Information

Projection Image Size (Diagonal)	Subject to Optional lens
Projection Lens	Option
Throw Distance	Subject to Optional lens
Projection Lamp	300W

Interface

Input 1 terminals	DVI-D Terminal (Digital in) (HDCP Compatible) x1, (VGA) HDB15 Terminal X2 (Analog In/ Analog Out) and Mini Jack (stereo) x 1
Input 2 terminals	BNC Type x 5 (G/ VIDEO/Y, B/ Cb/Pb, R/ Cr/Pr, H/V, V) and Mini Jack (stereo) x 1
Input 3 terminals	RCA Type x 3 (VIDEO/Y, Cb/Pb, Cr/Pr), Mini DIN 4 pin x 1 (S-Video) and RCA Type x 2 (Audio R and L)
Input 4 terminals	DVI-D Terminal (Digital in) (HDCP Compatible) x1, Serial port In (DB9) x 1 and Serial port Out (DB9) x1
Other Terminals	
SERIAL PORT IN	DB9 pin x 1
SERIAL PORT OUT	DB9 pin x 1
USB Connectors	USB Series A receptacle x 1 and USB Series B receptacle x 1
R/C Jack	Mini Jack x 1

Audio

Internal Audio Amp	3.0W RMS
Built-in Speaker	2 speaker, ø2.05" (52mm)

Power

Voltage and Power Consumption	AC 100 ~ 120 V (3.6 A Max. Ampere), 50 / 60 Hz (The U.S.A and Canada) AC 200 ~ 240 V (1.8 A Max. Ampere), 50 / 60 Hz (Continental Europe and The U.K.)
-------------------------------	---

Operating Environment

Operating Temperature	41 °F ~ 95 °F (5 °C ~ 35 °C)
Storage Temperature	14 °F ~ 140 °F (-10°C ~ 60 °C)

Remote Control

RF Remote Standard	2.4 GHz Low Power Radio
Frequency Band	2.472GHz (CH1: default setting), 2.403GHz (CH2), 2.446 GHz (CH3), and 2.421GHz (CH4)
Battery	AA, UM3 or LR6 1.5V ALKALINE Type x 2
Operating Range	Unspecified yet
Dimensions	2.0" x 1.2" x 7.1" (50mm x 30mm x 181mm)
Net Weight	0.33 lbs (150 g) (including batteries)

Federal Communications Commission (FCC) Statement

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 projector technician for help.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

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