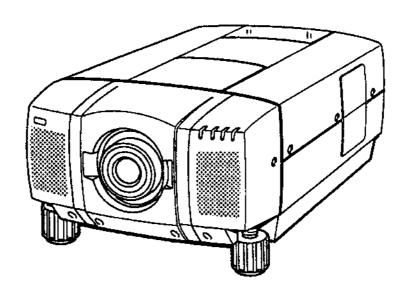


Multimedia Projector

MODEL PLC-9005BA PLC-9005BL (Without Lens)



OWNER'S INSTRUCTION MANUAL

TO THE OWNER

As the owner of a new Multi-media Projector, you are probably eager to try out your new projector. Before you do, we suggest that you spend a little time reading this manual to familiarize yourself with the operating procedures, so that you will receive maximum satisfaction from the many features included in your new projector.

This owner's manual will acquaint you with your projector's features. Reading it will help us too. Through the years, we have found that many service requests were not caused by problems with our projectors. They were caused by problems that could have been prevented, if the owner had followed the instructions in the manual.

You can often correct operating problems yourself. If your projector fails to work properly, see "TROUBLESHOOTING" section on pages 45 ~ 46 and try the solutions marked for each problem.

SAFETY PRECAUTIONS

WARNING:

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

Intense light source. Do not stare directly into the projection lens as possible eye damage could result. Be especially careful that children do not stare directly into the beam.

This Projector should be set in the way indicated. Never hang the projector, or fall down on its side. It may result in fire hazard.

If the projector will not be used for an extended time, unplug the projector from the power outlet.

READ AND KEEP THIS OWNER'S MANUAL FOR LATER USE

	•
IMPORTANT:	
For your protection in the event of theft or loss of this	
projector, please record the Model Number and Serial	
Number located on the rear of unit and retain this	Model No:
information. Refer to these numbers whenever you call	· · · · · · · · · · · · · · · · · · ·
upon your authorized dealer regarding this product.	Serial No:
Do not discard shipping carton and packing materials.	
These items may be needed for storage or future	
servicing.	

IMPORTANT: (UK MODEL ONLY)

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 . 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 CORDS 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 $\stackrel{\bot}{=}$ 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.

IMPORTANT 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.

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 manufacturer.

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

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

The openings should never be covered with cloth or other material, 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 bookcase unless proper ventilation is provided.

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 will be abused by persons walking on it.

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 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:

- a. When the power cord or plug is damaged or frayed.
- b. If liquid has been spilled into the projector.
- c. If the projector has been exposed to rain or water,
- d. 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.
- e. If the projector has been dropped or the cabinet has been damaged.
- f. 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.

Follow all warnings and instructions marked on the projectors.

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 powerline surges.



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.

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.

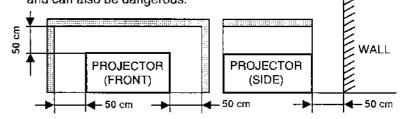


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INTRODUCTION

The multimedia projector that combines powerful and sophisticated features with easy-to-use, intuitive controls. Built-in multimedia features include audio, a palette of 16.77 million colours and active matrix liquid crystal display (LCD) technology. The projector is ideal for high-performance business, training and imaging applications that demand exceptional colour quality.

COMPATIBILITY

The projector is compatible with many different types of personal computers;

- IBM-compatible computers, including laptops, up to 1280 × 1024 resolution.
- ◆ Apple Macintosh and PowerBook computers up to 1280 × 1024 resolution.

IMAGE RESOLUTION

The resolution of the projector's projected image is 1024×768 . The projector displays computer images just as they appear on your computer's monitor. Screen resolutions between 1024×768 and 1280×1024 are compressed to 1024×768 . The projector cannot display screen resolutions above 1280×1024 . If your computer's screen resolution is higher than 1280×1024 , reset it to a lower resolution before you connect the projector.

UNPACKING THE PROJECTOR

The projector comes with the parts listed below. Check to find all the parts are included. If any parts are missing, contact an authorized dealer or service station.

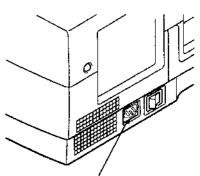
- Owner's Manual.
- AC Power Cord.
- Remote Control Transmitter Unit (Two Types) and batteries.
- Lens Cover.
- Protective Dust Cover.
- VGA Cable.
- VGA/MAC Adapter.
- Mouse Cable for PS/2 port.
- Mouse Cable for serial port.
- Mouse Cable for ADB port.

TRADEMARKS

- Apple, Macintosh, and PowerBook are trademarks or registered trademarks of Apple Computer, Inc.
- IBM and PS/2 are trademarks or registered trademarks of International Business Machines, Inc.

POWER REQUIREMENTS

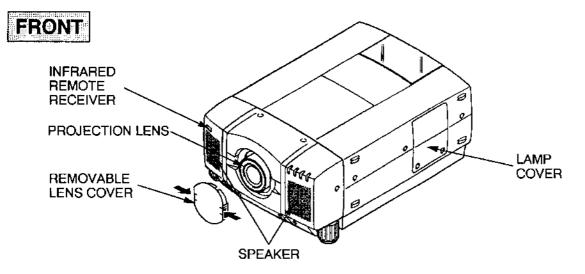
Your projector uses nominal input voltages of 200-240 VAC. The projector automatically selects the correct input voltage. The projector is designed to work with single-phase power systems having a grounded neutral conductor. To reduce the risk of electrical shock, do not plug into any other type of power system. Consult your authorized dealer or service station if you are not sure what type of power is supplied to your building.



Connect the AC power supply cord (supplied) to the projector.

The socket-outlet must be near this equipment and must be easily accessible.

DESCRIPTION



REAR

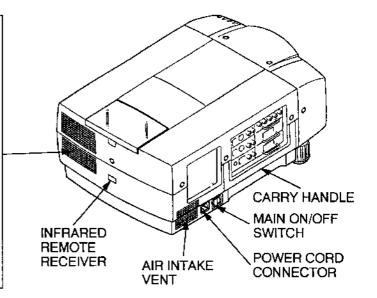
EXHAUST VENT



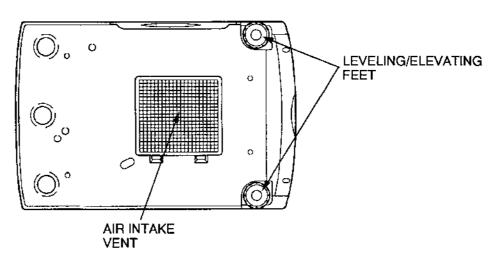
CAUTION HOT AIR!

Air blown from the exhaust vent is hot. Observe the following when handling your projector or choosing a location to install it.

- Keep heat-sensitive objects away from the exhaust port.
- If you set the projector on top of a metallic surface, the surface will become hot because of the hot air exhaust. Be careful when handling.
- handling.
 Do not touch the cabinet near to the exhaust vent area, and especially screws and metallic parts. These parts will become hot while the projector is used.



BOTTOM



SETTING-UP THE PROJECTOR

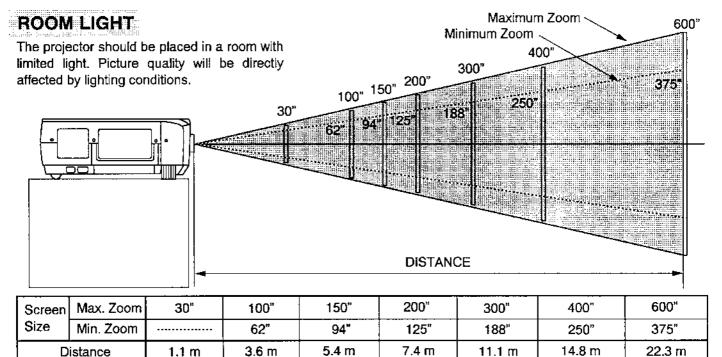
POSITIONING:

- This projector is basically designed to project on a flat projection surface.
- This projector can be focused from 1.1m ~ 22.3m.
- Refer to the figure below as an example when positioning the projector to the screen.



THIS PROJECTOR SHOULD BE SET IN THE WAY INDICATED. NEVER HANG THE PROJECTOR, OR FALL DOWN ON ITS SIDE. IT MAY RESULT IN FIRE HAZARD.



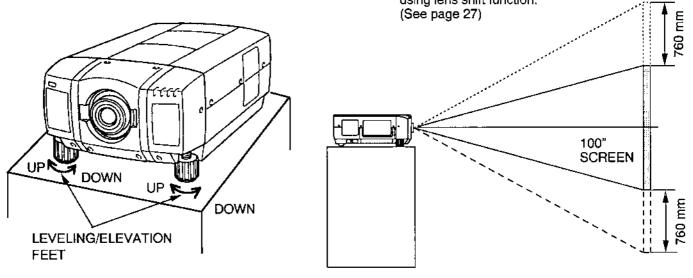


LEVELING AND ELEVATING ADJUSTMENTS

Two feet adjust the projection angle and leveling the projector. The projection angle can be adjusted up to 4° degrees by rotating the two (left and right) feet located on the bottom of the projector. Level the projector by rotating the two feet.

MOVE THE PROJECTED IMAGE POSITION

Adjust the projected image position (maximum 760 mm downward or upward on the 100" screen) by using lens shift function.



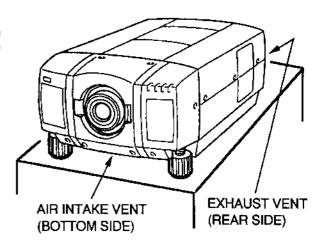
· 7 —

VENTILATION

This projector is equipped with a cooling fan to protect it from overheating. Pay attention to the following to ensure the ventilation and avoid a possible risk of fire and malfunction.



- Do not cover the vents with papers or other materials.
- Keep the rear grill at least 1m away from any object.
- Make sure that there are no objects under the projector. An object under the projector may prevent the projector from taking the cooling air through the bottom vent.

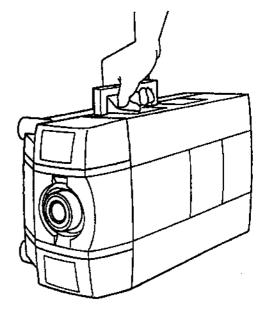


MOVING THE PROJECTOR

Use the carry handle when moving the projector.



Replace the lens cover and rotate the leveling/elevation feet fully clockwise when moving the projector to prevent damage to the projector.



CAUTION IN CARRYING OR TRANSPORTING THE PROJECTOR

- Do not drop or give a shock to the projector, otherwise damage or mulfunction may result.
- When carrying the projector, use a Sanyo recommended Carrying Case.
- Do not transport the projector by using a courier or transport service in an unsuitable transport case. This may
 cause damage to the projector. To transport the projector through a courier or transport service, use a Sanyo
 recommended Case.
- For a carrying or transportation cases, contact a Sanyo authorized dealer.

CONNECTING THE PROJECTOR

CONNECTING THE COMPUTER

CONNECTING TO THE COMPUTER INPUT 1 JACKS (BNC TYPE imes 5)

Personal computers can be connected to the computer input (Red, Green, Blue, Horiz. Sync. and Vert. Sync.) on the projector.

