Vivitar®

DP-1200X
Digital Projector User Manual

English

030531

FCC Notice

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 commercial 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, detectable by turning the equipment in question 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 distance between the equipment and the receiver
■ Connect the equipment to an outlet on a different circuit than that which the receiver is connected to
■ Or consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions:

1.This device may not cause harmful interference, and
2.This device must accept any interference that may cause undesired operation.

Precautions

Safety Instructions

1. Check that the operating voltage of your unit is identical with the voltage of your local power supply.
2. Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by the qualified personnel before operating it further.
3. Do not place the projector on an unstable stand or table.
4. Unplug the unit from the wall socket if it is not to be used for several days. To disconnect the cord, pull it out by the plug. Never pull the cord itself.
5. The wall socket should be near the unit and easily accessible.
6. Do not place the projector where the cord can be stepped on as this may result in fraying or damage to the lead or the plug. Be alert to tripping hazards.
7. Never look into the projector lens when the lamp is switched on as the bright light can damage your eyes. Never let children look into the lens when it is on.
8. Do not place your hand or objects near the ventilation holes. The air coming out is hot.
9. Never open any covers on the projector except the lamp cover. Dangerous electrical voltages inside the projector can cause severe injury. Except as specifically directed in this Instruction Manual, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.
10. Unplug the projector from the wall socket before cleaning. Use a damp cloth for cleaning the projector housing. Do not use liquid or aerosol cleaners.
11. Keep the plastic packing materials (from the projector, accessories and optional parts) out of the reach of children as these bags may result in death by suffocation. Be particularly careful around the small children.

Cautions

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

⚠ *When you replace the projector lamp, never touch the new bulb with your bare hands. The invisible residue left by the oil on your hands may be shorten the bulb life. Use lint-free gloves or finger cots are recommended.*

Preventing Internal Heat Build-Up

After you turn off the power with the Power button, do not disconnect the unit from the wall outlet while the cooling fan is still running.

Repacking

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

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PROJECTOR FEATURES AND CONTROLS

PROJECTOR

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CONTROL PANEL

LED

POWER   Power LED indicator – indicates power to projector.
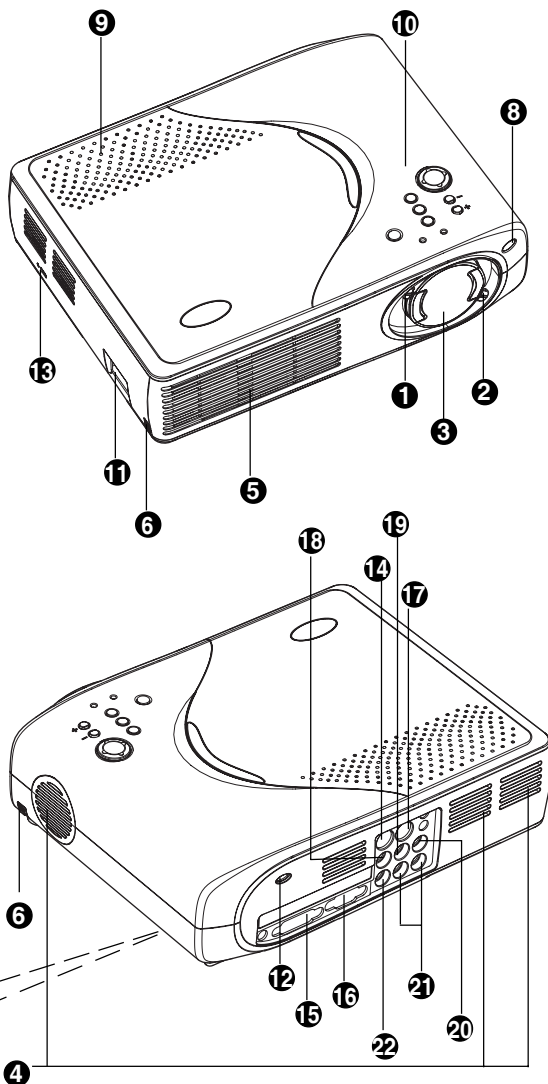
LAMP   Lamp LED indicator – indicates lamp power.

Button Function

ⓘ   Turns the projector and lamp ON and OFF.

INPUT   Manually selects an input source.

AUTO   Automatically adjusts frequency and phase.

MENU   Displays (or hides) the on-screen control menus.

VOLUME(+)   Increases the volume of the projector's speakers.

VOLUME(-)   Decreases the volume of the projector's speakers.

Cursor Controller   It can be used as a navigation controller to navigate

(▲ /▼ /◄ /►)   the projector menus.

　　　　　　　　　　　　　　　▲-Scrolls up through the menu choices.

　　　　　　　　　　　　　　　▼-Scrolls down through the menu choices.

　　　　　　　　　　　　　　　►-Increases the value setting on the selected sub-menus,
　　　　　　　　　　　　　　　　　or confirms a menu selection.

　　　　　　　　　　　　　　　◄-Decreases the value setting on the selected sub- menus.

REMOTE CONTROLLER

Button Function

POWER   Turns the projector and lamp ON and OFF.

INPUT   Manually selects an input source.

AUTO   Automatically adjusts frequency and phase.

MENU   Displays (or hides) the on-screen display menus.

▲   Scrolls up through the menu choices.

▼   Scrolls down through the menu choices.

▶   Increases the value setting on the selected sub-menus, or confirms a menu selection.

◀   Decreases the value setting on the selected sub-menus.

LEFT   Functions as left mouse(only functions when your projector is equipped with an optional mouse link cable).

RIGHT   Functions as right mouse(only functions when your projector is equipped with an optional mouse link cable).

LASER   Fires laser pointer (press and hold).

VOLUME(+ ,-)   Adjusts the volume of the projector's speakers.

KEYSTONE   Selects vertical or horizontal trapezoidal distortion.

ZOOM(+,-)   Digitally zooms the current image window.

MUTE   Cuts off the sound temporarily.

FREEZE   Freezes the current graphics and video image on the screen.

BLANK   Cuts off the screen temporarily.

Note:

■ *During the on-screen display(OSD) menu is inactive, the ▲,▼,▶,◀, LEFT and RIGHT buttons will function as a remote mouse for your PC (only if your projector is equipped with an optional mouse link cable).*

■ *Toggle the KEYSTONE button to select the desired trapezoidal distortion. To adjust the trapezoidal distortion of the projection, press the ◀ or ▶ button.*
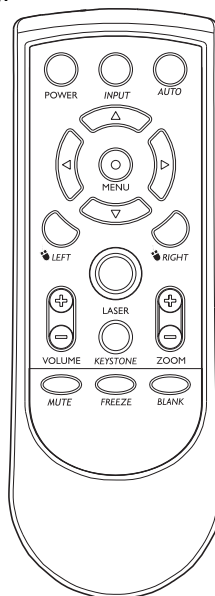
GETTING THE MOST OUT OF YOUR PROJECTOR

The projector has a full set of features that allow you to control the settings for video, audio, power management, display parameters, and much more.

