



USA's primary source for projector lamps
myprojectorlamps

PROJECTOR OWNER'S MANUAL

Acco Europe

NOBO X20P

Need a replacement lamp for this projector?

www.myprojectorlamps.com

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Usage Notice

Precautions

Follow all warnings, precautions and maintenance as recommended in this user's guide to maximize the life of your unit.

-  Warning- Do not look into the projector's lens when the lamp is on. The bright light may hurt your eyes.
-  Warning- To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.
-  Warning- Please do not open or disassemble the product as this may cause electric shock.
-  Warning- When changing the lamp, please allow unit to cool down, and follow all changing instructions.
-  Warning- This product will detect the life of the lamp itself. Please be sure to change the lamp when it shows warning messages.
-  Warning- Reset the "Lamp Reset" function from the On Screen Display "Lamp Setting" menu after replacing the lamp module (refer to page 27).
-  Warning- When switching the projector off, please ensure the projector completes its cooling cycle before disconnecting power.
-  Warning- Turn on the projector first and then the signal sources.
-  Warning- Do not use lens cap when projector is in operation.
-  Warning- When the lamp reaches the end of its life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn back on until the lamp module has been replaced. To replace the lamp, follow the procedures listed under "Replacing the Lamp". (see page 32)



Usage Notice

Do:

- ❖ Turn off the product before cleaning.
- ❖ Use a soft cloth moistened with mild detergent to clean the display housing.
- ❖ Disconnect the power plug from AC outlet if the product is not being used for a long period of time.

Don't:

- ❖ Block the slots and openings on the unit provided for ventilation.
- ❖ Use abrasive cleaners, waxes or solvents to clean the unit.
- ❖ Use under the following conditions:
 - In extremely hot, cold or humid environments.
 - In areas susceptible to excessive dust and dirt.
 - Near any appliance that generates a strong magnetic field.
 - In direct sunlight.

Introduction

Product Features

Congratulations and Thank You for choosing an X20P projector, an NOBO Product. This product is a XGA single chip 0.55" DLP™ projector. Outstanding features include:

- ◆ True XGA, 1024 x 768 addressable pixels
- ◆ Texas Instruments Single chip DLP™ Technology
- ◆ NTSC/NTSC4.43/PAL/PAL-M/PAL-N/SECAM and HDTV compatible (480i/p, 576i/p, 720p, 1080i)
- ◆ Multi-Auto functions: Auto detection, Automatic saving of user adjustments
- ◆ IR remote control with laser pointer
- ◆ User friendly multilingual on screen menu
- ◆ Advanced digital keystone correction and high quality full screen image re-scaling
- ◆ User friendly control panel
- ◆ One built-in speaker
- ◆ UXGA, SXGA+, SXGA compression and SVGA, VGA re-sizing
- ◆ Mac compatible

Introduction

Package Overview

This projector comes with all the items shown below. Check to make sure your unit is complete. Contact your dealer immediately if anything is missing.



Projector with lens cap



Power Cord 1.8m



VGA Cable 1.8m



Composite Video Cable
1.8m



Wireless Remote
Controller



SCART VGA/S-Video
Adaptor
(available in European
region only)



❖ Due to the difference in applications for each country, some regions may have different accessories.



2 x AA Batteries



Carry Bag

Documents :

- ☒ User's Guide
- ☒ Quick Start Card
- ☒ Warranty Card
- ☒ Quick Troubleshooting Guide

Introduction

Product Overview

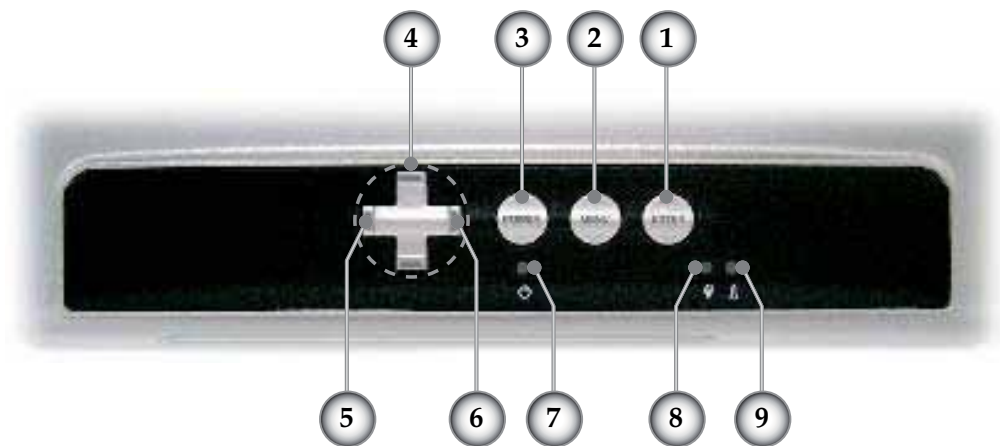
Main Unit



1. Control Panel
2. Zoom Lever
3. Power Socket
4. Speaker
5. Elevator Button
6. Zoom Lens
7. Focus Ring
8. IR Receivers
9. Connection Ports

Introduction

Control Panel



- | | |
|---------------------------------|-----------------------|
| 1. Enter | 5. Source Select |
| 2. Menu (On/Off) | 6. Resync |
| 3. Power | 7. Power LED |
| 4. Four Directional Select Keys | 8. Lamp Indicator LED |
| | 9. Temp Indicator LED |