Connect the computer to these jacks using the BNC cables (not provided).

CONNECTING TO THE COMPUTER INPUT 2 TERMINAL {HDB15-PIN (VGA)}

Personal computers can be connected to the HDB15-pin (VGA) terminal on the projector.

Connect the computer to these terminals using the VGA cable and VGA/MAC adapter (provided).

WARNING: For projectors, the VGA cable provided is designed to reduce RFI (Radio Frequency Interference) emissions. For regulatory compliance reasons, this cable must be used and must not be replaced by any other cable.

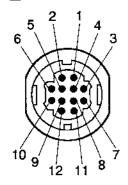
CONNECTING TO THE COMPUTER AUDIO INPUT JACKS (1 and 2)

- Connect audio outputs from your computer to these jacks using the audio cable (not provided).
- If the audio input of the audio equipment is stereo, be sure to connect the right and left channels to the respective right and left jacks.
- If the audio input of the audio equipment is monaural, connect it to the left jack.

CONNECTING TO THE MULTI-POLE 12-PIN (CONTROL PORT) CONNECTORS (1 and 2)

 If you wish to control the computer with projector's remote control unit, you must connect control port (PS/2, Serial or ADB port) on your computer to projector's control port with cable. (three type of cables provided)

■ CONTROL PORT



	PS/2 Port	Serial Port	ADB Port
1		TxD	
2	CLK		ADB
3	DATA		
4			
5			
6			
7		READY	
8		[-	
9	GND	GND	GND
10			
11			
12			

CONTROL PORT CABLE REMOVAL HINT

Disconnect control port cable with following steps.

- Hold the portion (A) of the connector with one hand.
- Pull the portion (B) arrow direction and remove connector.



CONNECTING TO THE MONITOR OUTPUT TERMINAL (HDB15-PIN (VGA))

This terminal contains the information that is viewed on the screen.

An external monitor can be connected to the HDB15-pin (VGA) terminal on the projector.

Connect the monitor to this terminal using the VGA cable (not provided).

HDB15-PIN (5.4.3:2.1 900.0.0 10.8.6.7.8 0.0.0.0 15.14.13.12.1

Pin No./Signal

- 1 Red input
- 2 Green input
- 3 Blue input
- 4 Sense 2
- 5 Ground (Horiz, sync.)
- 6 Ground (Red)
- 7 Ground (Green)
- 8 Ground (Blue)

Pin No./Signal

- 9 Non Connect
- 10 Ground (Vert, sync.)
- 11 Sense 0
- 12 Sense 1
- 13 Horiz, sync.
- 14 Vert. sync.
- 15 Reserved

CONNECTING TO THE COMPUTER AUDIO MONITOR OUTPUT (VARIABLE) JACKS

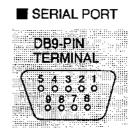
These jacks will contain the audio information of the selected program source being viewed on the screen (Computer 1 or Computer 2). If you have selected program source Computer 2 the audio signal connected to the Computer 2 audio input jack will be available at the computer audio monitor output jacks.

Connect audio input from audio equipment to these jacks using the audio cables.

- If the audio input of the audio equipment is stereo, be sure to connect the right and left channels to the respective right and left jacks.
- If the audio input of the audio equipment is monaural, connect it to the left jack.

CONNECTING TO THE SERIAL PORT (DB9-PIN) TERMINAL

 If you control the projector by computer, you must connect a cable (not provided) from your computer to this terminal.

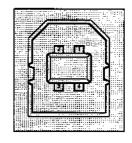


2	RxD
3	TxD
4	
5	Ground
6	
7	
8	
9	

CONNECTING TO THE USB PORT CONNECTORS (1 and 2)

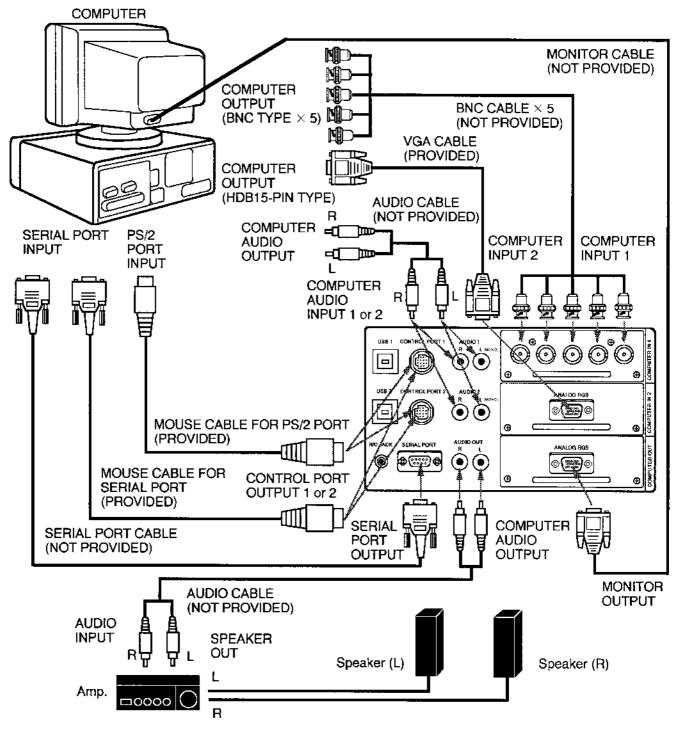
This Projector is designed for connecting with USB Port of the computer or peripheral equipment that is to be standard.





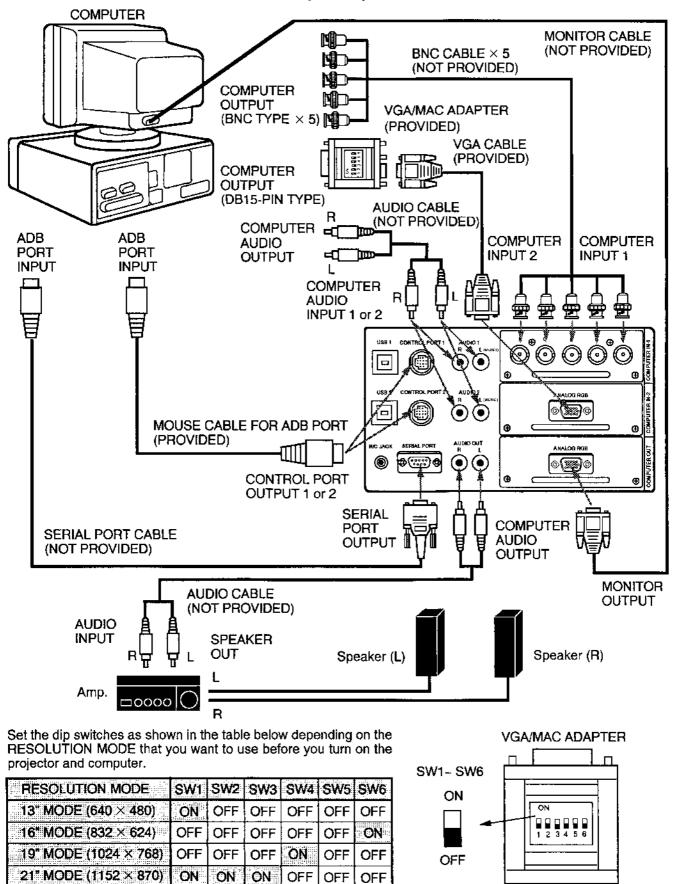
	Vcc
2	- Data
3	+Data
4	Ground

Connecting an IBM-compatible desktop computer



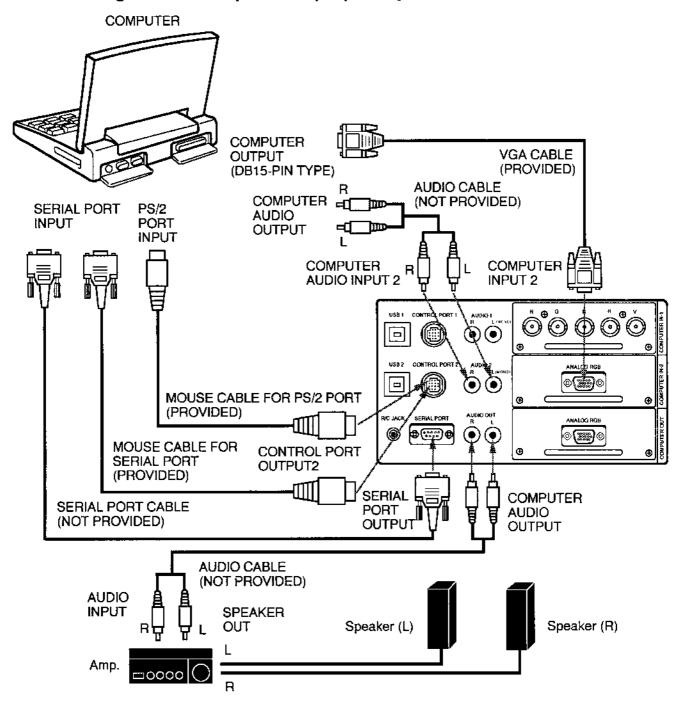
NOTE: The hook up should be done as per the above illustration. After hook up, turn on the projector, monitor, computer, in that order.

Connecting a Macintosh desktop computer



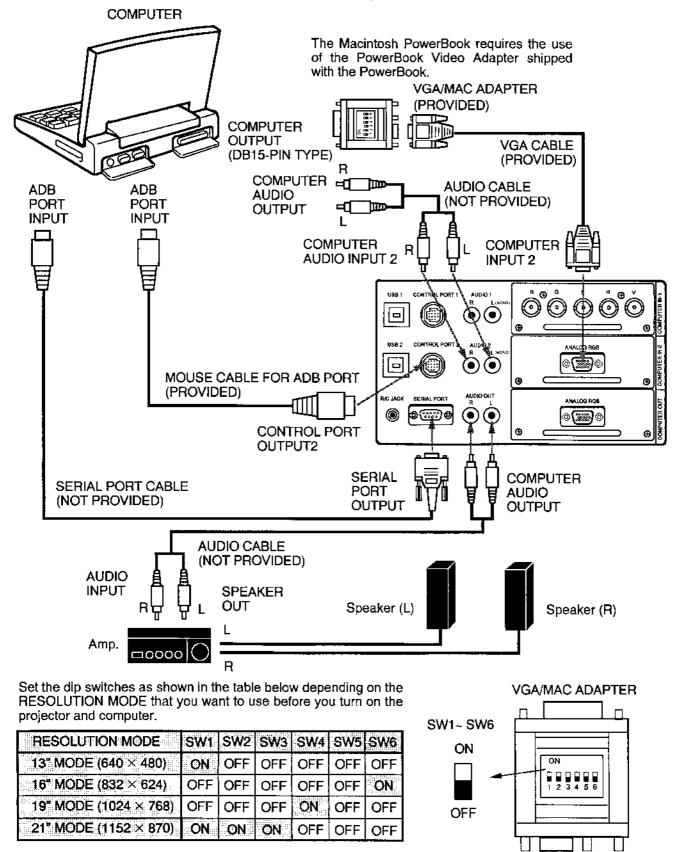
NOTE: The hook up should be done as per the above illustration. After hook up, turn on the projector, monitor, computer, in that order.