To derive the greatest utility from your projector, read this section for a quick summary of the important features.

Remote Controller

The buttons on the Remote Controller allow direct and immediate control of the most commonly used features including source selection, keystone adjustment, volume control, image freeze-frame, zoom, screen blanking, audio muting and power control. Remote Controller buttons can also be used for advanced functions and to access the projector's menu system. The remote controller can even be used as a remote mouse for your computer, and also includes a laser pointer.

Auto Off Mode

The auto off mode conserves electricity by automatically turning off the lamp if the projector does not receive input signal for a specified period (30 minutes). In the auto off mode, the lamp is turned off, conserving electricity, cooling the projector and extending the life of the lamp. Use the Power button on either the Remote Controller or the Projector Control Panel to turn the projector on again if it has powered off.

Control Panel

The control panel buttons on the top of projector offer access to advanced functions, such as adjusting the brightness and contrast for computer images.

SETUP

This section tells you how to unpack and set up your projector and connect it to other equipment. The projector must be connected to a computer or a video source such as a video tape deck, camcorder, digital camera or laser disk player in order to make a projection.

You may want to connect the projector to both your computer and a video source, or set up the projector for one or more of the following:

■ Connect the mouse cable to use the remote controller as a wireless mouse.
■ Provide audio source. The audio source can be the computer, video source, or another device such as a stereo.

Unpacking the Projector

When you unpack the projector, make sure you have all these components:

■ Projector
■ Projector carrying case
■ Remote Controller (IR)
■ 2 AAA batteries for the Controller
■ Power cord
■ Computer cable (D-SUB to DVI cable)
■ S Video cable
■ A/V composite cable (RCA type for composite video & audio)
■ Lens cap
■ Instruction manual

The following cables are optional accessories:

■ Audio cable
■ HDTV to DVI (When using HDTV as input signal)
■ Mouse cable (for PS/2)
■ Mouse cable (for USB)
■ DVI cable
■ Component Video cable
■ Monitor OUT cable (D-SUB cable)

Many of the above optional items may not be required for your particular installation. Retain packaging materials in case you need to move or ship the projector in the future. It should always be transported in its original protective packaging.

Setting Up the Projector

1. Place the projector on a sturdy, level surface within five feet of the computer or video source.

   Caution:

   ⚠ *Do not hold the projector by the lens. This can damage the lens.*

2. Place the projector the correct distance from the screen. The distance between the projector and   the screen determines the actual image size. Use the general guidelines below to determine the correct distance.

Distance between the
screen and the center of the lens
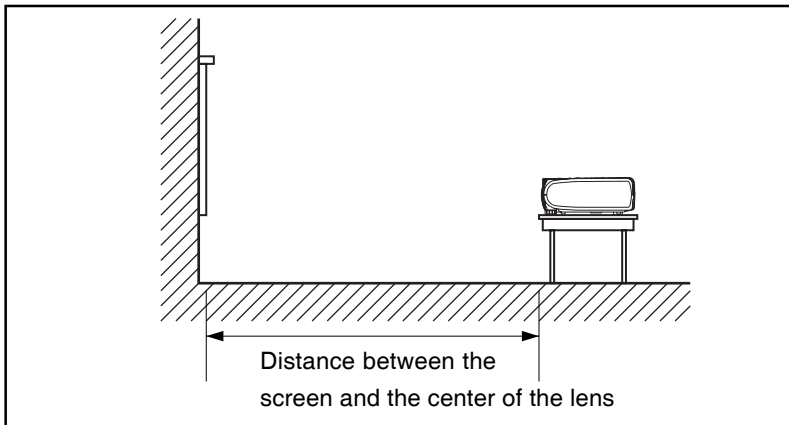
| Projection Size(Diagonal) \ Projector Distance	1 Meter	2 Meters	2.5 Meters	4 Meters	5 Meters	8 Meters	10 Meters
WIDE	34.3"	68.8"	83.8"	137.2"	167.6"	274.4"	331.4"
TELE	25.9"	51.8"	63.5"	103.6"	125.6"	207.2"	251.2"

3. When replacing batteries on the Remote Controller, take the following precautions:

   ⚠ *Do not recharge batteries or expose batteries to fire or water.*

   ⚠ *Replace batteries as soon as they run down. If the batteries leak, wipe away the fluid with a soft cloth. If battery fluid gets on your hands, wash them immediately.*

   ⚠ *Remove the batteries if you will not be using the remote controller for a long period of time.*
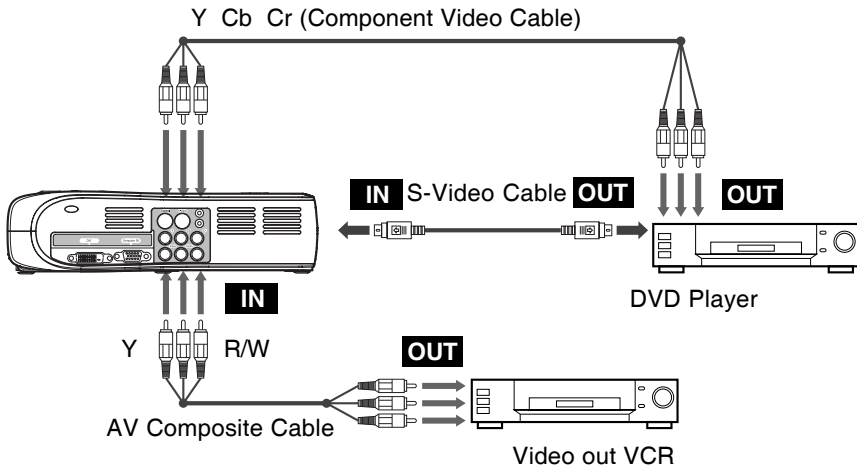
Connecting to a Computer
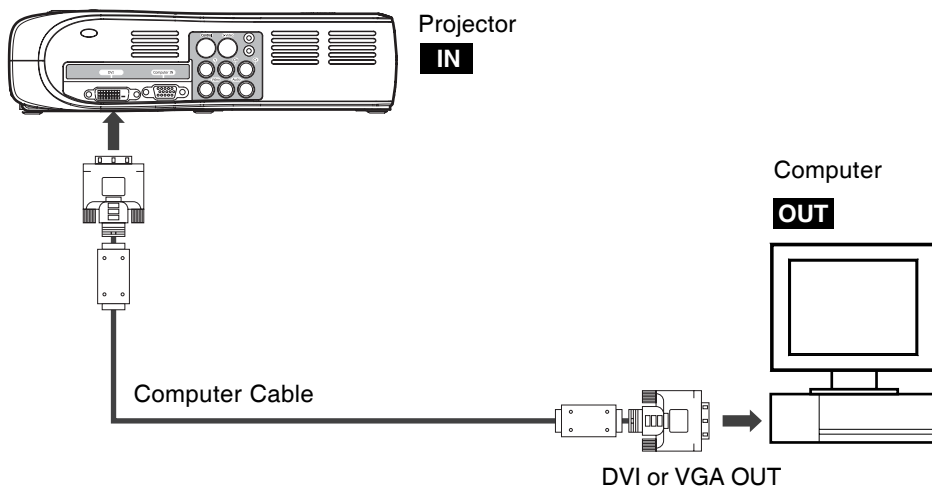
The projector will always project at XGA (1024 x 768) resolution. (XGA is the native resolution of the projector.) However, you can connect the projector to a computer source capable of displaying VGA (640 x 480), SVGA (800 x 600), XGA or SXGA (1280 x 1024) resolutions. The projector will resize VGA, SVGA, and SXGA inputs for XGA projection. The types of computers supported by this projector include IBM, Macintosh and Apple compatible laptop or desktop PCs (PC compatibles).