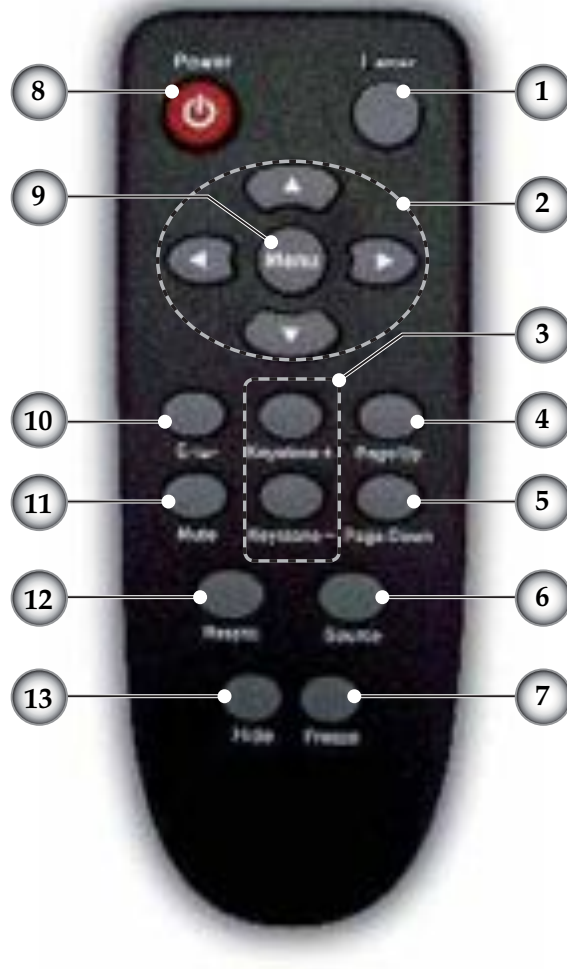
Connection Ports



1. VGA-In Connector (PC Analog signal/SCART RGB/HDTV/Component Video Input)
2. Composite Video Input Connector
3. S-Video Input Connector
4. Audio Input Connector
5. Service Connector
6. Kensington™ Lock Port

Introduction

Remote Control with Laser Pointer



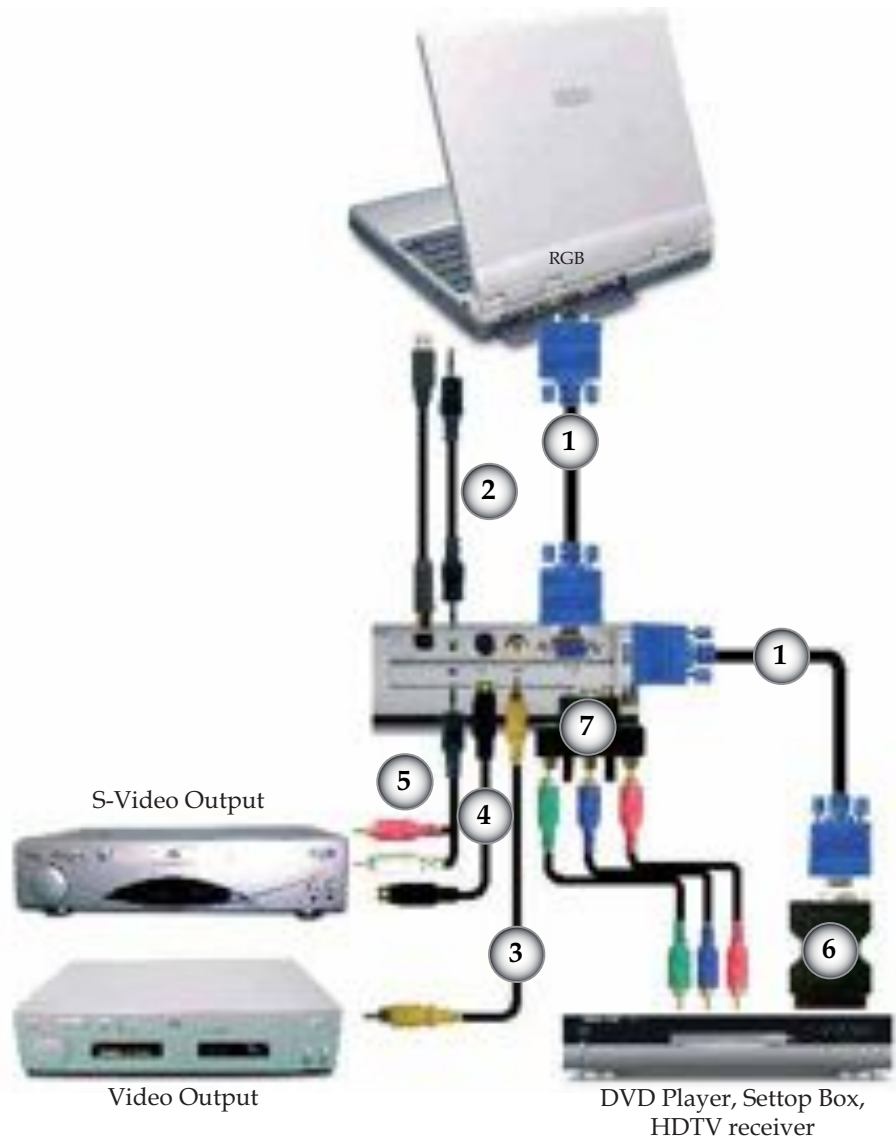
1. Laser Button
2. Four Directional Select Keys
3. Keystone +/-
4. Page Up
5. Page Down
6. Source Select
7. Freeze
8. Power
9. Menu
10. Enter
11. Mute
12. Resync
13. Hide

Installation

Connecting the Projector



- ❖ Due to the difference in applications for each country, some regions may have different accessories.



- | | |
|--------|--|
| 1..... | VGA Cable |
| 2..... | Audio Input Cable (Optional Accessory) |
| 3..... | Composite Video Cable |
| 4..... | S-Video Cable (Optional Accessory) |
| 5..... | Audio Output Cable (Optional Accessory) |
| 6..... | SCART VGA/S-Video Adaptor (For European Only) |
| 7..... | D-15 to RCA Adapter for YPbPr (Optional Accessory) |

- ❖ To ensure the projector works well with your computer, please set the display mode of your graphic card less than or equal to 1600 x 1200 resolution. Make sure the timing of the display mode is compatible with the projector. Refer to the "Compatibility Modes" section on page 33.

Installation

Powering On/Off the Projector

Powering On the Projector

1. Remove the lens cap. ❶
 2. Ensure that the power cord and signal cable are securely connected. The Power LED will **flash green**.
 3. Turn on the lamp by pressing “Power” button on the control panel. ❷ And the Power LED will **turn green**.
 4. Turn on your source (computer, notebook, video player, etc.). The projector will detect your source automatically within “Management” menu; check that “Source Lock” has been set to “Off”.
- ❖ If you connect multiple sources at the same time, use the “Source” button on the control panel or on remote control to switch.