Connecting an IBM-compatible laptop computer



NOTE: The hook up should be done as per the above illustration. After hook up, turn on the projector, computer, in that order.

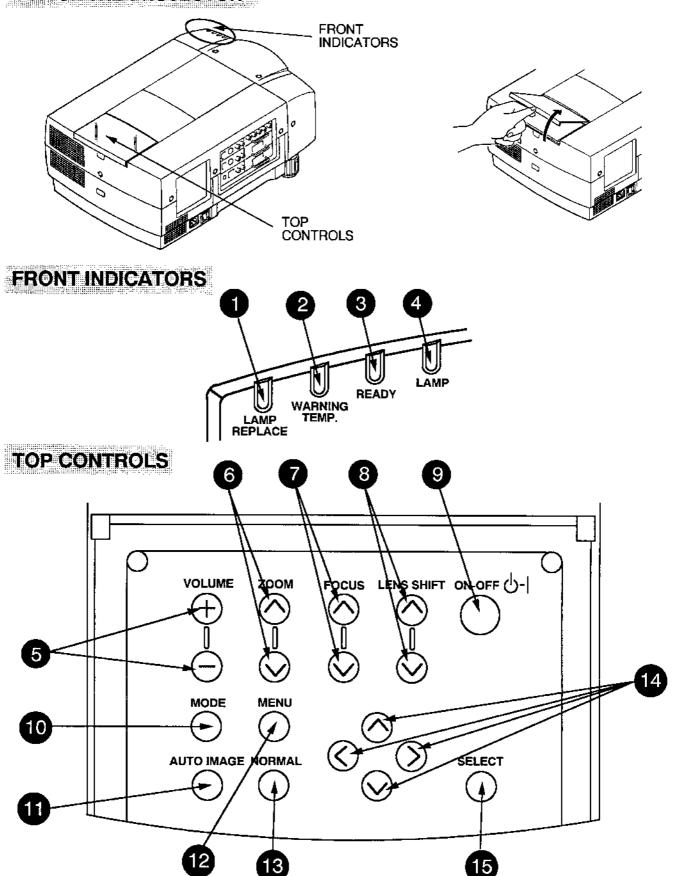
Connecting a Macintosh PowerBook computer



NOTE: The hook up should be done as per the above illustration. After hook up, turn on the projector, computer, in that order.

OPERATION OF CONTROLS

TOP OF THE PROJECTOR



1 LAMP REPLACEMENT INDICATOR

Light is orange when projection lamp is nearing end of service life.

2 TEMPERATURE WARNING INDICATOR

Flashes red when internal projector temperature is too high.

READY INDICATOR

Light is green when projector lamp is ready to be turned on.

4 LAMP POWER INDICATOR

Light is dim when the projector is on. Light is brightened when the projector is in stand-by mode.

5 VOLUME BUTTONS

Used to adjust volume,

6 ZOOM BUTTONS

Used to operate power zoom lens.

FOCUS BUTTONS

Used to operate power focus system.

8 LENS SHIFT BUTTONS

Used to operate power lens shift.

9 LAMP POWER ON/OFF BUTTON

Used to turn projection lamp on or off.

MODE BUTTON

Used to select source. (Computer 1 or Computer 2 Input)

AUTO IMAGE BUTTON

Used to operate the AUTO IMAGE function,

MENU BUTTON

This button will activate the MENU operation.

Use this button, the POINT UP/DOWN/LEFT/RIGHT buttons and the SELECT button to make adjustments to the projector's setting in MENU operation.

R NORMAL BUTTON

Used to reset to normal picture adjustment preset by factory.

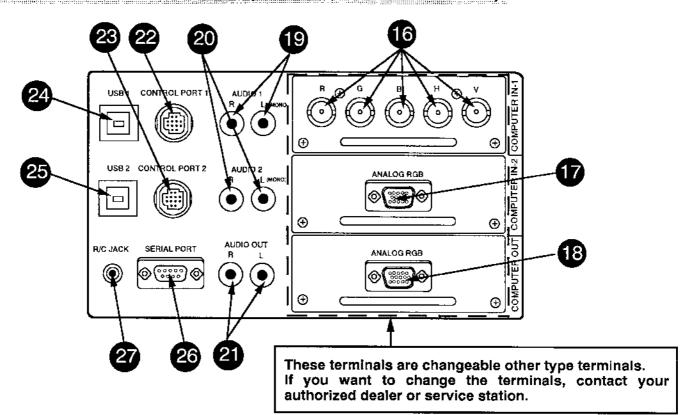
POINT UP/DOWN/LEFT/RIGHT BUTTONS

To select an item on the MENU that you want to adjust. To select an item, move the arrow by pressing these buttons (UP, DOWN, LEFT or RIGHT).

SELECT BUTTON

This button has different functions depending on when used. This button is used to execute the item selected, to increase or decrease the values in certain items such as CONTRAST or BRIGHTNESS.

SIDE OF THE PROJECTOR (CONNECT THE COMPUTER).



- COMPUTER INPUT-1 JACKS (BNC TYPE × 5)
 Used to connect a computer to the projector.
- COMPUTER INPUT-2 TERMINAL (VGA HDB15)
 Used to connect a computer to the projector.
- MONITOR OUTPUT TERMINAL (VGA HDB15)
 Used to connect a monitor to the projector.
- 19 COMPUTER AUDIO INPUT-1 JACKS (R and L)
 Used to connect an audio output from the computer to the projector.
- COMPUTER AUDIO INPUT-2 JACKS (R and L)
 Used to connect an audio output from the computer to the projector.
- COMPUTER AUDIO MONITOR OUTPUT JACKS (R and L)

Used to connect an audio input from audio equipment to the projector.

- CONTROL PORT-1 CONNECTOR
 Used to connect a mouse cable to the projector.
- 23 CONTROL PORT-2 CONNECTOR
 Used to connect a mouse cable to the projector.
- USB PORT-1 CONNECTOR
 Used to connect a computer to the projector.
- USB PORT-2 CONNECTOR
 Used to connect a computer to the projector.
- SERIAL PORT TERMINAL (DB9)
 Used to connect a computer to the projector.
- WIRED REMOTE JACK

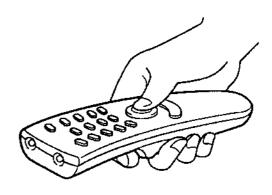
When using the wired remote control, connect the remote cable to this jack.

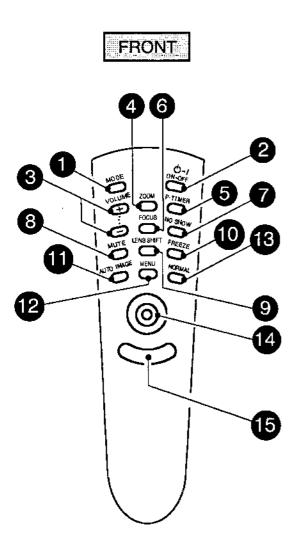
OPERATION OF REMOTE CONTROL (Wireless)

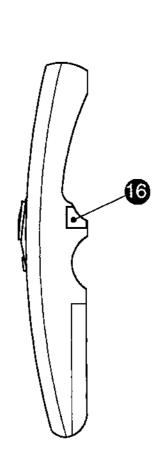
This remote control unit is not only able to operate the projector but also usable as a wireless mouse for a PC. One pointing pad and two click buttons are used for wireless mouse operation.

Wireless mouse is usable when PC mouse pointer is displayed on the screen. When the menu or indicator of the projector is displayed on the screen instead of the PC mouse pointer, the wireless mouse cannot be used.

NOTE: To use the unit as a PC wireless mouse, connect the projector to the PC with the attached cable. Signals from the projector are transmitted to the PC, enabling the remote control unit of the projector to be used as a PC wireless mouse. (Refer to "CONNECTING THE PROJECTOR" in pages 9 to 14 for the connection.)







SIDE

MODE BUTTON

Used to select source. (Computer 1 or Computer 2 Input)

2 LAMP POWER ON/OFF BUTTON

Used to turn the projection lamp on or off.

3 VOLUME BUTTONS

Used to adjust volume.

200M BUTTON

Used to select power zoom lens adjust.

5 P-TIMER BUTTON

Used to operate the P-TIMER function.

6 FOCUS BUTTON

Used to select focus adjust.

NO SHOW BUTTON

Used to change the screen into black image.

8 SOUND MUTE BUTTON

Used to mute sound,

LENS SHIFT BUTTON

Used to select power lens shift.

FREEZE BUTTON

Use this button to freeze on-screen image.

AUTO IMAGE BUTTON

Used to operate the AUTO IMAGE function.

MENU BUTTON

This button will activate the MENU operation. Use this button, the POINT UP/DOWN/LEFT/RIGHT button and the SELECT (REAR CLICK) button to make adjustments to the projector's setting in MENU operation.

(R) NORMAL BUTTON

Use to reset to normal picture adjustment preset by factory.

POINTING PAD

(POINT UP/DOWN/LEFT/RIGHT BUTTON)

When in use as a remote for the projector.

To select an item on the MENU that you want to adjust. To select an item, move the arrow by pressing the pad upward, downward, leftward or rightward.

Used to operate power zoom lens, power focus system or power lens shift by pressing the pad either upward or downward.

When in use as a wireless mouse

Used to move the pointer. The pointer is moved according to the direction you are pressing.

FRONT CLICK BUTTON

This button has the same function as the right button in a PC mouse. Pressing this button does not affect any operation when in MENU mode.

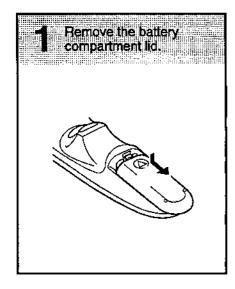
- 16 SELECT (REAR CLICK) BUTTON
 - When in use as a remote for the projector.

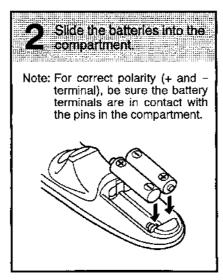
This button has different functions depending on when used. This button is used to execute the item selected, to increase or decrease the values in certain items such as CONTRAST or BRIGHTNESS.

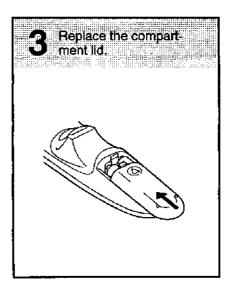
When in use as a wireless mouse

This button has the same function as the left button in a PC mouse.

REMOTE CONTROL BATTERY INSTALLATION

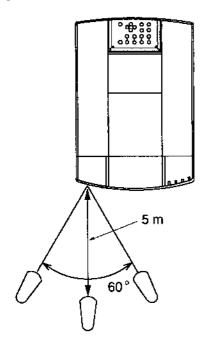


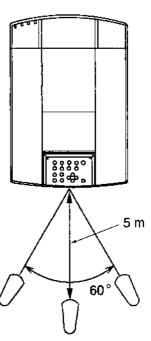




USING THE REMOTE CONTROL UNIT

Point the remote control toward the projector (Receiver window) whenever pressing the buttons. Maximum operating range for the remote control is about 5 m and 60° front and rear of the projector.