Note:
If the input source is Computer, it can produce MONITOR OUT function.

Connecting to a Video Source

Y Cb Cr (Component Video Cable)

IN S-Video Cable **OUT** **OUT**

DVD Player

IN

Y R/W **OUT**

AV Composite Cable

Video out VCR

You can connect the projector to almost any common video source - VHS player, DVD player, camcorder, laser disc player or any other compatible video image source. The projector can accept composite, component, or S-Video signals:

■Composite video is characterized by a single-pin "RCA-type" video jack, usually colored yellow.

■Component video (YCbCr) is less common and features three "RCA-type" video jacks, typically colored green, blue and red.

■S-Video is readily identified by a single connector with four small pins.

You can connect the projector simultaneously to composite, component, and S-Video sources. You can select which video source to project using the control panel or remote controller. If the Auto Search feature is ON (see later sections of this manual), the projector will automatically detect and select a source. The projector supports NTSC, PAL and SECAM video formats. The projector will automatically detect and identify the video format. Note, however, whereas the projector can accept multiple simultaneous sources it can only accept one video format at a time.

Note:
The projector is not compatible with a cable TV-style coaxial "F" connector.

Using the Projector

This section describes projector operations:

■ Turning the projector and A/V equipment on and off

■ Adjusting the projected image

■ Projector controls

■ Checking the projector status

Turning the Audio/Visual (A/V) Equipment On and Off

Always turn on the projector and related A/V equipment in the following order.

1. Projector
2. Computer
3. Video source
4. Audio source

Turning the Projector On and Off

1. Connect the power cord to the projector.
2. Insert the power plug into a wall outlet.
3. Remove the projector lens cap.
4. Press the Power button (on either the Remote Controller or the Projector Control Panel) to turn on the projector. When the lamp LED indicator lights in green, the projecting image gets full illumination.

Warning:

>   *Never look into the lens when the lamp is on. This can damage your eyes.*
>   *It is especially important that children are not allowed to look into the lens.*

5. To turn off the projector, press the Power button. A message will appear on the screen for about 10 seconds:

6. Press the Power button once again(to turn off the power) while the message is still showing on the screen.

> Press power key again to turn off

Note:

*Please wait until the fan motor turns off and the Power LED becomes **red** before removing the power cord from the projector.*

Focusing and Positioning the Screen Image

After an image appears on the screen, check to see if it is in focus and whether it fits properly on the screen.

■ To adjust the focus of the image, rotate the focus ring, which is the right one on the projector's lens.

■ To adjust the size of the image, rotate the left zoom ring. Zooming out to make the image larger or zooming in make it smaller on the screen.

Note:

Push the adjuster button to adjust the projected image position. Hold down the adjuster button and pull the height adjustment. Release the adjuster button and the height adjustment position will be locked.

Operational Indicator (LED)

There are two LEDs on the top of the projector, the Power LED and the Lamp LED.
They provide valuable information about the projector.

LED TYPE	COLOR	STATUS	MEANING
Power LED	Green	Solid	The projector is powered and ready.
Power LED	Red	Solid	The projector system has some problems with its fan, so the projector cannot start up.
Lamp LED	Green	Solid	The lamp is in good condition and is projecting at maximum brightness.
Lamp LED	Red	Solid	The lamp has reached its end of life and must be changed soon. The lamp will continue to operate until it fails. Change the lamp and reset the lamp time counter.
Lamp LED	Amber	Flashing	The projector is shutting down. The fan motor is cooling the lamp for shutdown. Do not unplug the power cable or turn the power switch off before the Lamp LED turns off. The fan motor will turn off when the lamp has cooled.

PROJECTOR CONTROL MENUS

This section describes how to make various adjustments and settings using the menus.

Changing a Menu Setting

The projector menus can be accessed using either the Projector Control Panel or the
Remote Controller.

1. Changing the menu display:

Press the MENU button either on the Remote Controller or the Projector Control
Panel.

Each press of the MENU button switches the display format as follows:

OSD Main Menu	→	OSD Sub Menu	→	OSD Main Menu	→	OSD Menu OFF (OSD menu is inactive)
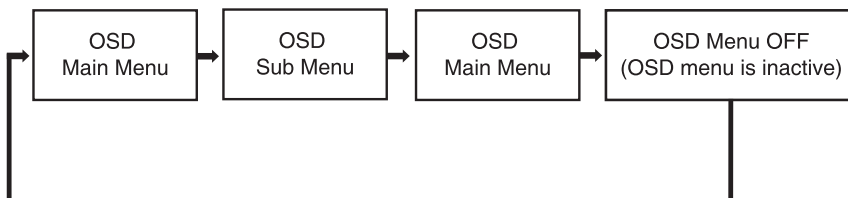
2.Selecting the desired menu or sub-menu(to scroll through the menu choices):

On the Projector Control Panel: press the ▲ or ▼ button.

On the Remote Controller: press the ▲ or ▼ button.

Note:

■ *To scroll up: press the ▲ button.*

■ *To scroll down: press the ▼ button.*

3. Adjusting the value setting:

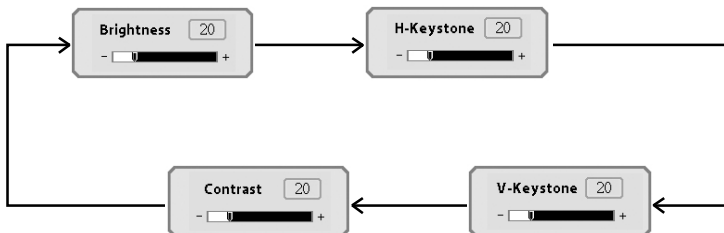On the Projector Control Panel: press the ◄ or ► button.

On the Remote Controller: press the ◄ or ► button.