- ❖ Turn on the projector first and then the signal sources.



Installation

Powering Off the Projector

1. Press the “Power” button to turn off the projector lamp; you will see a message



displayed on the projector's screen. Press the “Power” button again to confirm, otherwise the message will disappear after 5 seconds.

Please note that if the  key is pressed instead, the projector will enter the “Picture Mute” mode and no image will be displayed. To exit the “Picture Mute” mode, press the “Power” button again.

2. The cooling fans continue to operate for about 20 seconds for cooling cycle and the Power LED will **turn green**. When the Power LED begins flashing, the projector has entered standby mode.

If you wish to turn the projector back on, you must wait until the projector has completed the cooling cycle and has entered standby mode. Once in standby mode, simply press “Power” button to restart the projector.

3. Disconnect the power cord from the electrical outlet and the projector.
4. Do not turn on the projector immediately following a power off procedure.

Warning Indicator

- ❖ When the “LAMP” indicator lights solid red, the projector will automatically shut itself down. Please contact your local reseller or service center.



- ❖ When the “TEMP” indicator lights solid red for about 60 seconds, it indicates the projector has been overheated. The projector will automatically shut itself down. Under normal conditions, the projector can be switched on again after it has cooled down. If the problem persists, you should contact your local dealer or our service center.



- ❖ When the “TEMP” indicator lights solid red, it indicates the fan failed. Please contact your local dealer or our service center.

Installation

Adjusting the Projected Image

Adjusting the Projector Image Height

The projector is equipped with elevator foot for adjusting the image height.

To raise the image:

1. Press the elevator button **①**.
2. Raise the image to the desired height angle **②**, then release the button to lock the elevator foot into position.
3. Use screw in feet **③** to fine-tune the display angle.

To lower the image:

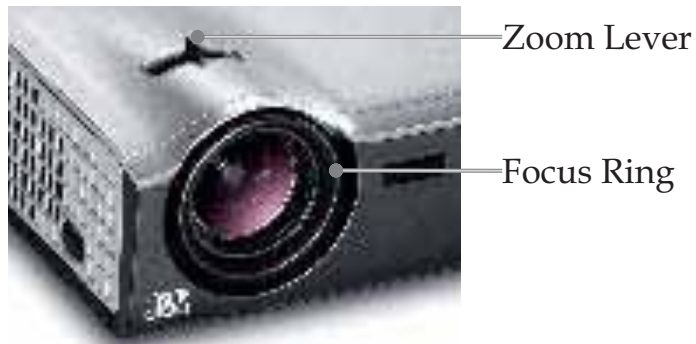
1. Press the elevator button.
2. Lower the image, then release the button to lock the elevator foot into position.
3. Use screw in feet **③** to fine-tune the display angle.



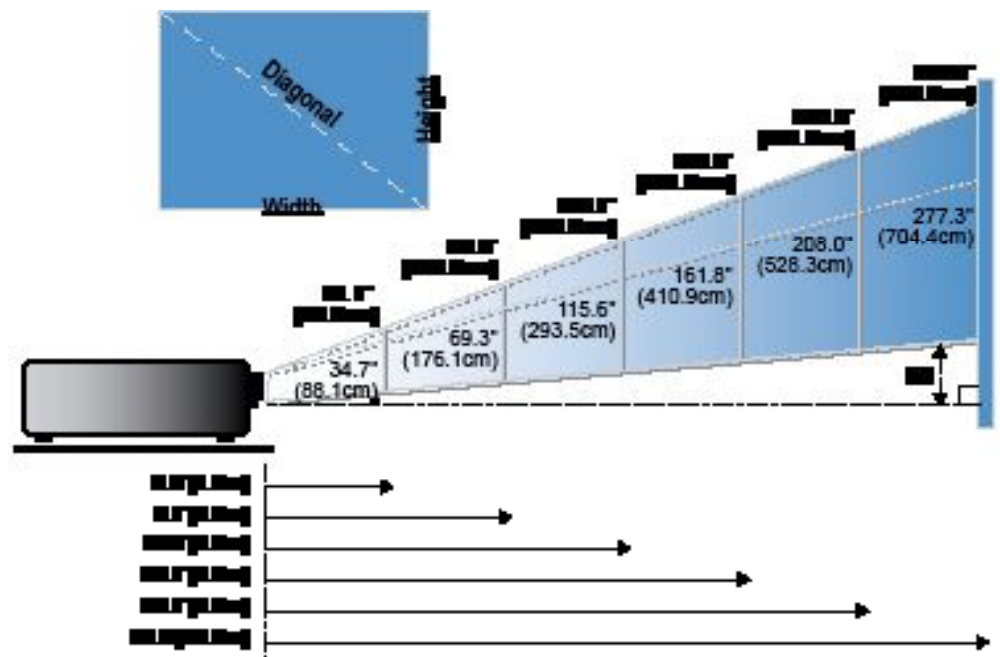
Installation

Adjusting the Projector Zoom / Focus

You may turn the zoom lever to zoom in or out. To focus the image, rotate the focus ring until the image is clear. The projector will focus at distances from 4.9 to 39.4 feet (1.5 to 12.0 meters) with mechanical travel.



Adjusting Projection Image Size



Screen (Diagonal)	Max.	38.1" (96.8cm)	76.2" (193.6cm)	127.1" (322.7cm)	177.9" (451.8cm)	228.7" (580.9cm)	304.9" (774.5cm)
	Min.	34.7" (88.1cm)	69.3" (176.1cm)	115.6" (293.5cm)	161.8" (410.9cm)	208.0" (528.3cm)	277.3" (704.4cm)
Screen Size	Max. (WxH)	30.5" x 22.9" 77.4 x 58.1cm	61.0" x 45.7" 154.9 x 116.2cm	101.7" x 76.3" 258.2 x 193.6cm	142.3" x 106.7" 361.4 x 271.1cm	183.0" x 137.2" 464.7 x 348.5cm	243.9" x 182.9" 619.6 x 464.7cm
	Min. (WxH)	27.8" x 20.8" 70.5 x 52.9cm	55.4" x 41.6" 140.9 x 105.7cm	92.5" x 69.4" 234.8 x 176.1cm	129.4" x 97.1" 328.7 x 246.5cm	166.4" x 124.8" 422.6 x 317.0cm	221.8" x 166.4" 563.5 x 422.6cm
Hd	Max.	3.4" (8.7cm)	6.9" (17.4cm)	11.4" (29.0cm)	16.0" (40.7cm)	20.6" (52.3cm)	27.4" (69.7cm)
	Min.	3.1" (7.9cm)	6.2" (15.9cm)	10.4" (26.4cm)	14.6" (37.0cm)	18.7" (47.6cm)	25.0" (63.4cm)
Distance		4.9' (1.5m)	9.8' (3.0m)	16.4' (5.0m)	22.3' (7.0m)	29.5' (9.0m)	39.4' (12.0m)