To insure safe operation, please observe the following precautions:

- Use (2) AA, UM3 or R06 type alkaline batteries.
- · Change two batteries at the same time.
- · Do not use a new battery with a used battery.
- · Avoid contact with water.
- Do not drop the remote control unit.
- If batteries have leaked on the remote control, carefully wipe the case clean and load new batteries.

OPERATION OF REMOTE CONTROL (Wireless/Wired)

WIRED REMOTE JACK

When using the wired remote control, connect the remote cable to this jack.

2 MODE BUTTON

Used to select source.
(Computer 1 or Computer 2 Input)

3 LAMP POWER ON/OFF BUTTON
Used to turn projection lamp on or off.

4 VOLUME BUTTONS
Used to adjust volume.

5 ZOOM BUTTONS
Used to operate power zoom lens.

6 FOCUS BUTTONS
Used to operate power focus system.

7 SOUND MUTE BUTTON Used to mute sound.

8 LENS SHIFT BUTTONS
Used to operate power lens shift.

P-TIMER BUTTON
 Used to operate the P-TIMER function.

AUTO IMAGE BUTTON
Used to operate the AUTO IMAGE function.

NO SHOW BUTTON
Used to change the screen into black image.

MENU BUTTON

This button will activate the MENU operation. Use this button, the POINT UP/DOWN/LEFT/RIGHT buttons and the SELECT button to make adjustments to the projector's setting in MENU operation.

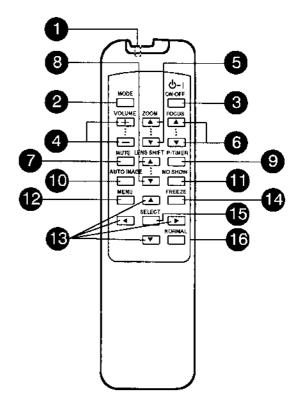
POINT UP/DOWN/LEFT/RIGHT BUTTONS
To select an item on the MENU that you want to adjust. To select an item, move the arrow by pressing these buttons (UP, DOWN, LEFT or RIGHT).

14 FREEZE BUTTON
Use this button to freeze on-screen image.

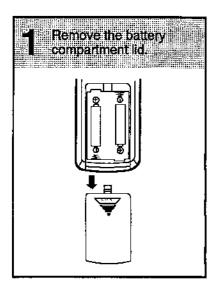
15 SELECT BUTTON

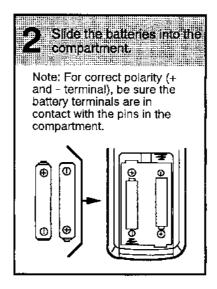
This button has different functions depending on when used. This button is used to execute the item selected, to increase or decrease the values in certain items such as CONTRAST or BRIGHTNESS.

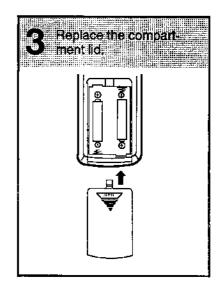
16 NORMAL BUTTON
Used to reset to normal picture adjustment preset by factory.



REMOTE CONTROLLBATTERY INSTALLATION.



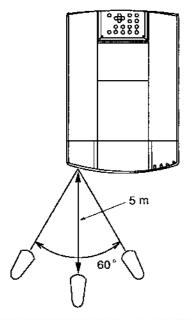


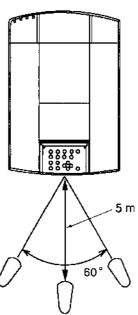


The remote control unit can be used as wireless or wired remote control.

USING THEREMOTE CONTROL UNIT (wireless).

Point the remote control toward the projector (Receiver window) whenever pressing the buttons. Maximum operating range for the remote control is about 5 m and 60° front and rear of the projector.





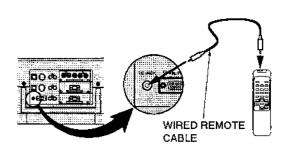
USING THE REMOTE CONTROL UNIT (wired)

Connect a remote control cable to R/C jacks located on the wireless/wired remote control unit and the side of the projector.



To insure safe operation, please observe the following precautions:

- Use (2) AA, UM3 or R06 type alkaline batteries.
- Change two batteries at the same time.
- Do not use a new battery with a used battery.
- · Avoid contact with water.
- Do not drop the remote control unit.
- If batteries have leaked on the remote control, carefully wipe the case clean and load new batteries.



CONTROL THE PROJECTOR

The projector has two types of operation: DIRECT OPERATION and MENU OPERATION. DIRECT OPERATION allows you to operate the projector by using one button without showing the MENU. In MENU OPERATION mode, you display menus where you can adjust the projector's settings. Follow the instruction for each control.

DIRECT OPERATION

ADJUST ITEM	TOP CONTROL OF THE PROJECTOR	WIRELESS/WIRED REMOTE CONTROL	WIRELESS REMOTE CONTROL
LAMP POWER ON/OFF	LAMP POWER ON-OFF	LAMP POWER ON-OFF	LAMP POWER ON-OFF
MODE SELECT	MODE	MODE	MODE
SOUND VOLUME	VOLUME (+) and (-)	VOLUME (+) and (-)	VOLUME (+) and (~)
SOUND MUTE	NOT AVAILABLE	MUTE	MUTE
ZOOM	ZOOM (\triangle) and (∇)	ZOOM (\triangle) and (∇)	ZOOM POINT (UP/DOWN)
FOCUS	FOCUS (△) and (▽)	FOCUS (\triangle) and (∇)	FOCUS POINT (UP/DOWN)
LENS SHIFT	LENS SHIFT (△) and (▽)	LENS SHIFT (△) and (▽)	LENS SHIFT POINT (UP/DOWN)
NORMAL PICTURE	NORMAL	NORMAL	NORMAL
NO SHOW	NOT AVAILABLE	NO SHOW	NO SHOW
PITMER	NOT AVAILABLE	P-TIMER	P-TIMER
FREEZE PICTURE	NOT AVAILABLE	FREEZE	FREEZE
AUTO IMAGE	AUTO IMAGE	AUTO IMAGE	AUTO IMAGE

MENU OPERATION

ADJUSTITEM	TOP CONTROL OF THE PROJECTOR	WIRELESSWIRED REMOTE CONTROL	WIRELESS REMOTE CONTROL	
MODE SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	
SOUND SOUND VOLUME TREBLE BASS BUILT-IN SP. SOUND MUTE LANGUAGE	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	
MENU EXIT	MENU POINT LEFT/RIGHT SELECT	MENU POINT LEFT/RIGHT SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK)	
SETTING BLUE BACK DISPLAY REVERSE T/B REVERSE R/L SPLIT WIPE LAMP AGE	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	
COMPUTER SYSTEM	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	
AUTO IMAGE FINE SYNC TOTAL DOTS POSITION	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	
PICTURE IMAGE FINE SYNC TOTAL DOTS WHITE BALANCE CONTRAST BRIGHTNESS	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)	

ADJUST ITEM	TOP CONTROL OF THE PROJECTOR	WIRELESSAWIRED FREMOTE CONTROL.	WIRELESS REMOTE CONTROL
PICTURE POSITION	MENU POINT LEFT/RIGHT SELECT POINT LEFT/RIGHT/UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT LEFT/RIGHT/UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (LEFT/RIGHT/UP/DOWN) SELECT (REAR CLICK)
PC ADJUSTMENT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK)
PICTURE SCREEN TRUE EXPAND COMPRESSED PANNING	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT POINT LEFT/RIGHT/UP/DOWN	MENU POINT LEFT/RIGHT SELECT POINT UP/DOWN SELECT POINT LEFT/RIGHT/UP/DOWN	MENU POINT (LEFT/RIGHT) SELECT (REAR CLICK) POINT (UP/DOWN) SELECT (REAR CLICK) POINT (LEFT/RIGHT/UP/DOWN)

NOTES:

- 1. The MENU, once activated, will not disappear unless you choose MENU EXIT operation. If you switch to DIRECT operation by pressing a DIRECT operation button while in MENU mode, the menus will disappear and the MENU operation will end.
- 2. You can use the REMOTE CONTROL UNIT or the TOP CONTROL OF THE PROJECTOR to operate the MENU operation.

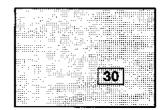
USING THE PROJECTOR

TO TURN ON THE PROJECTOR

Connect the projector to a Computer using the appropriate terminals on the side of the projector (See "CONNECTING THE PROJECTOR" section on pages 9-14).

Connect the projector's AC power cord into a wall outlet and turn the MAIN ON/OFF switch (located on the side of the projector) to the ON position. The LAMP POWER indicator will light RED, the READY indicator will light GREEN.

Press the LAMP POWER ON/OFF button on the remote control unit or on the projector to ON. The LAMP POWER indicator light will dim and the cooling fans will operate. The wait display appears on the screen and the count-down starts (30-29-28-...1). The signal from the source appears after 30 seconds.





CAUTION:

THIS PROJECTOR USES A METAL-HALIDE ARC LAMP. TO EXTEND THE LIFE OF THE LAMP, ONCE YOU HAVE TURNED IT ON, WAIT AT LEAST 5 MINUTES BEFORE TURNING IT OFF.

NOTE: TEMPERATURE WARNING INDICATOR flashes red, the projector will automatically turn off. Wait at least 5 minutes before turning the projector on.

If the TEMPERATURE WARNING INDICATOR continues to flash, follow the procedures below:

- Press LAMP POWER ON/OFF button to OFF.
- (2). Check the air filter for dust accumulation.
- (3). Remove dust with vacuum cleaner (See "AIR FILTER CARE AND CLEANING" section on page 43.)
- (4). Press LAMP POWER ON/OFF button to ON.

If the TEMPERATURE WARNING INDICATOR still continues to flash, call your authorized dealer or service station.

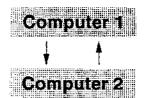
TO TURN OFF THE PROJECTOR

Press the LAMP POWER ON/OFF button on the remote control unit or on the projector. The "Power off?" appears on the screen. Press again the LAMP POWER ON/OFF button to turn OFF the projector. The LAMP POWER indicator will light bright and READY indicator will turn off. The cooling fans will operate for 1 minute after the projector is turned off. (During this "cooling down" period, the projector cannot be turned on.) The READY indicator will light green again and the projector may be turned on by pressing the LAMP POWER ON/OFF button. To power down completely, turn the MAIN ON/OFF switch (located on the side of the projector) to the OFF position.

Power off?

DIRECT OPERATION MODE SELECT

Press the MODE button (located on remote control unit or on the projector) to select Computer 1 or Computer 2 Input. The "Computer 1" or "Computer 2" display will appear on the screen for a few seconds.