Note:

■ *To increase value: press the ► button.*

■ *To decrease value: press the ◄ button.*

■ *To confirm the selection on the INPUT, PICTURE (Auto Tracking), LANGUAGE and RESET menus, press the ► button.*

4.During the on-screen display(OSD) menu is inactive:

■ On the Remote Controller, the ▲,▼,►,◄, ⛏*LEFT* and ⛏*RIGHT* buttons will function as a remote mouse for your PC (only if your projector is equipped with an optional mouse link cable).

■ On the Projector Control Panel, each press of the ▲ or ▼ button switches the display format (quick key menu) as follows:
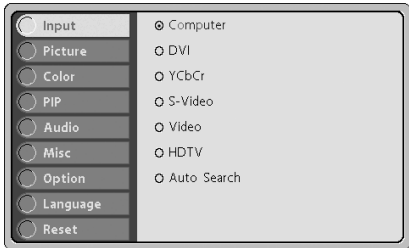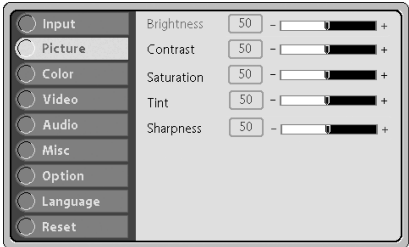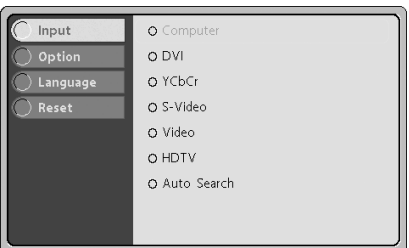

Note:

To change the setting on the quick key menus, press the ◄ or ► button on the Projector Control Panel.
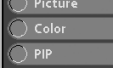
Menu Options

The projector is equipped with three types of on-screen display(OSD) menus.

Each OSD menu interface you will see on the screen is depending on the type of input signal.

Input Signal Type	Menu Interface
Computer DVI HDTV	 Input, Picture, Color, PIP, Audio, Misc, Option, Language, Reset
S-Video Video YCbCr	 Input, Picture, Color, Video, Audio, Misc, Option, Language, Reset
None	 Input, Option, Language, Reset

Input Menu

This menu allows to specify the signal source that you wish to project. This is particularly useful if you have several sources (video and/or computer) connected to your projector. Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select INPUT menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the desired input source.
5. Press the ▶ button to confirm the input selection.
6. To exit from the current menu, toggle the MENU button.
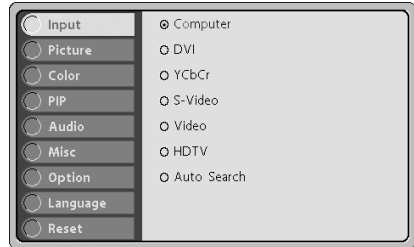
The following table provides detail of the available sub-menu choices:

Option	Description
Computer	Signal from computer. (desktop or notebook)
DVI	Signal from DVI(Digital Visual Interface) device.
YCbCr	Component video signal.
S-Video	S-video signal.
Video	Composite video signal.
HDTV	Signal from HDTV. (High Definition TV - a high-resolution TV standard, which is part of the group of digital TV standards introduced in USA in late 1998).
Auto Search	Automatically scans the input source.

Picture Menu

This menu provides precise control of the projected image including:
brightness, contrast, position(vertical & horizontal), tracking, sync, sharpness(computer signal) and auto tracking.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select PICTURE menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the sub-menu item.

○ Input	Brightness	50 − [U] +
○ Picture	Contrast	50 − [U] +
○ Color	PosiH	50 − [U] +
○ PIP	PosiV	50 − [U] +
○ Audio	Tracking	1344
○ Misc	Sync	4
○ Option	Sharpness	1 2 3 4 5
○ Language	Auto Tracking	
○ Reset		

5. Press the ◄ or ► button to adjust the value of desired sub-menu item.
   ■ On the Auto Tracking sub-menu, press the ► button to confirm the selection.
6. After you have done with the adjustment of a sub-menu item:
   a. To resume changing another sub-menu item: press the ▲ or ▼ button.
   b. To exit from the current menu: toggle the MENU button.
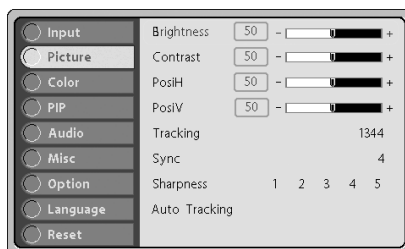
The following table provides detail of the available sub-menu choices:

Sub-Menu	Description
Brightness	The higher the setting, the brighter the image. The lower the setting, the darker the image.
Contrast	The higher the setting, the greater the contrast. The lower the setting, the lower the contrast.
PosiH	Adjusts the horizontal position.
PosiV	Adjusts the vertical position.
Tracking	Adjusts the horizontal pixel of the image.
Sync	Adjusts the dot phase of the input signal. Adjusts the picture to where it looks best.
Sharpness	The higher the setting, the sharper the image. The lower the setting, the softer the image.
Auto Tracking	Automatically scans the projected image to fine tune.

Color Menu

This menu provides precise control of the color settings including:

color temperature (preset & user define) and gamma.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select COLOR menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the sub-menu item.
5. Press the ◄ or ► button to adjust the value of desired sub-menu item.
   - ■ On the Color Temp and Gamma sub-menus, press the ◄ or ► button to select the desired setting.
6. After you have done with the adjustment of a sub-menu item:
   a. To resume changing another sub-menu item: press the ▲ or ▼ button.
   b. To exit from the current menu: toggle the MENU button.

The following table provides detail of the available sub-menu choices:

Sub-Menu	Option	Description
Color Temp		Adjusts the whiteness of the screen.
	L	Gives the white colors a red tint.
	M	Gives the white colors a neutral tint.
	H	Gives the white colors a blue tint.
	U	Manually adjusts color temperature.
User R		Manually adjusts red.
User G		Manually adjusts green.
User B		Manually adjusts blue.
Gamma		Selects a gamma correction curve.
	Gamma1	Improves computer's image mode.
	Gamma2	Improves video's image mode.