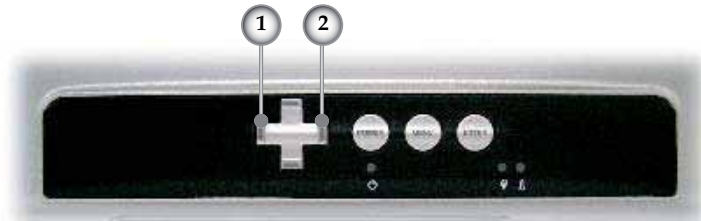
❖ This graph is for user's reference only.

User Controls

Control Panel & Remote Control

There are two ways for you to control the functions: Remote Control and Control Panel.

Using the Control Panel



Power	Refer to the “Power On/Off the Projector” section on pages 10-11.
Source ①	Press “Source” to select an input signal.
Menu	Turns the menu On or Off.
Four Directional Select Keys	Use ▲ ▼ ◀ ▶ to navigate through the menus.
Enter	Confirm your item selection.
Resync ②	Automatically synchronizes the projector to the input source.

User Controls



Using the Remote Control

Power	Refer to the “Power On/Off the Projector” section on pages 10-11.
Resync	Automatically synchronizes the projector to the input source.
Laser Button	Aim the remote at the viewing screen, press and hold this button to activate the laser pointer.
Source	Press “Source” to select an input signal.
Keystone	Adjusts image distortion caused by tilting the projector (± 16 degrees).
Mute	Momentarily turns off the audio.
Hide	Momentarily turns off the picture.
Freeze	Press “Freeze” to pause the screen image.
Page Up	Use this button to page up.
Page Down	Use this button to page down.
Four Directional Select Keys	Use     to navigate through the menus.
Menu	Display or exits the on-screen display menus for projector.
Enter	Confirm your item selection.

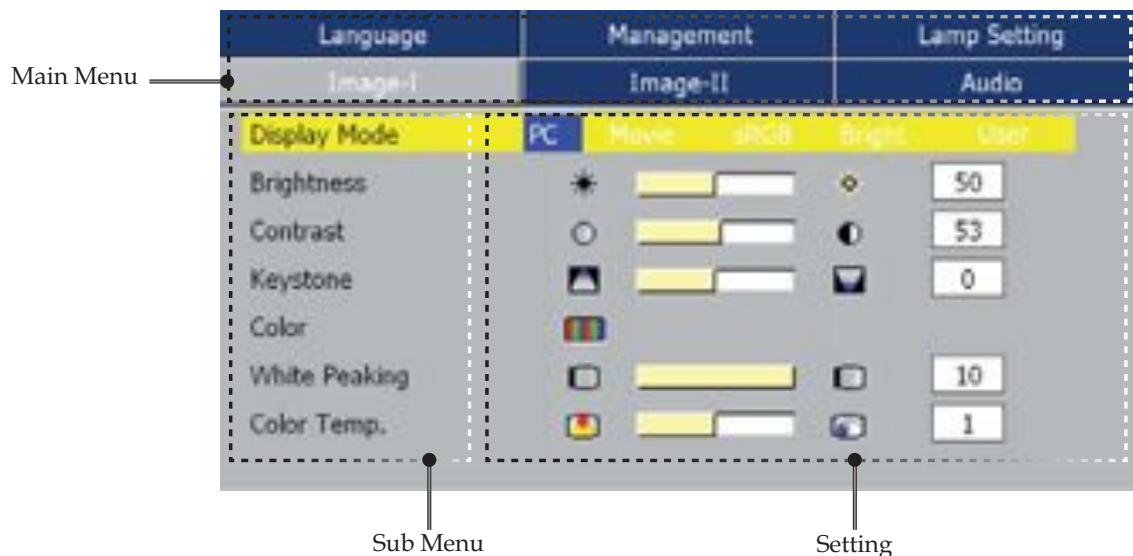
User Controls

On Screen Display Menus

The Projector has multilingual On Screen Display menus that allow you to make image adjustments and change a variety of settings. The projector will automatically detect the source.