SOUND VOLUME ADJUSTMENT

Press the VOLUME buttons (located on remote control unit or on the projector) to adjust the volume. The volume display will be displayed on the screen for a few seconds.

Pressing volume (+) will increase volume and increase the number on the screen. Pressing volume (-) will decrease volume and decrease the number on the screen.

SOUND MUTE FUNCTION

Pressing the MUTE button on the remote control unit will mute audio. Press the MUTE button again to restore audio to its previous level. The mute display will be displayed on the screen for a few seconds.

ZOOM ADJUSTMENT (Top control and Wireless/Wired remote control unit)

Press the ZOOM (+) or (-) button to obtain your desired picture size. For a larger picture, press (+) and for a smaller picture, press (-).

ZOOM ADJUSTMENT (Wireless remote control unit)

Press the ZOOM button and press POINT UP/DOWN button(s) to obtain your desired picture size. The Zoom display will be displayed on the screen for a few seconds. For a larger picture, press (UP) and for a smaller picture, press (DOWN).

FOCUS ADJUSTMENT (Top control and Wireless/Wired remote control unit)

Press the FOCUS (+) or (-) button for a sharper, crisper picture.

FOCUS ADJUSTMENT (Wireless remote control unit)

Press the FOCUS button and press POINT UP/DOWN button(s) to obtain a sharper, crisper picture. The Focus display will be displayed on the screen for a few seconds.

LENS SHIFT FUNCTION (Top control and Wireless/Wired remote control unit)

Press the LENS SHIFT (+) or (-) button to obtain your desired screen position.

LENS SHIFT FUNCTION (Wireless remote control unit)

Press the LENS SHIFT button and press POINT UP/DOWN button(s) to obtain your desired screen position. The Lens shift display will be displayed on the screen for a few seconds.

NORMAL PICTURE FUNCTION

The normal picture level is factory preset on the projector and can be restored anytime by pressing the NORMAL button (located on remote control unit or on the projector). The "Normal" display will be displayed on the screen for a few seconds.

NO SHOW FUNCTION

Press the NO SHOW button on the remote control unit. The screen will change into black image and the "NO SHOW" is displayed on the screen for a few seconds.

This function is cancelled when the NO SHOW button is pressed again or any other function button is pressed.

P-TIMER FUNCTION

Press the P-TIMER button on the remote control unit. The timer display "00:00" appears on the screen and the timer starts to count the time (00:00-59:59).

Press again the P-TIMER button to stop the timer. Then press the P-TIMER button to cancel the P-TIMER function.

FREEZE PICTURE FUNCTION

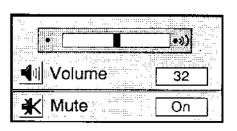
Press the FREEZE button on the remote control unit, and the picture will remain on-screen. This function is cancelled when the FREEZE button is pressed again or any other function button is pressed.

NOTE: Your computer is not affected by this function, and will continue to run.

AUTO IMAGE FUNCTION

Press the AUTO IMAGE button on the remote control unit or on the projector. The item(s) indicated "ON" in the AUTO IMAGE FUNCTION are adjusted automatically.

If all the items in AUTO IMAGE FUNCTION are "OFF", AUTO IMAGE SETTING display appears. If you wish to operate the AUTO IMAGE FUNCTION, perform the steps 3 - 9 of "AUTO IMAGE FUNCTION" section on page 32.



Zoom

Focus

Lens shift

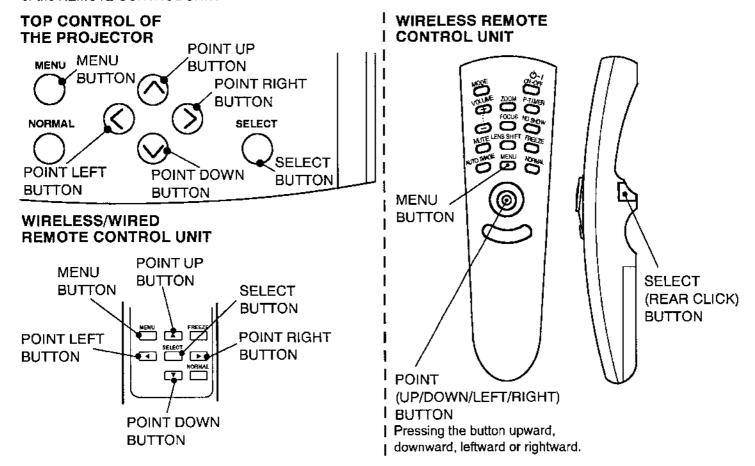
Normal

No show



MENU OPERATION

In MENU OPERATION mode, you can adjust the projector. You can use the TOP CONTROL OF THE PROJECTOR or the REMOTE CONTROL UNIT.



MODE SELECT

You can select a mode from MAIN MENU display among computer 1 and computer 2.

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select Computer and press the SELECT (REAR CLICK) BUTTON. Another dialog box MODE DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow to the mode you want (computer 1 or computer 2) to use by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON.

MAIN MENU DISPLAY



SOUND ADJUSTMENT

You can adjust the sound volume, treble, bass levels and Built-in SP., Sound Mute ON/OFF switch in the MENU display.

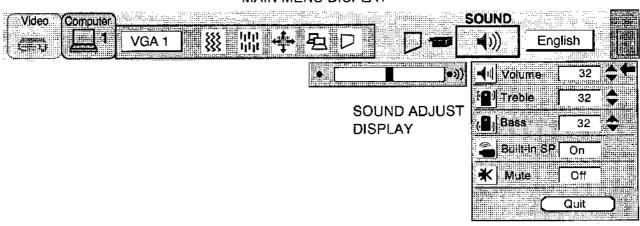
1, Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.

- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select SOUND and press the SELECT (REAR CLICK) BUTTON. Another dialog box SOUND ADJUST DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.

4. Move the arrow to an item that you want to adjust by pressing the POINT UP/DOWN BUTTON(s).

- 5. To increase the sound volume, treble and bass point the arrow to △ and then press the SELECT (REAR CLICK) BUTTON. To decrease the sound volume, treble and bass point the arrow to ▽ and then press the SELECT (REAR CLICK) BUTTON.
- 6. To disconnect the built-in speaker, point the arrow to Built-in SP, and then press the SELECT (REAR CLICK) BUTTON. The display is changed Off from On and Internal speaker is disconnected.
- 7. To mute the sound, point the arrow to Mute and then press the SELECT (REAR CLICK) BUTTON. The display is changed On from Off and mute the sound.
- 8. To guit the MENU, point to Quit and then press the SELECT (REAR CLICK) BUTTON.

MAIN MENU DISPLAY

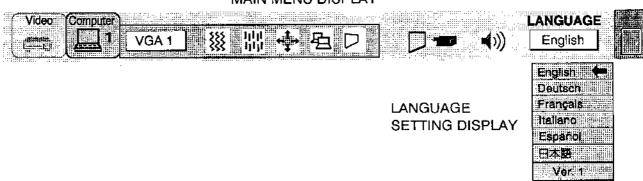


LANGUAGE ADJUSTMENT

A language in the MENU display can be selected among English, German, French, Italian, Spanish and Japanese.

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select LANGUAGE and press the SELECT (REAR CLICK) BUTTON. Another dialog box LANGUAGE SETTING DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow to the language you want to use by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON.
- 5. The setting is permanently held even if the MAIN ON/OFF is switched off.

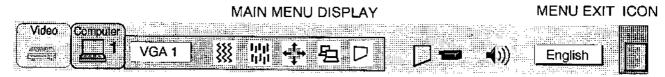
MAIN MENU DISPLAY



MENU EXIT

Press the POINT RIGHT BUTTON and select MENU EXIT ICON, then press the SELECT (REAR CLICK) BUTTON. Menu display will disappear.

NOTE: Pressing the MENU BUTTON while in MENU mode. Menu will be closed.



COMPUTER SYSTEM SELECT

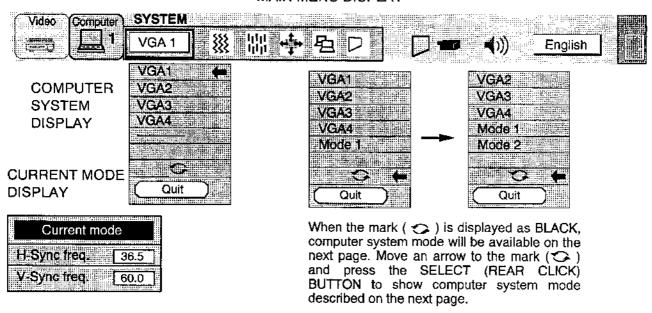
This projector is adjustable to different types of computer display signals based on VGA, SVGA, XGA or SXGA (See "COMPATIBLE COMPUTER SPECIFICATIONS" on the next page). If you set MODE SELECT to "COMPUTER", the projector will automatically process the incoming signal and project the proper image without any special setting. Although this will work in most cases, you may be required to manually set the projector for some computer signals. If the computer image is not reproduced properly, try the following procedure and switch to the computer display mode that you want to use.

- 1. Connect the COMPUTER to the PROJECTOR, and turn them on projector first.
- 2. Set MODE SELECT to "COMPUTER MODE (1 or 2)". This shows the current display mode initially detected by the projector in the system window. And "Current mode" display appears.
- NOTE: 1. If the projector cannot discriminate or detect the input signal from the computer, the "Go PC adj." display appears.

NOTE: 2. If no input signal from the computer, the "No signal" display appears on the screen.

- 3. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 4. Press the POINT LEFT/RIGHT BUTTON(s) to select SYSTEM and press the SELECT (REAR CLICK) BUTTON. Another dialog box COMPUTER SYSTEM DISPLAY will appear.
- 5. Press the POINT DOWN BUTTON and a red arrow will appear.
- 6. If you want to change the current display mode, move the arrow by pressing the POINT UP/DOWN BUTTON(s) to select one of the modes.
- 7. Press the SELECT (REAR CLICK) BUTTON to change the display mode.
- 8. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.

MAIN MENU DISPLAY



PC ADJUSTMENT

This is a special function that may be used when a computer image is not reproduced properly. (See the pages 35 ~ 38 for more detail.)