PIP Menu

This menu enables you to adjust the PIP (additional video image window on the graphics background) settings such its size, position (horizontal & vertical), brightness, contrast, saturation, tint, sharpness and source selection.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select PIP menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the sub-menu item.
5. Press the ◄ or ► button to adjust the value of desired sub-menu item.
   - On the Size and Input sub-menus, press the ◄ or ► button to select the desired setting.
6. After you have done with the adjustment of a sub-menu item:
   a. To resume changing another sub-menu item: press the ▲ or ▼ button.
   b. To exit from the current menu: toggle the MENU button.
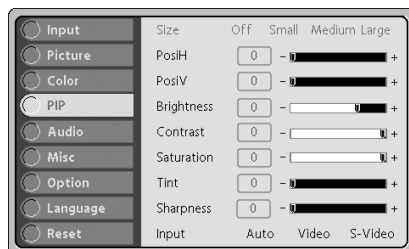
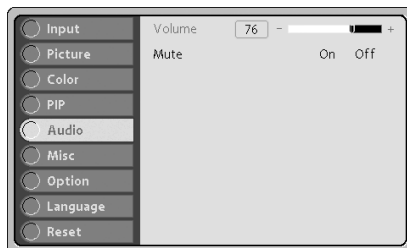The following table provides detail of the available sub-menu choices:

Sub-Menu	Option	Description
Size		Sets the PIP size.
	Off	No additional image window on the screen.
	Small	Additional image window size sets to small.
	Medium	Additional image window size sets to medium.
	Large	Additional image window size sets to large.
PosiH		Adjusts the additional image window horizontal position.
PosiV		Adjusts the additional image window vertical position.
Brightness		The higher the setting, the brighter the picture. The lower the setting, the darker the picture.
Contrast		The higher the setting, the greater the contrast. The lower the setting, the lower of contrast.
Saturation		The strength of a color especially the degree to which it lacks its complimentary color. The higher the setting, the stronger color strength. The lower the setting, the weaker color strength.
Tint		Adjusts shade and variety of the picture between red color and green color.
Sharpness		The higher the setting, the sharper the picture. The lower the setting, the softer the picture.
Input		Scans the PIP source.
	Auto	Automatically scans the input source.
	Video	PIP source from composite video signal.
	S-Video	PIP source from S-video signal.

Audio Menu

This menu allows you to control volume and mute(on/off) the audio.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1.Press the MENU button to display OSD menu.

2.Press the ▲ or ▼ button to select AUDIO menu.

3.To enter the sub-menu setting, press the MENU button once again.

4.Press the ▲ or ▼ button to select the sub-menu item.

5.Press the ◄ or ► button to adjust the value of desired sub-menu item.

■ On the Mute sub-menu, press the ◄ or ► button to select the desired setting.

6.After you have done with the adjustment of a sub-menu item:

a.To resume changing another sub-menu item: press the ▲ or ▼ button.

b.To exit from the current menu: toggle the MENU button.

The following table provides detail of the available sub-menu choices:

Sub-Menu	Option	Description
Volume		Adjusts the volume.
Mute		Cuts off the sound temporarily.
	On	Mute function is active.
	Off	Mute function is inactive.

MISC Menu

This menu includes projector utilities for keystone(vertical & horizontal), freeze frame (on/off), blank screen(on/off), and blank color mode settings.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1.Press the MENU button to display OSD menu.

2.Press the ▲ or ▼ button to select MISC menu.
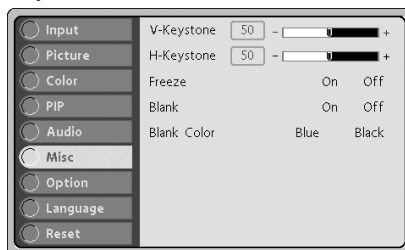
3. To enter the sub-menu setting, press the MENU button once again.

4. Press the ▲ or ▼ button to select the sub-menu item.

5. Press the ◄ or ► button to adjust the value of desired sub-menu item.

■ On the Freeze, Blank and Blank Color sub-menus, press the ◄ or ► button to select the desired setting.

6. After you have done with the adjustment of a sub-menu item:

a. To resume changing another sub-menu item: press the ▲ or ▼ button.

b. To exit from the current menu: toggle the MENU button.

The following table provides detail of the available sub-menu choices:

Sub-Menu	Option	Description
V-Keystone		Adjusts trapezoidal distortion (vertically) of the picture that may occur depending the projection angle.
H-Keystone		Adjusts trapezoidal distortion (horizontally) of the picture that may occur depending the projection angle.
Freeze		Freezes the screen.
	On	Freeze function is active.
	Off	Freeze function is inactive.
Blank		Blanks the screen temporarily.
	On	Blank function is active.
	Off	Blank function is inactive.
Blank Color		Selects the screen color when Blank is active.
	Blue	Blanks to blue screen.
	Black	Blanks to black screen.

Option Menu

This menu includes projector utilities for OSD timeout, OSD position (horizontal & vertical), projection mode, auto off (On/Off) and lamp life.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.

2. Press the ▲ or ▼ button to select OPTION menu.

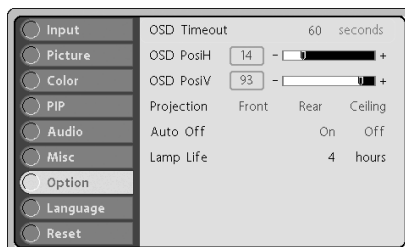3. To enter the sub-menu setting, press the MENU button once again.

4.Press the ▲ or ▼ button to select the sub-menu item.

5.Press the ◀ or ▶ button to adjust the
  value of desired sub-menu item.
  - On the Projection and Auto Off
     sub-menus, press the ◀ or ▶ button
     to select the desired setting.
  - On the Lamp Life sub-menu, the
     lamp's lifetime counter is calculated by
     the projector system.

○ Input	OSD Timeout 60 seconds
○ Picture	OSD PosiH 14 − [0]▬▬▬ +
○ Color	OSD PosiV 93 − [▬▬▬ 0] +
○ PIP	Projection Front Rear Ceiling
○ Audio	Auto Off On Off
○ Misc	Lamp Life 4 hours
○ Option	
○ Language	
○ Reset	

6.After you have done with the adjustment of a sub-menu item:
  a.To resume changing another sub-menu item: press the ▲ or ▼ button.
  b.To exit from the current menu: toggle the MENU button.

The following table provides detail of the available sub-menu choices:

Sub-Menu	Option	Description
OSD Timeout		Duration OSD menu stays active (at idle state).
OSD PosiH		Adjusts OSD menu display position (horizontally - left & right) on the screen.
OSD PosiV		Adjusts OSD menu display position (vertically - up & down) on the screen.
Projection		Sets the projection display.
	Front	The image is projected directly on the screen.
	Rear	The image is reversed horizontally.
	Ceiling	The image is inverted vertically.
Auto Off		Automatically turns off the lamp if the projector does not detect an input signal for specified time period (30 minutes).
	On	Auto Off is active.
	Off	Auto Off is inactive.
Lamp Life		Displays lamp's lifetime counter (by hour).

Language Menu

This menu enables you to select the language used in the OSD(on-screen display) menus.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1.Press the MENU button to display OSD menu.

2.Press the ▲ or ▼ button to select LANGUAGE menu.

3.To enter the sub-menu setting, press the MENU button once again.

4.Press the ▲ or ▼ button to select the desired OSD language.

5.Press the ▶ button to confirm the OSD language selection.

6.To exit from the current menu, toggle the MENU button.

Note:

This projector supports multilanguage.