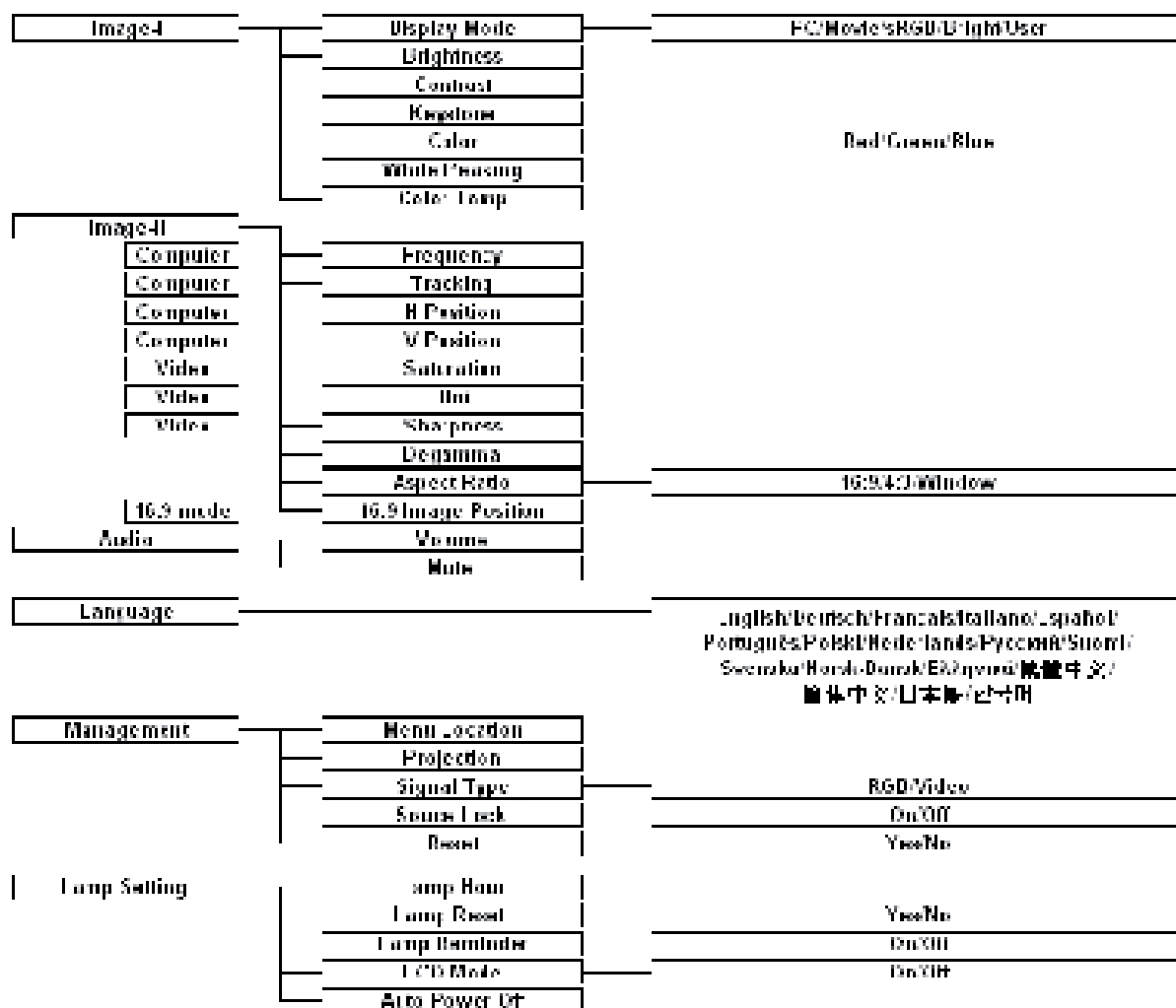
How to Operate

1. To open the OSD menu, press “Menu” on the Remote Control or Control Panel.
2. When OSD is displayed, use ◀ ▶ keys to select any item in the main menu. While making a selection on a particular page, press ▼ key to enter sub menu.
3. Use ▲ ▼ keys to select the desired item and adjust the settings by ◀ ▶ key.
4. Select the next item to be adjusted in the sub menu and adjust as described above.
5. Press “Menu” to confirm, and the screen will return to the main menu.
6. To exit, press “Menu” again. The OSD menu will close and the projector will automatically save the new settings.



User Controls

Menu Tree



User Controls

Image-I	Image-II	Audio
Language	Management	Lamp Setting
English	Polski	Ελληνικά
Deutsch	Nederlands	繁體中文
Français	Русский	简体中文
Italiano	Suomi	日本語
Español	Svenska	한국어
Português	Norsk/Dansk	

Language

Language

Choose the multilingual OSD menu. Use the ▲ or ▼ key to select your preferred language.

Press “Enter” to finalize the selection.

User Controls



Image-I

Display Mode

There are many factory presets optimized for various types of images.

- ▶ PC: For computer or notebook. (brightest image)
- ▶ Movie: For home theater.
- ▶ sRGB: For standard PC color. (best color reproduction)
- ▶ Bright: For bright mode.
- ▶ User: Memorize user's settings.

Brightness

Adjust the brightness of the image.

- ▶ Press the  to darken image.
- ▶ Press the  to lighten the image.

Contrast

The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

- ▶ Press the  to decrease the contrast.
- ▶ Press the  to increase the contrast.

Keystone (Keystone Correction)

Adjusts image distortion caused by tilting projector. (± 16 degrees)

Color

Press "Enter" to adjust the red, green and blue colors.

White Peaking

Use the white peaking control to set the white peaking level of DMD chip. 0 stands for minimal peaking, and 10 stands for maxi-



User Controls

mum peaking. If you prefer a brighter image, adjust towards the maximum setting. For a smooth and more natural image, adjust towards the minimum setting.

Color Temp.

Adjusts the color temperature. At higher temperature, the screen looks colder; at lower temperature, the screen looks warmer.

User Controls



Image-II (Computer Mode)

Frequency

“Frequency” changes the display data frequency to match the frequency of your computer’s graphic card. If you experience a vertical flickering bar, use this function to make an adjustment.

Tracking

“Tracking” synchronizes the signal timing of the display with the graphic card. If you experience an unstable or flickering image, use this function to correct it.

H Position (Horizontal Position)

- ▶ Press the  to move the image left.
- ▶ Press the  to move the image right.

V Position (Vertical Position)

- ▶ Press the  to move the image down.
- ▶ Press the  to move the image up.