COMPATIBLE COMPUTER SPECIFICATIONS

ON-SCREEN		H-Freq.	V-Freq.	ON-SCREEN		H-Freq.	V-Freq.
DISPLAY	RESOLUTION	(kH z)	(Hz)	DISPLAY	RESOLUTION	(kHz)	(Hz)
VGA1	640 × 480	31.47	59.88	XGA9	1024 × 768	36.00	87.17
VGA2	720 × 400	31.47	70.09				(Interlace)
VGA3	640 × 400	31.47	70.09	XGA10	1024 × 768	62.04	77.07
VGA4	640 × 480	37,86	74.38	XGA11	1024 × 768	61.00	75.70
VGA5	640 × 480	37.86	72.81	XGA12	1024 × 768	35.522	86.96 (Interlace)
VGA6	640 × 480	37.50	75.00	XGA13	1024 × 768	46.90	58.20
MAC LC13	640 × 480	34.97	66.60	XGA14	1024 × 768	47.00	58.30
MAC 13	640×480	35.00	66.67	MAC19	1024 × 768	60.24	75.08
PC98	640 × 400	24.83	56.42	SXGA1	1152 × 864	64.20	70.40
FM TOWNS	640 × 400	24.38	55.40	SXGA2	1280 × 1024	62.50	58.60
SVGA1	800 × 600	35.156	56.25	SXGA3	1280 × 1024	63.90	60.00
SVGA2	800 × 600	37.88	60,32	SXGA4	1280 × 1024	63.34	59.98
SVGA3	800 × 600	46.875	75.00	SXGA5	1280 × 1024	63.74	60.01
SVGA4	800 × 600	53.674	85.06	SXGA6	1280 × 1024	71.69	67.19
SVGA5	800 × 600	48.08	72.19	SXGA7	1280 × 1024	81.13	76.107
SVGA6	800 × 600	37.90	61.03	SXGA8	1280 × 1024	63.98	60.02
SVGA7	800 × 600	34.50	55.38	SXGA9	1280 × 1024	79.976	75.025
SVGA8	800 × 600	38.00	60.51	SXGA10	1280 × 960	60.00	60.00
SVGA9	800 × 600	38.60	60.31	SXGA11	1152 × 900	61.20	65.20
SVGA10	800 × 600	47.90	71.92	SXGA12	1152 × 900	71.40	75.60
SVGA11	800 × 600	32.70	51.09	SXGA13	1280 × 1024	50.00	86.00
SVGA12	800 × 600	38.00	60.51				(Interlace)
MAC 16	832 × 624	49.72	74.55	SXGA14	1280 × 1024	50.00	94.00
XGA1	1024 × 768	48.36	60.00	GALLAMBERNESTS TABLE			(Interlace)
XGA2	1024 × 768	68.677	84.997	SXGA15	1280 × 1024	63.37	60.01
XGA3	1024 × 768	60.023	75.03	SXGA16	1280 × 1024	76.97	72.00
XGA4	1024 × 768	56.47	70.07	SXGA17	1152 × 900	61.85	66.00
XGA5	1024 × 768	60.31	74.92	SXGA18	1280 × 1024	46.43	86.70 (Interlace)
XGA6	1024 × 768	48.50	60.02	SXGA19	1280 × 1024	63.79	60.18
XGA7	1024 × 768	44.00	54.58	MAC21	1152 × 870	68.68	75.06
XGA8	1024 × 768	63.48	79.35	MAC	1280 × 960	75.00	75.08
Specifications or	e subject to chang	na without n	ntine	MAC	1280 × 1024	80.00	75.08

NOTE: Basically this projector can accept the signal from all computers with the above mentioned V, H-Frequency and less than 135 MHz of Dot Clock.

AUTO IMAGE FUNCTION

The Auto image function is provided to automatically adjust Fine sync., Total dots and Screen position for most computers.

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select AUTO IMAGE and press the SELECT (REAR CLICK) BUTTON. Another dialog box AUTO IMAGE SETTING DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow to an item(s) you want to adjust by pressing the POINT UP/DOWN BUTTON(s).
- 5. Change the setting "On", press the SELECT (REAR CLICK) BUTTON.
- 6. Move the arrow by pressing the POINT UP/DOWN BUTTON(s) to select "Go!" and then press the SELECT (REAR CLICK) BUTTON. The auto image function is started now. It will take about 10 seconds.
- 7. To store the settings, move the arrow to Stored and then press the SELECT (REAR CLICK) BUTTON. When you have stored the settings, "OK?" is displayed for confirmation.
- 8. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. The stored settings are permanently held even if the MAIN ON/OFF is switched off.
- 9. To quit the MENU, point to Quit and then press the SELECT (REAR CLICK) BUTTON.
- 10. This setting is temporarily effective until you turn off the projector or change the input signal.

NOTE: The fine sync., total dots and screen position of same computers may not be fully adjusted with the "Auto Image Function". In that case, use the "Picture Image" and/or "Picture Position" adjustments (see pages 33 ~ 34) to make fine-adjust them after the "Auto Image Function" is executed.

MAIN MENU DISPLAY AUTOIMAGE Video Computer VGA 1 **4**5))) **English** Fine sync. On **AUTO IMAGE SETTING** Total cots On DISPLAY Position Stored OK? Gol Yes Quit

PICTURE IMAGE ADJUSTMENT

Picture adjustments have been preset at the factory. If you want to change the setting, operate the projector as follows.

1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.

- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select IMAGE and press the SELECT (REAR CLICK) BUTTON. Another dialog box IMAGE ADJUST DISPLAY will appear. This shows the current picture settings.
- In this dialog box, you can adjust the settings by increasing or decreasing the levels shown as numbers. The items and the range of the levels that you can adjust are summarized in the table below.

4. Press the POINT DOWN BUTTON and a red arrow will appear.

5. Move the arrow to an item that you want to adjust by pressing the POINT UP/DOWN BUTTON(s).

- 6. To increase the level, point the arrow to △ and then press the SELECT (REAR CLICK) BUTTON. To decrease the level, point the arrow to ▽ and then press the SELECT (REAR CLICK) BUTTON.
- 7. You may want to store the settings in the memory so that you can recall them later. To store the settings, move the arrow to Stored and then press the SELECT (REAR CLICK) BUTTON. When you have stored the settings, "OK?" is displayed for confirmation.
- 8. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. The stored settings are permanently held even if the MAIN ON/OFF is switched off.

9. To guit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.

- 10. If you do not want to store the settings, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON. The settings changed remains effective until the MAIN ON/OFF switch is turned off.
- 11. To recall the settings from the memory that you have stored, move the arrow to Reset and then press the SELECT (REAR CLICK) BUTTON. When you have reset the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. You can adjust the settings again if needed.

MAIN MENU DISPLAY

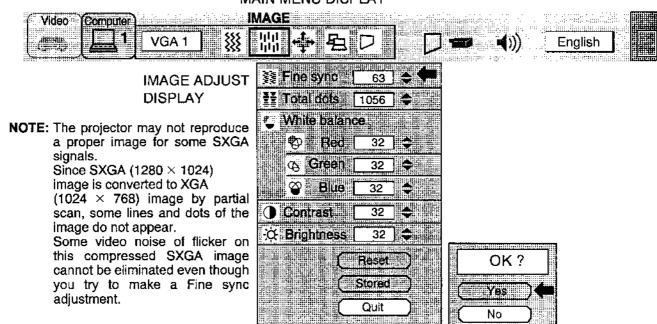
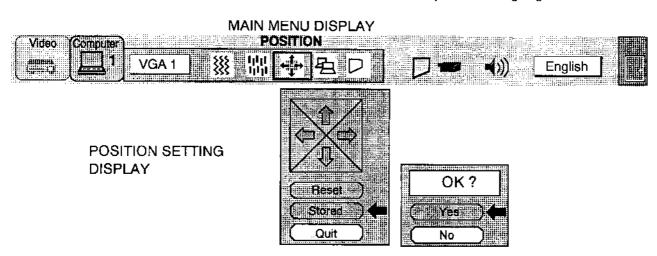


TABLE OF PICTURE IMAGE ADJUSTMENT

FINE SYNC	Adjust the picture as necessary to eliminate flicker from the display.
TOTAL DOTS	The number of the total dots in one horizontal period. Adjust the number to match your PC image.
WHITE BALANCE (R/G/B)	DECREASE 0 63 INCREASE
CONTRAST	LIGHTER 0 ← 63 DEEPER
BRIGHTNESS	DARKER 0 - 63 BRIGHTER

PICTURE POSITION ADJUSTMENT

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select POSITION and press the SELECT (REAR CLICK) BUTTON. Another dialog box POSITION SETTING DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow to a desirable direction (← , → , ↑ or ↓) by pressing the POINT LEFT/RIGHT/UP/DOWN BUTTON(s) and press the SELECT (REAR CLICK) BUTTON to a desirable picture position.
- 5. You may want to store the settings to the memory so that you can recall them later. To store the settings, move the arrow to Stored and then press the SELECT (REAR CLICK) BUTTON. When you have stored the settings, "OK?" is displayed for confirmation.
- 6. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. The stored settings are permanently held even if the MAIN ON/OFF is switched off.
- 7. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.
- 8. If you do not want to store the settings, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON. The settings changed remains effective until the MAIN ON/OFF switch is turned off.
- 9. To recall the settings from the memory that you have stored, move the arrow to Reset and then press the SELECT (REAR CLICK) BUTTON. When you have reset the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. You can adjust the settings again if needed.



PC ADJUSTMENT

This projector can automatically detect most display signals from most personal computers currently distributed. However, some computers adopt a special signal format which is different from the standard one and the projector cannot detect it. If this happens, the projector cannot reproduce a proper image. And a flickering picture, a non-synchronized picture, a non-centered picture or a skewed picture may be projected instead.

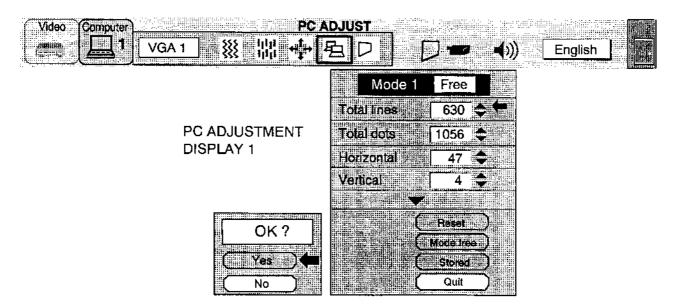
For those non-standard formats, this projector is provided with PC ADJUST, enabling you to precisely adjust several parameters to match with the input signal format. The projector has eight independent memory areas where you can store the parameter you have set. This enables you to recall the setting for a specific computer when you need it.

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select PC ADJUST and press the SELECT (REAR CLICK) BUTTON. Another dialog box "Where to reserve" will appear.
- 3. In this dialog box, you will select one of the memory areas from among "Mode 1" to "Mode 8". If parameters have been previously set and stored in the memory, the status "Stored" will appear on the corresponding row. If not, "Free" will appear.
- 4. Press the POINT DOWN BUTTON and a red arrow will appear.
- 5. Move the arrow to one of the "Modes" (Free position) where you want to store the parameters by pressing the POINT UP/DOWN BUTTON(s). Press the SELECT (REAR CLICK) BUTTON to select it.

NOTE; If "Stored" appears in all Modes, no new PC parameter data can be stored. In this case, clear the PC parameter data using the Mode free Function.