Reset Menu

This menu allows you to restore all projector settings and adjustments back to the factory defaults.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1.Press the MENU button to display OSD menu.

2.Press the ▲ or ▼ button to select RESET menu.

3.To enter the sub-menu setting, press the MENU button once again.

4.Press the ▲ or ▼ to select YES if you want to restore all projector settings to the factory defaults.

5.Press the ▶ button to confirm the selection.

6.To exit from the current menu, toggle the MENU button.
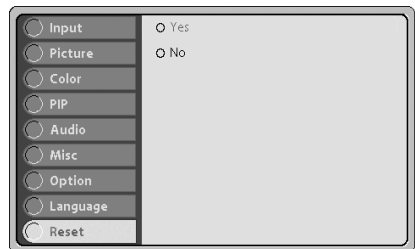
Other Related OSD Menus

Following are the descriptions on the on-screen display menus with video input sources and without input source attached to your projector.
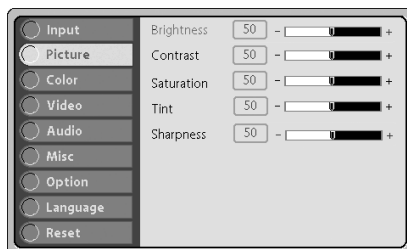
Video Input Signal

If the input signal comes from composite video(video), S-video or component video (YCbCr), you may see different PICTURE menu and VIDEO menu interface.

Picture Menu

This menu provides precise control of the projected image including:
brightness, contrast, saturation, tint and sharpness(video signal).
Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select PICTURE menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the sub-menu item.
5. Press the ◄ or ► button to adjust the value of desired sub-menu item.
6. After you have done with the adjustment of a sub-menu item:

   a. To resume changing another sub-menu item: press the ▲ or ▼ button.
   b. To exit from the current menu: toggle the MENU button.

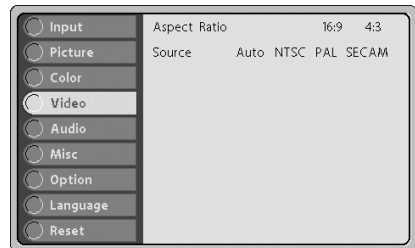The following table provides detail of the available sub-menu choices:

Sub-Menu	Description
Brightness	The higher the setting, the brighter the image.
	The lower the setting, the darker the image.
Contrast	The higher the setting, the greater the contrast.
	The lower the setting, the lower the contrast.
Saturation	The strength of a color especially the degree to which it lacks its complimentary color.
	The higher the setting, the stronger color strength.
	The lower the setting, the weaker color strength.
Tint	Adjusts the projection between red and green color.
Sharpness	The higher the setting, the sharper the image.
	The lower the setting, the softer the image.

Video Menu

This menu enables you to adjust the video settings such as its aspect ratio and video format.

Changing settings procedure (using either the Projector Control Panel or the Remote Controller):

1. Press the MENU button to display OSD menu.
2. Press the ▲ or ▼ button to select VIDEO menu.
3. To enter the sub-menu setting, press the MENU button once again.
4. Press the ▲ or ▼ button to select the sub-menu item.
5. Press the ▲ or ▼ button to select the desired setting.
6. After you have done with the adjustment of a sub-menu item:
   a. To resume changing another sub-menu item: press the ▲ or ▼ button.
   b. To exit from the current menu: toggle the MENU button.

The following table provides detail of the available sub-menu choices:

| Sub-Menu	Option	Description
Aspect Ratio		HDTV and video display selection.
	16:9	Selects 16:9 aspect ratio.
	4:3	Selects 4:3 aspect ratio.
Source		Video format selection.
	Auto	Automatically scans video format.
	NTSC	Sets video format as NTSC.
	PAL	Sets video format as PAL.
	SECAM	Sets video format as SECAM.

Other OSD Menus

Other OSD menus operation and description are the same as the previous page.

■ Input Menu: refer to page 19.

■ Color Menu: refer to page 21.

■ Audio Menu: refer to page 24.

■ MISC Menu: refer to page 24.

■ Option Menu: refer to page 25.

■ Language Menu: refer to page 27.
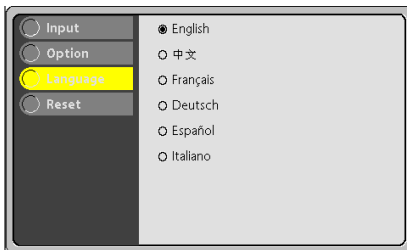
■ Reset Menu: refer to page 27.

No Input Signal

If there is no input signal attached with your projector, if you press the MENU button
(on either the Projector Control Panel or the Remote Controller), one of the following
on-screen display menus will appear on the screen.
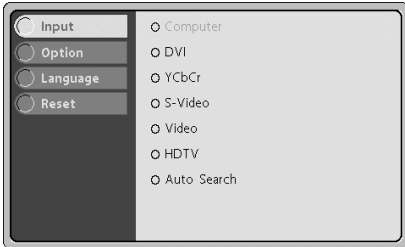
**Input Menu
(refer to page 19)**
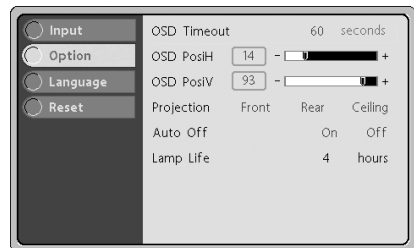
**Option Menu
(refer to page 25)**

**Language Menu
(refer to page 27)**

**Reset Menu
(refer to page 27)**

MAINTENANCE

The projector needs little maintenance. You should keep the lens clean as dust, dirt or spots will project on the screen and diminish image quality.

You will also need to clean the air filter located at the bottom of the projector periodically. It is important to keep the air filter clean because a clogged air filter prevents proper ventilation which is necessary to cool the projector and prevent it from overheating.

The only part you should replace yourself are the lamp and the air filter.

If any other parts need replacing, contact your dealer or qualified service personnel.

When cleaning any part of the projector, always switch off and unplug the projector first.

Warning:

Never open any of the covers on the projector except the lamp and air filter covers. Dangerous electrical voltages inside the projector can cause severe injury. Except as specifically indicated in this Instruction Manual, do not attempt to service this product yourself. Refer all servicing to qualified service personnel.

Cleaning the Lens

Clean the lens whenever you notice dirt or dust on the surface. Wipe the lens surface gently with a soft, dry, lint-free cloth.

To remove dirt or stains on the lens, moisten a soft cloth with water and a neutral detergent and gently wipe the lens surface.

Cleaning the Projector Housing

To clean the projector housing, first unplug the power cable. To remove dirt or dust, wipe the housing with a soft, dry, lint-free cloth. To remove stubborn dirt or stains, moisten a soft cloth with water and a neutral detergent. Then wipe the housing. Do not use alcohol, benzene, thinners or other chemical detergents as these can cause damage to the housing.