Degamma

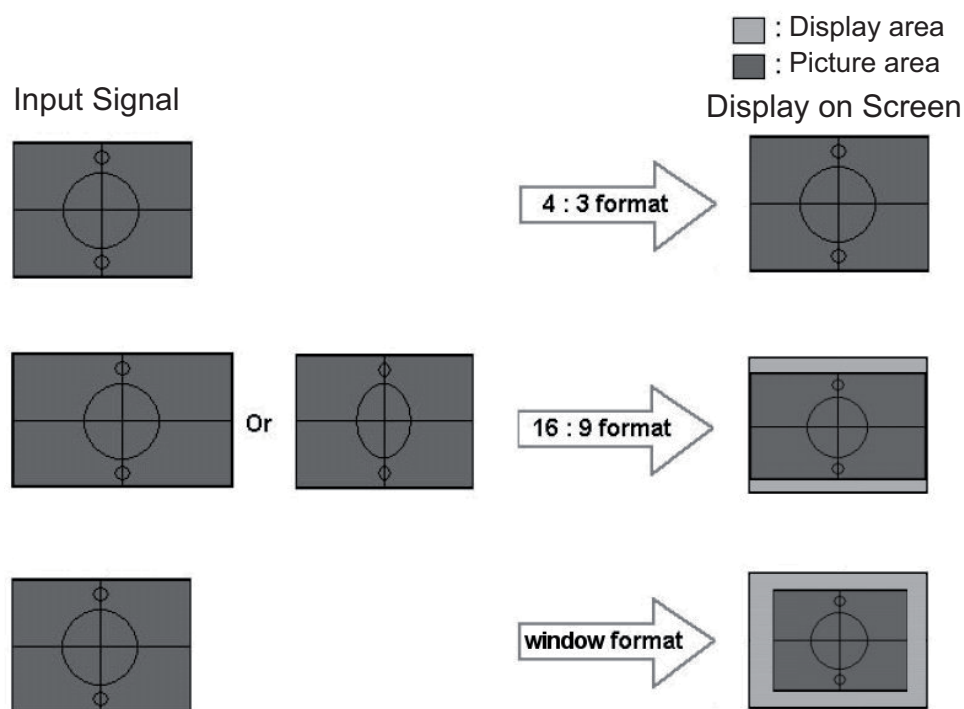
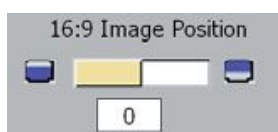
This allows you to choose a degamma table that has been fine-tuned to bring out the best image quality for the input.

Aspect Ratio

Use this function to choose your desired aspect ratio.

- ▶  4:3 : The input source will be scaled to fit the projection screen.
- ▶  16:9 : The input source will be scaled to fit the width of the screen.
- ▶  Window: When a 4:3 image is bigger than a 16:9 screen, select the “Window” mode to fit the image onto the screen without changing the projection distance.

User Controls



- ❖ "16:9 Image Position" function is supported under 16:9 aspect ratio.

16:9 Image Position

Adjust the image position up or down, when you select the aspect ratio of 16:9.

- ▶ Press the to move the image down.
- ▶ Press the to move the image up.

User Controls



Image-II (Video Mode)

Degamma

This allows you to choose a degamma table that has been fine-tuned to bring out the best image quality for the input.

Saturation

Adjusts a video image from black and white to fully saturated color.

- ▶ Press the  to decrease the amount of saturation in the image.
- ▶ Press the  to increase the amount of saturation in the image.

Tint

Adjusts the color balance of red and green.

- ▶ Press the  to decrease the amount of green in the image.
- ▶ Press the  to increase the amount of red in the image.

Sharpness

Adjusts the sharpness of the image.

- ▶ Press the  to decrease the sharpness.
- ▶ Press the  to increase the sharpness.

Aspect Ratio

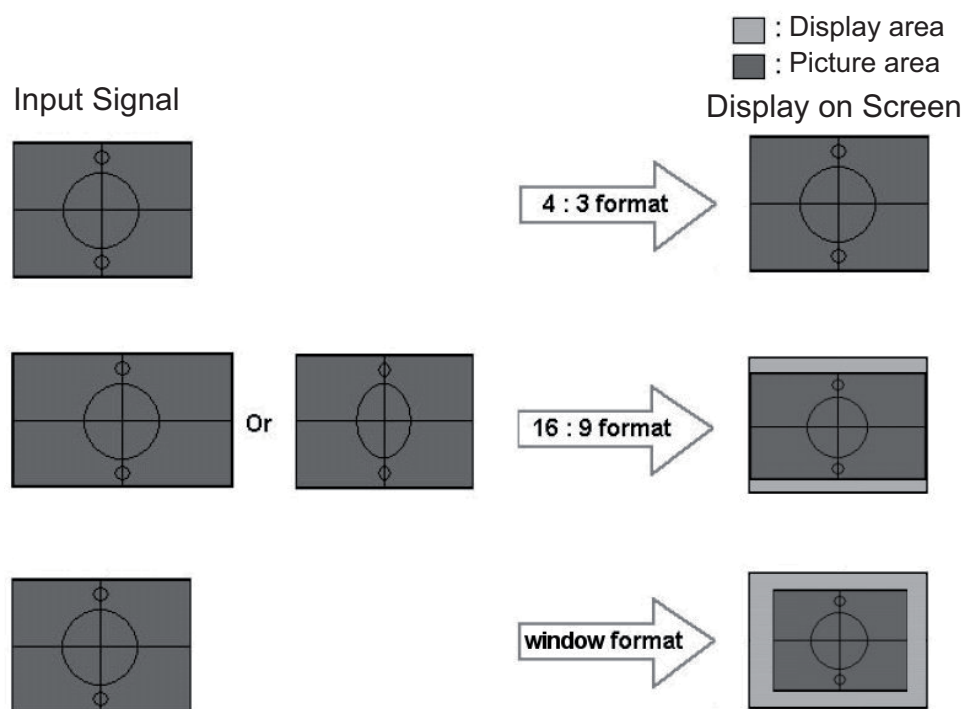
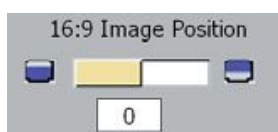
Use this function to choose your desired aspect ratio.

- ▶  4:3 : The input source will be scaled to fit the projection screen.
- ▶  16:9 : The input source will be scaled to fit the width of the screen.
- ▶  Window: When a 4:3 image is bigger than a 16:9 screen, select the "Window" mode to fit the image onto the screen without changing the projection distance.



- ❖ "Saturation", "Tint" and "Sharpness" function is not supported under DVI-D mode.

User Controls



- ❖ “16:9 Image Position” function is supported under 16:9 aspect ratio.

16:9 Image Position

Adjust the image position up or down, when you select the aspect ratio of 16:9.

- ▶ Press the to move the image down.
- ▶ Press the to move the image up.

User Controls



Audio

Volume

- ▶ Press  to decrease the volume.
- ▶ Press  to increase the volume.

Mute

- ▶ Choose the left icon to turn mute on.
- ▶ Choose the right icon to turn mute off.

User Controls



Management

Menu Location

Choose the menu location on the display screen.

Projection

- ▶  Front-Desktop

The factory default setting.

- ▶  Rear-Desktop

When you select this function, the projector reverses the image so you can project from behind a translucent screen.