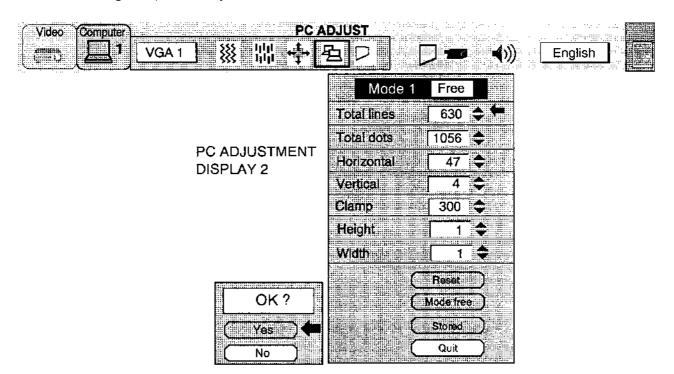
MAIN MENU DISPLAY Video Computer 11111 11111 VGA 1 English Where to reserve Mode 1 Free Mode 2 Free Mode 3 Free Mode 4 Free Mode 5 Free Mode 6 Free Mode 7 Free Mode 8 Free Quit

- 6. Another dialog box "PC ADJUSTMENT DISPLAY 1" will appear and the parameter data for the Mode you have selected is shown in this dialog box.
- 7. The parameters will be filled with the data determined by the projector according to the present signal input.
- 8. The function of the parameters and their values are summarized in the table below.
- 9. Move the arrow to an item that you want to adjust by pressing the POINT UP/DOWN BUTTON(s).
- 10. To increase the level, point the arrow to \triangle and then press the SELECT (REAR CLICK) BUTTON. To decrease the level, point the arrow to ∇ and then press the SELECT (REAR CLICK) BUTTON.
- 11. If you want to store the settings in the memory, move the arrow to Stored and press the SELECT (REAR CLICK) BUTTON. When you have stored the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON.
- 12. To recall the parameter data before setting, move the arrow to Reset and then press the SELECT (REAR CLICK) BUTTON. When you have reset the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. You can adjust the settings again if needed.
- 13. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.
- 14. If you quit the MENU without storing the settings in the memory, the parameter data you changed will not be kept.
- 15. The stored settings are permanently held even if the MAIN ON/OFF is switched off.
- 16. Adjust the data such as a "Clamp", "Height" and "Width" if needed, move the arrow by pressing the POINT UP/DOWN BUTTON(s) to select (▼). Press the SELECT (REAR CLICK) BUTTON.



Π≅M	FUNCTION
TOTAL LINES	The number of the total vertical lines. Adjust the number to match your PC image.
TOTAL DOTS	The number of the total dots in one horizontal period. Adjust the number to match your PC image.
HORIZONTAL	Adjustment of the horizontal picture position. When the image is not centered on the screen, adjust this.
VERTICAL	Adjustment of the vertical picture position. When the image is not centered on the screen, adjust this.

- 17. Another dialog box "PC ADJUSTMENT DISPLAY 2" will appear and the parameter data for the Mode you have selected is shown in this dialog box.
- 18. Move the arrow to an item that you want to adjust by pressing the POINT UP/DOWN BUTTON(s).
- 19. To increase the level, point the arrow to \triangle and then press the SELECT (REAR CLICK) BUTTON. To decrease the level, point the arrow to ∇ and then press the SELECT (REAR CLICK) BUTTON.
- 20. If you want to store the settings in the memory, move the arrow to Stored and press the SELECT (REAR CLICK) BUTTON. When you have stored the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON.
- 21. To recall the parameter data before setting, move the arrow to Reset and then press the SELECT (REAR CLICK) BUTTON. When you have reset the settings, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON. You can adjust the settings again if needed.
- 22. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.
- 23. If you quit the MENU without storing the settings in the memory, the parameter data you changed will not be kept.
- 24. The stored settings are permanently held even if the MAIN ON/OFF is switched off.



ITEM	FUNCTION
CLAMP	Adjustment of the clamp level. When the image has a dark bar, try this adjustment.
HEIGHT	Expanding or compressing level for the vertical direction.
WIDTH	Expanding or compressing level for the horizontal direction.

MODE FREE

The Mode free function is provided to confirm or clear the parameter data produced by PC ADJUST.

1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.

2. Press the POINT LEFT/RIGHT BUTTON(s) to select PC ADJUST and press the SELECT (REAR CLICK) BUTTON. Another dialog box "Where to reserve" will appear.

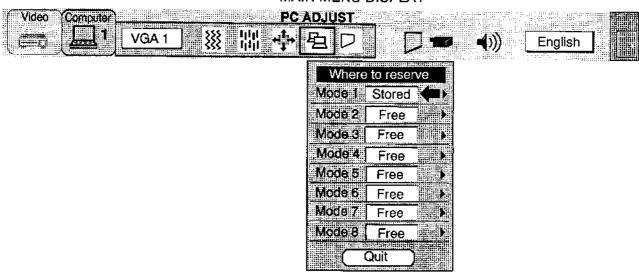
3. Press the POINT DOWN BUTTON and a red arrow will appear.

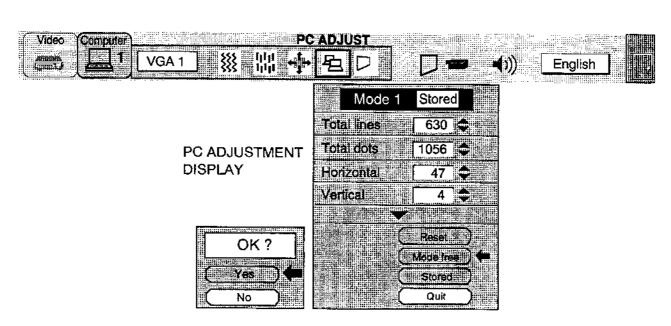
- 4. Move the arrow to one of the "Modes" (Stored position) that you want to confirm by pressing the POINT UP/DOWN BUTTON(s). Press the SELECT (REAR CLICK) BUTTON. Another dialog box "PC ADJUSTMENT DISPLAY" will appear.
- 5. To quit the MENU, point to Quit and then press the SELECT (REAR CLICK) BUTTON.

6. To modify the parameter data, perform the steps 9 ~ 24 of PC ADJUSTMENT SECTION.

- 7. To clear the parameter data, move the arrow by pressing the POINT UP/DOWN BUTTON(s) to select Mode free. Press the SELECT (REAR CLICK) BUTTON. "OK?" is displayed for confirmation.
- 8. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON to clear the parameter data.
- 9. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.

MAIN MENU DISPLAY





PICTURE SCREEN ADJUSTMENT

This projector has a picture screen resize function, which enables you to project the image size.

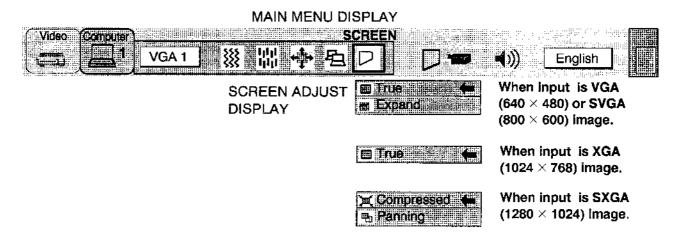
Input image resolution	True Mode	Expand Mode	Compressed Mode	Panning Mode
Less than XGA (1024 × 768) Image			None	None
XGA (1024 × 768) image		None	None	None
More than XGA (1024 × 768) image	None	None		

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- Press the POINT LEFT/RIGHT BUTTON(s) to select SCREEN and press the SELECT (REAR CLICK) BUTTON. Another dialog box SCREEN ADJUST DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. To switch to "Expand mode", move the arrow to Expand by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON. The mode is changed "Expand".
- 5. To switch to "True mode", move the arrow to True by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON. The mode is changed "True".
- 6. To switch to "Compressed mode", move the arrow to Compressed by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON. The mode is changed "Compressed".
- 7. To switch to "Panning mode", move the arrow to Panning by pressing the POINT UP/DOWN BUTTON(s) and then press the SELECT (REAR CLICK) BUTTON. The mode is changed "Panning".

Press the POINT UP/DOWN/LEFT/RIGHT BUTTON(s) to move the panning image position. The display of "Quit" is appearing on the screen during panning mode. If this display is disappeared, the panning mode is cancelled.

- 8. Press the SELECT (REAR CLICK) BUTTON to disappear the "Quit" display and panning mode is cancelled.
- 9. This setting is temporarily effective until you turn off the MAIN ON/OFF switch.

NOTE: The normal "Panning Operation" may not function properly if the computer system prepared with the "PC Adjust" is used.



OTHER FUNCTION SETTING

This projector has other function settings; Blue back, Display, Reverse T/B, Reverse R/L, Split wipe and Lamp age.

BLUE BACK

When this function is in the "On" position, the projector will project a blue image without video noise on the screen when the video source is unplugged or turned off.

DISPLAY

When this function is in the "On" position, on-screen displays always appear when adjustments are made. Although these on-screen displays are very helpful, these may spoil the view if adjustments are made during presentations. To avoid this, you can keep back certain displays by switching this function "Off". The followings are the displays that you can hide.

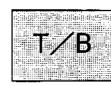
- Wait Display
- Mode Display
- Volume Display
- Mute Display
- Zoom/Focus/Lens shift Display
- Normal Display
- No show Display

REVERSE T/B

When this function is in the "On" position, the top/bottom picture reverse.



When this function is in the "On" position, the left/right picture reverse capability lets you project onto a rear projection screen.









SPLIT WIPE

Turn SPLIT WIPE function On in the SETTING menu. The picture will change into next one by sliding black image side ways when the input source is changed.

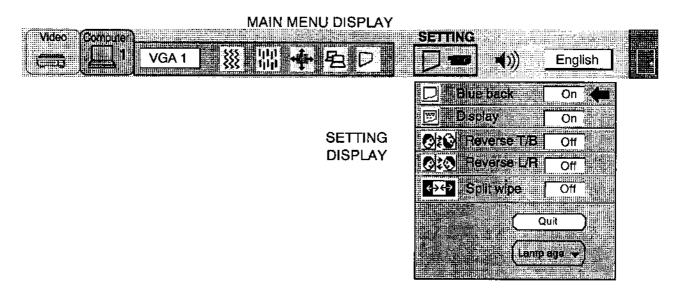
Change the input source by MODE button. The picture is replaced by black image from side ways to the center, and the next one appears from the center to side ways like drawing the black curtains.

LAMP AGE

The Lamp age function is designed to reset the lamp replacement monitor timer. When replacing the lamp, reset the lamp replacement monitor timer by using this function.

BLUE BACK, DISPLAY, REVERSE T/B, REVERSE L/R AND SPLIT WIPE

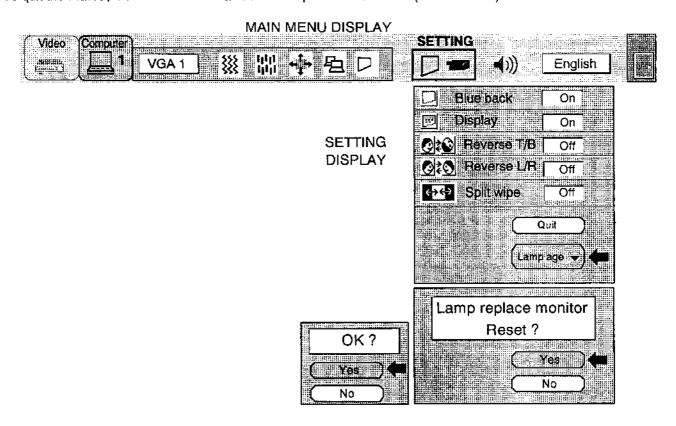
- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- 2. Press the POINT LEFT/RIGHT BUTTON(s) to select SETTING and press the SELECT (REAR CLICK) BUTTON. Another dialog box SETTING DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow to an item you want to set by pressing the POINT UP/DOWN BUTTON(s).
- 5. If you want to change the setting (On or Off), press the SELECT (REAR CLICK) BUTTON.
- 6. To quit the MENU, point to Quit and then press the SELECT (REAR CLICK) BUTTON.
- 7. The settings are permanently kept even if the MAIN ON/OFF is switched off.