Cleaning the Air Filter

The air filter, which is located at the bottom of the projector, should be cleaned after every 100 hours of use. If it is not cleaned periodically, it can become clogged with dust and prevent the projector from being ventilated properly. This can cause overheating and damage the projector.

To clean the air filter:

1. Switch the projector off and unplug the power cable from the wall socket.
2. Place a protective sheet (cloth) beneath the projector. Turn the projector over so you can see its underside.
3. Remove the air filter by pulling the filter tab.
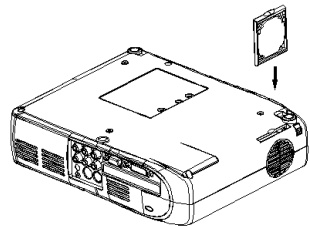4. Clean the air filter.

Caution:

⚠ *To clean the filter, you are advised to use a small vacuum cleaner designed for computers and other office equipment.*

⚠ *If the dirt is difficult to remove or if the filter is torn, replace it.*

5. Replace the filter.
6. Plug the power back into the projector.

Note:

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

Replacing the Lamp

The projector lamp used for the light source has a certain life. It is time to replace them lamp when:

■ When lamp dims, the projected image gets darker or starts to deteriorate.
■ The projector lamp LED indicator turns to red (See page 16).

Caution:
⚠ *The lamp becomes a high temperature after turning off the projector with the power button. If you touch the lamp, you may scald your finger. When you replace the lamp, wait for at least an hour for the lamp to cool. Be sure to turn off the projector and unplug the power cord before replacing the lamp.*

1.Turn off the projector and unplug the power cable.

2.Turn the projector over so you can access the lamp cover.

3. Remove the access panel screws and open the panel.

4. Remove the screws on the bottom of the lamp assembly.

5. Grasp the lamp handle and pull the lamp assembly directly out of the projector.

6. Replace with the new lamp.

7. Place back the screws on the bottom of lamp assembly.

8. Place the panel and screw back the screws on the lamp cover.

Note:
■ *Be sure not to touch the optical surfaces with your fingers. Lint-free gloves or finger cots are recommended.*
■ *Do not put your hands into the lamp replacement spot, or not fall any liquid or object into it to avoid electrical shock or fire.*
■ *Be sure to turn off the projector and unplug the power cord before replacing the lamp.*
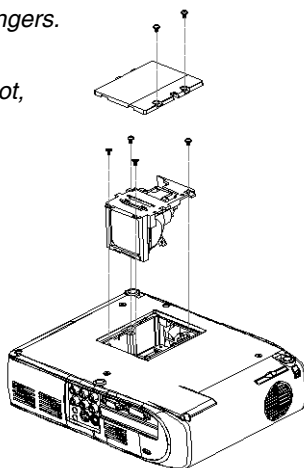
TECHNICAL SPECIFICATIONS

Projection System	3 panel 0.7 inch LCD projector
Resolution (Pixels)	1024 x 768 (786,432 dot x 3)
Image Brightness	1300 ANSI Lumen (Typical)
Uniformity	85%
Lens	Manual Zoom (1.3X)
Focal Length	21.5~ 28mm
Contrast Ratio	400:1
Screen Size	40 ~ 200 inches
Projection Type	Front, Rear, Ceiling
Sound Noise	35dBA
Lamp	150Watt EHP
Scanning Frequency	
Horizontal frequency	15~91 KHz
Vertical frequency	50~85 Hz
Pixel Rate	12~157MHz
Computer	VGA(resized), SVGA(resized)
	XGA,SXGA(resized)
Digital Keystone	Vertical: +/- 15 degree
Correction	Horizontal: +/- 10 degree
Picture in Picture (PIP)	Video window on graphics background
Audio System	1Watt x 2
Video Input	NTSC, PAL, SECAM
Input Source	Computer, DVI, HDTV, YCbCr, S-Video, Video
Remote Mouse	PS2 & USB
Remote Controller	Multifunctional
OSD Language	Multilanguage
	(Language can be added upon request)
Operation Temperature	5 ~ 35 degrees C
Operation Humidity	35 ~ 85%
Certifications	UL, CE, FCC B
Power Requirement	100~240v, 50~60Hz
Power Consumption	210Watt
Dimension (WxDxH)	270 x 210 x 70mm
Weight	2.6kg

Designs and specifications are subject to change without notice.
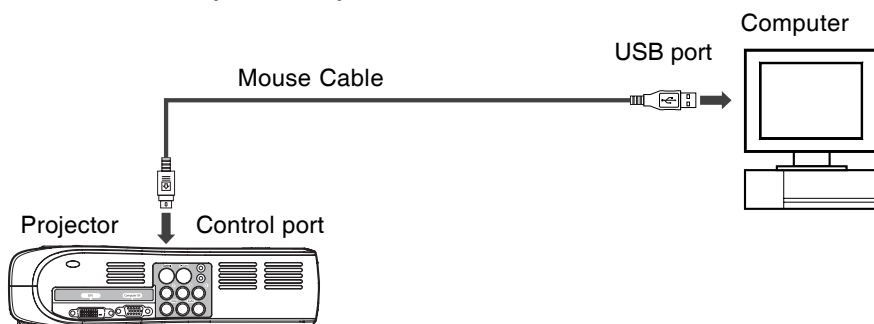
APPENDIX A

Preset Signals

Preset signal		fH (kHz)	fV (Hz)	Sync	Size
Video 60 Hz		15.734	59.940		
Video 50 Hz		15.625	50.000		
Component 60 Hz		15.734	59.940	S on G/Y or Composite Sync	
Component 50 Hz		15.625	50.000	S on G/Y or Composite Sync	
640 x 350	VGA mode 1	31.469	70.086	H(+), V(-)	800
	VGA VESA 85 Hz	37.861	85.080	H(+), V(-)	832
640 x 400	VGA 60 Hz	31.469	59.941	H(-), V(+)	800
	VGA 85Hz	37.861	85.080	H(-), V(+)	832
720 x 400	VGA mode 2	31.500	70.087	H(-), V(+)	900
	VGA VESA 85 Hz	37.927	85.038	H(-), V(+)	936
640 x 480	VGA mode 3	31.469	59.940	H(-), V(-)	800
	VGA VESA 72 Hz	37.861	72.809	H(-), V(-)	832
	VGA VESA 75 Hz	37.500	75.000	H(-), V(-)	840
	VGA VESA 85 Hz	43.269	85.008	H(-), V(-)	832
800 x 600	SVGA VESA 56 Hz	35.156	56.250	H(+), V(+)	1024
	SVGA VESA 60 Hz	37.879	60.317	H(+), V(+)	1056
	SVGA VESA 72 Hz	48.077	72.188	H(+), V(+)	1040
	SVGA VESA 75 Hz	46.875	75.000	H(+), V(+)	1056
	SVGA VESA 85 Hz	53.674	85.061	H(+), V(+)	1048
1024 x 768	XGA VESA 60 Hz	48.363	60.004	H(-), V(-)	1344
	XGA VESA 70 Hz	56.476	70.069	H(-), V(-)	1328
	XGA VESA 75 Hz	60.023	75.029	H(+), V(+)	1312
	XGA VESA 85 Hz	68.677	84.997	H(+), V(+)	1376
1152 x 864	SXGA VESA 70 Hz	63.995	70.016	H(+), V(+)	1472
	SXGA VESA 75 Hz	67.500	75.000	H(+), V(+)	1600
	SXGA VESA 85 Hz	77.487	85.057	H(+), V(+)	1568
1280 x 960	SXGA VESA 60 Hz	60.000	60.000	H(+), V(+)	1800
	SXGA VESA 75 Hz	75.000	75.000	H(+), V(+)	1680
	SXGA VESA 85 Hz	77.094	85.002	H(+), V(+)	1728
1280 x 1024	SXGA VESA 60 Hz	63.981	60.020	H(+), V(+)	1688
	SXGA VESA 75 Hz	79.976	75.025	H(+), V(+)	1688
	SXGA VESA 85 Hz	91.146	85.024	H(+), V(+)	1728