Signal Type

Select signal type RGB or Video sources.

Source Lock

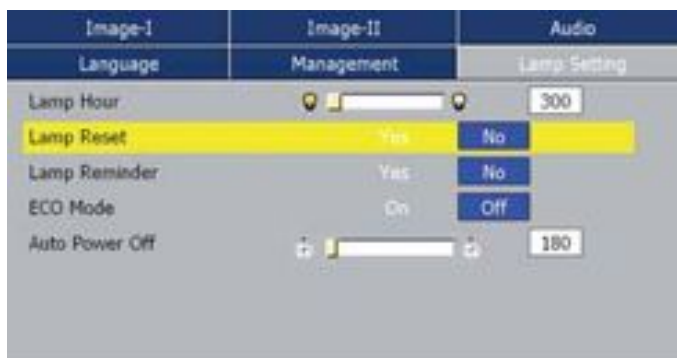
- ▶ Off: The projector will search for other signals if the current input signal is lost.
- ▶ On: The projector will search specified connection port.

Reset

Return the adjustments and settings to the factory default values.

- ▶ Yes (Execute): Returns the settings for all menus to factory default values.
- ▶ No (Cancel): Cancel the revised settings.

User Controls



Lamp Setting

Lamp Hours

Displays the cumulative lamp operating time.

Lamp Reset

Resets the lamp life hour counter after replacing the lamp.

Lamp Reminder

Choose this function to show or to hide the warning message when the changing lamp message is displayed. The message will appear 30 hours before end of life.

ECO Mode

Choose "On" to dim the projector lamp which will lower power consumption and extend the lamp life by up to 130%. Choose "Off" to return to normal mode.

Auto Power Off

Sets the countdown timer interval. The countdown timer will start, when there is no signal being sent to the projector. Then projector will automatically power off when the countdown has finished.

Appendices

Troubleshooting

If you experience trouble with the projector, refer to the following information. If the problem persists, please contact your local reseller or service center.

Problem: No image appears on screen

- ▶ Ensure all the cables and power connections are correctly and securely connected as described in the “Installation” section.
- ▶ Ensure the pins of connectors are not crooked or broken.
- ▶ Check if the projection lamp has been securely installed. Please refer to the “Replacing the lamp” section.
- ▶ Make sure you have removed the lens cap and the projector is switched on.
- ▶ Ensure that the “Hide” feature is not turned on.

Problem: Left of right edge of the image is missing or the image is unstable or noisy

- ▶ Press “Resync” on the remote control or press “” on control panel.
- ▶ If you are using a PC:

For Windows 3.x:

1. In the Windows Program Manager, double click the “Windows Setup” icon in the Main group.
2. Verify that your display resolution setting is less than or equal to 1600 x 1200.

For Windows 95, 98, 2000, XP:

1. From the “My Computer” icon, open the “Control Panel” folder, and double click the “Display” icon.
2. Select the “Settings” tab.
3. Click on the “Advanced Properties” button.

If the projector is still not projecting the whole image, you will also need to change the monitor display you are using. Refer to the following steps.

4. Verify the resolution setting is less than or equal to 1600 x 1200 resolution.

Appendices

5. Select the “Change” button under the “Monitor” tab.
 6. Click on “Show all devices.” Next, select “Standard monitor types” under the SP box; choose the resolution mode you need under the “Models” box.
- If you are using a Notebook:
1. First, follow the steps above to adjust resolution of the computer.
 2. Press the toggle output settings. Example: [Fn]+[F4]

Compaq=>	[Fn]+[F4]	Hewlett-	
Dell =>	[Fn]+[F8]	Packard	=> [Fn]+[F4]
Gateway=>	[Fn]+[F4]	NEC=>	[Fn]+[F3]
IBM=>	[Fn]+[F7]	Toshiba =>	[Fn]+[F5]

Mac Apple:
System Preference-->Display-->Arrangement-->Mirror display

- If you experience difficulty changing resolutions or your monitor freezes, restart all equipment including the projector.

Problem: The screen of the Notebook or PowerBook computer is not displaying a presentation

- If you are using a Notebook PC:
Some Notebook PCs may deactivate their own screens when a second display device is in use. Each has a different way to be reactivated. Refer to your computer’s documentation for detailed information.

Problem: Image is unstable or flickering

- Use “Tracking” to correct it.
- Change the monitor color setting on your computer.

Problem: Image has vertical flickering bar

- Use “Frequency” to make an adjustment.
- Check and reconfigure the display mode of your graphic card to make it compatible with the product.

Problem: Image is out of focus

- Adjusts the Focus Ring on the projector lens.

Appendices

- ▶ Make sure the projection screen is between distance 4.9 to 39.4 feet (1.5 to 12.0 meters) from the projector. See page 13.

Problem: The image is stretched when displaying 16:9 DVD

The projector automatically detects 16:9 DVD and adjusts the aspect ratio by digitizing to full screen with 4:3 default setting.

If the image is still stretched, you will also need to adjust the aspect ratio by referring to the following:

- ▶ Please select 4:3 aspect ratio type on your DVD player if you are playing a 16:9 DVD.
- ▶ If you can't select 4:3 aspect ratio type on your DVD player, please select 4:3 aspect ratio in the on screen menu.

Problem: Lamp burns out or makes a popping sound

- ▶ When the lamp reaches its end of life, it will burn out and may make a loud popping sound. If this happens, the projector will not turn on until the lamp module has been replaced. To replace the lamp, follow the procedures in the "Replacing the Lamp".