LAMP AGE

NOTE: Do not reset the LAMP REPLACEMENT MONITOR TIMER, except after the lamp is replaced.

- 1. Press the MENU BUTTON and the MAIN MENU DISPLAY dialog box will appear.
- Press the POINT LEFT/RIGHT BUTTON(s) to select SETTING and press the SELECT (REAR CLICK) BUTTON. Another dialog box SETTING DISPLAY will appear.
- 3. Press the POINT DOWN BUTTON and a red arrow will appear.
- 4. Move the arrow by pressing the POINT UP/DOWN BUTTON(s) to select Lamp age and then press the SELECT (REAR CLICK) BUTTON. When you reset the lamp replace monitor, "lamp replace monitor reset?" is displayed for confirmation.
- 5. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON, "OK?" is displayed for confirmation. Move the arrow to Yes and then press the SELECT (REAR CLICK) BUTTON, the lamp replace monitor is reset.
- 6. Move the arrow to No and then press the SELECT (REAR CLICK) BUTTON. The lamp replace monitor is not reset.
- 7. To quit the MENU, move the arrow to Quit and then press the SELECT (REAR CLICK) BUTTON.



AIR FILTER CARE AND CLEANING

The removable air filter prevents dust from accumulating on the surface of the projection lens and projection mirror. Should the air filter become clogged with dust particles, it will reduce the cooling fan's effectiveness and may result in internal heat build up and reduce the life of the projector.

To clean the air filter, follow the cleaning procedures below:

- 1. Turn the LAMP POWER ON/OFF button OFF.
- 2. Remove the air filter cover.
- 3. Remove the air filter and sponge from the filter cover.
- 4. Clean the air filter with a vacuum cleaner.
- Replace the air filter and sponge. Make sure that air filter cover is fully inserted.



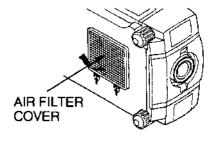
Do not clean with water. Doing so may damage the air filter. Do not operate the projector with air filter removed.

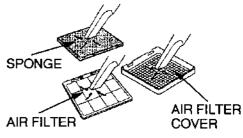
RECOMMENDATION

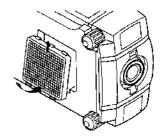
TO ENJOY PICTURE IMAGE, USE THE PROJECTOR IN THE CLEAN ENVIRONMENT. USAGE IN THE CLEAN ENVIRONMENT IS RECOMMENDED.

When used under the dusty or smoky conditions, dust may accumulate on the liquid crystal panel and lens inside it, and may resultantly be projected on the screen together with the picture.

When the above symptoms are noticed contact the place where your authorized dealer or service station for the cleaning.





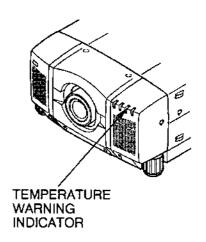


TEMPERATURE WARNING INDICATOR

The TEMPERATURE WARNING INDICATOR flashes red when the internal temperature of the projector exceeds the normal temperature.

Possible causes for the temperature warning may be:

- 1. Ventilation slots of the projector are blocked. In such an event, reposition the projector so that ventilation slots are not obstructed.
- 2. Air filter is clogged with dust particles. Remove dust from the air filter by following instructions in the Air Filter Care and Cleaning section above.
- 3. If temperature warning indicator remains on after performing the checks listed above, cooling fan/internal circuits may be malfunctioning. Request service from an authorized dealer or service station.



LAMP REPLACEMENT

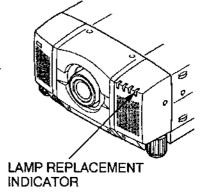
If the lamp fails to come on and the lamp monitor on the projector light is orange, you must replace the bulb.

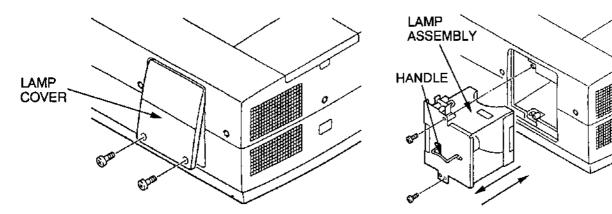


- For continued safety, replace with a lamp assembly of the same type.
- Allow the projector to cool for at least 45 minutes before you open the lamp cover. The inside of the projector can become very hot.
- Do not drop the lamp module or touch the glass bulb! The glass can shatter and cause injury.

Follow these steps to replace the lamp assembly.

- 1. Turn off the projector and allow the projector to cool thoroughly.
- 2. Disconnect the AC cord from the projector.
- 3. Remove 2 screws with a screwdriver and disconnect the lamp cover.
- 4. Remove 2 screws with a screwdriver and pull out the lamp assembly by grasping the handle.
- 5. Replace the lamp assembly.
- 6. Tighten 4 screws to secure the lamp cover to the lamp assembly.
- 7. Connect the detachable AC cord to the projector.





8. Reset the lamp replacement monitor timer. (See "LAMP AGE" section on page 42.)

NOTE: Do not reset the LAMP REPLACEMENT MONITOR TIMER, except after the lamp is replaced.

NOTE ON THE LAMP REPLACE INDICATOR

The LAMP REPLACE INDICATOR indicates the guide of the lamp life.

It is unnecessary to replace the lamp immediately if the projector is operating normally with the indicator on.

If the LAMP REPLACE INDICATOR is lit and the power is not be turned on by pressing the power button (Power is turned off approximately 20 seconds after power button is pressed.), the lamp replacement is required. Please contact a service for the lamp replacement.

CLEANING THE LENS

Follow these steps to clean the projection lens:

- Apply a non-abrasive camera lens cleaner to a soft, dry cleaning cloth.
 Avoid using an excessive amount of cleaner.
 Abrasive cleaners, solvents or other harsh chemicals might scratch the lens.
- 2. Lightly wipe the cleaning cloth over the lens.
- 3. If you don't intend to use the projector immediately, replace the lens cover.

TROUBLESHOOTING

Before calling your dealer or service station for assistance, follow these steps, to make sure everything is properly connected.

- 1. Make sure you have connected the projector to your equipment as described in section " CONNECTING THE PROJECTOR" on pages 9 ~ 14.
- 2. Check cable connections. Verify that all computer, video and power cords are properly connected.
- 3. Verify that power is switched on.
- 4. If the projector still does not display an image, restart the computer.
- 5. If the image still does not display, unplug the projector from the computer and check the computer monitor's display. The problem may be with your graphics controller rather than with the projector. (When you reconnect the projector, remember to turn the computer and monitor off before you power up the projector. Power the equipment back up in this order: Projector, monitor, computer)
- 6. If the problem still exists, check the following chart.

Try these Solutions:			
 Plug the projector into an AC outlet. Turn the MAIN ON/OFF button to ON. Press the LAMP POWER ON/OFF switch to ON. Be sure the READY INDICATOR light is ON. Wait one minute after the projector is turned OFF before turning the projector back on. 			
NOTE: After pressing the LAMP POWER ON/OFF button to OFF. The projector functions as indicated. 1. The LAMP POWER indicator will light and the READ indicator will turn off. 2. After one minute, the READY indicator will light green again and the projector may be turned on by pressing the LAM POWER ON/OFF button. • Check temperature warning indicator. If the indicator flashed red, the projector cannot be turned on. (See "USING THE PROJECTOR" section on page 26). • Check the projection lamp.			
 Adjust the focus. Make sure the projection screen is at least 1.1 m from the projector. Check the projection lens to see if it needs cleaning. NOTE: Moving the projector from a cool temperature location to a warm temperature location may result in moisture. 			

Problem:	Try these Solutions:		
Picture is T/B inverted.	Check Reverse T/B feature. (See "OTHER FUNCTION SETTING" section on pages 40 ~ 41).		
Picture is L/R Reversed.	Check Reverse L/R feature. (See "OTHER FUNCTION SETTING" section on pages 40 ~ 41).		
Some displays are not seen during the operation.	Check Display feature. (See "OTHER FUNCTION SETTING" section on pages 40 ~ 41).		
No sound:	 Check audio cable connection from audio input source. Adjust audio source. Press the VOLUME (+) button. Press the MUTE button. 		
Remote control unit doesn't work.	 Check the batteries. Make sure nothing is blocking between the remote control sensor and remote control unit. Make sure you are not too far from the projector when using the remote control unit. (Maximum operate range 5 m). 		
Wireless mouse function does not work.	 Check the cable connection between the projector and the computer. Check the mouse setting on your computer. Turn on the projector before you turn on the computer. 		

TECHNICAL SPECIFICATIONS

SPECIFICATIONS

Projector Type	Multi-media Projector		
Dimensions (W x H x D)	390 mm × 234 mm × 582 mm		
Net Weight	17.3 kg		
LCD Panel System	1.8" TFT Active Matrix type (Thin Film Transistor) $ imes$ 3		
Number of Pixels	2,359,296 {786,432 (1,024 × 768) × 3}		
Scanning Frequency	H-sync. 15 ~ 80 KHz, V-sync. 50 ~ 100 Hz		
Projection Image Size (Diagonal)	Adjustable from 30" to 600"		
Contrast Ratio	100 :1 (ANSI)		
Horizontal Resolution	800 TV lines		
Projection Lens	F2.6 ~ 3.5 lens with f67.3mm ~ 107.6mm Motor zoom and focus		
Motorized Lens Shift	± 760 mm on 100" screen		
Throw Distance	1.1 m ~ 22.3 m		
Projection Lamp	Metal Halide, 400 watt type		
Projection Mirror	Dichroic mirror and X-prism system		
Computer Input 1 Jack	BNC Type (R, G, B, H and V), Multi-pole 12 pin (Control port) and		
	USB port		
Computer Input 2 Jack	(VGA) HDB15 Terminal, Multi-pole 12 pin (Control port)		
	and USB port		
Computer Audio Input Jack	Phono Type (R and L) × 2 set		
Computer Output Jack	(VGA) HDB15 Terminal		
Computer Audio Output Jack	Phono Type (R and L) × 1 set		
Other Jack	Wired Remote Jack and Serial port (DB 9)		
Bullt-in Speaker	INT. SP. Stereo (R and L), 3 watt RMS (T.H.D. 10%)		
Image Elevation Adjustment	Up to 4°		
Voltage	200 ~ 240V AC, 50/60 Hz		
Power Consumption	3.5A (Max. Ampere)		
Operating Temperature	5°C ~ 35°C		
Storage Temperature	– 10°C ~ 60°C		
Remote Control Battery	(2) AA, UM3 or R06 Type × 2 set		