HDTV Preset Signals

Preset Signals	Horizontal Active Pixel	Vertical Active Pixel	fH(kHz)	fV(Hz)
480p	720	480	31.469	59.940
720p	1280	720	45.000	60.000
1080i	1920	1080	33.716	29.970

. English .

Mouse cable (for USB)

Computer

USB port

Mouse Cable

Projector   Control port

Mouse cable (for PS/2)

Computer

Mouse Cable

PS/2 port

Projector   Control port
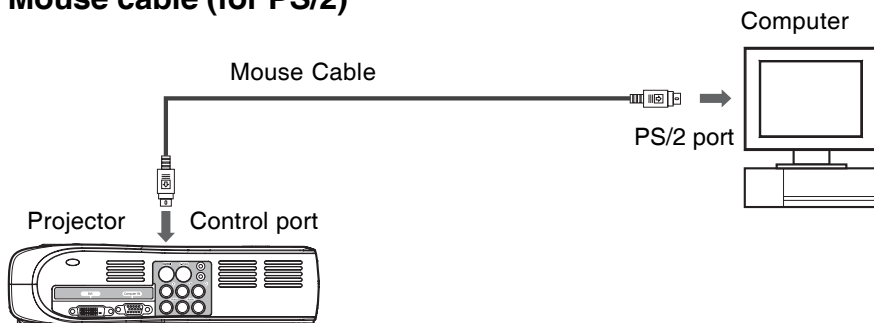
Monitor OUT cable (for data)

OUT

IN   Display Set

Monitor IN

Monitor OUT Cable
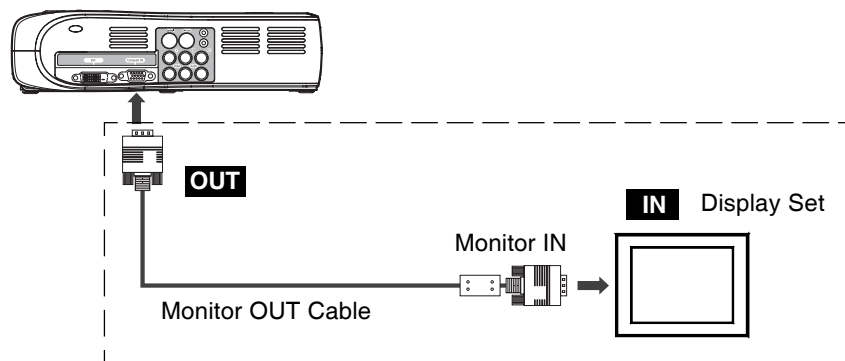
Connecting the Computer (data)

Projector

IN

Computer

OUT

Computer Cable

DVI or VGA OUT
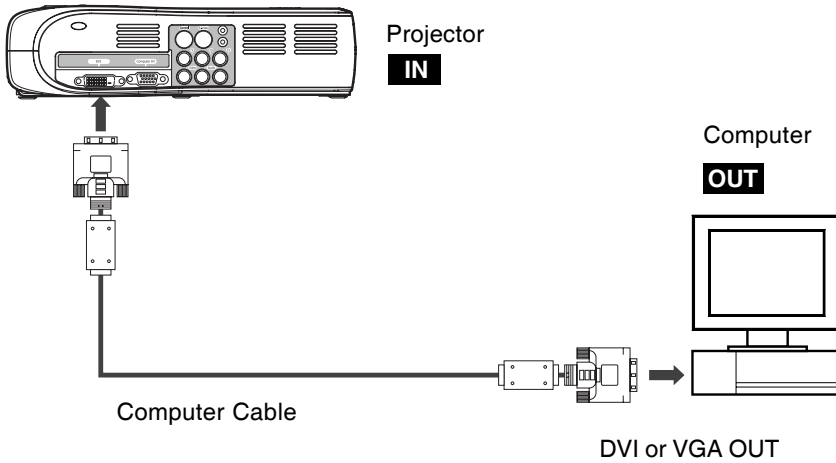
Connecting the HDTV (data)

IN　**IN**

OUT

Audio IN

Audio OUT

Audio Cable

HDTV

OUT

HDTV to DVI Cable　Green,Blue,Red

OUT
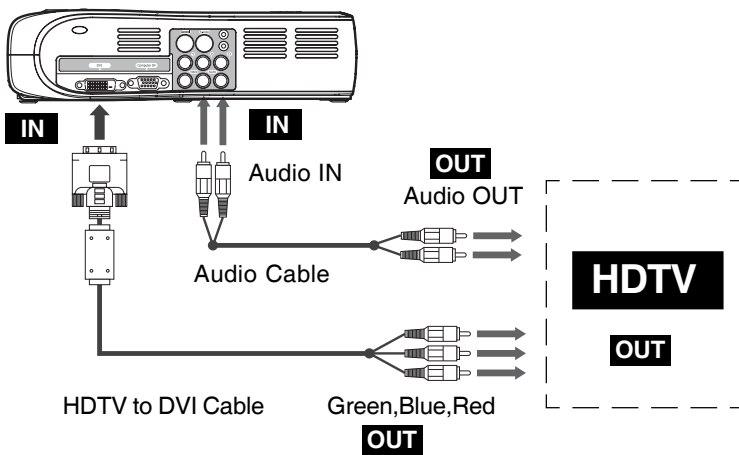
Connecting to a Video Source
(S-Video, Component, Composite)

Y Cb Cr (Component Video Cable)

IN S-Video Cable **OUT**   **OUT**

IN

DVD Player

Y   R/W   **OUT**

AV Composite Cable

Video out VCR