Problem: LED lighting message

Message				Power-LED	Lamp-LED	Temp-LED
				(Green)		
Standby state (Input power cord)				Flashing 0.5Hz		
Warming				Flashing 1Hz		
Lamp lighting/Power on						
Power off (Cooling)						
Error (Lamp fail)					Flashing 2Hz	
Error (Thermal fail)	Standby mode	Thermal fail		Flashing 1Hz		Flashing 0.5Hz
		Recovered		Flashing 0.5Hz		
	Operation Mode	Thermal fail	T<3min. (Fan cooling)			
			T>3min. (Fan off)	Flashing 0.5Hz		
		Recovered		Flashing 0.5Hz		
	Error (Over temp.)				Flashing 0.5Hz	
Error (Fan fail)				Flashing 0.5Hz		
Error (Lamp breakdown)				Flashing 1Hz	Flashing 0.5Hz	
Lamp fail retry					Flashing 1Hz	Flashing 1Hz

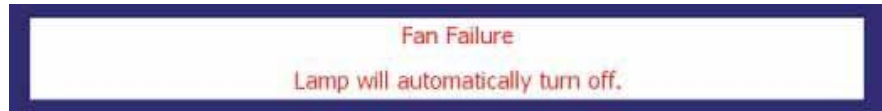


Steady light => 
No light => 

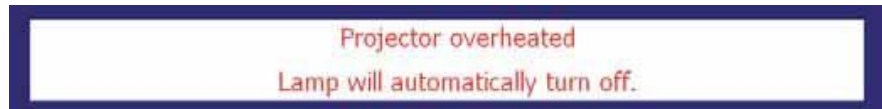
Appendices

Problem: Message Reminders

- ▶ Fan fail:



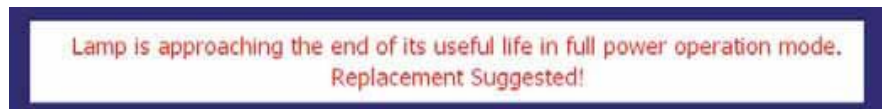
- ▶ Over temperature:



- ▶ Power Off:



- ▶ Replace the lamp:



Appendices

Replacing the Lamp

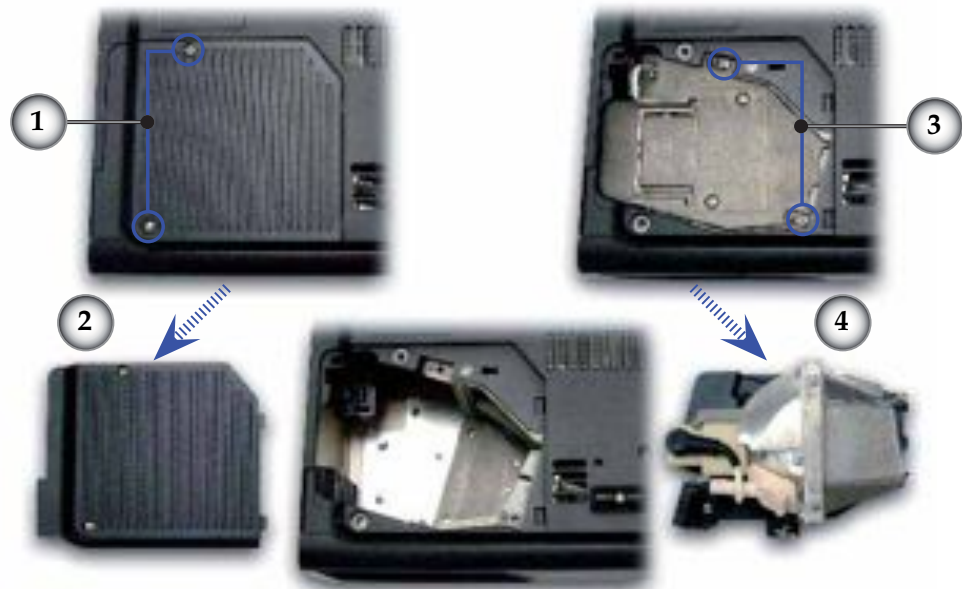
The projector keeps track of the lamp usage. It will show you a warning message

Lamp is approaching the end of its useful life in full power operation mode.
Replacement Suggested!



 Warning: Lamp compartment is hot! Allow 30 minutes to cool down before changing lamp!

When you see this message, change the lamp as soon as possible. Make sure the projector has cooled down for at least 30 minutes before changing the lamp.



 Warning: To reduce the risk of personal injury, do not drop the lamp module or touch the lamp bulb. The bulb may shatter and cause injury if it is dropped.

Lamp Replacement Procedure:

1. Switch off the power to the projector by pressing the Power button.
2. Allow the projector to cool down for at least 30 minutes.
3. Disconnect the power cord.
4. Use a screwdriver to remove the screws from the cover. ❶
5. Push up and remove the cover. ❷
6. Remove the 2 screws from the lamp module. ❸
7. Pull out the lamp module. ❹

To replace the lamp module, reverse the previous steps.

Compatibility Modes

Mode	Resolution	(ANALOG)	
		V.Frequency (Hz)	H.Frequency (kHz)
VESA VGA	640 x 350	70	31.5
VESA VGA	640 x 350	85	37.9
VESA VGA	640 x 400	85	37.9
VESA VGA	640 x 480	60	31.5
VESA VGA	640 x 480	72	37.9
VESA VGA	640 x 480	75	37.5
VESA VGA	640 x 480	85	43.3
VESA VGA	720 x 400	70	31.5
VESA VGA	720 x 400	85	37.9
VESA SVGA	800 x 600	56	35.2
VESA SVGA	800 x 600	60	37.9
VESA SVGA	800 x 600	72	48.1
VESA SVGA	800 x 600	75	46.9
VESA SVGA	800 x 600	85	53.7
VESA XGA	1024 x 768	60	48.4
VESA XGA	1024 x 768	70	56.5
VESA XGA	1024 x 768	75	60.0
VESA XGA	1024 x 768	85	68.7
* VESA SXGA	1152 x 864	70	63.8
* VESA SXGA	1152 x 864	85	77.1
* VESA SXGA	1280 x 1024	60	63.98
* VESA SXGA	1280 x 1024	75	79.98
* VESA SXGA+	1400 x 1050	60	63.98
* VESA UXGA	1600 x 1200	60	75
MAC LC 13"	640 x 480	66.66	34.98
MAC II 13"	640 x 480	66.68	35
MAC 16"	832 x 624	74.55	49.725
MAC 19"	1024 x 768	75	60.24
* MAC	1152 x 870	75.06	68.68
MAC G4	640 x 480	60	31.35
i MAC DV	1024 x 768	75	60
* i MAC DV	1152 x 870	75	68.49
* i MAC DV	1280 x 960	75	75



Remark : "*" compressed computer image.